

Red and Purple Modernization (RPM) Welcome to the Red-Purple Bypass Open House

CTA is announcing the first phase of the Red and Purple Modernization Program.

The purpose of tonight's meeting is to:

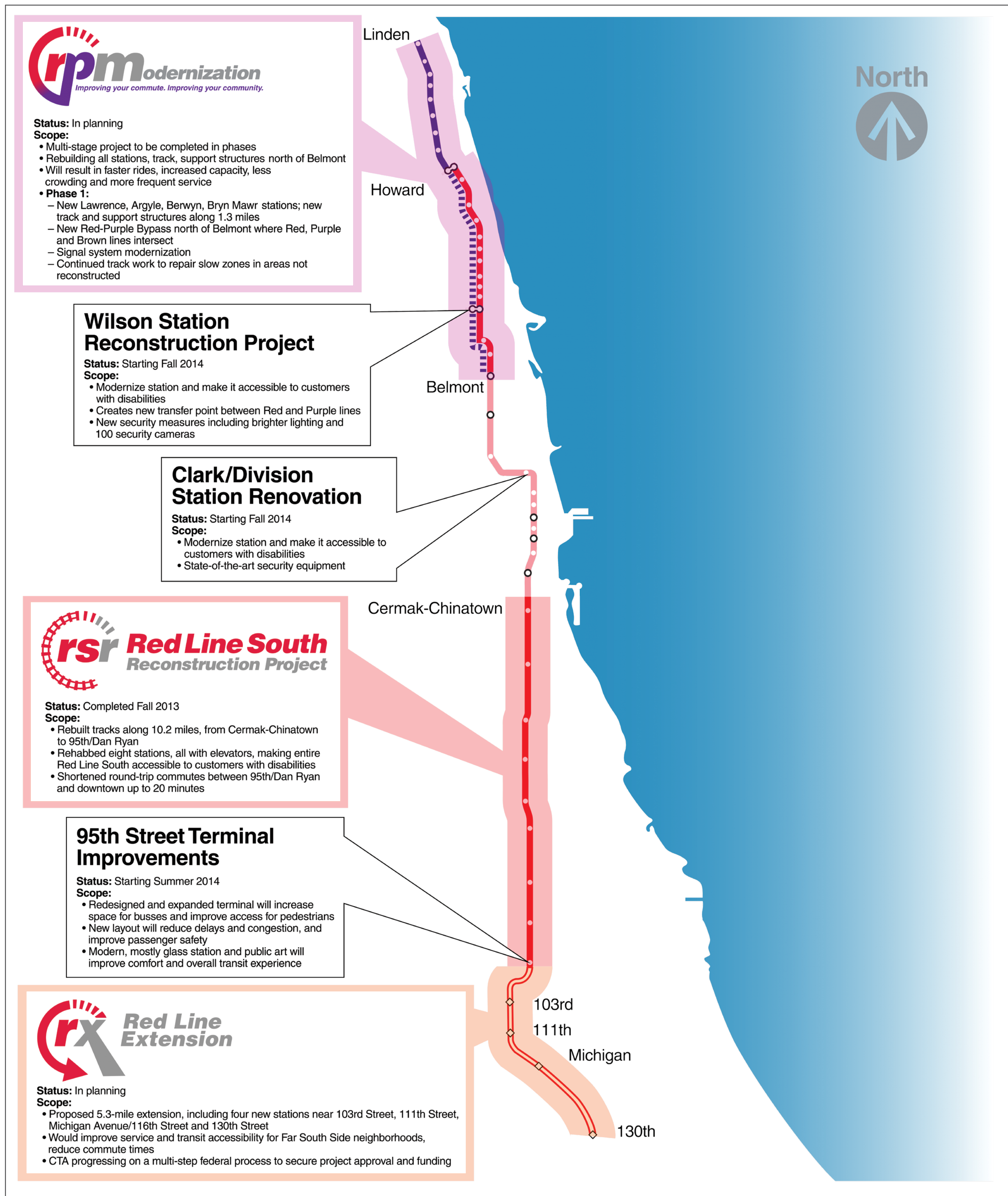
- Share information on the RPM Program and Phase One improvements
- Discuss potential impacts and benefits of the proposed project
- Obtain public feedback on the proposed project to inform the environmental analysis and design

If you have questions, feel free to ask the representatives stationed around the boards.



The Red Ahead Program

Red Ahead is a comprehensive initiative for maintaining, modernizing, and expanding Chicago's most traveled rail line.



RPM is needed NOW

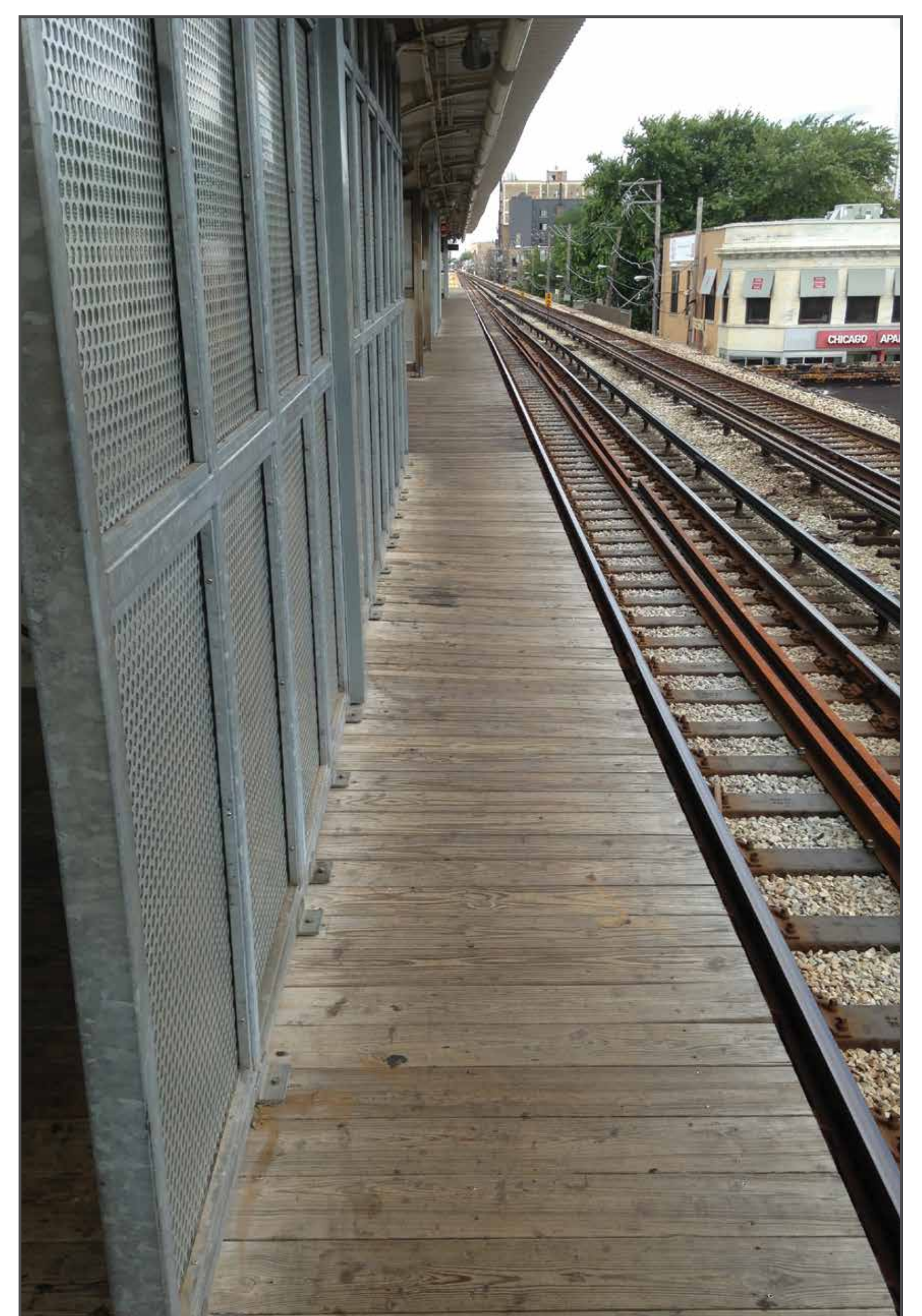
The existing Red and Purple lines:

- Run on structures built more than 90 years ago
= higher maintenance cost and slow travel speeds
- Shelter customers in stations built in the 1920's
= cramped and not ADA accessible
- Have had a 40% increase in morning and evening ridership over last five years
= crowding and less reliability
- Provide 1 out of every 5 CTA train rides
= great potential!



RPM Corridor Vision Goals

- Expand capacity
 - More trains with less crowding
- Speed service
 - Fewer curves and better infrastructure
- Improve reliability
 - More trains on-time
- Improve accessibility
 - All stations accessible to people with disabilities
- Build modern facilities
 - New wider stations, more reliable infrastructure for the next 60-80 years
- Support economic development
 - More jobs and new development opportunities
- Improve customer experience
 - Modern, quiet, and smooth ride



RPM – Phase One

- Build the **Red-Purple Bypass** north of Belmont
- Modernize stations, track, and structure from **Lawrence to Bryn Mawr**
- Track work to repair slow zones along the entire corridor, beyond the Phase One improvements
- Modernize signal system to increase capacity and reliability
- Combined, the Phase One projects are estimated to cost \$1.7 billion at completion

Why Phase One?

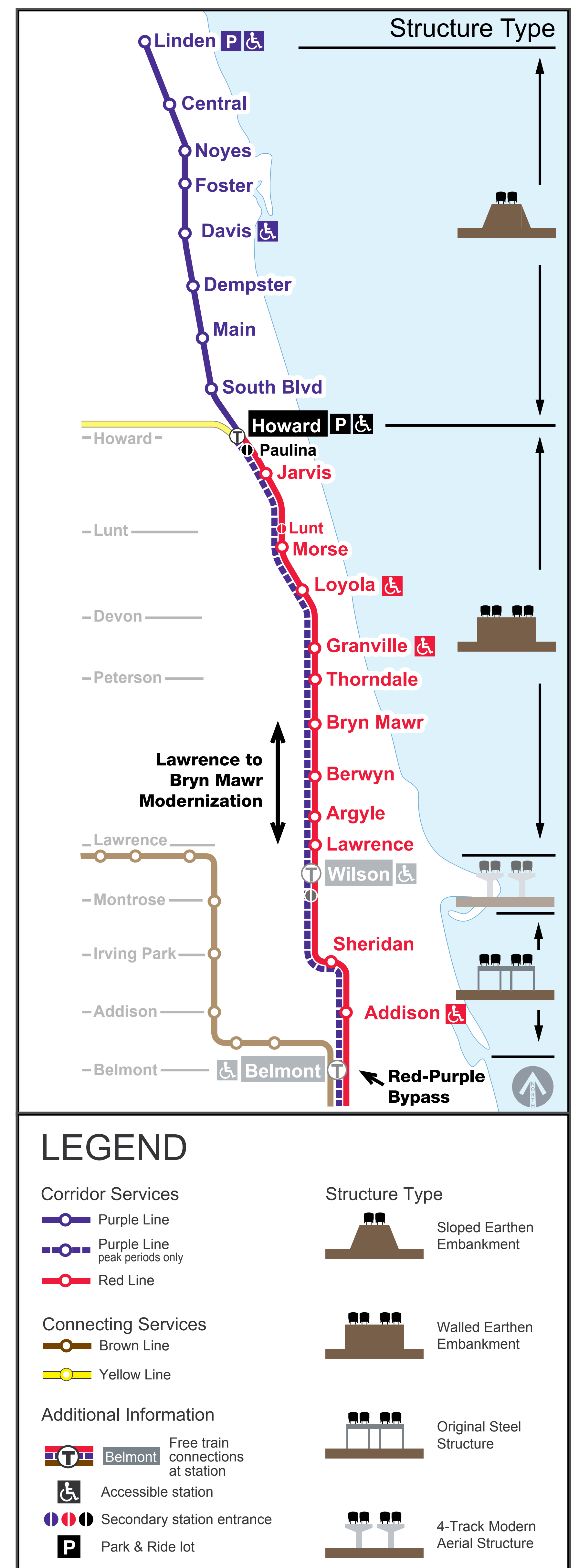
- Benefits **88% of all current RPM trips** 110,000 every weekday
- Improvements would save RPM customers **1 million hours every year**

Red-Purple Bypass Project

- Single largest capacity expansion and time-saving element of RPM
- **150,000 rides every weekday** on Red, Purple, and Brown line trains have to travel through this intersection and would benefit from improved reliability and reduction in delay

Lawrence to Bryn Mawr Modernization Project

- Replaces 1+ miles of 90 year old retaining wall embankment – the most difficult RPM structures to maintain
- **28,000 trips** begin or end at the stations being reconstructed
- **45,000 people** live within ½ mile of these stations, twice as dense as the average Chicago neighborhood
- Allows for continuation of modern infrastructure from the adjacent Wilson Station Reconstruction Project **starting this year!**



