

Site Plan Application No. 820220210

Project Santa Rosa

13330 Signal Tree Lane, Rockville, Maryland

Applicant's Statement of Justification

May 17, 2022

Introduction

Chaberton Solar Santa Rosa LLC ("Chaberton" or the "Applicant") proposes to install a solar array on approximately four acres of a 10-acre residential property located at 13330 Signal Tree Lane, Rockville, slightly north of River Road and south of Magruder Farm Court, known as Parcel D, River Plantation subdivision (the "Subject Property"). The Subject Property is classified in the RC zone. The proposed project is proceeding under the standard method of development. Site plan approval is required under Section 59.3.7.2.B.1.b.ii of the Montgomery County Zoning Code (the "Code").

Chaberton is a developer of solar generation projects that serves communities and customers in the Mid-Atlantic, with its corporate office here in Montgomery County. Chaberton has a portfolio of more than 30 projects under development. They are composed of community solar projects, aggregate net meter projects for institutional clients, and other solar power purchasing arrangements with commercial and industrial customers.

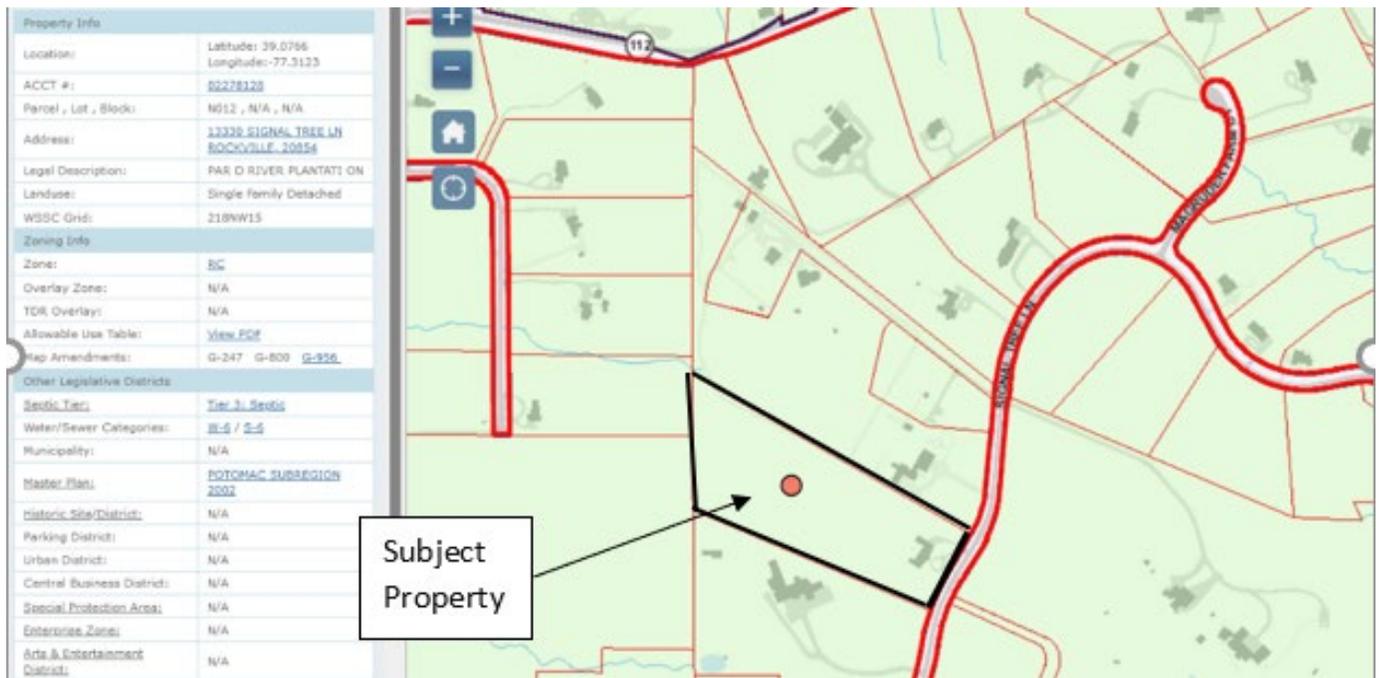
The proposed project, called Santa Rosa, is a community solar facility that will have a nominal power capacity of 1.75 megawatts, and will generate approximately 2,900 megawatt-hours of electricity annually for subscribers to Maryland's Community Solar Pilot Program. This is approximately the annual electric use of 400 Maryland homes. Community solar makes solar savings available to homes that cannot accommodate solar panels, renters, those with restrictions on their homes preventing the installation of solar panels, and customers who cannot afford to install solar panels themselves. It also

guarantees savings on utility bills, increases the reliability of the local power grid, decarbonizes the production of electricity, and creates benefits for the natural environment at every level.

