



Illinois Department of Transportation

Memorandum

To: Jose Rios, Region 1 Attn: Chad Riddle
From: Greg S. Lupton
Subject: Approved Transition, PEL-to-Phase 1 NEPA
Date: December 22, 2025

Will County
Will County Division of Transportation
Section 23-00116-15-ES
Wilmington Peotone Planning & Environmental Linkage (PEL) Study

On November 19, 2025, FHWA concurred in the completion of the PEL with “no further comments”. IDOT and FHWA acknowledge this project completing its pre-NEPA phase and are accepting this project to transition into NEPA via the IDOT-FHWA phase 1 engineering process.

A copy of the FHWA-IDOT email exchange is attached.

A copy of the report has been uploaded to the BLRS WMFT database under the documents folder for the project.

Engineer of Local Roads and Streets

A handwritten signature in black ink that reads "Gregory S. Lupton". Below the signature, the initials "SML" are printed in a small, sans-serif font.

By: Gregory S. Lupton, P.E.
Acting Bureau Chief of Local Roads & Streets/ Local Project Implementation
Engineer



Wilmington-Peotone Planning
and Environmental Linkage (PEL)
Study
FINAL REPORT

River Road
From I-55 to IL 53
IL 53
From River Road to
Wilmington-Peotone Road
Wilmington-Peotone Road
From IL 53 to Drecksler Road

Will County Division of Transportation

DECEMBER 2025

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I. Introduction

Burns & McDonnell has been tasked by the Will County Division of Transportation (WCDOT) with a Project Environmental Linkage (PEL) Study to study potential improvements to the Wilmington-Peotone corridor. The Study limits extend along River Road from the River Road and I-55 interchange to IL Route 53 (IL 53), along IL 53 between River Road and Wilmington-Peotone Road, and along Wilmington-Peotone Road from IL 53 to Drecksler Road. This document features a Purpose and Need Statement for the PEL and subsequent NEPA Phase I Studies – a summary of the issues identified through the project team’s investigations, and a declaration of what the Study will seek to achieve for WCDOT and its constituents. Because WCDOT expects to seek federal funding for a portion of anticipated future improvements, conformance with the NEPA process will be rigorously pursued.

PROJECT DESCRIPTION

The Wilmington-Peotone project limits begin to the west at the interchange of I-55 and River Road. The project follows River Road for 4 miles to the intersection with IL Route 53, then follows IL Route 53 from River Road to Wilmington-Peotone Road, and continues along Wilmington-Peotone Road until it ends at Drecksler Road. The limits extend roughly 22 miles and will be referred to as the Wilmington-Peotone Corridor. The Location Map is included in **Figure 1**.



Figure 1: Wilmington-Peotone Corridor Location Map

The majority of the corridor is under WCDOT jurisdiction with the exception of the I-55 interchange, the 0.6 mile section along IL Route 53, and I-57 interchange which are under the jurisdiction of the Illinois Department of Transportation (IDOT). The Wilmington-Peotone Corridor travels east-west and is designated by IDOT as a Strategic Regional Arterial, part of a network of regional highways for which capacity and throughput is of primary importance.

I-55 along with I-57 represent the major north-south interstates within the study area, making them major destinations for those traveling along Wilmington-Peotone Road. West of I-55, River Road changes classification from a Strategic Regional Arterial and travels through the State Game and Wildlife Park. The Strategic Regional Arterial designation follows the project corridor through to the Drecksler Road intersections where the east-west roadway ends. As such, I-55 to the west and Drecksler Road to the east are the logical termini of the project.

PURPOSE AND NEED STATEMENT

The complete Purpose and Need Statement, which includes additional information on supporting facts such as safety, traffic conditions, land use, future demand, structures, public and stakeholder support,

and regional bikeway plan, used to determine the statement is included as **Exhibit 2**. The initial Purpose and Need Statement was presented to the public via the project website and public meetings held in October 2024.

PURPOSE

The Wilmington-Peotone corridor has seen an increased rate of crashes compared to the state and county averages. Commercial and industrial development growth is occurring rapidly across Will County as evidenced by new freight clusters along the Wilmington-Peotone corridor that are challenging the roadway infrastructure. Multimodal accommodations are minimal with recreational trails present but no safe connections directly along the Wilmington-Peotone corridor. For roadway users, the number of east-west connectors throughout the County are limited and the increase in distribution and logistics centers throughout the area has only increased the need for access between I-55 and I-57.

The **purpose** of this project is to improve safety, enhance mobility for all users through providing an efficient east-west connection, and support current and future travel demand throughout the corridor.

NEED FOR THE PROJECT

Will County as a whole has seen extensive commercial and industrial development growth in recent years challenging the existing infrastructure safety and capacity. The Wilmington-Peotone Corridor is one of few major east-west connectors within Will County.

Corridor geometry is a major cause of crashes with a narrow cross section that includes both lane and shoulder widths less than current standards for much of the study area. The narrow cross-section combined with rolling hills and a high percentage of large vehicles creates safety concerns resulting in rear end and fixed object crashes. The lack of shoulder width throughout the corridor deters law enforcement with no place to safely stop vehicles. Minimal shoulders and few sidewalks/multi-use paths deter alternate means of transportation. The continued development throughout the County is only expected to increase traffic using this corridor and exacerbate the safety concerns caused by the narrow corridor. Recent public meetings show strong support of safety improvements to the Wilmington-Peotone Corridor.

The **needs** for this project are to address deficiencies in the existing roadway and multimodal infrastructure and accommodate growth in local and regional traffic to improve mobility throughout the county.

II. Other Existing Conditions

The Purpose and Need Statement provides a summary of the key site characteristics which explain the concerns and objectives behind this project. Other conditions which will affect the progress and/or characteristics of the design, but are not central to the Purpose and Need, are summarized in the following pages. Supplementary reports are referenced where applicable.

Environmental Conditions

WETLANDS

A wetland delineation of the project corridor was conducted in October 2023 to identify wetlands and other waterbodies. The survey area is within the City of Wilmington, Village of Peotone, and Unincorporated Will County and within the jurisdiction of the US Army Corps of Engineers (USACE) Chicago District and Will County. A total of 37 wetlands and 18 surface waters were identified. A total of 18 surface waters and 13 wetlands within the ESR limits are anticipated to be Waters of the United States (WOTUS) and under the jurisdiction of USACE.

The Wetland Delineation Report is included as **Exhibit 6.C**.

GRASSLAND BIRDS

A grassland bird assessment of the project corridor was conducted in April 2024 to determine potential indirect noise impacts to grassland birds. The assessment focused on publicly owned lands that contain a suitable grassland bird habitat as publicly owned lands are protected from development in the reasonably foreseeable future. A total of 215.7 acres of potential grassland bird habitat was identified, including 97.1 acres within the Des Plaines Fish and Wildlife Area. The assessment indicated that the area of grassland bird habitat with an indirect noise impact is 121.4 acres in the existing condition, and the area in the future condition will expand by 158.9 acres.

The Grassland Bird Assessment is included in this Report as **Exhibit 6.D**.

PRELIMINARY ENVIRONMENTAL SITE ASSESSMENT (PESA)

A PESA was conducted in accordance with IDOT policies. This assessment was also conducted in general accordance with the scope and limitations of ASTM International Standard Practice E1527-21 and the All-Appropriate (AAI) Final Rule (40 CFR 312). Deviations from ASTM Standard Practice E1527-21 are discussed in appropriate locations throughout PESA. The purpose of the PESA is to identify environmental conditions associated with the current and historic uses of the Project Site, adjoining properties, and nearby off-site sources that should be considered in the development and design of the proposed Project.

The PESA revealed the following:

- Evidence of *Recognized Environmental Conditions* in connection with the Property at 14 sites.
- Evidence of *Controlled Recognized Environmental Conditions (CRECs)* in connection with the Property, at one site which has a land use restriction in place from a 2002 remediation procedure.
- No evidence of *Historical RECs* in connection with the Project Site.
- No evidence of *Potential Environmental Concerns (PECs)* in connection with the Project Site.

The PESA is included in this Report as **Exhibit 6.A**.

Drainage

The project corridor is tributary to the Kankakee River through several sub-tributaries, including Prairie Creek, Jordan Creek, Forked Creek, Forked Creek Tributary 1, South Branch Forked Creek, South Branch Forked Creek Tributary 1, Rock Creek, and Black Walnut Creek. The tributaries generally flow from north to south across Wilmington-Peotone Road through various bridges and culverts. The project will be in the proximity of several Zone AE floodways, as well as Zone A floodplains.

Corridor drainage is generally open utilizing roadside ditches. The ditches are conveyed to culverts and bridge waterway crossings along the north side of the corridor. Along the south side of the corridor, the ditches are conveyed directly to the various tributaries. There is a short segment of closed drainage system towards the east end of the project near Peotone.

A preliminary review did not reveal any existing detention facilities within the corridor. Proposed improvements will likely need to include detention facilities.

An Existing Drainage Plan was prepared, which is included as **Exhibit 5.F** of this document and will serve as the foundation of a full location drainage study in the upcoming NEPA Phase I study.

III. Proposed Improvement Concepts

A. DESIGN CRITERIA

To aid in the preparation of concept-level designs of sufficient detail for evaluation, the project team developed a brief table of criteria and assumptions. All concepts developed for consideration were to meet the applicable criteria. River Road, Illinois Route 53 (IL 53), and Wilmington-Peotone Road are Strategic Regional Arterials (SRA). The design criteria are based on SRA criteria, where applicable. The existing posted and design speed is 55 mph along River Road and IL 53. Wilmington-Peotone Road has two separate design speeds: from IL 53 to 88th Avenue and from 88th Avenue to Dreckler Road where the roadway enters the Village of Peotone. The posted and design speed west of 88th Avenue is 55 MPH; to the east the posted speed drops to 40 MPH and the design speed is 45 MPH. Relevant design criteria from the Will County Division of Transportation (WCDOT), IDOT Bureau of Design and Environment (BDE) Design Manual, and IDOT Bureau of Local Roads and Streets (BLR) Design Manual were used.

The Design Criteria is included as **Exhibit 5.C** and **Exhibit 5.D** of this Report.

B. DESIGN PROCEDURE

Work did not begin on the development of design concepts until all data collection work was complete and public comments had been assessed. This background information was compiled into an initial Purpose and Need Statement, which was presented to the public via the project website and public meeting in October 2024. Its premise is that the extensive and continued development throughout Will County is only expected to increase traffic using this corridor and exacerbate the safety concerns and capacity caused by the narrow corridor.

Following development of the Purpose and Need Statement, the project team developed a wide variety of alternative concepts for the Wilmington-Peotone Road based on 3 categories: segments, intersections, and interchanges. Segment alternatives include longitudinal updates to the typical section, horizontal alignment, and profile along the corridor. Intersection alternatives focused on specific intersection locations and considered potential turn lanes as well as traffic control. Interchange alternatives focused on the interchange configuration and ramp intersections at the I-55 and I-57 interchanges.

Alternatives concepts were drawn in compliance with design criteria and developed as exhibits for consideration. Every concept was designed to address at least one of the issues defined in the Purpose and Need Statement or identified as problematic in our conversations with stakeholders and the public.

C. CONCEPT MODELING

TRAFFIC MODELING

The traffic analysis included validating the existing traffic volumes, including freight volume, then estimating future traffic demand for all vehicle types. The modeling methodology utilized Chicago Metropolitan Agency for Planning (CMAP)'s regional travel model as a basis, however, a sub-area calibration for future growth rates was utilized to account for local movements and known future developments within the project influence area. Stakeholder coordination validated how the corridor is currently utilized and confirmed more accurate localized future growth rates compared to the CMAP data. The validated sub-area model was utilized to forecast future traffic volumes and was used for all 2035 and 2050 modeled conditions as part of this study.



Figure 2: Actual (2023) and Estimated (2035 & 2050) Average Daily Traffic (ADT) and Truck Percentage

Traffic analysis was completed for morning and evening peak periods for existing (2023), 2035, and 2050 traffic volumes using various software for the concepts. Intersection concepts were analyzed using Sidra software or Synchro and SimTraffic software. Segment concepts were analyzed using Highway Capacity Software (HCS). Interchange concepts were analyzed using a combination of Sidra, Synchro and SimTraffic software.

Peak hour measures of effectiveness were studied on each traffic model including:

Table 1: Traffic Modeling Measures of Effectiveness

Concept Alternative Type	Measures of Effectiveness
Intersection	Level of Service
Segment	Follower Density & % Followers
	Network Delay
	Travel Time
Interchange	Delay
	Level of Service

The following summarizes the purpose of each measure of effectiveness used:

- Delay – used to evaluate concept’s ability to service the traffic demand.
- Network Delay – used to measure delay across intersections to evaluate potential interactions between intersections.
- Follower Density & % Followers – used to measure the number of vehicles in a follower state to assess highway performance.
- Level of Service – used to evaluate the performance of operating conditions.
- Travel Time – measured to assess specific point-to-point travel times.

The complete Traffic Demand Modeling and Analysis Technical Memorandum is included in **Exhibit 5.I**.

CRASH MODELING

The safety analysis included evaluating recent crash history (2018 to 2022), identifying trends and hot spot locations, comparing observed crashes to expected crashes, and comparing predicted crashes between no-build and build concept alternatives. The modeling for future analysis utilized the Interactive Highway Safety Design Model (IHSDM) to calculate the predicted yearly reduction in crash percentage for intersection and segment concept alternatives. The segment crash prediction models used Illinois calibration factors; however, calibration factors were not used for intersection crash

prediction models as the *AASHTO Highway Safety Manual Illinois User Guide* did not have enough sites to perform calibrations for signalized intersections and calibrated models generally should not be compared to uncalibrated models. Interchanges concepts were analyzed using the Interchange Safety Analysis Tool Enhanced (ISATe). No calibration factor was available for these types of facilities, so comparisons focus on the percent reduction in crashes.

