



TOWN OF ENFIELD – PAVEMENT MANAGEMENT UPDATE



Presented By: **VHB / Vanasse Hangen Brustlin, Inc**
Pavement Engineering Services

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June 21, 2010



PRESENTATION OUTLINE

- Pavement Management Background
- Results and Analysis
- Recommendations

What is Pavement Management?

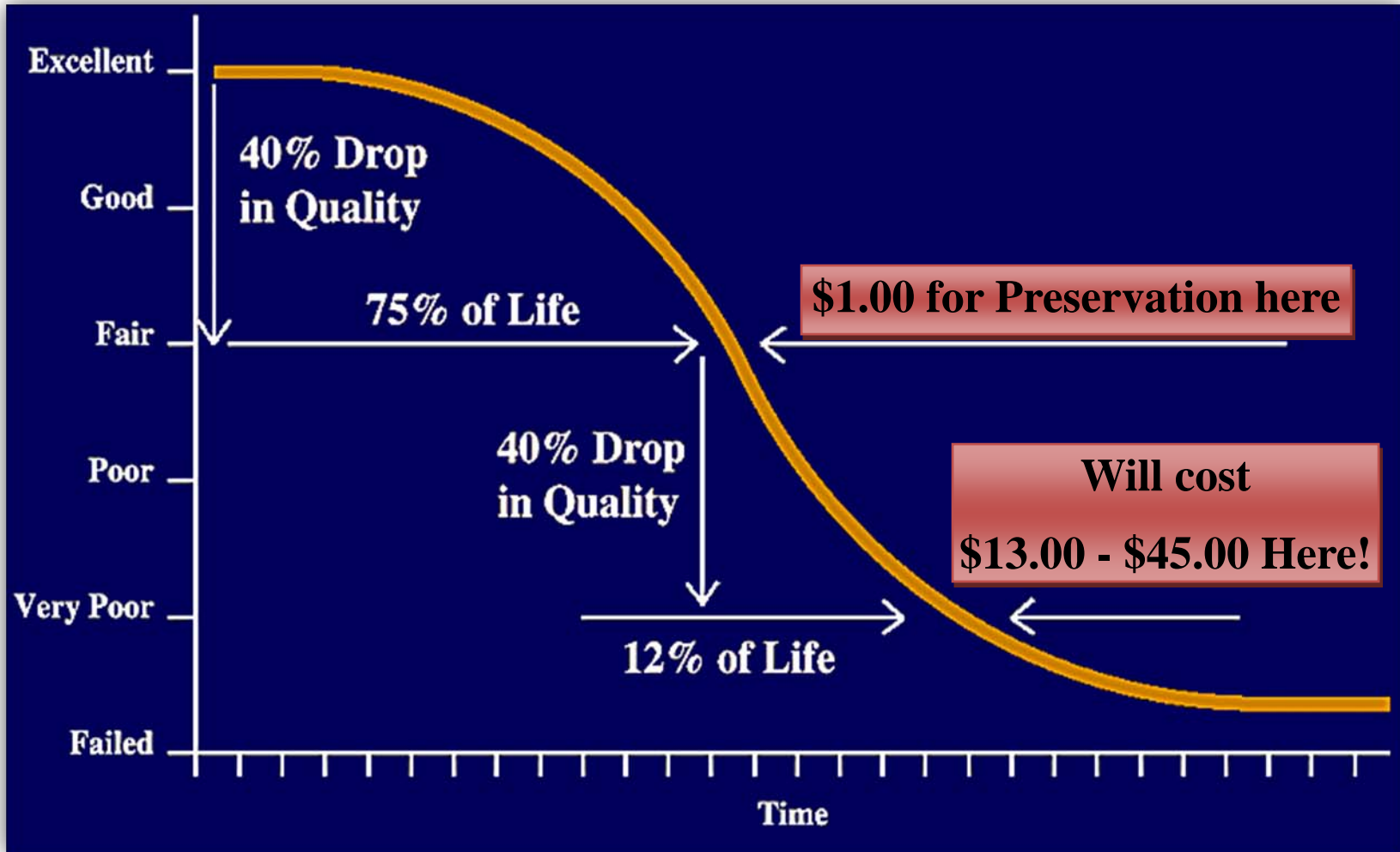
... The practice of **planning**
for pavement **maintenance** and **rehabilitation**
with the goal of **maximizing**
the **value** and **life** of a
pavement network.

