



Construction Project Briefing



September 11, 2024



Today's Presentation

- Traction Power Upgrades - Canal Tie House, Barry and Damen Substations
- Western Brown line Station Improvements
- O'Hare Line – Harlem Station Bus Bridge Improvements
- Racine Station ADA & Traction Power Improvement Project
- Refresh & Renew Project
- Red and Purple Modernization Project



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

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.

Justification of Need:

Priority of Project:	High
Total Project Budget:	\$122.8 Million
Construction Contract Value:	\$67.9 Million
Earned to Date:	83% (As of July 2024)
Percent Change Orders to Construction Contract:	16.7%
Percent Time Used:	100% (As of July 2024)
DBE:	Goal: 25% Commitment: 25.3% 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: October 20, 2021, Estimated Duration 1020 days/Substantial Completion August 5, 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

Impact on Customers:	Minor service disruptions during track access occurrences.
Benefit to System:	The new Traction Power Substation will increase service reliability to the Blue Line.
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.
Impact on Accessibility:	N/A
Customer Communication Need:	Construction Activity Notices.

Comparable Projects:

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
Haymarket Substation	<ul style="list-style-type: none">• Equipment testing and commissioning• Parking Lot Restoration	Ongoing Ongoing
Canal Tie-House	<ul style="list-style-type: none">• Commission Tie-House• Interior Tie-House Build-Out• Cable connections to Tie-House	Ongoing Ongoing Ongoing
Damen Substation	<ul style="list-style-type: none">▪ Installation of Traction Power Equipment• Equipment Testing and Commissioning• Build building interior, flooring, rooms and finishes	Ongoing Upcoming Ongoing
Barry Substation	<ul style="list-style-type: none">• Installing substation electrical equipment.• Build exterior walls and roof.• Build building interior, flooring, rooms and finishes	Ongoing Ongoing Upcoming
Belmont Crossover	<ul style="list-style-type: none">• Punchlist work.	Ongoing



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



Traction Power Equipment Installation at Damen



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



Ductbank Installation at Barry



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



Sub-Vault Floor Demolition at Barry



Project Title: Western Brown Line Station Improvements

Justification of Need:

Improvements to Ravenswood Western Station are necessary to bring the station into compliance with current provisions of the Americans with Disabilities Act (ADA), adapt to redeveloped adjacent storefronts, improve security, and extend the useful life of the station through replacement of deteriorated site, building, and platform components. This project is being delivered by a progressive design build delivery method, which is advantageous for both schedule and the design to budget requirement.

Priority of Project:	Medium
Total Project Budget:	\$30.0 M
Construction Contract Value:	\$19.0 M
Earned to Date:	\$2.1 M
Percent Change Orders to Construction Contract:	0
Percent Time Used:	60%
DBE:	DBE goal: 30%. DBE Firms: American Survey & Engineering, PC, Facet Engineering, GSG Consultants. Inc., Quigg Engineering.
Funding Sources:	Chicago Tax Increment Funding, Federal 2022, Federal 2023, CTA bonds
Estimated Start Date/Estimated Length of Project:	GC NTP1: May 11, 2023; NTP2: 8/6/24. Substantial Completion: January 13, 2026 (NTP2 + 525 days)
Designer of Record:	CDM Smith
Construction Manager/General Contractor:	CM: AECOM. GC: FH Paschen.



Project Title: Western Brown Line Station Improvements

Impact on Customers:	CTA customers may be redirected to station entrances and have reduced walkways, temporary bus reroutes, platform closures or back rides, street impacts at Western and Lincoln.
Benefit to System:	State of good repair improvements to the building envelope, platform guardrails and canopy, and interior finishes. New Customer Assistant booth, reconstructed operator bathroom facility.
Benefit to Community:	Increased Station accessibility, Improved safety through renovated sidewalks, walkway pavements, lighting, cameras, and signage
Impact on Accessibility:	New ADA-compliant curbs, bus turnaround islands, replacement of elevator cabs and sidewalks for improved accessibility.
Customer Communication Need:	Construction Activity Notices, coordination with Alderman, press releases.

