



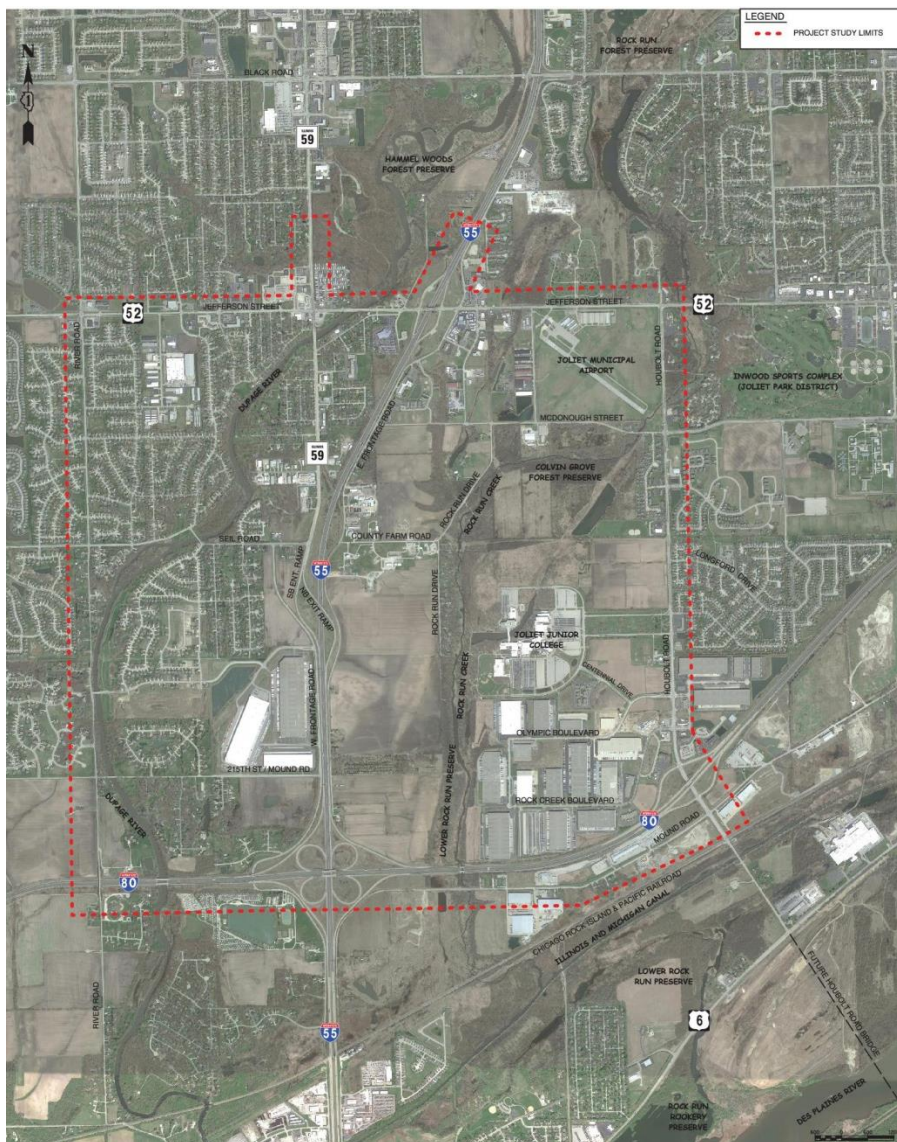
# I-55 at IL 59 Access Project

## Alternatives To Be Carried Forward

Interstate 55 from I-80 to US 52

June 2018

FAI 55, Will County  
Job No. P-91-132-17



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## 1. Introduction

The existing Illinois Route 59/Seil Road Interchange at Interstate 55 is a partial service interchange that provides access to and from the south only. There is no access to or from the north, and there is no bridge/roadway crossing I-55 to connect Seil Road/IL 59 with County Farm Road. US Route 52 is the closest full access interchange to the north of IL 59 (1.75 miles), while US Route 6 is the closest full access interchange to the south (2.85 miles). US 52 is the only roadway within the project study area that crosses I-55, connecting traffic from east to west. The project study area has been established for an approximate 6.5 square mile area bordered on the south by I-80, on the east by Houbolt Road, on the north by US 52, and on the west by River Road. The project study limits are shown below in **Figure 1.1**.

The purpose of the proposed project is to improve regional mobility and local connectivity, and improve system linkage. Regional mobility refers to the ability or inability of traffic to move through an interchange, intersection or roadway section. Local connectivity refers to the ability to travel from local origins to local destinations within and through the study area without requiring adverse or indirect travel. System linkage refers to the ability to access higher functional roadways from local streets to arterial roadways such as state routes, to the interstate system.

The Purpose and Need (P&N) for this project received concurrence from the United States Environmental Protection Agency (USEPA) and the Fish & Wildlife Service (FWS) on March 5, 2018 and from the Army Corp of Engineers (USACE) on March 9, 2018.

The purpose of this document is to present the alternatives analysis and obtain concurrence on the alternatives to be carried forward for further study.

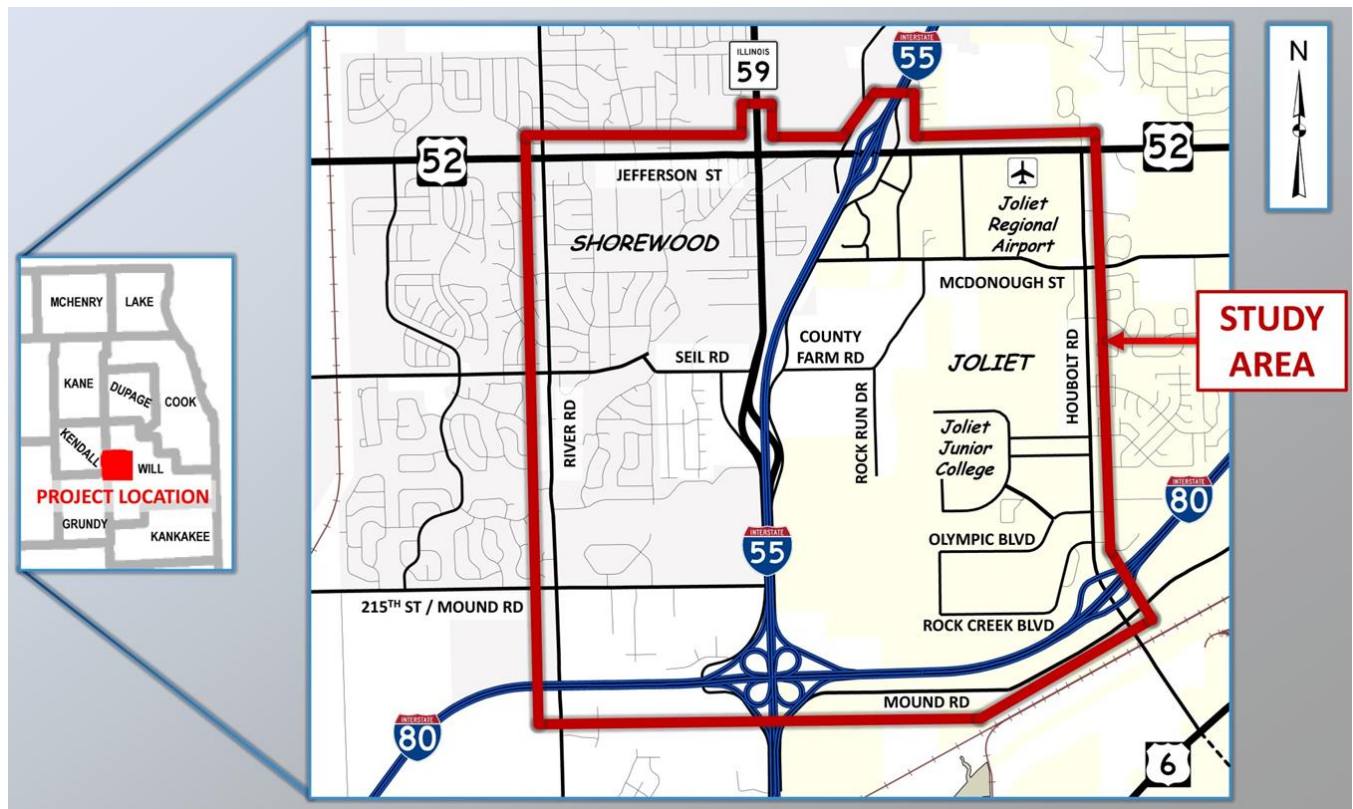


Figure 1.1 Project Location Map and Study Area

## 2. Environmental Resources

Within the project limits, sensitive environmental resources occur which may be impacted by any potential improvement. Environmental studies are being performed for the project study area. The surveys being conducted include the following:

- Cultural Resources
  - Archeological
  - Architectural
- Natural Resources
- Wetlands and Other Surface Waters

The Environmental Inventory Map that shows environmental resources can be found in **Appendix A**.

Environmental surveys performed to date have identified and confirmed the following environmental resources are located within the project study area:

1. Agricultural Land – The Village of Shorewood current land use plan designates less than 10% of their lands within the project study area as Agricultural/Rural Residential/Undeveloped. Their comprehensive long range plan indicates all of these properties/areas are planned for business park/office, commercial and residential land use. The City of Joliet has approximately 10% of property within the project study area which remains undeveloped that is not zoned as agricultural. On February 28, 2018, the Illinois Department of Agriculture declined the opportunity to participate as a cooperating agency, noting that “While there is some agricultural land in the vicinity, the area is highly urbanized and planned for non-agricultural use”.
2. Cultural/Archaeological/Architectural Resources – Reviews from the Illinois Department of Transportation (IDOT) Bureau of Design and Environment (BDE) are ongoing. The Hangar Building located on the northwest corner of the Joliet Regional Airport property is listed in the National Register of Historic Places (NRHP). The Joliet Regional Airport is owned and operated by the Joliet Park District. The airport is identified on the exhibit contained in **Appendix A**.
3. Floodplains – Two associated floodplains and their tributaries traverse through the study limits for the DuPage River and Rock Run Creek. These are identified on the Flood Insurance Rate Map (FIRM) contained in **Appendix B**. The following FIRM maps are located within the study area: 17197C0139E (1995), 17197C0143F (2003), 17197C0255E (1995) and 17197C0260E (1995).
4. Public Lands – Several public lands have been identified within the project study area, which include the following:
  - a. Colvin Grove Forest Preserve is owned by the Forest Preserve District of Will County, and is fully contained within the project study area. It is generally located south of McDonough Street and west of Houbolt Road, and extends southward toward the Joliet Junior College’s property. Colvin Grove is identified on the environmental inventory map in **Appendix A** and on **Exhibit G**.
  - b. Hammel Woods Forest Preserve is owned by the Forest Preserve District of Will County, and borders the northern project study area. It is generally located immediately north of US 52, and west of I-55. Hammel Woods is identified on **Appendix A** and on **Exhibit G**.
  - c. Lower Rock Run Preserve is owned by the Forest Preserve District of Will County, and borders the southern project study area. It is located immediately south of I-80, and east of I-55. Lower Rock Run Preserve is identified on the environmental inventory map in **Appendix A** and on **Exhibit G**.
  - d. Joliet Junior College is fully contained within the project study area and is generally located south of Colvin Grove Forest Preserve, between the Rock Run and Houbolt Road. Environmental resources within Joliet Junior College properties include a fen wetland, prairie and savannah restoration areas, trails, and high quality wetlands. A map provided by Joliet Junior College identifying these facilities and is shown in **Exhibit H**.

- e. Shorewood Parks and Recreation District Properties – Ten public parks are located within the project study area all west of I-55. A map of these lands is provided in **Exhibit I** and they are also shown on the environmental inventory map in **Appendix A**.
5. Wetlands – Field investigations were performed and a Wetland Determination Report was issued (February 2018) on areas surveyed by Illinois Natural History Survey (INHS) prior to the end of Year 2017 growing season. The report confirmed the presence of sixty-nine (69) wetland sites. In the Wetland Determination Report (February 2018) by INHS, one wetland site (Site 32) includes a fen/sedge meadow located on Joliet Junior College’s property. The Wetland Determination Report also notes that “Rock Run Preserve, land owned by the Forest Preserve District of Will County has sedge meadow/wet prairie complexes. Additional field investigations are required for project study areas that were unable to be performed prior to the end of the 2017 growing season. Additional surveys will be completed during the 2018 growing season.
  6. Biotic Surveys – INHS Biotic Surveys are conducting an in depth study of the entire project corridor for macroinvertebrates, plants, water quality and water physical characterization. These reports are anticipated to be completed by October 31, 2018.
  7. Threatened and Endangered Species – Threatened and Endangered Species studies and reports are not yet available for this project. The official threatened and endangered species list was requested and a response letter was received from the Fish and Wildlife Services, and is included in **Appendix G**. Based on the response letter, potential federally listed threatened and endangered species for the study area could include the following: Northern Long-eared Bat, Eastern Massasauga, Sheepsnose Mussel, Hine’s Emerald Dragonfly, Eastern Prairie Fringed Orchid, Lakeside Daisy, Leafy Prairie-clover and Mead’s Milkweed. The Natural Heritage Database was checked and records of the state listed Iowa darter, Leafy Prairie Clover, American Burnet, and Blanding’s turtle occur within the project vicinity.” A full list of the potential threatened species can be found in **Appendix G**. The report notes that “Joliet Junior College also has an area within the natural area preservation-restoration complex planted with the federally endangered leafy prairie-clover *Dalea foliosa* as part of the U.S. Fish and Wildlife Recovery Plan for this species”. The Blanding’s turtle and fish surveys will be performed by INHS to determine if threatened and endangered species exist in the project study area and the report is anticipated by October 31, 2018. The Eastern Prairie Fringed Orchid report completion date is anticipated following the next bloom period in 2018.

### 3. Alternatives Overview

This alternatives overview section presents the design criteria utilized in the development of alternatives, alternative development process, description of alternatives, and information regarding the evaluation/screening process utilized for recommendations for Alternatives to be Carried Forward.

#### 3.1 Design Criteria and Guidelines

The Illinois Department of Transportation Bureau of Design and Environment (BDE) Manual provides the primary criteria for the design of roadway facilities. These criteria are based on the functional classification of the roadway, traffic volumes, whether it is a rural, urban or suburban setting, the design speed and other factors.

**Table 3.1** below provides a list of the primary roads located within the study area and their roadway functional classification and their jurisdiction. Table 2 provides general design criteria for each of these classifications.

**Table 3.1 Existing Roadway Functional Classification and Jurisdiction**

Roadway	Functional Classification	Agency with Jurisdiction
Interstate 55	Interstate	IDOT
Interstate 80	Interstate	IDOT
IL 59	Other Principal Arterial (SRA)	IDOT
US 52	Other Principal Arterial	IDOT

Roadway	Functional Classification	Agency with Jurisdiction
Houbolt Road	Minor Arterial	City of Joliet
McDonough Street	Major Collector	City of Joliet
Seil Road	Major Collector	Village of Shorewood
Mound Road (West of I-55)	Major Collector	Village of Shorewood
Olympic Boulevard	Local Road/Street	City of Joliet
County Farm Road	Local Road/Street	Troy Township
I-55 East Frontage Road	Local Road/Street	Troy Township
I-55 West Frontage Road	Local Road/Street	Portions by Village of Shorewood and Troy Township

Separate design criteria have been established based on roadway functional classification. Design controls for each classification utilized in this analysis are based on the guidelines found in the Illinois Department of Transportation's Bureau of Design and Environment (BDE) Manual. **Table 3.2** lists the basic design element criteria utilized for the interstate mainline, the interchange, and local roads located within the study area.

**Table 3.2 Roadway Design Criteria**

Roadway Classification	IDOT BDE Manual Reference Section	Design Speed (mph)	Number of Lanes	Lane Width (feet)	Median Width and Type
Interstate	45-4B	60	4-6	12'	22' with concrete barrier
Interchange	37-3.04 37-3.05 37-3.10	Ramps Loop: 25 Directional: 35 - 45 DDI: 30	Varies	12'	N/A
Other Principal Arterial (SRA) (Suburban)	46-3E	45	4	11'-12'	18' (Raised Curb)
Other Principal Arterial (Suburban)	48-6A	40-45	4	10'-12'	16'-18' (Raised Curb)
Major Collector	48-6A	40	4	10'-12'	16'-18' (Raised Curb)
Minor Arterial	48-6A	30	2	10'-12'	10'-12' Flush / Two-Way Left-Turn Lane
Local Road/Street	48-6A	30	2	10'-12'	10'-12' Flush / Two-Way Left-Turn Lane

Additional resources that were utilized in the development and design of the various alternatives' roadway elements are included in the list below.

- Geometric Design Criteria for Urban-Expressways (BDE Figure 45-4.B)
- Geometric Criteria for Urban Strategic Regional Arterials (BDE Figure 46-2.E)
- Geometric Criteria for Suburban Strategic Regional Arterials (BDE Figure 46-3.E)
- Geometric Design Criteria for Suburban/Urban Two Way Arterials (BDE Figure 48-6.A)



- 3R Guidelines for Rural and Urban Highways (Non-Freeways) (BDE Chapter 49)
- Interchange Types and Layouts, Compressed Diamond (BDE Chapter 37-3.04)
- Interchange Types and Layouts, Single Point Urban Diamond (BDE Chapter 37-3.05)
- Interchange Types and Layouts, Diverging Diamond Interchange (BDE Chapter 37-3.10)
- Ramp Design, Ramp Types (BDE Chapter 37-4.01)
- Ramp Design, Collector–Distributor Roadways (BDE Chapter 37-4.02)
- Ramp Design, Design Speed (BDE Figure 37-4.E)
- Freeway Ramp Terminals (BDE Section 37-6)
- *A Policy on Geometric Design of Highways and Streets* (AASHTO)
- *Roadside Design Guide* (AASHTO)
- *Highway Capacity Manual* (Transportation Research Board)

### 3.2 Pre-Development Outreach Efforts

Prior to the initiation of the alternatives development process, extensive stakeholder outreach was performed to identify and better understand local issues and concerns, to gain knowledge and to solicit input on goals and ideas for solutions to the transportation needs of the area. An initial Public Information Meeting was held, a Community Advisory Group was formed, a Community Context Audit / Project Survey was created, and a project website was established for this purpose.

### 3.3 Alternatives Development

The Project Study Group (IDOT, City of Joliet, the Federal Highway Administration, and Engineering Consultants) have worked together with a Community Advisory Group (CAG), which includes voluntary stakeholders such as community officials, local agency representatives, residents, business owners, and special interest groups. The CAG identified initial concepts and ideas which had the potential to address the defined project needs. A large number of alternatives were initially developed, reviewed and screened. The alternatives not meeting project needs or were found infeasible are recommended to be dismissed from further study. The remaining alternatives that are carried forward will then be further developed and a similar screening process will take place. With each level of screening the number of alternatives is reduced, and the alternatives best meeting the project needs while minimizing impacts to the environment will be recommended as alternatives to be carried forward, which will be further designed, detailed and evaluated. The goal of this process is to ultimately select a preferred alternative.

Due to the sheer size of the project study area (6.5 square miles), the wide range of ideas and concepts identified and developed, the alternatives will be developed and evaluated separately under three different categories. Alternatives under each category grouping will be developed independently of each other and evaluated separately. All evaluated alternatives are shown and summarized in **Exhibit J**. The categories include the following:

- Interchange Alternatives (I-Designations)
- East-West Connector Alternatives (EW-Designation)
- Route Capacity Improvement Alternatives  
Seil Rd (S-Designations) / Mound Rd (M-Designations) / US 52 (Jefferson Street)

The development process for the TIP and Regional Transportation Plan constitutes the Congestion Management Process (CMP) for Northeastern Illinois. This process documents warranted projects for adding SOV capacity and, as applicable, also documents that regional and/or project-specific alternatives (e.g., Transportation Demand Management measures, High-Occupancy Vehicle measures, Transit Capital Improvements, Congestion Pricing, Growth Management, Incident Management) would not obviate the need for adding SOV capacity. Planned projects resulting from the CMP are documented in the annual CMP status report referenced above. For this project, it has been determined that stand-alone CMP alternatives will not satisfy the project purpose and need and, therefore, this undertaking is a warranted project for adding SOV capacity.

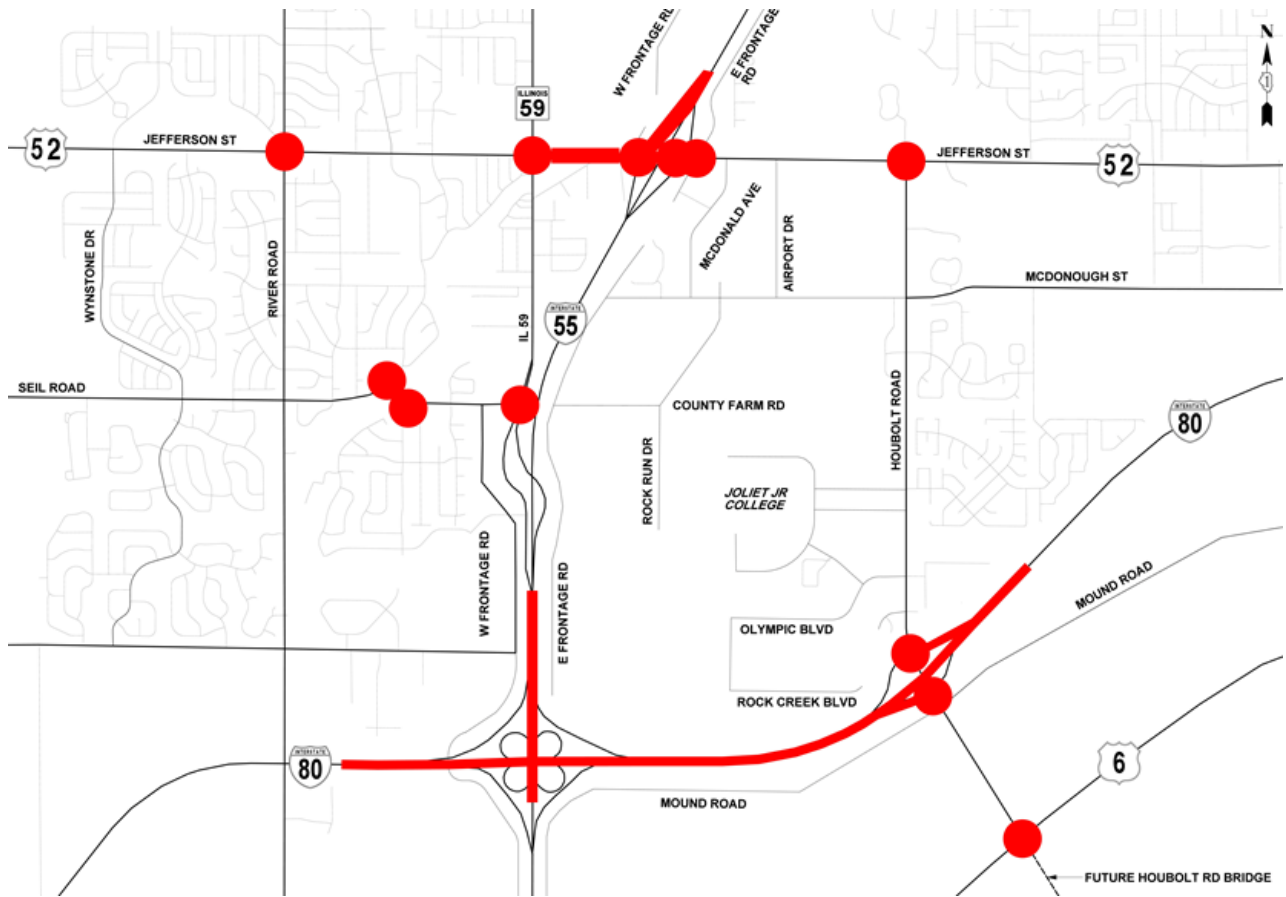
### 3.3.1 2040 No-Build Condition Traffic Operations

Under a no-build condition, capacity on existing local roadways and signalized intersections in the study area are expected to further degrade from conditions that are already below acceptable levels of service. The existing and 2040 no-build average daily traffic and the projected 2040 no-build hourly traffic volumes are summarized in **Exhibit E** and **Exhibit F**, respectively. Level of Service (LOS) is a measure by which the quality of traffic flow on a roadway or intersection operates under specific traffic conditions. LOS accounts for the operating speed, traffic density, driver discomfort and convenience relative to delay. The LOS is an operations grade, ranging from A to F, and is modeled utilizing the peak morning and evening traffic volumes for a typical weekday. An A LOS equates to a free flow condition with very little to no noticeable delay. An LOS from B to F reflects conditions with decreasingly effective traffic operations and noticeably increased delays. A LOS F would equate to a gridlock condition at peak hour with extensive delays. **Figure 3.1** below shows the different levels of service graphically, using US 52 traffic as an example, during different time of the day.



**Figure 3.1 Level of Service Example Diagram**

Acceptable Interstate levels of service, per FHWA, are LOS A through LOS C for rural expressways, and LOS A through LOS D for urban expressways. Both I-80 and I-55, and in particular the ramp weaving and merging movements between these two interchanges are at an unacceptable LOS in the current condition, and will continue to worsen through 2040, with many currently acceptable movements dropping to unacceptable levels with no improvements. Intersection levels of service are similarly graded. Acceptable LOS for any roadway, which is classified as a Strategic Regional Arterial, or SRA Route range from A-C, while all other non-interstate roadways have an acceptable LOS range from A-D. Within the study area, IL 59 is the only route classified as an SRA Route. Individual movements at each intersection (both turning and through movements) are evaluated, as well as overall intersections. While US 52 at IL 59 and US 52 at I-55 southbound ramps currently fail as an overall intersection, at least five intersections will have an unacceptable LOS by 2040 without network improvements (**see Figure 3.2**), and over 30 movements at intersections will similarly have unacceptable LOS in year 2040.



**Figure 3.2 Unacceptable level of service within the study area (2040 No-Build) shown in red**

US 52, located on the northern part of the study area, is currently a four-lane roadway with two mainline lanes in each direction. Auxiliary turn lanes are provided at signalized intersections, but are absent through a majority of the study area. Currently, this roadway is over capacity near the I-55 interchange and at the IL 59 / US 52 intersection. US 52 has already exceeded this maximum hourly volume under existing conditions. The I-55 and US 52 interchange has been identified as not having adequate capacity for the traffic demand currently traveling through the interchange. Considering the projected 2040 traffic volumes, US 52 in the study area will operate well above the recommended threshold for a suburban/urban two-way arterial.

