# **Construction Project Briefing**



August 10, 2022



#### **Todays Presentation**

- Jefferson Park to O'Hare Signals Project
- Irving Park Station Escalator and Canopy Replacement
- Traction Power Upgrades Kedvale, Edmunds, and Sacramento Substations
- Non-Revenue Maintenance
- Traction Power Upgrades Canal Tie House, Barry and Damen Substations
- <u>Refresh & Renew Program</u>
- <u>Red and Purple Modernization Project</u>



Impact on Customers:	There will be 11 weekend Line Cuts: $1 - 9$ Day Line Cut from O'Hare to Rosemont, 2 Weekend Line Cuts from Rosemont to Harlem, and 7 Line Cuts from Harlem to Jefferson Park and $1 -$ Weekend Line Cut from O'Hare to Rosemont. Bus shuttles will be provided for these line cuts. In addition, there are 90 nighttime single track outages that may affect customers.
Benefit to System:	This will be the last section of the Blue Line to receive upgraded signals and interlocking systems. When completed, these systems will assure consistent, safe and reliable train operations on the entire Blue Line for many years to come. The proposed new equipment will provide bi-directional railway traffic protection and maintain headways at 90 seconds at 35 mph nominal. The Project will be designed with infrastructure provisions for a future Communication Based Train Control (CBTC) system, such as ducts for serial fiber/ cables, ample spare room for hardware in each relay/ audio house and ideal locations for transponders, radio transmitters/ antennae and wayside zone controllers.
Benefit to Community:	Improved Reliability and Safety
Impact on Accessibility:	During the 11 weekend Line Cuts, train stations will be inaccessible.
Estimated # of Jobs Created:	106 Direct, 507 Indirect
Customer Communication Need:	Construction activity notices will be provided to inform customers that Line Cuts will impact their commute.

#### Comparable Projects:

- Ravenswood Loop Connector
- Congress Dearborn Jefferson Park to Forest Park Signal Replacement.

#### Project Title: Jefferson Park to O'Hare Signals Project

Justification of Need:	The existing 30-year-old signal system is approaching the end of its useful life increasingly difficult in as much as many components are now obsolete	
Priority of Project:	High	
Total Project Budget:	\$ 207M	
Construction Contract Value:	\$ 153,696,433.00	
Earned to Date:	88%	
Percent Change Orders to Construction Contract:	0	
Percent Time Used:	100%	
DBE:	Goal: 10% Design / 15% Construction Commitment: 10.1% Design / 15% Construction Workforce Goals: 10% WIOA / 10% Apprentice	Contract is on track to meet the DBE goal Outreach events conducted: 2 (CTA) 1 (KAJV)
Funding Source:	CTA Bonds, RTA Bonds, Federal Formula Funds, and Federal TIFIA loan	
Estimated Start Date/Estimated Length of Project:	NTP: May 21, 2018; Substantial Completion May 20, 2021	
Designer of Record:	KAJV – Mott McDonald	
Construction Manager/General Contractor:	STV/KAJV	

#### Detailed Overview of Scope:

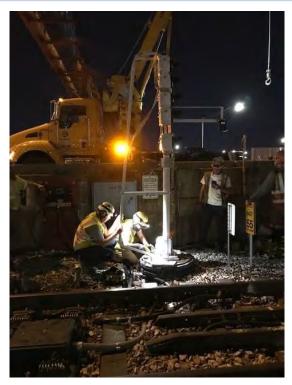
This is a design-build project that existing relay houses are going to be replaced with new relay houses on elevated or at grade platforms and existing relay rooms are proposed to be expanded/ refurbished and/or reconfigured to accommodate the new signal equipment. The existing relay houses/ rooms are located at the following locations: Jefferson Park, Central, Foster, Nagle, Harlem, Cumberland, River Road, Rosemont East, Rosemont Yard, Rosemont West, Old Manheim, O'Hare East and O'Hare West. Special trackwork improvements are at Central Interlocking.



