

# I-90 Exit 59 (La Crosse Street)

## *Interchange Options Study*



**Public Open House #2**

*February 12, 2014: 5:30 PM – 7:00 PM*

# Study Area



## Study Area:

- I-90
  - Vicinity of La Crosse Street
- La Crosse Street
  - Eglin Street to Disk Drive

# Study Partners



## **Advisory Agencies:**

- South Dakota Department of Transportation (SDDOT)
- City of Rapid City
- Rapid City Area MPO
- Federal Highway Administration

## **Consultant Team:**

- HDR

## **Public Members/Stakeholders:**

- Landowners and Business Owners
- Traveling Public and Concerned Citizens

# Study Contacts



## SDDOT Project Manager:

Steve Gramm, PE

Project Development, Data Analysis Engineer

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Phone: 605-773-6641

## Consultant Team Contacts:

Jody Page, PE

Contract Manager

[jody.page@hdrinc.com](mailto:jody.page@hdrinc.com)

Phone: 605-791-6100

Brian Ray

Project Manager

[brian.ray@hdrinc.com](mailto:brian.ray@hdrinc.com)

Phone: 402-548-5066

# Why the Study?



## South Dakota Decennial Interstate Corridor Study (2010)

- **Review of Findings:**
  - Interchange serves the growing north-northeast edge of the community
  - Interchange is becoming increasingly congested
  - Interchange has elevated crash rates
  - Adjacent access is below minimum standard
- **Recommendations:**
  - Interchange improvements to improve capacity and improve safety

# What is the Purpose and Need for this Project?



- Improve capacity
- Improve safety



# Study Process



## Study Process / Timeline:

**July / October 2012** – Data Collection (*completed*)

**October / November 2012**– Traffic Assessment (*completed*)

**November 28 / 29, 2012**– Public and Stakeholder Meetings (*completed*)

**December 2012 / December 2013** – Develop Alternatives (*completed*)

**February 2014** – Public and Stakeholder Meetings

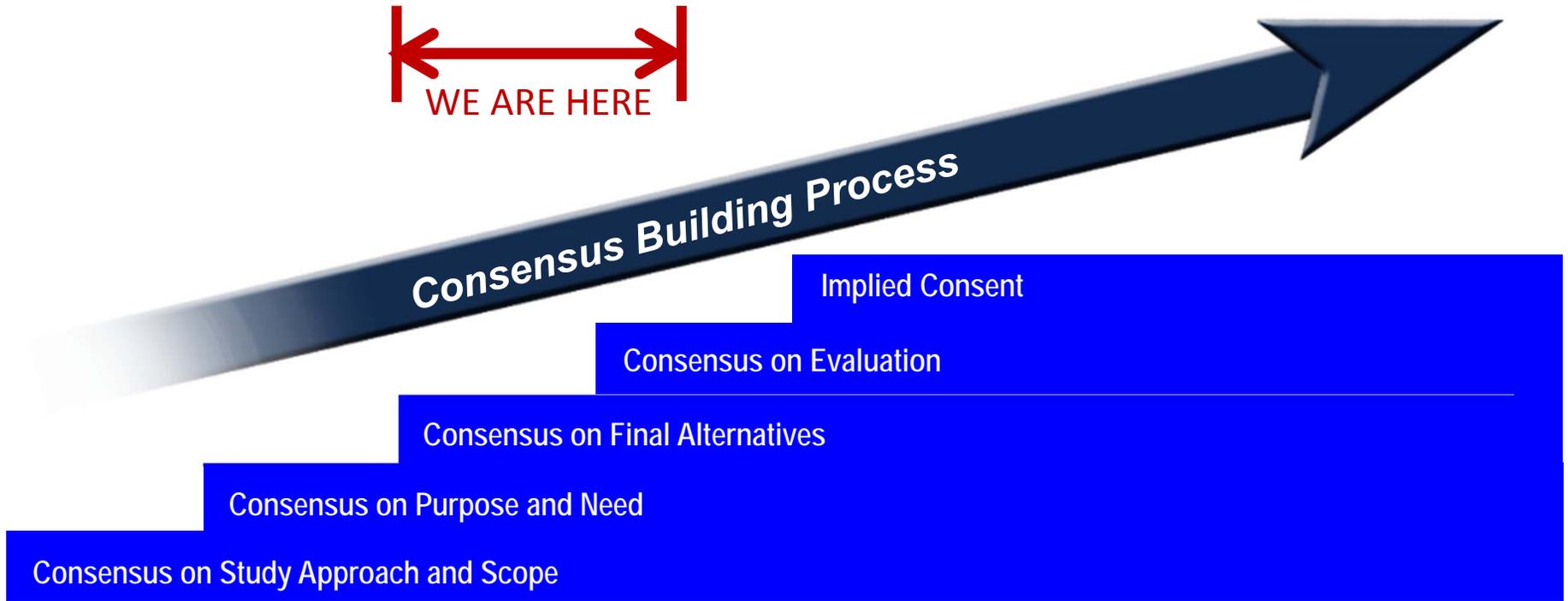
**March / May 2014** – Refine and Analyze Alternatives

**June / July 2014** – Public Meeting

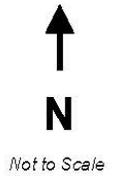
**August / September 2014** – Complete Study Document

