

Protecting Fargo-Moorhead Regional Mobility

Minnesota Department of
Transportation

US 75 & I 94 Interchange



January 23, 2014

Introductions

- **Pat McGraw** – Stantec, Senior Project Manager
- **Seth Yliniemi** – MnDOT, Project Manager
- **Dale Grove** – Stantec, Senior Associate
- **Tom Fidler** – Stantec, Senior Engineer
- **Peggy Harter** – Stantec, Project Manager (Former MetroCOG Transportation Planner)



Announcements

Housekeeping:

- Come and go at will (5:00 – 7:00p.m.)
- Sign-in-sheet
- Comment cards
- Restrooms
- Emergencies



Agenda – Why are we here?

- Introduce the project and work done to-date
- Establish working relationship with stakeholders
- Answer questions
- Receive input



A Critically Important Facility

Regional connections



A Critically Important Facility

Local destinations



A Critically Important Facility

Dozens of employment centers



A Critically Important Facility

Several colleges,
universities, and other
educational campuses



A Critically Important Facility

~80,000 Current Daily Users



A Growing Problem

~130,000 Projected Daily Users



A Growing Problem

Diminishing levels of service



A Growing Problem

Diminished safety



A Growing Problem

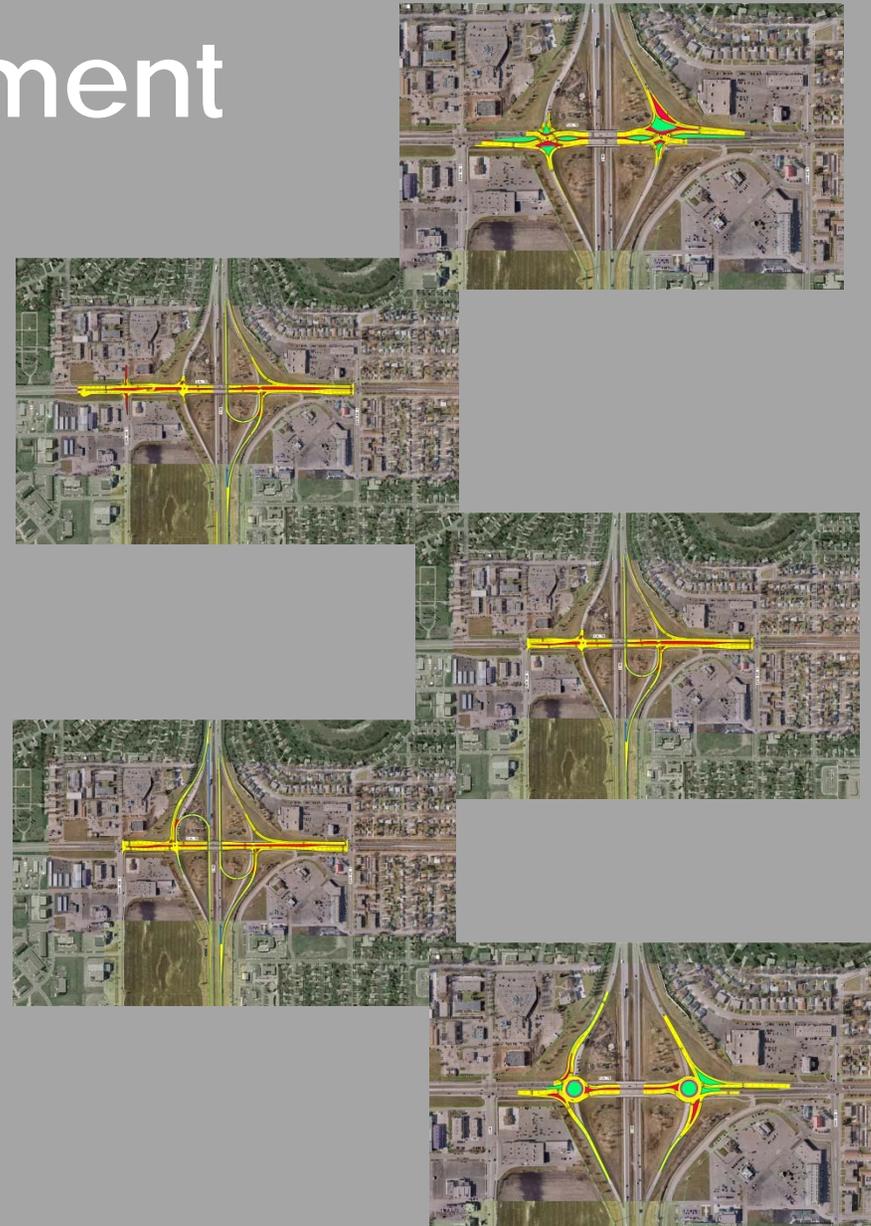
Diminished quality of life



Project Development

What's been done to-date

- 2006 study
- 2012/2013 Value Engineering Study
- Intersection Control Evaluation (ICE)
- Study Review Committee

