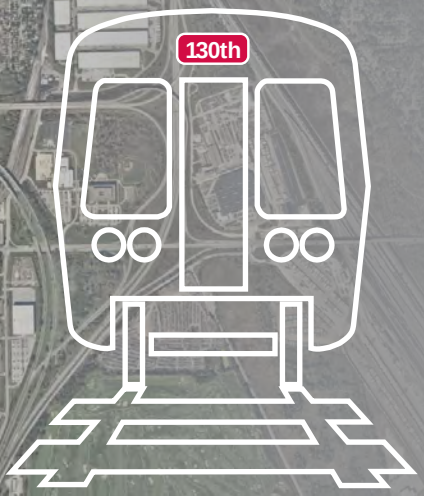
RED AHEAD

Red Line Extension



RED LINE EXTENSION

COMBINED FINAL ENVIRONMENTAL IMPACT STATEMENT/RECORD OF DECISION AND SECTION 4(f) EVALUATION

AUGUST 2022

Chicago, Illinois

Prepared by:
Federal Transit Administration
Chicago Transit Authority

In Cooperation with:
Federal Highway Administration

Combined Final Environmental Impact Statement, Record of Decision,

and Section 4(f) Evaluation

for the

Chicago Red Line Extension Project

Chicago, Illinois

prepared by the

U.S. Department of Transportation

Federal Transit Administration

and the

Chicago Transit Authority

in cooperation with the

Federal Highway Administration

pursuant to:

National Environmental Policy Act of 1969 (42 USC § 4332), Efficient Environmental Reviews for Project Decision Making (23 USC § 139), Council on Environmental Quality Regulations for Implementing the Procedures of the National Environmental Policy Act (40 CFR Parts1500-1508), FHWA/FTA Environmental Impact and Related Procedures (23 CFR Part 771), and Section 4(f) requirements (49 USC § 303 and 23 USC § 138) and regulations (23 CFR Part 774)

July 28, 2022

Date of Approval

Kelley Brookins
Regional Administrator
U.S. Department of Transportation
Federal Transit Administration

July 28, 2022

Date of Approval

Michael Connelly
Chief Planning Officer
Chicago Transit Authority

Abstract

The Federal Transit Administration (FTA), the lead Federal agency, and the Chicago Transit Authority (CTA), the local project sponsor, in cooperation with the Federal Highway Administration (FHWA), have prepared this combined Final Environmental Impact Statement (EIS)/Record of Decision (combined Final EIS/ROD) and Final Section 4(f) Evaluation for the Red Line Extension (RLE) Project on the Far South Side of Chicago in Cook County, Illinois. This combined Final EIS/ROD was prepared in accordance with regulations developed by the Council on Environmental Quality (CEQ) for the National Environmental Policy Act (NEPA) (40 CFR Parts 1500-1508) and FTA's Environmental Impact and Related Procedures (23 CFR Parts 771 and 774). The combined Final EIS/ROD complies with 23 US § 139(n)(2) as amended by the Fixing America's Surface Transportation Act (Public Law 114-94) and succeeded by the Infrastructure Investments and Jobs Act (Public Law 117-58, also known as the "Bipartisan Infrastructure Law") in November 2021.

The RLE Project would extend the Red Line from the existing 95th/Dan Ryan terminal to 130th Street. The proposed 5.6-mile extension would include four new stations near 103rd Street, 111th Street, Michigan Avenue, and 130th Street. Multimodal connections at each station would include bus, bike, pedestrian, and park & ride facilities. This Final EIS includes the project's purpose and need, and a description of the alternatives considered. The Final EIS evaluates the impacts and the benefits of the project's Preferred Alignment in comparison with the No Build Alternative. The following environmental categories are addressed in the Final EIS, including related methods and regulations, agency coordination (where applicable), anticipated permanent, temporary (construction), and cumulative impacts, and committed mitigation measures: transportation; land use and economic development; displacements and relocations; neighborhoods and communities; visual and aesthetic conditions; noise and vibration; safety and security; historic and cultural resources; hazardous materials; wetlands; air quality; water quality; floodplains; vegetation and wildlife; threatened and endangered species; geology and soils; energy; environmental justice; and Section 4(f) evaluation. The evaluation of alternatives includes potential capital and operating funding strategies. The Final EIS includes the corresponding public and agency coordination.

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Executive Summary

The Chicago Transit Authority (CTA), as project sponsor to the Federal Transit Administration (FTA), proposes to extend the existing Red Line heavy rail transit service 5.6 miles south from the existing 95th/Dan Ryan terminal to Chicago's Far South Side. The RLE Project would include four new stations near 103rd Street, 111th Street, Michigan Avenue, and 130th Street. Multimodal connections at each station would include bus, bike, pedestrian, and park & ride facilities. The Red Line provides rapid transit services 24/7 and is the most heavily traveled rail line in the CTA system. This project is one part of the Red Ahead Program to extend and enhance the entire Red Line.

The National Environmental Policy Act of 1969 (NEPA) mandates the consideration of environmental impacts before approval of any federally funded project that may have significant impacts on the environment or where impacts have not yet been determined (42 United States Code [USC] § 4332). FTA and CTA prepared this Red Line Extension (RLE) Project Final Environmental Impact Statement (EIS) in accordance with regulations developed by the Council on Environmental Quality (CEQ) for the National Environmental Policy Act (NEPA) (40 CFR Parts 1500-1508) and FTA's Environmental Impact and Related Procedures (23 CFR Parts 771 and 774). Other applicable regulations include Section 106 of the National Historic Preservation Act (NHPA), Section 4(f) of the United States Department of Transportation (USDOT) Act of 1966, joint guidance and regulations from FTA and the Federal Highway Administration, and other agency regulations and guidelines. The Final EIS has been combined with the FTA Record of Decision (ROD) pursuant to 23 CFR 771.125 and complies with 23 USC § 139(n)(2) as amended by the Fixing America's Surface Transportation Act (Public Law 114-94) and succeeded by the Infrastructure Investments and Jobs Act (Public Law 117-58, also known as the "Bipartisan Infrastructure Law") in November 2021. Any reference to the Final EIS is inclusive of the ROD.

NEPA documents, such as this EIS, must provide sufficient technical detail to meet a range of legal requirements and are required to be organized in a specific way, as described in 40 Code of Federal Regulations (CFR) § 1502. **Table ES-1** provides an overview of the chapters and the major topics covered in this document.

Table ES-1: Environmental Impact Statement Document Organization

Chapter 1 Purpose and Need	This chapter is the foundation of the document. It introduces the RLE Project, provides background information, and explains why the RLE Project is proposed and important.
Chapter 2 Alternatives Considered	This chapter reviews the planning process and alternatives under further consideration in this Final EIS.
Chapter 3 Transportation	This chapter presents the potential for impacts on the transportation network. This chapter also discusses measures to avoid or minimize those impacts.
Chapter 4 Environmental Impacts and Mitigation	This chapter discusses the social, economic, and environmental resources that could be affected by the construction and operation of the RLE Project and measures to avoid or minimize those impacts.

Chapter 5 Indirect and Cumulative Impacts	This chapter discusses impacts to resources that may not be directly caused by the RLE Project, but instead may result from or be attributable to the environment created by the RLE Project.
Chapter 6 Resources with Limited or No Adverse Impacts	This chapter summarizes the resources that would have limited or no adverse impacts due to operation or construction of the RLE Project.
Chapter 7 Environmental Justice	This chapter discusses the impacts of the RLE Project on environmental justice communities in the area of potential impact.
Chapter 8 Section 4(f) Evaluation	This chapter focuses on meeting the federal requirements of Section 4(f) of the USDOT Act of 1966, which protects significant historic sites, publicly owned parks, recreation areas, and wildlife and waterfowl refuges.
Chapter 9 Evaluation of Alternatives	This chapter presents potential capital and operating funding strategies for the RLE Project.
Chapter 10 Public and Agency Coordination	This chapter discusses the process for public involvement and agency coordination and addresses public comments and suggestions.
Chapter 11 List of Acronyms and Abbreviations	This chapter provides definitions for the acronyms and abbreviations used within the document.
Chapter 12 References	This chapter provides the references used within the document.
Chapter 13 List of Preparers	This chapter lists the preparers of this document.
Chapter 14 List of Recipients	This chapter lists the agencies, local officials, and public libraries that were notified of the availability of this document.
Chapter 15 Glossary	This chapter provides definitions for the phrases and terms used throughout the document.

Red Line Extension Project Background

The RLE Project would reduce commute times for residents, improve mobility and accessibility, and provide connections to other transportation modes. The RLE Project could also foster economic development, where new stations may serve as catalysts for neighborhood revitalization and help reverse decades of disinvestment in local business districts. The RLE Project would also provide a modern, efficient railcar storage yard and shop facility at 120th Street. Supporting information on the purpose and need for this project is provided in **Chapter 1**.

CTA undertook an extensive Alternatives Analysis process from 2006 to 2009 that considered multiple modes and corridor options for the RLE Project. The Chicago Transit Board designated

the Union Pacific Railroad (UPRR) Rail Alternative as the Locally Preferred Alternative on August 12, 2009. Based on further technical analysis and public input, CTA selected the UPRR Rail Alternative as the NEPA Preferred Alternative in August 2014. The Draft EIS, published on October 6, 2016, disclosed the environmental benefits and impacts of the No Build Alternative and the two UPRR Rail Alternative options: the East Option and the West Option.

Subsequent to the publication of the Draft EIS, continued design and outreach by CTA resulted in the selection of the Preferred Alignment for the RLE Project. The Preferred Alignment was announced to the public on January 26, 2018. The Preferred Alignment is a hybrid of the East and West Options of the UPRR Rail Alternative presented in the Draft EIS. CTA reviewed multiple locations for a cross-over area that would maximize the benefits and reduce the impacts of the East and West Options.

The UPRR provided comments on the Draft EIS where they expressed their preference for the West Option due to concerns for the proximity of the East Option to their tracks. UPRR noted that the location of the Roseland Pumping Station could not accommodate UPRR's requested clearance of 25 feet between the centerlines of the UPRR's potential tracks and the proposed East Option. Therefore, all hybrid options considered in selecting the Preferred Alignment started with the West Option and crossed over from the west to the east side of the UPRR tracks south of the pumping station and north of 115th Street to minimize property impacts. Comparative analysis of parcel impacts and alignment with the goals of the RLE Project identified the vicinity of 108th Place as the cross-over location that would provide the greatest benefit. A cross-over in the vicinity of 108th Place would preserve viable businesses; minimize impacts on schools, residences, and the historic Roseland Pumping Station; preserve properties slated for future development surrounding the station areas; and would accommodate UPRR's potential tracks. However, additional engineering refined the alignment further, which moved the UPRR crossing north from 108th Place to 107th Place. The refinement would lower the 111th Street station platform height and would lower the profile of the elevated structure. Lowering the platform makes the height more typical to what is existing throughout CTA's system thus improving passenger comfort ascending/descending the stairs

After the announcement of the Preferred Alignment in 2018, CTA continued to conduct stakeholder coordination and further develop design plans. Norfolk Southern Railway (NS) shared their plans for future potential access to Canadian National/Metra Electric District (CN/MED) tracks to the north of Kensington Yard and the national freight rail network at that location. This access would allow restoration of a former connection that the Michigan Central Railroad had with the CN/MED tracks, which were then owned by the Illinois Central Railroad. The 120th Street yard and shop presented in the Draft EIS would have precluded future potential access to those tracks as well as access to All American Recycling located west of the railroad tracks (11900 S. Cottage Grove Avenue). The All American Recycling facility is served by the NS via its joint ownership of Consolidated Rail Corporation (Conrail) and Indiana Harbor Belt Railroad (IHB). This coordination with NS resulted in additional adjustments to the Preferred Alignment near the 120th Street yard and shop. The 120th Street yard and shop and the tracks south to 130th Street were shifted approximately 100 feet to the west to accommodate NS railroad access to All American Recycling and potential improvements to the national freight rail network, namely a future connection from the NS track to the CN tracks along the MED corridor. In addition, this design refinement would

provide a rail connection to facilitate rail delivery of ballast, ties, and other material to support CTA operations.

In 2019, CTA began exploring an opportunity to relocate the 130th Street station, the terminating station of the RLE Project, to a location south of 130th Street. The Draft EIS had originally proposed the station location north of 130th Street. In 2017, after publication of the Draft EIS, the Chicago Housing Authority (CHA) demolished Blocks 11, 12, and 13 of the Altgeld Gardens neighborhood, creating an opportunity to relocate the station south of 130th Street to the area of the demolished blocks. The demolition of Blocks 11, 12, and 13 of Altgeld Gardens was an activity completed by CHA and was independent and unrelated to the RLE Project. CTA evaluated the station relocation for feasibility. Meetings were held with partner agencies and stakeholder groups of residents in the station area with these agencies and groups expressing support for the station relocation. The design refinement relocated the station from north of 130th Street, as presented in the Draft EIS, to south of 130th Street, adjacent to the Altgeld Gardens neighborhood.

Since the publication of the Draft EIS and selection of the Preferred Alignment, three design refinements were made as discussed above: (1) the location of the 107th Place cross-over between UPRR East and West alignment options evaluated in the Draft EIS required for selection of a hybrid Preferred Alignment; (2) refinement of the 120th Street yard and shop location; and (3) relocation of the 130th Street station to extend the Preferred Alignment farther south so the 130th Street station would be within the Altgeld Gardens neighborhood. These design refinements were evaluated in a Supplemental Environmental Assessment (EA) that was published on January 31, 2022. The public hearing for the Supplemental EA was held in two formats: one virtual meeting and one in-person meeting. The virtual hearing was February 15, 2022 and the in-person hearing was February 17, 2022. Each public hearing solicited comments from agencies and the community about findings presented in the Supplemental EA and comments were accepted from January 31, 2022 to March 1, 2022. The agency coordination and outreach associated with the Supplemental EA have influenced the design refinements incorporated into the Preferred Alignment that is analyzed in this Final EIS shown in **Figure 1-1** and as described in **Chapter 2**.

The following key features of the Preferred Alignment remain similar to that disclosed in the Draft EIS:

- 5.6-mile heavy rail transit line extension from the existing 95th/Dan Ryan terminal to 130th Street. The original project length was 5.3 miles and was lengthened to 5.6 miles when the 130th Street station was relocated.
- Four new stations near 103rd Street, 111th Street, Michigan Avenue, and 130th Street
- Multimodal connections at each station including bus, bike, pedestrian, and park & ride facilities. Park & ride facilities total up to 1,340 parking spaces along the corridor.
- New yard and shop at 120th Street

Environmental Benefits and Impacts

Potential environmental benefits and impacts are detailed in **Chapters 3–8** of the Final EIS and are summarized in **Table ES-2**. CTA evaluated the impacts of the Preferred Alignment in comparison with the respective portions of the East and West Options of the UPRR Rail Alternative to identify any changes to the resource benefits or impacts resulting from the Preferred Alignment.

Table ES-2: Summary of Benefits and Impacts

No Build Alternative	Preferred Alignment
Transportation (*Chapter 3*)	
No additional rapid rail transit service would be provided. Eight intersections would operate at an undesirable level of service (LOS) of E or F in either the AM or PM peak hours or both in the 2050 design year. Traffic flow would continue to deteriorate.	Permanent *Public Transportation* ▪ CTA passengers would benefit from faster travel times by accessing rail service farther south. ▪ CTA passengers would benefit from reduced congested conditions at the 95th/Dan Ryan terminal with bus reroutes that would more directly connect passengers to new stations farther south. ▪ Permanent impacts would be beneficial. *Vehicular Traffic* ▪ Five intersections would operate at a LOS worse than the No Build condition in 2050, and five others would operate at an undesirable LOS, which is defined as a LOS of E or F. ▪ Closure of Old 130th Street would eliminate one of three access routes to Carver Military Academy High School and a connection to the access road into the Beaubien Woods Forest Preserve. Closure of this access would not result in adverse impacts because the primary access to Carver Military Academy High School and Beaubien Woods Forest Preserve amenities from 130th Street to Greenwood Avenue and 132nd Street would remain. The secondary access from Doty Avenue would remain unchanged. ▪ Permanent impacts would not be adverse after mitigation. *Pedestrian* ▪ Pedestrians would benefit from upgraded intersections immediately adjacent to stations with Americans with Disabilities Act (ADA) accessible curb ramps, replacement of deteriorated sidewalks, and in-fill of sidewalk gaps. ▪ With the exception of the 130th Street station, pedestrians may need to use the UPRR at-grade crossings to access the RLE stations, depending on the direction of travel on foot, resulting in pedestrian safety impacts. ▪ Permanent impacts would not be adverse after mitigation.

No Build Alternative	Preferred Alignment
	Bicycle ▪ Bicyclists would benefit from the addition of bicycle parking at the four RLE stations and connections to nearby existing and proposed bike routes via expanded transit access from the RLE Project. ▪ Permanent impacts would be beneficial. *Freight Transportation* ▪ There would be no permanent impacts. *Parking Facilities* ▪ The 111th Street station would affect the existing parking at the Agape Community Center. This RLE station would require the use of a City-owned parcel that would affect its current use by the Agape Community Center for parking. ▪ Access to the TCA Health parking lot would be maintained and parking space impacts from the 130th Street station, if any, would be replaced at a ratio of 1 to 1. ▪ Benefits would accrue by providing additional park & ride opportunities to attract passengers to transit and potentially improve connections to regional commuter rail. ▪ Permanent impacts would not be adverse after mitigation. Construction ▪ Construction activities would temporarily affect the physical capacity of roadways, sidewalks, and intersections subject to lane closures, narrowing, and detours. This would affect bus transportation, vehicular traffic, bicycle traffic, truck freight, pedestrians, on-street parking, and potentially access to off-street parking. ▪ Increased congestion due to construction may temporarily increase travel times along roadways within the RLE project area. ▪ Construction impacts are temporary and would not be adverse after mitigation.
Land Use and Economic Development (*Chapter 4.1*)	
No Impact	Permanent ▪ Economic development benefits would improve from new public transportation options. ▪ Incompatible zoning for stations, substations, and park & ride facilities would be rezoned. ▪ Permanent impacts would not be adverse after mitigation.

No Build Alternative	Preferred Alignment
	Construction ▪ Construction could be disruptive to businesses along the Preferred Alignment. ▪ Construction impacts are temporary and would not be adverse after mitigation.
Displacements and Relocation of Existing Uses (*Chapter 4.2*)	
No Impact	Permanent ▪ Accommodation of tracks, stations, yard and shop, and other ancillary facilities would require acquisition of 228 parcels, of which 97 of these parcels have buildings that would be permanently displaced. These parcels with displacements are primarily residential with some commercial/industrial uses. ▪ Permanent impacts would not be adverse after mitigation. Construction ▪ Construction impacts would not occur.
Neighborhoods and Communities (*Chapter 4.3*)	
No Impact	Permanent *Community Character and Cohesion* ▪ In the Washington Heights and Roseland communities, the elevated structure between 99th Street and 103rd Street would change the neighborhood setting of the houses facing it, which represents an adverse visual impact. The adverse impact would also include the 103rd Street station and the area near the 107th Place cross-over due to the change in residential character. ▪ There would be adverse visual impacts in the West Pullman community at 117th Street and Prairie Avenue due to the elevated structure, and in the Riverdale community near the Altgeld Gardens neighborhood due to the 130th Street station park & ride facility. ▪ Permanent impacts would be adverse despite mitigation. *Mobility* ▪ All communities in the vicinity of the RLE Project would benefit from improved mobility with reduced travel times. ▪ Closure of Old 130th Street would eliminate one of three access routes to Carver Military Academy High School and a connection to the access road into the Beaubien Woods Forest Preserve. The primary access to Carver Military Academy High School and Beaubien Woods Forest Preserve amenities from 130th Street to Greenwood Avenue and 132nd Street would remain and be improved as part of the RLE Project. The secondary access from Doty Avenue would remain unchanged. ▪ Permanent impacts would not be adverse after mitigation.

No Build Alternative	Preferred Alignment
	Community Resources ▪ Permanent impacts would not occur. Construction *Community Character and Cohesion* ▪ Construction would introduce temporary, intermittent visual, noise, and dust impacts. ▪ Construction impacts are temporary and would not be adverse after mitigation. *Mobility* ▪ Construction would create truck traffic, and temporary street closures and detours would be needed. Access to businesses could be temporarily limited on an intermittent basis. ▪ Construction impacts are temporary and would not be adverse after mitigation.
Visual and Aesthetic Conditions (*Chapter 4.4*)	
No Impact	Permanent ▪ Adverse impacts would be north of I-57, between 99th Street and the 103rd Street station, at 107th Place near the crossing over the UPRR, at 117th Street and Prairie Avenue, and at the 130th Street station. ▪ Permanent impacts would be adverse despite mitigation. Construction ▪ Construction would create temporary visual impacts due to construction activities in the work zone. ▪ Construction impacts are temporary and would not be adverse after mitigation.
Noise and Vibration (*Chapter 4.5*)	
No Impact	Permanent *Noise* ▪ Before mitigation, 278 residences and two institutions (Agape Community Center and My Holy Rock Missionary Baptist Church) would have moderate impacts, and 91 residences and one institution (Kingdom Global Outreach Ministries) would have severe noise impacts. ▪ After mitigation with noise barriers, 15 residences would have moderate impacts. *Vibration* ▪ Permanent impacts would not occur.

No Build Alternative	Preferred Alignment
	Construction *Noise* ▪ Construction impacts are temporary and would not be adverse after mitigation. *Vibration* ▪ Construction impacts would not occur.
Safety and Security (*Chapter 4.6*)	
No Impact	Permanent *Safety* ▪ Increased pedestrian traffic crossing streets near stations without positive traffic control (such as crosswalks or traffic signals) would have an adverse impact on pedestrian safety. ▪ The closure of Old 130th Street would not adversely impact emergency access to Carver Military Academy High School. The closure would be necessary to prevent the interaction of all modes of transportation with the new at-grade crossing and enhance safety. ▪ Permanent impacts would not be adverse after mitigation. *Security* ▪ Permanent impacts would not occur. Construction ▪ Construction impacts are temporary and would not be adverse after mitigation.
Historic and Cultural Resources (*Chapter 4.7*)	
No Impact	Permanent ▪ Permanent adverse effects to historic or cultural resources would not occur. Construction ▪ Adverse construction effects to historic or cultural resources would not occur.
Hazardous Materials (*Chapter 4.8*)	
No Impact	Permanent ▪ Hazardous material spills or releases that occur along the existing railroad tracks immediately adjacent to the Preferred Alignment would have the potential to migrate and affect the properties associated with the Preferred Alignment.

No Build Alternative	Preferred Alignment
	▪ Permanent impacts would not be adverse after Best Management Practices (BMPs) and standard practices, such as following the local, state, and federal laws regarding handling of hazardous materials. Construction ▪ Based on the findings of Phase II Environmental Site Assessments (ESAs), construction activities would have the potential to encounter contaminated materials. ▪ Construction-related impacts would not be adverse after BMPs and standard practices, such as following the local, state, and federal laws regarding handling of hazardous materials.
Wetlands (*Chapter 4.9*)	
No Impact	Permanent ▪ The Preferred Alignment would affect up to 15.7 acres of wetlands. This acreage is primarily in the vicinity of the 120th Street yard and shop. ▪ The United States Army Corps of Engineers (USACE) documented in a letter dated January 19, 2022, that there are no waterways, wetlands, or other areas considered "waters of the United States" under USACE jurisdiction. ▪ Permanent impacts would not be adverse after mitigation. Construction ▪ Construction staging areas would be sited outside of wetlands as much as possible, but if there were any temporary impacts, those areas would be restored to wetlands after construction. There would be up to 0.19 acre of temporary wetland impacts on Kensington Marsh. This wetland would be mitigated or restored to preconstruction conditions and monitored for a period to be determined in coordination with the Metropolitan Water Reclamation District of Greater Chicago (MWRD). The USACE would not require mitigation. ▪ Construction impacts are temporary and would not be adverse after mitigation.
Indirect and Cumulative Impacts (*Chapter 5*)	
No Impact	Indirect ▪ Implementation of the Preferred Alignment would have the potential for redevelopment from accessibility to new employment opportunities, attraction of new development near RLE stations, and overall livability improvements.

No Build Alternative	Preferred Alignment
	Cumulative ▪ The surrounding communities would benefit from the cumulative impacts of other planned and programmed projects because of improved access to jobs, places of interest, residences, and the reduction of air pollution emissions.
Resources with Limited or No Adverse Impacts (*Chapter 6*)	
No Impact	▪ The Preferred Alignment would have limited or no adverse impacts on the following resource areas: air quality, water quality, floodplains, vegetation, wildlife habitat, threatened and endangered species, geology and soils, and energy.
Environmental Justice (*Chapter 7*)	
No Impact	▪ The Preferred Alignment would have permanent adverse impacts on community character and cohesion that could not be mitigated because the elevated structure would alter the character and scale of residential neighborhoods. Due to the proximity of the elevated structure to residential areas, adverse impacts would remain despite mitigation. ▪ However, both the impacts and benefits of the project would affect primarily minority and low-income populations, as the purpose of this project is to connect the disadvantaged communities to Chicago's major employment and activity centers. Therefore, no disproportionately high and adverse impacts on minority or low-income populations would occur.
Section 4(f) (*Chapter 8*)	
No Impact	▪ No adverse impacts on the attributes, features, or activities of Wendell Smith Park or Fernwood Parkway would occur after mitigation. The 0.1-acre temporary easement needed in the northwest corner of Wendell Smith Park for construction would be a Section 4(f) temporary occupancy under 23 CFR § 774.13 and would not constitute a use under Section 4(f). A *de minimis* finding is documented in this Final EIS for the Section 4(f) use of approximately 4.5 acres of Fernwood Parkway. The Chicago Park District concurred with the temporary occupancy and *de minimis* determinations on April 19, 2022.

Evaluation of Alternatives

CTA used the following evaluation goals and criteria, based on the purpose and need, to compare the benefits and drawbacks of the Preferred Alignment as described in **Chapter 9**.

- Goal 1 - Reduce Transit Times

- Goal 2 - Increase Travel Choices
- Goal 3 - Increase Economic Competitiveness
- Goal 4 - Minimize Environmental Impacts
- Goal 5 - Provide the Best Value

Table ES-3 provides specific measures for the goals and compares the extent to which the Preferred Alignment and the No Build would meet the goals.

Table ES-3: Comparative Evaluation of Alternatives

Criteria	No Build Alternative	Preferred Alignment
Goal 1 - Reduce Transit Times		
Travel Times Between Stations[1] 130th Street to 95th/Dan Ryan terminal 130th Street to Jackson Station (Loop)	 38 minutes 69 minutes	 15 minutes 40 minutes
Would the proposed stations serve transit-dependent communities?	No	Yes
Would there be new direct service to Altgeld Gardens?	No	Yes
Goal 2 - Increase Travel Choices		
Would there be better access to regional employment centers and local commercial areas?	No	Yes
Would potential connections to other public transportation modes in the communities adjacent to the RLE Project be possible?	No	Yes
Would geographic isolation be reduced?	No	Yes
How many stations would have park & ride facilities?	0	4 of 4
Total park & ride spaces	0	Up to 1,340
Goal 3 - Increase Economic Competitiveness		
Could nearby development be encouraged?	No	Yes
Goal 4 - Minimize Environmental Impacts		
Displacements and Relocations Properties Buildings	 0 0	 228 97
Noise Impacts After Mitigation Receivers with Moderate Noise Impacts (before mitigation/after mitigation) Receivers with Severe Noise Impacts (before mitigation/after mitigation)	No change 0 0	Not adverse 278/15 91/0
Park Impacts (Not Adverse After Mitigation) Construction Phase Permanent Permanent (acres)	 0 parks 0 parks 0 acres	 1 park 1 park 4.5 acres
Would there be community impacts after mitigation?	No	Yes
Would there be visual and aesthetic impacts after mitigation?	No	Yes
Goal 5 - Provide the Best Value		
Projected Ridership (per weekday)[2]	0	41,500
Capital Costs (in Billions, YOE)	$0	$3.6
Annual Change in O&M Costs (in Millions)[3]	No Change	$32.7

1 No Build travel time is based on a Northbound trip using bus route #34 and transferring to Red Line at 95th/Dan Ryan terminal in AM peak period; it includes bus and rail running times, wait times, and transfer time at 95th terminal. Preferred Alignment travel time includes RLE running time and wait time at 130th Street station. Travel times have been updated since Draft EIS based on 2021 schedules and project engineering.
2 Ridership is based on Simplified Trips-on-Project Software (STOPS) ridership model output projecting 2040 ridership.
3 O&M = Operations and maintenance. Difference from No Build Alternative shown in 2020 dollars

Public Input

In addition to determinations and findings, the combined Final EIS/ROD **Appendix C** includes responses to substantive comments from the public and agencies gathered throughout the NEPA process, namely, input received from the Draft EIS and Supplemental EA public hearings as well as input received from continued outreach and coordination of the Final EIS. The Final EIS serves as the primary document to facilitate agency review and issuance of the ROD and is inclusive of all the design changes since circulation of the Draft EIS, clearly identifying the Preferred Alignment. The Final EIS is available on the CTA website (https://www.transitchicago.com/rle/finaleis), and hard copies of the Final EIS are available at the following locations:

- FTA Region 5 Office, 200 W. Adams Street, Suite 320, Chicago, IL 60606
- CTA headquarters, 567 W. Lake Street, 1st Floor, Chicago, IL 60661
- 9th Ward Aldermanic Office, 34 E. 112th Place, Chicago, IL 60628
- 34th Ward Aldermanic Office, 507 W. 111th Street, Chicago, IL 60628
- Pullman Public Library, 11001 S. Indiana Avenue, Chicago, IL 60628
- Palmer Park, 11101 S. Cottage Grove, Chicago, IL 60628
- West Pullman Public Library, 830 W. 119th Street, Chicago, IL 60643
- Altgeld Public Library, 955 E. 131st Street, Chicago IL 60827
- Woodson Regional Public Library, 9525 S. Halsted Street, Chicago, IL 60628
- Calumet Park Public Library, 1500 W. 127th Street, Calumet Park, IL 60827
- Harold Washington Library Center, 400 S. State Street, Chicago, IL 60605

Chapter 1 Purpose and Need

The Chicago Transit Authority (CTA), as project sponsor to the Federal Transit Administration (FTA), proposes to extend the Red Line from the existing 95th/Dan Ryan terminal to 130th Street. The proposed 5.6-mile extension would include four new stations near 103rd Street, 111th Street, Michigan Avenue, and 130th Street. Multimodal connections at each station would include bus, bike, pedestrian, and park & ride facilities. Since the Red Line Extension (RLE) Project began in 2006 through the present, it remains consistent with past and current federal funding and authorization bills.

The National Environmental Policy Act (NEPA) mandates the consideration of environmental impacts before approval of any federally funded project that may have significant impacts on the environment or where impacts have not yet been determined. CTA and FTA published a Draft Environmental Impact Statement (EIS) on October 6, 2016 that evaluated the environmental impacts of constructing and operating the RLE Project in accordance with NEPA and other applicable regulations, including Section 106 of the National Historic Preservation Act (NHPA), Section 4(f) of the United States Department of Transportation (USDOT) Act of 1966, joint guidance and regulations from FTA and the Federal Highway Administration, and other agency regulations and guidelines. The Final EIS analyzes the benefits and impacts of implementing the No Build Alternative and the Preferred Alignment on the physical, human, and natural environments along the corridor and near stations, with a focus on benefits and impacts that have changed since the issuance of the Draft EIS in 2016. The Final EIS has been combined with the FTA Record of Decision (ROD) pursuant to 23 CFR 771.125. Any reference to the Final EIS is inclusive of the ROD.

This chapter describes the purpose and need for transit improvements associated with the RLE Project. This purpose and need has been maintained from the purpose and need statement presented in the RLE Alternatives Analysis (AA) document (**Appendix A**), input received from the public during the EIS scoping process (**Appendix B**), ongoing public outreach (summarized in **Chapter 10** and **Appendix C** of the Final EIS), and the *Improving Access, Increasing Livability: The CTA Red Line South Extension Technical Report* prepared in December 2012 by Chicago Metropolitan Agency for Planning (CMAP), CTA, and Developing Communities Project, Inc. (DCP). This chapter also describes CTA's basis for advancing the RLE Project, identifies objectives that frame the development and evaluation of the alternatives, and sets the stage for NEPA analysis leading to the final decision on the project. Additional background data supporting this statement of purpose and need are provided in the *Purpose and Need Report* (**Appendix D**).

1.1 Project Area Overview and Background

CTA's Red Ahead Program is a comprehensive initiative for maintaining, modernizing, and expanding Chicago's most-traveled rail line, the Red Line. As part of the program, FTA and CTA have been analyzing the proposed extension of the Red Line south from its existing terminus.

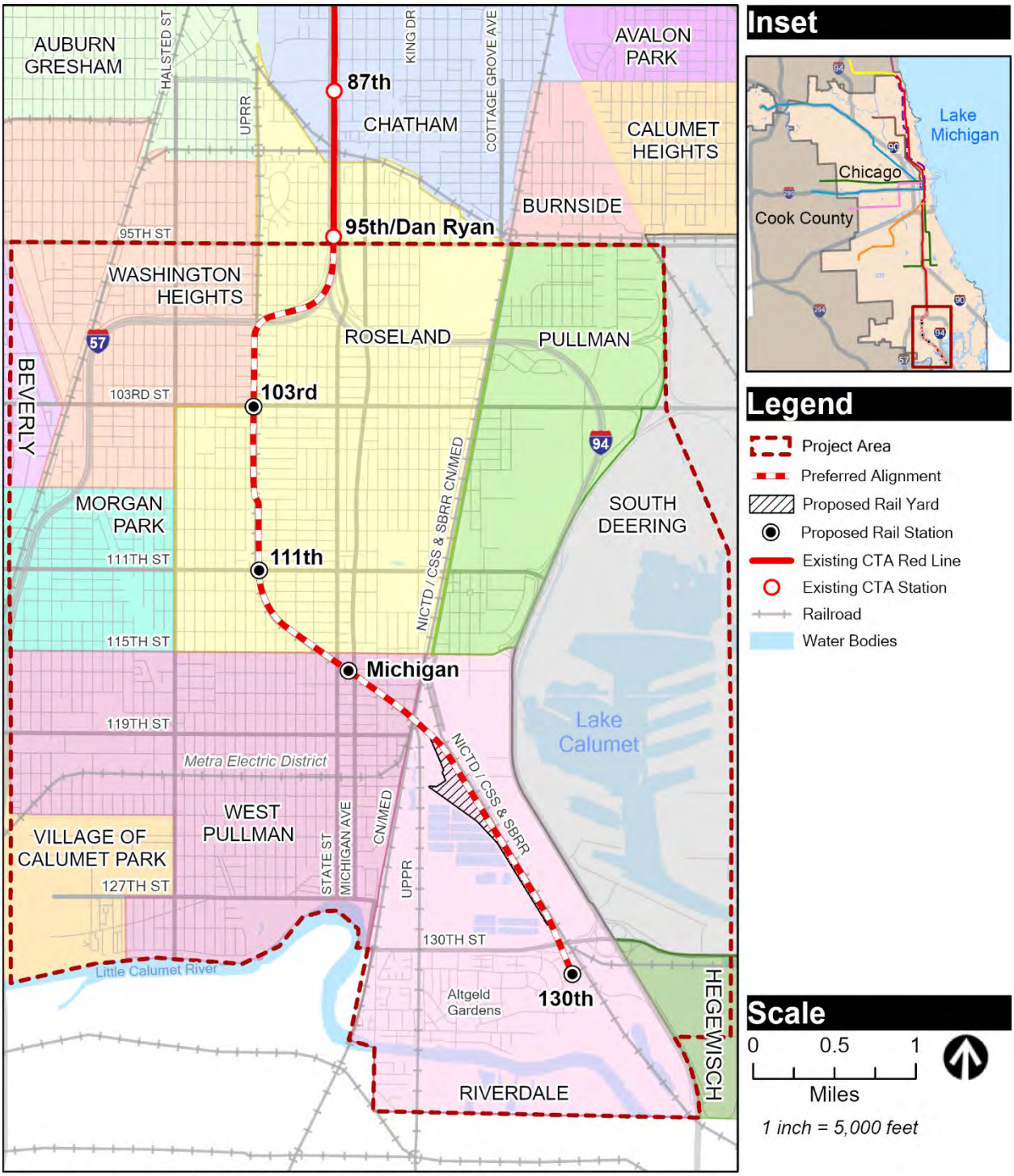
The RLE Project is located approximately 11 miles south of the Loop (Chicago's central business district) on Chicago's Far South Side. The project area defined in the Draft EIS encompassed approximately 20 square miles; however, it was expanded farther south for the Final EIS to include

the relocation of the 130th Street station south of 130th Street. This extension south incorporates the entire Riverdale community into the project area. The overall boundaries of the project area were 95th Street on the north, Ashland Avenue on the west, Stony Island Avenue on the east, and the Calumet-Sag Channel/Little Calumet River and 134th Street on the south. The new southern boundary for the Final EIS project area corresponds to the City boundary, then I-94, and then connects with the previous Draft EIS project area boundary at 134th Street east of I-94 as shown in **Figure 1-1**. The project area includes expressways, regional arterials, commuter and freight railroads, intermodal connectors, local streets, bicycle facilities, and pedestrian facilities. The expressways that pass through the project area are Interstate 94 (I-94, also known as the Dan Ryan Expressway, north of 95th Street and the Bishop Ford Freeway south of 95th Street) and Interstate 57 (I-57). From the northern border of the project area, I-94 runs south to 99th Street, curves east, then curves south and runs along the west side of Lake Calumet. I-57 joins I-94 at 95th Street and runs east of the Metra Rock Island District commuter rail line to 115th Street, and then curves south along the western limit of the project area.

CTA's Red Line service currently terminates at the 95th/Dan Ryan terminal, in the northern portion of the project area. From there, a network of CTA and Pace Suburban Bus Service (Pace) bus routes serves the surrounding Far South Side communities. The 95th/Dan Ryan terminal is among CTA's busiest stations, and many residents in the project area use bus service to transfer to the Red Line, causing lengthy travel times. The Red Line operates 24 hours per day, 7 days per week, as do some of the connecting bus routes.

Metra operates commuter rail in the project area. The commuter rail lines include the Rock Island District, Electric District mainline, and Electric District Blue Island branch. Northern Indiana Commuter Transportation District (NICTD) operates the South Shore Line, which shares tracks with Metra Electric District (MED) mainline north of 115th Street. These commuter rail lines offer primarily peak-hour, peak-direction service to and from downtown Chicago, with infrequent service outside of peak hours.

The overall project area has residential (primarily single-family), commercial (urban mixed-use), industrial, transportation, utility, and vacant land uses. Commercial land uses are clustered around the major thoroughfares in the area, including Michigan Avenue and Halsted Street. Vacant properties are interspersed throughout most residential and commercial blocks. The project area encompasses parts of ten community areas in the Far South Side of Chicago as shown in **Figure 1-1**. The community areas include Beverly, Washington Heights, Roseland, Pullman, Morgan Park, West Pullman, Riverdale, South Deering, Village of Calumet Park, and Hegewisch. The project area includes several schools, universities (including Chicago State University), and the Altgeld Gardens neighborhood.



CN/MED = Canadian National/Metra Electric District, NICTD/CSS & SBRR = Northern Indiana Commuter Transportation District/Chicago South Shore & South Bend Railroad

Figure 1-1: Red Line Extension Project Area

1.2 Statement of Purpose and Need

The Final EIS builds upon the conceptual design, community outreach and planning advanced between 2006 and 2022. The formal approval and design process began with the RLE AA process from 2006-2009 and continued with the Draft EIS. The purpose and need reflects the project objectives discussed with the public during the AA process (**Appendix A**), EIS scoping (**Appendix B**) (including the public scoping meetings), and ongoing public involvement activities (**Appendix C**). This purpose and need (**Appendix D**) is unchanged since the Draft EIS and is presented in the Final EIS for the convenience of the reader. As mentioned in **Section 1.1**, the project area identified in the Draft EIS purpose and need and provided below in **Sections 1.2.1** and **1.2.2** encompasses the areas of potential impact (APIs) within the Final EIS. Therefore, the Preferred Alignment was developed to satisfy the established purpose and need for the RLE Project.

1.2.1 Purpose

The purpose of the RLE Project is as follows:

- Reduce commute times for residents both within and south of the project area.
- Improve mobility and accessibility for transit-dependent residents in the project area.
- Improve rapid transit rail service to isolated areas and provide viable linkages between affordable housing (e.g., the Altgeld Gardens neighborhood), jobs, services, and educational opportunities, thereby enhancing livability and neighborhood vitality.
- Provide an opportunity for potential connections and linkages to other public transportation modes, including regional commuter rail in the project area.
- Foster economic development in the project area, where new stations may serve as catalysts for neighborhood revitalization and help reverse decades of disinvestment in local business districts.
- Provide a modern, efficient railcar storage yard and shop facility to provide storage and cost-effective preventive maintenance for railcars associated with the RLE Project, railcars currently stored in the existing 98th Street Yard and Shop, and railcars supporting additional Red Line expansion of service.

1.2.2 Need

The need for the RLE Project is demonstrated by the following existing conditions:

- Transit trips to jobs are longer for Far South Side residents than they are for residents in the Chicago seven-county region as a whole. The Chicago seven-county region includes the counties of Cook, DuPage, Kane, Kendall, Lake, McHenry, and Will.
- Transit-dependent populations in the project area have limited direct access to rapid transit rail service.

- The project area is geographically isolated from major activity centers and provides residents limited viable transportation options, which limits access between affordable housing (e.g., the Altgeld Gardens neighborhood) and employment centers outside of the project area.
- Existing transit markets are underserved, and transit connectivity is challenging in the project area.
- Disinvestment and limited economic development in the project area have negatively affected Far South Side communities.
- The existing 98th Street Yard does not have capacity to store railcars for any substantial increase in Red Line capacity accompanying future Red Line expansion.

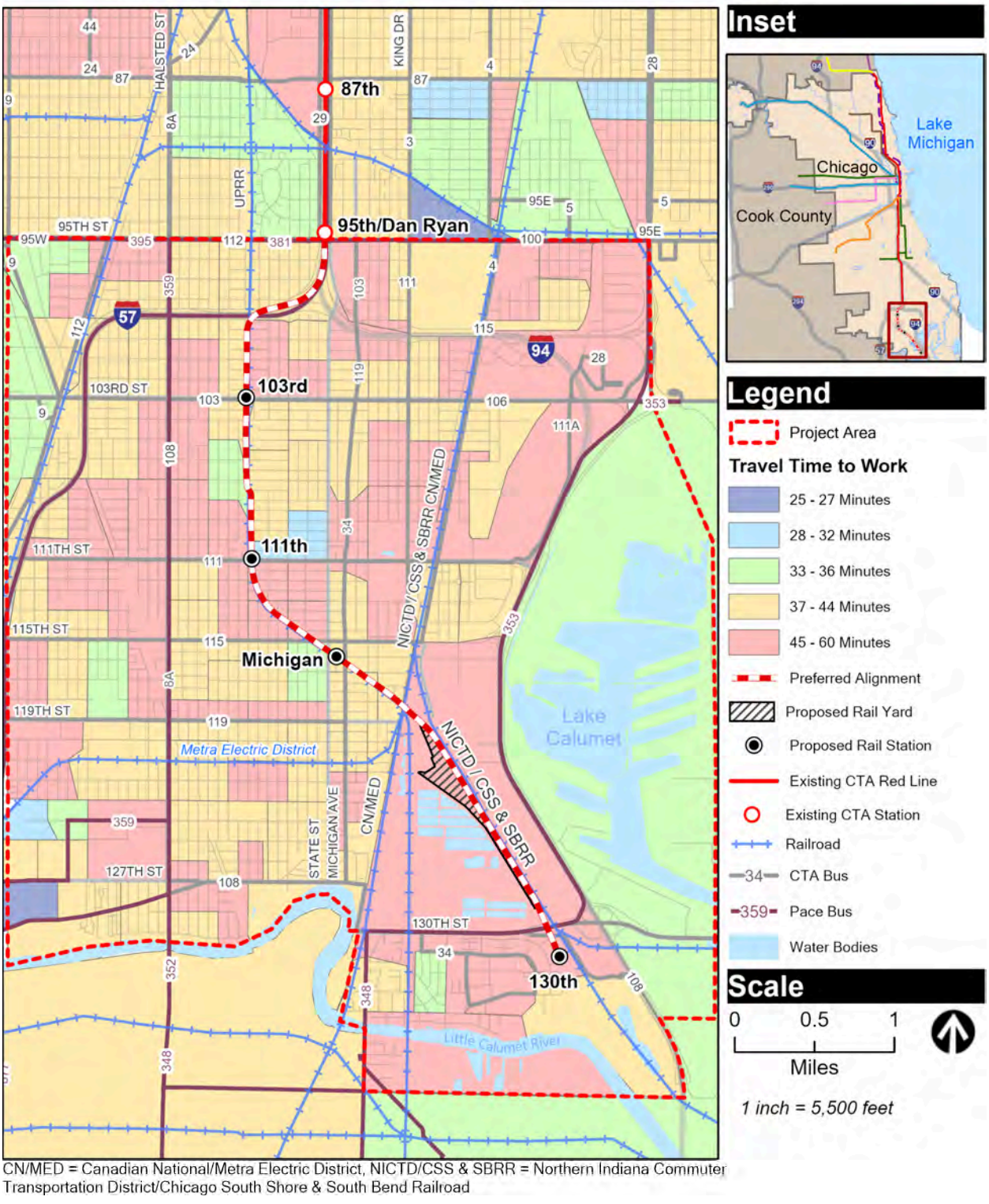
1.3 Justification of Purpose and Need

This section documents the elements of the purpose and need for the RLE Project as identified in **Section 1.2**. Supporting data are summarized in the following sections, and more detailed supporting data are available in the *Purpose and Need Report* (**Appendix D**). The justifications have not changed since the issuance of the Draft EIS.

1.3.1 Long Transit Trips to Job Centers for Far South Side Residents

The commute times in the vicinity of the RLE Project are among the longest in the city, as shown in the map in **Figure 1-2**, which details commute times in the project area. According to the U.S. Census Bureau 2018 5-Year American Community Survey (ACS), commute times were 25 percent longer for residents (approximately 44 minutes) within this portion of the communities than the seven-county regional average (approximately 35 minutes) (U.S. Census Bureau 2018). Expressway and arterial traffic congestion limit the mobility of residents in the vicinity of the RLE Project, including bus passengers who are frequently stuck on the same congested roadways. Traffic congestion in the Chicago metropolitan area has steadily increased in recent decades, and roadways serving the communities adjacent to the RLE Project are approaching capacity limits during the morning peak.

Public transit passengers and those who depend on public transit for meeting their travel needs are hardest affected by these long commute times. Complex transfers to reach the 95th/Dan Ryan terminal make commute times greater than 2 hours one-way for some residents in proximity to the RLE Project (CMAP 2012a). This condition has not changed since the Draft EIS. Residents accessing the 95th/Dan Ryan terminal by bus and other transportation modes experience measurable delays resulting from congestion along arterial streets. The need for improved access to job centers outside of the project area defined in the Draft EIS is evidenced by an unemployment rate of 22 percent in the project area (U.S. Census Bureau 2018).



CN/MED = Canadian National/Metra Electric District, NICTD/CSS & SBRR = Northern Indiana Commuter Transportation District/Chicago South Shore & South Bend Railroad

Figure 1-2: Travel Time to Work

Some neighborhoods adjacent to the RLE Project, such as Riverdale, have unemployment rates as high as 33 percent (U.S. Census Bureau 2018). The RLE Project would reduce transit travel times to jobs from many neighborhoods in the adjacent communities, which would help facilitate job access and result in additional viable employment opportunities. Reduced commute times would directly support the first goal of CMAP's *ON TO 2050*, to promote inclusive growth by improving mobility options that spur economic opportunity for low-income communities, people of color, and people with disabilities (CMAP 2018). Currently, nearly 25 percent of workers from the RLE project area travel 60-plus minutes to their jobs, compared to the Chicago average of just over 16 percent.

The data regarding the long transit trips to job centers for Far South Side residents have not changed markedly since the Draft EIS.

1.3.2 Transit-Dependent Populations Lack Direct Access to Rapid Transit Rail Service

A large share of the population in the vicinity of the RLE Project falls within several demographic categories that typically indicate transit dependency: low-income populations, senior citizens, people who are too young to drive, people with disabilities, and people living in households without cars. For transit-dependent populations, the availability of quality transit service that connects them to job centers is particularly important. The following comparisons highlight the transit-dependent characteristics of the project area:

- The median annual household income in the project area is approximately $40,750, which is below the seven-county median of approximately $68,220 (U.S. Census Bureau 2018). Some community areas, such as Riverdale, have median annual household incomes as low as $17,097. Low-income households are less likely to own cars, and frequently rely on transit as their primary mode of transportation.

- Approximately 16 percent of residents in the project area are over the age of 65, compared to 14 percent of the Chicago metropolitan area (U.S. Census Bureau 2018). Senior citizens are more likely to be transit dependent because they may no longer be physically able to drive.

- Approximately 24 percent of residents in the project area are under the age of 18, which is higher than the Chicago metropolitan area that has 23 percent of the population below age 18 (U.S. Census Bureau 2018). Minors are more likely to be transit dependent because many are too young to obtain driver's licenses, or do not have the financial means to purchase a car.

- Approximately 16 percent of residents in the project area are living with a disability, compared to 10 percent region-wide (U.S. Census Bureau 2018). People with disabilities are more likely to be transit dependent if their disabilities prevent them from driving a car.

- The average household size in the project area (2.85 persons per household) is higher than the Chicago metropolitan area (2.58 persons) (U.S. Census Bureau 2018). Approximately 22 percent of the households in the project area have no vehicle available, versus 13 percent region-wide. Of the households in the project area that do have cars, there are generally fewer cars per household than in the greater Chicago region, causing some household members to rely on non-automobile modes of transportation.

The CTA Red Line currently serves only the northernmost terminus of the RLE Project. Most residents in the vicinity of the RLE Project must use connecting bus service to reach the 95th/Dan Ryan terminal, which results in long travel times, as described in **Section 1.3.1**. Direct access to rapid transit from a greater share of the residences would improve job access. *ON TO 2050* recommends making transit more competitive by providing fast, frequent, reliable, and affordable service that connects people to important destinations (CMAP 2018). This directly supports the need for direct access for transit dependent populations.

The level of transit-dependent populations lacking direct access to rapid rail transit service has not changed since the Draft EIS.

1.3.3 Isolation from Major Activity Centers and Limited Viable Transportation Options

Despite the magnitude of roadway infrastructure in the Far South Side, expressways and arterial streets frequently become congested, thereby limiting mobility. Mobility is further inhibited by the limited options for connecting to CTA's rail system. Although bus routes operated by CTA and Pace provide service 24 hours a day, buses are frequently delayed by congestion on arterial streets leading to the 95th/Dan Ryan terminal. None of the Red Line stations along the Dan Ryan branch currently have park & ride facilities, precluding residents from accessing the stations by car unless they are dropped off. Several bus routes serve the 95th/Dan Ryan terminal and Metra stations; however, the large residential tracts surrounded by local streets limit the bus network. It is important to note that travel patterns are not limited to residents of the Far South Side traveling to downtown Chicago. The need for access includes activity centers and destinations south, north, and west of the Loop. Over 70 percent of riders who board at the 95th/Dan Ryan terminal have destinations beyond the Loop or are transferring to other CTA lines to reach destinations throughout the City of Chicago.

While the communities adjacent to the RLE Project have an extensive sidewalk and crosswalk system along the road network, this network is interrupted by various physical divisions. Physical divisions between communities that include the MED mainline, which is on an embankment; I-94 and I-57; Lake Calumet; the Little Calumet River; the UPRR right-of-way, which extends north-south from 99th Street to 119th Street; and large tracts of industrial land. These physical divisions are difficult to cross for pedestrians and bicyclists, and effectively separate the communities on either side. This geographic isolation is particularly problematic for residents of the Altgeld Gardens neighborhood at the south end of the RLE Project between 130th Street and 134th Street in the Riverdale community area. Residents in this area have limited employment opportunities and transportation choices within walking distance of their homes.

Based on a field review of potentially affected parcels, there is a higher percentage of vacant homes in the vicinity of the RLE Project since the Draft EIS. Several factors contribute to housing vacancy rates in a particular community. These factors include, but are not limited to, safety and security, proximity to public services, access to jobs, quality of schools, age and type of available housing units, quality of life, and the overall health of the community. Improved public transportation options, combined with affordable housing stock, would serve as a catalyst to bring people to the area that would not otherwise consider communities in the Far South Side as a viable place to live.

The isolation from major activity centers and limited viable transportation options has not changed since the Draft EIS.

1.3.4 Underserved Transit Markets and Limited Transit Connectivity

Several groups of potential passengers ("transit markets") in the Far South Side are underserved by the existing transit system. Transit service enhancements, including those proposed as part of the RLE Project, would improve service for these groups. The largest underserved groups are as follows:

- Residents who must use connecting bus routes to reach the Red Line - Most of CTA and Pace bus routes in the communities adjacent to the RLE Project serve the 95th/Dan Ryan terminal. As discussed above, average travel times for work trips and the number of transit-dependent residents are higher in the project area (compared to the seven-county region) due to traffic congestion and the time required to ride a bus to the 95th/Dan Ryan terminal and transfer to the CTA Red Line. The combination of these conditions underscores the need to improve connectivity and provide faster transit service.

- People driving to Chicago activity centers from the Far South Side and points south - No CTA parking facilities are currently on the Red Line Dan Ryan branch, which leaves motorists coming from the project area and points south few options for parking at a Red Line station and completing their trips via transit. CTA park & ride facilities near major expressways or arterial streets would provide new, convenient access possibilities on the Red Line. The need for park & ride facilities was originally identified based on travel demand modeling performed in 2009, as part of the RLE AA process (see **Appendix A**) and further refined by CTA since the Draft EIS. Year 2040 ridership estimates were projected, and parking needs were updated in the Final EIS.

- Transit passengers traveling to other potential transit destinations - This group includes those taking reverse commute trips (residents in the central areas of the city commuting to jobs in outer communities), school trips, and trips entirely within the project area. There are several educational facilities in the greater project area defined in the Draft EIS, including Chicago State University (3,000 students), Olive-Harvey College (2,700 students), and several high schools (including Harlan, Corliss, Fenger, Julian, Brooks, and Carver Military Academy).

The underserved transit markets and limited transit connectivity have not changed since the Draft EIS.

1.3.5 Disinvestment and Limited Economic Development Have Affected Far South Side Communities

The communities adjacent to the RLE Project have experienced ongoing disinvestment, including loss of manufacturing jobs, which has led to a decline in population, services, and job opportunities. Once-vibrant retail districts, such as Michigan Avenue and Halsted Street, now contain vacant land and storefronts. This decline has been further exacerbated by the lack of access to opportunities that exist beyond the project area.

A strong transportation system is a key part of the health of any community and of the prosperity of its residents. The RLE Project would provide accessible, reliable, and safe transit that is necessary

to support access to employment centers and economic opportunities within the project area and to areas beyond. The RLE Project would also provide essential linkages between academic centers and workforce training opportunities to the jobs requiring those skills. The RLE Project would not only connect residents to other areas of the City and region, but it would create transit stations that would serve as catalytic community hubs that drive local market demand. Future station areas would attract local businesses to serve nearby residents, creating center points that provide more economic opportunity and a place to start or expand a small business, increasing the attractiveness of the RLE communities.

In order to fully leverage the RLE investment to benefit Far South Side communities, CTA, in partnership with the City of Chicago's Department of Planning and Development (DPD) and the Cook County Land Bank Authority, created the RLE Transit-Supportive Development (TSD) Plan. This is a proactive effort to create a guide for future development in communities located in the RLE project area. The plan identifies methods and resources needed to enable mixed-use development and enhance economic vitality, multimodal connectivity, and the pedestrian environment. Importantly, the TSD Plan utilizes an equitable Transit Oriented Development (eTOD) planning approach. eTOD planning seeks to promote development without the displacement of existing residents and achieve community-focused benefits, such as affordable housing, local economic development, and environmental sustainability. It can be a driver for more vibrant, prosperous, and resilient neighborhoods that puts people of color and lower- and moderate-income residents at the center.

The City of Chicago is focused on stabilizing, improving, and redeveloping communities in and around the project area. As a result, the City has designated several tax increment financing (TIF) districts, redevelopment areas, special service areas, and industrial corridors in the project area (see **Appendix D** for more information). Four of the City of Chicago's industrial corridors are within the RLE project area: Burnside, Pullman, West Pullman, and Calumet. Most notable is the growth and development within the Pullman Industrial Corridor, which contains 692 acres of land zoned primarily for manufacturing and extends for approximately two miles along the west side of I-94. Proximity to the growing number of jobs in the Pullman Industrial Corridor would aid in residential housing demand in this area as well as promote RLE transit ridership.

CTA and the City of Chicago are also working together to coordinate the RLE Project and INVEST South/West to bring improvements to the Michigan Avenue commercial corridor and the intersecting 111th Street corridor and Roseland Medical District. INVEST South/West is an unprecedented community improvement initiative being led by the City of Chicago. It will leverage $750 million dollars of public funding over three years to attract new investment. This initiative is assembling the resources of multiple City departments, community organizations, the private sector, and philanthropic partners toward 10 communities on Chicago's South and West Sides that include the Greater Roseland and Pullman communities. Without exception, these neighborhoods have experienced public and private disinvestment for many decades and this investment is long overdue. INVEST South/West collectively supports infrastructure development, improved programming for residents and businesses, and policies that have a lasting impact. The Michigan Avenue and 111th Street corridors of INVEST South/West are shown in **Figure 1-3**.

Despite the INVEST South/West initiatives and other City investments to date, the effects of disinvestment and limited economic developments on Far South Side communities have not changed since the Draft EIS. Nonetheless, community planning initiatives like these described above support the strategic and sustainable development goal of *ON TO 2050*, to invest in disinvested areas (CMAP 2018). Economic development requires both stability and a continuum of diversified investment. As such, the RLE transit investment combined with the TSD Plan and existing financial incentive programs would result in a transformational impact that increases market confidence and encourages more investment. The success of the TSD Plan is predicated on the realization of the RLE investment in order to be implementable and effective.

1.3.6 Railcar Storage Yard and Maintenance Facility

The existing 98th Street Yard does not have capacity to store railcars required for any considerable increase in Red Line capacity accompanying future Red Line expansion. Two yard and shop facilities (Howard Yard at the north end of the Red Line and 98th Street Yard at the south end of the Red Line) provide storage for railcars operating along the Red Line. Any Red Line expansion must consider the capacity of both yards. The Howard Yard and the 98th Street Yard together supply railcars for both the northern and southern portion of the Red Line. Both yards are necessary to efficiently provide trains to meet the current and future operating plans for the entire Red Line. All northbound trains currently begin their run at 98th Street Yard, and any expansion of Red Line service would require expanded yard capacity at or near the southern end of the Red Line. The existing 98th Street Yard is landlocked between interstate ramps for I-94 and I-57. There is no room to expand the yard without major realignments of the two highways. In addition, the existing 98th Street Yard is oriented as a terminal yard for service to and north of the 95th/Dan Ryan terminal. With the RLE Project expanding service to the south, use of the 98th Street Yard would lead to inefficient operations. Moving trains into and out of the existing yard, due to the orientation of the yard, would cause operational inefficiencies and potential capacity constraints to Red Line service.

The need for a railcar storage yard and maintenance facility has not changed since the Draft EIS.

1.4 Organization of the Document

The Final EIS analyzes how well the Preferred Alignment would satisfy the purpose and need stated above. It also analyzes the potential impacts of the No Build Alternative and Preferred Alignment.

NEPA documents, such as this EIS, must provide sufficient technical detail to meet a range of legal requirements and are required to be organized in a specific way, as described in 40 Code of Federal Regulations (CFR) § 1502. **Table 1-1** provides an overview of the chapters and the major topics covered in this document.

CN/MED = Canadian National/Metra Electric District, NICTD/CSS & SBRR = Northern Indiana Commuter Transportation District/Chicago South Shore & South Bend Railroad

Figure 1-3: Michigan Avenue and 111th Street INVEST South/West Corridors

Table 1-1: Environmental Impact Statement Document Organization

Chapter 1 Purpose and Need	This chapter is the foundation of the document. It introduces the RLE Project, provides background information, and explains why the RLE Project is proposed and important.
Chapter 2 Alternatives Considered	This chapter reviews the planning process and alternatives under further consideration in this Final EIS.
Chapter 3 Transportation	This chapter presents the potential for impacts on the transportation network. This chapter also discusses measures to avoid or minimize those impacts.
Chapter 4 Environmental Impacts and Mitigation	This chapter discusses the social, economic, and environmental resources that could be affected by the construction and operation of the RLE Project and measures to avoid or minimize those impacts.
Chapter 5 Indirect and Cumulative Impacts	This chapter discusses impacts to resources that may not be directly caused by the RLE Project, but instead may result from or be attributable to the environment created by the RLE Project.
Chapter 6 Resources with Limited or No Adverse Impacts	This chapter summarizes the resources that would have limited or no adverse impacts due to operation or construction of the RLE Project.
Chapter 7 Environmental Justice	This chapter discusses the impacts of the RLE Project on environmental justice communities in the area of potential impact.
Chapter 8 Section 4(f) Evaluation	This chapter focuses on meeting the federal requirements of Section 4(f) of the USDOT Act of 1966, which protects significant historic sites, publicly owned parks, recreation areas, and wildlife and waterfowl refuges.
Chapter 9 Evaluation of Alternatives	This chapter presents potential capital and operating funding strategies for the RLE Project.
Chapter 10 Public and Agency Coordination	This chapter discusses the process for public involvement and agency coordination and addresses public comments and suggestions.
Chapter 11 List of Acronyms and Abbreviations	This chapter provides definitions for the acronyms and abbreviations used within the document.
Chapter 12 References	This chapter provides the references used within the document.
Chapter 13 List of Preparers	This chapter lists the preparers of this document.
Chapter 14 List of Recipients	This chapter lists the agencies, local officials, and public libraries that were notified of the availability of this document.
Chapter 15 Glossary	This chapter provides definitions for the phrases and terms used throughout the document.

Chapter 2 Alternatives Considered

Two alternatives are evaluated within the Final EIS: the No Build Alternative and the Preferred Alignment. Development of the Preferred Alignment has occurred through extensive analysis and public and agency coordination between 2006 and 2022. This chapter includes documentation of alternatives that were analyzed and subsequently eliminated from further consideration through project planning activities. It further describes the alternatives studied in the Final EIS and summarizes construction needed for implementation of the Preferred Alignment. For additional information on the alternatives, refer to **Appendix E**.

2.1 Alternatives Development Process

CTA undertook an extensive Alternatives Analysis (AA) process from 2006 to 2009 that considered multiple modes and corridor options for the RLE Project. The Draft EIS and the AA described the process through which a wide range of methods of extending the CTA Red Line south from its current terminus at the 95th/Dan Ryan terminal were narrowed to the Locally Preferred Alternative.

In brief, 12 transportation modes, nine corridors, and four profiles resulted in many combinations to be analyzed. Three rounds of preliminary screening and public outreach resulted in three build alternatives, plus the No Build Alternative. The three build alternatives analyzed were:

- Halsted Rail Alternative (Elevated)
- UPRR Rail Alternative (Elevated)
- Bus Rapid Transit Alternative (At-Grade)

The Chicago Transit Board designated the UPRR Rail Alternative as the Locally Preferred Alternative on August 12, 2009. Based on further technical analysis and public input, CTA selected the UPRR Rail Alternative as the NEPA Preferred Alternative in August 2014. The Draft EIS, published on October 6, 2016, disclosed the environmental benefits and impacts of No Build Alternative and the two UPRR Rail Alternative options: the East and West Options.

The UPRR Rail Alternative East and West Options would be elevated and generally run south along I-94 Bishop Ford Freeway from 95th/Dan Ryan terminal, then curve west along the north side of I-57 Expressway (within the I-57 right-of-way) for nearly ½ mile until reaching the UPRR corridor near Eggleston Avenue. The alignment would then turn south to follow the UPRR corridor, either east or west of the existing UPRR tracks, to Prairie Avenue, where the RLE Project would cross over the Metra Electric District (MED) tracks near 119th Street. South of 119th Street, the East and West Options would follow the same alignment southeast along the Northern Indiana Commuter Transportation District/Chicago South Shore & South Bend Railroad (NICTD/CSS & SBRR) right-of-way using a portion of the Norfolk Southern Railway (NS) and Consolidated Rail Corporation (Conrail) right-of-way to the terminus of the RLE Project at 130th Street. Southeast of the Canadian National (CN)/MED tracks, the elevated RLE Project, as described in the Draft EIS, would descend

to an at-grade profile, travel past the proposed 120th Street yard and shop, and terminate at the 130th Street station located north of 130th Street.

Subsequent to the publication of the Draft EIS, continued design and outreach by CTA resulted in the selection of the Preferred Alignment for the RLE Project. The Preferred Alignment was announced to the public on January 26, 2018. The Preferred Alignment is a hybrid of the East and West Options of the UPRR Rail Alternative presented in the Draft EIS. CTA reviewed multiple locations for a cross-over area that would maximize the benefits and reduce the impacts of the East and West Options.

The UPRR provided comments on the Draft EIS where they expressed their preference for the West Option due to concerns for the proximity of the East Option to their tracks. UPRR noted that the location of the Roseland Pumping Station could not accommodate UPRR's requested clearance of 25 feet between the centerlines of the UPRR's potential tracks and the proposed East Option. Therefore, all hybrid options considered in selection of the Preferred Alignment started with the West Option and crossed over from the west to the east side of the UPRR tracks south of the pumping station and north of 115th Street to minimize property impacts. Comparative analysis of parcel impacts and alignment with the goals of the RLE Project identified the vicinity of 108th Place as the cross-over location that would provide the greatest benefit. A cross-over in the vicinity of 108th Place would preserve viable businesses; minimize impacts to schools, residences, and the historic Roseland Pumping Station; preserve properties slated for future development surrounding the station areas; and would accommodate UPRR's potential tracks. However, additional engineering refined the alignment further, which moved the UPRR crossing north from 108th Place to 107th Place. The refinement would lower the 111th Street station platform height for easier vertical access and would lower the profile of the elevated structure. Lowering the platform makes the height more typical to what is existing throughout CTA's system thus improving passenger comfort ascending/descending the stairs.

After the announcement of the Preferred Alignment in 2018, CTA continued to conduct stakeholder coordination and further develop design plans. Public outreach, stakeholder input, and agency coordination have continued to influence CTA's ongoing design efforts. NS shared their plans for future potential access to the CN/MED tracks to the north of Kensington Yard and the national freight rail network at that location. This access would allow restoration of a former connection that the Michigan Central Railroad had with the CN/MED tracks, which were then owned by the Illinois Central Railroad. The 120th Street yard and shop presented in the Draft EIS would have precluded future potential access to the national freight rail network and access to All American Recycling located west of the railroad tracks (11900 S. Cottage Grove Avenue). The All American Recycling facility is served by the NS via its joint ownership of Conrail and the Indiana Harbor Belt Railroad (IHB). This coordination with NS resulted in additional adjustments to the Preferred Alignment near the 120th Street yard and shop. The 120th Street yard and shop and the tracks south to 130th Street were shifted approximately 100 feet to the west to accommodate NS railroad access to All American Recycling and potential improvements to the national freight rail network, namely a future connection from the NS track to CN tracks along the MED corridor. In addition, this design refinement would provide a rail connection to facilitate rail delivery of ballast, ties, and other material to support CTA operations.

In 2019, CTA began exploring an opportunity to relocate the 130th Street station, the terminating station of the RLE Project, to a location south of 130th Street. The Draft EIS had originally proposed the station location north of 130th Street. In 2017, after publication of the Draft EIS, the Chicago Housing Authority (CHA) demolished Blocks 11, 12, and 13 of the Altgeld Gardens neighborhood, creating an opportunity to relocate the station south of 130th Street to the area of the demolished blocks. The demolition of Blocks 11, 12, and 13 of Altgeld Gardens was an activity completed by CHA and was independent and unrelated to the RLE Project. CTA then evaluated the station relocation for feasibility. Meetings were held with partner agencies and stakeholder groups of residents in the station area, who both expressed support for the station relocation. The design refinement relocated the station from north of 130th Street, as presented in the Draft EIS, to south of 130th Street, adjacent to the Altgeld Gardens neighborhood. Since the publication of the Draft EIS and selection of the Preferred Alignment, three design refinements were made as discussed above: (1) the location of the 107th Place cross-over between UPRR East and West alignment options evaluated in the Draft EIS required for selection of a hybrid Preferred Alignment; (2) refinement of the 120th Street yard and shop location; and (3) relocation of the 130th Street station to extend the Preferred Alignment farther south so the 130th Street station would be within the Altgeld Gardens neighborhood. These design refinements were evaluated in a Supplemental Environmental Assessment (EA). The agency coordination and outreach associated with the Supplemental EA influenced the design refinements incorporated into the Preferred Alignment and is analyzed in this Final EIS.

2.2 Alternatives Evaluated in the Final EIS

The Final EIS discusses the No Build Alternative and Preferred Alignment as compared to the UPRR East and West Options. **Appendix F** contains plans and profiles for the Preferred Alignment.

2.2.1 No Build Alternative

The No Build Alternative represents future conditions if the Preferred Alignment were not implemented. The No Build Alternative includes all projects currently included in the fiscally constrained portion of the CMAP *Federal Fiscal Years 2019–2024 Transportation Improvement Program* (TIP). No new infrastructure would be built as part of the RLE Project under the No Build Alternative.

The No Build Alternative differs from the No Build Alternative disclosed in the Draft EIS only by the passage of time; changes include the completion of the 95th/Dan Ryan terminal renovation, and demographic and development fluctuations that are reasonably anticipated to occur in the intervening time period between these documents.

2.2.2 Union Pacific Railroad Alternative - Preferred Alignment

The Preferred Alignment would extend the heavy rail CTA Red Line 5.6 miles from the existing 95th/Dan Ryan terminal to the Altgeld Gardens neighborhood immediately south of 130th Street. The RLE Project would include four new stations near 103rd Street, 111th Street, Michigan Avenue, and 130th Street. Multimodal connections at each station would include bus, bike, pedestrian, and

park & ride facilities. The Preferred Alignment would provide travel time savings of up to 29 minutes for passengers travelling from the 130th Street station to downtown Chicago.

Alignment

The Preferred Alignment would run south along I-94 from the 95th/Dan Ryan terminal, then curve west along the north side of I-57 (within the I-57 right-of-way) on an elevated structure for nearly a ½ mile until reaching and crossing over to the west side of the UPRR corridor in the vicinity of Eggleston Avenue, as shown on **Figure 2-1**. The alignment would turn south to follow the UPRR corridor on the elevated structure along the west side of the UPRR to 107th Place. At 107th Place the elevated structure would cross over to the east side of the UPRR corridor.

The Preferred Alignment would continue along the east side of the UPRR corridor south and southeast to near 119th Street, where it would cross over the CN/MED tracks. South of this point, the Preferred Alignment would descend to at-grade while continuing southeast parallel to the NICTD/CSS & SBRR corridor, using a portion of the NS right-of-way. The alignment would continue south, going under 130th Street to the terminus (end) of the RLE Project south of 130th Street.

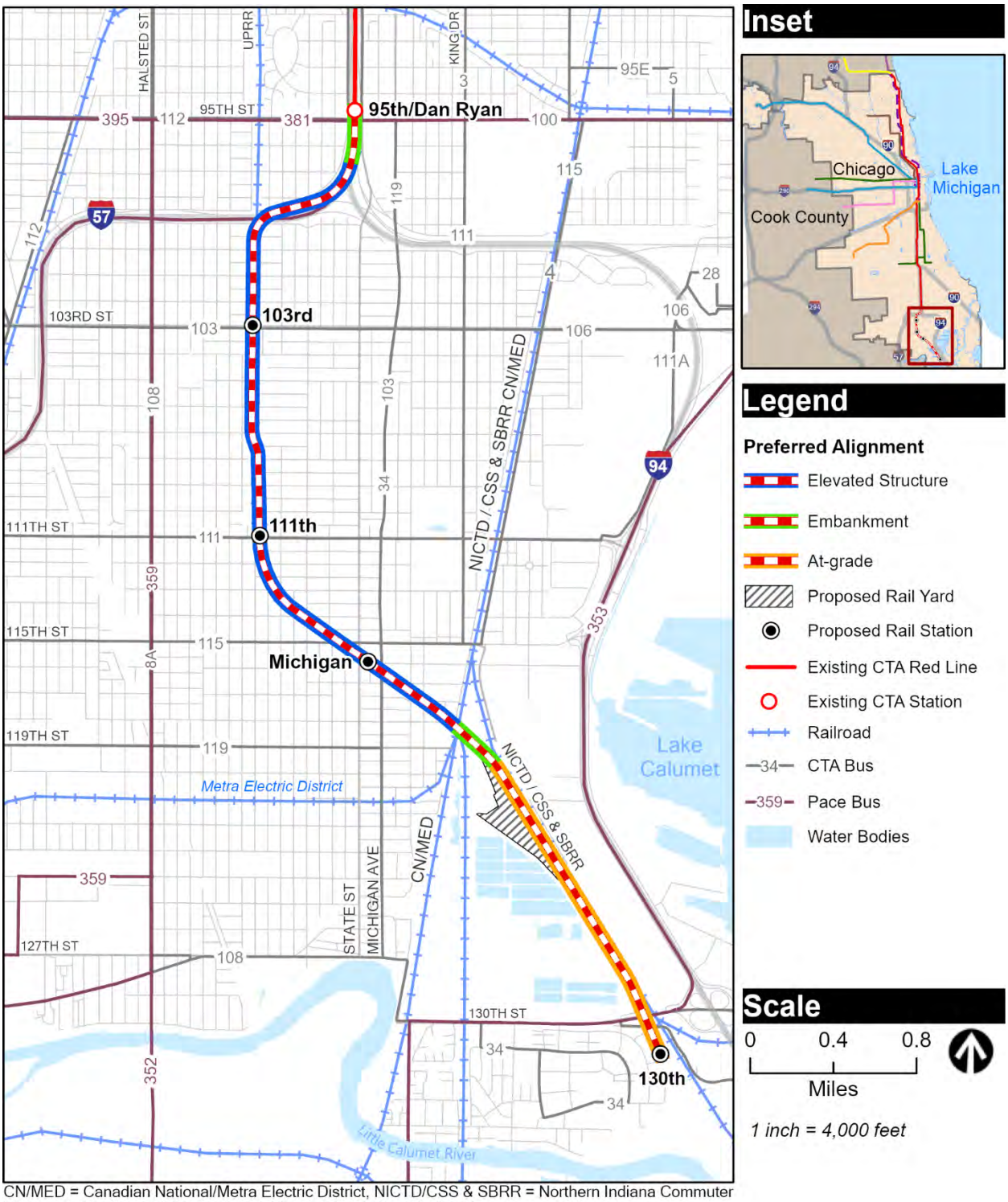
This alignment is a hybrid of the East and West Options of the UPRR Rail Alternative disclosed in the Draft EIS, with the cross-over at 107th Place connecting the West Option north of the cross over location with the East Option south of the cross over location.

