An American flag is flying on a white pole against a clear blue sky. In the background, a white wind turbine is visible, slightly out of focus. The image is framed by a white curved border at the top and bottom.

# Appendix H-4: Department of Historic Resources Correspondence

Coastal Virginia Offshore Wind Commercial Project



Submitted by:  
**Dominion Energy Services, Inc.**  
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Prepared by:  
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Submitted to:  
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Sterling, VA 20166



# COMMONWEALTH of VIRGINIA

Ann Jennings  
Secretary of Natural and  
Historic Resources

**Department of Historic Resources**  
2801 Kensington Avenue, Richmond, Virginia 23221

Julie V. Langan  
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January 5, 2022

Mr. John Fisher  
DEQ Office of Environmental Impact Review  
P.O. Box 1105  
Richmond, VA 23218.

Re: Coastal Virginia Offshore Wind Commercial Project (SCC #PUR-2021-00142)  
Cities of Virginia Beach and Chesapeake, VA  
DHR File No. 2020-4849; DEQ #21-154S

Dear Mr. Fisher:

We have received for review the application to the State Corporation Commission (SCC) for the project referenced above. We have also received the document entitled *Pre-Application Analysis of Cultural Resources for the Coastal Virginia Offshore Wind Commercial Project in the City of Virginia Beach and the City of Chesapeake, Virginia* (Pre-App) prepared by Environmental Resources Management (ERM) in accordance with Section I of DHR's *Guidelines for Assessing Impacts of Proposed Electric Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia* (2008) and included as Attachment 2.H.1 to the SCC application. The below comments are provided as technical assistance to the SCC in the review of this application. We have also been in consultation with the Bureau of Ocean Energy Management (BOEM) regarding the potential impacts of this project on historic properties and will continue to consult with BOEM pursuant to the National Historic Preservation Act.

Dominion's Pre-App considers the potential impact of the proposed project on recorded archaeological sites and on known historic architectural properties listed or previously determined eligible for listing in the Virginia Landmarks Register (VLR) and the National Register of Historic Places (NRHP) within a tiered study area. DHR's comments on the pre-application analysis are provided in the attached table and utilize the following scale in describing impacts:

- **None** – Project is not visible from the property
- **Minimal** – Occur within viewsheds that have existing transmission lines, locations where there will only be a minor change in tower height, and/or views that have been partially obstructed by intervening topography and vegetation.

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- **Moderate** – Include viewsheds with expansive views of the transmission line, more dramatic changes in the line and tower height, and/or an overall increase in the visibility of the route from the historic properties.
- **Severe** – Occur within viewsheds that do not have existing transmission lines and where the views are primarily unobstructed, locations where there will be a dramatic increase in tower visibility due to the close proximity of the route to historic properties, and viewsheds where the visual introduction of the transmission line is a significant change in the setting of the historic properties.

### Architecture

The Pre-App identifies ten (10) architectural resources within the tiered study area. This includes five (5) VLR/NRHP-listed architectural resources, two (2) architectural resources eligible for VLR/NRHP listing and three (3) locally significant architectural resources.

Although outside of the scope of DHR's 2008 *Guidelines for Assessing Impacts of Proposed Electric Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia*, ERM also collected information from the City of Virginia Beach City Council's Historic and Cultural Overlay Districts (City of Virginia Beach 2017a), the Virginia Beach Historical Register (City of Virginia Beach 2018), and the City of Chesapeake's Historic Preservation Commission (City of Chesapeake 2018) to find locally significant resources within a 1.0-mile radius of each centerline. Two (2) of the locally significant resources [Lancaster Lovett House (DHR ID #134-0072) and the Jonathan Woodhouse House (DHR ID #134-0038)] were recommended as not eligible for VLR/NRHP listing by DHR staff in 2011. One (1) locally significant resource has not been evaluated for eligibility (St. John's Baptist Church; DHR ID #134-0702).

We understand a number of route options are currently under consideration for the proposed onshore transmission line. All of the route options begin with a proposed underground transmission line segment extending from the Cable Landing Location at the Virginia State Military Reservation to a point north of Harpers Road in the City of Virginia Beach, referred to as the Cable Landing to Harpers (CLH) Route. From the existing Fentress Substation, there are five potential overhead transmission line routes and one underground/overhead hybrid transmission line route under consideration. These segments are referred to as Harpers to Fentress (HF) Routes 1 through 5 and the Hybrid Route.

The underground transmission line associated with CLH Route would run east to west, through the entire Camp Pendleton/State Military Reservation Historic District (DHR ID #134-0413), for 0.92 miles (Attachment 6, Figure 6). #134-0413's eastern portion would not be impacted by the underground route because the circuits in this area would be installed by horizontal directional drill (HDD), a trenchless installation method, and the HDD operation would not require the removal of any existing vegetation. The area around Lake Christine would be bored and no tree cut would occur, as shown through SP 5 and SP10 (Attachment 6, Figures 7 through 10). The proposed route would remove trees and vegetation near the western edge of the district, to the north of the main entrance and would also result in the demolition of two contributing structures to the district, Building 410 and Building 59.

DHR concurs with all ERM's impact recommendations. It is our opinion that the underground CLH Route, which is utilized by all subsequent alternatives, will result in an adverse impact to the Camp Pendleton/State Military Reservation Historic District (DHR ID #134-0413). For the remain route options, it appears that HF Route 1 and the HF Hybrid Route would result in no to minimal impacts, HF Routes 2, 3, and 5 would result

in moderate impacts, and HF Route 4 would result in severe impacts to recorded resources. Please see the attached table for details.

### Archaeology

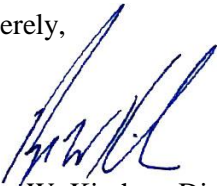
Out of 16 archaeological resources previously recorded within the transmission line alternatives, four (4) are potentially eligible for listing in the VLR/NRHP, three (3) are unevaluated for VLR/NRHP listing, eight (8) have been determined not eligible for VLR/NRHP listing, and one (1) is no longer extant within the project area. Additional archaeological survey and/or testing is recommended by ERM for the unevaluated and potentially VLR/NRHP-eligible resources. Although determined not eligible for VLR/NRHP listing, additional consideration is recommended for site 44VB0280 to assess the potential for burials within the project area. We concur with ERM's recommendation, as shown in the attached table.

In accordance with Section II of the above-referenced *Guidelines* and to fully identify and address impacts to historic resources, we recommend the following:

1. Comprehensive archaeological and architectural surveys in accordance with DHR guidelines by qualified professionals prior to construction of any SCC-approved alternative.
2. Evaluation of all identified resources for listing in the VLR/NRHP.
3. Assessment of potential direct and indirect impacts to all VLR/NRHP-eligible/listed resources.
4. Avoidance, minimization, and/or mitigation of moderate to severe impacts to VLR/NRHP-eligible/listed resources by Dominion in consultation with DHR and other stakeholders.

Thank you for the opportunity to review this document. If you have questions regarding these comments, please contact me at [roger.kirchen@dhr.virginia.gov](mailto:roger.kirchen@dhr.virginia.gov).

Sincerely,



Roger W. Kirchen, Director  
Review and Compliance Division

ATTACHMENT – Resource and Impacts Table  
DHR File No. 2020-4849  
January 5, 2022

Resource and Status	CLH Route	Proposed Alternative Routes					
		HF Route 1	HF Route 2	HF Route 3	HF Route 4	HF Route 5	HF Hybrid Route
Albemarle & Chesapeake Canal; <b>131-0044</b> / 131-5333-0002; Eligible and Contributing to Listed HD	ERM- N/A	ERM-Minimal	ERM-Moderate	ERM-Moderate	ERM-Severe	ERM-Moderate	ERM-Minimal
	DHR- N/A	DHR-Minimal	DHR-Moderate	DHR-Moderate	DHR-Severe	DHR-Moderate	DHR-Minimal
Blue Ridge/Fentress Historic District; <b>131-5071</b> ; Listed HD	ERM- N/A	ERM-Minimal	ERM-Minimal	ERM-Minimal	ERM-Minimal	ERM-Moderate	ERM-Minimal
	DHR- N/A	DHR-Minimal	DHR-Minimal	DHR-Minimal	DHR-Minimal	DHR-Moderate	DHR-Minimal
Albemarle & Chesapeake Canal Historic District; <b>131-5333</b> ; Listed	ERM- N/A	ERM-Minimal	ERM-Moderate	ERM-Moderate	ERM-Severe	ERM-Moderate	ERM-Minimal
	DHR- N/A	DHR-Minimal	DHR-Moderate	DHR-Moderate	DHR-Severe	DHR-Moderate	DHR-Minimal
Bell House; <b>134-0003</b> / 134-5027-0004; Eligible	ERM-Minimal	ERM- N/A	ERM-N/A	ERM-N/A	ERM-N/A	ERM-N/A	ERM-N/A
	DHR-	DHR- N/A	DHR-N/A	DHR-N/A	DHR-N/A	DHR-N/A	DHR-N/A
Jonathan Woodhouse House; <b>134-0038</b> ; DHR Staff Not Eligible 2011, Locally Significant	ERM- N/A	ERM- None	ERM-None	ERM-None	ERM-None	ERM-None	ERM-None
	DHR- N/A	DHR- None	DHR-None	DHR-None	DHR-None	DHR-None	DHR-None
Lancaster Lovett House; <b>134-0072</b> ; DHR Staff Not Eligible 2011, Locally Significant	ERM- N/A	ERM-None	ERM-None	ERM-None	ERM-None	ERM-None	ERM-None
	DHR- N/A	DHR- None	DHR-None	DHR-None	DHR-None	DHR-None	DHR-None
Camp Pendleton; <b>134-0413</b> ; Listed	ERM-Severe	ERM- N/A	ERM-N/A	ERM-N/A	ERM-N/A	ERM-N/A	ERM-N/A
	DHR-Severe	DHR- N/A	DHR-N/A	DHR-N/A	DHR-N/A	DHR-N/A	DHR-N/A
Building 1; <b>134-0413-0110</b> ; Listed	ERM- None	ERM- N/A	ERM-N/A	ERM-N/A	ERM-N/A	ERM-N/A	ERM-N/A
	DHR- None	DHR- N/A	DHR-N/A	DHR-N/A	DHR-N/A	DHR-N/A	DHR-N/A
St. John's Baptist Church <b>134-0702</b> ; Unevaluated, Locally Significant	ERM- N/A	ERM- None	ERM-None	ERM-None	ERM-None	ERM-None	ERM-None
	DHR- N/A	DHR- None	DHR-None	DHR-None	DHR-None	DHR-None	DHR-None
House at 829 South Birdneck Road; <b>134-0917</b> ; Eligible	ERM- None	ERM- N/A	ERM-N/A	ERM-N/A	ERM-N/A	ERM-N/A	ERM-N/A
	DHR- None	DHR- N/A	DHR-N/A	DHR-N/A	DHR-N/A	DHR-N/A	DHR-N/A

TABLE KEY:	Warrants Mitigation	Needs Attention	DHR does not concur
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ATTACHMENT – Resource and Impacts Table  
DHR File No. 2020-4849  
January 5, 2022

Resource and Status	CLH Route	Proposed Alternative Routes					
		HF Route 1	HF Route 2	HF Route 3	HF Route 4	HF Route 5	HF Hybrid Route
44CS0016; Not Evaluated						TBD	
44CS0156; Not Evaluated						TBD	
44CS0250; Not Evaluated		TBD					TBD
44VB0162; DHR Potentially Eligible		TBD					TBD
44VB0204; DHR Not Eligible	N/A						
44VB0263; DHR Potentially Eligible					TBD	TBD	
44VB0267; DHR Potentially Eligible					TBD	TBD	
44VB0274; DHR Not Eligible		N/A	N/A	N/A	N/A	N/A	N/A
44VB0275; DHR Potentially Eligible			TBD	TBD	TBD	TBD	
44VB0280; DHR Not Eligible					TBD	TBD	
44VB0306; Destroyed in ROW		N/A					N/A
44VB0314; DHR Not Eligible		N/A	N/A	N/A	N/A	N/A	N/A
44VB0361; DHR Not Eligible	N/A						
44VB0389; DHR Not Eligible	N/A						
44VB0395; DHR Not Eligible	N/A						
44VB0396; DHR Not Eligible	N/A						

TABLE KEY:	Warrants Mitigation	Needs Attention	DHR does not concur
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February 11, 2022

Mr. Roger Kirchen, Director  
Review and Compliance Division  
Virginia Department of Historic Resources  
2801 Kensington Ave.  
Richmond, VA 23221

**Subject: Coastal Virginia Offshore Wind Commercial Project, Cities of Virginia Beach and Chesapeake, Virginia; DHR File No. 2020-4849; SCC #PUR-2021-00412; DEQ #21-154S**

Dear Mr. Kirchen:

Environmental Resources Management (ERM), on behalf of Dominion Energy Virginia (Dominion or the Company), is providing additional information for your review related to the Coastal Virginia Offshore Wind (CVOW) Commercial Project (Project). The Project will encompass an offshore wind generating facility and subsea transmission cables as well as onshore transmission infrastructure, the latter of which is the focus of this letter. The onshore infrastructure will include a new transmission line and switching station and an expansion of an existing substation.

A number of route options are currently under consideration for the proposed onshore transmission line (see the overview route map provided as Attachment 1). All of the options begin with an underground transmission line segment extending from the Cable Landing Location at the Virginia State Military Reservation (SMR) to a point north of Harpers Road in the City of Virginia Beach. This segment is referred to as the Cable Landing to Harpers (CLH) Route. From this point to the Company's existing Fentress Substation in the City of Chesapeake, there are five overhead transmission line routes and one underground/overhead hybrid transmission line route under consideration for the Project. These are referred to as Harpers to Fentress (HF) Routes 1 through 5 and the HF Hybrid Route.

Dominion submitted ERM's Stage I pre-application report for the onshore transmission line and associated infrastructure to your office in November 2021. This report, titled *Pre-Application Analysis of Cultural Resources for the Coastal Virginia Offshore Wind Project in the City of Virginia Beach and the City of Chesapeake, Virginia* (Derrick et al. 2021), identified and discussed ten previously recorded aboveground historic resources within the study tiers defined by the Virginia Department of Historic Resources (VDHR) in their *Guidelines for Assessing Impacts of Proposed Electric Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia* (VDHR 2008). The report included photo simulations of the proposed transmission infrastructure for the various route options in viewsheds from these resources. Based on an analysis of existing and future conditions in

the viewsheds, ERM assessed the potential impact of the Project on the resources proximate to each route. The recommendations ranged from no impact to severe impact depending on the route. The VDHR concurred with ERM's recommendations in letters to the Company dated December 30, 2021 and January 5, 2022. Attachment 2 contains a table summarizing the impact assessment for each resource by route.

Since the VDHR's review of the Stage I pre-application report, the Company has adopted minor route adjustments and facility modifications in the City of Virginia Beach based on stakeholder comments and ongoing line engineering. This letter provides an analysis of these changes relative to the photo simulations and assessment of resource impacts provided in ERM's Stage I report. It additionally includes updates to two simulations from the Stage I report to correct inaccuracies in the depiction of future conditions.

## **ROUTE ADJUSTMENTS AND FACILITY MODIFICATIONS**

The Company adopted minor adjustments to the right-of-way along the CLH Route; a minor adjustment to the right-of-way at one location along a common alignment shared by HF Routes 1, 2, 4, and 5; a minor route adjustment to the right-of-way along a common alignment shared by HF Routes 1, 2, 3, 4, and 5; minor adjustments to the right-of-way at two locations along the HF Hybrid Route; and a modification to the footprint of the Chicory Switching Station associated with the HF Hybrid Route. All of these changes are located in the City of Virginia Beach; there are no changes to the routes or associated facilities in the City of Chesapeake. A table providing detailed descriptions of the route changes is appended as Attachment 3, and a map set illustrating the changes is provided as Attachment 4.

ERM completed a review of the previously recorded resources within the DHR-defined study tiers for a Stage I analysis inclusive of the route adjustments and facility modifications noted above. Of the 10 resources discussed in ERM's Stage I report, six (134-0003, 134-0413, 134-0413-0110, 134-0917, 134-0072 and 134-0702) are proximate to the route adjustments and other changes discussed in this letter. A description of the route changes in the viewsheds of these six resources and an analysis of potential impacts due to the changes is provided below. None of the other resources discussed in the Stage I report (131-0044/131-5333-0002, 131-5071, 131-5333, and 134-0038) are proximate to the route adjustments or other changes. Additionally, no additional previously recorded historic resources meeting the criteria for inclusion in a Stage I analysis are located within the DHR-defined study tiers as a result of the route modifications.

### **CLH Route**

The Company adopted minor adjustments to optimize the CLH Route based on: a) feedback from staff representing the State Military Reservation (SMR) for the portion of the route crossing the SMR; b) feedback from staff representing the U.S. Navy (USN) for the portion of the route crossing Naval Air Station Oceana; c) ongoing line engineering of



the route; and d) completion of a survey to identify existing underground utilities along the route. The adjustments shift the right-of-way along the route for distances ranging between approximately 1 and 60 feet depending on location, with most of the adjustments shifting the right-of-way by less than 10 feet. Staff from the SMR and USN reviewed and concurred with the changes along the route.

The Stage I report includes simulations from four resources along and near the CLH Route:

- Bell House: two simulations (SP11 and SP12) from the Bell House (134-0003), which is eligible for listing in the National Register of Historic Places (NRHP);
- Camp Pendleton Historic District: four simulations (SP5, SP10, SP25, and SP26) from within the Camp Pendleton Historic District (134-0413), which is listed in the NRHP;
- Building 1 at the SMR: one simulation (SP1) towards Building 1 at the SMR (134-0413-0110), which is both part of the Camp Pendleton Historic District and individually listed in the NRHP; and
- Winford White House: one simulation (SP13) from the Winford White House (134-0917), which is eligible for listing in the NRHP.

Each simulation depicts the centerline of the route, for which the proposed transmission circuits would be installed in an underground configuration.

The simulations prepared for Building 1 at the SMR (134-0413-0110) and the Winford White House (134-0917) are unaffected by the CLH Route adjustments due to the distance between the applicable viewpoint and resource and by intervening vegetation, topography, and buildings. Descriptions of the changes to the CLH Route as depicted in the simulations from the Bell House and Camp Pendleton Historic District are provided below. Please reference the simulations provided in Attachment 6 of ERM's Stage I report (specifically, Figures 1 through 5 for the Bell House and Figures 6 through 14 for the Camp Pendleton Historic District).

Bell House: Viewpoint SP11 faces east from a point along the west side of Oceana Boulevard just outside the northeast corner of the Bell House property, while SP12 faces east from a point within the site on the south side of the driveway into the property. Relative to the viewpoints, the right-of-way for the CLH Route, which is on the opposite side of Oceana Boulevard from the resource, shifted approximately 2 feet to the east (or slightly farther from a viewer at either viewpoint). This minimal shift would not affect the simulations from SP11 and SP12 or ERM's recommendation of minimal impact for the Bell House.

Camp Pendleton Historic District: Viewpoint SP5 faces north/northwest from a point along Regulus Avenue within the SMR. The simulation view incorporates the eastern edge of the Cable Landing Location (where the export cables from the offshore wind

generating facility would come onshore) and a short segment of the CLH Route at the Lake Christine crossing. The circuits for the transmission line in this area would be installed using a trenchless installation method – horizontal directional drilling (HDD) – which would avoid tree clearing between the entry and exit points for the HDD. While there are no changes to the boundary of the Cable Landing Location, the right-of-way for the CLH Route along the HDD alignment shifted approximately 2 feet to the north in this area (or slightly farther from a viewer at the viewpoint). Because the visible segment of the route in the simulation from SP5 would be installed by HDD, there would be no change in the simulation.

Viewpoint SP10 faces east towards Lake Christine from a point along Lake Road within the SMR. While the right-of-way in this area shifted approximately 2 feet to the north, the transmission circuits at the Lake Christine crossing would be installed by HDD. Consequently, there would be no change in the simulation from this viewpoint.

Viewpoint SP25 faces north/northeast from a point along the north side of Jefferson Avenue within the SMR. The view includes a series of historic buildings, one of which (Building 59) would be demolished for installation of the underground transmission circuits. In this area, the right-of-way for the CLH Route shifted approximately 4 feet north (or slightly farther from a viewer at the viewpoint). This minimal shift would not affect the simulation from the viewpoint, which includes the removal of Building 59.

Viewpoint SP26, which faces north from a point near the intersection of Jefferson Avenue and Headquarters Road, depicts a series of buildings along the west side of Headquarters Road, including one (Building 410) which would be demolished for installation of the underground transmission circuits. In this area, the right-of-way for the route shifted between approximately 2 and 3 feet to the north (or slightly farther from a viewer at the viewpoint), and a manhole cluster shifted from the east to the west side of Headquarters Road. These minimal adjustments would not affect the simulation from the viewpoint, which includes the removal of Building 410.

Based on the above discussion, the minor adjustments to the CLH Route within the Camp Pendleton Historic District would not change the simulations prepared for the viewpoints from within the district materially or ERM's recommendation of severe impact for the district (which is largely based on the demolition of Buildings 59 and 410).

