

# NCAT Pavement Test Track



2012 Pavement Preservation Study

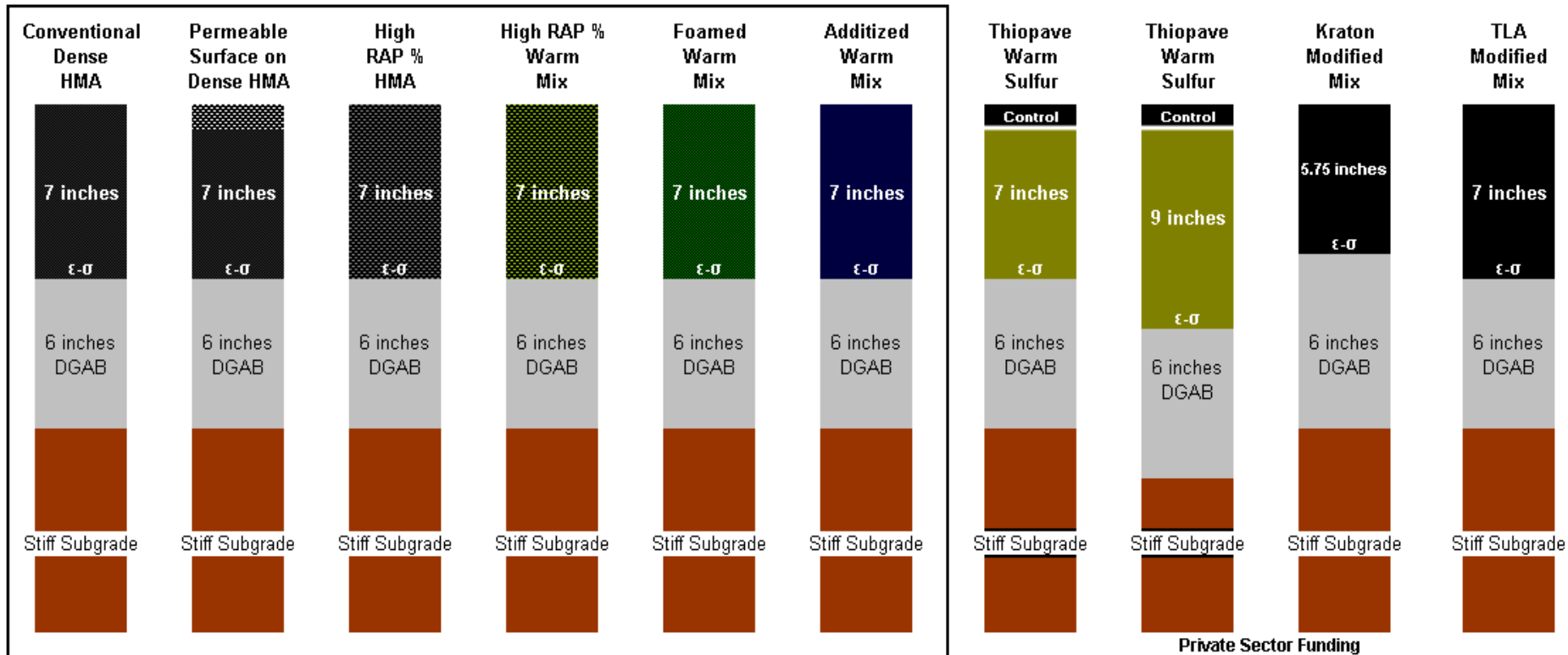
# 2012 Track Research Cycle

- Implementation of higher recycled content mixes
- Durability of safer drainable pavements
- Alternative binders and binder modifiers
- Preservation Group (PG) experiment

