



# Construction Project Briefing



February 8, 2023



# Today's Presentation

- CDOT - Lake Line - Damen Station
- Non-Revenue Maintenance
- Traction Power Upgrades - Canal Tie House, Barry and Damen Substations
- Red and Purple Modernization Project



# Project Title: CDOT - Lake Line - Damen Station

## Justification of Need:

Priority of Project:	Medium
Total Project Budget:	
Construction Contract Value:	\$67,316,000.00
Earned to Date:	19%
Percent Change Orders to Construction Contract:	2.7%
Percent Time Used:	89%
DBE:	MBE: 30% WBE: 8% VBE: 0.96%
Funding Source:	TIF/CMAQ
Estimated Start Date/Estimated Length of Project:	540 days after NTP
Designer of Record:	Perkins and Will
Construction Manager/General Contractor:	Arcadis / FH Paschen



# Project Title: CDOT - Lake Line - Damen Station

Impact on Customers:	This will be a new Elevated CTA Station on the Lake Branch of the Green Line at Damen and Lake Streets. CTA has also implemented slow zones due to structural on-going work.
Benefit to System:	The new station will provide transit connectivity, convenience and amenities to residents, workers and visitors alike.
Benefit to Community:	New, modern transit facility that will serve the burgeoning needs of the Kinzie Industrial Corridor. The new station will also support visitors to the United Center, Malcom X College and educational institutions.
Impact on Accessibility:	This will be a fully accessible CTA station equipped with escalator and elevator access to both platforms and accessible path to the new station house.
Customer Communication Need:	Customer and Community facing is being handled through CDOT.

## Comparable Projects:

Morgan Station on Green Line
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# Project Title: CDOT - Lake Line - Damen Station

## Construction Progress

Phase	Description	Status
<b>Construction</b>	<ul style="list-style-type: none"><li>• Installation of H-Piles &amp; ERS at bent 2218</li></ul>	Completed
	<ul style="list-style-type: none"><li>• Install sheet piling for new retaining wall</li></ul>	Completed
	<ul style="list-style-type: none"><li>• Continue station house caisson caps and grade beams</li></ul>	On-Going
	<ul style="list-style-type: none"><li>• Install Shoring towers/Demo columns and pier footings at bent 2218</li></ul>	On-Going
	<ul style="list-style-type: none"><li>• Install Platform Steel</li></ul>	Planned Q2



# Project Title: CDOT - Lake Line - Damen Station



## Damen Station

**Steel Shoring  
Towers for  
Supporting  
Elevated  
Structure**



# Project Title: CDOT - Lake Line - Damen Station



## Damen Station

Transferring  
loads to  
temporary  
shoring towers  
at bent 2218



# Project Title: CDOT - Lake Line - Damen Station



## Damen Station House

Installing  
H-Piles for ERS  
at Existing  
Columns



# 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:	31% (thru October 2022)
Percent Change Orders to Construction Contract:	4% (Change Order #1 – \$1,694,221 – Executed October 4 <sup>th</sup> , 2022)
Percent Time Used:	77%
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 803 Days – Change Order 1
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.



# Project Title: Non-Revenue Rail Vehicle Facility

Impact on Customers:	While no direct impact to rail service, this facility will allow CTA Rail Maintenance to efficiently maintain the CTA's non-revenue fleet. This will result in equipment being in good working order and ready to perform necessary repairs and upkeep to the CTA system. This will allow CTA to maintain reliable service to our customers.
Benefit to System:	The ability to effectively and efficiently maintain the CTA's non-revenue fleet will result in equipment being in good working order and ready to perform necessary repairs and upkeep 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:



# Project Title: Non-Revenue Rail Vehicle Facility

## Construction Progress

Phase	Description	Status
<b>Construction</b>	<p>Design Phase</p> <ul style="list-style-type: none"><li>• Design Package 3 – W48 Waterline Permit</li><li>• Design Package 4 – 61<sup>st</sup> Street Parking Lot</li><li>• Final Design</li></ul> <p>Construction Phase</p> <ul style="list-style-type: none"><li>• ComEd Switchgear Installation</li><li>• Slab on Grade Utility Installation</li><li>• Electrical Ductbank Routing</li><li>• Precast Panel Erection</li><li>• Structural Steel Installation</li><li>• Roof Decking Installation</li><li>• Roof Membrane Installation</li></ul>	<p>In-Progress In-Progress Complete</p> <p>Complete In Progress In Progress In Progress In-Progress Upcoming Upcoming</p>

