

**Town of Kittery**  
**Planning Board Special Meeting**  
**September 29<sup>th</sup>, 2022**

**134 Whipple Road – Shoreland Development Plan Review**

Action: Continue, Approve, or Deny the plan. Owners/Applicants Nicolas and Amy Mercier request approval for a shoreland development plan on a legally non-conforming lot with a legally non-conforming structure which will be replaced per a Shoreland Development Plan approved by the Planning Board last year to construct a seawall located within the base zone setback of the Shoreland Overlay Zone located on real property with the address of 134 Whipple Road, Tax Map 10, Lot 6A, in the Residential-Urban (R-U) Zone and the Shoreland (SL-OZ-250) Overlay Zone

**PROJECT TRACKING**

REQ'D	ACTION	COMMENTS	STATUS
NO	Sketch Plan	None	NOT APPLICABLE
NO	Site Visit	None	NOT APPLICABLE
YES	Shoreland Development Plan Review Completeness/Acceptance	June 9, 2022 & July 28, 2022	ACCEPTED
NO	Public Hearing	July 28, 2022	HELD
YES	Shoreland Development Plan Review Plan Approval	TBD	PENDING

Applicant: Plan Review Notes reflect comments and recommendations regarding applicability of Town Land Use Development Code, and standard planning and development practices. Only the PB makes final decisions on code compliance and approves, approves with conditions or denies final plans. Prior to the signing of the approved Plan any **Conditions of Approval related to the Findings of Fact along with waivers and variances (by the BOA) must be placed on the Final Plan and, when applicable, recorded at the York County Registry of Deeds. PLACE THE MAP AND LOT NUMBER IN 1/4" HIGH LETTERS AT LOWER RIGHT BORDER OF ALL PLAN SHEETS.** As per Section 16.4.4.13 - Grading/Construction Final Plan Required. - Grading or construction of roads, grading of land or lots, or construction of buildings is prohibited until the original copy of the approved final plan endorsed has been duly recorded in the York County registry of deeds when applicable.

**Project Introduction**

134 Whipple Road ("Property") is located on the Back Channel of the Piscataqua River, a water body between mainland Kittery and the Portsmouth Naval Shipyard within the Residential-Urban (R-U) Zone, the Shoreland Overlay Zone (OZ-SL-250) and the Resource Protection Zone (OZ-RP). The property is legally non-conforming in size (13,381-sf so less than the 20,000 sf required) with 100-foot shoreland setbacks per §16.4.28.E. The existing building will be removed and replaced with another structure which was reviewed and approved by the Board in 2021. The proposed seawall will replace an existing wall which is failing.

In addition to the Piscataqua River, directly abutting 134 Whipple Road is a vacant lot owned by the Town of Kittery and a lot containing a single-family dwelling unit.

The applicant's path to permit a seawall is two pronged: obtaining approval from the Kittery Port Authority ("KPA") for any portion of the wall below the Highest Annual Tide (HAT) and the Planning Board ("Board") approval for a shoreland development. The Planning Board had earlier reviewed a plan that called for a taller seawall with approval pending DEP approval. Also since the Board last reviewed the seawall, the house has been demolished.

The seawall as proposed is intended to stabilize the entire shoreline of the property. It is 689 square feet (of permanent impact), with a linear measurement of 165 feet. The applicant's scope has changed from creating a larger seawall to replacing the seawall with an in-kind replacement.

Plan note #19 on Sheet C-1 states that seawall construction below the HAT will be performed at low tide which is the KPA's purview. Inquiries of the applicant's engineer revealed that the work above the HAT will be done from the property, not from a barge.

The seawall work proposed will include the following tasks:

1. Remove the existing stone wall currently serving as a seawall.
2. Construct a new seawall of Redi-Rock (pre-formed concrete) in a gravity wall design.
3. Attach a turbidity curtain to each end of the property's shoreline to control erosion and sedimentation from both construction (of the new house) and stormwater runoff.

#### **Development Standards**

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The devegetation calculations on Sheet C-1 indicate that including the upland seawall work proposed and the new house to be constructed, the property will come in under the existing conditions' devegetation percentage (24.6% existing vs 24.1% proposed) on the lot.

It is presumed that the landscape plan (included with the building replacement plan) approved by the Board last year will be the plan followed to repair the damage caused by construction of both the seawall and the new building.

