

ENVIRONMENTAL REVIEW

**Metra Union Pacific North Line Bridges
Chicago, Illinois**

Metra Project Number: 2112

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February 4, 2011
Revised June 7, 2011

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1.0 INTRODUCTION

According to the August 28, 1987 Federal Register, Title 23, Chapter 1, Subchapter H, Part 771: Environmental Impact and Related Procedures, Section 771.117: Categorical Exclusions: “Categorical Exclusions (CEs) are actions which meet the definition contained in 40 CFR 1508.4, and, based on past experience with similar actions, do not involve significant environmental impacts. They are actions which: do not induce significant impacts to planned growth or land use for the area; do not require the relocation of significant numbers of people; do not have a significant impact on any natural, cultural, recreational, historic or other resource; do not involve significant air noise, or water quality impacts; do not have significant impacts on travel patterns; and do not otherwise, either individually or cumulatively, have any significant environmental impacts.”

The Federal Register also states that “the applicant shall submit documentation which demonstrates that the specific conditions or criteria for these CEs are satisfied and that significant environmental effects will not result.” Metra is requesting that this project be classified as a Class II (d)(3&9) Categorical Exclusion.

This document has been prepared to provide a project description and to demonstrate that significant environmental impacts will not occur as a result of this project. Metra has reviewed the requirements of FTA Circular 5620.1 and has reviewed all 19 environmental factors for Environmental Assessments as well as “Environmental Justice” and “Hazardous Materials” in accordance with the Guidelines in the circulars.

In addition to site visits, Metra has reviewed various natural resource databases, including the National Wetlands Inventory (NWI), Flood Insurance Rate Maps, the Directory of Illinois Nature Preserves, and the federal and state endangered species lists. The City of Chicago supports this project and has participated in its development.

Upon completion of this review, Metra has determined that only certain factors, including noise and vibration, historic properties and parklands, construction, aesthetics, community disruption, and hazardous materials warranted further analysis to demonstrate that no environmental impacts will result. Sections 4 and 5 of this report include a summary table for all factors, as well as detailed information for those six factors that warranted further analysis. Metra has also coordinated with the appropriate government agencies, including the U.S. Fish and Wildlife Service (USFWS), the Illinois Department of Natural Resources (IDNR), the Illinois Historic Preservation Agency (IHPA), and the Chicago Metropolitan Agency for Planning (CMAP). The documentation of this coordination is included in Appendix B of this report.

2.0 NEED FOR AND DESCRIPTION OF PROPOSED ACTION

Metra is proposing to replace eleven (11) railroad bridges and upgrade the existing Ravenswood train station within the Union Pacific (UP) North Line right-of-way (ROW). Additionally the west side of Ravenswood Avenue (which runs parallel to the UP North Line) will be converted from two-way to one-way southbound traffic to increase green space and improve traffic flow. These improvements are located within the City of Chicago. The southern limit of the project is Grace Street and the northern limit is W. Bryn Mawr Avenue (see Figure 1). In addition to the bridge replacements both existing railroad tracks will be reconstructed and shifted to the west and a retaining wall will be constructed along portions of the western edge of the UP right-of-way. The retaining wall varies in height between 3 to 17 feet.

All of the proposed construction will occur within the UP right-of-way or within the City of Chicago right-of-way. The Ravenswood train station is located along both sides of the RR tracks between W. Leland Avenue and W. Lawrence Avenue. N. Ravenswood Avenue is located directly west and east of the UP right-of-way and runs parallel to the UP tracks. The upgraded Ravenswood station and adjacent platforms will require easements from the City of Chicago along both the west and east sides of the UP right-of-way within the Ravenswood parkway. The project is approximately 13,250 feet long. The UP right-of-way has a typical width of 66 feet. No existing buildings will be impacted by the proposed construction. All proposed roadway improvements to Ravenswood Avenue will occur within the City of Chicago right-of-way.

The existing railroad bridges are over 100 years old and in poor condition. These bridges can no longer be economically repaired and maintained. Replacement of these bridges is required to ensure continued ridership and public safety. Currently there is no station building at the existing Ravenswood train station. The present station consists of platforms adjacent to the tracks and wind shelters. The proposed improvements will include a building at the station to allow riders to wait inside for trains and increased amenities such as ticket sales. The platforms will also be lengthened to allow more efficient boarding by commuters. The station improvements are designed to provide more comfortable conditions and additional services for riders. Additionally Americans with Disabilities Act (ADA) access for riders with limited mobility will be incorporated into the new station design. No increase in ridership is anticipated as a result of the proposed improvements however the improvements will accommodate future growth in ridership. Figure 2 represents an architect's rendering of the proposed improvements to the Ravenswood commuter station.

Ravenswood Avenue is directly adjacent to the west side and east side of the UP right-of-way and runs parallel to the UP North Line. Currently the west side of Ravenswood Avenue along the UP North Line project limits is partially 2-way traffic and partially one-way southbound. The portions that are two-way have very narrow lanes widths with head-in parking. This results in difficult parking maneuvers. The east side of Ravenswood is primarily one-way traffic northbound. No changes are proposed along the east side. The west side of Ravenswood Avenue will be converted to all one-way traffic in the southbound direction from Grace Street to Foster Avenue and parking will be revised (in most cases) from head-in spaces to angled parking spaces. This will result in better traffic flow, more green space, less unsightly retaining walls and safer traffic patterns.

Metra has conducted several public involvement activities related to this project to keep the public, the riders, and the City of Chicago up to date on the proposed construction and schedule changes including: printed materials and flyers with project information made available to all riders and affected parties, three regional public forums held in Waukegan, Lake Forest, and Evanston and outreach to public officials including City of Chicago Aldermen Gene Schulner and Patrick O'Connor, and other municipal officials along the Metra/UP North Line. Additionally, Metra has made presentations to the media and provided project information on their website. Metra will continue this public outreach program as the project moves forward. Documentation for the public outreach program is included in Appendix B.

3.0 ALTERNATIVES TO THE PROPOSED ACTION

Due to the fact that the existing railroad bridges are in such poor condition, there is no alternative to replacing them. The Metra/UP North Line is an existing, well-established Metra/UP commuter rail line that cannot be relocated or closed without causing severe commuter disruption.

There are two existing railroad tracks. During construction, a new track will be constructed to allow two tracks to remain open at all times so that regular service is not disrupted. After the new track is constructed, one of the existing tracks will be closed and reconstructed, with trains operating on the new track and the one remaining existing track. Once the new second track is constructed, trains will be routed on the two new tracks and the remaining existing track will be removed.

Metra's original construction plan for the bridge reconstruction project called for inbound and outbound trains to share a single track from Addison to Peterson (approximately 3 miles) within the 3.7-mile construction zone. Under the pre-construction train schedule, trains traveling north and trains traveling south pass each other, or "meet," near the Ravenswood Station. In order to facilitate single-track operation, the schedule was adjusted so that train meets would occur near the Rogers Park and Clybourn areas, outside the construction zone. The adjusted schedule compressed the time span between trains, so that trains could be sent in groups in the peak direction, followed by one or two trains in the reverse-peak direction. This resulted in service gaps in the peak direction.

The grouping of trains resulted in crowding and delays, and in an effort to mitigate these issues, Metra developed a revised version of the construction train schedule. Feedback from commuters and officials indicated that the new schedule would also not adequately meet rider needs. Metra determined that under the constraints of single-track operation, it was not possible to solve the scheduling problems in one portion of the line without adversely affecting other areas. Therefore, Metra postponed the bridge reconstruction project until the spring of 2011 in order to revise the construction documents. The two existing tracks will be utilized during phase 1 while a new western track and the western half of the station are constructed. The new western track and the existing eastern track will be used during phase 2 while a new eastern track is constructed. The new western track and the new eastern track will be used in phase 3 while the old eastern track is

demolished and the east portion of the station is completed. This proposed phasing will allow 2 tracks to remain operational at all times.

