



January 18, 2012

To: Joe Pavao
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From: Nathaniel Curtis
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RE: **MassDOT Highway Division
Mitchell River Bridge Replacement
FHWA/Consulting Parties Meeting
Meeting Notes of January 4, 2012**

Overview

On January 4, 2012 representatives of the Federal Highway Administration (FHWA) and the Massachusetts Department of Transportation (MassDOT) met at the FHWA offices in Cambridge, Massachusetts for a conference call with the consulting parties regarding the Mitchell River Drawbridge Replacement Project. This wooden drawbridge crosses the Mitchell River in Chatham and has been determined to be beyond the point of rehabilitation as such an operation would require the almost complete replacement of the bridge. MassDOT is currently proposing to replace the current bridge with a new span that would include a steel and concrete substructure with the rest of the bridge made of wood to preserve a historical appearance. The only other steel in MassDOT's proposed structure would be a reinforcing frame for the movable span or bascule leaf of the bridge. This reinforcement would give the bridge better performance under wind loading and prevent the lifting span from coming out of alignment as it now frequently does with the current bridge. The goal of the meeting summarized here was to address the comments received during the comment period for the draft Memorandum of Agreement (MOA) regarding the replacement of the bridge.

Meeting Minutes¹

- C: Pamela Stephenson (PS): Good morning everyone; because we have a lot to discuss today, I'd like to start with a few ground rules. If you can, when you're not speaking, please mute your telephone as this will hold down background noise. We also ask that people remain respectful; speak only when asked to comment because we will provide ample opportunities for you to do so. Please keep your comments topical and two minutes in length at the maximum. Please speak one at a time. I'd also appreciate it if you could turn off your cell phones and pagers to lower background noise. I'll now turn this over to Damaris Santiago our environmental engineer. She'll run through the agenda which all of you should have received yesterday and then we'll take your comments.
- C: Damaris Santiago (DS): Happy New Year everyone. We're here to address comments received during the draft MOA comment period and the letter we received from the Advisory Council suggesting we meet to close the loop on that process. Today, MassDOT will go through the project background; our staff will clarify the adverse effect under Section 106 and Section 4(f) of the DOT Act. Then we'll have response to comments and then a period for closing remarks. Everyone will have a chance to make a

¹ Herein "C" should be understood to represent comment, "Q" to represent question, and "A" to represent answer.

closing remark, but they're limited to two minutes in length.² At this point, I'd like to let Joe Pavao from MassDOT provide the project background.

- C: Joe Pavao (JP): Good morning. I just want to go over the timeline and evolution of the project over the past few years and talk about how MassDOT has adjusted its design based on your comments. Back in September of 2009, MassDOT began doing public information meetings for this project. At the time, our concern was to avoid having any wood in the water, and we were suggesting a 3-span, all steel and concrete bridge. We heard comments from the historical commissions and preservation groups and addressed comments relative to speeding. In November, 2009, MassDOT incorporated timber cladding into its design and agreed to a timber sidewalk on the bridge. This was all prior to the determination of eligibility for the National Historic Register. In March, 2010, MassDOT held the 25% design public hearing and presented revised plans. At that time we still had comments regarding the aesthetics of the bridge. At the meeting, Shoukry Elnahal committed to looking at different deck types including timber. Since the very beginning, MassDOT has adjusted the design based on comments received, so we have listened to the public.

After the 25% design hearing took place, the project stalled a bit: there was a challenge to the National Register eligibility, though the bridge was eventually determined to be eligible in October, 2010 which was about the time I became the project manager. When I took over the job, I asked the design consultant to look at aesthetic treatments such as stamped concrete, the reuse of existing railings in conjunction with a timber crash railing at curbside. We also did a subsurface investigation that included a MassDOT dive team going out to look at the pilings. We acknowledged the ruling from the Keeper of the Register and went through the Section 106 process. At the first consulting parties meeting in January 2011, I heard that MassDOT and FHWA were basing decisions on documents not available to all consulting parties and while we normally do not give out draft documents, in a spirit of cooperation, we issued two reports: the repair/rehabilitation report which concluded that the bridge could not be saved and the alternatives analysis report wherein we stated our continued reluctance to put wood in the water.

Initially we presented 5 alternatives in the Alternatives Analysis Report and just prior to our second meeting in April, 2011, we added two new alternatives: 1A and 1B. These alternatives were originally left out in that in order to achieve the 25' clearance, an overhead system with cables would be necessary and the public had rejected this at prior meeting, but for a true comparison we decided to include them. Just prior to that meeting, I decided in consultation with our Environmental group and FHWA that MassDOT would try to develop a compromise alternative that addressed all the comments received. MassDOT announced at that meeting that we were leaning towards Alternative 3 as our preferred alternative in that it best met the needs of all the users of the bridge and provided a context sensitive solution. This is the alternative that we have been progressing through the MOA process as our preferred alternative.

After two years of public meetings and consultation, we feel we've addressed most of the comments and are now down to alternatives 1B and 3. Let me briefly address the difference between the two alternatives; Alternative 1B is a 12-span, fully wooden bridge including the substructure. It has a 25-foot channel opening and the lifting machinery is the overhead cable system or "Dutch Style" from the 2010 meeting. Alternative 3 is a 6-span bridge which has a steel and concrete substructure, but a wooden superstructure, minus the bascule span which will be steel with wooden decking and sidewalks above. The lifting machinery would be an enclosed counterweight and gear system with no overhead cables. Both versions would have the counterweight enclosed to keep it dry inside a concrete abutment at the lift span. We still don't want to use wood in the water and so alternative 3 includes steel piles filled with concrete. I think we've listened to all the comments we're very close at this point and have done a good job of balancing the needs of all the consulting parties.