Comparable Projects:

Quincy Loop Station Upgrade



Project Title: Western Brown Line Station Improvements



Insulating Traction Power Cables Ahead of Painting



Project Title: Western Brown Line Station Improvements



Painters preparing steel over Western Avenue



Project Title: Western Brown Line Station Improvements



Painters Applying Prime Coat over Lincoln Avenue



Project Title: Western Brown Line Station Improvements



Environmental Mitigation on Roof of Station House

cta Project Title: Western Brown Line Station Improvements



**Project
Renderings**

Project Title: Western Brown Line Station Improvements



Project Renderings



Project Title: O’Hare Line – Harlem Station Bus Bridge Reconstruction

Justification of Need: The condition of the Harlem Station bus bridge was initially identified as an infrastructure need in 2013. At that time, CTA noted significant deterioration to the concrete deck, concrete piers, and structural steel support elements due to salt corrosion and water infiltration. More recently, critical defects caused by concrete deck expansion joint failure have been identified in the south pier. The bridge needs to be replaced before it becomes a safety hazard and has to be taken out of service.

Priority of Project:	Medium
Total Project Budget:	\$34.5 M
Construction Contract Value:	\$19.6 M
Earned to Date:	\$5.4 M
Percent Change Orders to Construction Contract:	0
Percent Time Used:	68%
DBE:	DBE goal: 25%. DBE Firms: MW Powell, Highway Safety Corp., Argo Construction LLC, Vision Painting, Alpine Demolition, W.E.B. Production & Fabricating, AC Iron LLC, S & J Construction, Livewire Electrical Systems.
Funding Sources:	Rebuild Illinois, Federal 2020, Federal 2016, Surface Transportation Program (CMAP)s
Estimated Start Date/Estimated Length of Project:	GC NTP: September 5, 2023. Substantial Completion: March 8, 2025 (NTP + 550 days)
Designer of Record:	HNTB
Construction Manager/General Contractor:	CM: TranSystems/TY Lin JV. GC: John Burns Construction Company.



Project Title: O'Hare Line – Harlem Station Bus Bridge Reconstruction

Impact on Customers:	Minor changes in bus service and Park & Ride access for those who use the Harlem Blue Line Station on the O'Hare Branch. Rail service will not be impacted.
Benefit to System:	New bridge superstructure and interface between bridge and station, new concrete approaches, bridge deck, ADA-compliant curbs and sidewalks, new canopy on bridge. New bus operator bathroom facility, painting, improved drainage.
Benefit to Community:	Replacement of the bridge before it becomes unsafe will help ensure continuity of service on bus routes out of the O'Hare Line Harlem Station.
Impact on Accessibility:	New ADA-compliant curbs and sidewalks for improved accessibility.
Customer Communication Need:	Construction Activity Notices, coordination with Alderman, press releases.

Comparable Projects:

Montrose Bridge Replacement (IDOT).



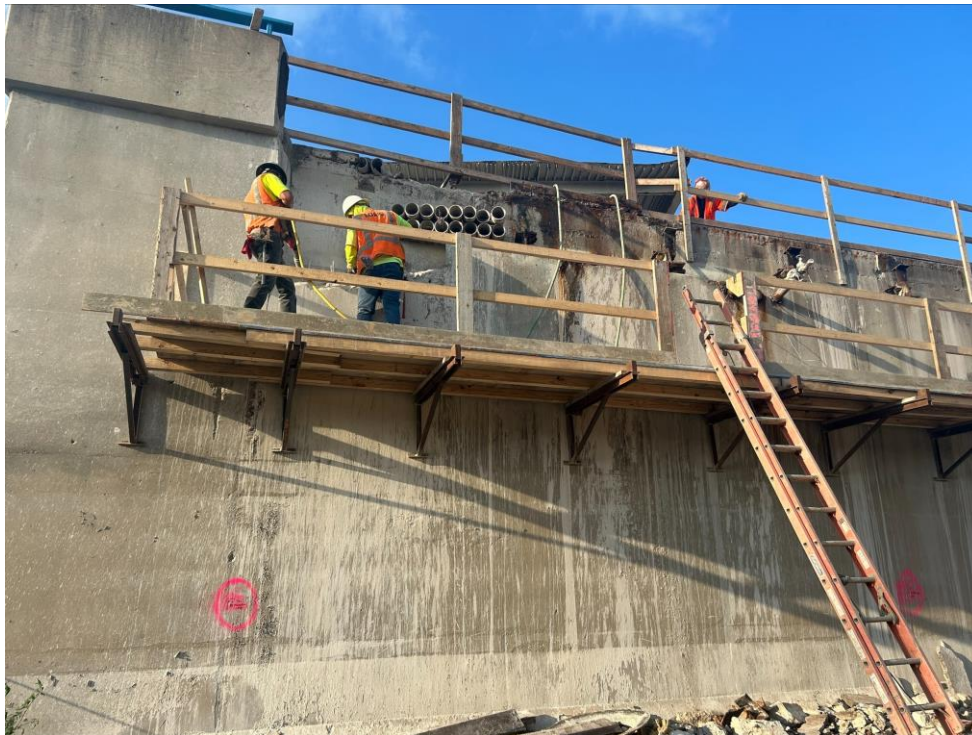
Project Title: O'Hare Line – Harlem Station Bus Bridge Reconstruction