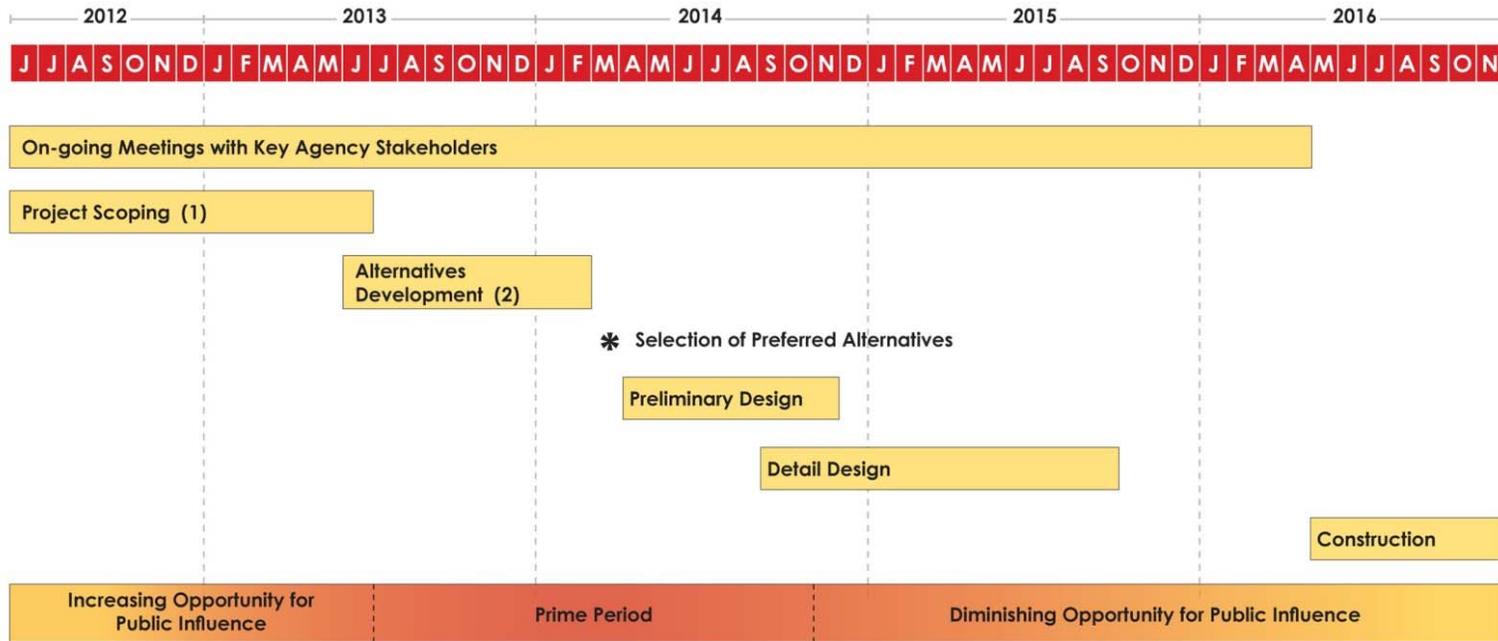


Project Development



US 75 & I-94 Interchange

PROJECT TIMELINE



(1) Identify and Analyze Issues and Define Palette of Potential Solutions

(2) Evaluate and Compare Top Tier Alternative Solutions

Note: All dates are approximate and subject to change without notice



Current Alternatives No-Build



Current Alternatives

No-Build

Pros:

- No Construction Costs
- No disruption due to construction
- No impact to existing drainage system, etc.
- No additional impervious area