Structure and Track

The elevated structure starts shortly south of the 95th/Dan Ryan terminal, and continues over the CN/MED tracks near 119th Street, where it descends to grade by an embankment, as shown in **Figure 2-2**. No major improvements or modifications would be required for the 95th/Dan Ryan terminal to accommodate the RLE Project. Only minor signal and communication systems related modifications would be needed at this location to tie the RLE Project into the existing CTA network. It would be a closed-deck, concrete, aerial track structure with direct-fixation track and continuously welded rail. With direct-fixation track, rails are mounted to small concrete and rubber supports that are fixed to the concrete deck. Noise barriers (a minimum height of 3.5 feet above the top-of-rail elevation) are planned for portions of the structure on both sides of the track deck to reduce noise transmission at and below track level. The *Noise and Vibration Technical Memorandum* (**Appendix O**) provides more detail on locations and heights of these noise barriers. Noise walls also perform a secondary function related to worker and emergency evacuation safety.

The elevated structure would vary in height from 14 feet 9 inches to approximately 55 feet above existing grade to the bottom of the structure, depending on the general vertical geometry and the required clearances above existing roadways and railroads at different locations. The two tracks would generally have a spacing of 13 feet (centerline to centerline), except where diverging to accommodate boarding platforms at stations. The elevated deck, on which the tracks would run, would vary in width from approximately 31 feet to approximately 53 feet at stations. A rendering of the elevated structure is shown in **Figure 2-3**.

Figure 2-1: Preferred Alignment



CN/MED = Canadian National/Metra Electric District, NICTD/CSS & SBRR = Northern Indiana Commuter Transportation District/Chicago South Shore & South Bend Railroad

Figure 2-2: Structure Types along Preferred Alignment

CTA has selected concrete segmental box girders for the track superstructure for the typical elevated section, where the track runs parallel to the UPRR, as opposed to a steel structure type which was assumed for the entire corridor at the time of the Draft EIS. A steel superstructure would be used at the north end of the project where the proposed alignment crosses I-57, as well as at all major crossings, including the 107th Place cross-over and the crossing over the CN/MED.

A concrete deck is still included in the elevated structure, as it was in the Draft EIS. Along at-grade segments and sections on earth structures, tracks would be placed on ballast and ties after grading and soil preparation. Two general categories of earth structures may be used on this project. The first is earth embankment, which consists of compacted earth with slopes on either side of the tracks. Typically, the slopes would include vegetation. Fencing for security would also be included. Earth embankments are appropriate in areas without right-of-way constraints, such as south of the 120th Street yard and shop.

The second category of earth structures is earth retained between concrete walls. These walls may use cast-in-place concrete or precast concrete panels. Retained embankments are appropriate in areas where additional right-of-way acquisition would cause additional impacts. Retained earth embankments are anticipated near the 96th Street Interlocking and in the vicinity of the 120th yard and shop.

Figure 2-3: Rendering of the 103rd Street Station (Looking East along 103rd Street)

Stations

As part of the Preferred Alignment, four new stations would be constructed at the following locations along the alignment:

- 103rd Street (elevated station)
- 111th Street (elevated station)
- Michigan Avenue (elevated station)
- 130th Street (at-grade station)

Each station would have a center platform, approximately 26 feet wide and 520 feet long. Platforms would accommodate ten-car trains. Each station would be Americans with Disabilities Act (ADA) accessible with elevators. Each station area would include areas for bus boarding, new crosswalks where needed to accommodate pedestrian traffic, bicycle parking and access, and park & ride facilities. Aerial and street view renderings of typical station features are shown in **Figure 2-4** and **Figure 2-5**. Actual design features of each station may differ based on design decisions for colors, textures, finishes and choice of specified design features based on the needs of each station and the constraints posed at each site. The 130th Street station would have offices for CTA station staff, and an additional track and alternative platform to provide flexibility in its role as a terminal station.

Figure 2-4: Example Station Rendering: Michigan Avenue Station Aerial View (Looking West)

Figure 2-5: Example Station Rendering: 103rd Street Station (Looking North)

Bus access to the 103rd Street and 111th Street stations would be provided along the respective street with station frontage. The Michigan Avenue and 130th Street stations would have bus plazas integrated into the station.

The fundamental designs of the 103rd, 111th, and Michigan Avenue stations have remained the same since the publication of the Draft EIS but advancing design has provided further details. For instance, the Michigan Avenue station design has been refined since the Draft EIS to locate the parking and bus facilities from the south side to the north side of the UPRR. The location of the station parking is dependent on confirmation of availability of parcels and future coordination with the City of Chicago. The park & ride facilities were also modified such that the Michigan Avenue station garage was replaced by a surface parking lot and the 130th Street station garage was reduced in size and the 130th Street station now also includes an adjacent surface parking lot. Preliminary plans are available in **Appendix F**.

The 130th Street station has undergone a change in design since the publication of the Draft EIS, moving from a location north of 130th Street adjacent to the MWRD Calumet Water Reclamation Plant to a location south of 130th Street in the Altgeld Gardens neighborhood. The Supplemental EA determined that this design change either had no impact or no impacts after mitigation on environmental resources, while bringing benefits to pedestrian access and safety and security.

Park & Ride Facilities

To accommodate passengers arriving by car, park & ride facilities would be constructed near each RLE station. **Table 2-1** lists the planned park & ride locations, approximate number of parking spaces (not including CTA employee parking) at each location, and the planned parking facility type. A total of up to 1,340 park & ride spaces would be available at the new stations along the Preferred Alignment.

The Draft EIS originally called for a total of 3,700 parking spaces along the corridor, based on travel demand modeling performed as part of the RLE AA Study completed in August 2009. CTA has since reduced the number of planned parking spaces to up to 1,340 based on community feedback, site availability, and analysis of peer stations throughout the CTA system. Recent ridership modeling conducted using the FTA Simplified Trips-on-Project Software (STOPS) ridership model confirms the demand for parking facilities.

Table 2-1: Summary of Park and Ride Facilities

Station	Number of Parking Spaces for Preferred Alignment	Parking Facility Description
103rd Street	175	Station Area Surface Parking Lot
111th Street	225	Station Area Surface Parking Lot
Michigan Avenue	180	Station Area Surface Parking Lot
130th Street	760	Parking Garage and Station Area Surface Parking Lot
Total Parking Spaces	**Up to 1,340**	

Yard and Shop

The 120th Street yard and shop would be sited on a combination of industrial and vacant land east of the CN/MED tracks and west of the NICTD/CSS & SBRR tracks near 120th Street and Cottage Grove Avenue. The yard would be entirely at-grade. This facility would provide inspections, minor repairs, and railcar cleaning (interior and exterior) for a portion of the Red Line railcar fleet. The shop would handle up to ten-car train sets, eliminating the need to uncouple (or cut) the railcars for the routine periodic inspections. This new and modern facility would provide CTA with an efficient maintenance facility not only serving the RLE Project but the Red Line as a whole. Parking spaces for CTA employees would be included at the yard. The yard would be capable of storing up to 330 railcars with expansion to 360. The majority of these railcars would be stored in complete train sets of 8 or 10 railcars. This new facility would improve operations on the Red Line by providing CTA with an efficient and strategically located railcar maintenance facility at the south end of the CTA system.

Since the Draft EIS, coordination with NS resulted in adjustments to the Preferred Alignment near the 120th Street yard and shop to accommodate:

- 100-foot-wide right-of-way for the NS line immediately west of the NICTD/CSS & SBRR
- Future connection from the NS track to CN tracks along the MED corridor
- Maintain connection from the NS tracks to the All American Recycling facility
- Rail connection to facilitate rail delivery of ballast, ties, and other material to CTA

Based on these considerations, the 120th Street yard and shop and the tracks south to 130th Street were shifted approximately 100 feet to the west. Preliminary plans are available in **Appendix F**.

Substations

Substations are buildings along the alignment that house equipment to regulate the flow of electricity to the third rail, which supplies power to the trains. Substations would be placed approximately 0.8 to 1 mile apart along the Preferred Alignment. Six new and upgraded substation locations are proposed: 96th Street, near 104th Street, near 109th Place, near 116th Street, within the new yard and shop, and north of 130th Street.

Operating Plan

The RLE Project would operate 24 hours a day, each day of the year. Service frequency is anticipated to be the same as with the current service at the 95th/Dan Ryan terminal—approximately 3-minute to 6-minute headways during morning and afternoon peak hours. Headways during off-peak periods during the day would be approximately 6-10 minutes. Headways at night (between 1 AM and 4 AM) would be approximately 15 minutes. Service frequency would be adjusted to accommodate demand once the RLE service is implemented.

Based on the estimated running time for the RLE Project, an additional 78 railcars would be required as part of this project. The additional 78 railcars would include 64 railcars to meet the peak period schedule, plus 14 spare railcars. Train sets would be eight cars long. No additional railcars would be purchased as part of the RLE Project. Stations and track alignment would accommodate ten-car trains to maintain the option of running ten-car trains in the future. With the extension of the Red Line, some existing bus routes would be rerouted to feed into the new stations.

2.3 Summary of Construction Activities

This section summarizes the construction that would be needed for the Preferred Alignment. The *Description of Construction and Phasing for Build Alternatives* (**Appendix G**) provides additional details. The tentative opening year for the RLE Project is 2029 and construction is expected to take up to five years. The construction timeline is dependent on federal reviews and federal, state, and local funding. Construction activities are not expected to be markedly different than those described in the Draft EIS.

2.3.1 Construction Segments and Phasing

Construction activities would be grouped by type of work and location. Overall schedule and coordination of all construction segments would be phased and scheduled to maintain CTA operations at the 95th/Dan Ryan terminal and 98th Yard and Shop and vehicular traffic on affected expressways and roadways, and in each case with only temporary interruptions.

For the purposes of describing construction activities, the RLE Project was divided into seven segments. The segments indicate similar construction activities and are not intended to indicate any sequencing or phasing. **Table 2-2** describes work activities for each proposed construction segment shown in **Figure 2-6**. The construction segments and phasing plans described here are based on preliminary engineering completed to date and provide the greatest amount of flexibility for future design within a maximum envelope for evaluating environmental impacts. Construction activities and phasing would be determined during final design of the RLE Project, in coordination with contractors. Preliminary engineering plans (30 percent completion level) are provided in **Appendix F** and construction is anticipated during 2025 through 2029.

Table 2-2: Construction Segments and Summary of Work Activities

Segment	Location	Work Activities
U-1	From the 95th/Dan Ryan terminal to the beginning of the horizontal curve at the UPRR crossing	▪ Install trackwork and signals to tie into the 95th/Dan Ryan terminal. ▪ Relocate trackwork between the 95th/Dan Ryan terminal and the 98th Street Yard and Shop. ▪ Construct approximately 500 feet of retained fill structure south of the 95th/Dan Ryan terminal. ▪ Construct single-track, elevated structures over existing CTA tracks leading to the 98th Yard and Shop over the existing CTA/southbound I-94 tunnel. ▪ Construct the dual-track, elevated structure through the I-94/I-57 interchange, across the westbound I-57 entrance ramp from southboundI-94, and north of the southbound I-57 lane. ▪ Replace the 95th Street substation with a new 96th Street substation.
U-2	The horizontal curve at the UPRR crossing	▪ Construct the dual-track, elevated structure spanning both lanes of I-57.
U-3a	From the end of the horizontal curve at the UPRR crossing to the CN/MED track crossing near 119th Street	▪ Demolish existing buildings and structures in the proposed right-of-way where necessary. ▪ Construct the dual-track, elevated structure along the UPRR corridor. ▪ Construct stations near 103rd Street, 111th Street, and Michigan Avenue. ▪ Construct parking lots and bus turnarounds at stations. ▪ Construct three substations.
U-3b	From the end of the curves at the UPRR crossing at 107th Place	

Segment	Location	Work Activities
U-4	From the CN/MED track crossing near 119th Street to the at-grade track	▪ Demolish existing buildings and structures in the proposed right-of-way where necessary. ▪ Construct the dual-track, elevated structure along the UPRR corridor and over the CN/MED tracks near 119th Street. ▪ Construct the 120th Street yard and shop track tie-in. ▪ Construct retained embankment structure to carry the elevated structure to grade.
U-5	From the end of the aerial structure crossing the CN/MED tracks near 119th Street to the south end of the yard test track near 124th Street	▪ Construct the track roadbed. ▪ Construct the Metropolitan Water Reclamation District of Greater Chicago (MWRD) access road and bridge over the RLE tracks and the NICTD/CSS & SBRR crossing.
U-6	From the yard test track to the south end of the project including the 130th Street station	▪ Construct the track roadbed. ▪ Construct the 130th Street station. ▪ Construct an underpass at 130th Street for track alignment. ▪ Construct the parking garage/lot for the 130th Street station. ▪ Construct bus bays and road access for the 130th Street station. ▪ Construct the MWRD access road to 130th Street. ▪ Construct the substation.
U-7	120th Street yard and shop	▪ Construct the yard and track. ▪ Construct the shop building. ▪ Construct the access road and CTA employee parking. ▪ Construct the substation.

2.3.2 Construction Staging

Construction staging areas provide space to store equipment and materials, load trucks, and have workers perform parts of the construction process. Construction staging areas are currently anticipated to be within the project right-of-way or within property acquired for stations, park & ride facilities, and the yard and shop. Final staging would depend upon final design and the means and methods of the design builder. Staging and item assembly would be performed off-street to the fullest extent practicable, to minimize traffic and community disruption.

CN/MED = Canadian National/Metra Electric District, NICTD/CSS & SBRR = Northern Indiana Commuter Transportation District/Chicago South Shore & South Bend Railroad

Figure 2-6: Construction Segments of the Preferred Alignment

Construction vehicles would access the staging areas on a regular basis and would require special hauling routes designating the use of existing roadways and queuing locations to deliver materials and equipment, as well as remove debris. These special routes would require temporary lane closures or reconfigurations. Hauling routes would be coordinated throughout the RLE Project to minimize impacts on noise- and dust-sensitive areas, such as residential neighborhoods, to the extent practicable. The RLE Project would utilize highways and major arterials over local roads, to the extent feasible and practicable, to minimize the number of trucks and equipment passing through sensitive areas of the community. Specific design of each construction staging area would be determined during future design phases.

2.3.3 Pre-Construction Activities

Pre-construction activities would include development of construction schedules, quality plans, and procurement schedules. Applicable utility protection and relocation information would be coordinated in advance of the early construction activities. CTA and contractors performing primary construction activities would initiate community notifications as early as possible and provide opportunities for community input and preparation for major construction activities. Demolition and building permits would be obtained during pre-construction as well. Construction mitigation measures, such as fencing, would be put in place in advance of commencing major construction activities. Hazardous materials requiring mitigation, such as asbestos-containing materials (ACM), lead-based paint (LBP), and contaminated soil, would be identified and addressed before the start of demolition and excavation activities, or as discovered, as applicable. The Preferred Alignment is in a residential area with homes, parks, schools, and businesses. The impacts to these areas were evaluated in the Draft EIS, during which, CTA reached out to property owners to discuss potential land acquisition and temporary construction impacts. CTA continues those communications throughout the Final EIS process and will do so throughout future design phases leading to acquisition and relocation and construction.

2.3.4 Traffic Rerouting

During construction, auto traffic, pedestrians, and buses may need to be rerouted around the construction sites. Rerouting of traffic is normally done by using detours and complete street closures. Street closures may include main streets, side streets, alleys, and driveways. Temporary traffic lanes and driveways would be used as needed to provide alternate access. The following activities would occur as part of traffic rerouting:

- Placement of construction signage and temporary traffic barriers
- Temporary reduction in the number of available lanes or complete street closures
- Conversion of two-way streets to one-way operation on a temporary basis
- Implementation of detours around lane and street closures
- Provision of temporary traffic lanes

- Provision of special access points for construction vehicles traveling to and from construction staging areas and the proposed rail right-of-way
- Implementation of sidewalk detours and temporary parking restrictions
- Temporary partial closure of tracks leading to the 98th Street Yard and Shop

Specific maintenance of traffic measures for each affected roadway and for each construction phase would be determined in a traffic management plan. As part of the traffic management plan, construction traffic must also be addressed to preserve the overall transportation flow of the area of potential impact (API). As part of the preliminary engineering phase of the project, an overall traffic management plan for the API is being prepared, along with haul routes that can accommodate transportation of anticipated structural components and other large equipment. These will be reviewed with the agencies with jurisdiction over the affected roadways.

2.3.5 Demolition

Construction of the Preferred Alignment would require the demolition of 97 buildings throughout the entire 5.6-mile corridor The demolition process would temporarily result in increased noise and debris. Work would be performed in accordance with local ordinances for construction activities. Pedestrian and vehicular traffic would not be allowed into demolition areas. The demolition process may include concrete removal, use of jackhammers, excavation, and removal of foundations. Materials requiring disposal would be stored in construction staging areas, loaded into dump trucks, and moved off-site. All materials would be handled and disposed of in a proper manner, in accordance with applicable federal, state, and local regulations.

2.3.6 Elevated Structures and Track Placement

Foundations for elevated structures and the parking garage would consist of concrete and steel footings or drilled concrete shafts, depending on site conditions. Some exploratory borings have been completed to determine soil type and capacity in the vicinity of the project. A geotechnical engineer would perform exploratory borings during future design phases to determine soil type, soil capacity, and physical obstructions. The soil would be sampled to determine whether contaminants are likely to be present in the soil. All types of foundations would require excavation and removal of soil from the construction area via truck. Materials shipped off-site for disposal would be handled through approved facilities. Large cranes would be used to guide drilled shafts or piles into position. Impact pile driving would be generally avoided but may be used in areas unlikely to negatively affect residential neighborhoods, such as the 120th Street yard and shop. Impact pile-driving would be avoided in the vicinity of the historic Roseland Pumping Station.

After placement of foundations for the elevated structures, reinforced concrete piers would be constructed. The superstructure would use steel or concrete beams with a concrete deck to support the tracks. Along at-grade segments, tracks would be placed on ballast and ties after grading and soil preparation.

2.3.7 Earth Retention Structures

Embankment retention structures would be built from the track-facing side as much as feasible to minimize the construction footprint. A geotechnical engineer would perform exploratory borings during future design phases to determine soil type, soil capacity, and physical obstructions near the earth retention structures. The soil would be sampled to determine whether contaminants are likely to be present in the soil. All types of foundations would require excavation and removal of soil from the construction area using trucks. Materials shipped off-site for disposal would be handled through approved facilities. Large cranes would be used to guide any required drilled shafts or piles into position, though earth retention structures are more likely to use spread footings than elevated structures. Impact pile driving would be generally avoided.

2.3.8 Temporary Shoring

During excavation, temporary shoring may be required to facilitate construction and protect adjacent structures. Shoring would typically consist of steel sheet piling driven into the ground where applicable. Temporary shoring for excavations may also include h-piles and lagging, cofferdams, and trench boxes. Temporary shoring of elevated structures may include temporary columns, footings, and shoring towers. Elevated structural work may include temporary protective barriers, fencing, barricades, and containments. The rig for the vibratory pile driver may be located within the construction staging areas, the permanent right-of-way for the project, or the street right-of-way depending on the space limitations and access points.

2.4 Environmental Processes

After public review of the Draft EIS, CTA and FTA continued refining the design of the RLE Project based on the public and agency input on the Draft EIS. CTA and FTA then prepared this Final EIS to publish the results of the additional analyses required to evaluate the Preferred Alignment, which was influenced by comments on the Draft EIS and subsequent Supplemental EA. The Final EIS documents the comments received during the Draft EIS public comment period, as well as comments received during the public comment period for the Supplemental EA. The responses to the comments are documented in the *Agency Coordination and Public Involvement* (**Appendix C**).

In accordance with the 23 United States Code (USC) § 139(n), FTA will issue this single document that consists of the Final EIS and Record of Decision (ROD) prepared in accordance with regulations developed by the Council on Environmental Quality (CEQ) for the National Environmental Policy Act (NEPA) (40 CFR Parts 1500-1508) and FTA's Environmental Impact and Related Procedures (23 CFR Parts 771 and 774). The combined Final EIS/ROD complies with 23 USC § 139(n)(2) as amended by the Fixing America's Surface Transportation Act (Public Law 114-94) and succeeded by the Infrastructure Investments and Jobs Act (Public Law 117-58, also known as the "Bipartisan Infrastructure Law") in November 2021. This combined Final EIS/ROD includes the alternatives and options that FTA considered and CTA's commitments to mitigate the adverse impacts of the RLE Project. Additionally, in accordance with 40 CFR § 1505.2(b) of NEPA, the ROD includes an identification of the environmentally preferred alternative. Finally, the ROD includes a list of mitigation commitments that must be implemented when the project is initiated. The mitigation measures will be monitored by CTA and FTA for implementation. In addition, CTA

would continue to avoid and minimize environmental impacts wherever feasible. FTA's issuance of the ROD concludes the NEPA environmental process and is required for federal funding and approvals to proceed.

Chapter 3 Transportation

This chapter describes the potential benefits and adverse impacts that would result from the Preferred Alignment on the existing transportation facilities in the area of potential impact (API), including public transportation, vehicular and freight traffic, bicycling, pedestrians, and parking facilities. Also described here are mitigation measures to minimize adverse impacts where feasible. The information in this chapter is based on the *Transportation Technical Memorandum* (**Appendix H**). **Table 3-1** summarizes the transportation impact findings.

Table 3-1: Transportation - Impact Summary

Alternative	Permanent Impacts						Construction Impacts
	Public Transportation	Vehicular Traffic	Freight Transportation	Bicycles Facilities	Pedestrians	Parking	
No Build Alternative	No Impacts	Adverse Impacts	No Impacts	No Impacts	No Impacts	No Impacts	No Impacts
Preferred Alignment	Beneficial	Impacts would not be adverse after mitigation	No Impacts	Beneficial	Impacts would not be adverse after mitigation	Impacts would not be adverse after mitigation	No Impacts

3.1 Regulatory Framework/Methods

CTA conducted the transportation analysis in compliance with current FTA guidelines and NEPA regulations, in addition to the requirements of the Federal transportation bill, Public Law 114-94, Fixing America's Surface Transportation Act that was succeeded by the Infrastructure Investments and Jobs Act (Public Law 117-58, also known as the "Bipartisan Infrastructure Law") in November 2021. Illinois state law does not require additional environmental analysis beyond the requirements of NEPA. Other than CMAP *GO TO 2040* being superseded by CMAP *ON TO 2050*, the local regulatory framework for transportation has not changed considerably since the issuance of the Draft EIS.

3.1.1 Public Transportation

Ridership estimates for the Draft EIS were developed in 2009, during the Alternatives Analysis phase, using a regional travel demand model for a 2030 project horizon year. For the Final EIS, Year 2040 ridership estimates were projected using STOPS, which is the FTA's preferred ridership forecasting tool. STOPS was developed by FTA and is customized using local data for application to a specific region and project. CTA assembled local data on existing transit service, ridership, demographics, and traffic, and calibrated STOPS to existing conditions in the Chicago region, with an emphasis on the South Side of Chicago, as well as surrounding south suburbs. All STOPS data

inputs were pre-COVID and calibrated to Fall 2017 ridership data. The local STOPS application and resulting RLE forecast were developed in coordination with FTA travel demand modeling staff. The analysis of public transportation impacts of the Preferred Alignment was performed using the same methods as were documented in the Draft EIS. An adverse impact on public transportation would occur if there were negative changes associated with geographic areas of service and routing, travel time, frequency and hours of service, transit patronage and demand (including transit mode share), station access and circulation, and/or traffic around station. **Appendix H** provides additional details on the methods used for this analysis.

3.1.2 Vehicular Traffic

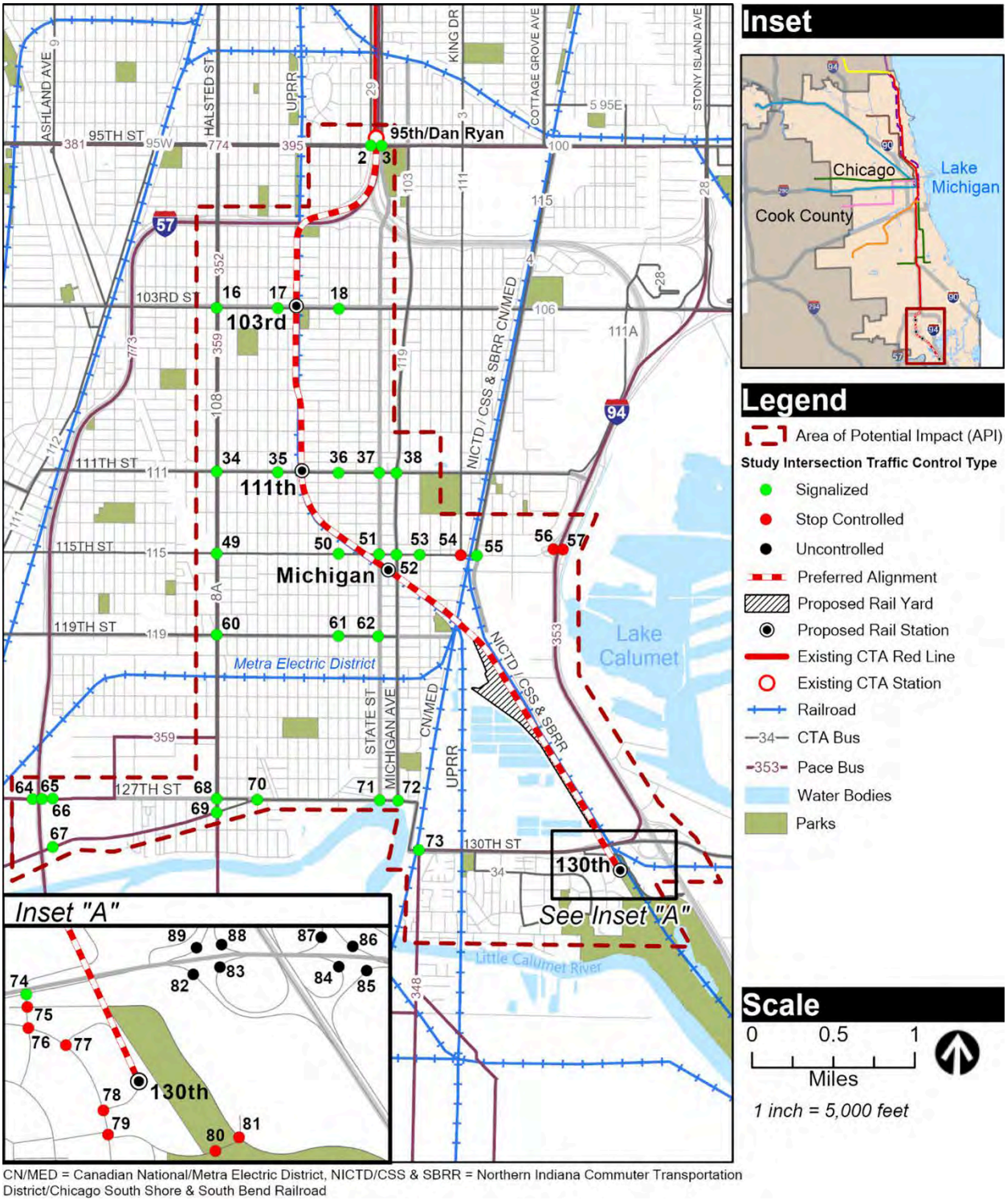
Existing and historic traffic count data from CTA, the Chicago Department of Transportation (CDOT), CMAP, and Illinois Department of Transportation (IDOT) were compiled for different intersections within the API. Additionally, new manual traffic counts were collected at intersections where historical data were not available. These new traffic counts were conducted at the Altgeld Gardens neighborhood intersections and the I-94 ramps at 130th Street. The traffic data also included traffic distribution and local circulation patterns; vehicle occupancy levels; road capacity levels; road peak-hour traffic volumes, intersection lane geometry and traffic signal timing plans; and planned roadway improvements. Traffic data was pre-COVID with the exception of data associated with the relocated 130th Street station and the additional counts requested by IDOT during ongoing coordination with the development of this Final EIS.

Much of the vehicular traffic analysis occurred during 2020, when there were numerous deviations from historic traffic patterns caused by the COVID-19 pandemic and the associated social distancing measures. As simple manual counts would likely have undercounted typical traffic demand, observed traffic volumes were further calibrated to levels expected to be seen during a typical time period. These calibrations to the traffic data are described in **Appendix H**. This analysis also updated the projections from 2030 to 2050 for the horizon year.

While the traffic analysis in the Draft EIS did not identify vehicle storage capacity deficiencies, the Final EIS traffic analysis identifies instances where storage capacity for turning lanes would not be adequate for vehicle traffic generated by vehicles accessing the station areas. These storage capacity deficiencies would be considered an adverse impact. Storage capacity for turning lanes is based on red time queue formula provided in the IDOT Bureau of Design and Environment manual. The IDOT red time queue analysis can be found in **Appendix H**.

The area of analysis for the Final EIS was refined since the Draft EIS, to focus on the intersections at proposed stations and those along the corridor that would feed traffic to the proposed stations along the Preferred Alignment. The transportation API and Preferred Alignment are shown in **Figure 3-1**.

The API for transportation resources in the Draft EIS encompassed a larger area in order to evaluate several alternative alignments, including the UPRR East and West Options. Since the Draft EIS, the Preferred Alignment was announced, and the API used in the Final EIS was updated to study the intersections along the Preferred Alignment.



CN/MED = Canadian National/Metra Electric District, NICTD/CSS & SBRR = Northern Indiana Commuter Transportation District/Chicago South Shore & South Bend Railroad

Figure 3-1: Study Intersections for Transportation Impact Analysis in the Area of Potential Impact

The Final EIS transportation API boundaries are as follows:

- On the north by 95th Street
- On the south by a varying boundary that includes Vermont Street, 127th Street, and 134th Street
- On the east by a varying boundary that includes State Street, Michigan Avenue, and I-94 (from the north to south)
- On the west by a varying boundary that includes Halsted Street and I-57 (from north to south)

Previously in the Draft EIS, the API was much larger to capture the various design options, some of which, extended beyond the footprint of the Preferred Alignment. Focusing on the Preferred Alignment, intersections were removed from analysis because they were not along a corridor where a new station would be constructed. This accounted for a reduction of 42 intersections from the analysis. The relocation of the 130th Street station into the Altgeld Gardens neighborhood resulted in the addition of seven intersections not previously studied in the Draft EIS. In addition, IDOT requested the inclusion of the eight I-94 ramps on 130th Street, bringing the total number of new intersections studied to 15. The total number of study intersections from the Draft EIS was reduced from 76 intersections to 49 intersections for the Final EIS. Study intersections are shown in **Figure 3-1**. For consistency and comparison of analysis conducted between the time of the Draft EIS and Final EIS, the intersection numbering used in the Draft EIS was used whenever the intersection was also studied in the Final EIS. The intersections introduced as new in the Final EIS, not previously studied in the Draft EIS, appear as intersections numbered 75-89 in **Figure 3-1**.

3.1.3 Pedestrians

There are no markedly different changes to the evaluation of pedestrian traffic from the Draft EIS, as described in **Appendix H**. Aerial photographs, City of Chicago geographic information system and geospatial datasets, and the *Chicago Pedestrian Plan* (City of Chicago 2012b) were reviewed. CTA reviewed pedestrian facilities within the immediate area of the proposed station locations for Americans with Disabilities Act (ADA) accessibility and conformity to transit station planning.

A pedestrian impact would be considered adverse if it were to result in the disruption of an existing or planned pedestrian pathway, if it were to limit pedestrian access to proposed station entrances, or if pedestrian access to a proposed station were limited because the area in the vicinity of the station did not have ADA-accessible sidewalks.

3.1.4 Bicycle Facilities

There are no markedly different changes to the evaluation of bicycle traffic from the Draft EIS, as described in **Appendix H**. CTA reviewed IDOT's bicycle map and existing and proposed bicycle facilities for the City of Chicago based on the *Chicago Streets for Cycling Plan 2020* (City of Chicago 2012a). CTA evaluated the relationship of the existing bicycle facilities to the proposed station locations and assessed whether the proposed station locations would conform to the objectives of the bicycle plans for an area within a ½ mile of the stations.

For the Final EIS, a bicycle facility impact would be considered adverse if it were to result in a disruption of existing or planned bicycle pathways or bicycle parking facilities.

3.1.5 Freight Transportation

CTA qualitatively examined the existing and projected freight traffic in the API and determined whether the RLE Project would permanently interrupt freight movements. These freight movements include freight moved by both rail and truck modes. Through a coordination process, CTA, UPRR, NS, CN, and CSX identified potential impacts and discussed them qualitatively. A result of this coordination process is the 120th Street yard and shop refinements. This was developed from NS direct input and their desire to maintain service connections to the All American Recycling facility and a connection to the national freight rail network.

For the Final EIS, an impact on freight transportation would be considered adverse if the movement of goods and services would be disrupted or delayed to a greater degree than the No Build conditions.

3.1.6 Parking

The evaluation methodology for parking referenced in **Appendix H** has been carried forward for the Final EIS. CTA reviewed community resources and aerial photographs and performed field observations. Using the No Build Alternative as the baseline, CTA analyzed the extent to which the Preferred Alignment would affect on-street parking and off-street parking facilities. CTA reviewed parking capacity near the location of each proposed station and park & ride facility for potential impacts on the surrounding neighborhoods. Potential parking impacts would include changes in parking supply (relative to changes in parking demand) as a result of transit facility construction/service expansion, addition of park & ride facilities, and removal of existing parking spaces. To determine the potential for impacts and the intensity of those impacts, CTA developed guidelines based on standard industry practices.

For the Final EIS, a parking impact would be adverse if it were to result in the following:

- Reduction in on-street parking capacity by more than 25%
- Reduction in off-street parking capacity that falls below the City of Chicago Zoning Code
- Reduction in accommodation for future programs requiring parking spaces, such as car sharing
- Reduction in existing transit parking and park & ride capacity
- Inadequate parking capacity for proposed transit service

3.2 Existing Conditions

The existing transportation environment in the API has not considerably changed from that described in the Draft EIS. The API includes transit facilities for rail and bus, expressways, regional arterials (through roads), truck routes, intermodal connectors, secondary arterials, local streets, and bicycle and pedestrian facilities. Expressways in the API include I-57 and I-94.

The 95th/Dan Ryan terminal is currently the southern end of the Red Line. Many existing bus routes within the API terminate at this location. From this station, passengers travel north on the Red Line or transfer to a different bus route. The 95th/Dan Ryan terminal underwent a major reconstruction and renovation project from 2014 through 2019 that increased the space available for bus parking and transfers and made numerous improvements to the user experience of the station. This reconstruction was expected and included in the analysis of the Draft EIS. No major improvements or modifications would be required for the 95th/Dan Ryan terminal to accommodate the RLE Project. Only minor signal and communication systems related modifications would be needed at this location to tie the RLE Project into the existing CTA network.

Sizable expressway congestion occurs within and surrounding the API. The expressway network was at or over capacity during the morning peak periods in 2019 and congestion is expected to worsen by 2050. Arterial street reliability is compromised by delays from at-grade freight railroad crossings, affecting travel times to the 95th/Dan Ryan terminal. MED commuter trains that operate at-grade and cross several arterials in the API also cause short traffic delays.

3.2.1 Public Transportation

The existing public transportation systems in use within and near the API, as shown in **Figure 3-2**, are CTA rail service, CTA bus routes, Pace bus routes, and Metra commuter rail service. The Red Line 95th/Dan Ryan terminal is the only CTA rail station within the API and is the southern end of the CTA Red Line.

CTA and Pace routes are on east-west and north-south thoroughfares through the API, with 14 CTA and 6 Pace bus routes operating within the API (not including night bus routes). Two bus routes that were evaluated in the Draft EIS are not within the API for the Preferred Alignment. CTA bus Routes #3 King Drive and #28 Stony Island no longer fall within the updated API and are not discussed further. Conversely, Route #4 Cottage Grove has been added to the analysis because the bus route now extends to 95th Street and beyond to 115th Street.

Metra commuter rail service in the API includes the MED mainline, the MED Blue Island branch, and the Metra Rock Island District mainline. NICTD/CSS & SBRR does not serve any of the stations in the API, though it shares trackage with the MED mainline north of the Metra Kensington Station. Both Metra and NICTD have experienced service reductions in response to the decrease in ridership during the COVID-19 pandemic, but it is expected that these service reductions will be reversed in the near future after the pandemic. **Figure 3-2** shows the existing public transportation in the API.

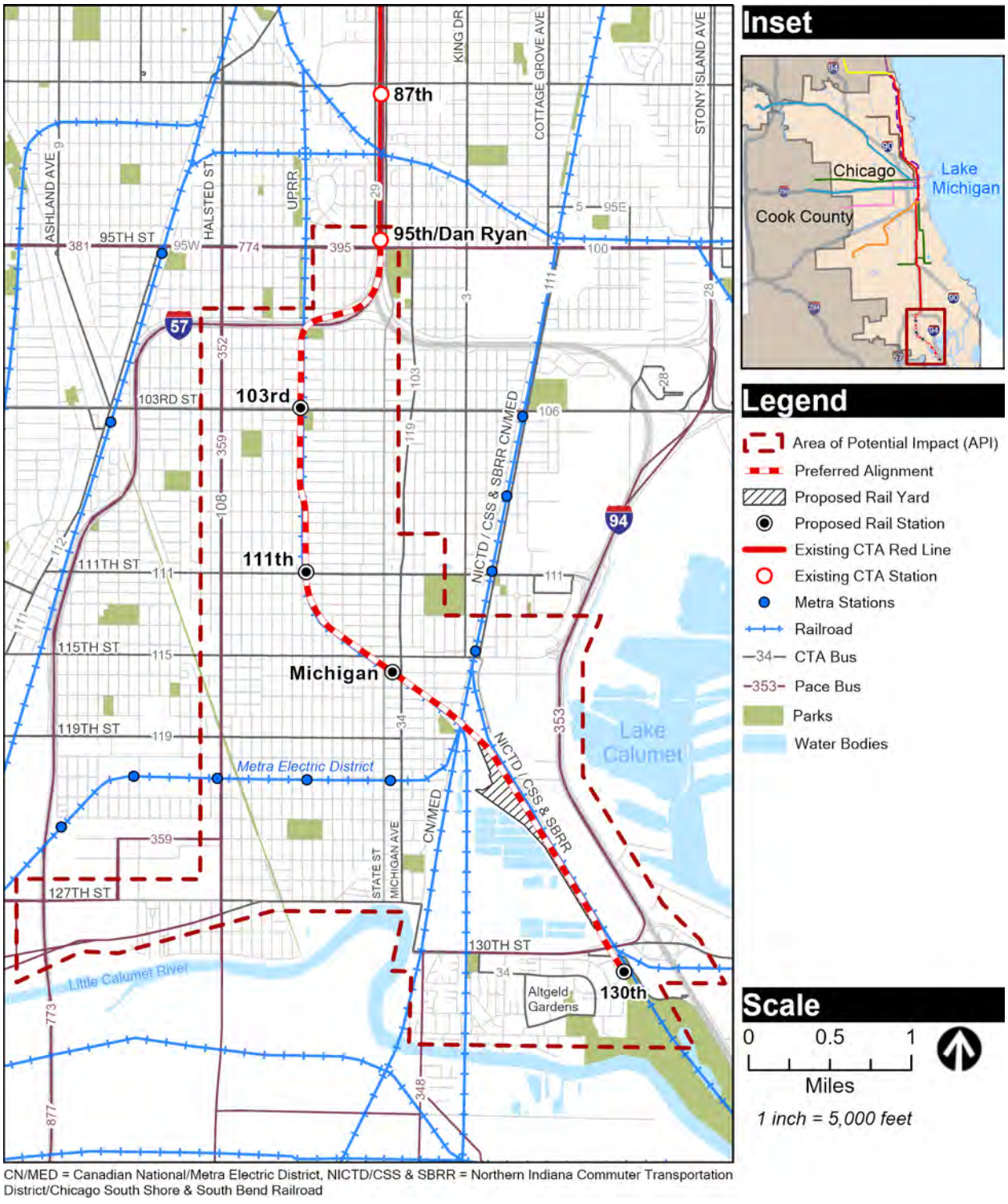


Figure 3-2: Existing Public Transportation within and near the Area of Potential Impact

3.2.2 Vehicular Traffic

Numerous interstate, regional, and local roadways crisscross the API, providing vital linkages to regional and local destinations. Local and regional streets generally conform to the larger east-west/north-south Chicago street grid. The existing roadway network in the API has not experienced geometric improvements that would affect traffic operations since the issuance of the Draft EIS.

Traffic volumes were analyzed at 49 signalized and unsignalized roadway intersections in the API to determine the existing level of service (LOS) that the intersections provide. The LOS for roadway intersections typically ranges from A to F (Transportation Research Board 2016). Essentially, LOS A is free flow with almost no delay, while LOS F is congested with delay affecting nearly all drivers.

- LOS A - Virtually free flow of traffic with no congestion or delay
- LOS B - Stable traffic flow (However, other vehicles in the flow are noticeable.)
- LOS C - Stable flow (However, LOS marks the beginning of the range where individual vehicles become affected by interactions with other vehicles in the traffic stream.)
- LOS D - High density of traffic but stable flow
- LOS E - Operating conditions at or near capacity level (All speeds are reduced to a low but relatively uniform flow.)
- LOS F - A breakdown in the operating conditions resulting in congestion and delay

In general, the intersection LOS values for the Final EIS are similar to those shown in the Draft EIS. Changes in intersection LOS values were a result of updates to signal timings and intersection geometrics since the Draft EIS analysis. These changes would affect both signalized and unsignalized intersections since the traffic analysis takes into account traffic flow along the entire street. **Table 3-2** provides a comparison of the existing conditions from the Draft EIS and the Final EIS intersection LOS.

Table 3-2: Existing Intersection Level of Service Comparing Draft and Final EIS Values

Intersection ID	Intersection	Control Type[1]	Draft EIS		Final EIS	
			AM Peak Hour LOS[2]	PM Peak Hour LOS	AM Peak Hour LOS	PM Peak Hour LOS
2	95th Street and Lafayette Avenue	Signalized	D	D	C	C
3	95th Street and State Street	Signalized	C	C	D	D
16	103rd Street and Halsted Street	Signalized	E	D	E	C
17	103rd Street and Normal Avenue	Signalized	B	B	A	A
18	103rd Street and Wentworth Avenue	Signalized	B	B	B	B
34	111th Street and Halsted Street	Signalized	C	C	B	B

Intersection ID	Intersection	Control Type[1]	Draft EIS		Final EIS	
			AM Peak Hour LOS[2]	PM Peak Hour LOS	AM Peak Hour LOS	PM Peak Hour LOS
35	111th Street and Normal Avenue	Signalized	A	A	A	A
36	111th Street and Wentworth Avenue	Signalized	A	A	A	B
37	111th Street and State Street	Signalized	A	B	A	B
38	111th Street and Michigan Avenue	Signalized	B	B	B	B
49	115th Street and Halsted Street	Signalized	C	C	C	C
50	115th Street and Wentworth Avenue	Signalized	B	B	B	B
51	115th Street and State Street	Signalized	B	B	B	B
52	115th Street and Michigan Avenue	Signalized	B	C	B	D
53	115th Street and Indiana Avenue	Signalized	B	B	B	B
54	115th Street and Martin Luther King Jr Drive	Unsignalized	A	A	C	E
55a	115th Street and Cottage Grove Avenue (West)	Signalized	C	C	D	C
55b	115th Street and Cottage Grove Avenue (East)	Signalized	D	C	F	D
56	115th Street and I-94 EB Ramps	Unsignalized	A	A	A	A
57	115th Street and I-94 WB Ramps	Unsignalized	C	B	C	B
60	119th Street and Halsted Street	Signalized	C	C	C	C
61	119th Street and Wentworth Avenue	Signalized	B	B	B	A
62	119th Street and State Street	Signalized	B	B	A	A
64	127th Street and Paulina Street	Signalized	C	C	C	C
65	127th Street and Marshfield Avenue	Signalized	C	B	D	C
66	127th Street and Ashland Avenue	Signalized	C	C	C	C
67	Vermont Street and Ashland Avenue	Signalized	C	C	C	C
68	127th Street and Halsted Street	Signalized	C	C	C	C
69	Vermont Street and Halsted Street	Signalized	B	B	B	B
70	127th Street and Vermont Street and Wallace Street	Signalized	C	D	C	D
71	127th Street and State Street	Signalized	A	B	A	B
72	127th Street and Michigan Avenue	Signalized	A	B	A	B

Intersection ID	Intersection	Control Type[1]	Draft EIS		Final EIS	
			AM Peak Hour LOS[2]	PM Peak Hour LOS	AM Peak Hour LOS	PM Peak Hour LOS
73	130th Street and Indiana Avenue	Signalized	B	C	B	B
74	130th Street and Ellis Avenue	Signalized	A	A	B	A
75	Old 130th Street and Ellis Avenue	Unsignalized	---[4]	---	A	A
76	Greenwood Avenue and Ellis Avenue	Unsignalized	---	---	A	A
77	130th Place and Greenwood Avenue	Unsignalized	---	---	A	A
78	131st Street and Greenwood Avenue	Unsignalized	---	---	A	A
79	132nd Street and Greenwood Avenue	Unsignalized	---	---	A	A
80	132nd Street and Beaubien Woods Driveway	Unsignalized	---	---	A	A
81	132nd Street and Doty Avenue	Unsignalized	---	---	A	A
82	EB 130th Street and I-94E On-Ramp (Ramp A)	Uncontrolled	---	---	A	B
83	EB 130th Street and I-94E Off-Ramp (Ramp B)[3]	Uncontrolled	---	---	B	B
84	EB 130th Street and I-94W On-Ramp (Ramp C)[3]					
85	EB 130th Street and I-94W Off-Ramp (Ramp D)	Uncontrolled	---	---	B	B
86	WB 130th Street and I-94W On-Ramp (Ramp E)	Uncontrolled	---	---	A	B
87	WB 130th Street and I-94W Off-Ramp (Ramp F)[3]	Uncontrolled	---	---	B	B
88	WB 130th Street and I-94E On-Ramp (Ramp G)[3]					
89	WB 130th Street and I-94E Off-Ramp (Ramp H)	Uncontrolled	---	---	B	A

1 Signalized and unsignalized intersection LOS reported in the columns to the right as the average for all movements.
2 LOS = level of service
3 I-94 ramps B and C, as well as ramps F and G, were analyzed as weaving segments and therefore analyzed as one location per ramp pair.
4 "---" indicates that no LOS was reported for those intersections for the Draft EIS since they were not originally included in the Draft EIS API.

3.2.3 Bicycle Facilities

Chicago has over 200 miles of on-street bicycle pathways and 36 miles of trails. In addition, the city has more than 12,000 racks for bicycle parking, including racks at CTA stations (City of Chicago 2012a). CTA identified existing bicycle facilities within the API (see **Figure 3-3**). Bicycle facilities recommended in the *City of Chicago's Bike 2015 Plan* (City of Chicago 2006) and pertinent recommended cycling routes from the *Chicago Streets for Cycling Plan 2020* are also shown on the figure.

CN/MED = Canadian National/Metra Electric District, NICTD/CSS & SBRR = Northern Indiana Commuter Transportation District/Chicago South Shore & South Bend Railroad

Figure 3-3: Existing Bicycle Facilities within the Area of Potential Impact

Chicago's bicycle sharing system, Divvy, currently has over 6,000 bicycles at over 600 stations across the city. In the summer and fall of 2020 Divvy expanded to Chicago's Far South Side. As shown in **Figure 3-3**, currently there are 12 Divvy stations located within the API. Of the 12 Divvy stations, four Divvy stations are within a ½ mile of the three northern RLE Project stations and these can be found at 104th Street and Wentworth Avenue, 111th Street and Halsted Street, 111th Street and Wentworth Avenue, and 114th Street and Michigan Avenue. In addition, there is one Divvy station within the Altgeld Gardens neighborhood, located at the Altgeld Branch of the Chicago Public Library and within a ½ mile of the 130th Street station. There were no Divvy stations present in the API in the Draft EIS.

Major Taylor Trail is an off-street cycling trail that runs through the API. Bicycle facilities, which have been constructed within the API since the Draft EIS, are bike lanes located on 103rd Street, 111th Street, 115th Street, and State Street and a greenway located on 124th Street.

3.2.4 Pedestrians

As disclosed in the Draft EIS, sidewalks are located on both sides of most of the arterial and collector roads throughout the API. Arterial streets have a standard, 6-foot-wide sidewalk and collector streets have sidewalks that are 12 to 17 feet wide. There are no pedestrian gates along the sidewalks at the existing UPRR grade crossings within the API.

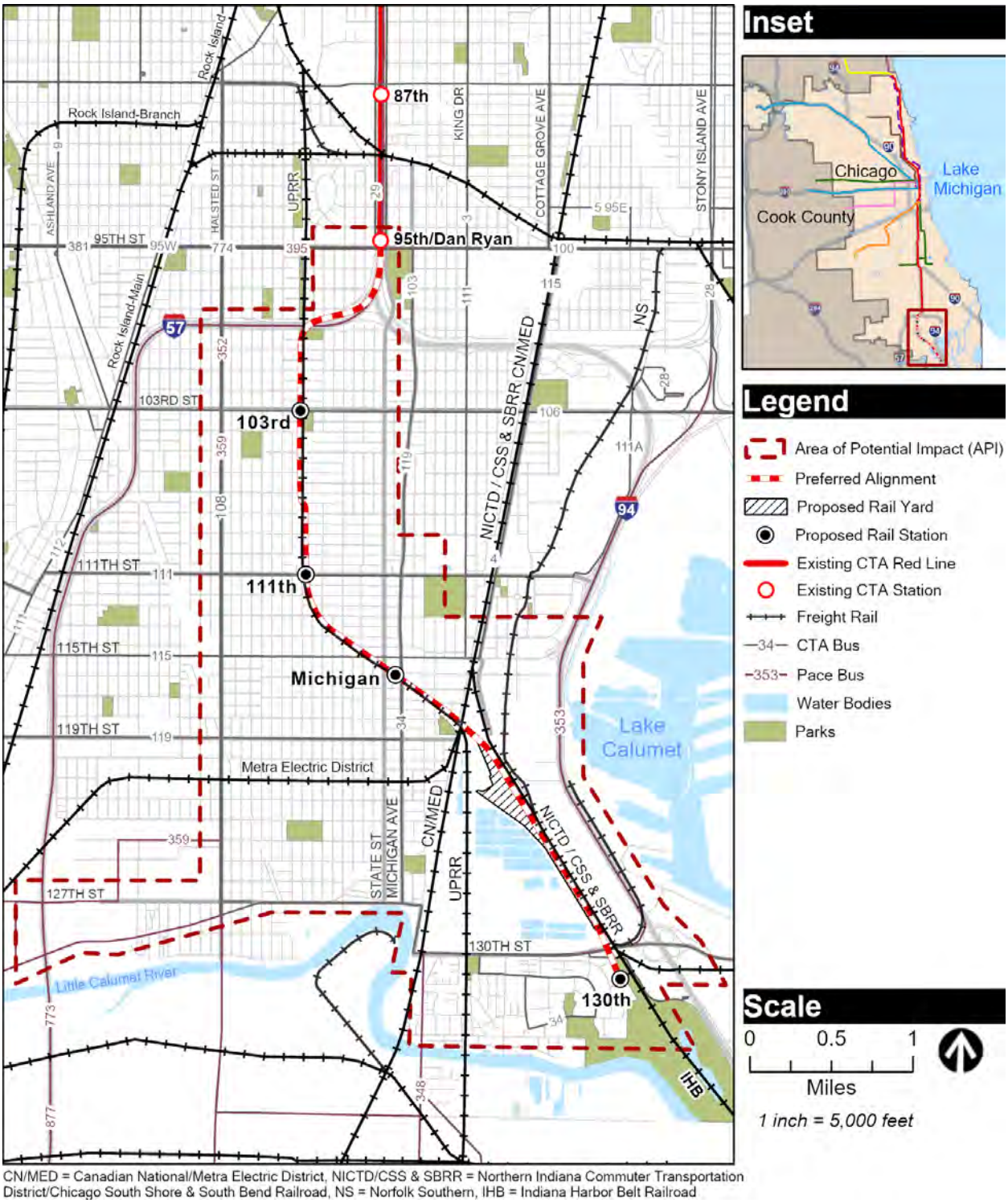
The City of Chicago is continually updating intersection curb ramps to meet current ADA guidelines and design standards. There are wheelchair accessible curb ramps at most of the intersections within the API, but many of these curb ramps are not fully compliant under current ADA standards, which require detectable warning tiles for the visually impaired.

CDOT is implementing its *Chicago Pedestrian Plan* (City of Chicago 2012b). The plan aims to increase pedestrian safety, identify, and eliminate gaps and barriers in the pedestrian network, increase the amount and quality of pedestrian space, and increase the number of pedestrian trips for enjoyment, school, work, and daily errands. Pedestrian facilities for the Final EIS are not markedly different than those shown in the Draft EIS.

3.2.5 Freight Transportation

Approximately 500 freight trains per day operate in the Chicago region (CMAP 2014). In 2007, regional rail tonnage was estimated at more than 631 million tons, with about 24,000 trailers and containers and about 16,800 carload units moving into, out of, or through the region daily (CMAP 2012b). The 2007 forecast has not been updated since the Draft EIS. The following active freight railways operate through the API and are identified on **Figure 3-4**.

- UPRR
- CN/MED
- NICTD/CSS & SBRR
- NS Railway



CN/MED = Canadian National/Metra Electric District, NICTD/CSS & SBRR = Northern Indiana Commuter Transportation District/Chicago South Shore & South Bend Railroad, NS = Norfolk Southern, IHB = Indiana Harbor Belt Railroad

Figure 3-4: Freight Railroads in the Area of Potential Impact

- IHB Railroad
- Conrail (operated on NS Railway)

The UPRR reported 14 freight trains per day currently within the API, although multi-day data collection efforts conducted on May 20, 21, 22, and 28 and June 4, 2021 indicate a current average of only 8 to 10 trains per day. In addition, Amtrak runs two passenger trains three times a week on the UPRR tracks within the API. The CN/MED tracks carry 34 passenger and 12 freight trains. The NICTD/CSS & SBRR tracks carry 34 passenger and 6 freight trains and converge with the CN/MED tracks between 115th Street and Kensington Avenue and both carry passenger and freight trains.

3.2.6 Parking

Most of the streets in the API have on-street parking, and there have been no notable changes to on-street parking since the Draft EIS.

Many of the commercial and retail buildings within the API have parking available either through on-street parking or parking lots associated with the buildings. The Agape Community Center uses a City-owned parcel of land that is located immediately west of the center for parking. TCA Health has a parking lot adjacent to Old 130th Street in the Altgeld Gardens neighborhood.

The Altgeld Gardens neighborhood has on-street parking on most of its internal access roadways, as well as having off-street parking in lots around the neighborhood.

3.3 Environmental Consequences

The following sections summarize the potential transportation impacts and mitigation measures of the No Build Alternative and Preferred Alignment, and the differences in the Final EIS from the Draft EIS.

3.3.1 No Build Alternative

Under the No Build Alternative, the project would not be constructed and as travel demand rises, traffic flow in the API would continue to deteriorate. Under No Build (2050) conditions, 84 percent of the study intersections within the API would operate at LOS D or better in both the AM and PM peak hours. Eight intersections would operate at a LOS E or F in either or both the AM and PM peak hours under the No Build Alternative (**Appendix H**). The deteriorating LOS at these eight intersections would be an adverse impact on transportation, specifically vehicular traffic, under the No Build Alternative. There would be a continued lack of rapid transit rail service south of 95th Street. CMAP *ON TO 2050* calls for investment in the existing transit infrastructure in the region, and the No Build Alternative would not achieve this. There would be no major construction associated with the No Build Alternative; therefore, no construction-related transportation impacts would occur.

The environmental consequences of the No Build Alternative are not markedly different than those in the Draft EIS. The No Build Alternative in the Final EIS utilized 2050 conditions versus 2030 conditions in the Draft EIS.

3.3.2 Union Pacific Railroad Alternative - Preferred Alignment

Permanent Impacts

Public Transportation

The environmental consequences of the Preferred Alignment on public transportation are not markedly different than those of the East and West Options shown in the Draft EIS unless otherwise stated. With the extension of the Red Line, some existing bus routes would be rerouted to feed into the proposed stations (see **Appendix H** for additional details). CTA passengers would benefit from faster travel times with access to rapid transit service farther south, compared to non-rapid transit modes (CTA and Pace buses) that are currently available in this area. CTA passengers would benefit from a one seat ride, eliminating the need to take a bus to access the Red Line if they live near a proposed station. Implementation of the Preferred Alignment would also reduce congestion at the 95th/Dan Ryan terminal. The addition of the four stations from the RLE Project would spread out traffic among the newly constructed stations by distributing vehicular drop-offs and pick-ups, distributing bus-to-rail transfers, and distributing bus routes by having them terminate at stations other than 95th/Dan Ryan.

Public transportation would benefit from the Preferred Alignment because of the new, direct rail service within the API. The RLE Project would operate 24 hours a day, each day of the year. Service frequency is anticipated to be the same as with the current service at the 95th/Dan Ryan terminal—approximately 3-minute to 6-minute headways during morning and afternoon peak hours and approximately 6-minute to 10-minute headways during the off-peak periods. Headways at night (between 1 AM and 4 AM) would be approximately 15 minutes. Service frequency would be adjusted to accommodate demand once the RLE service is implemented. In addition, the Preferred Alignment would provide a station at Michigan Avenue and 115th Street with bus and wayfinding connections to Metra MED 115th station.

Vehicular Traffic

The environmental consequences of the Preferred Alignment on vehicular traffic are not markedly different than those of the East and West Options described in the Draft EIS unless otherwise stated. Traffic impacts would arise from changed travel patterns to reach the proposed stations. The Preferred Alignment would be adjacent to an existing active freight railroad corridor, similar to the East and West Options presented in the Draft EIS. Impacts would occur due to the additional station-generated traffic crossing active roadway/railroad at-grade crossings.

With the Preferred Alignment, adverse vehicular traffic impacts are projected to occur under 2050 traffic volumes at the five intersections listed below. Adverse impacts would occur because these intersections would operate at a LOS worse than the No Build condition. The intersections that would operate worse, without mitigation, than the No Build conditions are:

- Intersection #16: 103rd Street and Halsted Street
- Intersection #54: 115th Street and Martin Luther King Jr Drive

- Intersection #64: 127th Street and Paulina Street
- Intersection #70: 127th Street and Vermont Street and Wallace Street
- Intersection #71: 127th Street and State Street

Additionally, five other intersections (for a total of 10) would operate at an undesirable LOS, which is defined as a LOS of E or F. This represents an improvement on the conditions modeled in the Draft EIS, which indicated that 21 intersections would have an undesirable LOS in the East or West Options. Of the 21 intersections with an undesirable LOS in the Draft EIS, 18 intersections are still a part of the Final EIS API. The decrease of intersections operating at an undesirable LOS from 21 intersections in the Draft EIS to 10 intersections in the Final EIS is a result of adjusting the distribution of traffic on the roadway network based on the updated CMAP 2050 travel demand model, as well as the reduction in intersections analyzed.

Mitigation measures to reduce or minimize the impacts were evaluated for the transportation network surrounding the Preferred Alignment. Mitigation measures for intersections near the affected intersection may also be necessary to provide better flow of traffic. Coordination regarding the implementation of mitigation measures is ongoing with the agencies of jurisdiction. **Table 3-3** lists recommendations for consideration by the agencies of jurisdiction – IDOT, CDOT, and CCDoTH – based on the Preferred Alignment in 2050 conditions. At intersections where adverse impacts are projected (2050), potential improvements have been identified to offset the portion of the LOS deterioration or insufficient storage length attributable to the RLE Project. CTA has provided RLE Project traffic analysis and recommended improvements to these agencies of jurisdiction through ongoing coordination. CTA would coordinate intersection improvements with IDOT, CDOT, and CCDoTH for intersections affected by the change in traffic volumes and patterns associated with the final design of the RLE Project. However, the mitigation measures would be based on actual (measured) traffic volumes, agency requirements, coordination within the traffic network, and any traffic demand management and/or traffic calming measures being implemented at the time of mitigation. Agency requirements may include LOS analysis under Complete Streets guidelines, examining an overall LOS for pedestrians, bicycles, transit modes, and other vehicles (rather than placing an emphasis on the movement of automobiles). Permanent impacts on vehicular traffic would not be adverse after mitigation.

Table 3-3: Recommended Potential Mitigations for the Preferred Alignment

Intersection ID	Intersection	Recommendations
16	103rd Street and Halsted Street	AM/PM: Adjust signal timing splits AM/PM: Change westbound left movements to protected-permissive
52	115th Street and Michigan Avenue	PM: Increase cycle length to 85 seconds
55a	115th Street and Cottage Grove Avenue (West)	AM/PM: Adjust signal timing splits
55b	115th Street and Cottage Grove Avenue (East)	AM/PM: Adjust signal timing splits

Intersection ID	Intersection	Recommendations
60	119th Street and Halsted Street	PM: Adjust signal timing splits
64	127th Street and Paulina Street	AM/PM: Adjust signal timing splits (Maintain existing offset timing)
65*	127th Street and Marshfield Avenue	AM/PM: Adjust signal timing splits (Maintain existing offset timing)
66*	127th Street and Ashland Avenue	AM: Adjust signal timing splits (Maintain existing offset timing)
68	127th Street and Halsted Street	AM/PM: Increase cycle length to 90 seconds
70	127th Street and Vermont Street and Wallace Street	AM/PM: Adjusted signal timing splits AM/PM: Prohibit left turn lanes for the northeast bound lane, right turn only AM/PM: Change the northeast-bound right turn movement to "overlap" AM/PM: Convert westbound through/left lane to a westbound left-turn-only lane
71	127th Street and State Street	PM: Increase cycle length to 90 seconds
73	130th Street and Indiana Avenue	AM/PM: Increase cycle length to 85 seconds

*These additional intersections were included in the recommendations because their signal timings are coordinated with Intersection ID 64.

Under the Preferred Alignment (2050) conditions, if the recommended potential mitigations were implemented by the respective jurisdictions, then most of the study intersections within the API would operate at LOS D or better in both the AM and PM peak hours, as shown in **Table 3-4**. Under these Preferred Alignment mitigated (2050) conditions, some intersections would operate at LOS E or F; however, these intersections would be no worse than No Build (2050) conditions. In addition, the RLE Project would provide an improved public transportation alternative to vehicular travel. Mitigated conditions would not result in additional intersections with undesirable LOS compared to the No Build conditions. As such, there would be no adverse permanent traffic impacts for the Preferred Alignment. The traffic data and Synchro results are in **Appendix H** for the Preferred Alignment (Mitigated).

Table 3-4: Preferred Alignment Intersections (2050) LOS with Potential Mitigation

Intersection ID	Intersection	Control Type[1]	No Build (2050)		Preferred Alignment (2050) Mitigated	
			AM Peak Hour LOS[2]	PM Peak Hour LOS	AM Peak Hour LOS	PM Peak Hour LOS
2	95th Street and Lafayette Avenue	Signalized	D	D	D	D
3	95th Street and State Street	Signalized	F	E	F	E
16	103rd Street and Halsted Street	Signalized	F	D	F	D
17	103rd Street and Normal Avenue	Signalized	B	A	B	B
18	103rd Street and Wentworth Avenue	Signalized	B	B	B	C
34	111th Street and Halsted Street	Signalized	C	C	C	C
35	111th Street and Normal Avenue	Signalized	A	B	A	B
36	111th Street and Wentworth Avenue	Signalized	B	B	B	B
37	111th Street and State Street	Signalized	A	B	B	B
38	111th Street and Michigan Avenue	Signalized	B	B	B	B
49	115th Street and Halsted Street	Signalized	C	C	C	C
50	115th Street and Wentworth Avenue	Signalized	B	B	B	B
51	115th Street and State Street	Signalized	B	B	B	B
52	115th Street and Michigan Avenue	Signalized	C	E	C	D
53	115th Street and Indiana Avenue	Signalized	B	C	B	C
54	115th Street and Martin Luther King Jr Drive	Unsignalized	A	C	E	F
55a	115th Street and Cottage Grove Avenue (West)	Signalized	D	D	D	D
55b	115th Street and Cottage Grove Avenue (East)	Signalized	F	F	F	F
56	115th Street and I-94 EB Ramps	Unsignalized	A	A	A	A
57	115th Street and I-94 WB Ramps	Unsignalized	D	B	E	B
60	119th Street and Halsted Street	Signalized	C	D	C	D
61	119th Street and Wentworth Avenue	Signalized	B	B	B	B
62	119th Street and State Street	Signalized	B	B	B	B
64	127th Street and Paulina Street	Signalized	D	E	D	D
65	127th Street and Marshfield Avenue	Signalized	D	D	D	D
66	127th Street and Ashland Avenue	Signalized	D	C	C	C

Intersection ID	Intersection	Control Type[1]	No Build (2050)		Preferred Alignment (2050) Mitigated	
			AM Peak Hour LOS[2]	PM Peak Hour LOS	AM Peak Hour LOS	PM Peak Hour LOS
67	Vermont Street and Ashland Avenue	Signalized	C	D	C	D
68	127th Street and Halsted Street	Signalized	C	D	C	C
69	Vermont Street and Halsted Street	Signalized	B	B	B	B
70	127th Street and Vermont Street and Wallace Street	Signalized	E	F	B	B
71	127th Street and State Street	Signalized	B	C	B	B
72	127th Street and Michigan Avenue	Signalized	A	B	A	B
73	130th Street and Indiana Avenue	Signalized	C	C	C	B
74	130th Street and Ellis Avenue	Signalized	B	B	B	B
75	Old 130th Street and Ellis Avenue	Unsignalized	A	A	A	A
76	Greenwood Avenue and Ellis Avenue	Unsignalized	A	A	A	A
77	130th Place and Greenwood Avenue	Unsignalized	A	A	A	A
78	131st Street and Greenwood Avenue	Unsignalized	A	A	A	A
79	132nd Street and Greenwood Avenue	Unsignalized	A	A	A	A
80	132nd Street and Beaubien Woods Driveway	Unsignalized	A	A	A	A
81	132nd Street and Doty Avenue	Unsignalized	A	A	A	A
82	EB 130th Street and I-94E On-Ramp (Ramp A)	Uncontrolled	A	B	A	B
83	EB 130th Street and I-94E Off-Ramp (Ramp B)[3]	Uncontrolled	B	B	B	B
84	EB 130th Street and I-94W On-Ramp (Ramp C)[3]					
85	EB 130th Street and I-94W Off-Ramp (Ramp D)	Uncontrolled	B	B	B	B
86	WB 130th Street and I-94W On-Ramp (Ramp E)	Uncontrolled	B	B	B	B
87	WB 130th Street and I-94W Off-Ramp (Ramp F)[3]	Uncontrolled	C	C	C	C
88	WB 130th Street and I-94E On-Ramp (Ramp G)[3]					
89	WB 130th Street and I-94E Off-Ramp (Ramp H)	Uncontrolled	B	B	B	B

1 Signalized and unsignalized intersection LOS reported in the columns to the right as the average for all movements.
2 LOS = level of service, UPRR = Union Pacific Railroad
3 I-94 ramps B and C, as well as ramps F and G, were analyzed as weaving segments and therefore analyzed as one location per ramp pair.

A red time queue analysis using Preferred Alignment volumes was performed at 130th Street/Ellis Avenue and 127th Street/Vermont Street/Wallace Street intersections to determine the storage lengths required for the auxiliary turn lanes. The results of this analysis determined that the eastbound right turn and westbound left turn lanes at the 130th Street/Ellis Avenue intersection currently provide sufficient storage space to accommodate Preferred Alignment traffic volumes in the AM and PM peak hours, which also considered the traffic from the southbound I-94 exit ramp to avoid back-ups onto the ramp. However, in coordination with IDOT (having jurisdiction of 130th Street) and CDOT (having jurisdiction of Ellis Avenue), CTA could extend turn lane storage lengths and recommend adjusting the signal timing per the Intersection Design Study and the traffic analysis results to support potential ancillary development associated with the 130th Street station. This mitigation would be based on actual (measured) traffic volumes, agency requirements, coordination within the traffic network, and any traffic demand management and/or traffic calming measures being implemented at the time of mitigation.

The 130th Street station would close Old 130th Street across the new RLE tracks. Old 130th Street currently provides access to the TCA Health building and Carver Military Academy High School and would serve as the park & ride exit from the 130th Street station. Access from Old 130th Street would remain to both driveways leading to TCA Health and from 130th Place to Greenwood Avenue. Carver Military Academy High School has two existing access points: the primary inbound and outbound access from Greenwood Avenue to 132nd Street and secondary access via Doty Avenue and Old 130th Street when traveling north to/from the high school. Under the Preferred Alignment, the secondary access via Doty Avenue would be closed, and vehicles traveling to Carver Military Academy High School would only use the primary entrance at Greenwood Avenue to 132nd Street. However, Doty Avenue can still be used for access to/from the south of the high school.

Bicycle Facilities

The permanent impacts to bicycle facilities are the same as described in the Draft EIS.

The Preferred Alignment would have no permanent adverse impacts on existing bike routes. Bike routes along 103rd Street, 111th Street, 115th Street, and State Street have the potential to be used by bicyclists to access the RLE stations. CTA would provide bicycle parking at the four RLE stations to accommodate bicyclists.

Pedestrians

The permanent impacts to pedestrians are the same as the Draft EIS, unless otherwise stated.

The Preferred Alignment would provide pedestrians with more choices, flexibility, and potentially reduced travel times as compared to the No Build Alternative. The final design of the four RLE stations would include appropriate improvements to enhance safety for crossing pedestrians. All potential improvements would be coordinated with CDOT. Crosswalks would be included at the existing intersection adjacent to 103rd Street station and CTA would coordinate with CDOT to determine if additional improvements are merited at this location. At 111th Street station, where the proposed pedestrian roadway crossing is considered "mid-block," enhanced crosswalk warning devices would be included; for example, this crosswalk enhancement may include a raised-table style crosswalk with the addition of rapid flash, pedestrian-activated warning lights. At Michigan

Avenue station, crosswalks would be included at an existing intersection at Michigan Avenue and Kensington Avenue and the need for a traffic signal related to exiting buses would be evaluated during final design. If the intersection is signalized, pedestrian signals with pedestrian activation will be included.

The relocation of the 130th Street station south into the Altgeld Gardens neighborhood would benefit pedestrians. Although increased vehicle traffic would now enter the Altgeld Gardens neighborhood, this increased traffic would be limited to two roadways and would be accompanied by pedestrian friendly features. Adjacent intersections would be upgraded with ADA-accessible curb ramps, visible crossing pavement markings would be added, and deteriorated sidewalks in the Altgeld Gardens neighborhood, adjacent to the 130th Street station, would be replaced. These improvements would provide access for all users and would improve pedestrian safety. Permanent impacts on pedestrians would not be adverse after mitigation. The relocation of the 130th Street station would be beneficial to pedestrians because it would be located within the Altgeld Gardens neighborhood and would no longer require pedestrians to cross 130th Street as proposed in the Draft EIS.

The existing at-grade crossings at 101st Street, 103rd Street, 107th Street, 109th Street, 111th Street, 113th Street (pedestrian only), Wentworth Avenue, 115th Street, and State Street would remain. At the crossings directly adjacent to stations, CTA would include implementation of at-grade warning device enhancements including pedestrian gates and improvements for ADA compliance in the final design of the RLE Project in coordination with the UPRR, Illinois Commerce Commission, CDOT, and CCDoTH. At stations, parking would be provided on the same side of the tracks so riders that use park & ride facilities will not have to cross the UPRR tracks to access the stations. CTA would coordinate with the UPRR regarding fencing or other appropriate design elements and include the agreed upon design features in final design of the RLE Project to deter trespassing into UPRR property. In addition, pedestrian gates would be included in final design to enhance at-grade crossing protections. These improvements would provide access for all users and increase pedestrian safety.

Freight Transportation

The permanent impacts to freight transportation are the same as described in the Draft EIS, unless otherwise stated.

As part of the Preferred Alignment, the UPRR tracks would continue to be operational. Because the proposed RLE track would be elevated, there would be no permanent impacts on UPRR freight train operations. As the Preferred Alignment would also be elevated above local streets, there would be no permanent impacts on truck routes, other than the impacts on all motorized vehicular traffic.

