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CAPE COD
COMMISSION

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Via Email

August 6, 2024
Sandwich Board of Appeals
Attn: Ralph Vitacco, Director of Planning & Economic Development

Re: Village Green, Sandwich (CCC File No. 24016)
76 Route 130, Sandwich, MA 02664
40B/Comprehensive Permit Application

Cape Cod Commission Staff Comments:

The Cape Cod Commission (herein, "Commission") seeks to protect the unique values and quality of life on Cape Cod, guided by the Cape Cod Commission Act ("Act") and Cape Cod Regional Policy Plan ("RPP"). Commission staff offer the following analysis of the Village Green 40B, proposed at 76 Route 130, Sandwich, MA 02664 ("Project") with respect to the following RPP Goals: Housing, Transportation, Water Resources, Open Space, Community Design, and Cultural Heritage.

Pursuant to Section 13(j) of the Act, the Commission is considered a "Local Board" for purposes of MGL Ch. 40B, ss. 20-23. Accordingly, the Commission provides, through its staff and in its capacity as a Local Board, comments on the Project to the Board of Appeals on the above-referenced matter.

HOUSING

The Housing Goal of the RPP is to promote the production of an adequate supply of ownership and rental housing that is safe, healthy, and attainable for people with different income levels and diverse needs. There continues to be an acute need for affordable housing in all towns on Cape Cod, and especially for year-round rental units.

The Act and RPP seek to preserve the social diversity of the region by promoting the development of affordable housing for low- and moderate-income households. The Project addresses these concerns. The Applicant proposes to develop 144 rental units with associated parking. Of the 144 units, 25%, or 36 units, will be available to households earning at or below 80% of the Area Median

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Income. Per the application, the Project includes the construction of 6 residential buildings: 3 two-story buildings and 3 three-story buildings. In addition, the application proposes 4 two-story townhouses. In total, the Project proposes 40 studio units, 85 one-bedroom units, and 19 three-bedroom units.

The application does not specifically address the timing and mix of the development of the affordable units in relation to the market rate units, although the application states that both the affordable and market rate units will be marketed and fully constructed at the same time. Comparability of affordable and market unit materials and finishes is not mentioned. Commission staff recommend that there should be a similar proportion of affordable and market-rate unit/bedroom sizes and/or housing types. Commission staff further recommend that affordable housing units should be integrated with the rest of the development in terms of location and should be compatible in exterior design, appearance, construction, and quality of materials with other units.

TRANSPORTATION

The Transportation Goal of the RPP is to provide and promote a safe, reliable, and multi-modal transportation system. Commission staff note that it does not appear that a Traffic Impact Study has been prepared for the proposed Project. Based on the Institute of Transportation Engineer's (ITE) trip generation estimates for Land Use Code (LUC) 223 (Multi-Family Residential), the proposed 144-unit residential development is anticipated to generate approximately 1,000 new daily vehicular trips, with approximately 50 to 80 new vehicular trips entering or exiting the site driveway during the peak hours. The trip generation and parking requirements for the Controlled Environment Agriculture ("CEA") building is unknown as it is a unique land use. Trip generation associated with the solar energy generation facility is likely minimal.

It is unclear if a traffic capacity analysis has been performed for the proposed site driveway to justify the two proposed exiting travel lanes. To reduce overall impervious surface and reduce the potential crossing exposure for pedestrians, one exiting travel lane may be adequate. If two exiting travel lanes are required, Cape Cod Commission guidance typically recommends a center pedestrian refuge island be installed for driveway widths over 22 feet. Commission staff also request clarification as to what the two proposed curb cuts adjacent to the townhouses are proposed to connect to and if there are future phases of development proposed on Lot 3 to the north.

In terms of multimodal connectivity, Commission staff commend the Applicant for the proposed internal sidewalk network. There is an existing sidewalk on Route 130 on the western side of the roadway that the proposed development can connect to and promote walking trips to/from the site. The Applicant may want to consider the potential installation of a new crosswalk on Route 130 in coordination with the Town to support connectivity to the regional sidewalk network, including destinations to the north such as the Forestdale School. Additionally, the Applicant may want to consider the installation of a small section of sidewalk on the eastern side of Route 130 from the site driveway to the adjacent convenience store and gas station, which may be a future pedestrian destination for residents. Internal crosswalks may also be added to connect the internal sidewalk network.