**October 2014** – Present Final Study and Make Recommendations

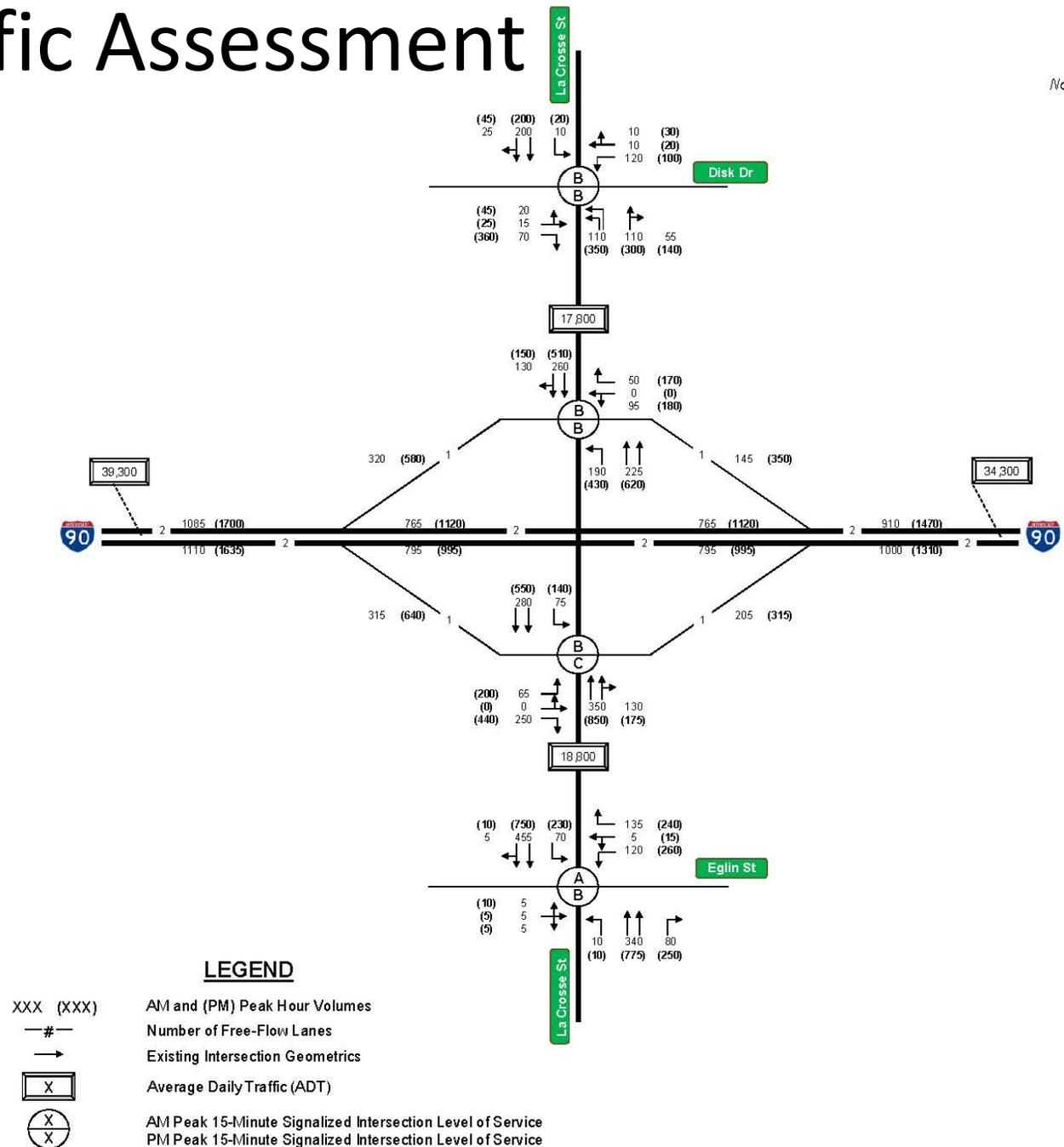
# Steps of the Environmental Process



# Existing Traffic Assessment



- All Study Area Intersections Operate at Level of Service 'C' or Better

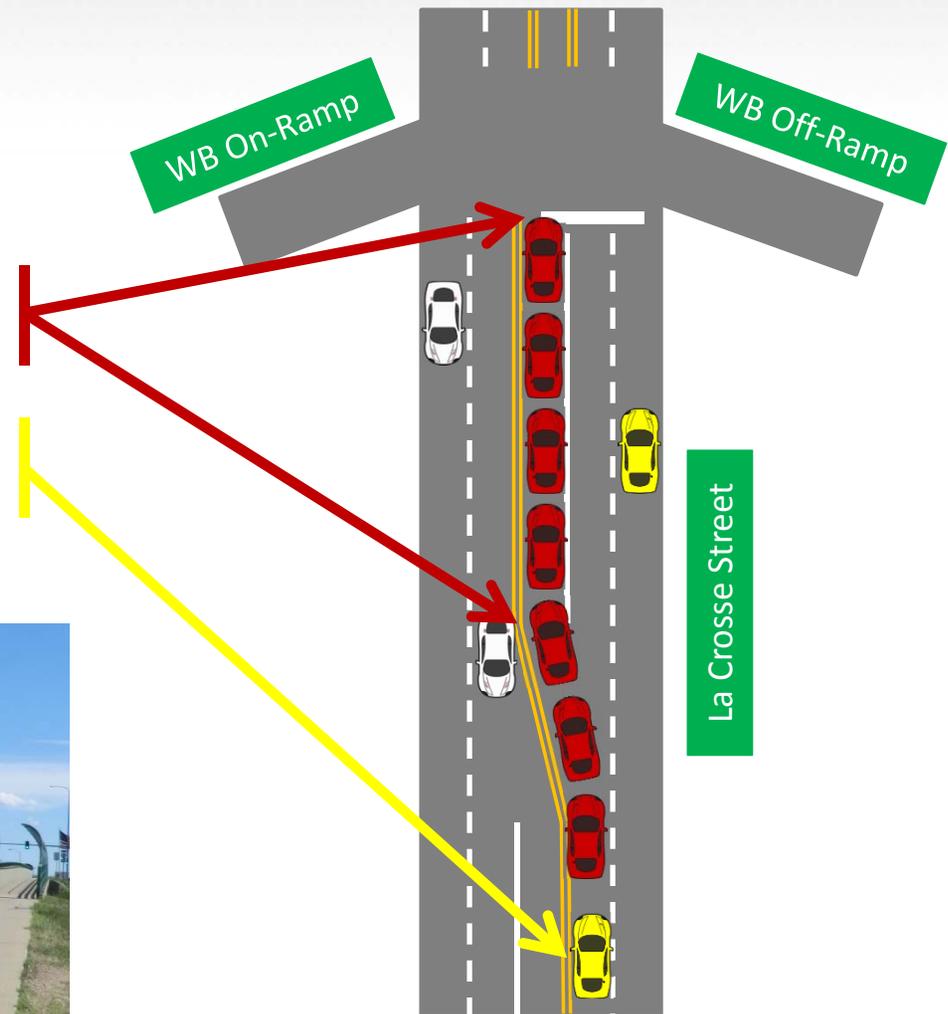


# Existing Traffic Assessment

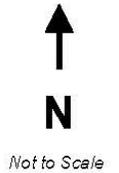


