

# **Construction Project Briefing**

**May 14, 2014**



# Today's Presentation

- **Traction Power - Farwell/Armitage/Hill Substations**
- **18<sup>th</sup> 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Justification of Need:	Substation equipment is obsolete and has exceeded its current lifespan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.

<b>Comparable Projects:</b>
<ul style="list-style-type: none"> <li>• NA</li> </ul>



# Project Title: Traction Power Systems Upgrades and Improvements

## Construction Progress

Phase	Description	Status
Construction	<ul style="list-style-type: none"> <li>▪ 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.</li> <li>▪ 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.</li> <li>▪ 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.</li> </ul>	Ongoing

Delay Explanation:
<ul style="list-style-type: none"> <li>• Second floor topping is being re-done. Equipment will be installed once the floor meets requirements.</li> <li>• 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.</li> <li>• 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.</li> </ul>



# 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: 18<sup>th</sup> 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: 18<sup>th</sup> Connector Track and Structure Renewal

## Construction Progress

Phase	Description	Status
Construction	Kiewit Infrastructure Co. (KIC) is performing work along the 18 <sup>th</sup> 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: 18<sup>th</sup> 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 26 <sup>th</sup> , 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)

<b>Detailed Overview of Scope:</b>	
<p>New station finishes including:</p> <ul style="list-style-type: none"> <li>• New flooring, wall finishes, signage upgrades</li> <li>• Lighting replacement (LED), lighting backup system fed from CTA substations</li> <li>• New stair enclosures at Harrison entrances</li> </ul>	



# 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.

<b>Comparable Projects:</b>
<ul style="list-style-type: none"> <li>Station renovation portion of the North Main Line Station Renovation Project (2012)</li> </ul>



# Project Title: Harrison Station Rehabilitation

## Construction Progress

Phase	Description	Status
Construction	<ul style="list-style-type: none"> <li data-bbox="324 294 1421 401">▪ 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.</li>   <li data-bbox="324 601 1470 743">▪ 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.</li>   <li data-bbox="324 829 1470 901">▪ Platform – Removal of the topping slab and installation of new granite flooring. New lighting and signage throughout.</li> </ul>	<p data-bbox="1562 294 1750 365">Under Construction</p> <p data-bbox="1562 408 1789 515">Polk entrance closure: April – May '14</p> <p data-bbox="1562 601 1789 743">Harrison entrance closure: June – July '14</p> <p data-bbox="1562 829 1789 901">Weekend station closures</p>

Delay Explanation:
<ul style="list-style-type: none"> <li data-bbox="59 1043 185 1072">• N/A</li> </ul>



# 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: 77 <sup>th</sup> /SS/ Forest Glen	Phase 2: Kedzie	Phase 2: North Park	Phase 2: Chicago/103 <sup>rd</sup>
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

<b>Comparable Projects:</b>
<ul style="list-style-type: none"><li>N/A</li></ul>



# Project Title: Bus Hoist Replacement Program

## Construction Progress

Phase	Description	Status
Phase 1:	<ul style="list-style-type: none"> <li>▪ Forest Glen – Close out in progress.</li> <li>▪ South Shops – Close out in progress.</li> <li>▪ 77<sup>th</sup> Garage –Close out in progress.</li> </ul>	Closeout
Phase 2:	<ul style="list-style-type: none"> <li>▪ Kedzie Garage – 12 lifts total: 12 lifts installed. Punch list and substantial completion have been issued.</li> </ul>	Close Out
	<ul style="list-style-type: none"> <li>▪ North Park Garage – 13 lifts total: 13 lifts installed. Punch list and substantial completion have been issued.</li> </ul>	Punch list
	<ul style="list-style-type: none"> <li>▪ 103<sup>rd</sup> 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.</li> </ul>	Construction

Delay Explanation:
<p>Phase 1: Due to the elevation of the existing drainage lines they could not be reused and new lines needed to be installed.</p> <p>Phase 2: Equipment installation dates were extended to better accommodate installation of hoists and minimize impact to bus operations. Three week delay at 103<sup>rd</sup> Garage due to failed drainage (sump pump) equipment.</p>



# Project Title: Bus Hoist Replacement Program



**103<sup>rd</sup>- 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)

<p><b>Detailed Overview of Scope:</b></p> <ul style="list-style-type: none"> <li>• Improvements to 18,680 track feet along the elevated portion of the Logan Square Connector on the O'Hare Blue Line.</li> <li>• Scope includes replacement of ties, plates, timber guard, other track material and footwalk from North of Damen Station to the Kimball Subway Portal.</li> <li>• Damen/North Ave reverse curves will be reconstructed to increase speed through the curve.</li> </ul>
---