The Project is not located close to a fixed-route public transit service, but the Cape Cod Regional Transit Authority (CCRTA) has a new on-demand van service called Smart Dart which connects transit riders to fixed route transit service. The developer may want to promote the use of CCRTA transit service options (Smart Dart and Dart) to future residents. While Commission staff acknowledge the trip reduction measures on site, such as the CEA building, nature trails, co-working space and bicycle storage, it is not clear on the plans where the nature trails and bicycle storage are proposed to be located.

Commission staff recommend that the Applicant confirm that safe stopping sight distance is available at the proposed site driveways on Route 130 and Pimlico Pond Road based on the prevailing speeds of the roadways. No signs, vegetation, or other visual obstructions should be placed in a manner that would create an obstruction to safe sight distance at the site drives.

WATER RESOURCES

The Water Resources Goal of the RPP seeks to maintain a sustainable supply of high-quality untreated drinking water and protect, preserve, and restore the ecological integrity of fresh and marine surface water resources. The proposed Project is located within areas mapped for Potential Public Water Supply, Freshwater Recharge Areas (Peters, Pimlico, and Mashpee-Wakeby Ponds), as well as Marine Water Recharge Areas (MWRA) for Popponesset Bay, the Lower Mashpee River, and Shoestring Bay, all nitrogen impaired waterways.

The Project proposes 5.7 acres +/- of impervious surface. Staff recommend that the Applicant incorporate strategies to reduce impervious cover, for example, by incorporating pervious pavement. Staff recommend that the Applicant provide more information about how roof runoff will be managed, both from the residential building and the CEA building. Stormwater systems should be designed to handle increased runoff in a distributed and decentralized manner for water quality and flood protection. The proposed layout leaves little available space for landscaping, however, using landscaped islands as green infrastructure for stormwater management and treatment in the parking areas may help manage and treat stormwater runoff, improve the aesthetics, and provide shade for the parking lot.

To be consistent with the RPP, the proposed Project needs to have a nitrogen load of zero. Per the application, the Project proposes an onsite wastewater-to-clean-water system. The clean water, treated to "reuse levels," is proposed to be used onsite for irrigation and general site maintenance.

To properly review the Applicant's proposal for an onsite wastewater-to-clean water system, Commission staff will need additional details showing how a net zero nitrogen load requirement will be met and how the system will enable Sandwich to adhere to the Intermunicipal Agreement with Mashpee and Barnstable. It is not clear from the application if there will be wastewater discharge or what the water quality of the wastewater discharge will be. The application indicates that the wastewater effluent will be treated to clean water and be able to be reused onsite, and yet the groundwater modeling was run using 1.6 million gpd of wastewater discharge. Staff note that the site plans do not reflect the proposed 16.5-acre leaching field or the proposed wastewater treatment facility referenced in the application materials.

Given the proximity of the proposed Project to sensitive water resources, it will be important to assess the impacts of the proposed Project on nearby surface waterbodies as well as any downgradient drinking water wells. Based on the groundwater modeling, there may be an impact on the downgradient ponds. Staff suggest determining groundwater flow time and draw rates of public supply wells in Mashpee to better determine extent of the impact on the ecosystem health of downgradient ponds.

Regarding the solar array portion of the Project, Commission staff note that removing the vegetation for the array will alter the natural hydrologic patterns of the area. The area to be developed with the solar array is unaltered woodlands, which naturally capture, treat, and infiltrate stormwater. Staff suggest that the Applicant account for changes in hydrologic patterns. This may include adequately sizing and vegetating spaces between solar panel rows and adding structural stormwater management treatments to mitigate the hydrologic changes. Commission staff further recommend documenting other options that were considered that might avoid additional impacts to hydrologic patterns, such as carports or rooftop solar.

OPEN SPACE

The Open Space Goal of the RPP supports the protection of the region's natural resources including rare species habitat, and other undeveloped or sensitive areas. The RPP also seeks to preserve outdoor recreational resources to enhance community well-being and quality of life.

The residential portion of the Project is proposed on a 9.44-acre lot that appears to have been at least partially cleared historically, likely for agriculture, and has more recent clearing. There are no mapped sensitive resources on this lot and it is not mapped as a Natural Area Placetype according to the RPP Placetype Mapping. The proposed residential buildings are clustered on the site, toward the road and other residential developments. The Applicant included a conceptual landscape plan that includes native species. Commission staff recommend retaining as much of any existing native vegetation as possible, especially along the property boundaries to maintain existing buffers to surrounding development. Further, staff recommend that the Applicant use construction best practices to manage sedimentation and erosion and any invasive species that may be on the site.

