

# **Construction Project Briefing**

**June 13, 2018**



# Today's Presentation

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



# 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:	20%
Percent Change Orders to Construction Contract:	0
Percent Time Used:	40%
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"><li>• Additional traction power capacity</li><li>• Reduced traction power related train defects</li><li>• Improved reliability for revenue service</li><li>• Improved safety</li></ul>
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"><li>• Manufacturing of traction power equipment is in progress for Illinois and Milwaukee.</li><li>• Demolition of existing traction power equipment has started at Illinois and Milwaukee.</li><li>• Factory Acceptance Testing of traction power equipment is progressing.</li><li>• Structural repairs to grade beam and transformer foundation pads at Milwaukee Substation.</li><li>• Traction power equipment delivery has started at Illinois and Milwaukee</li><li>• Structural Steel is being painted at Illinois Substation.</li><li>• Lighting and Fire Alarm installation is in progress at Illinois and Milwaukee</li><li>• Tuckpointing and Masonry installation is in progress at East Lake Substation</li></ul>	Ongoing Ongoing Ongoing Ongoing Ongoing Ongoing Ongoing Ongoing

### Delay Explanation:

N/A



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



Illinois Substation – Painted Ceiling and Steel with new light fixtures and fire alarm system



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



Milwaukee Substation - New DC Breakers



# 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:	55.5% (thru April)
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 <sup>th</sup> 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"> <li>• Decreased headways</li> <li>• More reliable equipment</li> <li>• More robust signal network</li> <li>• Better diagnostic abilities</li> <li>• More reliable track circuit indications</li> <li>• Added loss of shunt detection system</li> <li>• Optimized curve speeds (potentially reduce run times)</li> </ul>
Benefit to Community:	<ul style="list-style-type: none"> <li>• Maximizing number of trains allowed in the corridor.</li> <li>• Less customer inconvenience due to signal system malfunction.</li> </ul>
Impact on Accessibility:	None
Estimated # of Jobs Created:	650 indirect, 136 direct
Customer Communication Need:	<ul style="list-style-type: none"> <li>• 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.</li> </ul>

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



# Project Title: Ravenswood Loop Signal Upgrade Project

## Construction Progress

Phase	Description	Status
<b>Construction</b>	<ul style="list-style-type: none"><li data-bbox="388 297 938 325">• Installation of cable brackets and cable.</li><li data-bbox="388 368 1412 396">• Installation of foundations and structural steel to support new signal houses.</li><li data-bbox="388 439 855 468">• Installation of new signal houses.</li><li data-bbox="388 511 900 539">• Installation of new signal equipment.</li><li data-bbox="388 582 1035 611">• Integration and troubleshooting of new system.</li><li data-bbox="388 654 643 682">• System Cutover.</li></ul>	Ongoing  Ongoing  Planned  Planned  Planned  Planned

<b>Delay Explanation:</b>
General Contractor's performance.



# Project Title: Ravenswood Loop Signal Upgrade Project



Cable Installation over Chicago Ave



# Project Title: Ravenswood Loop Signal Upgrade Project



New Relay Electrical Equipment for Cleveland Relay House



# Project Title: 95<sup>th</sup> 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: 65%
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: 82%
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: 95<sup>th</sup> 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: 95<sup>th</sup> 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 <sup>th</sup> 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.

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



# Project Title: 95<sup>th</sup> Terminal Improvement Program

## Construction Progress

Phase	Description	Status
<p><b>Construction</b></p>	<ul style="list-style-type: none"> <li>▪ South Terminal:                             <ul style="list-style-type: none"> <li>▪ Various punchlist work is ongoing.</li> <li>▪ Building systems commissioning and training of CTA Maintenance personnel is ongoing.</li> </ul> </li> <li>▪ North Terminal Building:                             <ul style="list-style-type: none"> <li>▪ Existing stair, escalator, and elevator demolition ongoing</li> <li>▪ Interior selective demolition of lights, ceilings, walls, electrical and plumbing materials is ongoing.</li> </ul> </li> <li>▪ North Terminal Bus Area:                             <ul style="list-style-type: none"> <li>▪ Existing east and west bus canopy demolition is complete.</li> <li>▪ Existing bus pavement demolition is ongoing.</li> <li>▪ Potholing for future bus canopy foundations and new utilities</li> </ul> </li> <li>▪ North Terminal Platform:                             <ul style="list-style-type: none"> <li>▪ Existing platform canopy demolition is ongoing</li> <li>▪ Southern platform rooms demolition is complete; remaining existing platform back-of-house room demolition is ongoing.</li> <li>▪ Contained abatement activities are ongoing.</li> </ul> </li> </ul>	<p><b>Ongoing</b></p>
<p><b>Delay Explanation:</b></p>		
<p>N/A</p>		



