

**NEPA/404 COORDINATION  
CONCURRENCE FOR ALTERNATIVES TO BE CARRIED FORWARD**



**Interstate 55 (FAI 55)  
At Airport Road and at IL 126/Essington Road**

Job No. P-91-130-07  
Will County, Illinois



April 2015

**TABLE OF CONTENTS**

**I. INTRODUCTION..... 1**

**II. PROJECT’S PURPOSE AND NEED ..... 5**

**III. ENVIRONMENTAL RESOURCES ..... 5**

**IV. ALTERNATIVES OVERVIEW ..... 7**

    Design Criteria..... 7

    Alternatives Development and Evaluation Process..... 8

    Description of Alternatives Considered ..... 8

**V. EVALUATION AND SCREENING OF ALTERNATIVES ..... 14**

    Round 1: Environmental and/or Engineering Obstacle Screening ..... 14

    Round 2: Environmental Screening ..... 17

    Transportation Performance Measures..... 21

    Alternatives To Be Carried Forward..... 21

**V. GLOSSARY..... 23**

**FIGURES**

Figure 1: Regional Map ..... 1

Figure 2: Study Area..... 2

Figure 3: Land Use and Roadway Spacing..... 3

**TABLES**

Table 1: Study Area Roadway Classifications..... 4

Table 2: Projected Population Growth ..... 4

Table 3: Projected Employment Growth ..... 4

Table 4: Design Criteria ..... 7

Table 5: Environmental and/or Engineering Obstacle Screening ..... 16

Table 6: Environmental and/or Engineering Obstacle Screening ..... 18

Table 7: Environmental Screening ..... 19

**APPENDICES**

Appendix A           Environmental Inventory Maps

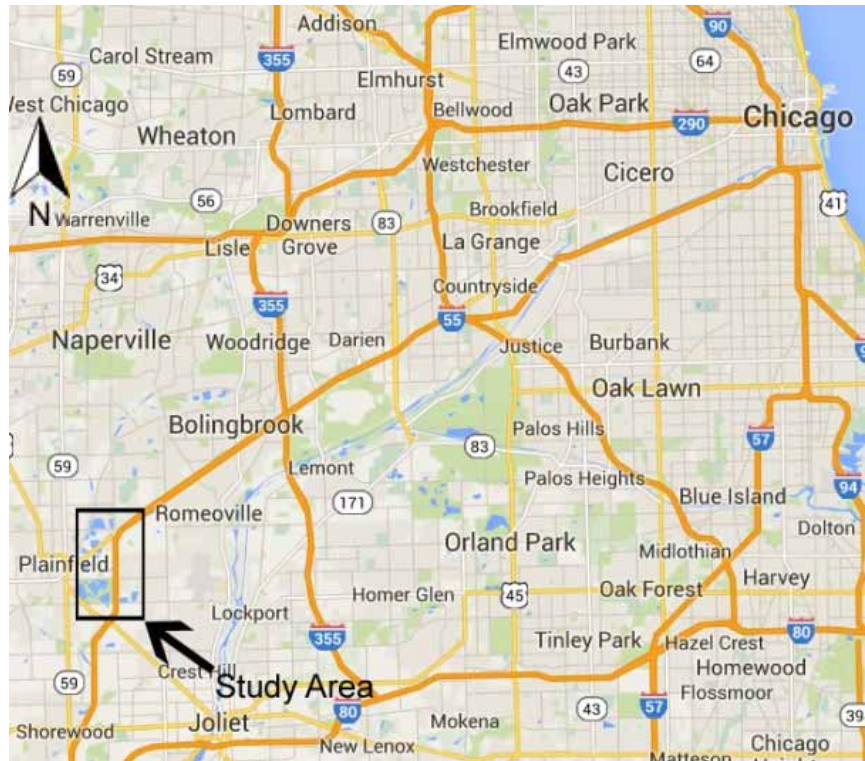
Appendix B           Alternatives

Appendix C           Alternatives to be Carried Forward

Appendix D           Wetland Delineation Report

**I. INTRODUCTION**

Interstate 55 (I-55) is a north-south interstate freeway linking Chicago with the southwest suburbs and downstate Illinois as illustrated in **Figure 1**. It serves as a life line between the Chicago Metropolitan Area and Will County. It is a regional route that connects to other northeastern Illinois interstate highways including I-355, I-294, I-94 and I-90 to the northeast and I-80 to the south. South of the Chicago area, I-55 travels through Illinois to the St. Louis, Missouri metropolitan area and eventually ends in New Orleans, Louisiana. I-55 is part of the National Highway System (NHS) which is a network of Interstates and other major routes that can be used during times of national crisis or need.



**Figure 1: Regional Map**

**What is the National Highway System?**  
 It is network of strategic highways within the United States, including the Interstate Highway System and other roads serving major transportation facilities.

In 2008, I-55 was widened to three lanes in each direction between the interchanges of I-80 and Weber Road, providing an increase in mainline I-55 capacity. This improvement did not include provisions of additional or improved access to I-55 and did not increase capacity at the existing interchange locations. Auxiliary lanes, which are additional lanes on a freeway to connect to an on-ramp and to an off-ramp, are provided at the exit and entrance ramps at IL 126 and Weber Road to provide additional merging and diverging length. The mainline travel lanes are separated by an eight-foot median shoulder on each side of a raised concrete barrier. The posted speed limit along I-55 south of Weber Road is 65 mph. The project limits along I-55 have been identified as Weber Road to the north and US 30 to the south. These limits were selected due to their significance in providing travel connections to I-55 from the northwestern Will County region. The study area limits have been set at approximately 1.25 miles south of Weber Road and the Renwick Road overpass, approximately 0.8 miles north of US 30. This four-mile length of I-55 was selected since freeway interchanges are desirably spaced at two-mile intervals in suburban areas to provide adequate access to the freeway for drivers and to allow for safe weaving associated with vehicles

ramp and to an off-ramp, are provided at the exit and entrance ramps at IL 126 and Weber Road to provide additional merging and diverging length. The mainline travel lanes are separated by an eight-foot median shoulder on each side of a raised concrete barrier. The posted speed limit along I-55 south of Weber Road is 65 mph. The project limits along I-55 have been identified as Weber Road to the north and US 30 to the south. These limits were selected due to their significance in providing travel connections to I-55 from the northwestern Will County region. The study area limits have been set at approximately 1.25 miles south of Weber Road and the Renwick Road overpass, approximately 0.8 miles north of US 30. This four-mile length of I-55 was selected since freeway interchanges are desirably spaced at two-mile intervals in suburban areas to provide adequate access to the freeway for drivers and to allow for safe weaving associated with vehicles



**Figure 2: Study Area**

entering and exiting the freeway. Three crossroads within the study area that have been identified as potential interchange locations are IL 126, 143rd Street/Taylor Road, and Airport Road/Lockport Street. **Figure 2** illustrates the study area limits for this project and the location of the three crossroads. **Figure 3** shows the land uses along I-55 and the spacing interval between the three crossroads and the adjacent interchanges.

This project is located in northwest Will County and is situated within the Villages of Romeoville, Bolingbrook and Plainfield and unincorporated Will County. Other communities located within the regional area of the study include Crest Hill and Joliet. Currently, there are no interchanges to I-55 between US 30 and Weber Road that provide access for drivers in all directions. Airport Road/Lockport Street crosses over I-55 and IL 126 connects to I-55 with a one-way northbound on-ramp and a one-way southbound off-ramp. Frontage roads exist along I-55 that connect 143<sup>rd</sup> Street/Taylor Road and Airport Road/Lockport Street on both sides of I-55 and a frontage road that connects Airport Road/Lockport Street and Renwick Road/County Highway 36 on the east side of I-55.

Within this area, I-55 serves the communities of Romeoville, Plainfield and Bolingbrook. Located east of study area is the I-55 interchange at Weber Road, which is part of the Strategic Regional Arterial Network. It provides access to northwestern Romeoville, southwestern Bolingbrook, and suburban communities to the north and south. The IL 126 interchange only provides a northbound on-ramp and southbound off-ramp and serves Plainfield, southwestern Bolingbrook, and areas west in Kendall County. The interchange at US 30, located at the south study limit, functions as an I-55 access point for southwestern Romeoville, Plainfield, northwestern Joliet, Crest Hill and areas west in Kendall County.

**What is the Strategic Regional Arterial Network?**  
 It is network of regional arterial roadways that carry high volumes of long-distance traffic, supplementing the regional expressway and transit systems.