### **Harpers to Fentress Routes 1, 2, 3, 4, and 5**

The Company adopted two route adjustments along common segments of the alternative HF overhead routes based on comments from the City of Virginia Beach that the routes as initially designed would conflict with City plans for a future transportation project within the Southeast Parkway and Greenbelt (SEPG) corridor. As discussed in more detail in the Stage I report, the SEPG is an approximately 300-foot-wide study corridor for a once-proposed, but since cancelled, highway project. The City has extensive landholdings within the corridor, and despite the cancellation of the highway project,

may construct a new road within the corridor in the future. In reviewing the common alignment of the routes, staff from the City's transportation department identified two potential bottlenecks where the right-of-way associated with the routes would leave insufficient space for the potential future road within the SEPG corridor.

The first route adjustment occurs along a common alignment of HF Routes 1, 2, 4 and 5 (between approximate MPs 2.97 and 3.18) where the routes would be both within the SEPG corridor and within and adjacent to an existing Dominion transmission right-of-way, mostly on City-owned land. This area includes a crossover from the north to the south side of the existing transmission right-of-way at MP 3.18. To resolve the potential bottleneck within the SEPG corridor, the Company shifted the crossover of the existing transmission right-of-way about 835 feet to the east to MP 2.97. The City's transportation department reviewed and concurred with this change.

The second route adjustment occurs along a common alignment of HF Routes 1, 2, 3, 4, and 5 in the area just east of Princess Anne Road (between approximate MPs 4.13 and 4.58 for HF Routes 1, 2, 4, and 5 and MPs 4.50 and 4.95 for HF Route 3). To resolve the potential bottleneck within the SEPG corridor at this location, the Company shifted the right-of-way for each route approximately 61 feet south to align with the southern edge of the SEPG corridor. The City's transportation department reviewed and concurred with this change.

Two of the resources discussed in the Stage I report – Thomas Lovett House/Rollingswood Academy (134-0072) and St. John's Baptist Church (134-0702) – are located near the route adjustment between MPs 2.97 and 3.18 along the common alignment shared by HF Routes 1, 2, 4, and 5. No resources are proximate to the route adjustment along the common alignment shared by HF Routes 1, 2, 4, and 5 (between MPs 4.13 and 4.58) and HF Route 3 (between MPs 4.50 and 4.95). None of the other historic resources discussed in the Stage I report for HF Routes 1, 2, 3, 4, and 5 are located near the route adjustments.

The Thomas Lovett House/Rollingswood Academy site previously was determined not eligible for listing in the NRHP, but the property is included as part of the City of Virginia Beach's Historic and Cultural Overlay District and considered locally significant. The St. John's Baptist Church site has not been evaluated to determine its eligibility for listing in the NRHP, but is listed in the Virginia Beach Historical Register and considered locally significant. The Stage I report includes one simulation (SP24) from near the Thomas Lovett House/Rollingswood Academy and one simulation (SP22) from St. John's Baptist Church. Each simulation depicts the future location of overhead transmission structures based on the design of the Project. Refer to the following simulations provided in Attachment 6 of ERM's Stage I report:

- Thomas Lovett House/Rollingswood Academy: Figures 43 through 45 for HF Route 1; Figures 71 through 73 for HF Route 2; Figures 131 through 133 for HF Route 4; and Figures 159 through 161 for HF Route 5; and

- St. John's Baptist Church: Figures 46 through 48 for HF Route 1, Figures 74 through 76 for HF Route 2, Figures 134 through 136 for HF Route 4, and Figures 162 through 164 for HF Route 5.

Because HF Routes 1, 2, 4, and 5 share a common alignment in the vicinity of these resources, please note that the simulations from the sites provided in the Stage I report are identical for each route.

Thomas Lovett House/Rollingswood Academy: This resource is located approximately 0.3 mile south of MP 3.1 along the common alignment shared by HF Routes 1, 2, 4, and 5. Viewpoint SP24 faces northwest to north from the north end of a cul-de-sac at Hammerstone Court, just outside of the northern edge of the resource. Existing vegetation north of the site blocks the view towards the routes from the viewpoint. As shown in the simulations from the viewpoint for each route, none of the overhead transmission structures would be visible from the site.

With the route adjustment described above, the locations of some transmission structures would shift where the alignment crosses from the north to the south side of Dominion's existing right-of-way. The transmission structures along the route adjustment would not be visible from the viewpoint, however, given its distance from the right-of-way and the intervening vegetation, the latter of which provides approximately 0.3 mile of nearly unbroken forest between the resource and common alignment of the routes. Therefore, the route adjustment would not materially change the simulation or alter ERM's recommendation of no impact for this resource.

St. John's Baptist Church: This site is located approximately 0.8 mile south of MP 3.0 along the common alignment shared by HF Routes 1, 2, 4, and 5. Viewpoint SP24 faces northwest to north from the east side of Holland Road, just outside the western boundary of the resource. Existing vegetation and residential development to the north and northwest of the site block the view from the viewpoint towards the routes. As shown in the simulations from the viewpoint for each route, none of the overhead transmission structures would be visible from the site.

As with the Thomas Lovett House/Rollingswood Academy site, the route adjustment would shift the locations of some transmission structures where the common alignment for HF Routes 1, 2, 4, and 5 crosses from the north to the south side of Dominion's existing transmission right-of-way. The transmission structures along the route adjustment would not be visible from the viewpoint, however, given the distance from the resource to the right-of-way and the intervening vegetation and residential development. For this reason, the route adjustment would not materially change the simulation or ERM's recommendation of no impact for this resource.

### **HF Hybrid Route and Associated Chicory Switching Station**

The Company adopted two route adjustments along the underground portion of the HF

Hybrid Route. The first is located between approximate MPs 0.00 and 0.27 where the route parallels Harpers Road. In this area, the Company shifted the right-of-way for the hybrid route approximately 50 feet south to provide better alignment with, and minimize tree clearing along, Harpers Road. None of the resources discussed in ERM's Stage I report are proximate to this change.

The second route adjustment is located between approximate MPs 3.17 and 3.32. Similar to HF Routes 1, 2, 4, and 5, and based on discussions with the City of Virginia Beach, the Company modified the HF Hybrid Route between approximate MPs 3.17 and 3.32 by shifting the crossing of Dominion's existing right-of-way to the east to avoid a conflict with the potential future city road within the SEPG corridor. The change shifts the crossover of the existing right-of-way approximately 663 feet to the east from MP 3.32 to 3.17. Two of the resources discussed in the Stage I report for the HF Hybrid Route - Thomas Lovett House/Rollingswood Academy (134-0072) and St. John's Baptist Church (134-0702) - are located proximate to the route adjustment.

The Stage I report includes one simulation (SP24) from near the Thomas Lovett House/Rollingswood Academy and one simulation (SP22) from St. John's Baptist Church for the HF Hybrid Route. Each simulation depicts the centerline of the route, for which the proposed transmission circuits would be installed underground. None of the other historic resources discussed in the Stage I report for the HF Hybrid Route are located near the route adjustment.

The Thomas Lovett House/Rollingswood Academy and St. John's Baptist Church are located approximately 0.3 mile and 0.8 mile, respectively, to the south of the underground segment of the HF Hybrid Route. As shown in the simulations for these resources in the Stage I report, the hybrid route would not be visible from the viewpoint at either site (see Figures 187 through 189 for the Thomas Lovett House/Rollingswood Academy and Figures 190 through 192 for St. John's Baptist Church in Attachment 6 of the Stage I report). Because the route adjustment is along an underground segment of the hybrid route, and given its distance from the resources and intervening vegetation, topography, and buildings, there would be no material change to the simulations prepared for the two resources. Consequently, the route adjustment would not change ERM's recommendation of no impact for these resources for the hybrid route.

As discussed in the Stage I report, the HF Hybrid Route would require a switching station (the Chicory Switching Station) at a site on the east side of Princess Anne Road. Part of the site is within the SEPG corridor. Staff from the City's transportation department commented that the design proposed for the station would not leave enough space for the City's potential future road within the SEPG corridor. In response to this comment, the Company repositioned and modified the footprint of the switching station site to leave enough space for the potential future road within the SEPG corridor. The repositioned/modified footprint shifts the eastern boundary of the facility about 213 feet to the southeast. In conjunction with these changes, the Company also made

corresponding minor adjustments to the HF Hybrid Route where it enters and exits the facility site. The City's transportation department reviewed and concurred with these changes. None of the resources discussed in the Stage I report are proximate to these changes.

## UPDATED SIMULATIONS

As noted above, two of the simulations provided in ERM's Stage I report associated with the Centerville Historic District (131-5071) incorrectly depict expected future conditions due to data processing errors. Updates to these simulations (from viewpoints SP15b and SP35) are appended as Attachment 5. The updated simulation from SP15b is applicable to HF Routes 1, 2, 3, and 4, and the overhead portion of the HF Hybrid Route; the updated simulation from SP35 is applicable to HF Routes 1 through 5 and the overhead portion of the HF Hybrid Route.<sup>1</sup> The updated simulations use the same base photography as those provided in the Stage I report.

The updated simulations substitute for the following figures from the Stage I report:

- SP15b: Figures 27 and 28 for HF Route 1; Figures 56 and 57 for HF Routes 2; Figures 83 and 84 for HF Route 3; Figures 113 and 114 for HF Route 4; and Figures 171 and 172 for the HF Hybrid Route; and
- SP35: Figures 33 and 34 for HF Route 1; Figures 61 and 62 for HF Route 2; Figures 89 and 90 for HF Route 3; Figures 119 and 120 for HF Route 4; Figures 147 and 148 for HF Route 5; and Figures 177 and 178 for the HF Hybrid Route.

There are no changes in the expected level of impact at the Centerville Historic District from any of the routes based on the updated simulations as discussed below.

SP15: The simulation from SP15 for each applicable route provided in the Stage I report incorrectly depict a set of new overhead transmission structures on the east side, rather than the west side, of the Centerville Turnpike. The updated simulation provided in Attachment 5 correctly depicts the overhead transmission structures on the west side of the turnpike.

SP35: The simulation from SP35 provided in the Stage I report for each route incorrectly depict the extent of vegetation removal for the proposed expansion of Dominion's existing Fentress Substation. The updated simulation provided in Attachment 5 accurately depicts the expected extent of tree removal at the station.

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<sup>1</sup> HF Routes 1, 2, 3, and 4 and the HF Hybrid Route share a common alignment and design in the viewshed from SP15b. HF Routes 1 through 5 and the HF hybrid Route share a common alignment and design in the viewshed from SP35.

As illustrated in the existing view image, infrastructure at Dominion's existing Fentress Substation is minimally visible from SP35 with portions of conductors visible through breaks in the tree line along the east side of the substation. As shown in the updated simulation depicting future conditions, tree clearing for the new transmission line would expose a portion of the security fence (16-foot-tall) for the existing substation (middle ground, left side of view), and transmission structures for the new transmission line would be visible above the tree line (middle to right side of view) where they would parallel the existing substation and enter the area proposed for the expanded substation. The fence line and equipment to be installed within the expanded substation would not be visible from the viewpoint.

Based on the analysis and discussion provided in the Stage I report, and the updated simulations from SP15b and SP35 provided in Attachment 5, ERM continues to recommend findings of minimal impact for HF Routes 1 through 4 and the HF Hybrid Route and moderate impact for HF Route 5 on the Centerville Historic District.

## ERRATA

Figure 5 of Attachment 4 to the Stage I report, which illustrates the typical design and layout for a portion of the Company's proposed wreck-and-rebuild of its existing Line #271 transmission line, incorrectly depicts the width of the right-of-way as 140 feet. The width of the right-of-way associated with this typical is 120 feet. An updated figure is appended as Attachment 6.

ERM respectfully requests your concurrence that:

- a) the route adjustments and other Project changes described above would not materially change the simulations provided in the Stage I report or the impact recommendations based on those simulations; and
- b) the updated simulations for viewpoints SP15b and SP35 would not change the impact recommendations for the Centerville Historic District for each route.

We look forward to continuing to work with you on this Project. If you have any questions regarding the enclosed information, please contact me at 770-601-0951.

Respectfully,



Emily Laird  
Principal Consultant  
Environmental Resources Management

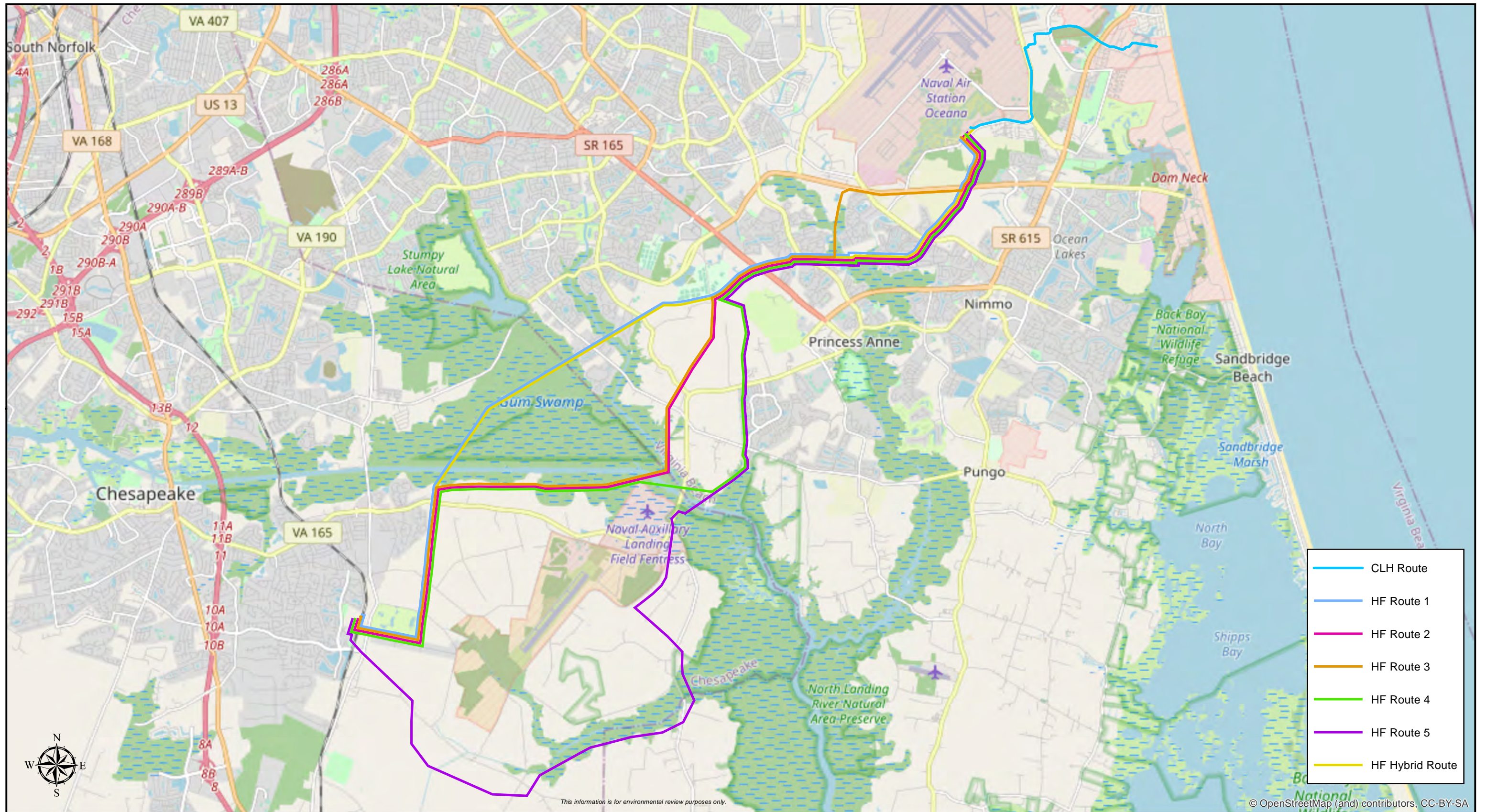
Attachments:

- 1: Overview Route Map
- 2: Impact Recommendations (from the DHR's January 5, 2022 letter)
- 3: Descriptions of Route and Facility Changes
- 4: Route Maps with Resource Locations
- 5: Updated Simulations
- 6: Right-of-Way Typical



**ATTACHMENT 1:**

**OVERVIEW ROUTE MAP**



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0 1 2 Miles

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**Alternative Transmission Line Routes**  
**Coastal Virginia Offshore Wind Commercial Project**  
**Dominion Energy Virginia**  
 Virginia Beach and Chesapeake, VA



**ATTACHMENT 2:**

**IMPACT RECOMMENDATIONS**

ATTACHMENT – Resource and Impacts Table  
DHR File No. 2020-4849  
January 5, 2022

Resource and Status	CLH Route	Proposed Alternative Routes						HF Hybrid Route
		HF Route 1	HF Route 2	HF Route 3	HF Route 4	HF Route 5		
Albemarle & Chesapeake Canal; <b>131-0044</b> / 131-5333-0002; Eligible and Contributing to Listed HD	ERM- N/A	ERM-Minimal	ERM-Moderate	ERM-Moderate	ERM-Severe	ERM-Moderate	ERM-Minimal	
	DHR- N/A	DHR-Minimal	DHR-Moderate	DHR-Moderate	DHR-Severe	DHR-Moderate	DHR-Minimal	
Blue Ridge/Fentress Historic District; <b>131-5071</b> ; Listed HD	ERM- N/A	ERM-Minimal	ERM-Minimal	ERM-Minimal	ERM-Minimal	ERM-Moderate	ERM-Minimal	
	DHR- N/A	DHR-Minimal	DHR-Minimal	DHR-Minimal	DHR-Minimal	DHR-Moderate	DHR-Minimal	
Albemarle & Chesapeake Canal Historic District; <b>131-5333</b> ; Listed	ERM- N/A	ERM-Minimal	ERM-Moderate	ERM-Moderate	ERM-Severe	ERM-Moderate	ERM-Minimal	
	DHR- N/A	DHR-Minimal	DHR-Moderate	DHR-Moderate	DHR-Severe	DHR-Moderate	DHR-Minimal	
Bell House; <b>134-0003</b> / 134-5027-0004; Eligible	ERM-Minimal	ERM- N/A	ERM-N/A	ERM-N/A	ERM-N/A	ERM-N/A	ERM-N/A	
	DHR-	DHR- N/A	DHR-N/A	DHR-N/A	DHR-N/A	DHR-N/A	DHR-N/A	
Jonathan Woodhouse House; <b>134-0038</b> ; DHR Staff Not Eligible 2011, Locally Significant	ERM- N/A	ERM- None	ERM-None	ERM-None	ERM-None	ERM-None	ERM-None	
	DHR- N/A	DHR- None	DHR-None	DHR-None	DHR-None	DHR-None	DHR-None	
Lancaster Lovett House; <b>134-0072</b> ; DHR Staff Not Eligible 2011, Locally Significant	ERM- N/A	ERM-None	ERM-None	ERM-None	ERM-None	ERM-None	ERM-None	
	DHR- N/A	DHR- None	DHR-None	DHR-None	DHR-None	DHR-None	DHR-None	
Camp Pendleton; <b>134-0413</b> ; Listed	ERM-Severe	ERM- N/A	ERM-N/A	ERM-N/A	ERM-N/A	ERM-N/A	ERM-N/A	
	DHR-Severe	DHR- N/A	DHR-N/A	DHR-N/A	DHR-N/A	DHR-N/A	DHR-N/A	
Building 1; <b>134-0413-0110</b> ; Listed	ERM- None	ERM- N/A	ERM-N/A	ERM-N/A	ERM-N/A	ERM-N/A	ERM-N/A	
	DHR- None	DHR- N/A	DHR-N/A	DHR-N/A	DHR-N/A	DHR-N/A	DHR-N/A	
St. John's Baptist Church <b>134-0702</b> ; Unevaluated, Locally Significant	ERM- N/A	ERM- None	ERM-None	ERM-None	ERM-None	ERM-None	ERM-None	
	DHR- N/A	DHR- None	DHR-None	DHR-None	DHR-None	DHR-None	DHR-None	
House at 829 South Birdneck Road; <b>134-0917</b> ; Eligible	ERM- None	ERM- N/A	ERM-N/A	ERM-N/A	ERM-N/A	ERM-N/A	ERM-N/A	
	DHR- None	DHR- N/A	DHR-N/A	DHR-N/A	DHR-N/A	DHR-N/A	DHR-N/A	

TABLE KEY:	Warrants Mitigation	Needs Attention	DHR does not concur
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**ATTACHMENT 3:**