#### **Staff Review**

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1. The applicant's engineer has indicated that the wall's 689 square feet and 165 linear feet is inland of the HAT.
2. Staff was informed that the Redi-Rock product was chosen for the seawall because it is one of the most stable products for this type of application. The concrete is specially formulated to stand up to salt water. Sea level rise was the main impetus for rebuilding the seawall to the dimensions shown. What is the expected lifetime of such a wall barring a catastrophic event? How would that compare to a stone seawall?

UPDATE: The Town's peer review engineer, CMA, reviewed the taller wall plans and provided the following comments from the enclosed letter from William Straub:

*Segmental block gravity retaining wall systems are a commonly applied method of creating grade changes. There are several well-established providers of such systems, which generally include pre-cast concrete interlocking blocks, select foundation soils, and select crushed stone and gravel backfill. The systems are engineered for specific application and can provide flexible horizontal and vertical geometric configurations. The preliminary design prepared by SFC using the "Redi-Rock" system includes conventional applications of these elements.*

*Soils and subsurface information are necessary for the final design of the wall system. The SFC plan states that they have no site-specific subsurface data, and assumptions as to what they are. The plan should not be constructed without supporting information on subsurface and uphill soil characteristics. The plan for acquiring that data should be prepared by the design engineer (SFC).*

The applicant has provided information on the Redi-Rock system in the plan sets on Sheet S1.0, and noting that "prior to installation the site engineer shall confirm that design assumptions are consistent with actual field conditions."

3. The Redi-Rock Wall Design sheet's Note #22 says that unless the wall construction is observed by SFC (the maker), they will not certify it. It goes on to say that periodic site visits are necessary in order for

SFC to prepare the certification. This certification seems desirable so staff recommends it in addition to the Town's peer review engineer's review of the plans. There may also need to be a site visit by the Town's peer review engineer. The applicant should be prepared to assume these costs.

4. The applicant's engineer told staff that the turbidity curtain will be anchored to the shore by either a post, tree or a pin driven into the ground. It will be as close to the seawall as it can be without hindering construction. It will serve to control erosion and sedimentation caused by construction activities and stormwater. Once construction and landscaping are completed, the curtain will be removed.
5. UPDATE: The applicant has added to sheet C-1 language noting that the existing house will be demolished and the existing basement slab will be used for construction staging. Sheet C-2 includes a note stating the following sequence of major activities:

1. Install temporary erosion control measures including perimeter controls as noted on the plan. All temporary erosion control measures shall be maintained in good working condition for the duration of the project.
2. Raze existing residence, retain basement slab for staging of wall construction.
3. Remove vegetation from work limits. Strip loam and stockpile.
4. Remove portion of dock as required to construct wall.
5. Demolish existing wall in phases as work progresses.
6. Construct wall in phases corresponding to removal of existing wall. Work below the tide line is to be performed at low tide.
7. Rough grade site including placement of borrow materials behind wall.
8. Loam (6" min) and seed all disturbed areas not paved or otherwise stabilized.
9. Install landscaping per plans.
10. Install ramp to dock.
11. When all construction activity is complete and site is stabilized, remove all temporary erosion control measures and any sediment that has been trapped by these devices.

## **Submissions**

### *Submission content*

The shoreland development plan and application appears complete and includes the information as required pursuant to §16.9.3.C

### *Waivers*

The applicant is not requesting any waivers from any review or ordinance standards.

### *Additional Permits*

The proposed seawall received KPA approval (because the seawall touches the HAT and the dock adjustment) for the replacement-in-kind application on August 15<sup>th</sup>.

DEP approval for a replacement wall is a Permit by Rule (PBR). The process for this type of approval consists of a two-week period once the application is submitted for the DEP to ask questions and then if no denial is issued, the PBR is considered approved. The applicant's engineer has submitted the email exchange with DEP concerning the PBR. The Town will receive notification via mail.

120 **Planning Board Procedural Steps**

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- 122 1. Discuss the project and ask question of the applicant, if necessary.
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- 124 2. Decide whether to continue the application to a subsequent meeting or approving the plan, if
- 125 satisfied with the application.
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127 **Recommended Motions**

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129 Below are recommended motions for the Board's consideration:

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131 *Motion to approve application (with or without conditions)*

132 Move to approve the shoreland development application from Owners/Applicants Nicolas and Amy

133 Mercier to construct a 165-foot seawall totaling 689 square feet located within the base zone setback of the

134 Shoreland Overlay Zone located on real property with the address of 134 Whipple Road, Tax Map 10, Lot

135 6A, in the Residential-Urban (R-U) Zone and the Shoreland (SL-OZ-250) Overlay Zone *with [any desired*

136 *conditions as follows:]*

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