Construction Project Briefing

May 14, 2014

Today's Presentation

- Traction Power - Farwell/Armitage/Hill Substations
- 18th Connector Track and Structure Renewal
- Harrison Station Rehabilitation
- Bus Hoist Replacement Program
  - ✓ Phase 1 – Forest Glen, South Shops, 77th Street Bus Garage
  - ✓ Phase 2 – Kedzie Bus Garage
  - ✓ Phase 2 – North Park Garage
  - ✓ Phase 2 – Chicago and 103rd Garage
- Milwaukee Blue Line Track Renewal

Project Title: Traction Power Systems Upgrades and Improvements

Justification of Need:	Substation equipment is obsolete and has exceeded its current lifespan
Priority of Project:	High
Total Project Budget:	$56,918,563.00
Construction Contract Value:	$46,684,000.00
Earned to Date:	42%
Percent Change Orders to Construction Contract:	0%
Percent Time Used to Date:	72%
Funding Source:	State Capital Program
Estimated Start Date/Estimated Length of Project:	NTP issued August 30, 2012; substantial completion 810 days after NTP
Designer of Record:	Laramore, Douglass and Popham (LDP)
Construction Manager/General Contractor:	STV (CM), F.H. Paschen (GC)
Project Manager:	Barney Gray (GM); Premal Vora (PM)

Detailed Overview of Scope:
Construct Three (3) New Traction Power Substations namely, Farwell, Armitage, Hill Modify Orleans Switch Room Modify Weed Switch Room Modify Sedgwick Substation

Project Title: Traction Power Systems Upgrades and Improvements

Impact on Customers:	Nine single tracks, and six reroutes. Street and lane closures around worksites, curtailed access to resident garages (at Armitage).
Benefit to System:	Additional traction power capacity reduced traction power related train defects, improved reliability for revenue service, and improved safety.
Benefit to Community:	Improved safety.
Impact on Accessibility:	None.
Estimated # of Jobs Created:	89
Customer Communication Need:	Construction activity notices will be needed to alert businesses and residents to weekend, night work and power outages.

Comparable Projects:

- NA

Project Title: Traction Power Systems Upgrades and Improvements

Construction Progress

Phase	Description	Status
Construction	▪ Farwell – Ductbank risers have been installed. Section gap installation work is complete. Exterior masonry work is complete (with the exception of the west wall – requires warmer weather due to space constraints). AC equipment installed on first floor. Site utilities are being installed. ▪ Armitage – CTA track column replacement work continues with earth retention installation, excavation, lagging and bracing installation followed by temporary shoring in order to remove and replace twenty-seven column foundations. Exterior column foundation replacement is complete. ▪ Hill – Exterior masonry work is complete. Dielectric flooring installation is ongoing. Ductbank work is continuing, with earth retention installation and excavation, followed by conduit installation.	Ongoing

Delay Explanation:

- Second floor topping is being re-done. Equipment will be installed once the floor meets requirements.
- Unforeseen underground conditions and a high water table have been encountered within CTA Right of Way at Armitage Substation, creating a delay and requiring a site dewatering plan for future excavation work.
- Unsuitable soils and unforeseen underground conditions have been encountered within CTA Right of Way in the Hill Ductbank installation. Hill Substation floor did not meet flatness requirements of equipment. Floor topping is being re-done. Equipment will be installed once the floor meets requirements.

