Laraway Road Planning and Environmental Linkages (PEL) Study

PEL Report

FAU Route 320 | Report Version 4

July 2022

Chicago Metropolitan Agency for Planning

in partnership with the City of Joliet

Federal Highway Administration and Illinois Department of Transportation

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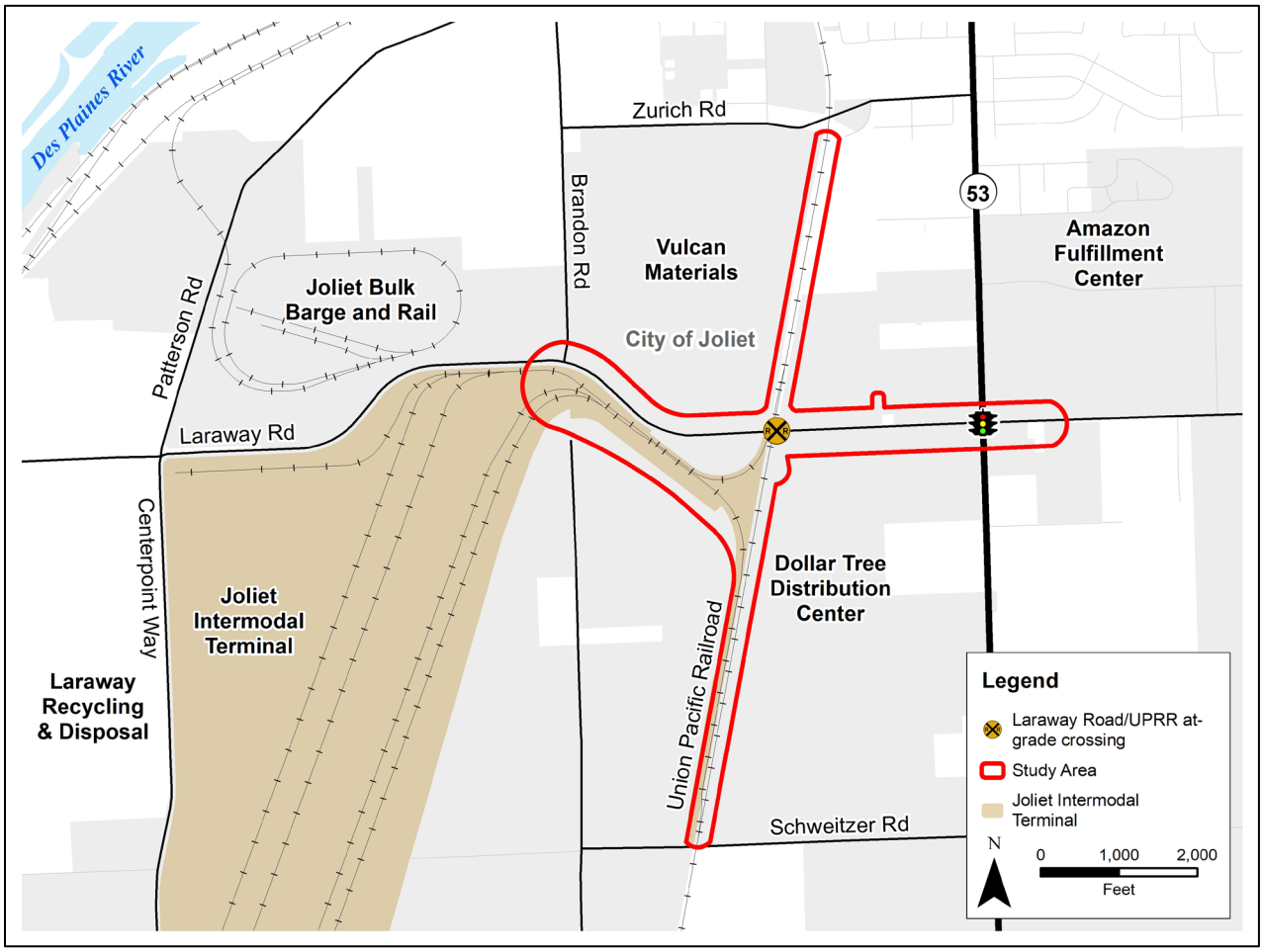
Executive Summary (PEL Questionnaire)

Laraway Road (Brandon Road to IL Route 53) PEL Study Overview

The Chicago Metropolitan Agency for Planning (CMAP), in partnership with the City of Joliet, performed a Planning and Environmental Linkages (PEL) study[1] to evaluate issues and potential solutions at the Laraway Road and Union Pacific Railroad (UPRR) crossing between Brandon Road and Illinois Route 53 (IL 53). The crossing is currently at-grade. This study evaluated options to grade-separate the road from the rail. The study was initiated in February 2020 and was completed in February 2022. In July 2022, the study concluded with a finding of "no more comments" from the Federal Highway Administration (FHWA), Illinois Department of Transportation (Bureau of Design and Environment, Central Office Bureau of Local Roads, District 1 Bureau of Local Roads, and District 1 Bureau of Programming).

The Laraway Road study area is illustrated in Figure ES-1.

Figure ES-1. Laraway Road Study Area



[1] A PEL study is a collaborative approach to transportation decision-making. The study looks at transportation, environmental, community, and economic goals early in the planning process. It uses the information developed during planning to inform subsequent Phase I studies and environmental review process.

The Laraway Road PEL study produced a draft purpose and need statement, range of alternatives, preliminary screening of alternatives and recommendation of alternatives to be carried forward, and a basic description of the environmental setting.

During NEPA, the sponsoring agency needs to make this PEL Report available for review and comment by members of the public, Federal, State, local and tribal governments with an interest in the proposed project, as well as provide notice of its intent to adopt or incorporate, by reference, the content of the PEL Report (23 U.S. Code §168. Integration of planning and environmental review). These steps will enable the sponsoring agency to adopt and incorporate planning analysis and decisions without having to redo the analyses, if the PEL Report is approved within 5-years of the date on which the information is adopted or incorporated by reference to a NEPA study. Updates may be made to the purpose and need statement and alternatives if needed, based on new information.

The anticipated environmental review process during NEPA for Laraway Road is a Federally Approved Categorical Exclusion. The NEPA/404 Merger Process is not anticipated at this time. If the environmental review process during NEPA is identified as an Environmental Assessment or an Environmental Impact Statement, and an individual Section 404 permit were needed, Federal Highway Administration (FHWA) would formally present the PEL study process and findings, and request resource agencies' concurrence on the PEL study's purpose and need, alternatives analysis, and alternatives to be carried forward as part of the NEPA/404 Merger Process.

Purpose of the FHWA PEL Questionnaire

The Federal Highway Administration has developed a questionnaire to serve as a guide for PEL studies. This questionnaire is intended to act as a summary of the planning process and ease the transition from planning to a NEPA study. The questionnaire is consistent with 23 CFR 450 (Planning regulations), including 23 U.S.C. 168 Integration of planning and environmental review, which allows decisions made in the PEL study to be used in subsequent project development consistent with NEPA.

1. Background

a. Who is the sponsor of the PEL study? (state DOT, Local Agency, Other)

   The Chicago Metropolitan Agency for Planning in partnership with the City of Joliet has prepared a PEL study for the Laraway Road grade crossing of the Union Pacific Railroad in Joliet, IL.

b. What is the name of the PEL study document and other identifying project information (e.g. sub-account or STIP numbers, long-range plan, or transportation improvement program years)?

   Laraway Road (Brandon Road to IL 53) Planning and Environmental Linkages (PEL) Study

   FAU 320 at DOT #289771E at-grade rail crossing with Union Pacific Railroad.

c. Who was included on the study team (Name and title of agency representatives, consultants, etc.)?

- Illinois Department of Transportation (IDOT), Kevin Stallworth, Bureau of Local Roads Project Manager
- Chicago Metropolitan Agency for Planning, Tom Murtha, Senior Planner and PEL Study Agency Project Manager
- Chicago Metropolitan Agency for Planning, Michele Agunloye, Communications
- City of Joliet, Greg Ruddy, Public Works Director
- City of Joliet, Russ Lubash, Traffic Engineer and PEL Study Project Manager for Joliet
- Jacobs Engineering Group, Marie Glynn P.E., Consultant Project Manager
- Jacobs Engineering Group, Srikanth Panguluri, P.E., P.T.O.E., Lead Engineer
- Jacobs Engineering Group, Jill Kramer, Senior Environmental Planner and NEPA Policy Specialist
- Jacobs Engineering Group, Carla Mykytiuk, Public Engagement Specialist
- Quandel, Peter Windschmitt, Director of Railroad Operations
- Quandel, Charles Hoppesch, Principal and Rail Operations Manager

In addition, the following additional agency staff at IDOT and FHWA were coordinated during the study:

- IDOT Bureau of Programming: Jason Salley P.E., Corey Smith, P.E., Brenda Alicea, P.E.
- IDOT Bureau of Design and Environment: John Sherrill, Bill Raffensperger, P.E., P.T.O.E.
- FHWA: Irene Pantoja and Matt Fuller

d. Provide a description of the existing transportation facility within the corridor, including project limits, modes, functional classification, number of lanes, shoulder width, access control and type of surrounding environment (urban vs. rural, residential vs. commercial, etc.)

The Laraway Road (Brandon Road to IL 53) PEL study area consists of approximately 1.25 miles of Laraway Road, from Brandon Road to IL 53. The study area also includes the UPRR that crosses Laraway Road, extending approximately 0.75 mile north and 1 mile south of the crossing along the railroad tracks. Refer to Figure ES-1.

Laraway Road is a minor arterial with uncontrolled access and has various road users including passenger cars, trucks, Pace buses, and school buses. Most of the road users are trucks, making up approximately three-quarters of the daily traffic in 2020. One travel lane is provided in each direction with 2-foot-wide shoulders. Some segments include a bi-directional turn lane in the median. The posted speed limit is 40 miles per hour.

Laraway Road crosses the UPRR at-grade. On average, there are 22 trains per day including 10 passenger trains traveling the UPRR track at the Laraway Road crossing. There are three tracks at this at-grade crossing location. The two tracks on the east side primarily serve as through traffic for Amtrak and UPRR trains. The third track on the west side serves as the spur connector to the Joliet Intermodal Terminal. This track was constructed in 2010.

There is a four-quadrant gate at the grade crossing. Backups occur at the crossing when the gates are down, especially due to high truck volumes. There are also serious safety issues as in some cases, passenger cars or trucks attempt to cross the tracks despite the warning signals. This is especially concerning in the eastbound direction where traffic back-up from the Laraway Road and IL 53 intersection can extend to the crossing. Vehicles don't realize the length of the crossing (110 feet) and proceed into the crossing when there isn't enough space to make it through the crossing, and/or trucks don't realize their beds have not cleared the crossing.

The study area is suburban with a large amount of industrial land uses, including Vulcan Materials Company, Gallagher Asphalt Corporation, Zenith Energy, and Dollar Tree Distribution Center. In addition, Laraway Road provides access to the CenterPoint Intermodal Center, North America's largest Inland Port with approximately 6,400 acres, which includes the UPRR's Joliet Intermodal Terminal (785 acres). Agricultural land is also present north and south along the UPRR.

One Pace Bus route provide transit service in the study area:

- **Route 512 – Joliet – CenterPoint.** Provides one morning southbound trip and one afternoon northbound trip on weekdays between downtown Joliet and the CenterPoint Intermodal Center.

In addition to Pace Bus, the study area is within the Laraway Community Consolidated School District 70C and school buses travel along this corridor.

There is a discontinuous sidewalk on the north side of Laraway Road with a 7-foot buffer to the edge of the roadway. The sidewalk originates at Patterson Road (west of the study area) and extends east to the Vulcan Materials Company entrance, where it stops. The sidewalk begins again just west of the UPRR tracks and continues for approximately ¼-mile.

e. Provide a brief chronology of the planning activities (PEL study) including the year(s) the studies were completed.

Prior to the current PEL study, the following planning studies were completed in the vicinity of the study area:

- Village of Elwood, Truck-Route Study (2015) – The study conducted capacity analyses at key intersections in the Elwood and Joliet area and conducted queue observations at the IL 53/Laraway Road intersection.
- CMAP, Northeastern Illinois Priority Grade Crossings (2019) – This study identified 47 priority crossing locations across the Chicago metropolitan area, including the Laraway Road crossing. Refer to Appendix A, *Previous Study, Northeastern Illinois Grade-Crossing Study*.

f. Are there recent, current, or near future planning studies or projects in the vicinity? What is the relationship of this project to those studies/projects?

Other projects in the vicinity of the study include:

- ICC Queue Cutter Traffic Signal – The FY 2021-2025 Crossing Safety Improvement Program identifies the potential to install a queue cutter traffic signal at the Laraway Road and UPRR at-

grade crossing. A queue cutter traffic signal is intended to prevent vehicular queuing across tracks at a highway-rail grade crossing and is activated for one direction of travel by either an approaching train, actuation from downstream queue detection, or coordination with adjacent traffic control signals. However, due to a sight distance issue at the at-grade crossing, the queue cutter traffic signal will not be pursued. The ICC is exploring other active warning sign options that provide the same benefit as a queue cutter traffic signal.

- The Chicago - St. Louis High Speed Rail Program - An improvement underway and anticipated to be complete by 2050 is the implementation of the 110-mph high-speed rail service from Chicago to St. Louis, which will run along the UPRR track and use the Laraway Road at-grade crossing. The project is led by IDOT in collaboration with UPRR, Amtrak, and the Federal Railroad Administration.
- Houbolt Road Extension – The project is a 1.5-mile long extension of Houbolt Road from US 6 to Schweizer Road with a new bridge over the Des Plaines River. Construction is expected to begin in 2021 and be completed in 2023. The roadway/bridge will be tolled and provide access to the CenterPoint Intermodal Center from the north. The project is being completed as a public-private partnership between IDOT, the City of Joliet and the Houbolt Road Extension Joint Venture, LLC (HRE-JV), a business partnership between CenterPoint Properties and United Bridge Partners. HRE-JV is responsible for building and operating the new tolled bridge while IDOT and the City of Joliet will reconfigure the existing interchange with I-80 as well as reconstruct Houbolt Road between I-80 and US Route 6.
- IL 53 (West Arsenal to IL 52), Phase 1 Study (ongoing) - IDOT is currently engaged in preliminary engineering and environmental studies (Phase I) for the improvements of IL 53 from West Arsenal Road to US 52 (Doris Avenue) located in the City of Joliet and the Village of Elwood. The Phase I study was initiated to address safety and operations. The study includes adding right turn lanes at the intersection of IL 53 and Laraway Road and upgrading the existing sidewalk on the east side of IL 53 to a multi-use path.
- Zoning change to 1-I (light industrial) and recent sale of former school at northeast quadrant of UPRR and Laraway Road at-grade crossing. Plans for the property include a new access road at Laraway Road.
- In January 2015, the Illinois Commerce Commission ruled that the Walter Strawn Drive at-grade railroad crossing, located immediately west of IL 53, was too dangerous to remain open while a permanent solution to safety hazards is found. The alternate route to the intermodal facility in Elwood and the Union Pacific Joliet Intermodal Terminal (Global IV) in Joliet is Arsenal Road by way of I-55.
- In December 2020, the Joliet City Council approved plans for the NorthPoint development in Joliet. The NorthPoint development would encompass about 1,625 acres. The proposed development would be in the general vicinity of Hoff Road and east of IL 53. Hoff Road is located approximately 3.7 miles south of Laraway Road.

2. Methodology Used

a. What was the scope of the PEL study and the reason for completing it?

CMAP introduced the PEL study and described the scope of the study at a FHWA and IDOT-BDE coordination meeting on May 5, 2020, as follows: To determine a solution to reduce delays and improve safety at the Laraway Road and UPRR crossing in Joliet, Illinois. This grade crossing was identified as a high-priority location by CMAP as part of the Northeastern Illinois Priority Grade Crossings Study, which was completed in partnership with Cook County, Chicago Department of Transportation, the Illinois Commerce Commission (ICC) and Illinois Department of Transportation (IDOT). Refer to Appendix A, *Previous Study, Northeastern Illinois Grade-Crossing Study*.

b. Did you use NEPA-like language? Why or why not?

Yes, a NEPA-like process was intentionally used such that as funding becomes available for construction, the project can progress directly into a NEPA study. NEPA language was used throughout the process and in the study documents.

c. What were the actual terms used and how did you define them? (Provide examples or list)

The following list of terms and definitions were used in the PEL study:

Purpose and Need – The purpose and need is a detailed statement describing the Purpose for the project and the Need for the project, supported by data.

Logical Termini – The logical termini represent rational end points for evaluating transportation improvements. In determining the project limits, the project team considered end points that would provide sufficient length to address corridor issues on a broad scale. Federal guidance states that the limits must not restrict future consideration of alternatives for other reasonably foreseeable transportation improvements. Further, it states that the limits must have independent utility; that is the project should be able to function and provide benefit even if no other transportation improvements are made.

No Build – The No Build Alternative reflects a scenario should City of Joliet or IDOT select to not build any further improvements than those already being constructed. The No build Alternative is also used as a baseline comparison for alternative development and screening.

Congestion Management Process Alternative – The Congestion Management Process Alternative is required to provide an appropriate analysis of alternatives to the proposal for adding SOV capacity including all reasonable congestion management strategies.

Build Alternatives – This term describes the reasonable range of different solutions developed to address study needs.

Intersection Configuration Options – This term describes the Laraway Road and IL 53 intersection configuration options that were explored. Following a screening of intersection configuration options, the best options were recommended to be carried forward with the Build alternatives.

Screening Process – This term is used to describe the evaluation of alternatives that leads to the selection of appropriate alternatives to move forward for further study. A two-step evaluation process was used for this PEL study.

Alternatives to be Carried Forward – This term describes the alternatives recommended to be carried forward to subsequent NEPA studies based on the screening and evaluation.

Affected Environment – This team refers to the baseline conditions for community and environmental resources in the study area.

Environmental Consequences – This term refers to the direct impacts of the proposed transportation improvements on community and environmental resources in the study area.

Public Involvement– The public and stakeholder engagement program provided opportunities for interested parties to participate in and contribute to the PEL study. The Stakeholder Involvement Plan identified numerous strategies and opportunities to solicit information, ideas and opinions from the public and agencies.

Public Information Meeting – Consistent with IDOT's Bureau of Local Roads & Streets Manual, Chapter 21 requirements, a Public Information Meeting was held on April 14, 2021. Due to COVID-19, the meeting was held virtually using a Zoom Platform. In addition to a formal presentation, participants were able to ask questions of the project team, as well as participate in an open house comment period.

d. How do you see these terms being used in NEPA documents?

The terms used in the PEL study are similar to other NEPA documents produced for FHWA and IDOT in the state of Illinois. It is anticipated that the same terms will be used in the same manner throughout the NEPA study.

e. What were the key steps and coordination points in the PEL decision-making process? Who were the decision-makers and who else participated in those key steps? For example, for the corridor vision, the decision was made by state DOT and the local agency, with buy-in from FHWA, the USACE, and USFWS and other resource/regulatory agencies.

Key steps in the study included:

- Evaluating the transportation system
- Identifying the project purpose and need
- Determining the future design year and the travel demand model
- Developing the range of alternatives and screening criteria
- Identifying the alternatives recommended to be carried forward

The project team met with FHWA and IDOT-Bureau of Design and Environment (BDE) at key milestones throughout the process to receive their input and approval:

- Stakeholder and Public Involvement Plan (refer to Appendix B)
- Existing Transportation System Performance (refer to Appendix C)
- Project Purpose and Need (refer to Chapter 1)
- Alternatives Development and Evaluation Process (refer to Chapter 2)
- Public Involvement Opportunity and Public Information Meeting (refer to Chapter 3)
- FHWA PEL Questionnaire and Report

Table ES-1 identifies FHWA and IDOT-BDE meetings and the topics discussed at each meeting. Appendix D contains a copy of the meeting minutes.

Table ES-1. FHWA and IDOT-BDE Coordination Meetings

Meeting Date	Topics Discussed
5/5/20	PEL study purpose, Northeastern Illinois Grade Crossing Study, transportation challenges in the study area
9/15/20	PEL study background, overview of the draft purpose and need statement, results of the stakeholder survey, clarification of the project sponsor
12/8/20	Review of purpose and need statement, presentation of additional information on the transportation challenges in the study area based on technical analysis and stakeholder input, review of the proposed alternatives to address the transportation challenges in the study area, review of intersection design configuration options at Laraway Road and IL 53
1/5/21	Coordination and approval of the purpose and need statement, review of the range of alternatives and evaluation results, including intersection configuration options at Laraway Road and IL 53
2/9/21	Presentation of the additional intersection configuration options developed and evaluated at Laraway Road and IL 53, presentation of Laraway Road (mainline) alternatives evaluation
3/16/21	Presentation of the upcoming “Public Input Opportunity 2021”, including a review of the Public Information Meeting format and materials to be presented during the meeting
5/4/21	Summary of the Public Input Opportunity 2021, Public Information Meeting, presentation of the PEL Questionnaire and PEL Report, and review of the Alternatives to be Carried Forward Memo (Chapter 2 of the PEL Report).

Meeting Date	Topics Discussed
11/16/2021	Final presentation of the PEL Questionnaire and PEL Report; submittal of final PEL Questionnaire and PEL Report

Resource agencies were invited to participate in the PEL study and provide input on environmental resources or issues of concern in the vicinity of the study that should be considered. Additionally, early coordination letters were sent to elected officials, residents and businesses in the study area. Refer to Appendix E. Comments received during the early coordination process are summarized in Tables ES-2 and ES-3, under Question 3.

A virtual public meeting was held April 14, 2021, to solicit input from the public, resource agencies and other stakeholders interested in the project on the purpose and need, range of alternatives, and alternatives to be carried forward (refer to Appendix F, *Public Information Meeting Summary*).

IDOT and CMAP are the final decision makers for the PEL study with input from the City of Joliet and the stakeholders included on the project's mailing list.

In July 2022, the PEL Study concluded with a finding of "no more comments" from the Federal Highway Administration (FHWA) and Illinois Department of Transportation (Bureau of Design and Environment, Central Office Bureau of Local Roads, District 1 Bureau of Local Roads, and District 1 Bureau of Programming).

f. How should the PEL information be presented in NEPA?

The PEL information has been summarized in the Planning and Environmental Linkages (PEL) Report. The report include technical memorandums and reports, such as the Transportation Systems Performance Report, the Purpose and Need Statement, the Alternatives to the Carried Forward Memorandum, Public Information Meeting Summary, and the Stakeholder Involvement Plan, which document the planning analysis and decisions to carry forward to subsequent NEPA studies. Within 5-years of adoption of the PEL Report, the sponsoring agency can use the planning analysis and decisions as the starting point for the NEPA process. During the environmental review process, the sponsoring agency needs to make the PEL Report available for public review and comment by members of the public, Federal, State, local and tribal governments with an interest in the proposed project, as well as provide notice of its intention to adopt or incorporate by reference the content of the PEL Report (23 U.S. Code § 168. *Integration of planning and environmental review*). During NEPA the project sponsor will verify and confirm that nothing has changed in the project area that would affect the project. These steps will enable the sponsoring agency to adopt and incorporate planning analysis and decisions in NEPA.

3. Agency coordination

a. Provide a synopsis of coordination with Federal, tribal, state and local environmental, regulatory and resource agencies. Describe their level of participation and how you coordinated with them.

Early coordination letters providing early notification of the proposed project were sent to resource agencies, elected officials, and other stakeholders in May 2020 (refer to Appendix E). The letters requested a scoping letter from the resource agencies and elected official describing any environmental resources or issues of concern in the vicinity of the study. Table ES-2 summarizes the agencies that provided an early coordination response letter (refer to Appendix E).

Table ES-2. Response letters from resource agencies and elected officials

Agency	Date	Letter Summary
Will Co Land Use Dept., Historic Preservation Commission	5/27/20	The following sites (most have been demolished) have been identified as "contributing" or as having "local landmark potential". These sites are not locally designated landmarks or listed on the National Register of Historic Places. • 240 Zurich Road. Pyramidal well house is listed as "contributing" • 2430 S Chicago Street (IL 53). Site has local landmark potential
USFWS	5/28/20	USFWS does not have any substantive comments to offer regarding the Laraway Road at Union Pacific Railroad - Planning and Environmental Linkages Study located in the City of Joliet, Will County, Illinois.
Will Co Government League	6/2/20	No immediate concerns
USEPA	6/5/20	USEPA recommends analysis of diesel emissions and their potential impact on nearby receptors under No Build and Build alternatives. (Analysis is included under Question 8.) Additionally, we recommend accessing the following websites to obtain pertinent information on existing project environments and potential project impacts. • NEPAssist (https://www.epa.gov/nepa/nepassist) •
Senator Pat McGuire, 43rd District	6/5/20	Support for the project
Illinois Route 66 Authority	6/5/20	The proposed project has no effect on the historic segment of Route 66.

