



September 9, 2010

To: Mike O'Dowd
MassDOT Accelerated Bridge Program
Project Manager

Through: Gary Bua, P.E.
TranSystems
Project Manager

From: Nathaniel Curtis
Howard/Stein-Hudson
Public Involvement Specialist

RE: **MassDOT Division of Highways
Kenneth F. Burns Memorial Bridge Replacement
MEPA Scoping/Public Information Meeting
Meeting Notes of September 8, 2010**

Mike O'Dowd (MassDOT Accelerated Bridge) opened the meeting by welcoming the audience and thanking them for their attendance noting that many of the group had joined him on the just-concluded MEPA site walk across and around the Kenneth F. Burns Memorial Bridge. He then explained that the Kenneth F. Burns Memorial Bridge is being replaced through the Accelerated Bridge Program (ABP). The ABP is an eight-year, \$3 billion initiative, launched by the Patrick-Murray Administration to repair, rehabilitate or replace structurally deficient bridges in the Commonwealth of Massachusetts. This additional funding is especially welcome and needed because it represents an opportunity for MassDOT to ensure user safety by addressing approximately 200 structurally deficient bridges while reducing its future maintenance burden.¹

Turning to the purpose of the meeting, Mike noted that MassDOT is committed to open and effective public involvement. One opportunity for the public to be involved is through the MEPA process. The meeting represents MassDOT's compliance with that process. As a project being conducted under the ABP, the replacement of the Burns Bridge is still going through all of the relevant environmental permitting, but at an accelerated pace; nothing is being given short shrift.

Following these remarks, Mike introduced Anne Canaday of the Executive Office of Energy and Environmental Affairs. Secretary Ian Bowles heads this office. Anne also thanked the audience for their attendance at the meeting and site walk. She explained that her office is involved in the project from an environmental standpoint, both the natural and human environment, and that Secretary Bowles is anxious to receive comments from project area residents. The period during which comments will be received runs until September 14, 2010. Based in part on the comments received, Secretary Bowles will issue a decision on September 24, 2010 as to whether or not the project can continue to move forward. Members of the public seeking a copy of the Environmental Notification Form (ENF) filed for the project with Secretary Bowles are encouraged to request a copy from Mary Hynes of the MassDOT Environmental Section via email or postal mail. Copies can also be downloaded from the project website at www.mass.gov/massdot/kenburnsbridge/documents.html.

Following Anne's remarks, Mike concluded his introduction by noting that additional environmental coordination will be taking place with the state Department of Environmental Protection, the federal Environmental Protection Agency and the Army Corps of Engineers, however receipt of Secretary Bowles' decision represents the first major environmental permitting milestone for the project.

¹ Many bridges currently classified as structurally deficient require more frequent inspections and emergency repairs to ensure public safety. This burden is both costly and time consuming and limits how much the agency can achieve in terms of maintenance and repair on other roads and bridges in its portfolio.

Highlights of the Presentation

Following Mike's opening remarks Gary Bua (TranSystems) briefed the audience on the current status of the project. Highlights of the presentation included the following:

- The presentation provided represents an amplification of the themes and concepts outlined in the ENF, articulates the recommended alternative and outlines where the project is within the permitting process.
- TranSystem's involvement with the Kenneth F. Burns Bridge began in 2008. In spring, the company performed a routine inspect, during the summer testing of the bridge's concrete, and in the fall a special member inspection. The firm also developed a preliminary functional design report. These elements were summarized for MassDOT in a report issued during the winter of 2008-2009. The report indicated:
 - The bridge's deck is rated in serious condition with several local failures.
 - The super and substructure are both rated in poor condition showing signs of advanced deterioration.
 - The concrete that composes the bridge is in poor condition – several areas were found to be in need of temporary supports.
 - The two east and westbound lanes of the current span are inadequate to serve current and future traffic needs and present an impediment to the passage of emergency vehicles during peak travel hours.
 - Pedestrian accommodations are inadequate with narrow sidewalks unprotected from traffic.
 - The bridge is safe in the short-term but represents an intensive, ongoing inspection and maintenance responsibility for MassDOT.
 - **The current Kenneth F. Burns Bridge is in poor condition, does not meet the needs of current and future users, both automotive and pedestrian, and should be replaced.**
- The scope of the team currently at work on the Burns Bridge replacement project includes:
 - Evaluation of replacement bridge alternatives for roadway alignment, construction sequencing and bridge type.
 - Preparation of state and federal environmental documentation.
 - Preparation of the preliminary design up to the 25% level.
 - Assistance in the development of the design/build procurement package.
- Key dates in the project schedule include:
 - Completion of concept design - Spring 2010
 - Preliminary design - Summer 2010 to Winter 2011
 - Environmental permitting - Summer 2010 to Winter 2011
 - Design/Build Procurement - Spring- Summer 2011
- Throughout the project, the design team has undertaken a thorough public involvement process. Themes gathered through this process which have had a significant impact on the project to date include:
 - The importance of the lake as a recreational boating venue. The bridge's underclearance should be improved to facilitate the passage of sailboats from one end of the lake to the other.
 - Pedestrian and cycling accommodations should be improved.
 - Construction duration and impacts, including to utilities that run through the current bridge, should be reduced to a minimum.
 - Public safety issues should be addressed.
 - Aesthetics are important at this location – this bridge needs to be visually appealing.
 - Water quality should improve as a result of the project.
 - The new bridge should not contribute to light pollution.
 - These themes have been synthesized by the project team into the following guiding statement: *“Provide for a new bridge that is consistent with site context and improves the overall appeal and function of the project site.”*
- The current Burns Bridge consists of two eastbound and two westbound lanes with a narrow sidewalk down each side. The entire span is roughly 68 feet wide and has no shoulders. As compared to the segments of Route 9 to the bridge's east and west, the lanes on the bridge are markedly to the north. The bridge has a high point near its center and a low point on the Ramshorn Island viaduct.

