In Memoriam
Frederick Hal Hillard Jr.
June 6, 1950 – March 4, 2019
Today’s Topics

- 2020 Standard Specifications for Construction
- Projected Lettings
- Tons, Squares and Aggregate Estimates
- 30-Year Pavement PILOT
- Call to Action
2020 Standard Specifications for Construction

11 June 2018
Industry Provided Draft of 2020 Specifications

Jan.–Nov. 2019
Industry Impasse Review and Meetings

Early 2020
Final Publication

June–Dec. 2018
Industry Review

Dec. 2019
Final Review and Formatting

Oct. 2020
Implementation, October 2020 letting
# 2019 FY Projected Lettings

**01-Feb-19**

<table>
<thead>
<tr>
<th>Letting Month</th>
<th>Projects*</th>
<th>Construction Costs ($ Millions)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>October, 2018</td>
<td>13</td>
<td>$48.80</td>
</tr>
<tr>
<td>November, 2018</td>
<td>26</td>
<td>$61.14</td>
</tr>
<tr>
<td>December, 2018</td>
<td>49</td>
<td>$108.59</td>
</tr>
<tr>
<td>January, 2019</td>
<td>43</td>
<td>$115.91</td>
</tr>
<tr>
<td>February, 2019</td>
<td>67</td>
<td>$198.65</td>
</tr>
<tr>
<td>March, 2019</td>
<td>86</td>
<td>$271.91</td>
</tr>
<tr>
<td>April, 2019</td>
<td>46</td>
<td>$76.91</td>
</tr>
<tr>
<td>May, 2019</td>
<td>28</td>
<td>$35.77</td>
</tr>
<tr>
<td>June, 2019</td>
<td>11</td>
<td>$6.67</td>
</tr>
<tr>
<td>July, 2019</td>
<td>13</td>
<td>$14.12</td>
</tr>
<tr>
<td>August, 2019</td>
<td>14</td>
<td>$16.81</td>
</tr>
<tr>
<td>September, 2019</td>
<td>10</td>
<td>$24.32</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>406</strong></td>
<td><strong>$979.61</strong></td>
</tr>
</tbody>
</table>

* This information represents the total number of projects and dollars scheduled to be let in a given month. Therefore the sum of values will not directly correlate to program year budgets, and this information is always subject to change.
## Tons and Squares

<table>
<thead>
<tr>
<th>Item</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tons of HMA</td>
<td>2,795,371</td>
<td>1,232,594</td>
</tr>
<tr>
<td>Squares of Concrete</td>
<td>1,479,904</td>
<td>781,159</td>
</tr>
<tr>
<td>$ of Bridge Work in Millions</td>
<td>$211.84</td>
<td>$207.30</td>
</tr>
</tbody>
</table>

This information is draft and may change as the program is developed.

bderose@mml.org
MDOT’s Long-Life Pilot Projects

- Public Act 175 of 2015
  - Required establishment of Roads Innovation Task Force (RITF)
  - MDOT Proposed 4 Long Life Pavement Projects

- 30 year projects
  - HMA: US-131 from 14 Mile to White Creek in Grand Region
  - Concrete: I-69 from Ballenger Hwy to Fenton Rd. in Bay Region

- 50 year projects
  - HMA: I-475 from Carpenter Rd. to Clio Rd. in Bay Region
  - Concrete: US-131 from 10 Mile to 14 Mile in Grand Region
RIFT 30 Year HMA Pavement

- Enhancements to the HMA long-life designs
  - Use of ME for thickness design
  - Drainage improvements – increase free-board for underdrain outlets
  - Frost-protection – thicker base and subbase layers
  - Lowered target initial ride quality
  - Required use of material transfer device
  - Minimum binder film thickness
  - Fines to effective ratio reduced in production
  - Gap-Graded Superpave top course (no RAP allowed)
  - Increased required density of the HMA
    - 30 year: 92.5%
    - 50 year: 94.0%
RIFT 30 Year HMA Pavement