Aerial View of Bus Bridge Steel



Project Title: O'Hare Line – Harlem Station Bus Bridge Reconstruction



Reconstruction of Bus Bridge South Abutment Wall



Project Title: O'Hare Line – Harlem Station Bus Bridge Reconstruction



Demolition South Approach Slab Near Bus Canopy



Project Title: Racine Station ADA & Traction Power Improvement Project

Justification of Need:

The existing Racine station is not accessible, and the ADA Improvements will add an elevator, and provide an ADA compliant ramp with adequate clearances for wheelchairs and mobility devices. In addition, to accommodate growth in ridership and maintain reliable service, the CTA procured newer generations of rail car fleets, which required traction power improvements consisting of constructing a new Morgan substation as well as upgrading existing traction power equipment within the Hermitage substation to meet higher power demands on the Forest Park branch of the Blueline.

Priority of Project:	High
Total Project Budget:	\$106,217,468
Construction Contract Value:	\$75,400,000
Earned to Date:	32% (thru July 2024)
Percent Change Orders to Construction Contract:	0%
Percent Time Used:	48% (thru July 2024)
DBE:	Goal: 25% Commitment: 25% Workforce Goals: 10% Career Opportunity, 15% Apprentice, 25% EDA The contract is on track to meet the DBE goal
Funding Source:	IDOT - Rebuild Illinois
Estimated Start Date/Estimated Length of Project:	NTP: 5/12/2023, Project Duration: 925 days (NTP through Substantial Completion)
Designer of Record:	HNTB
Construction Manager/General Contractor:	Congress Corridor Partners, a JV between (WSP/Ardmore) / F.H. Paschen, S.N. Nielsen & Associates



Project Title: Racine Station ADA & Traction Power Improvement Project

Impact on Customers:	<ul style="list-style-type: none">• Minor service disruptions during 54hr weekend TAOs.• No rail service between IMD and UIC-Halsted stations during weekend linecuts.• The Racine station will be OOS during the weekend linecuts.• No access to Racine stationhouse from Racine street until completely rebuild, the Loomis stationhouse will remain in service during this time.• Local bus shuttles will be provided during weekend linecuts.
Benefit to System:	<ul style="list-style-type: none">• The project will make the Racine station fully accessible.• The project will add more power to boost reliability and meet service demands.• The project will reduce the Racine station and Hermitage substation maintenance needs.
Benefit to Community:	<ul style="list-style-type: none">• When completed, the project is expected to accommodate all the accessibility needs for riders traveling through the Racine station utilizing various mobility devices.
Impact on Accessibility:	<ul style="list-style-type: none">• YES
Customer Communication Need:	<ul style="list-style-type: none">• GCR outreach with surrounding stakeholders.• Construction activity notices will be distributed as needed.• Advanced service disruption signs and posters will be installed as needed.

Comparable Projects:

The Illinois Medical District (IMD) Station Improvements



Project Title: Racine Station ADA & Traction Power Improvement Project

Construction Progress

Phase	Description	Status
Construction	<p>Racine Stationhouse Entrance:</p> <ul style="list-style-type: none"> • Structure & shell • Main stairs and elevator • Bridge level interiors • Electrical and mechanical rooms • Electrical and sanitary underground services <p>Racine Platform New Concourse Extension:</p> <ul style="list-style-type: none"> • Structure & shell • MEP and communication systems <p>Racine Platform and Canopy:</p> <ul style="list-style-type: none"> • Canopy demolition and restoration • MEP and communication systems <p>Loomis Stationhouse Entrance:</p> <ul style="list-style-type: none"> • Demolition of existing stationhouse, ramp and columns • Structure & Shell • Bridge Level Interiors • Electrical and Mechanical Rooms • Electrical and Sanitary Underground Services <p>Loomis New ADA Ramp:</p> <ul style="list-style-type: none"> • Installation of new ADA ramp and columns • Installation of new ramp roofing system and MEP <p>Morgan Substation:</p> <ul style="list-style-type: none"> • Structure & shell • Bridge level interiors • Electrical and sanitary underground services • Traction power equipment delivery, installation, testing and commissioning <p>Hermitage Substation:</p> <ul style="list-style-type: none"> • Removal of existing traction power equipment • Traction power equipment delivery, installation, testing and commissioning 	<p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p> <p>Planned</p> <p>Planned</p> <p>Ongoing</p> <p>Planned</p> <p>Ongoing</p> <p>Planned</p> <p>Planned</p> <p>Planned</p> <p>Planned</p> <p>Planned</p> <p>Planned</p> <p>Planned</p> <p>Ongoing</p> <p>Ongoing</p> <p>Planned</p> <p>Planned</p> <p>Planned</p> <p>Planned</p>

