MEMO

TO: Eamon Kernan, MassDOT Project Manager

FROM: Nathaniel Cabral-Curtis, WSP Senior Consultant

RE: PFC Ralph. T Basiliere Bridge Replacement Project Public Information Meeting 2

DATE: December 11, 2023

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OVERVIEW

On Wednesday, November 15, 2023, members of the MassDOT and staff associated with the PFC Ralph T. Basiliere Bridge Replacement held the project's second public information meeting. The meeting was held at the UMass Lowell Innovation Hub located at 2 Merrimack Street in Haverhill, a location suggested by Haverhill city staff. Built in 1925, the Basiliere Bridge is named for Private First-Class Ralph T. Basiliere, Haverhill's first Vietnam War casualty. While the bridge is routinely inspected by MassDOT and remains safe for all users, it is approaching the end of its useful lifespan and must be replaced. The purpose of the meeting was to present the preferred concept for the existing bridge's replacement and intentionally check that the design team had understood the Haverhill community's preferences before embarking on the 25% design for the new structure. The meeting summarized herein followed an opening public meeting in March 2023, two public workshops during the spring, and three targeted briefings over the summer. The presentation reiterated the importance of the Basiliere Bridge to the City[1] and explained how MassDOT has worked and will continue to work with the Haverhill community so that the new structure is one of which area residents could be equally proud.

The meeting was advertised through local newsprint, public access cable television, and WHAV FM, a radio station with a considerable "drive time" audience in the Merrimack Valley as well as MassDOT social media. Flyers for the meeting were dropped at 20 different locations split between downtown Haverhill and the Bradford neighborhood across the river. Flyers were also distributed using staffed tables at the Public Library, and the Market Basket on Water Street. State and municipal officials, community organizations, medical providers, schools, and service providers shared the information through their networks and websites. Interpretation was offered in Portuguese and Spanish.

The meeting's tone was strongly positive. Most attendees were satisfied with the status of the design and selection. Attendees agreed with the project team's recommendations of preserving the old bridge aesthetic while creating a modern structure which can connect the newer look of downtown Haverhill and the more traditional appearance of Bradford. Questions raised included light fixture maintenance on the existing bridge, impacts to boaters, railing

[1] The Basiliere Bridge appears on the City of Haverhill's website, the badges of municipal firefighters, and on the websites of several, local community organizations.

heights, lighting specifications, traffic congestion, equipment storage and the connection to the Bradford Rail Trail and Dempsey Boardwalk.

PRESENTATION[2]

C: Nathiel Cabral-Curtis (NCC: Good evening, everyone, thank you all for coming out this evening. We're going to kick this off, and I think we can get going. I'm Nathaniel Cabral-Curtis, I'm with the consultant team, WSP. This is your project manager, Eamon Kernan, he's going to take it from here and run through a few slides for us, then you'll hear from most of our design team tonight in one capacity or another, and then we look forward to your questions.

C: Eamon Kernan (EK: Thank you everyone for arriving today. Show of hands, who has not been to any of these meetings before?

Audience raises their hand accordingly.

Wow, OK, this is number five in the series. The next meeting after this, which we'll talk about a little later, will be the 25% design hearing. I'm going to run through the first few slides and then hand it over to Nate, and then we'll go through the team a little bit. Part of the goal here is to present the bridge concept selection that we're going with, but the hope is that when we're finished, we'll have a discussion session so that you -the audience - can tell us that you love what we're doing and that you have complete faith in everything we're doing moving forward. That's the goal, if we can leave here very comfortable that we have been listening to you correctly and what we're showing is what you were hoping for in all the meetings prior to this, then we have achieved our goal. So again, we are at public meeting number two, but it's ultimately the fifth in our series of public events.

This is our agenda. Again, thank you everybody for coming. These first few slides are very similar to all of the previous meetings. They're a little generic; why was the project initiated, how was the design progressed, and how will we keep you informed? And at the very end, we will have our questions and discussion session.

I can talk fast, I'll be about 30 minutes—I'm Eamon Kernan, I'm the project manager with MassDOT, and we have Etty Padmodipoetro, our architect. I was having this discussion with her earlier—a lot of people don't understand why we need an architect for a bridge, but this is a very special bridge and early on in this process we brought an architect on board so that we deliver a bridge that the city can be as proud of as the one it has today. We have Nate, who has been in charge and taking care of all the public outreach, and Rich Lenox, who is the project manager with WSP, and he also has some members of his team here in case we get questions that Rich can't answer.

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As we move forward, please participate, listen to what we have to say today, and ask your questions to the project team when we get to our question-and-answer session. Also, if you don't feel comfortable talking today, we have a website set up for this particular job and you can go to the website to log your questions, and all of those questions will come to me and will be answered privately via email. Email will be the best process because it's recorded and then the reply is also recorded. And the bottom of the slide represents media, media can direct inquiries to the email right there.

How did we get here? The original bridge was built in 1925. In 1966, Ralph T. Basiliere became Haverhill's first Vietnam casualty, and in 1972, the bridge was named in his memory. In 2021, a MassDOT study concluded that the Basiliere Bridge must be replaced. I believe a lot of you realized that before 2021, you already knew the bridge

[2] "C" stands for comment, "Q" for question and "A" for answer.

needed to be replaced, but in 2022 MassDOT initiated the concept design phase for bridge replacement. Between late 2022 and early 2023, we had the initial outreach to the Haverhill community and elected leaders, and later in 2023, we took input from all of you to help inform our type study. Now in November 2023, today, is the second public information meeting to discuss where we believe we are moving forward with the design. I'm going to pass it over to Nate to take care of this section.