4.0 SCREENING OF ENVIRONMENTAL FACTORS

Metra has reviewed all 19 environmental factors as specified in FTA Circular 5620.1 as well as “Environmental Justice” and “Hazardous Materials”. This review and assessment indicates that only certain factors, including noise and vibration, historic properties and parklands, construction, aesthetics, community disruption, and hazardous materials warranted further analysis. Table 4.1 summarizes the analysis of each factor and any impacts or mitigation that may be required.

**TABLE 4.1
SUMMARY TABLE OF ENVIRONMENTAL FACTORS**

Environmental Factor		Mitigation Required	Analysis
4.A	Land Acquisition / Displacements	NO	All of the proposed improvements will occur with the existing UP or the City of Chicago right-of-ways.
4.B	Land Use & Zoning	NO	The zoning for the Ravenswood train station area was recently changed from Residential Single-Unit (RS3) to Transportation (T). See Figures 3A and 3B in Appendix A, and the zoning reclassification documentation in Appendix C. No rezoning was required for the remainder of the project.

Environmental Factor		Mitigation Required	Analysis
4.C	Air Quality	NO	<p>This project is included in the FY10-15 Transportation Improvement Program (TIP) which has been endorsed by the Chicago Metropolitan Agency for Planning (CMAP) and the Metropolitan Planning Organization (MPO) for Northeastern Illinois. The FY10-15 was accepted by the USDOT and was considered to be consistent with the 2040 Regional Transportation Plan endorsed by the MPO Policy Committee for NE Illinois and the CMAP. On October 25th, 2010, the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) determined that the 2040 Regional Transportation Plan conforms to the State Implementation Plan (SIP) and the transportation requirements of the 1990 Clean Air Act Amendments. Additionally, the FHWA and FTA determined that the FY10-15 TIP also conforms to the SIP and Clean Air Act Amendments. In a letter dated December 1, 2010, CMAP indicated that this project is consistent with the information used for the TIP conformity analysis and conforms to the existing SIP and the transportation related requirements of the 1990 Clean Air Act Amendments. (See letter in Appendix B.)</p>

Environmental Factor		Mitigation Required	Analysis
4.D	Noise and Vibration	YES	<p>Three townhome buildings just south of Winnemac Ave., located just west of the western UP ROW, will be impacted by noise (see Figure 4 within Appendix A). Noise impacts can be mitigated with a 350 foot long, 8 foot high noise barrier wall. The wall will be installed along the west ROW starting just south of the Winnemac Ave. bridge and continuing south 350' along the 3 existing townhomes that are affected. The townhome residents have been given the option to vote whether they are in favor or against the installation of the noise wall. If a majority vote against the installation of the noise wall, it will not be constructed. See section 5.1 for details.</p> <p>Vibration impacts are generated in 4 end units within the 2 townhome buildings closest to the ROW (2 end units in each townhome building). The vibration impacts will be mitigated by the installation of special concrete ties with resilient pads attached under the ties. This treatment will start just south of the bridge and extend 300 feet southward on the outbound (western) track. In order to enhance service at the Ravenswood station Metra will change the current schedule to require the two nighttime (10 pm to 7 am) express trains to stop at the Ravenswood station. This service enhancement results in a significant train speed reduction at the townhomes and brings the nighttime vibration level below impact levels. See Section 5.1 and Appendix C.</p>

Environmental Factor		Mitigation Required	Analysis
4.E	Water Quality	NO	The closest body of water is an existing detention basin located just northwest of the northern project limit within the Rosehill Cemetery. No portion of the project outlets or drains to this facility. The nearest stream, the North Shore Channel, is over 5,000 feet west of the project limits. Existing drainage patterns will be maintained and during construction water quality will be protected by management of soil erosion and sedimentation in accordance with the applicable provisions of the latest Illinois Urban Manual.
4.F	Wetlands	NO	There are no wetlands located within or adjacent to the project limits. The NWI map was consulted (see Figure 5) and a field visit was conducted on November 3, 2010.
4.G	Flooding	NO	Per the FIRM, there are no floodplain areas within or near the project limits (see Figure 6).
4.H	Navigable Waterways and Coastal Zones	NO	There are no navigable waterways within one mile of the project limits, and the project will have no effect on navigation on any navigable waterway. The project site is not located in a coastal zone.
4.I	Ecologically Sensitive Areas	NO	All of the proposed work within the UP right-of-way and the City of Chicago right-of-way has been previously disturbed to construct the existing facilities. An IDNR EcoCAT project was opened to obtain information on any existing natural resources that may be near the project area. The EcoCAT review results dated November 9, 2010 indicate that no natural resources will be impacted. See IDNR correspondence in Appendix B.

Environmental Factor		Mitigation Required	Analysis
4.J	Endangered Species	NO	An IDNR EcoCAT project was opened to assess information on State listed threatened or endangered species that may exist at or near the project area. Additionally an online USFWS Section 7 consultation was conducted to review this project for any potential impacts. The EcoCAT review results dated November 9, 2010 identified no threatened or endangered species in the vicinity of the project area. The USFWS consultation returned a result of no effect on threatened or endangered species. See Appendix B for IDNR and USFWS correspondence.
4.K	Traffic and Parking	NO	No increase in Metra ridership is anticipated as a result of the proposed improvements, however, the improvements will accommodate future growth in ridership. Therefore, no additional traffic is expected to be generated. The Ravenswood station improvements are being designed to provide a more comfortable and efficient facility for riders not for additional growth. The improvements along the west side of Ravenswood Avenue will result in a small reduction of parking spaces. The benefits of the proposed roadway improvements which include: safer traffic flow and parking maneuvers, more green space, and the addition of a sidewalk far out weigh the small reduction in parking spaces. See Appendix C for Metra ridership and mode of access data for the Ravenswood station.

Environmental Factor		Mitigation Required	Analysis
4.L	Energy Requirements and Potential for Conservation	NO	The new railroad bridges and upgraded Ravenswood train station will allow the Metra/UP North Line to continue to function efficiently and safely. The replacement bridges will accommodate heavier trains allowing newer and more energy efficient trains to be utilized. The continued service provided by the Metra/UP North Line contributes to energy savings by reducing the number of commuter vehicular trips.
4.M	Historic Properties and Parklands	NO	The IHPA was contacted to review this project for any potential historical impacts. No proposed buildings or parks will be removed as a result of the proposed improvements. In a letter dated 12-3-2010 the IHPA indicated that portions of the project are adjacent to the East Ravenswood Historic District however a finding of no adverse effect was given so long as the plans and specifications are developed in consultation with the IHPA office to ensure adherence to the Standards. See Section 5.2 and Appendix B for IHPA correspondence.
4.N	Construction	YES	All impacts are considered temporary and will be mitigated. See Section 5.3.
4.O	Aesthetics	NO	The proposed retaining wall along portions of the west UP right-of-way line has been reviewed and approved by the City of Chicago and has been designed to be aesthetically pleasing. Proposed landscaping will be installed around the upgraded train station and any existing landscaping that is disturbed by construction activities will be restored. Additionally, the proposed improvements along the west side of Ravenswood Avenue will result in a significant amount of new green space, and reduce the need for additional larger retaining walls. See Section 5.4.

Environmental Factor		Mitigation Required	Analysis
4.P	Community Disruption	NO	In an effort to minimize community disruption, the bridge replacements and track reconstruction will be constructed in phases so that two tracks will remain open at all times allowing for no disruption in existing service. The Ravenswood roadway improvements will be phased so that one lane of traffic will be open during construction. No businesses will be disrupted or displaced and no segment of the community will be isolated. See Section 5.5.
4.Q	Safety and Security	NO	The existing railroad bridges are over 100 years old and are in poor condition. Replacing these eleven bridges will enhance safety and reliability for Metra/UP train operations. Both temporary and permanent lighting will be installed under all eleven bridges and fences will be installed along both sides of the UP right-of-way to enhance safety and security for commuters. Converting the west side of Ravenswood Avenue to one-way southbound traffic will enhance safety by reducing traffic movements at the intersections, providing wider lane widths, and providing angled parking.
4.R	Secondary Development	NO	Due to the fact that the UP train tracks, bridges, train station, and Ravenswood Avenue currently exist, improvements to these existing elements will likely not stimulate any secondary development.
4.S	Consistency with Local Plans	NO	The City of Chicago supports this project and Metra has hosted three public forums, held meetings with several local residents groups to inform the public, and provided printed materials for riders. See Appendix B for supporting documentation. This project is not adding any new elements but simply improving what currently exists.

