



I-494: Airport to 169

Corridors of Commerce Project Limit
Study Area

miles 0 .5 1



m1 DEPARTMENT OF
TRANSPORTATION

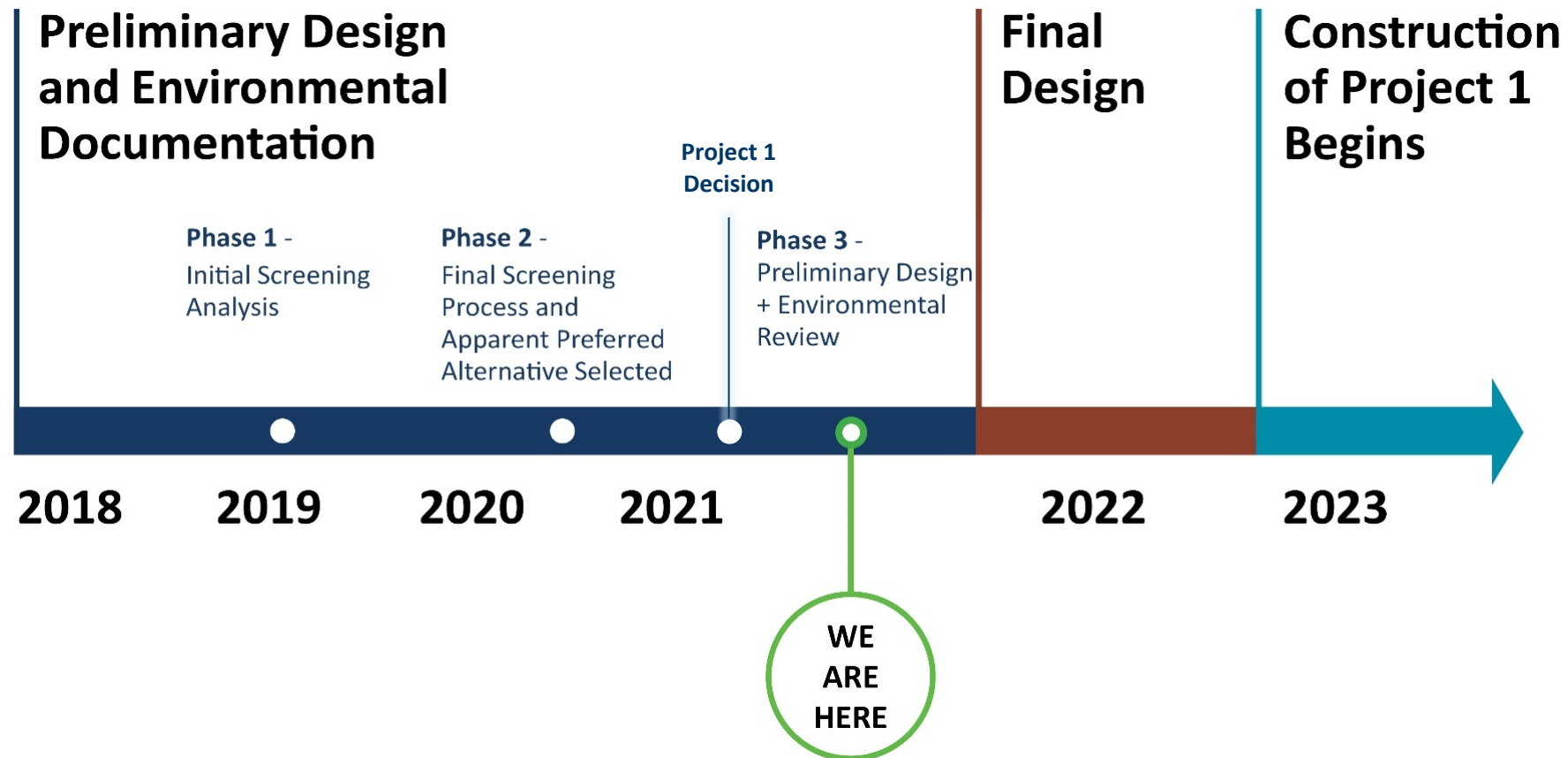
I-494: Airport to 169 City of Richfield

April 15, 2021

Goals

- Reduce traffic congestion
- Improve safety for all users
- Update infrastructure
- Improve drainage systems + reduce flooding and run-off
- Improve connectivity for pedestrian and bicyclists across Hwy 494

Background



I-494 Vision



MnPASS from Hwy 169 to Hwy 77



I-35W/I-494 interchange ramps



Access changes at Nicollet, Portland and 12th

Implementation Plan

Project 1

Elements 3, 4, and 7

Project 2

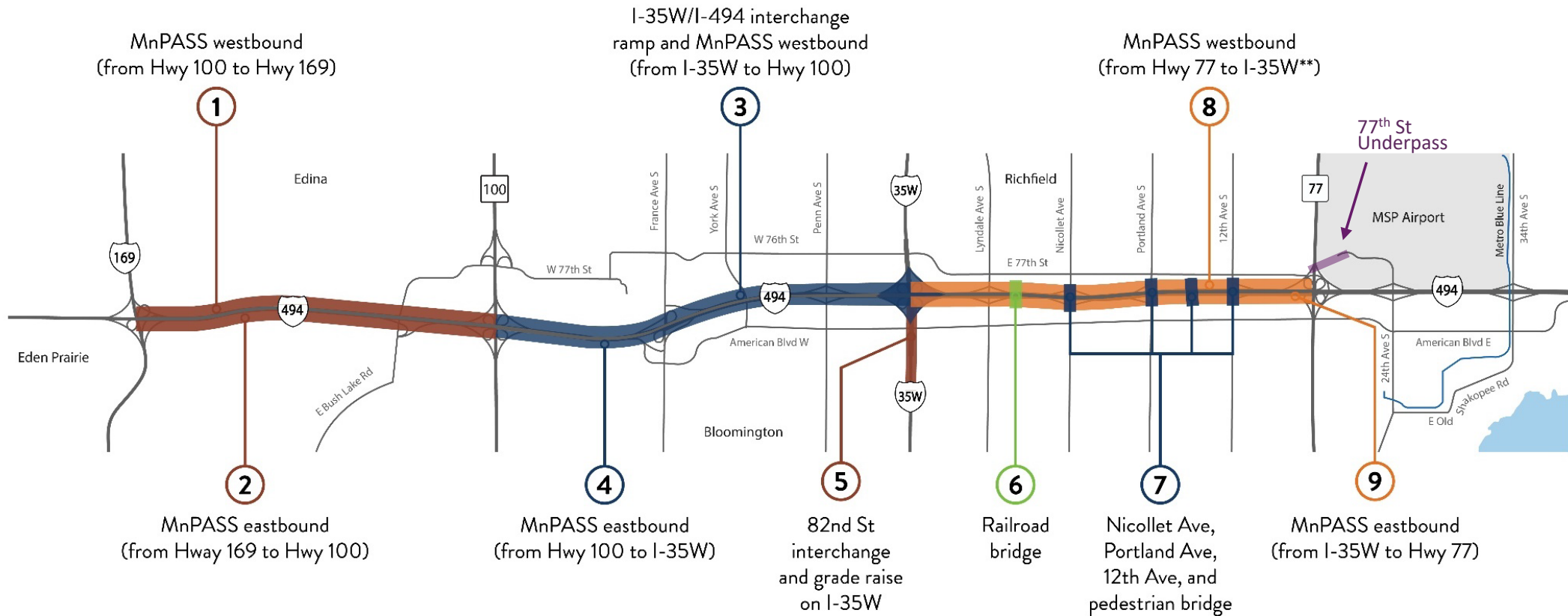
Element 6

Project 3

Elements 8 and 9

Project 4

Elements 1, 2, and 5



Summary of Outreach

Hwy 100 to France

4/1/2021
5:00pm-6:00pm

- 59 participants
- Questions on:
 - Sidewalks
 - Safety at intersection of France and Minnesota Drive/494 Ramps

