July 22, 2013

Patricia A. Leavenworth, P.E.
Chief Engineer
MassDOT, Highway Division
10 Park Plaza
Boston, MA 02116-3973

Via Electronic Mail

Attn: Joseph A. Pavao, Jr., P.E., Project Manager, Accelerated Bridge Program

Dear Ms. Leavenworth:

I am George Myers, a resident of Chatham, and one of the Section 106 Consulting Parties for the Mitchell River Bridge Replacement Project (MRBRP). I attended the 75% Design Public Hearing on July 18, 2013 in Chatham, MA and spoke in support of the 75% design for the Alternative 3 bridge. Pursuant to the "Notice of a Public Hearing," I respectfully request that this written statement and attachment be included in the public hearing transcript.

At the outset, I wish to note my disagreement with the spokesman for the Friends of the Mitchell River Bridge that MassDOT showed "animosity" toward the efforts of the Friends to obtain National Register eligibility. In fact, even prior to the Keeper's October 2010 DOE, MassDOT had addressed a number of issues raised by the Friends concerning the history and aesthetics of the existing bridge. As stated on MassDOT's web site in March 2010:

> MassDOT is further revising their preliminary plans based upon feedback given during the second public information meeting and its meeting with town officials. Timber is being increased as a design element in order to better echo the aesthetic of the existing bridge. MassDOT is also investigating the possibility of an all-timber bridge design to have the 75-year service life required by the Accelerated Bridge Program.

Moreover, in 1984, 1985 and in January, February, and July 2010, the Massachusetts State Historical Preservation Officer (SHPO) determined that the MRB was not eligible for the National Register. Thus, it was not unusual, in fact, it was appropriate, for MassDOT to take the position that the MRB was not NR-eligible.

It is also respectfully submitted that it serves no useful purpose to continue to reargue the issues that were resolved in finality by the May 14, 2012 Memorandum of Agreement reached at the conclusion of the Section 106 proceeding and by the November 2012 NEPA Environmental Assessment.

A Final Word on Bike Lanes

On July 1, 2013, pursuant to the Notice of Hearing, I submitted a request that MassDOT reconsider my proposal to restore bike lanes on the Alternative 3 design of the bridge. Subsequently, on July 10, 2013, I withdrew the request for reconsideration of the bike lane proposal based on discussions with Town Officials and several Chatham citizens. Following withdrawal of my request, I received additional information that I considered appropriate to make of record at the 75% design stage because of its pertinence to my bike lane proposal and

the issues of safety and speeding raised by some Chatham citizens and Section 106 consulting parties.

Late on July 18, 2013, the day of the 75% Design Public Hearing, I received a forwarded e-mail (attached) written by Mr. David Watson, Executive Director of the Massachusetts Bicycle Coalition (MassBike)[1] who had reviewed my bike lane proposal for the MRB and concluded that removal of the bike lanes from the earlier designs of the MRB was not "unreasonable or unsafe." However, the basis for his conclusion that bike lanes were not necessary on the MRB was different from the basis upon which MassDOT removed them, and different from the basis upon which the Chatham Bikeways Committee and others opposed restoring bike lanes on the MRB.

Because the traffic volume on the MRB is low (less than 800 cars per day), the posted speed is low (15 MPH) and the bridge length is only about 200 feet, Mr. Watson concluded that the MRB does not meet the minimums for bike lane use by the "most progressive design guide (NACTO)."[2] In my opinion, the basis for Mr. Watson's conclusion is a more appropriate rationale for removal of the bike lanes from the MRB than the rationale previously stated by MassDOT and urged by the Chatham Bikeways Committee and others.[3] However, it should be noted that during the summer season, the traffic volume of cars (and bicycles) on Bridge Street and the MRB is likely substantially greater than MassDOT's figure and that the lower 15 MPH speed limit on the MRB was established during the Board of Selectmen meeting of January 25, 2011 because of the deteriorating condition of the bridge. Presumably, the 15 MPH speed limit will be retained when the new bridge is completed. In addition, Mr. Watson's suggestion of using sharrows on Bridge Street and the MRB in lieu of bike lanes warrants serious consideration.

Although removal of the bike lanes from the MRB design can be justified based on Mr. Watson's analysis, it is unfortunate that much of the opposition to restoring the bike lanes was based on the misperception that widening the bridge to accommodate marked bike lanes would have caused a dangerous increase in traffic speed. As Mr. Watson notes in his e-mail (and the writer has argued *ad nauseam*), marked bike lanes have a known traffic-calming effect so that, even if removal of the bike lanes in the Alternative 3 design was reasonable, restoring bike lanes could have had a desirable traffic-calming effect sought by those who opposed them.

Cathodic Protection for the Steel Piles of the MRB

During the 75% Design Hearing, the spokesman for the Friends of the Mitchell River Bridge discussed the proposed treatment for the steel pilings of the Alternative 3 bridge design to give them the appearance of creosoted timber pilings. His comments on that issue can be viewed on Chatham's Channel 18 from 1:00:55 to 1:03:55 at this link.[4] In response, MassDOT's Project Engineer for the MRB, Mr. Joseph Pavao, summarized the processes that will be utilized to

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[1] MassBike is a 36-year old non-profit organization with a mission of promoting a bicycle-friendly environment, encouraging bicycling for fun, fitness and transportation and fully integrating bicycling into the Massachusetts public transportation system.

[2] NACTO is the National Association of City Transportation Officials and its design guide can be found here: http://nacto.org/cities-for-cycling/design-guide/.