Existing Conditions and Site History

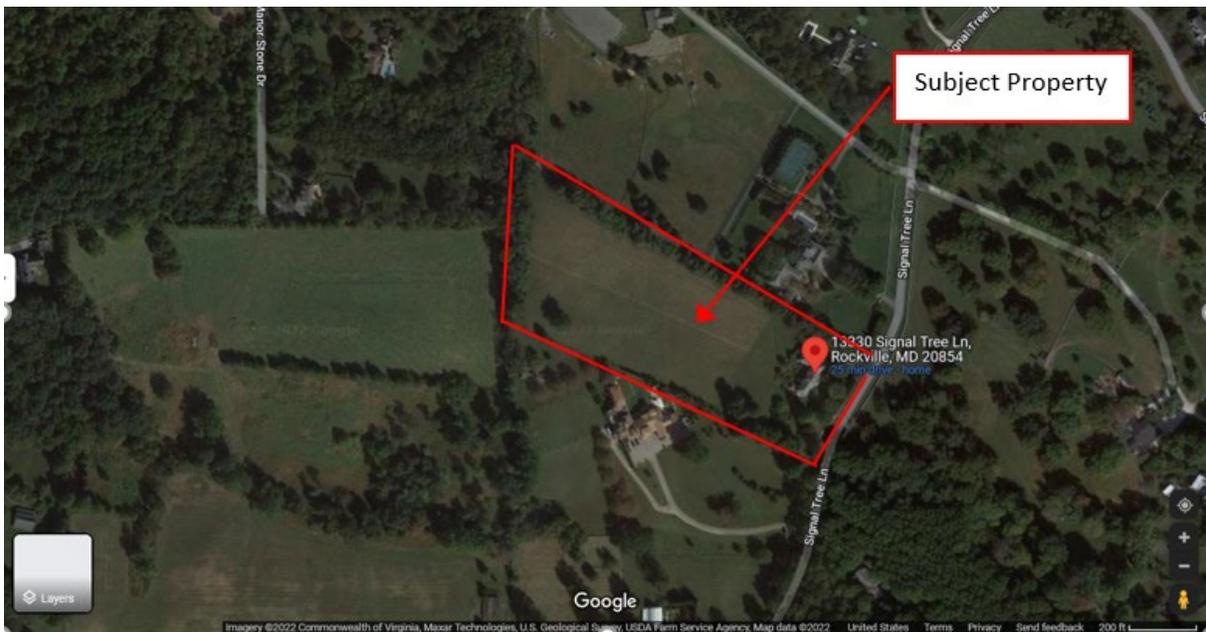
The Subject Property is bordered by Signal Tree Lane to the east. As shown on the zoning map and aerial photo that follow, it abuts large-lot residential properties in the RC zone to the north, east and west.

Figure 1 – Subject Property Zoning



[This area intentionally left blank.]

Figure 2 – The Subject Property



The front portion of the Subject Property is occupied by a private residence that is to remain on the property. The back portion is currently planted mostly in grass, with perimeter tree plantings that – in combination with new planting – will screen the project effectively from its neighbors. The approved Natural Resources Inventory/Forest Stand Delineation (“NRI/FSD”) indicates that the Subject Property contains no rare, threatened or endangered species, no forest, wetlands or floodplain, and only a very small area of stream buffer associated with an off-site stream. The Subject Property contains six specimen trees and six significant trees, all but one of which will be saved.

Project Description

Chaberton holds an option to lease the back portion of the Subject Property, where the solar array will be located. The solar array will occupy approximately 3.9 acres of land and will be surrounded on three sides by landscape screening. The solar array will not be visible from Signal Tree Lane due to the existing house, topography, and existing vegetation. The view of the solar array from neighboring properties to the north, south and west will be screened effectively by a combination of existing vegetation and new landscape plantings.