2nd Meeting – April 28 at 5pm

I-35W/494 Interchange

4/6/2021
5:00pm-6:00pm

- 85 participants
- Questions on:
 - How drivers get to certain destinations
 - Why ramps remain north of 82nd St
 - East frontage road

2nd Meeting – April 27 at 5pm

Nicollet, 12th & Portland Business Session

4/7/2021
10:00am-11:00am

- 14 participants
- Questions on:
 - Future access and changes to frontage road

2nd Meeting – April 29 at 5pm

Nicollet, 12th & Portland Public Session

4/7/2021
5:00pm-6:00pm

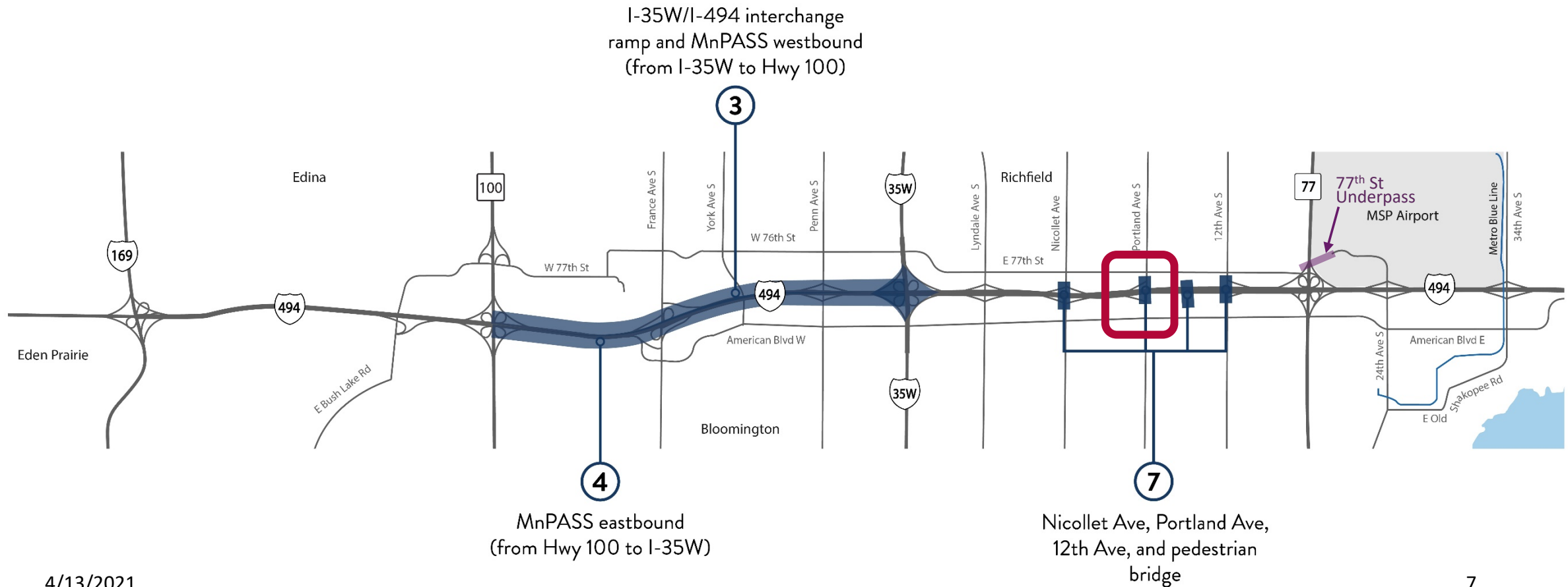
- 63 participants
- Questions on:
 - Future Portland configuration
 - Frontage Road changes
 - Traffic pattern changes

