

DEP File Number:

Provided by DEP

WEST TISBURY
Town

A. 6. Project Description and Justification

An existing cottage constructed circa 1930 sits behind a headland 16'± back from the top of an eroding Coastal Bank. An ad hoc revetment was constructed at the bottom of the Coastal Bank some time before 1965 to protect the cottage from the eroding Coastal Bank. The current revetment was not professionally designed nor maintained. Sourati Engineering Group LLC has periodically monitored the structural integrity of the revetment in the past 15 years. The existing revetment has recently been settling as there is no filter fabric between the Coastal Bank and the revetment. In addition, the boulders which comprise the revetment are rounded and not interlocked to provide stability.

The proposed 367' shore protection consists of a 267' stone revetment at the most vulnerable portion of the Coastal Bank. The stone revetment is flanked to the north and the south by 50' arrays of fiber rolls anchored into the Coastal Bank and supported by gabion baskets in order to keep the fiber rolls above the high-water mark. 60± cubic feet of yearly sand nourishment on the Beach is also proposed.

The proposed shore protection is located on Assessor Parcel 6-6, 271 John Cottle Road in West Tisbury.

The construction of the shore protection will be performed from the Beach. In order to access the Beach, an existing driveway located on Assessor's Parcel 6-7.2 (245 John Cottle Road) and Assessor's Parcel 6-7.4 (257 John Cottle Road) will be used. A 690'± temporary construction access road on the Beach is proposed between the existing driveway located on Assessor's Parcel 6-7.4 (257 John Cottle Road) and the site of the proposed shore protection. Any damage to the grounds on the above listed properties will be restored to current conditions after construction has been completed.



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 107 Beach Rd., Suite 202
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May 10, 2023

West Tisbury Conservation Commission
 PO Box 278
 West Tisbury, MA 02575

Re: Paul's Point Area Realty, L.L.C.
 Assessor's Map 6 and Parcel 6
 271 John Cottle Road
 West Tisbury, MA
 Shore Protection

The following addresses the Performance Standards set forth in the Wetlands Protection Act 310 CMR 10.00:

SECTION 10.27 – COASTAL BEACHES

WHEN A COASTAL BEACH IS DETERMINED TO BE SIGNIFICANT TO STORM DAMAGE PREVENTION, FLOOD CONTROL, OR PROTECTION OF WILDLIFE HABITAT, 310 CMR 10.27(3) THROUGH (7) SHALL APPLY:

- (3) Any project on a coastal beach, except any project permitted under 310 CMR 10.30(3)(a), shall not have an adverse effect by increasing erosion, decreasing the volume or changing the form of any such coastal beach or an adjacent or downdrift coastal beach.
- The project as designed will have no adverse effect on erosion control. Current data available from the Massachusetts Office of Coastal Zone Management shows the average long term annual rate of erosion at the site to be approximately 0.35' per year. The project is designed to minimize erosion at the site by stabilizing and protecting the Coastal Bank.
 - The proposed stone revetment will be located further landward than the existing revetment and is designed to reduce erosion on the Coastal Beach.
 - The project includes 60± cubic yards of annual sand nourishment on the Coastal Beach. The sand used for nourishment will be compatible with the existing sediment.

(4) Any groin, jetty, solid pier, or other such solid fill structure which will interfere with littoral drift, in addition to complying with 310 CMR 10.27(3), shall be constructed as follows: (a) It shall be the minimum length and height demonstrated to be necessary to maintain beach form and volume. In evaluating necessity, coastal engineering, physical oceanographic and/or coastal geologic information shall be considered. (b) Immediately after construction any groin shall be filled to entrapment capacity in height and length with sediment of grain size compatible with that of the adjacent beach. (c) Jetties trapping littoral drift material shall contain a sand by-pass system to transfer sediments to the downdrift side of the inlet or shall be periodically redredged to provide beach nourishment to ensure that downdrift or adjacent beaches are not starved of sediments.

- **Not applicable.**

(5) Notwithstanding 310 CMR 10.27(3), beach nourishment with clean sediment of a grain size compatible with that on the existing beach may be permitted.

- **60± cubic feet of annual sand nourishment is proposed. The sand used for nourishment will be compatible with the existing sediment.**

WHEN A TIDAL FLAT IS DETERMINED TO BE SIGNIFICANT TO MARINE FISHERIES OR THE PROTECTION OF WILDLIFE HABITAT, 310 CMR 10.27(6) SHALL APPLY:

(6) In addition to complying with the requirements of 310 CMR 10.27(3) and (4), a project on a tidal flat shall if water-dependent be designed and constructed, using best available measures, so as to minimize adverse effects, and if non-water-dependent, have no adverse effects, on marine fisheries and wildlife habitat caused by: (a) alterations in water circulation; (b) alterations in the distribution of sediment grain size; and (c) changes in water quality, including, but not limited to, other than natural fluctuations in the levels of dissolved oxygen, temperature or turbidity, or the addition of pollutants.

