Vineyard Wind Maintenance Building
DRI 81-M3

Martha’s Vineyard Commission
June 16, 2022
Vineyard Wind Maintenance Building

Owner: Harborwood LLC (Sam Dunn); Vineyard Wind would assume ownership upon receipt of MVC and Conservation Commission approvals

Applicant: Harborwood LLC (Sam Dunn); Vineyard Wind 1 LLC (Sarah Schweitzer, Jack Arruda), Foth Engineering (Carlos Pena), Vineyard Power (Richard Andre)

Proposal: Construction of Vineyard Wind operations and maintenance building

Zoning: Waterfront Commercial

Permits: Building permit, sewer flow approval (Select Board), Conservation Commission approval

Checklist: 3.1b (3,500+ ft² commercial development), 3.4b (Storage of fuel/hazardous materials)

Mandatory review

LUPC: 4/11/22, 5/10/22 – Voted to engage peer review for stormwater, and to waive independent traffic study

Site visit: 5/4/22
Additions during LUPC review

• Revised site plan, elevations, renderings
• Landscape/planting plan
• Utility narrative
• Summary of MVC policies related to floodplain construction
• Projected flood elevations (2050 and 2070)
• Response to staff questions about economic development
• Amendment to notice of option agreement
Additions since LUPC

• Final peer review letter regarding stormwater
• Updated existing conditions plan
• Updated floorplans, elevations, renderings
• Updated stormwater and impervious surface plans
Project history

• Property was subdivided into two lots with MVC approval in 2021, and Lot 1 was relabeled 69 Beach Road (Map 9, Block B, Lot 18.1).

• Lot 1 includes most of a 4,000 ft² commercial building constructed in 1978, and part of a smaller commercial building toward the back of the site.

• A large commercial building toward the front of the site was removed in 2019.

• Property is currently used for parking, commercial storage, and a food truck.

• Prior to subdivision, the property had been the subject of a DRI involving 52 residential units, but that proposal has been on hold since 2020.
Proposal

- Construct an approximately 36,000 ft\(^2\) operations and maintenance building to support the Vineyard Wind project south of the Island, including office space, storage, and parking.

- The property is mostly within the FEMA VE flood zone and the building would be elevated two feet above the base flood elevation, with parking below.

- Part of a larger operations and maintenance system for Vineyard Wind, including the expansion of the Tisbury Marine Terminal at 91 Beach Road (approved as DRI 277-M in 2021), and the development of a helicopter hangar at the Martha’s Vineyard Airport (under review as DRI 726).
## Proposal: Square footage breakdown

<table>
<thead>
<tr>
<th>Area</th>
<th>Square Footage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Footprint</td>
<td>11,200 ft²</td>
</tr>
<tr>
<td>Lower floor parking</td>
<td>11,200 ft²</td>
</tr>
<tr>
<td>Main floor interior</td>
<td>10,800 ft²</td>
</tr>
<tr>
<td>Warehouse</td>
<td>5,900 ft²</td>
</tr>
<tr>
<td>Support access</td>
<td>2,450 ft²</td>
</tr>
<tr>
<td>Locker rooms</td>
<td>1,250 ft²</td>
</tr>
<tr>
<td>Meeting room/canteen</td>
<td>1,200 ft²</td>
</tr>
<tr>
<td>Upper floor office area</td>
<td>2,900 ft²</td>
</tr>
</tbody>
</table>
Planning concerns

• Stormwater and drainage
• Wastewater
• Traffic and transportation
• Economic development and housing
• Energy
• Character and identity
• Landscape and lighting
Stormwater and drainage

• The site is mostly within the FEMA VE flood zone.

• The area currently has about a 25-50% annual chance of flooding, which will likely increase to 50-75% by 2030, and to more than 75% by 2070. (The building has an expected lifespan of 60+ years with proper maintenance.)

• First floor of the proposed building would be elevated two feet above the current base flood elevation, as required under the state building code, with parking below.

• The parking area would be at least partly open on all sides to allow floodwaters to pass through, with the bottom of openings level with the parking surface. The applicant has stated that the openings will not be covered with breakaway fencing.

• The project is designed according to the 2016 FEMA Flood Insurance Rate Maps, which do not account for sea-level rise or storm surge.
Proposed Site Plan

for

Vineyard Wind J LLC

Scale 1" = 20'
May 6, 2022

Souers Engineering Group LLC

P.O. Box 4438
187 Beach Road, Suite 202
Vineyard Haven, MA 02568
Phone (508) 693-9933 Fax (508) 693-4153
Stormwater and drainage

Projected flood elevations for the property (accounting for sea-level rise and 100-year storm) would likely be about 11.5 feet above NAVD88 in 2050, and 13.5 feet in 2070.