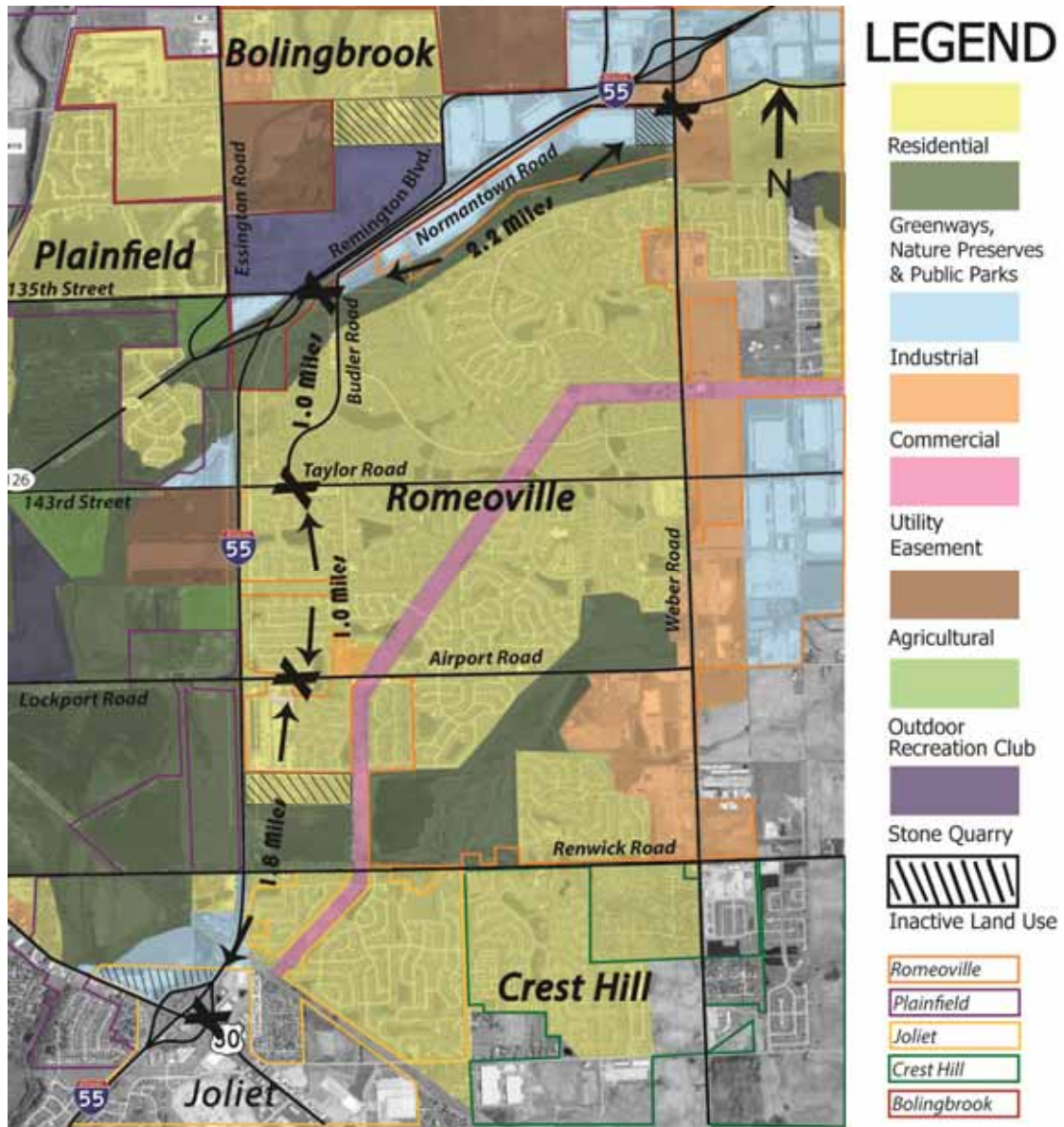


Figure 3: Land Use and Roadway Spacing

In addition to the arterials in the study area, there are a number of collector roads that link the local street system with arterials. These collector roadways provide access to residential neighborhoods and industrial and commercial properties. Collector roadways can be classified as major collectors or minor collectors. Both roadways have similar characteristics; however a major collector will generally be longer in length, have less direct driveway connections and higher speed limits, carry more vehicles, and may have more travel lanes than minor collectors. **Table 1** illustrates the classification of the roadways within the project limits.

**Table 1: Study Area Roadway Classifications**

Major Collectors	Minor Collectors
Airport Road	Budler Road
Lockport Street	143 <sup>rd</sup> Street
Normantown Road	
Remington Boulevard	
Taylor Road	

Will County is one of the fastest growing counties in Illinois and has doubled in population over the last 25 years. The Chicago Metropolitan Agency for Planning (CMAP) projects that Will County’s population will grow from 677,560 in 2010 to 1,215,818 by 2040, a growth rate of 79 percent. The Villages of Romeoville, Bolingbrook and Plainfield have also shown substantial growth over the past two decades. Between 1990 and 2010, the population of the three communities combined grew from 59,474 to 152,627, a growth rate of 157 percent. As noted in **Table 2** and **Table 3**, CMAP projects that population and employment will continue to grow by 79 percent and 53 percent, respectively, by 2040 in the three villages.

**Table 2: Projected Population Growth**

POPULATION	2010 (populace)	2040 (populace)	% CHANGE
Bolingbrook	73,366	116,463	59%
Plainfield	39,581	82,490	108%
Romeoville	39,680	74,068	87%
<b>Total</b>	152,627	273,021	79%

**Table 3: Projected Employment Growth**

EMPLOYMENT	2010 (jobs)	2040 (jobs)	% CHANGE
Bolingbrook	23,417	30,166	29%
Plainfield	14,144	23,464	66%
Romeoville	17,900	31,468	76%
<b>Total</b>	55,461	85,098	53%

This growth will not only mean more travel demand from new residents that live in the area but also more commuters driving to the area for employment opportunities. Part of what will encourage this growth, particularly for job creation, will be the adequacy of the transportation system in the area to serve the movement of goods and services in and out of the I-55 corridor. Considering that many traveling to the area will use I-55 as their primary route for the work commute, the ability to enter and exit I-55 will be critical to serving the added traffic demand generated by population and employment growth.

**II. PROJECT’S PURPOSE AND NEED**

The purpose of the proposed action is to provide improved access to I-55. Enhancement of regional and local connectivity will be a supplementary benefit (or other desirable outcome) which will assist in accommodating population and employment growth forecasted in the Villages of Romeoville, Bolingbrook, and Plainfield and in unincorporated portions of northwestern Will County.

**What is the National Environmental Policy Act (NEPA)?**

The National Environmental Policy Act (NEPA) requires federal agencies to integrate environmental values into their decision making processes by considering the environmental impacts of their proposed actions and reasonable alternatives to those actions.

The Purpose and Need (P&N) was reviewed and granted concurrence during the July 12, 2013 NEPA/404 merger meeting with post meeting comments received from USEPA.

**III. ENVIRONMENTAL RESOURCES**

There are several resource areas within the I-55 study area including forest preserves, a land and water reserve, township park district and municipal parks, and private recreational areas. These areas front the right-of-ways of I-55, Renwick Road, Airport Road/Lockport Street, 143<sup>rd</sup> Street, IL 126, and Essington Road. An Environmental Survey Request (ESR) was conducted within the study area limits. The limits of the ESR generally included the I-55 right-of-way within the study limits and at potential interchange locations at

**What is an Environmental Survey Request (ESR)?**

The ESR initiates the review for cultural, biological, wetland, and special waste resources within a specified study area.

Airport Road/Lockport Street and Taylor Road/143<sup>rd</sup> Street. In addition, an expanded area around the existing IL 126 interchange was included in the limits, which include the Lily Cache Creek and Lily Cache Slough.

Environmental studies were completed pursuant to the ESR for the project study area. The results are as follows:

Botanical Survey – A survey was conducted in May and June 2011 by the Illinois Natural History Survey (INHS). Special attention was given for the occurrence of *Carex viridula*, commonly known as little green sledge, which is listed as threatened in Illinois by the Illinois Endangered Species Protection Board (IESPB). This plant species was previously been reported at a site adjacent to the project corridor. No individuals of *Carex viridula* were found in the project study area. Results of the survey indicate no Illinois listed threatened or endangered plant species or high-quality natural plant communities were found within the study area.