**Delay Explanation:**



# Project Title: Non-Revenue Rail Vehicle Facility



**The Beginning of the Steel Erection**



# Project Title: Non-Revenue Rail Vehicle Facility



**New Horizon – Structural Steel Erection and Tie-In**



# Project Title: Non-Revenue Rail Vehicle Facility



**Final Sequences of Steel Erection**



# 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:	\$113 Million
Construction Contract Value:	\$58 Million
Earned to Date:	22.5% (As of December 2022)
Percent Change Orders to Construction Contract:	0
Percent Time Used:	45% (As of December 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

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



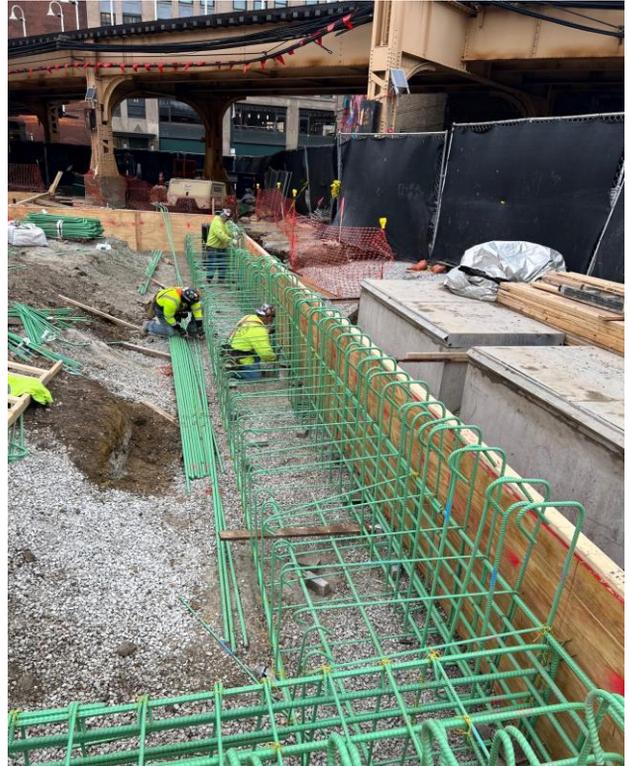
# Project Title: Traction Power Upgrades – Canal Tie House, Barry and Damen Substations

## Construction Progress

Phase	Description	Status
<b>Haymarket Substation</b>	• Install new electrical equipment	Upcoming
	• Site Preparation and rebar installation for new equipment foundations	Completed
	• Form/Pour new equipment foundations	Completed
	• Install new courtyard masonry wall	Completed
<b>Canal Tie-House</b>	• Fabricate new Canal Tie-House Building	Ongoing
	• Fabricate new Canal Tie-House equipment	Ongoing
	• Install new Canal Tie-House equipment	Upcoming
	• Test and Commission new Canal Tie-House	Upcoming
	• Install, form, and pour new Ductbank 2	Ongoing
<b>Damen Substation</b>	• Build building interior, flooring, rooms, and finishes	Upcoming
	• Fabricate new substation electrical equipment	Ongoing
	• Site excavation and preparation	Ongoing
	• Install foundation micropiles and grade beams	Ongoing
	• Build building exterior walls and roof	Upcoming
<b>Barry Substation</b>	• Obtain foundations permit	Ongoing
	• Obtain building permit	Ongoing
	• Fabricate new substation electrical equipment	Ongoing
	• Mobilization	Ongoing
	• Demolition of existing building	Completed



