MASTIC REPAIR

Jerry Byrne
Deputy Managing Director, Operations
Kent County Road Commission
MASTIC REPAIR

- Safety
- Quality
- Productivity
- Cost
• Safety
• Labor-intensive operations
QUALITY

CLEAN  DRY  TEMPERATURES
PREP WORK
Makes the Job
U \ Cmr wi 3 Đỗ< Ėovi 3 m
Keeping Machine Full of Material

Keeps Mastic at Proper Temperature
NOT ALWAYS ...

A PRETTY PATCH

STRAIGHT LINES
ICING ON THE CAKE
FILLING RUMBLE STRIPS
## I-96 Ionia County Mastic
*IONIA / KENT / MDOT*

<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
<th>Crew / Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>11/01/2021</td>
<td>W/B 96 right lane from Exit 73 to Weigh Station</td>
<td>KCRC - 399</td>
</tr>
<tr>
<td>11/01/2021</td>
<td>W/B 96 right lane from Exit 73 to Weigh Station</td>
<td>MDOT - 120</td>
</tr>
<tr>
<td>11/02/2021</td>
<td>W/B 96 right lane from Weigh Station to Exit 66</td>
<td>KCRC - 426</td>
</tr>
<tr>
<td>11/02/2021</td>
<td>W/B 96 right lane from Weigh Station to Exit 66</td>
<td>MDOT - 180</td>
</tr>
<tr>
<td>11/03/2021</td>
<td>W/B 96 right lane from E/ of Exit 66 to W/ of Exit 66</td>
<td>KCRC - 402</td>
</tr>
<tr>
<td>11/03/2021</td>
<td>W/B 96 right lane from E/ of Exit 66 to W/ of Exit 66</td>
<td>MDOT - 180</td>
</tr>
<tr>
<td>11/04/2021</td>
<td>W/B 96 right lane from W/ of Exit 66 to Jordan Lake</td>
<td>KCRC - 362</td>
</tr>
<tr>
<td>11/04/2021</td>
<td>W/B 96 right lane from W/ of Exit 66 to Jordan Lake</td>
<td>MDOT - 180</td>
</tr>
<tr>
<td>11/05/2021</td>
<td>W/B 96 right lane from Jordan Lake to Bliss rd</td>
<td>KCRC - 238</td>
</tr>
<tr>
<td>11/05/2021</td>
<td>W/B 96 right lane from Jordan Lake to Bliss rd</td>
<td>MDOT - 150</td>
</tr>
<tr>
<td>11/08/2021</td>
<td>W/B 96 right lane from Jordan Lake to Bliss rd</td>
<td>KCRC - 160</td>
</tr>
<tr>
<td>11/08/2021</td>
<td>W/B 96 right lane from Jordan Lake to Bliss rd</td>
<td>MDOT - 120</td>
</tr>
<tr>
<td>11/09/2021</td>
<td>W/B 96 right lane from Knox Rd to Exit 73</td>
<td>KCRC - 438</td>
</tr>
<tr>
<td>11/10/2021</td>
<td>W/B 96 left lane from Knox Rd to Exit 73</td>
<td>KCRC - 360</td>
</tr>
<tr>
<td>11/10/2021</td>
<td>W/B 96 left lane from Knox Rd to Exit 73</td>
<td>MDOT - 120</td>
</tr>
<tr>
<td>11/22/2021</td>
<td>W/B 96 left lane from Exit 73 to Weigh Station</td>
<td>KCRC - 328</td>
</tr>
<tr>
<td>11/23/2021</td>
<td>W/B 96 left lane from Weigh Station to Exit 66</td>
<td>KCRC - 264</td>
</tr>
</tbody>
</table>

**TOTAL** 2,917 boxes

**48.61 skids**
PRODUCTIVITY MEANS

• Traffic control
• Prep = Compressed air/vacuum sweeper/air hammers
• Asphalt to fill deep holes
• Mastic = Truck with material/mastic machine
• Shadow vehicles
SPREADER BOX FOR LONGITUDINAL JOINTS
DAYS  

VEARM  

WEEKENDS
COSTS $$$$$
NOT FOR ALL APPLICATIONS

• Surrounding pavements, base material and drainage must be in good condition
• Not a quick fix
• Doesn’t replace hot rubber
• Will generate complaints/
Not all justified
## Mastic

### Operational cost per day

<table>
<thead>
<tr>
<th>Material</th>
<th>Cost per day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material</td>
<td>$4,500/4 tons ($1,130 per ton)</td>
</tr>
<tr>
<td>Labor</td>
<td>$2,500</td>
</tr>
<tr>
<td>Equipment</td>
<td>$1,000</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Asphalt</th>
<th>Cost per ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spray Patch</td>
<td>$65-70 per ton</td>
</tr>
<tr>
<td>Spray Patch</td>
<td>$200 per ton</td>
</tr>
</tbody>
</table>
• Short-term vs Long-term

• Short-term: Expensive

• Long-term Investment

• Proven successful for Kent County Road Commission

• In the right application with quality control
KCRC purchased over 1 million lbs of mastic last year

Single largest customer for Sherwin Industries
What is Mastic?

A hot applied pourable, aggregate-filled, flexible, self-adhesive patching material used for maintenance and repair of asphalt and concrete pavements.
Unique Features

FEATURE:
Conforms with ASTM 8260 Spec

FEATURE:
Bulkable
Features

- Highly adhesive
- Waterproof
- Flexible
- No Compaction
- Polymer modified AC binder
- Aggregate filled
Uses

Asphalt
- Wide crack repair
- Potholes
- Failed paving joint repair
- Alligatored cracking
- Bridge approaches
- Leveling manhole covers
- Pretreatment

Concrete
- Wide crack repair
- Potholes
- Spalled repair
- Corner break repair
- RPM pop out’s
- Bridge deck repair
Use's

- Alligator cracking
- Potholes
- Wide cracks
- Failed paving joints
Use’s

Slab Cracking

Corner Breaks

Spalled Joints
Wide Crack’s
Level Manhole Cover’s
Skin Patching
Potholes
PCCP Repairs
Shoulder Joint Repair
Various Applications
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