- **Not applicable.**

(7) Notwithstanding the provisions of 310 CMR 10.27(3) through (6), no project may be permitted which will have any adverse effect on specified habitat sites or rare vertebrate or invertebrate species, as identified by procedures established under 310 CMR 10.37.

- **The project is within an NHESP Estimated and Priority Habitat. We have filed an application with NHESP, and we will address with NHESP and the Conservation Commission any potential issues that may arise from NHESP review.**

SECTION 10.30 – COASTAL BANKS

WHEN A COASTAL BANK IS DETERMINED TO BE SIGNIFICANT TO STORM DAMAGE PREVENTION OR FLOOD CONTROL BECAUSE IT SUPPLIES SEDIMENT TO COASTAL BEACHES, COASTAL DUNES OR BARRIER BEACHES, 310 CMR 10.30(3) THROUGH (5) SHALL APPLY:

(3) No new bulkhead, revetment, seawall, groin or other coastal engineering structure shall be permitted on such a coastal bank except that such a coastal engineering structure shall be permitted when required to prevent storm damage to buildings constructed prior to the effective date of 310 CMR 10.21 through 10.37 or constructed pursuant to a Notice of Intent filed prior to the effective date of 310 CMR 10.21 through 10.37 (August 10, 1978), including reconstructions of such buildings subsequent to the effective date of 310 CMR 10.21 through 10.37, provided that the following requirements are met: (a) a coastal engineering structure or a modification thereto shall be designed and constructed so as to minimize, using best available measures, adverse effects on adjacent or nearby coastal beaches due to changes in wave action, and (b) the applicant demonstrates that no method of protecting the building other than the proposed coastal engineering structure is feasible. (c) protective planting designed to reduce erosion may be permitted.

- **The existing building (cottage) was constructed circa 1930.**
- **The proposed stone revetment, gabion baskets and fiber rolls are allowable due to the existing building being constructed prior to August 10, 1978.**
- **The project is designed to stabilize the Coastal Bank and to preserve the function of the Coastal Bank to serve as a sediment source. 60± cubic feet of annual sand nourishment of the Coastal Beach is proposed to offset the annual erosion. The annual nourishment is expected to also provide nourishment for downdrift beaches.**
- **Please refer to the enclosed Alternative Analyses for an explanation of why the project as proposed is the only acceptable solution for the site.**

(4) Any project on a coastal bank or within 100 feet landward of the top of a coastal bank, other than a structure permitted by 310 CMR 10.30(3), shall not have an adverse effect due to wave action on the movement of sediment from the coastal bank to coastal beaches or land subject to tidal action.

- **The proposed shore protection is located further landward than the existing revetment and is designed to minimize interaction with waves, as well as any effect on the movement of sediment from the Coastal Bank to the Coastal Beach.**
- **The project is designed to improve conditions at the site by stabilizing the Coastal Bank and minimizing erosion by providing annual sand nourishment.**

(5) The Order of Conditions and the Certificate of Compliance for any new building within 100 feet landward of the top of a coastal bank permitted by the issuing authority under M.G.L. c. 131, § 40 shall contain the specific condition: 310 CMR 10.30(3), promulgated under M.G.L. c. 131, § 40, requires that no coastal engineering structure, such as a bulkhead, revetment, or seawall shall be permitted on an eroding bank at any time in the future to protect the project allowed by this Order of Conditions.

- **Not applicable.**

WHEN A COASTAL BANK IS DETERMINED TO BE SIGNIFICANT TO STORM DAMAGE PREVENTION OR FLOOD CONTROL BECAUSE IT IS A VERTICAL BUFFER TO STORM WATERS, 310 CMR 10.30(6) THROUGH (8) SHALL APPLY:

(6) Any project on such a coastal bank or within 100 feet landward of the top of such coastal bank shall have no adverse effects on the stability of the coastal bank.

- **The project is designed to stabilize the Coastal Bank rather than have an adverse effect on the stability of the Coastal Bank.**

(7) Bulkheads, revetments, seawalls, groins or other coastal engineering structures may be permitted on such a coastal bank except when such bank is significant to storm damage prevention or flood control because it supplies sediment to coastal beaches, coastal dunes, and barrier beaches.

- **No bulkheads, seawalls or groins are proposed.**
- **The proposed shore protection is designed to stabilize the Coastal Bank and to preserve the function of the Coastal Bank to serve as a sediment source.**
- **60± cubic feet of annual sand nourishment of the Coastal Beach is proposed to offset the annual erosion.**

(8) Notwithstanding the provisions of 310 CMR 10.30(3) through (7), no project may be permitted which will have any adverse effect on specified habitat sites of rare vertebrate or invertebrate species, as identified by procedures established under 310 CMR 10.37.