Agency	Date	Letter Summary
IDNR	6/9/20	Based on a review of our Natural Heritage Database and other available information, the Department has identified no concerns for protected natural resources at this time.
FHWA	6/11/20	FHWA looks forward to working with CMAP and the City of Joliet on this PEL study, we have no specific comments on the project at this time.
Illinois Route 66 Scenic Byway	6/11/20	The Byway indicated that they do not have an interest in this project. Their interests are south of the study area.
Illinois Capital Development Board	6/11/20	No concerns/interests for the project.

A survey was sent to other stakeholders to gather information on issues and travelers' experiences along Laraway Road (Brandon Road to IL 53) and at the Laraway Road railroad grade crossing. Appendix G contains a summary of the survey results.

In October 2021, FHWA issued new guidance for project sponsors to coordinate with interested Native American Tribes at the Purpose and Need and Alternatives to be Carried Forward coordination points. As this project has passed these two milestones, a letter including a copy of the Purpose and Need (Chapter 1) and Alternatives to the Carried Forward (Chapter 2) were distributed on December 22, 2021, to the following tribes for their review and comment:

- Ho Chuck Nation
- Kickapoo Traditional Tribe of Kansas
- Kickapoo Tribe of Oklahoma
- Kickapoo Traditional Tribe of Texas
- Miami Tribe of Oklahoma
- Peoria Tribe of Indians of Oklahoma
- Potawatomi-Citizen Potawatomi Nation
- Potawatomi-Forest County Potawatomi Community
- Potawatomi-Hannahville Indian Community
- Potawatomi-Pokagon Band of Potawatomi
- Potawatomi-Prairie Band of Potawatomi Nation
- Sac and Fox Tribe of the Mississippi in Iowa
- Sac and Fox Nation of Missouri
- Sac and Fox Nation of Oklahoma

One response letter was received from the Pokagon Band of Potawatomi Indians indicating that the project will have no adverse effect on any historic, religious, or culturally significant resources to the Pokagon Band of Potawatomi Indians. Refer to Appendix J, Tribal Coordination.

b. What transportation agencies (e.g. for adjacent jurisdictions) did you coordinate with or were involved during the PEL study?

Coordination occurred with the following transportation agencies:

- Federal Highway Administration (refer to 3.a. above)
- Federal Railroad Administration
- IDOT
- CMAP
- City of Joliet
- Will County Division of Transportation
- Union Pacific Railroad
- Amtrak
- Illinois Commerce Commission
- Pace Suburban Bus
- Regional Transportation Authority

Table ES-3 summarizes the transportation agencies that provided an early coordination response letter.

Table ES-3. Response letters from transportation agencies

Agency	Date	Letter Summary
Amtrak	5/26/20	Union Pacific Railroad as the owner of the infrastructure speaks for all tenant railroads, including Amtrack.
AAA	5/26/20	Stated they do not consider the association a stakeholder in the project.
Pace	6/1/20	Pace operates Route 512 within the study limits. It provides service between downtown Joliet and the various warehouses and distribution centers within and adjacent to the CenterPoint Intermodal Center. 1 early morning and 1 early afternoon run. Pace is supportive of any improvements that would reduce congestion in this area resulting in diminished delays and costs for Pace.
Will County Division of Transportation	6/4/20	Study area issues include significant truck traffic that causes traffic congestion at the Laraway Road and IL 53 intersection; significant backups along eastbound Laraway Road that can extend through and past the railroad crossing; and traffic along westbound Laraway Road

Agency	Date	Letter Summary
		can backup to IL 53 intersection making it problematic for vehicles on IL 53 to turn onto Laraway Road.
Regional Transportation Authority	6/15/20	Stated the agency has no direct interest in the project.

c. What steps will need to be taken with each agency during NEPA scoping?

The same agencies contacted for the PEL study will be contacted at the initiation of a NEPA study, with a reference to their previous involvement on this PEL study. Steps to be taken with the agencies will vary and depend on the potential resources and impacts. Future coordination could include informal consultation with the USFWS to validate prior information, coordination with the Illinois Department of Natural Resources, Historic Preservation Office, or the National Park Service on the "alternate route 66" designation listed on the National Register of Historic Places.

4. Public Coordination

a. Provide a synopsis of your coordination efforts with the public and stakeholders.

CMAP provided numerous public involvement opportunities for interested parties to learn about the project, participate in and contribute to the PEL study, including

- Early coordination letters
- Stakeholder interviews
- Interactive project website
- Traditional project mailings
- Public Information Meeting.

The Stakeholder Involvement Plan for Public and Agency Involvement is included in Appendix B.

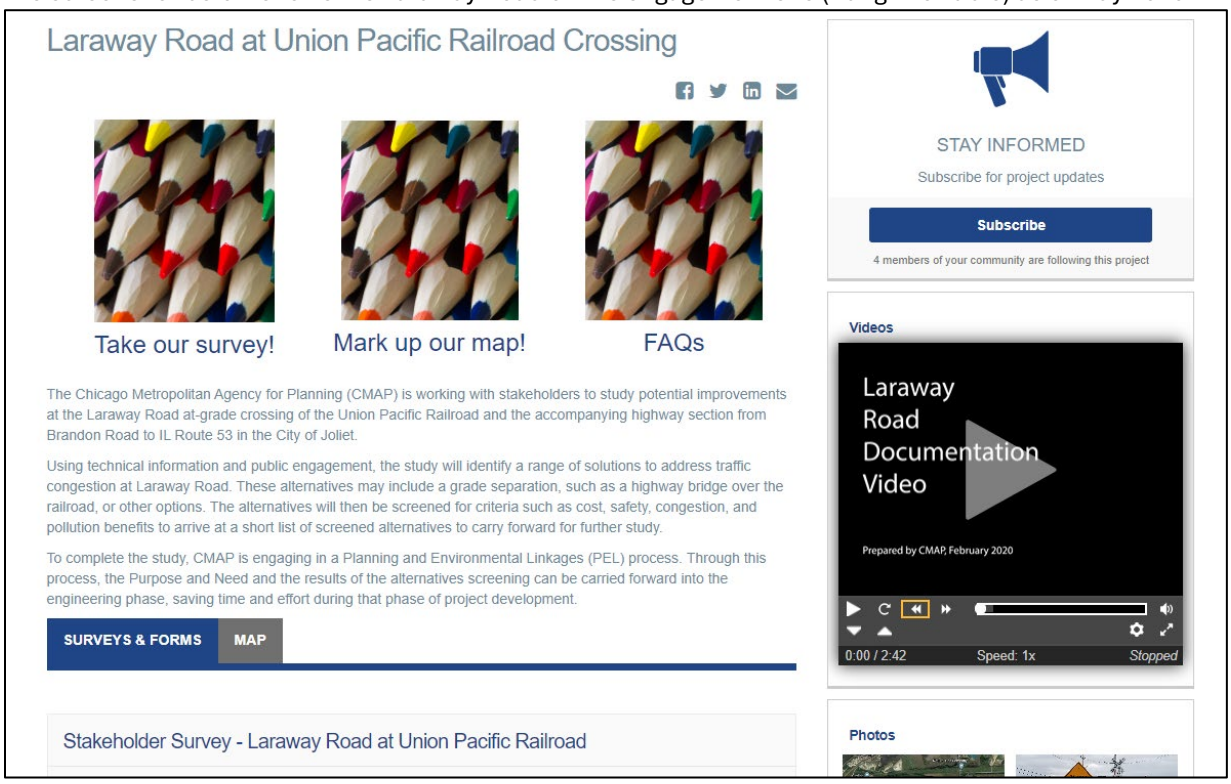
Early coordination letters providing early notification of the proposed project were sent to elected officials, and other stakeholders on the project's mailing list in May 2020, which included a survey to gather information on issues and travelers' experiences at the Laraway Road grade crossing (refer to Appendix E).

The project team conducted stakeholder interviews (approximately 10 individuals) to assist in identifying project constraints and stakeholder interests. During the interviews stakeholders responded

to a draft purpose and need statement, and provided public input to supplement the technical evaluation. The stakeholders included local property owners, organizations, and government officials.

To facilitate engagement during the COVID-19 health crisis, CMAP used an online engagement toolset prepared by EngagementHQ ("Bang the Table"), as well as other "non-virtual" methods such as mailings to stakeholders on the project's mailing list and posting notices at local sites where people with an interested in the project may pass. For example, public notices and project brochures were available at Joliet's City Hall and Stone City VFW Post 2199.

The screenshot below shows the Laraway Road online engagement site (Bang The Table) as of May 2020.



Source: Chicago Metropolitan Agency for Planning

The project's website provided information about the PEL study, a survey to solicit input on study area conditions, an interactive map for stakeholders to post their issues of concern, and project studies and reports. Prior to the Public Information Meeting in April 2021, the website also hosted materials to be presented at the meeting. The EngagementHQ site captured continuous feedback from the public and stakeholders as the PEL study progressed.

Stakeholders and the public were invited to attend a virtual public information meeting on April 14, 2021, through the online webinar platform Zoom, which included an option for stakeholders without

internet access to participate via the phone. During the meeting, attendees were able to learn about the study's goals, purpose and need, and alternatives to be carried forward for further engineering. Further, participants were able to ask questions and receive answers directly from the project team.

Stakeholders were notified in advance of the virtual public information meeting through print and digital advertisements placed in the Joliet Herald News (Herald-News/TheHerald-News.com) on March 31, 2021, and April 7, 2021. An electronic advertisement was also placed on the Herald's website on April 7 through April 13. The City of Joliet and CMAP also provided links to the meeting registration on their agency websites. In addition, meeting brochures were sent to the people/businesses on the project's mailing list, and emails were sent to people/businesses who had provided their email address to the project team. Meeting notices and project brochures were also placed at several locations in Joliet for drivers/residents to learn about the project and obtain meeting information, including Lenny's Route 66 Fuel Stop, Pilot Travel Center, Stone City VFW Post 2199, and Joliet City Hall. Project brochures were also provided to the Illinois Trucking Association to share with their members.

5. Purpose and Need for the PEL Study

a. What was the scope of the PEL study and the reason for completing it?

CMAP described the scope for the PEL study in a FHWA and IDOT coordination meeting on May 5, 2020: To determine a solution to reduce delays and improve safety at the Laraway Road and UPRR crossing in Joliet, Illinois. This grade crossing was identified as a high-priority location by CMAP as part of the Northeastern Illinois Priority Grade Crossings Study, which was completed in partnership with Cook County, Chicago Department of Transportation, ICC and IDOT. Refer to Appendix A, *Previous Study, Northeastern Illinois Grade-Crossing Study*.

b. Provide the purpose and need statement, or the corridor vision and transportation goals and objectives to realize that vision.

The purpose of the project is to improve the efficiency of the study area's transportation system by reducing travel delays along Laraway Road for all users caused by extended gate closures; to improve safety by reducing the potential for trains to collide with vehicles; and to improve the freight network reliability to the intermodal and industrial sites in the study area.

The need for the proposed action is to:

- Improve safety
- Reduce delays
- Improve freight network reliability

The purpose and need statement was reviewed by FHWA and IDOT prior to a coordination meeting held on December 4, 2020. Refer to Appendix D, *FHWA and IDOT-BDE Coordination Meeting Minutes*. FHWA and IDOT had no further comments on the purpose and need statement.

c. What steps will need to be taken during the NEPA process to make this a project-level purpose and need statement?

A goal of this PEL study was to prepare a project-level purpose and need statement that can be transitioned into NEPA. Minimal additional effort is anticipated to make this a project-level purpose and need statement during NEPA study. If new information becomes available during the NEPA process it should be incorporated into the purpose and need statement.

6. Range of Alternatives

Planning teams need to be cautious during the alternative screen process; alternative screening should focus on purpose and need/corridor vision, fatal flaw analysis, and possibly mode selection. This may help minimize problems during discussions with resource agencies. Alternatives that have fatal flaws or do not meet the purpose and need/corridor vision will not be considered reasonable alternatives, even if they reduce impacts to a particular resource. Detail the range of alternatives considered, screening criteria, and screening process, including:

a. What types of alternatives were looked at? (Provide a one or two sentence summary and reference document.)

The following alternatives were considered during the PEL study:

- **No Build:** Under the No Build Alternative, only improvements that are already planned and included in local and regional transportation plans and routine maintenance would be completed. The Laraway Road and UPRR crossing would remain at-grade, and Laraway Road would remain one lane in each direction.
- **Congestion Management Process Alternative**: The Congestion Management Alternative is required to provide an appropriate analysis of alternatives to the proposal for adding SOV capacity including all reasonable congestion management strategies.
- **Grade Separation Alternatives:** All four of the railroad grade separation alternatives included several common components. Most notably, Laraway Road would be reconstructed to provide two thru lanes in each direction with center and right turn lanes at intersections and major driveways. Provisions for a future multi-use trail would be provided along the north side of Laraway Road. In addition, a signalized intersection at Marcella Avenue (which is being implemented as a near term improvement by the City of Joliet), was considered part of the existing condition.
    - **Laraway Road over UPRR:** The Laraway Road over UPRR Alternative would involve Laraway Road bridging over the three sets of railroad tracks, as well as north-south maintenance roads that run parallel to the tracks. New service roads would need to be constructed to access the railroad and the City of Joliet's lift station.

- **Laraway Road under UPRR:** The Laraway Road under UPRR Alternative would involve Laraway Road traveling under (via a tunnel) three sets of railroad tracks and railroad service roads. Lowering Laraway Road would require a new pumping station to remove rainwater that accumulates. Underground utilities within the area would also need to be relocated, including any portion of the City of Joliet's sewage lift station that currently passes below Laraway Road.
- **UPRR over Laraway Road:** The UPRR over Laraway Road Alternative would involve the UPRR bridging over Laraway Road. Approximately 1.5 miles of triple railroad track and the railroad spur into the Joliet Intermodal Terminal would need to be raised and reconstructed.
- **UPRR under Laraway Road:** The UPRR under Laraway Road Alternative would involve the UPRR traveling under Laraway Road. Approximately 1.5 miles of triple railroad track and the railroad spur into Joliet Intermodal Terminal would need to be lowered and reconstructed below grade. During reconstruction, the railroad would need to remain in operation requiring temporary railroad tracks.

Additionally, 11 configuration options at the Laraway Road and IL 53 intersection were evaluated. The Alternatives to be Carried Forward were reviewed by FHWA and IDOT prior to and at a coordination meeting held on February 9, 2021. Refer to Appendix D, *FHWA and IDOT-BDE Coordination Meeting Minutes*. FHWA and IDOT had no further comments on the Alternatives to be Carried Forward.

b. How did you select the screening criteria and screening process?

The screening criteria used to evaluate alternatives were based on traffic operations (mobility and safety), transportation footprint, maintenance of traffic during construction, drainage and utility conflicts, impacts to protected resources (i.e., sensitive resources), construction cost, and constructability. The criteria align with the purpose and need for the project and support the alternatives evaluation process. Refer to Chapter 2 of the PEL Report.

c. For alternative(s) that were screened out, briefly summarize the reasons for eliminating the alternative(s). (During the initial screenings, this generally will focus on fatal flaws.)

In general, during Step 1 alternatives were eliminated based on their lack of ability to meet the project's purpose and need. During Step 2 alternatives were eliminated due to drainage and utility conflicts, requirements for more construction (transportation footprint) to achieve the same benefits, costs, and/or impacts to sensitive resources.

d. Which alternatives should be brought forward into NEPA and why?

The Laraway Road over UPRR Alternative, including intersection configurations options 3, 4 and 7 at the Laraway Road and IL 53 intersection, are recommended to be carried forward to Phase 1 and NEPA studies. Based on the screening process, they represent the best options to address the transportation

challenges in the study area. Refer to Section 2.2.3.2 Evaluate Laraway Road/IL 53 Intersection Configuration Options for more information.

e. Did the public, stakeholders, and agencies have an opportunity to comment during this process?

Yes. CMAP conducted an extensive stakeholder engagement program to provide opportunities for interested parties to participate in and contribute to the PEL study, including opportunities to comment on the purpose and need statement and the development and evaluation of alternatives. The project website was updated continuously throughout the study process with project studies and reports, and a Public Information Meeting was held on April 14, 2021 (refer to Appendix F), where the development and evaluation of alternatives was one of the topics presented and discussed. Comments received prior to, during, and following the public information meeting, including response letters as appropriate, are included in Appendix F, *Public Information Meeting Summary*.

f. Were there unresolved issues with the public, stakeholders, and/or agencies?

No, there are no unresolved issues.

7. Planning Assumptions and Analytical Methods

a. What is the forecast year used in the PEL study?

The forecast year used in the PEL study was 2050.

b. What method was used for forecasting traffic volumes?

The CMAP Travel Demand Model, in combination with existing traffic counts, and engineering principles, was used to develop the forecast traffic volumes. In addition, IDOT developed near term traffic forecasts (2025 and 2027) as part of their ongoing IL Route 53 Phase I Study that were reviewed as part of the forecasting process.

c. Are the planning assumptions and the corridor vision/purpose and need statement consistent with each other and with the long-range transportation plan? Are the assumptions still valid?

Yes. The planning assumptions and the purpose and need statement are consistent with each other and with CMAP's long-range transportation plan ON TO 2050.

d. What were the future year policy and/or data assumptions used in the transportation planning process related to land use, economic development, transportation costs, and network expansion?

The 2050 No-Build condition considers future land use in the region and the anticipated improvements discussed in Question 1.f., such as the Houbolt Road Extension. The high percentage of truck traffic was assumed to continue through the future No-Build condition, and the existing

directional split of traffic was retained. Refer to Appendix C, *Transportation Systems Performance Report* for additional policy and/or data assumptions.

8. Environmental Resources (wetlands, cultural, etc.) Reviewed

For each resource or group of resources reviewed, provide the following:

a. In the PEL study, at what level of detail was the resource reviewed and what was the method of review?

The environmental resources reviewed were selected based on the characteristics of the study area, previous reports, and resource agency and other stakeholder input. The resources considered include:

- Socioeconomic resources
- Agricultural resources
- Cultural resources
- Water resources (water quality, floodplains, and wetlands)
- Special waste
- Special lands

For each resource, readily available geographic information systems (GIS) and other databases, such as the USFWS Information, Planning and Consultation System (IPaC), Illinois Department of Natural Resources (IDNR) Ecological Compliance Assessment Tool (EcoCAT), the IDNR Historic and Architectural Resources Geographic Information System (HARGIS) and the Illinois Natural Heritage Database were reviewed. In addition, the IDOT did an environmental survey request (ESR) records search of its databases (refer to Appendix H, *Environmental Survey Request Records Search*, which includes the ESR Location Map and findings). The ESR records search was conducted in August 2021 for cultural resources, and September 2021 for biological resources. In the next phase of project development (NEPA), a ESR addendum will be submitted for more complete surveys.

b. Is this resource present in the area and what is the existing environmental condition for this resource?

Table ES-4 identifies the resources reviewed during the PEL study, identifies whether or not they are present in the study area, or if this will be determined during NEPA. Additionally, a short description of the resource condition and potential effects is provided.

Table ES-4. Environmental Screening

Environmental Resource Condition	Resource/Condition Potentially Affected?		
	Yes	No	TBD in Subsequent Phases
Socioeconomic Resources			
a. Community Cohesion *There are two isolated residences north along the UPRR near Zurich Road and two isolated*		✓	

Environmental Resource Condition	Resource/Condition Potentially Affected?		
	Yes	No	TBD in Subsequent Phases
residences along Laraway Road, but the project would not bisect any neighborhoods.			
b. Public Facilities and Services *The Stone City VFW Post 2199 is near, but outside the study area, and would not be impacted by the project. No other public facilities and services were identified.*		✓	
c. Changes in Travel Patterns and Access *While the project would improve travel flow in the study area, travel patterns would remain the same. A change in access may occur to the agricultural parcel southeast quadrant of the UPRR and Laraway Road, but access would be maintained to existing properties with each alternative recommended to be carried forward.*		✓	
d. Relocations (Business and Residential) *No relocations are anticipated with the alternatives recommended to be carried forward.*		✓	
e. Economic Impacts *The project is not anticipated to cause business relocations. Therefore, no economic impacts are anticipated.*		✓	
f. Land Use *The project is not anticipated to change land use patterns in the study area.*		✓	
g. Growth and Economic Development *The project is not anticipated to cause economic growth and/or development due to the scale of the project.*		✓	

Environmental Resource Condition	Resource/Condition Potentially Affected?		
	Yes	No	TBD in Subsequent Phases
h. Pedestrian and Bicycle Facilities *A sidewalk is located along portions of Laraway Road. The sidewalk originates at Patterson Road (west of the study area) and extends east to the Vulcan Materials Company entrance, where it stops. The sidewalk begins again just west of the UPRR tracks and continues for approximately ¼-mile. The project is expected to include the extension of this sidewalk to the east through the study area.*	✓		
Agricultural Resources			
a. Farms and Farmland Conversion *The agricultural parcel southeast of the UPRR crossing with Laraway Road could be converted to commercial or industrial use.*	✓		
b. Prime and Important Soils			✓
c. Severed/Landlocked Parcels *None*		✓	
d. Adverse Travel *A change in access may occur to the agricultural parcel southeast of the UPRR and Laraway Road, but access would be maintained to existing properties.*		✓	
Cultural Resources			
a. Archeological Resources			✓
b. Historic Bridges *None*		✓	
c. Historic Districts *None*		✓	

Environmental Resource Condition	Resource/Condition Potentially Affected?		
	Yes	No	TBD in Subsequent Phases
d. Historic Buildings/Roads • *IL 53 is on the National Register of Historic Places* • *2430 S Chicago Street (IL 53). Site has local landmark potential* • *The Illinois State Archaeological Survey thoroughly examined the project area and found no historic resources within or abutting the ESR limits of National Historic Landmark, National Register of Historic Place-eligible, or local landmarks. As noted above IL 53 through the project area is identified as a NRHP-listed resource (NRHP #06000381). Refer to Appendix H of PEL Report.*			✓
Air Quality			
a. Air Quality Impacts *The project is in an 8-Hour Ozone nonattainment area. Air quality impacts will be evaluated in subsequent phases.*			✓
Noise			
a. Noise Impacts *Noise sensitive receptors include two residences north along the UPRR near Zurich Road and two residences along Laraway Road. During the course of the study, one of the residences was listed for sale. Noise impacts will be evaluated in subsequent phases.*	✓		
Natural Resources			
a. Upland Plant Communities *The study area does not include wooded areas (trees) or prairie.*		✓	
b. Wildlife Resources *IPaC identified the bald eagle and three other migratory birds as potentially occurring in the study area (refer to Table ES-3). Additional assessment/survey would occur as necessary in subsequent phases.*			✓
c. Threatened and Endangered Species *The Illinois Natural Heritage Database contains no record of State-listed threatened or endangered species, Illinois Natural Area Inventory sites,*			✓

Environmental Resource Condition	Resource/Condition Potentially Affected?		
	Yes	No	TBD in Subsequent Phases
dedicated Illinois Nature Preserves, or registered Land and Water Reserves in the vicinity of the project. A federally and state listed Rusty patched bumble bee High Potential Zone covers the northern two-thirds of the project area. There are no Rusty patched bumble bee records within four-mile radius of the project area. *Refer to* ***Natural Resources (Wildlife Resources and Threatened and Endangered Species)*** *below this table, and Appendix H of the PEL Report for more information.*			
Water Resources			
a. Water Quality *The proposed project could have a temporary or permanent impact to water quality.*			✓
b. Floodplains *The project does not occur within a 100-year floodplain or Regulated Floodway.*		✓	
c. Wetlands *There are no wetlands in the study area based on readily available data; however, based on a visual inspection the study area may have characteristics of wetland and upland habitat.*			✓
Groundwater Resources			
a. Groundwater Impacts *The public identified drainage issues along Laraway Road, east of the railroad tracks and at the IL 53 intersection. There has been ponding in the median of the IL 53 intersection north leg. IDOT may be addressing some of these drainage issues at IL 53 as part of their near-term improvements (i.e., IL Route 53 Phase I Study).*			✓
Special Waste			
a. Special Waste Impacts *The US EPA consolidated facility information (from multiple EPA systems) identified one potential special waste site in the study area, however the site has received a No Further Remediation (NFR) letter.*			✓

Environmental Resource Condition	Resource/Condition Potentially Affected?		
	Yes	No	TBD in Subsequent Phases
The Illinois EPA Tiered Approach to Corrective Action Objectives (TACO) database identified no sites in the study area.			
Special Lands			
a. Section 4(f) *Pending archaeological survey*			✓
b. Section 6(f) *None*		✓	
c. Open Space Lands Acquisition and Development (OSLAD) Act lands *None*		✓	
d. INAI sites *None*		✓	
e. Nature Preserves *None*		✓	
f. Land & Water Reserves *None*		✓	

Air Quality

During early coordination the USEPA requested an evaluation of diesel emissions. For each build alternative carried forward in this PEL study, the amount of MSAT emitted would be proportional to the amount of truck vehicle miles traveled (VMT) and rail activity, assuming that other variables (e.g., travel not associated with the intermodal center) are the same for each alternative. The truck VMT and rail activity estimated for each of the Build Alternatives carried forward are estimated to be similar to the No Build Alternative. If there were an increase in truck VMT and rail activity associated, which is not forecast as part of this project, it would lead to higher MSAT emissions (particularly diesel particulate matter) in the vicinity of the intermodal center. The higher emissions could be offset somewhat by two factors: 1) the decrease in regional truck traffic due to increased use of rail for inbound and outbound freight; and 2) increased speeds on area highways due to the decrease in truck traffic. The extent to which these emissions decreases will offset intermodal center-related emissions increases is not known.