#### **Construction Progress**

Phase	Description	Status
Construction	<ul> <li>Rosemont West Relay House cutover has completed.</li> <li>Rosemont East Phasing is underway</li> <li>Discrepancy Closure at previously cutover houses.</li> </ul>	Completed Ongoing Ongoing

# **Project Title:** Jefferson Park to O'Hare Signals Project



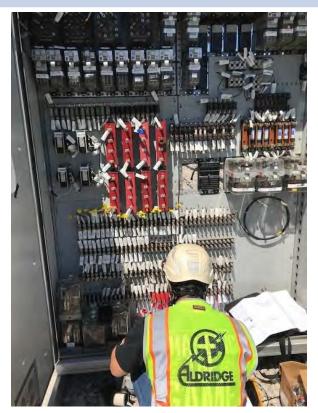
Signal Installation and Wiring at Rosemont East Interlocking

### **Project Title:** Jefferson Park to O'Hare Signals Project



Stop Machine Installation at Rosemont West Interlocking

### **Project Title:** Jefferson Park to O'Hare Signals Project



Checking Circuits at Rosemont East Interlocking

#### Project Title: Irving Park Station Escalator and Canopy Replacement

The existing escalator at the Irving Park station entrance has experienced excessive wear due to water and road salt infiltration. It has been determined the Irving Park escalator is approaching the end of its useful life and requires replacement. The escalator at the Pulaski entrance has reached its useful life and has been removed. The existing platform-level canopy which has been in place since the original construction of the station will be replaced with a new translucent polycarbonate system, this will mitigate water infiltration and better protect passengers and the replacement escalators. This work is required to return the station to a state of good repair.
Medium
\$12,025,856.00
\$ 7,497,000.00
77% (through June)
0
99%
Goal: 20% Commitment: 20% Contract is on track to meet the DBE goal Outreach events conducted: 7 Mid-Con events (CTA)
State of Illinois Transportation Program
NTP: March 22, 2021/ Estimated Duration 510 days /Substantial Completion August 2022
CTA Engineering
WSP / John Burns Construction

Detailed Overview of Scope: This is a design-Bid -Build project. The primary scope of work for this project includes:

· Furnishing and installing new Escalator at Pulaski Road stationhouse and Furnishing and installing new Escalator at Irving Park Road stationhouse

- Rebuilding escalator supports
- Furnishing and installing new translucent insulated single panel polycarbonate canopy system
- Providing new roofs at Irving Park and Pulaski station houses



Impact on Customers:	Temporary sidewalk, traffic lane, and parking lane closures during construction phasing. 2 Station entrance closures 150 days per entrance. Customers will use the Irving Park entrance while the Pulaski Entrance is closed and a temporary CA booth will be constructed and used during the closure of the Irving Park Entrance.
Benefit to System:	The Project will replace roofs at CTA stationhouses and rail platform canopy that are worn, damaged and beyond their useful life. This will improve safety for customers and employees.
Benefit to Community:	Improved customer safety by providing reliable vertical circulation to the Irving Park Platform. The new translucent canopy panels will provide weather tight protection of the customers as they enter and exit trains.
Impact on Accessibility:	During the 150-day station entrance closures escalators will be inaccessible.
Customer Communication Need:	72 Direct / TBD Indirect
Comparable Projects:	

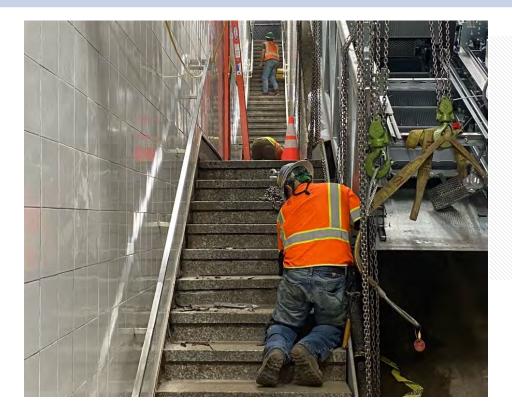
Jefferson Park



#### **Construction Progress**

Phase	Description	Status
Construction	Installation of Pulaski Escalator Truss.	Completed
	Installation of Pulaski Escalator electrical	On-going
	Complete installation of new station canopy.	On Going
	Pulaski Station Roofing (3-4 weeks).	Planned
Delay Explanation:		
N/A		

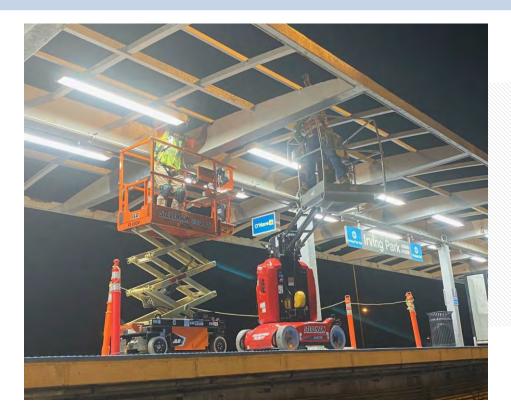




#### Pulaski Escalator

#### Installing truss sections at night

### Project Title: Irving Park Station Escalator and Canopy Replacement



Irving Park Canopy

Installing Canopy Purlins at night

Justification of Need:

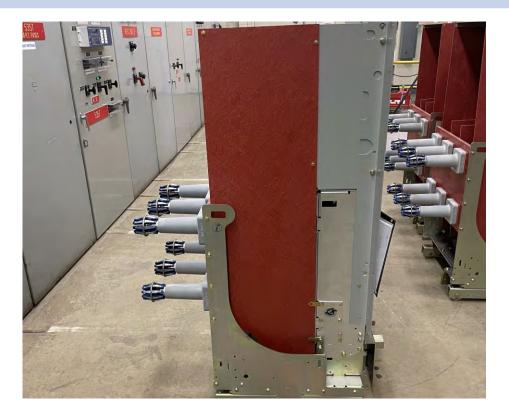
The CTA has identified additional traction power needs based on results from the Blue Line Load Flow study it was determined the existing equipment is beyond its useful life and needs to be replaced. The new equipment will increase reliability and reduce frequency of periodic maintenance. This project targets replacement of oil transformers and rectifiers at the Kedvale and Sacramento substations also AC breaker replacement at the Kedvale, Edmunds, and Sacramento substations. The Sacramento and Kedvale Substations will also receive new roofs with all three locations getting new stainless-steel doors with frames and incidental masonry repairs.

Priority of Project:	Medium
Total Project Budget:	\$12,029,342
Construction Contract Value:	\$7,372,000
Earned to Date:	57% (through June)
Percent Change Orders to Construction Contract:	0
Percent Time Used:	84%
DBE:	Goal: 25% Commitment: 25% Contract is on track to meet the DBE goal Outreach events conducted: 7 Mid-Con events (CTA)
Funding Source:	GTTLOC-2018 (Line of Credit)
Estimated Start Date/Estimated Length of Project:	NTP: May 4, 2021/ Estimated Duration 550 days /Substantial Completion November 5, 2022
Designer of Record:	СТА
Construction Manager/General Contractor:	WSP /John Burns Construction

Impact on Customers:	Temporary bus turnaround traffic lane, and parking lane closures during construction phasing, disposal and delivery of equipment.	
Benefit to System:	The new equipment will increase service reliability and reduce frequency of weekly maintenance of substation equipment.	
Benefit to Community:	Safer more reliable service and improved building envelope presence along the community's streetscape.	
Impact on Accessibility:	N/A	
Customer Communication Need:	Community announcements for temporary Bus turnaround closures during equipment removal and delivery to substations.	
Comparable Projects:		
Systemwide - Traction Power Upgrades		

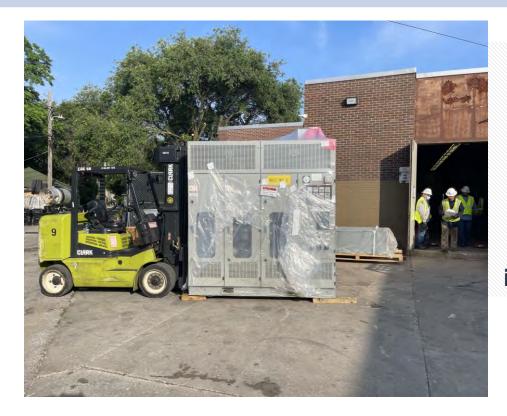
#### **Construction Progress**

Phase	Description	Status
Construction	<ul> <li>Install AC Breakers at Kedvale</li> <li>Kedvale Roofing</li> <li>Commission Three, New Line-Ups at Sacramento</li> <li>Sacramento Masonry</li> <li>Install Kedvale Stainless Steel Doors</li> </ul>	Completed Late July Complete early August Planned in August Planned in August



