Cape Cod Canal Transportation Study

11th Working Group Meeting

Date and Time: August 9, 2018, 4:00 PM - 6:00 PM

Location: Massachusetts Maritime Academy, Admiral's Hall, 101 Academy Drive, Buzzards Bay, Massachusetts

Meeting Notes

Introduction

Ethan Britland, MassDOT Project Manager, introduced himself and began the presentation for the Cape Cod Canal Transportation Study Working Group meeting. He noted that this meeting would be the final Working Group meeting, unless another one was needed. He then reviewed the agenda and then introduced Craig Martin from the U.S. Army Corps of Engineers (USACE) to present the status of the USACE study.

USACE Status Update

Craig Martin, Project Manager for the USACE Major Rehabilitation Evaluation Report (MRER), introduced himself to the audience and provided an overview of his presentation. Since Mr. Martin had not given the group a full update since February, he wanted to provide perspective on where USACE is now and what their next steps will be, including how they will continue to collaborate with MassDOT. Mr. Martin stated that he would present a more detailed summary of their ongoing Major Rehabilitation Report in the future during the meetings of USACE's own working group. They are planning to follow a similar public engagement process as MassDOT has with meetings and engagement of stakeholders and the public.

Mr. Martin then described the format of USACE's MRER. An MRER consists of four major components: (1) structural engineering, to understand alternatives (this includes major rehabilitation and/or replacement options); (2) cost engineering of the developed alternatives; (3) economic justification of the developed alternatives; and (4) environmental analysis of the developed alternatives. The MRER uses a "fix-as-fails" scenario for its baseline comparison, which is the term for USACE's current pattern of routine maintenance of the canal bridges. A major rehabilitation, in contrast, is defined as a project whose value is more than $40 million and consists of two years or more of construction. Mr. Martin noted that USACE is evaluating replacement alternatives for the two bridges as the structures are both 85 years old and USACE cannot assume that they will be able to rehabilitate them in perpetuity.

The final MRER will detail major rehabilitation milestones over the next 50 years for the bridges or recommend the replacement of one or both of the structures. USACE is using a modern bridge type for

the purposes of the replacement alternative comparison. If USACE deems replacement to be the most appropriate option, the MRER will identify a specific bridge type, but will not go further into design. Design studies would require additional funding authorization.

Mr. Martin then described USACE's progress to date. USACE has completed their structural engineering analysis, which means they know the major components of the bridges that need to be replaced, what those replacements would look like, and how long their replacement would be expected to take. USACE has also evaluated the cost of the rehabilitation and/or replacement alternatives and has completed economic justifications, with benefit to cost ratios. The next step for the MRER will be to engage stakeholders and the public. USACE plans to share the results of their studies in late October 2018, first to a working group to get higher-level feedback, and then to the general public. USACE plans to have a total of five public meetings across several locations around the Cape and Islands and South Shore. They are currently seeking out locations for meetings. There may be additional meetings based on the results of this process; USACE will take input from the Working Group and public and decide whether they need to complete additional analysis.

Mr. Martin next discussed USACE's continued collaboration with MassDOT. USACE and MassDOT are beginning the process of technical meetings. USACE needs a lot of information from MassDOT. For example, USACE must confirm that their assumptions on bridge approach and locations are correct. They must align the construction of these major projects, mainly to minimize impact to the public and maximize efficiency. MassDOT will also be an external technical review member for the MRER.

Mr. Martin concluded by confirming that USACE will continue to inspect the bridges. The Army Corps will continue to perform regular and routine inspections and major maintenance on both bridges. He also noted that they are in still in negotiations with their bridge maintenance contractor concerning the construction period for the Bourne Bridge maintenance project. Currently scheduled for late Fall 2018, the USACE has received feedback from stakeholders, including the Canal Study Working Group, and the public about the negative impact of bridge maintenance work during the fall season. Because they are still in negotiations, he cannot elaborate on when that construction will take place, but stressed that their ongoing negotiations show a good faith effort on USACE's part to push work until the spring season to cause less impact to the public and businesses.

Mr. Martin then asked for questions and comments from the audience.

Questions and Comments

Wendy Northcross, Chief Executive Officer of the Cape Cod Chamber of Commerce, introduced herself to the group, and stated that the Canal Chamber of Commerce and the Cape Cod Chamber of Commerce have received calls concerning the about the timing of the bridge maintenance on the Bourne Bridge during the fall season. She stressed that the sooner USACE is able to release an announcement about the timing of the work, the better, as people may postpone their vacation plans. Mr. Martin responded that he would take that message back to USACE.

