

# Session 2: Preventive Maintenance and Pavement Preservation Concepts



# What is *Pavement Preservation*?

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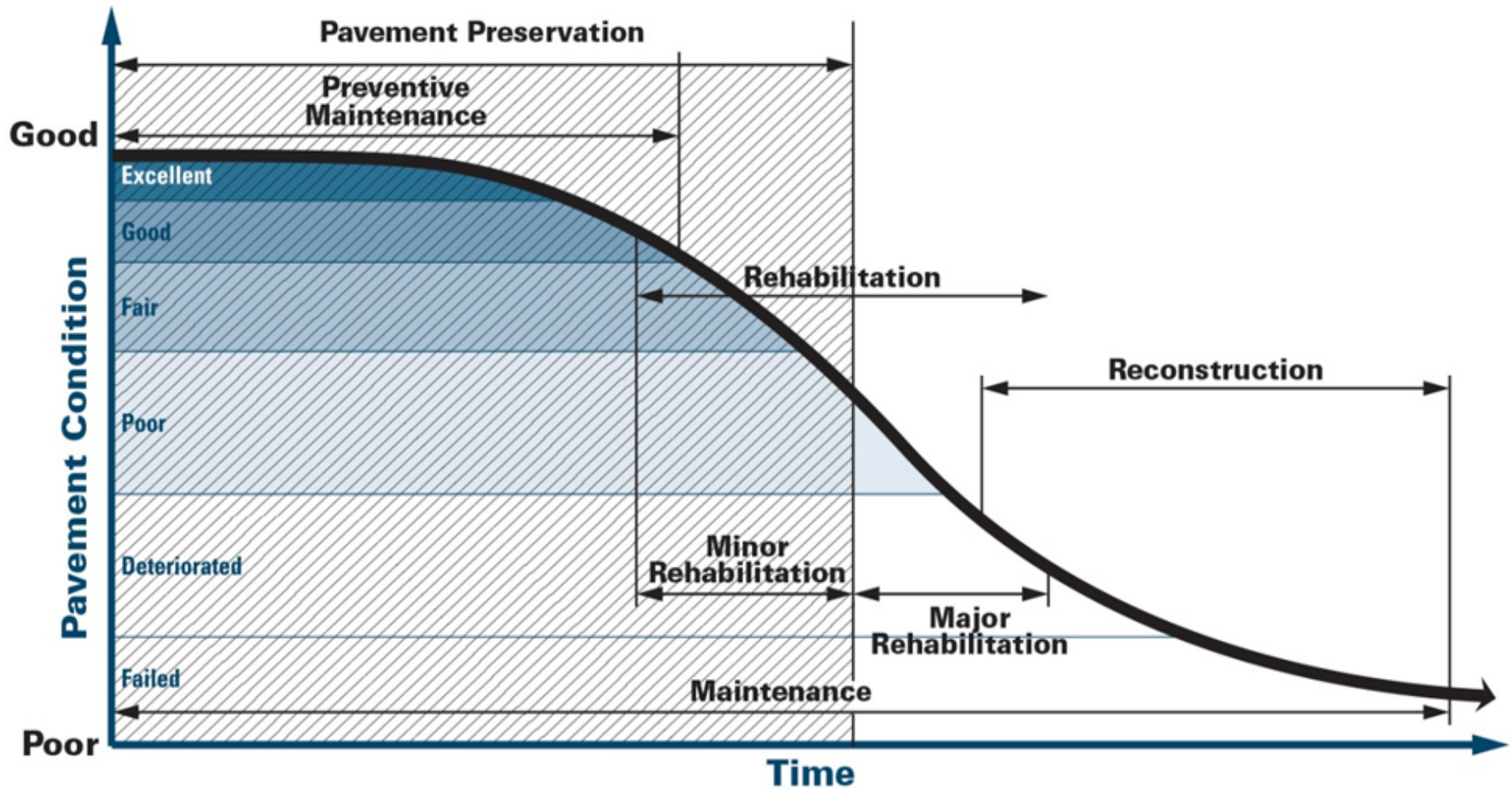
- Network level, long-term strategy for enhancing pavement performance
- Focus on extending pavement life and restoring functional condition
- Goals accomplished with a collection of preventive maintenance treatments and a few minor rehabilitation and routine maintenance treatments

# What is *Preventive Maintenance*?

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- Cost effective treatments
- Applied to structurally sound pavements
- Maintain or improve functional condition
- Does not increase structural capacity

# M&R Types vs. Condition/Time





# Pavement Preservation Philosophy



Keeping good roads in good condition!

# Favorable Characteristics for Preservation

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- Few or limited structural problems
- No materials-related distress
- Pavements in overall relatively good condition (minimal distress)

# Benefits of Pavement Preservation

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- Higher customer satisfaction
- Improved pavement condition
- Cost savings
- Increased safety

# Concrete Pavement Preservation Treatments

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- Slab stabilization
- Slab jacking
- Partial-depth repairs
- Full-depth repairs
- Retrofitted edge drains
- Load transfer restoration
- Cross stitching
- Diamond grinding
- Diamond grooving
- Joint resealing
- Crack sealing
- Thin concrete overlay



# Typical Performance of Selected Preservation Treatments

Treatment	Expected Performance (treatment life), years
Concrete joint resealing	2 to 8
Concrete crack sealing	4 to 7
Diamond grinding	8 to 15
Diamond grooving	10 to 15
Partial-depth concrete patching	5 to 15
Full-depth concrete patching	5 to 15+
Dowel bar retrofit	10 to 15+



Table 2.5 on p. 2.9

# Selection Factors for Pavement Preservation

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- Existing pavement structure
- Existing pavement condition
- Current and future traffic
- Local climatic conditions
- Expected performance of the pavement
- Expected costs
- Construction considerations