I-270 North Design-Build Project

Community Information Group
Thursday, March 12, 2020
Project Location

14.5 Miles
Project Needs

• Improve condition of existing infrastructure

<table>
<thead>
<tr>
<th>Poor Mainline I-270 Bridges</th>
<th>AADT All (Trucks)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coldwater Creek</td>
<td>125k (22k)</td>
</tr>
<tr>
<td>Rte N</td>
<td>140k (25k)</td>
</tr>
<tr>
<td>Rte AC</td>
<td>110k (30k)</td>
</tr>
</tbody>
</table>
Project Needs

• Maximize reliability and roadway improvements on I-270 corridor
Project Needs

- **Eastbound**
  - 30% higher than statewide rate
  - 4 High Severity 2-mile segments

- **Westbound**
  - Approximately the statewide rate
  - 4 High Severity 2-mile segments

<table>
<thead>
<tr>
<th>I-270 EB &amp; WB Crashes from 2013-2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fatal</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>20</td>
</tr>
</tbody>
</table>
Project Needs

- Increase access for non-motorized users through and across the corridor

<table>
<thead>
<tr>
<th>Pedestrian Crashes from 2013-2017</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fatal</td>
<td>5</td>
</tr>
<tr>
<td>Serious Injury</td>
<td>3</td>
</tr>
<tr>
<td>Minor Injury</td>
<td>3</td>
</tr>
<tr>
<td>PDO</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
</tr>
</tbody>
</table>
Project Goals

1. Deliver the Project by December 1, 2023 within the program budget of $278 million.
2. Maximize reliability and safety while linking communities for all users.
3. Provide a durable and maintainable transportation network making Interstate 270 the conduit for a prosperous region.
4. Grow and utilize a diverse workforce.
5. Minimize and mitigate impacts to customers through innovation.
Budget and Schedule

• Program Budget: $278 million
  – Includes: Engineering, Stipend, ROW, Utilities
• Design-Build Contract Amount: $246 million
  – Fixed Price/Best Value
I-270 North Design Build Project

1. Innovative Lindbergh Interchange increases safety and mobility
2. Deteriorating bridges replaced throughout the corridor
3. Conversion to one-way outer roads in Anna H. H. enhances traffic flow
4. Eliminated 8 deteriorated ramps and associated substandard freeway weaves
5. Innovative bus lane reduces rider delay for transit users
6. Added 3rd lane in SB direction on I-170
7. Added 4th lane in each direction of I-270
8. Route 367 improvements eliminate weaving
9. Recalibrated Bellefontaine interchange eliminates crossover ramp
10. Additional Bonus Bridge adds connectivity for all users

MoDOT | I-270 NORTH Build. Progress. Together. | MILLSTONE WEBER | PARSONS
Geometrics – Segment 1
I-270 Mainline

• Additional Lane - Lindbergh to 367
Geometrics – Segment 2
Lindbergh Boulevard

• Split Lindbergh NB & SB
• Eliminate all loop ramps and short weaves
• Tie WB off-ramp directly to Lindbergh
• Connect Dunn Rd across Lindbergh
Geometrics – Segment 3
I-170 & Hanley/Graham

- Convert WB crossover slip ramp to roundabout
- Widen SB I-170 to 3 lanes
Geometrics – Segment 4
Hanley/Graham to Old Halls Ferry

- Convert Dunn and Pershall to continuous one-way outer roads
- Eliminate all crossover slip ramps
- Provide U-turns at Washington/Elizabeth and West Florissant
- Split diamond between New Halls Ferry and Old Halls Ferry
- Bridge Pershall Road over I-270 west of Route 367
- Relocate or consolidate ramps to improve ramp spacing
Interchanges and Outer Roads

Existing

Graham Rd
Washington St
W. Florissant Rd
Linnell Dr
Hanley Rd
New Florissant Rd
Elizabeth Ave
New Halls Ferry Rd
Old Halls Ferry Rd