Since the Draft EIS, the 120th Street yard and shop was shifted approximately 100 feet to the west to accommodate the NS railroad access to the All American Recycling and potential improvements to the national freight rail network, namely a future connection from the NS track to CN tracks along the MED corridor. Old 130th Street would be closed to through vehicle traffic just west of the existing Conrail at-grade crossing. This would reduce the amount of vehicle traffic that would use the at-grade crossing. See **Appendix F**, *Plans and Profiles*, for additional details.

Parking

The permanent impacts differ from those described in the Draft EIS.

Sufficient parking capacity would be provided at all stations to avoid spillover parking into residential areas near the stations. As shown in **Table 3-5**, each of the station locations would have surface parking lots and 130th Street station would also have a parking garage. These parking facilities would expand the reach of the RLE Project and would provide an opportunity for users to access the station by car. Permanent impacts on parking would not be adverse after mitigation.

Table 3-5: Proposed Parking Facilities

Station	Number of Parking Spaces for Preferred Alignment	Parking Facility Description
103rd Street	175	Station Area Surface Parking Lot
111th Street	225	Station Area Surface Parking Lot
Michigan Avenue	180	Station Area Surface Parking Lot
130th Street	760	Parking Garage and Surface Station Area Parking Lot at Station
Total	**1,340**	

The parking capacity at each station has changed since the Draft EIS. While the parking at 111th Street station would increase by 25 spaces, parking at all three other stations has been reduced since the Draft EIS proposed a total of 3,700 parking spaces. The Draft EIS originally called for a total of 3,700 parking spaces along the corridor, based on travel demand modeling performed as part of the RLE Alternatives Analysis Study completed in August 2009. CTA has since reduced the number of planned parking spaces to up to 1,340 based on community feedback, site availability, and analysis of peer stations throughout the CTA system. Recent ridership modeling conducted using the FTA Simplified Trips-on-Project Software (STOPS) ridership model confirms the demand for parking facilities.

Existing parking facilities at the Agape Community Center would be affected by the Preferred Alignment because a City-owned parcel that is currently used for parking would be acquired. Access and parking at TCA Health would be maintained. Information on these impacts and associated mitigation measures can be found in **Section 4.3**.

Existing on-street parking along the east side of Greenwood Avenue from Ellis Avenue to the proposed 130th Street station entrance would be removed to allow for CTA buses to travel on Greenwood Avenue. On-street parking along the west side of Greenwood Avenue, from Ellis Avenue to 132nd Street, and along the east side of Greenwood Avenue south of the 130th Street station entrance would remain.

Construction Impacts

The construction impacts and mitigation measures to public transportation are not markedly different than those described in the Draft EIS, unless otherwise stated.

Construction activities would temporarily affect the physical capacity of roadways, sidewalks, and intersections subject to lane closures, narrowing, and detours. This would affect bus transportation, vehicular traffic, bicycle traffic, truck freight, pedestrians, on-street parking, and potentially access to off-street parking. CTA would prepare traffic management and maintenance of traffic plans that identify traffic detours and emergency response access routes. Increased congestion due to construction may temporarily increase travel times along roadways within the RLE project area. CTA would mitigate these impacts on a case-by-case basis, coordinating with IDOT, Cook County CCDoTH, CDOT, and local businesses, organizations, and residents to select the most appropriate mitigation measures for each situation. Likewise, contractors would adhere to local, state, and federal guidelines for maintaining pedestrian and ADA access during construction.

Work within the median of I-94 would require temporary lane closures. Proposed structure construction would be sequenced to minimally affect traffic flow on I-94. Increased traffic congestion due to construction activities may temporarily increase travel times along this portion of I-94.

Dual-track, elevated structures would be constructed through the I-94/I-57 interchange, across the westbound I-57 entrance ramp from northbound I-94, and within the I-57 corridor. For superstructure erection over expressway traffic lanes, intermittent, temporary shutdown of all traffic would be required at nighttime, per IDOT approval. Temporary shutdown of other traffic would occur at nighttime and low traffic volume intervals per IDOT approval. Proposed structure construction in the vicinity of the I-94/I-57 interchange would be sequenced to limit effect on I-57 traffic flow to the extent practicable per IDOT traffic management requirements. Increased traffic congestion due to construction activities may temporarily increase travel times along this portion of I-57.

Freight railroad traffic adjacent and underneath the Preferred Alignment would experience minimal impacts during construction. The most notable impacts would be the need to stop railroad traffic during bridge erections over tracks on both the UPRR and CN/MED. Coordination would be needed with the UPRR, NS, CN, Metra, and NICTD/CSS & SBRR for work near, adjacent to, or on their property. Impacts to freight and passenger rail would be minimized by efforts such as sequencing construction of crossings and through coordination with the affected railroads, appropriate flagging, and scheduled track outages.

Impacts Remaining After Mitigation

The Preferred Alignment would result in permanent benefits to public transportation. Permanent impacts on vehicular traffic, pedestrians, and parking at the Agape Community Center and TCA Health would not be adverse after mitigation. There would be no permanent impacts on freight transportation. Construction-related impacts would not be adverse and best management practices (BMPs) would be employed to minimize disruptions.

Chapter 4 Environmental Impacts and Mitigation

This chapter describes the potential beneficial and adverse impacts that would result from the alternatives along with mitigation measures to avoid or minimize adverse impacts where feasible and applicable. The *Construction Impacts Technical Memorandum* (**Appendix I**) summarizes how construction activities would temporarily affect many of the resources as well as the mitigation for potential construction impacts as described in this chapter.

4.1 Land Use and Economic Development

This section describes the impacts of the Preferred Alignment and No Build Alternative on the land uses and economic development in the area of potential impact (API), including consistency with applicable land use plans. The information in this section is based on the *Land Use and Economic Development Technical Memorandum* (**Appendix J**). **Table 4-1** summarizes the land use and economic development impact findings.

The API for determining potential land use and economic development impacts and benefits includes parcels directly adjacent to the Preferred Alignment for the full length of the alignment, as well as those parcels within a ½ mile radius of station locations per FTA guidance. The Preferred Alignment was analyzed for potential impacts on existing and expected land use types, densities, and character.

Table 4-1: Land Use and Economic Development – Impact Summary

Alternative	Permanent Impacts		Construction Impacts
	Land Use	Economic Development	
No Build Alternative	No impact	No impact	No impact
Preferred Alignment	Impacts would not be adverse after mitigation	Beneficial	Impacts would not be adverse after mitigation

4.1.1 Regulatory Framework/Methods

Regional and local planning bodies govern land use and zoning regulations. Within Chicago, CMAP acts as the regional planning body and defines the regional planning principles, while the City of Chicago regulates land use policies and zoning within its local jurisdictional boundaries. CTA evaluated existing land use, zoning, and relevant land use and economic development plans for parcels directly adjacent to the alignment, for the full length of the alignment, as well as those parcels within a ½ mile of stations per FTA's 2014 *Planning for Transit-Supportive Development: A Practitioner's Guide* (FTA 2014). The project could directly or indirectly affect land uses and economic development plans within a ½ mile of project stations.

A land use change may result in an adverse impact if it would be incompatible with surrounding land uses or could encourage land use and development inconsistent with local plans, goals, and objectives. An economic impact may result if one or more of the following occurs:

- Direct or indirect changes to the tax code or property taxes
- Displacement of businesses (especially major employers) and individuals, defined in this analysis as those of a magnitude that would preclude relocation in the immediate area due to lack of available real estate
- Short- and/or long-term disruption of business activities
- Impacts that would influence regional construction costs

The City of Chicago is divided into 77 community areas for statistical and planning purposes. Census data and other statistics are tied to the areas, which serve as the basis for a variety of urban planning initiatives on both the local and regional levels. The areas' boundaries do not generally change, allowing comparisons of statistics across time. CTA used data from four community areas near the Preferred Alignment for analysis of project impacts: Roseland, Washington Heights, West Pullman, and Riverdale. For more information on each of the community areas, see **Section 4.3**.

For each community area reviewed, CTA analyzed whether the RLE Project would cause adverse land use and economic impacts using the following:

- Analysis of the potential for short-term and long-term conflict with, or disruption of access to, land uses adjacent to the Preferred Alignment
- Identification of potential conflicts with local land use plans, policies, or regulations
- Identification of potential land use benefits of the Preferred Alignment, such as opportunities for economic development and transit-supportive land uses

The analysis included reviewing existing land use plans and zoning maps and using field observations of the project corridor to determine consistency of the RLE Project with the goals and policies presented in the local and regional land use plans and studies of the City of Chicago and CMAP. A list of these plans and studies can be found in **Appendix J**.

4.1.2 Existing Conditions

The API has residential (primarily single-family), commercial (urban mixed-use), industrial, transportation, utility, and vacant land uses.

The Preferred Alignment would begin within the I-57 right-of-way, north of the southbound lanes of I-57, and would follow the UPRR track southward. The surrounding land uses are primarily single-family residential properties north of I-57 and on the eastern side of the alignment, with a mix of primarily single-family residential properties and industrial properties to the west. There are typically one or two vacant properties per block in the residential areas and large vacant parcels near Michigan Avenue.

South of 119th Street, the surrounding land uses abruptly transition to industrial, railroad, and major utility sites. The Altgeld Gardens neighborhood is at the southern end of the Preferred Alignment adjacent to the 130th Street station. See **Figure 4-1** for a map of land uses.

Appendix J contains a more detailed description of the API. The existing land uses have not considerably changed since the issuance of the Draft EIS. Two areas that have changed are:

- 95th/Dan Ryan terminal – The reconstruction of the terminal that was planned at the time of the Draft EIS, including a new station house, a bus terminal, a pedestrian bridge, and a pick-up/drop-off area for vehicles, is now complete and open to the public.
- 130th Street station area – The 130th Street station area has changed since the Draft EIS. The new station area would be located south of 130th Street, east of Greenwood Avenue. This area is vacant. It previously consisted of multifamily housing units for the Altgeld Gardens neighborhood. In 2017, approximately 500 housing units in this area (i.e., Blocks 11, 12, and 13) were demolished by CHA.

4.1.3 Environmental Consequences

The following sections summarize the potential land use and economic impacts of each alternative.

4.1.3.1 No Build Alternative

The No Build Alternative would not create any new inconsistencies to land uses and economic development beyond those that already exist, and therefore would have no impact on land use or economic development. The environmental consequences of the No Build Alternative are not different than those in the Draft EIS. For each of the four neighborhoods within the API, Washington Heights, Roseland, West Pullman and Riverdale, no considerable changes to land use or economic development have occurred since the Draft EIS for the No Build Alternative.

4.1.3.2 Union Pacific Railroad Alternative - Preferred Alignment

Permanent Impacts

Implementation of the Preferred Alignment could foster economic benefits by providing new public transit options (**Chapter 3**) and opportunities for economic development (**Chapter 5**). The CTA prepared a Transit-Supportive Development (TSD) Plan that would also help minimize adverse impacts due to incompatible land use types resulting from the RLE Project. The TSD plan is described in **Section 5.3**.

The Preferred Alignment would cause displacements as a result of construction of the track structure, stations, substations, and park & ride facilities. The Preferred Alignment would affect the land uses of 14 additional parcels that were not affected by either the East or West Options. These parcels are located in the vicinity of the 107th Place cross-over and would be permanently acquired

CN/MED = Canadian National/Metra Electric District, NICTD/CSS & SBRR = Northern Indiana Commuter Transportation District/Chicago South Shore & South Bend Railroad

Figure 4-1: Existing Land Use

for staging of construction equipment and for the overhead RLE supports to cross the UPRR track. With just compensation and relocation assistance as described in **Section 4.2**, the displacement impacts would not be adverse after mitigation.

Where stations, substations, and park & ride facilities would be inconsistent with current zoning, CTA would coordinate with City of Chicago to rezone the parcels or receive appropriate zoning approvals (e.g., special use permit, variance, etc.).

There are no impacts to land use with mitigation for the four communities within the API, and there are no considerable changes to land use or economic development since the publication of the Draft EIS.

Construction Impacts

Construction activities would cause temporary impacts such as truck traffic, roadway detours, noise, vibration, and dust. Mitigation associated with truck traffic and roadway detours can be found in **Section 3.3** and **Section 4.3**; noise and vibration mitigation can be found in **Section 4.5**; dust mitigation can be found in **Section 6.1**. There could be short-term economic benefits due to jobs created by construction. Construction could be disruptive to businesses along the alignment, which would be an adverse impact. Construction impacts and mitigation recommended for land use and economic development under the Preferred Alignment would be similar to the East and West Options in the Draft EIS.

To minimize the adverse impact, CTA would develop and implement a Construction Outreach and Coordination Plan. CTA would coordinate with communities, businesses, and aldermen's local ward offices to finalize and implement a Construction Outreach and Coordination Plan. The plan would include a Business Outreach Program to assist local businesses and residents affected by construction. The plan would be tailored to business and community needs and would include a series of initiatives to minimize construction disruption to businesses and the surrounding community. Examples of these initiatives include a community calendar to inform residents of the construction schedule and avoid affecting special events or festivals, advertising campaigns, any provisions for additional parking during construction, and signage.

Impacts Remaining After Mitigation

Consistent with the results of the Draft EIS analysis for the East and West Options, there would be no adverse permanent or construction-related impacts on land use and economic development for the Preferred Alignment after mitigation measures are implemented.

4.2 Displacements and Relocation of Existing Uses

The following sections summarize the potential displacements and relocations of existing uses of land and buildings. Displacements and relocations may occur when land and/or structures are needed to accommodate construction or the permanent footprint of a project.

Displaced residents and businesses would be relocated in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended ("Uniform Act," 42 USC

§ 4601, et seq.) With compensation and relocation assistance per the Uniform Act, the impact would be considered not adverse because of the general availability of vacant land near the project and the beneficial impacts of the project including new rail transit with four stations, greater accessibility to the region, improved access to jobs, and new development opportunities in the vicinity of the project. In addition, the availability of similar real estate near the project would facilitate relocation. The *Displacements and Relocation of Existing Uses Technical Memorandum* (**Appendix K**) includes additional details. **Table 4-2** summarizes the displacements and relocation impact findings.

Table 4-2: Displacements and Relocation of Existing Uses – Impact Summary

Alternative	Total Affected Parcels	Parcels with Building Displacements	Permanent Impacts	Construction Impacts
No Build Alternative	0	0	No impacts	No impacts
Preferred Alignment	228	97	Impacts would not be adverse after mitigation	No impacts

4.2.1 Regulatory Framework/Methods

The regulatory framework for assessing displacement and relocation impacts has not changed since the Draft EIS. Please refer to **Appendix K** for a complete discussion of the regulatory framework and methods.

4.2.2 Existing Conditions

There have been no considerable changes in the existing conditions of the existing uses of properties along the Preferred Alignment since the Draft EIS.

Along the Preferred Alignment, the existing development pattern consists primarily of single-family residential properties north of I-57 and between 99th Street and the proposed Michigan Avenue station, with some multifamily units interspersed. Between 103rd and 111th Streets, there are several vacant and light industrial properties along the western edge of the corridor. There are also neighborhood-scale commercial retail buildings near the 103rd Street, 111th Street, and Michigan Avenue station sites. South of the proposed Michigan Avenue station location, the land uses around the alignment transition to industrial, vacant, and public utility sites. The Altgeld Gardens neighborhood is at the southern end of the alignment, near 130th Street. Most of the neighborhoods along the alignment have at least a few vacant buildings and parcels per block.

4.2.3 Environmental Consequences

The following sections summarize the potential displacements and relocation of existing uses of each alternative.

4.2.3.1 No Build Alternative

The No Build Alternative would not create any environmental consequences beyond those that already exist, and therefore would have no impact on displacements or relocations.

4.2.3.2 Union Pacific Railroad Alternative – Preferred Alignment

Permanent Impacts

In the Draft EIS, based on conceptual design, the East Option would require 106 building displacements, most of which would be residential, and the West Option would require 46 building displacements, which would be a mix of residential, commercial, and industrial. However, the Preferred Alignment development has advanced through 30 percent design including substantial design refinements. Based on 30 percent design, as shown in **Table 4-2**, the Preferred Alignment would require 228 parcel acquisitions and 97 building displacements. **Table 4-3** indicates the impacts on different land uses by the Preferred Alignment and compares them with the impacts documented in the Draft EIS for both the East and West Options. Parcels used as easements are not considered permanent impacts and are not included in this analysis. **Figures 4-2** and **4-3** show the locations of the permanent displacements.

The increase in parcels affected as compared to the West Option in the Draft EIS includes but is not limited to the addition of parking areas; proposed changes to the 120th Street yard and shop; moving the proposed 130th Street station south; and refined engineering and constructability considerations. Another change from the Draft EIS is that the percentage of total vacant parcels has increased.

CTA would provide informational resources, permitting support, and points of contact for displaced business owners to find suitable sites for relocation. For example, CTA's Uniform Act public outreach specialists would provide specific outreach as a one-stop resource to potentially displaced residents and/or businesses to answer questions regarding relocation rights, requirements, processes, and anticipated timelines. With compensation and relocation assistance to displaced property owners and renters provided by CTA per the Uniform Act (42 USC § 4601, et seq.), the impact would be considered not adverse because of the general availability of vacant land near the project and the beneficial impacts of the project including new rail transit with four stations, greater accessibility to the region, improved access to jobs, and new development opportunities in the vicinity of the project. CTA would continue to coordinate with the Chicago Department of Planning and Development on the TSD Plan to maximize the economic development and community benefits of the RLE Project. In addition, the availability of similar real estate near the project would facilitate relocation. **Appendix K** explains this in greater detail.

Table 4-3: Displacements Compared to the Draft EIS East and West Options

Land Use Type	Total Affected Parcels			Building Displacements		
	East Option	West Option	Preferred Alignment	East Option	West Option	Preferred Alignment
Vacant	50	41	**96**	---	---	---
Single-family Residential	87	35	**50**	75	22	**47**
Multifamily Residential	16	4	**18**	15	4	**18**
Commercial	6	13	**9**	3	6	**4**
Mixed-use (Commercial/Residential)	1	2	---	1	2	---
Institutional (Place of Worship)	1	2	**2**	1	1	**2**
Institutional (School)	2	---	**7**	---	---	**5**
Industrial	17	18	**26**	10	11	**19**
Utility	15	15	**3**	---	---	**---**
Transportation (Railroad)	29	47	**11**	---	---	**---**
Public	34	24	**5**	1	---	**2**
Parkland	2	4	**1**	---	---	**---**
Totals	260	205	**228**	106	46	**97**

Displaced businesses and residents are expected to be able to relocate near the RLE Project because of the existing availability of replacement housing, commercial buildings, and vacant parcels. The new stations would improve regional accessibility and help attract new development to the area, thereby reducing the long-term impacts of displacements. CTA has undertaken early outreach to potentially affected property owners by contacting each owner and occupant (based on available public records). Agreements would be negotiated with City of Chicago, IDOT, various railroads (CN, CSX, UP, NS, and Metra), and MWRD. In addition, there would be agreements between CTA and IDOT regarding the RLE Project proposed within the I-57/94 right-of-way that would also require Federal Highway Administration approval.

Construction Impacts

Some of the parcels acquired may be used partially or primarily for staging, crane erection, site access, or storage of materials during construction; however, these impacts would last long enough that use of the parcels would prevent any use of the property, and in some cases buildings on site would need to be displaced. Therefore, these are considered permanent impacts, included in **Table 4-3**, and not noted as temporary construction (easement) impacts. There would be parcels needed for easements related to construction equipment access and staging of materials; these affected parcels would be considered temporary construction easements. Temporary construction easements would not result in displacement or relocation impacts.

Impacts Remaining After Mitigation

The Draft EIS disclosed that the East Option would affect 260 parcels, displace 106 buildings, and that the impacts would not be adverse after mitigation. Similarly, the Draft EIS disclosed that the West Option would affect 205 parcels, displace 46 buildings, and that impacts would not be adverse after mitigation. With the Preferred Alignment affecting 228 parcels with 97 building displacements, the impacts would not be adverse after mitigation, and the impacts do not represent a considerable change since the Draft EIS. **Table 4-3** shows more vacant and industrial properties affected by the Preferred Alignment but fewer public, parkland, and transportation parcels.

Figure 4-2: Permanent Displacements (North of Michigan Avenue Station) (1 of 2)

CN/MED = Canadian National/Metra Electric District, NICTD/CSS & SBRR = Northern Indiana Commuter Transportation District/Chicago South Shore & South Bend Railroad

Figure 4-3: Permanent Displacements (South of Michigan Avenue Station) (2 of 2)

4.3 Neighborhoods and Communities

This section describes the impacts of the Preferred Alignment on the surrounding neighborhood and community resources. The analysis considered the surrounding community context and character, community mobility, and community facilities near the project corridor such as schools, parks, and community centers. The *Neighborhood and Community Impacts Technical Memorandum* (**Appendix L**) and the *Parklands and Community Facilities Technical Memorandum* (**Appendix M**) contain additional details. **Table 4-4** summarizes the neighborhood and community impact findings.

Table 4-4: Neighborhoods and Communities – Impact Summary

Alternative	Permanent Impacts			Construction Impacts
	Community Character and Cohesion	Mobility	Community Resources	
No Build Alternative	No Impacts	No Impacts	No Impacts	No Impacts
Preferred Alignment	▪ In the communities of Washington Heights and Roseland, the elevated structure between 99th Street and 103rd Street would change the neighborhood setting of the houses facing it, which represents an adverse visual impact remaining after mitigation. The adverse impact would also include the 103rd Street station and the area near the 107th Place cross-over due to the change in residential character. ▪ There would be adverse visual impacts remaining after mitigation in the West Pullman community at 117th Street and Prairie Avenue due to the elevated structure and in the Riverdale community near the Altgeld Gardens neighborhood due to the 130th Street station park & ride facility.	Beneficial impacts for all communities near the project	Impacts would not be adverse after mitigation for all communities near the project.	Impacts would not be adverse after mitigation for all communities near the project.

4.3.1 Regulatory Framework/Methods

Federal Highway Administration (FHWA) and IDOT both have Community Impact Assessment Manuals (FHWA 2018, IDOT 2007a), which CTA used to evaluate potential neighborhood and community impacts of the Preferred Alignment. The analysis considers the following types of impacts:

- **Community Character and Cohesion** – Impacts due to commercial and residential displacements and changes in land use, visual/aesthetics, noise levels, and population/ demographics. Community character is an attribute of a geographic area with identifiable characteristics that make it unique. Community cohesion is an attribute of a geographic area, where segmentation or division of the area would reduce its desirability to current and future residents. An impact on community character and cohesion would be adverse if impacts related to displacements and changes in land use, visual/aesthetics, noise levels, and population/demographics are adverse.

- **Mobility** - Overall community impacts of changes in transportation options, travel patterns, business activity, access to jobs, and access for emergency service providers. For the Final EIS, an impact on mobility would be adverse if transportation options, access to jobs, and access for emergency service providers would be reduced.

- **Community Resources** - Impacts on key facilities in the API that play an important role in shaping and defining the community, such as landmarks, parks, community centers, and other places that serve as focal points or provide community services. For the Final EIS, an impact on community resources would be adverse if key facilities in the API would be directly affected or access to key facilities would be reduced.

The neighborhood and community impact analysis involved creating detailed demographic and community profiles based on existing community area boundaries within a ½ mile of the Preferred Alignment. CTA conducted field investigations to identify physical, social, or perceived barriers within the established community. In addition, the analysis considered other potential visual, noise, and environmental impacts that could have ripple effects on the surrounding neighborhood. Mitigation measures would offset identified impacts, with an emphasis on community and transit-supportive solutions to address temporary construction impacts. The regulatory framework for analysis of neighborhood and community impacts has changed slightly since the issuance of the Draft EIS. Notably, a critical part of the federal framework, the FHWA's manual titled *Community Impact Assessment: A Quick Reference for Transportation*, was updated in 2018. This update was reviewed to inform the assessment of neighborhood and community impacts for the Preferred Alignment. Otherwise, the regulatory framework has not changed considerably since the Draft EIS.

4.3.2 Existing Conditions

The API for the neighborhood and community impacts analysis consists of the community areas through which the Preferred Alignment would pass. Each community area along the Preferred Alignment is described below. The *Neighborhood and Community Impacts Technical Memorandum* (**Appendix L**) contains additional information about each community area. **Figure 4-4** shows a typical street in the API, and **Figure 4-5** shows the locations of the referenced community areas.

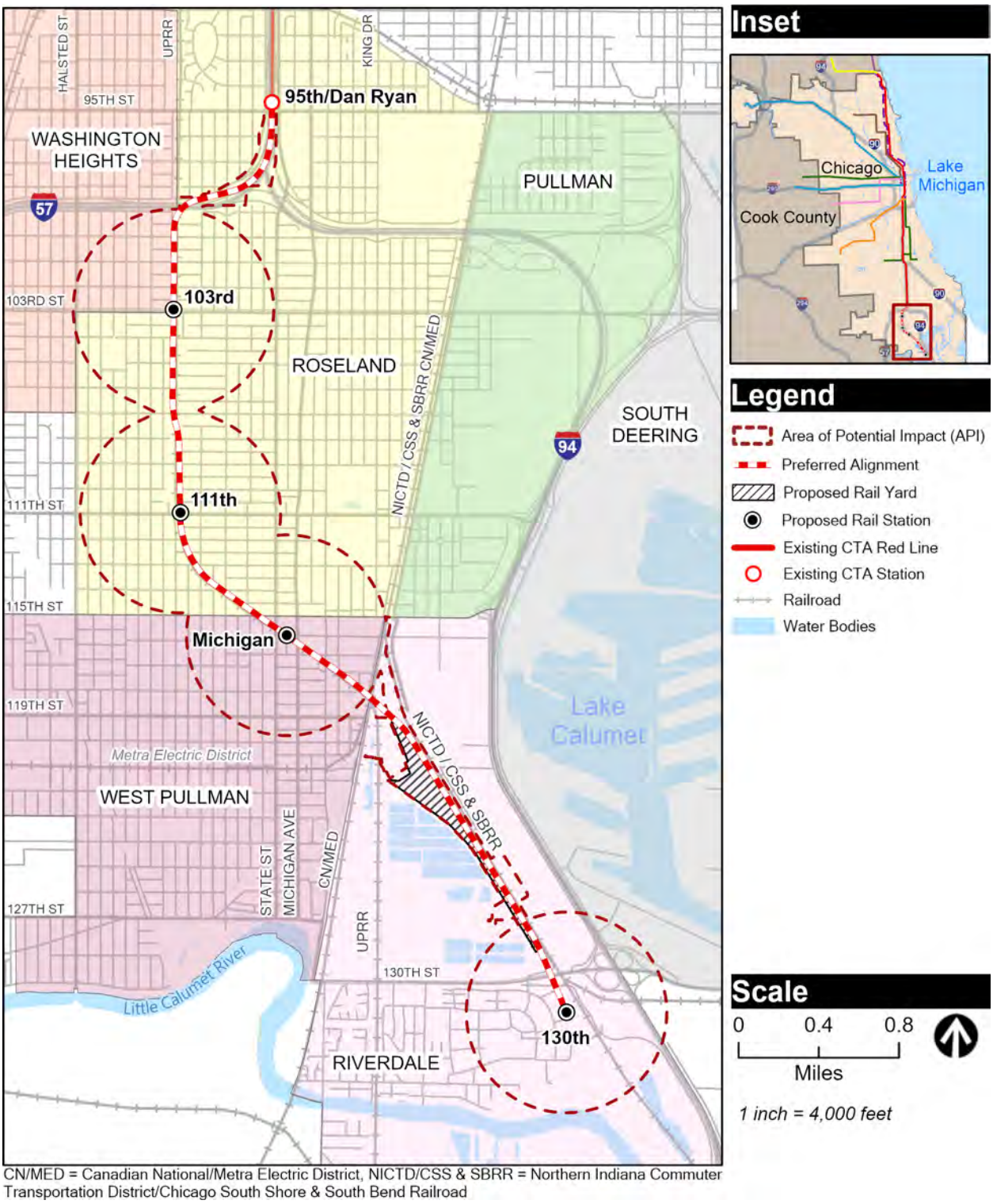
Figure 4-4: Photo of Residential Street near the RLE Project Corridor in Roseland

Roseland

Roseland in the API consists primarily of single-family homes along one-way streets with block associations similar to Washington Heights. Michigan Avenue serves as a major retail and commercial corridor, and several blocks also contain single-family and multifamily housing. Michigan Avenue and 111th Street have been identified as corridors of focus within the INVEST South/West initiative, which are corridors that support existing business development and create opportunities for investment. Within Roseland, the greatest amount of retail activity occurs between 111th and 115th Streets, with the areas to the north consisting of automobile-oriented land uses. Subsequent to the issuance of the Draft EIS, the CTA 95th/Dan Ryan terminal improvements have been completed and are open to the public, including a new station house, a bus terminal, a pedestrian bridge, and a pick-up/drop-off area for vehicles. This facility was under construction during the Draft EIS.

Washington Heights

Washington Heights in the API primarily consists of single-family homes along a grid of one-way streets with low- to medium-density commercial areas with off-street parking along major arterial streets. Blocks are well maintained, and many have community-organized block associations that provide neighborhood watch programs and other initiatives.



CN/MED = Canadian National/Metra Electric District, NICTD/CSS & SBRR = Northern Indiana Commuter Transportation District/Chicago South Shore & South Bend Railroad

Figure 4-5: Community Areas in and Adjacent to the Area of Potential Impact

West Pullman

West Pullman in the API includes portions of the Michigan Avenue commercial corridor, as well as several large industrial and utility properties. Along Michigan Avenue, many commercial buildings have residential units in their upper floors. Several Spanish-speaking businesses and households are also in the area.

Riverdale

Much of the Riverdale community area in the API is occupied by MWRD's facility and freight railroad properties. The southern portion of Riverdale contains the Altgeld Gardens neighborhood and the single-family Eden Green and Golden Gate neighborhoods. The Altgeld Gardens neighborhood is a CHA project built in 1945. Since the Draft EIS, units to the east of Greenwood Avenue (Blocks 11, 12, and 13) were demolished by CHA. The remaining units have been renovated since the Draft EIS was published.

The demographic characteristics in the API are described in detail in **Appendix L** and are summarized below (U.S. Census Bureau 2018).

- The API of the Preferred Alignment contains approximately 24,556 residents, 7,987 households, and 2,887 jobs. There is high unemployment in the API (22.6 percent).
- The racial composition in the API is predominantly African American (92.3 percent). All community areas in the API have African American population percentages ranging from 83.5 percent to 96.9 percent, compared with a citywide average of 29.7 percent.
- The population is predominantly English-speaking, with some pockets of households that speak only Spanish. 3.8 percent identify with Hispanic as their ethnicity.
- Median home prices range from $68,266 in Riverdale to $123,848 in Roseland, which is below the City of Chicago median of $227,600.

The API evaluated by the *Neighborhood and Community Impact Technical Memorandum* (**Appendix L**) has changed since the Draft EIS, to represent the reduction in alternatives (e.g., Halsted Street and Michigan Avenue Bus Rapid Transit alternatives, etc.) to only the Preferred Alignment that was derived from the East and West Options presented in the Draft EIS. This has had the effect of changing the number of residents present in the API by a considerable amount versus the number evaluated during the Draft EIS, which does not reflect an actual change in the number of residents.

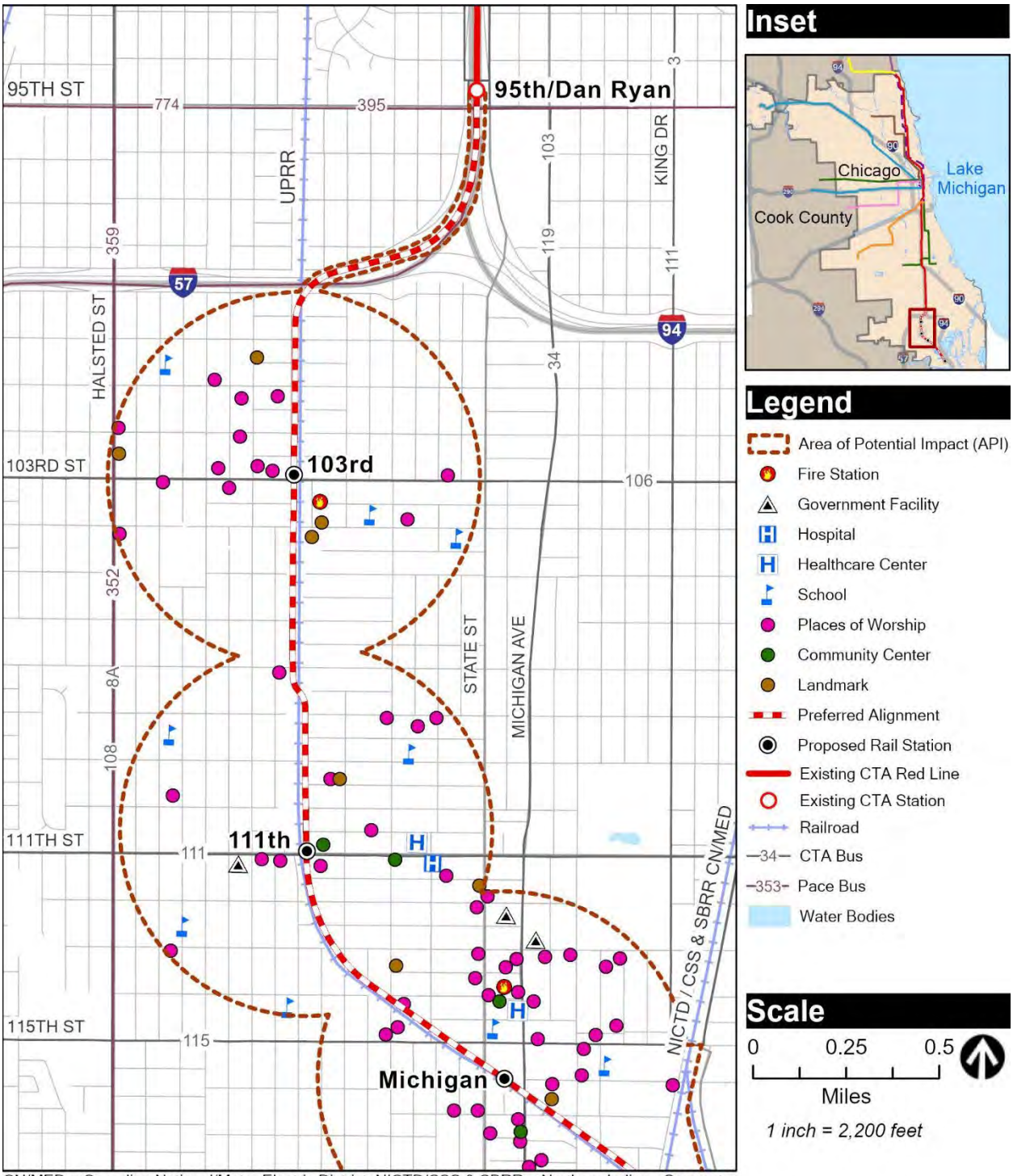
Community facilities that are adjacent to the Preferred Alignment and/or are within a ½ mile of a proposed station location and parks within 500 feet of the Preferred Alignment and/or are within a ½ mile of a proposed station location were evaluated for impacts. The *Parklands and Community Facilities Technical Memorandum* (**Appendix M**) contains a full listing of the community and park resources. The number of community resources has been updated to reflect resources within the API of the Preferred Alignment. There are 100 community facilities within the API of the Preferred Alignment compared to 76 community facilities within the API for the East and West Options in the Draft EIS. They included: 62 religious facilities, 12 schools, 6 community centers, 3 fire stations,

4 healthcare centers or hospitals, 1 library, 9 landmarks, and 5 government facilities (Note that one facility, the Chicago Fire Department – Engine 93, is both a fire station and a landmark but is only counted once; Mary Magdalene Missionary Baptist Church, is both a place of worship and a landmark but is only counted once). **Figures 4-6** and **4-7** show the community facilities in the API.

The Agape Community Center is located east of the Preferred Alignment. In the comments on the Draft EIS, there was concern about the potential impacts to parking associated with the Agape Community Center. Currently, the Agape Community Center uses a City-owned parcel of land that is located immediately west of the center for parking.

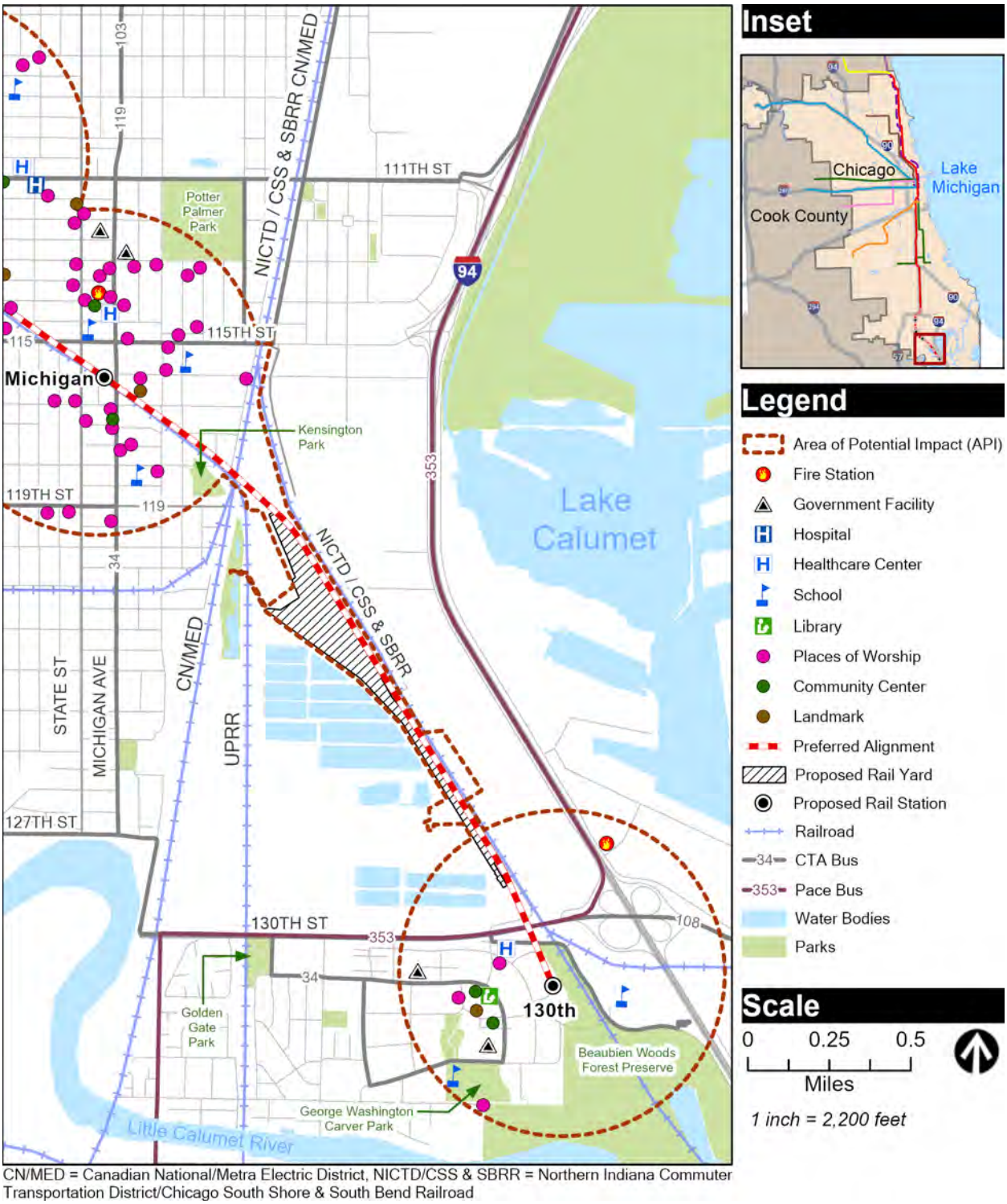
There are nine park resources within the API for the Preferred Alignment, as compared to 10 within the API for the UPRR East and West Options. Golden Gate Park was within the API for the 130th Street station in the Draft EIS. However, it is outside the API for the relocated 130th Street station. **Figure 4-6** and **Figure 4-7** depict the locations of these parklands. The relocation of the 130th Street station brought the station closer to Beaubien Woods Forest Preserve and George Washington Carver Park. There are no other changes to parklands from the Draft EIS.

Beaubien Woods Forest Preserve is a 279-acre forest preserve, owned by the Forest Preserves of Cook County (FPCC) and is located in Riverdale. The northern end of the Beaubien Woods Forest Preserve is a linear green space that parallels the Conrail tracks from just south of Old 130th Street to 132nd Street. This linear green space is open space except for an access road. The Beaubien Woods Forest Preserve has a boat launch area connecting to the Little Calumet River. George Washington Carver Park is a 19-acre park that offers a swimming pool and indoor and outdoor recreational facilities. It is owned by the Chicago Park District.



CN/MED = Canadian National/Metra Electric District, NICTD/CSS & SBRR = Northern Indiana Commuter Transportation District/Chicago South Shore & South Bend Railroad

Figure 4-6: Community Facilities in the Area of Potential Impact (1 of 2)



CN/MED = Canadian National/Metra Electric District, NICTD/CSS & SBRR = Northern Indiana Commuter Transportation District/Chicago South Shore & South Bend Railroad

Figure 4-7: Community Facilities in the Area of Potential Impact (2 of 2)

4.3.3 Environmental Consequences

The following sections summarize the potential neighborhood and community impacts of each alternative.

4.3.3.1 No Build Alternative

Under the No Build Alternative, the project would not be built, and there would be no changes to community character and cohesion. The No Build Alternative would lack the mobility and livability enhancements that the Preferred Alignment would provide. It would also fail to address the community's desire for growth initiatives that could attract new economic development interests to the area. There would be no impacts on community resources. Construction would not occur under the No Build Alternative. The No Build Alternative would not have adverse community or neighborhood impacts, and no mitigation measures would be required. This does not represent a considerable change since the Draft EIS.

4.3.3.2 Union Pacific Railroad Alternative - Preferred Alignment

Permanent Impacts

Community Character and Cohesion

The following permanent adverse impacts related to community character and cohesion that were not disclosed in the Draft EIS include:

The removal of vegetation for the elevated structure of the Preferred Alignment would alter the viewshed of the remaining residences in Roseland, Washington Heights, and West Pullman. Because the relocated 130th Street station would include a park & ride facility with a four-level garage and surface parking lot, and other structures, there would also be adverse visual impacts in Riverdale due to the relocation of the 130th Street station for residences that front Greenwood Avenue. The residential character and scale would be noticeably altered by the addition of the RLE Project. Detailed information on the adverse visual impacts and associated mitigation measures can be found in **Section 4.4** and **Appendix N**.

Mobility

There would be beneficial impacts on mobility throughout Roseland, Washington Heights, West Pullman, and Riverdale. As discussed in **Chapter 3**, there would be increased access to transportation options, beneficial impacts to travel patterns, increased opportunities for business activity, better access to jobs, and no change in access for emergency service providers. There would be beneficial impacts to pedestrian and bicycle access as gaps in sidewalks near stations would be improved and would be ADA-compliant. The existing at-grade crossings would be improved with gates at the sidewalks and increased lighting. This does not represent a considerable change since the Draft EIS.

In Riverdale, the closure of Old 130th Street would eliminate one of three access routes to the Carver Military Academy High School. However, closure of this route would not result in an adverse impact because the primary access to the school is from 130th Street to Ellis Avenue to Greenwood Avenue

to 132nd Street. The secondary access from Doty Avenue from the south would remain unchanged. This change in access to the high school is not considered an adverse impact since two access points would remain. No mitigation measures would be required.

Community Resources

Community resources in Roseland would be affected by the RLE Project. For Wendell Smith Park detailed information on the impacts and associated mitigation measures can be found in **Chapter 8** of the Final EIS and **Appendix Y**. Two churches within the API would be displaced because they fall within the proposed right-of-way for the Preferred Alignment. The Now Faith Church of God Holiness was disclosed in the Draft EIS. In Roseland, the New St. Mary Church of Prayer located at 341 W. 111th Street is a place of worship east of the Preferred Alignment. The entire building and parcel would be acquired for the project and the parcel used as parking for the 111th Street station. This is a new displacement because this proposed parcel use had not been identified when the Draft EIS was completed. The Preferred Alignment would require the use of a City-owned parcel that would affect its current use by the Agape Community Center for parking. In addition, trucks delivering to the Agape Community Center rear garage door (north side) use the City-owned parcel for turn around due to limited turning radius from the alley. However, the impacts to the Agape Community Center would not be adverse with mitigation because CTA would continue to coordinate with the Agape Community Center to include an alternative parking location for the Agape Community Center in the final design of the RLE Project. The RLE Project would not impede truck access to the north side of the Agape Community Center building.

In Washington Heights, Fernwood Parkway detailed information on the impacts and associated mitigation measures can be found in **Chapter 8** and **Appendix Y**. Aside from Wendell Smith Park discussed in the Roseland impacts above, no other community parklands discussed in **Section 4.3** would be affected by the RLE Project. In addition, no community resources in West Pullman would be affected by the RLE Project.

In Riverdale, the 130th Street station access road requires closure of Old 130th Street at the new RLE track crossing. Old 130th Street provides an existing connection to the Beaubien Woods Forest Preserve access road east of the new RLE at-grade track crossing. Closure of Old 130th Street would eliminate the access road connection into the Beaubien Woods Forest Preserve from Old 130th Street. However, the main access route to the Beaubien Woods Forest Preserve would continue to be from Ellis Avenue to Greenwood Avenue to 132nd Street. The relocation of the 130th Street station was not part of the Draft EIS. Impacts to the Beaubien Woods Forest Preserve are new and were not disclosed in the Draft EIS and, therefore, did not include the closure of Old 130th Street or removal of any trees south of 130th Street. However, with mitigation measures, no adverse impacts to Beaubien Woods Forest Preserve are anticipated. The mitigation and enhancement measures for Beaubien Woods Forest Preserve would follow the lower-impact scenario discussed in FPCC's mitigation concurrence letter to offset the diminished access to the boat launch access road. FPCC and CTA coordination letters can be found in **Appendix M**. CTA would uphold their role in the mitigation measures agreed upon by the FPCC. Mitigation and enhancement measures are currently anticipated to include the following:

- Transfer of two City-owned parcels into FPCC ownership

- $250,000 payment to FPCC for ecological restoration, habitat enhancement and beautification of expanded Beaubien Woods Boat Launch land
- New trail connection from Altgeld Gardens recreation facilities on 133rd Street to the Beaubien Woods Boat Launch
- Wayfinding and information signage inside the proposed station and outdoor signage at 130th Street and Ellis Avenue and other locations
- Forest Preserve advertising to encourage CTA riders to use public transportation to visit the Forest Preserves at the 130th Street station, other Red Line stations south of Roosevelt, and inside local trains and buses

FPCC provided their mitigation concurrence letter on May 13, 2021. This letter is included in **Appendix M**.

The relocation of the 130th Street station also affects the eastern portion of TCA Health because some of its property would be located within the proposed RLE Project right-of-way; this parcel would be partially acquired as part of the RLE Project. CTA would continue to coordinate with TCA Health to maintain access to the TCA Health parking lot and replace parking space impacts, if any, at a ratio of 1 to 1 in the final design of the RLE Project. With mitigation measures, the impacts to TCA Health would not be adverse.

Construction Impacts

Community disruption would occur temporarily during construction for the Preferred Alignment. Most of the construction activities and staging would occur within street right-of-way, properties to be acquired as part of the project's permanent envelope, and potentially other nearby vacant parcels through the establishment of temporary construction easements. Construction activities would cause temporary impacts such as truck traffic, roadway detours, noise, vibration, and dust. Mitigation associated with truck traffic and roadway detours can also be found in **Section 3.3**; noise and vibration mitigation can be found in **Section 4.5**; dust mitigation can be found in **Section 6.1**. Construction impacts and mitigation recommended for neighborhoods and community facilities under the Preferred Alignment would be similar to the East and West Options in the Draft EIS.

Neighborhoods would experience visual impacts, noise, and dust during construction on an intermittent basis, but impacts on the Washington Heights, Roseland, West Pullman, and Riverdale would not be adverse through the use of best management practices (BMPs). For example, construction lighting infiltration into adjacent neighborhoods would be limited and debris-free construction areas would mitigate visual impacts. Additional BMPs may be found in the respective appendices for noise (**Appendix O**), and air quality regarding dust (**Appendix U**). The 120th Street yard and shop would be located far enough from established communities so that no construction impacts would occur. Mitigation measures associated with visual impacts, noise, and dust can be found in **Section 4.4**, **Section 4.5**, and **Section 6.1**, respectively.

Construction activities would result in additional truck traffic and temporary street closures throughout Roseland, Washington Heights, West Pullman, and Riverdale. Anticipated hauling

routes would be coordinated throughout the RLE Project to minimize the number of trucks and equipment passing through sensitive areas of the community and would utilize highways and major arterials over local roads to the extent feasible and practicable. Religious facilities, schools, community centers, and other facilities near the alignment and stations would be subject to temporary adverse impacts associated with potential traffic detours; however, access would be maintained throughout the duration of the project. Detours would be provided to maintain access to adjacent properties during construction, and CTA would coordinate with Pace so bus transit service would detour around roadway closures. Businesses around the alignment and station park & ride facilities could be affected by construction activities, construction-related traffic, and road and sidewalk closures. Temporary roadway delays due to truck traffic and construction equipment would occur. CTA would provide early notification of construction activities and provision of temporary alternative access routes for the community and advertising programs to increase the visibility of affected businesses during construction. Contractors would perform work in a manner consistent with local ordinances.

Construction-related impacts on neighborhoods and communities under the Preferred Alignment would not be adverse after implementation of mitigation measures as described above.

Impacts Remaining After Mitigation

In the communities of Washington Heights and Roseland, the elevated structure between 99th Street and 103rd Street would change the neighborhood setting of the houses facing it, which represents an adverse visual impact remaining after mitigation. In West Pullman, there would be adverse visual impact after mitigation at 117th Street and Prairie Avenue due to the elevated structure. In Riverdale, there would be an adverse visual impact after mitigation due to the height and mass of the proposed 130th Street station parking garage changing the residential character of the neighborhood.

4.4 Visual and Aesthetic Conditions

This section summarizes the existing visual and aesthetic conditions in the API and describes the visual and aesthetic impacts of the No Build Alternative and the Preferred Alignment. See also the *Visual and Aesthetic Conditions Technical Memorandum* (**Appendix N**). **Table 4-5** summarizes the visual and aesthetic impact findings.

Table 4-5: Visual and Aesthetic Conditions – Impact Summary

Alternative	Permanent Impacts	Construction Impacts
No Build Alternative	No impacts	No impacts
Preferred Alignment	Adverse impacts despite mitigation north of I-57, between 99th Street and the 103rd Street station area, near the 107th Place cross-over, at 117th Street and Prairie Avenue, and at the 130th Street station	No adverse impacts

4.4.1 Regulatory Framework/Methods

CTA analyzed the visual and aesthetic conditions to be consistent with State of Illinois Public Act 093-0545, which requires projects to take the visual context of the API into consideration. The context includes existing and proposed land uses and zoning and the potential for degradation of the existing visual character or quality of the surrounding community areas. The analysis also considered the potential for the project to create new shade or shadow effects. CTA considered the guidelines and ordinances that govern visual integrity and quality in the City of Chicago including the Zoning Ordinance, Land Use Ordinance, and the Landmarks Ordinance.

For this analysis, CTA assessed visual and aesthetic impacts by first analyzing existing visual resources in the API, including any sensitive views, and assessing existing visual quality of the surrounding environment. Sensitive views were determined from research and field observations as well as public comments received as part of CTA's outreach efforts (see **Chapter 10**). CTA then considered changes to the visual environment that would result from the Preferred Alignment. The analysis included an assessment of any changes to the viewsheds or other sensitive views that would affect the essential character or context of the visual environment and any other visual quality impacts. Where any adverse visual impacts were determined to be likely in the context of the visual environment, mitigation methods were proposed.

For the Final EIS, an impact would be adverse if it resulted in one of the following:

- A change that is inconsistent with the community's aesthetic character
- Incompatibility of a project element with the character of the area
- Incompatibility of a project element with community aesthetic goals
- A degradation of the existing visual character or quality of a site and its surroundings
- Effects on a historic site through extensive remodeling or removal of buildings or their surrounding area (discussed further in **Section 4.7**)
- Creation of new shade and shadow effects

CTA categorized visual and aesthetic changes to the environment as low, moderate, or high based on the following characteristics:

- Low visual changes generally occur when the transit facility is already part of the view and there would be minor or few changes to the transit facility that would create noticeable changes in the view. Low visual changes can be beneficial; low visual changes are not considered adverse.
- Moderate visual changes occur when the existing view would be noticeably different but not substantially different. Removal of vegetation or a single property displacement would be examples of a moderate visual change. Depending on the individual case, moderate visual changes may or may not be adverse, and may be beneficial.

- High visual changes would occur when there is a substantial change to the existing view or when visually sensitive resources would have a change in view. In some cases, high visual changes may improve an area. Like other visual changes, high visual changes can be beneficial or adverse.

In addition to categorizing the visual change of a view, CTA also considered the response to a view depending on the viewer type that would interact with the view. A viewer type's sensitivity to a change in a view could affect the level of impact on a viewshed. Major viewer types along the project corridor include residents, passengers, business owners, recreational groups, and visitors.

- Residents are very familiar with their surroundings and interact with the visual environment on a daily basis. Residents would have high viewer sensitivity because of daily interaction with the visual environment.

- Passengers interact with the visual environment daily because they travel to and from the transit facility. Passengers have less viewer sensitivity than other viewer groups because they only pass through the visual environment and do not reside in the environment.

- Business owners are familiar with their surroundings and have a vested interest in the visual environment. Business owners would have a higher sensitivity than other groups, such as visitors or passenger groups, based on their familiarity and vested interest in the environment.

- Recreational groups are people who may walk, run, or cycle near the transit facility. Recreational groups have different expectations of the visual environment and have a higher sensitivity to scenic views or neighborhood character than other viewer groups.

- Visitors are individuals who have limited interaction with the area and are not familiar with the visual environment. Visitors have some sensitivity to the surrounding environment.

The *Visual and Aesthetic Conditions Technical Memorandum* (**Appendix N**) includes specific information on the visual assessment process. **Section 4.7** includes a discussion of potential visual effects on historic resources.

The regulatory framework for assessing visual and aesthetic impacts has not changed since the Draft EIS.

4.4.2 Existing Conditions

The visual environment that would be affected by the RLE Project includes areas that would have a view of the new facilities and areas visible from the new facilities. The overall API has residential (primarily single-family), commercial (urban mixed-use), industrial, transportation, utility, and vacant land uses.

The Preferred Alignment would run south along I-94 from the 95th/Dan Ryan terminal, and then curve west along the north side of I-57. This portion of the corridor has a relatively cohesive landscape. South of I-57, the Preferred Alignment would run along an existing railroad corridor that is surrounded by a mix of residential and light commercial districts. The residential development

consists of one- to two-story structures of similar style. Light commercial buildings are typically at intersections that meet the existing UPRR tracks at-grade. A sizable portion of the development along the corridor is vacant and contains minimum architectural embellishments. The Roseland Pumping Station at 104th Street and Harvard Avenue is one of the few non-residential structures in the area with architectural character. South of 119th Street, the Preferred Alignment would run along the MWRD property and end south of 130th Street in the Altgeld Gardens neighborhood. Aside from the residences at Altgeld Gardens, this area has a light industrial character. The neighborhood is relatively isolated from other neighborhoods by 130th Street, I-94, and the Little Calumet River.

Other than the removal of Blocks 11, 12, and 13 of Altgeld Gardens that contributed to the movement of the planned 130th Street station from north of 130th Street to south of 130th Street, the existing conditions have not changed considerably since the Draft EIS.

4.4.3 Environmental Consequences

The following sections summarize the potential visual and aesthetic impacts of each alternative.

4.4.3.1 No Build Alternative

There would be no visual or aesthetic impacts associated with the No Build Alternative; no mitigation measures would be required. This does not represent a change since the Draft EIS.

4.4.3.2 Union Pacific Railroad Alternative - Preferred Alignment

Permanent Impacts

The Preferred Alignment would result in impacts to visual and aesthetic conditions at locations along it, similar to those identified for the East and West Options presented in the Draft EIS.

A high level of visual change in the visual setting due to the elevated track structure in the highway right-of-way shown in **Figure 4-8** would result in an adverse visual impact north of I-57. The track structure would change the scale, density, and character of the residential neighborhood north of I-57, as presented in the Draft EIS.

The elevated structure for the Preferred Alignment would run over the existing Fernwood Parkway between 99th Street and 103rd Street. In addition to shadows and light patterns created by the elevated structure, the removal of vegetation within Fernwood Parkway would alter the visual quality for the residential community to the west. Because of the high level of visual change, visual impacts between 99th Street and the 103rd Street station area would be adverse.

Figure 4-9 shows the existing conditions and rendering of the elevated structure looking south along Eggleston Avenue near 101st Place toward the 103rd Street station. Several buildings and some vegetation along the west side of the existing UPRR corridor would be removed to accommodate the new 103rd Street station and surface parking lot. Note the appearance of project elements and residences in visualizations is intended to show the scale of project elements.

Actual construction appearance may differ based on design refinements and design decisions for color, textures, finishes, and choice of specific design features.

Figures 4-10 through **4-13** are intended to show the scale of project elements. **Figure 4-10** shows a rendering of the 103rd Street station. The elevated platforms and track structure would have a high impact on the viewshed of residences adjacent to the Preferred Alignment and would create new shadows.

Figure 4-11 shows existing conditions and a photo simulation of the 107th Place cross-over. The residential character and scale would be considerably altered by the addition of the elevated structure. The elevated structure would be approximately 48 feet high (existing grade to top of rail) to provide the required clearance over the UPRR tracks.

Because of the height of the elevated 107th Place cross-over, the existing vegetation would not effectively block the views from adjacent residences, permanently changing the visual setting of the area. Because of the high level of visual change, there would be adverse visual and aesthetic impacts on the residential neighborhood.

The park & ride facility for the Michigan Avenue station has been refined from the Draft EIS and is now located on the north side of the existing UPRR track within a light industrial/commercial area. The height of the park & ride facility is in context of the surrounding community and would not be adverse after mitigation. **Figure 4-12** shows the existing conditions and rendering of the park & ride facility.

The area at 117th Street and Prairie Avenue would have a high visual impact. Construction of the elevated structure would result in removal of some vegetation and neighborhood fabric, which would alter the residential character and scale of the area as shown in **Figure 4-13**. Because the relocated 130th Street station would include a park & ride facility comprised of a four-level garage and surface parking lot, and other structures, there would be a high level of visual change and, therefore, adverse visual impacts due to the relocation of the 130th Street station. **Figure 4-14** shows existing conditions and a rendering of the 130th Street station facing east from Greenwood Avenue and just north of 132nd Street. The existing view is from the eastern edge of the Altgeld Gardens neighborhood. The residential character and scale would be considerably altered by the removal of vegetation and the addition of the park & ride facility and station for the residences that face Greenwood Avenue.

Mitigation measures include considering community input for the appearance of the stations in the final design of the RLE Project. CTA would include landscaping with security prioritized in the detailed landscape design. Based on community input to date, design elements are anticipated to include:

- Replacing/restoring removed vegetation
- Addressing neighborhood plan recommendations
- Creating pedestrian friendly surroundings

- Shielding exterior lighting and/or use of "down lighting" light fixtures to prevent light pollution into nearby residences. Additional lighting conditions associated with species impacts are provided in **Section 6.5**.
- Providing landscaping (trees) as visual screening for the residences located on the west side of Eggleston Avenue north of 103rd Street station
- Planting trees in front of the structure, where space allows, to break sight lines of the 107th Place cross-over and the 130th Street station
- Using good urban design to reduce adverse impacts

Figure 4-8: Existing Conditions and Photo Simulation of the Elevated Structure North of I-57 (Looking East from 98th Place and Princeton Avenue)

Figure 4-9: Existing Conditions and Photo Simulation of the Elevated Structure at Fernwood Parkway (Looking South from Eggleston Avenue near 101st Place)

Figure 4-10: Existing Conditions and Photo Simulation of the 103rd Street Station (Looking East along 103rd Street)

Figure 4-11: Existing Conditions and Photo Simulation of 107th Place Cross-over (Looking West from 108th Street)

Figure 4-12: Existing Conditions and Photo Simulation of the Michigan Avenue Station Park & Ride Facility (Looking South along State Street from North of 115th Street)

Figure 4-13: Existing Conditions and Photo Simulation of the Elevated Structure at 117th Street and Prairie Avenue (Looking Southeast from 117th Street, East of Prairie Avenue)

Figure 4-14: Existing Conditions and Photo Simulation of the 130th Street Station (Looking East from the Eastern Edge of the Altgeld Gardens Neighborhood)

Construction Impacts

Construction-related visual impacts would not be adverse and would include construction fencing, demolition of existing buildings, temporary walls, temporary street closures and related signage, temporary lighting or entrances, and/or shoring of concrete structures or existing viaducts.

Although construction-related visual impacts related to the Preferred Alignment would not be adverse, CTA would maintain as much existing vegetation as practical, including shielding of tree root zones to prevent construction damage to existing trees that would remain. Temporary construction impacts on neighborhoods would be minimized by limiting construction light infiltration into adjacent neighborhoods when nighttime work would be required. In addition, BMPs and debris-free construction areas would mitigate temporary visual impacts from the construction sites.

Impacts Remaining After Mitigation

Due to the proximity and height of the elevated structure and stations near residential areas, impacts on visual and aesthetic conditions would remain adverse after mitigation. The Preferred Alignment would have permanent adverse visual and aesthetic impacts north of I-57, between 99th Street and the 103rd Street station area, at 107th Place near the cross-over, at 117th Street and Prairie Avenue, and at the 130th Street station, despite implementation of mitigation measures.

4.5 Noise and Vibration

This section summarizes the predicted noise and vibration impacts of the Preferred Alignment and No Build Alternative.

Noise is "unwanted sound," generally measured in terms of loudness. The loudness, or magnitude, of noise determines its intensity and is measured in decibels (dB). The overall noise level from environmental sources is described in A-weighted decibels (dBA). The A-weighted decibel scale was developed to better approximate the sensitivity of human hearing. Because the decibel is based on a logarithmic scale, a 10-dB increase in noise level is generally perceived as a doubling of loudness, while a 3-dB increase in noise is just barely perceptible to the human ear (FHWA 2011).

Ground-borne vibration can be caused by the vibration of a transit structure, creating vibration waves that propagate through the soil and rock to the foundations of nearby buildings. The vibration of floors and walls may cause perceptible vibration, rattling of items such as windows or dishes on shelves, a rumble noise, or damage to buildings in extreme cases. Vibration is described in terms of the root mean square velocity level (Lv) and is measured in decibels (VdB), relative to 1 microinch per second (FTA 2018).

The *Noise and Vibration Technical Memorandum* (**Appendix O**) contains additional information. **Table 4-6** summarizes the noise and vibration impact findings.

Table 4-6: Noise and Vibration - Impact Summary

Alternative	Permanent Impacts		Construction Impacts	
	Noise	Vibration	Noise	Vibration
No Build Alternative	No impacts	No impacts	No impacts	No impacts
Preferred Alignment	▪ Before mitigation, 278 residences and two institutions (Agape Community Center and My Holy Rock Missionary Baptist Church) would have moderate impacts, and 91 residences and one institution (Kingdom Global Outreach Ministries) would have severe impacts. ▪ After mitigation with noise barriers, 15 residences would have moderate impacts.	No impacts	Impacts would not be adverse after mitigation	No impacts

4.5.1 Regulatory Framework/Methods

The Final EIS noise and vibration analyses for the RLE Project were prepared in accordance with federal guidelines, in line with the analysis for the Draft EIS. The current federal guidelines are included in the *FTA Transit Noise and Vibration Impact Assessment Manual* (FTA 2018), which is an updated version of the 2006 guidance manual available when the Draft EIS analyses were conducted. Although the 2018 version of the manual includes some minor updates to the methodology, the noise and vibration impact criteria are the same as in the 2006 version. The primary difference relevant to the Final EIS evaluation is that the FTA detailed noise and vibration analysis procedures were used, whereas the FTA general noise and vibration assessment procedures were used for the Draft EIS analyses. The detailed analysis procedures are comprehensive assessment methods that produce the most accurate estimates of impacts for a proposed project and are often employed during the development of the Final EIS/ROD in the NEPA process. In a detailed noise analysis, impact is assessed based on predictions at specific receivers rather than on contours as in a general assessment, and equations are employed for computations of ground and barrier propagation effects rather than graphs or tables. For vibration, a detailed analysis requires site-specific testing and complex analytical techniques to develop estimates of the frequency components of the vibration.

There are no changes to the state or local regulations referenced in **Appendix O** of the Draft EIS. **Appendix O** further notes that the noise and vibration limits in these regulations are not applicable to the RLE Project. The noise and vibration prediction methods used for the detailed noise and vibration analyses are described in **Appendix O**.

4.5.2 Existing Conditions

Noise-sensitive land uses along the Preferred Alignment include numerous residences as well as churches, schools, parks, and community facilities. Existing noise sources along the RLE Project

include roadway traffic, freight rail operations on the UPRR tracks, and local activities. The existing ambient sound levels vary by location, depending on the proximity to highways, railways, and other noise sources, and are generally typical of an urban environment. Sensitive receivers were identified with FTA impact screening distances, based on current land use data and information on proposed property acquisitions. Updated existing ambient noise level measurements were conducted in September 2020 at representative sites in the API, as described in **Appendix O**.

Vibration-sensitive land use along the RLE corridor is essentially the same as the noise-sensitive land use, except for parks and other outdoor sites that are not considered vibration-sensitive. Although existing vibration sources along the corridor include motor vehicles on nearby roadways, vibrations from traffic are not generally perceptible unless the roads have sizable bumps, potholes, or other uneven surfaces. Thus, the only major sources of existing ground vibration along the RLE corridor are freight train operations on the UPRR tracks. The vibration environment and the types and number of vibration-sensitive receivers have not considerably changed since the issuance of the Draft EIS. Additional vibration propagation tests and vibration measurements were conducted along the RLE corridor in September 2020 (**Appendix O**) indicating that existing ground-borne vibration levels from freight train operations are in the range of 75-80 VdB at distances of 70 to 80 feet from the UPRR tracks, consistent with the vibration measurement results reported in the Draft EIS.

4.5.3 Environmental Consequences

The following sections summarize the potential noise and vibration impacts projected for each alternative.

4.5.3.1 No Build Alternative

The No Build Alternative is defined as the existing transportation system plus any committed transportation improvements that are already in the current CMAP Transportation Improvement Program (TIP). No new infrastructure would be built as part of the RLE Project under the No Build Alternative.

There would be no noise or vibration impacts from the No Build Alternative, which does not represent a change from the Draft EIS.

4.5.3.2 Union Pacific Railroad Alternative - Preferred Alignment

Permanent Impacts

The analyses of noise and vibration for the Preferred Alignment were carried out using the FTA detailed analysis methodologies (FTA 2018). The detailed analysis methods for the Preferred Alignment are more refined in the prediction of project noise and vibration and in the evaluation of mitigation than the FTA general assessment methodology of noise and vibration in the Draft EIS. The detailed analyses of noise and vibration included an evaluation of noise and vibration sources from RLE train operations and stationary sources (120th Street rail yard and shop, park & ride facilities, and traction power substations).

Comparisons of the existing and future project noise levels at residential receivers are presented in **Table 4-7**, which includes the existing noise levels and the projected noise levels from RLE train operations without mitigation. The table also includes an inventory of the number of moderate and severe noise impacts under FTA noise impact criteria.

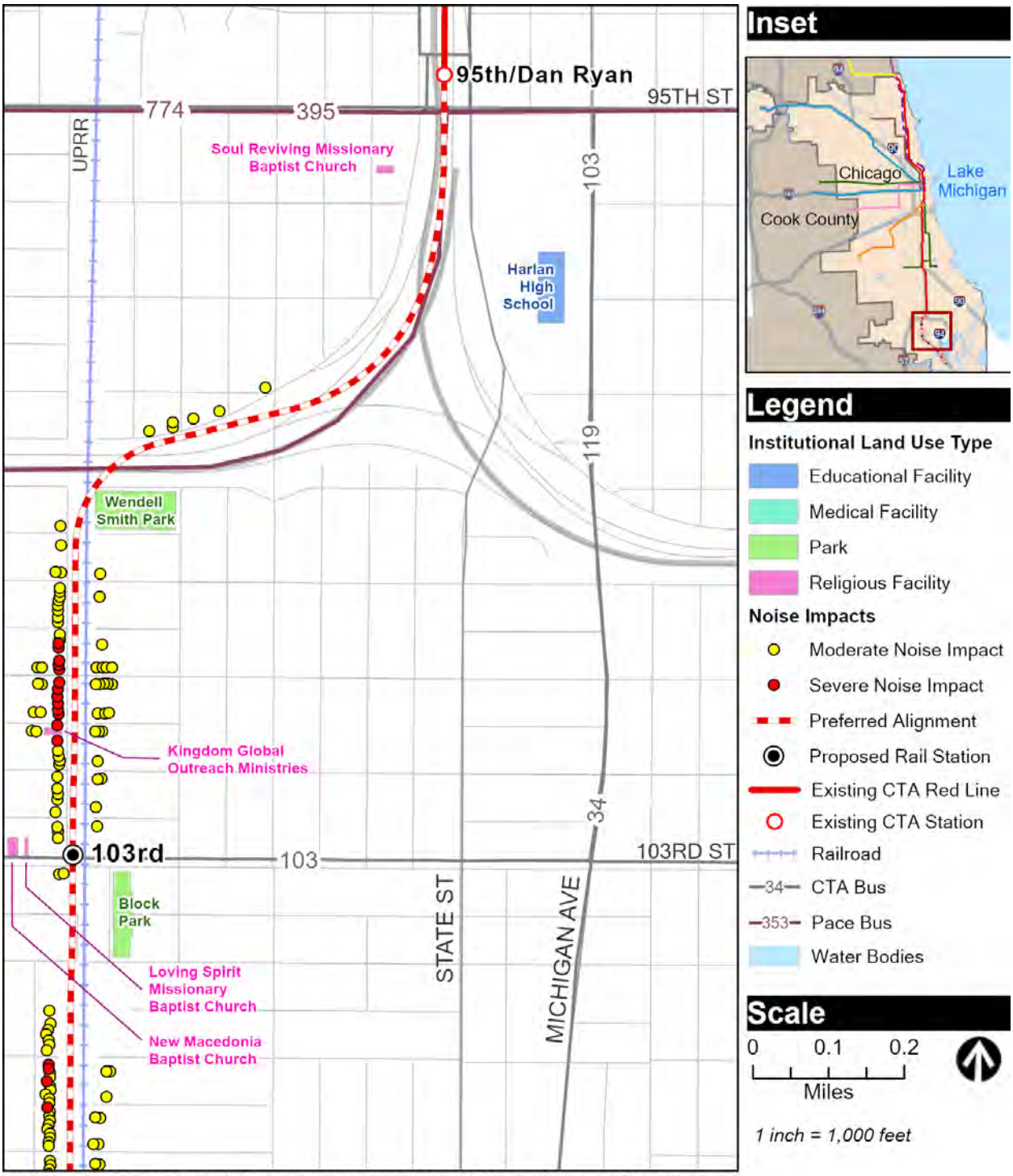
Without mitigation, the Preferred Alignment would result in noise impacts at a total of 369 residences, with moderate impacts at 278 residences and severe impacts at 91 residences. For noise-sensitive institutional receivers along the RLE corridor, the Preferred Alignment is projected to result in two moderate impacts (Agape Community Center and My Holy Rock Missionary Baptist Church) and one severe noise impact (Kingdom Global Outreach Ministries) without mitigation. There are no noise impacts projected along the segment of the Preferred Alignment to the south of the CN/MED rail corridor, which includes the location of the 130th Street station.

The locations of all projected moderate and severe noise impacts for the Preferred Alignment without mitigation are shown on the maps in **Figures 4-15**, **4-16**, **4-17**, and **4-18**. These figures also show the institutional land uses that are located within the FTA noise impact screening distances with respect to the Preferred Alignment. See **Appendix O** for additional details regarding the analysis of the institutional land uses associated with the RLE Project.

