

Lunenburg County Planning Commission

Agenda for March 7, 2024, at 7:00 p.m.

If anyone desires to speak during Citizen Time or a Public Hearing, please approach the lectern *prior* to the start of the meeting to provide your name and your address. Please place it under the appropriate section (Citizen Time or corresponding Public Hearing).

1. Call to Order
2. Roll Call of Members
3. Requests for Additions or Modifications to the Agenda*
4. Declaration of Conflict-Of-Interest Statements
5. Approval of Minutes
6. Planning and Economic Development Update
 - a. Director of Planning and Economic Development January and February Monthly Reports
7. Citizen Time*(Public Speaking Guidelines are to be followed)
8. Public Hearing* for the following:
 - a. **CUP 4-23 Conditional Use Permit** for Jason and Ella Moses, to construct and operate a Retail Store and Shop as well as Uses and Structures Accessory to Permitted Conditional Uses (livestock auction, flea market, and store selling baked goods/food items) on tax parcels 033A9-05-0-7, 033A9-03-0-2A, 033A9-05-0-8, and 033A9-05-0-9, 368 K-V Road, Victoria, VA 23974, consisting of 3.528-acres in an A-1 (Agricultural) zone.
 - b. **CUP 1-24 Conditional Use Permit** for Virginia Shed Company, LLC., to operate a Retail Store and Shop (sale of portable storage sheds and metal carports) on tax parcel 007-0A-0-2, 134 Patrick Henry Highway, Keysville, VA 23947, consisting of 5.166-acres in an A-1 (Agricultural) zone.
 - c. **CUP 1-23 Conditional Use Permit** for Oral Oaks Solar, to construct and operate a twelve-megawatt (12 MW), utility-scale solar array located on tax parcel 058-0A-0-29, which has road frontage on Oral Oaks Road and surrounds 5844 Oral Oaks Road, Kenbridge, VA 23944 on three (3) sides. The parcel consists of 128.239 acres in an A-1 (Agricultural) zone.
9. Other Business
10. Attorney Update—if needed
11. Announcement of the Next Meeting Date
 - a. April 4, 2024, at 7:00 p.m. (time may change to 6:00 p.m. depending on the agenda)
12. Adjournment

3* To the extent necessary to consider items requiring Commission action, the order of the agenda for a regular Commission meeting shall be as followed, unless by majority vote and the Commission shall confine discussions to matters contained on the agenda. The Chairman may allow any agenda items to be called out of sequence.

7*Any member(s) of the public may speak on any item not on the current agenda under the Public speaking guidelines found in item 8*. At the beginning of the comments by a citizen, additional time may be requested by the speaker. The Chairman shall decide on the amount of time to be provided.

Declaration of Conflict- Of-Interests

DECLARATION OF PERSONAL INTEREST

Pursuant to Virginia Code Section 2.2-3116, I have the following personal interest in Agenda Item# _____, on tonight's meeting agenda: I reside at _____, which is located in the immediate vicinity of the activities considered in the proposed agenda item.

Therefore, I am a member of a residential area that is affected by this item on tonight's agenda. However, I am able to participate in this matter fairly, objectively, and in the public interest.

Lunenburg Planning Commission

Date

DECLARATION OF PERSONAL INTEREST

Pursuant to Virginia Code Section 2.2-3116, I have the following personal interest in Agenda Item# _____ on tonight's meeting agenda: I am a family member of an applicant or proponent of this agenda item.

- ☐ I am able to participate in this matter fairly, objectively, and in the public interest; **or**
- ☐ I choose not to participate in any discussion or vote of the indicated agenda item.

Lunenburg Planning Commission

Date

DECLARATION OF PERSONAL INTEREST

Pursuant to Virginia Code Section 2.2-3116, I have the following personal interest in Agenda Item # _____ on tonight's meeting agenda: I have a personal business interest in _____, which may be discussed during this agenda item.

Because of that interest, I will not participate in any discussion or vote of that agenda item.

Lunenburg Planning Commission

Date

Approval of Minutes

MINUTES OF THE LUNENBURG COUNTY PLANNING COMMISSION

January 4, 2024, AT 7:00 PM

The Lunenburg County Planning Commission held its meeting on January 4, 2024, at 7:00 p.m. in the 2nd floor courtroom, Lunenburg Courts Bldg., Lunenburg, VA.

Mrs. King called the meeting to order at 7:00 p.m. The floor was opened to nominations for Chairman. On a motion made by Commissioner Thompson, which was seconded by Commissioner Pennington, Commissioner Tharpe was nominated and appointed as Chairman, which was approved unanimously. Chairman Tharpe then took over nominations for Vice-Chairman. On a motion by Commissioner Pennington and seconded by Commissioner Garrett, Commissioner Thompson was unanimously approved as Vice-Chairman.

Mrs. King conducted a roll call of Commissioners, in which Commissioners Garrett, Jennings, Pennington, Tharpe, Thompson, and Trent were present. Commissioners Drummond and Shell were absent. Also, in attendance were Assistant County Attorney, Drew DiStanislao and Clerk of the Planning Commission, Taylor N. King.

Chairman Tharpe called for any additions or modifications to the agenda. None were brought forward.

Chairman Tharpe called for declarations of conflict of interest to be disclosed. None were brought forth by any member.

Chairman Tharpe called for action on Adoption of the Amended By-Laws. There being no discussion or amendments, Commissioner Pennington made the motion, which was seconded by Commissioner Jennings, and unanimously approved.

Chairman Tharpe called for action on the minutes of the December 7, 2023, meeting. There being no additions or corrections to the minutes, a motion was made by Commissioner Thompson and seconded by Commissioner Pennington that the minutes be approved, as presented. The motion was unanimously approved.

The Director of Planning and Economic Development monthly report was provided. It was advised that it was in their packet. No questions arose from the Commission.

Chairman Tharpe called for Citizen Time. None came forward. Mrs. King read the public speaking guidelines.

Chairman Tharpe read, **CUP -12-23 Conditional Use Permit** for Ruth Brown and DebbieAnne Vigneri to operate a Personal Service Business on tax parcels 019-13-0-1 and 019-13-0-2, 5104 Double Bridges Road, Meherrin, VA 23954, consisting of 8.31 acres in an A-1 Agricultural zone.

Commissioner Pennington made a motion to enter into public hearing, which was seconded by Commissioner Thompson and unanimously approved.

Applicant Ruth Brown provided the background of the business. The applicant apologized for being non-compliant and shared their intent to become compliant. She advised in addition to the information provided, they are also looking to start a local “Ham” club with the hopes of providing disaster preparedness workshops.

Chairman Tharpe thanked the applicants for their work in cleaning the road. Commissioner Pennington thanked the applicants for bringing their business to Lunenburg.

Commissioner Pennington made the motion to exit the public hearing, which was seconded by Commissioner Thompson and unanimously approved. Mrs. King read the suggested conditions, which included:

1. Adhere to the fire code maximum occupancy of the building.
2. Provide adequate room for law enforcement, fire, and EMS to make entrance to the parking area, building and surrounding areas on the parcel and can exit the location.
3. Maintain licensure through the State of Virginia. Display license as required by the State of Virginia.
4. Obtain any required building permits if a tent, pavilion, or shelter is anticipated to be added and complete all necessary requirements of the Building Inspector including, but not limited to inspections.
5. Comply with all Uniform Building Codes
6. Contact the Commissioner of Revenues office annually to complete all mandatory reporting requirements.
7. Comply with the County's Noise Ordinance.
8. Comply with all federal, state, and local regulations.
9. The Conditional Use Permit is limited to the applicant and does not run with the land.
10. The applicants will not promote the facility/grounds as an Event Venue.
 - a. If the applicants desire to operate as an Event Venue, then a new Conditional Use Permit will have to be obtained.

A motion was made by Commissioner Thompson to recommend approval of the Conditional Use Permit, which was seconded by Commissioner Pennington and unanimously approved.

Chairman Tharpe called for Other Business, which none was brought forth.

Chairman Tharpe called for Attorney Update. Assistant County Attorney DiStanislao provided an update on the committee's intent on how to proceed with the study/pause. The amendments will coincide with the Joint Comprehensive Plan Update. Chairman Tharpe provided an update on the Rural Solar Development Coalition's actions/information.

The announcement of the next Planning Commission meeting on February 1, 2024, at 7:00 p.m. (time may be changed based on the number of agenda items) was made. On a motion by Commissioner Thompson, and seconded by Chairman Tharpe, the meeting was adjourned.

James Tharpe, Chairman
Lunenburg County Planning Commission

Taylor N. King, Clerk
Lunenburg County Planning Commission

Planning and Economic Development Monthly Report

Planning Commission Meeting—March 7, 2024

Director of Planning and Economic Development's Monthly Report

Events in January

January 1st: *Office Closed—New Year's Holiday*
January 2nd: *PTO—8 hours*
January 3rd: *PTO—8 hours*
January 4th: *VGA Board Meeting—South Hill*
January 4th: *Kenbridge IDA Meeting—Kenbridge*
January 4th: *Planning Commission Meeting*
January 5th: *PTO—8 hours*
January 11th: *Emergency Preparedness Kit Pick-Up—Keysville*
January 11th: *Board of Supervisors Meeting*
January 12th: *Virginia's Crossroads Meeting—Clarksville*
January 12th: *Deliver Emergency Preparedness Kits to Community Partners*
January 15th: *Office Closed—Martin Luther King, Jr. Holiday*
January 17th: *CRC Meeting—Keysville*
January 23rd: *Red Brick Solar Project Update—Virtual*
January 23rd: *Kenbridge IDA Meeting—Kenbridge*
January 24th: *2024 Centra Community Health Needs Assessment Meeting—Farmville*
January 25th: *VGA Marketing Committee Meeting—South Hill*
January 25th: *PTO—4 hours*
January 29th: *Virginia Enterprise Zone Grant Year 2023 How-to-Qualify Workshop—Farmville*
January 30th: *VEDP Project Process Protocol Webinar—Virtual*
January 31st: *RISE Economic Development Meeting—Virtual*
January 31st: *PTO—4 hours*

Planning Commission

- There was a meeting held on January 4, 2024.
- The following Conditional Use Permit was recommended for approval to the Board of Supervisors:
 - o CUP 12-23: Ruth Brown and DebbieAnne Vigneri
- There is not a Planning Commission meeting for February 2024.

Broadband

- 911 Fiber (County Owned)
 - o Continue to respond to Miss Utility tickets to mark the fiber.
 - o Will be working to get the survey of the fiber route and easements with the Town of Victoria.
- VATI/RDOF
 - o January monthly report from Kinex (see attached)
 - o Responded to public questions pertaining to when they will receive broadband service.
 - o For citizens that have questions about the status of the project and when work is anticipated to be completed in their area, they can call 434.392.4804 ext. 7 or go to <https://signup.kinextel.net>
- Citizen Broadband Advisory Board
 - o Meetings will be held quarterly with the next meeting in March 2024.

Solar

- Red Brick Solar
 - o Monthly call with Jeff Hammond, Apex, was held.
 - o Still waiting for the decision of the panel before the project can move forward.

- Dogwood Lane Solar
 - o Stormwater Management Plan has received DEQ approval.
 - o Erosion and Sediment Control Plan was submitted to DEQ for review and approval.
 - o First monthly project management meeting was held virtually.
 - o Applicant is preparing to submit the building permit package.
- Laurel Branch Solar
 - o Continuing to work with the developer.
- Laurel Branch Switchyard
 - o Continuing to work with the developer.
- Wheelhouse Solar
 - o No update at this time.
- Oral Oaks Solar
 - Continuing to work with the developer.
- Lunenburg County, Virginia Resolution Regarding Conditional Use Applications for Solar Facilities
 - o Answered citizen's questions pertaining to the resolution.
 - o Continuing to discuss items for review for the study with the Planning Commission.
 - The solar study is a topic of discussion that is on each agenda for Planning Commission meetings.
 - The discussions during the Planning Commission meetings have been in-depth and continually reviewing numerous aspects.

Tourism

- Met virtually with Kimley-Horne to discuss the revision of the spending plan and how the reporting needs to be completed.
- Working to finalize locations of the "*Welcome to Lunenburg*" signs, so Martin Monument can begin on the signs.
- Directional signs for the Courthouse Complex
 - o Working to confirm the design of the signs.
 - o Once the designs are confirmed, then the signs will be finished and installed.
- Courthouse Complex Exhibit
 - o The draft exhibit has been received.
 - o The draft is being reviewed by the Historic Society as a whole and the State Historic Preservation Office.
- Revised budget breakdown and detailed spending plan were submitted.

Grants

- Virginia Brownfields Assistance Fund (C. Garrett—Garrett's Ground Maintenance)
 - o Grant has been completed.
 - o Working to finalize the final report.
- PetcoLove Animal Welfare Organizations Grant
 - o Waiting to hear if the County has been awarded.
- Aided the local business owners to locate funding sources for an economic development venture.
- Aided citizens impacted by the closure of Tyson with possible opportunities.

Joint Comprehensive Plan

- The kick-off meeting is scheduled for Thursday, February 8, 2024, at 4:00 p.m. at the Victoria Town Office.

Other Activities

- Responded to public questions about cell towers and broadband.

- Met and spoke with citizens to determine if they would need a Conditional Use Permit to operate their business.
- Emergency Preparedness Kits were disseminated to community partners.
- Met with surveyors to answer questions.
- Met with CUP applicant to review application and prepare for March Planning Commission meeting.
- Participated in Cornell University's broadband research project.
- Continue to work on Part 107: Commercial Drone Operator's Course.

UPCOMING dates of interest:

February 1st: *PTO—8 hours*
 February 6th: *Team Meeting*
 February 6th: *Contact Team Meeting—La Victoria*
 February 7th: *Affordable Housing Webinar—Virtual*
 February 8th: *PTO—8 hours*
 February 8th: *Joint Comprehensive Plan Kick-Off Meeting—Victoria Town Office*
 February 8th: *Board of Supervisors Meeting*
 February 9th: *Work from Home*
 February 9th: *VATI Project Management Team Meeting—Virtual*
 February 14th: *Dogwood Lane Solar Project Update Meeting—Virtual*
 February 19th: *Office Closed—President's Day Holiday*
 February 21st: *CRC Meeting—Keysville*
 February 22nd: *VGA Marketing Committee Meeting*
 February 23rd: *VGA Workforce Summit—South Hill*
 February 27th: *Red Brick Solar Project Update Meeting—Virtual*
 February 29th: *CTE Advisory Board Meeting—Central High School*

CBG	Feet	Miles	Addresses - Total	Addresses - Kinex RDOF	RDOF Passings		Addresses - Unserved, No RDOF	VATI Passing	VATI Passing
510499301005	423185	80	798	745			53	Cumberland	Cumberland
510499302002	207795	39	326	321			5	Cumberland	Cumberland
510499302003	37017	7	97	97			0	Cumberland	Cumberland
510499302001	299015	57	309	158			151	Cumberland	Cumberland
510499301004	293602	56	416	277			139	Cumberland	Cumberland
511119303001	499961	95	459	370			89	Lunenburg	Lunenburg
511119302003	350640	66	441	400			41	Lunenburg	Lunenburg
511119301002	200292	38	363	248			115	Lunenburg	Lunenburg
511119302004	463093	88	87	86			1	Lunenburg	Lunenburg
511119303002	311394	59	859	0			0	Lunenburg	Lunenburg
511119301003	183894	35	839	408			431	Lunenburg	Lunenburg
511119302001	79842	15	0	0			0	Lunenburg	Lunenburg
511119302002	487805	92	518	425			93	Lunenburg	Lunenburg
511119301001	348986	66	425	176			249	Lunenburg	Lunenburg
511479303004	324170	61	933	870			63	Prince Edward	Prince Edward
511479302022	200475	38	483	0			0	Prince Edward	Prince Edward
511479302011	21767	4	376	346			30	Prince Edward	Prince Edward
511479302012	1906	0	583	144			439	Prince Edward	Prince Edward
511479302023	196186	37	550	502			48	Prince Edward	Prince Edward
511479303001	230035	44	399	380			19	Prince Edward	Prince Edward
511479303003	349324	66	43	20			23	Prince Edward	Prince Edward
511479301002	250956	48	361	312			49	Prince Edward	Prince Edward
511479303002	71580	14	510	483			27	Prince Edward	Prince Edward
511479303005	485985	92	155	152			3	Prince Edward	Prince Edward
511479302021	245996	47	893	635			258	Prince Edward	Prince Edward
511479301003	429813	81	853	422			431	Prince Edward	Prince Edward
Total	6994714	1325	12076	7977			2757		

RDOF Update Information

As of 1/7/2024					
	Required RDOF Miles	Current RDOF Miles	Required RDOF Passings	Certified RDOF Passings	Current RDOF Installs
Cumberland		1	1598	13	2
Lunenburg		170	2113	735	437
Prince Edward		184	4266	1623	332
Total		355	7977	2371	771

1st Year RDOF Passing Requirement:	1519
2nd Year RDOF Passing Requirement:	2279
3rd Year RDOF Passing Requirement:	3038
4th Year RDOF Passing Requirement:	4557
5th Year RDOF Passing Requirement:	6076
6th Year RDOF Passing Requirement:	7595

VATI Update Information

As of 1/7/2024					
		Current VATI Miles	Required VATI Passings - Underserved	Current VATI Passings	Current VATI Installs
Cumberland		8	348	158	32
Lunenburg		22	1019	356	39
Prince Edward		37	1390	1236	30
Total		67	2757	1750	101

Although miles were added to Cumberland VATI, they are not VATI or RDOF miles. They are miles going up Rt 45, but that area des not count for VATI or RDOF and I didn't have a column for them.

Total Miles	422
Total Passings	4121

Planning Commission Meeting—March 7, 2024

Director of Planning and Economic Development's Monthly Report

Events in February:

- February 2nd: PTO—8 hours
- February 5th: VEDA ImpactED—Virtual
- February 6th: Team Meeting
- February 6th: Contact Team Meeting—La Victoria
- February 7th: VDOT Project Process Protocol Training—Virtual
- February 7th: Affordable and Special Needs Housing Input Session—Virtual
- February 8th: PTO—8 hours
- February 8th: Joint Comprehensive Plan Kick-Off Meeting—Victoria Town Office
- February 9th: Work from Home—8 hours
- February 9th: VATI Project Management Team Meeting—Virtual
- February 12th: PTO—8 hours
- February 14th: Dogwood Lane Solar Project Update Meeting—Virtual
- February 15th: PTO—1.5 hours
- February 19th: Office Closed—President's Day
- February 20th: VAZO Check-In—Virtual
- February 21st: CRC Meeting—Keysville
- February 21st: PTO—4 hours
- February 22nd: VDOT-Richmond District LA: Civil Rights LAP Process—Virtual
- February 28th: VDOT Project Management Training—Colonial Heights
- February 29th: Chamber of Commerce Meeting—Marinos
- February 29th: CTE Advisory Board Meeting—Central High School

Planning Commission

- There was not a Planning Commission meeting for February 2024.

Broadband

- 911 Fiber (County Owned)
 - o Continue to respond to Miss Utility tickets to mark the fiber.
 - o Will be working to get the survey of the fiber route and easements with the Town of Victoria.
- VATI/RDOF
 - o February monthly report from Kinex (see attached)
 - o Responded to public questions pertaining to when they will receive broadband service.
 - o For citizens that have questions about the status of the project and when work is anticipated to be completed in their area, they can call 434.392.4804 ext. 7 or go to <https://signup.kinextel.net>
- Citizen Broadband Advisory Board
 - o Meetings will be held quarterly with the next meeting in March 2024.

Solar

- Red Brick Solar
 - o The monthly project update meeting was cancelled for the month of February.
 - o The developer is still diligently working on the project.
- Dogwood Lane Solar
 - o The monthly project update meeting was held on 2.14.24.
 - o The building permit for the project was submitted on 2.23.24.

- The 2nd substantial payment for the amount of \$26,666.00 was received from the applicant upon building permit package submittal.
 - Working with third-party consultant to obtain cost estimates for services that will be rendered.
 - Working with the third-party consultant on the review of the building permit package documents.
- Laurel Branch Solar
 - Continuing to work with the developer.
- Laurel Branch Switchyard
 - Continuing to work with the developer.
- Wheelhouse Solar
 - No update at this time.
- Oral Oaks Solar
 - Continuing to work with the developer.
 - Public hearing scheduled for March 7, 2024, Planning Commission meeting.

Tourism

- Met virtually with Kimley-Horne to discuss the revision of the spending plan and how the reporting needs to be completed.
- Working to finalize locations of the “*Welcome to Lunenburg*” signs, so Martin Monument can begin on the signs.
- Directional signs for the Courthouse Complex
 - Working to confirm the design of the signs.
 - Once the designs are confirmed, then the signs will be finished and installed.
- Courthouse Complex Exhibit
 - The draft exhibit has been received.
 - The draft is being reviewed by the Historic Society as a whole and the State Historic Preservation Office.
- Revised budget breakdown and detailed spending plan were submitted.

Grants

- Virginia Brownfields Assistance Fund (C. Garrett—Garrett’s Ground Maintenance)
 - Grant has been completed.
 - Submitted the final report.
- PetcoLove Animal Welfare Organizations Grant
 - Waiting to hear if the County has been awarded.
- Aided the local business owners to locate funding sources for an economic development venture.

Joint Comprehensive Plan

- The next meeting is scheduled for March 7, 2024, at 4:30 p.m., at the Victoria Town Office.

Other Activities

- Responded to public questions about cell towers and broadband.
- Met and spoke with citizens to determine if they would need a Conditional Use Permit to operate their business.
- Assisted the CRC with coordination of Disaster Preparedness Activity Books to 2nd Graders in Lunenburg County Public Schools.
- Met with surveyors to answer questions.
- Met with CUP applicant to review application and prepare for March Planning Commission meeting.
- Continue to work on Part 107: Commercial Drone Operator’s Course.

UPCOMING dates of interest:

March 1st: *VX Meeting—Nottoway*

March 5th: *Team Meeting*

March 7th: *Joint Comprehensive Plan Workgroup Meeting—Victoria Town Office*

March 7th: *Planning Commission Meeting*

March 8th: *VATI Project Management Team Meeting—Virtual*

March 13th: *Dogwood Lane Solar Project Update Meeting—Virtual*

March 13th: *PTO*

March 14th: *Board of Supervisors Meeting*

March 20th: *CRC Meeting—Keysville*

March 21st: *Contact Team Meeting—Moe's*

March 26th: *Red Brick Solar Project Update Meeting—Virtual*

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510499302002	207795	39	326	321			5
510499302003	37017	7	97	97			0
510499302001	299015	57	309	158			151
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511119303001	499961	95	459	370			89
511119302003	350640	66	441	400			41
511119301002	200292	38	363	248			115
511119302004	463093	88	87	86			1
511119303002	311394	59	859	0			0
511119301003	183894	35	839	408			431
511119302001	79842	15	0	0			0
511119302002	487805	92	518	425			93
511119301001	348986	66	425	176			249
511479303004	324170	61	933	870			63
511479302022	200475	38	483	0			0
511479302011	21767	4	376	346			30
511479302012	1906	0	583	144			439
511479302023	196186	37	550	502			48
511479303001	230035	44	399	380			19
511479303003	349324	66	43	20			23
511479301002	250956	48	361	312			49
511479303002	71580	14	510	483			27
511479303005	485985	92	155	152			3
511479302021	245996	47	893	635			258
511479301003	429813	81	853	422			431
Total	6994714	1325	12076	7977			2757

RDOF Update Information

As of 2/1/2024					
	Required RDOF Miles	Current RDOF Miles	Required RDOF Passings	Certified RDOF Passings	Current RDOF Installs
Cumberland		1	1598	13	2
Lunenburg		170	2113	735	444
Prince Edward		224	4266	1623	399
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2nd Year RDOF Passing Requirement:	2279
3rd Year RDOF Passing Requirement:	3038
4th Year RDOF Passing Requirement:	4557
5th Year RDOF Passing Requirement:	6076
6th Year RDOF Passing Requirement:	7595

VATI Update Information

As of 2/1/2024					
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Cumberland		11	348	158	32
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Total Miles	472
Total Passings	4121

VATI Passing	VATI Passing
Cumberland	Cumberland
Cumberland	Cumberland
Cumberland	Cumberland
Cumberland	Cumberland
Cumberland	Cumberland
Lunenburg	Lunenburg
Lunenburg	Lunenburg
Lunenburg	Lunenburg
Lunenburg	Lunenburg
Lunenburg	Lunenburg
Lunenburg	Lunenburg
Lunenburg	Lunenburg
Lunenburg	Lunenburg
Lunenburg	Lunenburg
Lunenburg	Lunenburg
Prince Edward	Prince Edward
Prince Edward	Prince Edward
Prince Edward	Prince Edward
Prince Edward	Prince Edward
Prince Edward	Prince Edward
Prince Edward	Prince Edward
Prince Edward	Prince Edward
Prince Edward	Prince Edward
Prince Edward	Prince Edward
Prince Edward	Prince Edward
Prince Edward	Prince Edward
Prince Edward	Prince Edward

Citizen Time

Statement on Public Speaking for Planning Commission Meetings

Any member of the public addressing the Planning Commission shall approach the lectern, give his or her name and address in an audible tone of voice for the record, and address the Commission as a body rather than speak to any member. Unless further time is granted by the Commission, any member of the public shall address the Commission for a maximum of five (5) minutes, regardless of the number of issues he or she desires to discuss. The proponent of any application, petition, or plan that is the subject of a public hearing shall be allowed to address the Commission for a maximum of fifteen (15) minutes.

Citizen time

Any member of the public may speak on any item not on the current agenda under the above guidelines

Request for additional time to speak

At the beginning of the comments by a citizen additional time may be requested by the speaker. The Chairman shall decide on the amount of time to be provided.

Written comments

Written comments are most helpful in reviewing issues under consideration. Citizen input is valuable and appreciated. The Commission encourages citizens to submit their comments in writing or any information pertaining to the issues at hand. There is not a limit on written comments; clarity and succinctness is encouraged.

Public Hearing

LUNENBURG COUNTY -PUBLIC NOTICE

The Lunenburg County Planning Commission will hold a public hearing on **Thursday, March 7, 2024**, beginning at **7:00 p.m.** in the 2nd floor Courtroom of the Lunenburg Courts Building, 160 Courthouse Square, Lunenburg, VA 23952 for public input on the following:

CUP 1-23 Conditional Use Permit for Oral Oaks Solar, to construct and operate a twelve-megawatt (12 MW), utility-scale solar array located on tax parcel 058-0A-0-29, which has road frontage on Oral Oaks Road and surrounds 5844 Oral Oaks Road, Kenbridge, VA 23944 on three (3) sides. The parcel consists of 128.239 acres in an A-1 (Agricultural) zone.

CUP 4-23 Conditional Use Permit for Jason and Ella Moses, to construct and operate a Retail Store and Shop as well as Uses and Structures Accessory to Permitted Conditional Uses (livestock auction, flea market, and store selling baked goods/food items) on tax parcels 033A9-05-0-7, 033A9-03-0-2A, 033A9-05-0-8, and 033A9-05-0-9, 368 K-V Road, Victoria, VA 23974, consisting of 3.528-acres in an A-1 (Agricultural) zone.

CUP 1-24 Conditional Use Permit for Virginia Shed Company, LLC., to operate a Retail Store and Shop (sale of portable storage sheds and metal carports) on tax parcel 007-0A-0-2, 134 Patrick Henry Highway, Keysville, VA 23947, consisting of 5.166-acres in an A-1 (Agricultural) zone.

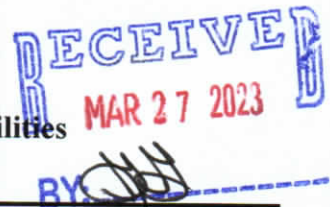
It is the intention of the Lunenburg County Planning Commission to comply with the Americans with Disabilities Act. Should you need special Accommodations, please contact the County Administration office at 434-696-2142 prior to the meeting date.

The full application is available for review at:

www.lunenburgva.gov/government/planning_commission/pending_conditional_use_permit_applications.php (select the “2023 Pending Conditional Use Permit Applications” and “2024 Pending Conditional Use Permit Applications”). Written comments will be appreciated, in lieu of oral presentations. Please send comments to taylor@lunenburgva.gov or Lunenburg County, Department of Planning and Economic Development, 11413 Courthouse Road, Lunenburg, VA 23952.

CUP 4-23:
Jason and Ella
Moses

Lunenburg Planning Office
Application for Conditional Use Permit for **Non-Solar Facilities**
Case Number: _____ (Office Use Only)



Section 1

Applicant Name: Jason D. Moses
Owner Name: Jason D. Moses & Ella M.E. Moses
Owner Signature: [Signature]
Contact Name for Application: Jason Moses
Physical and Mailing Address: 12954 Oral Oaks Rd
Victoria, VA 23974
Phone Number: 434-294-7550
Email Address: jefarmersmarket@gmail.com
Fax Number (if applicable): N/A
Power of Attorney Name: N/A
Power of Attorney Signature: N/A

As owner or authorized agent of this property, I certify that this application is complete and accurate to the best of my knowledge, and I authorize the Lunenburg County representative(s) entry on the property for purposes of reviewing this application.

Section 2

Property Information

Parcel Number(s): 033A9-05-0-7, 033-A9-03-0-2A,
033A9-05-0-8, 033A9-05-0-9
Area (ac./sq. ft.): 3.528 Acres
Magisterial District: Plymouth
Address: 368 K-V Road
Victoria, VA 23974
Existing Zoning: Commercial
Requested Use: Commercial
Does this property have a historical designation? If yes, describe: no

Parcel number(s), acreage, magisterial district and existing zoning can be located at:
<https://lunenburggis.timmons.com/#/mw1>. The address can be typed into the "By Parcel Address" search bar followed by selecting search. This will pull up the information pertaining to the parcel.

The application deadline is the 1st of the month proceeding the month in which the public hearing by the Planning Commission is to be held. The Planning Commission meeting is held on the 1st Thursday of the month at 7:00 p.m. Applications must be submitted in completed form a minimum of thirty (30) days prior to the scheduling of a public hearing by the Planning Commission. Notice of incomplete applications will be sent to the applicant at the listed address in Section 1.

The site plan must be submitted as described in the site plan requirements at the time of the application.

Application fee is \$400.00, which must be paid at the time of application submission.

****Incomplete applications will be returned to the applicant and not docketed for a public hearing****

Section 3

Certification of Adjoining Property Owners, Board of Supervisors, and Planning Commissioners

Applicants Certification:

I certify that I have notified all adjacent property owners, to the property which is the subject of this application request, that this application is being filed. Notifications were sent via first class mail.

Adjacent property includes all property touching the project parcel, across roadways, watercourses, railroads, and/or municipal boundaries.

I further certify that the names and addresses below are those of the adjacent property owners as listed in the tax records of the Commissioner of Revenue of Lunenburg County.

Applicant's Signature: _____

State of: Virginia

County of: Lunenburg

Before me, Beverly Gail Gregoric, on this 27th day of

March, 2023, JASON MOSES, personally appeared, and

provided verification to be the person(s) whose name(s) is/are subscribed to the foregoing instrument and acknowledged to me that he/she/they executed the same for the purposes and consideration therein expressed.

Given under my hand and seal of office this 27th day of MARCH, 2023

Beverly Gail Gregoric

Notary Public's Signature

State of Virginia; County of Lunenburg

Location of Commission

Registration #: 7594872

Commission Expiration: 7-31-26



Verification of Identity

☐ Driver's License or Govt./State Identification Card:

State: _____

Number: _____

☐ U. S. Passport:

Number: _____

☐ U. S. Military ID Card

☐ Social Security Card

☐ Birth Certificate

☐ Other: _____

Notification of Application Submittal to Adjacent Property Owners

To: Adjacent Property Owner of Parcel(s) _____

From: Jason Moses

Date: 3/29/23

The following application will be submitted for review to the Lunenburg County Planning Office:

☐ Rezoning

☒ Conditional Use Permit

☐ Special Exception

Requested Use or Exception:

I have requested a conditional use permit
in order to reopen the old Victoria Livestock
Market. The property is currently zoned commercial.

The application will be available for viewing at the Lunenburg County Planning Office. The Planning Office shall notify all adjacent property owner(s) of the time, day, and location of the public hearing(s) to be held on this application. Should you have questions and/or comments, please contact the Planning Office at 434.696.2142 or taylor@lunenburgva.gov.

Section 4
Applicant's Report
Section 8.3(b) of Lunenburg Zoning Ordinance

Every application for a Conditional Use Permit shall be accompanied by a report from the applicant describing the proposed Conditional Use and explaining the manner which it complies with the requirements and standards of this article.

The following questions address the basic issues. The Planning Commission and/or Board of Supervisors may request additional information.

- 1.) What type of use is being requested?

Livestock auction, property auction, farm supply,
Greenhouse slips and vegetable sales, small livestock
sales, farm product sales, food service, equipment
sales and auction

- 2.) Describe how you plan to develop the property for the proposed use and any associated uses.

Clear debris to build greenhouse, add building for
office, store and kitchen

- 3.) Describe why the proposed use is desirable and appropriate for the area. What measures will be taken to assure that the proposed use will not have a negative impact on the surrounding vicinity?

Lunenburg County has a long history in farming. Homesteading
has grown substantially in recent years and continues to grow.
Land prices and taxes make Lunenburg a desirable location to build
a homestead. This business will provide necessary supplies to
homesteaders and larger farmers, while providing the general public
with goods.

Also, address the following:

- a. Details of Operations: Livestock Market (Saturdays), Store (Mon-Sun),
Food (Mon-Sun)
- b. Hours of Operation: 5am - 5pm
- c. Traffic: Parking lot used for visitors
- d. Noise: Speaker will be used during Saturday auctions inside
building and for outdoor equipment.
- e. Dust/Smoke: N/A
- f. Runoff: N/A
- g. Intensity of Use: Normal business
- h. Hazardous Materials: N/A
- i. Outside Storage: N/A

- 4.) Is the use location on a floodplain, wetland area, or dam break inundation zone? NO

- 5.) Are there any deed restrictions concerning the type of use proposed? If so, provide the date the said restrictions expire. NO

6.) Has a survey of the parcel(s) been conducted to include project parcel, property boundaries, existing roadways and structures, and adjoining parcels, as well as, the parcel owner? If so, is it included in the application packet? no

7.) Has a site plan been included to note the information required on the survey, but also any new construction, parking, clearing, planting, etc.? no

8.) Has a business plan been established? If so, please provide it with application submittal. no

9.) Describe how the proposed project complies or refutes the goals and objectives noted in the Kenbridge-Victoria-Lunenburg Comprehensive Plan. This can be located the Lunenburg County, Virginia website.

The Old Victoria Livestock Market has sat for many years with no upkeep. As a result the building started to crumble as trees and weeds covered it. The structure, with the attention we are providing to it, will soon become a functional, useable building. (B, objective 2, strategy 2).

Farming is popular in Lunenburg and adjoining counties. By opening up the livestock market it will attract people from surrounding counties to our area as options and opportunities to buy and sell livestock are limited. (Encourage and promote tourism)

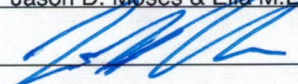
Requirements for telecom site plans can be found in Section 22 Article III, items 22-81 thru 22-112 of the Lunenburg County Code.

Lunenburg Planning Office
Application for Conditional Use Permit for Non-Solar Facilities
Case Number: 4-23 (Office Use Only)

Section 1

Applicant Name: Jason D. Moses

Owner Name: Jason D. Moses & Ella M.E. Moses

Owner Signature: 

Contact Name for Application: Jason Moses

Physical and Mailing Address: 12954 Oral Oaks Rd Victoria, VA 23974

Phone Number: 434-294-7550

Email Address: jefarmersmarket@gmail.com

Fax Number (if applicable): _____

Power of Attorney Name: N/A

Power of Attorney Signature: _____

As owner or authorized agent of this property, I certify that this application is complete and accurate to the best of my knowledge, and I authorize the Lunenburg County representative(s) entry on the property for purposes of reviewing this application.

Section 2
Property Information

Parcel Number(s): 033A9-05-0-7, 033-A9-03-0-2A, 033A9-05-0-8, 033A9-05-0-9

Area (ac./sq. ft.): 3.528 acres

Magisterial District: Plymouth

Address: 368 KV Road Victoria VA 23974

Existing Zoning: A-1

Requested Use: Livestock auction, property auction, farm supply, greenhouse slips & vegetable sales
Small livestock sales, farm product sales, food service, equipment sales & auction

Does this property have a historical designation? If yes, describe: No

Parcel number(s), acreage, magisterial district and existing zoning can be located at:
<https://lunenburggis.timmons.com/#/mwj>. The address can be typed into the "By Parcel Address" search bar followed by selecting search. This will pull up the information pertaining to the parcel.

The application deadline is the 1st of the month proceeding the month in which the public hearing by the Planning Commission is to be held. The Planning Commission meeting is held on the 1st Thursday of the month at 7:00 p.m. Applications must be submitted in completed form a minimum of thirty (30) days prior to the scheduling of a public hearing by the Planning Commission. Notice of incomplete applications will be sent to the applicant at the listed address in Section 1.

The site plan must be submitted as described in the site plan requirements at the time of the application.

Application fee is \$400.00, which must be paid at the time of application submission.

****Incomplete applications will be returned to the applicant and not docketed for a public hearing****

Section 3

Certification of Adjoining Property Owners, Board of Supervisors, and Planning Commissioners

Applicants Certification:

I certify that I have notified all adjacent property owners, to the property which is the subject of this application request, that this application is being filed. Notifications were sent via first class mail.

Adjacent property includes all property touching the project parcel, across roadways, watercourses, railroads, and/or municipal boundaries.

I further certify that the names and addresses below are those of the adjacent property owners as listed in the tax records of the Commissioner of Revenue of Lunenburg County.

Applicant's Signature: _____

State of: Virginia

County of: Lunenburg

Before me, Beverly Gail Gregoric, on this 19th day of

Name of Notary Public

JANUARY, 2024, JASON D. MOSES, personally appeared, and

Applicant(s) Name

provided verification to be the person(s) whose name(s) is/are subscribed to the foregoing instrument and acknowledged to me that he/she/they executed the same for the purposes and consideration therein expressed.

Given under my hand and seal of office this 19th day of JANUARY, 2024.

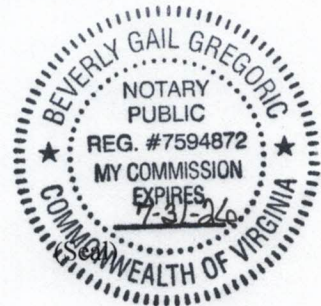
Beverly Gail Gregoric
Notary Public's Signature

Lunenburg

Location of Commission

Registration #: 7594872

Commission Expiration: 7-31-26



Verification of Identity

☐ Driver's License or Govt./State Identification Card:

State: _____ Number: _____

☐ U. S. Passport: _____ Number: _____

☐ U. S. Military ID Card

☐ Social Security Card

☐ Birth Certificate

☒ Other: Known to me

Notification of Application Submittal to Adjacent Property Owners

To: Adjacent Property Owner of Parcel(s) _____

From: Jason Moses _____

Date: 12/28/23 _____

The following application will be submitted for review to the Lunenburg County Planning Office:

- ☐ Rezoning
- ☒ Conditional Use Permit
- ☐ Special Exception

Requested Use or Exception:

I have requested a conditional use permit in order to reopen the old Victoria Livestock Market.
The property is currently zoned commercial.

The application will be available for viewing at the Lunenburg County Planning Office. The Planning Office shall notify all adjacent property owner(s) of the time, day, and location of the public hearing(s) to be held on this application. Should you have questions and/or comments, please contact the Planning Office at 434.696.2142 or taylor@lunenburgva.gov.

Attachment A

Section 3

Neighborhood concerns

i. Noise will be limited to weekends when auctions will occur. Per Virginia Department of Agriculture, cleanliness and sanitation standards will be consistently met.

ii. 5 ^{am} and to 5 pm hours of operation will be 7 days per week but will not apply until other services are added in the future. Once the business is opened, the livestock auction portion will only be on Saturdays. These may include a number of pickup trucks with livestock trailers.

iii. An estimated 100 vehicles per day would be anticipated once all structures are in place and all services and goods are being utilized as planned. On the Saturdays that are used for the livestock auction there would be an estimated 50 vehicles would be anticipated. We would anticipate one box truck delivery for food items per week after the kitchen is added to the property. All other goods would be transported by the business owner in a pickup truck and trailer.

iv. This business will comply with the County's noise ordinance. Excessive noise from trucks or tractors will not be tolerated. There will only be one speaker outside when auctioning farm equipment and it should only be heard on the property or potentially 1 property away. This will occur on some Saturdays during daylight hours. No other machinery should be used.

v. The driveway and parking area will remain gravel/dust. Water will be sprayed before heavy traffic times to ensure dust stays settled.

vi. Any runoff from buildings will be properly routed to comply with EPA standards.

vii. Approximately 100 customers per day are anticipated Sunday through Friday once all goods and services are operational. An anticipated 150 customers are expected for Saturdays. It is anticipated that there will be an event each Saturday at this location. The first Saturday of each month would be operated as a flea market. The second Saturday would be a livestock auction. The third Saturday would be a farm swap/farmer's market. The fourth Saturday would be a livestock auction.

viii. Any gas or diesel on site will be minimal to operate equipment at the property. It would be less than 10 gal and stored in a proper container. There will be no chemicals or biosolids stored at the site. There may be propane stored in the future for use in the kitchen once that is built. The propane would only be used for business needs and not sold. Manure from the auctions will be hauled to another location after the animal areas are cleaned out. In the future, manure may be sold from the store. It would be sealed in a container or bag and stored inside a building minimizing any odor around the property.

ix. There may be outdoor sheds built for storage of items in the future. If so, these buildings will be toward the rear of the property. Until that point, excess items will be stored off site. Farm equipment or general equipment may be stored on the property periodically for use. If equipment

sheds are added later, they would be at the rear of the property. There may also be other farm equipment placed on the property for sale periodically. This would be stored near the parking area. No hazardous materials will be stored outside on the property.

c. Survey and site plan attached.

d. Business plan attached.

Section 4
Applicant's Report
Section 8.3(b) of Lunenburg Zoning Ordinance

Every application for a Conditional Use Permit shall be accompanied by a report from the applicant describing the proposed Conditional Use and explaining the manner which it complies with the requirements and standards of this article.

The following questions address the basic issues. The Planning Commission and/or Board of Supervisors may request additional information.

- 1.) What type of use is being requested?

Livestock auction, property auction, farm supply, greenhouse slips & vegetable sales, small livestock sales, farm product sales, food service, equipment sales & auction

- 2.) Describe how you plan to develop the property for the proposed use and any associated uses.

Additional buildings will be added to include the following approximate sizes of future structures:

Greenhouse 12'x20', office 6'x12', store/kitchen 40'x40'

- 3.) Describe why the proposed use is desirable and appropriate for the area. What measures will be taken to assure that the proposed use will not have a negative impact on the surrounding vicinity?

Lunenburg County has a long history in farming. Homesteading has grown substantially in recent years and continues to grow. Land prices and taxes make Lunenburg a desirable location to build a homestead. This business will provide necessary supplies to farmers and homesteaders, while providing the general public with goods.

See attachment A for further.

Also, address the following:

- a. Details of Operations: Livestock market(Saturday), Store(Mon-Sun), Food(Mon-Sun)

- b. Hours of Operation: See attachment for further details.

- c. Traffic: _____

- d. Noise: _____

- e. Dust/Smoke: _____

- f. Runoff: _____

- g. Intensity of Use: _____

- h. Hazardous Materials: _____

- i. Outside Storage: _____

- 4.) Is the use location on a floodplain, wetland area, or dam break inundation zone? No

- 5.) Are there any deed restrictions concerning the type of use proposed? If so, provide the date the said restrictions expire. No

- 6.) Has a survey of the parcel(s) been conducted to include project parcel, property boundaries, existing roadways and structures, and adjoining parcels, as well as, the parcel owner? If so, is it included in the application packet? See attached
- 7.) Has a site plan been included to note the information required on the survey, but also any new construction, parking, clearing, planting, etc.? See attached
- 8.) Has a business plan been established? If so, please provide it with application submittal. See attachment
- 9.) Describe how the proposed project complies or refutes the goals and objectives noted in the Kenbridge-Victoria-Lunenburg Comprehensive Plan. This can be located the Lunenburg County, Virginia website.
- ~~The Old Victoria Livestock Market has sat for many years with no upkeep. As a result the building started to crumble as trees and weeds covered it. The structure, with the attention we are providing to it, will soon become a functional useable building. (B, objective 2, strategy 2)~~
- ~~Farming is popular in Lunenburg and adjoining counties. By opening up the livestock market it will attract people from surrounding counties to our area as options and opportunities to buy and sell livestock~~
- ~~(Encourage & promote tourism)~~

Requirements for telecom site plans can be found in Section 22 Article III, items 22-81 thru 22-112 of the Lunenburg County Code.

J & E Farmer's Market of Lunenburg, LLC BUSINESS PLAN

Prepared by:

Jason and Ella Moses

368 K-V Road
Victoria, Virginia 23974
434-294-5336
jefarmersmarket@gmail.com

www.jefarmersmarket.com

I. EXECUTIVE SUMMARY

J & E Farmer's Market, LLC (referred to from hereon in as the "Company") is intended to be established as a Limited Liability Company at 368 K-V Road, Victoria, Virginia 23974 with the expectation of rapid expansion in the livestock auction industry.

Business Description

The Company shall be formed as Limited Liability Company under Virginia state laws and headed by Jason D. Moses.

I have been involved in farming for my entire life. I currently own numerous types of livestock.

The Company will employ full-time employees and 5 part-time employees.

New Service

The Company is prepared to introduce the following service to the market:

Auction: Auction for livestock, farm animals, and farm supplies

J & E Farmer's Market will provide a service to auction farm animals and farm related goods within the community.

II. BUSINESS SUMMARY

Industry Overview

In the United States, the agricultural products and livestock industry presently makes 50,000 dollars in sales.

Research shows that consumers in this industry primarily focus on the following factors when making purchasing decisions: Homesteading has taken off in recent times. Our business will help connect homesteaders to other farmers as well as give them an outlet to sell livestock and other products directly to the community.

Business Goals and Objectives

Short Term:

Install greenhouse, obtain the ability to accept WIC and SNAP for produce, and build community relations

Long Term:

Build permanent store for farm goods, build a kitchen and restaurant, develop a workforce development program for those with intellectual disabilities.

Legal Issues

The Company affirms that its promoters have acquired all legally required trademarks and patents.

III. MARKETING SUMMARY

Target Markets

The Company's major target markets are as follows:

Farmers, homesteaders, local community

The estimated number of potential clients within the Company's geographic scope is 8,000.

Services

First-rate service is intended to be the focus of the Company and a cornerstone of the brand's success. All clients will receive conscientious, one-on-one, timely service in all capacities, be they transactions, conflicts or complaints. This is expected to create a loyal brand following and return business.

IV. FINANCIAL PLAN

12-Month Profit and Loss Projection

Monthly expense for salaries and overhead (projected):	\$1,000.00
Revenue and sales for first year of business (projected):	\$15,000.00
Gross profit for first year of business (projected):	\$3,000.00



Parking

Parking

Store

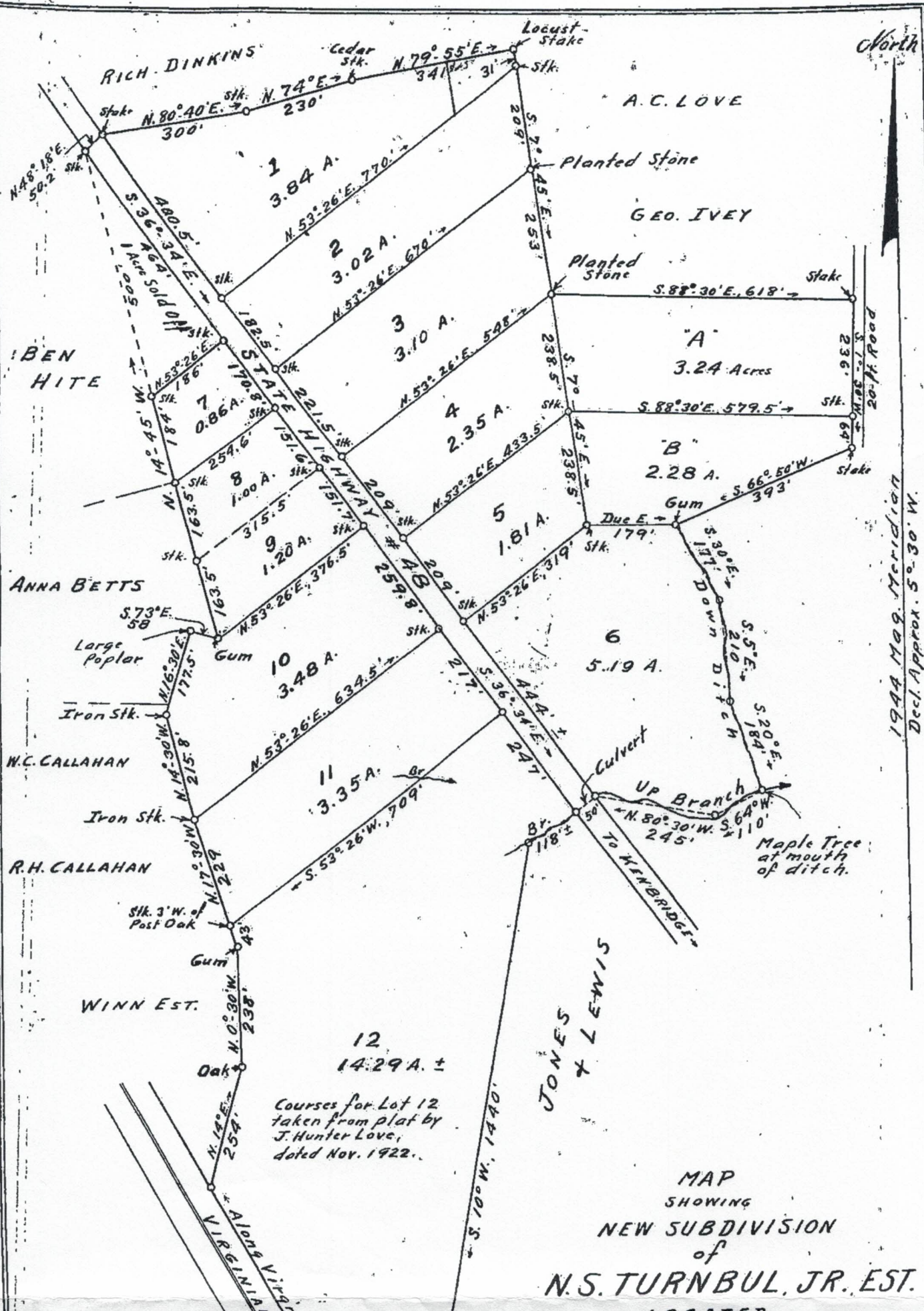
368 K-V Rd

Office

Greenhouse

Market

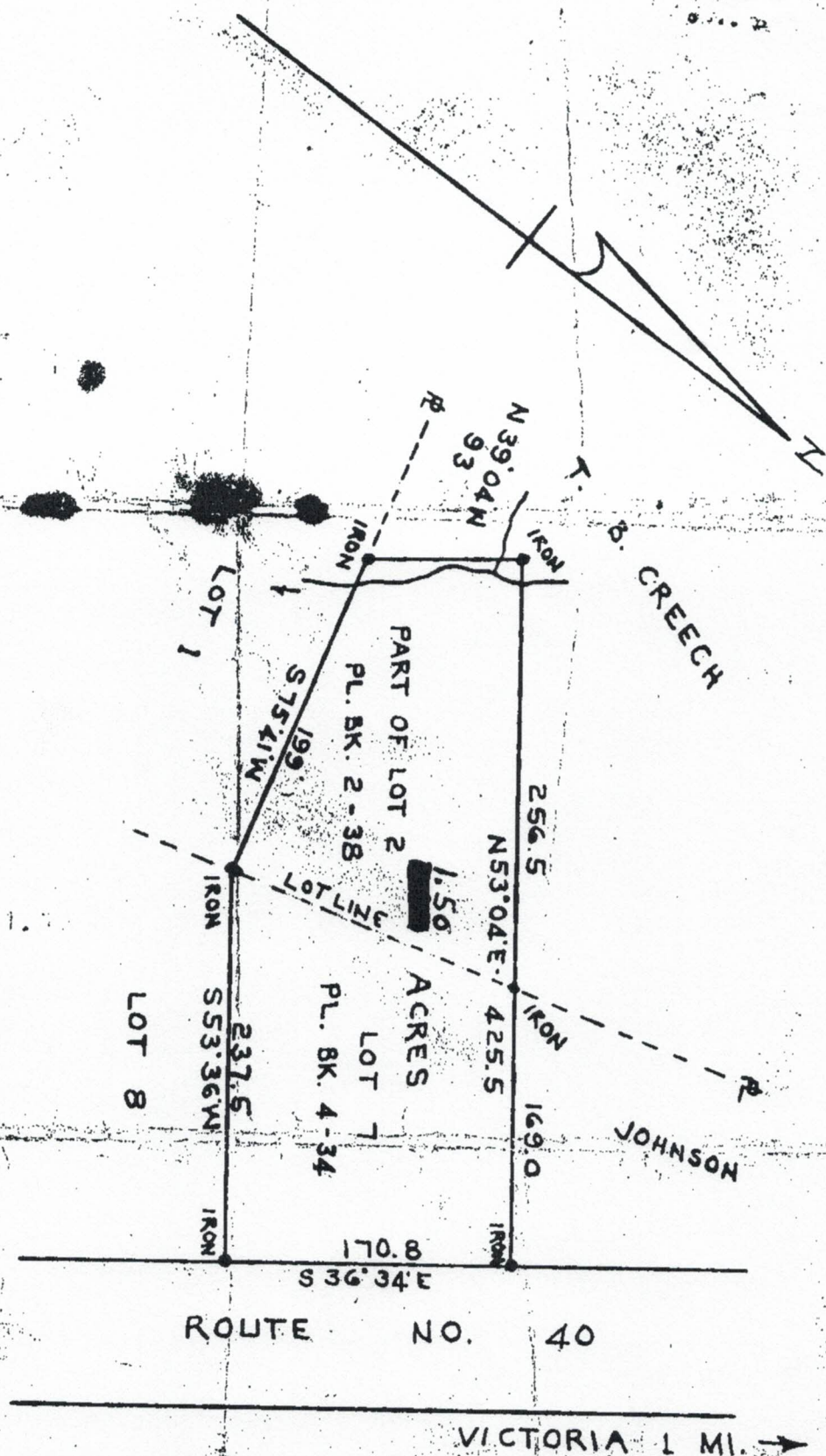
3D



PROPERTY

W. Blackburn
C.L.S.

SCALE 1" = 100'



Staff Report

Planning Report

Case Number: CUP- 4-23

Applicant: Jason and Ella Moses

Parcel Number: 033A9-05-0-7, 033A9-03-0-2A, 033A9-05-0-8, and 033A9-05-0-9

Owner of Record: Jason and Ella Moses

Proposed Use: Livestock market, property auction, farm supply, greenhouse slips/vegetables, small livestock sales, farm product sales, food service, equipment sales/auction, and flea market.

Location: 368 K-V Road, Victoria, VA 23974

Tax Information:

Assessment and Status

Area: 3.528 acres

Current Land: \$38,000

Current Building: \$0

Current Improvements: \$5,500

Current Total: \$43,500

Property Description: Four (4) parcels totaling 3.528-acres with a pre-existing livestock market structure. The parcels are located within the Plymouth district. The entrance to the property is off K-V Road (Route 40) onto the property. The entrance is gravel/dust.

History of Property or Operation: The property has been previously utilized as the Victoria Livestock Market, which set for numerous years causing it to become a blighted property. Due to the building being vacant for numerous years, the structure began to crumble as the trees and weeds covered it. The property has also previously been utilized as a flea market.

- Community Impact:
 - Adjacent Property: YES
 - The applicant agrees to comply with the County's Noise Ordinance.
 - Excessive noise from trucks or tractors will not be tolerated.
 - There will be one (1) loudspeaker outside, which will be utilized for auctioning farm equipment. The speaker will only be utilized on Saturdays during daylight hours and should only be heard from approximately one (1) property away.
 - Proximate Community: YES
 - Increased traffic.
 - Noise—the applicant notes that noise will be limited to weekends when auctions occur.
- Infrastructure:
 - Schools: POSSIBLE
 - Fire and EMS: POSSIBLE
 - Transportation: POSSIBLE

CUP 4-23: Jason and Ella Moses

- The applicant indicates that approximately one hundred (100) vehicles per day, once the property is store is operational. The applicant anticipates approximately fifty (50) vehicles on Saturdays when the livestock auction is occurring and one hundred and fifty (150) vehicles on the other Saturdays.
- Once the store opens, there will be one (1) box truck delivery for food items per week.
- The driveway and parking area is gravel/dust, so possible dust/debris is expected. The applicant proposes wetting the entrance on days when heavy traffic is expected.
 - The parking area is in the process of being expanded to ensure available parking to prevent customers from parking on the roadside or disrupting traffic.
- The applicant is willing to abide by any conditions set forth by VDOT for the roadway access entrance.
- Community and Social Services: POSSIBLE
- Criminal Justice: POSSIBLE
- Economic:
 - Community Enhancement: YES
 - Providing a new location to the County where residents, as well as non-residents can buy and sell homemade items/goods, livestock, farm equipment, produce, farm supplies, etc.
 - The applicant notes the County's long-standing history in agriculture, which has led to the increase in homesteading. The land prices and tax rate make the County desirable for those wishing to pursue homesteading. The business will provide necessary supplies to farmers and homesteaders as well as the general public.
 - Employment: NO
 - The business intends on hiring full-time employees as well as five (5) part-time employees.
 - The positions are intended to begin part-time, but possibly transition to full-time depending on success.
 - Other revenue: YES
 - Payment of taxes
 - Personal property
 - Real estate
 - Sales tax
- Environmental:
 - Soil Quality: POSSIBLE
 - The applicant notes that all runoff from buildings will be properly routed to comply with EPA regulations.
 - Ground Water: NO
 - A well is on the property; however, it is not in use.
 - Water is provided by the Town of Victoria.
 - Sewer: POSSIBLE

CUP 4-23: Jason and Ella Moses

- A septic line is present on the property; however, the condition is unknown.
- A Porta-John is currently on-site, which is cleaned, emptied, and sanitized weekly.
 - The frequency of cleaning/sanitization and number of Porta-Johns will remain the same unless it is determined that it needs to be done more frequently and/or more needs to be added.
- Solid Waste: POSSIBLE
- HazMat: POSSIBLE
 - Minimal gas or diesel will be stored on site for equipment operation.
 - The applicant notes that approximately ten (10) gallons would be stored in proper containers.
 - There will not be any chemicals or biosolids.
 - Propane will be used for the kitchen, once built.
 - Propane would only be for business purposes and not available for sale.
 - At the beginning, manure will be hauled off to another location following the livestock auction. However, in the future, manure may be sold from the site (manure would be packaged and stored inside the building to reduce odor from the property).
 - No hazardous materials are anticipated to be stored outside.
- Air Quality: N/A

Additional Information Provided:

The applicant provides a business plan, which indicates J&E Farmer's Market, LLC. has been established as a Limited Liability Company, headed by Jason Moses. The business has short-term goals of installing a greenhouse, obtaining the ability to accept WIC and SNAP for produce, and building community relations. The long-term goals include the addition of a permanent structure for farm goods, a kitchen, and a restaurant, as well as developing a workforce development program for those with intellectual disabilities. The target market includes farmers, homesteaders, and the local community with approximately 8,000 potential clients within the business's geographic scope.

The applicant proposes that there will be an event each Saturday of the month. The first Saturday will be operated as a flea market. The second and fourth Saturday will be operated as a livestock market. The third Saturday will be operated as farm swap/farmer's market.

The applicant proposes the addition of a 12' x 20' greenhouse within one (1) year of Conditional Use Permit approval. A 6' x 12' office (portable storage shed) has been added to the property; however, has not been connected to electricity at this time. The office will be wired for electricity. Restrooms are anticipated to be added in the future; however, Porta-Johns will be utilized until that time.

The applicant notes the potential for additional storage buildings to be added in the future, which would be located near the rear of the property. Until the time that the storage buildings are added, the applicant anticipates excess items to be stored off-site; however, farm and general

CUP 4-23: Jason and Ella Moses

equipment may be stored on-site for periodic use. Farm equipment may be placed on the property for sale periodically.

The applicant includes in the Conditional Use Permit application the request to add a 40' x 40' store/kitchen within two (2) years of Conditional Use Permit approval. The store will serve as selling baked goods, essentials for farming/homesteading, farm related goods and serve food from the commercial kitchen. A commercial kitchen will be added in the store once it is built; however, prior to the additional structure, a mobile food truck is proposed to be utilized for food service. The store and food service would operate Monday through Sunday. The applicant noted that the hours of operation to be 5:00 a.m. to 5:00 p.m. seven (7) days a week. It is the intent to operate year-round. If said store/kitchen is not constructed within two (2) years from CUP approval, the applicants shall be required to apply for a new or amended Conditional Use Permit.

The business intends to join the Virginia Livestock Services Association. The applicants have been in contact with the Virginia Department of Agriculture and are working to get the building in compliance with their rules and regulations. They will voluntarily comply with any and all regulations set forth by the Virginia Department of Agriculture, including, but not limited to tagging cattle, retention of records, utilization of livestock inspectors, and inspections of fruit, vegetables, and food products. There is an intent to obtain Virginia Grown certification as well as Virginia's Finest certification.

The applicants indicate that they are willing to abide by the County's Noise Ordinance, ordinances pertaining to signage, regulations set forth by the Virginia Department of Agriculture, regulations and licensing set forth by the Virginia Department of Health, regulations set forth by the Virginia Cattle Dealers, building codes, fire code maximum occupancy, and all federal, state, and local laws and regulations. The applicant indicates that once a distributor for animal feed and/or fertilizer is secured, all proper permits will be obtained.

Suggested Conditions of Approval:

- Adhere to the fire code maximum occupancy of the building.
- Provide adequate room for law enforcement, fire, and EMS to make entrance to the parking area, building and surrounding areas on the parcel and can exit the location.
- Maintain licensure through the State of Virginia. Display license as required by the State of Virginia.
- Obtain any required building permits for additional structures anticipated to be added and complete all necessary requirements of the Building Inspector including, but not limited to inspections.
- Obtain a building permit for the store/commercial kitchen within two (2) years of Conditional Use Permit approval. In the event a building permit is not obtained within two (2) years of Conditional Use Permit approval, then the applicant understands that they will be required to apply for a new Conditional Use Permit for the store/commercial kitchen.
- Comply with all Uniform Building Codes.
- Comply with VDOT's requirements for commercial entrance.
- Ensure there is adequate parking on-site to prohibit parking on the side of Route 40.
- Ensure not to impede the flow of traffic on Route 40.

CUP 4-23: Jason and Ella Moses

- Comply with the requirements of the Virginia Department of Agriculture including, but not limited to rules, regulations, operating procedures, inspections, licensure, livestock inspection, record retention, etc.
- Adhere to the setback requirements in the Lunenburg County Code for A-1: Agriculture District.
- Adhere to the sign regulations in the Lunenburg County Code for A-1: Agriculture District.
- Agree to provide a potable domestic water supply on-site sewage disposal or sewer service connection necessary to accommodate the customers to the satisfaction of the Virginia Department of Health.
- Properly dispose of and remove any human waste, garbage, or refuse from the Property, including waste contained in any Porta-Johns being used on the Property, in compliance with all local, state, and federal laws, on a weekly basis so as to prevent potentially hazardous conditions and noxious odors.
- Comply with the Virginia Department of Health's requirements for the preparation and service of food, which includes but is not limited to inspections, licensure, etc.
- Contact the Commissioner of Revenues office annually to complete all mandatory reporting requirements including, but not limited to annual reporting of all tangible property.
- Comply with the County's Noise Ordinance.
- No overnight accommodation.
- Ensure that there is not a negative impact on the adjacent residences as well as the school traffic to Lunenburg Middle School and Central High School.
- Comply with all federal, state, and local regulations.
- The Conditional Use Permit is limited to the applicant and does not run with the land.

Options of the Commission

1. I move that CUP 4-23: Jason and Ella Moses as described in the Conditional Use Permit application, **be approved** with conditions listed above and/or any added or removed by the Commission. Failure to comply with the conditions noted and required will result in the revocation of the Conditional Use Permit.
2. I move that CUP 4-23: Jason and Ella Moses as described in the Conditional Use Permit application, **be denied** because: (explanation)

CUP 4-23: Jason and Ella Moses

3. I move that the Planning Commission **defer a decision** on CUP 4-23: Jason and Ella Moses as described in the Conditional Use Permit application, until the Planning Commission meeting scheduled to begin at 7:00 p.m. on _____, in the 2nd Floor Courtroom of the Lunenburg Courts Building.

Public Comments
Received

FOR TNK

Urgent ☐

DATE 2/21/24

TIME 12:25

While You Were Out

M Dennis Kates

OF _____

PHONE 321-7239

CELL _____

FAX _____

- ☒ TELEPHONED
- ☐ CAME TO SEE YOU
- ☐ RETURNED YOUR CALL
- ☒ PLEASE CALL
- ☐ WILL CALL AGAIN
- ☐ WANTS TO SEE YOU

Message

Regarding notice he received via mail -
Moses CWP?

Ret'd call 2/22/24 at 1322

Has no objection as long as it is not on
his property and there is not an odor from
the manure.

A-9711
T-3002

SIGNED

CUP 1-24:
Virginia Shed
Company, LLC.

paid - \$400.00
JH

Lunenburg Planning Office

Application for Conditional Use Permit for Non-Solar and Non-Utility Businesses

Case Number: **CMP 1-24** (Office Use Only)

Section 1

Applicant Name: Virginia Shed Company, LLC

Owner Name: Richard Earl Boaz / Lisa R. Summers Boaz

Owner Signature: *Richard Earl Boaz / Lisa R. Summers Boaz*

Contact Name for Application: Kent Weaver

Physical and Mailing Address: 7257 Prince Edward Hwy, Prospect, VA 23960

Phone Number: (406)381-6772

Email Address: kentallenweaver@gmail.com

Fax Number (if applicable): N/A

Power of Attorney Name: *Kent Weaver*

Power of Attorney Signature: *Kent Weaver*

As owner or authorized agent of this property, I certify that this application is complete and accurate to the best of my knowledge, and I authorize the Lunenburg County representative(s) entry on the property for purposes of reviewing this application.

Section 2

Property Information

Parcel Number(s): 007-0A-0-2 **PRN 343**

Area (ac./sq. ft.): 5.166

Magisterial District: **Patrick**

Address: 134 ~~Patrick~~ Henry Hwy, Keysville, VA 23947

Existing Zoning: A-1 Agricultural Zone

Requested Use: Portable Storage Shed Sales Lot **& Metal Carports**

Does this property have a historical designation? If yes, describe: No

Parcel number(s), acreage, magisterial district, and existing zoning can be located at:
<https://lunenburggis.timmons.com/#/mw1>. The address can be typed into the "By Parcel Address" search bar followed by selecting search. This will pull up the information pertaining to the parcel.

The application deadline is the 1st of the month proceeding the month in which the public hearing by the Planning Commission is to be held. The Planning Commission meeting is held on the 1st Thursday of the month at 7:00 p.m. Applications must be submitted in completed form a minimum of thirty (30) days prior to the scheduling of a public hearing by the Planning Commission. Notice of incomplete applications will be sent to the applicant at the listed address in Section 1.

The site plan must be submitted as described in the site plan requirements at the time of the application.

The application fee is \$400.00, which must be paid at the time of application submission.

****Incomplete applications will be returned to the applicant and not docketed for a public hearing****

Section 3 Certification of Adjoining Property Owners

Applicants Certification:

I certify that I have notified all adjacent property owners, to the property, which is the subject of this application request, that this application is being filed. Notifications were sent via first class mail.

Adjacent property includes all property touching the project parcel, across roadways, watercourses, railroads, and/or municipal boundaries.

I further certify that the names and addresses below are those of the adjacent property owners as listed in the tax records of the Commissioner of Revenue of Lunenburg County.

Applicant's Signature: Kent A. Weaver

State of: Virginia

County of: Prince Edward

Before me, Kent A. Weaver Billie Jo Bailey, on this 6th day of

February, 2024, Kent A Weaver, personally appeared, and

provided verification to be the person(s) whose name(s) is/are subscribed to the foregoing instrument and acknowledged to me that he/she/they executed the same for the purposes and consideration therein expressed.

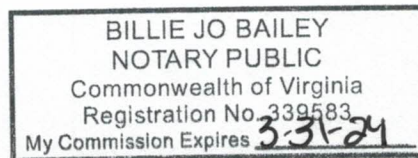
Given under my hand and seal of office this 6th day of February, 2024.

Billie Jo Bailey
Notary Public's Signature

Prince Edward
Location of Commission

Registration #: 339583

Commission Expiration: 3-31-24



(Seal)

Verification of Identity	
<input type="checkbox"/> Driver's License or Govt./State Identification Card:	
State: _____	Number: _____
<input type="checkbox"/> U. S. Passport:	
Number: _____	
<input type="checkbox"/> U. S. Military ID Card	
<input type="checkbox"/> Social Security Card	
<input type="checkbox"/> Birth Certificate	
<input type="checkbox"/> Other: _____	

Notification of Application Submittal to Adjacent Property Owners

To: Adjacent Property Owner of Parcel(s) _____

From: Virginia Shed Company, LLC (Parcel 007-0A-0-2) (134 Patrick Henry Hwy, Keysville, VA 23947)

Date: 2/1/2024

The following application will be submitted for review to the Lunenburg County Planning Office:

- ☐ Rezoning
- ☒ Conditional Use Permit
- ☐ Special Exception

Requested Use or Exception:

The requested use, at 134 Patrick Henry Hwy, Keysville, VA 23947 is for a retail portable storage building and metal carport sales lot. This is the same use as previously approved under a Conditional Use Permit (CUP-2-20) issued to Christopher and Alethea Stringfellow on August 6, 2020. with the additional of metal carports.

The application will be available for viewing at the Lunenburg County Planning Office and on the Lunenburg County website at:

https://www.lunenburgva.gov/government/planning_commission/pending_conditional_use_permit_applications.php

The Planning Office shall notify all adjacent property owner(s) of the time, day, and location of the public hearing(s) to be held on this application. Should you have questions and/or comments, please contact the Planning Office at 434.696.2142 or taylor@lunenburgva.gov.

Section 4
Applicant's Report
Section 8.3(b) of Lunenburg Zoning Ordinance

Every application for a Conditional Use Permit shall be accompanied by a report from the applicant describing the proposed Conditional Use and explaining the way it complies with the requirements and standards of this article.

The following questions address the basic issues. The Planning Commission and/or Board of Supervisors may request additional information.

- 1.) What type of use is being requested?

To operate a retail sales lot for portable storage buildings and metal carports.

Note: The property will be sold to OHB Properties, LLC contingent approval of this this Conditional Use Permit and with the assurance that the Applicant can continue to use the property as approved with OHB Properties, LLC as the Owner.

- 2.) Describe how you plan to develop the property for the proposed use and any associated uses.

The property is ready as is and has previously been used for the same use. Some minor improvements to the existing building will be done and the property will be maintained to insure a professional appearance.

However, the addition is being made for metal carport sales.

- 3.) Describe why the proposed use is desirable and appropriate for the area. What measures will be taken to ensure that the proposed use will not have a negative impact on the surrounding vicinity?

The requested use fits well for this vacant property. It will provide the residents and businesses of Lunenburg and 6 surrounding counties access to quality portable storage buildings and metal carports. The business will be run professionally and the property will be well maintained to insure a nice look from the road. There will be no negative impact to the surrounding area.

Also, address the following:

- a. Details of Operations: Retail sales of portable storage buildings and metal carports.

- b. Hours of Operation: 9:00 AM to 5:00 PM Monday through Saturday

- c. Traffic: Moderate customer traffic during business hour. Delivery trucks, unloading and loading several days a week,

- d. Noise: Minimal noise during the loading and unloading of buildings

- e. Dust/Smoke: Minimal dust while cutting grass

- f. Runoff: Grass and gravel cover the lot so there is no material runoff. Ditches and culverts are already in place and are sufficient.

- g. Intensity of Use: Very moderate intensity of use.

- h. Hazardous Materials: N/A

- i. Outside Storage: N/A

- 4.) Is the use location on a floodplain, wetland area, or dam break inundation zone? If so, please specify.
N/A

- 5.) Are there any deed restrictions concerning the type of use proposed? If so, provide the date the said restrictions expire. N/A

- 6.) Has a survey of the parcel(s) been conducted to include project parcel, property boundaries, existing roadways and structures, and adjoining parcels, as well as the parcel owner? If so, is it included in the application packet? (A recent survey is required to be submitted for the application to be deemed complete.) —please circle one: YES NO
- 7.) Has a site plan been included to note the information required on the survey, but also any new construction, parking, clearing, planting, etc.? (A site plan is required to be submitted for the application to be deemed complete.) —please circle one: YES NO
- 8.) Has a business plan been established? If so, please provide it with application submittal. (A business plan is required to be submitted for the application to be deemed complete.) (If you need help with the development of a business plan, you can contact the Longwood Small Business Development Center at 434.395.2086 to obtain assistance.) —please circle one: YES NO
- 9.) Describe how the proposed project complies or refutes the goals and objectives noted in the Kenbridge-Victoria-Lunenburg Comprehensive Plan. This can be found on the Lunenburg County, Virginia website. The Goals, Objectives, and Strategies are located on pages 122 through 134 of the Kenbridge-Victoria-Lunenburg Comprehensive Plan. (This is required to be completed for the application to be deemed complete.)

We believe the proposed use of the property complies with the goals of the Kenbridge-Victoria-Lunenburg Comprehensive Plan. The use is a good use of the vacant property and gives the members of the community access to quality portable storage buildings that are made in an adjacent county. We want to be thriving business and be a positive member of the community.

Documents Required at Application Submittal:

1. A copy of one (1) Notification of Application Submittal to Adjacent Property Owners
2. Survey
3. Site Plan
4. Business Plan
5. Fire Safety Plan
6. Traffic Plan (if applicable)
 - a. Must include adequate ingress and egress for fire, EMS, and law enforcement.
 - b. Ingress and egress for patrons.
 - c. Traffic flow within the parcel(s) of the application.
7. Plan for Sanitary Facilities (if applicable) N/A
8. Proof of Insurance (if applicable) N/A
9. Trash Disposal Plan (if applicable) N/A

PATRICK HENRY HIGHWAY

EXISTING SIGN

PROPERTY LINE
(TYP)

EXISTING
DRIVE

PARKING
AREA

EXISTING
BUILDING

PORTABLE SHED
DISPLAY MODEL
(TYP)

NOTE: PROPERTY LINE & EXISTING BUILDING
INFORMATION SHOWN WAS OBTAINED FROM
THE LINENBURG COUNTY WEBSITE. THE
INFORMATION SHOWN IS NOT GUARANTEED
TO BE EXACT.