Because the estimated truck VMT and rail activity under each of the Build Alternatives carried forward are nearly the same, it is expected there would be no appreciable difference in overall MSAT emissions among the various alternatives. Also, regardless of the alternative chosen, emissions will likely be lower than present levels in the design year as a result of USEPA's national control programs that are projected to reduce annual MSAT emissions by more than 90 percent from 2010 to 2050. Local

conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the USEPA-projected reductions are so significant, even after accounting for VMT growth, that MSAT emissions in the study area are likely to be lower in the future as well.

Natural Resources (Wildlife Resources and Threatened and Endangered Species)

USFWS's IPaC database was queried on April 16, 2020, for known or expected species or other resources such as critical habitat on or near the study area. Table ES-7 summarizes the information about migratory birds generated during the search. No critical habitats are known in this area. Additionally, the USFWS provided an early coordination response to the project team on May 28, 2020, indicating that they did not have any substantive comments to offer regarding the PEL study (refer to Appendix E).

Table ES-7. Migratory Birds

Species	Habitat
Bald Eagle (warrants attention due to the Eagle Act) *(Haliaeetus leucocephalus)*	Forested areas adjacent to large bodies of water.
Kentucky Warbler (Bird of Conservation Concern) *(Oporornis formosus)*	Deciduous forests with a dense understory, usually close to water such as creeks, rivers, and swamps.
Rusty Blackbird (Bird of Conservation Concern) *(Euphagus carolinus)*	Wet areas, including flooded woods, swamps, marshes and the edges of ponds.
Wood Thrush (Bird of Conservation Concern) *(Hylocichla mustelina)*	Deciduous and mixed forests, particularly in damp forest and near streams.

IDOT completed a Natural Resources Review in September 2021 of the proposed improvement. In fulfillment of its obligation under Section 7(a)(2) of the Endangered Species Act, the review included use of the US Fish and Wildlife Service's Information for Planning and Conservation (IPaC) web-based review tool. Through IPaC, an official species list was received. The list contains the endangered, threatened, proposed and candidate species and proposed and designated critical habitat that may be present within or in the vicinity of the proposed improvement. The following species are listed in Will County: Northern long-eared bat (NLEB), Eastern massasauga, sheep nose mussel, Hine's emerald dragonfly, Rusty patched bumble bee, Eastern prairie fringed orchid (EPFO), leafy prairie-clover, and

lakeside daisy. There is no Critical Habitat in the project vicinity. Under 50 CFR 402.12(e), the accuracy of the species list is limited to 90 days.

The Natural Resources Review is included in Appendix H, *Environmental Survey Request Records Search*. With respect the Northern-long-eared bat there are no records of maternity roost trees, maternity colonies or hibernacula in the vicinity of the project corridor. With respect to the EPFO there are no prairies or high-quality wetlands in the project corridor. With respect to the Rusty patched bumble bee there is a USFWS High Potential Zone in the northern two-thirds of the project area. As mentioned in Table ES-4, there are no Rusty patched bumble bee records within four-mile radius of the project area.

c. What are the issues that need to be considered during NEPA, including potential resource impacts and potential mitigation requirements (if known)?

The PEL study conducted an environmental scan based on existing and readily available data. All environmental resources should be revisited during NEPA.

d. How will the planning data provided need to be supplemented during NEPA?

Certain resources in the study area will require additional assessment and/or field surveys during NEPA.

9. List environmental resources you are aware of that were not reviewed in the PEL study and why. Indicate whether or not they will need to be reviewed in NEPA and explain why.

IDOT did an environmental survey request (ESR) records search of its databases (refer to Appendix H, *Environmental Survey Request Records Search,* which includes the ESR Location Map and findings). The ESR records search was conducted in August 2021 for cultural resources, and September 2021 for biological resources. In the next phase of project development (NEPA), a ESR addendum will need to be submitted for more complete surveys.

Certain resources were not reviewed in the PEL study due to the limited level of design available at this time and/or the need for field surveys. The following resources will need to be reviewed in NEPA:

- Agricultural resources (Prime and Important Soils)
- Cultural resources (Archeological Sites, Historic Roads [e.g., IL 53])
- Air quality
- Noise
- Natural resources (Wildlife Resources)
- Natural resources (Threatened and Endangered Species)
- Water resources (Water Quality, Wetlands)
- Groundwater resources
- Special waste

10. Were cumulative impacts considered in the PEL study? If yes, provide the information or reference where the analysis can be found.

Cumulative impacts were not analyzed.

11. Describe any mitigation strategies discussed at the planning level that should be analyzed during NEPA.

The level of engineering design was commensurate with the PEL process guidelines and allowed for the development of a reasonable transportation footprint for each of the alternatives considered. As part of future NEPA studies, additional analyses will be performed, including addressing known drainage issues and considering compensatory storage along the Laraway Road corridor. Mitigation strategies will be analyzed during NEPA.

12. What needs to be done during NEPA to make information from the PEL study available to the agencies and the public? Are there PEL study products which can be used or provided to agencies or the public during the NEPA scoping process?

During NEPA the PEL Report should be made available to agencies and the public. Refer to the response to Question 2.f. The PEL Report includes technical memorandums and analysis that can be provided to agencies or the public during the NEPA scoping process, such as the Transportation Systems Performance Report, the Purpose and Need Statement, the Alternatives to the Carried Forward Memorandum, Public Information Meeting Summary, and the Stakeholder Involvement Plan, which document the planning analysis and decisions recommended to carried forward to subsequent NEPA studies.

13. Are there any other issues a future project team should be aware of?

Issues a future project team should be aware of could include drainage and utility issues.

1. Purpose and Need

1.1 Introduction

This chapter describes the purpose of the project and why the project is needed. The purpose describes what the project is intended to accomplish, and the need explains the transportation challenges that the project would address. The needs analysis, which is described in Section 1.4, addresses three key issues: delay, safety, and freight network reliability. The purpose of the project is to improve the efficiency of the transportation system by reducing delays; improve safety by reducing the potential for vehicle-train collisions; and improve the freight network reliability to the surrounding intermodal and industrial sites.

> "Switch trains" are freight trains, but move (or "switch") from the mainline to the spur track entering Joliet Intermodal Terminal to load and unload rail cars. A mechanical installation enables trains to be guided from one track to another.

This purpose and need statement has been developed in accordance with Section 24-2.07 and Part 1 of Chapter 1 in Appendix D of the Illinois Department of Transportation (IDOT) Bureau of Design and Environment Manual. The purpose and need statement was coordinated with Federal Highway Administration (FHWA) and IDOT. Following FHWA's and IDOT's agreement that the purpose and need was sufficient for distribution, it was coordinated with the general public for their input during a public information meeting on April 14, 2021, as well as posted on CMAP's website (https://engage.cmap.illinois.gov/laraway-road-at-union-pacific-railroad-crossing) for review and comment.

1.2 Where is the project located?

1.2.1 Study Area and Existing Facility

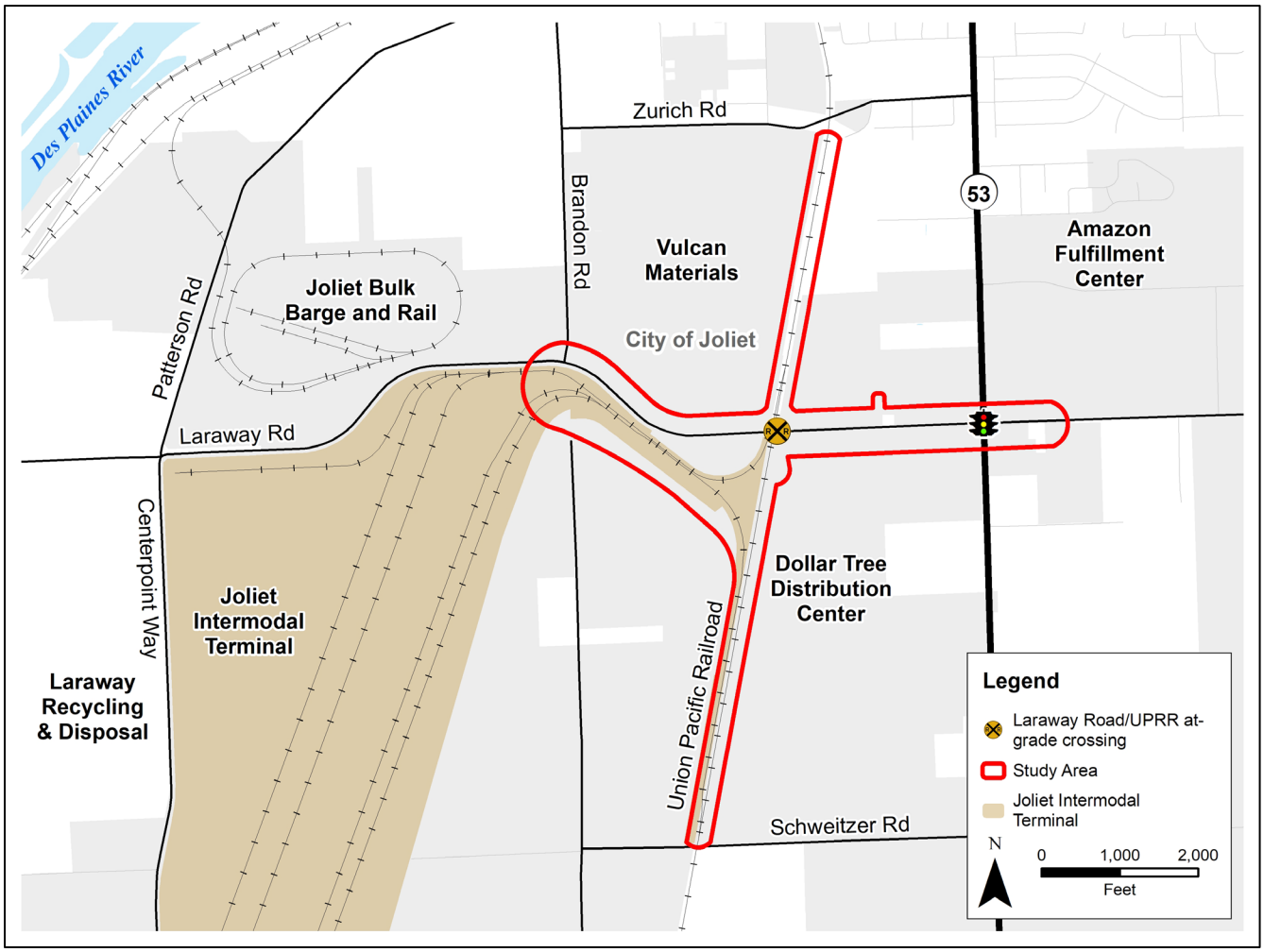
The study area includes Laraway Road from Brandon Road to Illinois Route 53 (IL 53) – approximately 1.25 miles in length – and the Union Pacific Railroad (UPRR) corridor from Zurich Road to Schweitzer Road – approximately 1.75 miles in length (refer to Figure 1). Laraway Road is a two-lane road with a center median to accommodate turning vehicles. It has various road users including trucks, Pace buses, and school buses in addition to passenger cars. The 2017 average annual daily traffic (AADT) along Laraway Road within the study area is 10,700. Based on traffic counts and field observations conducted in 2018, most of the road users are trucks, making up approximately three-quarters of the daily traffic. The Will County Community Friendly Freight Mobility Plan proposes IL 53 from I-80 to Laraway Road as a Critical Urban Freight Corridor[2] that connects to Global IV, Union Pacific's intermodal terminal at CenterPoint Intermodal Center (refer to Section 1.2.2) (Will County CED 2017).

The key trip generators in the vicinity of the study area include CenterPoint Intermodal Center, including the Joliet Intermodal Terminal, Laraway Recycling & Disposal (landfill owned by Waste Management), and Vulcan Materials Company.

The UPRR tracks cross Laraway Road at-grade. The number of railroad tracks at this at-grade crossing has increased from one to three in recent years. The track on the west side was built in 2010 to serve as the spur connector for the switch trains to the Joliet Intermodal Terminal. In 2017, the track on the east side was built to serve the high-speed Amtrak trains, enabling the high-speed trains to bypass slower moving freight trains. On average, 18 trains cross Laraway Road each day, consisting of 10 passenger trains and 8 freight trains.

[2] Critical Urban Freight Corridors are public roads in urbanized areas which provide access and connection to the Primary Highway Freight System and the Interstate with other ports, public transportation facilities, or other intermodal transportation facilities. Designation is important for funding opportunities, as certain federal funding sources may be directed towards these routes.

Figure 1. Laraway Road Study Area



Pace Bus Route 512 provides service between the CenterPoint Intermodal Center and downtown Joliet (north of the study area). The route provides one early morning southbound trip and one mid-afternoon northbound trip on weekdays. The route offers regular fixed route service, with four stops for southbound bus service, and four stops for northbound bus service. The early morning route uses Millsdale Road (south of Laraway Road). The mid-afternoon route travels along Laraway Road, although there are no designated stops directly along the corridor. In 2019, ridership averaged 3 to 6 passengers per day.

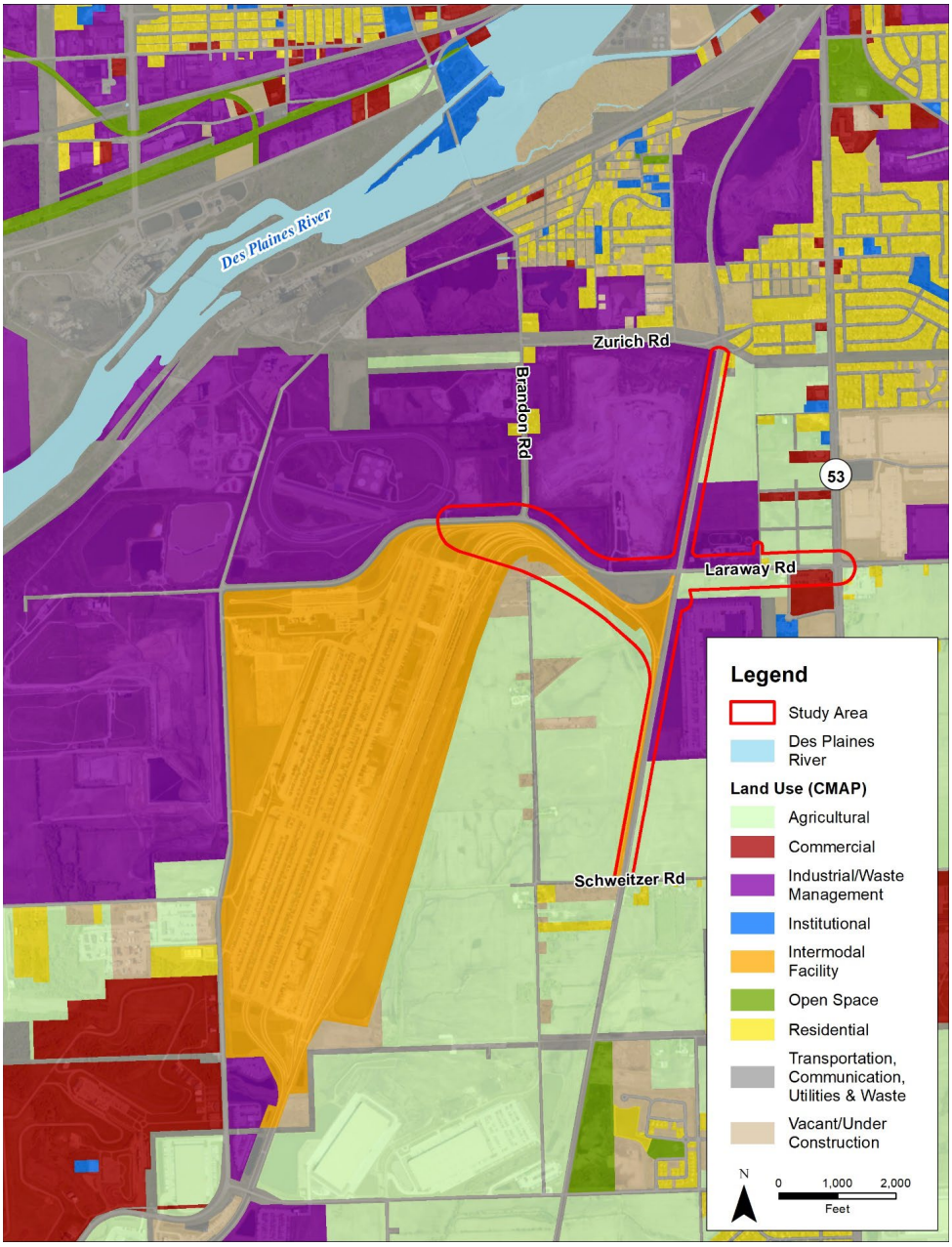
The study area is within the district boundary of Laraway Community Consolidated School District 70C and school buses travel along the corridor. Laraway Elementary School used to be at the northeast quadrant of the Laraway Road and UPRR at-grade crossing but relocated in 2018 to approximately 2 miles northeast of the study area. The school building was demolished in 2020.

There is a discontinuous multi-use path on the north side of Laraway Road. The multi-use path originates at Patterson Road (west of the study area) and extends east to the Vulcan Materials Company entrance, where it stops. The multi-use path begins again just west of the UPRR tracks and continues for approximately ¼ mile. There are crossing gates for the multi-use path on both sides of the track.

1.2.2 Geographic Features

The study area contains predominantly intermodal, transportation and industrial land uses, including CenterPoint Intermodal Center, Laraway Recycling & Disposal, Vulcan Materials Company, Gallagher Asphalt Corporation, Zenith Energy, and Dollar Tree Distribution Center (Figure 2). There are also agricultural lands both north and south of Laraway Road adjacent to the UPRR. The Des Plaines River, approximately 1.5 miles west of the study area, is the longest stream within the Chicago Region. It originates near Union Grove, WI and flows southward for 133 miles (105 miles in Illinois) where it eventually meets the Kankakee River southwest of Joliet to form the Illinois River (IL DNR 2020). The proposed improvement will minimize impacts to sensitive environmental resources.

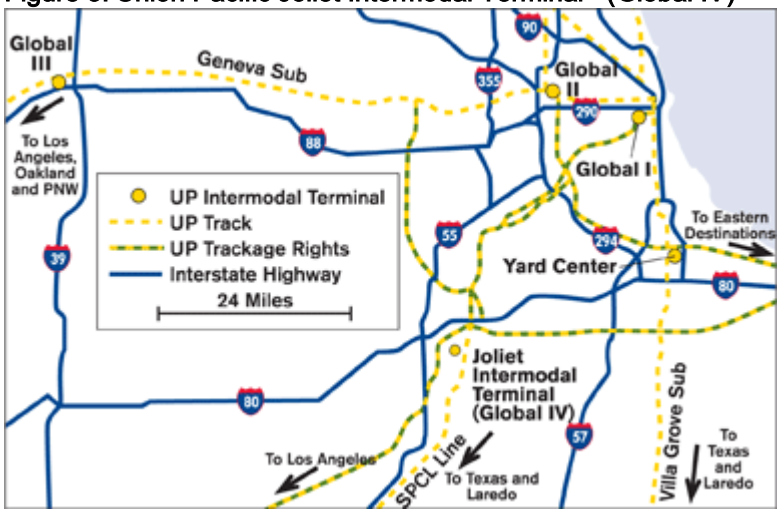
Figure 2. Land Use in the Laraway Road Study Area



Source: CMAP 2013

Laraway Road provides access to Centerpoint Way and the 6,400-acre CenterPoint Intermodal Center, North America's largest inland port. CenterPoint Intermodal Center is home to global retailers, logistics providers and product distributers, including the 785-acre Union Pacific Joliet Intermodal Terminal (Global IV), which serves as a critical hub for international and domestic rail intermodal shipments (Figure 3). Global IV is less than 40 miles from Chicago, the largest rail hub and third largest warehouse and distribution market in the nation (Union Pacific 2015).

Figure 3. Union Pacific Joliet Intermodal Terminal (Global IV)



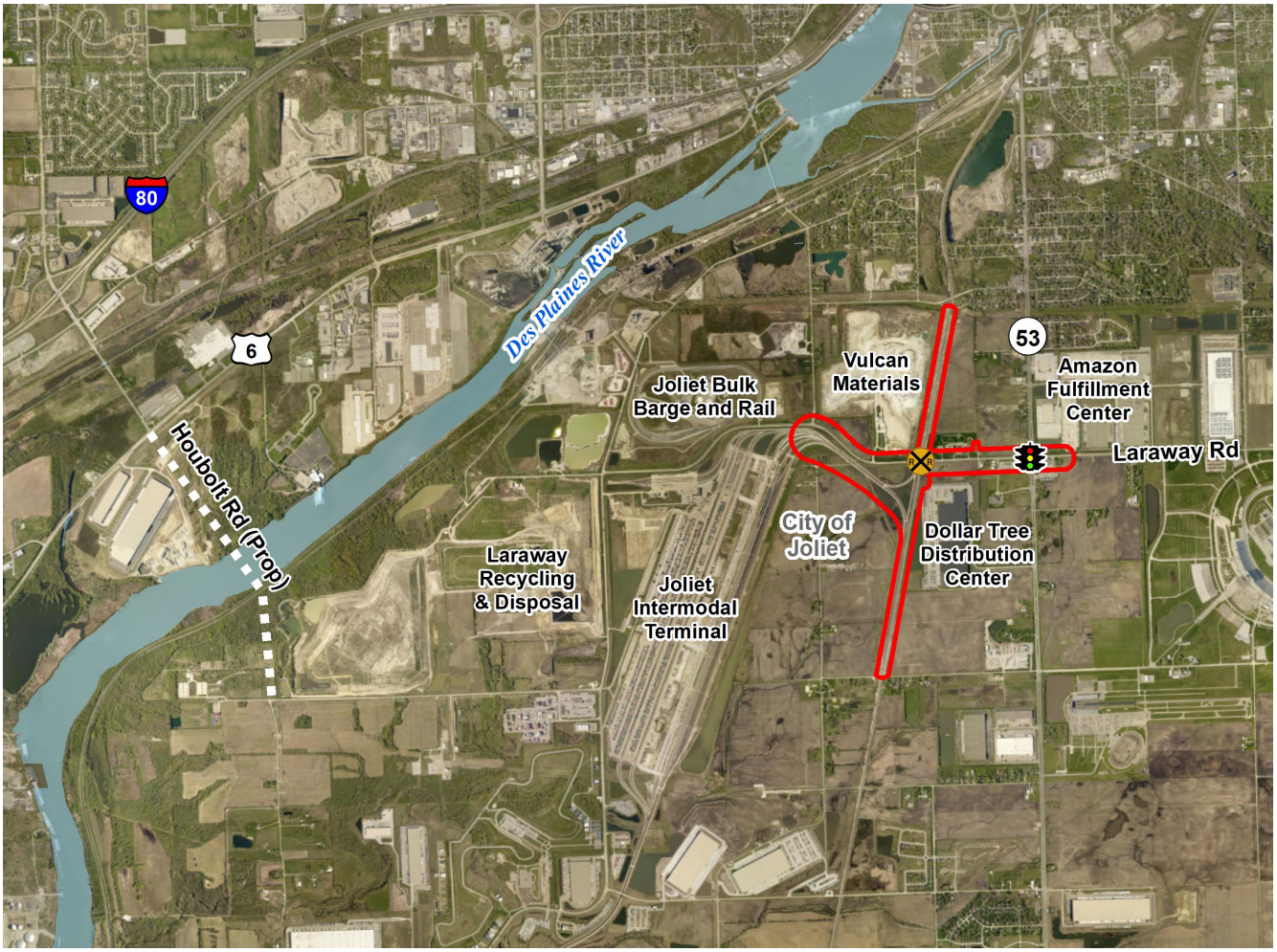
Source: Union Pacific 2015

1.2.3 Logical Termini

Title 23 Code of Federal Regulations (CFR) 771.111(f) requires that a project connect logical termini and be of sufficient length to address environmental matters on a broad scope. Logical termini for project development are defined by FHWA as the rational endpoints for a transportation improvement for the review of environmental impacts. Additionally, CFR 771.111(f) requires that the implementation of a project must not restrict future consideration of alternatives for other reasonably foreseeable transportation improvements. Finally, a project must also demonstrate independent utility. Independent utility means the project would be functional even if no additional transportation improvements were made.