- **The project is within an NHESP Estimated and Priority Habitat. We have filed an application with NHESP, and we will address with NHESP and the Conservation Commission any potential issues that may arise from NHESP review.**
- **The project as designed will have no adverse effect on marine fisheries or shellfish beds. No work is proposed below the mean high-water mark.**

Please contact me if you have any questions.

Sincerely,



Bryan Collins

May 12, 2023

West Tisbury Conservation Commission
PO Box 278
West Tisbury, MA 02575

Re: **Paul's Point Area Realty, L.L.C.**
Assessor's Map 6 and Parcel 6
271 John Cottle Road
West Tisbury, MA
Shore Protection

Dear Commission Members:

The following addresses the Town of West Tisbury Wetlands Protection Bylaw Regulations Performance Standards:

SECTION IV – BUFFER ZONE

C. Performance Standards

The Buffer Zone shall be presumed significant to the resource values protected by the Bylaw as referenced in Section I; therefore, the following regulations shall apply:

1. **No-Disturbance Zone**

That portion of the buffer zone extending twenty-five (25) feet from the wetland, bank, dune, or water body defining the buffer zone's inner edge, is designated as a NoDisturbance Zone. No activity/alteration will normally be permitted within this twentyfive (25) foot No Disturbance Zone. It is presumed that this first twenty-five (25) feet of the Buffer Zone is essential to the interests associated with the adjacent resource area. Alterations, including but not limited to grading, landscaping, removing (clearing or cutting) of vegetation, filling, excavating, operation of vehicles or machinery, paving, and construction of roads shall not be permitted in a No-disturbance Zone. The Commission may impose such additional requirements as are necessary to protect the resource values protected by the Bylaw including but not limited to requiring that a buffer strip be created where none currently exists, due to previous activities.

- **The project consists of the removal of a failing revetment and the construction of a shore protection within the No-Disturbance Zone of a Coastal Bank. The project is designed to stabilize the Coastal Bank by minimizing erosion.**
- **Access to the project site during construction is proposed via an existing driveway located on Assessor's Parcel 6-7.2 (245 John Cottle Road) and Assessor's Parcel 6-7.4 (257 John Cottle Road).**
- **Any disturbances that will be required for the project are proposed to be repaired.**

- **A Waiver Request pursuant to Section IV.C.1. of the West Tisbury Wetlands Protection Bylaw Regulations is included this Notice of Intent for work in the No-Disturbance Zone.**
2. No-Build Zone.
No structure as defined in these regulations or roads and paths will normally be permitted within the first fifty (50) feet upland of a resource area.
 - **Not applicable.**
 3. Outer Buffer Zone.
The Outer Buffer Zone consists of all areas in the Buffer zone not located in a No Disturbance Zone or No-Build Zone. No activity/alteration shall be permitted in the Outer Buffer Zone that is more likely than not to harm or eventually harm the Buffer Zone or the adjacent resource area.
 - **Not applicable.**
 4. Waiver
Notwithstanding any of the foregoing prohibitions, the Commission may allow certain activities or structures in a No-Disturbance or No Build Zone by waiver, as provided in Section III. N of these regulations, when no other practicable alternative exists. Petitions for a waiver shall be included in writing in the Notice of Intent filed under the Bylaw.
 - **A Waiver Request is included with this Notice of Intent.**
 - **Please refer to the Alternative Analyses section for an explanation of why the project as proposed is the only acceptable solution for the site.**
 5. The Commission may impose such additional requirements as are necessary to protect the resource values protected by the Bylaw.

SECTION V- LAND UNDER THE OCEAN

C. Performance Standards

Land under the ocean and land within 100 feet of land under the ocean shall be presumed significant to the resource values protected by the Bylaw as referenced in Section I; therefore, the following regulations shall apply:

1. Improvement and maintenance dredging for navigational purposes shall be designed and carried out using the best available measures as determined by the Commission so as to have the least possible adverse effects or changes in marine productivity caused by changes in, or resulting from suspension or transport of pollutants, sediment transport, smothering of bottom organisms, accumulation of pollutants by organisms, destruction of habitat or nutrient source areas, or changes in water circulation and water quality. Dredging, particularly improvement dredging, shall also use such best available measures to minimize adverse effects caused by changes in bottom topography resulting in an increase in the height and velocity of waves hitting the shore, localized changes in circulation patterns or

changes in sediment transport which affect natural replenishment of beaches or maintenance of channels.

