



# NORTH RED AND PURPLE MODERNIZATION PROJECT



**Environmental Impact Statement Scoping Information**  
January 2011



## INTRODUCTION

The Chicago Transit Authority (CTA) is proposing to make improvements, subject to the availability of funding, to the North Red and Purple Lines. The improvements are proposed to bring the existing transit stations, track systems and structures into a state of good repair from the track structure immediately north of Belmont station to the Linden terminal (9.5 miles). This project is one part of CTA's effort to extend and enhance the entire Red Line. CTA and the Federal Transit Administration (FTA) will be preparing a Tier 1 Environmental Impact Statement (EIS) that will evaluate the environmental impacts of the project.

## PURPOSE OF THE EIS AND SCOPING PROCESS

In accordance with the National Environmental Policy Act (NEPA), CTA and FTA have initiated the environmental review process for the North Red and Purple Modernization (RPM) project. A Tier 1 EIS will be prepared to identify potential impacts related to project construction and operation.

This Tier 1 EIS is proposed to identify and analyze the plan for all potential corridor-wide improvements that could be implemented as part of RPM. Subsequent more specific project level NEPA analysis may be prepared if required prior to final design and construction of discrete but related projects. The subsequent analyses would reference and build upon this Tier 1 EIS. This approach allows CTA along with the community to consider cumulative effects within the entire project corridor, prioritize project components and plan for efficient construction phasing. Completion of the NEPA process also allows CTA to be prepared for any future federal funding opportunities.

As part of the initial phase of the environmental process, CTA and FTA will host public scoping meetings to receive public comments on the alternatives and issues that should be examined as part of the environmental analysis.

The process of determining the scope, focus and content of an EIS is known as "scoping." Scoping meetings provide a useful opportunity to obtain information from the public and governmental agencies. In particular, the scoping process asks agencies and interested parties to provide input on the proposed alternatives, the purpose and need for the project, the proposed topics of evaluation, and potential impacts and mitigation measures to be considered.

## ENVIRONMENTAL ANALYSIS

Environmental issues to be examined in the Tier 1 EIS include:

- Land acquisition, displacements and relocations
- Cultural and historic resources
- Neighborhood compatibility and environmental justice
- Land use
- Parklands/recreational facilities
- Visual and aesthetic impacts
- Noise and vibration
- Zoning and economic development and secondary development
- Transportation
- Safety and security
- Energy use
- Wildlife and ecosystems
- Natural resources (including air quality and water resources)



## PROJECT OVERVIEW

After nearly 100 years of reliable service, the North Red and Purple Lines infrastructure is significantly past its useful life. Constructed between 1900 and 1922, these two lines provide a backbone of service to neighborhoods along the north lake shore. Together, the North Red and Purple Lines carry over 128,000 rail trips on an average weekday. This heavily relied upon transit service carries over 19 percent of all CTA rail trips on weekdays and 23 percent of all CTA rail trips on the weekend.

CTA and the Federal Transit Administration (FTA) have initiated this federal environmental process pursuant to the National Environmental Policy Act (NEPA) and are preparing a Tier 1 Environmental Impact Statement (EIS) for the project. A Tier 1 EIS addresses broad, overall corridor issues such as general location, mode choice, land use impacts, and cumulative effects.

## Vision Study

The Tier 1 EIS will build upon the North Red and Purple Lines vision study that occurred from fall 2009 to fall 2010. That study identified a range of options that addressed the project's purpose and need to varying degrees and in various ways. The vision study

provided many opportunities for the public to be involved, including four public meetings, a webpage, a comment period and a direct mail survey. This early public participation in the project resulted in over 1,100 public comments that helped shape the project alternatives proposed for study in the EIS.