² At this point, Damaris paused to let everyone participating in the meeting introduce themselves. For a list of meeting attendees, please see Appendix 1.

- Q: PS: Just to be clear: alternative 1B is all wood, but visually alternative 3 appears to be entirely wooden as well?
- A: JP: Correct. If you're on the bridge or looking at it from the side from a boat, the superstructures will appear to be entirely wooden. The big exception is the overhead cable system, which as I said, has not been well-received in meetings.
- C: DS: Thank you, Joe. Before we get into comment responses, I want to mention that we feel the need to provide some clarification on the two topics covered in the adverse effect finding under section 106 and section 4(f) requirements. Maryanne Naber will discuss those now.
- A: Maryanne Naber (MN): It's important to make the point that both alternatives under consideration result in the removal of the historic bridge. The current bridge will be gone. Both options have an adverse effect under section 106 and both use the historic 4(f) resource. Rehabilitation or some other minor impacts that could be easily mitigated are not options because of the deteriorated substructure. I can say more on that, but we're dealing with a clean slate.
- C: DS: It is also important to note that it doesn't matter which alternative moves forward because all of them equally harm the historic bridge so to address comments regarding least harm analysis, 1B and 3 will equally harm the historic bridge. We acknowledge the adverse effect.
- A: MN: It's not a partial adverse effect. The alternatives under consideration both remove the resource entirely.
- Q: PS: Can you go over the Keeper's eligibility finding regarding the span's continuity? It seems like there's some nuance there.
- A: MN: The Keeper's finding (Oct 2010) addresses the existing structure from 1980, constructed atop the pilings of an earlier bridge. Under Criterion C, it is structure embodying characteristics of a once-common method of construction that's associated with a continuous line of wooden drawbridges. It's rarity as perhaps the last remaining wooden drawbridge in Massachusetts and possibly the United States. That's what qualifies it even though it isn't 50 years old. Generally, something needs to be 50 years old or more to be eligible, but rarity is also a contributing factor. The Keeper's second paragraph talks about the importance of the recognition of the bridge by residents of Chatham as historic and when it had been replaced in the past, the efforts that were made to replace in kind with wood and simple design, however, that is separate from the finding regarding rarity as a last remaining example of a once-common type.
- Q: Norman Pacun (NP): I have some responses to Ms. Nabers' comments. When is the appropriate time for that?
- A: PS: Are those provided in your comment letter?
- C: NP: We've heard a lot of statements made and some of them are statements we don't agree with and so I'll await your statement on when the appropriate time is for me to speak.
- A: PS: O.K. well, let's get through the comment response. Is that all right?
- C: NP: I'm a little concerned about how long it will be until when the other folks on the call get to speak. I do want to say that there are some statements I don't agree with.
- A: PS: All right, well, take two minutes now and then we'll go through the comments.
- C: NP: It's not my understanding that the Keeper found the bridge to be 30 years old. The Keeper said that the 1980 superstructure was atop pilings, at least 50% of which go back to between 1925 and 1929. Our view of the Keeper's decision was that there's no decision that the bridge is 30 years old and that

the continuous issue is quite significant. I think it's important to make it clear that the removal of the existing bridge and its replacement does not mean that the so-called adverse effects here are going to be changed. The existing bridge and those before it are a species of a continuing line of timber drawbridges in which individual pieces and parts continue to be changed, removed, and replaced as was done in 1980. So, in our view, the bridge will be harmed by a replacement not in accord with the Keeper's decision that is anything that is not a wooden bridge. My last point for now: I believe that Mr. Pavao said that during the April meeting they came to see alternative 3 as an appropriate compromise. My notes that alternative 3 is a good context sensitive design and I don't believe that's correct. I believe that alternative 3 is only rated "fair," the second category up from "poor" for context sensitivity.

C: PS: So, let's go through the response to comments.

A: DS: What we did was to take all comments and summarize them into bullets about the major issues which we'll respond to. I'll turn it over to Joe so he can present the major issues and responses.

Discussion of Adverse Effect

C: JP: If you review the letters we received, we basically ended up with three major areas of comment: the adverse effect, the section 106 process and alternative 1B and how it can be altered. I'm going to go through each area, summarize the comments and then give time for responses by the consulting parties that submitted comments. The first section I will read is the adverse effects.³

From Preservation Massachusetts: Option 3 is presented as the final design for the bridge. This design, with a wooden superstructure and steel substructure would be an adverse effect on the historic character of the existing bridge and the context of the area. Option 3 would negate the Keeper's finding that the Mitchell River Bridge is of "exceptional significance as the last remaining single-leaf wooden drawbridge in Massachusetts (and perhaps the entire United States)" and "an exceptionally important part of the community's historic identity."

From the National Trust for Historic Preservation: The alternative that results in the least net harm [to the section 4(f) must be selected...Alternative 3 does not satisfy this requirement, because it is not the least harmful alternative. The reasons offered by MassDOT for wanting to reject the least harmful alternative 1B do not rise to the level of truly unusual factors, unique problems or cost or community disruption of extraordinary magnitudes, which is the standard required to reject an alternative as not being prudent. Alternative 1B, on the other hand, does represent the least harmful feasible and prudent alternative, and therefore, satisfies the requirements of section 4(f), and one that would minimize and mitigate adverse effects to the National Register-eligible Mitchell River Bridge, pursuant to 36 C.F.R § 800.6(a).

From the Friends of the Mitchell River Bridge: The adoption of alternative 3 and the rejection of alternative 1B disregards the Keeper's decision and does not minimize, mitigate or avoid harm to the last remaining wooden drawbridge in Massachusetts and perhaps the entire nation.