- **Not applicable.**
2. There shall be no new residential piers as per the Wild and Scenic North Shore District DCPC dated March 22, 2001 as may be amended.
 - **Not applicable.**
 3. Aquaculture projects shall be undertaken pursuant to such means as may be established by the Commission so as to have the least possible adverse effect on wildlife, erosion control, storm damage prevention, or flood control. No destruction of habitat or areas where shellfish feed, or change in water quality or circulation in any manner that adversely affects productivity of marine fisheries or shellfish beds shall be permitted.
 - **Not applicable.**
 4. No new bulkheads or coastal engineering structures shall be permitted to protect residential structures and accessory buildings constructed or substantially improved after the effective date of the Bylaw. Bulkheads may be rebuilt only if the Commission determines that there is no environmentally better way to control an erosion problem, including in an appropriate case the moving of the threatened building. Other coastal engineering structures may be permitted only upon a clear showing that no other alternative exists to protect a structure built prior to the effective date of the Bylaw but not substantially improved, from imminent danger.
 - **The existing residential structure (cottage) was constructed circa 1930.**
 - **The proposed stone revetment, gabion baskets and fiber rolls are allowable due to the existing residential structure (cottage) being constructed prior to the implementation of the Town of West Tisbury Wetlands Protection Bylaw Regulations, which was June 3, 2004.**
 - **No bulkheads are proposed.**
 - **Please refer to the Alternative Analyses section for an explanation of why the project as proposed is the only acceptable solution for the site.**
 5. Water dependant projects shall be designed and performed so as to cause no adverse effects on wildlife, erosion control, marine fisheries, shellfish beds, storm damage prevention, or flood control.
 - **The project falls within an NHESP Estimated and Priority Habitat. We have filed an application with NHESP, and we will address with NHESP and the Conservation Commission any potential issues that may arise from NHESP review.**
 - **The project as designed will have no adverse effect on erosion control. Current data available from the Massachusetts Office of Coastal Zone Management shows the average annual rate of erosion to be approximately 0.35' per year. The project is designed to offset the annual erosion at the site by stabilizing the Coastal Bank rather than cause an adverse effect on erosion control.**

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- **The project as designed will have no adverse effect on marine fisheries or shellfish beds. No work is proposed within the intertidal zone, which eliminates impacts on marine fisheries and shellfish beds.**
 - **The project as designed will not cause an adverse effect on storm damage prevention or flood control. The height of the Coastal Bank and the topography inland of the Coastal Bank will not be altered.**
 - **The floodzone is a VE-Zone elevation 13.0, the top of the proposed stone revetment is at elevation 10.0 (NAVD 1988 Datum).**
6. No activity on land under the ocean that is not water dependent shall be permitted by the Commission except activity allowed pursuant to a waiver from these regulations as set forth in Section III.N.
- **Not applicable.**
7. The Commission may impose such additional requirements as are necessary to protect the resource values protected by the Bylaw.

SECTION VI- COASTAL BEACHES

C. Performance Standards

A coastal beach and land within 100 feet of a coastal beach shall be presumed significant to the resource values protected by the Bylaw as referenced in Section I; therefore, the following regulations shall apply:

1. The provisions of Section V (Land under the Ocean) shall apply to coastal beaches.
2. Clean fill of similar grain size and type may be used on a coastal beach only if the Commission authorizes its use and such fill is to be used for a beach or dune nourishment project. All possible mitigation measures shall be taken, as determined by the Commission, to limit the adverse affects of the fill.
 - **The project includes 60± cubic yards of annual sand nourishment on the Coastal Beach to offset the average annual erosion rate of 0.35'. The sand used for nourishment will be compatible with the existing sediment.**
3. No part of any septic system shall be placed in shifting sands or on a coastal beach. The septic leach facility shall be at least 100 feet from a coastal beach.
 - **Not applicable.**
4. All work on projects that are not water dependent shall maintain at least a 25-foot natural undisturbed area adjacent to a coastal beach. All structures that are not water dependent shall be at least 50 feet from a coastal beach.
 - **Not applicable.**

5. In areas of eroding shore line, the distance from all buildings to the coastal beach shall be at least 20 times the average rate of annual shoreline erosion or 100 feet, whichever is the greater. The average annual shoreline erosion rate shall be determined by averaging the annual erosion rate over a 150-year period ending on the date the Notice of Intent was filed, or if no Notice of Intent was filed, the date construction began. If erosion data is not available for the 150-year period, the Commission shall determine the average annual erosion rate from such lesser time period for which erosion data is available. In cases where documentation can be provided to show that the use of the 150-year period is inappropriate to existing shoreline characteristics and trends, alternate shoreline change rates may be used when based on a preponderance of credible evidence.
 - **Not applicable.**
6. Vehicular access for existing houses or for recreational use shall be as unpaved ways and shall be done in accordance with such procedures as the Commission determines will minimize any adverse effect on the beach and the resource values protected by the Bylaw.
 - **Not applicable.**
7. The Commission may impose such additional requirements as are necessary to protect the resource values protected by the Bylaw.

