

Documented Categorical Exclusion Union Pacific West Third Mainline Project Western Section

Kress Road to Peck Road (MP 32.00 to MP 38.41)
Metra Project Number: HG-4846

July 2017

Metra



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Metra/Union Pacific-West Line

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List of Acronyms

ACHP	Advisory Council on Historic Preservation
APE	Area of Potential Effects
ASTM	American Society for Testing and Materials
BMP	Best Management Practices
CCDD	Clean Construction Demolition Debris
CFR	Code of Federal Regulations
CMAP	Chicago Metropolitan Agency for Planning
CO	Carbon monoxide
CWA	Clean Water Act
DFIRM	DuPage County Digital Flood Insurance Rate Map
EcoCAT	Ecological Compliance Assessment Tool
EJ	Environmental Justice
ESA	Environmental Site Assessment
IDNR	Illinois Department of Natural Resources
IEPA	Illinois Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FOIA	Freedom of Information Act
FPDKC	Forest Preserve District of Kane County
FTA	U.S. Department of Transportation, Federal Transit Administration
HHS	Department of Health and Human Services
HUC	Hydrologic Unit Code
MP	Mile Post
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
OSHA	Occupational Safety and Health Administration standards
OWR	Office of Water Resources
PM	Particulate matter
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Condition
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SWPPP	Storm Water Pollution Prevention Plan
TIP	Transportation Improvement Program
UP	Union Pacific Railroad
UP-W	Union Pacific – West
USACE	U.S. Army Corps of Engineers
USC	United States Code
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
WOUS	Waters of the U.S.
WQC	Water Quality Concurrence

A. Detailed Project Description

General Project Overview

The Union Pacific – West (UP-W) Line extends approximately 44 miles west from the Ogilvie Transportation Center in Chicago, Illinois, to Elburn, Illinois. The UP-W Line carries a mix of passenger and freight train traffic, including an average of 60 Metra passenger trains and more than 60 Union Pacific Railroad (UP) freight trains per day. Over 28,000 Metra riders use the line per weekday. See Figure 1 - Regional Context for the location of the Project in the western Chicagoland region.

The UP-W Third Mainline - Western Section Project (Project) consists of constructing a third mainline track from Kress Road in West Chicago to Peck Road in Geneva (MP 32.00 to MP 38.41). See Figure 2 - Project Location.

The third mainline track would be added primarily on the south side of the existing tracks with the exception of an approximately 1.8-mile section from 0.7 miles east of the bridge at Kirk Road to the bridge at Crissey Avenue (IL Route 25), where the third track would be located on the north side. Improvements would be required for the at-grade crossings, a grade separated crossing, Fox River Bridge structure, passenger shelters, and parking lots to accommodate the addition of the third mainline track. At-grade crossing and grade separated crossing improvements include the addition of ornamental fences, driveway access, sidewalks, gates, and landscaping. The Fox River Bridge improvements are limited to repair and rehabilitation of the existing structure. The Geneva Station parking lots would also be reconfigured. A majority of the third mainline track addition would occur within UP's existing right-of-way. However, approximately 6.59 acres of additional land acquisition and 8.39 acres of temporary construction and permanent easements directly adjacent to the existing UP right-of-way would also be required to accommodate the third mainline track.

Project Background

UP and Metra have made improvements throughout the UP-W corridor over the course of the last several years as part of a comprehensive improvement plan to improve service and operations. These incremental improvements have been divided into four phases of projects. The first three phases of projects, which are now complete, included various safety, signal, station, and switching upgrades. The fourth phase, the UP-W Third Mainline Project, would add a third track to this existing double-track section. The UP-W Third Mainline Project has two components: the UP-W Third Mainline – Eastern Section Project (Maywood, Illinois), which is scheduled for construction in the summer of 2017 and this Project. This is one of the final improvement projects identified by UP and Metra to improve safety and efficiency along this heavily used corridor.

Project Purpose and Need

The purpose of this Project was previously considered in the *Alternatives Analysis: Document 2 – Purpose and Need* (Parsons, 2006). It was determined that there is a need for improved transportation facilities and services to sustain the existing activity centers along the UP-W Line and to help the western suburbs grow in sustainable, transit-oriented patterns of development.

In light of (a) the limited opportunities for adding roadway capacity, and (b) the physical constraints of railroad expansion, it is necessary to advance transportation solutions to leverage the present investment in existing infrastructure.

The Project area is one of two remaining double track sections along the UP-W Line between the Ogilvie Transportation Center in downtown Chicago and Elburn. This section often becomes a bottleneck for both commuter and freight trains due the high volume of commuter and freight train traffic and the constraint of only having two tracks. This creates a bottleneck for train movements as both types of train compete for limited track space. The purpose of the Project is to address this bottleneck and the following key needs:

- Commuter and freight train congestion;
- Commuter delays affecting Metra performance times and schedules;
- Unsafe vehicle back-ups and extended motorist wait times at the at-grade crossings; and
- Idling freight and passenger locomotives.

The Project includes construction of a third mainline track at the crossing of the Fox River. The existing bridge structure at the crossing was constructed with two tracks, but designed to accommodate up to four mainline tracks. A new bridge span would be constructed on the existing piers and abutments to accommodate a third mainline track. The work would include drilled shafts and caps behind each of the existing abutments to accommodate the new bridge span. The extent of the work that would be performed within the waterway would consist of the installation of a temporary causeway to gain access to the piers.

The proposed third mainline track would help create a more fluid railroad operation, decrease commuter and freight train delays, reduce motorist wait time at the at-grade crossings, decrease the number of idling freight trains, and preserve Metra performance times.

While there are no current plans to increase Metra service on the UP-W Line, the addition of a third track would give Metra operational flexibility to better serve commuters, if additional service is put in place in the future.

Project Improvements

In addition to adding a third mainline track, the Project also includes improvements to the Fox River Bridge structure, at-grade crossings along the corridor, a grade separated crossing in the corridor, an alignment modification in the curve near Randall Road, and reconfiguration of the parking lots at the Geneva Metra Station. These improvements are described below and shown in Appendix A – Project Plan Sheets.

Figure 1 - Regional Context

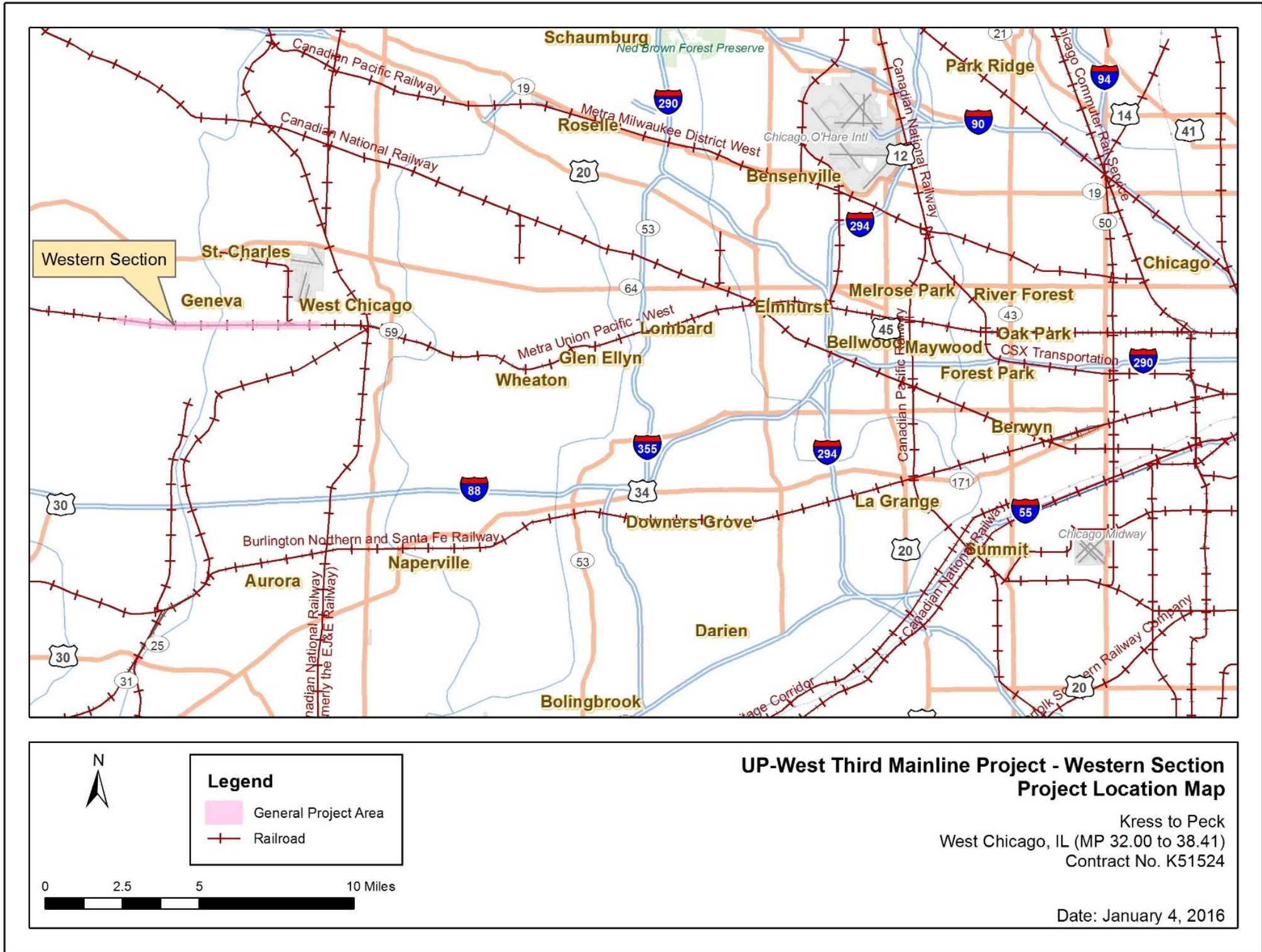
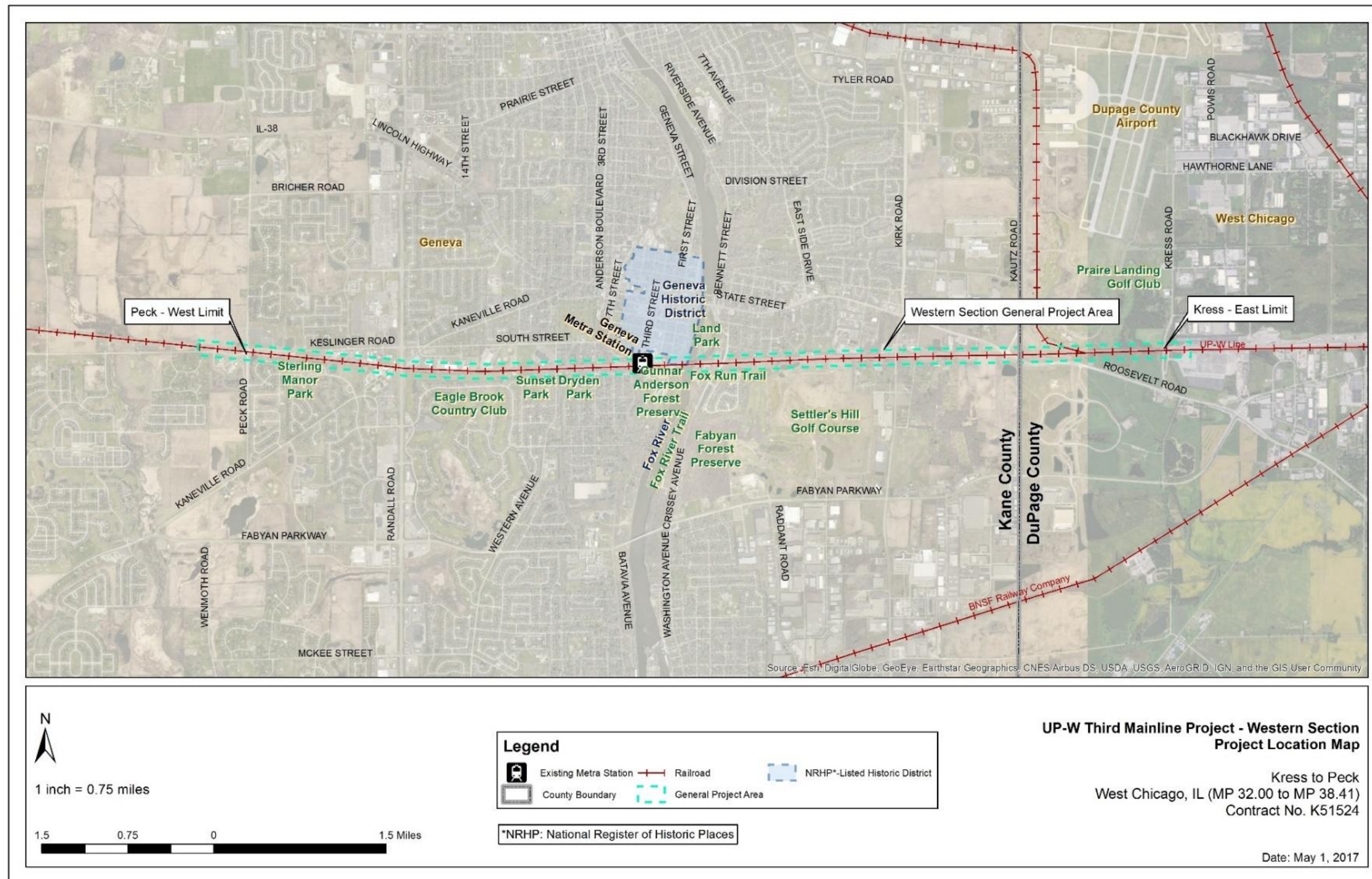


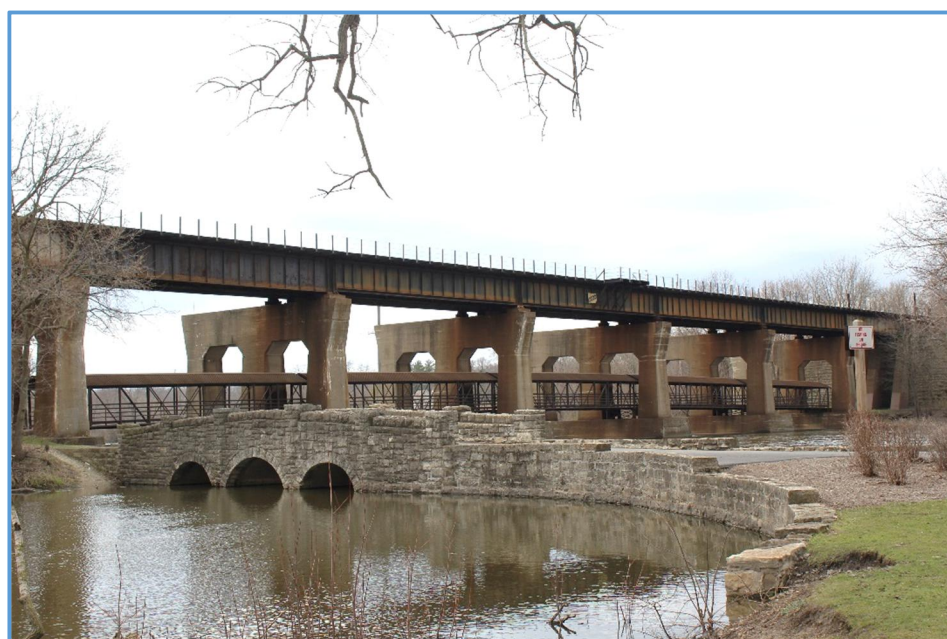
Figure 2 - Project Location



Fox River Bridge Improvements

The existing concrete bridge piers of the Fox River Bridge were originally constructed wide enough to support up to four mainline tracks; however, portions of the existing substructure under the proposed third mainline need repair. The steel spans are experiencing corrosion and the existing concrete abutments and piers are deteriorating. Portions of the existing six piers would be rehabilitated with crack sealant and structural repair of concrete. The existing abutments would be extended to accommodate new retaining walls, a new deck, and the third mainline track. The existing bicycle and pedestrian path under the Bridge would remain as-is. There would be an inspection of the bicycle and pedestrian bridge before and after construction. See Figure 3 for a photograph of the existing structure crossing the Fox River.