The INHS has been tasked for Eastern Prairie Fringed Orchid (EPFO) surveys for sites 26 and 27. These wetland sites are located along the Lily Cache Creek and Lily Cache Slough on either side of I-55 at the IL 126 interchange. These locations are illustrated in the Environmental Inventory Map in Appendix A. EPFO surveys must be done from late June to early July. These surveys will be conducted in the next survey window in 2015 with results forthcoming.

Cultural Resources – The State Historic Preservation Officer (SHPO) has concurred with a “no historic properties affected” finding for the study area.

Section 4(f) Lands – Four Seasons Park is a public park maintained by the Plainfield Township Park District and is located at the northwest quadrant of I-55 and Airport Road. Also in the vicinity are the Avery Preserve and Westlake Park.

**What is a Section 4(f) Land?**

Section 4(f) lands are publicly owned parks, recreational areas, wildlife or waterfowl refuge areas, or any significant historic site.

Land and Water Reserve – This is a voluntary land and water protection program that provides protection and management for lands and waters supporting significant natural heritage or archaeological resources and is registered with the Illinois Nature Preserves Commission (INPC). The Lake Renwick East Land and Water Reserve (LWR) is located east of the Lake Renwick Nature Preserve and west of I-55 between the Plainfield Township offices on Lockport Street and Renwick Road. The LWR is owned by the Forest Preserve District of Will County with the Illinois Department of Natural Resources (IDNR) and Illinois Nature Preserve Commission (INPC) holding a Conservation Easement. Plowing, cultivating, paving, or grading of an LWR is prohibited, as is the altering of natural water levels. Activities on these properties require approval from the INPC, IDNR, the Governor and any public owner of a dedicated interest therein only after a finding by the Commission of the existence of an imperative and unavoidable public necessity for a public use. The Illinois Natural Areas Preservation Act does define a process for public use of a nature preserve property but only if it is “an imperative and unavoidable public necessity.” Alternatives have been developed that do not require right of way from the LWR; therefore, alternatives that impact the LWR will be eliminated.

Waters of the US/Wetlands – A field survey was conducted in October 2014 by the INHS within the study area limits. All potential wetlands within the study area were examined which resulted in 21 sites meeting the Waters of the US/wetland criteria. Of the 21 wetlands, one was identified as being a high quality aquatic resource. The Environmental Inventory Map in Appendix A illustrates the locations of the wetlands within the study area. The Wetland Determination Report is attached as Appendix D and includes a summary of the wetland determinations.

- Lily Cache Creek – This waterway flows from north to south along the western portion of the study area limits. This waterway has been identified by IDNR in 2008 as not being a biologically significant stream.
- Lily Cache Slough – This waterway flows from northeast to southwest beneath I-55 at the IL 126 interchange where it merges into Lily Cache Creek. This waterway has been identified by IDNR in 2008 as not being a biologically significant stream.

Threatened/Endangered Species and Natural Communities of Special Interest – EPFO surveys will be conducted in late June/early July 2015.



Special Waste – A Preliminary Environmental Site Assessment (PESA) was conducted in April 2012 by the Illinois State Geological Survey (ISGS) within the study limits. The report identified several sites in the study area that were determined to contain recognized environmental conditions (RECs), sites along the project for which only minimal conditions were identified, sites along the project for which no RECs or minimal conditions were identified, sites adjoining but not on the project that were identified on environmental databases. The report states that if the proposed project would require new right-of-way or easements from the sites with RECs or involve building modification/demolition, a preliminary site investigation (PSI) would be required.

**What is a preliminary site investigation?**  
 A preliminary investigation of the site, including sampling, testing, and analysis of soil or groundwater, as necessary, and an estimate of the cost of cleanup by parcel, if possible.

**IV. ALTERNATIVES OVERVIEW**

**DESIGN CRITERIA**

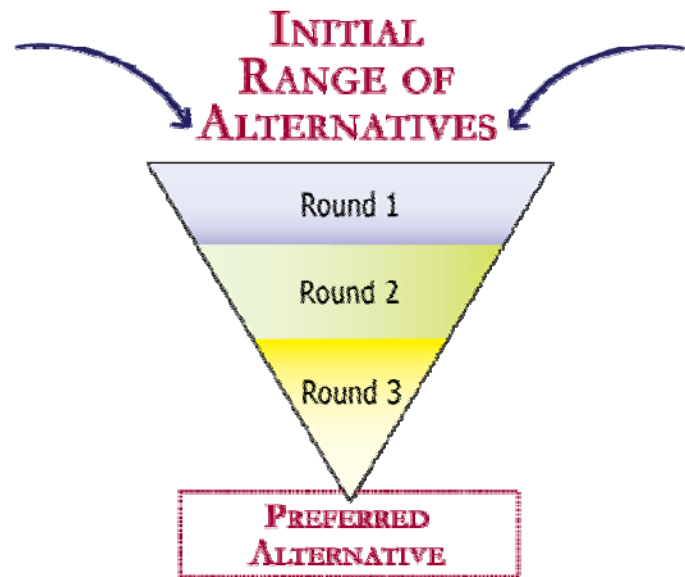
Study criteria were established for use in developing preliminary alternative concepts. Design criteria considered the functionality of the roadway, traffic volumes, design speed, safety, costs, and environmental effects. The proposed improvements have been designed based on the criteria outlined in the Illinois Department of Transportation Bureau of Design and Environment (BDE) Manual and summarized in **Table 4**.

**Table 4: Design Criteria**

<b>Design Element</b>	<b>Mainline I-55</b>	<b>Directional Ramps</b>
Design Speed	70 mph	50 mph
Design Vehicle	WB-65	WB-65
Level of Service	C	C
Pavement Width	2 @ 36'	1 @ 16'
Paved Shoulder Width	L = 10' R = 10'	L = 4' R = 6'
Minimum Curve Radius	2,040'	835'
Maximum Superelevation	6%	6%
Maximum Grade	+4%, -5%	+4%, -6%
Minimum Grade	0.3%	0.3%
Rate of Curvature Crest	247	184
Rate of Curvature Sag	181	96
Minimum Stopping Sight Distance	730'	425'

### ALTERNATIVES DEVELOPMENT AND EVALUATION PROCESS

An evaluation and screening process was developed through a collaborative effort between the Community Advisory Group (CAG), which is a voluntary group of stakeholders that includes community officials, residents, business owners, and users of I-55, the public, and the Project Study Group (PSG) consisting of IDOT and the Federal Highway Administration (FHWA). The objective of this process was to develop an initial list of alternatives and reduce this list from plausible alternatives to feasible alternatives by conducting rounds of screening analyses that continue to progress after each of the screens. The goal of the process is to refine the number of alternatives and develop a Preferred Alternative. Three screening rounds were established to select the Preferred Alternative.



1. Review potential Environmental and/or Engineering Obstacles (Completed)
2. Review Environmental Effects (Completed)
3. Conduct transportation performance to address the Purpose and Need and perform detailed engineering and environmental review (To be performed after alternatives to be carried forward are selected)

An initial list of alternatives was developed that included alternatives identified in previous feasibility studies conducted by Romeoville and Bolingbrook, a compilation of ideas and concepts for potential improvements developed at CAG Meeting #3 by the CAG members, public, and neighboring communities, and preliminary concepts from IDOT and FHWA. In all, 27 initial concepts were deemed plausible and started through the alternative screening process.

### DESCRIPTION OF ALTERNATIVES CONSIDERED

The following is a brief description of the 27 alternatives developed at CAG Meeting #3 by the CAG members, public, and municipal officials. **Appendix B** includes illustrations of each alternative.

*No Action Alternative* – This alternative maintains the existing access points to I-55 and roadway network in the study area and does not include any new on- or off-ramps to I-55. This alternative will be used as a baseline alternative for the purpose of evaluating other alternatives and comparing their impacts.

*Alternative 1* – Construct new diamond interchange at Airport Road with northbound and southbound entrance and exit ramps in each direction and reroute existing Frontage Roads. Construct 143<sup>rd</sup> Street overpass and reroute existing Frontage Roads to create new intersections on 143<sup>rd</sup> Street. Potential Lockport Street Bypass may be constructed, see page 14 for additional detail.

**What is a diamond interchange?**

An interchange is a grade-separated intersection (one road passes over another) with ramps that connect them. A diamond interchange has four one-way ramps that provide access to all directions from either roadway. The design allows free-flow operation on the major highway but creates intersections on the minor roadway with the ramps.