2nd Meeting – April 29 at 5pm

- Comments collected through April 26th

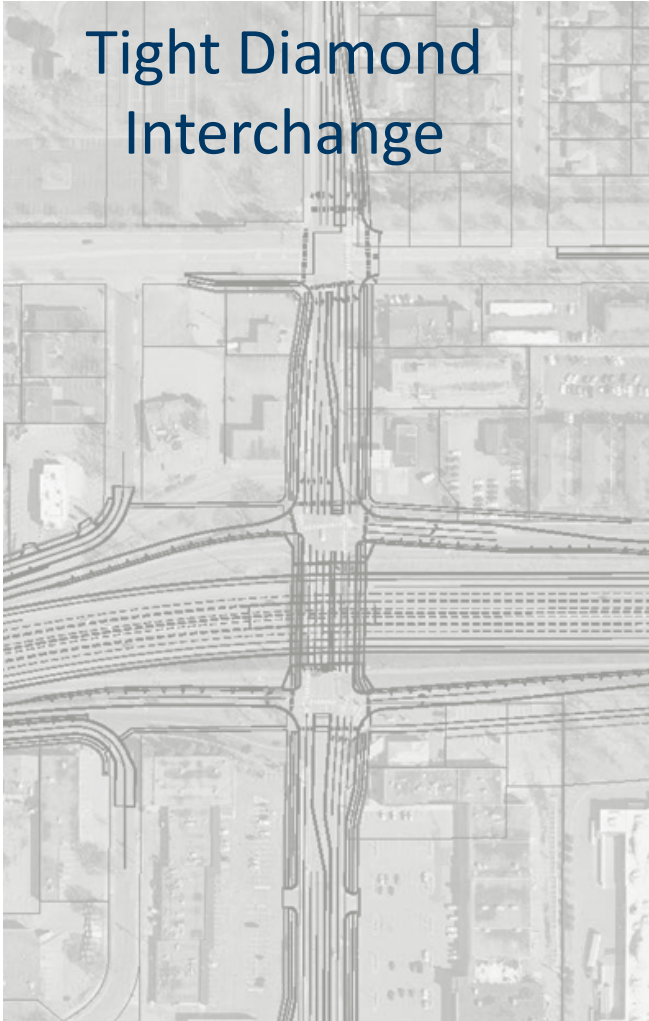
Portland Changes

 Portland Area

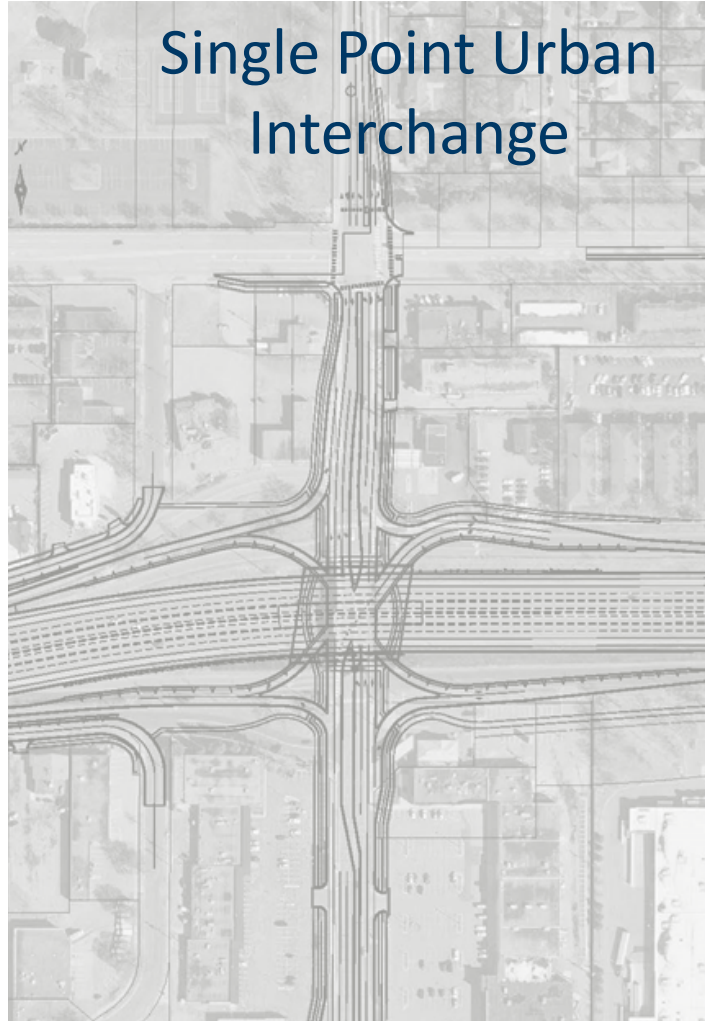


Geometry

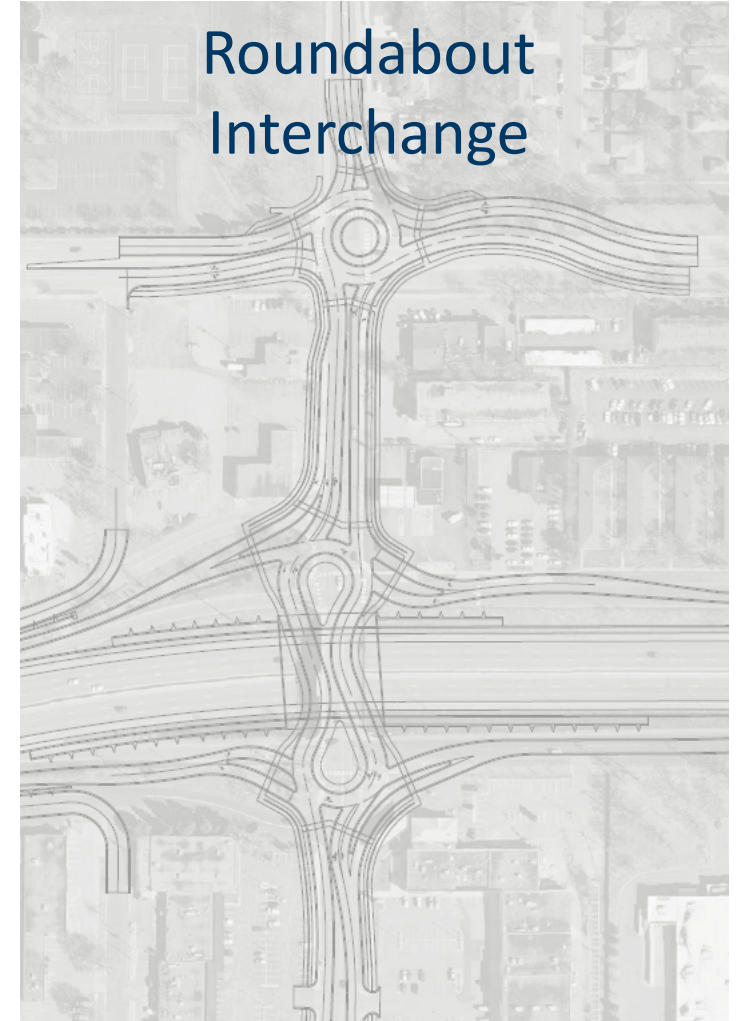
Tight Diamond
Interchange



Single Point Urban
Interchange