#### Kedvale Substation

#### New AC Breakers



Sacramento Substation – Rectifier #1

Brand New Equipment being moved into substation



## **Project Title:** Non-Revenue Rail Vehicle Facility

#### **Justification of Need:**

Priority of Project:	Medium
Total Project Budget:	\$65,902,503
Construction Contract Value:	\$42,676,222
Earned to Date:	22% (thru May 2022)
Percent Change Orders to Construction Contract:	0%
Percent Time Used:	48%
DBE:	Goal: 30% Design / 27% Construction Commitment: 30% Design / 27% Construction Workforce Goals: 10% Career Opportunity/ 10% Apprentice/ 35% EDA Outreach events conducted: 3 (CTA / Clark) Contract is on track to meet the DBE goal
Funding Source:	IDOT - Rebuild Illinois
Estimated Start Date/Estimated Length of Project:	NTP: 3/24/21 Project Duration 730 Days
Designer of Record:	STV Inc.
Construction Manager/General Contractor:	WSP/Clark Construction

**Detailed Overview of Scope**: Perform Design/Build Services to design and construct a new maintenance facility at the CTA's 63<sup>rd</sup> Lower Yard. This facility will be utilized to repair and maintain CTA's Non-Review Rail Mounted Equipment Fleet. This facility will include three maintenance and inspection tracks, a vehicle wash track with equipment, a paint booth, a welding room, a multipurpose lunchroom and classroom, locker and washroom facilities, supervision offices, and storage facilities.

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## **Project Title:** Non-Revenue Rail Vehicle Facility

Impact on Customers:	While no direct impact to rail service, this facility will allow CTA Rail Maint maintain the CTA's non-revenue fleet. This will result in equipment be order and ready to perform necessary repairs and upkeep to the CTA sy CTA to maintain reliable service to our customers.	ing in good working
Benefit to System:	The ability to effectively and efficiently maintain the CTA's non-revenue equipment being in good working order and ready to perform necessary to the CTA system.	
Benefit to Community:	This facility will be design to compliment the surrounding neighborhood from an aesthetic perspective. It will also bring additional activity to the immediate neighborhood.	
Impact on Accessibility:	The building will obtain City of Chicago Building permits, which included accessibility reviews.	
Customer Communication Need:	Customer impact will be minimal. Community outreach efforts are ongoing with local elected official and the neighboring school to discuss and minimize impacts during construction. Communications will continue with the surrounding residences and business regarding any upcoming impacts to the surrounding area during construction.	
Comparable Projects:		



#### **Construction Progress**

Phase	Description	Status
Construction	<ul> <li>Design Phase</li> <li>Design Validation</li> <li>Intermediate Design</li> <li>Permitting – Underground Package</li> <li>Permitting – Building Package</li> <li>Final Design</li> <li>Construction Phase</li> <li>Utility Exploration</li> <li>Underground Demolition Work</li> <li>Stormwater Retention System Installation</li> <li>Earthwork</li> <li>Foundation Work</li> <li>Exterior Wall and Roof Installation</li> <li>Inspection Pit &amp; Track Installation</li> <li>Electrical Work</li> <li>Plumbing Work</li> </ul>	Complete Complete In progress In progress In progress In Progress In Progress In Progress In Progress Upcoming Upcoming Upcoming Upcoming

**Delay Explanation:** 

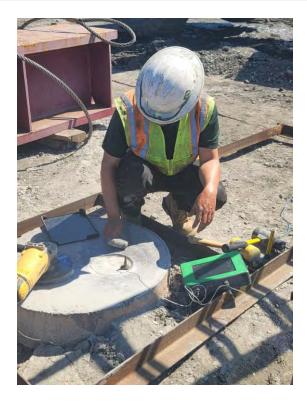
## **cta Project Title:** Non-Revenue Rail Vehicle Facility



#### **Pile Pressure Testing Setup**



## **Project Title:** Non-Revenue Rail Vehicle Facility







**Pile Drilling Rig** 



## Project Title: Non-Revenue Rail Vehicle Facility



Installing 84" CMP Stormwater Pipe



# Trench Support for the Pipe Installation

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### Project Title: Traction Power Upgrades – Canal Tie House, Barry and Damen Substations

#### Justification of Need:

The CTA has identified additional traction power demands based on results from the Blue Line Load Flow study and determined that three (3) areas along the blue line O'Hare branch and Dearborn subway may experience problems with running the new fleet at the service levels proposed. To continue providing a reliable and safe service, it is necessary to build two (2) new traction power substations, one at Barry and the other at Damen with all their infrastructure support along with installing a new Tie Breaker house in the Dearborn subway. Also, the project includes the replacement of all traction power equipment at the Haymarket substation.

