

**NJ ASPHALT PAVING CONFERENCE 2025**

**MARCH 4, 2025**

# **NJDOT UPDATE**

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**NUSRAT S. MORSHED, P.E.**

**PAVEMENT DESIGN & TECHNOLOGY**

# Acknowledgement

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❖ **Robert Blight**

**Senior Executive Manager,  
Pavement & Drainage Management & Technology, NJDOT**

❖ **Kevin Sereni**

**Administrative Analyst 4,  
Pavement Management Unit, NJDOT**

# Outline

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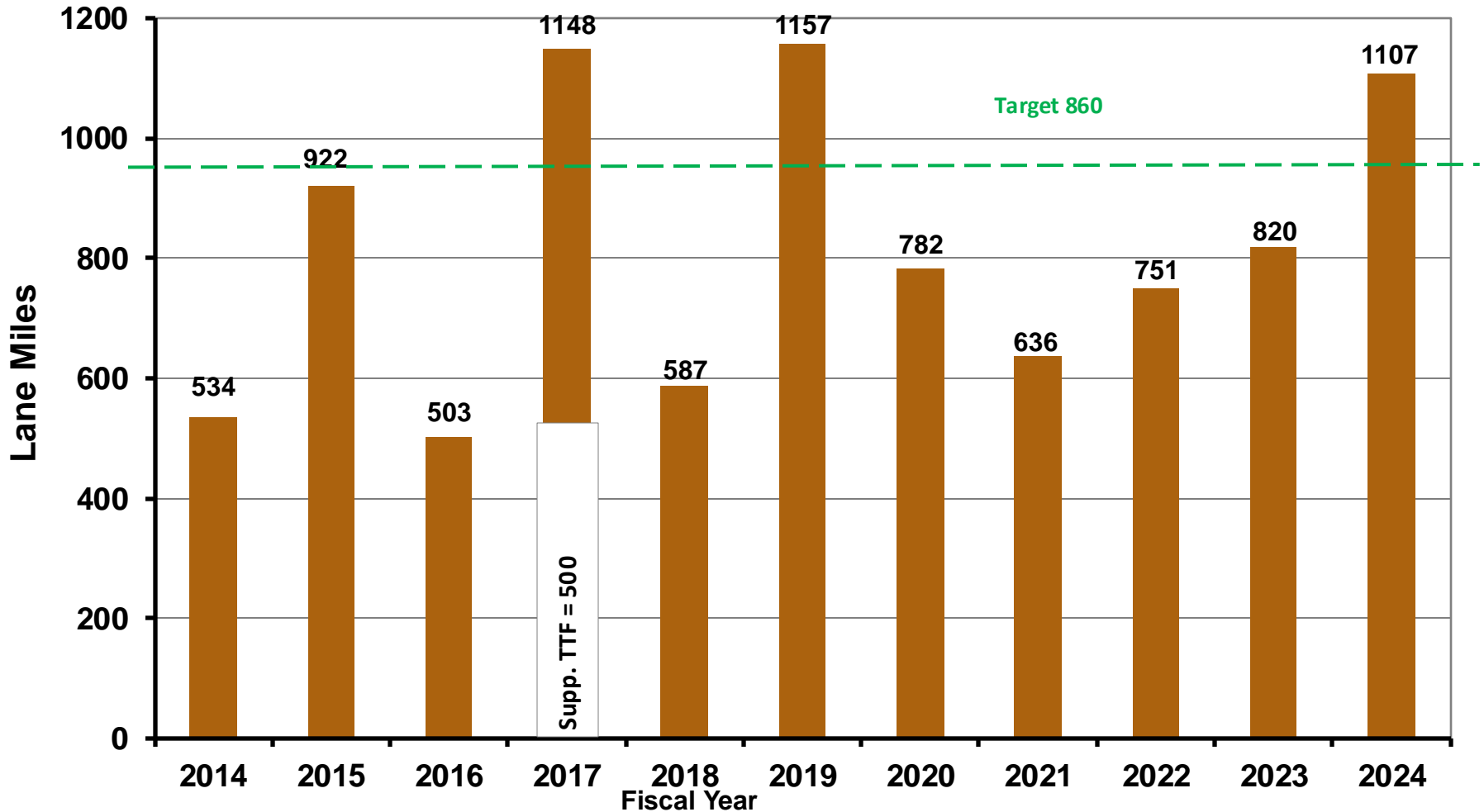
- ❖ **NJDOT Update- Funding and Pavement Condition**
- ❖ **NJDOT Update- Change to Specifications**
- ❖ **Conclusion**