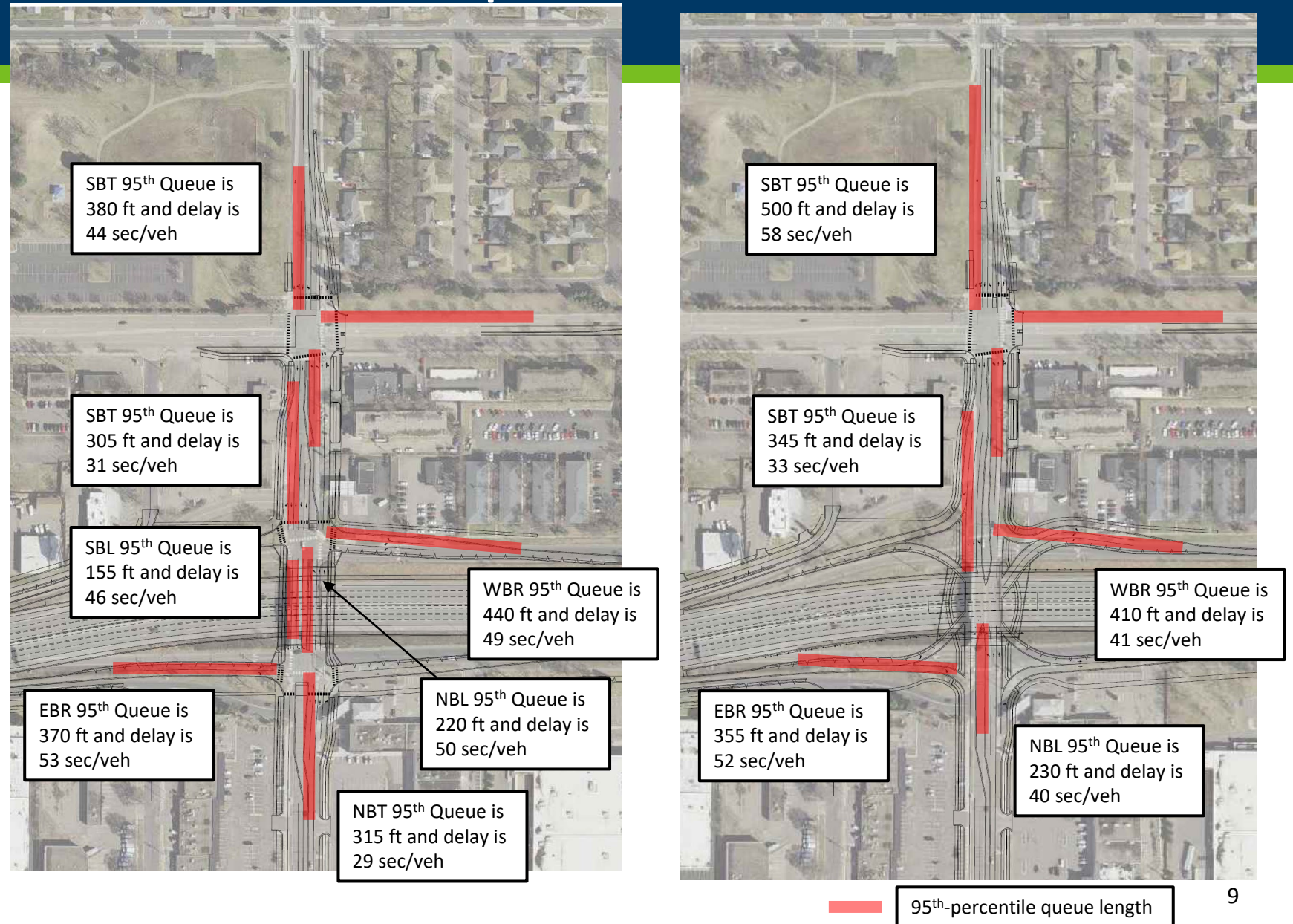


Roundabout
Interchange



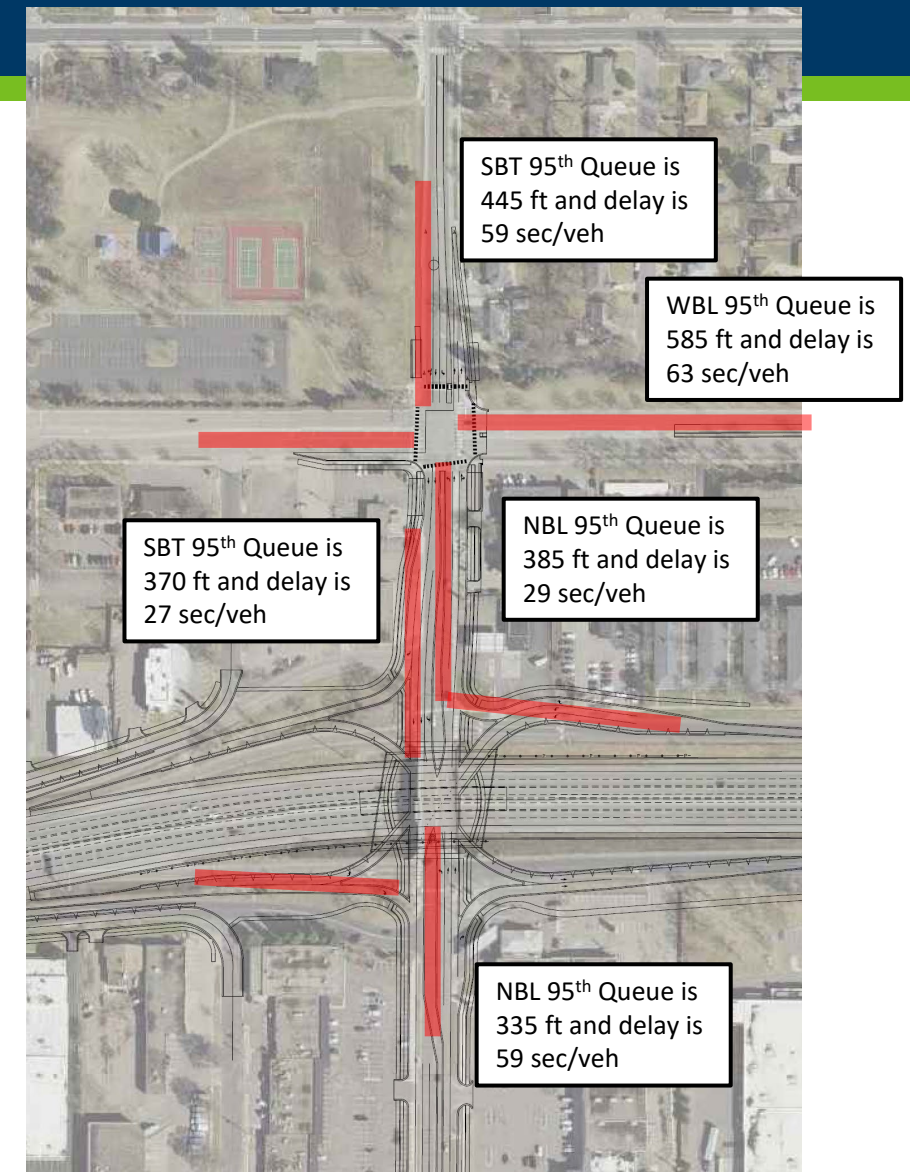
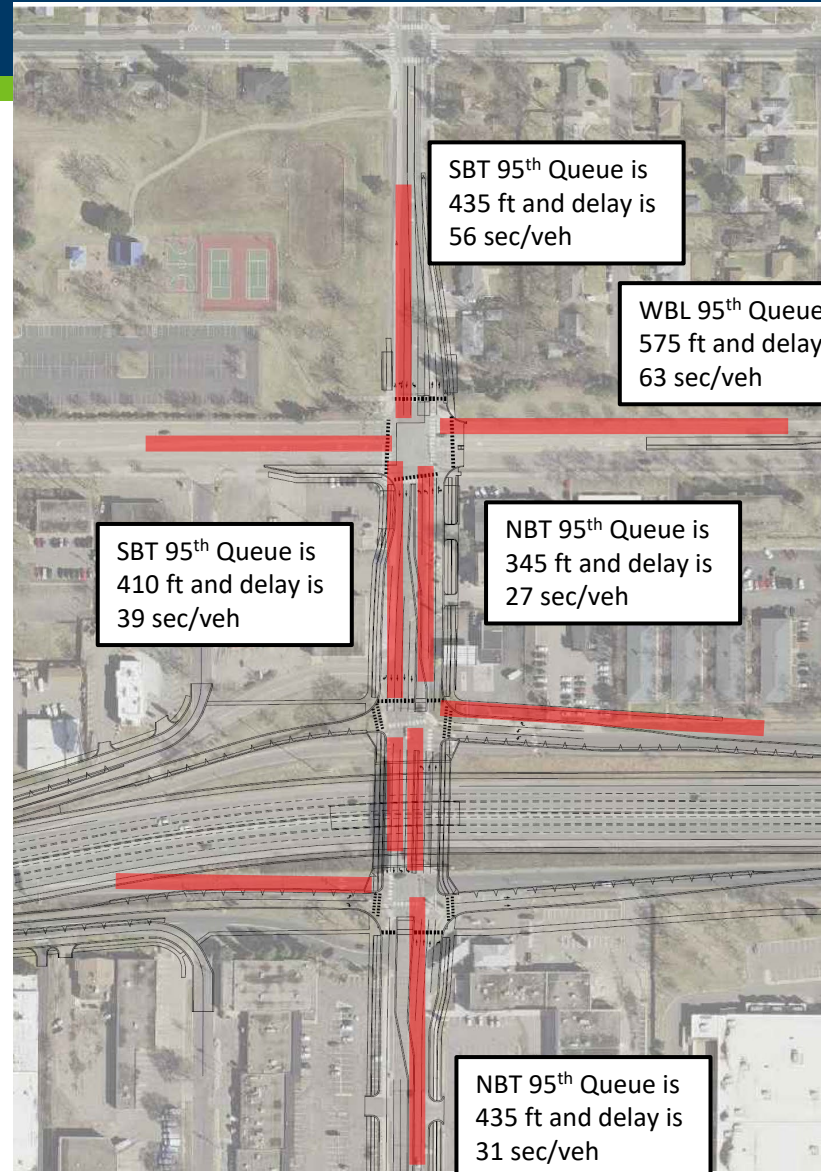
Traffic Operations – AM Peak Hour

- Overall operations are similar between TDI and SPUI based on assumed geometry for each one
- D-Line operations not included in the traffic analysis yet



