APPLICANT & PROPERTY OWNER:
CAPE HENRY STATION, LLC

STAFF PLANNER: Carolyn A.K. Smith

REQUEST: Conditional Use Permit (wind energy conversion system)

ADDRESS / DESCRIPTION: 2817-2820 Shore Drive

GPIN: 15904016980000
ELECTION DISTRICT: LYNNHAVEN
SITE SIZE: 225,632 square feet
AICUZ: Less than 65 dB DNL

SUMMARY OF REQUEST

The applicant requests a Conditional Use Permit to allow a wind energy conversion system (WECS).

The applicant proposes to install a white aluminum alloy, 19.8 foot tall, roof-mounted wind turbine on the northwest corner of the roof of the Cape Henry Plaza Shopping Center located along Shore Drive. A Conditional Use Permit is required for roof-mounted systems that are more than eight feet above the roof.

<table>
<thead>
<tr>
<th>Ordinance Regulations</th>
<th>Proposal’s Compliance with Regulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional Engineer</td>
<td>A professional engineer licensed by the Commonwealth of Virginia must certify that the tower, blades,</td>
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<tr>
<td>Certifications</td>
<td>etc. meet the requirements of the Building Code and the Federal Aviation Administration, and that the</td>
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<tr>
<td></td>
<td>system is to be mounted has the structural integrity to carry the weight and wind loads of the system</td>
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<td></td>
<td>and will have minimal impacts. The applicant has submitted these certifications and has met these</td>
</tr>
<tr>
<td></td>
<td>requirements.</td>
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<tr>
<td>Lot Area</td>
<td>Roof-mounted WECS shall have a minimum lot area as specified in the district regulations. In the</td>
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<td>Business District, the minimum lot area is 20,000 square feet. The applicant has met this requirement,</td>
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<tr>
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<td>as the lot is over</td>
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</table>
225,000 square feet.

<table>
<thead>
<tr>
<th>Setback</th>
<th>No specific setbacks are required for a roof-mounted WECS.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height</td>
<td>The height of a roof-mounted WECS is limited to eight feet unless a Conditional Use Permit authorizes otherwise. As the proposed WECS is almost 20 feet, a condition has been recommended to limit the maximum height of the entire system to no higher than 22 feet above the roof line.</td>
</tr>
<tr>
<td>Noise</td>
<td>The highest level of noise generated by the system, as measured at any adjoining property line, cannot exceed an A-weighted decibel level of 55 dB(A). According to the manufacturer’s specifications, the design gives almost silent operation at less than five decibels above background noise. The applicant has met this requirement.</td>
</tr>
<tr>
<td>Illumination</td>
<td>No portion of a WECS can be illuminated unless required by the Federal Aviation Administration. The applicant has met this requirement, as there will be no illumination of this system.</td>
</tr>
<tr>
<td>Siting</td>
<td>A WECS must be situated on a site in a manner that minimizes shadowing and flickering effects on any adjacent property. In this case, the height and location of the turbine will result in minimal shadowing and flickering on adjacent property. The applicant has met this requirement.</td>
</tr>
<tr>
<td>Electrical Connections</td>
<td>All electrical controls, control wiring, and power lines must be located underground or otherwise hidden. The applicant has met this requirement.</td>
</tr>
<tr>
<td>Braking</td>
<td>Any WECS must be equipped with a redundant braking system that engages at wind speeds that the manufacturer specifies to minimize the potential for wind damage to the system and its supporting structure. According to the manufacturer, the design of this vertical system eliminates the need for this type of braking system as it can withstand 130 miles per hour wind. The manufacturer does recommend that for winds above 100 miles per hour, the unit be hinged down parallel to the roof. At 100 plus miles per hour, there is no power generated. The unit does have manual breaking capabilities that will stop the turbine for maintenance purposes and the manufacturer has offered to add this manual brake to meet this requirement.</td>
</tr>
</tbody>
</table>

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**LAND USE AND ZONING INFORMATION**

**EXISTING LAND USE:** Shopping center with parking lot

**SURROUNDING LAND USE AND ZONING:**

- **North:**
  - Shore Drive
  - Hotel, multifamily dwellings / B-4 Business District

- **South:**
  - Multifamily dwellings / A-36 Apartment District

- **East:**
  - Single-family dwellings / R-7.5 Residential District
  - North Great Neck Road
  - Office, mixed-retail / B-2 Community Business District

**NATURAL RESOURCE AND**

The site is within the Chesapeake Bay watershed. There are no...
CULTURAL FEATURES: significant environmental or cultural features on this site, as it is almost entirely impervious.

IMPACT ON CITY SERVICES

There are no expected impacts to City services based on this application.

Evaluation:
The City Zoning Ordinance limits the height of roof-mounted wind energy conversion systems to eight feet, unless otherwise allowed by a Conditional Use Permit. The proposed, almost 20 foot tall, vertical wind turbine, constructed of aluminum alloy, is proposed with a 16 foot high by 4 feet in diameter rotor on a monopole support with a total height of 19.8 feet. The vertical system is designed to catch wind from all directions – turbulent and gusting winds as well as winds as low as 10 miles per hour - to create electricity to power the complex’s common area (parking lot lights). If the wind is not blowing, then the property is powered by the traditional energy grid as usual. According to the manufacturer, the design gives almost silent operation at less than five decibels above background noise and is safe for birds and bats. The 1,400 pound system has a purported design life of 30 years. No additional structures are proposed, as any equipment associated with the wind turbine will be housed inside the existing building.