Chaberton is using an emerging technology at this location called Erthos Earth Mounted Solar. It involves panels mounted less than one foot off the ground, with no steel pilings and virtually no ground disturbance. As show in the photographs below, which compare Erthos to standard Fixed Tilt solar panels, an Erthos solar array is much less visible than standard technology. Erthos panels also reduce the overall land area needed and are easy to remove at the end of the project term.

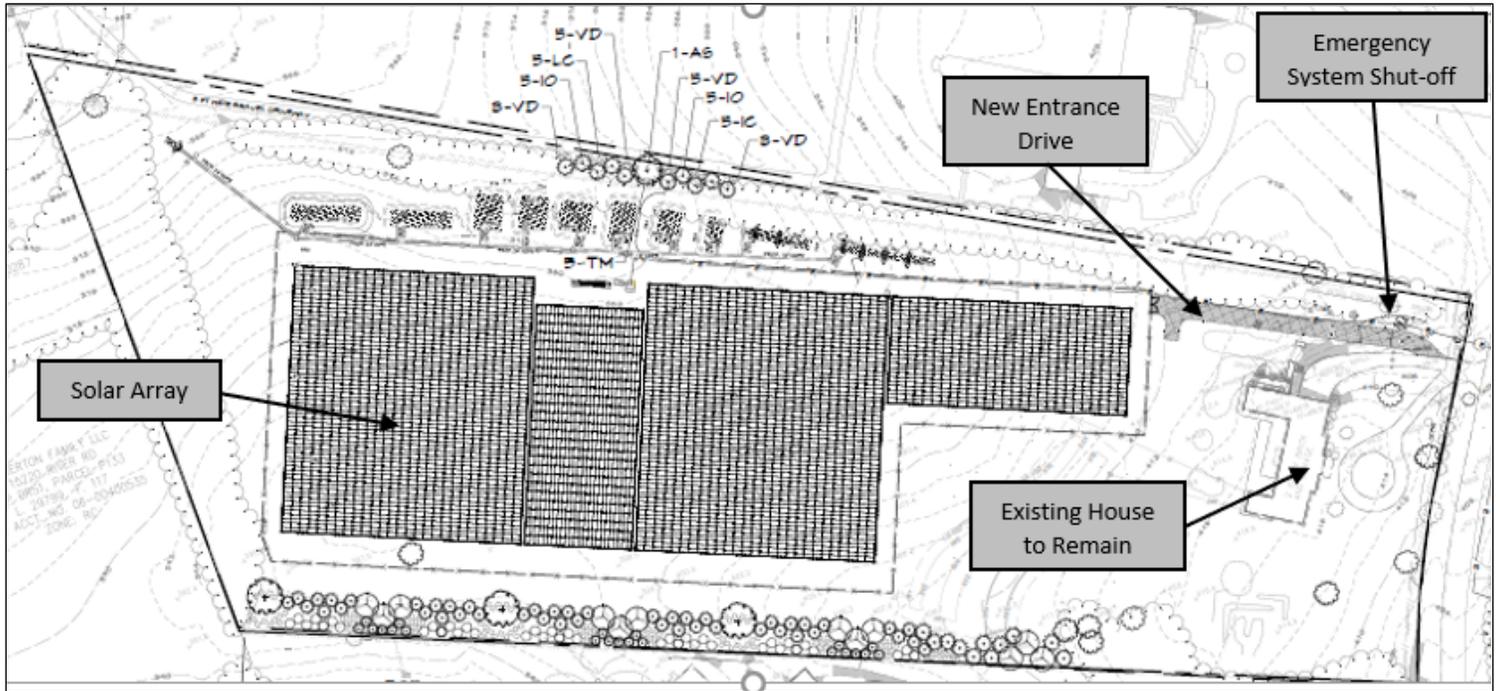


Erthos Earth Mounted Solar



Fixed Tilt Solar

The project layout is shown on the site plan below, with the solar array occupying most of the western half of the Subject Property.



Project Layout

The solar installation will consist of earth-mounted solar panels, a fence enclosing the panels, electric lines that will be entirely underground, a small station for inverters and a transformer on a concrete equipment pad. The applicant will construct a new entrance drive for the project, which will be made of grass pavers. As shown on the Project Layout above, the entrance drive will begin at the existing curb cut for the residential driveway, then proceed in a straight line roughly parallel to the northern property line. An emergency shutoff will be located at the site entrance, allowing for easy emergency access. The new entrance drive will be 20 feet wide to the location of the emergency switchgear, narrowing to 15 feet and terminating at the entrance of the solar field. The applicant will also install a stormwater management system consisting of eight micro-bioretenment facilities and two bio-swale facilities.

