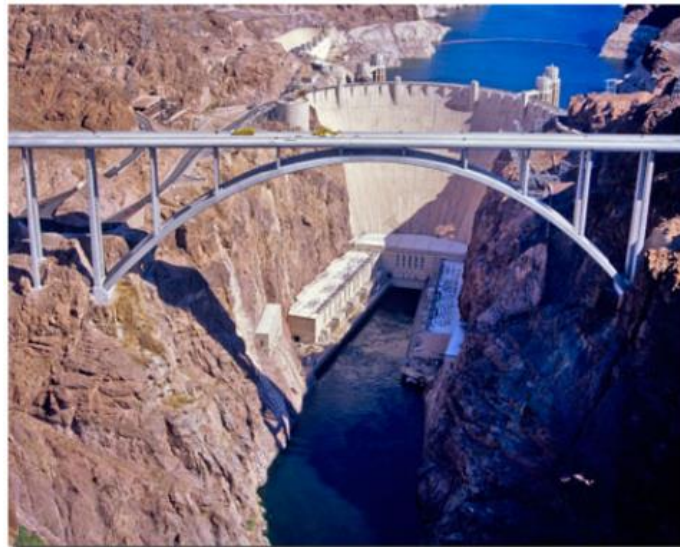
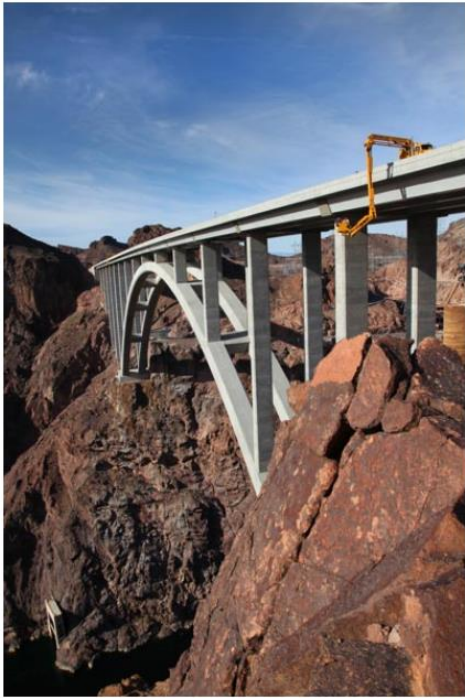


# AASHTO SCOM Bridge Technical Working Group (BTWG) Proposed Research – July 2017 Jeff Milton, VA



# Proposed Research - Endorsements

- Request SCOM re-endorsement for Duplex Coatings Project - The objective of this research is to collect technical data and develop practical guidelines that allow bridge engineers to position duplex coating systems among alternative corrosion control options for steel bridge structures. The researcher shall use a combination of laboratory testing and field studies to accomplish the project objectives.

This project was endorsed by SCOM at the 2016 meeting.



# Proposed Research - Endorsements

The objective will be accomplished by developing three documents for the bridge design, maintenance, and construction community:

- Design guideline for the use of duplex coatings
- Guide specifications for duplex coatings
- State of the art report

This project directly addresses the 2013 SCOBS strategic vision objective to “Extend Bridge Service Life.” SCOBS T-9, T-14, T-18; SCOM; and the AASHTO National Bridge Preservation Partnership’s (NBPP) Coatings Group; TRB AHD 30, Standing Committee on Structures Maintenance, and TRB AHD30(2), Steel Bridge Coating Subcommittee have expressed support for this project.

# Proposed Research - Endorsements

- Request SCOM endorsement of the proposed NCHRP Project 20-07 proposal titled “Emerging LED technologies, and their spectrum of use on roadways and tunnels” - the objective is to catalog the various types of LED lighting techniques commonly available-both in roadways and tunnels- and identify benefits and challenges with each when used to light tunnels, as well as roadways. Additionally, LED technology could possibly offer some opportunities to update existing tunnel lighting requirements, and take advantage of characteristics that LEDs provide that were previously unavailable with the older technologies.

# Proposed Research - Endorsements

This research proposal has been endorsed by the AASHTO Joint Technical Committee on Roadway Lighting and the PIARC D-5 Road Tunnel Operations Committee and AASHTO SCOBS T-20 Tunnel Committee.

This research project will support the BTWG work plan item to support member agencies in the inspection and maintenance of tunnels and ancillary (traffic, MSE walls, etc.) structures.

# Proposed Research – Proposals from Bridge Preservation Partnerships

- Protecting Bridge Approaches During Flooding Events - This research will suggest methods and designs that could protect the approaches of structures from damage during flood events. How would we design and construct a bridge that we could not allow to fail in flooding? No doubt the answer to this question would be cost-prohibitive to use on all structures, but it may point to methods that could be done to greatly reduce this type of flood damage while being practical and cost effective.

# Proposed Research – Proposals from Bridge Preservation Partnerships

- Benefits of Bridge Cleaning & Washing and Effect on Service Life - The objective of this research is to conduct a comprehensive study of the cost-effectiveness of bridge cleaning and washing measures and evaluate the effect of a periodic program of bridge cleaning and washing on the service life of bridge elements; and to evaluate the economic benefits of cleaning and washing.

# Proposed Research – Proposals from Bridge Preservation Partnerships

- Pool Fund Study For Development Of Accelerated Weathering And Corrosion Tests To Identify High Performance Coatings For Structural Steels – The objective of this study is to identify accelerated performance testing protocols, including evaluation methods, for high performance coatings for structural steel. Develop equipment to perform new test protocols. Conduct comparison testing for old and newly developed performance testing protocols.



# Proposed Research – Proposals from Bridge Preservation Partnerships

- Deck Sealers & Overlays – Treatments and Requirements for Use – The objective of this research is to conduct a comprehensive study into the application of various sealers and types of overlays and to evaluate their performance in protecting decks from corrosion related damage and extend the service life of the deck; and to establish practical guidance for their use under a variety of deck conditions and service

requirements.

# Proposed Research – Proposals from Bridge Preservation Partnerships

- Synthesis of Standardized Maintenance & Preservation Best Practices – The objective of this project is to prepare a synthesis of best bridge preservation practices that includes appropriate information on materials, specifications, application guidelines, bridge conditions that are appropriate for the treatment, timing of treatment and recommendations on cyclical applications as well as case histories of successful bridge preservation actions.

# Proposed Research – Proposals from Bridge Preservation Partnerships

- Test Protocols for Small Movement Bridge Joints - The objectives of this research are to (1) develop a consensus list of ASTM test standards for evaluation of materials used in SMBJ's, (2) develop standard test protocols for evaluating the system performance of SMBJ's, and (3) develop guidelines for conducting and reporting on field demonstrations of SMBJ's.

# Proposed Research