The western terminus of the Laraway Road PEL study is Brandon Road, and the eastern terminus is IL 53, which allows sufficient length to enable review of environmental issues to ensure the project function properly without requiring additional improvements elsewhere. The rational endpoints for the project are depicted in Figure 4 and encompass the area of direct impact for the proposed grade separation, and temporary construction and staging areas. The logical termini extends east to IL 53 since the eastbound approach to the intersection influences operations along Laraway Road, including at the at-grade railroad crossing 0.5-mile to the west. The project will not restrict consideration of alternatives for other reasonably foreseeable transportation improvements. The proposed action has independent utility (i.e., standalone use); it is a useable and reasonable expenditure even if no additional transportation improvements in the area are made.

Figure 4. Area of Potential Project Effect



1.3 What is the project's background?

Northeastern Illinois has one of the densest railroad systems in North America; approximately one quarter of all freight trains and one half of all intermodal trains in the country pass through the region. While the rail system is a critical element of the movement of both people and goods throughout the region, there are numerous locations where highway-rail at-grade crossing delays are significant and pose safety challenges in northeastern Illinois. The Laraway Road and UPRR at-grade crossing in Joliet, IL was identified as a high-priority location by CMAP as part of the Northeastern Illinois Priority Grade Crossings Study, which was completed in partnership with Cook County, Chicago Department of Transportation, the Illinois Commerce Commission (ICC) and IDOT in 2019. This at-grade crossing was identified as a high-priority location due to extraordinarily high truck volumes, congestion, and safety issues. As a result, CMAP, in partnership with the City of Joliet, initiated a PEL study to evaluate issues in the study area.

There are several prior, ongoing and near-term future investments in the vicinity of the study area:

- Prior investments - The ICC recently increased the red flasher time from 3 to 4 seconds at the Laraway Road and UPRR at-grade crossing. Additionally, IDOT altered the traffic signal phasing at the IL 53 and Laraway Road intersection to reduce the potential for traffic back-ups on Laraway Road to the railroad tracks.

> The red flasher is the flashing red lights that warn drivers as they approach a railroad crossing that either a train is on the tracks or a train is approaching.

- Former Laraway Elementary School rezoning – The City of Joliet recently approved a zoning change to I-1 (light industrial) for the former Laraway Elementary School at northeast quadrant of Laraway Road and UPRR. While a development has not yet been approved, plans for the property include a new north-south local road adjacent to the east side of the lot, which will connect to Laraway Road.
- IL 53 (West Arsenal Road to US 52), Phase 1 Study (ongoing) - IDOT is currently conducting a preliminary engineering and environmental study for improvement of IL 53 from West Arsenal Road to US 52 (Doris Avenue) in the City of Joliet and Village of Elwood. The Phase I study was initiated to address safety and operations. The proposed improvements at Laraway Road include adding right turn lanes on all four legs of the signalized intersection with IL 53 and replacing the existing sidewalk on the east side of IL 53 with a multi-use path.
- ICC Queue Cutter Traffic Signal (ongoing) – The FY 2021-2025 Crossing Safety Improvement Program identifies the potential to install of a queue cutter traffic signal at the Laraway Road and UPRR at-grade crossing. However, due to a sight distance issue at the at-grade crossing, the queue cutter traffic signal will not be pursued. The ICC is exploring other active warning sign options that provide the same benefit as a queue cutter traffic signal.

> A queue cutter traffic signal is intended to prevent vehicular queuing across tracks at a highway-rail grade crossing and is activated for one direction of travel by either an approaching train, actuation from downstream queue detection, or coordination with adjacent traffic control signals.

- Houbolt Road Extension (ongoing) – The project is a 1.5-mile long extension of Houbolt Road from US 6 to Schweizer Road with a new bridge over the Des Plaines River. Construction is expected to begin in 2021 and be completed in 2023. The roadway/bridge will be tolled and provide access to the CenterPoint Intermodal Center from the north. The project is being completed as a public-private partnership between IDOT, the City of Joliet and the Houbolt Road Extension Joint Venture, LLC (HRE-JV), a business partnership between CenterPoint Properties and United Bridge Partners. HRE-JV is responsible for building and operating the new tolled bridge while IDOT and the City of Joliet will reconfigure the existing interchange with I-80 as well as reconstruct Houbolt Road between I-80 and US Route 6.
- The Chicago - St. Louis 110 mph Project – An improvement underway and anticipated to be complete by 2050 is the implementation of the 110-mph high-speed rail service from Chicago to St. Louis, which will run along the UPRR track and use the Laraway Road at-grade crossing. The project is led by IDOT in collaboration with UPRR, Amtrak, and the Federal Railroad Administration.

1.4 What is the Need for the Proposed Project?

The needs analysis addresses three key issues in the study area:

- Delay
- Safety
- Freight network reliability

Stakeholder input provided during the early coordination process supports the technical analysis of issues in the study area. A large majority of the survey respondents commented on the need to reduce delays, conflicts between trains and motorists, and conflicts between trucks and passenger vehicles. The following subsections discuss each need factor and describe why the proposed project is necessary.

In Spring 2020, early coordination letters were sent to regulatory and resource agencies, elected officials, and other project stakeholders, including truck driver associations. The letters invited the recipients to participate in a survey regarding the issues at the Laraway Road and UPRR at-grade crossing. Nearly 100 responses were received.

1.4.1 Delay

Delay was evaluated using data on current delays and projected changes in train and vehicle volumes.

The Laraway Road and UPRR at-grade crossing serves approximately 18 trains per day. Railroad gate down times contribute to delays on Laraway Road in the study area. Based on a 24-hour field observation period, there are 77 minutes of gate down time. The gate down time varies significantly depending on the train service - passenger, freight, or switch. In general, passenger trains (Amtrak) travel at higher speeds, are shorter in terms of train length, and have shorter gate down times (approximately 1 minute). Freight trains cause the greatest delays at this crossing. Freight trains are longer in terms of train length and operate at varying speeds, and gate down times can vary from 5 to 17 minutes. Switch trains have the slowest speeds at this crossing location as they prepare to enter the Joliet Intermodal Terminal. Crossing blockages also occur from stopped trains, which often cause longer delays. Sometimes the switch trains entering the Joliet Intermodal Terminal get backed up through the railroad crossing due to their slow speed and multiple trains entering the intermodal terminal at once, causing the gates to be down and leading to significant delays to motorists on Laraway Road. As a result, the at-grade crossing delay reduces the efficiency of the local transportation system. Of note, the future Chicago to St. Louis high-speed rail project will likely increase the number of passenger rail services that use the crossing, resulting in additional delay. The project is identified in the 2018-2021 Statewide Improvement Program (STIP) and 2021-2024 Draft STIP. Construction is ongoing to install 4-quadrant gates at at-grade crossings and Positive Train Control (PTC)[3] along the corridor to permit 110-mph service. Once PTC installation is complete and approved, Amtrak trains in the Chicago to St. Louis High-Speed Rail corridor will begin operating at higher speeds.

Adding to delay along Laraway Road, some vehicles are required to turn on flashers and stop at at-grade railroad crossings. At the Laraway Road and UPRR at-grade crossing, these vehicles include a small number of school buses and Pace buses but are mostly trucks carrying hazardous materials. Many of the trucks carrying hazardous materials are tanker trucks, but also include containers, stakebeds carrying gases, and semi-trailers. CMAP counted 73 safety stops at the crossing over 24 hours. Only about half of the vehicles came to a complete stop, and four of those stopping did not stop at the stop bar (CMAP 2019).[4]

Laraway Road, which is classified as a Class II local arterial, provides truck access to Joliet Intermodal Terminal via Centerpoint Way and other adjacent industrial sites, currently carries approximately 10,700 vehicles per day. This volume is forecast to increase to 15,800 vehicles per day in both the 2050 No Build and Build condition. This increase is expected to be primarily from passenger vehicles. During the existing AM peak hour (9:30 to 10:30 am)[5], traffic demand is higher in the westbound direction; in the PM peak hour (3:00 to 4:00 pm), traffic demand is higher in the eastbound direction. Drivers experience significant traffic congestion in the eastbound direction

[3] Positive Train Control (PTC) is a system in place on some trains that is designed to automatically stop a train before certain accidents occur, including train-to-train and vehicle-to-train collisions.

[4] A white stop bar is painted on the roadway near the crossing to indicate where vehicles should stop.

[5] The AM and PM peak hours along Laraway Road assume the peak period for trucks and differ from a typical commuter corridor due to the types of land use and high volume of trucks in the study area. The typical peak period for passenger vehicles is 7:00 to 9:00 AM and 4:00 to 6:00 PM.

during the PM peak hour, with traffic backing up from the IL 53 and Laraway Road intersection (about ½ mile east of the at-grade crossing) to across the railroad tracks as vehicles commonly turn left at IL 53.

In the study area vicinity, along IL 53, Laraway Road is the only truck route that provides access to Joliet Intermodal Terminal and surrounding industrial uses (refer to Figure 5). Truck access at other intersections along IL 53 is prohibited, contributing to high traffic demands along Laraway Road. In addition, the closure of Walter Strawn Drive in January 2015 has contributed to an increase in traffic on Laraway Road. While the intended reroute from the closure of Walter Strawn is along Arsenal Road by way of I-55, there are trucks that likely continue to use IL 53 and enter the intermodal facilities in Elwood by way Laraway and Centerpoint Way. The high traffic demands and lack of adequate capacity at the IL 53 and Laraway Road intersection are the primary causes for the eastbound traffic stop-and-go situation past the railroad crossing. Vehicular delays will continue to worsen in the future as traffic volumes increase. Table 1 and Figure 6 show baseline and future traffic conditions during the AM and PM peak hours along Laraway Road. Based on the baseline peak hour volumes, Laraway Road operates at Level of Service (LOS) B in the AM peak hour and LOS C in the PM peak hour. This LOS indicates the capacity of Laraway Road adequately meets existing traffic demands. It does not include intermittent delays resulting from the stoppages at the at-grade crossing.[6] In 2050, LOS is forecast to worsen – to LOS C in the AM peak hour and to LOS E in the PM peak hour. LOS E indicates the capacity of Laraway Road does not adequately meet future traffic demands.[7] This LOS also reflects an unacceptable operational performance of the roadway, which is exacerbated by the IL 53 at Laraway Road traffic operations and railroad gate downtimes. Despite recent and ongoing investments, traffic delay along Laraway Road is expected to worsen in the future.

Level of Service (LOS) is a measure of a road's ability to handle traffic demand. Level of service is affected by the amount of traffic, number of trucks, number of lanes, lane widths, and intersection spacing. The Transportation Research Board *Highway Capacity Manual* (2000) defines level of service from "A' to "F" in order of decreasing operational quality. Typically, the LOS benchmark for a road assumes 2 to 3 percent of trucks. In the case of Laraway Road, over 75 percent of the daily traffic is trucks.

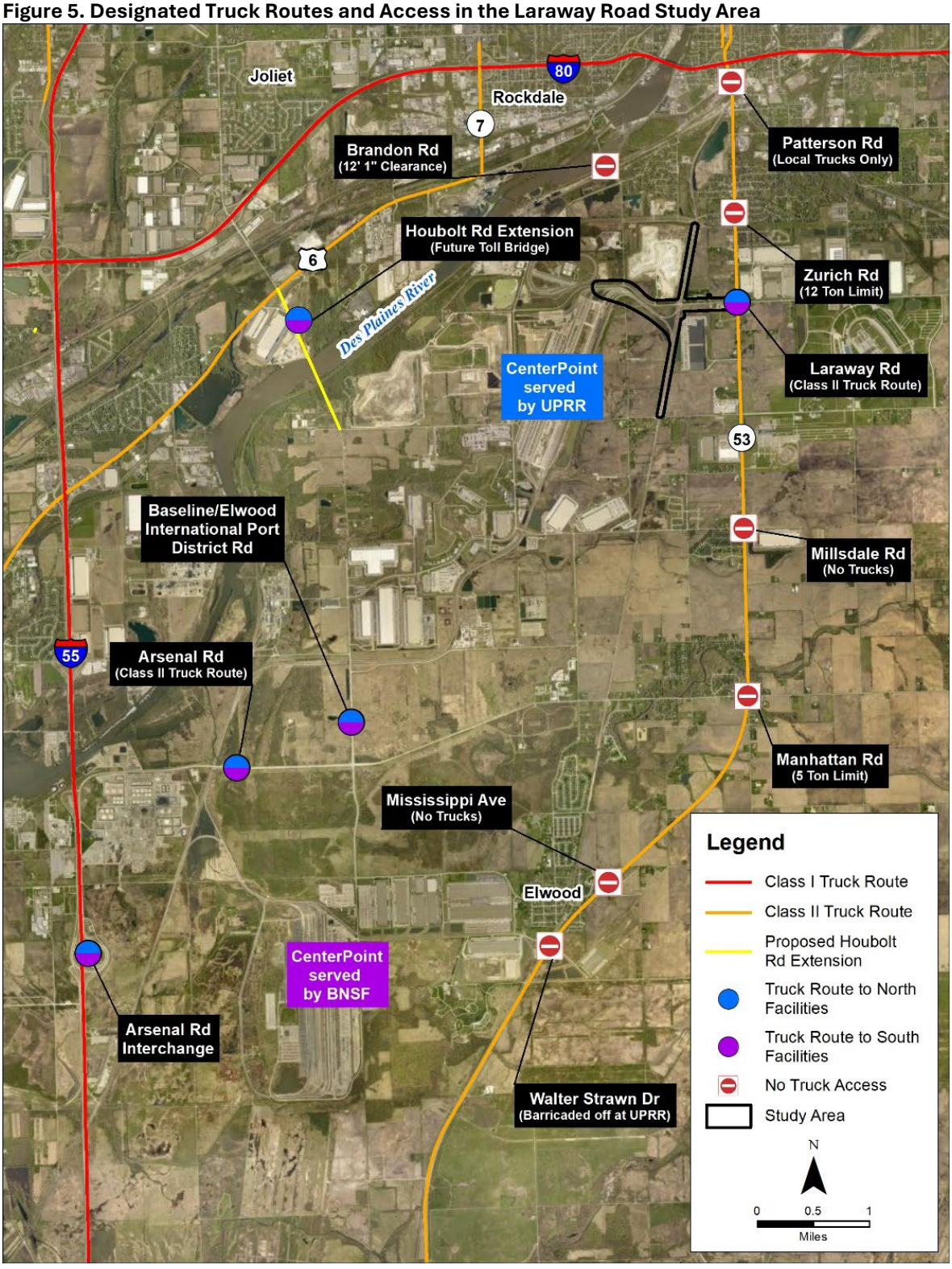
Table 1. Baseline (2018) and Future (2050) Traffic Conditions along Laraway Road – Hourly Peak Travel Periods

Time of Day/Direction	Total Traffic Volume[a]		Truck Percentage		LOS	
	2018	2050	2018	2050	2018	2050
AM Peak (9:30 to 10:30 AM)						
Eastbound	337	498	87%	74%	B	C
Westbound	290	428	84%			
PM Peak (3:00 to 4:00 PM)						
Eastbound	443	654	79%	67%	C	E
Westbound	272	402	80%			

[a] Total traffic volume includes passenger vehicles and trucks.

[6] The stoppages at the at-grade crossing cannot be modeled within the *Highway Capacity Manual* (TRB 2000).
[7] The LOS does not include the stoppages at the at-grade crossing.

Figure 5. Designated Truck Routes and Access in the Laraway Road Study Area



The existing eastbound queues along Laraway Road extend through the at-grade crossing throughout the weekday. Table 2 summarizes the existing and forecast conditions. It should be noted that the modeled existing queue of 515-ft is significantly less than field observations and travel times reported through Google Maps and other similar applications. Normal eastbound queues extend through the at-grade railroad crossing.

Table 2. IL 53 Intersection (PM Peak Period) Operations

Time of Day/Direction	2018		2050	
Overall Intersection Performance	**sec/veh**	**LOS**	**sec/veh**	**LOS**
IL 53/Laraway Road	79	E	269	F
Laraway EB at IL 53 Delay	**sec/veh**	**LOS**	**sec/veh**	**LOS**
Left Turn	222	F	904	F
Thru	44	D	225	D
Right Turn	44	D	29	D
Laraway EB Queueing at IL 53	**515**	**ft**	**1,350**	**ft**

[a] Total traffic volume includes passenger vehicles and trucks.

The Houbolt Road extension over the Des Plaines River, included in the No Build scenario, will provide a new western entrance to CenterPoint Intermodal Center from I-80. The existing interchange along I-80 at Houbolt Road will be reconfigured, and the new bridge will extend across the Des Plaines River to Schweitzer Road, from which trucks can travel approximately 1.5 miles southeast to the CenterPoint Intermodal Center, including the Joliet Intermodal Terminal. Despite this improvement which will provide a new truck travel option to the area, traffic volumes will continue to increase along Laraway Road. As a point of comparison, the Laraway Road existing average daily traffic (2015) was 10,700 with 80% trucks. In the design year (2050), the forecast traffic is predicted to be 15,800 with 65% trucks. While the volume of trucks along Laraway remains relatively constant, there is an increase in passenger vehicles. These metrics indicate that the Houbolt Road improvement is attracting the increased growth in truck traffic and likely spurring on new jobs opportunities, which could explain the increase in passenger vehicle trips along Laraway Road.

Figure 6 shows baseline and future traffic volumes during the AM and PM peak hours at the IL 53 and Laraway Road intersection.[8] Based on the baseline peak hour volumes, the IL 53 and Laraway Road intersection operates at LOS C in the AM peak hour (6:30 to 7:30 AM) and LOS E in the PM peak hour (3:00 to 4:00 PM). This LOS indicates the capacity of the IL 53 and Laraway Road intersection adequately meets existing traffic demands in the AM peak hour, but it does not adequately meet existing traffic demands in the PM peak hour. In 2050, LOS is forecast to worsen – to LOS F in the AM and PM peak hours. LOS F indicates the capacity of the IL 53 and Laraway Road intersection does not adequately meet future traffic demands.

When examining the traffic operations, specific to eastbound Laraway Road, the forecast delay along this leg of the intersection is significant. Queues are forecast to extend from the IL 53 and Laraway Road intersection to west of the at-grade crossing. With only one eastbound lane, the left turn queue will prevent vehicles wishing to go straight or right from getting to the IL 53 and Laraway Road intersection, so they will also experience long wait times to get to the intersection.

The planned improvements at IL 53 and Laraway Road as part of the IL 53 (West Arsenal to US 52) Phase 1 Study would alleviate some of the congestion along Laraway Road by providing new right-turn lanes, however no additional capacity is planned along Laraway Road and the project will not address backups resulting from vehicles turning left onto IL 53 northbound from Laraway Road eastbound. The overall intersection delay at IL 53 and Laraway Road is forecast to be 232 seconds/vehicle during the critical PM peak period, resulting in LOS F (the baseline threshold for LOS F at this intersection is 80 seconds). The west leg of the intersection incurs the most delay and extended queues. For the IL 53 and Laraway Road intersection eastbound to northbound movement, the left turn delay is forecasted to be >900 seconds/vehicle during the 2050 PM peak period which

[8] The AM and PM peak hours at the IL 53 and Laraway Road intersection assume a more typical commuter corridor.

amounts to about a15-minute wait time to pass through this segment of Laraway Road. The forecast queue length for the eastbound approach is 2210 ft, which is beyond the at-grade railroad crossing.

Stakeholder input provided during the early coordination process supports the technical analysis of traffic delays on Laraway Road, including feedback on wait times during train crossings, and delays at the IL 53 and Laraway Road intersection. Some motorists drive several miles out of the way to avoid the at-grade crossing. The following bullet points summarize the results of a stakeholder survey, which underscore motorists' experiences in the study area, and Figure 7 shows the results:

- More than 50 percent of respondents indicated that they normally have to wait more than 10 minutes for a train to cross Laraway Road, including closing and raising of the gates.
- Over 90 percent of respondents have experienced delays traveling on Laraway Road approaching the IL 53 intersection.
- Approximately 75 percent of respondents have driven out of their way to avoid delays along Laraway Road.