US-131: M-57 to White Creek Avenue

- **STANDARD PAVEMENT**
  - Southbound Lanes
    - 9.25 inches Asphalt
    - 6 inches Aggregate Base
    - 18 inches Sand Subbase

- **30-YEAR PAVEMENT**
  - Northbound Lanes
    - 9.75 inches Asphalt
    - 12 inches Aggregate Base
    - 24 inches Sand Subbase

**30 YEAR HMA PAVEMENT DESIGN**
- 1.50" HMA GGSP
- 2.50" HMA, 4E30
- 7.25" HMA, 3E30
- 11.25" TOTAL

*ALL HMA MODIFIED30*

**STANDARD HMA PAVEMENT DESIGN**
- 1.75" HMA, 5E10
- 3.00" HMA, 3E10
- 4.50" HMA, 2E10
- 9.25" TOTAL

**AGGREGATE BASE**
- 12 INCH (21AA)

**24" SUBBASE, CIP CLASS II**
RIFT 30 Year HMA Pavement

Constructed along the southerly 2 miles of the US-131 NB roadway
RIFT 30 Year HMA Pavement
US-131 from 14 Mile to White Creek
20 and 30 year HMA Designs

**20 year, 8.5 million ESALs**
- 1.75” 5E10 Top
- 3” 3E10 Level
- 4.5” 2E10 Base
- 6” Aggregate Base
- 18” Sand Subbase

**30 year, 13.1 million ESALs**
- 1.5” GGSP
- 2.5” 4E30 Level
- 7.25” 3E30 Base
- 12” Aggregate Base
- 24” Sand Subbase

**Constructed in 2017**
Design

I-475 from Carpenter Rd to Clio Rd
20 and 50 year HMA designs

20 year, 4.1 million ESALs
- 1.75" 5E10 Top
- 2.5" 4E10 Level
- 3.5" 3E10 Base
- 6" Aggregate Base
- 18" Sand Subbase

50 year, 11.5 million ESALs
- 2" GGSP Top
- 2.5" 4E30 Level
- 6.5" 3E30 Base
- 12" Aggregate Base
- 24" Sand Subbase

2019 Construction
I-475 Reconstruction
Carpenter Rd to Clio Rd
I-475 Reconstruction
Carpenter Rd to Clio Rd.

STANDARD PAVEMENT
(Southbound Lanes)

- 7.75" Asphalt
- 6" DG Aggregate Base
- 18" Sand Subbase

5E10 @ 192.5 lbs
4E10 @ 275 lbs
3E10 @ 385 lbs

50 YEAR PAVEMENT
(Northbound Lanes)

- 2" GGSP Asphalt
- 9" Asphalt
- 12" DG Aggregate Base
- 24" Sand Subbase

4E30, Mod @ 275 lbs
3E30, Mod @ 715 lbs
Call to Action

IN SOME EUROPEAN COUNTRIES, THEY DRIVE ON THE LEFT. IN MICHIGAN, WE DRIVE ON WHAT’S LEFT.

[Diagram showing comparison between driving habits in America and Michigan, with cartoon cars driving on roads and arrows indicating sober and drunk driving scenarios.]
My love for you is as deep as a Michigan pothole.
Last year, the American Society of Civil Engineers gave Michigan a D+ for the state of our infrastructure.

Also last year, a privately-funded study found that Michigan has the worst roads in the nation.
REMAINING SERVICE LIFE (RSL) YEARS

- RSL 0-2: 20.84%
- RSL 3-7: 44.48%
- RSL 8+: 34.68%

Legend:
- Poor Pavement
- Fair Pavement
- Good Pavement
Michigan ranks #46 out of all 50 states in the amount spent on highways per capita.

Michigan ranks last among Great Lakes states.
Michigan numbers, while based on 2015 census data, also include the revenue generated by 2017 increases in gas taxes and registration fees. Even with that increase in funding, Michigan still lags behind its neighbors in highway and bridge investment.