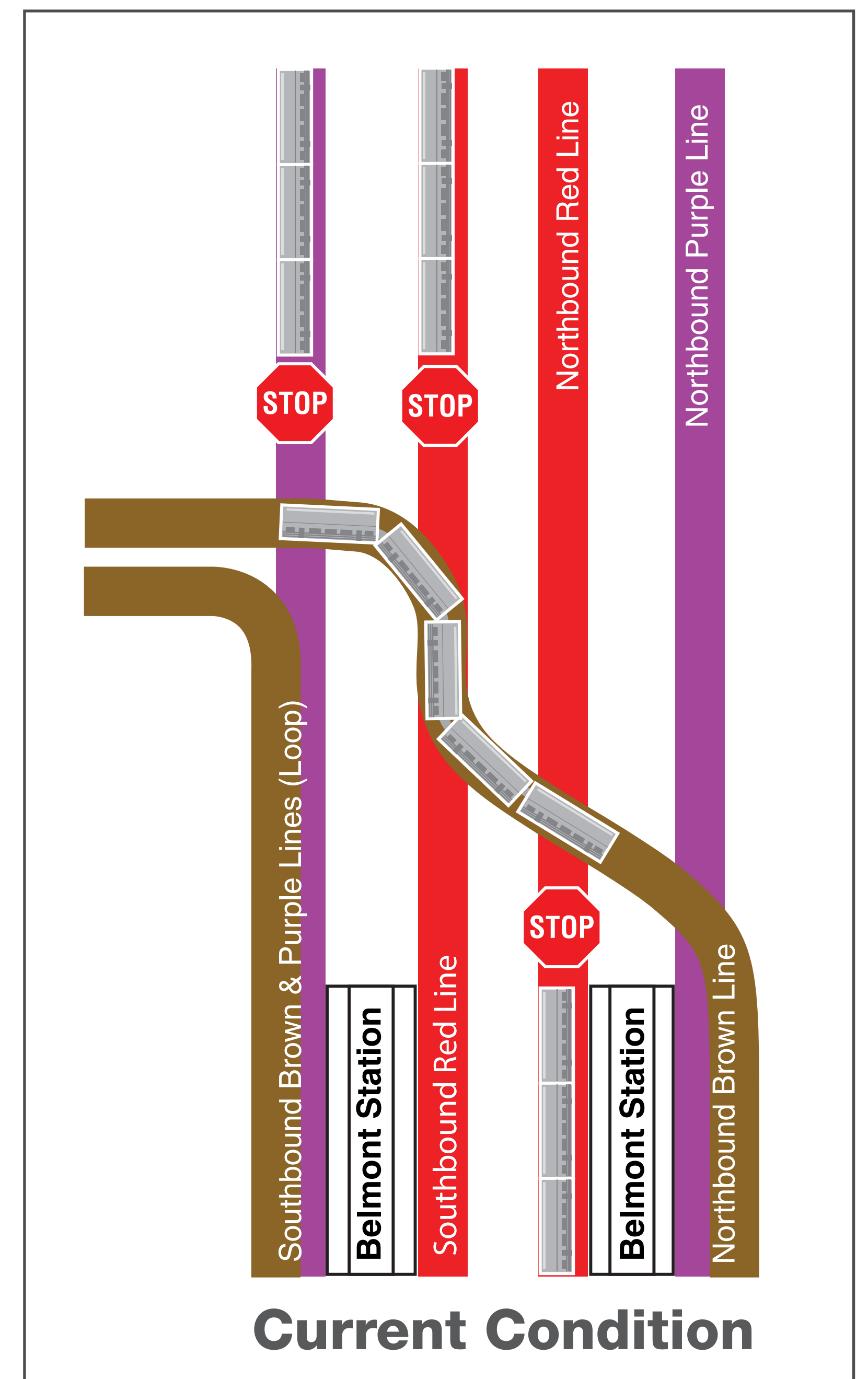
Red-Purple Bypass Project

Challenge: Red, Purple, and Brown Line Intersection

- Up to **150,000 rides** pass through the busy rail intersection near Belmont every weekday
- A single Brown Line train can delay three other trains at a time
- The current intersection limits the number of trains which leads to delays on all three train lines
 - 40% of weekday trains are delayed, some trains up to four minutes
 - Delays weekday trains 450 hours a year
 - Results in unreliable service
 - Makes adding service difficult

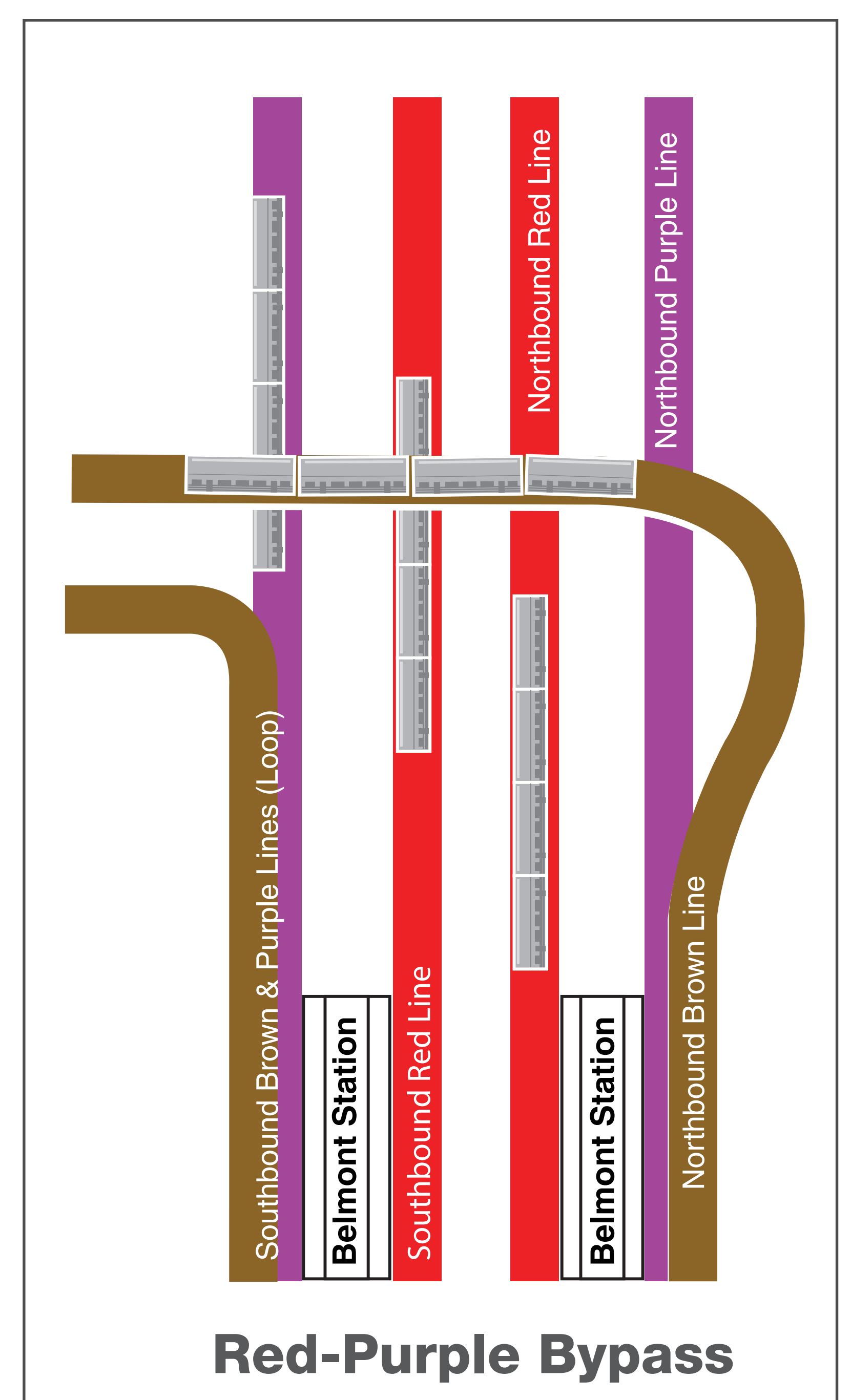


“Your attention please! We are **standing** momentarily waiting for signal clearance.”



