I-494: Airport to 169

MnDOT Metro District

City of Richfield Council Work Session
December 11, 2018

Andrew Lutaya, P.E. | West Area Engineer
1. Project Location & Overview
   A. Project Development Goals

2. Prelim Design Phase -1
   A. Project Purpose & Need
   B. Results of the Public Engagement on Purpose and Need

3. Prelim Design – Phase 2
   A. Build Alternatives Analysis Selection
      I. Statutory Requirements

II. Propose Access Consolidation at 12th, Portland and Nicollet Avenues

III. Public Engagement Strategies for Access consolidation
1. Project Location & Overview
A. Current Project Development Goals

Primary goal is to provide long-term and sustainable solutions for all highway users

**Current Goals**
- Address deficient assets in the corridor i.e. bridges, pavement conditions, retaining walls,
- Bring to ADA standards pedestrian facilities owned by MnDOT
- Connect neighborhoods by connecting missing Ped facilities & accommodating facilities on new bridges
- Maintain/improve transit advantages
- Receive a planned Highway 77 MnPASS facility onto I-494
- Access consolidation on 12th, Portland & Nicollet Avenue interchanges
- Develop a phased implementation plan for the corridor expansion vision
1. Prelim Design Phase -1
   A. Project Purpose & Need
   B. Results of the Public Engagement on Purpose and Need
3. Preliminary Design – Phase 1

A. Project Purpose & Need

Projects Purpose & Need Statement
The purpose and need for a project defines the transportation problems or deficiencies that the project will fix.

- Purpose of the Proposed Action
  - The purpose is to improve safety, mobility, and travel time reliability, address bridge and pavement conditions, and maintain or improve transit mobility on I-494 between TH 5 and US 169.

- Need for the Proposed Action
  - Vehicle Safety & Vehicle Mobility
  - Pavement & Bridge Conditions
  - Pedestrian & Bicycle Connectivity
  - Stormwater Drainage
3. Preliminary Design – Phase 1
B. Public Engagement efforts

Result of Public Engagement Effort on Purpose & Need

1. Online Mapping Activity
2. Pop-Up Events (Richfield, Edina)
3. Online Survey

- 3,775 Clicks & Conversations
- 3,221 Surveys Collected
- 1,987 Custom Comments

12/11/2018
I-494: Airport to 169 | mndot.gov/metro/projects/i494-airport-hwy169
“In your opinion, what is most important for MnDOT to address when redesigning Interstate 494 from the Airport to Hwy 169? (Choose up to 3)”

<table>
<thead>
<tr>
<th>Primary Needs</th>
<th>Secondary Needs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mobility (Travel Time)</strong></td>
<td><strong>Storm water Drainage</strong></td>
</tr>
<tr>
<td>In-person 32%</td>
<td>In-person 6%</td>
</tr>
<tr>
<td>Online 39%</td>
<td>Online 4%</td>
</tr>
<tr>
<td><strong>Traveler Safety</strong></td>
<td><strong>Pedestrian and Bicycle Connectivity (Across I-494)</strong></td>
</tr>
<tr>
<td>In-person 26%</td>
<td>In-person 13%</td>
</tr>
<tr>
<td>Online 21%</td>
<td>Online 3%</td>
</tr>
<tr>
<td><strong>Pavement Conditions</strong></td>
<td><strong>Other</strong></td>
</tr>
<tr>
<td>In-person 11%</td>
<td>In-person 4%</td>
</tr>
<tr>
<td>Online 16%</td>
<td>Online 4%</td>
</tr>
<tr>
<td><strong>Bridge Conditions</strong></td>
<td></td>
</tr>
<tr>
<td>In-person 8%</td>
<td></td>
</tr>
<tr>
<td>Online 12%</td>
<td></td>
</tr>
</tbody>
</table>

In-person | Online

mndot.gov/metro/projects/i494-airport-hwy169
What else we heard...

- “Increase and improve public transportation along the freeway”
- “Increase capacity by adding more general purpose lanes”
- “Improve interchanges and entrance/exit ramps, including consolidation”
2. Prelim Design – Phase 2
   A. Build Alternatives Analysis Selection – Access Consolidation
      I. Statutory Requirements
      II. Interchange Spacing
         i. Existing Traffic Concerns
         ii. Propose Access Consolidation at 12th, Portland and Nicollet Avenues
      III. Public Engagement Strategies for Access consolidation
Minnesota Statutes - 161.162-161.167: MC triggered for any TH project causing:
*Alters access, Increases or reduces traffic capacity, acquisition of permanent right of way.*