The Comprehensive Plan acknowledges the need to develop new sources of energy, particularly those that are renewable. The Plan promotes energy conservation, provided safety, visual and environmental impacts are consistent with the Zoning Ordinance, and it recognizes the City’s unique location to easily capture a readily available, renewable source of energy such as wind. Section 209 of the City Zoning Ordinance requires a certification from a professional engineer licensed in the Commonwealth of Virginia that the system complies with all applicable regulations and requirements of the Virginia Uniform Statewide Building Code and the Federal Aviation Administration. The Zoning Ordinance requires an additional certification that the structure upon which the wind energy conversion system is to be mounted will have the structural integrity to carry the weight and wind loads of the system and will have minimal impacts on the structure. All of these certifications have been submitted with the application and have been found to be in compliance with the requirements. The proposal also meets the ordinance’s requirements related to: setbacks, lot area, height, signage, noise, illumination, siting, and appearance. The ordinance requires that all systems be equipped with a redundant braking system that engages at high wind speeds so as to minimize the potential for wind damage to the system or its supporting structure. According to the manufacturer, the design of this vertical system eliminates the need for this type of braking system, as it can withstand winds up to 130 miles per hour. However, in order to meet the City’s requirements, the manufacturer will add a manual brake to meet this requirement. The system will be mounted on a hinged pole, which will allow it to be taken down and strapped to the roof in the event of a significant storm. When wind speed exceeds 100 plus miles per hour, there is no power generation. In addition, the unit comes with a Wind Monitoring System, which allows the applicant to predict exactly when the unit should be taken down and secured. The system transmits data to the manufacturer, Helix.
Wind, and is available to applicant at anytime.

Staff concludes that the proposed wind energy conversion system meets the intent and requirements of Section 209 of the Zoning Ordinance, and, therefore, Staff recommends approval of this request with the following conditions.

CONDITIONS

1. If the wind energy conversion system ceases to be operational for a period of one year, the system shall be removed at the applicant’s expense.

2. The wind energy conversion system, including all associated equipment, shall be inspected by a wind energy system contractor two years from approval by City Council and then every two years subsequent, to ensure compliance with Section 209 of the Zoning Ordinance and with conditions set forth in the Conditional Use Permit. The findings of each inspection shall be submitted in writing to the City of Virginia Beach Planning Director.

3. All electrical connections from the wind turbine to the building shall be screened so as to be hidden from view.

4. No signage related to the wind energy conversion system shall be permitted other than safety and warning signage.

5. Noise associated with the wind energy conversion system shall not exceed a decibel level of 55dB (A) as measured at any adjoining property line.

6. No portion of the wind energy conversion system shall be illuminated unless required by the Federal Aviation Administration.

7. The height of the wind energy conversion system, including the pole, shall be no higher than 22 feet above the roofline.

8. The wind energy conversion system shall be equipped with a manual brake.

9. The wind energy conversion system shall be limited to the roof at the northwest corner of the building, above the existing restaurant known as "Hot Tuna" and shall be located no closer than 18 feet from the edges of the building.

10. A letter from the professional engineering company of McPherson Design Group, the firm who prepared the plans entitled, "HOT TUNA WIND TURBINE VIRGINIA BEACH, VA," sheets SK-1 through SK-7, shall be submitted to the Building Official’s Office prior to the issuance of the Final Certificate, stating that all work to install the wind energy conversion system was done in accordance with said plans.

11. All other applicable requirements of the City of Virginia Beach Zoning Ordinance shall apply to the
erection of the wind energy conversion system.