C: NCC: Thank you very much, Eamon. We have been doing all the things that we know gets you here. One of the things that I discovered when we did our first public meeting, when it comes out all our outreach methods was I thought "oh, we'll be able to get rid of one of these avenues," but you all come here by different ways whether that be flyers or hearing about this on the radio, so we can't get rid of any one thing because they all work. For those of you who are signed up for the email database, you've gotten three emails from us. Once as a save the date, once as a "hey our notices are prepared," and once as a reminder, just before today. We've been in all your local papers including Rumbo *(Spanish)*, your public access cable television station has been very good to us and WHAV has been running us as well.

Everybody who was kind enough to visit me at one of my two staffed tables at the Market Basket or the Public Library, thank you very much. I realized when I went to the Public Library that there is really no fence around that fountain and it's pretty well flush to the floor, and I got an ace away from just putting my shoe in there, which would have been good fun. And then there are all of the places where we dropped flyers. You can see sort of an airplane shape, but we have 20 different locations where we unload things. Everybody gets a full set of flyers. The Public Library, they get flyers dropped with them at the circulation desk as well as what we hand out through our staffed table. There's not really a good place to leave flyers at Market Basket because it's so busy, but we definitely go through there and get a lot of good interactions and it's good because at that point in the day I'm on my way home and if there's anything I don't have in the fridge, I can pick it up.

We do want to thank all the state and municipal officials who helped us with this, the state delegation has been very helpful. The mayor's office has been very helpful. It doesn't appear that he is here tonight, but congratulations to retiring Mayor James Fiorentini on his what will be a 20-year career. I also want to congratulate your new incoming mayor, Melinda Barrett. The City Council has helped, and the Council of Aging has been wonderful to us. They sent our flyers out and provided them with their visiting nurses. The Disability Commission helped, and then Pam Price is always good enough to put it in the Economic Development department's *News You Can Use* newsletter. We also sent it to medical providers, schools, and other social services.

We just wanted to get you in here and here you are, so that's good. This is just, you folks know where the bridge is, but these are our limits of work. This is the bridge, right in here, we also encompass the intersection by the Market Basket, going back up the hill towards City Hall and then coming down into Bradford just right around that first intersection. And with that I'm going to hand it back to Eamon. Thank you very much sir.

C: EK: Again, we discussed, why was this project initiated? We have a lot of slides, but we decided to keep this one. You know this existing bridge built in 1925 is itself a replacement. It replaced the bridge that was there before, I believe the one that is out there is actually a third bridge in that location. The Basiliere is technically two bridges because the section of the separate bridge that goes over the Bradford Rail Trail, and then obviously here, this one goes over water. The total length is about 800 feet, the bridge width is about 68 feet, and it carries about 20,000 vehicles per day, and 4% of those are considered heavy vehicles, including MEVA buses. It's considered at the end of its useful lifespan, based on deterioration and everything else, but it remains safe for all users. Obviously, the bridge would not be open if we did not consider it safe for all users.

How has our design progressed? We have been coming to you and listening to you, and we have questions we wanted to answer with your help like: What type of bridge will replace the current structure? What will the new bridge look like? What will the lane configuration be on the new bridge? That became a hot topic. We did listen to you, and you will see that in a minute. How will the new bridge accommodate cyclists and pedestrians? How will the new bridge provide connections to the Bradford Rail Trail and the Dempsey Boardwalk?

We've had a pretty robust public involvement. This was very important to MassDOT and ultimately my superiors told me, "Hey, this is what we want to do, this is what we're going to do, this is an important bridge, we can't just get out there, design what we want, drop a bridge in there and let Haverhill know this is what they're getting." So, on March 9, 2023, we had a kick-off the public information meeting, on April 3, 2023, we had the first public workshop, on May 18, 2023, we had the second public workshop where we sat down with everybody and people gave their feedback, we broke up into different rooms and people were able to give their input and people were taking notes. On July 18, we had briefings at Haverhill Chamber of Commerce and at the Crescent Yacht Club, and on August 23, 2023, we had a briefing at the Haverhill Latino Commission, and today, we're here.

There is a lot of information on this, and I've got to read through each of these. What will this new bridge look like? These are the things we've heard: The new bridge should avoid being a modern copy of what exists today but maintain an arched appearance even as arches become longer/shallower with fewer spans, connect the modern look of downtown Haverhill and the more traditional appearance of Bradford, offer opportunities for distinctive lighting, provide vertical elements above the deck to add character, and provide places to rest and enjoy the view.

The hot topics are, what will the lane configuration be on the new bridge? The majority came back and said we want four lanes. We were advocating towards maybe three lanes and trying to explain how that would work with the future design, but ultimately four lanes won. *The lane configuration continued:* address the emergency response concerns from Haverhill first responders and community members and provides the reserve capacity for projected traffic associated with planned development.

How will the new bridge accommodate cyclists and pedestrians? The new bridge should physically separate motorized and non-motorized users, have comfortable sidewalks for pedestrians, young and old, using mobility aids, towing grocery carts, provide directional facilities to avoid confusion at the intersections, and recognize that confident "sport" cyclists may opt to remain with mixed traffic.

How will the new bridge provide connections to Bradford Rail Trail and Dempsey Board Walk? The new bridge should have an easier connection to the Bradford Rail Trail, not preclude a future connection between the Dempsey Boardwalk and Wall Street and open up views to the Merrimack. What that means is that the walkway that comes up to the bridge and the Dempsey boardwalk are at different elevations and with this project, we can't make a direct connection between those two. This is a bridge project, but in the future, the City may look at building something that would be able to connect from one to the other. In our design of the bridge, we are not going to build a structure that would completely prevent the City from being able to do something later on. It can't be part of this project, but we will not build a structure that will basically block off any potential future design that somebody would have to connect the two walkways. There was also a lot of discussion about when you're underneath the bridge, you cannot see the water, there's some areas where people don't necessarily feel safe on the Bradford Rail Trail and over here where they're going underneath the bridge because it's dark. The design is going to be open so light will come through and you'll be able to go in and actually see the water from underneath the bridge.