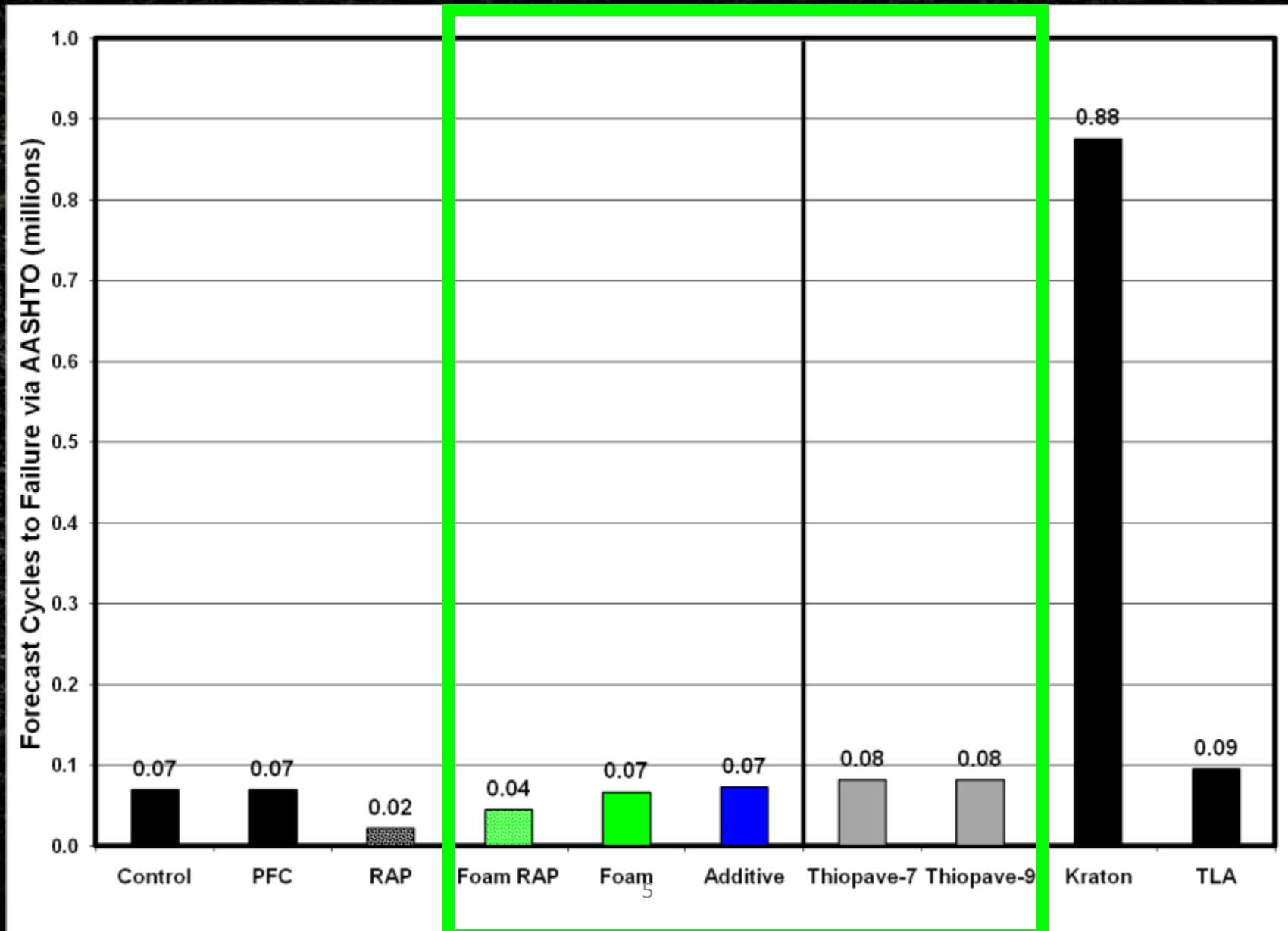
# 2012 PG Experiment

- Traffic continuation on 2009 GE+ test sections
- GE+ contains high RAP, two WMA, PFC sections
- Stop traffic when trigger distress(es) reached
- Apply consensus PP treatments to GE+ sections
- Duplicate / expand study in off-Track research
- Connection with state DOT preservation studies
- Additional accelerated testing in FHWA's ALF

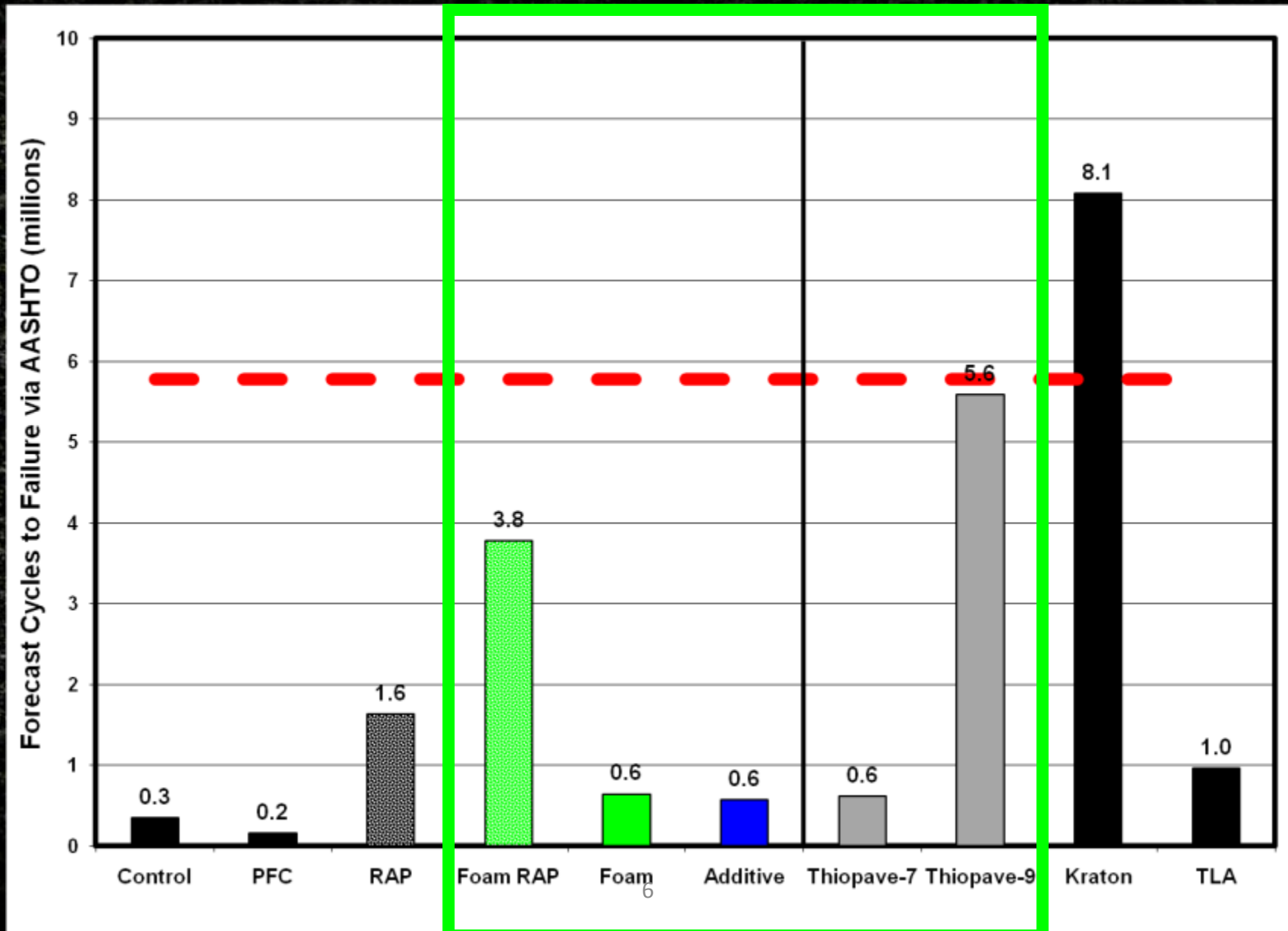
# 2009 Group Experiment (+)