Summary of Traffic Analysis Results

Michael Paiewonsky, Project Manager at Stantec, introduced himself to the group and began the next portion of the presentation, which focused on the results of his team's traffic analysis. Mr. Paiewonsky noted they would start with a summary of the results for the non-summer peak period, which is the primary focus of the planning effort. The goal of the planning effort is to improve conditions for the non-summer peak period, and then make as much improvements to the summer peak period as is feasible.

Mr. Paiewonsky described Stantec's analysis. The team evaluated seven different combinations of nine possible transportation improvement elements. The nine improvement elements are labeled alphabetically (A through I), while combinations of improvement elements are referred to by case number (1, 1A, 1B, 2, 2B, 3, and 3A). Higher case numbers generally involve increasing numbers of improvement elements. The team used the cases to understand alternatives for Belmont Circle, Bourne Rotary, the relocation of Exit 1C on Route 6, and an additional eastbound travel lane on Route 6. The team made comparisons against a "future no-build scenario," which is what conditions would be like if there were no improvements made. Mr. Paiewonsky noted that Cases 3 and 3A involved scenarios where the bridges had been replaced with modern structures.

Mr. Paiewonsky then reviewed the results of their analysis, beginning with the findings for the Bourne Bridge area. For this, he presented a chart depicting overall average delays at Belmont Circle and Bourne Rotary with the future no-build scenario and with each one of the seven different cases. His chart showed that Cases 1B, 2, 2B, 3, and 3A had progressively greater reductions in average delay at both Belmont Circle and the Bourne Rotary. In some instances, the delay was close to zero. He reminded the group that Cases 3 and 3A assume that both of the bridges had been replaced with modern structures.

Mr. Paiewonsky explained that while there were many reasons for the reductions in average delay (i.e., it is a complicated site), at least some of the improvement shown could be attributed to the new ramps proposed for Scenic Highway westbound to Route 25 and Route 28 north to Sandwich Road eastbound; these ramps would allow through-traffic to be diverted to its desired destination prior to entering either rotary. He also attributed reductions in average delay to the new traffic signal proposed for the roundabout at Belmont Circle; this signal would help control traffic flow and allow the rotary to operate more smoothly. Reconstructing the Bourne Rotary as a highway interchange, which would be done in conjunction with a new Bourne Bridge, would result in a tremendous reduction on in delay at the Bourne Rotary. This is partially because it would separate regional traffic from local traffic.

Mr. Paiewonsky then reviewed the results of the traffic analysis for the Sagamore Bridge. For this, he presented a bar chart depicting overall average delays along Route 3 southbound and Route 6 westbound comparing the average delays for the future no-build scenario and with each one of the seven different cases. Route 3 southbound showed virtually no improvement in average delay other than in Cases 3 and 3A, which involve the replacement of the Sagamore Bridge. On Route 6 westbound, the traffic conditions only showed improvement for cases that involved the relocation of Exit 1C. He clarified that the relocation of Route 6 Exit 1C will be required under Cases 3 and 3A because of the expected higher profile of the replacement Sagamore Bridge.

Mr. Paiewonsky then introduced Fred Moseley to discuss traffic analysis results for the summer peak period.

Mr. Moseley began by discussing findings for the Bourne Bridge area. As with the non-summer months, average delay generally decreased as the case numbers advanced. Average delay reductions, Mr. Moseley noted, were not as dramatic as seen during the non-summer peak period. This is because the roadways are close to capacity during the summer, which makes it difficult to achieve improvements.

For the summer peak period at Belmont Circle, Cases 1, 1A, 1B, and 2 showed modest reductions in delays. Cases 2B, 3, and 3A, however, showed less improvement. Part of the reason for this reduced improvement is because, under these scenarios, traffic would be flowing more freely entering the Belmont Circle roundabout from Route 25; this condition would result in fewer gaps for vehicles attempting to enter the rotary from Head of the Bay Road and Main Street. While there would be less delay reduction, Belmont Circle would process up to 300 additional vehicles in comparison with the future no-build baseline during the peak period in Cases 1B, 2, 2B, 3, and 3A. Regionally, the analysis showed a reduction in overall travel times. For example, someone traveling during the summer from Route 25 Exit 2 (Glen Charlie Road) to Route 6 Exit 2 (Route 130) would have a 12-minute reduction in the travel time under the future no-build scenario; this is essentially cutting that travel time in half.

