Bridge Management
2020 Highlights

- Bridge 1-384 In-House Concrete Slab Design & Construction
- Bridge 1-076 Emergency Scour Repair
- 2020 Bridge Performance Measures
Bridge Management
2020 Highlights
Bridge 1-384 Concrete Slab

[Map of Delaware City and Canal District with Bridge 1-384 highlighted]
Bridge Management
2020 Highlights
Bridge 1-384 Concrete Slab
Bridge 1-384 Concrete Slab

- Road closed and existing asphalt overlay removal started on Monday, October 19th
- Formwork was rebar layout was constructed on the 20th & 21st
- Concrete poured on the 22nd
- Desired 4.5ksi strength of concrete slab was confirmed by 21-day compression test
- Bridge rails repaired/painted and asphalt approach road wedges placed November 16-18th
- Bridge reopened by Thursday, November 19th
- Cost to place new concrete slab ~$16k versus $90-$100k to complete by SMC Contractor
Bridge Management

2020 Highlights

Bridge 1-384 Concrete Slab
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Bridge 1-076 Emergency Scour Repair
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Bridge 1-076 Emergency Scour Repair

East Elevation View

North Approach – Looking South
Bridge Management
2020 Highlights

Bridge 1-076 Emergency Scour Repair

General View – Looking through bridge structure
Bridge Management 2020 Highlights

Bridge 1-076 Emergency Scour Repair

Upstream View
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2020 Highlights

Bridge 1-076 Emergency Scour Repair

Downstream View
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Bridge 1-076 Emergency Scour Repair
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Bridge 1-076 Emergency Scour Repair

Bridge Sketch Sheet #2

Note: Masonry Abutment Width (depth) is unknown

East Elevation

West Elevation
Bridge Management
2020 Highlights
Bridge 1-076 Emergency Scour Repair

North Abutment

South Abutment

Note: Masonry Abutment Width/Depth is unknown
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Bridge 1-076 Emergency Scour Repair
Bridge Management
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Bridge Management 2020 Highlights

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Bridge Management 2020 Highlights

Bridge 1-076 Emergency Scour Repair

Note: Masonry Abutment Width (depth) is unknown.

East Elevation

Note: Work need to sawcut rock/bedrock and dig out to pour toe wall.

West Elevation

Note: This is the depth of masonry area and the depth of the underlined wingwall footer.
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2020 Highlights

Bridge 1-076 Emergency Scour Repair

[Diagram of Bridge 1-076 showing scour sketch sheets with details of North and South Abutments, including dimensions and notes on missing masonry and scour depth.]
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2020 Highlights

Bridge 1-076 Emergency Scour Repair
Bridge Management 2020 Highlights

Bridge 1-076 Emergency Scour Repair

Timeline:
- Wednesday, November 18th: Routine Bridge Inspection Occurred
- Thursday, November 19th: Scour conditions verified & road closed
- Friday, November 20th: Repair design confirmed & sent to contractor
- Monday, November 23rd: Contractor mobilized & started dewatering
- Tuesday, November 24th: Dewatering complete & field measurements taken to confirm concrete and riprap quantities
- Wednesday, November 25th: Concrete poured
- Thursday, November 26th: Thanksgiving (no work)
- Friday, November 27th: Formwork pulled, riprap placed, and road reopened
Bridge Management 2020 Highlights

- Bridge 1-384 Concrete Slab Design & Construction
- Bridge 1-076 Emergency Scour Repair
- 2020 Bridge Performance Measures
## 2020 Bridge Performance Measures

### Bridge Management 2020 Highlights

<table>
<thead>
<tr>
<th>Condition Rating</th>
<th>All DelDOT Bridges</th>
<th>DelDOT NBI Bridges</th>
<th>DelDOT State Bridges</th>
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<tr>
<td></td>
<td># of Bridges</td>
<td>% of Bridges</td>
<td># of Bridges</td>
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<tr>
<td>Poor (≤4)</td>
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<td>13</td>
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<td>Fair = 5</td>
<td>261</td>
<td>14.7%</td>
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<tr>
<td>Good (≥6)</td>
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<td>Total =</td>
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### Bridge Performance Measures

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<th>Condition</th>
<th># of Bridges</th>
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<tr>
<td>Poor/SD (≤4)</td>
<td>≤5%</td>
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<tr>
<td>Good (≥6)</td>
<td>&gt;75%</td>
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### 2020 Bridge Performance Measures

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<tbody>
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<td>92</td>
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<td>111</td>
<td>107</td>
<td>87</td>
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<td>87</td>
<td>111</td>
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<td>87</td>
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<td>58</td>
<td>42</td>
<td>29</td>
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<td><strong>Fair (5)</strong></td>
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<td>331</td>
<td>307</td>
<td>304</td>
<td>329</td>
<td>390</td>
<td>380</td>
<td>314</td>
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<td>1,152</td>
<td>1,198</td>
<td>1,211</td>
<td>1,238</td>
<td>1,239</td>
<td>1,267</td>
<td>1,392</td>
<td>1,463</td>
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<td>1,198</td>
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<td>1,239</td>
<td>1,267</td>
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**Totals**

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= Did not meet performance measure
= Met performance measure
Questions or Comments?

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