Figure 6. Baseline and Future Traffic Conditions in the Laraway Road Study Area

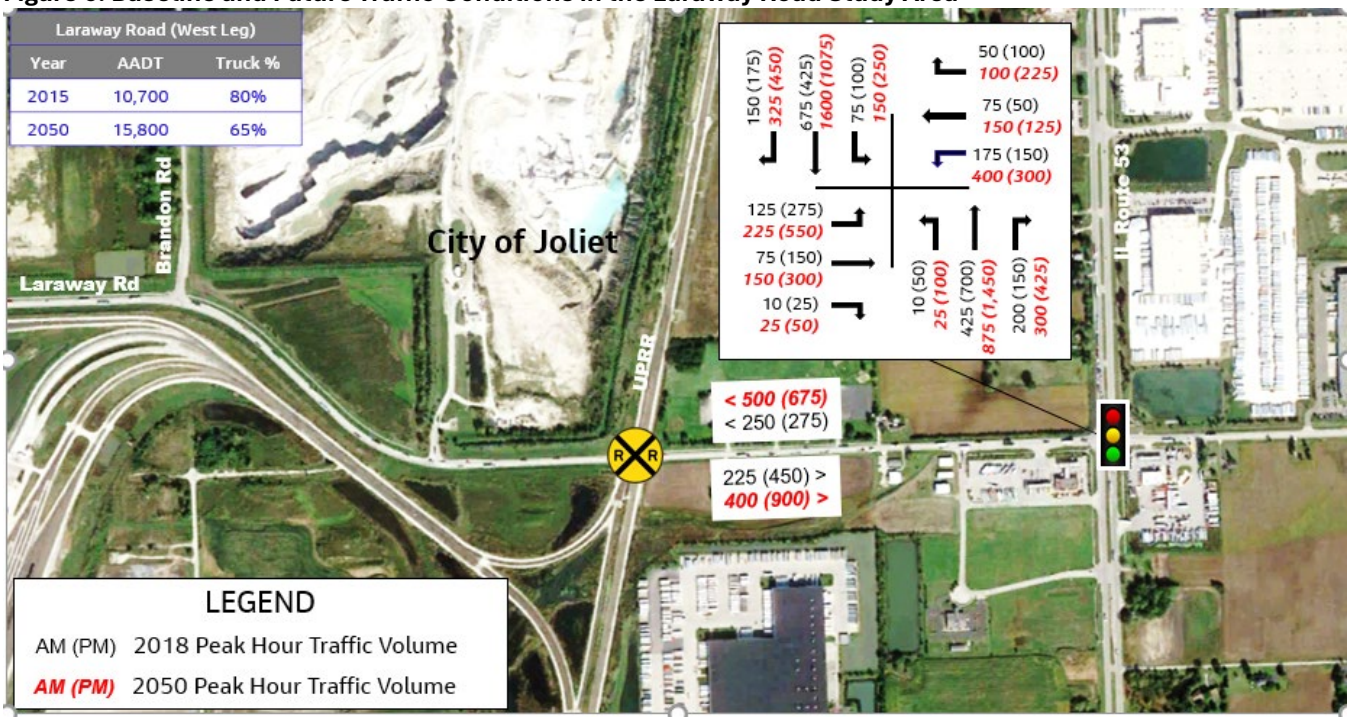
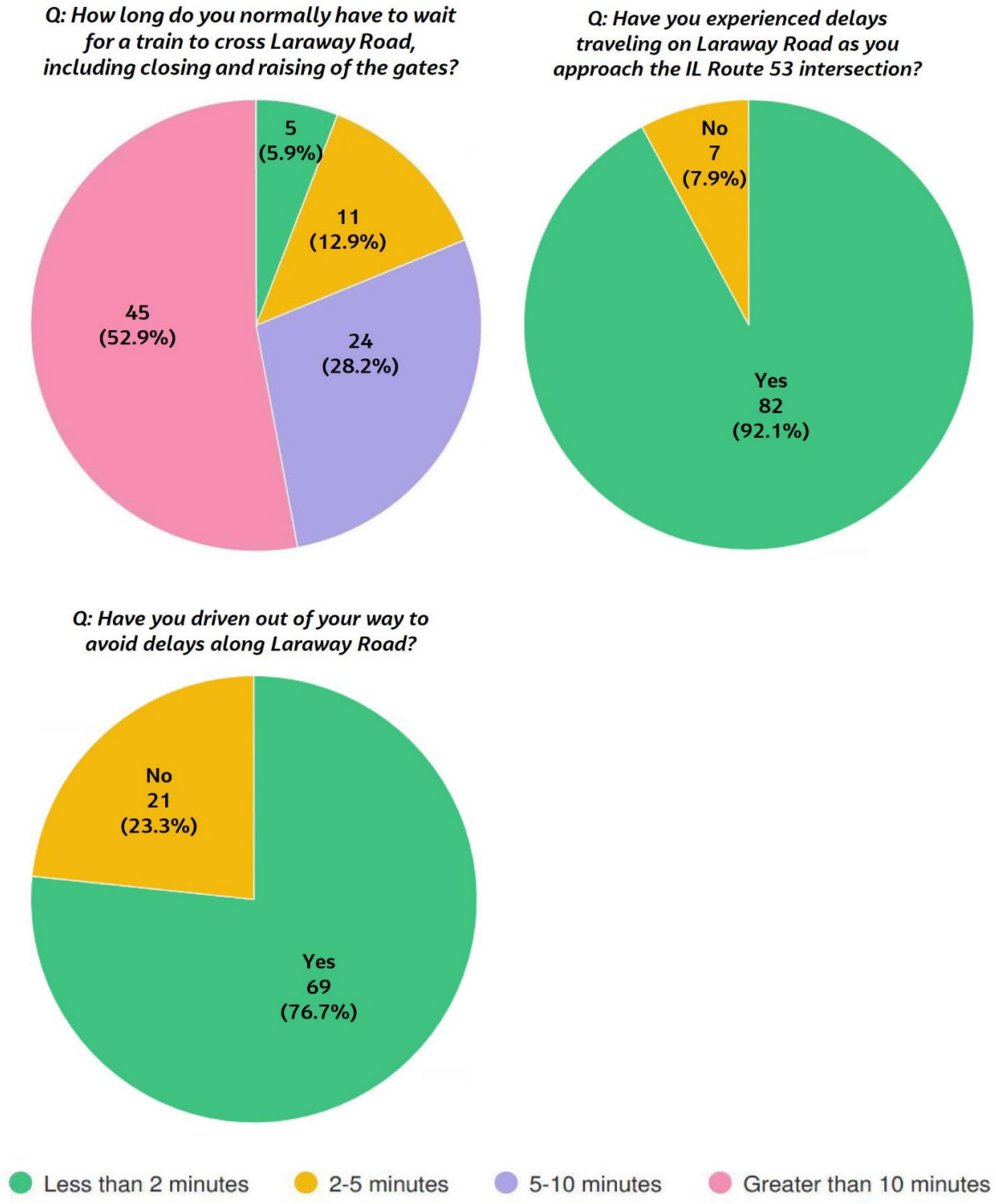


Figure 7. Stakeholder Survey Results – Delay



1.4.2 Safety

Safety was evaluated using data on crash history, field observations, and stakeholder input.

Between 2011 and 2018, 11 crashes were recorded in the vicinity of the at-grade crossing (refer to Table 3) (IDOT 2011-2018). Two crashes involved Amtrak trains, and two crashes involved trucks, including one of the Amtrak train crashes. On average, there were 1.4 crashes/year in the vicinity of the at-grade crossing between 2011 and 2018. All these crashes were property damage only with no injuries or fatalities.

Table 3. Recorded Crashes (2011 – 2018)

Year	Train Involved (Y/N)	Truck Involved (Y/N)	Fatal or Injury (Y/N)
2018	N	Y	N
2018	N	N	N
2017	N	N	N
2016	N	N	N
2016	N	N	N
2016	Y	Y	N
2015	N	N	N
2015	N	N	N
2013	N	N	N
2011	N	N	N
2011	Y	N	N

Source: IDOT 2011-2018

Some drivers have been observed to use poor judgment and act erratically in an attempt to cross the tracks as a train approaches to avoid delays. The UPRR shared with the ICC that the northeast quadrant roadway gate (I.e., entrance gate for westbound traffic) has been repeatedly damaged by vehicles crossing the tracks (UPRR 2019).

Maintenance records for the at-grade crossing were provided by the UPRR for the years between 2015 and 2020 to determine if there were conflicts between vehicles and gates that did not result in a crash record but could represent a potential safety risk. There were approximately 121 incidents over the 5-year period (an average of 2 incidents per month) where the gate was damaged by a vehicle, or where a vehicle hit, broke, or knocked the gate. The most common maintenance incidents reported between 2015 and 2020 include a gate arm broken or knocked off, or the gates not going up and down properly (due to a vehicle damaging it or a malfunction). Most incidents require a gate arm to be replaced or rebuilt.

The maintenance records also include data regarding the duration of time it takes from the initial notice by a police department about a gate issue to the time it is resolved by the UPRR maintenance crew. During this gap of time, when a gate is not functioning properly or is missing due to a breakage, the overall safety for motorists is compromised. From 2015 to 2020, the average incident duration[9] has varied from 102 to 480 minutes. Several of the repair records note that the damage is due to a vehicle striking the gate arm. Some repairs such as fixing a gate arm that has been knocked off can be completed rather quickly once the crew arrives, while others may take multiple hours to fix (broken gates and lights, gates not going up and down properly). An effort has been made by UPRR to reduce their response times at this location, with the more recent average incident times around 102-105 minutes (refer to Table 4).

[9] Incident duration is the amount of time it takes to fix the issue from when the police contact the ICC.

Table 4. Average Incident Duration at Laraway Road and UPRR At-Grade Crossing (2015 – 2020)

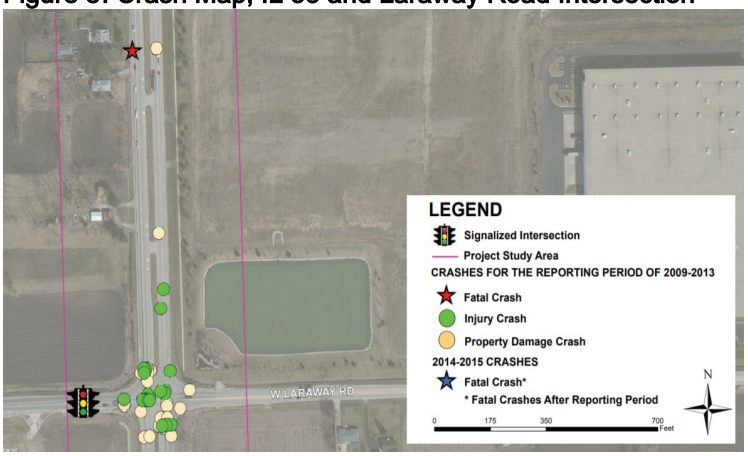
Year	Average Incident Duration (Hours: Minutes: Seconds)
2015	5:24:22
2016	3:20:51
2017	7:22:01
2018	7:59:20
2019	1:45:17
2020	1:42:18

Source: UPRR 2020 (CMAP analysis)

Based on crash analysis conducted for the IDOT IL 53 (West Arsenal Road to US 52) Phase 1 Study, between 2010 and 2014, the intersection of IL 53 and Laraway Road had a high number of vehicle crashes in comparison to other intersections in the vicinity north and south along IL 53. The IL 53 and Laraway Road intersection had 54 crashes, whereas the intersection with the next highest number of crashes (Doris Avenue [US 52]) had 34 crashes (IDOT 2017). Most of the crashes at the IL 53 and Laraway Road intersection were rear end and turning crashes.

Figure 8 shows crashes along IL 53 for 2009-2013 and 2014-2015, based on analysis conducted for the IDOT IL 53 Phase I Study. Crashes were concentrated at the IL 53 and Laraway Road intersection. Crashes were property damage and injury only; no fatal crashes occurred.

Figure 8. Crash Map, IL 53 and Laraway Road Intersection



Source: IDOT 2015

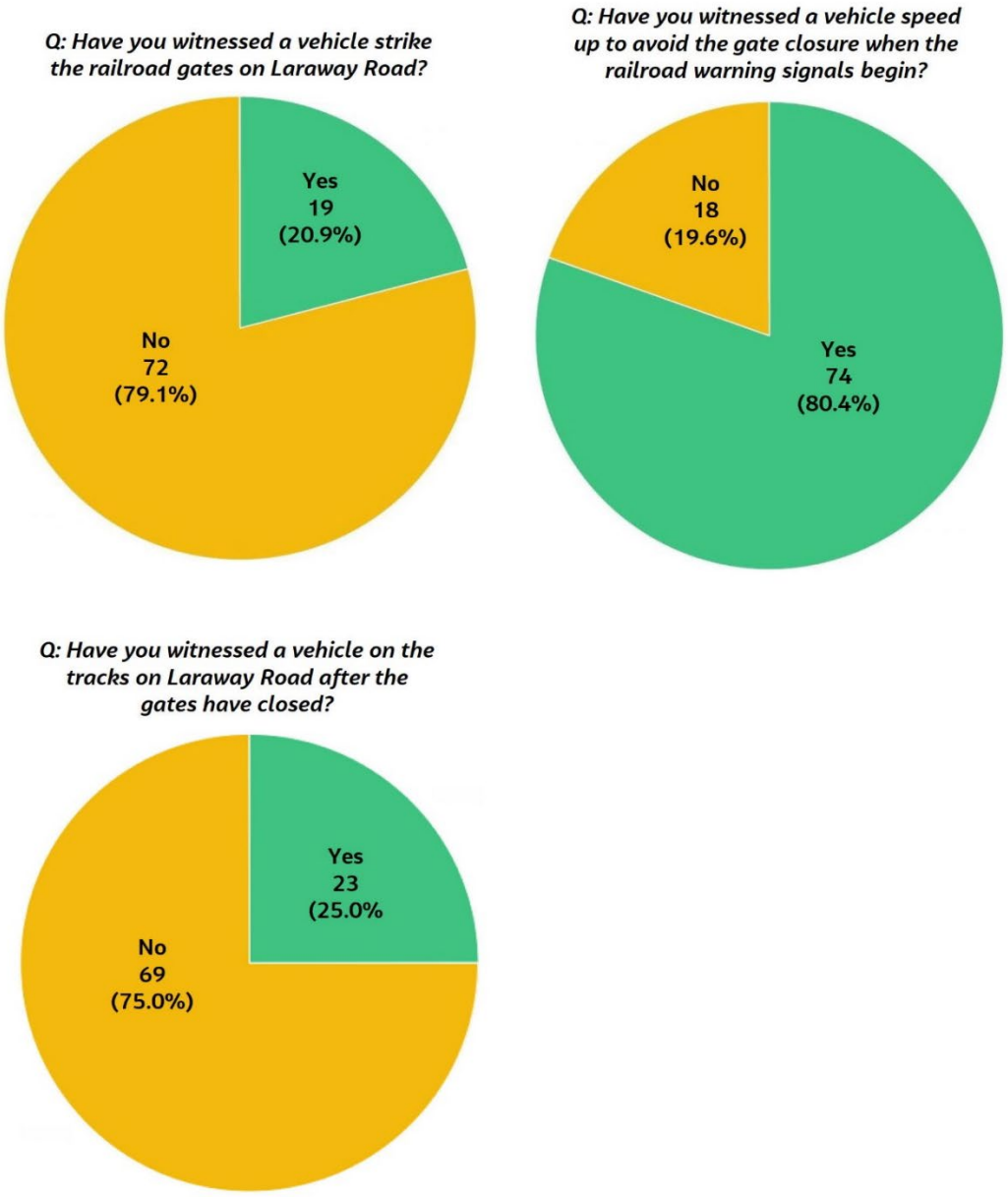
Based on field observations, eastbound traffic on Laraway Road experiences backups as a result of the IL 53 intersection; and vehicles, including trucks, experience a stop-and-go situation that often extends past the railroad crossing. Some vehicles were observed stopped on the tracks (refer to Figure 9). Due to the large width of the at-grade crossing (110 feet), truck drivers may not realize that their cargo bed is not clear of the tracks. Despite investments that have been made to date, field observations indicate that safety issues still exist.

Figure 9. Truck Backups Across UPRR Tracks

Stakeholder input provided during the early coordination process support the technical analysis of safety at the Laraway Road and UPRR at-grade crossing. While the majority of survey respondents found the gates to be in good working order, the at-grade crossing still presents a safety issue. The following bullet points summarize the results of a stakeholder survey, which underscore motorists' experiences in the study area, and Figure 10 shows the results:

- More than 80 percent of respondents have witnessed a vehicle speed up to avoid the gate closure when the railroad warning signals begin.
- Approximately 20 percent of respondents have witnessed a vehicle strike the railroad gates.
- Over 25 percent of respondents have witnessed a vehicle on the tracks on Laraway Road after the gates have closed.

Figure 10. Stakeholder Survey Results – Safety



1.4.3 Freight Network Reliability

In 2018, over three-quarters of the vehicles on Laraway Road were trucks carrying goods to and from the major trip generators in the study area vicinity (i.e., Joliet Intermodal Terminal, Laraway Recycling & Disposal and Vulcan Materials Company) and other industrial companies. In the eastbound direction, trucks predominantly make a left turn at IL 53 and likely travel north to I-80. Trucks have a similar movement in the westbound direction, traveling to the study corridor from southbound IL 53 by making a right turn onto Laraway Road.

As discussed in Section 1.4.1 *Delay*, trucks travel along Laraway Road to Centerpoint Way, which provides access to Joliet Intermodal Terminal and other adjacent industrial sites. In the study area vicinity, along IL 53, Laraway Road is the only truck route that provides access to Joliet Intermodal Terminal via Centerpoint Way. Truck access at other intersections along IL 53 is prohibited. Figure 5 shows the designated truck routes and access in the study area. Even with the new Houbolt Road extension and connection to Joliet Intermodal Terminal, traffic volumes will continue to increase along Laraway Road and exceed the road's capacity.

Further, as discussed in Section 1.4.1 *Delay* and illustrated in Table 1, the study corridor is anticipated to have unacceptable operational performance in the future (LOS E in the PM peak hour), which is exacerbated by the traffic signal conditions at IL 53 and the railroad gate downtimes. Truck delays and travel time reliability will continue to worsen, particularly in the PM peak hour, creating inefficiencies for companies as freight deliveries are not made on time, and causing truck drivers to lose time and money as they are unable to complete additional routes within their allotted working hours.

Stakeholder input provided during the early coordination process supports the technical analysis of freight network reliability issues. A large majority of the survey respondents commented on conflicts between trains and motorists, conflicts between trucks and passenger vehicles, and the need to reduce delays. Stakeholders commented that the lack of available truck routes to Joliet Intermodal Terminal and surrounding industrial sites puts more pressure on Laraway Road. Extensive delays along Laraway Road affect the productivity of truck drivers. Multiple truck drivers commented on the law restricting the number of hours they can work, and the effects of delay on their work schedule.

1.5 What is the Purpose of the Proposed Project?

The purpose of the project is to improve the efficiency of the study area's transportation system by reducing travel delays along Laraway Road for all users caused by extended gate closures; to improve safety by reducing the potential for trains to collide with vehicles; and to improve the freight network reliability to the intermodal and industrial sites in the study area.

2. Alternatives to be Carried Forward

2.1 Introduction

This chapter describes the transportation improvement alternatives considered as part of the Laraway Road (Brandon Road to IL 53) PEL Study, as well as the process used to develop and evaluate these alternatives in order to meet the project's purpose and need. Some of the alternatives considered have been eliminated from further consideration, and this chapter provides the justification for dismissing these alternatives. Additionally, this chapter provides a detailed description of the Alternatives to be Carried Forward, including the No Build Alternative as described by PEL guidance (*Integration of Planning and NEPA Processes Memorandum*, 2005 and Federal Acts authorizing funds for Federal-Aid highway projects). This chapter has been developed in accordance with Section 24-2.08 and Part 1 of Chapter 2 in Appendix D of the Illinois Department of Transportation (IDOT), Bureau of Design and Environment Manual.

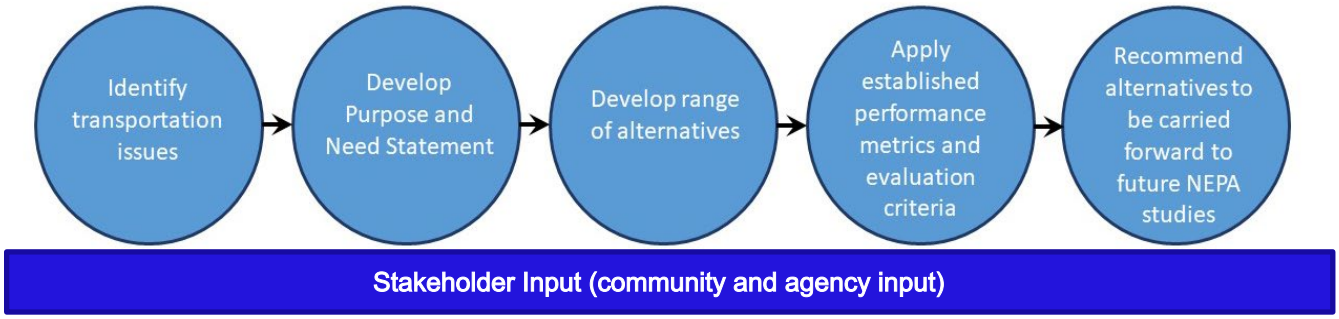
2.2 Process of Identifying, Screening and Evaluating Alternatives

This section describes the process the project team used to identify a range of alternatives during project planning. Subsequent sections describe how alternatives were developed, evaluated, and eliminated or recommended to be carried forward for detailed study as part of a future project. The two phases of the alternative identification, screening, and evaluation process are:

- **Step 1 – Develop and Screen Alternatives.** In this step, the project team identified No Build, Congestion Management Process and Build alternatives, and conducted a preliminary screening based on how well the alternatives met the project's purpose and need. Alternatives that did not meet the purpose and need were eliminated.
- **Step 2 – Refine and Evaluate Alternatives.** In this step, the project team identified 11 Laraway Road and IL 53 intersection configuration options to be evaluated as part of the Build Alternatives and evaluated Build Alternatives with respect to travel and safety performance, design performance (design feasibility and constructability), implementation criteria (estimated costs and potential funding sources/availability), and environmental impacts in order to identify the alternatives to be carried forward for more detailed study.

Figure 11 illustrates the process.

Figure 11. Alternatives Identification, Screening, and Evaluation Process



2.3 Step 1: Develop and Screen Alternatives

2.3.1 Step 1: Develop Alternatives

The project team identified a reasonable range of alternatives that could achieve the project's purpose and need based on technical analysis, stakeholder input, and environmental constraints. Step 1 identified six alternatives within the study area: No Build Alternative, Congestion Management Process Alternative, and four Build Alternatives, including several intersection configuration options at Laraway Road and IL 53.

The project team conducted an initial evaluation of alternatives for fatal flaws and agreement with the project's purpose and need. Using the need categories of Delay, Safety, and Freight Network Reliability, initial alternatives were evaluated with a "yes" or "no" answer to the following questions to demonstrate each alternative's ability to meet the project's purpose and need:

- Does this alternative reduce delay for motorists?
- Does this alternative improve safety for motorists and trains?
- Does this alternative improve freight network reliability?

As described below, this step eliminated the Congestion Management Process Alternative from further consideration as a stand-alone alternative. Five alternatives (including the No Build) were carried forward to Step 2 of the alternatives evaluation process, refer to Section 2.4.

The No Build Alternative, Congestion Management Process Alternative and Build Alternatives are discussed in the following sections.

2.3.1.1 No Build Alternative

Under the No Build Alternative, only improvements that are already planned and included in local and regional transportation plans and routine maintenance would be completed. The Laraway Road and UPRR crossing would remain at-grade, and Laraway Road would remain one lane in each direction.

The following programmed transportation improvements are located in the vicinity of the study area. They are considered part of the No Build Alternative:

- IL 53 (West Arsenal Road to US 52), Phase 1 Study - IDOT is currently conducting a preliminary engineering and environmental study for improvement of IL 53 from West Arsenal Road to US 52 (Doris Avenue) in the City of Joliet and the Village of Elwood. The Phase I study was initiated to address near-term safety and operational issues. The proposed improvements include adding right turn lanes on all four legs of the IL 53 and Laraway Road intersection and replacing the existing sidewalk on the east side of IL 53 with a multi-use path.
- Houbolt Road Extension – The project is a 1.5-mile long extension of Houbolt Road from US 6 to Schweizer Road with a new bridge over the Des Plaines River. Construction is expected to begin in 2020 and be completed in 2021. The bridge, which provides access to the Joliet Intermodal Terminal from the west, will be tolled. The project is being completed as a public-private partnership between IDOT and the Houbolt Road Extension Joint Venture, LLC (HRE-JV), a business partnership between CenterPoint Properties and United Bridge Partners.
- ICC Queue Cutter Traffic Signal – The FY 2021-2025 Crossing Safety Improvement Program, identifies the installation of a queue cutter traffic signal[10] at the Laraway Road and UPRR at-grade crossing. During design

[10] A queue cutter traffic signal is intended to prevent vehicular queuing across tracks at a highway-rail grade crossing and is activated for one direction of travel by either an approaching train, actuation from downstream queue detection, or coordination with adjacent traffic control signals.

- it was determined that there are sight-distance issues that prevent this from being a viable solution. ICC is exploring other active warning sign options.
- The Chicago - St. Louis High Speed Rail Program – An improvement underway and anticipated to be complete by 2050 is the implementation of the 110-mph high-speed rail service from Chicago to St. Louis, which will run along the UPRR track and use the Laraway Road at-grade crossing. The project is led by IDOT in collaboration with UPRR, Amtrak, and the Federal Railroad Administration.

Despite planned investments in the vicinity of the study area, congestion and safety issues will persist. Average annual daily traffic (AADT) along Laraway Road is forecast to increase from 10,700 in 2015 to 15,800 in 2050 under the No Build condition, and level of service (LOS)[11] is expected to worsen from B to C in the morning peak period and C to E in the afternoon peak period.

The high-speed rail service from Chicago to St. Louis will potentially increase the number of passenger rail services that use the Laraway Road and UPRR at-grade crossing, resulting in increased gate down times and delay at the at-grade crossing. In the FY 2021-2025 Crossing Safety Improvement Program, ICC identified the installation of a queue cutter traffic signal at the Laraway Road and UPRR at-grade crossing. However, due to a sight distance issue at the at-grade crossing, the queue cutter traffic signal will not be pursued. Even if the ICC queue cutter traffic signal had been implemented, ICC had stated that this type of measure will not be enough to address safety concerns due to sight distance and driving patterns/behavior in the study area.

In addition to the transportation investments described above, the City of Joliet recently approved a zoning change to I-1 (light industrial) for the former Laraway Elementary School at northeast quadrant of Laraway Road and UPRR. Plans for the property include a new north-south local road adjacent to the east side of the lot, which will connect to Laraway Road and generate additional traffic on Laraway Road.

2.3.1.2 Congestion Management Process Alternative

The provisions of 23 CRF 450.320 place restrictions on the use of Federal funds for projects in Transportation Management Areas (TMAs) designated as nonattainment for carbon monoxide and/or ozone. In these areas, Federal funds may not be programmed for any project that will considerably increase capacity for single occupancy vehicles (SOV) unless the project is addressed through a Congestion Management Process (CMP). The CMP is required to provide an appropriate analysis of alternatives to the proposal for adding SOV capacity including all reasonable congestion management strategies. If the analysis demonstrates that other alternatives or congestion management strategies cannot fully satisfy the need for additional capacity and that the additional SOV capacity is warranted, the CMP must identify all reasonable strategies that will maintain the functional integrity of the additional lanes. All identified reasonable strategies must be incorporated into the project. The CMP for each affected TMA is addressed in materials available from the CMAP, the metropolitan planning organization responsible for the study area.