Mr. Moseley then discussed the results for the Bourne Rotary. Their results showed decreasing delays for several of the alternatives, primarily Cases 1B, 2, 2B, and 3A. Case 3 proved to be less effective than Case 3A because under Case 3 the Bourne Rotary is not replaced with a grade-separated interchange configuration, which separates regional and local traffic. He also attributed the delay reductions in Case 3A to the auxiliary lanes proposed as part of the Bourne Bridge replacement. An auxiliary lane would allow traffic to come up, accelerate, and get off, eliminating the merging delays that occur today.

Mr. Moseley noted changes in traffic patterns and explained them to the group: currently, congestion at the Bourne Rotary discourages use of the Bourne Bridge, so improvements to the approaches at the Bourne Bridge would likely prompt travelers who currently take the Sagamore Bridge via Scenic Highway to use the Bourne Bridge via Sandwich Road. Mr. Moseley then presented a series of graphics illustrating the shifts in traffic patterns he had described. The proposed improvements free up pinch points across the canal, which means that traffic can be better balanced over both bridges. This is a more efficient overall traffic pattern.

Mr. Paiewonsky concluded the presentation of the summer peak period with results for the Sagamore Bridge. He noted that there was virtually no improvement to delays along Route 3 southbound until Cases 3 and 3A, which involve the replacement of the Sagamore and Bourne Bridges, and that the team saw a substantial delay reduction on Route 6 with the relocation of Route 6 Exit 1C.

Draft Study Recommendations

Mr. Paiewonsky began the discussion of Draft Study Recommendations by emphasizing that the recommendations are a draft. The team is looking for input from the Working Group and other Stakeholders and nothing is finalized. He then noted recommendations for multimodal, bicycle, and pedestrian improvements. Generally, the team is looking to include accessible sidewalks and trails,

crosswalks, pedestrian phases at intersections, and bicycle accommodation in the roadway shoulder. Some of these can be standalone projects, but they should also be incorporated into any roadway improvements.

Specifically, the team is recommending three new accessible connections between the local roadway network and the Canal Bicycle Trail. Mr. Paiewonsky shared a graphic illustrating the locations of these potential improvements. Several of these trail connections would involve construction over the railroad tracks and would thus require coordination with the MBTA. A second graphic showed bus routes that would benefit from improved bicycle and pedestrian facilities; improvements of this kind would make it easier for people to use bus service. He also presented a new separated bicycle-pedestrian facility along Cranberry Highway to Adams Street, which is a wide one-way roadway that may accommodate a two-way bicycle connection.

Mr. Paiewonsky also shared the team's recommendation for a new Park and Ride lot along Route 6 at Exit 2. A Park and Ride lot at this location may reduce the number of single occupancy vehicles crossing the bridge. Among the benefits to the location he identified are that MassDOT already owns the land and there are no wetlands or other water resources on the property. A bicycle trail, to be built along the Service Road within the next few years, will terminate at this lot. This new bicycle trail would allow people to walk or ride bicycles to the Park and Ride lot.

Mr. Moseley then presented their recommendations for roadway improvements, beginning with a graphic showing the locations of localized, short-term improvements. These improvements fell into two categories: signal timing modification, and intersection reconstruction.

Recommended physical changes to the intersections are as follows: the addition of a turning lane at Route 6A and Cranberry Highway, the installation of a new traffic signal at Route 130 at Cotuit Road, and a new traffic signal and through-lane combination at Sandwich Road at the Bourne Rotary Connector. Mr. Moseley presented graphics of each proposed improvement location. He noted that the installation of the traffic signal at Route 130 and Cotuit Road would include non-vehicle improvements, such as widening for bicycle accommodation, and the installation of sidewalks for pedestrians. The proposed improvements at the Sandwich Road at Bourne Rotary Connector intersection would include what Mr. Moseley referred to as a "Florida T Intersection." Such an intersection would allow traffic coming from Bourne Rotary Connector to continue directly onto Sandwich Road eastbound without being subject to the traffic signal.

