

**“Keep Good Roads Good!”**

Is this  
“Mission Impossible?”

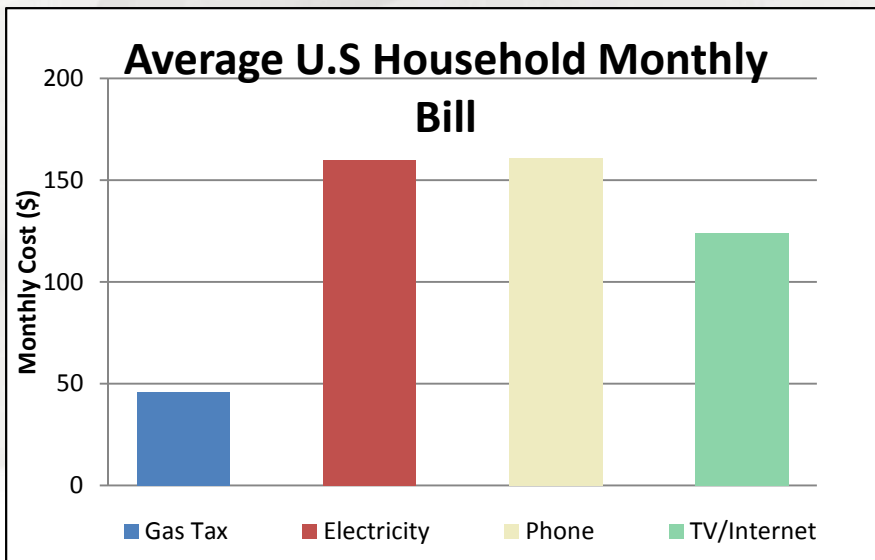
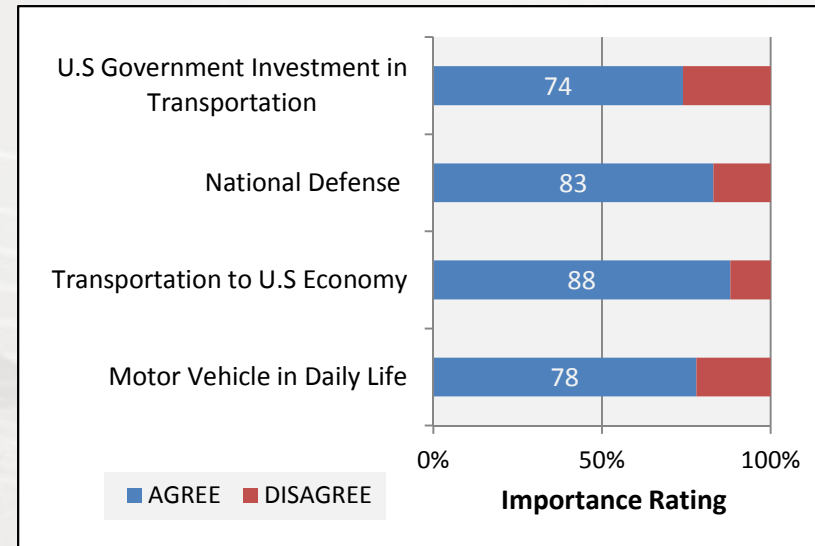
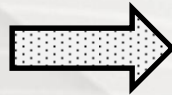
# Keep Good Roads Good!

## Challenges:

- Deteriorating Road Conditions
- Current Levels of Investment
- Available Funding
- Increasing Costs