Project Purpose

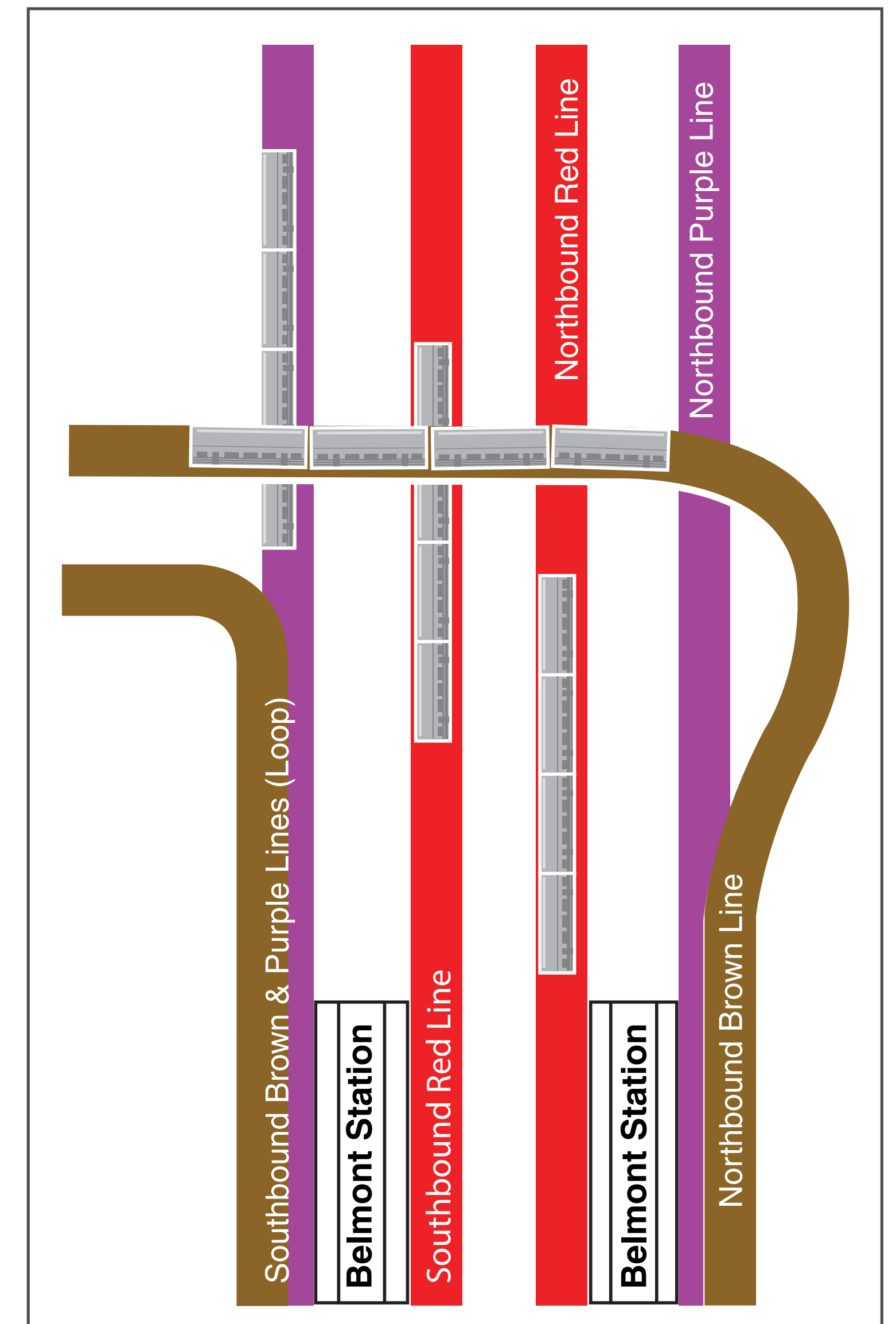
- Expand capacity
 - Ability to run an additional 6 to 9 Red Line and 6 to 8 Brown Line trains per hour
- Meet existing and growing ridership demands
 - Greater capacity for trains to operate would result in less crowding on overcapacity Red and Brown line trains
- Improve travel times and reliability
 - The increase in train service and reduction in train delay because of the bypass would significantly improve travel times and reliability on all three lines
- Improve access to jobs
 - Commuters that live in the north on Red, Purple, and Brown lines rely upon transit to access jobs in the Loop and throughout Chicago



Red-Purple Bypass Project

Proposed Solution: Red-Purple Bypass

- The **largest capacity improvement** in the entire RPM corridor
- Allows trains to travel **50-60% faster** through intersection compared to today
- Saves customers **half a million hours annually**
- Allows additional service and less crowding
- **Improves reliability** for all Red, Purple, and Brown line trains



With the new bypass, northbound Brown Line trains would proceed along a dedicated rail line without intersecting Red and Purple line tracks.

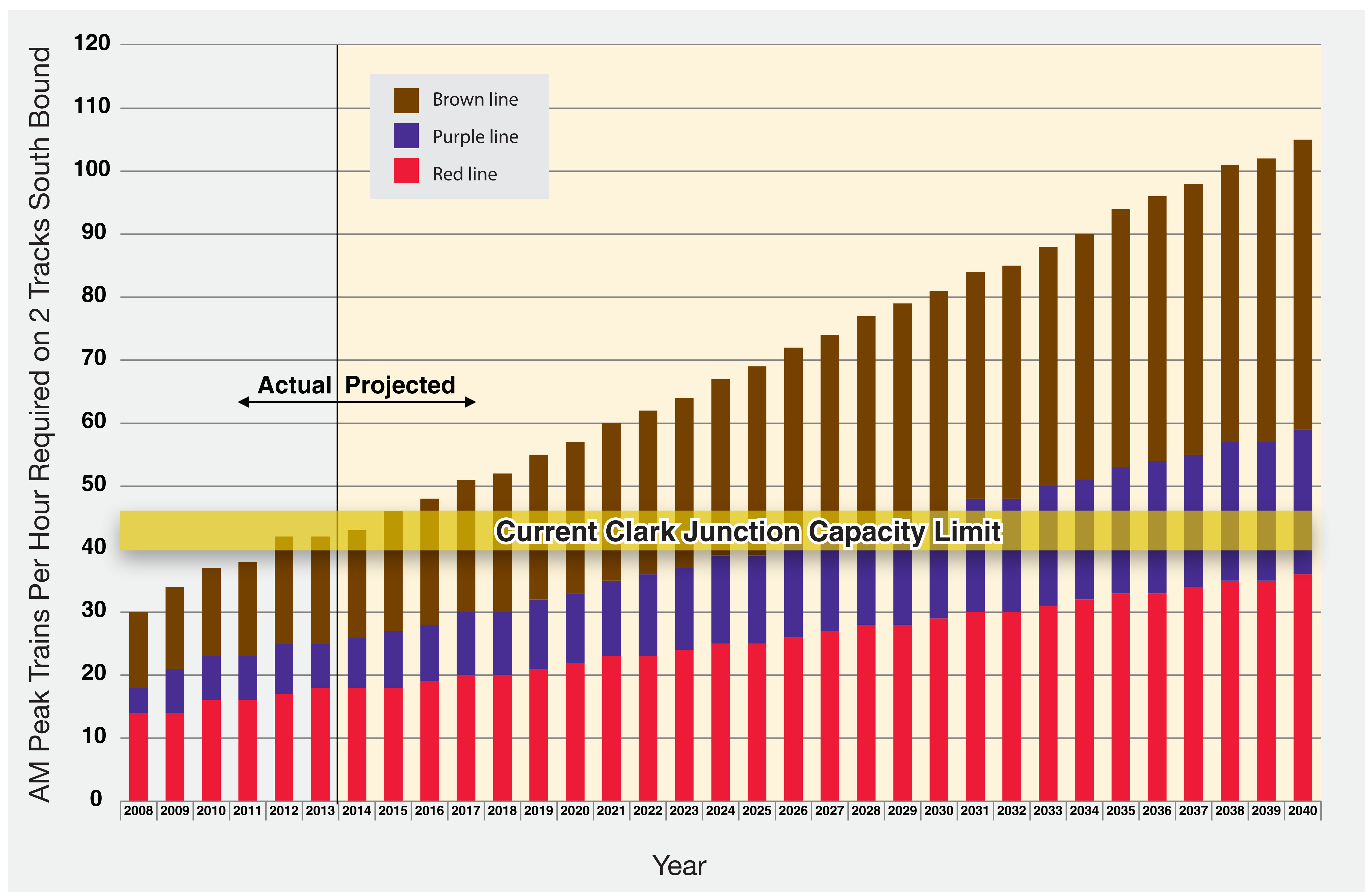
Red and Purple line trains would not need to stop and check or wait for clearance from crossing trains.