• Based on MassDOT Flood Risk Model and “High” mean sea-level scenario (consistent with standards adopted by ResilientMA and MA Coastal Zone Management).

• Projected flood elevations would be lower than proposed first floor.
Stormwater and drainage

- The applicant has stated that any future raising of Beach Road as a result of sea-level rise could likely be accommodated, but could result in the parking area being lower than the road. In that case, it is not clear how floodwaters would be dispersed.

- Apart from storm surge, the property has been the subject of occasional flooding during and after rainfall. According to Sourati Engineering, groundwater monitoring data from 2020-2022 shows that this flooding is the result of runoff from adjacent properties, rather than from groundwater, although the water table is at a shallow depth.
Stormwater and drainage

- The site is currently lower than the abutting properties, and would be raised about 3-4 feet in an effort to mitigate flooding.

- The applicant has characterized the proposed regrading as minor under the state residential building code, but the residential code does not apply to commercial projects and does not elaborate on minor regrading.

- Plans show that the property would be about four feet higher than the parcel to the west, with a drainage swale in between.

- Plans and renderings have shown retaining walls along Beach Road and along the driveway on the eastern side of the building.
Stormwater and drainage

• In general, adding fill to land in a flood zone is not an accepted practice, as it can cause stormwater to be diverted onto nearby properties where it can cause damage.

• Tisbury Wetlands Bylaw regulations state that “work shall not reduce the ability of the land to absorb and contain floor water or to buffer inland areas from flooding and wave damage.”

• The proposed regrading is subject to Conservation Commission review and approval.
Stormwater and drainage

- The site is currently about 85% impermeable as a result of previous and existing uses, and the impermeable area would be reduced to about 43%.

- However, the applicant has stated that the existing 4,000 ft$^2$ commercial building will be reconstructed on the abutting property at 61 Beach Road (Lot 2 of the subdivision), which would increase the impermeable surface area on that property by 4,000 ft$^2$, with potential drainage impacts.

- A drainage plan designed for a 25-year storm event shows roof drains and a subsurface recharge chamber, as well as a drainage swale along the western edge of the property.
Scope of work:

1. Assess the Proposed Drainage Plan dated 3/9/22 and Stormwater Management System Report dated 3/3/22, by Field Engineering, along with the project plans and other related material provided by the applicant and MVC staff, to determine the plan’s adequacy in light of the following:
   a. The project’s location in the FEMA VE Zone
   b. Current and projected flood elevations and frequency of flooding in the area, as indicated by the MA Coastal Flood Risk Model and other relevant sources, and accounting for sea-level rise. (Suggested planning horizons would be 2050 and 2070.)
   c. The proposed building design, which is intended to allow flood water to pass through an open parking area below the first floor.
   d. Potential for the proposed grading and structures, including retaining walls, to divert floodwaters onto neighboring properties or create other storm-related hazards.

2. Identify and discuss any points of concern related to the drainage plan and provide recommendations for how they should be addressed or clarified, including whether there would be any stormwater management options that do not involve fill.
Stormwater peer review standards

• MVC Water Quality Policy
• MassDEP Stormwater Policy Standards (Wetland Protection Act)
• Tisbury zoning regulations
• FEMA/NFIP requirements
• MA Building Code
• Applied Army Corps of Engineers online sea-level rise models (target years 2050 and 2070).
Stormwater peer review

FINDINGS:

• Stormwater plan complies with state standards for discharge and infiltration, redevelopment projects, construction management, and long-term operations and maintenance of the system.
• Certain state stormwater standards do not apply to the project.
• The project appears to comply with Tisbury zoning regulations.
• Determining whether a project will create a “significant” obstruction during flooding events, per FEMA guidelines, is not an exact science. The retaining wall on the east side of the property would likely not create a significant obstruction, since the project is landward of Tisbury Marketplace.
• Proposed height of parking area complies with MA Building Code regulations.
• Base flood elevation would reach the bottom of the first floor by 2054, and the finished floor by 2078. (Army Corps model does not account for storm surge, so these dates may be on the later side.)
Stormwater peer review

RECOMMENDATIONS/CONCLUSIONS:

• Applicant should clarify how the soil type and stratum were determined
• To comply with Tisbury Wetland Regulations Section 2.1, the stormwater plan should be revised to exclude inorganic fertilizers.
• System appears to comply with stormwater policy as well as local regulations with the exception of lot coverage issues.
• GSE is in general agreement with the project design approach.
Wastewater

- Proposed building would be connected to the town sewer, with a proposed flow of between 550 and 800 gallons per day (GPD).