Capacity and weaving issues have been also identified on the interstate system within the study area. The I-80 and I-55 system interchange and I-80 are operating over their design capacities. The I-55 and I-80 weaving movements were a frequent concern raised in the stakeholder involvement process.

Additionally, priority items noted in the stakeholder involvement include the improvement of the local roads to support additional interstate access and a perceived need to expand the existing US 52 and I-55 interchange.

### 3.3.2 Travel Demand Modeling for 2040 Build Conditions

Travel demand modeling was completed for 23 different potential build condition alternatives to compare the 2040 no-build projected average daily traffic with each build condition to determine the traffic rerouting/diversion potential that would occur for each different build condition or build scenario. The travel demand model incorporates overall traffic volumes, as well as volumes for four truck classes (B-Plate, Light, Medium and Heavy).

The travel demand modeling involves a four-step process that utilizes CMAP's Emme Model, forecasting tools and data. The four steps include: trip generation, trip distribution, mode choice and assignment to the transportation network. The model covers the entire Chicagoland area in northeast Illinois, southeast Wisconsin and northwest Indiana.

A no-build year 2040 condition means that population and traffic are both projected to grow through the year 2040, even with no improvements to the roadway system. Within the study area, this no-build growth is particularly anticipated along US 52, Mound Road and Seil Road as the areas west of I-55 are not yet developed with much open space. The future land use plans for the Village of Shorewood, Village of Minooka and the City of Joliet show all these areas being zoned for future development. Existing and proposed land use maps for the study area, including the City of Joliet and the Village of Shorewood are shown in **Exhibits A, B, C and D**.

Travel Demand Modeling is an evaluation of travelers' trips for a specific geographical area. Travel Demand Modeling realizes that travelers have several choices to make for their trip; a choice of route(s), a choice of the time of day to take their trip(s), and their mode of travel (whether to use a personal vehicle, public transit such as bus and train, bike, or walk). The evaluation of travelers' trips also looks at the origin and destination of the trip(s).

A build condition/scenario is the introduction of a roadway improvement to the existing system and the resultant effect it has on traffic demand. The average daily traffic values for each build condition/scenario were compared to the 2040 no-build condition to study the impacts on traffic redistribution on the roadway network. Complete results of all 23 model runs for each build condition can be found in the exhibits included in **Appendix H**.

General findings from the results of the travel demand modeling include the following:

- There is a demand of 10,000 to 25,000 vehicles per day to travel east-west through the study area dependent on the build condition.
- There is minimal difference in travel demand on McDonough Street between the build scenarios for whether an improved two-lane or four-lane cross section is proposed.
- Widening US 52 to four-lanes west of IL 59 attracts additional regional traffic and causes ADT to exceed 55,000 in certain sections. The section west of IL 59 goes from 34,000 (no-build) up to 45,600 if no new interchange access is provided at IL 59 and I-55. The primary reason for this is because a higher capacity US 52 west of IL 59 becomes a more desirable option for the greater regional traveling public than existing routes, such as Black Road, Caton Farm Road, I-80 and US 30.
- Similarly, widening Seil Road to four-lanes between River Road and IL 59 results in a large amount of demand. Average daily traffic on Seil Road goes from 20,000 (no-build) up to 34,300 with some traffic reduction realized along US 52 (-3600 ADT).
- Connection of Olympic Blvd to I-55 East Frontage Road shows some travel demand and is further increased when additional ramps at I-55 / IL 59 are introduced.
- When Mound Road is extended over I-55 with a connection to Houbolt Road, there is an increase of traffic on Mound Road. The greatest increase (+12,800 ADT) occurred in the build condition when only a Mound Road bridge over I-55 and no Seil Road / County Farm Road connection bridge are proposed. Generally, in all Mound Road extension alternatives, there is a relative decrease of traffic on Seil Road regardless whether new access to and from I-55 is introduced at the I-55 and IL 59 interchange.
- The greatest reduction in traffic on Seil Road (-5100 to -5600 ADT) occurred under the following conditions: 1) only improvement proposed was a Mound Road extension that connects to Houbolt Road or 2) widening US 52 to four-lanes and providing additional access to the north at the I-55 / IL 59 access interchange.
- Similar east-west demand was realized for the build conditions that included a connection to IL 59 / Seil Road over I-55 to Houbolt Road via either the County Farm Road Extension or



improvement of the existing McDonough Street / Rock Run Drive / County Farm Road corridor. This shows that both these alternatives satisfy the project needs (improve mobility and local connectivity and improve system linkage).

### 3.3.3 Interchange Alternatives (I-Designations)

Interchange improvement alternatives have been developed at this location to complete the “missing” north access movements from the local roadway network to and from Interstate 55.

#### 3.3.3.1 Existing Conditions

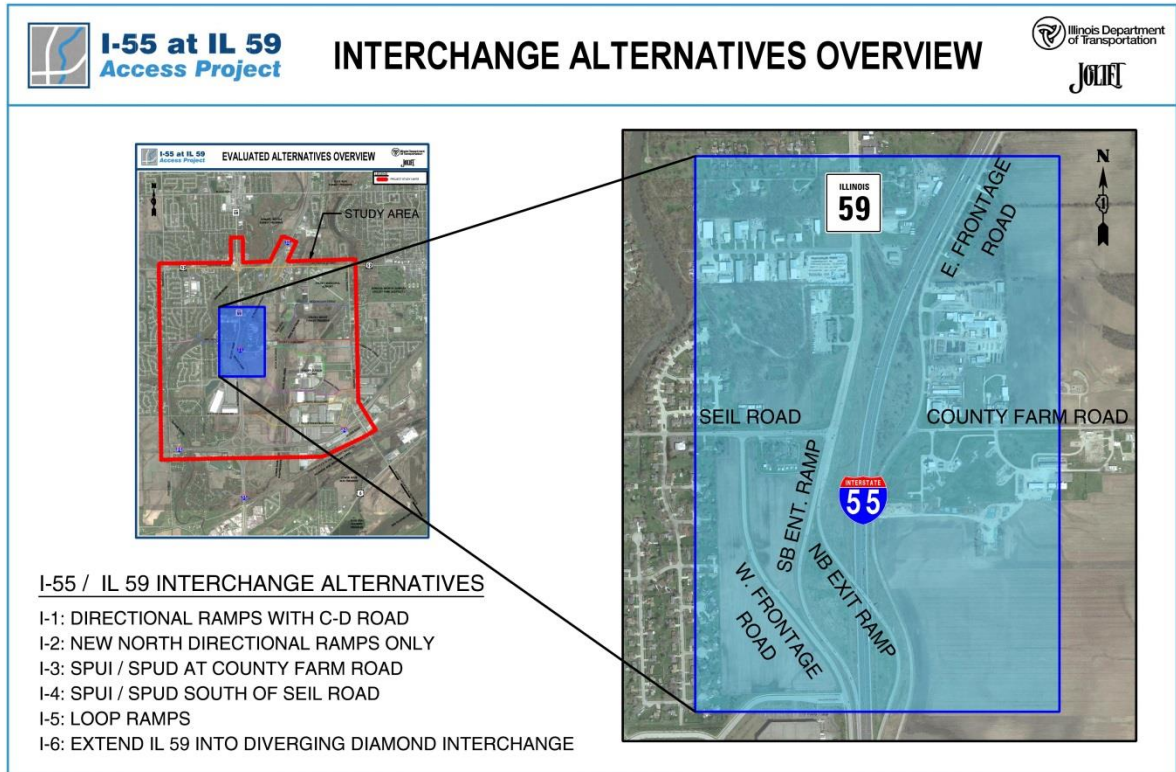
The existing Illinois Route 59 / Seil Road interchange at Interstate 55 is a partial service interchange that provides access to and from the south only. There is no access to or from the north, and there is no bridge/roadway crossing I-55 to connect Seil Road / IL 59 to the west with County Farm Road to the east. Because there is no bridge crossing I-55 at this location, there is also no pedestrian / bicycle access across I-55. The existing northbound I-55 exit ramp to IL 59 is a single lane, flyover directional ramp. Southbound IL 59 terminates south of Seil Road, and becomes an entrance ramp to southbound I-55.

US 52 (Jefferson Street) is the closest full access service interchange to the I-55 / IL 59 interchange and is located 1.75 miles north, while US 6 is the closest full access service interchange located 2.85 miles to the south. US 52 is also the only roadway (other than I-80) within the project study area that crosses I-55, allowing east-west local travel.

#### 3.3.3.2 Proposed Interchange Alternatives

All of the proposed alternatives were designed to convert the existing partial access interchange to a full access interchange by providing new access to and from the north. A wide range of interchange alternatives were developed that include multiple interchange configurations. They are summarized as follows and **Figure 3.3** shows an overview of the different interchange alternatives evaluated. A more detailed graphical presentation of each Interchange Alternative is included in **Appendix D**.

Interchange – No Build Alternative Description
<ul style="list-style-type: none"><li>• The No-Build Alternative would maintain the existing facility without any improvements except for routine repairs and maintenance, such as pavement resurfacing, patching and bridge overlay or patching.</li><li>• The No-Build Alternative would continue to operate as a partial interchange and offer no benefit to the stated needs.</li></ul>



**Figure 3.3 Interchange Alternatives Overview**

<b>Alternative I-1 / Collector-Distributor Roadway System Along I-55 Description (See Figure 3.4)</b>
<ul style="list-style-type: none"><li>• This alternative includes a new southbound Collector-Distributor (C-D) roadway from US 52 with new interchange ramps at IL 59 on the west side of I-55.</li><li>• The new C-D roadway would collect southbound I-55 entering traffic from US 52 and I-55 southbound traffic exiting to IL 59 / Seil Road / East Frontage Road. This configuration eliminates weaving on the southbound I-55 mainline.</li><li>• The C-D roadway then would split into three different ramps with the following destinations: IL 59, I-55 East Frontage Road and the I-55 southbound mainline. Note that this alternative has no new ramps connecting to Seil Road / County Farm Road.</li><li>• This alternative would include a new bridge that connects Seil Road and County Farm Road over I-55 by creating the fourth leg of the existing signalized intersection at IL 59 / Seil Road.</li><li>• The I-55 East Frontage Road is realigned / relocated in this alternative.</li></ul>



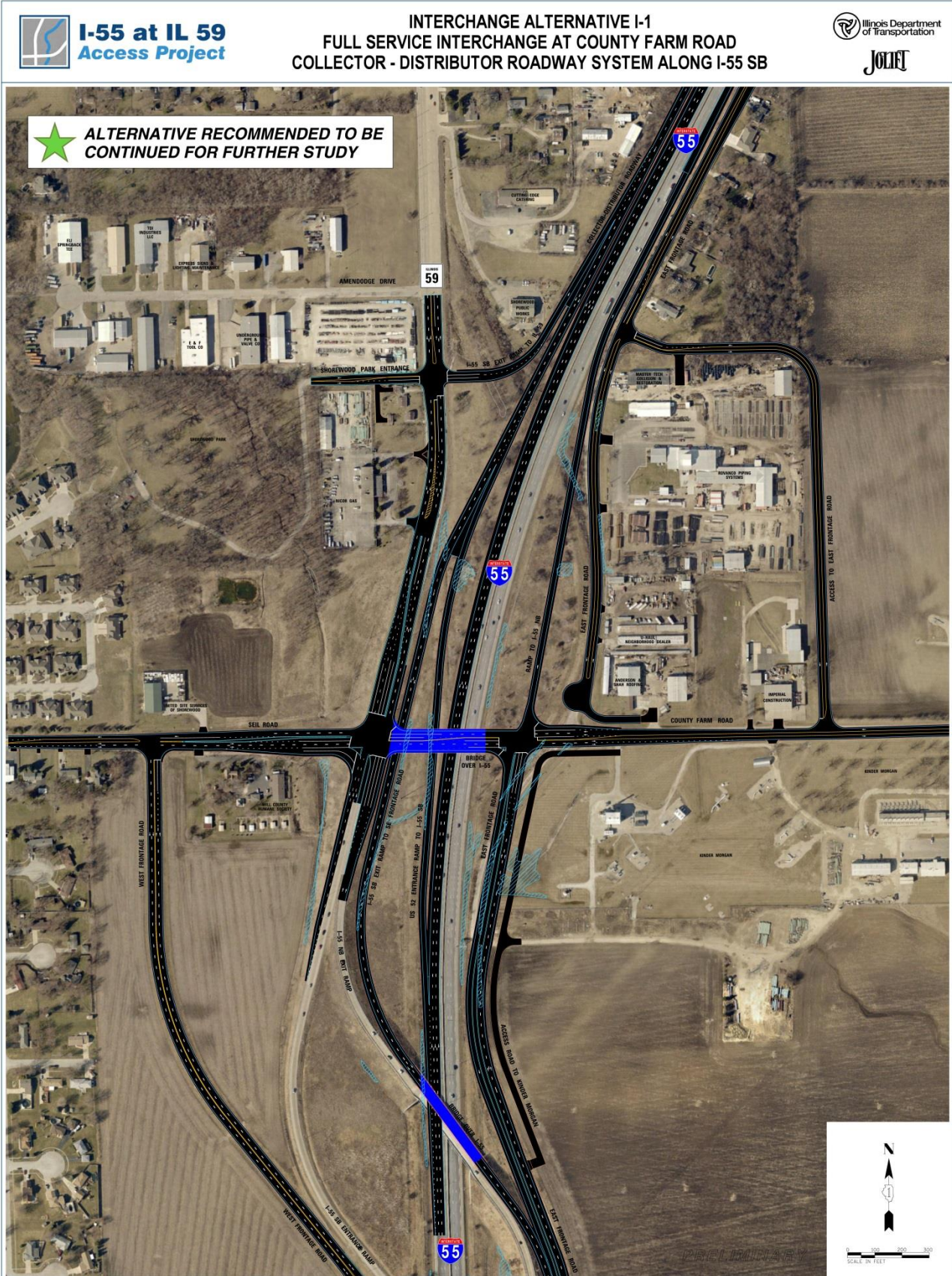


Figure 3.4 Interchange Alternative I-1 Concept Plan

**Alternative I-2 / New North Directional Ramps Only Description  
(See Figure 3.5)**

- Two new directional ramps that include a southbound exit and northbound entrance between I-55 and Seil Road / County Farm Road would be included in this alternative.
- The new southbound I-55 exit would be a flyover directional ramp and would create a new intersection on Seil Road / County Farm Road located east of IL 59. The south leg of this intersection would be the I-55 East Frontage Road.
- The new northbound I-55 entrance ramp would be located at the same intersection east of IL 59 on Seil Road / County Farm Road. Access to and from IL 59 and the new I-55 ramps would be via Seil Road / County Farm Road.
- This alternative would include a new bridge that connects Seil Road and County Farm Road over I-55 by creating the fourth leg of the existing signalized intersection at IL 59 / Seil Road.
- This alternative includes the addition of an auxiliary lane in each direction on I-55 between US 52 and the new directional ramps to allow for adequate weaving between entering and exiting traffic.
- The eastern I-55 Frontage Road is realigned/relocated in this alternative. This road would also require realignment north of County Farm Road to allow for construction of the new entrance and exit ramps while still providing access to local businesses.





Figure 3.5 Interchange Alternative I-2 Concept Plan

**Alternative I-3 / Single Point Urban Diamond (SPUD) Interchange Description  
(See Figure 3.6)**

- This alternative includes a new northbound I-55 entrance ramp and a new southbound I-55 exit ramp to and from Seil Road / County Farm Road.
- While this alternative completes the interchange, it does not provide direct access between I-55 and IL 59 from/to the north. Only County Farm Road / Seil Road is accessible to and from the north on I-55 due to grade differential required between the SPUD and IL 59 / Seil Road intersection.
- This alternative would include a new bridge that connects Seil Road and County Farm Road over I-55 by creating the fourth leg of the existing signalized intersection at IL 59 / Seil Road.
- This alternative introduces a new Collector-Distributor (C-D) Road on southbound I-55 between US 52 and the SPUD at Seil Road / County Farm Road and eliminates weaving on the southbound I-55 mainline.
- The East Frontage Road is realigned/relocated, north of County Farm Road.
- Access to eastbound County Farm Road is provided via new slip ramp to the southbound C-D road at the intersection of IL 59 and Amendodge Drive. Access to eastbound and westbound Seil Road and I-55 is provided by elevated ramps between I-55 and the West Frontage Road.
- IL 59 is grade separated under Seil/County Farm Road Bridge in this alternative and some turning movements are eliminated as a result.





**Alternative I-4 / Single Point Urban Diamond (SPUD) – South Location Interchange  
Description (See Figure 3.7)**

- This alternative is similar to I-3, but this alternative moves the entire SPUD interchange farther south. New ramps to and from the north on I-55 are introduced without an I-55 auxiliary lane because the US 52 and this interchange are located farther apart when compared with other alternatives.
- This alternative does not include a new bridge connecting Seil and County Farm Road.
- The new bridge for the SPUD is located in the vicinity of the existing I-55 northbound exit ramp fly over ramp to IL 59. The bridge allows east-west travel over the interstate. Access to Seil Road is via an expanded west frontage road and access to the east is provided via a new roadway while avoiding County Farm Road.
- This alternative changes the free-flow nature of northbound IL 59 traffic from I-55. IL 59 traffic is required to pass through the SPUD and then make a right turn onto a new ramp that connects to IL 59.
- The east frontage road is abandoned in this alternative south of the east-west connector roadway.
- The IL 59 / Seil Road intersection is expanded in this alternative due to the new turning traffic demand as a result of the layout and location of the interchange. The northbound left turn to Seil Road from IL 59 is eliminated under this alternative.



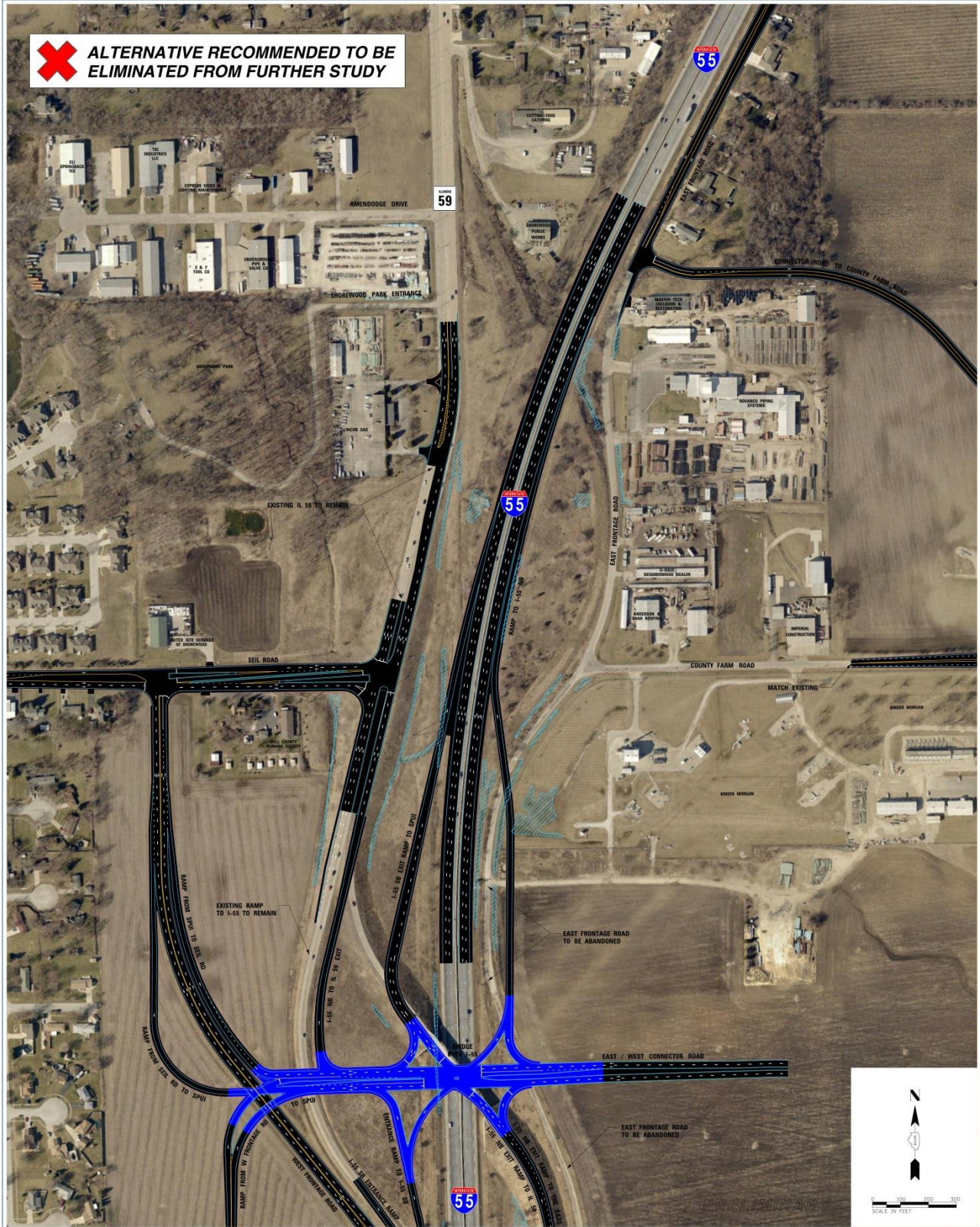


**I-55 at IL 59  
 Access Project**

**INTERCHANGE ALTERNATIVE I-4  
 FULL SERVICE INTERCHANGE AT COUNTY FARM ROAD  
 SINGLE POINT URBAN INTERCHANGE (SPUI) - SOUTH LOCATION**



**✗ ALTERNATIVE RECOMMENDED TO BE  
 ELIMINATED FROM FURTHER STUDY**



**Figure 3.7 Interchange Alternative I-4 Concept Plan**

**Alternative I-5 / I-55 Southbound Exit and Northbound Entrance Loop Ramps Description  
(See Figure 3.8)**

- This alternative moves the new ramp terminals / gore areas on I-55 farther south. New ramps to and from the north on I-55 are introduced without an I-55 auxiliary lane because the US 52 and this interchange are located farther apart when compared with other alternatives.
- This alternative would include a new bridge that connects Seil Road and County Farm Road over I-55 by creating the fourth leg of the existing signalized intersection at IL 59 / Seil Road.
- This new southbound exit ramp passes under Seil Road / County Farm Road and then loops over I-55 to form new T-intersection on County Farm Road east of IL 59.
- The new northbound entrance loop ramp would be accessed from the same intersection on County Farm Road as the southbound exit ramp on County Farm Road east of IL 59.
- Access to and from IL 59 and the new I-55 ramps would be via Seil Road / County Farm Road.
- The East Frontage Road would be terminated just north of County Farm Road and would allow for access to existing businesses. A new roadway would be required to connect the East Frontage Road to County Farm Road under this alternative.



Alternatives To Be Carried Forward  
I-55 at IL 59 Access Project

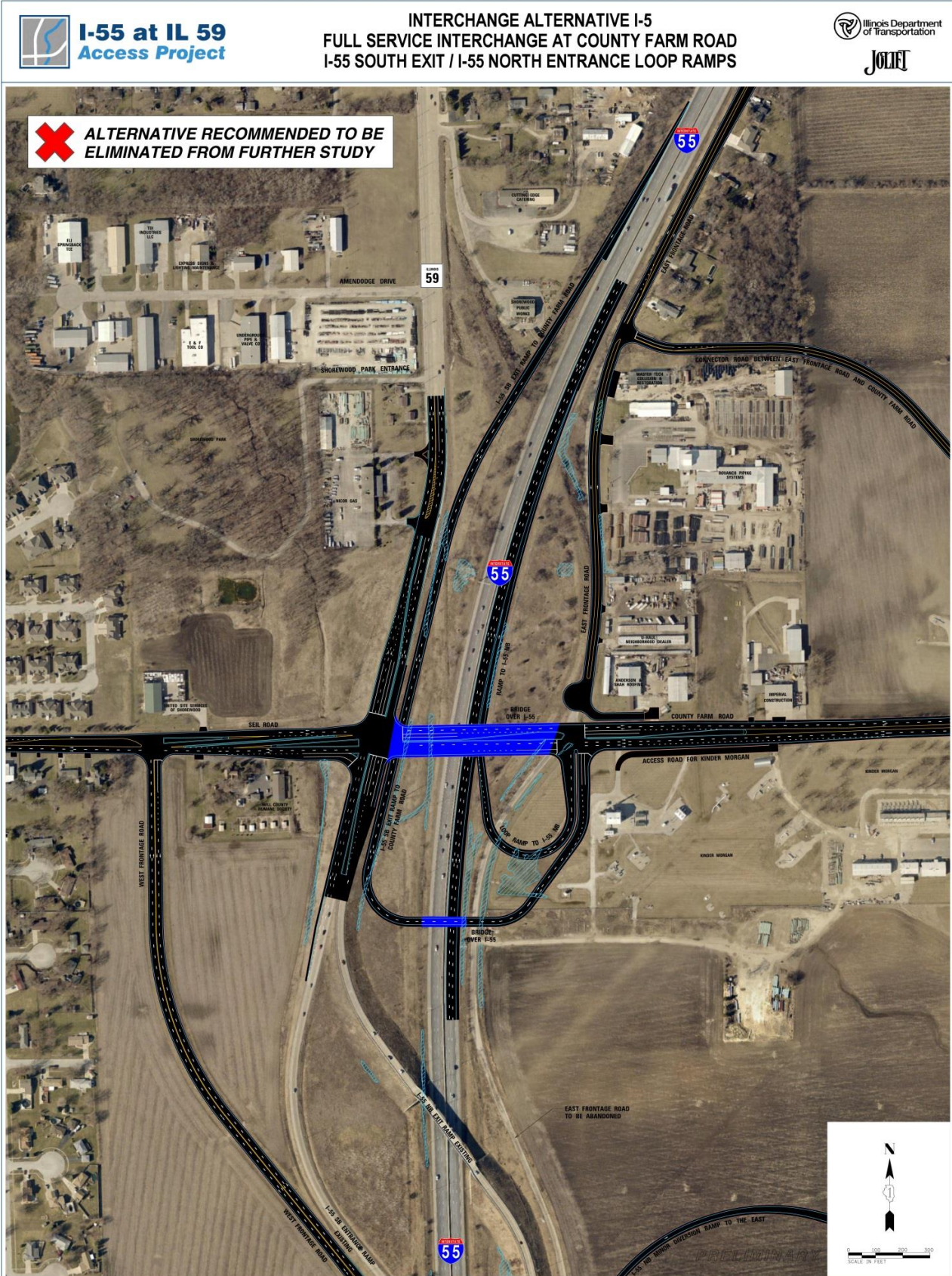


Figure 3.8 Interchange Alternative I-5 Concept Plan

**Alternative I-6 / Extension of IL 59 into a Diverging Diamond Interchange Description  
(See Figure 3.9)**

- This alternative includes extending IL 59 south of Seil Road and crossing over I-55 and introducing a new I-55 at IL 59 Diverging Diamond Interchange (DDI) south of the existing interchange.
- IL 59 would terminate ¼ mile south of the southern DDI signalized intersection into a realigned and improved East Frontage Road.
- This alternative would introduce two parallel structures spanning I-55 and would not include a bridge connecting Seil Road to County Farm Road.
- The existing ramp gore areas on I-55 located to the south would remain in this alternative.
- Two new ramps that include a southbound exit and northbound entrance between I-55 and IL 59 would be introduced in this alternative.
- This alternative also includes the addition of an auxiliary lane in each direction on I-55 between US 52 and the new DDI ramps to allow for adequate weaving between entering and exiting traffic.
- The eastern I-55 Frontage Road is realigned/relocated in this alternative.