# Funding and Pavement Condition

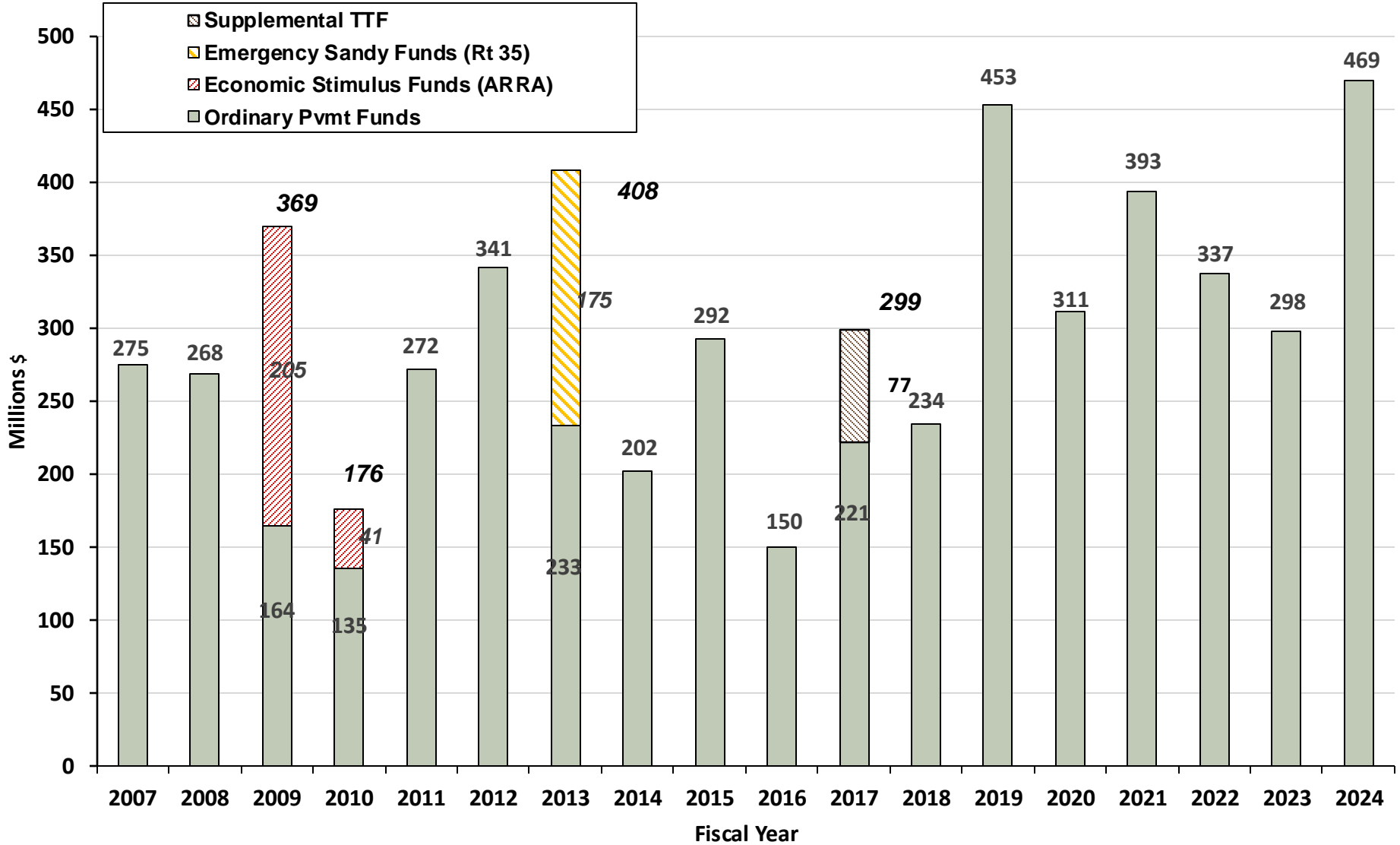
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# NJ State Highway System Lane Miles of Major Pavement Work Completed (Total System Mainline Lane Miles = 8548)