## PROJECT PURPOSE AND NEED

The purpose of the North Red and Purple Modernization project is to:

- Bring the existing crucial transit asset into a state of good repair
- Reduce travel times
- Improve access to job markets and other destinations
- Respond to past shifts in travel demand
- Better use existing transit infrastructure
- Provide access to persons with disabilities
- Support the area's economic development initiatives and current transit supportive development patterns

The need for the project is based on the following considerations:

- The infrastructure is significantly past its useful life — most of it was constructed between 1900 and 1922
- Much of the infrastructure is dilapidated and continued degradation could increase the cost of maintenance and compromise service in the future
- The community relies on these facilities for all trip types including work access and reverse commutes
- Improvements are needed to make stations ADA accessible — only 6 of the 21 stations are currently ADA accessible
- Transit trip times are delayed and unreliable due to antiquated infrastructure
- The volume of passengers — over 128,000 on an average weekday representing over 19 percent of all CTA rail trips on weekdays and 23 percent of all rail trips on weekends — cannot be accommodated on the currently congested road network or through bus transportation alternatives
- The project area population is growing and is highly transit-reliant and diverse

## PROJECT ALTERNATIVES TO BE EVALUATED IN THE EIS

The Tier 1 EIS will include an evaluation of the following alternatives:

- No Action
- Basic Rehabilitation
- Basic Rehabilitation with Transfer Stations
- Modernization 4-Track
- Modernization 3-Track
- Modernization 2-Track Underground

Public input received during scoping will help confirm and/or revise these alternatives. Other alternatives may also be identified in the scoping process. These alternatives are explained on the following pages and summarized in a comparison table.

## PROJECT AREA

### Evanston Branch

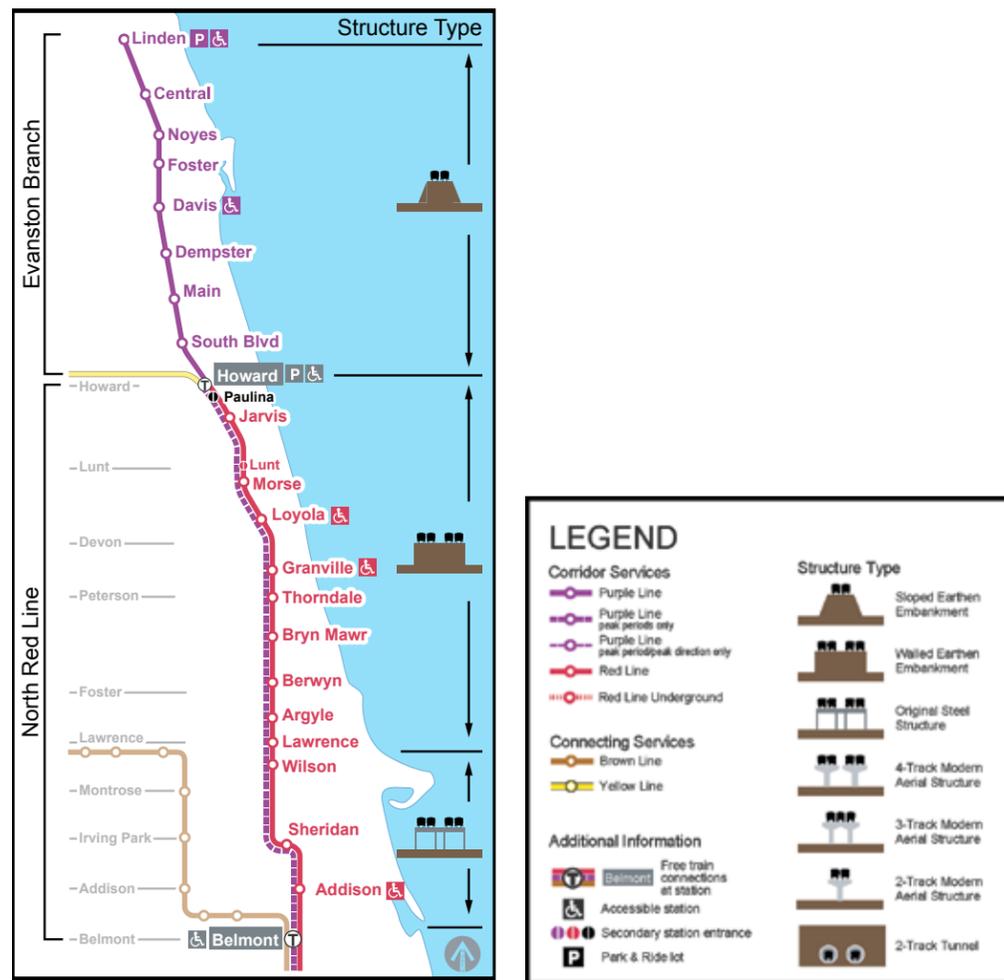
The Evanston Branch, between Linden Terminal and Howard Station, is the northern section of the study area and is approximately 3.8 miles long. This segment currently has 2 operating tracks with 8 stations (not including Howard).