Now, I'm going to hand it over to Rich.

C: Rich Lenox (RL): Good evening, everybody, my name is Rich Lenox with WSP, just want to make sure everyone can hear me OK. *Audience raises their hands accordingly.*

So as Eamon outlined from the feedback, we've gotten from the previous meeting what we did is to take all of your feedback and incorporate it into our concepts. We showed some preliminary concepts back in the spring, and what we did from those and the feedback we received, we did some refinements of those concepts and ultimately packaged those up to present to MassDOT. Those refined concepts were presented to MassDOT to get their feedback and approval to carry that through our complete bridge type study report. What that report really is, is MassDOT's initial design process relative to the bridge where we're going to be doing, alternative analysis on several concepts, and comparison amongst those on a number of factors, which I'll kind of summarize here in a minute. The goal of all that is to help determine what we think the recommended approach should be for the project. So that is what the process is, and we've gone through that process, we submitted our report to MassDOT, and they

are completing their review process. We are optimistic in our agreement which is why we can present a recommended concept to you tonight.

Quickly here I will go through a few options that we presented in the bridge type selection. The precast concrete open spandrel arch that you see here, if it looks a little familiar to what we had shown previously, you can see that our team came up with an alternative vertical element with this option. This one has beacons at each edge of the overlook. We're now showing a centralized overlook, that was something we had some different versions of that in earlier concepts which had smaller overlooks at each pier, but we've now evolved to an alternative with a single, centralized overlook. So again, the bridge type selection is really mainly focused on the main structural elements and determining what our span arrangement is and what type of structure we're going to propose.

Some of the other details that we're going to go through and, this is mentioned on one of our slides further down include vertical elements, the railings, the lighting, all that kind of stuff, we're just getting out the ideas and what we were going to do with those, and those design details can evolve going forward from now.

Another option we have this post-tensioned steel deck arch, something similar to the Burns Bridge (Kenneth F. Burns Memorial Bridge) in Worcester. Again, I think we showed something similar to this in our previous meeting. This was the second option that was looked at and again it has its own vertical element at the overlook. The vertical elements are intended to be interchangeable with the different options. This is sort of a projecting arch element that we were originally thinking of as kind of a windscreen, thought the thinking has now evolved that if this was put in place then would be more open.

The last option was a more conventional highway-style girder bridge for which we would have curves to the girders to try to get a little bit of an arching effect, but it still does have that more plain highway appearance. This is shown with another style of windscreen which could go onto any of the other types.

Again, summarizing that any of those types of things would be interchangeable with any of the options for vertical elements. Ultimately those are the three options that were analyzed in the report. Part of the report is an alternative analysis summarized in the table here, and in it, you can see how we compared construction costs, anticipated life cycle costs, constructability, the ease and use of concealed utilities on the structure, hydraulics of the river, geotechnical issues, and then of course, the public input which we didn't discount; that is an important factor for consideration.

Ultimately the recommendation to MassDOT was to proceed with alternative one, which is the precast concrete open spandrel arch which we think best respects the history and aesthetics of the current bridge. It is a little bit more expensive than the cheapest alternative, which is alternative 3, but I think the increase in construction costs are justifiable based on the importance of the structure. Again, this is under review, this is the recommendation made to MassDOT, we've gotten positive feedback from the agency on that so far. We are pretty optimistic that it's going to be accepted by MassDOT. We do have some permitting processes to go through. Other things we have to deal with is the U.S. Coast Guard for a bridge permit that we're working to obtain. One of the things we're looking at now is the navigation opening, and the exact size and location of that opening to make sure that the U.S. Coast Guard won't have any qualms with what's being proposed.

Right now, the navigation channel is under the bascule span of the existing bridge. With the proposed concept it would be under the second arch from the Haverhill bank of the river. The spans are going to be wider, so horizontally is a bigger opening, but vertically could be a little bit different, so we want to make sure that there is consensus on that with the U.S. Coast Guard so we can get their approval.

I have a zoomed in version of the center here with what we call the beacons, as a potential vertical element that would be positioned at the edges of the overlook. When we talk about the lighting, these could be potentially lit up and incorporated into the lighting system. So again, we are pretty optimistic that this is where we are going to be going and this will be the approved option carried forward pending the resolution and completion of the MassDOT review and our coordination with the U.S. Coast Guard.

One of the other big topics that Eamon touched on that we had a lot of discussion about in these meetings, is the cross section. I wanted to illustrate here, this is the cross section that we showed in our type selection report and it's a four lane option, which was definitely what we heard is the preferred based on feedback from the community and with symmetrical pedestrian/bike accommodations on the sides. A couple of differences here from things, you maybe saw previously: the current bridge is about 68 feet wide the new bridge is shown at 78 feet wide. We previously had been showing 75 feet in versions that we presented to you; the extra few feet are really added to the pedestrian/bike accommodation on either side of the bridge. We've increased the width so we can have a 12-foot-wide shared use path on the side. We had previously shown separated pedestrian and bicycle corridors in some of our pre 25% coordination with MassDOT but given what we've learned through the public process and in meeting with MassDOT's complete streets group, the preference has evolved to be this 12-foot-wide shared use path on either side of the bridge and again that's why we added a few feet of the cross-section to make that happen.

One thing here to note, is the railings, this is going to be a subject we're going to talk about here in a minute with options for that. Just to point out at the curb line is where we are going to put the crashworthy rail, so we have somewhat limited options there as that needs to be strong enough to stop an errant vehicle from winding up in the river. At the exterior though, we're going to have a more decorative rail and that's where we have flexibility in what we can provide, and we're looking for some community input on types of styles that the community thinks are appropriate here. We're going to have some examples of things that have been used at other locations in a minute.