# 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

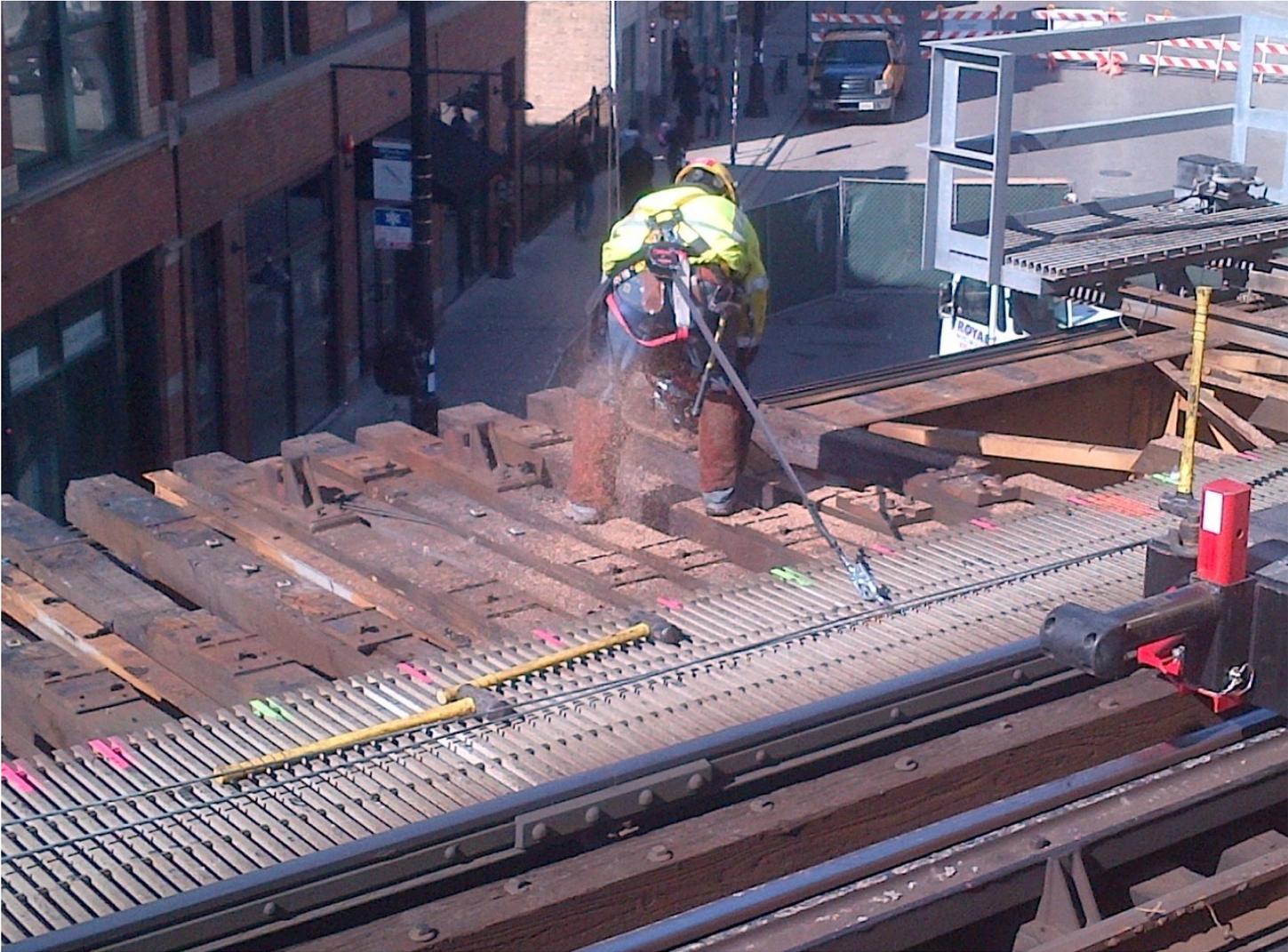
## Construction Progress

Phase	Description	Status
Design	<ul style="list-style-type: none"> <li>▪ Milestone 1 – RFP Validation</li> <li>▪ Milestone 2 – 90% Design</li> <li>▪ Milestone 3 – 100% Design</li> </ul>	Complete
Design		Complete
Design		Complete
Construction	<ul style="list-style-type: none"> <li>▪ Contractor has completed three weekend line cuts.</li> </ul>	Complete
Construction	<ul style="list-style-type: none"> <li>▪ Contractor is preparing for the next three weekend line cuts which will occur April 25<sup>th</sup>(Western to Damen), May 9<sup>th</sup> (Western to Logan Square), and May 30<sup>th</sup>. (Western to Logan Square).</li> </ul>	Ongoing

<b>Delay Explanation:</b>
<ul style="list-style-type: none"> <li>• N/A</li> </ul>



# 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**