### North Red Line

The North Red Line, between Belmont Station and Howard Station, is the southern section of the study area and is approximately 5.8 miles long. This segment currently has 4 operating tracks with 13 stations.

## NO ACTION ALTERNATIVE

The No Action Alternative would maintain the status quo. This alternative would include the absolute minimum repairs required to keep the Red and Purple Lines functional. Travel patterns would remain the same. Travel times would likely continue to increase and service reliability would continue to degrade due to the need to safely operate on systems not considered in a state of good repair. Additional ADA access would not be provided. Minor repairs and upgrades would be made using current capital funding levels. The No Action Alternative is used as a basis for comparison for the other alternatives.



## BASIC REHABILITATION ALTERNATIVE

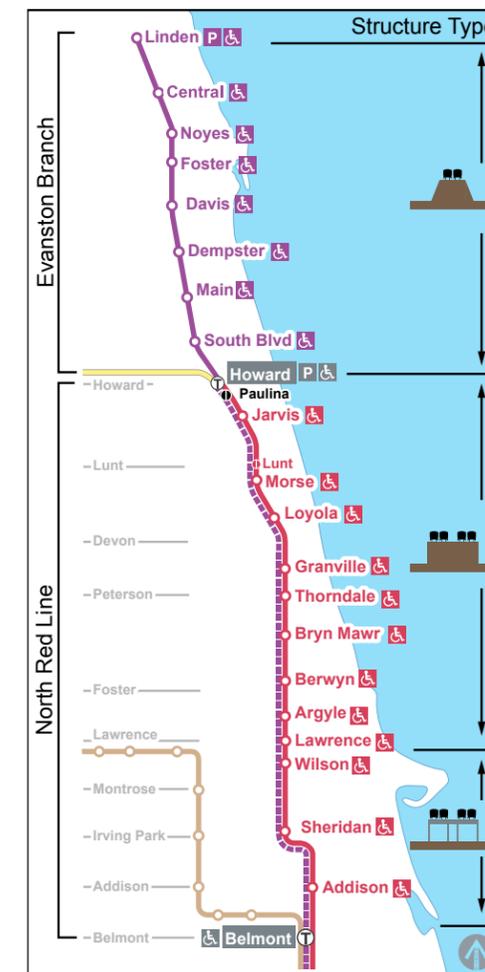
This alternative includes a strategic mix of repairs, rehabilitation, and replacement to bring Evanston Branch and the North Red Line into a state of good repair. It would provide adequate service for the next 20 years. The stations, viaducts, and other structural elements would not be brought up to modern standards and would only meet minimal ADA requirements. Upgrades would be made to signals and communication systems.

### Evanston Branch

Only one station would be renovated to accommodate 8-car trains; all others would receive minor or major repairs in order to accommodate ADA requirements. This alternative consists of upgrades to existing structures primarily within the existing CTA right-of-way and maintenance of the existing overall track alignment and station configurations. The current sloped embankment structure would be maintained with repairs and viaduct replacement as required.

### North Red Line

Five stations would be fully renovated; all others would receive minor or major repairs in order to accommodate ADA requirements. This alternative consists of upgrades to existing structures primarily within the existing CTA right-of-way and maintaining the existing overall track alignment and station configurations. Current embankment structures would be maintained and upgraded. Express service with no stops between Howard and Belmont would continue to be provided in both directions during peak periods.