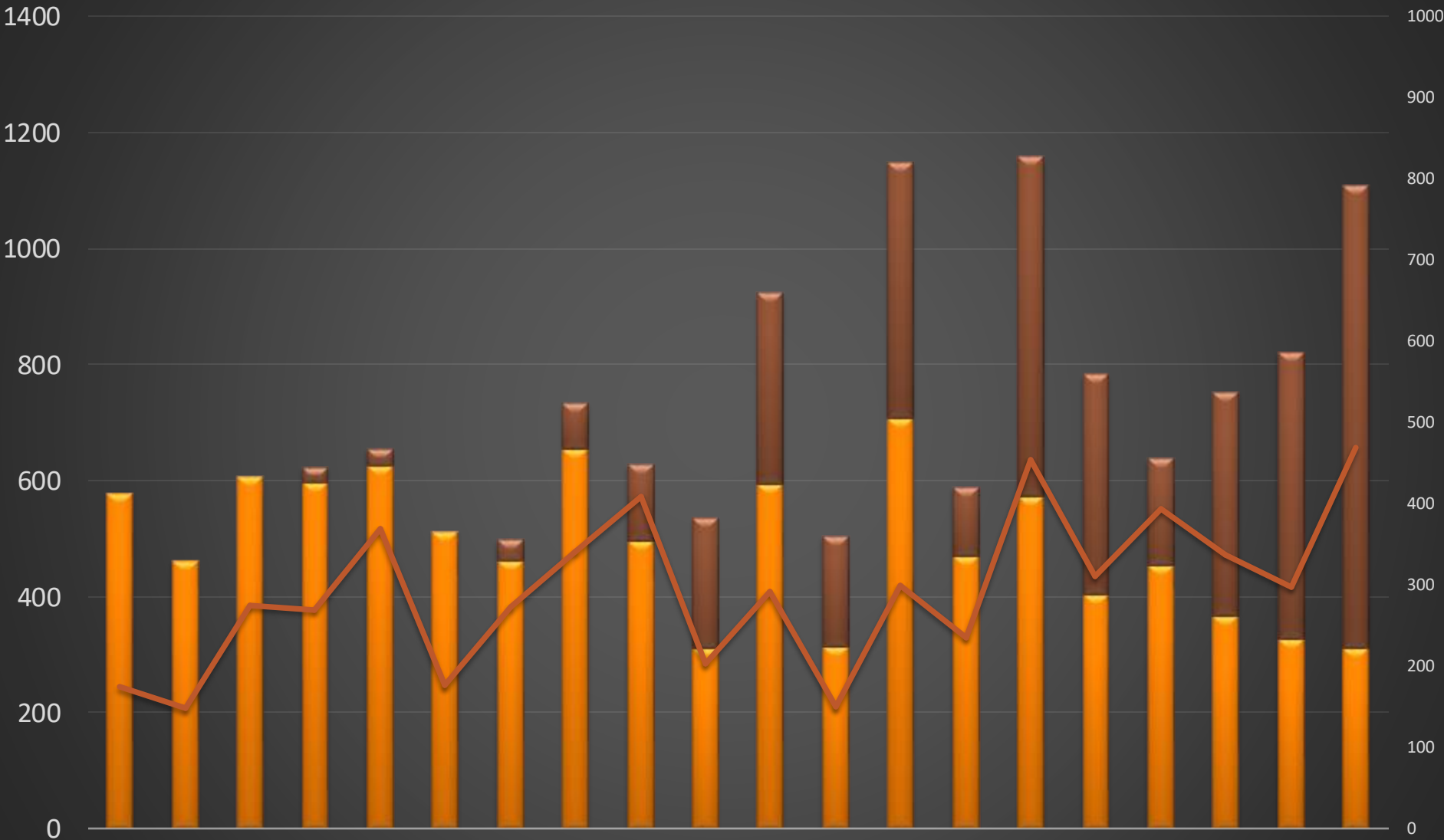


## PAVEMENT CONSTRUCTION SPENDING HISTORY



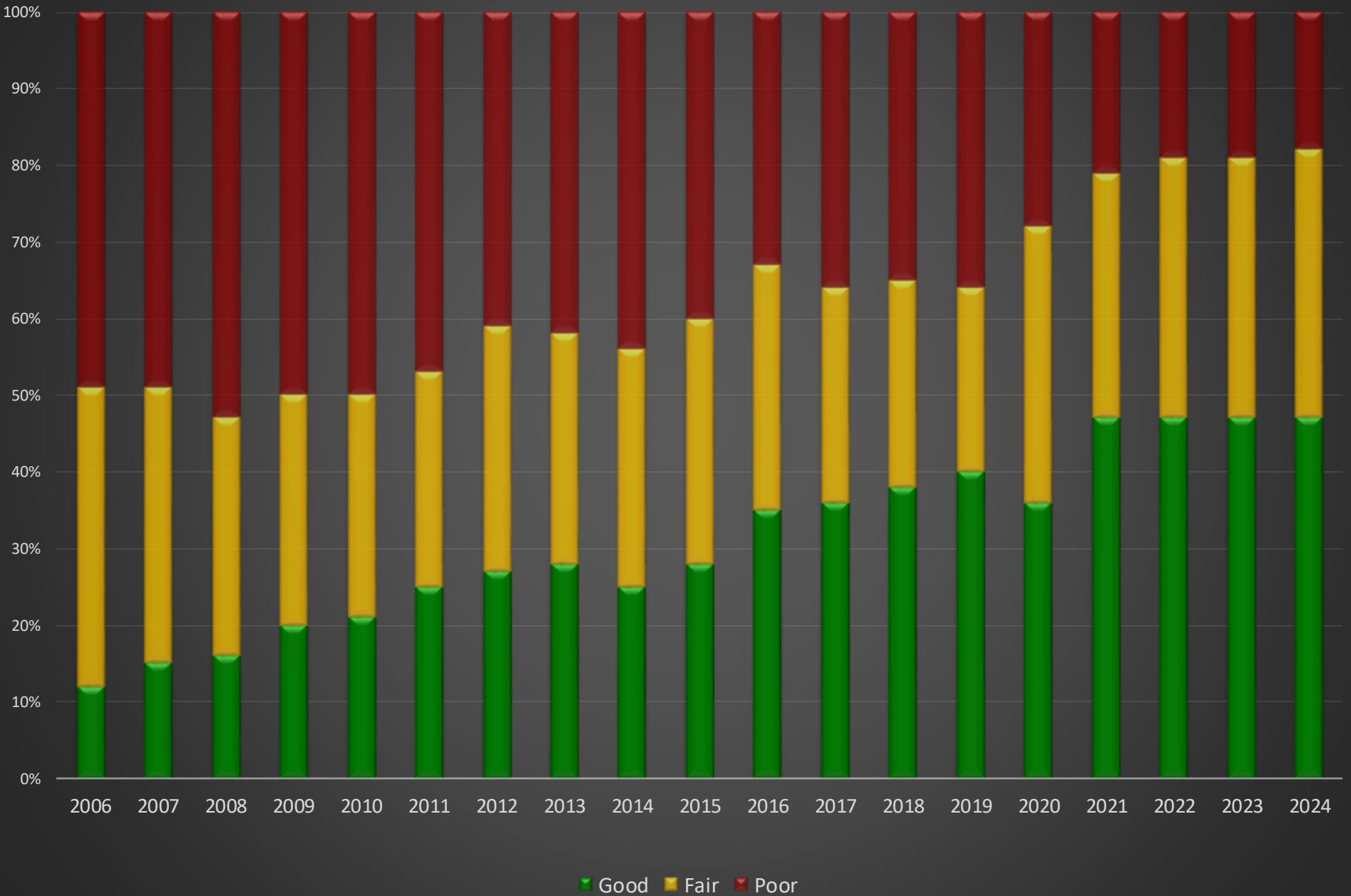
Lane Miles