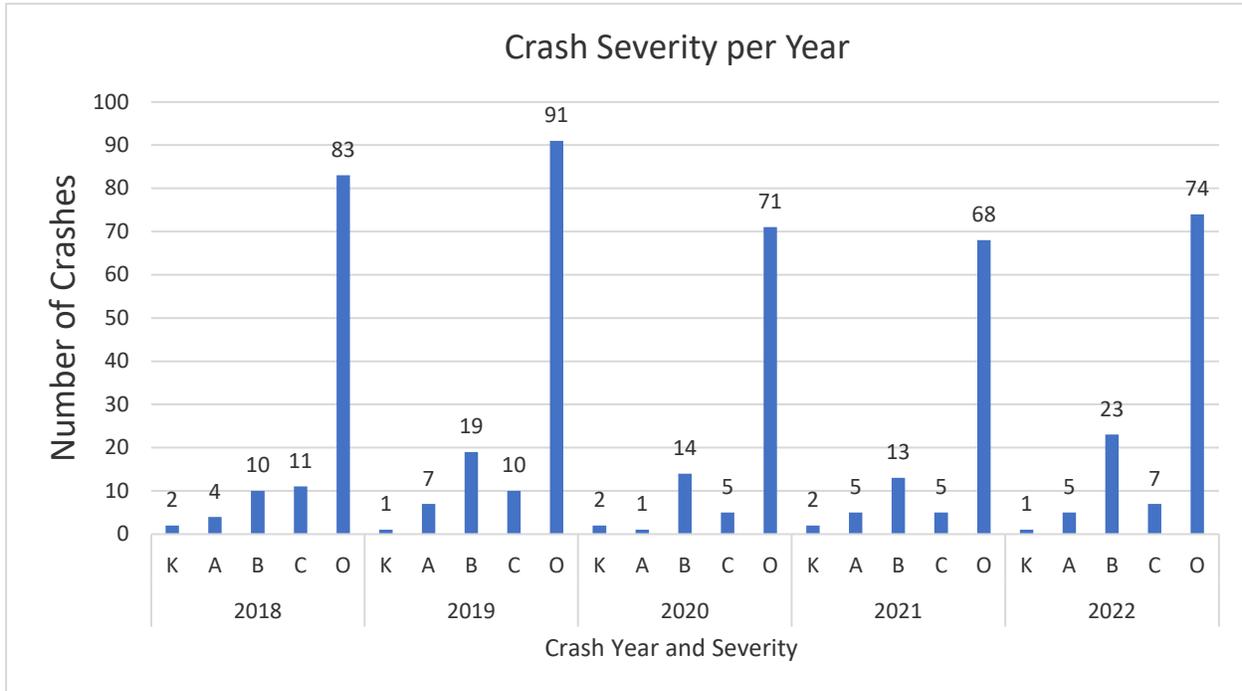


Figure 3: Number of Crashes along the Wilmington-Peotone Corridor by Severity and Year (2018-2022)

All analyses considered total crashes, fatal/injury crashes, and property damage only (PDO) crashes. All analyses used the future traffic volumes (AADTs) and occurred over a 27-year time period, 2023-2050.

The table below is an example of the annual crashes (fatal/injury and PDO crashes) calculated for each concept alternative between 2023 and 2050.

Table 2: Calculated Predicted Crashes Example Table

IL Route 50 & Wilmington-Peotone Road Intersection – Signalized Improvement – 2023-2050						
	Total Crashes		Fatal/Injury Crashes		PDO Crashes	
	No Build	Signalized	No Build	Signalized	No Build	Signalized
Crashes Per Year	2.69	1.65	1.03	0.63	1.69	1.04
Percent Reduction from No Build		39%		39%		39%

The complete safety analysis and all calculated predicted crashes for concept alternatives is included as **Exhibit 5.J**.

D. DEVELOPMENT OF SCORING CRITERIA

Concurrently with the development of geometric concepts, the project team compiled a list of a ten criteria (see **Table 3**) by which the concepts should be evaluated. The criteria were weighed based on their relevance to the Purpose and Need Statement. The detailed criteria, along with the rubric used by the project team in their evaluation, is included in **Exhibit 5.K**.

E. CONCEPT EVALUATION

Concepts were evaluated in November 2024. The evaluation criteria aside from “Public Input” were distributed among members of the project team. Evaluators were asked to provide a score between 0 and 5 for each concept for their assigned component(s), and to provide a brief justification for the score they issued. The scores were then added to a concept evaluation matrix and tabulated based on the weighting described above. (Public Input scores were calculated from individual surveys; refer to the Public Involvement section below.)

The final concept evaluation matrix was packaged into a Concept Evaluation technical memorandum included in this Report as **Exhibit 5.K**. This document provided exhibits depicting each of the corridor concepts along with their total scores and data sheets summarizing their key performance data.

Table 3: Criteria Weight

Criteria	Weight
Safety	5
Traffic Operations	3
Environmental Effects	*2/3
ROW Impacts	2
Stakeholder Input	2
Multimodal Potential	1
Constructability	1
EV Potential	1
Drainage Impacts	1
Cost	1

**Weight varies based on concept alternative location*

F. FATAL FLAWS ANALYSIS

The concept evaluation included a fatal-flaw screening – the elimination of those concepts with characteristics or impacts which are clearly unacceptable to WCDOT or local stakeholders. Fatal flaws are generally identified as substantial impacts such as major environmental impacts, a failure to meet design criteria, excessive residential or commercial displacements, lack of IDOT support for interactions with IDOT facilities, or excessive cost. The only remaining justification for eliminating a concept as fatally-flawed was a notable failure to meet Purpose and Need.

Concepts identified as fatally flawed are included in the Concept Evaluation Technical Memorandum included as **Exhibit 5.K**.

G. ALTERNATIVES TO BE CARRIED FORWARD

Following the Public Information meeting and the final tabulation of concept scores, the Project Team selected a draft slate of Alternatives to be Carried Forward, based on the scores each concept had received. Each of these concepts were demonstrated to be more successful than the no-build concept alternative in addressing Purpose and Need.

The Alternatives to be Carried Forward were presented to WCDOT on January 16 and received concurrence. Alternatives which involve interactions with an IDOT facility were presented to IDOT for comment in October 2024 with additional comments received following evaluation in March 2025. Summary tables of the alternatives scoring are included below. Alternatives shown in **red** are **not** recommended to be considered in future Phase I studies, all others are recommended as Alternatives to be Carried Forward.

Table 4: Segment Summary Table

Denotes alternative NOT to be carried forward							
Alternative	Passing Lanes	Widened Cross Section	Profile Improvements	Realignment (ORANGE)	Railroad Grade Separation	Realignment (RED)	No-Build
Final Score	49	49	44	44	39	32	32

Table 5: Intersections Summary Table

Denotes alternative NOT to be carried forward					
River Rd & IL 53					
Alternative	Turn Lane (EB/WB LT)			No-Build	
Final Score	49			32	
IL 53 & Wilmington-Peotone Rd					
Alternative	Turn Lane (EB/WB LT)			No-Build	
Final Score	47			32	
Wilmington-Peotone Rd. & Indian Trail Rd.					
Alternative	Turn Lane (EB/WB LT)			No-Build	
Final Score	49			32	
Wilmington-Peotone Rd. & Symerton Rd.					
Alternative	Turn Lane (EB/WB LT)			No-Build	
Final Score	47			32	
Wilmington-Peotone Rd. & Old Chicago Rd.					
Alternative	Traffic Signal	Roundabout	Turn Lane	No-Build	
Final Score	55	48	42	34	
Wilmington-Peotone Rd. & Cedar Rd.					
Alternative	Traffic Signal	Roundabout	Turn Lane	No-Build	
Final Score	54	51	49	35	
Wilmington-Peotone Rd. & US 45/52					
Alternative	Traffic Signal	Roundabout	Turn Lane	No-Build	
Final Score	54	50	40	29	
Wilmington-Peotone Rd. & IL 50					
Alternative	Roundabout	Realignment	Turn Lane	No-Build	Traffic Signals
Final Score	50	44	40	38	0

Table 6: I-55 Interchange Summary Table

Denotes alternative NOT to be carried forward					
Alternative	Roundabouts	Expanded Parclo Interchange	Trumpet Interchange	No-Build	Traffic Signals
Final Score	53	47	45	43	0

Table 7: I-57 Interchange Summary Table

Denotes alternative NOT to be carried forward						
Alternative	Traffic Signal	Roundabouts	Diamond Interchange	Diverging Diamond Interchange	Parclo Interchange	No-Build
Final Score	60	51	44	53	39	35

The full memorandum is included in **Exhibit 5.K.**

IV. Public and Stakeholder Involvement

A. GENERAL CONSIDERATIONS

The Wilmington-Peotone PEL study invested significant effort in gathering input from the organizations, jurisdictions, businesses, and residents affected by corridor issues. Some of the formal components of an IDOT-directed Public Involvement effort, such as a Community Advisory Group (CAG) or a Project Study Group (PSG), were not required; however, the principles behind the formation of such groups was matched with the detailed outreach initiated by the project team. A project website, <https://wilmingtonpeotonestudy.com/>, was promoted and regularly updated with project materials. It hosted project surveys and served as a source of background information during and after the Public Information Meetings. The public outreach and coordination components of the PEL were important in building the confidence of the project team that improvements to the corridor are likely to be supported by the public and by stakeholders.

B. STAKEHOLDER COORDINATION

At the outset of the project, the team developed a Stakeholder Involvement Plan and divided our stakeholders into five groups. Participating stakeholders were defined as those who could be affected by the project and have a stake in its outcome. This includes property owners, business owners, state and local officials, special interest groups, and motorists who utilize the facility.

A complete list of project stakeholders identified by the project team and classified by their level of engagement through the course of the PEL is included as **Exhibit 4.A**.

C. IDOT / FHWA COORDINATION

The project team intends to pursue Federal funding for future improvements. For that reason, coordination with IDOT Bureau of Local Roads (BLRS) and the Federal Highway Administration (FHWA) was an important component of the PEL. Meetings with IDOT BLRS and the IDOT/FHWA Coordination group are summarized in the table below by date and content (minutes and email correspondence included as **Exhibit 4.B and 4.C**):

Table 5: IDOT / FHWA Coordination Meeting Summaries

Date	Key Topics or Decisions
IDOT BLRS October 23, 2023	Kick-off meeting to present the study and confirm coordination points and the appropriate PEL process.
IDOT/FHWA March 12, 2024	Project introduced and data collection findings presented. The Purpose and Need statement was presented; with updates based on comments were sent via email and concurrence was received in November 2024. It was confirmed following the meeting by USACE that the project does not need to follow the NEPA 404 merger process.
IDOT BLRS October 31, 2024	Meeting to present the Alternatives being studied and evaluation criteria and to receive comments and input on the interactions with IDOT facilities.
IDOT/FHWA March 11, 2025	Meeting to obtain concurrence on the evaluation criteria and process and present Alternatives to be Carried Forward.

D. PUBLIC INFORMATION MEETINGS AND OUTREACH

Comments, questions, and input from the public have been solicited since the inception of the Study. A mailing list was assembled early in the project and regularly updated by website sign-ups in advance of the Public Information Meetings. Mailing list constituents received email blasts about announcements of opportunities to provide comments and participate in surveys and public meetings.

FIRST PUBLIC INFORMATION MEETING

Given the size of the corridor, separate Public Information Meetings were held in both the City of Wilmington and Village of Peotone. The First Public Information Meeting was held on December 6, 2023 in the City of Wilmington and December 13, 2023 in the Village of Peotone. The meeting lasted from 4 p.m. to 7 p.m. Seventy-four people attended in Wilmington and 35 attended in Peotone. The meeting used an “open house” format without a formal presentation. Exhibit boards presented at the meeting included an overview of the study and defining the PEL process, an introduction to the project and its schedule, and a summary of existing traffic data and crash data. A corridor roll plot was also displayed with post-its available for attendees to provide comments on specific locations along the corridor. Seven members of the project team were on hand to answer questions from the public.

Following the tour of the project display boards, attendees were invited to use a comment station onsite to answer a survey about the corridor using either paper forms or tablets provided. This survey was made available on the project website as well. A total of 53 surveys were collected between December 6, 2023, and the close of the comment period on January 12, 2024.

Promotional materials, presentation slides, survey results and other meeting records are included in this Report as **Exhibit 3.A**.

SECOND PUBLIC INFORMATION MEETING

The Second Public Information Meeting was held on October 9, 2024 in the Village of Peotone and October 16, 2024 in the City of Wilmington. The meeting lasted from 4 p.m. to 7 p.m. Thirty-two people attended in Peotone and 34 attended in Wilmington. The meeting was an “open house” format without a formal presentation similar to the First Public Information Meeting. Exhibit boards presented at the meeting included a summary overview of the First Public Information Meeting, project purpose and need, concept alternative evaluation process, updated project schedule, and interchange concept alternatives. Roll plots displaying intersection and segment concept alternatives were also displayed with post-its available for attendees to provide comments on specific locations along the corridor. A copy of the First Public Information Meeting summary newsletter and a Fact Sheet, which highlighted key items presented at the Second Public Information Meeting, were also handed out to attendees.

Following the tour of the project display boards, attendees were invited to use a comment station onsite to answer a survey about the corridor using paper forms. This survey was also made available on the project website. A total of 33 surveys were collected between October 9, 2024, and the close of the comment period on November 6, 2024.

Promotional materials, presentation slides, survey results and other meeting records are included in this Report as **Exhibit 3.B**.

V. NEPA Compatibility and Next Steps

The stakeholder meetings and public outreach efforts above essentially provided a level of coordination comparable with a Community Advisory Group (CAG). Outreach efforts were similar in scope and scale, and the widest possible variety of project information was provided to both the public and to stakeholders on a comparable schedule.

Accordingly, the project team is confident that the process to this point has been appropriately detailed and transparent. The Alternatives to be Carried Forward have been properly assembled and evaluated based on a consensus Purpose and Need, and their proposed promotion into NEPA Phase I is documented and explainable. Coordination and outreach meeting or exceeding the level of intensity to date will continue as the Alternatives to be Carried Forward move towards selection of a preferred concept.

Exhibit 1: PEL Study Questionnaire

PEL Study Questionnaire

1. Background

a. Who is the sponsor of the PEL Study? (state DOT, local agency, other)

Will County Division of Transportation (WCDOT)

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)?

The project is known formally as the “Wilmington-Peotone PEL Study.” The final deliverable which summarizes the efforts of this study are described below as the Wilmington-Peotone PEL Report, or “PEL Report.”