From Dr. James Cooper: The most recent MassDOT suggestions for the Mitchell River Bridge replacement...will indeed, amount to an "adverse effect," it will remove (without replacing in-kind) the last timber beam and draw structure in the state and nation. Under alternative 3, the leaf will be of steel and the superstructure framed in steel.

C: JP: Our reply to those comments is that both alternatives 1B and 3 will cause the removal of the bridge in its entirety so that means the harm is equal for both. So the question comes down to mitigation. We compromised away from the all-modern material approach of alternative 5 and came up with alternative 3 which is a timber structure in all elements above the substructure. The bascule span would be framed in steel, but clad in wood. That's our response; now I want the consulting parties to have their chance to comment.

³ The italicized block quotes represent verbatim readings of the comment letters by Joe Pavao.

- C: Carol Legard (CL): We would agree with you that the demolition of the existing bridge and its replacement is an adverse effect that will result in destroying the existing historic property. I appreciate the clarification regarding the superstructure. I wasn't clear as to how much steel would be in it. Could you clarify about the how the steel in the movable span will help keep it in alignment?
- A: JP: In order to provide a reliable span that opens, closes, and seats correctly on its supports, we'd have a steel frame, but a wooden deck, railings and sidewalks.
- Q: CL: So in the lifted position, would the steel be visible?
- A: JP: The only way to see the steel would be to travel in a boat passing underneath the bridge in the open position.
- C: Timothy Roper (TR): I very much appreciate your description and I think that it helps all the consulting parties to understand the difference between the two and how the substructure works. Thank you.
- Q: Florence Seldin (FS): Will you deal with why you feel wood in the water is inappropriate?
- A: JP: That's not in the comment letters, but we can talk about it during the open discussion. I do want to get through the comment letters first, but I will definitely address it.
- Q: Don Aikman (DA): If you passed under the bridge in the closed position, would you see the steel?
- A: JP: That's true. If you went under the bridge in a small boat that didn't require an opening, like a canoe, you would see the steel.
- C: NP: You cited our comment very briefly with respect to adverse effect and Keeper's decision. I want to get into that in some detail. Over the course of time, around 100-150 years, this bridge has been continually repaired and replaced. There have been some times when the bridge has been closed for up to 2 or 3 years while it's been repaired with little and large pieces. What's not stated, Mr. Pavao, is that it was done to the same and design from 1900 onward. We have a single leaf, wooden drawbridge made entirely of timber. That's what makes this so historically significant. The fact that the bridge will be taken down totally under section 106 should not be allowed to say that any type of bridge can go in here, because if that's so this whole process is a waste of time. The whole idea is to try to preserve the existing structure as best as possible. 50-90% of the pilings go back to 1925 and the pattern of the bridge is the same. In the 1980's the Chatham Historic Commission made it very clear they would only support a timber bridge of the same design. I don't wish it to be made to appear here that any bridge could be put in and indeed your first proposal was alternative 5, the totally modern bridge, and your compromise, alternative 3, has a context sensitivity which is only rated "fair." I don't think it meets section 106.
- Q: CL: Are you saying that only alternative 1B would still be eligible for the National Register?
- A: NP: I'm not the Keeper, but I think if it was done the exact same way as the 1980 rehabilitation it would still be eligible. Our position has always been that replacing this bridge, even if it were totally replaced, would keep eligibility if replaced in kind. That's what we argued before the Keeper. I think the existing bridge can be rehabilitated in place, but the cost was out of line with a new wooden bridge. So, in answer to your question, I think replacing the bridge in kind allows it to meet the criterion of being one in a continuous line of wooden bridges.
- Q: David Whitcomb (DW): Does anyone agree with Norm's view of this?
- A: CL: The Advisory Council doesn't have the oversight or expertise the Keeper does. I just wanted to clarify the gist of Norm's argument which he did to my satisfaction.

- C: Len Sussman (LS): It seems that the Keeper is making a judgment about a bridge and its mixture of materials, not a tradition, but that appears to be the position the Friends [of the Mitchell River Bridge] are taking.
- C: PS: To clarify a little bit, under section 106, it's this agency's responsibility to determine eligibility and then if it's questioned, it can be appealed to the Keeper. Can we move on?
- A: Charlene Vaughn (CV): I think the issue is not resolved and the only way it can be resolved is if FHWA goes back to the Keeper after the project is completed and gets the Keeper's determination on it. My experience is that after substantial repairs or rehabilitation, eligibility needs to be reviewed. I don't think we should speculate on it.
- C: PS: I would agree; we've discussed doing something similar.
- C: John Smolen (JS): I'm working with the Friends of the Mitchell River Bridge. What I'd like to say, with 30 years' experience on bridges, is why can't the 1980's pilings be saved? Some of the pilings are from the 1920's, but there should 50 more years in the 1980's wood. If the spacing of the bents is the same, there's no reason why they cannot be saved. The study says they are in good shape and so therefore we could rehabilitate the bridge and keep it eligible.
- A: PS: Since it has been raised twice now, let's go to the question of the substructure.
- C: JP: The 1980's pilings and the idea of them lasting another 50 years has been mentioned several times and that's been a big point of contention between MassDOT and the consulting parties. The dive team went out and determined those pilings are in very poor condition. That information is on the project website right now. We cannot expect another 10 years from them, let alone another 50. There is section loss on all of the piles.
- A: JS: There are good pilings under that bridge; that's what I recall from the report. The 30 year old pilings should be inspected and saved. Then we can carry on the wooden bridge tradition.
- C: JP: We did inspect the pilings as did our consultants, FHWA, and a peer reviewer. They all came to the conclusion that the pilings are past saving.
- Q: PS: Joe, would you go on a little more about putting in new wooden pilings?
- A: JP: Sure. One suggestion that came up was wrapping the piles. The current piles have been attacked by marine borers and that's why we can't get more life out of them. We have no experience with the wrapping and there may be issues about trapping moisture. There's definitely the issue of not being able to effectively inspect a wrapped pile. Wrapping is an unproven technology for a 75-year bridge. When we went to alternative 3, we made a significant compromise: we will be giving you a 75-year substructure that won't leak creosote into the ocean with a 25-year bridge on top of it. We've used wooden piles I believe it was Ekki wood. I walked out yesterday with the State Bridge Engineer for MassDOT and 23 years ago he mentioned that he was out there when they installed the piles and was very excited about it in that it looked very promising. Having gone back out recently, he indicated that only 23 years later, the piles are in terrible condition and we'll be lucky to get 30 years out of them.. So those are some of reasons why we're reluctant to put wood in the water.
- C: NP: He's referring to the Duxbury Bridge. He refers to the wood piles as untested. He says there could be problems and we don't have the experience. This is why genuine consultation needs to take place among the parties and their engineers and it hasn't been done yet. I hear Mr. Pavao and I respect his comments, but these issues need to be addressed by technical people with expertise like the Forest Products Laboratory (FPL). We should keep in mind that at the beginning of this project, MassDOT didn't want to use any wood at all and now we're between some wood and all wood. This demonstrates the need for genuine dialog.