Table 4-7: Summary of FTA Category 2 (Residential) Noise Impacts for the Preferred Alignment without Mitigation

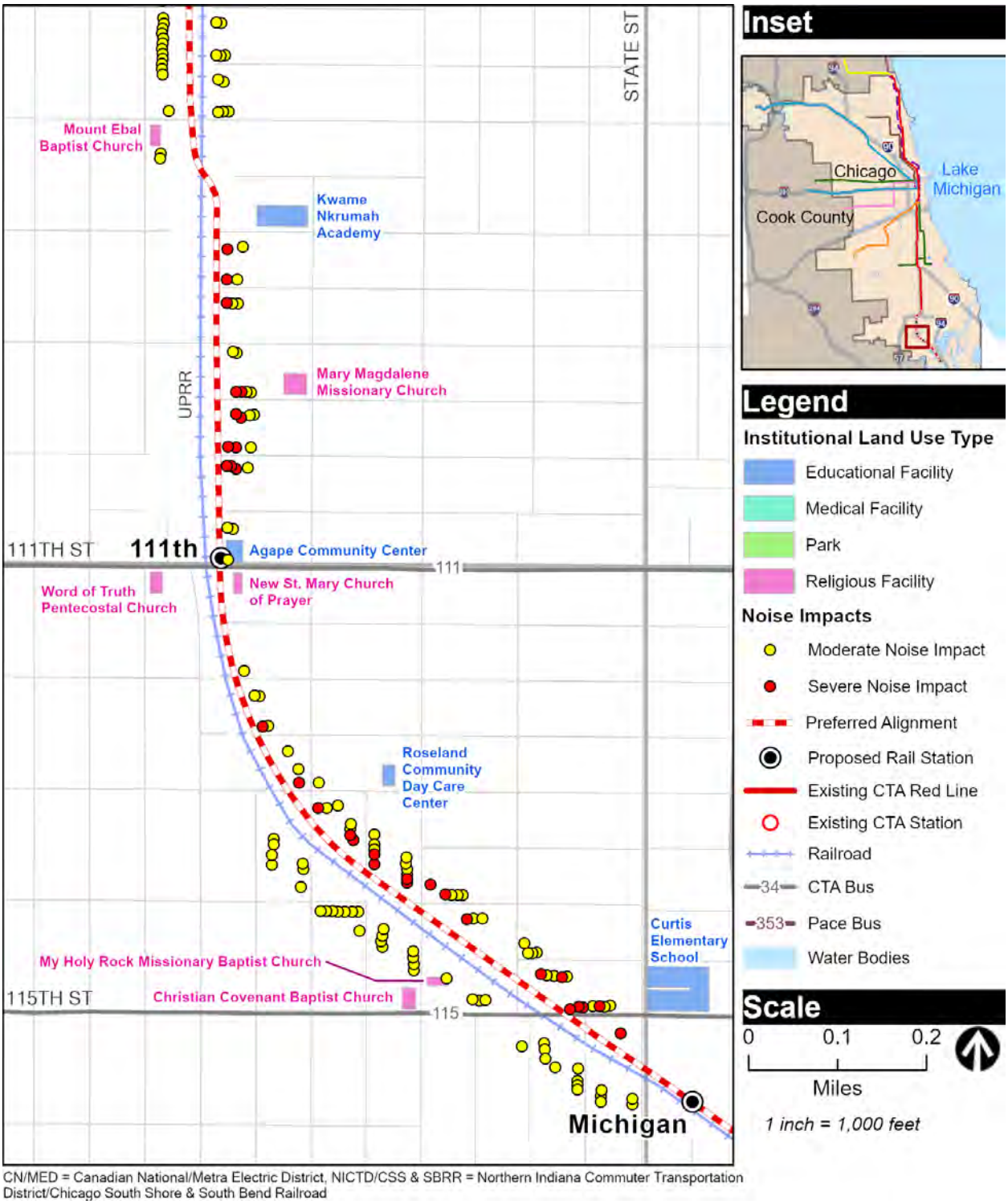
Area of Impact	Distance from Near Track (feet)	Train Speed (mph)	Existing Noise Level (L_{dn}, dBA)	Project Noise Level (L_{dn}[1], dBA[2])			Number of Residential Noise Impacts	
				Predicted	Moderate Impact Criterion	Severe Impact Criterion	Moderate	Severe
95th Street to 103rd Street								
West of Track Structure	76 to 281	33 to 40	64 to 77	61 to 72	60 to 65	66 to 74	40	12
East of Track Structure	137 to 251	33 to 40	67 to 77	62 to 71	62 to 65	67 to 75	23	0
103rd Street to 111th Street								
West of Track Structure	48 to 232	26 to 48	63 to 75	63 to 71	60 to 65	65 to 73	40	4
East of Track Structure	30 to 273	26 to 48	65 to 77	62 to 79	61 to 65	66 to 75	31	13
111th Street to Michigan Avenue at 116th Street								
West of Track Structure	172 to 338	42 to 50	68 to 73	63 to 67	63 to 65	68 to 71	44	0
East of Track Structure	33 to 217	21 to 50	66 to 74	61 to 76	61 to 65	67 to 73	35	21
Michigan Avenue to CN/MED Rail Corridor								
West of Track Structure	214 to 399	15 to 49	60 to 64	58 to 68	58 to 60	64 to 65	18	8
East of Track Structure	62 to 316	15 to 52	60 to 62	58 to 73	58 to 59	63 to 64	47	33
						Total Number of Impacts:	278	91
							369	

1 L_{dn} = Day-Night Sound Level
2 dBA = A-weighted decibels



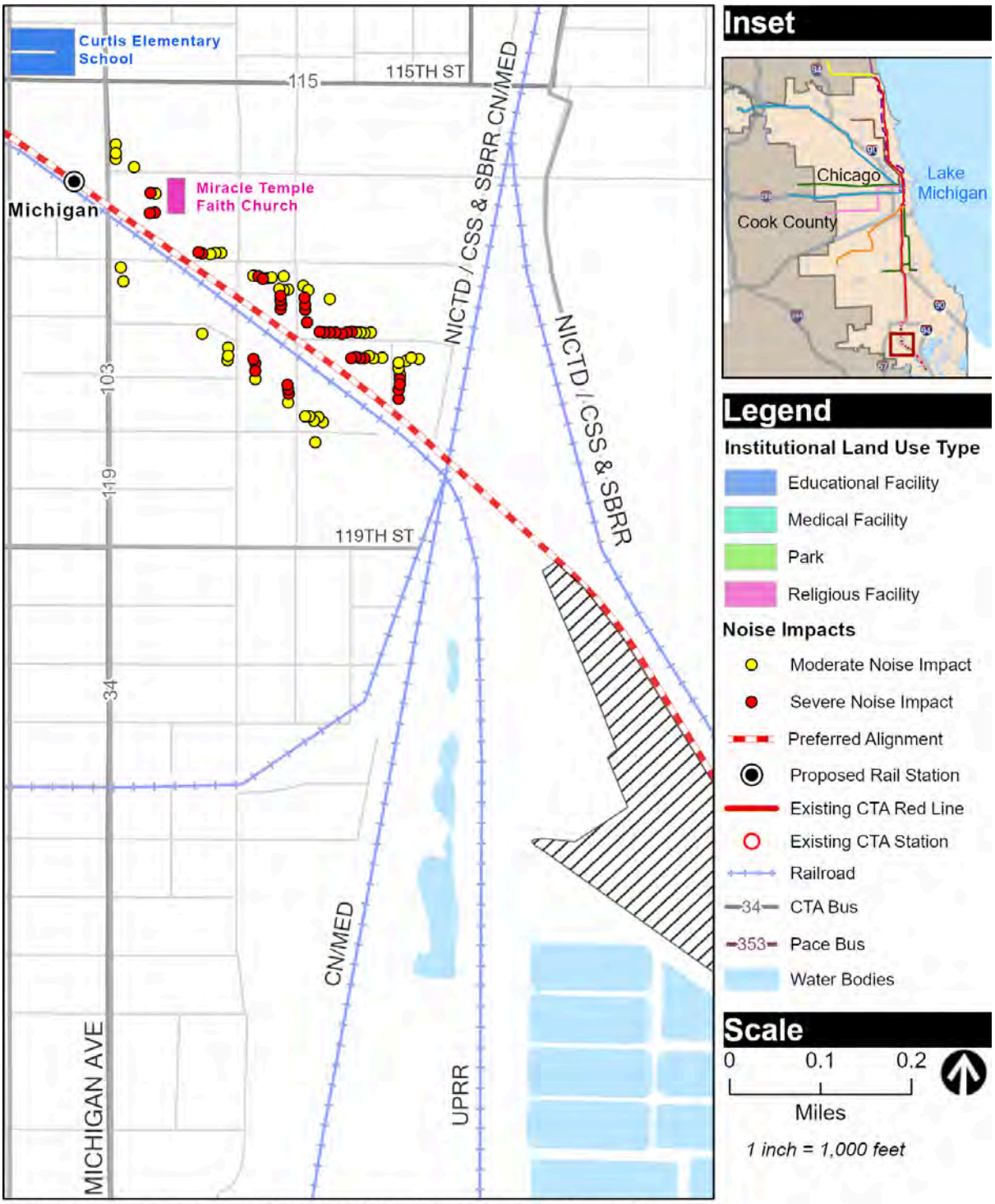
CN/MED = Canadian National/Metra Electric District, NICTD/CSS & SBRR = Northern Indiana Commuter Transportation District/Chicago South Shore & South Bend Railroad

Figure 4-15: Permanent Noise Impacts without Mitigation (1 of 4)



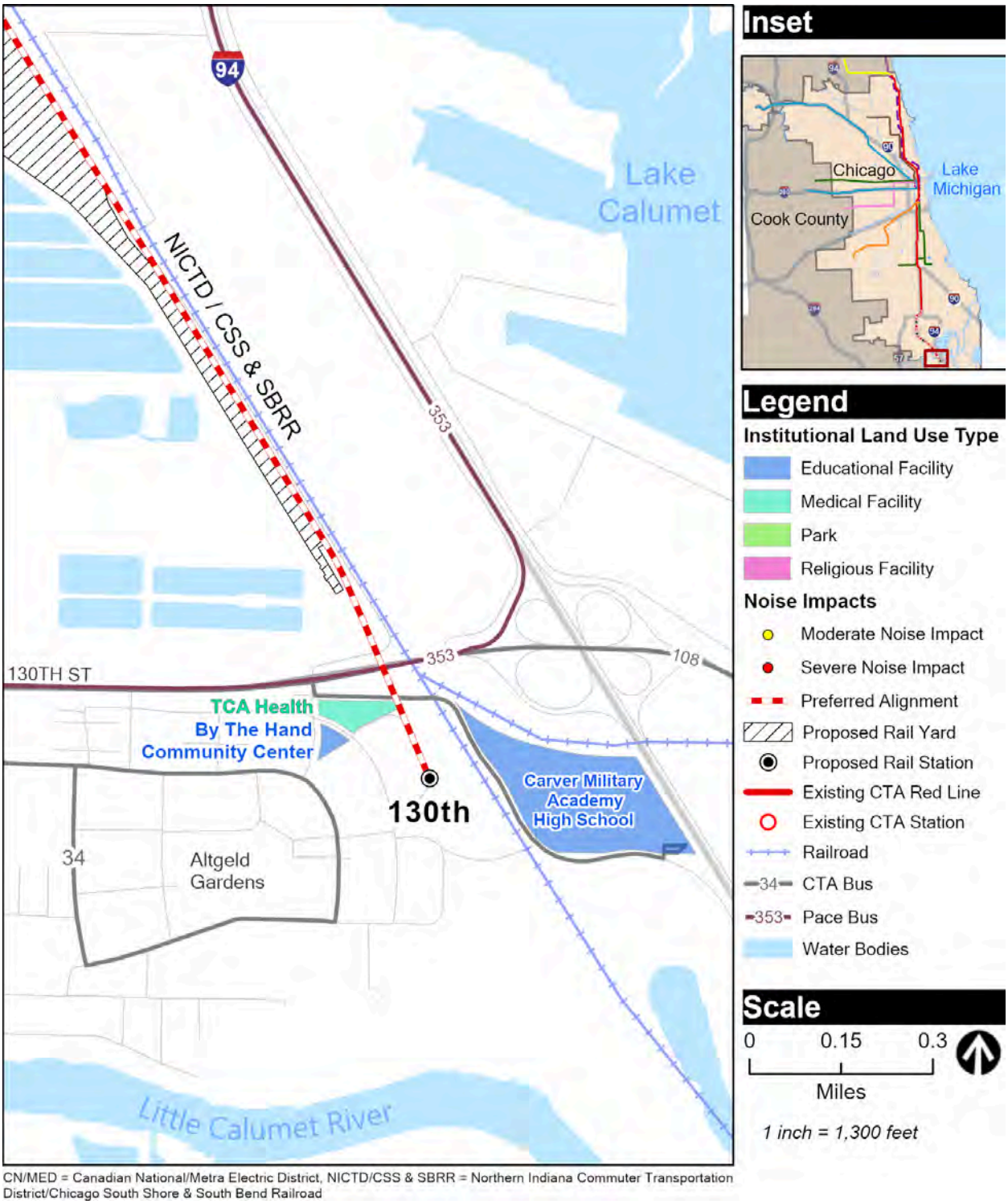
CN/MED = Canadian National/Metra Electric District, NICTD/CSS & SBRR = Northern Indiana Commuter Transportation District/Chicago South Shore & South Bend Railroad

Figure 4-16: Permanent Noise Impacts without Mitigation (2 of 4)



CN/MED = Canadian National/Metra Electric District, NICTD/CSS & SBRR = Northern Indiana Commuter Transportation District/Chicago South Shore & South Bend Railroad

Figure 4-17: Permanent Noise Impacts without Mitigation (3 of 4)



CN/MED = Canadian National/Metra Electric District, NICTD/CSS & SBRR = Northern Indiana Commuter Transportation District/Chicago South Shore & South Bend Railroad

Figure 4-18: Permanent Noise Impacts without Mitigation (4 of 4)

The detailed analysis for the Preferred Alignment projects slightly more severe noise impacts but fewer moderate noise impacts at locations along the alignment, compared to the results of the general assessment for the East and West Options presented in the Draft EIS. To mitigate these impacts, the Draft EIS called for noise barriers approximately 4 feet in height (measured from the top surface of the concrete deck) to be placed on both sides of the tracks from the 95th/Dan Ryan terminal to the CN/MED tracks to reduce noise transmission at and below the height of the tracks. Additional analysis at 30 percent design during the Final EIS has refined the minimum barrier height to 3.5 feet above the top-of-rail elevation and has reduced the lineal extent of the noise barriers from approximately 40,000 feet to approximately 33,600 feet (6.36 miles) by more closely evaluating the locations of noise sensitive receivers where impacts would actually be mitigated by the placement of noise barriers. The noise barriers would provide a noise reduction of up to 15 dBA for RLE Project train noise. The recommended barrier locations are shown in **Figures 4-19**, **4-20**, and **4-21**. However, the final design would be analyzed for noise to confirm impact thresholds would be met before final design would be approved. Mitigation would be modified, if needed, to ensure impacts are the same or less than those identified in this Final EIS. Noise walls also perform a secondary function related to worker and emergency evacuation safety.

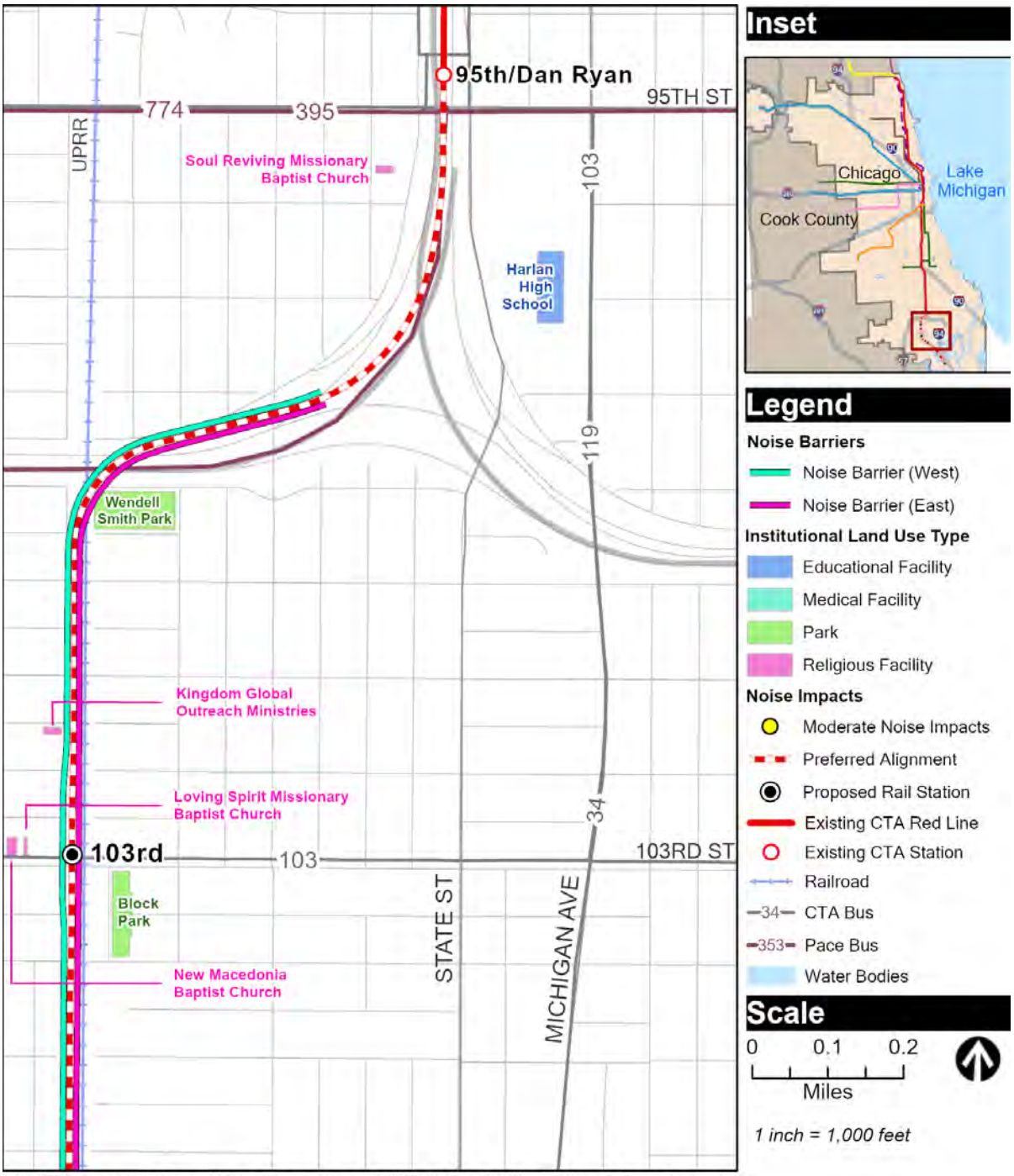
As indicated above, the major differences in recommended noise barrier mitigation for the Final EIS detailed analysis compared to the Draft EIS general assessment are that:

- The recommended lineal extent of the barriers is reduced by approximately 6,400 feet as noise barriers are not required from the 95th/Dan Ryan terminal to just east of Wentworth Avenue in the I-57 ROW, and

- Based on the updated noise analysis of 30 percent design, barriers with a minimum height of 3.5 feet above the top-of-rail elevation are recommended compared to a height of approximately 4 feet above the top surface of the concrete deck. The primary difference in the analysis is that the FTA detailed analysis methodology was used for the Preferred Alignment rather than the FTA general assessment methodology used for the Draft EIS.

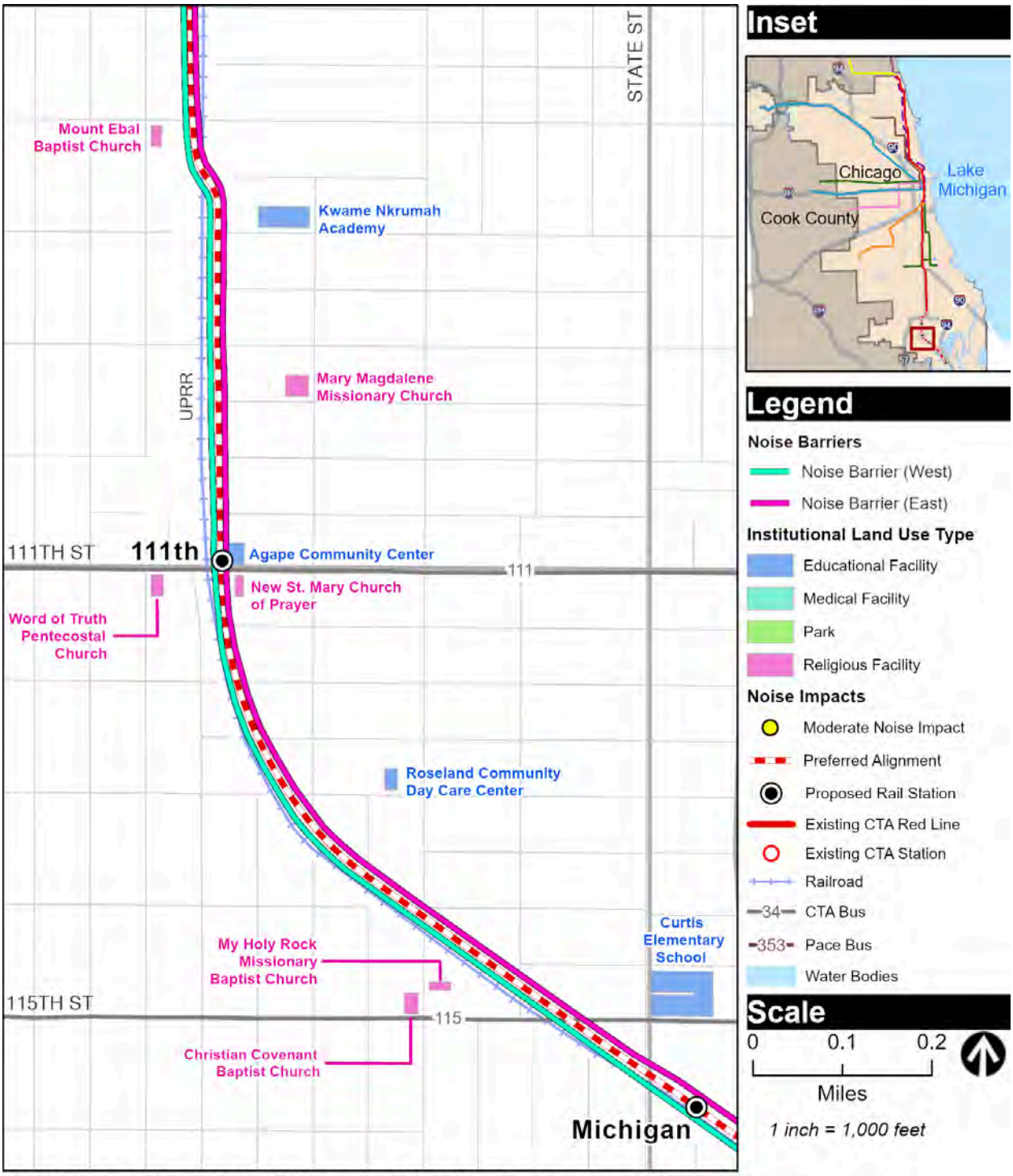
For the Final EIS analysis, the noise barrier effectiveness was modeled using FTA methodology, and accounts for the separation of tracks and some shielding of the far track by the elevated structure.

A summary of the noise impact analysis with the recommended barriers is presented in **Table 4-8**. Moderate noise impacts are expected to remain at 15 residences after noise barrier mitigation, primarily because of their proximity to track turnouts and crossovers. However, these residual impacts are in the lower 50 percent of the moderate noise impact zone, with projected noise increases of less than 3 dBA.



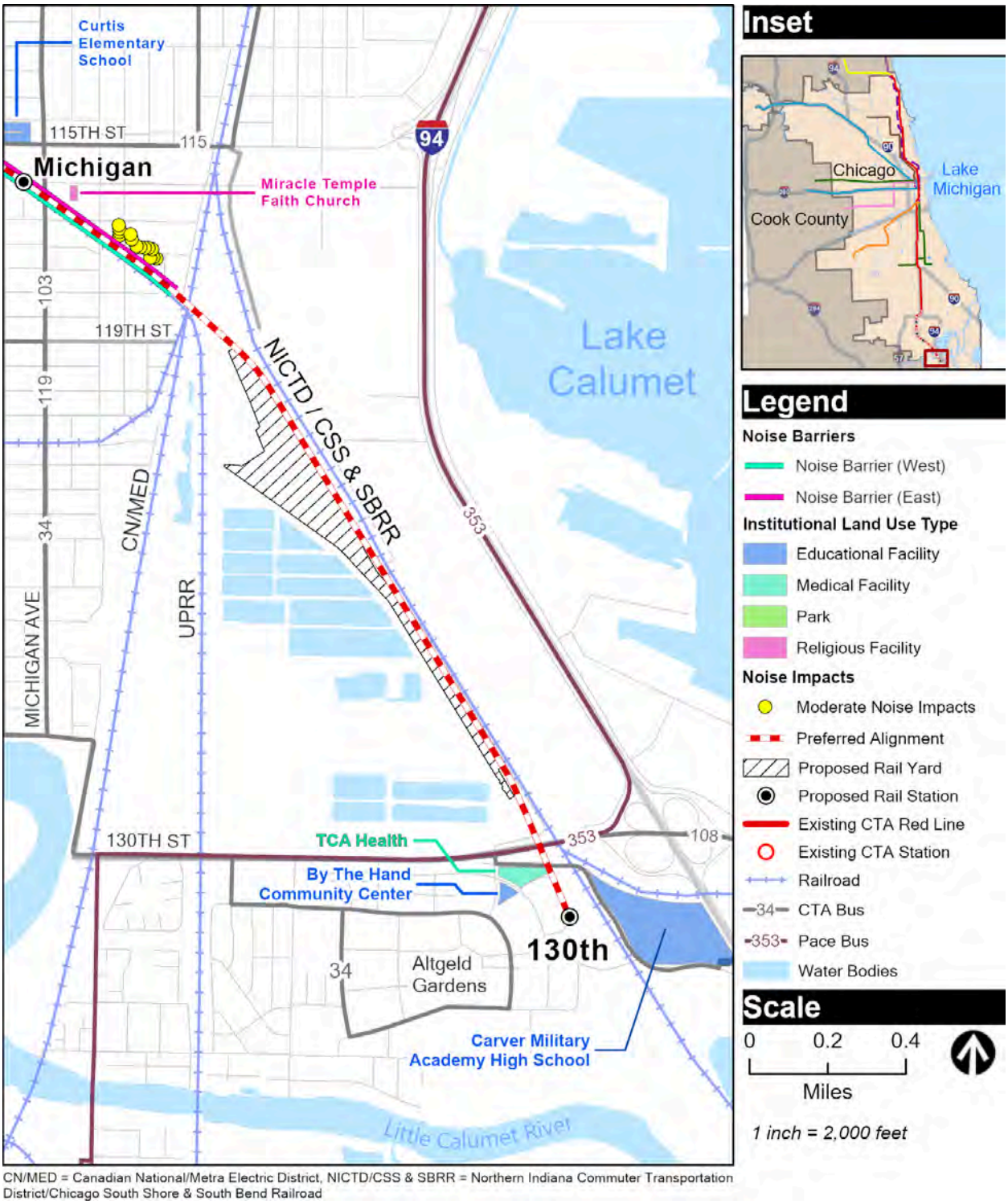
CN/MED = Canadian National/Metra Electric District, NICTD/CSS & SBRR = Northern Indiana Commuter Transportation District/Chicago South Shore & South Bend Railroad

Figure 4-19: Recommended Noise Barrier Locations and Residual Noise Impacts (1 of 3)



CN/MED = Canadian National/Metra Electric District, NICTD/CSS & SBRR = Northern Indiana Commuter Transportation District/Chicago South Shore & South Bend Railroad

Figure 4-20: Recommended Noise Barrier Locations and Residual Noise Impacts (2 of 3)



CN/MED = Canadian National/Metra Electric District, NICTD/CSS & SBRR = Northern Indiana Commuter Transportation District/Chicago South Shore & South Bend Railroad

Figure 4-21: Recommended Noise Barrier Locations and Residual Noise Impacts (3 of 3)

Table 4-8: Summary of Residential Noise Impacts for the Preferred Alignment with Noise Barrier Mitigation

Area of Impact	Distance from Near Track (feet)	Train Speed (mph)[1]	Existing Noise Level (Ldn[2], dBA[3])	Project Noise Level (Ldn, dBA)			Number of Residential Noise Impacts	
				Predicted	Moderate Impact Criterion	Severe Impact Criterion	Moderate	Severe
95th Street to 103rd Street								
West of Track Structure	273	40	70	63	64	69	0	0
East of Track Structure	137	39	76	61	65	74	0	0
103rd Street to 111th Street								
West of Track Structure	135	44	67	59	62	68	0	0
East of Track Structure	34	40	74	65	65	73	0	0
111th Street to Michigan Avenue at 116th Street								
West of Track Structure	213	50	70	58	65	70	0	0
East of Track Structure	33	50	71	63	65	70	0	0
Michigan Avenue to CN/MED Rail Corridor								
West of Track Structure	214	37	64	58	60	65	0	0
East of Track Structure	70 to 160	34 to 48	61	59 to 61	58 to 59	64	15	0
						Total Number of Impacts:	15	0
							15	

1 Based on speed data provided by CTA, train speeds are assumed to vary by location along the Preferred Alignment, with a maximum speed of 53 mph.
2 L_{dn} = Day-Night Sound Level
3 dBA = A-weighted decibels

A summary of the detailed vibration impact analysis is presented in **Table 4-9**, which compares the projected maximum vibration levels from RLE train operations with the FTA vibration impact criteria. No vibration impacts are projected at residential receivers for the Preferred Alignment. Similarly, no vibration impacts are projected at any of the institutional receivers along the Preferred Alignment. Thus, consistent with the results of the Draft EIS analysis for the East Option and West Option, there would be no vibration impacts from RLE train operations and no vibration mitigation measures would be required.

Table 4-9: Summary of Vibration Impacts for the Preferred Alignment without Mitigation

Area of Impact	Distance from Near Track (feet)	Train Speed (mph)[1]	Vibration Level (VdB)[2]		Number of Residential Impacts
			Maximum Predicted	Impact Criterion	
95th Street to 103rd Street					
West of Track Structure	76	33	55	72	0
East of Track Structure	139	37	49	72	0
103rd Street to 111th Street					
West of Track Structure	48	37	54	72	0
East of Track Structure	34	40	70	72	0
111th Street to Michigan Avenue at 116th Street					
West of Track Structure	172	44	43	72	0
East of Track Structure	33	50	66	72	0
Michigan Avenue to CN/MED Rail Corridor					
West of Track Structure	223	42	40	72	0
East of Track Structure	70	34	61	72	0
				Total Number of Vibration Impacts:	0

1 Based on speed data provided by CTA, train speeds are assumed to vary by location along the Preferred Alignment, with a maximum speed of 53 mph.
2 RMS vibration velocity level (in VdB re 1 micro-inch/sec) as measured in 1/3-octave bands of frequency over the frequency range from 8 to 80 Hz

Construction Impacts

The Preferred Alignment would include the construction of elevated and at-grade track structure, stations, parking facilities at the stations, and roadway improvements. Similar to the findings for the East Option and West Option, construction noise levels for the Preferred Alignment are not expected to exceed the FTA construction noise criteria and this would be included in the mitigation measures and commitments for contractor adherence and compliance with local noise ordinances. Similarly, construction vibration levels for the Preferred Alignment are not expected to exceed the FTA construction criteria for vibration damage. Construction BMPs would be used to reduce noise and vibration, as described in the Draft EIS.

Contractors would employ noise-reducing construction BMPs. For example, contractors would keep all construction equipment exhaust mufflers in a state of good repair. As part of the construction specifications, contractors would be responsible for adhering to the noise control requirements of the project. To the extent possible, contractors would avoid idling of vehicles that are not in use on construction sites. CTA would limit nighttime construction near residences to the extent practical. Impact pile-driving would be avoided in the vicinity of the historic Roseland Pumping Station and the vicinity from the I-94 ramp crossing to the east of CN/MED and south of 130th Street, as well as adjacent to sensitive noise and vibration receivers identified in the Final EIS such as residences, parks, churches, etc. CTA would inform community members about construction schedules and would coordinate in advance with aldermen and local officials.

Impacts Remaining After Mitigation

The minimum 3.5-foot high noise barrier (above the top-of-rail elevation) would mitigate all severe noise impacts; however, 15 moderate noise impacts would remain after mitigation. Beyond the use of noise-reducing construction BMPs and limits on nighttime construction and pile driving near residences, construction noise mitigation measures would not be required. There would be no vibration impacts; no mitigation measures for vibration would be required.

4.6 Safety and Security

This section summarizes the safety and security impacts of the No Build Alternative and Preferred Alignment. The *Safety and Security Technical Memorandum* (**Appendix P**) includes additional details. **Table 4-10** summarizes the safety and security impact findings.

The definitions of safety and security have not changed since the Draft EIS. Safety refers to freedom from harm resulting from unintentional acts or circumstances (49 CFR § 659.5). Unintentional acts or circumstances include all incidents within CTA right-of-way (including areas along tracks, in yards, and at stations). Examples of incidents include collisions, derailments, fires, property damage, injuries, and fatalities. Security refers to freedom from harm resulting from intentional acts or circumstances (49 CFR § 659.5). Intentional harm includes crimes and must be reported if the intentional act meets thresholds for notification as specified in FTA's State Safety Oversight Rule (49 CFR § 674).

Table 4-10: Safety and Security - Impact Summary

Alternative	Permanent Impacts		Construction Impacts	
	Safety	Security	Safety	Security
No Build Alternative	No impacts	No impacts	No impacts	No impacts
Preferred Alignment	Impacts would not be adverse after mitigation	Impacts would not be adverse after mitigation	No adverse impacts	No adverse impacts

4.6.1 Regulatory Framework/Methods

Federal safety and security requirements for rail systems are primarily provided in 49 CFR § 659, and through Occupational Safety and Health Administration (OSHA) standards and regulations for providing a safe and healthy workplace (namely the Occupational Safety and Health Act of 1970). Safety and security planning is included in CTA's System Safety Program Plan and Security Emergency Preparedness Plan, both of which are required of CTA to comply with provisions under 49 CFR § 659. CTA's *Infrastructure Design Criteria Manual* also addresses safety and security (CTA 2013b). The standards address system safety, security, fire protection, human factors, reliability, maintainability, configuration management, and quality control. Passenger safety is the highest priority in system safety objectives, along with the safety of CTA employees. Construction, installation, inspection, and testing procedures are also objectives covered by the standards.

For the Final EIS, an adverse safety and security impact is defined as one that would cause one or more of the following:

- Creation of the potential for increased major safety or security incidents reportable to FTA
- Failure to meet the applicable design standards where such failure results in a safety or security impact
- Marked increase in safety or security risks on or off the CTA system
- Marked increase in pedestrian and/or public safety incidents in the immediate vicinity of proposed CTA stations
- Marked increase in crime incidents near proposed CTA stations
- Notable increases in calls for police service and/or emergency response time

The regulatory framework for safety and security has not changed since the Draft EIS.

4.6.2 Existing Conditions

The existing conditions for safety and security have not changed since the Draft EIS.

The affected environment for this analysis includes areas that could be affected by impacts on the CTA system (e.g., tracks, vehicles, stations, and rail yards) and impacts within a ½ mile of stations. The ½ mile distance is used as an approximation of the distance most patrons would walk to a station and is therefore used when evaluating general pedestrian safety and security in the surrounding neighborhood.

Groups covered in the affected environment include transit passengers, operators, employees, contractors, and the general public. Members of these groups all come in contact with the system in some way and could be susceptible to safety and security impacts. The main pedestrian safety risk in the API is from motor vehicle crashes.

Over the 3-year period, there was an average of 2.8 incidents per day reported on CTA trains, 1.3 incidents per day reported on CTA train platforms, 1.5 incidents per day on CTA stations, and 0.4 per day at CTA garages and other property. Theft, battery, and criminal damage were more common on trains than on train platforms whereas narcotics crimes were more common at train stations and platforms than on trains.

There were six pedestrian crashes within one block of the proposed station entrances between 2016 and 2020.

The areas with the highest crime density for 2020 are clustered at the existing 95th/Dan Ryan terminal and in the area west of Greenwood Avenue, south of 130th Street (City of Chicago 2021c).

Crashes between 1995 and 2020 at the six existing highway-rail at-grade crossings near the proposed stations ranged between one for the crossings at 103rd Street and Old 130th Street and six at the crossing at 115th Street.

4.6.3 Environmental Consequences

The following sections summarize the potential safety and security impacts of each alternative.

4.6.3.1 No Build Alternative

There would be no permanent or construction-related safety and security impacts for the No Build Alternative.

4.6.3.2 Union Pacific Railroad Alternative - Preferred Alignment

Permanent Impacts

The proposed stations would generate a large amount of pedestrian traffic, causing an increase in the number of pedestrians crossing streets to access the stations, similar to the East and West Options in the Draft EIS. The controlled intersections are approximately one block away. It is still likely that pedestrians would want to cross the streets adjacent to station entrances, which would result in a large number of pedestrians crossing the major streets without positive traffic control. This would be an adverse impact on pedestrian safety without additional improvements or mitigation measures. Mitigation for pedestrian access is described in **Section 3.3**. In addition, lighting would be provided under the elevated structure in station, parking, and on CTA right-of-way to contribute to improved safety and security, and to improve surveillance visibility.

Based on data from transit stations in Chicago and across the United States, the new stations would be unlikely to have significant impact on neighborhood crime (Ridgeway and MacDonald 2015). However, research also indicates that some risk would remain, particularly in low-income neighborhoods (Ihlanfeldt 2003), consistent with the Draft EIS. CTA has prepared a Threat and Vulnerability Assessment (TVA) and has conducted a Preliminary Hazard Analysis (PHA) as part of the RLE Project. The TVA and PHA identify threats and make recommendations to mitigate for those threats and reduce the risks. The analysis, conclusions, and mitigation measures presented in this Final EIS are in keeping with the TVA and PHA. While the information was considered, no specific information was brought forward from the documents due to their sensitive security status, controlled under 49 CFR Parts 15 and 1520. CTA would continue the TVA and PHA through final design of the RLE Project to determine appropriate security measures in the public right-of-way, such as security surveillance cameras and/or lighting at cross-street areas in the vicinity of the four RLE Project stations. CTA would coordinate the implementation of any improvements in the City right-of-way with the City of Chicago.

The potential for an increase in crash frequencies at the UPRR at-grade rail crossings adjacent to the RLE stations would be mitigated as described in **Section 3.3**. The closure of Old 130th Street is necessary to prevent the interaction of all modes of transportation with the new at-grade crossing that would be introduced with the RLE Project. The frequency of trains entering and departing the station warrants closure of the roadway to enhance safety. Emergency access to the Carver Military

Academy High School and Beaubien Woods Forest Preserve would be maintained from 132nd Street from the north and from Doty Avenue from the south.

The impacts would not be adverse after mitigation measures are implemented.

Construction Impacts

Consistent with the Draft EIS, the contractors performing primary construction activities would need to have an approved Construction Safety and Security Plan in place before any construction work begins. Contractors would perform job safety analysis, monitor safety and security activities, and comply with other relevant aspects of CTA's *Safety and Security Management Plan* (CTA 2011) or CTA's other manuals and policies. Contractors would be contractually committed to take prompt and decisive corrective action on safety deficiencies identified at the work sites. For example, CTA would require contractors performing work on, above, or adjacent to the CTA rail system to follow CTA's Safety Manual for Contract Construction On, Above, or Adjacent to the CTA Rail System (Construction Safety Manual) to protect themselves, their employees, sub-contractors, CTA passengers, employees, and the public.

Emergency services would have access to construction sites at all times and would access construction sites in the same way as contractors, using side streets and recommended detours. An access road for the MWRD would be constructed prior to commencing operation on the new CTA tracks, if necessary, to maintain access to the MWRD facility. This roadway would also be used by emergency services. The impacts would not be adverse, which is consistent with what is outlined in the Draft EIS.

Impacts Remaining After Mitigation

Consistent with the results of the Draft EIS analysis for the East and West Options, there would be no adverse permanent or construction-related impacts on safety or security for the Preferred Alignment after mitigation measures are implemented.

4.7 Historic and Cultural Resources

This section summarizes the findings under Section 106 of the National Historic Preservation Act (NHPA) and in coordination with the Illinois State Historic Preservation Office (SHPO) in the Historic Preservation Division of the Illinois Department of Natural Resources and consulting parties to the Section 106 process.

The content and organization of this section are modified from the standard EIS format to fully characterize the process and consultation required under Section 106 for a linear project of this nature. In addition, the term "effects" is used in this section rather than "impacts" because of the unique requirements and terminology related to historic properties in the Section 106 process. The *Historic and Cultural Resources Technical Memorandum* (**Appendix Q**) includes additional details. **Table 4-11** summarizes the historic and cultural resources impact findings.

Table 4-11: Historic and Cultural Resources – Impact Summary

Alternative	Effects
No Build Alternative	No effects
Preferred Alignment	No adverse effects

4.7.1 Regulatory Framework/Methods

Cultural and historic resources are protected by various federal regulations; Section 106 of the NHPA requires federal agencies to consider effects on historic properties from their actions and to balance preservation needs with the need for the actions. As provided in 36 CFR Part 800, the Section 106 process "seeks to accommodate historic preservation concerns with the needs of federal undertakings through consultation" (36 CFR § 800.1(a)). The goal of the consultation is to identify historic properties potentially affected by the undertaking, assess project effects, and seek ways to avoid, minimize, or mitigate any adverse effects on historic properties.

For the Section 106 assessment of historic and archaeological resources, FTA and CTA conducted a four-step process following requirements of 36 CFR Part 800:

1. Define the Area of Potential Effects (APE).
2. Identify Historic and Archaeological Resources.
3. Assess Effects on Historic and Archaeological Resources.
4. Mitigate any Adverse Effects.

Except for the item described below, there are no considerable changes to the applicable federal, state, or local regulations noted in the Draft EIS. The following was applied to re-evaluate the effects findings from the Draft EIS:

> For the National Parks Conservation Association v. Semonite, 925 F.3d 500 court case (D.C. Cir. 2019), the U.S. Court of Appeals issued an opinion that clarified the meaning of term "Directly" in Section 110(f) of the NHPA as referring to causality, not the physicality, of the effect. This has changed the approach for defining visual, auditory, or atmospheric effects on historic properties.
>
> The Advisory Council on Historic Preservation (ACHP) issued a memorandum related to the court opinion clarifying the distinction between direct and indirect effects under Section 106 of the NHPA. It clarified that direct effects may be the result of physical connection, but may also include visual, auditory, or atmospheric impacts as well. Indirect effects would be effects to historic properties caused by the undertaking in the future or farther removed in distance, but still reasonably foreseeable.

Field methods employed during the Phase I archaeological reconnaissance survey were in accordance with the Illinois SHPO *Guidelines for Archaeological Reconnaissance Surveys and Reports* (IDNR). The Archaeological Survey Short Report can be found in **Appendix Q**.

4.7.2 Section 106 Consultation Process

During the Draft EIS, FTA sent 11 letters to Native American tribes and 19 letters to state and local preservation interest groups to inform them of the project and invite them to participate in the consultation process. At the conclusion of the Draft EIS, none of the tribes and eleven of the state and local groups requested to participate in the consultation process.

Due to the time passed between the publication of the Draft EIS and the selection of the Preferred Alignment and the relocation of the 130th Street station, CTA and FTA reviewed the previous consulting party list for potential additions. In November 2020, CTA and FTA sent invitation letters to potential consulting parties that were not included in the Section 106 consultation for the Draft EIS. New invitees included: By the Hand Club Altgeld-Murray, Carver Military Academy High School, Chicago Housing Authority, People for Community Recovery, Red Line Extension Coalition, TCA Health, Pullman Civic Organization, Kickapoo Tribe of Oklahoma, Little Traverse Bay Bands of Odawa Indians, and Menominee Indian Tribe of Wisconsin. In February 2021, the Greater Roseland Chamber of Commerce contacted CTA with a request to participate in the Section 106 process as a consulting party. This request was accepted by CTA and FTA. In April 2021, CTA sent an invitation letter to one additional consulting party, the National Park Service (NPS) Pullman National Monument and they accepted participation as a consulting party. The list of organizations invited and their participation throughout the Draft and Final EIS process is included in **Appendix Q**. Based on all invitations sent to potential consulting parties, a total of 22 new and returning organizations accepted participation as consulting parties. The consulting parties consisted of state and local organizations and one Native American tribe.

On February 18, 2021, CTA conducted the first consulting party meeting for the RLE Project since selection of the Preferred Alignment. This meeting included a summary of the RLE Project and Section 106 activities conducted to date. Review and discussion focused on areas of APE expansion due to changes since the last Section 106 consultation meeting (discussed in greater detail below), corresponding historic property identification, and eligibility recommendations. A 30-day comment period was established to take consulting party and SHPO comments on eligibility findings. Comments received confirmed findings of the eligibility assessment and SHPO provided their concurrence on eligibility findings in March 2021.

In June 2021, the draft RLE Section 106 Effects Report was submitted to SHPO and consulting parties for review. This report included updates to the effects recommendations from the Draft EIS and effects recommendations for historic properties within the expanded APE. A Section 106 consulting party meeting was held on June 30, 2021 to review findings of the effects assessment on eligible historic and cultural properties and obtain additional consulting party input. A 30-day comment period was established to take comments from consulting parties on effects determinations. Comments received from consulting parties and SHPO confirmed these effects findings. SHPO provided their comments on the effects findings on July 9, 2021, requesting additional information on the RLE Project for evaluation. Detailed information was provided to the SHPO at a meeting on July 26, 2021. As a result, SHPO provided an August 10, 2021 letter of concurrence on no adverse effect under the following conditions associated with the 130th Street station:

- A parking garage of four stories or less.
- Option to use the existing 130th Place as the station entrance. The SHPO accepts this option would eliminate on-street parking on Greenwood Avenue for one block between Ellis Avenue and 130th Place.
- Option to place the entrance to the station between 130th Place and 132nd Street into the original parking lot in Block 11. Doing so would result in the elimination of two blocks of historically appropriate on-street parking along the east side of Greenwood Avenue and bring traffic deeper (farther south) into Altgeld Gardens-Philip Murray Homes Historic District. The SHPO would accept this option as meeting the Secretary of the Interior's Standards and not adversely affecting Altgeld Gardens-Philip Murray Homes Historic District if residents of Altgeld Gardens-Philip Murray Homes Historic District are also in favor.

The Section 106 eligibility and effects reports and comments received are located in **Appendix Q**.

After finalization of the Section 106 eligibility and effects reports in September 2021, revisions were made to the National Register nomination for the Altgeld Gardens-Philip Murray Homes Historic District and approved by NPS and the SHPO on April 13, 2022. These include a change to the historic district boundary and the historic status of one property within the APE. These changes do not affect the effects evaluations for historic properties by this project but are noted in the Final EIS.

4.7.3 Existing Conditions

Figure 4-22 is a map of the revised APE and National Register of Historic Places (NRHP) eligible properties for the Preferred Alignment. Generally, the APE developed for the Draft EIS contains parcels within one block of the centerline of the Preferred Alignment. Since the Draft EIS, there are some changes to the APE associated with the locations of the Michigan Avenue station, 120th Street yard and shop, and the 130th Street station. At the Michigan Avenue station, the APE was expanded one block to the north and east. Two locations for the station parking were being considered through the announcement of the Preferred Alignment in 2018. The locations were to the north and to the south of the UPRR. The Draft EIS Section 106 APE included only the south option. The north option has been carried forward into the Final EIS; therefore, the APE is expanding to include the north option. The selection of the station parking location is dependent on confirmation of availability of parcels and future coordination with the City of Chicago. The APE has also been expanded to one full block in the south and west to adequately address potential effects in these areas. The 120th Street yard and shop location has been shifted and the layout refined since the Draft EIS. Therefore, the APE has been shifted approximately 100 feet to the west consistent with the shift in location of the 120th Street yard and shop. At the 130th Street station, the APE was expanded to include the full site under consideration for construction and an approximate buffer of a ¼ mile, except at visual obstructions where it is slightly truncated. This area is based on building density, height of the proposed work, visual observations on site, intended to encompass changes in traffic, noise, and vibration, caused by the RLE Project.

Fifteen historic-age properties within the Preferred Alignment APE were surveyed and evaluated for eligibility on the NRHP. Of these fifteen, seven were identified as eligible for listing on the NRHP. A complete listing and evaluation of NRHP eligibility can be found in **Appendix Q**.

CN/MED = Canadian National/Metra Electric District, NICTD/CSS & SBRR = Northern Indiana Commuter Transportation District/Chicago South Shore & South Bend Railroad

Figure 4-22: Preferred Alignment and Area of Potential Effect

The Draft EIS identified eight archeological sites within 0.6 miles of the project vicinity. The Phase I archeological survey required for the Preferred Alignment and conducted by CTA in June 2020, identified twelve archaeological sites recorded within 1 mile of the RLE Project vicinity. As explained in the *Phase I Archaeological Report* (**Appendix Q**), the Preferred Alignment is located within four communities (Roseland, Washington Heights, West Pullman, and Riverdale). The historic development of these four communities is discussed in detail in **Appendix Q**. The development of the communities has not changed considerably since the Draft EIS.

Note the boundary of Altgeld Gardens-Philip Murray Homes Historic District shown in **Figure 4-22** has been updated since finalization of the Section 106 consultation process. The resulting geometry is slightly different than that shown in **Figure 4-22**. This update does not affect the number of historic resources within the historic district which overlap with the project APE or the project's effects on historic properties.

4.7.4 Environmental Consequences

Section 106 regulations state that if there are historic or cultural resources in the APE that may be affected by a federal undertaking, the agency official will assess adverse effects, if any, in accordance with the Criteria of Adverse Effect described in 36 CFR § 800.5. As stated in the regulation, an adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association (36 CFR § 800.5(a)(1)). Effects can be direct, indirect, or cumulative (36 CFR § 800.5(a)(1)). The following sections summarize the potential effects on historic districts and properties that are eligible for NRHP listing.

4.7.4.1 No Build Alternative

No adverse effects on historic and cultural resources would result from implementation of the No Build Alternative; therefore, no mitigation measures would be required.

4.7.4.2 Union Pacific Railroad Alternative - Preferred Alignment

Permanent Impacts

Consistent with findings in the Draft EIS, the Preferred Alignment would cause displacements and visual, noise, and other environmental effects within the APE, but none of the effects would alter the characteristics that qualify any of the identified historic properties for inclusion on the NRHP. No mitigation measures would be required. Because none of the NRHP-eligible properties in the APE would be physically affected (they would not be displaced or altered), each resource was evaluated for potential visual effects from the aerial structure, stations, and park & ride facilities. While the historic properties in the APE would encounter direct visual impacts as a result of their proximity of the RLE Project, this impact would not compromise the integrity of the historic properties or any of their character defining features which qualify them for listing in the NRHP. To comply with the agreements with SHPO, CTA would include the following anticipated conditions in the final design of the RLE Project:

- Limit the construction of a park & ride facility at the 130th Street station to 4 stories or less, and

- Locate the new entrance to the 130th Street station park & ride facility at one of the two accepted locations: (1) Existing 130th Place, which eliminates on-street parking on Greenwood Avenue for one block between Ellis Avenue and 130th Place; (2) Between 130th Place and 132nd Street in the original parking lot in Block 11 which eliminates two blocks of on-street parking along the east side of Greenwood Avenue.

Figure 4-23 includes an existing condition photo and rendering of the RLE Project from the historic property at 11431-11433 S. Michigan Avenue. **Table 4-12** summarizes the effects findings for the Preferred Alignment. Note that the final Altgeld Gardens-Philip Murray Homes Historic District nomination no longer includes property #18, 975 E. 32nd Street as a contributing resource.

Figure 4-23: Existing Conditions and Photo Simulation of the Michigan Avenue Station (Facing South from 11421-11433 S. Michigan Avenue)

Table 4-12: Eligibility and Effects Findings for the Preferred Alignment

Map ID	Address	Description	NRHP Status	Assessment of Effect
1	444 W. 100th Place	Eclectic Neo-Traditional Home	Eligible for Listing in NRHP, Criterion C	No Adverse Effect
2	324 W. 104th Street	Fire Department Engine Company 93	Eligible for Listing in NRHP, Criterion C	No Adverse Effect
3	351 W. 104th Street	Roseland Pumping Station	Eligible for Listing in NRHP, Criterion C	No Adverse Effect
4	10920 S. Princeton Avenue	Romanesque Revival-Style Church	Eligible for Listing in NRHP, Criteria A and C	No Adverse Effect
5	11321 S. Wentworth Avenue	Roseland Community Hospital Nurses Home	Eligible for Listing in NRHP, Criterion A	No Adverse Effect
6	133-139 E. Kensington Avenue	Former Venetian Hall	Eligible for Listing in NRHP, Criterion A	No Adverse Effect
7	11431-11433 S. Michigan Avenue	Commercial	Eligible for Listing in NRHP, Criterion A	No Adverse Effect
8	11445-11447 S. Michigan Avenue	Mixed-Use Commercial/Residential	Eligible for Listing in NRHP, Criteria A and C	No Adverse Effect
9	11451 S. Michigan Avenue	Commercial	Eligible for Listing in NRHP, Criteria A and C	No Adverse Effect
10	11452 S. Indiana Avenue	Single-Family Residence	Eligible for Listing in NRHP, Criterion C	No Adverse Effect
11	11725 S. Perry Avenue	Scanlan Elementary School	Eligible for Listing in NRHP, Criteria A and C	No Adverse Effect
12	11445 S. State Street	George William Curtis Public School	Eligible for Listing in NRHP, Criteria A and C	No Adverse Effect
13	13100 S. Doty Avenue	Carver Military Academy High School	Eligible for Listing in NRHP, Criteria A and C	No Adverse Effect
14	Multiple	53 Residences Contributing to Altgeld Gardens-Philip Murray Homes (AGPMH) National Register Historic District	Contributing to NRHP District, Criteria A, B, and C	No Adverse Effect
15	13015 S. Ellis Avenue	By The Hand Club, included in (AGPMH) Historic District	Contributing to NRHP District, Criteria A, B and C	No Adverse Effect
16	13100 S. Ellis Avenue	Grocery / Retail Building, included in AGPMH Historic District	Contributing to NRHP District, Criteria A, B, and C	No Adverse Effect
17	940 E. 132nd Street	Administration / Maintenance Building, included in AGPMH Historic District	Contributing to NRHP District, Criteria A, B, and C	No Adverse Effect

Map ID	Address	Description	NRHP Status	Assessment of Effect
18	975 E. 132nd Street	CYC - Dorothy Gautreaux Child Development Center, within boundary of AGPMH Historic District	Update from Section 106 reports: Not Contributing to NRHP District	No Adverse Effect
19	941 E. 132nd Street	Children's Building, included in AGPMH Historic District	Contributing to NRHP District, Criteria A, B, and C	No Adverse Effect
20	951 E. 132nd Place	Altgeld Gardens Community Building No. 2, included in AGPMH Historic District	Contributing to NRHP District, Criteria A, B, and C	No Adverse Effect
21	Multiple (Public Housing Project)	Altgeld Gardens-Philip Murray Homes Historic District[1]	Previously Determined Eligible for NRHP, Criteria A, B, and C	No Adverse Effect

Notes:
1 Residences within the APE which contribute to the Altgeld Gardens-Philip Murray Homes Historic District include: 13022 S. Greenwood Avenue, 13030 S. Greenwood Avenue, 13072 S. Greenwood Avenue, 13200 S. Greenwood Avenue, 13240 S. Greenwood Avenue, 13088 S. Ellis Avenue, 13016 S. Ellis Avenue, 13023 S. Ellis Avenue, 13028 S. Ellis Avenue, 13047 S. Ellis Avenue, 13052 S. Ellis Avenue, 13059 S. Ellis Avenue, 13064 S. Ellis Avenue, 13083 S. Ellis Avenue, 13088 S. Ellis Avenue, 13101 S. Ellis Avenue, 13133 S. Ellis Avenue, 13201 S. Ellis Avenue, 13218 S. Ellis Avenue, 13226 S. Ellis Avenue, 13230 S. Ellis Avenue, 13262 S. Ellis Avenue, 13286 S. Ellis Avenue, 13241 S. Ellis Avenue, 13250 S. Ellis Avenue, 929 E 130th Place, 933 E 130th Place, 932 E. 131st Street, 967 E 132nd Place, 1000 E. 132nd Street, 1001 E. 132nd Street, 1008 E. 132nd Street, 1009 E. 132nd Street, 1032 E. 132nd Street, 1033 E. 132nd Street, 1044 E. 132nd Street, 1045 E. 132nd Street, 1068 E. 132nd Street, 1069 E. 132nd Street, 900 E. 133rd Street, 972 E. 133rd Street, 1000 E. 133rd Street, 1008 E. 133rd Street, 1032 E. 133rd Street, 1044 E. 133rd Street, 1068 E. 133rd Street, 901 E. 130th Place, 13029 S. Drexel Avenue, 13053 S. Drexel Avenue, 13065 S. Drexel Avenue, 900 E. 131st Street, 901 E. 131st Street, 13100 S. Ingleside Avenue. Source: JLK Architects

CTA found that the RLE Project would result in no noise or vibration impacts due to construction, no permanent vibration impacts, and 15 permanent moderate noise impacts after mitigation, none of which effect historic properties. Mitigation would consist of construction of a noise barrier approximately 3.5 feet in height (minimum height above the top of rail) to reduce noise transmission at and below the height of the tracks. Therefore, historic properties identified within the APE north of the 130th Street station would not be affected by RLE Project noise and vibration.

Analysis for the relocation of the 130th Street station found there would be no noise impacts and no mitigation measures required. For vibration, there would be no new adverse vibration impacts from the 130th Street station relocation.

Construction Impacts

During project construction, the visual, noise, and vibration effects are not anticipated to affect the characteristics that qualify properties for inclusion on the NRHP. Construction noise and vibration levels for the Preferred Alignment with mitigation described in **Section 4.5** would not exceed FTA-recommended construction impact criteria. Contractors would be required to avoid impact pile-driving methods in the vicinity of the historic Roseland Pumping Station.

Impacts Remaining After Mitigation

The RLE Project would result in visual changes along the Preferred Alignment and cause temporary changes in traffic patterns during construction. Although these changes would have direct and indirect impacts on historic properties in the APE, they would not compromise the integrity of historic properties in the APE, nor would they diminish the characteristics that qualify them for inclusion in the NRHP. Therefore, the identified impacts do not rise to the level of an adverse effect and no mitigation is required. This does not represent a change since the Draft EIS.

4.8 Hazardous Materials

This section summarizes the potential for encountering hazardous materials during operation and construction of the Preferred Alignment. Hazardous materials may include petroleum products, pesticides, organic compounds, heavy metals, or other compounds that could harm human health or the environment (42 CFR § 9601).

The nature and extent of contamination can vary widely. Early detection, evaluation, and determination of appropriate remediation of hazardous materials are essential to avoid or minimize the potential for hazardous material impacts from the project. The *Hazardous Materials Technical Memorandum* **(Appendix R)** contains additional details. **Table 4-13** summarizes the impact findings related to hazardous materials.

Table 4-13: Hazardous Materials – Impact Summary

Alternative	Permanent Impacts	Construction Impacts
No Build Alternative	No impacts	No impacts
Preferred Alignment	Beneficial	No adverse impacts

4.8.1 Regulatory Framework/Methods

Although NEPA requires an evaluation of potential impacts related to hazardous materials, it does not define impact analysis thresholds for determining potential adverse impacts. For the purposes of this impact analysis, a hazardous material impact would be considered adverse if it would result in the following:

- Harm to human health or the environment through the routine transport, use, or disposal of hazardous materials
- Harm to human health or the environment through the accidental release of hazardous materials into the environment

Federal and state laws have been established for the protection of human health and the environment. At the federal level, the regulations include the following: the Resource Conservation and Recovery Act (RCRA) (42 USC § 6901 et seq); the Comprehensive Environmental Response, Compensation, and Liability Act (42 USC § 9601 et seq.); the Superfund Amendments and Reauthorization Act (42 USC § 9601 et seq.); the Clean Air Act (42 USC § 7401 et seq.); the Toxic Substances Control Act (15 USC § 2601); and the federal Occupational Safety and Health Act (29 USC § 651). At the state level, regulations and programs include the Illinois Environmental

Protection Act and the Illinois Occupational Safety and Health Program, with oversight by the Office of the State Fire Marshal. Locally, the City of Chicago Police Department, City of Chicago Fire Department, City of Chicago Department of Public Health, and City of Chicago Department of Assets, Information and Services regulate and oversee issues related to hazardous material.

The American Society for Testing and Materials International Standard E1527-13, *Standard Practice for Environmental Site Assessments* (the Practice) was used to perform Phase I Environmental Site Assessments (ESA) for the Preferred Alignment. Phase I ESAs were performed to satisfy the requirements of FTA through Standard Operating Procedure (SOP) 19 *Consideration of Contaminated Properties including Brownfields*. Limitations and exceptions from the Practice are defined as data gaps. The Practice defines a data gap as a lack of or inability to obtain required information despite good faith efforts of the environmental professional. The Practice requires the environmental professional to comment on the impact of significant data gaps on their ability to identify recognized environmental conditions (RECs). Data gaps identified are presented in all of the Phase I ESA reports prepared for the RLE Project. A corridor level Phase I ESA was prepared and is provided in **Appendix R**. In addition, 53 site-specific Phase I ESAs were prepared. The goal of the Practice is to identify RECs in connection with the Preferred Alignment. Further definition of a REC is provided below.

> A REC is defined by the Practice as the presence or likely presence of any hazardous substances or petroleum products in, on, or at the Subject Property: (1) due to a release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment.

Phase II ESAs were conducted using CTA-developed SOPs to be followed specifically for the RLE Project. Sampling and Analysis Plans were prepared for each Phase II ESA. Some Phase II ESAs included conducting ground penetrating radar (GPR) surveys and collecting industrial hygiene samples, including asbestos-containing materials (ACMs) and lead-based paint (LBP), within buildings, and conducting an inventory of the remaining universal and hazardous waste present, such as chemical wastes, lighting ballasts, and thermostats.

The Phase II ESA identified two categories of soil in the project study area. These categories are based on the levels of contamination encountered, if any, and defined based on regulatory levels and guidelines, where established by the Illinois Environmental Protection Agency (IEPA). The results from the samples collected as part of the Phase II ESAs were compared to the appropriate IEPA Tiered Approach to Corrective Action Objectives (TACO) Tier 1 Remediation Objectives (RO) for residential or industrial/commercial properties as well as the construction worker population presented in 35 IAC Part 742. Soil analytical results were compared to the Maximum Allowable Concentrations (MACs) outlined in 35 IAC Part 1100. Groundwater analytical results were compared to the Tier I ROs applicable to Class I and Class II groundwater resources presented in 35 IAC Part 742.

The results of the Phase II ESAs were analyzed and compared to the appropriate ROs and then classified into two categories for the proper handling of soil in the RLE Project:

- **Uncontaminated Soil**: Soil meeting all Tier 1 Soil Remediation Objectives (SROs) and MAC levels to be classified as uncontaminated soil that can be either reused on or off the RLE Project,

disposed of at an approved clean construction or demolition debris (CCDD) facility, or used as fill material at an uncontaminated soil fill operation (35 IAC 1100, Subpart F).

- **Contaminated Soil**: Soil exceeding the Tier 1 SROs and MAC for one or more contaminants. The soil is considered impacted, and any material removed as part of RLE Project construction is required to be disposed at a landfill permitted to accept the material.

The subsequent sections summarize the potential impacts of the No Build Alternative and Preferred Alignment from hazardous materials.

4.8.2 Existing Conditions

CTA conducted a Corridor Level Phase I ESA for the Preferred Alignment since the Draft EIS had conducted a hazardous materials assessment that was conducted prior to issuance of the requirements of SOP 19. The site reconnaissance for the Corridor Level Phase I ESA was conducted from June 8 to June 10, 2020. The Corridor Level Phase I ESA identified at total of 48 locations of potential concern: 26 on-site RECs, 18 off-site RECs, 1 controlled RECs, and 3 historical RECs for the Preferred Alignment. Additionally, six *de minimis* conditions were identified in the Corridor Level Phase I ESA. The Corridor Level Phase I ESA is provided in **Appendix R**.

CTA has also completed site-specific Phase I ESAs on the 48 locations of potential concern that had been identified with RECs in the Corridor Level Phase I ESA report and on additional properties that were not evaluated as part of the Corridor Level Phase I ESA due to refinement of engineering and identification of new locations for substations for the Preferred Alignment. The site-specific Phase I ESAs were conducted according to groupings of property owners and contiguous parcels of land. The 53 groupings included a total of 99 parcels of property. CTA prepared these 53 site-specific Phase I ESAs to further identify the potential for RECs associated with properties that would be needed for the RLE Project. **Table 4-14** shows the number of groupings containing RECs based on the site-specific Phase I ESAs that were conducted for the Preferred Alignment. **Appendix R** includes a figure showing the location of where the site-specific Phase I ESAs were conducted.

Table 4-14: Groupings Containing Potentially Hazardous or Regulated Materials

Type of Recognized Environmental Condition	Number of Groupings
On-Site and Off-Site REC	32
On-Site Only REC	1
Off-Site Only REC	14
None	6
Total Groupings	53

Source: CDM Smith 2021; EDI 2021, 2022; Wight & Company 2022

Based on the results of the site-specific Phase I ESAs there were a total of 78 parcels of property identified to have Phase II ESAs conducted. The 78 parcels were assembled into 31 groupings based on criteria including land ownership and adjacencies. The Phase II ESA work is ongoing as the CTA gains access to the sites in order to conduct the Phase II ESAs. CTA has performed 21 Phase II ESAs at the time of publication of this Final EIS. CTA will continue to pursue access to the remaining 23 parcels of property where Phase II ESAs were not conducted. The 23 parcels of property were

assembled into 10 groupings for Phase II ESAs. CTA presumed that there would be some contaminated soil present within the 10 groupings based on the RECs identified in the Phase I ESA report for those parcels. CTA is assuming full mitigation until a Phase II ESA is completed.

The Phase I ESA results in **Table 4-14** were used to evaluate impacts for the Preferred Alignment. **Table 4-15** lists the number of groupings by soil exceedance type based on the Phase II ESA investigations that have been conducted to date. The type of soil exceedances was used to determine which groupings have uncontaminated or contaminated soil and how the soil excavated from those groupings would be handled, either through reuse or off-site disposal. **Figures 4-24** through **4-26** show the groupings where Phase II ESAs were conducted and which groupings where CTA has not been provided access and therefore a Phase II ESA has not been conducted for those groupings to date.

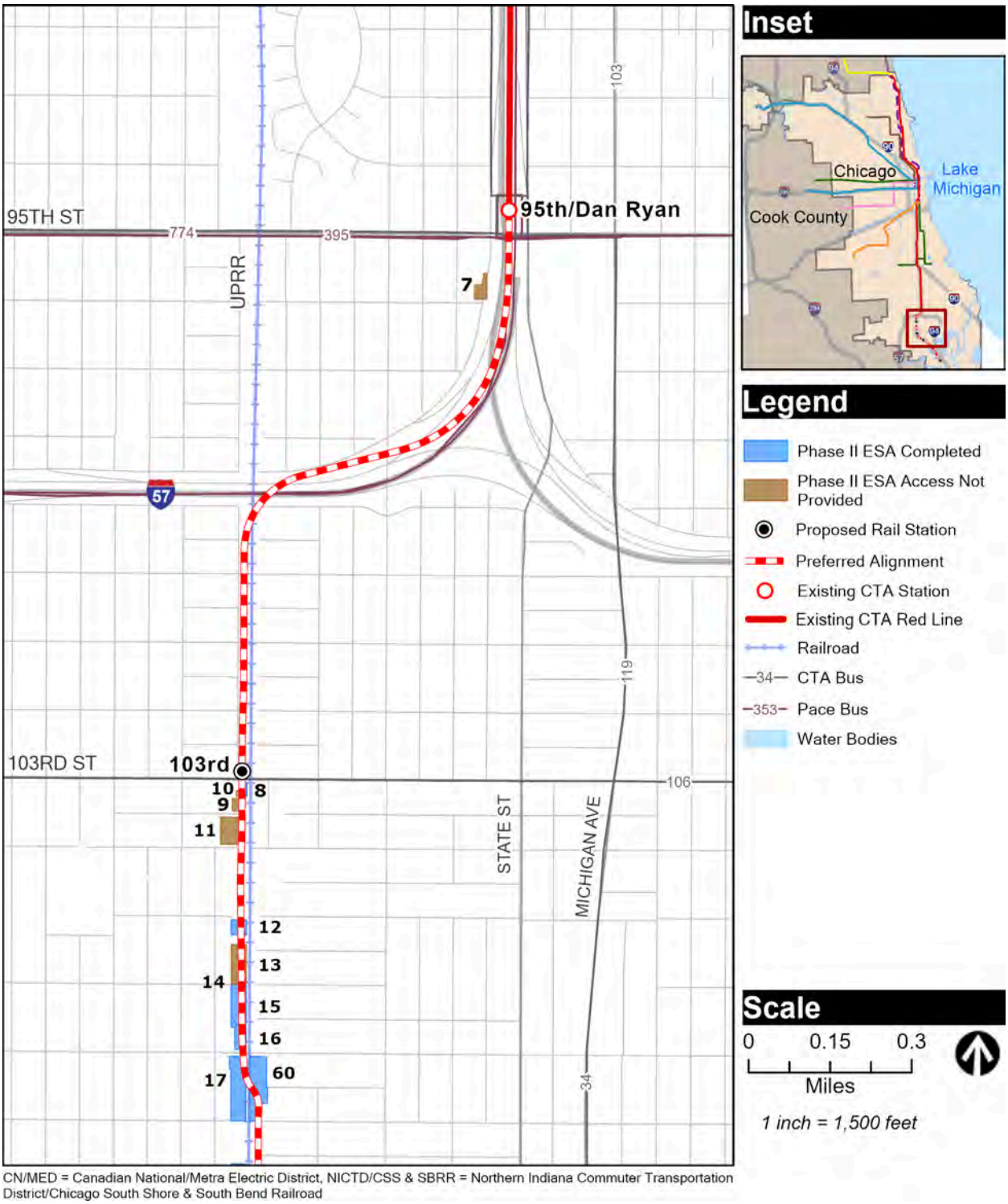
Table 4-15: Type of Soil Exceedance Encountered During the Phase II ESA Investigations

Type of Exceedance	Number of Groupings
TACO Tier 1 Residential SRO	19
TACO Tier 1 Industrial/Commercial SRO	17
Construction Worker SRO	16
MACs	20
Non-exceedances	1

The results of the Phase II ESAs were compared to the applicable TACO Tier 1 RO based on the end use of the property after the RLE Project would be constructed. In most cases, the end use would be as a transportation facility that would be considered an industrial/commercial property. However, some parcels that would be transferred to the either the Forest Preserves of Cook County (FPCC) or the Chicago Park District would have an end use that would be compared to the residential ROs.

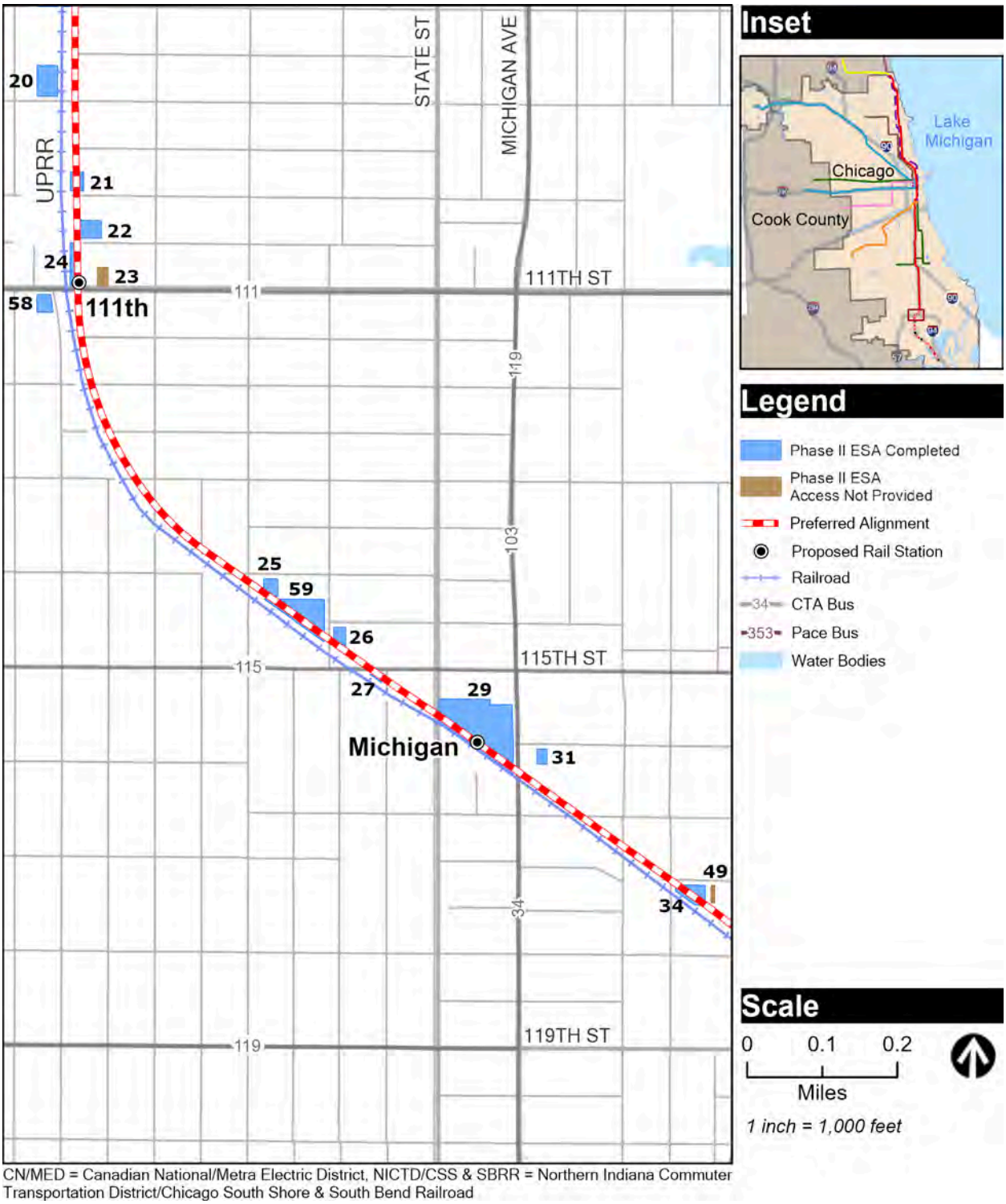
Contaminants detected in soil analytical samples were typical of an urban area and included volatile organic compounds, target analyte list inorganics, and polynuclear aromatic hydrocarbons (PNAs). Based on the results of the Phase II ESAs, CTA found that each grouping had the presence of contaminated soil in one or more boings within that grouping, except for one grouping. For the 10 groupings that CTA did not conduct Phase II ESAs it was presumed that there would be some contaminated soil present within the grouping.

