



To:	Joe Pavao Project Manager	Date:	June 15, 2018
From:	Doug Johnson Howard Stein Hudson	HSH Project No.:	2017226
Subject:	Massachusetts Department of Transportation (MassDOT) Bass River Bridge Replacement Project Public Information Meeting Meeting Notes of May 24, 2018		

Overview

On May 24, 2018, members of the Bass River Bridge Replacement Project team from the MassDOT High Division, HDR Inc., and Howard Stein Hudson, held a Public Information Meeting at the Dennis Police Department, 90 Bob Crowell Rd, in South Dennis. The Bass River Bridge Replacement Project is being undertaken to replace the structurally deficient Bass River Bridge, Route 28 between Dennis and Yarmouth, with a new structure that will provide improved vehicle, pedestrian, cycling and boat navigation facilities.

The purpose of the meeting was to give the public the opportunity to become fully acquainted with the project and provide feedback for consideration by the project team. The meeting started with a welcome and introduction by Joe Pavao, MassDOT Project Manager. Nathaniel Cabral-Curtis, the Manager of Public Involvement for Howard Stein Hudson, gave the presentation, which included an overview of the project area, history of the Bass River Bridge, project goals, and public outreach to date. Charlie Swanson of HDR Inc. then presented the existing bridge conditions and a conceptual design of a new bridge. The meeting was then opened to questions and comments from the public.

The majority of the questions raised by the public concerned the construction techniques and the project timeline. At this time, the project anticipates using Prefabricated Bridge Units (PBUs) and Accelerated Bridge Construction (ABC) techniques in order to reduce impacts to abutters and the traveling public to the extent possible. The current conceptual design anticipates taking two construction seasons to be completed, with work taking place year-round. The project is anticipated to begin in 2020.

Members of the public also asked questions about the project’s impact to bridge users, boat traffic using the navigational channel under the bridge, and abutting property and marinas. At this time, it is anticipated that two travel lanes and at least one sidewalk will be maintained across the bridge during construction. A navigation channel for boat traffic will also be maintained during the boating season. The boat slips adjacent to the bridge on the Yarmouth side of the Bass River may have to be relocated during construction, due to the fact that construction barges will need to be placed next to the bridge to facilitate construction activities. These specific impacts have not been asses at this stage of the design process, but they will be determined as the design of the project progresses. At the current level of concept design it is expected that the new bridge will remain within MassDOT’s Right of Way, and there will not be any permanent easements on private property.

Questions concerning the aesthetics of the new bridge were also raised. The project team is considering these comments and evaluating the possibility of including architectural railings and lighting on the bridge.

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Detailed Meeting Minutes¹

Welcome & Opening Remarks

C: Joe Pavao: Thanks for coming tonight. My name is Joe Pavao and I’m the Project Manager from MassDOT. This is great crowd tonight. We normally don’t have a public meeting until we’ve reached the 25 percent design, but we wanted input from the community. To date we’ve met with the town engineers, Emergency Medical Services (EMS) providers including police and fire chiefs from Yarmouth, Dennis, Harwich and Chatham, and we’ve met with local community groups including the Friends of the Bass River and marina owners. We took their feedback, and now we’re here to hear your comments and concerns.

¹ Herein “C” stands for comment, “Q” for question and “A” for answer. For a list of attendees, please see Appendix 1. For copies of meeting flipcharts, please see Appendix 2.

So far, we've done site surveys and borings, and we've created concept plans so that you have something to look at that you can comment on. Now Nate Cabral-Curtis, the Public Involvement Manager for the project, will go through first few slides, and then Charlie Swanson, the designer, will talk about the bridge concept. Please hold your questions until the end of the presentation. Thank you.

Presentation

C: Nathaniel Cabral-Curtis: Good evening everyone. This slide shows our agenda, which Joe has already covered.

The Project Team includes MassDOT, which owns and maintains the bridge, HDR, the bridge designer, and Howard Stein Hudson, which is handling public involvement. Of course, we are also coordinating with the towns of Dennis and Yarmouth.