Delay Explanation:

N/A



Project Title: Racine Station ADA & Traction Power Improvement Project

8/21/24 2:26 PM
41.87599275554692N 87.65713720817976W
Chicago



Racine Stationhouse North CMU Wall



Project Title: Racine Station ADA & Traction Power Improvement Project

8/21/24 2:16 PM
41.875864724110144N 87.65725834559619W
Chicago



Racine Stationhouse Interior Elevator Core Walls



Project Title: Racine Station ADA & Traction Power Improvement Project



Racine Stationhouse Steel Beams Roofing



Project Title: Racine Station ADA & Traction Power Improvement Project



Racine Stationhouse Stairway Steel Detailing



Project Title: Racine Station ADA & Traction Power Improvement Project

July 30, 2024 at 10:00:21 AM
N 41° 52' 33", W 87° 39' 7"
220° SW
Chicago, IL 60607
#Racine ADA

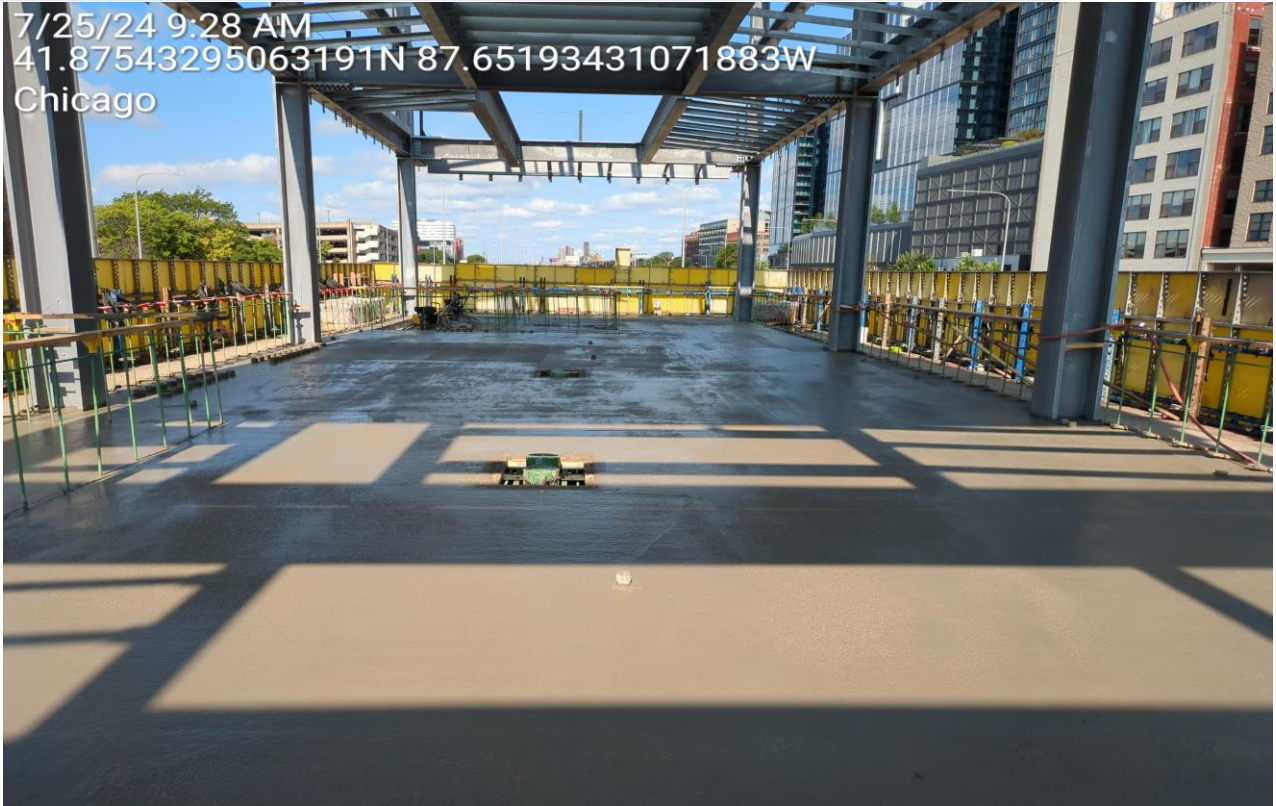


Morgan Substation Installing Roofing Panels



Project Title: Racine Station ADA & Traction Power Improvement Project

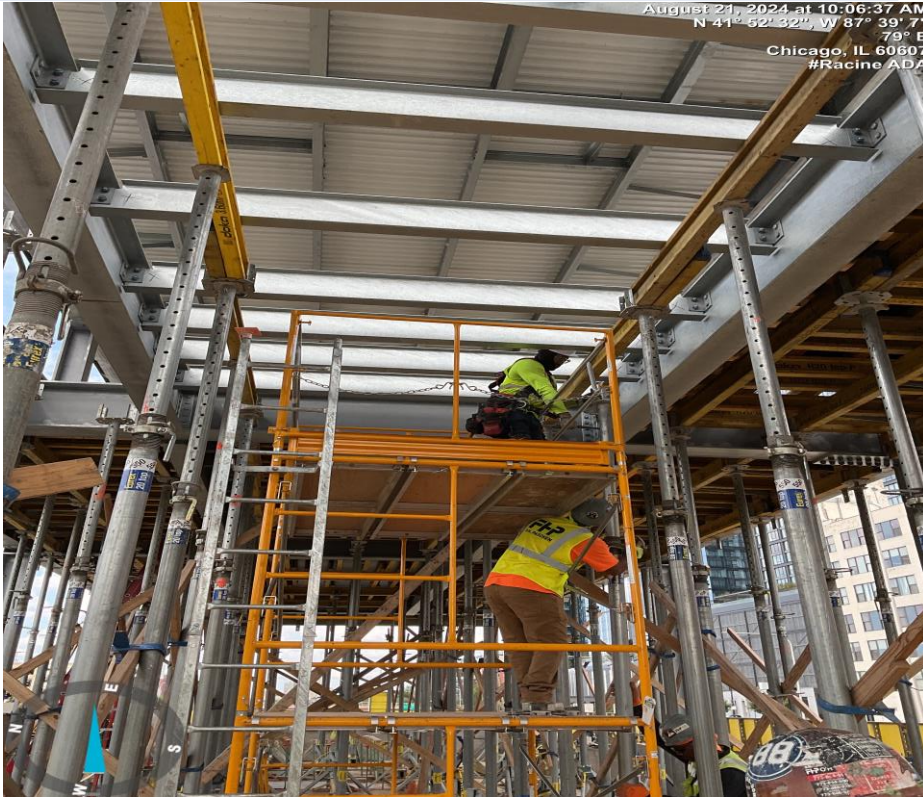
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41.87543295063191N 87.65193431071883W
Chicago



Morgan Substation Bridge Level Concrete Floor



Project Title: Racine Station ADA & Traction Power Improvement Project