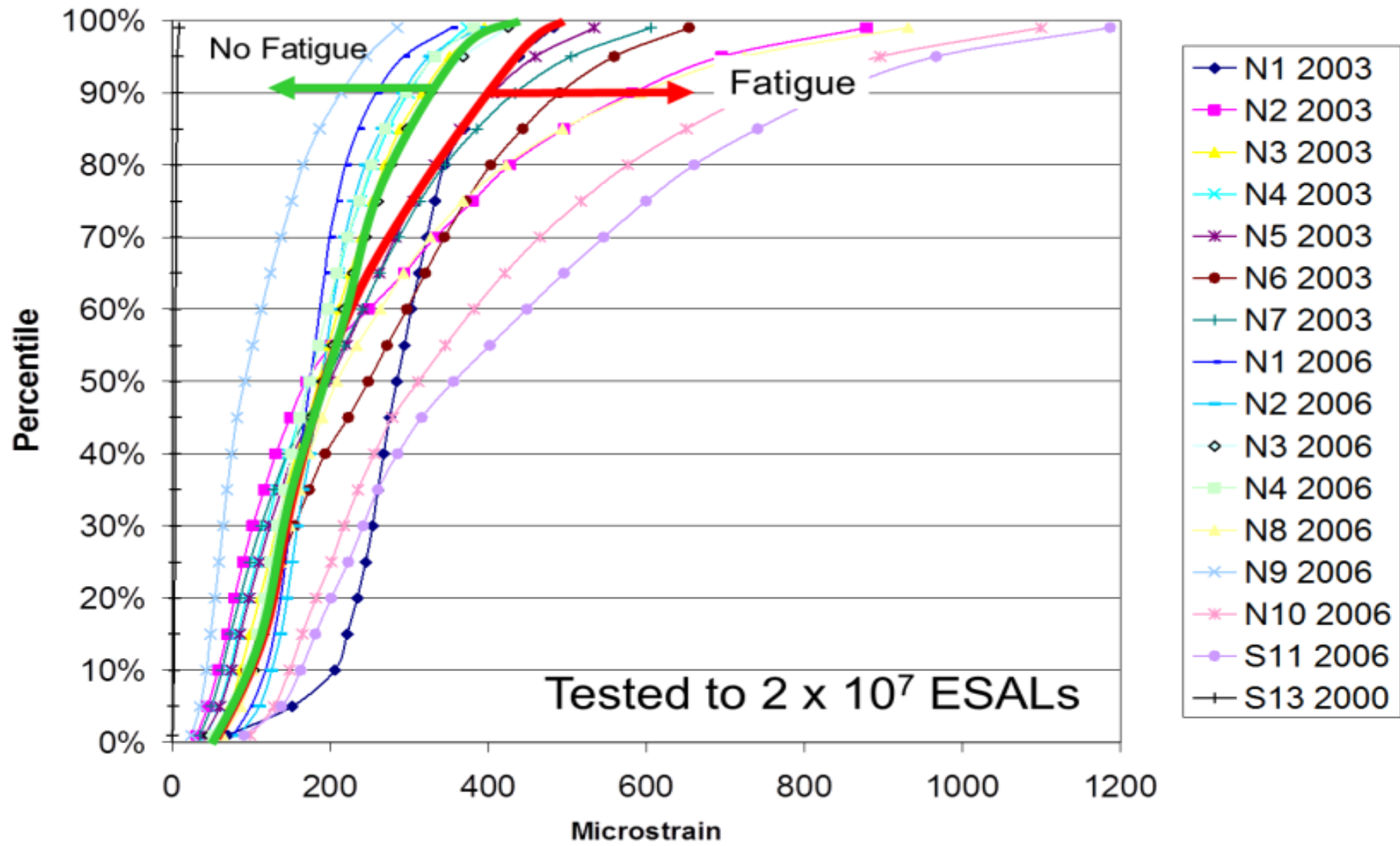
# 2009 GE+ Cracking Expectations <sub>500</sub>



