

STAC Presentation

Bridge Asset Management

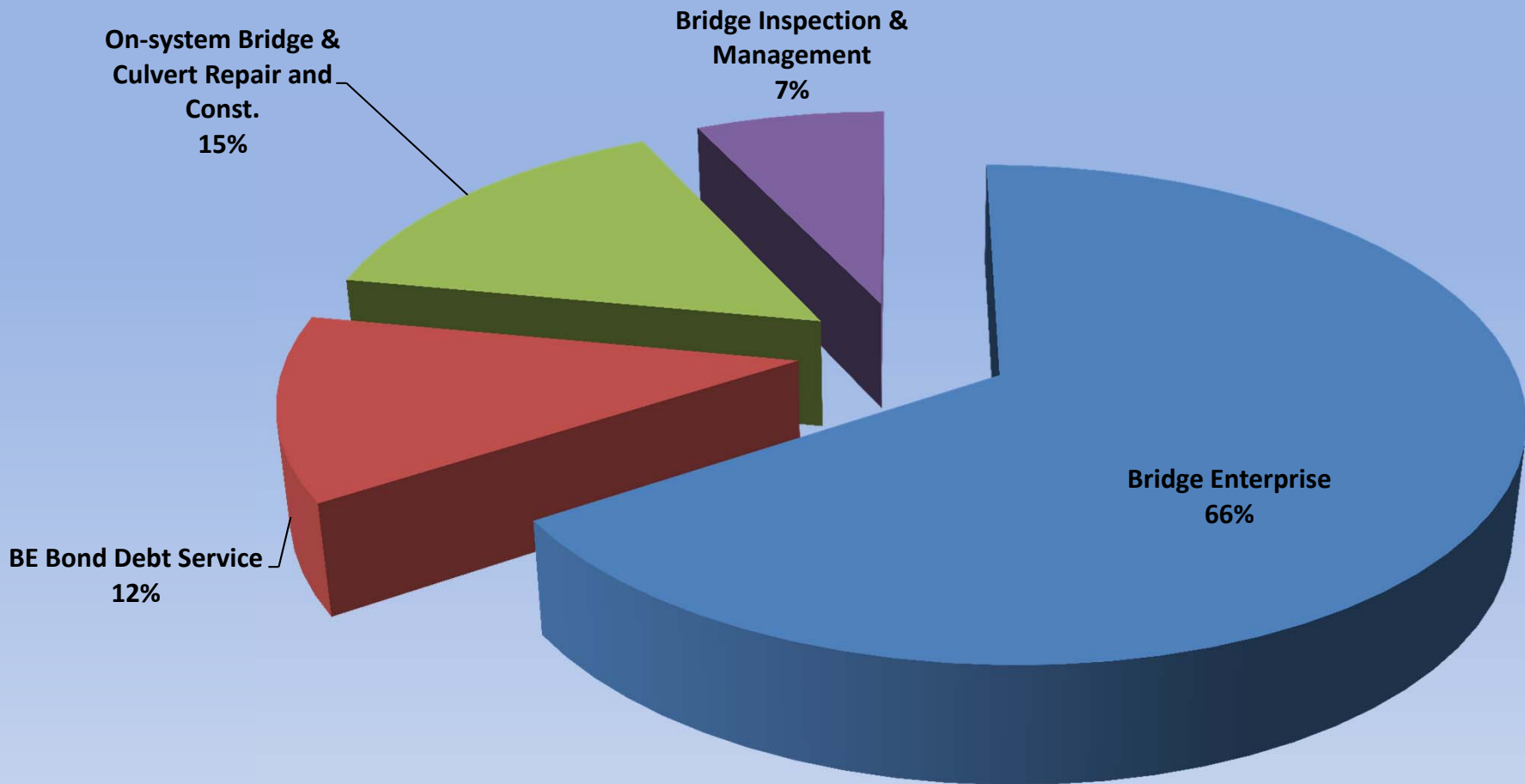
STAC Meeting

8/9/2013

STAFF BRIDGE BRANCH



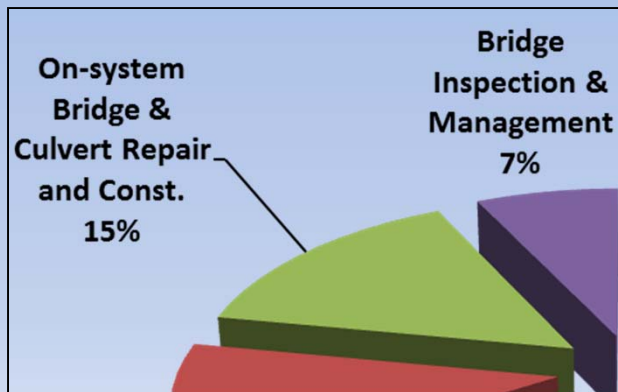
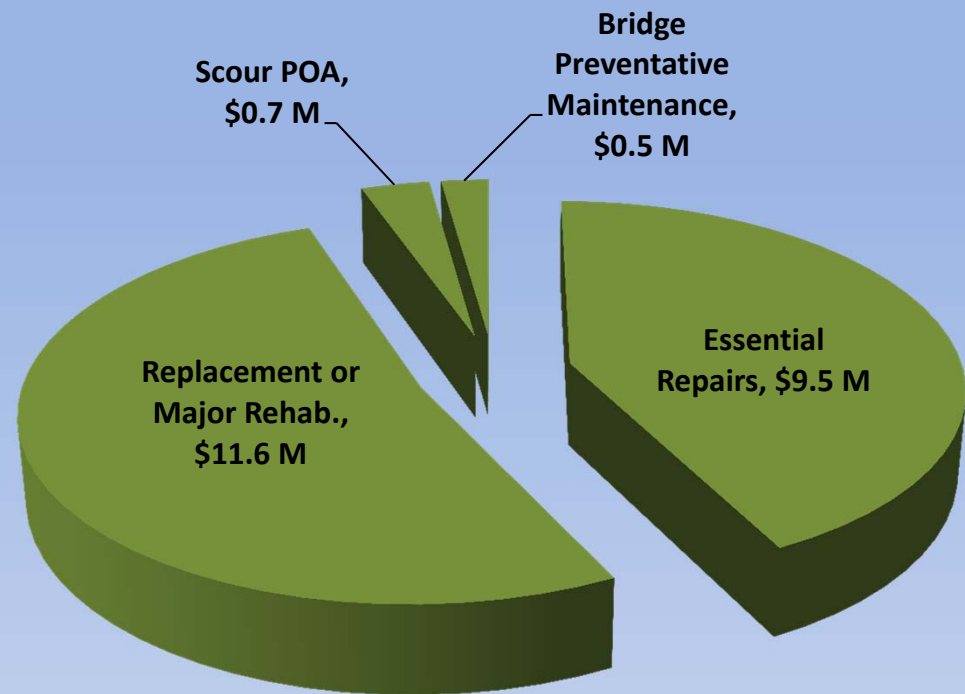
CDOT Bridge and Culvert Investment w/o RAMP funding



Current Bridge and Culvert Investment

- Reactionary Based approach
