Annual Road Plan

City of Manchester
Department of Public Works
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Pavement Management Strategy

Finding optimum strategies (cost/benefit) for evaluating and maintaining pavements in a serviceable condition over a period of time.

Objectives:
- Preserve Good Roads
- Choose the Right Treatment
- Chip Away at the Worst
- Maximize the Life Span
- Minimize the Cost

Good Roads Cost Less

Keep Your Good Roads Good
Pavement Management Strategy

Keep Good Roads Good with Preventive and Preservation Treatments (lowest cost/higher ride quality)

Selectively Resurface and Reconstruct the Worst Roads (higher cost/lower ride quality)
Bridgeport, CT
2004: 2" Mill & Fill

Fairfield, CT
2004: 2" Mill & Fill
2010: Crack Sealing & Microsurfacing

Photo Courtesy of Sealcoating, Inc
DPW Toolbox

- Preventive
  - Crack Sealing & Fog Sealing

- Preservation
  - Cape Seal (2017 Pilot) & Chip Seals (2018 Pilot)
  - Microsurface & Bonded Wearing Course (2017 Pilot)

- Resurfacing
  - HMA Overlay
  - Cold Plane & HMA Overlay

- Reconstruction
  - Cold-in-Place Recycling (2017 Pilot)
  - Reclamation & Reconstruction
## Road Treatment Comparison

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
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</thead>
<tbody>
<tr>
<td>Preventive</td>
<td>0.0</td>
<td>26.5</td>
<td>20.7</td>
<td>35.0</td>
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<tr>
<td>Preservation</td>
<td>0.0</td>
<td>0.0</td>
<td>2.2</td>
<td>4.0</td>
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<tr>
<td>Resurfacing</td>
<td>6.6</td>
<td>21.2</td>
<td>11.5</td>
<td>14.3</td>
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<tr>
<td>Reconstruction</td>
<td>4.6</td>
<td>5.4</td>
<td>6.2</td>
<td>5.0</td>
</tr>
<tr>
<td><strong>Total Miles</strong></td>
<td>11.2</td>
<td>53.1</td>
<td>40.6</td>
<td>58.3</td>
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</table>
Network Service Life (NSL)

- Length of Road in Network: 403 miles
- Annual Loss of Service Life: 403 mile-years
- Service Life & Cost Vary by Treatment
- Manage Lifecycle (add service life with low cost treatments)
Analysis of Network Life

**Annual Goal:** Add 403 mile-years to Network

**Added NSL**

<table>
<thead>
<tr>
<th>Year</th>
<th>Mile-years</th>
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<tbody>
<tr>
<td>2014 Season</td>
<td>153</td>
</tr>
<tr>
<td>2015 Season</td>
<td>396</td>
</tr>
<tr>
<td>2016 Season</td>
<td>293</td>
</tr>
<tr>
<td>2017 Season</td>
<td>374</td>
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</table>
2018 Road Construction Ahead!

- Extend and Bid Contracts (spring)
- Coordinated Repairs: Utilities & DPW
- Continued Focus on Main Arteries
  - Highest Traffic Volumes/
  - Biggest Benefit to Citizens
- Pilot/Assess Preservation Treatments
- Alley Resurfacing Program
Treatment Allocation

- Preventive: 5-10% for 31.5 miles
- Preservation: 20-25% for 6.5 miles
- Resurfacing: 40-55% for 10.0 miles
- Reconstruction: 20-25% for 4.0 miles

Proposed FY19 ROW Budget: $5,425,000

- Road Bond: $3,525,000
- Degradation Funds: $1,500,000
- CDBG Funds: $400,000
Paving Plans

The Paving Plan will be posted on the City website to show the limits of funded projects.

Sections of Main Roads selected for the 2018 construction season include:

- Union Street
- Mammoth Road
- Wellington Road
- Lake Avenue
- Beech Street

- Bridge Street Ext.
- Chestnut Street
- Maple Street
- Bridge Street
- S. Mammoth Road

- Pine Street
- S. Beech Street
- McGregor Street
- Amherst Street
- Varney Street
Thank You – Questions?

City of Manchester
Department of Public Works

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