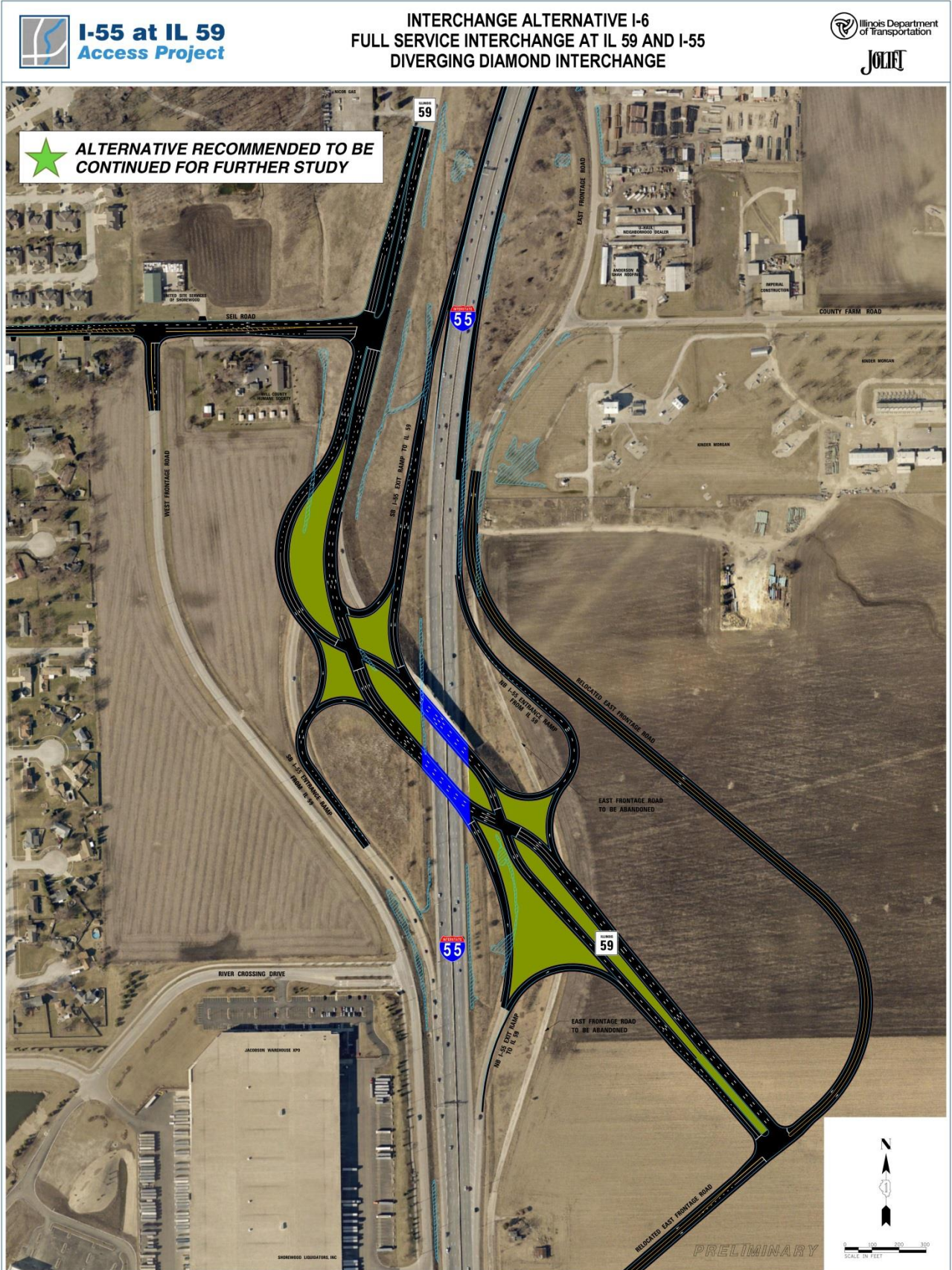


Figure 3.9 Interchange Alternative I-6 Concept Plan

### 3.3.4 East-West Connector Alternatives (EW-Designations)

Eight east-west connector roadway alternatives on the local roadway network have been developed between to connect the I-55 East Frontage Road and Houbolt Road between McDonough Street on the north and I-80 on the south.

#### 3.3.4.1 Existing Conditions

Existing east-west connectivity across I-55 exists only at US 52 within the project study area. Local connectivity between the I-55 East Frontage Road and Houbolt Road is also lacking, with only one direct route again at US 52 and one indirect route utilizing County Farm Road eastward to Rock Run Drive northward to McDonough Street east to Houbolt Road.

McDonough Street is located east of I-55, classified as a major collector and is under the jurisdiction of the City of Joliet. McDonough Street is a 25-30 mph roadway, and provides a two-lane cross section between the I-55 East Frontage Road and Houbolt Road, where the traffic lanes vary between 10 and 12 feet. Sidewalks are not provided on the south side of McDonough Street, and there are intermittent sidewalks on the north side. The Rock Run Trail parallels McDonough Street on the south from Houbolt Road to a point approximately 400 feet west of Houbolt, and then deviates southwest through the Colvin Grove Forest Preserve and the Joliet Junior College campus.

County Farm Road is located east of I-55, classified as a local road, and under the jurisdiction of Troy Township. County Farm Road is a 25 mph roadway, and is a two-lane section between the I-55 East Frontage Road and Rock Run Drive. Sidewalks and bicycle facilities are not provided along County Farm Road.

Rock Run Drive is a roadway that runs northeast-southwest and connects County Farm Road to McDonough Street. The roadway has a speed limit of 25 mph, contains a two-lane cross section and is classified as a local street with no pavement markings or shoulders. This roadway primarily provides local access to homes and local businesses.

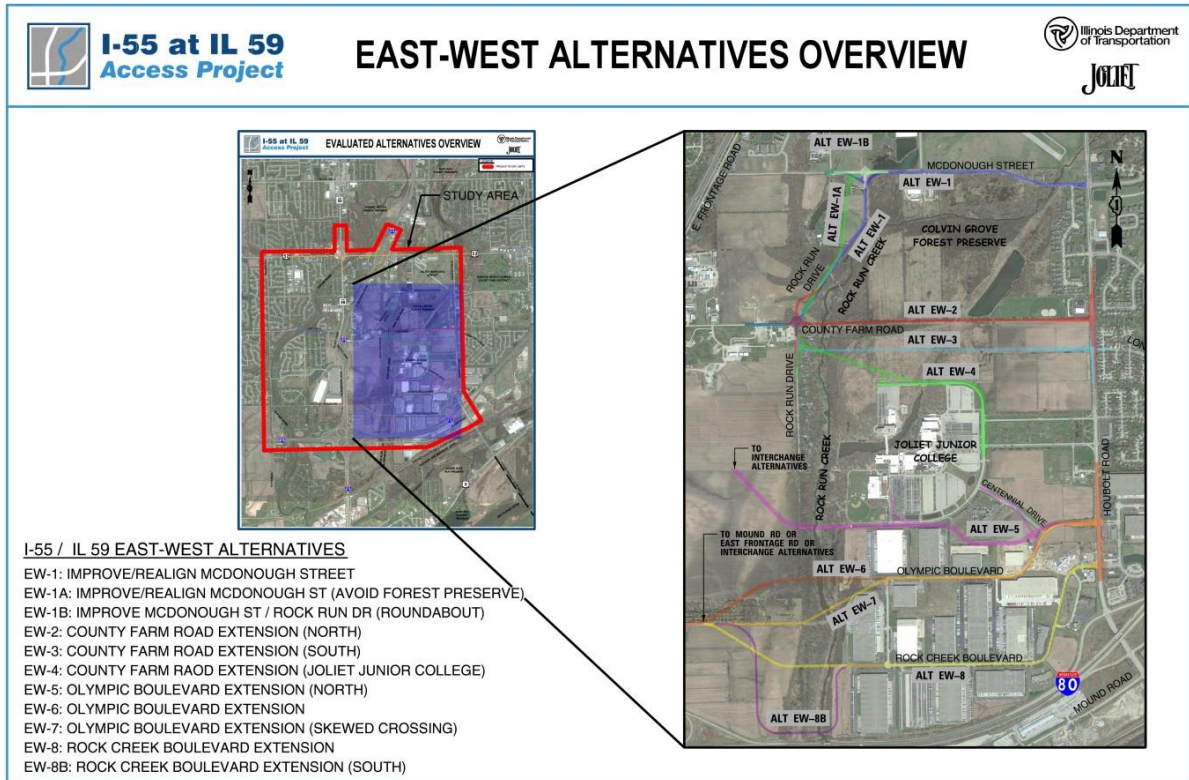
Olympic Boulevard is located east of I-55, classified as a local road, and under the jurisdiction of the City of Joliet. Olympic Boulevard is a 25 mph roadway and provides a two-lane cross section between Crossroads Drive and Houbolt Road and provides access to industrial/warehousing land use. The roadway does not cross the Rock Run Creek. Sidewalks are not provided along Olympic Boulevard. The Rock Run Trail is located north of and parallels Olympic Boulevard from Houbolt Road to south of Centennial Drive, which also provides a secondary access point to Joliet Junior College.

#### 3.3.4.2 Proposed East-West Connector Alternatives

East-West connector alternates have been considered to provide a connection between the I-55 East Frontage Road and Houbolt Road, while also providing for the opportunity to work in tandem with the Interchange Alternatives. These alternatives are to complete the “missing” linkage from east of I-55 to west making new and viable east-west through routing options for the traveling public. The east-west connector alternatives are summarized as follows and **Figure 3.10** shows an overview of the different east-west connector alternatives evaluated. A more detailed graphical presentation of each alternative is included in **Appendix E**:

East-West Connector – No Build Alternative Description
<ul style="list-style-type: none"><li>• The no-build east-west connector alternative would maintain the existing facility without any improvements except for routine repairs and maintenance, such as pavement resurfacing and patching.</li><li>• The no-build east-west connector alternative would continue to operate with no connectivity across I-55 except at US 52 within the study area.</li></ul>





**Figure 3.10 East-West Connector Alternatives Overview**

Alternative EW-1 / Improve McDonough Street to County Farm Road Description (See Figures 3.11,3.12 and 3.13)
<ul style="list-style-type: none"> <li>Alternative EW-1 provides for improvement of County Farm Road, Rock Run Drive and McDonough Street.</li> <li>This alternative includes realignment of McDonough Street near Rock Run Drive with a 30mph curve to develop east-west route connectivity. The west leg of the intersection would be reconfigured to intersect with the realigned east McDonough Street and Rock Run Drive.</li> <li>Improvements to McDonough Street include a three-lane cross section and intersection improvements and improved shoulders or combination curb and gutter.</li> <li>Intersection improvements are included at the McDonough Street and Houbolt Road for the added traffic demand.</li> <li>This alternative includes widening of the existing bridge crossing the Rock Run Creek floodplain and wetlands.</li> <li>The realignment of McDonough Street and Rock Run Drive encroaches the Colvin Grove Forest Preserve. Alternative EW-1A varies from EW-1 with a realigned Rock Run Drive to the west with a 30 mph curve to avoid the Colvin Grove Forest Preserve, but results in a residential property displacement.</li> <li>Alternative EW-1B varies from EW-1 with a roundabout proposed at the intersection of Rock Run Drive and McDonough Street. EW-1B keeps traffic moving through a roundabout, but the east-west route connectivity is lost.</li> </ul>

Alternatives To Be Carried Forward  
I-55 at IL 59 Access Project



Figure 3.11 East-West Connector Alternative EW-1 Concept Plan

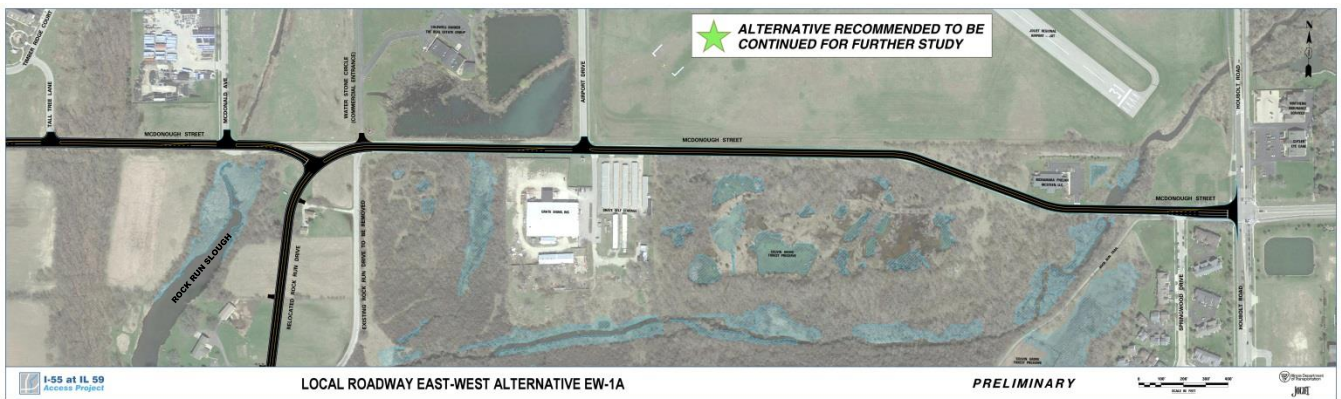


Figure 3.12 East-West Connector Alternative EW-1A Concept Plan

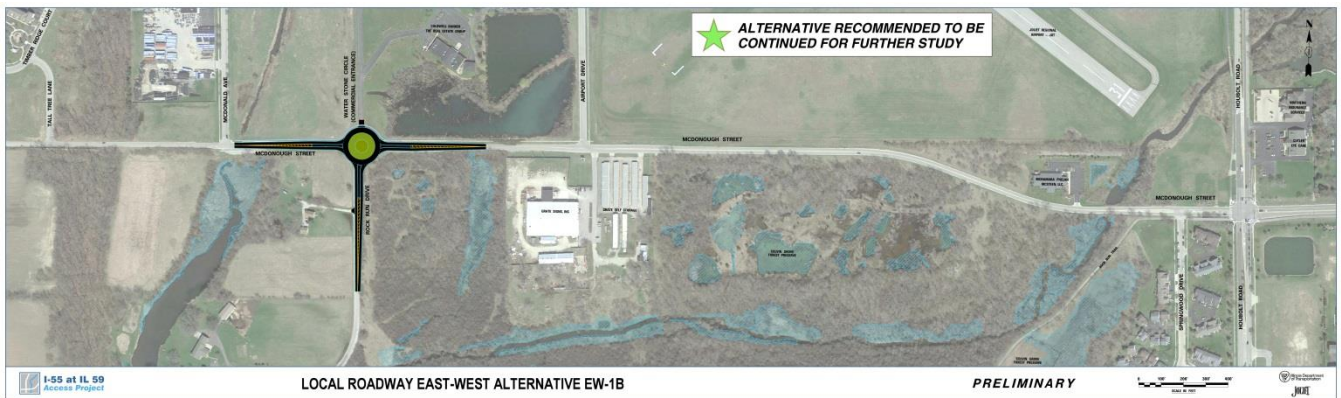


Figure 3.13 East-West Connector Alternative EW-1B Concept Plan



**Alternative EW-2 / County Farm Road Extension (North) Description  
(See Figure 3.14)**

- Alternative EW-2 provides for improvement of existing County Farm Road and its direct extension eastward to connect to Houbolt Road.
- This alternative includes a new roundabout intersection at extended County Farm Road and Rock Run Drive.
- This alternative includes a new traffic signal at the intersection of Houbolt Road and extended County Farm Road located approximately 500 feet north of the existing signalized intersection of Houbolt Road and Longford Drive.
- This alternative is in direct parallel conflict with three gas pipelines.
- This alternative includes construction of a bridge crossing the Rock Run Creek floodplain, wetland and fen at Joliet Junior College and another crossing the tributary to Rock Run Creek.



Figure 3.14 East-West Connector Alternative EW-2 Concept Plan

**Alternative EW-3 / County Farm Road Extension (South) Description  
(See Figure 3.15)**

- This alternative provides for improvement of existing County Farm Road and an offset extension eastward to Houbolt Road. The offset would occur and utilize Rock Run Creek and be offset to the south approximately 500 feet.
- The offset extension was developed to avoid conflict with three gas pipelines running within the direct extension alignment.
- The County Farm Road extension would terminate at the existing signalized at Houbolt Road and Longford Drive.
- This alternative includes construction of a bridge crossing the Rock Run Creek floodplain and wetlands and fen at Joliet Junior College and another crossing the tributary to Rock Run Creek.
- This alternative travels through prairie and savannah restoration areas (approx. 3.9 acres) located on the Joliet Junior College property.

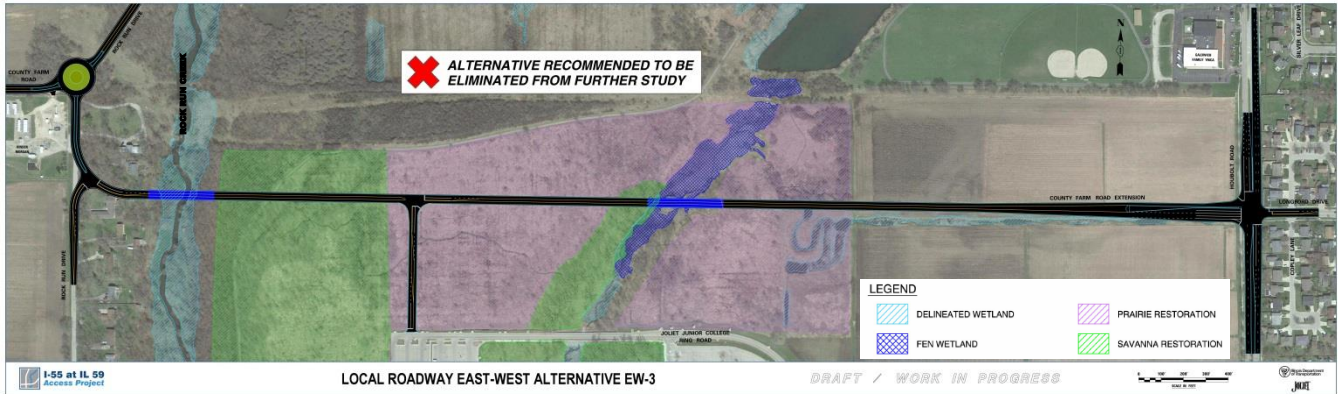


Figure 3.15 East-West Connector Alternative EW-3 Concept Plan

**Alternative EW-4 / Joliet Junior College Ring Road Extension Description  
(See Figure 3.16)**

- This alternative provides for improvement of existing County Farm Road and an offset extension southeastward on angled alignment to connect to the existing Joliet Junior College Ring Road and Joliet Junior College's entrance and exit roadways.
- The offset extension is proposed to avoid conflict with series of three gas pipelines running within the direct extension alignment, avoid the fen and use an existing crossing of the floodplain/wetlands at Joliet Junior College.
- In this alternative, traffic would reach Houbolt Road via the existing college entrance and exit, both currently signalized.
- While allowing for east-west connectivity, this alternative has routing that is unconventional and requires the use of three different roadways to complete the east-west travel.
- This alternative includes construction of a bridge crossing the Rock Run Creek tributary floodplain and wetlands while avoiding the fen.
- This alternative travels through prairie and savannah restoration areas (approx. 3.6 acres) located on the Joliet Junior College property.

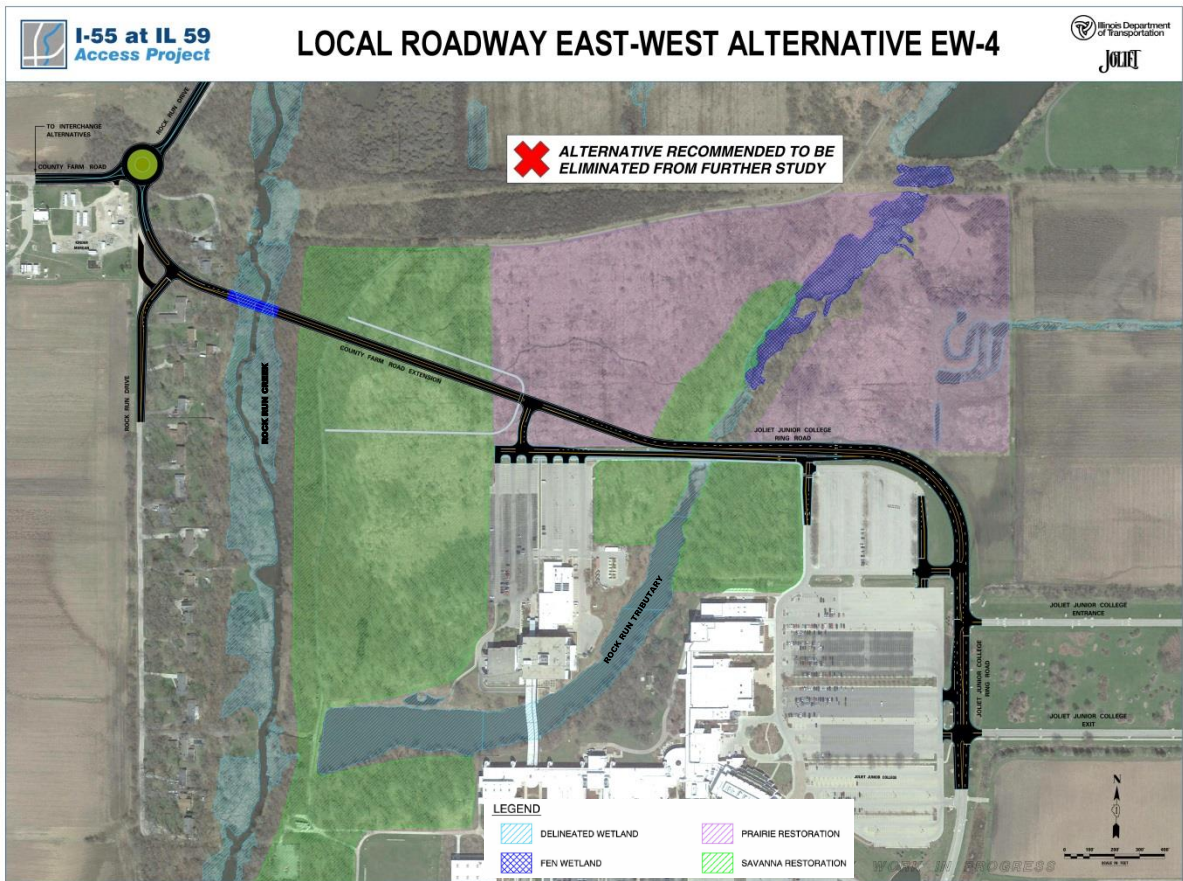


Figure 3.16 East-West Connector Alternative EW-4 Concept Plan



**Alternative EW-5 / Olympic Boulevard Extension North Description (See Figure 3.17)**

- This alternative provides for improvements to Olympic Boulevard at the intersection of Houbolt Road, a new alignment roadway offsetting north and running parallel to the Joliet Junior College Ring Road (south leg) and extending westward.
- This alternative includes a relocated intersection of Olympic Boulevard and Centennial Drive, and it to be signalized.
- This alternative includes construction of a bridge crossing the Rock Run Creek floodplain and wetlands.

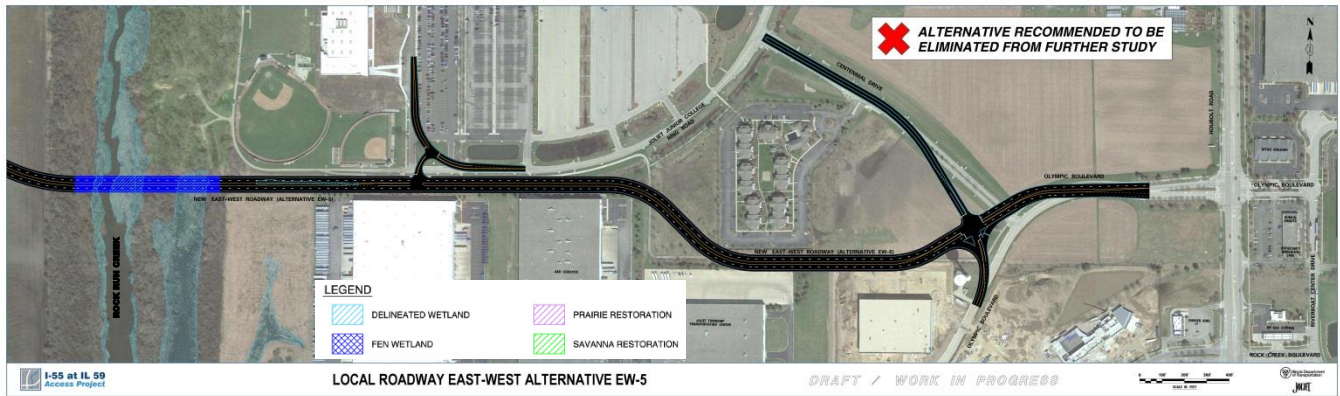


Figure 3.17 East-West Connector Alternative EW-5 Concept Plan

**Alternative EW-6 / Olympic Boulevard Extension Description (See Figure 3.18)**

- This alternative provides for improvements to Olympic Boulevard and its extended alignment roadway westward.
- This alternative includes intersection improvements at Houbolt Road and Olympic Boulevard.
- This alternative includes construction of a new bridge crossing the Rock Run Creek floodplain and wetlands.