Priority of Project:	High
Total Project Budget:	\$113 Million
Construction Contract Value:	\$58 Million
Earned to Date:	9% (As of June 2022)
Percent Change Orders to Construction Contract:	0
Percent Time Used:	26% (As of June 2022)
DBE:	Goal: 25% Commitment: 25.71% Workforce Goals: 10% Career Opportunity/ 8% Apprentice/ 25% EDA Contract is on track to meet the DBE goal
Funding Source:	CTA Bonds / Rebuild Illinois
Estimated Start Date/Estimated Length of Project:	NTP: 10.20.21 Estimated Duration 900 days /Substantial Completion April 04, 2024
Designer of Record:	TYLin
Construction Manager/General Contractor:	WSP / John Burns Construction

### Project Title: Traction Power Upgrades – Canal Tie House, Barry and Damen Substations

Comparable Projects:		
Customer Communication Need:	Construction Activity Notices.	
Impact on Accessibility:	N/A.	
Benefit to Community:	New buildings will enhance and will blend with the surrounding community and will benefit transit riders in the Blue Line with a safer and more reliable service.	
Benefit to System:	The new traction power substation will increase service reliability to the Blue Line.	
Impact on Customers:	Minor service disruptions during track access occurrences.	

East Lake, Milwaukee & Illinois (ELMI) and Broadway substations

### Project Title: Traction Power Upgrades – Canal Tie House, Barry and Damen Substations

#### **Construction Progress**

Phase	Description	Status	
Construction	<ul> <li>Milestone 3 - Completion requirements for traction power equipment – Final equipment coordination for Authority approval.</li> </ul>	Ongoing	
	<ul> <li>Obtaining Building permits for Barry, Damen, and Haymarket</li> </ul>	Ongoing	
	Mobilized to the Damen site and installed construction site perimeter fencing	Completed	
	Began site demolition at Damen	Ongoing	
	Damen substation foundations	Planned	
	Mobilize to Barry to install a construction perimeter fencing and start performing site demolition	Ongoing	
	ComEd temporary power installation at Damen and demolition of existing power pole	Completed	

# **Cta** Project Title: Traction Power Upgrades – Canal Tie House, Barry and Damen Substations



#### **Pavement Removal at Damen**

#### Project Title: Traction Power Upgrades – Canal Tie House, Barry and Damen Substations

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#### **Barry Site Fencing Installation**



Justification of Need:	The Refreshed & Renewed Program is a CTA Facilities Maintenance implemented plan to promote safety, security and longevity to all CTA Facilities including, but not limited to: Rail Stations and Platforms, Bus Garages and Rail Shops across the system. The Refreshed & Renewed Program performs major improvement work at these transit operations facilities for both the customer and the internal needs of the Authority.
Priority of Project:	Medium
Total Project Budget:	\$25,000,000
Expended to Date:	\$ 4,082,205.45
Used last Month:	\$ 605,531.78
Funding Source:	Various
Estimated Start Date/Estimated Length of Project:	January 2021 to December 31, 2022
Contractor	CTA Forces , Mack Construction Services, LLC & Galaxy Environmental Inc.
4	

92 Rail stations will receive lighting upgrades, painting and deep cleaning as part of this program.

#### 28 stations will have a detailed Scope of work which includes:

- · Maintaining Cleanliness throughout public, as well as back-of-house areas
- Ensuring stations are graffiti free;
- Re-painting painted surfaces;
- Maintaining pathways of ingress and egress are clear of obstruction;
- LED lighting conversions and component;
- Removing obstructions from windows and store front systems that may impede natural light and safe viewing points.
- Address and repair any unsafe defects such as spalling concrete and rotted wooden platforms;
- Replacing outdated and damaged signage;
- Maintaining a warm/cool working environment.



Impact on Customers: (Slow zones, single tracks, reroutes, weekends, etc.)	No track access occurrences within the scheduled work of the Refreshed & Renewed program will affect customers. Minimal impacts to customers will be work-arounds at any given station/ facility that may affect customers, or employees, for a relatively short amount of time (Typically less than 1 day.)	
Benefit to System:	The Refreshed & Renewed Program is implemented to promote the continued safety, security and longevity of all CTA Facilities including, not limited to: Rail Stations and Platforms, Bus Garages and Rail Shops across the system.	
Benefit to Community:	Improved overall lighting and wayfinding signage, newly painted & refreshed stations, safety, cleanliness and appearance. Focus on the Customer experience, both Internal and external.	
Comparable Projects:		
<ul><li>Station Renewal</li><li>Logan Square Station Renew</li></ul>	al	