"Getting the Biggest Bang for your Buck"

The Process...

1. Pavement Section Inventory
2. Pavement Distress Identification & Quantification by Visual Inspection
3. Pavement Condition Index (PCI) Calculation on a 0 to 100 Scale
4. GIS Integration
5. Define Repair Strategies and Costs
6. Test Various Budget Scenarios
7. Prioritize Projects & Develop Annual Road Program

Enfield has followed this process to develop the successful Road 2000 & Road 2005 programs. The results of this latest condition evaluation should be used to plot future programs.



Pavement Deterioration Curve

❖ Do Nothing Condition

90-100 PCI



❖ Routine Maintenance Condition

80-89 PCI

Typical Treatments – Crack Seal or Patching



❖ Preventive Maintenance Condition

70-79 PCI

Typical Treatments – Thin Overlay or Chip Seal or Crack Seal & Patch



❖ Structural Improvement Condition

60-69 PCI

Typical Treatments – Overlay or Mill & Overlay or Reclamation



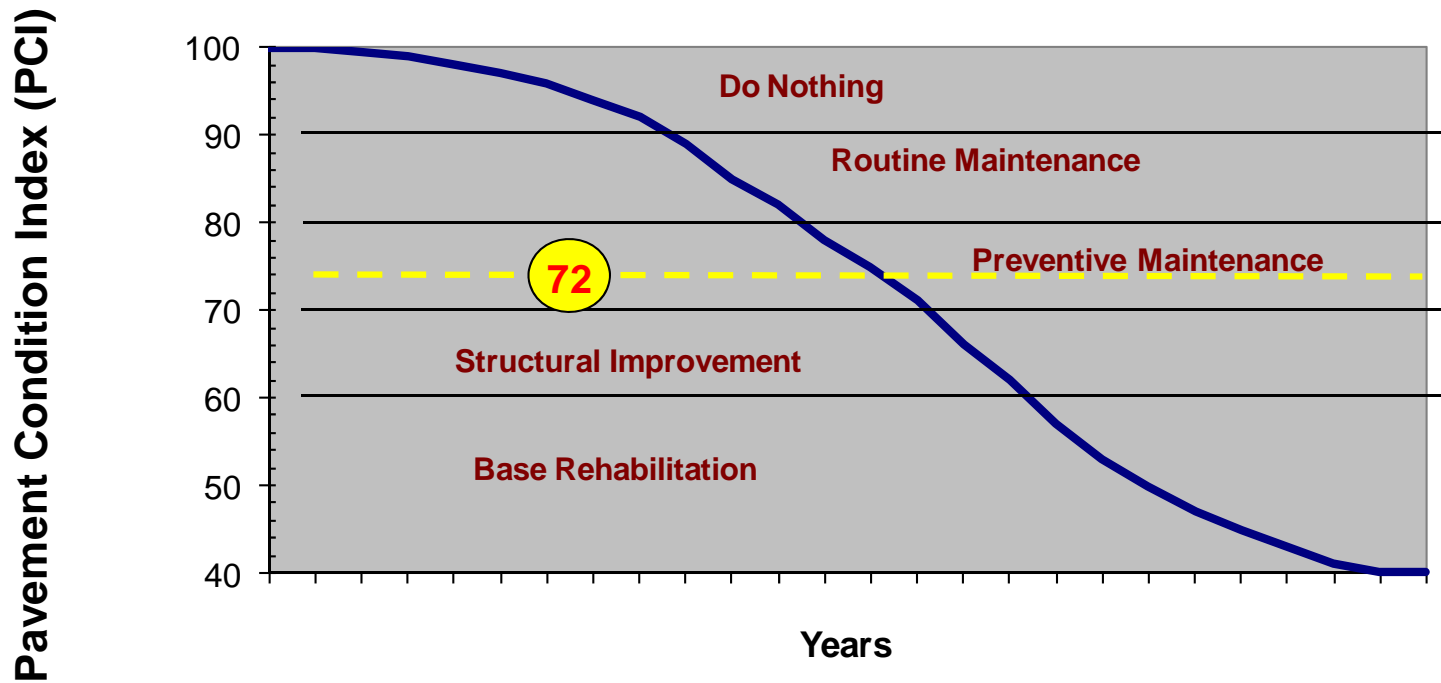
❖ Base Rehabilitation Condition

0-59 PCI

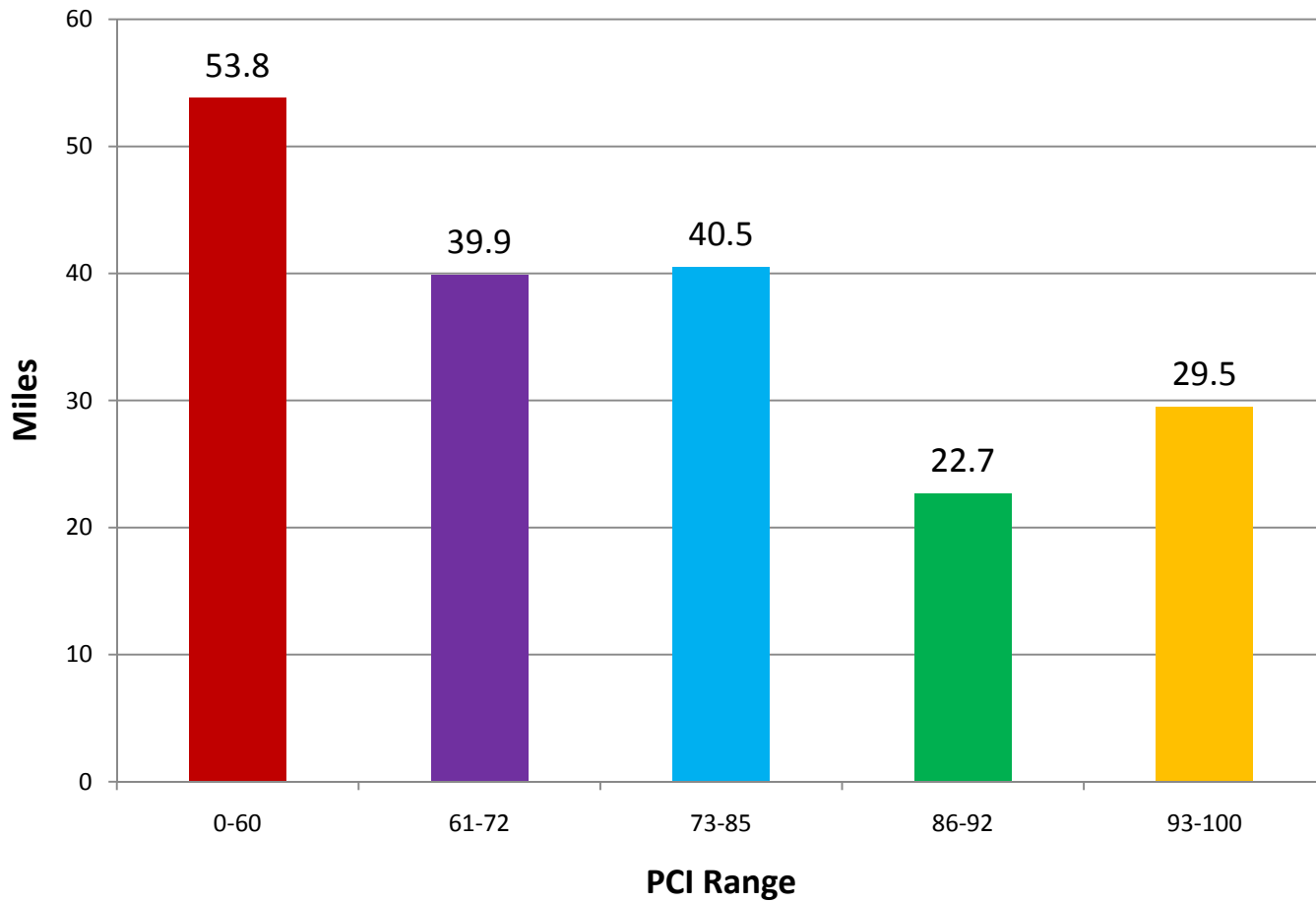
Typical Treatments – Reclamation or Reconstruction