To summarize, what we're trying to do going forward, we need to rapidly move into our 25% design phase. We intend to get the design/build RFP (Request for Proposal) to design/build teams by next September, so we have a lot of work to do between now and then. So, we are rapidly moving forward with our 25% submission coming before the holidays, then we could update our costs and schedule estimates. Environmental permitting is a key element that we need to get moving. We have some coordination we're already initiated with the U.S. Coast Guard which will be ongoing. We need to look at the constructability, how we think the old bridge is going to be demolished and the new one erected. The right-of-way impacts: we need to refine our design to help determine what easements we may need to help us build the structure, and we will be widening the bridge as I mentioned, that's all against the east side so there will be some easements needed to help make that happen at each corner of the bridge. We sort of think the foundation of what we need for the design is here and we're advancing that, but there are some details that we'd like to engage the community on as I talked about and we're going to be presenting some of those options relevant to lighting, railings, type of amenities that could be put on the overlook such as seating, which vertical elements you like. We want your input on all of that.

Jumping into some of these details, I'll touch on the lighting. Our goals for the lighting, certainly public safety is key component, and that would also be for all users both the drivers and pedestrians. We want to make sure we're avoiding light pollution that includes both above and below the river's surface with some endangered species issues. We want to make sure that we propose putting in under bridge lighting that would be decorative, but we want to make sure that we're not creating any environmental issues with too much lighting on the river's surface below. Then above, we want to make sure that we're not over-lighting the roadway and not having excess light impact the abutters. That's what they typically call light pollution. We want to highlight the new bridge and make it the aesthetically attractive element that it deserves to be. That could be potentially on the vertical elements as well as under bridge lighting to provide a decorative feel to the bridge.

I'm going to walk through some examples of what's been done other places. There are some bridges around the Commonwealth that have been built in recent years, such as the Burns and Zakim that have different style lighting that can be used, but here are some examples of under bridge lighting. Also, when I say under bridge lighting, we would also make sure that the Rail Trail has some lighting as well. I mentioned our effort with the Coast Guard and coming out of their bridge permitting process there's a good chance they will request navigational lighting placed on the bridge. This slide shows you the Whittier Bridge with the green and red lights attached to the fascia. Whatever other lighting we propose, it will need to be compatible and blend with those navigation lights.

Then talking about lighting up above, what type of lighting for the deck above, we are going to have the shared use paths so making sure there's appropriate light, not just on the roadway but also where the peds and bikes are on the

other side is important. We have some different styles here, whether it's overhead lighting, or potentially incorporated into the railing system itself, as in the photo on the right.

Then talking about the actual light fixtures, themselves: what style are we talking about relative to blend with the aesthetics of the arched bridge? Here are examples that you could mimic. Here's what's in place along your downtown streets. The slide also shows you some more modern types as well. These presentations end up on the website shortly after the meeting so you can go through these and as Eamon said, you can email after the fact, if you have any thoughts on this, and I'm most certainly happy to jump back to these in the discussion.

Then here is the more traditional type lighting that's depicted here in some of the photos, some common fixtures, and bulb types that we've prominently seen on structures. With that we're going to talk about some railing and seating type samples and I'm going to pass it over to Etty to walk through the series of slides.

C: Etty Padmodipoetro (EP): Hi, my name is Etty Padmodipoetro, and I'm the urban designer and architect, and I have to say thank you so much for coming to a lot of these workshops because it truly has helped us in figuring out what kind of bridge that you would like to see in this city. One of the things that we want to tell you is that the 12 feet is for the shared use paths only. We're also going to have areas that are much bigger, which is the overlook and what's really nice about that, is that from many of the comments that we heard the last time is that this bridge is about a place in the city, and it connects two neighborhoods and eventually, in the future, making a loop for pedestrians and bicyclists. They want to have this bridge, not just a bridge that connects from A to B, but also as part of the trail, and creating that open space in the middle is something that more than one use. It shows, hopefully, where the navigational channel will be and it will be an area for looking at boats and activities in the river, but also just as an enjoyable part of the trail.

With that in mind, we're getting into what I may call the jam that you put on the bread, and this is really good because basically this is the fun part, right, because you're starting to get into the details, the things that will let this bridge be iconic. It needs to tell the story of how it fits into the city. We are going to be looking at the different railings and if the bridge is going to be more modern, we want to have the railings and other elements respond in the same kind of narrative, the same kind of storyline. We're going to show you some ideas and examples of what this can be. It's not going to be this, but we're showing examples.

Another thing that I really love about this city is that it's a very historic city. It has a lot of stories and one of the ideas that we are thinking about, that we can start thinking about are not just wayfinding and signage, but how you want to tell the story, we can definitely look at different ways. For instance, you can integrate public art into the railing itself. Another one is to have the top of the rail as a canvas on which you can tell the story of Haverhill. It's such a nice way that to see a bridge not only just a bridge, but something that can be layered. Here one other way, is how we start integrating art, one of the ways to integrate art is to make it functional art. We are also thinking about how you can separate between the overlook area and the shared used path. You want to start thinking about it by using the seat in there as a functional barrier with a purpose. Of course, benches, we will want to have benches especially for people who have mobility issues, benches that have the side arm, those can be quite nice.

What we are showing here is basically all the different layers that we are really excited about and thinking about, and if any of them, totally appall you, I'd still like to hear it. Now talking about the trail, which is not part of the bridge project itself, but could be in the future, and when we start thinking about it, it should have a continuous aesthetic. Last, but not least, the tower; a lot of people are really possessive about the tower. Unfortunately, the tower is made out of concrete and it's really starting to fall apart, but there are parts of the tower that we will be able to salvage and that is still under consideration. If you look at the screen behind me, this is an example of a bridge Rich and WSP did crossing the Taunton River between Berkeley and Dighton so this the direction in which we are thinking.