[3] I also agree with Mr. Watson that "reasonable accommodation" is the legal requirement for bike lanes under Massachusetts General Laws Ch. 90E Sec. 2A.

[4] http://view.liveindexer.com/ViewIndexSessionSLMQ.aspx?ecm=635099922801964949&indexSessionSKU=kwzuA9xNoLdugBz67PQh9Q%3D%3D&siteSKU=CXPAtcfUIBTkfv/kTud7uQ%3D%3D#

minimize corrosion of the steel piles. His response can be viewed on Chatham's Channel 18 from 1:17:45 to 1:19:10 at the link of n.4.

In his summary, Mr. Pavao explained that MassDOT will be providing "multiple levels of protection" for the steel piles of the MRB – "more than we have ever done on any bridge." In addition to filling the steel piles with concrete,[5] increasing the wall thickness of the piles to account for long term corrosion (sacrificial thickness), galvanizing the pile surfaces with zinc,[6] and applying two coats of coal tar epoxy over the exterior zinc coating, MassDOT proposes to incorporate cathodic protection (CP) for the MRB steel piles.

Apart from the possible overkill that cathodic protection will provide for any corrosion of the multiple-treated steel piles[7], the added cost of cathodic protection was not discussed at the 75% Design Hearing, nor were the particular type of cathodic protection and its design specifics explained.

With respect to system type, for example, it was not explained whether the CP system will be passive galvanic or impressed current (ICCP). In any event, the design and implementation of the CP system need to be discussed in detail with town staff and resolved to their satisfaction.

Cost is, of course, relevant because, once the new bridge is completed, ownership will be turned over to the town and all maintenance and repairs to the bridge thereafter, including, for example, periodic replacement of the underwater sacrificial anodes of a passive galvanic CP system, must be borne by the town. However, because the CP system for the MRB appears to be a measure that MassDOT has not used in the past on other bridges, perhaps it would be willing to retain responsibility for maintenance and repair of the CP system for all or part of the expected 75 year life of the bridge.

I understand that the 75% Design Public Hearing is the final hearing before bids will be solicited for the MRBRP and the final opportunity for public comment on the bridge design. During my more than three years' participation in the process, I have been particularly impressed, not only by the technical expertise of MassDOT and its consultants, but also by the perseverance and professionalism they, and FHWA, have demonstrated in carrying out their responsibilities under Section 106, NEPA and the Accelerated Bridge Program. I look forward, as I am sure most Chatham citizens do, to the future opening of the new Mitchell River Drawbridge.

Respectfully submitted,

George Myers
MRB Consulting Party

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[5] Filling the piles with concrete will inhibit corrosion on the inner surfaces of the piles,
[6] Zinc galvanizing is a type of localized cathodic protection for steel.
[7] It may be worthwhile to contact NHDOT regarding the condition of the concrete-filled coated steel piles used to replace the timber piles of the tidal Seavey Creek Bridge in Rye, NH. Those piles have been in place in salt water for almost five years.

Attachment

The following e-mail was sent by David Watson, the Executive Director of MassBike to the Cape and Islands representative of MassBike, Rob Miceli, and forwarded to George Myers on July 18, 2013, just prior to the 75% Design Public Hearing:

"I've heard from the [MRB] project manager [Mr. Joseph Pavao], and from what he is telling me, shared lanes seem reasonable in this context, and 12' lanes with 2' shoulders meet the minimum (14') for a shared lane.[[8]] The bridge is low volume (less than 800 cars a day), low speed limit (15mph), and only 200 feet long. With these numbers, the bridge does not meet the minimums suggested for bike lane use by even the most progressive design guide (NACTO). They are planning to use signage to warn everyone to share the space, and I suggested adding sharrows on the bridge and the approaches to help everyone merge before entering the bridge.

To put this in perspective, even if you assume that all the traffic occurs in a 12-hour period, that's only about one car per minute. Averaged over a whole day, it is less than one car every two minutes. You would have to compress all the traffic into about five hours for it to rise to a level where bike lanes might be warranted by that measure.

Another issue is that members of the public, including the Chatham Bikeways Committee, did not understand the traffic calming effects of bike lanes, worrying that widening the bridge to make space for bike lanes would increase traffic speeds. The reality is that bike lanes might have slowed traffic, but would not have increased speeds. This misinformation should not have been a factor in the decision, as the decision can be justified on the numbers alone. [Emphasis added].

Unless someone can articulate an actual, not theoretical, safety issue, I cannot push this further. Mr. Myers does not seem to have considered the volumes, speed limit, or length of the bridge in his arguments. And he is mistaken in his belief that bike lanes are a legal requirement. "Reasonable accommodation" is the legal requirement, and while he may not agree with the decision, I cannot say it is unreasonable or unsafe based on what I've heard from him and the project manager.

Mr. Myers mentioned that bicyclists like to stop on the bridge and look at the view, and that bike lanes would make that safer. We never recommend that bicyclists stop in bike lanes - that is a hazard to other bicyclists. So I cannot agree that this is a good reason for a bike lane.

By the way, I have devoted a considerable amount of time this week to investigating this issue, and Mr. Myers is not a MassBike member. I do not typically respond to individual requests of this nature, particularly from non-members, but it seemed that there might be a larger issue here. I like to encourage non-members to join and support our work."

[[8] The actual width of the travel lane for the MRB is 11 feet rather than 12 feet so the MRB roadway does not meet what Mr. Watson states is the minimum 14 foot width for a shared roadway.]