- In considering the roadway alignment for the new bridge, the design team developed analyzed several potential solutions.
 - **1A** provided a poor alignment in the final stage.
 - **1B** somewhat addressed the alignment issue, but required a temporary bridge.
 - **1C** fully addressed the alignment issue, but still required the costly and time-consuming temporary bridge.
 - **2** provided all the alignment benefits of **1C**, but without the temporary bridge. This is achieved with an open median. **This alignment has been chosen for use with all deck-type structures.**
 - **3** is required for use with the through-arch option.

- To build alignment two, the recommended roadway alignment, the design team has outlined the following steps:
 - Demolition of the existing south sidewalk on the current span and construction of four lanes of the new bridge.
 - This step will include shifting telephone lines off the existing bridge to the new span.
 - Shifting of traffic off the existing bridge and to the new four lanes.
 - Demolition of the existing bridge and the construction of the rest of the new bridge. Traffic will then be shifted to provide three eastbound and three westbound travel lanes.

- In reviewing alternative types for the replacement bridge, the project team has considered:
 - A three span haunched girder bridge in steel or concrete. A three span haunched girder bridge would have provided:
 - A main span of 300 feet
 - A high point at the center of the bridge, with low points off the bridge.
 - 19 feet of underclearance above mean high water.
 - This type was rejected by the design team due to a heavy appearance, difficulty/expense of construction, and minimal improvement of the underclearance.
 - A five span haunched girder bridge in steel or concrete. A five span haunched girder would have provided:
 - A main span of 230 feet
 - A high point at the center of the bridge, with low points off the bridge.
 - 22 feet of underclearance above mean high water.
 - This type was dismissed by the design team due primarily to community preference for the steel deck arch despite being the most economical of all types reviewed.
 - A five span steel deck arch. A five span steel deck arch will provide
 - A main span of 230 feet
 - A high point at the center of the bridge, with low points off the bridge.
 - 23 feet of underclearance above mean high water.
 - A shallow, open, and visually pleasing structure.
 - A traditional appearance.
 - Ease of construction due to the relative lightness of the steel members.
 - This type was selected in part due to positive feedback from the community.
 - A through arch. The through arch would have provided:
 - A main span of 350 feet
 - A high point at the center of the bridge, with low points off the bridge.
 - 24 feet of underclearance above mean high water.
 - This type was dismissed by the design team due primarily to cost and complexity/duration of construction.

- Based on the project parameters outlined by MassDOT and themes of public commentary, the project team has recommended that the current bridge be replaced with a five-span steel deck arch structure. MassDOT has accepted the design team's recommendation. Advantages of the steel deck arch include:
 - Moderate construction costs.
 - Significant opportunities for accelerated bridge construction techniques.
 - A 2-3 year construction time-frame.
 - 23 feet of vertical clearance at the center span above mean high water providing adequate clearance for sailboats and crew shells.