Figure 3 - Fox River Bridge



Roadway Improvements

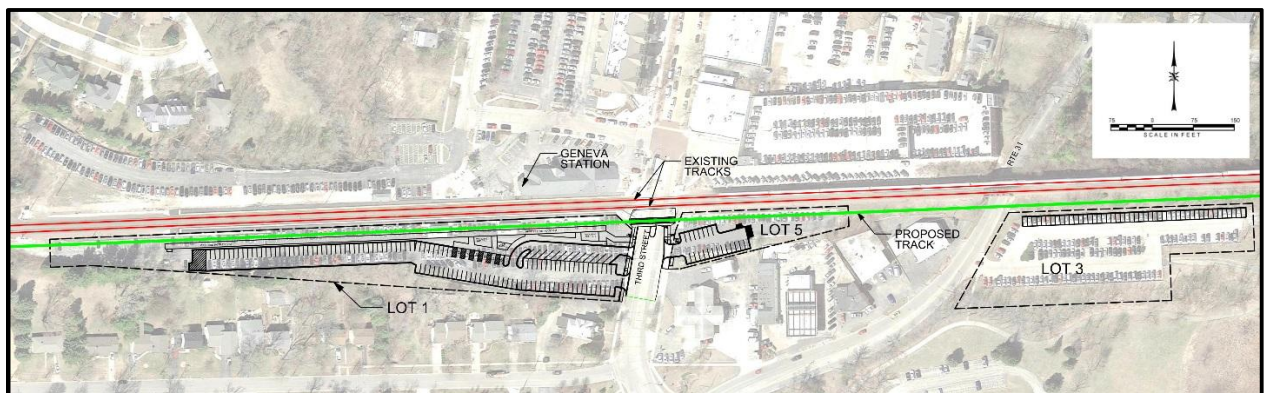
Improvements to at-grade crossings and a grade separated crossing are proposed at IL Route 31 (1st Street), Third Street, and Western Avenue to accommodate the third mainline track. The reconstruction of IL Route 31 separated grade crossing under the railroad would extend approximately 300 feet from the tracks in both directions. The reconstruction of the Third Street and Western Avenue at-grade crossings would extend approximately 150 feet south of the railroad tracks. The reconstruction of IL Route 31, Third Street, and Western Avenue would occur predominantly within the railroad and roadway rights-of-way. Minor temporary construction easements would be required for grading purposes and 0.02 acres of land acquisition would be acquired at IL Route 31. Reconstruction of IL Route 31 includes improvements to pavement, drainage, driveway access, sidewalk, and landscaping. Reconstruction at the at-grade crossings involve pavement improvements needed for the third track, movement and replacement of signals to accommodate the third track, new railroad signal bungalows, matching driveway access (concrete or asphalt), sidewalk, and landscaping. The

reconstruction of these at-grade crossings would require temporary road closures and detours that are described in more detail in Section V – Impacts Caused by Construction.

Station Improvements

The existing Geneva Metra Station would remain in its current location. However, some station improvements would be necessary to accommodate the addition of a third track. The existing platform and shelters on the south side of the tracks would be removed and replaced with a new platform and shelters that match the existing depot. New bike racks and bench seating would be installed. The existing depot and platform on the north side of the tracks would remain with no changes. The existing commuter parking lots on the south side of the tracks (Lots 1, 3 and 5) would be reconstructed and reconfigured to accommodate the addition of the third mainline on the south side of the existing tracks. Retaining walls would be used near the station to accommodate the third mainline track, the new platform, and reconfigured parking. See Figure 4.

Figure 4 - Geneva Metra Station Parking Lots Proposed for Reconfiguration



The Third Street Parking Garage addition was completed in 2015 in anticipation of the parking lot reconfiguration on the south side of the tracks. When factoring in the additional Third Street Parking Garage spaces, there would be no net loss of parking spaces associated with this Project.

No additional right-of-way would be acquired for these station improvements. Temporary construction and permanent easements would be required for improvements to Lot 3.

B. Location

The Project extends from Kress Road in West Chicago to Peck Road in Geneva (MP 32.00 to MP 38.41), a distance of approximately 6.4 miles. The Project area is located in both DuPage and Kane counties. The Project area encompasses the City of West Chicago in DuPage County and the City of Geneva in Kane County, Illinois and also minor portions of Winfield Township and Geneva Township. For the purposes of this document, the Project area is generally defined

by the Project's limits (Kress Road to Peck Road) and the area within 250 feet of either side of the existing railroad alignment. See Figure 2 - Project Location.

The Geneva Metra Station is located in the Project area at Third Street. There are currently two existing mainline tracks located in this section. The existing UP right-of-way for this section ranges from approximately 100 to 150 feet wide. See Figure 5 - Existing Geneva Metra Station.

Figure 5 - Existing Geneva Metra Station



C. Metropolitan Planning and Air Quality Conformity

DuPage County and Kane County are currently in non-attainment for 8-hour ozone based on US Environmental Protection Agency (US EPA) 2008 National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, when analyzing air quality impacts, only the 8-hour ozone non-attainment applies to this Project.

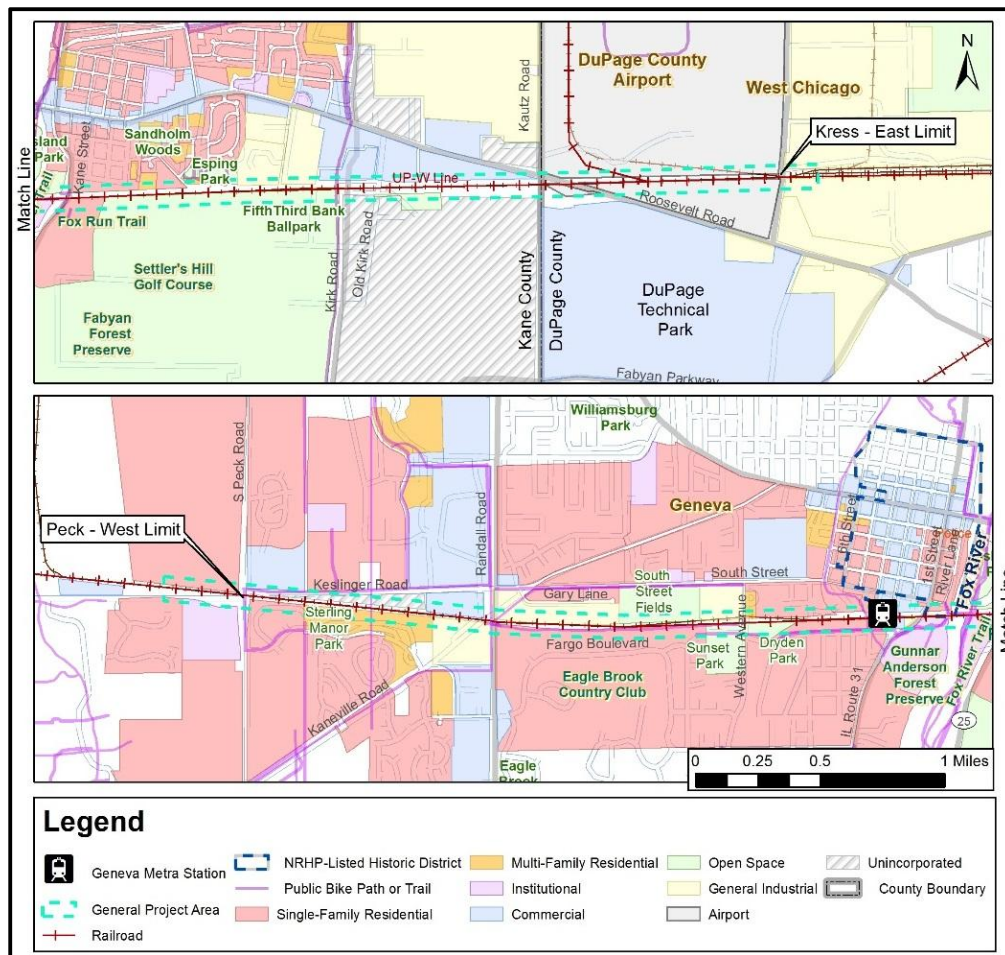
The Chicago Metropolitan Agency for Planning (CMAP) reviewed the Project for air quality impact conformity. CMAP provided their response on January 12, 2016 (See Appendix B-1). CMAP determined that the Project is consistent with the information in the Transportation Improvement Program (TIP) conformity analysis. The Project is identified in the FY 2014-2019 TIP as a "major capital project" and is endorsed by CMAP, the Metropolitan Planning Organization. The TIP ID is 18-07-0669. The Project conforms to the State Implementation Plan (SIP) and the transportation related requirements of the 1990 Clean Air Act Amendments.

The Project is not expected to result in increased rail traffic or service. It is expected to reduce train congestion and idling commuter and freight trains, thus providing air quality benefits.

D. Land Use and Zoning

The Project is located in the City of West Chicago, the City of Geneva, Winfield Township, Geneva Township, Kane County, and DuPage County limits; however, the Project is primarily located within the City of Geneva. Land use along the UP-W Line consists of a mix of residential, open space, light industrial, and retail/commercial. The western portion of the corridor (west of the Geneva Metra Station) is primarily a mix of single family, attached and detached, residential. Also, immediately adjacent to the railroad, west of the Geneva Metra Station are open space, industrial, multi-family residential, commercial, institutional, and unincorporated lands. The area directly north of the Geneva Metra Station is a traditional downtown consisting of retail, commercial and some residential uses. The eastern portion of the Project area consists primarily of residential uses with a limited amount of farmland and open space use located on the south side of the UP-W Line near Kress Road. The DuPage County Airport property is located on the far eastern end of the Project area, north of the railroad tracks near Kress Road. See Figure 6 - Existing Zoning.

Figure 6 - Existing Zoning



The City of Geneva Comprehensive Plan (2003) references the importance of Metra and the UP-W Line and recommends the continued improvement of Metra service in their community. The Plan also encourages future multi-family residential development to occur near downtown, the Fox River area, and near the Geneva Metra Station. The Plan covers community development within the next ten to fifteen years from the original publication in 2003. The City of West Chicago Comprehensive Plan Map (2006) reflects current land uses in the Project area. Any changes in land use would be a result of vehicular traffic patterns that are not related or impacted by the project and are within the City of West Chicago municipal limits. The City of West Chicago also has a West Chicago Strategic Plan (adopted May 2016) that identifies the potential for infill redevelopment sites in proximity to the CN and UP railroads; however, it does not cite the Metra service in future planning.

Kane County also maintains zoning maps by Township, which were last updated in May 2011. The Kane County zoning maps are consistent with the City of Geneva Comprehensive Plan (2006). Anything identified as unincorporated west of Kautz Road in the City of Geneva Comprehensive Plan would be unincorporated on the Kane County zoning maps.

The Project does not require zoning changes because land acquisition is limited to the linear areas along the existing railroad right-of-way and is consistent with current zoning. Land acquired for the Project would be converted to a transportation use and become railroad right-of-way. The addition of the third track would predominantly occur within existing UP right-of-way, which is already being utilized for a transportation purpose. Additional land acquisition, where necessary, is immediately adjacent to the existing railroad and would not result in changes to zoning. There are no parcels subdivided by the land acquisition.

E. Traffic Impacts

In order to accommodate the addition of a third mainline track, improvements to at-grade crossings at Third Street and Western Avenue would be necessary. The third mainline track would be added on the south side of the existing tracks at Third Street and Western Avenue. The roadway improvements involve pavement improvements needed for the third track, movement and replacement of signals to accommodate the third track, new railroad signal bungalows as well as replacing driveway access, sidewalk, and landscaping. These minor improvements at the existing at-grade crossings would require temporary street closures. Preliminary detour routes are described further in Section V – Impacts Caused by Construction.

In anticipation of the shift of parking space locations and the change in the number of available parking spaces as a result of improvements associated with the UP-W Third Mainline – West Section Project, an addition of a new third level parking deck with 176 parking spaces was added to the existing Third Street Parking Garage (Lot 15) in 2015. Reconstruction of Lots 1, 3, and 5 involves pavement resurfacing, restriping, and new curb elements that accommodate the new platform, bicycle racks, and new waiting shelters. When the third mainline Project is complete, the combined effect of the addition to the Third Street Parking Garage and the reconstruction Lots 1, 3, and 5 would be an increase in 9 spaces. See Figure 7 - Existing

Parking for the Geneva Metra Station. See Section N. Social Impacts and Community Disruption, Table 6 for a review of the parking spaces by lot.

The Project does not include permanent lane changes to roadways, intersections, or access to the Metra Station parking facilities. Based on the built condition of the area surrounding the station, there is no additional development by Metra, the City of Geneva, or the local community anticipated as part of this Project because no new service will be provided and the existing station is surrounded by an established and developed community. Due to these findings, there is no foreseeable permanent impact to traffic operations on the surrounding roadway network as a result of this Project. Temporary impacts to traffic operations during construction are described further in Section V – Impacts Caused by Construction.

F. Carbon Monoxide (CO) Hot Spots

No portion of the Project is within a designated non-attainment area for carbon monoxide (CO) nor are any serious traffic impacts anticipated, as described in Section E. Since the Project is in an attainment area for CO, a hot spot analysis is not anticipated.

Figure 7 - Existing Parking for the Geneva Metra Station



G. PM2.5 and PM10 Hot Spots

No portion of this Project is within a designated non-attainment area for particulate matter (PM) smaller than 2.5 microns (PM2.5) and smaller than ten microns (PM10) nor are any serious traffic impacts anticipated, as described in Section E. So, no further analysis is required.

H. Historic Resources

This Project is a federal undertaking because the Federal Transit Administration (FTA) may provide funding, and therefore, it is subject to compliance with the National Historic Preservation Act (NHPA) of 1966, as amended (16 USC § 470 et seq.) and its enabling legislation (36 CFR § 800). Section 106 of the NHPA requires the FTA to take into account the effects of its undertakings on historic properties and afford the Advisory Council on Historic Preservation

(ACHP) and consulting parties a reasonable opportunity to comment. Section 106 analysis examines an Area of Potential Effects (APE), which is defined as the geographic area within which a project may directly or indirectly cause changes in the character or use of historic properties, if any such properties exist (36 CFR § 800.16[d]).

The APE for the Project includes the railroad right-of-way and select cross streets with planned improvements, and it generally extends one tax parcel adjacent to the railroad and cross streets' right-of-way. In some instances, where the tax parcel extends well beyond the planned improvements and the area within which potential effects may occur to historic properties, the APE boundary was delineated to go through these tax parcels approximately 600 feet from the planned improvements. In other areas, the APE was expanded by more than one tax parcel to accommodate the potential for indirect visual effects to historic properties by the Project. The APE boundary is irregularly shaped because it follows the tax parcel boundaries provided by DuPage and Kane Counties. An APE map set showing the APE boundary, the planned improvements, and known historic properties within the Project area was submitted to the State Historic Preservation Officer (SHPO) for their review and comment on October 20, 2016; SHPO concurred on November 1, 2016.