Individual projects involving the addition of SOV capacity were evaluated, selected, and prioritized in the course of developing the Fiscal Year 2019 - 2024 Transportation Improvement Program (TIP) and the long-range ON TO 2050 Regional Transportation Plan (RTP) for Northeastern Illinois. The Northeastern Illinois CMP is documented via various materials that are available through CMAP. The following are examples:

- Congestion Mitigation Handbook, September 1998
- ON TO 2050 Regional Transportation Plan for Northeastern Illinois

[11] Level of Service (LOS) is a measure of a road's ability to handle traffic demand. Level of service is affected by the amount of traffic, number of trucks, number of lanes, lane widths, and intersection spacing. The Transportation Research Board *Highway Capacity Manual* (2000) defines level of service from "A' to "F" in order of decreasing operational quality.

- Arterials and Streets Infrastructure and Operations for Mobility, Access, and Community in Metropolitan Chicago, January 2009
- Travel Demand Management, Strategy Paper, March 2009
- Congestion Reduction Demonstration for Northeastern Illinois, A Proposal for Direct Highway Pricing, Transit, Technology, and Supporting Strategies, December 2007

The development process for the TIP and Regional Transportation Plan constitutes the CMP for Northeastern Illinois. This process documents warranted projects for adding SOV capacity and, as applicable, also documents that regional and/or project-specific alternatives (e.g., Transportation Demand Management measures, High-Occupancy Vehicle measures, Transit Capital Improvements, Congestion Pricing, Growth Management, Incident Management) would not obviate the need for adding SOV capacity.

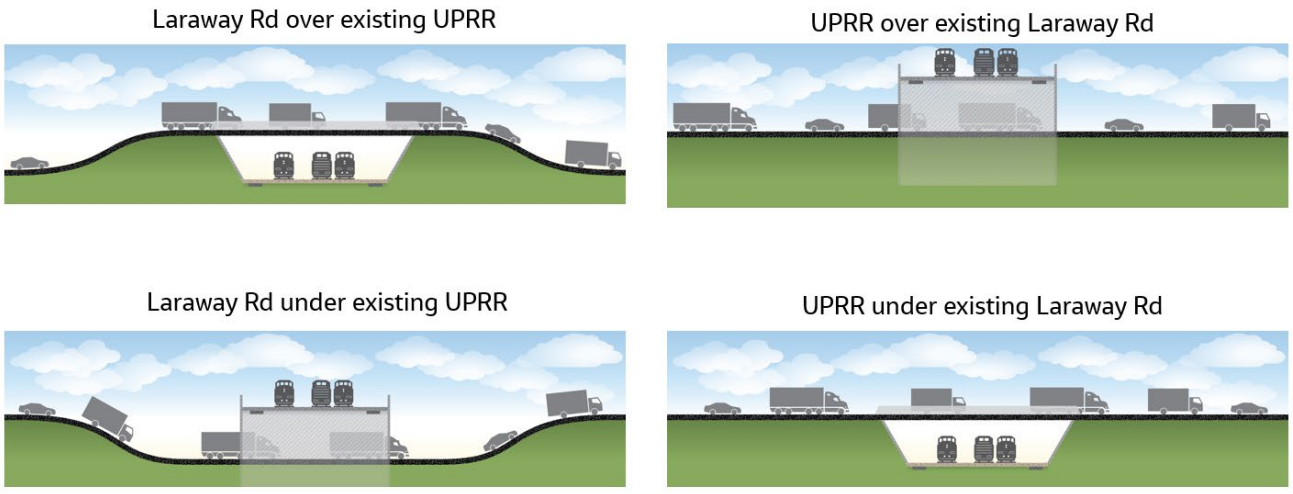
2.3.1.3 Build Alternatives

To address the delays and safety issues at the railroad crossing, build alternatives to set apart the railroad tracks from Laraway Road were developed as grade-separations. Grade separations include bridges or overpasses, and tunnels or underpasses.

Providing a grade separation would improve the flow of traffic along Laraway Road, eliminating the intermittent delays and backups associated with railroad gate closures and vehicles, such as tanker trucks, that are required by law to make safety stops.

The four grade separation options can be summarized as follows: Laraway Road over the existing UPRR, Laraway Road under the existing UPRR, UPRR over Laraway Road, and UPRR under Laraway Road. A cross section of the four grade separation alternatives are shown in Figure 12.

Figure 12. Four build alternative cross sections at the Laraway Road and UPRR grade crossing



The build alternatives described below have the following common design characteristics, which are illustrated in Figure 13.

1. Widening and reconstruction of Laraway Road to two lanes in each direction from Brandon Road to IL 53. The right-of-way along Laraway Road varies from approximately 75-100 feet. In order to avoid impacts to the Joliet stormwater facility, the centerline of Laraway Road would be shifted to the south. This would result in an increase in right-of-way by approximately 20 feet to the south. Under the proposed condition, with a

relocated Laraway Road centerline, 60 feet of right-of-way would be needed either side of the proposed new centerline.

2. 10-foot shared-use path (pedestrian and bicycle facility) provided on north side of Laraway Road
3. Grade separation between Laraway Road and UPRR
4. East of the old school property, 1/3-mile east of UPRR , a north-south roadway (Marcella Avenue) is planned by the City of Joliet on existing right-of-way. For the PEL Study, which is based on a design year of 2050, the new road is considered an existing condition. Joliet anticipates adding a traffic signal at the Marcella Avenue intersection with Laraway Road.
5. With the addition of the grade separation between Laraway Road and the railroad, new roadway connections to the existing railroad service roads are required. These connections would be south of Laraway Road, impacting agricultural land. Provides access to service roads along UPRR on east and west side of the tracks.
6. With the addition of the grade separation between Laraway Road and the railroad, a new roadway connection to the lift station would be required, impacting agricultural land. Access to lift station[12] on northeast quadrant of the Laraway Road and UPRR crossing would be made via service road that intersects with Marcella Ave.

Additionally, 11 configurations options were evaluated at the Laraway Road/IL 53 intersection to address eastbound delays in 2050. Refer to Section 2.4.1.1 for a discussion of the intersection configuration options. On Figure 13, this is labeled as 7, intersection improvements at IL 53 and Laraway Road.

Figure 13. Common design characteristics of Build alternatives

[12] A lift station is used to pump wastewater or sewage from a low level to a higher level when the gradient of the area does not allow for a natural flow.

2.3.1.3.1 Laraway Road over the existing UPRR

Laraway Road would bridge over the three sets of railroad tracks, as well as north-south maintenance roads that run parallel to the tracks. New service roads would need to be constructed to access the railroad and the City of Joliet's lift station. These new roads would impact land to the south of Laraway Road. Figure 14 illustrates the alternative.

Figure 14: Laraway Road over the existing UPRR

The typical roadway section was developed using IDOT's BDE Manual and consists of two lanes each direction with turning lanes at intersections. No additional right-of-way would be needed on either side of the UPRR, except where necessary to connect to the railroad service roads. Traditional channelized intersections were used at all cross streets intersecting with Laraway Road.

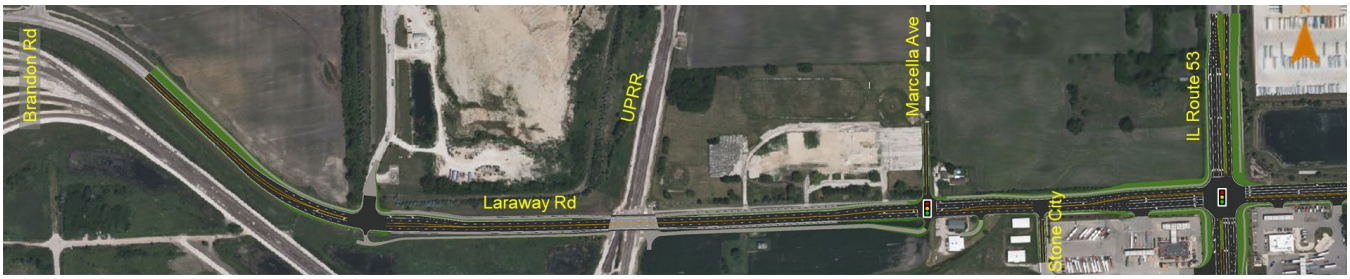
This alternative includes:

- Grade separation of Laraway Road over the existing UPRR, with grades up to 3.5%
- Service drive to the lift station with access under Laraway Road that accommodates 50-ft. vertical clearance within 50-ft. of the well and ample area for large vehicle turning movements
- Common design characteristics discussed in Section 2.3.1.3

Refer to Figures 15a and 15b, which show how the common design characteristics are incorporated into the grade separation.

Figure 15a: Laraway Road over UPRR with Common Design Characteristics

Figure 15b: Laraway Road over UPRR with Common Design Characteristics



2.3.1.3.2 Laraway Road under the existing UPRR

Laraway Road would tunnel under the UPRR and involve constructing new railroad bridges to accommodate three sets of tracks and railroad maintenance roads on both sides. Service roads would need to be constructed to access the railroad bridges over Laraway Road from both sides and the City of Joliet's lift station. Lowering Laraway Road would require a new pumping station to remove rainwater that accumulates. Underground utilities within the area would also need to be relocated, including any portion of the City of Joliet's sewage lift station that currently passes below Laraway Road. Figure 16 illustrates the alternative.

These new roads would impact land to the south of Laraway Road.

This alternative includes:

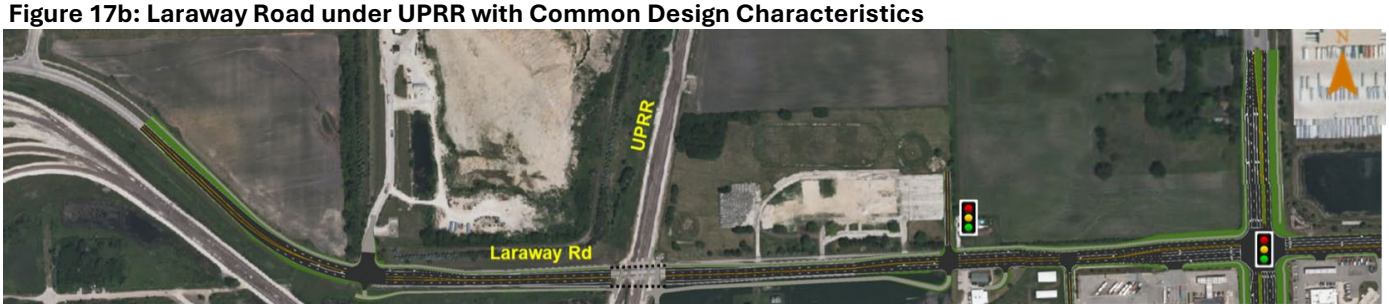
- Grade separation of Laraway Road under existing UPRR with grades up to 3.5%
- Service drive to the lift station with access over Laraway Road and ample area for large vehicle turning movements
- Potential need for stormwater pumping station
- Underground utility relocations
- Common design characteristics discussed in Section 2.3.1.3

Figure 16: Laraway Road under the existing UPRR

The typical section of the roadway was developed using IDOT's BDE Manual and consists of two lanes in each direction with turning lanes at intersections. No additional right-of-way would be necessary on either side of the UPRR, except where necessary to connect to the railroad service roads. Traditional channelized intersections would be used at all cross streets intersecting with Laraway Road. Figures 17a and 17b illustrate how the common design characteristics are incorporated into the grade separation.

Figure 17a: Laraway Road under UPRR with Common Design Characteristics

Figure 17b: Laraway Road under UPRR with Common Design Characteristics



2.3.1.3.3 UPRR over Laraway Road

UPRR over Laraway Road involves raising and reconstructing approximately 1.5 miles of triple railroad track and the railroad spur into the Joliet Intermodal Terminal. During reconstruction, the railroad would need to remain in operation, requiring temporary railroad tracks be constructed. Figure 18 illustrates the alternative.

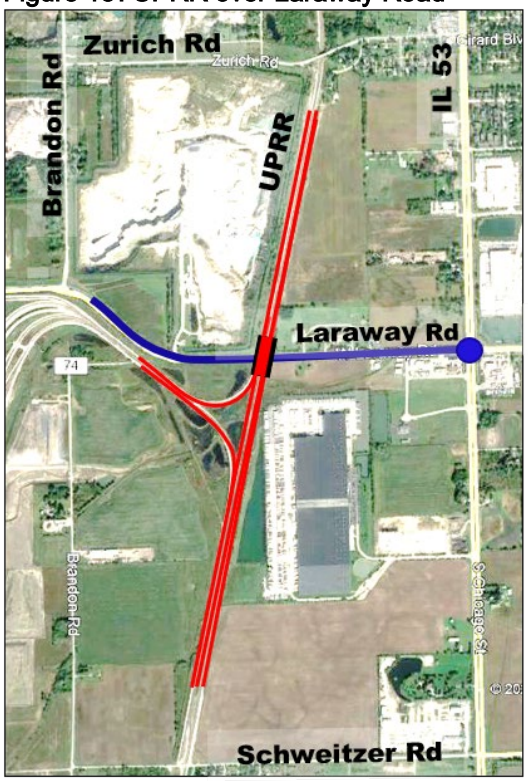
Service roads would need to be constructed to access the railroad bridges over Laraway Road from both sides. The railroad bridges would be constructed to accommodate the Laraway Road widening and reconstruction.

This alternative includes:

- Grade separation of UPRR over existing Laraway Road
- Complex construction to raise 1.5-mile of three rail tracks and two spur lines with grades up to 2%
- New turnout and crossover locations for freight trains to/from the Joliet Intermodal Terminal
- Above ground utility relocation
- Common design characteristics discussed in Section 2.3.1.3

The typical section of the roadway was developed using IDOT's BDE Manual and consists of two lanes each direction with turning lanes at intersections. No additional right-of-way would be necessary on

Figure 18: UPRR over Laraway Road



either side of the UPRR, except where necessary to connect to the railroad service roads. Traditional channelized intersections would be used at all cross streets intersecting with Laraway Road. Refer to Figures 19a and 19b, which show how the common design characteristics are incorporated into the grade separation.

Figure 19a: UPRR over Laraway Road with Common Design Characteristics

Figure 19b: UPRR over Laraway Road with Common Design Characteristics

2.3.1.3.4 UPRR under Laraway Road

UPRR under Laraway Road involves lowering and reconstructing below grade approximately 1.5 miles of triple railroad track and the railroad spur into Joliet Intermodal Terminal. During reconstruction, the railroad would need to remain in operation requiring temporary railroad tracks. Figure 20 illustrates the alternative.

This option is the most challenging grade separation to construct since it would require lowering of the three sets of tracks and a spur, as well as a pumping station to remove rainwater that accumulates. In addition, underground utilities within the area would need to be relocated. This includes any portion of the City of Joliet's sewage lift station that currently passes below the tracks.

Service roads would need to be constructed to access the railroad under Laraway Road from both sides. The railroad would be constructed to accommodate the Laraway Road widening and reconstruction.

This alternative includes:

- Grade separation of UPRR under existing Laraway Road
- Complex construction to lower 1.5 miles of three rail tracks and two spur lines with grades up to 2%

- New turnout and crossover locations for freight trains to/from the Joliet Intermodal Terminal
- Underground utility relocations and potential pump station
- Common design characteristics discussed in Section 2.3.1.3

The typical section of the roadway was developed using IDOT's BDE Manual, and consists of two lanes each direction with turning lanes at intersections. No additional right-of-way would be necessary on either side of the UPRR, except where necessary to connect to the railroad service roads. Traditional channelized intersections would be used at all cross streets intersecting with Laraway Road. Figures 21a and 21b show how the common design characteristics are incorporated into the grade separation.

Figure 20: UPRR under Laraway Road

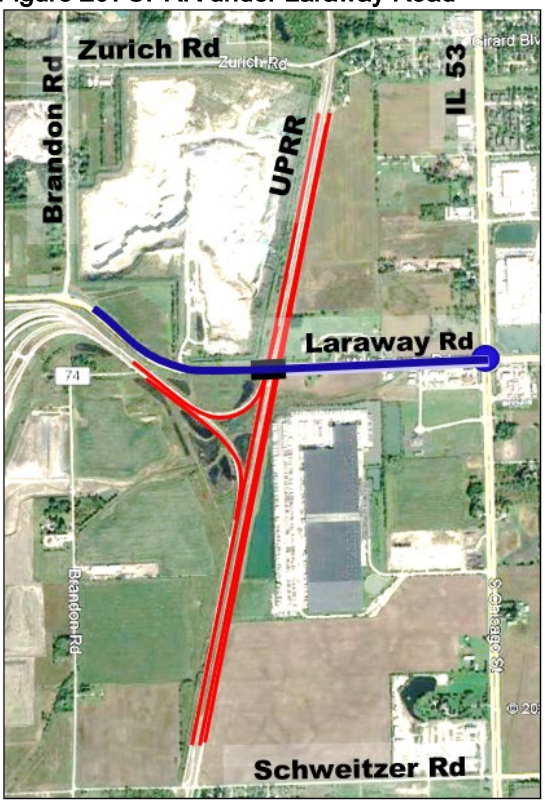


Figure 21a: UPRR under Laraway Road with Common Design Characteristics

Figure 21b: UPRR under Laraway Road with Common Design Characteristics

2.3.2 Step 1: Screen Alternatives

During Step 1 the alternatives were screened against the project's purpose and need.

No Build Alternative. The No Build Alternative does not meet the project's purpose and need because congestion would continue along Laraway Road and safety issues would persist at the at-grade crossing. As a result, truck delays and travel time reliability will also continue to worsen. Although the No Build Alternative does not meet the project's purpose and need, it is carried through the PEL process as a baseline for comparison of impacts and benefits of the build alternatives.

Congestion Management Process Alternative. The stand-alone CMP Alternative will not satisfy the project's purpose and need. Reasonable project-specific CMP strategies, including traffic operational improvements, non-motorized modes/measures (pedestrian/bicycle), intelligent transportation system (ITS), and access management, have been incorporated into the Build Alternatives to the extent practical such as adding turning lanes, and sidewalk/bicycle accommodations.

Build Alternatives. The Build Alternatives meet the project's purpose and need to reduce delay for motorists, improve safety for motorists and trains, and improve freight network reliability.

Step 1 eliminated the Congestion Management Process Alternative from further consideration as a stand-alone alternative. Five alternatives (including the No Build) were carried forward to Step 2 of the alternatives development and evaluation process.

Build Alternatives Address the project 's Purpose and Need

- Adding an additional lane in each direction and providing a railroad grade separation **will reduce existing and future delays**:
  - Improving traffic operations along Laraway Road
  - Eliminating intermittent delays and backups associated with railroad gate closures and safety stops
  - Providing the ability to pass slowly moving trucks and
  - Improving east-bound throughput at IL 53 intersection by creating separate lanes for left turns and thru/ right turns, which are currently blocked by extended queues from left turning vehicles
- **Safety will be improved** by the elimination of conflicts between trains and vehicles.
  - All alternatives eliminate potential for vehicle/ truck-train collisions at this location.
  - All alternatives eliminate vehicles striking and breaking gates.
- **Network freight reliability will improve** due to improved traffic flow and elimination of extended railroad gate closures. Separating the highway-rail crossing will reduce truck traffic surges that now overwhelm the capacity of the IL 53 intersection.

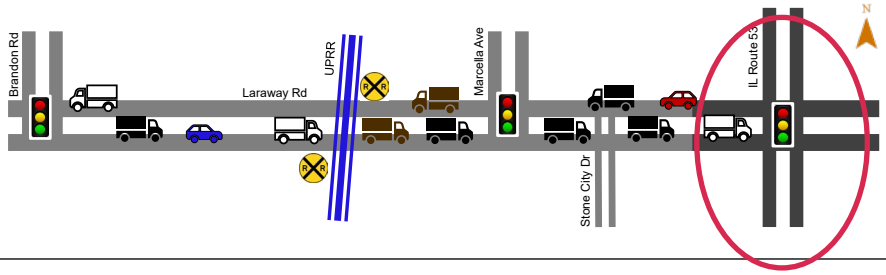
2.4 Step 2: Refine Alternatives and Evaluate

2.4.1 Step 2: Refine Alternatives

Despite improvements to the Laraway Road and IL 53 intersection planned as part of IDOT's IL 53 (West Arsenal Road to US 52) Phase 1 Study (i.e., near-term improvement), the eastbound queues at the intersection will continue to extend west through the at-grade railroad crossing in 2050. Appendix I, Attachment 1 contains information about the baseline and future traffic conditions at the Laraway Road and IL 53 intersection.

Eleven intersection configuration options were developed for the Laraway Road and IL 53 intersection. Figure 22 highlights the location of Laraway Road and IL 53 intersection. Intersection configuration options recommended to be carried forward are a component of the Build alternative(s) illustrated in Figure 13 (i.e., common design element 7).

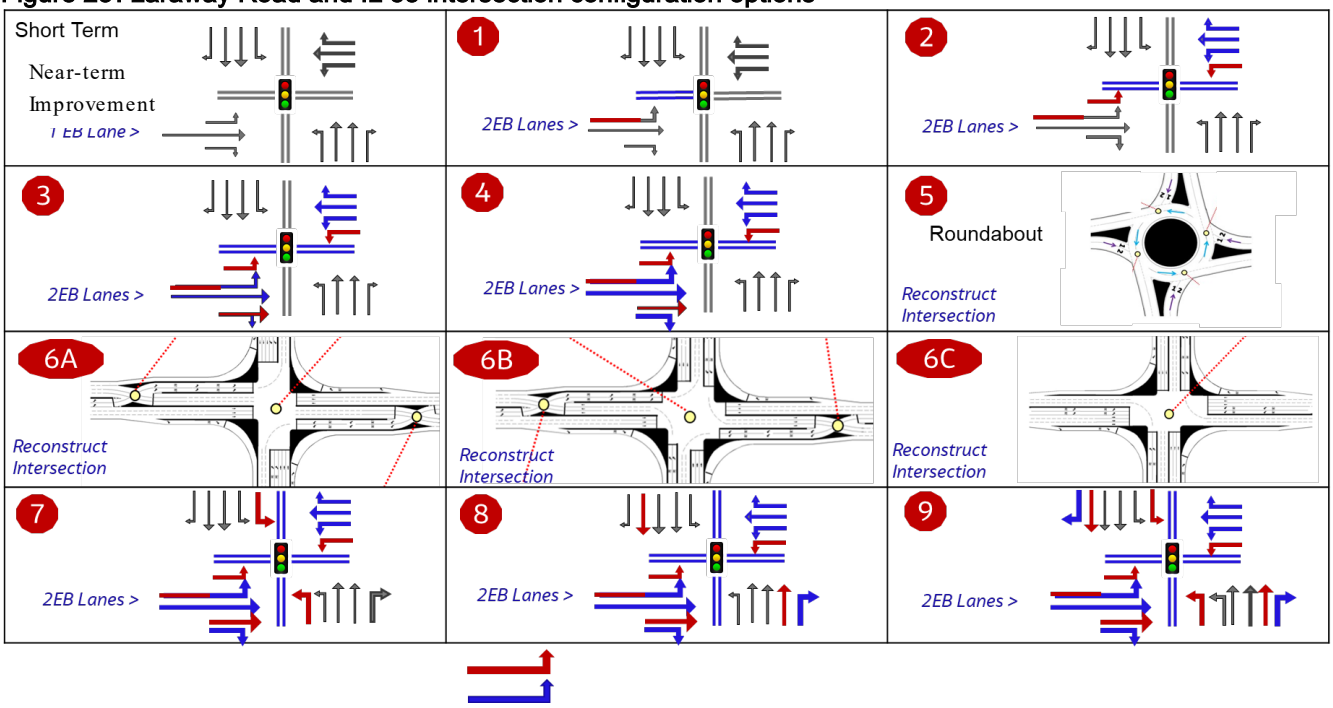
Figure 22. Build alternatives include IL 53/Laraway Road intersection options



2.4.1.1 Laraway Road and IL 53 Intersection Configuration Options

Figure 23 illustrates the 11 configuration options developed for consideration with the Build Alternatives. The red arrows represent the new traffic movements. Table 5 provides a narrative description of the design for each intersection configuration option.