**DESCRIPTIONS OF ROUTE AND FACILITY CHANGES**

## Descriptions of Route and Facility Changes

Affected Routes	General Description	Detailed Description
CLH Route	Minor adjustments to the ROW between MPs 0.00 and 4.42 based on ongoing line engineering, completion of a Quality B survey for existing underground utilities, and comments from the SMR or USN	<ul style="list-style-type: none"> <li>• MP 0.00 – 0.37 (HDD crossing of Lake Christine and associated workspace): the ROW moves between approx. 2 and 3 feet to the north;</li> <li>• MP 0.37 – 0.45: the ROW moves between approx. 7 and 13 feet to the southeast; the manhole cluster near MP 0.40 shifts approx. 30 feet to the northeast;</li> <li>• MP 0.45 – 0.82; the ROW moves between approx. 4 and 8 feet to the north and the associated workspace moves approx. 2 feet to the north; the manhole cluster near MP 0.8 shifts approx. 340 feet to the west (from the east side to the west side of Headquarters Road);</li> <li>• MP 0.82 – 1.35 (HDD of Owl Creek): the ROW and associated workspace moves between approx. 2 and 3 feet to the north;</li> <li>• MP 1.35 – 1.75: the width of the ROW expands from approx. 60 feet to between approx. 80 and 100 feet due the presence of existing buried utilities along Bells Road and to provide better overlap with Bells Road; the manhole cluster near MP 1.4 shifts approx. 260 feet to the east;</li> <li>• MP 1.75 – 2.36: the ROW moves between approx. 3 and 8 feet to the north or east;</li> <li>• MP 2.36 – 3.43: the ROW moves between approx. 1 and 2 feet to the east to provide better alignment with the eastern edge of Oceana Boulevard; the manhole cluster near MP 2.4 shifts approx. 93 feet to the north; the manhole cluster near MP 2.9 moves approx. 215 feet to the north; new manhole cluster added near MP 3.4;</li> <li>• MP 3.43 – 3.88: the ROW moves between approx. 1 and 4 feet to the north to provide better alignment with the northern edge of Harpers Road; the manhole cluster near MP 3.6 is eliminated; new manhole cluster added near MP 3.7;</li> <li>• MP 3.88 – 4.42: the ROW moves between approx. 47 and 60 feet to the south to both provide better alignment with the northern edge of Harpers Road and avoid or minimize tree clearing along the road; the manhole cluster near MP 3.9 is eliminated; the manhole cluster near MP 4.3 shifts approx. 320 feet east to approx. MP 4.2</li> </ul>

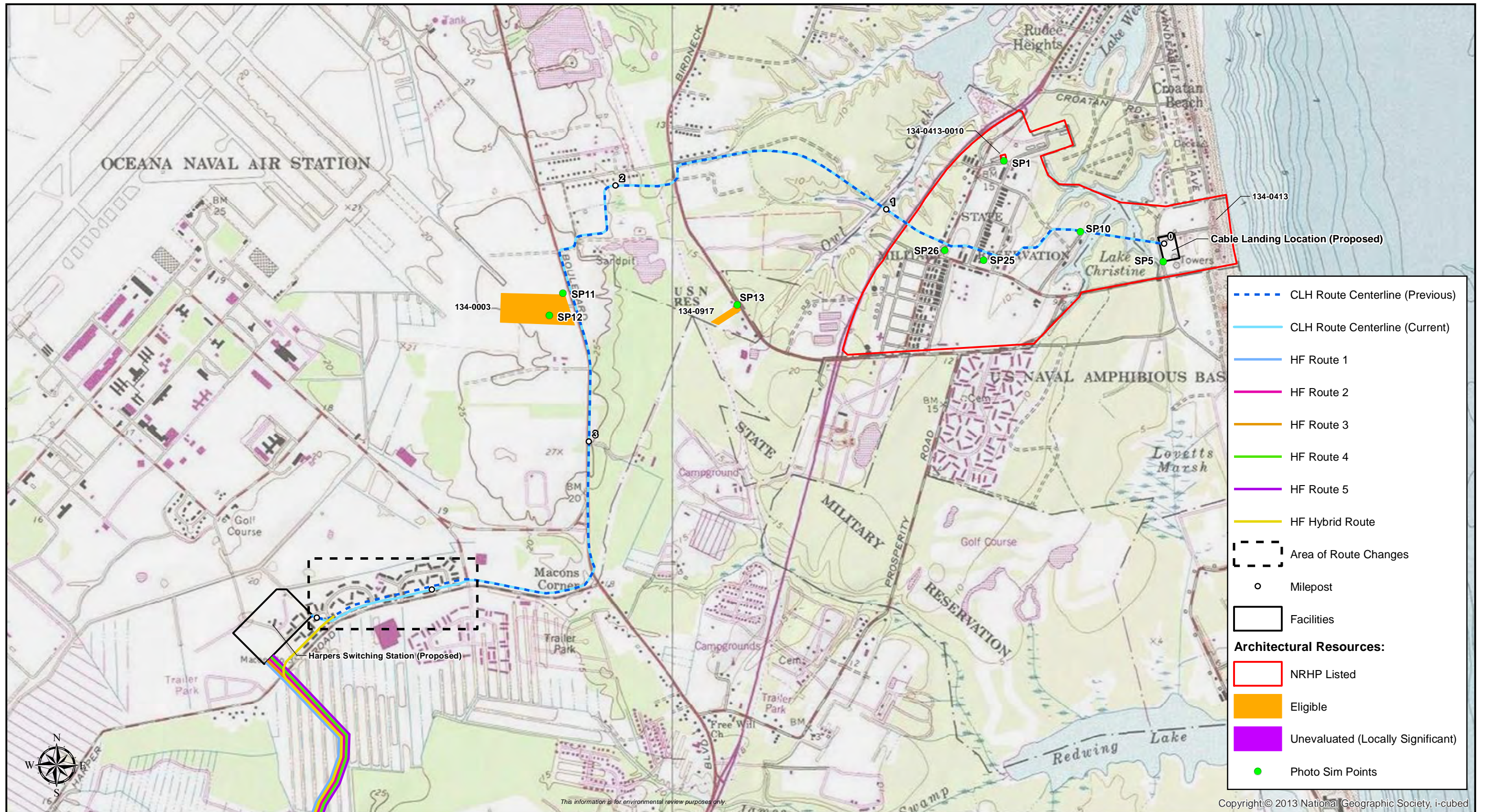
<b>Affected Routes</b>	<b>General Description</b>	<b>Detailed Description</b>
HF Routes 1, 2, 4, and 5	Minor adjustment where the common segment of these routes crosses from the north to the south side of Dominion's existing ROW for Lines #2118/147 on City of Virginia Beach property within the SEPG corridor to provide sufficient space within the corridor for a future city road; requested by the City of Virginia Beach transportation division	The crossing of lines #2118/147 shifts approximately 834 feet to the east (about one span length) from approx. MP 3.18 to MP 2.97
HF Routes 1, 2, 3, 4, and 5	Minor adjustment to the common segment of these routes within the SEPG corridor east of Princess Anne Road to provide sufficient space within the corridor for a future city road; requested by the City of Virginia Beach transportation division	The ROW moves up to 61 feet south between approx. MPs 4.13 and 4.58 to align with the southern edge of the SEPG corridor in this area
HF Hybrid Route	Minor adjustment to the route to provide better alignment with and minimize tree clearing along Harpers Road	The ROW moves approximately 50 feet to the south to align with the northern edge of Harpers Road
HF Hybrid Route	Minor adjustment where the route crosses from the north to the south side of Dominion's existing ROW for Lines #2118/147 on City of Virginia Beach property within the SEPG corridor to provide sufficient space within the corridor for a future city road; requested by the City of Virginia Beach transportation division	The crossing of lines #2118/147 shifts approximately 663 feet to the east from approx. MP 3.32 to MP 3.17
HF Hybrid Route/Chicory Switching Station	Re-designed layout for the Chicory Switching Station to provide sufficient space within the SEPG corridor for a future city road; requested by the City of Virginia Beach transportation division	The location of the switching station shifts about 213 feet to the east and the layout of the facility is modified to optimize the available space for the station; includes associated minor adjustments to the HF Hybrid Route where the route enters and exits the switching station

**ATTACHMENT 4:**

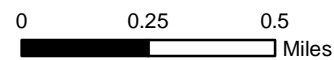
**ROUTE MAPS WITH RESOURCE LOCATIONS**



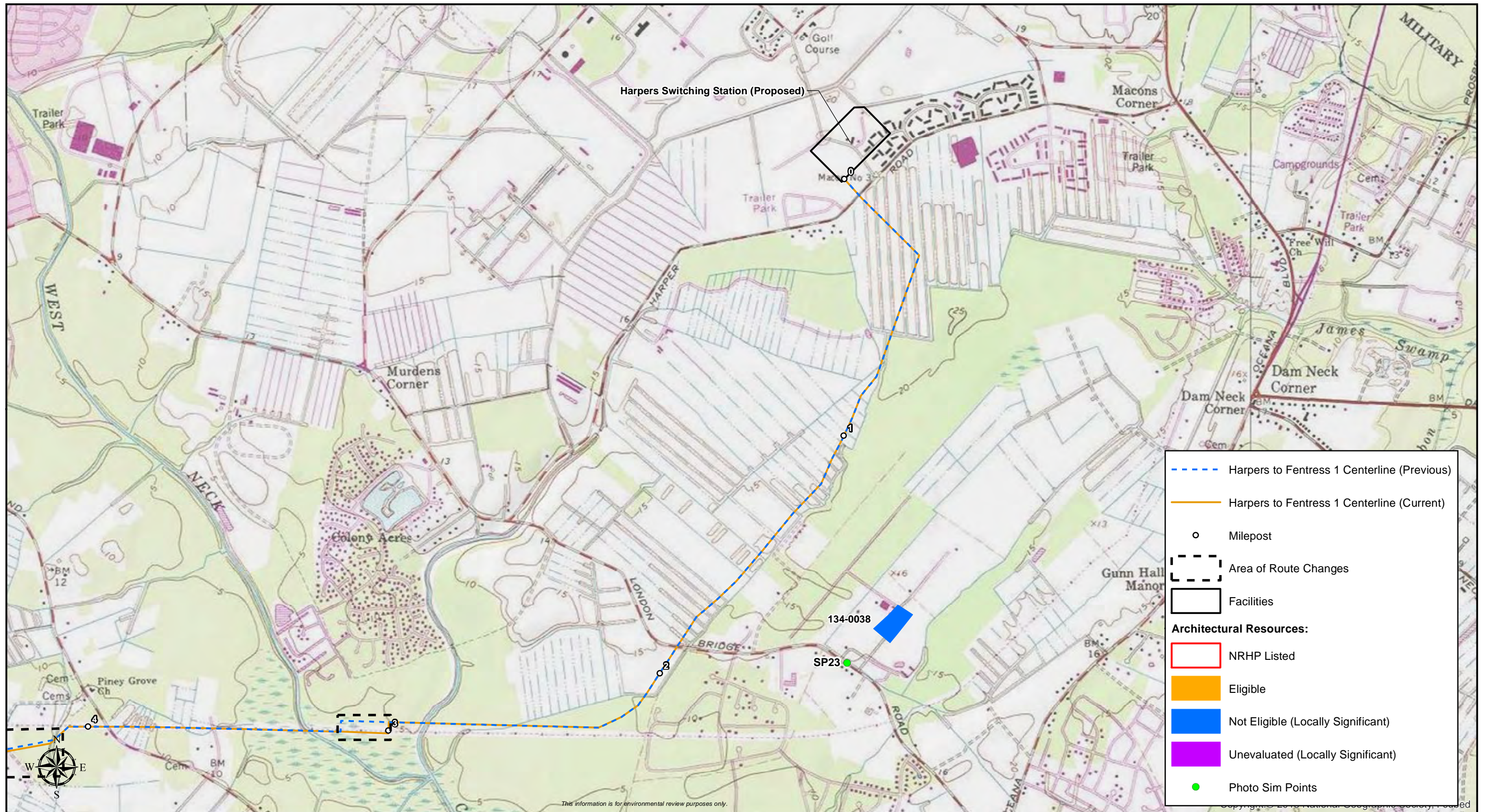
**CLH ROUTE**



**Locations of Considered Resources**  
**Cable Landing to Harpers Route**  
**Coastal Virginia Offshore Wind Commercial Project**  
**Dominion Energy Virginia**  
 Virginia Beach and Chesapeake, VA



**HF ROUTE 1**



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Miles

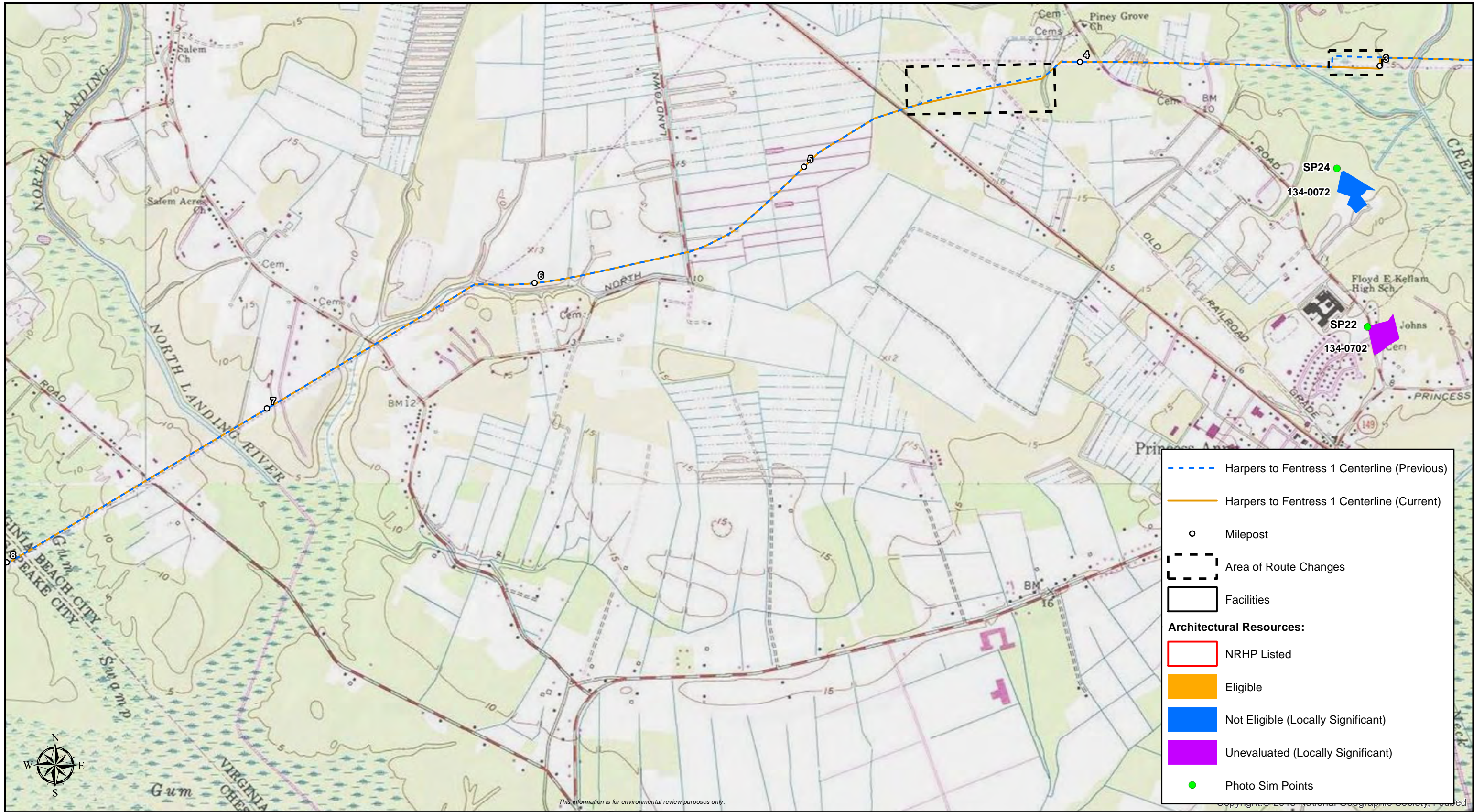
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**Locations of Considered Resources**  
**Harpers to Fentress Route 1**  
**Coastal Virginia Offshore Wind Commercial Project**  
**Dominion Energy Virginia**  
 Virginia Beach and Chesapeake, VA

SHEET 1 OF 4





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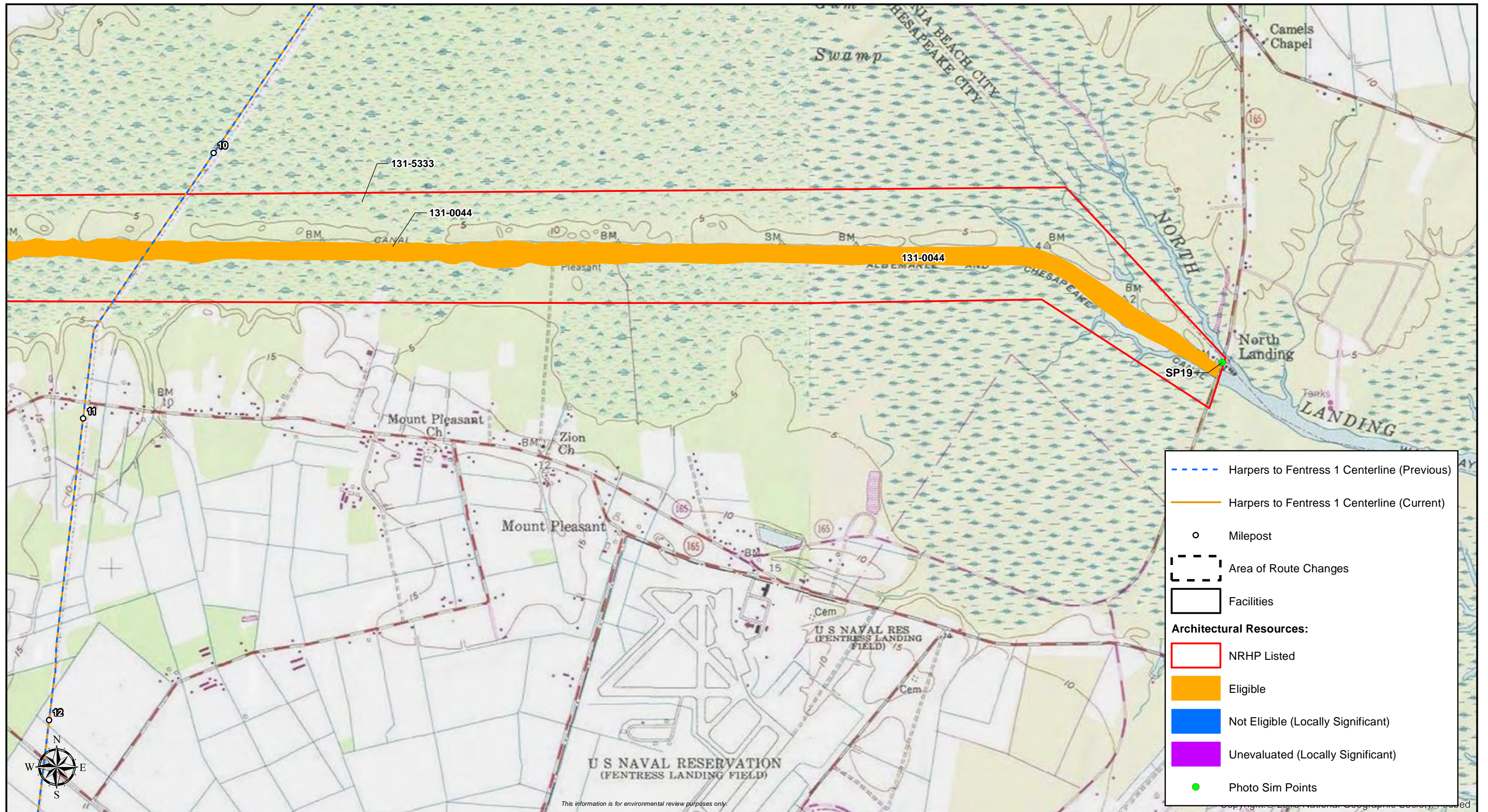
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**Locations of Considered Resources**  
**Harpers to Fentress Route 1**  
**Coastal Virginia Offshore Wind Commercial Project**  
**Dominion Energy Virginia**  
 Virginia Beach and Chesapeake, VA

SHEET 2 OF 4





	Harpers to Fentress 1 Centerline (Previous)
	Harpers to Fentress 1 Centerline (Current)
	Milepost
	Area of Route Changes
	Facilities
<b>Architectural Resources:</b>	
	NRHP Listed
	Eligible
	Not Eligible (Locally Significant)
	Unevaluated (Locally Significant)
	Photo Sim Points