## BASIC REHABILITATION WITH TRANSFER STATIONS ALTERNATIVE

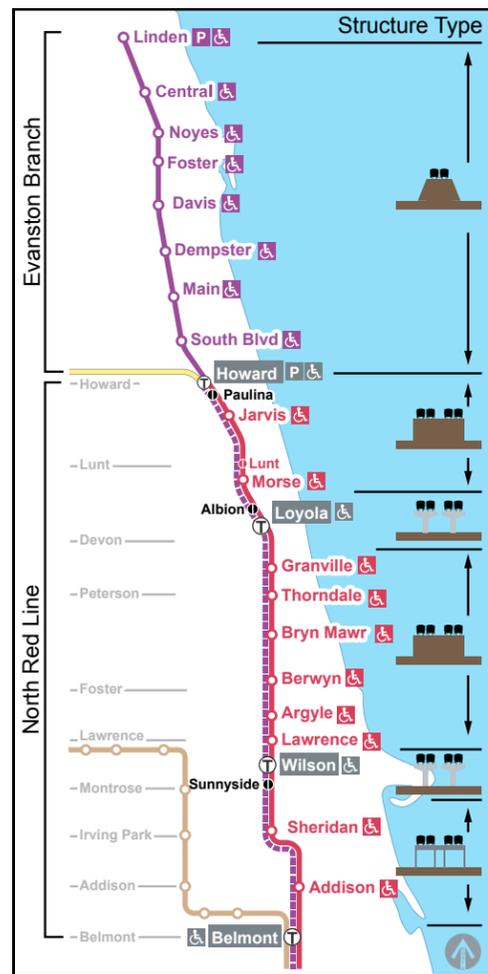
This alternative includes all of the elements of the Basic Rehabilitation Alternative plus new transfer stations at Wilson and Loyola.

### Evanston Branch

Same as Basic Rehabilitation Alternative in this segment for this alternative.

### North Red Line

In addition to including all of the elements of the Basic Rehabilitation Alternative, this alternative adds new transfer stations at Wilson and Loyola in this segment. The existing embankment structure would be replaced with a modern concrete aerial structure along the one mile of associated structures at the new transfer stations. Current embankment structures would be maintained and upgraded in all other areas. The new transfer stations and one mile of associated structures would have a useful life of 60-80 years; the rest of the improvements would have a useful life of 20 years. Additional access to express service would be possible at the two new transfer stations. This alternative would allow for potential expanded hours of express service.



## MODERNIZATION 4-TRACK ALTERNATIVE

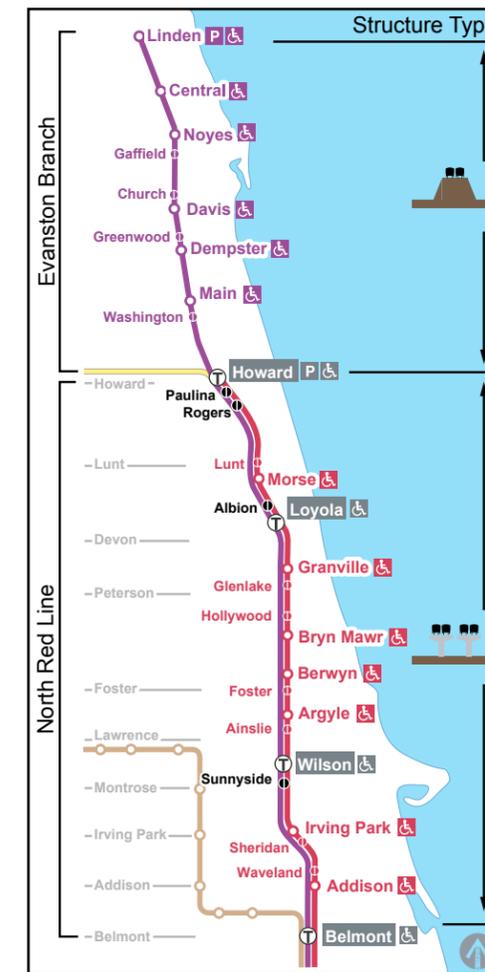
This alternative would provide modern amenities at stations, extend the useful life of the system for the next 60-80 years, increase speed and reliability, and address safety and accessibility concerns. This alternative would require significant right-of-way acquisitions.