C: EK: What are our next steps? We hope to get to 25% design before the end of the year. The next time we'll be in front of you will be with the 25% design at the design public hearing in the City of Haverhill in February or March of 2024. In the summer or fall of 2024 our project goes into what we call the design/build phase where a construction entity in combination with engineering will take over the design and construction of this bridge. That

the process will start earlier, and I think in previous meetings I've talked about how design/build is different. The regular projects are what they call design-bid-build, where a designer will work on a bridge for maybe two or three years to design it to completion. Then it's handed over to a contractor and then the contractor will spend three to four years building that bridge. The total process from when that starts to the end could be five to seven years. When we go to design/build, the designer brings it to 25% conceptual design. A design/build entity comes in and they complete the design, but they start working on the bridge and the elements of the bridge that they can while finalizing the design. If they started building the bridge according to this schedule, they could begin construction in summer or fall of 2025, and we have four to five years, we truly don't know exactly how long it's going to take, it's going to be awhile. This is going to be a tough bridge to build because we're not on a clean slate. We can't close the bridge down, completely remove it, and then go and put in a brand-new bridge, which would obviously keep it pretty quick, but we have to build it in halves. The design/build process does speed it up and speeds up when you will actually have a new bridge.

We've talked about this before, but how can we keep you informed? The website exists. If you haven't signed on to the website, please do with Nate, because we have email blasts that go out to everybody that's on the email list. In February or March, we will have that design public hearing and I definitely recommend coming then because that's when you're going to see all the work that we've been doing and what we're going to build.

We can give you the exact website, but if you literally type in "MassDOT Basiliere Bridge Haverhill", you'll get a few choices, and it will be very easy to find the website that we're on. There will be updates on there and this slide deck will be available in a couple of days. It will also have the links to the e-mail addresses if you want to contact me. Ultimately, you'll be sending it to our chief engineer, however, it will bypass her and come right to me.

I think we're going to open for questions and the discussion. I can leave this here if somebody wants to take a photograph of it, so they have it. Obviously, we welcome all comments and questions. Like I said, it would be very good for us to leave here knowing that the City of Haverhill feels confident that we are doing a good job, that we have listened to you, and that the design we're showing is what you have asked for, or if it's not, please tell us today. I also want you to feel very comfortable that when we leave there, our architect is going to build something that you are going to like. You could comment, I like this, I like this bench, I like that bench, I like this bench over here, but based on everything that we've done so far and what we've shown you, I would like that you feel confident that Etty is going to pick the bench that works best with this bridge. I mean, she is an architect, she is the expert for doing something like this, so I hope that you have the confidence that as we move forward with those smaller elements combined that you are very comfortable that we're going to do the job.

With that I'm going to open it up to comments and questions. Thank you.

DISCUSSION

Q: No Name (NN#1: Hi, I have a question on the first chart, something caught my eye, construction challenge level for that bridge design is high, so have you already covered?

A: RL: I think that would just designate that it's not a conventional bridge that we're talking about here, so I think that's probably why it is shaded as or classified as high in that table. It's a little bit more complex construction than you know, the run of the mill or typical bridge, that's all. That's been considered as part of the document, and we continue to advance the design and get a better understanding of how to build this. One of the other things about the design/build process that Eamon was referring to and one of the benefits is that you can get multiple engineers and contractors that are looking at this and coming up with different ideas on how they think the bridge can be constructed, get some good innovation and thoughts relative to the other design build process that we have.

A: EK: Ok, thank you

Q: No Name (NN#2: You mentioned at the outset, Eamon and that there's currently two bridges, so is the new bridge going to be two bridges as well or is it going to be one single bridge?

A: EK: It's one bridge to get over the water and it's going to start on dry land on both sides, but where we cross over the Bradford Rail Trail will be a structure, but it's most likely not going to be a bridge. It will be something like a culvert, would you say, Rich?

A: RL: Yes, so there will be a separate structure similar to what is there now. We're going to make it a little bit wider, by 30 feet or so. We would open it wider a little bit from what's there now which has to be mainly for the right of way issues where the old railroad corridor meets the trail, but it will remain a separate structure.

Q: NN #2: Second question, which is going back to this design stage you mentioned at the outset that you're not going to do anything to connect either the Bradford Rail Trail…

A: EK: No, we are going to connect to the Bradford Rail Trail.

C: NN #2: OK.

A: EK: That connection will be made and improved, and some of the details that we're talking about, if we're able to take some details of the existing bridge and place them at that connection but we will not be making the connection between the Dempsey Boardwalk and Wall Street.

Q: NN #2: If you could talk a little bit more about how you said you'd make it available in the design so that in the future the city could do something to connect those pieces, could you expand a little bit on how that's going to be done?

A: EK: We looked a little bit early on about how we could connect the boardwalk and Wall Street. Let's say it's a 10-point elevation difference, that would involve a stairwell and a ramp system to be able to get from one side to the other. How could we do that? There were some ideas, but it would most likely be some sort of ramp system out over the water to be able to maintain a 5% grade or ADA accessible slope. So, to start that ramping system we would have to start somewhere downstream along Wall Street and bring the ramp up, but then you're coming up underneath the bridge, you're going to hit the bottom of the bridge. There were a lot of variables to work out and it appeared be a very expensive exercise that isn't really part of our bridge design and could hold up getting a new bridge for Haverhill when you factor in potential permitting complications.

Q: NN #2: So, are you suggesting it would be cheaper in the future?

A: EK: No, it may cost the same in the future. Our goal, when we build the bride, it to leave the door open so the City could install something in the future. They're still going to have engineering challenges, but it's not that they won't be able to come up with a solution because we put this structure right in the way. We will put some thought into it, we don't want a situation where they arrive and go, "if they only moved that bridge five feet to the right or five feet to the left, we would have been able to do this as a solution".

Q: NN #2: I attended all of the other meetings, I attended the design briefings and input feedback at the City Hall and Library, and I seem to remember a lot talk about or a lot of feedback and input into those transition points to Wall Street and to the Dempsey Boardwalk, and so I think it's important to let people know how that's going to be done, either in the future or how we're going to have access to those walkways for that nice loop that you're talking about, if the city will do it.