# 2009 GE+ Cracking Expectations Actual



# Mechanistic-Empirical Pavement Design

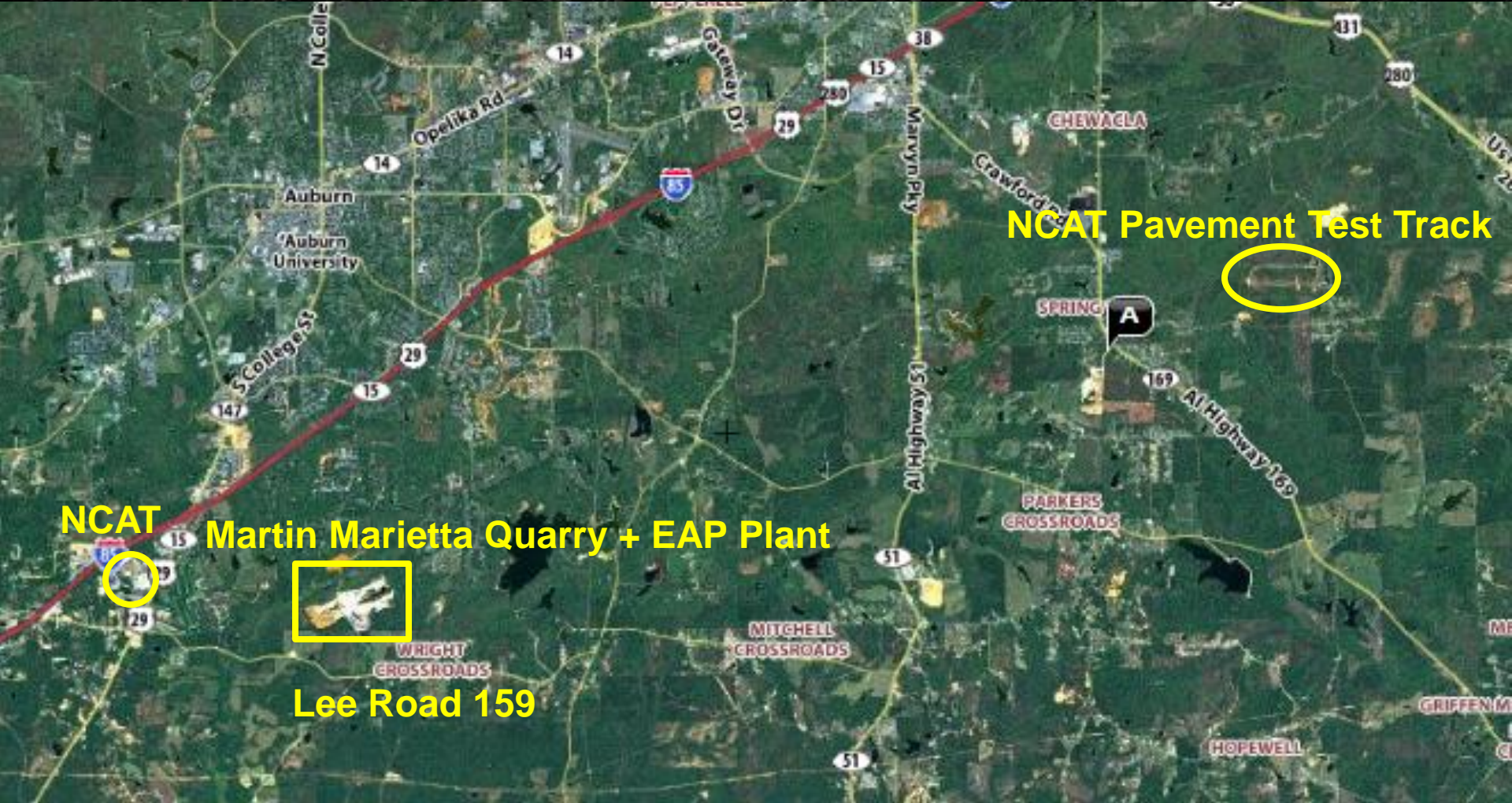


# Potential 2012 PG Treatments

- Chip seals (Various agg sizes, design processes, application rates)
- Scrub seals
- Micro-surface
- Cape seals
- Thin-lift HMA (Inlays vs overlays, conventional vs low cost)
- "HMA Cape seals"
- Fog seals (Traditional fog seals vs low pen recycled rubber)
- Micro-milling
- Etc...



