

Construction Project Briefing

August 15, 2018



Today's Presentation

- **ELMI – East Lake, Milwaukee, Illinois Substation Upgrade**
- **Ravenswood Loop Signals Upgrade Project**
- **95th Street Terminal Improvement Program**
- **Quincy Loop Station Upgrade**
- **Illinois Medical District (IMD) Rehabilitation Project**
- **Garfield Green Station Renovation**



Project Title: ELMI – East Lake, Milwaukee, Illinois Substation Upgrade

Justification of Need:	The existing traction power equipment at these substations is well past its useful life and needs to be replaced to assure reliable 600-volt DC traction power. Rehabilitate the substation buildings to a state of good repair.
Priority of Project:	High
Total Project Budget:	\$ 69M
Construction Contract Value:	\$ 42.9M
Earned to Date:	27%
Percent Change Orders to Construction Contract:	0
Percent Time Used:	46%
DBE:	Goal: 20% / Commitment: 20% Contract is on track to meet the DBE goal Outreach events conducted: 2 (CTA)
Funding Source:	CTA Bonds, RTA Bonds
Estimated Start Date/Estimated Length of Project:	NTP: April 10, 2017; Substantial Completion March 8, 2020
Designer of Record:	T.Y. Lin International
Construction Manager/General Contractor:	STV

Detailed Overview of Scope:

Rehabilitation of existing buildings and building envelopes to a state of good repair at East Lake, Milwaukee, and Illinois. Scope of work includes replacement of roof, tuck-pointing, hazardous material abatement, structural repairs and improvements, plumbing and mechanical repairs and improvements, and electrical repairs and improvements.

Replace existing AC/DC conversion equipment at all locations and getaway cables at East Lake.

Part of the scope of this project includes CTA purchasing 10 East Lake from ComEd.



Project Title: ELMI – East Lake, Milwaukee, Illinois Substation Upgrade

Impact on Customers:	There will be minimum impact to CTA customers.
Benefit to System:	<ul style="list-style-type: none">• Additional traction power capacity• Reduced traction power related train defects• Improved reliability for revenue service• Improved safety
Benefit to Community:	Improved Reliability and Safety
Impact on Accessibility:	None
Estimated # of Jobs Created:	897 indirect, 188 direct
Customer Communication Need:	Construction activity notices will be provided to inform businesses and residents regarding temporary construction impacts (noise, dust, street/alley closures) throughout the project.

Comparable Projects:

- Traction Power Systems Upgrades and Improvements Kimball, Princeton, and State Substation Projects.



Project Title: ELMI – East Lake, Milwaukee, Illinois Substation Upgrade

Construction Progress

Phase	Description	Status
Construction	<ul style="list-style-type: none">• Manufacturing of traction power equipment is in progress for Illinois and Milwaukee.• Demolition of existing traction power equipment has started at Illinois and Milwaukee.• Factory Acceptance Testing of traction power equipment is progressing.• Structural repairs to grade beam and transformer foundation pads at Milwaukee Substation.• Traction power equipment delivery has started at Illinois and Milwaukee• Lighting and Fire Alarm installation is in progress at Illinois and Milwaukee• Tuckpointing and Masonry installation is in progress at East Lake Substation	Ongoing Ongoing Ongoing Ongoing Ongoing Ongoing Ongoing

Delay Explanation:

N/A



Project Title: ELMI – East Lake, Milwaukee, Illinois Substation Upgrade



New Incoming ComEd Service Disconnect Boxes at Milwaukee Substation



Project Title: ELMI – East Lake, Milwaukee, Illinois Substation Upgrade



Masonry Tuckpointed and Cleaned at Illinois Substation



Project Title: Ravenswood Loop Signal Upgrade Project

Justification of Need:	The signal system for the Ravenswood Loop Connector section of the CTA Brown line was originally commissioned in 1975. In order to decrease headways and improve reliability, the system will be replaced with a new system.
Priority of Project:	High
Total Project Budget:	\$ 50 M
Construction Contract Value:	\$ 32.6M
Earned to Date:	61.1% (thru June)
Percent Change Orders to Construction Contract:	0
Percent Time Used:	100%
DBE:	Goal: 10% / Commitment: 10% Contract is on track to meet the DBE goal Outreach events conducted: 1 (CTA)
Funding Source:	CTA PBV, CTA Bonds, FTA
Start Date/Length of Project:	NTP: November 4, 2015; Substantial completion April 2, 2018 (Actual projected 4 th quarter 2018.)
Designer of Record:	Parsons Transportation
Construction Manager/General Contractor:	Parsons Brinckerhoff/Ragnar Benson Construction, LLC

Overview of Scope: The signal system upgrade will include the following features:

- Removal of all existing signal equipment, cabling, and signal platforms.
- Design & install new platforms, cabling, cable support brackets, and signal equipment.
- Communication network design, configuration, installation, and commissioning.