## La Crosse Street / I-90 Westbound Ramp

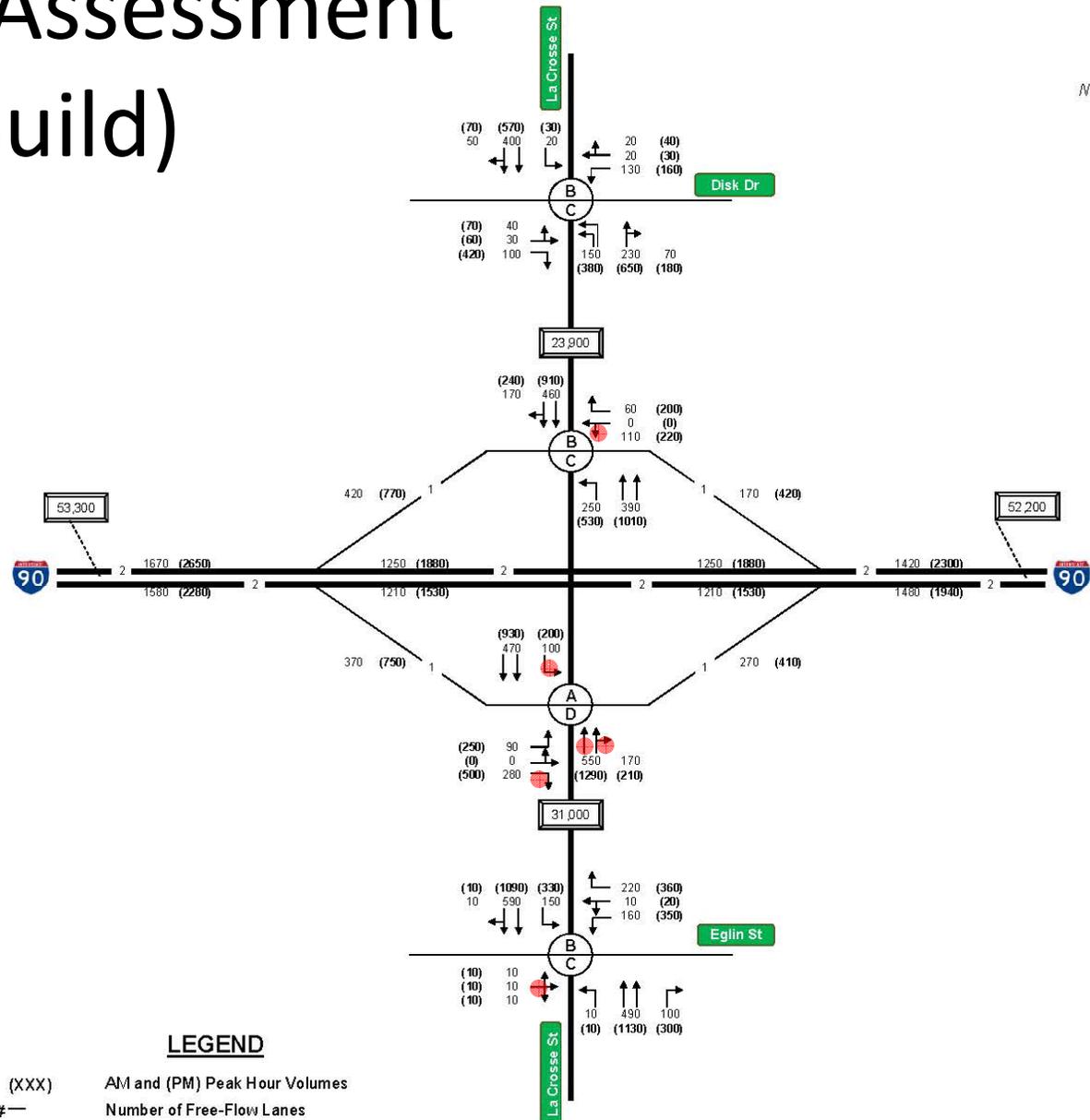
- Northbound Left Turn Vehicles Exceed Capacity
- Blocks Northbound Inside Through Lane



# 2035 Traffic Assessment (No-Build)



- Traffic Volumes Projected to Increase between 35% to 65% on La Crosse by 2035
- La Crosse/I-90 Eastbound Ramp Intersection – LOS 'D' (PM Peak)
- Multiple Individual Movements LOS 'F' (PM Peak)