# Off-Track Test Sections



# Loaded Trucks in Outbound Lane



**Martin Marietta Quarry**

**EAP's Auburn Plant**

**Lee Road 159**

# Condition of Outbound Lane

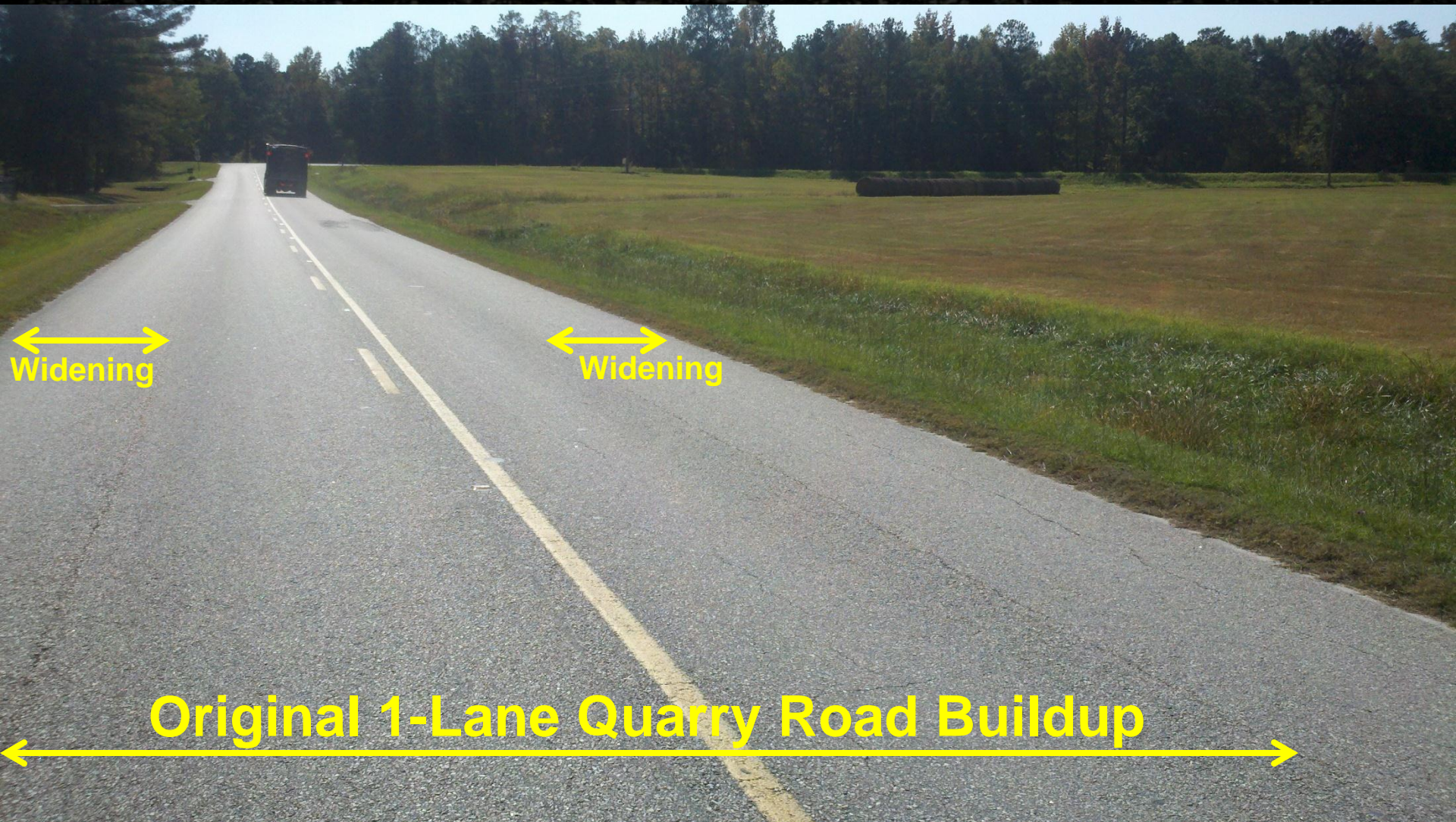