- A traditional appearance, based in part on a 1910 concept for the current Burns Bridge, that lends itself readily to the classic aesthetic requested by members of the community in their public comments.
- From an aesthetic point-of-view, the steel deck arch offers opportunities for:
 - Ornamental lighting.
 - Bump-outs at pier locations from which boating events can be watched.
 - An open median to make sailing below the bridge easier and more appealing
 - Other decorative elements such as medallions, railings, and colored sidewalks to give the bridge a gateway feeling.
- MassDOT has accepted the project team’s recommendation that the new bridge should be a steel deck arch. The public can still have a significant impact however on the bridge’s appearance and the design team is actively seeking comments on this topic.
- With a recommended type in hand, the project is now actively addressing the environmental permitting process. Major elements of the process include:
 - **Summer 2010** - Preparation of the ENF for submission to MEPA including analysis of alternatives and evaluation of environmental impacts. The ENF was submitted to MEPA in September of 2010.
 - **Fall 2010** – Preparation of NEPA documents including a determination of whether a categorical exclusion or environmental assessment is appropriate for this job and a Section 4(f) evaluation.
 - **Prepare Permit Applications – 2010-2011**
 - Chapter 91 License
 - Article 97 (Land Transfer)
 - Section 106 Coordination
 - WPA, ACOE
- The environmental process is currently being driven by the need to obtain a Chapter 91 license for the Burns Bridge replacement project. Procuring this license is a requirement under the Massachusetts Public Waterfront Act of 1866² which is administered by the Massachusetts Department of Environmental Protection. Obtaining this license requires the filing of an ENF.
 - The ENF enumerates a range of public benefits associated with replacing the current Burns Bridge including:
 - Reduced impacts to the lake due to the reduction in number of pier structures.
 - Improved bicycle and pedestrian access.
 - Improved vehicular flow and reduced congestion.
 - Improvements to water quality.
 - Conservation land impacts associated with the project include:
 - 1,662 square feet of Regatta Point state park will be permanently acquired by the project.
 - There will be 5,553 of temporary impacts to the state park as well.
 - 5,297 square feet of Ramshorn Island will be regarded and the island viaduct removed. This will result in 10,840 square feet of land going back below the surface of the lake and improve water quality around the island. Stairs currently provided access to the island from the bridge will be removed.
- Historical and archaeological impacts associated with the bridge project are limited since the only item of historical significance in the area is the bridge itself. The bridge is not currently on the historic register, but is eligible for listing. This condition results in the structure being treated as though it were in fact registered.
 - The project team will go through a Section 106 process.
 - Shrewsbury and Worcester historical commissions will be briefed as part of the project. The two historical commissions have already expressed their understanding that the current bridge must be replaced.
 - It is expected that these discussions will result in the creation of a Memorandum of Agreement or MOA which will require MassDOT to document the old bridge prior to demolition.
- Relevant to the MEPA review, the replacement of the Burns Bridge will have the following impacts:

² This law protects coastal waters and “great ponds” or inland bodies of water with greater than ten acres of surface area. Lake Quinsigamond falls into this second category.

- An additional 0.9 acres of new roadway.
 - The bridge's total width will go from 68 feet to 143 feet.³
 - 1,662 square feet will be taken from Regatta Point State Park. The section of park taken is not in use as a recreational area and currently hosts a police boat house.
 - Storm water management will be improved. Currently, storm water runs off the bridge directly into the lake through "scuppers" or drains. In future, water will be contained by deep sump catch basins and possibly vegetated swales or detention basins, though the opportunity to implement the last two options is limited due to the lack of space around the bridge.
 - There will be a net gain of 1,300 square feet of land returned under water.
 - There will be approximately 6,000 square feet of excavation within the lake to accommodate the new bridge's foundations.
 - There will be 200 linear feet of impact along the lake's banks.
- Next steps in the environmental permitting process include:
 - Receipt of the MEPA certificate for the project. If all goes well this will be issued on September 24, 2010.
 - NEPA process and determination of class of action for the project.
 - Preliminary design and permit process.
 - Design public hearing, including presentation of architectural options.
 - Preparation of the design/build procurement package.
 - Final design and construction, beginning in 2011.

Question & Answer Session⁴

Q: What will happen to the storm water that is currently in the area, but does not drain off the bridge?

A: The path that runoff not associated with the bridge takes won't change. The vortec separator that's currently there won't be moved or impacted.

C: Correct, MassDOT will make sure that the contractor is well aware of the separator and they won't damage it. The location is to the west of the police boat house so we won't be over there too much.

A: The only change we see for the area around the vortec separator is the drainage out of it. Right now the discharge goes into a rock lined swale with a curve in it. We propose to change it slightly so that the discharge goes into the lake more directly. We believe that this, taken with the changes at Ramshorn Island will reduce the stagnant water that tends to collect near the Lincoln Park Towers.

Q: How will you demolish the existing bridge and keep DEP happy?

A: Very carefully. We expect that the permits we receive will have some conditions that MassDOT will be expected to enforce on the contractor. We will probably get conditions from state DEP, federal EPA and the Army Corps of Engineers. The contractor will also have to apply directly to the EPA for a storm water pollution prevent plan known as a SWPP.

Q: That's good, but what I really want to know is whether you would be able to dump demolition debris directly into the lake.