Figure 3.18 East-West Connector Alternative EW-6 Concept Plan



**Alternative EW-7 / Olympic Boulevard Extension (Skewed Crossing) Description (See Figure 3.19)**

- This alternative provides for improvements to Olympic Boulevard and its extended alignment roadway westward. It varies from alternate EW-6 in the alignment at which it crosses the Rock Run Creek floodplain and wetlands.
- The skewed crossing provides for a shorter river crossing, but requires a longer wetland crossing when compared with alternative EW-6.
- This alternative includes intersection improvements at Houbolt Road and Olympic Boulevard and includes construction of a new bridge crossing the Rock Run Creek floodplain and wetlands.



Figure 3.19 East-West Connector Alternative EW-7 Concept Plan

**Alternative EW-8 / Rock Creek Boulevard Extension Description (See Figures 3.20 and 3.21)**

- This alternative provides for improvements to Rock Creek Boulevard and its extended alignment roadway westward.
- This alternative includes intersection improvements at Houbolt Road and Rock Creek Boulevard and includes construction of a bridge crossing the Rock Run Creek floodplain and wetlands.
- Alternative EW-8B varies from Alternate EW-8 in the alignment for extension of Rock Creek Boulevard turning south at the extension location and continuing until it parallels I-80, at which it crosses of the Rock Run Creek floodplain and wetlands.



Figure 3.20 East-West Connector Alternative EW-8 Concept Plan

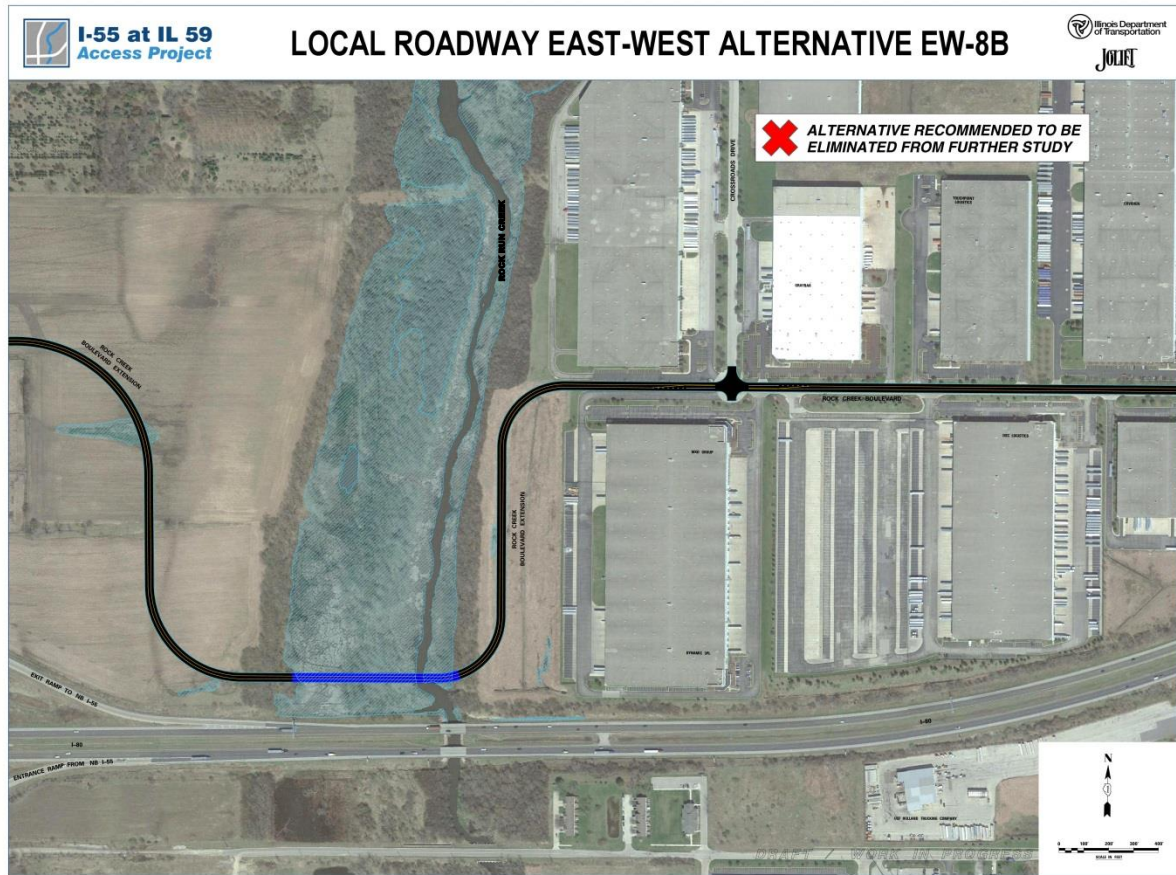


Figure 3.21 East-West Connector Alternative EW-8B Concept Plan

### 3.3.5 Capacity Improvement Alternatives (S- and M-Designations and US 52)

2040 no-build traffic operations indicate an increasing number of failing locations where future traffic will exceed the capacity of the existing roadway network. Without improvements, traffic growth along US 52, Seil Road and Mound Road are anticipated to have a greater percentage increase than other routes within the study area. This would result in an increased amount of unacceptable levels of service and traffic congestion. The alternatives in this category are targeted to address capacity deficiencies on existing routes, either as a stand-alone improvement or in tandem with the interchange and east-west connector improvements.

#### 3.3.5.1 Existing Conditions

Seil Road is located west of I-55, classified as a major collector, and is under the jurisdiction of the Village of Shorewood. Seil Road is a 35 mph roadway, and is a two-lane section between River Road and IL 59. Sidewalks and bicycle facilities are not provided along Seil Road within the study area, but sidewalks are provided west of River Road.

Mound Road (215<sup>th</sup> Street) is located west of I-55, classified as a major collector, and under the jurisdiction of the Village of Shorewood. Mound Road is a 40 to 45 mph roadway, and provides a primarily two-lane section between River Road and the I-55 West Frontage Road except a three-lane section and a two-way left-turn lane is provided along frontage of the Shorewood Logistics Park near I-55. Sidewalks and bicycle facilities are not provided along Mound Road.

US 52 (Jefferson Street) provides direct access to and across I-55 at an existing diamond interchange and is classified as an Other Principal Arterial. The roadway is under the jurisdiction of

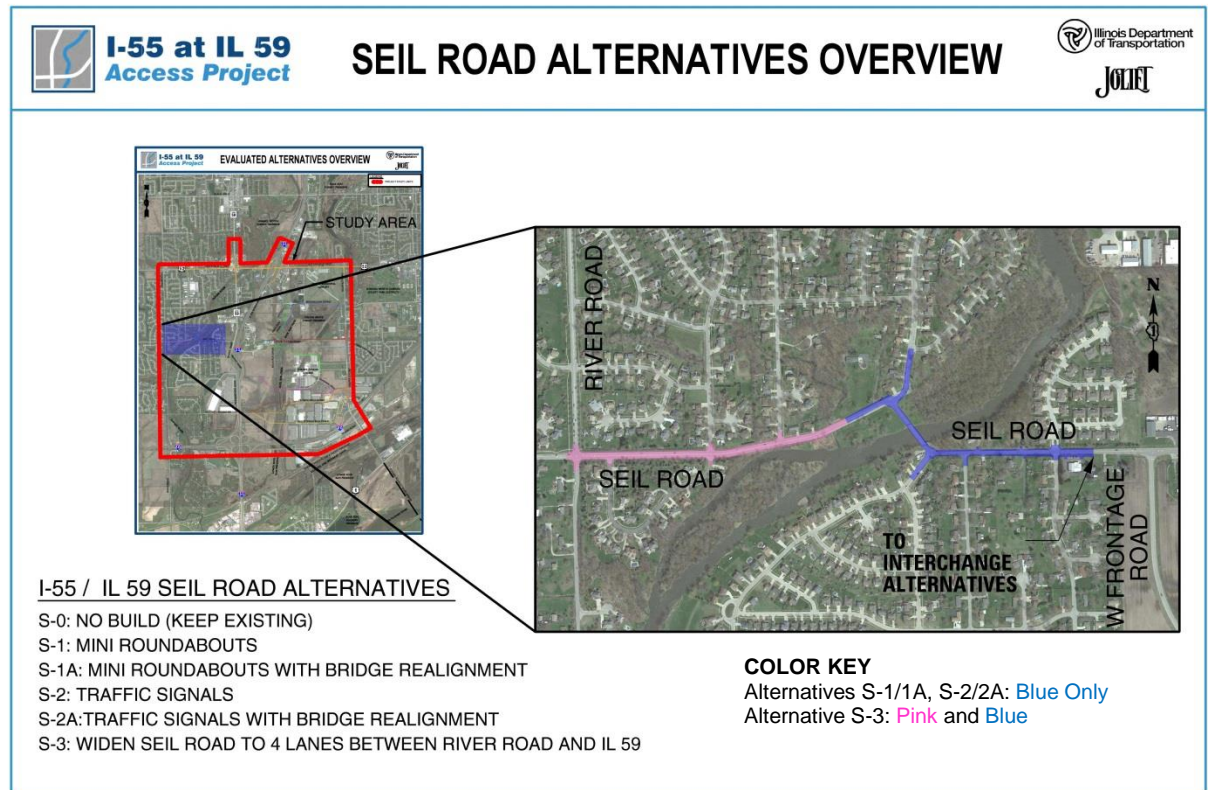


IDOT. The speed limit on US 52 varies between 40mph and 45mph. The roadway is a four-lane section east of IL 59 and is a two-lane cross section west of IL 59. The section between McDonald Road and Houbolt Road is undivided and no left turn lanes are provided.

### 3.3.5.2 Proposed Capacity Improvement Alternatives at Seil Road

The average daily traffic along Seil Road is projected by CMAP to increase from its current daily volume of 10,900 vehicles per day (vpd) to a no-build 2040 volume of 20,000 vpd, nearly doubling the current usage of this route. Seil Road alternatives are summarized as follows and **Figure 3.22** shows an overview of the Seil Road alternatives evaluated. A more detailed graphical presentation of each alternative is included in **Appendix F**.

Seil Road – No Build Alternative Description
<ul style="list-style-type: none"> <li>• The no-build alternative would maintain the existing facility without any improvements except for routine repairs and maintenance, such as pavement resurfacing and patching.</li> <li>• The no-build alternative would continue to operate with increasingly poor to failed Levels of Service.</li> <li>• Existing all-way stop control at the Seil Road / States Lane and Seil Road / Raven Road intersections would remain in place.</li> </ul>



**Figure 3.22 Seil Road Alternatives Overview**



**Alternative S-1 / Seil Road at DuPage River – Mini-Roundabouts  
(See Figures 3.23 and 3.24)**

- This alternative includes new mini-roundabouts constructed at Seil Road intersections with Raven Lane and States Lane while preserving the existing bridge.
- Alternative S-1A includes the mini-roundabouts constructed at Seil Road intersections with Raven Lane and States Lane, but with a realigned, new bridge over the DuPage River.

**Alternative S-2 / Seil Road at DuPage River – Traffic Signals  
(See Figure 3.23 and 3.24)**

- This alternative includes installation of new traffic signals at Seil Road intersections with Raven Lane and States Lane.
- The traffic signal alternative requires some minor widening to provide left and right turn lanes for channelization to meet acceptable levels of service.
- Alternative S-2A includes installation of new traffic signals and minor widening at the Seil Road intersections with Raven Lane and States Lane, but with a realigned, new bridge over the DuPage River.

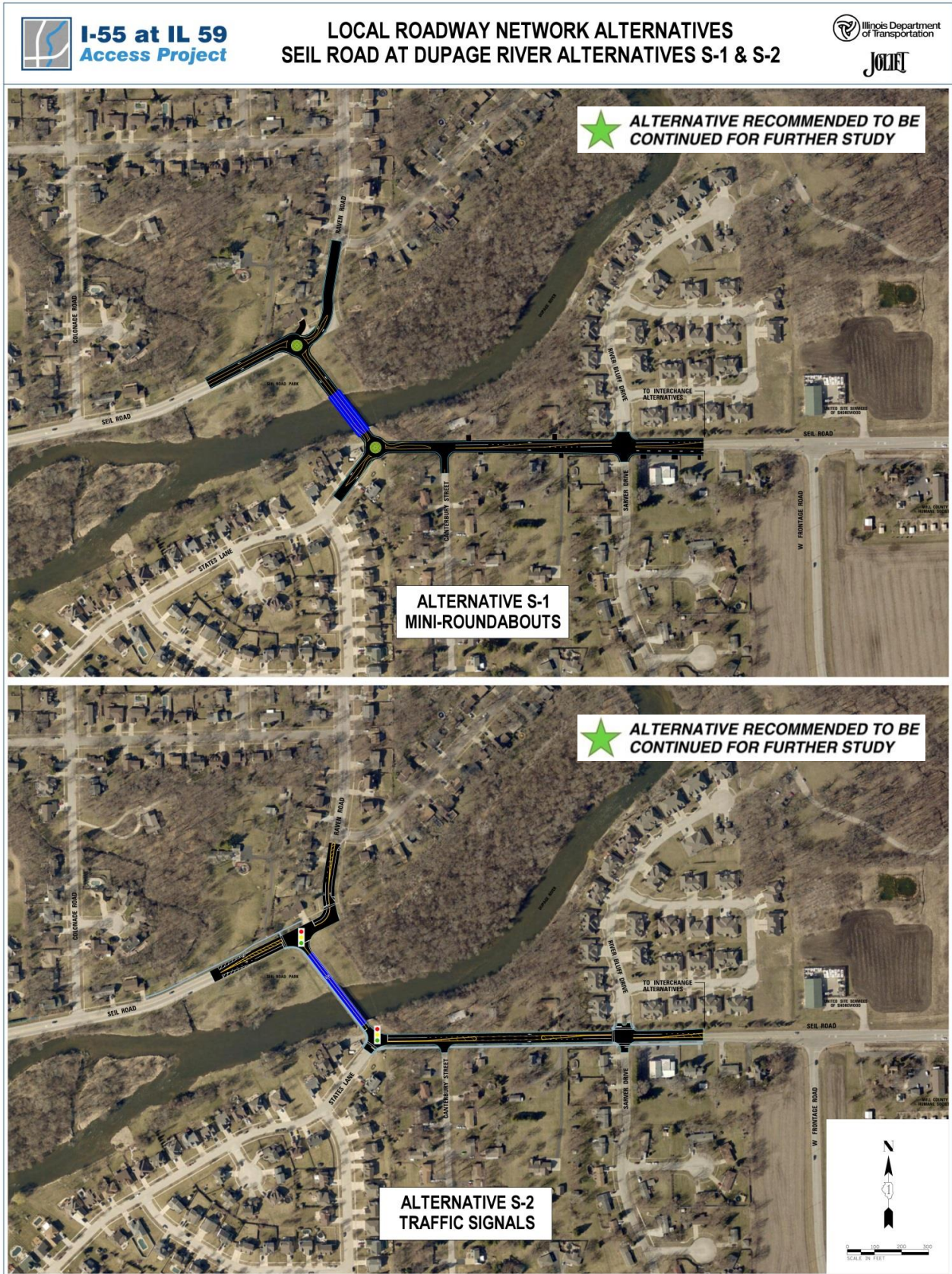


Figure 3.23 Seil Road Alternatives S-1 and S-2 Concept Plan



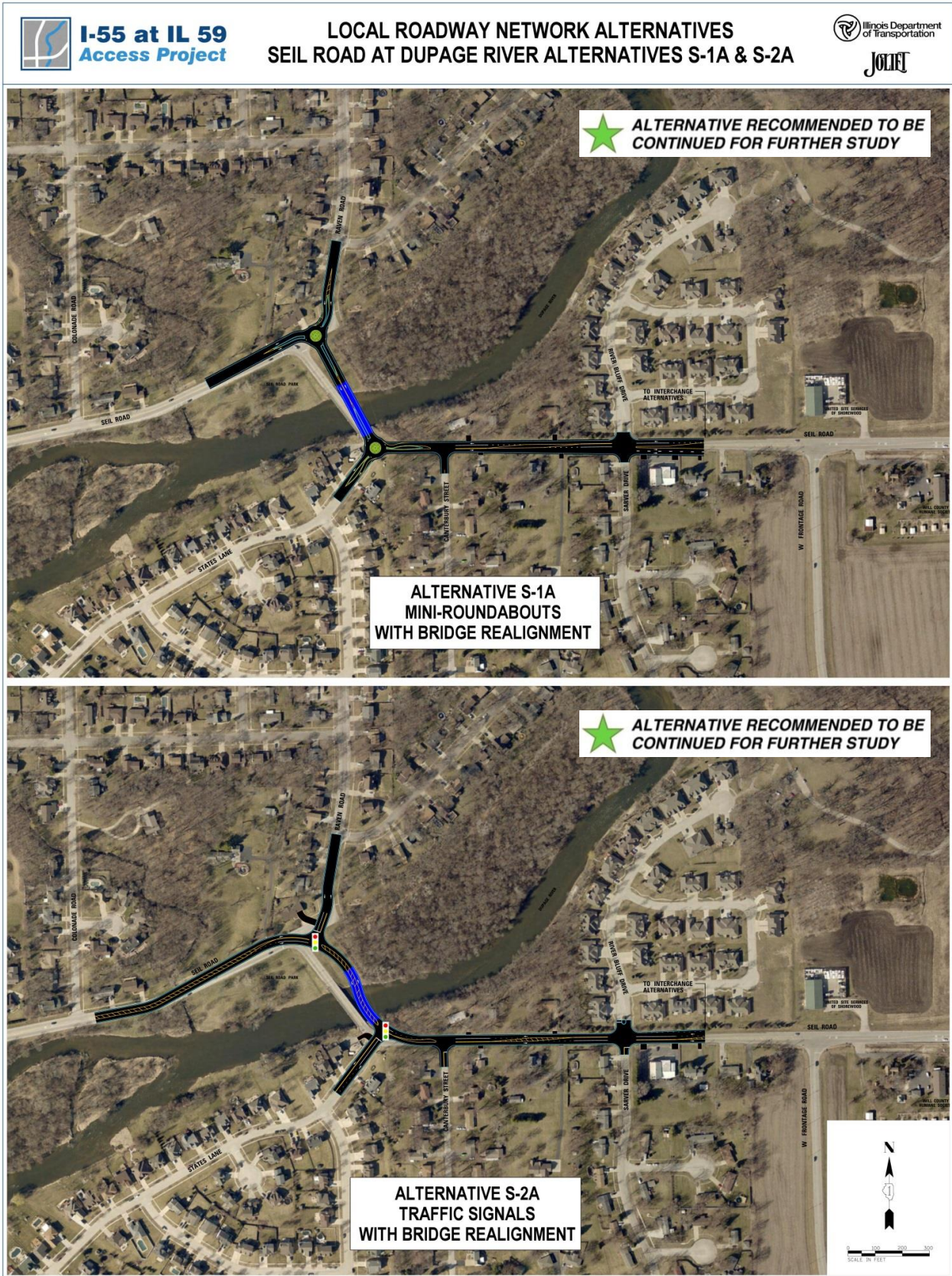


Figure 3.24 Seil Road Alternatives S-1A and S-2A Concept Plan



**Alternative S-3 / Bridge Realignment – Free-Flow Seil Road with Add-Lane  
(See Figure 3.25)**

- This alternative includes the realignment of Seil Road over the DuPage River with an add-lane improvement to provide a four-lane cross section with flush median between River Road and IL 59.
- The widening of Seil Road to a four-lane cross section with median would require a new, realigned bridge over the DuPage River.



**Figure 3.25 Seil Road Alternative S-3 Concept Plan**

### 3.3.5.3 Proposed Capacity Improvement Alternatives – Mound Road

The average daily traffic along Mound Road within the study area is projected by CMAP to increase from its current day volume of 800 vpd to a no-build 2040 volume of 6,000 vpd in the no-build condition, approximately eight times the current travel demand on this route. Mound Road alternatives are summarized as follows and **Figure 3.26** shows an overview of the Mound Road alternatives evaluated. A more detailed graphical presentation of each alternative is included in **Appendix F**.

Mound Road – No Build Alternative Description
<ul style="list-style-type: none"><li>• The No-Build Alternative would maintain the existing facility without any improvements except for routine repairs and maintenance, such as pavement resurfacing and patching.</li><li>• The No-Build Alternative would not provide any additional east-west connectivity over I-55 between the Village of Shorewood and the City of Joliet.</li></ul>

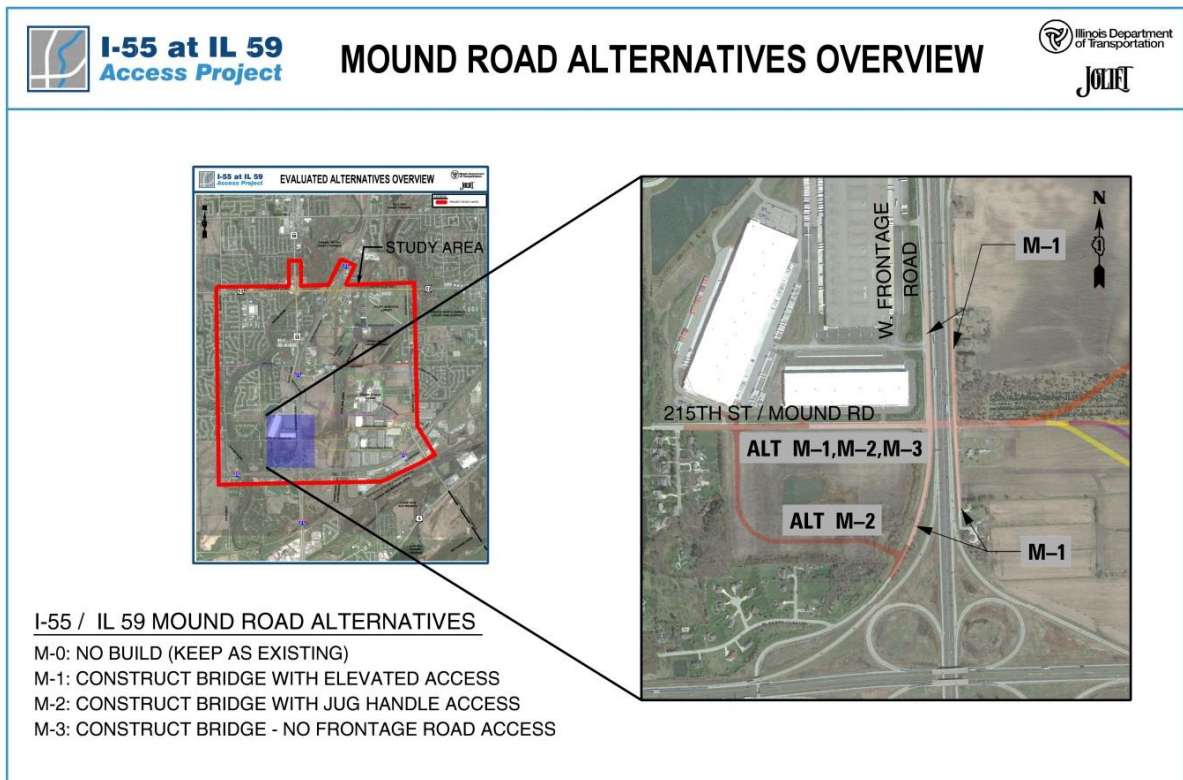


Figure 3.26 Mound Road Alternatives Overview

<b>Alternative M-1 / Mound Road Bridge over I-55 with Elevated Access to East and West Frontage Roads Description (See Figure 3.27)</b>
<ul style="list-style-type: none"><li>• This alternative includes a new Mound Road Bridge over I-55 with elevated access to East and West Frontage Roads. Reconstruction of both frontage road is required to elevate them to the Mound Road bridge elevation.</li><li>• Two closely spaced intersections are created under this alternative.</li><li>• Existing access to the Camelot Residential subdivision is maintained without adverse travel.</li><li>• This alternative accommodates east-west connector alternatives.</li></ul>

<b>Alternative M-2 / Mound Round Bridge over I-55 with Jug Handle Access to West Frontage Road Description (See Figure 3.27)</b>
<ul style="list-style-type: none"><li>• This alternative includes a new Mound Road Bridge over I-55 with access to the West Frontage Road via a jug handle roadway, which provides an at-grade intersection on Mound Road and at the West Frontage Road. The jug handle is located southwest of the Mound Road bridge over I-55.</li><li>• Existing access to the Camelot residential subdivision is maintained without adverse travel.</li><li>• This alternative accommodates east-west connector alternatives.</li></ul>

<b>Alternative M-3 / Mound Road Bridge over I-55 – No Access to West Frontage Road Description (See Figure 3.27)</b>
<ul style="list-style-type: none"><li>• This alternative includes a new Mound Road Bridge over I-55 with no access to the West Frontage Road.</li><li>• Existing access to the Camelot residential subdivision is not maintained without adverse travel. This alternative accommodates east-west connector alternatives.</li></ul>



Alternatives To Be Carried Forward  
I-55 at IL 59 Access Project

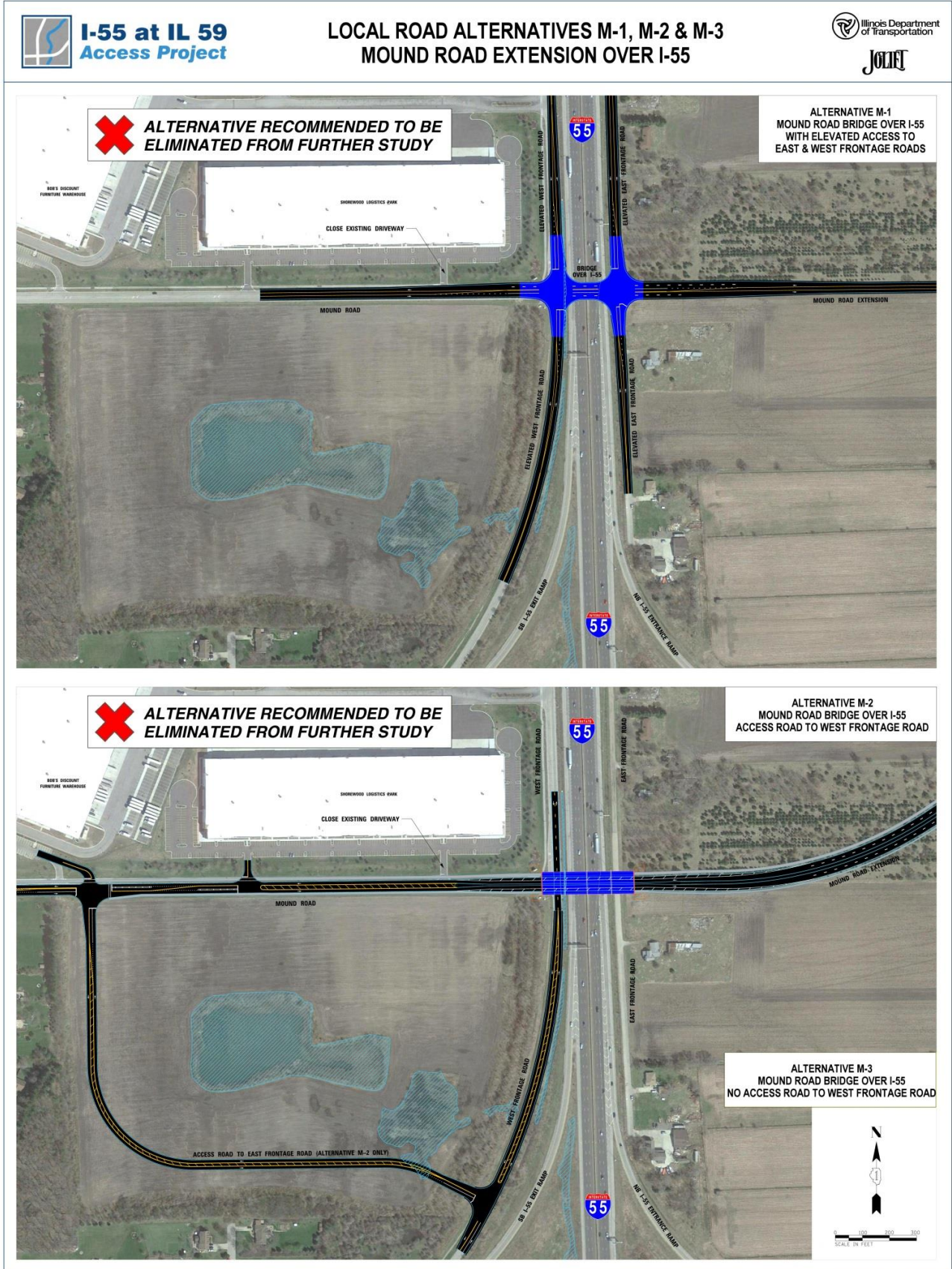


Figure 3.27 Mound Road Alternatives M-1, M-2 and M-3 Concept Plan

### 3.3.5.4 Proposed Capacity Improvement Alternatives – US 52 (Jefferson Street)

The existing average daily traffic along US 52 (Jefferson Street) is between 24,200 to 43,000 vpd within the study area. Many intersections are operating currently over-capacity with poor operations especially at IL 59 and the I-55 interchange entrance and exit ramps during peak periods. The average daily traffic is projected to increase to a range of 34,000 to 43,000 vpd in the 2040 no-build condition. To improve capacity at the I-55 / US 52 interchange, a few interchange configuration alternatives were considered early in the study process to improve capacity at this location. One alternative looked at converting the conventional diamond interchange to a single point urban interchange. The other alternative explored included a high capacity diamond interchange, in which US 52 was widened over I-55 to provide dual-left turn lanes for both directions. While these two alternatives improved the interchange capacity, they also impacted many of the adjacent commercial properties and resulted in higher costs when compared to just modifying the existing conventional diamond interchange. The single point urban diamond interchange and high capacity diamond interchange alternatives were eliminated early in the study process when it was realized that modifying the existing diamond interchange could provide acceptable traffic operations with less impacts and a lower cost.