*Alternative 2* – Construct a spread diamond interchange with new one-way frontage road system (one-way southbound on the west of I-55, one-way northbound on the east of I-55) from IL 126 at Essington Road to Renwick Road. Construct a new northbound exit ramp and a new southbound entrance ramp south of Airport Road. Construct 143<sup>rd</sup> Street overpass and reroute existing Frontage Roads to create new intersections on 143<sup>rd</sup> Street. Construct a new northbound entrance ramp and a new southbound exit ramp north of 143<sup>rd</sup> Street. Construct bridge for northbound Frontage Road over I-55 and connect to IL 126 and Essington Road intersection.

**What is a spread diamond interchange?**

Similar to the diamond interchange but with a frontage roadway parallel to the major highway that connects the ramps.

*Alternative 3* – Construct a spread diamond interchange with new one-way frontage road system (one-way southbound on the west of I-55, one-way northbound on the east of I-55) from IL 126 at Essington Road for northbound Frontage Road and Essington Road at 135<sup>th</sup> Street for southbound Frontage Road to Renwick Road. Construct a new northbound exit ramp and a new southbound entrance ramp south of Airport Road. Construct bridge for northbound Frontage Road over I-55 and connect to IL 126 and Essington Road intersection. Construct bridge for southbound Frontage Road over IL 126 ramps from Essington Road and 135<sup>th</sup> Street intersection. Construct northbound Frontage Road north to existing IL 126 on-ramp. Remove section of Essington Road from 135<sup>th</sup> Street to IL 126 and construct new roadway connecting IL 126 to 135<sup>th</sup> Street.

*Alternative 4* – Construct southbound exit ramp at Renwick Road. Construct new diamond interchange at Airport Road with northbound and southbound entrance and exit ramps in each direction. Reroute existing Frontage Roads at Airport Road and improve existing frontage road east of I-55 from Renwick Road to Airport Road. Eliminate existing southbound exit ramp and northbound entrance ramp at IL 126. Construct new diamond interchange at rerouted 127<sup>th</sup> Street extension with northbound and southbound entrance and exit ramps in each direction.

Construct new Frontage Road from Budler Road and 135<sup>th</sup> Street intersection to Normantown Road and modify Kings Road to intersect with 127<sup>th</sup> Street extension.

*Alternative 5* – Construct new single point urban diamond interchange at Airport Road with northbound and southbound entrance and exit ramps in each direction.

**What is a single point urban diamond interchange?**

This interchange aligns the left turn movements of the exit ramps opposite one another to form a single intersection at the center of the grade separation structure

*Alternative 6* – Construct northbound entrance ramp from Budler Road and 135<sup>th</sup> Street intersection. Construct new northbound exit ramp and southbound entrance ramp from rerouted Kings Road/Remington

Boulevard. Reroute Remington Boulevard to create a new intersection with northbound exit and southbound entrance ramp.

*Alternative 7* – Construct new single point urban diamond interchange at Airport Road with northbound and southbound entrance and exit ramps in each direction. Construct new Frontage Road west of I-55 from Airport Road to Renwick Road.

*Alternative 8* – Construct new diamond interchange at Airport Road with northbound and southbound entrance and exit ramps in each direction and reroute existing Frontage Roads. Construct new northbound exit ramp with fly-over bridge over I-55 north of 143<sup>rd</sup> Street and connect to IL 126 and Essington Road intersection. Construct southbound entrance ramp from IL 126 and Essington Road intersection, merging with I-55 north of 143<sup>rd</sup> Street. Potential Lockport Street Bypass may be constructed, see page 14 for additional detail.

*Alternative 9* – Construct new southbound exit ramp to Renwick Road. Construct new half diamond interchange at Airport Road with northbound exit ramp and northbound entrance ramp. Reroute existing Frontage Road east of I-55 at Airport Road. Construct new southbound entrance ramp at 143<sup>rd</sup> Street. Reroute existing Frontage Road east and west of I-55 at 143<sup>rd</sup> Street. Construct new southbound entrance ramp at Kings Road south of 127<sup>th</sup> Street intersection. Reroute existing Frontage Road northwest of I-55 at Kings Road with new intersection at southbound entrance ramp. Potential Lockport Street Bypass may be constructed, see page 14 for additional detail.

*Alternative 10* – Construct a new one-way frontage road system (one-way southbound on the west of I-55, one-way northbound on the east of I-55) from 135<sup>th</sup> Street and Essington Road intersection to Airport Road, with northbound fly-over bridge over I-55 and IL 126 ramps and southbound fly-over bridge over IL 126 ramps. Construct a new one-way southbound Frontage Road northwest of I-55 from Kings Road to proposed Frontage Road south of IL 126. Construct new diamond interchange at 143<sup>rd</sup> Street with northbound and southbound entrance and exit

ramps in each direction. Reconstruct 143<sup>rd</sup> Street to accommodate trucks. Remove section of Essington Road from 135<sup>th</sup> Street to IL 126.

*Alternative 11* – Construct new half-diamond interchange at Airport Road with southbound entrance ramp and northbound exit ramp. Reroute existing Frontage Road east of I-55 at Airport Road. Construct new/reconstruct existing Frontage Road west of I-55 from Kings Road to Airport Road, with fly-over bridge over IL 126 ramps. Construct new roadway from 135<sup>th</sup> Street and Essington Road intersection to intersect with new Frontage Road. Potential Lockport Street Bypass may be constructed, see page 14 for additional detail.

*Alternative 12* – Construct a spread diamond interchange with new one-way frontage road system (one-way southbound on the west of I-55, one-way northbound on the east of I-55) from existing IL 126 ramps to Airport Road. Construct a new northbound exit ramp and a new southbound entrance ramp at Airport Road. Reroute existing Frontage Road east of I-55 south of Airport Road. Construct 143<sup>rd</sup> Street overpass and reroute existing Frontage Roads to create new intersections on 143<sup>rd</sup> Street. Construct new southbound exit ramp south of IL 126 exit ramp to Frontage Road and new entrance ramp from Frontage Road to existing IL 126 northbound entrance ramp. Improve Kings Road from 127<sup>th</sup> Street intersection to 135<sup>th</sup> Street and Essington Road intersection. Improve intersections at IL 126 and Essington Road and at IL 126 and 143<sup>rd</sup> Street.

*Alternative 13* – Construct a spread diamond interchange with new one-way frontage road system (one-way southbound on the west of I-55, one-way northbound on the east of I-55) from IL 126 at Essington Road to Airport Road for southbound travel and Airport Road to 143<sup>rd</sup> Street for northbound travel. Construct new half diamond interchange at 143<sup>rd</sup> Street with southbound entrance ramp and northbound exit ramp. Construct new southbound entrance ramp at Kings Road south of 127<sup>th</sup> Street intersection. Reroute Frontage Road northwest of I-55 near Kings Road entrance ramp.

*Alternative 14* – Construct new diamond interchange at 143<sup>rd</sup> Street with northbound and southbound entrance and exit ramps in each direction and reroute existing Frontage Roads. Extend existing Frontage Road east of I-55 from current terminus at Taylor Road north to intersect with Budler Road and Normantown Road.

*Alternative 15* – Construct new southbound entrance ramp at Airport Road. Construct new northbound-to-westbound exit ramp at IL 126, with fly-over bridge over I-55 and existing IL 126 ramps.

*Alternative 16* – Construct new southbound entrance ramp and northbound exit ramp at the IL 126 and Essington Road intersection. The northbound exit ramp would include a fly-over ramp over I-55.

*Alternative 17* – Reroute IL 126 from existing terminus at Essington Road to the 135<sup>th</sup> Street and Essington Road intersection. Create a new full access interchange from rerouted IL 126 and Essington Road intersection. Modify existing I-55 southbound to westbound exit ramp to travel north to rerouted IL 126 and Essington Road intersection. Construct new southbound entrance ramp and northbound exit ramp, with fly-over bridge over I-55 and proposed IL 126 ramps. Modify existing eastbound to northbound entrance ramp to originate from rerouted IL 126 and Essington Road intersection. Remove existing section of Essington Road from 135<sup>th</sup> Street to IL 126 and existing entrance and exit ramps to and from I-55.

*Alternative 18* – Extend existing IL 126 from east of Essington Road to Budler Road and Normantown Road with a new overpass over I-55. Construct new diamond interchange at proposed IL 126 extension with northbound and southbound entrance and exit ramps in each direction. Extend Essington Road south to rerouted IL 126.