This slide shows the Project Area. You can see the bridge at the center of the image. The Jolly Captain is to the left and Horsefoot Cove and Uncle Barney's Road are to the right. The project limits are roughly Pleasant Street in Yarmouth, and the driveway of Bass River Park in Dennis. This slide shows a brief history of the Bass River Bridge. We know this wasn't the first bridge in this location. The current bridge was built in 1935.

The Project Goals are to replace the structurally deficient bridge and provide a multi-modal bridge that is safe and comfortable for all users. I want to reinforce that the bridge is safe to drive across, but it is due for replacement. We also want to reduce the impacts of construction to the traveling public, river users and abutters to the extent possible. We also want to maintain traffic across the bridge, water navigation under the bridge and access for emergency services during construction. Lastly, the project is currently budgeted at \$17.25 million, but we are still very early in the design process.

We've done a lot of outreach to date, starting at the end of 2017. We've met with the Friends of the Bass River, EMS providers from Yarmouth, Dennis, Harwich and Chatham, and the town harbor masters and marina managers. We know this route is important for getting patients to Cape Cod hospital. We also attended a Yarmouth Chamber of Commerce after hours event and posted meeting notices in the town halls and public libraries. Finally, we have a project website, which you can find by googling "Bass River Bridge Project".

Now I'll turn it over to Charlie. Thank you.

C: Charlie Swanson: My name is Charlie Swanson and I'm from HDR. On the screen you can see the existing conditions of the bridge, which is made up of short spans that are 18 feet apart, except for the navigation channel which is 30 feet. There is a sidewalk on one side, but not on the other. The roadway has one travel lane in each direction and shoulders to allow for emergency vehicles to get by traffic.

The existing cross section is a 40-foot roadway, 5-foot sidewalk on the southern side and 8-foot shoulders. The bridge deck is 49 feet wide.

Most of the bridge spans are 18 feet. The navigational channel is wider. The vertical clearance from the Mean High-Water Elevation is 15 feet. There are currently 28 piers under the bridge and it is 625 feet long.

This slide shows the concept cross section. The new bridge deck will be 60 feet 1 inch. The roadway is 36 feet wide, which is enough for two travel lanes and shoulders for emergency vehicles to get by traffic. The south sidewalk is a shared use path for people walking and biking. On the north side is a sidewalk that is 8 feet, 4 inches. The shoulders are 7 feet.

This is the new concept span arrangement. We can open up the spans to 54 feet by using less piers. The navigational channel is a 45-foot clear span. We will still maintain a 15-foot vertical clearance. The bridge will also be slightly longer.

Here is the existing span arrangement and the concept span arrangement side by side so that you can see the difference. With fewer piers there will be improved water flow because there are less obstructions.

This slide shows the overall plan view. The MassDOT Right-of-Way is 65 feet. We are within that Right-of-Way, but we are widening the bridge slightly. It will be widened more to the south side than to the north side.

Let us know if you want to see these later and I can go through them with you. As I mentioned earlier, the existing piers are 18 feet apart and the new piers will be 54 feet apart. We'll be using Accelerated Bridge Construction techniques. The image on the right is part of the superstructure, which will consist of Northeast Extreme Tee (NEXT) Beams. The units are fabricated off site, trucked in and set in place. Then we put asphalt on top. This allows for winter construction.

Here is a Construction Overview. There will be barges in the river during demolition and construction. We will maintain two travel lanes throughout construction. A temporary pedestrian bridge will be built in order to maintain pedestrian access. Some construction will be done in the winter and it is anticipated to begin in 2020.

The next two slides show the construction staging. As I mentioned we will always maintain two lanes of traffic. The image at the top is the existing conditions. Under that you can see that half of the bridge is under construction. We'll be starting construction on the north side of the bridge first. Then after the north side is complete, we'll switch traffic over to the new structure and begin work on the south side of the bridge. The travel lanes will be next to each other at all times during construction in order to help emergency vehicles get through the work zone. There will also be police details at each end of the bridge. During Stage 2, a temporary pedestrian sidewalk will be installed on the outside of the structure. That gives us more room on the bridge so that we can still maintain two lanes of vehicle traffic.