 - Essential Repairs
 - Incidents
 - Overlays
- Proactive Measures
 - Scour Plan of Action (POA)
 - Bridge Preventative Maintenance
- Replacement or Major Rehabilitation

Investment Detail On-system Bridge & Culvert Repair & Const.

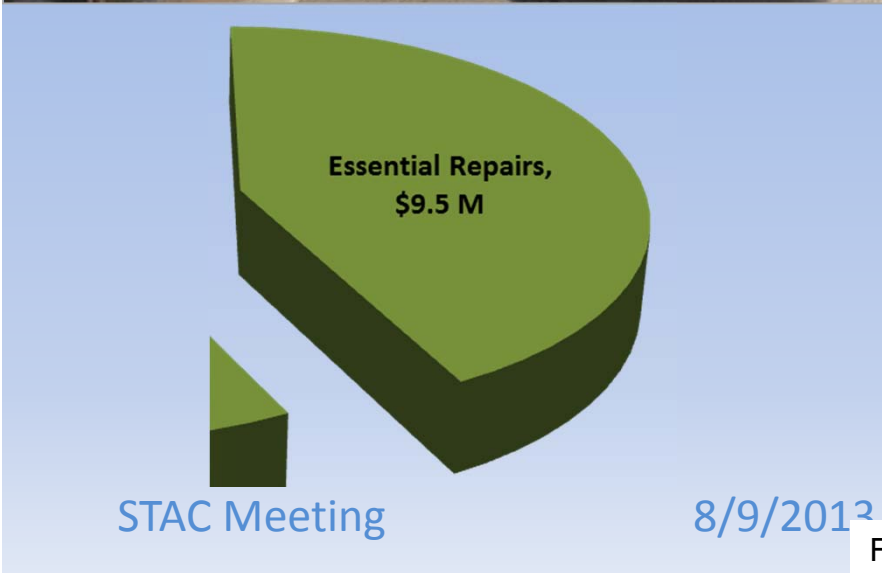




Essential Repairs

105 per year
23 orange

After Repair:



F-06-U, Repaired 9 days later, I-70 Silt Spur over I-70 near Silt Colorado

CDOT's Bridge Program & the Bridge Enterprise

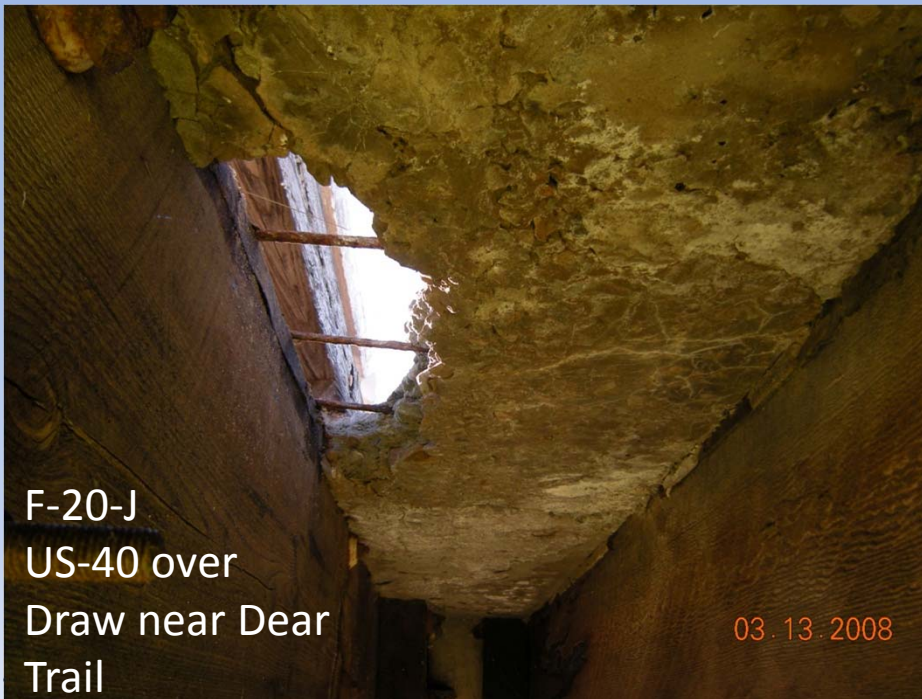
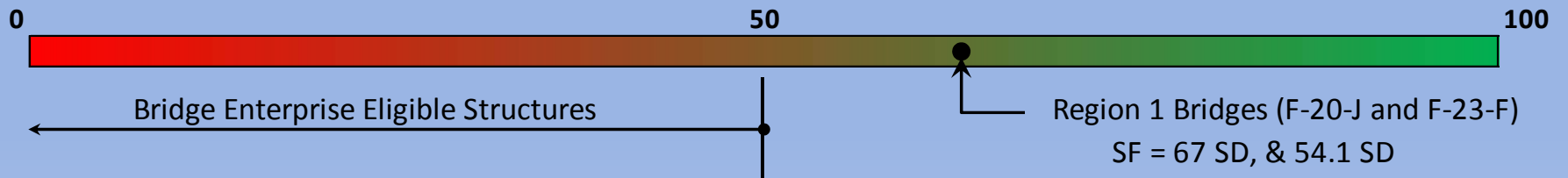
Poor Bridges

- Bridge Enterprise is currently addressing bridges in this category.

Fair Bridges

- FHWA BR program was historically used to address this category.