SECTION IX – COASTAL BANKS

C. Performance Standards

Coastal Banks and land within 100 feet of a coastal bank shall be presumed significant to the resource values protected by the Bylaw as referenced in Section I; therefore, the following regulations shall apply:

1. No new bulkheads, coastal revetments, groins, or other coastal engineering structures shall be permitted to protect structures constructed or substantially improved after the effective date of the Bylaw except for public infrastructures. Bulkheads and groins may be rebuilt only if the Commission determines there is no environmentally better way to control an erosion problem, including in appropriate cases the moving of the threatened building and/or public infrastructure. Other coastal engineering projects may be permitted only upon a clear showing that no alternative exists to protect from imminent danger, a structure that had been substantially improved or built prior to the effective date of the Bylaw.
 - **The existing structure (cottage) was constructed circa 1930.**
 - **No new bulkheads, coastal revetments or groins are proposed.**
 - **The proposed stone revetment, gabion baskets and fiber rolls are allowable due to the existing structure (cottage) being constructed prior to the implementation of the Town of West Tisbury Wetlands Protection Bylaw Regulations, which was June 3, 2004.**
 - **The fiber rolls supported by gabion baskets will absorb reflected wave energy at the two ends of the revetment, which is where the highest wave energy occurs.**
 - **Please refer to the enclosed Alternative Analyses for an explanation of why the project as proposed is the only acceptable solution for the site.**

2. Piers shall be constructed and maintained in compliance with Section XXII.
 - **Not applicable.**
3. All projects shall be restricted to activity determined by the Commission to have no adverse effect on bank height, bank stability, wildlife habitat, vegetation or the use of the bank as a sediment source.
 - **The project as designed will not have an adverse effect on Bank height. The project will not change the height of the Coastal Bank nor alter the topography inland of the Bank.**
 - **The project as designed will not have an adverse effect on Bank stability. Current data available from the Massachusetts Office of Coastal Zone Management shows the annual rate of erosion to be 0.35' per year. The project will increase the stability of the Coastal Bank by minimizing erosion.**
 - **The project falls within an NHESP Estimated and Priority Habitat. We have filed an application with NHESP, and we will address with NHESP and the Conservation Commission any potential issues that may arise from NHESP review.**
 - **No adverse effect on the Coastal Bank vegetation is expected.**
 - **The project is designed to absorb and deflect wave energy and stabilize the Coastal Bank without negatively impacting the function of the Coastal Bank to serve as a sediment source.**
4. Any pedestrian walkway must be designed as determined by the Commission so as to minimize disturbances of vegetative cover.
 - **Not applicable.**
5. All projects that are not water dependent shall maintain at least a 25-foot natural undisturbed area adjacent to a coastal bank. All structures that are not water dependent shall be at least fifty (50) feet from a coastal bank.
 - **Not applicable.**
6. Any septic leach facility of a septic system shall be at least 100 feet, measured horizontally from the spring high tide line and shall not be located within the face of a coastal bank.
 - **Not applicable.**
7. In areas of eroding shore line, the distance from all buildings to the coastal bank shall be at least 20 times the average rate of annual shoreline erosion or 100 feet, whichever is the greater. The average annual shoreline erosion rate shall be determined by averaging the annual erosion rate over a 150-year period ending the date the NOI was filed, or if no NOI was filed the date construction was begun. If erosion data is not available for the 150- year period, the Commission shall determine the average annual erosion rate from such lesser time period for which erosion data is available. In cases where documentation can be provided to show that the use of the 150- year period is inappropriate to existing shoreline characteristics and trends, alternate shoreline change rates may be used when based on a preponderance of credible evidence.
 - **Not applicable.**

8. All permits issued for the construction of buildings under the Bylaw within 100 feet landward of the top of a coastal bank shall contain the specific condition that no coastal engineering structure of any kind shall be permitted on an eroding bank in the future to protect the project allowed by this permit, except those coastal engineering structures allowed by a waiver pursuant to Section III.N of these regulations.
 - **Not applicable.**
9. The Commission may impose such additional requirements as are necessary to protect the resource values protected by the Bylaw.

SECTION XIII - LAND SUBJECT TO COASTAL STORM FLOWAGE

C. Performance Standards

Land subject to coastal storm flowage shall be presumed significant to the resource values protected by the Bylaw; therefore the following regulations shall apply: (Specific resource areas that lie within the area of land subject to coastal storm flowage and the wetland values they protect are otherwise addressed elsewhere in these regulations. The regulations concerning those areas are additional to the regulations set forth in this section.)