# Condition of Outbound Lane



Original 1-Lane Quarry Road Buildup

# Condition of Outbound Lane



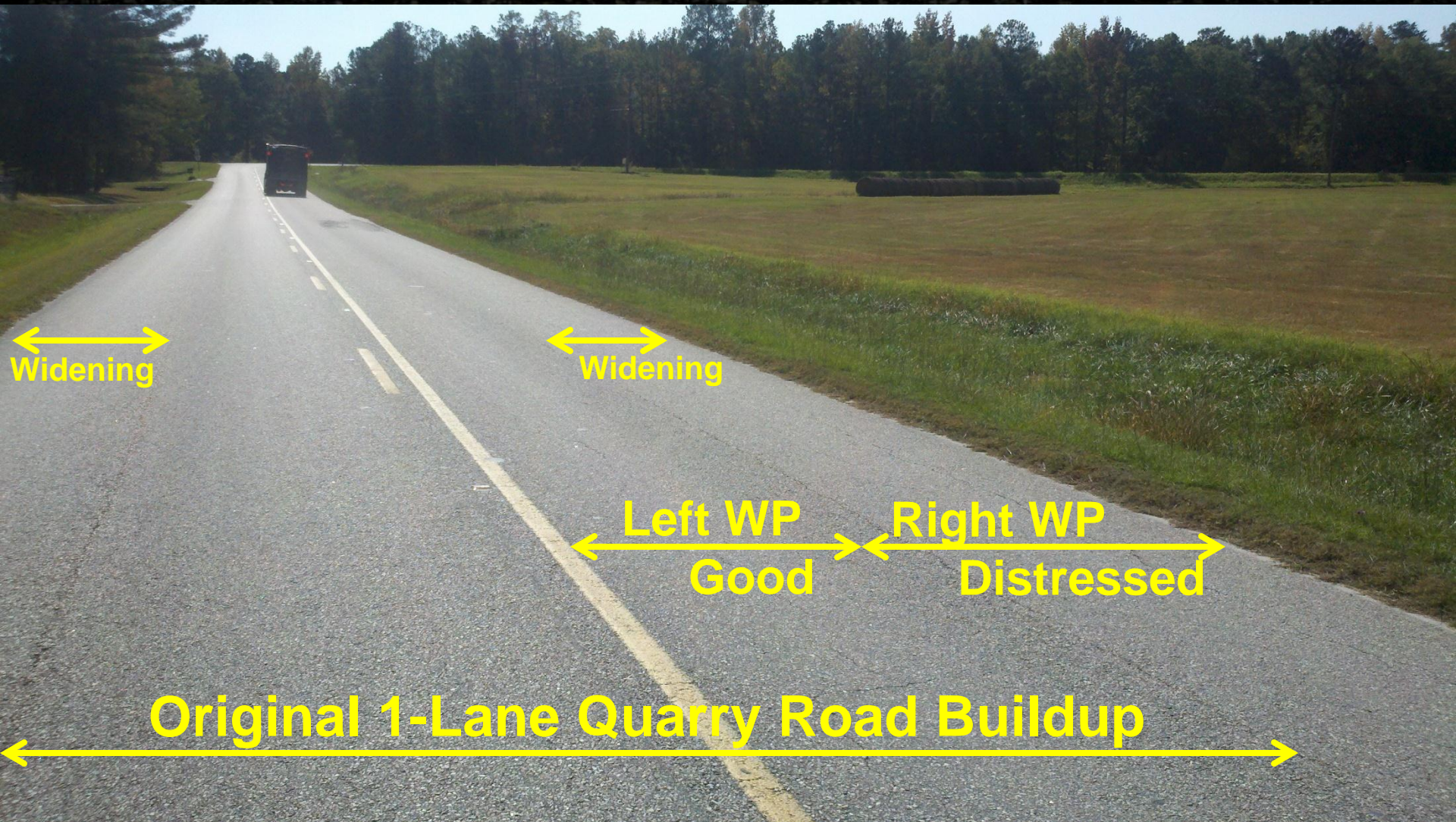
# Condition of Outbound Lane



# Condition