Archipelago

Law • Science • Policy

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August 28, 2024

Coastal Waters Commission
Town of Freeport
30 Main Street
Freeport, ME 04032

Re: Carter Becker, Shore Drive (Map 5, Lot 96A)- Response to Sebago Technics Report

Dear Commission Members:

We are in receipt of the project review report ("Report") prepared by Sebago Technics ("Reviewer"), dated July 23, 2024, purportedly acting as an independent reviewer on behalf of the Commission. Our responses are in the same order as noted in the Report.

Additionally, we have commented to the Commission on numerous occasions that the subject application is for the construction of a temporary boat launch ramp and that a permit to launch the vessel *Island Rover* is not required by the Town. Accordingly, information directly related to the vessel and its launching is not subject to the Commission's jurisdiction. To clarify, we fully agree that certain information about the vessel and the general launching process is relevant to the Commission's review of the application to the extent necessary to confirm that the proposed temporary boat launch ramp will meet the relevant standards within the Town's ordinance. However, not all details associated with the launching process are relevant. It is with this understanding that we comment in some instances that the Reviewer's comments are outside of the scope of the project. We provide the following:

Environmental Considerations and Comments:

1. The Report recommends that the applicant confirm that permits are in place prior to constructing the project, and further recommends that the applicant host a pre-work site coordination meeting. While these recommendations are outside of the scope of the project and the standards of review considered by the Commission, the applicant agrees to provide written notification in advance of the vessel launching to the Town, DEP, and US Army Corps of Engineers as it would be beneficial to all parties. Whereas the applicant is also the contractor for the project, an on-site pre-work meeting is not necessary or appropriate. The applicant is intimately aware of the project design, construction method, and regulatory standards. If the contractor was not the applicant, then holding a pre-work meeting may be appropriate. Also, the applicant is knowledgeable of the permitting requirements for this project and is actively pursuing the

necessary permits. For the Commission's edification, while no permit is required from the Maine Department of Environmental Protection for this project, no fewer than FIVE permits are required from the Town of Freeport. The U.S. Army Corps of Engineers has stated that their approval is forthcoming.

2. The Reviewer suggests that uneven loading of the substrate may occur. Tote bags will be partially filled with clean 3/4-inch stone and placed only where necessary below the HAT line. The bags will be only partially filled so that their height does not exceed the square width for stability and so that they can fit within the natural contours of the substrate to achieve as near perfect a load bearing surface as is practical. Construction tote bags will only be utilized in areas of uneven contours in the substrate. It is expected that tote bags will not be needed over most of the temporary boat launch ramp below the HAT. Mirafi 600X Geotextile shall be placed on the surface and construction totes will be placed on the geotextile. Totes will be packed together with an excavator, leaving little or no gaps between them to assure contiguous contact. The construction bags are extremely durable. However, construction bags that are structurally compromised will not be utilized for the project. Numerous on-site decisions, such as inspections of bag quality, ground contour variation, and leveling of materials, will need to be made on site, just as they are with every other construction project.

   The Reviewer speculates that the geotextile fabric and construction bags may become partially embedded into the soils or be held to the substrate by a vacuum force, creating difficulty removing these components. Construction bags will be placed and removed using a properly sized excavator or similar equipment. Geotextile fabric will extend beyond the footprint of the construction mats to allow for gathering and pulling, as needed for removal. Geotextile fabric will be removed either by rolling it by hand or by attaching its end to a line or cable and removing it using mechanical equipment operating on construction mats or in an upland location. If partial embedment occurs, the equipment is sufficiently capable of carefully removing these components with minimal, if any disturbance of soils. Should a vacuum exist, the geotextile will be punctured to eliminate the vacuum to assist with its removal.