Department	Description	Status
Facility Maintenance	Rail Stations Full Program Scope 28 Stations (10 of 28 Completed)         • Morgan/Green         • California/Green         • Harlem/Blue-O'Hare         • Fullerton/Red         • Library         • California/ Pink         Painting and Lightning Only Improvements 92 Stations Con't (88 of 92 Completed)         • HW Library / Loop (Painting) SBE         • Kedzie / Green (Painting) SBE         • Clinton/ Green (Painting) SBE         • Clinton/ Green (Painting) SBE         • Harlem/ Blue O'Hare (Painting) SBE         • Rosemont/ Blue (Painting) SBE         • State & Lake         • Washington/ Wells         • Main/ Purple         • California / Blue         • Forest Park/ Blue         • Dempster/ Purple (Painting) SBE         • Foster/ Purple (Painting) SBE	Completed In-Progress Scheduled Scheduled Scheduled Completed Completed Completed Completed Completed Completed Completed Completed Completed Completed Scheduled

**Delay Explanation:** 

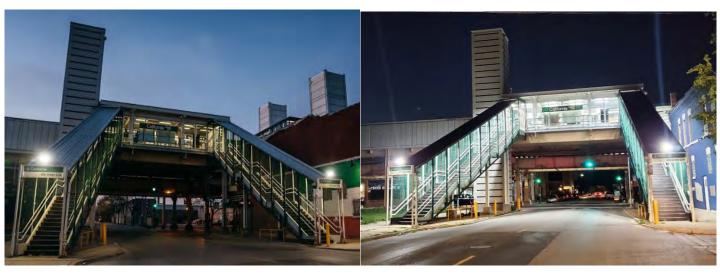
N/A

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#### Before





#### California/ Green Line – LED Lighting Replacement





After

#### Before



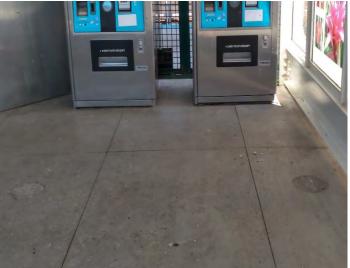
California/ Green Line – LED Lighting Replacement



#### Before



After



California/ Green- Power washing of floors



**Before** 





After



Morgan/Green - Water damage & mitigation. Removal of ceiling and installation of new gutters. Ceiling to be replaced





# UIC/Halsted- Install high barrier fencing on existing railing for safety.



**Before** 



After

#### **UIC/Halsted - LED conversion throughout**



Justification of Need:	The RPM Phase One Project is greatly needed in order to expand capacity on CTA's most utilized rail line and to replace aging infrastructure.	
Priority of Project:	High	
Total Project Budget:	\$ 2.1 Billion (excludes Transit TIF interest payments)	
Construction Contract Value:	Original - \$1,272,275,929    Current - \$1,268,818,121	
Earned to Date:	53%	
Percent Change Orders to Construction Contract:	-0.27%	
Percent Time Used:	62%	
DBE:	Design: Goal: 20% / Commitment: 20.64% Construction Goal: 20% / Commitment: 20% Workforce Goals: 10% WIOA / 15% Apprentice / 35% EDA	Contractor is on track to meet the DBE goal
Funding Source:	CTA Financing, FTA Core Capacity Grant, CMAQ, TIFs	
NTP / Construction Start / Estimated Completion:	February 8, 2019 / October 2019 / 2025	
Design-Build Contractor:	Walsh-Flour Design-Build Team	
Owners Representative:	Elevated Solutions Partners	

Detailed Overview of Scope: RPM Phase One consists of the following elements that will allow CTA to expand service along the Red and Purple lines:

 Lawrence to Bryn Mawr Modernization (LBMM) – complete reconstruction and addition of ADA accessibility at four Red Line stations (Lawrence, Argyle, Berwyn, and Bryn Mawr) and reconstruction of 6 miles of track, structures, and viaducts from Leland Ave. to Ardmore Ave.

Red-Purple Bypass (RPB) - Construction of a grade-separated bypass for the Brown Line at Clark Junction, just north of Belmont Ave. Includes realignment and
reconstruction of 1.4 miles of mainline tracks and structure between Belmont station and south of Cornelia Ave.

Corridor Signal Improvements (CSI) – Installation of new higher-capacity signal system on 23 miles of track between Belmont and Howard stations.