WATSON DRIVE



LOT LAYOUT PLAN
134 PATRICK HENRY HWY
KEYSVILLE, VA 23947

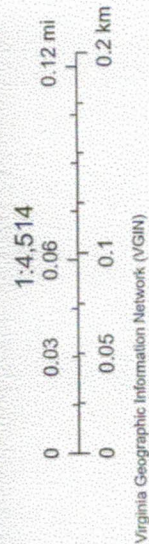
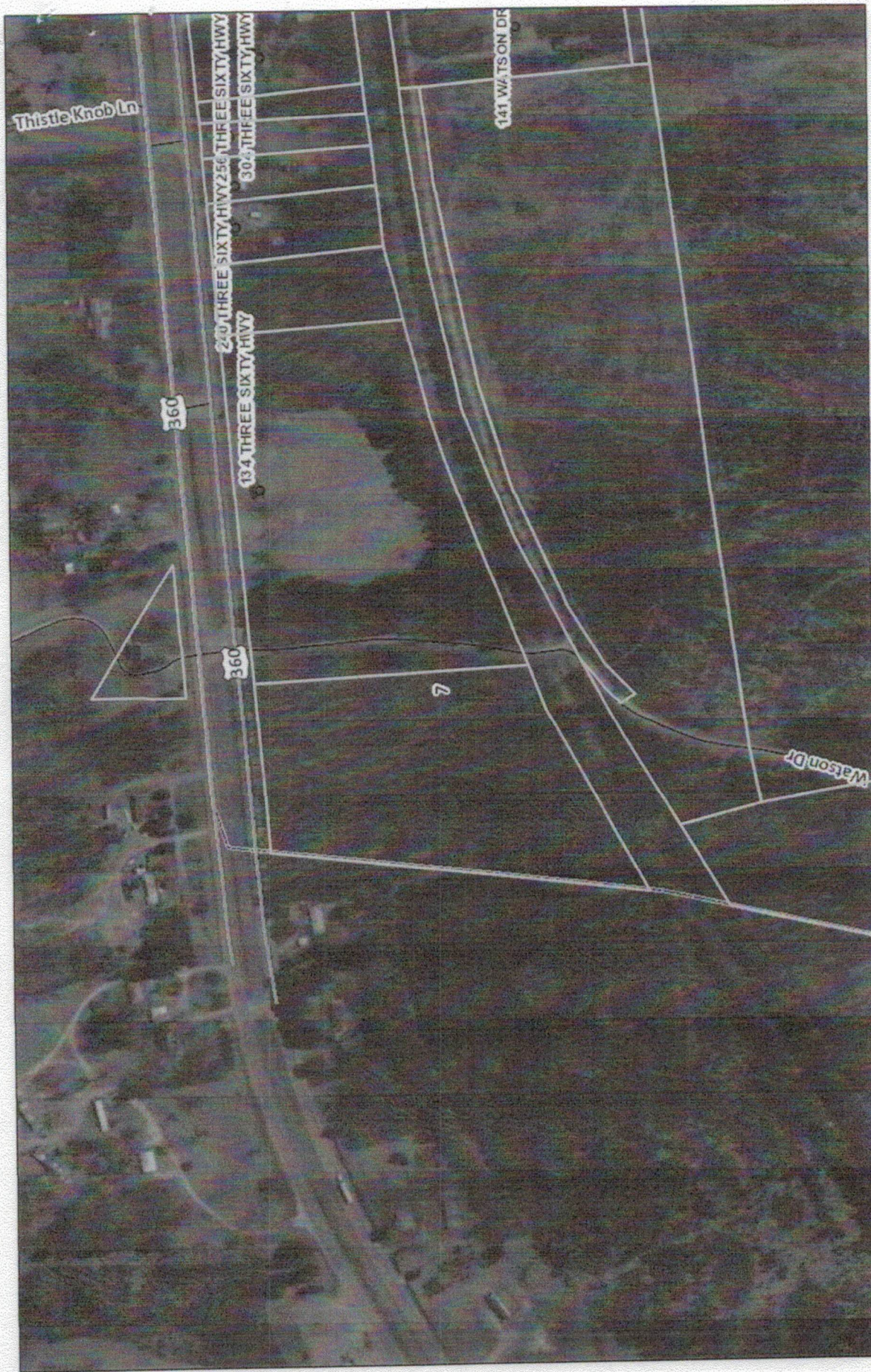
SCALE: 1" = 100'-0"

DATE: 02-01-2024

DRAWN BY: KLN

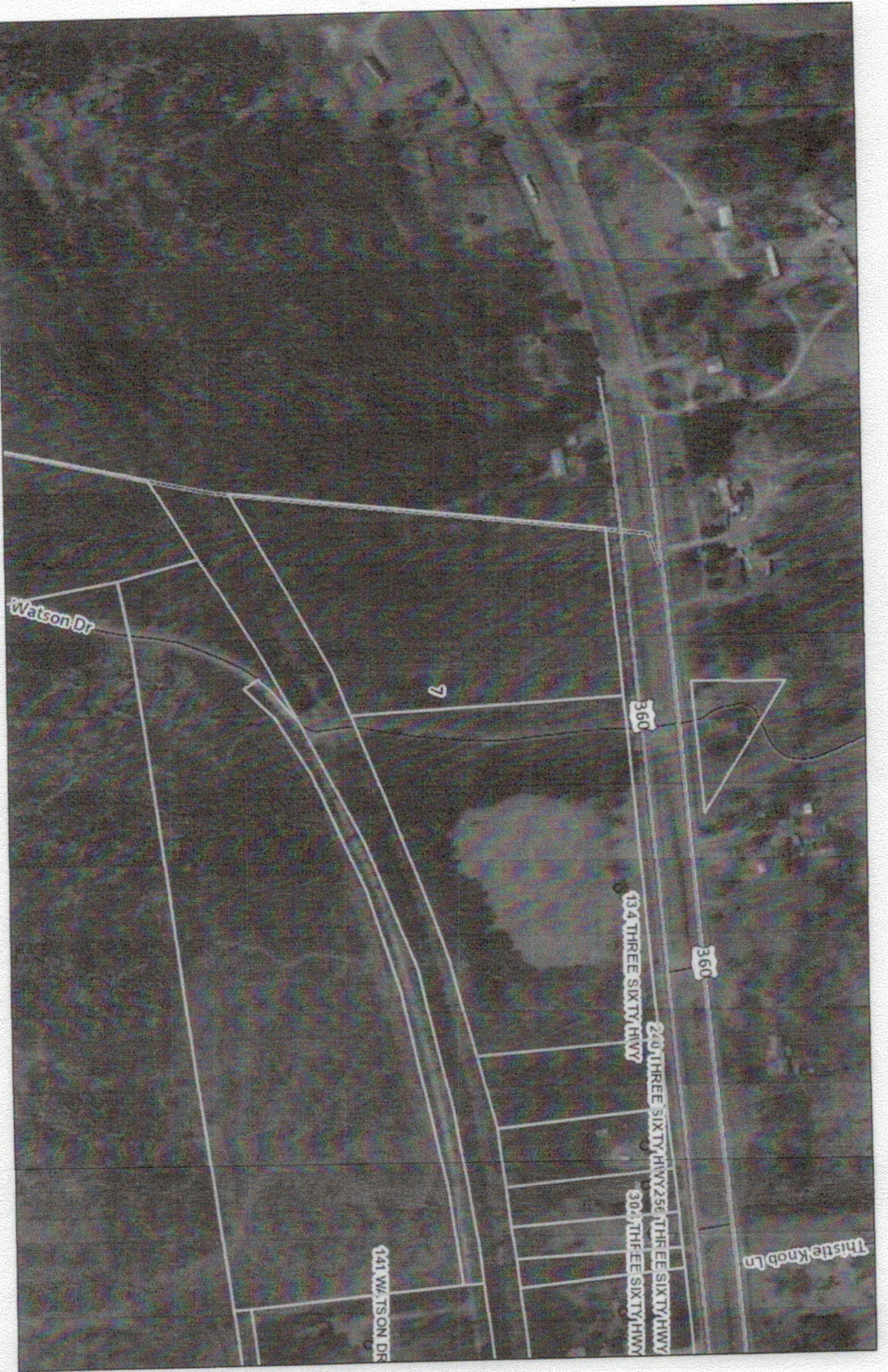
SHEET NO.

1-1



July 8, 2020

July 8, 2020



Virginia Geographic Information Network (VGIN)

Virginia Shed Company, LLC

Business Plan

EXECUTIVE SUMMARY

Company Description

Virginia Shed Company, LLC (VSC) is a Virginia Limited Liability Company owned by Kent Weaver. VSC will operate a retail portable storage building and metal carport location at 134 Patrick Henry Hwy, Keysville, Virginia. VSC will be an Authorized Dealer for Old Hickory Buildings, LLC (OHB), a leading US manufacturer of engineered certified portable storage buildings with a manufacturing shop in Prince Edward County.

Products and Services

OHB has a full line of quality wood and metal storage buildings. Sizes range from 8' by 8' to 16' by 40'. Customers have the option to buy inventory buildings at the sales lot, custom made at the shop or built on their site. Building prices include free delivery and setup. Buildings are engineered certified, which means the buildings meet the International Building Code for storage buildings. VSC will also offer a line of metal carports. Customers have several buying options such as 90 days same as cash, rent to own and outright purchase.

Market and Competitive Analysis

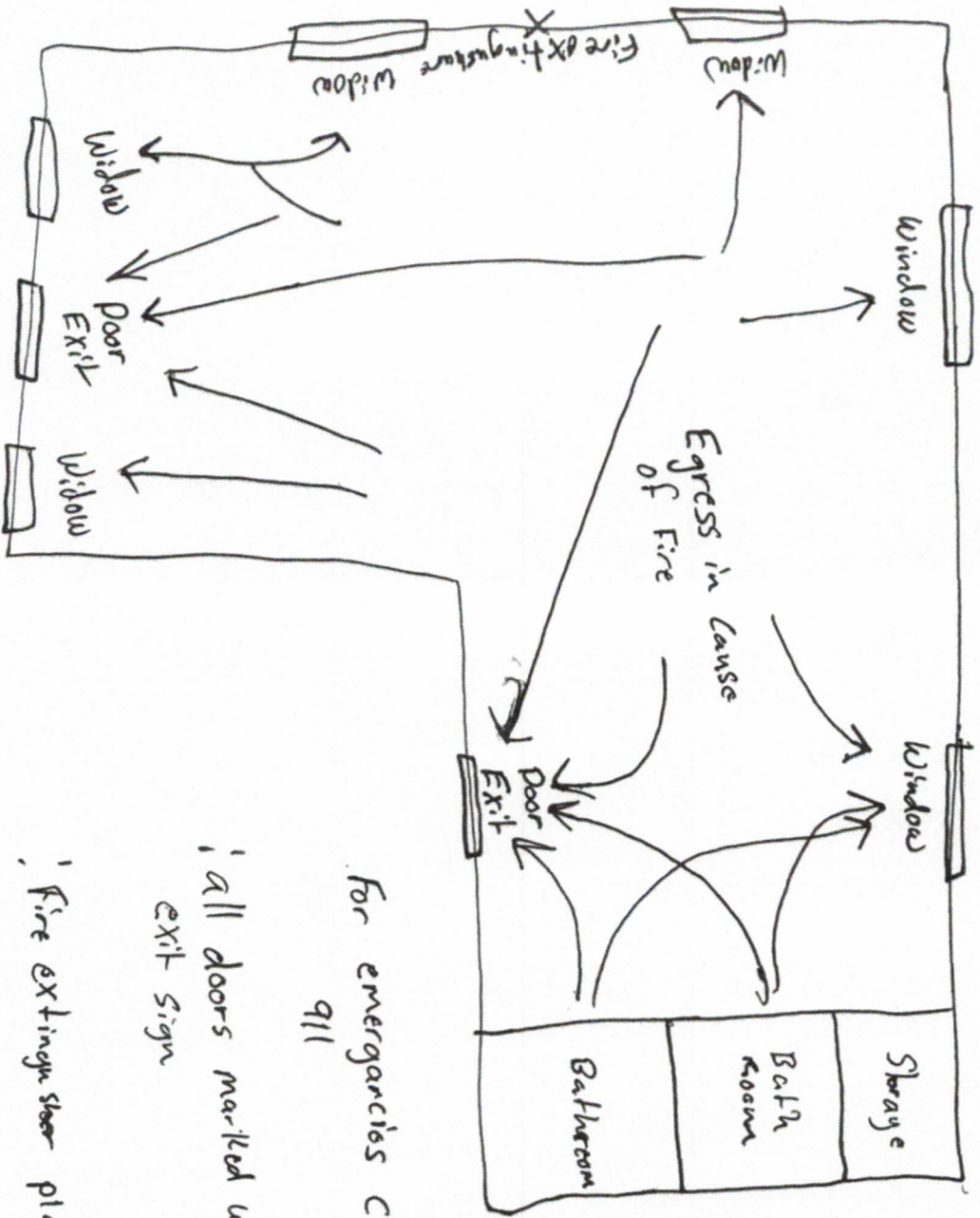
The market for portable buildings is both residential and commercial. The need for storage has grown over the years as people's lifestyle and habits have changed. Many customers buy storage buildings instead of expanding their homes or renting a self-storage unit that is not in their backyard. Businesses, non-profits and government agencies buy them for additional space as well.

134 Patrick Henry Highway is well situated in Lunenburg County and is surrounded by six (6) other counties. There are several competitors in this market that OHB products compare very favorably with in terms of quality, price and service.

Marketing Strategy

VSC will use a variety of marketing and advertising methods. Drive by and walk in traffic with naturally occur but is not the sole source of business. Successful OHB dealers use social media and an OHB branded, search engine optimized, website to reach potential customers. Some print advertising can be used as well as event marketing like displays at county fairs and exhibitions. Additionally, OHB had a Dealer at this location in the past and some repeat and referral customers are expected. OHB's main website generates regular leads as well which are then are passed along to the Dealer closest to the lead.

Fire Safety Plan for
134 Three Sixty Hwy, Keysville, VA 23947



- For emergencies call:
911
- ! all doors marked with
exit sign
- ! Fire extinguisher placement

PATRICK HENRY HIGHWAY

PATRICK HENRY HIGHWAY

WATSON DRIVE

EXISTING SIGN

EXISTING DRIVE

Traffic Flow

PROPERTY LINE (TYP)

EXISTING BUILDING

PARKING AREA

PORTABLE SHED DISPLAY MODEL (TYP)

NOTE: PROPERTY LINE & EXISTING BUILDING INFORMATION SHOWN WAS OBTAINED FROM THE LUNENBURG COUNTY WEBSITE. THE INFORMATION SHOWN IS NOT GUARANTEED TO BE EXACT.

Storage Buildings will not go past existing building on lot. Per County set backs.



LOT LAYOUT PLAN
134 PATRICK HENRY HWY
KEYSVILLE, VA 23947

SCALE: 1" = 80'-0"

DATE: 07-01-2020

DRAWN BY: KLN

SHEET NO.

L-1



COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION

Tommy Johnson
Residency Administrator

1013 W. Atlantic Street
PO Box 249
South Hill, Virginia 23970

Phone: (434) 774-2316
Fax: (434) 774-2336

March 5, 2024

Mrs. Taylor N. King, **CZA**
Director of Planning and Economic Development
Local Zoning Administrator
County of Lunenburg
11413 Courthouse Road
Lunenburg, VA 23952

(Sent Via E-mail)

**SUBJECT: CUP #1-24 Virginia Shed Company, LLC
Hwy 360, 134 Patrick Henry Hwy.
Lunenburg County, VA
VDOT CUP Response**

Dear Ms. King:

The Virginia Department of Transportation, Southern Region Land Development Office has reviewed the subject CUP application received on February 26, 2024, by email. At this time, we have no objections to the CUP application. We do offer the informational comment below.

- They will be using the existing entrance to the current business. Since this will be the same land use as it is now, no upgrades will be required at this time to the Low Volume Commercial Entrance. If the entrance uses increases to 50 or more vehicle trips per day, it will need to be upgraded to a Commercial Entrance.

If you have any questions, please feel free to contact me at 434-774-2310 or by email, todd.cage@vdot.virginia.gov

Sincerely,

C. Todd Cage

Land Development Engineer
Southern Region Land Development
Richmond District

CC: Paul Hinson, P.E., LEED AP, VDOT Southern Region Area Land Use Engineer
John Legg, VDOT Southern Region Permits/Subdivision Specialist Sr.
Tommy Johnson, VDOT South Hill Residency Administrator
Kevin Smith, VDOT South Hill Assistant Residency Administrator
Jamie Tuck, Lunenburg County Building Official

Staff Report

Planning Report

Case Number: CUP- 1-24

Applicant: Virginia Shed Company, LLC.

Parcel Number: 007-0A-0-2

Owner of Record: Richard and Lisa Boaz

Proposed Use: Sale of the current property is contingent upon CUP approval (OHB Properties, LLC. will be purchasing the property for the Contact of the Application, Kent Weaver, to operate). The request is to utilize the property for the sale of portable storage sheds and metal carports.

Location: 134 Patrick Henry Hwy, Keysville, VA 23947

Tax Information

Assessment and Status

Area: 5.166 acres

Current Land: \$42,700

Current Building: \$11,600

Current Improvements: \$0

Current Total: \$54,300

Property Description: One (1) parcel totaling 5.166-acres in an A-1: Agricultural District with an existing structure that was previously utilized as the main building during the operation of the Drive-In Movie Theater. The entrance is located off Hwy 360. The Movie Theater has been closed for numerous years. The property was previously leased by Chris Stringfellow for the sale of storage sheds (CUP 2-20).

Potential Impact of Proposed Use:

- Community Impact:
 - Adjacent Property: POSSIBLE
 - The applicant notes there should be minimal noise during the loading and unloading of the portable storage sheds and metal carports.
 - Proximate Community: POSSIBLE
- Infrastructure:
 - Schools: NO
 - Fire and EMS: POSSIBLE
 - Transportation: POSSIBLE
 - The applicant indicates that there will be moderate customer traffic during business hours and delivery trucks unloading/loading the portable storage sheds/metal carports several times a week.
 - Community and Social Services: NO
 - Criminal Justice: POSSIBLE
- Economic:
 - Community Enhancement: YES

- Providing a location for residents as well as non-residents to purchase portable storage sheds as well as metal carports.
- Employment: NO
- Other revenue: YES
 - Payment of taxes
 - Collection of Sales Tax from portable storage sheds and metal carports.
- Environmental:
 - Soil Quality: NO
 - Ground Water: NO
 - Sewer: NO
 - Solid Waste: NO
 - HazMat: NO
 - Air Quality: NO

Additional Information

The hours of the operation are anticipated to be from 9:00 a.m. to 5:00 p.m. The applicant has noted that there were previous improvements completed to the existing structure to maintain a professional appearance. It is also noted that the property will be maintained to ensure a nice look from the road.

The applicant indicates there should be minimal dust from cutting grass. It is also noted that there is grass and gravel coverage, which would reduce runoff. Ditches and culvert pipes are in place and operating sufficiently per the applicant.

The applicant has provided a layout of the existing structure, which will be utilized in the operation of the business. Restrooms are located within the existing structure. A fire safety plan has been included in the Conditional Use Permit Application.

The applicant indicates that no portable storage buildings or metal carports will be located past the existing building on the lot (Per County setbacks).

Suggested Conditions of Approval:

1. Adhere to the fire code maximum occupancy of the building
2. Comply with all Uniform Building Codes
3. Provide adequate room for fire, EMS, and law enforcement to make entrance to the parking area, building, and surrounding areas on the parcel and can exit the location.
4. Ensure there is adequate parking, which will not impede the flow of traffic on Hwy 360.
5. Adhere to the Lunenburg County Noise Ordinance.
6. Comply with the Lunenburg County Code pertaining to signage in an A-1: Agricultural District.
7. Trash must be contained and removed from the property on a regular basis.

8. No portable storage sheds or metal carports should be placed past the existing structure, closer to Hwy 360. Comply with the Lunenburg County Code pertaining to setbacks in an A-1: Agricultural District.
9. The entrance from Hwy 360 must be maintained to ensure the entrance approach is free of mud and debris from delivery trucks, employees, and customers.
10. Comply with all federal, state, and local regulations.
11. The Conditional Use Permit is limited to the applicant and does not run with the property.

Options of the Commission

1. I move that CUP 1-24: Virginia Shed Company, LLC., as described in the Conditional Use Permit application, **be approved** with the conditions listed above and/or any added or removed by the Commission. Failure to comply with the conditions noted and required will result in the revocation of the Conditional Use Permit.

2. I move that CUP 1-24: Virginia Shed Company, LLC., as described in the Conditional Use Permit application, **be denied** because: (explanation)

3. I move that the Planning Commission **defer a decision** on CUP 1-24: Virginia Shed Company, LLC., as described in the Conditional Use Permit application, until the Planning Commission meeting scheduled to begin at 7:00 p.m. on _____, in the 2nd Floor Courtroom of the Lunenburg Courts Building.

Public Comments
Received

CUP 1-23: Oral Oaks Solar



Kenbridge Solar

Conditional Use Permit Application
Kenbridge, VA 23944

PREPARED FOR

Lunenburg County Administrative
Office
11413 Courthouse Road
Lunenburg, VA. 23952
434.696.2142

PREPARED BY



115 South 15th Street
Suite 200
Richmond, VA 23219
804.343.7100

03/10/2023

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1. Lunenburg County Conditional Use Permit Application

Lunenburg Planning Office

Application for Conditional Use Permit for **Solar Facilities**

Case Number: _____ (Office Use Only)

Section 1

Applicant Name: Oral Oaks Road Solar, LLC (Ameresco)

Owner Name: Virginia Wilson Hawthorne

Owner Signature: _____

Contact Name for Application: Tom Holt

Physical and Mailing Address: Ameresco Inc. – 111 Speen Street, Framingham, MA 01701

Phone Number: (508) 598-3136

Email Address: tholt@ameresco.com

Fax Number (if applicable): Not Applicable

Power of Attorney Name: _____

Power of Attorney Signature: _____

As owner or authorized agent of this property, I certify that this application is complete and accurate to the best of my knowledge, and I authorize the Lunenburg County representative(s) entry on the property for purposes of reviewing this application.

Section 2

Property Information

Parcel Number(s): 058-0A-0-29

Area (ac./sq. ft.): 128.239 Acres / 5,586,093 Sq. Ft

Magisterial District: Columbian Grove

Address: 5844 Oral Oaks Road Kenbridge, VA 23944

Existing Zoning: R1 – Low Density Residential

Requested Use: Large-scale Solar Facility

Does this property have a historical designation? If yes, describe: No

Parcel number(s), acreage, magisterial district and existing zoning can be located at:

<https://lunenburggis.timmons.com/#/mw1>. The address can be typed into the “By Parcel Address” search bar followed by selecting search. This will pull up the information pertaining to the parcel.

The application deadline is the **1st of the month proceeding the month** in which the public hearing by the Planning Commission is to be held. The Planning Commission meeting is held on the 1st Thursday of the month at 7:00 p.m. Applications must be submitted in completed form a minimum of forty-five (45) days prior to scheduling a public hearing by the Planning Commission. Notice of incomplete applications will be sent to the applicant at the listed address in Section 1.

The site plan must be submitted as described in the site plan requirements at the time of the application.

Application fee is \$2,500.00, which must be paid at the time of application submission. The applicant will be invoiced for any costs incurred, including but not limited to advertising, postage, legal fees, third-party consulting fees, etc.

****Incomplete applications will be returned to the applicant and not docketed for a public hearing****

Section 3

Certification of Adjoining Property Owners, Board of Supervisors, and Planning Commissioners

Applicants Certification:

I certify that I have notified all adjacent property owners, to the property, which is the subject of this application request, that this application is being filed. Notifications were sent via first class mail.

Adjacent property includes all property touching the project parcel, across roadways, watercourses, railroads, and/or municipal boundaries.

I further certify that the names and addresses below are those of the adjacent property owners as listed in the tax records of the Commissioner of Revenue of Lunenburg County.

Applicant's Signature: _____

State of: _____

County of: _____

Before me, Paul Allen, on this 7th day of

_____, Name of Notary Public

March, 20 23, Jonathan Mancini, personally appeared, and

_____, Applicant(s) Name

provided verification to be the person(s) whose name(s) is/are subscribed to the foregoing instrument and acknowledged to me that he/she/they executed the same for the purposes and consideration therein expressed.

Given under my hand and seal of office this 7th day of March, 20 23.

_____, Notary Public's Signature

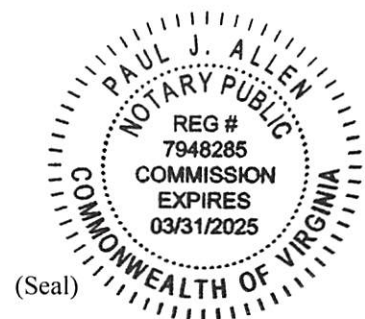
Henrico County, VA, Location of Commission

Registration #: 7948285

Commission Expiration: 3/31/2025

Verification of Identity

- ☒ Driver's License or Govt./State Identification Card:
State: RI Number: 8810669
☐ U. S. Passport: _____ Number: _____
☐ U. S. Military ID Card _____
☐ Social Security Card _____
☐ Birth Certificate _____
☐ Other: _____



Notification of Application Submittal to Adjacent Property Owners

To: Adjacent Property Owner of Parcel(s) 058-0A-0-29

From: Ameresco

Date: March 9, 2023

The following application will be submitted for review to the Lunenburg County Planning Office:

☐ Rezoning

☒ Conditional Use Permit

☐ Special Exception

Requested Use or Exception:

Ameresco is requesting a Conditional Use Permit to allow an approximately 12-megawatt solar facility to be developed on a 128.24-acre parcel (Tax Map No. 058-0A-0-29) located at 5844 Oral Oaks Road, Kenbridge, Virginia. The site is currently wooded, and the proposed development will consist of an approximately 51-acre fenced solar array field interior to the 128.24-acre parcel. The purpose of the project is to generate local, clean, and renewable power with the electricity generated to be purchased by Southside Electric Cooperative.

Ameresco intends to host a public community meeting with respect to this application to allow all interested community members to learn more about the project and ask the Applicant questions about the project, solar energy, or Ameresco. Ameresco will notify the adjacent landowners and publicize the community meeting in advance once a time and place has been determined.

The application will be available for viewing at the Lunenburg County Planning Office. The Planning Office shall notify all adjacent property owner(s) of the time, day, and location of the public hearing(s) to be held on this application. Should you have questions and/or comments, please contact the Planning Office at 434.696.2142 or taylor@lunenburgva.gov.

Section 4 Applicant's Report

Section 8.3(b) of Lunenburg Zoning Ordinance

Every application for a Conditional Use Permit shall be accompanied by a report from the applicant describing the proposed Conditional Use and explaining the manner which it complies with the requirements and standards of this article.

The following questions address the basic issues. The Planning Commission and/or Board of Supervisors may request additional information.

1.) What type of use is being requested?

Construction and operation of a large-scale ground-mounted photovoltaic solar energy generation facility. Reference Section 1.0 of attached Project Narrative.

2.) Describe how you plan to develop the property for the proposed use and any associated uses.

Reference attached Project Narrative.

3.) Describe why the proposed use is desirable and appropriate for the area. What measures will be taken to assure that the proposed use will not have a negative impact on the surrounding vicinity?

Reference attached Project Narrative.

Also, address the following:

- a. Details of Operations: Reference the attached CUP Site Plan and Project Narrative.
- b. Hours of Operation: Temporary construction operations will be limited to hours of 7:00am to 8:00pm, Monday through Saturday and will be prohibited on Sunday. Completed facility operations will be automated but periodic equipment inspections and maintenance activities will be limited to hours of 7:00am to 7:00pm, Monday through Saturday and will be prohibited on Sunday.
- c. Traffic: Reference the attached Project Narrative and Transportation Management Plan in Appendix E.
- d. Noise: Once constructed, the proposed fixed-tilt solar facility will not generate mechanical noises.
- e. Dust/Smoke: The presence of smoke will be limited to initial site clearing and dependent upon County/State permitted onsite burning of removed vegetation. If onsite burning is allowed, then best management practices will be performed to ensure offsite trespass of smoke is not a nuisance or danger. Dust will also be limited to the site construction phase and will be monitored as part of the permitted Erosion & Sediment Control Plan. Best management practices will be performed to control dust until the site is stabilized with permanent vegetative cover.
- f. Runoff: Reference attached Project Narrative, Sections 5.1 and 5.5.
- g. Intensity of Use: The automated facility will be operational daily.
- h. Hazardous Materials: Onsite storage will be temporary and limited to equipment fuel and lubricants to be used during site construction. A SPCC Plan can be provided with County Site Plan review to address any related concerns.
- i. Outside Storage: There will be no required outside storage to accommodate facility operations.

4.) Is the use location on a floodplain, wetland area, or dam break inundation zone? No

5.) Are there any deed restrictions concerning the type of use proposed? If so, provide the date the said restrictions expire. No

6.) Has a survey of the parcel(s) been conducted to include project parcel, property boundaries, existing roadways and structures, and adjoining parcels, as well as the parcel owner? If so, is it included in the application packet? Yes – An ALTA survey is included in the Project Narrative, Appendix H.

7.) Has a site plan been included to note the information required on the survey, but also any new construction,

parking, clearing, planting, etc.? Yes – Reference attached CUP Site Plan.

8.) Has a business plan been established? If so, please provide it with application submittal. N/A

9.) Describe how the proposed project complies or refutes the goals and objectives noted in the Kenbridge- Victoria-Lunenburg Comprehensive Plan. This can be located the Lunenburg County, Virginia website.

Reference attached Project Narrative Section 11.0.

Requirements for telecom site plans can be found in Section 22 Article III, items 22-81 thru 22-112 of the Lunenburg County Code.

Section 5

Construction Traffic Management Plan (CTMP)

VDOT and the County have identified that the construction phase of solar energy projects have an increased impact on VDOT's secondary road network. These impacts occur as VDOT's secondary road system was not designed to accommodate large numbers of truck traffic that results from the transport of the needed materials for the solar project to the construction sites. The increase in number of employees, also, impacts the roadways. To assist VDOT and the County in mitigating the increased maintenance costs associated with the increased traffic, the County requires the submission and approval of a CTMP. The outline below includes the needed elements for the required CTMP.

Construction Traffic Haul Routes

- Identify the routes to be used to transport supplies to the construction site. The plan shall begin at a VDOT maintained primary route and include all secondary routes to be used to access the site.
- The plan shall, also, include any truck routes that may be used to dispose of excess materials, clearing and grubbing debris, timber harvesting, or other activities that generate truck traffic leaving the site.

Roadway Condition Survey

- The applicant shall document by either photos, videos, or other method acceptable to VDOT and the County, the condition of the secondary roadways identified as haul routes. This condition survey will be utilized to identify areas damaged by the construction traffic that will be required to be repaired to the pre-existing conditions or better.

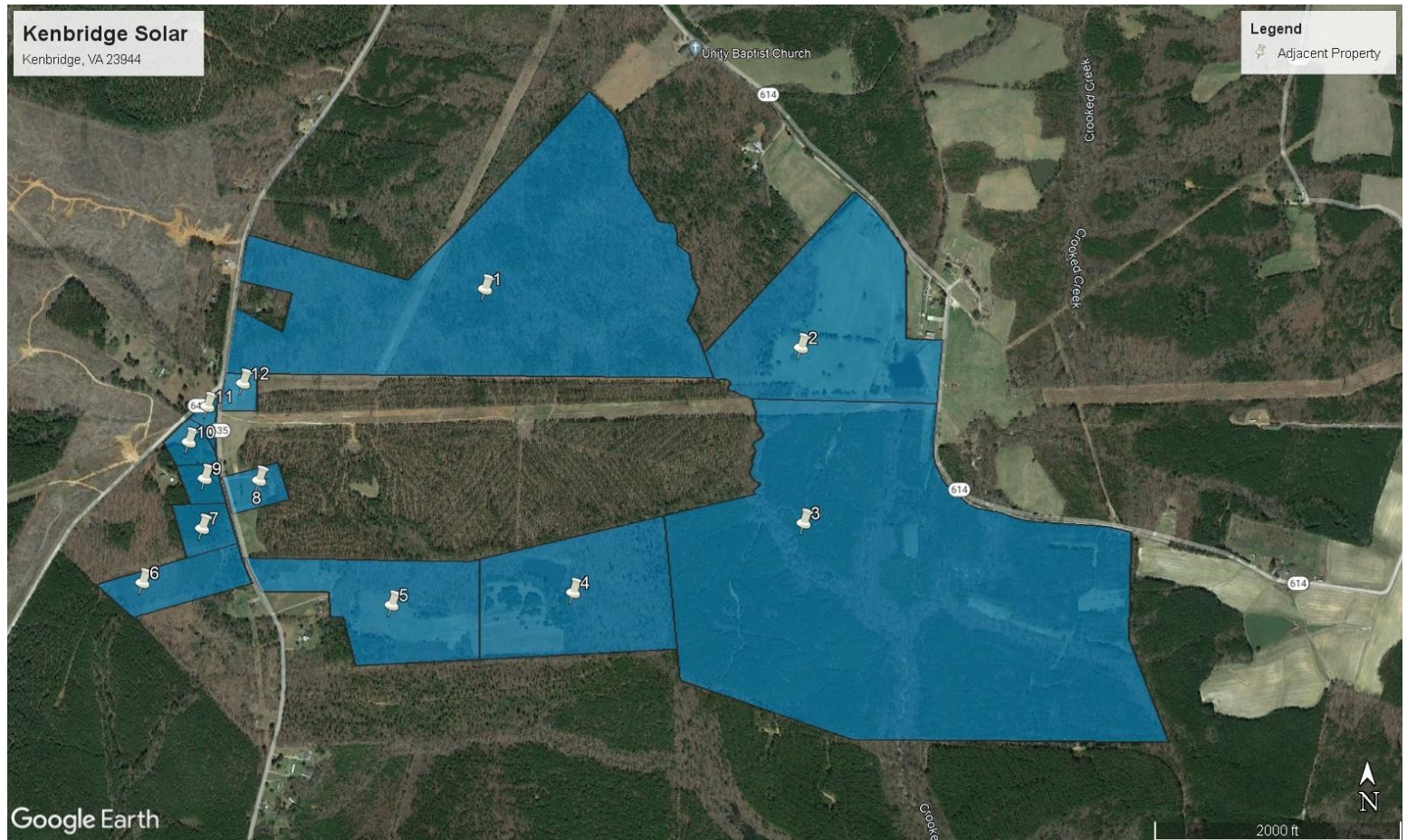
On-Site Storage, Unloading, and Turn-Around Areas

- The applicant shall demonstrate that they have adequate areas available on-site to unload trucks, store the materials on-site, and provide an area where trucks can turn around on-site prior to entering the VDOT roadway.

On-Site Parking Areas for Construction Employees

- The applicant shall provide an estimated number of employees to be on-site during construction and demonstrate that adequate on-site parking areas are available for the anticipated employees. Employees will not be allowed to park along roadways or within VDOT Right-of-Way (ROW) adjacent to the construction areas.

2. Adjoining Property Owner Location Map



#	1	2	3	4	5	6	7	8	9	10	11	12
Parcel Number	58-0A-31	58-0A-37A	58-0A-0-39A	58-0A-0-28B	58-0A-27	058-03-0-D	058-03-0-C	58-0A-29A	058-0A-0-24A	058-0A-0-24C	058-0A-0-24	58-0A-30
Name(s)	Wilson Hawthorne Virginia	Novak Robert or Lisa	Strebor Farms LLC	Gustaf Joseph Terry II	Gustaf Joseph Terry II	Phillips Jason A or Beth A	Langford Vernon L or Ora Regina,	Wilson Hawthorne Virginia	Bledsoe Rhodessa Tisdale,	Killen Jerry W	Lunenburg County Virginia	Electric Power Sub-Station
Address	5844 Oral Oaks Road Kenbridge, VA 23944 (Owners Address)	1080 Unity Road Kenbridge , VA 23944	702 South Broad Street Kenbridge, VA 23944 (Owners Address)	5642 Oral Oaks Road Kenbridge, VA 23944 (Owners Address)	5642 Oral Oaks Road Kenbridge, VA 23944	596 Saint Johns Church Road Kenbridge, VA 23944 (Owners Address)	443 Northview Lane Crestview, FL 32536 (Owners Address)	5844 Oral Oaks Road Kenbridge, VA 23944	22061 Lake Jordan Drive Petersburg, VA 23803 (Owners Address)	5717 Fitztown Road Virginia Beach, VA 23457 (Owners Address)	1800 Gary Road Kenbridge, VA 23944	Null

3. Project Narrative

1.0 Project Description

Ameresco (Applicant) proposes to construct and operate the Kenbridge Solar facility (Project) at 5844 Oral Oaks Road, Kenbridge, Virginia 23944. The Project will be a fixed tilt, ground-mounted photovoltaic (PV) solar facility, with electricity generating capacity of approximately 12.0 megawatts (MW) of alternating current (ac) and 13.5 MW of direct current (dc) within a fence secured area of approximately 51 acres. The 51-acre fenced development area is located within parcel Tax Map No. 058-0A-0-29 with a proposed gravel access road that connects to Oral Oaks Road (SR 635). The project parcel is 128.24 acres and is privately owned by Virginia Hawthorne Wilson (Property). The location and orientation of the solar array within the Property was designed so to minimize visibility from nearby residents and public roadways, minimize excavation and grading associated with project construction, and maximize exposure to solar radiation throughout the year. The proposed facility layout exceeds the County required setbacks for a large-scale solar facility further reducing any visual impact from Oral Oaks Road and nearby residential parcels.

2.0 Purpose and Need

The purpose of the proposed Project is to generate local, clean, and renewable solar power, with the electricity generation to be sold to the local utility. The interconnection study has been completed by Southside Electric Cooperative and Applicant expects a Solar Generator Interconnection Agreement (SGIA) by March 2023. Project site construction is anticipated to begin in 2023. Local solar projects are part of the energy mix, reducing the dependence on any single source of electricity generation. These projects help keep electric costs down by providing a hedge against the rising costs of commodity fuels. These local power generation projects also benefit their host communities by improving the resiliency of the local electric grid, supplying power locally and offsetting power supplies that would otherwise be required from distant power plants.

Based on its commitment to providing renewable energy, the Applicant proposes to develop the site described below to maximize its solar energy potential within the Project's secured fenced area. To best determine optimal location within the site, the following factors have been analyzed:

- Significant solar radiation (insolation)
- Site accessibility for service and construction vehicles
- Avoidance of environmentally sensitive areas
- Limited tree and vegetative clearing
- Limited visibility from offsite locations
- Required setbacks from adjacent properties and public roads

3.0 Site Setting

The proposed Project site is located at 5844 Oral Oaks Road in Kenbridge, Virginia. The fenced portion of the Project area is approximately 51 acres in size and will be installed within parcel Tax Map No. 058-0A-0-29 (128.24 acres) with a proposed gravel access road that connects to Oral Oaks Road (SR 635). The Property is privately owned by Virginia Wilson Hawthorne and majority of this parcel, approximately 80% (102 acres) exists as forested (timber). There is approximately 26 acres that exist as managed turf within the property, and approximately 77% (20 acres) of the turf is located within a 150-foot VEPCO easement along the northern side of the parcel. There is also approximately 5.5 acres of wetlands in the Project parcel, which is to be conserved and protected.

The proposed 51-acre fenced Project site is bordered as follows:

- Bordered to the north by a 150-foot VEPCO Easement that is internal to the project parcel. The proposed security fence runs parallel to the easement along its entire northern border.
- Bordered to the east by the centerline of the existing stream found in a field run survey prepared by VHB. Adjacent to the stream is a Residential – Low Density (R1) zoned parcel which borders the east and southeast corner of the project (Tax Map No. 058-0A-0-39A).
- Bordered to the south by two (2) R1 zoned parcels with the same owner (Tax Map No. 058-0A-0-28B and 058-0A-0-27).
- Bordered to the west by a Project participant parcel (Tax Map No. 058-0A-0-29A) with a single-family residence owned by the Project parcel owner. The north and southwest corners are bordered by the Oral Oaks Road (SR 635) right-of-way.

The specific location of the proposed solar array within this Property was carefully designed so to minimize visibility and maximize setbacks from nearby residents to the south and Oral Oaks Road to the west. The selected location is parallel and adjacent to an existing VEPCO Easement to the north and residential zoned properties to the east and south. Viewshed buffering/screening is accomplished by preserving a 50-foot or greater width buffer of existing vegetation around the perimeter of the project.

A wetland delineation was completed by VHB in April 2022 and confirmed via a Preliminary Jurisdictional Determination from the United States Army Corps of Engineers on August 29, 2022. There are waters regulated under Section 404 of the Clean Waters Act found on the Project site, however no wetland/waters impacts are proposed with this Project.

4.0 Key Components

The proposed Project will consist of the following key components:

- Solar Modules and Racking
- Underground Electrical Conductors
- Balance of System Equipment
- Gravel Access Road
- Security Fencing

Key components are described in the following subsections:

4.1 Solar Modules and Racking

The proposed Project will utilize approximately 27,594 solar modules. The modules are manufactured offsite and will be delivered to the site by truck in wooden crates or cardboard boxes. Each module will measure approximately 3.7 feet by 7.5 feet and will be rated at 545 watts. Solar modules will be mounted onto a fixed tilt racking system. Solar modules are mounted two rows high in portrait orientation to the racking system. The racking system is oriented in rows extending in the East-West direction, and they are angled to have maximum southern exposure to the sun. The racking will be mounted on steel posts, which will be driven piles or helical ground screws embedded into the ground at a depth determined by structural analysis taking into account the soils on site, wind loading, and other site specific factors. Support posts will be driven/screwed into the ground about every 28 to 30 feet. The support structure will be designed to withstand both wind and snow loads as required per federal and state building code standards, respective of the region. The posts will be made from galvanized or corrosion-resistant metal to minimize the potential for corrosion over the lifespan of the project. The rows will be spaced approximately 16 feet apart to allow access for operations and maintenance and minimize inter-row shading. The maximum height of the solar modules above the ground will be approximately 10 feet.

4.2 Underground Electrical Conductors

Underground electrical conductors will be installed in trenches at a depth in compliance with the National Electric Code. Conductors either will be buried in a polyvinylchloride (PVC) conduit or equivalent.

4.3 Balance of System Equipment

Balance of System Equipment including but not limited to inverters, DC combiner boxes, and transformers will be installed near the solar array within the Project's fence line. Balance of System Equipment will be installed on H-Frames and concrete pads and in compliance with equipment manufacturer instructions. Liquid filled transformers will use FR3 fluid, which is a biodegradable, non-toxic, and carbon neutral transformer fluid made from vegetable oil. FR3 fluid in addition to its environmental benefits over traditional mineral oil also has twice the fire and flash point,

increasing safety. Full details of Balance of System Equipment will be included as part of the Project's electrical design plan set submitted for ministerial permits. A single row of power poles will be installed to connect the equipment on the Project's equipment pad to the local electric grid, at an interconnection point specified by Southside Electric Cooperative and shown on the Project site plan.

4.4 Access Roads

The site will be accessed via a proposed gravel low-volume commercial entrance from Oral Oaks Road (SR 635), located adjacent to the south side of the existing transmission line easement. The proposed gravel access road will be 20 feet wide at the entrance and extending east through the proposed access gate to a truck turn-around. The balance of the proposed access road internal to the fenced facility is proposed as a 14-foot wide gravel roadway section to prevent vehicle rutting, erosion and minimize dust. The access road will have four (4) hammerhead turnarounds to accommodate maintenance and emergency vehicles. The road design will accommodate emergency vehicles and designed in compliance with County standards. The entrance from Oral Oaks Road will be designed in compliance with VDOT's low-volume commercial entrance standard. Reference the attached CUP Site Plan for the proposed access road and hammerhead turnaround locations.

4.5 Fencing

The solar facility's panel array and equipment will be enclosed within a 7-foot tall chain link security fence in compliance with the National Electric Safety Code. The security fence will have at least one vehicle access gate on each end of the array boundary, which will always remain locked except during operations and maintenance activities. The lock system will accommodate access by County emergency services. Reference the attached CUP Site Plan for proposed security fence limits.

5.0 Summary of Construction Activities

Initial site construction will consist of installing erosion control measures, improving the access road, minimal site grading, and establishing the temporary staging/laydown area. Following this initial site preparation, the installation of the support piles, racking equipment, modules, security fencing and balance of system equipment will proceed through completion. Tree removal with grubbing will be limited to just beyond the proposed 51-acre fencing limits. Selective timbering, with no grubbing or root removal, is proposed along the south and east sides of the facility fence to reduce shading impacts. The selective timbering areas will retain the tree stumps and vegetative root structure to prevent land disturbance. Disturbed land will be stabilized with a native seed mix to ensure permanent vegetative cover with minimal irrigation needs (grow-in only) and low maintenance (mowing) needs. Buffer plantings will be added to supplement the proposed existing vegetative buffer, as determined necessary during County Site Plan review. Assuming site construction will commence by Spring 2024, then installation of supplemental buffer plantings will be scheduled for Fall 2024. The perimeter erosion control measures will not be

converted to permanent stormwater management measures until the disturbed areas have become stabilized with permanent vegetative cover.

5.1 Erosion Control

The Project's erosion and sediment control will be designed per state and County requirements. The first phase of site construction will be the installation of the temporary construction entrance and the minimum disturbance necessary to install silt fence along the project perimeter. Next will be the construction of the perimeter drainage ditches and the sediment basins. Land disturbance to develop the proposed facility will not begin until after the installation and operation of these erosion control measures. The perimeter erosion control measures will not be converted to permanent stormwater management measures until the disturbed project interior has become stabilized with permanent vegetative cover and approved for conversion by the County Erosion Control Inspector. This will include permanent vegetative groundcover between rows and under the solar panels.

5.2 Smoke and Dust

The presence of smoke will be limited to initial site clearing and dependent upon County/State permitted onsite burning of removed vegetation. If onsite burning is allowed, then best management practices will be performed to ensure offsite trespass of smoke is not a nuisance or danger. Dust will also be limited to the site construction phase and will be monitored as part of the permitted Erosion & Sediment Control Plan. Best management practices (i.e. water truck) will be performed to control dust until the site is stabilized with permanent vegetative cover. Once the facility is constructed and the site is stabilized the facility will not create smoke or dust during normal operation.

5.3 Staging Area

A temporary staging area will be located on the Project's northwest corner, adjacent to the proposed gravel access road. This area will only be temporarily disturbed to accommodate construction personnel parking, laydown for staging construction materials, equipment, and portable sanitation station(s). This temporary staging area is located within the project parcel and to be utilized during the limited construction phase. This area will be stabilized with permanent vegetative cover following use during construction. Reference the attached CUP Site Plan, sheet C301 for the proposed temporary parking and laydown area.

5.4 Site Grading

Construction equipment such as tractors, backhoes, dozers, and graders may be utilized to grade the proposed perimeter drainage ditches and sediment/stormwater basins. Stripped soils are to

be spread out adjacent to the fenced project area upgradient of silt fence and immediately seeded and mulched. Excavated soils are to be conditioned as necessary and used for construction of the basin embankments and the proposed fill on the north end of the facility. This soil will remain onsite and be available in the future to accommodate filling of these excavated stormwater measures and regrading back to a predevelopment condition with decommissioning.

Existing slopes were considered when selecting the project area and advancements in solar racking have allowed installation to occur on slopes up to 20%. As shown on the Slope Analysis (sheet C400) of the attached CUP Site Plan there are very few areas that exceed 20%. Site grading design is endeavoring for minimal disturbance of the existing surface soil to ensure prompt establishment of permanent stabilizing grasses following installation of equipment. Except for an area on the north end of the project that will be filled during construction and will utilize excavated soils from stormwater measures. All grading on this site was designed to have minimal impact on existing soil conditions, with no removal of existing soils from the site. Final finish site grading will be determined with the selection of the final racking system and presented with the final construction drawings for County Site Plan and VDEQ VSMP review and approvals. Reference the attached CUP Site Plan for the proposed site grading to accommodate the stormwater management infrastructure and fill area.

5.5 Stormwater Management

The Project's Stormwater Management will be designed per VDEQ (state) and County requirements. Stormwater will be managed on site through permanent basins that are designed to the specifications set by VDEQ. Discharge from the site will be through a level spreader or equivalent energy dissipating device to release water as sheet flow to adjacent wetlands/streams. Once permanent vegetative covering of the site is approved by the County Erosion Control Inspector perimeter control will be converted to permanent measures. The basins will be constructed with permanent control structures, embankments and discharge piping when initially installed as sediment basins. The conversion to permanent stormwater measures will consist of the removal of the temporary dewatering orifice and baffles and uncovering/opening a low flow orifice at the bottom of the basin according to its design specifications.

The Virginia Runoff Reduction Method (VRRM) will be used to determine water quality requirements for the limits of disturbance according to 9VAC25-870-63. A VRRM spreadsheet will be included with the stormwater design modeling with the County Site Plan review submittal, following CUP approval. Reference the attached CUP Site Plan for proposed perimeter drainage ditches and stormwater management (SWM) basins.

6.0 Transportation and Traffic

Materials for the proposed Project including but not limited to gravel, riprap, stormwater structures, PV modules, tracking equipment, support racks/piles, inverters, transformer, wiring and equipment pads will be delivered to the site via trucks during construction. All construction traffic will access the project site from Oral Oaks Road via the proposed access, which is to be constructed as a low volume commercial entrance. The proposed construction truck traffic will be managed to minimize impacts to existing traffic patterns. A Transportation Management Plan (TMP) was developed in accordance with VDOT Work Area Protection Manual (WAPM), the Manual on Uniform Traffic Control Devices (MUTCD) and included with this CUP application to address these concerns. Following the completion of site construction, vehicular access to the site will be limited to semi-annual operation/maintenance activities by personnel in standard two-axle vehicles. Reference the attached Appendix E for the Transportation Management Plan & Existing Pavement Condition Inventory.

7.0 Employment

A typical construction workforce for a solar facility of this size consists of approximately 80 workers during the construction period, which should last approximately six (6) months. Construction personnel will be divided between civil and electrical services, respective of construction phasing. Not all workers will be present on site at the same time. Workers will commute to the site in either construction specific or personal vehicles and will park in the proposed temporary staging area or the within the proposed fenced facility limits.

8.0 Utility Use

8.1 Water Use

No permanent potable water service will be required for the solar facility, and therefore no water infrastructure is proposed with the Project. During construction water use will be accommodated by water trucks with use limited as necessary for moisture conditioning of soil, hydro-mulching, dust control and grow-in irrigation.

8.2 Sewer and Solid Waste

No permanent sanitary sewer or solid waste services will be required for the solar facility, and therefore no sewer or solid waste infrastructure is proposed with the Project. During construction temporary sanitary facilities will be accommodated via portables and the limited solid waste will be handled via temporary dumpster(s). Both temporary measures will be serviced at regular intervals to prevent nuisance.

9.0 Community Outreach

Community outreach is an important part to the overall success of this project. Informing the surrounding community of the proposed project and importance of community-scale solar in meeting renewable energy and electrical grid resiliency goals. In coordination with the landowner, nearby property owners will be notified in advance of a public meeting that will be held in the county and near the project's location. The public meeting will serve as an open house for any inquirer to learn about solar energy, the construction process, operations, and maintenance, health and safety, economic and fiscal impacts, and address other community questions.

10.0 Mitigation Measures

The project is surrounded by wooded, low density residential zoned parcels as well as a VEPCO transmission easement running through the north portion of the property. The proximity of the site to an abutting substation does not require any additional land for interconnection and can be achieved in a location that already has existing utility infrastructure. There will be limited view of the project from Oral Oaks Road but from the perspective of the existing viewshed containing an existing power substation and transmission line right-of-way. The site's topography, in addition to a 50-foot buffer that will utilize and preserve existing vegetation surrounding the site, will conceal proposed facility equipment from surrounding properties. Considering the adjacent existing power infrastructure and proposed forested buffers surrounding the project, allow the siting of the project to be in an ideal location. Offsite, the proposed construction truck route has been studied and a Transportation Management Plan was created to ensure the construction activity will not impact existing road and traffic conditions.

11.0 Kenbridge-Victoria-Lunenburg Comprehensive Plan Compliance

11.1 Solar Facilities Policy

The construction of the Kenbridge Solar facility can be characterized as a safe development. The sequence of construction, erosion control and stormwater management measures will be incorporated into construction drawings developed and reviewed by a Professional Engineer and designed in accordance with VDEQ regulations. There are no proposed impacts to jurisdictional wetlands/waters and controlled stormwater discharges will be directed via level spreaders or energy-dissipation devices to onsite wetlands and/or streams. The offsite impact is limited to temporary construction traffic along the proposed truck route, which will be mitigated via a Transportation Management Plan. The proposed interconnection is into the existing overhead power distribution on the east side of Oral Oaks Road and also within the project parcel. The proposed facility siting preserves existing wooded buffers for buffering neighbors to the east, west and south. The adjoining parcel to the north is owned by Ms. Virginia Wilson, participant landowner for this Project. Therefore, the proposed Project will preserve the character of the surrounding community.

11.2 Loss of Agricultural Land and Open Space Policy

The project is on a low density residential zoned (R1) parcel that is currently undeveloped and wooded. The proposed 51-acre fenced limits of the facility exceed the required 200-foot setback from the property boundary. An existing 150-foot wide VEPCO transmission line right-of-way occupies the northern end of the parcel. Approximately 60% of the 128.24-acre project parcel will not be developed with this Project. The proposed facility's fenced limits are more than 1-mile from any existing medium to large-scale solar facilities and more than 1-mile to the nearest optioned parcel for the proposed Laurel Branch Solar project to the northeast. The proposed project also does not exceed the ordinance defined 5% solar development density within a 5-mile radius. The siting of this project aims to preserve the character of the community and prevent impact to the surrounding land and water resources.

This solar facility has a minimal development impact to approximately 51 acres of the project parcel and upon decommissioning returns the affected land back to the pre-development condition. The use of driven steel piles for support of the racking system significantly reduces impacts to surface soils when compared to the affected footprint of structural concrete foundations associated with most residential and commercial development. The site will be stabilized using native grass species and the use of native pollinators within disturbed buffer areas and array perimeter may be utilized to enhance wildlife habitat.

11.3 Protection of Water Resources Policy

This project is subject to the regulations and permitting of VDEQ, which will protect the water quality on the site and the watershed it will be discharged to. A wetland delineation was performed by VHB in April 2022 and a Preliminary Jurisdictional Determination was received in August 2022 confirming the location of water features on the site. There are no proposed impacts to these jurisdictional wetlands/waters. Stringent perimeter control measures on the site will prevent impairment of the onsite wetlands/waters. The Project poses no negative impact to these water resources, groundwater reserves or groundwater wells in the area.

11.4 Corridor Development Policy

The proposed construction traffic will travel south from the Town of Kenbridge using Route 635 (Oral Oaks Road) to access the site at a single construction entrance to be approved by VDOT. A Transportation Management Plan (TMP) is included with the CUP Application package and will demonstrate proposed mitigation measures for any potential impacts to the level of service, safety, or capacity along the proposed construction traffic route. Additionally, an Existing Pavement

Condition Inventory was performed on the proposed construction traffic route to determine suitability of existing secondary roads. A similar analysis will be performed pre and post construction for the purpose of identifying any physical impacts and repairs to pre-construction conditions made promptly. Additional TMP support and estimates for performance bonding will be conducted as deemed necessary by the County and VDOT.

11.5 Economy and Employment Goals, Objectives, and Strategies

Solar development will work to expand a diversified economy through the local sourcing of materials and labor needed to complete this project. Additionally, a local solar installation will diversify the energy mix in the County and further reduce dependence on single sources of electricity. Local power generation will improve the resiliency of the local electric grid, supplying locally and offsetting power supplies that would otherwise be required from distant power plants.

The applicant will coordinate further regarding a Siting Agreement and long-term revenue sharing, as directed by the County Attorney, and currently adopted requirements.

11.6 Land Use Goals, Objectives, and Strategies

The Project parcel has an existing 150-foot wide VEPCO transmission right-of-way along its northern boundary and an adjoining Dominion Energy power substation in the northwest corner. The proposed project facility footprint is only 40% of the 128.24-acre parcel and is directly adjacent to the previously mentioned electrical transmission infrastructure, making the project area less desirable for future low density residential development. By providing an adequate buffer and exceeding required setbacks, the proposed facility will not inhibit the promotion of future single-family development in the surrounding areas.

11.7 Natural Resources Goals, Objectives, and Strategies

This project requires the removal of some forested area, but it will promote the preservation of existing vegetation by retaining areas along the perimeter of the property in a minimum 50-foot-wide strip of land acting as a buffer. Areas that must be timbered to reduce array shading will not be grubbed so that the root structure will be maintained. No stripped or excavated soils will be removed from the site.

The existing use for the property is forested with no residential structures located internal to the parcel. The USDA NRCS Web Soil Survey was analyzed, and the 128.2-acre site resides on 46.3 acres (36%) of prime farmland and 81.6 acres (64%) of farmland of statewide importance. With the proposed site plan and decommissioning plan, this project serves to provide environmentally

friendly energy to the community while providing potential agricultural use in the future after the project's life.

4. Site Plan

See CUP Site Plan in Appendix A

5. Draft Grading Plan

See sheet C400 in Appendix A

6. Decommissioning Plan

Kenbridge Solar is proposed as a 12-Megawatt Alternating Current (AC) freestanding solar energy facility to be located on Lunenburg County Property Tax Map Number 058-0A-0-29 near 5844 Oral Oaks Road in Kenbridge as shown on the VHB CUP Site Plan dated November 2022 (the "Project"). The Project will not contain any permanent building structures after construction is complete and the Project is operational. There will be security fencing installed around the perimeter of the Project, with security gates for access. The Project has an estimated useful life of 40 years. In conjunction with the permits, the following is the decommissioning plan for the Project:

Lunenburg County will be notified by certified mail to the County Planning Commissioner office, of the proposed date of discontinuation of operations and plans for removal. Decommissioning will consist of:

- physical removal of all project elements,
- reuse, salvage, recycling, and disposal of all material in accordance with local, state, and federal regulations, and
- return of the array surface to its pre solar development condition (as can reasonably be achieved via acceptable land development practices). This consists of surface stabilization, revegetation of the site to minimize erosion and replanting of trees to similar predevelopment density.

Kenbridge Solar will obtain any required local or state permits before starting the decommissioning operation and will ensure there are no impacts on the premises and abutters.

DECOMMISSIONING STEPS

Under the decommission and restoration process, Kenbridge Solar or a subcontractor will dismantle and remove all above ground structures, equipment, gravel roads and recondition the ground and any related temporary staging areas. Structures and equipment include panels, racking, canopy structures, inverters, transformers, wiring, pads, poles and low and medium voltage electrical equipment.

All dismantled equipment and material are categorized for reuse, salvage, recycling or disposal. Steel, aluminum, glass, copper and plastics can all be recycled. To optimize transportation and reduce costs, all materials will be collected and classified on-site before transport to the appropriate facilities.

No waste material will remain on site, other than certain underground materials as described below in items number 3 and 8.

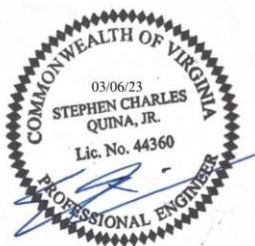
The different steps below describe the process to decommission the Photovoltaic (PV) systems.

1. **Temporary erosion controls:** Appropriate temporary and sedimentation control best management practices will be used in the decommissioning of ground mount systems.
2. **Disconnect PV system from the power grid:** System will be shut down. All inverters, combiner boxes, AC panels and medium voltage disconnects, and switches will be put in the off position.
3. **Remove electric wiring and cables:** DC and AC wire will be disconnected and removed by hand from panels, racking, combiner boxes, inverters and AC panels. Underground cables will be pulled and removed from underground conduit and overhead cables will be removed from poles and Medium Voltage (MV) equipment. Any underground cable left in place will be cut off at a minimum depth of 12-inches below the ground surface.
4. **Remove panels:** Crystalline silicon panels are considered landfill safe since they do not contain hazardous materials such as lead or cadmium. Panels contain recyclable materials such as aluminum, copper and glass. Panels will be dismantled and packaged per manufacturer or approved recycler specifications. If possible, panels will be returned to manufacturer for recycling or disposal or transported to a recycling facility where panel componentry will be recycled.
5. **Dismantle and removal of racks:** Racks include, fix tilt structures. All racking will be disassembled, broken down and shipped to the appropriate metal recycling facilities.
6. **Remove rack foundations:** Foundations include post and ground screws. All support, posts and ground screws will be pulled and removed from the ground.
7. **Remove electrical and electronic equipment:** Electrical and electronic equipment include inverters, transformers, combiner boxes, AC panels, disconnect switches and MV equipment. Equipment will be removed from supports, concrete pads and utility poles. Equipment will be transported for reconditioning and reuse or disassembled into easily transportable sections for salvage, recycling or disposal using approved techniques.

8. **Breakup and remove concrete materials:** Concrete materials include equipment pads. Pads will be excavated to remove anchor bolts, rebar and conduits and concrete will be broken into small manageable pieces. Ballast blocks will be broken into small manageable pieces and canopy concrete foundations (if applicable) will be demolished to a minimum of 12 inches below grade. Concrete material will be disposed at the appropriate facilities and rebar will be recycled, if possible.
9. **Remove power poles.** Utility poles installed to interconnect the system will be removed and reused, if possible.
10. **Remove fence:** Fencing, gates and guards will be removed and salvaged or recycled.
11. **Remove roads:** Gravel access and internal array roads will be removed. Gravel aggregate will be tested for contamination prior to salvage and disposed of or reused based on tested condition.
12. **Remove stormwater ditches and basins:** Stormwater management drainage ditches and basins will be removed. This will include removal of associated concrete discharge control structures, discharge piping and energy dissipation riprap. These excavated stormwater management features will be filled and/or re-graded to prevent excessive ponding and accommodate establishment of the prescribed predevelopment vegetation.
13. **Restoration:** Restoration includes grading, seeding and loaming of disturbed areas resulting from decommissioning activities.

Table 1. Kenbridge Solar Decommissioning Estimate Breakdown

DECOMMISSIONING ESTIMATE BREAKDOWN						
Resource	Task	Task Quantity	Task Duration	Person Hours	Rate	Cost
Labor	Remove modules	13,797 module pairs	10 minutes per pair	2299.5	\$35	\$80,483
Labor	Remove racking	1150 racks	40 minutes per rack	766.67	\$35	\$26,833
Labor & Equipment	Remove posts	2,300 posts	10 minutes per post	383.33	\$150	\$57,500
Labor & Equipment	Remove fencing	7,663 LF	1 minute per LF	128	\$150	\$19,158
Labor	Remove conduit	21,400 LF	2 minute per LF	713	\$35	\$24,967
Labor & Equipment	Remove pad equip.	4 xfmr, 0 combiners, 4 inverters	3 hrs per xfmr, 3 hour per inverter	24	\$150	\$3,600
Labor & Equipment	Remove pads	1200 SF of Pads	10 minutes per SF	200	\$150	\$30,000
Labor & Equipment	Remove gravel road	9,761 SY	1.5 minutes per SY	244	\$150	\$36,604
Labor & Equipment	Remove equipment poles and equipment	6 poles	5 hours per pole	40	\$150	\$6,000
Equipment	Remove scrap		40 Hours	40	\$125	\$5,000
Labor & Equipment	Fine grade the site	52 Acres	75 Hours	75	\$300	\$22,500
Labor, Equipment, and Seed	Seed site	52 Acres	-	-	\$2000 per acre	\$104,000
Labor, Equipment, and Materials	Erosion Control	52 Acres	-	-	\$2,500 per acre	\$130,000
Total Cost						\$546,644



7. Documentation of Right to use property

OPTION AGREEMENT

This Option Agreement ("Option Agreement") is made as of March 31, 2021 by and between Virginia Wilson, Land Owner's with offices located at 5844 Oral Oaks Road Kenbridge, VA 23944 ("Owner") and Ameresco Solar Land Holdings, a Delaware limited liability company with offices located at 111 Speen Street, Suite 410, Framingham, MA 01701 (together with its nominee, "Optionee"). Owner and Optionee may be referred to individually as a "Party" or collectively as the "Parties".

RECITALS

- A. Owner is the owner in fee simple absolute of certain real property, together with all improvements thereon and all rights and appurtenances thereunto pertaining, located at 5844 Oral Oaks Road Kenbridge, VA 23944 referenced Parcel ID# 058-0A-0-29 (the "Property").
- B. Optionee desires to obtain an option to lease a portion of the Property upon which to construct and install a solar photovoltaic facility ("Facility") for the sale of power to a third party, such portion of the Property shown on Exhibit A hereto (the "Leased Site") (the construction of the Facility, lease of the Leased Site and sale of electricity shall be referred to collectively as the "Project").

NOW, THEREFORE, in consideration of the purchase price and the mutual promises contained in this Agreement, the parties agree as follows:

1. GRANT OF OPTION. In consideration of the payment by Optionee to Owner of [REDACTED] Dollars paid by Optionee (the receipt of which the Owner acknowledged) and as an inducement to Optionee to pursue the development of the Project, Owner grants to Optionee and its successors and assigns, and Optionee hereby accepts, the sole and exclusive option (the "Option") to lease the Leased Site free and clear of any tenants, occupants or materials or equipment and liens but subject to encumbrances of record and otherwise upon terms and conditions to be negotiated and contained in a definitive lease agreement. The Parties agree that any lease agreement shall at a minimum contain the terms and conditions generally stated, or specifically stated, as the case may be, set forth on Exhibit B hereto, but that Exhibit B does not contain a full list of the terms of a definitive lease agreement. Additional terms may be negotiated based on due diligence performed by Optionee, requirements of lender(s) for the Project, or requirements of the local electric utility. Owner acknowledges that Optionee has not performed any studies of the suitability of the Property or the Leased Site for the Project.
2. TERM; EXERCISE OF OPTION.
 - (a) The term of this Option Agreement ("Option Term") shall commence on the Effective Date and shall expire on the one year anniversary of the Effective Date. Optionee has the right, in its sole and absolute discretion to terminate the Option and/or this Option Agreement at any time for any reason. If the Option is not terminated by Optionee as provided in this Agreement, Optionee will have the right, upon 10 days written notice to Owner and the payment of an additional non-refundable sum of [REDACTED] Dollars, to extend the Option Term for an additional period of one (1) year.
 - (b) Optionee may, in its sole discretion, exercise the Option at any time during the Option Term by giving written notice ("Notice") of such exercise to Owner which Notice shall

include a diagram of the Site for the Owner's approval which shall not be unreasonably withheld or delayed (nothing herein is intended to prevent Optionee, at its election, from providing Owner with and requesting Owner's approval of a legal description and diagram prior to giving the Notice to Owner). Optionee shall deliver with its Notice a proposed lease agreement. The Parties shall negotiate in good faith the terms of the lease agreement for a period of ninety (90) days after Owner's receipt of the Notice with the intended goal of executing a lease within such ninety-day period. The execution of a lease shall be referred to as the "Closing". Optionee may deliver the Notice on a conditional basis and Optionee may revoke the Notice prior to Closing. If the Notice is revoked, this Option Agreement and the Option shall nevertheless remain in full force and effect for the remaining Option Term.

3. CLOSING. At the Closing, the Parties shall execute a lease agreement and such other documents, instruments, certifications and confirmations as may be reasonably required to fully effect and consummate the transactions contemplated by this Option Agreement or the lease agreement, including any documents required by the local electric utility, Optionee's lenders or Optionee's title company, and any documents Optionee deems necessary to remove any liens, encumbrances or exceptions to title affecting the Leased Site.
4. RIGHT OF ENTRY. Optionee and Optionee's authorized representatives may at any reasonable time, after giving reasonable notice to Owner, enter upon the Property for the purpose of making inspections, appraisals, surveys, shading analysis, including the cutting of survey lines and putting up markers and driving stubs and stakes, site and soil, groundwater and structural analysis, engineering studies, core sampling for engineering reports, locating existing rights of way, easements, and utilities and evaluating the Property for transmission line connections to the local utility, and measuring potential access and transmission easement areas. Optionee will exercise this right of entry in such a way so as to not cause unreasonable damage to the Property and Optionee shall repair any and all damage to the Property caused by such inspections and investigations in a timely manner. Optionee agrees to indemnify Owner from all third party claims for any personal injury or property damage or otherwise to any person or property caused by any negligent or intentional action or omission of Optionee or its agents in exercising its right of entry onto the Property. Such undertaking of indemnity shall survive the termination of this Agreement for any reason for a period of one year. Notwithstanding any other provision in this Section 4, the indemnity described herein shall not extend to and in no event shall Optionee be liable to Owner for any negligence or misconduct of Owner or any agent, contractor or employee of Owner. Owner agrees to indemnify and save harmless Optionee from all claims of liability for any personal injury or property damage or otherwise to any person or property caused by action or omission of Owner or its agents before Closing.
5. PRE-CLOSING RESTRICTIONS. Owner shall not do, or cause, permit or suffer to occur, any of the following without Optionee's prior written consent: (During the term of this option)
 - (a) change or consent to any change in zoning of the Leased Site which would prohibit or place restrictions on Optionee's intended use of the Leased Site for the Project;
 - (b) subdivide the Leased Site;

- (c) create, grant, permit or suffer to exist any easement, lien, encumbrance condition or other right or interest that may burden, benefit or otherwise impede Optionee's intended use of the Leased Site for the Project; or
 - (d) construct any improvements on the Leased Site or materially change the grading or conditions at the Leased Site.
 - (e) Optionee shall leave the land in as close to the current condition as possible during the time of this option.
6. OWNER'S AND OPTIONEE'S DOCUMENTATION. To the extent that any of the following items exist and are in the possession of Owner and can be located through a reasonable search, Owner agrees to furnish to Optionee within 10 days from the date of this Agreement any and all building inspection reports, surveys, title reports, topographical maps, engineering and architectural drawings or plans, environmental reports, lot layouts, any plans or profiles of any roadways, easements, or utility lines. Owner further agrees to furnish to Optionee all information available to Owner concerning the environmental condition of the Property and the existence of any contract rights that Owner might hold for the service of the Property by utilities, either public or private.
7. ENVIRONMENTAL INSPECTION AND RELATED MATTERS.
- a. Definitions. As used in this Agreement, the following terms will have the following meanings:
 - (i) **Contamination** means any release of a Hazardous Substance; Petroleum Substance or Product; polychlorinated biphenyl (PCB); asbestos or asbestos containing material; radon gas; or other substance considered to be a contaminant by professionals in the field of environmental assessments under standard commercial practice;
 - (ii) **Hazardous Substance** means those substances as defined by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. 9601(14), and includes any material that is toxic, flammable, explosive, or corrosive as these terms are defined by CERCLA. Petroleum Substances or Products as defined below are excluded.
 - (iii) **Petroleum Substance or Product** means any material containing refined or crude oil or any fraction thereof and includes natural gas, natural gas liquids, liquified natural gas, or synthetic gas usable for fuel or mixtures of natural gas and such synthetic gas. Hazardous Substances as defined above are excluded.
 - (iv) **Phase I Environmental Assessment** have the meanings understood by professionals in the field of environmental assessments, which will include screening the Property for existing or threatened Contamination, be designed to avail Optionee of certain defenses under applicable federal or state law, and include such other inquiries and examinations as are considered necessary or desirable under standard commercial practice at the time the assessment is conducted.
 - (v) **Release** means such occurrences as defined by CERCLA, 42 U.S.C. 9601(10), and includes any intentional or accidental discharging, spilling, leaking, pumping, pouring, injecting, escaping, leaching, dumping, disposing, or emitting into the environment.

b. Environmental Investigations.

(i) As a condition precedent to Optionee's obligation to lease, Optionee, at Optionee's expense, may perform environmental investigations (including but not limited to Phase I Environmental Assessment) of the Leased Site by a qualified environmental consultant (the Consultant) selected by Optionee and conducted in accordance with standard commercial practice at the time of the assessment.

(ii) Owner and its successors and assigns will indemnify, defend and hold harmless Optionee and its affiliates, their directors, officers, employees, and agents from and against any and all claims, liabilities, losses, damages, including consequential damages, fines, liens, directives, penalties, loss of profits, and costs, including without limitation, reasonable attorney, environmental consultant, engineering, and expert fees that Optionee may incur or suffer or that may be asserted against Optionee that arises out of, or results, directly or indirectly from (i) the presence of any Hazardous Substance or Contamination at the Property, (ii) any violation of any environmental, health, or safety law or regulation affecting the Property, unless caused solely by Optionee, or (iii) the performance of, or requirement to perform, any remedial work at the Property.

8. REPRESENTATIONS AND WARRANTIES BY OWNER. Owner represents and warrants as of the date of this Agreement and as of the date of Closing that:

a. Owner is the fee owner of the Property and has the right, title, and authority to enter into and to perform its obligations under this Option Agreement;

b. The entry and performance of this Agreement by Owner will not breach any other agreement with any other party or create a violation of any applicable law, rule, or regulation;

c. There are no pending, and to the best of Owner's knowledge no threatened, actions, suits, arbitrations, claims or proceedings, at law, in equity or otherwise, that would adversely affect the Property or Owner's ability to perform its obligations under this Agreement or the Ground Lease, including, but not limited to, judicial, municipal or administrative proceedings in eminent domain, collection actions, claims relating to alleged building code violations or health and safety violations, federal, state or local agency actions regarding environmental matters, lease disputes, claims relating to federal environmental protection agency or zoning violations, or actions relating to personal injuries or property damages alleged to have occurred at the Property or by reason of the condition or use of or construction on the Property;

d. Owner has received no written notice of any violation of any applicable laws, ordinances, rules, requirements, regulations and building codes of any governmental agency, body or subdivision thereof bearing on the Property

e. To Owner's knowledge, (1) the Property or any portion thereof is not in violation of any environmental laws, and (2) Owner has not used, generated, manufactured, stored or disposed of on, under or about the Property or transported to or from the Property any hazardous substances in violation of any environmental laws.

f. Owner has received no written notice of any special assessments or charges which have been levied against the Property or which will result from work, activities or improvements done to or for the benefit of the Property except as may be shown on a title commitment given to Optionee as part

of the Property Information. Owner has received no written notice of any intended public improvements which will result in any charge being levied against, or in the creation of any lien upon, the Property or any portion thereof. There are no actions or proceedings threatened against the Owner to condemn all or any part of the Property.

9. Exclusivity. In recognition of the fact that investigations, inspections and due diligence review and pursuit of the Project will require significant effort and expenditure by Optionee, Owner agrees that during the Option Period, Owner shall not directly or indirectly solicit, initiate, seek, encourage or support any inquiry, proposal, offer or bid from, negotiate with, provide any information to, or enter into any agreement with any party to lease, sublease, occupy or use the Property whether for a solar project or for any other use. Owner agrees that any such negotiations in progress as of the date hereof will be terminated or suspended during such period. Owner shall promptly disclose to Optionee any unsolicited inquiry or proposal from another party regarding use of the Property or installation of a solar project at the Property.
10. NOTICES. All notices to the parties hereto will be delivered by hand or via certified mail return receipt requested or overnight delivery and will be deemed effective upon delivery and upon confirmation of receipt by other means, to the following address until the address is changed by notice in writing to the other party: 5844 Oral Oaks Road Kenbridge, VA 23944

Optionee: Ameresco, Inc., 111 Speen Street, Suite 410, Framingham, MA 01701, Attention: Sr. Vice President PV-Grid Tie with a copy to Attention: General Counsel (same address)

Owner: Virginia Wilson, 5844 Oral Oaks Road Kenbridge, VA 23944

11. SURVIVAL. The provisions contained in this agreement, including Owner's obligations and warranties and representations, will be true as of the date of this Agreement and as of the date of Closing and will survive the Closing.
12. DEFAULT AND REMEDIES. If either Party defaults in performance under this Agreement which default continues for thirty days after written notice from the non-defaulting Party, then the nondefaulting Party may pursue all remedies available at law or in equity including an action for specific performance or monetary damages.
13. ENTIRE AGREEMENT. This Agreement contains the entire agreement of the parties and will supersede the terms and conditions of all prior written and oral agreements, if any, concerning the matters it covers. The Recitals are incorporated into this Agreement. The parties acknowledge there are no oral agreements, understandings, representations, or warranties that supplement or explain the terms and conditions contained in this Agreement. This Agreement may not be modified except by an agreement in writing signed by the parties. Owner agrees to sign a short form memorandum of this Option Agreement to be recorded in the public records where the Property is located. Optionee shall pay the recording charges.
14. WAIVER. Failure to insist upon strict compliance with any of the terms, covenants, or conditions hereof will not be deemed a waiver of the terms, covenants, or conditions, nor will any waiver or relinquishment of any right or power at any one time or more times be deemed a waiver or relinquishment of the right or power at any other time or times.