Figure 23. Laraway Road and IL 53 intersection configuration options



Notes: EB = eastbound

These configurations included traditional signal-controlled intersections with different lane configurations. The project team also considered intersection types, such as roundabouts and innovative continuous-flow intersections, which are sometimes referred to as displaced left-turn intersections. Continuous-flow intersections improve traffic flow and reduce delays by allowing left turns and through movements of one or both approaches to occur at the same time.

Table 5. Laraway Road and IL 53 intersection configuration options

Option Number	Intersection Description
1	Includes IDOT's planned near-term improvements (i.e., right turn lanes on the north, south, and east and west legs of the intersection), as well as termination of the additional eastbound travel lane on the west leg of Laraway Road as an eastbound to northbound left turn lane.
2	Includes IDOT's planned near-term improvements, as well as eastbound and westbound dual left turn lanes to IL 53. The additional eastbound travel lane on the west leg would terminate as an eastbound to northbound left turn lane on IL 53.
3	Includes IDOT's planned near-term improvements, as well as eastbound and westbound dual left turn lanes to IL 53. The eastbound shared through/right turn lane would pass two lanes through the intersection. The additional eastbound through lane would drop off east of IL 53 outside the intersection influence area.
4	Includes IDOT's planned near-term improvements, as well as eastbound and westbound dual left turn lanes to IL 53 and a dedicated eastbound right turn lane. There would be two eastbound through lanes; the additional eastbound thru lane would drop off east of IL 53 outside the intersection influence area. In the westbound approach to IL 53, Laraway Road would have dual left turn lanes, a single through lane, and a dedicated right turn lane. There would be no improvements to IL 53.
5	Two-lane roundabout with two-lane approaches from IL 53 and 1-lane approach from Laraway Road.
6A	Continuous flow intersection, which is an innovative design treatment that flips the direction of left-turning traffic to the other side of the road as it approaches the intersection. With this configuration, left turning vehicles and through traffic on Laraway Road can move through the intersection at the same time. IL 53 maintains conventional movements. This type of intersection generally operates better than a traditional intersection design, but it needs more right-of-way, impacting adjacent land use development and access.
6B	Continuous flow intersection for left turning vehicles and through traffic on both Laraway Road and IL 53. This type of intersection generally operates better than a traditional intersection design, but it needs more right-of-way, impacting adjacent land use development and access.
6C	Continuous flow intersection for left turning vehicles and through traffic on IL 53 moving through the intersection at the same time. In this option Laraway Road maintains conventional movements. Again, this type of intersection generally operates better than a traditional intersection design, but it needs more right-of-way, impacting adjacent land use development and access.
7	Includes IDOT's planned near-term improvements, as well as eastbound and westbound dual left turn lanes to IL 53 and a dedicated eastbound right turn lane. There would be two eastbound through lanes; the additional eastbound thru lane would drop off east of IL 53 outside the intersection influence area. In the westbound approach to IL 53, Laraway Road would have dual left turn lanes, a single through lane, and a dedicated right turn lane. There would also be northbound and southbound dual left turn lanes on IL 53 to Laraway Road. This configuration would require converting the existing open median drainage to closed drainage.

Table 5. Laraway Road and IL 53 intersection configuration options

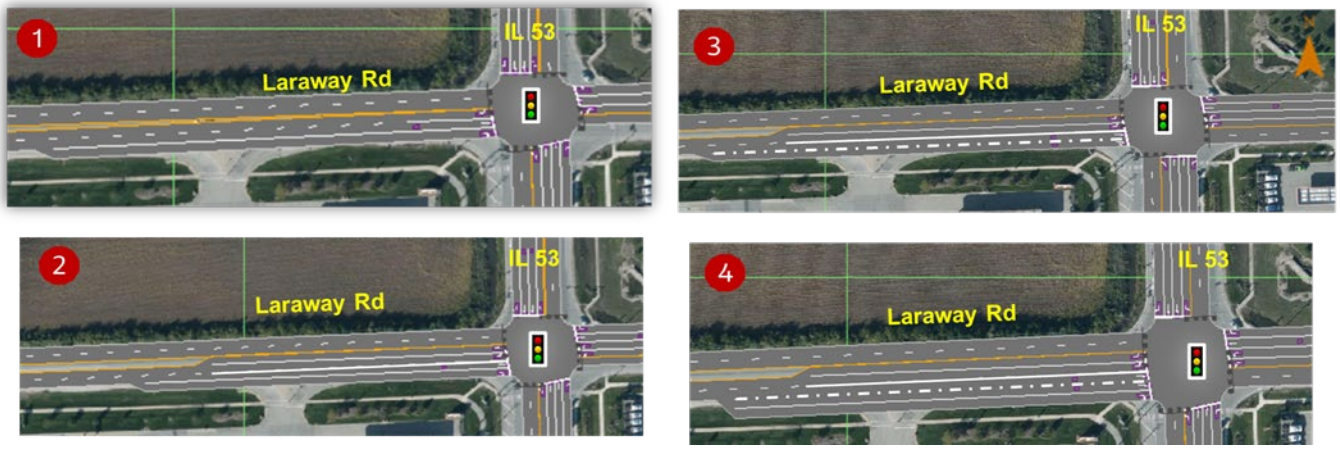
Option Number	Intersection Description
8	Includes IDOT's planned near-term improvements, as well as eastbound and westbound dual left turn lanes to IL 53 and a dedicated eastbound right turn lane. There would be two eastbound through lanes; the additional eastbound thru lane would drop off east of IL 53 outside the intersection influence area. In the westbound approach to IL 53, Laraway Road would have dual left turn lanes, a single through lane, and a dedicated right turn lane. This configuration would also widen IL 53 to three through lanes in the northbound and southbound direction.
9	Includes IDOT's planned improvements, as well as eastbound and westbound dual left turn lanes to IL 53 and two eastbound thru lanes. The additional eastbound thru lane would drop off east of IL 53 outside the intersection influence area. There would also be northbound and southbound dual left turn lanes on IL 53 to Laraway Road, and IL 53 would be widened to three through lanes.

Intersection Configurations 1-4

Several of these intersections were grouped together since they had similar design approaches. All configurations assume Laraway Road will be two lanes each direction west of IL 53. There would be no improvements to IL 53. In general, configuration 1-4 differ based on the number of lanes approaching the IL 53 intersection in the eastbound direction.

- Configurations 2-4 all add eastbound and westbound dual left turn lanes along Laraway Road.
- Configuration 4 has the greatest number of eastbound approach lanes and includes 2 left turn lanes, 2 thru lanes, and 1 dedicated right turn lane. In the westbound approach to IL 53, Laraway Road would have dual left turn lanes, a single thru lane, and a dedicated right turn lane.

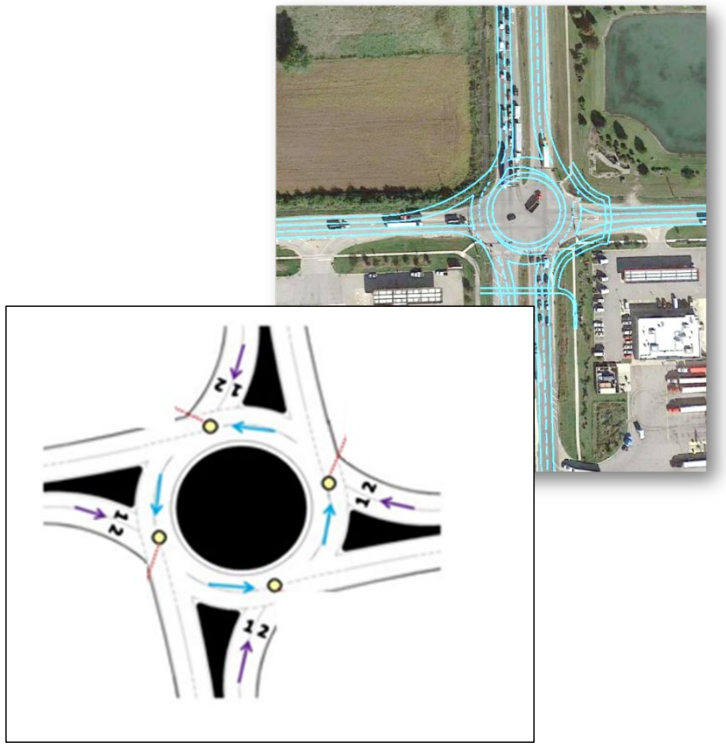
Figure 24: Intersection Configurations 1-4



Intersection Configuration 5: Roundabout

Several types of roundabouts were considered and evaluated. The roundabout design options operated poorly due to the high truck volumes along both of these routes. In fact, the traffic operations performed substantially worse than the planned near-term improvements. Figure 25 is an example of one of the roundabout alternatives considered.

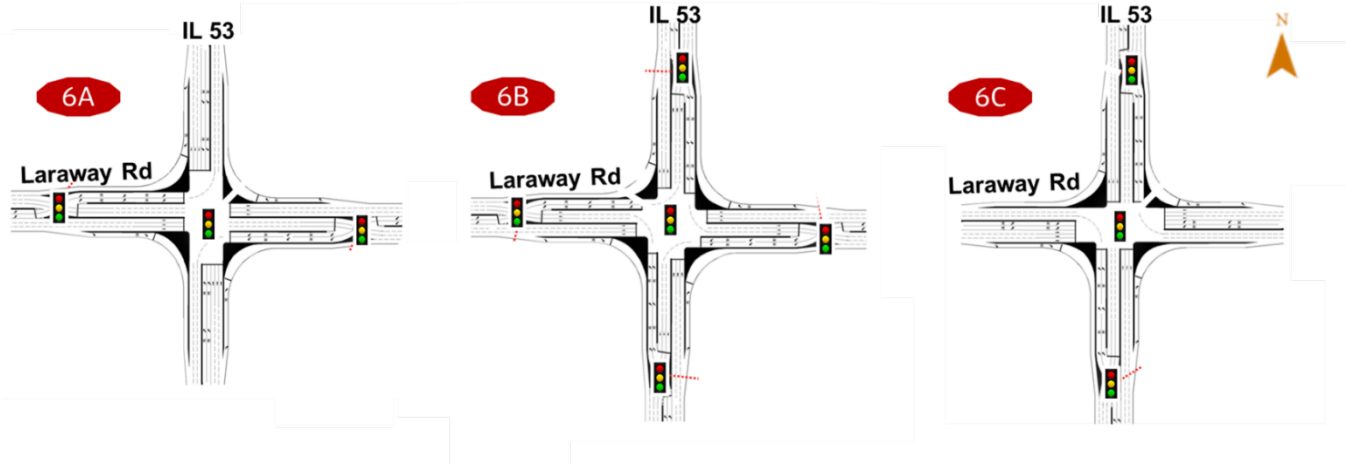
Figure 25. Roundabout at Laraway Rd/IL 53 intersection



Intersection Configuration 6 (A-B-C)

Configurations 6A, 6B, 6C use an innovative design treatment that flips the direction of left-turning traffic to the other side of the road as it approaches the intersection. By doing so, left turns and through traffic can move through the main intersection at the same time. These types of intersections generally operate better than a traditional intersection design, however they need a lot of roadway width and right-of-way, and impact adjacent land use development and access. Refer to Figure 26.

Figure 26: Continuous Flow Intersection at IL 53/Laraway Road



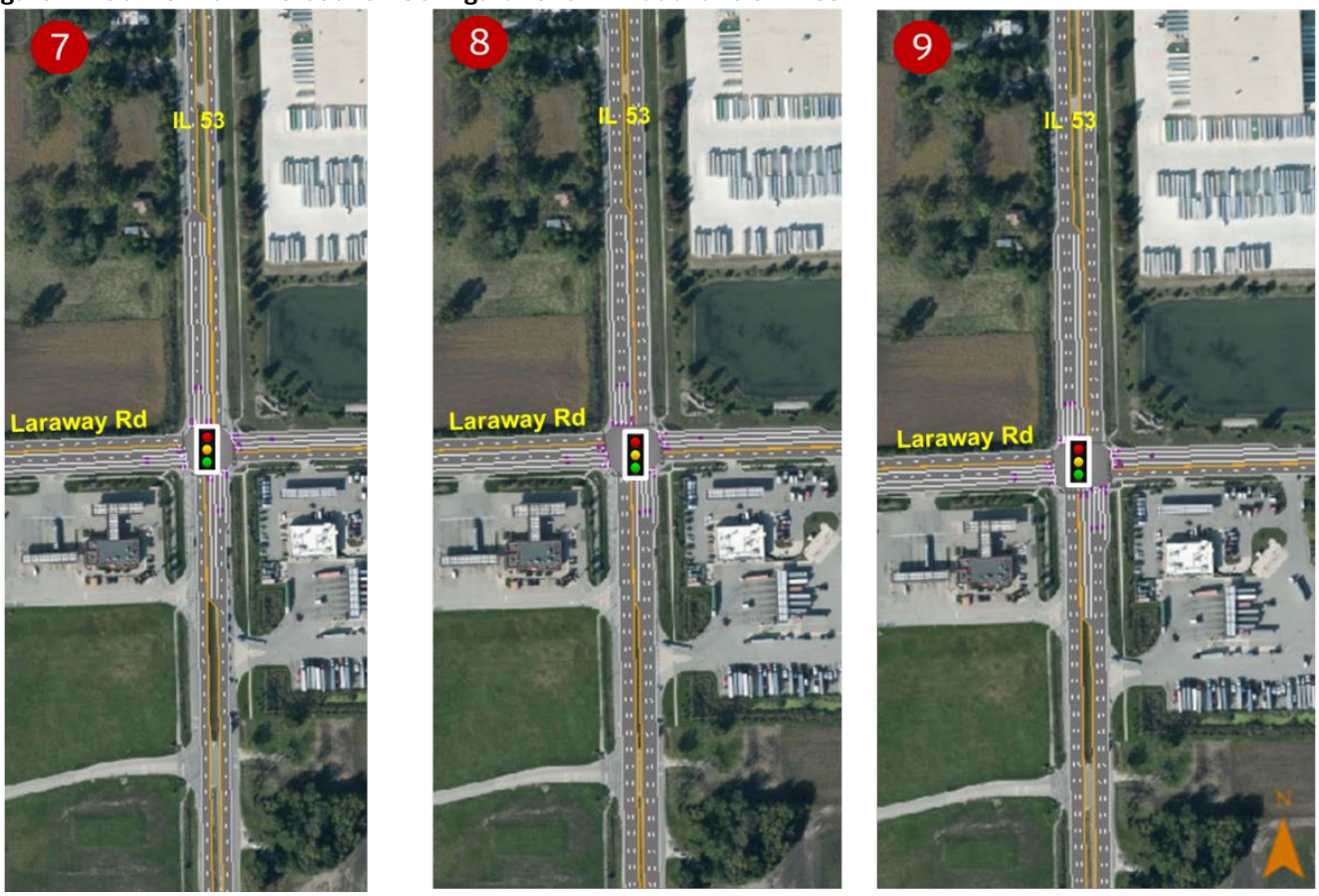
Intersection Configurations 7-9

Traditional signalized intersection improvements were considered that would not only improve Laraway Road but add features to IL 53. The foundation for these options was Configuration 4, which improved Laraway Road by providing east and westbound dual left turn lanes and dedicated right turn lanes (refer to Figure 27). The number of thru lanes varied by direction. There would be two thru lanes for eastbound travel and one thru lane for westbound travel.

The additional features to IL 53 beyond those mentioned already include:

- Configuration 7, along IL 53, the single left turn lanes were changed to dual left turn lanes that would be constructed within the existing median area.
- Configuration 8 adds an additional lane along IL 53
- Configuration 9 adds both dual left turn lanes on IL 53 along with an additional lane each direction.

Figure 27: Convention Intersection Configurations with add lane on IL 53



Improvements of IL 53 need to take into consideration the existing flooding at the Laraway Road/IL 53 intersection. This flooding adds complexity to the intersection configurations that include widening IL 53. Based on a review of existing conditions, roadside drainage ditches regularly fill with water that overtops the IL 53 pavement. The center median also floods, with water on the pavement after major storms.

As a result, configurations that widen IL 53 will require more extensive improvements to reduce flooding impacts; correct drainage patterns, and prevent flooding.

2.4.2 Step 2: Evaluate Alternatives

2.4.2.1 Evaluate Build Alternatives

Four build (mainline) alternatives were evaluated in Step 2. The objective of the evaluation was to identify Alternatives to be Carried Forward in subsequent engineering studies.

The following criteria were used to evaluate the alternatives:

- Traffic operations (mobility and safety)
- Transportation footprint
- Maintenance of traffic during construction
- Drainage and utility conflicts
- Impacts to sensitive resources[13]
- Construction cost
- Constructability

Figure 28 illustrates the comparison between the four build alternatives. Traffic operations with each alternative is good.

Table 6 identifies the transportation footprint or right-of-way (ROW) for each build alternative. The existing ROW is 40-45' to the north and 33-60' to the south of Laraway Road's existing centerline. All of the alternatives would maintain the existing ROW line on the north side of Laraway Road by shifting the proposed centerline of Laraway Road approximately 20' south to avoid impact to the Joliet maintenance facility/pumping station. However, during construction of the two alternatives that would either raise or lower the three railroad tracks and parallel railroad service drives (UPRR over Laraway Road, and UPRR under Laraway Road), require additional temporary ROW to construct temporary tracks to maintain operations during construction, resulting in lower score in transportation footprint and maintenance of traffic. Resource areas evaluated for each alternative included socioeconomic resources, agriculture, historic properties, water resources, special waste and special lands. The potential for each alternative to affect sensitive resources was similar for each alternative except with respect to water resources (water bodies). The two alternatives that raise or lower the three railroad tracks and parallel railroad service drives (UPRR over Laraway Road, and UPRR under Laraway Road) would impact the waterbodies adjacent to the UPRR spurs.

Additionally, the alternatives vary by complexity of design and construction, and magnitude of cost.

- The two alternatives that would require either a railroad or roadway underpass (Laraway Road under existing UPRR, and UPRR under Laraway Road) would have significant drainage and utility conflicts.
- The two alternatives that would either raise or lower the three railroad tracks and parallel railroad service drives (UPRR over Laraway Road, and UPRR under Laraway Road), including the spur line, would require significantly more reconstruction to accomplish the same objective of grade separating the road from the rail resulting in higher overall costs and negatively affecting its constructability.

[13] Based on an environmental screening of existing and available data. For the alternatives to be carried forward, an environmental survey and field investigations will be conducted in subsequent studies (i.e., NEPA) to determine the exact limits of environmental resources.

Figure 28. Laraway Road Alternatives Comparison

Criteria	Laraway Rd over existing UPRR	Laraway Rd under existing UPRR	UPRR over Laraway Rd	UPRR under Laraway Rd
Laraway Road Operations (Mobility and Safety)*				
Transportation Footprint				
Maintenance of Traffic during construction (Road and Rail)				
Drainage and Utility Conflicts				
Water Resources (Waterbodies)				
Magnitude of Cost				
Constructability				
Determination	Carried Forward	Eliminated	Eliminated	Eliminated

*All alternatives represent a substantial improvement over the No-Build Condition

LOW SCALE HIGH

Table 6: Laraway Road Existing and Proposed Right of Way

Alternative	ROW – Existing CL		ROW – Proposed CL		UPRR ROW
	North	South	North	South	Each side
Existing/No Build	40-45’	33-60’	-	-	50-90’
Laraway over UPRR	40-45’	75-80’	60’	60’	Matches existing
Laraway under UPRR	40-45’	75-80’	60’	60’	Matches existing
UPRR over Laraway	40-45’	75-80’	60’	60’	Matches existing
UPRR under Laraway	40-45’	75-80’	60’	60’	Matches existing

While all four mainline alternatives provide a substantial improvement in mobility and safety, the alternative that bridges **Laraway Road over the UPRR** would have the smallest transportation footprint (or construction area). This road-raised-over-rail alternative would also have the least drainage and utility conflicts, and would have a lower comparable cost than other alternatives. In addition, the Laraway Road over UPRR alternative would be easiest to construct and maintain (during and after construction) and is not anticipated to have a substantial impact on sensitive resources. For these reasons, the Laraway Road over existing UPRR Alternative is recommended as an Alternative to be Carried Forward with the No Build Alternative as discussed in Section 2.5.

2.4.2.2 Evaluate Laraway Road/IL 53 Intersection Configuration Options

The Laraway Road/IL 53 intersection configuration options were evaluated independently of the four mainline build alternatives as they would all tie into the same four-lane cross section regardless of the build alternative. The objective of the evaluation was to identify intersection configuration options to be carried forward to subsequent engineering studies.

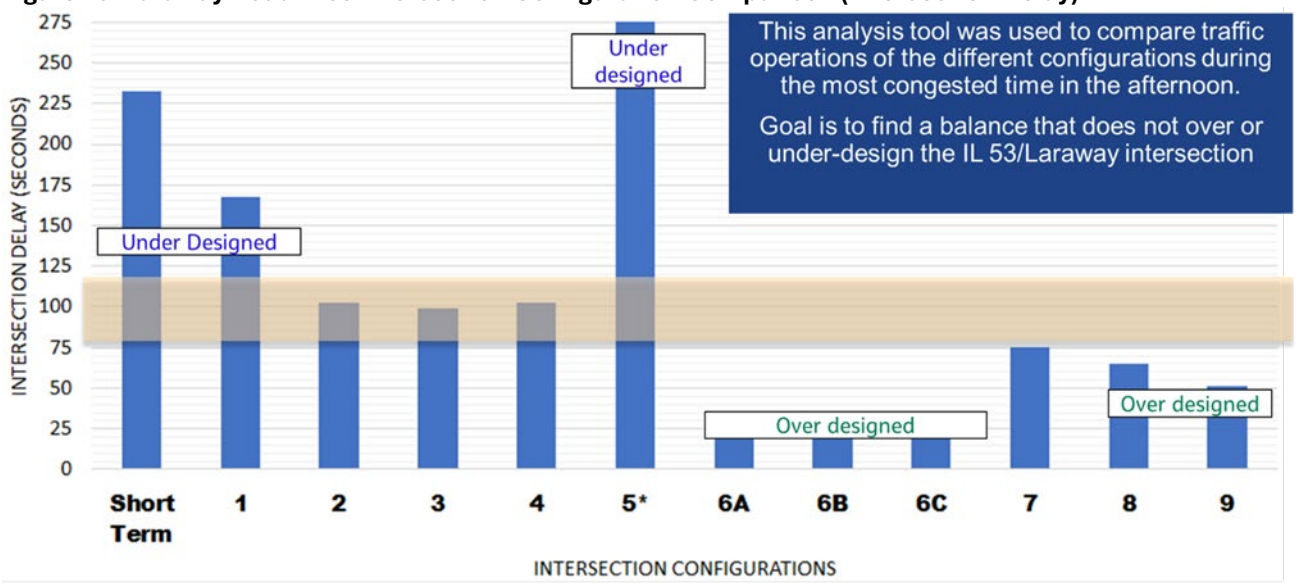
The following criteria were used to evaluate the intersection configurations:

- Intersection operations
- Improve Freight network reliability on Laraway Road
- Reduce delay on Laraway Road
- Impacts to sensitive resources
- Maintenance of traffic during construction
- Drainage and utility conflicts
- Impacts to sensitive resources[14]
- Construction cost
- Constructability

One metric used to measure effectiveness of intersection operations was change in intersection delay. While the cornerstone of the project's purpose and need was improving mobility along Laraway Road, overall delay at the IL 53 intersection was calculated (refer to Figure 29). Additionally, the evaluation considered volume-to-capacity ratio, approach width from Laraway Road to IL 53 and queue length of eastbound left turn lane from Laraway Road to IL 53. As illustrated in Figure 29, options 2, 3, and 4 result in good operations without over designing the facility.

Figure 30 reports the performance of each configuration option against the evaluation criteria. As demonstrated in Figure 29, although options 6A, 6B, 6C, 8 and 9 provide good operations, improves freight network reliability, and reduces delay on Laraway Road the construction cost is very high to achieve this benefit.

Figure 29. Laraway Road IL 53 Intersection Configuration Comparison (Intersection Delay)



*The delay for Configuration 5 would be greater than shown

Appendix I, Attachment 2 includes a more detailed analysis of traffic operations for each configuration option. Another important consideration along IL 53 is potential impacts to sensitive resources (i.e., historic designation of IL 53) and compatibility with adjacent land uses (i.e., ease of accessing adjacent land uses. Intersection configurations 5, 6B and 6C scored unfavorably with respect to sensitive resources and 5, 6A, 6B and 6C scored unfavorably with respect to compatibility with adjacent land uses. Further options 5, 6A, 6B, 6C, 8 and 9 have higher drainage and utility conflicts, higher construction complexity and higher costs compared to the other

[14] Based on an environmental screening of existing and available data. For the alternatives to be carried forward, an environmental survey and field investigations will be conducted in subsequent studies (i.e., NEPA) to determine the exact limits of environmental resources.

options. Thus options 5, 6A, 6B, 6C, 8, and 9 were eliminated. Additionally, options 1 and 2 were eliminated as these options are not as effective as options 3, 4, and 7 in achieving a reduction in delay and freight network reliability.