## LEGEND

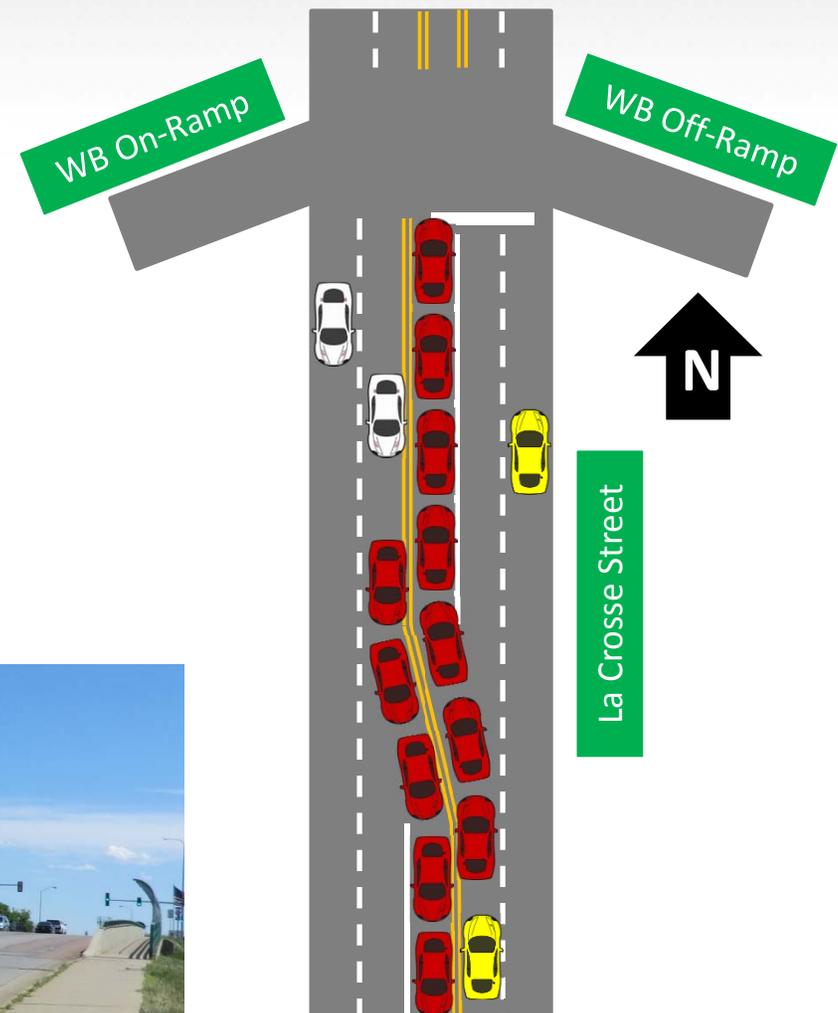
XXX (XXX)	AM and (PM) Peak Hour Volumes
—#—	Number of Free-Flow Lanes
→	Existing Intersection Geometrics
<span style="border: 1px solid black; padding: 2px;">X</span>	Average Daily Traffic (ADT)
<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">X</span>	AM Peak 15-Minute Signalized Intersection Level of Service
<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">X</span>	PM Peak 15-Minute Signalized Intersection Level of Service

# 2035 Traffic Assessment (No-Build)



## Vehicle Queue Exceeds Available Storage at Multiple Locations:

- La Crosse Street/I-90 EB Ramps
  - Eastbound Left/Right Turn Lanes
  - Southbound Left Turn Lane
- La Crosse Street/I-90 WB Ramps
  - Northbound Left Turn Lane



# Control of Access

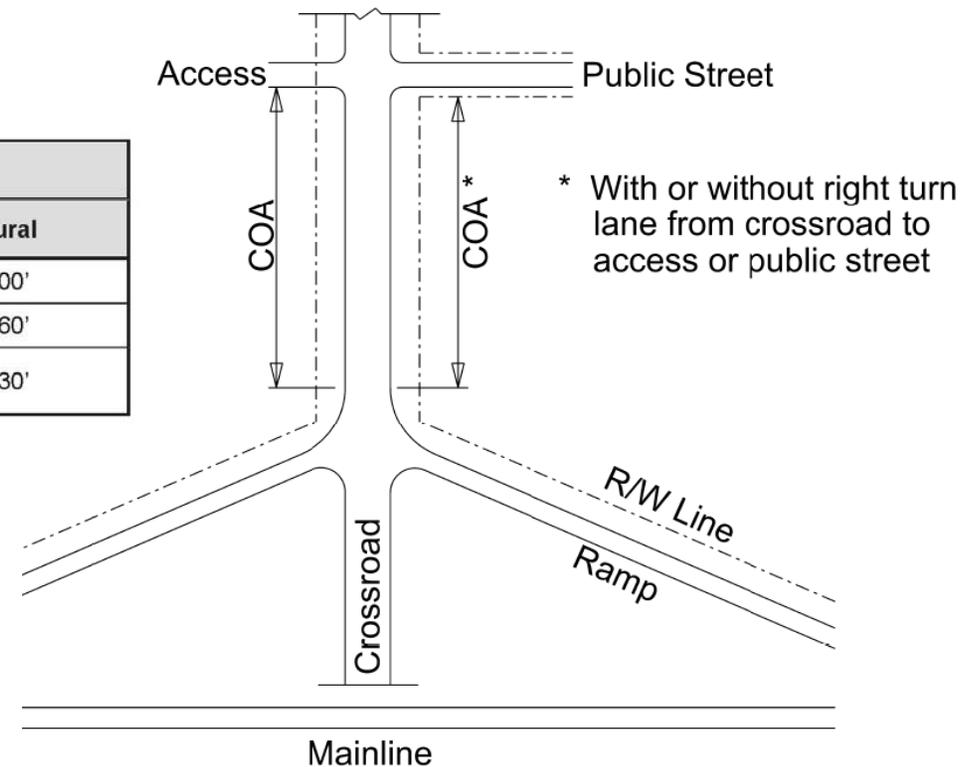


## SDDOT Roadway Design Manual – *Control of Access*

Table 13-6 Minimum Control of Access \*

Type of Improvement	Control of Access <sup>1</sup>	
	Urban	Rural
Reconstruction of Existing Interchange <sup>2,3</sup>	100'	300'
Construction of New Interchange <sup>3</sup>	660'	660'
Reconstruction and Construction of Grade Separated Crossing <sup>3</sup>	330'	330'

\* These distances are considered minimum per the current AASHTO *A Policy on Design Standards Interstate System*, July 2005