Morgan Substation Interior Shoring for 2nd Level



Project Title: Refreshed & Renewed

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.

Justification of Need:

Priority of Project:	Medium
Total Project Budget:	\$6,500,000
Expended to Date:	\$1,692,323
Used last Month:	\$32,721
Funding Source:	Various
Estimated Start Date/Estimated Length of Project:	January 2021 to December 31, 2024
Contractor	CTA Forces

29 Rail Stations and 14 Bus-turn-arounds will receive lighting upgrades, painting and deep cleaning as part of this program for the current year.

29 Stations and 14 Bus-turn-arounds 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.



Project Title: Refresh & Renew

Department	Description	Status
Facility Maintenance	<p><u>Rail Stations Full Program Scope 29 Stations (17 of 29 Completed)</u></p> <ul style="list-style-type: none">• O'Hare/Blue• Clark/Lake-Loop• Oak Park-Blue (Congress)• Cicero-Pink• Kedzie-Pink• Ridgeland-Green <p><u>Bus Turnaround Full Program (9 of 14 Completed)</u></p> <ul style="list-style-type: none">• Grand/Streeter (Navy Pier)• 47th/Lake Park• Austin/Jackson• Division/Austin• Grand/Latrobe	<p>Completed Completed In-Progress In-Progress Scheduled Scheduled</p> <p>Completed In Progress Scheduled Scheduled Scheduled</p>

