Drakes Island Road Bridge Replacement/Town of Wells
Public Informational Meeting #2
May 23, 2023
Wells Town Hall/Zoom

Staff and Consultants Attending: Carol Murray, Wells Public Works Director; John Ardini and Susan McConnell, Drakes Island community representatives; Jacob Aman, Wells National Estuarine Research Reserve, Philip Corbett and Liam Kalloch, CMA Engineers; Carol Morris, Morris Communications

Public Attendees: 34 members of the public in person; 15 members of the public via Zoom

The meeting began at 6:00 pm.

Carol Murray opened the meeting, thanking everyone for attending. She recounted the background of determining that the bridge needed replacing, which had started with a call she received from a kayaker. She emphasized that a successful project includes bringing in as many people as possible to hear as many ideas as possible and thanked island community representatives John Ardini and Susan McConnell for their time and efforts on the project. Carol closed by saying that the meeting tonight will provide much information on the proposed new bridge.

She then turned the meeting over to Carol Morris, Morris Communications, to moderate. Carol provided information on the meeting format, indicating that comments and questions would be taken throughout, not just at the end. She also noted that while this was the second and last public meeting, additional comments and questions could be submitted on an ongoing basis at the website at http://www.wellstown.org/1024/Drakes-Island-Road-Bridge-Replacement-Pr

Carol emphasized that the Town's goal is to build a long-term, safe, high-quality bridge, to preserve and enhance the salt marsh habitat, and to establish strong community participation and support. She then turned the meeting over to Liam Kalloch of CMA Engineers to talk about the proposed bridge design.

All the slides shown during the presentation can be seen online at the Town of Wells Drakes Island Road Bridge webpage.

Schedule: Liam indicated that the engineering study would be completed this summer, with final design completed the end of this year/beginning of 2024. Project construction, which must take place in the winter months for environmental reasons, would likely begin in late fall 2025 into 2026.

Data Collection and Analysis: The data and analysis showed nothing unexpected that would complicate the project in subsurface investigations, environmental permitting, or the hydrologic and hydraulic modeling.

Alternative Analysis: Liam noted that alternatives are evaluated on cost, schedule, constructability, and site/environmental constraints.

No-Build Option: While this option is always included to provide a baseline for comparison, the No-Build is not considered feasible for this project dure to the critical nature of the bridge to residents, its advanced deterioration, and the lack of options for rehabilitation or rebuilding, according to Liam.

Environmental Coordination: The state and federal agencies involved with this bridge project are the United States Army Corps of Engineers, Maine Department of Environmental Protection, United States Coast Guard, Maine Department of Inland Fisheries and Wildlife, Maine Historic Preservation Commission, and Maine Natural Areas Program.

Liam then explained that he would break down the work CMA has completed and talk about the proposed elements of the bridge by topic:

- Bridge substructure
- Hydrology and hydraulics
- Bridge superstructure and span
- Sea level rise
- Roadway / Bridge Cross Section (Bike/ped access & width of bridge)
- Access during construction

Bridge Substructure: Liam indicated that the substructure (similar to the foundation of a house) would consist of steel piles drilled down to bedrock, which is 60 feet down. A shallow foundation is not feasible due to the instability of the clay and organic materials on top of the bedrock.

- A resident asked if steel piles would rust. Liam said that they would be encased in concrete, and that would protect them from rust.
- A resident asked what is happening to the existing piles. Liam replied that they would be cut off and removed below channel level.

Hydrology and Hydraulics: Liam explained that this analysis creates a model to look at the flow of water through the project area and surrounding environment, now and in the future. It is the basis of the decision on substructure, which once made, narrows down other options for the bridge. The design goal is to keep the bridge functional in times of rising water during the life of the bridge (75 years) and to not impact the surrounding environment. He also explained that placing the piles outside of tidal water will create a new span length of 22 feet, which will not restrict tidal flow even as it increases over time. The current span is 14 feet, which at this time is not obstructing the existing tidal flow.

- A resident asked if the new bridge would be affected by a hurricane, which has caused flooding from the upper back end of the marsh area. Liam noted that he did not have the details immediately but would check the report and include information in the meeting report. (Update: The report indicates that *water that may get inland of Drakes Island Road from overtopping dunes or via the preserve to the north, the enlargement of the span at the Drakes Island bridge will not prolong the time it takes for these waters to recede. If anything, the larger span, with a larger opening, would accelerate the dissipation of inland flood waters as the Atlantic Ocean / Wells Harbor receded after a storm.)*
- A question from a resident focused on whether a report on potential scouring at the bridge site had taken place yet. Liam indicated that a full report would be part of the next phase of design.
- A resident was concerned about the potential for creating more wetland from current upland areas, which would then be under control of federal agencies.
- Another resident was concerned about protecting the salt marsh during this transition time while the marsh is expanding. She asked if the federal and state agencies had had the opportunity to review the report to ensure the health of the salt marsh. Liam and Carol Murray indicated that Wells Reserve had reviewed the report and made extensive helpful suggestions.

Superstructure: Liam reminded people that the current superstructure span is 14-feet long, made of wooden beams with asphalt overlay, and that the superstructure is similar to a house built on top of a foundation (the substructure). There are two alternatives under consideration for the superstructure:

1. Alternative #1: A precast concrete 3-sided frame, which would be durable, low-maintenance, and fast and easy to install. It would be built off-site, which is important since there is minimal staging area available due to the fragility of the surrounding environment.
2. Alternative #2: A second possibility is a structure with Precast Concrete Deck Beams. The cost analysis on this option has not yet been completed.