The APE was reviewed for historic properties listed in or eligible for listing in the National Register of Historic Places (NRHP) through an existing database search, background research, and field survey. A historic architectural survey identified 56 historic-age resources along the railroad corridor within the APE. Of these, the Central Geneva Historic District is the only NRHP-listed property. The remaining 55 resources meet the 50-year age criteria and were further evaluated to determine their NRHP eligibility. Additional research and application of the NRHP criteria was undertaken for these resources to fulfill the requirements of Section 106. Two historic properties in the APE, the Island Park South Bridge and the Weber Farmstead, are recommended eligible for listing in the NRHP for historic and architectural significance under Criteria A and C. The remaining 53 resources are not recommended eligible for listing in the NRHP due to a lack of architectural or historical distinction, and in some cases, significant alterations resulting in a lack of integrity. The April 2017 *Section 106 Technical Report Union Pacific West Third Mainline Project, Western Section* prepared for Metra describes these findings.

No historic properties will be directly adversely impacted by this Project, nor will there be any indirect adverse impacts to historic properties, such as visual effects. As a result, the FTA has determined the Project will result in "no adverse effect" and the SHPO concurred with this determination on June 6, 2017. The report findings were also provided to the Section 106 consulting parties for review in April 2017 and no comments were received. See Appendix B-2 for the SHPO consultation and report findings.

I. Visual Quality

The Project adds a third track adjacent to two existing tracks primarily within existing railroad right-of-way and would not result in substantive changes to the landscape or general visual environment. The Project area generally consists of a mix of open space, farmland, commercial and residential land uses, a local roadway network, and rail network. Views to and from the

Project corridor are not anticipated to change as a result of the Project. Improvements to the Geneva Metra Station will include new shelters, parking lot reconfiguration, safety, and comfort improvements for Metra customers which would be visually consistent in the context of the existing station. There are no sensitive view or viewers in the Project area.

J. Noise

The analysis of noise impacts is based on the noise associated with existing rail traffic shifted to the new track alignment as there are no proposed changes to existing commuter and freight traffic volumes. The noise generated by this Project would be the result of realigning track in relation to noise sensitive receptor locations. Freight and commuter rail services already exist along these tracks. Therefore, the primary focus of the noise analysis is on the alignment modification.

A receptor is typically representative of an area, a group, or cluster of noise sensitive receptors, such as residences. Twenty-four receptor locations have been identified for this Project (R1 through R23); including two churches (R3 and R9), two multi-family residences (R6 and R14), three recreational areas (R16, R21, and R21A), a recording studio (R7), and 16 single-family residences (R1, R2, R4, R5, R8, R10 thru R13, R15, R17 thru R20, R22, and R23). The noise metrics used for the evaluation include the L_{dn} (residential receptors) and the L_{eq} (churches, recording studio, and recreational areas).

Residential receptors are characterized as a Land Use Category 2, and thus an L_{dn} noise metric describes noise impacts associated with the residences. The L_{dn} is an equivalent sound level representing a 24-hour period that accounts for the increased sensitivity to noise during the nighttime hours (10PM to 7AM). The L_{dn} incorporates a “penalty” for noise occurring between these hours. All other receptors are Land Use Category 3, and use an hourly L_{eq} ($L_{eq}[h]$) at the peak hour to determine noise impacts. The L_{eq} is based on the energy average, not a noise level average. This is an equivalent sound level representing the peak traffic hour. Table 1 summarizes the FTA land use categories.

Existing overall noise levels and overall build noise levels were predicted using the FTA *Transit Noise and Vibration Impact Assessment* methodology (May 2006). The predicted build and no-build noise levels were then compared to the FTA noise impact criteria. Noise impacts are identified by comparing the predicted proposed project noise level and the allowable project noise level.

Table 2 summarizes the findings of the general noise assessment completed for the Project. The build condition noise impacts were evaluated for the representative receptor locations. The background noise level is based on representative monitoring for each location. The overall build noise level includes the background noise, the freight train noise and the passenger train noise. Receptor locations can be seen in Figure 8 - Environmental Resources.

Table 1 - Land Use Categories and Metrics for Transit Noise Impact Criteria

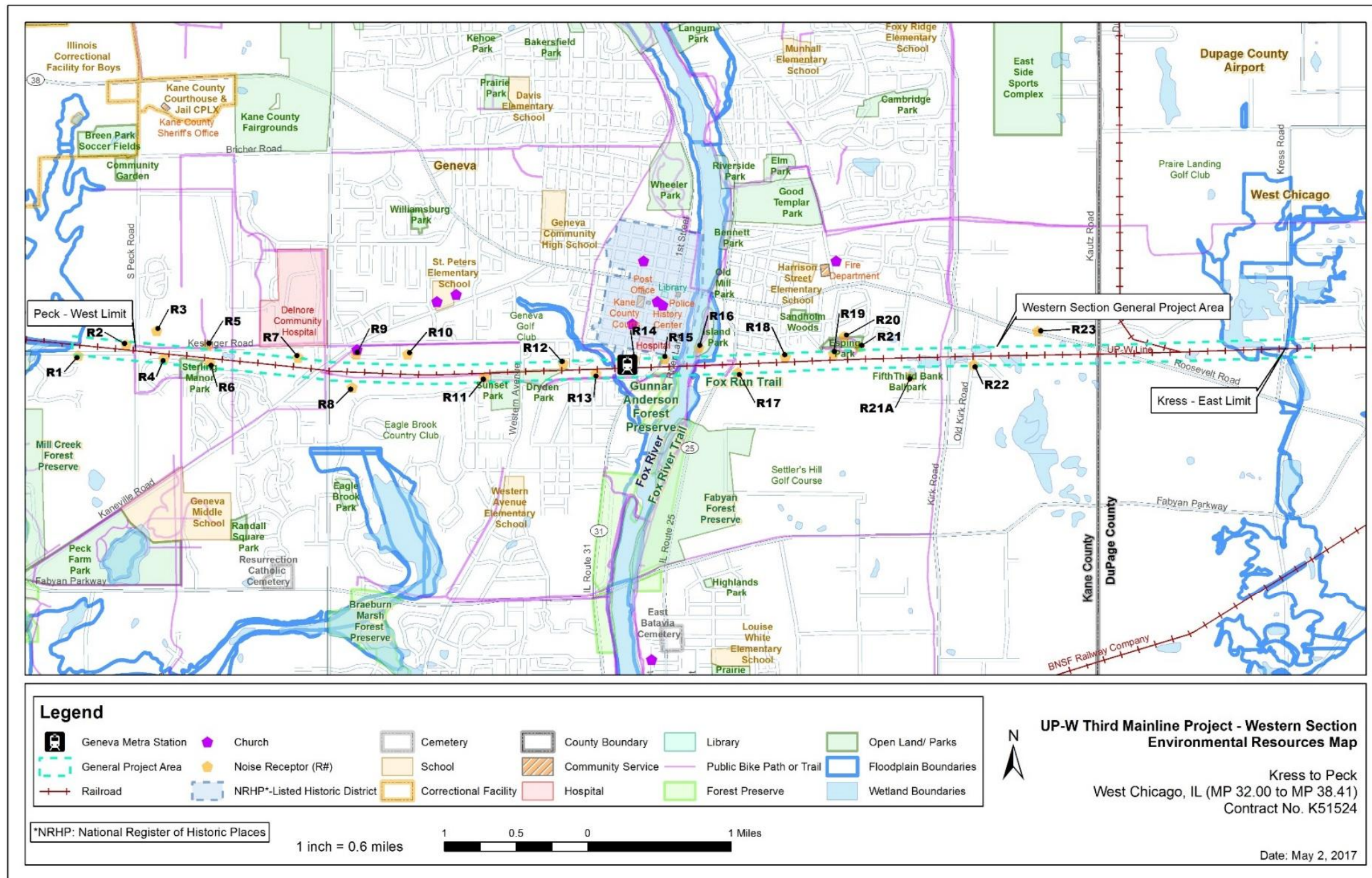
Land Use Category	Noise Metric (dBA)	Description
1	Outdoor $L_{eq}(h)^*$	Tracts of land where quiet is essential in their intended purpose. This category includes lands set aside for serenity and quiet, and such land uses as outdoor amphitheaters and concert pavilions, as well as National Historic Landmarks with significant outdoor use.
2	Outdoor L_{dn}	Residences and buildings where people normally sleep. This category includes homes, hospitals and hotels where a nighttime sensitivity to noise is assumed to be of the utmost importance.
3	Outdoor $L_{eq}(h)^*$	Institutional land uses with primarily daytime and evening use. This category includes schools, libraries, and churches where it is important to avoid interference with such activities as speech, meditation and concentration on reading material.
* L_{eq} for the noisiest hour of transit-related activity during hours of noise sensitivity.		

Table 2 - Noise Analysis Results

Receptor Location	Receptor Type	Noise Metric	Adjusted Background Noise, dB(A)	Overall Existing Noise Level, ⁽¹⁾ dB(A)	Overall Build Noise Level, ⁽¹⁾ dB(A)	Overall Build Noise Increase over Existing Noise Level, ⁽¹⁾ dB(A)	Allowable Noise Level Increase (Mod./Sev.)	Impact Assessed
R1	Single-Family Residence	Ldn	49	71	71	0	1/3	No Impact
R2	Single-Family Residence	Ldn	49	76	75	-1	1/2	No Impact
R3	Church	Leq	51	60	60	0	2/5	No Impact
R4	Multi-Family Residence	Ldn	49	76	76	0	1/2	No Impact
R5	Single-Family Residence	Ldn	49	71	70	-1	1/3	No Impact
R6	Multi-Family Residence	Ldn	49	78	78	0	1/2	No Impact
R7	Recording Studio	Leq	51	65	64	-1	2/4	No Impact

R8	Single-Family Residence	Ldn	47	70	70	0	1/3	No Impact
R9	Church	Leq	49	61	61	0	2/5	No Impact
R10	Single-Family Residence	Ldn	47	67	67	0	1/3	No Impact
R11	Single-Family Residence	Ldn	47	76	76	0	1/2	No Impact
R12	Single-Family Residence	Ldn	47	76	76	0	1/2	No Impact
R13	Single-Family Residence	Ldn	47	76	76	0	1/2	No Impact
R14	Multi-Family Residence	Ldn	45	74	74	0	1/2	No Impact
R15	Single-Family Residence	Ldn	45	77	76	-1	1/2	No Impact
R16	Trail	Leq	47	62	62	0	2/4	No Impact
R17	Single-Family Residence	Ldn	45	72	72	0	1/2	No Impact
R18	Single-Family Residence	Ldn	45	79	79	0	1/1	No Impact
R19	Single-Family Residence	Ldn	45	77	77	0	1/2	No Impact
R20	Single-Family Residence	Ldn	45	67	67	0	1/3	No Impact
R21	Ballfield	Leq	47	64	64	0	2/4	No Impact
R21A	Ballfield	Leq	47	61	61	0	2/5	No Impact
R22	Single-Family Residence	Ldn	52	71	71	0	1/3	No Impact
R23	Single-Family Residence	Ldn	52	67	67	0	1/3	No Impact
(1) Includes background noise, freight train noise, and passenger train noise.								

Figure 8 - Environmental Resources



The projected overall build noise levels do not change from the existing overall noise levels at any of the receptor locations, with the exception of receptor locations R2, R5, R7, and R15. These locations would experience a 1 dB(A) decrease from the existing to the build condition due to the shift of traffic away from the receptors. Consequently, there are no noise impacts associated with the proposed improvement.

K. Vibration

Existing vibration levels and build vibration levels were predicted using the FTA Transit Noise and Vibration Impact Assessment methodology (May 2006). Ten vibration sensitive receptors (R2, R4, R6, R11, R12, R13, R14, R15, R18 and R19) were identified and analyzed for vibration along the Project route within the FTA vibration screening distance (200 ft.).

Results from the vibration analysis are presented in Tables 3 and 4.

The Project shifts some existing rail traffic closer to certain receptors, resulting in an increase in ground-borne vibration and noise at these locations. The FTA methodology defines the Project allowable exposure increase of up to 3 VdB because the vibration analysis is an analysis of the shift of existing traffic. The Project does not result in an increase in rail traffic or an increase of more than 3 VdB at any receptor location; therefore, there are no impacts for either ground-borne vibration or ground-borne noise associated with this Project.

Table 3 - Ground Borne Vibration Analysis

Receptor (Land Use Category)	Source	Existing GBV (VdB)	Build GBV (VdB)	Impact Assessed
R2 (2)	Locomotive	84	84	No Impact
R2 (2)	Rail Car	74	74	No Impact
R4 (2)	Locomotive	86	87	No Impact
R4 (2)	Rail Car	75	77	No Impact
R6 (2)	Locomotive	88	90	No Impact
R6(2)	Rail Car	78	79	No Impact
R11 (2)	Locomotive	85	86	No Impact
R11 (2)	Rail Car	74	75	No Impact
R12 (2)	Locomotive	85	85	No Impact
R12 (2)	Rail Car	75	75	No Impact
R13 (2)	Locomotive	85	87	No Impact
R13 (2)	Rail Car	74	76	No Impact
R14 (2)	Locomotive	82	82	No Impact
R14 (2)	Rail Car	71	71	No Impact
R15 (2)	Locomotive	86	86	No Impact
R15 (2)	Rail Car	75	75	No Impact
R18 (2)	Locomotive	90	90	No Impact
R18 (2)	Rail Car	79	79	No Impact
R19 (2)	Locomotive	86	86	No Impact
R19 (2)	Rail Car	76	76	No Impact

Table 4 - Ground Borne Noise Analysis

Receptor (Land Use Category)	Source	Existing GBN (dBA)	Build GBN (dBA)	Impact Assessed
R2 (2)	Locomotive	34	34	No Impact
R2 (2)	Rail Car	24	24	No Impact
R4 (2)	Locomotive	36	37	No Impact
R4 (2)	Rail Car	25	27	No Impact
R6 (2)	Locomotive	38	40	No Impact
R6(2)	Rail Car	28	29	No Impact
R11 (2)	Locomotive	35	36	No Impact
R11 (2)	Rail Car	24	25	No Impact
R12 (2)	Locomotive	35	35	No Impact
R12 (2)	Rail Car	25	25	No Impact
R13 (2)	Locomotive	35	37	No Impact
R13 (2)	Rail Car	24	26	No Impact
R14 (2)	Locomotive	32	32	No Impact
R14 (2)	Rail Car	21	21	No Impact
R15 (2)	Locomotive	36	36	No Impact
R15 (2)	Rail Car	25	25	No Impact
R18 (2)	Locomotive	40	40	No Impact
R18 (2)	Rail Car	29	29	No Impact
R19 (2)	Locomotive	36	36	No Impact
R19 (2)	Rail Car	26	26	No Impact

L. Acquisitions and Relocations Required

A total of 6.59 acres of permanent right-of-way, 7.72 acres of temporary construction easements, and 0.67 acres of permanent easements are required for the proposed improvements. The majority of proposed land acquisition and required easements are strips of land along the railroad right-of-way which would be acquired for retaining walls, grading, and drainage facilities to improve the existing conditions. Easements that are not strips of land along the railroad right-of-way would provide access to tracks at the east and west ends of the Project. The Kress Interlocking Access Road on the east end of the Project requires a 0.46-acre permanent easement from the City of West Chicago. The temporary access road on the west

end of the Project requires a 0.47-acre temporary construction easement from the City of Geneva.

No impacts to commercial or residential buildings would occur by the strips of land acquisition, easements, or access roads that are proposed along the edges of the parcel boundaries. No full parcels would be acquired; and no parcels would be severed. All land acquisition will comply with the Uniform Relocation Assistance and Real Property Acquisitions Act of 1970 (Uniform Relocation Act) (42 USC Sections § 4601 et seq.). The acquisitions and easements are described as follows and are shown in Appendix A – Project Plan Sheets. Table 5 identifies acres by municipality.