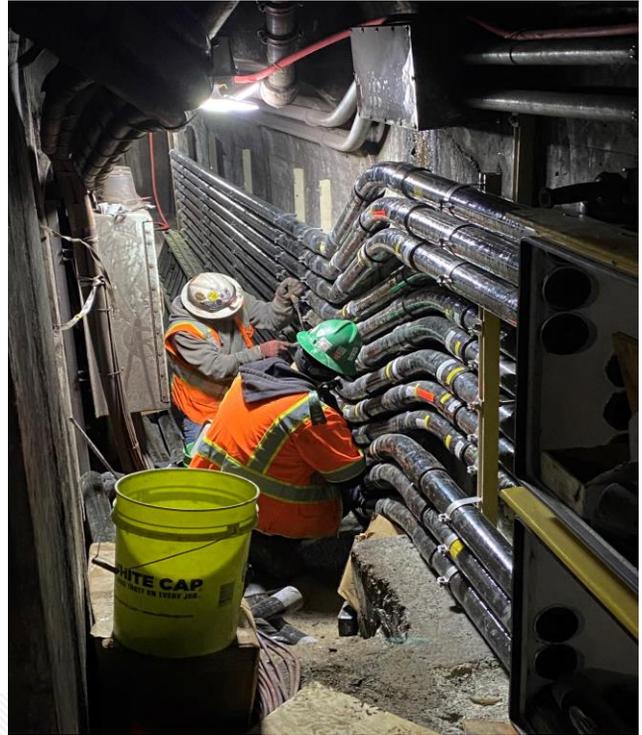
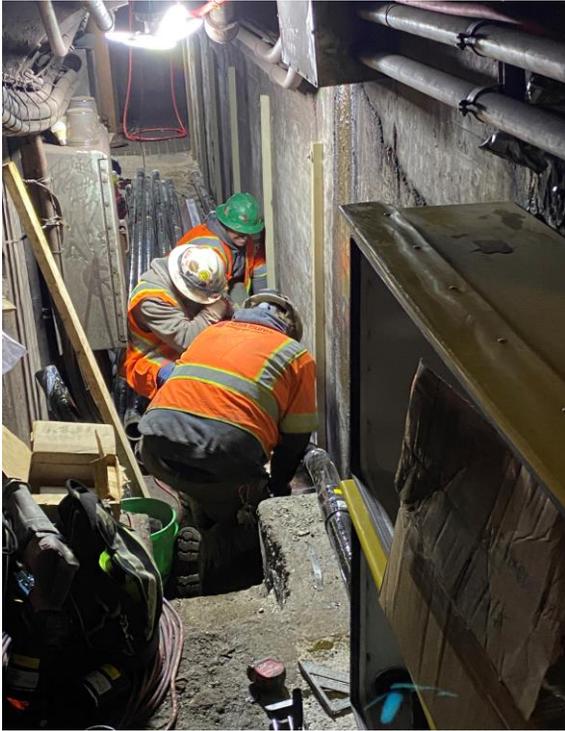
# Project Title: Traction Power Upgrades – Canal Tie House, Barry and Damen Substations



**Forming Grade Beams at Damen**



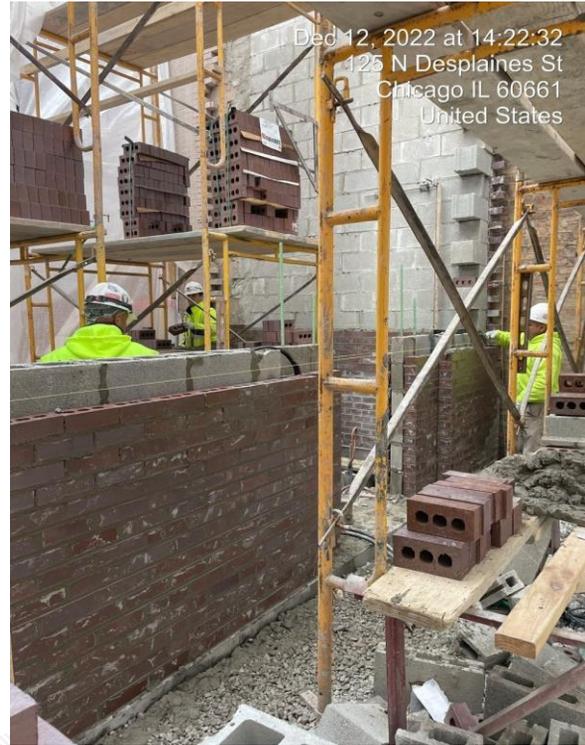
# Project Title: Traction Power Upgrades – Canal Tie House, Barry and Damen Substations



**Install Wall Mounted Conduit at Canal**



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



**Building East Wall at Haymarket**



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



**Completed East Wall at Haymarket**



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



**Adjacent Property Demolition at Barry**



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

<b>Justification of Need:</b>	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:	59%	
Percent Change Orders to Construction Contract:	-0.27%	
Percent Time Used:	69%	
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	
<b>Detailed Overview of Scope:</b>	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"> <li>• 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.</li> <li>• 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.</li> <li>• Corridor Signal Improvements (CSI) – Installation of new higher-capacity signal system on 23 miles of track between Belmont and Howard stations.</li> </ul>	