Capacity improvement alternatives have been considered at US 52 (Jefferson Street) as follows and **Figure 3.28** shows an overview of the US 52 alternatives evaluated. A more detailed graphical presentation of the alternatives is included in **Appendix F**.

US 52 – No Build Alternative Description
<ul style="list-style-type: none"><li>• The no-build alternative would maintain the existing facility without any improvements except for routine repairs and maintenance, such as pavement resurfacing and patching.</li><li>• The no-build alternative would continue to operate with increasingly unacceptable levels of service.</li></ul>

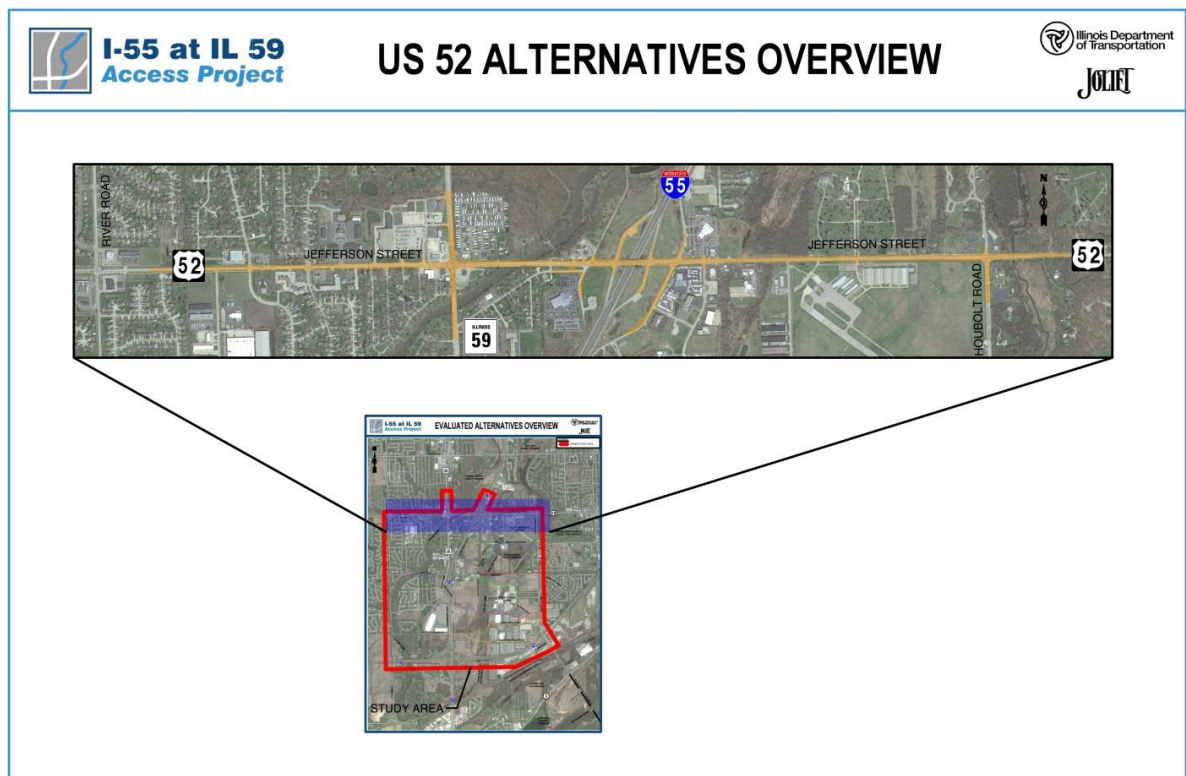
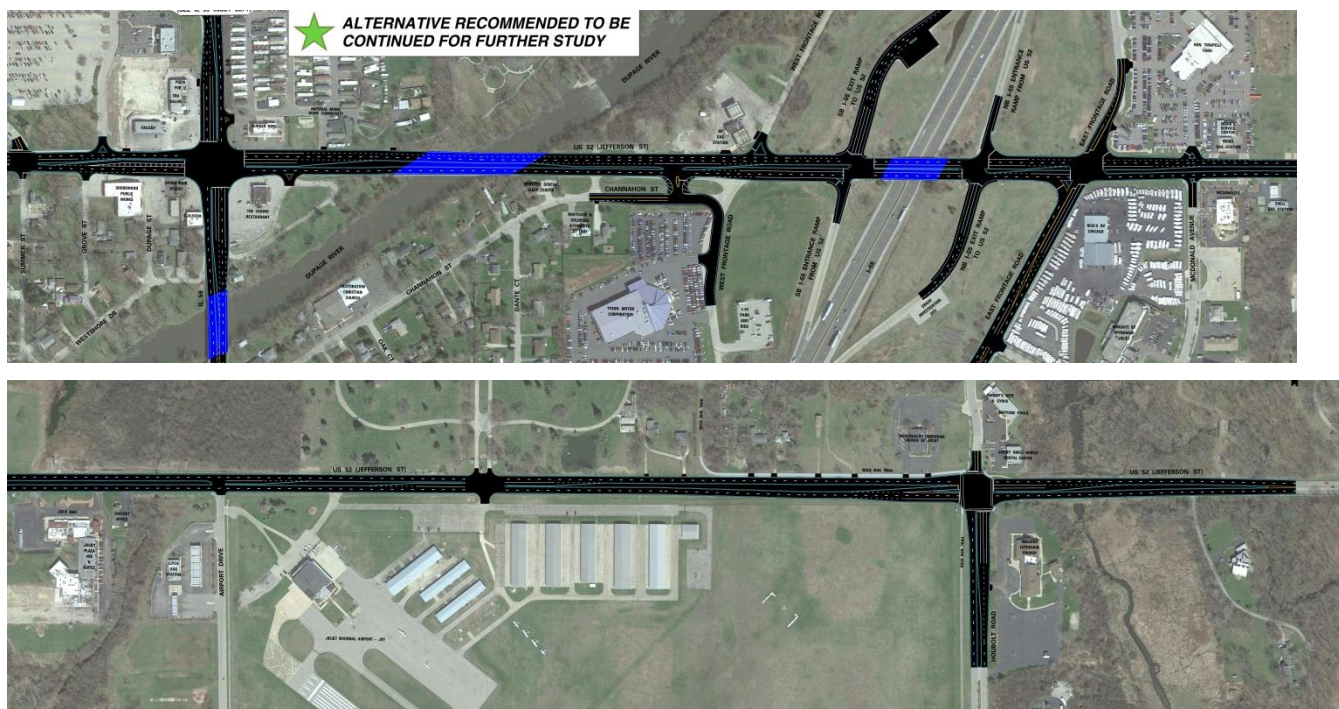


Figure 3.28 US 52 Alternatives Overview



**Capacity Improvement Alternative – US 52 (Jefferson Street) From IL 59 to Houbolt Road  
(See Figure 3.29)**

- This alternative includes a raised median providing access control to improve traffic throughput / improved mobility without widening to a six-lane cross section.
- This alternative involves intersection improvements at IL 59 and US 52 including dual-left turn lanes and right turn lanes and signal modernization.
- This alternative includes the widening of the US 52 over the DuPage River Bridge to accommodate intersection improvements.
- This alternative includes modifications/improvements to the existing diamond interchange by providing additional turn lanes on both exit ramps. This alternative includes providing additional left turn lane storage for both directions on US 52 with lead-in storage to accommodate left turn queues.
- This alternative involves intersection improvements at US 52 and Houbolt Road including dual-left turn lanes and additional right turn lanes.



**Figure 3.29 US 52 Alternative IL 59 to Houbolt Road Concept Plan**



**Capacity Improvement Alternative – US 52 (Jefferson Street) From River Road to Houbolt Road (See Figure 3.30)**

- This alternative includes an add-lane in each direction from two to four lanes between River Road and IL 59 in addition to the improvements specified in the US 52 alternative from IL 59 to Houbolt Road.
- This alternative includes a raised median providing access control to improve traffic throughput / improved mobility without widening to a six-lane cross section.
- This alternative includes the intersection capacity improvements at US 52/IL 59 and US 52/Houbolt Road.
- This alternative includes the widening of the US 52 over the DuPage River Bridge to accommodate intersection improvements.

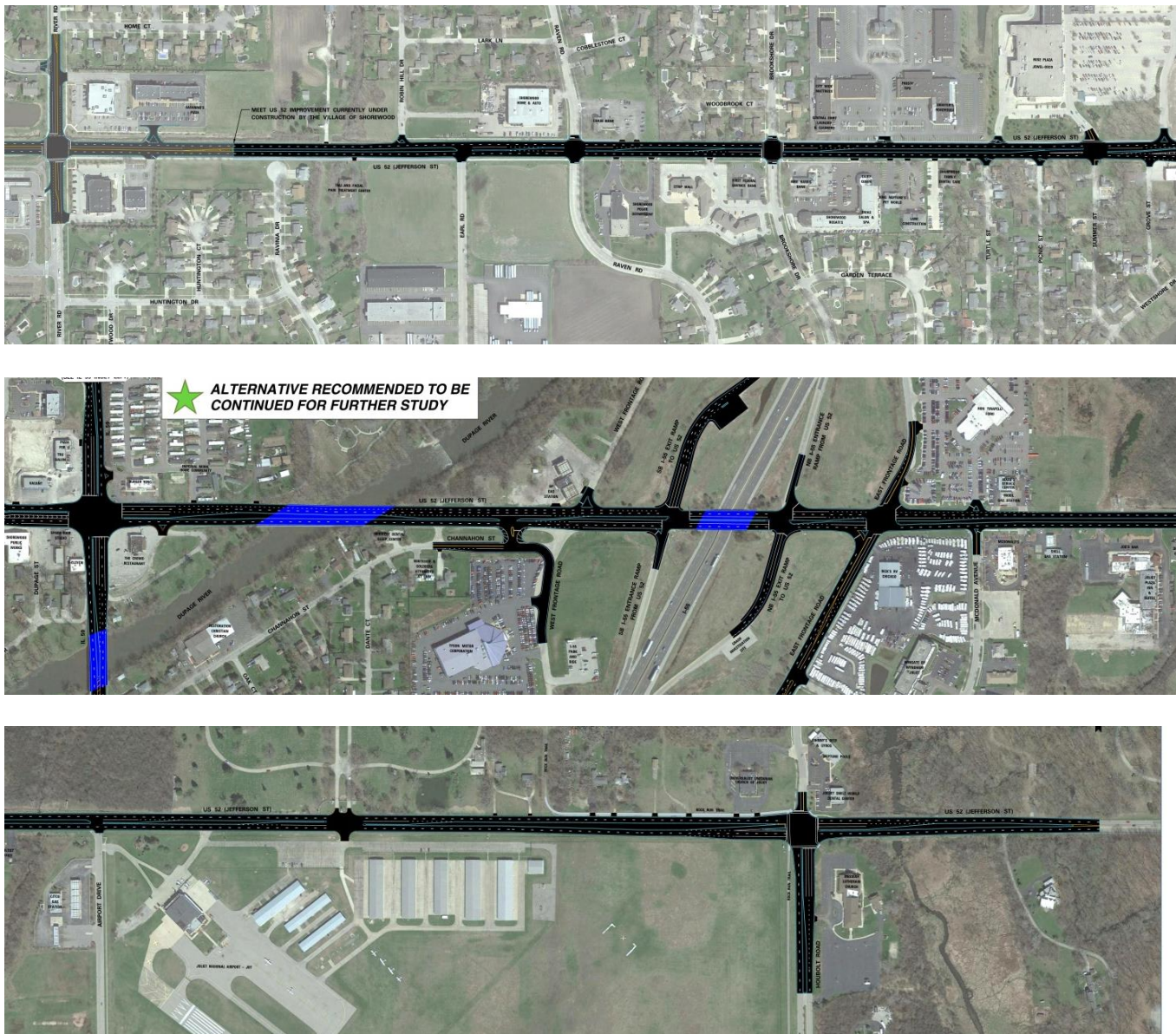


Figure 3.30 US 52 Alternative River Road to Houbolt Road Concept Plan

## 4. Alternatives Analysis

The alternatives were reviewed in detail to determine if they meet the project's Purpose and Need. There are two primary project needs identified, which include:

- To Improve Regional Mobility and Local Connectivity
- To Improve System Linkage

The alternatives were evaluated separately and independently of one another, and are discussed below under three separate categories, which include the following:

- Interchange Alternatives
- East-West Connector Alternatives
- Capacity Improvement Alternatives

The alternatives in each category were evaluated based on roadway design and geometrics, traffic operations, potential utility impacts, socioeconomic impacts, and environmental impacts including wetlands, water resources, natural resources, public lands, and agricultural impacts. The evaluations of each are discussed in the following subsections.

### 4.1 Interchange Alternatives

Interchange alternatives, described in detail in the previous section, include a no-build condition, and six build alternatives all of which include I-55 access to and from the north. Interchange alternatives range from construction of directional ramps to a diverging diamond interchange on IL 59 crossing I-55.

#### 4.1.1 Interchange Analysis and Evaluation

All of the interchange build alternatives meet the project's Purpose and Need to improve regional mobility and local connectivity, and to improve system linkage. The no-build does not meet the Purpose and Need because it does not provide improved access at the partial access interchange or provide opportunity for local connectivity across I-55; however, for comparison this alternative will be carried forward.

For these alternatives, the interchange alternatives were reviewed for ramp intersection operations and a preliminary concept of the anticipated required geometric configurations needed to accommodate acceptable traffic operations.

An evaluation matrix of alternatives containing the evaluation criteria for comparison, which summarizes the findings of each alternative versus evaluation criteria stated above. The interchange alternatives evaluation screening matrix can be found in **Figure 4.1**.

#### 4.1.2 Interchange Alternatives Dismissed

Environmental impacts for all alternatives were comparatively similar. In the identification of alternatives to be dismissed, criteria for geometrics, traffic operations, utility impacts, socioeconomic impacts and cost were keys for comparison and ultimate recommendation. The alternatives recommended for elimination and justification for elimination from further study are described below:

#### Alternative I-3 / Single Point Urban Diamond (SPUD) – DISMISSED

- The configuration in this alternative is confusing and unusual for motorists; IL 59 access to northbound I-55 requires a U-Turn like movement at the SPUI creating adverse travel.
- While this alternative completes the interchange, it does not provide direct access between I-55 and IL 59 from/to the north. Only County Farm Road / Seil Road is accessible to and from the north on I-55 due to grade differential required between the SPUD and IL 59 / Seil Road intersection.
- While the grade separation of Seil Road / County Farm Road with IL 59 isolates additional traffic from IL 59 and reduces the number of conflict points, the ramps to/from Seil Road / IL 59 can be confusing to the traveling public.
- This alternative has parcel impacts which include 3 residential and 1 business displacement along Seil Road due to the grade differential required to accommodate a SPUD with the adjacent IL 59 / Seil Road intersection.
- This alternative encroaches into Kinder Morgan Gas Pipeline facilities (retention basin and key future expansion area) – See **Appendix C**.
- This alternative has a higher comparative cost than other interchange alternatives.

#### Alternative I-4 / Single Point Urban Diamond (SPUD) Interchange (South) – DISMISSED

- This alternative results in a poor level of service for IL 59 northbound travel when compared with the existing free-flow condition for this movement.
- This alternative requires all northbound IL 59 traffic to pass through the SPUD traffic signal and make additional turns at reduced speeds compared to the existing free-flow condition for this movement.
- Several movements within this alternative can be confusing for motorists, and guide signing will be comparatively more complex and unconventional which could lead to potential driver confusion and wrong-way entry.
- The SPUD is centered over the southwest grouping of major gas pipelines. These will be difficult and costly to design structural foundation or to relocate the gas pipelines – See **Appendix C**.
- Higher comparative costs to other alternatives due to extensive structures carrying the entire interchange and multiple ramps and elevated SPUD structure.

#### Alternative I-5 / I-55 Southbound Exit and Northbound Entrance Loop Ramps – DISMISSED

- The maximum design speed on loop ramps is 25 mph. There is an increased risk for “run off the road” and truck rollover crashes.
- While this alternative avoids the existing pipelines crossing I-55, it has greater comparative impacts to above ground gas pipeline facilities including the hydrocarbon intake expansion area and existing retention basin – See **Appendix C**.



### 4.1.3 Interchange Alternatives to be Carried Forward

In addition to the no-build alternative being carried forward, the I-1, I-2 and I-6 alternatives will be carried forward for further study as well. Moving forward the interchange alternatives will be further evaluated and designed based on traffic operations, roadway geometrics and environmental impacts.

<b>Interchange – No Build Alternative – RETAINED</b>
<ul style="list-style-type: none"><li>• The no-build alternative would maintain the existing facility without any improvements except for routine repairs and maintenance, such as pavement resurfacing, patching and bridge overlay or patching.</li><li>• The no-build alternative does not meet the Purpose and Need as it does not improve regional mobility, local connectivity and system linkage; however, for comparison, it will be carried forward.</li></ul>

<b>Alternative I-1 / Collector-Distributor Roadway System Along I-55 – RETAINED</b>
<ul style="list-style-type: none"><li>• This alternative provides new southbound I-55 direct access to IL 59 via a new signalized intersection north of Seil Road.</li><li>• This alternative provides new northbound access to I-55 via ramp from Seil Road/County Farm Road.</li><li>• This alternative enhances system linkage with the new bridge crossing I-55 and connecting Seil Road and County Farm Road to IL 59 and I-55 in all directions.</li><li>• The Collector-Distributor Road provides a parallel roadway for departures to IL 59, SB I-55 and East Frontage Road. The C-D road eliminates weaving on mainline I-55 for all these movements and better disperses exiting traffic to different destinations.</li></ul>







**Alternative I-2 / New North Directional Ramps – RETAINED**

- This alternative provides new southbound I-55 access to Seil Road / County Farm Road via new flyover ramp bridge.
- This alternative provides new northbound access to I-55 via ramp from Seil Road/County Farm Road.
- Access to IL 59 is via Seil Road / County Farm Road from and to the new ramp movements.
- Interstate access movements are conventional with normal intersection configurations which reduces the potential for wrong-way entry.
- This alternative enhances system linkage with the new bridge crossing I-55 and connecting Seil Road, County Farm Road and IL 59 to I-55.
- The cost of this alternative is lower than most of the other interchange alternatives.




**Alternative I-6 / Diverging Diamond Interchange – RETAINED**



- This alternative provides new southbound I-55 access to IL 59 via a diverging diamond interchange directly to IL 59.
- This alternative provides new northbound access to I-55 from IL 59 via a diverging diamond interchange.
- This alternative maintains access from IL 59 and I-55 to the south by salvaging a portion of both exit and entrance ramps.
- This alternative enhances system linkage between IL 59, I-55, Seil Road and the East Frontage Road. Compared to the other interchange alternatives, ramps are directly connected to IL 59, the next lower functional classification to the interstate system.
- This alternative avoids impacts to Kinder Morgan gas pipeline retention basin and expansion area.
- This alternative does not require realignment to the East Frontage Road section north of County Farm Road, and does not require relocation of access of properties of the East Frontage Road in this section.
- Costs are anticipated to be moderate as compared to most of the other alternatives evaluated.



I-55 at IL 59 Access Project		I-55 / IL 59 Interchange Alternatives Screening Matrix (I-Designations)										Illinois Department of Transportation	JOLIET
Alternative Description	Traffic Operations / BDE Geometrics		Major Utilities Impacts  (Electrical Substations, Transmission Lines, Major Pipelines, etc.)	Environmental							Section 4F Properties  Forest Preserves, Park, Park District	Agri-cultural  Farmlands	Cost
	Geometric Concerns	Traffic Operations / LOS		Social and Economic		Water Resources			Natural Resources  Prairie/Savannah Restoration Area*				
				Potential Residential Displacements	Potential Business Displacements	Fen*	Total Wetlands**	Flood Plains	Rivers, Creeks, and Tributaries Crossings (In-Stream Work)				
 I-1 Directional Ramps with C-D Road	New Traffic Signal on IL 59 SRA (approx. 1/4 Mile min spacing); 1/2 Mile Preferred Additional Delay for IL 59	SB Exit Ramp to IL 59 Short Storage Length and Sharp Curve (From Collector-Distributor Road)	Potential Pipelines Conflicts near I-55 Collector-Distributor Bridge	0	0	No Fen Impacts	Approx. 0.9 - 1.0 acre Impact	None	None	None	YES Shorewood Park	Approx. 3.4-3.5 Acre Impact	\$\$\$
 I-2 New North Directional Ramps Only with I-55 Southbound Exit Ramp Flyover	Closely spaced signalized intersections along Seil Road / County Farm Road at IL 59 and East Frontage Road / N-S Connector. Southbound flyover exit ramp curve has a low design speed.	Simplified Access with normal intersection configurations (reduces potential for wrong-way entry)	Potential Impacts to Pipeline Above Ground Facilities (Expansion Area)	0	Access Impacts to Business Driveways	No Fen Impacts	Approx. 0.7 - 0.8 acre Impact	None	None	None	None	Approx. 1.4-1.5 Acre Impact	\$\$
 I-3 SPUI/SPUD at County Farm Road		Unusual Configuration for motorists; IL 59 Access to Northbound I-55 requires a U-Turn Movement at SPUI. Grade Separation of Seil/County Farm at IL 59 isolates additional traffic from IL 59 and reduces conflict points at IL 59/Seil Intersection; However, ramps To/From Seil/IL59 Could be confusing and not meet driver expectancy. Impacts several parcels.	Impacts Pipeline Above Ground Facilities (Expansion Area)	3	1	No Fen Impacts	Approx. 0.6 - 0.7 acre Impact	None	None	None	None	Approx. 9.0-9.1 Acre Impact	\$\$\$
 I-4 SPUI/SPUD South of County Farm Rd		Keeps high volume traffic away from Existing Pipeline Facility. Poor LOS for northbound IL 59. Requires all traffic to go through two signals at reduced speeds. Potentially confusing for motorists and driver expectancy.	Impacts Pipelines near I-55	0	0	No Fen Impacts	Approx. 0.3 - 0.4 acre impact	None	None	None	None	Approx. 17 Acre Impact	\$\$\$
 I-5 Loop Ramp Options	Loop Ramps Design Speed 25 MPH Loops typically result in a higher "run of the road" probability when compared with other alternatives.	Loops allow for additional acceleration/deceleration distance between US 52 interchange ramps and County Farm Road.	Impacts to Pipeline Above Ground Facilities (Expansion Area)	0	0	No Fen Impacts	Approx. 0.5 - 0.6 acre impact	None	None	None	None	Approx. 8.7-8.8 Acre Impact	\$
 I-6 Extend IL 59 into DDI Configuration			Avoids Pipeline Above Ground Facilities Nearby; Underground Pipelines in the vicinity	0	0	No Fen Impacts	Approx. 0.6 - 0.7 acre impact	None	None	None	None	Approx. 0.9-1.0 Acre Impact	\$\$

**LEGEND**

-  DENOTES CONDITIONS WITH MINIMAL ANTICIPATED IMPACTS
-  DENOTES CONDITIONS WITH MODERATE ANTICIPATED IMPACTS
-  DENOTES CONDITIONS WITH GREATER ANTICIPATED IMPACTS

-  DENOTES ALTERNATIVE RECOMMENDED TO BE ELIMINATED FROM FURTHER STUDY
-  DENOTES ALTERNATIVE RECOMMENDED TO BE CONTINUED FOR FURTHER STUDY

\* Known Federally Listed Threatened and Endangered Species  
\*\* Total Wetlands Impact Area includes the Fen Impact Area if applicable

**Figure 4.1 Interchange Alternatives Evaluation Screening Matrix**

## 4.2 East-West Connector Alternatives

East-West Connector alternatives, described in detail in the previous section, include improvements and realignment to existing McDonough Street, and extended roadway alignments for County Farm Road, Olympic Boulevard and Rock Creek Boulevard.