GPR surveys indicated there are potential underground storage tanks (USTs) and the ACM and LBP surveys found that some of the groupings with buildings do have ACMs and LBP. Creosote railroad ties that are associated with the existing railroad sidings located on multiple sites in the RLE Project corridor need to be disposed at a facility that accepts railroad ties.



CN/MED = Canadian National/Metra Electric District, NICTD/CSS & SBRR = Northern Indiana Commuter Transportation District/Chicago South Shore & South Bend Railroad

Figure 4-24: Locations Where Phase II ESA Investigations Were Conducted and Locations Where Access Has Not Been Provided (1 of 3)



CN/MED = Canadian National/Metra Electric District, NICTD/CSS & SBRR = Northern Indiana Commuter Transportation District/Chicago South Shore & South Bend Railroad

Figure 4-25: Locations Where Phase II ESA Investigations Were Conducted and Locations Where Access Has Not Been Provided (2 of 3)

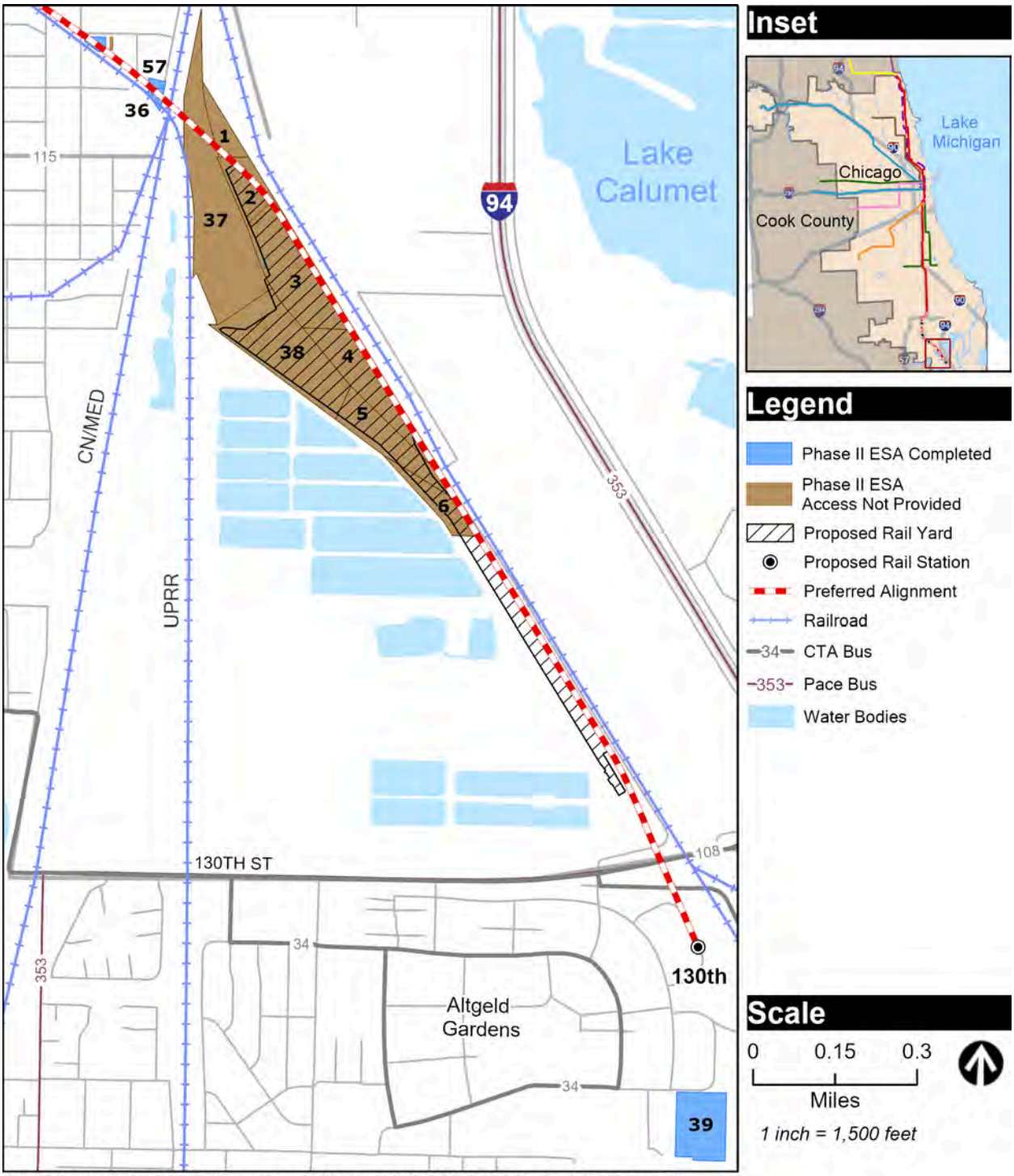


Figure 4-26: Locations Where Phase II ESA Investigations Were Conducted and Locations Where Access Has Not Been Provided (3 of 3)

4.8.3 Environmental Consequences

4.8.3.1 No Build Alternative

No adverse construction or permanent impacts related to hazardous materials would occur as part of the No Build Alternative. Potential benefits of remediation associated with the Preferred Alignment would not occur with the No Build Alternative.

4.8.3.2 Union Pacific Railroad Alternative - Preferred Alignment

Permanent Impacts

Implementation of the Preferred Alignment would result in beneficial impacts through the cleanup and/or removal of contaminated material (soil and groundwater) during construction. Demolition of buildings would result in beneficial impacts through cleanup and/or removal of ACM and LBP. Without implementation of the Preferred Alignment, this cleanup and removal would occur either at a later date or not at all.

Daily operations or maintenance activities under the RLE Project that require earthmoving in contaminated areas would have the potential to result in hazardous material impacts from accidental spills or hazardous material releases. Spills are most likely to occur during activities such as equipment and grounds maintenance. Materials typically used for these activities include fuel, oil, paints, solvents, cleaning agents, herbicides, pesticides, creosote, and PNAs. Examples of maintenance that could require earthmoving include at-grade track repair, underground utility work, and foundation repairs, although these activities are not expected to occur within the first 10–20 years.

The Preferred Alignment also has the potential for hazardous material impacts associated with adjacent freight rail lines. Due to the proximity of the freight lines to the Preferred Alignment, hazardous material spills or releases that occur along these railroads would have the potential to migrate and affect the Preferred Alignment API. These materials potentially exist along the railroad currently, but the Preferred Alignment would bring transit vehicles closer to them. Spills along the freight lines could occur from the use of chemicals for ground maintenance along the tracks. In addition, because these are freight lines, releases could occur from creosote used to preserve wood railroad ties; polynuclear aromatic compound deposition from diesel exhaust; asbestos dust from brakes; and previous releases of coal ash from engines. Freight lines might also transport hazardous material cargo, which could be released if there were a spill or accident. Releases from adjacent freight lines could affect transit passengers or operations. If adjacent freight lines have a release of hazardous materials, transit operations may need to be stopped to avoid traveling through the release area. First responders would follow the procedures and protocols for hazardous materials incidents established by the Hazardous Materials Unit of the City of Chicago Fire Department.

Impacts associated with the adjacent freight lines would be reduced by the freight lines' adherence to federal hazardous material transport regulations (49 CFR Parts 171–180) that among other things, specify requirements for the safe transportation of hazardous materials by rail and require rail carriers to conduct a security and safety risk analysis, to develop a security and safety risk plan that includes measures to mitigate risk to population centers, and to select the safest route.

The Preferred Alignment would not have permanent adverse impacts related to hazardous materials. Although there would be no adverse permanent impacts related to hazardous materials, CTA would adhere to all applicable federal, state, and local regulations, as well as existing system-wide hazardous material usage, storage, and disposal plans and procedures, further minimizing the potential for hazardous material impacts.

Construction Impacts

Construction of the Preferred Alignment would include subsurface excavation, which would result in the generation of a large quantity of soil that could contain contaminated materials requiring off-site disposal. The results of the Phase II ESAs show the locations of where contaminated materials would be encountered and indicate how the materials should be handled (see **Appendix R**). Hazardous materials typically used during construction, such as paints, solvents, fuels, and hydraulic fluids, could also be released accidentally during construction. In addition, there is the potential for encountering contaminated groundwater during construction.

Construction would require the demolition of existing structures that were likely constructed before 1978–1979. These structures may contain ACM and LBP that could result in a release of asbestos fibers and lead dust during construction. Prior to demolition of any structures, CTA would test for lead and asbestos and remediate, as necessary.

Maintenance and operation of railroad corridors typically include the use of fuel, oil, paints, herbicides, pesticides, creosote, and PNAs. Therefore, construction activities within or adjacent to existing railroad corridors may encounter these materials. There would be adverse construction-related impacts associated with the Preferred Alignment, but the impacts would be mitigated by implementing the BMPs and standard practices discussed below.

CTA would follow federal, state, and local laws and regulations regarding hazardous materials before and during construction. The following BMPs, at a minimum, would be implemented before and during construction to avoid and minimize the potential for impacts:

- CTA would continue to conduct Phase II ESAs on properties identified as RECs in the site-specific Phase I ESAs before purchasing a property. The assessments would include characterization and evaluation of the potential for encountering hazardous materials and contaminated soil.
- CTA would prepare a Soil Management Plan for the RLE Project.
- CTA would manage soil by two categories, uncontaminated and contaminated soil. Uncontaminated soils meet all Tier 1 SROs and MAC levels that can be either reused on or off the RLE Project, disposed of at an approved CCDD facility, or used as fill material at an uncontaminated soil fill operation (35 IAC 1100, Subpart F). Contaminated soil exceeds the Tier 1 SROs and MAC for one or more contaminants. The soil is considered impacted, and any material removed as part of RLE Project construction is required to be disposed at a landfill permitted to accept the material.

- CTA would remove and dispose of creosote railroad ties that are encountered during construction at an approved disposal facility.
- CTA would require that any USTs encountered during construction or previously identified during the Phase II ESAs be removed and disposed and any UST that was determined to be leaking would go through closure through the appropriate regulatory agency.
- CTA would close out any open leaking UST sites and obtain a No Further Remediation Letter from the appropriate regulatory agency.
- ACM, LBP, and hazardous material surveys of buildings or structures would be required before demolition to identify any ACM, LBP, and hazardous materials, such as polychlorinated biphenyls or mercury-containing equipment. Any ACM, LBP, and hazardous materials identified would be abated and disposed of in accordance with federal, state, and local regulations. Removal, abatement, and disposal of these materials would be completed by specialists that are trained and certified to conduct such activities.

The following specific and required plans would be developed before construction to further minimize or avoid the potential for hazardous material impacts:

- A Contaminated Material Management Plan that provides the procedures for identifying, characterizing, managing, storing, and disposing of contaminated soil and groundwater encountered during construction activities would be required. The plan would comply with all applicable federal and state cleanup standards and would cover the entire RLE Project, as it is assumed that all material has at least some level of contamination associated with it.
- If required, a Spill Prevention, Control and Countermeasure (SPCC) Plan to address the use, storage, and disposal of materials such as asphalt, fuel, paint, solvents, and cleaning agents would be developed. The SPCC Plan would provide BMPs to limit the potential for accidental releases of potentially hazardous materials.
- Construction Stormwater Pollution Prevention Plans, which describe methods to prevent or minimize stormwater runoff from encountering contaminated soil or other hazardous materials, would be required.
- Health and Safety Plans for construction activities would be developed by the contractors and approved by CTA before starting any work. The Health and Safety Plans would identify potential contaminants of concern, required personal protective equipment and procedures, and emergency response procedures.

Construction-related impacts would not be adverse after the implementation of the BMPs and standard practices.

Impacts Remaining After Mitigation

After BMPs and standard practices are implemented, the Preferred Alignment would not have permanent or construction-related adverse impacts due to hazardous materials. Implementation of

the Preferred Alignment could also result in beneficial impacts through the cleanup and/or removal of contaminated materials during construction.

4.9 Wetlands

This section describes the impacts of the Preferred Alignment on wetlands. The Water Resources Technical Memorandum (**Appendix S**) provides additional details, including the wetland delineation report. **Table 4-16** summarizes the wetland impact findings.

Table 4-16: Wetlands - Impact Summary

Alternative	Permanent Impacts	Construction Impacts
No Build Alternative	No impacts	No impacts
Preferred Alignment	Up to 15.7 acres of low floristic quality wetlands would be affected. Mitigation would not be required per the USACE Approved Jurisdictional Determination.	There would be up to 0.19 acre temporary wetland impacts on Kensington Marsh. The temporarily affected areas related to installation of a stormwater outlet in Kensington Marsh would be restored to preconstruction conditions and monitored for a period to be determined in coordination with MWRD. Any unexpected or unintentional impacts would be mitigated through restoration or as otherwise required by MWRD.

4.9.1 Regulatory Framework/Methods

Executive Order 11990 directs federal agencies to minimize the destruction, loss, or degradation of wetlands. It also assures the protection, preservation, and enhancement of the nation's wetlands to the fullest extent practicable during the planning, construction, funding, and operation of transportation facilities and projects.

The Illinois Interagency Wetlands Policy Act of 1989 (the Act [20 ILCS § 830 et seq.]) is intended to ensure that there is no overall net loss of Illinois' existing wetland acres or their functional values resulting from State-supported activities. The Act charges State agencies with a further duty to "preserve, enhance, and create wetlands where necessary to increase the quality and quantity of the State's wetland resource base." The Act uses the same definition for wetlands as in the 1987 U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual used by federal agencies in implementation of the federal Clean Water Act. All three parameters (hydric [wet] soils, hydrophytic [adapted to growing in saturated soil conditions] vegetation, and wetland hydrology) are required for a location to be considered a wetland; however, areas that have been restored or created as the result of mitigation or planned construction projects, and that function as wetlands, are also defined as wetlands under the Act even when all three wetland parameters are not yet present. The Navigable Waters Protection Rule was vacated by a federal court in September 2021. The definition of Waters of the U.S. (WOTUS), in the absence of the rule, is the same as that

outlined in the Draft EIS. The analysis of this document is conducted under the same pre-2015 WOTUS definition.

Shapefiles (geospatial data for geographic information system (GIS) software) collected during the 2015 Wetland Delineation were analyzed in ArcGIS against the API to identify wetland impacts. Additional potential wetland areas were noted during a May 11, 2021 site review with a representative of USACE. These wetlands were mapped by combining site observations with interpretation of aerial imagery. A "pre-application" meeting with USACE occurred on March 4, 2021, in advance of submitting an Approved Jurisdictional Determination (AJD) update request for wetlands in the project vicinity. A subsequent site review in advance of the AJD submittal was completed with USACE on May 11, 2021. USACE comments were incorporated into a formal AJD request that was submitted on September 15, 2021. A copy of this request, with associated attachments, is included in **Appendix S**. USACE determined that the API does not contain any waterways, wetlands or other areas considered "waters of the United States" under USACE jurisdiction in a letter dated January 19, 2022, included in **Appendix S.**

All wetlands located in the API are considered to be a permanent loss in this analysis. Temporary construction disturbance is anticipated to occur entirely within this API. The final disturbance area is expected to be smaller than the identified API.

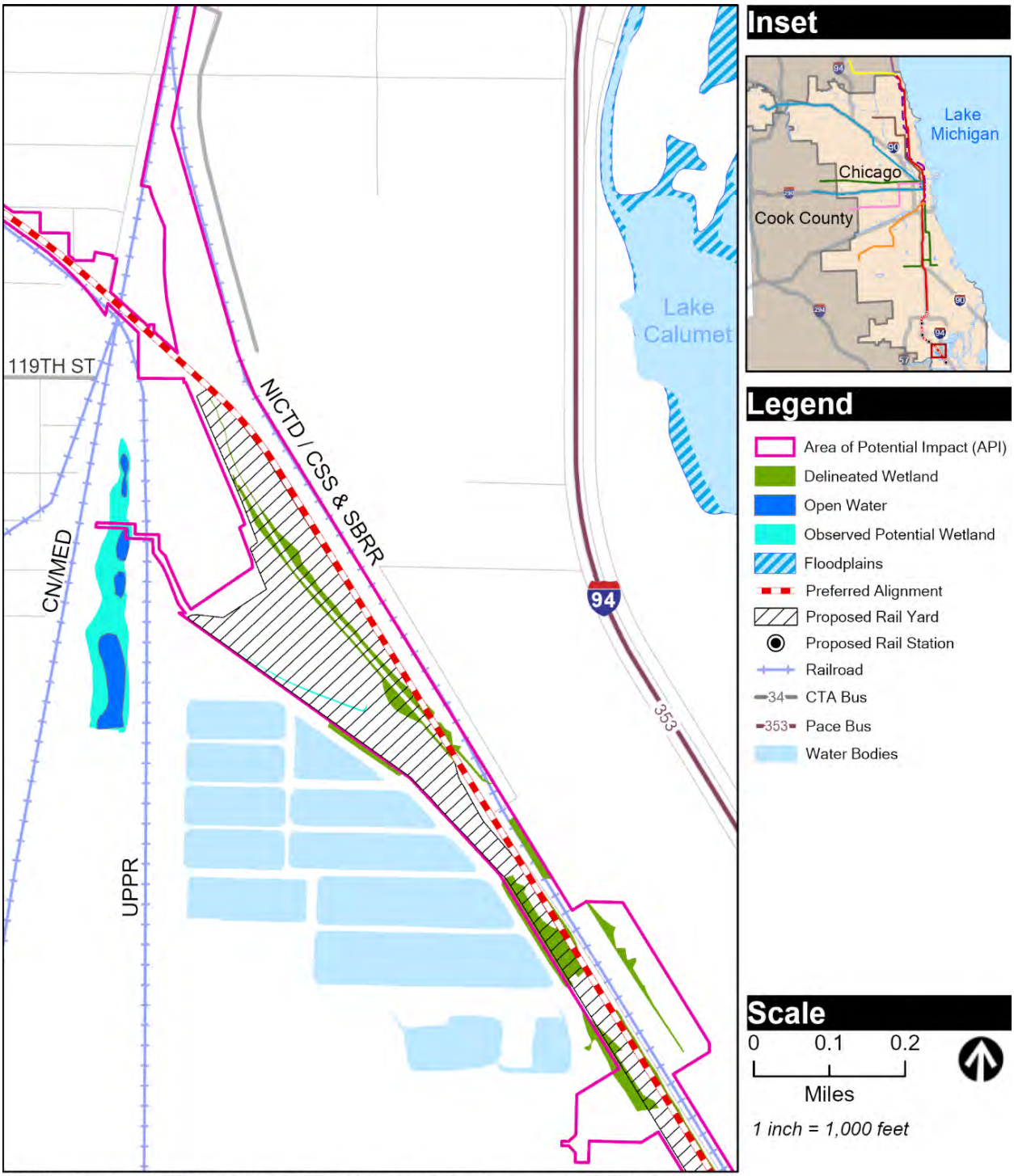
4.9.2 Existing Conditions

The existing wetland conditions remain functionally the same as evaluated during the Draft EIS. The 2015 wetland delineation mapped 18.72 acres of wetland. An additional 1.29 acres of potential wetlands were identified during the May 11, 2021 meeting with USACE. These areas are assumed to meet the three point wetland criteria used by USACE. Most of the Preferred Alignment is urbanized with underground drainage and does not contain wetlands or areas that could contain wetlands. South of the CN/MED tracks, the area near the 120th Street yard and shop and 130th Street station is less developed and has flat topography. There are depressions with some standing water. These depressions do not exhibit connectivity through drainage systems. Fill and other manmade features define most of the wetland boundaries. Isolated depressions within the flat topography, combined with the highly compacted soils, lead to the development of wetland conditions in this area.

Kensington Marsh is proposed to be a receiving location for treated stormwater from the 120th Street yard and shop. Kensington Marsh is an MWRD developed compensatory mitigation property approved by USACE in 1985 to offset impacts related to construction of the nearby MWRD facilities. The total marsh area is approximately 9 acres. The marsh consists of open water areas surrounded by emergent wetland vegetation. The vegetated portions of the marsh are dominated by common reed (*Phragmites australis*).

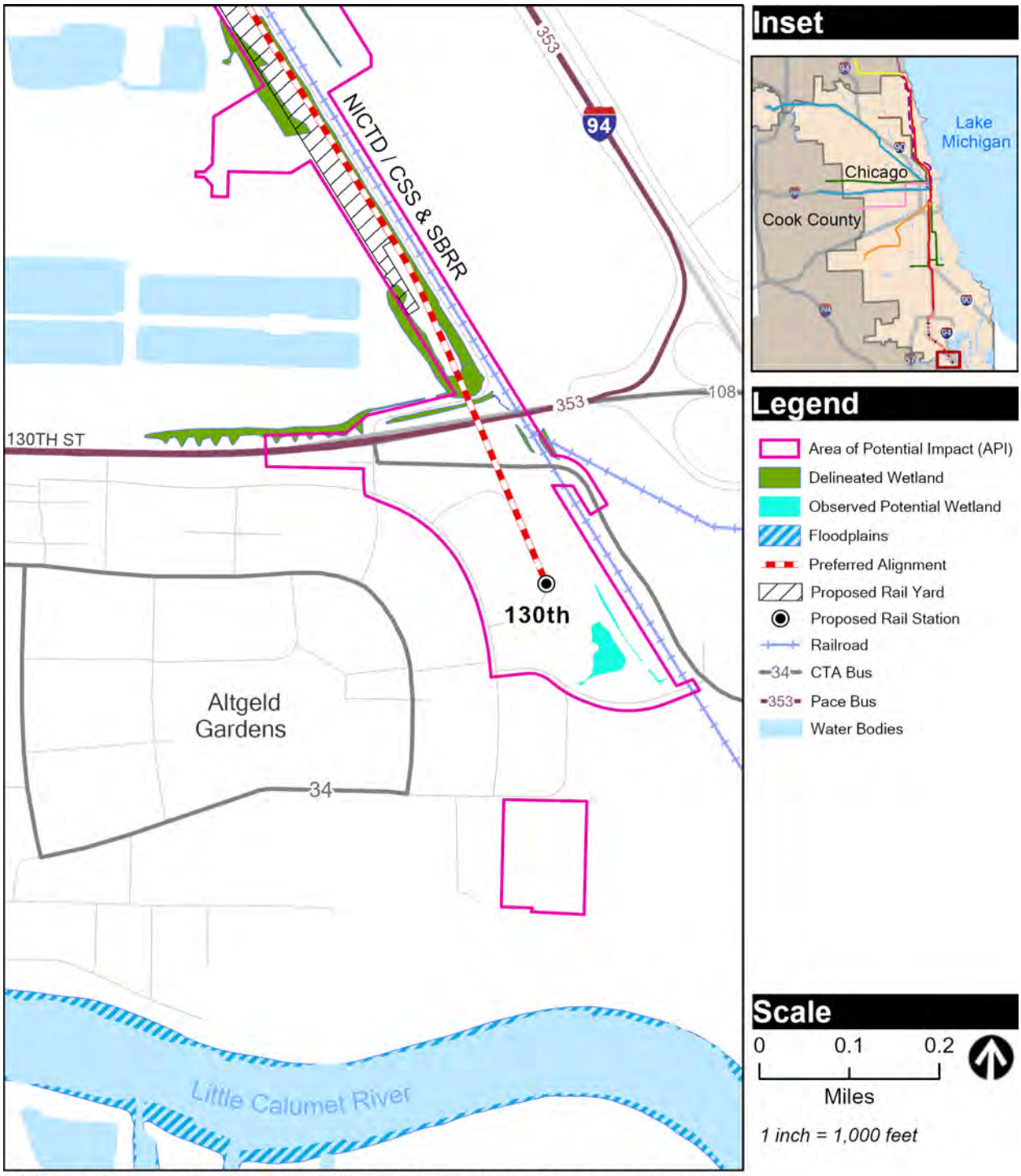
All wetland areas identified throughout this area are of low floristic quality and wetland function. Most of the wetlands are dominated by common reed, often in dense monotypic stands. There are no High Quality Aquatic Resources in the API or mapped on adjacent properties. **Figure 4-27** shows an example of typical wetland composition and quality in the API. The wetlands shown below are located north of 130th Street. **Figures 4-28** and **4-29** show the locations of wetlands delineated in 2015 within the API.

Figure 4-27: Existing Wetlands Delineated in the Area of Potential Impact North of 130th Street



CN/MED = Canadian National/Metra Electric District, NICTD/CSS & SBRR = Northern Indiana Commuter Transportation District/Chicago South Shore & South Bend Railroad

Figure 4-28: Wetlands Delineated in the Area of Potential Impact (1 of 2)



CN/MED = Canadian National/Metra Electric District, NICTD/CSS & SBRR = Northern Indiana Commuter Transportation District/Chicago South Shore & South Bend Railroad

Figure 4-29: Wetlands Delineated in the Area of Potential Impact (2 of 2)

4.9.3 Environmental Consequences

4.9.3.1 No Build Alternative

There would be no permanent or construction impacts on wetlands as a result of the No Build Alternative.

4.9.3.2 Union Pacific Railroad Alternative - Preferred Alignment

Permanent Impacts

The Draft EIS identified 15.34 acres of impact to wetlands. The Preferred Alignment would affect up to 15.7 acres of wetlands, including a small quantity of wetland area limited to the footprint of a culvert outlet into Kensington Marsh. The nature of impact, fill of wetlands, remains the same as that identified in the Draft EIS. Fill of wetlands would be necessary due to placement of the yard and shop, mainline tracks, and supporting infrastructure. All wetlands in the API are assumed to require total fill in the absence of final grading limits. All federal, state, and local regulations regarding wetland impacts would be adhered to. The USACE will not require mitigation, based on the information documented in the AJD. While no mitigation measures nor commitments are applicable based on the area of potential impacts associated with the 30 percent plans, CTA would comply with all federal, state, and local regulations regarding wetland impacts for the RLE Project.

Construction Impacts

Temporary construction access for installation of a stormwater outlet to Kensington Marsh would necessitate temporary impacts on wetlands. Temporary impacts on the marsh would not exceed 0.19 acre. Temporary affected areas would be restored to pre-construction conditions and would be monitored for a period to be determined in coordination with MWRD. USACE determined they do not object to utilization of Kensington Marsh, provided that coordinated BMPs are implemented. In addition to restoration, BMPs would include nine proposed detention ponds per 30 percent design, which would limit runoff volumes. If modifications are made during final design regarding the outflow or use of detention ponds to limit runoff volumes, then CTA would coordinate with the USACE for concurrence. Construction staging areas would be sited outside of wetlands as much as practicable, but if there were any temporary impacts, those areas would be restored to wetlands after construction. If any staging area is proposed to be sited outside of the previously cleared area, then contractors would coordinate with CTA to review the proposed site for the presence of wetlands.

Impacts Remaining After Mitigation

Impacts on wetlands would be mitigated through adherence to federal, state, and local regulations. No impacts would remain after mitigation.

Chapter 5 Indirect and Cumulative Impacts

While the other chapters of the Final EIS provide analysis and findings on direct impacts of the project, NEPA also requires the consideration of the potential indirect and cumulative impacts of federally funded projects.

5.1 Regulatory Framework/Methods

The regulatory framework and methodology for reviewing indirect and cumulative impacts is largely the same as that used during the Draft EIS. In brief, indirect impacts, also known as secondary impacts, are defined under 40 CFR § 1508.8. As defined, indirect impacts are caused by the project or plan, but are separated from direct impacts by time and/or distance (yet still in the foreseeable future). Indirect impacts include induced growth and related environmental impacts, such as changes to land use patterns, population density or growth rates, and related impacts on air quality, water, and other natural systems. Cumulative impacts are defined under 40 CFR § 1508.7 as the aggregate result of the incremental direct and indirect effects of a project or plan, the effects of past and present actions, and impacts of reasonably foreseeable future actions by others on resources of concern.

To determine the potential indirect impacts of this project, CTA followed the eight-step method described in the NCHRP Report 466. The API boundary for the analysis was based on all proposed elements of the project, including construction limits and proposed property acquisitions. For the analysis, CTA reviewed the findings from the environmental resource analyses to properly evaluate the potential for indirect impacts on land use, transportation, and economic development plans and goals, as well as to identify notable or sensitive resources such as community facilities, historic resources, and other vulnerable or unique resources. The potential for and impacts of induced growth that could result from this project were then determined through a qualitative assessment of changes in growth and development expected as a result of the increases in transit accessibility from the project. Based on these factors, a determination was made on the potential and magnitude of impacts that could result from the project and whether those impacts would be consistent with surrounding growth, trends, and goals within the API.

To identify the potential for cumulative impacts, CTA followed the 11-step method identified in CEQ guidance described in *Cumulative Impacts Technical Memorandum* (**Appendix T**) to meet best practice methods for conducting this type of analysis. Areas within a ½ mile of the project corridor (consistent with other analyses conducted for this Final EIS) were used to evaluate the potential for indirect effects. CTA reviewed applicable current and future regional and local plans.

5.2 Existing Conditions

Reasonably foreseeable projects include projects identified by CMAP in its *FFY 2019-2024 Transportation Improvement Program* (TIP) and known private development and redevelopment projects. **Appendix T** presents a list of projects in the vicinity of the RLE Project and analyzes the potential cumulative impacts in more detail. None of the projects in the *FFY 2019-2024 TIP* and its amendments would have the potential to have cumulative impacts together with the RLE Project.

The specific projects discussed in this section were evaluated as having the potential for cumulative impacts when considered with the RLE Project. The projects that were considered were within the general vicinity of the RLE Project, anticipated to be completed before the start of construction in 2025, or that may be under construction during the RLE Project's construction period of 2025 through 2029. Projects identified in CMAP's *ON TO 2050* comprehensive regional transportation plan were also considered. The analysis was based on known projects from information available from CTA, the City of Chicago, CMAP, the Chicago Region Environmental and Transportation Efficiency Program (CREATE), IDOT, the Illinois State Toll Highway Authority (ISTHA), Metra, and NICTD.

Past, present, and reasonably foreseeable future actions that have the potential for benefits or impacts include the CREATE 75th Street Corridor Improvement Program (CIP); Metra's Southeast Service (SES); NICTD's West Lake Corridor Project; CTA's Red and Purple Modernization (RPM) Program; the Roseland Plaza Redevelopment; the Pullman Historic District; and the Altgeld Gardens-Philip Murray Homes Historic District. Updates to these actions since the Draft EIS include:

- The CREATE 75th Street CIP would provide improvements in the Union Pacific Railroad (UPRR) corridor. The program and rail traffic expectations remain in line with those at the time of the Draft EIS. Initial contracts have been let, and final engineering design on other contracts are ongoing.

- Metra's SES expansion project consists of 33.2 miles of proposed rail line from LaSalle Street station to a terminal near Balmoral Park. The rail line would run along four existing railroad rights-of-way. The SES would, if implemented, run along the UPRR tracks adjacent to the RLE Project. The SES expansion project is part of the *Metra Strategic Plan—Systemwide Cost Benefit Analysis of Major Capital Improvements*, Final Report, January 16, 2019. No formal timeline has been announced.

- NICTD is constructing the West Lake Corridor Project, an approximately nine-mile alignment that would extend the NICTD South Shore Line from Dyer, to Hammond, Indiana. The West Lake Corridor Project alignment is east of the RLE Project. A Final EIS/ROD was issued for the project by FTA in March 2018 and the Design/Build contractor was selected by NICTD in 2020. Construction is underway and completion is expected in late 2024 with passenger service starting in early 2025.

- CTA's RPM Program is a series of proposed improvements to the North Red Line (from just north of Belmont Station to the northern terminus of the Red Line at Howard Station) and the Purple Line (from just north of Belmont Station to Linden Station). The first phase of the RPM Program is currently under construction and is anticipated to be completed by 2025.

- The Crown Commercial Real Estate & Development - Roseland Plaza redevelopment is a 6-acre site zoned commercial, located at the Michigan Avenue station location (in the area bounded by the UPRR tracks, State Street, 115th Street, and Michigan Avenue). It was expected to be a strip mall. The project has not moved forward since the Draft EIS.

- The Pullman Historic District was declared a National Monument on February 19, 2015. The park is located east of the RLE Project. The designation as a National Monument under the National Park Service is expected to bring economic opportunities to the surrounding communities.

- Altgeld Gardens-Philip Murray Homes Historic District's nomination for the National Register of Historic Places by the Chicago Housing Authority (CHA) was approved April 13, 2022. The designation as a historic district may bring economic opportunities to the Altgeld Gardens neighborhood.

5.3 Environmental Consequences

5.3.1 No Build Alternative

The No Build Alternative is defined as the existing transportation system plus any committed transportation improvements that are already in the *FFY 2019-2024 TIP* and its amendments. TIP projects consist of several road improvement projects including resurfacing and coordination of signal timing, work on Metra's MED facilities to replace electrical systems, construction of a bicycle/pedestrian multi-use trail south and east of the RLE Project, and preservation of historic facilities.

Indirect Impacts

The lack of improved transportation options and lack of new infrastructure would do little to reverse the disinvestment that has occurred over the past several decades in the communities surrounding the RLE Project.

Cumulative Impacts

The RPM Program and West Lake Corridor Project are reasonably foreseeable actions that would result in beneficial air quality impacts because they would increase ridership, which would reduce trips made by vehicles. The cumulative impacts would result in a reduction of air emissions and would be beneficial. The air quality benefits of the No Build Alternative would be smaller in scale than for the Preferred Alignment.

5.3.2 Union Pacific Railroad Alternative - Preferred Alignment

Indirect Impacts

The Draft EIS stated that the implementation of the East or West Option would have the potential for indirect benefits to the economy. This holds true for the Preferred Alignment in the Final EIS, and there would be potential for redevelopment from accessibility to new employment opportunities, attraction of new development near RLE stations, and overall livability improvements. The private sector would likely perceive the Preferred Alignment as a public-sector commitment to improve the communities adjacent to the RLE Project and regain confidence in the economic development market of the area. The station and retail improvements may contribute to

a southward expansion of the current commercial and entertainment district along Michigan Avenue between 111th and 115th Streets.

Concurrent with the Final EIS, CTA developed a Transit-Supportive Development (TSD) Plan based on the community's vision for future development on the RLE corridor. It identifies methods and resources to enable mixed-use development and enhance economic vitality, multimodal connectivity, and the pedestrian environment. The TSD Plan utilizes an equitable Transit Oriented Development (eTOD) planning approach. eTOD planning seeks to promote development without displacement and realize community-focused benefits such as affordable housing, local economic development, and environmental sustainability. In order to achieve this, the TSD Plan incorporates policies to preserve existing housing stock and build new affordable housing, while stimulating economic development and encouraging new construction on vacant lots. CTA is working closely with Chicago's Department of Housing, DPD, and the Cook County Land Bank Authority to identify the best policies and programs to support existing residents within the RLE community. USEPA has numerous opportunities for local partnerships that could complement transit-supportive development, promote sustainable communities, and support broader health-focused community revitalization efforts near the RLE stations. There is currently high vacancy amongst existing properties within the project area. It is anticipated that economic development would happen gradually over time and parallel with community members experiencing increased access to increased employment and home ownership.

The City of Chicago's ETOD Policy Plan also outlines a set of actions for the City of Chicago to take to advance racial equity, wealth building, public health, and climate resilience goals. This initiative also prioritizes existing residents and supports the TSD Plan goal to prevent displacement due to increased development (City of Chicago 2021).

The TSD Plan may be a driver for more vibrant, prosperous, and resilient neighborhoods that put people of color and lower- and moderate-income residents at the center. A vital part of this plan is a community engagement and ownership process that incorporates and realizes the vision of residents and stakeholders from the surrounding neighborhoods throughout the development of the plan.

Cumulative Impacts

The Draft EIS stated that the CREATE 75th Street CIP, the West Lake Corridor Project, and the Metra SES line are reasonably foreseeable actions that would result in both beneficial and adverse impacts to the community. It stated that the permanent cumulative impacts of these projects would be beneficial to the surrounding communities because they would improve access to jobs, places of interest, and residences.

The potential for an increase in crash frequencies at the UPRR at-grade rail crossings adjacent to the RLE stations would be mitigated by creating parking on the same side of the tracks so riders that use park & ride facilities would not have to cross the UPRR tracks. CTA would coordinate with the UPRR regarding fencing or other appropriate design elements, and the agreed upon design features would be included in final design of the RLE Project to deter trespassing into UPRR property. Pedestrian gates would also be included in final design to enhance at-grade crossing protections. These proposed at-grade crossing improvements are indicative of the level of

protection expected. As coordination with the railroad and Chicago Department of Transportation (CDOT) take place, details may change, but the protection level would be similar.

CTA anticipates the incremental impact from reasonably foreseeable future actions to be more efficient mobility and access to jobs, retail, and places of interest within the project corridor for Chicago residents and visitors. CTA expects that over a period of time retail establishments and places of interest would benefit from the more efficient access to their locations.

The demolition of the CHA Blocks 11, 12, and 13 within the Altgeld Gardens neighborhood has contributed cumulatively on the relocation of the 130th Street station.

A minor change from the Draft EIS is that the extension of the 130th Street station south of 130th Street would lessen the opportunity for a direct connection between a potential NICTD South Shore Line station. The 130th Street station would be located farther (approximately 370 feet) from the NICTD South Shore Line than it was at the time of the Draft EIS. If NICTD should ever plan for a station in the vicinity of the 130th Street station in the future, multimodal connections would not be precluded.

Moving the 130th Street station south of 130th Street would improve pedestrian connections to the Beaubien Woods Forest Preserve and its amenities. The closure of Old 130th Street would eliminate a connection to the access road into the Beaubien Woods Forest Preserve from Old 130th Street. Closure of this connection would not result in an adverse impact because the primary access to Beaubien Woods Forest Preserve is from Ellis Avenue to Greenwood Avenue to 132nd Street. Mitigation measures to offset the access modifications include the transfer of two City-owned parcels, which would add 7 acres to the Beaubien Woods Forest Preserve.

Beneficial cumulative impacts would occur with the increase in the number of parklands throughout the neighborhoods in the form of Chicago Park District pocket parks, increasing residents' ability to access open space and recreational areas. Improved transit near the communities along the corridor would result in improved access to parklands and community facilities beyond the immediate area.

Noise impacts would occur at locations close to the Preferred Alignment and would be less at locations farther away. Based on 30 percent design, a minimum 3.5-foot high noise barrier (above the top-of-rail elevation) would mitigate all severe noise impacts associated with the implementation of the Preferred Alignment; however, 15 moderate noise impacts would remain after mitigation. Noise impacts would be analyzed for the final design of the RLE Project to confirm impact thresholds would be met as defined in this Final EIS. If there is an increase in the number or length of freight trains on the UPRR tracks, then there would be some cumulative impacts despite mitigation of the RLE Project.

Cumulative impacts to the neighborhoods adjacent to station areas would include the visual impacts of future developments that may occur in addition to the visual impacts of the RLE Project.

The RLE Project station improvements coupled with the INVEST South/West focus along the Michigan Avenue corridor and TSD Plan for the station areas would help to activate the neighborhood. The Far South Side of Chicago, including historic resources, would benefit from the

investment within the community. In addition, the proximity of the station and improved transit access and mobility adjacent to Altgeld Gardens would result in beneficial cumulative impacts to the Altgeld Gardens-Philip Murray Homes Historic District.

The anticipated increase in freight train volumes on the UPRR tracks, pedestrian volumes, and motor vehicle volumes near the 103rd Street, 111th Street, Michigan Avenue, and 130th Street stations would have cumulative and permanent adverse impacts on safety. Mitigation measures at the UPRR at-grade rail crossings adjacent to the RLE stations would include the implementation of at-grade warning device enhancements including pedestrian gates and improvements for Americans with Disabilities Act compliance in the final design of the RLE Project in coordination with the UPRR, Illinois Commerce Commission, CDOT, and CCDoTH. CTA would coordinate with CDOT to determine additional pedestrian improvements to enhance safety for pedestrians crossing the roadways to access the four RLE stations. CTA has provided RLE Project traffic analysis to agencies of jurisdiction through ongoing coordination and recommended improvements as documented in the Final EIS through 30 percent design. CTA would coordinate intersection improvements with agencies of jurisdiction (including IDOT, CDOT, and CCDoTH) for intersections affected by the change in traffic volumes and patterns associated with the final design of the RLE Project. The mitigation measures will be based on actual (measured) traffic volumes, agency requirements, coordination within the traffic network, and any traffic demand management and/or traffic calming measures being implemented at the time of mitigation. Agency requirements may include level of service analysis under Complete Streets guidelines, examining an overall level of service for pedestrians, bicycles, transit modes, and other vehicles (rather than placing an emphasis on the movement of automobiles). There would be beneficial cumulative impacts to safety and security with an improvement in traffic control and pedestrian crossing once mitigation measures are in place.

The RPM Program and the NICTD West Lake Corridor Project would result in beneficial air quality impacts because they would increase ridership, which would reduce trips made by vehicles.

Chapter 6 Resources with Limited or No Adverse Impacts

This chapter describes the environmental resource categories for which the RLE Project would have limited or no adverse impacts.

6.1 Air Quality

Under authority of the Clean Air Act (CAA) and its amendments, the U.S. Environmental Protection Agency (USEPA) has established National Ambient Air Quality Standards (NAAQS) for criteria pollutants to protect the public health and welfare (U.S. Congress 1970, 1977, 1990). The criteria pollutants that are of greatest concern to the transportation sector include carbon monoxide (CO), nitrogen dioxide (NO_2), ozone, particulate matter with an aerodynamic diameter of 10 micrometers (µm) and less (PM_{10}), and particulate matter with an aerodynamic diameter of 2.5 micrometers and less ($PM_{2.5}$). The NAAQS are summarized in the *Air Quality Technical Memorandum* (**Appendix U**). The RLE Project would be located in an area classified as nonattainment for ozone, which is a region where recent air quality monitoring data have exceeded the ozone NAAQS. Since publication of the Draft EIS, the area has been redesignated as unclassifiable/attainment for $PM_{2.5}$.

Regional emissions of air pollutants under the Preferred Alignment are based on regional vehicle miles traveled (VMT). VMT are the total number of miles driven by all vehicles and would decrease under the RLE Project resulting from passenger diversions to the Red Line. The Draft EIS evaluated regional vehicular emissions from VMTs and predicted slightly lower emissions of greenhouse gases (GHG), $PM_{2.5}$, and mobile source air toxics (MSAT) under the UPRR Rail Alternative as compared with the No Build Alternative. The Preferred Alignment would not change the regional VMT from the VMT disclosed in the Draft EIS. The regional emissions of GHGs, $PM_{2.5}$, and MSAT under the Preferred Alignment would be the same as those evaluated in the Draft EIS. The Preferred Alignment would reduce VMTs, and, therefore, it would slightly lower regional emissions of GHGs, $PM_{2.5}$, and MSAT as compared with the No Build Alternative.

The Draft EIS predicted CO concentrations from traffic at congested intersections and determined that the modeled one-hour and eight-hour CO concentrations for the UPRR Rail Alternative would be well below the NAAQS. The environmental consequences of the Preferred Alignment on vehicular traffic are not markedly different than those of the East and West Options of the UPRR Rail Alternative in the Draft EIS. Because the modeled CO concentrations in the Draft EIS were well below the NAAQS and that vehicular traffic would not markedly change under the Preferred Alignment, CO concentrations under Preferred Alignment are not anticipated to exceed the NAAQS.

Because nearly all of the project-related air pollutant emissions would come from motor vehicles and because the project-related motor vehicles would move throughout the entire project area defined in the Draft EIS, the results of the air quality analysis apply equally to the Preferred Alignment as they would to the East and West Options in the Draft EIS. The Draft EIS concluded that it makes no difference in the air quality analysis whether the Red Line trains would be on the east side or the west side of the UPRR right-of-way, and that the air pollutant emissions would be

the same for the East and West Options. In addition, the air pollutant emissions associated with the 120th Street yard and shop would not be sizable. As the changes to traffic from the Draft EIS to the Final EIS were not markedly different, traffic-related emissions under the Preferred Alignment would be similar to the impacts discussed in the Draft EIS.

Impacts during construction would be associated with temporary and localized emissions of particulate matter and exhaust from construction vehicles and equipment. Construction air emissions and mitigation measures under the Preferred Alignment would be similar to the East or West Options in the Draft EIS. Construction mitigation measures would include best management practices (BMPs) to reduce construction dust, to provide emissions controls on construction equipment, to use low-sulfur fuels, and to limit equipment operations such as excessive idling. In addition, the contractors performing primary construction activities would develop and implement a Dust Control Plan, which would address, in detail, how dust would be controlled at the construction site, the staging areas, and the access and egress routes. CTA would require contractors to follow Chicago's Clean Diesel Construction Ordinance, which would reduce the potential for construction-related air quality impacts. No additional construction mitigation measures would be required under the Preferred Alignment. Construction impacts on air quality would not be adverse after mitigation measures.

Because the RLE Project would be in a nonattainment area for ozone, the Preferred Alignment must conform to the State Implementation Plan (SIP) for ozone. Conformity for ozone can be demonstrated by documenting that the proposed project is specifically included in the conforming Regional Transportation Plan (RTP) and TIP. In its conformity analysis, CMAP concluded that the *ON TO 2050* RTP and the *FFY 2019-2024 TIP* meet all applicable requirements for conformity for the 8-hour ozone standard and the annual $PM_{2.5}$ standard (CMAP 2018c). The Draft EIS concluded that the RLE Project would conform to the SIP because the RLE Project was included in CMAP's *GO TO 2040* and would decrease $PM_{2.5}$ emissions. The RLE Project would still conform to the SIP because it is included in CMAP's *ON TO 2050* and TIP. In 2018 the USEPA approved IEPA's request to revise the state's designation for $PM_{2.5}$ from unclassifiable to unclassifiable/attainment, and a transportation conformity project-level analysis for $PM_{2.5}$ is not required.

Consistent with the findings of the Draft EIS, there would be no adverse impacts on regional and local air quality as a result of either the No Build Alternative or Preferred Alignment.

6.2 Water Quality

The Clean Water Act (33 USC § 1251) establishes the basic structure for regulating discharges of pollutants into waters of the United States and gives USEPA the authority to implement pollution control programs and actions, such as setting wastewater standards for industries. Section 10 of the Rivers and Harbors Act of 1899 (33 USC § 403) prohibits the unauthorized obstruction or alteration of any navigable water of the United States. Sole source aquifers are regulated under 40 CFR Part 149. There are no changes to the applicable state or local water quality regulations referenced in the Draft EIS.

Lake Michigan is the dominant topographic feature in the region and is approximately 4.8 miles from the RLE Project at its closest point to the Preferred Alignment. Lake Calumet is east of the

RLE Project, and south of the RLE Project is the Little Calumet River flowing westward. The Little Calumet River is on the Illinois 303(d) list (a list of waters where water quality is impaired or threatened); it is listed as impaired for mercury and polychlorinated biphenyl (IEPA 2018). No Total Maximum Daily Load has been developed for these pollutants, as described in the Draft EIS analysis.

The Illinois Coastal Management Program boundary follows 130th Street. The 130th Street station in the Draft EIS was outside this boundary. However, the relocated 130th Street station would be within the boundaries of the Illinois Coastal Management Program. **Figure 6-1** shows the boundary of the Illinois coastal zone. The 130th Street station would be located within previously developed land and would be designed to meet the policies of the Coastal Management Program.

Coordination with the Illinois Department of Natural Resources (IDNR), Illinois Coastal Management Program, occurred on November 20, 2020 and March 31, 2021 regarding the need for a federal consistency review. Per IDNR guidance, CTA submitted an initial federal consistency review request to IDNR on August 27, 2021 requesting a determination as to whether a federal consistency review would be necessary for the RLE Project. In a letter dated October 8, 2021, IDNR concurred that the relocated 130th Street station would comply with the enforceable policies of the Illinois Coastal Management Program and would be conducted in a manner consistent with the Illinois Coastal Management Program. Therefore, the relocated 130th Street station would have no permanent adverse impacts on the Illinois coastal zone; coordination with IDNR regarding the federal consistency determination has finalized. Coordination materials are included in the *Water Resources Technical Memorandum* (**Appendix S**).

Lake Michigan is the drinking water source for the City of Chicago and many of its suburbs. Groundwater is not a drinking water source and there are no sole source aquifers in proximity to the RLE Project (IEPA 2020). Due to the predominance of impervious surfaces throughout the communities adjacent to the RLE Project, minimal percolation to the underlying groundwater occurs**. Figure 6-1** shows waterbodies near the Preferred Alignment. There have been no substantive changes to the groundwater resources as described in the Draft EIS.

The Preferred Alignment would not cross any waterbody or result in any new structures or construction in a waterbody. There have been no substantive changes to the resources described in this section since the Draft EIS. There are no waterbodies present in the API, and there would be no impacts on waterbodies from the No Build Alternative or Preferred Alignment.

6.3 Floodplains

Executive Order 11988 requires the protection of floodplains. The Executive Order directs federal agencies to avoid direct or indirect support of floodplain development wherever there is a practicable alternative. The potential for floodplains in the vicinity of the Preferred Alignment was reviewed using the Federal Emergency Management Agency Flood Insurance Rate Maps. **Figure 6-1** shows the mapped 100-year floodplains in proximity to the Preferred Alignment. The Preferred Alignment would not cross a floodplain or result in any new structures or construction in a floodplain. There have been no markedly different changes to the resources described in this

section since the Draft EIS. There are no floodplains present in the API, and there would be no impacts on floodplains from the No Build Alternative or Preferred Alignment.

6.4 Vegetation and Wildlife Habitat

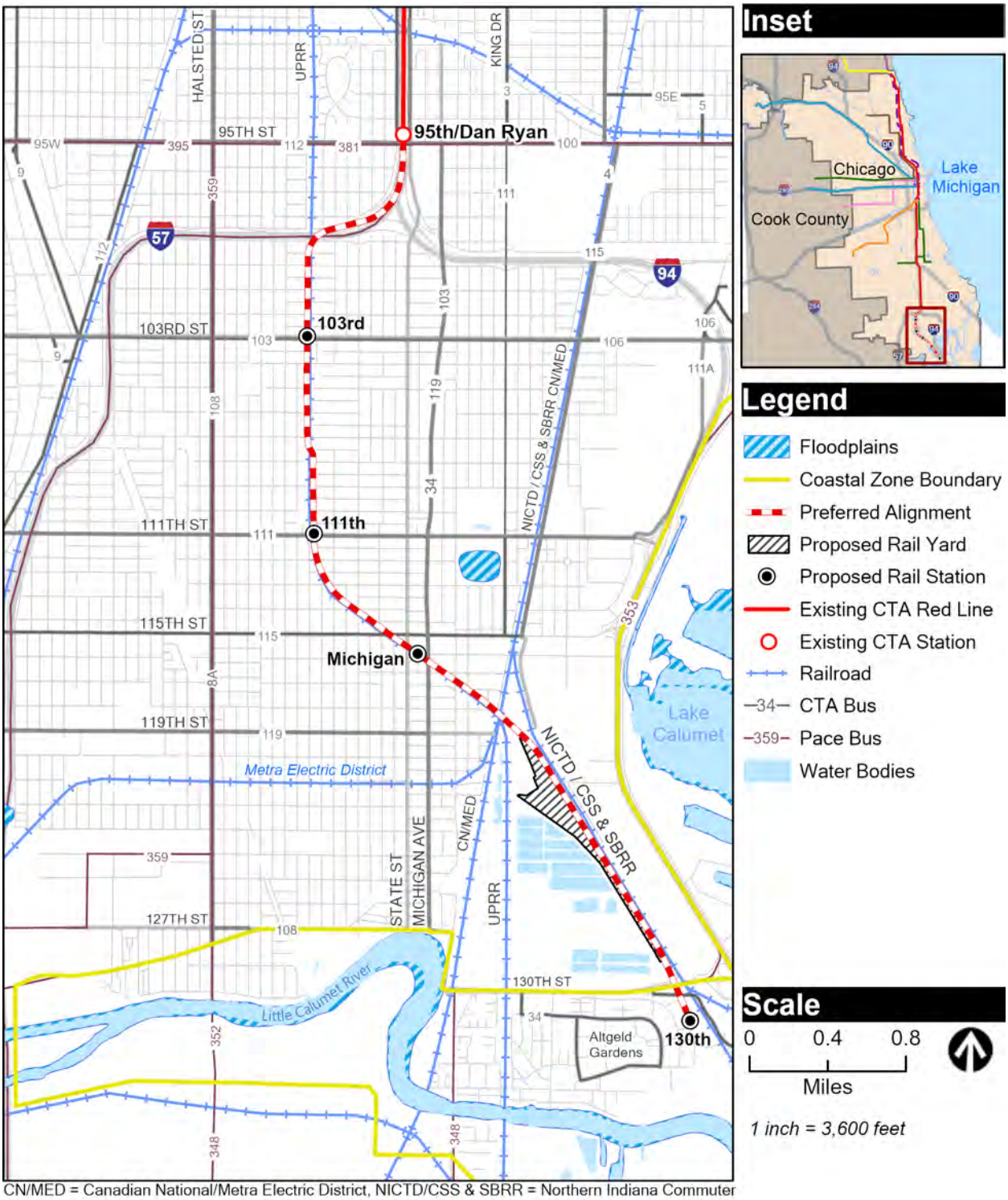
Vegetation and wildlife habitats are regulated on the federal level by the Endangered Species Act (16 USC § 1531), Migratory Bird Treaty Act (MBTA) (16 USC §§ 703–712), Fish and Wildlife Coordination Act (16 USC § 661–667e), and the Bald and Golden Eagle Protection Act (16 USC § 668–668c). There have been no substantive changes to the federal or state regulations on these resources since the Draft EIS. There are no local regulations requiring analysis of threatened or endangered species impacts; however, there are local regulations regarding the removal of landscape trees without a permit. There have been no substantive changes in local regulations on this resource since the Draft EIS.

Permanent impacts on vegetation and wildlife habitat in the Preferred Alignment include removal of up to 64.1 acres of trees from the API. The tree removal is mostly from the proposed construction of the 120th Street yard and shop and the 130th Street station. Reduction in habitat would occur in an area that is fragmented and somewhat isolated by surrounding industrial and transportation uses. The loss of trees would reduce migratory bird habitat. Migratory species passing through the Chicago urban core are likely to be adapted to urban habitat and are highly mobile, able to overcome industrial and land use barriers to more natural areas.

Vegetation removal was identified in the Draft EIS as up to 70.2 acres for the East Option and 76 acres for the West Option. The nature of permanent impacts has remained the same as those described in the Draft EIS. Tree removal mitigation measures would be required, as defined in the Draft EIS, including following local tree ordinances, timing of construction, and nesting bird surveys.

After the publication of the Draft EIS, CHA demolished Blocks 11, 12, and 13 of the Altgeld Gardens neighborhood. The area for Blocks 11 and 13 was converted to open space dominated by mowed/maintained turf grasses with the mature trees kept in place. Other trees occur in the disturbed railroad right-of-way and along 130th Place, including early successional native and non-native species. Observed dominant species include eastern cottonwood (*Populus deltoides*) and oak species (*Quercus sp.*). Tree coverage in the area was generally comparable to that described in the Draft EIS for the 120th Street yard and shop area. Trees in the area south of 130th Street are fragmented from any nearby forested area by transportation infrastructure and urban maintenance (e.g., mowed grass).

The removal of residential buildings from the three Altgeld Gardens neighborhood blocks increased the open green space in the area by approximately 23 acres. The open green space does not provide unique habitat opportunities in comparison to the surrounding area. Habitats in this segment include open, mowed grass and two strips of trees.



CN/MED = Canadian National/Metra Electric District, NICTD/CSS & SBRR = Northern Indiana Commuter Transportation District/Chicago South Shore & South Bend Railroad

Figure 6-1: Waterbodies and Floodplains in the Vicinity of the Area of Potential Impact

Habitats described in the 120th yard and shop area and the 107th Place cross-over segment have not considerably changed from the description in the Draft EIS. Beaubien Woods Forest Preserve, the main part of which is located to the south and southeast of the API, has higher quality habitat opportunities in comparison to areas affected by the Preferred Alignment. Trees north of 132nd Street are separated from the forest area by only the street and may provide opportunities for wildlife to shelter in and travel through.

The Preferred Alignment would potentially have adverse impacts on vegetation and wildlife habitat during construction due to tree removal. The loss of trees would reduce migratory bird habitat. Migratory species passing through the Chicago area are likely to be adapted to urban habitats and are highly mobile, able to overcome industrial and land use barriers between the RLE Project and more natural areas. With the implementation of mitigation measures outlined in the Draft EIS and reiterated in mitigation below, potential adverse impacts would be minor.

Mitigation measures would be required for compliance with the MBTA, for consistency with local tree protection ordinances, and to reduce potential impacts on wildlife habitat. Bird species may use trees that could be removed for the RLE Project or disturbed during construction and could be affected. Mitigation measures would include the following:

- Tree removal would be timed as much as possible to occur outside the migratory bird nesting season, which occurs generally from April 1–September 15 and as early as March 1 for some species.
- If tree removal must occur during the nesting season, two biological surveys would be conducted: one 15 days before and a second 72 hours before the construction that would remove or disturb suitable nesting habitat.
- Avoidance measures would be incorporated into the final design of the RLE Project where feasible; however, if construction of the project were to require removal of a protected tree, a permit would be required in accordance with applicable codes and ordinances of the City of Chicago. Tree removal permits may require replanting of protected trees to mitigate for the removal of these trees.

Additional information on mitigation measure details can be found within the *Biological Resources Technical Memorandum* (**Appendix V**). Consistent with the findings of the Draft EIS, there would be no adverse impacts on vegetation and wildlife habitat under the No Build Alternative.

6.5 Threatened and Endangered Species

The Endangered Species Act (16 USC § 1531) and subsequent amendments provide for the conservation of threatened and endangered species and the ecosystems upon which they depend.

There are 135 state-listed species that potentially occur within Cook County (IDNR 2020). Of the 114 species identified in the Draft EIS, two were federally listed only, nine were delisted, and four underwent a scientific name change. Changes in federal- and state-listed species status are documented in **Appendix V**. The updated species list includes 30 additions to the state list.

Additionally, three federal species are newly accounted for on the species list, with some overlap on the state list.

The Draft EIS identified the peregrine falcon (*Falco peregrinus*) as the only state-listed species with potential to occur in the vicinity of the RLE Project. Due to removal from the list, this species is no longer considered a state-listed species concern. As a migratory bird, protections of the MBTA still apply to this species.

The rusty patched bumble bee (*Bombus affinis*) was added to the federal species list for Cook County since the Draft EIS analysis. The RLE Project is outside the range of this species, as identified by the U.S. Fish and Wildlife Service (USFWS) Environmental Conservation Online System (ECOS).

The Information for Planning and Consultation (IPaC) system review indicated the rufa red knot (*Calidris canutus rufa*), a robin sized shorebird, may occur in the RLE Project vicinity. No suitable habitat (i.e., coastal areas or large wetland complexes for migratory stopovers) for the rufa red knot was identified in the API. Therefore, the rufa red knot is unlikely to occur in the API.

Permanent and temporary construction impacts on vegetation and wildlife habitat in the Preferred Alignment include removal of up to 64.1 acres of trees from the API. Subsequent to development of the Draft EIS, USFWS listed the northern long-eared bat as a threatened species that may be present in the vicinity. Northern long-eared bats may be transient through the area, but more suitable foraging and roost habitat is likely to be present in the wooded areas and riverine corridor along the Little Calumet River. Coordination was completed with USFWS on September 28, 2021, finalizing the determination regarding potential impacts on the northern long-eared bat. Under the *Programmatic Biological Opinion for Transportation Projects in the Range of the Indiana bat and Northern Long-Eared Bat (USFWS)* a "May Affect – Not Likely to Adversely Affect" determination was provided by USFWS. USFWS concurred with the following mitigation measures:

- For the protection of the northern long-eared bat, tree removal activities would occur outside of the northern long-eared bat active season (April 1 through October 31).

USFWS also agreed with the finding of "No Effect" for the threatened and endangered species listed in Cook County, Illinois (see the coordination letter dated September 28, 2021 in **Appendix V**).

Per correspondence dated November 24, 2021 (see **Appendix V**), IDNR has determined that impacts are unlikely, with inclusion of the following proposed mitigation measures:

- For the protection of wildlife associated with Lake Calumet, all lighting would be fully shielded fixtures that emit no light upward. Only "warm-white" or filtered light-emitting diodes [correlated colour temperature < 3,000 degrees Kelvin; scotopic/photopic ratio <1.2] would be used to minimize blue emission. Only light the exact space with the amount (lumens) needed to meet industry safety requirements.

- For protection of the osprey, the removal of vertical structures such as telephone poles, light poles, etc. would occur outside of the osprey active season (April 1 and October 31). If these dates cannot be accommodated, a nesting survey will be conducted to determine if species are utilizing structures in the project area. Survey results will be coordinated with IDNR.

Vegetation removal was identified in the Draft EIS as up to 70.2 acres for the East Option and 76 acres for the West Option, compared to 64.1 acres of tree removal for the Preferred Alignment. With the exception of the potential to impact suitable northern long-eared bat roost trees, the nature of permanent impacts has remained the same as those described in the *Biological Resources Technical Memorandum* (**Appendix V**) of the Draft EIS.

Consistent with the findings of the Draft EIS, there would be minor adverse impacts on biological resources remaining after mitigation measures as a result of the Preferred Alignment. Consistent with the Draft EIS, there would be no impacts on biological resources under the No Build Alternative.

6.6 Geology and Soils

During the Draft EIS, CTA reviewed existing data on geology, soil, and topography to understand the general geologic setting and identify the locations of geologic hazards that could result in damage to structures or infrastructure or could expose people to risk of injury and to determine potential impacts of the RLE Project. CTA reviewed soil boring and water well logs, geologic maps of Cook County and of Illinois published by the Illinois State Geological Survey, U.S. Geological Survey (USGS) topographic maps, and geologic maps and reports from U.S. Department of Agriculture Natural Resources Conservation Service (USDA NRCS). To identify adverse impacts, CTA also considered the RLE Project proximity to any identified geologic hazards and the potential severity of those hazards. The potential for impacts exists because earthwork activities (such as excavation and grading that occur during construction) can cause soil erosion, affect soil stability, and create topographic disturbances. Potential adverse impacts due to ground settlement, which can occur during both construction and operation, were also considered.

Local topography is generally flat and typically varies less than 50 feet, with a minimum elevation of 590 feet and a maximum elevation of 625 feet above sea level. Bedrock underlying the API is present at variable depths, ranging from 50 to 100 feet below ground surface. The region has been subjected to tectonic movements; however, the local area does not show evidence of faults or extensive earthquakes (USGS 2002). The API is underlain by urban land complexes, which are identified as soil that has been disturbed (such as fill material) (USDA NRCS 2012).

Consistent with the findings of the Draft EIS, operation or construction of the Preferred Alignment would not have adverse impacts on geologic or soil resources, because all of the features of the Preferred Alignment would be located primarily on or within existing transportation use areas such as streets and railroad corridors. No mitigation measures would be required. The No Build Alternative also would not result in adverse impacts on geologic or soil resources.

6.7 Energy

The Energy Policy Act of 2005 (Public Law 109–58) includes transportation-related provisions that reduce reliance on foreign energy sources (mainly petroleum) and increase use of recovered mineral content in federally funded projects involving procurement of cement or concrete.

CTA evaluated potential energy impacts and benefits associated with construction and operation of the RLE Project. Changes related to the project—in travel patterns and mode choice within the regional transportation network—have the potential to result in changes in net energy demand. The energy sources for operation of the RLE Project would primarily be electricity for Red Line trains and passenger stations, and gasoline and diesel fuel for project-related vehicles.

The Draft EIS evaluated the long-term energy consumption from Red Line train propulsion and operation of four new stations. With the relocation of the 130th Street station, the Preferred Alignment length would increase from 5.3 to 5.6 miles. Extrapolating for the additional 0.3 miles of tracks to the relocated 130th Street station, energy consumption for train propulsion under the Preferred Alignment would be approximately 1 percent higher than the East and West Options of the UPRR Rail Alternative in the Draft EIS. Energy consumption at the four new stations under the Preferred Alignment would be the same as the East and West Options. The long-term energy consumption for the operation of Red Line trains and four new stations under the Preferred Alignment would increase compared with the No Build Alternative.

The Draft EIS also evaluated the long-term energy consumption from project-related vehicles, based on regional VMT. The VMT are the total number of miles driven by all vehicles and would slightly decrease under the RLE Project because of the diversion of passengers to the Red Line. The Draft EIS determined that the East and West Options of the UPRR Rail Alternative would result in lower vehicular energy consumption as compared with the No Build Alternative. The energy consumption from regional VMTs under the Preferred Alignment would be the same as those evaluated for the East and West Options of the UPRR Rail Alternative. The Preferred Alignment would reduce VMTs, and therefore it would slightly lower energy consumption from vehicles as compared with the No Build Alternative.

The Draft EIS determined the total long-term energy impacts for the RLE Project by adding the energy consumption from operation of Red Line trains and stations, and then subtracting the energy benefit from reduced VMTs resulting from passenger diversions to the Red Line. The UPRR Rail Alternative would require slightly more long-term energy than the No Build Alternative. The energy needed for operations would be far lower than the existing surplus generating capacity for the region. The additional demand for the RLE Project would be less than 0.02 percent of the surplus generating capacity in the regional transmission territory. The Draft EIS concluded that the operation of the UPRR Rail Alternative would not have an adverse impact on regional energy sources.

Under the Preferred Alignment, long-term energy consumption would be similar to the East and West Options of the UPRR Rail Alternative. The Preferred Alignment would require slightly more long-term energy use to operate Red Line trains, because the Preferred Alignment length would increase from 5.3 to 5.6 miles to the relocated 130th Street station. The additional energy demand for operation of the Preferred Alignment would be well below the available energy supply, and therefore the Preferred Alignment would not have an adverse impact on regional energy sources.

Construction of the RLE Project would use energy for the production of the guideway and station components (including steel, cement, copper, and glass), and for the operation of construction equipment. The Draft EIS determined that construction of the UPRR Rail Alternative would amount to less than 1.2 percent of the total annual of Cook County energy consumption, as detailed

in the *Energy Technical Memorandum* (**Appendix W**). Because construction energy use would be a very small fraction of energy use in the region, construction of the RLE Project would not have an adverse impact on regional energy consumption and no construction mitigation measures would be required. Under the Preferred Alignment, short-term construction energy consumption would be similar to the East and West Options of the UPRR Rail Alternative disclosed in the Draft EIS. No adverse energy impacts during construction would be anticipated under the Preferred Alignment, and no additional construction mitigation measures would be required. Construction energy use would be spread out over the duration of construction.

Consistent with the findings of the Draft EIS, the No Build Alternative and Preferred Alignment would not have an adverse impact on regional energy consumption, and no mitigation measures would be required. **Appendix W** contains additional details.

Chapter 7 Environmental Justice

Environmental justice (EJ) is "the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies" (USEPA 2004). This chapter summarizes the EJ analysis and outreach conducted for this RLE Project. The *Environmental Justice Technical Memorandum* (**Appendix X**) provides additional details.

As was described during the Draft EIS, the communities adjacent to the RLE Project are entirely minority communities, some of which are also low-income areas. This is a community-driven project based on equity. All of the benefits and impacts of the project would occur within these minority and low-income populations (EJ populations). Few benefits would occur outside of the minority and low-income areas. As such, the Preferred Alignment would have impacts on EJ populations; however, none of the impacts would be disproportionately high and adverse. FTA and CTA have undertaken outreach and ongoing coordination with affected communities to identify EJ populations, discuss project impacts and benefits, and provide mitigation measures where relevant.

7.1 Regulatory Framework/Methods

There are no changes to the applicable federal or state regulations referenced in the Draft EIS. FTA issued its most recent guidance for meeting the requirements of Executive Order (EO) 12898 as Circular 4703.1 in August 2012, prior to the issuance of the Draft EIS.

In brief, the requirements presented in the Draft EIS note that federal agencies are required to consider the potential for disproportionately high and adverse impacts on EJ populations that could result from all programs, policies, and activities (Executive Order 12898). As described in EO 12898, a disproportionate impact is one that would negatively affect EJ populations to a greater extent than non-EJ populations.

The analysis of the impacts on EJ populations under the Preferred Alignment was performed using the same methods as were documented in the Draft EIS. Updated data from the U.S. Census Bureau 2018 5-Year American Community Survey (ACS) were used to identify EJ populations except for Limited English Proficiency (LEP) households, for which the most recent data are the 2015 5-Year ACS. Consistent with the Draft EIS, adverse impacts would be likely to occur within a ¼ mile radius of the project infrastructure, whereas beneficial impacts would accrue to a larger area of approximately a ½ mile or more around the station locations. To accurately assess the communities benefiting from the RLE Project, the API for EJ populations is defined as the area within a ½ mile of the Preferred Alignment. All block groups within a ½ mile of the Preferred Alignment right-of-way were included in the analysis with the exception of selected block groups that have no population living within a ½ mile of the Preferred Alignment right-of-way.

This methodology is consistent with the Draft EIS but focuses on the Preferred Alignment as compared to the multiple alternatives analyzed as part of the Draft EIS. Therefore, comparisons between the EJ figures presented in the Draft EIS and those presented in this Final EIS must consider both the changed parameters of this study and changing demographics in the City of Chicago.

7.2 Existing Conditions

The API consists entirely of predominantly minority populations, as shown in **Figure 7-1**. All residential portions of the API contain over 75 percent African American residents, with many areas approaching 100 percent. The API contains a higher proportion of minority residents (98 percent) than the City of Chicago as a whole (67 percent).

The 2018 annual median household income for communities in the API ranges from approximately $17,000 in Riverdale to $52,000 in Washington Heights. The API median income (approximately $39,529) is lower than the City of Chicago as a whole ($55,198). Median household income for each block group within the API is shown in **Figure 7-2** (except four block groups for which data are unavailable due to a low volume of respondents).

According to the U.S. Department of Health and Human Services 2018 Poverty Guidelines, potentially six block groups (out of 56) in the API have populations with median household income below poverty guidelines. Three of those block groups are in Riverdale and three are in Roseland. Populations below the poverty guidelines are shown in **Figure 7-2**.

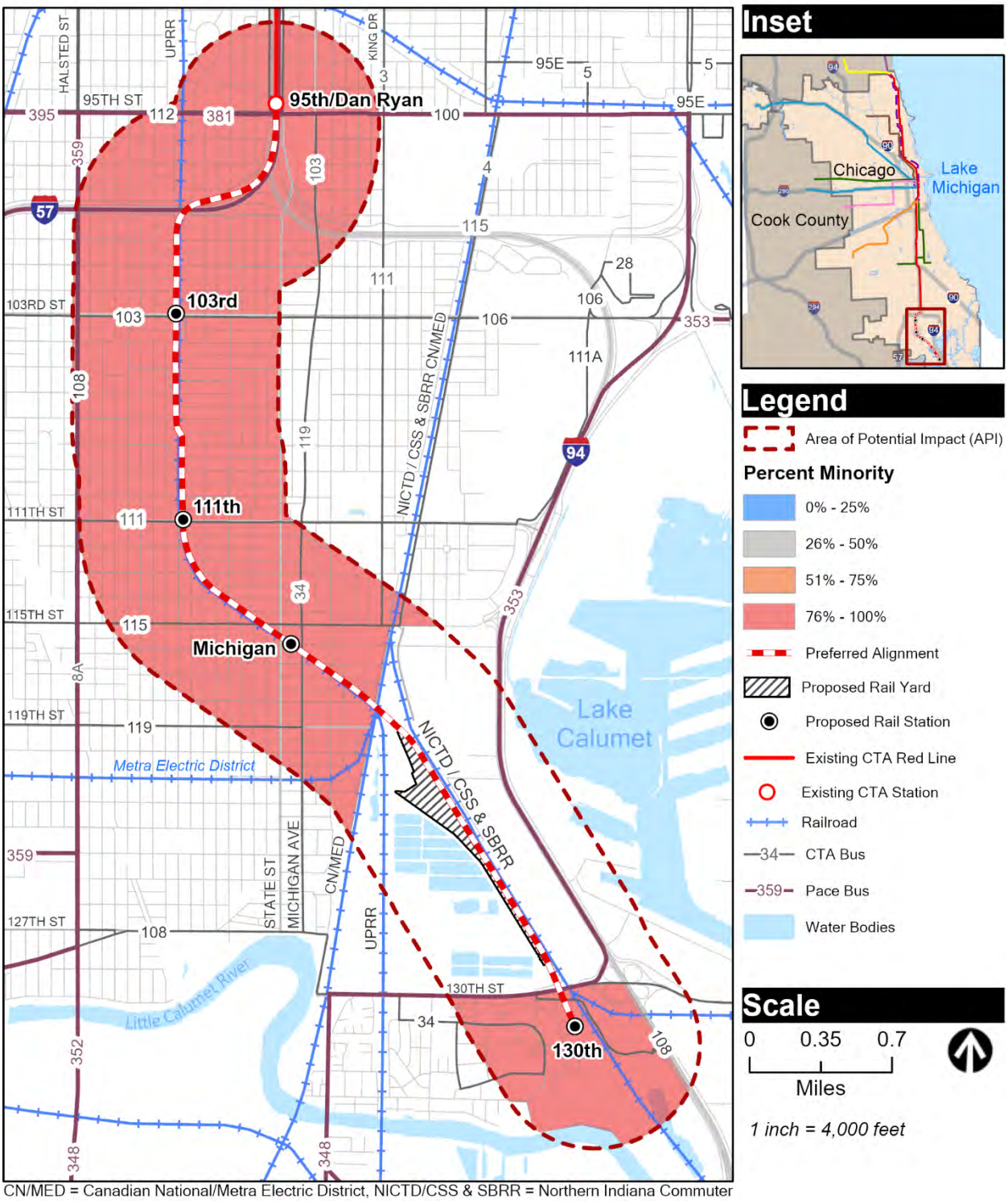
LEP persons are defined as individuals for whom English is not their primary language and who have limited ability to read, write, speak, or understand English. Similar to the Draft EIS, the majority of households in the API speak English with Spanish as the second most common language spoken at home. The API around the Preferred Alignment no longer includes some of the block groups from the Draft EIS with the highest percentage of LEP populations. LEP populations are shown in **Figure 7-3**.