Table 5 - Required Acquisitions and Easements by Municipal Boundaries

Municipality	Permanent Right-of-Way (acres)	Temporary Construction Easements (acres)	Permanent Easements (acres)
City of West Chicago	3.00	0.43	0.46
City of Geneva	2.46	6.74	0.13
Winfield Township	1.26	0.06	0.00
Geneva Township	0.27	0.49	0.08
Total	6.59	7.72	0.67

Of the 6.59 acres of permanent right-of-way acquisition, 0.84 acres would be strips of land from the City of Geneva at the Water Treatment Facility (0.32 acres) and vacant lands (0.52 acres). An additional 0.41 acres of permanent right-of-way acquisition within the City of Geneva limits are from 17 residential properties with 15-foot-wide strips of land acquisition. The strips of right-of-way are located where the properties meet the railroad right-of-way and are for proposed drainage improvements. The remainder of the permanent right-of-way within the City of Geneva are small strips of land from commercial and industrial land uses along the railroad right-of-way. Retaining walls are proposed to minimize the right-of-way acquisition. The permanent right-of-way acquisition outside of the City of Geneva limits is predominantly farmland, including 3.00 acres in West Chicago, 1.26 acres in Winfield Township, and 0.12 acres in Geneva Township. Other land uses are public lands (including the airport), commercial, and industrial.

Approximately 4.38 acres of farmland would be acquired for this Project in addition to 0.23 acres of temporary construction easements and 0.46 acres of permanent easements. The farmland is concentrated on the south side of the tracks, west of Kress Road. The impact of the Project on farmland conversion has been evaluated in accordance with the requirements of the US Natural Resource Conservation Service (NRCS). Although the project spans more than one county, coordination with the state NRCS office and the Illinois Department of Agriculture would not be required because the Project would convert 3 acres or less of farmland per project mile (0.75 hectares or less of farmland per kilometer); therefore, the project is exempt from submitting a Conversion Impact Rating Form.

The agricultural land is located along the existing UP right-of-way, so there would be no severed farm units, uneconomic remnants, landlocked parcels, or adverse travel conditions. Additionally, Project construction activities and land acquisition within DuPage and Kane counties would not affect agricultural zoning or affect any known designated agricultural protection areas. No agricultural mitigation is required.

Of the 7.72 acres of temporary construction easements, 3.61 acres would be from the City of Geneva. A majority of the temporary construction easements from the City of Geneva include improvements to a surface parking lot at the Geneva Metra Station and grading or drainage work in vacant lands. Refer to Section P. Use of Public Parkland and Recreation Areas for more information about easements needed from the City of Geneva. The balance of the temporary construction easements would be small strips from residential, commercial, industrial, and city lands. The temporary construction easements are required during construction and once completed, the property would be returned and restored as agreed upon with the property owner. Refer to Section V. for Impacts Caused by Construction for more information about impacts.

A 0.46-acre permanent easement would be needed to access the railroad east of the Roosevelt Road grade separated crossing and west of the Kress Road grade separated crossing. In addition, a 0.47-acre temporary construction easement would be needed to access the railroad west of the Randall Road grade separated crossing and east of the Peck Road grade separated crossing.

M. Hazardous Materials

A survey for the *Phase I Environmental Site Assessment (ESA) Report Union Pacific West Third Mainline, Western Section* was performed in accordance with ASTM Standard 1527-13 with a site reconnaissance occurring in January 2016 and the report published in May 2016. The purpose of the Phase I ESA was to identify, to the extent feasible pursuant to the ASTM E1527-13, Recognized Environmental Conditions (RECs) in connection with the Project. ASTM defines a REC as:

“The presence or likely presence of any hazardous substances or petroleum products in, on or at a property: (1) due to a release to the environment; (2) under conditions that are indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. De minimis conditions are not recognized environmental conditions.”

The Phase I ESA investigation included reviewing readily available site-historic information, regulatory environmental databases, and Freedom of Information Act (FOIA) responses from local, state, and federal government agencies; performing a site and vicinity reconnaissance; and preparing a report summarizing the findings and conclusions of the assessment. Based on the findings of the Phase I ESA, there are three RECs identified within the right-of-way:

- The current and historic property use as a railroad, including the use of chemicals associated with normal railroad maintenance and operations;
- Historic presence of the “Geneva Tool and Machine Company” south of the tracks and west of Third Street, which is located within the present day parking lot (Lot 1); and
- The unknown nature of the fill material in the embankment from between Third Street and 1st Street to west of Crissey Avenue.

Additionally, 36 REC properties adjacent to the corridor were identified based on current use, historic property use and/or regulatory status including but not limited to manufacturing sites, auto repair shops, electrical substations, a landfill, underground storage tanks, leaking underground storage tanks, Illinois Environmental Protection Agency (IEPA) voluntary site remediation program properties, and Resource Conservation and Recovery Act (RCRA) waste generators.

The Phase I ESA recommended that the identified RECs be included in the plan documents and that the General Contractor identify, manage, and dispose of any contaminated soil or groundwater encountered during construction in accordance with applicable federal and state laws. It did not make the conclusion whether a Phase II ESA is necessary; however, if a REC cannot be avoided, soil and sedimentation testing will be required prior to excavation.

In addition, there may be the removal of debris from the Fox River Bridge existing piers, soil unsuitable for construction, or soil volumes in excess for the new embankment construction. Responsibility for disposal will be that of the contractor, subject to all applicable regulations and requirements. Metra contractors will follow all applicable laws and regulations concerning the proper disposal which is described in more detail in Section V – Impacts Caused by Construction.

In summary, there are 3 RECs identified within the right-of-way and an additional 36 RECs adjacent to the corridor. Prior to commencing any excavation, the contractor must submit proposed areas of excavation for approval by the engineer for Metra. Written authorization or a permit from the solid waste disposal facility or landfill is required prior to removing any material from the site. If the disposal site is on private property, Metra shall be given a copy of written permission from the property owner allowing the excavation.

N. Social Impacts and Community Disruption

The Project encompasses the communities of West Chicago, population 27,416, and Geneva, population 21,662 (2014 ACS 5-Year Estimates). The communities in the project area are predominantly white with the median household income higher than the national average. Within city limits, the communities are predominantly residential with central business districts that center on the UP-W Line stations. The demographic profile of these communities is described in more detail in Section O – Environmental Justice. The Project is anticipated to provide several benefits to the communities of West Chicago and Geneva. The Project is anticipated to reduce motorist wait times at the at-grade crossings (specifically Third Street and Western Avenue), decrease Metra train delays, decrease the number of idling freight trains, reduce commuter and freight rail congestion, and enhance safety.

Minor construction-related community disruptions would be expected to occur with the following aspects of the Project:

- The Geneva Metra Station parking lot reconstruction;
- Construction staging on the Fox River Access Trail access west of the river on the south side of the Fox River Bridge;

- Retaining wall improvements adjacent to the Fox River Access Trail access east of the river on the south side of the Fox River Bridge; and
- Roadway improvements at IL Route 31, Third Street, and Western Avenue.

Disruptions to the community are explained further below.

The Geneva Metra Station is the only Metra commuter station located in the Project area. In 2014, the Station averaged 1,732 boardings and 1,713 alightings per day. Metra commuters may experience an inconvenience at the stations during construction staging such as potential boarding and alighting location shifts as a result of station improvements on the south side of the railroad tracks. These location shifts are expected to occur within the existing platform footprint.

In addition, Metra commuters who utilize the existing parking lots on the south side of the station would experience disruptions during construction. Parking configuration to the north of the tracks would not be impacted by the parking lot construction; however, commuters may use any of the existing, open parking lots. Each of the three commuter parking lots to be reconfigured (all located south of the tracks) would be closed in three phases, at separate times, during construction. The construction related closures to the parking lots south of the tracks would temporarily increase the demand for parking north of the tracks. See Table 6 for a list of the parking lots that will be closed in phases and the number of spaces that will be temporarily or permanently closed.

The total permanent loss of parking spaces from the parking lot reconfiguration for Lots 1 and 5 is 167 spaces. No permanent loss of parking spaces is proposed for Lot 3. However, the addition of 176 spaces from the parking garage in 2015 would result in a net increase of 9 spaces after construction.

Table 6 - Available Open Parking Spaces

Parking Lot Phase	Lot Number	2014 Open Parking Spaces	Temporary Closures (spaces)	Permanent Closure (spaces)	2018 Open Parking Spaces
Phase I	Lot 3	158	96	0	158
Phase II	Lot 5	44	20	24	20
Phase III	Lot 1	270	127	143	127
2014 Third Street Parking		546	0	0	546
2018 Third Street Parking		0	0	0	176
Total		1018			1027

Metra will work closely with the City of Geneva to provide advance notice of parking lot temporary closings and anticipated construction schedules. This may include remote parking locations and potential shuttles for commuters during the construction of Commuter Lot 1, which would temporarily close 270 spaces and would temporarily increase commute times. Appropriate construction/detour signage and alternative access and parking lot wayfinding would be utilized.

Minor disruptions to traffic and community patterns would be expected during construction due to temporary street closures and detours at IL Route 31, Third Street, and Western Avenue. The duration of the detours is generally expected to be four to ten weeks at each at-grade crossing and the grade separated crossing, and the closures would be staggered. These disruptions, including detour routes and length of closures as well as mobilization construction equipment, are described in further detail in Section V – Impacts Caused by Construction.

The south trail access on the west side of the Fox River Bridge which connects to the Fox River Trail would be closed for approximately 12 months for construction staging and access at the Fox River Bridge. Detour route signage would be posted to direct trail users. Closure information and timelines would be coordinated with the Forest Preserve District of Kane County (FPDKC) and the City of Geneva.

Detour routes for IL Route 31, Third Street, Western Avenue, and the access trail are shown in Figure 9 - Detour Routes. In summary, this Project involves temporary road closures and detours at two at-grade crossings and a grade separated crossing that impact pedestrians, bicycles, and vehicles. No two adjacent road crossings would be closed at a time. The south trail access on the west side of the Fox River Bridge may be closed at the same time as IL Route 31; however, the trail and the highway are not interchangeable facilities for trail users and the vehicular traffic. Disruptions are expected to be minor and temporary in nature. Appropriate signage and detour routes would be posted and distributed via Metra's website, press releases, and printed materials posted in affected stations, and would be coordinated the City of Geneva, Kane County Department of Transportation (KCDOT), and FPDKC. Construction-related impacts are described further in Section V – Impacts Caused by Construction.

O. Environmental Justice

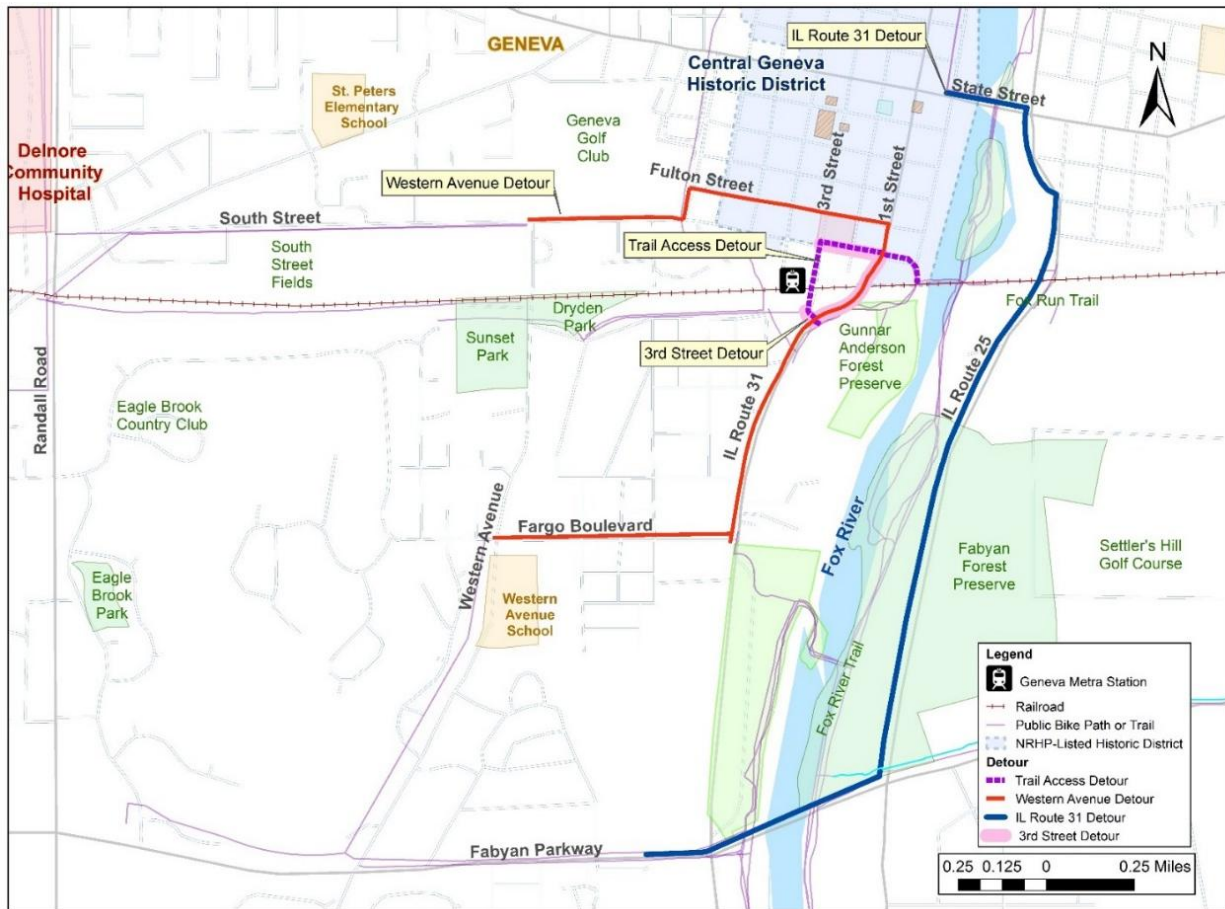
Executive Order 12898 (Feb. 11, 1994), Federal Actions to Address Environmental Justice (EJ) in Minority Populations and Low-Income Populations, is intended to ensure that Federal departments and agencies identify and address disproportionately high and adverse human health or environmental effects of their policies, programs, and activities on minority populations and low-income populations. According to FTA Circular 4703.1 "Environmental Justice Policy Guidance for FTA Recipients," minority populations include persons who are American Indian and Alaska Native, Asian, Black or African American, Hispanic or Latino, and Native Hawaiian and other Pacific Islander. Low-income persons include a person whose median household income is at or below the Department of Health and Human Services (HHS) poverty guidelines.

An EJ evaluation was conducted, pursuant to FTA Circular 4703.1 to identify minority or low-income populations residing in the affected communities in the Project area. The EJ analysis includes a comparison of municipal and county data to determine whether municipalities in the Project area have minority or low income populations that either exceed 50 percent, or are at least 10 percent higher than the percentages of minority and low income populations in their respective counties. The following demographic groups were analyzed: race and ethnicity, the percentage of individuals below the poverty level, median household income, and per capita income. Tables 7 and 8 provide a summary of these demographic groups for the City of West Chicago (DuPage County) and the City of Geneva (Kane County).

The above data identified one community for consideration of EJ issues. The Hispanic/Latino population (of any race) of West Chicago (51.2 percent) comprises more than 50 percent of total population of West Chicago. The temporary construction easements in West Chicago are small, linear strips of land needed from the edges of industrial or institutional properties and would have no impact on access, function, or use of the properties. All proposed land acquisition in West Chicago is located in land managed by the DuPage County Airport; therefore, no temporary easements or permanent land acquisition will have a disproportionately high or adverse impact on the EJ population in West Chicago.