Project Title: Ravenswood Loop Signal Upgrade Project

Impact on Customers:	54 hour line cut to cut over new signal system.
Benefit to System:	<ul style="list-style-type: none"> • Decreased headways • More reliable equipment • More robust signal network • Better diagnostic abilities • More reliable track circuit indications • Added loss of shunt detection system • Optimized curve speeds (potentially reduce run times)
Benefit to Community:	<ul style="list-style-type: none"> • Maximizing number of trains allowed in the corridor. • Less customer inconvenience due to signal system malfunction.
Impact on Accessibility:	None
Estimated # of Jobs Created:	650 indirect, 136 direct
Customer Communication Need:	<ul style="list-style-type: none"> • Construction activity notices will be provided to inform businesses and residents regarding line cut and construction impacts (noise, dust, street/alley impacts) throughout the project.

Comparable Projects:	
<ul style="list-style-type: none"> • Loop Signal Project • Dearborn Signal Project 	



Project Title: Ravenswood Loop Signal Upgrade Project

Construction Progress

Phase	Description	Status
Construction	• Installation of cable brackets and cable.	Ongoing
	• Installation of foundations and structural steel to support new signal houses.	Ongoing
	• Installation of new signal houses.	Ongoing
	• Installation of new signal equipment.	Ongoing
	• Integration and troubleshooting of new system.	Planned
	• System Cutover.	Planned

Delay Explanation:
General Contractor's performance.



Project Title: Ravenswood Loop Signal Upgrade Project



Setting of Cleveland Relay House



Project Title: Ravenswood Loop Signal Upgrade Project



Megger Testing of Relay House Equipment



Project Title: 95th Terminal Improvement Program

Justification of Need:	The terminal is functionally obsolete and does not allow for optimal bus operations and pedestrian flow.
Priority of Project:	High
Total Project Budget:	\$280 M
Construction Contract Value:	Advance Package 1: \$ 2,482,588 Advance Package 2: \$24,697,210 Main Terminal Contract: \$188,395,277
Earned to Date:	Advance Package 1: 100% Advance Package 2: 100% Main Terminal Contract: 69%
Percent Change Orders to Construction Contract:	Advance Package 1: (0.3%) Advance Package 2: 7% Main Terminal Contract: 4.7%
Percent Time Used:	Advance Package 1: 100% Advance Package 2: 100% Main Terminal Contract: 88%
DBE:	Advance Package 1: Goal: 30% / Commitment: 35.19% / Final Attainment*: 37.26% Advance Package 2: Goal: 30% / Commitment: 30% / Final Attainment*: 37.80% Main Terminal Contract: Goal: 27% / Commitment: 27% Contract is on track to meet the DBE goal Outreach events conducted: 8 *Attainment is based on progress payments and may vary over the life of the project
Funding Source:	Federal, State, Bond



Project Title: 95th Terminal Improvement Program

Estimated Start Date/Estimated Length of Project:	Main Terminal Contract: NTP: Nov 24, 2015; Substantial Completion Dec. 16, 2018
AP1/AP2 Construction Manager/General Contractor:	Walsh / II in One JV
Main Terminal Contractor:	F.H. Paschen / Milhouse JV
Owners Representative:	Jacobs/SQN JV

Detailed Overview of Scope:

The 95th Terminal Improvement Project will create new South and North terminal buildings at 95th on the Dan Ryan Red Line. The new terminal buildings will create a functional and efficient intermodal facility to enhance bus service and improve pedestrian safety. Scope includes the replacement and expansion of the terminal and platform and the addition of bus and pedestrian bridges. New administrative office space will be built and new bus bays will be provided around the terminal buildings.



Project Title: 95th Terminal Improvement Program

Impact on Customers:	Track closures and weekend station closures during construction. Temporary relocation of certain bus operations to nearby streets during construction phasing.
Benefit to System:	Improved customer circulation and safety by relieving congestion. Improved bus service and improved pedestrian safety.
Benefit to Community:	Improved pedestrian safety with new pedestrian bridge over 95 th Street, longer train platform extending to the new South Terminal Building.
Impact on Accessibility:	New south and north terminal buildings with improved accessible routes to buses.
Estimated # of Jobs Created:	3,640 indirect, 762 direct
Customer Communication Need:	Requires periodic track closures and possible station closures with bus shuttle service. Bus Operations may be relocated to adjacent streets during certain phases of construction.