   The Reviewer offers their opinion that deformation of the surficial soils and vegetation is likely in the coastal wetland and bay mudflat. As previously described in the application materials submitted, the design engineer has calculated the load of the vessel on the ground surface to be very low, approximately 3.47 psi, and has based his design on the worst soil type. By contrast, an adult human standing upright imparts a direct load of approximately 16 psi. We have also previously indicated that the applicant intends to construct the project when salt marsh vegetation is dormant. We have also acknowledged that, visually, the remaining dormant vegetation foliage above the substrate surface will show evidence of mild compression. The timing of the project is intentional to reduce the possibility of damaging vegetative root structure and it is expected that the vegetation will continue to grow as typical during the next growing season. The use of the phrase "good catch of vegetation" is commonly used to describe a generally vegetated condition. In this case, a good catch of vegetation would include vegetation at a density that is similar to the existing density of vegetation. Existing vegetative conditions were

previously documented and provided to the Commission. The design engineer also notes that should any modest compression of soils actually occur, there will be a natural rebound of soils upon removal of the load. This is routinely experienced when heavy equipment operating on a similarly designed construction mat surface is removed from freshwater wetland soils associated with utility corridor construction projects.

3. The Reviewer recommends that the project be planned and completed to avoid predicted weather events to the maximum extent practicable. The applicant agrees to not construct the project when large predicted coastal storms are forecast (e.g. hurricanes, nor'easters) that would be detrimental to the project, to the extent practicable. It is certainly not in the applicant's interest to disregard dangerous or impactful weather events. The plan is to have the launch proceed without incident.

4. The Reviewer recommends that the applicant have an environmental consultant visit the site daily during the work and to provide written reports and summaries to the town. This recommendation is not within the scope of the project or the ordinance standards relevant to this project, and would be disproportionally expensive and time-consuming to achieve. Furthermore, there is no regulatory basis for this comment or for such requirements of the applicant. Despite this, the applicant, who is also the contractor for this project, is a well-respected marine contractor who has prepared numerous environmental and town applications over many years. In addition to exhibiting substantial competence in marine-related construction practices, the applicant is extremely knowledgeable of coastal environmental conditions and the environmental regulations and standards associated with this project. The applicant will regularly be on-site to monitor construction and deconstruction activities. There are post-launch abatement plans already in place in the application that the town can rely upon for assurances that the property will be restored to its original condition if unreasonable impacts occur.

Engineering Considerations and Comments:

1. The Reviewer requests additional information regarding support equipment and materials, and their assumed staging area located within the upland portion of the project. This request is unrelated to the subject application. The application before the Commission is concerned exclusively with the portion of the project that is located within the coastal wetland. If the Reviewer's concern is that equipment and materials may be staged within the coastal wetland, then no equipment or materials will be staged or temporarily stored within the coastal wetland. As an aside, the applicant has indicated that there is ample area to accommodate the staging of materials and equipment. Respectfully, the Commission should disregard this comment as it does not directly apply to the project scope and specific ordinance standards that are within the Commission's jurisdiction.

2. The Reviewer requests a scaled profile of the access road as it may be helpful to understand, in part, the water available for the floatation of the vessel. A scaled profile plan is provided and attached to this response. The profile plan provides a

more detailed construction design for the temporary boat launch ramp. A scaled depiction of the vessel is included on the plan. We respectfully disagree that vessel floatation is within the Commission's jurisdiction. The Commission members may be interested in floatation details as a matter of personal interest; however, the floatation design is neither required nor addressed by the ordinance standards and is not subject to review for this application.

3. The Reviewer offers a redundant opinion that project components might partially embed into the substrate, and they again request additional information regarding the removal of these components. Similar to our response above, the design engineer has stated that construction mats placed directly over geotextile will be removed by a standard method that uses excavator teeth to lift up the corner or end of the mat to eliminate potential vacuum. The oversized geotextile flap will be used to pull up the fabric. The fabric will be perforated if necessary to eliminate any vacuum force on it.

   The Reviewer further recommends that the applicant's engineer consider a load test at the time of mobilization to "assess the behavior of the design". The applicant has indicated that a load test is unnecessary for this project as the project design accounts for construction mat settling or shifting. As previously stated, the loads calculated and presented in the application demonstrate that the loads are very reasonable for the conditions such that substantial shifting or settling is not an expected result. The vessels launch design, which is not subject to Commission review or approval, incorporates the use of a hydraulic dolly system that was previously used to move this same vessel. Each dolly is equipped to provide independent lift adjustments, if needed, as the vessel is traversing the launch ramp. Simply stated, if a corner or side of a construction mat exhibits settling, for example, the corresponding dollies may be adjusted accordingly to maintain an ideal vertically balanced vessel position. Although only nominal shifting or settling may occur, each dolly lift capacity is nearly 2'. If more than nominal shifting or settling occurs, the vessel movement can be reversed on the launch ramp to allow for adjustments to the launch ramp. At any point, the system allows the vessel to be lowered to temporarily rest partially on its keel along with the dolly supports, which is a very stable position for the vessel. This design in conjunction with the design engineer's calculations effectively renders a load test unnecessary.