Although there are no disproportionately high or adverse impacts affecting the identified EJ population due to the nature of planned improvements, Metra and UP met with elected officials from the local communities and also coordinated with community leaders to share information and obtain feedback.

Figure 9 - Detour Routes



This Project is expected to benefit the affected EJ communities who rely on transit. Specific benefits for residents of West Chicago and Geneva, where the community developed around the Metra stations, include reduced wait time at each at-grade crossing and reduced delays for Metra commuters. Improvements at the Geneva Metra Station would enhance overall station comfort and aesthetics.

Table 7 - Race and Ethnicity

Race/ Ethnicity	Geneva		Kane County		West Chicago		DuPage County	
	Count	%	Count	%	Count	%	Count	%
White	20,314	93.8	380,753	73.0	22,799	83.2	741,208	80.0
Black/ African American	237	1.1	28,601	5.5	675	2.5	43,163	4.7
American Indian/Alaska Native	61	0.3	1,787	0.3	13	0.0	1,699	0.2
Asian	505	2.3	18,686	3.6	1,691	6.2	98,008	10.6
Native Hawaiian/Pacific Islander	0	0.0	94	0.0	0	0.0	353	0.0
Some Other Race	498	2.3	80,995	15.5	1,968	7.2	21,093	2.3
Hispanic or Latino*	1,158	5.3	10,958	31.1	14,028	51.2	127,142	13.7
Source: 2010-2014 American Community Survey 5-Year Estimates *Includes Hispanic or Latino of any race								

The Project would not have disproportionately high and adverse impacts on minority or low-income populations. Potential temporary impacts associated with station improvement construction activities would be mitigated as described in Section V – Impacts Caused by Construction. Since there are no adverse impacts to EJ populations, issues associated with compliance with FTA Circular 4703.1 are not anticipated.

Table 8 - Income and Poverty Level

Community	Individuals Below Poverty Level (%)	Median Household Income (\$)	Per Capita Income (\$)
Geneva	4.4	93,588	44,003
Kane County	11.5	70,514	30,645
West Chicago	15.0	69,252	25,995
DuPage County	7.1	79,016	38,931
Source: 2010-2014 American Community Survey 5-year estimates			

P. Use of Public Parkland and Recreation Areas

This Project is subject to compliance with Section 4(f) of the USDOT Act of 1966 (49 USC. § 303 and 23 USC. § 138), which was enacted to preserve publicly-owned land used for recreation, wildlife, and waterfowl refuges. The Project corridor was screened to identify properties that would qualify as public parkland for purposes of Section 4(f) evaluation. Several properties owned by the City of Geneva, Geneva Park District, Kane County, and FPDKC were identified as land officially designated as a public park, recreation area, or a contributing element to a public park or facility. However, no properties were found to require a “use” of lands preserved as Section 4(f) resources. Types of “uses” include: permanent incorporation of a land into a transportation facility (permanent use); temporary occupancy of land that is adverse in terms of the statute’s preservation purpose (temporary use); or proximity impacts that are so severe that the protected features, attributes, or activities that qualify the property for protection under Section 4(f) are substantially impaired (constructive use).

Five properties were identified in the screening that required further review: Sunset Park (Geneva Park District), Dryden Park (Geneva Park District), the Fox River Trail (FPDKC), the Fox River Access Trail (east of the river - FPDKC), and the Fox River Access Trail (west of the River – City of Geneva property). Temporary construction easements would be required within the limits of Sunset Park and Dryden Park. Although there will be no impacts to the protected features, attributes, or activities of the Fox River Trail, there are construction-related detours for the Fox River Access Trail (west of the river) and Fox River Access Trail (east of the river). The Fox River Access Trail (east of the river) would remain open to trail users during construction with the detour immediately to the south of the existing trail. The Fox River Access Trail (west of the river) would be closed for approximately 12 months for construction access and staging.

Each of these five properties is discussed in depth below:

The Project requires the temporary occupancy of three Section 4(f) resources: Sunset Park, Dryden Park, and the Fox River Access Trail (west of the river). A summary of these resources is included in Table 9 and shown on Figure 8 - Environmental Resources. In addition to the temporary occupancy of three Section 4(f) resources, the Project requires work at the access trail and emergency/maintenance vehicle road located on the north side of the City of Geneva’s Wastewater Treatment Facility that serves to access the Fox River Trail (east of the river).

The temporary occupancy of the Section 4(f) resources was evaluated in a Memorandum by Metra and reviewed by FTA on April 5, 2017 (See Appendix B-3). Although the impacts to the three public parklands in the Project are a “temporary occupancy,” they are not a “use” within the meaning of Section 4(f). The scope of the activities is temporary in nature and limited in duration. All three properties meet the five conditions required to be exempt from being a “temporary use” (23 CFR 774.13(d)). FTA has determined that the temporary occupancy of the following properties is not a use of public parkland. Additional details about the proposed Section 4(f) parkland occupancies and ancillary facilities are described in this section.

Sunset Park

Sunset Park is located directly west of Western Avenue on the side of the tracks, directly adjacent to the UP-W Line right-of-way. The park contains the Geneva Park District office administration building, along with an aquatic center, racquetball courts, and fitness center.

The Project would require approximately 0.11 acres of temporary construction easement within Sunset Park limits, specifically a five to ten foot wide strip along the railroad right-of-way for grading along the proposed third mainline track. There will be no impacts to access as well as no impacts to the protected features, attributes, or activities of the park. Access and use of the property would not be affected during or after construction. The associated temporary work zone will be fully restored to pre-construction conditions.

Full restoration shall include construction of permanent fencing or a substantial landscape barrier to the north of the parking lot at Sunset Park. Installation and maintenance of fencing or a landscape barrier will be determined as agreed between the Geneva Park District and the UP. Restoration of the fence and landscaping at Sunset Park is the responsibility of UP, the owner/operator of the railroad, as agreed in their coordination with the City of Geneva. In addition, the Geneva Park District requested that construction at the Western Avenue at-grade crossing not occur during peak pool usage periods (June to August) to minimize potential detour impacts for pool users. See Appendix B-3 for the correspondence between the City of Geneva and UP.

Dryden Park

Dryden Park is located directly east of Western Avenue on the south side of the tracks, directly adjacent to the UP-W Line right-of-way. The park contains a baseball diamond, two tennis courts, a basketball court, and playground area. The park is buffered from the UP-W Line by a row of trees and shrubbery.

Construction of the Project would require approximately 0.13 acres of temporary construction easement within Dryden Park limits, specifically a five to ten foot wide strip along the railroad right-of-way for the construction of a retaining wall along the proposed third mainline track. There will be no impacts to access, as well as no impacts to the protected features, attributes, or activities of the park. Impacts to Dryden Park were reduced from permanent right-of-way acquisition to the temporary construction easement by the proposed installation of a retaining wall within UP right-of-way. Access and occupancy of the property would not be affected during or after construction. The associated temporary work zone will be fully restored to pre-construction conditions.

Full restoration at Dryden Park shall include additional landscape barriers and replacement trees to be planted in areas where removal of vegetation creates gaps in the existing landscape barriers. Installation and maintenance of the landscape barriers and replacement trees are the responsibility of the Geneva Park District.

The Geneva Park District concurred that there are no anticipated permanent impacts to Geneva Park District property and that the land being occupied once fully restored by the UP as part of a

temporary construction easement agreement, would not impact the activities, features, or attributes that qualify the property for protection under Section 4(f). See Appendix B-3 Agency Coordination for documentation on the coordination with the Geneva Park District of Section 4(f) resources.

Table 9 - Proposed Section 4(f) Parkland Temporary Occupancy

Parkland/Recreation Area	Official With Jurisdiction (Owner)	Section 4(f) Involvement
Sunset Park	Geneva Park District	0.11 acres of temporary easement
Dryden Park	Geneva Park District	0.13 acres of temporary easement
Fox River Access Trail – (west of the river)	Forest Preserve District of Kane County	Temporary closure and occupancy of 0.31 acres for construction staging

Fox River Trail

The Fox River Trail, an approximately 38-mile multi-use trail along the Fox River, would remain open during construction (see Figure 10). Minor disruptions may occur as construction equipment would need to cross the trail at times. A construction flagger would be present in these instances to direct trail users and to ensure trail user safety. There will be no impacts to the protected features, attributes, or activities of the Fox River Trail.

Figure 10 - Fox River Access Trail at Fox River Bridge (Looking North)



Fox River Access Trail (west of the river)

On the west side of the river, the trail access point on the south side of the Fox River Bridge (see Figure 11) would be closed for approximately 12 months for construction access and staging. The temporary occupancy of a portion of the trail and closing of the trail access is needed for construction access/staging. Approximately 0.31 acres of trail would be used for construction staging for the bridge improvements. Staging would be located just south of the UP railroad between the Fox River and the Geneva Metra Station parking Lot 3. The trail and temporary work zone associated with the western access will be fully restored to pre-construction conditions. See the detail below for further description.

The public would still be able to access the bridge crossing via the existing north access point. A signed detour route will be posted and maintained throughout the closure. The detour route will be via IL Route 31, Third Street, South Street, and River Lane. The detour is approximately 0.6 miles in length. Detour information and timelines will be provided to FPDKC, KCDOT, and the City of Geneva in advance of closings. See Figure 9 - Detour Routes.

The FPDKC concurred there are no anticipated permanent impacts to this property and the land being used will be restored after construction. See Appendix B-3 for documentation on coordination with property owners of Section 4(f) resources.

Figure 11 - Fox River Access Trail Access - Western Side of River



Fox River Access Trail (east of the river)

The Project requires work on the south side of the existing tracks, adjacent to the emergency/maintenance vehicle road which is also utilized as a pedestrian/bicycle access path for the Fox River Trail on the eastern side of the river, in order to replace the existing railroad retaining wall that is located outside of the footprint of the access trail. The emergency/maintenance vehicle road and access trail (see Figure 12) would be closed for approximately 12 months. The project team has developed a potential detour route utilizing the existing Wastewater Treatment Facility driveway, just to the south of the access road/trail, so that the Fox River Access Trail (east of the river) would remain open during construction. Pending discussions with the Treatment Facility and the City of Geneva, a temporary fence will be installed, as well as separate temporary access gates to the Fox River Trail for emergency/maintenance vehicles and pedestrians/bicycles. After construction, the access road/trail will be replaced/restored in approximately the same footprint where it currently exists and a new retaining wall will be constructed adjacent to the footprint of the access trail.

Figure 12 - Access Road, Eastern Side of River



Other Park and Recreational Areas

There are several additional parks and recreational areas within the Project area. However, the Project would not require the use or involvement of these resources. The Project would not have direct or indirect adverse impacts to the following resources:

- Sterling Manor Park (Geneva Park District)
- South Street Athletic Fields (Geneva Park District)
- Island Park (Geneva Park District)
- Esping Park (Geneva Park District)
- Philip B. Elfstrom Events Center/Fifth Third Bank Ballpark (FPDKC)
- Settler's Hill Golf Course
- Mid-Country Trail (Kane County)
- Illinois Prairie Path Geneva Spur

Q. Impacts on Wetlands

The Clean Water Act (CWA; 33 U.S.C. §§1251-1387) establishes the basic structure for regulating discharges of pollutants into the "Waters of the United States" (WOUS) and regulating quality standards for surface waters. WOUS is a broad term that includes surface waters that are used or could be used for interstate commerce. This includes wetlands, ponds, lakes, territorial seas, rivers, tributary streams, and other linear drainageways below the ordinary high water mark (OHWM). A specific, detailed definition of WOUS can be found at 33 Code of Federal Regulations 328.3. WOUS are within the jurisdiction of the United States Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (33 U.S.C. §1344). Navigable-in-fact WOUS are also regulated by the USACE under Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. §403).

Wetlands that do not meet the definition of a WOUS are considered isolated. Isolated wetlands are regulated in Kane and DuPage counties. The Kane County Division of Environmental and Water Resources issues permits as required under the Kane County Stormwater Management Ordinance. The DuPage County Department of Stormwater Management issue permits as required under the DuPage County Countywide Stormwater and Flood Plain Ordinance.

In addition, projects utilizing state or state-pass-through funding must follow the Illinois Interagency Wetlands Policy Act (IWPA) of 1989. The IWPA applies to all wetlands regardless of jurisdiction. A project's compliance with the IWPA is determined by the Illinois Department of Natural Resources (IDNR).

Section 404 of the CWA, the Kane County Stormwater Management Ordinance, the DuPage County Countywide Stormwater and Flood Plain Ordinance, and the IWPA establish criteria for impacts and requirements for replacement of impacted wetlands. All public and private projects must obtain permits for impacts to WOUS and isolated wetlands.

A Wetland and WOUS delineation was conducted based on the USACE Wetland Delineation Manual (USACE, 1987) and the Regional Supplement to the USACE Wetland Delineation Manual; Midwest Region (Version 2.0) (USACE, 2010). The delineation is reported in the Wetlands and Waters of the U.S. Investigation Report of the Metra/Union Pacific-West Line

Third Mainline Project (Kress Road to Peck Road M.P. 32.00 to M.P. 38.41) prepared for Metra (May 2016). Each potential wetland area was evaluated for the presence of wetland indicators comprised of hydrophytic vegetation, hydric soils, and wetland hydrology. A field review was conducted on August 17, 18, 19, and 21, 2015 as well as April 20 and 21, 2016.

A total of 22 wetlands and/or WOUS are located within the Project area, including five sites which are considered High Quality Aquatic Resources (HQAR). HQARs are defined by the USACE Chicago District Regional Permit Program and include wetlands designated on the Kane County Advanced Identification wetland map.

Table 10 summarizes the wetlands and WOUS within the Project area. The location of wetlands and WOUS are depicted in Figure 8 - Environmental Resources. A total of 13.1 acres of wetland and 6.7 acres of WOUS are located within the Project area. A total of 2.02 acre of wetlands and 0.2 acre of WOUS would be impacted by the Project. In addition, a total of 1.86 acres of temporary impacts to wetlands and WOUS would be required, including 0.7 acre of temporary impacts to the Fox River for reconstruction/reinforcement of the existing piers. The replacement of impacted wetlands must follow the most stringent mitigation ratio established by Section 404 of the CWA, the Kane County Stormwater Management Ordinance, the DuPage County Countywide Stormwater and Flood Plain Ordinance, and/or the IWPA, depending on location and jurisdiction. Table 10 summarizes which agency has jurisdiction, the impact, most stringent mitigation ratio, and required mitigation for each wetland and WOUS within the Project area. The mitigation ratio and required mitigation may change pending additional coordination with the USACE, IDNR, the Kane County Division of Environmental and Water Resources, and the DuPage County Department of Stormwater Management.