# Interchange Options



## Option 1

- Diamond Interchange

## Option 2a, 2b, 2c

- Single Point Urban Interchange

## Option 3a, 3b

- Diverging Diamond Interchange

# Interchange Option 1

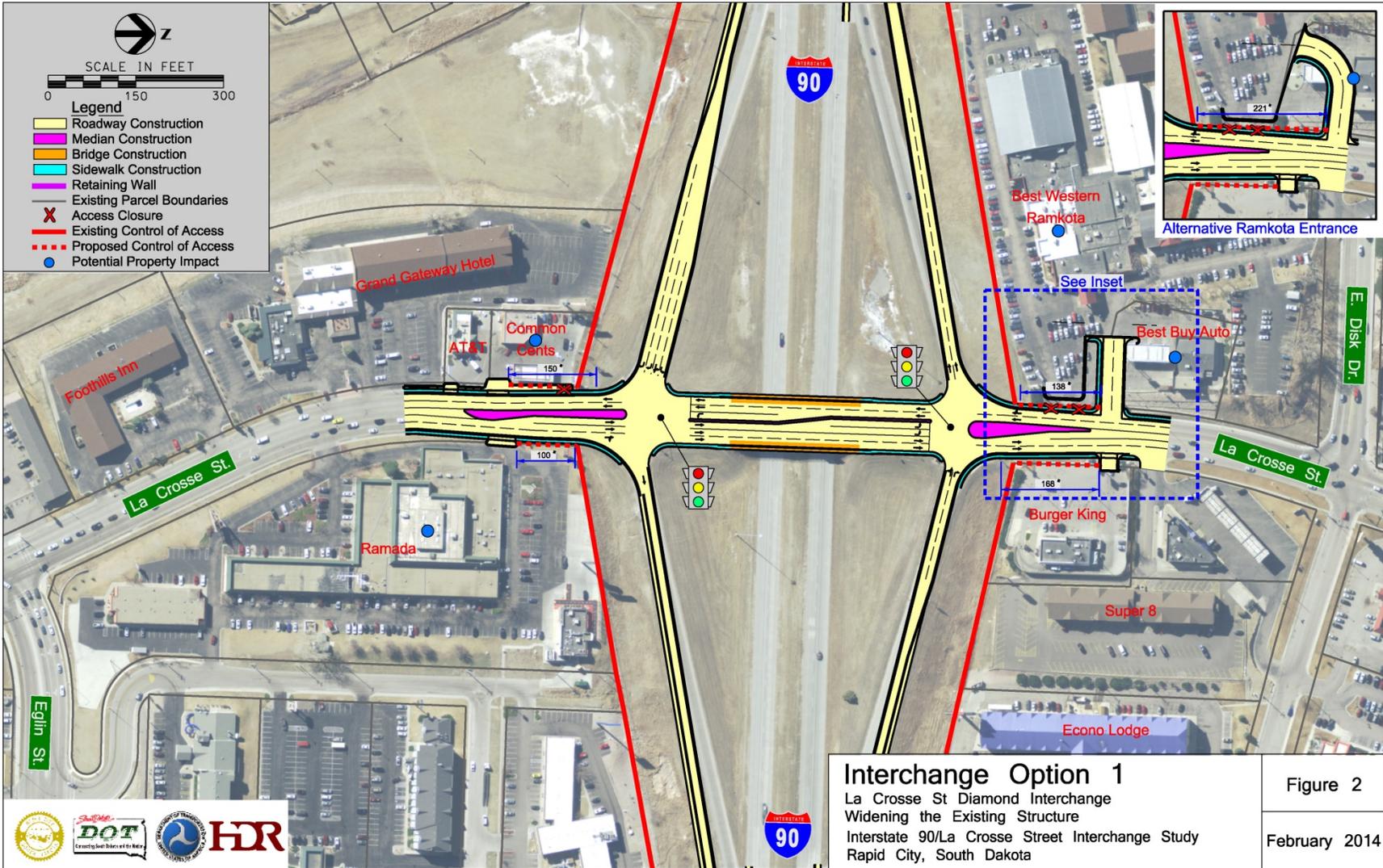


Figure 2

February 2014



# Interchange Option 2a

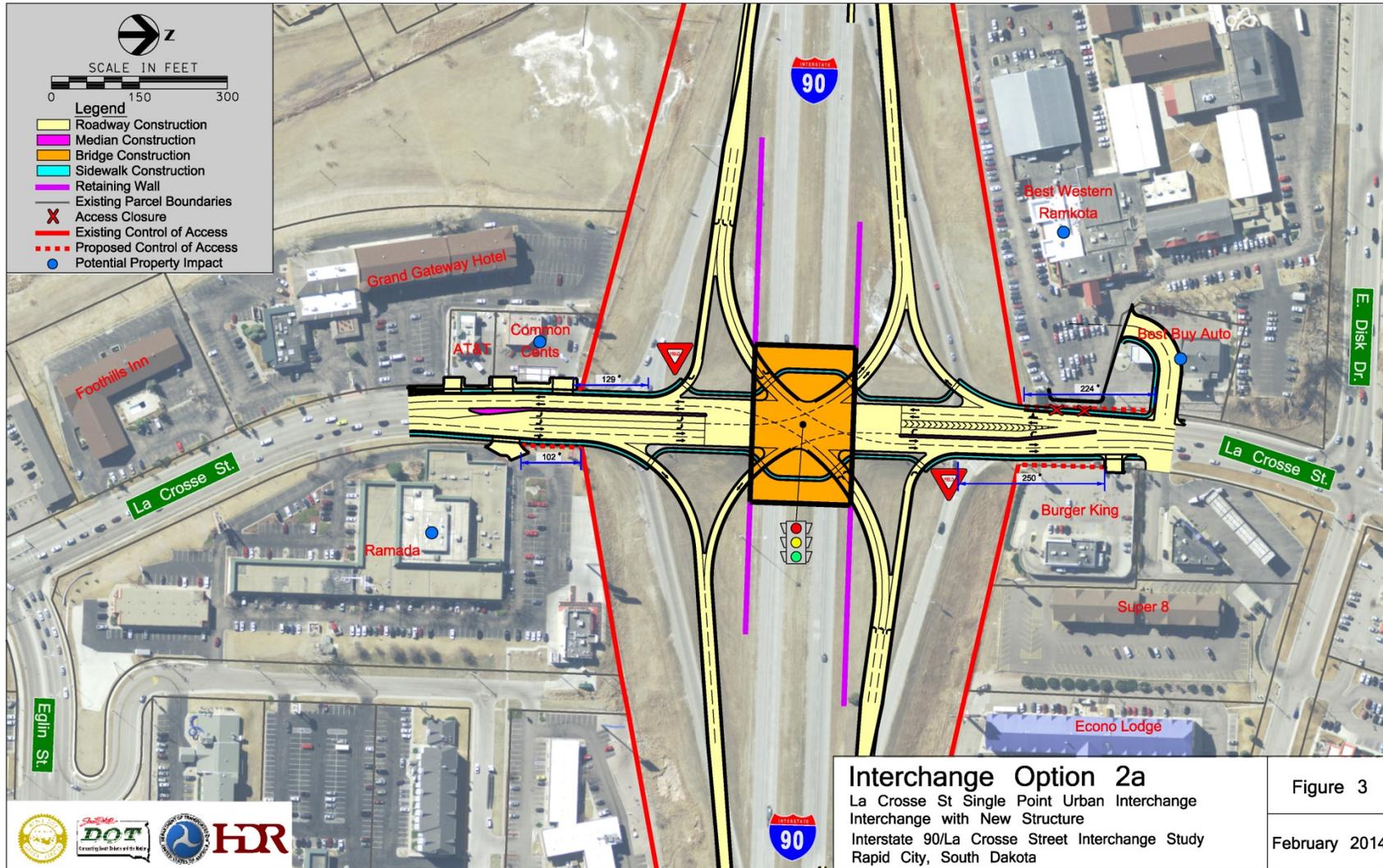
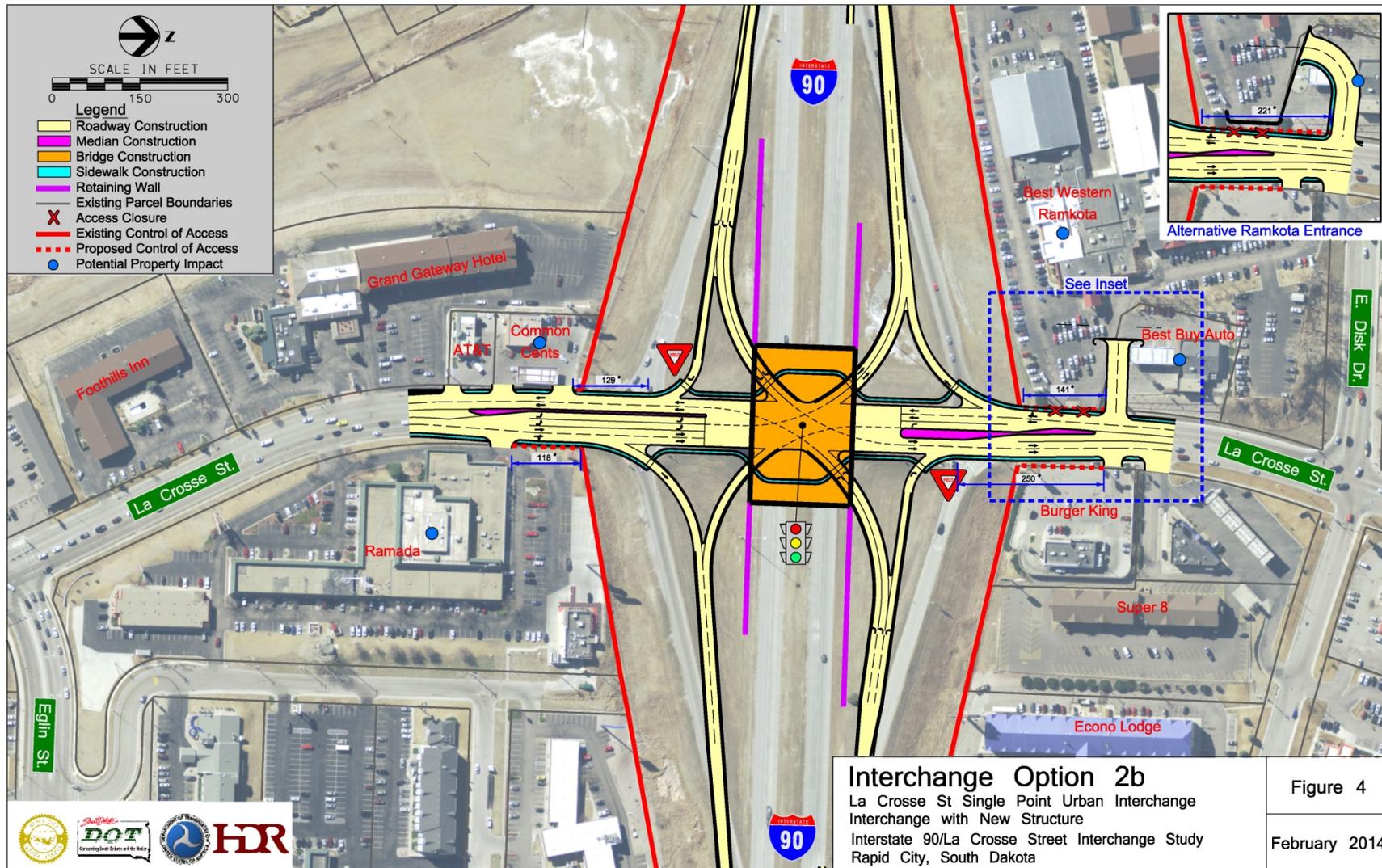