*Alternative 19* – Extend Essington Road from 135<sup>th</sup> Street intersection south and east and connect to Budler Road and Normantown Road with a new overpass over I-55. Construct new diamond interchange at proposed Essington Road extension with northbound and southbound entrance and exit ramps in each direction. Remove existing IL 126 entrance and exit ramps and Essington Road from 135<sup>th</sup> Street to IL 126. Reroute IL 126 from east of existing Essington Road intersection to connect to Kings Road.

*Alternative 20* – Construct trumpet interchange at Essington Road connecting to local roadway network at rerouted IL 126 and Essington Road intersection. Construct fly-over bridge over I-55 for northbound entrance and exit ramp. Remove existing IL 126 entrance and exit ramps and Essington Road from 135<sup>th</sup> Street to IL 126. Reroute existing IL 126 from I-55 to connect to Essington Road from the east north of the existing 135<sup>th</sup> Street and Essington Road intersection. Reroute 135<sup>th</sup> Street to connect to IL 126.

*Alternative 21* – Construct new southbound entrance ramp and northbound exit ramp at the 135<sup>th</sup> Street and Essington Road intersection. The northbound exit ramp would include a fly-over ramp over I-55. In addition, both ramps would include a fly-over ramp over the existing IL 126 ramps. Remove section of Essington Road from 135<sup>th</sup> Street to IL 126 and construct new roadway connecting IL 126 to 135<sup>th</sup> Street.

*Alternative 22* – Extend existing IL 126 from east of Essington Road to Budler Road and Normantown Road with a new overpass over I-55. Construct new diamond interchange at proposed IL 126 extension with northbound and southbound entrance and exit ramps in each direction. Reroute existing Frontage Road northwest of I-55. Remove existing IL 126 entrance and exit ramps.

*Alternative 23* – Construct new Frontage Road west of I-55 from IL 126 and Essington Road intersection south to 143<sup>rd</sup> Street. Improve existing Frontage Road west of I-55 from 143<sup>rd</sup> Street to Airport Road.

*Alternative 24* – Construct a spread diamond interchange with new one-way frontage road system (one-way southbound on the west of I-55, one-way northbound on the east of I-55) from 143<sup>rd</sup> Street to Airport Road. Construct a new northbound exit ramp and a new southbound entrance ramp at Airport Road. Construct a new northbound entrance ramp and a new southbound exit ramp at 143<sup>rd</sup> Street. Reroute existing Frontage Road east of I-55 south of Airport Road. Construct 143<sup>rd</sup> Street overpass and reroute existing Frontage Roads to create new intersections on 143<sup>rd</sup> Street. Extend Essington Road from 135<sup>th</sup> Street south as a two-way roadway to 143<sup>rd</sup> Street west of I-55. Remove existing IL 126 entrance and exit ramps, Essington Road from 135<sup>th</sup> Street to IL 126, and 135<sup>th</sup> Street east of Essington Road. Construct roadway connecting Kings Road and IL 126, creating skewed intersection at Essington Road extension. Improve the intersection of 135<sup>th</sup> Street and Essington Road.

*Alternative 25* – Construct a spread diamond interchange with new one-way frontage road system (one-way southbound on the west of I-55, one-way northbound on the east of I-55) from 143<sup>rd</sup> Street to Airport Road. Construct a new northbound exit ramp and a new southbound entrance ramp at Airport Road. Construct a new northbound entrance ramp and a new southbound exit ramp at 143<sup>rd</sup> Street. Reroute existing Frontage Road east of I-55 south of Airport Road. Construct 143<sup>rd</sup> Street overpass and reroute existing Frontage Roads to create new intersections on 143<sup>rd</sup> Street. Extend Essington Road from 135<sup>th</sup> Street south as a two-way roadway to 143<sup>rd</sup> Street west of I-55. Remove existing IL 126 entrance and exit ramps, Essington Road from 135<sup>th</sup> Street to IL 126, and 135<sup>th</sup> Street east of Essington Road. Construct roadway connecting Kings Road and IL 126, creating standard intersection at Essington Road extension. Improve the intersection of 135<sup>th</sup> Street and Essington Road.

*Alternative 26* – Construct a spread diamond interchange with new one-way frontage road system (one-way southbound on the west of I-55, one-way northbound on the east of I-55) from IL 126 and Essington Road to Airport Road. Construct a new northbound exit ramp and a new southbound entrance ramp at Airport Road. Construct fly-over bridge for northbound Frontage Road over I-55 and for northbound and southbound Frontage Road over existing IL 126 ramps. Connect northbound Frontage Road to existing I-55 entrance ramp at IL 126. Connect southbound Frontage Road to existing I-55 exit ramp at IL 126. Improve the intersection of 135<sup>th</sup> Street and Essington Road. Remove section of Essington Road from 135<sup>th</sup> Street to IL 126 and construct new roadway connecting IL 126 to 135<sup>th</sup> Street.

*Alternative 27* – Construct new diamond interchange at 143<sup>rd</sup> Street with northbound and southbound entrance and exit ramps in each direction. Reroute existing Frontage Road east and west of I-55 south of 143<sup>rd</sup> Street. Construct new one-way frontage road system (one-way

southbound on the west of I-55, one-way northbound on the east of I-55) from IL 126 and Essington Road to 143<sup>rd</sup> Street. Construct fly-over bridge for northbound Frontage Road over I-55 and for northbound and southbound Frontage Road over existing IL 126 ramps. Connect northbound Frontage Road to existing I-55 entrance ramp at IL 126. Connect southbound Frontage Road to existing I-55 exit ramp at IL 126. Improve the intersection of 135<sup>th</sup> Street and Essington Road. Remove section of Essington Road from 135<sup>th</sup> Street to IL 126 and construct new roadway connecting IL 126 to 135<sup>th</sup> Street.

The Lockport Street Bypass is a separate roadway feasibility study being conducted by the Village of Plainfield that is not a part of the I-55 interchange study. The feasibility study will review several potential routes to construct a new roadway between Lockport Street and the intersection of IL 126 with the future 143<sup>rd</sup> Street extension from IL 126 to IL 59. The purpose of the bypass is to divert future traffic volumes from regions west of Plainfield away from Lockport Street in downtown Plainfield. The potential bypass routes are illustrated on Alternatives 1, 8, 9, and 11 in Appendix B as part of the overall alternative suggested through the public involvement process when corridor alternatives were being developed. However, this study is not considering the Lockport Street Bypass as part of the alternative because it is not necessary to improve access to I-55 and there are other ways that future traffic from the Village and areas west can reach the interchange using either a combination of 143<sup>rd</sup> Street and the frontage road system or Lockport Street itself. Furthermore, the alternatives being considered in this study will not restrict the improvements being considered in the Lockport Street Bypass. Therefore, not all alternatives with an Airport Road interchange have this potential improvement.

**V. EVALUATION AND SCREENING OF ALTERNATIVES**

Each of the alternatives will be screened against the parameters defined in the evaluation process. Alternatives that do not have an Environmental and/or Engineering Obstacle and meet the Round 2 Environmental Screening will be considered to be carried forward.

**ROUND 1: ENVIRONMENTAL AND/OR ENGINEERING OBSTACLE SCREENING**

This section provides an overview of the first step of the screening process, the Environmental and/or Engineering Obstacle analysis, which was conducted on the 27 alternatives. An Environmental and/or Engineering Obstacle is a characteristic or part of an alternative that would render it impractical. This step will only assess the conceptual design of the alternative.

Through a joint collaboration effort with the PSG, the CAG, and the general public, it was determined that an impact to the Lake Renwick East LWR was an Environmental and/or Engineering Obstacle. If it is determined that an alternative impacts the LWR, it is removed from further consideration. The LWR registration provides properties the

**Who are the groups and agencies that developed the criteria?**  
 The Community Advisory Group (CAG) is made up of various stakeholders including community officials, residents, business owners, and users of I-55. The Project Study Group (PSG) includes IDOT and the Federal Highway Administration (FHWA).



most comprehensive and highest level of protection available in the state. Plowing, cultivating, paving and/or grading are prohibited on reserve properties as is the altering of natural water levels. Activities on these properties require approval from the Illinois Nature Preserve Commission, Illinois Department of Natural Resources, the Governor and any public owner of a dedicated interest therein only after a finding by the Commission of the existence of an imperative and unavoidable public necessity for a public use.

**Table 5** provides a summary of the 27 alternatives and the results of the Round 1 screening. If an alternative had a “No” in the “Avoid Impact to LWR” column, it was eliminated from further consideration.