Comparable Projects:

- Wilson Station



Project Title: 95th Terminal Improvement Program

Construction Progress

Phase	Description	Status
<p>Construction</p>	<ul style="list-style-type: none"> ▪ South Terminal: <ul style="list-style-type: none"> ▪ Various punchlist work is ongoing. ▪ Building systems commissioning and training of CTA Maintenance personnel is ongoing. ▪ North Terminal Building: <ul style="list-style-type: none"> ▪ 95th Street entrance sidewalk rebar installation ongoing. ▪ Lead based paint abatement ongoing for existing roof steel and building columns that will remain. ▪ Demolition of selective structural slab complete. ▪ North Terminal Bus Area: <ul style="list-style-type: none"> ▪ West side detention chamber installation complete; backfill & compaction ongoing and preparation for grade beam installation. ▪ East and west side abutment wall demolition is ongoing. ▪ Preparation for north bus bridge caissons in ongoing. ▪ North Terminal Platform: <ul style="list-style-type: none"> ▪ One of two escalator pits demolition completed. ▪ Existing interior platform barrel conduits/cabling and drainage piping demolition ongoing. ▪ 96th interlocking permanent cable installation is ongoing. 	<p>Ongoing</p>
<p>Delay Explanation:</p>		
<p>N/A</p>		



Project Title: 95th Terminal Improvement Program



Concrete Pour - North Terminal Second Floor Atrium



Project Title: 95th Terminal Improvement Program



Cable Pull - 96th Interlocking Signaling System



Project Title: Quincy Loop Station Upgrade

Justification of Need:	The Station is not currently accessible. The project will provide another accessible Loop station, as well as provide additional repairs and improvements throughout the station.
Priority of Project:	High
Total Project Budget:	\$18M
Construction Contract Value:	\$11.7M
Earned to Date:	57%
Percent Change Orders to Construction Contract:	0
Percent Time Used:	100%
DBE:	Goal: 30%, Commitment: 30% Contract is on track to meet the DBE goal Outreach events conducted: 1 (CTA)
Funding Source:	TIF, CTA Bonds
Estimated Start Date/Estimated Length of Project:	NTP: July 27, 2016; Contract substantial Completion, February 1, 2018 (Actual projected – 4 th Qtr. 2018)
Designer of Record:	Exp US Services
Construction Manager/General Contractor:	Parsons Brinckerhoff/Ragnar Benson Construction, LLC

Detailed Overview of Scope: The station will include the following features:

- Two (2) new Elevators with connection bridges to stationhouses.
- One new exit stair.
- New electrical service.
- New and upgraded Electrical fixtures.
- Painting upgrades.
- Replacement of existing wood floors with new tile floors at both stationhouses.



Project Title: Quincy Loop Station Upgrade

Impact on Customers:	There will be minimum impact to CTA customers.
Benefit to System:	<ul style="list-style-type: none">• Accessible Station.• New upgraded electrical service to the station.• Upgraded lighting.• New stationhouse floors.
Benefit to Community:	<ul style="list-style-type: none">• It will improve beneficial use of the station by providing accessible path to the station.• Easy access entrances through two new (2) entry points.• New outer loop platform exit stair will provide a new exit point from platform to street.
Impact on Accessibility:	Station will be fully accessible upon completion.
Estimated # of Jobs Created:	234 indirect, 49 direct
Customer Communication Need:	<ul style="list-style-type: none">• Construction activity notices will be provided to inform businesses and residents regarding temporary stations and construction impacts (noise, dust, street/alley impacts) throughout the project.

Comparable Projects:

- IMD Station – Blue Line



Project Title: Quincy Loop Station Upgrade

Construction Progress

Phase	Description	Status
Construction	<p data-bbox="382 248 680 275"><u>Street Level, East Side:</u></p> <ul data-bbox="382 311 1166 591" style="list-style-type: none"><li data-bbox="382 311 1166 338">• East elevator control closet and equipment build out continues.<li data-bbox="382 374 966 401">• Installation of elevator metal panels continues.<li data-bbox="382 436 993 464">• Installation of elevator glazing panels continues.<li data-bbox="382 499 1060 526">• Installation of elevator equipment build out continues.<li data-bbox="382 562 867 589">• Elevated walkway build out continues. <p data-bbox="382 658 687 685"><u>Street Level, West Side:</u></p> <ul data-bbox="382 721 1174 1001" style="list-style-type: none"><li data-bbox="382 721 1174 748">• West elevator control closet and equipment build out continues.<li data-bbox="382 783 966 811">• Installation of elevator metal panels continues.<li data-bbox="382 846 1060 873">• Installation of elevator equipment build out continues.<li data-bbox="382 909 830 936">• New exit stair build out continues.<li data-bbox="382 972 867 999">• Elevated walkway build out continues. <p data-bbox="382 1068 695 1095"><u>Other planned activities:</u></p> <ul data-bbox="382 1130 1238 1289" style="list-style-type: none"><li data-bbox="382 1130 1238 1158">• Electrical conduit /wiring installation throughout the station continues.<li data-bbox="382 1193 879 1220">• New janitor closets build out continues.<li data-bbox="382 1256 1193 1283">• New drop metal ceiling installation at mezzanine level continues.	Ongoing Ongoing Ongoing Ongoing Ongoing Ongoing Ongoing Ongoing Ongoing Ongoing Ongoing Ongoing Ongoing



Project Title: Quincy Loop Station Upgrade



New Elevator Glazing Installation



Project Title: Quincy Loop Station Upgrade



New Bridge Railing and Station Door Entrance Opening Build Out

Project Title: Illinois Medical District (IMD) Rehabilitation Project

Justification of Need:	To improve the accessibility of the Illinois Medical District Station and rehabilitate the station to a state of good repair. The project will make all three station entrances ADA accessible, including the addition of an elevator to the Ogden entrance.
Priority of Project:	High
Total Project Budget:	\$27 M
Construction Contract Value:	\$16,417,059
Earned to Date:	77% (through May 2018)
Percent Change Orders to Construction Contract:	15.3%
Percent Time Used:	98%
DBE:	Goal: 30%, Commitment: 30% Contract is on track to meet the DBE goal Outreach events conducted: 2 (CTA)
Funding Source:	TIF
Estimated Start Date/Estimated Length of Project:	NTP: September 26, 2016 Substantial Completion : August 2018
General Contractor:	McHugh Construction/ UJAMAA Joint Venture
Construction Manager / Owners Representative:	STV

Detailed Overview of Scope:

The Illinois Medical District Rehabilitation Project will rehabilitate the Damen and Paulina stationhouses and concourses through structural reinforcements and upgraded exterior envelopes & interior improvements. The project will reconstruct and expand the Ogden stationhouse providing new upgraded electrical service and elevator access to the platform as well as reinforced structural components. Platform restorations and improvements will also be incorporated. All three station entrances will be ADA compliant and will incorporate lighting improvements, communication system improvements and signage upgrades.



Project Title: Illinois Medical District (IMD) Rehabilitation Project

Impact on Customers:	<p>Station will remain open at all times. Temporary Station Entrance closures will occur and access to portions of the platform will be limited during phased construction work. ADA accessibility will be maintained at either the Paulina Stationhouse or Damen Stationhouse during all phases of construction.</p> <ul style="list-style-type: none"> • 50 maximum nightly single track occurrences. • 5 maximum weekend single track occurrences. • Partial platform closures.
Benefit to System:	Improved customer circulation. Provides accessibility to customers with disabilities at all 3 entrances of IMD Station which maintains the highest ridership on the Congress Branch.
Benefit to Community:	Improved aesthetics and pedestrian safety with new metal panel stationhouse exteriors, stainless steel stationhouse interior panels & new stationhouse storefronts. Upgraded LED lighting, upgraded communication systems and new signage.
Impact on Accessibility:	New elevator installation at Ogden Stationhouse. Concrete resurfacing of Damen & Paulina Concourses.
Estimated # of Jobs Created:	299 indirect, 63 direct
Customer Communication Need:	Construction activity notices will be needed to alert customers, businesses and residents to temporary entrance closures, weekend and night work occurrences. Extensive communication will be required for weekend closures and for extended partial platform closures.

<p>Comparable Projects:</p> <ul style="list-style-type: none"> • Quincy Loop Station Upgrade • YNB 5-Stations Project
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Project Title: Illinois Medical District (IMD) Rehabilitation Project