### 4.2.1 East-West Connector Analysis and Evaluation

All of the build east-west connector alternatives meet the project's Purpose and Need to improve regional mobility and local connectivity, and to improve system linkage. The no-build alternative does not meet the Purpose and Need because it does not provide improved regional mobility and local connectivity; however, for comparison, it will be carried forward.

For these alternatives, the East-West Connector Alternatives were reviewed for roadway and intersection operations and a preliminary concept of the anticipated required geometric configurations needed to accommodate acceptable traffic operations. An evaluation matrix of the east-west connector alternatives for comparison, which summarizes the findings of each alternative versus evaluation criteria, can be found in **Figure 4.2**.

### 4.2.2 East-West Connector Alternatives Dismissed

All east-west alternatives have associated environmental impacts, some at similar levels of impacts and some with greater levels of impacts. In the identification of alternatives to be dismissed, criteria for geometrics, traffic operations, utility impacts, environmental impacts, socioeconomic impacts and cost were keys to comparison and ultimate recommendation. The alternatives recommended for elimination and justification for elimination from further study are described below.

#### Alternative EW-2 / County Farm Road Extension (N) – DISMISSED

- The new traffic signal proposed on Houbolt Road is not able to meet minimum signal spacing requirements with the existing Longford Drive traffic signal.
- This alternative results in high left and right turning volume movements on Houbolt Road between McDonough Street and the County Farm Road extension.
- This alternative does not promote continuity of an east-west route and results in another T-intersection on Houbolt Road.
- The County Farm Road Extension alignment is in direct conflict with three gas pipelines for entire length of the extension.
- The County Farm Road Extension is in direct conflict with sensitive environmental resources including the fen, prairie and savannah restoration areas on Joliet Junior College Property.
- The County Farm Road Extension alignment requires two new floodplain crossings (Rock Run Creek and Tributary).
- The County Farm Road Extension alignment is in direct conflict and impacts multiple high-quality wetlands.
- A federally listed threatened and endangered species exists within/near this new alignment. The species was planted at Joliet Junior College as part of a Fish and Wildlife Recovery Plan / Program.
- This alternative has a higher comparative cost when compared with other alternatives. Contributing to this high cost are gas pipeline conflict interference/mitigation (relocation or protection) and number of new bridge structures.

**Alternative EW-3 / County Farm Road Extension (S) – DISMISSED**

- This alternative is offset from County Farm Road alignment to avoid gas pipeline impacts, but the offset then requires displacement of up to three residences on Rock Run Drive, south of County Farm Road.
- There is a gas pipeline above ground facility with equipment/structures located at the southwest quadrant of Rock Run Drive at County Farm Road. Colvin Grove Forest Preserve District is directly across the street on the southeast quadrant. Intersection improvements via roundabouts will conflict with one or both of these resources.
- This alternative is in direct conflict with sensitive environmental resources including the fen, prairie and savannah restoration areas on Joliet Junior College Property.
- The County Farm Road Extension alignment requires two new floodplain crossings (Rock Run Creek and Tributary).
- The County Farm Road Extension alignment is in direct conflict and impacts multiple high-quality wetlands.
- A federally listed threatened and endangered species exists within/near this new alignment. The species was planted at Joliet Junior College as part of a Fish and Wildlife Recovery Plan / Program.
- This alternative has a higher comparative cost than other alternatives. Contributing to this high cost is the number of new bridge structures.

**Alternative EW-4 / Joliet Junior College Ring Road Extension – DISMISSED**

- This alternative introduces co-mingling/convergence of east-west connectivity traffic with Joliet Junior College traffic on Joliet Junior College roadways and property. This additional east-west traffic introduces unacceptable levels of service at Joliet Junior College Ring Road and Houbolt Road intersections.
- This alternative is offset from County Farm Road alignment to avoid gas pipeline impacts, but the offset then requires displacement of up to three residences on Rock Run Drive, south of County Farm Road.
- There is a gas pipeline above ground facility with equipment/structures located at the southwest quadrant of Rock Run Drive at County Farm Road. Colvin Grove Forest Preserve is directly across the street on the southeast quadrant. Intersection improvements via roundabouts will conflict with one or both of these resources.
- This alternative is in direct conflict and impacts prairie and savannah restoration areas on Joliet Junior College Property.
- The County Farm Road Extension alignment requires one new floodplain crossing (Rock Run Creek Tributary).
- The County Farm Road Extension alignment is in direct conflict and impacts multiple high-quality wetlands.
- A federally listed threatened and endangered species is potentially impacted by this alternative.
- This alternative severs pedestrian access between the Joliet Junior College Buildings and the natural areas to the north and would require a substantial relocation of the existing bike and hiking trail.



**Alternative EW-5 / Olympic Boulevard Extension North – DISMISSED**

- The new alignment of this alternative comes is in direct parallel conflict with ComEd Power Lines along most of the new alignment distance from Centennial Drive to Joliet Junior College baseball diamond complex.
- High quality wetland impacts are anticipated at a new Rock Run Creek crossing at this location.
- This alignment requires one new floodplain crossing and requires a long bridge structure across the Rock Run Creek and associated wetlands.
- This alternative has a higher comparative cost than other alternatives.

**Alternative EW-7 / Olympic Boulevard Extension (Skewed Crossing) – DISMISSED**

- This alternative is similar to Alternative EW-6, with one difference, the skewed crossing over the Rock Run. While the actual creek crossing is shorter than EW-6, this alignment requires a longer bridge structure crossing the Rock Run and its associated high-quality wetlands.
- Since this alternative provides the same benefits as Alternative EW-6, but has additional costs and anticipated impacts to high quality wetlands due to the longer bridge structure, it has a higher comparative cost.

**Alternative EW-8 and EW-8B / Rock Creek Boulevard Extension – DISMISSED**

- High volume northbound left turning movements to Rock Creek Boulevard on Houbolt Road are anticipated to queue into the proposed Houbolt Road / I-80 diverging diamond interchange. There is inadequate distance and storage between the ramps and Rock Creek Boulevard.
- Weaving operations between the Rock Creek Boulevard intersection and I-80 westbound exit ramp is also a concern due to close spacing of intersections.
- High quality wetland impacts are anticipated at a new Rock Run Creek crossing at this location.
- This alignment requires one new floodplain crossing and requires a long bridge structure across the Rock Run Creek and associated wetlands.

### 4.2.3 East-West Connector Alternatives to be Carried Forward

The east-west alternatives to be carried forward are based upon the ability to best accommodate the Purpose and Need and minimize environmental and socio-economic impacts. The alternatives listed below will be carried forward with these alternatives being further evaluated based on traffic operations, roadway geometrics, and environmental impacts.

<b>East-West Connector – No Build Alternative – RETAINED</b>
<ul style="list-style-type: none"><li>• The no-build alternative would maintain the existing facility without any improvements except for routine repairs and maintenance, such as pavement resurfacing and patching.</li><li>• The no-build alternative does not meet the Purpose and Need as it does not improve regional mobility, local connectivity and system linkage; however for comparison, it will be carried forward.</li></ul>

<b>Alternative EW-1 / Improve McDonough Street – RETAINED</b>
<ul style="list-style-type: none"><li>• This alternative allows for better east-west roadway route continuity compared to the others. McDonough Street becomes the through route with minimal delays.</li><li>• There are no noted geometric concerns with this alternative.</li><li>• There are no major utility conflicts / impacts with this alternative.</li><li>• The fen, prairie and savannah restoration areas are not impacted with this alternative.</li><li>• Wetland and floodplain crossings consist of existing structure widening and not new structure crossings. This alternative does require a corner parcel from Colvin Grove Forest Preserve.</li></ul>

<b>Alternative EW-1A / Improve McDonough Street (Avoid Forest Preserve) – RETAINED</b>
<ul style="list-style-type: none"><li>• This alternative allows for better east-west roadway route continuity compared to the others. McDonough Street becomes the through route with minimal delays.</li><li>• There are no noted geometric concerns with this alternative.</li><li>• There are no major utility conflicts / impacts with this alternative.</li><li>• The fen, prairie and savannah restoration areas are not impacted with this alternative.</li><li>• Wetland and floodplain crossings consist of existing structure widening and not new structure crossings.</li><li>• The costs associated with this improvement are anticipated to be moderate.</li></ul>







**Alternative EW-1B / Improve McDonough Street & Rock Run Drive (Roundabout) – RETAINED**

- There are no noted geometric concerns with this alternative.
- Wetland and floodplain crossings consist of existing structure widening and not new structure crossings.
- There are no major utility conflicts / impacts with this alternative.
- The fen, prairie and savannah restoration areas are not impacted with this alternative.
- This alternative avoids impacts to public lands (forest preserve) and avoids a potential residential displacement.
- The costs associated with this improvement are expected to be the lowest of the 8 alternatives.

**Alternative EW-6 / Olympic Boulevard Extension – RETAINED**




- There are no noted geometric concerns with this alternative.
- There are no major utility conflicts / impacts with this alternative.
- The fen, prairie and savannah restoration areas are not impacted with this alternative.
- The westward extension of Olympic Boulevard is covered under a Grant of Conservation Easement executed by the Forest Preserve District of Will County to the City of Joliet allowing for a 66' wide right-of-way for transportation purposes.
- The costs associated with this improvement are anticipated to be moderate in comparison with all alternatives in this category and partially utilize an established roadway through an industrial area.





I-55 at IL 59 Access Project		East-West Connector Alternatives Screening Matrix (EW-Designations)										Illinois Department of Transportation JOLIET	
Alternative Description	Traffic Operations / BDE Geometrics		Major Utilities Impacts  (Electrical Substations, Transmission Lines, Major Pipelines, etc.)	Social and Economic		Environmental				Section 4F Properties	Agricultural	Cost	
	Geometric Concerns	Traffic Operations / LOS		Potential Residential Displacements	Potential Business Displacements	Fen*	Total Wetlands**	Flood Plains	Rivers, Creeks, and Tributaries Crossings (In-Stream Work)				Natural Resources
 EW-1 Improve McDonough Street		Allows for better east-west roadway continuity. McDonough Street becomes the through route with minimal delays.	No Major Utilities Impacted	0	0	No Fen Impacts	Approx. 0.0 - 0.1 acre impact	Existing Crossings	YES (Existing Roadway)	None	YES Alignment through Colvin Grove Forest Preserve; Joliet Municipal Airport	Approx. 1.3-1.4 Acre Impact	\$\$
 EW-1A Improve McDonough Street (Avoid Forest Preserve)		Allows for better east-west roadway continuity. McDonough Street becomes the through route with minimal delays.	No Major Utilities Impacted	1	0	No Fen Impacts	Approx. 0.0 - 0.1 acre impact	Existing Crossings	YES (Existing Roadway)	None	YES Colvin Grove Forest Preserve; Joliet Municipal Airport	Approx. 4.1-4.2 Acre Impact	\$\$
 EW-1B Improve McDonough Street and Rock Run Drive (Roundabout Intersection)		Does not provide a freeflow east-west route. Requires vehicles to slow at roundabout and incur delay compared to free-flow options.	No Major Utilities Impacted	0	0	No Fen Impacts	Approx. 0.0 - 0.1 acre impact	Existing Crossings	YES (Existing Roadway)	None	YES Colvin Grove Forest Preserve; Joliet Municipal Airport	Approx. 1.2-1.3 Acre Impact	\$
 EW-2 County Farm Road Extension (N)	New Traffic Signal on Houbolt Road; Does not meet signal spacing requirements from existing Longford Drive Signal.	Requires left and right turning movements on Houbolt Road between McDonough Street and County Farm Road Extension.	East-West Pipelines in conflict	0	0	Approx. 0.3-0.4 acre Impacts	Approx. 0.3 - 0.5 acre impact	2 New Crossings	YES (New Roadway)	None	YES Colvin Grove Forest Preserve	Approx. 1.8-1.9 Acre Impact	\$\$\$
 EW-3 County Farm Road Extension (S)		Requires left and right turning movements on Houbolt Road between McDonough Street and County Farm Road Extension.	Pipeline Facilities Above Ground and Below Ground Likely Impacted	3	0	Approx. 0.1-0.2 acre Impacts	Approx. 0.8 - 1.0 acre impact	2 New Crossings	YES (New Roadway)	Approx. 3.9 acre impact	YES Joliet Junior College	Approx. 0.6-0.7 Acre Impact	\$\$\$
 EW-4 JJC Ring Road Extension	Poor LOS at JJC and Houbolt Road	JJC Ring Road, Poor Connectivity/Convolutd Routing. LOS problematic at Houbolt Road with heavy college traffic.	Pipeline Facilities Above Ground and Below Ground Likely Impacted	3	0	No Fen Impacts	Approx. 0.2 - 0.3 acre impact	1 Existing Crossing; 1 New Crossing	YES (New Roadway)	Approx. 3.6 acre impact	YES Joliet Junior College	Approx. 0.6-0.7 Acre Impact	\$

(Figure Continues on Next Page)

LEGEND






-  DENOTES CONDITIONS WITH MINIMAL ANTICIPATED IMPACTS
-  DENOTES CONDITIONS WITH MODERATE ANTICIPATED IMPACTS
-  DENOTES CONDITIONS WITH GREATER ANTICIPATED IMPACTS

-  DENOTES ALTERNATIVE RECOMMENDED TO BE ELIMINATED FROM FURTHER STUDY
-  DENOTES ALTERNATIVE RECOMMENDED TO BE CONTINUED FOR FURTHER STUDY




\* Known Federally Listed Threatened and Endangered Species



\*\* Total Wetlands Impact Area includes the Fen Impact Area if applicable

Figure 4.2 East-West Connector Alternatives Screening Matrix (Part 1 of 2)

I-55 at IL 59 Access Project		East-West Connector Alternatives Screening Matrix (EW-Designations) CONTINUED										Illinois Department of Transportation	JOLIET
Alternative Description	Traffic Operations / BDE Geometrics		Major Utilities Impacts  (Electrical Substations, Transmission Lines, Major Pipelines, etc.)	Social and Economic		Environmental				Natural Resources  Prairie/Savannah Restoration Area*	Section 4F Properties  Forest Preserves, Park, Park District	Agricultural  Farmlands	Cost
	Geometric Concerns	Traffic Operations / LOS		Potential Residential Displacements	Potential Business Displacements	Fen*	Total Wetlands**	Flood Plains	Rivers, Creeks, and Tributaries Crossings (In-Stream Work)				
 EW-5 Olympic Blvd Extension North		Scenario with Interchange Only (No Northern E-W improvement) and No Mound Road Bridge results in E Frontage Rd Experiencing Traffic Increase & Poor LOS at US 52	Power Lines Parallel East-West Conflict	0	0	No Fen Impacts	Approx. 1.0 - 1.1 acre impact	1 New Crossing	YES (New Roadway)	None	YES Lower Rock Run Preserve through Rock Run Conservation Easement Joliet Junior College	None	\$\$\$
 EW-6 Olympic Blvd Extension		Scenario with Interchange Only (No Northern E-W improvement) and No Mound Road Bridge results in E Frontage Rd Experiencing Traffic Increase & Poor LOS at US 52	No Major Utilities Impacted	0	0	No Fen Impacts	Approx. 0.4 - 0.5 acre impact	1 New Crossing	YES (New Roadway)	None	YES Lower Rock Run Preserve through Rock Run Conservation Easement	None	\$\$
 EW-7 Olympic Blvd Extension (Skewed Crossing)		Scenario with Interchange Only (No Northern E-W improvement) and No Mound Road Bridge results in E Frontage Rd Experiencing Traffic Increase & Poor LOS at US 52	No Major Utilities Impacted	0	0	No Fen Impacts	Approx. 1.1 - 1.2 acre impact	1 New Crossing	YES (New Roadway)	None	YES Lower Rock Run Preserve through Rock Run Conservation Easement	None	\$\$\$
 EW-8 Rock Creek Blvd Extension	High northbound left turning volume of traffic to Rock Creek Blvd will queue into Houbolt Road / I-80 DDI due to inadequate storage between intersections. Weaving between intersection and exit ramp is also an issue.	Scenario with Interchange Only (No Northern E-W improvement) and No Mound Road Bridge results in E Frontage Rd Experiencing Traffic Increase & Poor LOS at US 52	No Major Utilities Impacted	0	0	No Fen Impacts	Approx. 1.1 - 1.2 acre impact	1 New Crossing	YES (New Roadway)	None	YES Lower Rock Run Preserve through Rock Run Conservation Easement	None	\$\$
 EW-8B Rock Creek Blvd Extension (South)	High northbound left turning volume of traffic to Rock Creek Blvd will queue into Houbolt Road / I-80 DDI due to inadequate storage between intersections. Weaving between intersection and exit ramp is also an issue.	Scenario with Interchange Only (No Northern E-W improvement) and No Mound Road Bridge results in E Frontage Rd Experiencing Traffic Increase & Poor LOS at US 52	Potential Underground Stormwater Storage Facility	0	0	No Fen Impacts	Approx. 1.0 - 1.1 acre impact	1 New Crossing	YES (New Roadway)	None	YES Lower Rock Run Preserve through Rock Run Conservation Easement	None	\$\$

LEGEND

-  DENOTES CONDITIONS WITH MINIMAL ANTICIPATED IMPACTS
-  DENOTES CONDITIONS WITH MODERATE ANTICIPATED IMPACTS
-  DENOTES CONDITIONS WITH GREATER ANTICIPATED IMPACTS

-  DENOTES ALTERNATIVE RECOMMENDED TO BE ELIMINATED FROM FURTHER STUDY
-  DENOTES ALTERNATIVE RECOMMENDED TO BE CONTINUED FOR FURTHER STUDY

\* Known Federally Listed Threatened and Endangered Species

\*\* Total Wetlands Impact Area includes the Fen Impact Area if applicable

Figure 4.2 East-West Connector Alternatives Screening Matrix (Part 2 of 2)

### 4.3 Route Capacity Improvement Alternatives – Seil Road, Mound Road and US 52

Capacity Improvement Alternatives for Seil Road, Mound Road and US 52 include add-lane improvements, additional turn lanes, intersection improvements and improved system linkage.

#### 4.3.1 Route Capacity Improvement Alternatives Analysis and Evaluation

All of the build route capacity improvement alternatives meet the Purpose and Need to improve Regional Mobility and Improve Local Connectivity. The no-build alternative does not meet the Purpose and Need because it does not improve regional mobility or local connectivity; however, for comparison, it will be carried forward. Mound Road however still provides acceptable capacity for the 2040 No-Build volumes.

The route capacity improvements alternatives were reviewed for roadway and intersection operations and a preliminary concept of the anticipated required geometric configurations needed to accommodate acceptable traffic operations. The route capacity improvement alternatives screening matrix, which summarizes the findings of the Mound Road and Seil Road alternatives can be found in **Figure 4.3**. The alternatives screening matrix for the US 52 alternatives can be found in **Figure 4.4**.

#### 4.3.2 Route Capacity Improvement Alternatives Dismissed

In the identification of alternatives to be dismissed, criteria for geometrics, traffic operations, utility impacts, environmental impacts, socioeconomic impacts and cost were keys to comparison and ultimate recommendation. The existing two-lane Mound Road is capable of sustaining acceptable levels of service for the 2040 No-Build volumes without add lanes improvements. All of the build alternatives include construction of a new bridge to provide opportunity for improved Local Connectivity and System Linkage. The construction of a new bridge carrying Mound Road across I-55 and extending to an East-West Connector is not supported by either the Village of Shorewood or Troy Township. Mound Road is under the jurisdiction of the Village of Shorewood and the West Frontage Road (current terminus of Mound Road) is under the jurisdiction of Troy Township. The Village of Shorewood is presently in the process of seeking annexation of property and transfer of jurisdiction of the West Frontage Road from Troy Township. On March 13, 2018, the Village Board of Trustees voted to oppose any improvement including a new bridge that would extend Mound Road over I-55. The resolution states key factors for this action include projected traffic volume increases, and a direct conflict with infrastructure and access to both the SW Frontage Road and a proposed development in the final stages of Village Approval. In a one-on-one meeting with Troy Township on March 20, 2018, they additionally noted similar opposition to extension of Mound Road as it would greatly increase traffic and high volumes of truck traffic on the local system. Residents and stakeholders have expressed similar opposition via Public Meeting #1 comments, Community Context Audit responses and as concerns noted at Community Advisory Group meetings.

In consideration of the capacity of the current roadway being able to meet 2040 No-Build volumes, and the strong opposition of the jurisdictional agencies against a new bridge/connection, all three of the Mound Road Build Alternatives have been recommended for elimination from further study as noted below.

#### **Alternative M-1 / Mound Road (Construct Bridge with Elevated Access) – DISMISSED**

- This alternative is not supported by the local agencies having jurisdiction over its use, and opposition has been expressed by a high number of stakeholders.
- This alternative has high anticipated costs with the construction of a new bridge carrying Mound Road over I-55. It also requires extensive reconstruction of both West and East Frontage Roads for elevated profiles to meet overpass vertical clearances.
- The revised elevation of the West Frontage Road would impact proposed access driveways to a new logistics/trucking facility in the undeveloped parcel at the southwest corner of Mound Road and the West Frontage Road.



**Alternative M-2 / Mound Road (Construct Bridge with Jug Handle Access) – DISMISSED**

- This alternative is not supported by the local agencies having jurisdiction over its use, and opposition has been expressed by a high number of stakeholders.
- Once the West Frontage Road transfer of jurisdiction has been executed, the Village of Shorewood has noted its intention to permit a new logistics/trucking facility in the undeveloped parcel at the southwest corner of Mound Road and the Frontage Road. This concept plans for the new development are understood to be in direct conflict with the jug handle access to the West Frontage Road.

**Alternative M-3 / Mound Road (Construct Bridge with no Frontage Road Access) – DISMISSED**

- This alternative is not supported by the local agencies having jurisdiction over its use, and opposition has been expressed by a high number of stakeholders.
- This alternative removes a local connection between Mound Road and the West Frontage Road, which serves the Camelot residential community. Eliminating this access would require traffic to utilize existing River Crossing Drive that connects River Road to the West Frontage Road and would result in approximately one mile of adverse travel. The elimination of this access would further aggravate emergency response times because there currently is only one access point for the Camelot residential community.

### 4.3.3 Route Capacity Improvement Alternatives to be Carried Forward

The alternatives to be carried forward are based upon the ability to best accommodate the Purpose and Need. The alternatives to carry forward also responsibly consider and minimize environmental and socio-economic impacts. All the route capacity improvement alternatives will be carried forward for further study.

At this time all of the Seil Road alternatives will be carried forward, which include the no build, S-1, S-2 and S-3 alternatives. Moving forward the Seil Road alternatives will be further evaluated and designed based on traffic operations, roadway geometrics, and environmental impacts.

**Seil Road – No Build Alternative – RETAINED**

- The No-Build Alternative would maintain the existing facility without any improvements except for routine repairs and maintenance, such as pavement resurfacing and patching.
- The No-Build Alternative does not meet the Purpose and Need as it does not improve regional mobility, local connectivity and system linkage; however, for comparison, it will be carried forward.









<b>Alternative S-1 / Seil Road at DuPage River – Mini-Roundabouts – RETAINED</b> <b>Alternative S-1A / Seil Road – Mini-Roundabouts with New Bridge Alignment – RETAINED</b>
<ul style="list-style-type: none"><li>• These alternatives improve regional mobility and provide acceptable levels of service for average daily traffic up to 20,800 vehicles per day.</li><li>• Mini Roundabouts reduce traffic speeds at sharp curves due to existing bridge alignments. Roundabouts provide better safety benefits and less vehicular conflict points when compared with traffic signals.</li><li>• Impacts to the existing Shorewood municipal sanitary lift station are avoided. Alternative S-1A with new bridge alignment further avoids impacts to this utility facility.</li></ul>

<b>Alternative S-2 / Seil Road – Traffic Signals – RETAINED</b> <b>Alternative S-2A / Seil Road – Traffic Signals with New Bridge Alignment – RETAINED</b>
<ul style="list-style-type: none"><li>• These alternatives improve regional mobility and provide acceptable levels of service.</li><li>• These alternatives provide more roadway capacity than the roundabout alternatives.</li><li>• Impacts to the existing Shorewood municipal sanitary lift station are avoided. Alternative S-2A with new bridge alignment further avoids impacts to this utility facility.</li></ul>




<b>Alternative S-3 / Bridge Realignment – Free-Flow Seil Road with Add-Lane – RETAINED</b>
<ul style="list-style-type: none"><li>• These alternatives improve regional mobility and provide acceptable levels of service.</li><li>• Impacts to the existing Shorewood municipal sanitary lift station are avoided.</li></ul>



At this time only the Mound Road No-Build alternative is recommended to be carried forward for the following reasons.