Now I'll go over some Frequently asked Questions before we open it up to discussion. Over the course of our outreach to date these are the questions that have come up the most. I'll read them out loud.

Can the bridge be raised to allow larger boats to pass underneath? Raising the bridge more than a few inches would have significant Right of Way impacts that would increase the project cost and duration of construction. However, the navigational channel can be widened to make passage under the bridge easier. Right now, we can do this project in two seasons. If we had to make the bridge taller, it would take three seasons or more.

Can the health of the river be improved? The new bridge will have fewer piers than the current bridge, which will improve water flow. Part of the river may also be dredged to allow construction barges to access the bridge, which will further improve water flow.

How will packet landing be impacted during construction? Packet landing will remain open during construction, but the slips closest to the bridge will need to be relocated temporarily during construction. They will be returned to their current location when the project is complete.

Will I still be able to pilot my boat under the bridge during construction? Yes, during construction a navigational channel will be maintained to allow boats to travel up and down the river. It is currently anticipated that the project contract will be written to limit impacts to boaters during boating season.

Will I still be able to drive, walk and bike over the bridge during construction? Yes, access for people driving, walking and biking will be maintained at all times during construction. A temporary pedestrian bridge is currently anticipated to be constructed in order to maintain pedestrian access and ease passage of emergency vehicles across the bridge.

How will emergency vehicles get across the bridge during construction if traffic is backed up? Police details will be located at each end of the bridge to help move traffic and allow emergency vehicles to pass through the construction area. Construction will also be staged to minimize traffic impacts to the extent practicable.

Discussion

C: Joe Pavao: Now we'll open it up to questions.

Q: Mark Downey: I own a unit at the Jolly Captain. My question is about Packet Landing and the boat slips on the north side of the bridge. If you expand the bridge, where do those boat slips go? They're right against the piers now, and there's marinas on both sides of the bridge.

A: Charlie Swanson: You're talking about slips that aren't shown on the Project Area slide, correct? They're to the north of the bridge on the Yarmouth Side? Those slips can't be there during construction. They will be located elsewhere temporarily during construction.

Q: Mark Downey: So, what does that mean? Where will they go?

A: Joe Pavao: We still need to figure that out. We'll figure out how many slips it is during each phase of construction. We'll be working on the north side of the bridge first, so it may be a matter of relocating those slips to the Packet Landing side, but we'll know more as we get further along.

C: Charlie Swanson: There will be one year of impact to each side (north and south), when there is a barge next to the bridge for demolition and construction. That's the case on each end of the bridge as well (east and west).

C: Mark Downey: I'm asking because some of the people who own units in our building rent the slips.

C: Joe Pavao: We'll be able to coordinate with you well in advance of the start of demolition and construction.

Q: Mark Downey: I have one other question. Will there be no construction during the months of July and August or limited construction?

A: Charlie Swanson: There will be limited construction.

Q: Mark Downey: What does limited mean?

A: Charlie Swanson: It won't impact the navigational channel. Work will still be taking place, but the contractor will maintain access for boat traffic through the navigational channel.

Q: Mark Downey: So, in July and August, when there are people renting units here, those folks are going to hear construction at 7 am, including pile driving? We went through this before. Several years ago, the bridge was damaged, and you worked on it for a year, and we listed to the construction for a whole year. We rent a year in advance, so you need to let us know what is happening in advance.

A: Joe Pavao: There are going to be daytime work hours. When we first looked at this project we considered doing it in three stages of construction, which would take multiple years. We decided to go with all precast units, and we're over building the bridge. That allows us to do the project in two construction seasons. So, we're spending a little bit more money, but we want to get in and out as quickly as possible. We understand that traffic goes up by as much as 70% or so in the summer months. We want to have as little impact on that as possible. So that's why we're doing an overbuild and doing it in two phases.