Liam noted that both alternatives are well-suited for a 22-foot span, both allow for future increases in height should that be necessary, and both have similar advantages. The deciding factor on these alternatives will be based on whichever has the lower cost.

Sea Level Rise: Liam explained that the goal is to mitigate for sea level rise, with the intention of building a bridge that will be functional for 75 years. The height of the current bridge is right at existing standards for 100-year storms, which is to say, the road level is now just above the water level generated by the kind of extreme storms we have recently been seeing. The Maine Climate Council and MaineDOT guidance on preparing for sea level rise is to plan for a 3.9-foot rise by 2100. This means the height of the new bridge will be approximately 3.9-feet higher than the current bridge. The approach road to the bridge on both sides will need to be raised to bring the road up to that level – the increase in height will begin 150 feet back on the west side

of the bridge and 200 feet back on the east side. (Please see slides on Town project wepage for graphics of this configuration.)

- A resident asked how people would get to the road from the existing shack on the south side of bridge. Liam explained that a stairway would be built.
- A resident said that with so much more of a grade, there would be more potential for ice in winter. Liam agreed and said that the road would be configured to minimize this.
- A resident noted that since most of Drakes Island would be underwater if sea level rise occurs to this extent, why bother to raise the bridge? Liam explained that it is impossible to know now what the town will decide to do to mitigate climate change in the coming decades and the goal now is to keep the bridge functional during its 75-year lifetime.

Roadway / Bridge Cross Section (Bike/ped access & width of bridge): Liam reminded people that the existing bridge is 24 feet-5 inches across with two 11-foot travel lanes and no shoulders. He added that comments from the public meeting in July 2022 strongly suggested that the bridge was unsafe, especially for bicycles and pedestrians and that there are many people walking, biking, pushing baby carriages, etc., in the summer. Based on this, CMA is recommending two possible alternatives. Liam added that they are not recommending a raised sidewalk because the Town does not have the capacity to plow it in the winter.

1. Alternative #1: Two 10-foot travel lanes with 3-foot shoulders
2. Alternative #2: Two 10-foot travel lanes with 4-foot shoulders

There was much discussion of this topic. Below are the major concerns voiced during this discussion:

- A resident said that 12-foot travel lanes are the norm and that 10-foot lanes would be unsafe. Carol Murray explained that 12-foot lanes are standard on highways, not on 25 mph roads and that narrowing roads based on the context of the local surroundings and usage is now considered best practice.
- A resident commented that there was no need to have a usable sideway in the winter, and the town should include a raised sidewalk because it would be safer in the summer when it would be used the most.
- Multiple residents expressed confusion about why the bridge would be widened when the road down to the island was also narrow, and asked if there were plans to widen Drakes Island Road.
- Other residents strongly disagreed with the idea of widening Drakes Island Road for any reason.
- Multiple residents expressed concerns about safety on the bridge, noting that it is possible to move out of the way of oncoming vehicles if you are on the road itself, but if you are on the bridge there is nowhere to go but the metal guardrail or the water. Personal stories about this were shared, along with attestations to the amount of vehicle, truck, and foot traffic during the summer.

- A resident noted that Wells runs on tourism and many tourists these days want walkable, bikeable locations for their vacations.

Since many people had spoken on both sides of this question, Carol asked for a show of hands. The questions were 1) Do you want to keep the bridge at the same width, or 2) Do you want to make the bridge wider to more safely accommodate pedestrians and bicyclists. One individual raised his hand for question 1; the remainder of meeting participants raised their hands for question 2.

- A resident noted that the engineers should decide which of the two alternatives made the most sense from a cost and safety standpoint.

Access during construction: Liam noted that the challenges here are that there is only one access point to the island and there are an increasing number of year-round residents. He added that it is critical that residents and EMS services have continuous access to the island, that construction avoids peak summer traffic volumes, and that cost and constructability constraints be limited. He presented two possible ways to handle access:

1. Alternative #1: Construct one-half of the new bridge at a time, allowing alternating one-way traffic to cross the existing bridge 24/7 during construction.
2. Alternative #2: Construct a temporary one-way bypass bridge north of the existing bridge, allowing the existing bridge to be taken down and the new bridge constructed without traffic constraints. Liam indicated a two-way bridge was a possibility but would be more expensive.

The following questions were asked:

- A resident asked how long construction would take. Liam said approximately between 3-5 months, starting in the fall and going into the winter months.
- A resident asked if there would be a full-time traffic signal installed in both one-way alternatives. Liam said yes.
- A resident asked if Alternative #2 would mean a shorter construction period. Liam said he was unable at this time to provide that information.
- A resident asked if a temporary bridge would have more environmental impacts. Liam said there would be more environmental impact but the impacts would be temporary.
- A resident asked if moving the new bridge alignment had been considered. Liam explained that building a new bridge in a previously untouched location in the kind of soils found here would be extremely challenging, so they had not considered that option.

The general consensus of the meeting was that either one-way option would be acceptable, and the one with the least impacts would be preferable.

Closing: Liam talked about the process of getting to a recommended alternative, which includes finalizing a preliminary design, utility coordination, right-of-way and abutter coordination, and environmental permitting.

- A resident asked who would be making the final decision on the bridge design. Town Manager Michael Pardue indicated that CMA Engineers would make a recommendation, which would go in front of the board of selectmen. He noted that at that point there would likely be a public hearing.

With no more comments or questions, the meeting was ended at 8:05 pm.