- A: George Myers (GM): I believe that FPL has admitted that there's no life cycle data on those piles and so it would be a risk. In 1929, the current bridge had 64 piles. The 1980's rehabilitation doubled that amount. The piles have been successful in keeping the bridge open because their number has been doubled.
- C: LS: If the concern is for the continuation of the appearance of wood, why would you want to wrap the piles in a fiberglass material that conceals the wood? It would look like socks on the piles. That doesn't make any sense. The wrapping material isn't historic.
- A: PS: We need to move on here. We still have a few more items in the agenda and I want to make sure everyone has a chance to speak. Does the National Trust have anything to say on this topic?
- A: Betsy Merrit (BM): Section 106 says we're supposed to avoid harm as does the 4(f) process. The whole point of the process is trying to develop a design for the new bridge which is compatible with the historic structure. Something that closely resembles the current bridge is a greater degree of mitigation and so we don't agree that the degree of harm is equal. A more sensitive design, a bridge with more wood, that's the whole premise, to seek something more sensitive. The Advisory Council said alternative 1B is best from a preservation perspective. This isn't dependent on Norm's theory about eligibility. In our view, 1B, the closer we can get to that end of the spectrum would reflect greater planning to minimize harm. 1B is a feasible, proven avoidance alternative, and under 4(f) it can only be rejected if it's shown that it's not prudent due to cost or safety issues. In our view, that degree of showing has not been made; particularly with respect to the steel on the bascule span which we'll address further during the third topic.
- Q: MN: I want to respond that we're getting into 4(f) territory. Betsy, are you suggesting that alternative 1B is a proven and feasible avoidance measure that can't be rejected?
- A: BM: I thought it was acknowledged that 1B and 3 are both feasible and prudent. I understood their presentation as indicative of that status.
- C: MN: Well, I just want to be clear that neither option is an avoidance alternative because they remove the historic structure in total.
- A: BM: As one of the earlier speakers said, just because the resource is destroyed, 4(f) doesn't grant a blank check and all the planning needs to be done to minimize harm. The requirement still applies even when the resource is destroyed.
- Q: PS: Thank you, are there other consulting parties?
- A: Paul Brandenburg (PB): I have a few questions for Joe Pavao. I was reviewing your letter of 11/8/11 when you mentioned pressure treated timbers in the water and I didn't see any change or revised cost estimates that would lead me to believe that any of the options outside option 1 remain feasible and prudent.
- A: JP: All of the alternatives are feasible, but not necessarily prudent in terms of meeting all the consulting parties' needs. Remember, there are needs here beyond just the historical. That's what we're discussing now.
- Q: PB: But you're saying that putting wood in the water isn't feasible?
- A: JP: It is feasible, but from our point of view it is not prudent. We believe this is covered thoroughly in the life-cycle cost analysis.
- C: PB: We feel that your independent analysis said the options were close. I do have a question about option 3. You spoke about the view of the bridge, the wood cladding and when the steel would be visible. In the submission I got showing elevations, figures 8 and 9, there are concrete pads. You didn't

mention how those would impact the viewsheds of the bridge. Those pads make this look like an interstate highway bridge and fixed spans are not clad as they were originally. I got back to your newsletter of March, 2010 "Doing Business Differently" and it show an option hiding the pads. I'm curious to get your thoughts on the viewshed of the bridge and the concrete pads.

- A: JP: To clarify this for everyone else, the pads referred to are the pier caps on top of the piles. In alternative 3, everything above those pier caps is wood, minus the bascule span. The pier caps are concrete. There were some early renderings that showed a wood cladding. Such a cladding would trap moisture and make inspections harder, but I wouldn't dismiss them at this time. When we pick an alternative, we can talk about aesthetic treatments like this. We're open to further discussions, but we need to pick an alternative so we can move forward. We can and will keep working with you on things like claddings and railings.
- C: Jim Igoe (JI): I would agree with most of Betsy's comments. As we said in our letter, we feel that option 1B is still the most compatible bridge.
- C: DA: At a meeting back in June, when URS did their proposal, I asked their engineer whether wood pile caps could be used and he said "oh, absolutely." So, I think wood pile caps could be used.
- A: JP: We won't rule it out, but we need to get past the basic structure in terms of general construction and number of spans. That's the point between the wooden and modern substructure. There are some potential issues about design, but we would entertain that as part of ongoing conversations.
- A: Mark Shamon (MS): The gentleman is correct that wood pile caps are technically feasible, but we would be concerned about tying the whole structure together, so "absolutely" is a bit strong. I don't want to say it's absolute.