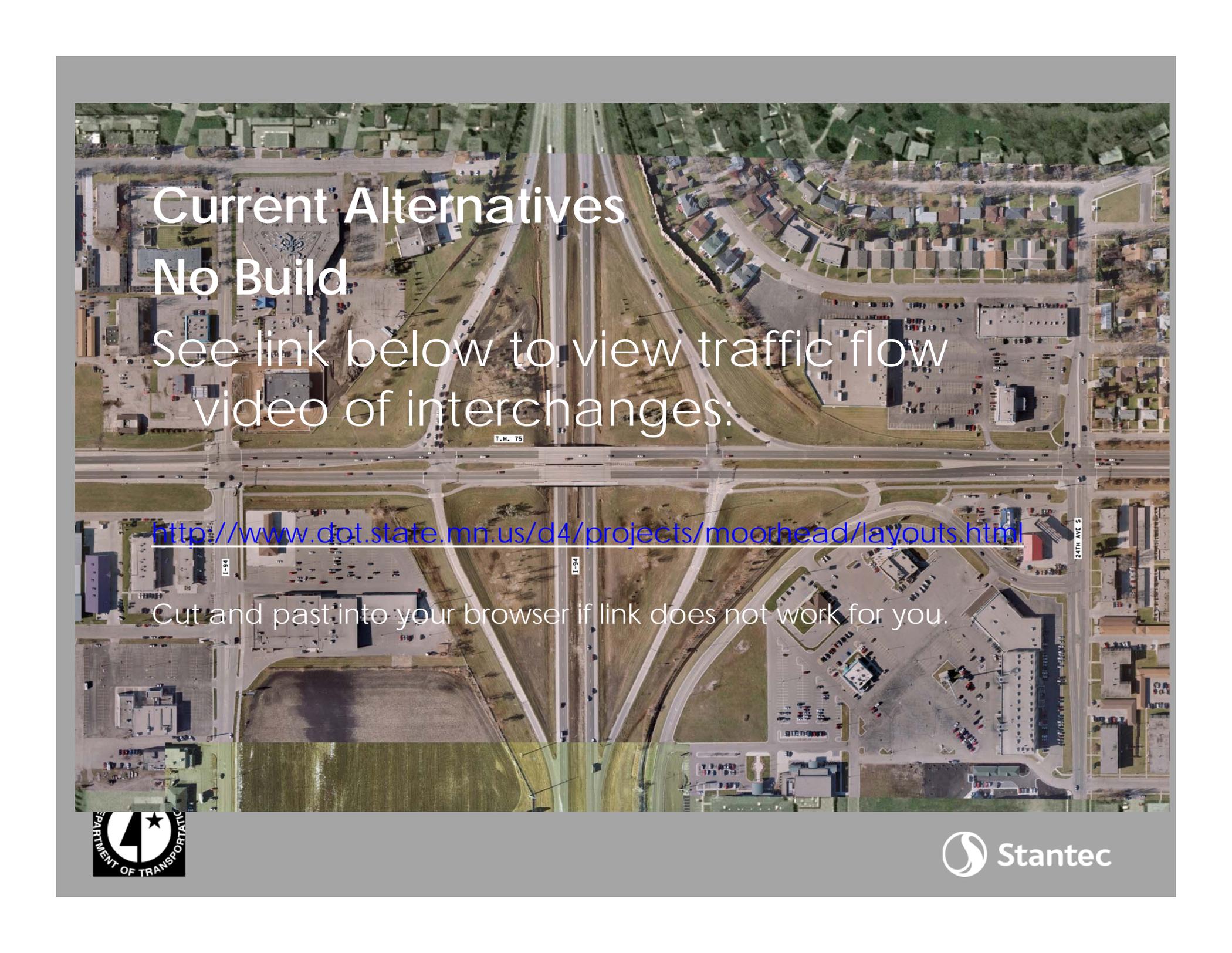
Current Alternatives

No-Build

Cons:

- Increased congestion
- Decreasing safety
- Continued/increasing drag on local economy
- Does not meet project needs



An aerial photograph of a highway interchange. The main road is a multi-lane highway with a median. A road labeled 'T.H. 75' crosses the highway. To the right, a road labeled '24TH AVE S' runs vertically. There are several parking lots, buildings, and residential areas visible. The text 'Current Alternatives' is overlaid in white on the top left.

Current Alternatives

No Build

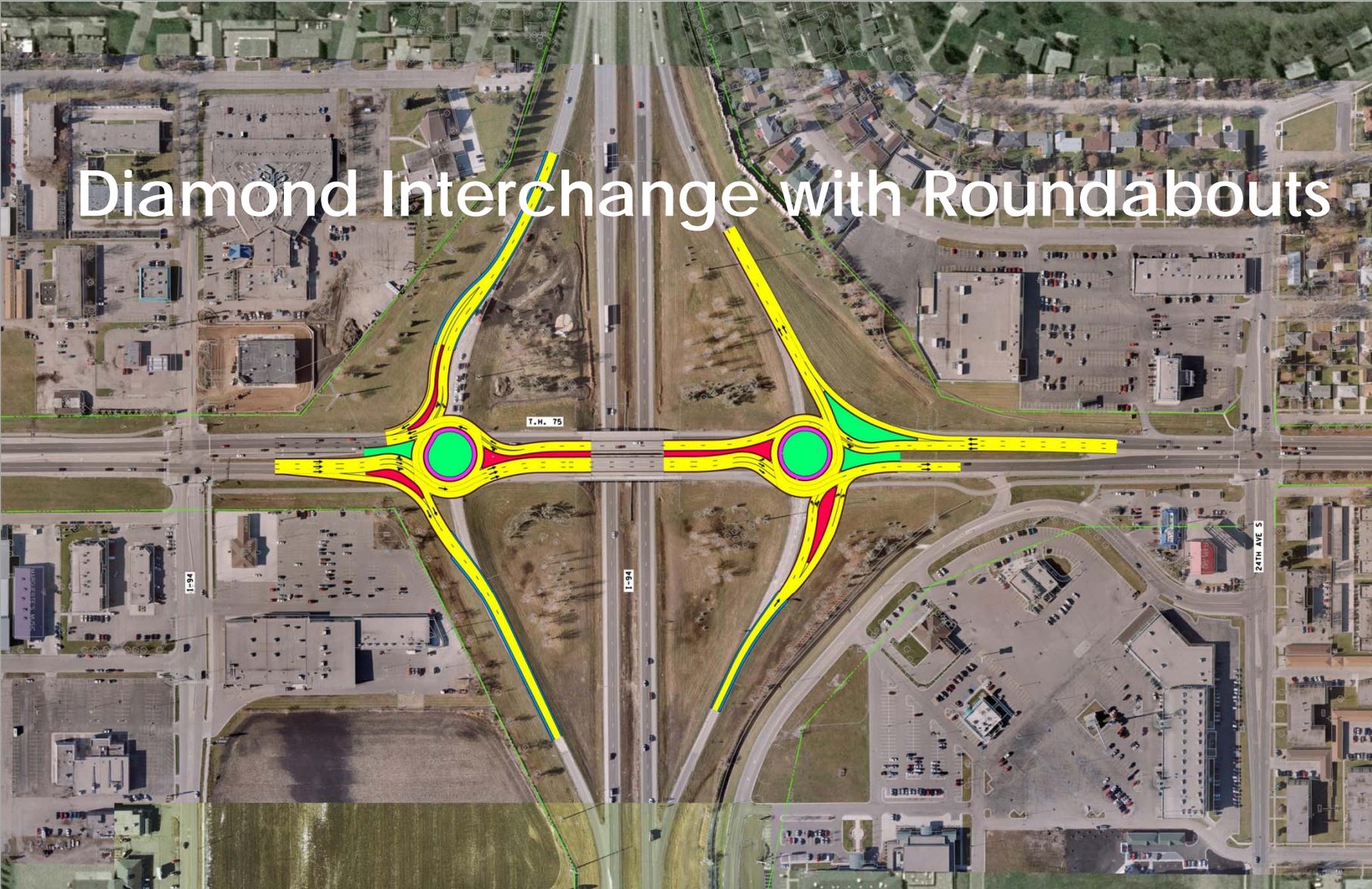
See link below to view traffic flow video of interchanges:

<http://www.dot.state.mn.us/d4/projects/moorhead/layouts.html>

Cut and past into your browser if link does not work for you.



Diamond Interchange with Roundabouts



Current Alternatives

Diamond Interchange with Roundabouts

Pros:

- Reduced potential for right angle crashes
- Additional green space
- Improved level of service



Current Alternatives

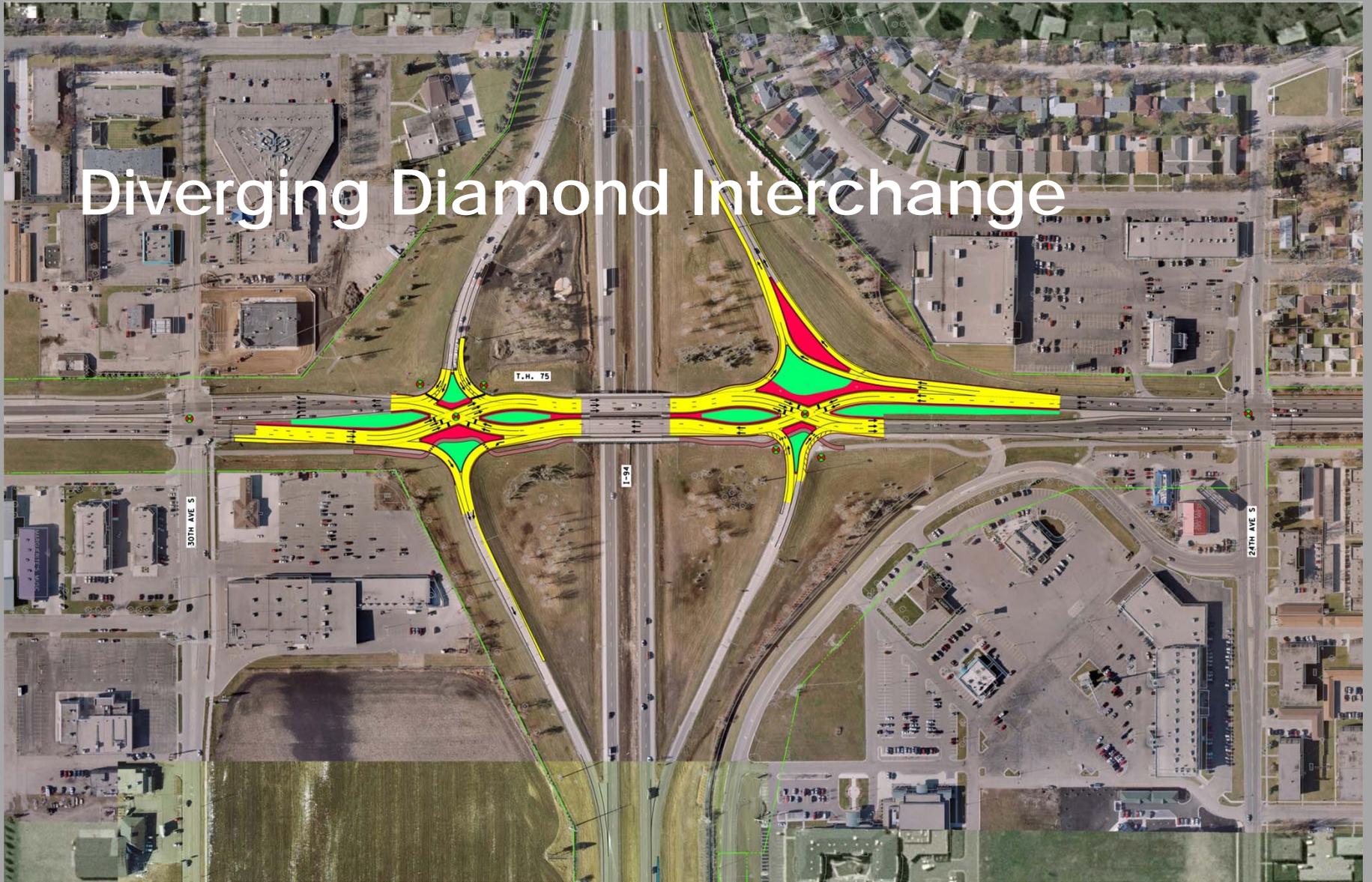
Diamond Interchange with Roundabouts

Cons:

- Will not sufficiently accommodate traffic volumes