# Preservation Boost



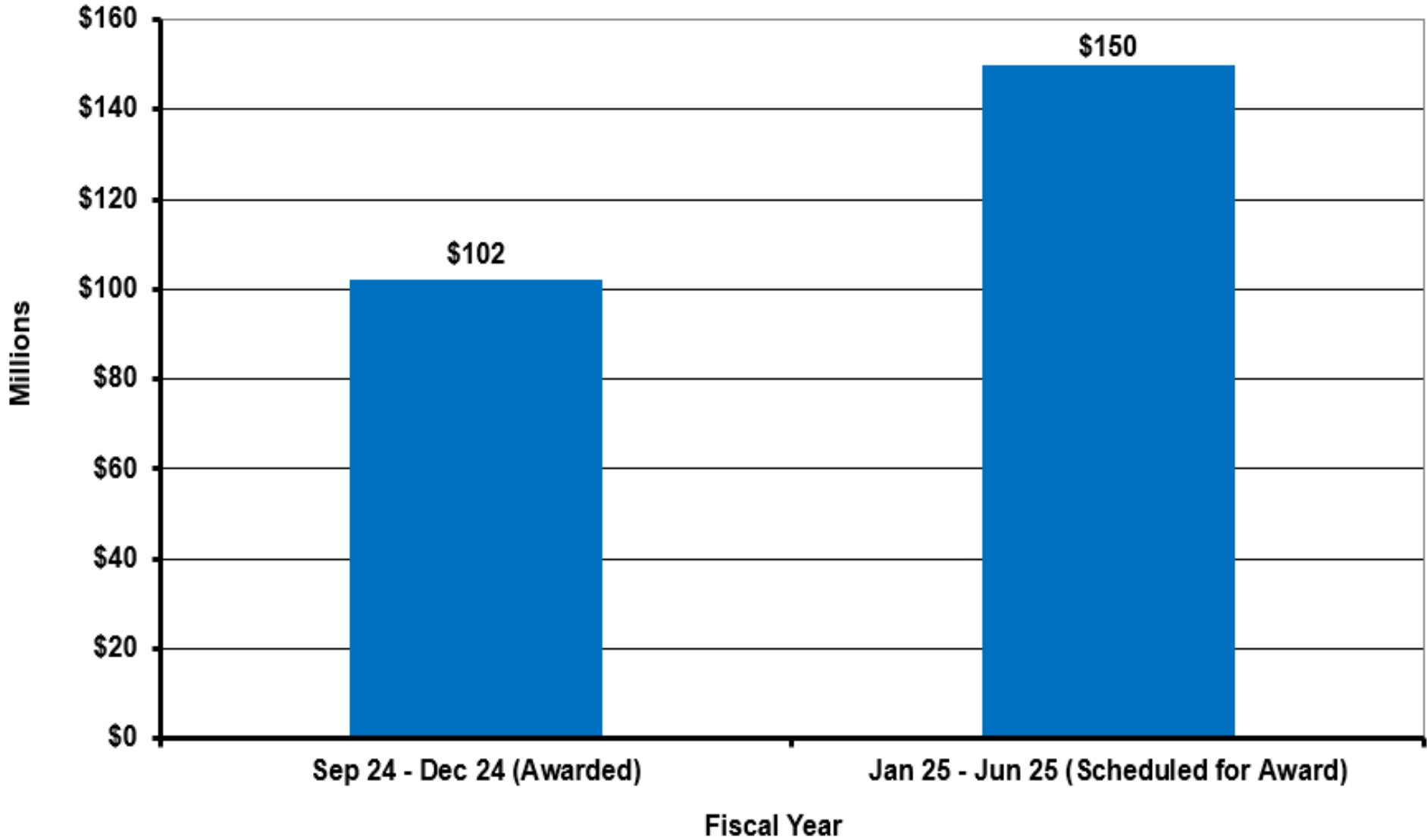
Resurf/Rehab/Recon Work    Preservation Work    Pavement Investment