Q: Mark Downey: So, there will there be jackhammering going on in July and August and if so at what time?

A: Joe Pavao: The typical daytime hours are 7 AM to 3:30 PM. We haven't gotten far enough into the design to talk about whether we might need to do extended days, for example 7 AM to 7 PM. We still need to work out the details, but right now we're looking at 7 AM to 3:30 PM from Monday through Friday. There will probably be times when we allow non-noisy work during the night. For example, we may do saw cutting and demolition during the day, and then use cranes to pick and remove pieces of the bridge at night. And if we do that we may even take the bridge down to one lane of traffic during the night from say for example 11 PM to 5 AM. We'll be looking at ways to accelerate construction. If there's anything we can do to get in and out more quickly and reduce the impacts to the summer months, we'll try to do that. We'll also be coordinating well in advance of relocating any slips.

Q: Don Costa: Some of us have slips in Packet Landing to the south of the bridge. Will they be removed during construction?

A: Joe Pavao: Temporarily while we work on the bridge. We can't have boats right up against the bridge while we're working on it.

Q: Don Costa: Where will we end up? There aren't boat slips all over the Bass River.

A: Joe Pavao: We understand that and that's why we're having this meeting to hear these concerns. We haven't gotten that far yet. We'll go back and figure out what our options are.

Q: Don Costa: So, the slips will be relocated?

A: Joe Pavao: Temporarily, yes.

Q: Ellie Lawrence: I rent a slip in Packet Landing. How much farther south will the bridge go and how will that effect Packet Landing? Also, what about debris from demolition and construction? Last time there was construction on the bridge, boats got covered. It damages the vinyl.

A: Joe Pavao: I'll answer your second question first. That's a good point and that's something we needed to know. We'll have to put a more stringent specification in the contract to make sure the contractor has measures in place to prevent that. To your other question, we're going to build the bridge within our Right of Way. We're not taking any Right of Way from Packet Landing. We don't anticipate taking any property for this project. There will only be temporary easements.

C: Charlie Swanson: You can come up too and look at the plan view if you'd like.

C: Ellie Lawrence: I'm more concerned about damage.

Q: No Name Given: How unusual or common is the use of Prefabricated Bridge Units? I'm thinking about safety.

A: Joe Pavao: I've been asked that a lot with what happened in Florida and I understand your concern. There's no correlation between what happened there and what we do. That incident is still under investigation, so we don't know why that happened.

All of our bridges are inspected regularly. Also, PBUs aren't something new. Most of you are familiar with the Fast 14 Project. We did all 14 bridges on I-93 in ten weekends. That project used the same method that we're doing here. Also, last year we did the Route 3 northbound and

southbound bridges in a 55-hour weekend. So, we have full confidence in the quality of these products and these methods.

Q: Rick Bishop: Are you doing any modeling to estimate the increase in water flow from the new pier configuration?

A: Joe Pavao: That's something we could model after we figure out the locations of the new piers.

Q: No Name Given: I will applaud your multimodal approach to the bridge. However, there is a problem with your plan. Can you figure out a way to get us across Route 28 without putting us in a tunnel?

A: Joe Pavao: Right now, we're not proposing any crossing underneath the bridge, if that's what you're referring to. There will be a sidewalk on the north side of the bridge. There are two projects that are coming on either end of this bridge. This project will stop at Pleasant Street, and there will be crossings there. There is a second MassDOT project starting at about the same time to the west. It's a different project with different funding, and it will be addressing the intersection on the Yarmouth side of the bridge.

Q: No Name Given: What about on the Dennis side?

A: Joe Pavao: We're looking at putting a crossing at the park. We have to make sure it can be done safely. It's too early for us to say that there will be a crossing there, but we're looking into it.

Q: No Name Given: I'm a resident of Uncle Barney's Road. Will we have access and egress during construction? Also, will there be fishing allowed off of the bridge?