Mr. Moseley then shared some additional recommendations for the major intersections and roadways in the study area, referred to as the "Gateway Locations" at the approaches to each one of the bridges. The Study Team is recommending the Case 3A elements as the primary recommendation for the gateway locations because they provide the greatest long-term benefit in terms of accessibility and mobility for residents, employers, and visitors. The Case 3A elements also address public safety issues by providing a more reliable multimodal system for emergency evacuation. He emphasized that Case 3A elements focus on improving the existing infrastructure in its current location, thereby minimizing anticipated impacts.

Mr. Moseley reviewed the mapped locations of improvements associated with Case 3A. An audience member asked whether the locations are shown on the handout they were given as they entered; Mr. Moseley confirmed this was the case.

Mr. Moseley then shared a map showing the improvement elements associated with Case 3A and reminded the audience that Case 3A assumes that USACE will be recommending the replacement of both the Bourne and Sagamore bridges with two travel lanes and one auxiliary lane in each direction. At the replacement Sagamore Bridge an auxiliary lane would allow travelers coming eastbound from Route 6A (Scenic Hwy) towards Market Basket to remain in one lane and avoid interacting with through traffic on the Sagamore Bridge. This option would eliminate some congestion coming across the bridge and smooth traffic flow crossing the bridge as it returns to the normal pattern.

One of the largest findings over the course of the study, Mr. Moseley stated, is that Bourne Rotary is a big congestion point for traffic coming from and onto the bridge. The replacement of the existing rotary with an interchange configuration would separate the traffic coming across the bridge, removing the need to mix with the local traffic coming east and west on Sandwich Road. This proposed improvement also includes the signalization of three intersections: Old Sandwich Road at Veteran's Way, Veteran's Way at Trowbridge, and Old Sandwich at Sandwich Road.

Mr. Moseley concluded his presentation with a discussion of conceptual costs, which were projected in both 2030 dollars and 2040 dollars, as shown on the table below.

Case	Conceptual Cost ($ million)	
	2030	**2040**
1	70	105
1A	20	30
1B	45	65
2	135	200
2B	150	220
3	330	490
3A	400	590

The cost estimates for Cases 3 and 3A include an estimate of the approach work required to connect the replacement bridges to the existing highway system.

Mr. Britland thanked Mr. Moseley and reminded the group that they are still collaborating with the USACE on estimating the approach costs, so the numbers are subject to change. He emphasized that there is a lot of uncertainty related to the cost estimate and they may be updated prior to the public meeting, but should not change substantially. They want to have the best numbers they can in the core conceptual design. He also stressed their draft recommendation of Case 3A assumes that USACE will be replacing the bridges, however, they do not know yet what USACE will recommend.

Next Steps

Mr. Britland noted that the meeting was the last Working Group meeting on the schedule. If another Working Group meeting is required, they will certainly call another one, however, MassDOT's intention is to have the final public meeting in late September. There is no date set. MassDOT will release a draft study report around the public meeting date. MassDOT's intention is to initiate project development

after public review and comment and the draft study recommendations. MassDOT will continue to coordinate with USACE. Mr. Britland noted that this coordination has, and will continue to be, a challenge because they are working on federal and state levels, and with two different processes. USACE must complete their work regarding the bridges before MassDOT's infrastructure improvements can move forward in earnest.

Mr. Britland asked for questions and comments from Working Group members.

Questions and Comments

Tom Guerino, Town Administrator for Bourne, stated that he had several questions. Mr. Guerino began by saying that the Town of Bourne remains primarily opposed to any relocation of Exit 1C, though he did note that a relocation of the exit would certainly make sense if a new bridge were constructed. The Town wanted to be sure that in the event of a relocation, residents that live in the area would have easy access, without delay, to their homes and to their jobs. This was very important to the Town.

Mr. Guerino then asked that MassDOT consider the largest developable piece of property left on Cape Cod, located east of the Bourne Rotary, and asked that access to that property, which is owned by a private entity, not be impinged in any way. He requested MassDOT work with the owners of that property. He also recommended that MassDOT reconsider siting the signalization proposed for Sandwich Road to a location closer to the Upper Cape Cod Regional Technical High School, where traffic currently bottlenecks. A signal at this location has been requested for well over a decade and makes sense because adding a traffic signal up the road would not resolve the existing bottleneck. As things currently stand, the school must hire detail officers every day during the academic year.

