Red and Purple Modernization: Rebuilding Vital Infrastructure For Chicago’s Future

CTA is undertaking a major new initiative to completely rebuild the northern portion of the Red Line (Belmont station to Howard station) and the Purple Line (Belmont station to Linden station). The Red and Purple Modernization (RPM) Program would fully replace old, deteriorating infrastructure and stations along Chicago’s busiest rail line, and would pave the way for CTA to significantly increase train capacity and improve customer service for generations to come.

Why is the Red-Purple Modernization Program Needed?

Simply put, the Red and Purple lines have reached the end of their useful life spans. Most tracks and bridges are nearly 100 years old. Continuing to operate a busy rail line on this outdated infrastructure results in unusually high maintenance costs, the need for frequent repairs that disrupt service and slow travel, and outdated stations that can’t accommodate modern amenities for our customers.

This section of the Red and Purple lines carries more than 20 percent of all CTA rail rides and serves customers in some of the densest neighborhoods in Chicago. Rush hour ridership has jumped 40 percent in five years. The aging Red Line has reached capacity, and CTA cannot add trains to meet rising demand. If nothing is done, trains would grow even more crowded and service would deteriorate further.

Current conditions in the RPM corridor call for corrective action:

- Increasingly crowded trains during rush hour commute
- Outdated stations with very narrow and crowded platforms do not allow for elevators or upgraded amenities
- Slow service due to deteriorated track conditions (“slow zones”)
- An inefficient, outdated intersection where the Red, Purple, and Brown lines meet, causing train backups and prevent CTA from adding more service
- Nearly 100-year-old bridges and viaducts that need to be rebuilt

Building a better transit experience for our customers

A massive, multi-stage project scheduled to be completed in phases, RPM would deliver all the benefits of modern service and infrastructure when it is completed. Benefits for customers would include:

- Faster, smoother rides – New track, bridges, and viaducts, as well as electrical upgrades along the entire Red-Purple corridor, would allow CTA to safely increase the speeds for all trains while also offering a smoother, quieter ride.
- Modern, comfortable, fully ADA accessible stations along the entire corridor with elevators, wider platforms, and vastly improved amenities.
- Less crowding and more frequent service – With wider, longer station platforms along the entire line, upgraded electrical and signal capacity, and the elimination of bottlenecks at an outdated rail intersection, CTA can run longer and more frequent trains during rush hour, reducing passenger wait times and alleviating overcrowding.

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Preliminary conceptual design of Bryn Mawr station

Sheridan Curve Construction, April, 1897
RPM: Phase One

The first phase of the RPM improvements would include two main components:

1. Construction of the Red-Purple Bypass north of the Belmont station to address significant capacity constraints caused by an outdated junction where the Red, Purple, and Brown lines intersect. The bypass would allow the CTA to add train service as ridership grows and by increasing the number of trains that pass through this intersection.

2. Completely rebuilding four aging stations (Lawrence, Argyle, Berwyn, and Bryn Mawr) and rebuilding all tracks, support structures, bridges, and viaducts between Leland and near Ardmore Avenues. The new stations would include modern amenities and elevators to make them accessible to customers with disabilities, and the new tracks would significantly improve train speeds and service reliability.

Next Steps

The Federal Transit Administration (FTA) will evaluate two Environmental Assessments, one each for the Red-Purple Bypass and the Lawrence to Bryn Mawr Modernization projects. Their final decision documentation will allow CTA to move forward into the next phase of the project implementation (engineering) and qualify for federal funding. There are multiple opportunities to provide feedback throughout this process, including public hearings.

Red Ahead

RPM is part of the CTA’s Red Ahead program, a comprehensive initiative for maintaining, modernizing, and expanding Chicago’s most-traveled rail line.

The Red Ahead program also includes the Red Line South Reconstruction Project (completed 2013), the 95th Street Terminal Project (began summer 2014), the Wilson Station Reconstruction Project (began fall 2014) and the Red Line Extension Project (currently in planning).