Project Title: Traction Power Systems Upgrades and Improvements
Managing Department: Power & Way Construction



Farwell Substation West Wall

Project Title: Traction Power Systems Upgrades and Improvements
Managing Department: Power & Way Construction



Farwell Substation Ductbank Riser Installation

Project Title: Traction Power Systems Upgrades and Improvements
Managing Department: Power & Way Construction



Hill Substation: Interior Dielectric Floor Installation

Project Title: 18th Connector Track and Structure Renewal

Justification of Need:	The existing ties, rail and track components, as well the underlying ballast and drainage systems have reached or exceeded their useful life.
Priority of Project:	High
Total Project Budget:	$425M
Construction Contract Value:	$220,129,367
Earned to Date:	$194.1M
Percent Change Orders to Construction Contract:	0.0%
Percent Time Used to Date:	76% (as of April)
Funding Source:	RTA/IDOT CTA-2012-LI; City of Chicago TIF
Estimated Start Date/Estimated Length of Project:	Notice To Proceed: October 4, 2012 Substantial Completion: October 24, 2014
Designer of Record:	T.Y. Lin International; TranSystems Corporation
Construction Manager:	Parsons Brinckerhoff
Project Manager:	Brittany Dyra (GM)
General Contractor:	Kiewit Infrastructure Co.

Project Title: 18th Connector Track and Structure Renewal

Construction Progress

Phase	Description	Status
Construction	Kiewit Infrastructure Co. (KIC) is performing work along the 18th Connector. The scope of this work includes replacement of various track components including ties, rail, ballast, drainage, contact rail and the installation of a new walkway. In addition, KIC will complete structure painting.	Ongoing

Delay Explanation:
• N/A

Project Title: 18th Connector Track and Structure Renewal



Last panel of new track being set during the first weekend line cut

Project Title: Harrison Station Rehabilitation

Justification of Need:	The station is old and suffers from extensive leaking and water damage
Priority of Project:	High
Total Project Budget:	$10,000,000
Construction Contract Value:	$6,400,000
Earned to Date: (thru January)	18.0%
Percent Change Orders to Construction Contract:	0%
Percent Time Used to Date:	35%
Funding Source:	TIF
Estimated Start Date/Estimated Length of Project:	NTP issued November 26th, 2013; Final Acceptance scheduled for October 2014
Design/Build Contractor	Kiewit Infrastructure (DBC) Altus Works (Lead Design Subconsultant)
Construction Manager:	Parsons Brinkerhoff (CM),
Project Manager:	Steven Mascheri (GM); Charles Freeman (PM)

Detailed Overview of Scope:

New station finishes including:

- New flooring, wall finishes, signage upgrades
- Lighting replacement (LED), lighting backup system fed from CTA substations
- New stair enclosures at Harrison entrances

Project Title: Harrison Station Rehabilitation

Impact on Customers:	One 42 day Polk entrance closure from April thru May One 42 day Harrison entrance closure from June thru July Various weekend station closures
Benefit to System:	This project will mitigate the water infiltration problem at both entrances to the station platform and provide a safer, more user friendly fare control design.
Benefit to Community:	Improved safety/customer comfort/finishes
Impact on Accessibility:	None.
Estimated # of Jobs Created:	72
Customer Communication Need:	Construction activity notices will be needed to alert businesses, schools, and residents to weekend work, night work, and service interruptions.

Comparable Projects:
• Station renovation portion of the North Main Line Station Renovation Project (2012)