<b>Mound Road – No Build Alternative – RETAINED</b>
<ul style="list-style-type: none"><li>• The no-build alternative would maintain the existing facility without any improvements except for routine repairs and maintenance, such as pavement resurfacing and patching.</li><li>• The no-build alternative does provide acceptable capacity to accommodate 2040 No-Build volumes. While it does not meet all the Purpose and Need defined needs (improve regional mobility, local connectivity and system linkage), it is the only alternative supported by the local jurisdictions and stakeholders; it will be carried forward.</li></ul>

I-55 at IL 59 Access Project		Mound Road and Seil Road Alternatives Screening Matrix (M- and S-Designations)										Illinois Department of Transportation		JOLIÉ
Alternative Description	Traffic Operations / BDE Geometrics		Major Utilities Impacts  (Electrical Substations, Transmission Lines, Major Pipelines, etc.)	Social and Economic		Environmental				Natural Resources  Prairie/Savannah Restoration Area*	Section 4F Properties  Forest Preserves, Park, Park District	Agricultural  Farmlands	Cost	
	Geometric Concerns	Traffic Operations / LOS		Potential Residential Displacements	Potential Business Displacements	Fen*	Total Wetlands**	Flood Plains	Rivers, Creeks, and Tributaries Crossings (In-Stream Work)					
 M-1 Mound Road Bridge Over I-55 With Elevated Access to East and West Frontage Roads	Anticipated West Frontage Road annexation and new planned development have multiple conflicts with elevated roadway profiles to accommodate overpass vertical clearance.	The existing roadway cross-section has adequate capacity to accommodate 2040 No-Build volumes.	No Major Utilities Impacted	0	Access Impacts to Planned and Existing Business Driveways	No Fen Impacts	None Anticipated	None	None	None	None	None	None	\$\$\$
 M-2 Mound Road Bridge Over I-55 With Jug Handle Access To West Frontage Road	Anticipated West Frontage Road annexation for new planned development will be in direct conflict with the jug hand access.	The existing roadway cross-section has capacity to accommodate 2040 No-Build Volumes.	No Major Utilities Impacted	0	1	No Fen Impacts	None Anticipated	None	None	None	None	None	None	\$\$
 M-3 Mound Road Bridge Over I-55 No Access to West Frontage Road	No Impacts to West Frontage Road.	The existing roadway cross-section has capacity to accommodate 2040 No-Build Volumes. The existing Direct Access between West Frontage Road and Mound Road is eliminated. This would require traffic to utilize existing River Crossing Drive that connects River Road to the West Frontage Road. Single access point to Camelot Subdivision. Adverse Travel Distance: 1 Mile	No Major Utilities Impacted	0	Access Impacts to Existing Business Driveways	No Fen Impacts	None Anticipated	None	None	None	None	None	None	\$\$
 S-1 Seil Road at DuPage River Mini-Roundabouts	Mini Roundabout Fail when ADT Exceeds 20,800 (LOS E on Seil Rd)	Mini Roundabouts reduce traffic speeds at sharp curves due to existing bridge alignments. Better safety benefits and less conflict points when compared with Traffic Signal Option.	Shorewood Existing Lift Station Seil and States	0	0	No Fen Impacts	Wetland Delineation TBD	1 Existing Crossing	YES (Existing Bridge Alignment)	None	YES Seil Road Park	None	None	\$
 S-1A Seil Road at DuPage River Mini-Roundabouts with New Bridge	Mini Roundabout Fail when ADT Exceeds 20,800 (LOS E on Seil Rd)	Mini Roundabouts reduce traffic speeds at sharp curves due to existing bridge alignments. Better safety benefits and less conflict points when compared with Traffic Signal Option.	Avoids Impacts to Existing Shorewood Existing Lift Station Seil and States	0	0	No Fen Impacts	Wetland Delineation TBD	1 Existing Crossing (Larger Bridge)	YES (New Bridge Alignment)	None	YES Seil Road Park	None	None	\$\$\$
 S-2 Seil Road at DuPage River Traffic Signals		Traffic signals do not reduce speeds, have more conflict points and could lead to potential higher severity crashes when compared to mini-roundabout options.	Shorewood Existing Lift Station Seil and States	0	0	No Fen Impacts	Wetland Delineation TBD	1 Existing Crossing	YES (Existing Bridge Alignment)	None	YES Seil Road Park	None	None	\$\$
 S-2A Seil Road at DuPage River Traffic Signals		Traffic signals do not reduce speeds, have more conflict points and could lead to potential higher severity crashes when compared to mini-roundabout options.	Avoids Impacts to Existing Shorewood Existing Lift Station Seil and States	0	0	No Fen Impacts	Wetland Delineation TBD	1 Existing Crossing (Larger Bridge)	YES (New Bridge Alignment)	None	YES Seil Road Park	None	None	\$\$\$
 S-3 Bridge Realignment (Free-Flow Seil Road)		Keeps Seil Road Traffic Free-Flow, LOS Acceptable But also creates a large "induced traffic demand" through residential area with high ADT values.	Avoids Impacts to Existing Shorewood Existing Lift Station Seil and States	0	0	No Fen Impacts	Wetland Delineation TBD	1 Existing Crossing (Larger Bridge)	YES (New Bridge Alignment)	None	YES Seil Road Park	None	None	\$\$\$

**LEGEND**

-  DENOTES CONDITIONS WITH MINIMAL ANTICIPATED IMPACTS
-  DENOTES CONDITIONS WITH MODERATE ANTICIPATED IMPACTS
-  DENOTES CONDITIONS WITH GREATER ANTICIPATED IMPACTS

-  DENOTES ALTERNATIVE RECOMMENDED TO BE ELIMINATED FROM FURTHER STUDY
-  DENOTES ALTERNATIVE RECOMMENDED TO BE CONTINUED FOR FURTHER STUDY

\* Known Federally Listed Threatened and Endangered Species

\*\* Total Wetlands Impact Area includes the Fen Impact Area if applicable

**Figure 4.3 Mound Road and Seil Road Alternatives Screening Matrix**



At this time all of the US 52 alternatives will be carried forward, which include the no build and build alternatives. Moving forward the US 52 alternatives will be further evaluated and designed based on traffic operations, roadway geometrics, and environmental impacts.

**US 52 – No Build Alternative – RETAINED**

- The no-build alternative would maintain the existing facility without any improvements except for routine repairs and maintenance, such as pavement resurfacing and patching.
- The no-build alternative does not meet the Purpose and Need as it does not improve regional mobility, local connectivity and system linkage; however, for comparison, it will be carried forward.

**Route Capacity Improvement Alternative – US 52 from IL 59 to Houbolt Road – RETAINED**

- Provides additional roadway and intersection capacity and turn-lane storage at the existing diamond interchange with I-55.
- Provides additional intersection capacity and auxiliary turning lane storage at the IL 59 and US 52 intersection. Westbound queueing into the I-55 / US 52 interchange from IL 59 is eliminated with an additional westbound auxiliary lane.
- There are minimal anticipated environmental and socioeconomic impacts for this alternative.
- Costs are lower than the US 52 add-lane alternative west of IL 59.

**Route Capacity Improvement Alternative – US 52 from River Road to Houbolt Road with Add-Lane West of IL 59 – RETAINED**

- Includes all the improvements of the US 52 alternative from IL 59 to Houbolt Road and widens US 52 to four lanes with a raised median west of IL 59 to River Road.
- The raised median improves safety because it decreases the number of conflict points through the corridor and reduces crash potential. Access is consolidated and controlled with mobility improved.
- The average daily traffic warrants a four-lane section and meets the capacity needs compared to the previous US 52 alternative.
- Provides additional capacity and turn-lane storage at the existing diamond interchange with I-55.
- Provides additional intersection capacity and auxiliary turning lane storage at the IL 59 and US 52 intersection. Westbound queueing into the I-55 / US 52 interchange from IL 59 is eliminated with an additional westbound auxiliary lane.
- There are minor anticipated utility conflict / impacts due to an existing pipeline crossing near Raven Road.
- There are minimal anticipated environmental and socioeconomic impacts for this alternative.

Alternatives To Be Carried Forward  
I-55 at IL 59 Access Project

I-55 at IL 59 Access Project		US 52 (Jefferson Street) Alternatives Screening Matrix										Illinois Department of Transportation	JOLIET
Alternative Description	Traffic Operations / BDE Geometrics		Major Utilities Impacts (Electrical Substations, Transmission Lines, Major Pipelines, etc.)	Social and Economic		Environmental				Natural Resources Prairie/Savannah Restoration Area*	Section 4F Properties Forest Preserves, Park, Park District	Agricultural Farmlands	Cost
	Geometric Concerns	Traffic Operations / LOS		Potential Residential Displacements	Potential Business Displacements	Fen*	Total Wetlands**	Flood Plains	Rivers, Creeks, and Tributaries Crossings (In-Stream Work)				
<p><b>US 52 IL 59 to Houbolt Road</b></p> <p>- Modify Existing Diamond Interchange at I-55 - Install raised, barrier median / access control - IL 59 and US 52 Intersection Improvement - 52 Intersection Improvements - End Improvement west of IL 59 / meet existing 3-lane cross section.</p>	US 52 west of IL 59 Average Daily Traffic Warrants a Four-Lane Roadway for its roadway functional classification.	Improves intersection capacity significantly at US 52 and IL 59 and the I-55 / US 52 interchange. No Build LOS deficiencies along US 52 virtually eliminated with these improvements.	No Major Utility Impacts Anticipated	0	1	No Fen Impacts	Wetland Delineation TBD	YES Existing Crossing at DuPage River and IL 59	YES Existing Crossing at DuPage River and IL 59	None Anticipated	YES Joliet Regional Airport; Hammel Woods Forest Preserve and Rock Run Preserve	None	\$\$
<p><b>US 52 River Road to Houbolt Road</b></p> <p>- Widen US 52 to 4 Lanes between River Rd and IL 59 - Modify Existing Diamond Interchange at I-55 - Install raised, barrier median / access control - IL 59 and US 52 Intersection Improvement - 52 Intersection Improvements</p>		Improves intersection capacity significantly at US 52 and IL 59 and the I-55 / US 52 interchange. No Build LOS deficiencies along US 52 virtually eliminated with these improvements.	Existing Pipelines Crossing US 52 East of Raven Road	0	1	No Fen Impacts	Wetland Delineation TBD	YES Crossing at DuPage River	YES Existing Crossing at DuPage River and IL 59	None Anticipated	YES Joliet Regional Airport; Hammel Woods Forest Preserve and Rock Run Preserve	None	\$\$\$

LEGEND

- DENOTES CONDITIONS WITH MINIMAL ANTICIPATED IMPACTS
- DENOTES CONDITIONS WITH MODERATE ANTICIPATED IMPACTS
- DENOTES CONDITIONS WITH GREATER ANTICIPATED IMPACTS

\* Known Federally Listed Threatened and Endangered Species

\*\* Total Wetlands Impact Area includes the Fen Impact Area if applicable

- X DENOTES ALTERNATIVE RECOMMENDED TO BE ELIMINATED FROM FURTHER STUDY
- ★ DENOTES ALTERNATIVE RECOMMENDED TO BE CONTINUED FOR FURTHER STUDY

Figure 4.4 US 52 (Jefferson Street) Alternatives Screening Matrix

## 5. Conclusion

Due to the size of the project study area, the wide range of concepts developed, the alternatives are being evaluated in three different categories. The three categories are divided according to the following:

- Interchange Alternatives (I-Designations)
- East-West Connector Alternatives (EW-Designation)
- Route Capacity Improvement Alternatives
  - Seil Road (S-Designations)
  - Mound Road (M-Designations)
  - US 52 (Jefferson Street)

Three of the six interchange alternatives developed and the no build are being recommended for further study. Of the nine east-west connector route alternatives developed, two are being recommended for further study. Note that two variations of EW-1 (Improve McDonough Street), EW-1A and EW-1B are also being recommended for further study. For the route capacity improvement alternatives, all of the US 52 and Seil Road alternatives are being recommended for further study, while all of the Mound Road alternatives are being recommended for elimination from further study (except for the no build).

**Table 5.1** below summarizes which alternatives are being recommended for further study.

**Table 5.1 Summary of Alternatives Recommended To Be Carried Forward**

Alternative Analysis Category	Alternatives Being Recommended for Further Study
Interchange (I-55 / IL 59)	<ul style="list-style-type: none"> <li>• I-0: No Build</li> <li>• I-1: Collector-Distributor Roadway System Along I-55</li> <li>• I-2: New North Directional Ramps Only</li> <li>• I-6: Extension of IL 59 into a Diverging Diamond Interchange</li> </ul>
East-West Connectors	<ul style="list-style-type: none"> <li>• EW-0: No Build</li> <li>• EW-1: Improve McDonough Street to County Farm Road</li> <li>• EW-1A: Improve McDonough Street (Avoid Forest Preserve)</li> <li>• EW-1B: Improve McDonough Street / Rock Run Drive (Roundabout)</li> <li>• EW-6: Olympic Boulevard Extension</li> </ul>
Route Capacity Improvements – Seil Road	<ul style="list-style-type: none"> <li>• S-0: No Build</li> <li>• S-1: Mini-Roundabouts at DuPage River</li> <li>• S-1A: Mini-Roundabouts at DuPage River (with Bridge Realignment)</li> <li>• S-2: Traffic Signals at DuPage River</li> <li>• S-2A: Traffic Signals at DuPage River (with Bridge Realignment)</li> <li>• S-3: Widen to Four Lanes between River Road and IL 59</li> </ul>
Route Capacity Improvements – Mound Road	<ul style="list-style-type: none"> <li>• M-0: No Build</li> </ul>
Route Capacity Improvements – US 52 (Jefferson Street)	<ul style="list-style-type: none"> <li>• US 52 improvements from IL 59 to Houbolt Road<sup>1</sup></li> <li>• US 52 improvements from River Road to Houbolt Road with add-lane west of IL 59 to River Road<sup>1</sup></li> </ul>

<sup>1</sup> These alternatives include a modified diamond interchange at I-55 and US 52.





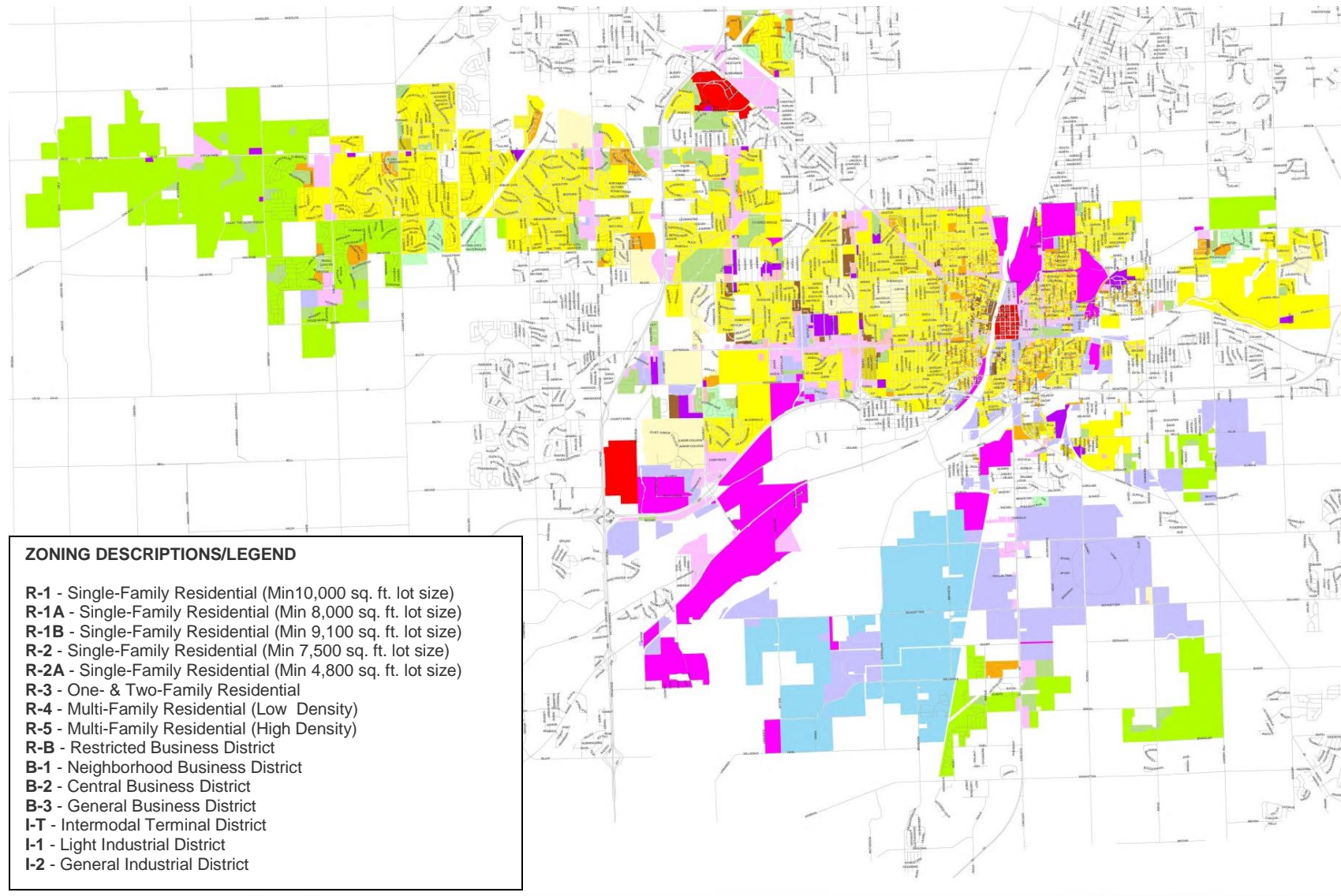
## **I-55 at IL 59 Access Project**

### **Alternatives To Be Carried Forward**

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#### Exhibits

- Exhibit A: City of Joliet Zoning Map (Full Map)
- Exhibit B: Village of Shorewood Existing Land Use Map
- Exhibit C: Village of Shorewood Proposed Land Use Map
- Exhibit D: Study Area Existing and Future Lane Use Map
- Exhibit E: Existing and 2040 No Build Average Daily Traffic
- Exhibit F: Projected 2040 No Build Hourly Traffic Volumes
- Exhibit G: Will County Forest Preserve Properties
- Exhibit H: Joliet Junior College Property Natural Areas Map
- Exhibit I: Shorewood Parks and Recreation Properties
- Exhibit J: Evaluated Alternatives Overview



# Zoning Map

Map Created on:  
8/28/10



**Legend**

<span style="color: red;">■</span> B-1	<span style="color: lightblue;">■</span> I-T	<span style="color: yellow;">■</span> R-2A
<span style="color: magenta;">■</span> B-2	<span style="color: lightgreen;">■</span> R-1	<span style="color: orange;">■</span> R-3
<span style="color: cyan;">■</span> B-3	<span style="color: yellowgreen;">■</span> R-1A	<span style="color: brown;">■</span> R-4
<span style="color: purple;">■</span> I-1	<span style="color: limegreen;">■</span> R-1B	<span style="color: darkred;">■</span> R-5
<span style="color: blue;">■</span> I-2	<span style="color: gold;">■</span> R-2	<span style="color: purple;">■</span> R-B

Exhibit A – City of Joliet Zoning Map (Full Map)

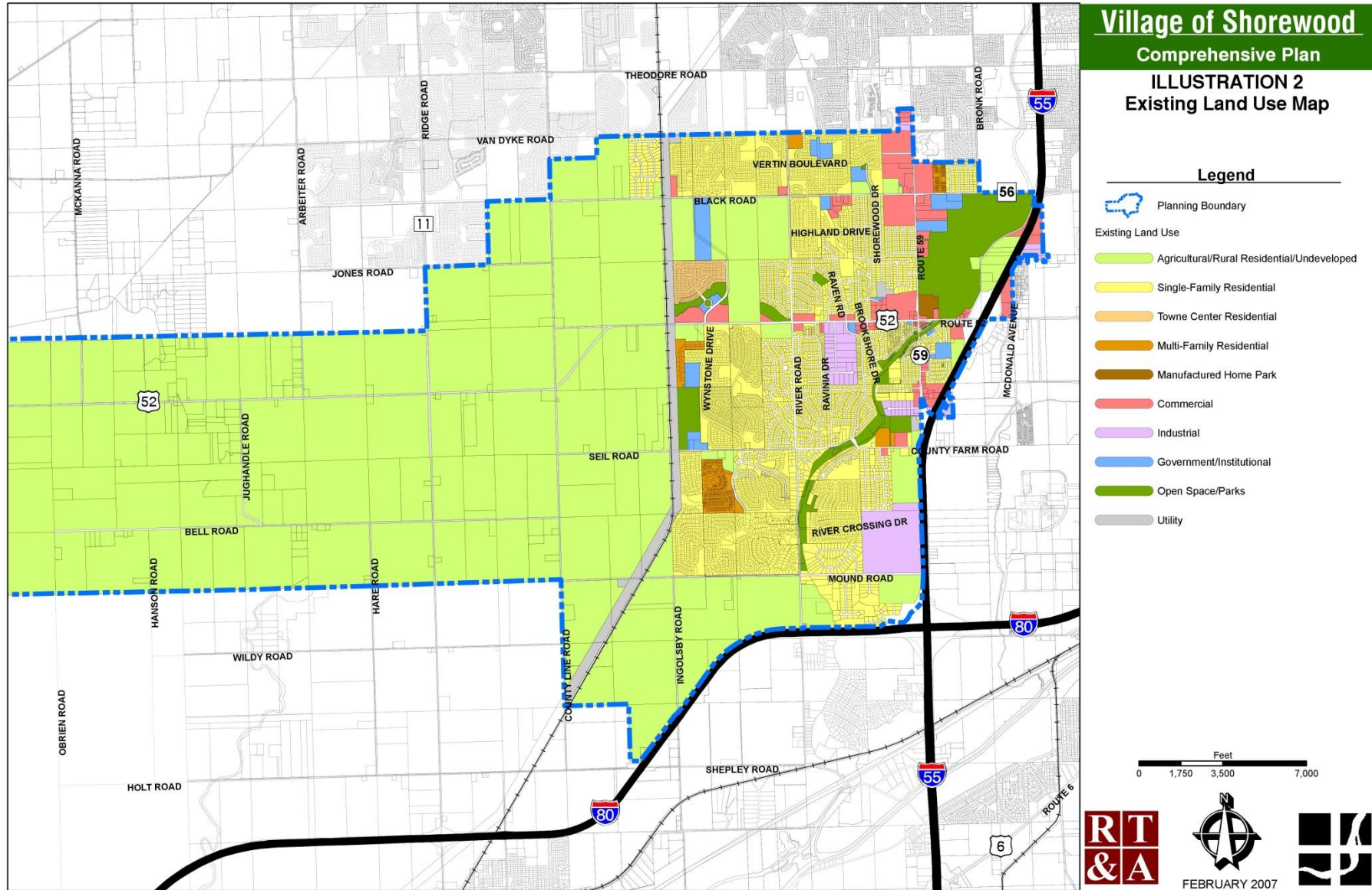


Exhibit B – Village of Shorewood Existing Land Use Plan



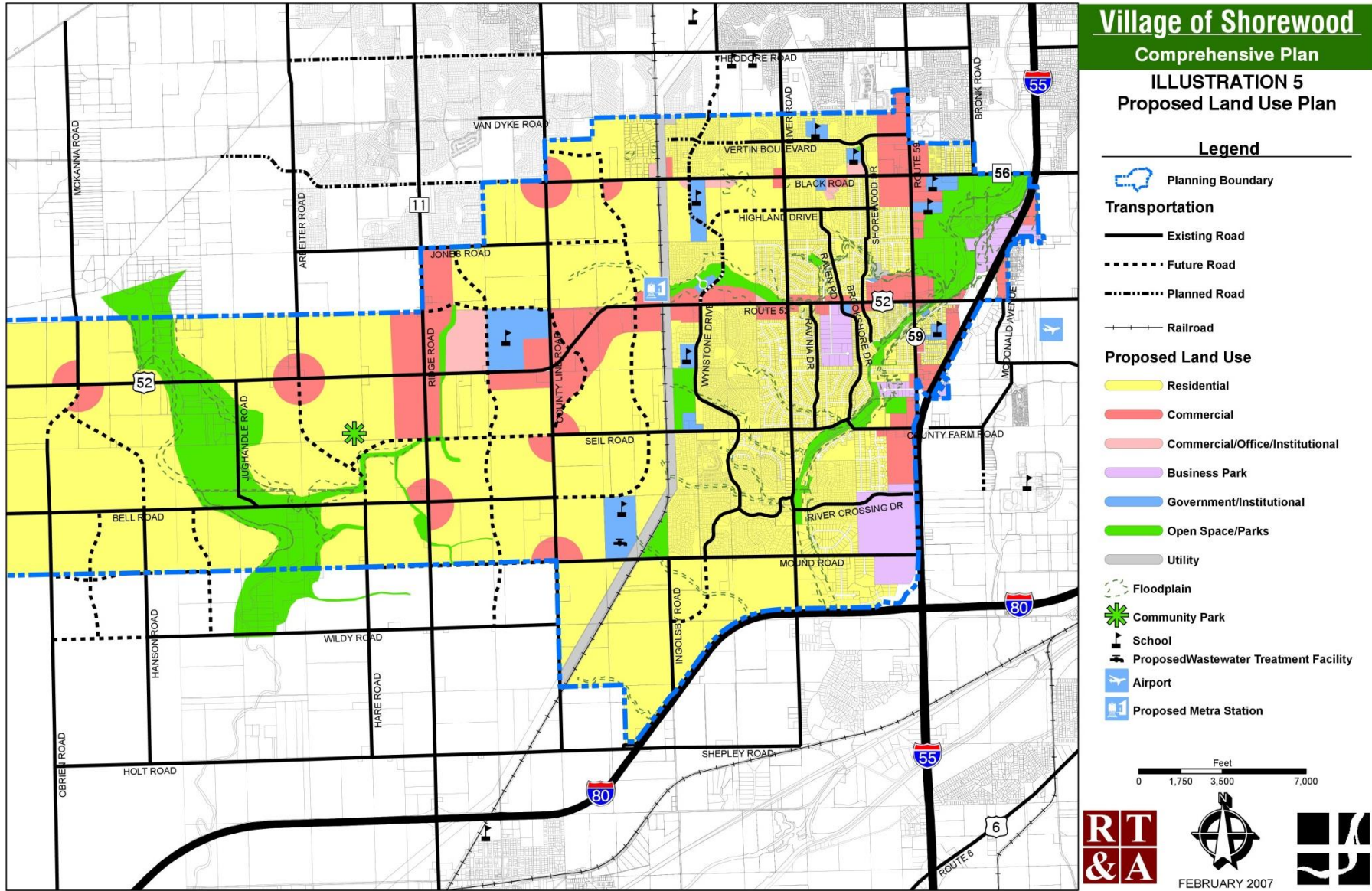
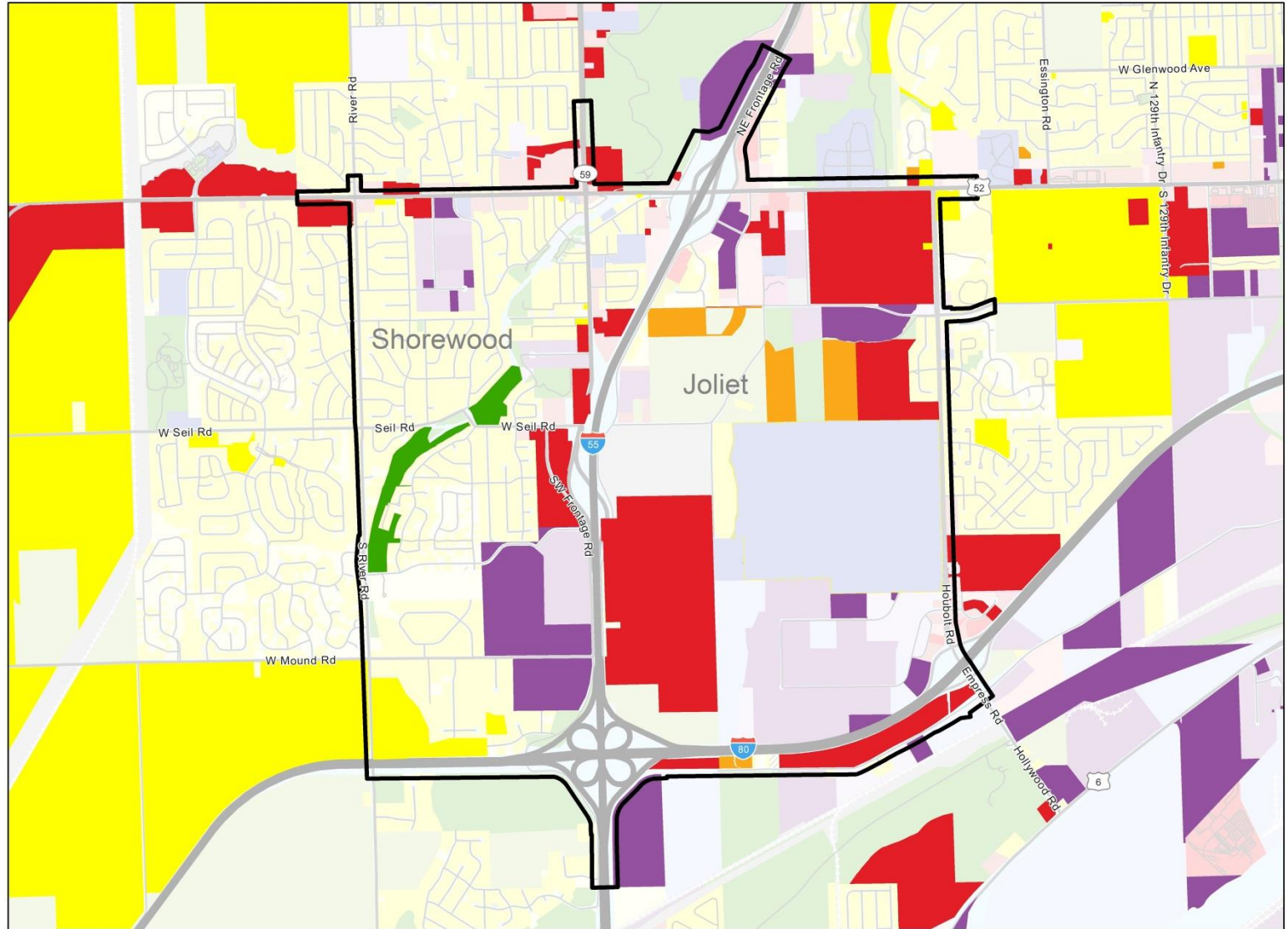