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

Phase	Description	Status
<b>Administrative / Design:</b>  <b>Construction:</b>	<ul style="list-style-type: none"> <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>▪ Red-Purple Bypass (RPB).               <ul style="list-style-type: none"> <li>– Ravenswood structure rehabilitation</li> <li>– Clark Relay House installation</li> <li>– Construction of concrete columns and caps</li> <li>– Pre-cast beam and structural steel installation</li> <li>– North Mainline Stage 2 closed track deck installation</li> <li>– Removal of decommissioned signal and communications cabling</li> </ul> </li>   <li>▪ Lawrence to Bryn Mawr Modernization               <ul style="list-style-type: none"> <li>– Pre-cast Segment fabrication</li> <li>– Pre-cast Segment erection Stage A</li> <li>– DF Track construction</li> <li>– Noise Wall Barrier Erection</li> <li>– Bryn Mawr and Argyle Temp Station (Stage B)</li> <li>– Winona Relay House construction</li> </ul> </li>   <li>▪ Corridor Signal Improvements (CSI)               <ul style="list-style-type: none"> <li>– Cable bracket and fiber slack enclosure installation Loyola to Jarvis</li> <li>– Messenger installation on cable brackets north of Thorndale</li> <li>– Installation of snake tray and brackets for signal/comm cabling near Wilson Station</li> <li>– Installation of hangers and cabling inside and below the LBMM structure</li> </ul> </li> </ul>	<p>Ongoing Ongoing</p> <p>Ongoing Ongoing Ongoing Ongoing Ongoing</p> <p>Ongoing Complete Ongoing Ongoing Ongoing</p> <p>Ongoing Ongoing Ongoing</p>
<b>Delay Explanation:</b>		



## Red-Purple Bypass



**North Main Line  
Column Cap  
Concrete Pour**



## Red-Purple Bypass



**Clark Relay House  
Lift over Bypass**



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

## Red-Purple Bypass



## Clark Relay House Installation



## Lawrence to Bryn Mawr Modernization



**Bryn Mawr  
Temporary  
Station  
Foundation Work**



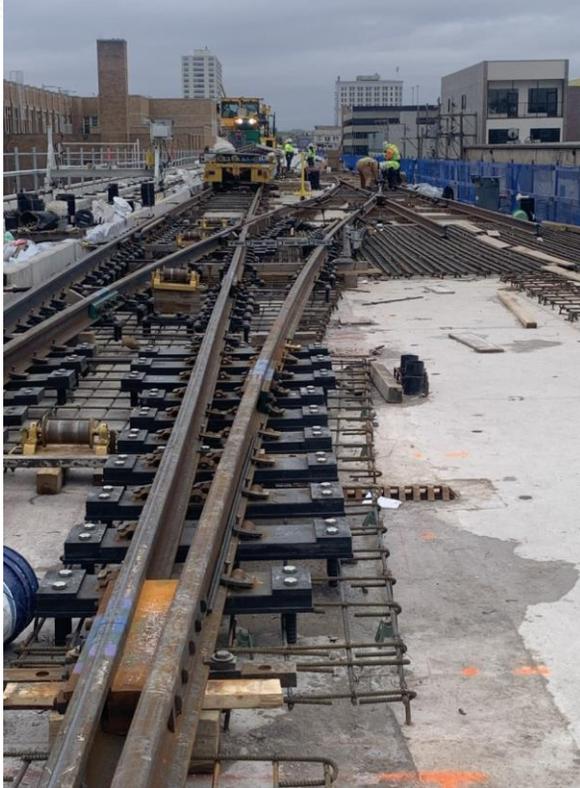
## Lawrence to Bryn Mawr Modernization



## Winona Relay House Interior Construction



## Lawrence to Bryn Mawr Modernization



**Special Track Work  
Installation**



## Lawrence to Bryn Mawr Modernization



**Final Segment  
Erection Stage A**



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

	Outreach type	Major Activities	Timing
Community	 <p>Award-winning Bryn Mawr temporary station</p>	<ul style="list-style-type: none"> <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>Press release: CTA Red Line temporary station at Bryn Mawr wins architectural award, the International Architecture MasterPrize award in the “Transportation” category</li> <li>Buena Vista Association Board Meeting – RPM Update</li> <li>Press release: CTA announces “Elevating Futures Scholarship” application period has opened for students seeking four-year degrees in construction and engineering</li> <li>January monthly “Virtual Office” Q&amp;A with constituents</li> </ul>	<p>Weekly</p> <p>Bi-weekly</p> <p>Dec. 13</p> <p>Dec. 13</p> <p>Dec. 21</p> <p>Jan. 10</p>
Workforce & SBE/DBE	 <p>CHICAGO COOK WORKFORCE PARTNERSHIP A proud partner of the American Job Center network</p> 	<ul style="list-style-type: none"> <li>Monthly DBE/Workforce Outreach &amp; Compliance Meeting</li> <li>DBE and Workforce Numbers as of 1/31/2023</li> <li>Dollars Awarded To Date: \$237,609,882               <ul style="list-style-type: none"> <li>Unique DBE Firms To Date: 89</li> <li>Unique Firms New to CTA: 34</li> </ul> </li> <li>Total Labor Hours Produced: 1,119,934</li> <li>Total Dollars Earned: \$69,259,253</li> <li>Jobs created to date (construction trade labor on the design-build team): 1,795 individuals</li> </ul>	<p>Ongoing</p>