A: Joe Pavao: Yes, you will have access and egress. Uncle Barney's Road will remain open during construction. I'm not sure about fishing. There will be limited space during construction. It would be tough for people to be fishing during construction.

Q: No Name Given: I have a question about the design. Will there only be a bike path on the south side?

A: Joe Pavao: There will be a 12-foot Shared Use Path on the south side, and an 8-foot sidewalk on the north side. The reason for that is so that the cross-section lines up with the intersection project just west of the bridge, and a potential future project connecting the two parks on either side of the bridge with a road crossing or an underpass under the bridge.

Q: No Name Given: What's the anticipated completion date of the project?

A: Joe Pavao: We're very early on in the process, but if we start in the Fall of 2020, we'll be done in 2022. Two construction seasons is what we're aiming for.

Q: No Name Given: I'm concerned about the 2020 date. One of the things I happen to know as a former president of a historical society is that the pilgrims landed 400 years ago from 2020. We're planning a lot of events that year and we're looking forward to having a lot of people visiting the towns up and down all of Cape Cod, and I think closing an artery off, or impeding movement along that artery during that particular year is unnecessary. It seems to me that you've put it off this long, and now you're talking about doing it in that particular year. That seems insane to me. Second, when you live in Boston, you forget we have shoulder months, that go from May to October. Those are pleasant times on Cape Cod, especially in the fall. Stopping major construction only in July and August isn't adequate. My recommendation is to put it off later than 2020.

A: Joe Pavao: I start off by saying that with it being mid-2018 already, it would be pretty aggressive to get a project of this size out by 2020. We have funding for the project in 2020, so I have to strive to make it for 2020 because that's when the funding is available. The project is 100 percent state funded, so there may be some flexibility in the schedule. With federal funding we're locked into certain years and it's difficult to move to a different year. So, we may have some flexibility. I'm going to take that comment back with me and we'll see where we are as we move forward. When we advertise the project will determine when construction actually starts.

C: Charlie Swanson: We can also make the summer moratorium on construction longer. We haven't written the contract specifications yet.

Q: Nathaniel Cabral-Curtis: We heard this same comment last week when we were at the Yarmouth Chamber of Commerce's event. Is there any kind of planning committee?

A: No Name Given: Yes, the 2020 committee. It's not just Yarmouth or Dennis, events will be happening all the way to Provincetown. This is a major artery. People won't just be using Route 6, they'll be on Route 28 too.

C: Nathaniel Cabral-Curtis: We'll look into it.

Q: John Barker: My family owns the property on Uncle Barney's Road next to the bridge. I have two questions. What's your egress distance from the middle of the highway to the edge of our

property? It's also talked about that Uncle Barneys Road is an impediment. The Cape Cod Times articles talked about how there are unexplained issues on the Dennis side and how they could be related to closing roads.

A: Joe Pavao: We're not intending to close any roads as part of our project. Someone will ask about raising the bridge so ill address it now. We have 15 feet of vertical clearance under the bridge. I've asked the designer to maximize the clearance underneath, based on what our geometry is up above. We have certain standards that we have to meet, and we certainly do not want to take property or close roads in order to increase clearance. My guess is we'll probably gain about six inches.

Q: John Barker: I don't care about the clearance I just want to know what the egress is to each side from the center of the road. You say you're not going to encroach on our property, so you're within the Right of Way, correct?

A: Joe Pavao: Our Right of Way is 65 feet wide, so 32 and a half feet from the center of the road.

Q: No Name Given: I'm from the Bass River Town Homes, formerly called the Jolly Captain. Now I'm concerned about encroachment. The state worked on the road 10 years ago and they changed the drainage. They didn't do it right so afterwards water poured into our activity room. Are you going to expand the bridge so that it comes closer to the building? We only have about five to eight feet from the building to where the road exists now.

A: Charlie Swanson: The new bridge will be pretty close to where the existing bridge is right now.

C: Joe Pavao: The bridge will be wider over the channel and it will narrow at each end.

Q: No Name Given: And where will the drainage be put in?

A: Joe Pavao: We will address it in either the bridge design, or the intersection project.