Source: https://www.usgovernmentspending.com/compare_state_spending_2016b60a
https://www.census.gov/govs/local/
Michigan’s Road Quality and Cost of Maintenance Over Time
WHY WE INVEST IN FLORIDA

**MICHIGAN**

- 122,286 MILES PUBLIC ROADS
- 39% POOR CONDITION
- 11,156 BRIDGES
- 11% STRUCTURALLY DEFICIENT

**FLORIDA**

- 122,659 MILES PUBLIC ROADS
- 11% POOR CONDITION
- 12,313 BRIDGES
- 2.1% STRUCTURALLY DEFICIENT

Recently Florida’s population has grown at a rate of 1%, adding 1 million people, plus 126 million people visited Florida in 2018. Which means greater strain on infrastructure yet they have better roads.

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Funding for Roads

Funding 10-Year Plan

- Return to predictable, constitutionally dedicated road funding model:
  - Phase in gas and diesel tax increase of 15 cents per gallon every six months through Oct. 1, 2020.
  - Eliminate less reliable Individual Income Tax earmark for roads.

<table>
<thead>
<tr>
<th>Gas and Diesel Tax Phase In</th>
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</thead>
<tbody>
<tr>
<td>Oct 1, 2019</td>
</tr>
<tr>
<td>April 1, 2020</td>
</tr>
<tr>
<td>October 1, 2020</td>
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</table>
### Fixing Michigan Roads Plan - State and Local Distribution*  
(In Millions)

<table>
<thead>
<tr>
<th></th>
<th>FY 2020</th>
<th>FY 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>State-Owned Roads (70%)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State Road Projects</td>
<td>$645.6</td>
<td>$1,503.7</td>
</tr>
<tr>
<td><strong>TOTAL State-Owned Roads</strong></td>
<td>$645.6</td>
<td>$1,503.7</td>
</tr>
<tr>
<td><strong>Local Road Agencies (27%)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local Road Projects</td>
<td>$189.3</td>
<td>$441.0</td>
</tr>
<tr>
<td>Local Bridges</td>
<td>$36.7</td>
<td>$85.5</td>
</tr>
<tr>
<td>Local Rural Economic Corridors</td>
<td>$18.3</td>
<td>$42.7</td>
</tr>
<tr>
<td><strong>TOTAL Local Road Agencies</strong></td>
<td>$244.3</td>
<td>$569.2</td>
</tr>
<tr>
<td><strong>Multi-Modal Innovation Projects (3% - State and Local)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transit and Mobility</td>
<td>$16.6</td>
<td>$38.5</td>
</tr>
<tr>
<td>Rail and Port Investments</td>
<td>$11.0</td>
<td>$25.6</td>
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<tr>
<td><strong>TOTAL Multi-Modal Innovation Projects</strong></td>
<td>$27.6</td>
<td>$64.1</td>
</tr>
<tr>
<td><strong>TOTAL Distribution of New Transportation Revenues</strong></td>
<td>$917.5</td>
<td>$2,137.0</td>
</tr>
</tbody>
</table>
Fixing Michigan Roads Plan

State Trunkline Actual and Projected Pavement Conditions with Fixing Michigan Roads Plan Revenues 2017 - 2029

Goal: 90%
Current: 78%

2029: 91%

Current Course to Further System Deterioration

Fixing Michigan Roads Plan
Correcting Course to a Sustainable Condition Goal
GET THE FACTS.
HEAR THE STORIES.
RAISE YOUR VOICE.

www.fixmystate.org

“Michigan, we have a problem...our infrastructure is failing. This problem doesn’t just affect some of us, it affects all of us.”

FixMIState is a statewide public relations campaign to raise awareness for Michigan’s massive unmet infrastructure needs. Help us spread the word, and get yourself informed, by joining the conversation today.

On the FixMIState website, www.fixmystate.org, you can get the latest news, reports, videos and information, as well as sign up to receive an e-newsletter that covers specific infrastructure issues in your part of the state.

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fixmistrate

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Instagram
Questions?