There is not enough information to assess the solar array portion of the Project for consistency with the Open Space Goal and the Wildlife & Plant Habitat Goal of the RPP. The 4.8 MW AC solar array consists of a renewable energy system with battery energy storage, proposed on the 23.92-acre 55 Pimlico Pond lot. The solar array would require a significant amount of clearing of native forested land with no apparent history of development based the Commission's Chronology Viewer. In addition, a portion of the parcel is mapped BioMap Critical Natural Landscape.

To better assess the resource value of the land, and inform mitigation requirements, Commission staff recommend that the Applicant conduct a Natural Resources Inventory. Staff note that consistency with the Open Space Goal would generally require that any undeveloped land cleared for the array be mitigated as outlined in the Commission's Open Space Technical Bulletin. Commission staff also note that the application provides little information about the CEA building.

The plans indicate that the CEA building will be of substantial size—21,000+/- square feet and 20 feet tall—will require 54 +/- parking spaces and will be separated by a gate from the residential portion of the development.

While Commission staff understand that the CEA building and solar array are proposed as “ancillary infrastructure” to the affordable housing, the application does not include documentation showing that these developments are proposed to support the affordable housing. Both the CEA building and solar array would be subject to Development of Regional Impact review by the Commission if they were to be proposed outside of the Comprehensive Permit review. Staff suggest that these developments should only be permitted to the extent that the Applicant can document that they are infrastructure necessary to support the affordable housing.

COMMUNITY DESIGN

The Community Design Goal of the RPP seeks to promote context-sensitive design that uses traditional Cape Cod materials and forms while minimizing development footprints and adverse impacts to scenic resources. The proposed plans indicate that virtually the entire residential lot will be cleared, leaving little existing vegetation to screen the large buildings and parking areas from adjacent properties. While the largest multi-family structure includes parking on the ground level to reduce the surface parking, the overall site design leaves very little area for landscaping or buffering.

In the townhouse portion of the Project, proposed parking areas are divided into small sections to reduce their visual prominence. The parking area adjacent to the 3-story structure is sited behind the structure and largely screened from public views by the building and vegetation. Commission staff suggest that the Applicant should consider ways to further reduce surface parking areas and consolidate development to retain more existing vegetation on both the residential lot and the solar array lot.

The residential buildings have no projections or setbacks to vary the facades and instead rely on projecting balconies and varied siding materials to break up long facades. Five (5) of the 6 proposed residential buildings have a footprint of approximately 6,500 square feet with facade lengths of 62 by 104 feet, and the sixth building has a footprint of roughly 12,600 square feet with facade lengths of 62 by 208 feet. Site plans show the three buildings closest to Route 130 as two-story and the others as three-story, with heights up to 40 feet. False gable roof forms shown in the schematic designs do not have enough depth to effectively vary the flat roof form. Commission staff suggest the Applicant consider ways to provide variation on the long facades and roof forms of the residential buildings. It may be appropriate to relocate the townhouses to allow these smaller buildings to provide a visual transition or screen for the larger residential buildings.

CULTURAL HERITAGE

The Cultural Heritage Goal of the RPP is to protect and preserve the significant cultural, historic, and archaeological values and resources of Cape Cod, including forms, layouts, scale, massing, and key character defining features of historic resources, including traditional development patterns of villages and neighborhoods. Several historic structures are located in the vicinity of the proposed Project. The area with frontage on Route 130 is part of the Forestdale neighborhood, which is included in the state's cultural resource database (MACRIS Area SDW.J). The Forestdale Area includes a small cluster of historic buildings (circa 1800-1850) associated with early agricultural pursuits, several of which are adjacent to the proposed Project. While the proposed development would not alter or demolish any existing buildings, it will impact the character and setting of the area if existing vegetation is not maintained to limit views into the development from the road frontage and from adjacent historic buildings.

Most of the solar array lot appears to be unaltered woodlands based on aerial photographs from 1938 to present. Given the parcel's proximity to several ponds, its topography, and its lack of disturbance, the property is likely to be archaeologically sensitive. Any ground disturbance, including tree and vegetation removal, could harm archaeological resources on the site. An archaeological survey and consultation with Mass Historical Commission's archaeology staff should be required prior to finalizing design of this portion of the development for purposes of protecting and preserving archaeological resources and assets from alteration or relocation, consistent with the Cultural Heritage Goal of the RPP.

CONCLUSION

Commission staff look forward to reviewing any further information that the Applicant may provide on the Project and are available to answer any questions you might have about these comments.

Sincerely,



Kristy Senatori
Executive Director

Cc: Project File
Cape Cod Commission Chair via email
Cape Cod Commission Committee on Planning and Regulation Chair via email