Mr. Guerino then stated that the roundabout being proposed for Belmont Rotary concerns him. He feels MassDOT's proposal for Route 25, right after Nightingale Pond Road, makes a lot of sense; however, he was very concerned by the size of roundabouts versus rotaries. They are generally smaller, and it is very hard for large vehicles (18-wheelers and others) to get through them. This difficulty results in backups in some of them. The Town of Bourne was not necessarily opposed to the rotary, but does want MassDOT to look at its size.

Relative to bicycle and pedestrian travel, Mr. Guerino stated the Town of Bourne thought MassDOT's proposals were really great; anything that could be done to advance pedestrian and multimodal transportation was good, with Bourne desiring to proceed. The Town of Bourne was working on ways to connect the Canal bicycle path to the Shining Sea Bicycle Trail in Falmouth, and hopefully this would all one day be a part of the Cape Cod Bicycle and Pedestrian Path.

Mr. Guerino then returned to the relocation of Exit 1C. He asked whether the traffic studies that have been done for the peak and off-peak, and summer and non-summer months, really showed a savings time of two to three minutes; this was what was said at the meeting in Sandwich. In his view, it is discouraging to move the exit for a savings of two or three minutes when the delay for people coming on and off the Cape was between one and two hours. Mr. Moseley replied saying that the analysis probably did not assume the extreme case of two hours for getting off the Cape and clarified that the

two to three-minute savings was just for the section between Exit 2 and getting across the bridge and was not reflective of a two hour wait.

Mr. Guerino said that the time savings in the area of two to three minutes, when people were taking two hours to get off – at least for the people that live and work in his community – does not seem worth it at this point. Mr. Moseley replied saying that they did not model the extreme case of two hours, but he would expect to see a better improvement than two minutes in those instances. Mr. Moseley also noted that traffic volume builds until a two hour wait, and then comes back down; under the improvement, the really heavy delay period would start shrinking. For instance, an hour wait might be reduced to 45 minutes or 40 minutes. Mr. Guerino responded that there needs to be a cost-benefit for the residents. Mr. Britland said there may have been a misunderstanding – when Mr. Guerino said two hours, he likely meant just the time it takes them to get off Cape Cod. Mr. Guerino confirmed this was the case.

Mr. Britland thanked Mr. Guerino for his comments and said he would try and speak to a few of them.

Mr. Britland said they would take Mr. Guerino's first point about residents into consideration, but said that ultimately, MassDOT was working towards Case 3A, where the assumption was that the relocation of Exit 1C was a necessity. This separates it from the recommendations in Case 1, which do not include the replacement of the Sagamore Bridge. Mr. Britland also noted that he should have said that MassDOT was in a conceptual design phase; future project development and permitting would also involve a public process. There would be other input opportunities moving forward.

Mr. Britland then addressed Mr. Guerino's comments for concepts on Route 28 northbound to Sandwich Road. Mr. Britland said that MassDOT, when working at a conceptual level, tries to stay within the state highway layout as much as possible. He also confirmed that MassDOT was aware of the development site Mr. Guerino referenced and shared that the owners had reached out to MassDOT. If any part of the study moves into project development, MassDOT would have conversations with the developer in terms of the layout.

Mr. Britland then said MassDOT would look into the signal location. He was aware that the signal location Mr. Guerino referred to has been requested for many years and recognizes that there may be other opportunities under the reconfiguration. He thanked Mr. Guerino for his comments and noted that they would be added to the record.

Shaun Handy of MassDOT District 5 stated that he had a question about the proposed design at Belmont Circle area and the approaches to Bourne Bridge and Route 25 eastbound. He asked whether he is correct that the existing lane drop on Route 25 eastbound, coming to the bridge, was not being looked at by MassDOT. Right now, there were three lanes coming from Route 25 eastbound, while the on-ramp, coming from Buzzards Bay to the bridge, has four lanes. This was essentially a two-lane drop, one at Route 25, and another just beyond that. He inquired if the lane drop at that location was over the bridge.

Mr. Britland said that he believed that the lane drop would be accommodated by the auxiliary lane, and that there was not an extra lane on the bridge to accommodate the on-ramp. Mr. Moseley added that this portion of Route 25 was outside of the area evaluated but the study team did consider the geometry of traffic entering the study area. They expect that the lane drop would be moved to two

lanes coming eastbound on Route 25. Mr. Moseley said that they focused more on Belmont Circle as a congestion point. Bill Reed from Stantec added that he believed there were three lanes at the off-ramp, and the third lane continues before it drops to two lanes. He affirmed what Mr. Moseley had said, that their team did not look at this area because the on-ramp was considered to be an auxiliary lane – an acceleration lane – which would continue across the bridge.