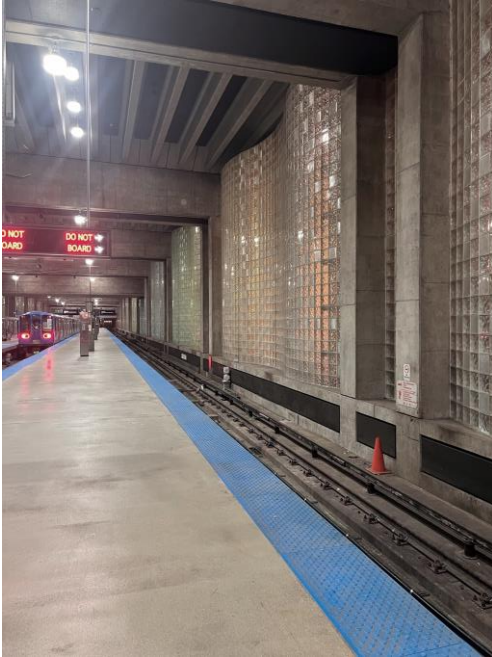
Delay Explanation:

N/A

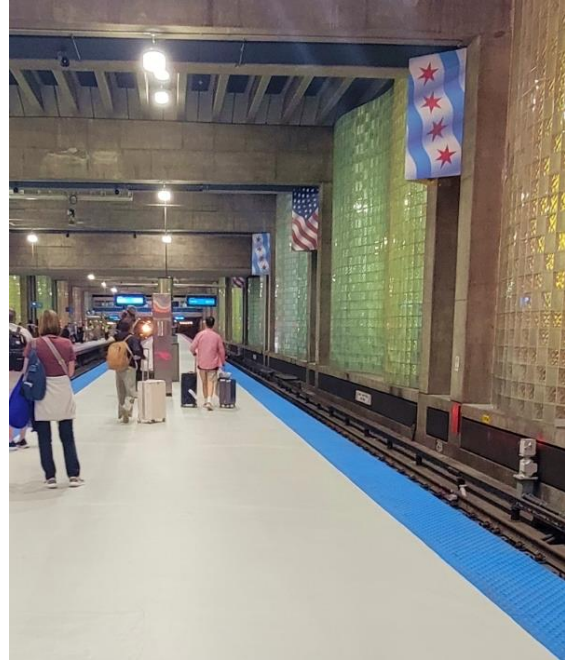


Project Title: Refresh & Renew

Before



After



O'Hare/Blue – New epoxy platform, Upgraded color wall lighting and new signage



Project Title: Refresh & Renew

Before



After



O'Hare/Blue – LED lighting upgrades



Project Title: Refresh & Renew

Before



After



**Bus Turn Around @ Navy Pier – LED lighting upgrades,
Painting, Masonry repairs**



Project Title: Refresh & Renew

Before



After

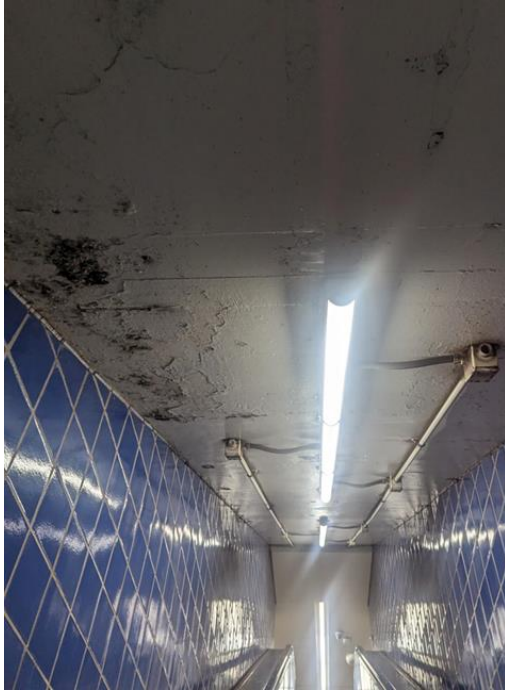


Bus Turn Around @ Navy Pier – Painting & Striping

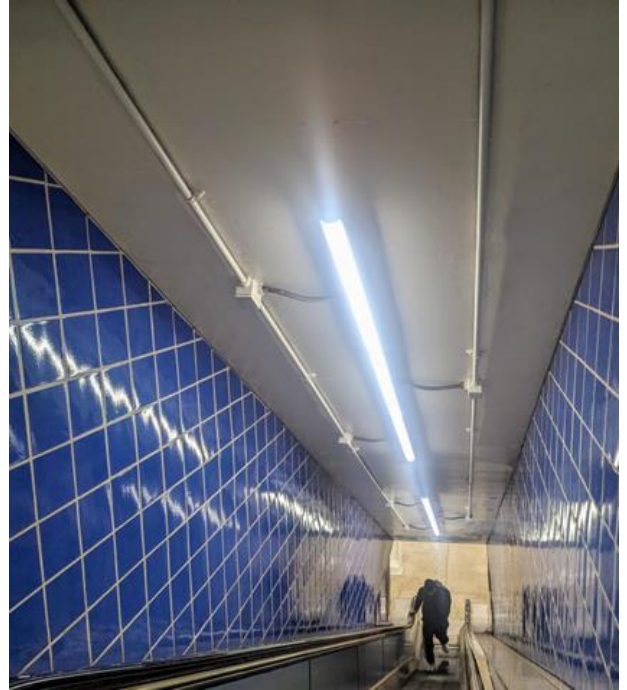


Project Title: Refresh & Renew

Before



After



Chicago/Blue – Painting & Ceiling repairs



Project Title: RPM Phase One – Design-Build Contract

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 - \$1,383,992,301	
Earned to Date:	79.7%	
Percent Change Orders to Construction Contract:	8.8%	
Percent Time Used:	82.7%	
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-Fluor 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:	
	<ul style="list-style-type: none"> • 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. 	

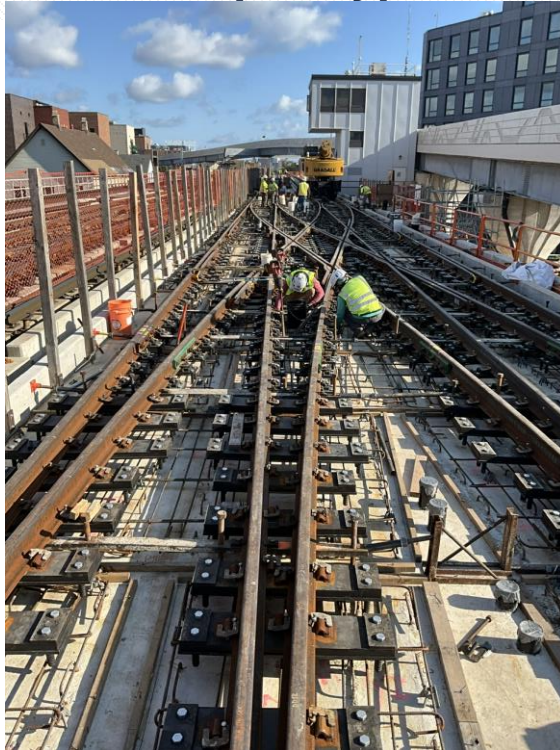


Project Title: RPM Phase One – Design-Build Contract

Phase	Description	Status
Administrative / Design:	<ul style="list-style-type: none"> ▪ Continued submittal/revisions of required management plans ▪ Continued Design Development in support of Red-Purple Bypass, Lawrence to Bryn Mawr Modernization, and Corridor Signal Improvements 	<p>Ongoing Ongoing</p>