The “No Action” alternative will continue to be included in future screenings and be discussed in the environmental document to provide a baseline for the purpose of comparing the potential impacts with the alternatives selected to be carried forward.

**Table 5: Environmental and/or Engineering Obstacle Screening**

Alternative Description		Avoid Impact to LWR	Move to Round 2
	No Action	Yes	Yes
1	Airport Road Diamond Interchange with 143rd Connector.	No	No
2	Spread Diamond Interchange at Airport Road & 143rd Street with One-way Frontage Roads from Renwick to Essington.	No	No
3	Spread Diamond Interchange at Airport Road & IL 126 with One-way Frontage Roads from Renwick to Essington.	No	No
4	Diamond Interchange at Airport Road, Diamond Interchange at Budler Road, and Half Diamond Interchange at Renwick Road.	No	No
5	Single Point Urban Diamond Interchange at Airport Road.	Yes	Yes
6	Access Ramps at Kings Road, Re-Route Frontage Road & NB Slip Ramp at Budler Road.	Yes	Yes
7	Single Point Urban Diamond Interchange at Airport Road with Frontage Roads Between Renwick & Airport Road. No Change at IL 126.	No	No
8	Diamond Interchange at Airport Road & Full Access at IL 126 Interchange with 143rd Street Connector.	No	No
9	Ramps at Kings Road to SB I-55, 143rd Street to SB I-55 & Airport Road to NB I-55. 143rd Street Overpass. Assume NB I-55 Exit at Airport Road.	No	No
10	Diamond Interchange at 143rd Street with One-way Frontage Roads Between Airport Road & Essington Road. SB Frontage Road from Kings Road to 143rd Street Interchange.	Yes	Yes
11	Half Diamond Interchange at Airport Road with Frontage Roads from Kings Road to Airport Road. Includes 143rd Street Connector.	No	No
12	Spread Diamond Interchange at Airport Road & IL 126 with One-way Frontage Roads from Airport Road to IL 126. 143rd Street Overpass at I-55 & Improve Frontage Roads from Kings Road to 135th Street.	No	No
13	Spread Diamond Interchange at 143rd Street and IL 126. Includes Slip Ramp from Kings Road to SB I-55.	Yes	Yes
14	Diamond Interchange at 143rd Street with Frontage Road Between 143rd Street & Normantown Road.	Yes	Yes
15	NB I-55 Exit to WB IL 126 & Airport Road Entrance to SB I-55.	No	No
16	Full Access to Interchange at IL 126.	Yes	Yes
17	Full Access Interchange at Essington Road.	Yes	Yes
18	Diamond Interchange at IL 126 with Budler Road Connector.	Yes	Yes
19	Diamond Interchange at Essington Rd & Budler Rd with IL 126 Connection.	Yes	Yes
20	Trumpet Interchange at Essington Road with IL 126 Connector.	Yes	Yes
21	Full Access Interchange at IL 126 with Essington Road Connector.	Yes	Yes
22	New Interchange at IL 126.	Yes	Yes
23	Frontage Rd on West Side of I-55 from Essington Rd at IL 126 to Airport Rd.	Yes	Yes
24	Spread Diamond Interchange at Airport Road & 143rd Street with Essington Road & IL 126 Connectors.	No	No
25	Spread Diamond Interchange at Airport Road & 143rd Street with Essington Road & IL 126 Connectors.	No	No
26	Spread Diamond Interchange at Airport Road & IL 126 with Frontage Road Connection.	No	No
27	Diamond Interchange at 143rd Street with Frontage Road Connection & IL 126 Connection.	Yes	Yes

The results of the Environmental and/or Engineering Obstacle screening indicate that 13 alternatives would require right-of-way in the LWR and have therefore been removed from further consideration. The following 15 alternatives will move forward to the next screening –Alternatives 5, 6, 10, 13, 14, 16, 17, 18, 19, 20, 21, 22, 23, 27, and the “No Action” alternative.

## **ROUND 2: ENVIRONMENTAL SCREENING**

The next screening step to screen the remaining 15 alternatives involved Environmental factors. Various meetings with stakeholders and resource agencies were conducted to determine screening factors. For this screening, the following factors were developed to be applied to the remaining alternatives:

- Impact to Waters of the US/Wetlands
- Bisect Waters of the US/Wetlands
- Impact to Section 4(f) Property
- Residential and Business Displacements

During the environmental field review, the United States Army Corps of Engineers (USACE) and United States Fish and Wildlife Service (USFWS) stated that bisecting the existing wetlands located in the southwest or southeast quadrants of the I-55/IL 126 interchange would be detrimental to the wetlands serving as a wildlife habitat. Though these wetlands may have a low quality floristic rating, USACE and USFWS recommend that any roadways/ramps that provide improved access to I-55 should not bisect/divide the wetland areas but rather be aligned along the outside edges to avoid or minimize impacting these environmental areas.

Many alternatives resulted in impacts to the environmentally sensitive areas around the IL 126 interchange, including potential impacts to the wetlands, open waters, Lily Cache Creek, and Lily Cache Slough. In an effort to develop alternatives that make every effort to avoid impacts, and if not possible, to then minimize impacts, the 27 alternatives were reviewed to determine if certain aspects of the alternatives were worthy of continued consideration. This was conducted in response to stakeholders that an entire alternative should not be eliminated due to one portion of it having an impact. The alternatives in Appendix B have been modified to illustrate the viable portions (green) and non-viable portions (red).

Utilizing the viable elements of alternatives that were considered to have non-viable elements, and working with IDOT and the Villages, three additional alternatives were developed.

*Alternative 28* –Realign IL 126 as a two-way roadway to the west side of I-55 and construct diamond interchange at IL 126 with full access to all movements on I-55. Install traffic signals at the northbound on/off-ramp intersection with IL 126 and construct directional ramps for the southbound on/off-ramps. Widen Essington Road to four travel lanes from north of 135<sup>th</sup> Street to IL 126. Widen 135<sup>th</sup> Street at Essington Road intersection and signalize intersection.

*Alternative 29* – Construct new northbound off ramp at IL 126 that flies over the I-55 mainline and ramps and merges with existing southbound off ramp. Construct new directional on ramp for northbound IL 126 to southbound I-55. Widen Essington Road to four travel lanes from south of 135<sup>th</sup> Street to IL 126. Widen 135<sup>th</sup> Street at Essington Road intersection and signalize intersection.

*Alternative 30* – Construct new dogbone interchange at Airport Road with northbound and southbound entrance and exit ramps in each direction.

These alternatives have gone through the same Round 1 screening process as the 27 alternatives with screening results illustrated in **Table 6**.

**Table 6: Environmental and/or Engineering Obstacle Screening**

Alternative Description		Avoid Impact to LWR	Move to Round 2
28	Diamond Interchange at IL 126. Realign Essington Road south of 135 <sup>th</sup> Street.	Yes	Yes
29	Flyover Interchange at IL 126 with directional ramps in all directions.	Yes	Yes
30	Dogbone interchange at Airport Road.	Yes	Yes

These three alternatives do not impact the Lake Renwick East Land and Water Reserve and will therefore be carried forward to the next screening.

**Table 7** provides the Environmental Screening summary of the 18 alternatives.

**Table 7: Environmental Screening**

Alternative	Impact: Waters of the US/ Wetlands (acres)	Bisect Waters of the US/ Wetlands	Impact: Section 4(f) Property (acres)	Socio Economic		Move to Round 3
				Residential Displacements	Business Displacements	
No Action	0	No	0	0	0	Yes
5	0.1	No	1.5	0	0	Yes
6	0	No	0	0	1	No
10	4.5	No	1.0	9	0	No
13	3.4	Yes	1.0	9	0	No
14	6.7	Yes	0	16	0	No
16	2.2	No	0	0	0	Yes
17	8.1	Yes	0	0	1	No
18	10.2	Yes	0	0	0	No
19	12.6	Yes	0	0	1	No
20	9.2	Yes	0	2	2	No
21	4.1	Yes	0	0	0	No
22	7.7	Yes	0	0	3	No
23	3.4	Yes	1.0	0	0	No
27	8.5	Yes	0	16	1	No
28	1.3	No	0	0	0	Yes
29	1.4	No	0	0	0	Yes
30	0	No	2.1	0	0	Yes

Note: Acreage calculations for impacts to Waters of the US/Wetlands and to Section 4(f) Property calculated by assuming a 100-foot impact area along the path of the alternative.