The proposed solar array will not be visible from Signal Tree Lane due to the existing house and vegetation. The Applicant will provide a landscaped buffer around the north, south and western borders of the solar array through a combination of existing vegetation and new plantings. The landscaped buffer is designed to meet applicable Code standards as closely as possible while allowing sunlight to reach the solar panels and recognizing that earth-mounted solar panels have limited visibility. Existing vegetation consists primarily of deciduous trees and shrubs that provide a dense screen along the western property line and much of the northern property line. The submitted Landscape Plan proposes additional plantings along the northern boundary where needed to provide effective screening. A full array of plantings is proposed along the southern boundary, where existing vegetation is sparse. This includes flowering trees, evergreens, shrubs and shade trees. Most of the trees proposed are species that grow to a height of 15 to 20 feet at maturity, to preserve adequate sunlight for the solar panels to function effectively. For the reasons discussed more fully below, the Applicant requests approval under Section 59.6.8.1 for alternative compliance with the screening standards set forth in Section 59.6.5.3.C.8 (Option A).

Once a solar field is constructed, it generates virtually no noise. The only components that generate any detectable sound are the transformers and the inverters. The inverters are the noisiest

component, but even these are relatively quiet. They sound very similar to a refrigerator. The proposed project will use string inverters, which are small units, about the size of a desktop computer, distributed across the system. At a distance of 50 feet from the equipment – the prescribed minimum setback from all property lines -- any noise will fade into typical rural ambient noise.

Site Plan Findings under Zoning Code Section 59.7.3.4.E

- 1. When reviewing an application, the approval findings apply only to the site covered by the application.***

The submitted site plan application covers only the Subject Property.

- 2. To approve a site plan, the Planning Board must find that the proposed development:***
 - a. satisfies any previous approval that applies to the site;***

The Subject Property is subject to preliminary plan of subdivision 119821690, approved in 1983. The proposed project is consistent with applicable conditions of approval.

- b. satisfies under Section 7.7.1.B.5 the binding elements of any development plan or schematic development plan in effect on October 29, 2014;***

Not applicable.

- c. satisfies under Section 7.7.1.B.5 any green area requirement in effect on October 29, 2014 for a property where the zoning classification on October 29, 2014 was the result of a Local Map Amendment;***

Not applicable.

- d. satisfies applicable use standards, development standards, and general requirements under this Chapter;***

Use Standards

A solar array generating more than 120% of a site's electricity needs is permitted in the RC zone under Sections 59.3.1.6 and 59.3.7.2.B.1.b.ii with an approved site plan.

Development Standards and General Requirements

As detailed in the data table provided on the sheet 1 of the submitted Site Plan, the proposed project satisfies the specific development standards under Code Section 59.3.7.2.B.1.b.ii for a solar collection system in the RC zone that will generate more than 120% of on-site electricity usage, with one exception: screening that satisfies the letter of the requirements in Section 59.6.5.3.C.8 (Option A). The Applicant requests approval for Alternative Compliance in the form of the landscape buffers shown on the submitted Landscape Plan, which include a minor departure from standard Code requirements but will nonetheless be fully effective in providing appropriate visual screening between the project and neighboring properties. The canopy trees called for in the Code would likely interfere with solar power generation by casting significant shade on the solar array as the trees mature. To preserve the effectiveness of the solar array, the applicant requests to substitute two evergreen trees for each required canopy tree. Thus, for every 100 linear feet of buffer area, the proposed landscaping incorporates four evergreen trees rather than two canopy trees.

Alternative Compliance is appropriate in this case because of the unique use characteristics of the proposed solar array: (i) the solar panels will have limited visibility due to their installation as flat units, less than one foot from the ground; and (ii) the solar panels require direct sunlight to function. Full compliance with the range of tree heights prescribed in the Code would block the sun to a degree that would interfere with efficient functioning of the solar panels. The proposed alternative design will satisfy the intent of Division 6.6 to ensure appropriate screening between different building types and uses; due to the low profile of the proposed solar panels, the proposed landscape buffers will be very effective in screening any potential view of the solar array from neighboring properties. The proposed landscape buffering is designed to modify the Code standards the minimum amount necessary to insure adequate access to sunlight for the solar array. Moreover, the Applicant perceives no adverse impact on neighboring properties and therefore no need for mitigation. Finally, the proposed alternative landscape design is very much in the public interest; it will allow a renewable energy power generation

project to proceed, reaping significant environmental benefits for the region, while amply protecting neighboring properties from any adverse visual impact.

satisfies the applicable requirements of:

i. Chapter 19, Erosion, Sediment Control, and Stormwater Management; and

ii. Chapter 22A, Forest Conservation.