Discussion of the Section 106 Process

- C: JP: Let me move onto the next subject regarding our adherence to the section 106 process.

From the Preservation Massachusetts: The consulting parties' position has been taken into account by MassDOT or FHWA.

From the National Trust for Historic Preservation: The rationale offered by MassDOT for rejecting alternative 1B is not sufficient to provide a legally defensible basis for the decision.

From the Friends of the Mitchell River Wooden Bridge: FHWA and MassDOT have failed to comply with the section 106 process and failed to address important issues directly involved with the rebuilding of this bridge as an all timber bridge.

From the Advisory Council: While section 106 [ed. 4(f)?] does not require the concurrence of all consulting parties on the outcome, it does require that FHWA have an administrative record of its efforts to consult with the other parties in matters that arise in the section 106 process.

From Dr. James Cooper: While section 106 [ed. 4(f)?] does not require the concurrence of all consulting parties on the outcome, it does require that FHWA have an administrative record of its efforts to consult with the other parties in matters that arise in the section 106 process.

- C: JP: To respond to all of that, we're confident we've acted in accord with section 106. FHWA sought and received an opinion from the Keeper. MassDOT identified the historic resource, produced and circulated the finding, issued the repair and rehabilitation report. We've solicited comments, done four public meetings in Chatham, mitigated the adverse effect, and offered a compromise on the preferred alternative which provides a modern substructure with wood above it. We're in compliance with section 106 and 4(f). The project includes all planning to minimize harm to the history resource. We've

performed due diligence to see if the bridge could be repaired. We presented those findings and there was little disagreement on the topic. A repair would be an almost total replacement anyway so there's harm regardless of the solution we pick. Avoidance alternatives were found neither feasible nor prudent. We've moved quite a way from the 2009 modern design we originally presented. There was a poor reaction to the overhead lift mechanism and so we got rid of it. We held more public meetings, examined seven more alternatives, and our current selection alternative 3 is a big compromise between alternatives 5 and 1B. The compromise takes into account all consulting party comments. We've consistently met the standard for consultant and have a credible record under 4(f). Would any of the parties like to comment now?

- C: CL: Our comment was about the administrative record and response to comments. We feel this meeting today goes a long way to addressing that concern. We wanted an opportunity for the parties to discuss the comments that came up and so we appreciate this meeting.
- C: Jill Goldsmith (JG): I would echo that. We appreciate this opportunity. MassDOT has been very responsible and we're a long way from the 2009 design. We favor alternative 3.
- C: LS: Section 106 does not compel preservation. From a preservation standpoint alone, 1B is fine, but as an elected official I have to factor in safety and cost.
- C: DA: The historical commission voted yesterday and we support option 1B.
- C: NP: I have a host of reasons why MassDOT has not complied with section 106. There has been no genuine consultation. That means involvement from the first. You told us there would be meetings of the engineers on technical matters and the parties could not come together outside of the conditions you stipulated. There was no meeting of the minds. MassDOT has made it clear, right from the first, that they were reluctant to point wood in the water. This was not a genuine consultation as demanded by AASHTO guidelines. When we retained John Smolen, he said he could design a wooden drawbridge and you've never met with him. Your peer review expert mentioned wind load issues. Mr. Smolen came up with a preliminary design that deals with the problem and you never got back to us on that. With regard to the FPL, they gave you a signed document that you never responded to; in fact that report was never mentioned in your report to FHWA. I want it clear that genuine consultation isn't a listing of all that you've done. It means consultant where the parties can meet and get a meeting of the minds.
- C: BM: I think the frustration you're hearing is related to a lack of true consultation. This conference call is going a long way to make up the deficiency. I pulled out the definition of consultant and it's "speaking, discussing and where possible coming to an agreement." The consulting parties have had the perception that this process isn't a dialog, it's a unilateral decision making process. There have been periods of months where we heard nothing from either agency with MassDOT and FHWA under a cone of silence and then coming out announce a decision. This created a tone that felt like "O.K. we'll listen to your comments, think about it, and make a decision." This call goes a long way to address that but there has been a frustration over dialog.
- C: Kitty Henderson (KH): I think Betsy said what I would have said.
- C: JI: I think progress has been made and you've moved in the right direction. Preservation Mass would like you to look more at option 1B, but I think your comments were good.
- C: Dave Kells (DK): I think MassDOT has been willing to compromise since the beginning. Your original proposal was widely rejected and yet you continued to work with the consulting parties all along and have shown your interest in working with us. I think option 3 will be more mechanically reliable than 1B. You have no idea about the frustration the Pease Boat Works have gone through as the primary users of this bridge. We want this process to keep moving forward because we're concerned about funding. Option 3 is the best one and we support it.

- C: GM: I would second what Dave said. Back in 2009, there was no discussion of wood at all and since then, MassDOT has come further and further from that and is now offering a bridge that appears to be wood all the way up from the bottom. Painting the steel and concrete black will make it look like creosoted wood and I think people not involved with this design will have no way of telling the difference. As to Mr. Smolen's design, I don't even know how that bridge would be operative.
- C: Dr. James Cooper (JC): I would second what Betsy Merritt said; thank you.

Discussion of the Altering Alternative 1B

From the National Trust for Historic Preservation: The use of steel reinforcement on the bascule span utilizing a gear mechanism would provide much stronger resistance to wind loads and would likely satisfy the concerns raised by the AASHTO Load and Resistance Factor Design (LRFD) Guidelines. In addition, the Forest Products Laboratory at the U.S. Forest Service has recommended the consideration of a factory-applied wrap for wooden pilings which can be "highly effective" in minimizing leeching from treated pilings and is also intended to lengthen their service life.