# Project Title: 95<sup>th</sup> Terminal Improvement Program



North Terminal: Platform Canopy Demolition



# Project Title: 95<sup>th</sup> Terminal Improvement Program



North Terminal: Exterior Bus Area Demolition



# Project Title: Quincy Loop Station Upgrade

<b>Justification of Need:</b>	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.
<b>Priority of Project:</b>	High
<b>Total Project Budget:</b>	\$18M
<b>Construction Contract Value:</b>	\$11.7M
<b>Earned to Date:</b>	57%
<b>Percent Change Orders to Construction Contract:</b>	0
<b>Percent Time Used:</b>	100%
<b>DBE:</b>	Goal: 30%, Commitment: 30% Contract is on track to meet the DBE goal Outreach events conducted: 1 (CTA)
<b>Funding Source:</b>	TIF, CTA Bonds
<b>Estimated Start Date/Estimated Length of Project:</b>	NTP: July 27, 2016; Contract substantial Completion, February 1, 2018 (Actual projected – 3 <sup>rd</sup> Qtr. 2018)
<b>Designer of Record:</b>	Exp US Services
<b>Construction Manager/General Contractor:</b>	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"><li>• Accessible Station.</li><li>• New upgraded electrical service to the station.</li><li>• Upgraded lighting.</li><li>• New stationhouse floors.</li></ul>
Benefit to Community:	<ul style="list-style-type: none"><li>• It will improve beneficial use of the station by providing accessible path to the station.</li><li>• Easy access entrances through two new (2) entry points.</li><li>• New outer loop platform exit stair will provide a new exit point from platform to street.</li></ul>
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"><li>• 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.</li></ul>

## Comparable Projects:

- IMD Station – Blue Line



# Project Title: Quincy Loop Station Upgrade

## Construction Progress

Phase	Description	Status
Construction	<b><u>Street Level, East Side:</u></b>	
	• East elevator control closet build out continues.	Ongoing
	• Elevated walkway rebar installation continues.	Ongoing
	• Elevated walkway corrugated canopy installation continues	Ongoing
	• Installation of elevator metal panels continues.	Ongoing
	• Installation of elevator cab/equipment build out continues.	Ongoing
	<b><u>Street Level, West Side:</u></b>	
	• West elevator control closet build out continues.	Ongoing
	• Elevated walkway rebar installation continues.	Ongoing
	• Elevated walkway corrugated canopy installation continues	Ongoing
	• Installation of elevator metal panels continues.	Ongoing
	• Installation of elevator cab/equipment build out continues.	Ongoing
	• New exit stair build out continues.	Ongoing
	<b><u>Other planned activities:</u></b>	
	• Electrical conduit installation throughout the station continues.	Ongoing
• New janitor closets build out continues.	Ongoing	
• Installation of underground electrical ducts for new generator tap box is completed.	Completed	



# Project Title: Quincy Loop Station Upgrade



New Elevator Build Out



# Project Title: Quincy Loop Station Upgrade



New Elevator Metal Panel Installation



# Project Title: Quincy Loop Station Upgrade



New Exit Stair 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:	63%
Percent Change Orders to Construction Contract:	0%
Percent Time Used:	89%
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 : 3 <sup>rd</sup> Qtr. 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"> <li>• 50 maximum nightly single track occurrences.</li> <li>• 5 maximum weekend single track occurrences.</li> <li>• Partial platform closures.</li> </ul>
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.

<b>Comparable Projects:</b>
<ul style="list-style-type: none"> <li>• Quincy Loop Station Upgrade</li> <li>• YNB 5-Stations Project</li> </ul>



# Project Title: Illinois Medical District (IMD) Rehabilitation Project

## Construction Progress

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



# Project Title: Illinois Medical District (IMD) Rehabilitation Project



Exterior Façade Installations at Ogden Stationhouse



# Project Title: Illinois Medical District (IMD) Rehabilitation Project



New Stair Installation at Ogden Stationhouse