Steve Tupper of the Cape Cod Commission thanked the study team and stated that he was looking forward to the details that he expects in the draft report. He then asked whether a detailed analysis of environmental impacts and safety was expected. Mr. Britland replied that this information would be in the report and shared that in previous meetings they have presented in-depth analyses of all the alternatives with the criteria, including impacts.

Mr. Tupper thanked Mr. Britland and asked whether there would be any safety recommendations, specifically for Scenic Highway or Sandwich Road, between the bridges. Mr. Moseley said that they had looked at the accident history there but nothing had really jumped out to them. That had taken place during their analysis for the spot improvements that he had shared earlier. At the moment nothing was proposed for those sections.

Mr. Tupper responded that if there were issues in the section of Scenic Highway without a median that they would love to see them addressed in the report as well. Mr. Reed said that MassDOT has been coordinating with District 5, which at one time was considering a roadway median on Scenic Highway. He also noted that there would be places, such as at Nightingale Pond Road and the signal at the school mentioned earlier, where they have looked at spot improvements. He was sure there would be more work on Scenic Highway and State Road as things were fine-tuned.

Mr. Tupper noted that the study assumes USACE would come to a replacement bridge conclusion and asked whether the study would present what would happen if there was a different outcome. Mr. Britland responded that their study would not, simply because MassDOT is releasing their report in September and the USACE's process would go on for quite a bit longer. MassDOT could wait for USACE's result but it does not make sense. Instead, MassDOT has chosen to frame their study in a way where they assume USACE's action. If USACE does not select the replacement option, MassDOT would need to pivot. They hoped this would not be the case, however.

Ms. Northcross asked whether the final report would include an illustration of bicycle and pedestrian paths, either in a separate color or on a separate page. Mr. Britland asked whether Ms. Northcross was referring to the graphic that showed the bicycle and pedestrian accommodations along the Cape Cod Rail Trail routes; Ms. Northcross replied she was referring to all suggested bicycle and pedestrian routes. She thought it looks great, but has a hard time visualizing how everyone – cyclists, pedestrians—would get to the bridge. Mr. Britland said that this was an excellent point. He is still reviewing the chapter, so he would pay attention to this as he continues. Mr. Paiewonsky confirmed that there was a desire line identified in the report.

Ms. Northcross said that she was assuming the bridges would have separate bicycle and pedestrian accommodation, and asked whether she was correct. Mr. Martin replied that they anticipated bringing the bridges up to modern standards for multimodal use and that they would not ignore that process in their study.

Mr. Guerino asked whether there was any way to improve the intersection coming westbound on Scenic Highway to Nightingale Pond Road, where the current signal is, at the location where an on-ramp onto Route 25 was proposed. He stated that the Town of Bourne needs to have a better way for people to enter that neighborhood. The current signal timing does not allow for many cars to turn left before it changes. Mr. Britland asked for clarification on the location of the intersection; Mr. Guerino replied that it is the intersection coming from Belmont Circle, towards the Sagamore Bridge.

Mr. Reed replied that currently the Bourne Bridge approach flies over Scenic Highway and the width of the existing bridge abutments limit the ability to widen Scenic Highway. There was a good chance that the profile of the new bridges would be a little higher and wider than they were now. This additional width would allow for the widening of Scenic highway, potentially providing more left-turn lanes.

Mr. Guerino responded that in a case where the new bridge was not to move forward he hoped that MassDOT would look at the signalization for this intersection with the goal of making it more user-friendly for residents. Mr. Britland confirmed that he understood Mr. Guerino's comment and said that they would look at turning lanes when design moves forward.

Representative Randy Hunt said he would not hold Mr. Martin to anything on timing, but wanted to point out that they had been told that they would have something from the USACE a year ago last spring. That date had been extended to this summer and they have since been told that they would have something by the end of the year. He then asked Mr. Martin to clarify what they would have by the end of the year and asked at what point their plan would merge with MassDOT's plan.