# Pavement Condition History of State Highway System

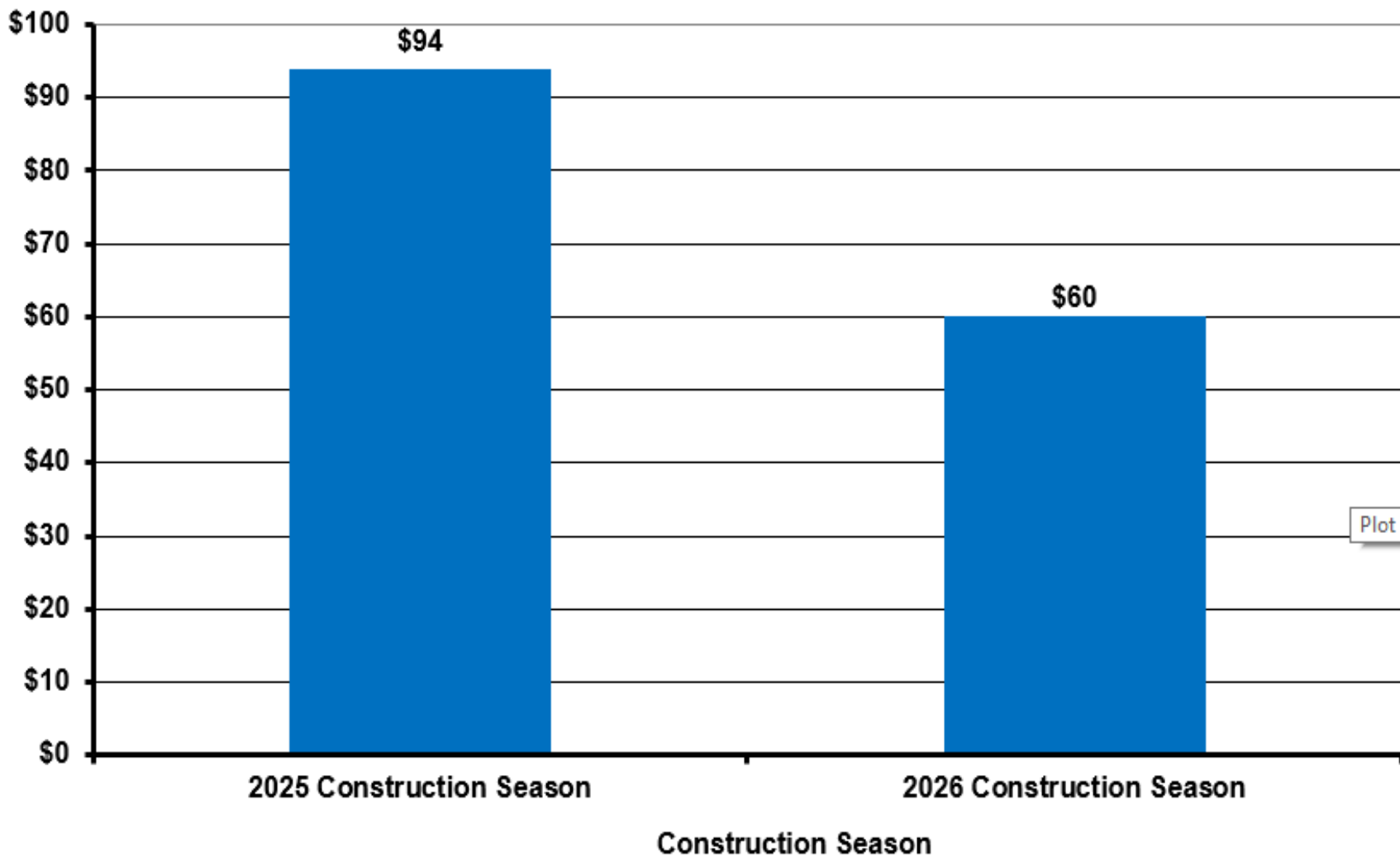




**CPM - FY 2025  
Pavement Projects**



## Operations Pavement Projects



# Update on Change to Specifications

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# FULL DEPTH CONCRETE PAVEMENT REPAIR PRECAST



# FULL DEPTH CONCRETE PAVEMENT REPAIR PRECAST: JPrCP Acceptance

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- ❖ Evaluate Load Transfer Effectiveness using Falling Weight Deflectometer (FWD)