Construction Progress

Phase	Description	Status
Construction	<ul style="list-style-type: none"> ▪ Damen Stationhouse / Concourse Rehabilitation. ▪ Partial Platform Rehabilitation. ▪ Damen Stationhouse Reopening. ▪ Ogden / Paulina Entrance Closure for Rehabilitation. ▪ Ogden Stationhouse Demolition ▪ Ogden Stationhouse Rebuild ▪ Paulina Stationhouse ▪ Concourse Rehabilitation ▪ Remaining Platform Rehabilitation ▪ Upgraded Electric Service to Ogden Stationhouse ▪ Caisson Installation for Ogden Extension / Elevator ▪ Elevator Installation 	<p>Completed</p> <p>Completed</p> <p>Completed</p> <p>Completed</p> <p>Completed</p> <p>Ongoing</p> <p>Ongoing</p> <p>Completed</p> <p>Ongoing</p> <p>Completed</p> <p>Ongoing</p> <p>Ongoing</p>
Delay Explanation:		
<p>The partial demolition of the Ogden Stationhouse per contract uncovered substantial deterioration of the entire existing stationhouse slab and supporting columns.</p>		



Project Title: Illinois Medical District (IMD) Rehabilitation Project



Ogden Station – Exterior Facade



Project Title: Illinois Medical District (IMD) Rehabilitation Project



Paulina Station – Interior Finishes



Project Title: Garfield Green Station Renovation

Justification of Need:	The purpose of the project is to upgrade and enhance The Garfield Gateway, as well as create a transit gateway to the community. The project will increase pedestrian access and flow at the operational station with a variety of streetscape improvements, including crosswalk enhancements, new lighting, bike racks, landscaping, and traffic control devices. Also, the original historic landmark street level station will be refurbished.
Priority of Project:	High
Total Project Budget:	\$42 M
Construction Contract Value:	25,978,000
Earned to Date:	12.52%
Percent Change Orders to Construction Contract:	0%
Percent Time Used:	56.59%
DBE:	DBE Goal: 30% WIOA Goal: 10% Apprentice Goal: 10% Local Hiring Goal: 50%
Estimated Start Date/Estimated Length of Project:	NTP: October 25, 2017 Substantial Completion : January 8, 2019
Designer of Record:	Walsh Construction Company / Exp US Services
Construction Manager / Owners Representative:	Arcadis

Detailed Overview of Scope:

This Project will bring elements of Garfield Station and the historic station to a state of good repair and enhance the aesthetics of the station. A new platform slab will be installed along with new furniture, signage, and mid-platform exit stairs. A new canopy will be placed that extends to an 8 car length and will have new LED light fixtures and new speakers. The historic track structure will be painted and new access stairs will be installed. The operational stationhouse will be refinished, a new escalator to the southbound tracks will be installed, and existing elevators will be improved. Street level improvements include bike lanes, a new bus stop configurations, and a new walkway.



Project Title: Garfield Green Station Renovation

Impact on Customers:	<p>Track Occurrences</p> <ul style="list-style-type: none"> • 30 Nightly Single Tracks • Maximum 6 Weekend Line cuts <p>Operational Stationhouse Closure</p> <ul style="list-style-type: none"> • 90 day closure of operational stationhouse (Once temp. station is complete) • 14 day platform closure: per platform. (Back riding on each side) • Construction of temporary stationhouse just north of stationhouse.
Benefit to System:	Increased reliability and safety for customers, rail and bus operations.
Benefit to Community:	The overall aesthetics of the Garfield station, historic station, and the track structure will be improved. New LED Light Fixtures, platform furniture, speakers and communications, and mid-platform exit stairs will also be added. There will also be improvements to the streetscape (bus stop, landscaping) and the parking lot.
Impact on Accessibility:	The current elevator will be improved and a new escalator will be added to the Southbound tracks. New speakers and new signage
Estimated # of Jobs Created:	114 indirect, 546 direct
Customer Communication Need:	Construction Activity Notices regarding construction-related impacts .

Comparable Projects:
<ul style="list-style-type: none"> • Quincy Loop Station Upgrade



Project Title: Garfield Green Station Renovation

Construction Progress

Phase	Description	Status
Construction	<ul style="list-style-type: none">• Installed perimeter fencing and fence screens to enclose east parking lot and under the track structure to prepare for construction of temporary fare area.• Concrete cutting and demolition at east and west parking lots.• Constructed temporary sidewalk at west side of station and installed temporary lights.• Built panels for temporary Platform Barriers and hoisted them to the platform.• Frame/pour/cure/backfill North Stairs foundation• Paint removal from Historic Stationhouse exterior walls.• Excavation/frame/pour/cure thickened slab for Temp Fare Area• Install temporary platform barricade wall.• Platform canopy demolition.	Completed Completed Completed Completed Ongoing Ongoing Ongoing Ongoing Planned
Delay Explanation:		
N/A		



Project Title: GARFIELD GREEN STATION RENOVATION



West Wall of Historic Stationhouse



Project Title: GARFIELD GREEN STATION RENOVATION



Pouring Concrete in Stair Column Pedestals