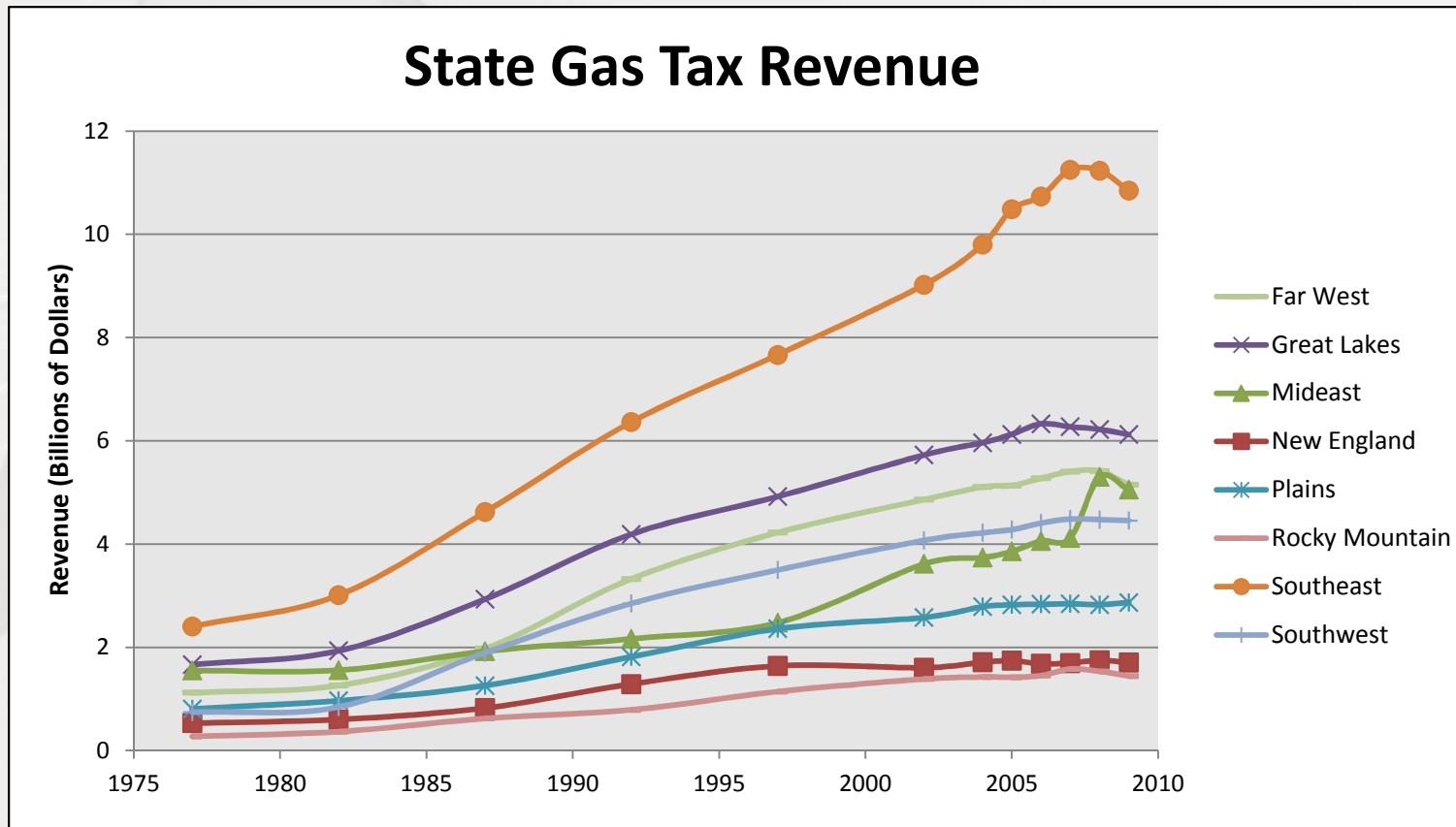
# Personal investment in “good roads”

How important are “good roads” to the public?



How much are “good roads” worth?