Q: No Name Given: I understand that you're working on the engineering of the bridge, but as an artist and an architect I'm more interested in the bridge identifying and representing a place. I'm interested in knowing if there is an allowance in the budget for some sort of opportunity to things like special lighting fixtures or art installations.

A: Joe Pavao: The primary purpose of the project is to replace the structurally deficient bridge. That is what we've budgeted this project for. It's just over \$17 million. We're still early in the project, but I don't think that is going to be realistic. So, as we move the design forward we're

probably going to have to adjust the funding and the budget. In terms of architectural treatments, we can be flexible with certain things, to an extent. I don't want to take a \$20 million bridge and make it a \$50 million bridge, but we're certainly open to plaques, aesthetic lighting, aesthetic railings, etc. Those are things we can do.

Q: No Name Given: When do we need to be involved in the process?

A: Joe Pavao: Before we come back for a 25% design public hearing. Talk to Nate and he will get your email.

C: Charlie Swanson: And my card is on the sign-in table as well.

Q: No Name Given: I have one more question about the construction seasons. I'm a little confused by what you mean by shoulder seasons and construction seasons. What's the difference? I'm talking about noise, debris, boat navigation, working hours, etc.

A: Joe Pavao: The standard work hours are 7 am to 3:30 pm. There will also be some night work, including the placement of the PBUs. Those hours will be year-round during both phases. In the heavy summer months, traffic is still maintained, that won't change. The navigational channel will stay open during any months we decide is applicable. That's why we're listening to your comments today. Obviously the boating season is more than just two months. Your feedback will also help us determine when we need police details.

Q: Town homes: So, it's possible that there will be a time during the project when boats on the north side of the bridge can't get out into the ocean because you'll close the navigational channel?

A: Joe Pavao: There will be times when they need to build the navigation channel. It will be a limited duration and we'll know well ahead of time, but that is something that will be done during the winter.

Q: Kathy Williams: I'm the Yarmouth Town Planner. I think this is an opportunity for this to be some kind of statement bridge that is something important. Lighting can make a difference, but the entrances are also an opportunity to make it more interesting. We'll be seeing this bridge for the rest of our lives and for generations to come in the current bridge is any indication. So, this is an opportunity to spend a little extra money and make this a civic structure.

A: Joe Pavao: We're certainly open to some aesthetic treatments. Ultimately it comes down to money. We need to remember the reason for the project, which is replacing the bridge. Having said that, I've done large bridges throughout state, and all of them have some aesthetic features.

Q: No Name Given: I have several questions for you. I live on the Bass River and I go over the bridge several times a day. We have had issues with construction noise I was told that construction is not supposed to start until 8 AM and I believe it is supposed to end by 5 PM. Is the state under a different guideline? You're talking about 7 AM, and that's awful early.

A: Joe Pavao: Those are the standard work hours throughout the state, but it's something we can consider. We would have to get approval to change that to 8 AM to 4 PM or 5 PM, but we'll take it under consideration.

C: No Name Given: Noise travels across the river.

C: Joe Pavao: Our intent is to get a full day's work from Monday through Friday, and if we need to extend the hours in order to accelerate the project, we may do that.

Q: No Name Given: I have two more questions. I thought you said at the beginning of the presentation that there would be one travel lane open during construction, and now you're saying there will be two. How many lanes will there be?

A: Joe Pavao: One in each direction.

Q: No Name Given: Thank you. My next question is where will the barges go in the river? Where will they be anchored, how far up the river will they go, etc.

A: Joe Pavao: We haven't gotten that far yet, but we'll do our due-diligence to show how the bridge could be built. Then once the job is advertised, the contractor will have to submit a plan showing how they will build the bridge within the constraints that we give them. For example, if we tell them that they can only put barges in X, Y and Z locations, then they have to show us how they'll do that. They may come up with a totally different way of building this bridge faster. Sometimes that happens. But as the process goes forward, we'll come back out to the public. It's not going to be done in a vacuum. Even after we advertise the project, the contractor is going to be required to come out and notify the public every time they're going to be doing something.