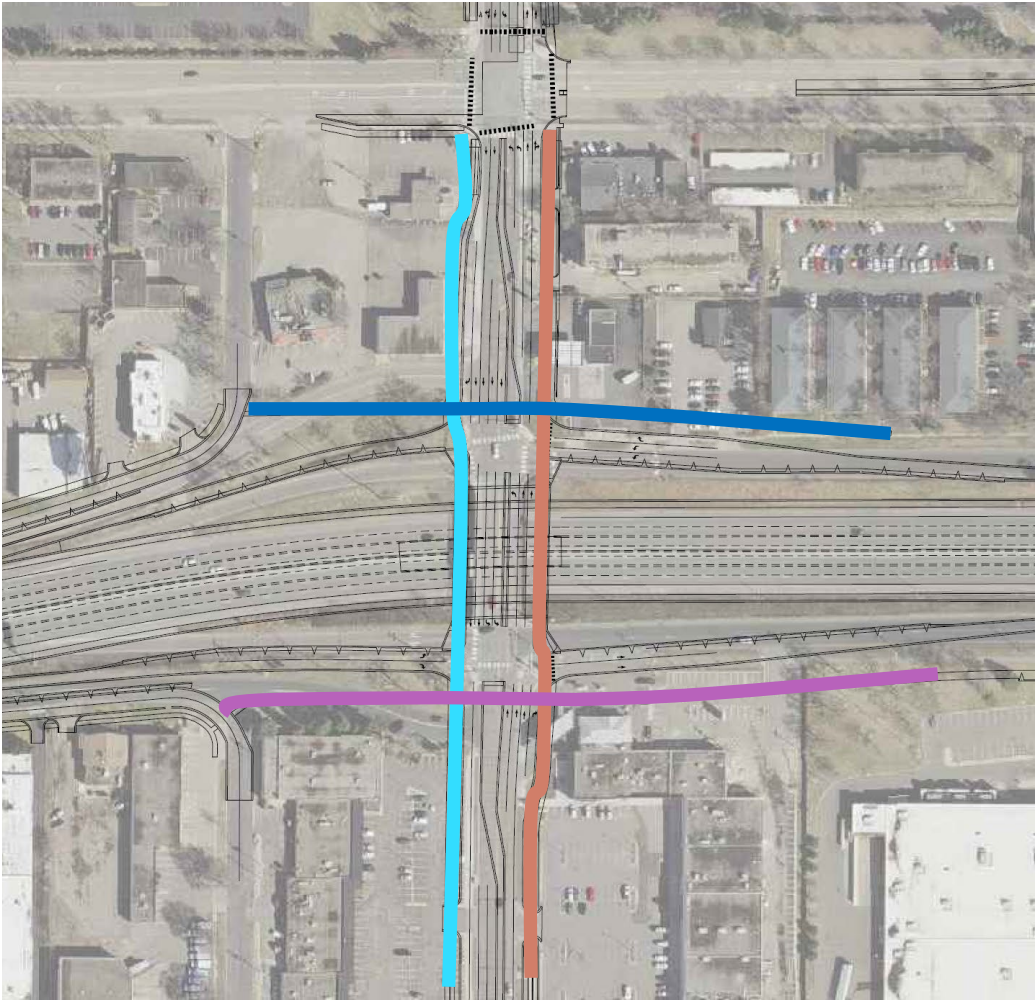
Traffic Operations – PM Peak Hour

- Overall operations are similar between TDI and SPUI based on assumed geometry for each one
- D-Line operations not included in the traffic analysis yet