Legend:
- I-270
- Two-Way Outer Road
- One-Way Outer Road
- I-270 On/Off Ramp

St. Louis Community College
North County Transit Center

MoDOT | I-270 NORTH Build. Progress. Together. | MILLSTONE WEBER | Parsons
Interchanges and Outer Roads

Legend

- I-270
- Two-Way Outer Road
- One-Way Outer Road
- I-270 On/Off Ramp
- Outer Road U-Turn
- Exclusive One-Way Bus Lane

St. Louis Community College
North County Transit Center
Pershall over I-270
367 Interchange

Existing

Dunn Rd

© 2018 Google
Geometrics – Segment 5
Route 367 Interchange

- 2-Lane EB to NB direct connection
- 2-Lane WB on-ramp
- Eliminate 3 loop ramps and all short weaves
- Green-T intersection at ramp terminals
Geometrics – Segment 6
Bellefontaine Road Interchange

- Consolidate WB on and off-ramps into one roundabout
- Eliminate crossover slip ramp
Safety Improvement Plan

Freeway
- Improved Lindbergh interchange without loop ramps or short weaving areas
- Only wet-reflective pavement markings in a concrete section
- Add through lane on SB I-170 to reduce congestion at interchange with I-270
- Chevron in horizontal curves of I-170
- Implement a one-way outer road system on Dunn Road between Graham and Old Halls Ferry
- Improved 367 interchange with 2-Lane flyover and no short turning areas on I-270. Removes three loop ramps
- Chevron in horizontal curves
- Remove 8 ramps, improve weave distance and ramp spacing by relocating ramps, and reconfiguring interchanges.

Outer Road
- Retractable safety backplate at McDonnell and Brown
- Construct roundabout for WB I-270, west of Graham
- HAWK signals for pedestrians
- Construct Multi-use path along Dunn Road and Pershall Road
- Systematic signing/striping at Dunn & Bridge and RRFB for pedestrian safety
- Replace signal with roundabout at WB on ramp
- Roundabout at St. Louis Community College to serve bus lane

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Safety Improvements

• Reduce congestion
  – added lane on I-270 and southbound I-170
• 12-foot outside shoulders along I-270
• Consolidate/remove ramps
  – Remove 8 total ramps and 6 of 7 loop ramps
• Eliminate all unsignalized cross-over ramps
  – one-way outer roads & roundabouts
• Intersection Upgrades
  – Retro-reflective backplates on signals
  – Systematic signing/striping at unsignalized intersections
Bicycle and Pedestrian Plan
Bicycle and Pedestrian Plan

- Dunn – Lindbergh to Breezy Point (6 miles)
- Pershall – Hanley/Graham to Old Halls Ferry (4 miles)
Transit Improvements

- Bus stops off of roadway shoulders
- One-way outer roads and multi-use path provide ability to add bus stops
- Counter-flow bus lane
- Transit signal priority
Counter-flow Bus Lane

- Eliminates adverse travel & reduces travel time for transit passengers
- MoDOT worked with Metro to accommodate bus routes
## Highlights

<table>
<thead>
<tr>
<th>Location</th>
<th>Plan</th>
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<tbody>
<tr>
<td>Lindbergh Interchange</td>
<td>Split Diamond</td>
</tr>
<tr>
<td>Additional Lane</td>
<td>Rte 67 to Rte 367</td>
</tr>
<tr>
<td>Hanley/Graham WB On-ramp</td>
<td>Roundabout</td>
</tr>
<tr>
<td>367 Interchange</td>
<td>2-lane direct connection</td>
</tr>
<tr>
<td>Interchanges Improved</td>
<td>9</td>
</tr>
<tr>
<td>Bike/Ped</td>
<td>10 miles Multi-use Path</td>
</tr>
<tr>
<td>Bridges</td>
<td>12 Replacements, 7 New</td>
</tr>
<tr>
<td>Signal Replacement</td>
<td>18 Intersections</td>
</tr>
<tr>
<td>Outer Roads</td>
<td>Convert to one-way</td>
</tr>
<tr>
<td></td>
<td>Remove all cross-over slip ramps</td>
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</table>