Sufficiency Rating

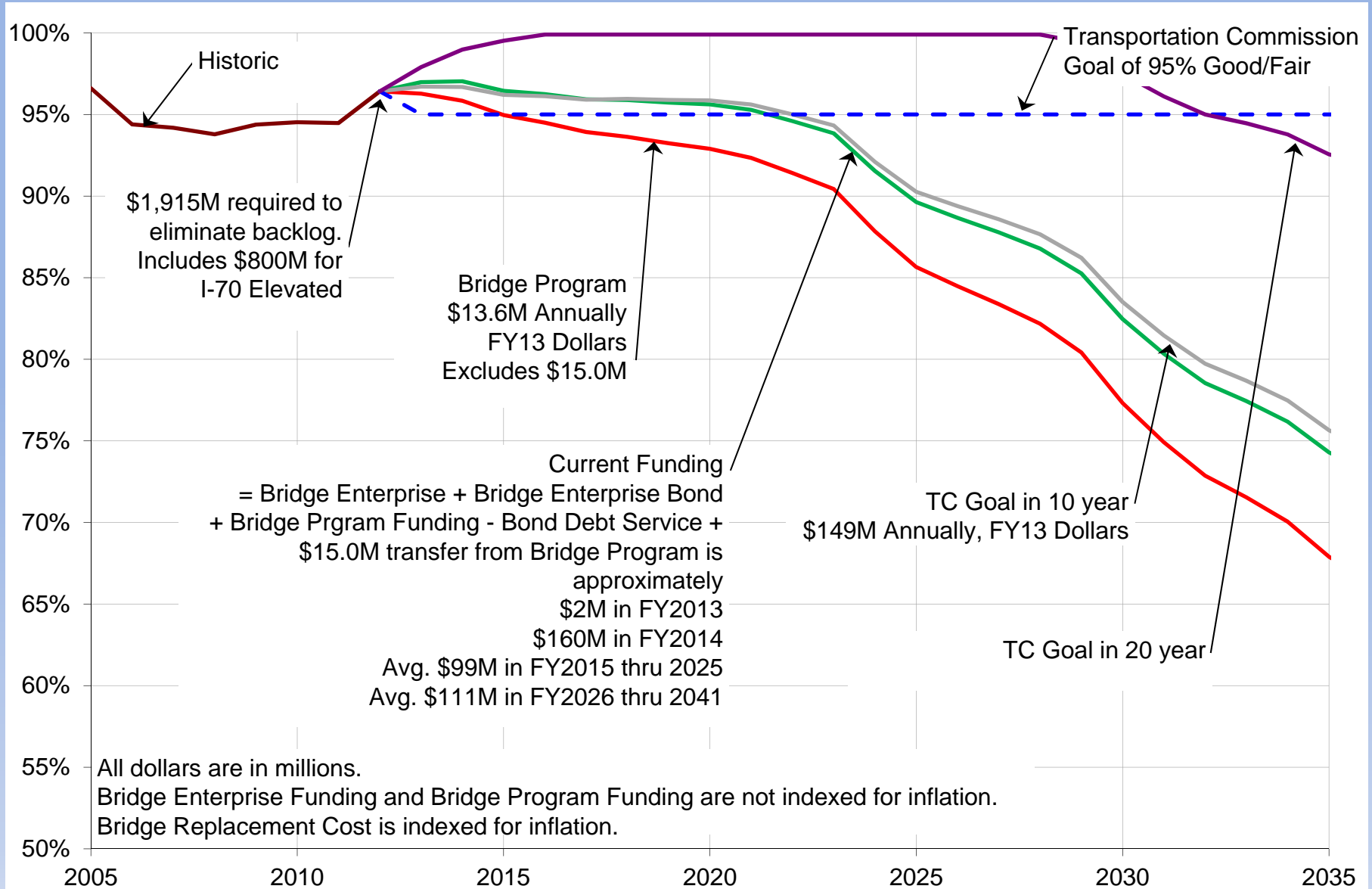


Asset Management

Laws, Directives and Metrics, Oh My!