A: EK: Well, that loop from Dempsey Boardwalk to the bridge to the Bradford Rail Trail to the Comeau Bridge, that is part of our design, so that loop will be completed as best we can. When it comes to Wall Street because of the elevation difference, it will be looked at as something we will not preclude. I'm not sure how you would currently make that connection. Maybe you continue to Merrimack Street and turn towards the river when you can. Maybe they continue to follow the same method, and it might be that if its available to us to enhance that connection somehow we could by that point we're well outside our project limits. It's not that we're totally ignoring it, that's why we're saying we don't want to put a structure in that prevents a later direct connection, right now that's an indirect connection, and it will continue to be an indirect connection from Wall Street to the Dempsey Boardwalk – at least as part of our project.

Q: NN #2: I think there is an opportunity to at least connect the bridge to the Dempsey Boardwalk.

EK: We will be connecting the bridge to the Dempsey Boardwalk. That will be a connection. We cannot currently connect Wall Street to the Dempsey Boardwalk due to the elevation difference.

Q: No Name (NN) #3: During this construction process, there is obviously going to be a lot of equipment coming in to perform this task. Is there an area that's designated near the bridge for the equipment, and so forth, deeded to accommodate this build? Also, how do you plan on bringing the equipment in? By water? If so, where do you plan on accessing it? Is it going to go up the river from the ocean, or are you craning over the side of the bank?

A: RL: That's an excellent question. That's something we're looking at very closely, right now to see whether there are local places that equipment could be put into the river and reasonably floated in and out. We're also looking potentially at the southeast corner of the bridge as a spot where we could build some temporary access to get a more direct access right at the bridge, so we're looking at both of those options right now.

A: EK: Part of the design/build process is that when the design goes out, that would be a major element of the contract to come up with their scheme for river access. We have to look to make sure this bridge is buildable and know that it can be built. It could be that we have to barge up from three miles away and that is our solution, not a slick solution, but a solution. When the contractor comes on board they can propose something else. It's not really built into our design, the exact option, but we have to at least have a solution that gets this bridge built, but the design/build entity will choose the best path for them.

C: NN #3: I mean the question's a little premature, but if you are seeking a space like that, I own Marianna's Marina down the river.

A: EK: That's the information the design/build entity is going to want to know. Rather than going to everybody and asking them whether they can help, if they have one name and they go to talk to you and it's a solution for them, then that's a help for their effort. Also, when they go into the design/build bid process, they're going to bid on it based off who they talked to so if your name is floating on the website, it's something that they will see. So, follow the website so that you can see when the different stages come up. When the RFP comes out, you'll be able to see which companies have been invited to bid on this, you can call up and offer your services.

A: NCC: I have to say you robbed me of a joke. I was lining up to say, do you have a waterfront parcel you'd like to give us access to? But I'll save it. I know you wanted to speak; do you want to talk about the railings?

Q: No Name (NN) #4: Have you settled on the height of the railings for the sidewalks?

A: RL: Yes, they have to be four feet six inches with since there are going to be bicycles on the shared use path.

C: NN #4: I'm concerned because I missed the meeting on May 18th because I was in the hospital, I had a stroke on May 2nd and I'm recovering well, but I'm a vulnerable adult now. As I crossed the bridge to come here, I was not comfortable with height of the railings on the current bridge. I saw the picture of the railing you showed, several had handrails, I like that. The taller the railing, the safer I'll feel.

A: EK: I think because it will accommodate bicycles, it will be higher than say a standard walking railing.

A: EP: Right now, it's just a sidewalk railing but it will definitely be higher on the new bridge.

A: EK: And also, I think the comfort factor of that we're putting in: the12-foot path plus the traffic barrier railing has been design, is going to separate the traffic from that, where right now you have a six-inch curb. I think that comfort factor will definitely improve the experience crossing the bridge if you're walking or cycling. Thank you.

Q: No Name (NN) #5: Thank you. I appreciate the time today and there's a lot of great information here. There's been a lot of thought that's gone into this obviously and certainly in outlining the process ahead of us. I'm not sure at what point in the process—My wife and I live in Bradford, on the Bradford side of the river, and want to understand at what point in the process the discussion and planning around remediation leading up the construction and during construction will occur and at what point we should probably be more present at these types of meetings to go over

what's going to be involved because where we live now and all of our neighbors, and probably thousands of people around us, we're on the opposite side of the river from the high schools, and there is certainly a lot of evolution and growing of the neighborhoods where we live, and so there's more and more traffic also that depends upon access to those bridges, certainly there are workaround to go onto I-495 to get places etc., but it's going to be very important for us to understand how the traffic is going to change for those four to five years, or even longer and want to make sure we're involved in those discussions and planning for what remediations have to occur. Thinking of my driveway alone, today, with the bridge in service every morning and every evening the traffic backs up so I can't leave my driveway. So, when there is one less bridge, I want to understand you know, how we're to operate and help with the remediation for all of our neighbors or if we should sell our house, but no, I don't plan on selling anytime soon, we love our house, but I'll stop there. You know, at what point in this whole planning process is that going to be presented?

A: RL: I guess just as a point of clarity, the bridge going to stay open during construction. The bridge will remain open to one lane each way. So, we do need to squeeze traffic, there will be some loss of capacity because of the way we've narrowed things down, but that's something we're currently working through in terms of the traffic management scheme and plans to try to mitigate that as best as we can. I just want to reiterate that the bridge is going to remain open to one lane traffic in each direction and one of the sidewalks will remain open throughout all the phases of construction.

Q: NN #5: Well, that's great. It wasn't in any of the slides, and it was the first time we've attended one of these so we had no idea.

A: EK: Have you been to some of our previous meetings?

Q: No Name (NN) #6[3]: No, this is our first one.