1. The work shall not reduce the ability of the land to absorb and contain floodwater, or to buffer inland areas from flooding and wave damage.
 - **The project as proposed will not change the height of the Bank or the topography inland of the Coastal Bank.**
 - **The 100-Year Flood is at elevation 13 (Zone VE). The top of the proposed revetment is at elevation 10.0 (NAVD 1988 Datum)**
 - **The fiber rolls are not considered a coastal engineering structure and are porous.**
2. A project shall not cause ground, surface, or salt-water pollution triggered by coastal storm flowage. All septic systems and leach facilities shall be outside the 100-year floodplain. All private fuel tanks shall be located outside the 100-year flood plain. Commercial tanks shall be located outside the 100-year floodplain, or if the Commission determines that this is not practicable, the commercial tanks shall be secured so that they cannot float loose.
 - **Not applicable.**
3. When a swimming pool is allowed to be built within the 100-year floodplain it shall be constructed and maintained according to the best available measures so as to ensure that it cannot affect groundwater, freshwater, or salt-water quality in the event that it is flooded.
 - **Not applicable.**
4. Building upon areas subject to coastal storm flowage in locations where such structures would be subject to storm damage may not be permitted. If permitted, all construction must be in compliance with state and local building code regulations for flood hazard areas.
 - **Not applicable.**

5. The Commission may impose such additional requirements as are necessary to protect the interests protected by the Bylaw.

SECTION XXI - ESTIMATED HABITATS OF RARE SPECIES AND WILDLIFE (Inland and Coastal Wetlands)

C. Performance Standards

Estimated habitat of rare species and wildlife shall be presumed significant to the resource values protected by the Bylaw as referenced in Section I, therefore the following regulations shall apply:

1. If a project is within estimated habitat on the most recent map published by the Program the applicant shall comply with the procedures set forth in 310 CMR 10.37.
 - **The project falls within an NHESP Estimated and Priority Habitat. We have filed an application with NHESP, and we will address with NHESP and the Conservation Commission any potential issues that may arise from NHESP review.**
2. No activity shall be permitted that alters existing vegetation within twenty-five (25) feet of verified estimated habitat of rare species and wildlife.
 - **The project falls within an NHESP Estimated and Priority Habitat. We have filed an application with NHESP, and we will address with NHESP and the Conservation Commission any potential issues that may arise.**
 - **The activity is not expected to be within twenty-five feet of Verified Estimated Habitat of Rare Species and Wildlife.**
3. No activity shall be permitted that results in the construction or enlargement of a structure within fifty (50) feet of verified estimated habitat of rare species and wildlife.
 - **The project falls within an NHESP Estimated and Priority Habitat. We have filed an application with NHESP, and we will address with NHESP and the Conservation Commission any potential issues that may arise.**
 - **The activity is not expected to be within fifty feet of Verified Estimated Habitat of Rare Species and Wildlife.**
4. No alteration of topography (filling or cutting) and/or drainage characteristics shall be permitted within fifty (50) feet of verified estimated habitat of rare species and wildlife.
 - **The project falls within an NHESP Estimated and Priority Habitat. We have filed an application with NHESP, and we will address with NHESP and the Conservation Commission any potential issues that may arise from NHESP review.**
 - **No alteration of topography and/or drainage characteristics is expected to be within fifty feet of verified Estimated Habitat of Rare Species and Wildlife.**
5. No new construction or enlargement of drainage facilities within twenty-five (25) feet of verified estimated habitat of rare species and wildlife shall be permitted.

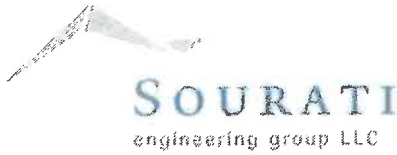
- **Not applicable.**
6. No part of any septic leach facility of a septic system shall be placed within 100 feet of verified estimated habitat of rare species and wildlife.
 - **Not applicable.**
 7. The Commission may impose such additional requirements as are necessary to protect the resource values protected by the Bylaw.

Please contact me if you have any questions.

Sincerely,



Bryan Collins



www.souratigroup.com

Martha's Vineyard Office
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Phone: 508-228-7888, Fax: 508-228-5511

May 31, 2023

West Tisbury Conservation Commission
P.O. Box 278
West Tisbury, MA 02575

RE: **Waiver Request**
Paul's Point Area Realty, L.L.C.
Assessor's Map 6 Parcel 6
271 John Cottle Road
West Tisbury, MA
Shore Protection

Dear Commission Members:

On behalf of our client, Paul's Point Area Realty, L.L.C., we are requesting a waiver pursuant to Section III.N of the West Tisbury Wetlands Protection Bylaw Regulations of the Performance Standards for Buffer Zones:

Section	Zone	Waiver Request
IV.C.1	No-Disturbance Zone	<ul style="list-style-type: none"> To allow the construction of a temporary construction access road to allow vehicular access to the Beach for the construction of the project To allow the removal of an existing revetment that is failing To allow the construction of a shore protection consisting of a stone revetment as well as fiber rolls supported by gabion baskets To allow annual Beach nourishment in the area of the proposed shore protection

Please contact me if you have any questions.