### Evanston Branch

Stations would be reconstructed or renovated to meet modern standards for accessibility and safety including modern platform widths and clear lines of sight, in addition to being expanded to accommodate 8-car trains. Reconstruction of elevated structures and viaducts would bring them up to modern standards including clearances for cross streets underneath viaducts. The current sloped embankment structure would be reconstructed and viaducts would be replaced as required. Minimal acquisition would be required to straighten curves that currently slow service. The potential exists to consolidate stops while providing additional access points; examples of this could include: adding a Washington entrance to Main station and removing South Boulevard station; and adding a Gaffield entrance to Noyes station and a Church entrance to Davis station and removing Foster station.

### North Red Line

Stations would be reconstructed or renovated to meet modern standards for accessibility and safety including modern platform widths and clear lines of sight. This alternative would provide express and local service in both directions by maintaining 4-tracks. This alternative would allow for potential expanded hours of express service. Substantial additional right-of-way would be required to increase platform widths and provide clear lines of sight, as well as to straighten curves that slow service. This alternative would replace the existing embankment structure with a modern concrete aerial structure. The potential exists to consolidate stops, while providing additional access points; examples of this could include: adding an Ainslie entrance to Argyle station and removing Lawrence station; adding a Glenlake entrance to Granville station and a Hollywood entrance to Bryn Mawr station and removing Thorndale station; and providing additional access to Howard station at Rogers Avenue and removing Jarvis station.



## MODERNIZATION 3-TRACK ALTERNATIVE

This alternative would provide modern amenities at stations, extend the useful life of the system for the next 60-80 years, increase speed and reliability, and address safety and accessibility concerns. This alternative would remove one of the four tracks in the North Red Line corridor.

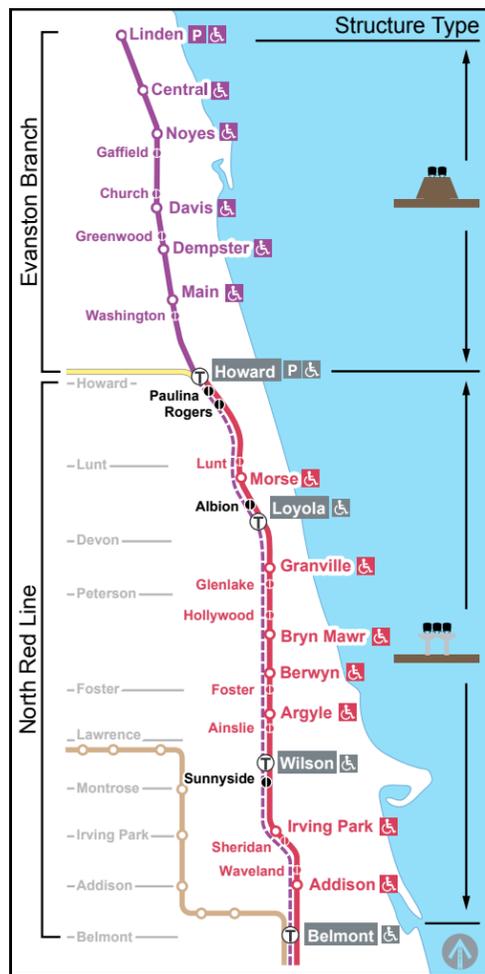
### Evanston Branch

Same as Modernization 4-Track Alternative in this segment for this alternative.

### North Red Line

Stations would be reconstructed or renovated to meet modern standards for accessibility and safety including modern platform widths and clear lines of sight. This alternative would generally stay within the existing right-of-way and would eliminate one of the four existing tracks between Belmont and Howard to accommodate wider platforms.

Local service would be offered in both directions at all times and express service would be offered inbound in the morning and outbound in the evening; no reverse commute express service would be provided. Some right-of-way acquisition would be required to straighten curves that currently slow service. This alternative would replace the existing embankment structure with a modern concrete aerial structure. The potential exists to consolidate stops, while providing additional access points; possibilities would be the same as for the Modernization 4-Track Alternative.