The following is a summary of the Environmental Screening for the 18 alternatives:

- No Action Alternative – This alternative has minimal impacts to the environment and does not cause any displacements; therefore, it is moving forward to Round 3.
- Alternative 5 – This alternative has minimal impacts to the environment and to recreational uses of Section 4(f) properties; therefore, it is moving forward to Round 3.
- Alternative 6 – This alternative has minimal impacts to the environment. The one business displacement is an approximately 900,000 square foot industrial building located along Normantown Road south of I-55. While this is only one displacement, the impact to the Village of Romeoville would be significant as this is a major employer in the area and a tax generating use for the Village. In addition, this alternative proposes three northbound ramps in approximately 2,500 feet – existing IL 126 northbound on-ramp, proposed Budler Road on-ramp, and proposed Kings Road off-ramp. This alternative is less than one mile from the IL 126 interchange ramps and only one mile from the Weber Road interchange. Three ramps in this short area will lead to potential merge/diverge backups and significant weaving issues along I-55. In addition, this interchange spacing does not meet the 2 mile recommended spacing by FHWA. IDOT’s Bureau of Design and Environment manual recommends that interchanges in urban areas be spaced two miles apart. Three ramps in this short of a distance will lead to potential merge/diverge backups and significant weaving issues. Having multiple exit and entrance ramps at close spacing as proposed by Alternative 6 would lead to congestion on I-55

and safety concerns. For these reasons, Alternative 6 has been removed from further consideration.

- Alternative 10 – This alternative has been removed from further consideration due to the high number of residential displacements at the 143<sup>rd</sup> Street/Taylor Road interchange. In addition, this alternative removes the roadway connection from 135<sup>th</sup> Street and Essington Road to IL 126 and does not provide an alternate route.
- Alternative 13 – This alternative has been removed from further consideration due to the high number of residential displacements at the 143<sup>rd</sup> Street/Taylor Road interchange and due to it bisecting the wetlands and Waters of the US at IL 126.
- Alternative 14 – This alternative has been removed from further consideration due to the high number of residential displacements at the 143<sup>rd</sup> Street/Taylor Road interchange and due to it bisecting the wetlands and Waters of the US at IL 126.
- Alternative 16 – This alternative was initially removed from further consideration due to it bisecting the wetlands and Waters of the US at IL 126 as the ramps were originally assumed to be on an embankment. However, upon further review of the alternative and discussions with numerous stakeholders, bridging the ramps through the wetlands may be a viable alternative. Therefore, this alternative is moving forward to Round 3.
- Alternative 17 – This alternative has been removed from further consideration due to it bisecting the wetlands and Waters of the US at IL 126 and the disproportionately high wetland impacts.
- Alternative 18 – This alternative has been removed from further consideration due to it bisecting the wetlands and Waters of the US at IL 126 and the disproportionately high wetland impacts.
- Alternative 19 – This alternative has been removed from further consideration due to it bisecting the wetlands and Waters of the US at IL 126 and the disproportionately high wetland impacts.
- Alternative 20 – This alternative has been removed from further consideration due to it bisecting the wetlands and Waters of the US at IL 126 and the disproportionately high wetland impacts.
- Alternative 21 – This alternative has been removed from further consideration due to it bisecting the wetlands and Waters of the US for the realigned roadway connection between 135<sup>th</sup> Street and IL 126.
- Alternative 22 – This alternative has been removed from further consideration due to it bisecting the wetlands and Waters of the US at IL 126 and the disproportionately high wetland impacts.
- Alternative 23 – This alternative has been removed from further consideration due to it bisecting the wetlands and Waters of the US at IL 126.
- Alternative 27 – This alternative has been removed from further consideration due to the high number of residential displacements at the 143<sup>rd</sup> Street/Taylor Road interchange and due to it bisecting the wetlands and Waters of the US at IL 126.

- Alternative 28 – This alternative has minimal impacts to the environment; therefore, it is moving forward to Round 3.
- Alternative 29 – This alternative has minimal impacts to the environment; therefore, it is moving forward to Round 3.
- Alternative 30 – This alternative has minimal impacts to the environment and to recreational uses of Section 4(f) properties; therefore, it is moving forward to Round 3.

### **TRANSPORTATION PERFORMANCE MEASURES**

After the Round 2 Environmental Screening, the remaining alternatives were reviewed and a preliminary traffic analysis was conducted utilizing 2040 traffic projections from the Chicago Metropolitan Agency for Planning (CMAP). The purpose of this preliminary analysis was to develop preliminary engineering plans with number of through and turning lanes, number of lanes at intersections, and to determine if the alternative would meet transportation performance measures at the proposed interchange locations. The following is a summary of the preliminary traffic analysis for each alternative:

- Alternative 5, Airport Road Single Point Interchange – Signalized intersection operates at LOS C during the am peak hour and LOS C during the pm peak hour.
- Alternative 16, IL 126 Full Access Interchange at IL 126/Essington Road – Signalized intersection at IL 126/Essington Road operates at LOS C during the am peak hour and LOS C during the pm peak hour.
- Alternative 28, IL 126 Diamond Interchange – Signalized intersection at northbound off ramp/eastbound IL 126 operates at LOS B during the am peak hour and LOS C during the pm peak hour. Signalized intersection at IL 126/Essington Road operates at LOS C during the am peak hour and LOS C during the pm peak hour. If the southbound off ramp is signalized, that intersection would operate at LOS A during the am peak hour and LOS B during the pm peak hour.
- Alternative 29, IL 126 Flyover Interchange – Signalized intersection at IL 126/Essington Road operates at LOS C during the am peak hour and LOS C during the pm peak hour.
- Alternative 30, Airport Road Dogbone Interchange – The roundabouts along Airport Road operate at LOS A or LOS B during the am and pm peak hours.

Additional traffic analysis will be conducted in the next round of screening, including analyzing the US 30 and Weber Road interchanges with the alternatives proposed to be carried forward and compared to the No Build analysis that was conducted in the Purpose and Need.

### **ALTERNATIVES TO BE CARRIED FORWARD**

The alternatives that avoid or minimize impacts are Alternatives 5, 16, 28, 29, 30, and the No Action alternative and are therefore selected to be carried forward. These alternatives do not impact the Lake Renwick East Land and Water Reserve, are not anticipated to require residential and business displacements along the corridor, and minimize the potential wetland impacts near the potential Airport Road and IL 126 interchanges. **Appendix C** provides detailed drawings of the alternatives.

During the next round, a detailed engineering and environmental review will be performed and it will be determined how well the transportation performance of each interchange scenario addresses the Purpose and Need. This analysis will evaluate whether one interchange or two interchanges will be necessary to meet the Round 3 screening criteria and will likely evaluate three interchange scenarios: one interchange at Airport Road/Lockport Street, one interchange at IL 126, or two interchanges with one at Airport Road/Lockport Street and one at IL 126.



## V. GLOSSARY

**Advanced Identification (ADID) High Habitat Value or High Functional Value wetlands** – ADID wetlands are high quality wetlands based upon three functional values: habitat, stormwater storage, and water quality.

**Auxiliary Lanes** – An additional lane on a freeway to connect to an on-ramp and an off-ramp.

**Average Daily Traffic (ADT)** – Average Daily traffic is the average number of vehicles two-way passing a specific point in a 24-hour period.

**Botanical Resource** – Include plant species or high-quality natural plant communities located within a project study area.

**Capacity** - Maximum number of vehicles that can be accommodated during a given time period.

**Chicago Metropolitan Agency for Planning (CMAP)** - CMAP is the metropolitan planning organization for northeastern Illinois which includes Cook, DuPage, Kane, Kendall, Lake, McHenry and Will counties. It is responsible for overseeing land use and transportation planning for the region.

**Community Advisory Group (CAG)** - The Community Advisory Group is a stakeholder group who meets with the project team on a one-on-one basis throughout the project.

**Cultural Resource** – Cultural resources are defined as any district, site, building, structure, or object considered to be important to a culture, subculture, or community for scientific, traditional, religious, or any other reason.

**Environmental Survey Request (ESR)** - The environmental survey process initiates the review for cultural, biological, wetland, and special waste resources within a specified study area.

**Federal Endangered Species Act** - This is the 1973 law, later amended in 1978 and 1982 that was enacted to protect species of plants and animals that were threatened with extinction if their protection was not granted. The US Fish and Wildlife Service determine which species should be considered as threatened or endangered. The law requires federal agencies to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of designated critical habitat of such species. The law also prohibits any action that causes a "taking" of any listed species of endangered fish or wildlife.