Sincerely,

Bryan Collins
SEG 1016153

May 31, 2023

West Tisbury Conservation Commission
PO Box 278
West Tisbury, MA 02575

Re: **Paul's Point Area Realty, L.L.C.**
Assessor's Map 6 and Parcel 6
271 John Cottle Road
West Tisbury, MA
Shore Protection

Below is an Analysis of Alternatives pursuant to the Performance Standards set forth in the West Tisbury Wetlands Protection Bylaw Regulations and the Wetlands Protection Act 310 CMR 10.00:

Alternative Analysis 1 – Doing Nothing

Sourati Engineering Group LLC has been monitoring the existing revetment over the past 15 years and has observed settlement throughout the revetment and slumping of the Coastal Bank, including slumping at the top of the Coastal Bank. In recent years, the rate of this occurrence has increased. If the existing revetment and the areas adjacent to the revetment are not addressed, the erosion of the Coastal Bank will continue unabated, and the existing cottage will eventually topple and fall off the Coastal Bank. Therefore, doing nothing is not an option.

→ **Alternative Analysis 2 – Relocate the Existing Cottage**

The existing cottage was constructed circa 1930. The existing revetment is currently protecting the cottage, which is located 16'± from the top of the eroding Coastal Bank. Relocating the existing cottage is not necessary as long as a revetment is in place. Removing the revetment without providing an alternative is not an option, as erosion of the Coastal Bank will resume, and a large portion of the Coastal Bank and locus property is expected to be lost to erosion. In addition, the cottage, which is prominently visible from Lambert's Cove Beach and the surrounding areas, has been a landmark in the neighborhood for decades. Due to the existing cottage being constructed prior to August 10, 1978, per the regulations set forth under the Wetlands Protection Act (310 CMR 10.00), the owner is allowed to keep the cottage in its present location.

*Don't move
it if sand
be moved.*

Alternative Analysis 3 – Protect the Coastal Bank with Coir Fiber Rolls (100% soft solution)

A 100% “soft” solution would involve stabilizing the Coastal Bank using only coir fiber rolls. Fiber rolls would have to be placed below the high-water elevation. There is little to no Beach in front of the existing revetment. Fiber rolls are not meant to be installed below the high tide line, even on a seasonal basis, because they will quickly degrade due to regular scour when they are inundated. This would decrease their design life from over 20 years to approximately 3 years. When the lower fiber rolls degrade, the system will likely collapse upon itself, triggering re-construction of the entire fiber roll array and dramatically setting back efforts to colonize the array with native maritime plants. In addition, fiber rolls are not designed to be installed in areas of high wave energy, such as this headland. Therefore, using exclusively fiber rolls for the Coastal Bank stabilization is not a viable option at this site.

Alternative Analysis 4 – Protect the Coastal Bank with Coir Envelopes (100% soft solution)

A 100% “soft” solution would involve stabilizing the Coastal Bank using only coir envelopes. Coir envelopes would have to be placed below the high-water elevation. There is little to no Beach in front of the existing revetment. Fiber rolls are not meant to be installed below the high tide line, even on a seasonal basis, because they will quickly degrade due to regular scour when they are inundated. While coir envelopes above the anticipated high-water elevation will be successful in absorbing wave action and will have a long design life, envelopes that are inundated will degrade and cause the system above to collapse in itself. This would trigger re-construction of the entire array and dramatically set back efforts to colonize the array with native maritime plants. Therefore, using exclusively coir envelopes for the Coastal Bank stabilization is not a viable option at this site.

Alternative Analysis 5 – Protect the Coastal Bank with a Revetment (100% hard solution)

A 100% “hard” solution would involve stabilizing the Coastal Bank with a revetment only. Although using a revetment only will protect the existing cottage, wave energy deflected at each end of the revetment will cause substantially more erosion than the currently proposed shore protection. The construction of a revetment only is not the best solution at this site.

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January 18, 2023

West Tisbury Conservation Commission
PO Box 278
West Tisbury, MA 02575

Re: **Paul's Point Area Realty, L.L.C.**
Assessor's Map 6 and Parcel 6
271 John Cottle Road
West Tisbury, MA
Shore Protection

The following is a calculation of the sand nourishment requirements for the project:

Annual Erosion Rate:

Source: Massachusetts Office of Coastal Zone Management (CZM):

Shoreline Change Transect	Annual Erosion
MV-2261	-0.66' / year
MV-2262	-0.59' / year
MV-2263	-0.16' / year
MV-2264	0' / year
Total	-1.41
Average (Total / 4)	-0.35' / year

Length of shore protection:.....367'

Average height of Coastal Bank:.....26'

Height of Coastal Bank for calculation:.....13' (50%)