of Outbound Lane



# Proactive vs Reactive “Preservation”

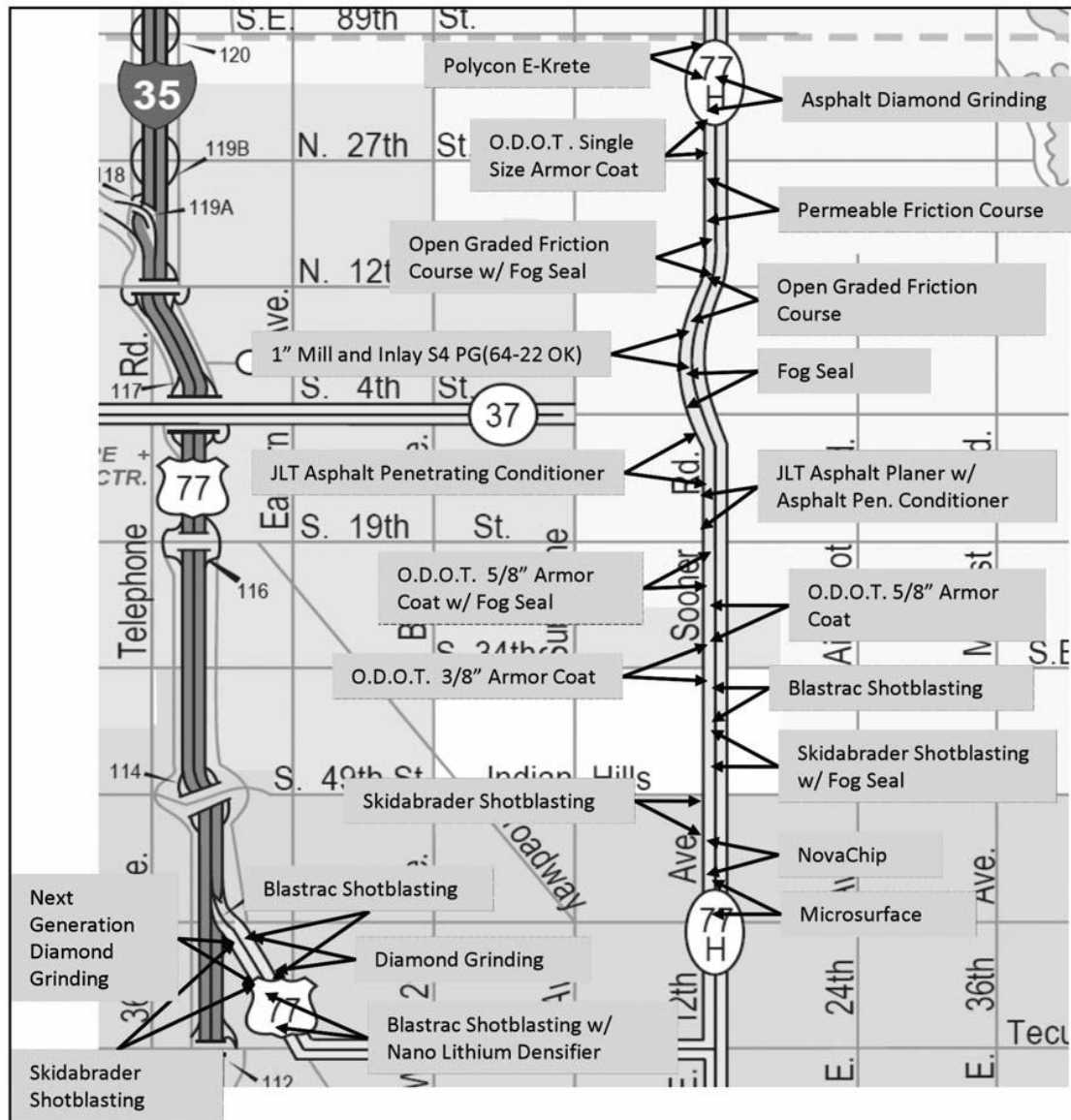




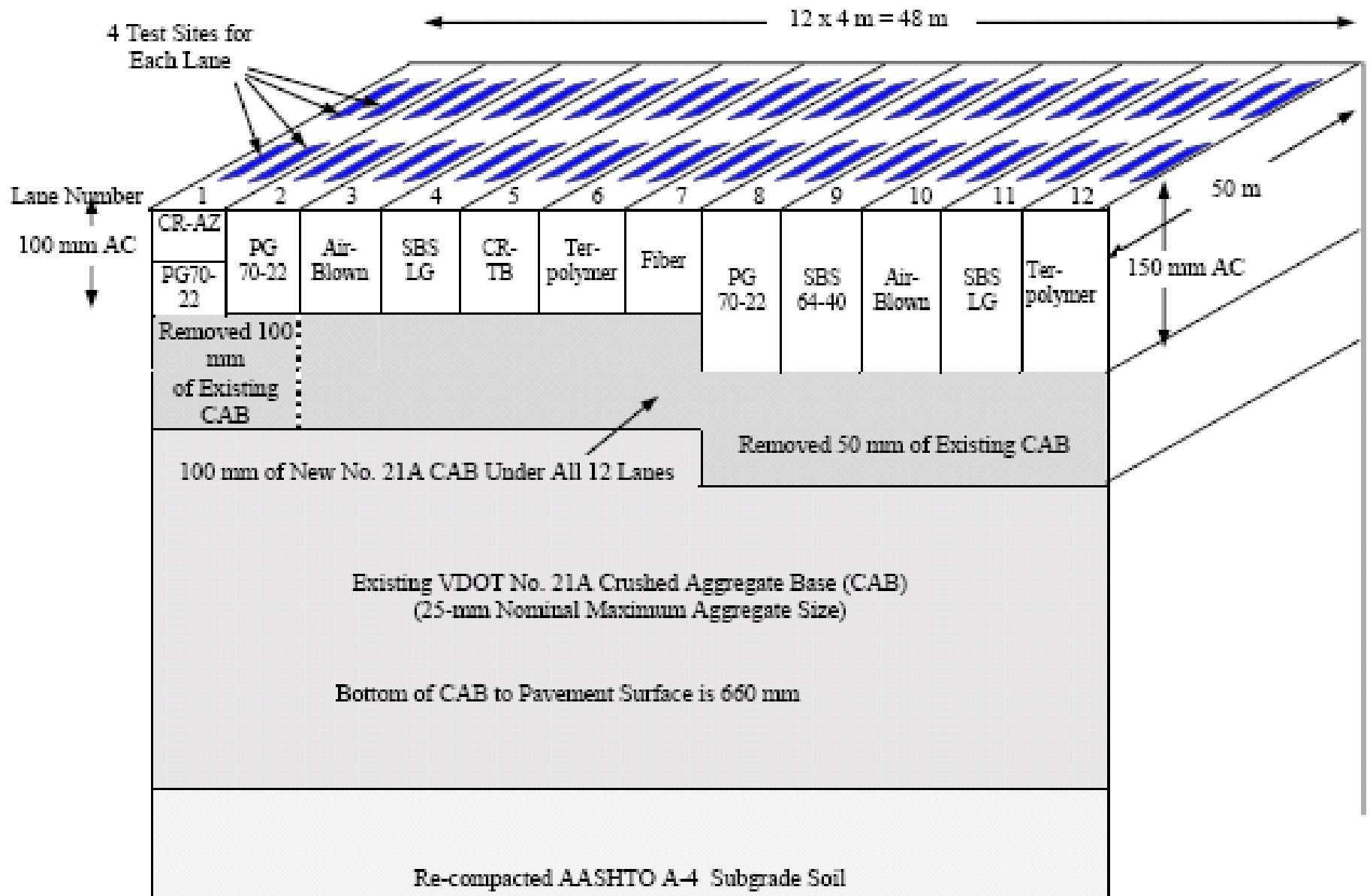
# FDOT US 98 Preservation Study<sub>2012</sub>