Current Average Pavement Condition Index



Condition Distribution

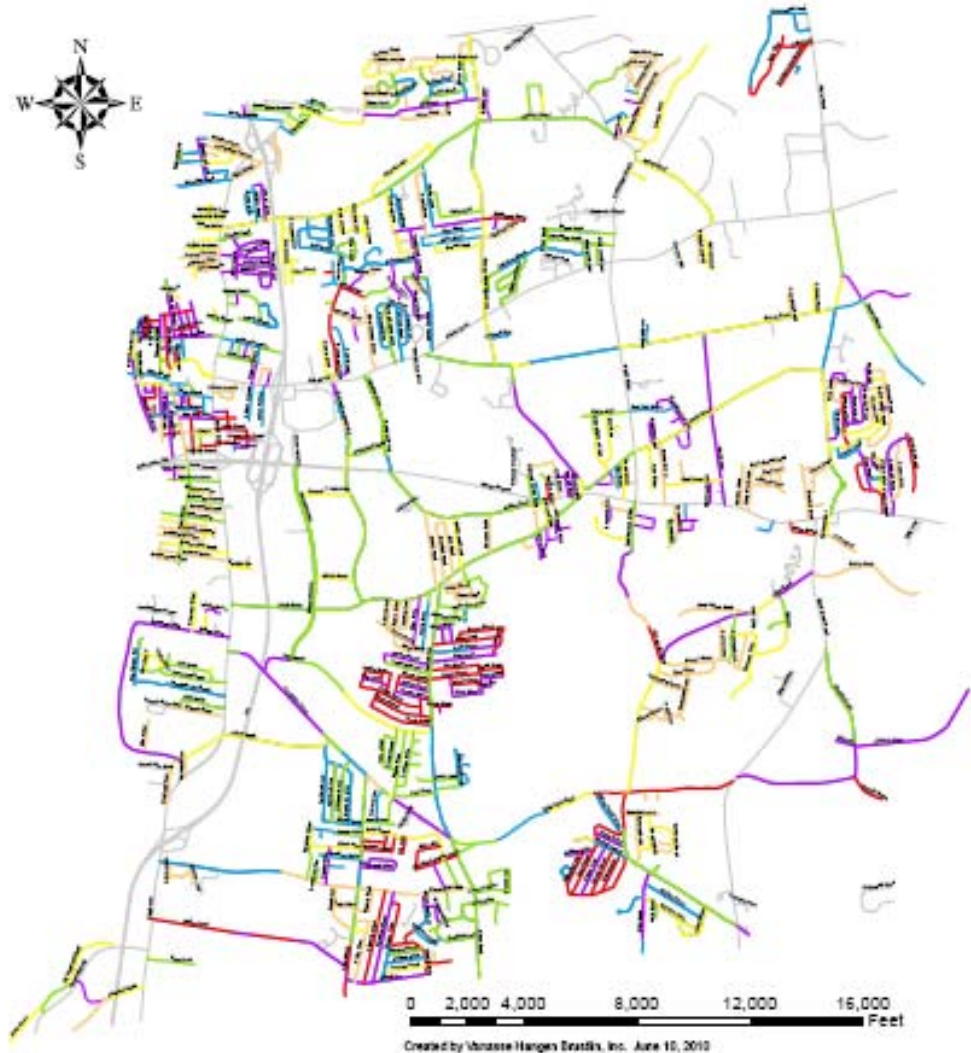


GIS Integration

Town of Enfield
Pavement Condition Map 2010

PCI Range

- 90 - 100
- 80 - 89
- 70 - 79
- 60 - 69
- 50 - 59
- 28 - 49



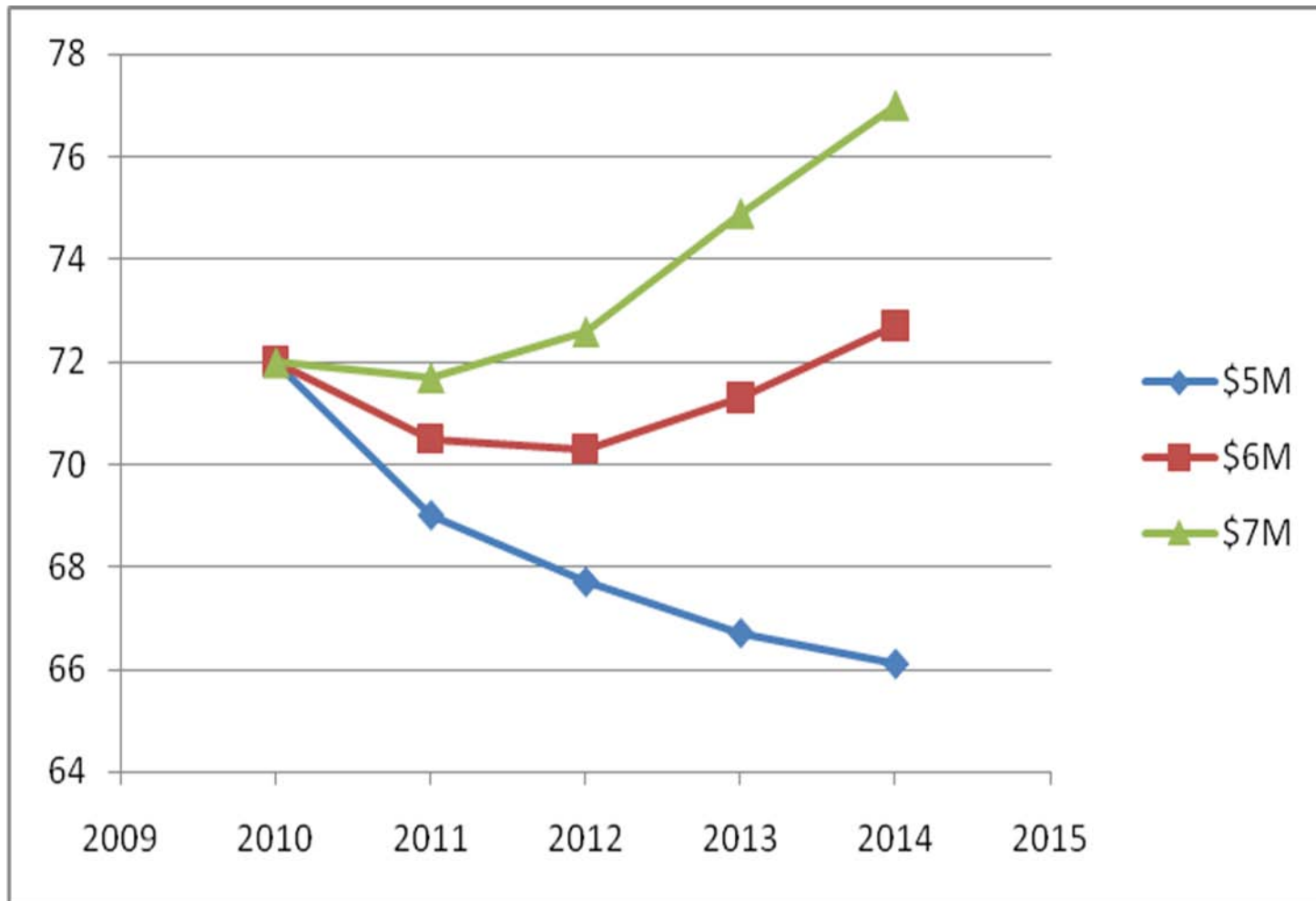
Created by Ursose Hanger Bristol, Inc. June 10, 2010

- Backlog of Work
(\$44,445,480 on 186 miles of Streets)

Table 1 - Summary of Pavement Improvement Needs Backlog

Treatment band	Miles	Dollar Backlog
Do Nothing	29.2	\$ 0
Routine Maintenance	22.8	\$269,594
Preventive Maintenance	37.3	\$4,779,955
Structural Improvement	32.0	\$8,315,514
Base Rehabilitation	64.5	\$31,080,417
Totals:	185.9	\$44,445,480