## MODERNIZATION 2-TRACK UNDERGROUND ALTERNATIVE

This alternative would provide modern amenities at stations, extend the useful life of the system for the next 60-80 years, increase speed and reliability, and address safety and accessibility concerns. This alternative would operate underground in a new 2-track alignment in place of the current 4-track alignment in the North Red Line segment.

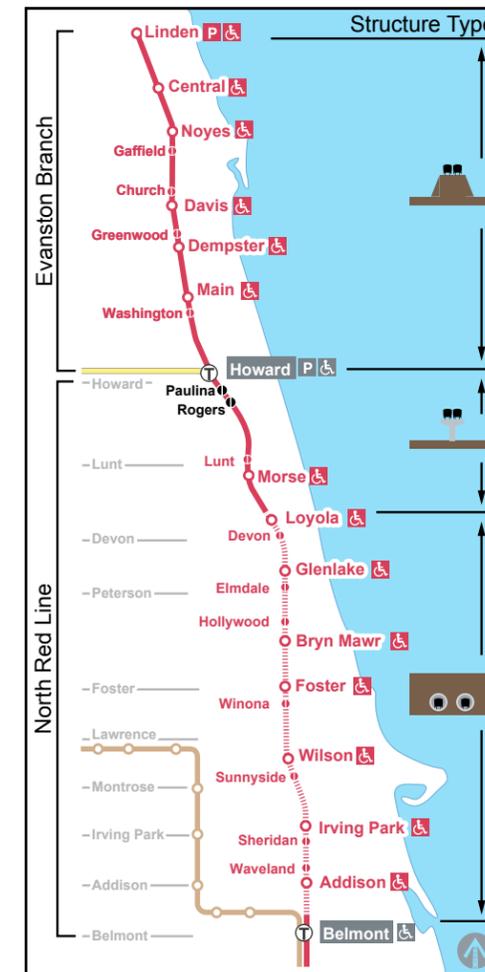
### Evanston Branch

Same as Modernization 4-Track Alternative in this segment for this alternative.

### North Red Line

This alternative would replace a significant portion of the existing 4-track elevated rail structure and embankment with a below-grade 2-track alignment. This alternative would provide a single more frequent local service in both directions between Linden and Belmont in this corridor; no express overlay service would be provided. The alternative alignment would begin north of Belmont and transition below ground, proceeding underneath the north-bound Brown Line tracks.

The alignment would continue northward generally following Sheffield/Sheridan to the intersection of Sheridan and Broadway, and then proceed north underneath Broadway until it transitions back to the elevated alignment just north of Loyola. Due to the grade separation of trains where the Brown and Red Line intersect, this alternative provides for the greatest potential capacity. Subway stations would be constructed at Addison, Irving Park, Wilson, Foster, Bryn Mawr, Glenlake, and Devon/Loyola. The current 4-track elevated embankment alignment between Loyola and Howard would be replaced with a 2-track alignment on a modern concrete aerial structure. This alternative would require right-of-way acquisition outside of the existing Red Line alignment for station entrances and auxiliary structures. Curves would be straightened and new subway stops would be located to maximize train speed. The potential exists in the remaining elevated alignment to provide additional access to Howard station at Rogers Avenue and remove Jarvis station.