The general condition of the API remains similar to that described in the Draft EIS, in that EJ populations make up the entirety of the residents of the area, and that the benefits and impacts of the RLE Project would accrue primarily on these populations.

7.3 Specialized Outreach

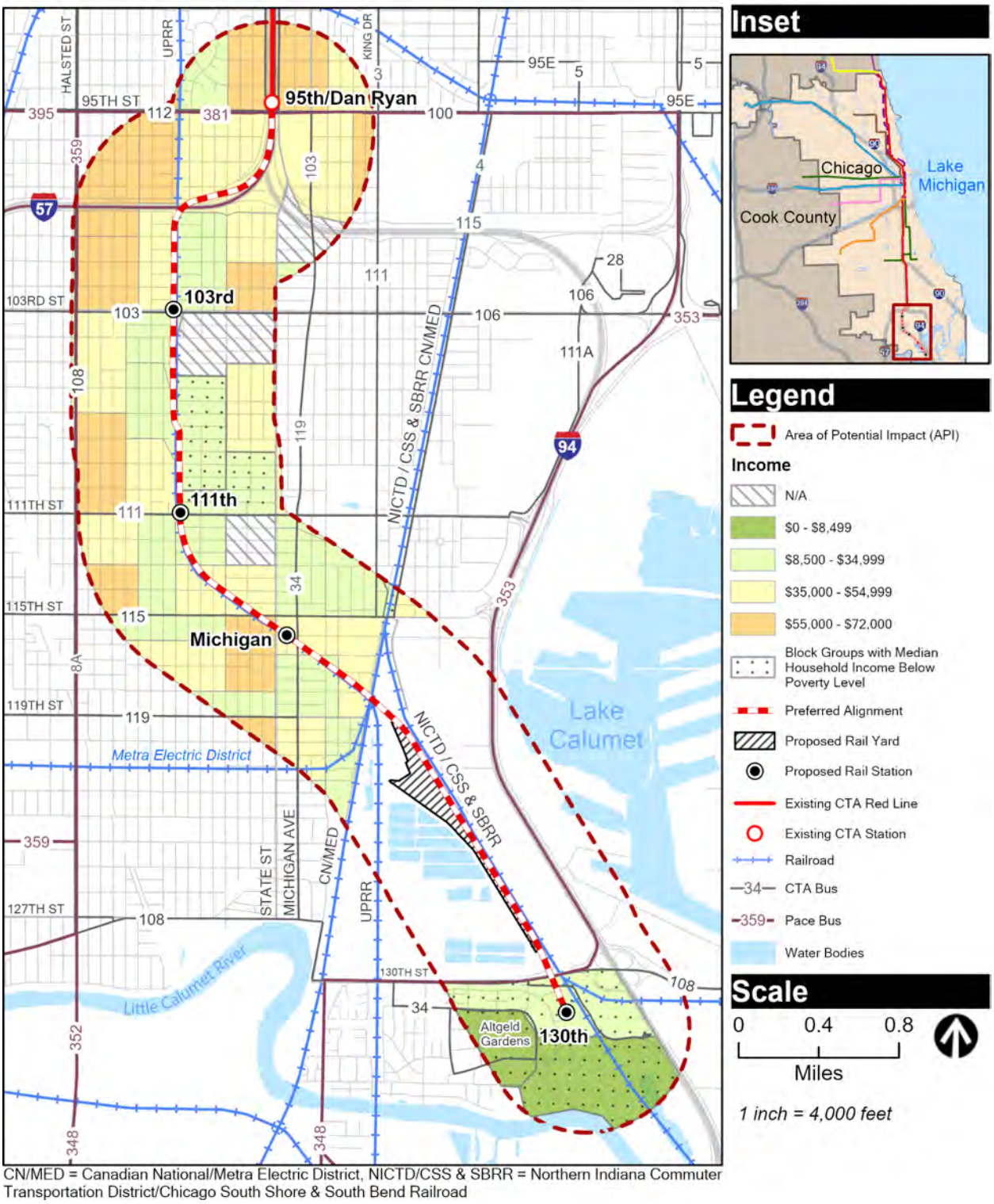
Full and fair access to meaningful involvement by EJ populations in project planning and development is an important aspect of EJ (Executive Order 12898). Using demographic data to determine the presence of EJ populations is only the first step in a robust EJ approach. Ensuring full and fair access means actively seeking the input and participation from those typically under-represented groups throughout all project stages. Residents can provide important information on community concerns, special sites, and unusual traffic, pedestrian, or employment patterns in the corridor. This information can be used in the design and evaluation of alternatives, to avoid negative impacts on valued sites, and to support the development of safe, practical, and attractive transportation options that are responsive to the concerns of EJ populations.

CTA conducted public and community meetings in compliance with NEPA guidelines. The meetings were held at locations selected to reflect equitable geographic coverage and proximity to



CN/MED = Canadian National/Metra Electric District, NICTD/CSS & SBRR = Northern Indiana Commuter Transportation District/Chicago South Shore & South Bend Railroad

Figure 7-1: Minority Populations within the Area of Potential Impact



CN/MED = Canadian National/Metra Electric District, NICTD/CSS & SBRR = Northern Indiana Commuter Transportation District/Chicago South Shore & South Bend Railroad

Figure 7-2: Low-Income Populations within the Area of Potential Impact

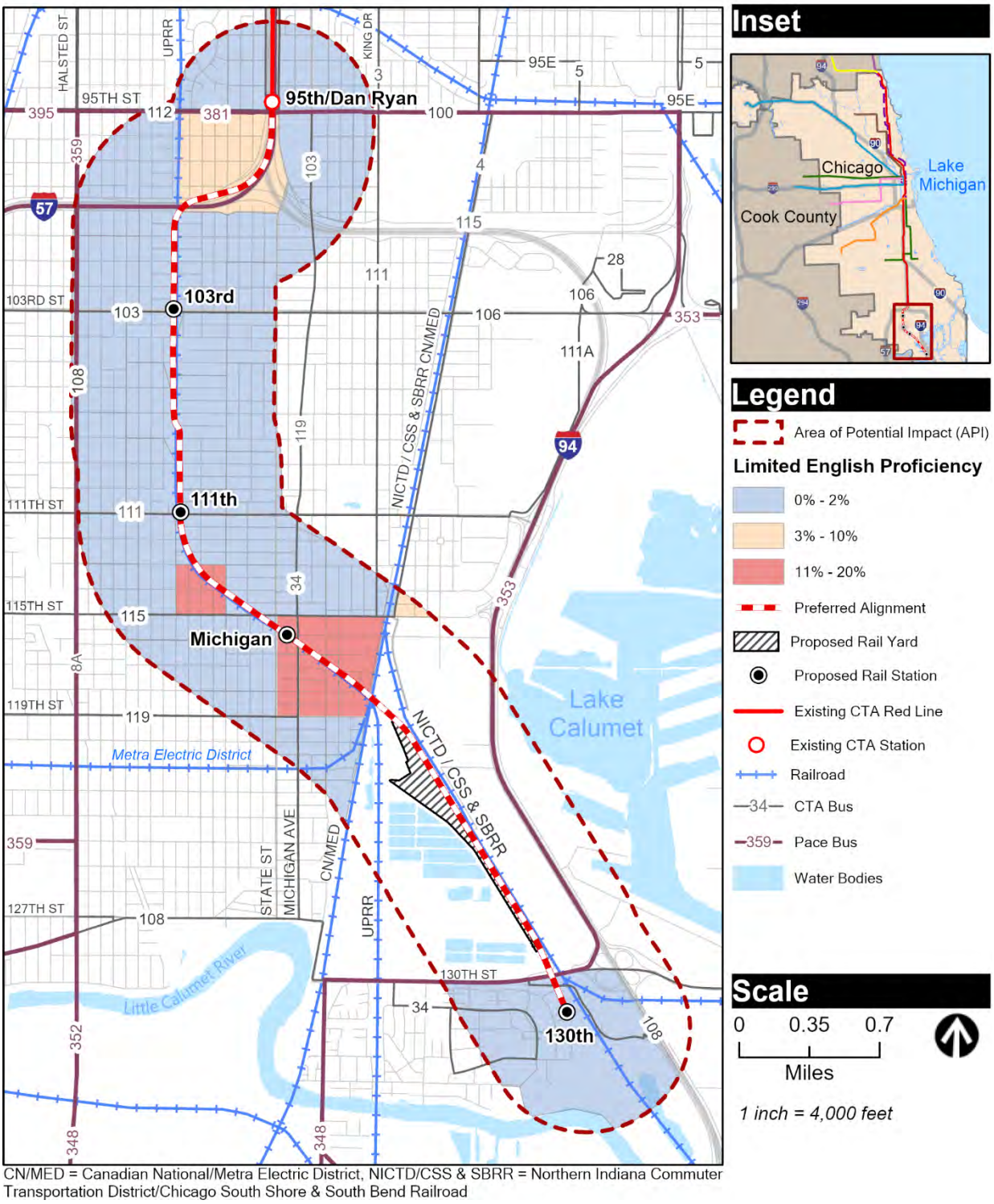


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Figure 7-3: Limited English Proficiency Populations within the Area of Potential Impact

public transportation, and to minimize overlap with other meetings scheduled in proximity to the RLE Project. The meeting locations were within the project area defined in the Draft EIS, accessible by public transit, and ADA-compliant. Spanish translation of meeting handouts and Spanish and American Sign Language (ASL) interpreters were made available at every public meeting. CTA also offered to make translators for additional languages available upon request.

Outreach efforts related to the Supplemental EA and Final EIS built on project outreach conducted during the Draft EIS process. In the spring of 2020, the COVID-19 pandemic prompted virtual adaptations and virtual meeting accommodations instead of in-person meetings and gatherings. Virtual community organization, stakeholder, and public meetings allowed the participants to provide input, ask questions, share their comments, and discuss any concerns with CTA. The situation surrounding the COVID-19 pandemic continues to evolve, including guidelines related to holding in-person public meetings. CTA will continue to adapt the format of public meetings as necessary. The Public Participation Plan (PPP) ensures the diverse populations, including LEP and EJ populations, in the area are included in the process. The PPP includes open houses, property owner/renter coordination meetings, meetings with elected officials, email blasts, social media posts, newsletters, youth engagement events, and multiple community events. Collectively, these activities provided opportunities to provide information to the public and obtain meaningful input on the RLE Project.

CTA has implemented a robust outreach program with an emphasis on meaningful exchange with EJ populations. **Chapter 10** and **Appendix C** provide additional details on public involvement and agency coordination conducted.

7.4 Environmental Consequences

FTA Circular 4703.1 indicates that projects in areas consisting entirely of EJ populations do not necessarily eliminate the possibility of disproportionately high and adverse impact findings; however, the following characteristics are true of the API:

- The entire API is predominantly minority populations. No single block group (U.S. Census Bureau) in the API has less than 76 percent minority populations.
- All of the impacts and benefits of the Preferred Alignment would accrue to the same minority populations.
- The purpose of this community-initiated project includes connecting disadvantaged communities to the City of Chicago's major employment and activity centers in an effort to spur economic development and improve livability. The RLE Project would help remediate the geographic isolation and lack of employment and development opportunities that currently exist in the communities surrounding the RLE Project.

A multistep process was used to assess the potential for disproportionately high and adverse impacts on EJ populations as described in **Section 7.1**. Categories that had adverse impacts remaining after mitigation measures were analyzed further to determine whether any of those impacts would be disproportionately high or adverse. An impact would be disproportionately

high or adverse if the effect (1) would be predominantly borne by an EJ population, or (2) would be suffered by the EJ population and would be appreciably more severe or greater in magnitude than the adverse effect suffered by the non-EJ population (*Environmental Justice Policy Guidance for Federal Transit Administration Recipients*, 2012). Project benefits to EJ populations were also considered.

To provide a complete picture of how the RLE Project would affect EJ populations, this section summarizes the benefits and adverse impacts that would occur in EJ populations and the associated mitigation measures:

- **Beneficial Impacts of the RLE Project** - To estimate the extent of the benefits derived from the Preferred Alignment, the analysis in **Table 7-1** provides a comparison of the benefits with regard to the following criteria:
  - Reduced Transit Times
  - Increased Travel Choices
  - Increased Economic Competitiveness
  - Environmental Criteria
- **Resources with Limited or No Adverse Impacts** - The Preferred Alignment would have limited or no adverse impacts in these environmental resource categories **(Chapter 6)**. Because there would be limited or no adverse impacts, there is no potential for disproportionately high and adverse impacts and these categories will not be carried forward for further analysis.
  - Air Quality
  - Water Quality
  - Floodplains
  - Vegetation and Wildlife Habitat
  - Threatened and Endangered Species
  - Geology and Soils
  - Energy
- **Resources with No Adverse Impacts after Mitigation** - The Preferred Alignment would have adverse impacts that would not remain adverse after mitigation measures in the following categories. Because there would be no adverse impacts after mitigation measures, there is no potential for disproportionately high and adverse impacts and these categories will not be carried forward for further analysis. Further details about these impacts are provided in **Chapter 4**.
  - Land Use and Economic Development
  - Historic and Cultural Resources
  - Displacement and Relocation of Existing Uses
  - Hazardous Materials
  - Noise and Vibration
  - Wetlands
  - Safety and Security

Table 7-1: Summary of Benefits

Benefits and Resource Areas	No Build Alternative	Preferred Alignment
Reduced Transit Times	No	Yes
Travel Times Between Stations:[1] 130th to 95th 130th to Jackson	 38 minutes 69 minutes	 15 minutes 40 minutes
Increased Travel Choices	No	Yes
Increased Economic Competitiveness	No	Yes
Land Use and Economic Development	No Impacts	Economic development benefits resulting from the enhanced transit service
Neighborhoods and Communities	No Impacts	Improved mobility, access to parklands and community facilities, access to jobs, possible economic development, community revitalization, new space for community facilities and retail, and direct service to Altgeld Gardens neighborhood
Hazardous Materials	No Impacts	Cleanup and/or removal of contaminated material during construction
Transportation	No Impacts	Public transportation would benefit from expanded rail transit service and rerouted bus service. Pedestrians would benefit from upgraded intersections immediately adjacent to the stations with ADA-accessible curb ramps and replacement of deteriorated sidewalks.

1 No Build travel time is based on a Northbound trip using bus route #34 and transferring to Red Line at 95th/Dan Ryan terminal in AM peak period; it includes bus and rail running times, wait times, and transfer time at 95th terminal. Preferred Alignment travel time includes RLE running time and wait time at 130th Street station. Travel times have been updated since Draft EIS based on 2021 schedules and project engineering.

Resources with Adverse Impacts after Mitigation - As shown in **Table 7-2**, adverse impacts would remain after mitigation measures for the Preferred Alignment in two categories. These adverse effects would not be fully addressed through mitigation measures, resulting in unavoidable adverse effects. Categories with potential adverse effects after mitigation measures are considered for their potential for disproportionately high and adverse effects on EJ populations. They are discussed in more detail in **Section 7.4.2.**

- Neighborhoods and Communities – Permanent Impacts
- Visual and Aesthetic Conditions – Permanent Impacts

Table 7-2: Summary of Potential Impacts after Mitigation

Resource Area	Alternative		Analyze for Potential High and Adverse Impacts on EJ Populations
	No Build	Preferred Alignment[1]	
Transportation	--	No disproportionate adverse impacts after mitigation	No
Land Use and Economic Development	--	No disproportionate adverse impacts after mitigation	No

Resource Area	Alternative		Analyze for Potential High and Adverse Impacts on EJ Populations
	No Build	Preferred Alignment[1]	
Displacement and Relocation of Existing Uses	--	No disproportionate adverse impacts after mitigation	No
Neighborhoods and Communities	--	Permanent: Adverse impact after mitigation Construction: No disproportionate adverse impacts after mitigation	Yes
Visual and Aesthetic Conditions	--	Permanent: Adverse impact after mitigation Construction: No disproportionate adverse impacts after mitigation	Yes
Noise and Vibration	--	No disproportionate adverse impacts after mitigation	No
Safety and Security	--	No disproportionate adverse impacts after mitigation	No
Historic and Cultural Resources	--	--	No
Hazardous Materials	--	No disproportionate adverse impacts after mitigation	No
Wetlands	--	No disproportionate adverse impacts after mitigation	No
Air Quality	--	--	No
Water Quality	--	--	No
Floodplains	--	--	No
Vegetation and Wildlife Habitat	--	--	No
Threatened and Endangered Species	--	--	No
Geology and Soils	--	--	No
Energy	--	--	No
Cumulative	--	--	No

1 Unless noted separately, impacts are stated for both permanent and construction.
"--"= No disproportionate adverse effect before mitigation (no mitigation required).

7.4.1 No Build Alternative

The No Build Alternative is defined as the existing transportation system plus any committed transportation improvements that are already in the current CMAP TIP. No new infrastructure would be built as part of the RLE Project under the No Build Alternative.

As described in in the Draft EIS, the No Build Alternative would not have any adverse impacts to EJ populations. However, the communities adjacent to the RLE Project are currently underserved by

the CTA rail system compared to many other parts of the City of Chicago, and the No Build Alternative would lack the beneficial increase in livability and economic development that the RLE Project would provide. The No Build Alternative has not had any extensive change since the Draft EIS.

7.4.2 Union Pacific Railroad Alternative - Preferred Alignment

The Preferred Alignment would involve an extension of the Red Line adjacent to existing highway rights-of-way and railroad corridors, from its current endpoint at the 95th Street/Dan Ryan terminal southward to 130th Street, adjacent to the Altgeld Gardens neighborhood. The new Red Line rail service would improve commute times to jobs, provide better transit access to geographically isolated communities, and potentially spur economic development in surrounding neighborhoods. The Preferred Alignment would have permanent adverse impacts on neighborhoods and communities as well as visual and aesthetic conditions. The adverse impacts would occur in the API, which consists entirely of EJ populations.

Neighborhoods and Community Impacts

The Preferred Alignment would have permanent adverse impacts on community character and cohesion that could not be mitigated because the addition of the elevated structure would noticeably alter the character and scale of the residential neighborhoods. Mitigation measures for impacts on community character, including planting additional landscaping (trees), would not be sufficient to offset this permanent impact. The Preferred Alignment would be constructed over two parcels of Fernwood Parkway from 99th Street to 103rd Street between the existing UPRR tracks on the east and Eggleston Avenue on the west, resulting in 4.5 acres of impacts to parks. Impacts would be mitigated through the creation of pocket park sites directly adjacent to the Major Taylor Trail, in the Washington Heights community area, or additional areas based on future coordination at a replacement ratio of 1 to 1, for a total of 4.5 acres of replacement parks. The impacts would not be adverse after mitigation as described in **Chapter 8**. See **Section 4.3** for additional details on mitigation measures for permanent neighborhood and community impacts.

By improving travel time, operation of the Preferred Alignment would improve access to parklands and community facilities within walking distance (½ mile) of the station locations. The Preferred Alignment would greatly reduce travel times between neighborhoods in the vicinity of the RLE Project and would enhance their connection with major job and activity centers to the north. The new transit service and the subsequent increase in pedestrian traffic could attract new businesses to the area and support the growth and enhancement of these neighborhood retail and service nodes. The station would serve as a transit hub that brings additional passengers and visitors to the area, which could further boost economic development. The result would be an overall increase in community livability. The mobility and development impacts of the Preferred Alignment would be beneficial.

Visual and Aesthetic Conditions

The elevated structure would cause adverse visual impacts north of I-57, between 99th Street and the 103rd Street station area, 107th Place near the crossing over the UPRR, at 117th Street and Prairie Avenue, and at the 130th Street station as discussed in **Section 4.4**. Mitigation measures would

reduce the impacts at these locations, but due to the proximity of the elevated structure to residential areas, the impacts would remain adverse despite mitigation. Mitigation measures to reduce visual impacts would include consideration of community input into the appearance of the stations in the final design of the RLE Project. CTA would include landscaping with security prioritized in the detailed landscape design. Based on community input to date, design elements are anticipated to include:

- Replacing/restoring removed vegetation
- Addressing neighborhood plan recommendations
- Creating pedestrian friendly surroundings
- Shielding exterior lighting and/or use of "down lighting" light fixtures to prevent light pollution into nearby residences
- Providing landscaping (trees) as visual screening for the residences located on the west side of Eggleston Avenue north of 103rd Street station
- Planting trees in front of the structure, where space allows, to break sight lines of the 107th Place cross-over and the 130th Street station
- Using good urban design to reduce adverse impact

The impacts would remain adverse after mitigation.

Conclusion

Considering the impacts, mitigation measures, and benefits, the permanent impact under the Preferred Alignment on community character and permanent visual impact would not be appreciably more severe or greater in magnitude than similar effects elsewhere in CTA's rail system. The mitigation measures proposed are similar in nature to those for other CTA projects and have been proposed by CTA consistently in EJ and non-EJ populations alike. The project offers considerable benefits that would accrue to the resident EJ populations. Although the Preferred Alignment would still have adverse impacts on EJ populations, these impacts would not be disproportionately high and adverse. As such, no EJ-specific mitigation measures beyond those identified in **Chapter 4** would be required.

Chapter 8 Section 4(f) Evaluation

Section 4(f) of the USDOT Act of 1966 is a federal law that established requirements for USDOT (including FTA) consideration of publicly owned parks/recreational areas that are accessible to the general public, publicly owned wildlife/waterfowl refuges, and publicly or privately owned historic sites of federal, state, or local significance in developing transportation projects (49 USC Section 303). This law, commonly known as Section 4(f), is codified in 49 USC Section 303 and 23 USC Section 138 and is implemented by FTA through the regulation 23 CFR Part 774. Additional guidance on the implementation of Section 4(f) may be found in Federal Highway Administration's (FHWA) *Section 4(f) Policy Paper* (USDOT, FHWA 2012). FTA has formally adopted this guidance and this analysis was conducted consistent with this guidance.

Publicly owned park or recreation land would be used as a result of the Preferred Alignment and are further evaluated in this Section 4(f) chapter. Based on the evaluation in the Final EIS, no historic properties would be adversely affected or used by the Preferred Alignment and further Section 4(f) evaluation of historic properties is not required. Historic properties are described within this chapter to provide sufficient documentation that there is no Section 4(f) use of these properties. This chapter summarizes the findings of the Draft EIS and addenda to the *Parklands and Community Facilities Technical Memorandum* (**Appendix M**), the *Historic and Cultural Resources Technical Memorandum* (**Appendix Q**), and the *Section 4(f) Replacement Park Analysis Technical Memorandum* (**Appendix Y**).

8.1 Regulatory Framework

This section describes regulatory framework and requirements under Section 4(f) of the USDOT Act of 1966, as amended by 23 USC § 138 and 49 USC § 303, and its implementing regulations and guidance. It includes information on the definition of "use" under Section 4(f) (**Section 8.1.1**) and the basis of making Section 4(f) determinations (**Section 8.1.2**).

8.1.1 Section 4(f) "Use" Determinations

To determine whether Section 4(f) applies to the Preferred Alignment and as defined in 23 CFR § 774.17, the protected Section 4(f) properties must be assessed to determine whether there would be a "use" of the property as defined in the statute. Per the regulation, use of a protected Section 4(f) property occurs when any of the following conditions are met:

- Permanent Incorporation/Direct Use – A permanent incorporation or direct use of a Section 4(f) property occurs when land is permanently incorporated into a transportation facility. "Permanent incorporation" of a Section 4(f) property would include purchasing part or all of the property for use as right-of-way or for transportation facilities or purchasing a permanent easement for construction or operations. Even small partial acquisitions of Section 4(f) lands are considered permanent incorporation.

- Temporary Use – A temporary use of a Section 4(f) property occurs when there is a short-term use of the property that is considered adverse in terms of the preservation purpose of the Section 4(f) statute.

- Constructive Use – A constructive use of a Section 4(f) property occurs when a transportation project would not incorporate land from the property, but the proximity of the project would result in impacts so severe that the protected activities, features, or attributes that qualify the property for protection under Section 4(f) would be substantially impaired (23 CFR § 774.15).

The definitions of a "Use" under Section 4(f) have not changed since the issuance of the Draft EIS.

8.1.2 Section 4(f) Approval Options

FTA may not approve the use of a Section 4(f) property, unless it determines the following, as defined in 23 CFR § 774.17:

- There is no feasible and prudent alternative to the use of that land and the project includes all possible planning to minimize harm of using the property.

OR

- FTA determines that Section 4(f) use of the property would have a "*de minimis*" impact.

Feasible and prudent standards for evaluating avoidance alternatives to using Section 4(f) property are defined in 23 CFR § 774.17. If it is ultimately determined no feasible and prudent avoidance alternative exists, then the alternative with the least overall harm to Section 4(f) properties must be selected. Seven factors, which are established in 23 CFR § 774.3(c)(1), are used in making a determination of the alternative with least overall harm to Section 4(f) properties.

Alternatively, the requirements of Section 4(f) are satisfied with respect to a Section 4(f) property if it is determined by FTA that a transportation project would have a "*de minimis*" impact on the Section 4(f) property.

A *de minimis* impact is defined in 23 CFR § 774.17 as follows:

- For parks, recreation areas, and wildlife/waterfowl refuges, a *de minimis* impact is one that would not adversely affect the features, attributes, or activities qualifying the property for protection under Section 4(f), and the official with jurisdiction has concurred with this determination after there has been a chance for public review and comment.

- For historic sites, a *de minimis* impact means that FTA has determined, in accordance with 36 CFR § 800, that either no historic property would be affected by the project, or the project would have "no adverse effect" on the property in question. The official with jurisdiction must be notified that FTA intends to make a *de minimis* finding based on its concurrence with the "no adverse effect" determination under 36 CFR § 800. This is usually done in the effect determination letter sent to the official with jurisdiction for their concurrence.

If an alternative is found to use Section 4(f) properties, a *de minimis* finding can be made for direct uses or temporary uses that do not adversely affect the activities, features, or attributes that make the property eligible for Section 4(f) protection. The provision allows avoidance, minimization, mitigation, and enhancement measures to be considered in making the *de minimis* determination.

Projects determined to have *de minimis* impacts on Section 4(f) properties may proceed without needing to make a determination that no feasible and prudent avoidance alternatives exist. The officials with jurisdiction must concur in writing with a *de minimis* finding. For parks, recreational areas, or wildlife or waterfowl refuge properties, concurrence from the officials having jurisdiction over the properties is required. For historic sites, concurrence from the State Historic Preservation Office (SHPO) on FTA's "No Adverse Effect" determination is required.

The approval options for Section 4(f) have not changed since the issuance of the Draft EIS.

8.2 Identification of Section 4(f) Properties

The identification of Section 4(f) properties and analyses of use of Section 4(f) properties are based on the findings of the historic and cultural resources analysis (**Section 4.7**, which addresses historic properties), and the neighborhood and community impacts analysis (**Section 4.3**, which addresses parks). The evaluation of properties was also informed by the *2012 Federal Highway Administration Section 4(f) Policy Paper* issued by FHWA and formally adopted by FTA. Worst-case scenario impacts were assumed throughout the environmental analysis for full disclosure of all potential impacts and identification of potential Section 4(f) uses. The identification methods used for the Preferred Alignment were consistent with those described in the Draft EIS.

8.2.1 Historic and Archaeological Resources

CTA has continued the Section 106 consultation process since the issuance of the Draft EIS. As a result of the field investigations and comments received from consulting parties on potentially eligible resources, 21 total resources within the Area of Potential Effect (APE) were identified as eligible for inclusion on the NRHP. As described in **Section 4.7**, no adverse effects on historic properties would occur because of the Preferred Alignment and no mitigation measures would be required.

For historic properties, all properties within the APE and associated with the Preferred Alignment that were found to be listed on the NRHP or eligible for listing are identified in **Section 4.7** in the Historic and Cultural Resources section. **Table 8-1** lists the historic properties identified within the APE and summarizes determinations of Section 4(f) use for the Preferred Alignment. **Figure 4-20** shows the locations of the eligible properties listed in **Table 8-1**.

Table 8-1: NRHP-Eligible Resources in the Area of Potential Effects

Map ID	Address	Description	Assessment of Effect	Section 4(f) Use
1	444 W. 100th Place	Eclectic Neo-Traditional Home	No Adverse Effect	No Use
2	324 W. 104th Street	Fire Department Engine Company 93	No Adverse Effect	No Use
3	351 W. 104th Street	Roseland Pumping Station	No Adverse Effect	No Use
4	10920 S. Princeton Avenue	Romanesque Revival-Style Church	No Adverse Effect	No Use
5	11321 S. Wentworth Avenue	Roseland Community Hospital Nurses Home	No Adverse Effect	No Use

Map ID	Address	Description	Assessment of Effect	Section 4(f) Use
6	133-139 E. Kensington Avenue	Former Venetian Hall	No Adverse Effect	No Use
7	11431-11433 S. Michigan Avenue	Commercial	No Adverse Effect	No Use
8	11445-11447 S. Michigan Avenue	Mixed-Use Commercial/Residential	No Adverse Effect	No Use
9	11451 S. Michigan Avenue	Commercial	No Adverse Effect	No Use
10	11452 S. Indiana Avenue	Single-Family Residence	No Adverse Effect	No Use
11	11725 S. Perry Avenue	Scanlan Elementary School	No Adverse Effect	No Use
12	11445 S. State Street	George William Curtis Public School	No Adverse Effect	No Use
13	13100 S. Doty Avenue	Carver Military Academy High School	No Adverse Effect	No Use
14	Multiple	53 Residences Contributing to Altgeld Gardens-Philip Murray Homes (AGPMH) National Register Historic District	No Adverse Effect	No Use
15	13015 S. Ellis Avenue	By The Hand Club, included in (AGPMH) Historic District	No Adverse Effect	No Use
16	13100 S. Ellis Avenue	Grocery / Retail Building, included in AGPMH Historic District	No Adverse Effect	No Use
17	940 E. 132nd Street	Administration / Maintenance Building, included in AGPMH Historic District	No Adverse Effect	No Use
18	975 E. 132nd Street	CYC - Dorothy Gautreaux Child Development Center, included in AGPMH Historic District	No Adverse Effect	No Use
19	941 E. 132nd Street	Children's Building, included in AGPMH Historic District	No Adverse Effect	No Use
20	951 E. 132nd Place	Altgeld Gardens Community Building No. 2, included in AGPMH Historic District	No Adverse Effect	No Use
21	Multiple (Public Housing)	Altgeld Gardens-Philip Murray Homes Historic District[1]	No Adverse Effect	No Use

1 Residences within the APE which contribute to the Altgeld Gardens-Philip Murray Homes Historic District include: 13022 S. Greenwood Avenue, 13030 S. Greenwood Avenue, 13072 S. Greenwood Avenue, 13200 S. Greenwood Avenue, 13240 S. Greenwood Avenue, 13088 S. Ellis Avenue, 13016 S. Ellis Avenue, 13023 S. Ellis Avenue, 13028 S. Ellis Avenue, 13047 S. Ellis Avenue, 13052 S. Ellis Avenue, 13059 S. Ellis Avenue, 13064 S. Ellis Avenue, 13083 S. Ellis Avenue, 13088 S. Ellis Avenue,

13101 S. Ellis Avenue, 13133 S. Ellis Avenue, 13201 S. Ellis Avenue, 13218 S. Ellis Avenue, 13226 S. Ellis Avenue, 13230 S. Ellis Avenue, 13262 S. Ellis Avenue, 13286 S. Ellis Avenue, 13241 S. Ellis Avenue, 13250 S. Ellis Avenue, 929 E 130th Place, 933 E 130th Place, 932 E. 131st Street, 967 E 132nd Place, 1000 E. 132nd Street, 1001 E. 132nd Street, 1008 E. 132nd Street, 1009 E. 132nd Street, 1032 E. 132nd Street, 1033 E. 132nd Street, 1044 E. 132nd Street, 1045 E. 132nd Street, 1068 E. 132nd Street, 1069 E. 132nd Street, 900 E. 133rd Street, 972 E. 133rd Street, 1000 E. 133rd Street, 1008 E. 133rd Street, 1032 E. 133rd Street, 1044 E. 133rd Street, 1068 E. 133rd Street, 901 E. 130th Place, 13029 S. Drexel Avenue, 13053 S. Drexel Avenue, 13065 S. Drexel Avenue, 900 E. 131st Street, 901 E. 131st Street, 13100 S. Ingleside Avenue. Source: JLK Architects

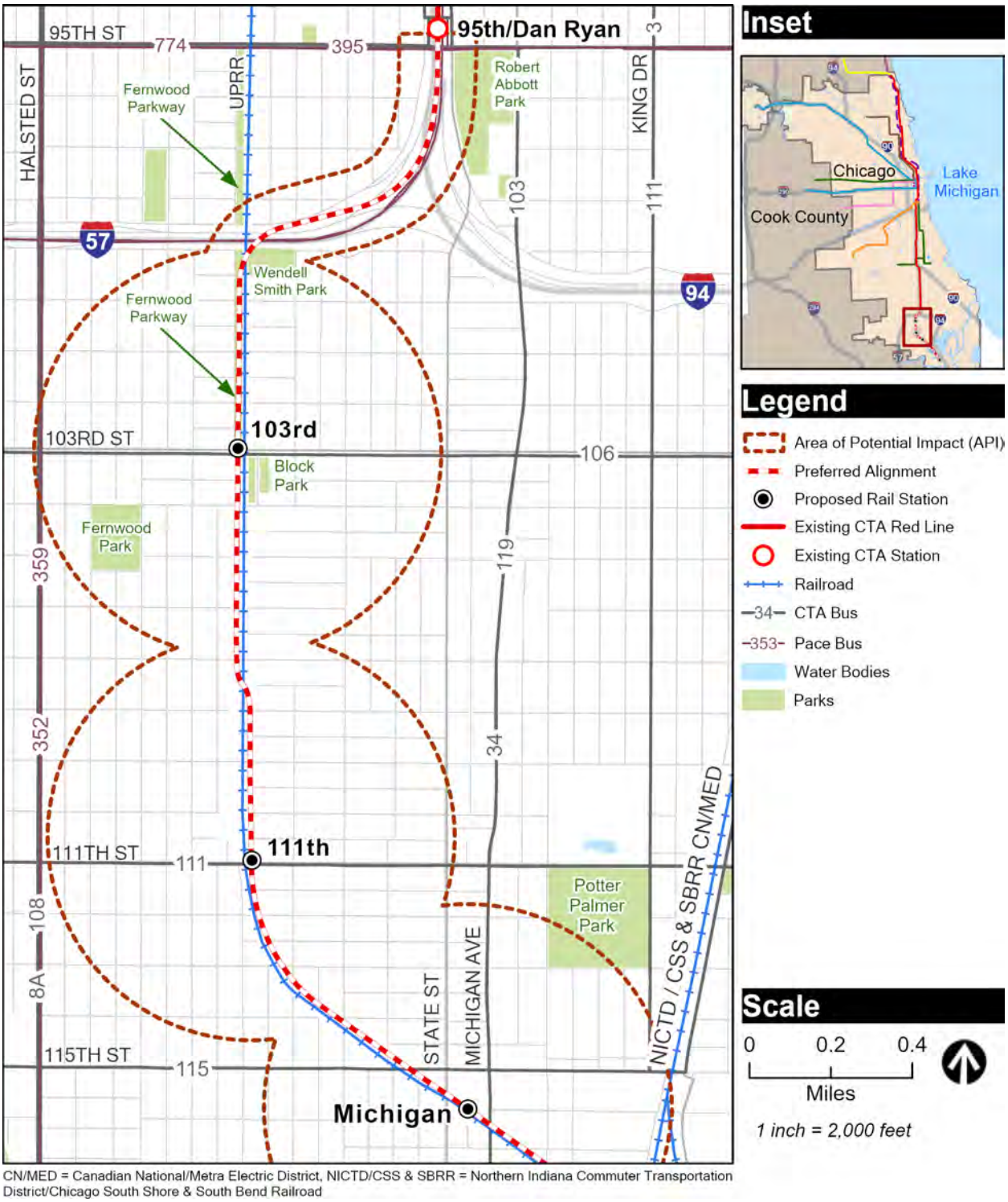
Consistent with the conclusions outlined in the Draft EIS, there would be no permanent incorporation, temporary use, or a constructive use of any of the historic properties under the Preferred Alignment. No historic properties or land would be acquired or used for construction or permanently. As such, the Preferred Alignment would not result in the use of any historic properties protected under Section 4(f).

There are no known archaeological sites within the project APE, as identified in **Appendix Q**. There would be no permanent incorporation, temporary use, or constructive use of any archaeological resources under the Preferred Alignment. Therefore, the Preferred Alignment would not result in the use of any archaeological resources protected under Section 4(f).

8.2.2 Parks, Recreation, and Wildlife /Waterfowl Refuge Resources

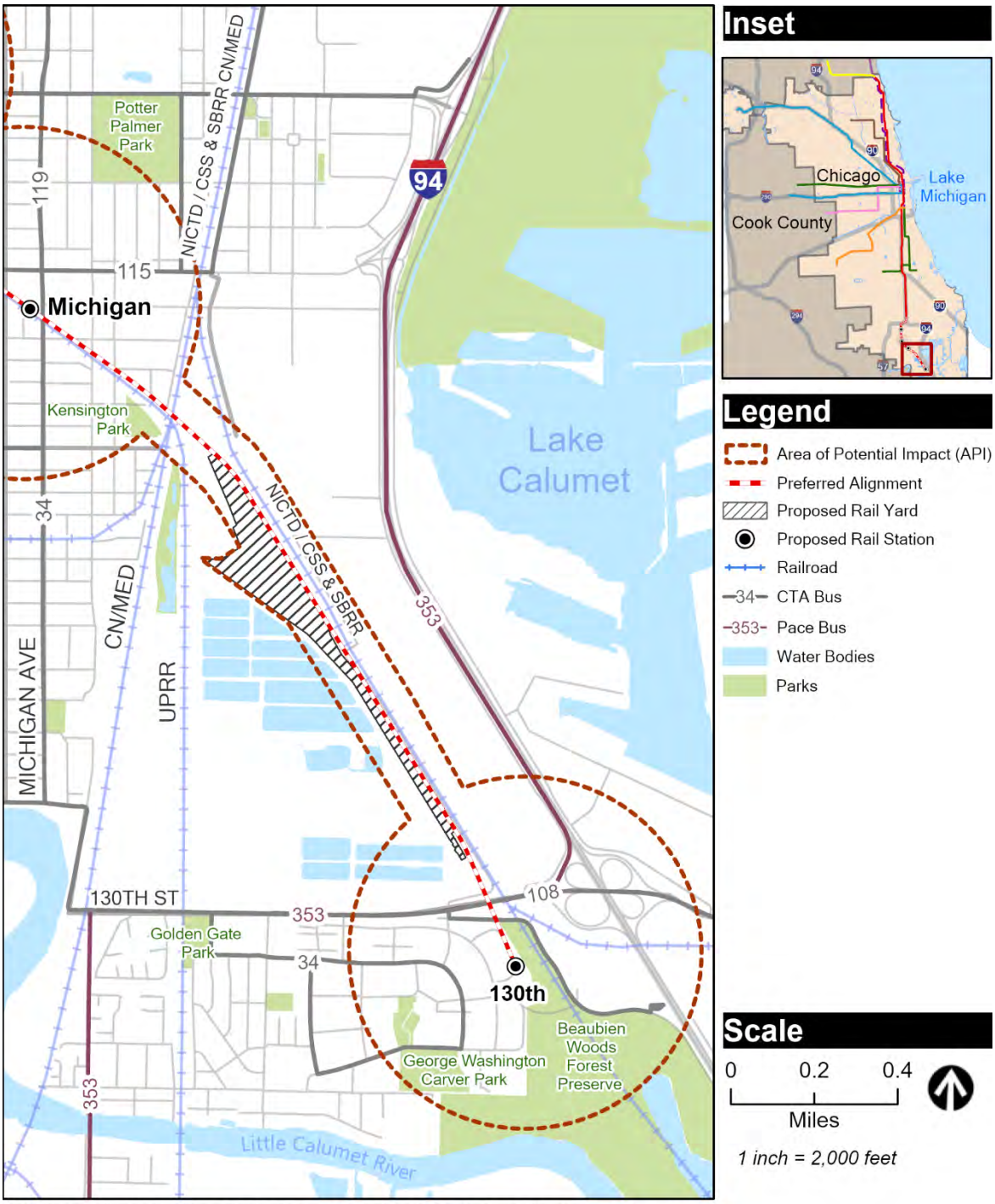
No wildlife or waterfowl refuges were identified within a ½ mile of the Preferred Alignment. There would be no permanent incorporation, temporary use, or a constructive use of any wildlife/waterfowl resources; therefore, the Preferred Alignment would not result in the use of any wildlife/waterfowl refuges protected under Section 4(f). This does not represent any change since the issuance of the Draft EIS.

All public parks and recreational properties within 500 feet of the Preferred Alignment and within a ½ mile of the proposed station locations were analyzed for further evaluation of potential Section 4(f) use. **Figure 8-1** and **Figure 8-2** show the locations of these parks. **Table 8-2** lists the parks adjacent to the Preferred Alignment and determinations of Section 4(f) use. As was disclosed in the Draft EIS, there would be no Section 4(f) use of Robert Abbot Park, Fernwood Park, Potter Palmer Park, Kensington Park, George Washington Carver Park, or Beaubien Woods Forest Preserve permanently or during construction. As part of the Supplemental EA, CTA coordinated with FPCC concerning the 130th Street station relocation adjacent to Beaubien Woods Forest Preserve, a Section 4(f) property; however, it was determined that there would be no Section 4(f) use of Beaubien Woods Forest Preserve.



CN/MED = Canadian National/Metra Electric District, NICTD/CSS & SBRR = Northern Indiana Commuter Transportation District/Chicago South Shore & South Bend Railroad

Figure 8-1: Publicly Owned Park and Recreational Properties Adjacent to the Preferred Alignment (1 of 2)



CN/MED = Canadian National/Metra Electric District, NICTD/CSS & SBRR = Northern Indiana Commuter Transportation District/Chicago South Shore & South Bend Railroad

Figure 8-2: Publicly Owned Park and Recreational Properties Adjacent to the Preferred Alignment (2 of 2)

While the Draft EIS disclosed a Section 4(f) use of Block Park, there would no longer be a Section 4(f) use of this park with the Preferred Alignment. Parks subject to further evaluation since the Draft EIS under Section 4(f) include Wendell Smith Park and Fernwood Parkway. **Section 8-3** provides further details on the determination of Section 4(f) uses of these properties and findings.

Table 8-2: Park and Recreational Properties Evaluated for Section 4(f) Use

Park or Recreational Property Name	Address	Section 4(f) Use
Robert Abbott Park	49 E. 95th Street	No Use
Wendell Smith Park	9912 S. Princeton Avenue	No Use
Fernwood Parkway	9501 S. Eggleston Avenue	*De minimis*
Block Park	346 W. 104th Street	No Use
Fernwood Park	10436 S. Wallace Street	No Use
Potter Palmer Park	201 E. 111th Street	No Use
Kensington Park	345 E. 118th Street	No Use
George Washington Carver Park	939 E. 132nd Street	No Use
Beaubien Woods Forest Preserve	1 W. Doty Avenue	No Use

8.3 Use of Section 4(f) Properties

During construction of the Preferred Alignment, there would be temporary and minor construction activities within Wendell Smith Park for a short duration. These temporary construction activities, further described below, would not constitute a use under Section 4(f) and there would be no permanent use of the park under Section 4(f) as further described in **Section 8.3.1**.

The one Section 4(f) park property that would be used as a result of the project is Fernwood Parkway. The impacts to this 4(f) property are further evaluated in **Section 8.3.2**.

These impacts are not markedly different than those disclosed in the Draft EIS.

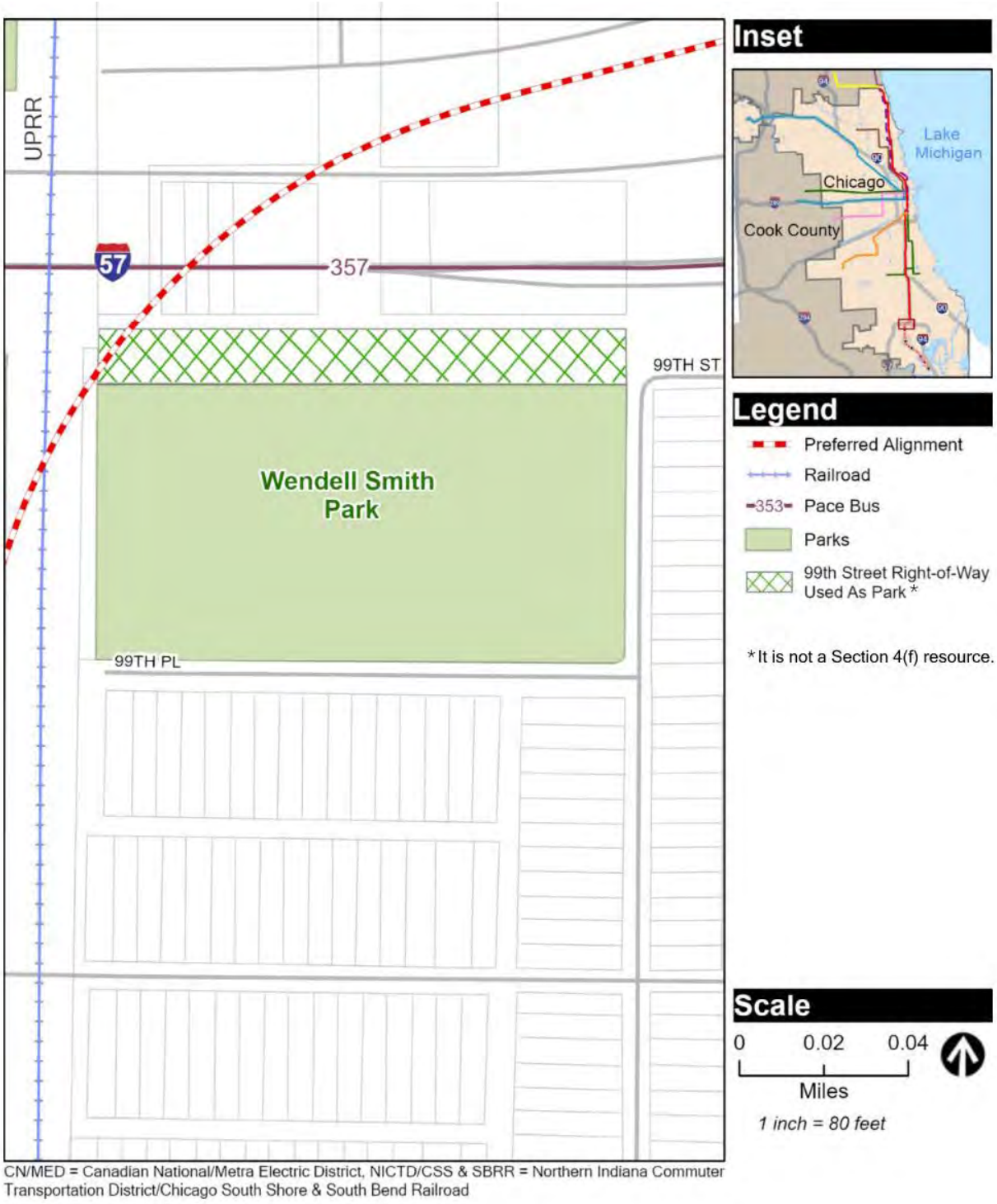
8.3.1 Wendell Smith Park

Description and Significance of Property

Wendell Smith Park is in Roseland and is approximately 4.7 acres (340 feet wide by 610 feet long). This park is an actively used facility with basketball courts, baseball fields, a play lot, recreation building, and 0.3 mile of walking trails. The Draft EIS provides a full description and pictures of Wendell Smith Park.

Section 4(f) Use Assessment

Figure 8-3 illustrates the proximity of the Preferred Alignment to Wendell Smith Park. The Preferred Alignment would be elevated over the northwest corner of the City-owned 99th Street right-of-way, which is currently used as Wendell Smith Park property but remains a transportation use and Section 4(f) does not apply. The Chicago Park District was granted usage of the 99th Street right-of-way to expand Wendell Smith Park through a City Ordinance dated December 20, 1989.



CN/MED = Canadian National/Metra Electric District, NICTD/CSS & SBRR = Northern Indiana Commuter Transportation District/Chicago South Shore & South Bend Railroad

Figure 8-3: Impacts on Wendell Smith Park

The ordinance prohibits buildings or other structures within the 99th Street right-of-way that would interfere with the use, maintenance, renewal, or reconstruction of public facilities.CTA would need to temporarily close the northwest corner of Wendell Smith Park (approximately 0.1 acre) in order to construct the RLE Project. Public use of the park would continue throughout construction of the project, and construction would not affect the attributes, features, or activities of the park. Based on the discussions between Chicago Park District and CTA about construction activities within the northwest corner of Wendell Smith Park, the Chicago Park District agrees that the construction activities would be considered a temporary occupancy under 23 CFR § 774.13 that is so minimal as to not constitute a Section 4(f) use. The Chicago Park District agrees that CTA meets the temporary occupancy conditions based on the following justification and agree that there would be no use of Wendell Smith Park: 1) The anticipated total closure time that is needed would be considerably less than the total time needed for the construction of the RLE Project. 2) There would be no change in land ownership for Wendell Smith Park. 3) The scope of work includes the placement of piers adjacent to the park right-of-way and the placement of girders for the elevated structure; however, the proximity of the park would require a construction easement for contractor access and the need to clear some trees, this work would be conducted through a required construction permit. 4) There would be no permanent adverse physical impacts, nor would there be a temporary or permanent interference with the activities, features, or attributes of the park. 5) The Chicago Park District would require a construction permit that requires full restoration, and the land would be fully restored to a condition at least as good as that which exists prior to the RLE Project. A letter dated April 19, 2022 from the Chicago Park District regarding the temporary occupancy of Wendell Smith Park for construction activities can be found within **Appendix Y**.

There would be no noise impacts related to operation of the Preferred Alignment after construction of mitigation measures (noise barrier). Trees within the park property would need to be cut to allow for construction activities, and the removal of tress for construction would be mitigated with replacement trees. Appropriate construction best management practices (BMPs) would be followed to shield construction activities, allow use of the property by the general public, and minimize any safety risks. This includes but is not limited to providing a detour for the sidewalks within Wendell Smith Park. During construction of the Preferred Alignment, there would be temporary and minor construction activities within Wendell Smith Park for a short duration. These temporary construction activities would be considered a temporary occupancy under 23 CFR § 774.13 and would not constitute a use of Wendell Smith Park under Section 4(f).

8.3.2 Fernwood Parkway

Description and Significance of Property

Fernwood Parkway is a passive green space in Washington Heights that extends from 95th Street to 103rd Street. The parkway is divided into four parcels, two of which are north of I-57 and two of which are south of I-57. The two parcels south of I-57 are separated by 101st Street. The northern parcel, from 99th Street to 101st Street, is approximately 2.3 acres (75-77 feet wide by 1,321 feet long). The southern parcel, from 101st Street to 103rd Street, is approximately 2.2 acres (75-77 feet wide by 1,293 feet long). Both the north and south parcels of Fernwood Parkway serve as open space and do not contain recreational facilities or amenities such as sidewalks or benches. Some trees are planted

within the park and a chain-link fence separates the green space from the existing at-grade UPRR tracks.

Section 4(f) Use Assessment

The Preferred Alignment track structure would run through the two parcels of Fernwood Parkway between 99th Street and 103rd Street, resulting in 4.5 acres of impacts to Fernwood Parkway. Elevated track structure supports would be placed permanently in the parkway, and the parkway south of 99th Street would be overlapped by the elevated structure and its associated clearances (see **Figure 8-4**). This would result in a permanent incorporation of the park space, which constitutes a use under Section 4(f). Mitigation measures, further discussed below, would be implemented in advance of construction to the extent possible. There would be a direct use of this Section 4(f) property. The UPRR West Option in the Draft EIS only considered the shadow effects of the elevated structure resulting in a permanent incorporation of 1.9 acres of Fernwood Parkway. For the Preferred Alignment, additional coordination with the Chicago Park District defined the impact as not just the shadow effects but the entirety of these two parcels of Fernwood Parkway. Therefore, the UPRR West Option would have also resulted in the same 4.5 acres of impacts to Fernwood Parkway.

All Possible Planning to Minimize Harm

Since the Draft EIS, the Chicago Park District has indicated their focus on fulfilling a need for smaller pocket parks within the communities instead of a single larger park. Community input identified a desire to add pocket parks along Major Taylor Bike Trail in addition to the Washington Heights community area which is directly adjacent to the affected Fernwood Parkway. The Major Taylor Bike Trail is a 35.30-acre park containing over 6 miles of bicycle and pedestrian pathway. Maintained and managed by Chicago Park District, the trail stretches through three Chicago community areas: Washington Heights, West Pullman, and Morgan Park. The Chicago Park District would transfer the two parcels of Fernwood Parkway between 99th Street and 103rd Street to CTA. CTA would, in return, mitigate impacts to Fernwood Parkway through the creation of new pocket park sites. These pocket park sites would be directly adjacent to the Major Taylor Trail, in the Washington Heights community area, or additional areas based on future coordination with Chicago Park District. A combination of already discussed sites or newly identified sites totaling 4.5 acres of Chicago Park District property affected would serve as replacement parks. New park space created through this replacement acreage would include passive recreational space, constructed in accordance with Chicago Park District standards, and facilitate Chicago Park District master planning goals and objectives. Phase I and II environmental site assessments would be conducted on the selected sites prior to acquisition, as required. In addition, CTA would coordinate with the City of Chicago, if needed, to ensure zoning of these parcels is consistent with future park uses by rezoning or receiving appropriate zoning approvals. CTA is actively coordinating with the Chicago Park District regarding impacts to Fernwood Parkway to finalize the locations to replace impacted park lands with lands of reasonably equivalent usefulness and location. After mitigation, there would not be any remaining adverse impacts on park activities, features, or attributes from the RLE Project. **Appendix Y** provides additional information on the selection of these pocket parks and Chicago Park District coordination, including meeting minutes from the meetings with the Chicago Park District that occurred on February 18, May 26, August 25, September 14, and October 22, 2021.

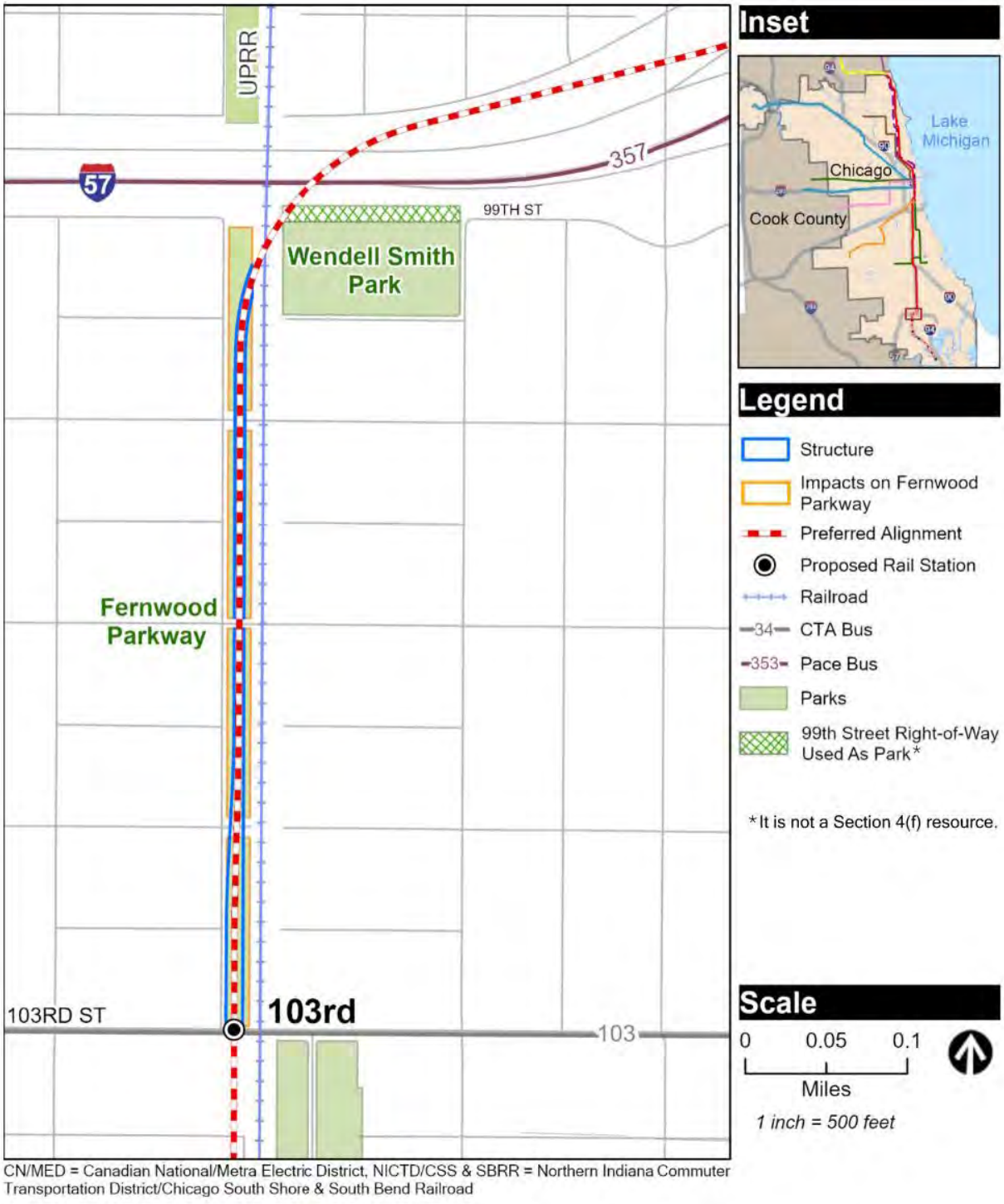


Figure 8-4: Impacts on Fernwood Parkway

Section 4(f) Finding

Based on consideration of the proposed direct use as well as the mitigation and enhancement measures, no adverse impacts on the attributes, features, or activities would result from the Preferred Alignment; therefore, a *de minimis* finding is documented for this Section 4(f) use in the Final EIS. Landscaping would also be used to minimize visual impacts as discussed in **Section 4.4**. Replacement parkland proposed as mitigation would replace this linear open green space with pocket parks directly adjacent to the Major Taylor Trail, in the Washington Heights community area, or at additional locations based on future coordination with the Chicago Park District. Replacement ratio would be 1 to 1, for a total of 4.5 acres of replacement parks. Replacement parkland consists of vacant parcels of property that are currently owned by the City of Chicago, Cook County Land Bank Authority, or privately owned. No displacements are anticipated for the replacement parkland.

After publication of the Draft EIS and public comments were received, FTA issued a preliminary Section 4(f) determination on August 2, 2017 to the Chicago Park District. The Chicago Park District concurred with the *de minimis* finding in a letter dated September 21, 2017. During development of the Final EIS, coordination continued with the Chicago Park District through the refinement of the Preferred Alignment and a need had been identified to develop pocket parks within communities. Additional coordination was conducted with the Chicago Park District to identify potential pocket park locations adjacent to the Major Taylor Trail or in the Washington Heights community area. CTA and the Chicago Park District coordinated on several potential locations for new pocket parks as discussed in further detail in **Appendix Y**. The Chicago Park District reaffirmed their concurrence with FTA's Section 4(f) *de minimis* finding in their letter dated September 10, 2021 (**Appendix Y**). After further coordination with the Chicago Park District, CTA updated this *de minimis* finding letter to include additional areas based on future coordination with Chicago Park District. This letter was executed by the Chicago Park District on April 19, 2022.

In coordination with the Chicago Park District, CTA would identify and acquire park space totaling 4.5 acres to be used for replacement parks. Prior to acquisition of the park space, CTA would conduct Phase I and II environmental site assessments and obtain environmental clearance on the selected sites, as required.

Chapter 9 Evaluation of Alternatives

After the publication of the Draft EIS, continued design and outreach by CTA resulted in the selection of the Preferred Alignment for the RLE Project, announced to the public on January 26, 2018. The Preferred Alignment is a hybrid of the East and West Options of the UPRR Rail Alternative presented in the Draft EIS. This chapter presents estimated capital expenditures (e.g., construction costs), and operations and maintenance (O&M) costs associated with the Preferred Alignment, as well as an overview of potential financing and funding opportunities. This chapter evaluates the Preferred Alignment through a comparison to the East and West Options of the UPRR Rail Alternative presented in the Draft EIS, where feasible.

9.1 Potential Capital and Operating Funding Strategies

Capital and O&M costs included in the following analysis reflect the results of planning and engineering completed to date to support the technical analyses in the Final EIS. These costs and potential revenue sources would be refined to reflect more detailed engineering and operational planning that would be conducted as the project moves through FTA's New Starts Project Development process and to reflect changes in available funding sources and financing approaches. CTA will prepare a detailed financial plan to support CTA's request for funding through the FTA Section 5309 Capital Investment Grant (CIG) Program.

Capital costs presented in this chapter are in year of expenditure (YOE) dollars and are estimated by escalating capital costs from 2021 base year dollars. YOE dollars reflect the financial impact of funding that would need to be expended in the actual YOE and the relative effects of inflation on capital costs. Annual and compounded inflation rates and the preliminary implementation schedules are used to project base year dollars to YOE dollars.

9.1.1 Capital Cost Estimate

For the Draft EIS, the base year capital cost estimates were originally prepared in 2013 dollars and then escalated to 2015 base year dollars using the annual and compound annual construction cost growth rates. This estimate was escalated to YOE dollars from 2015 base year dollars using the ENR Construction Cost Index combined with preliminary implementation schedules. Since the publication of Draft EIS, CTA has significantly advanced design and preliminary engineering and refined the cost estimate using this updated project information and unit cost estimate process. The unit cost estimate process is based on more detailed project information such as assessment of labor costs, production rates, equipment used by crew type, and breakout of temporary and permanent materials used. It also incorporates the updated schedule (announced in December 2020), revising the cost escalation for the year of expenditure. The cost estimate takes into account the current inflationary environment. Together, the revised schedule and inflation account for the majority of the change in cost.

Based on the projected annual construction cost growth rates, the total capital cost is estimated to be $3.6 billion (YOE dollars). Between FY 2019-2024, the costs reflect design engineering, right-of-way acquisition, and utility relocation. Construction would occur between FY 2025-2029. Start-up activities, including testing, would occur in FY 2028-2029, and project close-out and remaining

professional services activities, including FTA's Before and After Study requirements, would be completed in FY 2030-2031. Additionally, for the YOE analysis, CTA escalated capital costs from 2019 base year dollars using the Producer Price and Consumer Price indices as of February 2022. The percent of construction activities expected to be completed by year was used to estimate the annual capital costs over the FY 2019-2030 period. As the Preferred Alignment moves through FTA's Project Development process, this implementation schedule will be revised to reflect future federal approvals, detailed engineering, and funding availability.

9.1.2 Potential Capital Funding Sources and Financing Options

The potential funding sources and financing mechanisms described below reflect an initial list that could support the implementation of the Preferred Alignment. At this stage of Project Development, the preliminary funding plan for the project assumes up to a 60 percent contribution from the FTA Section 5309 CIG program (New Starts) towards the total project cost, and the remainder of the funding from non-CIG sources. The funding plan would continue to evolve in 2022 in advance of the Entry into Engineering submittal to FTA.

Potential Capital Funding Sources

Below are summary descriptions of the Section 5309 CIG Program and potential traditional and innovative approaches under consideration to fund the non-New Starts share or local share of the total project cost. As the Preferred Alignment continues through the FTA Project Development phase, CTA would determine the specific sources and levels of funding to cover the non-CIG project cost share. This is consistent with CTA's traditional project implementation approach of working with the public and key stakeholders to request funds after determining and communicating the Preferred Alignment.

- FTA Section 5309 CIG Program (New Starts) - CTA intends to seek CIG funding from FTA under the federal New Starts program. The CIG program, more commonly known as the New Starts, Small Starts, and Core Capacity Program, involves a multiyear, multistep process that project sponsors must complete before a project is eligible for a grant award. The steps in the process and the basic requirements of the program can be found on FTA's website at www.fta.dot.gov.

  FTA must evaluate and rate proposed projects seeking funding from the CIG program on a set of project justification and local financial commitment criteria specified in law. The criteria evaluate the merits of the project and the ability of the project sponsor to build and operate the project as well as the existing transit system. FTA assigns ratings from low to high based on information that project sponsors submit on the project cost, benefits, requested amount of CIG funds, and overall financial plan. Projects must receive a medium or better overall rating to advance through the steps in the process and be eligible for CIG funding. As projects proceed through the steps in the process, information concerning costs, benefits, and impacts is refined and the ratings are updated to reflect new information.

  As stated above, the financial analysis that informs the Final EIS assumes that CTA would pursue CIG funding through a New Starts Full Funding Grant Agreement (FFGA) of up to approximately 60 percent of the total project cost.

- Other Federal Funding Programs - In addition to the proposed New Starts funding, CTA could pursue the use of other federal funding (non-CIG) programs to support implementation of the Preferred Alignment. The total federal funding share for the project (New Starts plus other federal funding programs) cannot exceed 80 percent. The other federal funding program under consideration include the Federal Highway Administration (FHWA) programs listed below:
    - FHWA Funding - Funding from these programs would be eligible to be "flexed" (transferred) to FTA to support implementation of transit capital investment projects. These funds are programmed by Chicago Metropolitan Agency for Planning (CMAP) and would require adoption in the Long Range Transportation Plan and TIP to be used to fund a portion of the Preferred Alignment's capital costs as described below::
        - The Congestion Mitigation and Air Quality Improvement (CMAQ) program is a federally funded program of surface transportation improvements designed to fund several types of surface transportation projects that improve air quality and mitigate congestion.
        - The Surface Transportation Block Grant (STBG) Program is a flexible federal funding stream that can be used for transit capital projects, among other eligible project types. A portion of the STBG allocated to the Chicagoland region is distributed competitively as the STP-Shared Fund, in order to support larger-scale regional projects that align with the goals and priorities of the regional long-range plan, ON TO 2050.
        - In October 2021, the CMAP Board and MPO Policy Committee approved the FFY 2022 – 2026 CMAQ program and the locally programmed Transportation Alternatives Program (TAP-L), as well as a FFY 2022-2026 STP Shared Fund program. Subsequently, FHWA and FTA found the projects included in the programs met federal eligibility requirements of the programs. The approved CMAQ program included $30,000,000 in federal funds for the CTA RLE Project.
        - CTA will work with CMAP to determine whether other federal funding could be 'flexed' to transit in support of RLE, including any new programs developed under the Bipartisan Infrastructure Law.
- State Funds - Historically, the State of Illinois has provided funding assistance for CTA's major capital improvement projects. As the Preferred Alignment moves through the Project Development phase, CTA would work with State leaders to potentially include the project in future transportation funding packages.
- Local Funds - As part of the future detailed financial plan, CTA would evaluate opportunities to leverage potential local revenue sources, including a special Transit Tax Increment Financing (TIF) district. On June 30, 2016, the Illinois General Assembly approved a modified form of TIF, known as Transit TIF, to raise local revenues to fund the following four major transit improvements in Chicago and adjacent municipalities: the RLE Project, the Red-Purple Modernization (RPM) Program, Union Station improvements, and the Blue Line Modernization Project. These new areas are referred to as Transit Facility Improvement Areas (TFIA) and

would use incremental property tax revenue to fund improvements. A TFIA as defined in the legislation is an area whose boundaries are no more than a ½ mile in any direction from the location of a mass transit facility. The TIF district for a TFIA will have a 35-year life. The designation of the RLE Transit TIF is targeted for December 2022.

Traditional and Innovative Financing

Below is an overview of traditional federal and local financing mechanisms. A source(s) of funding would be required to repay these potential financing mechanisms. CTA is working with partners to evaluate a variety of potential new revenue sources and/or expansion of existing revenue sources that would support transportation improvements throughout the region. The potential sources could include new or increased levels of State, County, and local taxes, as well as potential value capture mechanisms such as Transit TIF.

- CTA Bonds - CTA's existing debt financing is composed primarily of four different types of long-term bonds: Sales and Transfer Tax Receipts Revenue Bonds, Sales Tax Receipts Revenue Bonds, Building Revenue Bonds, and Capital Grant Receipts Revenue Bonds. As the project moves forward, CTA would determine the most appropriate bonding mechanism to provide local support for the non-CIG share of funding required for the project. The current Project Development phase is funded in part by CTA bonds.

- Transportation Infrastructure Finance and Innovation Act (TIFIA) Loan – Through USDOT, TIFIA provides federal credit assistance (financing) for eligible projects of regional and national significance. TIFIA credit assistance provides improved access to capital markets, flexible repayment terms, and potentially more favorable interest rates than can be found in private capital markets for similar financing instruments. TIFIA can help advance qualified, large-scale projects that otherwise might be delayed or deferred because of size, complexity, or uncertainty over the timing of revenues. Given the flexible repayment terms and favorable interest rates, TIFIA finance has become an increasingly popular financial tool for transportation agencies.

  In April 2014, CTA was successful in obtaining CTA's first TIFIA Loan of $79.2 million for the 95th/Dan Ryan terminal improvement project. In 2015, CTA entered a second $120 million TIFIA agreement to support the Your New Blue Program. In 2016, CTA entered a third TIFIA loan for $254.9 million in funding as part of the project to purchase 400 new 7000-Series railcars. CTA is seeking its fourth TIFIA loan as part of the funding the RPM Phase One Project.

9.1.3 Operating Cost Estimates

The RLE Project O&M Cost Model Methodology technical memorandum, under separate cover, documents the methodology used to develop the O&M cost model for the RLE Project to inform planning, budgeting, and FTA New Starts application efforts. An overview of the O&M cost model and the latest model results are included below.

Model Overview

The cost model uses a cost per unit of service derived from 2020 actual CTA operating expenses. The model incorporates project-specific and CTA system-wide service, and infrastructure-related "cost driver" statistics for year 2020 in alignment with CTA 2019 General Ledger operating cost data.

Incremental RLE Project Scenario

Once the O&M model is calibrated to reflect existing system-wide conditions, scenarios can be tested in which one or more cost driver units are changed to reflect the project. The Incremental RLE Project Scenario (also referred to as the "Recommended Bus+RLE" scenario in the RLE Project O&M Cost Model Methodology technical memorandum) adds RLE Project-specific cost drivers to the existing CTA system, applying the new combined total system cost drivers to the system-wide unit costs to determine the annual system-wide O&M cost, and the incremental cost specifically attributable to the project.

Project cost drivers and other quantities are subject to further refinement as the project advances through the FTA Project Development and Engineering phases. Therefore, the cost model reflects a "snapshot" of the best available data at the time of model update, including the following assumptions and project-related inputs:

In the Incremental RLE Project Scenario, rail revenue-hours, revenue-car-miles, peak trains, and peak railcars are estimated based on the assumption that all existing Red Line trips will be extended the full length of the project corridor, operating the full length of Red Line between Howard station and 130th Street station, with no "short turns" or other atypical service patterns. Detailed timetables are still to be developed and the precise service statistics are subject to change.

The Incremental RLE Project Scenario incorporates bus service statistics based on bus service recommendations developed for the RLE Project. Detailed timetables are still to be developed and the precise service statistics are subject to change.

Design and preliminary engineering are underway and will result in refinements to project-specific inputs such as track-miles, station and platform area, manned entrances, and elevators/escalators. The design could also result in slight revisions to the running time which would impact revenue-hours.

2020 Model Results

The CTA O&M model was updated in early 2022 using 2020 data. The 2020 annual incremental O&M cost of the project is estimated at $32.7 million (2020 dollars). This represents an increase of approximately 2.1 percent over the existing 2020 total System O&M cost of $1.538 billion, resulting in a new total System O&M cost of $1.571 billion.

These estimates are subject to change as service planning, design and preliminary engineering, and other decision-making evolves for the RLE Project.

9.1.4 Potential Operating Revenue Sources

CTA anticipates the use of the following system-generated and public funding sources to fund the O&M costs of the Preferred Alignment as well as system-wide rail and bus operations:

- System-Generated Revenues – Includes fares and passes; reduced fare subsidy; advertising, charters, and concessions revenues; investment income revenue; statutory required contributions from the City of Chicago and Cook County; and other revenues includes parking charges, rental revenue, third-party contractor reimbursements, and filming fees, among other income sources.

- Public Funding - The amount of public funding available for CTA operations is determined by the Regional Transportation Authority. Public funding has three sources: sales tax revenue, public transportation funds, and the real estate transfer tax. The three funding sources are authorized under Illinois statutes passed in 1983 and 2008.

9.2 Comparison of Alternatives

This section summarizes information from the other chapters of the Final EIS, including project benefits, potential to meet purpose and need goals, environmental impacts, and costs.

9.2.1 Evaluation Goals and Criteria

CTA used the following evaluation goals and criteria to compare the benefits and drawbacks of the East and West Options in the Draft EIS and has evaluated the Preferred Alignment in the same manner for the Final EIS. These goals reflect CTA's desire to provide enhanced transit service and promote economic development throughout the communities surrounding the RLE Project in a fiscally sound manner while minimizing adverse environmental impacts. For each goal, this evaluation applied the criteria listed below to determine the extent to which the Preferred Alignment would meet that goal.