4. The Reviewer requests that the applicant provide the vessel profile and vessel carrying system on the profile plan requested in #2, above. This has been included in the attached profile plan. The profile plan demonstrates that the 40' long project terminus is sufficiently sized for the vessel and its carrying system components. Plans depicting the locations of floatation bags have been provided to the Commission previously, although the floatation system design again is not within the Commission's scope of review.

5. The Reviewer recommends that a geotechnical engineer review the site conditions and the calculations that have been provided by the design engineer. The project was designed by a Licensed Professional Engineer according to accepted engineering

practices, and it has also been reviewed by the Commission's third-party reviewer who is also a Licensed Professional Engineer. The Reviewer was hired to conduct a comprehensive review of the engineering design and no substantive concerns with the project design have been identified by the Reviewer. In fact, the Reviewer has stated that the design is reasonable for the launching of the *Island Rover*. Additional engineering review is unreasonable and should not be required. Such a requirement would cause further delay of the Commission's approval of the project and it would place an additional financial burden upon the applicant. The applicant has already paid the Commission $8,300 for what was previously designed to be a comprehensive engineering review required by the Commission.

6. The Reviewer requests confirmation of the weight of the vessel, which they state is 180,000 pounds. We have provided evidence regarding the weight of the vessel, including the tonnage calculation according to the American Bureau of Shipping, which is 160,000 pounds. In his design load calculations, the design engineer utilized a total weight of 180,000 pounds to account for the weight of the vessel, construction mats, the dolly transportation system, and any other equipment utilized as the vessel traverses the temporary boat launch ramp.

7. The Reviewer recommends that the flotation design be certified by Richard Fryeburg of Subsalve USA. As indicated in our previous submittals, the proposed flotation design has already been reviewed by Mr. Fryeburg, who did not identify any concerns (in part because these types of operations are performed every day, all over the United States, utilizing these products). The applicant and his team have significant experience with the use of the flotation system designed for the project and they will be directly supervising the system during the vessel launch. We again note that the pending application is not requesting approval of the actual launch of the vessel or the launching design as it specifically relates to the vessel or vessel flotation system as no such approval from the Town is required. Review of such details are unrelated to the application and are not within the Commission's jurisdiction.

8. The Reviewer recommends that the applicant provide a comprehensive work plan for the project. Accordingly, we are pleased to provide the attached work plan that details the construction of the temporary launch ramp, the vessel's travel along the launch ramp, and the post-launch removal of the temporary launch ramp.

9. The Reviewer suggests that the applicant should be required to provide a cost estimate to the town for the purpose of establishing a bond or insurance requirement. After exchanging information about the scope of the project with the Reviewer, a performance bond is not the appropriate mechanism for this project. However, common sense dictates that carrying insurance is appropriate for the applicant and we have already provided evidence that the applicant will carry substantial insurance for the launching of the vessel. In the event that extenuating circumstances arise and the temporary boat launch ramp cannot be removed by the applicant, the applicant is prepared to set aside $4,800 as escrow for the cost of removal of the temporary boat launch ramp. This includes the deconstruction and removal of all components of the

temporary boat launch ramp, including equipment cost and disposal of items, such as geotextile fabric. This escrow will be released upon removal of the temporary boat launch ramp. Separately, the applicant is prepared to establish an escrow of $8,000 associated with the restoration of the coastal wetland if restoration is necessary, and those monies will be released if it is realized that restoration efforts are not required after the start of the growing season subsequent to the completion of the project (anticipated release on or about July 15th). The applicant's insurance policy is intended to account for any unforeseen issues that arise with the vessel launch procedure. Although it is not within the scope of the Commission's jurisdiction, the applicant estimates that if a tug is required to assist with the launching and removal of the vessel in any state, that cost would be approximately $4,500 (6 hrs @ $750/hr). The applicant has sufficient funds available to cover the cost of tug services. It is understood that if the launch ramp is partially constructed and the applicant is unable to complete the project, the project would simply be removed. Neither the Town nor Commission will complete construction of the project and launch the vessel, and projected costs account for this.