# RED PURPLE MODERNIZATION | ALTERNATIVE COMPARISON

	NO ACTION	BASIC REHABILITATION	BASIC REHABILITATION WITH TRANSFER STATIONS	MODERNIZATION 4-TRACK	MODERNIZATION 3-TRACK	MODERNIZATION 2-TRACK UNDERGROUND
<b>OVERVIEW</b>						
<b>Capital Cost</b>	~\$280 million	~\$2,400 million	~\$2,900 million	~\$4,200 million	~\$4,000 million	~\$4,000 million
<b>Longevity</b>	Continued degradation	20 years	20 years (60-80 at transfer stations)	60-80 years	60-80 years	60-80 years
<b>Accessibility</b>	No improvement	Meets minimal requirements	Meets minimal requirements, improvements at transfer stations	Fully addresses safety and accessibility concerns	Fully addresses safety and accessibility concerns	Fully addresses safety and accessibility concerns
<b>Speed</b>	Continued degradation	Short-term slow zone reduction	Short-term slow zone reduction	Faster speeds throughout corridor	Faster speeds throughout corridor	Faster speeds throughout corridor
<b>EVANSTON BRANCH</b>						
<b>Service &amp; Operation</b>	Continued degradation	No improvement	Potential for more through service to Chicago	Potential for more through service to Chicago. Faster service	Express service to Chicago would be provided only in the peak direction. Operational concerns could reduce reliability and increase costs. Faster service	A single service would be provided that would continue into Chicago during normal operating hours. Faster service
<b>Platform Length</b>	6 cars	6 cars	6 cars	8 cars	8 cars	8 cars
<b>Stations Amenities</b>	Continued degradation	ADA and all stations in minimal state of good repair. Narrow platforms retained	ADA and all stations in minimal state of good repair. Narrow platforms retained	ADA and modern amenities at all stations including wider platforms	ADA and modern amenities at all stations including wider platforms	ADA and modern amenities at all stations including wider platforms
<b>Track Structures</b>	Continued degradation at all but 3 to be replaced viaducts	Repaired or replaced for minimal state of good repair	Repaired or replaced for minimal state of good repair	Replacement of all but recently built	Replacement of all but recently built	Replacement of all but recently built
<b>Curves</b>	No improvement	No improvement	No improvement	Straightened at Davis and Foster	Straightened at Davis and Foster	Straightened at Davis and Foster
<b>Stop Consolidation</b>	No change	No change	No change	Alternative access provided for removed stops at Foster and South Blvd	Alternative access provided for removed stops at Foster and South Blvd	Alternative access provided for removed stops at Foster and South Blvd
<b>Total # Station Entrances</b>	8	8	8	10	10	10
<b>NORTH RED LINE</b>						
<b>Service &amp; Operation</b>	Continued degradation	No improvement	Express service access at Loyola and Wilson. Potential for more express service	Express service access at Loyola and Wilson. Potential for more express service. Reduced travel times on both services	Express service access at Loyola and Wilson. Reduced travel times on both services. Operational concerns could reduce reliability and increase costs of service	Single service makes all stops. Reduced travel times and more frequent trains on the single service. Lowest expected operating cost
<b>Number of Tracks</b>	4 tracks	4 tracks	4 tracks	4 tracks	3 tracks	2 tracks
<b>Stations Amenities</b>	Continued degradation	ADA and all stations in minimal state of good repair. Narrow platforms retained	ADA and all stations in minimal state of good repair. Narrow platforms retained. Modern amenities at transfer stations	ADA and modern amenities at all stations including wider platforms	ADA and modern amenities at all station including wider platforms	ADA and modern amenities at all stations including wider platforms. Enclosed station in underground section
<b>Track Structures</b>	Continued degradation	Repaired or replaced to achieve minimal state of good repair	Repaired or replaced to achieve minimal state of good repair	Replacement of all structures and embankment with modern aerial concrete structure	Replacement of all structures and embankment with modern concrete aerial structure	Replacement of all structures and embankment with modern aerial concrete structure and tunnels
<b>Curves</b>	No improvement	Modified at Sheridan	Straightened at Loyola. Modified at Sheridan.	Straightened at Loyola, Montrose, Sheridan, and Addison	Straightened at Loyola, Montrose, Sheridan, and Addison	Straightened at Loyola. No straightening needed in tunnel
<b>Transfer Stations</b>	No improvement	No improvement	New at Loyola and Wilson	New at Loyola and Wilson	New at Loyola and Wilson	All stations serve single service
<b>Stop Consolidation</b>	No change	No change	No change	Alternative access provided for removed stops at Jarvis, Thorndale, and Lawrence	Alternative access provided for removed stops at Jarvis, Thorndale, and Lawrence	New stopping pattern. Alternative access provided for removed stop at Jarvis
<b>Total # Station Entrances</b>	15	15	17	21	21	19
<b>Right of Way Acquisition</b>	None Expected	Minimal. Some required at Sheridan curve	Acquisition required at Loyola Transfer Station and Sheridan curve	Acquisition required at most station locations and curves	Acquisition required at Sheridan and Loyola stations and curves	Acquisition for support structures and station entrances

## PUBLIC PARTICIPATION

Throughout the EIS process, CTA will offer a number of opportunities for you to get involved in the North Red and Purple Modernization project. Whether you want to take an active role in shaping this project or just want to stay informed, CTA looks forward to your participation in the months ahead. To ensure that the issues most important to residents, public agencies, and other involved parties are addressed in this review, CTA is hosting four scoping meetings to collect public input. The input gathered from the scoping meetings will help shape the scope of the project, its design efforts and the assessment criteria used in evaluating improvement options.

