Agenda

• StreetScan Solution in Wilton
• Roads Condition Statistics
• Roads Management Plan/Projections
• Streetlogix Portal Demonstration

Questions at anytime!
Computer Vision • Machine Learning • Data Science • Sensing Expertise
ASTM Standard Road Distresses

- Cracks: Longitudinal and transverse
- Cracks: Joint
- Cracks: Block
- Cracks: Edge
- Cracks: Alligator
- Cracks: Slippage
- Raveling
- Pothole
- Depression
- Rutting
- Shoving
- Patches
- Swell
- Lane Drop
- Bumps/Sags
- Corrugation
- Polished Aggregate
- Bleeding
- Weathering
- RR Crossing

Standard PCI Rating Scale

- 100: Good
- 85: Satisfactory
- 70: Fair
- 55: Poor
- 40: Very Poor
- 25: Serious
- 10: Failed
- 0: Failed
Sample excellent road – (86-100) (Dark Green)
Sample good road – (71-85)
(Light Green)
Sample fair road – (56-70) (Yellow)
Sample poor road – (41-55) (Orange)
Sample very poor road – (26-40) (Red)
Sample serious/failed road – (0-25)
(Dark Red & Gray)
Pavement Condition Statistics
Pavement Condition Index (PCI)

As of June 1, 2019
Roads Condition Statistics

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Condition</td>
<td>77.0</td>
</tr>
<tr>
<td>% below Critical Condition (55)</td>
<td>14.1%</td>
</tr>
<tr>
<td>% above Critical Condition (55)</td>
<td>85.9%</td>
</tr>
</tbody>
</table>

As of June 1, 2019

PCI Distribution by category

- Excellent
- Good
- Fair
- Poor
- Very Poor

(STREETScan logo)
Distribution of Pavement Condition Index

As of June 1, 2019

Distribution of PCI

Number of segments

PCI
### Breakdown by Miles and Number of Segments

#### As of June 1, 2019

<table>
<thead>
<tr>
<th>PCI Range</th>
<th>0 – 10 (Gray)</th>
<th>11 – 25 (Dark Red)</th>
<th>26 – 40 (Red)</th>
<th>41 – 55 (Orange)</th>
<th>56 – 70 (Yellow)</th>
<th>71 – 85 (Green)</th>
<th>86 – 100 (Dark Green)</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centerline Miles</td>
<td>0</td>
<td>0.1</td>
<td>3.4</td>
<td>14.8</td>
<td>28.5</td>
<td>34.1</td>
<td>49.4</td>
<td>130.3</td>
</tr>
<tr>
<td>Segments</td>
<td>0</td>
<td>1</td>
<td>20</td>
<td>70</td>
<td>127</td>
<td>185</td>
<td>293</td>
<td>696</td>
</tr>
<tr>
<td>Percentage</td>
<td>0%</td>
<td>0.1%</td>
<td>2.6%</td>
<td>11.4%</td>
<td>21.9%</td>
<td>26.2%</td>
<td>37.9%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Roads completed after June 1, 2019: 1.64 miles, 2.51 miles, 0.95 miles
Summary of Findings

As of June 1, 2019

• Average PCI for City-owned road is **77.0**

• The estimated maintenance backlog is **$13,433,112**. This value represents the cost to repair the entire road network at once to an average PCI of 85.
Cost Estimates Used

- Preventive (Crack Seal): $1/SY
- Rehabilitation (Mill & 2” Overlay): $20/SY
- Reclamation (Full-Depth w/ 4” Overlay): $40/SY
Pavement Maintenance and Repair
## Maintenance and Repair Statistics

<table>
<thead>
<tr>
<th>PCI Range</th>
<th>Category</th>
<th>Description</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 40</td>
<td>Reconstruction</td>
<td>Significant structural damage</td>
<td>Reclamation, Major Mill and Overlay &gt; 4”</td>
</tr>
<tr>
<td>40 – 70</td>
<td>Rehabilitation</td>
<td>Resurfacing required to mitigate the effects of rutting, cracking and other distresses</td>
<td>Hot-mix overlay, Mill &amp; Overlay, Hot-in-place Rescycling</td>
</tr>
<tr>
<td>70 – 85</td>
<td>Preventive Repair</td>
<td>Minor distresses in early stages of pavements' life-cycle</td>
<td>Crack Seal, Microsurfacing, Chip Seal</td>
</tr>
<tr>
<td>&gt; 85</td>
<td>Defer Maintenance</td>
<td>Pavement in a great condition</td>
<td>NA</td>
</tr>
</tbody>
</table>
Prioritization Factors

- Functional Class
- Condition
  - PCI
- Benefit (condition change, life extension) to Cost (repair Cost) Ratio
- Available Budget
Deterioration Models
Get In Touch

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