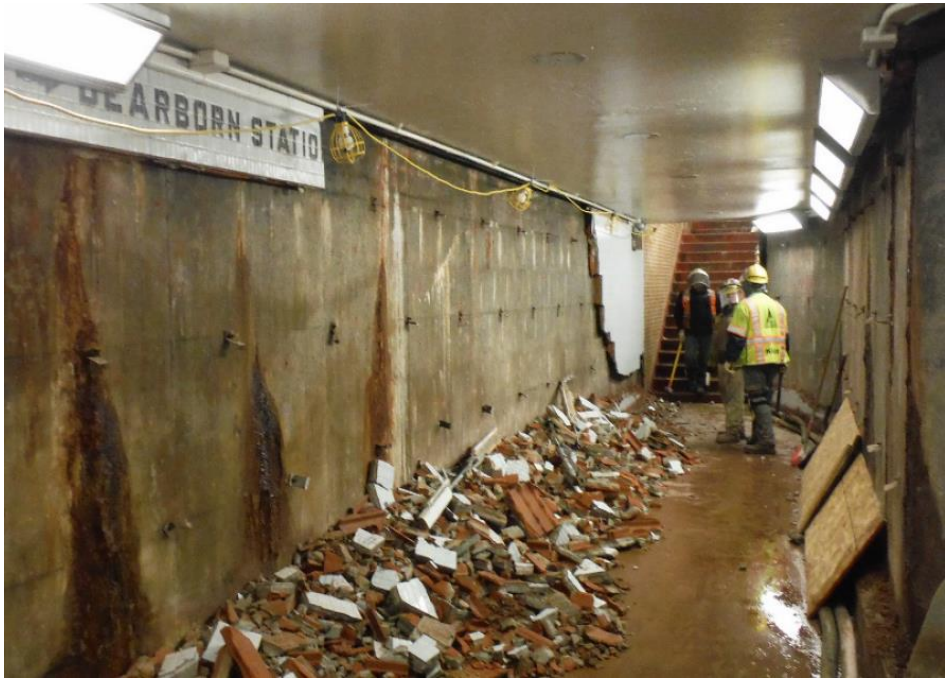
Project Title: Harrison Station Rehabilitation

Construction Progress

Phase	Description	Status
Construction	▪ Polk Street Entrance – Location of the source of the water infiltration, management of water infiltration, replacement of the wall surfaces, flooring surfaces, and new fare equipment installation.	Under Construction Polk entrance closure: April – May '14
	▪ Harrison Street Entrance – Location of the source of the water infiltration, management of water infiltration, replacement of the wall surfaces, flooring surfaces, and new fare equipment installation. Installation of two (2) new entry Kiosks on the East and West entrances at street level.	Harrison entrance closure: June – July '14
	▪ Platform – Removal of the topping slab and installation of new granite flooring. New lighting and signage throughout.	Weekend station closures

Delay Explanation:
• N/A

Project Title: Harrison Station Rehabilitation



Polk Mezzanine Demolition



Platform Demolition

Project Title: Bus Hoist Replacement Program

Justification of Need:	The existing bus hoists are beyond their useful life and many are not functioning.:			
Priority of Project:	High			
Construction Phase	Phase 1: 77th/SS/ Forest Glen	Phase 2: Kedzie	Phase 2: North Park	Phase 2: Chicago/103rd
Bus Hoist Equipment Contract Value:	$1,668,052	$1,163,892	$779,769	$1,066,901
Construction Contract Value:	$2,663,345	$3,145,143	$1,869,630	$2,820,651
Value Earned to Date (Construction and Hoists):	$4,288,084	$4,227,808.00	$2,551,989	$2,741,868
Percent Change Orders to Construction Contract:	25%	3%	0%	0%
Percent Time Used to Date:	99%	99%	95%	65%
Estimated Start and Completion Date:	NTP 11/21/12 Projected completion 10/18/13.	NTP 3/4/13 Projected completion 12/20/13.	NTP 6/24/13 Projected completion 3/05/14.	NTP 9/10/13 Projected completion 09/07/14.
Designer of Record:	TranSystems Corporation			
Contractor	Paul Borg	Kiewit	F.H. Paschen	F.H. Paschen
Project Manager:	Steve Mascheri (GM); Shawn Riley (PM); Jacobs (CM)			
Funding Source:	FTA and RTA Grants			

Detailed Overview of Scope:

Replacement of bus maintenance lifts including drainage, electrical work, and maintenance pads.

Project has been sequenced to mitigate interference to CTA Bus Operations.