- Micro-surfacing
- 4.75 NMA mix overlays ( $\frac{1}{2}$  inch vs  $\frac{3}{4}$  inch)
- 9.5 NMA mix 1 inch thick overlay
- 9.5 NMA mix 1 inch thick mill/inlay
- 12.5 NMA mix  $1\frac{1}{2}$  inch thick mill/inlay
- Bonded friction course ( $\frac{3}{4}$ " spray paved FC-5)
- Hot in-place recycling  $1\frac{1}{2}$  inch thick

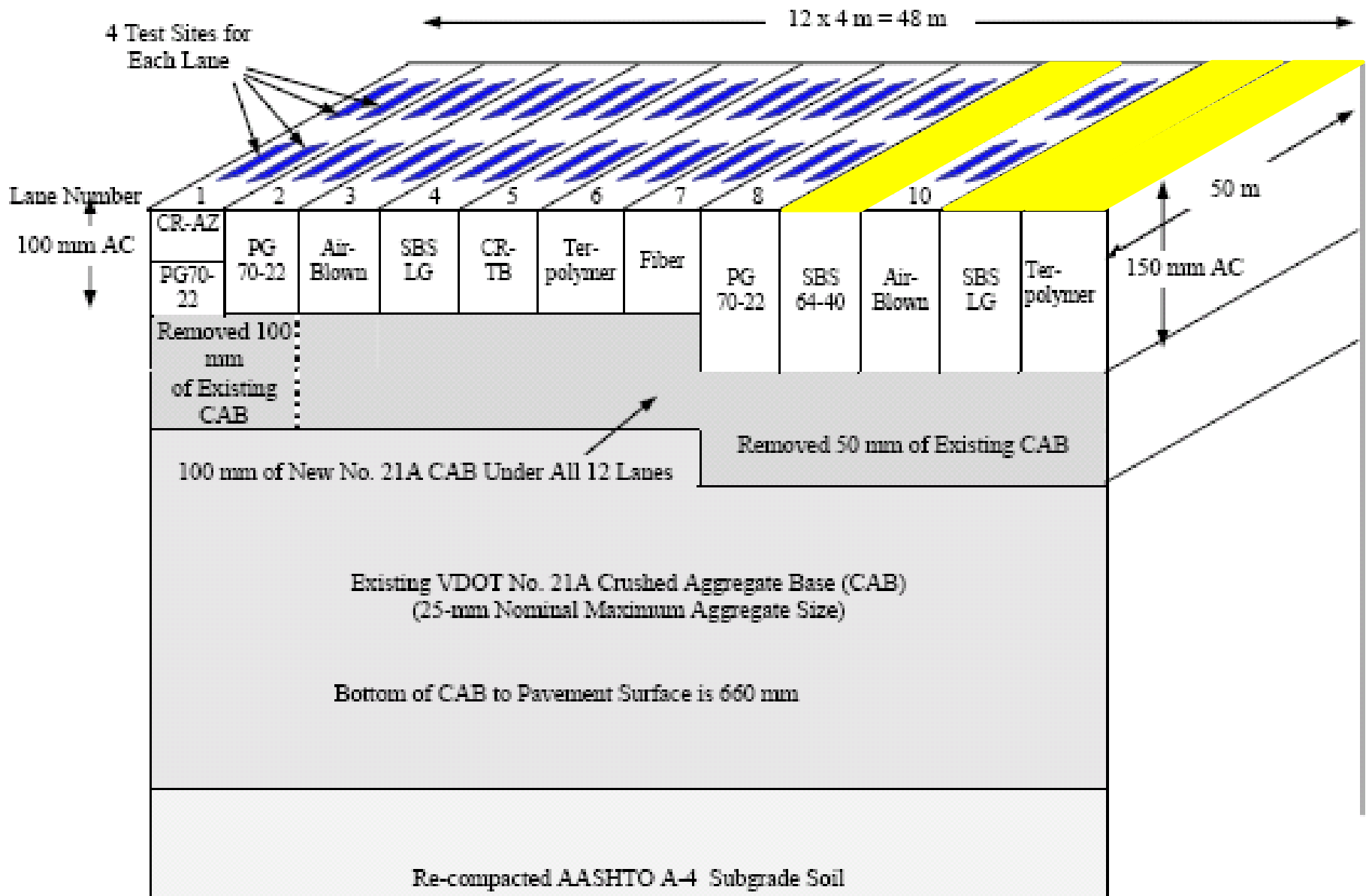
# Oklahoma Friction Study 2008-2009



# FHWA ALF Experiment<sub>2012</sub>



# FHWA ALF Experiment<sub>2012</sub>



# 2012 Track Time Line

- 9/26 green light from Lee County Commission
- ALDOT 10/3/2011 RAC approval (PF + PG)
- Pooled fund advertisement in fall 2011
- Sponsor commitments by 12/31/2011
- ALDOT Letter of Direction by 3/1/2012
- Summer 2012 reconstruction (trucks by 8/31)
- PF payments due 2/29/12, 10/1/12, & 10/1/13

# Track Conference



## Pavement Test Track Conference

February 28-29, 2012

The Hotel at Auburn University  
and Dixon Conference Center

[www.ncat.us](http://www.ncat.us)



Questions ?