A: EK: There have been a lot of discussions in regard to traffic, and whether we're going to go from three lanes to four lanes in the permanent condition. We're now going with four lanes, two paths on both sides. We have had a lot of traffic-centric discussions, and I won't pretend you won't have something of a worse traffic situation during construction. However, the traffic will have one lane each way going across the bridge all throughout construction. It will be on one half, we'll build one half of the new bridge, then demolish the remaining half of the old one, then build the second half, and then open up the entire bridge, but traffic will not be great during construction. At the design public hearing which will happen in February/March, that would be a very good time to come and look at the plans and see what's happening outside your door. I mean right now, I'm not sure how many lanes are outside your door, but it may be reduced to two as opposed to four, so it might actually improve your situation, but I don't think so.

Q: NN #6: Oh sorry, so we live right on South Main Street and Laurel Avenue, at the top of the other bridge, the Comeau Bridge, so everybody is going to come up that street by our house, it's right by the Caleb Dustin Hunking school and that's why we were wondering.

A: EK: I definitely recommend attending the 25% design public hearing. A lot of information will be available at that time.

C: NCC: The only comment that I would add to that is for anybody you know tonight, if this is your 1st event and it's great that there are some people here for whom it's your first event because that means I did my job which is good, but this rumor that the bridge will shut down completely during construction, we've been trying to catch and squash it since the first day we got here. You know, one of the things that we did before we even came to speak with all of you, we spoke with your first responders, and they made it very clear to us that the access is important. Pretty much everything in Haverhill that can respond to an emergency, whether it's the hospital or fire department, it's pretty much all up here [pointing to the floor] and then there's a lot of Haverhill to go respond to emergencies in over there [pointing out the windows at Bradford], so that's why that's really important to have as Eamon says two

[3] NN #6 is the wife of NN #5

lanes and one sidewalk pretty consistently all the time, so that way you're able to maintain some kind of flow and you don't have to maybe sell your house, but given the way housing prices are you would probably do OK.

Other hands, did you folks have something? O.K. excellent. I do thank you folks, and all of your questions are good, helpful and useful, but do think about the aesthetics piece because Etty is here and if there's things that you like, don't like, just let us know so that we can be confident with our design.

Q: Rick LeBlanc, Commodore, Crescent Yacht Club: Thank you just a few things, I want to thank you all. I've been to almost every single meeting and I think I missed one of them because I was out of the country, and you truly do listen, and you have all the way through this. I did heavy construction for 23 years nationwide and I have attended hundreds of meetings like this, and we probably got 15 people at some meetings, most of them had nobody and you've done a fantastic job of including the people of Haverhill and Bradford in the whole process. I can say from the ideas that you had when you first came in and all the ideas that the public here gave you and looking at your proposed stuff, that you are truly listening.

Couple of things I just want to mention from a boater's point of view, the more lights you have on the water, the more confusing it is. When it comes to the U.S. Coast Guard, they maintain a buoy system of quarter of a mile down from the bridge and after that it's up to the City. I gave Nate a few pieces of paper from a recent survey of the river, so there is a possibility to get some buoy systems up here, but to have the lighting under the bridge, you know red and green markers for a boater is very important. As most of us boaters know, if you have the money, you can buy a boat, you don't have to have any license, you don't have to have any training or anything, and that's where people run into bridges, sand bars, and onto the shore. So, with that in mind, lighting is going to be very important. I think as we mentioned when you came to the Yacht Club, that the channel is not in the middle of the river, it's actually to the side of the river, and your proposal for the pier locations is great because once you come through the old bridge and you just stay to the right side of the river and everybody will be fine and see the lighting fine. The area that touches the railings, I'm a little concerned about that and benches, I love the idea you're going to put the viewing areas and stuff, but maybe the benches should be set back a little further from the railings. I can tell you first-hand from being over a 20-year member of the Crescent Yacht Club, the lights of which you can see across the river, we send boats off our dock a couple times each summer to collect people who have decided, it being a very hot night, to jump off the bridge and go swimming. So, I would be concerned about the railings being high enough or, you know, safety wise, lighting is certainly going to stop some of that because when there's lighting, people don't do stupid stuff. So again, I commend you all for everything you're doing, and we'll continue coming to your meetings. Thank you.

Q: No Name (NN) #8: Sorry for being so late, you may have covered it already, but my question is the existing lighting that's on the bridge right now. I've called the state number of times to make sure that the lighting is in place before any of the planned construction happens. We've got the jersey barrier up in the middle and more towards the Bradford side. There are at least three of the light fixtures of the eight that are on the bridge that are still out and that have not been replaced. So, I'm wondering if public safety can somehow take care of those issues during all the dark weather, dark nights, and snowy weather and everything else that we have with the number of people that are going to be jammed up on that bridge. That's my question, how will that be maintained through the process?

A: RL: Yes, so you know there is a requirement to maintain the lighting throughout the contract. The current lighting kind of zigzags across the bridge so in taking out half the bridge at a time we have to make sure we put some temporary lighting in. There will be requirements to maintain and adjust the lighting as necessary as the bridge comes down.

Q: NCC: And am I correct in my assessment from looking at the window that there are some bulbs that are out now?

Q: NN #8: Yes.

A: NCC: When we were up here before the summer for the public workshops, there was a gentleman who came up to me when I was staffing at the Library and he gave me some pictures of holes in the sidewalk where you could see the water going by. We did in fact feed those over to MassDOT District 4, which is your district which cares for the

bridge and spends a lot of their time doing it because of its advanced age, so they listen to what we feed them and we'll make sure that they (District 4) know that they've got a couple of bulbs on the Christmas tree that aren't lighting, you know, send someone out, flick with a finger a few times, get them to go for you. We'll get them back to you.

Q: EK: Do we know if the city of Haverhill maintains the lights or just District 4 maintains the lights?

A: NCC: We'll figure it out.