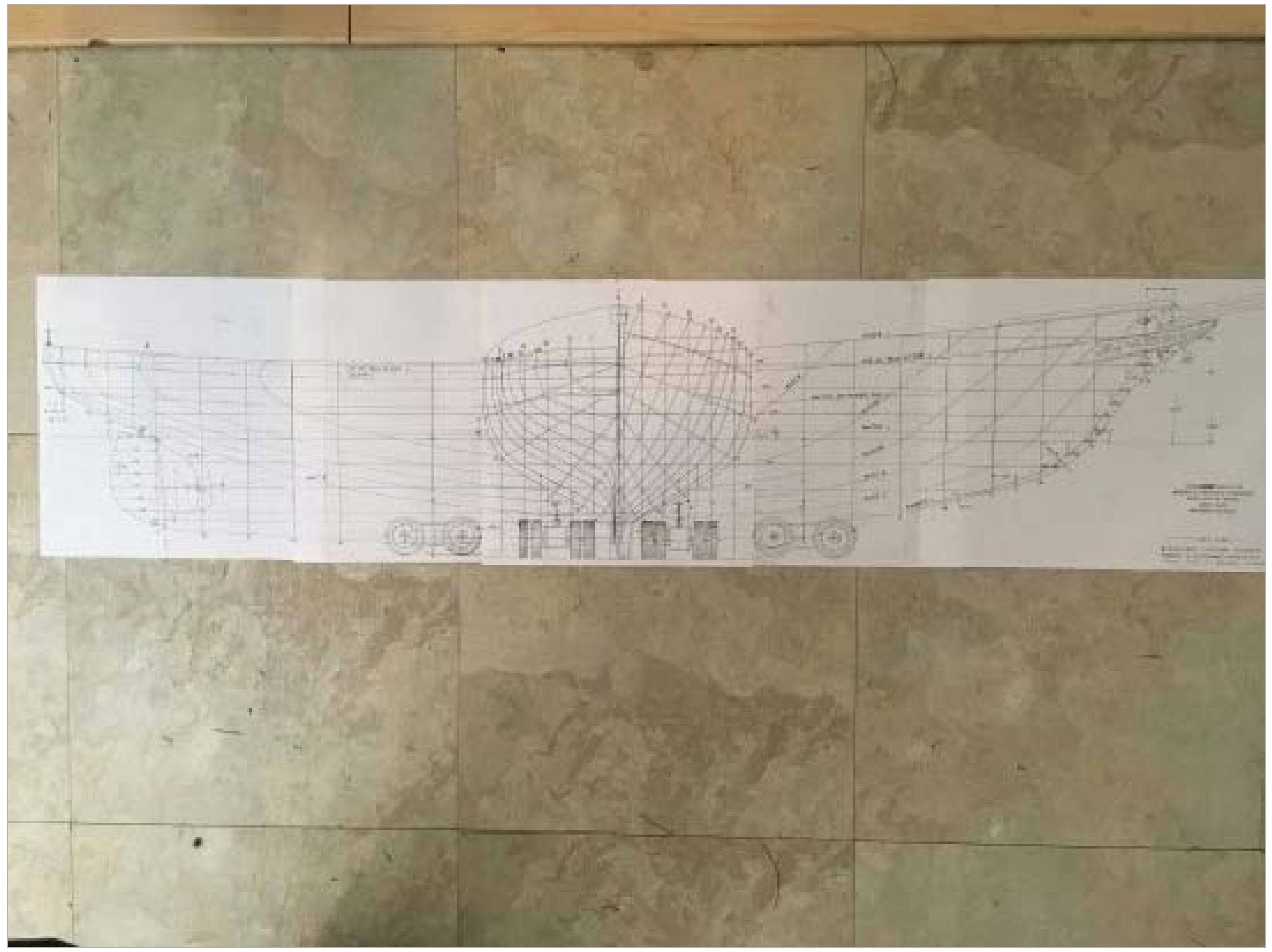
Finally, we have provided the Commission with a technical engineered design and solution for the construction of the boat launch ramp, as well as specific details associated with the launching of a vessel-- the latter of which has been provided as a courtesy and is not material to the Commission's review. The information we have provided supports that the project meets the applicable review standards and demonstrates the project is capable of a successful launching of the *Island Rover*. Our engineering design supports the successful launching of the vessel and clearly demonstrates that it is extremely unlikely that the vessel would become compromised during the launching effort. If any unexpected problems arise during the vessel's launch, we have provided the Commission with our contingency plans and evidence of insurance sufficient to cause the mitigation of any unsurmountable problems and removal of the vessel. We have provided the Commission with a comprehensive restoration plan if unreasonable impacts to the coastal wetland occur. The Reviewer has reviewed this information and has stated that the design is reasonable for the launching of the vessel. The Reviewer has not provided any substantive factual or technical review comments that indicate that the proposed project design is insufficient or that it will not meet its objective, or that it will cause unreasonable environmental harm. Considering that the Reviewer discovered no substantive concerns regarding the project and deemed the design to be reasonable, their report should effectively be considered as an objective endorsement of the application and project design and the Commission should use its authority to approve the application immediately.