- C: JP: Another thing that came up was altering alternative 1B to address the problems with the bascule leaf, using steel reinforcement to give us a wooden bascule span that's just as safe and reliable as steel and that's how we alternative 3. That's essentially what's being described there. We're providing a steel frame, but the decking, railings and so on will all be wood. I think we incorporated that comment into alternative 3. Regarding the wrapping of the pilings, we've addressed that already. We have issues that the wrap precludes routine visual inspections and sounding the wood with a hammer during inspection; we're just not convinced. The actual look of the wrap would be like the pile was in a sock. We don't see how that's a better than the aesthetic treatment than what we're proposing.
- Q: CV: I think that by virtue of this additional consultant are moving towards what Norman intimated and what I took away from Norm's comments that demolition is an adverse effect, but that the replacement structure can formalize some design concepts that will ensure that the new bridge is read as a historic property. I was thinking about how to formalize these commitments and we are all recognizing that a historic bridge might exist beyond the one that's there now and continue to have historic import to the Town of Chatham. The agreement as drafted doesn't go in that direction; can we have more consensus agreements about design and mitigations?
- A: JP: The formalization of mitigations is in the form of the draft MOA. We're still willing to have discussions regarding cladding the pier caps or having wood pier caps and the appearance of the abutments. We don't have enough design detail yet to say yes or no on things like that yet, but in the MOA we do acknowledge that we'll continue consultation.
- Q: CV: Do we have the level of specificity to say that the discussion will address the issues we've raised?
- A: PS: We can revise the draft to strengthen the language regarding the issues we've been discussing and making it more specific.
- Q: CV: Norm, are there things we can put into the MOA that will address your issues?
- A: NP: To try to summarize the core issue, there are three: the first is that we do have disagreements. Mr. Pavao mentioned two or three and one is whether we'll use concrete and steel piers or wooden pilings and I think that needs to specifically be addressed in a meeting between MassDOT and technical people like the FPL. When I get from them serious questions raised as to the design by MassDOT and that pilings can be used, I think there's something needed there. It won't be helpful to us to receive something from MassDOT in a month or two saying "we've decided;" we need a real dialog. There is also the issue of a wooden drawbridge that meets eligibility. When we started this process back in 2009, I have to remind the participants that MassDOT told us not to waste our time looking into the historical status of the bridge and it turned out to be historical. So we need to keep looking to the underlying goal

of saving this historic bridge for the Town of Chatham through an open dialog which we are ready to have.

C: PS: Charlene, we can look at the historical merit of the new structure and encourage the Friends of the Mitchell River Bridge to do the submission for it.

A: CL: I'd like it in the MOA that FHWA or MassDOT will reevaluate the new bridge.

A: PS: Or we would be happy to support a nomination by the friends group.

Q: FS: Did I understand correctly that you cannot apply until after the bridge is built?

A: PS: You heard that correctly. We wouldn't have a structure to submit unless it was built. There's a finding on the current structure, but that wouldn't cover a new bridge. You can't proceed until there's another bridge.

Q: FS: And so what's in the MOA then?

A: PS: A commitment that we'd provide support and documentation etc. to anyone who would like to nominate the bridge.

Q: DK: Wouldn't that application need to come from the Town?

A: PS: As a matter of fact it can come from anyone because it's a publicly owned facility.

Q: JG: Can we talk about gear driven versus the overhead cable system and which is the preferred mechanism?

A: MS: In alternative 3, we'd have a counterweight system that would be different from the cable system. In alternative 3, all machinery is hidden inside the bascule pier and so it's invisible. In alternative 1B, it's all visible above the deck.

C: NP: I didn't hear a response to my specific request for a genuine dialog with respect to wood in the water and concrete and steel versus wood pilings and a dialog between us and the FPL.

A: JP: We're in disagreement about the level of dialog we've had. During the project overview I went through all the meetings and design changes we've made. We've gotten a lot closer on everything but wood in the water and I've been very clear on that. As far as consultation, we have an MOA and will revise it relative to cladding and pier cap options; we'll keep that conversation going. We're not going to commit now, but we'll have further consultation and we'll seek a decision on the new structure once it's built. That's my response for right now.

C: NP: For the record, that's not what I think of as genuine consultation. This is a serious disagreement and we went so far as to find an independent agency to question your findings. The FPL might not be entirely correct, but they are a legitimate authority. I've asked you for a dialog with them, but before such a consultation took place, MassDOT said they wouldn't put wood in the water. And so it's important. This goes to the heart of the design and that's all I can say; it's just not acceptable to me.

A: PS: And as noted earlier by the National Trust, consultation does not mean agreement.

C: BM: I'd like to clarify a misunderstanding on our joint comments. Our suggestion was to add some steel to the bascule span to address wind load and alignment issues, but not to the amount that is in alternative 3. Alternative 3, figure 4, from the electronic documents submitted on September 29th, that diagram shows five steel beams. Our suggestion wasn't five beams, but something that would be a compromise between 1B and 3 in terms of steel. I think we want the bare minimum of steel to address the concerns. We're focused on the fact that the appearance of the bridge will not be the same when

the bascule is open and it won't be the same from underneath the bridge. I am really pleased to hear about the continuing discussion of the pile caps and welcome that. Continuing consultation on aesthetics will help a lot.

- C: PB: To add to Betsy's comment, Joe, when you mentioned the steel frame you said it would be in alternative 3. I want to make sure that we're clear that we're proposing a steel reinforcement of the wood span in alternative 1B to address wind loading and misalignment. I would also echo Betsy's comments regarding your willingness to continue discussion of aesthetics. I encourage you to go back to your March 2010 newsletter and the renderings of option 2 as a way to address the viewshed issues.
- C: GM: With respect to the INH letter, I thought the basis for the alternative design changes was alternative 3. I'd heard the geared mechanism as being the redundant system for alternative 1B. With respect to FPL being an independent authority, I believe they do have a vested interest in promoting the use of timber. I don't know if the consulting parties remember this, but I commented on the FPL letter and it's no surprise to me that MassDOT and FHWA didn't mention it.