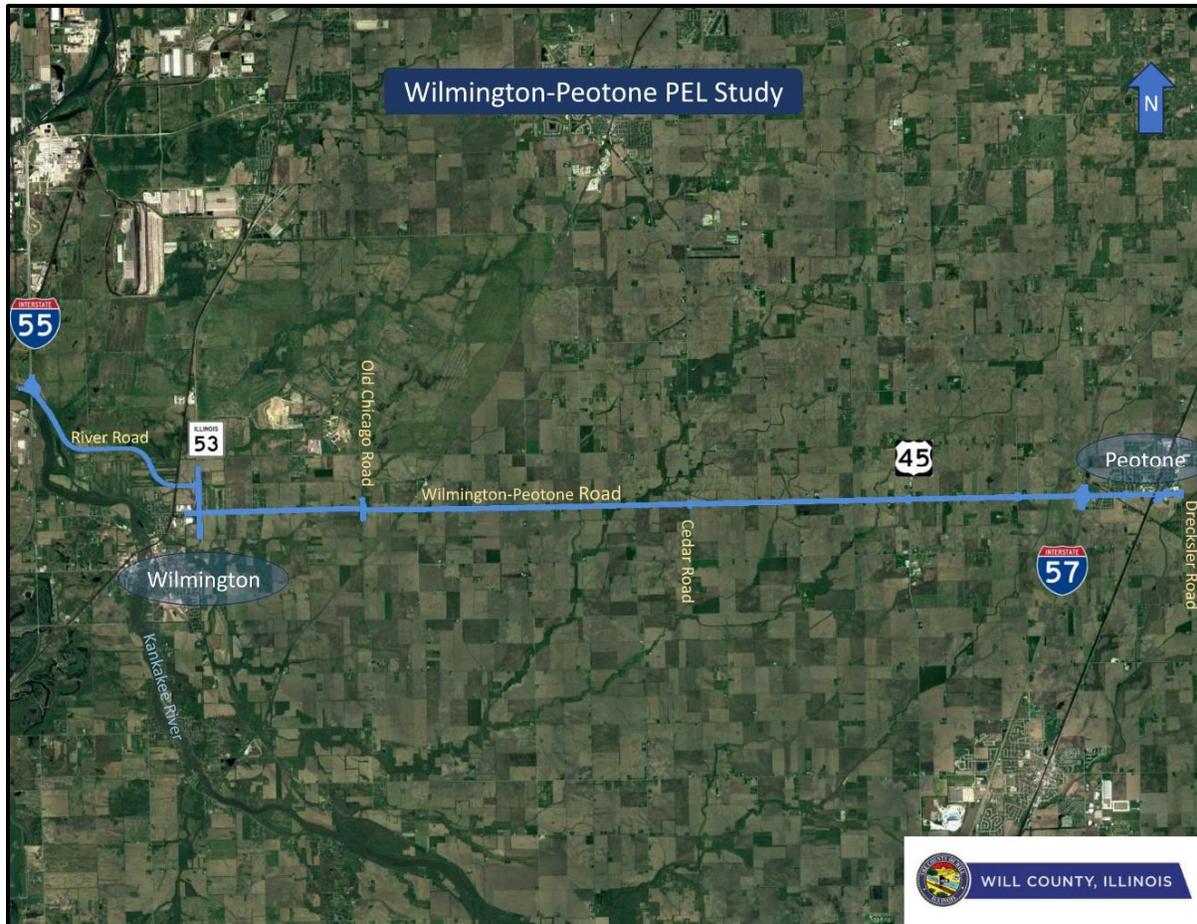
c. Who was included on the study team (Name and title of agency representatives, consultant, etc.)?

The following is a list of key staff involved in the development of the design, analysis, procedure, or review of the eventual Alternatives to be Carried Forward:

Will County Division of Transportation (WCDOT)	
Christina Kupkowski, PE	Project Manager
Burns & McDonnell Engineering Co., Inc. Team	
Katie Leska, PE	Project Manager
Desiree James	Project Engineer
Sagar Sonar, PE (Kimley-Horn)	Traffic / Public Involvement
Adam Kucharski, PE (Kimley-Horn)	Traffic / Public Involvement

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 Wilmington-Peotone Corridor project includes River Road from I-55 to IL Route 53 (IL 53), IL 53 from River Road to Wilmington-Peotone Road, and Wilmington-Peotone Road from IL 53 to Drecksler Road. The Wilmington-Peotone Corridor is 22 miles long within the project limits. Land use varies throughout the area but is largely agricultural. The project limits includes 2 interchanges, 2 signalized intersections, and 29 unsignalized intersections. There are 2 at-grade railroad crossings and a crossing with the Wauponsee Glacial Trail.



The corridor is designated by the Illinois Department of Transportation (IDOT) as a Strategic Regional Arterial – one of a network of highways intended for maximized capacity and mobility. The existing roadway in the Study area is generally a two-lane cross section with turn lanes at several intersections. The corridor follows three different roadways with different existing typical sections. Both River Road and IL 53 include 12’ lanes with 10’ and 8’ shoulders, respectively. Wilmington-Peotone Road is noticeably narrower with 11’ lanes and a 4’ shoulder from IL 53 to past I-57 and curb and gutter for the remainder of the corridor to the east. The project limits are largely agricultural along Wilmington-Peotone Road. Much of River Road is within the Midewin National Tallgrass Prairie to the west and there is a more suburban area near the eastern limits in the Village of Peotone. The corridor experiences a wide variety of users including passenger vehicles and farm equipment, as well as semi-trucks given the surrounding logistics developments.

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

The Wilmington-Peotone PEL Study began in August 2023 and is expected to conclude in early 2025. Prior to this, a Strategic Regional Arterial report completed by IDOT in 1997, anticipated the need for a four-lane cross section through the PEL Study area. However, it anticipated a future traffic demand of 14,000-20,000 AADT for the year 2010. The current volumes are well below that range with future 2050 traffic projections still shy of the range generated from the study. Refer to the Existing Traffic technical memorandum attached as **Exhibit 5.A** of the PEL Report.

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?

The Illinois Department of Transportation is conducting numerous studies in the vicinity of the Wilmington-Peotone Study Area. The IL Route 53 Phase I study includes the River Road and IL Route 53 intersection within its southern limits. An IL Route 50 Phase I study of IL Route 50 is also ongoing by IDOT. The initial study limits included the intersection with IL Route 50 and Wilmington-Peotone Road; however, more recent information shared does not include any improvements to the intersection with the construction limits starting south of the Wilmington-Peotone PEL study area. IDOT is also conducting the I-57 Access Study which is a Phase I Study from Wilmington-Peotone to north of Manhattan-Monee Road. The project team will continue to coordinate with IDOT and the project teams to ensure compatibility between the different projects.

Finally, IDOT has recently awarded a separate PEL Study along I-55 at the western edge of the project whose limits include the I-55 and River Road interchange. The project has yet to begin, so no coordination has occurred with the project team to date. As Wilmington-Peotone Phase I studies advance, the I-55 project status will be tracked and coordinated as needed.

2. Methodology Used

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

The Wilmington-Peotone corridor has seen an increased rate of crashes compared to the state and county averages. Commercial and industrial development growth is occurring rapidly across Will County as evidenced by new freight clusters along the Wilmington-Peotone corridor that are challenging the roadway infrastructure. Multimodal accommodations are minimal with recreational trails present but no safe connections directly along the Wilmington-Peotone corridor. For roadway users, the number of east-west connectors throughout the County are limited and the increase in distribution and logistics centers throughout the area has only increased the need for access between I-55 and I-57.

The study was initiated to examine the existing conditions, determine the cause for the safety and traffic concerns, and develop concepts to address them. The scope included coordination with key stakeholders and IDOT/FHWA at several milestones throughout the study. Public involvement scope included the development of a project website, stakeholder coordination, and two public meetings. Lidar and drone

survey were completed, traffic counts were taken at 11 intersections, and crash reports were requested as part of the Data Collection efforts. Environmental effort included the completion of a PESA, submittal of an ESR, migratory bird analysis, and wetland delineation. Other existing conditions studies included bridge inspections and study of the existing drainage. A Purpose and Need Statement was prepared. An extensive concept development and evaluation process was used to determine Alternatives to be Carried Forward into the Phase I study.

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

Terminology consistent with NEPA processes was used wherever possible throughout this PEL Study to help streamline the environmental process anticipated under future NEPA studies.

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

The following phrases consistent with NEPA usage were used frequently throughout the PEL. Additional background on a few of those terms follows:

- Study Area
- Logical Termini
- Screening Process
- Purpose and Need Statement
- No-Build Alternative
- Multimodal
- Alternatives to be Carried Forward
- Stakeholders

A *Purpose and Need Statement* was prepared for this PEL Study that included identifying the PEL Study purpose, needs, and goals. The PEL Study defines the Purpose and Need Statement as follows: A Purpose and Need statement is used in Planning and Environmental Linkages (PEL) and National Environmental Policy Act (NEPA) studies to articulate, and focus on, the specific problems to be addressed. The Purpose and Need was used to develop and evaluate alternatives, but it is not biased toward a particular solution. The Purpose and Need Statement for this PEL Study is presented in **Exhibit 2** of the PEL Report.

A *No-Build Alternative* was identified and defined as follows: The No-Build Alternative consists of the existing corridor in its current geometric and operational form under future traffic conditions. The No-Build Alternative serves as a baseline comparison for operational, safety, benefit-to-cost, and environmental analysis purposes.

Stakeholders were defined as governments, agencies, or organizations of scale with substantial interests in the project. Stakeholders were identified in a Stakeholder Involvement Plan at the outset of the project and received communications and presentations from the project team on a regular basis. The details of outreach and coordination with stakeholders is documented in **Exhibits 3 and 4** of the PEL Report.

Alternatives to be Carried Forward have been identified in the final PEL report and are defined as follows: These alternatives have been evaluated and screened based on the PEL Study assessment of the corridor and input from the public. The Preferred Alternative will be determined during the Phase I study.

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

These terms will be used in the final Phase I report document to describe the full project study and for background on how the final design was determined.

All of the terms listed in 2.c above will be used in their current context to provide consistency and continuity between the PEL Study and the subsequent Phase I 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.

The key steps and coordination points included the following:

1. Purpose and Need – The Purpose and Need Statement was developed based on the data collection and input from the first public meeting. The Purpose and Need Statement was presented to FHWA/IDOT in March of 2024, and coordinated via email until concurrence was received in December 2024.
2. Design Development – Concepts were created only after data collection was complete and the Purpose and Need Statement had been developed. Concepts were broken up into three categories given the scale of the project: segments, intersections, and interchanges. During a Phase I study, combinations of the Alternatives to be Carried Forward will be evaluated to identify the Preferred Alternative for the Study Area. Designers were encouraged to be creative in addressing the concerns of the Purpose and Need Statement. This allowed the development of a wide variety of potential improvements.
3. Alternatives to be Carried Forward – Ten criteria were developed from the data collection phase of the PEL Study. The criteria were weighted based on their relevance to the Purpose and Need Statement. A scoring rubric, using quantitative measures wherever possible, was established. The criteria and the weighting were approved by WCDOT and received concurrence from FHWA/IDOT in March 2025.

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

The purpose of the PEL was to give the project team an opportunity to create a Purpose and Need Statement, develop the widest possible variety of potential alternatives, screen those alternatives for maximum feasibility and effectiveness, and explain that screening process to stakeholders. The PEL information will be presented in the Phase I Report to describe the coordination points throughout the project lifetime and describe how the Alternatives to be Carried Forward were selected.

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.

The Wilmington-Peotone PEL Study was presented at two IDOT/FHWA meetings. The first meeting in March of 2024 provided the agencies with a background on the project and the scope of work to be performed. It was also at this meeting that the logical termini were discussed and the Purpose and Need statement was presented. A second IDOT/FHWA presentation was made in March 2025. The project team presented the results of the concept evaluation process and discussed the final PEL report for concurrence by IDOT and the FHWA.

The project team has met with the Midewin National Tallgrass Prairie throughout the PEL study. The western portion of the project, much of the length along River Road including the I-55 interchange, abuts and is within the environmentally sensitive area.

A Preliminary Environmental Site Assessment (PESA) conducted by the project team identified two sites with Recognized Environmental Conditions; both are within the limits of the ESR but are not impacted by the Alternatives to be Carried Forward. Additionally, 11 orphan sites were identified as Recognized Environmental Conditions which will continue to be considered as future Phase I study progresses. An Environmental Survey Request (ESR) was submitted to IDOT in February of 2024.

Tribal coordination began during this PEL study and will continue into future NEPA Phase I studies. Letters were sent to all tribes listed within Will County outlining the project limits and project goals. The letter included the Purpose and Need as well as the Alternatives to be Carried Forward and provided the opportunity for the tribes to provide comments.

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

River Road and Wilmington-Peotone Road are under the jurisdiction of WCDOT, the project sponsor. IL Route 53 is under the jurisdiction of IDOT. IDOT also has jurisdiction over a number of roadways crossing the corridor including: I-55, US Route 45/52, I-57, and IL Route 50. Many of the other roadway crossings are owned by Townships who were part of the stakeholder meetings held throughout the study.

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

Based on the anticipated findings of the PEL Study, the following interactions will be a part of the Phase I design process:

Agency	Anticipated Actions
Federal Highway Administration (FHWA)	Concurrence will be needed from FHWA at multiple points during the project lifespan. Two meetings occurred during this PEL study to present the Purpose and Need near the beginning of the study and to present the concept evaluation and Alternatives to be Carried Forward later in the project.
Illinois Department of Transportation (IDOT)	The corridor includes a small portion of IL Route 53 which is owned by IDOT as well as interacts with the I-55 and I-57 interchanges as well as the US Route 45/52 and IL Route 50 intersections. The team has met with IDOT twice during the PEL study, at the onset as well as during the concept development and will continue to work with IDOT to determine the best solution at interactions with their facilities.

4. Public Coordination

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

Outreach and coordination with the interested public consisted of the following activities:

- Stakeholder Meetings:
 - Will County Agencies: Will County Land Use Department, Will County Farm Bureau, Will County Sheriff, Will County Governmental League
 - Local Agencies:
 - **West End**: City of Wilmington, Florence Township, Wilmington Township, Wilmington Police Department, Wilmington Fire Department, Wilmington School District 209-U, Village of Symerton
 - **East End**: Village of Peotone, Peotone Township, Wilton Township, Peotone Police Department, Peotone Fire Department, Peotone School District 207-U
 - Community Group: Will County Forest Preserve District, Midewin National Tallgrass Prairie
 - Business Group: Illinois Truckers Association, Will County Center for Economic Development (CED)
 - Two presentations. Data collection, concept development, and concept evaluation were presented.

- Public Coordination:
 - Regularly updated and monitored project website:
<https://wilmingtonpeotonestudy.com/>
 - Establishment of an email communications list
 - Distribution of email updates at several times during the project
- Public Meetings
 - First: December 6th and 13th, 2023
 - Meeting held twice to accommodate users on either end of the 22 mile corridor. The first was held at the City of Wilmington and the second in the Village of Peotone. The same information was presented at both meetings.
 - Summarized existing conditions information gathered to date
 - Open-house style format project staff presenting information boards depicting the results of the data collection phase
 - Encouraged questions and comments about the direction of the project as well as completion of the public meeting survey
 - Second: October 9th and 16th, 2024
 - The same process was followed as Public Meeting #1 with one meeting in Wilmington and the other in Peotone; identical information was presented.
 - Summarized the input from Public Meeting #1, presented the Purpose and Need, and presented the concepts under consideration
 - Encouraged questions and comments about the suggested alternatives as well as completion of the public meeting survey

5. Corridor Vision/Purpose and Need

a. What was the scope of the PEL Study and the reason for doing it?

As discussed in Section 2.a, the scope of the Wilmington-Peotone PEL Study includes the establishment of a Purpose and Need for improvements, development and evaluation of potential improvement concepts, and identification of Alternatives to be Carried Forward into subsequent NEPA Phase I studies. The reason for this Study is to initiate the planning process and provide a basis of knowledge and analysis to inform the subsequent NEPA phase.

b. Provide the corridor vision, objectives, or purpose and need statement.

The Purpose and Need Statement was finalized in December 2024. It is included in its entirety in the PEL Report **Exhibit 2**. It was summarized as follows:

The **needs** for this project are to address deficiencies in the existing roadway and multimodal infrastructure and accommodate growth in local and regional traffic to improve mobility throughout the county.

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The **purpose** of this project is to improve safety, enhance mobility for all users through providing an efficient east-west connection, and support current and future travel demand throughout the corridor.

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

The formulation of the Purpose and Need Statement was compliant with NEPA procedures. Minimal effort is considered necessary to retain its compliance.