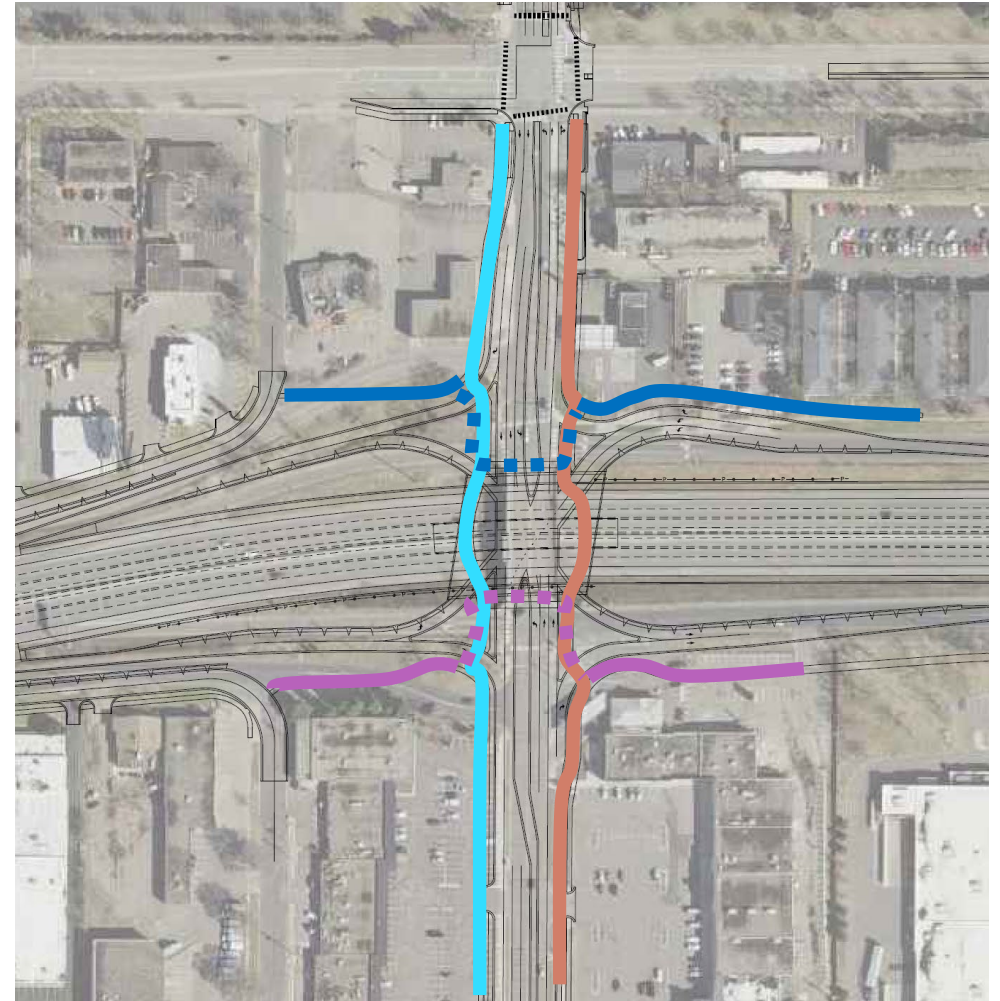


95th-percentile queue length

Pedestrian and Bike movements

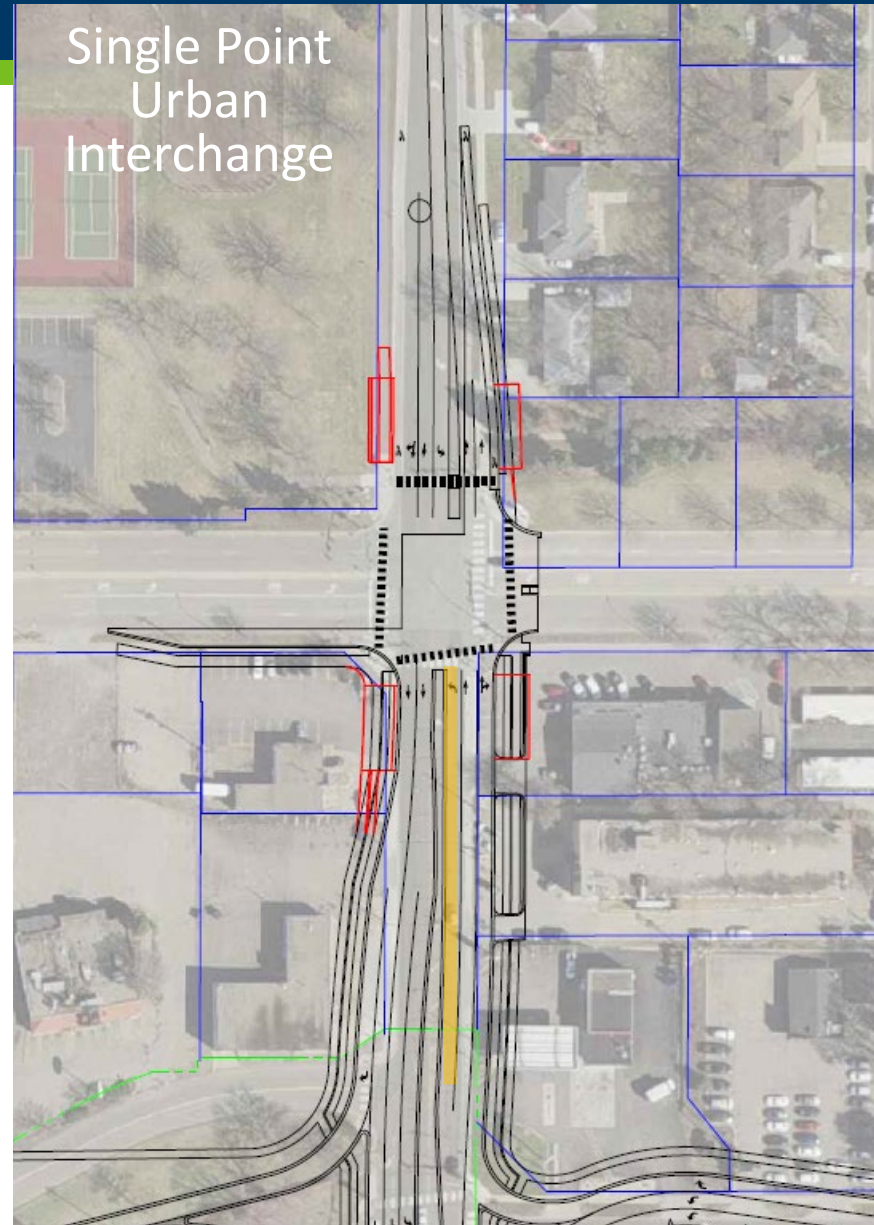
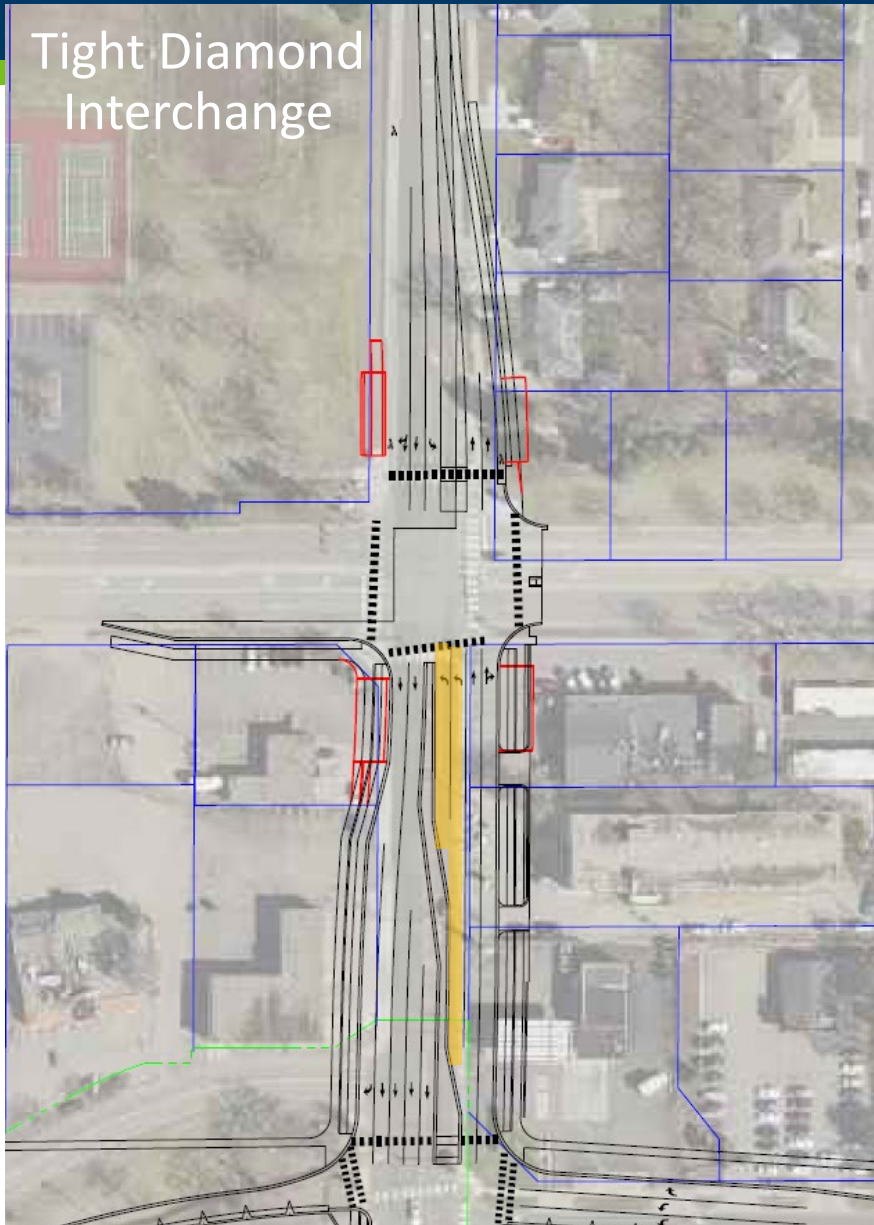