- When the property was subdivided last year, the lot in question was by default removed from the sewer district, so there was an article on the April 12 town meeting warrant to add Lot 1 to the district.

- Tisbury Wastewater Superintendent had set aside the required sewer flow of up to 800 GPD for the project.

- Proposed uses will include the storage of equipment and spare parts, including material classified as hazardous waste (waste oil, grease, refrigerants, etc.), the handling of which must comply with state regulations.
Utilities narrative

- **Water service** to the site will be provided by a 10” line that will be pressure tapped off the existing 12” main in Beach Street. The new service line will split once on site and will provide the flow for both fire protection and potable water.

- **Sanitary sewer** will be an injection force main that connects to the existing force main in Beach Road. Capacity of the receiving line has been verified with the Town Public Works and the exact location of the connection will be determined by the Town Public Works. The sanitary sewer line has been installed to the south side of the new sidewalk at the 69 Beach Road property.

- **Electric service** will be accomplished via an underground primary feed from a utility pole across Beach Road. The pole will be fitted with a vertical service drop to a handhole and conduits that will cross the street and terminate on the property. The work has been coordinated with the service provider.

- **Phone and internet** service will be provided via conduits under Beach Street from across the street and will be terminated on the property for future extension into the building.

- All of the above services are being coordinated in advance of the MassDoT Beach Road project and were to be in place prior to the final paving of the street.
Traffic and transportation

- The applicant estimates that the project will generate an average of 74 daily trips (including all-year and seasonal activity), with a peak of 80 daily trips in the summer.
- Traffic-generating activity would include deliveries and the arrival and departure of staff, including van trips.
- The proposed parking area underneath the building would have 25 parking spaces and elevator access to the first level.
- Vehicle access to the property would be via a single gravel driveway on the east side of the building, with a turnaround and loading dock to the rear of the building.
- Another loading area would be located at the parking level.
- A sidewalk and ramp along each side of the building would provide access for staff and visitors.
**Traffic Assumptions for 69 Beach Road, DRI 81-M3**  
1/13/2022

<table>
<thead>
<tr>
<th>Season</th>
<th>Destination</th>
<th>Item</th>
<th>Each</th>
<th>Trips/Day</th>
<th>Days*</th>
<th>Total</th>
<th>Days/Year</th>
<th>Average</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Year</td>
<td>Building</td>
<td>Delivery to 69 Beach</td>
<td>3</td>
<td>2</td>
<td>52</td>
<td>312</td>
<td>12360</td>
<td>360</td>
<td>34 deliveries assumed once a week from off island/elsewhere</td>
</tr>
<tr>
<td></td>
<td>Building</td>
<td>Staff Arriving/Departing</td>
<td>12</td>
<td>4</td>
<td>251</td>
<td>17048</td>
<td></td>
<td></td>
<td>site team staff arriving to work each day, conservative assumption which includes everyone leaving the site for lunch</td>
</tr>
<tr>
<td>Winter</td>
<td>Building</td>
<td>Techs Arriving/Departing</td>
<td>12</td>
<td>4</td>
<td>115</td>
<td>5520</td>
<td></td>
<td></td>
<td>technicians going to the office when weather is too poor to go offshore, conservative assumption which includes everyone</td>
</tr>
<tr>
<td></td>
<td>Building</td>
<td>Deliveries to Quayside and/or Airport</td>
<td>6</td>
<td>2</td>
<td>65</td>
<td>780</td>
<td>6300</td>
<td>180</td>
<td>deliveries to the quayside and/or airport when the weather is acceptable to take materials offshore, expected to occur out</td>
</tr>
<tr>
<td>Summer</td>
<td>Building</td>
<td>Techs Arriving/Departing</td>
<td>12</td>
<td>2</td>
<td>126</td>
<td>3024</td>
<td></td>
<td></td>
<td>technicians going to the office to be taken to the quayside to go offshore when the weather is acceptable, expected to occur out</td>
</tr>
<tr>
<td></td>
<td>Building</td>
<td>Van of Techs Arriving/Departing to the Quayside</td>
<td>4</td>
<td>2</td>
<td>126</td>
<td>1008</td>
<td></td>
<td></td>
<td>vans taking technicians to the quayside on weather acceptable days, expected to occur outside peak traffic hours, Note: In all likelihood many techs will walk from 69 Beach to the quayside rather than utilizing a van</td>
</tr>
<tr>
<td></td>
<td>Building</td>
<td>Deliveries to Quayside and/or Airport</td>
<td>6</td>
<td>2</td>
<td>126</td>
<td>1512</td>
<td></td>
<td></td>
<td>deliveries being taken to the quayside and/or airport on weather acceptable days, expected to occur outside peak traffic hours</td>
</tr>
<tr>
<td></td>
<td>Building</td>
<td>Techs Arriving/Departing</td>
<td>12</td>
<td>4</td>
<td>54</td>
<td>2592</td>
<td>8136</td>
<td>180</td>
<td>technicians going to the office when the weather is too poor to go offshore, conservative assumption which includes every</td>
</tr>
</tbody>
</table>