6. Range of Alternatives Considered, Screening Criteria, and Screening Process

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

The corridor was divided into three categories for concept development: segments, intersections, and interchanges. This was done given the length of the corridor and the different purposes of the improvements based on the unique characteristics of each category. Segment alternatives included typical section improvements, horizontal realignments, and profile improvements. Intersection concepts included traffic signals, turn lanes, and roundabouts. Interchange improvements included ramp intersection traffic control and interchange reconfiguration. A full list of all alternatives can be found in **Exhibit 5.K** of the PEL Report.

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

The screening criteria was developed based on input from WCDOT and the public received at the first public meeting as well as from the project team's review of the existing conditions information. The screening process included development of criteria, weighting of criteria, and matrix development.

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.)

Fatal flaws considered during alternative screening included extensive commercial or residential displacements, environmental impacts, a negative impact on safety, any alternatives that require interchange closure for construction, or alternatives that performed worse or the same as the No-Build Alternative.

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

Five build concepts for the segments, 4 build concepts for the intersections and 2 and 4 build concepts for the I-55 and I-57 interchanges, respectively were selected as Alternatives to be Carried Forward based on their scores from the criteria evaluation. The No-Build will also be carried forward for all categories. Refer to the main text of the PEL Report.

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

The public, stakeholders, and agencies had the opportunity to comment at two public meetings during the process. Stakeholders and agencies also had the opportunity to provide input at two meetings with the project team.

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

The majority of public opinion agrees that improvements are needed along the corridor and that safety is a major concern. Residents who live along the corridor are concerned about right-of-way (ROW) impacts. The public has also expressed concern with additional truck traffic. The study team has expressed that the improvements do not add additional capacity along Wilmington-Peotone Road and will continue to coordinate with residents along the corridor regarding impacts and potential solutions to specific ROW concerns in future Phase I studies.

7. Planning Assumptions and Analytical Methods

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

The year 2050 was used as the forecast for the purposes of traffic analysis. The local MPO, the Chicago Metropolitan Area for Planning (CMAP) provided the project with Year 2050 traffic projections, as this is the typical planning year used for projects of this type.

b. What method was used for forecasting traffic volumes?

Volumes were provided by CMAP using their regional demand forecast model. The details of this process are documented in the Future Traffic Technical Memorandum attached as **Exhibit 5.1** of the PEL Report.

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

Yes, CMAP traffic projections consider future improvements as part of the long-range transportation plan.

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 project team used CMAP adopted regional growth projections in the Travel Demand Model as the baseline demographic and employment growth forecasts. In addition, the project team gathered input from the Will County Division of Transportation and the Will County Center for Economic Development (CED) on committed or future anticipated development in the project vicinity.

8. 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?

Levels of detail for the study of environmental resources varied. As noted above, a PESA was performed for the Study area. An IDOT ESR was submitted. Additionally, a wetland delineation was performed along the corridor.

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

Wetland delineation identified 37 wetlands and 18 surface waters within the study area. The PESA identified 2 properties with Recognized Environmental Conditions as well as 11 orphan sites identified as Recognized Environmental Conditions.

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

The extent and influence of each resource above, and the anticipated NEPA Phase I actions where applicable, can be summarized as follows:

Resource	Extent and Influence
Threatened and Endangered Species	A desktop review was done as part of the ESR during this PEL phase. The project team received a list of threatened, endangered, proposed, and candidate species that may occur within the boundary of our project area. Additional review and survey will be needed in Phase I. There were 11 threatened, endangered, or candidate species identified by the ESR review: Northern Long-eared Bat, Whooping Crane, Eastern Massasauga, Salamander Mussel, Sheepnose Mussel, Hine’s Emerald Dragonfly, Monarch Butterfly, Rusty Patched Bumble Bee, Eastern Prairie Fringed Orchid, Lakeside Daisy, and Leafy Prairie-clover.
Migratory Birds	In addition to responsibilities to protect threatened and endangered species, there are additional responsibilities under the Migratory Bird Treaty Act and the Bald Golden Eagle Protection Act to protect native birds. A migratory bird’s analysis was performed and considered in the evaluation in order to ensure that adverse impacts to the area are minimized or eliminated completely.

Wetlands	Wetland delineation was performed and identified 37 wetlands and 18 surface waters within the study area. Impacts were considered as part of the concept evaluation. Additional investigation and mitigation will occur during future Phase I studies.
Water Quality and Drainage	The western limits of the study area abut the Kankakee River. Additionally, the corridor crosses Prairie Creek, Forked Creek Tributary, Jordan Creek, West Branch Forked Creek, Forked Creek, South Branch Forked Creek Tributary, South Branch Forked Creek, and Rock Creek. Refer to the Existing Drainage Plan included as Exhibit 5.F of the PEL Report.
Farmlands	As discussed in the land use section above, much of the corridor includes agricultural farmland. Future coordination with the Illinois Department Of Agriculture (IDOA) will be required during Phase I studies. The project team has been coordinating with the Will County Farm Bureau as part of this PEL study and will continue to through subsequent Phase I studies. An emphasis on understanding drainage tiles has been noted, and maintaining the existing farmland drainage will be a priority.
Historic Properties	The portion of IL Route 53 is part of the original historic Route 66 requiring additional coordination in the future if roadway improvements are proposed along IL 53.
Section 106 Evaluation	Letters have been sent to tribal contacts in Will County to coordinate the Purpose and Need, Alternatives to be Carried Forward, and the Final PEL document. As the project progresses, the project team will continue to coordinate and track any concerns noted by the tribes to eliminate and/or minimize impacts.
Section 4(f) Evaluation	There are numerous publicly owned facilities along the Wilmington-Peotone corridor including the Midewin National Tallgrass Prairie, Will County Fairgrounds, and Wauponsee Glacial Trail. During future Phase I studies, any impacts will require more detailed evaluation of potential alternatives to use this land and mitigation measures that minimize any harm resulting from the proposed use.
Hazardous Materials	A PESA conducted by the project team identified two sites with Recognized Environmental Conditions; both are within the limits of the ESR but are not impacted by the Alternatives to be Carried Forward. Additionally, 11 orphan sites were identified as Recognized Environmental Conditions which will continue to be considered as future Phase I study progresses. Refer to Exhibit 6.A of the PEL Report.

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

More detailed analysis and coordination will be required in future NEPA Phase I studies for all resources.

9. List resources 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.

The following topics were not studied in the PEL. Additional investigation will be done in future Phase I studies as applicable:

- Air Quality
- Noise
- Socio-Economics, Community, and Environmental Justice
- Geologic Resources
- Properties Acquired for Right-of-Way and Displacements

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

All alternatives were scored using criteria weighted based on the Purpose and Need and combined together to get a total score to identify the Alternatives to be Carried Forward. Outside of the scoring, limited conversations regarding cumulative impacts have been had but more detailed Phase I studies will consider the cumulative impacts when identifying the Preferred Alternative.

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

Major environmental resources, such as Midewin National Tallgrass Prairie and the Kankakee River, were avoided with all alternatives that were developed on the west end of the corridor. Other alternatives were developed with an effort to minimize impacts and displacements to properties along Wilmington-Peotone as well as wetlands and floodplain along the corridor. All resources will require more detailed review and analysis during Phase I to determine the appropriate mitigation strategies if avoidance is not possible.

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?

Depending on the timing of future NEPA efforts, certain resources in the corridor may require an assessment due to new regulations, additional threatened and endangered species, historic time limits, etc. Otherwise, information in the PEL will be made available for analysis to the agencies and public during NEPA scoping.

The PEL information will be used as the basis for the NEPA effort.

The project team will continue its coordination efforts with all of the stakeholders listed above, and seek to identify others which may require new, additional, or targeted engagement.

13. Are there any other issues a future project team should be aware of?
a. Examples: Utility problems, access or ROW issues, encroachments into ROW, problematic landowners, and/or groups, contact information for stakeholders, special or unique resources in the area, etc.

The PEL provides a summary of issues and evaluations that should be considered during future project development. Right-of-way needs will require further detailed evaluation during project development. Project funding will need to be targeted and secured. Design efforts will focus on effectively staging the construction and minimizing the physical impact of each Alternative.

Exhibit 2: Purpose and Need Statement



Wilmington-Peotone Planning and
Environmental Linkage (PEL) Study
PURPOSE AND NEED STATEMENT

Wilmington-Peotone Road
From I-55 to Drecksler Road
Section 23-00116-15-ES

Will County Division of Transportation
November 2024

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1. PROJECT BACKGROUND

Burns & McDonnell is conducting a Planning Environmental Linkage (PEL) Study on behalf of the Will County Division of Transportation (WCDOT) for proposed improvements to the Wilmington-Peotone Corridor from I-55 to Drecksler Road. This document shall serve as the Purpose and Need Statement for the PEL and subsequent NEPA Phase I Studies – a summary of the issues identified through the project team’s investigations, and a declaration of what the Wilmington-Peotone PEL Study will seek to achieve for WCDOT and its constituents.

A. Study Area

The Wilmington-Peotone project limits begin to the west at the interchange of I-55 and River Road. The project follows River Road for 4 miles to the intersection with IL Route 53, then follows IL Route 53 from River Road to Wilmington-Peotone Road, and continues along Wilmington-Peotone Road until it ends at Drecksler Road. The limits extend roughly 22 miles and will be referred to as the Wilmington-Peotone Corridor. The Location Map is included in **Figure 1**.

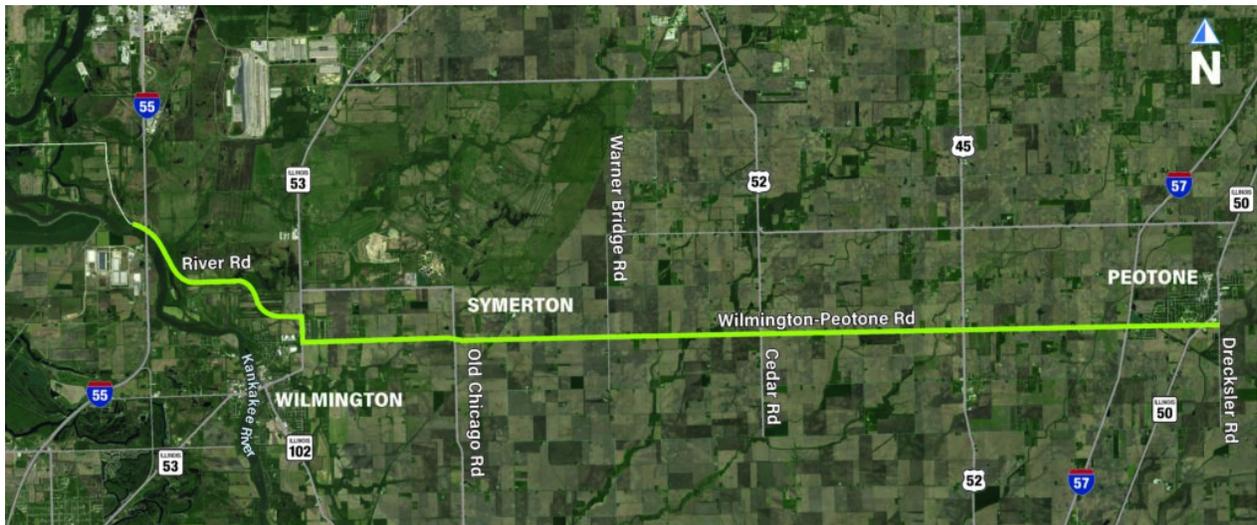


Figure 1: Wilmington-Peotone Corridor Location Map

The majority of the corridor is under WCDOT jurisdiction with the exception of the 0.6 miles section along IL Route 53 which is an Illinois Department of Transportation (IDOT) route. The Wilmington-Peotone Corridor travels east-west and is designated by IDOT as a Strategic Regional Arterial, part of a network of regional highways for which capacity and throughput is of primary importance.

I-55 along with I-57 represent the major north-south interstates within the study area, making them major destinations for those traveling along Wilmington-Peotone Road. West of I-55, River Road changes classification from a Strategic Regional Arterial and travels through the State Game and Wildlife Park. The Strategic Regional Arterial designation follows the project corridor through to the Drecksler Road intersections where the east-west roadway ends. As such, I-55 to the west and Drecksler Road to the east are the logical termini of the project.

2. PURPOSE

The **purpose** of this project is to improve safety, enhance mobility for all users through providing an efficient east-west connection, and support current and future travel demand throughout the corridor.

The Wilmington-Peotone corridor has seen an increased rate of crashes compared to the state and county averages. Commercial and industrial development growth is occurring rapidly across Will County as evidenced by new freight clusters along the Wilmington-Peotone corridor that are challenging the roadway infrastructure. Multimodal accommodations are minimal with recreational trails present but no safe connections directly along the Wilmington-Peotone corridor. For roadway users, the number of east-west connectors throughout the County are limited and the increase in distribution and logistics centers throughout the area has only increased the need for access between I-55 and I-57.

3. NEED

The **needs** for this project are to address deficiencies in the existing roadway and multimodal infrastructure and accommodate growth in local and regional traffic to improve mobility throughout the county.

Will County as a whole has seen extensive commercial and industrial development growth in recent years challenging the existing infrastructure safety and capacity. The Wilmington-Peotone Corridor is one of few major east-west connectors within Will County.

Corridor geometry is a major cause of crashes with a narrow cross section that includes both lane and shoulder widths less than current standards for much of the study area. The narrow cross-section combined with rolling hills and a high percentage of large vehicles creates safety concerns resulting in rear end and fixed object crashes. The lack of shoulder width throughout the corridor deters law enforcement with no place to safely stop vehicles. Minimal shoulders and few sidewalks/multi-use paths deter alternate means of transportation. The continued development throughout the County is only expected to increase traffic using this corridor and exacerbate the safety concerns caused by the narrow corridor. Recent public meetings show strong support of safety improvements to the Wilmington-Peotone Corridor.

4. SUPPORTING FACTS

A. Safety

Crash analysis was performed for the 5 most recent years of crash data received from the IDOT Bureau of Data Collection: 2018 to 2022. All charts shown in this segment are reflections of this crash data. 535 crashes were reported along the Wilmington-Peotone corridor. The severity of crashes along the corridor is a concern as the percentage of fatal crashes was consistently greater than both the county and state averages. One to two fatal crashes were reported per year within the study area. A more detailed look at the crash severity by segment can be found in **Table 1**.