Closing Remarks

- C: DS: We now want to give all of the consulting parties and opportunity to say if we missed something or if there's a point you still need to raise. Now is your chance, but remember, its two minutes maximum.
- C: DW: I want to remind everyone that this is time sensitive. What's been historic about this drawbridge is its inability to work right. The new bridge needs to work. I'd like to see the MOA revised quickly. I like the idea of signing the MOA and getting to continue to make comments and provide input. I believe a good compromise has been reached and now it's on the preservation folks to give a little and move towards alternative 3 which we support. Our interest is having this bridge replaced. We've had two weeks of repairs and its costing the Town money. We want this to move forward and be funded and we don't want the process slowed down. I do have one question: there are three signatories to the MOA. When they sign onto this, what are the next steps?
- A: DS: We still have to incorporate changes to the current draft and circulate it.
- C: TR: Our board discussed alternatives 1B and 3 back in May. At the time we'd had little time to deliberate and so I didn't support the selectmen when they voted in favor of 3. I think this meeting has been helpful, but there seems to be a desire for the historic preservation groups and MassDOT to collaborate and compromise further. I'm not sure if that's something that goes on through the 25% design stage, but I agree with my board that we need to move forward on this and I want to make sure we get the bridge built on MassDOT's timeframe.
- C: NP: This meeting could have been held a year ago with intelligent, reasonable people sitting around a table and getting into the details of this. I'm seeing movement today, but unwillingness on the part of MassDOT to even meet to discuss the differences between the superstructure and substructure which is a significant part of the bridge. My feeling is that the preservation groups can continue to try to work towards any kind of review or compromise, but in point of fact we have agreed from the beginning that we wouldn't disagree with replacing the bridge. We reviewed the size of the span and quickly concluded we'd accept going to 25 feet as requested by the Pease brothers and were willing to accept a largely steel and concrete pier to keep the counterweight dry. We agreed that was right for the safety and efficiency of the bridge. We're now down a few, major items which can only be addressed by meetings between the parties. We're trying to save the last wooden drawbridge in the nation, but it seems to be passing most people by.
- C: JS: On the bascule lift span, to attach the timber decking to steel beams can be done, but it's challenging. I would think timber stringers placed on the movable span would be a good suggestion. Of all the options for pilings, if MassDOT doesn't want to put wood in the water, why would you use

steel which is subject to corrosion. After the coating is gone, the Town of Chatham will need to repaint and recoat the pilings. Timber pilings never needed coating or painting.

- C: BM: My closing remark is that in our view, alternative 3 doesn't go far enough to incorporate design features that mitigate the loss of the historic bridge. The design of the replacement bridge should have more wood and less steel and particularly in the bascule span, the steel and concrete that's determined to be needed should be better hidden. We strongly urge you to consider a modified alternative that would be in between 1B and 3 with more wood, less steel and a more context sensitive appearance.
- C: CV: I'd echo Betsy's comment. We're all looking for something more sensitive; with more wood.
- C: PB: Thanks to FHWA for hosting this; we have nothing further.
- C: JI: Thank you for involving us; I would echo what Betsy said.
- C: DK: We concur with what the board of selectmen said. We like alternative 3. It's prudent and feasible. In terms of the bascule span, we're splitting hairs. When you're under the bridge, in a boat, it's a matter of seconds to pass underneath. When it comes to wind loading, steel is much better. I want to thank everyone here for your time and continued patience.
- C: GM: Alternative 3 is preferable. It has lower impacts on the marine environment, shellfish, fish, and endangered eel grass beds. If you look at Chapter 2 of our harbor management plan, the area of the Mitchell River Bridge has many of those sensitive resources near it. There's a negative impact on all of them associated with CCA, AZZA and the other pressure treating preservatives that give wood that greenish color. I disagree with Mr. Smolen on the wood preservative issue. It's going to require much more by way of maintenance with a wooden bridge which is a good segue to life cycle costs. MassDOT has shown an all wood bridge will increase costs to Chatham taxpayers by \$5 million. The Powder Point Bridge in Duxbury is a good example of how costs can escalate with a wooden structure. The Coast Guard, in their letter of February 2010 showed a keen awareness of problems with the lifting span for the Mitchell River Bridge and because we will have to wait up to 17 months for their approval on this project, we need to be right the first time. MassDOT's experience regarding wood is telling. The misalignment of the span has been a problem for years as has wind load. The larger wooden span would be twice the length of the existing one and that's a safety issue. I also believe that the fix to the issue proposed by the Friends of the Mitchell River Bridge's expert is inoperable. The most visible components of alternative 3 are identical to 1B. 1B has very large sheave poles that with detract a lot from the bridge's appearance.
- C: JC: I prefer alternative 1B, but in closing, I'd like to pick up on the suggestion of continued consultation with local parties and experts on design so that the current MassDOT proposal can be improved. I'd like to thank both FHWA and MassDOT for putting this call together.
- A: PS: Thank you to everyone for participating. This has been a great discussion and it wouldn't have happened without the advisory council. As I understand it, we'll be making changes to the MOA and I'd like to summarize what those will be: we'll be changing it to include further consultation, more than one meeting at the 25% design level, and to include more specificity about the design elements and additional details on the substructure. We will include more opportunities for consultation as the design moves forward and we'll provide support and information for a determination about the new structure's eligibility.
- Q: JP: Thanks to everyone on this. One comment on the MOA: when we discuss further consultation, we're talking about aesthetic treatments to the pier caps, pier claddings and abutments. Regarding the alternative, we are proceeding with the six span alternative 3 with the bascule span and steel, concrete filled piles as proposed. We'll work with the consulting parties on aesthetics. Carol, if there are other issues to address or discuss, have you head everything you need to make a decision on the MOA?