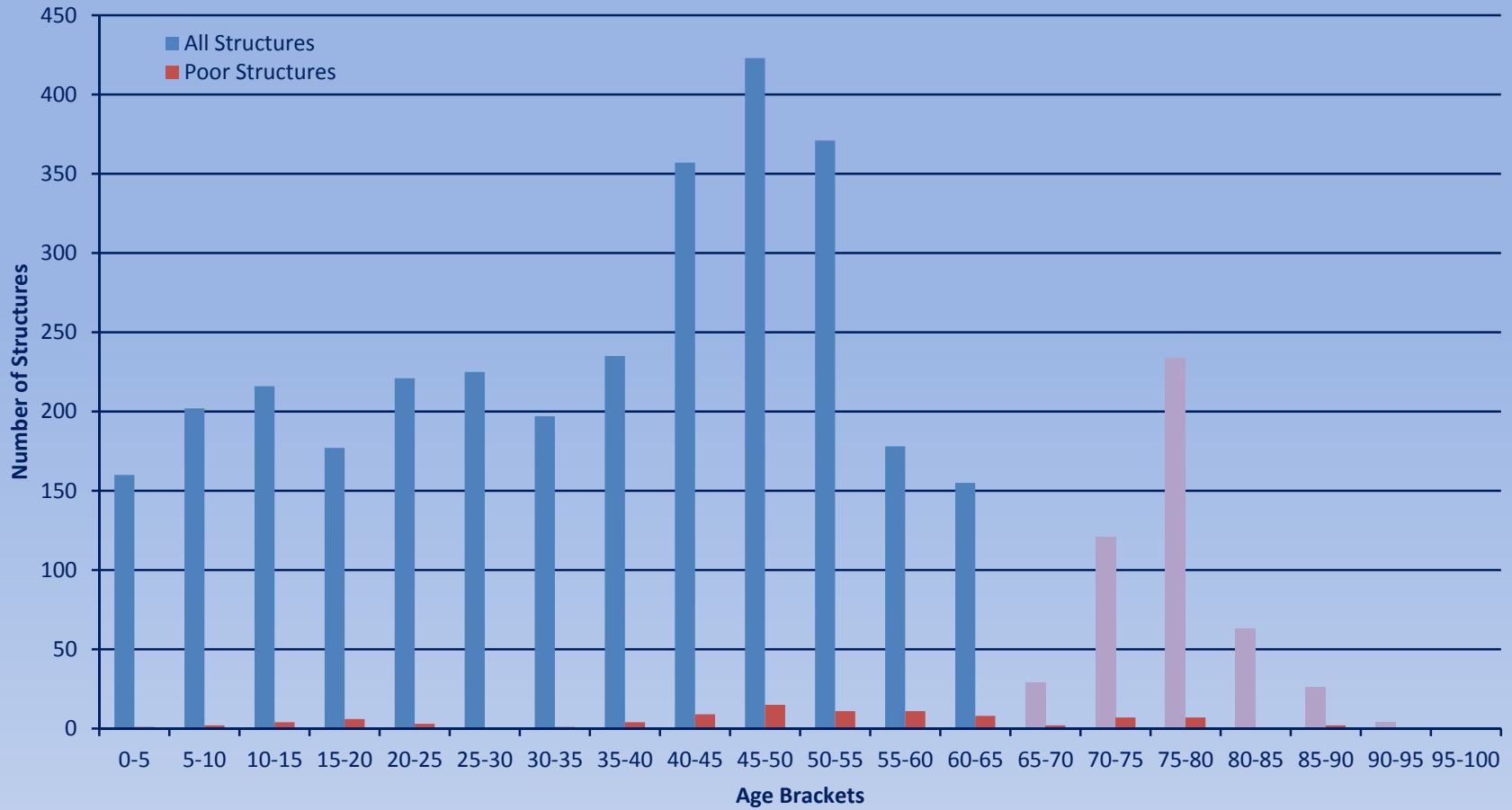
- MAP-21
 - 10% Structurally Deficient
- Previous Metric/TC Goal 95% Good/Fair
- Some Good/Fair Bridges are also SD
- So we are currently 96% Good/Fair and 7% SD

A Very Familiar Chart...



Number of Structures by Age

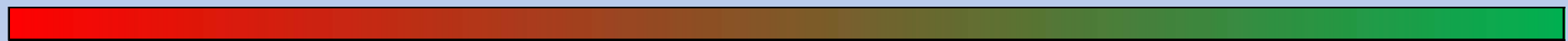
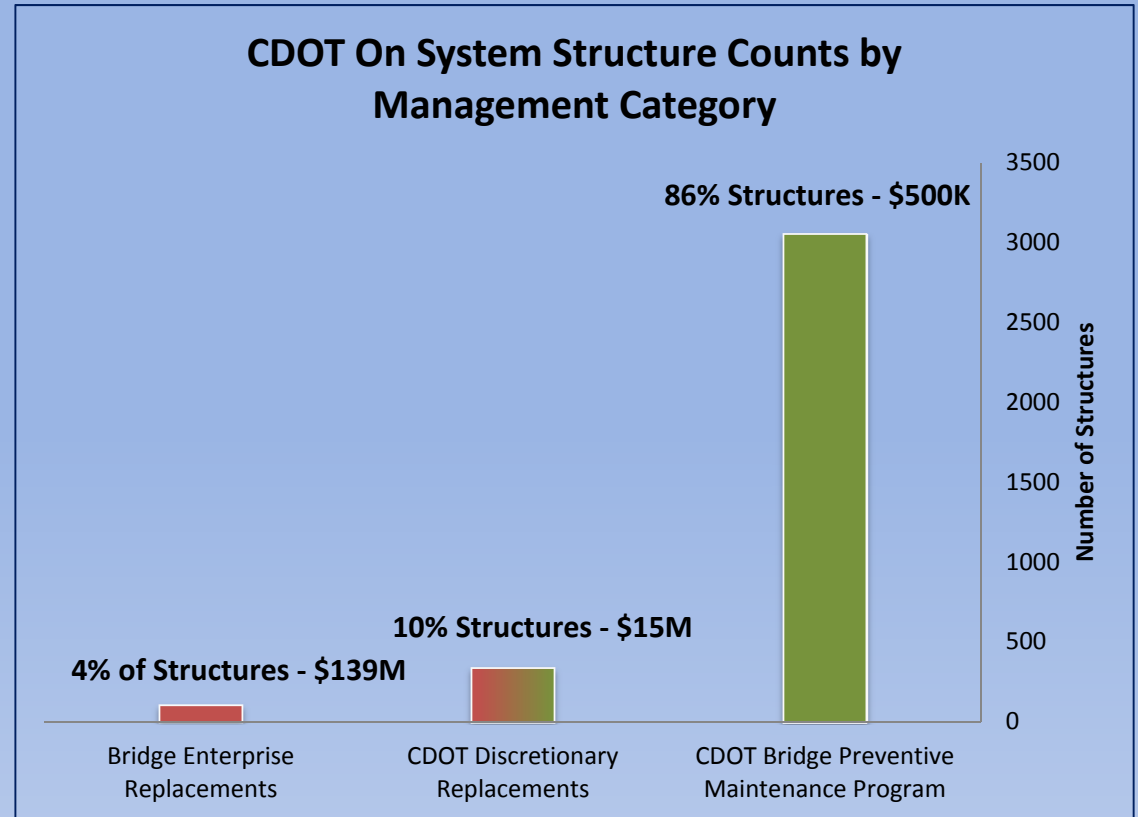
Current CDOT Inventory