- ❖ Within 7 to 28 days after installation
- ❖ **NJDOT L-1 – DETERMINING LOAD TRANSFER EFFECTIVENESS OF JOINTED PRECAST CONCRETE PAVEMENT SLAB SYSTEMS**

# FULL DEPTH CONCRETE PAVEMENT REPAIR PRECAST:

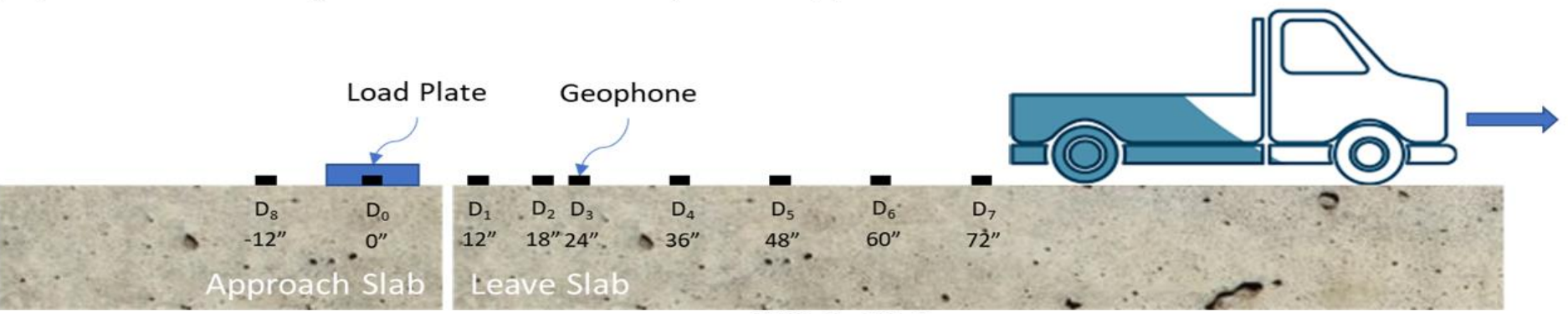
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## ❖ JPrCP Acceptance Criteria:

**Average Relative Deflection (RD)  
of approach and leave side of  
the joints should be  $\leq 3.5$  mils.**

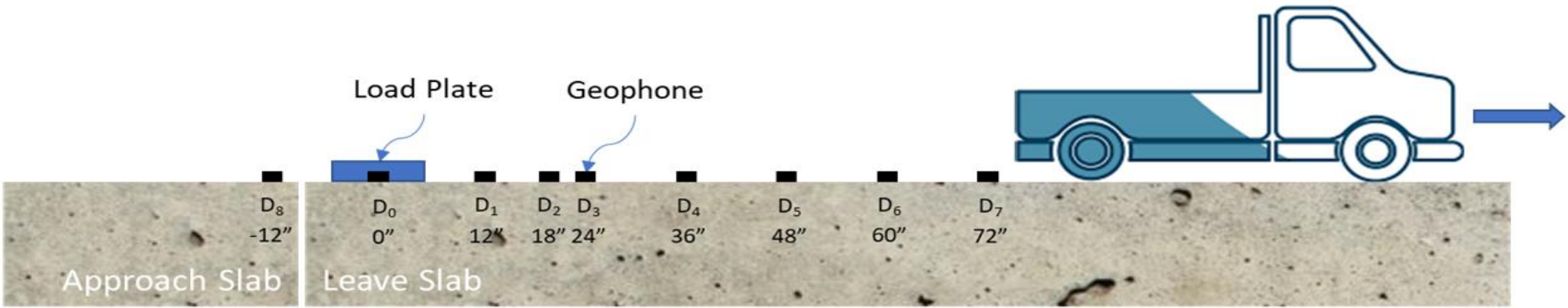
# FWD Test Set Up:

This picture from in Courtesy of AID



$RD = D_0 - D_1$

FWD Test Setup  
 Joint Testing: Load plate on the Approach Slab



$RD = D_0 - D_8$

FWD Test Setup  
 Joint Testing: Load plate on the Leave Slab

# FULL DEPTH CONCRETE PAVEMENT REPAIR PRECAST:

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❖ **Corrective action is required if both criteria are satisfied:**

- **Relative Deflection (RD) > 3.5 mils**
- **Individual deflections of any sensors > 10 mils.**



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# HMA LONGITUDINAL JOINT REPAIR



# HMA LONGITUDINAL JOINT REPAIR: Pay Unit

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❖ **Measurement and Payment:**

**HMA LONGITUDINAL JOINT REPAIR - SQUARE YARD**



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# **HIGH FRICTION SURFACE TREATMENT (HFST)**



# HIGH FRICTION SURFACE TREATMENT:

## ❖ NJDOT TEST METHOD

NJDOT S-4 – DETERMINING SKID RESISTANCE OF PAVED SURFACES



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# CHIP SEAL



# CHIP SEAL: New Item

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## 424120M – CHIP SEAL PG 94-22



Binder Application



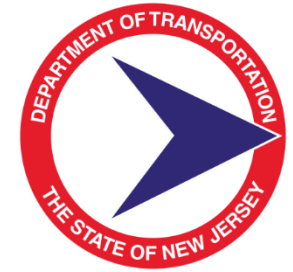
Spreading the chips



Rolling



Sweeping



# CONCLUSION:

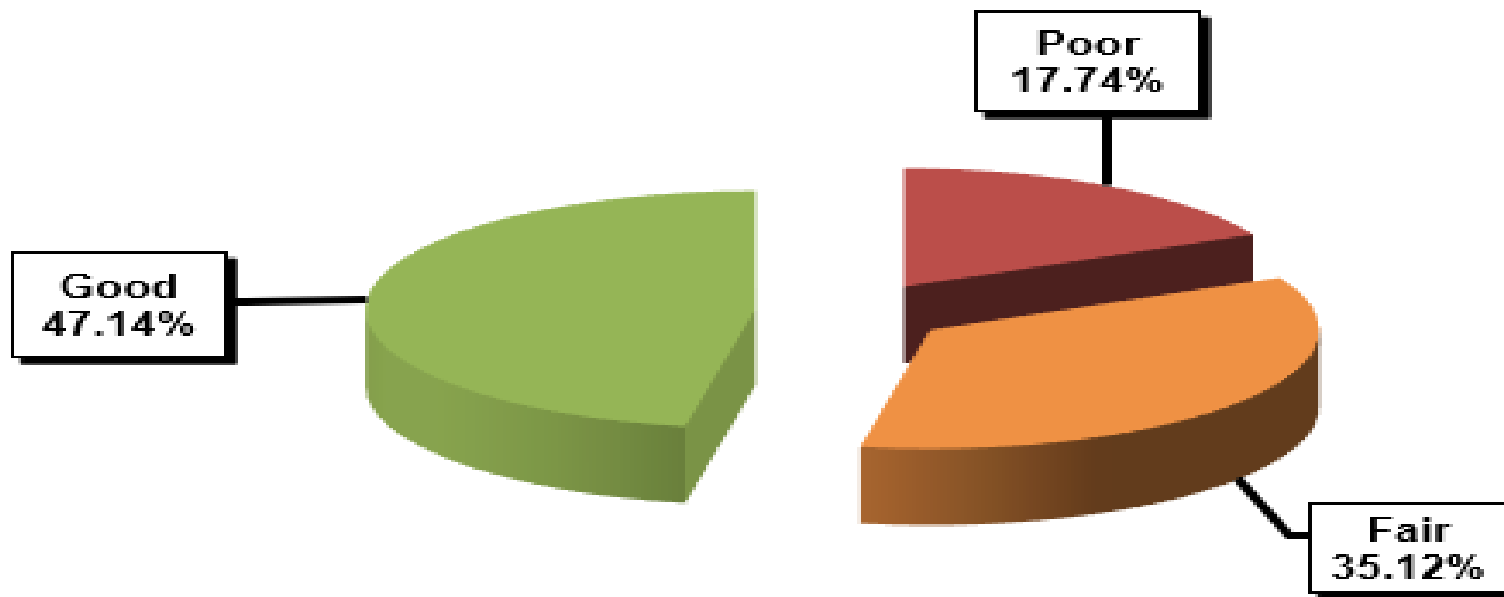
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- ❖ **Quality Control-by Contractor.**
- ❖ **Quality Assurance- by Department**
- ❖ **Make sure taxpayer money is used for QUALITY construction work.**