# Regional investment in “good roads”



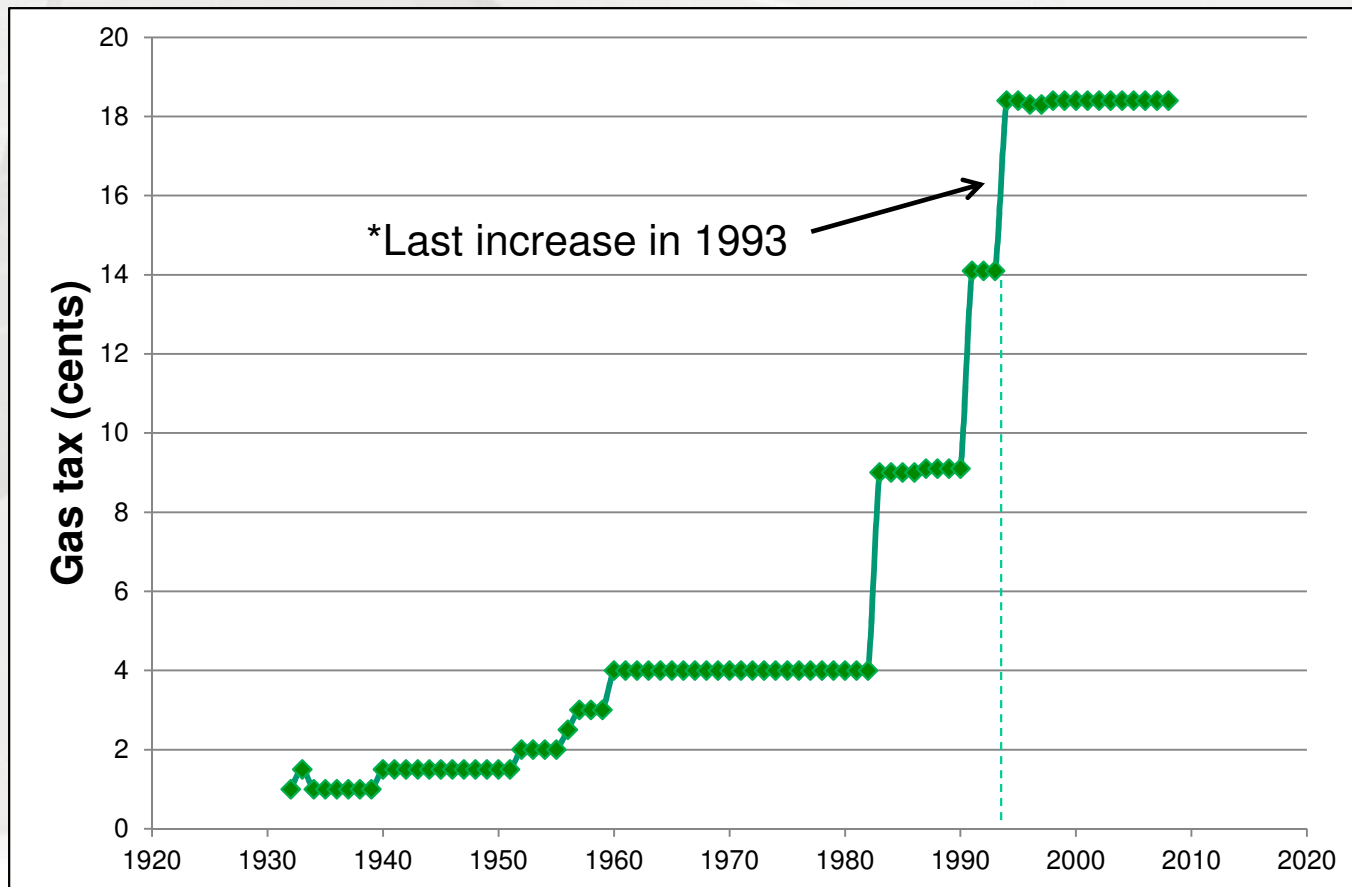
New England 2009 funding  
(**actual**):  
\$1.7 Billion

New England 1977 value  
(corrected for **inflation**):  
\$1.9 Billion

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# National investment in “good roads”

- Federal gas tax



# The NHDOT Maintained road network would stretch from Concord, NH to Anchorage, AK – 4,559 miles



Anchorage, AK

Concord, NH

4,559 Miles

A very long drive!

# Poor Road Conditions



Would your car survive?