CDOT's Bridge Program & the Bridge Enterprise

Responsibilities:

- CBE
 - SR under 50
 - SD or FO
- CDOT Bridge Program
 - Preventative Maintenance
 - Discretionary Replacements
 - Load Restricted
 - Structurally Deficient



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Preventative Maintenance Recommendations

Repairing, Replacing, or Removing Leaking Joints



E-17-FX, I-70 Viaduct
Brighton Blvd and Colorado Blvd
Year Built 1964
Broken and deteriorated joint at 54A (York Street)
before repair.

Picture taken January 1, 2009

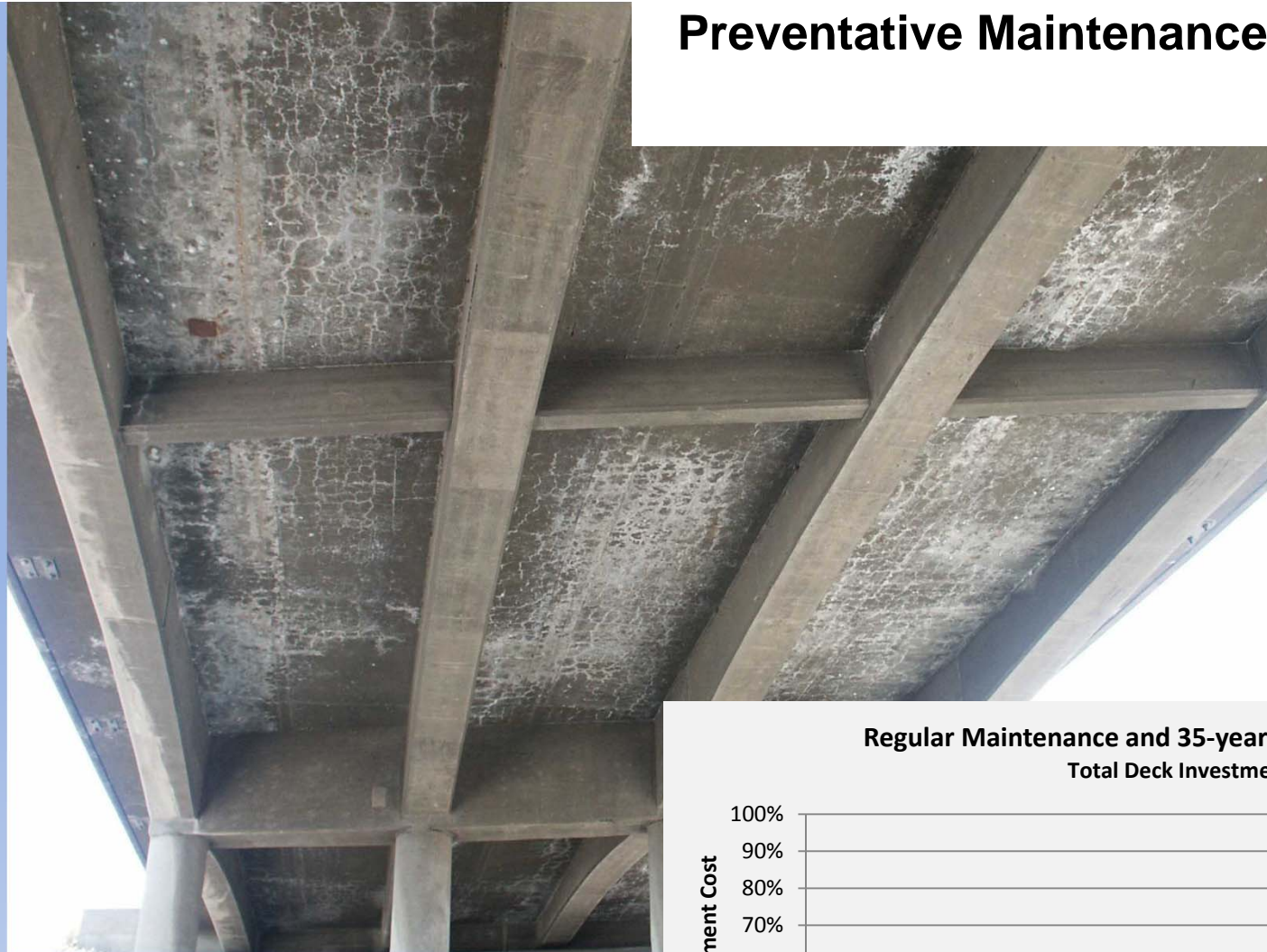
	Number of Structures w/Leaking Joints	Backlog	Sustain
Statewide	952	\$11,000,000	\$1,200,000