Q: No Name Given: One last question. What is your name and what is your position?

A: Joe Pavao: My name is Joe Pavao and I'm the Project Manager from MassDOT.

Q: No Name Given: Can debris from the old bridge be used for constructing fisheries off shore?

A: Joe Pavao: We haven't considered that, but we can take that question back and consider it.

C: No Name Given: That was done with a building in Chatham recently.

Q: No Name Given: With the new bridge being higher, will you be able to get a dredger up the river?

A: Joe Pavao: The new bridge will have a wider channel clearance. Today it is 30 feet, and the new bridge will have a 45-foot-wide channel. The vertical clearance will be 15 feet or greater. We're going to try to make it as high as we can, but it will probably be about 15 feet six inches.

C: No Name Given: The county dredger won't fit under the current bridge. So, I assume that will continue to be the case with the new bridge?

A: Joe Pavao: I believe that is correct. Now, before I take any more questions, I'd like to offer Representative Whelan and Representative Crocker the chance to speak.

C: Representative Timothy Whelan: Thank you Joe. We've been going around to lots of events today, so please excuse our tardiness. I want to thank the folks from MassDOT for coming down here. As you know this bridge is of critical importance to these two communities, and to the mid-Cape as a whole. I had the good fortune earlier this week of talking to Joe Tierney from the Bass River Marina, and we spent some time underneath the bridge. We all go over the bridge all the time, but this was the first time in a while that I had actually been underneath the bridge. After going under the bridge and seeing it, I think the bridge should have been replaced 10 years ago. So, we're grateful to you for coming down here and doing it, and I'm looking forward to working with MassDOT and being supportive of my community and making sure that we make the bridge as optimal and as much a point of pride for our district as we possibly can. We've been dealing with an ungodly eyesore for too long, and we'll be looking for some make up at the other end. So, please keep us in your hearts as you go forward in the design phase and consider the aesthetics and the other things folks mentioned. Thank you again for coming here and for informing my constituents, my citizens, my friends and my neighbors, about the project and listening to our feedback.

A: Representative William Crocker: Thank you. I represent the 2nd Barnstable district, which includes part of West Yarmouth and South Yarmouth, and it's all connected. I'd like to echo what Senator Wayland said. We appreciate MassDOT coming down here and giving us an idea of what they're thinking about and their preliminary ideas. We look forward to working with MassDOT to get a bridge that all of us can be happy and satisfied with. Again, we're looking forward to the process and to making the bridge a true link between the towns and all of the communities on the cape.

C: Joe Pavao: Thank you. Now we'll go back to questions.

Q: No Name Given: Will there be air quality monitoring?

A: Joe Pavao: We will have strict dust control specifications in addition to the noise specifications in the contract, as well as air quality monitoring. All of that will be included in the special provisions of our contract, and the contractor will be required to adhere to that. We'll also have District staff on site who will be enforcing that.

Q: No Name Given: How many new piles will the bridge have?

A: Charlie Swanson: The new bridge will have fewer piles than the current bridge, but we don't have the exact number right now.

Q: No Name Given: Will they be driven in?

A: Charlie Swanson: We don't have all of the geotechnical information yet, but they'll either be driven or drilled.

C: Joe Pavao: It depends on the results we get back from the geotechnical survey.

C: Charlie Swanson: It's likely that they will be driven in.

Q: No Name Given: How many spans will there be?

A: Charlie Swanson: About half of the number there now. There may be 4 or 5 piles in each span.

C: Joe Pavao: You can see there is a consistent arrangement of piles across the river now, and we want to keep the navigation channel where it is, but as we go to either side of the channel we could go deeper and therefore have longer spans. That's something we're still looking at. This is just one concept that we have right now.

C: Charlie Swanson: One of our constraints is the existing piles. We'll be going in between them so that we don't hit them,

C: Joe Pavao: We have to work around the existing conditions, so we're limited on what we can do.

