Red and Purple Modernization Project Phase One
Chicago, Illinois
Core Capacity Engineering
(Rating Assigned November 2015)

Summary Description	
Proposed Project:	Heavy Rail Modernization
	5.6 Miles, 4 Stations
Core Capacity Capital Cost ($YOE):	$1,993.25 Million (Includes $153.9 million in finance charges)
Section 5309 Core Capacity Share ($YOE):	$956.61 Million (48.0%)
Annual Operating Cost (opening year 2023):	$6.71 Million
Existing Ridership in the Corridor:	175,400 Daily Linked Trips
	57,100,500 Annual Linked Trips
Existing Useable Space per Passenger:	5.2 Square Feet
Overall Project Rating:	Medium-High
Project Justification Rating:	Medium-High
Local Financial Commitment Rating:	Medium-High

Project Description: The Chicago Transit Authority (CTA) plans to reconstruct the Red and Purple elevated heavy rail lines in phases between the Belmont station on the north side of Chicago and the Linden station in Wilmette. The work will expand capacity and bring the infrastructure into a state of good repair. This project is the first phase of that effort, and will improve the 5.6-mile segment of the corridor between the Belmont and Howard stations by reconstructing four stations and 1.3 route miles of guideway, constructing a grade-separated flyover for northbound Brown Line trains at the junction with the Red and Purple lines, replacing the signal system, making power substation upgrades, and purchasing 32 new railcars for expanded service. The total capital cost of the Phase One project, including state of good repair elements, is estimated to be $2.131 billion in year-of-expenditure (YOE) dollars. The estimated capital cost of the Core Capacity component, which is the subject of the Federal Transit Administration's evaluation and rating process, is shown in the table above. CTA estimates that when it is complete, Phase One will increase capacity in the corridor by 15 percent, which exceeds the ten-percent minimum required by law for Core Capacity projects.

Project Purpose: The project corridor is one of the busiest corridors in the CTA system, yet much of the infrastructure is nearly a century old and many of the stations are undersized for current demand. The configuration of the corridor, particularly the junction near the Belmont station at which northbound Brown Line trains must turn across tracks used by Red and Purple Line trains without any grade separation, precludes CTA from simply adding more trains. Peak-hour ridership in the corridor has increased by 40 percent in the last five years and CTA expects continued growth that it cannot meet with current service levels. The Phase One project will improve the efficiency of CTA's operations in the corridor and allow CTA to expand service to meet demand. In addition to reducing crowding aboard trains, Phase One will provide improved waiting conditions and include improvements to comply with the Americans with Disabilities Act at the four stations that are proposed to be reconstructed.

Project Development History, Status and Next Steps: CTA conducted a vision study for the full 9.6-mile corridor between the Belmont and Linden stations in 2009 and 2010 that concluded with CTA's adoption of modernization of the entire corridor as the locally preferred alternative (LPA) in October 2010. The LPA was adopted into the region's fiscally constrained long range transportation plan in October 2010. The project entered Core Capacity Project Development in November 2013. CTA opted in early 2014 to implement the modernization project in phases. The environmental review process for the Phase One project concluded following the issuance of two Categorical Exclusions (CEs) in July 2015 for the corridor signal improvements and advanced system work, and two Findings of No Significant Impact (FONSIs) in October 2015 for the flyover bypass and station reconstruction work. CTA anticipates receipt of a Full Funding Grant Agreement (FFGA) in December 2016, with project completion anticipated in October 2023.

Locally Proposed Financial Plan *		
Source of Funds	Total Funds ($million)	Percent of Total
Federal:		
Section 5309 Core Capacity	$956.61	48.0%
FHWA Flexible Funds (Congestion Mitigation and Air Quality)	$125.00	6.3%
Grant Anticipation Notes	$0.43	0.0%
Local:		
CTA Sales Tax Bonds and Cash	$541.78	27.2%
Transportation Infrastructure Finance and Innovation Act Loan Backed by Tax-Increment Financing (TIF) District Revenue	$359.43	18.0%
Bryn Mawr TIF District Revenue	$10.00	0.5%
Total:	$1,993.25	100.0%

* Core Capacity portion of project only. Total project cost, including state of good repair elements, is $2,131.31 million.

NOTE: The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of the figures may differ from the total as listed due to rounding.

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Factor	Rating	Comments
Local Financial Commitment Rating	**Medium-High**	
Non-Section 5309 Core Capacity Share	**+1 level**	The Core Capacity share of the project is 48 percent.
Project Financial Plan	**Medium**	
Capital and Operating Condition (25% of plan rating)	Medium	• The average age of the bus fleet is 7.0 years, which is in line with the industry average. • Chicago Transit Authority's (CTA) most recent bond ratings, issued in July 2015, are as follows: Standard & Poor's AA and Kroll Bond Rating Agency AA. • CTA's current ratio of assets to liabilities as reported in its most recent audited financial statement is 1.04 (FY2014). • There have been no cash flow shortages and only one minor service cutback in FY2011, followed by service increases in FY2012 and FY2013.
Commitment of Capital and Operating Funds (25% of plan rating)	Medium-High	• 65.3 percent of the non-Section 5309 Core Capacity funds is committed or budgeted, while the remainder is planned. Sources of funds include Congestion Mitigation and Air Quality (CMAQ) program funds, CTA sales tax revenue bond proceeds, revenues from an existing tax increment financing (TIF) district, a USDOT Transportation Infrastructure Finance and Innovation Act (TIFIA) program loan to be repaid with revenues from a new TIF district, and grant anticipation notes. • 99.3 percent of the funds needed to operate and maintain the transit system in the first full year of operation is committed or budgeted, while the remainder is planned. Sources include fare revenues, sales tax revenues, real estate transfer tax revenues, advertising and concession revenues, contributions from local governments, investment income, Regional Transportation Authority discretionary sales tax revenue, and a state subsidy for reduced fare programs.
Capital and Operating Cost Estimates, Assumptions and Financial Capacity (50% of plan rating)	Medium-Low	• Capital revenue growth assumptions are slightly optimistic when compared with historical experience. • The capital cost estimate is reasonable. • CTA has the financial capacity to cover capital cost increases or funding shortfalls equal to at least 40 percent of the estimated core capacity project cost. • Assumed farebox collections are slightly optimistic, while assumptions about sales tax revenue growth are consistent with historical experience. • Projected cash balances and reserve accounts are approximately 10 percent of annual system-wide operating expenses. • While CTA has programmed funding to address its state of good repair needs through 2019, it lacks a long term plan to address the backlog.

1.8 Project Map