15. SEVERABILITY. This Agreement will be construed in its entirety and will not be divisible, except that the invalidity or unenforceability of any provision hereof will in no way affect the validity or enforceability of any other provision.
16. CAPTIONS. Captions are used in this Agreement for convenience only and will not be used to interpret this Agreement or any part of it.
17. GOVERNING LAW. This Agreement is to be construed in accordance with the law of the Commonwealth of Virginia.
18. CHOICE OF FORUM/JURISDICTION. The Parties hereby consent to venue and to the exclusive jurisdiction of the State courts of Virginia in Lunenburg County Virginia.
19. SUCCESSOR/ASSIGNMENT. This Agreement will be binding upon and the obligations and benefits hereof will accrue to the parties hereto, their heirs, personal representatives, successors, and assigns. This Agreement is fully assignable by Optionee without Owner's consent to any affiliate of Optionee or to a third party only upon written consent of Owner, which consent will not be unreasonably withheld. This Agreement is not assignable by Owner without Optionee's consent. If the Agreement is assigned by Optionee with Owner's consent, Optionee will nevertheless remain fully liable for performance of the Agreement.
20. COUNTERPARTS. This Agreement may be executed in any number of counterparts, each will be considered an original, and together they will constitute one Agreement.
21. FACSIMILE SIGNATURES. Facsimile signatures will be considered original signatures for the purpose of execution and enforcement of the rights delineated in this Agreement.
234. CONSTRUCTION; ADVICE OF COUNSEL. The parties agree that each has consulted with an attorney who has actively participated in the drafting and negotiation of this Agreement and that the provisions of this Agreement will not be construed in favor of either party.

[signatures follow]

WITNESS the following duly authorized signatures as of the date set forth above:

OWNER:

By: Virginia H. Wilson
Name: Virginia H. Wilson
Title: Property Owner

OPTIONEE: Ameresco Solar Land Holdings, LLC

By: Ameresco, Inc., its sole member

By: Jonathan Mancini
Name: Jonathan Mancini
Title: Sr. Vice President

EXHIBIT A (Lease Area)

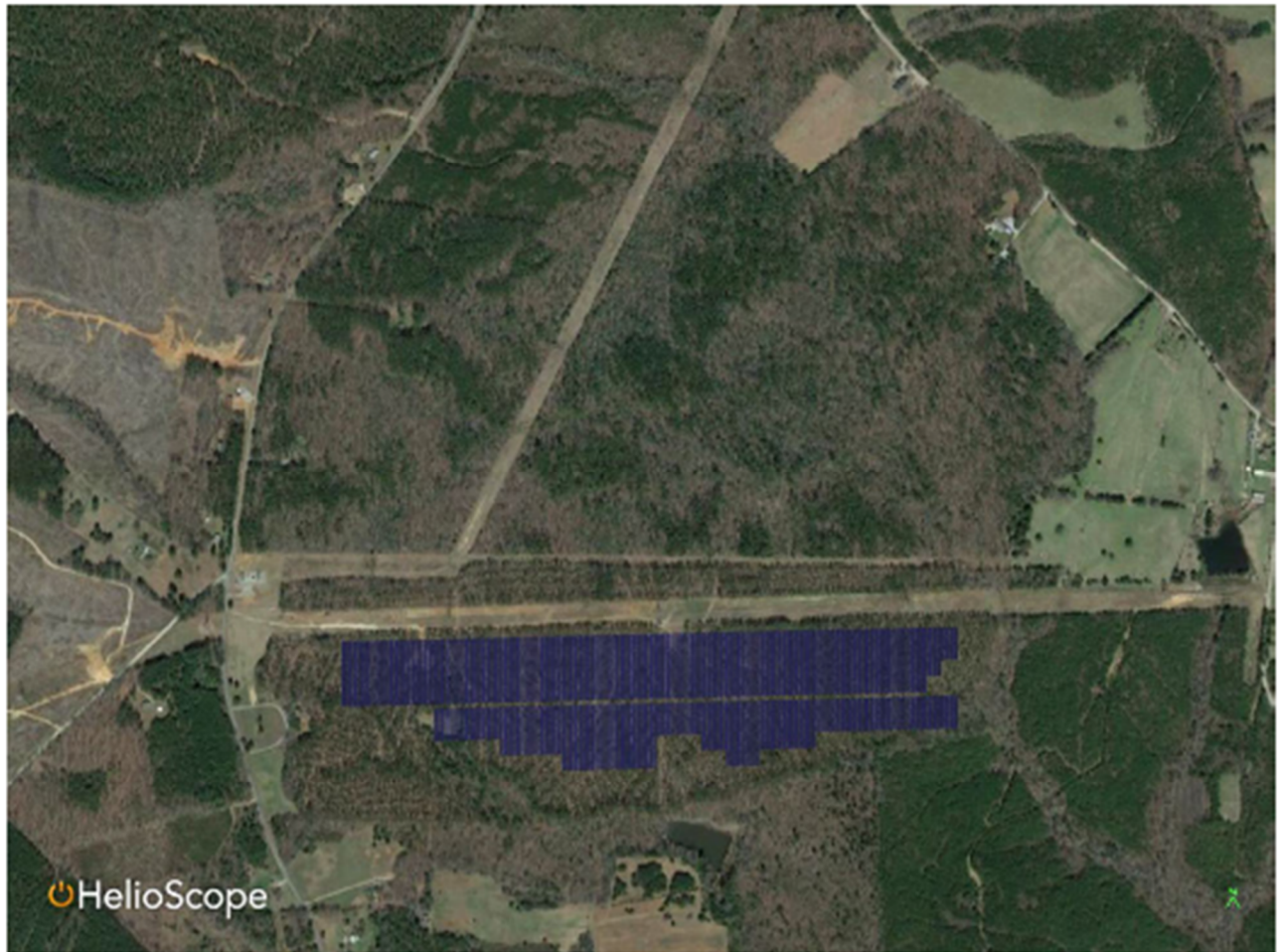


Exhibit B

Terms and conditions of lease agreement

1. Term: 20 years from commercial operation date of the solar facility with three (3) five-year extension options.
2. Due Diligence: Satisfactory due diligence and site investigation provisions by Optionee.
3. Financing: Financing for the project on terms and conditions satisfactory to Optionee at its sole discretion.
4. Indemnity: Mutual general indemnity and limitation on liability. Indemnity from Owner in favor of Optionee for pre-existing conditions on the Leased Site.
5. System Size: Optionee has preliminarily designed a 15.3 MWDC project on the Property. Owner and Optionee agree that final system size will be determined by final interconnection studies and design.
6. Rent: Rent in the amount of [REDACTED] for 53.5 Acres [REDACTED] with an annual [REDACTED] escalator, subject to final Project scope and design and due diligence results.
7. Permitted Use: Construction, design, installation, maintenance, operation, removal of a solar photovoltaic system, together with all appurtenant facilities including but not limited to cables, conduits, transformers, concrete pads, poles, wiring, meters and electric lines and equipment.
8. Interconnection: Optionee shall have an easement on, in, under, or over and across the portions of the Property necessary for the purpose of constructing, reconstructing, installing, operating and maintaining wires, cables, conduits for transmission of electrical energy and/or for communication purposes, and all necessary and property foundations, footings and such other interconnection facilities as are needed to interconnect the solar system to the utility's distribution system. The users of the easement may include Optionee, its assigns, employees, agents, contractors, invitees, and the local electric utility.
9. Covenants: Owner shall give possession of the Leased Site to Optionee free and clear of all structures, tenants and occupants at commencement of the Lease. Owner shall not interfere with Optionee's use of the Leased Site. Owner shall not interfere or allow any interference with insolation to the Leased Site. Owner shall allow Optionee to perform vegetation management to prevent any shading of the Leased Site.
10. Easements. Optionee shall be granted Easements for access from public ways serving the property, and easements for Optionee's and the local electric utility's transmission facilities and infrastructure.
11. Taxes. Owner to pay all real estate taxes; Optionee to pay all personal property taxes or negotiate with the municipality other payment in lieu of taxes arrangement satisfactory to Optionee in its sole discretion.
12. Financing Provisions. Financing provisions benefitting any lender, including without limitation the ability of Optionee to collaterally assign the lease for financing without undue restrictions.

13. **Removal of Optionee's Equipment** - Within 180 days of the expiration or termination of the lease as per the lease, Optionee shall remove its solar photovoltaic system, together with all appurtenant facilities including but not limited to cables, conduits, transformers, concrete pads, poles, wiring, meters and electric lines and equipment and structures and return the property to its natural state. Optionee shall post a performance bond or other decommissioning assurance agreeable to both parties to insure compliance with this section in an amount agreed upon by the parties.

Lease Chart

Year	Lease Payments
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
Total	

8. Liability Insurance



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
2/1/2023

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Arthur J. Gallagher Risk Management Services, LLC 470 Atlantic Avenue Boston MA 02210		CONTACT NAME: PHONE (A.C. No. Ext.): 617-261-6700 FAX (A.C. No.): 617-646-0400 E-MAIL ADDRESS:	
INSURED Ameresco, Inc. 111 Speen Street Suite 410 Framingham MA 01701		INSURER(S) AFFORDING COVERAGE INSURER A: Hartford Fire Insurance Company NAIC # 19682 INSURER B: Hartford Accident and Indemnity Company 22357 INSURER C: INSURER D: INSURER E: INSURER F:	

COVERAGES **CERTIFICATE NUMBER:** 1711158376 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC OTHER:			30 CSF WQ0269	1/31/2023	1/31/2024	EACH OCCURRENCE \$2,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$500,000 MED EXP (Any one person) \$50,000 PERSONAL & ADV INJURY \$1,000,000 GENERAL AGGREGATE \$4,000,000 PRODUCTS - COMP/OP AGG \$4,000,000 \$
A	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input checked="" type="checkbox"/> NON-OWNED AUTOS ONLY			30 UEL WQ0268	1/31/2023	1/31/2024	COMBINED SINGLE LIMIT (Ea accident) \$1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$ \$
	<input type="checkbox"/> UMBRELLA LIAB <input type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> DED <input type="checkbox"/> RETENTION \$						EACH OCCURRENCE \$ AGGREGATE \$ \$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A	30 WV WQ0267	1/31/2023	1/31/2024	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$1,000,000 E.L. DISEASE - EA EMPLOYEE \$1,000,000 E.L. DISEASE - POLICY LIMIT \$1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER EVIDENCE OF	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE
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9. Archeological and Architectural Resource Reports

See attached reports in Appendix B

10. Environmental Impacts Narrative

See attached report in Appendix C

11. Wildlife Impacts Narrative

See attached report in Appendix D

12. Transportation Management Plan & Ex. Pvmt Condition Inventory

See attached report in Appendix E

13. FAA Determination

See attached report in Appendix F

14. Adjoining Property Owner Map & Notifications

See attached report in Appendix G

15. ALTA Land Title Survey

See attached report in Appendix H



A

Appendix A

Kenbridge Solar CUP Site Plan

Site Plans

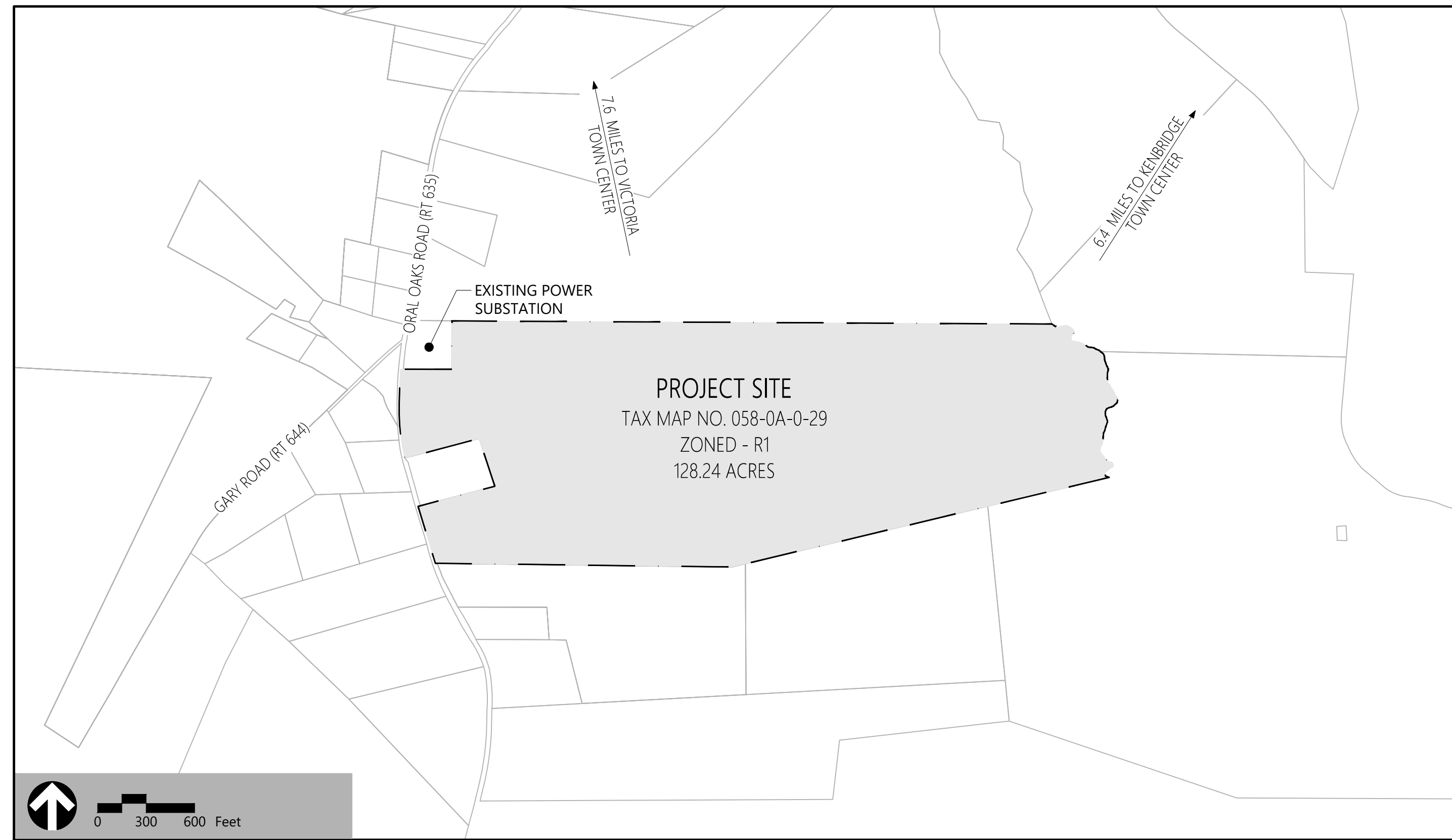
Issued for	CUP Review
Date Issued	March 6, 2023
Latest Issue	March 6, 2023

KENBRIDGE SOLAR CONDITIONAL USE PERMIT - 12 MW AC

APPLICATION #: TBD

COLUMBIAN GROVE MAGISTERIAL DISTRICT
LUNENBURG COUNTY

5844 Oral Oaks Road
Kenbridge, VA 23944



Sheet Index		
No.	Drawing Title	Latest Issue
C100	NOTES AND DETAILS	March 6, 2023
C200	EXISTING CONDITIONS	March 6, 2023
C300	OVERALL SITE PLAN	March 6, 2023
C301	SITE PLAN - WEST	March 6, 2023
C302	SITE PLAN - EAST	March 6, 2023
C400	SLOPE ANALYSIS	March 6, 2023

Land Owner:

Virginia Hawthorne Wilson
5844 Oral Oaks Road, Kenbridge, VA 23944
Tax Map No: 058-0A-0-29
128.24 Acres (per ALTA)

Applicant / Developer:

Ameresco
12001 Sunrise Valley Drive, Suite 205
Reston, VA 20191
(508) 598-3033



Civil Engineer

VHB
115 South 15th Street, Suite 200
Richmond, VA 23219
Attn: Stephen Quina, PE
Lic. No. 44360
(804) 441-7440
squina@vhb.com

Environmental Consultant

VHB
351 McLaws Circle, Suite 3
Williamsburg, VA 23185
Attn: Kimberly Blossom
(757) 279-2828
kblossom@vhb.com

Land Surveyor

VHB
351 McLaws Circle, Suite 3
Williamsburg, VA 23185
Attn: Stephen Romeo, LS
Lic. No. 001448-B
(757) 279-2848
sromeo@vhb.com

KENBRIDGE SOLAR
CONDITIONAL USE PERMIT - SITE PLAN
CASE NUMBER TBD



115 South 15th Street
Suite 200
Richmond, VA 23219
804.343.7100



PROJECT NOTES:

- THE APPLICANT REQUESTS THE GRANTING OF A CONDITIONAL USE PERMIT (CUP) TO ALLOW FOR THE INSTALLATION OF A LARGE SOLAR ENERGY SYSTEM ON THE SUBJECT PROPERTY PER SECTION 4 OF THE ORDINANCE FOR SOLAR ENERGY FACILITIES IN LUNENBURG COUNTY, VA.
- THE SUBJECT PROPERTY IS IDENTIFIED AS PARCEL TAX MAP NUMBER 058-0A-0-29 PER THE LUNENBURG COUNTY ASSESSOR AND TOTALS 128.24 ACRES PER THE VHB PERFORMED ALTA.
- THE APPLICANT IS AMERESCO, 12001 SUNRISE VALLEY DRIVE, SUITE 205 RESTON, VA 20191.
- THE DEPICTED SUBJECT PROPERTY BOUNDARY AND EASEMENT INFORMATION TAKEN FROM A FIELD RUN SURVEY PREPARED BY VHB AND COURT RECORDS. ADDITIONAL ADJOINER LINES AND EXISTING CONDITIONS INFORMATION WAS OBTAINED FROM LUNENBURG COUNTY GIS DATA.
- TOPOGRAPHY, EXISTING BUILDINGS AND DRIVEWAYS ARE DERIVED FROM A PHOTOGRAMMETRIC SURVEY PREPARED BY NVS DATED MAY 31, 2022. THE CONTOUR INTERVAL IS ONE (1) FOOT.
- WETLANDS INFORMATION OBTAINED FROM A WATERS OF THE U.S. DELINEATION PREPARED BY VHB AND CONFIRMATION VIA A PRELIMINARY JURISDICTIONAL DETERMINATION LETTER DATED 8/29/22 FROM THE UNITED STATES ARMY CORPS OF ENGINEERS.
- PER FEMA FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY PANEL 51111C01758, WITH AN EFFECTIVE DATE OF 7/20/2009, THERE ARE NO SPECIAL FLOOD HAZARD AREAS. THE PROPERTY IS LOCATED IN ZONE X, AREA OF MINIMAL FLOOD HAZARD.
- TO THE BEST KNOWLEDGE OF THE ENGINEER AND APPLICANT THIS APPLICATION CONFORMS TO ALL APPLICABLE ORDINANCES, REGULATIONS AND ADOPTED STANDARDS.
- A PHASE I CULTURAL RESOURCES SURVEY WAS PERFORMED BY JAMES RIVER INSTITUTE FOR ARCHAEOLOGY IN NOVEMBER 2022 AND WAS SUBMITTED TO BOTH VDEQ AND VDHR. BOTH AGENCIES ARE IN AGREEMENT THAT, WITHIN THE PROJECT DEVELOPMENT AREA THERE ARE NO SITES ELIGIBLE FOR LISTING IN THE NATIONAL REGISTER. A COPY OF THE PHASE I CULTURAL RESOURCES SURVEY WILL BE INCLUDED WITH THE CUP APPLICATION.
- A PHASE I ENVIRONMENTAL SITE ASSESSMENT WAS PERFORMED IN MAY 2022 AND DID NOT INDICATE THE PRESENCE OF ANY POTENTIAL OR RECOGNIZED ENVIRONMENTAL CONDITIONS IN CONNECTION WITH THE SITE. A COPY OF THE PHASE I ESA WILL BE INCLUDED WITH THE CUP APPLICATION PACKAGE.
- THE SOLAR PANEL LAYOUT PROVIDED ON THIS CONDITIONAL USE PERMIT PLAN IS APPROXIMATE AND THE FINAL LOCATION OF THE PROPOSED SOLAR PANELS, WITHIN THE PROPOSED LIMITS OF DISTURBANCE, SHALL BE DETERMINED AT THE TIME OF SITE PLAN SUBMISSION.
- PROJECT SIGNAGE SHALL COMPLY WITH ALL APPLICABLE LUNENBURG COUNTY SIGN REGULATIONS. REQUIRED WARNING SIGNAGE SHALL BE PROVIDED AS REQUIRED BY THE ZONING ORDINANCE.
- NOISE LEVELS FROM THE SOLAR ENERGY FACILITY WILL COMPLY WITH ALL APPLICABLE LUNENBURG COUNTY NOISE REGULATIONS.
- EROSION CONTROL AND STORMWATER MANAGEMENT SHALL BE PROVIDED IN ACCORDANCE WITH LOCAL AND STATE REQUIREMENTS.

PROJECT NARRATIVE:

AMERESCO (APPLICANT) PROPOSES TO CONSTRUCT AND OPERATE THE KENBRIDGE SOLAR FACILITY (PROJECT) AT 5844 ORAL OAKS ROAD, KENBRIDGE, VIRGINIA 23944. THE PROJECT WILL BE A FIXED TILT, GROUND-MOUNTED PHOTOVOLTAIC (PV) SOLAR FACILITY, WITH AN ELECTRICITY GENERATING CAPACITY OF APPROXIMATELY 12.0 MEGAWATTS (MW) OF ALTERNATING CURRENT (AC) AND 13.5 MW OF DIRECT CURRENT (DC) WITHIN A FENCE SECURED AREA OF APPROXIMATELY 51.0 ACRES. THE 51-ACRE FENCED DEVELOPMENT AREA IS LOCATED WITHIN PARCEL TAX MAP NO. 058-0A-0-29 WITH A PROPOSED GRAVEL ACCESS ROAD THAT CONNECTS TO ORAL OAKS ROAD (SR 635). THE PROJECT PARCEL IS APPROXIMATELY 128.24 ACRES AND IS PRIVATELY OWNED BY VIRGINIA HAWTHORNE WILSON (PROPERTY). THE LOCATION AND ORIENTATION OF THE SOLAR ARRAY WITHIN THE PROPERTY WAS DESIGNED SO TO MINIMIZE VISIBILITY FROM NEARBY RESIDENTS AND PUBLIC ROADWAYS, MINIMIZE EXCAVATION AND GRADING ASSOCIATED WITH PROJECT CONSTRUCTION, AND MAXIMIZE EXPOSURE TO SOLAR RADIATION THROUGHOUT THE YEAR. THE FACILITY SETBACKS FROM ORAL OAKS ROAD AND THE SURROUNDING RESIDENTIAL PARCELS HAVE BEEN INCREASED TO EXCEED COUNTY REQUIREMENTS.

PURPOSE AND NEED

THE PURPOSE OF THE PROPOSED PROJECT IS TO GENERATE LOCAL, CLEAN, AND RENEWABLE SOLAR POWER, WITH THE ELECTRICITY GENERATION TO BE SOLD TO THE LOCAL UTILITY. THE INTERCONNECTION STUDY HAS BEEN COMPLETED BY SOUTHSIDE ELECTRIC COOPERATIVE AND APPLICANT EXPECTS A SOLAR GENERATOR INTERCONNECTION AGREEMENT (SGIA) BY MARCH 2023. PROJECT SITE CONSTRUCTION IS ANTICIPATED TO BEGIN IN 2023. LOCAL SOLAR PROJECTS ARE PART OF THE ENERGY MIX, REDUCING THE DEPENDENCE ON ANY SINGLE SOURCE OF ELECTRICITY GENERATION. THESE PROJECTS HELP KEEP ELECTRIC COSTS DOWN BY PROVIDING A HEDGE AGAINST THE RISING COSTS OF COMMODITY FUELS. THESE LOCAL POWER GENERATION PROJECTS ALSO BENEFIT THEIR HOST COMMUNITIES BY IMPROVING THE RESILIENCY OF THE LOCAL ELECTRIC GRID, SUPPLYING POWER LOCALLY AND OFFSETTING POWER SUPPLIES THAT WOULD OTHERWISE BE REQUIRED FROM DISTANT POWER PLANTS.

BASED ON ITS COMMITMENT TO PROVIDING RENEWABLE ENERGY, THE APPLICANT PROPOSES TO DEVELOP THE SITE DESCRIBED BELOW TO MAXIMIZE ITS SOLAR ENERGY POTENTIAL WITHIN THE PROJECT'S SECURED FENCED AREA. TO BEST DETERMINE OPTIMAL LOCATION WITHIN THE SITE, THE FOLLOWING FACTORS HAVE BEEN ANALYZED:

- SIGNIFICANT SOLAR RADIATION (INSOLATION)
- SITE ACCESSIBILITY FOR SERVICE AND CONSTRUCTION VEHICLES
- AVOIDANCE OF ENVIRONMENTALLY SENSITIVE AREAS
- LIMITED TREE AND VEGETATIVE CLEARING
- LIMITED VISIBILITY FROM OFFSITE LOCATIONS
- REQUIRED SETBACKS FROM ADJACENT PROPERTIES AND PUBLIC ROADS

SITE SETTING

THE PROPOSED PROJECT SITE IS LOCATED AT 5844 ORAL OAKS ROAD IN KENBRIDGE, VIRGINIA. THE FENCED PORTION OF THE PROJECT AREA IS APPROXIMATELY 51 ACRES IN SIZE AND WILL BE INSTALLED WITHIN PARCEL TAX MAP NO. 058-0A-0-29 (128.24 ACRES) WITH A PROPOSED GRAVEL ACCESS ROAD THAT CONNECTS TO ORAL OAKS ROAD (SR 635). THE PROPERTY IS PRIVATELY OWNED BY VIRGINIA WILSON HAWTHORNE AND MAJORITY OF THIS PARCEL, APPROXIMATELY 80% (102 ACRES) EXISTS AS FORESTED (TIMBER). THERE IS APPROXIMATELY 28 ACRES THAT EXIST AS MANAGED TURF WITHIN THE PROPERTY, AND APPROXIMATELY 77% (20 ACRES) OF THE TURF IS LOCATED WITHIN A 150-FOOT VEPCO EASEMENT ALONG THE NORTHERN SIDE OF THE PARCEL. THERE IS ALSO APPROXIMATELY 5.5 ACRES OF WETLANDS IN THE PROJECT PARCEL, WHICH IS TO BE CONSERVED AND PROTECTED.

THE PROPOSED 51-ACRE FENCED PROJECT SITE IS BORDERED AS FOLLOWS:

- BORDERED TO THE NORTH BY A 150-FOOT VEPCO EASEMENT THAT IS INTERNAL TO THE PROJECT PARCEL. THE PROPOSED SECURITY FENCE RUNS PARALLEL TO THE EASEMENT ALONG ITS ENTIRE NORTHERN BORDER.
- BORDERED TO THE EAST BY THE CENTERLINE OF THE EXISTING STREAM FOUND IN A FIELD RUN SURVEY PREPARED BY VHB. ADJACENT TO THE STREAM IS A RESIDENTIAL - LOW DENSITY (R1) ZONED PARCEL WHICH BORDERS THE EAST AND SOUTHEAST CORNER OF THE PROJECT (TAX MAP NO. 058-0A-0-39A).
- BORDERED TO THE SOUTH BY TWO (2) R1 ZONED PARCELS WITH THE SAME OWNER (TAX MAP NO. 058-0A-0-28B AND 058-0A-0-27).
- BORDERED TO THE WEST BY A PROJECT PARTICIPANT PARCEL (TAX MAP NO. 058-0A-0-29A) WITH A SINGLE-FAMILY RESIDENCE OWNED BY THE PROJECT PARCEL OWNER. THE NORTH AND SOUTHWEST CORNERS ARE BORDERED BY THE ORAL OAKS ROAD (SR 635) RIGHT-OF-WAY.

THE SPECIFIC LOCATION OF THE PROPOSED SOLAR ARRAY WITHIN THIS PROPERTY WAS CAREFULLY DESIGNED SO TO MINIMIZE VISIBILITY AND MAXIMIZE SETBACKS FROM NEARBY RESIDENTS TO THE SOUTH AND ORAL OAKS ROAD TO THE WEST. THE SELECTED LOCATION IS PARALLEL AND ADJACENT TO AN EXISTING VEPCO EASEMENT TO THE NORTH AND RESIDENTIAL ZONED PROPERTIES TO THE EAST AND SOUTH. VIEWSHED BUFFERING/SCREENING IS ACCOMPLISHED BY PRESERVING A 50-FOOT OR GREATER WIDTH BUFFER OF EXISTING VEGETATION AROUND THE PERIMETER OF THE PROJECT.

A WETLAND DELINEATION WAS COMPLETED BY VHB IN APRIL 2022 AND CONFIRMED VIA A PRELIMINARY JURISDICTIONAL DETERMINATION FROM THE UNITED STATES ARMY CORPS OF ENGINEERS ON AUGUST 29, 2022. THERE WERE WATERS REGULATED UNDER SECTION 404 OF THE CLEAN WATERS ACT FOUND ON THE PROJECT SITE, HOWEVER NO WETLAND/WATERS IMPACTS ARE PROPOSED WITH THIS PROJECT.

KEY COMPONENTS

THE PROPOSED PROJECT WILL CONSIST OF THE FOLLOWING KEY COMPONENTS:

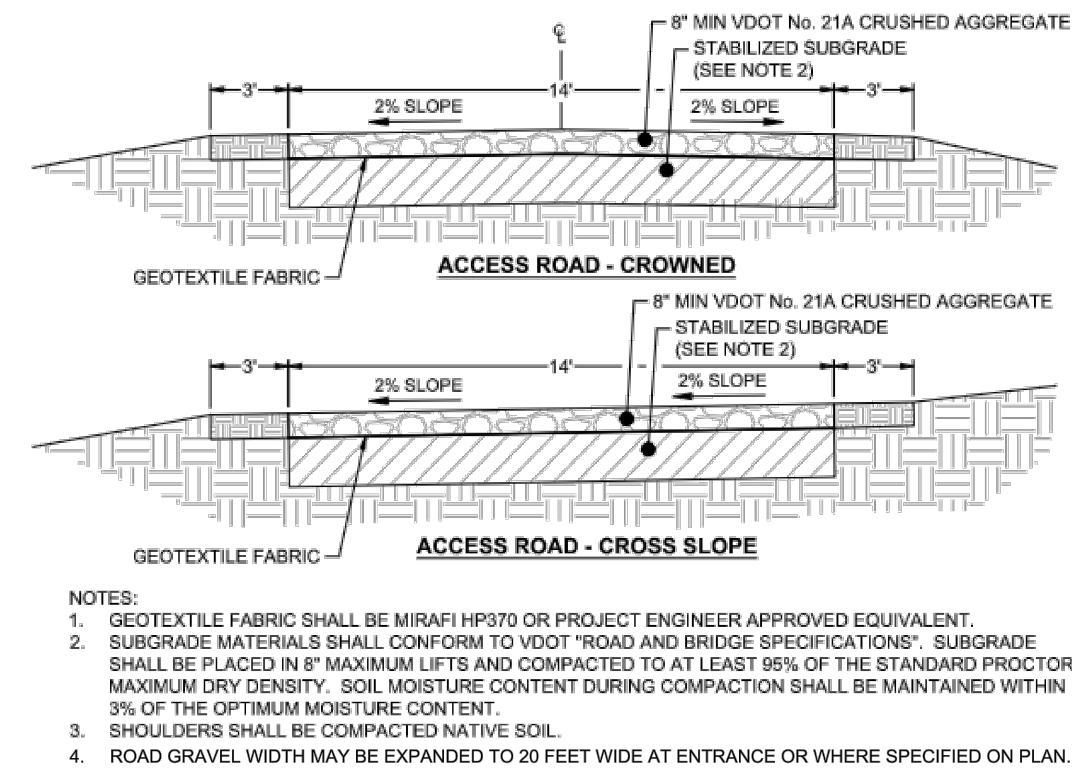
- SOLAR MODULES AND RACKING
- UNDERGROUND ELECTRICAL CONDUCTORS
- BALANCE OF SYSTEM EQUIPMENT
- GRAVEL ACCESS ROAD
- SECURITY FENCING

FOR ADDITIONAL INFORMATION PLEASE REFERENCE THE COMPLETE PROJECT NARRATIVE AND OTHER SUPPORTING DOCUMENTS THAT ACCOMPANY THIS PRELIMINARY SITE PLAN AND CUP APPLICATION.

PROJECT DEVELOPMENT DATA

AREA CLASSIFICATION	PROJECT PARCEL AREA		LIMIT OF DISTURBANCE	
	(ACRE)	(PERCENT)	(ACRE)	(PERCENT)
WOODED AREA	41.04	32.0%	0.08	0.2%
TURF/POLLINATOR AREA	75.39	58.8%	51.88	94.3%
*TREE CLEARING AREA FOR SHADE REDUCTION	8.77	6.8%	0.00	0.0%
TOTAL IMPERVIOUS AREA	3.04	2.4%	3.04	5.5%
Gravel Roads/Riprap	2.02	-	2.02	-
PV Racking Posts	1.00	-	1.00	-
Equipment Pads	0.02	-	0.02	-
TOTAL PROJECT PARCEL	128.24		TOTAL LOD	55.00
*EXISTING TREES IN THESE SHADE REDUCTION AREAS ARE TO BE CLEARED VIA TIMBER PRACTICES THAT PRESERVE THE STUMPS/ROOTS AND PREVENT LAND DISTURBANCE.				
BUILDINGS	0 SF	0.00 AC	0.0%	
IMPERVIOUS AREA	132,430 SF	3.04 AC	2.4%	
OPEN AREA	5,453,712 SF	125.20 AC	97.6%	

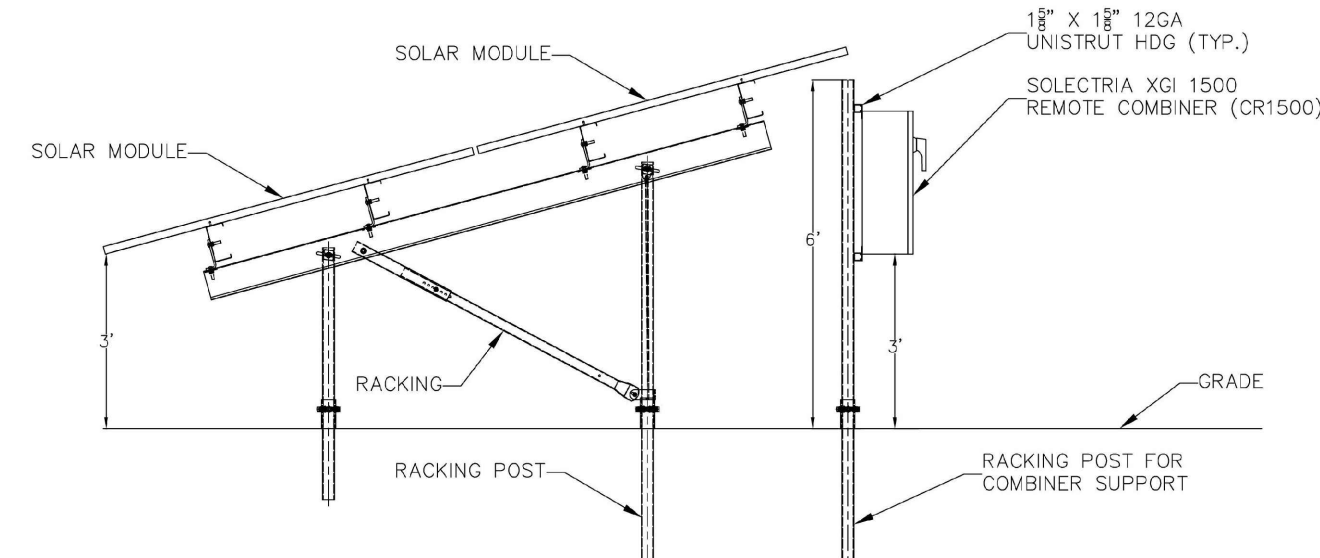
ZONING TABULATIONS		
	REQUIREMENT / EXISTING	PROPOSED / PROVIDED
ZONING DISTRICT	RESIDENTIAL - LOW DENSITY (R1)	NO CHANGE
LAND USE	VACANT / FORESTED	LARGE SOLAR ENERGY FACILITY
DISTANCE TO NEAREST TOWN OF KENBRIDGE	ONE (1) MILE	5.0 MILES (SEE NOTE #1)
DISTANCE TO NEAREST AIRPORT	GREATER THAN TWO (2) MILES	5.0 MILES (SEE NOTE #1)
DISTANCE TO NEAREST MEDIUM OR LARGE SOLAR FACILITY	ONE (1) MILE	1.1 MILES (SEE NOTE #2)
SOLAR FACILITY DENSITY	5% IN A FIVE (5) MILE RADIUS	4.8% (SEE NOTE #2)
MINIMUM SETBACKS (SEE NOTE #3)		
RIGHT-OF-WAY	200 FEET	>800 FEET
ADJACENT PROPERTY LINES	200 FEET	>200 FEET
RESIDENTIAL STRUCTURES	400 FEET	>400 FEET
MAXIMUM HEIGHT	15 FEET	<12 FEET
MINIMUM BUFFER (SEE NOTE #4)	50 FOOT LANDSCAPED STRIP LOCATED WITHIN THE SETBACKS OF THE PROJECT AROUND THE PERIMETER OF THE PROJECT	EXISTING FORESTED BUFFER 50 FEET OR GREATER IN WIDTH TO BE PRESERVED AND MITIGATE VISUAL IMPACT OF SOLAR FACILITY.
NOTES:	1. THE PROJECT SITE IS LOCATED 5.0 MILES FROM THE TOWN OF KENBRIDGE AND MORE THAN 6.5 MILES FROM THE TOWN OF VICTORIA. THE PROJECT SITE IS LOCATED 5.0 MILES FROM THE LUNENBURG COUNTY AIRPORT (NEAREST). THE PROJECT SITE LOCATION IS IN ACCORDANCE WITH SECTION 5 PART D.1 OF THE COUNTY ORDINANCE FOR SOLAR ENERGY FACILITIES. 2. THE PROJECT SITE IS LOCATED MORE THAN 6 MILES FROM THE NEAREST EXISTING SOLAR FACILITY (MEDIUM-SCALE DOGWOOD SOLAR) AND MORE THAN 1.1 MILES FROM NEAREST END OF PROPOSED LARGE-SCALE LAUREL BRANCH SOLAR. THE PROJECT SITE ALSO ADHERES TO LESS THAN 5% SOLAR DEVELOPMENT DENSITY WHEN MEASURED IN RESPECT TO THE PROPOSED LAUREL BRANCH SOLAR. THE PROJECT SITE LOCATION IS IN ACCORDANCE WITH SECTION 5 PART D.2 OF THE COUNTY ORDINANCE FOR SOLAR ENERGY FACILITIES. 3. SETBACKS MAY VARY SLIGHTLY WITH FINAL PLAN BUT ARE SUBJECT TO THE MINIMUM DISTANCES AS REQUIRED BY SECTION 5 PART D.4 OF THE COUNTY ORDINANCE FOR SOLAR ENERGY FACILITIES. 4. THE PROJECT LAYOUT IS DESIGNED SO TO PRESERVE AN EXISTING FORESTED/WOODLAND BUFFER OF 50 FEET OR WIDER AROUND THE PROJECT PARCELS PERIMETER. THIS EXISTING VEGETATION IS NATIVE AND WELL ESTABLISHED/MATURE AND PRESERVES EXISTING HABITAT IN ADDITION TO VISUALLY SCREENING THE SOLAR FACILITY. THIS IS IN ACCORDANCE WITH SECTION 5 PART D.5 OF THE COUNTY ORDINANCE FOR SOLAR ENERGY FACILITIES.	



- NOTES:
- GEOTEXTILE FABRIC SHALL BE MIRAFI HP370 OR PROJECT ENGINEER APPROVED EQUIVALENT.
 - SUBGRADE MATERIALS SHALL CONFORM TO VDOT "ROAD AND BRIDGE SPECIFICATIONS". SUBGRADE SHALL BE PLACED IN 8" MAXIMUM LIFTS AND COMPACTED TO AT LEAST 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY. SOIL MOISTURE CONTENT DURING COMPACTION SHALL BE MAINTAINED WITHIN 3% OF THE OPTIMUM MOISTURE CONTENT.
 - SHOULDERS SHALL BE COMPACTED NATIVE SOIL.
 - ROAD GRAVEL WIDTH MAY BE EXPANDED TO 20 FEET WIDE AT ENTRANCE OR WHERE SPECIFIED ON PLAN.

Access Road Typical Section

N.T.S.

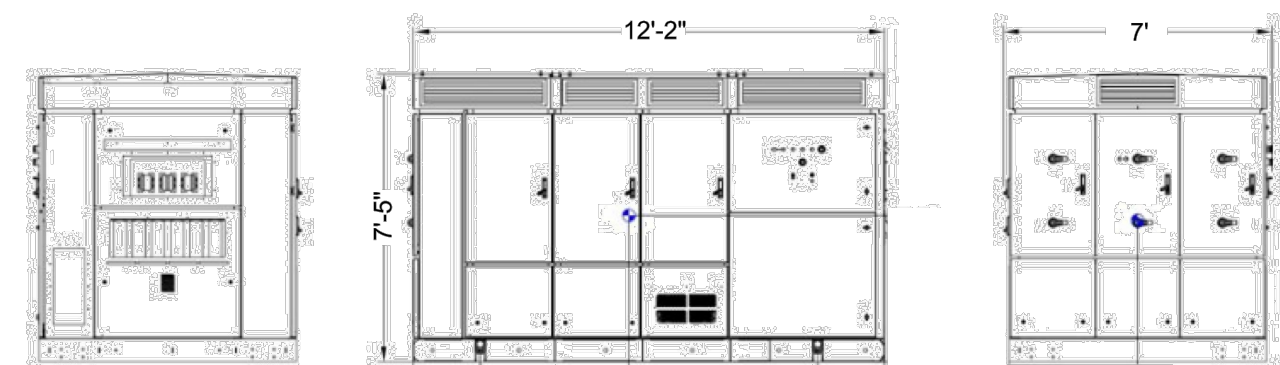


Typical Fixed-Tilt Racking and Combiner Elevations

N.T.S.

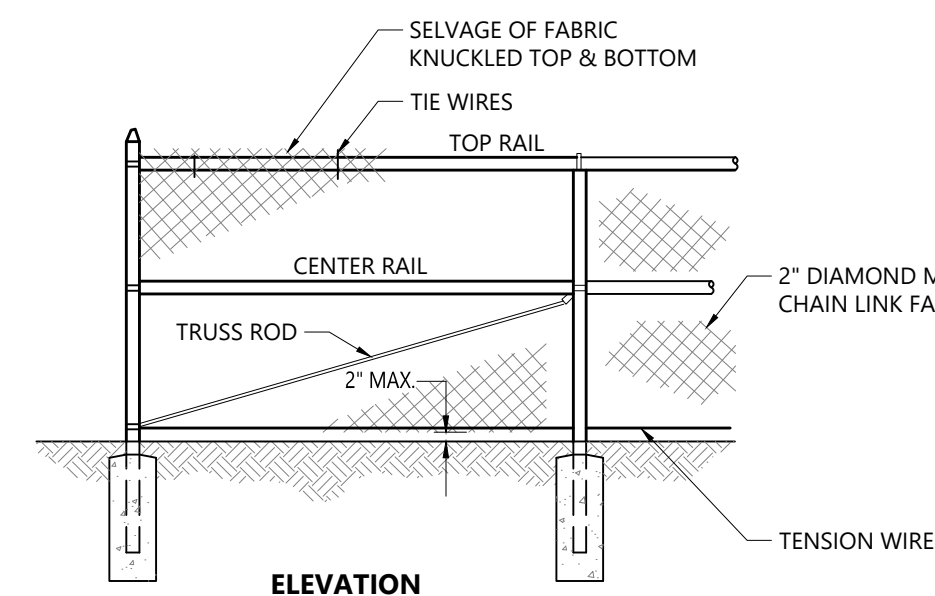
SOLAR EQUIPMENT NOTE:

TYPICAL SECTION DETAIL REPRESENTATIVES ARE SHOWN FOR THE GROUND MOUNTED FIXED-TILT PV MODULE RACKING SYSTEM AND POWER INVERTERS. THE FINAL EQUIPMENT SELECTIONS WILL BE SPECIFIED WITH THE FINAL SITE PLAN SUBMITTAL TO THE COUNTY.

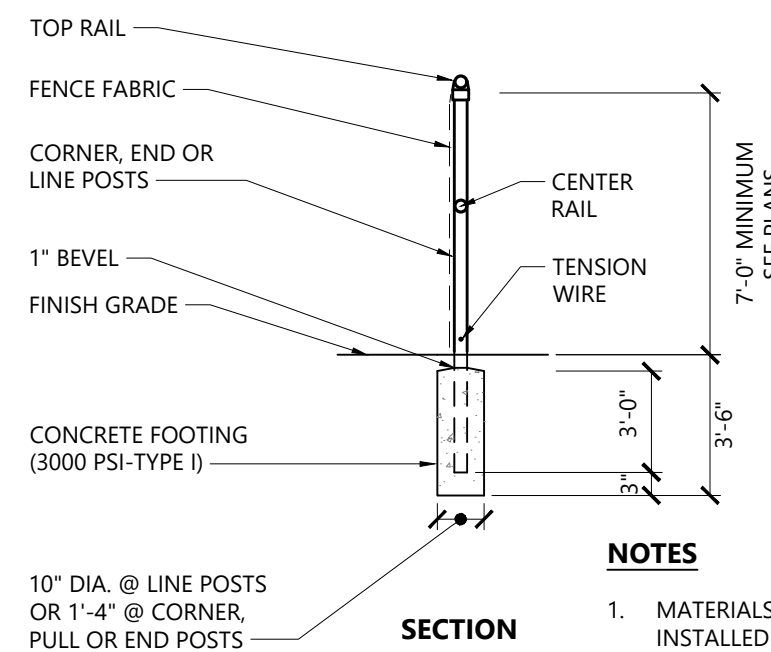


Typical Power Inverter Elevations

N.T.S.



ELEVATION



NOTES

- MATERIALS TO BE SUPPLIED AND INSTALLED IN CONFORMANCE WITH "CHAIN LINK MANUFACTURER'S INSTITUTE" PRODUCT MANUAL.
- CONCRETE FOOTING ON LINE POSTS MAY BE OMITTED IF POSTS ARE BURIED A MIN. OF 2.5 FEET, UNLESS SPECIFIED OTHERWISE BY FENCE MANUFACTURER.

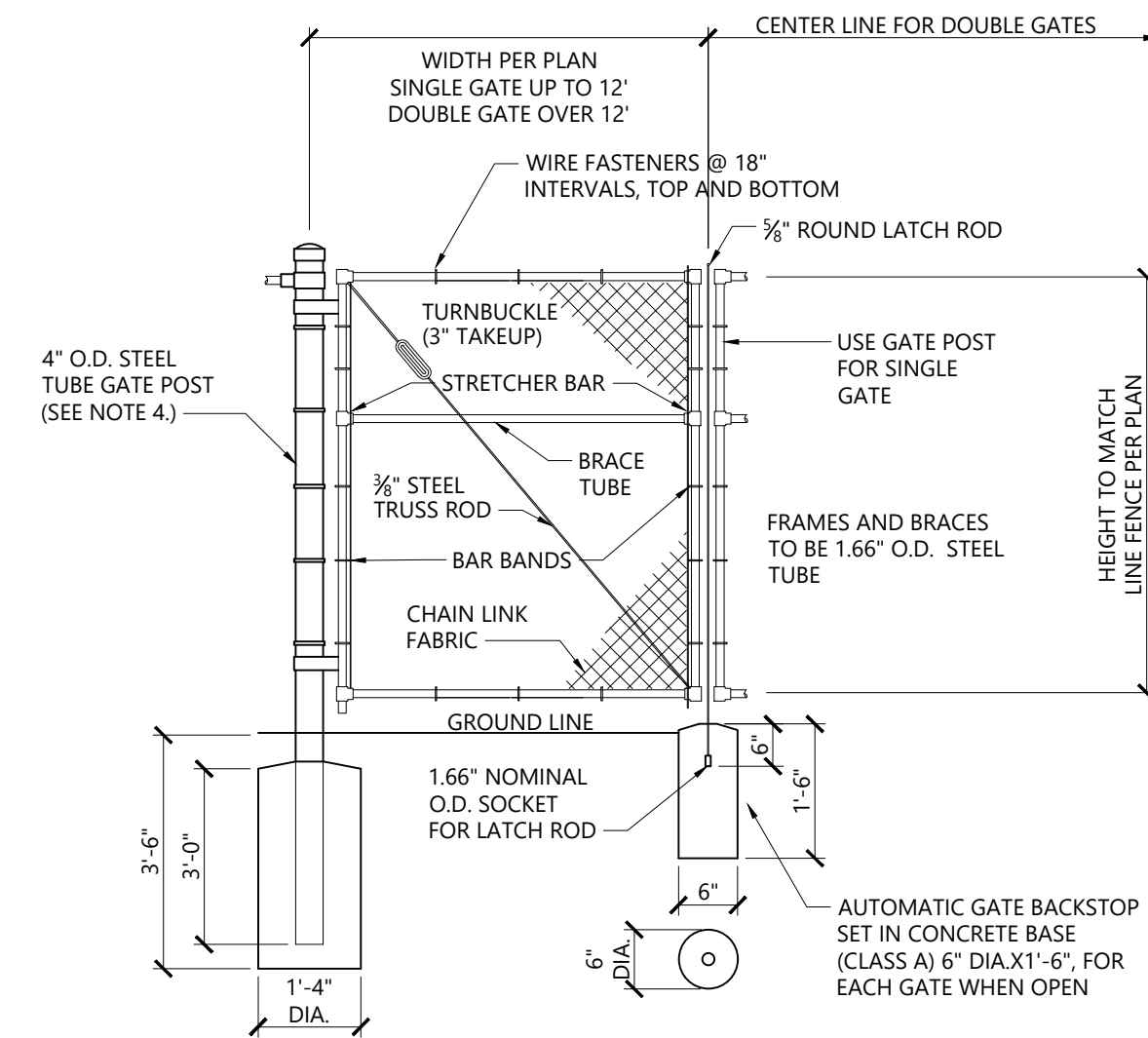
7' Chain Link Fence

N.T.S.

Source: VHB

10/20

LD_480



NOTES

- CHAIN LINK FABRIC FOR GATES TO BE THE SAME AS REQUIRED FOR FENCE.
- GATE POST BASE-PORTLAND CEMENT CONCRETE (3000 PSI).
- FENCE FABRIC, POSTS, FRAMEWORKS, AND HARDWARE SHALL BE GALVANIZED STEEL PER SPECIFICATIONS.
- GATE POSTS TO BE USED ON EACH SIDE OF SINGLE AND DOUBLE GATE OPENINGS.

Kenbridge Solar

5844 Oral Oaks Road
Lunenburg, Virginia 23944

No.	Revision	Date	Appvd.

Designed by	JRN	Checked by	SCQ
Issued for		Date	

Conditional Use Permit

3/6/2023

Not Approved for Construction

NOTES AND DETAILS

Drawing Number

C100

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Project Number
34823.00



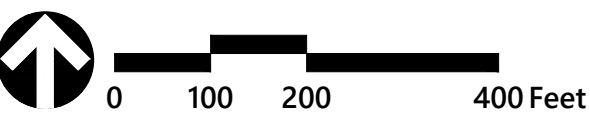
115 South 15th Street
Suite 200
Richmond, VA 23219
804.343.7100



LEGEND

- EXISTING TREELINE
- EXISTING CONTOUR (MAJOR)
- EXISTING CONTOUR (MINOR)
- EXISTING ADJOINING PARCELS
- EXISTING WETLAND
- EXISTING SOILS BOUNDARY
- EXISTING EASEMENT
- EXISTING STREAM CENTERLINE
- EXISTING OVERHEAD POWER LINE
- PROJECT BOUNDARY
- FORESTED AREA

X
XX SOIL GROUP INFORMATION



Kenbridge Solar

5844 Oral Oaks Road
Lunenburg, Virginia 23944

No. Revision Date Apprd.

Designed by JRN Issued for SCQ Checked by SCQ Date

Conditional Use Permit 3/6/2023

Not Approved for Construction

EXISTING CONDITIONS

Drawing Number

C200

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3 7

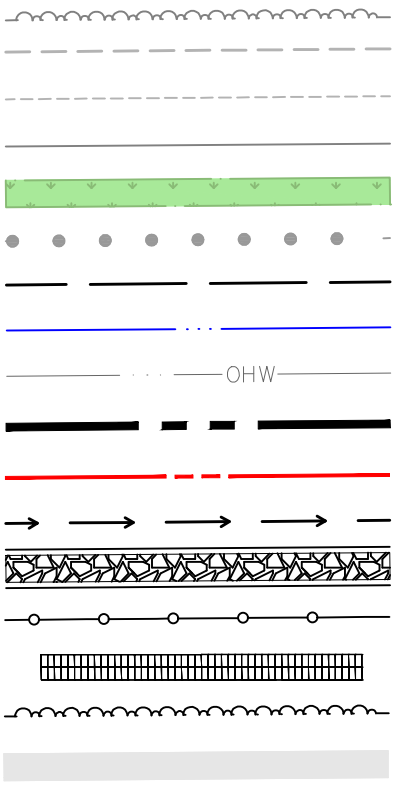
Project Number

34823.00




Adjacent Property Owners Address		
Owner	Address	Tax Map Number
GUSTAF JOSEPH TERRY II	5642 ORAL OAKS ROAD, KENBRIDGE, VA 23944	58-0A-27
WILSON VIRGINIA HAWTHORNE	5844 ORAL OAKS ROAD, KENBRIDGE, VA 23944	58-0A-29A
LUNENBURG COUNTY VIRGINIA	1800 GARY ROAD, KENBRIDGE, VA 23944	058-0A-0-24
PHILLIPS JASON A OR BETH A	596 SAINT JOHNS CHURCH ROAD, KENBRIDGE, VA 23944	058-03-0-D
NOVAK ROBERT OR LISA	1080 UNITY ROAD, KENBRIDGE, VA 23944	58-0A-37A
LANGFORD VERNON L OR ORA REGINA,	443 NORTHVIEW LANE, CRESTVIEW, FL 32536	058-03-0-C
GUSTAF JOSEPH TERRY II	5642 ORAL OAKS ROAD, KENBRIDGE, VA 23944	58-0A-0-28B
BLEDSOE RHODESSA TISDALE,	22061 LAKE JORDAN DRIVE, PETERSBURG, VA 23803	058-0A-0-24A
WILSON VIRGINIA HAWTHORNE	5844 ORAL OAKS ROAD, KENBRIDGE, VA 23944	58-0A-31
RICHARD WILEY & JAMES JACKSON III & DAVID MARTIN ROBERTS	PO BOX 115, KENBRIDGE, VA 23944	58-0A-0-39A
KILLEN JERRY W	5717 FITZTOWN ROAD, VIRGINIA BEACH, VA 23457	058-0A-0-24C
ELECTRIC POWER SUB-STATION	NULL	58-0A-30


LEGEND



EXISTING TREELINE
EXISTING CONTOUR (MAJOR)
EXISTING CONTOUR (MINOR)
EXISTING ADJOINING PARCELS
EXISTING WETLAND
EXISTING SOILS BOUNDARY
EXISTING EASEMENT
EXISTING STREAM CENTERLINE
EXISTING OVERHEAD POWER LINE
PROJECT BOUNDARY
REQUIRED SETBACK
PROPOSED STORMWATER DITCH
PROPOSED GRAVEL ACCESS ROAD
PROPOSED SECURITY FENCE
PROPOSED SOLAR PANEL
TREE CLEARING LIMITS
FORESTED AREA



SOIL GROUP INFORMATION



0 100 200 400 Feet

Kenbridge Solar

5844 Oral Oaks Road
Lunenburg, Virginia 23944

No.	Revision	Date	Appr.

Designed by	JRN	Checked by	SCQ
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Conditional Use Permit3/6/2023

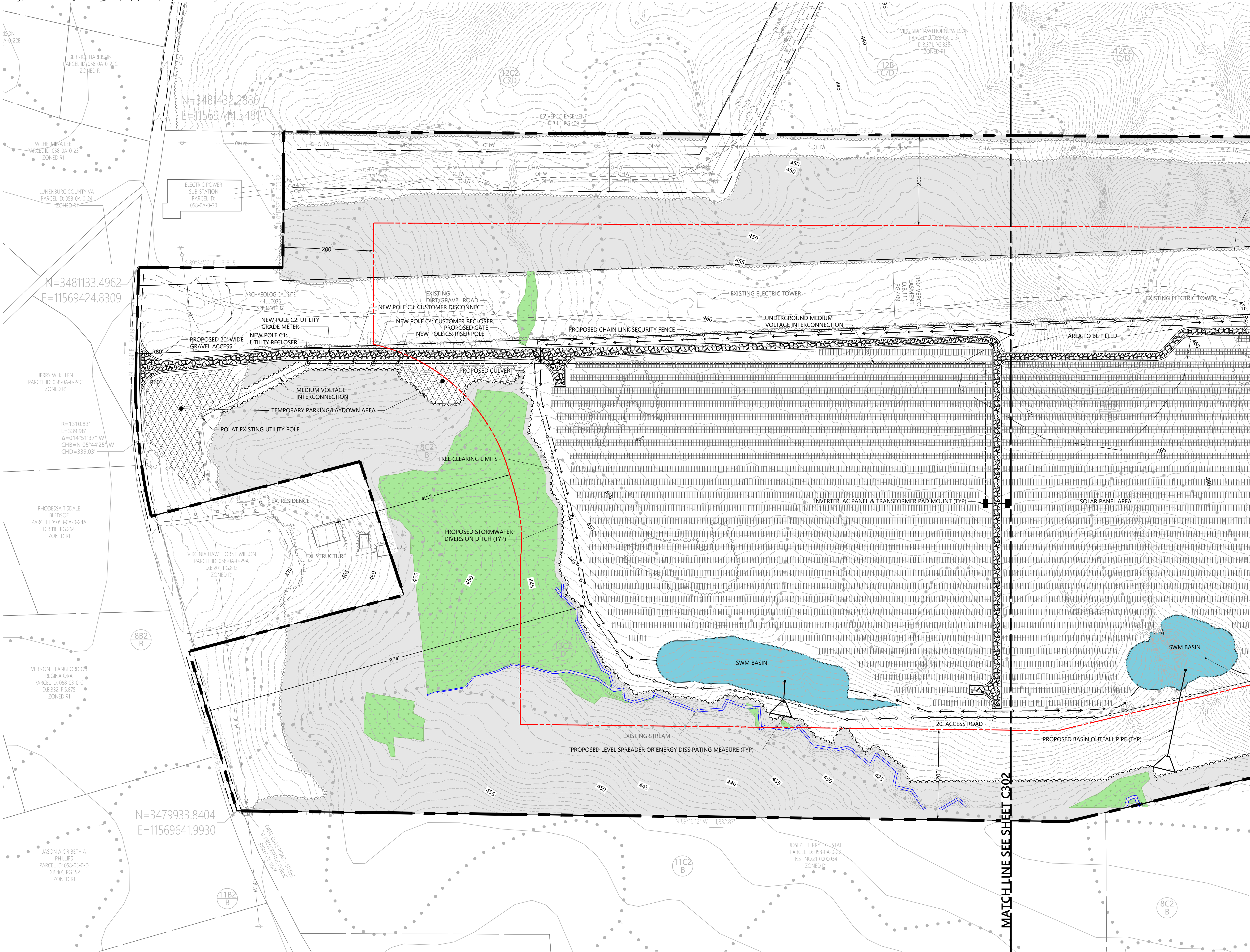
Not Approved for Construction

Drawing Title

OVERALL SITE PLAN

Drawing Number

C300



vhb

115 South 15th Street
Suite 200
Richmond, VA 23219
804.343.7100



- LEGEND**
- EXISTING TREELINE
 - EXISTING CONTOUR (MAJOR)
 - EXISTING CONTOUR (MINOR)
 - EXISTING ADJOINING PARCELS
 - EXISTING WETLAND
 - EXISTING SOILS BOUNDARY
 - EXISTING EASEMENT
 - EXISTING STREAM CENTERLINE
 - EXISTING OVERHEAD POWER LINE
 - PROJECT BOUNDARY
 - REQUIRED SETBACK
 - PROPOSED STORMWATER DITCH
 - PROPOSED GRAVEL ACCESS ROAD
 - PROPOSED SECURITY FENCE
 - PROPOSED SOLAR PANEL
 - TREE CLEARING LIMITS
 - FORESTED AREA

SOIL GROUP INFORMATION

0 50 100 200 Feet

Kenbridge Solar
5844 Oral Oaks Road
Lunenburg, Virginia 23944

No.	Revision	Date	Appvd.

Designed by	JRN	Checked by	SCQ
Issued for		Date	

Conditional Use Permit 3/6/2023

Not Approved for Construction

Drawing Title
SITE PLAN - WEST

Drawing Number

C301

Sheet

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7

Project Number

34823.00



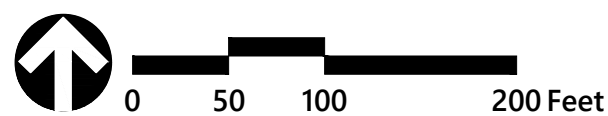
115 South 15th Street
Suite 200
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804.343.7100



LEGEND

- EXISTING TREELINE
- EXISTING CONTOUR (MAJOR)
- EXISTING CONTOUR (MINOR)
- EXISTING ADJOINING PARCELS
- EXISTING WETLAND
- EXISTING SOILS BOUNDARY
- EXISTING EASEMENT
- EXISTING STREAM CENTERLINE
- EXISTING OVERHEAD POWER LINE
- PROJECT BOUNDARY
- REQUIRED SETBACK
- PROPOSED STORMWATER DITCH
- PROPOSED GRAVEL ACCESS ROAD
- PROPOSED SECURITY FENCE
- PROPOSED SOLAR PANEL
- TREE CLEARING LIMITS
- FORESTED AREA

SOIL GROUP INFORMATION



Kenbridge Solar

5844 Oral Oaks Road
Lunenburg, Virginia 23944

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Conditional Use Permit 3/6/2023

Not Approved for Construction

Drawing Title
SITE PLAN - EAST

Drawing Number

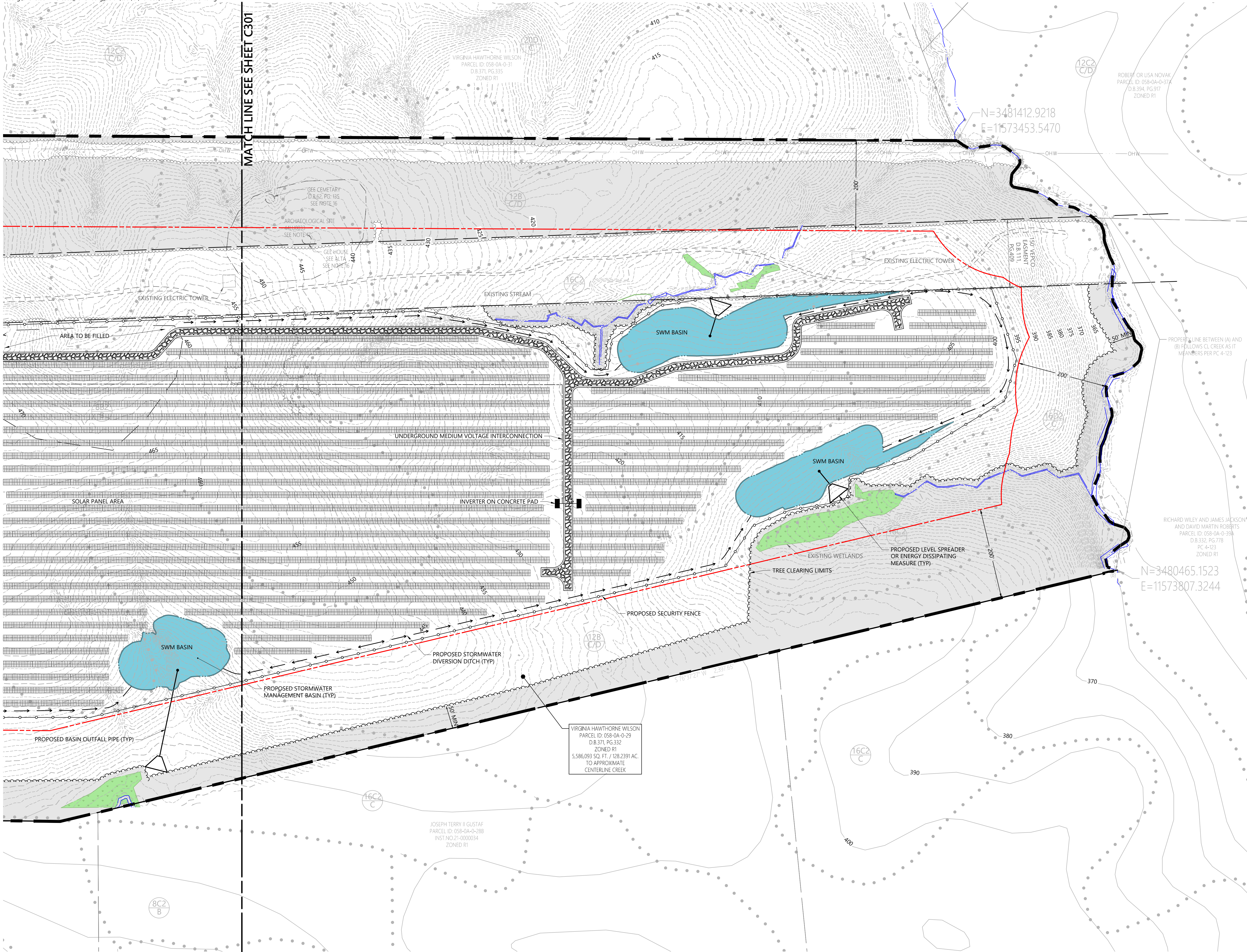
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Project Number

34823.00



LEGEND

EXISTING CONTOUR (MAJOR)

EXISTING CONTOUR (MINOR)

PROJECT BOUNDARY

REQUIRED SETBACK

TREE CLEARING LIMITS

EXISTING WETLAND

EXISTING STREAM CENTERLINE

LIMIT OF DISTURBANCE


SWM GRADING AREA

AREA OF FILL

SLOPE 0 - 20%

SLOPE > 20%*

*EXISTING SURFACE SLOPES GREATER THAN 20% MAY REQUIRE FINISH GRADING TO ACCOMMODATE INSTALLATION OF RACKING EQUIPMENT.



0

100

200

400 Feet

Kenbridge Solar

5844 Oral Oaks Road
Lunenburg, Virginia 23944

No.	Revision	Date	Apprd.

Designed by	JRN	Checked by	SCQ
Issued for		Date	

Conditional Use Permit 3/6/2023

Not Approved for Construction

Drawing Title

SLOPE ANALYSIS

Drawing Number

C400

Sheet of

7 7

Project Number

34823.00

Saved Friday, March 3, 2023 8:35:20 AM JNICKEL Plotted Monday, March 6, 2023 8:55:52 AM Jackson Nickel



B

Appendix B

Archeological and Architectural Resource Reports



COMMONWEALTH of VIRGINIA

Travis A. Voyles
Acting Secretary of Natural
and Historic Resources

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

Julie V. Langan
Director
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December 1, 2022

Stephen Quina
VHB
115 South 15th Street,
Suite 200
Richmond, Virginia 23219

RE:

Kenbridge Solar Facility
Lunenburg County, Virginia
DHR File No. 2022-5270

Dear Mr. Quina:

We have received for review the *Phase I Archaeological Survey of 21 Acres of the Proposed Kenbridge Solar Project Area, Lunenburg County, Virginia*, prepared by James River Institute for Archaeology, Inc. (JRIA). We provide the following comments in support of an application to the Department of Environmental Quality (DEQ) for a Permit-by-Rule to construct and operate a small solar project in Lunenburg County, Virginia.

Archaeology

The report documents a cultural resources survey of approximately 21 acres within a 60-acre parcel. During the course of the survey one new archaeological site was identified (44LU0073). Site 44LA0073 is a low-density artifact scatter consisting of late nineteenth to mid-twentieth century artifacts. JRIA recommends that 44LU0073 is not eligible for listing in the National Register of Historic Places (NRHP) and no further investigation is warranted. DHR agrees that **44LU0073** is not eligible for listing in the NRHP. **Please send one bound copy of the archaeology report for our archives.**

Architecture

The submitted information did not take into account the visual and indirect effects on historic architecture. For solar facility projects subject to state or federal review, DHR typically recommends a survey of all resources 45 years and older within 0.5 miles of the proposed facility. The resources should be recorded and assessed for eligibility and project impacts. DHR requires previously-recorded resources to be resurveyed if they have not been surveyed in the last five years. We generally rely on the accuracy of survey data on specific resources for no more than five years, due to possible changes to resources that may occur over the passage of time, advancements in scholarship, and rapid development that affects many parts of

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the state. At this time, DHR cannot provide meaningful comments about the potential impacts to historic properties.

If you have any questions regarding these comments, please contact me at 804-482-8091 or via email, jennifer.bellville-marrion@dhr.virginia.gov.

Sincerely,



Jenny Bellville-Marrion, Project Review Archaeologist
Review and Compliance Division

cc. Adrienne Birge-Wilson, DHR
Chris Egghart, DEQ
Matthey Laird

**PHASE I
ARCHAEOLOGICAL SURVEY
OF 21 ACRES
OF THE PROPOSED KENBRIDGE SOLAR
PROJECT AREA
LUNENBURG COUNTY, VIRGINIA**

November 2022

Prepared For:

VHB
115 South 15th Street, Suite 200
Richmond, Virginia 23219

Prepared By:

Matthew R. Laird, Ph.D., RPA
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ABSTRACT

In October 2022, the James River Institute for Archaeology, Inc. (JRIA), completed a Phase I archaeological survey of 21 acres within the 60-acre limits of disturbance for the proposed Kenbridge solar project in Lunenburg County, Virginia. The Phase I survey implemented a probability-based testing plan based on JRIA's prior archaeological assessment, which was approved by the Virginia Department of Environmental Quality (DEQ) and the Virginia Department of Historic Resources (DHR).

JRIA identified one site (44LU0073) and one archaeological location (Location 1) in the course of the investigation, which including pedestrian survey and shovel testing within the defined areas of high, moderate, and low archaeological probability. JRIA recommended that neither Site 44LU0073 nor Location 1 is eligible for listing in the National Register of Historic Places, and that no further investigation is warranted. No architectural evidence was identified in either location of two map-projected ca. 1950s-era structures, while a berm complex identified in the archaeological assessment most likely resulted from modern timbering activities.

Based on the results of the Phase I archaeological survey, JRIA recommended that no significant archaeological resources will be affected by the proposed solar project.

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I. INTRODUCTION

Project Overview

In August 2022, the James River Institute for Archaeology, Inc. (JRIA) completed a Phase IA cultural resources assessment for the proposed Kenbridge solar project in Lunenburg County, Virginia. The approximately 128-acre project parcel is part of larger property (Parcel ID 058-0A-0-29) currently owned by Virginia Hawthorne Wilson, and is adjacent to an existing residence built in 1996 at 5844 Oral Oaks Road (State Route [SR] 635). The limits of disturbance (LOD) for the proposed solar project area comprises 60 acres within the project parcel (Figures 1-3).

Based on the results of the cultural resources assessment, JRIA prepared an archaeological probability model which divided the project area into areas of high, moderate, and low probability for significant archaeological resources, and detailed a proposed Phase I archaeological work plan with a probability-based sampling strategy. Three defined areas of high archaeological potential (one acre) would be investigated through visual inspection and the excavation of screened shovel tests at intervals of 50 feet or less (Figure 4). For the defined areas of moderate archaeological potential, JRIA recommended that a 50-percent sample of the total area (16 acres) should be tested through shovel testing along regular transects at intervals not exceeding 50 feet. The remaining areas would then be subjected to visual survey. For areas of defined low potential, shovel testing would be conducted within a 10-percent sample area (three acres), with the remainder investigated through visual survey. In areas of moderate and low potential, any potential sites identified through shovel testing and/or visual inspection and/or would then be fully investigated and defined through shovel testing at 50- and 25-foot intervals. Any wetland areas within the project area would be visually inspected, but no shovel testing would be conducted unless visible evidence of potential archaeological resources was observed.

In September 2022, Cultural Resources Specialist Chris Egghart of the Virginia Department of Environmental Quality (DEQ) concurred with JRIA's proposed testing strategy, and JRIA completed the Phase I archaeological survey in October 2022. The research design for the Phase I survey was to identify all archaeological resources present within the defined testing areas and to obtain sufficient information to make recommendations concerning the potential eligibility of each resource for inclusion in the National Register of Historic Places (National Register). The documentary research and fieldwork were conducted at a level in compliance with the Secretary of the Interior's standards (Department of the Interior 1983, 48 FR 44720-44723), as well as the Virginia Department of Historic Resources (DHR) *Guidelines for Conducting Historic Resources Survey in Virginia* (2017).

The Principal Investigator for the project was JRIA Partner and Senior Researcher Matthew R. Laird, Ph.D., RPA. The archaeological fieldwork was conducted by Field Directors Anthony W. Smith, M.A., and Allison Romo, M.A., RPA, with the assistance of Kira Alfano, Michelle Bouquet, Chloe Scalf, and Colleen Wampler. Dr. Laird

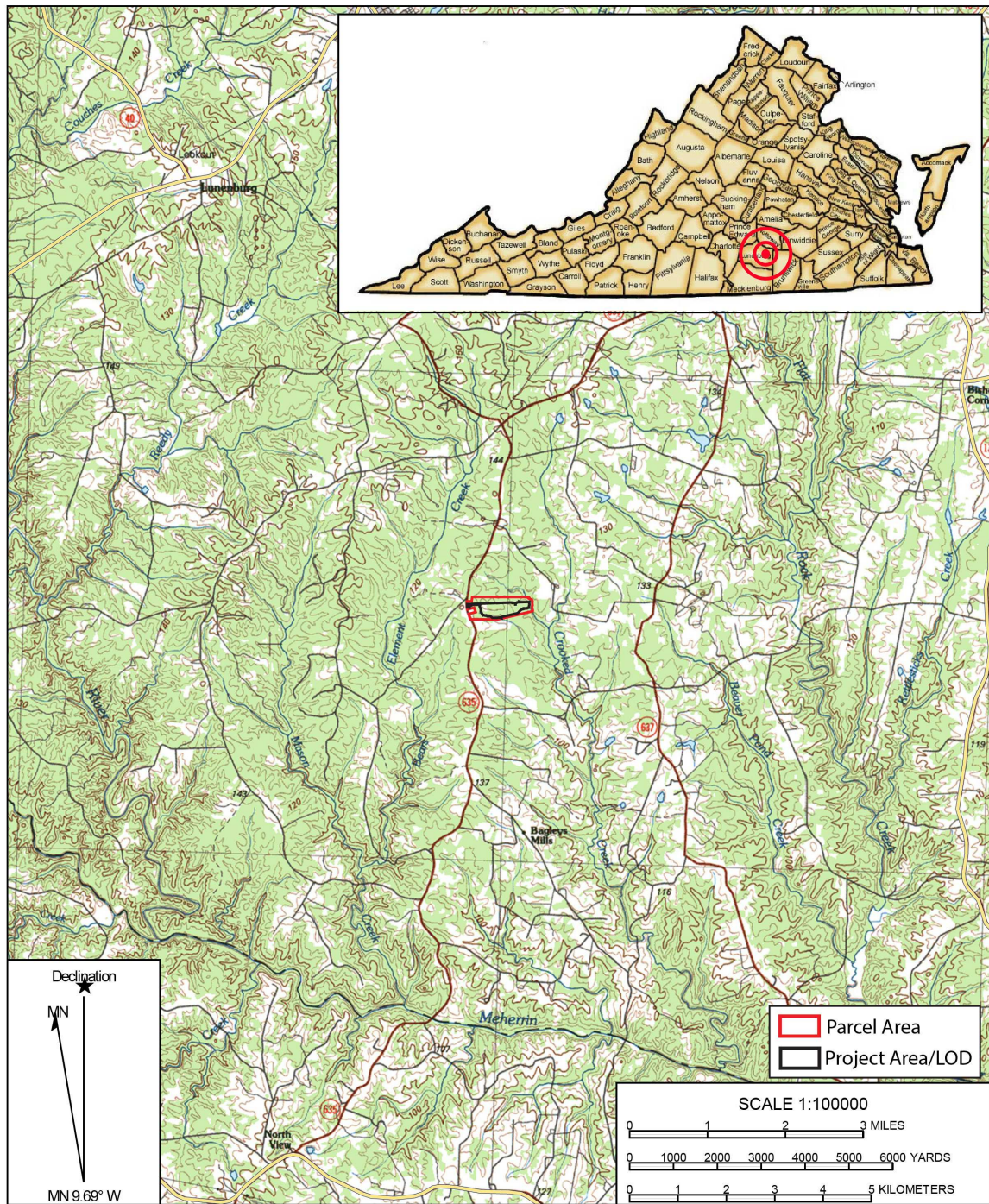


Figure 1. Location of the project area on detail of USGS 1:100,000 South Boston topographic quadrangle map, 1984.