Mr. Martin responded that the public involvement piece of the study was the NEPA (National Environmental Policy Act) compliance. By the end of the year, they would have the public's input on the results of the studies; NEPA compliance itself probably would not be complete until April or May of next year. He emphasized the difficultly in formulating a time frame because they could not predict what would come out of public stakeholder involvement. Once complete, they would pull the NEPA compliance into the parts from all the other studies; the MRER is the umbrella over those different components. USACE has finished three of the components entirely; the NEPA compliance is the last part.

Representative Hunt asked if the NEPA compliance was the thing Mr. Martin had discussed that had been delayed the whole time; Mr. Martin confirmed that it was. Representative Hunt replied that he is turning 61 this month and that his life's goal was to cut a yellow ribbon on the new bridge. Mr. Martin replied that he understood and explained that they have a timeframe at the Corps, too: they want to have started construction on either major rehabilitation of the bridges or the bridge replacement by 2025. He emphasized that Cape Cod was ahead of the game relative to their other bridges around the country where work often does not begin until a load limitation of some kind has been placed on the bridge. They were trying to avoid this scenario at all costs.

Ms. Northcross asked Mr. Martin whether any of the USACE's other bridges, where USACE tends to wait for the worst-case scenario, were the sole egress and access for an area. Mr. Martin responded that, while the Army Corps does own other major bridges, they were not the sole entrance and egress from a location; Cape Cod was in a unique situation. That has been noted in their discussions with their congressional delegation and their State representatives.

Mr. Britland asked whether any more Working Group members had comments or questions. He stated that MassDOT hoped to streamline their side of the project by linking up with the federal process. They hoped that their efforts could lead to a more expedited process.

Representative Hunt asked whether the project would likely be funded with an 80-20 split between the federal and state governments; this was what they have seen on other projects like this. Mr. Britland responded that their conversations were ongoing and that financing discussions have not yet occurred. MassDOT does not typically identify funding in the conceptual planning study process. Conversations about funding do not really occur until well into project development. He stressed that he is not saying that people were not talking about funding right now, or that they did not know that these conversations have to happen.

Representative Hunt said that for years he has advocated that they come up with the best possible solution for the area, irrespective of the fact that the Army Corps has a piece and the state has a piece. He wants the group to forget the ownership and just try to come up with the best possible solution, then they could sort out the details between what was federally-owned and what was state-owned. He then asked Mr. Britland whether he was comfortable with where they are headed. Mr. Britland replied that while they did not yet have USACE's results, they hoped that this would ultimately be one large project. It would not make sense to advance two separate projects. Even if they were to do them separately, it makes sense to put them together during construction and phase them appropriately to minimize impacts.

Representative Hunt rephrased his question: if MassDOT had all of the infrastructure components on their asset list, would they have gotten to the same solution they had just provided? Mr. Britland replied that he does not know the answer to that question because it was a theoretical question – they did not own all the infrastructure.

Representative Hunt clarified: he wondered whether the presented recommendations were the best that could be achieved given the circumstances, or the best, period. Mr. Britland replied that he believes the recommendations were the best, period, with the assumption that USACE replaces the bridges. He feels that an assumption on MassDOT's part that the bridges would be replaced with four lanes would have indicated that they were just trying to get the job done; with their assumption of added auxiliary lanes to try to increase speed, they had demonstrated that they were attempting to solve the problem holistically. Mr. Britland noted that MassDOT had assumed that the Corps was moving in the best interest of Massachusetts and Massachusetts's residents. Mr. Britland concluded that the short answer in his mind, was yes, this was the best overall package of infrastructure. Mr. Martin followed Mr. Britland, adding that USACE and MassDOT were working collaboratively on a solution for the good of the public. They were having discussions at high levels that look at this as a single project and were trying to do the right thing for the region, understanding that there were different constructs and different processes.

Charlie Kilmer of Old Colony Planning Council asked Mr. Martin to confirm that he had said 2025 in his earlier description of the project timeline. Mr. Martin confirmed this was the case. He felt that the ages of the bridges would require at least a partial major rehabilitation by this time, if they had not yet done anything else.