**Federal Highway Administration (FHWA)** - FHWA is a division of the US Department of Transportation that specializes in highway transportation. The agency's major activities are grouped into two "programs," the Federal-aid Highway Program and the Federal Lands Highway Program. FHWA's role in the Federal-aid Highway Program is to oversee federal funds used for constructing and maintaining the

National Highway System (primarily Interstate Highways, U.S. Routes and most State Routes). This funding mostly comes from the federal gasoline tax and mostly goes to state departments of transportation. FHWA oversees projects using these funds to ensure that federal requirements for project eligibility, contract administration and construction standards are adhered to.

**Five percent Crash Studies** - These are FHWA reports in which the States prepare lists of at least 5 percent of locations exhibiting the most severe safety needs primarily based on fatalities and serious injuries.

**Freeway** – Divided highway with full access control and two or more lanes in each direction for the exclusive purpose of moving traffic

**Illinois State Archaeological Survey (ISAS)** - ISAS investigates, preserves and interprets the archaeological heritage of Illinois within the contexts of long-term public needs and economic development through our scientific research, landscape preservation, public service, education, and outreach activities.

**Illinois Department of Natural Resources (IDNR)** - IDNR is a department in the Illinois state government that operates the state parks and state recreation areas, enforces the fishing and game laws of Illinois, regulates Illinois coal mines, operates the Illinois State Museum system, and oversees scientific research into the soil, water, and mineral resources of the state.

**Illinois Department of Transportation (IDOT)** - IDOT is a department in the Illinois state government that is responsible for sustaining, strengthening, expanding, and maintaining a multi-modal transportation system that includes roads, railways, airways, waterways, canals, and terminals such as airports, railway stations, bus stations, warehouses, and intermodal facilities.

**Illinois Natural Areas Inventory (INAI)** - INAI provides a set of information about high quality natural areas, habitats of endangered species, and other significant natural features. Information from the INAI is used to guide and support land acquisition and protection programs by all levels of government as well as by private landowners and conservation organizations.

**Illinois Natural History Survey (INHS)** - INHS is an active research organization that investigates and documents the biological resources of Illinois and other areas, and to acquire and provide natural history information that can be used to promote the common understanding, conservation, and management of these resources.

**Land and Water Conservation Fund (LWCF)** - LWCF is a federal program established in 1965 to provide funds and matching grants to federal, state and local governments for the acquisition of land and water, and easements on land and water, for the benefit of all Americans. The main emphases of the fund are recreation and the protection of national natural treasures in the forms of parks and protected forest and wildlife areas.

**Land and Water Reserve (LWR)** - The Register of Land and Water Reserves is a voluntary land and water protection program that provides protection and management for lands and waters supporting significant natural heritage or archaeological resources. Registered Reserves may be in public or private ownership. The agreement to register an area as a Registered Reserve is similar to a conservation easement and is between the landowner and the Department of Natural Resources and the Illinois Nature Preserves Commission jointly. The agreement may be for a term of years or permanent. The landowner continues to own the registered property, except certain rights as specified in the registration agreement are given up. The property can be sold or passed on to heirs subject to the agreement.

**National Environmental Policy Act (NEPA)** - NEPA requires that IDOT consider the environmental consequences of a project in order to make a fully informed decision. NEPA prescribes three milestones during a project's study: (1) Purpose and Need, (2) Alternatives to be Carried Forward, and (3) Preferred Alternative.

**National Highway System (NHS)** – Network of strategic highways within the United States, including the Interstate Highway System and other roads serving major airports, ports, rail or truck terminals, railway stations, pipeline terminals and other strategic transport facilities.

**National Register of Historic Places (NRHP)** - NRHP is the US federal government's official list of districts, sites, buildings, structures, and objects deemed worthy of preservation. A property listed in the National Register, or located within a National Register Historic District, may qualify for tax incentives derived from the total value of expenses incurred preserving the property.

**Natural Resource Area** - Land with an ecosystem that has retained a significant amount of its native soil, plant, and animal communities dating back to pre-settlement times.

**NEPA/404 Merger Process** - Federally funded roadway projects are required to comply with the National Environmental Policy Act (NEPA), which requires federal agencies to consider the environmental effects of the proposed actions. FHWA is the NEPA lead federal agency for federally funded roadway projects. A proposed action that involves placement of fill material into the waters of the US including wetlands also requires a Section 404 permit from the US Army Corps of Engineers under the Clean Water Act. The integrated NEPA/404 merger process streamlines the interagency cooperation and expedites the project decision-making. It ensures that the concerns of the regulatory and resource agencies are given timely and appropriate consideration, and that those agencies are involved at key decision points in the project development.

**Preliminary Site Investigation (PSI)** - A preliminary investigation of the site, including sampling, testing, and analysis of soil or groundwater, as necessary, and an estimate of the cost of cleanup by parcel, if possible.

**Project Study Group (PSG)** - PSG is a multi-disciplinary team organized to develop this project and has primary oversight responsibility for the overall project development process to ensure that all applicable Federal, State and Local requirements are being met. The primary objectives of the PSG are: expediting the project development process, identifying the project development issues, providing guidance for developing solutions to identified issues, and promoting partnership with all involved parties to address the identified project needs. The PSG consists of personnel from IDOT, FHWA and Consultants having expertise and knowledge of policies and procedures involved with the project development.

**Right-of-Way (ROW)** - A ROW is a type of easement ownership granted or reserved over the land for transportation purposes. This can be for a highway, shared-use path or sidewalk, railway, canal, as well as electrical transmission lines, oil and gas pipelines.

**Special Lands** – Areas within the public lands where special management attention is required to protect historic, cultural or scenic areas, fish and wildlife resources, or other natural systems or processes. Includes section (4) lands, which include publicly owned parks, recreation areas, wildlife or waterfowl refuge areas, or any significant historic site.

**Stakeholder** - A "stakeholder" is someone whom the project may affect. Stakeholders can be local businesses, schools, elected officials, public agencies, land owners, or the general public.

**State of Illinois Endangered Species Act** - This Illinois law protects, in addition to federally listed endangered species or threatened species, other species that the Illinois Endangered Species Protection Board lists as in danger of extinction, or likely to become endangered.

**Strategic Regional Arterial (SRA)** - The SRA network is a regional arterial system that carries high volumes of long-distance traffic, supplementing the regional expressway and transit systems

**United States Army Corps of Engineers (USACE)** - USACE is a federal agency under the Department of Defense and a major Army command. The US Army Corps of Engineers environmental mission has two major focus areas: restoration and stewardship. The Corps supports and manages numerous environmental programs that run the gamut from cleaning up areas on former military installations contaminated by hazardous waste or munitions to helping establish/reestablish wetlands that help endangered species survive.

The Regulatory Program is authorized to protect the Nation's aquatic resources. The Corps evaluates permit applications for essentially all construction activities that occur in the Nation's waters, including wetlands. Two primary authorities granted to the Army Corps of Engineers by Congress fall under Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act.

**United States Environmental Protection Agency (USEPA)** - USEPA is an agency of the federal government created for the purpose of protecting human health and the environment by writing and

enforcing regulations based on laws passed by Congress. The agency conducts environmental assessment, research, and education. It has the responsibility of maintaining and enforcing national standards under a variety of environmental laws, in consultation with state, tribal, and local governments. It delegates some permitting, monitoring, and enforcement responsibility to US states and the federal recognized tribes. USEPA enforcement powers include fines, sanctions, and other measures. The agency also works with industries and all levels of government in a wide variety of voluntary pollution prevention programs and energy conservation efforts.

**United States Fish and Wildlife Services (USFWS)** - USFWS is a federal government agency within the US Department of the Interior dedicated to the management of fish, wildlife, and natural habitats. Among the service's responsibilities are enforcing federal wildlife laws, protecting endangered species, managing migratory birds, restoring nationally significant fisheries, conserving and restoring wildlife habitat, such as wetlands, helping foreign governments with their international conservation efforts, and distributing money to states' fish and wildlife agencies through the Wildlife Sport Fish and Restoration program.

## **Appendix A**

### **Environmental Inventory Map**

## **Appendix B**

### **Alternatives**

## **Appendix C**

### **Alternatives to be Carried Forward**



## **Appendix C-1**

### **Alternative 5**

## **Appendix C-2**

### **Alternative 16**

## **Appendix C-3**

### **Alternative 28**

## **Appendix C-4**

### **Alternative 29**

## **Appendix C-5**

### **Alternative 30**

## **Appendix D**

### **Wetland Delineation Report**

**See Attached CD for  
Wetland Delineation Report**