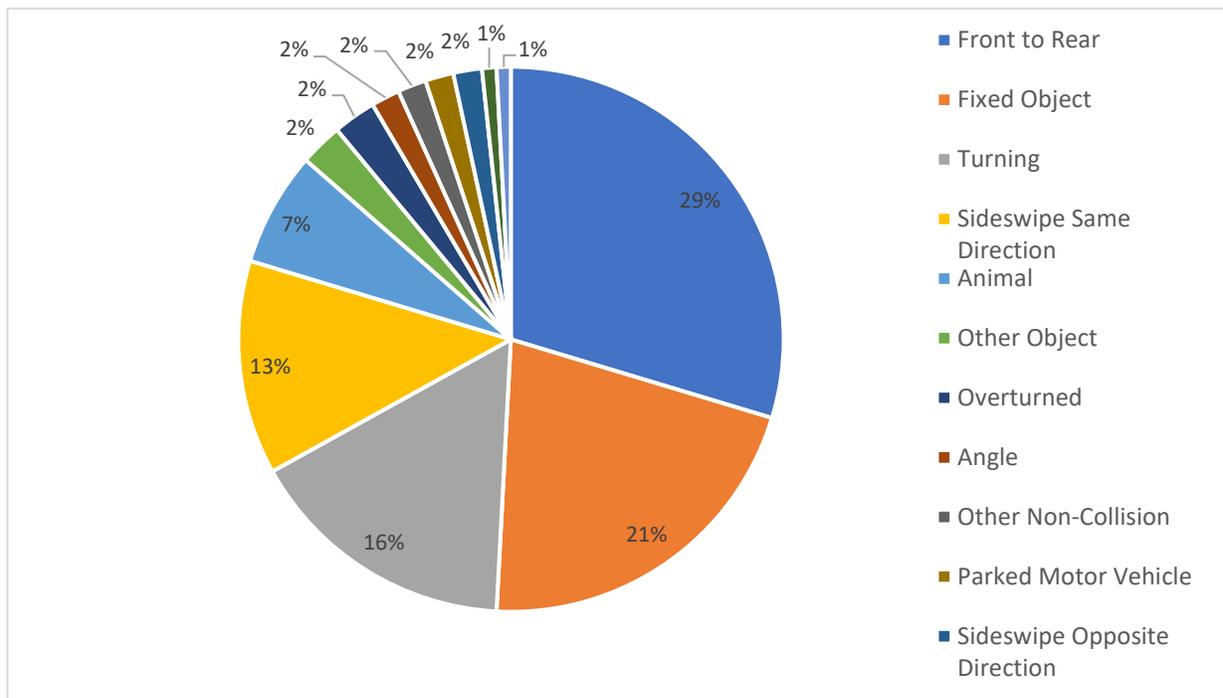
Table 1: Project Comparison to State and County Fatal and Injury Crash Proportions

Year	Project Avg		Illinois State Avg		Will County Avg	
	% Injury Crashes	% Fatal Crashes	% Injury Crashes	% Fatal Crashes	% Injury Crashes	% Fatal Crashes
2018	22.73%	1.82%	21.10%	0.30%	22.69%	0.35%
2019	28.13%	0.78%	20.40%	0.30%	20.88%	0.37%
2020	21.51%	2.15%	21.10%	0.44%	21.74%	0.51%
2021	24.73%	2.15%	20.60%	0.41%	22.07%	0.45%
2022	31.82%	0.91%	20.04%	0.38%	21.51%	0.42%

River Road

The River Road segment experienced 118 crashes during the study period, 22% of the total crashes. The most common crash types were rear end and fixed object which accounted for half of all crashes at 29% and 21% of crashes, respectively.

Figure 2: River Road Crashes By Type



River Road is designated as a class II truck route with a 55 mph design speed. The typical section includes a 2-lane undivided roadway with 12-foot travel lanes, 10-foot paved shoulders, and centerline and shoulder rumble strips. There are several curves along River Road that are No Passing Zones, but passing is present along 45% of River Road within the study limits. There was one fatality reported along River Road closer to the IL Route 53 intersection. The crash was a head-on collision that occurred in the morning hours when a vehicle was attempting to pass a truck in a no-passing zone. Much of the River

Road corridor is adjacent or within the Midwin National Tall Prairie Nature Preserve and the western terminus runs along the Kankakee River. This western portion of the project also includes a crossing over Prairie Creek and an at grade crossing of the Union Pacific railroad. There are two unsignalized intersections within this segment as well as the interchange with I-55. Outside of the I-55 interchange, turn lanes are limited with westbound right turn lanes present at Boathouse Drive and N Kankakee Street. With a high percentage of truck traffic and a lack of auxiliary lanes, rear ends can be caused by traffic slowing to turn or those unable to see around large vehicles to anticipate stopped traffic ahead.



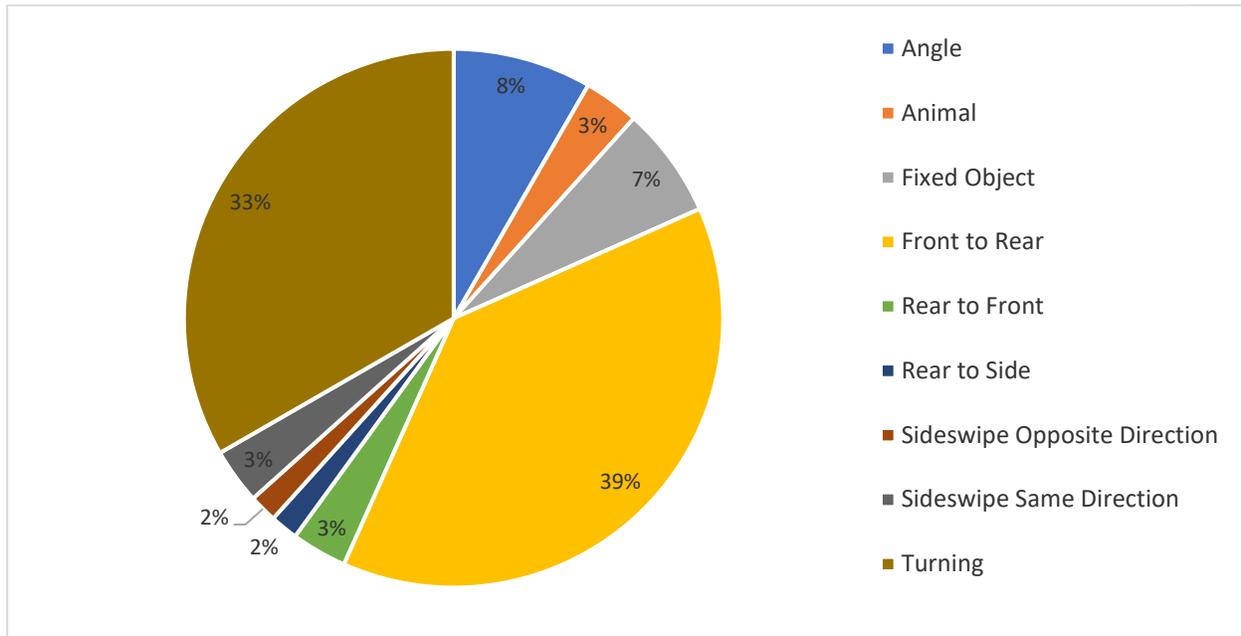
*Figure 3: River Road Incapacitating Injury
 Crash Locations*

The I-55 interchange saw the highest number of crashes with a total of 65 crashes, over half of the total crashes on River Road making this a hot spot along the corridor. Four of these resulted in incapacitating injury crashes. The most common crash type was rear end crashes (42%), followed by fixed object (22%), and same direction sideswipe (20%). The interchange is a partial cloverleaf nestled within the Midwin National Tallgrass Prairie and along the Kankakee River. Both ramp intersections are unsignalized with left turn lanes present along River Road in both directions to access I-55. The presence of significant truck traffic and unsignalized intersections located on a bridge on a vertical curve could be causing sight distance concerns with drivers unable to stop in time for unexpected queues. All of the incapacitating injury crashes along River Road were at this interchange and were fixed object crashes. The I-55 ramps include a number of tight curves and the surrounding area is heavily wooded with barriers and guardrails which could be contributing to fixed object crashes in this area. The locations of the incapacitating injuries are displayed in **Figure 3**.

IL Route 53

The IL Route 53 section is 0.6 miles long, 3% of the overall corridor, but experienced 11% of all crashes. This segment is a small portion of the overall corridor length but includes two highly trafficked intersections which could be contributing to the increased crash rate. The most common crash types were rear ends and turning.

Figure 4: IL Route 53 Crashes By Type



IL 53 is a north-south principal arterial, class II truck route, with a 55 mph posted speed limit. The typical section includes a 2-lane undivided roadway with 12-foot travel lanes and 6-foot paved shoulders. Left turn lanes are present at the intersections with both River Road and Wilmington-Peotone Road which are signalized intersections. There were no fatalities or incapacitating injuries recorded along IL Route 53 during the study period. This short north-south segment requires vehicles to make turns through two intersections in order to travel east-west; the high percentage of truck traffic make this especially difficult.

Both intersections saw a high number of crashes compared to other intersections along the corridor. The intersection with River Road saw 25 crashes, over half of which were rear ends (52%). The intersection with Wilmington-Peotone Road saw a slightly higher crash rate with 35 crashes. Turning crashes were more prominent at this location (40%). Turning crashes are common at intersections which involve multiple conflict points. Additionally, frustration from vehicles that are behind slow moving trucks can lead to aggressive driving and rear ends.

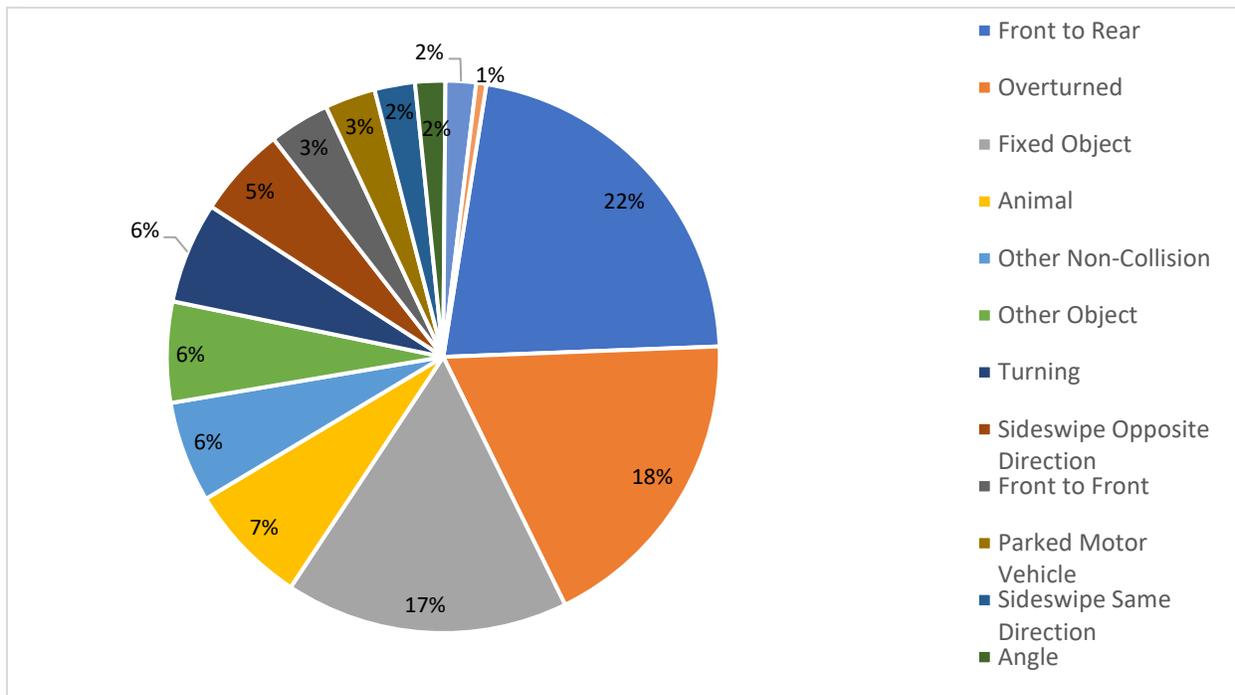
Wilmington-Peotone Road

Wilmington-Peotone Road experienced 357 crashes during the study period. At 17.4 miles long, Wilmington-Peotone Road is an east-west principal arterial making this the longest section of the corridor and 79% of the overall length. This segment includes the I-57 interchange and all-way stop-controlled intersections with US Route 45/52 and IL Route 50; all other intersections are stop-controlled on the side streets/minor leg. Most of the corridor is posted at 55 mph from IL Route 53 to just past I-57. This segment includes a 2 lane undivided typical section with 11-foot travel lanes and minimal unpaved shoulders. Wilmington-Peotone Road crosses the Wauponsee Glacial Trail and Forked Creek. This segment includes an at-grade crossing of the Canadian National Railway. East of the I-57 interchange the area becomes more residential as it enters the Village of Peotone. The speed limit drops to 45 mph and

the typical section includes curb and gutter outside of two 12-foot lanes and a 14-foot median. WCDOT is in the process of lowering the speed limit further to 40 mph based on discussions with the Village regarding safety concerns and a recent speed study.

While most areas with the highest concentration of crashes are intersection-related, almost half of the crashes along Wilmington-Peotone Road occurred outside of intersection locations (169). Rear end crashes made up the largest proportion of the mainline non-intersection related crashes (22%), followed by overturned (18%), and fixed object (17%).

Figure 5: Wilmington-Peotone Road Mainline Crashes By Type



Wilmington-Peotone Road is a class II truck route on the east end of the corridor from I-57 to IL Route 50. The 11-foot lanes and 4-foot shoulder width along the rest of Wilmington-Peotone Road are not wide enough to be considered a class II truck route. The lack of shoulder means that there is no place for vehicles to safely stop in times of need; it is also a deterrent for law enforcement with few locations to enforce the speed limit. Turn lanes are limited to the intersections with Old Chicago Road and Center Road along Wilmington-Peotone Road. The lack of auxiliary lanes can be disruptive to the flow of traffic and cause safety concerns with high-speed through traffic attempting to pass those slowing to turn. These factors could be contributing to the high number of rear ends with vehicles unable to adapt to unexpected stopping either from following too close, inability to see around large vehicles, or insufficient sight distance based on the current geometry. Drone survey and public input have confirmed that the vertical profile contains steep grades and rolling hills, including several deficient vertical curves that do not provide adequate stopping sight distance for vehicles travelling 55 mph. In addition to the narrow cross-section, there are many locations along the corridor where steep ditch sections or trees and other hazards are located directly adjacent to the roadway. The resulting roadway can be unforgiving for any vehicle that leaves the travel lane with minimal shoulders and hazards located within the clear zone.