These goals are based on the purpose and need (**Appendix D**), the AA process (**Appendix A**), comments received during scoping and public involvement for the Draft EIS and Supplemental EA (**Appendix C**), and the environmental analyses in **Chapters 3–8** of the Final EIS. The Draft EIS defined the greater 20 square mile project area, referenced in the goals below, and it encompasses the entirety of the areas of potential impacts (API) defined and evaluated in the Final EIS.

Goal 1 - Reduce Transit Times

Goal 1 is evaluated based on the following criteria:

- Reduce transit times for residents, from within and south of the project area to the 95th/Dan Ryan terminal and the Loop.

- Provide direct access to the CTA rail system for transit-dependent populations.
    - New stations convenient to transit-dependent communities
    - Direct service to public housing such as Altgeld Gardens

Goal 2 - Increase Travel Choices

Goal 2 is evaluated based on the following criteria:

- Provide better transit access to regional employment centers and local commercial areas.
- Allow for potential connections to other public transportation modes including regional commuter rail.
- Reduce geographic isolation of the project area and improve connections to major activity centers.
- Provide opportunities for drivers commuting on expressways to park and use transit to complete their trips.
    - Number of stations with park & ride facilities
    - Total park & ride spaces

Goal 3 - Increase Economic Competitiveness

Goal 3 is evaluated based on the following criterion:

- Foster economic development in the project area by providing stations that can encourage nearby development.

Goal 4 - Minimize Environmental Impacts

Goal 4 is evaluated based on minimizing environmental impacts:

- Displacement and Relocation Impacts
- Noise Impacts
- Park Impacts
- Community Character Impacts
- Visual and Aesthetic Impacts

Goal 5 - Provide the Best Value

Goal 5 is evaluated based on the following criteria:

- Projected ridership
- Capital costs to construct the project
- Changes in operating and maintenance costs for the system

9.2.2 Evaluation Results

Table 9-3 provides specific measurements for the goals identified in **Section 9.2.1** and compares the extent to which the No Build Alternative and the Preferred Alignment would meet the goals.

Table 9-3: Comparative Evaluation of Alternatives

Criteria	No Build Alternative	Preferred Alignment
Goal 1 - Reduce Transit Times		
Travel Times Between Stations[1] 130th Street to 95th/Dan Ryan terminal 130th Street to Jackson Station (Loop)	 38 minutes 69 minutes	 15 minutes 40 minutes
Would the proposed stations serve transit-dependent communities?	No	Yes
Would there be new direct service to Altgeld Gardens?	No	Yes
Goal 2 - Increase Travel Choices		
Would there be better access to regional employment centers and local commercial areas?	No	Yes
Would potential connections to other public transportation modes in the communities adjacent to the RLE Project be possible?	No	Yes
Would geographic isolation be reduced?	No	Yes
How many stations would have park & ride facilities?	0	4 of 4
Total park & ride spaces	0	Up to 1,340
Goal 3 - Increase Economic Competitiveness		
Could nearby development be encouraged?	No	Yes
Goal 4 - Minimize Environmental Impacts		
Displacements and Relocations Properties Buildings	 0 0	 228 97
Noise Impacts After Mitigation Receivers with Moderate Noise Impacts (before mitigation/after mitigation) Receivers with Severe Noise Impacts (before mitigation/after mitigation)	No change 0 0	Not adverse 278/15 91/0
Park Impacts (Not Adverse After Mitigation) Construction Phase Permanent Permanent (acres)	 0 parks 0 parks 0 acres	 1 park 1 park 4.5 acres
Would there be community impacts after mitigation?	No	Yes

Criteria	No Build Alternative	Preferred Alignment
Would there be visual and aesthetic impacts after mitigation?	No	Yes
Goal 5 - Provide the Best Value		
Projected Ridership (per weekday) [2]	0	41,500
Capital Costs (in Billions, YOE)	$0	$3.6
Annual Change in O&M Costs (in Millions)[3]	No Change	$32.7

1 No Build travel time is based on a Northbound trip using bus route #34 and transferring to Red Line at 95th/Dan Ryan terminal in AM peak period; it includes bus and rail running times, wait times, and transfer time at 95th terminal. Preferred Alignment travel time includes RLE running time and wait time at 130th Street station. Travel times have been updated since Draft EIS based on 2021 schedules and project engineering.
2 Ridership is based on Simplified Trips-on-Project Software (STOPS) ridership model output projecting 2040 ridership.
3 O&M = Operations and maintenance. Difference from No Build Alternative shown in 2020 dollars

Based on the criteria above, the Preferred Alignment would meet the identified goals. The sections below provide further discussion of the evaluation in the context of the East and West Options evaluated in the Draft EIS in addition to the Preferred Alignment in the Final EIS for comparison.

Goal 1 - Reduce Transit Times

Under the No Build Alterative, transit times in the vicinity of the RLE Project would remain the same. The East Option, West Option, and Preferred Alignment would reduce transit travel times between the communities surrounding the RLE Project and destinations along the existing CTA rail system because it would extend the Red Line southward from the 95th/Dan Ryan terminal, with no transfer at the 95th/Dan Ryan terminal required. The East Option, West Option, and Preferred Alignment would include new stations in transit-dependent communities, which would provide residents with more mobility and better access to jobs and services. The 130th Street station would serve the residents of Altgeld Gardens among all alternatives; however, the Preferred Alignment would provide more direct access because the 130th Street station would be within the Altgeld Gardens neighborhood rather than north of 130th Street as was the case for the East and West Options. The East Option, West Option, and Preferred Alignment would provide enhanced mobility, particularly for residents who do not have access to a car and would allow them easier access to regional employment and activity centers. The Preferred Alignment would provide 29 minutes of time savings to riders traveling from 130th Street station to the Loop.

Goal 2 - Increase Travel Choices

The No Build Alternative would not provide any transit service improvements and would therefore not increase travel choices in the vicinity of the RLE Project. The East Option, West Option, and Preferred Alignment would provide transit service to the communities adjacent to the RLE Project and would provide better transit access to regional employment centers and local commercial areas. The East Option, West Option, and Preferred Alignment would serve geographically isolated neighborhoods and improve their connections to regional job centers. The Preferred Alignment would provide closer, more direct pedestrian access from the Altgeld Gardens neighborhood to 130th Street station due to proximity. With the extension of the Red Line, some existing bus routes would be rerouted to feed into the proposed stations. All stations would include park & ride facilities for motorists wishing to park their cars and complete their trips using transit. These facilities would potentially attract motorists from the nearby expressways and give project area residents and residents from the south suburbs of Chicago more options for accessing the enhanced

transit service. The RLE Project would result in a 46 percent increase in newly accessible jobs within an hour commute of the RLE project area. Many colleges and universities offer classes and job training programs at night.

Goal 3 - Increase Economic Competitiveness

The new stations could serve as catalysts for development and neighborhood revitalization. Concurrent with the Final EIS, CTA developed a Transit-Supportive Development (TSD) Plan based on the community's vision for future development on the RLE corridor. By providing new, high-quality transit service to communities that have experienced long-term disinvestment, the East Option, West Option, and Preferred Alignment could encourage improvement of local economic conditions for residents of those communities in the vicinity of the RLE Project. However, the Preferred Alignment would offer the greatest potential for development near the 130th Street station. In 2017, after publication of the Draft EIS, CHA demolished Blocks 11, 12, and 13 of the Altgeld Gardens neighborhood, creating an opportunity to relocate the station south of 130th Street to the area of the demolished blocks which would provide numerous benefits over the location proposed in the Draft EIS, namely transit-supportive development. The demolition of Blocks 11, 12, and 13 of Altgeld Gardens was an activity completed by CHA and was independent and unrelated to the RLE Project.

Goal 4 - Minimize Environmental Impacts

The No Build Alternative would not have any environmental impacts, but also would not improve transit service in the communities adjacent to the RLE Project; therefore, it would not fulfill the purpose and need of the RLE Project. The East Option, West Option, and Preferred Alignment would have greater environmental impacts than the No Build Alternative but would fulfill the purpose and need of the project. Mitigation measures to address the potentially adverse impacts are included in **Chapters 3–8**.

The East Option, West Option, and Preferred Alignment would require displacements along their proposed alignments. In the Draft EIS, based on conceptual design, the East Option would require 106 building displacements, most of which would be residential, and the West Option would require 46 building displacements, which would be a mix of residential, commercial, and industrial. However, the Preferred Alignment development has advanced through 30 percent design including substantial design refinements. Based on 30 percent design, the Preferred Alignment would require 97 building displacements, which would be a mix of residential, commercial, and industrial. Noise-sensitive receivers along the East and West Option alignments and the Preferred Alignment would have moderate and severe noise impacts before mitigation. Under the East Option, 574 noise-sensitive receivers would have moderate impacts, and 83 noise-sensitive receivers would have severe impacts. Under the West Option, 738 noise-sensitive receivers would have moderate impacts, and 49 noise-sensitive receivers would have severe impacts. Under the Preferred Alignment, 278 noise-sensitive receivers would have moderate impacts, and 91 noise-sensitive receivers would have severe impacts. Under both the East and West Options, CTA would construct a noise barrier along both sides of the elevated track structure from the 95th/Dan Ryan terminal to the CN/MED tracks near 119th Street, to reduce noise to levels below FTA noise impact criteria. Impacts would not be severe after mitigation. Under the Preferred Alignment, CTA would construct a noise barrier at a minimum height of 3.5 feet above the top-of-rail elevation and has reduced the

lineal extent of the noise barriers along the corridor from approximately 40,000 feet to approximately 33,600 feet by more closely evaluating the locations of noise sensitive receivers where impacts would actually be mitigated by the placement of noise barriers. Noise walls also perform a secondary function related to worker and emergency evacuation safety.

The East and West Options and the Preferred Alignment would all affect parks in the API. The East Option would have permanent and construction impacts on Wendell Smith Park and Block Park. The West Option would have construction impacts on Wendell Smith Park and permanent impacts on Fernwood Parkway. The Preferred Alignment would have similar construction impacts on Wendell Smith Park and permanent impacts on Fernwood Parkway as estimated for the West Option. The West Option and the Preferred Alignment would require the elevated structure to be built above Fernwood Parkway between 99th and 103rd Streets. The East Option would permanently affect 1.6 acres of parkland, and the West Option and Preferred Alignment would permanently affect 4.5 acres of parkland.

The placement of new elevated structures and park & ride facilities into existing communities would result in community character impacts that would remain adverse after mitigation under the East and West Options and the Preferred Alignment. The East Option would have adverse impacts on community character and cohesion despite mitigation because the elevated structure would noticeably alter the character and scale of the residential neighborhood north of I-57 in Roseland and near 117th Street and Prairie Avenue in West Pullman. The West Option would have adverse impacts on community character and cohesion despite mitigation because the elevated structure would noticeably alter the character and scale of the residential neighborhood north of I-57 in Roseland and between 99th and 103rd Streets in Washington Heights, near the 103rd Street station in Washington Heights, and near the Michigan Avenue station park & ride facility in West Pullman. Similarly, the Preferred Alignment would have adverse impacts on community character and cohesion despite mitigation because the addition of the elevated structure would noticeably alter the character and scale of the residential neighborhoods. Similarly, the 130th Street station, particularly the four-level parking garage, would noticeably alter the character of the Altgeld Gardens neighborhood for the residences that front on Greenwood Avenue.

Both the East and West Options would have adverse visual impacts despite mitigation. Under the East Option, the elevated track structure would create an adverse visual impact north of I-57 and at the intersection of 117th Street and Prairie Avenue. As part of the West Option, the elevated track structure would create an adverse visual impact north of I-57 and between 99th and 103rd Streets, and at the 103rd Street station. The Preferred Alignment would also have adverse visual impacts despite mitigation because the elevated track structure would create an adverse visual impact north I-57 and between 99th Street and the 103rd Street station area, at the 107th Place cross-over, 117th Street and Prairie Avenue and at the 130th Street station.

Goal 5 - Provide the Best Value

The East Option, West Option, and Preferred Alignment have negligible differences between the ridership, capital costs, and O&M costs. The Preferred Alignment maximizes the benefits and reduces the impacts of the East and West Options, as previously described throughout this Final EIS. CTA developed the Preferred Alignment in this Final EIS to meet Goals 1–4 described above and to meet the goals in a cost-efficient manner.

Chapter 10 Public and Agency Coordination

This chapter and the *Agency Coordination and Public Involvement Appendix* (**Appendix C**) document outreach activities that FTA and CTA have undertaken for the RLE Project. **Chapter 10** focuses on the outreach conducted since the publication of the Draft EIS in 2016 through the development and announcement of the Preferred Alignment in 2018 and the publications of the Supplemental EA, and this Final EIS in 2022. A summary of activities is provided in the following sections.

10.1 Public Participation Plan

Extensive public outreach was conducted for the RLE Project during the Draft EIS process. CTA updated the Public Participation Plan (PPP) to build on the public outreach activities conducted during that process. The PPP outlines the goals and activities for stakeholder and public outreach during the Project Development phase, which includes the Final EIS and Preliminary Engineering. In addition, the PPP educates stakeholders and project team members on project goals and deliverables. CTA applied the framework established in the PPP to guide the engagement of stakeholders and the public. The PPP is a dynamic document that will continue to be revised and updated, as necessary, through the engineering phases of the RLE Project.

The goals of the PPP are:

- Build on project outreach conducted during the Draft EIS process.
- Inform key stakeholder groups and the public of the project's status, impacts, benefits, and progress towards completion.
- Ensure dialogue is maintained with affected parties.
- Provide project information and updates to stakeholders and the public through a range of activities.
- Provide information and updates regarding the project timeline, including construction and start-of-service estimates, as well as project funding.
- Ensure the area's diverse population, including Limited English Proficiency (LEP) and Environmental Justice (EJ) populations are included in the process.
- Encourage and inform stakeholders to become or remain supporters of the project.
- Provide information to and coordinate with displaced property owners and renters.

The PPP, originally created in August 2012 to guide public involvement and outreach process for the Draft EIS, builds upon the substantial public outreach activities conducted during the Draft EIS. It outlines outreach methods through the completion of the Supplemental EA and the Final EIS, as well as adapted approaches and guidelines for public participation during the COVID-19 pandemic when social distancing was required or in-person gatherings were not allowed. CTA

recognizes that as social distancing requirements are adjusted or lifted, individuals may still feel uncomfortable or unsafe gathering in groups. The most current version of the PPP is provided in **Appendix C**.

10.2 Agency Coordination

CTA continues to coordinate with agencies for this project. Coordination with the agencies continued since the publication of the Draft EIS, through the Supplemental EA and Final EIS processes as described throughout **Chapters 3** and **4** and documented in the appendices of the Final EIS. CTA continued to coordinate with the cooperating and participating agencies since the Draft EIS. The list of cooperating and participating agencies can be found in **Chapter 14** of this Final EIS. Outreach efforts were conducted in compliance with NEPA and other applicable regulations, including Section 106 of the NHPA, Section 4(f) of the USDOT Act of 1966, joint guidance and regulations from FTA and Federal Highway Administration, and other agency regulations and guidance. After publication of the Draft EIS, agency comments were received, and CTA provided direct responses to those comments. The agency comment response correspondence is provided in **Appendix C**.

Agency and public comments contributed to the development and evaluation of the Preferred Alignment. As described in **Chapter 2**, the Preferred Alignment is a hybrid of the UPRR East and West Options disclosed in the Draft EIS. After publication of the Draft EIS, public and agency comments were considered, and design changes were made to the RLE Project. Agency and public comments continued to influence the modification of the Preferred Alignment through design refinements as documented in the response matrix provided in **Appendix C** and discussed further in **Section 10.3**. Ongoing agency coordination and formal comments received from publication of the Supplemental EA continued to influence the modification of the Preferred Alignment through design refinements and project mitigation. Supplemental EA agency comments and response correspondence are also available in **Appendix C**. Agency coordination has been ongoing since the Draft EIS publication in 2016 and through 2022 with the development of the Final EIS. CTA has worked with agencies to obtain concurrence on resource impacts and collaborate on RLE Project mitigation measures.

10.2.1 Section 106 Coordination

The Section 106 consultation process established as part of the Draft EIS has been followed for the design changes presented in the Supplemental EA and the Final EIS. CTA and FTA sent letters to 22 consulting parties. All correspondence is provided in *the Historic and Cultural Resources Technical Memorandum* (**Appendix Q**). FTA and CTA sought information from individuals and organizations likely to have knowledge of local potential resources. Details of the consulting parties contacted can be found in **Appendix Q**. Consultation meetings focused on project design changes since the previous consultation that was conducted during the Draft EIS, which included updates to the APE, eligibility review, and effects discussions. For the Final EIS, in conjunction with the concurrent Supplemental EA coordination, the first consulting party meeting was held February 18, 2021. The second consulting party meeting was held on June 30, 2021. **Appendix Q** contains copies of correspondence and Section 106 consultation materials.

10.2.2 Tribal Coordination

Since the publication of the Draft EIS, FTA continued coordination with Native American tribes through project updates as part of the Section 106 consultation process to provide an opportunity to share potential cultural and/or religious concerns associated with the RLE Project or express support. FTA sent letters to the following tribal consulting parties on January 26, 2018 to inform them of the selection of the Preferred Alignment:

- Citizen Potawatomi Nation
- Ho-Chunk Nation
- Miami Tribe of Oklahoma
- Peoria Tribe of Indians of Oklahoma
- Pokagon Band of Potawatomi Indians
- Potawatomi Nation Hannahville Indian Community
- Prairie Band of Potawatomi Nation
- Sac and Fox Nation of Missouri
- Sac and Fox Nation of Oklahoma

FTA sent invitation letters to the following new tribal consulting parties on November 25, 2020:

- Kickapoo Tribe of Oklahoma
- Little Traverse Bay Bands of Odawa Indians, Michigan
- Menominee Indiana Tribe of Wisconsin

Native American tribes have not expressed any concerns regarding the RLE Project. Coordination with the tribes is ongoing through the RLE Project Section 106 and NEPA process.

10.2.3 Section 4(f) Coordination

CTA coordinated with the Chicago Park District due to the impacts to Wendell Smith Park and Fernwood Parkway. Documentation for the Section 4(f) coordination can be found in *Section 4(f) Replacement Park Analysis Technical Memorandum* (**Appendix Y**). The Section 106 consulting party meetings discussed in **Section 10.2.1** also serve as part of the Section 4(f) public involvement and agency coordination process.

CTA will continue to coordinate with the Chicago Park District regarding potential impacts and mitigation measures to Wendell Smith Park and Fernwood Parkway following publication of the Final EIS.

CTA has coordinated with the Forest Preserves of Cook County (FPCC) due to the 130th Street station location adjacent to Beaubien Woods Forest Preserve, a Section 4(f) property; however, it was determined that there would be no Section 4(f) use of Beaubien Woods Forest Preserve. Coordination activities are discussed in **Section 4.3.3.2**.

10.3 Public Outreach

Community outreach for the RLE Project has continued since the publication of the Draft EIS through the development of the Supplemental EA and Final EIS. CTA will continue to involve and consult the community as the RLE Project proceeds through design.

In an effort to further engage and seek support from a comprehensive group of community members who were seen as invested stakeholders within the RLE Project footprint, the RLE Project Advisory Council (PAC) was formed by CTA in 2019. The PAC is made up of approximately 24 representatives from 20 community and governmental organizations. Detailed information about the PAC can be found in the PPP provided in **Appendix C**.

Other public outreach activities included elected official updates, stakeholder and public meetings, issuance of newsletters, mailers (U.S. Postal Service mailings and hard copy drop-offs), a digital engagement platform (Bang the Table), regular postings on a RLE Project Facebook page, eBlasts (i.e., mass emails sent to people who signed up for RLE Project notifications), and announcements regarding the RLE Project. Community in-person meetings were held at venues that were ADA-accessible for attendees. In the spring of 2020, the COVID-19 pandemic prompted virtual adaptations and virtual meeting accommodations instead of in-person meetings and gatherings. Virtual stakeholder and public meetings allowed the participants to provide input, ask questions, share their comments, and discuss any concerns with CTA. The virtual community meetings were publicized by flyer, postcard notice, newspaper advertisements, eBlasts, customer alerts, and on the project website. For individuals needing assistance, Spanish interpreters and ASL interpreters were available for all virtual community meetings. Closed captioning was also offered. **Appendix C** contains copies of public outreach materials that have been issued for the RLE Project since the publication of the Draft EIS.

As described in the PPP, stakeholders have been grouped into project level stakeholders and the PAC. Project level stakeholders are people and organizations influential in the community nearest the RLE Project. The PAC is defined above. Public refers to the general audience who may be directly affected by a project (e.g., residents, local business owners). In addition, CTA has continued to coordinate with displaced property owners and renters. Property owners and renters identified as displaced have received communications in advance of project updates and activities near their property.

CTA continues to update the project website (https://www.transitchicago.com/rle/), which serves as the most up-to-date source of information for the public. CTA also conducted individual and group briefings for elected and public officials; community, civic, business, and religious leaders; and other stakeholders, providing them the opportunity to comment and inquire about the project.

CTA held meetings with community organizations and stakeholders since the Draft EIS through 2022. **Appendix C** provides a comprehensive list of the stakeholder groups within the PPP as well

as summary matrices of the official responses to public comments received after publication of the Draft EIS, announcement of the Preferred Alignment, and publication of the Supplemental EA. **Table 10-1** is a summary of the public meetings advertised for the RLE Project.

Table 10-1: Outreach Meetings Held to Date

Meeting	Location	Date and Time	Number of Attendees
Draft Environmental Impact Statement			
Public Hearing	St. John Missionary Baptist Church 211 E. 115th Street	November 1, 2016 5:30 to 7:30 PM	280
Preferred Alignment Announcement			
Open House	Gwendolyn Brooks College Preparatory Academy - Main Gym 250 E. 111th Street	February 13, 2018 6:00 to 8:00 PM	246
Supplemental Environmental Assessment			
Community Meeting	Virtual meeting hosted by CTA using Zoom and Facebook Live platforms	December 8, 2020 6:00 to 8:30 PM	68 (Zoom) 15 (Facebook Live)
Community Meeting	Virtual meeting hosted by CTA using Zoom and Facebook Live platforms	December 9, 2020 1:30 to 3:00 PM	69 (Zoom) 21 (Facebook Live)
Stakeholder Meeting	Altgeld Public Library 955 E. 131st Street	February 16, 2022 6:00 to 8:00 PM	11
Public Hearing	Virtual meeting hosted by CTA using Zoom and Facebook Live platforms	February 15, 2022 6:00 to 8:00 PM	129
	The Salvation Army Kroc Center 1250 W. 119th Street	February 17, 2022 6:00 to 8:00 PM	10

10.3.1 Draft Environmental Impact Statement Public Hearing

The Notice of Availability of the Draft EIS was published in the Federal Register on October 14, 2016, initiating the public comment period for the Draft EIS. The notice provided information regarding the public hearing and instructions on how to make comments regarding the Draft EIS. CTA also notified the public that the Draft EIS was available for review on their website on October 6, 2016. The public hearing was held on November 1, 2016. The formal comment period ended on November 30, 2016; however, CTA accepted comments received through December 31, 2016. A summary of the public hearing is provided in **Appendix C**. CTA received a total of 284 comments from the public, public agencies, tribes, and railroads. The Comment Response Matrix can be found in **Appendix C**.

10.3.2 Union Pacific Railroad Alternative - Preferred Alignment Announcement

CTA conducted public and agency outreach efforts for the selection of the Preferred Alignment announcement, including displacement-specific outreach to property owners and residents who would potentially be displaced by the project. CTA conducted meetings for invited property owners on February 6 and 8, 2018 to discuss displacements. CTA held an open house on February 13, 2018 to announce the Preferred Alignment. **Appendix C** provides a summary of the public outreach activities that occurred for the Preferred Alignment (i.e., Preferred Alignment Announcement, Public Open House, and Displacements Outreach Summary as of November 2018).

10.3.3 130th Street Station Relocation

CTA held meetings with partner agencies and stakeholder groups including residents in and near the proposed station relocation area (see **Appendix C**). The goal was to present the opportunity to relocate the terminal station south of 130th Street and solicit feedback from the public and organizations. CTA conducted briefings for elected officials on the proposed station relocation.

10.3.4 Supplemental EA

CTA conducted the first round of community meetings for the Supplemental EA on December 8 and 9, 2020. Because of the COVID-19 pandemic, virtual adaptations and virtual meeting accommodations were met through the Zoom webinar platform with a telephone dial-in option and Facebook Live. CTA solicited input and provided two-way communication through polling questions, a chat window, and a Question-and-Answer (Q&A) window. In addition, CTA announced the TSD Plan and new RLE engagement website during these meetings (www.transitchicago.com/rle/engage). **Appendix C** presents summaries of these meetings.

Community members in attendance submitted questions through the chat and Q&A windows regarding project funding, frequency of bus service, location of parking lots and sizes, noise and vibration during construction, employment opportunities for community members, inclusion of local design/artists in project design, and potential for transit-oriented development (TOD). CTA staff provided answers to the posted questions through the chat and Q&A windows.

Station-area specific meetings were held in January and February of 2021. In addition, an Altgeld Temporary Advisory Committee (TAC) meeting was held on January 25, 2021. The Altgeld TAC meeting solicited input and provided information to its members about topics and concerns specific to 130th Street station and the Altgeld Gardens neighborhood.

The Supplemental EA served as the primary document to facilitate review by agencies and the public regarding the design changes that occurred for the RLE Project since the Draft EIS including the 130th Street station relocation, 120th Street yard and shop refinement, and the 107th Place cross-over. CTA established a 30-day comment period to take formal comments on the Supplemental EA, consistent with 23 CFR 771.119. The comment period began with the Notice of Availability (NOA) on January 31, 2022 and comments were accepted through March 1, 2022. The Supplemental EA was available on the CTA website https://www.transitchicago.com/rle/ and hard copies of the Supplemental EA were made available at the following locations during the public review period:

- FTA Region 5 Office, 200 W. Adams Street, Suite 320, Chicago, IL 60606
- CTA headquarters, 567 W. Lake Street, 1st Floor, Chicago, IL 60661
- Pullman Public Library, 11001 S. Indiana Avenue, Chicago, IL 60628
- West Pullman Public Library, 830 W. 119th Street, Chicago, IL 60643
- Altgeld Public Library, 955 E. 131st Street, Chicago IL 60827
- Woodson Regional Public Library, 9525 S. Halsted Street, Chicago, IL 60628

- Calumet Park Public Library, 1500 W. 127th Street, Calumet Park, IL 60827
- Harold Washington Library Center, 400 S. State Street, Chicago, IL

In addition to the locations advertised in the NOA and above, CTA placed hard-copy versions of the Supplemental EA and Section 4(f) Evaluation, the public hearing flyer, and the Community Guide at high-traffic locations within the project area: two Ward offices (9th Ward, 34th Ward), one Chicago Park District park (Palmer Park), and one neighborhood organization (Agape Community Center).

The public hearing for the Supplemental EA was held in two formats: one virtual meeting and one in-person meeting. The virtual hearing was held on February 15, 2022 from 6:00 to 8:00 PM. The in-person hearing was held at the Salvation Army Kroc Center on February 17, 2022 from 6:00 to 8:00 PM. Each public hearing solicited comments from agencies and the community about findings presented in the Supplemental EA. Court reporters were present at both meetings to record comments. The in-person hearing was conducted in an open house format and was ADA compliant. The virtual hearing was ADA accessible, including closed captioning and Spanish and American Sign Language interpreters.

Comments received during the comment period were reviewed by FTA and CTA and were entered into public record. A summary of the public hearing and responses to comments received from the Supplemental EA are included in **Appendix C** of the Final EIS.

10.4 Environmental Justice, Limited English Proficiency, and People with Disabilities

As outlined in the PPP, CTA implemented strategies targeting inclusion of minority, low-income, limited English proficiency (LEP) and people with disabilities in all outreach efforts. The efforts included sensitivity to multiple distribution channels and language needs, and in-person meetings were held in ADA-compliant facilities. Venues were located in close proximity to the RLE Project and accessible by public transit. Because of the COVID-19 pandemic, virtual adaptations and virtual meeting accommodations were used instead of in-person meetings and gatherings starting in the spring of 2020. CTA performed an LEP assessment prior to the Draft EIS outreach, which determined that public outreach materials should be prepared in both English and Spanish. Meetings were advertised in multilingual and local publications. Spanish translators and ASL interpreters were made available at every public meeting, including the virtual meetings implemented to accommodate social distancing policies established to protect the public during the COVID-19 pandemic. To address those portions of the community who lack access to technology, i.e., no access to internet, such as some EJ populations, hardcopies of project information were provided at community locations to spread the word and solicit comments. These locations included churches, community centers, alderman's local ward offices, etc. Call-in numbers were available to join virtual meetings. In addition, virtual meetings were also held through Facebook Live encouraging participation through handheld devices.

In addition to direct mail and social media notifications of meetings, CTA provided advance notice on buses and trains likely serving residents from the vicinity of the RLE Project to ensure that transit

passengers were aware of opportunities to attend the meetings. Meeting notice materials included an offer of translation services in Spanish or other languages with advance request. As noted in the PPP, federal requirements for public participation plans include a process for seeking out and considering the needs of those traditionally underserved by existing transportation systems, such as minority and/or low-income groups. CTA actively worked with organized business and community groups, elected officials, and transit advocacy organizations to ensure that project information and public meetings were adequately publicized and had substantive participation by minority and low-income groups.

Chapter 11 List of Acronyms and Abbreviations

Acronym or Abbreviation	Definition
AA	Alternatives Analysis
ACM	Asbestos containing materials
ACS	American Community Survey
ADA	Americans with Disabilities Act
AGPMH	Altgeld Gardens-Philip Murray Homes
APE	Area of Potential Effect
API	Area of Potential Impact
ASL	American Sign Language
AST	Aboveground Storage Tank
BMPs	Best Management Practices
BOL	Illinois Bureau of Land
BRT	Bus Rapid Transit
BTU	British Thermal Unit
CAA	Clean Air Act
CCDD	Clean construction or demolition debris
CCDoTH	Cook County Department of Transportation and Highways
CDOT	Chicago Department of Transportation
CEQ	Council on Environmental Quality
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CESQG	Conditionally Exempt Small Quantity Generator
CFR	Code of Federal Regulations
CHA	Chicago Housing Authority
CIG	FTA Capital Investment Grant Program
CIP	Capital Improvement Program
CMAP	Chicago Metropolitan Agency for Planning
CMAQ	Congestion Mitigation Air Quality
CN	Canadian National Railway
CN/MED	Canadian National/Metra Electric District
CO	Carbon Monoxide
Conrail	Consolidated Rail Corporation
CPD	Chicago Park District
CREATE	Chicago Region Environmental and Transportation Efficiency Program
CSX	CSX Transportation, e.g., the CSX railroad
CTA	Chicago Transit Authority
dB	Decibel
dBA	A-weighted decibel

Acronym or Abbreviation	Definition
DCP	Developing Communities Project
DPD	Chicago Department of Planning and Development
EA	Environmental Assessment
EB	Eastbound
eBlast	Mass emailing
ECOS	Environmental Conservation Online System
EcoCAT	Ecological Compliance Assessment Tool
EDR	Environmental Data Resources, Inc.
EIS	Environmental Impact Statement
EJ	Environmental Justice
EJ populations	Minority and low-income populations
EO	Executive Order
EPCRA	Emergency Planning and Community Right-to-Know Act
ESA	Environmental Site Assessment
eTOD	equitable Transit-Oriented Development
FAST Act	Fixing America's Surface Transportation Act
FHWA	Federal Highway Administration
FPCC	Forest Preserves of Cook County
FTA	Federal Transit Administration
FY	Fiscal Year
FFY	Federal Fiscal Year
GHG	Greenhouse Gas
GO TO 2040	CMAP *GO TO 2040 Comprehensive Regional Plan*
HRT	Heavy Rail Transit
IC	Illinois Central Railroad
ICIS	Integrated Compliance Information System
IDNR	Illinois Department of Natural Resources
IDOT	Illinois Department of Transportation
IEPA	Illinois Environmental Protection Agency
IHB	Indiana Harbor Belt Railroad
ILCS	Illinois Compiled Statutes
IPaC	Information for Planning and Consultation
ISTHA	Illinois State Toll Highway Authority
LBP	Lead-Based Paint
L_{dn}	Day/night sound level
LEP	Limited English Proficiency
LOS	Level of Service
LQG	Large Quantity Generator

Acronym or Abbreviation	Definition
LUST	Leaking Underground Storage Tank
Lv	Root mean square velocity level
MAC	Maximum allowable concentrations
MBTA	Migratory Bird Treaty Act
MED	Metra Electric District
MSAT	Mobile Source Air Toxics
MUTCD	Manual on Uniform Traffic Control Devices
MWRD	Metropolitan Water Reclamation District of Greater Chicago
NAAQS	National Ambient Air Quality Standards
NCHRP	National Cooperative Highway Research Program
NEPA	National Environmental Policy Act of 1969
NHPA	National Historic Preservation Act
NICTD/CSS & SBRR	Northern Indiana Commuter Transportation District/Chicago South Shore & South Bend Railroad
NO_2	Nitrogen Dioxide
NOI	Notice of Intent
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NS	Norfolk Southern Railway
NWI	National Wetlands Inventory
NWPR	Navigable Waters Protection Rule
O&M	Operations and Maintenance
OEMC	Office of Emergency Management and Communications
ON TO 2050	CMAP *ON TO 2050 Comprehensive Regional Plan*
OSHA	Occupational Safety and Health Administration
OUC	Chicago Office of Underground Coordination
OWJ	Official with Jurisdiction
PAC	RLE Project Advisory Council
Pace	Pace suburban bus service
$PM_{2.5}$	Particulate Matter with an aerodynamic diameter of 2.5 micrometers (µm) and less
PM_{10}	Particulate Matter with an aerodynamic diameter of 10 micrometers (µm) and less
PNA	Polynuclear aromatic hydrocarbon
PPP	Public Participation Plan
Q&A	Question-and-Answer
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Conditions
RLE	Red Line Extension

Acronym or Abbreviation	Definition
RO	Remediation objectives
ROD	Record of Decision
RPM	Red and Purple Modernization
RTAMS	Regional Transportation Authority Asset Mapping and Statistics
RTP	Regional Transportation Plan
Sanborn	Historical Sanborn Fire Insurance Maps
SES	Metra Southeast Service
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SOP	Standard Operating Procedures
SPCCC	Spill Prevention, Control and Countermeasure Plan
SSU	State Sites Unit Listing
STOPS	Simplified Trips-on-Project Software
TAC	Altgeld Temporary Advisory Committee
TACO	Tiered Approach to Corrective Action Objectives
TFIA	Transit Facility Improvement Areas
TIF	Tax Increment Financing
TIFIA	Transportation Infrastructure Finance and Innovation Act
TIP	Transportation Improvement Program
TOD	Transit-Oriented Development
TRI	Toxic Release Inventory
TSD	Transit-Supportive Development Plan
Uniform Act	Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970
UPRR	Union Pacific Railroad
USACE	U.S. Army Corps of Engineers
USC	United States Code
USDA	U.S. Department of Agriculture
USDOT	U.S. Department of Transportation
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UST	Underground Storage Tank
VdB	Decibels of vibration
VMT	Vehicle Miles Traveled
WB	Westbound

Acronym or Abbreviation	Definition
WOTUS	Waters of the United States
YOE	Year of Expenditure

Chapter 12 References

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Chapter 13 List of Preparers

Federal Transit Administration

Name	Title	Primary Responsibilities
Elizabeth Breiseth	Environmental Protection Specialist	FTA Review
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Anthony Greep	Community Planner	FTA Review

Chicago Transit Authority

Name	Title	Primary Responsibilities
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Leah Dawson Mooney	Director of Strategic Planning and Policy	CTA Review
Marlise Fratinardo	Senior Project Manager, Planning	CTA Project Manager
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Chicago Transit Authority – Program Management Consultant

Name	Title	Primary Responsibilities
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Jenifer Palmer (CDM Smith)	Program Management Consultant	Quality Review - NEPA
Tom Williams (CDM Smith)	Program Management Consultant	Lead Program Manager - Engineering

TranSystems

Name	Qualifications	Primary Responsibilities
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Barb Frost, PE	Assistant Vice President; National Environmental Practice Leader; B.S. Civil Engineering; Professional Engineer; 25 years' experience	Final EIS/ROD Task Lead
Sarah Frost, AICP	Senior Transportation Planner; Master of Urban Planning; AICP; 16 years' experience	Land Use and Economic Development; Neighborhoods and Communities; Safety and Security; and Environmental Justice Reviewer

Name	Qualifications	Primary Responsibilities
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Timothy Krause	Environmental Scientist; J.D. Environmental Law; M.S. Environmental Engineering; B.S. Environmental Science; 42 years' experience	Final EIS QA/QC Air Quality; Energy
Kelsey Kropp	Senior Environmental Scientist; B.S. Biology & Zoology; 14 years' experience	Wetlands & Water Resources; Biological Resources;
Brian Metz, CP	Senior Environmental Scientist; B.S. Environmental Science; CP; 23 years' experience	Hazardous Materials, Wetlands and Water Quality Resources, Coastal Management Zone, Biological Resources, Energy, Geology and Soils
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Name	Qualifications	Primary Responsibilities
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Wight & Company

Name	Qualifications	Primary Responsibilities
Patty King, PLA, ASLA, LEED AP	Senior Landscape Architect; Bachelor of Landscape Architecture; 25 years' experience	Parklands and Community Facilities and Section 4(f) Analysis
Robin Martel, LEED AP BD+C	Director of Environmental Planning; BS Geological Sciences; LEED AP BD+C; 25 years' experience	Senior Reviewer, Visual and Aesthetics; Indirect and Cumulative Impacts
Sara Merchan-Paniagua, CEP-IT	Project Scientist; MS Environmental Sciences; BS Environmental Biology; 13 years' experience	Safety and Security; Coastal Management Zone; Parklands and Community Facilities

TY Lin

Name	Qualifications	Primary Responsibilities
Rebecca Dahlstrom, PE	Senior Civil Engineer; BS Civil Engineering; 15 years' experience	Project Controls
Robert Gorski, PE	Associate Vice President, Rail & Transit Sector Manager; BS Civil Engineering; 28 years' experience	RLE Project Manager
Daniel Schmit, PE	Senior Civil Engineer; BS Civil Engineering; 13 years' experience	Civil Design Lead
Joe Yesbeck	Senior Vice President, National Director of Rail and Transit; BS Civil Engineering; 42 years' experience	RLE Project Manager

TranSmart

Name	Qualifications	Primary Responsibilities
Shane Misztal, PE, PTOE, PTP	Transportation Engineer; BS Civil Engineer; PE, PTOE, PTP; 8 years' experience	Traffic Analysis
Joel Turk	Transportation Specialist; BS Civil Engineer; 5 years' experience	Intersection Design Study

OSEH

Name	Qualifications	Primary Responsibilities
Muthayab Mohammad PE, PTOE, RSP1	Director of Transportation; MS Transportation and Highway Engineering; 16 years' experience	Final EIS Figures, GIS NEPA support

Muller2

Name	Qualifications	Primary Responsibilities
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Johnson Lasky Kindelin Architects

Name	Qualifications	Primary Responsibilities
Carri Andrews, RA	Project Manager and Historic Preservation Architect; BA Art History and M. Arch Historic Preservation; Registered Architect; 12 years' experience	Historic and Cultural Resources
Meg Kindelin	Principal and Historic Preservation Architect; BS Anthropology, MS Architectural History, M. Arch Design; Registered Architect; 24 years' experience	Historic and Cultural Resources

Environmental Design International

Name	Qualifications	Primary Responsibilities
Jason Janssen, CHMM	Project Manager, Certified Hazardous Materials Manager (CHMM), BS Environmental Science and Natural Resources, 16 years' experience	Hazardous Materials
Felix Moran, PE	Senior Project Manager; MS Civil Engineering (Environmental Conc.), PE, 31 years' experience	Hazardous Materials

Cross-Spectrum Acoustics

Name	Qualifications	Primary Responsibilities
Scott Edwards	Senior Principal Associate; BSE Acoustical Engineering & Music; EIT; 10 years' experience	Noise and Vibration
David Towers, PE, INCE Bd Cert	Principal Associate; BS Mechanical Engineering; MS Mechanical Engineering; PE, INCE Bd Cert; 47 years' experience	Noise and Vibration

Chapter 14 List of Recipients

The following agencies, local officials, and public libraries were notified of the availability of this document. All agencies and organizations on this list received web links to download the Final EIS from the CTA website.

Agencies, organizations, and libraries that received hard copies of the Final EIS to make available to the public are identified with an asterisk (*).

Participating agencies are federal, state, or local agencies, or federally recognized Indian tribal governmental units that may have an interest in the proposed project and have accepted an invitation to be a participating agency, or in the case of a federal agency, has not declined the invitation. Participating agencies are identified in **bold** text. All federal, state, local, and regional agencies and tribes are potential participating agencies; all others on the list are not eligible to be participating agencies.

The Federal Highway Administration is a cooperating agency.

Federal Agencies

Advisory Council on Historic Preservation

National Park Service, Pullman National Monument

Transportation Security Administration

U.S. Department of Energy

U.S. Department of the Interior, Office of Environmental Policy and Compliance

U.S. Department of Health and Human Services

U.S. Department of Housing and Urban Development

U.S. Department of Transportation Federal Highway Administration

U.S. Department of Transportation Federal Railroad Administration

U.S. Environmental Protection Agency

U.S. Federal Emergency Management Agency

U.S. Fish and Wildlife Service

Tribes

Citizen Potawatomi Nation

Ho-Chunk Nation

Kickapoo Tribe of Oklahoma

Little Traverse Bay Bands of Odawa Indians

Menominee Indian Tribe of Wisconsin

Miami Tribe of Oklahoma

Peoria Tribe of Indians of Oklahoma

Pokagon Band of Potawatomi Indians

Potawatomi Nation-Hannahville Indian Community

Prairie Band of Potawatomi Nation

Sac and Fox Nation of Missouri

Sac and Fox Nation of Oklahoma

State Agencies

Illinois Commerce Commission

Illinois Department of Commerce and Economic Opportunity

Illinois Department of Employment Security

Illinois Department of Natural Resources (including State Historic Preservation Division)

Illinois Department of Revenue

Illinois Department of Transportation

Illinois Environmental Protection Agency

Illinois Secretary of State

Illinois State Archaeological Survey

Illinois State Museum

Illinois State Police

Illinois State Police District Chicago

Illinois Tollway

Local and Regional Agencies

Chicago Bureau of Convention and Tourism

Chicago Historical Society

Chicago Housing Authority

Chicago Metropolitan Agency for Planning

Chicago Park District

City of Chicago Department of Aviation

City of Chicago Department of Budget and Management

City of Chicago Department of Business Affairs and Consumer Protection

City of Chicago Department of Planning and Development

City of Chicago Department of Assets, Information, and Services

City of Chicago Department of Planning and Development Historic Preservation Division

City of Chicago Department of Streets and Sanitation Bureau of Street Operations

City of Chicago Department of Transportation

City of Chicago Office of the Mayor

City of Chicago Police Department

Cook County Board of Commissioners

Cook County Department of Revenue

Cook County Department of Transportation and Highways

Cook County Recorder of Deeds & Registrar of Titles

Cook County Sheriff's Office

Forest Preserves of Cook County

Metra

Metropolitan Planning Council

Metropolitan Water Reclamation District of Greater Chicago

Pace

Village of Calumet Park

Community Groups

Agape Community Center

By the Hand Club, Altgeld-Murray

Carver Military Academy High School

Chicago Neighborhood Initiatives

Developing Communities Project, Inc.

Far South Community Development Corporation

Friends of the Parks

Golden Gate Homeowners Association

Greater Roseland Chamber of Commerce

Landmarks Illinois

Neighborhood Housing Services of Chicago

People for Community Recovery

Preservation Chicago

Pullman Civic Organization

Red Line Extension Coalition

Ridge Historical Society

Roseland Business Development Council

Roseland Manor

Rosemoor Community Association

St. Anthony of Padua Parish

TCA Health

Local Libraries

Altgeld Public Library*

Calumet Park Public Library*

Harold Washington Library Center*

Pullman Public Library*

West Pullman Public Library*

Woodson Regional Public Library*

Other Locations Receiving Hard Copies

9th Ward Aldermanic Local Office*

34th Ward Aldermanic Local Office*

Palmer Park*

Chapter 15 Glossary

The following terms are used in the Final Environmental Impact Statement.

95th Street Terminal Improvement Project - The 95th/Dan Ryan Terminal is currently the southern terminus (end) of Chicago Transit Authority's (CTA) Red Line. CTA rehabilitated the original 95th/Dan Ryan Terminal with an expanded modern facility from 2014 through 2019.

107th Place cross-over – The location near 107th Place where the RLE Preferred Alignment crosses above the Union Pacific Railroad (UPRR) on an aerial track structure from the west side of the UPRR to the east side of the UPRR. This marks the transition point where impacts from the Preferred Alignment change from being similar to impacts of the West Option disclosed in the Draft Environmental Impact Statement (EIS) to being similar to the impacts of the East Option disclosed in the Draft EIS.

Aerial Track Structure - The location of a train track structure above the surface of the ground. Can be constructed of concrete and/or steel.

Affected Environment - The physical, biological, social, and economic setting potentially affected by one or more of the alternatives under consideration.

Alternative - One of a number of specific transportation improvement proposals or options.

Alternatives Analysis - Process of assessing the different transportation improvement proposals or options and documenting alternate concepts based on scenario and functional definitions.

Americans with Disabilities Act (ADA) - Federal regulation establishing legal requirements for accessibility for those with disabilities, including wheelchair users.

Area of Potential Effects (APE) - The geographic area or areas within which an undertaking may directly or indirectly affect the character or use of historic properties, if any such properties exist.

Area of Potential Impact (API) - The geographic area within which the project may cause adverse or beneficial impacts.

At-Grade - The location of a structure or transit guideway at the same level as the ground surface.

Block Group - A census block group is a geographical unit used by the United States Census Bureau. Census block groups fall in size between the census tract and the census block. Census blocks are the smallest geographical units for which the Census Bureau publishes sample data.

Chicago Metropolitan Agency for Planning (CMAP) - The metropolitan planning organization for the Chicago region. CMAP has prepared both the *GO TO 2040 Comprehensive Regional Plan*, referenced in the Draft EIS, and the *ON TO 2050 Comprehensive Regional Plan*, referenced in the Final EIS. These regional plans provide strategies for the regional transportation network.

Chicago Transit Authority (CTA) - The CTA is an independent governmental agency created by state legislation. It operates the nation's second-largest public transportation system and covers the

City of Chicago and 35 surrounding suburbs. CTA is the local lead agency on the Red Line Extension Project.

Community Character - An attribute of a geographic area with identifiable characteristics that make it unique.

Community Cohesion - An attribute of a geographic area, where segmentation or division of the area would reduce its desirability to current and future residents.

Community Resources - Locations that serve as focal points or provide community services. These may include landmarks, parks, or community centers.

Construction Staging - A physical location used for the storage of construction-related equipment and materials such as vehicles and stockpiles.

Cumulative Effect - The incremental environmental impact or effect of the project when added to the impacts of other separate past, present, and reasonably foreseeable future actions.

Deck - The surface of a bridge or elevated rail track section.

Closed-deck structure - Tracks that have a solid deck beneath them. Compared to open deck structures commonly seen on legacy CTA train lines, closed-deck structures allow for more effective noise mitigation but require more active snow clearance and drainage maintenance.

Displacement - An impact from a project that results in homes or businesses needing to be relocated.

- **Affected Parcel** - A partial or a full parcel that would need to be acquired because of the project.
- **Building Displacement** - A structure that would need to be removed (the land occupied by the structure would also be counted as an affected parcel).

Easement - CTA would require a use agreement with the owner; for example, aerial easements over the UPRR require a use agreement over the UPRR.

Effect (as related to historic/cultural) - Refers to alterations in the character or use of historic properties by the alternatives. Used in the Section 106 process instead of "impacts" (referred to elsewhere in the EIS) because of the unique requirements and terminology for assessing historic resource impacts.

Elevated Track Structure - The location of a structure above the surface of the ground.

Environmental Impact Statement (EIS) - An EIS is a document that evaluates the economic, social, and environmental effects of a major proposed project. The National Environmental Policy Act (NEPA) requires an EIS to be prepared when federal funds are being sought to fund all or part of a project.

Environmental Justice (EJ) - Environmental Justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to transportation planning and decision-making processes, per Executive Order 12898.

Federal Transit Administration (FTA) - FTA is a division of the U.S. Department of Transportation that funds transit planning and programs. FTA is the federal lead agency on the RLE Project.

Greenhouse Gas (GHG) - A gas in an atmosphere that absorbs and emits radiation within the thermal infrared range. The primary greenhouse gases in the Earth's atmosphere are water vapor, carbon dioxide, methane, nitrous oxide, and ozone.

Ground-borne Vibration - A technical term used to describe mostly man-made vibrations of the ground. Examples include vibrations caused by trains, buses on rough roads, and construction activities.

Ground-borne Noise - A technical term used to describe mostly man-made noise of the ground. Examples include noise caused by trains, buses on rough roads, and construction activities. Ground-borne noise often sounds like a rumbling.

Hazardous Material - Substances that could harm human health or the environment, including petroleum products, polynuclear aromatic hydrocarbons, pesticides, organic compounds, heavy metals, asbestos containing materials (ACM), lead-based paint (LBP), or other compounds.

Headway - The elapsed time between trains passing a fixed point in the same direction over the same track. Refers to train frequency, for example, a 15-minute headway means a train comes every 15 minutes.

Heavy Rail - A railway powered by electricity or diesel fuel with the capacity for a heavy volume of traffic (number of trains and passenger capacity). It is characterized by high speed and rapid-acceleration passenger railcars operating singly or in multi-car trains on fixed rails, separate rights-of-way from which some other vehicular and foot traffic are excluded, sophisticated signaling, and high-platform loading.

Historic District - A group of buildings, properties, structures, or sites that have been designated either federally or by the City as historically or architecturally significant. Districts vary greatly in size: some have hundreds of structures while others have just a few.

Impact - An impact is a change in the condition or function of an environmental resource that occurs as a result of the proposed alternative. An impact can be adverse (negative) or beneficial (positive).

- **Adverse Impact** - An adverse impact is a negative consequence of the proposed alternative (opposite of a benefit).
- **Construction Impact** - Construction impacts are related to the construction phase of the proposed alternative.

- **Cumulative Impact** - The environmental impact or effect of the project when added to the impacts of other separate past, present, and reasonably foreseeable future actions.

- ***De Minimis* Impact** - A term from Latin, meaning "about minimal things." A *de minimis* impact finding is defined in 23 Code of Federal Regulations § 774.17 for historic resources, parks, recreation areas, and wildlife/waterfowl refuges in determinations of use of such resources for environmental analysis.

- **Indirect Impact** - Also known as a secondary impact, indirect impacts are those caused by the project or plan but that are separated from direct impacts by time and/or distance.

- **Permanent Impact** - Permanent impacts are related to the operation (long-term) of the proposed alternative.

Lead Agency - The agency or agencies responsible for preparing the Environmental Impact Statement (EIS) in compliance with the National Environmental Policy Act (NEPA). FTA and CTA are the lead agencies for the RLE Project.

Level of Service (LOS) - A rating that uses a set of characteristics that indicate the quality and quantity of transportation service. LOS is often used to describe the average amount of vehicular delay at a traffic signal.

Locally Preferred Alternative - The UPRR Rail Alternative was selected by the Chicago Transit Board as the Locally Preferred Alternative on August 12, 2009, indicating that it is the alternative that best meets the purpose and need of the project while addressing potential impacts and other potential constraints.

Median Household Income - Median household income is a statistical measurement of a set of household income data. The Median household income for a set of data splits the income distribution into two equal groups, half having income above that amount and half having income below that amount. Median household income is typically presented for a defined geographic area.

Mitigation - Action or measure taken to minimize, reduce, eliminate, or rectify the adverse impacts of a project, practice, action, or activity.

Mixed-use - Refers to a mixture of different types of uses in the same structure or location, for example, a building with commercial units on the ground floor and residential units above.

Mobility - The movement of people or goods, including transportation options, travel patterns, access to jobs, and access for emergency service providers.

National Environmental Policy Act of 1969 (NEPA) – A law that requires all agencies of the U.S. federal government to examine and disclose the environmental impacts of their actions, incorporate environmental information into project decisions, and use public participation in the planning and implementation of all actions. Actions of federal agencies include the use of federal funds to construct a project that will be owned and operated by an entity other than the federal government.

National Historic Preservation Act of 1966 (NHPA) – A law that established a national framework for historic preservation, requiring the U.S. federal government to establish a national system for identifying, evaluating, protecting, and rehabilitating historic places.

National Register of Historic Places (NRHP) - The national list of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, engineering, or culture. It is maintained by the Secretary of the Interior under authority of Section 101(2)(1)(a) of the National Historic Preservation Act, as amended.

NEPA Preferred Alternative - An alternative determined by FTA and the project sponsor (in this case, CTA) to best accomplish the purpose and need of a proposed action while fulfilling statutory requirements and responsibilities, with consideration to economic, environmental, technical, and other factors.

New Starts - FTA's primary grant program for funding major transit capital investments, including rapid rail, light rail, bus rapid transit, commuter rail, and ferries. New Starts funding is provided through FTA's Capital Investment Grants (CIG) Program. New Starts funds major transit capital projects across the country greater than $300 million dollars, with a maximum CIG share of 60 percent. New Starts funding would be used to help pay for the Red Line extension to 130th Street.

No Build Alternative - The No Build Alternative refers to an alternative under which no action would be taken (no infrastructure would be built, and no new management or operational practices would be instituted). The No Build Alternative includes all projects currently included in the fiscally constrained portion of the current CMAP Transportation Improvement Program (TIP). NEPA requires that all actions proposed in an EIS be compared against a No Build Alternative.

Noise Barrier - An exterior structure located next to the tracks that is designed to protect surrounding residents and community members from noise impacts related to the proposed project. Noise barriers are an effective method of mitigating roadway, railway, and industrial noise sources. Noise walls also perform a secondary function related to worker and emergency evacuation safety.

Noise-Sensitive Receiver - Noise-sensitive receivers are residences and/or other land uses that would be negatively affected by noise from the proposed project, such as tracts of land set aside for serenity and quiet, hospitals, hotels, churches, museums, parks, and cemeteries.

Nonattainment Area - Nonattainment areas are metropolitan areas that do not meet national ambient air quality standards (NAAQS), ranked by the severity of their problem as marginal, moderate, serious, severe, or extreme. In accordance with the Clean Air Act Amendments of 1990, these areas must take specific emission reduction measures.

Option - One of the several possibilities for an alternative. At the time of the Draft EIS, UPRR Alternative had two options: the East Option and the West Option, each along the same general alignment but slightly different. Subsequent to the Draft EIS, these Options were combined into a hybrid Preferred Alignment that is described in the Final EIS.

Peak/Off-Peak - Peak is the AM or PM time period when the largest volume of riders occurs. Off-Peak is the remainder of the day when travel activity is generally lower.

Photo Simulation - A computer-generated image that shows how an alternative, station, or feature could look after construction.

Platform - An area at a station used by passengers to get on or off trains.

Preferred Alignment – An alignment of the CTA RLE Project that is a hybrid of the East and West Options of the UPRR Alternative presented in the Draft EIS, which follows the general path of the West Option north of 107th Place, and the East Option south of 107th Place, crossing over the UPRR at the 107th Cross-over.

Public Participation Plan (PPP) - A Public Participation Plan includes public outreach goals, key issues, a detailed stakeholder database, communications protocols, public input tracking protocols, a proposed schedule for interfacing with the public, and recommendations for how meetings should be conducted at various stages of the study.

Purpose and Need - Identifies the reasons a proposed project is needed and reflects the project objectives discussed with the public during the scoping process.

Railroad Ties - Rectangular supports for railroad tracks. Railroad ties are traditionally made of wood.

Record of Decision (ROD) - A document prepared by FTA that presents the basis for selecting and approving a specific transportation proposal that has been evaluated through the various environmental and engineering studies. Typically, the ROD identifies the alternative selected in the Final EIS, the alternatives considered, measures to minimize harm, monitoring or enforcement programs, and an itemized list of commitments and mitigation measures. The ROD can be combined with the Final EIS and issued as a Combined Final EIS/ROD.

Red Ahead Program - A comprehensive CTA initiative for maintaining, modernizing, and expanding Chicago's most traveled rail line, the Red Line. The program includes major improvement projects on the Red and Purple Lines between Linden terminal in the north and the proposed 130th Street terminal on the south. The improvement projects include the Red and Purple Modernization project, the Red Line Extension Project, and the Red Line South Reconstruction Project. In addition, the Red Ahead Program encompasses several individual projects, including the renovation of several stations along the Red Line including Wilson Station, Clark, and Division Stations, and the 95th Street Terminal.

Red Line Extension (RLE) Project - The CTA is proposing to extend the Red Line from the existing 95th/Dan Ryan Terminal to 130th Street, subject to the availability of funding. The proposed 5.6-mile extension would include four new stations near 103rd Street, 111th Street, Michigan Avenue, and 130th Street. Multimodal connections at each station would include bus, bike, pedestrian, and park & ride facilities. This project is one part of the Red Ahead Program to extend and enhance the entire Red Line.

Right-of-Way - In transit usage, the corridor along a railway that is controlled by a transit or transportation agency/authority.

Safety - Safety refers to freedom from harm resulting from unintentional acts or circumstances. With regard to the RLE Project, safety includes all possible incidents within CTA right-of-way (which includes areas along tracks, in yards, and at stations). Examples include collisions, derailments, fires, property damage, injuries, and fatalities.

Scoping - An early and open process for identifying the extent, variety, and significance of issues related to a proposed action in the EIS. Scoping for RLE was held in the form of public open house meetings in the fall of 2009.

Secondary Station Entrance/Exit - An auxiliary entry/exit to and from a train station in addition to the primary entry and/or exit.

Section 4(f) - Section 4(f) of the Department of Transportation Act of 1966 states that no transportation project should be approved that requires the use of land from a public park, recreation area, wildlife and waterfowl refuge, or historic site unless there is no feasible or prudent alternative to the use of such land, or the use of such land are found to be *de minimis*. See the description of a *de minimis* impact for more information on this finding.

Section 106 - Section 106 of the National Historic Preservation Act deals with project effects on historic properties. It requires consultation with parties with expertise and interest in historic resources. See the description of *effect* for more information.

Security - Security refers to freedom from harm resulting from intentional acts or circumstances. Intentional danger includes crimes and must be reported if the intentional act meets thresholds for notification as specified in FTA's State Safety Oversight Rule.

Sensitive Receiver Cluster - A group of similar noise-sensitive receivers determined to be at similar distances from the proposed track locations and where CTA operating conditions, such as train speed, would be similar.

Shoring - The process of supporting a structure in order to prevent collapse so that construction can proceed.

State Historic Preservation Officer (SHPO) - The official appointed or designated pursuant to Section 101(b)(1) of the National Historic Preservation Act to administer the State historic preservation program. The SHPO consults with state and federal agencies during the Section 106 process review. The SHPO administers the national historic preservation program at the State level, reviews National Register nominations, and maintains file data on historic properties that have been identified but not yet nominated. Agencies seek the view of the SHPO in the identification of historic properties and the assessment of the effects of a project on historic properties.

Substation - A part of an electrical generation, transmission, and distribution system. Substations transform voltage from high to low, or the reverse, or perform any of several other important functions.

Transit Infrastructure - Basic physical elements of the transit system including track, structures, signals, and power.

Transportation Improvement Program (TIP) - A document prepared by metropolitan planning organizations, such as CMAP, listing projects to be funded with Federal Highway Administration and FTA funds for the next 1- to 3-year period.

Transportation System Management - A "low cost" project alternative that was previously required for FTA analyses.

Transit-Oriented Development (TOD) / Transit-Supportive Development (TSD) - TOD is development that takes advantage of the location of the site adjacent to or near a transit station. TOD includes mixed-use developments, such as residential buildings with ground-floor retail that complement and take advantage of adjacent transit stations, activate streetscapes, enhance livability, and encourage economic development. TSD is a similar but broader term, which encourages regional planning that is supportive of increased transit use and sustainable growth.

Travel Time - The time spent traveling from a place of origin to a place of destination.

Uniform Act – The short name of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. The Uniform Act is a federal law which mandates that relocation services and payments be made available to eligible residents, businesses, and nonprofit organizations displaced as a direct result of projects undertaken by a federal agency or with federal financial assistance.

Union Pacific Railroad (UPRR) – A freight railroad company. The UPRR owns and operates tracks and trains that run through the project corridor along Eggleston Avenue.

Viaduct - A bridge-like structure over a street that allows trains to pass over the street and vehicles to pass under the tracks.

Viewshed - An area that is visible to the human eye from a fixed vantage point.

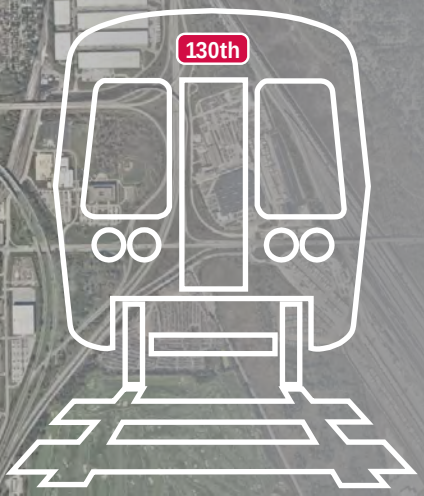
Visual Impact - A change in the appearance of a place as a result of development. Visual impacts can be positive or negative.

Wetland - Land where saturation with water is the dominant factor determining the nature of soil development and the types of plant and animal communities living in the soil and on its surface.

Yard and Shop - An area in a rail system used for maintaining, storing, or holding trains.

RED AHEAD

Red Line Extension



RED LINE EXTENSION

RECORD OF DECISION

AUGUST 2022

Chicago, Illinois

Prepared by:
Federal Transit Administration
Chicago Transit Authority

In Cooperation with:
Federal Highway Administration

Table of Contents

Attachment

Figures

Tables

Abbreviations

AA	Alternatives Analysis
ADA	Americans with Disabilities Act
APE	Area of Potential Effect
API	Area of Potential Impact
BMP	Best Management Practice
CAA	Clean Air Act
CFR	Code of Federal Regulations
CHA	Chicago Housing Authority
Conrail	Consolidated Rail Corporation
CN	Canadian National Railroad
CN/MED	Canadian National/Metra Electric District
CMAP	Chicago Metropolitan Agency for Planning
CSS & SBRR	Chicago South Shore & South Bend Railroad
CTA	Chicago Transit Authority
EA	Environmental Assessment
EIS	Environmental Impact Statement
ESA	Environmental Site Assessment
FHWA	Federal Highway Administration
FPCC	Forest Preserves of Cook County
FAST	Fixing America's Surface Transportation Act
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
IDNR	Illinois Department of Natural Resources
IHB	Indiana Harbor Belt
LOS	Level of Service
MBTA	Migratory Bird Treaty Act
MED	Metra Electric District
MSAT	Mobile Source Air Toxics
MWRD	Metropolitan Water Reclamation District of Greater Chicago
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NICTD	Northern Indiana Commuter Transportation District
NRHP	National Register of Historic Places
NS	Norfolk Southern Railway
Pace	Pace Suburban Bus Service

PPP	Public Participation Plan
RLE	Red Line Extension
ROD	Record of Decision
SHPO	State Historic Preservation Office
UPRR	Union Pacific Railroad
USACE	U.S. Army Corps of Engineers
USC	U.S. Code
USDOT	U.S. Department of Transportation
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
VMT	Vehicle Miles Traveled

1 Decision

The Federal Transit Administration (FTA) has determined, pursuant to 23 Code of Federal Regulations (CFR) Part 771 and 40 CFR Parts 1500–1508, that the requirements of the National Environmental Policy Act of 1969 (NEPA) have been satisfied for the Chicago Red Line Extension Project (RLE Project). This Record of Decision (ROD) applies to the RLE Project as described in this combined Final Environmental Impact Statement (EIS)/ROD and Section 4(f) Evaluation. The combined Final EIS/ROD complies with 23 USC § 139(n)(2) as amended by the Fixing America's Surface Transportation (FAST) Act (Public Law 114-94) and succeeded by the Infrastructure Investments and Jobs Act (Public Law 117-58, also known as the "Bipartisan Infrastructure Law") in November 2021. Any reference to the Final EIS is inclusive of the ROD. FTA, as the lead federal agency, and the Chicago Transit Authority (CTA), as the project sponsor, conducted the environmental review process. The Federal Highway Administration (FHWA) is a cooperating agency.

The RLE Project is located approximately 11 miles south of the Loop (Chicago's central business district) on Chicago's Far South Side. CTA's Red Line service currently terminates at the 95th/Dan Ryan terminal, in the northern portion of the project area. From there, a network of CTA and Pace Suburban Bus Service (Pace) bus routes serves the surrounding Far South Side communities. The Red Line operates 24 hours per day, 7 days per week, as do some of the connecting bus routes. The RLE Project would extend the Red Line from the existing 95th/Dan Ryan terminal to 130th Street. The proposed 5.6-mile extension would include four new stations near 103rd Street, 111th Street, Michigan Avenue, and 130th Street, as shown in **Figure 1-1**. Multimodal connections at each station would include bus, bike, pedestrian, and park & ride facilities. The RLE Project would also provide a modern, efficient railcar storage yard and shop facility at 120th Street.

This ROD summarizes FTA's decision regarding compliance with relevant environmental requirements and concludes the NEPA EIS process. This ROD is supported by and includes the following:

- Attachment A: Commitment and Mitigation Summary

Based on its consideration of the environmental review documents, FTA finds that the project has met all applicable requirements. FTA further finds that the ROD is complete and supports the determination that all NEPA requirements have been met.

CN/MED = Canadian National/Metra Electric District, NICTD/CSS & SBRR = Northern Indiana Commuter Transportation District/Chicago South Shore & South Bend Railroad

Figure 1-1: Preferred Alignment

2 Basis for Decision

The documents considered in making this decision include:

- CTA RLE Project Draft EIS and Section 4(f) Evaluation (October 2016)
- Chicago Metropolitan Agency for Planning (CMAP) ON TO 2050 (October 2018)
- CTA RLE Project Supplemental Environmental Assessment and Section 4(f) Evaluation (January 2022)
- CTA RLE Project Combined Final EIS/ROD and Section 4(f) Evaluation (August 2022)
- Attachment A of this ROD
- Technical memoranda, correspondence, and other documents in the project's administrative record

2.1 Background and Evaluation

CTA undertook an extensive Alternatives Analysis (AA) process from 2006 to 2009 that considered multiple modes and corridor options for the RLE Project. The Draft EIS and the AA described the process through which a wide range of methods of extending the CTA Red Line south from its current terminus at the 95th/Dan Ryan terminal were narrowed to the Locally Preferred Alternative as summarized in **Section 2.3**.

The Draft EIS, published on October 6, 2016, disclosed the environmental benefits and impacts of the No Build Alternative and the two Union Pacific Railroad (UPRR) Rail Alternative options: the East and West Options. CTA continued design and outreach that resulted in the selection of the Preferred Alignment for the RLE Project on January 26, 2018. The Preferred Alignment is a hybrid of the East and West Options of the UPRR Rail Alternative presented in the Draft EIS.

Since the publication of the Draft EIS and selection of the Preferred Alignment, refinements to the design continued. The following are the most notable: (1) the location of the 107th Place cross-over between the UPRR East and West alignment options evaluated in the Draft EIS required for selection of a hybrid Preferred Alignment; (2) refinement of the 120th Street yard and shop location; and (3) relocation of the 130th Street station to extend the Preferred Alignment farther south so the 130th Street station would be within the Altgeld Gardens neighborhood. These three design refinements were evaluated in a Supplemental Environmental Assessment (EA). The agency coordination and outreach associated with the Supplemental EA further influenced the design refinements incorporated into the Preferred Alignment analyzed in the Final EIS.

2.2 Purpose and Need

The purpose of the RLE Project is as follows:

- Reduce commute times for residents both within and south of the project area.

- Improve mobility and accessibility for transit-dependent residents in the project area.
- Improve rapid transit rail service to isolated areas and provide viable linkages between affordable housing (e.g., the Altgeld Gardens neighborhood), jobs, services, and educational opportunities, thereby enhancing livability and neighborhood vitality.
- Provide an opportunity for potential connections and linkages to other public transportation modes, including regional commuter rail in the project area.
- Foster economic development in the project area, where new stations may serve as catalysts for neighborhood revitalization and help reverse decades of disinvestment in local business districts.
- Provide a modern, efficient railcar storage yard and shop facility to provide storage and cost-effective preventive maintenance for railcars associated with the RLE Project, railcars currently stored in the existing 98th Street Yard and Shop, and railcars supporting additional Red Line expansion of service.

The need for the RLE Project is demonstrated by the following existing conditions:

- Transit trips to jobs are longer for Far South Side residents than they are for residents in the Chicago seven-county region as a whole. The Chicago seven-county region includes the counties of Cook, DuPage, Kane, Kendall, Lake, McHenry, and Will.
- Transit-dependent populations in the project area have limited direct access to rapid transit rail service.
- The project area is geographically isolated from major activity centers and provides residents limited viable transportation options, which limits access between affordable housing (e.g., the Altgeld Gardens neighborhood) and employment centers outside of the project area.
- Existing transit markets are underserved, and transit connectivity is challenging in the project area.
- Disinvestment and limited economic development in the project area have negatively affected Far South Side communities.
- The existing 98th Street Yard does not have capacity to store railcars for any substantial increase in Red Line capacity accompanying future Red Line expansion.

2.3 Alternatives Development Process

As described in **Chapter 2** of the Final EIS, CTA undertook an extensive AA process from 2006 to 2009 that considered multiple modes and corridor options for the RLE Project. The Draft EIS and the AA described the process through which a wide range of methods of extending the CTA Red Line south from its current terminus at the 95th/Dan Ryan terminal were narrowed to the Locally Preferred Alternative.

In brief, 12 transportation modes, nine corridors, and four profiles resulted in many combinations to be analyzed. Three rounds of preliminary screening and public outreach resulted in three build alternatives, plus the No Build Alternative. The three build alternatives analyzed were:

- Halsted Rail Alternative (Elevated)
- UPRR Rail Alternative (Elevated)
- Bus Rapid Transit Alternative (At-Grade)

The Chicago Transit Board designated the UPRR Rail Alternative as the Locally Preferred Alternative on August 12, 2009. Based on further technical analysis and public input, CTA selected the UPRR Rail Alternative as the NEPA Preferred Alternative in August 2014. The Draft EIS, published on October 6, 2016, disclosed the environmental benefits and impacts of the No Build Alternative and the two UPRR Rail Alternative options: the East and West Options.

The UPRR Rail Alternative East and West Options would be elevated and generally run south along I-94 Bishop Ford Freeway from 95th/Dan Ryan terminal, then curve west along the north side of I-57 Expressway (within the I-57 right-of-way) for nearly ½ mile until reaching the UPRR corridor near Eggleston Avenue. The alignment would then turn south to follow the UPRR corridor, either east or west of the existing UPRR tracks, to Prairie Avenue, where the RLE Project would cross over the Metra Electric District (MED) tracks near 119th Street. South of 119th Street, the East and West Options would follow the same alignment southeast along the Northern Indiana Commuter Transportation District/Chicago South Shore & South Bend Railroad (NICTD/CSS & SBRR) right-of-way using a portion of the Norfolk Southern Railway (NS) and Consolidated Rail Corporation (Conrail) right-of-way to the terminus of the RLE Project at 130th Street. Southeast of the Canadian National (CN)/MED tracks, the elevated RLE Project, as described in the Draft EIS, would descend to an at-grade profile, travel past the proposed 120th Street yard and shop, and terminate at the 130th Street station located north of 130th Street.

Subsequent to the publication of the Draft EIS, continued design and outreach by CTA resulted in the selection of the Preferred Alignment for the RLE Project. The Preferred Alignment was announced to the public on January 26, 2018. The Preferred Alignment is a hybrid of the East and West Options of the UPRR Rail Alternative presented in the Draft EIS. CTA reviewed multiple locations for a cross-over area that would maximize the benefits and reduce the impacts of the East and West Options.

The UPRR provided comments on the Draft EIS where they expressed their preference for the West Option due to concerns for the proximity of the East Option to their tracks. UPRR noted that the location of the Roseland Pumping Station could not accommodate UPRR's requested clearance of 25 feet between the centerlines of the UPRR's potential tracks and the proposed East Option. Therefore, all hybrid options considered in selection of the Preferred Alignment started with the West Option and crossed over from the west to the east side of the UPRR tracks south of the pumping station and north of 115th Street to minimize property impacts. Comparative analysis of parcel impacts and alignment with the goals of the RLE Project identified the vicinity of 108th Place as the cross-over location that would provide the greatest benefit. A cross-over in the vicinity of 108th Place would preserve viable businesses; minimize impacts to schools, residences, and the

historic Roseland Pumping Station; preserve properties slated for future development surrounding the station areas; and would accommodate UPRR's potential tracks. However, additional engineering refined the alignment further, which moved the UPRR crossing north from 108th Place to 107th Place. The refinement would lower the 111th Street station platform height for easier vertical access and would lower the profile of the elevated structure. Lowering the platform makes the height more typical to what is existing throughout CTA's system thus improving passenger comfort ascending/descending the stairs.