Concept rendering looking north from Belmont platform



Red-Purple Bypass Corridor Demand

- The intersection where the Red, Purple, and Brown lines meet (known as “Clark Junction”) currently **exceeds available capacity**, increasing delays and impacting reliability for all three rail lines.
- If growth continues as it has historically, by 2030 future ridership will require **doubling** capacity to **80 trains per hour for southbound trips alone** during the morning rush.
- With the Red-Purple Bypass CTA could add trains to serve at least **7,200 more customers per hour** combined.



Source: 2008 - 2013 CTA Passenger Flow Data

Meeting Corridor Growth Demands

- The current configuration of Clark Junction means **trains cannot be added on the Red or Brown Lines.**
- By 2040, the Chicago Metropolitan Agency for Planning (CMAP) estimates that over **185,000 NEW residents will live within ½ a mile** of the North Red and Brown Line stations compared to 2010.
- How will these new residents get around?
 - More trains cannot be added and **existing trains and buses are already crowded.** New residents will be forced onto local roads and Lakeshore Drive.
- If the bypass is not built, CTA cannot add capacity, thereby **increasing congestion** and **discouraging future development.**



Lawrence to Bryn Mawr Modernization Project

Lawrence, Argyle, Berwyn, and Bryn Mawr stations

- Four stations would be reconstructed

RPM Phase One: Lawrence to Bryn Mawr Modernization



Bryn Mawr station concept rendering



Alley spanning structural concept

Construct Modern Stations

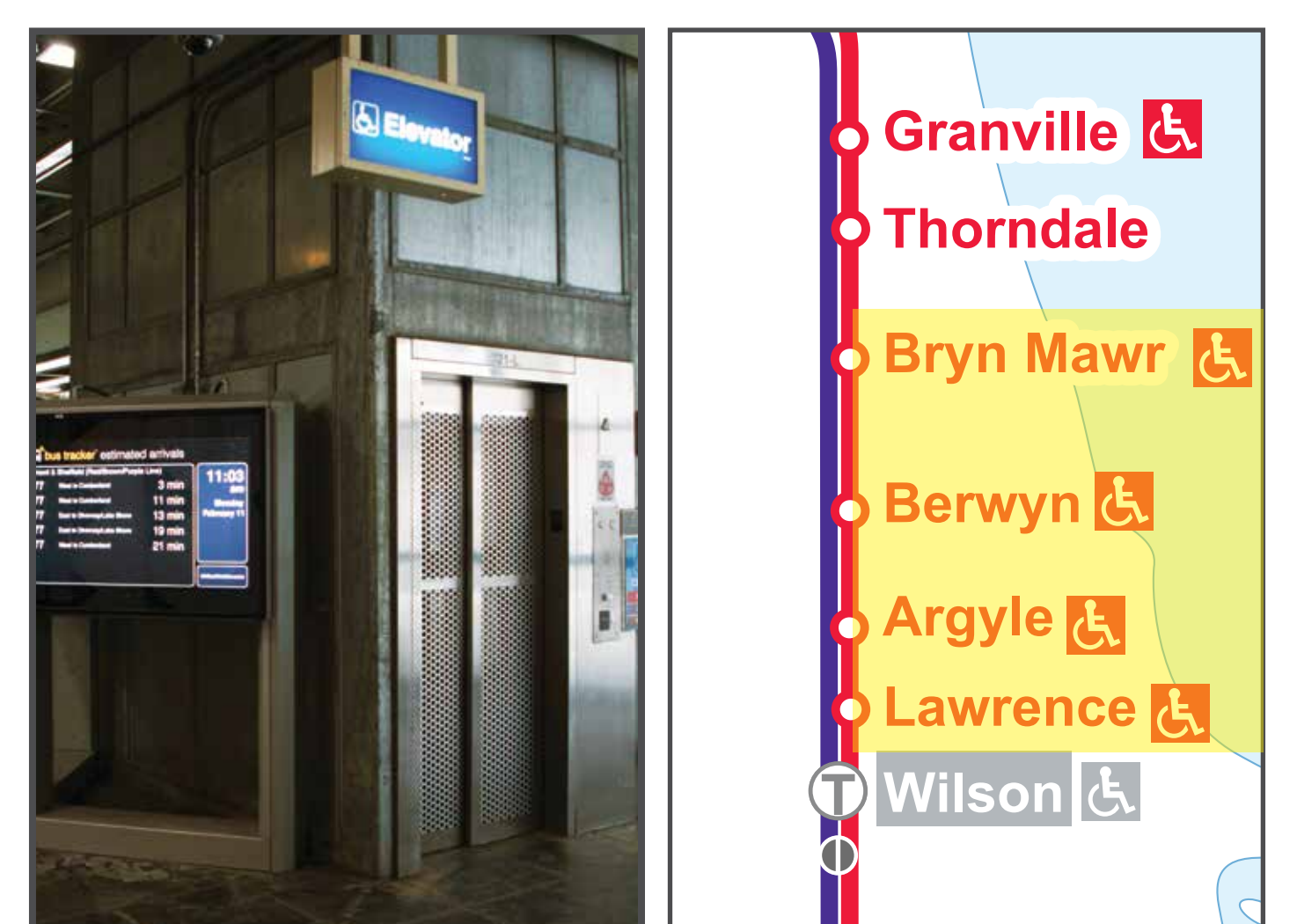
- Wider platforms for faster boarding and less crowding
- Better lighting and customer security features, longer canopies, more benches, and wind screens

Full ADA Access

- Elevators and other improvements for full ADA accessibility

Track Improvements

- Approximately 1+ miles of new transit infrastructure to provide continued high speed transit service
- Embankment and bridge structures would be modernized
- New track will create a smoother, more comfortable ride for customers



Environmental Assessments (EA)

Transportation projects seeking federal funding are required to conduct environmental analysis under the National Environmental Policy Act (NEPA). Two Environmental Assessments will be developed, one for the Bypass and one for the station modernization project.