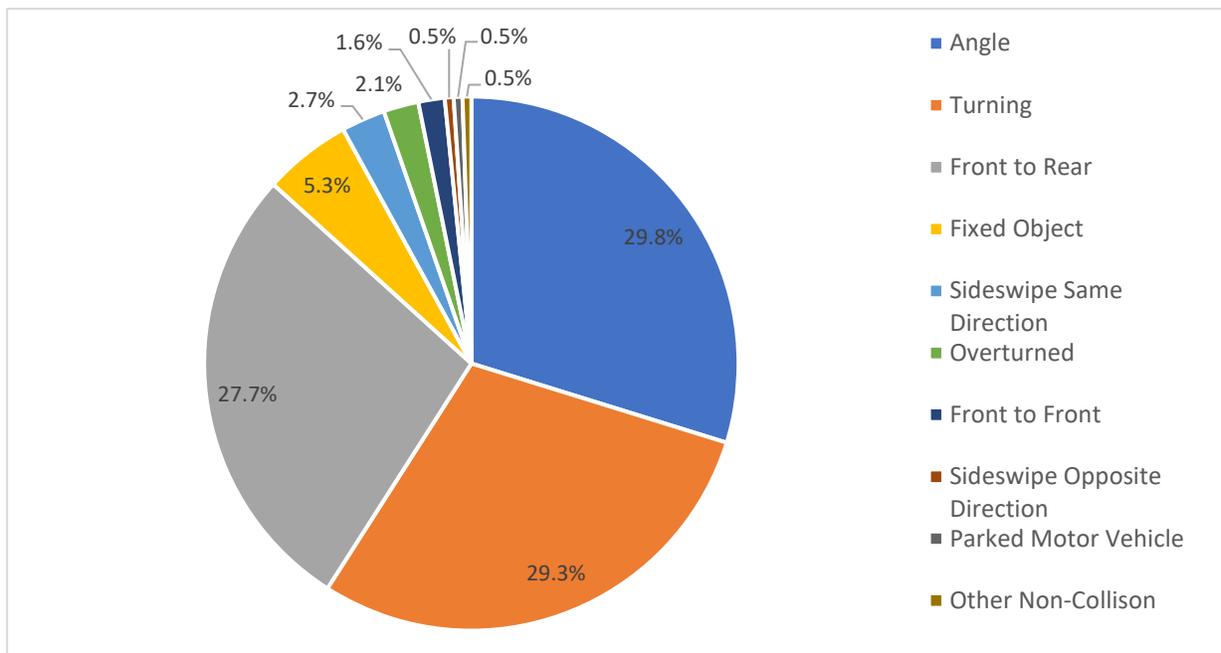
This could also be contributing to overturned vehicles. Overturning crashes can occur on a segment of high-speed roadway when a driver misjudges the distance or speed needed to pass and runs off the road, especially with steep ditch sections adjacent to the pavement.



Figure 6: Existing Wilmington-Peotone Typical Sections – IL 53 to I-57

Separate trends can be seen in intersection-related crashes with the vast majority of crashes being angle or turning. Of the angle crashes on Wilmington-Peotone Road at intersections, 52% of the crashes occurred at intersections without left turn lanes. Three locations along the corridor, US Route 45/US Route 52, I-57, and IL Route 50, account for almost 70% of intersection crashes (130). These intersections are described in more detail below.

Figure 7: Wilmington-Peotone Road Intersection Crashes By Type



Seventy-one (71) crashes occurred at the intersection of US Route 45/ US Route 52 and Wilmington-Peotone Road during the study period, the most of any other intersection or interchange along the corridor. Consistent with the IDOT safety tiers, it is the only intersection identified as “Critical.” Three of these crashes resulted in incapacitating injuries, due to an angle crash, fixed object crash, and rear end crash. Rear end crashes were most common (51%), followed by angle (32%) and turning (7%). This location is a four-way stop-controlled intersection with no turn lanes. The conflict points present at intersections can present safety concerns which can result in angle and turning crashes. The potential to eliminate points of conflict or provide a signalized intersection could help to improve the flow of traffic through this area. Given the high number of crashes at this location and “critical” safety tier classification, the intersection of Wilmington-Peotone Road and US 45 will be a point of focus when developing alternatives to provide safety improvements. **Figure 8** below shows the location of crashes at the intersection, color coded by the year the crash occurred.



Figure 8: US Route 45 / 52 Intersection Crashes By Year

A high number of crashes were observed at I-57 and Wilmington-Peotone Road, a diamond interchange with unsignalized ramp terminals and no turn lanes. There were 42 crashes at this interchange, one resulted in an incapacitating injury. Turning crashes were most common (29%), followed by rear end (24%), fixed object (19%), and angle (12%). The bridge over I-57 is only 31.5’ wide and the profile includes a vertical curve over I-57 which limits sight distance. This combination can create safety concerns with high volumes of turning traffic and minimal pavement. A high volume of trucks use this interchange. The increased number of conflicts at the intersections combined with the reduced sight lines around large trucks could contribute to the turning and rear end crashes through the I-57 interchange.



Figure 9: I-57 / Wilmington-Peotone Road interchange

A four-way stop controlled, skewed intersection, Wilmington-Peotone Road at IL Route 50 is included in the IDOT 2020 safety tiers as a “high” intersection location. IL Route 50 provides a four-lane cross-section with no turn lanes. Wilmington-Peotone Road is a single lane in each direction with left turn lanes. Seventeen (17) crashes were recorded at this intersection within the study period; the majority being property damage crashes but four included B-injuries. Consistent with the rest of the corridor, rear ends were the most common crash type followed by turning and fixed object crashes. The skew of the intersection combined with the high number of lanes present could contribute to crashes in this location and the IDOT safety tier “high” classification.



Figure 10: Wilmington-Peotone Road / IL Route 50 Intersection

Seven fatal crashes occurred sporadically along Wilmington-Peotone Road; half involved a drug-impaired driver. Two were pedestrian crashes which occurred west of the I-57 interchange close to midnight. It is difficult to determine the exact cause of these crashes with the information available, but with no pedestrian accommodations near the crash location it is assumed this was an unusual occurrence. There were 18 reported incapacitating injury crashes, mostly due to angle and turning crashes.

Angle crashes resulted in the greatest portion of the injury crashes and fatal crashes on Wilmington-Peotone Road. Angle crashes were frequently located at intersections, indicating countermeasures such as intersection control, alternative intersections, signing, and pavement marking considerations. Out of the angle crashes on Wilmington-Peotone Road at intersections, 52% occurred at intersections without left turn lanes. Intersection improvements at the locations with an increased crash rate could help to reduce the occurrence of angle and turning crashes.

Highway Safety Manual: Part C

A Highway Safety Manual: Part C, Predictive Methods analysis was completed using existing conditions and volumes to compare crashes experienced against predicted crashes. Spreadsheets available on [IDOT’s Highway Safety Improvement Program website](#) for crash analysis were used in this crash comparison for the segment and intersection predictive crashes. For most cases, the rural, two-lane crash prediction model was used. One exception to that was the ramp terminals at both the I-55 interchange with N River Road and the I-57 interchange on Wilmington-Peotone Road. The ISATe (Enhanced Interchange Safety Analysis Tool) model was used to evaluate the ramp terminals. The other exception was at the N River Road and IL Route 53 intersection, which is a signalized 3-leg intersection. The IDOT HSM Crash Prediction Tool did not contain this intersection type. This intersection type has been added to the 2020 updated Rural Two-Lane Roads Spreadsheet v3.1. The N River Road and IL Route 53 intersection was run in both the IDOT Crash Prediction Tool under the urban/suburban category to best fit predicted crashes with Illinois calibration factors as well as with the updated spreadsheet available from the FHWA to look for any major changes or impacts. AADTs used were both

collected as part of this study and also used those available on the IDOT AADT GIS map available on the IDOT website.

Table 2 shows the results of the predicted method by segment along the corridor. Overall, the total observed crashes were less than those predicted by the model. The only segment with an overall higher number of observed crashes against the predicted crashes was Wilmington-Peotone Road from IL Route 53 to S Indian Trail Road. The other segment of note is on Wilmington-Peotone Road from Warner Bridge Road to S Cedar Road. While the overall total crashes on this segment was below that predicted, it experienced a higher number of fatal/injury crashes than the model predicted.

Table 2: Segment Observed Crashes vs. Predicted Crashes

Segment	Total		Fatal/Injury		PDO	
	Observed Crashes	Predicted Crashes	Observed Crashes	Predicted Crashes	Observed Crashes	Predicted Crashes
N River Road Segments						
N River Rd Sta 5+00 to 16+52	5	3.0	2	1.0	3	2.0
N River Rd Sta 16+52 to 47+60	4	7.8	2	2.5	2	5.3
N River Rd Sta 47+60 to 78+03	2	9.6	1	3.1	1	6.5
N River Rd Sta 78+03 to 114+29	3	6.7	0	2.2	3	4.6
N River Rd Sta 114+29 to 150+26	7	8.4	3	2.7	4	5.7
N River Rd Sta 150+26 to 178+24	6	6.6	2	2.1	4	4.4
N River Rd Sta 178+24 to 201+72	4	4.4	0	1.4	4	3.0
IL Route 53 Segments						
IL53 (Entire Segment)	10	10.1	0	3.3	10	6.9
Wilmington-Peotone Road Segments						
IL53 to S Indian Trail Rd	29	20.1	7	7.7	22	16.4
S Indian Trail Rd to Sta 146+14	7	10.2	2	3.3	5	6.9
Sta 146+14 to 159+19	6	16.4	2	5.3	4	11.1
Sta. 159+19 to 170+77	6	10.6	2	3.4	4	7.2
Sta. 170+77 to S Symerton Rd	11	9.4	2	3.0	9	6.4
S Symerton Rd to Warner Bridge Rd	15	17.5	4	5.6	11	11.9
Warner Bridge Rd to S Cedar Rd	22	26.7	10	8.6	12	18.2
S Cedar Rd to S Elevator Rd	11	14.7	4	4.7	7	10.0
S Elevator Rd to US-45	13	23.9	0	7.7	13	16.2
US-45 to S Center Rd	8	17.1	6	5.5	2	11.6
S Center Rd to I-57	7	11.6	2	3.7	5	7.8
I-57 to S Rathje Rd	14	8.1	5	2.6	9	5.5
S Rathje Rd to IL50	5	6.6	1	2.1	4	4.5
IL50 to S. Harlem Ave	0	0.7	0	0.2	0	0.5
<i>Total</i>	195	250.1	57	81.5	138	172.5

Table 3 shows the results of the predicted method by intersection along the corridor. In contrast to the segment comparison table, nearly twice as many crashes were observed at intersections compared to those predicted by the models. Intersections of note include N River Road and IL Route 53, IL Route 53 and Wilmington-Peotone Road, and US Route 45/52 and Wilmington-Peotone Road. The interchange terminals for both northbound and southbound I-57 also experienced several more crashes than predicted by the models.

Table 3: Intersection Observed Crashes vs. Predicted Crashes

Intersection	Total		Fatal/Injury		PDO	
	Observed Crashes	Predicted Crashes	Observed Crashes	Predicted Crashes	Observed Crashes	Predicted Crashes
River Road Intersections						
I-55 SB Terminal	2	1.8	2	1.2	0	0.6
I-55 NB Terminal	6	3.8	1	1.5	5	2.3
N River Rd & IL53*	44	4.2/0.8*	10	1.5/0.3*	34	2.7/0.6*
IL53 Intersections						
IL53 and Wilmington-Peotone	62	17.5	4	5.9	58	11.5
Wilmington-Peotone Intersections						
S Indian Trail Rd	2	3.1	1	1.4	1	1.7
Old Chicago Rd	11	9.9	4	4.6	7	5.3
S Cedar Rd	18	13.2	9	6.1	9	7.1
S Elevator Rd	1	1.5	0	0.7	1	0.8
120th Ave/Scheer Rd	2	2.4	0	1.1	2	1.3
US-45	59	32.8	12	15.3	47	17.5
Center Rd	15	10.8	9	4.7	6	5.4
S 88th Ave	8	6.3	4	2.9	4	3.4
I-57 SB Terminal	14	3.7	5	1.1	9	2.5
I-57 NB Terminal	12	4.0	2	1.2	10	2.7
S Rathje Rd	5	5.7	3	2.6	2	3.0
IL50	7	12.6	1	4.3	6	8.3
Total	268	133	67	56	201	76

*Denotes uncalibrated rural 3-leg signalized/calibrated urban and suburban model results

B. Traffic

Existing Traffic Conditions

The project corridor currently carries a significant amount of truck traffic. **Table 4** shows the average daily traffic volumes and the percentage of trucks volumes based on traffic counts conducted in August 2023. The percentage of single unit trucks , including buses, is in the range of 2% to 5% of the total traffic volume among various segments of the corridor. Multi-unit trucks are in the range of 13% to 28% of the total traffic volume with most segments exceeding 20%. The percentage of heavy vehicles on a typical roadway is between 5% and 10% depending on the location. There is a need to investigate alternatives to accommodate the high volume of truck traffic as the percentage of heavy vehicles is only expected to increase in future years with additional anticipated development adjacent to the corridor.

Table 4 – Year 2023 Average Daily Traffic Summary

Intersection	ADT (vehicles)	Percent Heavy Vehicle (%)*
River Rd & I-55 SB Ramps	5,885	24.2
River Rd & I-55 NB Ramps	9,962	25.1
IL 53 & River Rd	13,841	22.2
IL 53 & Kankakee River Dr/Peotone Rd	15,430	16.5
Old Chicago Rd & Peotone Rd	9,350	22.8
Warner Bridge Rd & Peotone Rd	6,892	28.2
Cedar Rd & Wilmington Rd	8,427	24.7
US 52 & Wilmington Rd	13,644	19.6
I-57 SB Ramps & Wilmington Rd	9,885	21.7
I-57 NB Ramps & Wilmington Rd	10,847	17.7
IL 50 & Wilmington Rd	11,946	13.8

**Percent Heavy Vehicle includes multi-unit trucks, single-unit trucks, and buses*

Corridor Operations

The existing traffic counts included peak hour turning movement counts defined by the following time periods:

- Morning (AM) Peak Hour: 6:15 AM-7:15 AM
- Afternoon (PM) Peak Hour: 3:15 PM-4:15 PM

These counts were used to determine the existing Level of Service (LOS) at each leg of the intersections to identify locations where congestion is a concern. A summary of intersection traffic operations can be found in **Table 5**. Three locations currently experience an undesirable level of service and are highlighted in the table. IL Route 53/Wilmington-Peotone Road, US 45/Wilmington-Peotone Road, and the I-57 interchange have also been identified as intersections with increased crash rates. LOS analysis cannot be conducted at locations where traffic is in a free-flow condition. Most locations that can be analyzed operate at acceptable LOS. These locations have been noted in the table as well. Each intersection will be studied in context with traffic analysis, crash analysis, and feedback from public outreach to determine the appropriate need for improvement.