*MoDOT* | [*I-270 NORTH*](#) | [*MILLSTONE WEBER*](#) | [*PARSONS*](#)
## 2020 Detours Schedule

<table>
<thead>
<tr>
<th>Location</th>
<th>Closure Timeframe</th>
<th>Closure Duration</th>
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<tbody>
<tr>
<td>I-270 EB off-ramp to Washington/Elizabeth</td>
<td>April 2020</td>
<td>1.5 years</td>
</tr>
<tr>
<td>I-270 EB on-ramp from New Florissant</td>
<td>June 2020</td>
<td>3 months</td>
</tr>
<tr>
<td>Old Halls Ferry over I-270</td>
<td>June 2020</td>
<td>4 months</td>
</tr>
<tr>
<td>NB Lindbergh to WB I-270 loop ramp</td>
<td>July 2020</td>
<td>2 years</td>
</tr>
<tr>
<td>Washington/Elizabeth over I-270</td>
<td>Aug/Sept 2020</td>
<td>3 months</td>
</tr>
<tr>
<td>I-270 EB on-ramp from Old Halls Ferry</td>
<td>Sept 2020</td>
<td>2 weeks</td>
</tr>
<tr>
<td>Pershall &amp; Elizabeth Intersection *</td>
<td>Nov 2020</td>
<td>3 weeks</td>
</tr>
<tr>
<td>Dunn &amp; Elizabeth Intersection *</td>
<td>Nov 2020</td>
<td>3 weeks</td>
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* Pershall & Elizabeth and Dunn & Elizabeth Intersections will not be closed at the same time.
## Upcoming Construction Schedule

<table>
<thead>
<tr>
<th>Location</th>
<th>Tentative Start</th>
</tr>
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<tbody>
<tr>
<td>SB I-170</td>
<td>Summer 2020</td>
</tr>
<tr>
<td>Bellefontaine</td>
<td>Summer 2020</td>
</tr>
<tr>
<td>Route 367</td>
<td>Spring 2021</td>
</tr>
<tr>
<td>I-270 Widening</td>
<td>Winter 2020-2021</td>
</tr>
<tr>
<td>West Florissant</td>
<td>Winter 2020-2021</td>
</tr>
<tr>
<td>New Halls Ferry</td>
<td>Spring 2022</td>
</tr>
<tr>
<td>New Florissant</td>
<td>Summer 2022</td>
</tr>
</tbody>
</table>
EB Ramps Closures near Washington/Elizabeth

- Approximate closure June 2020 - 90 days
- Approximate closure April 2020 - 560 days

New Florissant Rd
Washington/Elizabeth Closure

Approximate Closure
3 Months Aug/Sep 2020
Pershall and Elizabeth Closure

Approximate Closure
3 Weeks Nov 2020
Dunn and Washington Closure

Approximate Closure
3 Weeks - Nov 2020
Old Halls Ferry Closure
NB Lindbergh to WB I-270 Ramp Closure
Video of Model

Model Fly-through Video
DBE & Workforce Diversity

Disadvantaged Businesses Enterprises Goals
18% for construction activities
22% for professional services activities

Workforce Diversity Goals
14.7% minority per craft
6.9% female per craft

On-the-Job Training (OJT) Requirement
8 positions at 1000 hours each
6 Construction Trades and 2 Professional Services
$10 per hour incentive
Millstone Weber Communiversity

- Central source of education, information, and opportunity.
- Virtual community leadership and learning campus
- Fosters advancement of DBEs, workforce diversity, leadership development, STEM program immersion, and community outreach and involvement.
How You Can Get Involved

• Visit the website and subscribe for email updates at www.i270north.org
• Send an email to i270North@modot.mo.gov
• Invite MoDOT to present to your organization
Contact

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