- **prior submission: -90** 74 average annual daily trips (average of winter & summer plus all year)  
- **prior submission: -105** 80 peak annual daily trip in the summer (summer + all year)

*Based on weather models: In the winter (Nov 1 - May 1), 65 good weather days are projected and 115 poor weather days are projected. In the summer (May 1 - Nov 1), 126 good weather days are projected and 54 poor weather days are projected.*
Economic development and housing

• The applicant has provided an Economic Narrative that covers the potential economic benefits of the project, as well as information about the anticipated jobs, and the applicant’s goals for providing housing to employees who will use the building.

• The applicant estimates the creation of 56 jobs, including 12-year-round onshore jobs, 24 year-round offshore jobs, and 20 seasonal offshore jobs.

• The offshore jobs would consist of rotating two-week shifts, so only up to 34 employees would be working at one time. Salaries would range from about $79,000 to $128,000.
### Table 2: Expected Jobs & Salaries at the O&M Support Building

<table>
<thead>
<tr>
<th>Jobs Associated</th>
<th>Range of Salaries</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All Year Onshore Site Staff Jobs</strong></td>
<td>12 Total Persons</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>All Year Offshore Technicians</strong></td>
<td>24 Total: Rotating 12 Techs on / 12 Techs off every 2 weeks</td>
</tr>
<tr>
<td><strong>Seasonal Offshore Technicians</strong></td>
<td>20 Total: Rotating 12 Techs on / 12 Techs off every 2 weeks</td>
</tr>
</tbody>
</table>

3The number of jobs associated at the O&M Support building is based on current project knowledge. The actual number of jobs in each category may be more or less than indicated in Table 2 and will be refined as the project progresses.
Economic development and housing

• The applicant expects 50% of the jobs to be filled by Island residents in year one, with a goal of increasing that to 75% in year three, and **100% in year five**. (Non-local workers would eventually be transitioned to off-Island work as more local workers are hired.)

• The applicant estimates that in year one, 18 workers will be “living locally,” meaning they will already have housing on the Island. (This estimate is based on the applicant’s direct knowledge of the local workforce.)

• The remaining workers, accounting for the two-week shifts, would indicate a need for **21 beds in year one**.

• The applicant has further clarified that the goal is to make available on-Island market-rate rental housing to any worker who needs it. (Need will be measured at CO, years 3 and 5, and most 5-year intervals.)

• Vineyard Wind 1 LLC has signed a Memorandum of Understanding with the Island-based developer Delano & Co. to secure up to 15 units of workforce housing on the Island, including up to 10 units at 4 State Road and additional units at 52 William St. in Tisbury.

• The applicant has stated that additional agreements regarding workforce housing are underway.
Other planning concerns

**Energy:** The applicant anticipates installing rooftop solar with a capacity of about 50kW (pending final building design) on the eastern portion of the roof, and 3-5 electric vehicle charging stations.

**Character and Identity:**

- The building will be located in the vicinity of other light industrial and water-dependent uses in the Waterfront Commercial district.
- The exterior of the building will be wood panel.
- The side of the building facing Tisbury Marketplace would have fewer windows, in part because views in that direction would be limited, and there would likely be warehouse shelving on the inside.
- Renderings and elevations show a Vineyard Wind logo and wave pattern on the side of the building.
- The proposed building would be 36 feet at the highest point (42 feet above sea level).
Other planning concerns

**Landscape and Lighting:**

- The applicant had stated that two existing honey locust trees along the road will remain, with two new honey locust trees added.
- The open parking area below would be partially screened by vegetation in front.
- The applicant has stated that if required by the MVC, the project will use native alternatives to lawn, including plant species used at the nearby Boch Park, which were approved by the Conservation Commission.
- The applicant has stated that green space would be open to the public.
- *Grass lawns are generally not acceptable in a velocity zone, and staff has recommended that the applicant cover most of the site with strongly rooted native and/or naturalized vegetation that is adapted to the local climate.*
- The applicant has stated that lighting will be limited to what is required for pedestrian and vehicles access and security, and that the fixtures will be Dark Sky compliant.
PREVIOUS

REVISED