Environmental Factor		Mitigation Required	Analysis
4.T	Hazardous Materials	NO	Any soil that is exported from the construction site will be tested to determine the appropriate means of disposal. If hazardous materials (verified by the appropriate testing procedures) are encountered during construction, they must be removed and disposed of in accordance with local, state and federal guidelines and regulations. A database review (EDR DataMap Environmental Atlas) was completed to search for hazardous material sites within 0.5 miles of the project corridor, see Section 5.6 and Appendix D.

5.0 FACTORS REQUIRING FURTHER ANALYSIS AND/OR DOCUMENTATION

5.1 Noise and Vibration

Two Noise and Vibration Assessments were performed for this project. In addition a third report was prepared to analyze possible mitigation measures. All three reports were prepared by Harris Miller Miller & Hanson Inc. (HMMH). The first report was prepared in June of 2005 and evaluated existing and proposed noise and vibration levels along the project limits. A 2nd supplemental report was prepared in January of 2011 which evaluated three specific sensitive sites north of the Ravenswood station. The third report presents and evaluates several possible noise and vibration mitigation measures. See Appendix C for the complete reports. In general when construction is complete, the new track configuration will have tracks closer to the right-of-way line on the west side of the corridor. As a result, noise and vibration from trains is likely to increase for land uses on the west side, and to decrease on the east side.

Noise Assessment:

Three sensitive locations on the west side of the tracks were identified for a supplemental assessment for noise and vibration from the scheduled track improvements (see Figure 4 in Appendix A).

- Rogers Park Montessori School is located on the northwest corner of Balmoral Avenue and the Metra/UP North Line tracks. The school is considered a Category 3 noise-sensitive land use and currently sits 46 feet away from the outbound track. The Ravenswood station is closest to this site, located approximately 0.8 miles south. The closest edge of the school building is approximately 35 feet from a bridge.
- Three townhome buildings are located between Winnemac Avenue and Argyle Street west of the tracks. Two buildings are perpendicular to the tracks facing north and south

and one building lies between them parallel to the tracks facing west. The middle building currently sits 47 feet from the outbound track, while the two side buildings sit 33 feet from the outbound track. The side buildings contain 9 dwelling units each and the middle building contains 7 units. The townhome buildings represent Category 2 noise-sensitive land use as they are residential dwellings. The townhome complex is located approximately 0.3 miles north of the Ravenswood station. The northern most townhome building sits approximately 20 feet from the UP Bridge over Winnemac Avenue.

- An industrial site is located on the Northwest corner of Foster Avenue and the Metra/UP North Line tracks. This site is not considered noise sensitive based on FTA criteria, and therefore was not assessed further.

The Metra/UP North Line tracks are proposed to be moved 21 feet closer to the ROW line on the west side as a result of the bridge and track relocations. The new tracks will be approximately 2 feet higher and will use concrete ties on ballast on embankment and all new bridges. Project noise levels were predicted for the noise-sensitive sites at their future distance from the tracks. After the track relocation, Rogers Park Montessori School will be 25 feet from the centerline of the outbound track location. The ends of the two side townhome buildings will be 12 feet, and the middle building façade will be 26 feet from the outbound track location.

To determine an accurate separation of daytime (7 am to 10 pm) and nighttime (10 pm to 7 am) trains for the school and townhomes, focus was given to train pass-by times near the Ravenswood station. The Ravenswood station is located south of the townhomes and the school. All outbound trains (western most track) except express trains stop at the Ravenswood Station before traveling north past the townhomes and the school. The trains that stop at the Ravenswood station were modeled at a speed of 40 mph as they will not have enough time to reach full speed as they travel past the townhomes and the school. Metra trains on an express schedule through the Ravenswood station that do not stop were modeled at a speed of 70 mph.

The FTA noise model was used to predict future noise exposures at each sensitive site. The reference train noise source level of 91 dBA SEL at 50 mph and 50 feet from the track was based on short-term noise measurements conducted in 2005 by HMMH. Noise from trains on the new bridges with ballast and tie track is expected to be less than from the existing bridges based on HMMH's previous measurements in 2005. Consequently, noise from train operations on embankment is assumed to dominate even in the vicinities of the new bridges. The predictions of future project noise levels from the embankments for the school and townhomes can be seen in Tables 5.1 through 5.3

Rogers Park Montessori School:

Rogers Park Montessori School is in operation from 8:30am to 3:15pm. The peak hour of train operations during that time period occurs between 8:30am and 9:30am, and most of the trains are on the inbound track. In accordance with FTA noise impact criteria for Category 3 receivers, train operations in this time period were used to predict the existing and future $L_{eq}(h)$ for the school. Noise impact was assessed separately for the inbound and outbound tracks. The projected noise level in the peak hour for the inbound track is $L_{eq} = 60$ dBA and the outbound track is $L_{eq} = 57$ dBA which, when combined and compared with existing noise of 58 dBA, is just below FTA's noise impact criterion for Institutional land use. Based on the FTA criteria, no

impact will occur at the school due to track improvements. Table 5.1 below shows a summary of the noise impact assessment for Rogers Park Montessori School during morning peak hour operations, including projected existing and future noise levels.

**TABLE 5.1
NOISE IMPACT ASSESSMENT AT ROGERS PARK MONTESSORI SCHOOL
DURING A.M. PEAK HOUR OPERATIONS**

	Existing Project Conditions ¹		Predicted Future Project Conditions ¹		Noise Level Increase	Noise Impact Criteria		Impact Level
	Distance to Near Track	L _{eq} (h)	Distance to Near Track	L _{eq} (h)		Moderate	Severe	
Inbound Track	61	56.6	40	59.5	2.9	5.8	10.7	None
Outbound Track	46	53.9	25	57.3	3.4	6.9	12.1	None
Both Tracks	46	58.5	25	61.6	3.1	5.1	9.7	None

¹ Noise levels are based on Leq(h) and measured in dBA.

Townhouses between Winnemac and Argyle:

The townhomes are considered to be Category 2 receivers with noise measured in terms of L_{dn}. The projected noise level for the outbound track at the nearest ends of the side townhome buildings with full exposure to the track is L_{dn}= 67 dBA, which exceeds FTA’s severe noise impact criterion for residential land use. However, the severe impact will only occur for the dwelling directly beside the track. Furthermore, because there are no windows on this side of the dwelling, the future outdoor project noise level will be reduced inside the dwelling. The other dwelling units in each building will be partially shielded from train noise due to their orientation with respect to the track and as a result of their increasing distances will have a moderate impact. The projected noise level for the outbound track at the middle townhome building is L_{dn}= 64 dBA, which exceeds FTA’s moderate noise impact criterion for residential land use. Tables 5.2 and 5.3 below show a summary of the noise impact assessment for the townhomes, including projected existing and future noise levels. The levels presented are expected to occur at the 2nd floor of the townhomes. The 2nd floor levels present a worst-case scenario for the townhome buildings, as the first floor levels will be lower due to their proximity to the embankment and top-of-rail.