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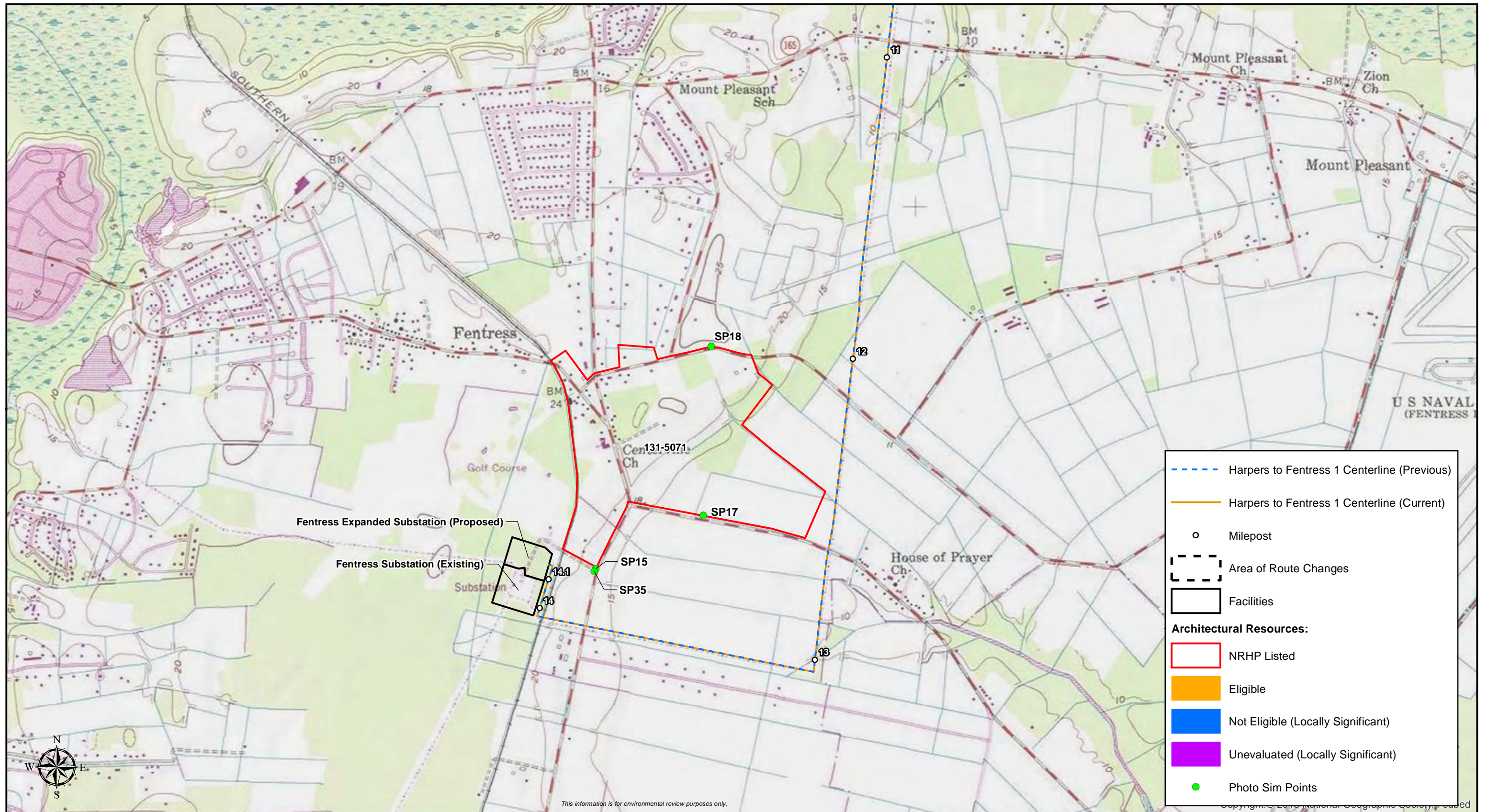


**Locations of Considered Resources  
Harpers to Fentress Route 1  
Coastal Virginia Offshore Wind Commercial Project  
Dominion Energy Virginia  
Virginia Beach and Chesapeake, VA**

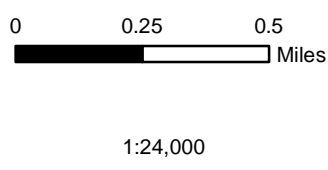
SHEET 3 OF 4



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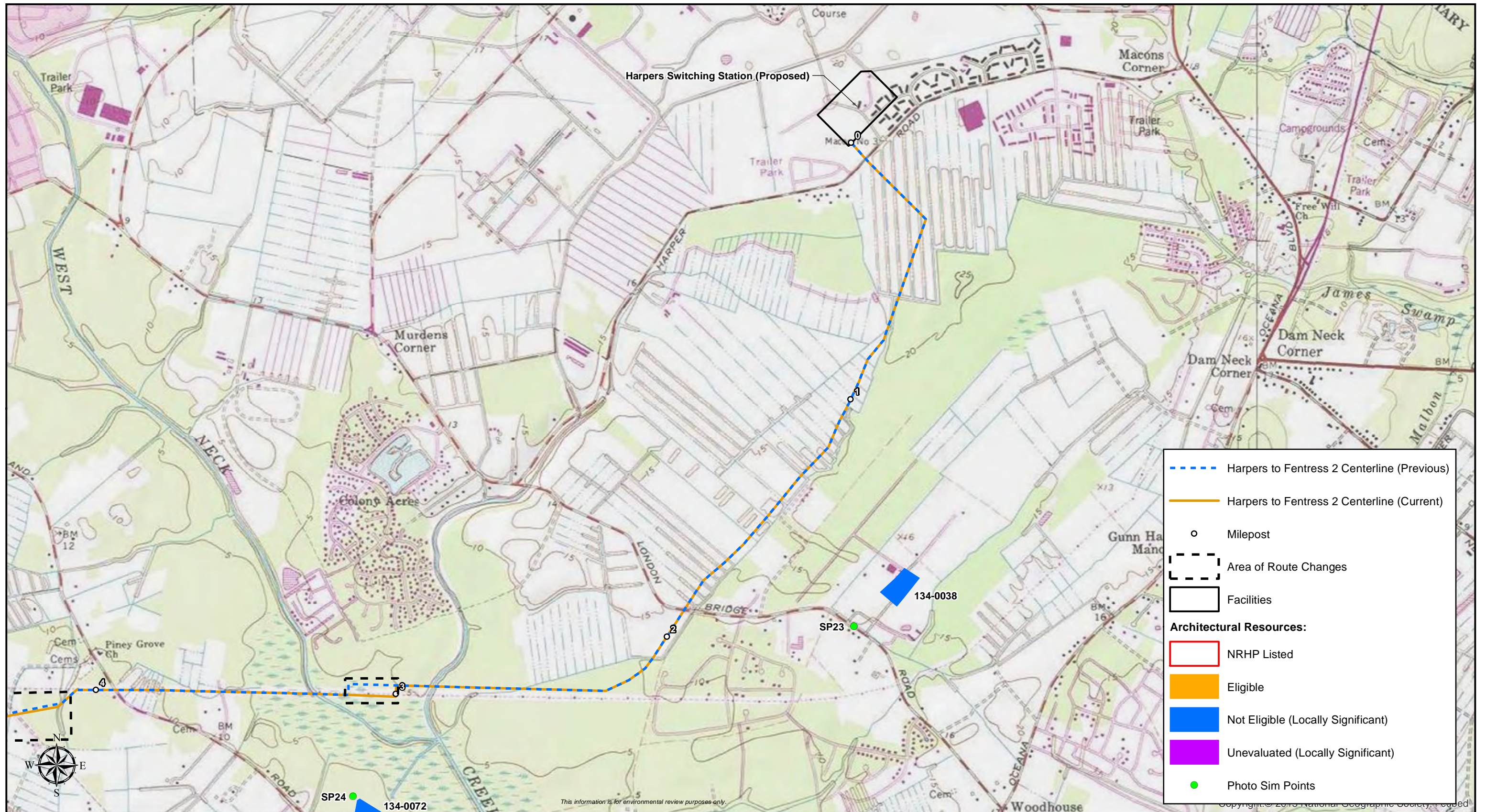


**Locations of Considered Resources**  
**Harpers to Fentress Route 1**  
**Coastal Virginia Offshore Wind Commercial Project**  
**Dominion Energy Virginia**  
 Virginia Beach and Chesapeake, VA



**HF ROUTE 2**





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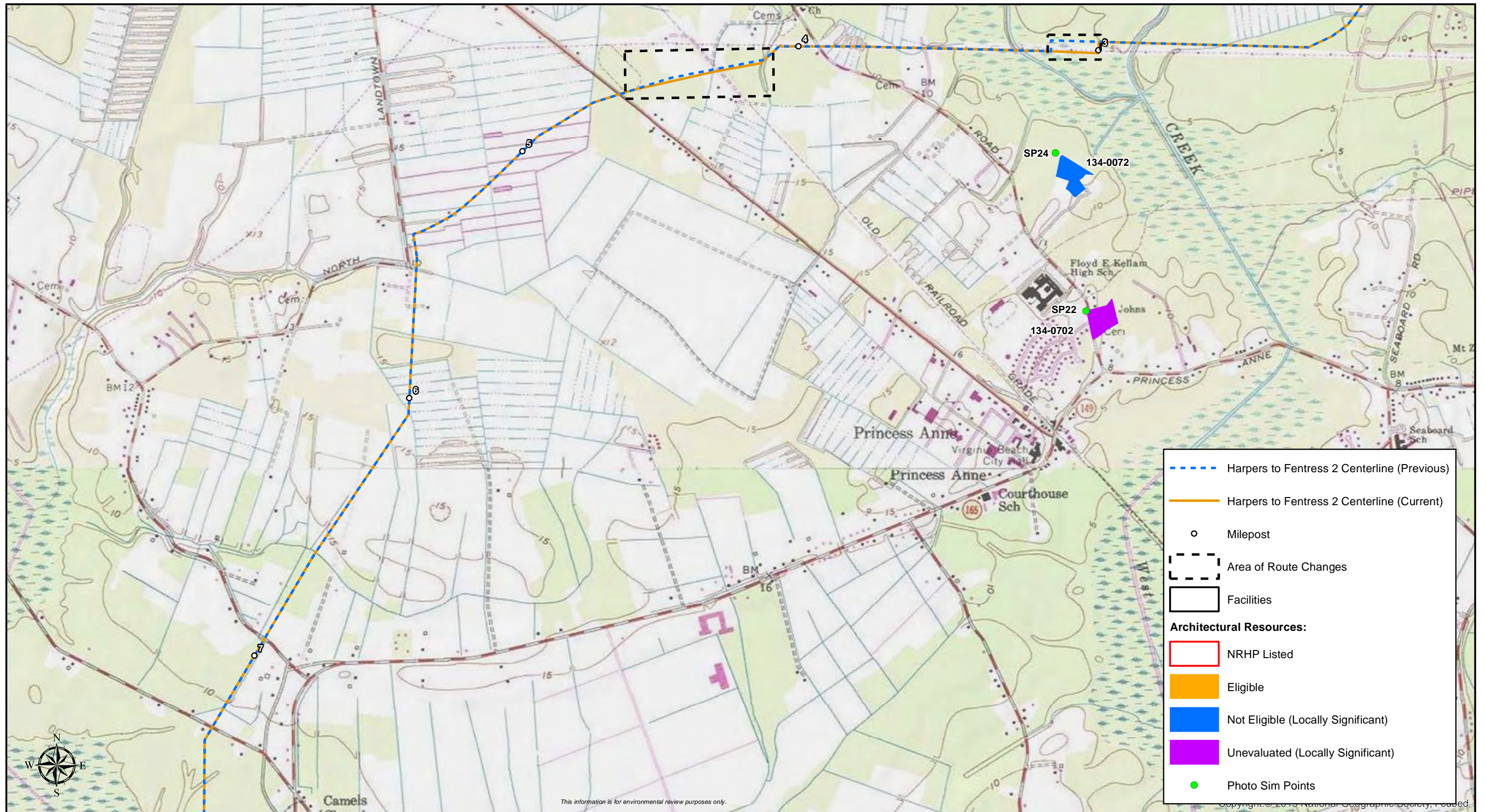
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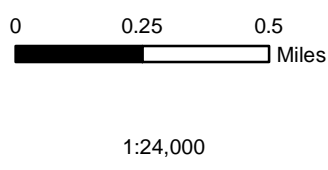
**Locations of Considered Resources  
Harpers to Fentress Route 2  
Coastal Virginia Offshore Wind Commercial Project  
Dominion Energy Virginia  
Virginia Beach and Chesapeake, VA**

SHEET 1 OF 4



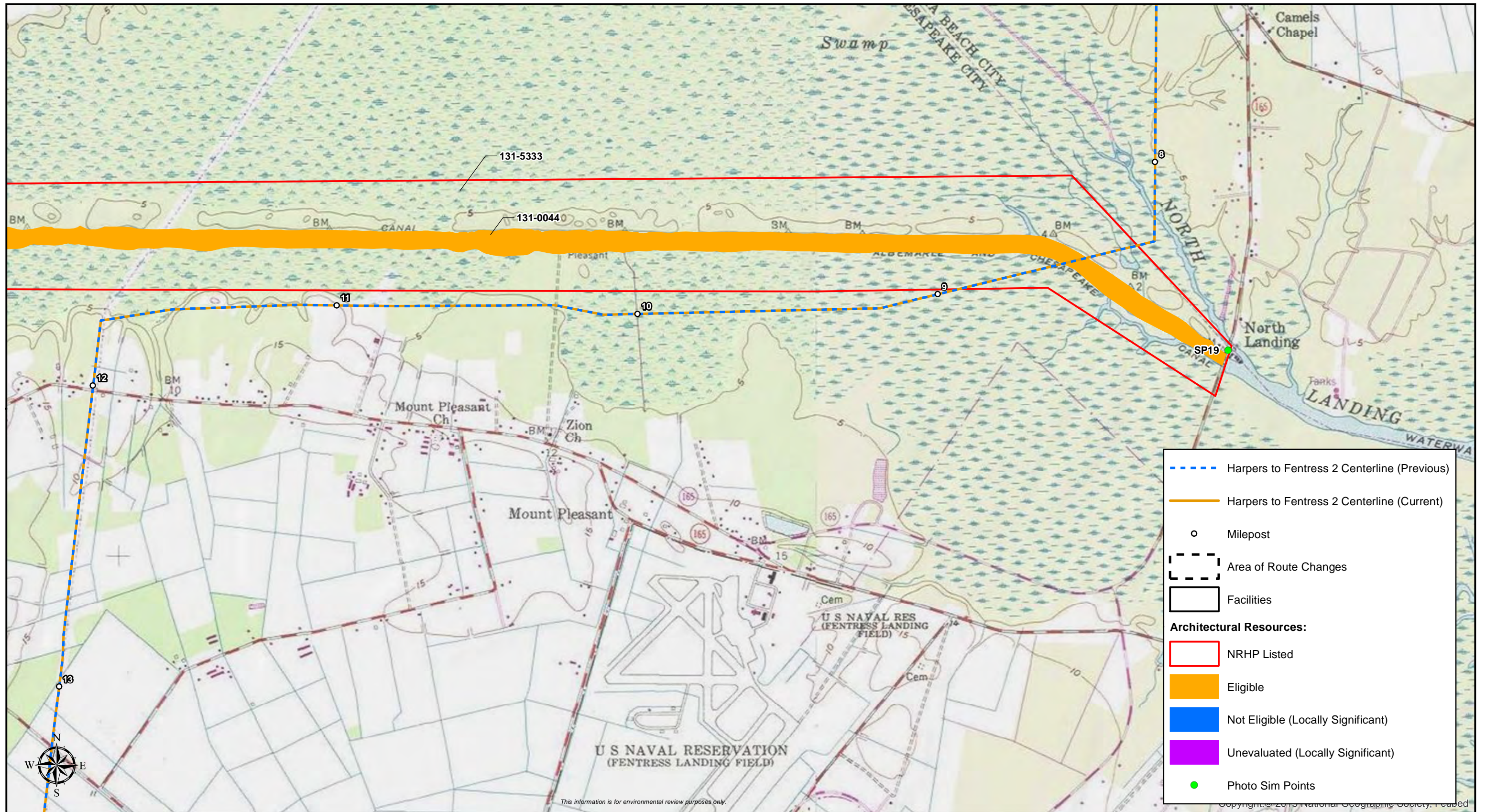


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- o Milepost
- Area of Route Changes
- Facilities
- Architectural Resources:**
- NRHP Listed
- Eligible
- Not Eligible (Locally Significant)
- Unevaluated (Locally Significant)
- Photo Sim Points



**Locations of Considered Resources**  
**Harpers to Fentress Route 2**  
**Coastal Virginia Offshore Wind Commercial Project**  
**Dominion Energy Virginia**  
 Virginia Beach and Chesapeake, VA





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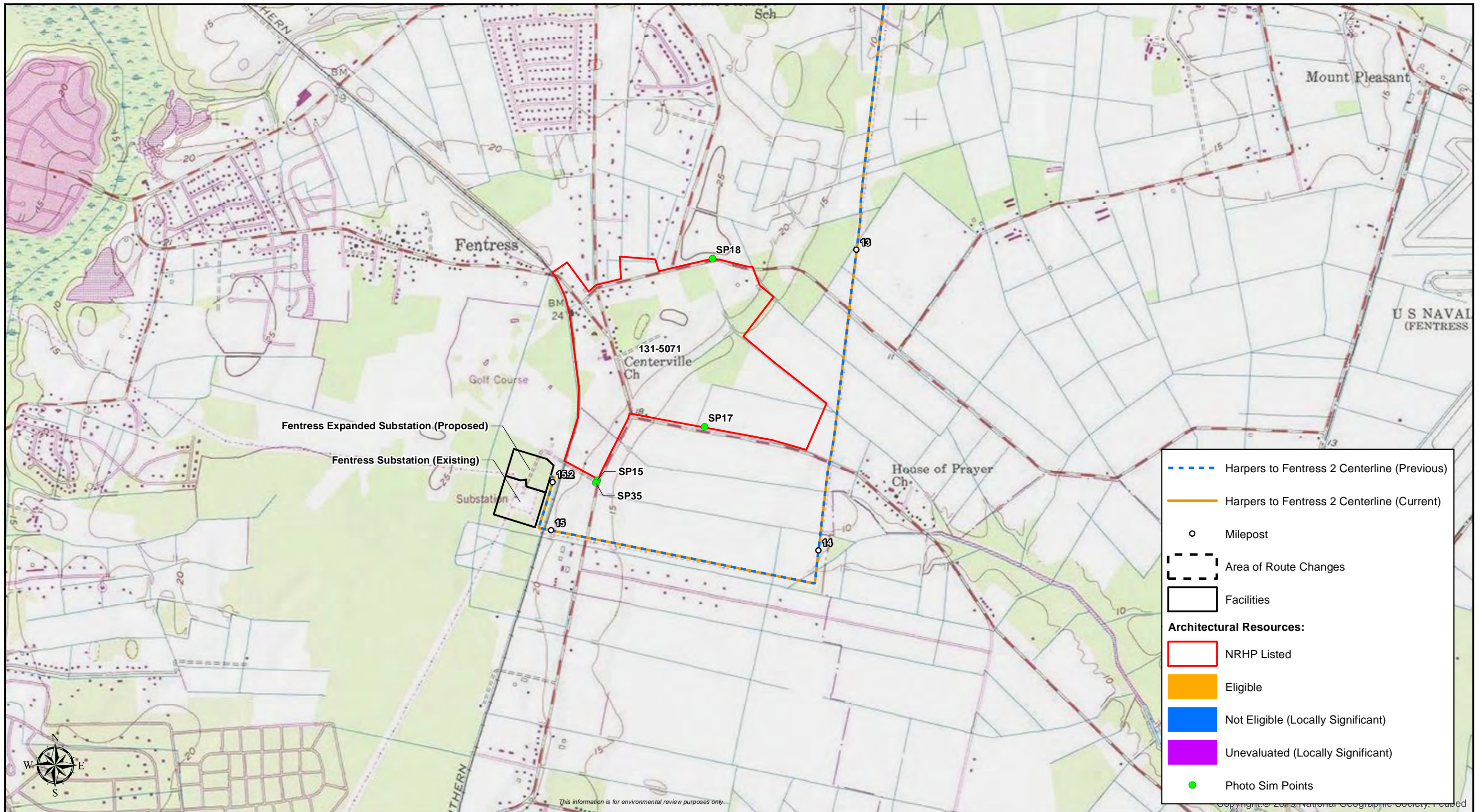


**Locations of Considered Resources**  
**Harpers to Fentress Route 2**  
**Coastal Virginia Offshore Wind Commercial Project**  
**Dominion Energy Virginia**  
 Virginia Beach and Chesapeake, VA

SHEET 3 OF 4



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- - - - - Harpers to Fentress 2 Centerline (Previous)  
 ——— Harpers to Fentress 2 Centerline (Current)  
 ○ Milepost  
 - - - - - Area of Route Changes  
 [ ] Facilities  
**Architectural Resources:**  
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 [ ] Eligible  
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 ● Photo Sim Points