Q: Joanne Crowley: If you're using prefabricated segments and ABC techniques, you'll need staging areas. Where will they be?

A: Joe Pavao: At this time, we don't have those details yet. The contractor is responsible for coming up with a staging and delivery plan. They'll go out and make arrangements to lease or buy locations to store equipment and materials. We don't acquire or provide land for that.

C: Charlie Swanson: Using PBUs actually helps reduce the staging area that is needed around the project site, because a lot of the bridge is being fabricated off-site and then delivered and put into place.

Q: No Name Given: Regarding the fact that we currently can't get a dredger under the bridge, historically this bridge had a drawbridge. Is there any way a drawbridge could be incorporated?

A: Joe Pavao: Realistically, adding a drawbridge would add \$20 or \$30 million to the project cost. There would also be traffic impacts from the bridge going up, plus a tender house would need to be built. It's not realistic to build a drawbridge if we can maintain the existing channel or greater than the existing channel.

Q: Tom Barker: I live on Uncle Barney's Road at Ferry Street. I'm a rear-round resident and I'm concerned about noise. Can you drive all the piles at one time?

A: Joe Pavao: We're thinking that once the contractor starts pile driving they'll go all the way through until they've finished driving all of the piles. Regarding noise, we'll conduct monitoring to determine a baseline noise level, and that will be used to put restrictions on how much noise the contractor can make. We'll also enforce that during construction. We'll have noise monitoring so that if the contractor exceeds the allowed noise level, we'll stop the work making the noise until the contractor can address it. We can also have a 24-hour hotline if we want so that people can call if there are issues.

Q: No Name Given: One of the issues we've had is the back up sounds from trucks. If work starts at 7 AM, those guys might get there at 6 AM, and they're out in front of my house making noise.

A: Joe Pavao: That's an enforcement issue that will be handled by our district.

Q: Julia Anne Parker: I agree with what people said about aesthetics, but the lighting on the new bridge has to be low. We live right by the bridge and the lighting now is perfect.

A: Joe Pavao: Thank you, that's a great comment. We'll take that into consideration.

Q: No Name Given: The slab tilt that you're talking about on the new bridge, is that going to be kind of cookie cutter like you've used in other places or can some beatification be added to that?

A: Joe Pavao: I'm not sure what you mean.

Q: No Name Given: Can the bridge be something that is architecturally pleasant and isn't just pre-cast cookie cutter?

A: Joe Pavao: The prefabricated bridge units can only be seen from underneath the bridge. The top side is going to get paved over. We will look at having some architectural lighting and maybe architectural raisings, but we have to have crash tested railings.

C: Charlie Swanson: We can have an ornamental railing on the side with the Shared Use Path, because the crash tested barrier is between the travel lanes and the path, but on the north side we have to have a crass tested railing on the outside of the sidewalk.

Q: No Name Given: There's nothing you can do to add to the crash railing?

A: Joe Pavao: We can't modify a crash tested railing.

Q: No Name Given: Why isn't the crash tested barrier between the cars and the pedestrians on the north side?

A: Joe Pavao: It's between the Shared Use Path and the travel lanes on the south side because that is a requirement of having a Shared Use Path. We can consider having the crash tested railing between the sidewalk and the travel lanes on the north side, which would allow us to have an ornamental railing on the north side of the bridge, but it means the sidewalk would be slightly narrower. We will consider that.

Q: No Name Given: I'm confused about the crash tested barriers. Will they block the view of the river?

A: Joe Pavao: Assuming for a second that there were crash tested barriers and ornamental railings on both sides of the bridge, the crash tested barrier on the south side will be 54 inches high, and it could be slightly shorter on the north side. We have to have it at a certain height to meet requirements. When we get further into the design process we can create some color renderings to make it easier to understand.

C: Joe Pavao: If there are no other questions than the meeting is adjourned. Thanks for coming everyone.

Next Steps

The project team is considering the comments made at the Public Information Meeting on May 24, 2018 and refining the conceptual design of the bridge.