Table 10 - Summary of Wetlands and WOUS within the Project Area

Site #	Wetland Type	NWI/Kane County ADID/DuPage County Wetland Map Classification	Native FQI/	Jurisdiction ¹	Acreage Within Project Area (Acreage Impacted)	Mitigation Ratio	Mitigation Acreage
			Native C-Value				
1	Wet Meadow & Open Water Channel	Artificial Pond (#2662)	6.3/1.5	USACE	Wetland = 1.16 (0.38)	1.5:1	0.59
					Open Water Channel = 0.06 (0.01)		
2	Wet Meadow	PEMA	1.4/1.0	KC	Wetland = 0.12 (0.0)	--	--
3	Marsh & Unnamed Tributary to Mill Creek (WOUS)	None	6.3/1.9	USACE	Wetland = 0.14 (0.00)	1.5:1	0.03
					WOUS = 0.36 (0.02)		
4	Wet Meadow & Unnamed Tributary Mill Creek (WOUS)	None	1.7/1.0	USACE	Wetland = 0.47 (0.0)	--	--
					WOUS = 0.04 (0.0)		
5	Unnamed Tributary to the Fox River (WOUS)	Wetland (#2644)	3.5/1.8	USACE	WOUS = 0.11 (0.01)	1.5:1	0.02
6	Scrub-shrub, Marsh, & Unnamed Tributary to the Fox River (WOUS)	PSS1C & Blue Line Stream/ADID #2661 (High Functional Value), Unrated Stream, & Wetland (#2642, #2643, & #2647)	13.3/2.3	USACE	WOUS = 0.97 (0.06)	3:1	0.36
					Wetland = 2.63 (0.06)		
7	Wet Meadow & Unnamed Tributary to the Fox River (WOUS)	ADID #2661 (High Functional Value) & Unrated Stream	5.8/1.7	USACE	Wetland = 0.12 (0.0)	3:1	0.03
					WOUS = 0.61 (0.01)		
8	Wet Meadow & Unnamed Tributary to the	PUBG & PEMC/Unrated Stream, ADID #2659 (High Habitat	10.0/2.8	USACE	Wetland = 2.16 (0.0)	--	--

	Fox River (WOUS)	Value/Fen), & Wetland (#2658)			WOUS = 0.07 (0.0)		
9	Marsh	PEMC & PEMF/Wetland (#2657)	9.4/2.5	KC	Wetland = 0.88 (0.0)	--	--
10	Wet Meadow	None	10.2/2.2	KC	Wetland = 0.19 (0.03)	2.0:1	0.06
11	Wet Meadow	None	3.6/1.6	DC	Wetland = 0.02 (0.02)	3.0:1	
12	Marsh	None	14.7/2.8	USACE	Wetland = 1.5 (0.0)	--	--
13	Forested	PEMC/ Wetland & Hydro Line	2.5/1.3	DC	Wetland = 0.21 (0.0)	--	--
14	Wet Meadow	None	8.9/2.8	USACE	Wetland = 1.53 (1.53)	5.5:1	8.42
15	Wet Meadow	PEMAf/Wetland (#2645)	7.2/2.2	KC	Wetland = 0.80 (0.0)	--	--
16	Marsh, Forested, Scrub-shrub, & Kress Creek South Canal	PEM1C, PFO1C, & R2UBHx	13.1/2.9	DC	Wetland = 0.75 (0.0)	3.0:1	0.18
					WOUS = 0.34 (0.06)		
17	Forested	PEM1C & PFO1C	1.5/0.8	USACE	Wetland = 0.11 (0.0)	--	--
18	Fox River	L1UBHh/Natural Open Water & High Quality Stream (#100006)	4.5/1.8	USACE	WOUS = 4.01 (0.7 Temporary)	--	--
19	Marsh	PEM1C & Blue Line Stream/Hydro & Hydro Line	10.3/2.9	USACE	Wetland = 0.30 (0.01)	3.0:1	0.03
20	Kress Creek (WOUS)	R2UBHx, R4SBCd, & Blue Line Stream/Hydro Line	11.2/3.0	USACE	WOUS = 0.07 (0.00)	--	--
					Wetland = 0.01 (0.0)		
21	Geneva Creek (WOUS)	None	3.3/1.3	USACE	WOUS = 0.07 (0.0)	--	--
22	Wet Meadow	None	1.4/1.0	DC	Wetland = 0.01 (0.0)	--	--

¹ KC = Kane County, DC = DuPage County

Bold – High Quality Aquatic Resources

This Project would require a Section 404 of the CWA permit for impacts to WOUS and permits from the Kane County Division of Environmental and Water Resources and DuPage County Stormwater Management for impacts to isolated wetlands. In addition, this project will require review by the IDNR under the IWPA.

Coordination meetings with the USACE occurred on December 9, 2015 and January 24, 2017. A Jurisdictional Determination request and Section 404 Individual Permit application were submitted to the USACE on July 25, 2016 and August 3, 2016, respectively. An approved Jurisdictional Determination (JD) was issued by the USACE on January 10, 2017. The USACE issued a public notice for the Project as part of the Section 404 Individual Permit on March 3, 2017. Coordination with the USACE regarding wetland mitigation is on-going and permit approval is anticipated in August 2017. The Project proposes to mitigate impacts to wetland and WOUS by the purchase of wetland bank credits at a wetland bank located in Kane County. Mitigation will be completed pending USACE approval of the mitigation ratios and purchase of wetland bank credits. USACE correspondence is included as Appendix B-4. Additional coordination with USACE would occur as the Project plans progress and would include coordination through the Section 404 permitting process.

Permit applications have been submitted to the Kane County Division of Environmental and Water Resources and DuPage County Department of Stormwater Management. Coordination with these agencies is on-going and permit approval is anticipated in July or August 2017. Permit approval requires wetland mitigation be completed. The Kane County Stormwater Management Ordinance and the DuPage County Countywide Stormwater and Flood Plain Ordinance require that mitigation for impacts to wetlands and WOUS occur within the respective county. Impacts to wetland and WOUS in Kane County will be mitigated for by the purchase of wetland bank credits at a wetland bank in Kane County. No wetland banks are located within DuPage County. Impacts to wetlands and WOUS in DuPage County will be mitigated for by the purchase of wetland bank credits at a wetland bank in Kane County and payment to the DuPage County fee-in-lieu program. Section 15-99 of the DuPage County Countywide Stormwater and Flood Plain Ordinance allows for a fee-in-lieu payment when wetland bank credits are not available within DuPage County. The IWPA does not recognize fee-in-lieu payment for wetland mitigation. Therefore, the DuPage County fee-in-lieu payment will be in addition to the purchase of wetland bank credits for impacts to wetlands and WOUS in DuPage County. The wetland mitigation plan has been submitted to the USACE, Kane County Division of Environmental and Water Resources, and the DuPage County Department of Stormwater Management. Coordination with the USACE, Kane County Division of Environmental and Water Resources, and the DuPage County Department of Stormwater Management regarding the wetland mitigation plan is on-going; however, no opposition to this approach has been expressed by any agency at this time.

Coordination with the IDNR under the IWPA has been initiated. IDNR Project approval is pending approval of the mitigation plan by the USACE.

(See Figure 8 - Environmental Resources; See Figure 3 - Fox River Bridge for a photograph of the Fox River Bridge.)

Figure 13 - UP-W Line and Wetlands



R. Floodplain Impacts

The Federal Emergency Management Agency (FEMA) delineates and publishes the boundaries of the floodplain and floodway, under Section 1360 of the National Flood Insurance Act of 1968 (42 U.S.C. §4101). The boundaries are published on the FEMA Flood Insurance Rate Maps (FIRM). The FEMA FIRMs are used for floodplain management and insurance purposes to describe the land area in terms of its risk of flooding (FEMA, 2016).

Fill within the floodway within Kane and DuPage counties is regulated by the IDNR-Office of Water Resources (OWR) under 17 IL Administrative Code, Title 17, Chapter I, Subchapter h, part 3708, Floodway construction in Northeastern Illinois. The purpose of Part 3708 is to provide rules governing construction and filling in the regulatory floodway of rivers, lakes and streams of Cook, DuPage, Kane, Lake, McHenry and Will Counties. (17 IL, Chapter I, Subchapter h, Section 3708.10).

In addition, fill within the floodplain within the Kane County portion of the Project area is regulated by the City of Geneva under the Kane County Stormwater Management Ordinance. The DuPage County portion of the project is regulated by the City of West Chicago under the DuPage County Countywide Stormwater and Flood Plain Ordinance.

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) in Kane County, revised in 2009, depicts Zones X500 (Other Flood Areas), Zone X, and AE

(Floodway & Floodplain/Flood Zone) within the Project area. A portion of the Project is located within a mapped Zone AE (Floodway) and Zone AE (Floodplain) associated with the Fox River and the Kress Creek (See Figure 14 - Flood Insurance Rate Map (FIRM)).

Within the Project area the DuPage County Digital Flood Insurance Rate Map (DFIRM), effective 2004, depicts Zones A, AE (Floodway), and X (Other Areas) within the Project area. The DuPage County Regulatory Flood Map (DRFM), revised in 2010, depicts Zone A and Zone X within the Project area.

No permanent fill will be placed within the floodplains or floodways. The existing Fox River bridge piers will be rehabilitated with no change in their footprint. A permit application for the work within the floodway, rehabilitation of the Fox River bridge piers, has been submitted to the IDNR OWR. Coordination with the IDNR OWR is ongoing and permit approval is anticipated in July or August 2017. No permits from the City of Geneva or the City of West Chicago are required as no permanent fill within the floodplain or floodways will occur.

Reference: Flood Insurance Rate Map, Kane County, Illinois. Effective August 3, 2009 Map Panel Number 1789C0270H, Map Panel Number 17089C0268H, Map Panel Number 1789C0264H, and Map Panel Number 17089C0263H. Digital Flood Insurance Rate Map DuPage County, Illinois. Effective December 16, 2004 Map Panel Number 17043C0401H. Regulatory Flood Map, DuPage County, Illinois. Effective July 7, 2010 Map Panel Number 17043C0038A.

The Project lies within the Des Plaines River Watershed (HUC #07120004) and the Fox River Watershed (Hydrologic Unit Code, HUC #07120007). Kress Creek, Kress Creek South Canal, an unnamed tributary to Kress Creek South Canal, four unnamed tributaries to the Fox River, and two unnamed tributaries to Mill Creek are located in the Project area. As this is an existing railroad corridor, these waterways are affected by the existing conditions. The culvert extensions and the Fox River Bridge rehabilitation are expected to have only a minor, temporary effect on these waterbodies during construction, which will be mitigated with the implementation of soil erosion and sediment control measures.

To accommodate the third mainline track, new bridge spans will be constructed over the Fox River. Portions of the existing piers under the proposed third mainline track would be rehabilitated by removing approximately one foot of concrete from the top and sides of the piers. This area would then be rebuilt to the original dimensions with reinforced concrete. In addition, the tops of the existing piers would be extended under the proposed third mainline track to accommodate the new bridge structure.

Figure 14 - Flood Insurance Rate Map (FIRM)

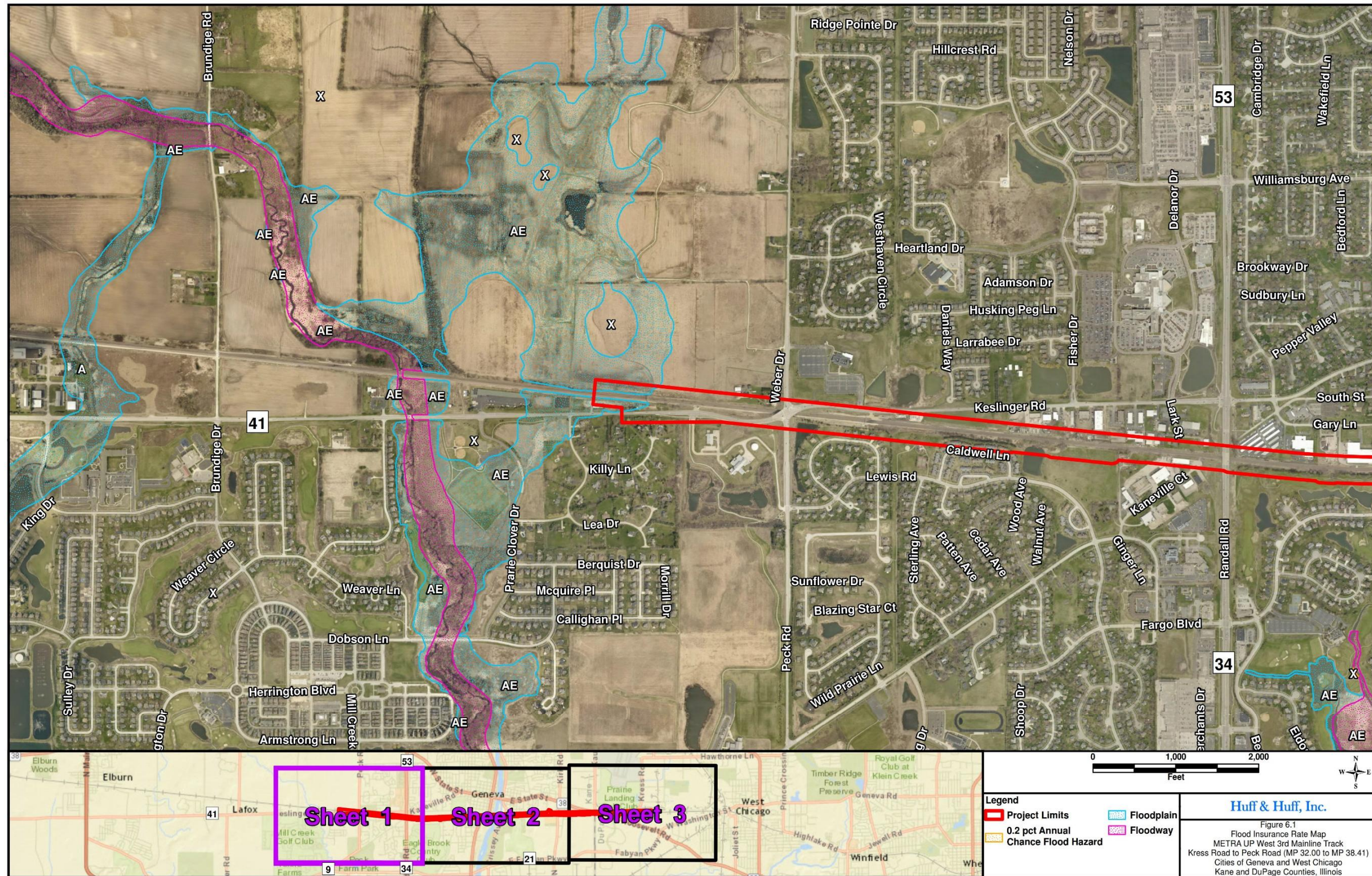


Figure 14 - FIRM (continued)