### Council Support Resolutions Requests

- During the alternative selection process

### Municipal Consent Request

- Preferred build alternative selection

### Cities of Bloomington & Richfield

1. 12\textsuperscript{th}/Portland/Nicollet – Access Consolidation
2. Phase 1 – 35W/I-494 Interchange
3. R/W Acquisition for both 1 & 2

- Preferred build alternative selection

### Cities Edina, Eden Prairie - packet

- Approve capacity increase on corridor

### Cities of Bloomington & Richfield - Packet

1. 12\textsuperscript{th}/Portland/Nicollet – Access Consolidation
2. Phase 1 – 35W/I-494 Interchange Rebuild
3. R/W Acquisition for both 1 & 2
4. Capacity increase on corridor

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12/11/2018

Existing Interchange Spacing
ii. Existing Traffic Concerns (Mobility)

**Eastbound I-494**

**AM Peak** - No bottleneck issues identified in this location

**PM Peak**

Lyndale Avenue
Nicollet Avenue
Portland Avenue
12th Avenue

**Westbound I-494**

**AM Peak**

**PM Peak**

Portland Avenue S
S 12th Avenue

12/11/2018

I-494: Airport to 169 | mndot.gov/metro/projects/i494-airport-hwy169
Existing Interchange Spacing
ii. Existing Traffic Concerns (Safety)

Interchange and Segment Crash Rates

- Westbound between TH 77 and I-35W
  1. Most segments exceed critical crash rate
  2. Higher concentration of severe crashes

- Eastbound segment crash rates tend to increase approaching system interchanges and drop immediately downstream of the interchanges

- Rear-end and sideswipe crashes account for 75% of all crashes

- I-35W, Penn Avenue, and France Avenue in top 20 crash cost interchanges in state (7th, 13th, and 14th respectively)
ii. Proposed Access Consolidation

Existing Configuration

Potential Access Consolidation (Full Access at Portland)
### Build Alternatives Analysis
#### ii. DRAFT Year 2040 Peak Hour LOS

<table>
<thead>
<tr>
<th>Intersection</th>
<th>No Build AM</th>
<th>No Build PM</th>
<th>Build AM</th>
<th>Build PM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lyndale/77th</td>
<td>D</td>
<td>D</td>
<td>D</td>
<td>D</td>
</tr>
<tr>
<td>Lyndale/I-494</td>
<td>B</td>
<td>B</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>Lyndale/American</td>
<td>D</td>
<td>D</td>
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<tr>
<td>Portland/77th</td>
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<td>D</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>Portland/I-494</td>
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<td>TBD</td>
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<td>Portland/American</td>
<td>D</td>
<td>D</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>24th/I-494</td>
<td>B</td>
<td>C</td>
<td>B</td>
<td>D</td>
</tr>
</tbody>
</table>

**Note:** LOS is calculated using HCS
Build Alternatives Analysis

ii. 2040 Local Diversion Map

**Legend**

- **XX,XXX** - Year 2040 Daily Traffic Volume
- **+X,XXX (X%)** - Positive Traffic Volume Change (Percent Change)
- **-X,XXX (X%)** - Negative Traffic Volume Change (Percent Change)

*East and West 78th Street between Portland Avenue and 12th Avenue are both expected to decrease by 1,400 vehicles per day.*

[Diagram showing traffic volumes and changes across various streets and avenues.]
In general, interchanges spaced less than 1 mile apart have greater mobility and safety issues than those with over 1 mile of spacing. The entrances and exits at Nicollet, Portland, and 12th Ave S are spaced .5 miles apart and have significant safety and congestion issues, as shown by the high crash rates and levels of congestion.

1. Demographics

2. Main Question
   - Existing Conditions
   - Possible Solution
   - The Question: Could you support removing access from Nicollet and 12th, and expanding access at Portland?

3. Follow-up Questions
III. Proposed Public Engagement

1. Could you support removing access from Nicollet and 12th, and expanding access at Portland?
   (Note: All other access along I-494 would remain the same) *
   
   ○ Yes
   ○ No
   ○ I'm not sure
Engagement Strategies

Underrepresented Populations

- Multilingual online survey (Spanish) and in-person Open House at Partnership Academy (Spanish interpreter provided)
- Advertising through direct mailing to low-income properties, flyers at bus stops and local businesses, and distribution through social service organizations

Small Businesses and Impacted Residents

- Online survey and in-person Open House at Partnership Academy
- Advertising through direct mailing to properties and property owners within the impacted area, flyers at bus stops and local businesses, and distribution through apartment complex networks

Large Businesses

- Business listening session in partnership with Bloomington and Richfield Chambers of Commerce, online survey, employee lunch-and-learns, individual meeting with large employers
Build Alternatives Analysis

III. Proposed Public Engagement
Thank you!

Andrew Lutaya, P.E

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