Mr. Kilmer then asked why MassDOT's cost estimates were presented in 2030 and 2040 dollars. Mr. Martin said that he was not familiar with how MassDOT had structured their cost numbers, and said that the cost numbers might not be tied directly to the bridges. He added that the USACE felt they must have a solution in place by 2040. Mr. Britland explained that MassDOT, so to understand what the implications were for future alternatives, does not typically look at a short time frame. 2040 was the modeling year MassDOT had for the travel demand model and they typically link their cost estimates up with the model year. They understand that there were some near-term wants. The projections are just a range for modeling. It was not to say that something would be built by 2030, or that something would be built by 2040. They did not necessarily know when any construction would happen, so they give future years to show what the cost escalation from the current year might be. They were the same cost estimates, just shown for two different years.

Rob Wilson, a resident, asked whether the slides would be available after the meeting. Mr. Britland confirmed that they would be posted to the website. Mr. Wilson then asked for clarification on two slides, the slide about the Bourne Rotary, and the slide about the access ramp on Nightingale Road. It seemed to him that the slides imply that the bridge would be a bit more easterly, which would run over the proposed access ramp from Scenic Highway at Nightingale Road.

Mr. Britland emphasized that the slides were conceptual, which means that they show a relative, rather than an exact, location. Their analysis of impacts for construction of new bridges indicated that it made the most sense to construct each bridge to the inside of the current structure. At this point, however, it was conceptual and they would need to look at everything more closely on an engineering level before proceeding. He shared that they were still trying to think through what kinds of alternatives could be put in place, either as individual elements or as packages together, with the existing bridge when the concept was initially put on paper. If the bridges were to move forward, he understands that they would need to move forward with a different design. He noted that while there is a body of water just to the east [Nightingale Pond], there is space in the median to shift the highway. Mr. Reed confirmed that there is space available due to the very wide median. When they are in final design, they would draw out this concept.

Mr. Britland added that he had asked the exact same question to Stantec multiple times, not just for this instance, but for all of the alternatives studied. He believes the proposed alternatives should be compatible both with the existing bridges and, with some slight redesign, with the replacement bridges. MassDOT does not want to reconstruct study area infrastructure when the replacement bridges are constructed. While the concept does look like the new bridge could not be accommodated, they were clear that what they have could be in place with the replacement bridge.

Mr. Wilson shared that California has dynamic speed limits in place in some locations and suggested that they might be appropriate for Cape Cod. Mr. Britland clarified that dynamic speed limits would work to even out the flow of traffic, and then said that it was an interesting concept that he had not really thought about. He does not believe the State of Massachusetts has anything like this in place except during construction jobs, in which ramp metering is done temporarily. He thanked Mr. Wilson for this comment and said that it was something to think about.

Ms. Northcross then stated that she wanted to acknowledge the great amount of work that has been accomplished. She feels the State and the Army Corps have been extremely responsive to concerns that

they had raised about the bridges starting in 2012. She thanked the team for getting them as far as they were now. Mr. Britland thanked Ms. Northcross for her acknowledgement.

Mr. Britland closed the meeting, thanking everyone in attendance.

Attendees

Attendees are listed by name followed by their affiliation.

- Kathleen Atwood, USACE
- Rosemarie Bradley, USACE
- Craig Martin, USACE
- Sharon Pailler, USACE
- Danielle Pruell, USACE
- Ethan Britland, MassDOT Planning
- Michael Clark, MassDOT Planning
- Cassandra Gascon, MassDOT Planning
- Shaun Handy, MassDOT District 5
- James Jodice, MassDOT District 5
- Bill Travers, MassDOT District 5
- Hardy Patel, MassDOT Highway Design
- Hung Pham, MassDOT Environmental
- Nelson Hoffman, FHWA
- Patty Daley, Cape Cod Commission
- Steve Tupper, Cape Cod Commission
- David Nolan, Cape Code Commission
- Tom Guerino, Town of Bourne Administrator
- Charles Kilmer, Old Colony Planning Council
- Wendy Northcross, Cape Cod Chamber
- Michael Rausch, Bourne Enterprise
- Randy Hart, Vanasse Hangen Brustlin (VHB)
- John Hession, BSC Group
- Rob Wilson, Resident
- Tom Baron, Cape Cod Citizen
- Michael Paiewonsky, Stantec Consulting Ltd.
- Bill Reed, Stantec Consulting Ltd.
- Fred Moseley, Stantec Consulting Ltd.
- Emily Keys Innes, Harriman
- Lily Perkins-High, Harriman
- Deanna Peabody, Trafinfo
- Sudhir Murthy, Trafinfo
- Frank Mahady, FXM Associates