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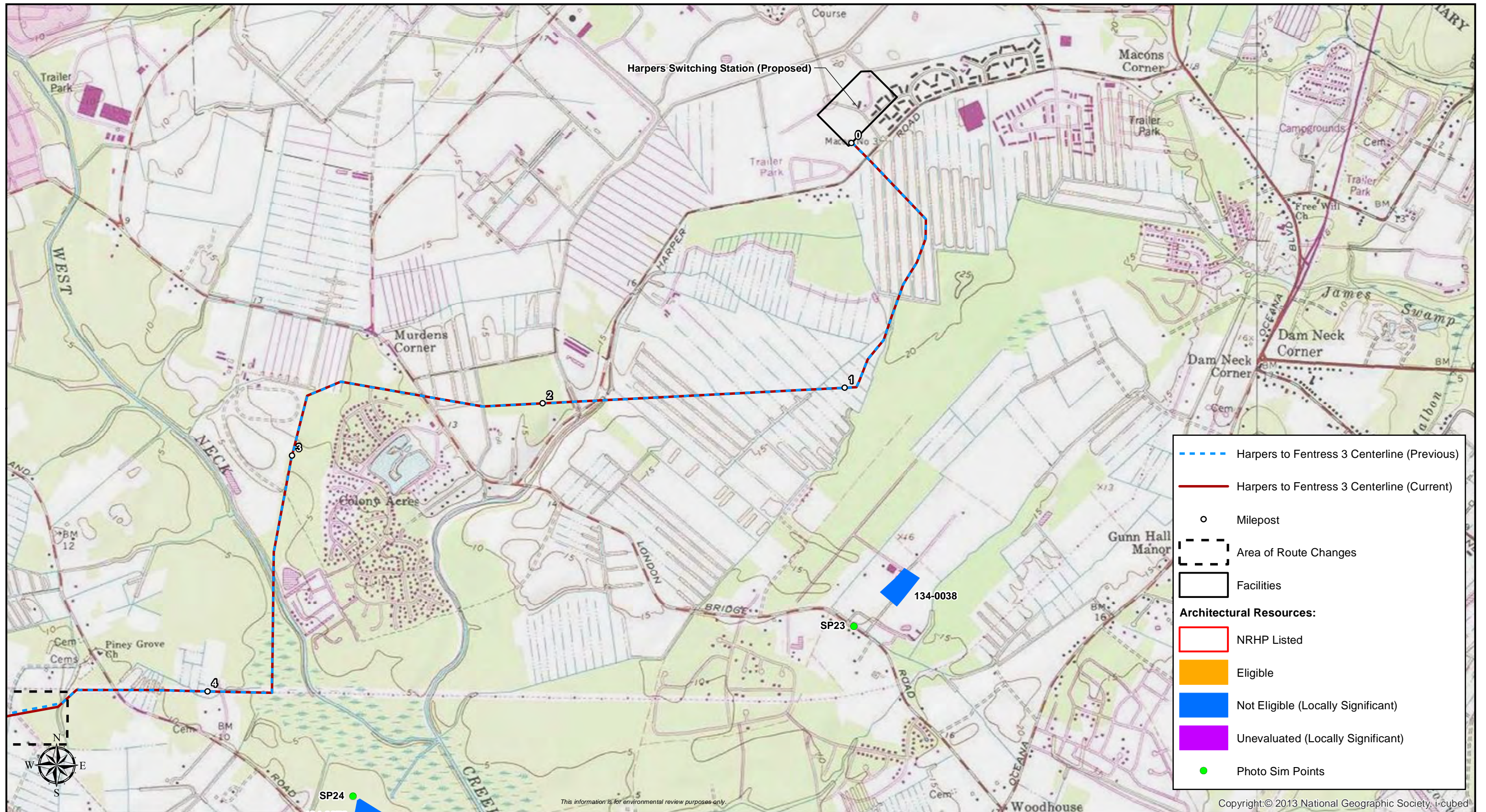
**Locations of Considered Resources**  
**Harpers to Fentress Route 2**  
**Coastal Virginia Offshore Wind Commercial Project**  
**Dominion Energy Virginia**  
 Virginia Beach and Chesapeake, VA

SHEET 4 OF 4



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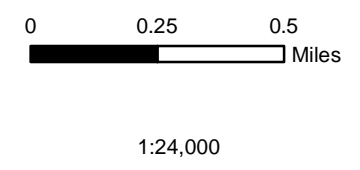
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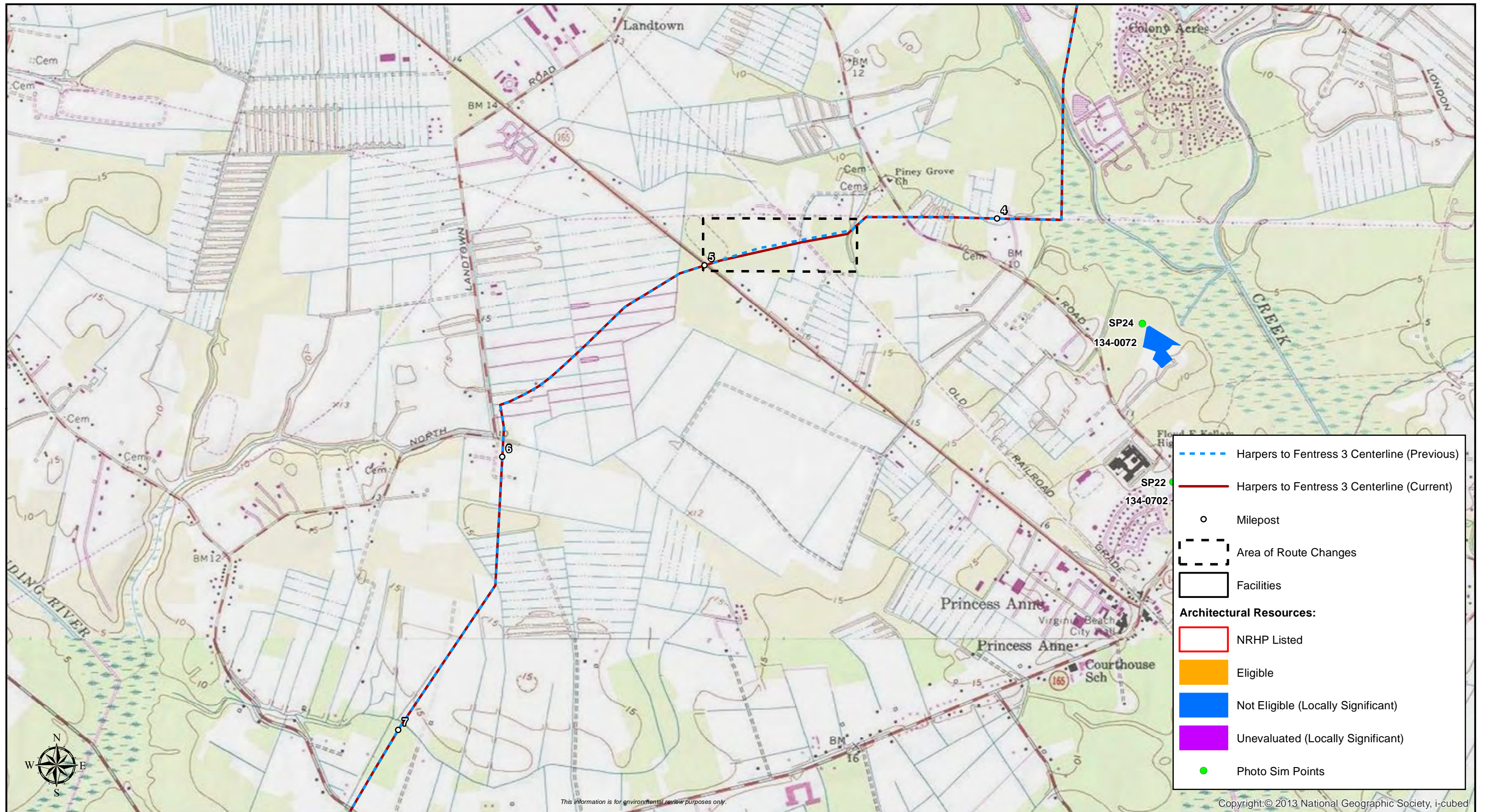


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**Locations of Considered Resources  
Harpers to Fentress Route 3  
Coastal Virginia Offshore Wind Commercial Project  
Dominion Energy Virginia  
Virginia Beach and Chesapeake, VA**





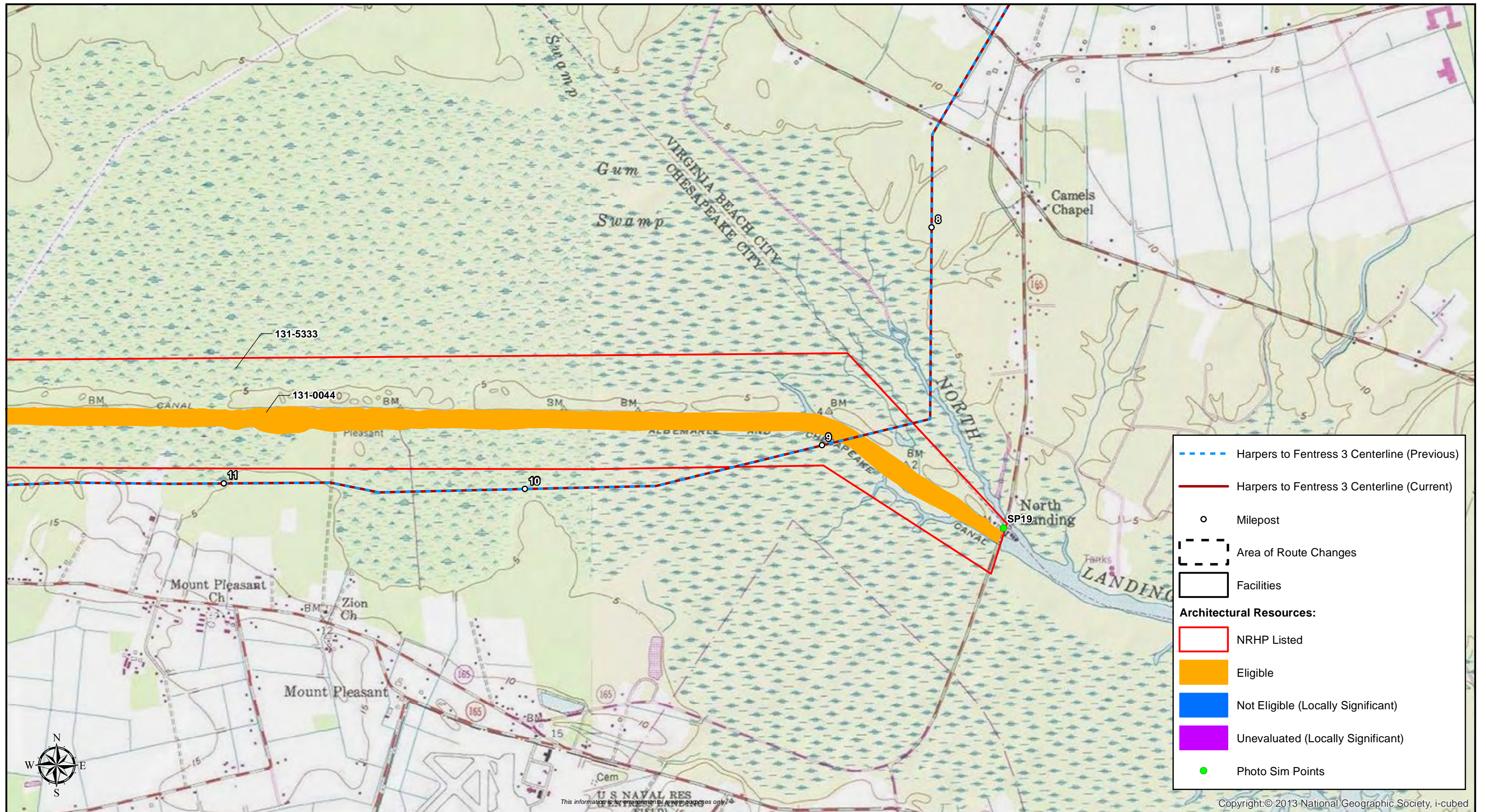
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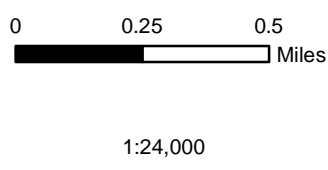


**Locations of Considered Resources**  
**Harpers to Fentress Route 3**  
**Coastal Virginia Offshore Wind Commercial Project**  
**Dominion Energy Virginia**  
 Virginia Beach and Chesapeake, VA





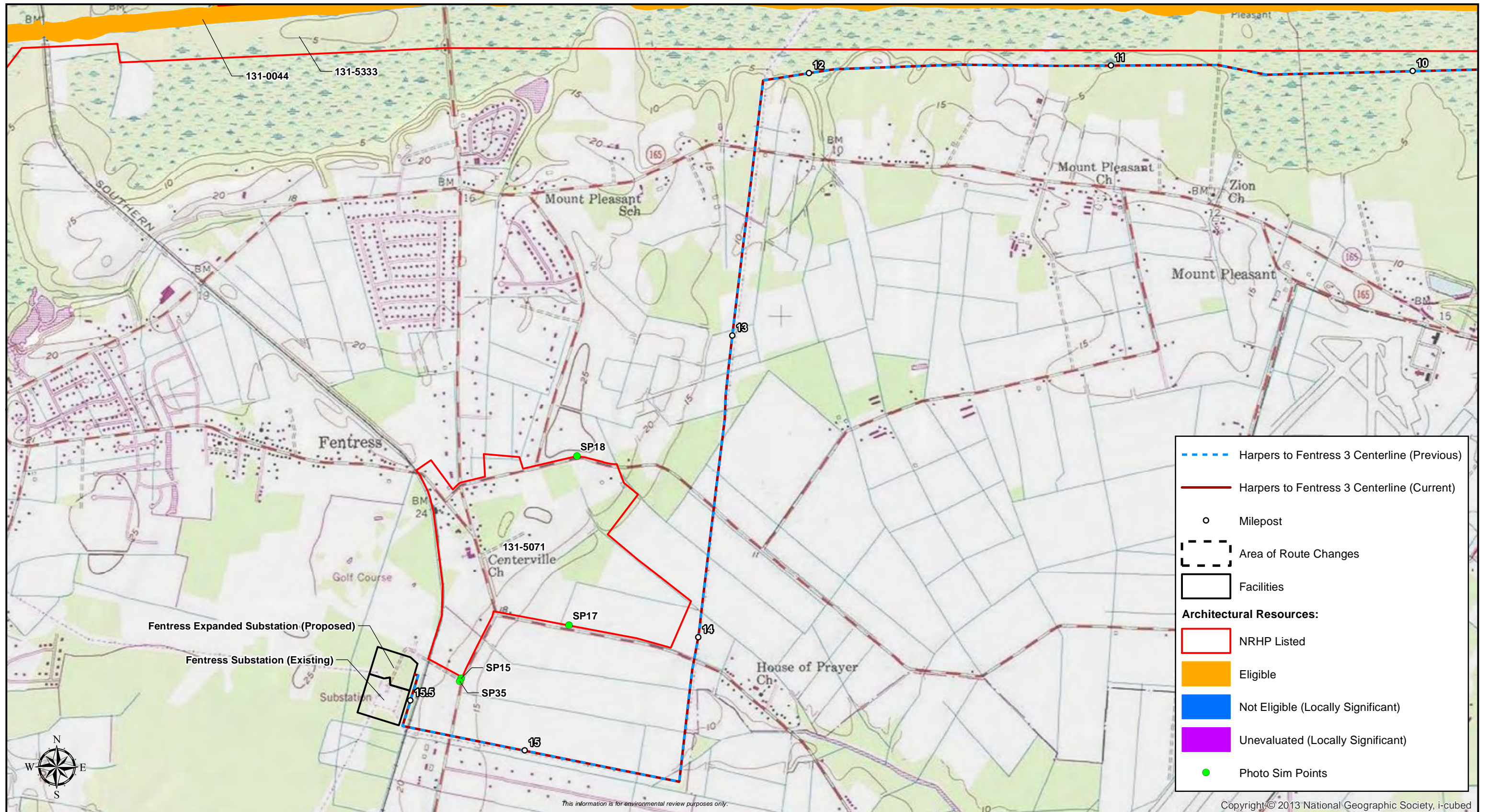
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 [ ] Facilities  
**Architectural Resources:**  
 [ ] NRHP Listed  
 [ ] Eligible  
 [ ] Not Eligible (Locally Significant)  
 [ ] Unevaluated (Locally Significant)  
 ● Photo Sim Points



**Locations of Considered Resources**  
**Harpers to Fentress Route 3**  
**Coastal Virginia Offshore Wind Commercial Project**  
**Dominion Energy Virginia**  
 Virginia Beach and Chesapeake, VA



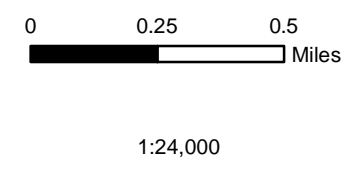




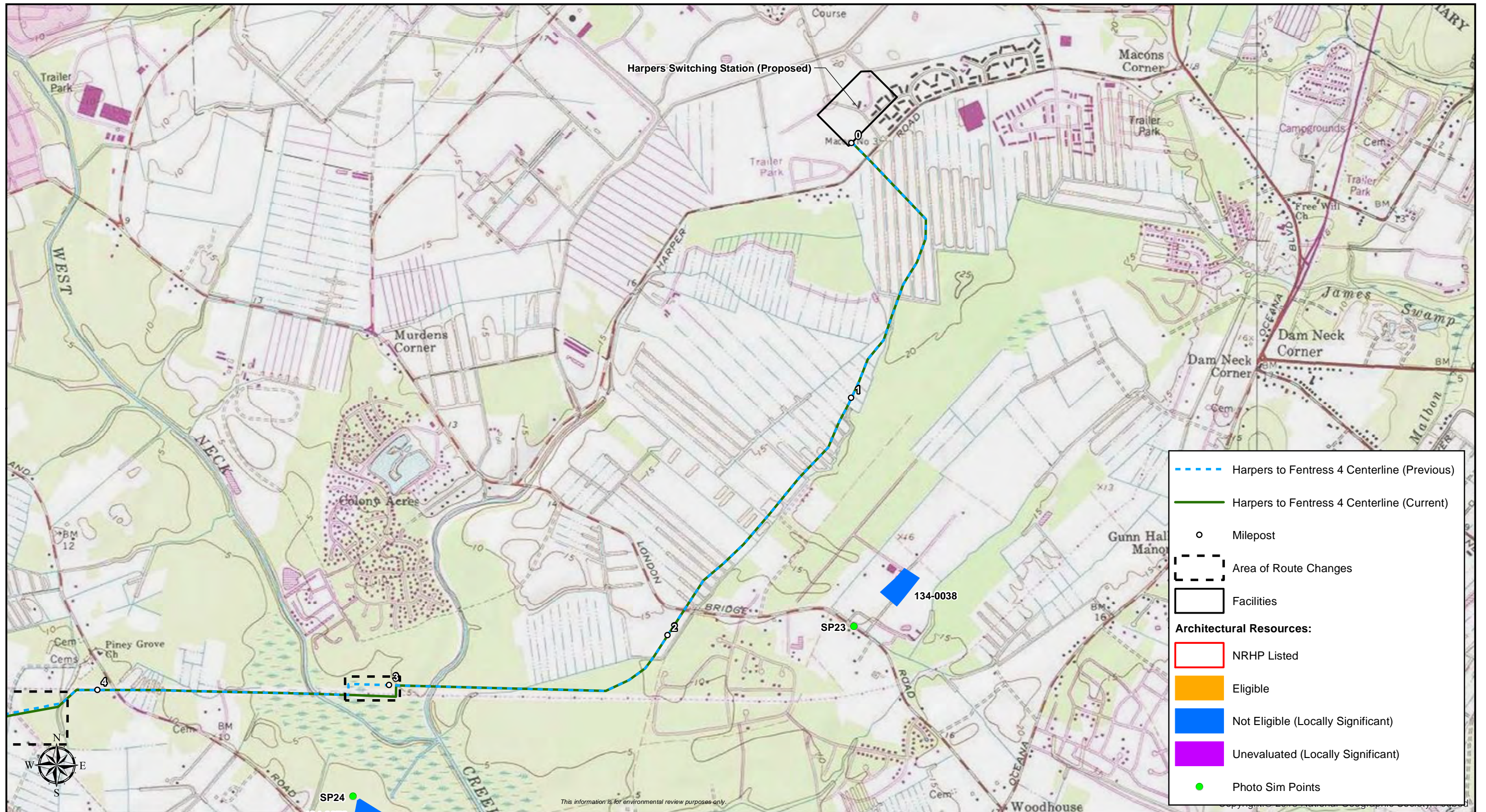
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**Locations of Considered Resources**  
**Harpers to Fentress Route 3**  
**Coastal Virginia Offshore Wind Commercial Project**  
**Dominion Energy Virginia**  
 Virginia Beach and Chesapeake, VA