A stormwater management concept plan is being submitted to the Department of Permitting Services for concurrent review. The submitted Preliminary/Final Forest Conservation Plan demonstrates that the applicant will satisfy forest conservation requirements via off-site mitigation.

f. provides safe, well-integrated parking, circulation patterns, building massing and, where required, open spaces and site amenities;

The proposed solar array will not required a formal parking area, and the project includes no buildings, formal open spaces or amenities. Safe circulation patterns will be established by the new entrance drive and turnaround area referenced earlier.

g. substantially conforms with the recommendations of the applicable master plan and any guidelines approved by the Planning Board that implement the applicable plan;

The Subject Property is located within the area covered by the *2002 Approved and Adopted Potomac Subregion Master Plan* (the "Master Plan"). The Master Plan's overarching principle is that sustaining the environment should be a top priority. To that end, the Master Plan states that new development must respect and enhance the environmental quality of the area "while helping to build communities and resources that will serve existing and future generations of residents." To implement this environmental priority, the Master Plan reaffirms low-density residential use for most of the area, identifies potential additions to existing parkland, identifies a limited number of development and redevelopment sites, and maintains Potomac's two-lane road policy, which limits road capacity expansion.

The proposed solar array is fully consistent with the goals of the Potomac Master Plan. It brings the environmental benefits of solar power generation to Potomac without disturbing any environmental resources of significance, occupying any of the identified development sites, increasing residential density, or generating traffic at levels that would have an adverse effect on narrow local roads.

h. will be served by adequate public services and facilities including schools, police and fire protection, water, sanitary sewer, public roads, storm drainage, and other public facilities. If an approved adequate public facilities test is currently valid and the impact of the development is equal to or less than what was approved, a new adequate public facilities test is not required. If an adequate public facilities test is required the Planning Board must find that the proposed development will be served by adequate public services and facilities, including schools, police and fire protection, water, sanitary sewer, public roads, and storm drainage;

The proposed solar array is non-residential and involves no structures or on-site employees. It is expected to generate approximately one vehicular trip per month for maintenance and no non-vehicular trips, well below the 50-person-trip threshold that triggers a traffic study. The solar array will be served by adequate public services including dry utilities. The existing residential unit will continue to be served by private water and sewer and by adequate public facilities such as public roads, schools, and police and fire protection. Storm drainage for the Subject Property will improve with the installation of 11 stormwater management facilities as part of the solar array project.

i. on a property in a Rural Residential or Residential zone, is compatible with the character of the residential neighborhood; and

The proposed solar array will have little to no impact on the surrounding large-lot residential neighborhood. The project will make no material change to the Subject Property's appearance from Signal Tree Road – the only change will be a new entrance drive branching off from the existing driveway. The equipment associated with the project will have little to no visibility from neighboring properties due to the low-profile Erthos panels, minimal additional equipment and the extensive existing and proposed landscape buffering. The project will not introduce any additional lighting to the site. The

existing and proposed buffering is very similar to perimeter landscaping commonly planted in the surrounding large-lot community, as shown on Figure 2 above. As noted earlier, the project will have virtually no noise impacts outside the Subject Property. The project is expected to generate only one vehicular trip per month, which will not add a measurable amount of traffic to the local roads. In sum, the proposed project is fully compatible with the character of the surrounding neighborhood. Its most noticeable impact will be the benefit of preferential access to community solar for those neighbors who are interested.

3. * * *

Not applicable.

4. * * *

Not applicable.

Conclusion

This submission is intended to satisfy the requirements of the Code and the Planning Board's submission standards for preliminary plan and site plan applications. If amended or supplemental information becomes necessary to support the present application, the Applicant will make a supplemental submission in a timely fashion.

Respectfully submitted,

BREGMAN, BERBERT, SCHWARTZ & GILDAY, LLC

By:  _____
Françoise M. Carrier