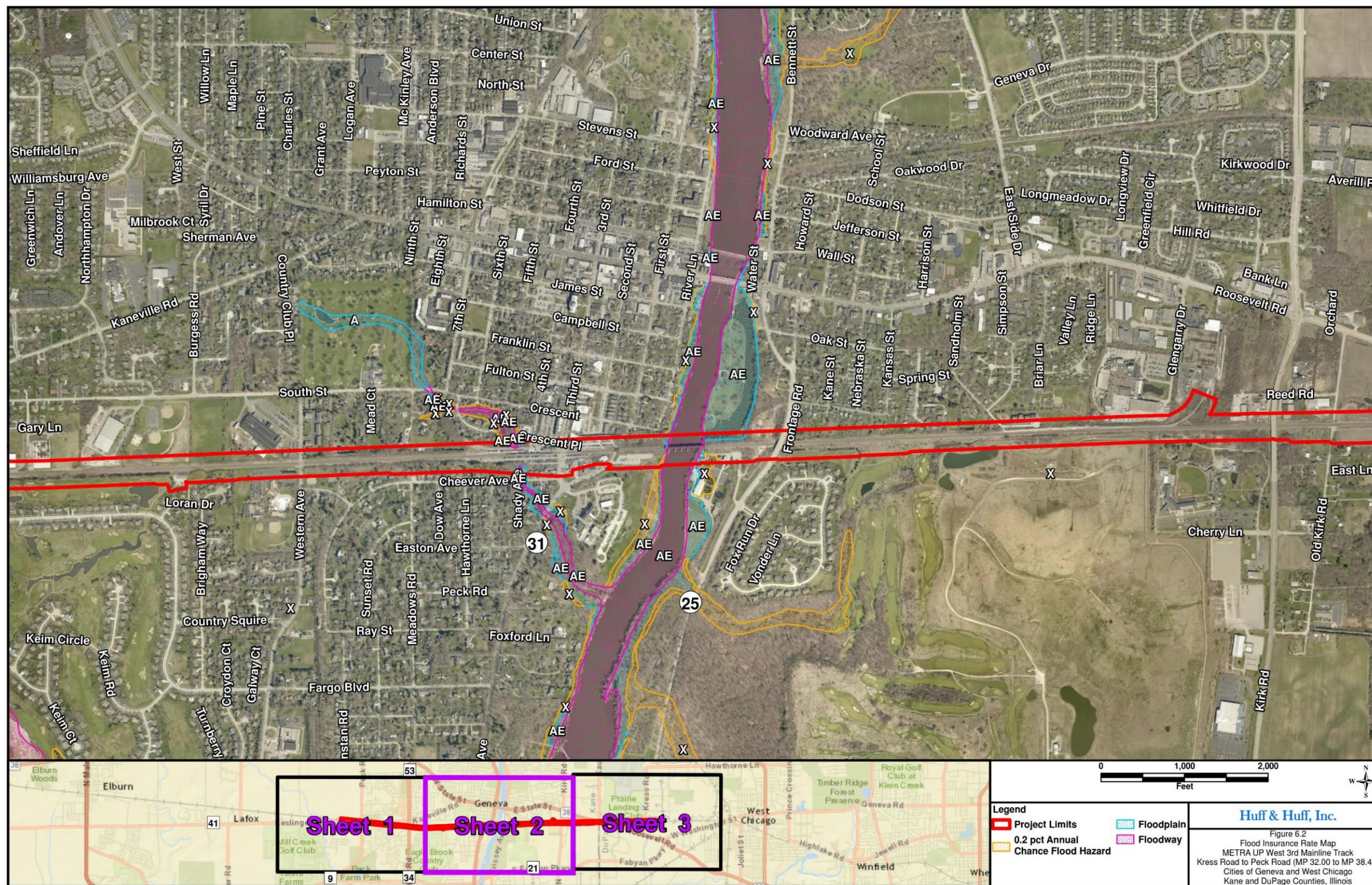
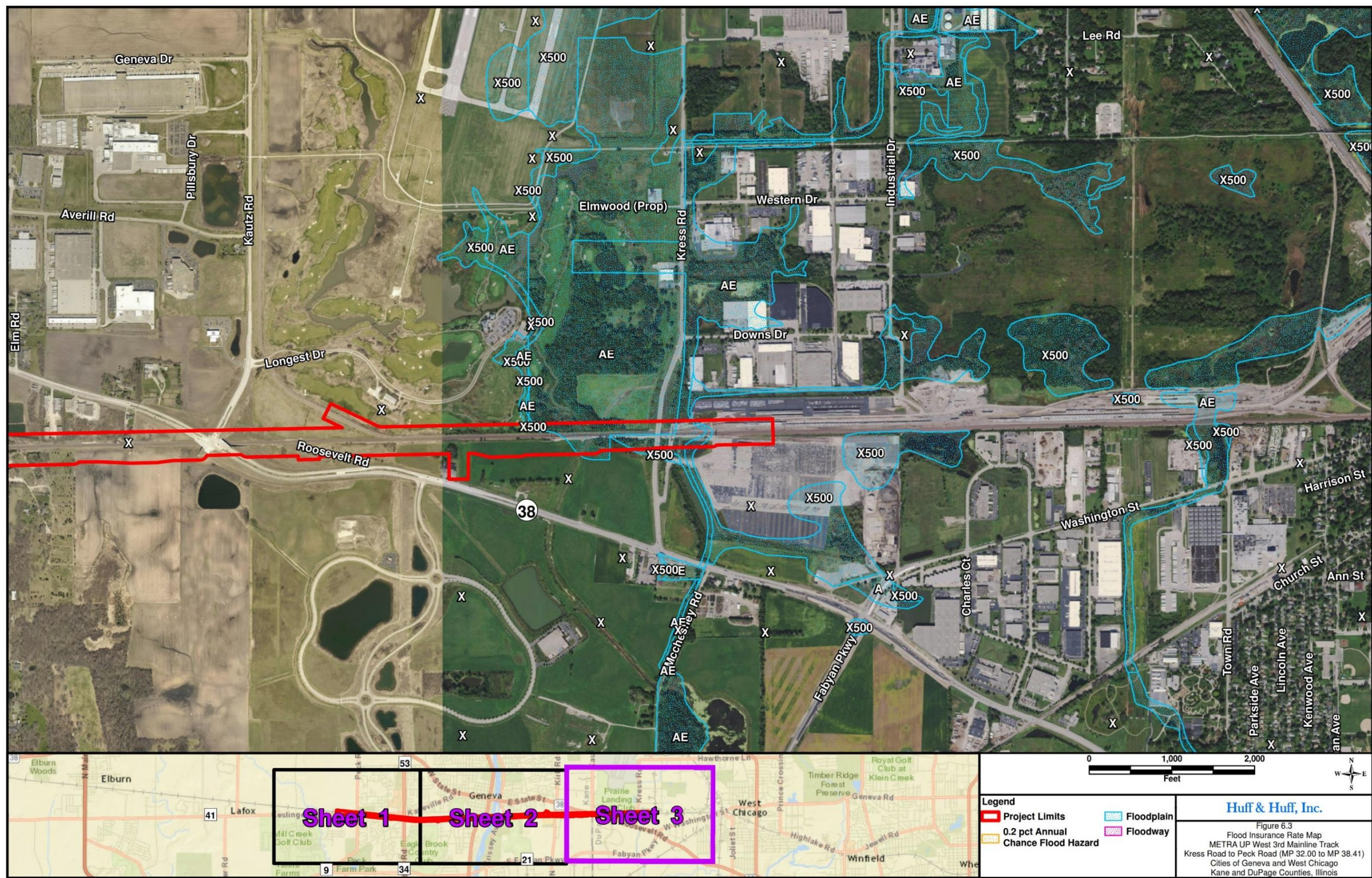


Figure 14 - FIRM (continued)



S. Impacts on Water Quality, Navigable Waters & Coastal Zones

The Clean Water Act (CWA; 33 U.S.C. §§1251-1387) establishes the basic structure for regulating discharges of pollutants into the WOUS and regulating quality standards for surface waters. WOUS are within the jurisdiction of the Illinois Environmental Protection Agency (IEPA) under Section 401 of the Clean Water Act (33 U.S.C. §§1344CWA).

The CWA made it unlawful to discharge any pollutant from a point source into navigable waters, unless a National Pollutant Discharge Elimination System (NPDES; 33 U.S.C. §1342) permit was obtained. The NPDES program controls point source discharges. Point sources are discrete conveyances such as pipes or man-made ditches. The NPDES program is administered by the Illinois Environmental Protection Agency (IEPA) in Illinois per CWA Section 402(b). A general NPDES Permit for Storm Water Discharges from Construction Site Activities is required for any construction site that would result in the disturbance of soil of one or more acres total land area (40 CFR §122, et seq.).

The extent of work that would be performed within the Fox River would consist of the installation of a temporary causeway around the piers and to gain access to the piers. The causeway would be used to provide a dry work environment around the piers in the water.

According to the IEPA *2016 Illinois Integrated Water Quality Report and Section 303(d) List*, Kress Creek (IL_GBKB-1) is impaired for aquatic life. The cause of the impairment is dissolved oxygen. The Fox River (IL_DT-58) is impaired for aquatic life, fish consumption, and primary contact recreation. Causes of impairment include dissolved oxygen, mercury, PCBs, and fecal coliform. The unnamed tributaries to Mill Creek and unnamed tributaries of the Fox River, within the project limits have not been assessed. The portion of the Fox River within the Project area has a Diversity rating of D and an integrity rating of E as part of the Biological Stream Characterization (BSC) (IDNR, 2008). The unnamed tributaries to the Fox River and Mill Creek have not been characterized as part of the BSC (IDNR, 2008).

The portion of the Fox River in the Project area is a navigable waterway regulated under Section 10 of the Rivers and Harbors Act of 1899 by the Chicago District USACE; however, it is not located within an Illinois Coastal Zone as identified by the Illinois Department of Natural Resources (IDNR). A Section 10 permit for work within the Fox River waterway was requested from the USACE within the Section 404 permit application dated August 3, 2016. Coordination with the USACE is ongoing. The Fox River is not a National Wild and Scenic River nor is it under study to be added to the list of National Wild and Scenic Rivers. The portion of the Fox River within the Project area is not listed on the National Rivers Inventory.

The Project will result in additional stormwater runoff from the additional sub-ballast required of the third mainline track. The additional runoff will be routed to stormwater detention facilities within and immediately adjacent to the Project area, which provide additional detention with minor increases in high water levels. In addition, the Project is paying “fee-in-lieu of detention” to the City of Geneva to address the use of the stormwater detention facilities outside the Project area and the increases in flows.

BMPs will be utilized where possible to improve the quality of runoff draining outside the Project area. Wherever possible, storm water runoff will be conveyed through vegetated ditches which provide filtration of suspended solids and contaminants such as phosphorus, nitrogen, and metals. There is no potential increase in stormwater pollutants from operation of the railroad over the existing condition as increases in trains are not proposed. Therefore, the Project would not impact the water quality of the Fox River and other waterways.

The Project would not create any new potential routes for groundwater pollution or any new potential sources of groundwater pollution as defined in the Illinois Environmental Protection Act, 415 ILCS 5/3, and et seq. Accordingly, the Project would not be subject to compliance with the minimum setback requirements for community water supply wells or other potable water supply wells as set forth in 415 ILCS 5/14, et seq.

WOUS are within the jurisdiction of the USACE under Section 404 and IEPA under Section 401 of the CWA. Any work within a WOUS requires a permit from USACE. A USACE permit is required for the Project since permanent wetland and WOUS impacts as well as temporary construction easements would be necessary for construction of the temporary cofferdam and causeway. It is anticipated that an individual permit would be necessary, as total wetland and WOUS impacts for the Project are greater than 1.0 acre. A section 401 permit from the IEPA is required for individual permits. An initial coordination meeting with the USACE occurred on December 9, 2015. Meeting minutes are included in Appendix B-4. A Section 401 permit application was submitted to the IEPA on August 3, 2016. Additional coordination with the IEPA and USACE will occur as the Project plans progress and will include coordination through the Section 401 and 404 permitting process. IEPA permit approval is anticipated August 2017.

A NPDES permit for stormwater discharges from construction sites would be required for the Project. NPDES coverage is required when a construction project disturbs 1.0 acre or more of total land area, or is part of a larger common plan of development that ultimately disturbs 1.0 or more acres of total land area. NPDES Permit coverage will be obtained by the contractor under an IEPA general permit for stormwater discharges from construction site activities. Permit requirements would include the preparation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP would identify potential sources of pollution and describe or identify practices to be used to reduce the discharge of pollutants associated with construction site activity. The permit would require the installation, maintenance, repair, and inspection of best management practices (BMPs) and reporting.

The IDNR Office of Water Resources (OWR) issues floodway construction permits for work within regulatory floodways and for the crossing of streams that have more than 640 acres of drainage area for suburban areas. The IDNR OWR is currently reviewing the Project.

T. Impacts on Ecologically-Sensitive Areas and Endangered Species

Federally Listed Threatened and Endangered Species

Federally listed threatened and endangered species are protected under the Endangered Species Act (ESA) (16 U.S.C. §§1531-1544, 1973). The ESA provides a program for the identification and conservation of threatened and endangered plants and animals and their

habitats. The ESA requires federal agencies, in consultation with the U.S. Fish and Wildlife Service (USFWS) via the Section 7 consultation process, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of designated critical habitat of such species (USEPA, 2014).

Section 7 consultation with the USFWS was initiated to document the absence or presence of federally listed threatened and endangered species. Information was collected via the USFWS website on May 20, 2016 and June 15, 2017 as well as through conditions observed in the field during a site visit conducted in the fall of 2015 and spring of 2016. Table 11 includes a list of federally listed species located in DuPage County and Kane County. In summary, the Project will *not affect* the Hine's emerald dragonfly, rusty patched bumble bee, Northern long-eared bat (NLEB), leafy-prairie clover, eastern prairie-fringed orchid, Mead's milkweed, and prairie bush clover. Initial coordination with the USFWS was submitted on May 20, 2016; however, the USFWS does not issue concurrence on findings of no effect. No response from the USFWS was received within 30 days of the submittal. Additional coordination was submitted to the USFWS on June 29, 2017 for the recently listed rusty patched bumble bee. Section 7 consultation with the USFWS is anticipated to be completed on July 28, 2017.

State Listed Threatened and Endangered Species

The Illinois Endangered Species Act established the Illinois Endangered Species Protection Board to determine which plant and animal species are threatened or endangered in the state and to advise the IDNR on the means of conserving those species. Endangered and threatened species coordination is initiated through the IDNR Ecological Compliance Assessment Tool (EcoCAT). The Illinois Endangered Species Act also automatically lists species that are protected under the ESA.

For state listed species, coordination was initiated with the IDNR through the EcoCAT on September 2, 2015 (See Appendix B-5). The EcoCAT identified the State endangered black-crowned night heron (*Nycticorax nycticorax*), the State endangered Blanding's turtle (*Emydoidea blandingii*), the State endangered tube beard tongue (*Penstemon tubaeflorus*) within the vicinity of the Project, and the State threatened black-billed cuckoo (*Coccyzus erythrophthalmus*). None of the species identified by the EcoCAT were identified during the site inspection; however, detailed field surveys were not conducted. In addition, the West Chicago Prairie Illinois Natural Area Inventory (INAI) Site and the Truitt-Hoff Nature Preserve were identified within the vicinity of the Project. The West Chicago Prairie INAI Site and the Truitt-Hoff Nature Preserve are located approximately 0.3-mile northeast of the eastern terminus of the Project. Consultation with the IDNR was concluded on March 17, 2017 and INDR requested no instream work be conducted within the Fox River from April 1 through June 15th, the spawning season for the state listed greater redhorse (*Moxostoma valenciennesi*) and river redhorse (*Moxostoma carinatum*).

Table 11 - USFWS Federally Listed Species in Kane County and DuPage County

Species	County ¹	Status	Habitat	Habitat Present within Project Area?	Determination
Hine's emerald dragonfly (<i>Somatochlora hineana</i>)	D	Endangered	Spring fed wetlands, wet meadows and marshes	No	No effect
Leafy-prairie clover (<i>Dalea foliosa</i>)	D	Endangered	Prairie remnants on thin soil over limestone	No	No effect
Rusty patched bumble bee (<i>Bombus affinis</i>)	D, K	Endangered	Grasslands with flowering plants from April through October, underground and abandoned rodent cavities or clumps of grasses above ground as nesting sites, and undisturbed soil for hibernating queens to overwinter.	Yes	No effect
Northern long-eared bat (<i>Myotis septentrionalis</i>)	D, K	Threatened ²	Caves, mines (hibernacula); wooded areas surrounding hibernacula; upland forests (foraging)	Yes	No effect
Eastern prairie fringed orchid (<i>Platanthera leucophaea</i>)	D, K	Threatened	Moderate to high quality wetlands, sedge meadow, marsh, and mesic to wet prairie	No	No effect
Mead's milkweed (<i>Asclepias meadii</i>)	D	Threatened	Late successional tallgrass prairie, tallgrass prairie converted to hay meadow, and glades or barrens with thin soil	No	No effect
Prairie bush clover (<i>Lespedeza leptostachya</i>)	D	Threatened	Dry to mesic prairies with gravelly soil	No	No effect

¹ D = DuPage County, K = Kane County

¹ On January 15, 2016 the FWS issued the Endangered and Threatened Wildlife and Plants; Threatened Species Status for the Northern Long-Eared Bat With 4(d) Rule; Final Rule. The final rule designates the northern long-eared bat as federally threatened and the species-specific 4(d) rule exempts certain activities from the Endangered Species Act prohibitions. The Final 4(d) Rule went into effect February 16, 2016.