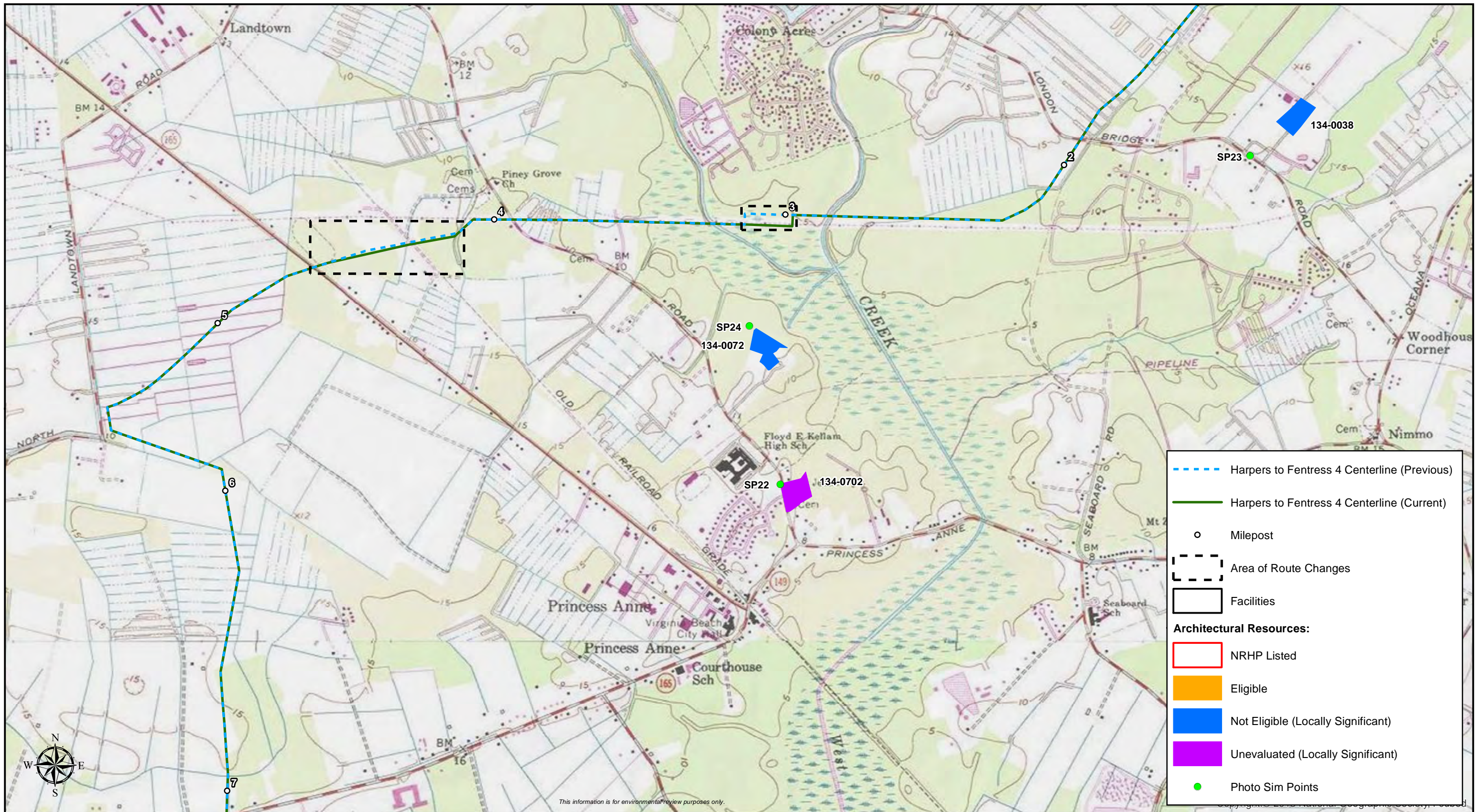
**HF ROUTE 4**



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**Locations of Considered Resources**  
**Harpers to Fentress Route 4**  
**Coastal Virginia Offshore Wind Commercial Project**  
**Dominion Energy Virginia**  
 Virginia Beach and Chesapeake, VA





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**Locations of Considered Resources  
Harpers to Fentress Route 4  
Coastal Virginia Offshore Wind Commercial Project  
Dominion Energy Virginia  
Virginia Beach and Chesapeake, VA**

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Miles

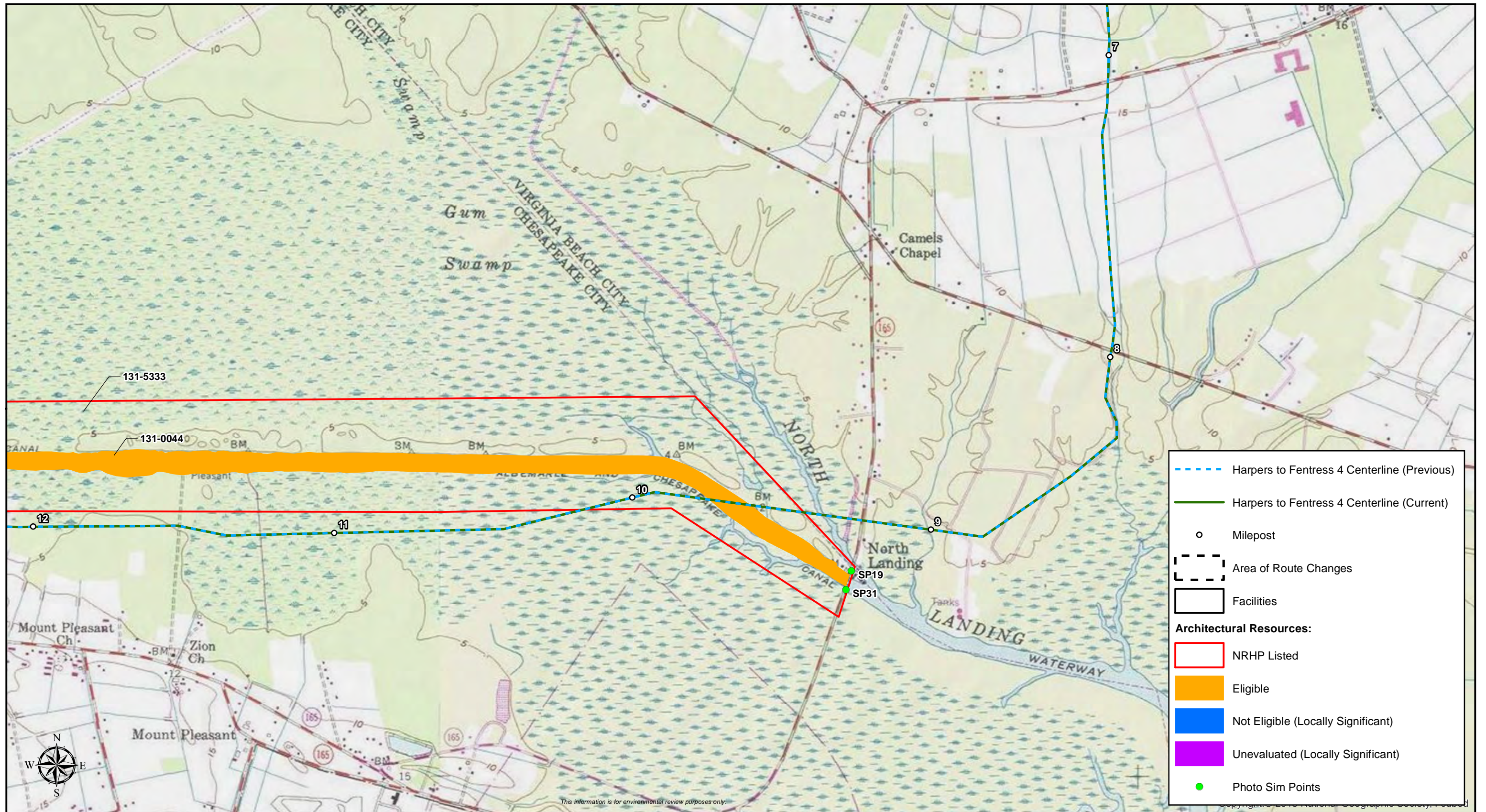
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SHEET 2 OF 4



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**Locations of Considered Resources**  
**Harpers to Fentress Route 4**  
**Coastal Virginia Offshore Wind Commercial Project**  
**Dominion Energy Virginia**  
**Virginia Beach and Chesapeake, VA**

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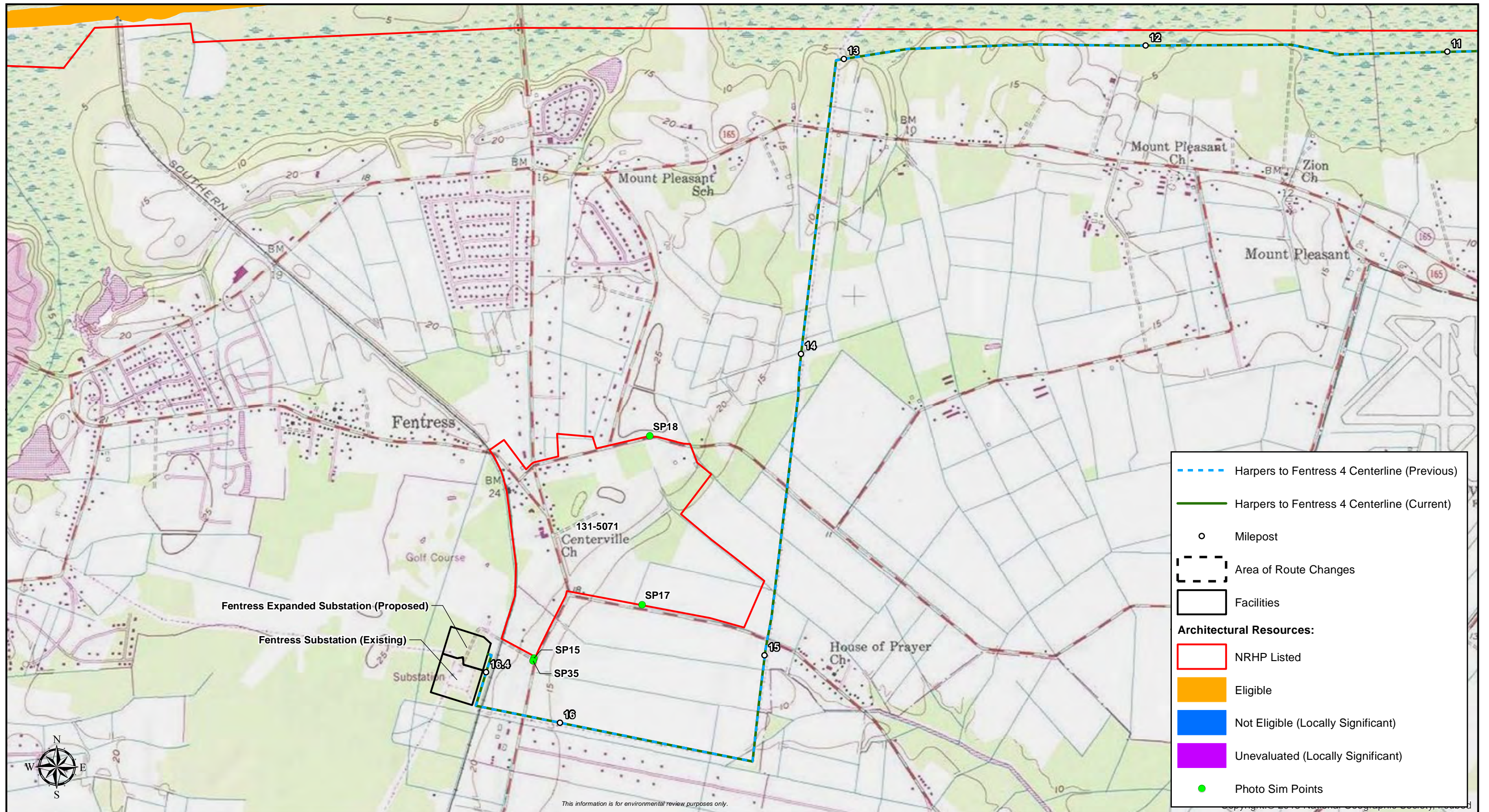
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SHEET 3 OF 4



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Miles

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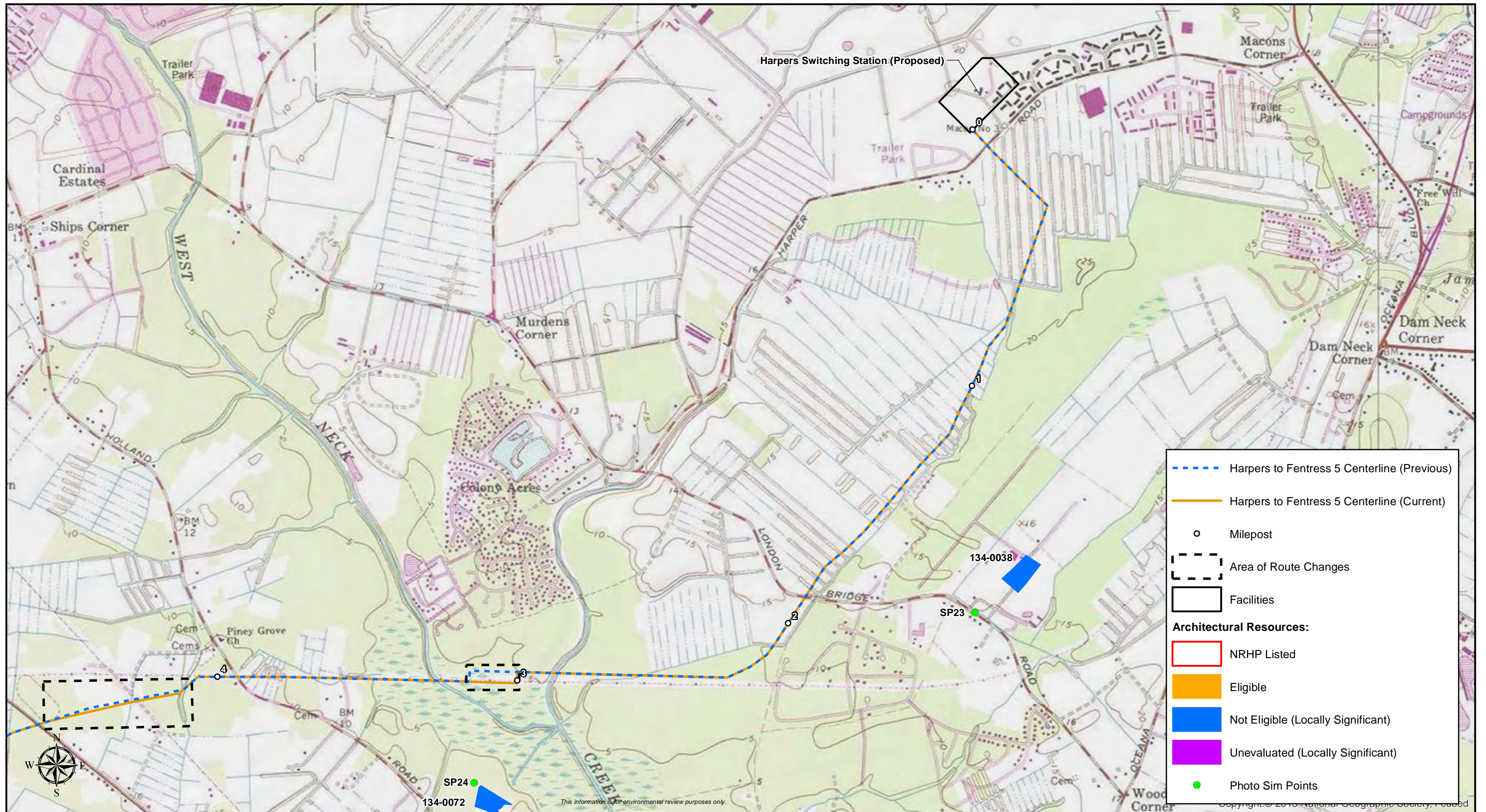
**Locations of Considered Resources**  
**Harpers to Fentress Route 4**  
**Coastal Virginia Offshore Wind Commercial Project**  
**Dominion Energy Virginia**  
 Virginia Beach and Chesapeake, VA

SHEET 4 OF 4



DRAWN BY: GIS

**HF ROUTE 5**



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Miles

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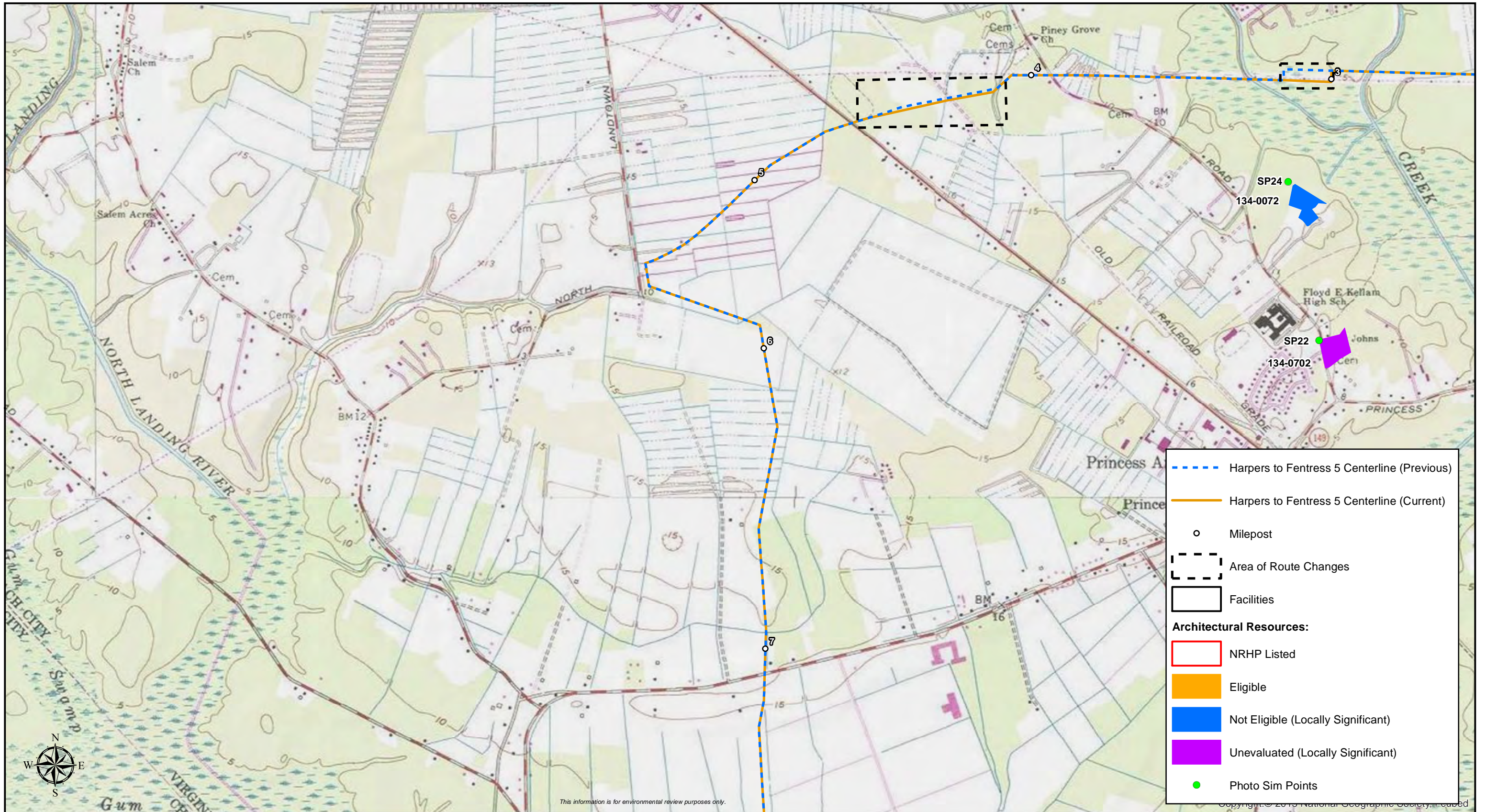
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**Coastal Virginia Offshore Wind Commercial Project**  
**Dominion Energy Virginia**  
 Virginia Beach and Chesapeake, VA