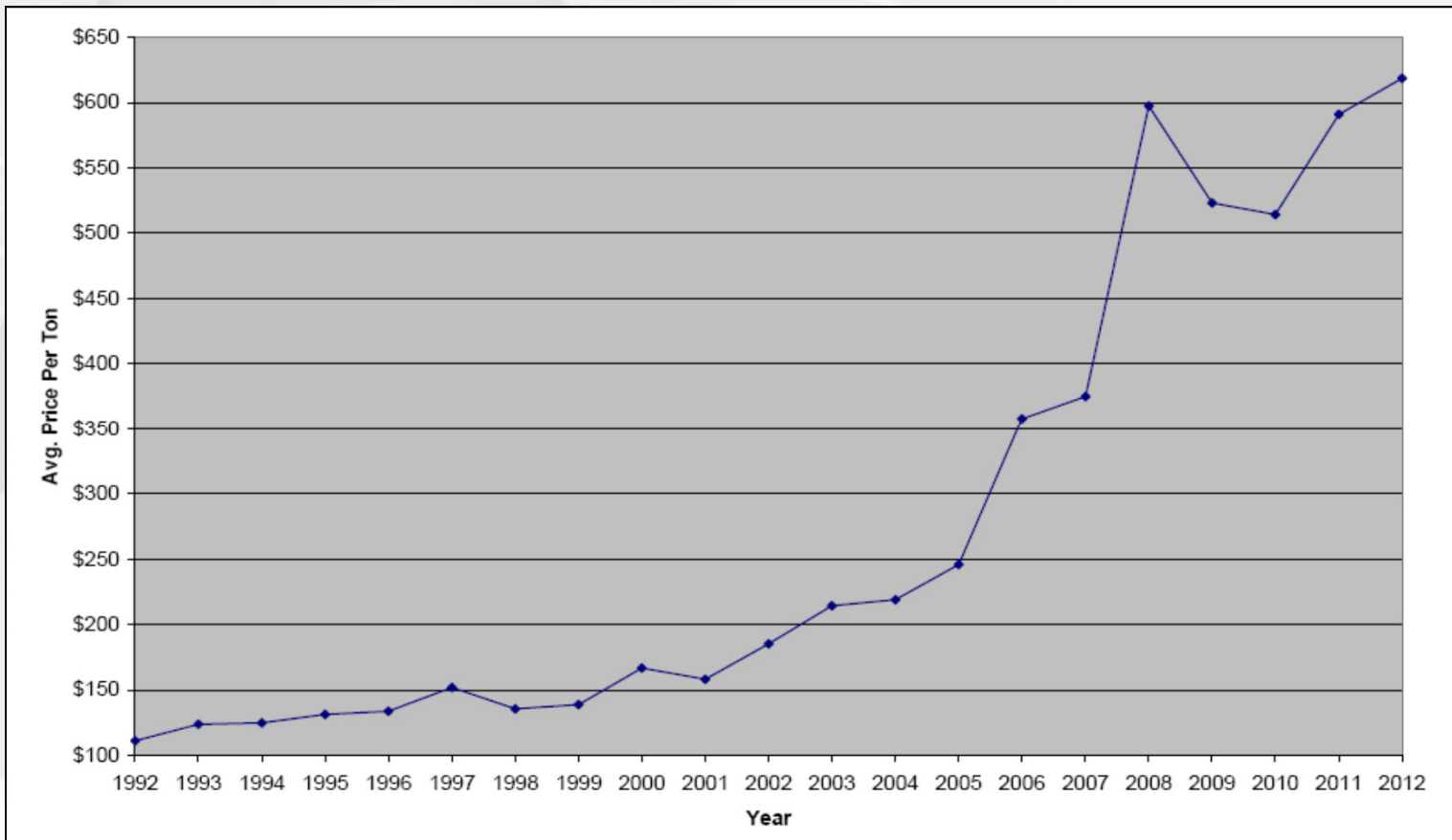
# Funding Resources for NH

- State Funds (road toll tax a.k.a. gas tax, motor vehicle fees, court fees, misc.) (\$250M/ year)
- Federal Aid: Highway Fund (\$143M/year)
  - Currently matched with Turnpike Toll Credits
  - Reduces Capital Program by 15 to 20 %
- Turnpike Fund: For use on turnpike only (\$117M/year)
- Future Revenue Outlook