Construction:	<ul style="list-style-type: none"> ▪ Red-Purple Bypass (RPB) <ul style="list-style-type: none"> – Civil At-Grade Improvements – drainage installation – Construction and concrete placement for the Stage 3 NM substructure – North Mainline Stage 3 track work and plinth installation – Ravenswood Stage 3 track work – Preparation for upcoming traction power cable installations ▪ Lawrence to Bryn Mawr Modernization <ul style="list-style-type: none"> – Concrete substructure work – Segmental erection – Retaining wall repairs – Utility, drainage work and street and alley restoration – Bryn Mawr and Hollywood Aux Station <ul style="list-style-type: none"> – Foundation work and steel erection - platform, canopy, elevator and escalator – Pre-cast concrete platform installation – Berwyn Station <ul style="list-style-type: none"> – Foundation work and steel erection – platform, canopy and elevator – Escalator installation – Argyle Station <ul style="list-style-type: none"> – Foundation work and steel erection – platform, canopy and elevator – Lawrence Station <ul style="list-style-type: none"> – Foundation work and steel erection – platform, canopy and elevator – Trackwork – plinths – Electrical infrastructure installation below permanent station platforms and in stationhouse floor slabs and walls ▪ Corridor Signal Improvements (CSI) <ul style="list-style-type: none"> – RPB Stage 2 systems punchlist activities – Continued signal testing and monitoring at Clark, Kenmore, Barry and Lakewood-Seminary Relay Houses – Termination of signal cable and junction boxes along track 4 near Jarvis – Installation of signal cabling from Addison to Montrose – Installation of impedance bond brackets and cabling from Wilson to Sheridan – Preparations for upcoming signal and communications fiber optic cabling 	<p>Ongoing Ongoing</p> <p>Ongoing Complete Ongoing Ongoing Started</p> <p>Ongoing Ongoing Ongoing Ongoing</p> <p>Ongoing Started</p> <p>Ongoing Started</p> <p>Ongoing</p> <p>Ongoing Ongoing Ongoing</p> <p>Ongoing Ongoing Ongoing</p>