- Concentrates westbound traffic to one ramp



Diverging Diamond Interchange



Current Alternatives

Diverging Diamond Interchange

Pros:

- Sufficiently accommodates all movements
- Lowest construction costs
- Removes right angle left turn conflicts
- Simplifies signal phasing
- Lower cost may allow for additional corridor improvements
- Less impervious area
- Additional green space
- Improved level of service



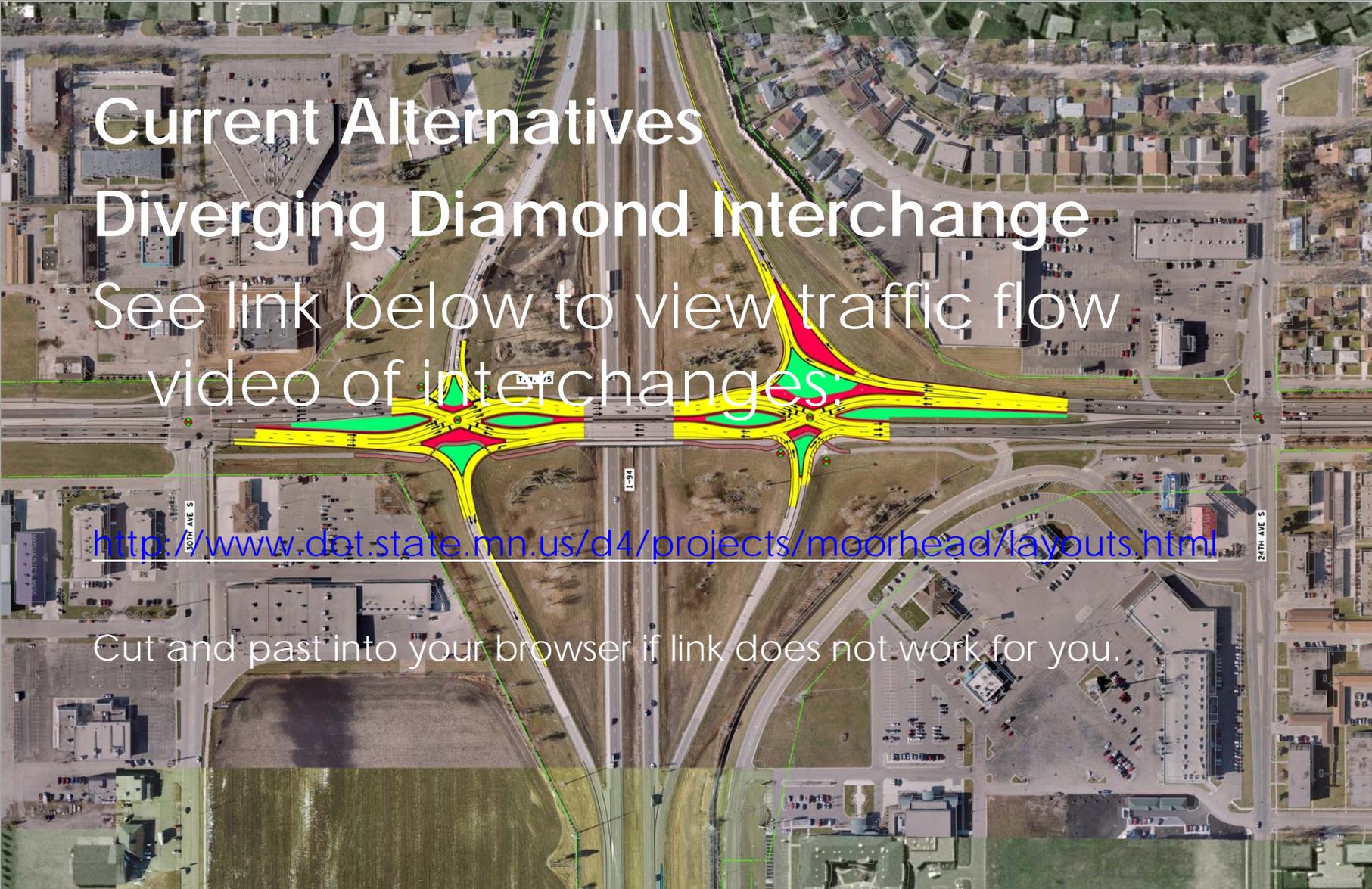
Current Alternatives

Diverging Diamond Interchange

Cons:

- Need for adjustment in maintenance crew (snow removal) approach
- Presents a somewhat new approach for drivers
- Concentrates westbound traffic to one ramp





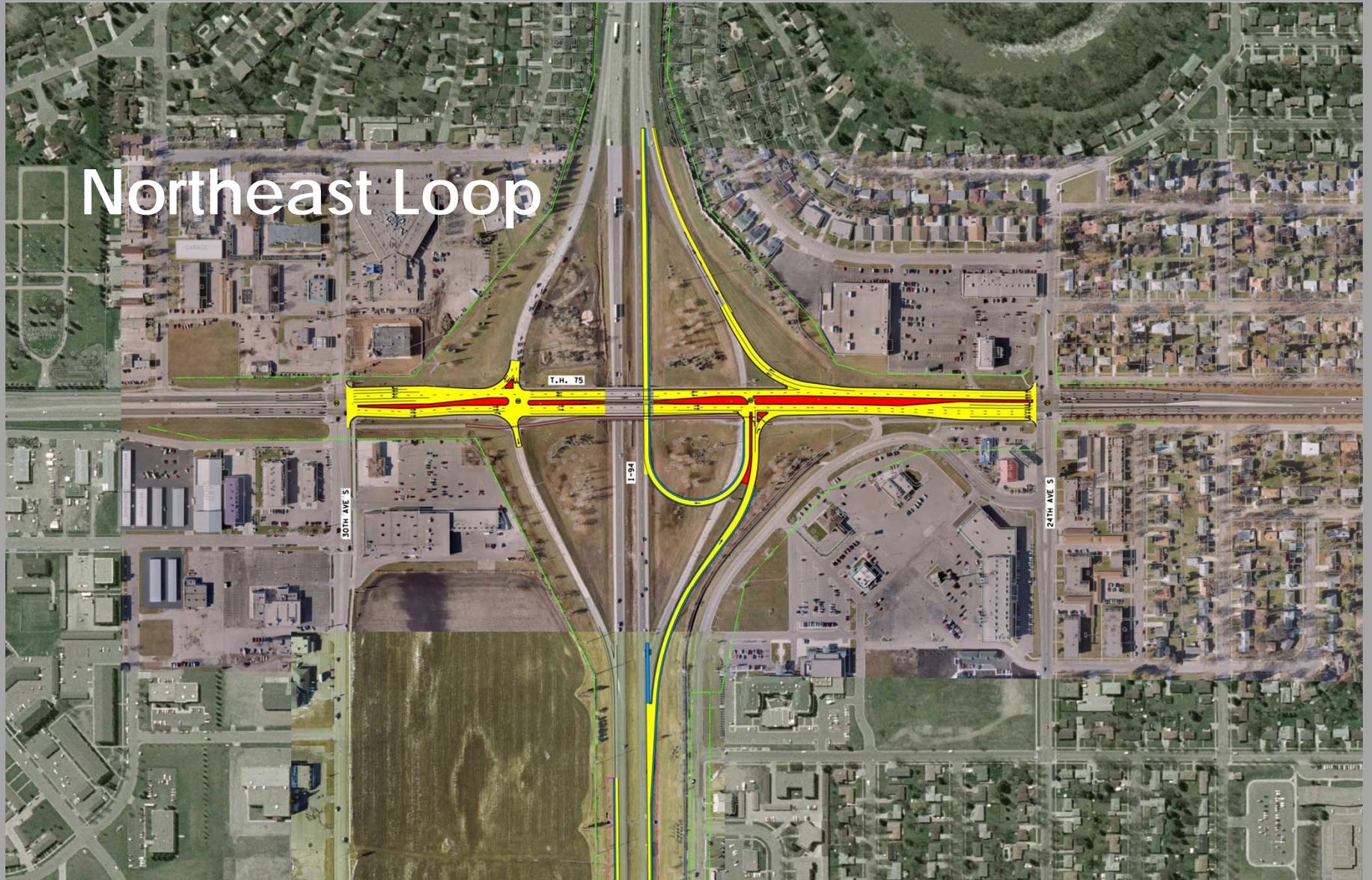
Current Alternatives
Diverging Diamond Interchange
See link below to view traffic flow
video of interchanges:

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Northeast Loop



Current Alternatives

Northeast Loop

Pros:

- Separates westbound traffic between two ramps
- Improved level of service



Current Alternatives

Northeast Loop

Cons:

- Create new merge on I-94
- Includes right angle left turn conflicts
- Additional cost of loop