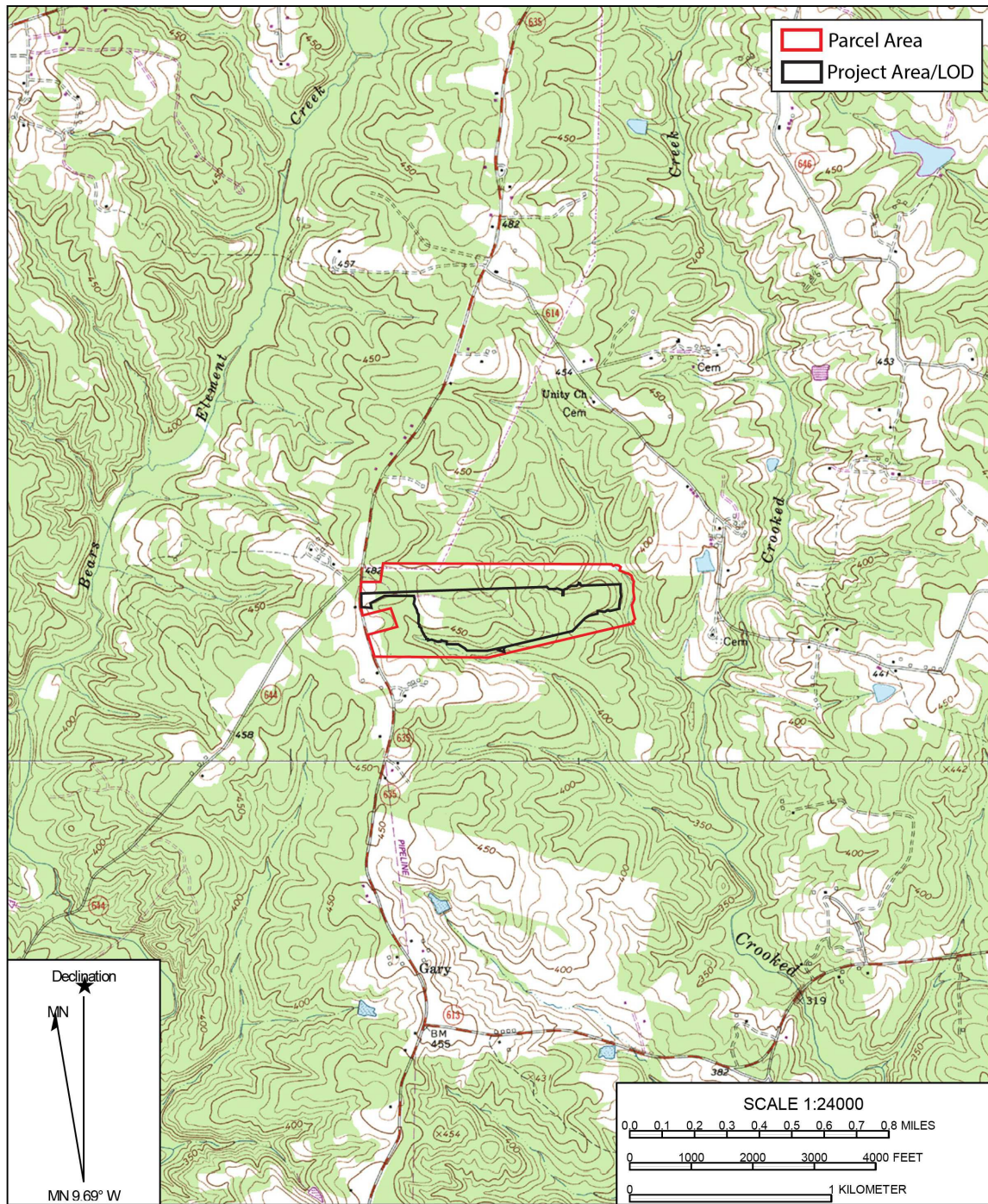


Figure 2. Location of the project area on detail of USGS 7.5' Kenbridge West topographic quadrangle map, 1981.

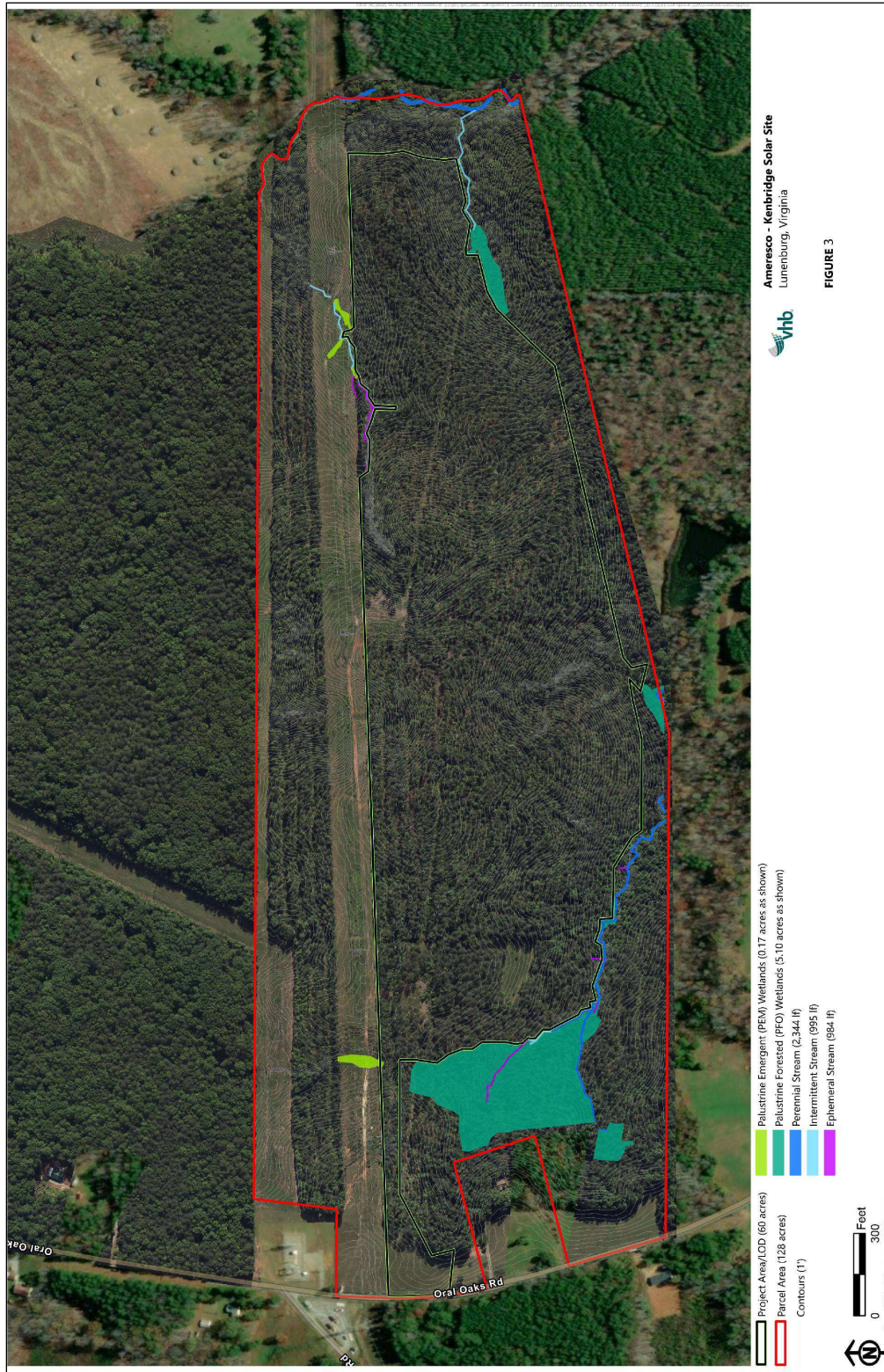


Figure 3. Location of the project area on an aerial photograph with topography and identified wetlands (VHB).

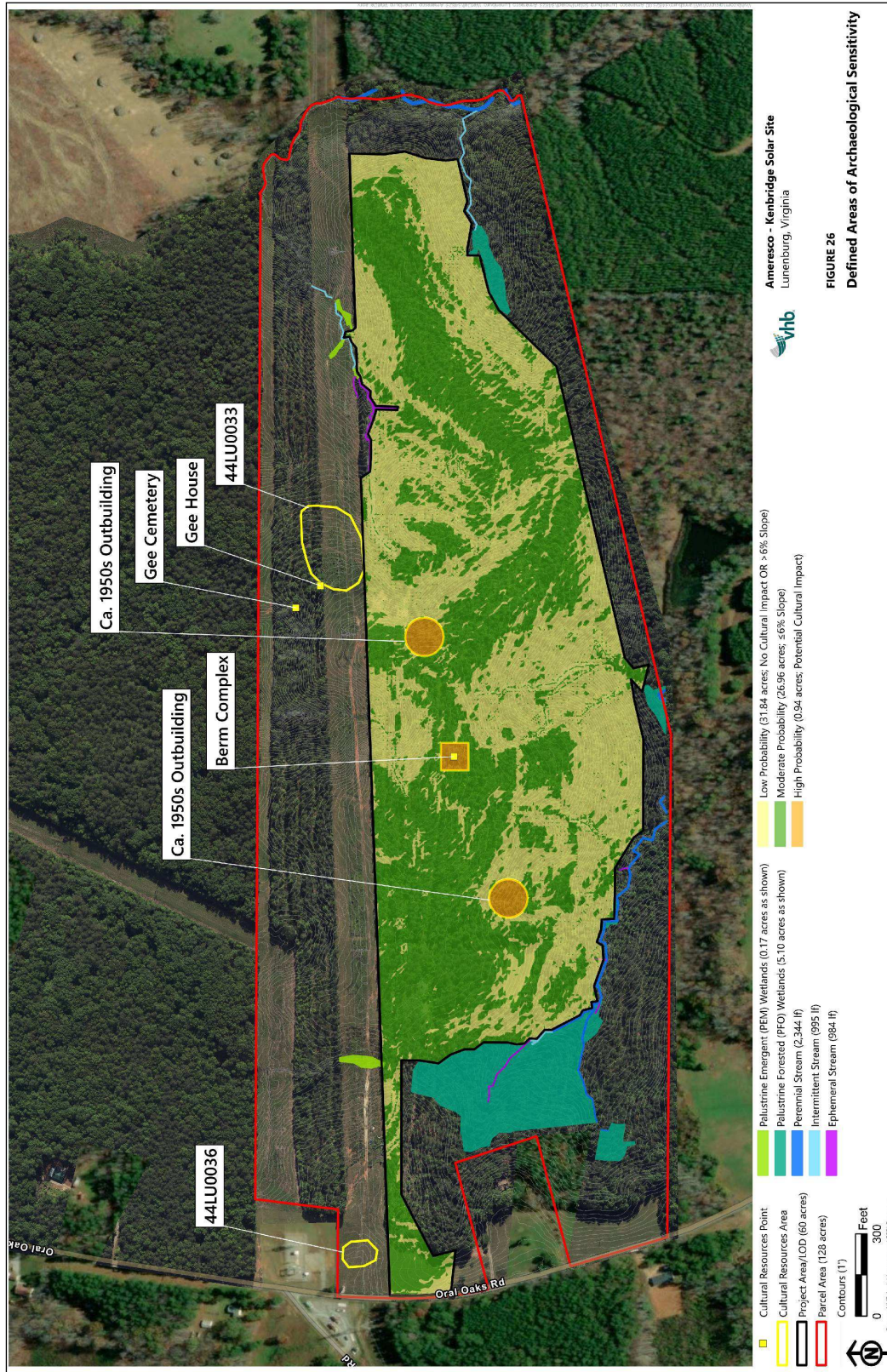


Figure 4. Defined areas of archaeological probability within the project area.

conducted the documentary research for the project and authored the final report with contributions from Mr. Smith. The artifacts were processed by Barry Phelps and cataloged by JRIA Curator Kelly Ladd-Kostro.

Physical Description and Environmental Setting

The project area is located approximately seven miles southwest of the Town of Kenbridge, and is bounded to the west by Oral Oaks Road, to the south by a privately held parcel, and to the east by a tributary of Crooked Creek. The project area is situated within the southern portion of the Wilson property, and the northern boundary is a cleared overhead electric powerline right-of-way (Figure 5). The majority of the project area was clear-cut in the early 1990s, and is currently characterized by planted pine trees with a relatively dense understory (Figure 6). The only significant open portion of the project area is a grassy meadow in the west-central portion of the property (Figure 7). The project area is traversed by numerous logging/access roads, many of which are becoming overgrown (Figure 8).

The study area is situated within the Foothills subprovince of the Piedmont Province of Virginia, which is a region of broad rolling hills and moderate slopes. The project area is characterized by gently rolling terrain, and elevations range from a maximum of 470 feet above mean sea level (amsl) in its north-central portion, descending to approximately 370 feet amsl along the tributary of Crooked Creek. There is a large area (approximately 5.1 acres) of palustrine forested wetlands adjoining the project area to the west, which is drained by a perennial stream running southeast to the southern property boundary. There is a smaller area of palustrine forested wetlands adjoining the eastern portion of the project area, and two small areas of palustrine emergent wetlands along the northern boundary of the project area adjacent to the powerline right-of-way.

According to the U.S. Department of Agriculture (USDA), National Resources Conservation Service (NRCS) soil report, the study area encompasses at least six mapped soil types (Table 1, Figure 9). In general, the principal upland soil types such as Georgeville loam, 2-7 percent slopes (8B2), are relatively deep and well-drained, and are considered to be prime farmland. The agricultural capability of the more greatly sloped soils in the eastern portion of the project area are more restricted due to erosion.



Figure 5. Overhead electric power line right of way, view to the west.



Figure 6. Typical wooded conditions within the project area.



Figure 7. Open meadow area, view to the south.



Figure 8. Logging/access road, view to the north.

Table 1. Mapped soil types within the project area (USDA-NRCS).

Soil Symbol	Soil Name	Slope	Drainage	Capability Class*
8B2	Georgeville loam, eroded (prime farmland)	2-7%	Well drained	2e
8C2	Georgeville loam, eroded	7-15%	Well drained	4e
12B	Iredell loam	1-6%	Moderately well drained	2e
12C2	Iredell loam	6-12%	Moderately well drained	4e
16C2	Mecklenburg loam, eroded	7-15%	Well drained	4e
16D2	Mecklenburg loam, eroded	15-20%	Well drained	6e

*Soils designated as Capability Class 2-4 are all generally suited to cultivated crops, pasture, range, and woodland, with varying degrees of limitations. Class 2 soils have some limitations which reduce the choice of plants or require moderate conservation practices; Class 3 soils have severe limitations; and Class 4 have very severe limitations. Class 6 and 7 soils have severe limitations which make them generally unsuited to cultivation, and may limit their use mainly to pasture, range, or woodland. Capability limitations include shallow, droughty, or stony soils (s); erosion (e); and excess water (w).

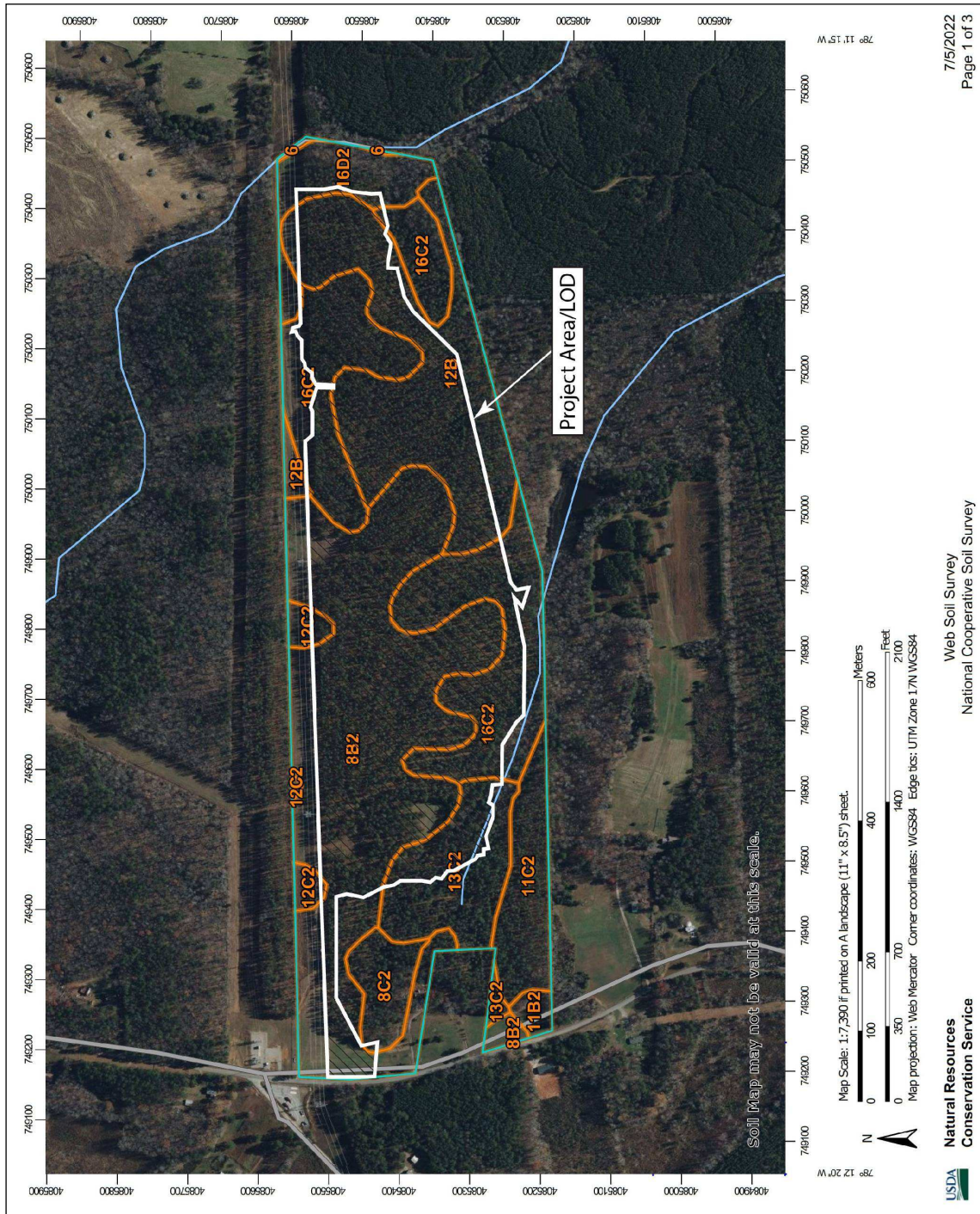


Figure 9. Mapped soil types within the project area (USDA-NRCS Soil Resource Report).

II. CULTURAL CONTEXT

PREHISTORIC CONTEXT

Virginia's prehistoric cultural chronology is subdivided into three major time periods based on changes in subsistence as exhibited by material remains and settlement patterns. These divisions are known as the Paleoindian, Archaic, and Woodland periods. A brief summary of the regional cultural chronology follows, with comments on manifestations of each period within the vicinity of the project area.

Paleoindian (Prior to 10,000 B.C.)

Paleoindian occupation in Virginia, the first human occupation of the region, began some time before 10,000 B.C. The earliest recognized diagnostic artifacts are Clovis projectile points, typically fashioned of high-quality cryptocrystalline materials such as chert, chalcedony, and jasper. Later Paleoindian points include smaller Clovis-like and Cumberland variants, small "Mid-Paleo" points, and, at the end of the period, Dalton, Hardaway-Dalton, and Hardaway Side-notched points. Also diagnostic, though to a lesser extent, are certain types of well-made endscrapers, sidescrapers, and other formalized tools. Most current views now hold that eastern Paleoindians were generalized foragers with an emphasis on hunting. Social organization apparently consisted of relatively small bands that exploited a wide, but defined, territory (Gardner 1989: 5-52; Turner 1989: 71-94).

The majority of Paleoindian remains in Virginia are represented by isolated projectile point finds and what appear to be small temporary camps. Although some larger and very notable base camps are present in the state, they are relatively rare and usually associated with sources of preferred, high quality, lithic materials. In general, the rarity of such sites throughout the region suggests that the potential for their occurrence within the study area is low.

The Archaic through Early Woodland Periods (10,000 B.C.-500 B.C.)

The beginning of the Archaic Period generally coincided with the end of the Pleistocene epoch, marked in the region by a climatic shift from a moist, cool period to a warmer, drier climate. Vegetation also changed at this time from a largely boreal forest setting to a mixed conifer-deciduous forest. In eastern Virginia, a temperate climate was established, and the formation of the Chesapeake estuary began. Increasing differences in seasonal availability of resources brought on by post-Pleistocene changes are thought to have coincided with increasing emphasis on strategies of seasonally geared mobility (Dent 1995:147).

Archaic populations likely were characterized by a band-level social organization involving seasonal movements corresponding to the availability of resources. Settlement during this era probably involved the occupation of relatively large regions by single band-sized groups living in base camps during part of the year, and then dispersing as necessary during certain seasons, creating smaller microband camps that may have consisted of groups as small as single families. The Archaic Period saw the development of more specialized resource procurement activities and associated technologies. These

differences in material culture are believed to reflect larger, more localized populations, as well as changes in food procurement and processing methods. The Archaic Period also marked the beginning of ground stone technology, with the occurrence of ground atlatl weights and celts. New tool categories that developed during the Archaic include chipped and ground stone celts, ground stone net sinkers, pestles, pecked stones, mullers, axes, and, during the more recent end of the Late Archaic, vessels carved from soapstone quarried in the Piedmont (Custer 1990: 35-40; Geier 1990: 84-86, 93-94).

Early Archaic

Corner and side-notching became a common characteristic of projectile points during the Early Archaic Period (ca. 10,000-6500 B.C.), indicating changes in hafting technology and possibly the invention of the spear-thrower (atlatl). Notched point forms include Palmer and Kirk Corner-notched and, in localized areas, various side-notched types. The later end of the Early Archaic Period and the beginning of the Middle Archaic Period are marked by a series of bifurcate base projectile point forms that, in this area, are mainly represented by Lecroy points. As with the preceding Paleoindian period, the most common Early Archaic site locations were near the confluence of major streams and tributaries.

Middle Archaic

In Virginia, the Middle Archaic Period, ca. 6500-ca. 3000 BC, was characterized by a notable increase in the number of occupation sites over the immediately preceding Early Archaic Period, suggesting an increase in population most likely resulting from environmental stabilization. The Middle Archaic witnessed the rise of various stemmed projectile point forms. In this area of central Virginia, the most common Middle Archaic projectile point types include (from oldest to youngest): Lecroy, Stanly, Morrow Mountain, and Guilford, followed by the side-notched Halifax type which appeared at the very end of the period as it transitioned into the Late Archaic, between ca. 3500 and 3000 B.C.

Late Archaic

The Late Archaic Period, ca. 3000-1200 B.C., was dominated by stemmed and notched knife and spear point forms, including various large, broad-bladed stemmed knives and projectile points that generally diminish in size by the succeeding Early Woodland period (e.g., Savannah River points and variants). Also found, though less common, are stemmed and notched-stem forms identical to those associated more prominently with areas of Pennsylvania and adjoining parts of the northeast (Susquehanna and Perkiomen points).

Marked increases in population density and, in some areas, decreased mobility characterized the Late Archaic Period in the Middle Atlantic states and eastern North America as a whole. Locally, there is an increase in the numbers of late Middle Archaic (Halifax) and Late Archaic (Savannah River) sites over those of earlier periods, suggesting a population increase and/or intensity of use of this region between ca. 3500 B.C. and ca. 1200 B.C.

Agriculture in the Middle Atlantic region probably has its origins during this period. Yarnell (1976: 268), for example, writes that sunflower, sumpweed, and possibly goosefoot may have been cultivated as early as 2000 BC. In the lower Little Tennessee River Valley, remains of squash have been found in Late Archaic Savannah River contexts (ca. 2400 BC), with both squash and gourd in slightly later Iddins period contexts (Chapman and Shea 1981: 70).

In general, Archaic Period sites in this region are distributed throughout a variety of landforms and settings, including both interior and riverine areas, although the majority have been identified in upland settings, which is consistent with the prevailing settlement and subsistence models that posit the continued exploitation of upland resources by growing numbers of Middle and Late Archaic peoples (Moore et al. 2014: 24, 121-122).

Early Woodland

The Early Woodland Period, ca. 1200-500 B.C., is generally defined by the appearance of ceramics in the archaeological record. The earliest Woodland ceramic wares, Marcey Creek Plain and variants, are rectangular or oval and resemble the preceding Late Archaic soapstone vessels. These ceramics are followed by cord-marked, soapstone-tempered Selden Island ceramics, then by sand-and-grit-tempered Elk Island (Accokeek) ceramics with both plain and cord-marked surfaces. The latter traditionally were referred to as the Stony Creek series, although this type is now known to subsume several Early, Middle, and Late Woodland ceramic wares (Egloff 1991: 243-48).

In terms of lithic technology, this period saw a transition from the broadspear and large biface types of the Late Archaic Period to smaller lanceolate, notched, and stemmed forms such as Calvert/Gypsy Stemmed, Piscataway, Vernon, and Will's Cove hafted bifaces. Increasingly, these tools were manufactured from a variety of quartz, chert, and other materials in contrast to the local coarse-grained materials that predominated in the Late Archaic (Moore et al. 2014: 63).

Early Woodland communities evidently were comprised of fairly small groups which spent only a portion of the year in settled locations alternating with mobile hunter-gathering activities. Early Woodland sites in this region typically consist of small camps in both riverine and lesser-order stream locations (Moore et al. 2014: 61-63).

The Middle Woodland Period (500 B.C.-A.D. 900)

In general, the Woodland period of Virginia prehistory is broadly characterized by the introduction and development of ceramic technology, a gradually developing dependence on horticulture, and increased sedentism. Three sub-periods (Early, Middle, and Late Woodland) have been designated by archaeologists, based primarily on stylistic and technological changes in ceramic and projectile point types, as well as settlement patterns. The Early Woodland period, ca. 1200-500 B.C., has traditionally been defined by the appearance of ceramics in the archaeological record. Relatively few sites of this type have been identified in Piedmont Virginia, and it has been assumed that most represent short-term camps (Egloff 1991: 243-48).

Beginning about 500 B.C., however, there appears to have been a noticeable change in the material culture, social organization, and settlement patterns of native groups, defining a distinct “Middle Woodland” period. In general, the Middle Woodland period has been associated with subtle changes in technology; relatively sedentary residence in settlements; a steady increase in population; closer definition of group territories; interregional spheres of interaction and trade; and the emergence of ranked societies (Stewart 1992: 4; McLearen 1992: 55; Blanton 1992: 68).

By the beginning of the Middle Woodland period, ceramic technology was already at least 500 years old. During this era, however, it appears that ceramic vessels became the mainstay of container technology for cooking and storage activities, with more pots per individual than in the Early Woodland. The Middle Woodland Period in the southern Virginia Piedmont was marked by the appearance of sand-tempered and fabric-impressed ceramics, although plain, cord, and net treatments have also been identified. Stony Creek is the most commonly identified ceramic in this vicinity, although grit-/sand-tempered Vincents and Clements-like ceramics are also typical of this region (Stewart 1992: 7; Egloff 1991: 243-48).

As with ceramic styles, it appears that lithic technologies were changing as well. While the basic toolkit remained essentially unchanged, a number of new projectile point styles are associated with this period, including Yadkin, Badin, Fox Creek, Potts, and Rossville types, and the development of bow and arrow technology is believed to have occurred at this time. It has been hypothesized that the evolution of both ceramic and lithic styles was related to participation in relatively broad and wide-ranging trade and communication networks (Egloff 1991: 243-48; Stewart 1992: 2, 4, 7-9).

Subsistence strategies evidently were not markedly different from the Early Woodland period, with a reliance on hunting and gathering, and a focus on hunting deer and other land mammals, supplemented by fish, shellfish, and starchy roots, tubers, and other plant foods, which may have included some incipient domesticated species (Stewart 1992: 4). In terms of settlement patterns, archaeologists have speculated that the Middle Woodland was characterized by relatively sedentary residence in settlements, also referred to as “macroband basecamps” or nascent “villages,” which are represented archaeologically by low-density midden sites in riverine settings. These groups continued to practice “restricted wandering,” however, in which small, possibly family-sized units separated from the main settlement for several weeks at a time, establishing small interior campsites and obtaining needed materials in the site vicinity (Stewart 1992: 4; McLearen 1992: 46; Blanton 1992: 83-84).

Previous archaeological studies in the region have demonstrated the intensive use of small tributary streams as well as major river floodplains throughout the Middle Woodland Period (ca. 500 B.C.-A.D. 900). The prevalence of small procurement camps in upland inter-riverine areas suggests that played an important role in supporting larger base camps situated in low-lying areas along major streams (Stewart 1992: 12-16; Moore et al. 2014: 122).

The Late Woodland Period (A.D. 900-1607)

By the Late Woodland period agriculture had assumed a role of major importance in the prehistoric subsistence system. The adoption of agriculture represented a major change in the subsistence economy and patterns of settlement. The availability of large areas of arable land became a dominant factor in settlement location, and sites increasingly were located on fertile floodplain soils or on higher terraces or ridges adjacent to them. Permanent habitation sites gradually replaced base camp habitation sites more characteristic of those of previous foragers and hunter-gatherers. Villages varied widely in spatial layout and appearance: some were highly nucleated while others were dispersed over a relatively wide area. A number of villages were completely fortified by circular or oval palisades, indicating a rise in inter-group conflict, while others contained both a fortified core area and outlying houses. The more dispersed settlements were scattered over a wide area and characterized by fluid settlements within large, sprawling, and loosely defined town or village territories (Turner 1992: 108-114).

Archaeological research in this region over the past 30 years has demonstrated a marked decrease in the number of small, temporary, interior sites occupied during the Late Woodland Period. This trend is not unexpected, given the increasing role of agriculture and accompanying development of more permanent village settlements. Even so, hunting continued to provide a large proportion of the protein in the diet of Late Woodland peoples. As early as the Late Archaic period, over-hunting had caused a significant drop in local deer and other mammal populations; so much so, in fact, that relatively few deer could be found in the vicinity of villages. In response, large-scale hunts, which typically included entire family groups, were mounted annually in the late fall and winter after the crops had been harvested. Various supporting camps and activity areas also were established in the day-to-day procurement of food and other resources (i.e., short-term hunting and foraging camps, quarries, butchering locations, and re-tooling locations). These small seasonal camps and non-seasonally based satellite camps supporting nearby sedentary villages and hamlets tended to be located along smaller streams in the interior. Archaeologically, these campsites are generally manifested by limited concentrations of lithics and ceramics (Barfield and Barber 1992: 225-26; Turner 1992: 108-114).

Diagnostic artifacts of the Late Woodland period include several triangular projectile point styles such as Clarksville, Caraway, and Jack's Reef that originated during the latter part of the Middle Woodland period and consistently decreased in size through time. The most common Late Woodland ceramics in the southern Virginia Piedmont from about A.D. 900 to the time of European contact in the late seventeenth century were characterized by simple stamping with a paddle or linear and geometric incised designs, with the most common surface treatments being plain or looped-fabric impressed. Ceramic types typically recovered from Late Woodland sites in this region include Siouan wares such as Clarksville and Gaston and Iroquoian Cashie ceramic wares such as Sturgeon Head and Branchville types (Moore et al. 2014: 64).

The adoption of agriculture represented a major change not only in the subsistence economy, but also in settlement patterns. The availability of large areas of arable land

became a dominant factor in settlement location, and sites increasingly were located on fertile floodplain soils or on higher terraces or ridges adjacent to them. Even so, most Late Woodland sites in this region have been identified in the inter-riverine uplands, suggesting that Late Woodland populations continued to exploit natural resources in interior settings (Turner 1992: 108-114; Hantman and Klein 1992: 143-45; Moore et al. 2014: 35, 41-42, 122-123, 137-140).

Ethnohistorical sources, including Binford (1967) and MacCord (1996), suggest that the Late Woodland-Contact Period populations of the Virginia Piedmont were Siouan-speaking members of the Monacan, Saponi, and Nahyssan tribes (Moore et al. 2014: 64).

HISTORIC CONTEXT

The Development of Lunenburg County, 1746-present

Situated between the Nottoway and Meherrin Rivers in Southside Virginia, Nottoway County was established from Brunswick County in 1746, and named in honor of King George II, whose German titles included Baron of Brunswick-Lunenburg. Known as the “Mother of Counties,” Lunenburg originally encompassed nearly 5,000 square miles, and ultimately was divided to create 10 additional counties, including Mecklenburg, Halifax, Charlotte, Campbell, Pittsylvania, Henry, Patrick, Franklin, Appomattox, and Bedford. While a handful of English fur traders passed through this area in the seventeenth century, the earliest European settlers did not reach what is now Lunenburg County until the early eighteenth century. Most of the new arrivals were Anglo-Virginians from eastern counties such as Surry, Isle of Wight, Henrico, Goochland, and Hanover. By this time, the local Native American groups—including Iroquoian-speaking members of the Nottoway and Meherrin tribes—had been depleted by warfare and disease, and had lost their land as a result of the Treaty of 1677 (Chen et al. 2005: 2-3).

When it was formed in 1746, Lunenburg County had 338 tithable residents, including White men over 16, and all “Negro, mulatto, and Indian women” 16 or older. In addition to Anglo-Virginians from eastern Virginia, new arrivals also included Scots-Irish who moved down the Shenandoah Valley from Pennsylvania, as well as Swiss, Germans, and French Protestant Huguenots. Although there were a few wealthy nonresident landowners such as William Byrd, Richard Randolph, and Lewis Burwell, most of Lunenburg’s early settlers were people of modest means seeking to improve their circumstances on what was then Virginia’s frontier. Most owned tracts of 600 acres or less, and few held enslaved African Americans (Chen et al. 2005: 4-6).

Prior to 1760, livestock provided the major source of income for Lunenburg’s residents. However, by the time of the American Revolution, just over half of the White male population had acquired enslaved African American laborers, and the agricultural economy began to change from subsistence farming to tobacco monoculture. Aside from a raid by British Colonel Banastre Tarleton’s cavalry which burned Craig’s Mill, Lunenburg’s main contribution to the Revolutionary War was its male citizenry, many of whom served in the Virginia militia, including at Valley Forge. While eastern Virginia

counties were rapidly abandoning tobacco in the post-Revolutionary era, this staple crop was becoming even more dominant in Southside, including Lunenburg County. By 1840, the region was responsible for over 60 percent of Virginia's annual tobacco production (Chen et al. 6-7).

By 1800, enslaved African Americans comprised half of Lunenburg's residents; and by 1820, Blacks outnumbered Whites by a factor of two to one. Tobacco production continued to increase throughout the first half of the nineteenth century, while local farmers also supplemented their incomes through raising corn and livestock. In 1852, Virginia passed an act to promote infrastructure improvement projects, and Lunenburg took advantage of the support to develop the Lunenburg Plank Road from Black's and White's (now Blackstone) to the Meherrin River. The Richmond and Danville Railroad was built across the county, giving rise to the village of Meherrin around the depot at Moore's Ordinary (Chen et al. 2005: 8-10).

With a high proportion of enslaved African Americans, most White Lunenburg residents supported secession, and many enlisted in local military units when Virginia joined the Confederacy in 1861. Although more than 1,000 Lunenburg men would take up arms during the war years, no actual fighting occurred in the county until June 1864, when generals James H. Wilson and August V. Kautz led a contingent of 7,000 Union troops to destroy the Southside and Danville railroads to cut off supplies to Richmond. After a fight at the Roanoke River, they returned via Lunenburg County, crossing the Meherrin River on their way to the Boydton Plank Road, and foraging for food and horses, and liberating enslaved African Americans, along the route (Chen et al. 2005: 10-11).

The immediate postwar period proved difficult for Lunenburg's White residents, as emancipation resulted in a drastic decline in available farm labor. Overall agricultural production dropped by more than half, while tobacco production was only a quarter of its peak total. In fact, it was not until 1900 that tobacco production returned to pre-war levels. Still, the population continued to increase between 1870 and 1910, with African Americans perennially exceeding White residents. In 1902, a group of investors began planning a railroad to link the coalfields of West Virginia with the port of Norfolk. Completed in 1909, the Virginian Line Railroad passed through the town of Kenbridge. Originally known as Tinkling, the town was established in 1906 around a post office and store. It was incorporated by an act of the General Assembly in 1908, and was renamed Kenbridge in honor of W.F. Kennedy and Willie Bridgforth, who owned most of the land on which the town was established. The railroad attracted considerable industrial and commercial development, and Kenbridge's tobacco warehouses accommodated the fourth-largest tobacco market in the Commonwealth (Chen et al. 2005: 11-12).

In 1920, Lunenburg had a population of 15,260 residents, and there were 2,108 farms, with 9,633 acres devoted to tobacco production. Although tobacco dominated the local economy, chickens and dairy products were also valuable commodities. However, the population and the number of farms declined steadily over the next 40 years. The largest single factor which affected the county was the loss of the Virginian Line Railroad, which merged with the Norfolk & Western to become Norfolk Southern in 1959. The

depot at Kenbridge was demolished in the 1970s, and all the former tracks had been taken up by the 1990s. During the modern era, the inmates at the Lunenburg Correctional Center have accounted for the majority of the population's growth. The correctional center, Virginia Marble Corporation, Kenbridge Construction Company, were the largest employers in the county at the turn of the millennium. The Barnes Manufacturing Company was a leading lumber processing business which represented the growing forestry industry in the area. Tobacco also remains an important fixture in the local economy (Chen et al. 2005: 13-14).

Site-Specific History

During the late nineteenth and early twentieth centuries, the project area was associated with the Gee family, which had branches throughout Lunenburg County. The earliest detailed maps of the county produced during the Civil War era do not indicate any occupation of the project area (Figure 10). While there were Gee households to the north and northeast, the nearest farmstead was occupied by the Moore family on the west side of Oral Oaks Road.

Although it was never depicted on any of the available maps of Lunenburg County, it is clear that A. L. (Louis) Gee, his wife Cornelia, and their children lived in a house on the project parcel, the remains of which were recorded by WMCAR as Site 44LU0033. As described more fully in Chapter IV, this site includes the graves of A.L. and Cornelia Gee. According to the 1910 U.S. Federal Census, A.L. Gee was a 60-year-old White farmer who owned his own farm and hired laborers. At that time, his household included his wife Cornelia (53), daughter Cornelia B. (16), and son Nevil (13) (1910 U.S. Federal Census, Ancestry.com).

In January 1919, A.L. Gee deeded his property to William A. Hawthorne, William A. Hawthorne, Jr., and Lewis Hawthorne as tenants in common (Lunenburg County Deed Book [LCDB] 62: 135). The deed specifically reserved access to the family cemetery on the property, which by then included the remains of Cornelia Gee, who had died in 1916. A.L. Gee would later be buried there after his death in 1922. The property remained in the Hawthorne family throughout the twentieth century, and ultimately came into the possession of the current owner, Virginia Hawthorne Wilson, as the result of several transactions and bequests between 1986 and 2013 (Lunenburg County Will Book 26: 519; LCDB 197: 594; LCDB 371: 332).

A USGS aerial photograph dated November 1950 indicates that the majority of the project area was wooded at that time. The only cleared portions consisted of an area directly east of Oral Oaks Road in the vicinity of the current residence; an area in the west-central portion of the property; and a smaller area in the central part of the tract (Figure 11). At least two buildings or structures were visible on the property. These most likely represented agricultural buildings such as barns or sheds, as they were not depicted on the USGS 7.5' Kenbridge West topographic quadrangle map published in 1955; however, they were still there at that time, as they are also visible on a USGS aerial photograph taken in December 1959 (Figures 12-13). These buildings were not depicted

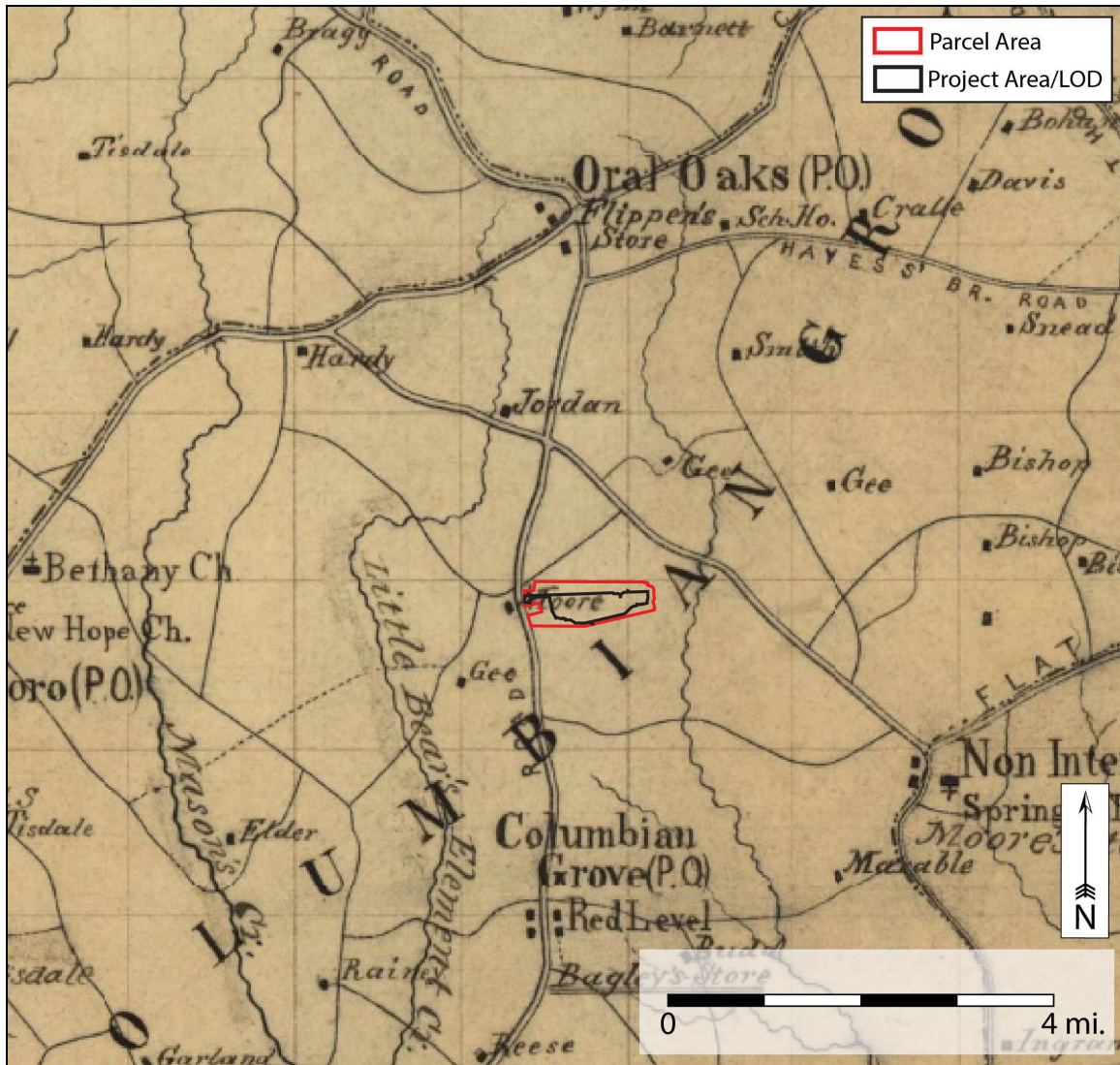


Figure 10. Location of the project area on detail of *Preliminary Map of Lunenburg County, Virginia* (Hotchkiss 1871).



Figure 11. Location of the project area on a 1950 USGS aerial photograph (EDR/Lightbox).

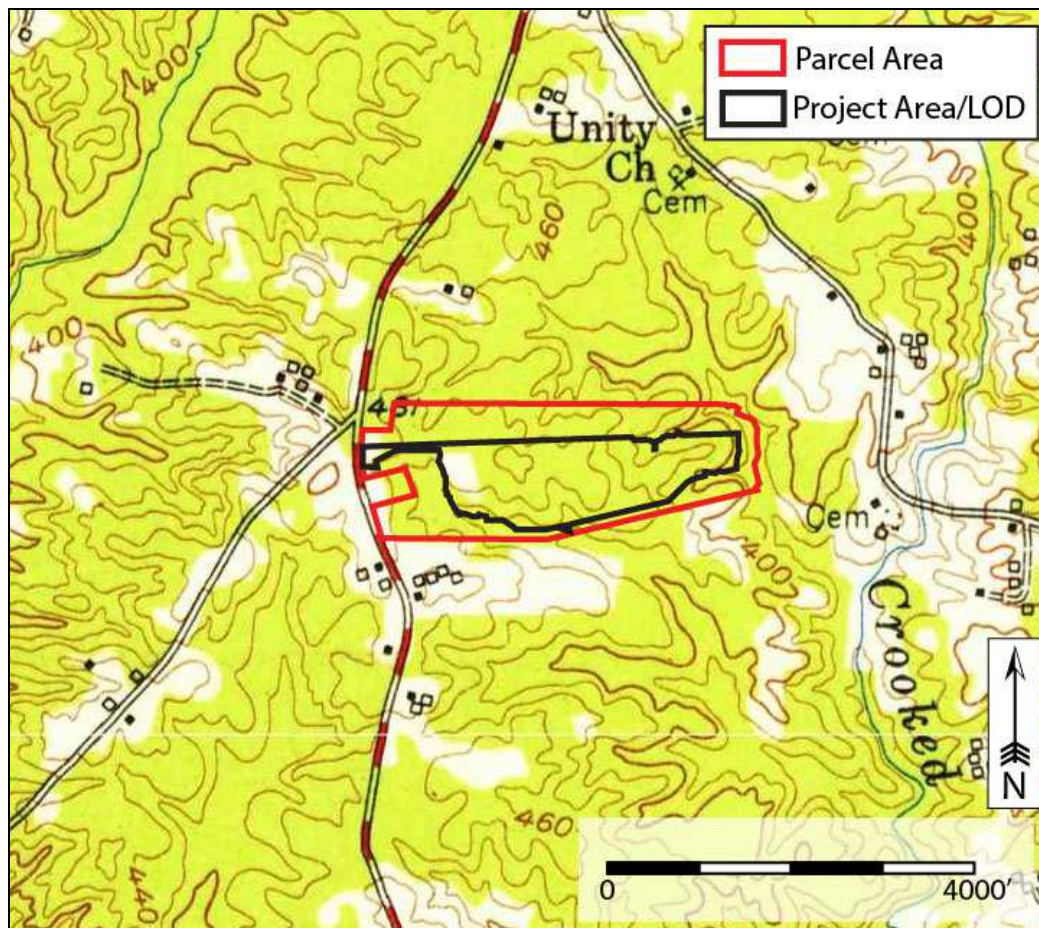


Figure 12. Location of the project area on USGS Kenbridge West topographic quadrangle map, 1955.



Figure 13. Location of the project area on a 1959 USGS aerial photograph (EDR/Lightbox).

on USGS topographic quadrangle maps from the mid-1960s through the mid-1970s, nor are they visible on a USGS aerial photograph dated March 1976 (Figures 14-16).

The most significant alteration to the project area occurred in the early 1990s, when virtually the entire parcel was clear-cut. A USGS aerial photograph taken in January 1994 clearly shows several logging/access roads, with the main road traversing the property from the northwest corner towards the southeast, with smaller branches leading from it (Figure 17). Aside from the main dwelling in the western portion of the project parcel, there were no other buildings, structures, or other significant features visible within the project area after the timbering had been conducted. The property has since been reforested with planted pine.

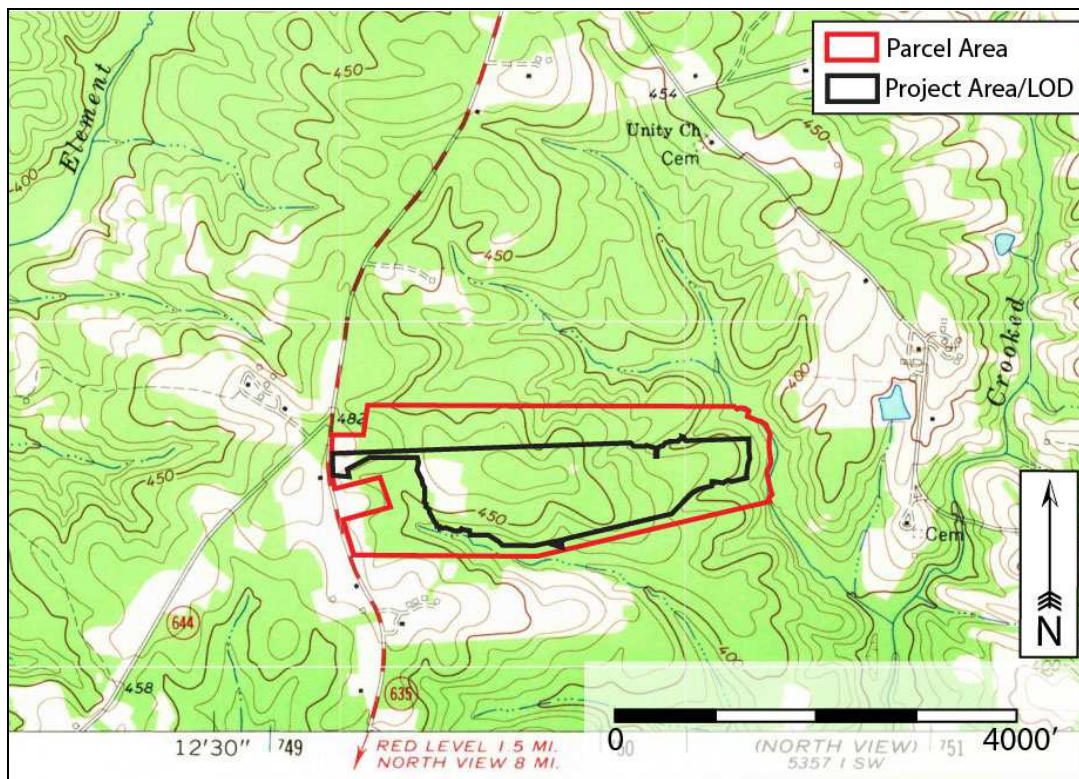


Figure 14. Location of the project area on USGS Kenbridge West topographic quadrangle map, 1966.

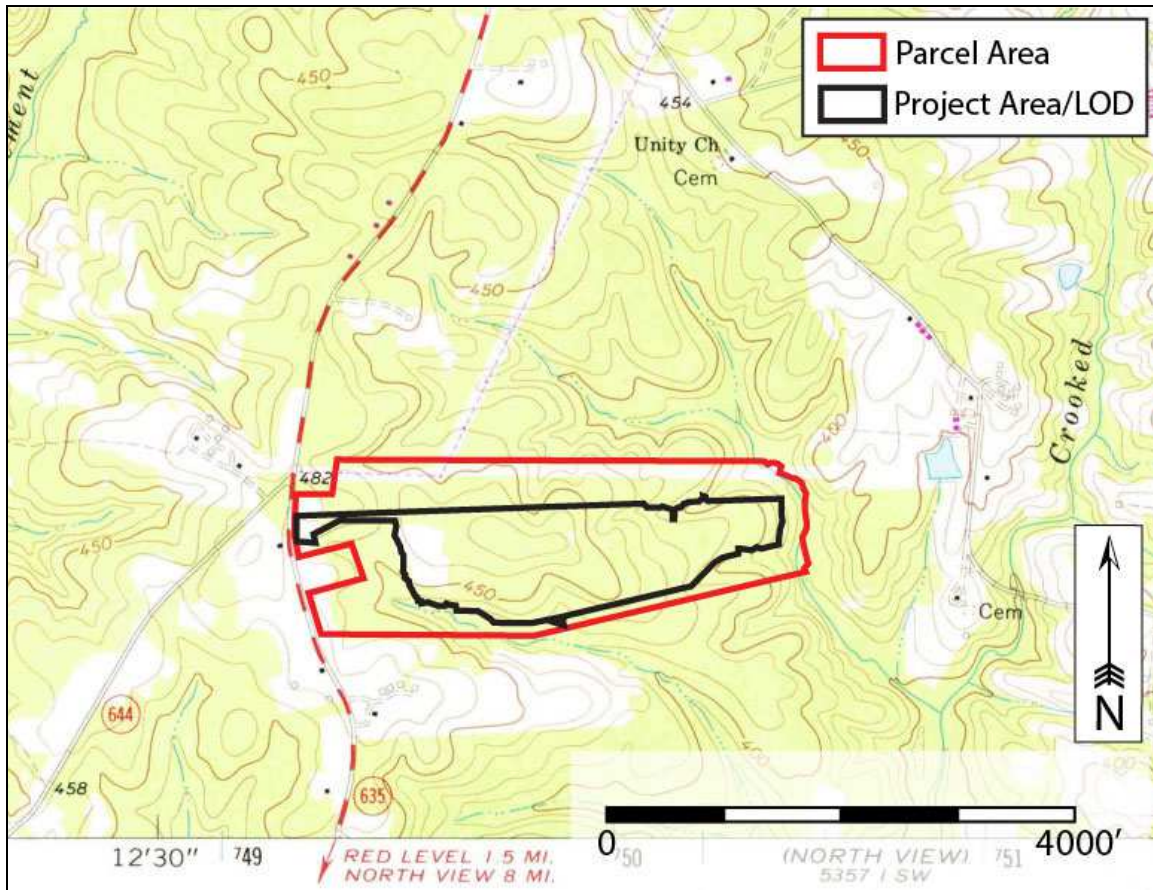


Figure 15. Location of the project area on USGS Kenbridge West topographic quadrangle map, 1974.



Figure 16. Location of the project area on a 1976 USGS aerial photograph (EDR/Lightbox).



Figure 17. Location of the project area on a 1994 USGS aerial photograph (EDR/Lightbox).

III. RESEARCH DESIGN

OBJECTIVES

The Phase I survey was designed to identify all archaeological resources present within the designated testing areas and to obtain sufficient information to make recommendations concerning their potential eligibility for inclusion in the National Register. An archaeological site is deemed significant if it is greater than 50 years old and meets at least one of the following criteria:

- A. It is associated with events that have made a significant contribution to the broad patterns of our history.
- B. It is associated with the lives of persons significant in our past.
- C. It embodies the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction.
- D. It has yielded, or may be likely to yield, information important in prehistory or history.

Criterion D—and occasionally Criterion A—typically applies to archaeological sites. In order to yield important information about the past, an archaeological site generally must possess artifacts, soil strata, structural remains, or other cultural features which make it possible to test historical hypotheses, corroborate and amplify currently available information, or reconstruct the sequence of the local archaeological record.

DEFINITIONS

Two designations for identified archaeological resources were used in this Phase I survey: *archaeological site* and *archaeological location*. As outlined in the DHR's *Guidelines for Conducting Historic Resources Survey in Virginia* (2017), an archaeological site is defined as the physical remains of any area of human activity greater than 50 years old for which a boundary can be established, and often is manifested by the presence of artifacts and/or cultural features. This definition does not apply to cultural material that has been recently redeposited or reflects casual discard. Any occurrence of artifacts which does not qualify for a site designation is termed an archaeological location. In application, defining these types of resources requires a certain degree of judgment in the field and consideration of a number of variables. Contextual factors such as prior disturbance and secondary deposition must be taken into account. The representative nature of the sample as measured by such factors as the degree of surface exposure and shovel test interval also must be considered.

METHODS

Field Methods

All Phase I archaeological fieldwork was conducted according to the DHR's *Guidelines for Conducting Historic Resource Survey in Virginia* (2017), under the direct supervision of a qualified archaeologist who meets the Secretary of the Interior's *Professional Qualifications Standards* (48 FR 44738-9). The survey included pedestrian survey of the project area, followed by the excavation of screened shovel tests along regular transects at 50-foot intervals within the designated testing areas. Four radial shovel tests were excavated at 25 feet in the four cardinal directions around each isolated positive shovel test yielding cultural materials. Each shovel test measured approximately 16 inches in diameter or larger and was excavated into sterile subsoil. The backfill was sifted through ¼-inch screen mesh. Representative soil profiles were drawn at 1 inch = 1 foot scale and recorded on standardized forms using Munsell color designators and U. S. Department of Agriculture soil texture terminology. The location of each shovel test was recorded on a 1 inch = 100 feet scale map, and all shovel tests were assigned an individual Shovel Test (ST) number. Representative shovel test and surface feature locations were recorded with a handheld Trimble GPS unit.

Laboratory Analysis and Curation

All archaeological data and specimens collected during the Phase I survey were transported to JRIA's laboratory in Williamsburg, Virginia, for processing and analysis. Prior to washing, artifacts from a given provenience were first emptied into a screened basket and sorted. Next, the provenience information from the field bags were confirmed with the bag catalog and transferred onto bag tags. Stable objects were washed with tap water using a soft brush. Edges of ceramics and glass were thoroughly cleaned to aid in the identification of body type and to assist in mending. Washed items then were placed by provenience on a drying rack.

Once dry, the artifacts were re-bagged by provenience and material type. Artifacts of a given provenience were placed in clean 2 ml thick polyethylene zip-lock bags that have been perforated to allow air exchange. Each grouped material type was placed in a separate plastic bag (i.e., all glass in one bag, all brick fragments in one bag, etc.) and each of these individual type bags were then placed in a larger bag with the bag tag noting the provenience.

After processing and re-bagging, the entire artifact assemblage was cataloged for analysis. Stylistic attributes of diagnostic artifacts were described using current terminology and were recorded by count into a database for analysis. Non-diagnostic artifacts such as brick and oyster shell were weighed, not counted. Once all the artifacts were cataloged, ceramics were pulled from their bags and marked with correct provenience information. Diagnostic ceramics were sorted and grouped together based on type or ware and/or vessel or function and checked for crossmends. Analysis of historic artifacts was aided by reference works such as *The Parks Canada Glass Glossary* (Jones and Sullivan 1989), the *Guide to Artifacts of Colonial America* (Noël Hume

1969), and the *Colonial Williamsburg Foundation Laboratory Manual* (Pittman et al. 1987).

At the conclusion of the investigation, all artifacts and other associated project materials were returned to the property owner.

IV. PHASE I TESTING RESULTS

As stipulated in the Phase I archaeological testing plan, JRIA archaeologists first conducted a pedestrian survey of the project area to identify potential surface features, and to determine the testing locations within the defined areas of moderate and low archaeological potential. The pedestrian survey was hampered to some extent by the current conditions throughout much of the project area. As a result of past logging and clearing activities, the property is characterized by an understory of young pines, hardwoods, and opportunistic vines, and offers virtually no surface visibility. Movement was also hampered by fallen timber throughout. No landscape features, artifact concentrations, or other potentially significant cultural resources were identified during the pedestrian survey.

The JRIA Field Director then designated the specific testing areas to include 21 acres, expanding slightly on the originally proposed 20-acre total to address specific site conditions (Figure 18). The three high-potential areas included Survey Area 1 (one acre), Survey Area 2 (0.2 acre), and Survey Area 3 (one acre). The moderate potential areas included Survey Area 6 (2.9 acres), Survey Area 7 (2.9 acres), and Survey Area 9 (nine acres). Finally, the low probability areas included Survey Areas 4, 5, and 8, each encompassing one acre. The subsequent shovel testing confirmed that soil stratigraphy throughout the project area was significantly deflated, and some areas had little to no remaining topsoil.

Survey Area 1

Survey Area 1 was situated within the central portion of the project area, approximately 200 feet south of the overhead power line easement and immediately southwest of a small cleared area. Testing focused on the map-projected location of a possible outbuilding depicted in 1950s aerial photographs. JRIA archaeologists excavated 16 shovel tests within this area, none of which was positive (Figure 19). Significant portions of this area had been disturbed by past logging and clearing activities, and no surface or subsurface evidence of the map-projected structure were identified. Typical soil stratigraphy within this area consisted of approximately 0.5 foot of dark grayish brown (10YR 4/2) sand over strong brown (7.5Y 5/8) culturally sterile clay subsoil (Figure 20).

Survey Area 2

Survey Area 2 was centered on a berm complex located just south of an east-west trail, and 300 feet south of the overhead power line easement. Four shovel tests were excavated radially around the center point of the complex, none of which was positive (See Figure 19). Closer examination of the berm complex identified a deep logging road running along its southern edge, with several push piles adjacent to it. Given its evident association with the logging road and push piles, it appears likely that these berms represent modern features resulting from timbering activities. Typical soil stratigraphy within this area was highly deflated, and consisted of approximately 0.1 foot of very dark grayish brown (10YR 3/2) sand over strong brown (7.5Y 5/8) culturally sterile clay subsoil (see Figure 20).

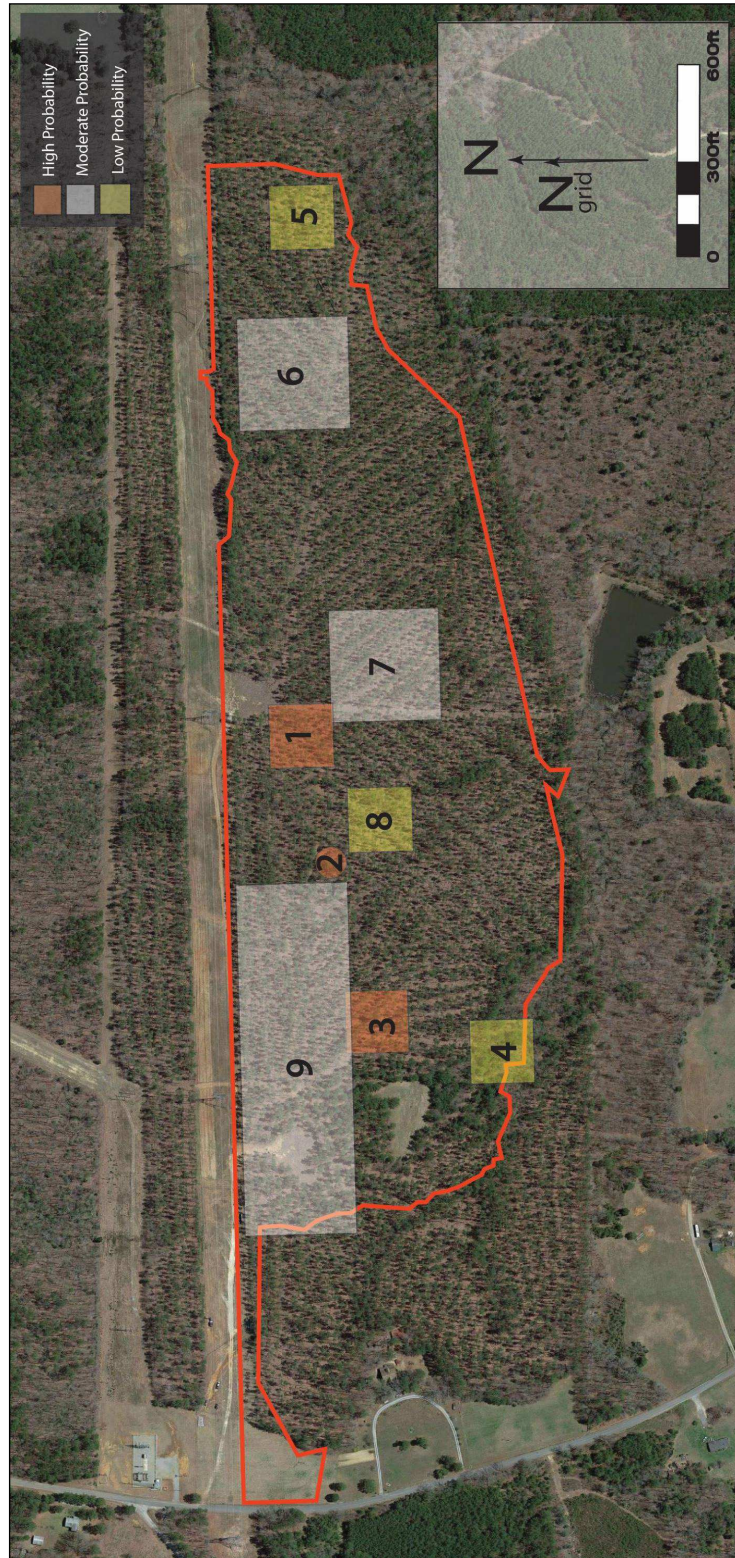


Figure 18. Location of the survey areas.

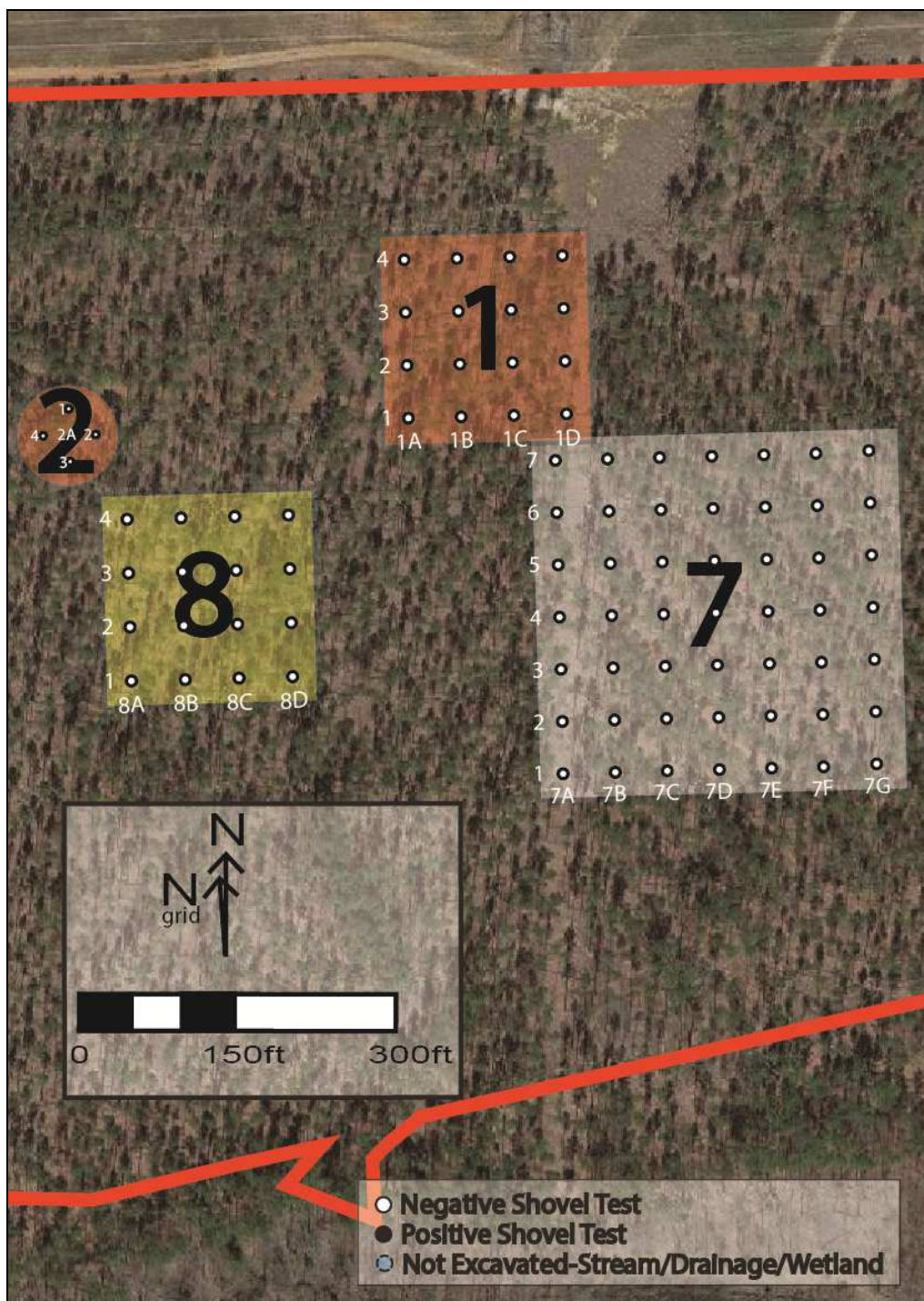


Figure 19. Location of shovel tests in Survey Areas 1, 2, 7, and 8.

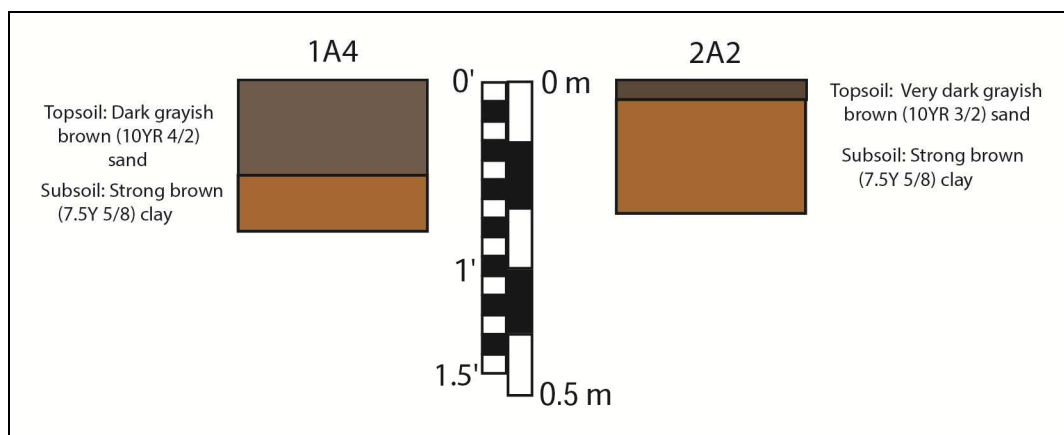


Figure 20. Representative shovel test profiles, Survey Areas 1 and 2.

Survey Area 3

Survey Area 3 was located approximately 200 feet east of a maintained clearing, and was centered on the projected location of a possible outbuilding depicted in 1950s aerial photographs. JRIA archaeologists initially excavated 16 shovel tests within this area, none of which was positive (Figure 21). In the course of shovel testing, two fragments of twentieth-century, colorless, non-leaded, machine-molded glass, most likely from a bowl, were recovered on the ground surface just east of Shovel Test 3A4 (Appendix A). Four radial shovel tests were then excavated around Shovel Test 3A4, one of which (3A4S) yielded two fragments of twentieth-century colorless non-leaded hollowware glass. There was no surface or subsurface evidence of a structure in this location, and the handful of non-architectural artifacts recovered most likely represented a single episode of casual loss or discard of domestic refuse. As a result, these finds were designated as an archaeological location (Location 1). Typical soil stratigraphy within this area consisted of approximately 0.3 foot of dark grayish brown (10YR 4/2) sand over yellowish brown (10Y 5/8) and strong brown (7.5Y 5/8) culturally sterile clay subsoil (Figure 22).

Survey Area 4

Survey Area 4 was located in an area of low archaeological potential near the southwest corner of the project area, roughly 200 feet south of a maintained clearing. JRIA archaeologists excavated 16 shovel tests in this area (see Figure 21). Two of the shovel tests (4B1 and 4C1) were not completed because they were within hydric wetland soils. None of the shovel tests was positive and no surface artifacts or features were identified. Typical soil stratigraphy within this area consisted of approximately 0.4 foot of dark grayish brown (10YR 4/2) sand and 0.6 foot of light yellowish brown (10YR 6/4) sand "E" horizon over brownish yellow (10Y 6/8) culturally sterile clay subsoil (see Figure 22).

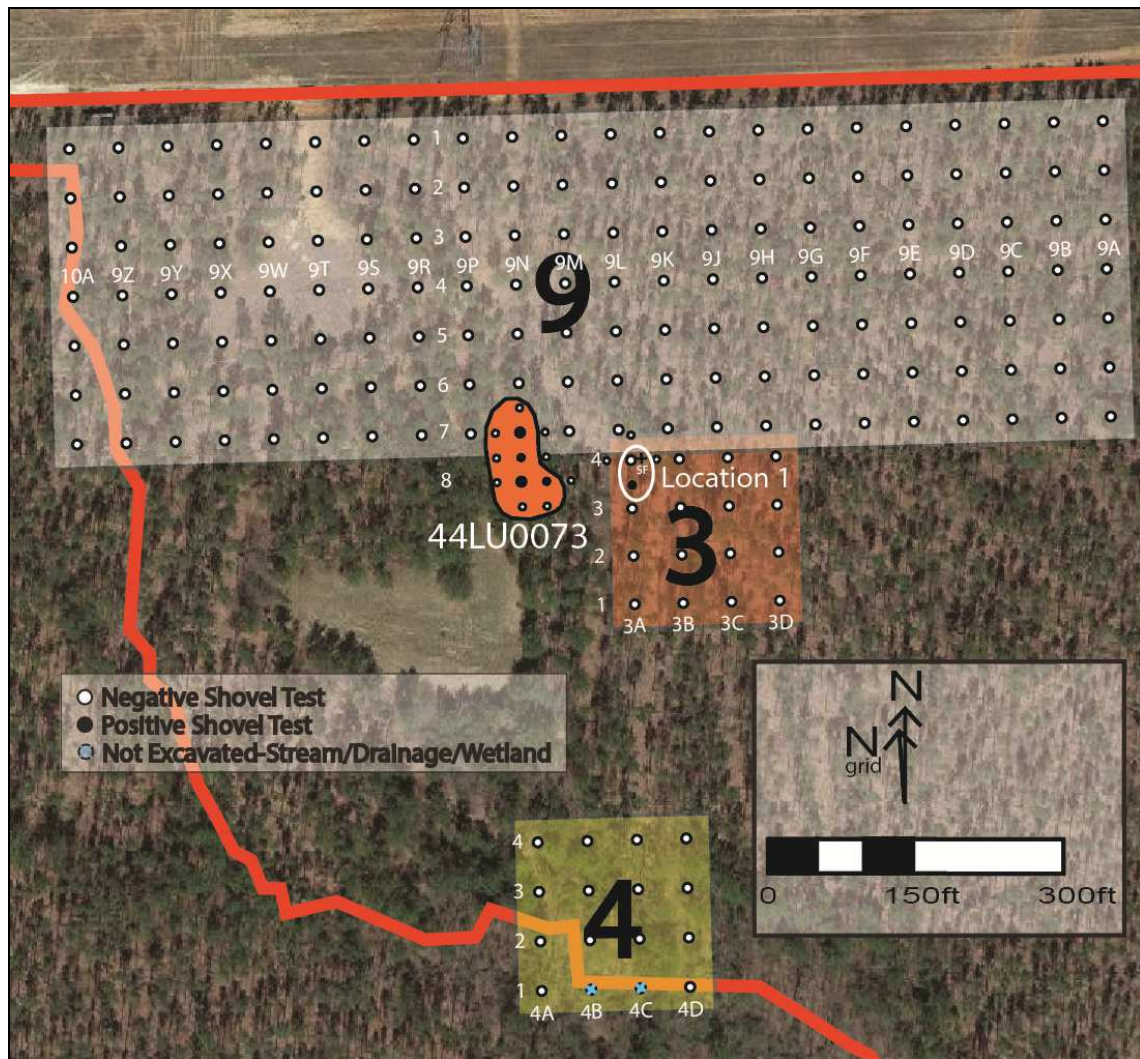


Figure 21. Location of shovel tests in Survey Areas 3, 4, and 9.

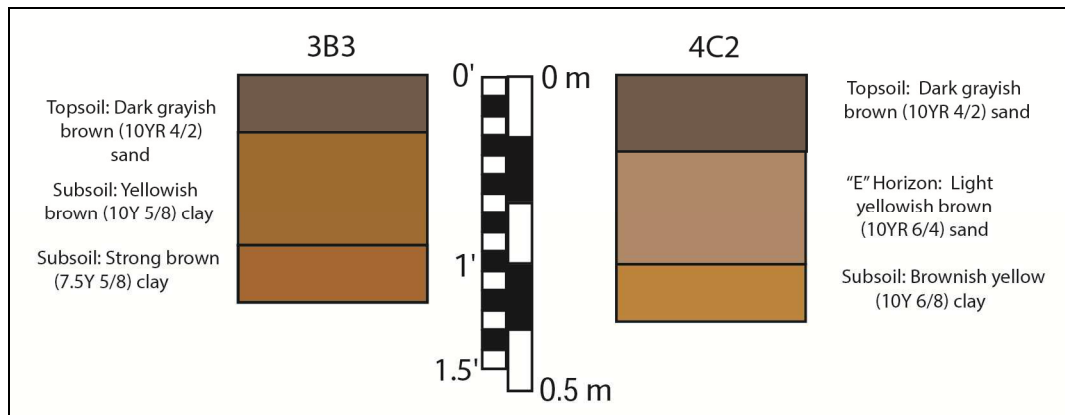


Figure 22. Representative shovel test profiles, Survey Areas 3 and 4.

