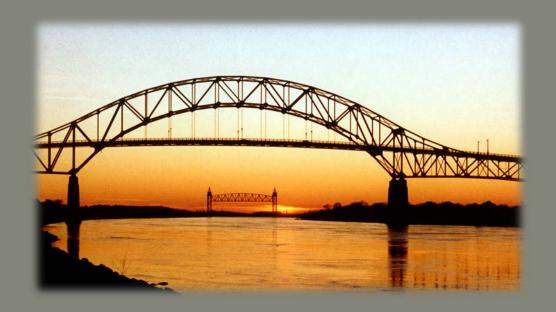
CAPE COD CANAL BRIDGES MAJOR REHABILITATION EVALUATION REPORT

MASSDOT

Working Group Meeting

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"The views, opinions and findings contained in this report are those of the authors(s) and should not be construed as an official Department of the Army position, policy or decision, unless so designated by other official documentation."





PRESENTATION OUTLINE

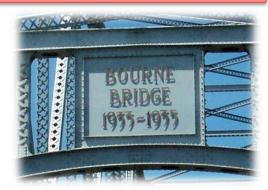
- Cape Cod Canal Federal Navigation Project Authorization
- Major Rehabilitation Evaluation of Cape Cod Canal Highway Bridges
- Status of CCC Bridges MRER Activities
- Next Steps





CAPE COD CANAL FEDERAL NAVIGATION PROJECT AUTHORIZATION

River and Harbor Act of 30 Aug 1935,
 74th Congress, 1st Session (P.L. 74-409)



- Project is comprised of:
 - Federal Navigation Channel linking Buzzards Bay to Mass Bay
 - Access / recreational area surrounding the Canal
 - Railroad Bridge
 - Bourne and Sagamore Highway Bridges
- Authorization Specific to the <u>Highway Bridges</u>:
 - > Two Highway Bridges providing access to/from the Cape
 - → 4 lanes total per bridge; 2 lanes each way
 - No Tolls
 - Abutment to Abutment





MAJOR REHABILITATION EVALUATION OF CAPE COD CANAL HIGHWAY BRIDGES

- Components of the Major Rehabilitation Evaluation include:
 - Structural Engineering
 - Cost Engineering
 - Economic Justification
 - Environmental Analysis
- MRER will evaluate Rehabilitation and Replacement alternatives for both the Bourne and Sagamore.
- Layout the necessary major rehabilitation milestones over the functional life (50 yrs) of the structure, or recommends replacement of one or both structures.
- MRER uses modern bridge replacement type for comparison purposes; replacement will require its own authorization and studies for implementation.

STATUS OF MRER ACTIVITIES (1)

- Structural Engineering Risk and Reliability study identifies components and complex systems which need restoration / replacement to improve or maintain performance. (Completed)
- Cost Engineering Calculates the construction estimates and risk to cost / schedule for rehab and replacement alternatives over. (Completed)
- Award Traffic Modeling contract to TrafInfo Inc. to determine potential impacts of lane closure and enable economic / environmental analysis of all alternatives. (Completed)







STATUS OF MRER ACTIVITIES (2)

- Traffic Modeling near completion; additional scenarios being run to quantify traffic improvements from different lane schemes.
- Economic Justification evaluate the cost of alternatives against their benefits/impacts resulting in Benefit to Cost Ratios (BCR). Being completed in parallel with modeling. (Feb 18)
- Capturing other social effects (OSE) of rehab and replacement alternatives affecting public safety and quality of life (non-BCR).
 - Disaster Management (example Hurricane landfall)
 - JBCC supply/delivery & response mobilization
 - Emergency Medical Services
 - Public Services (Police response, School bus delays)
- Environmental Analysis In process of awarding task order to consultant to assist in the NEPA process.

NEXT STEPS

- Public and Stakeholder Involvement meetings / presentations to start in late spring:
 - Including Cooperating agencies, Stakeholder & Working Groups, and Public
 - ➤ Held multiple locations (at least 5) around the Cape, Islands, and South Shore for maximum participation
- Continued collaboration with MASSDOT
 - Technical Meetings to confirm results of traffic modeling, and cost attribution for bridge approaches.
 - MRER External Technical Review member
- Continue regular routine inspection and maintenance on both bridges. [Joint replacement on Sagamore – Spring 18]

QUESTIONS / COMMENTS

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