SHEET 1 OF 6



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Miles

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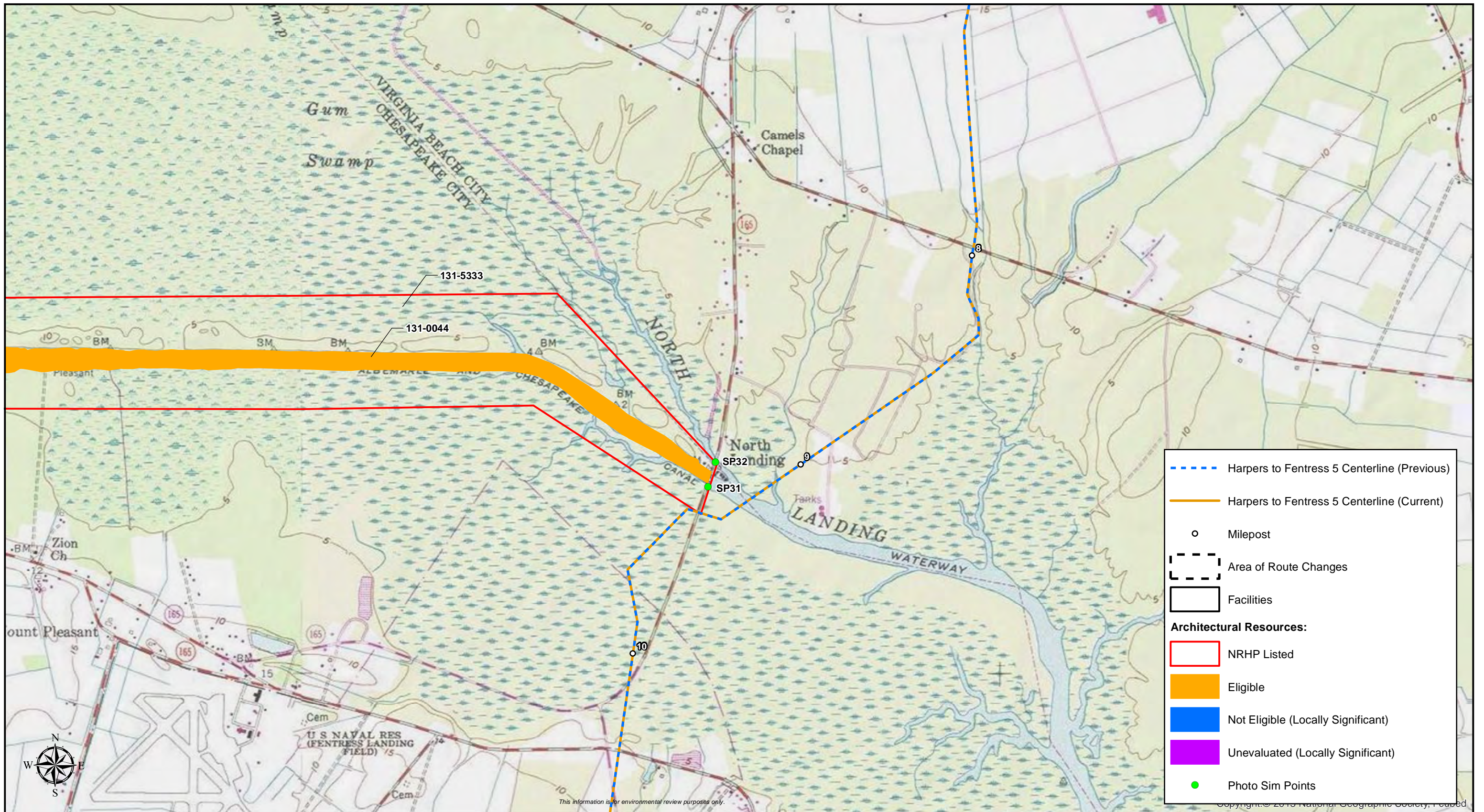


**Locations of Considered Resources**  
**Harpers to Fentress Route 5**  
**Coastal Virginia Offshore Wind Commercial Project**  
**Dominion Energy Virginia**  
 Virginia Beach and Chesapeake, VA

SHEET 2 OF 6



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**Locations of Considered Resources**  
**Harpers to Fentress Route 5**  
**Coastal Virginia Offshore Wind Commercial Project**  
**Dominion Energy Virginia**  
 Virginia Beach and Chesapeake, VA

0 0.25 0.5  
Miles

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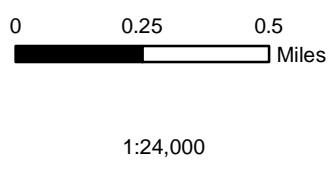
SHEET 3 OF 6



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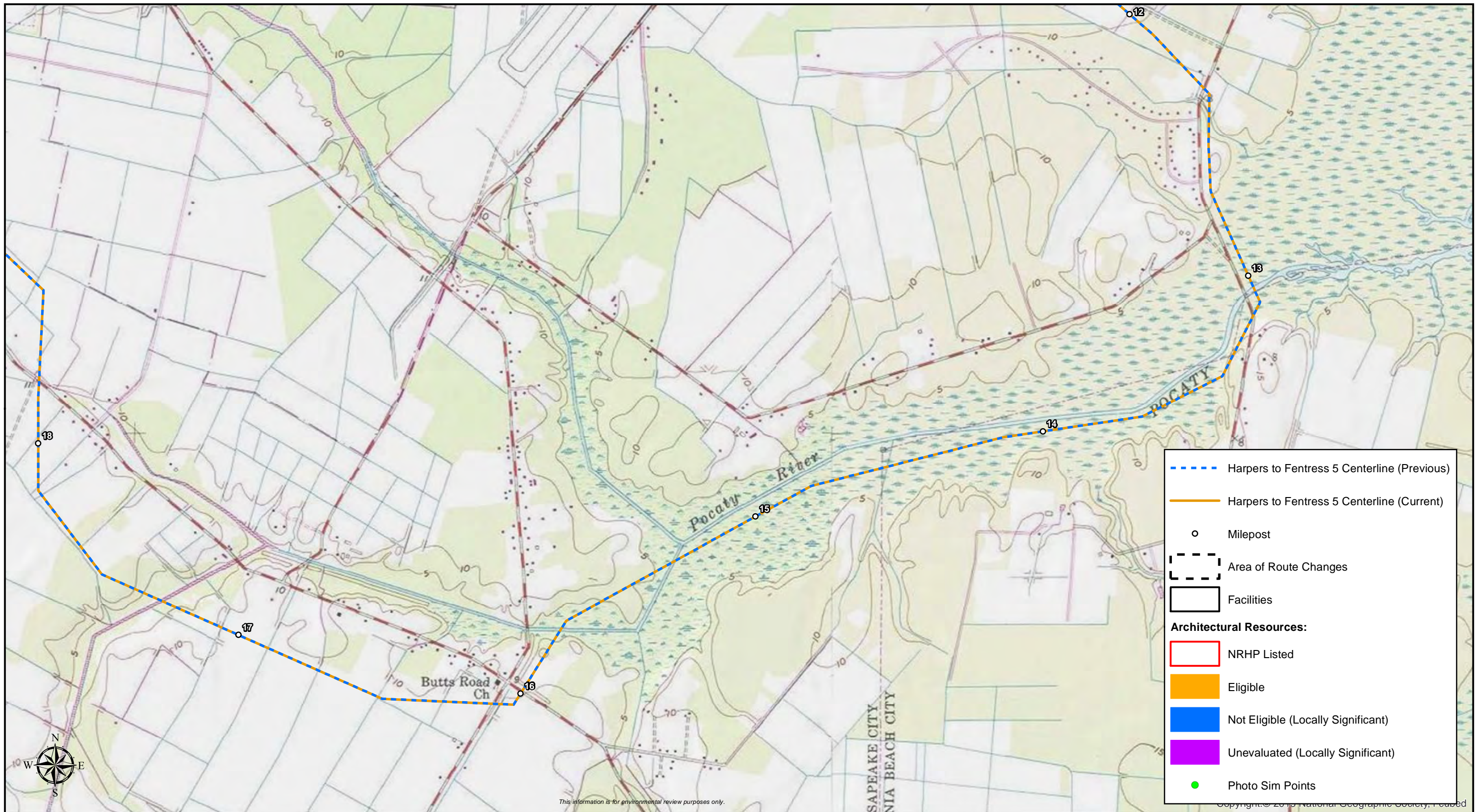


- - - Harpers to Fentress 5 Centerline (Previous)
- Harpers to Fentress 5 Centerline (Current)
- Milepost
- Area of Route Changes
- Facilities
- Architectural Resources:**
- NRHP Listed
- Eligible
- Not Eligible (Locally Significant)
- Unevaluated (Locally Significant)
- Photo Sim Points



**Locations of Considered Resources**  
**Harpers to Fentress Route 5**  
**Coastal Virginia Offshore Wind Commercial Project**  
**Dominion Energy Virginia**  
 Virginia Beach and Chesapeake, VA





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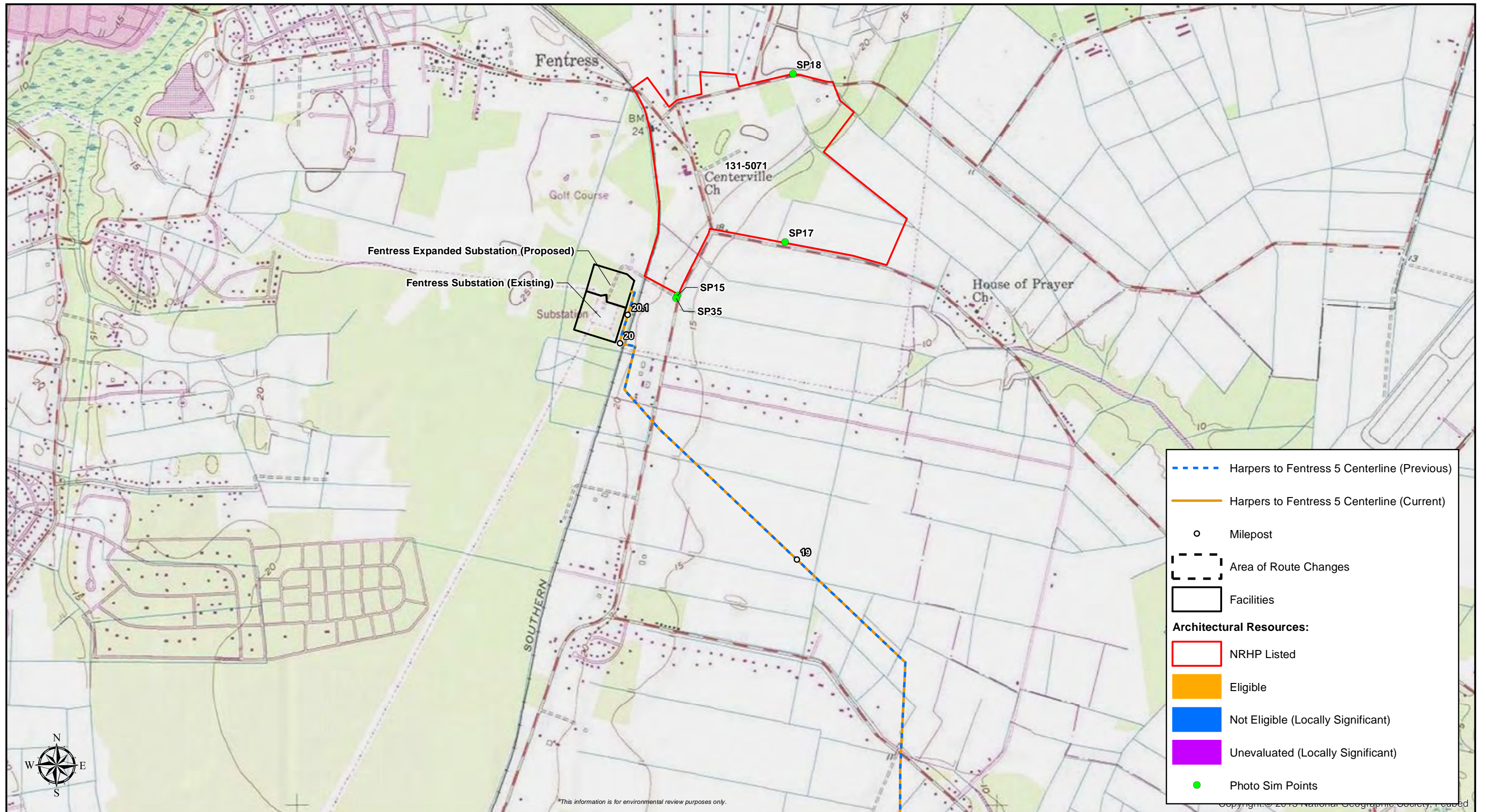


**Locations of Considered Resources**  
**Harpers to Fentress Route 5**  
**Coastal Virginia Offshore Wind Commercial Project**  
**Dominion Energy Virginia**  
 Virginia Beach and Chesapeake, VA

SHEET 5 OF 6



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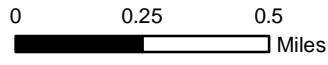


- - - Harpers to Fentress 5 Centerline (Previous)
- Harpers to Fentress 5 Centerline (Current)
- Milepost
- Area of Route Changes
- Facilities

**Architectural Resources:**

- NRHP Listed
- Eligible
- Not Eligible (Locally Significant)
- Unevaluated (Locally Significant)
- Photo Sim Points

\*This information is for environmental review purposes only.



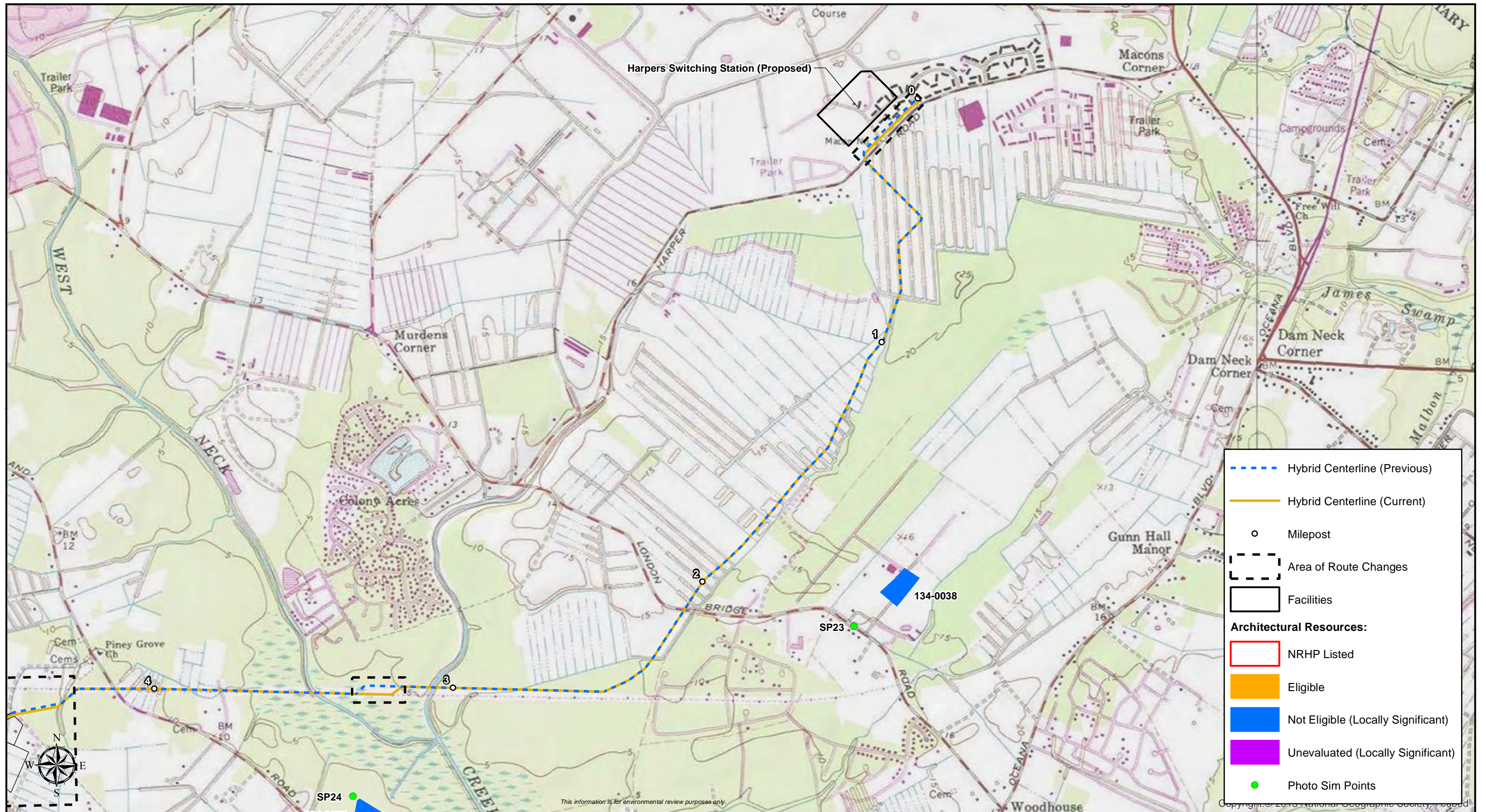
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**Locations of Considered Resources**  
**Harpers to Fentress Route 5**  
**Coastal Virginia Offshore Wind Commercial Project**  
**Dominion Energy Virginia**  
 Virginia Beach and Chesapeake, VA

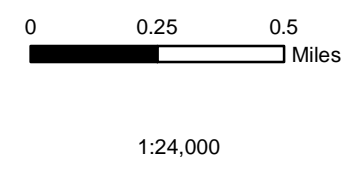


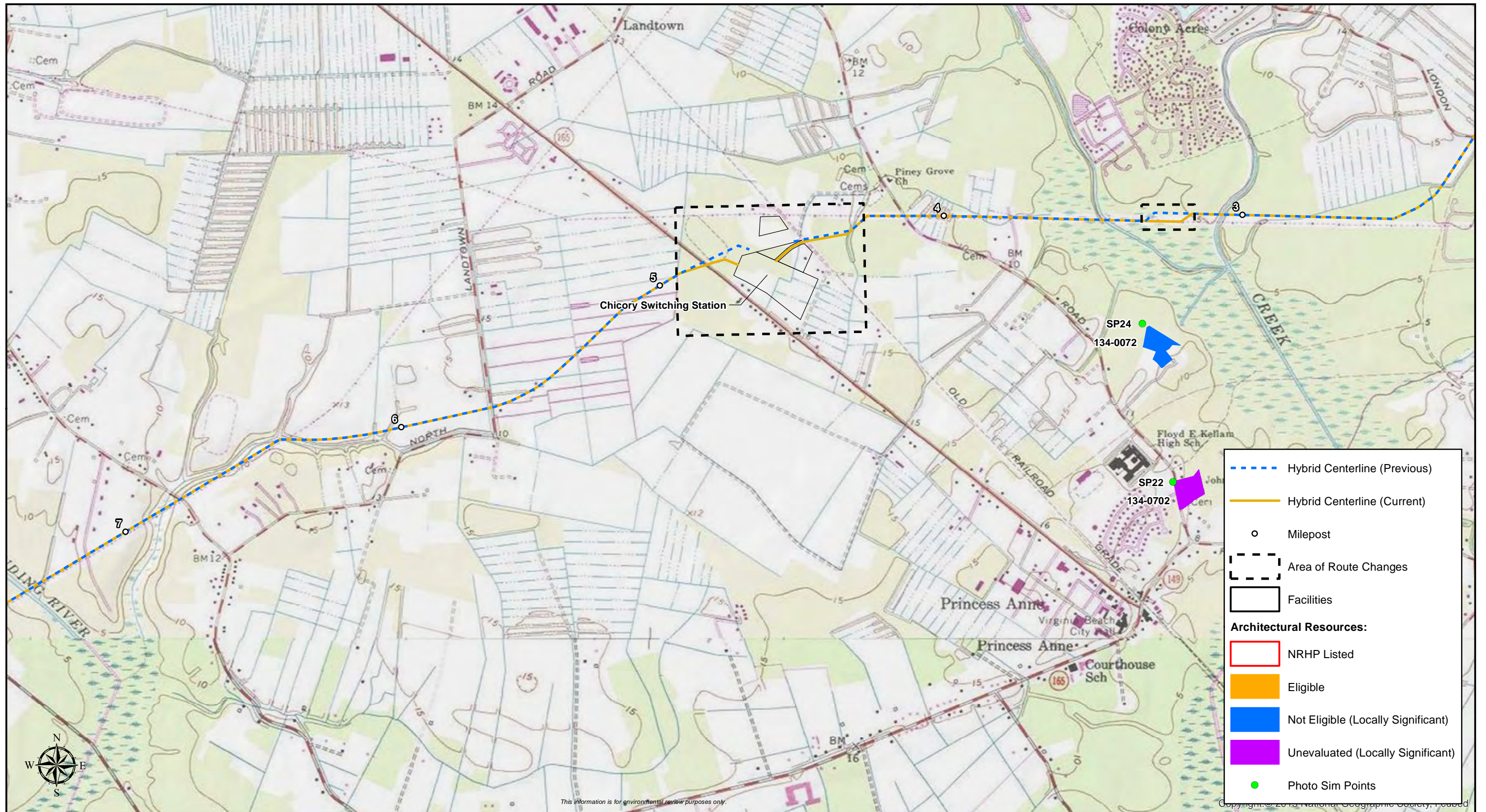
**HF HYBRID ROUTE**



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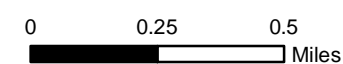
**Locations of Considered Resources**  
**Harpers to Fentress Hybrid Route**  
**Coastal Virginia Offshore Wind Commercial Project**  
**Dominion Energy Virginia**  
 Virginia Beach and Chesapeake, VA