Survey Area 5

Survey Area 5 was located in an area of low archaeological potential near the southeast corner of the project area, on a slope of approximately ten percent leading down to an intermittent drainage. JRIA archaeologists excavated 16 shovel tests in this area. None of the shovel tests was positive, and no surface artifacts or features were identified (Figure 23). Typical deflated soil stratigraphy within this area consisted of approximately 0.1 foot of very dark grayish brown (10YR 3/2) sand over brownish yellow (10Y 6/6) and strong brown (7.5Y 5/6) culturally sterile clay subsoil (Figure 24).

Survey Area 6

Survey Area 6 was situated in an area of moderate archaeological potential within the eastern portion of the project area. JRIA archaeologists excavated 49 shovel tests in this area. None of the shovel tests was positive, and no surface artifacts or features were identified (see Figure 23). Typical deflated soil stratigraphy within this area consisted of approximately 0.1 foot of dark grayish brown (10YR 4/2) sand over light yellowish brown (10YR 6/6) and strong brown (7.5YR 5/8) culturally sterile clay subsoil (see Figure 24).

Survey Area 7

Survey Area 7 was situated in an area of moderate archaeological potential within the central portion of the project area. JRIA archaeologists excavated 49 shovel tests in this area, none of which was positive, and no surface artifacts or features were identified (see Figure 19). Significant ground disturbances were observed within the northern portion of the survey area, and along a cleared trail running through its western half. Typical deflated soil stratigraphy within this area consisted of approximately 0.2 foot of dark grayish brown (10YR 4/2) sand over strong brown (7.5Y 5/8) culturally sterile clay subsoil (Figure 25).

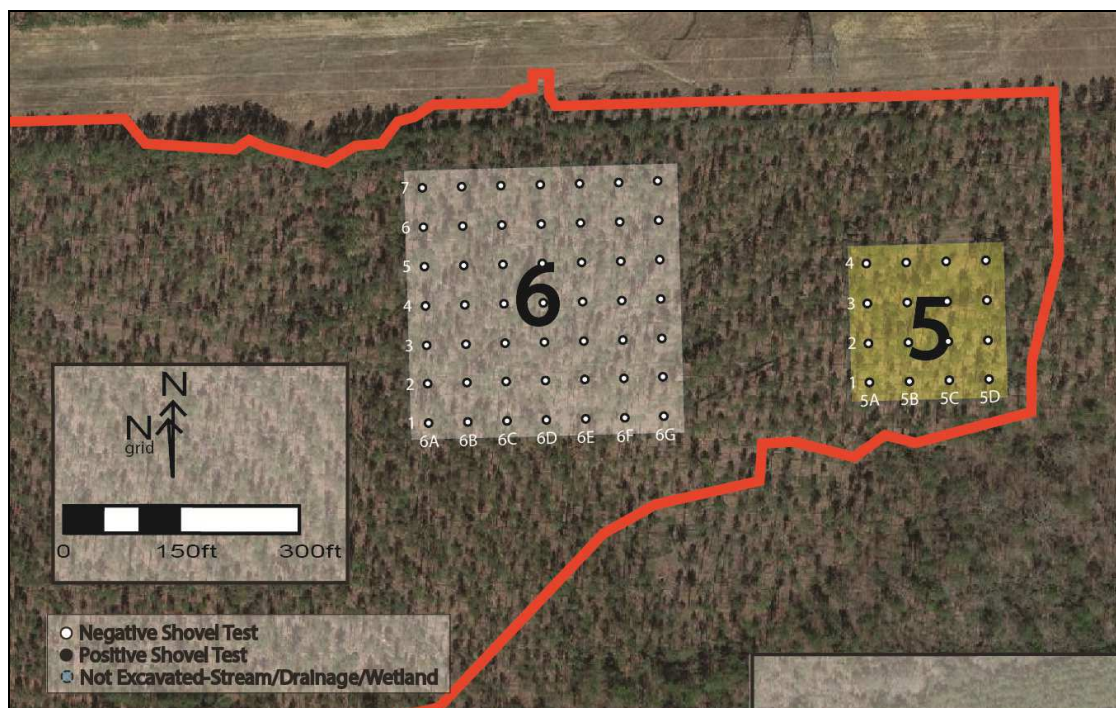


Figure 23. Location of shovel tests in Survey Areas 5 and 6.

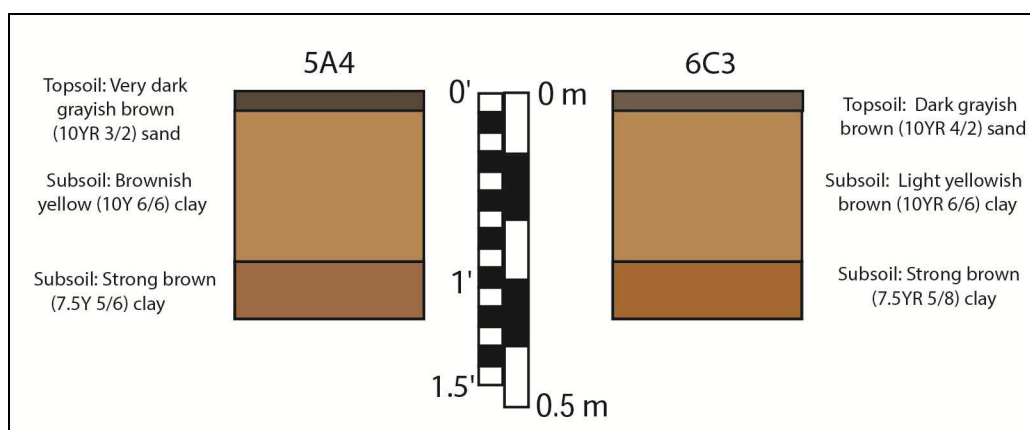


Figure 24. Representative shovel test profiles, Survey Areas 5 and 6.

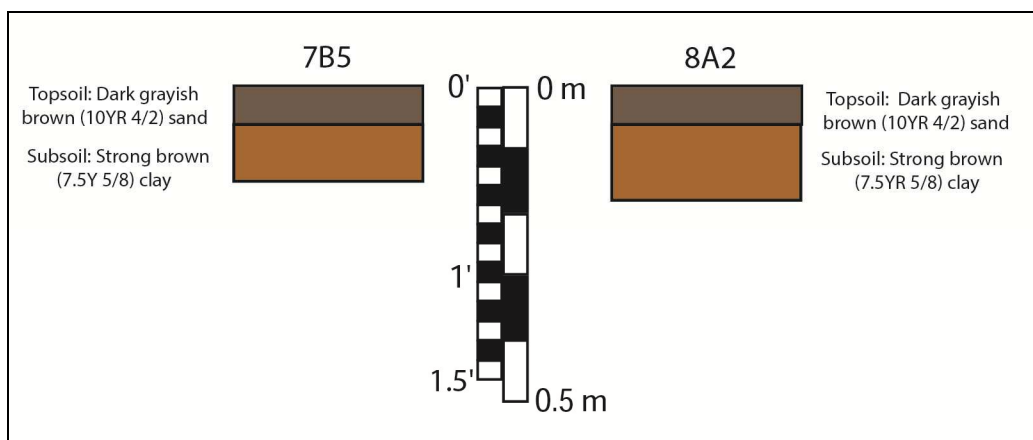


Figure 25. Representative shovel test profiles, Survey Areas 7 and 8.

Survey Area 8

Survey Area 8 was located in an area of low archaeological potential on a modest slope in the central portion of the project area. JRIA archaeologists excavated 16 shovel tests in this area, none of which was positive, and no surface artifacts or features were identified (see Figure 19). Typical soil stratigraphy consisted of approximately 0.5 foot of grayish brown (10YR 5/2) sand over strong brown (7.5YR 5/8) and red (2.5YR 4/8) culturally sterile silty clay/clay subsoil (see Figure 25).

Survey Area 9

Survey Area 9 was situated in an area of moderate archaeological potential within the northwest portion of the project area. JRIA archaeologists initially excavated 154 shovel tests in this area, one of which (9N7) yielded a single sherd of ironstone whiteware ceramic (ca. 1842-present) (see Figure 21). In order to further investigate this find, JRIA archaeologists excavated an additional 11 shovel tests extending beyond the defined testing area. Of these, three (9N7S, 9N8, 9N8E) were positive, yielding various domestic artifacts including colorless non-lead glass fragments (one hollowware, one flatware, one table glass, and two bottle), one amber glass bottle fragment, two solarized pressed glass hollowware fragments, 17 fragments of whiteware “Ironstone/Granite” hollowware (evidently from the same vessel), and 1.8 g of charcoal. This relatively small cluster of domestic artifacts was situated just within the wood line surrounding the maintained clearing, and was recorded in the DHR’s Virginia Cultural Resource Information System (V-CRIS) as Site 44LU0073. No surface remains or features were identified within the site area. Typical soil stratigraphy within this area varied, with brown (10YR 5/3) and grayish brown (10YR 5/2) sand topsoil with depths of 0.2-0.5 foot over culturally sterile subsoil of strong brown (7.5YR 5/6 or 7.5YR 5/8) clay/silty clay and red (2.5YR 4/8) clay (Figure 26).

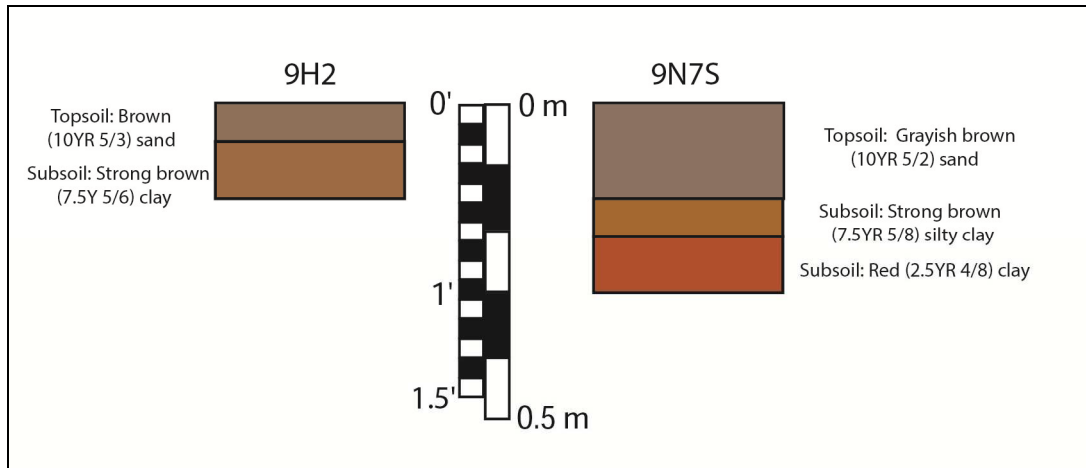


Figure 26. Representative shovel test profiles, Survey Area 9.

V. CONCLUSIONS AND RECOMMENDATIONS

JRIA identified one site (44LU0073) and one archaeological location as a result of the Phase I archaeological survey, which included pedestrian survey and shovel testing within 21 acres of defined areas of high, moderate, and low archaeological probability.

Site 44LU0073 was manifested by a relatively small cluster of ceramics and glasswares along the fringes of a maintained clearing. The low density of artifacts, combined with the absence of any surface or subsurface evidence of architectural remains or other significant features, suggest that these materials represent an isolated episode of refuse disposal sometime between the late nineteenth century and the mid-twentieth century, rather than a domestic occupation or some other sustained activity. Similarly, there is no documentary evidence of a significant domestic occupation in this location during that period. This site lacks interpretable artifact deposits or features which would provide meaningful data concerning the historic use and occupation of this property. As a result, JRIA recommends that Site 44LU0073 is not eligible for listing in the National Register of Historic Places, and that no further investigation is warranted.

A small cluster of artifacts identified in Survey Area 3 evidently were the result of casual loss or discard and so were designated as an archaeological location (Location 1). By definition, archaeological locations are ineligible for listing in the National Register, and JRIA recommends no further testing. No architectural evidence was identified in either location of the map-projected ca. 1950s-era structures, while the berm complex most likely resulted from modern timbering activities.

Based on the results of the probability-based sampling strategy, JRIA recommends that no significant archaeological resources will be affected by the proposed solar project.

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APPENDIX A: ARTIFACT CATALOG

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Kenbridge Ph I

State Site # 44LU0073

Provenience:		Material 1	Material 2	Form	Portion/Element	Qty	Size	Wgt (g)	Notes	Artifact No.
Type	Context Layer	Other								
2-ST	9N7	CEARTHENWARE	WHITE IRONSTONE/GRANITE	HOLLOWWARE	RIM FRAGMENT	1		0.0		3
2-ST	9N7S	CEARTHENWARE	WHITE IRONSTONE/GRANITE	HOLLOWWARE	FRAGMENT	16		0.0		7
2-ST	9N7S	PCHARCOAL		CHARCOAL	FRAGMENT	1		1.2		4
2-ST	9N7S	SGLASS	GLASS COLORLESS NON-LEADED	FLAT GLASS	FRAGMENT	1		0.0		6
2-ST	9N7S	SGLASS	GLASS COLORLESS NON-LEADED	HOLLOWWARE	FRAGMENT	1		0.0		5
2-ST	9N8	CEARTHENWARE	WHITE IRONSTONE/GRANITE	HOLLOWWARE	FRAGMENT	1		0.0		8
2-ST	9N8E	PCHARCOAL		CHARCOAL	FRAGMENT	1		0.6		13
2-ST	9N8E	SGLASS	GLASS AMBER	BOTTLE	FRAGMENT	1		0.0		12
2-ST	9N8E	SGLASS	GLASS COLORLESS NON-LEADED	BOTTLE	FRAGMENT	2		0.0		11
2-ST	9N8E	SGLASS	GLASS COLORLESS NON-LEADED	TABLE GLASS	FRAGMENT	1		0.0		9
2-ST	9N8E	SGLASS	GLASS SOLARIZED, PRESSED	HOLLOWWARE	FRAGMENT	1		0.0		10

State Site # AL-1

Provenience:		Material 1	Material 2	Form	Portion/Element	Qty	Size	Wgt (g)	Notes	Artifact No.
Type	Context Layer	Other								
1-SC	3A4	SGLASS	GLASS COLORLESS NON-LEADED	HOLLOWWARE	FRAGMENT	2		0.0		1
2-ST	3A4S	SGLASS	GLASS COLORLESS NON-LEADED	BOWL	BASE/BODY FRAGMENT	2		0.0	20th century machine-molded	2

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**APPENDIX B: V-CRIS RECORD FOR SITE
44LU0073**

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Snapshot

Date Generated: November 02, 2022

Site Name: No Data
Site Classification: Terrestrial, open air
Year(s): No Data
Site Type(s): Artifact scatter
Other DHR ID: No Data
Temporary Designation: Site 1

Site Evaluation Status

Not Evaluated

Locational Information

USGS Quad: KENBRIDGE WEST
County/Independent City: Lunenburg (County)
Physiographic Province: Piedmont
Elevation: 470
Aspect: Facing South
Drainage: Albemarle-Chowan
Slope: 2 - 6
Acreage: 0.150
Landform: Terrace
Ownership Status: Private
Government Entity Name: No Data

Site Components

Component 1

Category: Domestic
Site Type: Artifact scatter
Cultural Affiliation: Indeterminate
Cultural Affiliation Details: No Data
DHR Time Period: Reconstruction and Growth, The New Dominion, World War I to World War II
Start Year: No Data
End Year: No Data
Comments: This small scatter of domestic refuse evidently dates to the first half of the twentieth century.

Bibliographic Information

Bibliography:

No Data

Informant Data:

No Data

CRM Events

Event Type: Survey:Phase I

Project Staff/Notes:

The Principal Investigator for the project was JRIA Partner and Senior Researcher Matthew R. Laird, Ph.D., RPA. The archaeological fieldwork was conducted by Field Directors Anthony W. Smith, M.A., and Allison Romo, M.A., RPA, with the assistance of Kira Alfano, Michelle Bouquet, Chloe Scaff, and Colleen Wampler. Dr. Laird conducted the documentary research for the project and authored the final report with contributions from Mr. Smith. The artifacts were processed by Barry Phelps and cataloged by JRIA Curator Kelly Ladd-Kostro.

Project Review File Number:

No Data

Sponsoring Organization:

No Data

Organization/Company:

James River Institute for Archaeology, Inc.

Investigator:

Matthew Laird

Survey Date:

10/4/2022

Survey Description:

Based on the results of a Phase IA cultural resources assessment, JRIA prepared an archaeological probability model which divided the project area into areas of high, moderate, and low probability for significant archaeological resources, and detailed a proposed Phase I archaeological work plan with a probability-based sampling strategy.

JRIA recommended that the Phase I archaeological testing plan should be organized around a probability-based testing strategy. Three defined areas of high archaeological potential (one acre) would be investigated through visual inspection and the excavation of screened shovel tests at intervals of 50 feet or less. For the defined areas of moderate archaeological potential, JRIA recommended that a 50-percent sample of the total area (16 acres) should be tested through shovel testing along regular transects at intervals not exceeding 50 feet. The remaining areas would then be subjected to visual survey. For areas of defined low potential, shovel testing would be conducted within a 10-percent sample area (three acres), with the remainder investigated through visual survey. In areas of moderate and low potential, any potential sites identified through shovel testing and/or visual inspection and/or would then be fully investigated and defined through shovel testing at 50- and 25-foot intervals. Any wetland areas within the project area would be visually inspected, but no shovel testing would be conducted unless visible evidence of potential archaeological resources was observed.

In September 2022, Cultural Resources Specialist Chris Egghart of the Virginia Department of Environmental Quality (DEQ) concurred with JRIA's proposed probability-based testing strategy, and JRIA completed the Phase I archaeological survey in October 2022. The research design for the Phase I survey was to identify all archaeological resources present within the defined testing areas and to obtain sufficient information to make recommendations concerning the potential eligibility of each resource for inclusion in the National Register of Historic Places (National Register). The documentary research and fieldwork were conducted at a level in compliance with the Secretary of the Interior's standards (Department of the Interior 1983, 48 FR 44720-44723), as well as the Virginia Department of Historic Resources (DHR) Guidelines for Conducting Historic Resources Survey in Virginia (2017).

Current Land Use

Forest

Date of Use

10/5/2022 12:00:00 AM

Comments

No Data

Threats to Resource:

None Known

Site Conditions:

No Surface Deposits but With Subsurface Integrity

Survey Strategies:

Subsurface Testing

Specimens Collected:

Yes

Specimens Observed, Not Collected:

No

Artifacts Summary and Diagnostics:

Artifacts recovered from the four positive shovel tests included colorless non-lead glass fragments (one hollowware, one flatware, one table glass, and two bottle), one amber glass bottle fragment, two solarized pressed glass hollowware fragments, 17 fragments of Ironstone whiteware, evidently from the same hollowware vessel, and 1.8 g of charcoal.

Summary of Specimens Observed, Not Collected:

No Data

Current Curation Repository:

JRIA

Permanent Curation Repository:

DHR

Field Notes:

Yes

Field Notes Repository:

DHR

Photographic Media:

Digital

Survey Reports:

Yes

Survey Report Information:

Matthew R. Laird and Anthony W. Smith, Phase I Archaeological Survey of 20 Acres of the Proposed Kenbridge Solar Project Area, Lunenburg County, Virginia. James River Institute for Archaeology, Inc., Williamsburg, Virginia.

Survey Report Repository:

DHR

DHR Library Reference Number:

No Data

Significance Statement:








This small site evidently represents an episode of refuse disposal sometime between the late nineteenth- and mid-twentieth centuries, rather than a domestic occupation or some other

Surveyor's Eligibility Recommendations:	sort of sustained activity. Because it offers no further research potential, JRIA recommends that the site is not eligible for listing in the National Register of Historic Places, and that no further investigation is warranted.
Surveyor's NR Criteria Recommendations, :	Recommended Not Eligible
Surveyor's NR Criteria Considerations:	No Data
	No Data



Virginia Cultural Resource Information System

Legend

-  Architecture Resources
-  Architecture Labels
-  Individual Historic District Properties
-  Archaeological Resources
-  Archaeology Labels
-  DHR Easements
-  County Boundaries



Feet



Title: Archaeological Resources

Date: 11/2/2022

DISCLAIMER: Records of the Virginia Department of Historic Resources (DHR) have been gathered over many years from a variety of sources and the representation depicted is a cumulative view of field observations over time and may not reflect current ground conditions. The map is for general information purposes and is not intended for engineering, legal or other site-specific uses. Map may contain errors and is provided "as-is". More information is available in the DHR Archives located at DHR's Richmond office.

Notice if AE sites: Locations of archaeological sites may be sensitive the National Historic Preservation Act (NHPA), and the Archaeological Resources Protection Act (ARPA) and Code of Virginia §2.2-3705.7 (10). Release of precise locations may threaten archaeological sites and historic resources.



COMMONWEALTH of VIRGINIA

Travis A. Voyles
Acting Secretary of Natural
and Historic Resources

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

Julie V. Langan
Director
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Fax: (804) 367-2391
www.dhr.virginia.gov

February 3, 2023

Stephen Quina
VHB
115 South 15th Street,
Suite 200
Richmond, Virginia 23219

RE:

Kenbridge Solar Facility
Lunenburg County, Virginia
DHR File No. 2022-5270

Dear Mr. Quina:

We have received for review the *Ameresco – Kenbridge Solar Architectural Survey Summary Report Lunenburg County, VA*, prepared by Ameresco. We provide the following comments in support of an application to the Department of Environmental Quality (DEQ) for a Permit-by-Rule to construct and operate a small solar project in Lunenburg County, Virginia.

The survey identifies five historic architectural resources within the area of study. There is currently no record of this property in the Virginia Cultural Resources Information System (VCRIS), and the two previously surveyed properties in the report do not appear to have been updated.

In order to review eligibility, a survey meeting DHR's standards must be completed. The survey must be conducted by qualified professionals in accordance with DHR's, "Guidelines for Conducting Historic Resources Survey in Virginia" (October 2011, Revised 2017). https://www.dhr.virginia.gov/wp-content/uploads/2018/06/SurveyManual_2017.pdf Two hardcopies and one digital copy of the resulting report should be submitted to our office for review and approval prior to any ground disturbance. Once we have the results of the survey, we will be able to advise you whether any further investigations and/or mitigative actions are warranted.

Two bound copies and one digital copy of the resulting report should be submitted to our office for review and approval prior to proceeding with the project. It should be noted that all archival material for the architectural study must be submitted and approved by our Archives before we can complete our review of the report. Once we have the results of the surveys, we will be able to advise you whether any further investigations and/or other actions are warranted.

Western Region Office
962 Kime Lane
Salem, VA 24153
Tel: (540) 387-5443
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

If you have any questions regarding these comments, please contact me at 804-482-8091 or via email, jennifer.bellville-marrion@dhr.virginia.gov.

Sincerely,



Jenny Bellville-Marrion, Project Review Archaeologist
Review and Compliance Division

cc. Adrienne Birge-Wilson, DHR
Chris Egghart, DEQ
Matthew Laird

Ameresco – Kenbridge Solar Architectural Survey Summary Report

Lunenburg County, VA

PREPARED FOR



111 Speen Street
Framingham, MA 01701
508.661.2200

PREPARED BY



351 McLaws Circle
Suite 3
Williamsburg, VA 23693
757.220.0500

June 2022

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Introduction

Ameresco, Inc. is proposing a potential solar farm development project on an undeveloped parcel of land at 5874 Oral Oaks Road located in Kenbridge, Lunenburg County, Virginia. On behalf of Ameresco, Inc., VHB conducted an architectural survey to identify potential historic properties within the vicinity of the potential solar farm site. This report summarized the results of that survey.

Project Summary

The proposed solar farm would consist of an approximately 16-megawatt direct current (MWdc) ground-mounted photovoltaic facility on approximately 114 acres of land on the east side of Oral Oaks Road in Kenbridge. The project is proposed to include portions of County Parcels 058-0A-0-29 and 058-0A-0-31 located south of the bisecting transmission lines right-of-way. The equipment on the site would be no taller than 15 feet, and the solar panels used would be no-glare or low-glare. The exterior of the site would be enveloped in a vegetation buffer of at least 50 feet in width and 15 feet in height to limit the views of the solar farm from adjacent properties. Existing canopy trees would be used to create the buffer, and supplemental plantings would be added as needed to ensure a sufficient visual buffer.

To support this project, an architectural survey was conducted on June 13, 2022, to identify any structures, buildings, or objects 50 years old or older that may be affected by the project, consistent with the Virginia Department of Environmental Quality (DEQ) Solar Permit by Rule (PBR) Guidance as well as the Virginia Department of Historic Resource (DHR) *Guidelines for Conducting Historic Resources Survey In Virginia*.

Area of Potential Effects

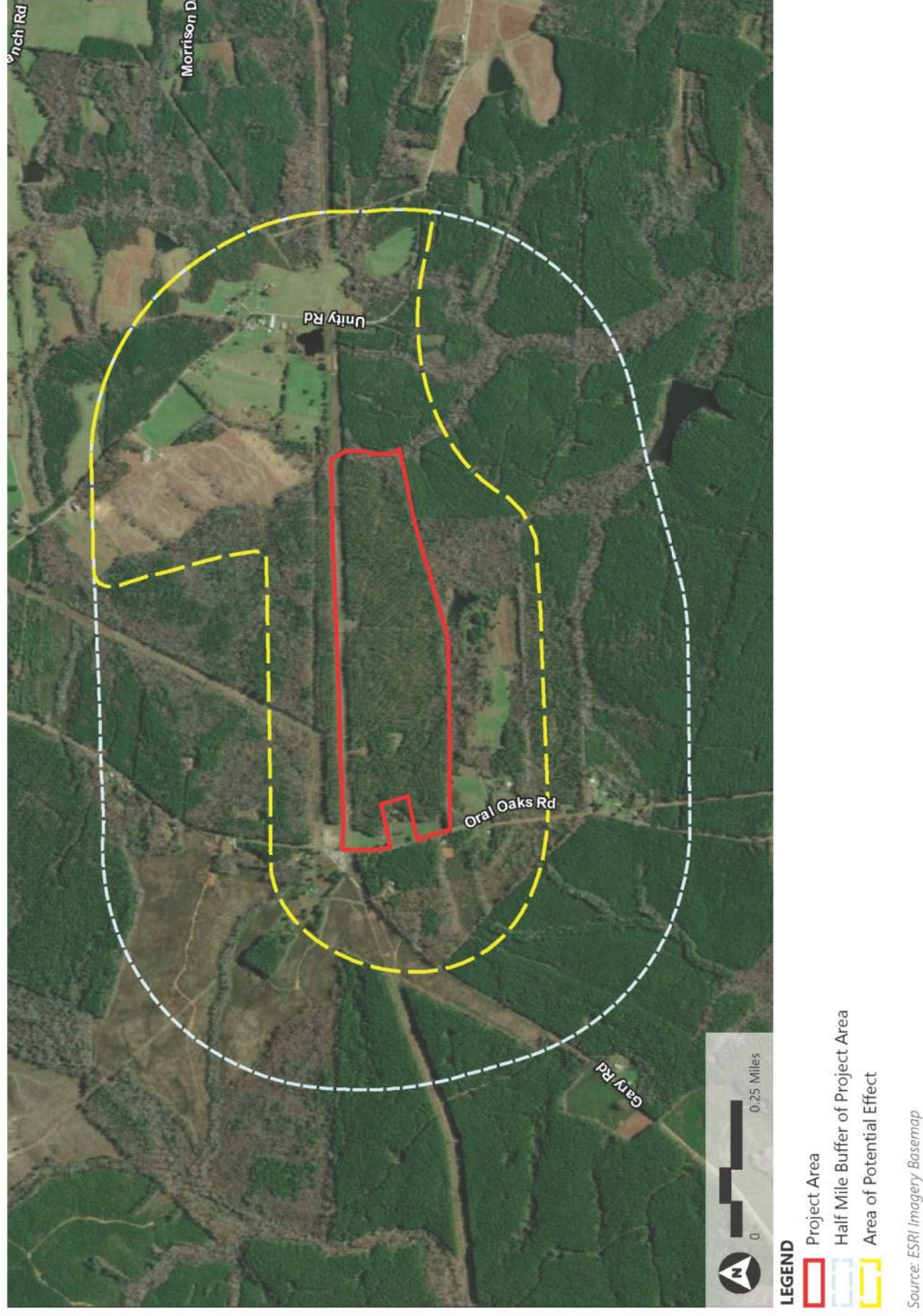
Prior to conducting the field survey, an area of potential effects (APE) for historic properties was delineated. The APE defines the area in which the project may affect historic properties if any exist. The APE for this project includes the area of disturbance for the proposed solar farm development, as well as a buffer around the site to account for potential setting, visual, or other indirect impacts from construction activities. A half-mile buffer was used as a screening tool to determine from where the potential solar site would be visible. Properties within that buffer from where the potential site would not be visible due to topography or heavy vegetation were excluded from the APE, per PBR Guidance, Section II Methodology. As a result of this screening, the APE for the potential solar farm in Kenbridge is roughly 560 acres in size and is depicted on Figure 1 below.

Figure 1: Area of Potential Effect

Ameresco - Kenbridge Solar Site | Lunenburg County, Virginia



June 30, 2022



Identification of Historic Properties

The following sections detail VHB's efforts to identify any potential historic properties within the APE, including resources previously identified. This was achieved through a combination of desktop review and field survey.

Previously Identified Resources

Prior to conducting the field survey, VHB did a search of the DHR online Virginia Cultural Resource Information System (V-CRIS) to identify any previously identified historic resources within the APE. Three properties were identified in the V-CRIS system as having been previously surveyed, but all were determined to be not eligible for listing in the National Register of Historic Places (National Register).¹ The first (DHR ID# 055-0145) is a single-family, 2-story, I-house built circa 1870 that is typical and characteristic to the region. The second (DHR ID# 055-0154) is a mid-19th century hall-and-parlor farmhouse built circa 1846. It is associated with a farmstead that has been converted to a modern sheep farm; several outbuildings of the sheep farm are extant. The third resource (DHR ID# 055-0153) was a typical I-house constructed circa 1900 that was demolished prior to 2002.

Field Survey Methodology

The primary objectives during this field survey were to identify any previously unrecorded resources over 50 years old within the APE, assess the integrity of any newly recorded resources, and then to evaluate those resources through the application of criteria set forth by the National Register. VHB used the DEQ Solar PBR Guidance as well as the DHR *Guidelines for Conducting Historic Resources Survey In Virginia* to develop methodology for conducting the field survey. The Virginia DEQ Solar PBR Guidance, Section II Methodology states that the architectural survey data "should be current within seven years of the submission date." As such, VHB surveyed and documented all properties 43 years old or older because they would reach the 50-year-old threshold within seven years.

Desktop Review and Background Research

Prior to undertaking the survey, a desktop review was undertaken to identify the potential resources 43 years old or older with the APE. Historic aerial photographs were analyzed and compared to current aerial photographs, as were historic USGS topographic maps of the APE and vicinity. Field maps were created identifying those resources suspected to be 43 years old or older to be confirmed in the field. Additional background research was conducted in order to place the APE in its historical context. This research guided the field methods, provided data pertaining to changes in the natural and built landscape, and provided a context for the National Register eligibility recommendations. Numerous sources were consulted, including but not limited to, cultural and historic studies, local histories, building and tax records, previously recorded cultural surveys and recorded resources, maps, and aerial photographs.

¹ Virginia Department of Historic Resources (DHR). 2022. "V-CRIS, Virginia Cultural Resources Information System." Available at <https://www.dhr.virginia.gov/v-cris/>, accessed June 27, 2022.

Field Survey

A pedestrian and vehicular survey was undertaken to locate properties 43 years old or older within the APE, per the PBR Guidance. The survey was conducted in accordance with the *Secretary of the Interior's Standards and Guidelines for Identification and Evaluation* as well as DHR's *Guidelines for Conducting Historic Resources Survey In Virginia*.² Field maps created based on the desktop review discussed above were consulted during the survey and additional resources not identified during desktop review were surveyed and recorded. Each identified resource was photographed, mapped, and described in field notes to assist in documenting material, style, and construction details. The survey was conducted from the public right-of-way; the surveyors did not enter any private property.

National Register of Historic Places Evaluation Criteria

Based on the information collected on each resource, VHB evaluated the resources 43 years old or older within the APE using the National Register criteria for eligibility. These criteria are specified in the Department of the Interior Regulations 36 CFR Part 60.4, Criteria for Evaluation. According to Regulation 36 CFR Part 60.4, cultural resources can be determined eligible if they:

- A. *Are associated with events that have made a significant contribution to the broad patterns of history;*
- B. *Are associated with the lives of persons significant in the past;*
- C. *Embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, possesses high artistic value, or represent a significant and distinguishable entity whose components may lack individual distinction, or;*
- D. *Have yielded, or are likely to yield, information important to prehistory or history.*

In addition to the above criteria, the National Register also stipulates that in order to be considered eligible, a property must possess integrity of location, design, setting, materials, workmanship, feeling, and association. According to the National Register Bulletin, *How to Apply the National Register Criteria for Evaluation*, integrity is defined as the resource's ability to convey its significance.³ Integrity is considered relative to whatever significance the cultural resource can still adequately convey. While it is possible to correlate the above aspects of integrity with historic properties, there is no universally-applied standard. Historic properties must be evaluated within their respective historic contexts. For a resource to retain sufficient historic integrity, it will always possess several, and usually most, of the following seven aspects:

- 1. *Location – The place where the historic property was constructed or the place where the historic event occurred.*
- 2. *Design – The combination of elements that create the form, plan, space, structure, and style of a property.*
- 3. *Setting – The physical environment of a historic property. Setting includes elements such as topographic features, open space, viewshed, landscape, vegetation, and artificial features.*

² Virginia Department of Historic Resources (DHR). 2011. *Guidelines for Conducting Historic Resources Survey in Virginia*. Revised September 2017. Available at https://www.dhr.virginia.gov/wp-content/uploads/2018/06/SurveyManual_2017.pdf, accessed June 27, 2022.

³ Andrus, Patrick W. and Rebecca H. Shrimpton. 1990. *How to Apply the National Register Criteria for Evaluation*, *National Register Bulletin*. Revised 1991, 1995, and 1997. National Park Service, Interagency Resources Division, National Register Branch.

4. *Materials* – The physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property,
5. *Workmanship* – The physical evidence of the labor and skill of a particular culture or people during any given period in history.
6. *Feeling* – A property's expression of the aesthetic or historic sense of a particular period of time.
7. *Association* – The direct link between an important historic event or person and a historic property. Under Criterion D, it is measured in the strength of association between data and important research questions.

Survey Results

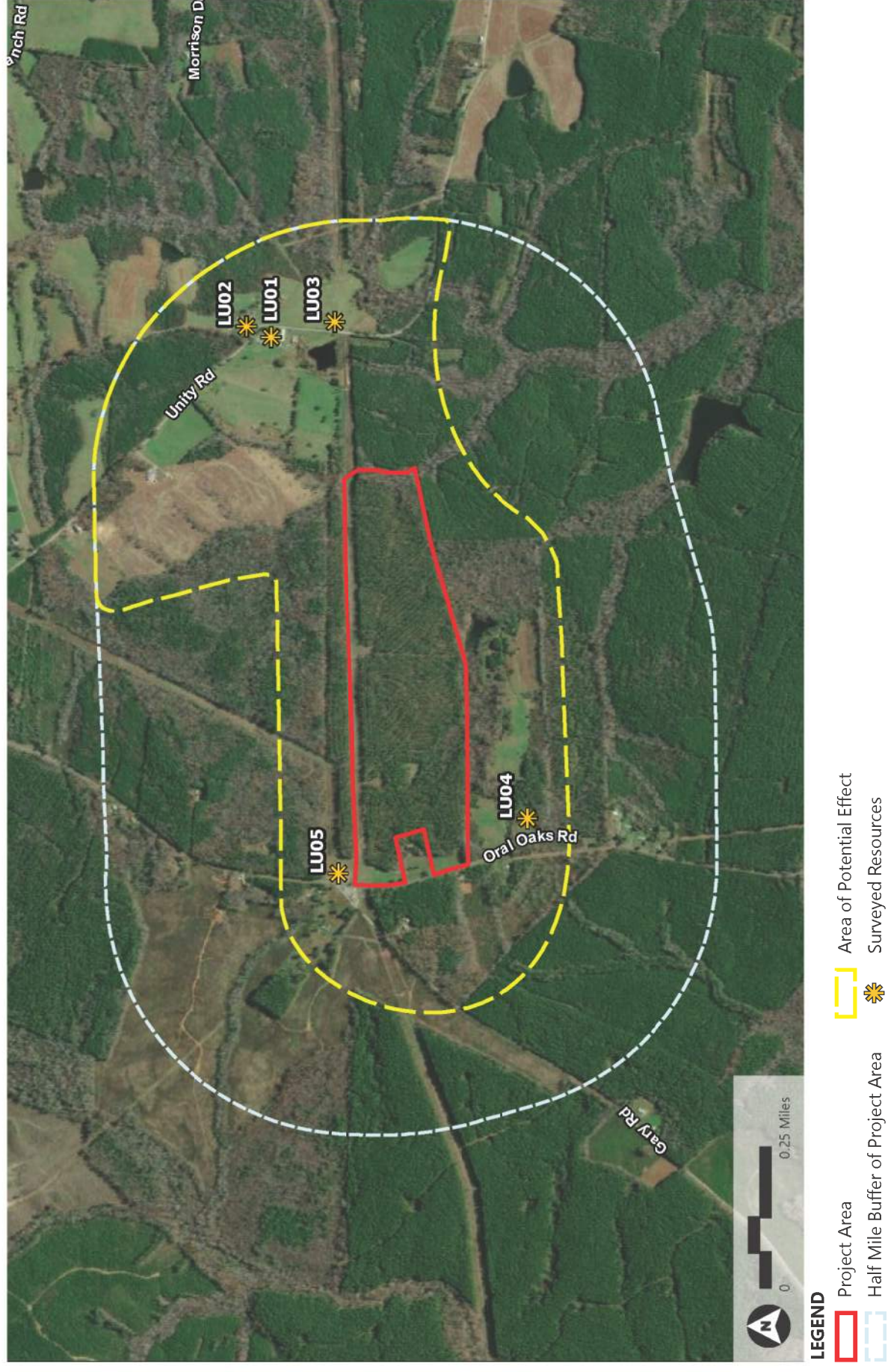
A total of five resources 43 years old or older were documented within the APE during the field survey. Three properties are agricultural in nature, one is residential, and one is an electrical substation. Table 1 below provides a summary of the properties surveyed within the APE. Details of each property are discussed below, accompanied by representative photographs. Heavy vegetation and topography limited visibility of some resources from the public right of way, but each resource was photographed and documented to the extent possible. Field identification numbers were given to each resource for tracking purposes (LU01-LU05) and are used in the discussion below. Figure 2 below shows the location of the surveyed properties within the APE.

Table 1 Summary of Properties Surveyed within APE

Field ID No.	DHR ID No.	Address	Construction Date	Property Type	Eligibility
LU01	055-0154	1080 Unity Rd.	ca. 1846	Agricultural	Not Eligible
LU02	n/a	1067 Unity Rd.	early 20th c.	Agricultural	Not Eligible
LU03	n/a	Unity Rd.	early 20th c.	Agricultural	Not Eligible
LU04	055-0145	5644 Oral Oaks Rd.	ca. 1870	Residential	Not Eligible
LU05	n/a	Oral Oaks Rd.	ca. 1976	Electrical Substation	Not Eligible

Figure 2: Location of Surveyed Resources

Ameresco - Kenbridge Solar Site | Lunenburg County, Virginia



LU01, 1080 Unity Road (DHR ID# 055-0154)

This property was previously surveyed in 1992 for the *Phase I Architectural Survey of the Proposed Clover to Carson 500KV Transmission Line* and was determined to be not eligible for listing in the National Register. It is recorded in the V-CRIS system as DHR ID# 055-0154.⁴

This property is agricultural in nature with a residential building and numerous outbuildings. The property is split into two county tax parcels with the same owner and address. Combined, the property comprises over 48 acres.⁵ The property consists of a mid-19th century frame house on a farmstead that has been converted to a modern sheep farm. In addition to the dwelling, the property contains approximately eight outbuildings supporting the farm, including what appears to be a tenant house. Generally, the outbuildings are concentrated around the dwelling near Unity Road, with the exception of the tenant house which is located roughly 800 feet to the northwest. A retention pond is located at the southeast corner of the property.

The dwelling is a two-story, two-bay, hall-and-parlor house with a central brick chimney that was constructed circa 1846. The dwelling faces north towards Unity Road, and is set back approximately 120 feet from the road. The house sits on foundation of fieldstone piers infilled with concrete block. It has a side gable roof covered in asphalt shingles that replaced its standing seam metal roof sometime after the 1992 survey.⁶ The exterior is clad in wood shingles that replaced the vinyl siding reported in the 1992 survey.⁷ A full-width, one-story covered front porch is located on the façade with a shed roof supported by square wood posts and a wood floor. The primary entrance is located under this porch consisting of a contemporary door with decorative oval light. The windows on the house are replacement 1-over-1 double hung sash aluminum windows. Louvered shutters that were recorded in the 1992 survey are no longer extant.⁸ A rear ell extends from the south elevation, which was enlarged after 2009, based on a review of recent aerial photographs.

The outbuildings appear to be a combination of historic (over 50 years of age) and contemporary buildings, and all are supporting structures for the working farm. They include barns, a silo, storage areas, and a carport. They are generally of wood construction clad in corrugated metal or wood siding. Many of the outbuildings were visually obscured from the roadway due to topography and vegetation. The tenant building, located to the northwest of the other structures, is a one-story, three-bay house that appears to be vacant and is in deteriorated condition. It has a side-gable roof covered in standing seam metal and the exterior is clad in a rolled asphalt siding in a faux-brick pattern. The windows are 2-over-2 wood sash with missing glass panes. The primary entrance is centralized on the façade and appears to retain the original paneled wood door, through it was dislodged from its hinges. A portion of the wall on the façade was missing, exposing the wood framing. Overgrown vegetation obscured much of the house from view.

The vernacular hall-and-parlor house is a typical and commonplace residential type in agricultural properties of Lunenburg County. The house retains its integrity of location and setting, as it remains

⁴ Beckett, A.S., L. McFaden, and C. McDaid. 1992. *A Phase I Architectural Survey of the Proposed Clover to Carson 500KV Transmission Line, Halifax, Charlotte, Lunenburg, Mecklenburg, Brunswick, and Dinwiddie Counties, Virginia*. The William and Mary Center for Archaeological Research, Department of Anthropology, The College of William and Mary, Williamsburg, Virginia.

⁵ Lunenburg County. 2022. "Online Tax Parcel System." Available at https://www.lunenburgva.org/online_tax_parcel_system/index.php, accessed June 27, 2022.

⁶ Beckett, McFaden, and McDaid. 1992. p. 209.

⁷ Beckett, McFaden, and McDaid. 1992. p. 209.

⁸ Beckett, McFaden, and McDaid. 1992. p. 210.

in its place of construction in a rural, agricultural areas. Although the house retains and conveys its historic form, the replacement windows and large rear ell addition have resulted in a loss of integrity of design, materials, workmanship, and feeling. These substantial alterations have diminished its overall integrity and it no longer conveys the feeling and aesthetic of its period of construction. The outbuildings on the property, including the tenant house, are common and unexceptional examples of farm buildings found throughout Lunenburg County. No change is recommended for its eligibility and the property remains not eligible for listing in the National Register.



Photo LU01-1: View of front (north) and west side elevations of the dwelling with large rear ell and outbuilding, facing S.



Photo LU01-2: View of outbuildings and rear of dwelling from Unity Road; note larger rear ell on dwelling, facing N.



Photo LU01-3: View of large barn (front) and smaller outbuilding (rear right) from Unity Road, facing W.



Photo LU01-4: View of front elevation of deteriorated tenant house with dense vegetation, facing S.

LU02, 1067 Unity Road

This property is agricultural in nature with a residential building and numerous outbuildings on a 50-acre lot.⁹ The lot has a combination of dense woods and agricultural fields. It is currently a working sheep farm. The buildings on the lot are concentrated on the southwest end along Unity Road. The

⁹ Lunenburg County. 2022.

residential building was constructed in 1983 and consists of a one-story, four-bay Ranch house with a side-gable roof and integrated carport. The house faces southwest toward Unity Road and is set back approximately 100 feet from the road. The exterior is clad in brick veneer and the roof is covered in asphalt shingles. A central pediment projection creates a covered porch over the primary entrance on the façade, which is accessed up a set of brick steps. Topography and heavy vegetation visually obscured much of the house from the road.

The outbuildings appear to be a combination of historic (over 50 years of age) and contemporary structures, and all are supporting structures for the working farm. They include barns and storage buildings of various sizes. Due to topography and vegetation, some of the outbuildings were visually obscured from the road. The largest and most visually prominent outbuildings are of hewn log wood construction on concrete block foundations topped with standing seam metal roofs. Many of these structures are in deteriorated condition; several have heavily damaged or destroyed roofs. Remnants of a completely collapsed outbuilding was evident near the southeastern end of the parcel.

The property retains its integrity of location and setting as it remains in its place of construction within a rural, agricultural setting and continues to function as a working farm. Its integrity of association is somewhat diminished because it has lost its original residence, which would have been considered its “main house,” and it was replaced with a typical 20th century Ranch house in 1983. The current house on the property is less than 43 years old and is not of exceptional importance to qualify it for eligibility for listing in the National Register under Criteria Consideration G: Properties that have Achieved Significance within the Last Fifty Years. The outbuildings on the property are common and unexceptional examples of farm buildings found throughout Lunenburg County. While they do retain some integrity of materials, the high level of deterioration of the structures has resulted in a diminished integrity of design, workmanship, and feeling. The current state of the property has diminished the farm’s overall integrity and it no longer conveys the feeling and aesthetic of its period of construction. Therefore, it is recommended to be not eligible for listing in the National Register.



Photo LU02-1: View of façade of main house, visually obscured by topography and vegetation, facing N.



Photo LU02-2: View of the setting of the property with the main house at left and outbuildings at right, facing N.



Photo LU02-3: View of several outbuildings in their setting with ruins at far right, facing SE.



Photo LU02-4: View of two heavily deteriorated outbuildings, facing E.

LU03, Unity Road

This property is agricultural in nature and consists of a former residence on a 37-acre lot. According to available Lunenburg tax records, no mailing address appears to be associated with this property.¹⁰ The lot consists of a large, open agricultural field or pasture in the northern portion and dense vegetation surrounding a smaller open field in the south. A power transmission line bisects the lot running east to west. Only one structure is located on the property, and it appears to be vacant.

The building is a one-story, three-bay vernacular structure with no architectural type or style; based on its form and appearance, it was possibly used as a dwelling in the past. It sits on a concrete pier foundation and is topped with a side gable roof covered in standing seam metal. An interior brick chimney rises from the ridgeline; a few bricks are missing from the top of the chimney. The exterior is clad in wide, horizontal wood paneling that is covered in what appears to be rolled asphalt veneer. The veneer is failing and large pieces are missing. A one-story shed roof wing extends from the north side elevation. A door opening is located on this wing, but the door is missing and the door frame is falling off. A large hole through the exterior wall is visible adjacent to the door near the foundation. Another entrance door is located under the gable of the west elevation that consists of a 6-light wood door; plywood closes off the lower half of the door. Two windows consisting of 6-over-1 wood sash are located on the south elevation; other window openings are covered with standing seam metal panels.

The property retains integrity of location and setting. The property remains at its historic construction site and remains in a rural, agricultural setting. The integrity of design is retained because the historic form is evident. The integrity of materials and workmanship has been lost because although the historic materials are evident, they are in very poor condition, including deteriorated siding, damaged and missing doors, and damaged windows. The building does not appear to be in use and therefore does not retain its historic association. The disuse and deteriorated condition of the structure has resulted in an inability to convey its historic use and it no longer conveys the feeling and aesthetic of its period of construction. Therefore, it is recommended to be not eligible for listing in the National Register.

¹⁰ Lunenburg County. 2022.



Photo LU03-1: View of north and west elevations of the structure, facing SE. Note the missing door at center.



Photo LU03-2: View of south and west elevations and surrounding setting, facing NE.

LU04, 5644 Oral Oaks Road (DHR ID# 055-0145)

This property was previously surveyed in 1992 for the *Phase I Architectural Survey of the Proposed Clover to Carson 500KV Transmission Line* and was determined to be not eligible for listing in the National Register. It is recorded in the V-CRIS system as DHR ID# 055-0145.¹¹

This property is residential in nature and consists of a single-family home on a 5.24-acre lot. Dense vegetation is located along the side and rear of the property, visually screening the surrounding area from view of the house. Open lawn comprises the parcel in front of the house and a dirt driveway provides access to the house from Oral Oaks Road. No outbuildings were visible from the roadway.

The house is a two-story, three-bay vernacular I-house with a central front gable that was constructed circa 1870. The house faces west toward Oral Oaks Road and is set back from the road approximately 175 feet. The house sits on a concrete block foundation. The roof is covered in pressed tin and a pair of interior brick chimneys rise from the ridgeline, one at each end of the roof. The exterior is clad in wood clapboards. A one-story front porch is located on the façade (west elevation) and is covered in a hipped roof with standing-seam metal. Turned wood spindle posts support the roof, and the porch has been enclosed with plywood and mesh screening. The primary entrance is located under the porch but was visually obscured. Windows consists of 1-over-1 replacement vinyl sash; there is no fenestration on either north or south side elevations. These windows replaced 2-over-2 wood sash windows that were documented in a 1992 survey of the property.¹² There is a one-story frame rear addition on the east elevation. Based on available tax information from Lunenburg County, this addition was likely added around 1940.¹³

The vernacular I-house is a typical and commonplace residential type in the agricultural area of Lunenburg County. The house retains its integrity of location and setting, as it remains in its place of construction in a rural, agricultural areas. Although the house retains and conveys its historic form, the enclosure of the front porch and the replacement windows have resulted in a loss of integrity of design, materials, workmanship, and feeling. These substantial alterations have diminished its overall integrity

¹¹ Beckett, McFaden, and McDaid. 1992. p. 199.

¹² Beckett, McFaden, and McDaid. 1992. p. 199.

¹³ Lunenburg County. 2022.

and it no longer conveys the feeling and aesthetic of its period of construction. No change is recommended for its eligibility and the property remains not eligible for listing in the National Register.



Photo LU04-1: View of front (west) and north side elevations of the dwelling with dense vegetation, facing SE.



Photo LU04-2: View of façade of dwelling, facing E.

LU05, Oral Oaks Road

This property consists of an electrical distribution substation adjacent to a power transmission line that was constructed between 1976 and 1979, based on available historic aerals. A sign on the property identifies it as the Gary Substation, which is run by the Southside Electric Co-op, headquartered in Crewe, Virginia. Remnants of former letters on that sign indicate that the substation was formerly named the Martin Substation. Background research did not uncover any additional information regarding the construction of this substation.

The resource is located on the east side of Oral Oaks Road and is set back roughly 30 feet from the roadway. A transmission line connects to the substation, running to the east for roughly 1,000 feet before turning to the northeast. Another high-voltage transmission line is connected to the substation immediately to the south, running in an east to west alignment. This southern transmission line was constructed in the 1990s. The substation is accessed via a gravel driveway connecting to Oral Oaks Road; a metal stockade gate restricts access to the driveway. This substation provides power to properties in the area via overhead power lines that extend from the substation in several directions.

The substation consists of a gravel pad roughly 160 feet by 75 feet with transformers, switchgear, and other electrical equipment enclosed in a metal chain link fence topped with barbed wire. Additional equipment is housed on a much smaller dirt pad surrounded by a similar fence at the southwest corner of the main substation. No buildings appear to be associated with this substation. The footprint of the substation is mostly unchanged since construction, based on historic and contemporary aerial photographs; however, it is likely that system and equipment upgrades have been undertaken at some point since its initial construction to accommodate changes to the power grid, as evidenced by the high-voltage transmission line that was constructed and connected to the substation in the 1990s.

The Gary Substation retains its historic integrity of location, setting, design, materials, workmanship, feeling, and association. The substation is a typical and common example of an outdoor electrical distribution substation, and it does not possess characteristics of demonstrable significance of an infrastructure type with respect to design, construction, or use of materials. There are no indications

that this substation was associated with a significant event or person in history, and it does not appear to have led to the development of the area. The Gary Substation does not possess the individual significance and is therefore recommended as not eligible for listing in the National Register.



Photo LU05-1: View of Gary Substation from Oral Oaks Road, facing SE.



Photo LU05-2: View of Gary Substation from Oral Oaks Road, facing NW.

Summary and Recommendations

During the course of the survey of the APE for this project, a total of five properties 43 years old or older were identified. As described above, none are recommended as eligible for listing in the National Register. As such, there would be *no historic properties affected* for architectural resources as a result of this project.



C

Appendix C

Environmental Impacts Narrative

Environmental Impacts Narrative

VHB has conducted a desktop analysis of the approximately 128.2-acre site being developed for Kenbridge Solar. The study was performed in compliance with the Lunenburg County Solar Ordinance Conditional Use Permit Application requirements and aims to assist the proposed Kenbridge Solar Site. The study contains an analysis on the potential impacts and existing conditions of the surrounding water and air quality.

I. Water Quality Review

This water quality review was conducted to assess water quality in the vicinity of the site using publicly available information from the Virginia Department of Environmental Quality (DEQ) as directed in the Lunenburg County Solar Ordinance. The *How's My Waterway?* tool was created by DEQ and designed to inform the public with information about the condition of local waters based on data that local and state agencies have provided to the EPA. Adjacent to the Site and the defining feature of the east project property boundary is an unsegmented portion of watershed CM09. The unsegmented waters of K03, see report Attachment 1, have not been evaluated for any impairments under the four categories analyzed by the EPA: Aquatic Life, Fish Consumption, Recreation and Wildlife. There are no probable sources of impairment that can be identified in this waterbody, based on review of DEQ information. Crooked Creek, which is approximately 0.3 miles downstream of the Site, is the closest evaluated waterway to the site found in in good condition when analyzed for Aquatic Life, see report Attachment 2. There were no samples taken from the site and this report utilizes publicly available resources to determine the general condition of waterways that will receive discharge from the Project Area. The condition of a waterbody is dynamic and can change at any time, and the information from the *How's My Waterway?* Tool should only be used for general reference for analyzing this Project and the larger watershed (Hydrologic Unit Code 030102040302).

Natural heritage resources are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations. A desktop analysis had previously been performed VHB and did not identify any conservation lands or easements within the study area. There was an additional 2-mile buffer of the site studied which identified a Virginia Department of Forestry (DOF) conservation easement. Given the distance of the identified resource from the proposed project, it is anticipated that the development of the study area as a solar generation facility would not adversely impact the identified resource.

VHB has received a Preliminary Jurisdictional Determination from the United States Army Corps of Engineers (USACE). Offsite research was conducted utilizing the Natural Resources Conservation Service (NRCS) Web Soil Survey, the U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI), and the U.S. geological Survey (USGS) Quadrangle Maps for Kenbridge West, VA. The results of the WOTUS Delineation indicated that there are jurisdictional aquatic resources that are present in the project area, see Attachment 3. All wetlands that are identified in the project area and confirmed by the USACE will be avoided when possible and best management practices will be implemented to minimize impacts to nearby waterbodies. The Project will prepare a SWPPP to ensure that any ground disturbing activity during construction does not negatively impact the water quality or quantity to the surrounding waterbodies.

II. Air Quality Review

DEQ's Environmental Data Mapper was used in the air quality analysis in the vicinity of the project area. Active air sites in Virginia are facilities that adhere to the air program details and report their pollutant emissions. The Disposal and Recycling Services of Lunenburg is the closest active air site and is approximately 3.5 miles Northwest of the project area, see Attachment 5. This facility is categorized as "true minor" site which infers that the site has the potential to emit regulated New Source Review pollutants in amounts less than the major source threshold. It is unlikely that the Site would affect or be affected by any of these regulated facilities.

The proposed solar facility would have no negative impact on surrounding air quality. In comparison with traditional fossil-fuel methods of energy generation, this solar facility will avoid the release of emissions and negative air quality impacts. EPA's Avoided Emissions and Generation Tool (AVERT) was utilized to calculate the regional beneficial air quality impacts if the site was to be constructed. Annual avoided impacts were calculated using Mid-Atlantic Regional data and assuming a 12 MW project and are as follows:

<i>Pollutant</i>	<i>Annual Avoided Impacts (lb.)</i>
<i>Sulfur Dioxide (SO₂)</i>	-23,540
<i>Nitrous Oxide (NO_x)</i>	-16,150
<i>Carbon Dioxide (CO₂)</i>	-17,700
<i>Particulate Matter (PM_{2.5})</i>	-2,240
<i>Volatile Organic Compounds (VOCs)</i>	-480
<i>Ammonia (NH₃)</i>	-590

III. Summary and Conclusions

This desktop review of water and air quality of the project area and within a 2.5-mile radius of the site was conducted using sources recommended in the Ordinance for Solar Energy Facilities in Lunenburg County. On-site water resources that were identified will be protected using best management practices and devices from the DEQ Erosion & Sediment Control Handbook.

Attachments

Attachment 1 – Waterbody Report – Unsegmented Portion of Watershed CM09

Attachment 2 – Waterbody Report – Crooked Creek


Attachment 3 – Wetland Delineation Map

Attachment 4 – Active Air Site Vicinity Map

How's My Waterway?

Informing the conversation about your waters.

Waterbody Report



Unsegmented waters of K03


Assessment Unit ID: VAP-K03R_ZZZ01A18

Waterbody Condition:

Condition Unknown

Existing Plans for Restoration:

No

 303(d) Listed:

No

Year Reported:

2020

Organization Name (ID):

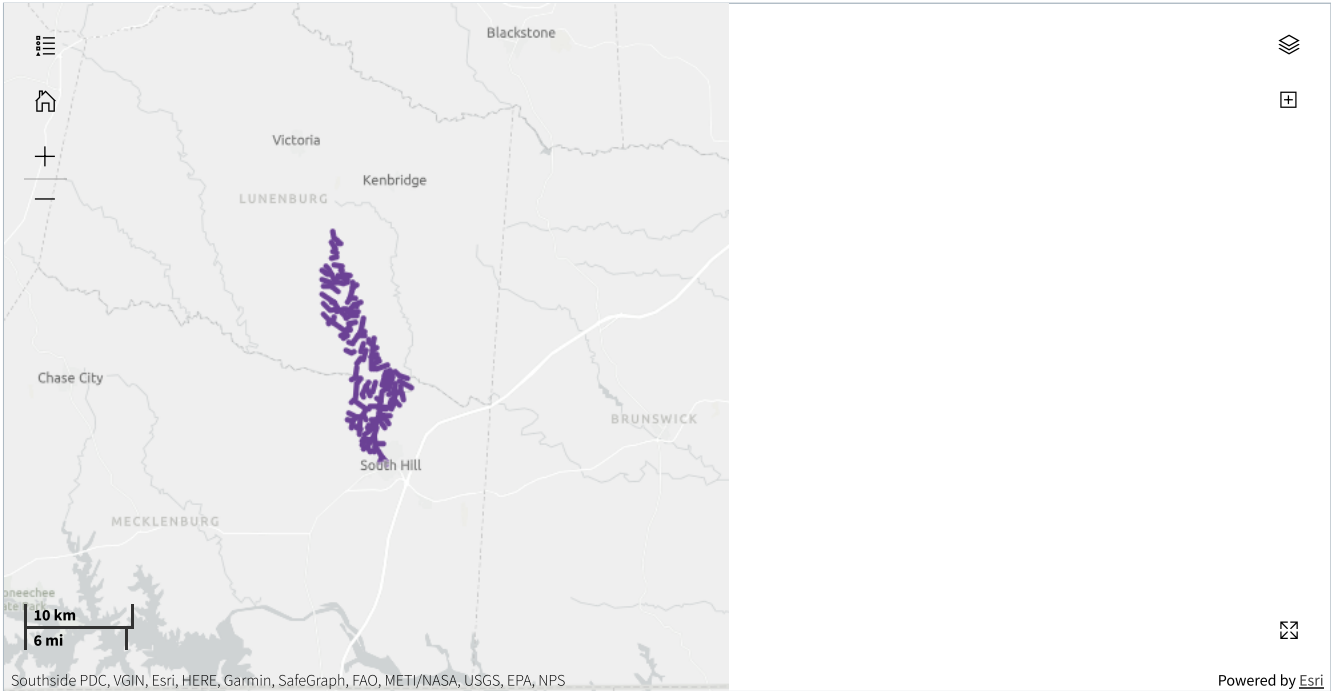
Virginia (21VASWCB)



What type of water is this?

River (62.92 Miles)

Where is this water located?

Unsegmented portion of the watershed CM09



Assessment Information from 2020	
State or Tribal Nation specific designated uses:	
Collapse All 	
Aquatic Life	Not Assessed 
Identified Issues for Use	
No impairments evaluated for this use.	

Other Water Quality Parameters Evaluated

No other parameters evaluated for this use.

Fish Consumption

Not Assessed



Identified Issues for Use

No impairments evaluated for this use.

Other Water Quality Parameters Evaluated

No other parameters evaluated for this use.

Recreation

Not Assessed



Identified Issues for Use

No impairments evaluated for this use.

Other Water Quality Parameters Evaluated

No other parameters evaluated for this use.

Wildlife

Not Assessed



Identified Issues for Use

No impairments evaluated for this use.

Other Water Quality Parameters Evaluated

No other parameters evaluated for this use.

Probable sources contributing to impairment from 2020:

No probable sources of impairment identified for this waterbody.

Assessment Documents

No documents are available

Plans to Restore Water Quality

What plans are in place to protect or restore water quality?

No plans specified for this waterbody.

How's My Waterway?

Informing the conversation about your waters.

Waterbody Report




Crooked Creek

Assessment Unit ID: VAP-K03R_CRK01A14

Waterbody Condition: Good

Existing Plans for Restoration: No

 **303(d) Listed:** No

Year Reported: 2020

Organization Name (ID): Virginia (21VASWCB)

What type of water is this?

River (12.69 Miles)

Where is this water located?

From its headwaters to the mouth




Powered by [Esri](#)

Assessment Information from 2020

State or Tribal Nation specific designated uses:

Collapse All 

Aquatic Life

Good 

Identified Issues for Use

No impairments evaluated for this use.

Other Water Quality Parameters Evaluated

No other parameters evaluated for this use.

Fish Consumption

Not Assessed



Identified Issues for Use

No impairments evaluated for this use.

Other Water Quality Parameters Evaluated

No other parameters evaluated for this use.

Recreation

Not Assessed



Identified Issues for Use

No impairments evaluated for this use.

Other Water Quality Parameters Evaluated

No other parameters evaluated for this use.

Wildlife

Not Assessed



Identified Issues for Use

No impairments evaluated for this use.

Other Water Quality Parameters Evaluated

No other parameters evaluated for this use.

Probable sources contributing to impairment from 2020:

No probable sources of impairment identified for this waterbody.

Assessment Documents

No documents are available

Plans to Restore Water Quality

What plans are in place to protect or restore water quality?

No plans specified for this waterbody.



DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS
NORFOLK DISTRICT
FORT NORFOLK
803 FRONT STREET
NORFOLK VA 23510-1011

August 29, 2022

PRELIMINARY JURISDICTIONAL DETERMINATION

Southern Virginia Regulatory Section
NAO-2022-01263 (Crooked Creek)

Ms. Virginia Wilson
5844 Oral Oaks Road
Kenbridge, VA 23944

Dear Ms. Wilson:

This letter is in regard to your request for a preliminary jurisdictional determination of the aquatic resources (e.g., wetlands, streams, and ponds), on an approximately 105-acre property located at 5874 Oral Oaks Road, known as Kenbridge Solar, in Lunenburg County, Virginia (tax map parcel #058-0A-0-29) hereinafter referred to as project area.

The map entitled "Ameresco – Kenbridge Solar Site, Preliminary Jurisdictional Determination", by VHB received by the U.S. Army Corps of Engineers (Corps) on August 19, 2022 (copy enclosed) provides the locations of the aquatic resources within the project area referenced above. This letter is not confirming the Cowardin classifications of these aquatic resources.

These aquatic resources exhibit wetland criteria as defined in the 1987 Corps of Engineers Wetland Delineation Manual, and the Eastern Mountains and Piedmont Regional Supplement. This site also contains aquatic resources with an ordinary high-water mark (or high tide line).

This preliminary jurisdictional determination and associated aquatic resource delineation map may be submitted with a permit application.

Please be aware that you may be required to obtain a Corps permit for any discharge of dredged and/or fill material, either temporary or permanent, into a water of the U.S. In addition, you may be required to obtain a Corps permit for certain activities occurring within, under, or over a navigable water of the U.S. subject to the Section 10 of the Rivers and Harbors Act. Furthermore, you may be required to obtain state and local authorizations, including a Virginia Water Protection Permit from the Virginia Department of Environmental Quality (DEQ), a permit from the Virginia Marine Resources Commission (VMRC), and/or a permit from your local wetlands board.

This delineation and preliminary jurisdictional determination may not be valid for the Wetland Conservation Provisions of the Food Security Act of 1985, as amended. Therefore, if you or your tenant are US Department of Agriculture (USDA) program participants, or anticipate participation in USDA programs, you should discuss the applicability of a certified wetland determination with the local USDA service center, prior to starting work.

The Norfolk District has relied on the information and data provided by the requestor or agent to make this preliminary determination. If it is determined such information and data are materially false or materially incomplete, a new preliminary determination would be necessary.

This is a preliminary jurisdictional determination and is not a legally binding determination regarding whether Corps jurisdiction applies to the aquatic resources in question. To determine Corps' jurisdiction, you may request and obtain an approved jurisdictional determination.

This delineation of aquatic resources can be relied upon for no more than five years from the date of this letter. New information may warrant revision. Enclosed is a copy of the "Preliminary Jurisdictional Determination Form". Please review the document, sign, and return one copy to the Corps by email at julie.s.hamilton@usace.army.mil.

If you have any questions, please contact the office either by telephone at (804) 436-4725 or by email at julie.s.hamilton@usace.army.mil.

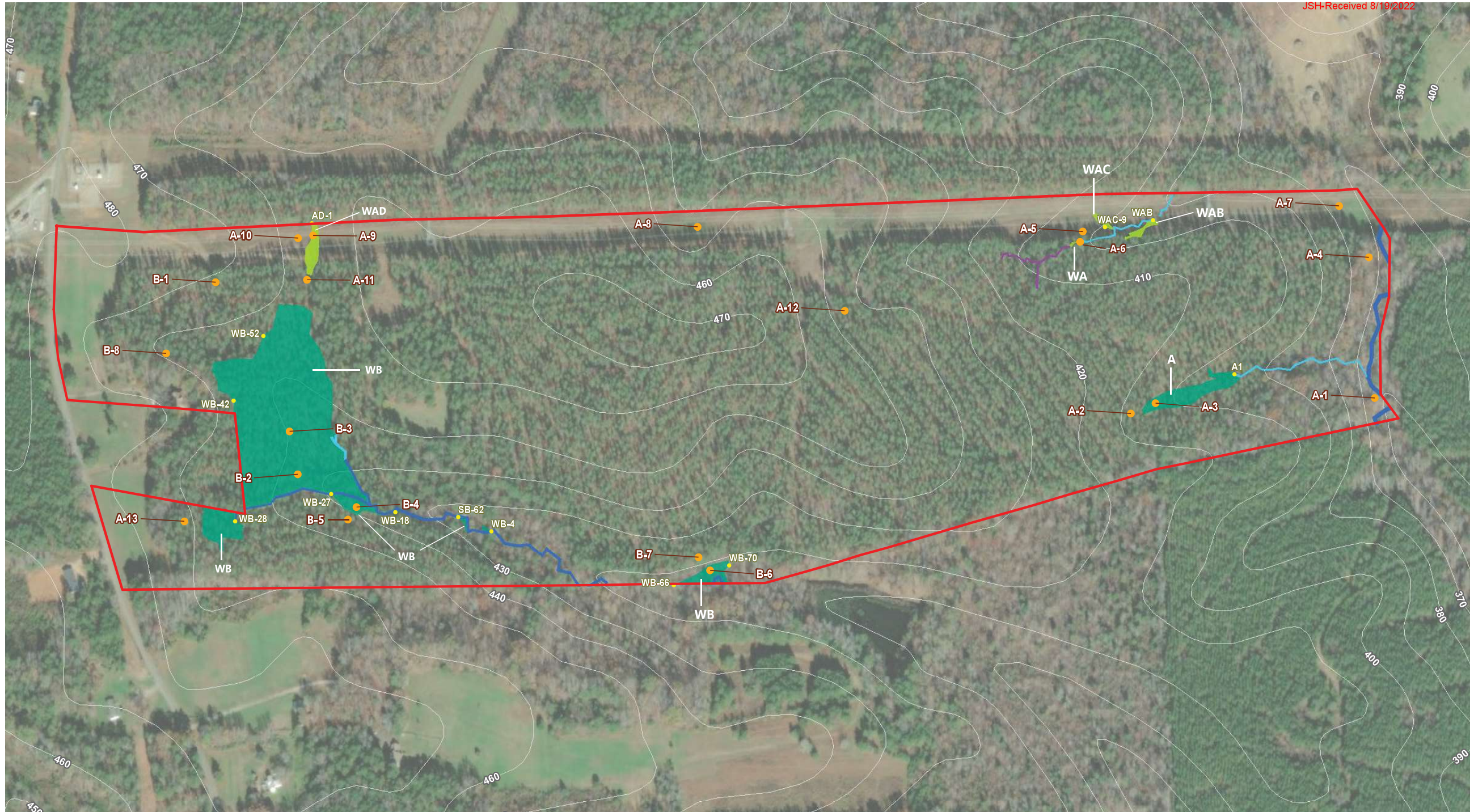
Sincerely,

A handwritten signature in cursive script that reads "Julie S. Hamilton".

Julie S. Hamilton
Environmental Scientist
Southern Virginia Regulatory Section

Enclosure(s):

cc: VHB
VDEQ-Piedmont



- Study Area (105 acres)
- Flag Identifier
- Data Point
- Contours (10')
- Palustrine Emergent (PEM) Wetlands (0.17 acres within Study Area)
- Palustrine Forested (PFO) Wetlands (5.11 acres within Study Area)
- Perennial Stream (2,344 lf)
- Intermittent Stream (995 lf)
- Ephemeral Stream (379 lf)

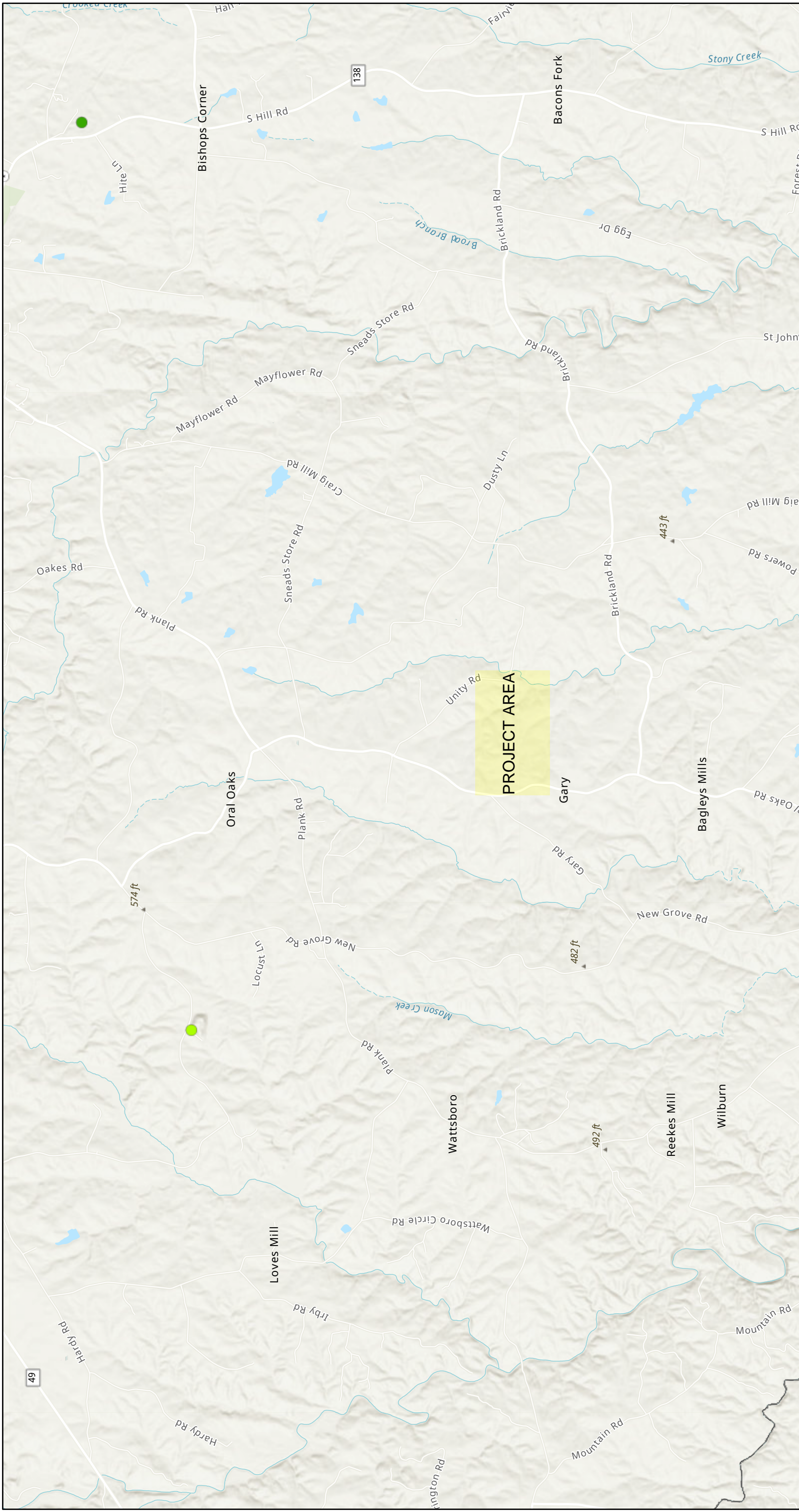
Source: ESRI Orthoimagery Basemap



Ameresco - Kenbridge Solar Site
Preliminary Jurisdictional Determination
Lunenburg, Virginia

FIGURE 4
Wetland Delineation Map

Environmental Data Mapper Web Map



11/21/2022, 11:06:28 AM

Active Air Sites (Daily)



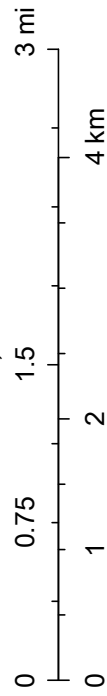
True Minor



Synthetic Minor



1:72,224



Virginia Department of Environmental Quality, Esri, NASA, NGA, USGS, FEMA, This EPA Geospatial data set is generated from the following national environmental programs: Superfund National Priorities

Provided by Virginia Department of Environmental Quality
Terms of use: <https://geohub-vadeq.hub.arcgis.com/pages/terms-of-use>



D

Appendix D

Wildlife Impacts Narrative

Wildlife Impacts Narrative

VHB performed a full desktop analysis of potential wildlife impacts in line with Lunenburg County's Solar Ordinance requirements. The desktop review of the Kenbridge Solar project, a proposed solar energy electric power generation facility, was conducted to report the potential impacts on wildlife and wildlife habitats at the site and within a two and one-half-mile (2.5) radius of the proposed facility. The 128.2-acre site is in Lunenburg County, Virginia adjacent to Oral Oaks Road. The publicly available data from the Virginia Department of Wildlife Resources was used to identify any constraints that would limit the development of the solar facility in compliance with the comprehensive plan.