# CONCLUSION:

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## Current Functional Adequacy of NJ State Highway System (Based on Roughness & Distress)

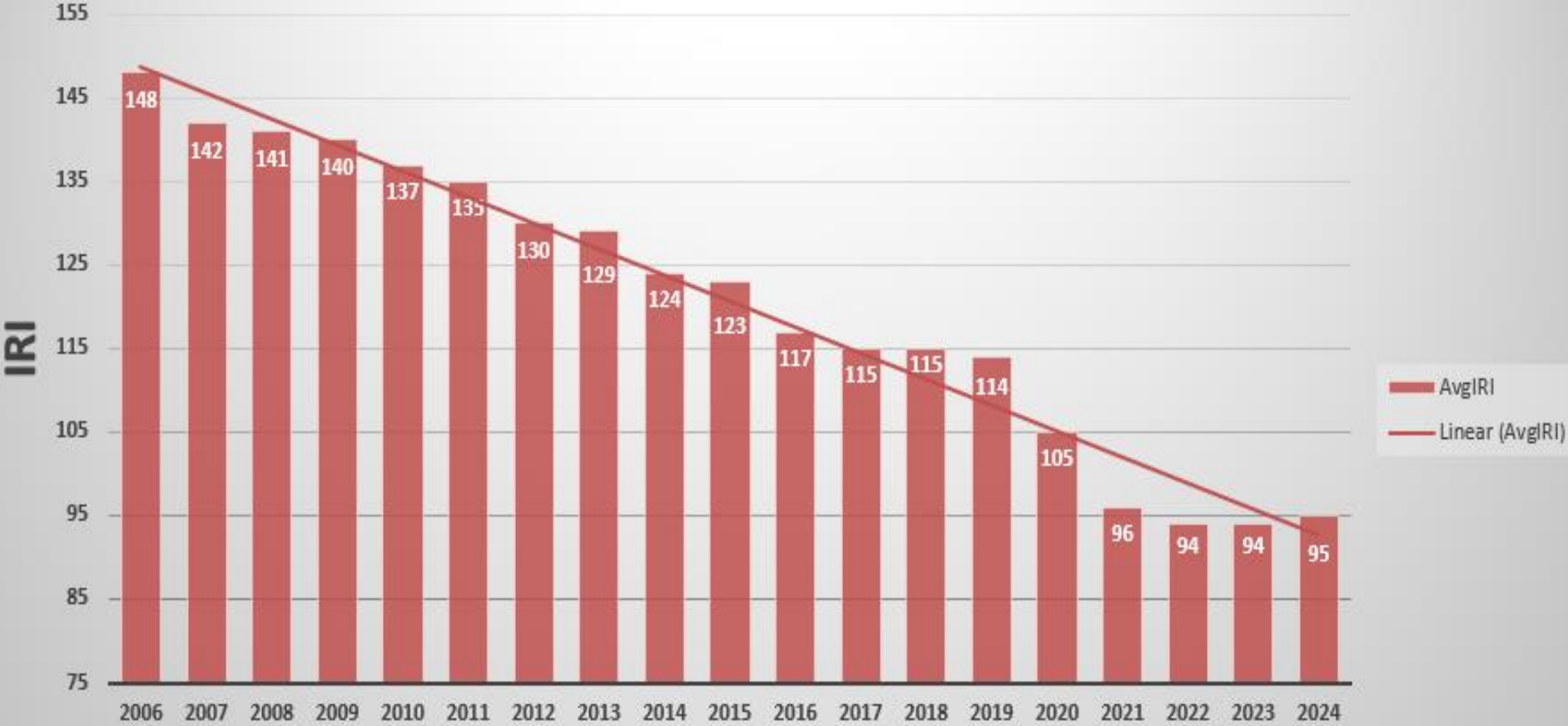


*Source: NJDOT Pavement Management System, 2024 Data*



# CONCLUSION:

### Avg IRI by Year on State Highway System



Collection Year

Source: NJDOT Pavement Management System

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**THANK YOU**

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