Three mussel species from the Fox River in Kane County are listed by the IDNR as State Threatened species. These mussels are the purple wartyback, (*Cyclonaias tuberculata*), Spike (*Elliptio dilatata*), and the black sandshell (*Ligumia recta*). One species, the rainbow (*Villosa iris*) is listed as State Endangered. Recent surveys (Schanzle *et al.* 2003, Shasteen *et al.* 2013) have not found live specimens of the aforementioned state listed species in the mainstem of the Fox River in Kane County, with the exception of the black sandshell, which is rarely encountered in West Dundee, Illinois, approximately 15 miles south of the Project. A mussel survey was conducted by the Project team on August 27, 2015. Five biologists spent approximately 17.5 hours surveying all habitats within the Fox River at the UP-W Line bridge crossing. Twenty-nine native mussels of six species were collected, and four additional species were collected as relic shells that were not represented as living species. No federally protected species were collected in the Fox River as living or dead specimens. No Illinois state protected species were collected in the Fox River as living specimens. The spike (State threatened, *Elliptio dilatata*) and purple wartyback (State threatened, *Cyclonaias tuberculata*) were collected as relic specimens. As relic specimens are often present for many years after becoming deceased, the presence of the relic specimen does not indicate the presence of live individuals or populations of those species. Therefore, based on the results of this survey, living state or federally protected species are not expected to be found within the survey area.

U. Impacts on Safety and Security

Standard UP and Metra safety and security measures would be incorporated as part of the Project including fencing along the corridor. Other elements that improve safety and security include at-grade crossing improvements, track improvements, and station improvements. At-grade crossing improvements include new crossing gates (for vehicles and pedestrians), new warning devices, concrete barrier medians, and reconstructed sidewalks. Improvements for the trackwork include retaining walls throughout the corridor to limit land acquisition and provide stable ground surface for the railroad. Safety and security features at the Geneva Metra Station such as improved lighting, modern communication systems, and improved weather protection at the station will all create a brighter and safer transit environment. The upgrades around the Geneva Metra Station would provide safer access from the streets and parking lots for Metra commuters.

In summary, this Project would include lighting improvements to the platforms, parking, and stations. Accessibility and security features are incorporated into the designs to enhance a brighter and safer transit environment for the community.

V. Impacts Caused By Construction

Construction is scheduled to begin in 2017 and is expected to last one to two years. Construction activities are expected to result in some temporary effects that would be mitigated as described in the following sub-sections:

Noise

Noise resulting from construction activities such as construction equipment mobilization and utilization would be temporary and vary throughout the construction period. Construction activities include truck hauling, pavement removal and replacement, use of specialized machinery for the addition of the third mainline, use of a crane, and repairs to the bridges. The construction specifications would address the construction noise level factors and procedures, and would conform to all federal, state, and/or local regulations, including applicable sections of the most recent Occupational Safety and Health Administration (OSHA) standards.

Disruption of Utilities

Utilities in the area include telephone lines, above ground power lines, underground gas lines, and other underground cable or wire connections. Some of the above ground and below ground utility infrastructure would be relocated by the respective utility company in advance of construction. Affected utility companies have been coordinated with by UP and Metra throughout the design process and project development. Additional coordination between the utility companies and the Contractor would occur in advance of any construction activities.

Disposal of Debris and Spoil

As a result of site preparation activities: vegetation clearance, construction debris, and removal of debris from the existing piers, disposal of debris, and soil is anticipated. Additionally, there may be the removal of any soil unsuitable for construction or soil volumes in excess for the new embankment construction. Responsibility for disposal will be that of the contractor, subject to all applicable regulations and requirements. Metra contractors will follow all applicable laws and regulations concerning the proper disposal of Clean Construction Demolition Debris (CCDD). As construction would occur within a regulated "Waters of the United States," disposal and treatment of construction materials and debris will also be regulated under Section 404 of the CWA concerning dredge or fill activities in regulated waters.

Prior to commencing any excavation, the contractor must submit proposed areas of excavation for approval by the engineer for Metra. If a REC cannot be avoided, soil and sedimentation testing will be required prior to excavation. Written authorization or a permit from the disposal site is required prior to removing any material from the site. If the disposal site is on private property, Metra shall be given a copy of written permission from the property owner allowing the disposal.

Water Quality and Runoff

Water quality will be protected by the management of soil erosion and sedimentation in accordance with applicable provisions of the NPDES, including the SWPPP, and the soil erosion and sediment control measures approved by the Kane-DuPage Soil and Water Conservation District. Reference to these provisions will be part of the Project's soil and erosion control engineering documents and include, but are not limited to, the use of causeways, cofferdams, inlet protection, silt fence, ditch checks. The soil and erosion control measures will

be inspected by the Project's contractor weekly and after rainfall greater than 0.5 inches. Silt fencing will be checked daily for the first two weeks of construction and weekly thereafter.

Sediment is expected to be disturbed temporarily, during rehabilitation of the piers and abutments for the bridge. After all construction activities have been completed, these water quality impacts would be expected to cease.

Access and Distribution of Traffic

There would be minor construction-related easements for two at-grade crossings: Third Street and Western Avenue. A 0.02-acre acquisition of right-of-way would be needed for the improvements to the bridge crossing over IL Route 31.

Temporary road closures at IL Route 31, Third Street, and Western Avenue will be necessary to complete track work at these at-grade crossings and grade separated crossing. Detour route options are shown in Appendix A – Project Plan Sheets. The detours for Third Street and Western Avenue are each expected to occur for approximately six weeks. The detour for IL Route 31 is expected to occur for three-to-four months. Potential boarding/alighting location shifts or disruptions due to station platform construction may also occur as a result of construction. These access restrictions or detours will be temporary in nature and limited in duration. Appropriate signage for station boarding/alighting and road closing detour routes will be posted and distributed as needed via Metra's website, press releases, and printed materials posted at the affected stations.

Road closures and detours are expected to add an estimated three-to-five minutes to emergency response times. The City of Geneva is coordinating with emergency responders. Emergency responders will be notified in advance regarding the exact timing of closures and detours.

In addition, three commuter parking lots south of the tracks would be closed in phases, at separate times, in order for construction to occur. Parking configuration to the north of the tracks would not be impacted by the parking lot construction; however, commuters may use any of the existing, open parking lots. As identified in Table 6, Phase I of the parking lot reconfiguration will temporarily close 96 parking spaces at Commuter Lot 3, Phase II will temporary close 44 spaces at Commuter Lot 5, and Phase III with a temporary close 270 spaces, at Commuter Lot 1. Metra will work closely with the City of Geneva to provide advance notice of parking lot temporary closings and anticipated construction schedules. This may include remote parking locations and potential shuttles for commuters during the construction of Commuter Lot 1.

Air Quality and Dust Control

Construction specifications will indicate when dust control is needed and the method of control to be used. Section 01562, Dust Control, of the UPRR standard specifications is referenced in the Project's contract documents.

Safety and Security

For any construction at the site or other locations, site access control, site access safety, and site security will be maintained by and will be the responsibility of the contractor.

Disruption of Businesses

Minor disruptions to businesses can be expected as a result of the temporary closures and detours of the at-grade crossings at Third Street and Western Avenue. Appropriate signage and notices will be posted prior to any closings or detours.

Construction Mitigation Measures

The Fox River Trail will remain open during construction. The contractor will provide a flagger when construction equipment needs to cross the trail to ensure trail user safety. On the west side of the river, the trail access point on the south side of the Fox River Bridge will be closed for approximately 12 months for construction access and staging. A signed detour route will be posted and coordinated with the FPDKC, KCDOT, and the City of Geneva. The trail and associated temporary work zone will be fully restored to pre-construction conditions.

The emergency/maintenance vehicle road and access trail on the eastern side of the river will be closed for approximately 12 months. A detour route utilizing the existing Wastewater Treatment Facility driveway will be used. Pending discussions with the Treatment Facility and the City of Geneva, a temporary fence will be installed, as well as separate temporary access gates to the Fox River Trail for emergency/maintenance vehicles and pedestrians/bicycles. After construction, the access road/trail will be replaced/restored in approximately the same footprint where it currently exists and a new retaining wall will be constructed adjacent to the access trail.

W. Mitigation Commitments

Several environmental commitments have been identified as part of the Project and are listed below in Table 12.

Table 12 - Environmental Commitments/Mitigation

Environmental Factor	Commitment or Mitigation Required
Water Quality	<p>For a Section 404/401 permit, coordination with USACE and IEPA is on-going. A mitigation plan for replacement of wetland and WOUS impacted has been submitted to the USACE and IEPA. The mitigation plan specifies the intent to purchase wetland bank credits and the ratios for replacement. Coordination with these agencies is on-going.</p> <p>Coordination with the IDNR under the IWPA has been initiated. IDNR Project approval is pending approval of the mitigation plan by the USACE.</p> <p>Wetlands not under the jurisdiction of the USACE are regulated by the county in which they are located, Kane County or DuPage County. Permit applications have been submitted to the Kane County Division of Environmental and Water Resources and DuPage County Department of Stormwater Management. Coordination with these agencies is on-going and permit approval is anticipated in July or August 2017. Impacts to wetland and WOUS in Kane County will be mitigated for by the purchase of wetland bank credits at a wetland bank in Kane County. No wetland banks are located within DuPage County. Impacts to wetlands and WOUS in DuPage County will be mitigated for by the purchase of wetland bank credits at a wetland bank in Kane County and payment to the DuPage County fee-in-lieu program. The wetland mitigation plan has been submitted to the Kane County Division of Environmental and Water Resources and the DuPage County Department of Stormwater Management and coordination is on-going.</p> <p>An NPDES permit for stormwater discharges from construction sites will be submitted to the IEPA by the contractor prior to the start of construction.</p>
Flooding	A permit application for the work within the floodway, rehabilitation of the Fox River bridge

	<p>piers, has been submitted to the IDNR OWR. Coordination with the IDNR OWR is ongoing and permit approval is anticipated in July or August 2017. No permits from the City of Geneva or the City of West Chicago are required as no permanent fill within the floodplain or floodways will occur.</p>
Navigable Waterways and Coastal Zones	<p>A Section 10 permit for work within the Fox River waterway was requested from the USACE within the Section 404 permit application dated August 3, 2016. Coordination with the USACE is on-going.</p> <p>An NPDES permit for stormwater discharges from construction sites will be submitted to the IEPA by the contractor prior to the start of construction.</p>
Threatened & Endangered Species	<p>Coordination with the USFWS is on-going for the rusty patched bumble bee. A no effect determination has been made for all other federally listed threatened and endangered species within Kane and DuPage County. Tree clearing is anticipated for this project, and it will adhere to the tree clearing restriction dates (April 1 through October 15) as a condition to avoid impacts to the NLEB.</p> <p>Coordination with IDNR was concluded on March 17, 2017.</p> <p>A mussel survey was conducted on August 27, 2015. The IDNR determined that further salvage efforts are not necessary.</p> <p>To avoid potential impacts to listed and non-listed fishes, the IDNR requests no instream work during the primary spawning season of the greater redhorse (<i>Moxostoma valenciennesi</i>) and river redhorse (<i>Moxostoma carinatum</i>), from April 1st through June 15th.</p> <p>Additional commitments and/or mitigation, if needed, will be determined through on-going coordination efforts.</p>
Historic Properties and Parklands	<p>No historic properties will be altered or directly affected by this Project and no adverse visual effects will occur to historic properties. As a result, the FTA has determined the Project will result in “no adverse effect” and the SHPO</p>



	<p>concurred with this determination on June 6, 2017.</p>
<p>Construction</p>	<p>An inspection of the bicycle and pedestrian bridge over the Fox River will occur before and after construction.</p> <p>Appropriate and required mitigation measures, as described for each resource area in Section V. Impacts Caused by Construction, will be included in the construction specification documents and will be the responsibility of the contractor.</p>
<p>Hazardous Materials</p>	<p>Results of the Phase I ESA will be incorporated into design and construction documents as appropriate.</p> <p>If a REC cannot be avoided, soil and sedimentation testing will be required prior to excavation.</p> <p>Responsibility for disposal of debris from the Fox River Bridge existing piers, soil unsuitable for construction, or soil volumes in excess for the new embankment construction will be the responsibility of the contractors to follow all applicable laws and regulations.</p> <p>Prior to excavation, the contractor must submit the proposed areas of excavation for approval by the engineer for Metra. Written authorization or a permit from the solid waste disposal facility or landfill is required prior to removing any material from the site.</p> <p>If the disposal site is on private property, Metra shall be given a copy of written permission from the property owner allowing the excavation.</p>



X. Public Outreach and Agency Coordination

Public Outreach

In addition to the public meeting, Metra and UP have held stakeholder meetings with local officials to discuss the Project. Table 13 below contains a list of these meetings.

Table 13 – Stakeholder Meetings

Date	Municipality/Agency	Representative(s)
10/8/15	Forest Preserve District of Kane County	Park District staff
10/8/15	Geneva Park District	Forest Preserve staff
3/21/16	City of Geneva	Mayor, Council Members, General Public
4/7/16	City of Geneva	City of Geneva Staff
5/13/16	Geneva Park District	Park District staff
5/13/16	Forest Preserve District of Kane County	Forest Preserve staff

Agency Coordination

Metra coordinated with federal, state, and local agencies as a part of the UP-W Third Mainline Eastern Section Project. Table 14 includes a summary of agency coordination to date.

Metra met with the Geneva Park District and the Forest Preserve District of Kane County to coordinate temporary occupancy of their properties as part of the Section 4(f) process as part of the Section 4(f) process which is documented in the March 2017 *Evaluation for Section 4(f) Considerations for Temporary Occupancy* memorandum. See Appendix B-3 for the memorandum.

Additional local parties and tribal nations were contacted as a part of the Section 106 process and are documented in the April 2017 *Section 106 Technical Report Union Pacific West Third Mainline Project, Western Section*. See Appendix B-2 for the report. Additional coordination would occur during the final design and construction phases of the Project, as needed or required, with these agencies.

Table 14 - Agency Coordination

Agency	Correspondence Date	Appendix
Ms. Claire Bozic Chicago Metropolitan Agency for Planning 233 South Wacker Drive, Suite 800 Chicago, IL 60606	1/12/16	Appendix B-1
Dr. Rachel Leibowitz Illinois Historic Preservation Agency Preservation Services Division 1 Old State Capitol Plaza Springfield, IL 62701-1507	6/6/2017	Appendix B-2
Ms. Monica Meyers Forest Preserve District of Kane County 1996 Kirk Road Geneva, IL 60134	1/31/2017	Appendix B-3
Ms. Sheavoun Lambillotte Geneva Park District 710 Western Avenue Geneva, IL 60134	1/26/2017	Appendix B-3
Ms. Melyssa Navis U.S. Army Corps of Engineers, Chicago District 231 South LaSalle Street, Suite 1500 Chicago, Illinois 60604	12/9/2015	Appendix B-4
Mr. Nathan Grider EcoCAT Illinois Department of Natural Resources One Natural Resources Way Springfield, IL 62702	9/2/2015 10/5/2015	Appendix B-5
Section 7 Consultation U.S. Fish and Wildlife Service 1250 South Grove Avenue, Suite 103 Barrington, IL 60010	7/28/2017	Appendix B-6