A: Absolutely not. The contractor would have to contain the demolition debris.

³ This includes a 60's "barrel," a 64' "barrel," and a 19' open median.

⁴Not all members of the commission or audience provided their names prior to speaking. As such, questions and comments are presented anonymously.

Q: What can you tell me about the number of jobs that will be generated for local residents on the project? I'm also curious to know as to whether you can obtain the materials you need for the job from suppliers within the Commonwealth? Will you have to look to Alabama or Mississippi for parts?

A: A lot of our larger projects have the potential to have to seek components, in this case steel, from somewhere like Alabama, Mississippi or Pennsylvania. We do of course have a buy American provision and the project will certainly benefit the local workforce significantly both in terms of construction jobs and those who cater to construction workers. We will try to get as much local material as we can, but from a supplier perspective, there's only so much we can do. I think for a \$137 million project we will generate significant local and some national economic benefits.

Q: I own a business at 12 Lake Avenue. What assurances can you give us that traffic will continue to flow during construction?

A: I don't like to hand out assurances, but I can you this: we are developing a traffic management plan for this project that will keep all existing traffic movements⁵ and lanes available during peak hours. Off-peak we may close some lanes and movements, but we will strictly identify in our contract that during peak hours, all lanes and movements you have today be kept open.

Q: I have a follow-up to my first question: how much construction can you shift to the night to avoid business impacts?

A: We will of course consider the use of night-time shifts to ease the impacts on businesses and travelers, but it's a balancing act because night-time impacts fall heavily on residents. MassDOT has to respect both residents and businesses and try to address the needs of both. We will definitely have contract requirements for the builder regarding when they can work be it nights or weekends. We believe that there will be some night or weekend operations, but we are not quite up to that point yet.

Q: In terms of crew, there are lane markers in the water that are supported by cables fastened to the bridge. How will those be maintained during construction?

A: We have been coordinating with the crew teams already. We are aware of what's out there now and will make accommodations for it in any future design.

Q: I really like the bridge you showed us from Hamilton, Ohio and I wish you were selecting it. If you must use the steel deck arch, and I wish you wouldn't, I would like to see the architectural sense of togetherness improved. It looks like you have four different architectural periods going at once on a single bridge, it's very garish.

A: What you see here is preliminary. Engineers don't necessarily always generate the most harmonious of structures which is why we have a nationally renowned bridge architect to bring issues of aesthetics to our attention. What you see tonight is what he's developed thus far, but it's not the end product. What he is trying to accomplish is to draw some themes together at this location. He has some tools at his disposal to accomplish that: railing design, pavement color, concrete, color of the steel, different railings and lighting fixtures.

C: I also want to say a few things with regard to the deck arch. The structure gives us decreased recreational impacts at roughly the same cost as the haunched girder. In order to simulate the Hamilton structure, you would have to go from five spans to seven spans, on top of which Hamilton was a narrower bridge. At seven spans there would be greater cost, longer construction time and increased environmental impacts. It just didn't result in what we need to accomplish.

Q: I didn't realize until now that Regatta Point was a state park. Is that why it's so grotesque? Why doesn't it look nicer? It has a terrible cyclone fence in front of it.

⁵ Turns.

A: I believe the DCR representative just left, but please put that in as a comment. They want to work with you to make sure the park is inviting and accessible. DCR is making improvements to that park as we speak, but course funding is a struggle. I'll get you a DCR contact and a phone number for them.

Q: I hear you are widening the bridge a good bit. Why is it 60 feet for one barrel and 64 feet on the other?

A: It has to do with traffic management during phase one. We need to build what will eventually be the eastbound side of the bridge a little wider to accommodate the initial four lanes of traffic.

Q: Will there be a liaison for members of the public to contact regarding construction during work?

A: Construction operations will be managed by District 3; they will determine who the liaison person will be, but yes, there definitely will be one.

C: There was some construction on Belmont Street last year and they wiped out all the available parking. It would be great if the construction workers and even police could park somewhere else.

A: That's a great comment. That's something we can work into the bid documents.

Next Steps

The next major public involvement milestone will be a public information meeting tentatively scheduled for early November 2010. This meeting will specifically address bridge aesthetics for the steel deck arch which has been forwarded by the consultant team as the recommended alternative.

Note to the Reader: the materials made available through this section of the website have been developed by the project team to support the public involvement process. The reader should assume that all materials reflect the project team's best understanding of the project at the time prepared. Later materials offer the reader a deeper and clearer look at the project and should be assumed to supersede earlier materials.

These minutes are a close representation of what transpired at the meeting summarized herein, but should not be considered a verbatim transcript. Contact information provided by meeting attendees has been removed to protect their privacy.