Table 5 – Year 2023 Intersection and Approach Level of Service (LOS)

Intersection	Traffic Control	Peak Hour	EB	WB	NB	SB	Intersection LOS
River Rd & I-55 SB Ramps	Two-way Stop Controlled	AM	*	*	-	B	*
		PM	*	*	-	B	*
River Rd & I-55 NB Ramps	Two-way Stop Controlled	AM	*	*	-	B	*
		PM	*	*	-	C	*
IL 53 & River Rd	Signalized	AM	C	-	A	A	B
		PM	D	-	A	A	B
IL 53 & Kankakee River Dr/Peotone Rd	Signalized	AM	D	E	B	A	C
		PM	E	E	B	A	C
Old Chicago Rd & Peotone Rd	Two-way Stop Controlled	AM	*	*	C	B	*
		PM	*	*	C	D	*
Warner Bridge Rd & Peotone Rd	Two-way Stop Controlled	AM	*	*	B	B	*
		PM	*	*	C	C	*
Cedar Rd & Wilmington Rd	Two-way Stop Controlled	AM	*	*	C	C	*
		PM	*	*	C	B	*
US 52 & Wilmington Rd	All-way Stop Controlled	AM	B	B	B	C	B
		PM	F	C	F	C	F
I-57 SB Ramps & Wilmington Rd	Two-way Stop Controlled	AM	*	*	-	B	*
		PM	*	*	-	E	*
I-57 NB Ramps & Wilmington Rd	Two-way Stop Controlled	AM	*	*	B	-	*
		PM	*	*	C	-	*
IL 50 & Wilmington Rd	All-way Stop Controlled	AM	B	A	B	B	B
		PM	B	B	B	B	B

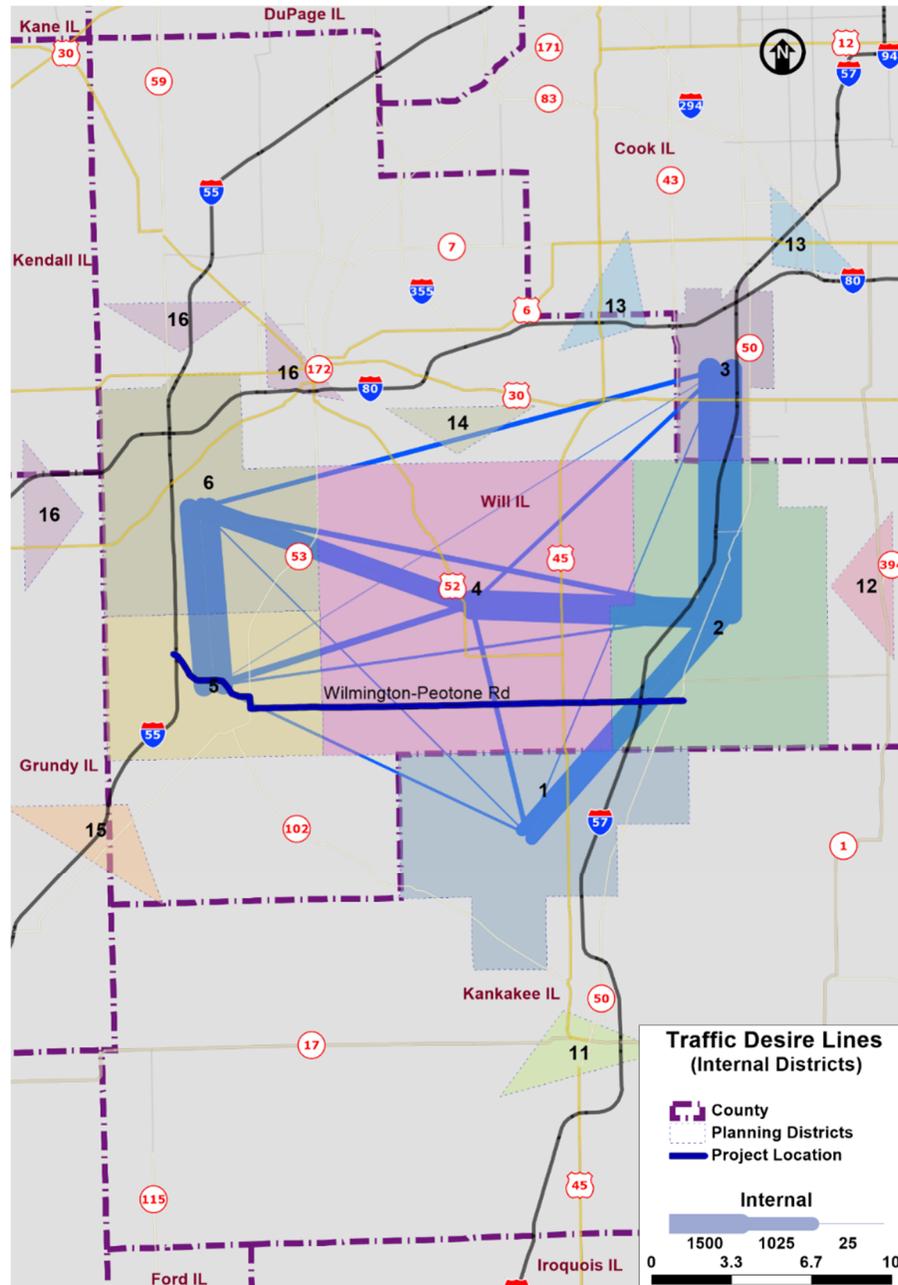
*HCM 6th Edition does not calculate a LOS value for approaches that are free-flow or the overall intersection at two-way stop-controlled intersections

Origin – Destination Summary and Travel Patterns

It is important to understand existing travel patterns along the corridor and surrounding area given limited east-west options for vehicles to travel within Will County. Data from StreetLight, one type of Probe Data Analytics (PDA) dataset, was purchased for the project study area to understand the existing travel patterns within and around the study area. StreetLight data uses two main data sources to develop its volume metrics: location-based services (LBS) and navigation-GPS data. The study was then divided into preset Traffic Analysis Zones (TAZs) allowing the study team to analyze traffic patterns between different TAZs. StreetLight Origin-Destination (OD) volumes were developed by first determining a total volume for each zone, then calculating the total amount of measured LBS and GPS trips between origins and destinations. The final step involves scaling the LBS and GPS trips to the total zone volume. The OD matrix data includes all vehicle types from an average weekday (Tuesday,

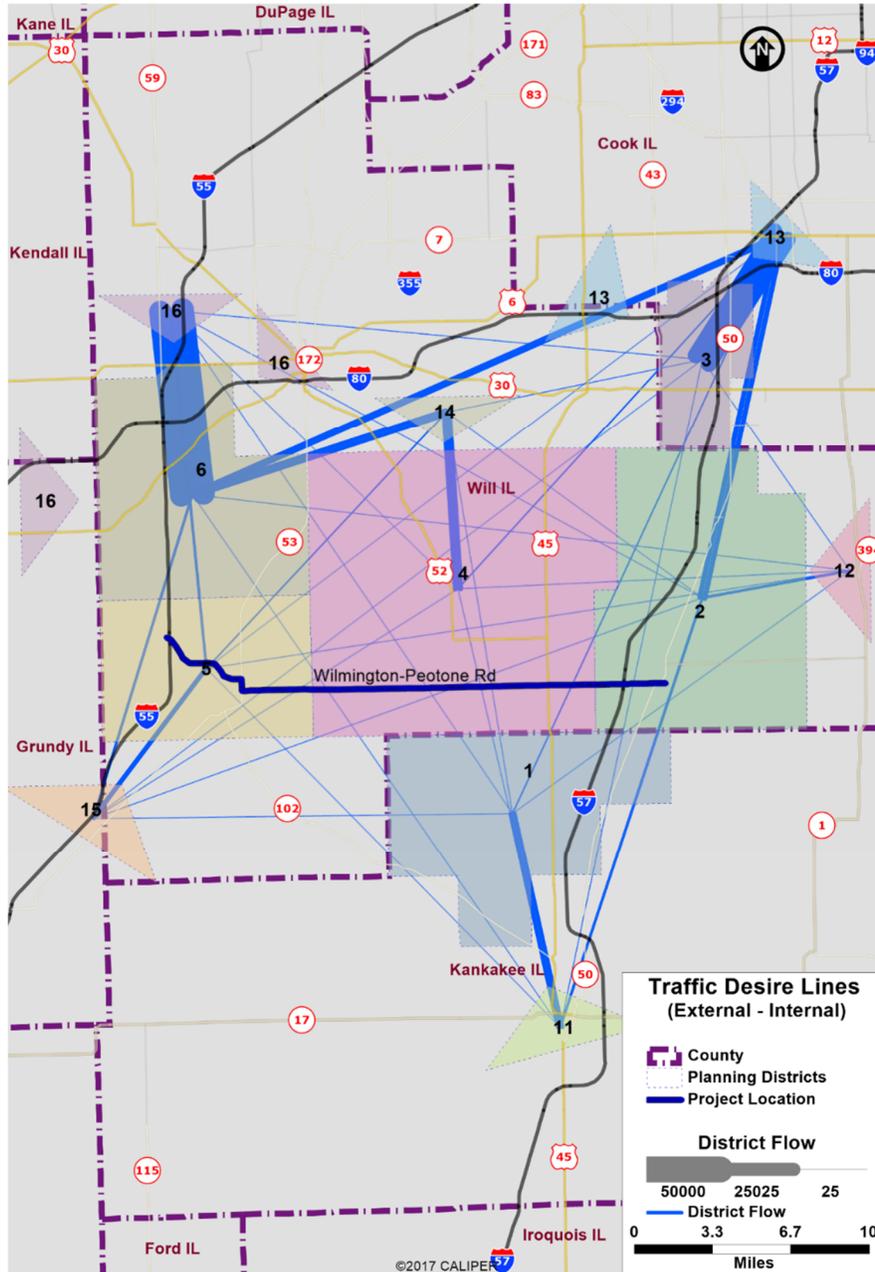
Wednesday, and Thursday) in 2023. The results have been visualized into different maps where thicker lines represent high traffic volumes between TAZs.

Figure 11 is a travel desire line map illustrating the flows between six internal districts within the study area. There are approximately 15,300 local trips within the six highlighted districts (numbered 1 through 6 on the map). The thicker blue lines indicate higher traffic volumes between districts with 31% of these trips having a demand for east-west travel. These trips would benefit from an improved Wilmington-Peotone Road corridor.



**Figure 11 – Traffic Desire Lines
(Local Traffic Internal to Study Area)**

Figure 12 shows the desire line flows for traffic traveling between six external zones adjacent to the study area and the same six internal districts within the study area from Figure 11. It includes approximately 295,300 trips that represent travel patterns for vehicles entering and leaving the study area. Among all of the trips, 11% cross the study area in an east-west direction indicating a potential need for an improved Wilmington-Peotone corridor.



**Figure 12 – Traffic Desire Lines
(External Traffic Entering the Study Area)**

Figure 13 shows the desire line flows for traffic that is only passing through the six external zone groups from Figure 12. There are a total of 153,300 trips passing through the study area and approximately 59% of the trips crossing the area are in the east-west direction. This indicates a potential need for an improved Wilmington-Peotone corridor.

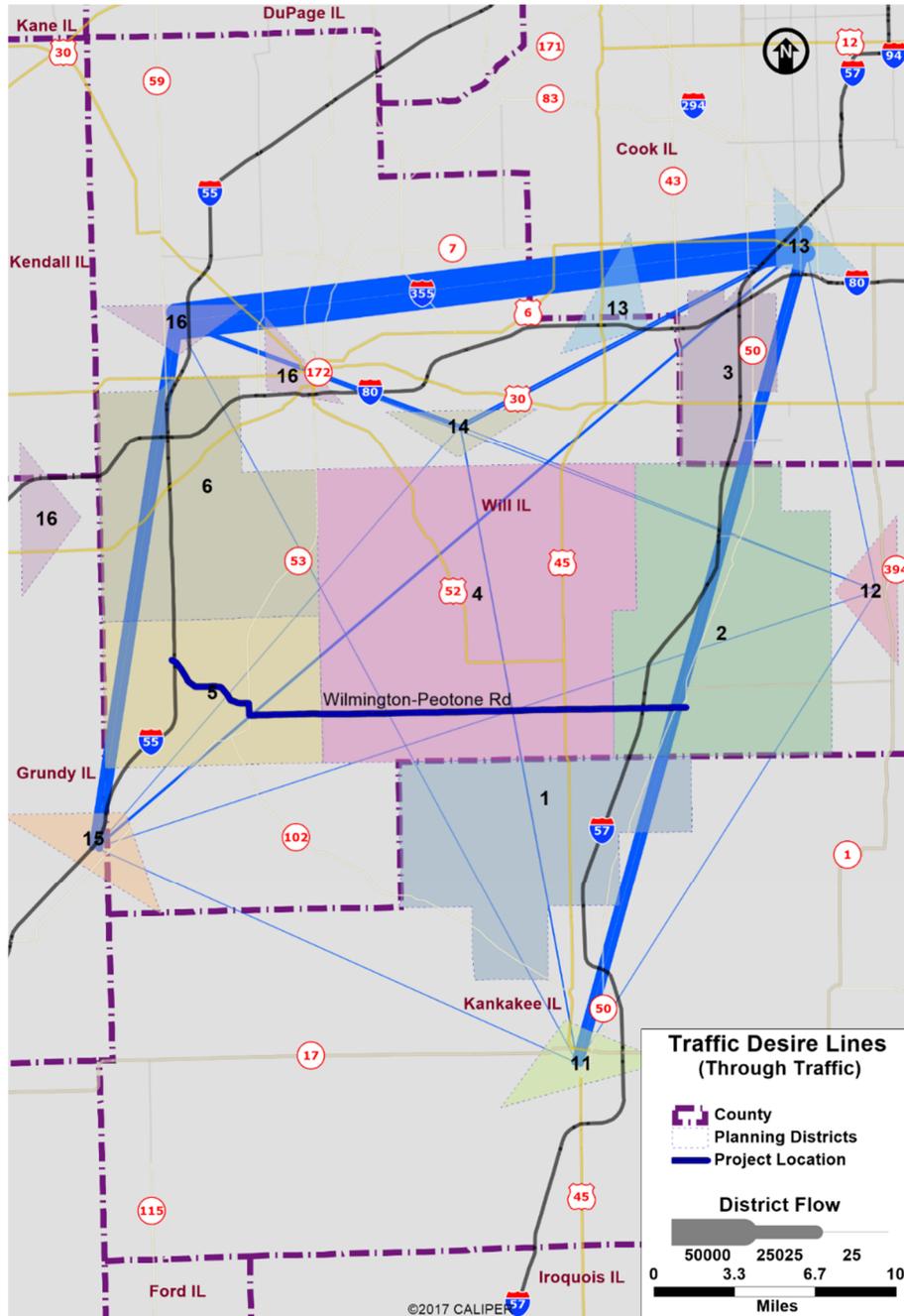


Figure 13 – Traffic Desire Lines
(External Traffic Passing Through the Study Area)

C. Land Use

The western portion of the Wilmington-Peotone Corridor along River Road is surrounded by sensitive environmental resources including the Kankakee River to the south for portions of the project area. To the north and east is the Midewin National Tallgrass Prairie. The land use around IL Route 53 includes a mix of commercial, agricultural, and industrial zoning types. The United States Cold Storage and DuPont facilities are located west of the intersection with Wilmington-Peotone Road and the Water’s Edge residential development is located to the east. The land use is consistent for the majority of Wilmington-Peotone Road with agricultural farmland from IL Route 53 through I-57. Exceptions include the Village of Symerton located north of Wilmington-Peotone Road off of Symerton Road and several locations of commercial developments including the Enchanted Shored RV Park and Campground in the northeast quadrant of the intersection with US Route 45/52. At the interchange with I-57, the land use changes to business and industrial surrounding the interchange including the new Peotone Travel Center and then becomes largely residential with the exception of the Will County Fairgrounds located near the IL Route 50 intersection. While the corridor is agricultural for the majority of the corridor, the surrounding study area includes a variety of land uses contributing to the complex traffic patterns through the area.