4/13/2021

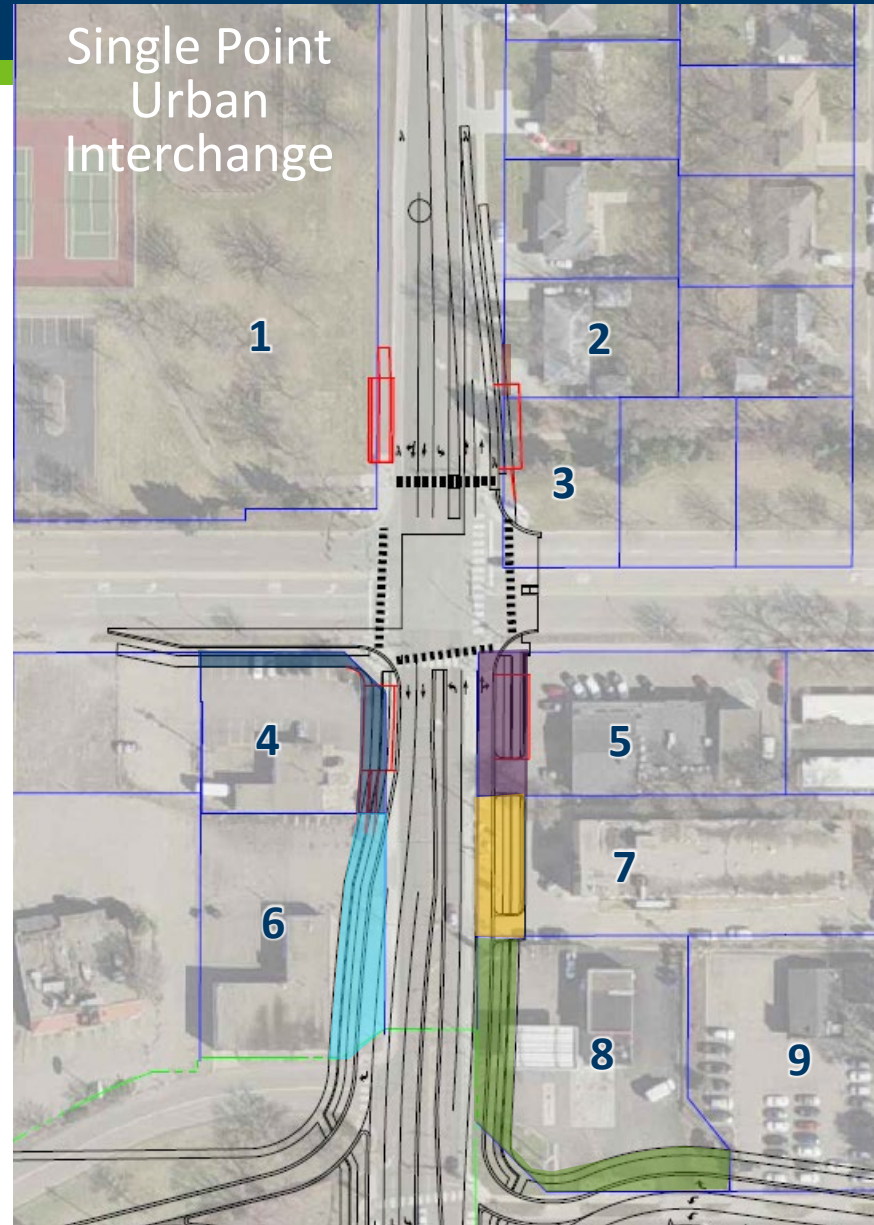
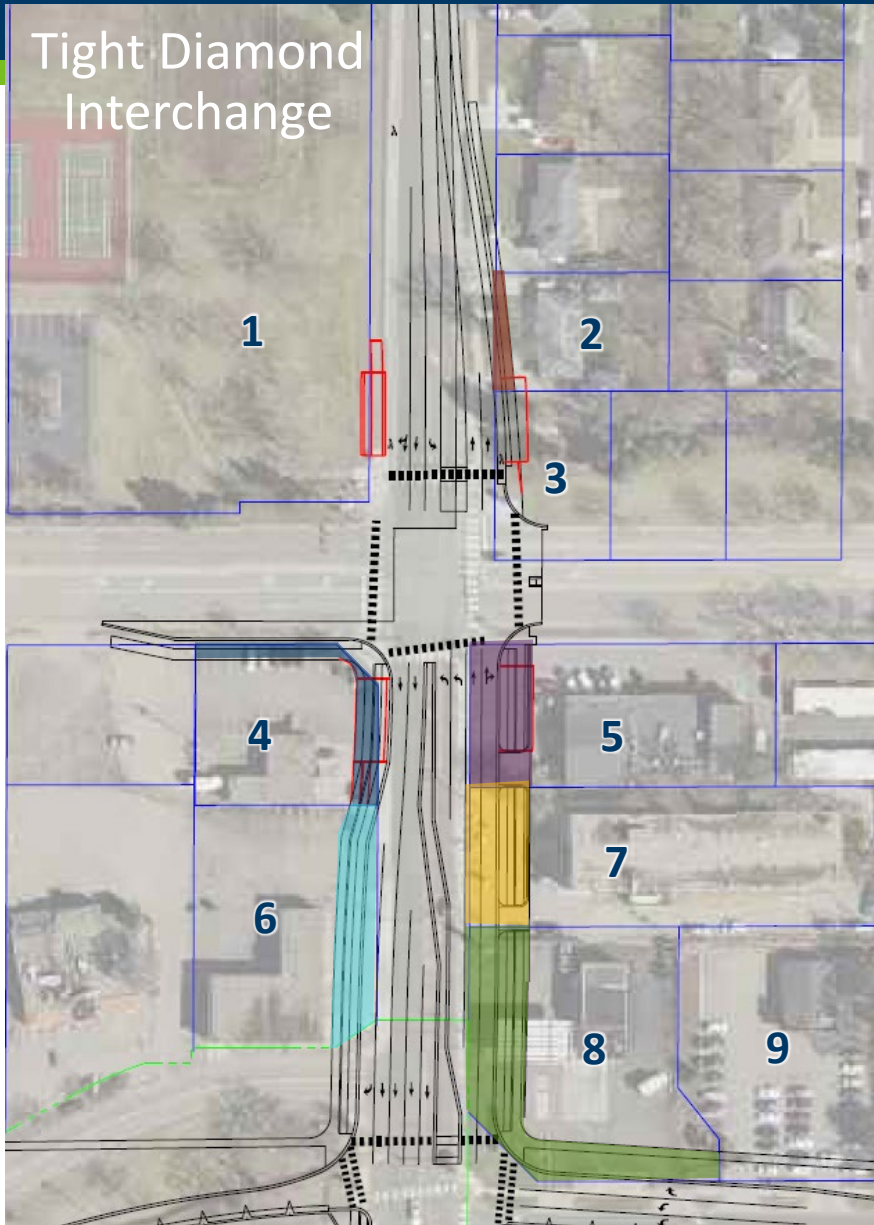