**TABLE 5.2
NOISE IMPACT ASSESSMENT AT NEAREST ENDS OF THE TWO SIDE
TOWNHOME BUILDINGS (2ND FLOOR)**

	Existing Project Conditions ¹		Predicted Future Project Conditions ¹		Noise Level Increase	Noise Impact Criteria		Impact Level
	Distance to Near Track	L _{dn}	Distance to Near Track	L _{dn}		Moderate	Severe	
Inbound Track	48	61	27	64	3.0	1.9	4.7	Moderate
Outbound Track	33	63	12	67.2	4.2	1.6	4.2	Severe
Both Tracks	33	65.1	12	68.9	3.8	1.4	3.6	Severe

¹ Noise levels are based on L_{dn} and measured in dBA.

**TABLE 5.3
NOISE IMPACT ASSESSMENT AT MIDDLE TOWNHOME BUILDING (2ND FLOOR)**

	Existing Project Conditions ¹		Predicted Future Project Conditions ¹		Noise Level Increase	Noise Impact Criteria		Impact Level
	Distance to Near Track	Ldn	Distance to Near Track	Ldn		Moderate	Severe	
Inbound Track	62	59.4	41	61.9	2.5	2.1	5.2	Moderate
Outbound Track	47	61.1	26	64.1	3.0	1.9	4.7	Moderate
Both Tracks	47	63.3	26	66.1	2.8	1.6	4.1	Moderate

¹ Noise levels are based on Ldn and measured in dBA.

Future noise levels from the outbound track after track improvements suggest a strong need for mitigation at the townhomes complex per the Metra policy. Several noise mitigation measures were analyzed in the Noise and Vibration Mitigation Report in Appendix C. After careful review of all of the available mitigation measures, a noise barrier wall along the western UP ROW line has been determined to be the best alternative to mitigate the severe noise impacts.

The proposed noise barrier wall will be 8 feet high and 350 feet long. It will be installed along the western UP ROW starting just south of the Winnemac Avenue bridge and will continue south along the townhome complex for a distance of 350 feet (ending 100 feet south of the most southern townhome building). The barrier is 8 feet high in order to block the line-of-sight from the highest noise source on the train. The noise from the diesel power unit on the locomotive is assumed to be at a height of 8 feet from the top-of-rail. The approximate cost of the proposed noise barrier wall will be \$98,000 assuming the barrier costs \$35.00 per square foot.

Vibration Assessment:

The FTA manual describes how vibration energy emitted by a train propagates through the track support system and transit structure, into the adjacent ground, and finally into foundations of nearby buildings. Ground-borne vibration energy from the UP tracks is also transmitted through the embankment before reaching the adjacent ground. The path the vibration energy travels is important for predicting impact at vibration-sensitive sites. HMMH conducted measurements in 2005 that characterize the path vibration energy travels from the UP tracks on the embankment to nearby receptors. The same three sensitive receptors as discussed above were evaluated.

- Rogers Park Montessori School is located on the northwest corner of Balmoral Avenue and the Metra/UP North Line tracks. The school is considered a Category 3 vibration-sensitive land use and currently sits 46 feet away from the outbound track. The school is a large two story masonry building.
- Three townhome buildings are located between Winnemac Avenue and Argyle Street. Two buildings are perpendicular to the tracks facing north and south and one building lies between them parallel to the tracks facing the west. The nearest foundation of the middle building currently sits 47 feet from the outbound track, while the nearest foundations of the two side buildings sit 33 feet from the outbound track. The townhomes represent

Category 2 vibration-sensitive land use as they are residential dwellings. The townhome buildings are large four story masonry buildings.

- An industrial site is located on the Northwest corner of Foster Avenue and the Metra/UP North Line tracks. Without knowing any vibration-sensitive activities on this site, it is assumed not to be vibration sensitive based on FTA criteria, and therefore was not assessed further.

Future train operations on the Metra/UP North Line are not expected to change greatly from the existing operations. Train schedule and consists are expected to remain the same as existing. The tracks will be moved 21 feet closer to the west side ROW line.

Projections were done with the FTA General Assessment Method to determine potential impacts from overall vibration levels. Where overall vibration levels were projected to exceed FTA general criteria, the projections were refined for vibration spectrum levels and compared with FTA's detailed criteria. Vibration levels used to predict future levels were based on vibration measurements conducted in 2005. For the general vibration assessment, a train maximum overall vibration level of 76 VdB at 50 mph and 75 feet from the track was used to estimate a maximum overall vibration level for 70 mph trains at a distance of 75 feet from the track centerline. Corrections from the FTA guidance manual method were applied to the overall vibration level to account for ground to building coupling loss for large masonry buildings, amplifications due to interior floor resonances, and floor-to-floor attenuation.

For the detailed vibration analysis, 1/3-octave band vibration levels were averaged from measured train on embankment passbys. These levels were then used to predict future overall and 1/3-octave band vibration levels at the sensitive locations. The FTA manual provides more specific corrections for each 1/3-octave band in a detailed vibration analysis. Corrections were applied to measured train vibration levels to account for ground to building coupling loss for large masonry building, amplifications due to interior floor resonances, and floor-to-floor attenuation.

Rogers Park Montessori School:

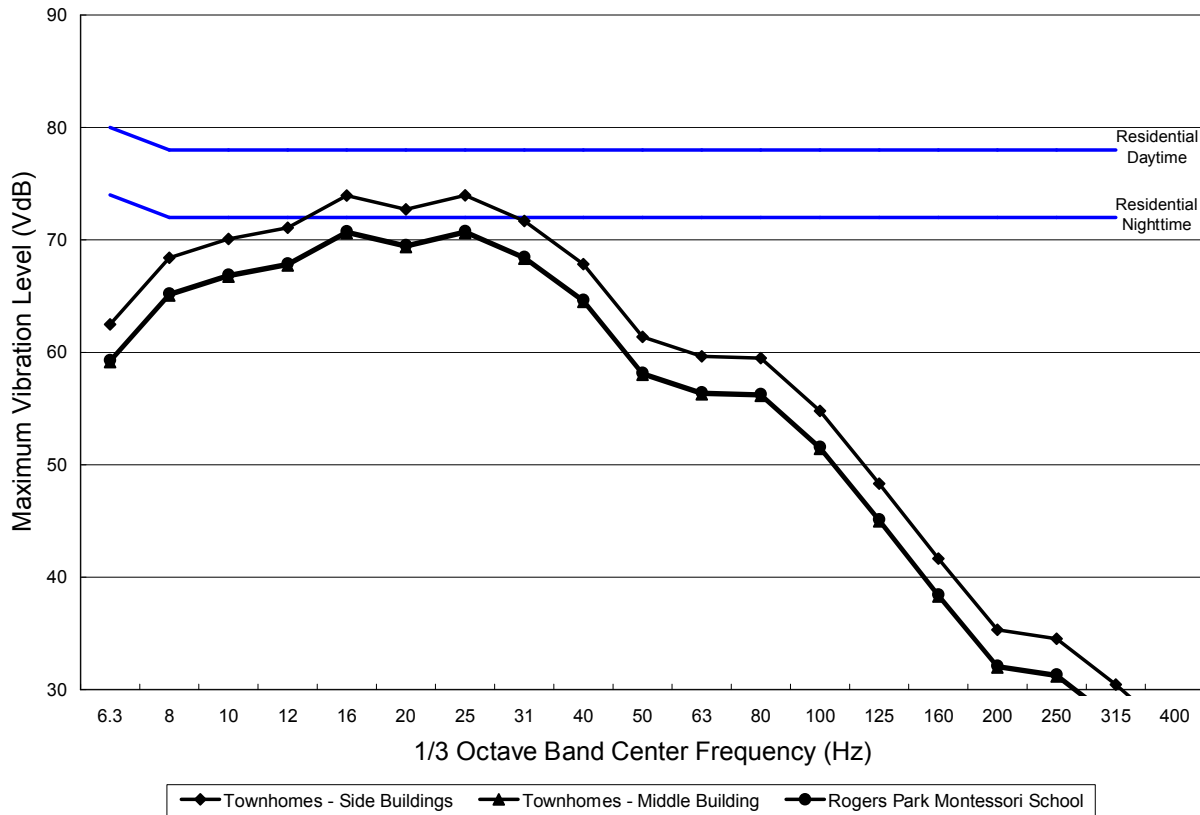
Using a measured vibration level of 76 VdB at 50 mph 75 feet from the tracks, a predicted overall vibration level was found for the first floor of the school after track relocation. The projected overall vibration level is 82 VdB. This level exceeds the criterion of 78 VdB and, according to FTA guidelines, calls for a detailed vibration analysis. Graph 5.1 shows the vibration spectra for the school superimposed on the FTA Detailed Vibration Criteria. The levels show no impact as they are below the FTA criteria for Residential Daytime.