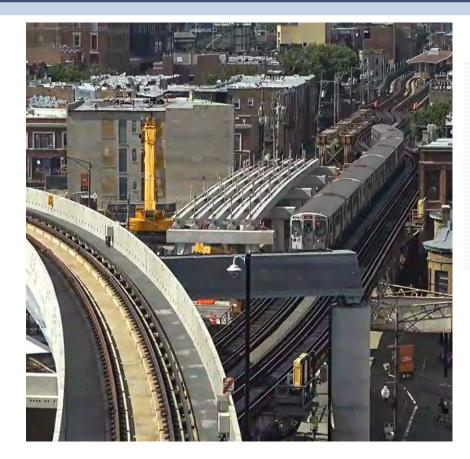
Phase	Description	Status
Phase Administrative / Design: Construction:	<ul> <li>Description</li> <li>Continued submittal/revisions of required management plans</li> <li>Continued Design Development in support of Red-Purple Bypass, Lawrence to Bryn Mawr Modernization, and Corridor Signal Improvements</li> <li>Pre-Stage Work <ul> <li>Punchlist work</li> <li>Red-Purple Bypass (RPB).</li> <li>Ravenswood structure rehabilitation</li> <li>Kenmore Relay House Platform electrical Installation, cable and distribution equipment installation</li> <li>Drilled Shaft Installation</li> <li>Construction of concrete columns and caps</li> <li>Pre-cast beam installation</li> </ul> </li> <li>Corridor Signal Improvements (CSI) <ul> <li>Installation of brackets, cables, and signal equipment for Kenmore Interlocking</li> <li>Installation of wayside signal equipment at the Kenmore Interlocking area</li> <li>Installed fiber slack enclosures and innerduct for upcoming signal and communications fiber optic cable installations</li> </ul> </li> </ul>	Status Ongoing
Delay Explanation:	<ul> <li>Lawrence to Bryn Mawr Modernization         <ul> <li>Continued production of Pre-cast Box Girder Segments</li> <li>Drilled Shaft Installation</li> <li>Construction of concrete columns and caps</li> <li>Segmental Box Girder installation</li> <li>Embankment drainage installation</li> <li>Montrose Abatement and Painting</li> <li>Embankment Wall Repairs</li> <li>Continued foundations for Bryn Mawr Temp Station (Stage B)</li> </ul> </li> </ul>	On Hold Ongoing Ongoing On Hold Ongoing On Hold Ongoing





#### RPB – Drilled Shaft Installation





#### RPB – Pre-cast Beam Installation

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#### **Project Title:** RPM Phase One – Design-Build Contract



#### LBMM – Segmental Box Girder Installation





#### LBMM – Track/Plinth Installation

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	Outreach type	Major Activities	Timing
Community	"Enjoy Local" Facebook Live features Edgewater Mexican Café	<ul> <li>Weekly Red-Purple Bypass Project updates for 44<sup>th</sup> ward</li> <li>Lawrence to Bryn Mawr project updates for 48<sup>th</sup> ward</li> <li>RPM "Open for Business" program launches "Enjoy Local" Facebook Live promo for small businesses, featuring the Edgewater Mexican Café</li> <li>Launch of RPM "Open for Business" ambassador program to personally engage with businesses on the project</li> <li>Launch of the summer's RPM "Street Team Community Outreach" program</li> <li>Edgewater Monday Market</li> <li>Co-host of new Bryn Mawrkets street festival</li> </ul>	Weekly Bi-weekly June 22 July 13 July 15 July 18 July 22
Workforce & SBE/DBE	ORDANIZED My 25, 1880	<ul> <li>Monthly DBE/Workforce Outreach &amp; Compliance Meeting</li> <li>Construction Talks with Sheet Metal Works 73</li> <li>DBE and Workforce Numbers as of 8/1/2022</li> <li>Dollars Awarded To Date: \$228,137,226 <ul> <li>Unique DBE Firms To Date: 84</li> <li>Unique Firms New to CTA: 32</li> </ul> </li> <li>Total Labor Hours Produced:823,962</li> <li>Total Dollars Earned: \$47,118,727</li> <li>Jobs created to date (construction trade labor on the design-build team): 1,554 individuals</li> </ul>	Ongoing July 18

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#### Project Title: RPM Phase One - Design-Build Contract

#### New Open for Business collateral materials







#### New "Enjoy Local" promo campaign