NOTE: Further conditions may be required during the administration of applicable City Ordinances and Standards. Any site plan submitted with this application may require revision during detailed site plan review to meet all applicable City Codes and Standards. All applicable permits required by the City Code, including those administered by the Department of Planning / Development Services Center and Department of Planning / Permits and Inspections Division, and the issuance of a Certificate of Occupancy, are required before any uses allowed by this Use Permit are valid.
SITE PLAN SHOWING LOCATION OF WIND TURBINE (Star)
PROPOSED WIND TURBINE
<table>
<thead>
<tr>
<th>No.</th>
<th>Date</th>
<th>Description</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10/23/07</td>
<td>CUP (multifamily dwellings)</td>
<td>Granted</td>
</tr>
<tr>
<td></td>
<td>02/13/07</td>
<td>CUP (communication tower)</td>
<td>Granted</td>
</tr>
<tr>
<td></td>
<td>03/07/83</td>
<td>Street Closure</td>
<td>Granted</td>
</tr>
<tr>
<td></td>
<td>04/02/73</td>
<td>CUP (hotel)</td>
<td>Granted</td>
</tr>
<tr>
<td>2</td>
<td>04/26/90</td>
<td>CUP (home for the aged)</td>
<td>Granted</td>
</tr>
<tr>
<td></td>
<td>03/07/83</td>
<td>Street Closure</td>
<td>Denied</td>
</tr>
<tr>
<td>3</td>
<td>08/22/95</td>
<td>Reconsideration of Conditions</td>
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</tr>
<tr>
<td></td>
<td>06/27/95</td>
<td>CUP (home for the aged)</td>
<td>Granted</td>
</tr>
<tr>
<td></td>
<td>06/22/93</td>
<td>Change of Zoning (B-2 to B-4)</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>CUP (home for the aged)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>01/04/94</td>
<td>Change of Zoning (B-2 to A-18 &amp; B-2 to PD-H2)</td>
<td>Granted</td>
</tr>
<tr>
<td></td>
<td>02/25/85</td>
<td>Change of Zoning (B-2 to B-4)</td>
<td>Denied</td>
</tr>
<tr>
<td></td>
<td>06/28/82</td>
<td>Change of Zoning (B-2 to B-4)</td>
<td>Denied</td>
</tr>
<tr>
<td>5</td>
<td>06/01/87</td>
<td>Change of Zoning (B-2 to A-4)</td>
<td>Granted</td>
</tr>
<tr>
<td></td>
<td>02/25/85</td>
<td>Change of Zoning (B-2 to A-4)</td>
<td>Denied</td>
</tr>
</tbody>
</table>

**ZONING HISTORY**

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DISCLOSURE STATEMENT

APPLICANT DISCLOSURE

1. List the applicant name followed by the names of all officers, member, trustees, partners, etc. below:

   Applicant name: CAPE HENRY STATION LLC
   Officers: Jeffrey S. Edison – President
             R. Mark Addy, Vice President and Secretary
   Member: Aegis Realty Operating Partnership, L.P.

2. List all businesses that have a parent-subsidiary or affiliated business entity relationship with the applicant:

   Cape Henry Station LLC is a subsidiary of Aegis Realty Operating Partnership, L.P., which is a subsidiary of Phillips Edison Limited Partnership

   Cape Henry Station LLC is has an affiliated business relationship with Phillips Edison & Company Ltd. Phillips Edison & Company, Ltd., also a wholly-owned subsidiary of Phillips Edison Limited Partnership, has been engaged by Cape Henry Station LLC as its Management Agent.

   Applicant is a Delaware limited liability company registered to do business in the Commonwealth of Virginia.

PROPERTY OWNER DISCLOSURE

Same as Applicant Disclosure

Does an official or employee of the City of Virginia Beach have an interest in the subject land

Yes _____ No _____ X _____

If yes, what is the name of the official or employee and the nature of their interest?
ADDITIONAL DISCLOSURES

List all known contractors or businesses that have or will provide services with respect to the requested property use, including but not limited to the providers of architectural services, real estate services, financial services, accounting services, and legal services: (Attach list if necessary)

Sunburst Energy
McPherson Design Group

1 "Parent-subsidiary relationship" means "a relationship that exists when one corporation directly or indirectly owns shares possessing more than 50 percent of the voting power of another corporation." See State and Local Government Conflict of Interests Act, Va. Code § 2.2-3101.

2 "Affiliated business entity relationship" means "a relationship, other than parent-subsidiary relationship, that exists when (i) one business entity has a controlling ownership interest in the other business entity, (ii) a controlling owner in one entity is also a controlling owner in the other entity, or (iii) there is shared management or control between the business entities. Factors that should be considered in determining the existence of an affiliated business entity relationship include that the same person or substantially the same person own or manage the two entities; there are common or commingled funds or assets; the business entities share the use of the same offices or employees or otherwise share activities, resources or personnel on a regular basis; or there is otherwise a close working relationship between the entities." See State and Local Government Conflict of Interests Act, Va. Code § 2.2-3101.

CERTIFICATION: I certify that the information contained herein is true and accurate.

I understand that, upon receipt of notification (postcard) that the application has been scheduled for public hearing, I am responsible for obtaining and posting the required sign on the subject property at least 30 days prior to the scheduled public hearing according to the instructions in this package. The undersigned also consents to entry upon the subject property by employees of the Department of Planning to photograph and view the site for purposes of processing and evaluating this application.

Applicant’s Signature: Eric Richter
Print Name: Eric Richter

Property Owner’s Signature (if different than applicant): Eric Richter
Print Name: Eric Richter
ADDITIONAL DISCLOSURES
List all known contractors or businesses that have or will provide services with respect to the requested property use, including but not limited to the providers of architectural services, real estate services, financial services, accounting services, and legal services. (Attach list if necessary)
Subcontractors:

McPherson Design Group

Defm. "Parent-subsidiary relationship" means "a relationship that exists when one corporation directly or indirectly owns shares possessing more than 50 percent of the voting power of another corporation." See State and Local Government Conflict of Interests Act. Va. Code § 2.2-3101

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Applicant's Signature: __________________________

Print Name: __________________________

Property Owner's Signature: __________________________

Vice President: __________________________

Print Name: __________________________

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