Townhouses between Winnemac and Argyle:

Using a measured vibration level of 76 VdB at 50 mph 75 feet from the tracks, a predicted overall vibration level was found for the townhomes at their future location. At 84 VdB, this level exceeds the criterion of 75 VdB and, according to FTA guidelines, calls for a detailed assessment. The two side buildings were assessed separately from the middle building in the detailed assessment. Graph 5.1 shows the vibration spectra for the side and middle buildings. The levels show no impact for the middle building as they are below the FTA criteria for

Residential Nighttime (10 pm to 7 am). However, the levels in the nearest dwelling units on the two side buildings slightly exceed the criteria in the 16 Hz to 25 Hz 1/3-octave bands.

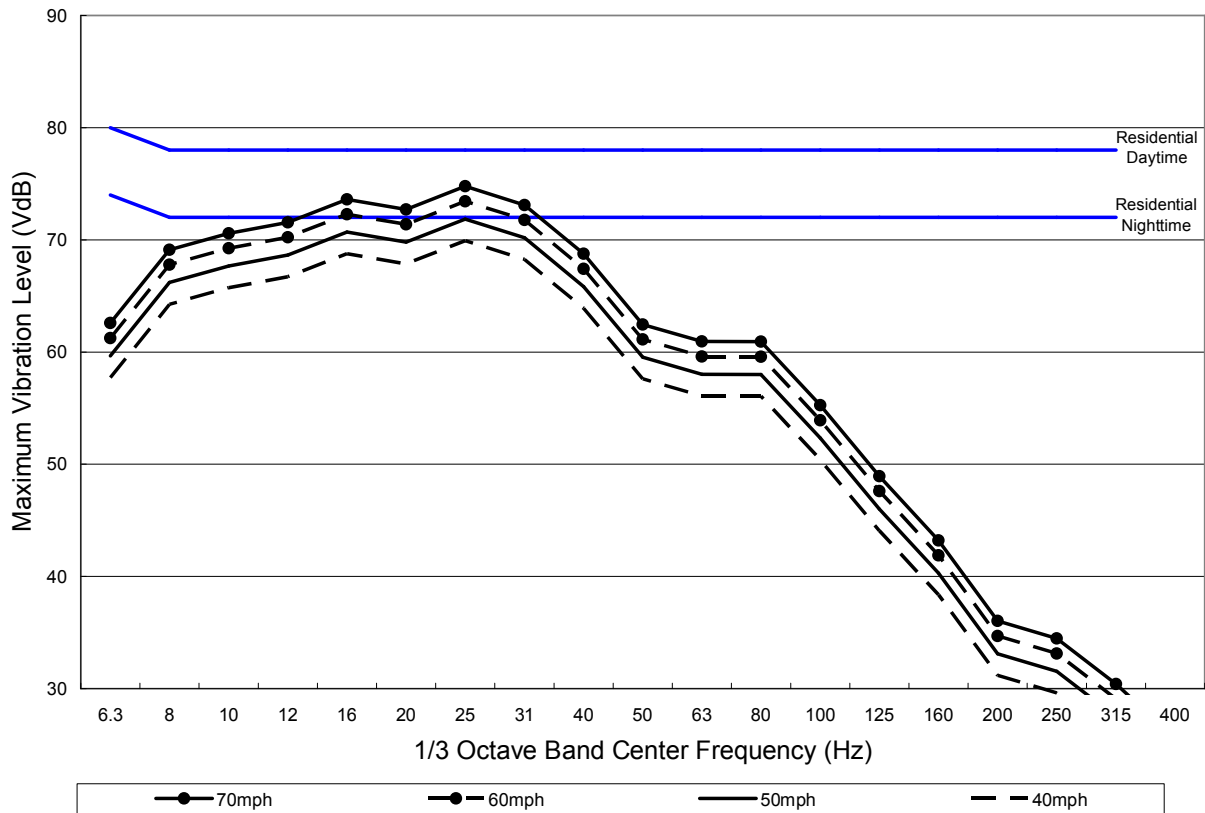
**GRAPH 5.1
PROJECTED EXPRESS TRAIN (70 MPH) VIBRATION LEVELS AT SENSITIVE SITES WITHOUT MITIGATION**



It should be noted that within the nighttime hours of 10 pm to 7 am there are only 2 express trains traveling at 70 mph. It is only these 2 express trains that exceed the residential nighttime vibration criteria. These trains pass by the townhomes at about 6:30 am and 6:40 am just before the nighttime period ends and only affect 4 townhome units within the side buildings. All other nighttime trains stop at the Ravenswood station and as a result the train speed at the townhomes is 40 mph. At 40 mph the residential nighttime (10 pm to 7 am) vibration criteria is not exceeded.

Vibration is strongly affected by train speeds, much more so than noise. The worst case vibration scenario is the express trains running outbound (western track) very early in the morning at a time categorized as “nighttime” by FTA. Express trains run at 70 mph in this section, whereas trains that stop at Rogers Park and Ravenswood are at 40 mph. An analysis of the effect of lowering the speed of the express trains in this section at night was conducted. Speeds ranging from 40 mph to 70 mph were analyzed. The results of speed reductions are shown in Graph 5.2. Vibration impact is eliminated at a speed of 50 mph.

GRAPH 5.2
VIBRATION LEVELS AT TOWNHOMES FOR VARIOUS SPEEDS WITHOUT
MITIGATION



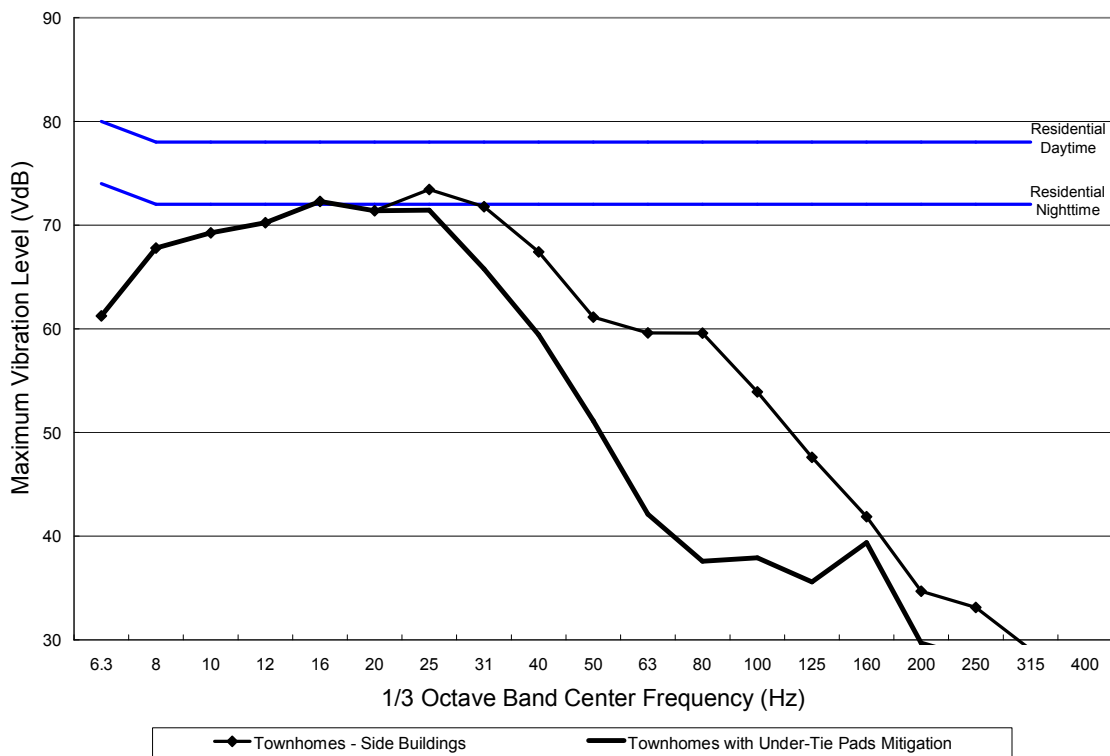
Several vibration mitigation systems were analyzed in the Noise and Vibration Mitigation Report located in Appendix C. After careful review of all of the available mitigation measures, it was determined that the vibration impacts can be eliminated by a combination of speed reduction of the express trains and the installation of special concrete ties with resilient pads attached under the ties. The speed reduction will be accomplished by changing the Metra train schedule to require the two early morning outbound express trains to stop at the Ravenswood station. Regardless of the vibration issues Metra plans to make this schedule change, requiring the two early morning express trains to stop at the Ravenswood station, as a service enhancement due to ridership demand at that station. Doing this will reduce the train speed at the townhomes to 40 mph.