Figure 14: Planned Potential Developments

While not always directly along the corridor, the surrounding area in southern Will County has seen extensive growth in recent years in industrial development. Will County was the #1 job creator in Illinois from 2019 to 2023 adding 12,000 jobs. The county is also leading the way in terms of both industrial development and manufacturing. The project team is working with the Will County Center for Economic Development (CED) to track potential future developments that will contribute to traffic traveling east-west through the county. Known future developments are shown in **Figure 14**. Additional employment numbers were provided by the county or estimated by the project team based on the approximate square footage of commercial development provided by the County and are shown in **Table 6**. The additional employment was added to the Regional Model’s socioeconomic input data.

Table 6: Estimated Major Development in Project Vicinity

ID	Development Name	Type	Commercial Development (Sq. ft.)	Employment Expected by 2050
1	Elion Logistics Park	Industrial	10,809,600	5,310
2	River Road at IL 53	Industrial	2,142,000	540
3	Gotion (Battery Plant) - Phase I	Industrial	10,400,000	2,600
4	Gotion (Battery Plant) - Phase II	Industrial	4,000,000	1,000
5	Northwest Quadrant of I-57 Interchange	Industrial	5,000,000	1,250
6	Operating Engineers Union, Local 150	Industrial	8,568,000	2,140
7	Northpoint Development	Industrial	8,568,000	6,300
8	Centerpoint	Industrial	25,200,000	2,000
9	BNSF	Industrial	1,600,000	400
Total			76,287,600	21,540

Anticipated Future Demand

Horizon year (2050) traffic volumes for the project corridor were developed using the Chicago Metropolitan Agency for Planning (CMAP)’s regional travel demand model (Regional Model).

To validate the Regional Model’s ability to estimate the 2019 base year traffic in the project study area, the project team conducted a model calibration and validation process to compare the model estimated volume with several data sources. Traffic counts collected by the project team from August 2023 along with counts available from Illinois Department of Transportation (IDOT), Origin and destination (OD) data from Streetlight, and OD trip tables from the Illinois Statewide Travel Demand Model (Statewide Model) were used in the validation process.

With the validated Regional Model and the added employment growth, the future year 2050 Regional Model was used to forecast future year traffic volumes along the project corridor. The estimated future traffic volumes were shown in **Table 7**. The Regional Model predicts an average of 50% growth for the majority of the project corridor.

Table 7: Planning Horizon Year 2050 Average Daily Traffic and Growth

Segment ID	Location Description	Year 2023 ADT	Estimated 2050 ADT	Estimated 2050 Truck %	Change %	Annual Growth %
1	River Rd (West of I-55)	609	900	3%	48%	1.25%
2	River Rd (East of I-55)	9,716	13,070	36%	35%	0.96%
3	River Rd (West of Hwy 53)	7,350	10,250	46%	39%	1.08%
4	Hwy 53	11,895	17,090	26%	44%	1.19%
5	W Peotone Rd (East of Hwy 53)	8,816	14,220	26%	61%	1.55%
6	W Peotone Rd (East of Indian Trail Rd)	8,201	13,220	27%	61%	1.55%
7	W Peotone Rd (East of Old Chicago Rd)	6,992	11,640	41%	66%	1.66%
8	W Peotone Rd (West of Warner Bridge Rd)	6,828	11,400	41%	67%	1.67%
9	W Wilmington-Peotone Rd (East of Warner Bridge Rd)	6,807	11,240	42%	65%	1.63%
10	W Wilmington-Peotone Rd (West of Cedar Rd)	7,662	11,460	32%	50%	1.31%
11	W Wilmington-Peotone Rd (East of Cedar Rd)	6,821	9,920	38%	45%	1.22%
12	W Wilmington-Peotone Rd (West of Hwy 45)	6,685	9,740	40%	46%	1.22%
13	W Wilmington-Peotone Rd (East of Hwy 45)	5,344	8,070	41%	51%	1.34%
14	W Wilmington-Peotone Rd (West of I-57)	7,189	10,690	35%	49%	1.29%
15	W Wilmington-Peotone Rd (East of I-57)	8,804	12,070	19%	37%	1.02%
16	W Wilmington-Peotone Rd (West of Governors Hwy)	6,486	9,120	21%	41%	1.11%
17	Tucker Rd (East of Governors Hwy)	1,232	1,320	36%	7%	0.22%

D. Structures

The bridges over I-55 (IDOT Structure No. 099-4641) and I-57 (IDOT Structure No. 099-0161) at the west and east study limits respectively, connect the Wilmington-Peotone corridor to the interstate system. Increases in capacity may require either reconstruction or widening of these bridges, as well as 8 additional structures along the corridor. For that reason, in September of 2023, Burns & McDonnell’s structural design team performed a visual assessment of the structures and noted the following:

River Road over I-55 (SN 099-4641)

- The existing structure is a two-span curved steel plate girder bridge with a 57’-6” clear deck width, including a raised center median.
- The bridge was built in 1961 to accommodate the widening of River Road and provide a clearer cross section over I-55 at this location.
- The deck, beams, joints, bearings, abutments, and piers are all in good condition.

For this structure, the bridge assessment team recommends bridge widening to accommodate any additional roadway width needed by an alternative to be carried forward. Although it is not recommended, per IDOT Bridge Condition Report Procedures and Practices (IDOT BCR PP) to reuse portions of the structure over 15 years old, the overall structure appears to be in good condition and widening or widening with full deck replacement is a viable option.

Wilmington-Peotone Road over I-57 (SN 099-0161)

- The existing structure is a four-span steel wide flange beam bridge with a 31'-6" clear deck width.
- The bridge was built in 1967 to provide a grade separation over I-57; and the bridge was redecked in 2001.
- The bridge elements including deck, beams, joints, bearings, range from fair to satisfactory condition and the piers and abutment are in good condition.
- The IDOT Structure Summary Report notes that the clearance of the bridge is intolerable and a high priority for correction.

The bridge assessment team recommends that this structure be replaced for any alternative to be carried forward for which additional roadway width is required across the bridge. All elements of the structure are over 15 years old; portions of which are rated as fair. Therefore, per IDOT BCR PP, widening of the existing bridge is not recommended, as it is likely that the future maintenance needs would be high. Although initial construction costs for a new bridge would be greater than that of a deck widening and rehabilitation, the modifications that would need to be made to the existing structure are substantial considering the condition and the design life of the structure would be met in the next 20 years. Additionally, complete replacement will allow for a customized and aesthetic structure that could suit any determined needs of the interchange as well as correct any current clearance issues.

Additional Structures along Wilmington-Peotone and River Road

- The additional structures consist of 7 bridges and 1 culvert.
- All structures span waterway features and it assumed that current hydraulic criteria is met.
- The minimum clear deck width for the structures is 40'-0".
- 5 of the structures utilize railings that do not meet current standards.

Although each structure will need to be evaluated individually depending on the alternative to be carried forward, for most of these structures the bridge assessment team recommends bridge widening to accommodate any additional roadway width needed. The structures built within the last 15 years and/or rated to be good or better condition appear to be viable candidates for bridge widening. Widening will also allow for modification of existing rails to meet current standards. Structure Number 099-3331 is recommended to be replaced due to the age of the structure, inventory rating, and bridge condition if widening of the structure is needed.

E. Public and Stakeholder Coordination

Public and Stakeholder coordination has been ongoing from the start of this project. Multiple stakeholder meetings as well as a public information meeting have been held by WCDOT, with future meetings scheduled after alternatives development. Given the length of the corridor, Public Information Meetings will be held twice with the same material presented at either end of the corridor for ease of access for the users of Wilmington-Peotone Road to provide their input. The first Public Information Meeting was held on December 6 and December 13, 2023. This first meeting focused on presenting and

gathering data to support the development of this project Purpose and Need. A survey was also conducted to gather additional information from corridors users.

A summary of public information meeting #1 information is as follows:

- 76 people attended the City of Wilmington meeting on December 6, 2023
- 35 people attended the Village of Peotone meeting on December 13, 2023
- 53 surveys were completed
- 96 comments received online and during the meetings

Public outreach was also held virtually on the project website www.wilmingtonpeotonestudy.com. The website provides an opportunity for visitors to sign up for future communications throughout the PEL study.

Out of the total survey participants, **80% percent of survey respondents said that they had concerns about the corridor and said improvements were needed now**. Additionally, 76% percent of respondents ranked improving safety as the number one priority when evaluating alternatives for the corridor.

The comments received as part of the first public information meeting were related to concerns within the following categories:

- Intersection Safety
- Concerns related to the Increase in Truck Traffic
- Speeding
- Alternate Routes / Roadway Realignment
- Roadway Typical Section
- Farmland Access and Land Acquisition
- Drainage Concerns

The data obtained will also be used to develop proposed alternatives which will then be presented at the second public information meeting in Summer 2024.

F. Regional Bikeway Plan

Bicycling is an important part of Will County's multimodal transportation network. Connectivity between bikeways and trails increases mobility and provides a safe and enjoyable alternative option to driving. There are recreational trails available near or crossing the corridor within Midewin as well as the Wauponsee Glacial Trail; however, pedestrian and bicycle accommodations are minimal throughout the Wilmington-Peotone corridor. Outside of a short segment of multi-use path along IL Route 53 and sidewalk at the eastern end of Wilmington-Peotone Road there are no safe connections to these trails directly from the Wilmington-Peotone corridor.

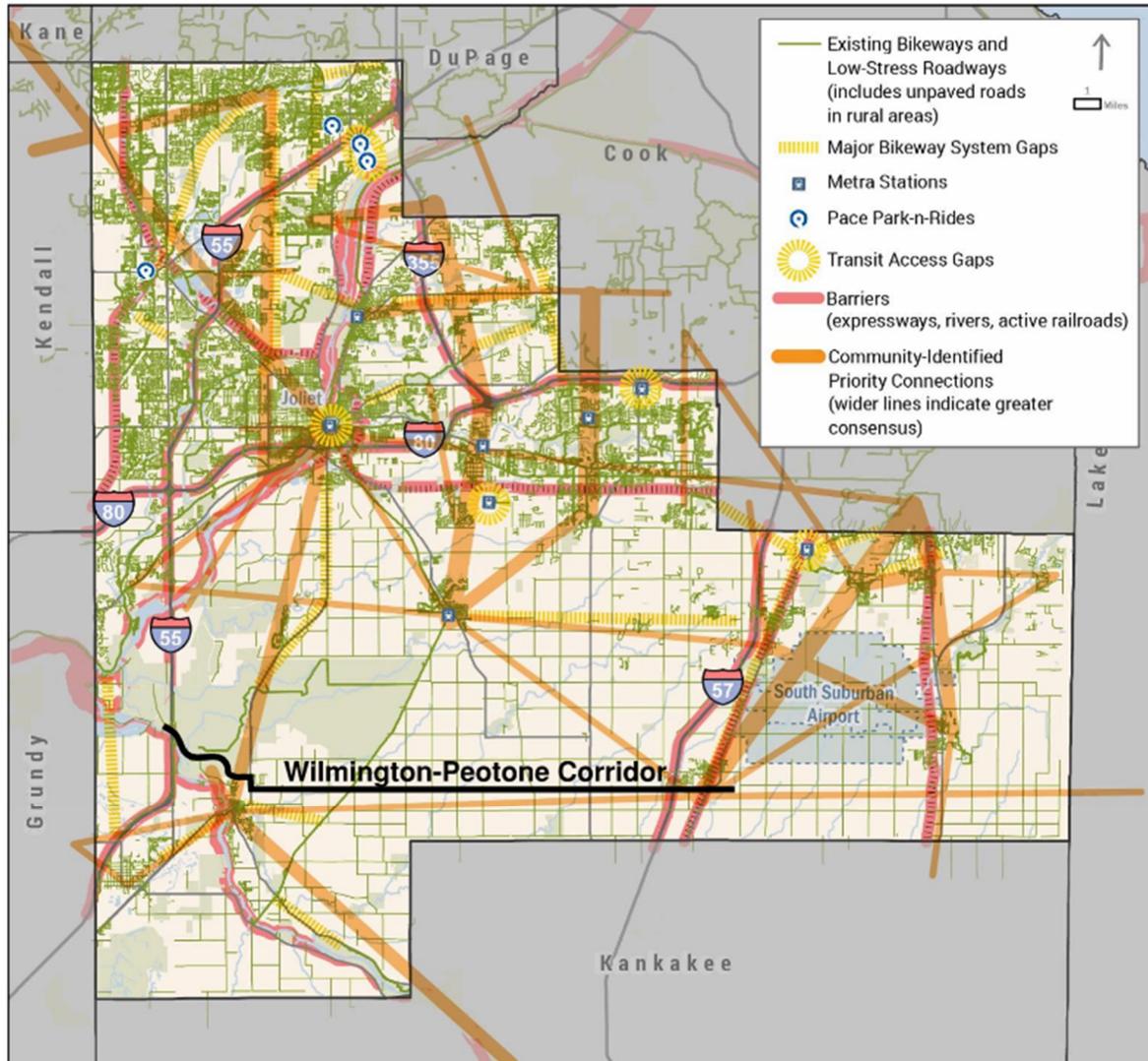


Figure 15: Will County Regional Bike Plane Connectivity Analysis Summary

The Will County Regional Bikeway plan has identified the connection between Wilmington and Peotone as a priority connection by the communities in Will County. The plan also assessed a number of different characteristics of their existing roads to determine their compatibility for bicyclists. This level of stress evaluation considers the speed limit, traffic volumes, pavement width, presence of on-street parking, and presence of bike lanes to determine the road compatibility with bicyclists of different skill levels. Wilmington-Peotone Road received a “poor” rating for the current level of stress; unsurprisingly given the tight cross section as previously noted. River Road and IL Route 53 also were “poor” for the majority with the exception of a segment of River Road that received a “moderate” rating. These roadways are only suitable for very skilled and confident bicyclists. Outside of this corridor, while there are many roads that are low stress the majority of these are local roads that do not provide connectivity within the County. As such, improvements are needed along the corridor to address the existing pedestrian and bicyclist limitations.

4. CONCLUSION

The **purpose** of this project is to improve safety, enhance mobility for all users through providing an efficient east-west connection, and support current and future travel demand throughout the corridor. Based on the supporting facts presented in the sections, the **needs** for this project are to address deficiencies in the existing roadway and multimodal infrastructure and accommodate growth in local and regional traffic to improve mobility throughout the county.

The development and growth throughout Will County in recent years is already challenging the existing infrastructure and is only expected to increase. The Wilmington-Peotone corridor provides an east-west connection through the County but does not meet the current design standards for a major connector. The narrow cross-section combined with rolling hills and a higher percentage of large vehicles creates safety concerns resulting in rear end and fixed object crashes. The lack of shoulder deters law enforcement with no place to safely stop vehicles. Recent public meetings show strong support of safety improvements to the Wilmington-Peotone Corridor.