Figure 3

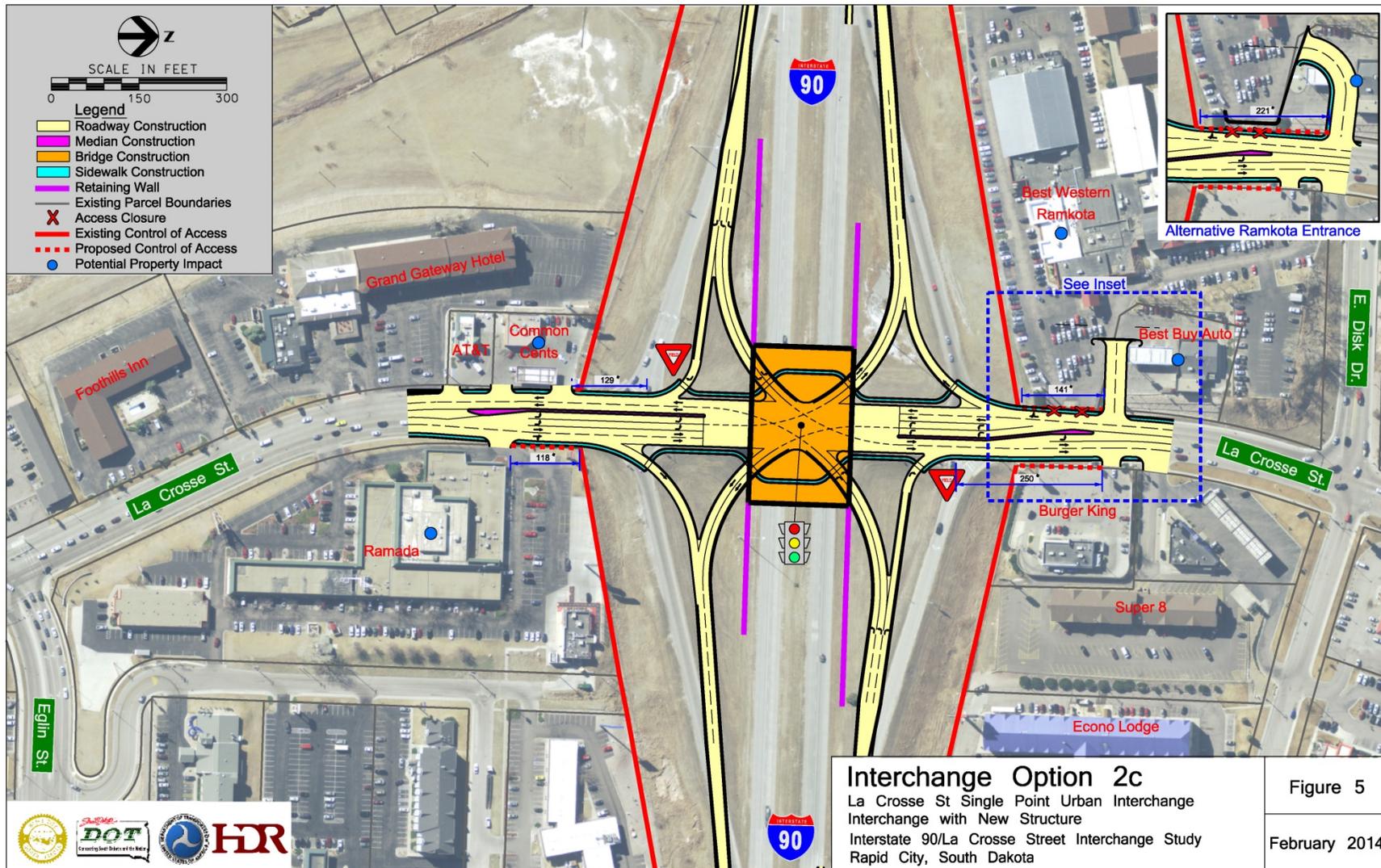
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# Interchange Option 2b



# Interchange Option 2c



# Interchange Option 3a

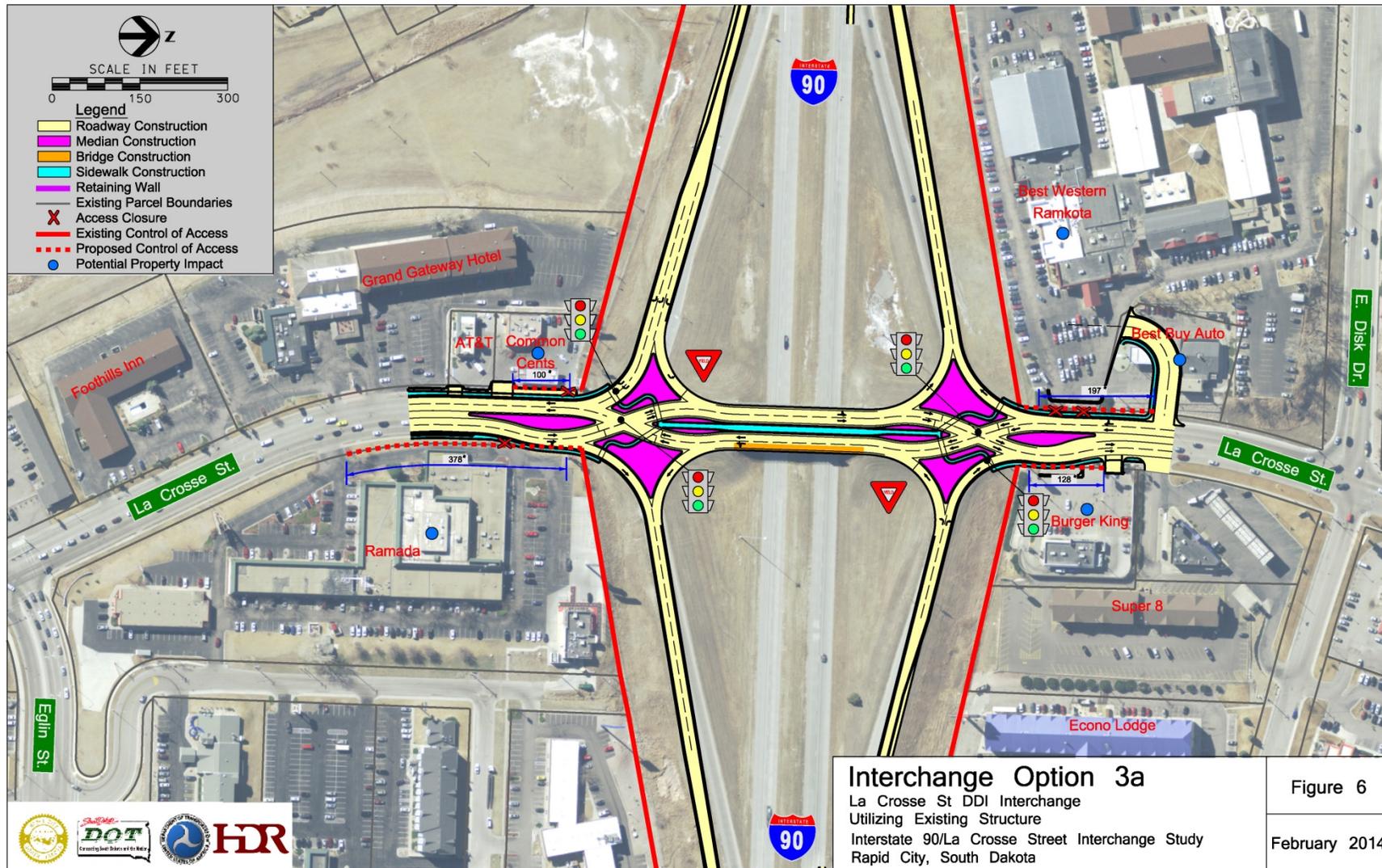


Figure 6  
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# Interchange Option 3b