The concrete ties with resilient pads attached under the ties treatment involves a special rubber pad embedded in the base of a concrete tie. The pad serves two purposes: (1) provides a pliable surface to help anchor the ties on ballast; and (2) provides vibration isolation between the tie and the ballast. This relatively simple treatment has been used extensively in Europe. HMMH tested a section of under-tie pads at the Transportation Technology Center's test track in Pueblo, CO, during development of Amtrak's high-speed train. The results showed this treatment to be very effective at frequencies above 25 Hz and its cost is only about 1.2 times the standard concrete tie. In order to mitigate all of the frequencies below the

nighttime (10 pm to 7 am) level it must be combined with the express train speed reduction to 60 mph or less.

The treatment would have to be placed for a distance of 300 feet from the end of the Winnemac bridge southward on the outbound track. The estimated cost is \$12,000 over the standard concrete tie and ballast installation. Graph 5.3 below shows that the proposed combined mitigation treatment lowers the vibration levels below the nighttime criteria and therefore fully mitigates the vibration at the townhomes.

**GRAPH 5.3
TOWNHOMES WITH AND WITHOUT UNDER-TIE PADS ON THE OUTBOUND TRACK AT 60 MPH**



Conclusion:

In order to mitigate noise impacts at the townhome buildings Metra will install a noise barrier wall 8 feet high and 350 feet long. It will be installed along the western UP ROW starting just south of the Winnemac Avenue bridge and will continue south along the townhomes for a distance of 350 feet (ending 100 feet south of the most southern townhome building). In order to mitigate vibration special concrete ties with resilient pads attached under the ties will be installed for a distance of 300 feet from the end of the Winnemac bridge southward on the outbound track. In addition, as a service enhancement, Metra plans to change the train schedule to require the two early morning outbound express trains to stop at the Ravenswood station. Doing this will reduce the train speed at the townhomes to 40 mph. At this speed there are no vibration impacts. In addition, Metra will not allow any future nighttime (10 pm to 7 am) outbound trains (western

track) to travel at speeds over 50 mph. These mitigation measures have been discussed with the townhome residents in two meetings held on March 28 and May 16, 2011. The meeting minutes are included in Appendix B. As a result of these meetings Metra agreed to have noise and vibration levels tested at the townhomes after construction to ensure that the post construction noise and vibration levels predicted in the modeling are not exceeded. Additionally residents requested that the noise and vibration analysis included in this report and prepared by HMMH be reviewed by another qualified consultant. Metra agreed to this request and arranged for Huff and Huff to perform a peer review. The Huff & Huff review confirmed the results and conclusions of the original HMMH studies. The results of this review have been provided to the townhome residents and are included in Appendix C.

At the 1st meeting with the townhome residents some concerns related to the noise wall were expressed and there was some opposition to the wall. At the 2nd May 16th meeting Metra informed residents that they could choose not to have the noise wall constructed if a majority of affected residents vote against it. There are 11 residents that will be impacted by noise. Each of the 11 residents will get one vote and in addition the townhome association will get 1 vote for a total of twelve (12) votes. The 11 impacted units are all 7 units within the middle building and the 2 most eastern end units within each of the end buildings that are perpendicular to the tracks. A majority of these 12 votes would need to be opposed to the noise wall in order to not construct the wall. In addition the townhome association must support the majority vote. If the residents decide on the “no wall” option, Metra indicated that residents would be required to sign a waiver indicating that no legal suit will be filled against Metra for noise impacts.

Before offering the residents this “no wall” option Metra investigated previous legal precedents and reviewed the FTA document “Transit Noise and Vibration Impact Assessment” Guidance Manual, dated May 2006. This manual states that the views of the community cannot be overlooked and that there have been cases where a sound barrier was rejected by community members because of perceived adverse visual effects. Metra is prepared to install the noise wall to fully mitigate noise if the residents vote to install it.

5.2 Historic Properties and Parklands

No proposed buildings or parks will be removed or impacted as a result of the proposed improvements. The Illinois Historic Preservation Agency (IHPA) was contacted to review this project for any potential historical impacts. In a letter dated 12-3-2010 the IHPA indicated that portions of the project are adjacent to the East Ravenswood Historic District however a finding of no adverse effect was given so long as the plans and specifications are developed in consultation with the IHPA office to ensure adherence to IHPA standards. Metra will submit plans and specifications to IHPA when they become available. See Appendix B for IHPA correspondence.

5.3 Construction

Construction is scheduled to begin in the spring of 2011 and end in the summer of 2014. Construction will occur in three phases. Phase 1 will include constructing bridges and retaining walls along the west side of project along old track 0 while simultaneously building the west half

of the new Ravenswood station. The proposed improvements to Ravenswood Avenue will also occur at this time. Once this has been completed the new track 1 will be constructed immediately west of the existing tracks. Trains will then be switched from old track 1 to new track 1. Phase 2 will include constructing bridges for new track 2 (between new track 1 and old track 2). Once this is complete new track 2 will be constructed. Trains will then be switched from old track 2 to new track 2. Finally phase 3 will include the demo of the old track 2 bridges and the construction of the east half of the new Ravenswood Station. Construction activities will have some temporary impacts which shall be mitigated as described in the following sections:

Noise: Noise resulting from the construction activities will be temporary. The construction specifications shall address the construction noise level factors and procedures, and will conform to any federal, state and/or local regulations, including related sections of the latest Occupational Safety and Health Administration (OSHA) standards.

Disruption of utilities: Proper notification of planned utility disruptions, in advance of construction, will mitigate any possible effects.

Disposal of debris and spoil: The proposed plans specify fill to be imported to elevate the railroad tracks. No spoils are expected to be removed from the site. If a condition should arise that requires soil to be removed from the site, the contractor will conform to all applicable state and local regulations when disposing of unsuitable or unusable soil or debris. All landscape debris shall undergo compost treatments prior to landfill disposal, as regulated by the State of Illinois. The removal of any material determined to be hazardous or contaminated waste will use procedures as regulated by state and local authorities.

Water quality and runoff: Water quality will be protected by management of soil erosion and sedimentation in accordance with the applicable provisions of the latest Illinois Urban Manual. Reference to and incorporation of these provisions shall be included in the construction documents.

Access and distribution of traffic: During construction there will be temporary street closures related to the bridge replacements. All required street closures will be permitted through the City of Chicago and will have clearly marked detour routes. Construction will be phased to minimize these disruptions. Information regarding these temporary closures will be communicated to the surrounding residents and businesses via public meetings, Metra's website, email blasts, and printed materials. Existing pedestrian viaducts under the railroad tracks will be left open during construction. Additionally, one lane of traffic will be available along the west side of Ravenswood Avenue during construction.