The EAs will include:

- A description of the proposed project
- An explanation of the existing environmental and community setting
- An analysis of potential positive and negative impacts of construction and operation of the project
- Proposed ways to reduce or eliminate potential negative impacts

EA Considerations and Public Outreach Topics



Construction and operational features – transportation, property displacements, noise and vibration, hazardous materials, energy, construction impacts



Community features – land use and economic development, neighborhood and community impacts, historic resources, visual and aesthetics, environmental justice, safety and security



Natural features – air quality, water resources, biological resources, geology and soils

- The majority of these resources are expected to experience benefits or minimal permanent impacts after implementing the proposed mitigation strategies
- We are requesting feedback from the community to inform the environmental analysis and design of the Phase One projects

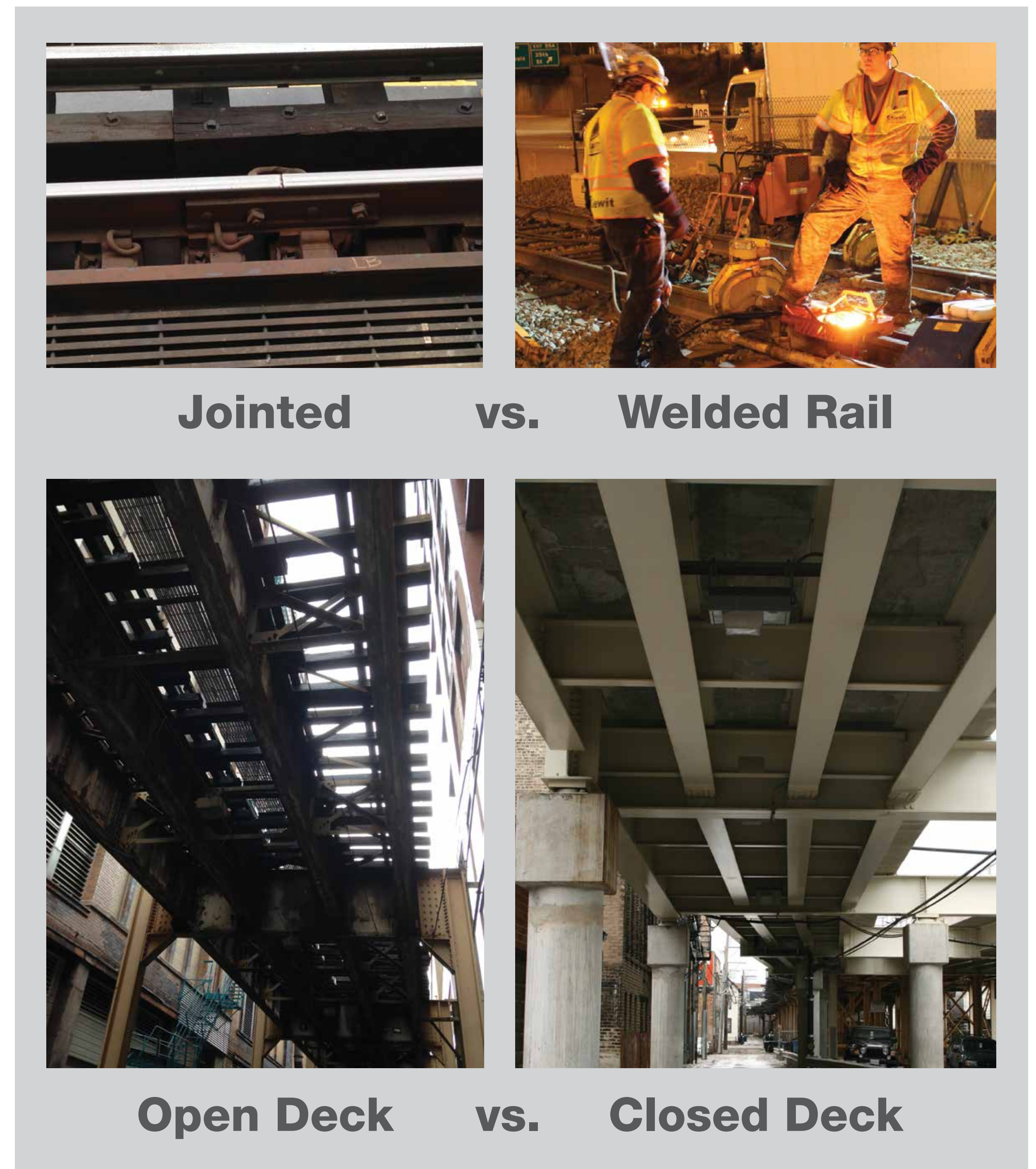
Noise Reduction Strategies

Among the concerns voiced to date have been the potential noise impacts of running faster, and/or more frequent trains.

CTA is exploring options to allow for noise levels to be similar to today. Some options under consideration include:

- Continuous welded rail
- Closed deck structure
- Noise barriers, where necessary

CTA will be performing noise and vibration analyses as part of our environmental work to determine the most appropriate measures.



Visual Environment

The visual environment would be slightly altered as a result of the bypass structure.



Conceptual rendering of Red-Purple Bypass, with transit-oriented development



Conceptual rendering of development at Wilton/School

Construction Impacts*

Service impacts

- Temporary station closures during construction
- Partial track closures may delay trains and/or require trains to bypass stations in one direction

What CTA will do to reduce impacts:

- Complement existing bus routes with bus shuttles, as necessary
- Notify customers of changes in service
- Continue to perform engineering studies with the goal of reducing construction impacts

Community and business impacts

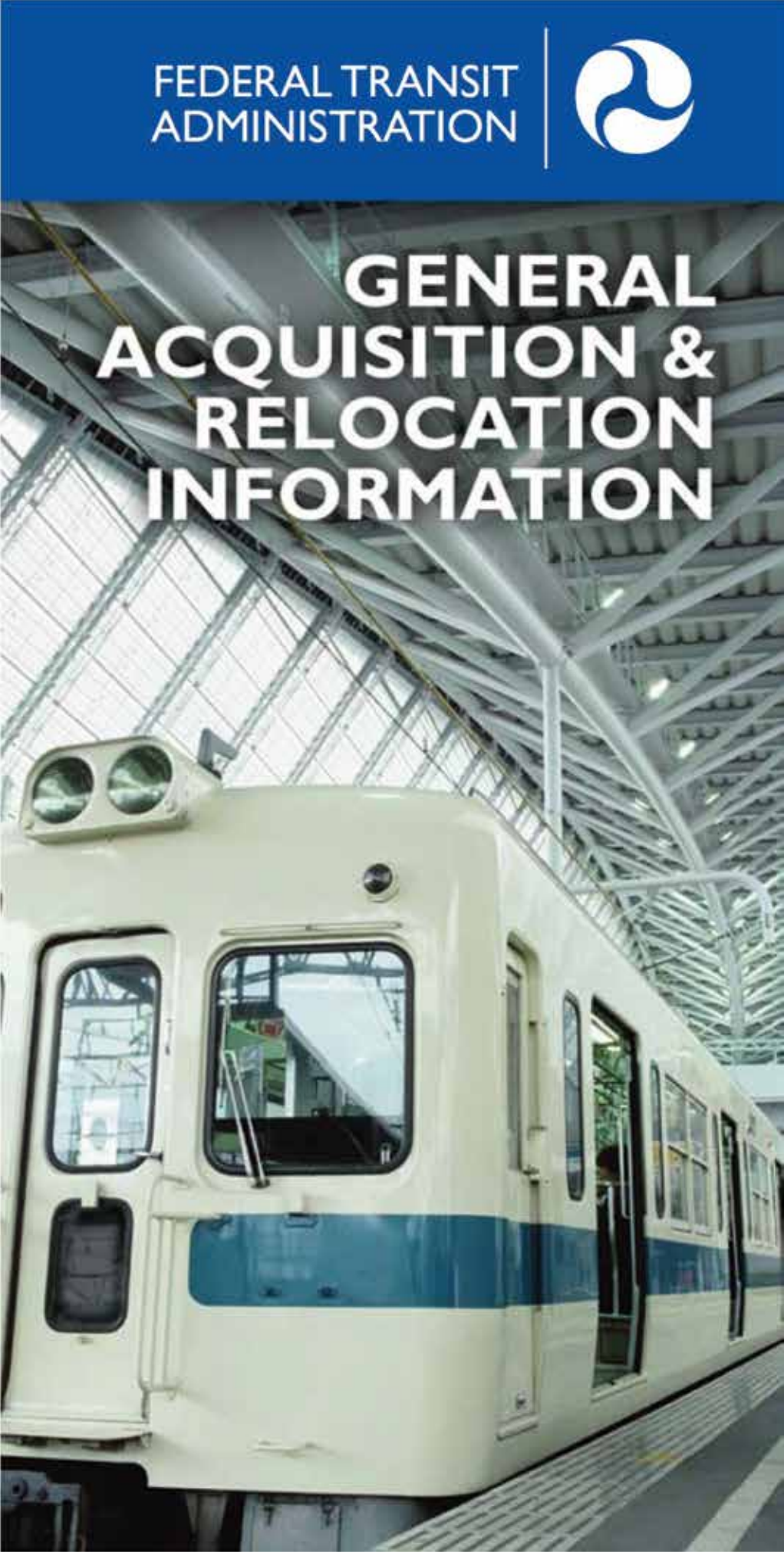
- Temporary street closures
- Temporary construction noise
- Construction equipment and material storage