Erosion rate:.....0.35' / year

Equation to calculate nourishment requirements:

(Length of shore protection) x (Height of Coastal Bank) x (Rate of erosion) = (Volume of nourishment)

$(367') \times (13') \times (0.35'/yr) = 1,669.85 \text{ cubic feet} / 27 = \mathbf{61.84\pm \text{ cubic yards}}$

**Shoreline Change Map by the Massachusetts Office of Coastal Zone Management
Map Date 01/2022**

Shoreline Change Transects

High Water Shorelines (1800s-2009)

- 1844 - 1897
- 1909 - 1938
- 1943 - 1969
- 1970 - 1982
- 1994
- 2000
- 2001
- 2007 - 2009

Massachusetts Municipal Boundaries Lines

- Towns
- Interstate
- Coast

Geographic Place Names - Hypsographic Features

New England



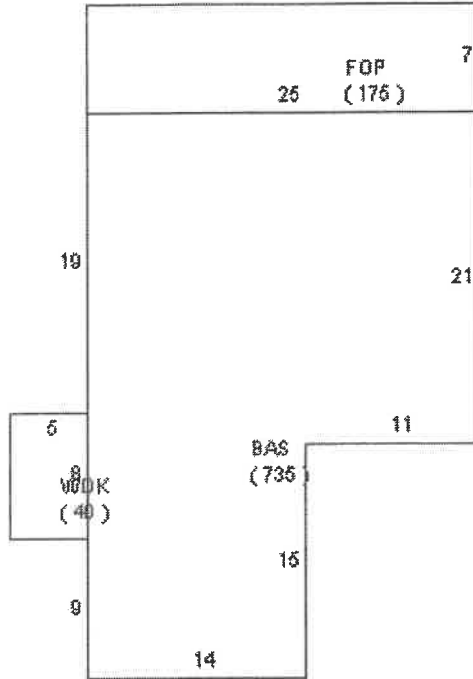
Ocean



101615B
Paul's Point Area Realty, L.L.C.
271 John Cottle Road
Map 6 Parcel 6
West Tisbury, MA

Building Exterior

Gross Area SqFt: 12852
Finished Area SqFt: 9398



Data shown on this report is provided for planning and informational purposes only. The municipality and CAI Technologies are not responsible for any use for other purposes or misuse or misrepresentation of this report.



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May 31, 2023

West Tisbury Conservation Commission
P.O. Box 278
West Tisbury, MA 02575

**RE: Work Protocol for Fiber Roll & Gabion Basket Installation
Paul's Point Area Realty, L.L.C.
Assessor's Map 6 Parcel 6
271 John Cottle Road
West Tisbury, MA
Shore Protection**

Dear Commission Members:

The following is a work protocol for the installation of the gabion baskets and fiber rolls. Prior to the installation of the gabion baskets and fiber rolls, minor reshaping of the face of the Bank will be required. Once the revetment is constructed, the installation of the gabion baskets will proceed, followed by the installation of the fiber rolls, starting with the lowest courses of gabion baskets and fiber rolls, respectively.

Gabion Baskets:

The gabion baskets are 24" wide, 12" deep and 6" high. The baskets will be constructed of corrosion-resistant materials and will be filled with crushed stone. The gabion baskets will be assembled off-site and brought to the Beach on pallets, via the proposed construction access road.

The construction area on the Beach will be accessed via an existing driveway located on Assessor's Parcel 6-7.2 (245 John Cottle Road) and Assessor's Parcel 6-7.4 (257 John Cottle Road). A temporary construction access road on the Beach is proposed between the existing driveway located on Assessor's Parcel 6-7.4 (257 John Cottle Road) and the site of the proposed shore protection. All work will be performed from the Beach, no work will be performed from the top of the Bank.

The face of the Bank will be shaped with the use of an excavator to allow the installation of the gabion baskets at the specified elevation and slope. No off-site soil will be brought to the property for the installation of the gabion baskets. Sediment from the Bank will be reused for final backfill over the gabion baskets. Filter fabric will be placed on the face of the shaped Bank prior to the installation of the gabion baskets.

Fiber Rolls

After the Bank is shaped and the gabion baskets are installed, the installation of the fiber rolls will commence. Filter fabric will be placed on the face of the shaped Bank prior to the installation of the fiber rolls. The fiber rolls will be encapsulated with two layers of 900-gram weight coir blankets and an additional layer of the same exterior material that the fiber rolls are manufactured of in order to provide additional protection of the fiber rolls from chafing and UV-degradation. The fiber rolls will be anchored into the Bank using Size DB88 Duckbill Anchors (or a comparable equivalent). After the installation of gabion baskets and fiber rolls is completed, bio-degradable erosion control blankets will be installed to facilitate planting of the upper portion of the Bank above the fiber rolls, as needed.

51-G-101615B