Q: NN #8: 7, 9, and 11 are the ones that are out.

C: NCC: I see it. I'll be standing on the roof of my car in the breakdown lane in about 45 minutes with the new bulbs.

Q: No Name (NN) #9: Hi, thanks for having us. My question is about the multi-use paths that are going to be on the sides. Is the thinking for the multi-use paths going to be something like an asphalt strip or is there going to maybe some kind of design or different materials that would be used for it?

A: RL: I think on the bridge itself, it will be concrete, sort of textured concrete on the bridge itself and that probably would carry all the way down to the intersection where bicyclists will return to the bike lanes on the roadway and the sidewalk becomes separate again, but I think the intent is that all the surface material will be concrete.

Q: NN #9: Thank you.

Q: No Name (NN) #10: I also just wanted to mention, as this gentleman did, that I feel as though we have been very heard in a lot of ways looking at the design, especially from the last meeting to now. You know it does feel good to as a member of the city to see the design progress in the way that we have all discussed and talked about. In line with that, I personally want to mention that I feel as though, you know, the more ornamental lighting, like some of the ones that were up there, like the acorn style, does seem to be more in line with the general Haverhill aesthetic. I know there is sort of a balance of the modern going on with the older, but the general newer design of the bridge does seem a bit more modern even though it has traditional elements, and I feel as though some of the lighting and rails should follow that sort of aesthetic as well. That's all that I wanted to mention, so thank you guys very much.

A: NCC: Thank you, really appreciate that, that was wonderful, thank you.

Q: No Name (NN) #11: I'm very pleased to see the open spandrel was the one that was recommended, I think that looks very nicely, nicely done. I appreciate that. To lighting, can you make sure that the lighting, the bulbs that are chosen, are high CRI, high color reproduction index bulbs, not the 70% or so that we have downtown right now because it looks and feels very different when walking at night, plus that's about a 4,000 kelvin type of temperature so it feels like a daylight bulb in an environment where it's meant to be night.

A: NCC: I was going to say, somebody knows what that means, right?

Q: EK: Its feedback like that—Can you go on our website and give us all that technical data here?

Q: NCC: Other hands? As we say, going once, going twice?

C: EK: One of the things I said earlier, thank you to those who think we're doing a great job, we think we're doing a great job, but I want to leave here feeling that the city is confident that the aesthetics that Etty is going to put into this bridge will be smartly chosen and will work. I've had this discussion as an engineer, we can design something, but we don't understand the subtleties like lighting and how everything intermingles and that's where the architect comes into place. If we go with the aesthetics of the bridge as a modern bridge, it's an homage to the existing bridge that's there, and I hope that you feel confident that Etty is going to continue build a bridge that the city will be proud of and has the consensus that we're doing a good job in regards to how we're working on the aesthetics and how this final bridge is going to look. Everything we're hearing, we're putting out there, if there is something you think of later, go onto our website and drop it in there, or if you're walking by on another bridge somewhere else and you love a light or bench and think it would really work, take a photograph, and drop it in there. No guarantees that it is

what we're going to use, but there are only so many catalogs we can look up and there is something out there that's already in use that people like, that can help us a lot.

C: NCC: That felt like we can go forward with some confidence which is what we came for.

C: EK: Thank you very much.

NEXT STEPS

The next meeting will be the 25% Design Public Hearing in February or March of 2024 where the 25% design will be presented. Assuming availability, it will be held UMass Lowell Innovation Hub located at 2 Merrimack Street in Haverhil. Prior to the meeting, there will be a pre-25% Design Public Hearing awareness campaign to increase attendance at the event.

APPENDIX 1: MEETING ATTENDEES

First	Last	Affiliation
Olivia	Aguilo	Resident
Ralph	Basiliere	Resident
Ted	Becker	Resident
Ed	Biesley	Resident
Amy	Bourdon	Resident
Chris	Brown	Resident
Karl	Brunelle	Resident
Nathaniel	Cabral-Curtis	WSP
Emily	Cepeda	Resident
Jose	Cepeda	Resident
Seth	Cordes	Resident
Derek	Darko	Resident
Jamie	Davidowicz	Resident
P.	Devanev	Resident
Lourdes	Fernandez	Resident
Cathy	Fitzpatrick	Resident
Daniel	Fleury	MassDOT
Matt	Gaiero	Resident
Rebecca	Gilbert	Resident
Timothy	Golbert	Resident
Kristine	Gorman	Resident
Kristina	Hanes	Resident
Andy	Hay	Resident
Eamon	Kernan	MassDOT
Lynda	Homer	Resident
Diane	Itasaka	Resident
Colin	Kennedy	Resident
Jessica	Kingsbury	Resident
Dan	Kingsbury	Resident
Dot	Laplante	Resident
Brendan	LaQuary	Resident
Shirley	Leary	Resident
Rick	LeBlanc	Resident
Rich	Lenox	WSP
Jean	Longfellow	Resident
Lorna	Lupi	Resident
David	Michieazi	Resident
Katia	Morris	Resident

Larry	Olasky	Resident
Summer	Oliver	Resident
Daniel	Ovalle	Resident
Etty	Padmodipoetro	Urban Idea Lab
Joan	Parah	Resident
Meghan	Parc	Haverhill Police Department
John	Pettis	City of Haverhill
Janice	Phillips	Resident
Pam	Price	City of Haverhill
Jim	Reardon	Middlesex Construction
Mame	Rogers	Resident
David	Sanabria	Resident
Sophia	Schintzel	WSP
Donnie	Seederwer	Resident
Danielle	Smida	Resident
Billie Anne	Store	City of Haverhill
Edward	Swider	Resident
Ali	Tali	Resident
Bob	Tracy	Resident
Carl	Turner	Resident
Aline	Valcourt	Resident
Emily	Weiss	Resident
Gregory	Weiss	Resident
Tom	Wylie	Resident