Red-Purple Bypass



**North Main Line
Cross Over Work**

Red-Purple Bypass



**Drainage
Structure
Installation**



Lawrence to Bryn Mawr Modernization



**Bryn Mawr Station
Pre-cast Platform
Installation Prep**



Lawrence to Bryn Mawr Modernization



Bryn Mawr Concrete Stair Installation



Lawrence to Bryn Mawr Modernization



Berwyn Station Escalator Pit Wall Work



Lawrence to Bryn Mawr Modernization



**Argyle Station
Wall Framing**



Lawrence to Bryn Mawr Modernization



**Lawrence Station
Street and
Sidewalk
Restoration**




Lawrence to Bryn Mawr Modernization



**Segmental Box
Girder
Installation
North of Argyle**



Project Title: RPM Phase One – Design-Build Contract

Community Outreach	Major Activities	Timing
 <p><i>CTA interns staffing the RPM info table at the Argyle Night Market</i></p>	<ul style="list-style-type: none">• Weekly Red-Purple Bypass Project updates for 44th ward• Lawrence to Bryn Mawr project updates for 46th, 48th wards• FTA Transit Asset Management Team project tour• Argyle Night Market• Edgewater Farmers Market• Monthly virtual office hours (August)• RPM Open for Business meeting with Edgewater, Uptown, Andersonville and Lakeview East chambers of commerce	<p>Weekly</p> <p>Bi-weekly</p> <p>July 30</p> <p>Aug 1 & 8</p> <p>August 5</p> <p>August 13</p> <p>August 13</p>



RPM Phase One Design-Build DBE Attainment Through July 31, 2024

119

unique DBE firms

54

new to CTA



DBEs have been awarded

\$279,404,040



Have been paid

\$175,540,688

The prime contractor is on-track to meeting their **20%** DBE goal

20%

DBE Awards

19.76%

DBE Payments

17.32%



RPM Phase One Design-Build Workforce Attainment Through July 31, 2024



2,333

RPM Phase I has created **2,333** construction trade labor jobs on the design-build team



Labor Hours Worked

1,888,132.36



Wages Earned

\$111,718,093.50

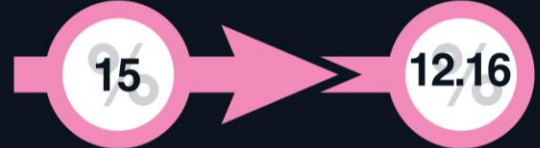
RPM Phase I Workforce Goals

Goals

Attainment



Workforce Innovation & Opportunity Act (WIOA)



Apprentice



Economically Disadvantaged Area (EDA)



July and August 2024 Outreach Events

- Latina Magazine DEI Event July 2
- Driving Small Businesses, the Distance (DSBTD): Accounting & Taxes July 24
- Conference of Minority Transportation Officials (COMTO) Panel Discussion July 9
- Chicago Housing Authority (CHA) 2nd Annual Construction Trades & Apprenticeship Union Hands-On Expo July 25
- IL Department of Commerce & Economic Opportunity (DCEO) Latin@ Economic Summit July 18
- Smart Business Week hosted by the Federal Reserve Bank of Chicago August 1
- Building Small Businesses (BSB) Orientation July 18
- RLE DBE Certification Event August 5
- Red Line Extension (RLE) Project Office Meet the Contractor July 19
- FH Paschen Meet the Contractors August 7
- Construction Industry Service Corporation (CISCO) 3rd Annual Union Construction Trades Fair July 19
- Hispanic American Construction Industry Association (HACIA) Certification Drive August 14
- African American Contractors Association (AACA) Contractor's Day July 20
- DSBTD: DBE Certification August 21
- Illinois Hispanic Chamber of Commerce (IHCC) Membership Breakfast July 24