I. Threatened and Endangered Species Database Search

This endangered species report was conducted to gain information regarding the proximity of any Endangered Species Act listed species as well as state species within the project limits. The following agencies and associated databases were reviewed for threatened and endangered species:

- U.S. Fish and Wildlife Services (USFWS) – Information, Planning and Consultations system (IPaC)
- Virginia Department of Wildlife Resources (VDWR) – Virginia Fish and Wildlife Information Service (VaFWIS)
- Virginia Department of Wildlife Resources (VDWR) – Northern Long Eared Bat (NLEB) Winter Habitat & Roosts Locator
- Virginia Department of Wildlife Resources (VDWR) – Little Brown Bat and Tri-colored Bat Winter Habitat & Roosts Locator
- Virginia Department of Conservation and Recreation (VDCR) – Natural Heritage Data Explorer (NHDE)
- Virginia Department of Environmental Quality (VDEQ) – Coastal Geospatial and Education Mapping System (GEMS)
- Center for Conservation Biology (CCB) – VA Eagles Nest Locator
- U.S. Fish and Wildlife Services (USFWS) – Bald Eagle Concentration Areas

The complete database search found that there is one species that is protected at both the state and federal level. A summary of the endangered species that could be found within the project area can be found in the following table.

<i>Common Name</i>	<i>Scientific Name</i>	<i>Status</i>	<i>Agency Source</i>
<i>Northern Long-eared Bat</i>	<i>Myotis septentrionalis</i>	Federal Threatened State Threatened	USFWS
<i>Monarch Butterfly</i>	<i>Danaus plexippus</i>	Candidate	USFWS

According to the results from USFWS IPaC, there is potential for the federally and state threatened northern long-eared bat (NLEB) to exist within the project limits. Utilizing the publicly available data from the VDWR NLEB Winter Habitat & Roost Locator there were no known maternity roosts or hibernaculum located within or near the Project Site. The NLEB is being re-classified (effective 12/30/22)

and could result in impacts to project schedule as well as require both habitat and species surveys if any tree clearing is required.

According to the results from USFWS IPaC the monarch butterfly has the potential to occur on the site. The monarch butterfly is a candidate species but not currently listed as a federally or state threatened or endangered. A candidate species is a species that is under consideration for official listing but does not have sufficient information, therefore there is no further consultation with USFWS required. It is recommended that agencies take advantage of any opportunity there is to conserve the species.

According to the VDWR the Little Brown Bat and Tri-colored Bat Winter Habitat & Roosts Locator, both species do not have hibernacula within range of the Site. The locator shows that that these species are typically known to populate western Virginia and there will be no potential impacts that would have ramifications for this development.

According to the VDCR results obtained by VHB, there were no natural heritage sites found with the project limits and the project buffer. These sites are defined as the habitat of plant and animal species that are rare, threatened and endangered as well as unique natural communities and significant geologic formations. The preliminary results from this analysis do not require any further correspondence with the VDCR.

The GEMS report provides a gateway to Virginia's coastal resource values as well as a growing inventory of water and land based natural resources to serve as a planning tool to protect Virginia's coastal ecosystems. Since this project is in Lunenburg County, it does not fall within a Coastal Area Protection Zone (CAPZ) and no further consideration is needed.

The Center for Conservation Biology's Eagle Nest Locator found no nests in the vicinity of the project. Additionally, the USFWS Bald Eagle Concentration Map does not identify any areas of importance near the project area and no further actions are required.

II. Summary and Conclusions

This review has utilized all the publicly available data in the planning and consideration of the wildlife impacts that could occur in the construction and facilitation of the proposed solar energy generation facility. Any work that is proposed within the limits of jurisdictional wetlands or waters of the U.S., would require Section 401 and Section 404 Clean Water Act Permits. Submittal of a Section 404 Clean Water Act Permit will provide a federal nexus that will engage a review of threatened and endangered species that could further impose timeline restrictions or reduce the developable footprint of the project. In accordance with the conceptual design plan dated 12/16/2022, the facility does not propose impacts to any Waters of the U.S. and Kenbridge Solar will be able to progress without any wildlife impact considerations.

Attachments

Attachment 1 - Threatened and Endangered Species Database Searches

THREATENED AND ENDANGERED SPECIES DATABASE
SEARCHES

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Lunenburg County, Virginia



Local office

Virginia Ecological Services Field Office

☎ (804) 693-6694

📅 (804) 693-9032

6669 Short Lane
Gloucester, VA 23061-4410

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

-
1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9045	Threatened

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Sep 1 to Jul 31
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Eastern Whip-poor-will <i>Antrostomus vociferus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Aug 20

Prairie Warbler *Dendroica discolor*

Breeds May 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Red-headed Woodpecker *Melanerpes erythrocephalus*

Breeds May 10 to Sep 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Wood Thrush *Hylocichla mustelina*

Breeds May 10 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the

probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

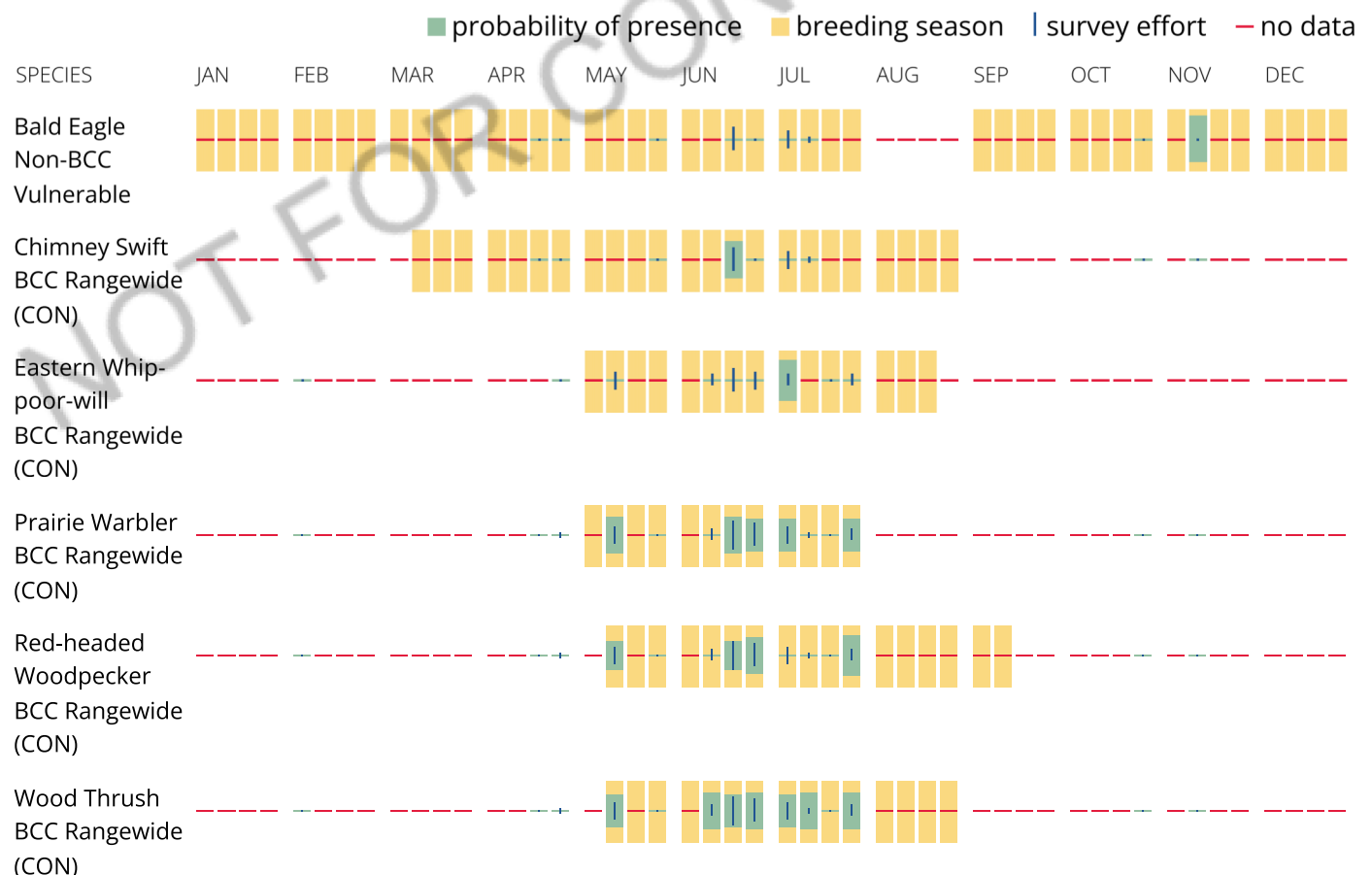
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn

more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Coastal Barrier Resources System

Projects within the [John H. Chafee Coastal Barrier Resources System](#) (CBRS) may be subject to the restrictions on Federal expenditures and financial assistance and the consultation requirements of the Coastal Barrier Resources Act (CBRA) (16 U.S.C. 3501 et seq.). For more information, please contact the local [Ecological Services Field Office](#) or visit the [CBRA Consultations website](#). The CBRA website provides tools such as a flow chart to help determine whether consultation is required and a template to facilitate the consultation process.

There are no known coastal barriers at this location.

Data limitations

The CBRS boundaries used in IPaC are representations of the controlling boundaries, which are depicted on the [official CBRS maps](#). The boundaries depicted in this layer are not to be considered authoritative for in/out determinations close to a CBRS boundary (i.e., within the "CBRS Buffer Zone" that appears as a hatched area on either side of the boundary). For projects that are very close to a CBRS boundary but do not clearly intersect a unit, you may contact the Service for an official determination by following the instructions here: <https://www.fws.gov/service/coastal-barrier-resources-system-property-documentation>

Data exclusions

CBRS units extend seaward out to either the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward extent of the units is not shown in the CBRS data, therefore projects in the offshore areas of units (e.g., dredging, breakwaters, offshore wind energy or oil and gas projects) may be subject to CBRA even if they do not intersect the CBRS data. For additional information, please contact CBRA@fws.gov.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the [NWI map](#) to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION

Site Location

36,52,53.0 -78,11,47.0
is the Search Point

Show Position Rings

☐ Yes ☒ No

1 mile and 1/4 mile at the
Search Point

Show Search Area

☒ Yes ☐ No

2.49 Search distance miles
radius

Search Point is at
map center

Base Map [Choices](#)

Topography

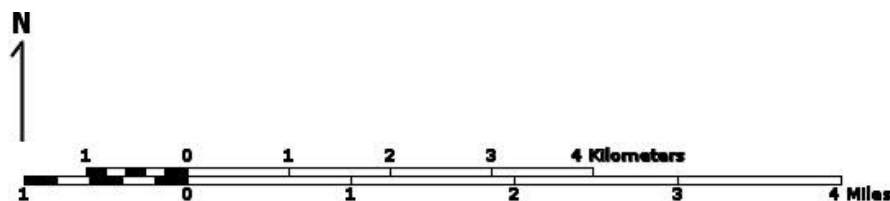
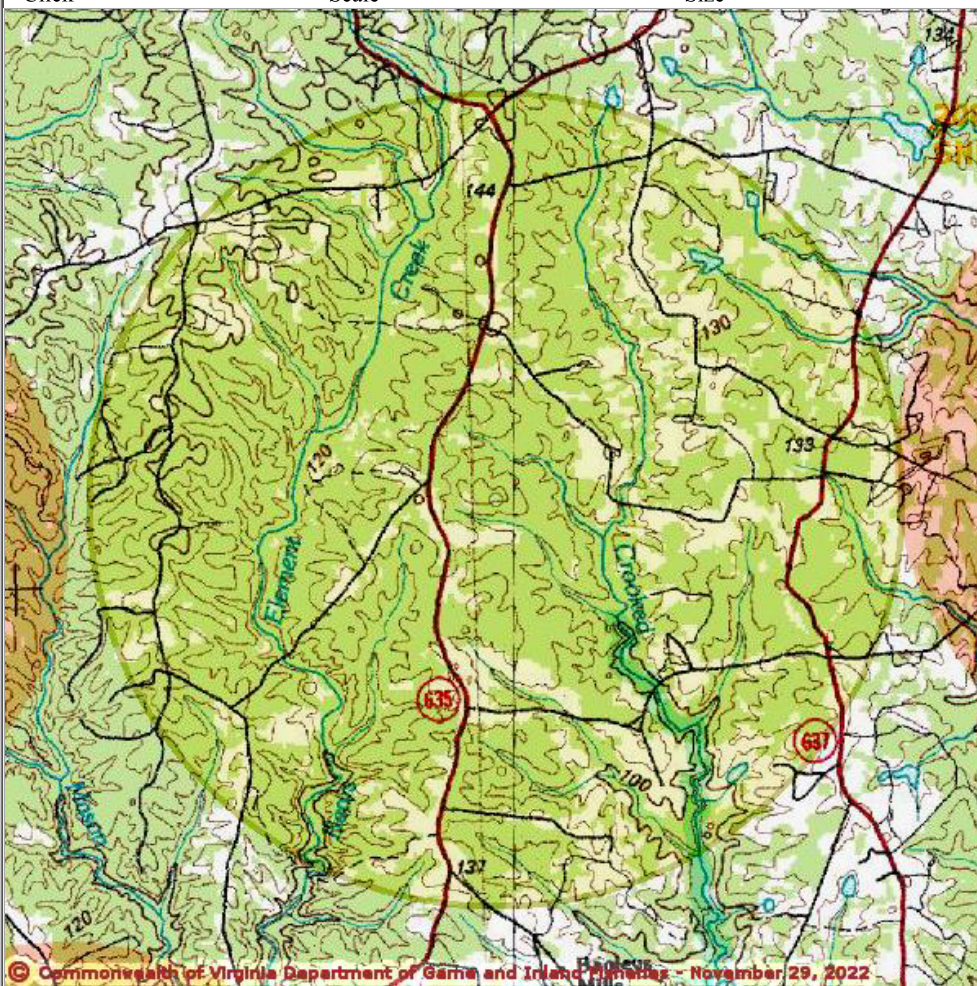
Map Overlay [Choices](#)

Current List: Search, BECAR,
BAEANests, TEWaters, TierII,
Habitat, Trout, Anadromous

Map Overlay Legend

[back](#) [Refresh Browser Page](#) [Help](#)

Map Click **Pan** **Id** **M** Map Scale **In** **Zoom** **Out** Screen Size **Small** **Size** **Big**



Point of Search 36,52,53.0 -78,11,47.0

Map Location 36,52,53.0 -78,11,47.0

Select **Coordinate System**: ☒ Degrees, Minutes, Seconds Latitude - Longitude
☐ Decimal Degrees Latitude - Longitude
☐ Meters UTM NAD83 East North Zone
☐ Meters UTM NAD27 East North Zone

Base Map source: USGS 1:100,000 topographic maps (see [Microsoft terraserver-usa.com](https://microsoft.terraserver-usa.com) for details)

Map projection is UTM Zone 17 NAD 1983 with left 745069 and top 4090185. Pixel size is 16 meters. Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed as 600 columns by 600 rows for a total of 360000 pixels. The map display represents 9600 meters east to west by 9600 meters north to south for a total of 92.1 square kilometers. The map display represents 31501 feet east to west by 31501 feet north to south for a total of 35.5

T & E Waters

Federal

State

Predicted Habitat WAP Tier I & II

Aquatic

Terrestrial

Trout Waters

Class I - IV

Class V - VI

Anadromous Fish Reach

Confirmed

Potential

 Impediment



Bald Eagle Concentration Areas and Roosts

 Bald Eagle nests
660 and 330 foot
management zones

 Data
Observation Site

square miles.

Topographic maps and Black and white aerial photography for year 1990+- are from the United States Department of the Interior, United States Geological Survey. Color aerial photography aquired 2002 is from Virginia Base Mapping Program, Virginia Geographic Information Network.

Shaded topographic maps are from TOPO! ©2006 National Geographic

<http://www.national.geographic.com/topo>

All other map products are from the Commonwealth of Virginia Department of Game and Inland Fisheries.

map assembled 2022-11-29 10:04:24 (qa/qc March 21, 2016 12:20 - tn=1443180.0 dist=4022 I)

\$poi=36.8813889 -78.1963889

VaFWIS Initial Project Assessment Report

Compiled on 11/29/2022,
10:07:28 AM

[Help](#)

Known or likely to occur within a **2.5 mile radius around point 36.8813889 -78.1963889**
in **111 Lunenburg County, VA**

[View Map of
Site Location](#)

395 Known or Likely Species ordered by Status Concern for Conservation
(displaying first 21) (21 species with Status* or Tier I** or Tier II**)

BOVA Code	Status*	Tier**	Common Name	Scientific Name	Confirmed	Database(s)
060003	FESE	Ia	Wedgemussel, dwarf	Alasmidonta heterodon		BOVA
010214	FESE	IIa	Logperch, Roanoke	Percina rex		BOVA
050022	FTST	Ia	Bat, northern long-eared	Myotis septentrionalis		BOVA
060173	FTST	Ia	Pigtoe, Atlantic	Fusconaia masoni		BOVA,Habitat
060029	FTST	IIa	Lance, yellow	Elliptio lanceolata		BOVA
050020	SE	Ia	Bat, little brown	Myotis lucifugus		BOVA
050027	FPSE	Ia	Bat, tri-colored	Perimyotis subflavus		BOVA
060006	SE	Ib	Floater, brook	Alasmidonta varicosa		BOVA
040293	ST	Ia	Shrike, loggerhead	Lanius ludovicianus		BOVA
040385	ST	Ia	Sparrow, Bachman's	Peucaea aestivalis		BOVA
060081	ST	IIa	Floater, green	Lasmigona subviridis		BOVA
010070	ST	IIc	Shiner, whitemouth	Notropis alborus		BOVA
040292	ST		Shrike, migrant loggerhead	Lanius ludovicianus migrans		BOVA
030063	CC	IIIa	Turtle, spotted	Clemmys guttata		BOVA
010174		Ia	Bass, Roanoke	Ambloplites cavifrons		BOVA,Habitat
020002		IIa	Treefrog, barking	Hyla gratiosa		BOVA
040052		IIa	Duck, American black	Anas rubripes		BOVA
040320		IIa	Warbler, cerulean	Setophaga cerulea		BOVA
040140		IIa	Woodcock, American	Scolopax minor		BOVA
060071		IIa	Lampmussel, yellow	Lampsilis cariosa		BOVA
040105		IIb	Rail, king	Rallus elegans		BOVA

To view **All 395 species** [View 395](#)

*FE=Federal Endangered; FT=Federal Threatened; SE=State Endangered; ST=State Threatened; FP=Federal Proposed;
FC=Federal Candidate; CC=Collection Concern

**I=VA Wildlife Action Plan - Tier I - Critical Conservation Need; II=VA Wildlife Action Plan - Tier II - Very High Conservation Need;
III=VA Wildlife Action Plan - Tier III - High Conservation Need;
IV=VA Wildlife Action Plan - Tier IV - Moderate Conservation Need
Virginia Wildlife Action Plan Conservation Opportunity Ranking:
a - On the ground management strategies/actions exist and can be feasibly implemented.;

- b - On the ground actions or research needs have been identified but cannot feasibly be implemented at this time.;
- c - No on the ground actions or research needs have been identified or all identified conservation opportunities have been exhausted.

Bat Colonies or Hibernacula: **Not Known**

Anadromous Fish Use Streams

N/A

Colonial Water Bird Survey

N/A

Threatened and Endangered Waters

N/A

Managed Trout Streams

N/A

Bald Eagle Concentration Areas and Roosts

N/A

Bald Eagle Nests

N/A

Habitat Predicted for Aquatic WAP Tier I & II Species (2 Reaches)

[View Map Combined Reaches from Below of Habitat Predicted for WAP Tier I & II Aquatic Species](#)

Stream Name	Tier Species						View Map
	Highest TE*	BOVA Code, Status*, Tier**, Common & Scientific Name					
Crooked Creek (03010204)	FTST	010174		Ia	Bass, Roanoke	Ambloplites cavifrons	Yes
		060173	FTST	Ia	Pigtoe, Atlantic	Fusconaia masoni	
Crooked Creek (03010204)	FTST	060173	FTST	Ia	Pigtoe, Atlantic	Fusconaia masoni	Yes
Crooked Creek	FTST	060173	FTST	Ia	Pigtoe,	Fusconaia	Yes

(03010204)					Atlantic	masoni	
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Habitat Predicted for Terrestrial WAP Tier I & II Species

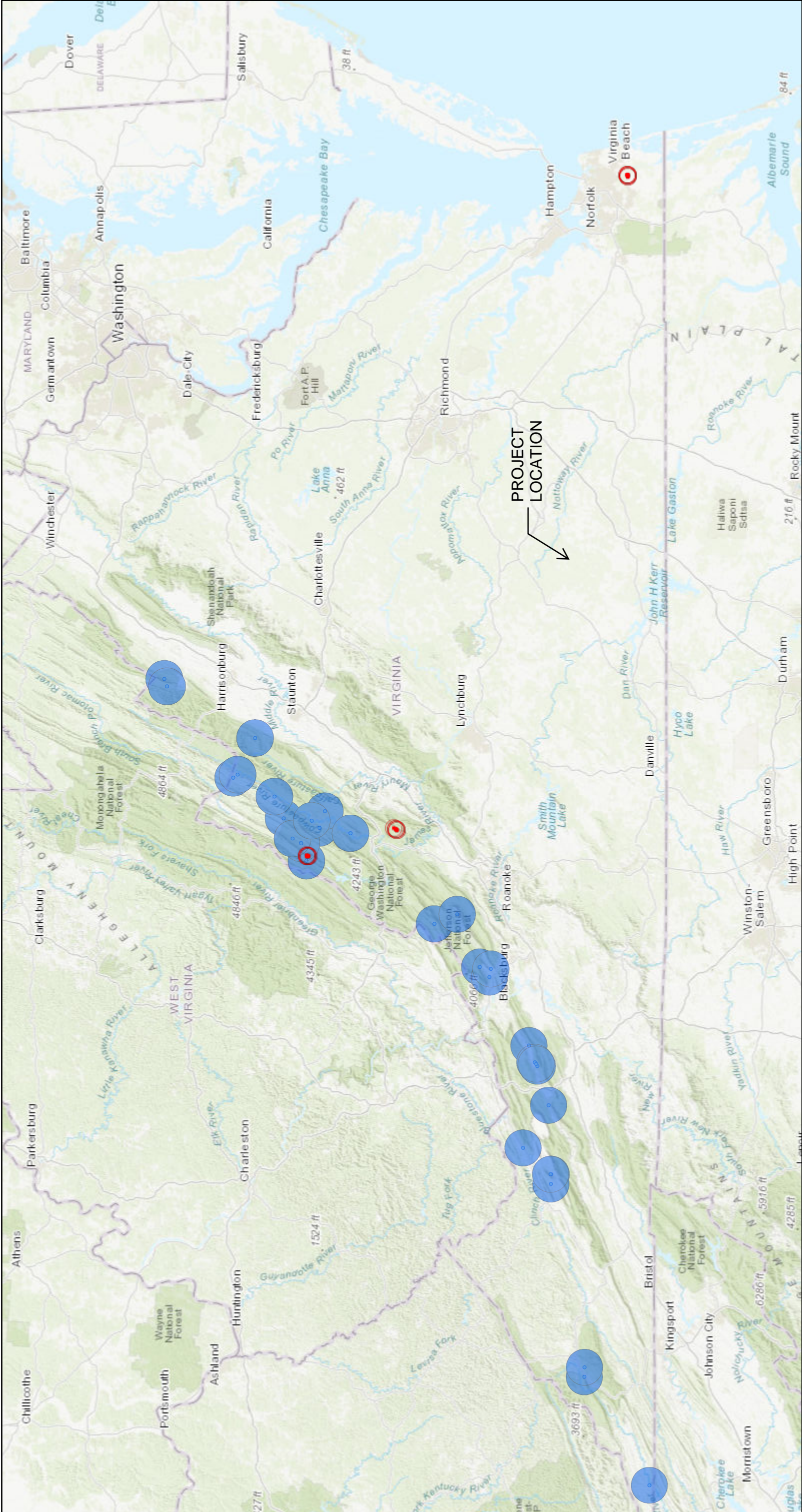
N/A

Public Holdings:

N/A

Compiled on 11/29/2022, 10:07:28 AM I1443180.0 report=IPA searchType= R dist= 4022 poi= 36.8813889 -78.1963889
PixelSize=64; Anadromous=0.019047; BECAR=0.020691; Bats=0.020338; Buffer=0.097002; County=0.05816; Impediments=0.020123; Init=0.126817; PublicLands=0.02697; SppObs=0.328627;
TEWaters=0.028264; TierReaches=0.068661; TierTerrestrial=0.091131; Total=0.987866; Tracking_BOVA=0.149482; Trout=0.025924

NLEB Locations and Roost Trees



11/21/2022, 1:38:20 PM

● NLEB Known Occupied Maternity Roost (Summer Habitat)

● NLEB Hibernaculum 5.5 Mile Buffer

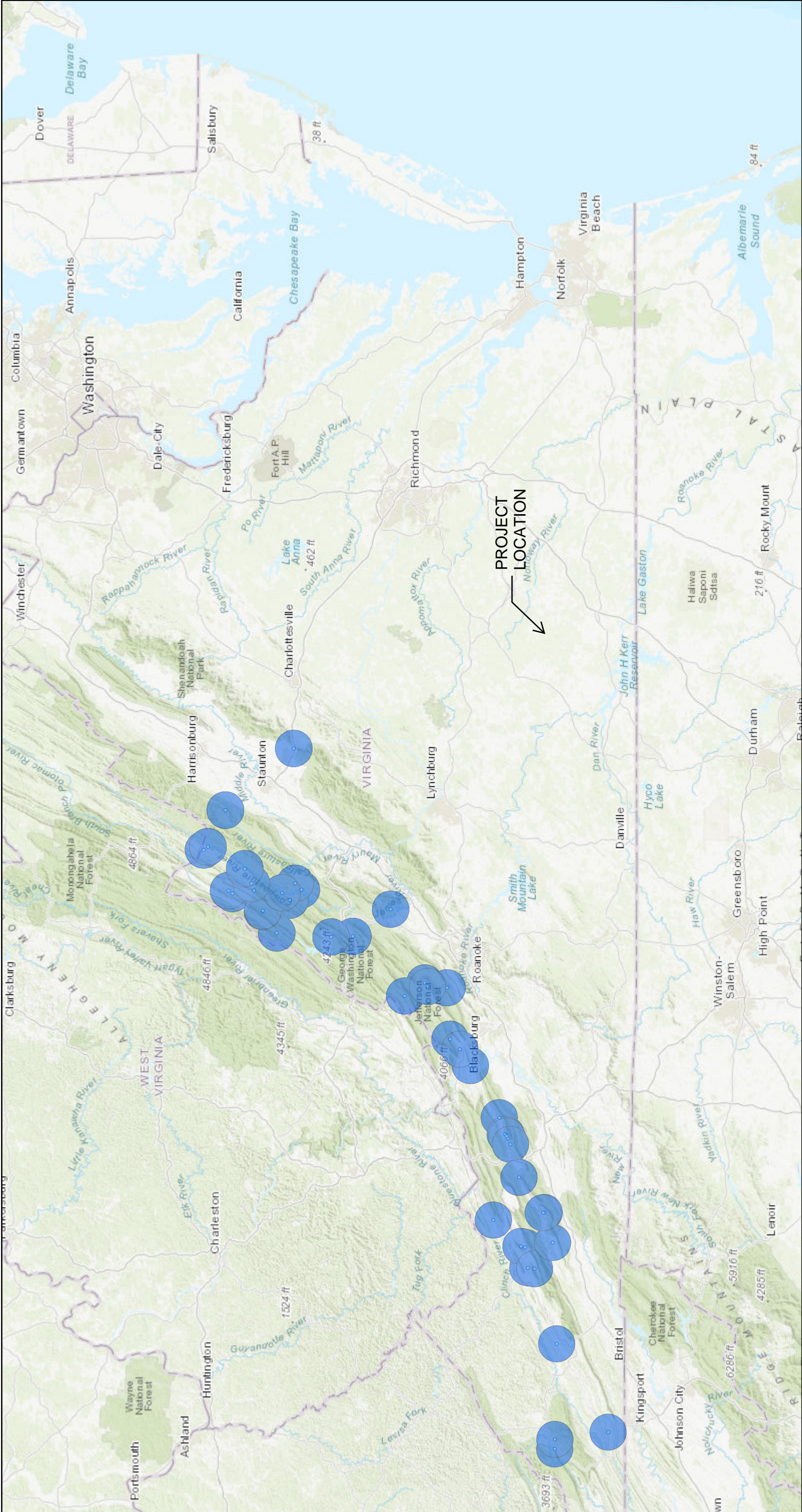
● NLEB Hibernaculum Half Mile Buffer

1:2,311,162

0 20 40 80 mi
0 35 70 140 km

Esri, HERE, Garmin, FAO, USGS, EPA, NPS

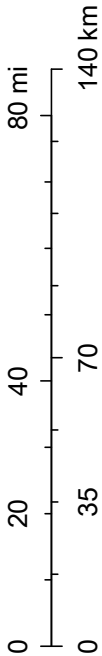
TRI-COLORED AND LITTLE BROWN BAT LOCATIONS AND ROOST TREES



11/21/2022, 1:46:25 PM

- Tri-colored and Little Brown Hibernaculum Half Mile Buffer
- Tri-colored and Little Brown Hibernaculum 5.5 Mile Buffer

1:2,311,162



Esri, HERE, Garmin, FAO, USGS, EPA, NPS



Department of Conservation & Recreation

[CONSERVING VIRGINIA'S NATURAL & RECREATIONAL RESOURCES](#)

PROJECT INFORMATION

TITLE: Lunenburg Solar

DESCRIPTION: Development of solar facility

EXISTING SITE CONDITIONS: Pine plantation

QUADRANGLES: Kenbridge West

COUNTIES: Lunenburg

Latitude/Longitude (DMS): 36° 52' 54.2954" N / 78° 11' 48.2172" W

Acreage: 108 acres

Comments:

REQUESTOR INFORMATION

Priority: N

Tier Level: Tier II Plus

Tax ID:

Contact Name: Tim Davis

Company Name: VHB, Inc.

Address: 351 McLaws Circle, Suite 3

City: Williamsburg

State: VA

Zip: 23185

Phone: 757-220-0500

Fax: 757-903-2794

Email: tdavis@vhb.com

Web Project ID: WEB00000019083

Client Project Number:

Conservation Site	Site Type	Brank	Acreage	Listed Species Presence	Essential Conservation Site?
Natural Heritage Screening Features Intersecting Project Boundary					

Site Name	Group Name	Common Name	Scientific Name	GRANK	SRANK	Fed Status	Species of Concern	State Status	EO Rank	Last Obs Date	Precision
Natural Heritage Resources Intersecting Project Boundary											

Intersecting Predictive Models											
Predictive Model Results											

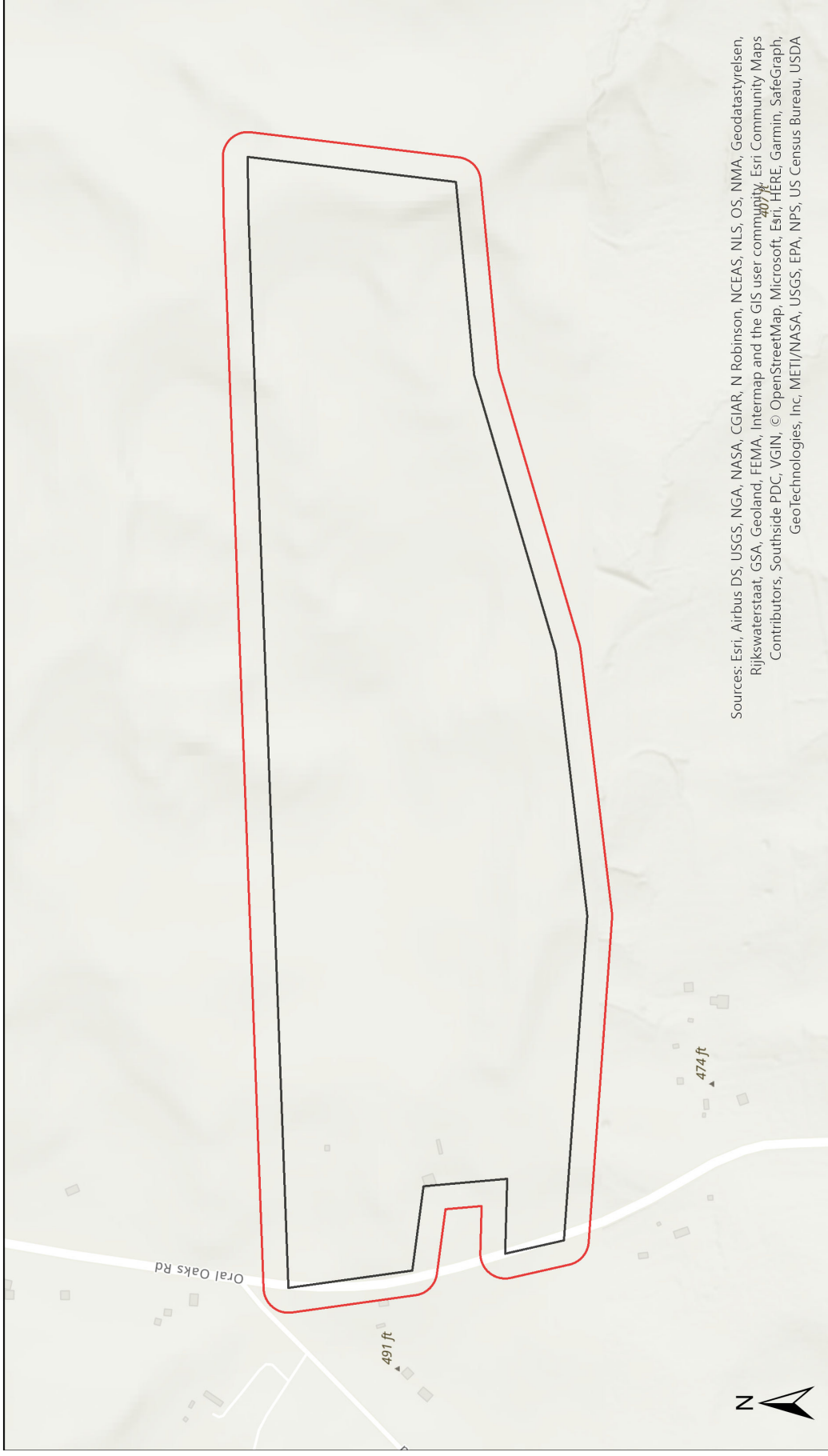
In addition, the proposed project will impact an Ecological Core(s) C3 as identified in the Virginia Natural Landscape Assessment (<https://www.dcr.virginia.gov/natural-heritage/vaconvisvnl>). Mapped cores in the project area can be viewed via the Virginia Natural Heritage Data Explorer, available here: <http://vanhde.org/content/map>.

Ecological Cores are areas of at least 100 acres of continuous interior, natural cover that provide habitat for a wide range of species, from interior-dependent forest species to habitat generalists, as well as species that utilize marsh, dune, and beach habitats. Interior core areas begin 100 meters inside core edges and continue to the deepest parts of cores. Cores also provide the natural, economic, and quality of life benefits of open space, recreation, thermal moderation, water quality (including drinking water recharge and protection, and erosion prevention), and air quality (including sequestration of carbon, absorption of gaseous pollutants, and production of oxygen). Cores are ranked from C1 to C5 (C5 being the least significant) using nine prioritization criteria, including the habitats of natural heritage resources they contain.

Impacts to cores occur when their natural cover is partially or completely converted permanently to developed land uses. Habitat conversion to development causes reductions in ecosystem processes, native biodiversity, and habitat quality due to habitat loss; less viable plant and animal populations; increased predation; and increased introduction and establishment of invasive species.

DCR recommends avoidance of impacts to cores. When avoidance cannot be achieved, DCR recommends minimizing the area of impacts overall and concentrating the impacted area at the edges of cores, so that the most interior remains intact.

Lunenburg Solar



Buffered Project
Boundary
Project Boundary

Quads: Kenbridge West
Counties: Lunenburg

Company: VHB, Inc.

Lat/Long: 365254 / -781148



COMMONWEALTH of VIRGINIA
DEPARTMENT OF CONSERVATION AND RECREATION

The project mapped as part of this report has been searched against the Department of Conservation and Recreation's Biotics Data System for occurrences of natural heritage resources in the vicinity of the area indicated for this project. Natural heritage resources are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations.

According to the information currently in Biotics, natural heritage resources have not been documented within the submitted project boundary including a 100 foot buffer. In addition, the project area does not intersect any of the predictive models identifying potential habitat for natural heritage resources.

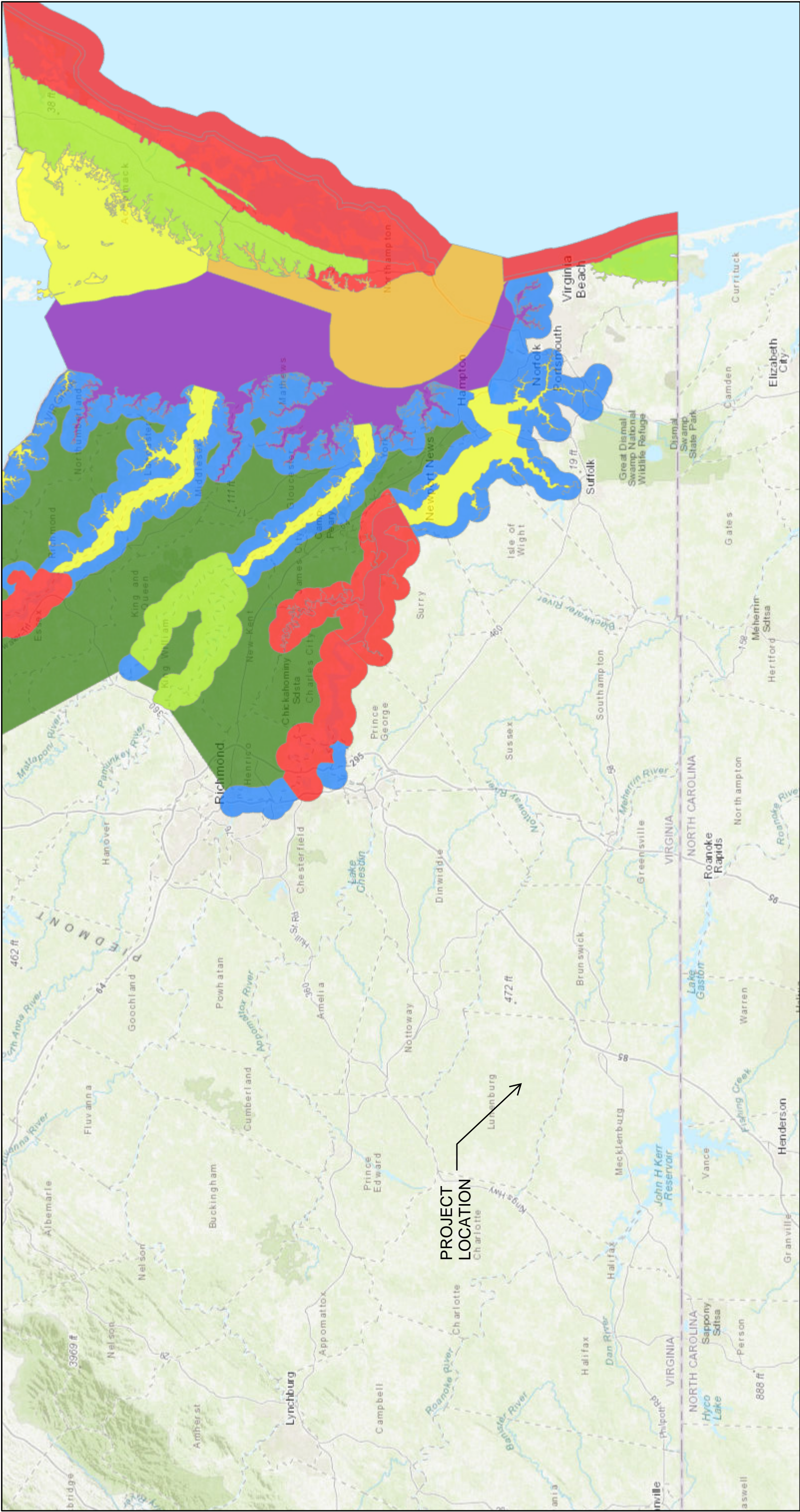
Under a Memorandum of Agreement established between the Virginia Department of Agriculture and Consumer Services (VDACS) and the Virginia Department of Conservation and Recreation (DCR), DCR represents VDACS in comments regarding potential impacts on state-listed threatened and endangered plant and insect species. The current activity will not affect any documented state-listed plants or insects.

Any absence of data may indicate that the project area has not been surveyed, rather than confirm that the area lacks additional natural heritage resources. New and updated information is continually added to Biotics. Please revisit this website or contact DCR for an update on this natural heritage information if a significant amount of time passes (DCR recommends no more than six months) before it is utilized.

The Virginia Department of Wildlife Resources maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters, that may contain information not documented in the Natural Heritage Data Explorer. Their database may be accessed from <https://services.dwr.virginia.gov/fwis/> or contact Amy Martin (804-367-2211 or amy.martin@dwr.virginia.gov).

Thank you for submitting your project to the Virginia Department of Conservation and Recreation's Natural Heritage Data Explorer Web Service. **Based on the preliminary screening results for this project, no further correspondence will be sent from this office.** Should you have any questions or concerns about this report, the Data Explorer, or other Virginia Natural Heritage Program services, please contact the Natural Heritage Project Review Unit at 804-371-2708.

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY (VDEQ) - COASTAL GEOSPATIAL AND EDUCATION MAPPING SYSTEM (GEMS)



11/21/2022, 1:57:02 PM

1:1,155,581

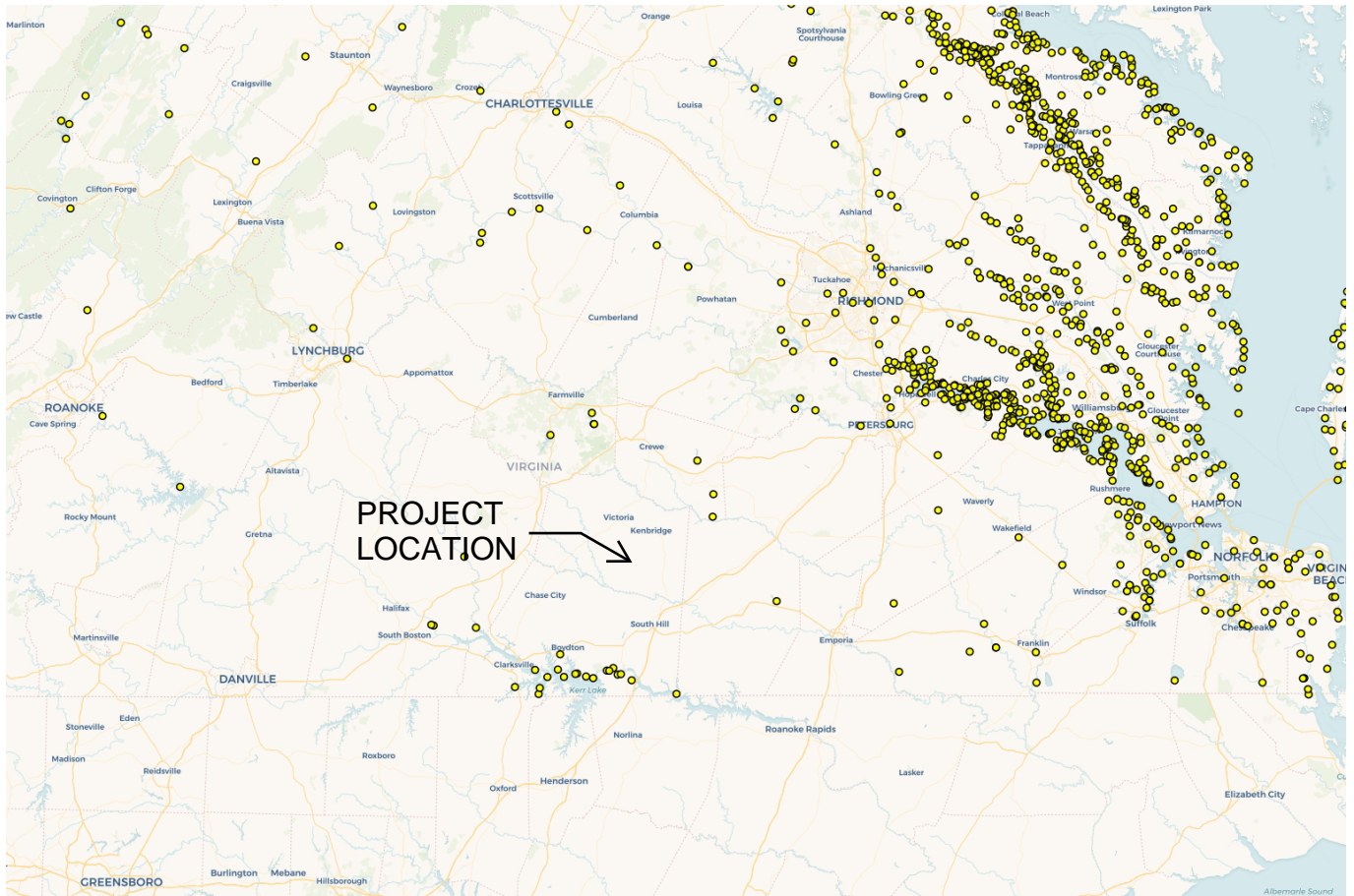


Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community



The CENTER for
CONSERVATION
BIOLOGY

CCB Mapping Portal



Layers: VA Eagle Nest Locator

Map Center [longitude, latitude]: [-77.9150390625, 37.08038005833324]

Map Link:

https://ccbbirds.org/maps/#layer=VA+Eagle+Nest+Locator&zoom=9&lat=37.08038005833324&lng=-77.9150390625&legend=legend_tab_7c321b7e-e523-11e4-aaa0-0e0c41326911&base=Street+Map+%28OSM%2FCarto%29

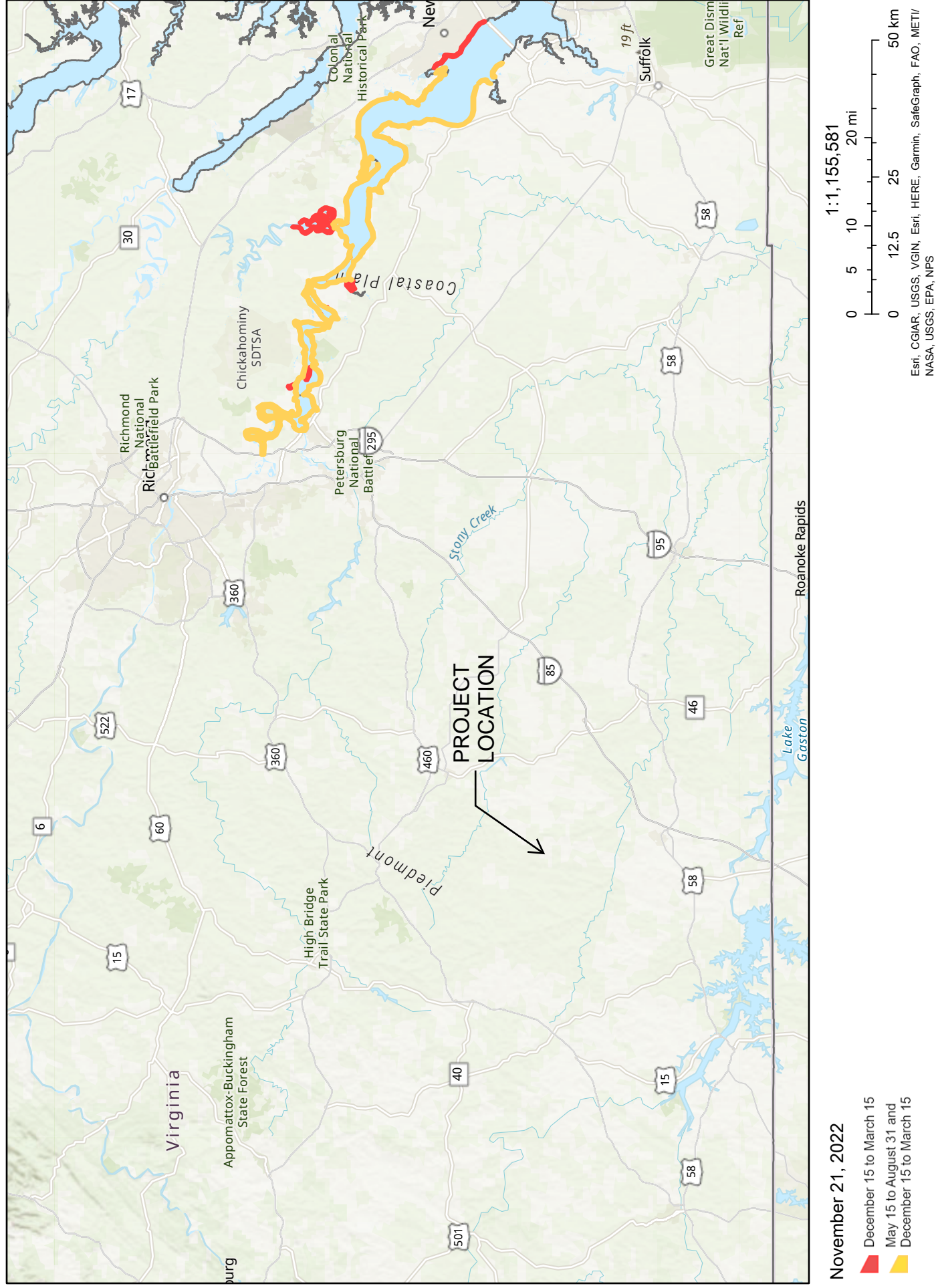
Report Generated On: 11/21/2022

The Center for Conservation Biology (CCB) provides certain data online as a free service to the public and the regulatory sector. CCB encourages the use of its data sets in wildlife conservation and management applications. These data are protected by intellectual property laws. All users are reminded to view the [Data Use Agreement](#) to ensure compliance with our data use policies. For additional data access questions, view our [Data Distribution Policy](#), or contact our Data Manager, Marie Pitts, at mlpitts@wm.edu or 757-221-7503.

Report generated by [The Center for Conservation Biology Mapping Portal](#).

To learn more about CCB visit ccbbirds.org or contact us at info@ccbbirds.org

USFWS Bald Eagle Concentration Areas - Virginia





E

Appendix E

Transportation Management Plan &
Existing Pavement Condition Inventory

TRANSPORTATION MANAGEMENT PLAN

1). Project Category

- A). This project is a "Type A Category I" project.
- 1) Construction will consist of the construction of a proposed solar engergy site along Rte. 635 (Oral Oaks Rd) with anticipated construction traffic utilizing the following Routes:

- Rte. 635 (Oral Oaks Rd)

- Rte. 655 (Plank Rd)

- Rte. 637 (Craig Mill Rd)

- Rte. 40 (N. Broad St)

- Rte. 40 (Blackstone Rd)

- Rte. 40 (Kenbridge Rd)

- US 460(Bus) (Cox Rd)

- UW 460 (W. Colonial Trail Hwy)
- B) The work areas are generally located within the proposed site property line except to tie proposed site entrance into existing Rte. 635 (Oral Oaks Rd). Work on entrance will remain within the existing right of way, with no disruption to adjacent properties.
- C). The traffic using the impacted facility includes a mixture of local and regional commuters, out of state travelers, local residents, as well as local and regional commercial traffic.
- D). These plans identified various areas within the proposed site property for the contractor to stage equipment and materials to support the construction activities. Outside Advanced signage in support of these traffic control plans, no other work or materials are proposed to be located within the right of way.

2). Temporary Traffic Control (TTC) Plan

- A). Major components will consist of General Notes and Special Details.
- B). Specific traffic control figures and notes from the current 2011 Virginia Work Area Protection Manual - Revision 2 (WAPM) may include, but are not limited to:

Pg. 6H-12 and 6H-13 Figure TTC-3.2 (Mobile or Short Duration Shoulder Operation)

Pg. 6H-14 and 6H-15 Figure TTC-4.2 (Stationary Operation on a Shoulder)

Pg. 6H-54 and 6H-55 Figure TTC-23.2 (Lane Closure on a Two Lane Road using Flaggers)

Pg. 6H-132 and 6H-133 Figure TTC-63.2 (Logging Operation)

C). Allowable Work Hours

For Contractor and public safety it is hereby advised that construction activities that will require lane closures or other types of limitations shall occur during non-peak daylight hours as follows:

Route	Construction Activity	Traffic Control	Time of Day
Oral Oaks Rd (Rte. 635)	Construction of Site Entrance	TTC-23.2	Monday - Friday , and Saturdays 9:00AM to 4:00PM
Oral Oaks Rd (Rte. 635)	Construction of remainder of Solar Site	TTC-63.2	Monday - Friday , and Saturdays 9:00AM to 4:00PM

3). Public Communication Strategies:

Public Communications Plan:

Contractor to coordinate with VDOT Richmond District Public Affairs Office 804-524-6179 or 804-586-4455, to provide the following information to the public:

Impacted Route Number:

- Rte. 635 (Oral Oaks Rd)

- Rte. 655 (Plank Rd)

- Rte. 637 (Craig Mill Rd)

Traffic Impacts:

- Traffic control shall consist of temporary short duration road and shoulder closures.

- Motorists should be alerted to the possibility of heavier than normal truck traffic and possible delays during working hours.

Goals:

- To inform the public about the location and schedule of the project

- To minimize disruption through proactive information dissemination

Messages provided to the public:

- Time frame and location of the proposed lane closure operations.

- Contacts for more information

4). Crisis Communications Plan:

- As with any crisis, emergency responders (911) should be notified immediately if necessary.

- Site Coordinator shall contact the VDOT Residency Area Land Use Engineer (ALUE) or his designee.

- If the emergency is traffic related, the ALUE or his designee should immediately notify the Central Regional Operations - Traffic Operations Center (CRO TOC) manager and the District Public Affairs office.

- The ALUE, public affairs, and the CRO TOC will work together to inform the traveling public, emergency responders, and the media about delays and unexpected changes in traffic patterns using the contact list on this sheet and other resources if necessary.

5). Transportation Operations (TO) Plan

- A). The following contact list of local emergency response agencies and key project personnel shall be provided to the work crews and be readily available during project activities.

Service	Contact	Phone Number
Haz-mat	911	911
Police	Virginia State Police (Area 22)	(434) 447-4121
Fire	Kenbridge Fire Department	(434) 676-2424
Hospital	Chesapeake Regional Medical Center	(757) 312-8121
Local Police	Kenbridge Police Department	(434) 676-2453
VDOT Work Zone Safety Coordinator	Reginald Patterson JR.	(804) 640-1642
VDOT South Hill Residency	Tommy Johnson	(434) 774-2300
VDOT Public Affairs Office	Bethanie Glover	(804) 524-6179
Traffic Operations Center	TOC Manager	(804) 796-4522

- B) The following procedures shall be utilized to respond to traffic incidents that may occur in the work zone:

- a. Contractor to call 911 to report incident.

b. Contractor to notify both State and Local Police.

c. Contractor to notify VDOT Work Zone Safety Coordiantor of any incident in the work zone.

d. Depending upon severity of incident, Contractor may have to shut down work.

e. Upon arrival on scene, responding officers will determine response necessary to allow traveling public around incident.

f. The responding officers will take control of the incident and direct its clearing and restoration to normal traffic conditions.

- C) Notify the Traffic Operations Center (TOC) 48 hours prior to beginning work and prior to any traffic pattern changes in order to place lane closure information on the 511 system and VA Traffic

Work Zone Certification

Plans Prepared by Jonathan Bonghi, PE who completed Advanced Work Zone Traffic Control Training (Cert. No. 120121102)



115 South 15th Street
Suite 200
Richmond, VA 23219
804.343.7100



Kenbridge Solar
Lunenburg County, Virginia

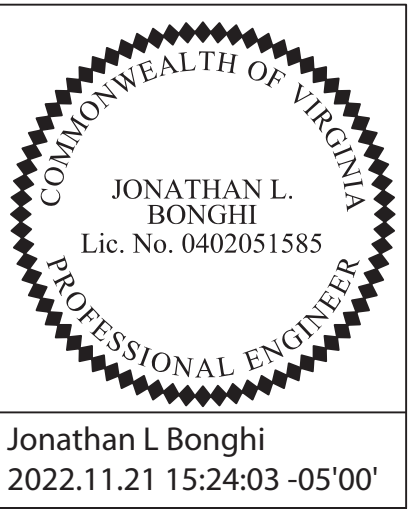
No.	Revision	Date	Appvd.

Designed by JLB	Checked by CTD
Issued for	Date

Permitting Review

Novemeber 2022








Drawing Title
Transportation Management Plan



TMP 101
Drawing Number

34823.00
Project Number

TEMPORARY SIGN LEGEND

Sign	Name	Size
	W20-1	36"X36"
	W20-4	36"X36"
	W3-4	36"X36"
	W20-7	36"X36"
	G20-2(V)	48"X24"
	W11-V4	36"X36"
	R1-1	36"X36"

General Notes:

- 1). This project is to be constructed in accordance with the 2016 VDOT Road and Bridge Specifications, 2016 Road and Bridge Standards, 2009 MUTCD (revision 2), 2011 Virginia Work Area Protection Manual (Revision 2), and as amended by contract Provisions.
- 2). All traffic control devices and signs necessary for maintenance of traffic are to be provided, installed, maintained and removed by the contractor.
- 3). Trenches for utility drainage pipe installations shall be backfilled as soon as is practicable or as directed by the Engineer. Open excavation for trenches shall not be left unattended after working hours, backfilling will be required at the conclusion of each work day.
- 4). Any temporary removal or covering of existing traffic signs along the project shall be the responsibility of the contractor and be performed as directed by the Engineer, and such work shall be considered incidental to the project.
- 5). Travel lanes through the construction area shall be a minimum of 10 feet in width.
- 6). In all stages of construction, it is the contractor's responsibility to ensure that all drainage items (temporary or proposed) necessary to provide positive drainage during the construction are installed prior to construction activities.
- 7). All flaggers must have completed VDOT flagger training and be fully certified to perform flagging duties. Contractor shall have flagger certifications on site at all times to verify flaggers have completed the necessary training.

Channelizing Devices

Channelizing devices are required for all lane closures on this project. Device spacing shall follow VA Work Area Protection Manual requirements as field conditions allow. The following are the recommended device spacings:

Location	Spacing
Merging Tapers	20 Ft
Tangents	40 Ft

Required Taper, Buffer Lengths, and Sign Spacing

In accordance with the VA Work Area Protection Manual the following are the recommended merging taper and buffer lengths to be installed in advance of the active work area:

Location	Length
Merging Taper (Flagging)	100 - 120 Ft
Longitudinal Buffer	500 Ft
Downstream Taper	100 Ft
**Sign Spacing	500 Ft

**Unposted Statutory Speed Limit = 55 MPH



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Richmond, VA 23219
804.343.7100



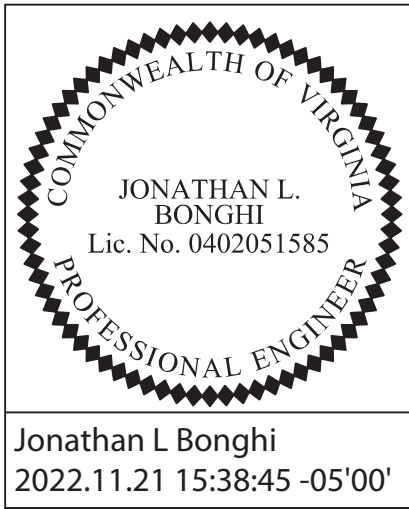
Kenbridge Solar
Lunenburg County, Virginia

No.	Revision	Date	Appvd.

Designed by JLB	Checked by CTD
Issued for	Date

Permitting Review
Novemeber 2022

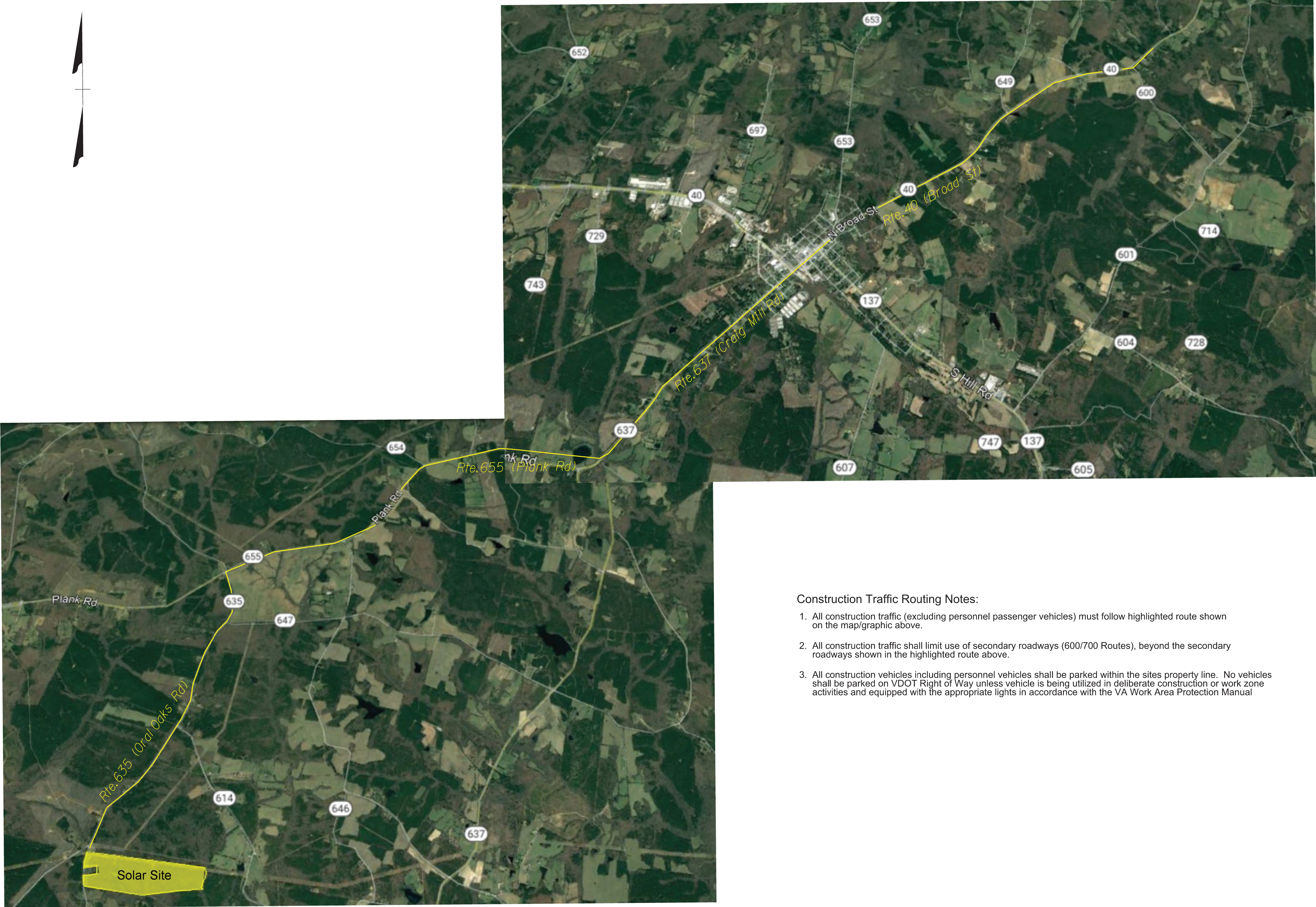
Drawing Title
Transportation Management Plan



TMP 102
Drawing Number

34823.00
Project Number

Construction Traffic Continues Along
Route 40 (Kenbridge Rd/Black Stone Rd) to US 460




Site located at:
5844 Oral Oaks Rd
Kenbridge, VA

- Construction Traffic Routing Notes:
1. All construction traffic (excluding personnel passenger vehicles) must follow highlighted route shown on the map/graphic above.
 2. All construction traffic shall limit use of secondary roadways (600/700 Routes), beyond the secondary roadways shown in the highlighted route above.
 3. All construction vehicles including personnel vehicles shall be parked within the sites property line. No vehicles shall be parked on VDOT Right of Way unless vehicle is being utilized in deliberate construction or work zone activities and equipped with the appropriate lights in accordance with the VA Work Area Protection Manual



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Richmond, VA 23219
804.343.7100

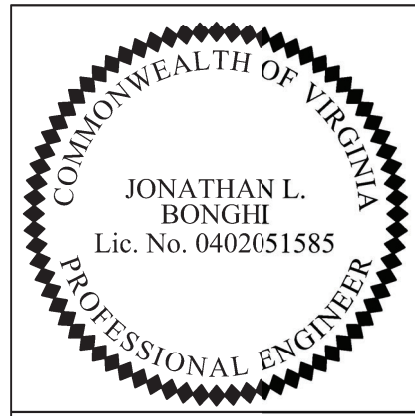


Kenbridge Solar
Lunenburg County, Virginia

No.	Revision	Date	Appvd.

Designed by JLB	Checked by CTD
Issued for Permitting Review	Date Novemeber 2022

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Transportation Management Plan



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TMP 103
Drawing Number

34823.00
Project Number



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Richmond, VA 23219
804.343.7100



Kenbridge Solar
Lunenburg County, Virginia

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Designed by JLB	Checked by CTD
Issued for	Date

Permitting Review Novemeber 2022

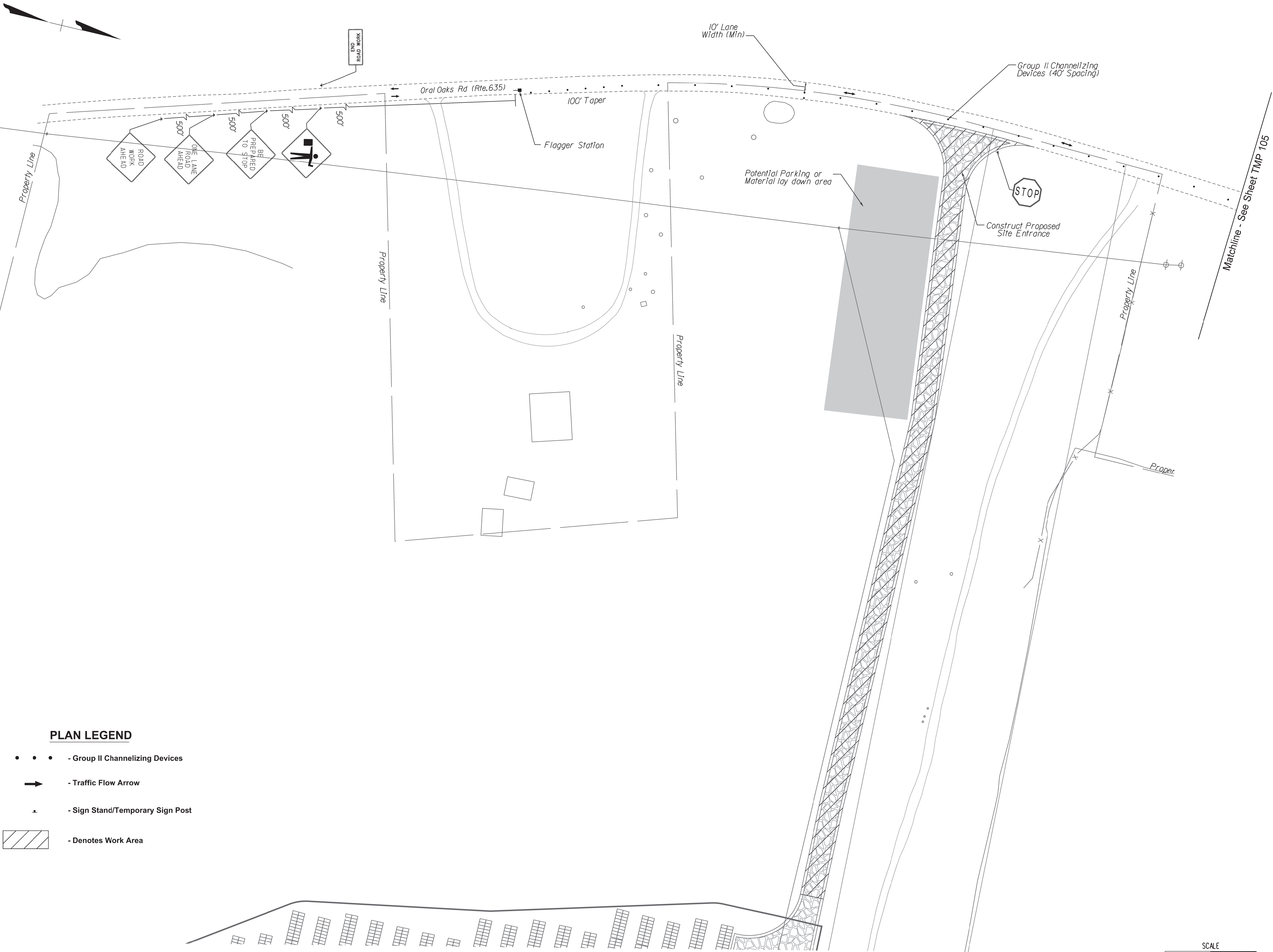
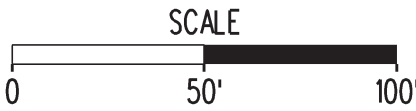
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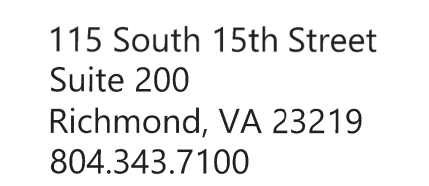
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Drawing Number


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Project Number




PLAN LEGEND

- • • - Group II Channelizing Devices
- ➔ - Traffic Flow Arrow
- ⌵ - Sign Stand/Temporary Sign Post
- ▨ - Denotes Work Area



- • • - Group II Channelizing Devices
- ➡ - Traffic Flow Arrow
- ⊥ - Sign Stand/Temporary Sign Post
-  - Denotes Work Area

SCALE



0 50' 100'

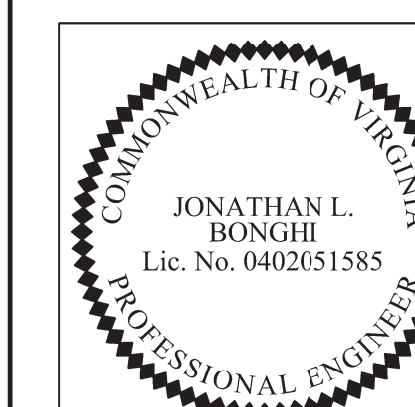


No.	Revision	Date	Appvd.

Designed by JLB	Checked by CTD
Issued for	Date

Issued for	Date
Permitting Review	November 2022

Drawing Title
Transportation Management Plan



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TMP 105
Drawing Number

	34823.00
	Project Number



To: Taylor Newton
County of Lunenburg

Date: November 21, 2022

Memorandum

From: Jonathan Bonghi, PE

Re: Kenbridge Solar Site – Existing Pavement Condition Inventory

Taylor,

VHB performed an existing conditions inventory to observe the existing roadway conditions within the project area. The goal of the inventory was to document pre-construction pavement conditions and current traffic control devices for the secondary roadways along the proposed construction traffic route between the proposed solar site and Kenbridge, Virginia, where construction traffic will continue onto primary routes VA-40 and US-460.

VHB drove the following previously defined impacted secondary routes:

Rte. 635 (Oral Oaks Rd)

Rte. 655 (Plank Rd)

Rte. 637 (Craig Mill Rd/S. Broad St)

VHB recorded video using a GPS linked GoPro to ascertain the existing roadway conditions. VHB drove the route between the project site and the nearest primary route (Route 40) at the S. Broad St/Main Street intersection and recorded two videos running the construction route in both directions. The video labeled "Kenbridge_Direction1" is the route from north (Town of Kenbridge) to south (project site) and the video labeled "Kenbridge_Direction2" is the route filmed from south to north. VHB is providing the GoPro videos, which can be viewed with any standard video playback software. VHB is also providing the two excel files that will display an approximate location using GPS coordinates that correspond with the elapsed time of each video in minutes/seconds. To use the excels, input the desired elapsed video time into the highlighted "Input" boxes at the top of the excel sheets. Once "Enter" is hit, the "Output" row will display the GPS coordinates in Latitude and Longitude that correspond to the inputted elapsed time. The directions indicated in the title of the excels, correlate with the directions indicated in the title of the GoPro videos (Direction 1/Direction 2).

Please review the provided videos and excel spreadsheets and note the following observations on the reviewed secondary routes:

Route 635 (Oral Oaks Road) – Overall the pavement along Route 635 (Oral Oaks Road) is in good conditions with limited-to-no major physical defects observed (No Cracking, Unraveling, or Spalding). The roadway provided a relatively smooth ride and limited to no vibrations were felt/heard while driving this route. Some existing pavement patching was observed; however, these patches are in good conditions and did not appear to impact the rideability of the roadway.

Route 655 (Plank Rd) – Overall the pavement along Route 655 (Plank Road) is in fair condition with limited-to-no major physical defects observed (No Cracking, Unraveling, or Spalding). However, the roadway provided a relatively rough ride with multiple locations causing vibrations to be heard and felt while driving this route. It was noted that there is an existing logging operation along this route, which may have caused rideability issues in the existing

pavement. Some existing pavement patching was observed; however, these patches are in good conditions and did not appear to impact the rideability of the roadway.

Route 637 (Craig Mill Rd) – Overall the pavement along Route 637 (Craig Mill Rd) is in excellent condition with no major physical defects observed (No Cracking, Unraveling, or Spalding). The roadway appears to have been repaved recently and the roadway provided a smooth ride. There were no vibrations felt/heard while driving this route. No existing pavement patching was observed along this roadway.

Route 637 (S. Broad St) – Overall the pavement along Route 637 (S. Broad St) is in good conditions with limited-to-no major physical defects observed (No Cracking, Unraveling, or Spalding). The roadway provided a relatively smooth ride and limited-to-no vibrations were felt/heard while driving this route. Some existing pavement patching was observed; however, these patches are in good conditions and did not appear to impact the rideability of the roadway.



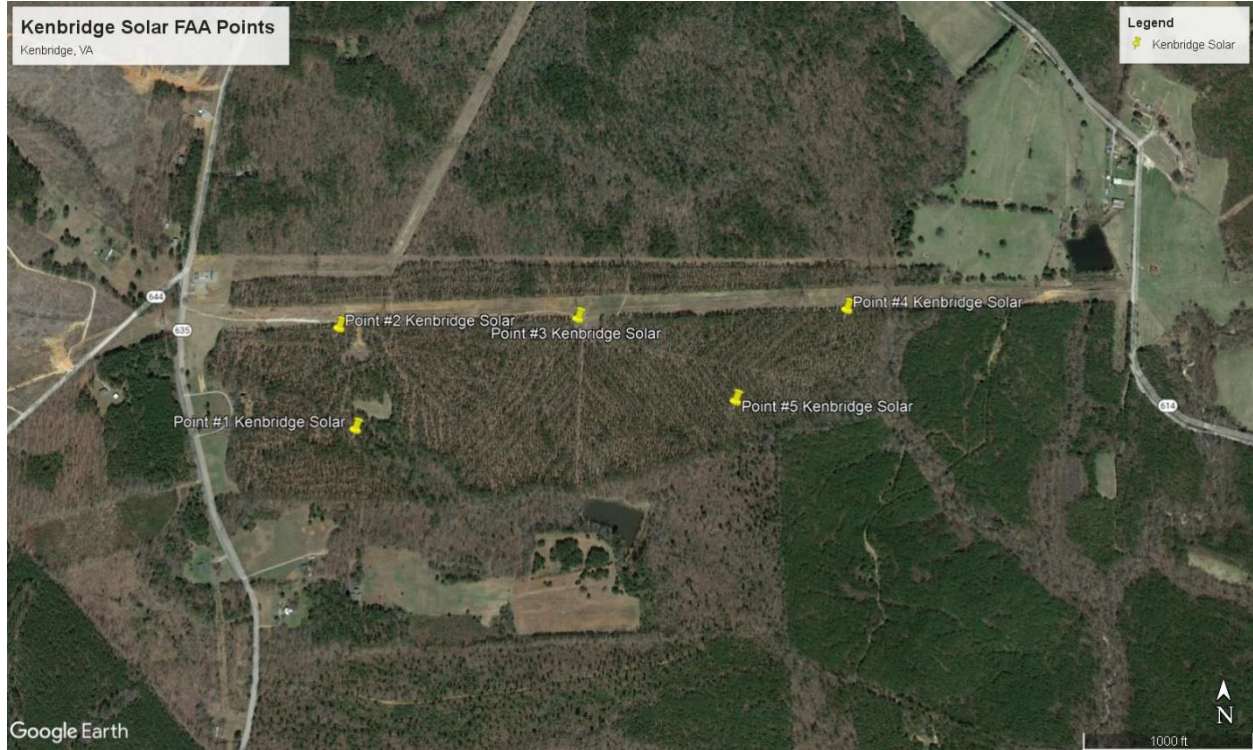
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Appendix F

FAA Determination

FAA Determination

The Project utilized the FAA's Notice Criteria Tool to determine if the Project would exceed the Notice Criteria and potentially result in any issues with air traffic. For all five points indicated in the map below, the results were the same: "You Do Not Exceed Notice Criteria".