# Increase in Material Costs

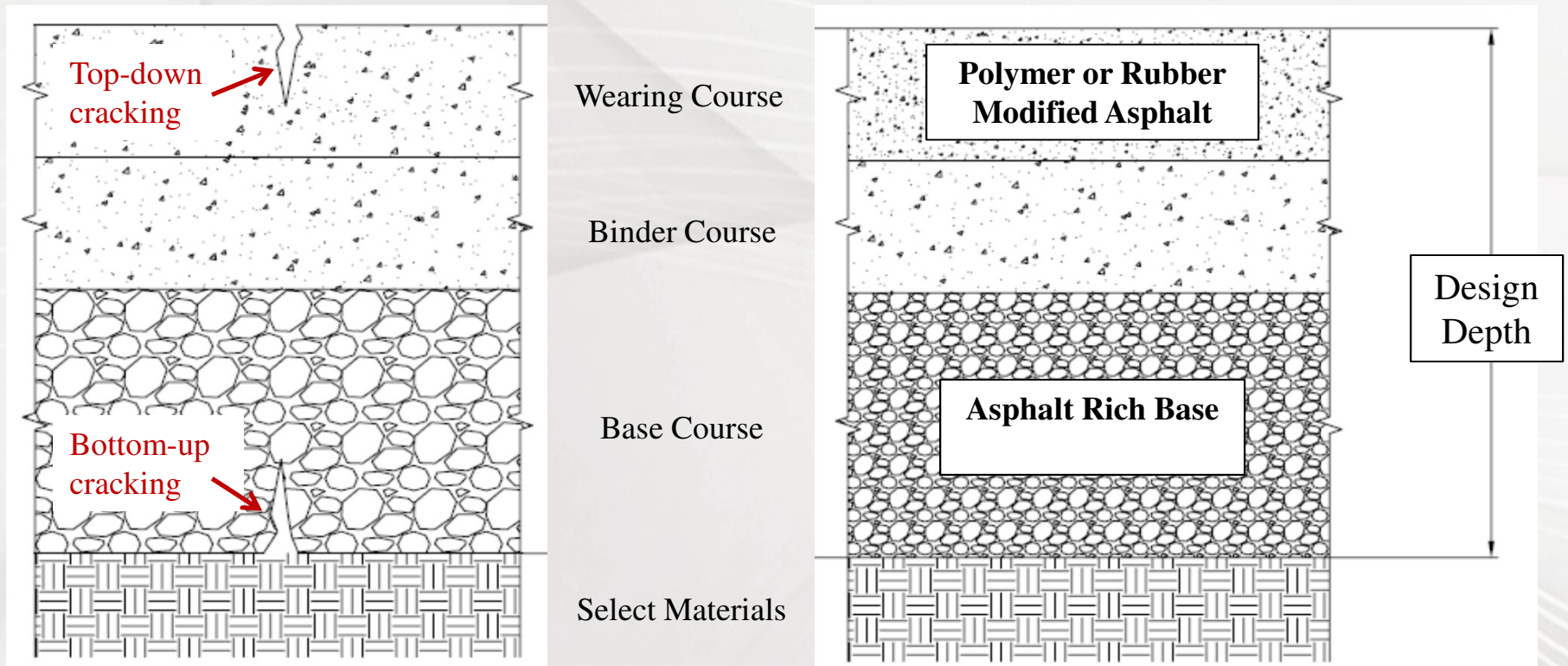
- Asphalt binder cost increased 460% from 1992-2012



# What's the solution?

- Increase Revenue; gas tax, mileage fee, registration, etc
- Make our roads last
  - How do we accomplish with constrained funding?
    - a) Build “Perpetual Pavements”
    - b) Utilize “Pavement Preservation Treatments”