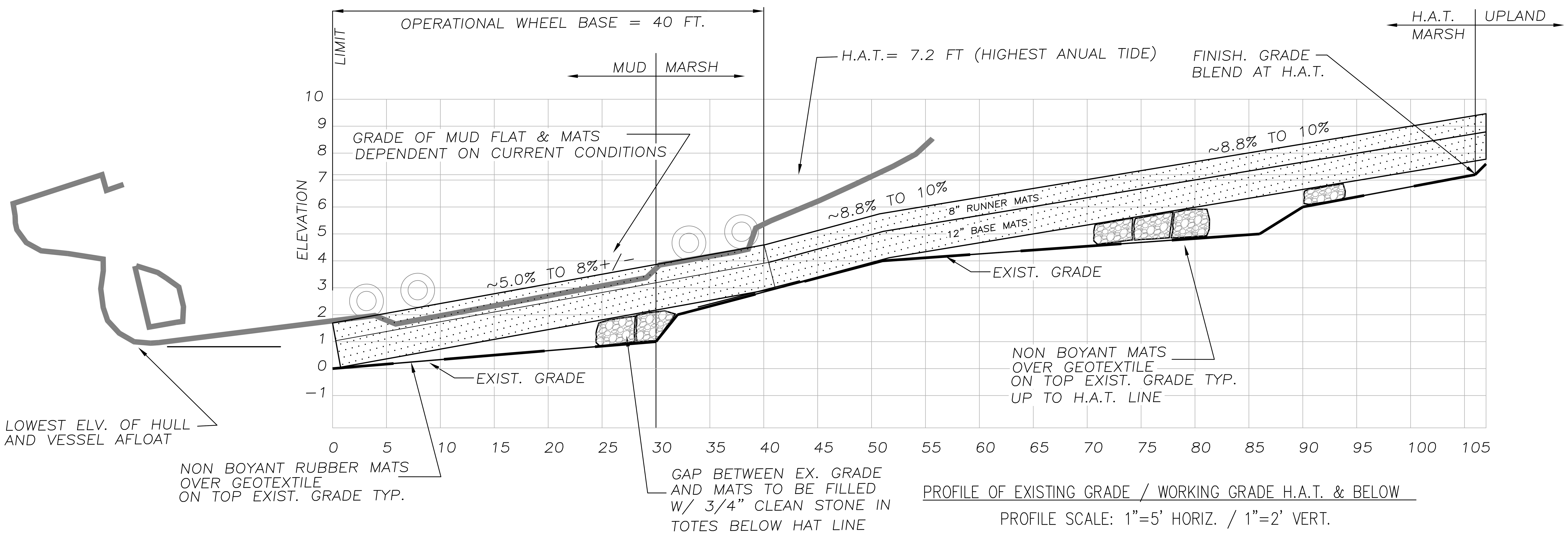
Thank you in advance for your consideration of our responses.