Exhibit C – Village of Shorewood Proposed Land Use Plan

Alternatives To Be Carried Forward  
 I-55 at IL 59 Access Project

- Study Area Boundary
- Future Land Use [1]**
- Residential
- Multi-Family Residential
- Commercial
- Industrial
- Existing Land Use [2]**
- Residential, Single-Family
- Residential, Multifamily
- Commercial
- Small Office/Commercial
- Office
- Residential/Commercial Mixed Use
- Institutional
- Light Industry
- Heavy Industry
- Transportation
- Agricultural
- Open Space
- Vacant Residential
- Vacant Commercial
- Vacant Institutional
- Vacant Industrial
- Under Construction, Residential
- Under Construction, Commercial
- Under Construction, Other
- Water



[1] City of Joliet zoning data and Village of Shorewood future land use data consolidated by SB Friedman  
 [2] CMAP 2013 existing land use data

Sources: City of Joliet; ESRI; SB Friedman; Village of Shorewood

**Exhibit D – Study Area Existing and Future Land Use Map**



Alternatives To Be Carried Forward  
 I-55 at IL 59 Access Project

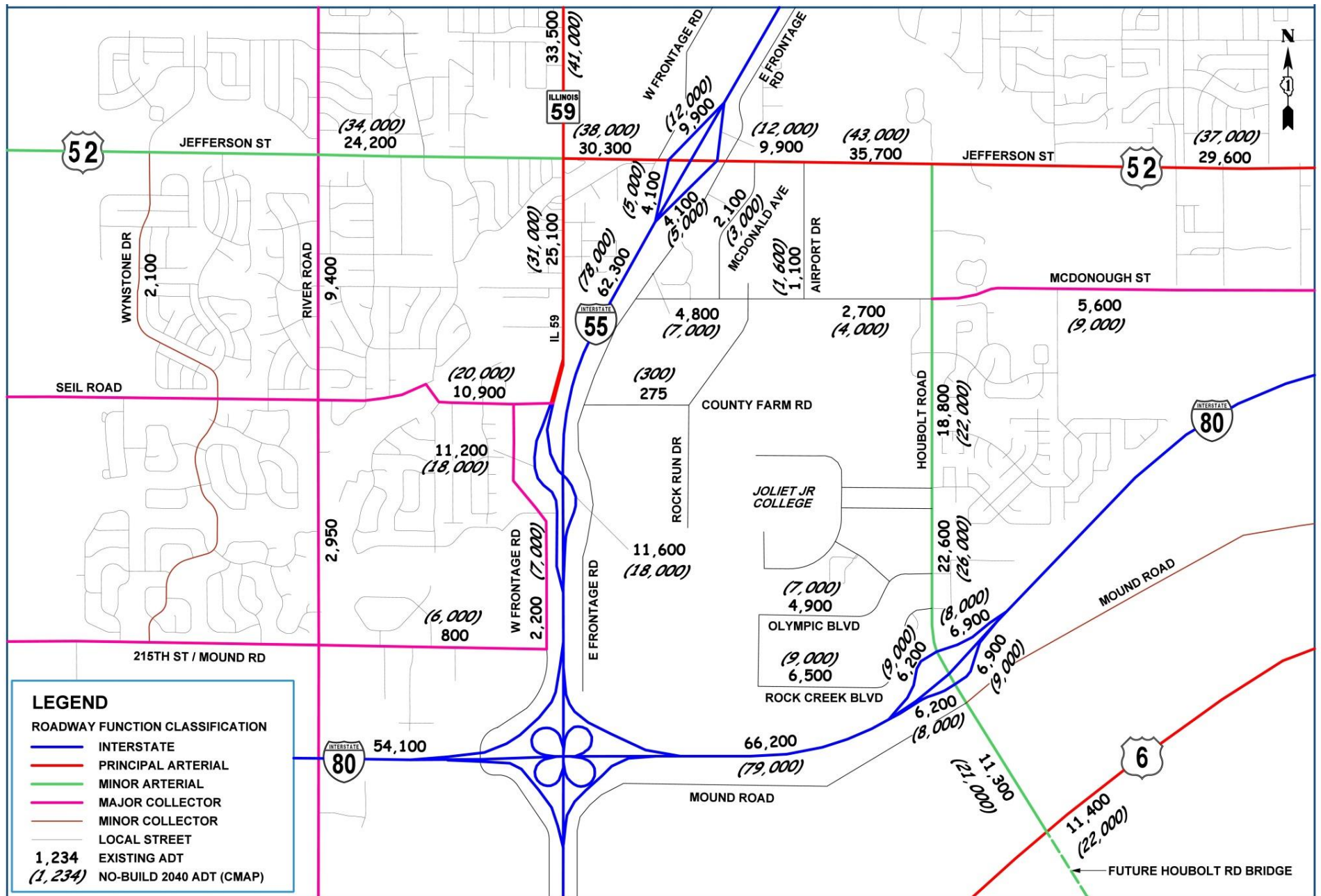


Exhibit E – Existing and 2040 No Build Average Daily Traffic



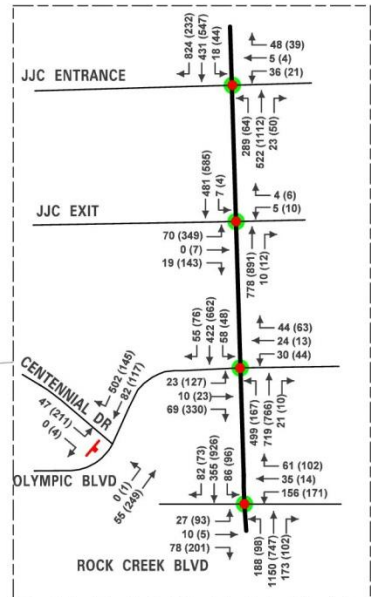
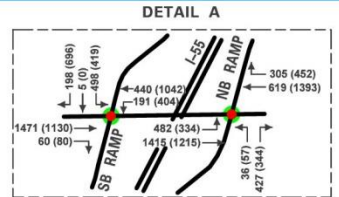
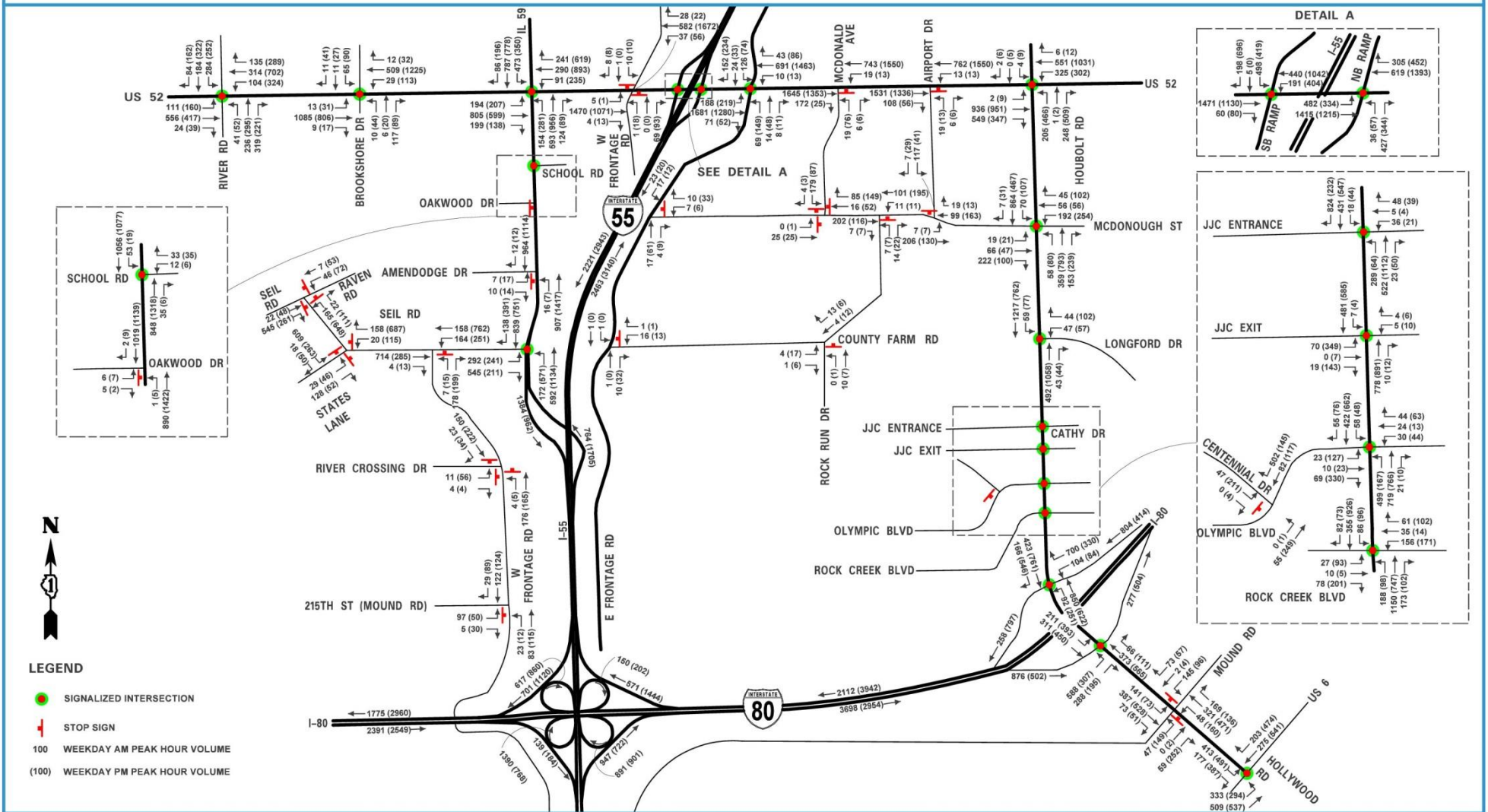


# I-55 at IL 59 Access Project

## 2040 PROJECTED TRAFFIC VOLUMES NO BUILD CONDITION - WEEKDAY



JOULET



**LEGEND**

- SIGNALIZED INTERSECTION
- T STOP SIGN
- 100 WEEKDAY AM PEAK HOUR VOLUME
- (100) WEEKDAY PM PEAK HOUR VOLUME

Exhibit F – Projected 2040 No Build Hourly Traffic Volumes



Alternatives To Be Carried Forward  
I-55 at IL 59 Access Project



Exhibit G – Will County Forest Preserve Properties



### Forest and Prairie Trails Points of Interest

- |                                    |                           |                           |   |
|------------------------------------|---------------------------|---------------------------|---|
| 1. Trailhead Sign                  | 9. Shallow Soil           | 17. Old Pasture           | 25. A Break in the Forest                       |
| 2. Campus Lake (Eastside) & Ravine | 10. Fen                   | 18. Boardwalk             | 26. Erratics                                    |
| 3. Erratics                        | 11. Prairie Restoration   | 19. Shaded Forest         | 27. Campus Lake (Westside)-<br>Dam & Sunshelter |
| 4. Old Oaks                        | 12. Succession            | 20. Section Lines         | 28. Value of a Dead Tree                        |
| 5. Deciduous Forest                | 13. Forest Edge Ecology   | 21. Bare Rock Succession  | 29. Old Oak Savanna Restoration                 |
| 6. Flood Plain Vegetation          | 14. Fire                  | 22. Seed Dispersal        | 30. Wildlife Viewing Area                       |
| 7. Old Stone Wall                  | 15. Old Farm Pond Dam     | 23. Wire Fence            | 31. Walkway-Bridge Underpass                    |
| 8. Vernal Pond                     | 16. Forest in the Midwest | 24. Basswood Reproduction |   |

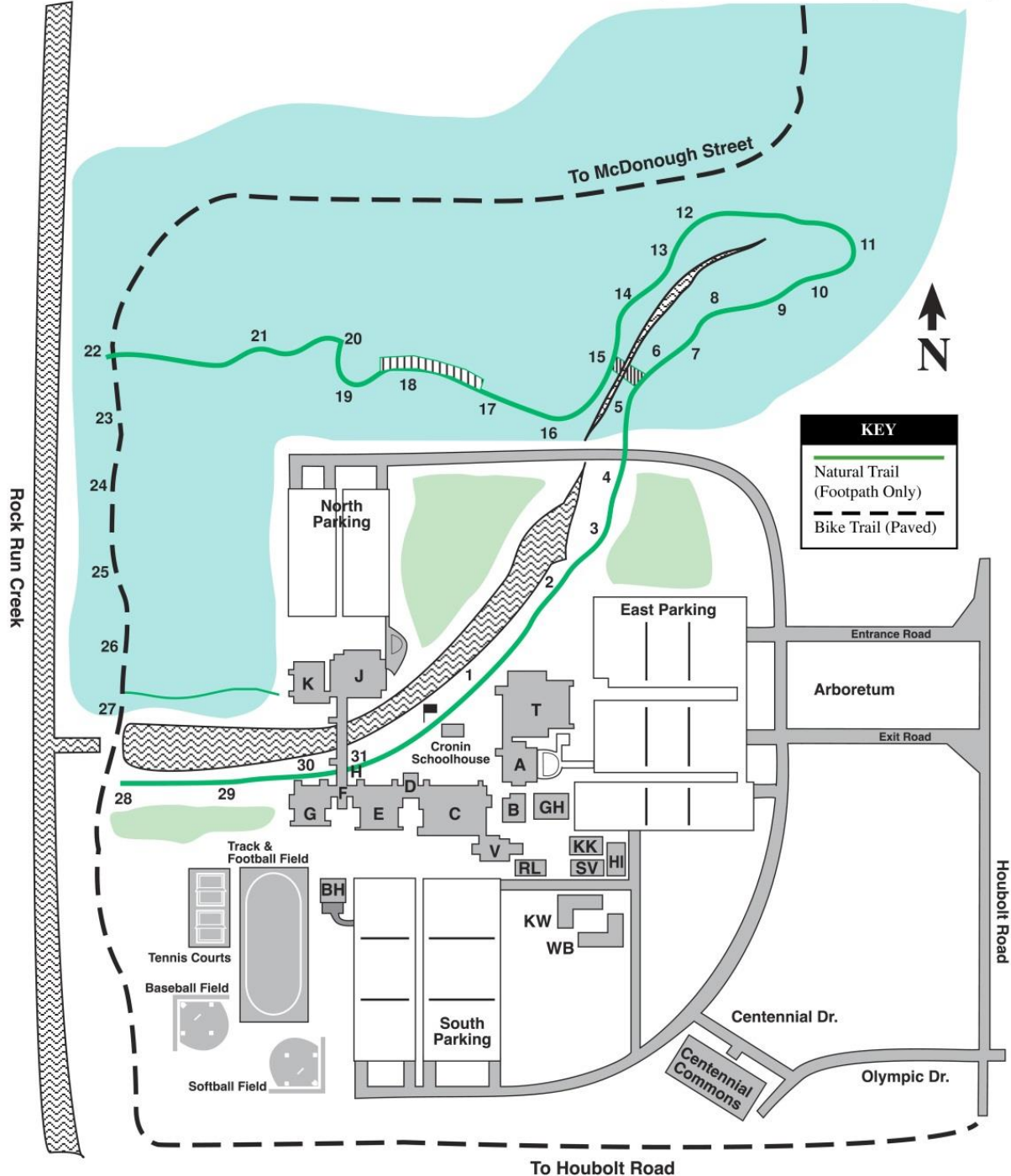
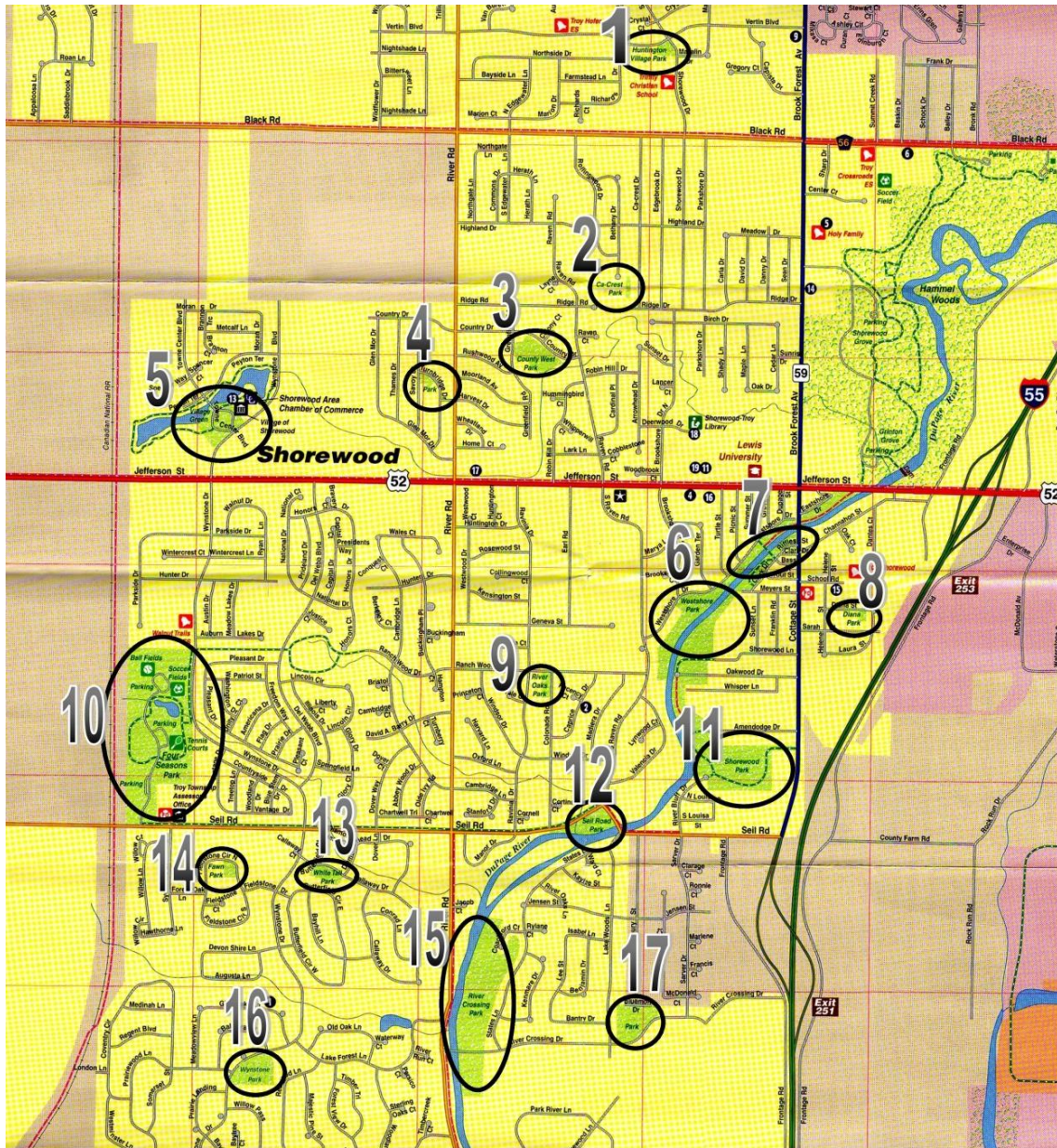


Exhibit H – Joliet Junior College Property Natural Areas Map





## Shorewood Park Locations

- |                                   |                                     |                                |
|-----------------------------------|-------------------------------------|--------------------------------|
| <b>1. Huntington Village Park</b> | <b>7. Little Coyote Park</b>        | <b>13. White Tail Park</b>     |
| <b>2. Ca-Crest Park</b>           | <b>8. Diana Park</b>                | <b>14. Fawn Park</b>           |
| <b>3. Country West Park</b>       | <b>9. River Oaks Park</b>           | <b>15. River Crossing Park</b> |
| <b>4. Kits Korner Park</b>        | <b>10. Cene's Four Seasons Park</b> | <b>16. Wynstone Park</b>       |
| <b>5. Towne Center Park</b>       | <b>11. Shorewood Park</b>           | <b>17. Heartland Park</b>      |
| <b>6. West Shore Park</b>         | <b>12. Seil Road Park</b>           |                                |

**Exhibit I – Shorewood Parks and Recreation Properties**





# EVALUATED ALTERNATIVES OVERVIEW

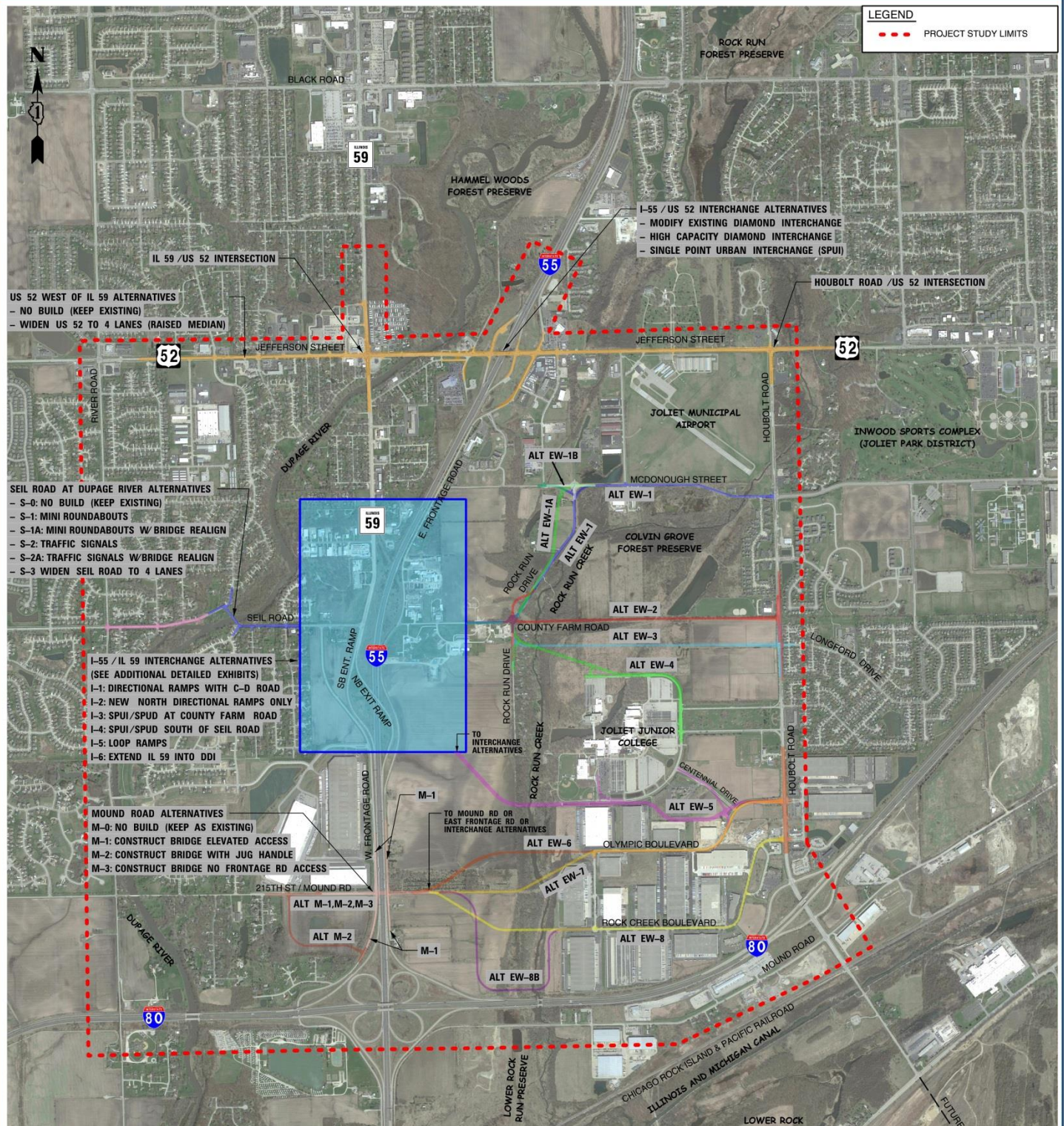


Exhibit J – Evaluated Alternatives Overview