Intersection configuration options 3, 4 and 7 meet the project's purpose and need, and achieve a balance between evaluation criteria, such as providing good mobility during most periods of the day without overdesigning to the point where the intersections become too large for pedestrians to navigate. The intersection configuration options recommended to be carried forward with the build alternative are options 3, 4, and 7.

2.5 Alternatives Recommended to be Carried Forward for Detailed Study

Following Step 2 of the alternative evaluation process, one Laraway Road Build alternative (**Laraway Road over the UPRR**) with three Laraway Road and IL 53 intersection configuration options (**Options 3, 4, and 7**) (refer to Figure 30), and the No Build Alternative are recommended to be carried into subsequent Phase I and NEPA studies.

No commitments were made during the PEL Study. However, we recommend that the project team consider the feedback from stakeholders as part of the Phase I Study process, including but not limited to

- Existing drainage issues along Laraway Road and IL 53,
- Forest Preserve District of Will County commented that Laraway Road from Centerpoint Way east to Harlem Avenue at the Cook County boundary is identified as a regional bicycle corridor in the 2016 Will County Bikeway Plan.

Agency meetings with representatives from FHWA, IDOT, City of Joliet, ICC, and Will County helped inform the alternative to be carried forward. Additionally, community and agency input was solicited over a 30-day period in April 2021 on the project's website, as well as at a facilitated public meeting held on April 14, 2021. FHWA and IDOT did not object to the alternatives development and evaluation process, or the recommended alternatives to be carried forward to a future Phase I study.

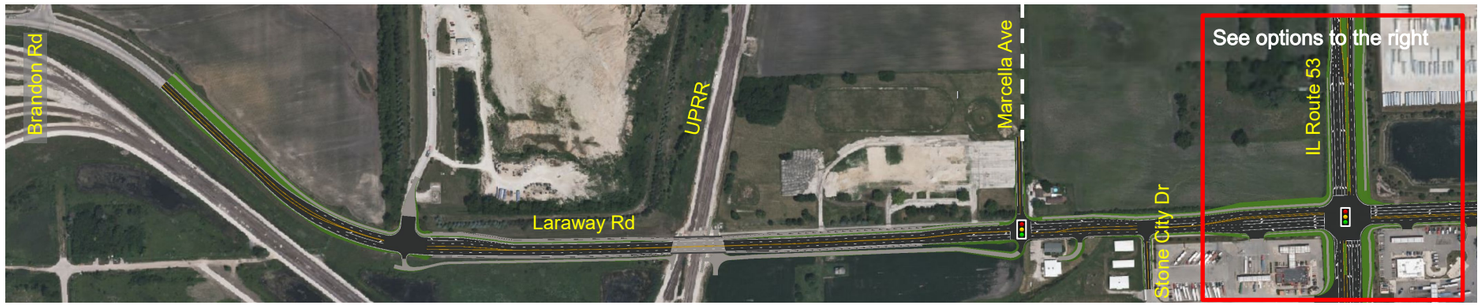
A relative comparison of the estimated project costs was used to evaluate the alternatives discussed in Section 2.4.2.1. A planning level cost estimate was developed for the Build Alternative to be Carried Forward, including the three intersection configuration options.

Figure 29. Laraway Road IL 53 Intersection Configuration Comparison

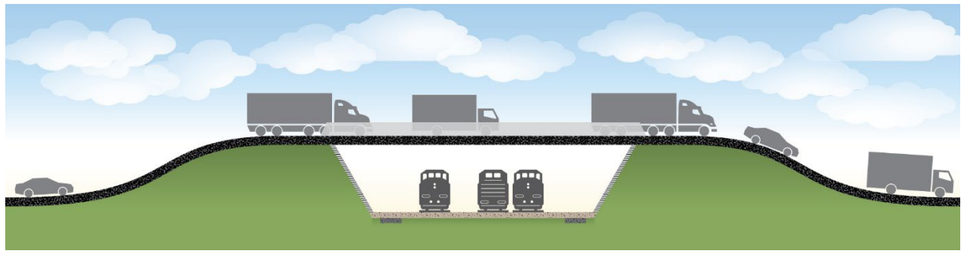
Criteria	Near Term	1	2	3	4	5	6A	6B	6C	7	8	9
Overall Intersection Operations												
Improve Freight Network Reliability on Laraway Road												
Reduces Delay on Laraway Road												
Impacts to Sensitive Resources												
Compatibility with adjacent land uses												
Drainage Issues/Concerns												
Constructability												
Cost												

Figure 30. Build Alternative Recommended to be Carried Forward

Laraway Road (Mainline Improvement)

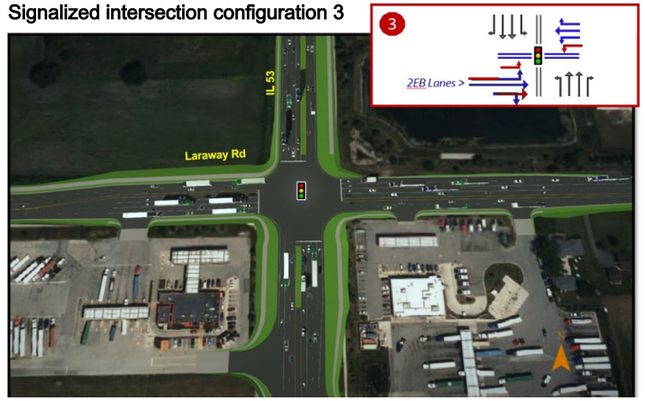


Side view of grade crossing: Laraway Road over existing UPRR

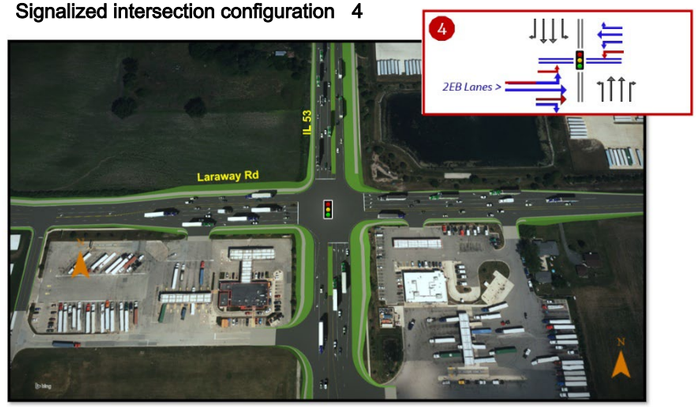


At the Laraway Road and IL 53 intersection
Three intersection configuration options

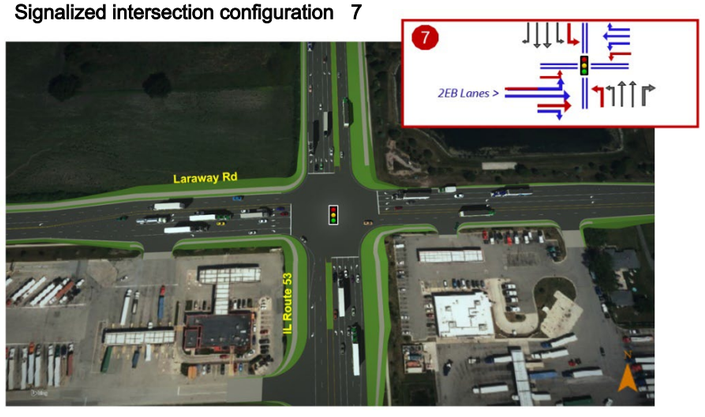
Signalized intersection configuration 3



Signalized intersection configuration 4



Signalized intersection configuration 7



3. Public Involvement and Agency Coordination Summary

CMAP was committed to developing recommendations that reflect the unique needs of the study area and address the concerns and desires of agencies, businesses and residents. A structured process to engage all potentially interested parties in a meaningful way throughout the study was established at the beginning of the study and documented in a Stakeholder Involvement Plan (refer to Appendix B). The intent was to solicit information, ideas, and opinions from the public and agencies. This chapter summarizes the public involvement and agency coordination efforts.

3.1 Early Coordination Letters and Responses

At the onset of the study, CMAP sent early coordination letters to federal and state agencies, elected officials and other stakeholders on the project's mailing list. The letters requested a letter from the resource agencies and elected official describing any environmental resources or issues of concern in the vicinity of the study.

Early coordination letters were sent to the agency and elected officials identified in Table 7.

Table 7. Early coordination letters to agencies and elected officials

Agencies	
Federal Highway Administration	Federal Railroad Administration
Federal Emergency Management Agency, Region V	Federal Aviation Administration
U.S. Army Corps of Engineers, Rock Island District	U.S. Environmental Protection Agency, Region 5
U.S. Fish and Wildlife Service (USFWS)	Illinois Department of Natural Resources (IDNR)
Illinois Nature Preserves Commission	Illinois Commerce Commission (ICC)
Illinois Environmental Protection Agency	Illinois Emergency Management Agency
IDOT, District 1	Illinois State Toll Highway Authority
Illinois Chamber of Commerce	Illinois Capital Development Board
Will County Division of Transportation	Joliet Township
Will County Governmental League	Will County Preservation Committee
Forest Preserve District of Will County	Union Pacific Railroad
Regional Transportation Authority	PACE
Elected Officials	
United States Senators from Illinois	Members of Congress from Illinois
Illinois State Senators from the study area	Illinois State Representatives from the study area
Will County Executive	Will County Board members from the study area
Mayor of the City of Joliet	

Additionally, early coordination letters were sent to other interested parties on the project's mailing list such as the Illinois Route 66 Scenic Byways, Route 66 Association of Illinois, Landmarks Illinois, American Automobile Association of Chicago, Illinois Trucking Association, Illinois Road and Transportation Builders Association,

Amtrak, among others. Other stakeholders were asked for their input, including a request to complete a survey (refer to Section 3.2). Refer to Appendix E for a full list of recipients.

Table 8 summarizes the agencies that provided an early coordination response letter (refer to Appendix E)

Table 8. Response letters from agencies and elected officials

Agency	Date	Letter Summary
Amtrak	5/26/20	Union Pacific Railroad as the owner of the infrastructure speaks for all tenant railroads, including Amtrack.
AAA	5/26/20	Stated they do not consider their organization a stakeholder in the project.
Will Co Land Use Dept., Historic Preservation Commission	5/27/20	The following sites have been identified as "contributing" or as having "local landmark potential". These sites are not locally designated landmarks or listed on the National Register of Historic Places. • 240 Zurich Road. Pyramidal well house is listed as "contributing" • 2430 S Chicago Street (IL 53). Site has local landmark potential
USFWS	5/28/20	USFWS does not have any substantive comments to offer regarding the Laraway Road at Union Pacific Railroad - Planning and Environmental Linkages Study located in the City of Joliet, Will County, Illinois.
Pace	6/1/20	Pace operates Route 512 within the study limits. It provides service between downtown Joliet and the various warehouses and distribution centers within and adjacent to the CenterPoint Intermodal Center. 1 early morning and 1 early afternoon run. Pace is supportive of any improvements that would reduce congestion in this area resulting in diminished delays and costs for Pace.
Will Co Government League	6/2/20	No immediate concerns
Will County Division of Transportation	6/4/20	Study area issues include significant truck traffic that causes traffic congestion at the Laraway Road and IL 53 intersection; significant backups along eastbound Laraway Road that can extend through and past the railroad crossing; and traffic along westbound Laraway Road can backup to IL 53 intersection making it problematic for vehicles on IL 53 to turn onto Laraway Road.
USEPA	6/5/20	USEPA recommends analysis of diesel emissions and their potential impact on nearby receptors under No Build and Build alternatives. (Analysis is included under Question 8.) Additionally, recommend accessing the following websites to obtain pertinent information on existing project environments and potential project impacts. • NEPAssist (https://www.epa.gov/nepa/nepassist). •
Senator Pat McGuire, 43rd District	6/5/20	Support for the project
Illinois Route 66 Authority	6/5/20	The proposed project has no effect on the historic segment of Route 66.

Table 8. Response letters from agencies and elected officials

Agency	Date	Letter Summary
IDNR	6/9/20	Based on a review of Natural Heritage Database and other available information, the Department identified no concerns for protected natural resources at this time.
FHWA	6/11/20	FHWA looks forward to working with CMAP and the City of Joliet on this PEL study, we have no specific comments on the project at this time.
Illinois Route 66 Scenic Byway	6/11/20	The Byway Association indicated that they do not have an interest in this project. Their interests are south of the study area.
Illinois Capital Development Board	6/11/20	No concerns/interests for the project.

3.2 Stakeholder Survey

A survey was sent to stakeholders and posted on CMAP's website to gather information on issues and travelers' experiences along Laraway Road (Brandon Road to IL 53) and at the Laraway Road railroad grade crossing. Ninety-three people completed the survey. Appendix G contains an executive summary and report documenting the survey results. The stakeholder survey validated the needs identified in study technical analyses as well as highlighted additional issues for the project team to investigate.

3.3 Stakeholder Interviews

The project team conducted stakeholder interviews (approximately 10) early in the study process to assist in identifying project constraints and stakeholder interests. During the interviews, stakeholders responded to the draft purpose and need and provided input to supplement the technical evaluation. The stakeholders included local property owners, organizations, and government officials.

3.4 FHWA and IDOT-BDE Coordination

The project team met with FHWA and IDOT-Bureau of Design and Environment (BDE) at key milestones throughout the process to receive their input and approval:

- Stakeholder and Public Involvement Plan (Appendix B)
- Existing Transportation System Performance (Appendix C)
- Project Purpose and Need (Chapter 1)
- Alternatives Development and Evaluation Process (Chapter 2)

- Public Involvement Opportunity and Public Information Meeting (Appendix F)
- FHWA PEL Questionnaire and Report

Table 9 identifies FHWA and IDOT-BDE coordination meetings and the topics discussed at each meeting. Appendix D contains a copy of the meeting minutes.

Table 9. FHWA and IDOT-BDE Coordination Meetings

Meeting Date	Topics Discussed
5/5/20	PEL study purpose, Northeastern Illinois Grade Crossing Study, transportation challenges in the study area
9/15/20	PEL study background, overview of the draft purpose and need statement, results of the stakeholder survey, clarification of the project sponsor
12/8/20	Review of purpose and need statement, presentation of additional information on the transportation challenges in the study area based on technical analysis and stakeholder input, review of the proposed alternatives to address the transportation challenges in the study area, review of intersection design configuration options at Laraway Road and IL 53
1/5/21	Coordination and approval of the purpose and need statement, review of the range of alternatives and evaluation results, including intersection configuration options at Laraway Road and IL 53
2/9/21	Presentation of the additional intersection configuration options developed and evaluated at Laraway Road and IL 53, presentation of Laraway Road (mainline) alternatives evaluation
3/16/21	Presentation of the upcoming "Public Input Opportunity 2021", including a review of the Public Information Meeting format and materials to be presented during the meeting
5/4/21	Summary of the Public Input Opportunity 2021, Public Information Meeting, presentation of the PEL Questionnaire and PEL Report, and review of the Alternatives to be Carried Forward Memo (Chapter 2 of the PEL Report).
11/16/2021	Final presentation of the PEL Questionnaire and PEL Report; submittal of final PEL Questionnaire and PEL Report

3.5 Project Website

A project website was maintained throughout the study at https://engage.cmap.illinois.gov/laraway-road-at-union-pacific-railroad-crossing. The website's purpose was to disseminate study information, as well as receive input from visitors.

The project's website provided information about the PEL study, a survey to solicit input on study area conditions, an interactive map for stakeholders to post their issues of concern, and project studies and reports. Prior to the

Public Information Meeting in April 2021, the website also hosted materials to be presented at the meeting (refer to Section 3.6). The website captured continuous feedback from the public and stakeholders as the PEL study progressed. The following are some of the features available on the website:

Documents. This area featured study reports. Documents were added to this section as they became available. Additionally, prior the Public Information Meeting in April 2021 the website was update with content shared at the public information meeting.

Photo-Gallery and Videos. The site featured maps, photos and videos of the study area.

Stakeholder Engagement Timeline. A flow diagram illustrating the project process and current study milestones.

Project Brochure. Prior to the Public Information Meeting in April 2021 a project brochure was published summarizing key analyses and findings of the study.

Frequently Asked Questions. Answers to frequently asked questions.

Comments and Questions. This area allowed the public and stakeholders to pose questions about the PEL study. The project team monitored and responded to the questions asked.

3.6 Public Information Meeting

Stakeholders and the public were invited to attend a virtual public information meeting on April 14, 2021, through the online webinar platform Zoom, which included an option for stakeholders without internet access to participate via phone. During the meeting, attendees were able to learn about the study's goals, purpose and need, and alternatives to be carried forward for further engineering. Further, participants were able to ask questions and receive answers directly from the project team.

Stakeholders were notified in advance of the virtual public information meeting through print and digital advertisements placed in the Joliet Herald News (Herald-News/TheHerald-News.com) on March 31, 2021, and April 7, 2021. An electronic advertisement was also placed on the Herald's website on April 7 through April 13. CMAP and the City of Joliet also provided links to the meeting registration on their agency websites. Meeting brochures were sent to the people/businesses on the project's mailing list, and emails were sent to people/businesses who had provided their email address to the project team. Meeting notices and project brochures were also placed at several locations in Joliet for drivers/residents to learn about the project and obtain meeting information, including Lenny's Route 66 Fuel Stop, Pilot Travel Center, Stone City VFW Post 2199, and Joliet City Hall. Project brochures were also provided to the Illinois Trucking Association to share with their members.

The Public Information Meeting content was available on the project's website for 30 days, including a recording of the April 14, 2021, public information meeting. Appendix F contains a summary of the public information meeting, including comments received prior to, during, and following the meeting, and responses to comments.

4. References

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Union Pacific Railroad (UPRR). 2020. Maintenance incident reports at Laraway Road and UPRR at-grade crossing provided to CMAP.

Will County Center for Economic Development (CED). 2017. *Will County Community Friendly Freight Mobility Plan*. https://www.willcountyfreight.org/.

From: Kurt Corrigan
To: Thomas Murtha
Cc: Mikos, Sean; Tice "Charles" Cole
Subject: FW: Joliet Laraway Over UPRR I 20-00534-00-ES | PEL Study Revisions
Date: Monday, April 13, 2026 11:12:22 AM
Attachments: image002.png
image007.png
image008.png
image009.png
image010.png
image011.png

Hi Tom,
We received the below information from IDOT last Friday.

Nothing more to do with the PEL expect print the email string below and attach to the PEL study.

The City and Team thank you for your help on this.

Thanks

Kurt Corrigan, P.E.
Vice President of Municipal Services
V3 Companies • **P** 847.417.0072 • **E** kcorrigan@v3co.com

From: Stallworth, Kevin D <Kevin.Stallworth@illinois.gov>
Sent: Friday, April 10, 2026 9:19 AM
To: Mikos, Sean <smikos@joliet.gov>; 'ccole@cmtengr.com' <ccole@cmtengr.com>; Kurt Corrigan <kcorrigan@v3co.com>; Denise Herrera <dherrera@cmtengr.com>
Cc: BarreraVargas, Elizabeth <Elizabeth.BarreraVargas@Illinois.gov>
Subject: FW: Joliet Laraway Over UPRR I 20-00534-00-ES | PEL Study Revisions

Sean and others,

Joliet / Laraway Road over UPRR (PEL Study), section number 20-00534-00-RS

Please see the two messages below (from IDOT Central Office and FHWA, respectively).

FHWA has no further comments to the PEL study. FHWA's statement of "No further comment" satisfies the closing of the PEL. Print this email string and attach it to the PEL document.

This project may proceed into the full Phase 1 Engineering NEPA cycle with the NEPA-ready Purpose & Need and viable alternatives. When you select the preferred alternative, please contact me to

request that this project is discussed at an upcoming IDOT-FHWA Coordination meeting.

See below.

Thanks,

Kevin Stallworth
IDOT Dist. 1 Bureau of Local Roads & Streets

From: Letsky, Stephen M. <Stephen.Letsky@Illinois.gov>
Sent: Thursday, April 9, 2026 2:48 PM
To: Stallworth, Kevin D <Kevin.Stallworth@illinois.gov>
Cc: BarreraVargas, Elizabeth <Elizabeth.BarreraVargas@Illinois.gov>
Subject: RE: [External] Re: FW: Joliet Laraway Over UPRR I 20-00534-00-ES | PEL Study Revisions

FHWA's No Further Comment satisfies the closing of the PEL. Print this email and attach to the PEL document.

This project may proceed into the full Phase 1 Engineering NEPA cycle with the NEPA-ready Purpose & Need and viable alternatives. When they select their preferred alternative, please have that brought to an IDOT-FHWA Coordination meeting.

Stephen Letsky, PE
Project Development Engineer
Illinois Department of Transportation, Bureau of Locals Roads & Streets
2300 S Dirksen Pkwy, Suite 204
Springfield, IL 62764
Office: 217-557-5122; Cell: 217-299-3970

From: Pantoja, Irene <irene.pantoja@dot.gov>
Sent: Thursday, April 9, 2026 2:31 PM
To: Stallworth, Kevin D <Kevin.Stallworth@illinois.gov>
Cc: Letsky, Stephen M. <Stephen.Letsky@Illinois.gov>; Eddy, Andrea <Andrea.J.Eddy@Illinois.gov>; BarreraVargas, Elizabeth <Elizabeth.BarreraVargas@Illinois.gov>
Subject: [External] Re: FW: Joliet Laraway Over UPRR I 20-00534-00-ES | PEL Study Revisions

Kevin,

No further comments are needed at this time. Review completed

Irene

On Wed, Mar 18, 2026 at 4:01 PM Stallworth, Kevin D <Kevin.Stallworth@illinois.gov> wrote:

> Steve,
>
> Joliet / Laraway Road over U.P. Railroad, section 20-00534-00-ES (PEL Study)
>
> I just forwarded you (and Irene and Andrea) a “One Drive” link including the revised PEL Study prepared by CMAP, to follow up on the discussion at the February 3, 2026 FHWA Coordination Meeting.
>
> Please see the message below for further details of what is included in the submittal.
>
> Please download, review, and coordinate with BDE and FHWA as necessary.
>
> Please keep me posted on your and FHWA’s further advice regarding this concern.
>
> Thanks,
>
> Kevin
>
> ---
>
> **From:** Tice 'Charles' Cole <ccole@cmtengr.com>
> **Sent:** Tuesday, March 17, 2026 9:09 PM
> **To:** Stallworth, Kevin D <Kevin.Stallworth@illinois.gov>
> **Cc:** BarreraVargas, Elizabeth <Elizabeth.BarreraVargas@Illinois.gov>; Mikos, Sean <smikos@joliet.gov>; Kurt Corrigan <kcorrigan@v3co.com>; Denise Herrera <dherrera@cmtengr.com>; Jeremy Metz <jmetz@cmtengr.com>; Matt DeMoss <mdemoss@cmtengr.com>
> **Subject:** [External] Joliet Laraway Over UPRR I 20-00534-00-ES | PEL Study Revisions
>
> Kevin,
>
> As requested in the Phase 1 Study Initial FHWA Coordination Meeting held on February 3, 2026, please find the revised PEL Study prepared by CMAP in the link below for review.
> 2026MarchRevisions

This revised version of the PEL Study addresses the comments raised at the coordination meeting as well as the follow up email from Ms. Eddy on February 4, 2026. Please find attached email from CMAP that includes a disposition to Ms. Eddy's comments. The City and Phase 1 consultant team have reviewed the revision, and everything seems to address the concerns. To facilitate the review, CMAP has provided the following documents:

- redline version of the PEL report in Word format
- version with the edits accepted
- pdf version with the edits accepted
- pdf of the appendices to the PEL report (compiled from other pdfs. so a redline version is not possible)
- letter from EPA, removed from the appendices, for you files.

Upon notification from IDOT/FHWA that the document is NEPA-ready again, we will activate the Phase 1 Study website and upload the revised PEL Study for public access.

If you need anything else regarding this action item, please don't hesitate to reach out and I can coordinate any follow up with the City of Joliet and CMAP accordingly.

Thanks,
Tice

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CMT

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My top 5 CliftonStrengths:
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