Asset Management of Transportation Systems (Bridges)

November 9, 2018
Performance Management

Performance Management of the Federal Highway Program is a systematic approach to making investment and strategic decisions using information about the condition and performance of the system and developing an approach to achieve a desired set of national goals.
Asset Management

Asset management is a strategic and systematic process of operating, maintaining, and improving physical assets, with a focus on engineering and economic analysis based upon quality information, to identify a structured sequence of maintenance, preservation, repair, rehabilitation, and replacement actions that will achieve and sustain a desired state of good repair over the lifecycle of the assets at minimum practicable cost. (23 U.S.C. 101(a)(2), MAP-21 § 1103)
Why Asset Management?

- Lack of resources to maintain the existing system at the desired level of performance.
- Ensure future investments are strategic and emphasize quality of life and economic growth.
- Create a culture through training and communication where transportation asset management is a way of doing business.
Small, planned investments in maintenance saves money in long run
Proactive Preservation
• Use of an Asset Management Software to manage inventory.

• Inventory reflects changes in the system periodically.

• Inventory reflects the different types of ownership.

• Digest the structure into quantities.
Proactive Preservation
• Inspection Program is critical to feed the state of the Bridges.

• There is two types of inspection:
  • Condition based rating Inspection system.
  • Quantity based Inspection system.
• Based on the bridges location estimate life cycles.

• Estimate Deterioration Curves for the life of the structure.

• Prepare cost scheduling for estimated cost of deterioration.
• Identify the need of repairs and projections to prepare programs of maintenance.

• Apply any needs for future expansion and operation needs.
• Preform the maintenance.

• Use of Asset management Software to manage repair tasks.
Proactive Preservation

Operate

Inventory

Inspect

Maintain

Identify Need

Life Cycle State
• Report on the completion of repair tasks.
Thank you