Notice Criteria Tool

Point 1

[Notice Criteria Tool - Desk Reference Guide V_2018.2.0](#)

The requirements for filing with the Federal Aviation Administration for proposed structures vary based on a number of factors: height, proximity to an airport, location, and frequencies emitted from the structure, etc. For more details, please reference [CFR Title 14 Part 77.9](#).

You must file with the FAA at least 45 days prior to construction if:

- your structure will exceed 200ft above ground level
- your structure will be in proximity to an airport and will exceed the slope ratio
- your structure involves construction of a traverseway (i.e. highway, railroad, waterway etc...) and once adjusted upward with the appropriate vertical distance would exceed a standard of 77.9(a) or (b)
- your structure will emit frequencies, and does not meet the conditions of the [FAA Co-location Policy](#)
- your structure will be in an instrument approach area and might exceed part 77 Subpart C
- your proposed structure will be in proximity to a navigation facility and may impact the assurance of navigation signal reception
- your structure will be on an airport or heliport
- filing has been requested by the FAA

If you require additional information regarding the filing requirements for your structure, please identify and contact the appropriate FAA representative using the [Air Traffic Areas of Responsibility map](#) for Off Airport construction, or contact the [FAA Airports Region / District Office](#) for On Airport construction.

The tool below will assist in applying Part 77 Notice Criteria.

Latitude:	<input type="text" value="36"/> Deg	<input type="text" value="52"/> M	<input type="text" value="50.98"/> S	<input type="text" value="N"/> <input type="button" value="v"/>
Longitude:	<input type="text" value="78"/> Deg	<input type="text" value="12"/> M	<input type="text" value="1.93"/> S	<input type="text" value="W"/> <input type="button" value="v"/>
Horizontal Datum:	<input type="text" value="NAD83"/> <input type="button" value="v"/>			
Site Elevation (SE):	<input type="text" value="441"/> (nearest foot)			
Structure Height :	<input type="text" value="15"/> (nearest foot)			
Traverseway:	<input type="text" value="No Traverseway"/> <input type="button" value="v"/> (Additional height is added to certain structures under 77.9(c)) User can increase the default height adjustment for Traverseway, Private Roadway and Waterway			
Is structure on airport:	<input checked="" type="radio"/> No <input type="radio"/> Yes			

Results

You do not exceed Notice Criteria.



Notice Criteria Tool

Point 2

[Notice Criteria Tool - Desk Reference Guide V_2018.2.0](#)

The requirements for filing with the Federal Aviation Administration for proposed structures vary based on a number of factors: height, proximity to an airport, location, and frequencies emitted from the structure, etc. For more details, please reference [CFR Title 14 Part 77.9](#).

You must file with the FAA at least 45 days prior to construction if:

- your structure will exceed 200ft above ground level
- your structure will be in proximity to an airport and will exceed the slope ratio
- your structure involves construction of a traverseway (i.e. highway, railroad, waterway etc...) and once adjusted upward with the appropriate vertical distance would exceed a standard of 77.9(a) or (b)
- your structure will emit frequencies, and does not meet the conditions of the [FAA Co-location Policy](#)
- your structure will be in an instrument approach area and might exceed part 77 Subpart C
- your proposed structure will be in proximity to a navigation facility and may impact the assurance of navigation signal reception
- your structure will be on an airport or heliport
- filing has been requested by the FAA

If you require additional information regarding the filing requirements for your structure, please identify and contact the appropriate FAA representative using the [Air Traffic Areas of Responsibility map](#) for Off Airport construction, or contact the [FAA Airports Region / District Office](#) for On Airport construction.

The tool below will assist in applying Part 77 Notice Criteria.

Latitude:	<input type="text" value="36"/> Deg	<input type="text" value="52"/> M	<input type="text" value="57.08"/> S	<input type="button" value="N"/> <input type="button" value="▼"/>
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Horizontal Datum:	<input type="button" value="NAD83"/> <input type="button" value="▼"/>			
Site Elevation (SE):	<input type="text" value="460"/> (nearest foot)			
Structure Height :	<input type="text" value="15"/> (nearest foot)			
Traverseway:	<input type="button" value="No Traverseway"/> <input type="button" value="▼"/> (Additional height is added to certain structures under 77.9(c)) User can increase the default height adjustment for Traverseway, Private Roadway and Waterway			
Is structure on airport:	<input checked="" type="radio"/> No <input type="radio"/> Yes			

Results

You do not exceed Notice Criteria.



Notice Criteria Tool

Point 3

[Notice Criteria Tool - Desk Reference Guide V_2018.2.0](#)

The requirements for filing with the Federal Aviation Administration for proposed structures vary based on a number of factors: height, proximity to an airport, location, and frequencies emitted from the structure, etc. For more details, please reference [CFR Title 14 Part 77.9](#).

You must file with the FAA at least 45 days prior to construction if:

- your structure will exceed 200ft above ground level
- your structure will be in proximity to an airport and will exceed the slope ratio
- your structure involves construction of a traverseway (i.e. highway, railroad, waterway etc...) and once adjusted upward with the appropriate vertical distance would exceed a standard of 77.9(a) or (b)
- your structure will emit frequencies, and does not meet the conditions of the [FAA Co-location Policy](#)
- your structure will be in an instrument approach area and might exceed part 77 Subpart C
- your proposed structure will be in proximity to a navigation facility and may impact the assurance of navigation signal reception
- your structure will be on an airport or heliport
- filing has been requested by the FAA

If you require additional information regarding the filing requirements for your structure, please identify and contact the appropriate FAA representative using the [Air Traffic Areas of Responsibility map](#) for Off Airport construction, or contact the [FAA Airports Region / District Office](#) for On Airport construction.

The tool below will assist in applying Part 77 Notice Criteria.

Latitude:	<input type="text" value="36"/> Deg	<input type="text" value="52"/> M	<input type="text" value="57.6"/> S	<input type="button" value="N ▼"/>
Longitude:	<input type="text" value="78"/> Deg	<input type="text" value="11"/> M	<input type="text" value="45.37"/> S	<input type="button" value="W ▼"/>
Horizontal Datum:	<input type="button" value="NAD83 ▼"/>			
Site Elevation (SE):	<input type="text" value="457"/> (nearest foot)			
Structure Height :	<input type="text" value="15"/> (nearest foot)			
Traverseway:	<input type="button" value="No Traverseway ▼"/> (Additional height is added to certain structures under 77.9(c)) User can increase the default height adjustment for Traverseway, Private Roadway and Waterway			
Is structure on airport:	<input checked="" type="radio"/> No <input type="radio"/> Yes			

Results

You do not exceed Notice Criteria.



Notice Criteria Tool

Point 4

[Notice Criteria Tool - Desk Reference Guide V_2018.2.0](#)

The requirements for filing with the Federal Aviation Administration for proposed structures vary based on a number of factors: height, proximity to an airport, location, and frequencies emitted from the structure, etc. For more details, please reference [CFR Title 14 Part 77.9](#).

You must file with the FAA at least 45 days prior to construction if:

- your structure will exceed 200ft above ground level
- your structure will be in proximity to an airport and will exceed the slope ratio
- your structure involves construction of a traverseway (i.e. highway, railroad, waterway etc...) and once adjusted upward with the appropriate vertical distance would exceed a standard of 77.9(a) or (b)
- your structure will emit frequencies, and does not meet the conditions of the [FAA Co-location Policy](#)
- your structure will be in an instrument approach area and might exceed part 77 Subpart C
- your proposed structure will be in proximity to a navigation facility and may impact the assurance of navigation signal reception
- your structure will be on an airport or heliport
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If you require additional information regarding the filing requirements for your structure, please identify and contact the appropriate FAA representative using the [Air Traffic Areas of Responsibility map](#) for Off Airport construction, or contact the [FAA Airports Region / District Office](#) for On Airport construction.

The tool below will assist in applying Part 77 Notice Criteria.

Latitude:	<input type="text" value="36"/> Deg	<input type="text" value="52"/> M	<input type="text" value="58.12"/> S	<input type="button" value="N ▼"/>
Longitude:	<input type="text" value="78"/> Deg	<input type="text" value="11"/> M	<input type="text" value="25.11"/> S	<input type="button" value="W ▼"/>
Horizontal Datum:	<input type="button" value="NAD83 ▼"/>			
Site Elevation (SE):	<input type="text" value="402"/> (nearest foot)			
Structure Height :	<input type="text" value="15"/> (nearest foot)			
Traverseway:	<input type="button" value="No Traverseway ▼"/> (Additional height is added to certain structures under 77.9(c)) User can increase the default height adjustment for Traverseway, Private Roadway and Waterway			
Is structure on airport:	<input checked="" type="radio"/> No <input type="radio"/> Yes			

Results

You do not exceed Notice Criteria.



Notice Criteria Tool

Point 5

[Notice Criteria Tool - Desk Reference Guide V_2018.2.0](#)

The requirements for filing with the Federal Aviation Administration for proposed structures vary based on a number of factors: height, proximity to an airport, location, and frequencies emitted from the structure, etc. For more details, please reference [CFR Title 14 Part 77.9](#).

You must file with the FAA at least 45 days prior to construction if:

- your structure will exceed 200ft above ground level
- your structure will be in proximity to an airport and will exceed the slope ratio
- your structure involves construction of a traverseway (i.e. highway, railroad, waterway etc...) and once adjusted upward with the appropriate vertical distance would exceed a standard of 77.9(a) or (b)
- your structure will emit frequencies, and does not meet the conditions of the [FAA Co-location Policy](#)
- your structure will be in an instrument approach area and might exceed part 77 Subpart C
- your proposed structure will be in proximity to a navigation facility and may impact the assurance of navigation signal reception
- your structure will be on an airport or heliport
- filing has been requested by the FAA

If you require additional information regarding the filing requirements for your structure, please identify and contact the appropriate FAA representative using the [Air Traffic Areas of Responsibility map](#) for Off Airport construction, or contact the [FAA Airports Region / District Office](#) for On Airport construction.

The tool below will assist in applying Part 77 Notice Criteria.

Latitude:	<input type="text" value="36"/> Deg	<input type="text" value="52"/> M	<input type="text" value="52.61"/> S	<input type="button" value="N"/> <input type="button" value="▼"/>
Longitude:	<input type="text" value="78"/> Deg	<input type="text" value="11"/> M	<input type="text" value="33.59"/> S	<input type="button" value="W"/> <input type="button" value="▼"/>
Horizontal Datum:	<input type="button" value="NAD83"/> <input type="button" value="▼"/>			
Site Elevation (SE):	<input type="text" value="414"/> (nearest foot)			
Structure Height :	<input type="text" value="15"/> (nearest foot)			
Traverseway:	<input type="button" value="No Traverseway"/> <input type="button" value="▼"/> (Additional height is added to certain structures under 77.9(c)) User can increase the default height adjustment for Traverseway, Private Roadway and Waterway			
Is structure on airport:	<input checked="" type="radio"/> No <input type="radio"/> Yes			

Results

You do not exceed Notice Criteria.



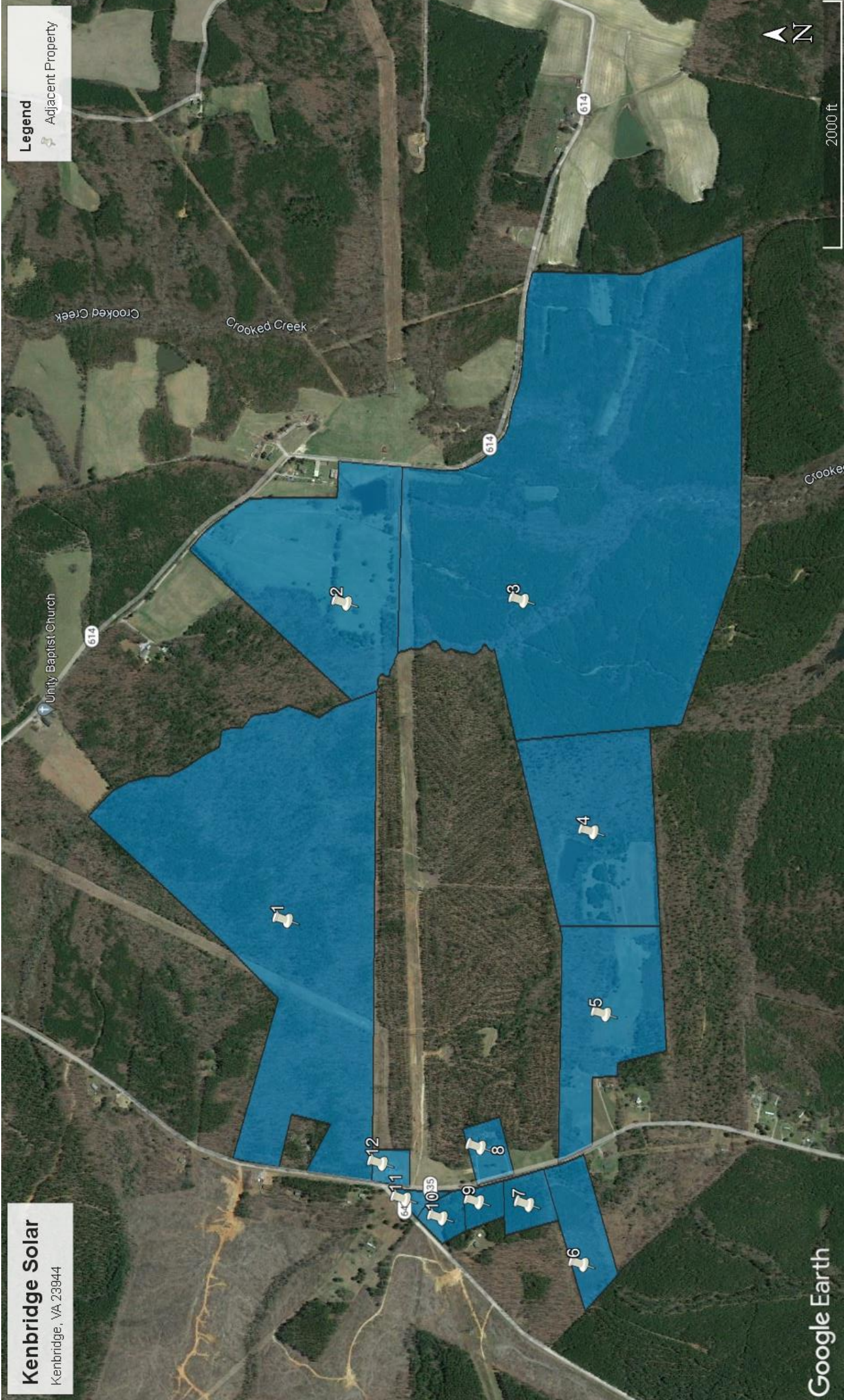
G

Appendix G

Adjoining Property Owner Map & Notifications



Kenbridge Solar: Adjacent Landowners



#	Parcel Number	Name(s)	Address
1	58-0A-31	Wilson Hawthorne Virginia	5844 Oral Oaks Road Kenbridge, VA 23944 (Owners Address)
2	58-0A-37A	Novak Robert or Lisa	1080 Unity Road Kenbridge, VA 23944
3	58-0A-0-39A	Strebor Farms LLC	702 South Broad Street Kenbridge, VA 23944 (Owners Address)
4	58-0A-0-28B	Gustaf Joseph Terry II	5642 Oral Oaks Road Kenbridge, VA 23944 (Owners Address)
5	58-0A-27	Gustaf Joseph Terry II	5642 Oral Oaks Road Kenbridge, VA 23944
6	058-03-0-D	Phillips Iason A or Beth A	596 Saint Johns Church Road Kenbridge, VA 23944 (Owners Address)
7	058-03-0-C	Langford Vernon L or Ora Regina,	443 Northview Lane Crestview, FL 32536 (Owners Address)
8	58-0A-29A	Wilson Hawthorne Virginia	5844 Oral Oaks Road Kenbridge, VA 23944
9	058-0A-0-24A	Bledsoe Rhodessa Tisdale,	22061 Lake Jordan Drive Petersburg, VA 23803 (Owners Address)
10	058-0A-0-24C	Killen Jerry W	5717 Fitztown Road Virginia Beach, VA 23457 (Owners Address)
11	058-0A-0-24	Lunenburg County Virginia	1800 Gary Road Kenbridge, VA 23944
12	58-0A-30	Electric Power Sub- Station	Null



MONTICELLO
5219 MONTICELLO AVE
WILLIAMSBURG, VA 23188-9998
(800)275-8777

03/09/2023

01:51 PM

Product	Qty	Unit Price	Price
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Priority Mail®	1		\$9.65
Window FR Env			
Crestview, FL 32536			
Flat Rate			
Expected Delivery Date			
Mon 03/13/2023			
Tracking #:			
9505 5157 9941 3068 3648 06			
Insurance		\$0.00	
Up to \$100.00 included			

Total			\$9.65
-------	--	--	--------

Priority Mail®	1		\$9.65
Window FR Env			
Kenbridge, VA 23944			
Flat Rate			
Expected Delivery Date			
Sat 03/11/2023			
Tracking #:			
9505 5157 9941 3068 3648 20			
Insurance		\$0.00	
Up to \$100.00 included			

Total			\$9.65
-------	--	--	--------

Priority Mail®	1		\$9.65
Window FR Env			
Virginia Beach, VA 23457			
Flat Rate			
Expected Delivery Date			
Sat 03/11/2023			
Tracking #:			
9505 5157 9941 3068 3648 44			
Insurance		\$0.00	
Up to \$100.00 included			

Total			\$9.65
-------	--	--	--------

Priority Mail®	1		\$9.65
Window FR Env			
Kenbridge, VA 23944			
Flat Rate			
Expected Delivery Date			
Sat 03/11/2023			
Tracking #:			
9505 5157 9941 3068 3648 68			
Insurance		\$0.00	
Up to \$100.00 included			

Total			\$9.65
-------	--	--	--------

Priority Mail®	1		\$9.65
Window FR Env			
Kenbridge, VA 23944			
Flat Rate			
Expected Delivery Date			
Sat 03/11/2023			
Tracking #:			
9505 5157 9941 3068 3648 82			
Insurance		\$0.00	
Up to \$100.00 included			

Total			\$9.65
-------	--	--	--------

Priority Mail®	1		\$9.65
Window FR Env			
Kenbridge, VA 23944			
Flat Rate			
Expected Delivery Date			
Sat 03/11/2023			
Tracking #:			
9505 5157 9941 3068 3649 05			
Insurance		\$0.00	
Up to \$100.00 included			

Total			\$9.65
-------	--	--	--------

Priority Mail®	1		\$9.65
Window FR Env			
Kenbridge, VA 23944			
Flat Rate			
Expected Delivery Date			
Sat 03/11/2023			
Tracking #:			
9505 5157 9941 3068 3649 29			
Insurance		\$0.00	
Up to \$100.00 included			

Total			\$9.65
-------	--	--	--------

Priority Mail®	1		\$9.65
Window FR Env			
Petersburg, VA 23803			
Flat Rate			
Expected Delivery Date			
Fri 03/10/2023			
Tracking #:			
9505 5157 9941 3068 3649 43			
Insurance		\$0.00	
Up to \$100.00 included			

Total			\$9.65
-------	--	--	--------

Grand Total:			\$77.20
--------------	--	--	---------

Cash			\$80.00
------	--	--	---------

Change			-\$2.80
--------	--	--	---------

In a hurry? Self-service kiosks offer
quick and easy check-out. Any Retail
Associate can show you how.



March 9, 2023

Vernon L. and Ora Regina Langford

443 Northview Lane

Crestview, FL 32536

RE: Notification of Application Submission for Kenbridge Solar

Dear Mr. and Ms. Langford,

This letter is to inform you that there is a ground-mounted photovoltaic solar facility being proposed by Ameresco (applicant/developer) in accordance with the Lunenburg County Ordinance for Solar Energy Facilities. The project is called Kenbridge Solar and will generate approximately 12 megawatts (MW) alternating current, which is enough to power approximately 2,000 homes. The proposed development will consist of an approximately 51-acre fenced solar facility, interior to the 128.24 acres of private land on Parcel Tax Map No. 058-0A-0-29, located at 5844 Oral Oaks Road, Kenbridge, Virginia 23944. The purpose of the project is to generate local, clean, and renewable power with the electricity generated to be purchased by Southside Electric Cooperative.

As we progress further with our application, we will be hosting an in-person community meeting in the area, and you will receive an invitation for this meeting by mail. The community meeting will provide an opportunity for the project team to meet the neighbors, answer questions and address any concerns you may have about the project, solar energy, or the developer Ameresco.

In compliance with Section 3 of the Lunenburg County Conditional Use Permit Application for solar facilities, we are notifying you of the application submission for Kenbridge Solar. Per the Lunenburg County Ordinance for Solar Energy Facilities, Section 2 (Definitions), the requested use is for a "large-scale solar energy facility" based on the rated power generating capacity being greater than five (5) MW alternating current.

Please let me know if you have any questions or would like to meet in person. You can contact me at (508) 598-3136 or via email tholt@ameresco.com.

Thank you,

Tom Holt
Director – Solar PV Project Development
Ameresco

Notification of Application Submittal to Adjacent Property Owners

To: Adjacent Property Owner of Parcel(s) 058-0A-0-29

From: Ameresco

Date: March 9, 2023

The following application will be submitted for review to the Lunenburg County Planning Office:

☐ Rezoning

☒ Conditional Use Permit

☐ Special Exception

Requested Use or Exception:

Ameresco is requesting a Conditional Use Permit to allow an approximately 12-megawatt solar facility to be developed on a 128.24-acre parcel (Tax Map No. 058-0A-0-29) located at 5844 Oral Oaks Road, Kenbridge, Virginia. The site is currently wooded, and the proposed development will consist of an approximately 51-acre fenced solar array field interior to the 128.24-acre parcel. The purpose of the project is to generate local, clean, and renewable power with the electricity generated to be purchased by Southside Electric Cooperative.

Ameresco intends to host a public community meeting with respect to this application to allow all interested community members to learn more about the project and ask the Applicant questions about the project, solar energy, or Ameresco. Ameresco will notify the adjacent landowners and publicize the community meeting in advance once a time and place has been determined.

The application will be available for viewing at the Lunenburg County Planning Office. The Planning Office shall notify all adjacent property owner(s) of the time, day, and location of the public hearing(s) to be held on this application. Should you have questions and/or comments, please contact the Planning Office at 434.696.2142 or taylor@lunenburgva.gov.



March 9, 2023

Robert and Lisa Novak

1080 Unity Road

Kenbridge, VA 23944

RE: Notification of Application Submission for Kenbridge Solar

Dear Mr. and Ms. Novak,

This letter is to inform you that there is a ground-mounted photovoltaic solar facility being proposed by Ameresco (applicant/developer) in accordance with the Lunenburg County Ordinance for Solar Energy Facilities. The project is called Kenbridge Solar and will generate approximately 12 megawatts (MW) alternating current, which is enough to power approximately 2,000 homes. The proposed development will consist of an approximately 51-acre fenced solar facility, interior to the 128.24 acres of private land on Parcel Tax Map No. 058-0A-0-29, located at 5844 Oral Oaks Road, Kenbridge, Virginia 23944. The purpose of the project is to generate local, clean, and renewable power with the electricity generated to be purchased by Southside Electric Cooperative.

As we progress further with our application, we will be hosting an in-person community meeting in the area, and you will receive an invitation for this meeting by mail. The community meeting will provide an opportunity for the project team to meet the neighbors, answer questions and address any concerns you may have about the project, solar energy, or the developer Ameresco.

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Thank you,

Tom Holt
Director – Solar PV Project Development
Ameresco

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To: Adjacent Property Owner of Parcel(s) 058-0A-0-29

From: Ameresco

Date: March 9, 2023

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☒ Conditional Use Permit

☐ Special Exception

Requested Use or Exception:

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March 9, 2023

Jason A. and Beth A. Phillips

596 Saint Johns Church Road

Kenbridge, VA 23944

RE: Notification of Application Submission for Kenbridge Solar

Dear Mr. and Ms. Phillips,

This letter is to inform you that there is a ground-mounted photovoltaic solar facility being proposed by Ameresco (applicant/developer) in accordance with the Lunenburg County Ordinance for Solar Energy Facilities. The project is called Kenbridge Solar and will generate approximately 12 megawatts (MW) alternating current, which is enough to power approximately 2,000 homes. The proposed development will consist of an approximately 51-acre fenced solar facility, interior to the 128.24 acres of private land on Parcel Tax Map No. 058-0A-0-29, located at 5844 Oral Oaks Road, Kenbridge, Virginia 23944. The purpose of the project is to generate local, clean, and renewable power with the electricity generated to be purchased by Southside Electric Cooperative.

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Thank you,

Tom Holt
Director – Solar PV Project Development
Ameresco

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To: Adjacent Property Owner of Parcel(s) 058-0A-0-29

From: Ameresco

Date: March 9, 2023

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☒ Conditional Use Permit

☐ Special Exception

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March 9, 2023

Joseph Terry Gustaf II

5642 Oral Oaks Road

Kenbridge, VA 23944

RE: Notification of Application Submission for Kenbridge Solar

Dear Mr. Gustaf,

This letter is to inform you that there is a ground-mounted photovoltaic solar facility being proposed by Ameresco (applicant/developer) in accordance with the Lunenburg County Ordinance for Solar Energy Facilities. The project is called Kenbridge Solar and will generate approximately 12 megawatts (MW) alternating current, which is enough to power approximately 2,000 homes. The proposed development will consist of an approximately 51-acre fenced solar facility, interior to the 128.24 acres of private land on Parcel Tax Map No. 058-0A-0-29, located at 5844 Oral Oaks Road, Kenbridge, Virginia 23944. The purpose of the project is to generate local, clean, and renewable power with the electricity generated to be purchased by Southside Electric Cooperative.

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Please let me know if you have any questions or would like to meet in person. You can contact me at (508) 598-3136 or via email tholt@ameresco.com.

Thank you,

Tom Holt
Director – Solar PV Project Development
Ameresco

Notification of Application Submittal to Adjacent Property Owners

To: Adjacent Property Owner of Parcel(s) 058-0A-0-29

From: Ameresco

Date: March 9, 2023

The following application will be submitted for review to the Lunenburg County Planning Office:

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☒ Conditional Use Permit

☐ Special Exception

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March 9, 2023

Jerry W. Killen

5717 Fitztown Road

Virginia Beach, VA 23457

RE: Notification of Application Submission for Kenbridge Solar

Dear Mr. Killen,

This letter is to inform you that there is a ground-mounted photovoltaic solar facility being proposed by Ameresco (applicant/developer) in accordance with the Lunenburg County Ordinance for Solar Energy Facilities. The project is called Kenbridge Solar and will generate approximately 12 megawatts (MW) alternating current, which is enough to power approximately 2,000 homes. The proposed development will consist of an approximately 51-acre fenced solar facility, interior to the 128.24 acres of private land on Parcel Tax Map No. 058-0A-0-29, located at 5844 Oral Oaks Road, Kenbridge, Virginia 23944. The purpose of the project is to generate local, clean, and renewable power with the electricity generated to be purchased by Southside Electric Cooperative.

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Thank you,

Tom Holt
Director – Solar PV Project Development
Ameresco

Notification of Application Submittal to Adjacent Property Owners

To: Adjacent Property Owner of Parcel(s) 058-0A-0-29

From: Ameresco

Date: March 9, 2023

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☐ Rezoning

☒ Conditional Use Permit

☐ Special Exception

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March 9, 2023

Rhodessa Tisdale Bledsoe

22061 Lake Jordan Drive

Petersburg, VA 23803

RE: Notification of Application Submission for Kenbridge Solar

Dear Ms. Bledsoe,

This letter is to inform you that there is a ground-mounted photovoltaic solar facility being proposed by Ameresco (applicant/developer) in accordance with the Lunenburg County Ordinance for Solar Energy Facilities. The project is called Kenbridge Solar and will generate approximately 12 megawatts (MW) alternating current, which is enough to power approximately 2,000 homes. The proposed development will consist of an approximately 51-acre fenced solar facility, interior to the 128.24 acres of private land on Parcel Tax Map No. 058-0A-0-29, located at 5844 Oral Oaks Road, Kenbridge, Virginia 23944. The purpose of the project is to generate local, clean, and renewable power with the electricity generated to be purchased by Southside Electric Cooperative.

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Please let me know if you have any questions or would like to meet in person. You can contact me at (508) 598-3136 or via email tholt@ameresco.com.

Thank you,

Tom Holt
Director – Solar PV Project Development
Ameresco

Notification of Application Submittal to Adjacent Property Owners

To: Adjacent Property Owner of Parcel(s) 058-0A-0-29

From: Ameresco

Date: March 9, 2023

The following application will be submitted for review to the Lunenburg County Planning Office:

☐ Rezoning

☒ Conditional Use Permit

☐ Special Exception

Requested Use or Exception:

Ameresco is requesting a Conditional Use Permit to allow an approximately 12-megawatt solar facility to be developed on a 128.24-acre parcel (Tax Map No. 058-0A-0-29) located at 5844 Oral Oaks Road, Kenbridge, Virginia. The site is currently wooded, and the proposed development will consist of an approximately 51-acre fenced solar array field interior to the 128.24-acre parcel. The purpose of the project is to generate local, clean, and renewable power with the electricity generated to be purchased by Southside Electric Cooperative.

Ameresco intends to host a public community meeting with respect to this application to allow all interested community members to learn more about the project and ask the Applicant questions about the project, solar energy, or Ameresco. Ameresco will notify the adjacent landowners and publicize the community meeting in advance once a time and place has been determined.

The application will be available for viewing at the Lunenburg County Planning Office. The Planning Office shall notify all adjacent property owner(s) of the time, day, and location of the public hearing(s) to be held on this application. Should you have questions and/or comments, please contact the Planning Office at 434.696.2142 or taylor@lunenburgva.gov.



March 9, 2023

Virginia Wilson Hawthorne

5844 Oral Oaks Road

Kenbridge, VA 23944

RE: Notification of Application Submission for Kenbridge Solar

Dear Ms. Virginia Wilson,

This letter is to inform you that there is a ground-mounted photovoltaic solar facility being proposed by Ameresco (applicant/developer) in accordance with the Lunenburg County Ordinance for Solar Energy Facilities. The project is called Kenbridge Solar and will generate approximately 12 megawatts (MW) alternating current, which is enough to power approximately 2,000 homes. The proposed development will consist of an approximately 51-acre fenced solar facility, interior to the 128.24 acres of private land on Parcel Tax Map No. 058-0A-0-29, located at 5844 Oral Oaks Road, Kenbridge, Virginia 23944. The purpose of the project is to generate local, clean, and renewable power with the electricity generated to be purchased by Southside Electric Cooperative.

As we progress further with our application, we will be hosting an in-person community meeting in the area, and you will receive an invitation for this meeting by mail. The community meeting will provide an opportunity for the project team to meet the neighbors, answer questions and address any concerns you may have about the project, solar energy, or the developer Ameresco.

In compliance with Section 3 of the Lunenburg County Conditional Use Permit Application for solar facilities, we are notifying you of the application submission for Kenbridge Solar. Per the Lunenburg County Ordinance for Solar Energy Facilities, Section 2 (Definitions), the requested use is for a "large-scale solar energy facility" based on the rated power generating capacity being greater than five (5) MW alternating current.

Please let me know if you have any questions or would like to meet in person. You can contact me at (508) 598-3136 or via email tholt@ameresco.com.

Thank you,

Tom Holt
Director – Solar PV Project Development
Ameresco

Notification of Application Submittal to Adjacent Property Owners

To: Adjacent Property Owner of Parcel(s) 058-0A-0-29

From: Ameresco

Date: March 9, 2023

The following application will be submitted for review to the Lunenburg County Planning Office:

☐ Rezoning

☒ Conditional Use Permit

☐ Special Exception

Requested Use or Exception:

Ameresco is requesting a Conditional Use Permit to allow an approximately 12-megawatt solar facility to be developed on a 128.24-acre parcel (Tax Map No. 058-0A-0-29) located at 5844 Oral Oaks Road, Kenbridge, Virginia. The site is currently wooded, and the proposed development will consist of an approximately 51-acre fenced solar array field interior to the 128.24-acre parcel. The purpose of the project is to generate local, clean, and renewable power with the electricity generated to be purchased by Southside Electric Cooperative.

Ameresco intends to host a public community meeting with respect to this application to allow all interested community members to learn more about the project and ask the Applicant questions about the project, solar energy, or Ameresco. Ameresco will notify the adjacent landowners and publicize the community meeting in advance once a time and place has been determined.

The application will be available for viewing at the Lunenburg County Planning Office. The Planning Office shall notify all adjacent property owner(s) of the time, day, and location of the public hearing(s) to be held on this application. Should you have questions and/or comments, please contact the Planning Office at 434.696.2142 or taylor@lunenburgva.gov.



March 9, 2023

Strebor Farms LLC

702 South Broad Street

Kenbridge, VA 23944

RE: Notification of Application Submission for Kenbridge Solar

Dear Strebor Farms LLC,

This letter is to inform you that there is a ground-mounted photovoltaic solar facility being proposed by Ameresco (applicant/developer) in accordance with the Lunenburg County Ordinance for Solar Energy Facilities. The project is called Kenbridge Solar and will generate approximately 12 megawatts (MW) alternating current, which is enough to power approximately 2,000 homes. The proposed development will consist of an approximately 51-acre fenced solar facility, interior to the 128.24 acres of private land on Parcel Tax Map No. 058-0A-0-29, located at 5844 Oral Oaks Road, Kenbridge, Virginia 23944. The purpose of the project is to generate local, clean, and renewable power with the electricity generated to be purchased by Southside Electric Cooperative.

As we progress further with our application, we will be hosting an in-person community meeting in the area, and you will receive an invitation for this meeting by mail. The community meeting will provide an opportunity for the project team to meet the neighbors, answer questions and address any concerns you may have about the project, solar energy, or the developer Ameresco.

In compliance with Section 3 of the Lunenburg County Conditional Use Permit Application for solar facilities, we are notifying you of the application submission for Kenbridge Solar. Per the Lunenburg County Ordinance for Solar Energy Facilities, Section 2 (Definitions), the requested use is for a "large-scale solar energy facility" based on the rated power generating capacity being greater than five (5) MW alternating current.

Please let me know if you have any questions or would like to meet in person. You can contact me at (508) 598-3136 or via email tholt@ameresco.com.

Thank you,

Tom Holt
Director – Solar PV Project Development
Ameresco

Notification of Application Submittal to Adjacent Property Owners

To: Adjacent Property Owner of Parcel(s) 058-0A-0-29

From: Ameresco

Date: March 9, 2023

The following application will be submitted for review to the Lunenburg County Planning Office:

☐ Rezoning

☒ Conditional Use Permit

☐ Special Exception

Requested Use or Exception:

Ameresco is requesting a Conditional Use Permit to allow an approximately 12-megawatt solar facility to be developed on a 128.24-acre parcel (Tax Map No. 058-0A-0-29) located at 5844 Oral Oaks Road, Kenbridge, Virginia. The site is currently wooded, and the proposed development will consist of an approximately 51-acre fenced solar array field interior to the 128.24-acre parcel. The purpose of the project is to generate local, clean, and renewable power with the electricity generated to be purchased by Southside Electric Cooperative.

Ameresco intends to host a public community meeting with respect to this application to allow all interested community members to learn more about the project and ask the Applicant questions about the project, solar energy, or Ameresco. Ameresco will notify the adjacent landowners and publicize the community meeting in advance once a time and place has been determined.

The application will be available for viewing at the Lunenburg County Planning Office. The Planning Office shall notify all adjacent property owner(s) of the time, day, and location of the public hearing(s) to be held on this application. Should you have questions and/or comments, please contact the Planning Office at 434.696.2142 or taylor@lunenburgva.gov.

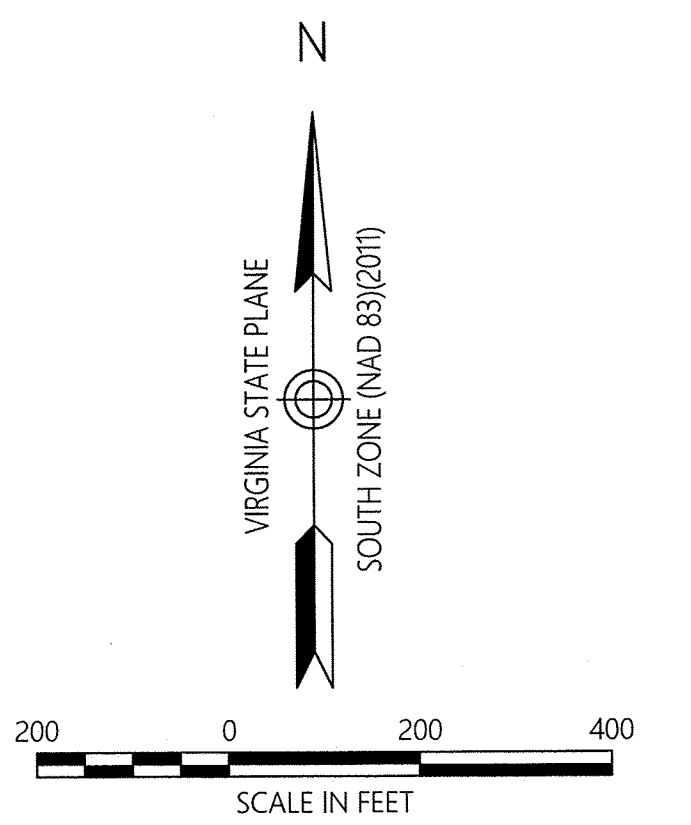
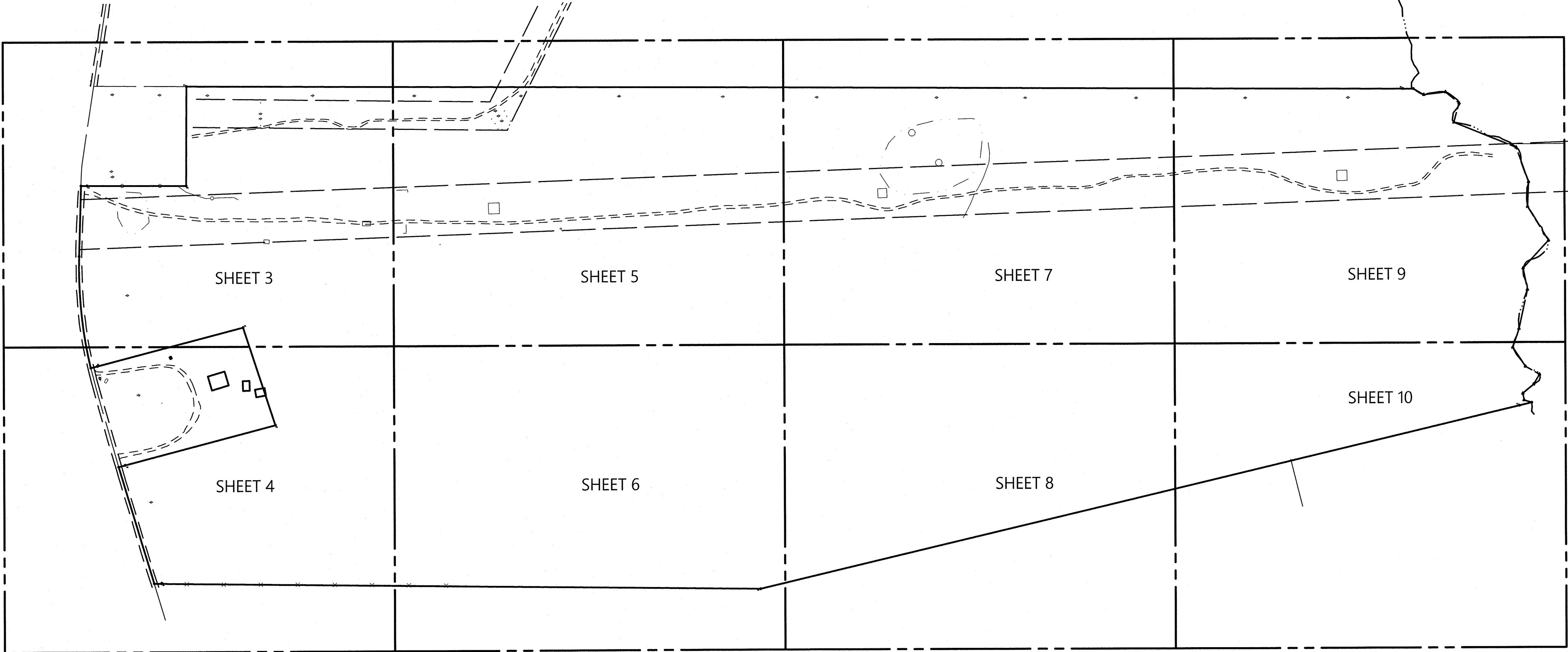


H

Appendix H

ALTA Land Title Survey

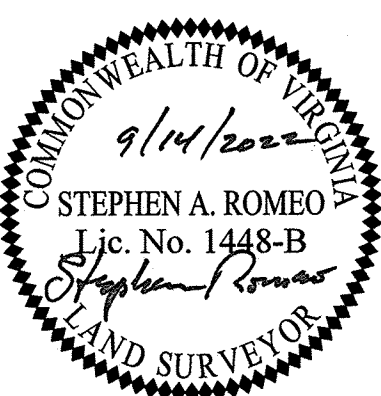
351 McLaws Circle
Suite 3
Williamsburg, VA 23185
757.220.0500



ALTA/NSPS
Land Title Survey
5844 Oral Oaks Road
Lunenburg County
Kenbridge, Virginia

[illegible]

September 14, 2022



wing Number

Sv-2

2 of 10


Subject Number
4823.00






vhb.com

351 McLaws Circle
Suite 3
Williamsburg, VA 23185
757.220.0500



VIRGINIA STATE PLANE
SOUTH ZONE (NAD 83)(2011)



SCALE IN FEET

ALTA/NSPS
Land Title Survey
5844 Oral Oaks Road
Lunenburg County
Kenbridge, Virginia

No.	Revision	Date	Appvd.

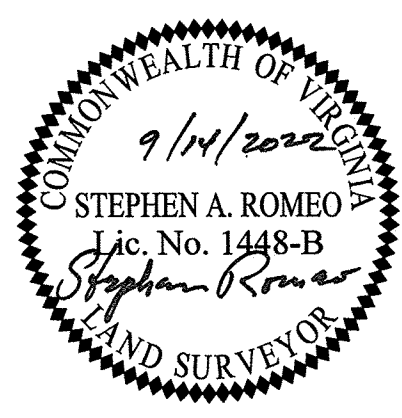
Designed by

Checked by

Issued for

Date

September 14, 2022



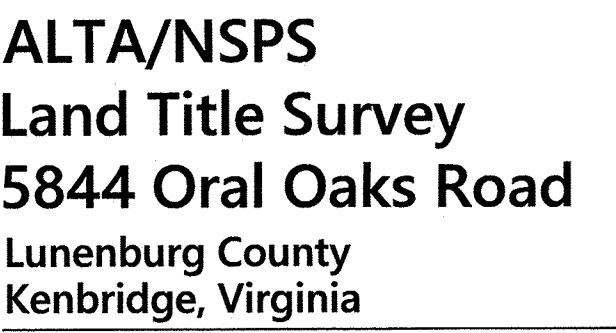
9/14/2022
STEPHEN A. ROMEO
Lic. No. 1448-B
Stephen A. Romeo
LAND SURVEYOR

Drawing Number

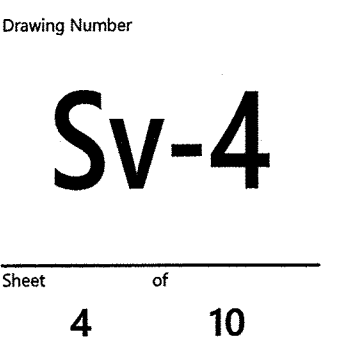
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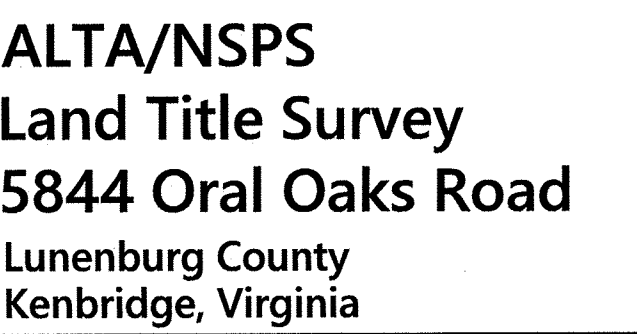
Sheet 3 of 10

Project Number
34823.00



September 14, 2022

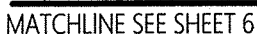


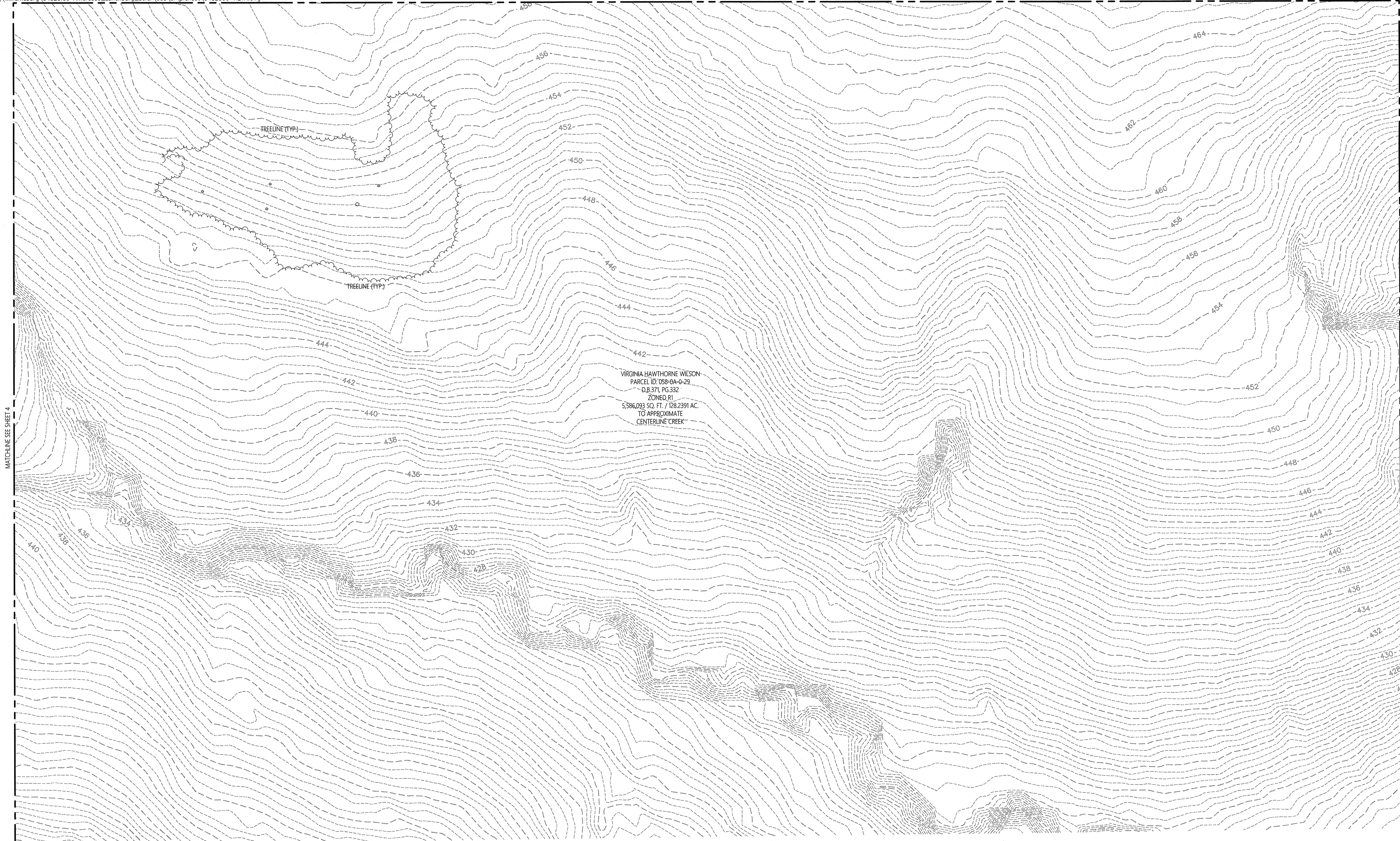
September 14, 2022

Sv-5

5 of 10

Project Number
4823.00





MATCHLINE SEE SHEET 4

MATCHLINE SEE SHEET 8



VIRGINIA STATE PLANE
SOUTH ZONE (NAD 83) (2011)



ALTA/NSPS
Land Title Survey
5844 Oral Oaks Road
Lunenburg County
Kenbridge, Virginia

No.	Revision	Date	Appr.

Designed by	Checked by

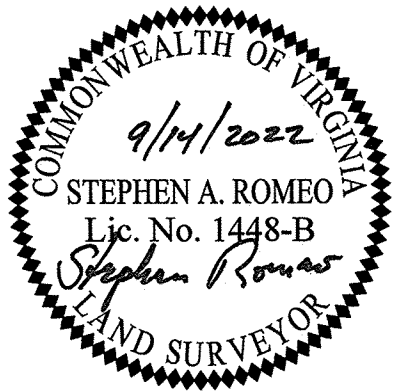
Issued for	Date
	September 14, 2022

4" WOOD AND
ELECTRIC FENCE

N 89°16'12" W 1,832.87'

JOSEPH TERRY II GUSTAF
PARCEL ID: 058-0A-0-288
INST.NO.21-0000034
ZONED R1

2,391.65'
S 76°37'27" W



Drawing Number

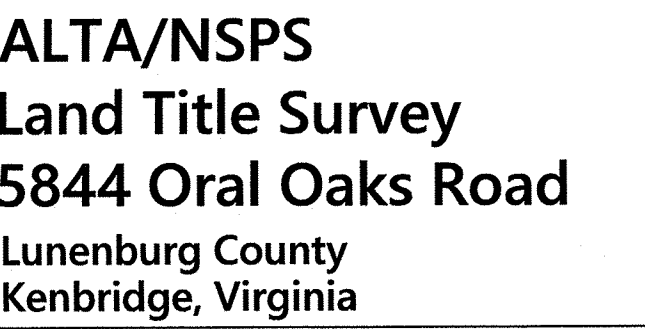
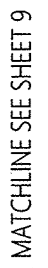
Sv-6

Sheet 6 of 10

Project Number
34823.00

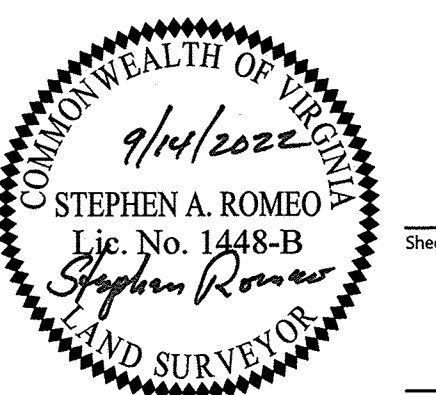


351 McLaws Circle
Suite 3
Williamsburg, VA 23185
757.220.0500

September 14, 2022

Sv-7

Project Number
1823.00





351 McLaws Circle
Suite 3
Williamsburg, VA 23185
757.220.0500

VIRGINIA HAWTHORNE WILSON
PARCEL ID: 058-0A-0-29
D.B.371, PG.332
ZONED R1
5,586.093 SQ. FT. / 128.2391 AC.
TO APPROXIMATE
CENTERLINE CREEK

JOSEPH TERRY II GUSTAF
PARCEL ID: 058-0A-0-28B
INST.NO.21-0000034
ZONED R1

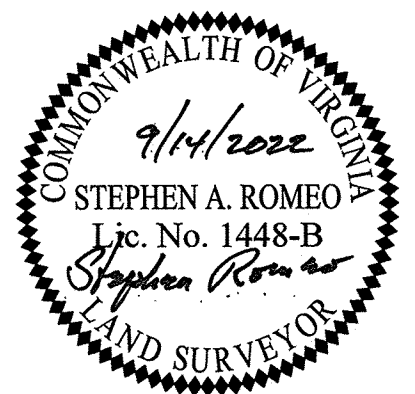


ALTA/NSPS
Land Title Survey
5844 Oral Oaks Road
Lunenburg County
Kenbridge, Virginia

No.	Revision	Date	Appvd.

Designed by	Checked by
Issued for	Date

September 14, 2022

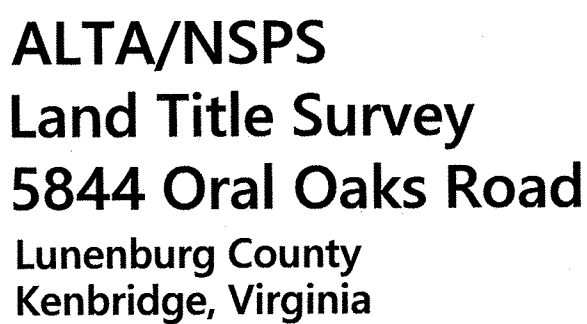
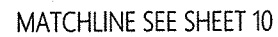


wing Number

Sv-8

Sheet 8 of 10

Project Number
34823.00



ALTA/NSPS
Land Title Survey
5844 Oral Oaks Road
Lunenburg County
Kenbridge, Virginia

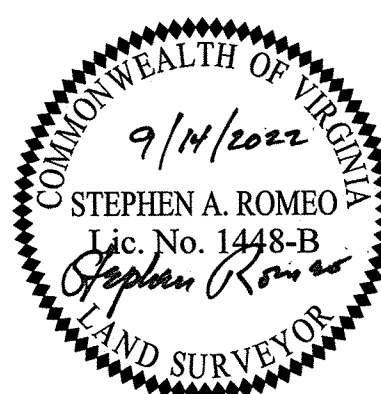
No.	Revision	Date	Approved by
Designed by	Checked by		
Issued for	Date		September 14, 2022

September 14, 2022

Drawing Number

Sv-9

Sheet 9 of 10

Project Number
34823.00

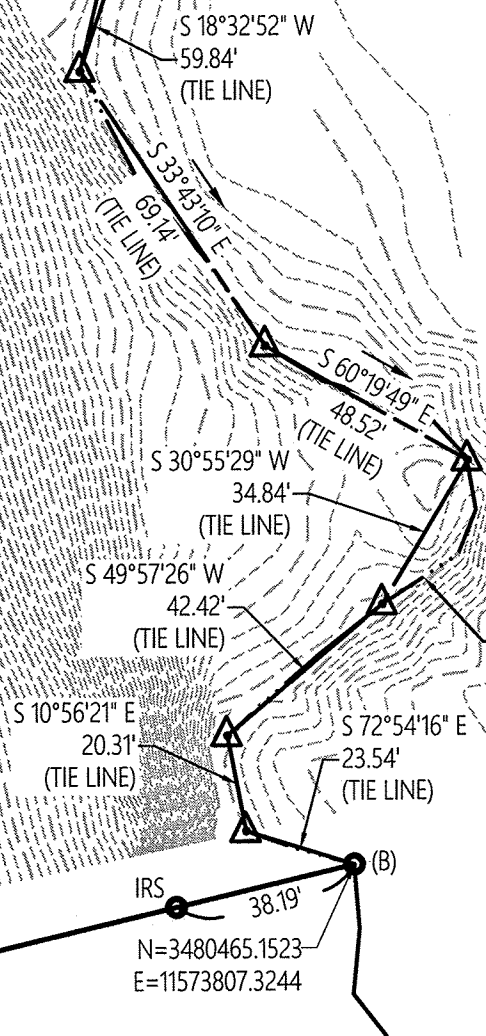
VIRGINIA HAWTHORNE WILSON
PARCEL ID: 058-0A-0-29
D.B.371, PG.332
ZONED R1
5,586.093 SQ. FT. (128,239 AC.)
TO APPROXIMATE
CENTERLINE CREEK

JOSEPH TERRY II GUSTAF
PARCEL ID: 058-0A-0-288
INST. NO. 21-0000034
ZONED R1

RICHARD WILEY AND JAMES
JACKSON III AND DAVID MARTIN
ROBERTS
PARCEL ID: 058-0A-0-39A
D.B.332, PG.778
PC 4-123
ZONED R1

RICHARD WILEY AND JAMES
JACKSON III AND DAVID MARTIN
ROBERTS
PARCEL ID: 058-0A-0-39A
D.B.332, PG.778
PC 4-123
ZONED R1

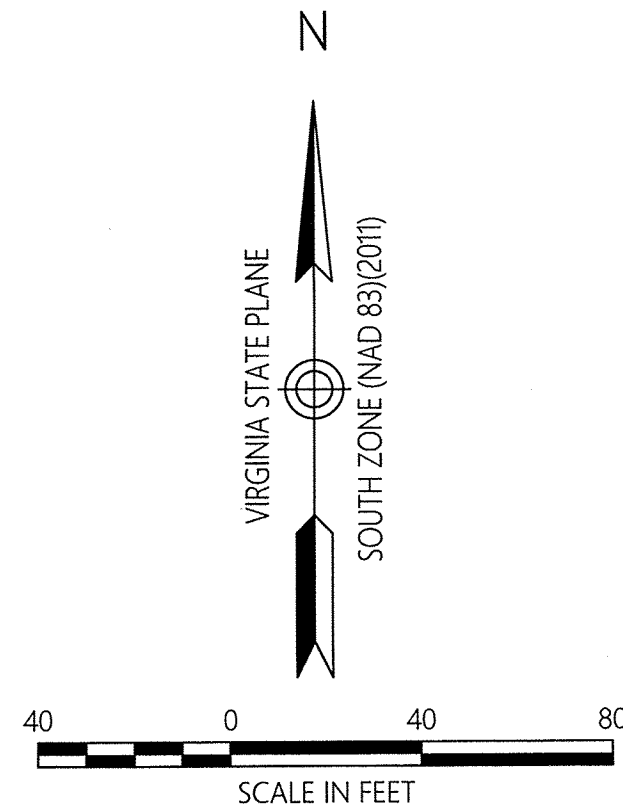
PROPERTY LINE BETWEEN (A)
AND (B) FOLLOWS CL CREEK AS
IT MEANDERS PER PC 4-123



vhb.com



351 McLaws Circle
Suite 3
Williamsburg, VA 23185
757.220.0500



ALTA/NSPS
Land Title Survey
5844 Oral Oaks Road
Lunenburg County
Kenbridge, Virginia

No.	Revision	Date	Appr'd.

Designed by	Checked by

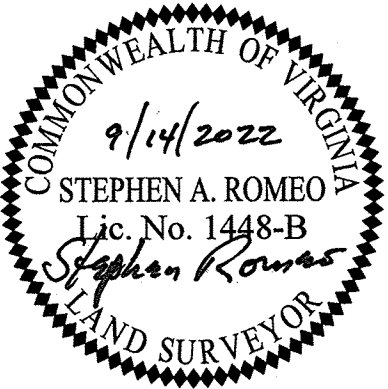
Issued for: _____ Date: **September 14, 2022**

Drawing Number

Sv-10

Sheet **10** of **10**

Project Number
34823.00





April 27, 2023

Ref: CUP 1-23: Oral Oaks Solar, LLC

Attn: Taylor N. Newton
Director of Planning and Economic Development
Lunenburg County
11413 Courthouse Road
Lunenburg, VA 23952
taylor@lunenburgva.gov
(via email and FedEx)

Re: Completeness Review Response

Dear Mrs. Newton,

Please accept this letter in response to the completeness review comments provided via your letter dated April 5, 2023. The following responses are provided in the same order as presented in the April 5th letter and a copy of that letter is included for reference in Attachment 1.

Section 4. Application and procedures for solar energy facilities.

- A. Number 3. Official application form, fees, and required information.
 - a. Subsection e. Preliminary Site Plan
 - i. Number 3 – the County has provided the application to VDOT review.
 - 1. **Resolved** – VDOT letter dated 4/4/23 is included in Attachment 1.
 - ii. Number 11
 - 1. **Resolved** – Wildlife corridors are accommodated on the site in the large undisturbed setbacks along the fenced facility perimeter where the existing wetlands and streams have also been preserved. These wooded perimeter buffers are to be conserved as Forest-Open Space for the life of the facility, and are expected to become even more diverse with vegetation, as they will no longer be managed for timber. Wildlife present in the area will be able to navigate in these conserved forest buffers around the facility perimeter and smaller wildlife/mammals will be able to pass back and forth through the bottom of the facility's perimeter fence. A wildlife-permeable perimeter fence with 8-inch vertical bar spacing for ground-level openings is being proposed. The fence will be 8 feet high, which adheres to the National Electric Safety Code as well as the general fencing recommendations in DWR's guidance to prevent deer from jumping the fence. A detail



for the proposed fencing is included on the revised sheet of the CUP Site Plan Details and Notes (sheet C100); reference Attachment 4. This fencing is subject to the approval of the local distribution utility.

2. **Resolved** – Stream buffers are not specified in the Lunenburg County Solar Ordinance, but the USACE confirmed wetlands and streams are to be protected with the proposed project design. The facility layout and stormwater management measures were purposely designed to avoid impacts to these jurisdictional features; there are no proposed wetland/stream impacts with this project. All existing vegetation within 10 feet of streams on site will remain undisturbed.

iii. Number 17 – section xvii

1. **Resolved** – There is no permanent parking required for the operation or periodic maintenance of this facility. Temporary vehicular parking is limited to the construction phase only, and during construction this temporary parking will be in the “Temporary Parking/Laydown Area” identified on the CUP Site Plan near the facility entrance from Oral Oaks Road. This approximately 1 acre laydown area will be sufficient for providing temporary parking. The appropriate temporary erosion and sediment control measures will be designed and installed to serve this laydown area during construction.

b. Subsection i. Draft Traffic Study

1. **Resolved** – The Traffic & Route Evaluation Study does not directly address the decommissioning process. However, assuming VDOT makes no improvements to the subject rural roadways during the life of the project, then the same TMP/MOT proposed with project construction will also apply to project decommissioning. This includes the Construction Routing, Temporary Traffic Control Plan, Public Communication Strategy, Crisis Communications Plan, and the Transportation Operations Plan. All of these are applicable in the decommissioning process and can be found in detail in Appendix E of the CUP Application package.

c. Subsection j. Draft Decommissioning and Reclamation Plan

i. Number 3

1. **Resolved** – Method of ensuring fund availability: Ameresco will post a Decommissioning Bond as the method of security for decommissioning funds; reference Attachment 2 – Revised Decommissioning Plan.

ii. Number 4

1. **Resolved** – Keeping the estimate current: The estimated cost of decommissioning shall be recalculated every five (5) years. If the recalculated estimated cost of decommissioning exceeds the original estimated cost of decommissioning by ten percent (10%) or more, then the amount of the financial assurance shall be increased to equal or exceed the new cost estimate. If the recalculated estimated cost of decommissioning is less than ninety



percent (90%) of the original estimated cost of decommissioning, the financial assurance may be reduced to the recalculated estimate of decommissioning cost subject to approval by the County; reference Attachment 2 – Revised Decommissioning Plan.

Section 5. Location, appearance, and operational requirements.

A. Subsection A

a. Number 4. Height

1. **Resolved** – The maximum height of the proposed photovoltaic panels at full tilt will be no more than 10 feet as measured from the finished grade to top of panel. Except for the required interconnection power poles, none of the proposed equipment onsite will exceed 10 feet as measured vertically from the finished surface grade adjacent to the respective equipment. The lowest edge of panels will be approximately 3 feet above adjacent finish grade. Additional information has been provided with dimensions of the proposed solar modules that will be used for this facility; reference Attachment 4 – CUP Notes and Details.

b. Number 8. Coordination of local emergency services.

i. Specifically needs to be discussed in the application.

1. **Resolved** – Emergency personnel will be provided access to the facility in accordance with the protocols of the local distribution utility via a Knox box, gate code or similar measure. This will be coordinated with County Emergency Management staff during County Site Plan review.

B. Subsection D

a. Number 3. Visual Impacts

1. **Resolved** – The project will be using Hanwha Q CELLS PV modules that incorporate anti-reflective coating (ARC) technology that meet industry standards to reduce glint and glare. Reference the attached information sheet for the panel modules that has been provided by the manufacturer and shows that the ARC glass will reflect less light than bodies of water and typical manmade structures' external glass. The proposed technology and project's siting will mitigate impacts to the public viewshed surrounding the property; reference Attachment 3 – Hanwha Q CELLS ARC.

b. Number 5. Vegetated Buffers

i. Subsection h

1. **Resolved** – The existing vegetation that comprises the required vegetated buffer around the perimeter of the project will be maintained and preserved for the life of the facility. Assuming good conditions of the existing vegetation, there will be no impacts to these areas shown on the CUP Site Plan. If during County Site Plan Review or construction, a



portion of the existing vegetated buffer is determined to not be sufficiently opaque, supplemental buffer plantings will be installed as agreed upon with County staff.

c. Number 6. Wildlife Corridors

1. **Resolved** – Please reference previously described resolution addressed in Section 4. Number 3. Subsection e. Number 11.

Section 8. Federal, state, and local requirements.

A. Number 4. FAA Regulations

1. **Resolved** – Although not mentioned specifically in the Project Narrative, the FAA's Notice Criteria tool was used with project equipment heights and respective project coordinates as inputs and the site did not exceed Notice Criteria. The result of this analysis is included in Appendix F of the CUP Application package originally submitted. Based on this result, it is our understanding that no further authorization is required for this matter.

It is my professional opinion that these responses and the corresponding documents attached will provide the additional clarification required for this CUP Application to be deemed complete. Please do not hesitate to contact me with any additional questions.

Sincerely,

VHB

Stephen Quina

Stephen Quina, PE
Mid-Atlantic Manager of Engineering - Energy

cc: Tom Holt, Ameresco

Attachment 1 – County Completeness Review Letter dated 4/5/23
Attachment 2 – Revised Decommissioning Plan
Attachment 3 - Hanwha Q CELLS ARC
Attachment 4 – CUP Site Plan “Notes and Details” (sheet C100)



1

Attachment 1

County Completeness Review Letter dated 4/5/23

BOARD OF SUPERVISORS

Charles R. Slayton, CHAIRMAN
Election District 4

Frank W. Bacon, VICE-CHAIRMAN
Election District 3

T. Wayne Hoover
Election District 1

Mike Hankins
Election District 2

Edward Pennington
Election District 5

Alvester L. Edmonds
Election District 6

Robert G. Zava
Election District 7



Lunenburg County Administration
11413 Courthouse Road
Lunenburg, VA 23952

Tracy M. Gee
County Administrator

Telephone: (434) 696-2142
Facsimile: (434) 696-1798

April 5th, 2023

Oral Oaks Solar, LLC
Ameresco, Inc.
Atten: Mr. Stephen Quina
111 Speen Street
Framingham, MA 01701

Dear Mr. Quina,

A completeness review of your application, CUP 1-23: Oral Oaks Solar, LLC., has been conducted internally and through third-party review by the Berkley Group, LLC. The review has concluded that the application has been deemed incomplete. The following provides the list of deficiencies that are required to be remedied prior to proceeding with the 15.2-2232 public hearing:

1. A Report on Completeness of 2232 Review/Conditional Use Permit Application for Oral Oaks, LLC. Utility-Scale Solar Facility was conducted by the Berkley Group. The report is attached; however, below are the sections where the application has been deemed non-compliant or need additional clarification:
 - a. Section 4. Applications and procedures for solar energy facilities.
 - i. Number 3. Official application form, fees, and required information.
 1. Subsection e. Preliminary Site Plan.
 - a. Number 3—the County has provided the application to VDOT for review
 - i. See the enclosed letter with VDOT's response.
 - b. Number 11
 - c. Number 17—section xvii
 2. Subsection i. Draft Traffic Study.
 3. Subsection j. Draft Decommissioning and Reclamation Plan.
 - a. Number 3
 - b. Number 4
 - b. Section 5. Location, appearance, and operational requirements.
 - i. Subsection A
 1. Number 4. Height.
 2. Number 8. Coordination of local emergency services.
 - a. Specifically needs to be discussed in the application.
 - ii. Subsection D
 1. Number 3. Visual Impacts.
 2. Number 5. Vegetated Buffers.
 - a. Subsection h.
 3. Number 6. Wildlife Corridors.
 - c. Section 8. Federal, state, and local requirements.

i. Number 4. FAA Regulations.

In order to proceed with the Conditional Use Permit process, the noted deficiencies will be remedied and received a minimum of forty-five (45) business days prior to the next Planning Commission meeting. The Planning Commission meetings are scheduled for the 1st Thursday of each month, so in order to be placed on the July 2023 agenda, the revisions will be required to be submitted no later **than noon on May 1st, 2023.** To be placed on the August 2023 agenda, the revisions will be required to be submitted no later **than noon on May 30th, 2023.**

If you have any questions or concerns, please do not hesitate to contact.

Respectfully,



Taylor N. Newton, CZA
Director of Planning and Economic Development
Local Zone Administrator
Department of Planning and Economic Development
11413 Courthouse Road
Lunenburg, VA 23952
434.696.2142 (phone)
434.696.1798 (fax)
taylor@lunenburgva.gov

cc: File
Drew DiStanislao, Assistant County Attorney

Report on Completeness of 2232 Review/Conditional Use Permit Application for Oral Oaks Road Utility-Scale Solar Facility

March 30, 2023

Purpose: To determine whether the application of Oral Oaks Road Solar, LLC/Ameresco Inc. (“the Applicant”) is complete, as well as compliant, with respect to applicable sections of the Lunenburg County Zoning Ordinance (“LCZO”) and includes all materials and information necessary to conduct a complete review pursuant to § 15.2-2232, Legal status of plan, of the Code of Virginia, to allow the application to proceed to further review. This review provides no opinion as to whether the project is in accord with the County’s Comprehensive Plan and/or satisfies requisite findings associated with the review of a conditional use permit; those reviews would be completed should the application proceed to further review.

Overview and Project Description: The Applicant is requesting a Conditional Use Permit (“CUP”) for the construction and operation of a 12-megawatt (MW) utility-scale solar facility to be located on one (1) parcel (or portions thereof) totaling approximately 55 acres in Lunenburg County, Virginia, to be known as Oral Oaks Road Solar (cover letter dated March 10, 2023; “the Application” and/or “the Project”). The subject parcel as it currently exists totals 128.24 acres in size.

Completeness Review

The subject Application has been reviewed for completeness with respect to the relevant sections and subsections of the LCZO identified below, specifically the County’s Solar Energy Facilities Ordinance. Staff’s interpretation of application completeness and/or compliance is noted in **bold underlined type**. **Based upon review, there are several areas where the Application is incomplete, noncompliant, and/or where completeness or compliance is uncertain based on the submitted information and materials, or lack thereof.** Application deficiencies and noncompliance must be addressed prior to further consideration of the Application.

- **Section 2. Definitions**

Solar Energy Facility, Large-scale. A ground-mounted solar facility that generates electricity from sunlight on an area adequate to support a rated capacity of five megawatts (MW) alternating current or greater.

Compliant; based upon the generation capacity of the proposed facility (12 MW), the facility is a large-scale solar facility, as defined.

- **Section 3. Applicability; Permitting.**

The requirements set forth in this article shall govern the location, siting, development, construction, installation, operation, and decommissioning of solar energy facilities in the county. Battery energy storage facilities will be addressed by a separate ordinance. Facilities shall be permitted as follows:

- d. Solar energy facilities, large-scale are required to have Conditional Use Permit to be constructed, installed, or operated in the county. No large-scale solar energy

facility shall be constructed on property that carries a Conservation Easement, whether local, state, or federal.

Compliant; the proposed Project is a large-scale solar energy facility according to the definitions outlined in LCZO, and the Applicant is seeking a Conditional Use Permit.

- **Section 4. Applications and procedures for solar energy facilities.**

In addition to materials required for a permit application under section 3, applications for solar energy facilities shall, unless otherwise provided herein, include:

1. A pre-application meeting. The meeting shall be held with the Zoning Administrator to discuss the location, scale, and nature of the proposed use and what will be expected during that process.

Compliance presumed; a pre-application meeting was conducted between the Applicant and the County, although the date is not provided within the Application.

2. Community meeting. An in-person public meeting shall be held at least 30 days prior to the determination that the project is in substantial accord with the Comprehensive Plan to give the community an opportunity to hear from the applicant and ask questions regarding the proposed facility.

Compliance expected; a community meeting will be conducted by the Applicant.

3. Official application form, fees, and required information. The form and fee schedule are provided by the Zoning Administrator in accord with Lunenburg County Zoning Ordinance Sec. 3-16. Fees.

Incomplete/Noncompliant; while the required form and fee were submitted, please see e., Preliminary Site Plan, for aspects of the Application that are incomplete or noncompliant.

- a. Project narrative.

Complete; the project narrative addresses all required content.

- b. Environmental impacts narrative.

Complete; the environmental impacts narrative addresses all required content.

- c. Wildlife impacts narrative.

Complete; the wildlife impacts narrative addresses all required content.

- d. Cultural impacts narrative.

Complete; the cultural impacts narrative addresses all required content.

- e. Preliminary Site Plan.

Incomplete; a preliminary site plan was included with the Application, however, the following required information (numbered as provided in the LCZO Solar Energy Facilities Ordinance) is not included in the plan or otherwise within the Application, needs clarification, or is noncompliant:

3. The Application does not include written confirmation from VDOT that all proposed entrances meet applicable requirements and are appropriate for the use. - The County has handled this - please see VDOT's response enclosed.
11. The plan does not include wildlife corridors or the location of stream buffers.

17. The Preliminary Site Plan does not include the following:

xvii. Parking that will be required and/or provided is not addressed in the plan.

- f. Public Information. Additional information as may be available on public databases, such as ConserveVirginia, including:

Complete; required content #s 1-10 were met by the Applicant. The public information was addressed as part of the preliminary site plan, Project Narrative, and other materials throughout the application.

- g. Draft landscaping and screening plan.

Compliant; the overall plans sheet (i.e., draft landscape and screening plan) indicates the intended preservation of the existing native and non-invasive tree, shrub, and grass species buffer.

- h. Draft grading plan.

Complete; a draft grading plan incorporating required content has been provided.

- i. Draft Traffic Study.

Incomplete; the submitted Traffic & Route Evaluation Study does not address the decommissioning process.

- j. Draft Decommissioning and Reclamation Plan.

Incomplete; the Decommissioning Plan does not include the following required information and content:

3. The method of ensuring that funds will be available for decommissioning and reclamation. A proposed method of providing appropriate escrow, surety, or security for the cost of the decommissioning and reclamation plan. The surety shall be updated when the decommissioning and reclamation cost estimate is updated.

4. The method that the estimated cost will be kept current. The decommissioning and reclamation cost estimate shall include a mechanism for calculating increased removal costs due to inflation. This cost estimate shall be recalculated every five (5) years and the surety shall be updated accordingly. If the recalculated estimated cost exceeds the original estimated cost by ten percent (10%), then the owner or occupant shall deposit additional funds into the escrow account to meet the new cost estimate. If the recalculated estimated cost is less than ninety percent (90%) of the original estimated cost, then the County may approve reducing the amount of the escrow account to the recalculated estimate of cost.

- k. Supplemental information.

Not reviewed with respect to Application completeness or compliance.

4. Comprehensive Plan (2232) Review.

Not reviewed with respect to Application completeness or compliance.