Sincerely,

Mike Morse

Enclosures
Cc: Carter Becker





PROFILE OF EXISTING GRADE / WORKING GRADE H.A.T. & BELOW

PROFILE SCALE: 1"=5' HORIZ. / 1"=2' VERT.

REV	BY	DATE	REVISIONS DESCRIPTION
0	RAC	05/12/24	PROFILE

SHEET TITLE:

ENGINEERING ASSISTANCE & DESIGN, INC.
ROSS A CUDLITZ, PE (ME 5865, NH 6881)
10 NORTH ROAD, YARMOUTH, MAINE 04096
CPESC, CPSWQ, CESSWI, Me DEP CERT.
PHONE/FAX: 207-846-0839; E-MAIL: ZTILDUC@MAINE.RR.COM

DATE :	02-02-2021
SCALE :	AS NOTED
DESIGN BY:	RAC
DRAWN BY:	RAC
FILE No.	C1.dwg
PROJECT NUMBER:	
SHEET:	P-1

Work Plan

Temporary Boat Launch Ramp
Carter Becker
0 Shore Drive, Freeport

Step 1- Construct ramp from HAT to end

- Prepare industrial tote bags partially full of clean ¾ inch stone. For stability, height of tote bag should be no more than approximately ½ of width.
- Roll out Mirafi 600X Geotextile ahead of work. Fabric should extend beyond work area to the side of sufficient distance to assist with removal. All overlaps of fabric shall be a minimum of two feet.
- Anti buoyancy rubber mats shall be placed over fabric to prevent fabric from floating out of place.
- No heavy machinery will operate directly on top of fabric or rubber mats.
- Place tote bags on top of fabric/rubber mats, as needed. Work tote bags with the side of excavator bucket so that they are tight and even across the top.
- No heavy machinery will operate directly on top of tote bags.
- Place 20-foot construction mats on top of rubber mats and tote bags. Work mat with bucket pressure to make level and stable; repeat with as necessary. Where utilized, totes should extend one half of bag width beyond ends of mats. Any tote bag punctured by teeth of bucket must be replaced.
- All mats to be secured to each other at ends to remain tightly abutted; contractor to provide means and method.
- Place construction mat runners perpendicular on top of base mats at spacing shown on plans. Secure runners to base mats to prevent sliding before traveling down ramp. Contractor to provide means and methods of connections.
- The matted ramp shall be diagonally chained to mushroom or helical anchors (similar to floating wharfs) so that they may float between tides and settle back down in place.

Step 2- Travel on ramp

- Similar to travel on roads, the articulating dollies (vertical and independent adjustment) will be used to maintain the centroid (center of gravity) of the hull centered and in the static design location. Hull shall be positioned at the lowest elevation possible (keel in between the runner mats).
- Timing of launch will be based on highest available tide. Hull shall be positioned above the HAT on the ramp prior to the launch.
- As the tide recedes travel of the hull shall commence to take greatest advantage of daylight and time between outgoing and incoming tides.
- Speed of travel and positioning adjustments made by qualified individuals.
- For safety and redundancy, the bow of the hull will be securely tethered to a piece of machinery of suitable winch type anchor located at the top of the ramp. This tethered connection will remain attached until the vessel is floated.

Step 3- Ramp removal

- Starting at seaward end, runners will be removed, and base mats incrementally disconnected from anchoring. All heavy equipment will work on top of mats.
- Mats will be removed efficiently and at a steady pace and work ahead of tides. Contractor responsible for timely production.
- Excavator teeth worked into side of mats will be used for grabbing and breaking any vacuum that may be present where totes were not utilized under mats; this is typical in similar utility construction.
- Tote bags will be removed and taken to lay down area.
- Anti buoyancy mats removed in progression.
- Fabric will be secured along extra flap by excavator. Any vacuum will be broken by puncturing fabric with teeth.
- This progression will continue until all materials in resource below the HAT is removed.