Project Title: Bus Hoist Replacement Program

Impact on Customers:	N/A
Benefit to System:	Improved capacity for maintenance facilities and reliable equipment for bus operations.
Benefit to Community:	N/A
Impact on Accessibility:	N/A
Estimated # of Jobs Created:	80 (phases 1 thru 4)
Customer Communication Need:	N/A

Comparable Projects:
• N/A

Project Title: Bus Hoist Replacement Program

Construction Progress

Phase	Description	Status
Phase 1:	▪ Forest Glen – Close out in progress. ▪ South Shops – Close out in progress. ▪ 77th Garage –Close out in progress.	Closeout
Phase 2:	▪ Kedzie Garage – 12 lifts total: 12 lifts installed. Punch list and substantial completion have been issued.	Close Out
	▪ North Park Garage – 13 lifts total: 13 lifts installed. Punch list and substantial completion have been issued.	Punch list
	▪ 103rd and Chicago Garages –9 lifts total: 9 have been installed. Phase 2 for wash and inspection is 30% complete. Substantially complete with wash bays and inspection bays by September 2014.	Construction

Delay Explanation:

Phase 1: Due to the elevation of the existing drainage lines they could not be reused and new lines needed to be installed.

Phase 2: Equipment installation dates were extended to better accommodate installation of hoists and minimize impact to bus operations. Three week delay at 103rd Garage due to failed drainage (sump pump) equipment.

Project Title: Bus Hoist Replacement Program



103rd- Demolition Bay 13



Chicago- Bay 12 Excavation

Project Title: Milwaukee Blue Line Track Renewal

Justification of Need:	The existing ties and track components have reached or exceeded their useful life, resulting in slow zones between Damen Station and Kimball Subway.
Priority of Project:	High
Total Project Budget:	$30,264,684
Construction Contract Value:	$20,395,680 (Design/Build)
Earned to Date:	23% (design and construction) thru March 2014
Percent Change Orders to Construction Contract:	0%
Percent Time Used to Date:	41% thru March 2014
Funding Source:	FTA/IDOT
Estimated Start Date/Estimated Length of Project:	NTP Issued August 30, 2013; Substantial Completion January 31, 2015 (NTP + 519 Days)
Designer of Record:	HW Lochner (for Kiewit Infrastructure Co.)
Construction Manager/General Contractor:	Parsons Brinckerhoff (CM), Kiewit Infrastructure Co. (DBC)
Project Manager:	John Titzer (GM); William Polacek (PM)

Detailed Overview of Scope:

- Improvements to 18,680 track feet along the elevated portion of the Logan Square Connector on the O'Hare Blue Line.
- Scope includes replacement of ties, plates, timber guard, other track material and footwalk from North of Damen Station to the Kimball Subway Portal.
- Damen/North Ave reverse curves will be reconstructed to increase speed through the curve.

Project Title: Milwaukee Blue Line Track Renewal

Impact on Customers:	Ten line cuts and two single tracks. Street and lane closures around worksites, curtailed access to resident garages under the right of way. Bus shuttles required on line cut weekends.
Benefit to System:	Reduced maintenance costs; Improved reliability; New infrastructure
Benefit to Community:	Improved customer travel times by eliminating slow zones
Impact on Accessibility:	None.
Estimated # of Jobs Created:	82
Customer Communication Need:	Construction activity notices will be needed to alert businesses and residents to weekend, night work and power outages.

Comparable Projects:

- Englewood Green Line Track work
- Ravenswood-Loop Connector Project

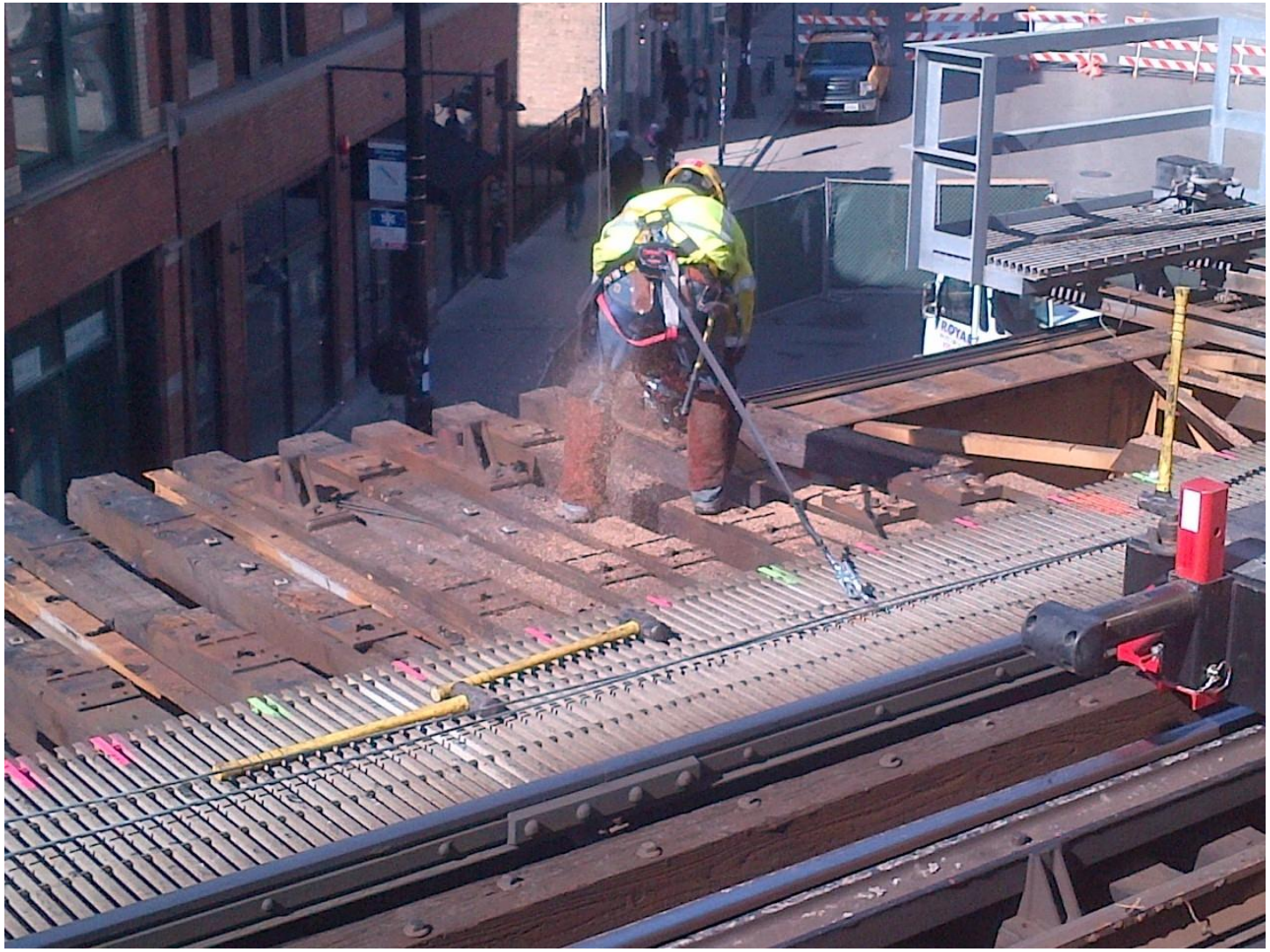
Project Title: Milwaukee Blue Line Track Renewal

Construction Progress

Phase	Description	Status
Design	▪ Milestone 1 – RFP Validation	Complete
Design	▪ Milestone 2 – 90% Design	Complete
Design	▪ Milestone 3 – 100% Design	Complete
Construction	▪ Contractor has completed three weekend line cuts.	Complete
Construction	▪ Contractor is preparing for the next three weekend line cuts which will occur April 25th(Western to Damen), May 9th (Western to Logan Square), and May 30th. (Western to Logan Square).	Ongoing

Delay Explanation:
• N/A

Project Title: Milwaukee Blue Line Track Renewal



Tie demolition at Damen Curves

Project Title: Milwaukee Blue Line Track Renewal



Rail Installation and Alignment at Damen Curves