11

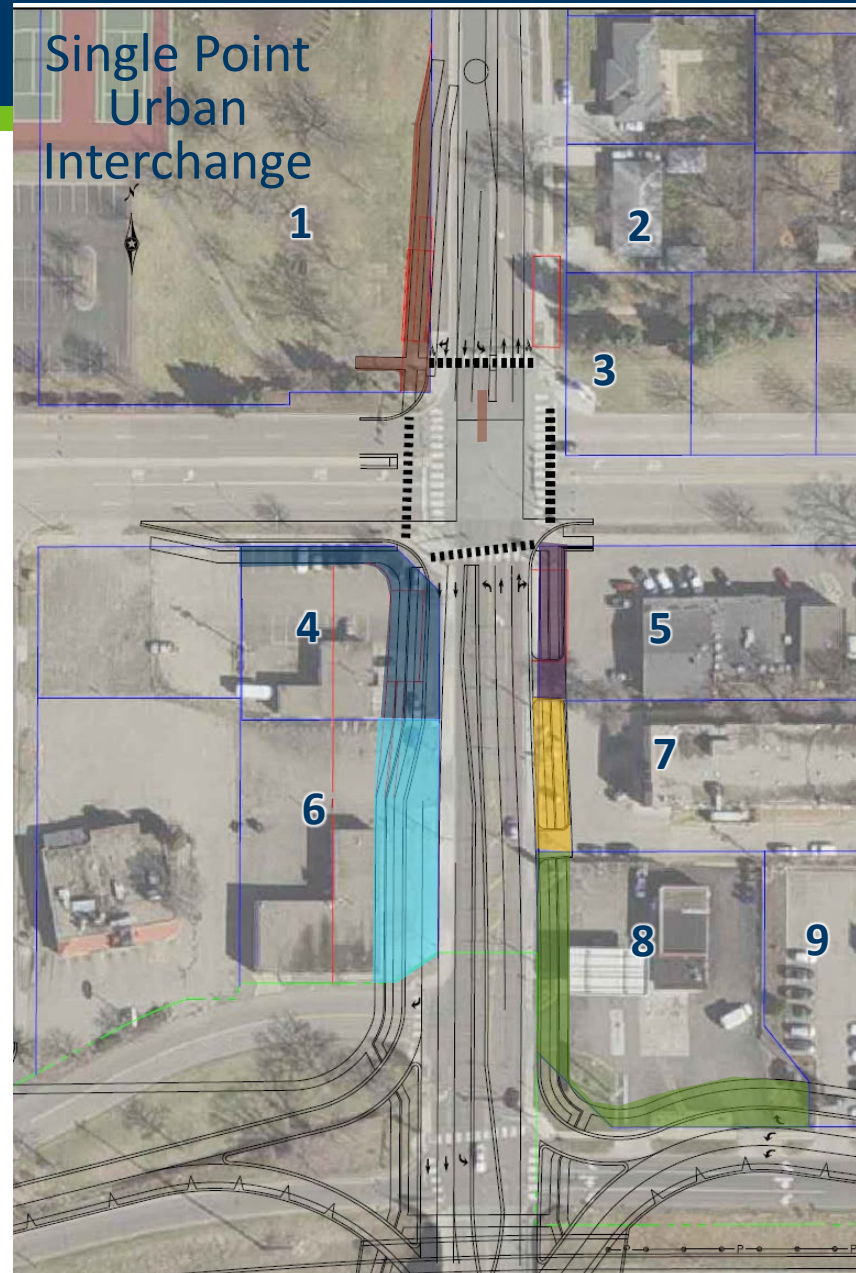
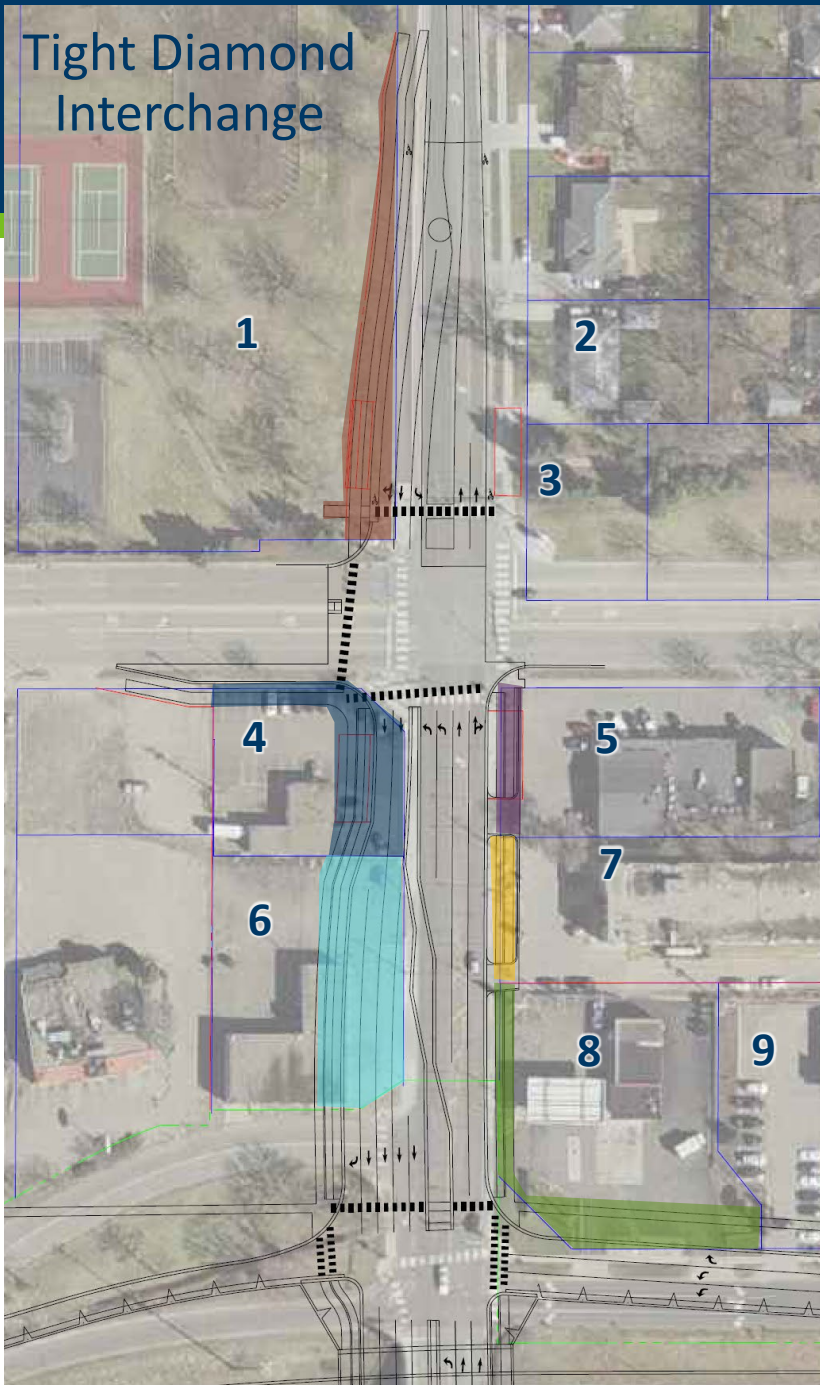
77th Street Geometry



ROW Impacts – Shift to East



ROW Impacts – Shift to West



Comparison of Options

Tight Diamond Interchange (TDI)

Pros:

- Pedestrian/bicycle accommodations at interchange
 - Ability to provide east/west crossings at interchange
 - Number of crossings at interchange
 - No free right-turns to cross

Cons:

- Requires additional lane in southbound direction at north ramp and northbound dual left-turn lanes at 77th St
- More ROW impacts than SPUI
- Additional intersections (2 intersections at 494)
- Longer pedestrian crossings

Single-Point Urban Interchange (SPUI)

Pros:

- Traffic operations through the interchange
- Reduced southbound lanes at interchange and single northbound left-turn lane at 77th St
 - Shorter crossing distance on north/south approaches
- Reduced ROW impacts than TDI

Cons:

- Northbound queueing issues at 77th St
- Pedestrian/bicycle accommodations
 - Number of crossings for north/south pedestrians and crossing free movements onto I-494
 - Providing east/west crossing at SPUI
 - Circuitous route of pedestrian facilities through interchange

- Question being asked to the council/commission:
 - What is preferred interchange type?
 - Shift alignment of Portland east or west?
 - What are your priorities for reduced impacts?

For more information and provide comments



Visit the MnDOT I-494 website:

<http://www.dot.state.mn.us/metro/projects/i494-airport-hwy169/index.html>

Visit the online open house website:

<https://www.494openhouse.com/>