What CTA will do to reduce impacts:

- Road closures will be announced and detours provided
- Notices of noise-generating activities will be posted
- Off-street construction staging areas have been identified to reduce the amount of material and equipment in the neighborhood
- **CTA will continue dialogue with the community**

* Specifics on construction will be developed through additional engineering and design work.





Property Displacements

CTA’s RPM Phase One projects would require some existing properties to be acquired to accommodate:

- Expanded station platforms
- Reduction in curves
- The Red-Purple Bypass
- Construction staging areas

Property Displacements: A Comparison

Project	Red and Purple Modernization - Phase One		Brown Line Capacity Expansion
	Red-Purple Bypass	Lawrence to Bryn Mawr Modernization	2006-2008 For reference
TOTAL Primary Building Displacements	16	3	40

To mitigate the impact of acquisition, property owners are protected by the Federal Uniform Act on relocation assistance and property acquisition.

Property owners:

- Would be paid **not less than fair market value** for their land and buildings
- May be eligible for compensation **equal to the original purchase price** of the property

Property owners and renters:

- Would be **compensated for the cost of relocating** their business or residence

CTA is committed to reducing impacts:

- CTA has already conducted studies to reduce impacts and successfully reduced building impacts to less than half of previous alternatives
- CTA will continue to work with the community and property owners to minimize property impacts.



Opportunities for Transit Oriented Development

Parcels remaining after construction will be made available for new residential and retail development near:

- Red-Purple bypass
- Lawrence
- Bryn Mawr

Transit Oriented Development will be encouraged after construction in order to:

- Increase economic development
- Reduce visual impacts of bypass
- Increase activity and transit ridership

Transit Oriented Development (TOD)

Development that is near a train station and oriented to transit riders. TOD often includes a mix of uses, with residential on upper floors and retail on the ground floor. TOD projects are often designed to encourage walking, an active street life, and transit ridership, and can have fewer parking spaces and more residential units.

TOD Opportunities near the Red-Purple Bypass Mixed Use

Current Condition



Potential Redevelopment



Facing northwest from Belmont Avenue and Wilton Avenue



Facing north from Clark Street and Buckingham Place



Facing south from Sheffield Avenue, Clark Street, and Newport Avenue

Residential Mid-rise

Current Condition



Potential Redevelopment



Facing southwest from School Street and Wilton Avenue

Individual Townhomes

Current Condition



Potential Redevelopment



Facing southwest from School Street and Wilton Avenue

TOD Opportunities along the Lawrence to Bryn Mawr Modernization Project Mixed Use

Current Condition



Potential Redevelopment



Facing southeast from Broadway and Ainslie Street

Economic Development and The Brown Line Capacity Expansion Project

Recent analysis along the Brown Line Expansion Project corridor has shown:

- Median home values near the Brown Line grew over 40% from 2000 to 2011, **twice** as quickly as the RPM corridor
- Since 2010, 15% of all City of Chicago new construction building permits were issued near Brown Line stations, **three times** as many per square mile as the RPM corridor
- Ridership on the Brown Line grew **50% quicker** than on the Red Line between 2000 and 2011

About the Brown Line Expansion

Major investments in transit infrastructure can result in proven economic development benefits.

- Constructed from 2006-2009
- \$530 million investment
- Lengthened platforms to accommodate 8-car trains
- Reconstructed 16 stations and added ADA access