After the announcement of the Preferred Alignment in 2018, CTA continued to conduct stakeholder coordination and further develop design plans. Public outreach, stakeholder input, and agency coordination have continued to influence CTA's ongoing design efforts. NS shared their plans for future potential access to the CN/MED tracks to the north of Kensington Yard and the national freight rail network at that location. This access would allow restoration of a former connection that the Michigan Central Railroad had with the CN/MED tracks, which were then owned by the Illinois Central Railroad. The 120th Street yard and shop presented in the Draft EIS would have precluded future potential access to the national freight rail network and access to All American Recycling located west of the railroad tracks (11900 S. Cottage Grove Avenue). The All American Recycling facility is served by the NS via its joint ownership of Conrail and the Indiana Harbor Belt Railroad (IHB). This coordination with NS resulted in additional adjustments to the Preferred Alignment near the 120th Street yard and shop. The 120th Street yard and shop and the tracks south to 130th Street were shifted approximately 100 feet to the west to accommodate NS railroad access to All American Recycling and potential improvements to the national freight rail network, namely a future connection from the NS track to CN tracks along the MED corridor. In addition, this design refinement would provide a rail connection to facilitate rail delivery of ballast, ties, and other material to support CTA operations.

In 2019, CTA began exploring an opportunity to relocate the 130th Street station, the terminating station of the RLE Project, to a location south of 130th Street. The Draft EIS had originally proposed the station location north of 130th Street. In 2017, after publication of the Draft EIS, the Chicago Housing Authority (CHA) demolished Blocks 11, 12, and 13 of the Altgeld Gardens neighborhood, creating an opportunity to relocate the station south of 130th Street to the area of the demolished blocks. The demolition of Blocks 11, 12, and 13 of Altgeld Gardens was an activity completed by CHA and was independent and unrelated to the RLE Project. CTA then evaluated the station relocation for feasibility. Meetings were held with partner agencies and stakeholder groups of residents in the station area, who both expressed support for the station relocation. The design refinement relocated the station from north of 130th Street, as presented in the Draft EIS, to south of 130th Street, adjacent to the Altgeld Gardens neighborhood. Since the publication of the Draft EIS and selection of the Preferred Alignment, three design refinements were made as discussed above: (1) the location of the 107th Place cross-over between UPRR East and West alignment options evaluated in the Draft EIS required for selection of a hybrid Preferred Alignment; (2) refinement of the 120th Street yard and shop location; and (3) relocation of the 130th Street station to extend the Preferred Alignment farther south so the 130th Street station would be within the Altgeld Gardens neighborhood. These design refinements were evaluated in a Supplemental EA. The agency coordination and outreach associated with the Supplemental EA influenced the design refinements incorporated into the Preferred Alignment and is analyzed in the Final EIS.

2.3.1 No Build Alternative

The No Build Alternative represents future conditions if the Preferred Alignment were not implemented. The No Build Alternative includes all projects currently included in the fiscally constrained portion of the CMAP *Federal Fiscal Years 2019–2024 Transportation Improvement Program* (TIP). No new infrastructure would be built as part of the RLE Project under the No Build Alternative.

The No Build Alternative differs from the No Build Alternative disclosed in the Draft EIS only by the passage of time; changes include the completion of the 95th/Dan Ryan terminal renovation, and demographic and development fluctuations that are reasonably anticipated to occur in the intervening time period between the Draft EIS and Final EIS.

2.3.2 Union Pacific Railroad Alternative - Preferred Alignment

The Preferred Alignment for the Final EIS would extend the heavy rail CTA Red Line 5.6 miles from the existing 95th/Dan Ryan terminal to the Altgeld Gardens neighborhood immediately south of 130th Street. The RLE Project would include four new stations near 103rd Street, 111th Street, Michigan Avenue, and 130th Street. Multimodal connections at each station would include bus, bike, pedestrian, and park & ride facilities. The Preferred Alignment would provide travel time savings of up to 29 minutes for passengers travelling from the 130th Street station to downtown Chicago.

Alignment

The Preferred Alignment would run south along I-94 from the 95th/Dan Ryan terminal, then curve west along the north side of I-57 (within the I-57 right-of-way) on an elevated structure for nearly a ½ mile until reaching and crossing over to the west side of the UPRR corridor in the vicinity of Eggleston Avenue, as shown on **Figure 1-1**. The alignment would turn south to follow the UPRR corridor on the elevated structure along the west side of the UPRR to 107th Place. At 107th Place the elevated structure would cross over to the east side of the UPRR corridor.

The Preferred Alignment would continue along the east side of the UPRR corridor south and southeast to near 119th Street, where it would cross over the CN/MED tracks. South of this point, the Preferred Alignment would descend to at-grade while continuing southeast parallel to the NICTD/CSS & SBRR corridor, using a portion of the NS right-of-way. The alignment would continue south, going under 130th Street to the terminus (end) of the RLE Project south of 130th Street.

This alignment is a hybrid of the East and West Options of the UPRR Rail Alternative disclosed in the Draft EIS, with the cross-over at 107th Place connecting the West Option north of the cross over location with the East Option south of the cross over location.

Stations

As part of the Preferred Alignment, four new stations would be constructed at the following locations along the alignment:

- 103rd Street (elevated station)
- 111th Street (elevated station)
- Michigan Avenue (elevated station)
- 130th Street (at-grade station)

Each station would have a center platform, approximately 26 feet wide and 520 feet long. Platforms would accommodate ten-car trains. Each station would be Americans with Disabilities Act (ADA) accessible with elevators. Each station area would include areas for bus boarding, new crosswalks where needed to accommodate pedestrian traffic, bicycle parking and access, and park & ride facilities. The 130th Street station would have offices for CTA station staff, and an additional track and alternative platform to provide flexibility in its role as a terminal station.

The fundamental designs of the 103rd, 111th, and Michigan Avenue stations have remained the same since the publication of the Draft EIS but advancing design has provided further details. The 130th Street station has undergone a change in design since the publication of the Draft EIS, moving from a location north of 130th Street adjacent to the Metropolitan Water Reclamation District of Greater Chicago (MWRD) Calumet Water Reclamation Plant to a location south of 130th Street in the Altgeld Gardens neighborhood. The Supplemental EA determined that this design change either had no impact or no impacts after mitigation on environmental resources, while bringing benefits to pedestrian access and safety and security.

Yard and Shop

The 120th Street yard and shop would be sited on a combination of industrial and vacant land east of the CN/MED tracks and west of the NICTD/CSS & SBRR tracks near 120th Street and Cottage Grove Avenue. The yard would be entirely at-grade. This facility would provide inspections, minor repairs, and car cleaning (interior and exterior) for a portion of the Red Line railcar fleet. The shop would handle up to ten-car train sets, eliminating the need to uncouple (or cut) the railcars for the routine periodic inspections. This new and modern facility would provide CTA with an efficient maintenance facility not only serving the RLE Project but the Red Line as a whole. Parking spaces for CTA employees would be included at the yard. The yard would be capable of storing up to 330 railcars with expansion to 360. The majority of these railcars would be stored in complete train sets of 8 or 10 railcars. This new facility would improve operations on the Red Line by providing CTA with an efficient and strategically located railcar maintenance facility at the south end of the CTA system.

3 Project Benefits and Environmental Impacts

Potential environmental benefits and impacts are detailed in **Chapters 3–8** of the Final EIS as referenced and summarized in **Table 3-1**.

Table 3-1: Summary of Benefits and Impacts

No Build Alternative	Preferred Alignment
Transportation (*Chapter 3*)	
No additional rapid rail transit service would be provided. Eight intersections would operate at an undesirable level of service (LOS) of E or F in either the AM or PM peak hours or both in the 2050 design year. Traffic flow would continue to deteriorate.	Permanent *Public Transportation* ▪ CTA passengers would benefit from faster travel times by accessing rail service farther south. ▪ CTA passengers would benefit from reduced congested conditions at the 95th/Dan Ryan terminal with bus reroutes that would more directly connect passengers to new stations farther south. ▪ Permanent impacts would be beneficial. *Vehicular Traffic* ▪ Five intersections would operate at a LOS worse than the No Build condition in 2050, and five others would operate at an undesirable LOS, which is defined as a LOS of E or F. ▪ Closure of Old 130th Street would eliminate one of three access routes to Carver Military Academy High School and a connection to the access road into the Beaubien Woods Forest Preserve. Closure of this access would not result in adverse impacts because the primary access to Carver Military Academy High School and Beaubien Woods Forest Preserve amenities from 130th Street to Greenwood Avenue and 132nd Street would remain. The secondary access from Doty Avenue would remain unchanged. ▪ Permanent impacts would not be adverse after mitigation. *Pedestrian* ▪ Pedestrians would benefit from upgraded intersections immediately adjacent to stations with ADA accessible curb ramps, replacement of deteriorated sidewalks, and in-fill of sidewalk gaps. ▪ With the exception of the 130th Street station, pedestrians may need to use the UPRR at-grade crossings to access the RLE stations, depending on the direction of travel on foot, resulting in pedestrian safety impacts. ▪ Permanent impacts would not be adverse after mitigation.

No Build Alternative	Preferred Alignment
	Bicycle ▪ Bicyclists would benefit from the addition of bicycle parking at the four RLE stations and connections to nearby existing and proposed bike routes via expanded transit access from the RLE Project. ▪ Permanent impacts would be beneficial. *Freight Transportation* ▪ There would be no permanent impacts. *Parking Facilities* ▪ The 111th Street station would affect the existing parking at the Agape Community Center. This RLE station would require the use of a City-owned parcel that would affect its current use by the Agape Community Center for parking. ▪ Access to the TCA Health parking lot would be maintained and parking space impacts from the 130th Street station, if any, would be replaced at a ratio of 1 to 1. Benefits would accrue by providing additional park & ride opportunities to attract passengers to transit and potentially improve connections to regional commuter rail. ▪ Permanent impacts would not be adverse after mitigation. Construction ▪ Construction activities would temporarily affect the physical capacity of roadways, sidewalks, and intersections subject to lane closures, narrowing, and detours. This would affect bus transportation, vehicular traffic, bicycle traffic, truck freight, pedestrians, on-street parking, and potentially access to off-street parking. ▪ Increased congestion due to construction may temporarily increase travel times along roadways within the RLE project area. ▪ Construction impacts are temporary and would not be adverse after mitigation.
Land Use and Economic Development (*Chapter 4.1*)	
No Impact	Permanent ▪ Economic development benefits would improve from new public transportation options. ▪ Incompatible zoning for stations, substations, and park & ride facilities would be rezoned. ▪ Permanent impacts would not be adverse after mitigation.

No Build Alternative	Preferred Alignment
	Construction ▪ Construction could be disruptive to businesses along the Preferred Alignment. ▪ Construction impacts are temporary and would not be adverse after mitigation.
Displacements and Relocation of Existing Uses (*Chapter 4.2*)	
No Impact	Permanent ▪ Accommodation of tracks, stations, yard and shop, and other ancillary facilities would require acquisition of 228 parcels, of which 97 of these parcels have buildings that would be permanently displaced. These parcels with displacements are primarily residential with some commercial/industrial uses. ▪ Permanent impacts would not be adverse after mitigation. Construction ▪ Construction impacts would not occur.
Neighborhoods and Communities (*Chapter 4.3*)	
No Impact	Permanent *Community Character and Cohesion* ▪ In the Washington Heights and Roseland communities, the elevated structure between 99th Street and 103rd Street would change the neighborhood setting of the houses facing it, which represents an adverse visual impact. The adverse impact would also include the 103rd Street station and the area near the 107th Place cross-over due to the change in residential character. ▪ There would be adverse visual impacts in the West Pullman community at 117th Street and Prairie Avenue due to the elevated structure, and in the Riverdale community near the Altgeld Gardens neighborhood due to the 130th Street station park & ride facility. ▪ Permanent impacts would be adverse despite mitigation. *Mobility* ▪ All communities in the vicinity of the RLE Project would benefit from improved mobility with reduced travel times. ▪ Closure of Old 130th Street would eliminate one of three access routes to Carver Military Academy High School and a connection to the access road into the Beaubien Woods Forest Preserve. The primary access to Carver Military Academy High School and Beaubien Woods Forest Preserve amenities from 130th Street to Greenwood Avenue and 132nd Street would remain and be improved as part of the RLE Project. The secondary access from Doty Avenue would remain unchanged. ▪ Permanent impacts would not be adverse after mitigation.

No Build Alternative	Preferred Alignment
	Community Resources ▪ Permanent impacts would not occur. Construction *Community Character and Cohesion* ▪ Construction would introduce temporary, intermittent visual, noise, and dust impacts. ▪ Construction impacts are temporary and would not be adverse after mitigation. *Mobility* ▪ Construction would create truck traffic, and temporary street closures and detours would be needed. Access to businesses could be temporarily limited on an intermittent basis. ▪ Construction impacts are temporary and would not be adverse after mitigation.
Visual and Aesthetic Conditions (*Chapter 4.4*)	
No Impact	Permanent ▪ Adverse impacts would be north of I-57, between 99th Street and the 103rd Street station, at 107th Place near the crossing over the UPRR, at 117th Street and Prairie Avenue, and at the 130th Street station. ▪ Permanent impacts would be adverse despite mitigation. Construction ▪ Construction would create temporary visual impacts due to construction activities in the work zone. ▪ Construction impacts are temporary and would not be adverse after mitigation.
Noise and Vibration (*Chapter 4.5*)	
No Impact	Permanent *Noise* ▪ Before mitigation, 278 residences and two institutions (Agape Community Center and My Holy Rock Missionary Baptist Church) would have moderate impacts, and 91 residences and one institution (Kingdom Global Outreach Ministries) would have severe noise impacts. ▪ After mitigation with noise barriers, 15 residences would have moderate impacts. *Vibration* ▪ Permanent impacts would not occur.

No Build Alternative	Preferred Alignment
	Construction *Noise* ▪ Construction impacts are temporary and would not be adverse after mitigation. *Vibration* ▪ Construction impacts would not occur.
Safety and Security (*Chapter 4.6*)	
No Impact	Permanent *Safety* ▪ Increased pedestrian traffic crossing streets near stations without positive traffic control (such as crosswalks or traffic signals) would have an adverse impact on pedestrian safety. ▪ The closure of Old 130th Street would not adversely impact emergency access to Carver Military Academy High School. The closure would be necessary to prevent the interaction of all modes of transportation with the new at-grade crossing and enhance safety. ▪ Permanent impacts would not be adverse after mitigation. *Security* ▪ Permanent impacts would not occur. Construction ▪ Construction impacts are temporary and would not be adverse after mitigation.
Historic and Cultural Resources (*Chapter 4.7*)	
No Impact	Permanent ▪ Permanent adverse effects to historic or cultural resources would not occur. Construction ▪ Adverse construction effects to historic or cultural resources would not occur.
Hazardous Materials (*Chapter 4.8*)	
No Impact	Permanent ▪ Hazardous material spills or releases that occur along the existing railroad tracks immediately adjacent to the Preferred Alignment would have the potential to migrate and affect the properties associated with the Preferred Alignment.

No Build Alternative	Preferred Alignment
	▪ Permanent impacts would not be adverse after Best Management Practices (BMPs) and standard practices, such as following the local, state, and federal laws regarding handling of hazardous materials. Construction ▪ Based on the findings of Phase II Environmental Site Assessments (ESAs), construction activities would have the potential to encounter contaminated materials. ▪ Construction-related impacts would not be adverse after BMPs and standard practices, such as following the local, state, and federal laws regarding handling of hazardous materials.
Wetlands (*Chapter 4.9*)	
No Impact	Permanent ▪ The Preferred Alignment would affect up to 15.7 acres of wetlands. This acreage is primarily in the vicinity of the 120th Street yard and shop. ▪ The U.S. Army Corps of Engineers (USACE) documented in a letter dated January 19, 2022, that there are no waterways, wetlands, or other areas considered "waters of the United States" under USACE jurisdiction. ▪ Permanent impacts would not be adverse after mitigation. Construction ▪ Construction staging areas would be sited outside of wetlands as much as possible, but if there were any temporary impacts, those areas would be restored to wetlands after construction. There would be up to 0.19 acre of temporary wetland impacts on Kensington Marsh. This wetland would be mitigated or restored to preconstruction conditions and monitored for a period to be determined in coordination with the MWRD. The USACE would not require mitigation. ▪ Construction impacts are temporary and would not be adverse after mitigation.
Indirect and Cumulative Impacts (*Chapter 5*)	
No Impact	Indirect ▪ Implementation of the Preferred Alignment would have the potential for redevelopment from accessibility to new employment opportunities, attraction of new development near RLE stations, and overall livability improvements.

No Build Alternative	Preferred Alignment
	Cumulative ▪ The surrounding communities would benefit from the cumulative impacts of other planned and programmed projects because of improved access to jobs, places of interest, residences, and the reduction of air pollution emissions.
Resources with Limited or No Adverse Impacts (*Chapter 6*)	
No Impact	▪ The Preferred Alignment would have limited or no adverse impacts on the following resource areas: air quality, water quality, floodplains, vegetation, wildlife habitat, threatened and endangered species, geology and soils, and energy.
Environmental Justice (*Chapter 7*)	
No Impact	▪ The Preferred Alignment would have permanent adverse impacts on community character and cohesion that could not be mitigated because the elevated structure would alter the character and scale of residential neighborhoods. Due to the proximity of the elevated structure to residential areas, adverse impacts would remain despite mitigation. ▪ However, both the impacts and benefits of the project would affect primarily minority and low-income populations, as the purpose of this project is to connect the disadvantaged communities to Chicago's major employment and activity centers. Therefore, no disproportionately high and adverse impacts on minority or low-income populations would occur.
Section 4(f) (*Chapter 8*)	
No Impact	▪ No adverse impacts on the attributes, features, or activities of Wendell Smith Park or Fernwood Parkway would occur after mitigation. The 0.1-acre temporary easement needed in the northwest corner of Wendell Smith Park for construction would be a Section 4(f) temporary occupancy under 23 CFR § 774.13 and would not constitute a use under Section 4(f). A *de minimis* finding is documented in this Final EIS for the Section 4(f) use of approximately 4.5 acres of Fernwood Parkway. The Chicago Park District concurred with the temporary occupancy and *de minimis* determinations on April 19, 2022.

4 Commitments and Measures to Avoid, Minimize, and Mitigate Adverse Impacts

Attachment A lists CTA's minimization and mitigation commitments, as required by 23 CFR Part 771, that will be undertaken by FTA and CTA to implement the RLE Project. With these mitigation measures and commitments as part of the defined RLE Project as required by 40 CFR Part 1505, FTA finds that all practicable means to avoid or minimize environmental harm from the RLE Project have been adopted for the Preferred Alignment. Any changes to the RLE Project that are inconsistent with the ROD must be evaluated in accordance with 23 CFR §§ 771.129 and 771.130, and, if required therein, they must be approved by FTA in writing before CTA can proceed with the change.

Mitigation measures and commitments will be implemented in accordance with the combined Final EIS/ROD. Should there be any differences in the language of the mitigation measures and commitments from that presented in the Final EIS and its appendices, the list of mitigation measures in **Attachment A** supersedes those found in the Final EIS and its appendices. CTA will incorporate these mitigation measures and commitments into the RLE Project's design, specification, and contract documents, as appropriate. FTA will require that CTA establish a mitigation and commitment monitoring program to track progress in accomplishing the mitigation measures and maintaining the commitments during the appropriate design, construction, and/or operation action periods.

5 Public and Agency Coordination

This section and **Appendix C** of the Final EIS document outreach activities that FTA and CTA have undertaken for the RLE Project. **Chapter 10** of the Final EIS focuses on the outreach conducted since the publication of the Draft EIS in 2016 through the development and announcement of the Preferred Alignment in 2018 and the publications of the Supplemental EA and Final EIS in 2022.

The Public Participation Plan (PPP), originally created in August 2012 to guide the public involvement and outreach process for the Draft EIS, builds upon the substantial public outreach activities conducted during the Draft EIS. It outlines outreach methods through the completion of the Supplemental EA and the Final EIS, as well as adapted approaches and guidelines for public participation during the COVID-19 pandemic when social distancing was required or in-person gatherings were not allowed. CTA applied the framework established in the PPP to guide the engagement of stakeholders and the public. The PPP is a dynamic document that will continue to be revised and updated, as necessary, through the future phases of the RLE Project. The most current version of the PPP is provided in **Appendix C** of the Final EIS.

5.1 Agency Coordination

Agency coordination continued since the publication of the Draft EIS, through the Supplemental EA and Final EIS processes as described throughout **Chapters 3** and **4** of the Final EIS and documented in the appendices of the Final EIS. CTA continued to coordinate with the cooperating and participating agencies since the Draft EIS. The list of cooperating and participating agencies

can be found in **Chapter 14** of the Final EIS. Outreach efforts were conducted in compliance with NEPA and other applicable regulations, including Section 106 of the National Historic Preservation Act, Section 4(f) of the U.S. Department of Transportation (USDOT) Act of 1966, joint guidance and regulations from FTA and FHWA, and other agency regulations and guidance. After publication of the Draft EIS, agency comments were received, and CTA provided direct responses to those comments. The agency comment response correspondence is provided in **Appendix C** of the Final EIS.

Agency and public comments contributed to the development and evaluation of the Preferred Alignment. As described in **Chapter 2** of the Final EIS, the Preferred Alignment is a hybrid of the UPRR East and West Options disclosed in the Draft EIS. After publication of the Draft EIS, public and agency comments were considered, and design changes were made to the RLE Project. Agency and public comments continued to influence the modification of the Preferred Alignment through design refinements as documented in the response matrix provided in **Appendix C** of the Final EIS and discussed further in **Section 10.3** of the Final EIS. Ongoing agency coordination and formal comments received from publication of the Supplemental EA continued to influence the modification of the Preferred Alignment through design refinements and project mitigation. Supplemental EA agency comments and response correspondence are also available in **Appendix C** of the Final EIS. Agency coordination has been ongoing since the Draft EIS publication in 2016 and through 2022 with the development of the Final EIS. CTA has worked with agencies to obtain concurrence on resource impacts and collaborate on RLE Project mitigation measures.

5.2 Section 106 Coordination

The Section 106 consultation process established as part of the Draft EIS has been followed for the design changes presented in the Supplemental EA and the Final EIS. CTA and FTA sent letters to 22 consulting parties. All correspondence is provided in **Appendix Q** of the Final EIS. FTA and CTA sought information from individuals and organizations likely to have knowledge of local potential resources. Details of the consulting parties contacted can be found in **Appendix Q** of the Final EIS. Consultation meetings focused on project design changes since the previous consultation was conducted during the Draft EIS, which included updates to the area of potential effect (APE), eligibility review, and effects discussions. For the Final EIS, in conjunction with the concurrent Supplemental EA coordination, the first consulting party meeting was held February 18, 2021. The second consulting party meeting was held on June 30, 2021. **Appendix Q** of the Final EIS contains copies of correspondence and Section 106 consultation materials.

5.3 Tribal Coordination

Since the publication of the Draft EIS, FTA continued coordination with Native American tribes through project updates as part of the Section 106 consultation process to provide an opportunity to share potential cultural and/or religious concerns associated with the RLE Project or express support. FTA sent letters to the following tribal consulting parties on January 26, 2018 to inform them of the selection of the Preferred Alignment: Citizen Potawatomi Nation, Ho-Chunk Nation, Miami Tribe of Oklahoma, Peoria Tribe of Indians of Oklahoma, Pokagon Band of Potawatomi Indians, Potawatomi Nation Hannahville Indian Community, Prairie Band of Potawatomi Nation, Sac and Fox Nation of Missouri, and Sac and Fox Nation of Oklahoma. FTA sent invitation letters

to the following new tribal consulting parties on November 25, 2020: Kickapoo Tribe of Oklahoma, Little Traverse Bay Bands of Odawa Indians, Michigan, and Menominee Indiana Tribe of Wisconsin.

Native American tribes have not expressed any concerns regarding the RLE Project.

5.4 Section 4(f) Coordination

CTA coordinated with the Chicago Park District due to the impacts to Wendell Smith Park and Fernwood Parkway. Documentation for the Section 4(f) coordination can be found in **Appendix Y** of the Final EIS. The Section 106 consulting party meetings discussed in **Section 10.2.1** of the Final EIS also serve as part of the Section 4(f) public involvement and agency coordination process.

CTA will continue to coordinate with the Chicago Park District regarding potential impacts and mitigation measures to Wendell Smith Park and Fernwood Parkway following publication of the Final EIS.

CTA has coordinated with the Forest Preserves of Cook County (FPCC) due to the 130th Street station location adjacent to Beaubien Woods Forest Preserve, a Section 4(f) property; however, it was determined that there would be no Section 4(f) use of Beaubien Woods Forest Preserve. Coordination activities are discussed in **Section 4.3.3.2** and **Chapter 8** of the Final EIS.

5.5 Public Outreach

Community outreach for the RLE Project has continued since the publication of the Draft EIS through the development of the Supplemental EA and Final EIS. CTA will continue to involve and consult the community through future phases of the RLE Project

In an effort to further engage and seek support from a comprehensive group of community members who were seen as invested stakeholders within the RLE Project footprint, the RLE Project Advisory Council (PAC) was formed by CTA in 2019. The PAC is made up of approximately 24 representatives from 20 community and governmental organizations. Detailed information about the PAC can be found in the PPP provided in **Appendix C** of the Final EIS.

Other public outreach activities included elected official updates, stakeholder and public meetings, issuance of newsletters, mailers (U.S. Postal Service mailings and hard copy drop-offs), a digital engagement platform (Bang the Table), regular postings on a RLE Project Facebook page, eBlasts (i.e., mass emails sent to people who signed up for RLE Project notifications), and announcements regarding the RLE Project. Community in-person meetings were held at venues that were ADA-accessible for attendees. In the spring of 2020, the COVID-19 pandemic prompted virtual adaptations and virtual meeting accommodations instead of in-person meetings and gatherings. Virtual stakeholder and public meetings allowed the participants to provide input, ask questions, share their comments, and discuss any concerns with CTA. The virtual community meetings were publicized by flyer, postcard notice, newspaper advertisements, eBlasts, customer alerts, and on the RLE Project website. For individuals needing assistance, Spanish interpreters and ASL interpreters were available for all virtual community meetings. Closed captioning was also offered. **Appendix C** of the Final EIS contains copies of public outreach materials that have been issued for the RLE Project since the publication of the Draft EIS.

CTA continues to update the project website (https://www.transitchicago.com/rle/), which serves as the most up-to-date source of information for the public. CTA also conducted individual and group briefings for elected and public officials; community, civic, business, and religious leaders; and other stakeholders, providing them the opportunity to comment and inquire about the project.

CTA held meetings with community organizations and stakeholders since the Draft EIS through 2022. **Appendix C** of the Final EIS provides a comprehensive list of the stakeholder groups within the PPP as well as summary matrices of the official responses to public comments received after publication of the Draft EIS, announcement of the Preferred Alignment, and publication of the Supplemental EA. **Table 5-1** is a summary of the public meetings advertised for the RLE Project.

Table 5-1: Outreach Meetings Summary

Meeting	Location	Date and Time	Number of Attendees
Draft Environmental Impact Statement			
Public Hearing	St. John Missionary Baptist Church 211 E. 115th Street	November 1, 2016 5:30 to 7:30 PM	280
Preferred Alignment Announcement			
Open House	Gwendolyn Brooks College Preparatory Academy - Main Gym 250 E. 111th Street	February 13, 2018 6:00 to 8:00 PM	246
Supplemental Environmental Assessment			
Community Meeting	Virtual meeting hosted by CTA using Zoom and Facebook Live platforms	December 8, 2020 6:00 to 8:30 PM	68 (Zoom) 15 (Facebook Live)
Community Meeting	Virtual meeting hosted by CTA using Zoom and Facebook Live platforms	December 9, 2020 1:30 to 3:00 PM	69 (Zoom) 21 (Facebook Live)
Stakeholder Meeting	Altgeld Public Library 955 E. 131st Street	February 16, 2022 6:00 to 8:00 PM	11
Public Hearing	Virtual meeting hosted by CTA using Zoom and Facebook Live platforms	February 15, 2022 6:00 to 8:00 PM	129
	The Salvation Army Kroc Center 1250 W. 119th Street	February 17, 2022 6:00 to 8:00 PM	10

Additional details about the public outreach for the RLE Project can be found in **Chapter 10** and **Appendix C** of the Final EIS.

6 Determination of Findings

This section describes FTA's NEPA determination for the RLE Project, as well as FTA's findings for other federal environmental requirements. The determination and findings are supported by the RLE Project's Final EIS as well as **Attachment A** of this ROD (which summarizes the commitments and mitigation measures that will be incorporated into the RLE Project).

6.1 National Environmental Policy Act

Title 42, Sections 4321 through 4347 and 4372 through 4375 of the United States Code, as well as Executive Order 11514, Protection and Enhancement of Environmental Quality, require that federal

agencies evaluate the environmental impacts of their actions, integrate such evaluations into their decision-making processes, and implement appropriate policies.

The environmental record for the RLE Project includes the Draft EIS (October 2016), Supplemental EA (January 2022), Final EIS (August 2022), and the supporting materials incorporated therein.

These documents represent the detailed statement required by NEPA describing:

- The environmental impacts of the proposed action;
- The adverse environmental effects that cannot be avoided, should the proposed action be implemented;
- Alternatives to the proposed action; and
- Potential irreversible and irretrievable commitments of resources that would be involved should the proposed action be implemented.

Having carefully considered the environmental record, the commitments and mitigation measures summarized in **Attachment A** of this ROD, public and agency comments, and the findings below, FTA has determined that:

- The environmental review documents include a record of: the environmental impacts of the proposal; adverse environmental effects that cannot be avoided; alternatives to the proposal; and irreversible and irretrievable impacts on the environment;
- The environmental process included cooperation and consultation with U.S. Environmental Protection Agency (USEPA);
- All reasonable steps have been taken to minimize adverse environmental effects of the RLE Project; and
- The project meets its purpose and need and satisfies the requirements of NEPA.

6.2 Section 106 of the National Historic Preservation Act

Section 106 regulations state that if there are historic or cultural resources in the APE that may be affected by a federal undertaking, the agency official will assess adverse effects, if any, in accordance with the Criteria of Adverse Effect described in 36 CFR § 800.5. As stated in the regulation, an adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register of Historic Places (NRHP) in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association (36 CFR § 800.5(a)(1)). Effects can be direct, indirect, or cumulative (36 CFR § 800.5(a)(1)).

The Preferred Alignment would cause displacements and visual, noise, and other environmental effects within the APE, but none of the effects would alter the characteristics that qualify any of the identified historic properties for inclusion on the NRHP. No mitigation measures would be

required. Because none of the NRHP-eligible properties in the APE would be physically affected (they would not be displaced or altered), each resource was evaluated for potential visual effects from the aerial structure, stations, and park & ride facilities. While the historic properties in the APE would encounter direct visual impacts as a result of their proximity to the RLE Project, this impact would not compromise the integrity of the historic properties or any of their character defining features that qualify them for listing in the NRHP. To comply with the agreements with State Historic Preservation Office (SHPO), CTA would include the following anticipated conditions in the final design of the RLE Project:

- Limit the construction of a park & ride facility at the 130th Street station to 4 stories or less, and
- Locate the new entrance to the 130th Street station park & ride facility at one of the two accepted locations: (1) Existing 130th Place, which eliminates on-street parking on Greenwood Avenue for one block between Ellis Avenue and 130th Place; (2) Between 130th Place and 132nd Street in the original parking lot in Block 11, which eliminates two blocks of on-street parking along the east side of Greenwood Avenue.

Based on the results of the eligibility and effects findings for the Preferred Alignment, the assessment determined "No Adverse Effect" on the 21 historic properties within the RLE Project's APE. Additional details can be found in **Section 4.7** and **Appendix Q** of the Final EIS.

In addition, CTA found the RLE Project would result in no noise or vibration impacts due to construction, no permanent vibration impacts, and 15 permanent moderate noise impacts after mitigation, none of which effect historic properties. Mitigation would consist of construction of a noise barrier approximately 3.5 feet in height (above the top of rail) to reduce noise transmission at and below the height of the tracks. Therefore, historic properties identified within the APE north of the 130th Street station would not be affected by RLE Project noise and vibration.

Analysis for the relocation of the 130th Street station found there would be no noise impacts and no mitigation measures required. For vibration, there would be no new adverse vibration impacts from the 130th Street station relocation.

During project construction, the visual, noise, and vibration effects are not anticipated to affect the characteristics that qualify properties for inclusion on the NRHP. Construction noise and vibration levels for the Preferred Alignment with mitigation described in **Section 4.5** of the Final EIS would not exceed FTA-recommended construction impact criteria. Contractors would be required to avoid impact pile-driving methods in the vicinity of the historic Roseland Pumping Station.

FTA finds that the RLE Project has satisfied the requirements of Section 106 of the National Historic Preservation Act.

6.3 Clean Water Act, Executive Order 11990 on Protection of Wetlands, and Coastal Zone Management Act

The Clean Water Act [33 USC § 1251] establishes the basic structure for regulating discharges of pollutants into waters of the United States and gives USEPA the authority to implement pollution

control programs and actions, such as setting wastewater standards for industries. Section 10 of the Rivers and Harbors Act of 1899 (33 USC § 403) prohibits the unauthorized obstruction or alteration of any navigable water of the United States. Sole source aquifers are regulated under 40 CFR § 149.

Lake Michigan is the dominant water feature in the region and is approximately 4.8 miles from the RLE Project at its closest point to the Preferred Alignment. Lake Calumet is east of the RLE Project, and south of the RLE Project is the Little Calumet River flowing westward. The Little Calumet River is on the Illinois 303(d) list (a list of waters where water quality is impaired or threatened); it is listed as impaired for mercury and polychlorinated biphenyl. No Total Maximum Daily Load has been developed for these pollutants.

Lake Michigan is the drinking water source for the City of Chicago and many of its suburbs. Groundwater is not a drinking water source and there are no sole source aquifers in proximity to the RLE Project. Due to the predominance of impervious surfaces throughout the communities adjacent to the RLE Project, minimal percolation to the underlying groundwater occurs**.**

The Preferred Alignment would not cross any waterbody or result in any new structures or construction in a waterbody. There would be no impacts on waterbodies from the Preferred Alignment.

Executive Order 11990 directs federal agencies to minimize the destruction, loss, or degradation of wetlands. It also assures the protection, preservation, and enhancement of the nation's wetlands to the fullest extent practicable during the planning, construction, funding, and operation of transportation facilities and projects.

The Preferred Alignment would affect up to 15.7 acres of wetlands, including a small quantity of wetland area limited to the footprint of a culvert outlet into Kensington Marsh. Fill of wetlands would be necessary due to placement of the yard and shop, mainline tracks, and supporting infrastructure. All wetlands in the area of potential impact (API) are assumed to require total fill in the absence of final grading limits. All federal, state, and local regulations regarding wetland impacts would be adhered to. The USACE will not require mitigation, based on the information documented in the Approved Jurisdictional Determination. While no mitigation measures nor commitments are applicable based on the API associated with the preliminary plans, CTA would comply with all federal, state, and local regulations regarding wetland impacts for the RLE Project.

Temporary construction access for installation of a stormwater outlet to Kensington Marsh would necessitate temporary impacts on wetlands. Temporary impacts on the marsh would not exceed 0.19 acre. USACE determined they do not object to utilization of Kensington Marsh, provided that coordinated BMPs are implemented. Mitigation measures associated with wetlands are identified in **Attachment A** of this ROD.

The Illinois Coastal Management Program boundary follows 130th Street. The 130th Street station would be within the boundaries of the Illinois Coastal Management Program. The 130th Street station would be located within previously developed land and would be designed to meet the policies of the Coastal Management Program.

Coordination with the Illinois Department of Natural Resources (IDNR), Illinois Coastal Management Program, occurred on November 20, 2020 and March 31, 2021 regarding the need for a federal consistency review. Per IDNR guidance, CTA submitted an initial federal consistency review request to IDNR on August 27, 2021 requesting a determination as to whether a federal consistency review would be necessary for the RLE Project. In a letter dated October 8, 2021, IDNR concurred that the relocated 130th Street station would comply with the enforceable policies of the Illinois Coastal Management Program and would be conducted in a manner consistent with the Illinois Coastal Management Program. Therefore, the 130th Street station would have no permanent adverse impacts on the Illinois coastal zone; coordination with IDNR regarding the federal consistency determination is complete. Coordination materials are included in **Appendix S** of the Final EIS.

Accordingly, FTA finds that, with the mitigation measures identified in **Attachment A** of this ROD, the RLE Project meets the requirements of Section 404 of the Clean Water Act and Executive Order 11990 on Protection of Wetlands and the Coastal Zone Management Act.

6.4 Floodplain Management

Executive Order 11988 requires the protection of floodplains. The Executive Order directs federal agencies to avoid direct or indirect support of floodplain development wherever there is a practicable alternative. The potential for floodplains in the vicinity of the Preferred Alignment was reviewed using the Federal Emergency Management Agency Flood Insurance Rate Maps. The Preferred Alignment would not cross a floodplain or result in any new structures or construction in a floodplain. There are no floodplains present in the API, and there would be no impacts on floodplains from the Preferred Alignment.

FTA finds that the RLE Project meets the requirements of Executive Order 11988.

6.5 Endangered Species Act

The Endangered Species Act (16 USC § 1531) and subsequent amendments provide for the conservation of threatened and endangered species and the ecosystems upon which they depend.

There are 135 state-listed species that potentially occur within Cook County. Changes in federal- and state-listed species status are documented in **Appendix V** of the Final EIS. In summary, although the peregrine falcon (*Falco peregrinus*) is no longer considered a state-listed species of concern as a migratory bird, protections of the Migratory Bird Treaty Act (MBTA) still apply to this species. The rusty patched bumble bee (*Bombus affinis*) was added to the federal species list for Cook County; however, the RLE Project is outside the range of this species, as identified by the U.S. Fish and Wildlife Service (USFWS) Environmental Conservation Online System. The Information for Planning and Consultation system review indicated the rufa red knot (*Calidris canutus rufa*), a robin sized shorebird, may occur in the RLE Project vicinity. No suitable habitat (i.e., coastal areas or large wetland complexes for migratory stopovers) for the rufa red knot was identified in the API. Therefore, the rufa red knot is unlikely to occur in the API.

Permanent and temporary construction impacts on vegetation and wildlife habitat in the Preferred Alignment include removal of up to 64.1 acres of trees from the API. USFWS listed the northern long-eared bat as a threatened species that may be present in the vicinity. Northern long-eared bats may be transient through the area, but more suitable foraging and roost habitat is likely to be present in the wooded areas and riverine corridor along the Little Calumet River. Coordination was completed with USFWS on September 28, 2021, finalizing the determination regarding potential impacts on the northern long-eared bat. Under the *Programmatic Biological Opinion for Transportation Projects in the Range of the Indiana bat and Northern Long-Eared Bat (USFWS)* a "May Affect – Not Likely to Adversely Affect" determination with inclusion of mitigation measures was provided by USFWS. USFWS also agreed with the finding of "No Effect" for the threatened and endangered species listed in Cook County, Illinois and IDNR has determined that impacts are unlikely with inclusion of the proposed mitigation measures (see the coordination letters dated September 28, 2021 and November 24, 2021, respectively, in **Appendix V** of the Final EIS). Corresponding mitigation measure are provided in **Attachment A** of this ROD.

FTA finds that, with the mitigation measures identified in **Attachment A** of this ROD, the RLE Project meets the requirements of the Endangered Species Act.

6.6 Migratory Bird Treaty and Bald and Golden Eagle Protection Acts

Vegetation and wildlife habitats are also regulated on the federal level by the MBTA (16 USC §§ 703–712), Fish and Wildlife Coordination Act (16 USC § 661–667e), and the Bald and Golden Eagle Protection Act (16 USC § 668–668c). There are no local regulations requiring additional analysis; however, there are local regulations regarding the removal of landscape trees without a permit.

Permanent impacts on vegetation and wildlife habitat in the Preferred Alignment include removal of up to 64.1 acres of trees from the API. The Preferred Alignment would also potentially have adverse impacts on vegetation and wildlife habitat during construction due to tree removal. The loss of trees would reduce migratory bird habitat. The tree removal is mostly from the proposed construction of the 120th Street yard and shop and the 130th Street station. Reduction in habitat would occur in an area that is fragmented and somewhat isolated by surrounding industrial and transportation uses. The loss of trees would reduce migratory bird habitat. Migratory species passing through the Chicago urban core are likely to be adapted to urban habitat and are highly mobile, able to overcome industrial and land use barriers to more natural areas. With the implementation of mitigation measures outlined in **Attachment A** of this ROD, potential adverse impacts would be minor.

Mitigation measures would be required for compliance with the MBTA, for consistency with local tree protection ordinances, and to reduce potential impacts on wildlife habitat. Bird species may use trees that could be removed for the RLE Project or disturbed during construction and could be affected. Additional information on mitigation measure details can be found in **Appendix V** of the Final EIS.

FTA finds that, with the mitigation measures identified in **Attachment A** of this ROD, the RLE Project meets the requirements of the MBTA and the Bald and Golden Eagle Protection Act.

6.7 Clean Air Act

Under authority of the Clean Air Act (CAA), USEPA has established National Ambient Air Quality Standards (NAAQS) for criteria pollutants to protect the public health and welfare [42 USC 7401 et seq. (1970)]). The criteria pollutants that are of greatest concern to the transportation sector include carbon monoxide, nitrogen dioxide, ozone, particulate matter with an aerodynamic diameter of 10 micrometers (µm) and less (PM_{10}), and particulate matter with an aerodynamic diameter of 2.5 micrometers and less ($PM_{2.5}$). The NAAQS are summarized in **Appendix U** of the Final EIS. The RLE Project would be located in an area classified as nonattainment for ozone, which is a region where recent air quality monitoring data have exceeded the ozone NAAQS. However, the area has been redesignated as unclassifiable/attainment for $PM_{2.5}$.

Regional emissions of air pollutants under the Preferred Alignment are based on regional vehicle miles traveled (VMT). VMT are the total number of miles driven by all vehicles and would decrease under the RLE Project resulting from passenger diversions to the Red Line. The regional vehicular emissions were evaluated from VMTs and the analysis predicted slightly lower emissions of greenhouse gases (GHG), $PM_{2.5}$, and Mobile Source Air Toxics (MSAT) under the Preferred Alignment. The Preferred Alignment would reduce VMTs, and, therefore, it would slightly lower regional emissions of GHGs, $PM_{2.5}$, and MSAT.

Because the RLE Project would be in a nonattainment area for ozone, the Preferred Alignment must conform to the State Implementation Plan for ozone. Conformity for ozone can be demonstrated by documenting that the proposed project is specifically included in the conforming Regional Transportation Plan and TIP. In its conformity analysis, CMAP concluded that the *ON TO 2050* RTP and the *FFY 2019-2024 TIP* meet all applicable requirements for conformity for the 8-hour ozone standard and the annual $PM_{2.5}$ standard. The RLE Project would conform to the SIP because the RLE Project was included in CMAP's *GO TO 2040* and would decrease $PM_{2.5}$ emissions. The RLE Project would still conform to the SIP because it is included in CMAP's *ON TO 2050* and TIP. In 2018 the USEPA approved the Illinois Environmental Protection Agency request to revise the state's designation for $PM_{2.5}$ from unclassifiable to unclassifiable/attainment, and a transportation conformity project-level analysis for $PM_{2.5}$ is not required.

There would be no adverse impacts on regional and local air quality as a result of the Preferred Alignment. FTA finds that the RLE Project meets the requirements of the CAA.

6.8 Environmental Justice

USEPA defines environmental justice (EJ) as "the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies" (USEPA 2004). **Chapter 7** of the Final EIS summarizes the EJ analysis and outreach conducted for the RLE Project and additional details can be found in **Appendix X** of the Final EIS.

FTA issued its most recent guidance for meeting the requirements of Executive Order (EO) 12898 as Circular 4703.1 in August 2012. Federal agencies are required to consider the potential for disproportionately high and adverse impacts on EJ populations that could result from all programs,

policies, and activities (EO 12898). As described in EO 12898, a disproportionate impact is one that would negatively affect EJ populations to a greater extent than non-EJ populations. The communities adjacent to the RLE Project are entirely minority communities, some of which are also low-income areas. This is a community-driven project based on equity. All of the benefits and impacts of the project would occur within these minority and low-income populations (EJ populations). Few benefits would occur outside of the minority and low-income areas. As such, the Preferred Alignment would have impacts on EJ populations; however, none of the impacts would be disproportionately high and adverse. FTA and CTA have undertaken outreach and ongoing coordination with affected communities to identify EJ populations, discuss project impacts and benefits, and provide mitigation measures where relevant. Full and fair access to meaningful involvement by EJ populations in project planning and development is an important aspect of EJ (EO 12898). More information regarding specialized outreach can be found in **Section 7.3** and **Section 10.4** of the Final EIS.

FTA Circular 4703.1 indicates that projects in areas consisting entirely of EJ populations do not necessarily eliminate the possibility of disproportionately high and adverse impact findings; however, the following characteristics are true of the API:

- The entire API is predominantly minority populations. No single block group (U.S. Census Bureau) in the API has less than 76 percent minority populations.
- All of the impacts and benefits of the Preferred Alignment would accrue to the same minority populations.
- The purpose of this community-initiated project includes connecting disadvantaged communities to the City of Chicago's major employment and activity centers in an effort to spur economic development and improve livability. The RLE Project would help remediate the geographic isolation and lack of employment and development opportunities that currently exist in the communities surrounding the RLE Project.

A multistep process was used to assess the potential for disproportionately high and adverse impacts on EJ populations as described in **Section 7.1** of the Final EIS. Categories that had adverse impacts remaining after mitigation measures were analyzed further to determine whether any of those impacts would be disproportionately high or adverse. An impact would be disproportionately high or adverse if the effect (1) would be predominantly borne by an EJ population, or (2) would be suffered by the EJ population and would be appreciably more severe or greater in magnitude than the adverse effect suffered by the non-EJ population. Project benefits to EJ populations were also considered.

Considering the impacts, mitigation measures, and benefits, the permanent impact under the Preferred Alignment on community character and permanent visual impact would not be appreciably more severe or greater in magnitude than similar effects elsewhere in CTA's rail system. The mitigation measures proposed are similar in nature to those for other CTA projects and have been proposed by CTA consistently in EJ and non-EJ populations alike. The project offers considerable benefits that would accrue to the resident EJ populations. Although the Preferred Alignment would still have adverse impacts on EJ populations, these impacts would not be disproportionately high and adverse. As such, no EJ-specific mitigation measures beyond those

identified in **Chapter 4** of the Final EIS and carried forward into **Attachment A** of this ROD would be required.

Therefore, FTA finds that the RLE Project meets the intent of Executive Order 12898 because the RLE Project would not result in disproportionately high and adverse effects on minority or low-income populations.

6.9 Section 4(f) Evaluation

Section 4(f) of the USDOT Act of 1966 is a federal law that established requirements for USDOT (including FTA) consideration of publicly owned parks/recreational areas that are accessible to the general public, publicly owned wildlife/waterfowl refuges, and publicly or privately owned historic sites of federal, state, or local significance in developing transportation projects (49 USC Section 303). This law, commonly known as Section 4(f), is codified in 49 USC Section 303 and 23 USC Section 138 and is implemented by FTA through the regulation 23 CFR Part 774. Additional guidance on the implementation of Section 4(f) may be found in FHWA's *Section 4(f) Policy Paper* (USDOT, FHWA 2012). FTA has formally adopted this guidance and this analysis was conducted consistent with this guidance.

The Section 4(f) evaluation involved consultation and coordination with agencies and the public, as described in **Chapter 8** of the Final EIS.

There would be no permanent incorporation, temporary use, or a constructive use of any of the historic properties under the Preferred Alignment. No historic properties or land would be acquired or used for construction or permanently. As such, the Preferred Alignment would not result in the use of any historic properties protected under Section 4(f).

There are no known archaeological sites within the project APE, as identified in **Appendix Q** of the Final EIS. There would be no permanent incorporation, temporary use, or constructive use of any archaeological resources under the Preferred Alignment. Therefore, the Preferred Alignment would not result in the use of any archaeological resources protected under Section 4(f).

During construction of the Preferred Alignment, there would be temporary and minor construction activities within Wendell Smith Park for a short duration. These temporary construction activities would be considered a temporary occupancy under 23 CFR § 774.13 and would not constitute a use of Wendell Smith Park under Section 4(f). See **Chapter 8** of the Final EIS for additional details.

The Preferred Alignment track structure would run through the two parcels of Fernwood Parkway between 99th Street and 103rd Street. Elevated track structure supports would be placed permanently in the parkway, and the parkway south of 99th Street would be overlapped by the elevated structure and its associated clearances. This would result in a permanent incorporation of the park space, which constitutes a use under Section 4(f).

Based on consideration of the proposed direct use as well as the mitigation and enhancement measures, no adverse impacts on the attributes, features, or activities would result from the Preferred Alignment; therefore, a *de minimis* finding is documented for the Section 4(f) use of Fernwood Parkway in the Final EIS. Replacement parkland proposed as mitigation would replace

this linear open green space with new pocket parks directly adjacent to the Major Taylor Trail, in the Washington Heights community area, or at additional locations based on future coordination with the Chicago Park District. Replacement ratio would be 1 to 1, for a total of 4.5 acres of replacement parks. See **Chapter 8** and **Appendix Y** of the Final EIS for additional details regarding mitigations measures and coordination with the Chicago Park District.

The measures to minimize harm to Section 4(f) resources are included in the list of mitigation measures in **Attachment A** of this ROD. Accordingly, FTA finds that the RLE Project meets the requirements of Section 4(f).

July 28, 2022

Date of Approval

Kelley Brookins
Regional Administrator
U.S. Department of Transportation
Federal Transit Administration

Attachment A: Commitment and Mitigation Summary

Resource Category	Impact Category	Commitment and Mitigation[1] Summary	Responsible Party	Timing
Transportation (Chapter 3)	**Permanent** TR-1	CTA has provided RLE Project traffic analysis to agencies of jurisdiction through ongoing coordination and recommended improvements as documented in the Final Environmental Impact Statement (EIS)/Record of Decision (ROD) through 30 percent design. CTA will coordinate intersection improvements with agencies of jurisdiction [including Illinois Department of Transportation (IDOT), Chicago Department of Transportation (CDOT)], and Cook County Department of Transportation and Highways (CCDoTH) for intersections affected by the change in traffic volumes and patterns associated with the final design of the RLE Project. The mitigation measures will be based on actual (measured) traffic volumes, agency requirements, coordination within the traffic network, and any traffic demand management and/or traffic calming measures being implemented at the time of mitigation. Agency requirements may include level of service analysis under Complete Streets guidelines, examining an overall level of service for pedestrians, bicycles, transit modes, and other vehicles (rather than placing an emphasis on the movement of automobiles).	CTA	Design Operations
	TR-2	CTA will coordinate with CDOT to include crosswalks at the existing intersection adjacent to 103rd Street station. CTA will coordinate with CDOT to determine if additional improvements are merited at this location to enhance safety for crossing pedestrians.	CTA	Design
	TR-3	At 111th Street station, where the proposed pedestrian roadway crossing is considered “mid-block,” CTA will provide enhanced crosswalk warning devices (in coordination with CDOT) in the final design of the RLE Project. This crosswalk enhancement may include a raised-table style crosswalk with the addition of rapid flash, pedestrian-activated warning lights.	CTA	Design
	TR-4	At Michigan Avenue station, CTA will coordinate with CDOT to include crosswalks at an existing intersection at Michigan Avenue and Kensington Avenue and evaluate the need for a traffic signal related to exiting buses. If the intersection is signalized, pedestrian signals with pedestrian activation will be included.	CTA	Design
	TR-5	For the 130th Street and Ellis Avenue intersection, in coordination with IDOT (having jurisdiction of 130th Street) and CDOT (having jurisdiction of Ellis Avenue), CTA will extend turn lane storage lengths and adjust the signal timing per the Intersection Design Study and the traffic analysis results. The mitigation measures will be based on actual (measured) traffic volumes, agency requirements, coordination within the traffic network, and any traffic demand management and/or traffic calming measures being implemented at the time of mitigation.	CTA	Design
	TR-6	CTA will provide bicycle parking at the four RLE stations to accommodate bicyclists.	CTA	Design
	TR-7	The existing at-grade crossings at 101st Street, 103rd Street, 107th Street, 109th Street, 111th Street, 113th Street (pedestrian only), Wentworth Avenue, 115th Street, and State Street will remain. At the crossings directly adjacent to stations, CTA will include the implementation of at-grade warning device enhancements including pedestrian gates and improvements for Americans with Disabilities Act (ADA) compliance in the final design of the RLE Project in coordination with the Union Pacific Railroad (UPRR). Illinois Commerce Commission, CDOT, and CCDoTH.	CTA	Design
	TR-8	At stations, CTA will provide parking on the same side of the tracks so riders that use park & ride facilities will not have to cross the Union Pacific Railroad (UPRR) tracks to access the stations. CTA will coordinate with the UPRR regarding fencing or other appropriate design elements and CTA will include the agreed upon design features in final design of the RLE Project to deter trespassing into UPRR property. CTA will include pedestrian gates in final design to enhance at-grade crossing protections.	CTA	Design
	Construction TR-9	CTA will require contractors performing primary construction activities to prepare traffic management and maintenance of traffic plans that identify traffic detours and emergency response access routes. CTA and contractors will coordinate with IDOT, CCDoTH, CDOT, and local businesses, and organizations to select the most appropriate access and traffic management for each situation. Contractors will adhere to local, state, and federal construction and temporary traffic management guidelines.	CTA Contractors	Construction

Resource Category	Impact Category	Commitment and Mitigation[1] Summary	Responsible Party	Timing
	TR-10	CTA will coordinate with the UPRR, Norfolk Southern Railway (NS), Canadian National (CN), Metra Electric District (MED), and Northern Indiana Commuter Transportation District/Chicago South Shore & South Bend Railroad (NICTD/CSS & SBRR) for work near, adjacent to, or on their property. CTA will require contractors performing primary construction activities to minimize freight and passenger rail impacts, such as sequencing the construction of crossings, through coordination with the affected railroads, appropriate flagging, and scheduled track outages.	CTA Contractors	Construction
	TR-11	CTA will require contractors performing primary construction activities to sequence the proposed structure construction in the vicinity of the I-94/I-57 interchange to limit effect on I-57 traffic flow to the extent practicable per IDOT traffic management requirements.	CTA Contractors	Construction
	TR-12	CTA will require contractors to adhere to local, state, and federal guidelines for maintaining pedestrian and ADA access during construction.	CTA Contractors	Construction
Land Use and Economic Development (Section 4.1)	**Permanent** LU-1	Where stations, substations, and park & ride facilities are inconsistent with current zoning, CTA will coordinate with City of Chicago to rezone the parcels or receive appropriate zoning approvals (e.g., special use permit, variance, etc.).	CTA	Design
	Construction LU-2	CTA will develop a Construction Outreach and Coordination Plan. CTA will coordinate with the communities, businesses, and aldermen's local ward offices, and contractors performing primary construction activities to finalize and implement a Construction Outreach and Coordination Plan.	CTA Contractors	Design Construction
Displacements and Relocation of Existing Uses (Section 4.2)	**Permanent** DR-1	CTA will provide compensation and relocation assistance to displaced property owners and renters per the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act) (42 USC § 4601, et seq.). CTA will provide informational resources, permitting support, and points of contact for displaced business owners to find suitable sites for relocation.	CTA	Design
	DR-2	CTA will continue to coordinate with the Chicago Department of Planning and Development on the Transit Supportive Development (TSD) Plan to maximize the economic development and community benefits of the RLE Project.	CTA	Design
	DR-3	CTA will obtain FHWA approval for the agreement between CTA and IDOT regarding the RLE Project proposed within the I-57/94 right-of-way.	CTA	Design
	Construction	No mitigation measures nor commitments are applicable.		
Neighborhoods and Communities (Section 4.3)	**Permanent** NC-1	CTA will continue to coordinate with TCA Health to maintain access to the TCA Health parking lot and replace parking space impacts, if any, at a ratio of 1 to 1 in the final design of the RLE Project.	CTA Contractors	Design
	NC-2	CTA will continue to coordinate with the Agape Community Center to include an alternative parking location for the Agape Community Center in the final design of the RLE Project. CTA will maintain truck access to the north side of the Agape Community Center building.	CTA Contractors	Design
	NC-3	At Beaubien Woods Forest Preserve, CTA will uphold their role in the mitigation measures agreed upon by the Forest Preserves of Cook County (FPCC). The mitigations are currently anticipated to include: • Transfer of two City-owned parcels to FPCC ownership. • $250,000 payment to FPCC for ecological restoration, habitat enhancement, and beautification of expanded Beaubien Boat Launch land. • New trail connection from Altgeld Gardens recreation facilities on 133rd Street to the Beaubien Woods Boat Launch • Wayfinding and information signage inside the proposed station and outdoor signage at 130th Street and Ellis Avenue and other locations. • Forest Preserve advertising to encourage CTA riders to use public transportation to visit the Forest Preserves at the 130th Street station, other Red Line stations south of Roosevelt, and inside local trains and buses. CTA will continue to coordinate with the FPCC through final design and RLE Project completion regarding ongoing mitigation activities.	CTA Contractors	Design Operations
	Construction NC-4	CTA will require contractors to provide detours to maintain access to adjacent properties during construction, and CTA will coordinate with Pace so bus transit service will detour around roadway closures. CTA will provide early notification of construction activities and provision of temporary alternative access routes for the community and advertising programs to increase the visibility of affected businesses during construction. CTA will require contractors to perform work in a manner consistent with local ordinances.	CTA Contractors	Construction

Resource Category	Impact Category	Commitment and Mitigation[1] Summary	Responsible Party	Timing
	NC-5	CTA will require contractors performing primary construction activities to provide anticipated hauling routes. CTA will work with contractors to coordinate hauling routes throughout the RLE Project to minimize the number of trucks and equipment passing through sensitive areas of the community and will utilize highways and major arterials over local roads to the extent feasible and practicable.	CTA Contractors	Construction
Visual and Aesthetic Conditions (Section 4.4)	**Permanent** VA-1	CTA will consider community input into the appearance of the stations in the final design of the RLE Project. CTA will include landscaping with security prioritized in the detailed landscape design. Based on community input to date, aesthetic design elements are anticipated to include: • Replacing/restoring removed vegetation • Addressing neighborhood plan recommendations • Creating pedestrian friendly surroundings • Shielding exterior lighting and/or use of "down lighting" light fixtures to prevent light pollution into nearby residences • Providing landscaping (trees) as visual screening for the residences located on the west side of Eggleston Avenue north of 103rd Street station • Planting trees in front of the structure, where space allows, to break sight lines of the 107th Place cross-over and the 130th Street station • Using good urban design to reduce adverse impacts	CTA Contractors	Design
	Construction VA-2	CTA will require contractors performing primary construction activities to maintain as much existing vegetation as practical, including shielding of tree root zones to prevent construction damage to existing trees that will remain.	CTA Contractors	Construction
	VA-3	CTA will require contractors performing primary construction activities to limit construction lighting infiltration into adjacent neighborhoods when nighttime work is required.	CTA Contractors	Construction
	VA-4	CTA will require contractors performing primary construction activities to implement BMPs and debris-free construction areas to mitigate temporary visual impacts from the construction sites.	CTA Contractors	Construction
Noise and Vibration (Section 4.5)	**Permanent** NV-1	Before final design will be approved, CTA will require the final design contractor to analyze noise to confirm impact thresholds will be met as defined in the Final EIS. The 30 percent design estimate of noise barriers is approximately 33,600 lineal feet (6.36 miles) of noise barriers, extending from the top surface of the concrete deck to a minimum height of 3.5 feet above top-of-rail elevation. Mitigation will be modified, if needed, to ensure impacts are the same or less than those identified in this Final EIS.	CTA Contractors	Design
	Construction NV-2	CTA will require contractors performing primary construction activities to employ noise-reducing construction best management practices (BMPs) that are anticipated to include: • Keeping all construction-equipment exhaust mufflers in a state of good repair. • As part of the construction specifications, adhering to the noise control requirements of the project. • To the maximum extent possible, avoiding idling of vehicles that are not in use on construction sites. • Limiting nighttime construction near residences to the extent practical. • Avoiding impact pile driving in the vicinity of the historic Roseland Pumping Station, and the vicinity from the I-94 ramp crossing to the east of CN/MED and south of 130th Street, as well as adjacent to sensitive noise and vibration receivers identified in the Final EIS such as residences, parks, churches, etc.	Contractor	Construction
Safety and Security (Section 4.6)	**Permanent** SS-1	CTA will provide lighting under the elevated structure in station, parking, and on CTA right-of-way to contribute to improved safety and security, and to improve surveillance visibility	CTA Contractors	Design
	SS-2	CTA will continue the Threat and Vulnerability Assessment (TVA) and Preliminary Hazard Analysis (PHA) through final design of the RLE Project to determine appropriate security measures in the public right-of-way, such as security surveillance cameras and/or lighting at cross-street areas in the vicinity of the four RLE Project stations. CTA will coordinate the implementation of any improvements in the City right-of-way with the City of Chicago.	CTA Contractors	Design

Resource Category	Impact Category	Commitment and Mitigation[1] Summary	Responsible Party	Timing
	Construction SS-3	CTA will require contractors performing primary construction activities to develop a Construction Safety and Security Plan, perform job safety analysis, monitor safety and security activities, and comply with other relevant aspects of the CTA's Safety and Security Management Plan or CTA's other manuals and policies. Contractors will contractually commit to take prompt and decisive corrective action on safety deficiencies identified at the work sites.	CTA Contractors	Construction
	SS-4	CTA will require the applicable contractors to construct an access road for the Metropolitan Water Reclamation District of Greater Chicago (MWRD) prior to commencing operation on the new CTA tracks, if necessary, to maintain access to the MWRD facility. This roadway will also be used by emergency services.	CTA Contractors	Construction
	SS-5	CTA will require contractors performing work on, above, or adjacent to the CTA rail system to follow CTA's Safety Manual for Contract Construction On, Above, or Adjacent to the CTA Rail System (Construction Safety Manual) to protect themselves, their employees, sub-contractors, CTA passengers, employees, and the public.	CTA Contractors	Construction
Historic and Cultural Resources (Section 4.7)	**Permanent** HC-1	To comply with the agreements with State Historic Preservation Office (SHPO), CTA will include the following anticipated conditions in the final design of the RLE Project: • Limit the construction of a park & ride facility at the 130th Street station to 4 stories or less, and • Locate the new entrance to the 130th Street station park & ride facility at one of the two accepted locations: -Existing 130th Place, which eliminates on-street parking on Greenwood Avenue for one block between Ellis Avenue and 130th Place -Between 130th Place and 132nd Street in the original parking lot in Block 11 which eliminates two blocks of on-street parking along the east side of Greenwood Avenue	CTA Contractors	Design
	Construction HC-2	CTA will require contractors to avoid impact pile-driving methods in the vicinity of the historic Roseland Pumping Station.	CTA Contractors	Construction
Hazardous Materials (Section 4.8)	**Permanent** HM-1	CTA will adhere to all applicable federal, state, and local regulations, as well as existing system-wide hazardous material usage, storage, and disposal plans and procedures, further minimizing the potential for hazardous material impacts.	CTA	Operations
	Construction HM-2	CTA will require contractors to follow federal, state, and local laws and regulations regarding hazardous materials during construction activities. CTA and contractors will implement the following BMPs, at a minimum, to avoid and minimize the potential for impacts before and during construction: • Conduct Phase II ESAs on properties identified as RECs in the site-specific Phase I ESAs. The assessments will include characterization and evaluation of the potential for encountering hazardous materials and contaminated soil. • CTA will prepare a Soil Management Plan for the RLE Project. • CTA will manage soil by two categories, uncontaminated and contaminated soil. Uncontaminated soils meet all Tier 1 SROs and MAC levels that can be either reused on or off the RLE Project, disposed of at an approved CCDD facility, or used as fill material at an uncontaminated soil fill operation (35 IAC 1100, Subpart F). Contaminated soil exceeds the Tier 1 SROs and MAC for one or more contaminants. The soil is considered impacted, and any material removed as part of RLE Project construction is required to be disposed at a landfill permitted to accept the material. • CTA will remove and dispose of creosote railroad ties that are encountered during construction at an approved disposal facility. • CTA will require that any USTs encountered during construction or previously identified during the Phase II ESAs be removed and disposed and any UST that was determined to be leaking would go through closure through the appropriate regulatory agency. • CTA will close out any open leaking UST sites and obtain a No Further Remediation Letter from the appropriate regulatory agency. • Survey buildings or structures for Asbestos Containing Material (ACM), Lead Based Paint (LBP), and hazardous material before demolition, to identify any ACM, LBP, and hazardous materials, such as polychlorinated biphenyls (PCBs) or mercury-containing equipment. Any ACM, LBP, and hazardous materials identified will be abated and disposed of in accordance with federal, state, and local regulations. Removal, abatement, and disposal of these materials will be completed by specialists that are trained and certified to conduct such activities.	CTA Contractors	Design

Resource Category	Impact Category	Commitment and Mitigation[1] Summary	Responsible Party	Timing
	HM-3	CTA will require applicable contractors to develop the following specific and required plans before start of construction, to further minimize or avoid the potential for hazardous material impacts: • A Contaminated Material Management Plan will provide the procedures for identifying, characterizing, managing, storing, and disposing of contaminated soil and groundwater encountered during construction activities. The plan will comply with all applicable federal and state cleanup standards and will cover the entire RLE Project. • If required, a Spill Prevention, Control and Countermeasure (SPCC) Plan will address the use, storage, and disposal of materials such as asphalt, fuel, paint, solvents, and cleaning agents. The SPCC Plans will provide BMPs to limit the potential for accidental releases of potentially hazardous materials. • Construction Stormwater Pollution Prevention Plans (SWPPP) will describe methods to prevent or minimize stormwater runoff from encountering contaminated soil or other hazardous materials. • Health and Safety Plans for construction activities, will be developed by contractors and approved by CTA before starting any work. The Health and Safety Plans will identify potential contaminants of concern, required personal protective equipment and procedures, and emergency response procedures.	CTA Contractors	Construction
Wetlands (Section 4.9)	**Permanent** WL-1	While no mitigation measures nor commitments are applicable based on the area of potential impacts associated with the 30 percent plans, CTA will comply with all federal, state, and local regulations regarding wetland impacts for the RLE Project.	CTA Contractors	Design Construction
	Construction WL-2	CTA will require contractors to site construction staging areas outside of wetlands as much as practicable, but if there were any temporary impacts, those areas will be restored as wetlands after construction. If any staging area is proposed to be sited outside of the previously cleared area, then contractors would coordinate with CTA to review the proposed site for the presence of wetlands.	CTA Contractors	Construction
	WL-3	CTA will restore temporarily affected areas in Kensington Marsh (related to installation of a stormwater outlet) to pre-construction conditions and will monitor for a period to be determined in coordination and MWRD. In addition to restoration, BMPs would include nine proposed detention ponds per 30 percent design, which would limit runoff volumes. If modifications are made during final design regarding the outflow or use of detention ponds to limit runoff volumes, then CTA would coordinate with the U.S. Army Corps of Engineers for concurrence.	CTA	Construction
Air Quality (Section 6.1)	**Permanent**	No mitigation measures nor commitments are applicable.		
	Construction AQ-1	CTA will require contractors performing primary construction activities to implement best management practices (BMPs) to reduce construction dust, to provide emissions controls on construction equipment, to use low sulfur fuels, and to limit equipment operations such as excessive idling. Contractors performing primary construction activities will develop and implement a Dust Control Plan, which will address, in detail, how dust will be controlled at the construction site, the staging areas, and the access and egress routes. CTA will require contractors to follow Chicago's Clean Diesel Construction Ordinance, which will reduce the potential for construction related air quality impacts.	CTA Contractors	Construction
Water Quality (Section 6.2)	**Permanent** WQ-1	CTA will design the RLE Project to include properly designed and maintained biological oil and grease removal systems in new storm drain systems, to treat water before it leaves project construction areas.	CTA Contractor	Design Operations
	WQ-2	CTA will implement monitoring and cleanup program for spills and leaks of hazardous materials, as needed.	CTA	Operations
	WQ-3	CTA will develop procedures to ensure that the placement of equipment to be repaired or maintained will be done in covered areas on a pad of absorbent material to contain leaks, spills, or small discharges.	CTA	Operations
	WQ-4	CTA will perform periodic and consistent removal of landscape and construction debris throughout the RLE corridor.	CTA	Operations
	WQ-5	CTA will ensure that the removal of any significant chemical residue, if applicable, on RLE Project sites will be done through appropriate methods.	CTA	Operations
	WQ-6	CTA will use non-toxic alternatives for any necessary applications of herbicides or fertilizers to landscaping for the RLE Project, where practicable.	CTA	Operations

Resource Category	Impact Category	Commitment and Mitigation[1] Summary	Responsible Party	Timing
	WQ-7	CTA will design and install detention basins or other landscaping features in the final design of the RLE Project to remove suspended solids by settlement, where practicable.	CTA Contractor	Design
	Construction WQ-8	CTA will require contractors to conduct periodic monitoring of runoff water quality before discharge from the site and into the storm drainage system, at a frequency to be determined during Stormwater Pollution Prevention Plan (SWPPP) development.	CTA Contractors	Construction
	WQ-9	CTA will require contractors to properly store hazardous materials to prevent contact with precipitation and runoff.	CTA Contractors	Construction
	WQ-10	CTA will require contractors to obtain coverage under a National Pollutant Discharge Elimination System (NPDES) Construction General Permit, and to abide by all terms of the permit. Permit coverage will include development and implementation of a SWPPP.	CTA Contractors	Construction
Floodplains (Section 6.3)	**Permanent**	No mitigation measures nor commitments are applicable.		
	Construction	No mitigation measures nor commitments are applicable.		
Vegetation Wildlife and Habitat (Section 6.4)	**Permanent** VW-1	CTA will require contractors performing primary construction activities to time tree removal as much as possible to occur outside the migratory bird nesting season, which occurs generally from April 1-September 15 and as early as March 1 for some species. If tree removal must occur during the nesting season, two biological surveys will be conducted: one 15 days before and a second 72 hours before the construction that will remove or disturb suitable nesting habitat.	CTA Contractors	Construction
	VW-2	CTA will incorporate tree avoidance measures into the final design of the RLE Project where feasible; however, if construction of the project were to require removal of a protected tree, a permit will be required in accordance with applicable codes and ordinances of the City of Chicago. Tree removal permits may require replanting of protected trees to mitigate for the removal of these trees. Required tree removal will be determined during the pre-construction phase in coordination with contractors performing primary construction activities.	CTA Contractors	Design Construction
	Construction	CTA will require contractors to apply tree removal timing as above in VW-1.		
Threatened and Endangered Species (Section 6.5)	**Permanent** TE-1	For the protection of the northern long-eared bat, the CTA will require contractors to ensure that tree removal activities occur outside of the northern long-eared bat active season (April 1 through October 31).	CTA Contractors	Construction
	Construction TE-2	For the protection of the northern long-eared bat, the CTA will require contractors to ensure that tree removal activities occur outside of the northern long-eared bat active season (April 1 through October 31).	CTA Contractors	Construction
	TE-3	For the protection of wildlife associated with Lake Calumet, the CTA will require contractors to use fully shielded lighting fixtures that emit no light upward. Only “warm-white” or filtered LEDs (CCT < 3,000 K; S/P ratio <1.2) will be used to minimize blue emission. Only light the exact space with the amount (lumens) needed to meet industry safety requirements.	CTA Contractors	Construction
	TE-4	For protection of the osprey, the CTA will require contractors to remove vertical structures, such as telephone poles, light poles, etc., outside of the osprey active season (April 1 and October 31). If these dates cannot be accommodated, a nesting survey will be conducted to determine if species are utilizing structures in the project area. Survey results will be coordinated with IDNR.	CTA Contractors	Construction
Geology and Soils (Section 6.6)	**Permanent**	No mitigation measures nor commitments are applicable.		
	Construction	No mitigation measures nor commitments are applicable.		
Energy (Section 6.7)	**Permanent**	No mitigation measures nor commitments are applicable.		

Resource Category	Impact Category	Commitment and Mitigation[1] Summary	Responsible Party	Timing
	Construction	No mitigation measures nor commitments are applicable.		
Environmental Justice (Chapter 7)	**Permanent**	No mitigation measures nor commitments are applicable.		
	Construction	No mitigation measures nor commitments are applicable.		
Section 4(f) (Chapter 8)	**Permanent** 4F-1	CTA will implement mitigation for Fernwood Parkway including: Lands (acreage) used for the project will be replaced with lands of reasonably equivalent usefulness and location and of at least comparable value. CTA will mitigate impacts to Fernwood Parkway through the creation of pocket park sites directly adjacent to the Major Taylor Trail, in the Washington Heights community area, or additional areas based on future coordination at a replacement ratio of 1 to 1, for a total of 4.5 acres of replacement parks. The replacement pocket park sites will include passive recreational space that will facilitate Chicago Park District master planning goals and objectives. Replacement property will be constructed in accordance with Chicago Park District standards. In coordination with the Chicago Park District, CTA will identify and acquire park space totaling 4.5 acres to be used for replacement parks. Prior to acquisition of the park space, CTA will conduct Phase I and II environmental site assessments and obtain environmental clearance on the selected sites, as required. In addition, CTA will coordinate with the City of Chicago, if needed, to ensure zoning of these parcels is consistent with future park uses by rezoning or receiving appropriate zoning approvals.	CTA Contractors	Design
	Construction 4F-2	CTA will coordinate with the applicable contractor to implement mitigation for Wendell Smith Park, including replacement of removed trees. CTA will obtain a construction permit from the Chicago Park District that requires full restoration and CTA will fully restore the land to a condition at least as good as that which exists prior to the RLE Project. CTA will require the construction contractor to follow appropriate construction BMPs to shield construction activities, allow use of the property by the public, and minimize any safety risks. This includes but is not limited to providing a detour for the sidewalks within Wendell Smith Park.	CTA Contractors	Construction