Current Alternatives

Northeast Loop

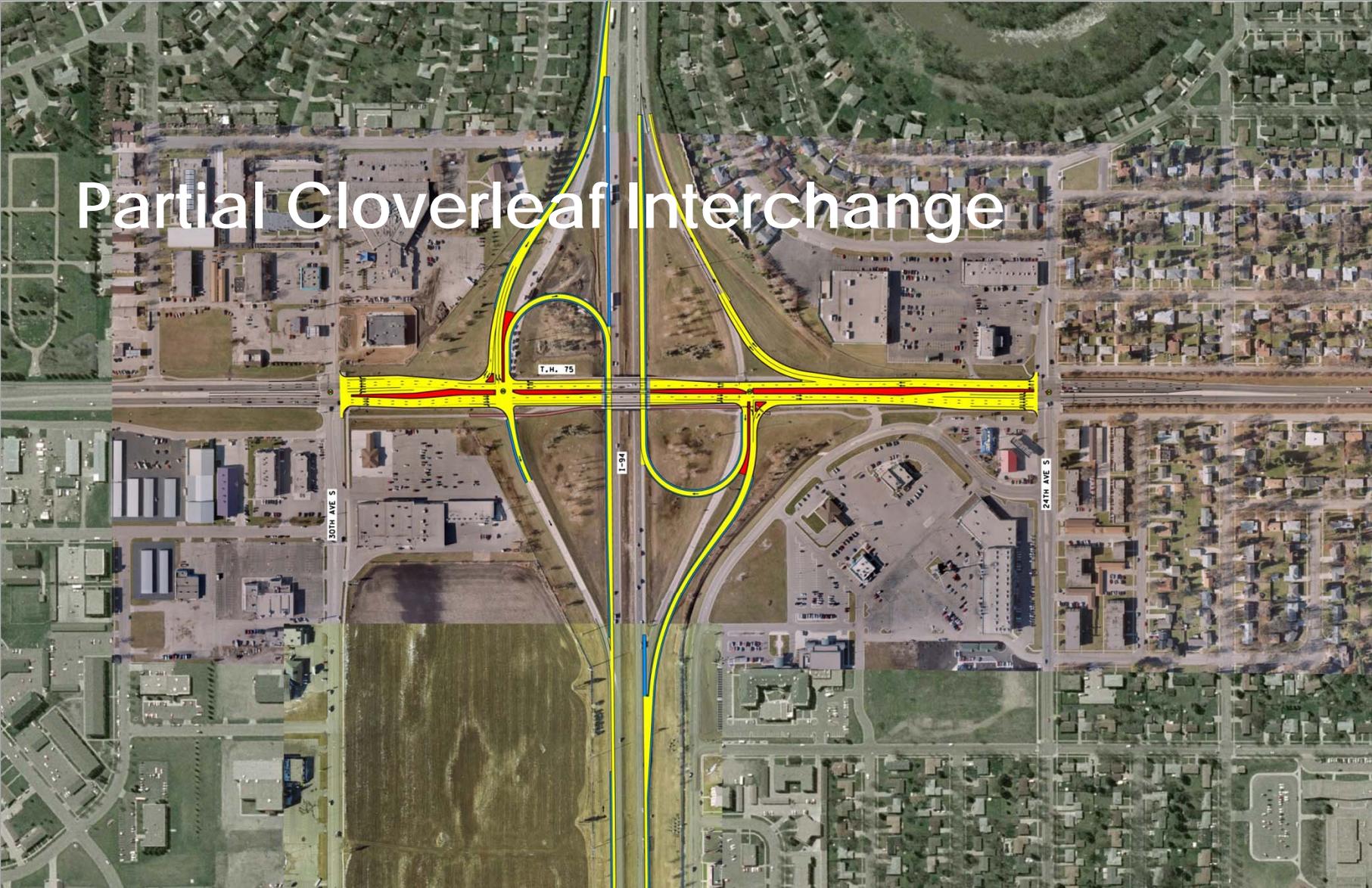
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Partial Cloverleaf Interchange



Current Alternatives

Partial Cloverleaf Interchange

Pros:

- Separates westbound traffic between two ramps
- Separates eastbound traffic between two ramps
- Improved level of service



Current Alternatives

Partial Cloverleaf Interchange

Cons:

- Creates new merge points on I-94
- Includes right angle left turn conflicts
- Additional cost of loops