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Preventative Maintenance Recommendations

Waterproofing Decks



E-17-GV, Interstate 76 over York Street
Year Built : 1967

Deck Rehabilitation 2005

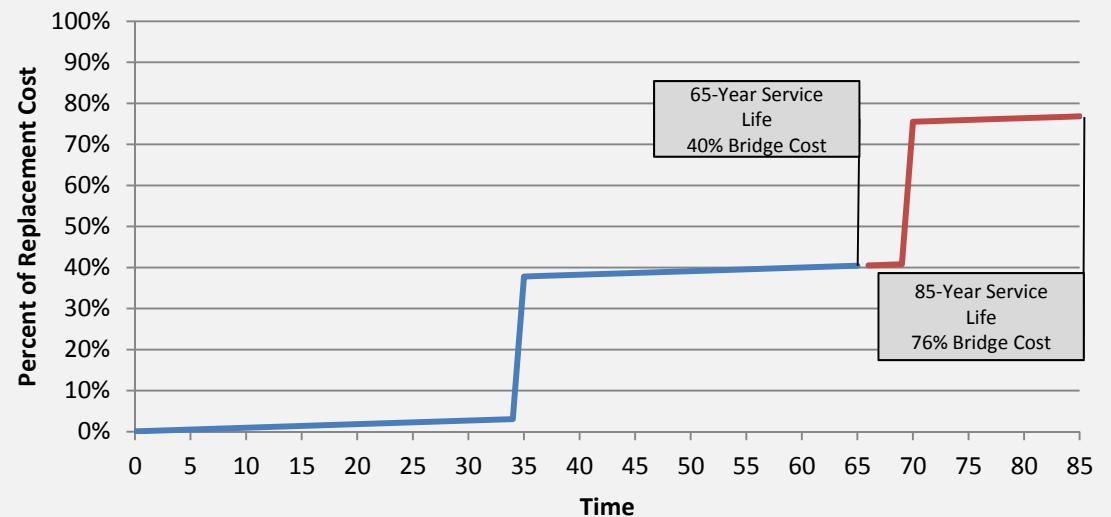
ADT: 34,821 (2027, 17% Truck)

NBI Deck Rating: 3 (1986)

Structure Age: 19 (1986)