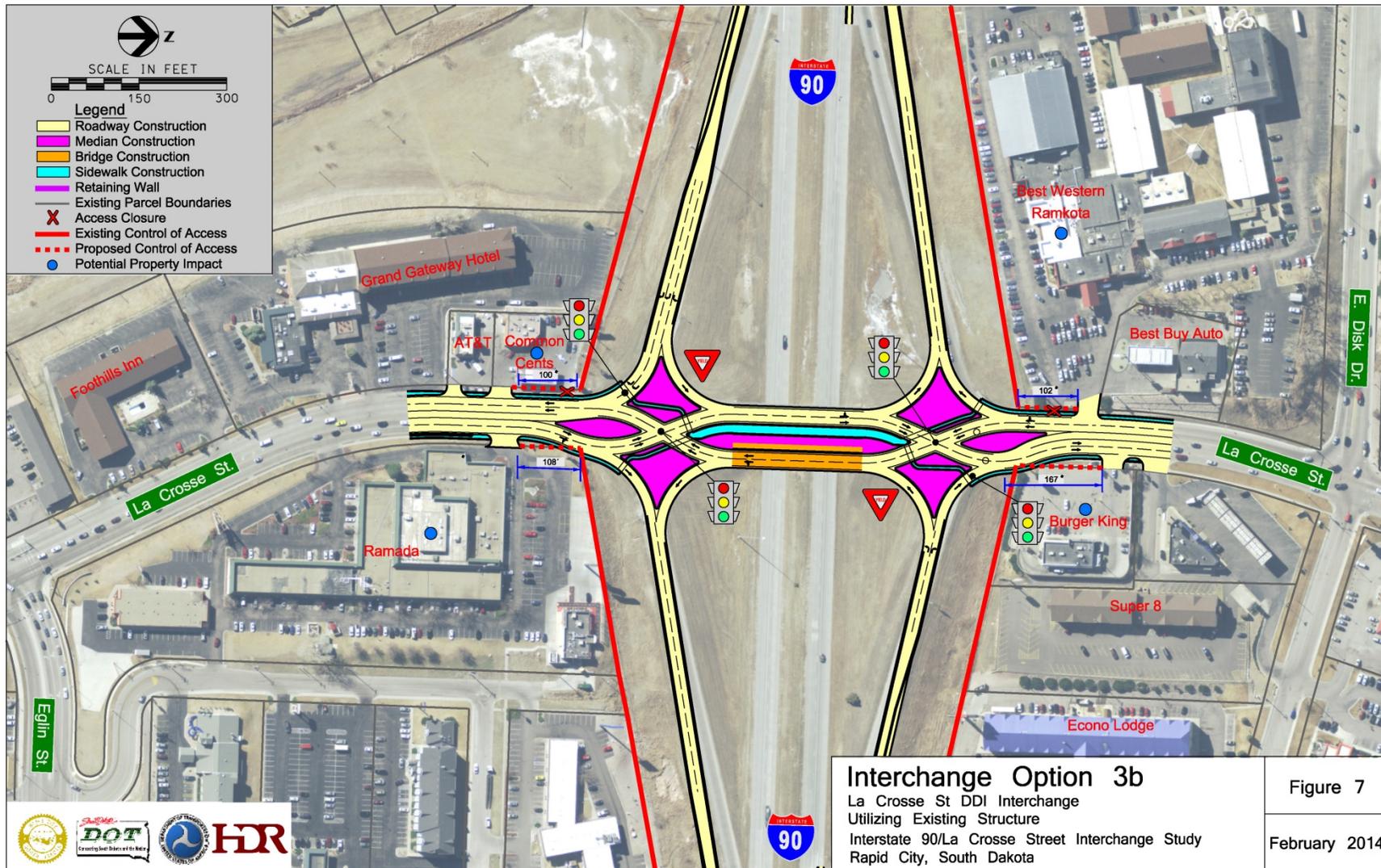


Figure 7

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# Next Steps



- Obtain & Review Public Comments and Ideas
- Refine Concepts and Evaluate
- Review Environmental Impacts
- Conduct Evaluation

# Project Website



The screenshot shows the South Dakota DOT website. The header includes the DOT logo and the text "SOUTH DAKOTA DOT DEPARTMENT OF TRANSPORTATION". A navigation menu contains links for HOME, TRANSPORTATION, DOING BUSINESS, TRAVELERS, PROGRAMS/SERVICES, INSIDE THE DOT, RESOURCES, and SITE MAP. The main content area is titled "La Crosse St. (Exit 59) in Rapid City" and includes a breadcrumb trail: Home > Special Studies > La Crosse St. (Exit 59), Rapid City. The page content is organized into sections: "Reason for Study:" which states that the 2010 Decennial Update to the Interstate Corridor Study identified the I-90 Exit 59 interchange as a top priority for improvement; "Study Limits:" which notes the study will examine the interchange's influence area; "Public Involvement" which describes the department's commitment to public participation; and "Public Meetings" which lists a meeting on November 29, 2012, with links for a "Meeting Handout" and "Meeting Presentation". A footer at the bottom right of the page contains the text "Internet | Prote".

<http://www.sddot.com/transportation/highways/planning/specialstudies/lacrosse/default.aspx>

# Comment Form



## Interstate 90 Exit 59 (La Crosse Street) Interchange Options Study

**WE WANT TO KNOW WHAT YOU THINK!** What are your specific areas of concern and issues you see on the interchange project? What do you feel the SDDOT and the consulting engineer need to take into account? Please submit your comments before March 29th, 2014 to:

**Mail:** HDR Engineering, Inc.  
ATTN: Jody Page  
703 Main St, Ste 200  
Rapid City, SD 57701  
Project website: [www.sddot.com/transportation/highways/planning/specialstudies/lacrosse/default.aspx](http://www.sddot.com/transportation/highways/planning/specialstudies/lacrosse/default.aspx)

**E-mail:** [jody.page@hdrinc.com](mailto:jody.page@hdrinc.com)

**Fax:** 605-791-6161

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(optional)

Name: \_\_\_\_\_ Address: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

# I-90 Exit 59 (La Crosse Street)

*Interchange Options Study*



**THANK YOU FOR  
PARTICIPATING!**