Current Alternatives Partial Cloverleaf Interchange

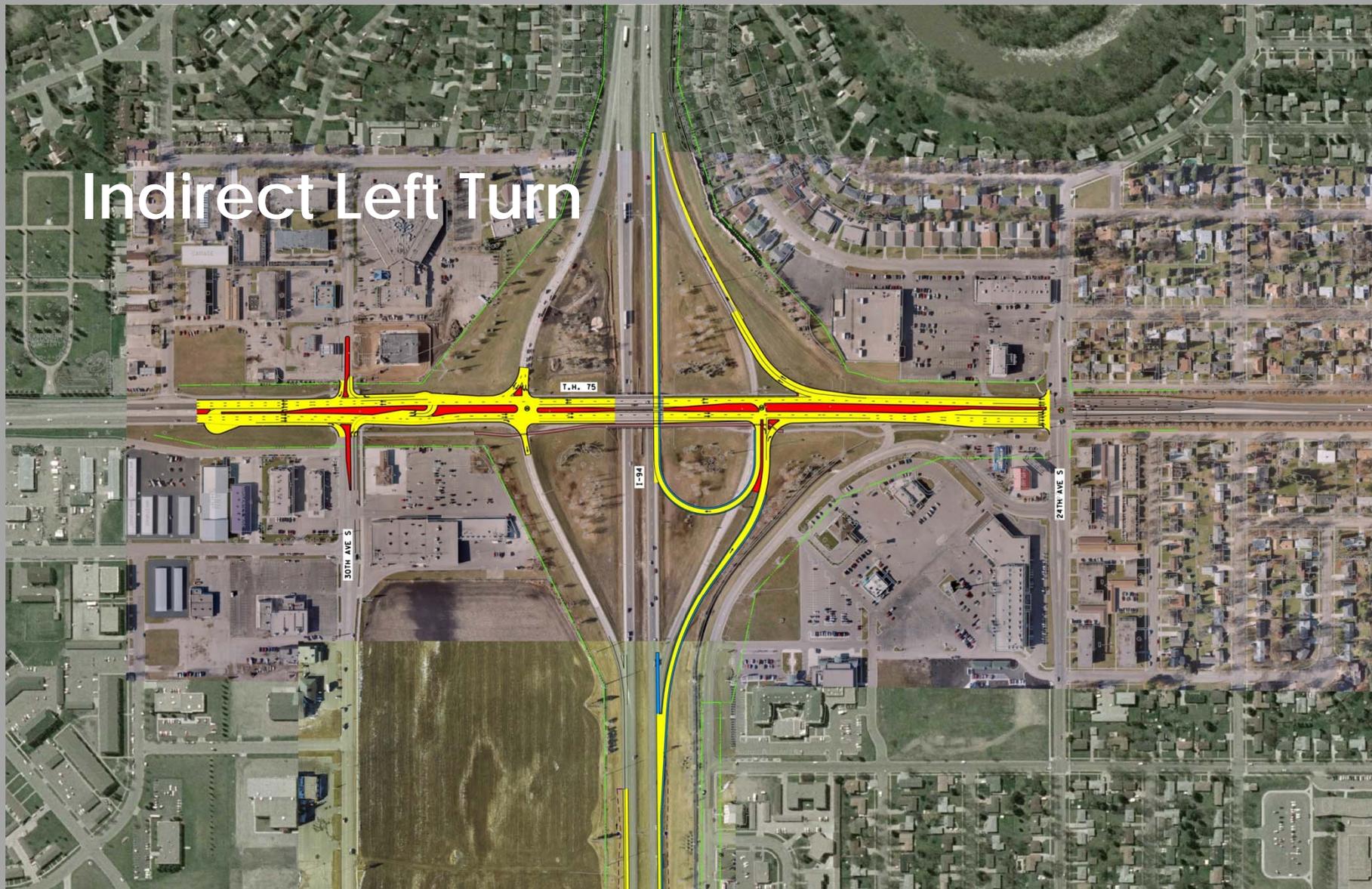
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Indirect Left Turn



Current Alternatives

Indirect Left Turns at 30th Ave N.

Pros:

- Increases distance between eastbound I-94 to eastbound 30th Ave. S to better accommodate weaving
- Moves southbound US 75 to eastbound 30th Ave. S. queue to reduce conflict at south ramp



Current Alternatives

Indirect Left Turns at 30th Ave N.

Cons:

- Increased construction costs
- Potential frustration for 30th Ave. S. users
- Somewhat new concept for some drivers
- Increased impervious area



Current Alternatives

Indirect Left Turns at 30th Ave. N

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US 75 & I-94 Interchange SUMMARY OF TENTATIVE FINDINGS



	2013/2035 Level of Service (LOS)				Estimated Construction Costs
	24th Avenue So.	I-94 North Ramps	I-94 South Ramps 94North Ramps	30th Avenue So.	
Existing Conditions	D	B	B	C	N/A
	F	D	E	F	
Diamond with Roundabouts	N/A	N/A	N/A	N/A	N/A ⁽²⁾
	E	D	C	F	
Diverging Diamond	N/A	N/A	N/A	N/A	\$4,160,000
	D	B	B	C	
NE Loop	N/A	N/A	N/A	N/A	\$5,857,000
	D	B	B	C	
Partial Cloverleaf (NE & SW LOOPS)	N/A	N/A	N/A	N/A	\$7,497,000
	D	B	B	C	
Indirect Left Turns at 30th Avenue So.	N/A				\$500,000

(1) Level of Service: A-F with D minimum acceptable

(2) Alternative does not meet project need.
Therefore cost was not estimated.

(3) Once an interchange alternative is selected, additional improvements will be considered to improve the operations at 24th and 30th Avenue South.



Return to Open House

Ask Questions
Share your thoughts



January 23, 2014