Pictures taken June 13th , 2005

Regular Maintenance and 35-year Deck Replacement
Total Deck Investment



Preventative Maintenance Recommendations

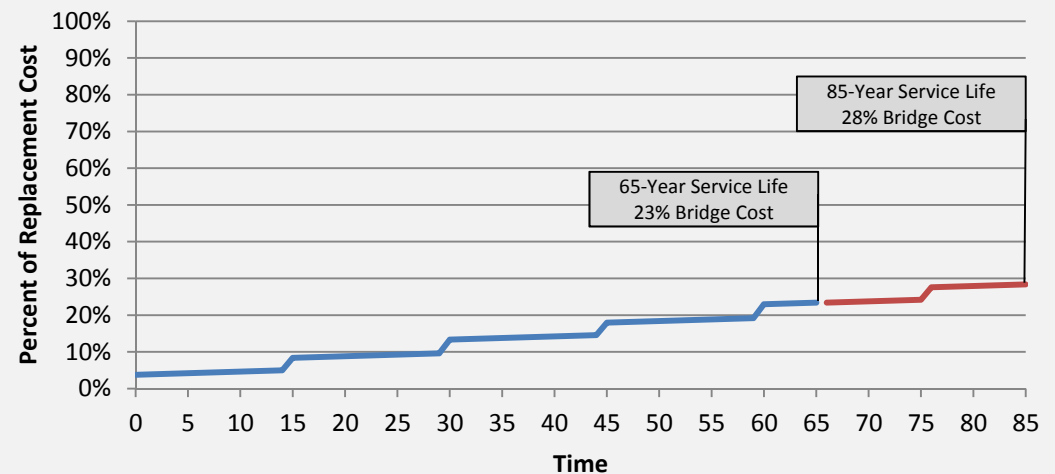
Waterproofing Decks



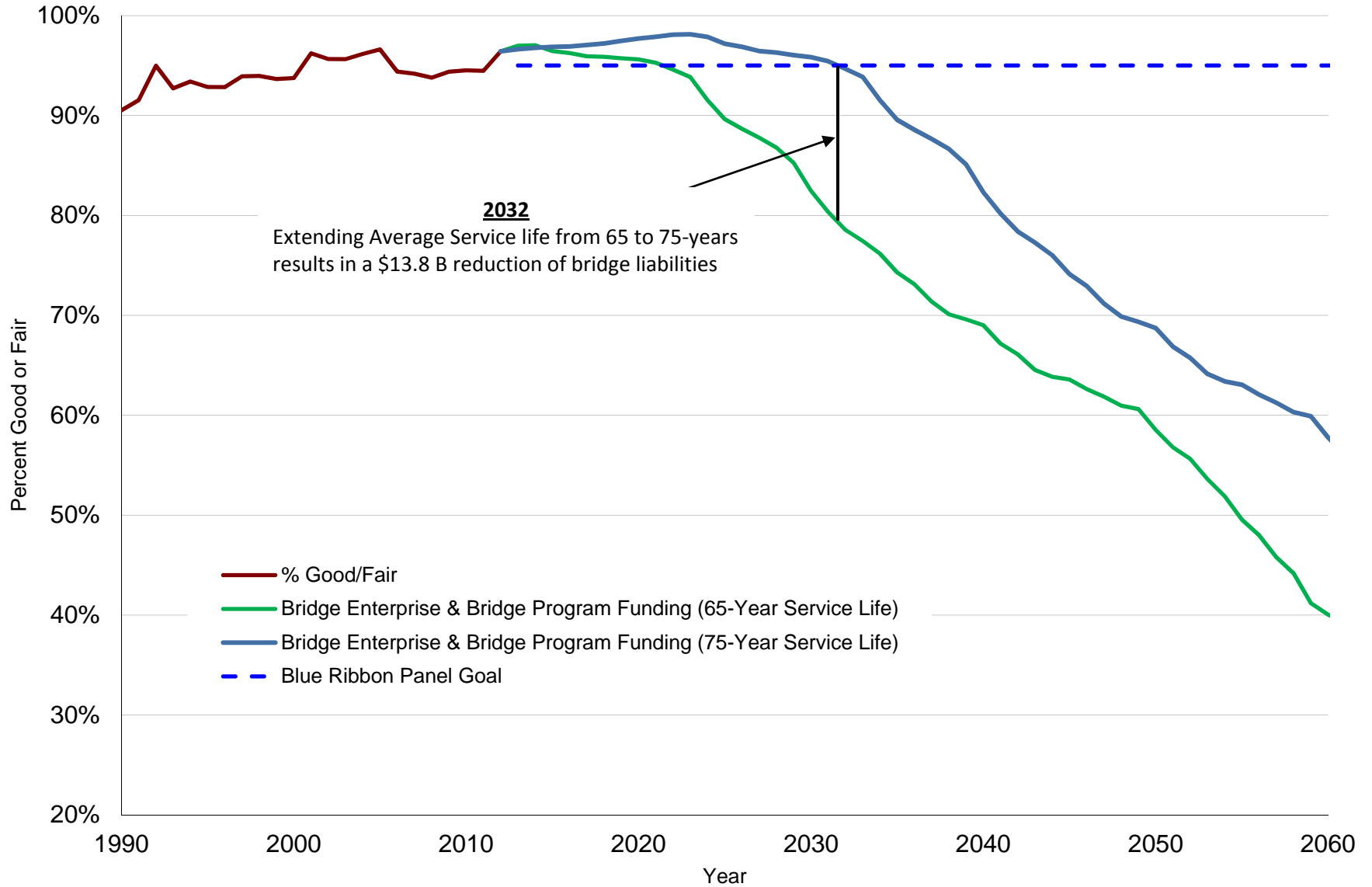
E-17-GI, Highway 285 over UP Railroad
Year Built: 1972
NBI Deck Rating: 7 (2012)
Structure Age: 40 (2012)
ADT: 12,768 (2028, 18% Truck)

Picture taken September 3rd, 2008

Deck Overlays 15-year Cycle
Replace Waterproofing Membrane 30-Year Cycle
Total Deck Investment



Good/Fair Projection Based on Average Service Life



Total Joint and Deck Preservation Investment (2013 Dollars)