Projected Change in PCI Under Three Funding Scenarios



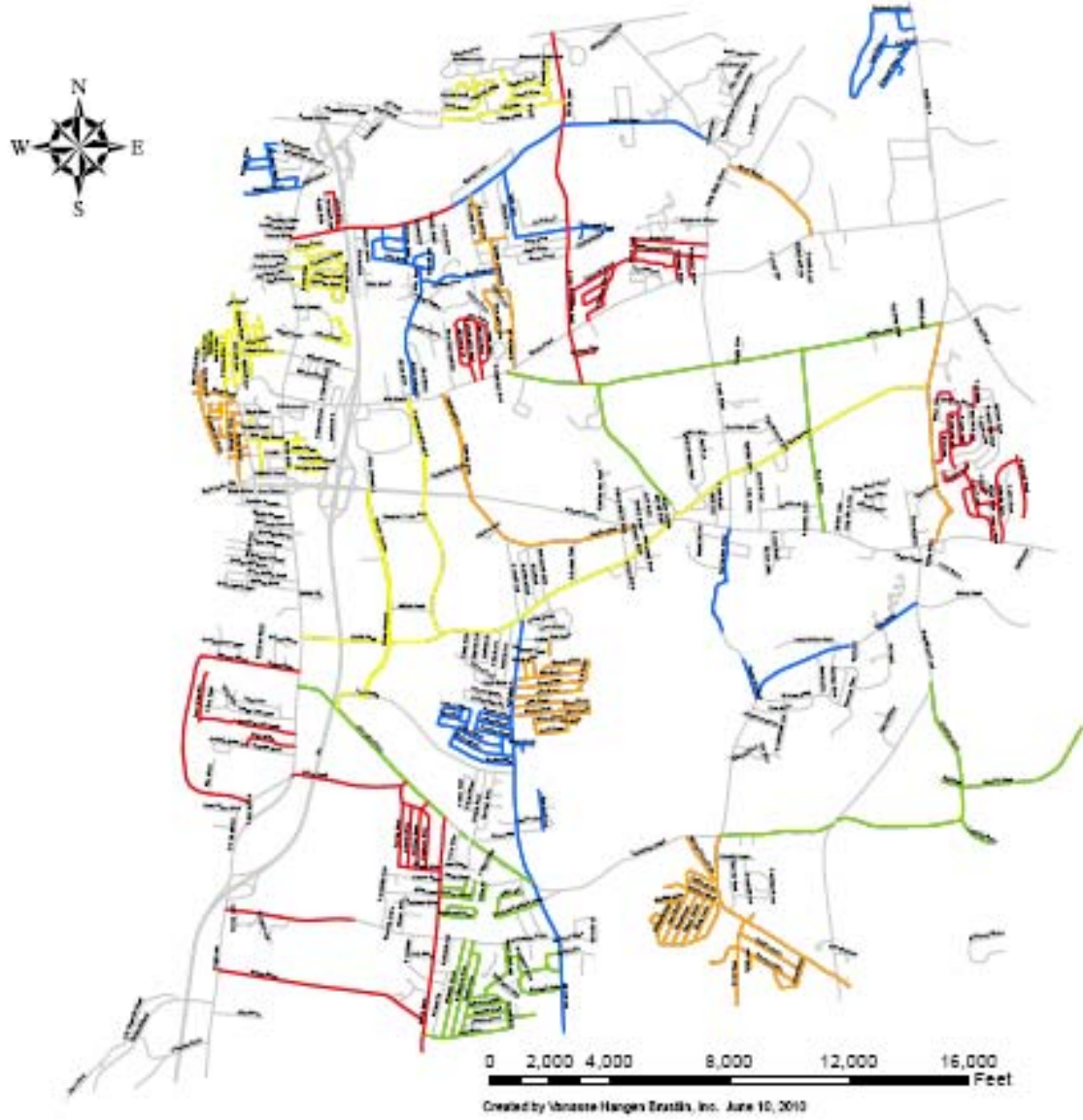
Annual Road Program Development

- Use System Output to Identify Candidate Projects
- Utilize GIS to Coordinate Projects Geographically
 - Reduce Mobilization cost for contractors
 - “Neighborhood” Planning
- Coordinate with Utility Companies
- Adapt to Funding Opportunities and Constraints
- Perform “Project Level” evaluation and design on candidate projects

Preliminary Candidate “Road 2010” Program

Town of Enfield
Road2010 Program
Draft 1 (\$7M/Year)

- 2010
- 2011
- 2012
- 2013
- 2014



Pavement Management Recommendations

- **Preserve the value of the Road 2000 & Road 2005 programs by making timely maintenance repairs using a variety of applicable treatments**
- **Address the remaining major rehabilitation needs as funding allows**
- Budget adequate funds to achieve pavement condition goals
- Provide for construction inspection at the plant and in the field to ensure quality material is provided and quality work is being performed.

Questions & Answers

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