Belmont station under construction in 2007

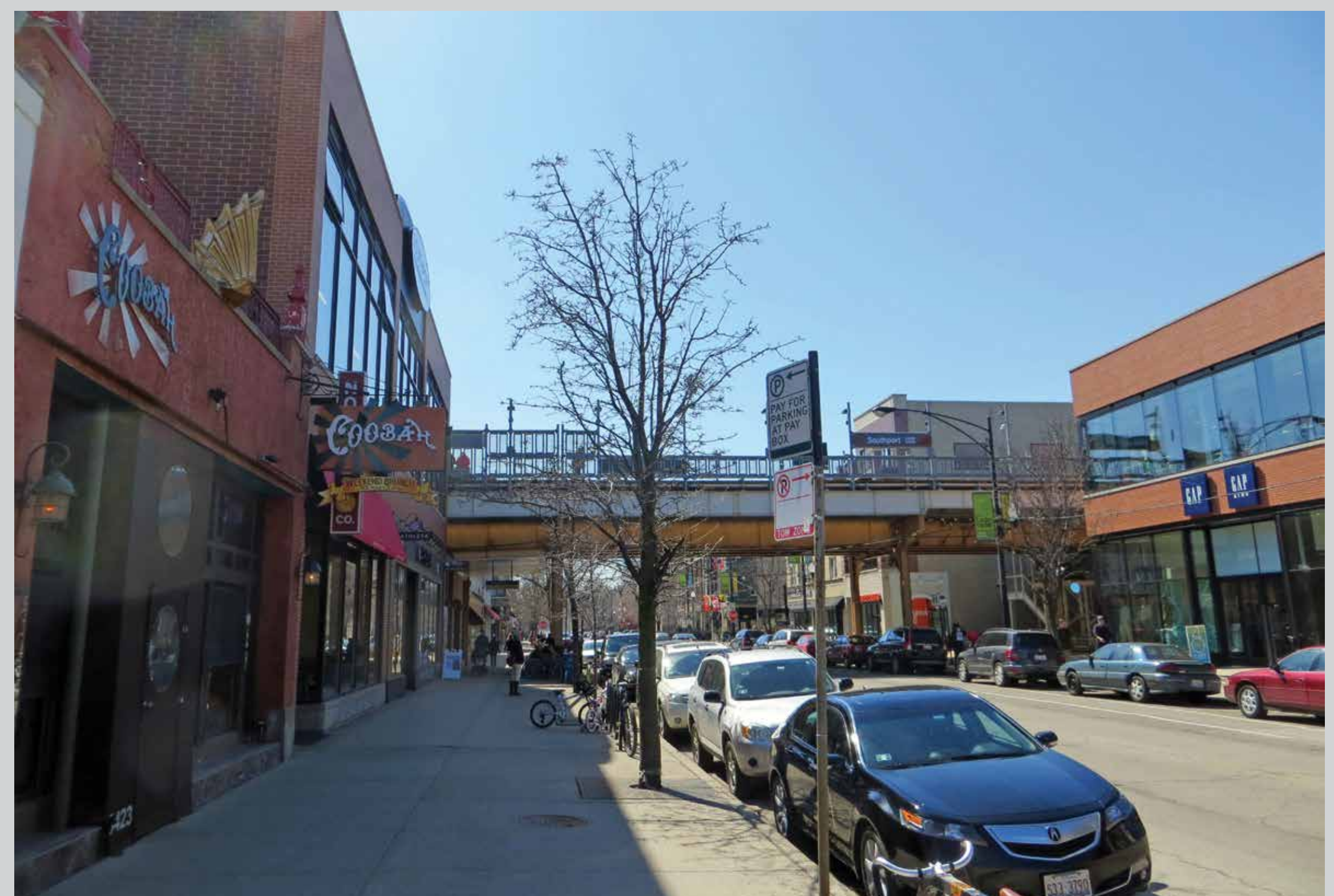
Economic Development on the Brown Line

Before (2002)



Southport station area

Today (2014)



Recent development has increased density and activity

Historic Properties

Work is still in progress in evaluating historic impacts of the Red-Purple Bypass Project:

- CTA track structure has been identified as eligible for the National Register of Historic Places
- The project is expected to adversely impact one building individually eligible for the National Register of Historic Places



Track Structure



Vautravers Historic Building

CTA is committed to working with the public and stakeholders through project development to minimize impacts to historic resources.

Section 106 of the National Historic Preservation Act deals with project effects on historic properties. CTA and FTA are working with the Illinois Historic Preservation Agency and parties interested in historic resources to determine the effects of the Red-Purple Bypass Project on historic resources.

If you are interested in historic properties and would like additional information, please see a CTA team member.

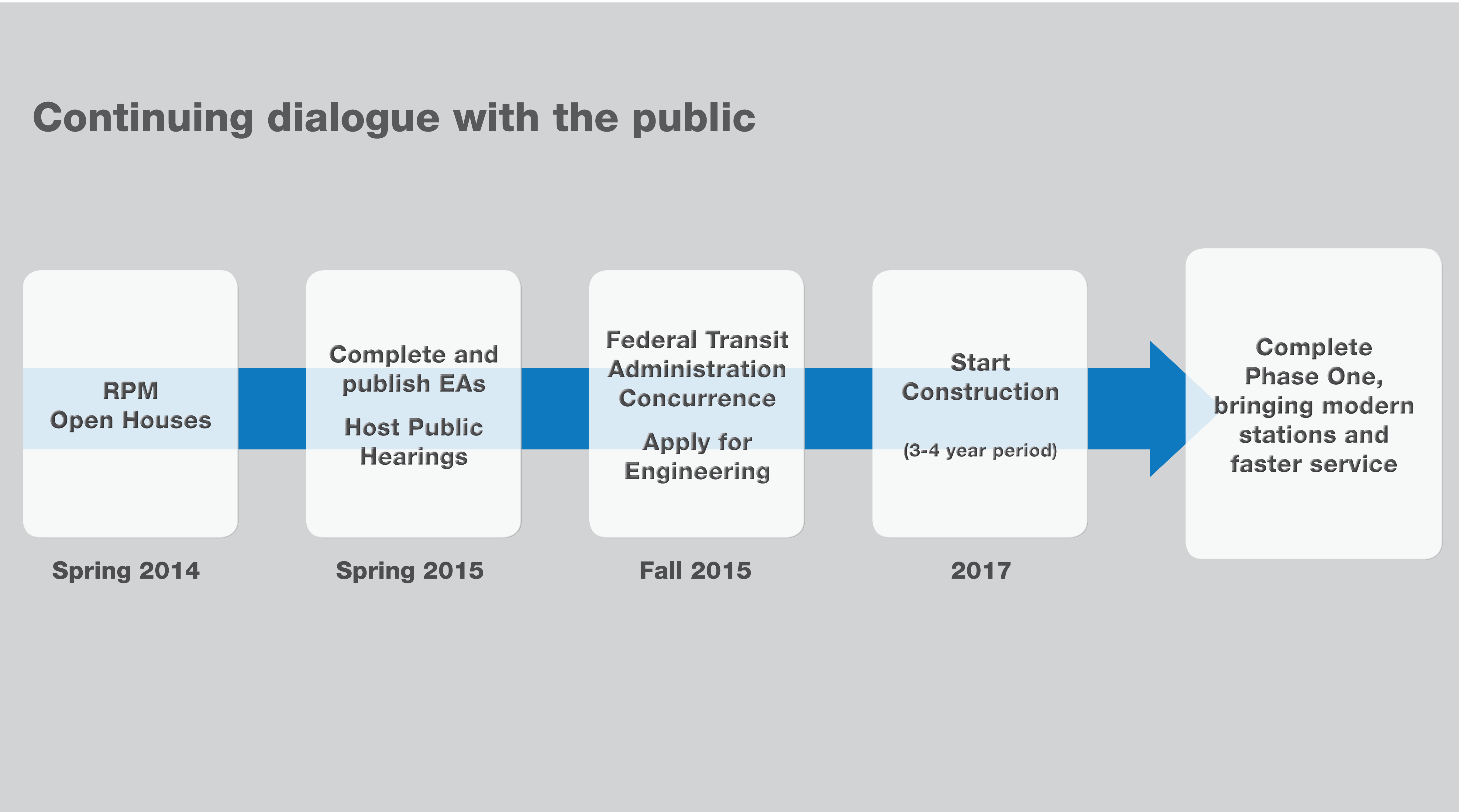
Project Funding for Core Capacity Expansion projects like RPM

CTA is pursuing a wide range of local, state and federal sources to fund the RPM Phase One projects, estimated at \$1.7 Billion, as well as future phases of the RPM program

Recent changes in federal law provide an opportunity for funding

CTA is looking at cost-saving strategies through alternative construction and financing methods

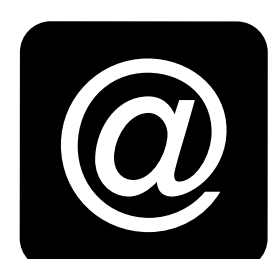
Next Steps



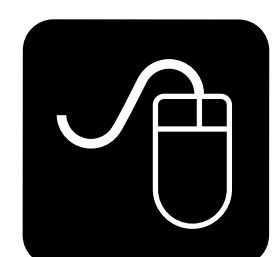
Thank you for participating! Stay Involved

To provide your input, fill out a comment card and place it in the box provided.

Join Contact List: At the sign-in desk



RPM@transitchicago.com



transitchicago.com/rpmproject



facebook.com/thecta



@cta

Mail:

**Chicago Transit Authority
RPM Program
Strategic Planning, 10th Floor
567 W. Lake Street
Chicago, IL 60661-1465**