Additional opportunities to participate will be provided throughout the environmental review process in order to solicit feedback regarding specific needs and concerns.

## HOW TO PARTICIPATE

### Attend a Meeting

Monday, January 24, 2011: 6:00 to 8:30 p.m.

**Uptown:** St. Augustine College  
1345 W. Argyle St., Chicago, IL 60640

Tuesday, January 25, 2011: 6:00 to 8:30 p.m.

**Edgewater:** Nicholas Senn High School  
5900 N. Glenwood Ave., Chicago, IL 60660

Wednesday, January 26, 2011: 6:00 to 8:30 p.m.

**Rogers Park:** New Field Primary School  
1707 W. Morse Ave., Chicago, IL 60626

Thursday, January 27, 2011: 6:00 to 8:30 p.m.

**Evanston:** Fleetwood-Jourdain Community Center  
1655 Foster St., Evanston, IL 60201

Oral and written comments can be made at the meeting.

### Provide Comments

In addition to the scoping meetings, you have the opportunity to provide written comments on the proposed project alternatives and potential environmental impacts. Comments will be considered in the scoping process if postmarked by February, 18, 2011.

Mail your comments to:

Steve Hands  
Strategic Planning & Policy  
Chicago Transit Authority  
P.O. Box 7602  
Chicago, IL 60680-7602  
E-mail: [RPM@transitchicago.com](mailto:RPM@transitchicago.com)  
Fax: (312) 681-4195

Comments can be submitted by mail, e-mail, or fax.

### Stay Involved

For project information, visit: [www.transitchicago.com/rpmproject](http://www.transitchicago.com/rpmproject)

If you would like to be added to the project mailing list or e-list for future updates, send your contact information to Jeff Wilson, CTA Government and Community Relations Officer, Chicago Transit Authority, P.O. Box 7567, Chicago, IL 60680-7567, call (312) 681-2712 or e-mail [jwilson@transitchicago.com](mailto:jwilson@transitchicago.com).

## THE DECISION MAKING PROCESS AND NEXT STEPS

After the scoping period, CTA will start preliminary engineering and prepare a Draft EIS. You will have an opportunity to comment on the Draft EIS during a 45-day public comment period. During the review period, CTA will host public hearings to receive comments on the Draft EIS from the public and agencies. CTA will then prepare a Final EIS that includes responses to public comments.

The Federal Transit Administration (FTA) will consider the Final EIS and prepare a Record of Decision (ROD) selecting a preferred alternative. Issuance of the ROD indicates that CTA has satisfied all of the requirements of the National Environmental Policy Act (NEPA) and will allow CTA to move forward with identification and prioritization of individual projects within the project area, such as a single station with an associated track structure. Specific projects could then advance more quickly as funding is identified. These projects would need detailed design and may need some additional environmental review, which could include Categorical Exclusions (CE), Environmental Assessments (EA) or Tier 2 EIS, any of which would build on the Tier 1 EIS analysis.

<b>TARGETED PROJECT SCHEDULE</b>				
Fall 2009 – Fall 2010	Winter 2011	2011 – 2012	2012	To Be Determined
Vision Study Public Input & Initial Concepts Developed	Public Scoping Meetings January 24, 25, 26 and 27, 2011	Preliminary Engineering (PE) and Draft Tier 1 EIS	Final Tier 1 EIS and Record of Decision (ROD)	Project Level NEPA as Needed (CE/EA/ EIS) & PE  Final Design & Start of Construction
Completed	Funded	Funding Required	Funding Required	Funding Required