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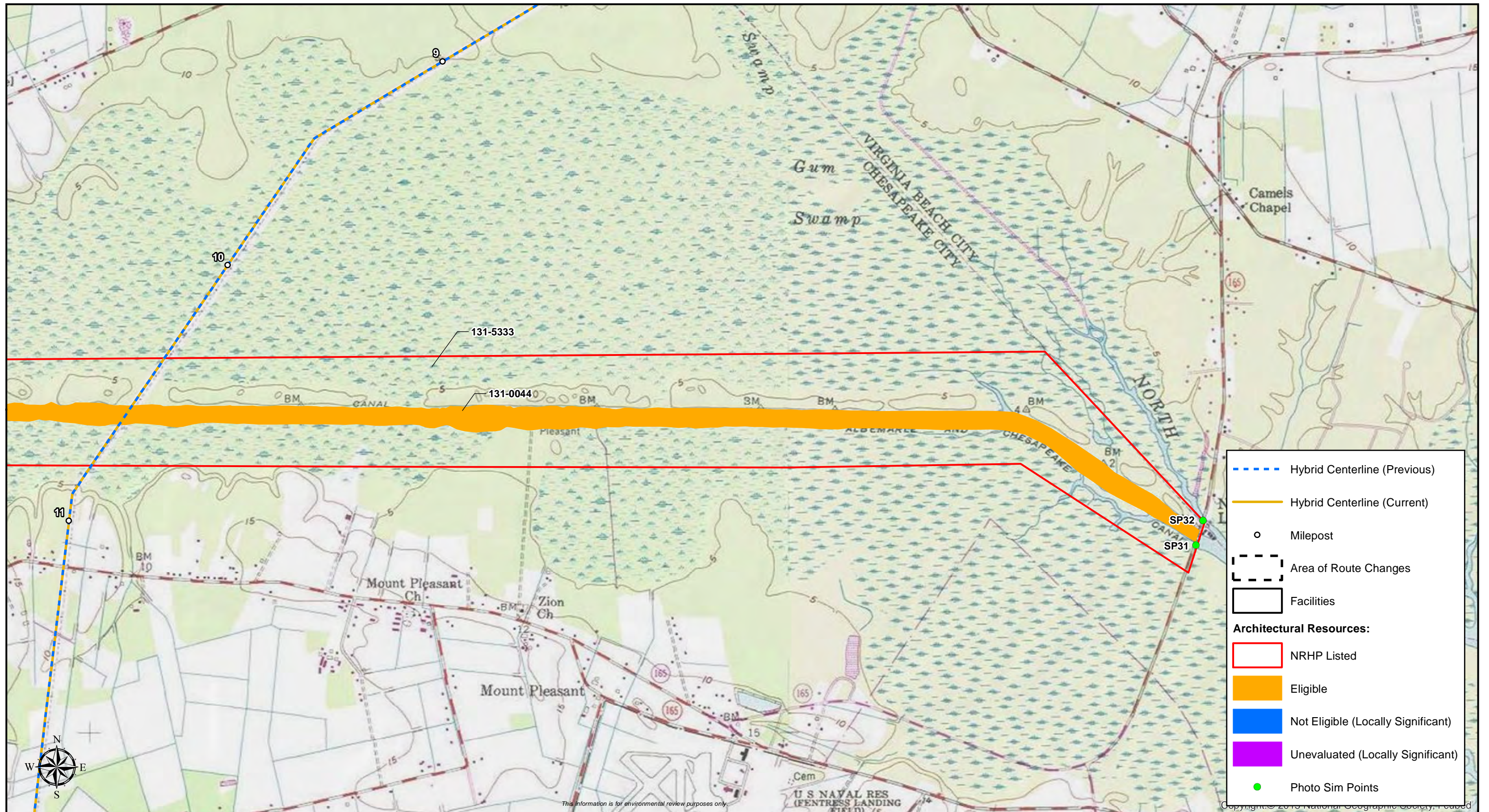


**Locations of Considered Resources  
Harpers to Fentress Hybrid Route  
Coastal Virginia Offshore Wind Commercial Project  
Dominion Energy Virginia  
Virginia Beach and Chesapeake, VA**

SHEET 2 OF 4







**Locations of Considered Resources**  
**Harpers to Fentress Hybrid Route**  
**Coastal Virginia Offshore Wind Commercial Project**  
**Dominion Energy Virginia**  
 Virginia Beach and Chesapeake, VA

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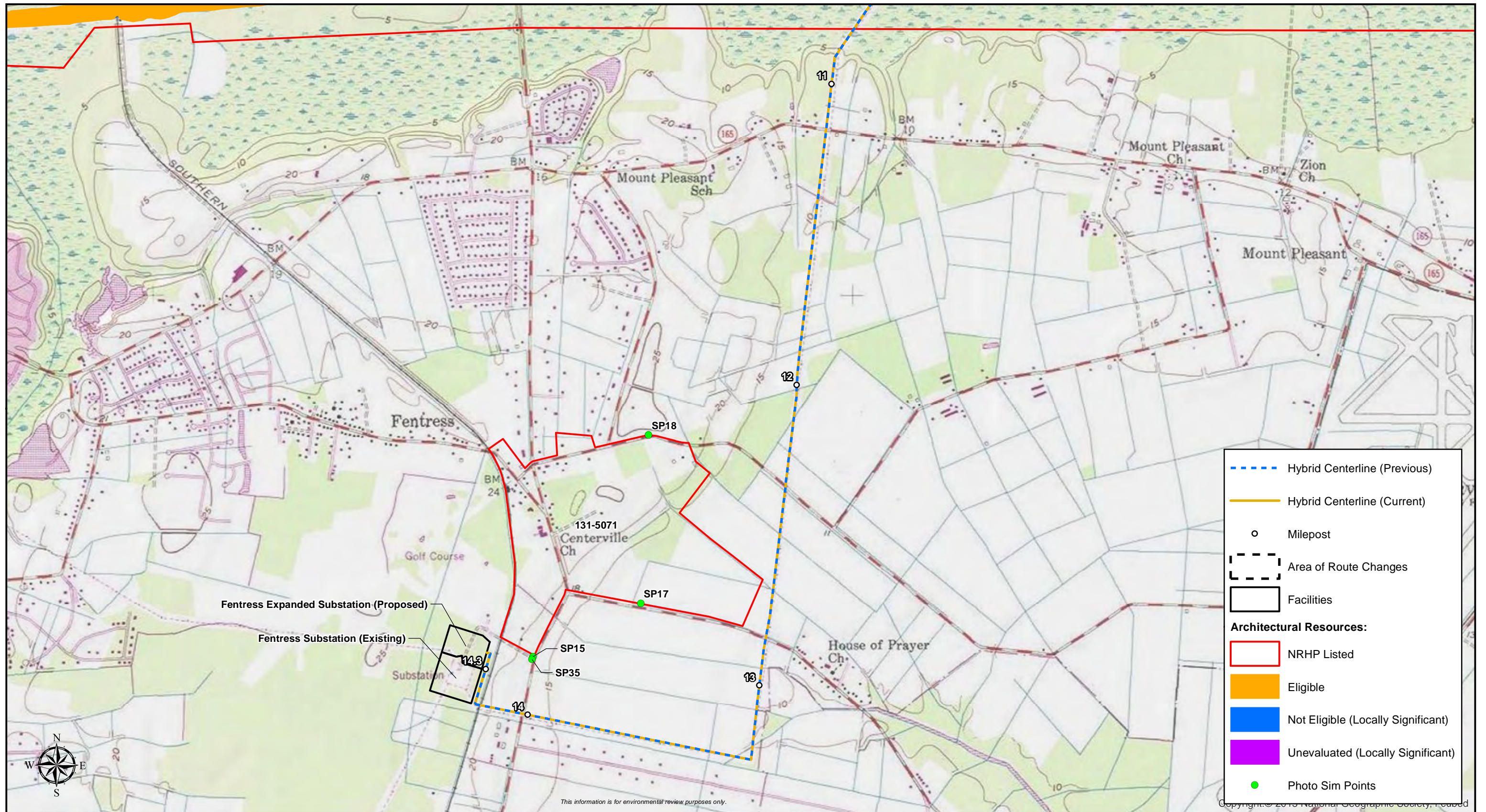
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SHEET 3 OF 4



DRAWN BY: GIS



**Locations of Considered Resources**  
**Harpers to Fentress Hybrid Route**  
**Coastal Virginia Offshore Wind Commercial Project**  
**Dominion Energy Virginia**  
 Virginia Beach and Chesapeake, VA



**ATTACHMENT 5:      UPDATED SIMULATIONS**



Existing View



Viewpoint Location UTM Zone 18N: 394102E 4061222N  
 View Direction: 195 degrees  
 Viewpoint Elevation: 20 feet  
 Distance to Development: 856 feet  
 Horizontal Field of View: 90 degrees

Date of Photography: 6th April 2021 10:53  
 Camera: Nikon D800  
 Lens: Nikkor 50mm 1.4  
 Camera Height: 5 feet



Figure  
Viewpoint SP15b

On Centerville Turnpike south of 131-5071

Pre-Application Analysis  
Coastal Virginia Offshore Wind



Photomontage showing proposed development



Viewpoint Location UTM Zone 18N: 394102E 4061222N  
 View Direction: 195 degrees  
 Viewpoint Elevation: 20 feet  
 Distance to Development: 856 feet  
 Horizontal Field of View: 90 degrees

Date of Photography: 6th April 2021 10:53  
 Camera: Nikon D800  
 Lens: Nikkor 50mm 1.4  
 Camera Height: 5 feet



**Figure**  
**Viewpoint SP15b**  
 On Centerville Turnpike south of 131-5071  
**Pre-Application Analysis**  
**Coastal Virginia Offshore Wind**



Existing View



Viewpoint Location UTM Zone 18N: 394107E 4061242N  
 View Direction: 266 degrees  
 Viewpoint Elevation: 19 feet  
 Distance to Development: 685 feet  
 Horizontal Field of View: 90 degrees

Date of Photography: 27th August 2021 2:30pm  
 Camera: Nikon D800  
 Lens: Nikkor 50mm 1.4  
 Camera Height: 5 feet



Figure  
 Viewpoint SP35

On Centerville Turnpike south of 131-5071

**Pre-Application Analysis  
 Coastal Virginia Offshore Wind**



Photomontage showing proposed development



Viewpoint Location UTM Zone 18N: 394107E 4061242N  
 View Direction: 266 degrees  
 Viewpoint Elevation: 19 feet  
 Distance to Development: 685 feet  
 Horizontal Field of View: 90 degrees

Date of Photography: 27th August 2021 2:30pm  
 Camera: Nikon D800  
 Lens: Nikkor 50mm 1.4  
 Camera Height: 5 feet



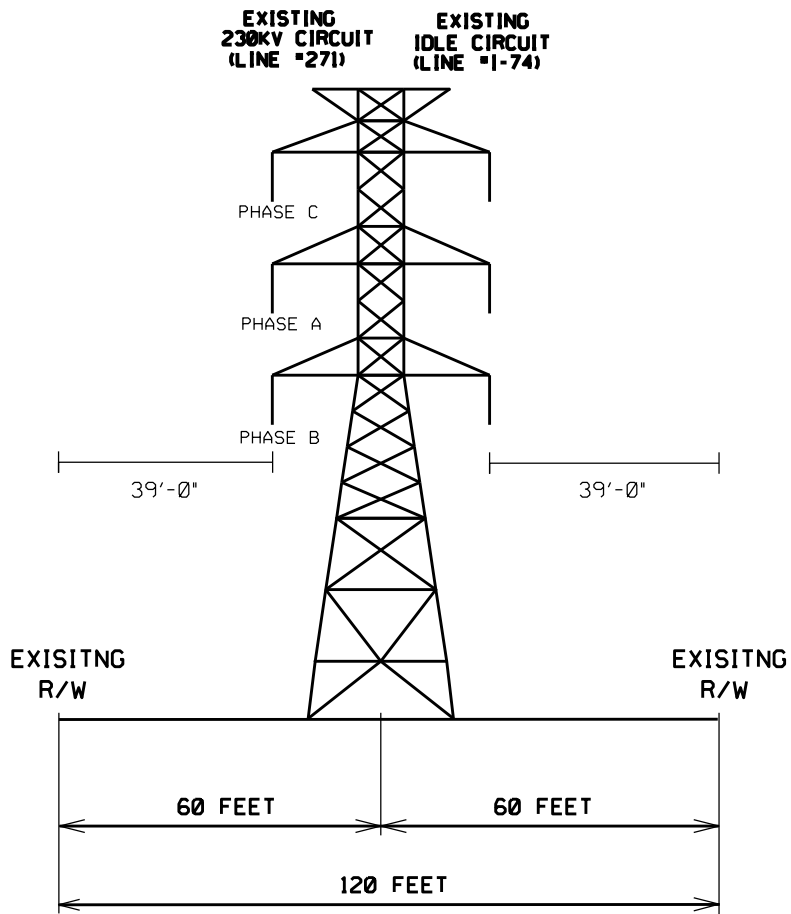
**Figure**  
**Viewpoint SP35**  
 On Centerville Turnpike south of 131-5071  
**Pre-Application Analysis**  
**Coastal Virginia Offshore Wind**

**ATTACHMENT 6:      RIGHT-OF-WAY TYPICAL**



TYPICAL CONFIGURATION

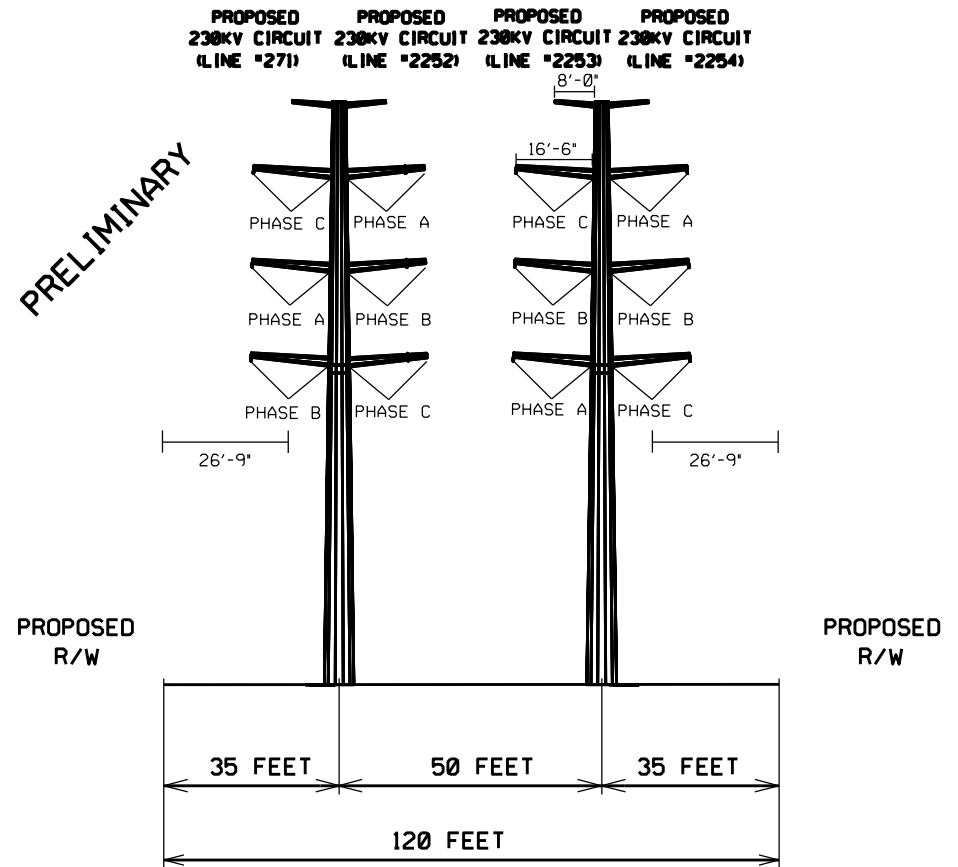
LINE 271 REBUILD SEGMENTS  
ON EXISTING RIGHT OF WAY



EXISTING CONFIGURATION  
TYPICAL CORRIDOR LOOKING TOWARD HARPERS

TYPICAL CONFIGURATION

LINE 271 REBUILD SEGMENTS  
ON EXISTING RIGHT OF WAY



PROPOSED CONFIGURATION  
LOOKING TOWARDS HARPERS

**NOTE:** Information contained on drawing is to be considered preliminary in nature and subject to change based on final design.



# COMMONWEALTH of VIRGINIA

Travis Voyles  
Acting Secretary of Natural  
and Historic Resources

## Department of Historic Resources

2801 Kensington Avenue, Richmond, Virginia 23221

Julie V. Langan  
Director

Tel: (804) 367-2323  
Fax: (804) 367-2391  
[www.dhr.virginia.gov](http://www.dhr.virginia.gov)

February 15, 2023

Ms. LK Schnitzer  
Bureau of Ocean Energy Management  
Office of Renewable Energy Programs  
45600 Woodland Road, VAM-OREP  
Sterling, Virginia 20166

Re: *Marine Archaeological Resources Assessment for the Coastal Virginia Offshore Wind Commercial Project Located on the Outer Continental Shelf Offshore Virginia (May 3, 2022)*  
DHR File No. 2020-4849

Dear Ms. Schnitzer:

We have received for review the document referenced above prepared by R. Christopher Goodwin & Associates, Inc. in support of the Coastal Virginia Offshore Wind Commercial Project. Our comments are provided as assistance to Dominion Energy and the Bureau of Ocean Energy Management (BOEM) in meeting their collective responsibility pursuant to Section 106 of the National Historic Preservation Act.

The size of the survey at ca. 200 square miles is of unique magnitude and scope for the mid-Atlantic region. A comparable landmass is the entirety of the Virginia peninsula east of Williamsburg that would include all of Hampton, Poquoson, York, Newport News, and a portion of James City County. The report authors recognize this unique opportunity for the exploration of such a large landscape. The Lease Area and Offshore Export Cable corridor are recognized by both the archaeological and tribal communities as having the potential to contain not only historic sunken vessels and craft but culture-bearing lenses from the Paleo and Archaic periods. To date, no substantial survey for, or investigation of, such resources off Virginia has occurred except for a 2015-2016 geophysical survey in support of the VOWTAP project.

The survey and reporting appear to be consistent with BOEM's *Guidelines for Providing Archaeological and Historic Property Information* (27 MAY 2020). It should be noted that the digital version of the report received by our office is dated August 18, 2022, but the hardcopy received is dated May 3, 2022. The comments below pertain to the August 18, 2022 version. We provide the following comments for BOEM's consideration:

1. Geophysical properties of buried horizons were identified by the survey team in numerous areas (A & B) but were largely discounted due to perceived "intensive sediment reworking". Chapter V (p. 142) indicates that such reworking is the result of 'storm waves'. How was this determination made? How does that data differ from unworked areas? Which survey instrument/s made this determination

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Fax: (540) 387-5446

Northern Region Office  
5357 Main Street  
PO Box 519  
Stephens City, VA 22655  
Tel: (540) 868-7029  
Fax: (540) 868-7033

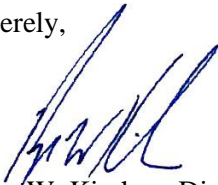
Eastern Region Office  
2801 Kensington Avenue  
Richmond, VA 23221  
Tel: (804) 367-2323  
Fax: (804) 367-2391

and if multiple instruments include overlap of a single point, do they both agree with the reworked hypothesis? Additionally, storm wave reworking may disturb discrete contexts but leave concentrations and patterns of distribution as wave energy patterns are cyclical. Naval Research Laboratory work to track movement of unexploded ordnance indicates less movement of items with densities greater than water-inundated sediments.

2. Discussion of the paleo-landscape could be enhanced with maps showing the distribution of units, especially A & B. Profiling of seismic results indicate that palustrine and riparian areas are substantial, but the report only offers episodic sampling of data to show the buried landform. Graphical representation of areas with discrete A & B units and not just the locations of paleo-features would better reflect understandings of the paleo-landscape.
3. The authors indicate that the client intends to develop an Unanticipated Discovery Plan (UDP), to include archaeological resource identification training. There is no further mention of how this plan may be developed, what it would include, how it would reference the findings within this report, or who would be trained/tasked with implementation of the plan to correctly identify and respond to unanticipated discoveries. A UDP should include notification protocol to include tribal representatives.
4. In the creation of a UDP, provision for diver or ROV investigation of sites should be considered to examine levels of disturbance, including in cases where unanticipated discovery may trigger immediate area avoidance protocol.
5. A UDP should consider offset provisions for disturbance of submerged cultural resources such as enhanced investigation of paleo-landscape features or wreck sites. The clearance methods for this area, while consistent with BOEM survey guidelines potentially allow for significant disturbance (including maintenance and expansion) of a large section of the Outer Continental Shelf. Clearance of the project area for the proposed activities should in no way indicate a complete understanding and documentation for submerged cultural resources within the area. As recommended in the MARA, enhanced survey and study of both assumed high probability and low probability (no medium probability areas were identified) should be pursued in order to better refine assumptions based on remote sensing and systematic coring studies.

Thank you for the opportunity to review this important work. Please work with Brendan Burke (brendan.burke@dhr.virginia.gov), DHR's State Underwater Archaeologist, to address the comments above and submit to DHR a hardcopy of the revised final report when available. We are not requesting resubmission of hardcopies of the MARA appendices, such as daily logs and clearance letters. If we can be of any assistance at this time, please do not hesitate to contact me at [roger.kirchen@dhr.virginia.gov](mailto:roger.kirchen@dhr.virginia.gov).

Sincerely,



Roger W. Kirchen, Director  
Division of Review and Compliance