- A: CV: Carol and I talked while we've been listening and we will be sitting down with our senior management. We have most of the important information we needed. We want to thank MassDOT and FHWA. This call has been very helpful. A few observations: we think it's in the public interest to go forward with this project and while the majority of people on the call have conceded that option 3 is on the table, I also think that most of believe that a hybrid of option 3 and 1B has some inherent benefits and that further design consultation is needed and we need to be specific about the parameters of those discussions. The council's broader approach is to replace the bridge in a way that this structure can stay eligible for the National Historic Register. MassDOT and the Town need to look at cost implications of long term maintenance and sustainability. We'd be remiss to push our agenda to the point we forget that the Town has limited resources.
- C: Gloria Freeman (GF): Thank you for allowing me to comment. In my opinion, FHWA and MassDOT continue to resist appropriate measures to preserve this rare and exceptional bridge. Mr. Pavao is anxious to limit consultation. I want the agencies to maintain the continuous line of wooden drawbridges. I'd like to see some iteration of alternative 1B as would the historical commission. It's terrible for our government to take away the last wooden drawbridge in the nation. I ask that the process be continued with the serious interaction required by section 106.
- C: PS: All right. If there are no other comments, we'll close the meeting. I've been told that proposed changes can be circulated internally by week's end. I'd expect to have these revisions out to the consulting parties within two or three weeks.
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Next Steps

The draft MOA will now be revised to include the elements discussed herein, including:

- Additional meetings at the 25% design level.
- Continued discussion with the consulting parties regarding bridge aesthetics, particularly the possibility of wooden pier caps or wood clad pier caps and the bascule pier.
- In the event that some person or entity shall pursue a formal National Register Determination of Eligibility (DOE) for the replacement Mitchell River Bridge following its completion, FHWA and MassDOT shall support that pursuit by providing photocopies or electronic copies of any existing documentation in MassDOT files to assist in the preparation of that DOE.

These changes will be circulated internally by MassDOT and FHWA prior to issuance to the consulting parties.

Appendix 1: Meeting Attendees⁴

First Name	Last Name	Affiliation
Olu	Adeyemi	FHWA
Don*	Aikman	Chatham Historical Commission
Mike	Arpino	FHWA
Mike	Bastoni	MassDOT
Paul*	Brandenburg	Indiana SPANS Taskforce
Nathaniel	Cabral-Curtis	Howard/Stein-Hudson
Dr. James	Cooper	Consulting Party
Jill*	Goldsmith	Town of Chatham
Gloria*	Freeman	Chatham Resident
Kitty*	Henderson	Historic Bridge Foundation
Jim*	Igoe	Preservation Massachusetts
David	Kells	Pease Boat Works& Marine Railway
Carol*	Legard	Advisory Council
Betsy*	Merrit	National Trust for Historic Preservation
George	Myers	Consulting Party
Maryanne	Nabers	FHWA
Norman*	Pacun	Friends of the Mitchell River Drawbridge
Joe	Pavao	MassDOT
Michael	Pease	Pease Boat Works& Marine Railway
Tim*	Roper	Chatham Board of Selectmen
Damaris	Santiago	FHWA
Florence*	Seldin	Chatham Board of Selectmen
Mark	Shamon	URS
Jeffrey	Shrimpton	MassDOT
John*	Smolen	Friends of the Mitchell River Drawbridge
Pam	Stevenson	FHWA
Len*	Sussman	Chatham Board of Selectmen
Charlene*	Vaughn	Advisory Council
Kevin	Walsh	MassDOT
David*	Whitcomb	Chatham Board of Selectmen

⁴ Attendees whose names are marked by an asterisk (*) participated by telephone.

<u>Name</u>	<u>Affiliation</u>	<u>Email</u>
Nathaniel Curtis	Howard/Stein-Hudson	ncabal-curtis@hshassoc.com
Kevin Walsh	MassDOT	
Joe Pavao	MassDOT	
mark shamon	MASS URS	mark.shamon@urs.com
Jeffrey Shrimpton	MassDOT	
Romanis Santiago	FHWA	
Mike Bastoni	MassDOT	Michael.Bastoni@state.ma.us
Pam Stevenson	FHWA	
Olu Adeyemi	FHWA	Olu.A.Adeyemi@dot.gov
Mike Arpino	FHWA	

Consulting Parties:

1. Advisory Council

- ✓ Carol Legard
- ✓ Charlene Vaughn

2. Massachusetts Historical Commission

- ✗ Brona Simon

3. Town of Chatham Board of Selectmen

- ✓ Florence Seldin
- ✓ Len Sussman
- ✗ Sean Summers
- ✓ Tim Roper
- ✓ David Whitcomb

4. Town of Chatham Staff

- ✓ Jill Goldsmith
- Ted Keon

5. Chatham Historical Commission

- ✓ Don Aikman

6. Friends of the Mitchell River Wooden Drawbridge

- ✓ Norman Pacun
- ✓ John Smolen

7. National Trust for Historic Preservation

- ✓ Betsy Merrit

8. Historic Bridge Foundation

- ✓ Kitty Henderson

9. Indiana SPANS Taskforce

- ✓ Paul Brandenburg

10. Preservation Massachusetts

- ✓ Jim Igoe

11. Pease Boat Works and Marine Railway

- ✓ Michael Pease
- ✓ David Kells

✓ 12. George Myers

✓ 13. Dr. James Cooper

✓ 14. FHWA

✓ 15. MassDOT