Air quality and dust control: The Illinois Urban Manual contains design guidelines to address dust control on construction sites. The project construction documents shall indicate when dust control is needed and identify the appropriate industry standards to be used.

Safety and Security: Safety measures to be taken during construction include posting signs to inform the public of construction activities and erection of non-intrusion fencing. The

construction documents will state the contractor's responsibility for controlled access, safety and security of commuters, as well as individuals working or visiting the site.

Disruption of businesses: During construction, some nearby businesses will be temporarily inconvenienced. However, access to all businesses will be maintained. No businesses will be required to close and customers will have access to these business locations.

Construction Mitigation Measures

The following measures have been identified as being capable of mitigating all anticipated construction impacts:

- Timely location and notification of utilities.
- Phased street closures with clear detour routes communicated to the public in advance of closure.
- Contract specifications and provisions incorporating noise, erosion control and sedimentation control in accordance with the Illinois Urban Manual and "Procedures and Standards for Urban Soil Erosion and Sedimentation Control in Illinois (Green Book)."

5.4 Aesthetics

The proposed bridge replacements and railroad track reconstruction are not expected to have a significant aesthetic impact on the surrounding areas as these structures currently exist. The existing bridges are very old and somewhat unattractive. The new bridges once installed will be an aesthetic enhancement. There are three elements associated with the proposed construction that will alter the existing aesthetics: the Ravenswood train station modifications, the proposed retaining walls, and the Ravenswood Avenue improvements. All of the Metra improvements have been discussed with the local authorities and aldermen, and three public forums were held to discuss the project with residents and riders. An architect's rendering of the proposed improvements to the Ravenswood train station, as well as the retaining wall finish and appearance, has been approved by the City of Chicago. The improvements to Ravenswood Avenue will result in less pavement, more green space, a reduced need for larger retaining walls and will result in an aesthetic enhancement.

5.5 Community Disruption

During construction there will be temporary street closures related to the bridge replacements. All required street closures will be permitted through the City of Chicago and will have clearly marked detours. Construction will be phased to minimize these disruptions. Information regarding these temporary closures will be communicated to the surrounding residents and businesses via public meetings, Metra's website, email blasts, and printed materials. Existing pedestrian viaducts under the railroad tracks will be left open during construction. One lane of traffic will be available during the construction of Ravenswood Avenue roadway improvements. Any disruptions that may occur will be temporary disruptions related to construction activities.

The proposed improvements will not cause any permanent disruptions but will in fact enhance the public transportation system.

5.6 Hazardous Materials

The construction plans call for imported fill and for some soil export. Some of the existing soils are not appropriate to be used as fill and will therefore be exported. Soil that is exported will be tested to determine the appropriate means of disposal. If hazardous materials (verified by the appropriate testing procedures) are encountered during construction, they must be removed and disposed of in accordance with local, state and federal guidelines and regulations. V3 reviewed a regulatory radius search report prepared for the project site by Environmental Data Resources, Inc. (EDR). The report includes information from environmental databases and from state and federal agencies. The report includes information on: Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS), National Priority List (NPL), Leaking Underground Storage Tank (LUST), IEPA Site Remediation Program (SRP), Resource Conservation and Recovery Act (RCRA), Hazardous Waste Sites (HWS), and SPILL sites. The following provides a summary of the database information related to nearby or adjacent sites that have the highest potential to affect the subject site. The sites discussed below are also presented in Table 5.4.

- CERCLIS: No sites were identified.
- NPL: No sites were identified
- RCRA: A total of 7 RCRA sites were identified on adjacent properties that either currently or formerly operated as a large quantity generator, or a small quantity generator with listed violations. Based on their close proximity, all 7 sites have a potential to impact the project site.
- LUST: A total of 18 sites were identified on adjacent properties. Of those, 10 are closed with a “No Further Remediation” (NFR) status. Based on regulatory status, the closed sites do not represent a potential environmental hazard. The remaining 8 have a potential to impact the project site.
- SRP: A total of 10 sites were identified on adjacent properties. Of those, 8 are closed with an NFR. Based on regulatory status, they do not represent a potential environmental hazard. The remaining 2 have a potential to impact the project site.
- HWS: No sites were identified.
- SPILL: One site is listed on an adjacent property. This site has a potential to impact the project site. SPILL refers to a listing maintained by the IEPA of incidents (spills or releases) that are reported to the Office of Emergency Response

Due to the distance from the project site, the remaining sites listed in the database report are not recognized as potential impact concerns. The complete list of databases reviewed by EDR and a summary of their results are provided in EDR's report in Appendix D.

A Construction Worker's Safety Plan is recommended for workers that will be digging in the areas of concern. Any impacted soils that may be encountered must be exported from the areas of concern and will be handled in accordance with local, state and federal guidelines and regulations.

**TABLE 5.4
ENVIRONMENTAL REGULATORY REVIEW FOR SITES NEAR OR ADJACENT TO
THE PROJECT LIMITS**

Map Key Code	Special Waste Site Program	ID Number	Owner	Product	Status
3	LUST	950140	Linvatec	Fuel Oil	NFR Letter: 10/27/99
5	LUST	923119	Shattuc Properties	Fuel Oil	NFR Letter: 3/24/93
6	(Historic) RCRA LQG	ILD980998751	Tempel Steel Co.	Various	Former Violations
6	LUST	911875	Tempel Steel Co.	Fuel Oil	NFR Letter: 11/6/06
7	SRP	0316035126	Public Media, Inc.	Unknown	Groundwater use restriction/Clean soil barrier
7	LUST	971082	Public Media, Inc.	Fuel Oil	NFR Letter: 10/10/00
8	LUST	912066	Illinois Bell Telephone	Unleaded Gas	NFR Letter: 5/15/07
9	LUST	891486	Illinois Bell Telephone	Used Oil	NFR Letter: 8/8/90
11	LUST	903448	Grotens Metal Forming Systems, Inc.	Non-Petro	NFR Letter: Not Reported
11	LUST	990570	Kim, Yung	Other Petro	NFR Letter: Not Reported
13	SRP	0316035168	Rogers Park Montessori School	Unknown	Groundwater use restriction/Asphalt barrier; NFR Letter: 12/31/07
16	Former RCRA LQG	ILR0000054767	Devon Bank/Delta Precision Circuits	Various	No violations; Current Non-generator
17	SRP	0316035151	Concord	Unknown	NFR Letter: 6/17/02; Concrete Barrier

Map Key Code	Special Waste Site Program	ID Number	Owner	Product	Status
21	LUST	900433	JD Acrylics	Diesel	NFR Letter: Not Reported
23	LUST	922920	Clark Oil & Refining	Gasoline	NFR Letter: Not Reported
24	LUST	921807	Hermitage Art Co.	Fuel Oil	NFR Letter: Not Reported
28	LUST	927228	1801 W. Winnemac Bldg, LLC	Other Petro	NFR Letter: Not Reported
28	(Historic) RCRA LQG	ILD005067913	The Paymaster Corp.	Various	No Violation; Current Non-generator
59	SRP	0316035180	1770 Wilson LLC	Unknown	NFR Letter: Not Reported
61	LUST	980972	Son's Bridle Mfg.	Other Petro	NFR Letter: 11/24/98
69	LUST	20001179	Fencal Bldg.	Other Petro	NFR Letter: Not Reported
74	SRP	0316005567	Boye Needle	Unknown	NFR Letter: Not Reported
83	LUST	20031844	Robert Cox	Other Petro	NFR Letter: 11/22/05
83	(Historic) RCRA LQG	ILD982061541	ASI Sign Systems	Various	Former Violations; Current Non-generator
83	(Historic) RCRA LQG	ILD984866756	Domestic Uniform Rental Co.	Various	No Violation; Current Non-generator
85	SRP	0316005070	Dynascan Corporation	Unknown	NFR Letter: 5/26/05; Groundwater use restriction; Asphalt barrier/Building foundation
99	SPILL	200901069	Backer DePaul Management Co.	Sodium Hydroxide	Area Affected: Soil
101	SRP	0316065006	E.R. Moore & Company	Unknown	NFR Letter: 12/4/09; Groundwater use restriction; Asphalt barrier/Building foundation
105	LUST	992097	Lincoln & Lincoln Garage	Gasoline	NFR Letter: 11/7/02
107	SRP	0316035051	Ravenswood Industrial Building	Unknown	NFR Letter: 4/23/04; Groundwater use restriction; Building