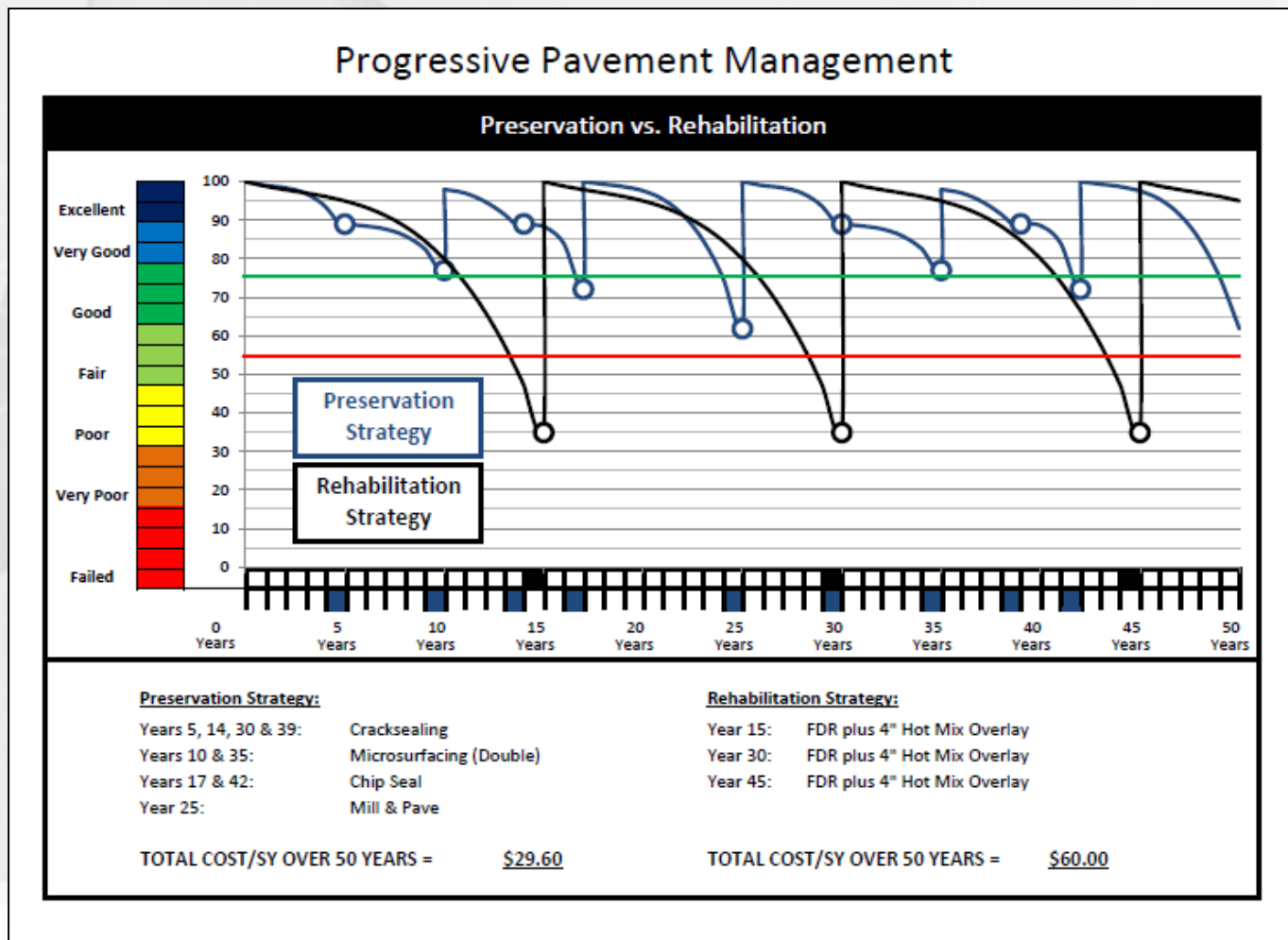
# Perpetual Pavement Design For Asphalt Pavements



*Standard Design*

*Perpetual Pavement Design*

# Why “Pavement Preservation”?



# Pavement Preservation Treatments (typical)

## Additional Life (years)

• Crack Sealing	2
• Chip Seals – asphalt emulsion	5 to 8
• Chip Seals – rubberized AC	8 to 10
• Micro-surfacing	6
• Bonded Wearing Course	10
• Modified 4.75 mm HMA	8 to 10

# Keep Good Roads Good

## Is this “Mission Impossible”?

- Sustainable funding
- Build Perpetual Pavements
- Maintain using Pavement Preservation Practices

***Let's build tomorrow!***

**“Keep Good Roads Good”**

***Thank You!***