Map Key Code	Special Waste Site Program	ID Number	Owner	Product	Status
					foundation
108	LUST	892316	U.S. Postal Service Addison Carrier	Unleaded Gas	NFR Letter: 1/15/08
113	(Historic) RCRA LQG	ILD984785824	Rainbow Car Wash	Various	Historic Generators: Large Quantity Generator; No Violations; Current Non-generator
113	SRP	0316165028	ACME Development Company	Unknown	NFR Letter: 2/8/02; Groundwater use restriction
113	LUST	20001683	ACME Development Company	Gasoline	NFR Letter: Not Reported
125	(Historic) RCRA LQG	ILR000151670	ComEd-Manhole	Various	No Violations
131	SRP	0316055012	Western Chain Company	Unknown	NFR Letter: 5/17/06; Groundwater use restriction

6.0 ENVIRONMENTAL JUSTICE

6.1 Introduction

Executive Order 12898 (Feb. 11, 1994), Federal Actions to Address Environmental Justice 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. Department of Transportation (DOT) Order, DOT Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (Feb. 3, 1997), establishes procedures for the DOT to comply with Executive Order 12898.

The DOT order states that Environmental Justice must be a separate section in an Environmental Assessment or Environmental Impact Statement. Accordingly, this section clearly states whether there are disproportionate impacts, the extent and magnitude of those impacts, and how those impacts will be avoided or mitigated if practicable. Disproportionately high and adverse human health or environmental effects on minority and low income populations are not anticipated on this project.

6.2 Definitions

The DOT order defines “Low-Income” as a person whose median household income is at or below the Department of Health and Human Services guidelines (Table 6.1). “Minority” is defined as a person who is African American, Hispanic, Asian American, American Indian, Alaskan Native, or Native Hawaiian.

A disproportionately high and adverse effect is that which is predominantly borne by a minority population and/or low-income population or is appreciably more severe than effects suffered by the non-minority and/or non-low-income population. “Adverse effects” is the totality of significant individual or cumulative human health or environmental effects, including interrelated social and economic effects, which may include, but are not limited to:

- Bodily impairment
- Infirmity
- Illness or death
- Air, noise and water pollution and soil contamination
- Destruction or disruption of man-made or natural resources
- Destruction or diminution of aesthetic values
- Destruction or disruption of community cohesion or a community’s economic vitality
- Destruction or disruption of the availability of public and private facilities and services
- Vibration
- Adverse employment effects
- Displacement of persons, businesses, farms, or non-profit organizations
- Increased traffic congestion
- Isolation, exclusion, or separation of minority or low-income individuals within a given community or from the broader community
- Denial of, reduction in, or significant delay in the receipt of, benefits of DOT programs, policies, or activities

6.3 Methodology

Year 2000 U.S. Census data by zip code was examined to determine the number of minority persons and low-income households in the project area. The census data was compared to data for the northeastern Illinois six-county region. Due to the linear nature of the proposed improvements the project area falls within two City of Chicago zip codes (60640 and 60613).

Year 2000 census data was used to determine the number of minority persons in each of the sub categories. The latest available income data is from 2000 and was used to determine median household income, per capita income, and individuals below poverty. In 2004, Health and Human Service Poverty Guidelines indicated that an income of less than \$18,850 for a family of four was considered poverty level.

TABLE 6.1 CENSUS DATA

Year 2000	Northeastern Illinois*		Zip Code 60640	
	#	%	#	%
Total Population	8,091,720	100	74,030	100
White	5,277,480	65.2	38,815	52.4
African American	1,555,013	19.2	14,409	19.5
Hispanic or Latino	1,405,116	17.4	15,792	21.3
Am. Indian / Alaska Native	21,555	0.3	487	0.7
Asian	378,730	4.7	9,936	13.4
Native Hawaiian / Pacific Islander	3,447	0	100	0.1
Some other race	670,919	8.3	7,091	9.6
Two or more races	184,576	2.3	3,192	4.3
Median Household Income	\$51,995	n/a	\$32,466	n/a
Per capita Income	\$25,082	n/a	\$22,004	n/a
Individuals below poverty level	841,175	10.4	16,980	22.9

Year 2000	Northeastern Illinois*		Zip Code 60613	
	#	%	#	%
Total Population	8,091,720	100	50,548	100
White	5,277,480	65.2	38,933	77.0
African American	1,555,013	19.2	4,335	8.6
Hispanic or Latino	1,405,116	17.4	6,589	13.0
Am. Indian / Alaska Native	21,555	0.3	143	0.3
Asian	378,730	4.7	2,873	5.7
Native Hawaiian / Pacific Islander	3,447	0	48	0.1
Some other race	670,919	8.3	2,686	5.3
Two or more races	184,576	2.3	1,530	3.0
Median Household Income	\$51,995	n/a	\$48,381	n/a
Per capita Income	\$25,082	n/a	\$38,034	n/a
Individuals below poverty level	841,175	10.4	5,237	10.4

*Defined as aggregate of six county area of Cook, DuPage, Kane, Lake, McHenry, & Will Counties

The analysis shows that within the 60640 zip code area there are higher concentrations of Asians and Hispanic or Latinos as compared to the whole of northeastern Illinois. In the 60613 zip code there are lower concentrations of African Americans and Hispanic or Latinos as compared to the whole of northeastern Illinois. The 60640 portion of the project area has a higher percentage of individuals below the poverty level than the whole of northeastern Illinois.

Anticipated impacts as a result of the project are minor, limited with respect to construction. As stated in Section 4 and discussed in Section 5, these effects are temporary and will be mitigated. The project may have beneficial effects to minority populations by providing enhanced transit facilities.

7.0 LIST OF AGENCIES AND PERSONS CONTACTED

The table below provides a list of the agencies and persons consulted for information regarding possible impacts of this project and the status of inquiry. Correspondence appears in Appendix B.

**TABLE 7.1
AGENCIES AND PERSONS CONTACTED**

Information Source	Response Received	Document Location
EcoCAT Illinois Department of Natural Resources One Natural Way Resources Way Springfield, IL 62702-1271	November 9, 2010	Appendix B
Section 7 Consultation U.S. Fish and Wildlife Service 1250 South Grove Avenue, Suite 103 Barrington, IL 60010	November 8, 2010	Appendix B
Ms. Anne Haaker Illinois Historic Preservation Agency Preservation Services Division 1 Old State Capitol Plaza Springfield, IL 62701-1507	December 3, 2010	Appendix B
Ms. Claire Bozic Chicago Metropolitan Agency for Planning 233 South Wacker Drive, Suite 800 Chicago, IL 60606-6415	December 1, 2010	Appendix B
Alderman Gene Schulter (47 th Ward)	25 previous meetings with Metra staff and other interested parties as well as ongoing weekly task force meetings	Appendix B
Alderman Patrick O'Connor (40 th Ward)	Two previous meetings with Metra and engineering staff	Appendix B

Note: A complete list of community and/or Aldermanic meetings is included in Appendix B within the Metra UP-North Line Project Public Involvement Plan, see page B-1.

8.0 SUMMARY

All 19 environmental items and environmental justice have been reviewed per FTA Circular 5620.1 for the proposed Metra/UP North Line Bridges project. Based on the information presented in the report, it is concluded that the project can be constructed without adverse impacts to local infrastructure or the physical environment.