5. Consideration of the Conditional Use Permit by the Planning Commission.

Not reviewed with respect to Application completeness or compliance.

6. Consideration of the Conditional Use Permit by the Board of Supervisors.

Not reviewed with respect to Application completeness or compliance.

7. Post-application documentation and approvals.

Not reviewed with respect to Application completeness or compliance.

- **Section 5. Location, appearance, and operational requirements.**

A. The following requirements apply to all solar energy facilities that shall be considered by the Lunenburg Planning Commission and the Board of Supervisors in addressing whether to recommend or approve a Conditional Use Permit:

1. Signage. All signage on the site shall comply with the County Sign Ordinance, as adopted and, from time to time, amended.

Compliant; the Applicant acknowledges this provision and notes the Project will comply with the County's Sign Ordinance.

2. Noise. Noise levels from the facility shall comply with the County Noise Ordinance, as adopted and, from time to time, amended.

Compliant; the Applicant acknowledges this provision and notes the Project will comply with the County's Noise Ordinance.

3. Lighting. Lighting shall be limited to the minimum necessary for security purposes and shall be designed to minimize off-site effects. Lighting on the site shall comply with any Dark Skies Ordinance the Board of Supervisors may adopt or, from time to time, amend.

Compliant; the Applicant acknowledges this provision and notes the Project will comply with the County's Dark Skies Ordinance.

4. **Height.** The maximum height of the lowest edge of photovoltaic panels shall be ten feet as measured from the finished grade. Solar energy generation facilities shall not exceed a height of 15 feet, which shall be measured from the highest natural grade below each solar panel. This limit shall not apply to utility poles and the interconnection to the overhead electric utility grid. The Board of Supervisors may approve a greater height based upon the demonstration of a significant need where the impacts of increased height are mitigated.

Noncompliant; while the Project Narrative references the type of panel to be used, the maximum height of the lowest edge of photovoltaic panels shall be ten (10) feet as measured from the finished grade and panels shall not exceed a height of fifteen (15) feet as measured from the highest natural grade below each solar panel; while the plans note the 15' height limit, no additional information is provided, and no information is provided to confirm compliance with respect to the maximum height of the lowest edge of panels.

3. Groundcover.

- a. Groundcover on the site shall consist of pollinator plants, grasses, forbs, and wildflowers native to the County.

- b. Groundcover shall be maintained in accordance with established performance measures noted in the landscaping plan. A performance bond reflecting the costs of anticipated maintenance shall be posted and maintained.
- c. Failure to maintain the ground cover shall result in revocation of the CUP and the facility's decommissioning.
- d. The operator shall notify the County prior to application of pesticides and fertilizers. The County reserves the right to request soil and water testing.
- e. A list of appropriate plant materials shall be available at the Planning Office. Species listed on DCR's Invasive Plant Species list shall not be used.

Compliant; the Application references compliance with required standards.

- 4. Fencing. The project area shall be enclosed by security fencing not less than six feet in height and equipped with an appropriate anticlimbing device such as strands of barbed wire on top of the fence. The height and/or location of the fence may be altered in the conditions for a particular permit. Fencing must be installed on the interior of the vegetative buffer. Fencing shall be placed around sections of the infrastructure (not the entire site) to provide access corridors for wildlife to navigate through the facility. The fencing shall be maintained while the facility is in operation.

Compliant; the Application demonstrates compliance with required standards.

- 7. Entry and inspection. For inspections and other requirements, all solar applicants, property owners and solar facility owners shall grant to the County a non-exclusive, perpetual easement for pedestrian, vehicular, and equipment access to the Solar Facility, and an easement across or through applicant's remaining property, which is necessary or convenient for ingress and egress to the Facility. The County will adhere to all safety requirements in gaining access to the Solar Facility.

Complete; the Application references the intent to grant an easement to the County, as required.

- 8. Coordination of local emergency services. The Applicant shall coordinate with the County's emergency services providers to provide materials, education, and/or training on how to safely respond to on-site emergencies.
 - a. Emergency personnel will be given a key or code to access the property in case of an on-site emergency.

Compliance unknown; the Application does not reference compliance with these requirements.

9. Conditions pursuant to Virginia Code § 15.2-2288.8 that shall apply to all solar facilities. The Board of Supervisors may grant a condition that includes (i) dedication of real property of substantial value or (ii) substantial cash payments for or construction of substantial public improvements, the need for which is not generated solely by the granting of a Conditional Use Permit, so long as such conditions are reasonably related to the project.

Not reviewed with respect to Application completeness or compliance.

10. Siting Agreement. The applicant shall enter into a Siting Agreement with the County unless that requirement is waived by the County.

Compliance Anticipated; the Applicant will engage with the County with respect to a Siting Agreement.

- D. The following requirements also apply to large-scale solar energy facilities:

1. Location. Solar facilities should locate on brownfields, County-owned capped landfills, or near existing industrial uses, where feasible (but not within areas designated for growth). Solar facilities shall not be located within 1 mile from a Town. Solar facilities shall not be located within two miles of an airport unless the applicant submits, as part of its application, written certification from the Federal Aviation Administration that the location of the facility poses no hazard for, and will not interfere with, airport operations.

Compliant; no active project area is located within 1 mile of any Town boundaries.

2. Density. Large-scale solar facilities shall be sited at least one (1) mile from existing medium- and large-scale solar facilities as measured from the nearest fence line. No more than 5% of the land in a five-mile radius of the project area of any existing large scale solar energy facility shall be approved for use as the project area for a new large-scale solar energy facility. The center point of the project shall be at the intersection of the mid-points of the north, south, east, and west property lines. Measurement to achieve the required five-mile distance shall begin at the midpoint of each north, south, east, and west property line chosen to determine the center of the property.

Compliant; portions of the project are within the 5-mile radius of the proposed project area of the Laurel Branch project. The Applicant demonstrate the percentage of land within this 5-mile radius that will be used as project area as 4.8%.

3. **Visual impacts.** The applicant shall demonstrate through project siting and proposed mitigation, that the solar project minimizes impacts on public viewsheds, including from residential areas and areas of scenic, historical,

cultural, archaeological, and recreational significance. The facility shall utilize only panels that employ anti-glare technology, anti-reflective coatings, and other available mitigation techniques, all that meet or exceed industry standards, to reduce glint and glare. The applicant shall provide written certification from a qualified expert, acceptable to the county, that the facility's panels incorporate and utilize anti-glare technology and anti-reflective coatings and reduce glint and glare to levels that meet or exceed industry standards.

Compliance unknown; the Application does not address that anti-glare technology, anti-reflective coatings, and other available mitigation techniques, all that meet or exceed industry standards will be used to reduce glint and glare. The Applicant has not provided written certification from a qualified expert, acceptable to the County, that the facility's panels incorporate and utilize anti-glare technology and anti-reflective coatings and reduce glint and glare levels to levels that meet or exceed industry standards.

Whether the Project's siting or proposed mitigation minimizes impacts on public viewsheds, including from residential areas and areas of scenic, historical, cultural, archaeological, and recreational significance, will be a consideration of the 2232 and Conditional Use Permit reviews.

4. Setbacks. Setbacks are measured from the outermost structure including the security fence, substation, and inverters but not including the driveways and power poles.
 - a. The project area shall be set back a distance of at least
 - i. 200 feet from adjacent property lines,
 - ii. 200 feet from the centerline of all adjoining or abutting public rights-of-way, and
 - iii. 400 feet from residential structures on non-project parcels.Exceptions may be made for adjoining parcels that are owned by the applicant.

Compliant; the Application materials demonstrate compliance with required project area setbacks.

- b. Increased setbacks up to 300 feet and additional buffering may be included in the conditions for a particular permit.

Not applicable at this time.

- c. Solar energy facilities also shall meet all setback requirements for primary structures for the zoning district in which the facility is located, in addition to the requirements set forth above.

→ Zoning is actually A-1

Compliant; The site is zoned R-1 and the preliminary site plan meets the minimum requirements for R-1.

- d. In the case of the facility location incorporating multiple zoning districts, the more restrictive requirements shall apply.

Not applicable

- e. Access, erosion and stormwater structures, and interconnection to the electrical grid may be made through setback areas provided that such are generally perpendicular to the property line.

Compliant; subject features are identified to be generally perpendicular to property lines.

- f. County approved permanent, buffered setback easements with non-solar facility landowners may be utilized to meet these setback requirements so long as solar facility setbacks from public rights of way are maintained.

Not applicable at this time.

- 5. **Vegetated Buffer.** A vegetated buffer sufficient to mitigate the visual impact of the facility is required.

- a. The buffer shall consist of a landscaped strip at least 50 feet wide, shall be located within the setbacks required under this Section, and shall run around the entire perimeter of the property.

Compliant; the preliminary site plan indicates a vegetated buffer meeting the requirements of the Ordinance.

- b. The buffer shall consist of existing vegetation and, if deemed necessary for the issuance of a Conditional Use Permit, an installed landscaped strip consisting of multiple rows of staggered trees and other vegetation. This buffer should be made up of plant materials at least three feet tall, at the time of planting, and that are expected to grow to a minimum height of eight feet within three years.

Compliant; the preliminary site plan and Application materials demonstrate compliance with these requirements.

- c. Landscaping intended for screening shall consist of plants, shrubs, trees, grasses, forbs, and wildflowers native to the County. If a sufficient quantity of native plants cannot be procured, non-invasive plants may be used. A list of appropriate plant materials shall be available at the Planning Office. Species listed on the DCR Virginia Invasive Plant Species List shall not be used.

Compliant; the landscaping buffer sheet indicates the intended planting of native and non-invasive plant species.

- d. The Planning Commission or Board of Supervisors may require increased setbacks and additional or taller vegetative buffering in situations where the height of structures or the topography affects the visual impact of the facility.

Not reviewed with respect to Application completeness or compliance.

- e. Non-invasive plant species and pollinator-friendly and wildlife-friendly native plants, shrubs, trees, grasses, forbs, and wildflowers must be used in the vegetative buffer.

Compliant; as noted above.

- f. A recommendation that the screening and/or buffer creation requirements be waived or altered may be made by the Planning Commission when the applicant proposes to use existing wetlands or woodlands. The wetlands or woodlands shall be permanently protected for use as a buffer.

Not reviewed with respect to Application completeness or compliance; however, this will be a consideration for the Planning Commission based upon the use of existing/preserved vegetation.

- g. Existing trees and vegetation may be maintained within such buffer areas except where dead, diseased or as necessary for development or to promote healthy growth, and such trees and vegetation may supplement or satisfy landscaping requirements as applicable. If existing trees and vegetation are disturbed, new plantings shall be provided for the buffer.

Not reviewed with respect to Application completeness or compliance; however, this will be a consideration for the Planning Commission as to whether existing trees and vegetation with or without supplemental plantings as proposed by the Applicant will establish a sufficient buffer.

- h. The buffer shall be maintained for the life of the facility.

Compliance anticipated; the Application does not reference compliance, but reasonable conditions could be considered to ensure compliance.

- i. An earthen berm may be utilized to comply with the intent of this Section 5, D5 to screen or mitigate the visual impact of the solar facilities from public view.

Not applicable at this time; the Project does not propose the use of earthen berms.

6. **Wildlife corridors.** The Applicant shall identify access corridor(s) for wildlife to navigate through and across the Solar Facility. The proposed wildlife corridor(s) shall be shown on the site plan submitted to the County. Areas between fencing shall be kept open to allow for the movement of migratory animals and other wildlife.

Noncompliant; the preliminary site plan does not demonstrate compliance with these requirements.

- **Section 6 and Section 7** were not reviewed with respect to Application completeness or compliance.
- **Section 8. Federal, state, and local requirements.**

1. Compliance with Uniform Statewide Building Code. All solar energy facilities shall be constructed and operated in compliance with the Uniform Statewide Building Code.

Compliance expected.

2. Compliance with National Electric Code. All solar energy facilities shall be constructed and operated in compliance with the National Electric Code.

Compliance expected.

3. Compliance with regulations governing electric energy supply. Large-scale solar energy facilities connected to the utility grid must comply with permitting requirements of the state corporation commission or the permit by rule requirements of the Department of Environmental Quality, as applicable.

Compliance expected.

4. **FAA regulations.** All solar energy facilities within 5 miles of an airport must meet or exceed the standards and regulations of the Federal Aviation Administration.

Compliance expected; the Project site is within 5 miles of the Lunenburg County Airport; without providing documentation, the Application indicates that the project has been reviewed in some fashion by the FAA and will not require additional permitting.

5. Other applicable laws. All solar energy facilities shall be constructed and operated in compliance with all applicable local, state, and federal laws, rules, regulations, permit requirements, and ordinances.

Compliance expected.



COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION

RICHMOND DISTRICT
2430 Pine Forest Drive
COLONIAL HEIGHTS, VA 23834
www.VDOT.Virginia.gov

Stephen C. Brich, P.E.
COMMISSIONER

April 4, 2023

Ms. Taylor N. Newton
Director of Planning and Economic Development
County of Lunenburg
11413 Courthouse Road
Lunenburg, VA 23952
(Sent Via E-mail)

SUBJECT: **Oral Oaks Solar, LLC (Kenbridge Solar)**
Rte. 635, Oral Oaks Rd.
Lunenburg County, VA
CUP Acceptance, CUP Application 1-23 Dated 3/10/23

Dear Ms. Newton:

The Virginia Department of Transportation, Southern Region Land Development Office has reviewed the subject CUP Application 1-23 received on March 30, 2023 by email. At this time we have no comments on CTMP section, therefore we find the construction traffic/haul route acceptable.

If you have any questions please feel free to contact me at 434-774-2310 or by email, todd.cage@vdot.virginia.gov.

Sincerely,

C. Todd Cage

Digitally signed by C. Todd Cage
DN: cn=CAGE,
email=todd.cage@vdot.virginia.gov,
c=US,
Reason: I am the author of this
document
Date: 2023.04.04 09:31:36 -0400

C. Todd Cage

Land Development Engineer
Southern Region Land Development
Richmond District

CC: Paul Hinson, P.E., LEED AP, VDOT Southern Region Area Land Use Engineer
John Legg, VDOT Southern Region Permits/Subdivision Specialist Sr.
Tommy Johnson, VDOT South Hill Residency Administrator
Kevin Smith, VDOT South Hill Assistant Residency Administrator

WE KEEP VIRGINIA MOVING



2

Attachment 2

Revised Decommissioning Plan

DECOMMISSIONING PLAN

Kenbridge Solar is proposed as a 12-Megawatt Alternating Current (AC) freestanding solar energy facility to be located on Lunenburg County Property Tax Map Number 058-0A-0-29 near 5844 Oral Oaks Road in Kenbridge as shown on the VHB CUP Site Plan dated November 2022 (the "Project"). The Project will not contain any permanent building structures after construction is complete and the Project is operational. There will be security fencing installed around the perimeter of the Project, with security gates for access. The Project has an estimated useful life of 40 years. In conjunction with the permits, the following is the decommissioning plan for the Project:

Lunenburg County will be notified by certified mail to the County Planning Commissioner office, of the proposed date of discontinuation of operations and plans for removal. Decommissioning will consist of:

- physical removal of all project elements,
- reuse, salvage, recycling and disposal of all material in accordance with local, state, and federal regulations, and
- return of the array surface to its pre solar development condition (as can reasonably be achieved via acceptable land development practices). This consists of surface stabilization, revegetation of the site to minimize erosion and replanting of trees to similar predevelopment density.

Kenbridge Solar will obtain any required local or state permits before starting the decommissioning operation and will ensure there are no impacts on the premises and abutters.

DECOMMISSIONING STEPS

Under the decommission and restoration process, Kenbridge Solar or a subcontractor will dismantle and remove all above ground structures, equipment, gravel roads and recondition the ground and any related temporary staging areas. Structures and equipment include panels, racking, canopy structures, inverters, transformers, wiring, pads, poles and low and medium voltage electrical equipment.

All dismantled equipment and material are categorized for reuse, salvage, recycling or disposal. Steel, aluminum, glass, copper and plastics can all be recycled. To optimize transportation and reduce costs, all materials will be collected and classified on-site before transport to the appropriate facilities.

No waste material will remain on site, other than certain underground materials as described below in items number 3 and 8.

The different steps below describe the process to decommission the Photovoltaic (PV) systems.

1. **Temporary erosion controls:** Appropriate temporary and sedimentation control best management practices will be used in the decommissioning of ground mount systems.

2. **Disconnect PV system from the power grid:** System will be shut down. All inverters, combiner boxes, AC panels and medium voltage disconnects, and switches will be put in the off position.
3. **Remove electric wiring and cables:** DC and AC wire will be disconnected and removed by hand from panels, racking, combiner boxes, inverters and AC panels. Underground cables will be pulled and removed from underground conduit and overhead cables will be removed from poles and Medium Voltage (MV) equipment. Any underground cable left in place will be cut off at a minimum depth of 12-inches below the ground surface.
4. **Remove panels:** Crystalline silicon panels are considered landfill safe since they do not contain hazardous materials such as lead or cadmium. Panels contain recyclable materials such as aluminum, copper and glass. Panels will be dismantled and packaged per manufacturer or approved recycler specifications. If possible, panels will be returned to manufacturer for recycling or disposal or transported to a recycling facility where panel componentry will be recycled.
5. **Dismantle and removal of racks:** Racks include, fix tilt structures. All racking will be disassembled, broken down and shipped to the appropriate metal recycling facilities.
6. **Remove rack foundations:** Foundations include post and ground screws. All support, posts and ground screws will be pulled and removed from the ground.
7. **Remove electrical and electronic equipment:** Electrical and electronic equipment include inverters, transformers, combiner boxes, AC panels, disconnect switches and MV equipment. Equipment will be removed from supports, concrete pads and utility poles. Equipment will be transported for reconditioning and reuse or disassembled into easily transportable sections for salvage, recycling or disposal using approved techniques.
8. **Breakup and remove concrete materials:** Concrete materials include equipment pads. Pads will be excavated to remove anchor bolts, rebar and conduits and concrete will be broken into small manageable pieces. Ballast blocks will be broken into small manageable pieces and canopy concrete foundations (if applicable) will be demolished to a minimum of 12 inches below grade. Concrete material will be disposed at the appropriate facilities and rebar will be recycled, if possible.
9. **Remove power poles.** Utility poles installed to interconnect the system will be removed and reused, if possible.
10. **Remove fence:** Fencing, gates and guards will be removed and salvaged or recycled.
11. **Remove roads:** Gravel access and internal array roads will be removed. Gravel aggregate will be tested for contamination prior to salvage and disposed of or reused based on tested condition.

12. **Remove stormwater ditches and basins:** Stormwater management drainage ditches and basins will be removed. This will include removal of associated concrete discharge control structures, discharge piping and energy dissipation riprap. These excavated stormwater management features will be filled and/or re-graded to prevent excessive ponding and accommodate establishment of the prescribed predevelopment vegetation.
13. **Restoration:** Restoration includes grading, seeding and loaming of disturbed areas resulting from decommissioning activities.

DECOMMISSIONING FUNDS

1. **Method of ensuring fund availability:** Ameresco will post a Decommissioning Bond as the method of security for decommissioning funds.
2. **Keeping the estimate current:** The estimated cost of decommissioning shall be recalculated every five (5) years. If the recalculated estimated cost of decommissioning exceeds the original estimated cost of decommissioning by ten percent (10%) or more, then the amount of the financial assurance shall be increased to equal or exceed the new cost estimate. If the recalculated estimated cost of decommissioning is less than ninety percent (90%) of the original estimated cost of decommissioning, the financial assurance may be reduced to the recalculated estimate of decommissioning cost subject to approval by the county.

3

Attachment 3

Hanwha Q CELLS ARC

PV MODULE REFLECTION – GLARE

PV MODULE REFLECTION – GLARE

When light falls on a surface it is split; some of the light traverses the surface (transmission), some light enters the surface and is lost (absorption) and some is redirected away from the surface (reflection). In order for a PV module to produce as much power as possible, the cover glass is optimized for high transmission. This is why Hanwha Q CELLS PV modules have cutting-edge anti-reflective coatings (ARC) in order to maximize transmission and limiting the possibility for reflections.

Each of these actions, transmission, absorption and reflection, can be measured as a proportion of the original light falling on the surface, eg. $T + A + R = 100\%$. For our purposes it is only necessary to look at the proportion of this original light, as the intensity of the light falling on the surface of the PV module glass will change with numerous factors including different system configurations, locations and times of both the day and year.

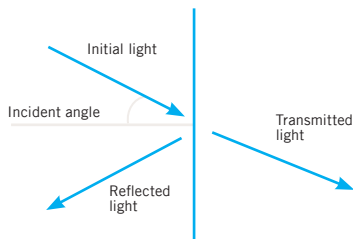


Figure 1: Light falling on a surface

The proportion of light reflected from any surface is dependent upon the angle at which the light hits the glass, called the incident angle where 0° is direct light and 90° is parallel to the surface. The proportion of reflected light can be calculated for different incident angles using the Fresnel equations. For a sheet of glass it would be necessary to calculate the reflection twice, once for the frontside of the glass and once for the backside. However as the rear of PV module glass is connected to an EVA and light absorbing PV cell it is only necessary to consider the frontside effect. To calculate the reflection the refractive index of the involved media is needed. As an example air has an index of 1, for normal “window” glass the value is around 1.5, for water it is 1.33 and for PV module glass it is around 1.25. From these figures alone it is possible to, correctly, presume that the glass used in PV modules creates less reflected light than normal “window” glass or a body of water. Figure 2 shows the curves of these different cases, along with measurements by TÜV Rheinland of Hanwha Q CELLS modules. It can be seen that the proportion of light reflected starts close to zero but rises as the incident angle gets closer to 90° .

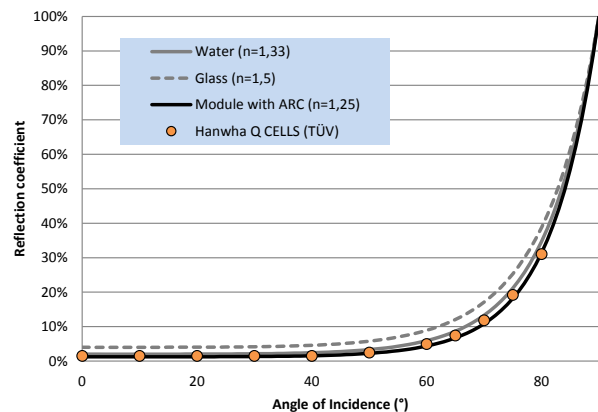


Figure 2: Reflection vs. incident angle

CONCLUSION

From both the theoretical and measured data it is clear that ARC glass used in all Hanwha Q CELLS currently produced PV modules reflects less light than both naturally occurring features, such as bodies of water, and common manmade structures. Moreover for incident angles below 55° less than 4 % of the initial light is reflected away from the PV module.

EMAIL: service@q-cells.com

TEL: +49 (0)3494 66 99 23222



4

Attachment 4

CUP Site Plan “Notes and Details” (sheet C100)



115 South 15th Street
Suite 200
Richmond, VA 23219
804.343.7100



PROJECT NOTES:

- THE APPLICANT REQUESTS THE GRANTING OF A CONDITIONAL USE PERMIT (CUP) TO ALLOW FOR THE INSTALLATION OF A LARGE SOLAR ENERGY SYSTEM ON THE SUBJECT PROPERTY PER SECTION 4 OF THE ORDINANCE FOR SOLAR ENERGY FACILITIES IN LUNENBURG COUNTY, VA.
- THE SUBJECT PROPERTY IS IDENTIFIED AS PARCEL TAX MAP NUMBER 058-0A-0-29 PER THE LUNENBURG COUNTY ASSESSOR AND TOTALS 128.24 ACRES PER THE VHB PERFORMED ALTA.
- THE APPLICANT IS AMERESCO, 12001 SUNRISE VALLEY DRIVE, SUITE 205 RESTON, VA 20191.
- THE DEPICTED SUBJECT PROPERTY BOUNDARY AND EASEMENT INFORMATION TAKEN FROM A FIELD RUN SURVEY PREPARED BY VHB AND COURT RECORDS. ADDITIONAL ADJOINER LINES AND EXISTING CONDITIONS INFORMATION WAS OBTAINED FROM LUNENBURG COUNTY GIS DATA.
- TOPOGRAPHY, EXISTING BUILDINGS AND DRIVEWAYS ARE DERIVED FROM A PHOTOGRAMMETRIC SURVEY PREPARED BY NVS DATED MAY 31, 2022. THE CONTOUR INTERVAL IS ONE (1) FOOT.
- WETLANDS INFORMATION OBTAINED FROM A WATERS OF THE U.S. DELINEATION PREPARED BY VHB AND CONFIRMATION VIA A PRELIMINARY JURISDICTIONAL DETERMINATION LETTER DATED 8/29/22 FROM THE UNITED STATES ARMY CORPS OF ENGINEERS.
- PER FEMA FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY PANEL 51111C01758, WITH AN EFFECTIVE DATE OF 7/20/2009, THERE ARE NO SPECIAL FLOOD HAZARD AREAS. THE PROPERTY IS LOCATED IN ZONE X, AREA OF MINIMAL FLOOD HAZARD.
- TO THE BEST KNOWLEDGE OF THE ENGINEER AND APPLICANT THIS APPLICATION CONFORMS TO ALL APPLICABLE ORDINANCES, REGULATIONS AND ADOPTED STANDARDS.
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PROJECT NARRATIVE:

AMERESCO (APPLICANT) PROPOSES TO CONSTRUCT AND OPERATE THE KENBRIDGE SOLAR FACILITY (PROJECT) AT 5844 ORAL OAKS ROAD, KENBRIDGE, VIRGINIA 23944. THE PROJECT WILL BE A FIXED TILT, GROUND-MOUNTED PHOTOVOLTAIC (PV) SOLAR FACILITY, WITH AN ELECTRICITY GENERATING CAPACITY OF APPROXIMATELY 12.0 MEGAWATTS (MW) OF ALTERNATING CURRENT (AC) AND 13.5 MW OF DIRECT CURRENT (DC) WITHIN A FENCE SECURED AREA OF APPROXIMATELY 51.0 ACRES. THE 51-ACRE FENCED DEVELOPMENT AREA IS LOCATED WITHIN PARCEL TAX MAP NO. 058-0A-0-29 WITH A PROPOSED GRAVEL ACCESS ROAD THAT CONNECTS TO ORAL OAKS ROAD (SR 635). THE PROJECT PARCEL IS APPROXIMATELY 128.24 ACRES AND IS PRIVATELY OWNED BY VIRGINIA HAWTHORNE WILSON (PROPERTY). THE LOCATION AND ORIENTATION OF THE SOLAR ARRAY WITHIN THE PROPERTY WAS DESIGNED SO TO MINIMIZE VISIBILITY FROM NEARBY RESIDENTS AND PUBLIC ROADWAYS, MINIMIZE EXCAVATION AND GRADING ASSOCIATED WITH PROJECT CONSTRUCTION, AND MAXIMIZE EXPOSURE TO SOLAR RADIATION THROUGHOUT THE YEAR. THE FACILITY SETBACKS FROM ORAL OAKS ROAD AND THE SURROUNDING RESIDENTIAL PARCELS HAVE BEEN INCREASED TO EXCEED COUNTY REQUIREMENTS.

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THE PURPOSE OF THE PROPOSED PROJECT IS TO GENERATE LOCAL, CLEAN, AND RENEWABLE SOLAR POWER, WITH THE ELECTRICITY GENERATION TO BE SOLD TO THE LOCAL UTILITY. THE INTERCONNECTION STUDY HAS BEEN COMPLETED BY SOUTHSIDE ELECTRIC COOPERATIVE AND APPLICANT EXPECTS A SOLAR GENERATOR INTERCONNECTION AGREEMENT (SGIA) BY MARCH 2023. PROJECT SITE CONSTRUCTION IS ANTICIPATED TO BEGIN IN 2023. LOCAL SOLAR PROJECTS ARE PART OF THE ENERGY MIX, REDUCING THE DEPENDENCE ON ANY SINGLE SOURCE OF ELECTRICITY GENERATION. THESE PROJECTS HELP KEEP ELECTRIC COSTS DOWN BY PROVIDING A HEDGE AGAINST THE RISING COSTS OF COMMODITY FUELS. THESE LOCAL POWER GENERATION PROJECTS ALSO BENEFIT THEIR HOST COMMUNITIES BY IMPROVING THE RESILIENCY OF THE LOCAL ELECTRIC GRID, SUPPLYING POWER LOCALLY AND OFFSETTING POWER SUPPLIES THAT WOULD OTHERWISE BE REQUIRED FROM DISTANT POWER PLANTS.

BASED ON ITS COMMITMENT TO PROVIDING RENEWABLE ENERGY, THE APPLICANT PROPOSES TO DEVELOP THE SITE DESCRIBED BELOW TO MAXIMIZE ITS SOLAR ENERGY POTENTIAL WITHIN THE PROJECT'S SECURED FENCED AREA. TO BEST DETERMINE OPTIMAL LOCATION WITHIN THE SITE, THE FOLLOWING FACTORS HAVE BEEN ANALYZED:

- SIGNIFICANT SOLAR RADIATION (INSOLATION)
- SITE ACCESSIBILITY FOR SERVICE AND CONSTRUCTION VEHICLES
- AVOIDANCE OF ENVIRONMENTALLY SENSITIVE AREAS
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SITE SETTING

THE PROPOSED PROJECT SITE IS LOCATED AT 5844 ORAL OAKS ROAD IN KENBRIDGE, VIRGINIA. THE FENCED PORTION OF THE PROJECT AREA IS APPROXIMATELY 51 ACRES IN SIZE AND WILL BE INSTALLED WITHIN PARCEL TAX MAP NO. 058-0A-0-29 (128.24 ACRES) WITH A PROPOSED GRAVEL ACCESS ROAD THAT CONNECTS TO ORAL OAKS ROAD (SR 635). THE PROPERTY IS PRIVATELY OWNED BY VIRGINIA WILSON HAWTHORNE AND MAJORITY OF THIS PARCEL, APPROXIMATELY 80% (102 ACRES) EXISTS AS FORESTED (TIMBER). THERE IS APPROXIMATELY 26 ACRES THAT EXIST AS MANAGED TURF WITHIN THE PROPERTY, AND APPROXIMATELY 77% (20 ACRES) OF THE TURF IS LOCATED WITHIN A 150-FOOT VEPCO EASEMENT ALONG THE NORTHERN SIDE OF THE PARCEL. THERE IS ALSO APPROXIMATELY 5.5 ACRES OF WETLANDS IN THE PROJECT PARCEL, WHICH IS TO BE CONSERVED AND PROTECTED.

THE PROPOSED 51-ACRE FENCED PROJECT SITE IS BORDERED AS FOLLOWS:

- BORDERED TO THE NORTH BY A 150-FOOT VEPCO EASEMENT THAT IS INTERNAL TO THE PROJECT PARCEL. THE PROPOSED SECURITY FENCE RUNS PARALLEL TO THE EASEMENT ALONG ITS ENTIRE NORTHERN BORDER.
- BORDERED TO THE EAST BY THE CENTERLINE OF THE EXISTING STREAM FOUND IN A FIELD RUN SURVEY PREPARED BY VHB. ADJACENT TO THE STREAM IS A RESIDENTIAL - LOW DENSITY (R1) ZONED PARCEL WHICH BORDERS THE EAST AND SOUTHEAST CORNER OF THE PROJECT (TAX MAP NO. 058-0A-0-39A).
- BORDERED TO THE SOUTH BY TWO (2) R1 ZONED PARCELS WITH THE SAME OWNER (TAX MAP NO. 058-0A-0-28B AND 058-0A-0-27).
- BORDERED TO THE WEST BY A PROJECT PARTICIPANT PARCEL (TAX MAP NO. 058-0A-0-29A) WITH A SINGLE-FAMILY RESIDENCE OWNED BY THE PROJECT PARCEL OWNER, THE NORTH AND SOUTHWEST CORNERS ARE BORDERED BY THE ORAL OAKS ROAD (SR 635) RIGHT-OF-WAY.

THE SPECIFIC LOCATION OF THE PROPOSED SOLAR ARRAY WITHIN THIS PROPERTY WAS CAREFULLY DESIGNED SO TO MINIMIZE VISIBILITY AND MAXIMIZE SETBACKS FROM NEARBY RESIDENTS TO THE SOUTH AND ORAL OAKS ROAD TO THE WEST. THE SELECTED LOCATION IS PARALLEL AND ADJACENT TO AN EXISTING VEPCO EASEMENT TO THE NORTH AND RESIDENTIAL ZONED PROPERTIES TO THE EAST AND SOUTH. VIEWSHED BUFFERING/SCREENING IS ACCOMPLISHED BY PRESERVING A 50-FOOT OR GREATER WIDTH BUFFER OF EXISTING VEGETATION AROUND THE PERIMETER OF THE PROJECT.

A WETLAND DELINEATION WAS COMPLETED BY VHB IN APRIL 2022 AND CONFIRMED VIA A PRELIMINARY JURISDICTIONAL DETERMINATION FROM THE UNITED STATES ARMY CORPS OF ENGINEERS ON AUGUST 29, 2022. THERE WERE WATERS REGULATED UNDER SECTION 404 OF THE CLEAN WATERS ACT FOUND ON THE PROJECT SITE, HOWEVER NO WETLAND/WATERS IMPACTS ARE PROPOSED WITH THIS PROJECT.

KEY COMPONENTS

THE PROPOSED PROJECT WILL CONSIST OF THE FOLLOWING KEY COMPONENTS:

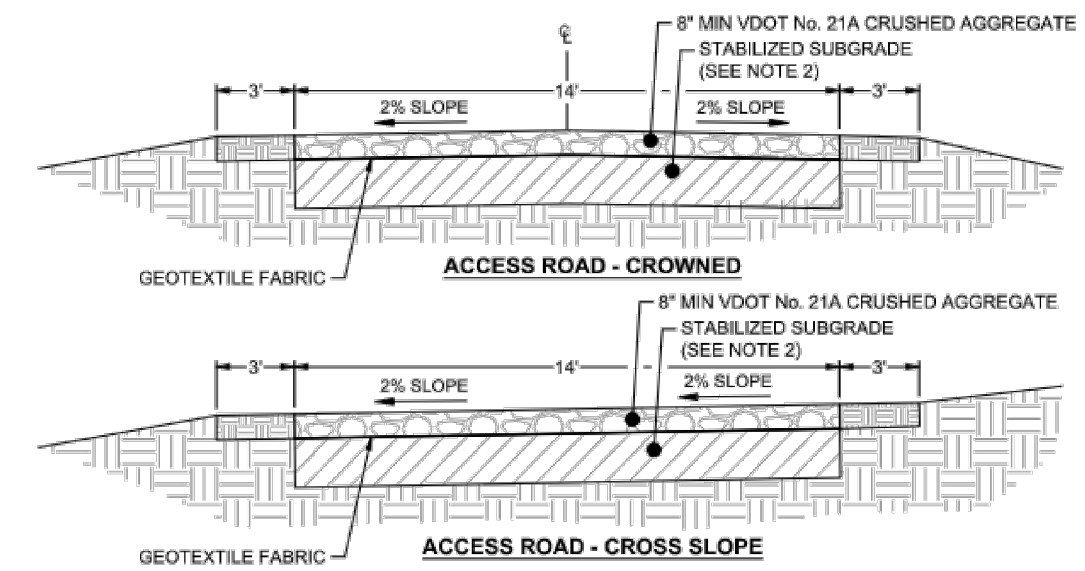
- SOLAR MODULES AND RACKING
- UNDERGROUND ELECTRICAL CONDUCTORS
- BALANCE OF SYSTEM EQUIPMENT
- GRAVEL ACCESS ROAD
- SECURITY FENCING

FOR ADDITIONAL INFORMATION PLEASE REFERENCE THE COMPLETE PROJECT NARRATIVE AND OTHER SUPPORTING DOCUMENTS THAT ACCOMPANY THIS PRELIMINARY SITE PLAN AND CUP APPLICATION.

PROJECT DEVELOPMENT DATA

AREA CLASSIFICATION	PROJECT PARCEL AREA		LIMIT OF DISTURBANCE	
	(ACRE)	(PERCENT)	(ACRE)	(PERCENT)
WOODED AREA	41.04	32.0%	0.08	0.2%
TURF/POLLINATOR AREA	75.39	58.8%	51.88	94.3%
*TREE CLEARING AREA FOR SHADE REDUCTION	8.77	6.8%	0.00	0.0%
TOTAL IMPERVIOUS AREA	3.04	2.4%	3.04	5.5%
Gravel Roads/Riprap	2.02	-	2.02	-
PV Racking Posts	1.00	-	1.00	-
Equipment Pads	0.02	-	0.02	-
TOTAL PROJECT PARCEL	128.24		TOTAL LOD	55.00
*EXISTING TREES IN THESE SHADE REDUCTION AREAS ARE TO BE CLEARED VIA TIMBER PRACTICES THAT PRESERVE THE STUMPS/ROOTS AND PREVENT LAND DISTURBANCE.				
BUILDINGS	0 SF	0.00 AC	0.0%	
IMPERVIOUS AREA	132,430 SF	3.04 AC	2.4%	
OPEN AREA	5,453,712 SF	125.20 AC	97.6%	

ZONING TABULATIONS		
	REQUIREMENT / EXISTING	PROPOSED / PROVIDED
ZONING DISTRICT	RESIDENTIAL - LOW DENSITY (R1)	NO CHANGE
LAND USE	VACANT / FORESTED	LARGE SOLAR ENERGY FACILITY
DISTANCE TO NEAREST TOWN OF KENBRIDGE	ONE (1) MILE	5.0 MILES (SEE NOTE #1)
DISTANCE TO NEAREST AIRPORT	GREATER THAN TWO (2) MILES	5.0 MILES (SEE NOTE #1)
DISTANCE TO NEAREST MEDIUM OR LARGE SOLAR FACILITY	ONE (1) MILE	1.1 MILES (SEE NOTE #2)
SOLAR FACILITY DENSITY	5% IN A FIVE (5) MILE RADIUS	4.8% (SEE NOTE #2)
MINIMUM SETBACKS (SEE NOTE #3)		
RIGHT-OF-WAY	200 FEET	>800 FEET
ADJACENT PROPERTY LINES	200 FEET	>200 FEET
RESIDENTIAL STRUCTURES	400 FEET	>400 FEET
MAXIMUM HEIGHT	15 FEET	<12 FEET
MINIMUM BUFFER (SEE NOTE #4)	50 FOOT LANDSCAPED STRIP LOCATED WITHIN THE SETBACKS OF THE PROJECT AROUND THE PERIMETER OF THE PROJECT	EXISTING FORESTED BUFFER 50 FEET OR GREATER IN WIDTH TO BE PRESERVED AND MITIGATE VISUAL IMPACT OF SOLAR FACILITY.
NOTES:	1. THE PROJECT SITE IS LOCATED 5.0 MILES FROM THE TOWN OF KENBRIDGE AND MORE THAN 6.5 MILES FROM THE TOWN OF VICTORIA. THE PROJECT SITE IS LOCATED 5.0 MILES FROM THE LUNENBURG COUNTY AIRPORT (NEAREST). THE PROJECT SITE LOCATION IS IN ACCORDANCE WITH SECTION 5 PART D.1 OF THE COUNTY ORDINANCE FOR SOLAR ENERGY FACILITIES. 2. THE PROJECT SITE IS LOCATED MORE THAN 6 MILES FROM THE NEAREST EXISTING SOLAR FACILITY (MEDIUM-SCALE DOGWOOD SOLAR) AND MORE THAN 1.1 MILES FROM NEAREST END OF PROPOSED LARGE-SCALE LAUREL BRANCH SOLAR. THE PROJECT SITE ALSO ADHERES TO LESS THAN 5% SOLAR DEVELOPMENT DENSITY WHEN MEASURED IN RESPECT TO THE PROPOSED LAUREL BRANCH SOLAR. THE PROJECT SITE LOCATION IS IN ACCORDANCE WITH SECTION 5 PART D.2 OF THE COUNTY ORDINANCE FOR SOLAR ENERGY FACILITIES. 3. SETBACKS MAY VARY SLIGHTLY WITH FINAL PLAN BUT ARE SUBJECT TO THE MINIMUM DISTANCES AS REQUIRED BY SECTION 5 PART D.4 OF THE COUNTY ORDINANCE FOR SOLAR ENERGY FACILITIES. 4. THE PROJECT LAYOUT IS DESIGNED SO TO PRESERVE AN EXISTING FORESTED/WOODLAND BUFFER OF 50 FEET OR WIDER AROUND THE PROJECT PARCELS PERIMETER. THIS EXISTING VEGETATION IS NATIVE AND WELL ESTABLISHED/MATURE AND PRESERVES EXISTING HABITAT IN ADDITION TO VISUALLY SCREENING THE SOLAR FACILITY. THIS IS IN ACCORDANCE WITH SECTION 5 PART D.5 OF THE COUNTY ORDINANCE FOR SOLAR ENERGY FACILITIES.	

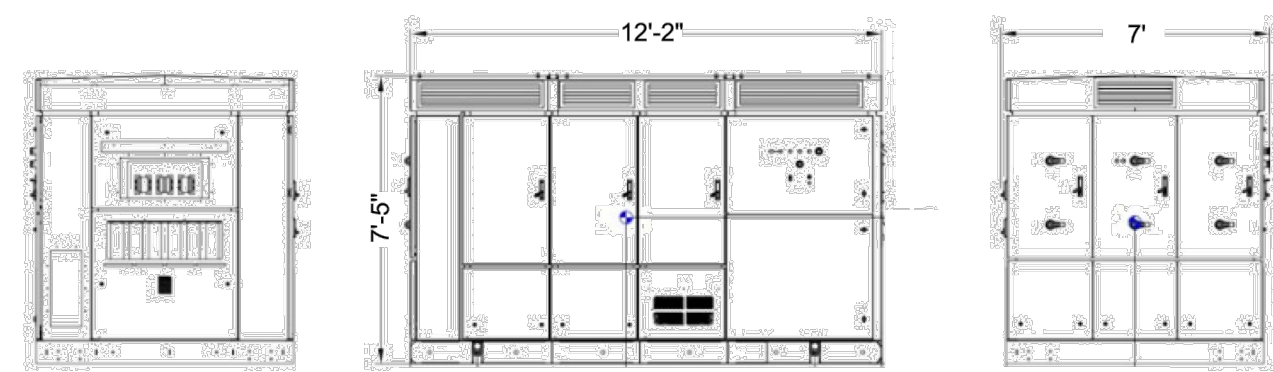


- NOTES:
- GEOTEXTILE FABRIC SHALL BE MIRAFI HP970 OR PROJECT ENGINEER APPROVED EQUIVALENT.
 - SUBGRADE MATERIALS SHALL CONFORM TO VDOT "ROAD AND BRIDGE SPECIFICATIONS". SUBGRADE SHALL BE PLACED IN 8" MAXIMUM LIFTS AND COMPACTED TO AT LEAST 96% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY. SOIL MOISTURE CONTENT DURING COMPACTION SHALL BE MAINTAINED WITHIN 3% OF THE OPTIMUM MOISTURE CONTENT.
 - SHOULDERS SHALL BE COMPACTED NATIVE SOIL.
 - ROAD GRAVEL WIDTH MAY BE EXPANDED TO 20 FEET WIDE AT ENTRANCE OR WHERE SPECIFIED ON PLAN.

Access Road Typical Section

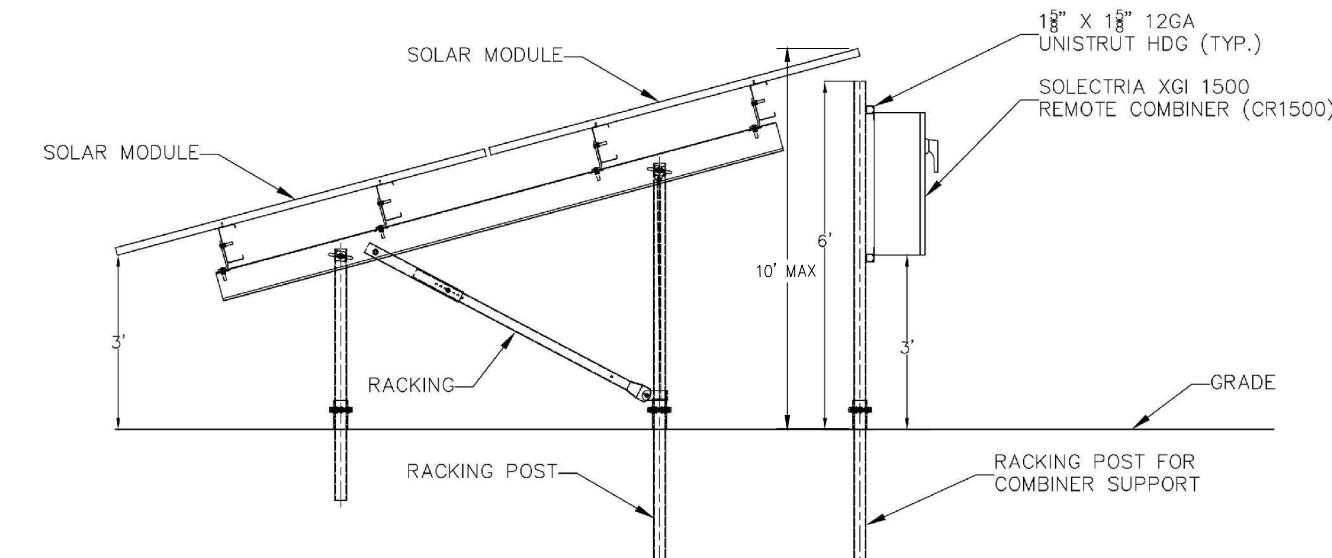
N.T.S.

SOLAR EQUIPMENT NOTE:
TYPICAL SECTION DETAIL REPRESENTATIVES ARE SHOWN FOR THE GROUND MOUNTED FIXED-TILT PV MODULE RACKING SYSTEM AND POWER INVERTERS. THE FINAL EQUIPMENT SELECTIONS WILL BE SPECIFIED WITH THE FINAL SITE PLAN SUBMITTAL TO THE COUNTY.



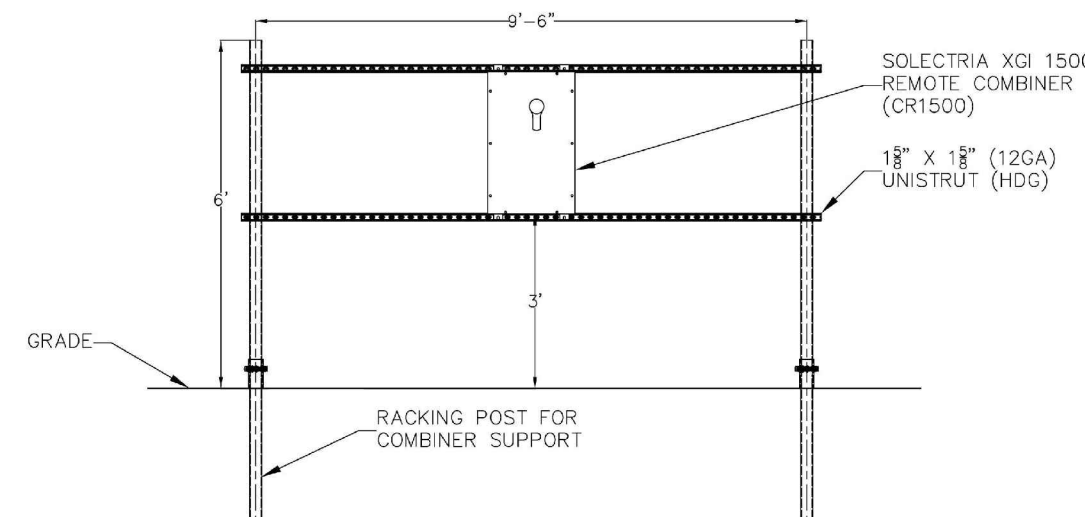
Typical Power Inverter Elevations

N.T.S.



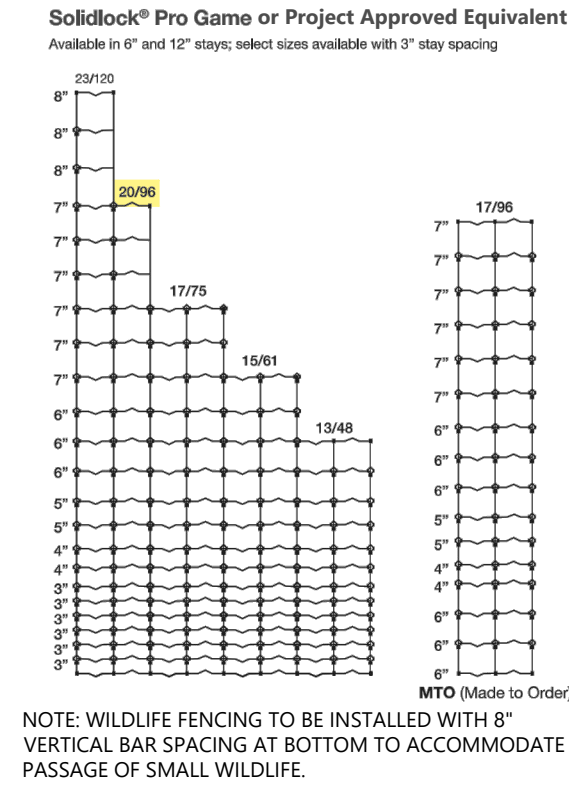
Typical Fixed-Tilt Racking and Combiner Elevations

N.T.S.



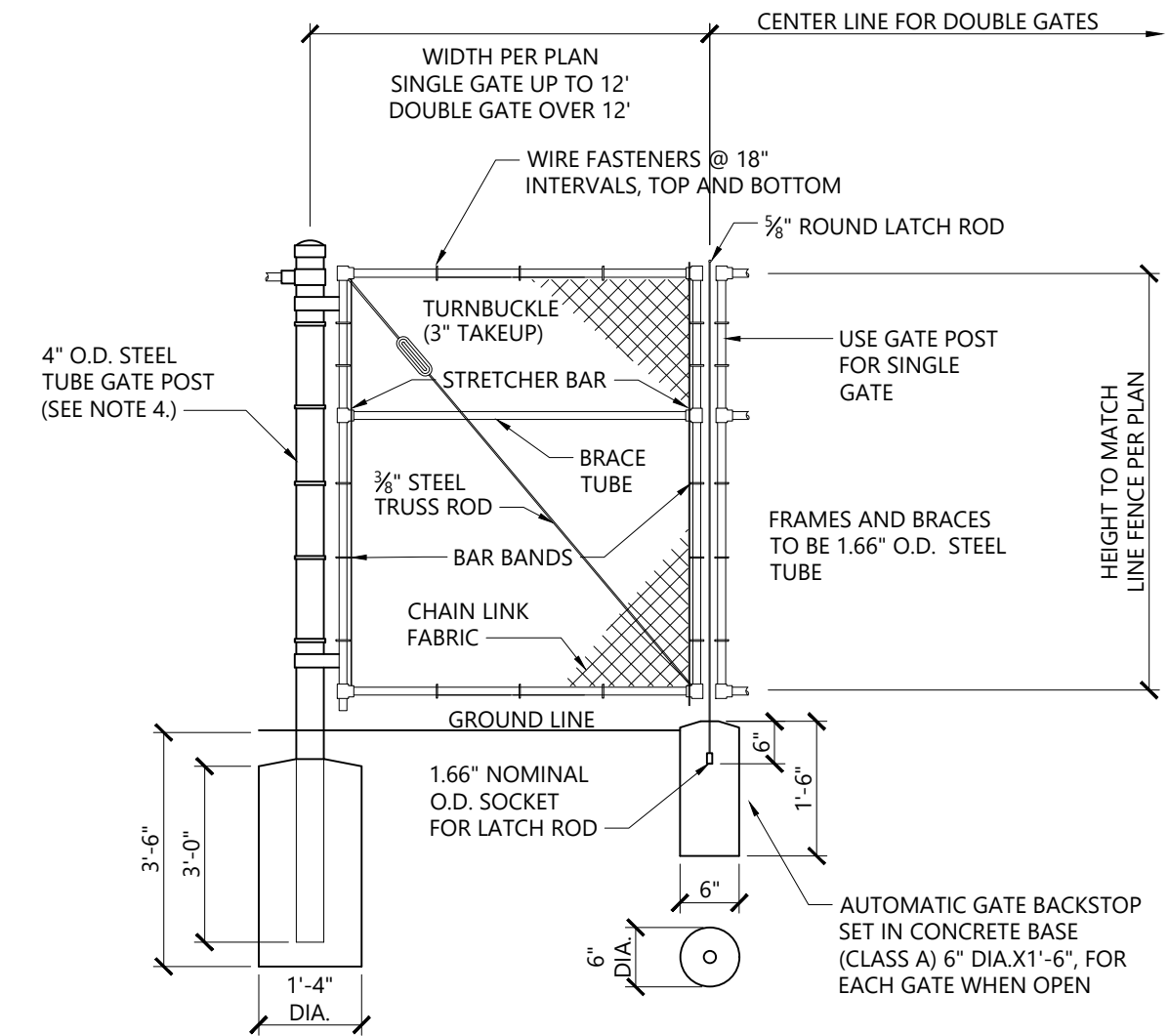
Fixed Knot Fence Products

Solidlock® Pro Professional Strength Fixed Knot Game Fence						
Part #	Fence Design	Height	Vertical Spacing	Roll Length	Wire Gauge	Roll Weight
118248	1951-48	61"	6"	330'	12.5g	279 lbs
118009	1775-48	70"	6"	330'	12.5g	307 lbs
118271	2096-48	90"	3"	160'	12.5g	340 lbs
118208	2096-48	90"	6"	330'	12.5g	307 lbs
118376	2096-48	90"	6"	500'	12.5g	601 lbs
118241	2096-12	90"	12"	330'	12.5g	282 lbs
118371	2096-12	90"	12"	660'	12.5g	564 lbs
118918	231024-6	120"	6"	330'	12.5g	492 lbs
180546	2096-6	90"	6"	330'	12.5g	307 lbs
210607	2096-48	90"	6"	800'	12.5g	600 lbs
118001	2096-48	90"	6"	330'	12.5g	306 lbs



Wildlife-Permeable Fencing Specifications*

N.T.S. Source: Bekaert Fixed Knot Fence
*NOTE: FENCING IS SUBJECT TO APPROVAL BY THE LOCAL DISTRIBUTION UTILITY



NOTES

- MATERIALS TO BE SUPPLIED AND INSTALLED IN CONFORMANCE WITH "CHAIN LINK MANUFACTURER'S INSTITUTE" PRODUCT MANUAL.
- CONCRETE FOOTING ON LINE POSTS MAY BE OMITTED IF POSTS ARE BURIED A MIN. OF 2.5 FEET, UNLESS SPECIFIED OTHERWISE BY FENCE MANUFACTURER.
- FENCE FABRIC, POSTS, FRAMEWORKS, AND HARDWARE SHALL BE GALVANIZED STEEL PER SPECIFICATIONS.
- GATE POSTS TO BE USED ON EACH SIDE OF SINGLE AND DOUBLE GATE OPENINGS.

Chain Link Fence Gate

N.T.S. Source: VHB REV LD_482 12/19

Kenbridge Solar

5844 Oral Oaks Road
Lunenburg, Virginia 23944

No.	Revision	Date	Apprd.

Designed by	JRN	Checked by	SCQ
Issued for		Date	

Conditional Use Permit 3/6/2023

Not Approved for Construction

NOTES AND DETAILS

Drawing Number

C100

Sheet of

2 7

Project Number

34823.00

Site Plans

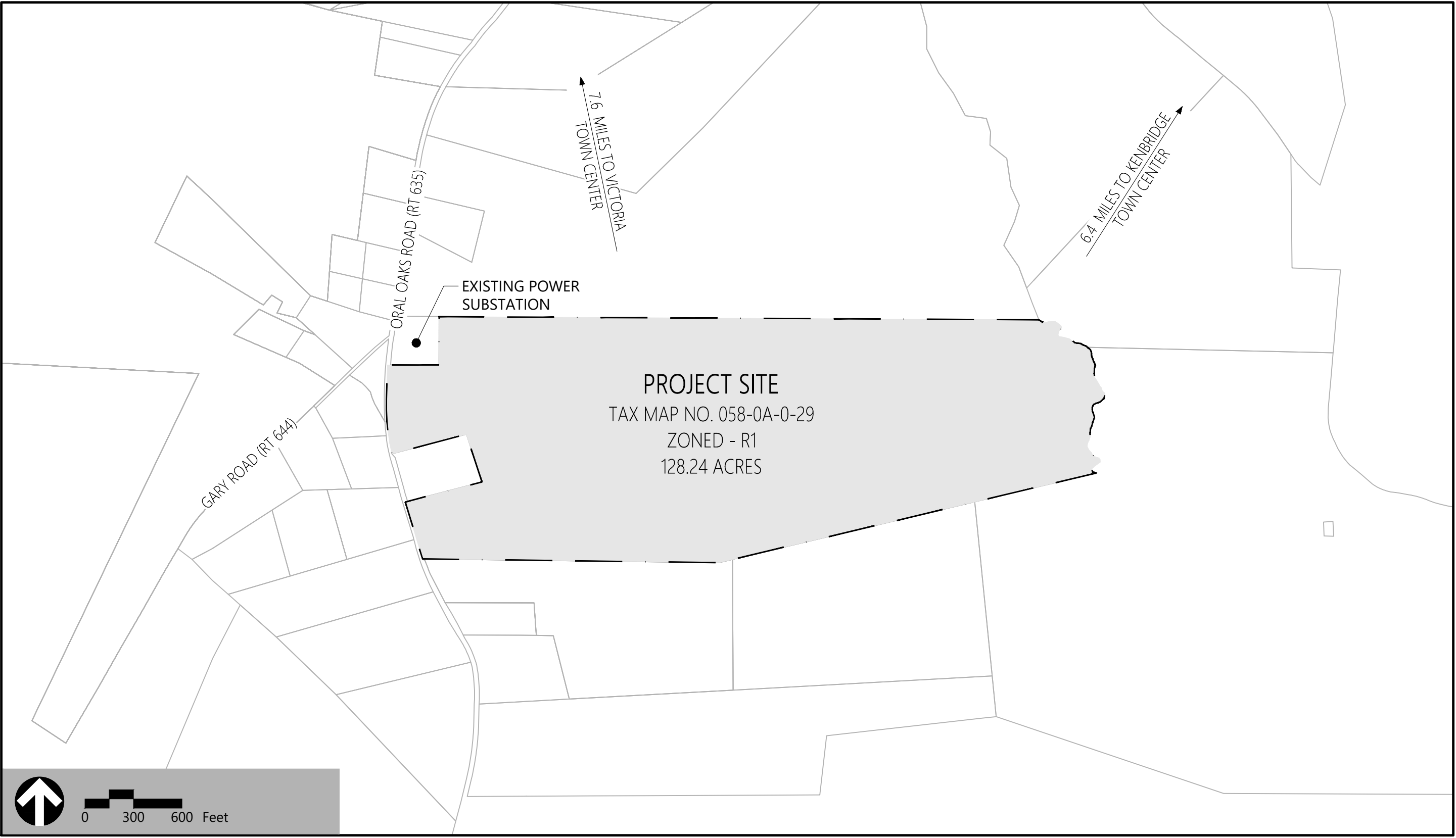
Issued for	CUP Review
Date Issued	March 6, 2023
Latest Issue	January 8, 2024

KENBRIDGE SOLAR CONDITIONAL USE PERMIT - 12 MW AC

APPLICATION #: CUP-1-23

COLUMBIAN GROVE MAGISTERIAL DISTRICT
LUNENBURG COUNTY

5844 Oral Oaks Road
Kenbridge, VA 23944



Land Owner:

Virginia Hawthorne Wilson
5844 Oral Oaks Road, Kenbridge, VA 23944
Tax Map No: 058-0A-0-29
128.24 Acres (per ALTA)

Applicant / Developer:

Oral Oaks Road Solar, LLC (Ameresco Inc.)
c/o Tom Holt, Director - Solar PV Project Development
111 Speen Street, Framington, MA 01701
tholt@ameresco.com
(508) 598-3136



Sheet Index		
No.	Drawing Title	Latest Issue
C100	NOTES AND DETAILS	January 8, 2024
C200	EXISTING CONDITIONS	March 6, 2023
C300	OVERALL SITE PLAN	January 8, 2024
C301	SITE PLAN - WEST	January 8, 2024
C302	SITE PLAN - EAST	January 8, 2024
C400	SLOPE ANALYSIS	January 8, 2024



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Environmental Consultant

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351 McLaws Circle, Suite 3
Williamsburg, VA 23185
Attn: Kimberly Blossom
(757) 279-2828
kblossom@vhb.com

Land Surveyor

VHB
351 McLaws Circle, Suite 3
Williamsburg, VA 23185
Attn: Stephen Romeo, LS
Lic. No. 001448-B
(757) 279-2848
sromeo@vhb.com



115 South 15th Street
Suite 200
Richmond, VA 23219
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PROJECT NOTES:

- THE APPLICANT REQUESTS THE GRANTING OF A CONDITIONAL USE PERMIT (CUP) TO ALLOW FOR THE INSTALLATION OF A LARGE SOLAR ENERGY SYSTEM ON THE SUBJECT PROPERTY PER SECTION 4 OF THE ORDINANCE FOR SOLAR ENERGY FACILITIES IN LUNENBURG COUNTY, VA.
- THE SUBJECT PROPERTY IS IDENTIFIED AS PARCEL TAX MAP NUMBER 058-0A-0-29 PER THE LUNENBURG COUNTY ASSESSOR AND TOTALS 128.24 ACRES PER THE VHB PERFORMED ALTA.
- THE APPLICANT IS AMERESCO, 12001 SUNRISE VALLEY DRIVE, SUITE 205 RESTON, VA 20191.
- THE DEPICTED SUBJECT PROPERTY BOUNDARY AND EASEMENT INFORMATION TAKEN FROM A FIELD RUN SURVEY PREPARED BY VHB AND COURT RECORDS. ADDITIONAL ADJOINER LINES AND EXISTING CONDITIONS INFORMATION WAS OBTAINED FROM LUNENBURG COUNTY GIS DATA.
- TOPOGRAPHY, EXISTING BUILDINGS AND DRIVEWAYS ARE DERIVED FROM A PHOTOGRAMMETRIC SURVEY PREPARED BY NVS DATED MAY 31, 2022. THE CONTOUR INTERVAL IS ONE (1) FOOT.
- WETLANDS INFORMATION OBTAINED FROM A WATERS OF THE U.S. DELINEATION PREPARED BY VHB AND CONFIRMATION VIA A PRELIMINARY JURISDICTIONAL DETERMINATION LETTER DATED 8/29/22 FROM THE UNITED STATES ARMY CORPS OF ENGINEERS.
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SITE SETTING

THE PROPOSED PROJECT SITE IS LOCATED AT 5844 ORAL OAKS ROAD IN KENBRIDGE, VIRGINIA. THE FENCED PORTION OF THE PROJECT AREA IS APPROXIMATELY 51 ACRES IN SIZE AND WILL BE INSTALLED WITHIN PARCEL TAX MAP NO. 058-0A-0-29 (128.24 ACRES) WITH A PROPOSED GRAVEL ACCESS ROAD THAT CONNECTS TO ORAL OAKS ROAD (SR 635). THE PROPERTY IS PRIVATELY OWNED BY VIRGINIA WILSON HAWTHORNE AND MAJORITY OF THIS PARCEL, APPROXIMATELY 80% (102 ACRES) EXISTS AS FORESTED (TIMBER). THERE IS APPROXIMATELY 26 ACRES THAT EXIST AS MANAGED TURF WITHIN THE PROPERTY, AND APPROXIMATELY 77% (20 ACRES) OF THE TURF IS LOCATED WITHIN A 150-FOOT VEPCO EASEMENT ALONG THE NORTHERN SIDE OF THE PARCEL. THERE IS ALSO APPROXIMATELY 5.5 ACRES OF WETLANDS IN THE PROJECT PARCEL, WHICH IS TO BE CONSERVED AND PROTECTED.

THE PROPOSED 51-ACRE FENCED PROJECT SITE IS BORDERED AS FOLLOWS:

- BORDERED TO THE NORTH BY A 150-FOOT VEPCO EASEMENT THAT IS INTERNAL TO THE PROJECT PARCEL. THE PROPOSED SECURITY FENCE RUNS PARALLEL TO THE EASEMENT ALONG ITS ENTIRE NORTHERN BORDER.
- BORDERED TO THE EAST BY THE CENTERLINE OF THE EXISTING STREAM FOUND IN A FIELD RUN SURVEY PREPARED BY VHB. ADJACENT TO THE STREAM IS A RESIDENTIAL - LOW DENSITY (R1) ZONED PARCEL WHICH BORDERS THE EAST AND SOUTHEAST CORNER OF THE PROJECT (TAX MAP NO. 058-0A-0-39A).
- BORDERED TO THE SOUTH BY TWO (2) R1 ZONED PARCELS WITH THE SAME OWNER (TAX MAP NO. 058-0A-0-28B AND 058-0A-0-27).
- BORDERED TO THE WEST BY A PROJECT PARTICIPANT PARCEL (TAX MAP NO. 058-0A-0-29A) WITH A SINGLE-FAMILY RESIDENCE OWNED BY THE PROJECT PARCEL OWNER, THE NORTH AND SOUTHWEST CORNERS ARE BORDERED BY THE ORAL OAKS ROAD (SR 635) RIGHT-OF-WAY.

THE SPECIFIC LOCATION OF THE PROPOSED SOLAR ARRAY WITHIN THIS PROPERTY WAS CAREFULLY DESIGNED SO TO MINIMIZE VISIBILITY AND MAXIMIZE SETBACKS FROM NEARBY RESIDENTS TO THE SOUTH AND ORAL OAKS ROAD TO THE WEST. THE SELECTED LOCATION IS PARALLEL AND ADJACENT TO AN EXISTING VEPCO EASEMENT TO THE NORTH AND RESIDENTIAL ZONED PROPERTIES TO THE EAST AND SOUTH. VIEWSHED BUFFERING/SCREENING IS ACCOMPLISHED BY PRESERVING A 50-FOOT OR GREATER WIDTH BUFFER OF EXISTING VEGETATION AROUND THE PERIMETER OF THE PROJECT.

A WETLAND DELINEATION WAS COMPLETED BY VHB IN APRIL 2022 AND CONFIRMED VIA A PRELIMINARY JURISDICTIONAL DETERMINATION FROM THE UNITED STATES ARMY CORPS OF ENGINEERS ON AUGUST 29, 2022. THERE WERE WATERS REGULATED UNDER SECTION 404 OF THE CLEAN WATERS ACT FOUND ON THE PROJECT SITE, HOWEVER NO WETLAND/WATERS IMPACTS ARE PROPOSED WITH THIS PROJECT.

KEY COMPONENTS

THE PROPOSED PROJECT WILL CONSIST OF THE FOLLOWING KEY COMPONENTS:

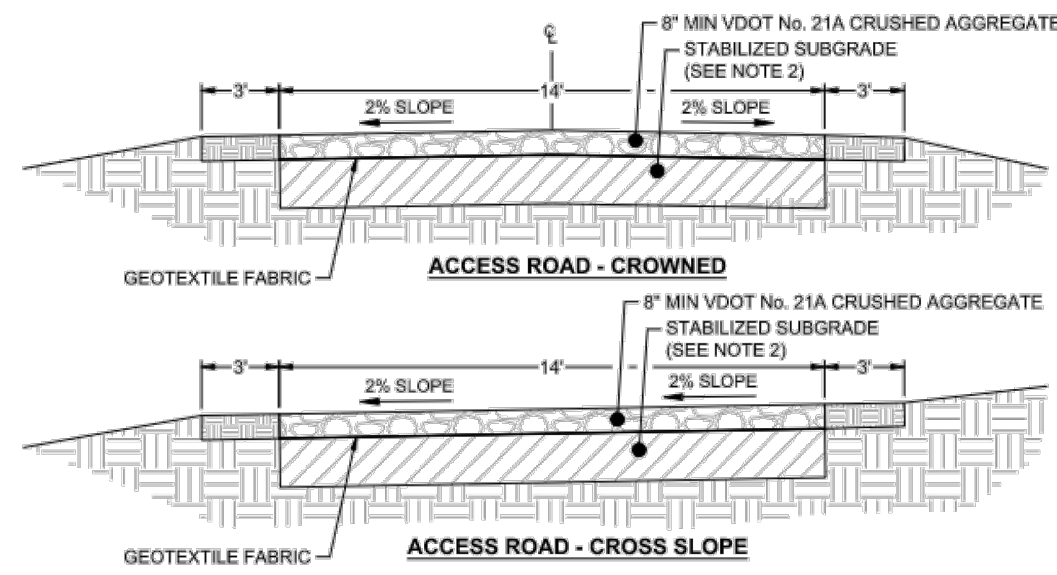
- SOLAR MODULES AND RACKING
- UNDERGROUND ELECTRICAL CONDUCTORS
- BALANCE OF SYSTEM EQUIPMENT
- GRAVEL ACCESS ROAD
- SECURITY FENCING

FOR ADDITIONAL INFORMATION PLEASE REFERENCE THE COMPLETE PROJECT NARRATIVE AND OTHER SUPPORTING DOCUMENTS THAT ACCOMPANY THIS PRELIMINARY SITE PLAN AND CUP APPLICATION.

PROJECT DEVELOPMENT DATA

AREA CLASSIFICATION	PROJECT PARCEL AREA		LIMIT OF DISTURBANCE	
	(ACRE)	(PERCENT)	(ACRE)	(PERCENT)
WOODED AREA	41.04	32.0%	0.08	0.1%
TURF/POLLINATOR AREA	72.64	56.6%	49.13	94.1%
*TREE CLEARING AREA FOR SHADE REDUCTION	11.55	9.0%	0.00	0.0%
TOTAL IMPERVIOUS AREA	3.01	2.4%	3.01	5.8%
Gravel Roads/Riprap	1.99	-	1.99	-
PV Racking Posts	1.00	-	1.00	-
Equipment Pads	0.02	-	0.02	-
TOTAL PROJECT PARCEL	128.24		TOTAL LOD	52.22
*EXISTING TREES IN THESE SHADE REDUCTION AREAS ARE TO BE CLEARED VIA TIMBER PRACTICES THAT PRESERVE THE STUMPS/ROOTS AND PREVENT LAND DISTURBANCE.				
BUILDINGS	0.5F	0.00 AC	0.0%	
IMPERVIOUS AREA	131,115 SF	3.01 AC	2.3%	
OPEN AREA	5,455,018 SF	125.23 AC	97.7%	

ZONING TABULATIONS		
REQUIREMENT / EXISTING		PROPOSED / PROVIDED
ZONING DISTRICT	RESIDENTIAL - LOW DENSITY (R1)	NO CHANGE
LAND USE	VACANT / FORESTED	LARGE SOLAR ENERGY FACILITY
DISTANCE TO NEAREST TOWN OF KENBRIDGE	ONE (1) MILE	5.0 MILES (SEE NOTE #1)
DISTANCE TO NEAREST AIRPORT	GREATER THAN TWO (2) MILES	5.0 MILES (SEE NOTE #1)
DISTANCE TO NEAREST MEDIUM OR LARGE SOLAR FACILITY	ONE (1) MILE	1.1 MILES (SEE NOTE #2)
SOLAR FACILITY DENSITY	5% IN A FIVE (5) MILE RADIUS	4.8% (SEE NOTE #2)
MINIMUM SETBACKS (SEE NOTE #3)		
RIGHT-OF-WAY	200 FEET	>800 FEET
ADJACENT PROPERTY LINES	200 FEET	>200 FEET
RESIDENTIAL STRUCTURES	400 FEET	>400 FEET
MAXIMUM HEIGHT	15 FEET	<12 FEET
MINIMUM BUFFER (SEE NOTE #4)	50 FOOT LANDSCAPED STRIP LOCATED WITHIN THE SETBACKS OF THE PROJECT AROUND THE PERIMETER OF THE PROJECT	EXISTING FORESTED BUFFER 50 FEET OR GREATER IN WIDTH TO BE PRESERVED AND MITIGATE VISUAL IMPACT OF SOLAR FACILITY.
NOTES:	1. THE PROJECT SITE IS LOCATED 5.0 MILES FROM THE TOWN OF KENBRIDGE AND MORE THAN 6.5 MILES FROM THE TOWN OF VICTORIA. THE PROJECT SITE IS LOCATED 5.0 MILES FROM THE LUNENBURG COUNTY AIRPORT (NEAREST). THE PROJECT SITE LOCATION IS IN ACCORDANCE WITH SECTION 5 PART D.1 OF THE COUNTY ORDINANCE FOR SOLAR ENERGY FACILITIES. 2. THE PROJECT SITE IS LOCATED MORE THAN 6 MILES FROM THE NEAREST EXISTING SOLAR FACILITY (MEDIUM-SCALE DOGWOOD SOLAR) AND MORE THAN 1.1 MILES FROM NEAREST END OF PROPOSED LARGE-SCALE LAUREL BRANCH SOLAR. THE PROJECT SITE ALSO ADHERES TO LESS THAN 5% SOLAR DEVELOPMENT DENSITY WHEN MEASURED IN RESPECT TO THE PROPOSED LAUREL BRANCH SOLAR. THE PROJECT SITE LOCATION IS IN ACCORDANCE WITH SECTION 5 PART D.2 OF THE COUNTY ORDINANCE FOR SOLAR ENERGY FACILITIES. 3. SETBACKS MAY VARY SLIGHTLY WITH FINAL PLAN BUT ARE SUBJECT TO THE MINIMUM DISTANCES AS REQUIRED BY SECTION 5 PART D.4 OF THE COUNTY ORDINANCE FOR SOLAR ENERGY FACILITIES. 4. THE PROJECT LAYOUT IS DESIGNED SO TO PRESERVE AN EXISTING FORESTED/WOODLAND BUFFER OF 50 FEET OR WIDER AROUND THE PROJECT PARCELS PERIMETER. THIS EXISTING VEGETATION IS NATIVE AND WELL ESTABLISHED/MATURE AND PRESERVES EXISTING HABITAT IN ADDITION TO VISUALLY SCREENING THE SOLAR FACILITY. THIS IS IN ACCORDANCE WITH SECTION 5 PART D.5 OF THE COUNTY ORDINANCE FOR SOLAR ENERGY FACILITIES.	



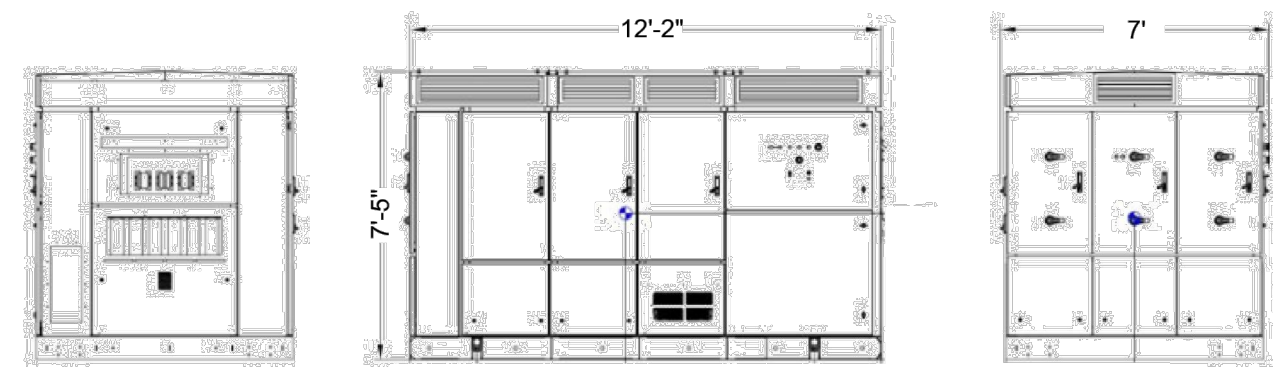
- NOTES:
- GEOTEXTILE FABRIC SHALL BE MIRAFI HP970 OR PROJECT ENGINEER APPROVED EQUIVALENT.
 - SUBGRADE MATERIALS SHALL CONFORM TO VDOT ROAD AND BRIDGE SPECIFICATIONS. SUBGRADE SHALL BE PLACED IN 8" MAXIMUM LIFTS AND COMPACTED TO AT LEAST 98% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY. SOIL MOISTURE CONTENT DURING COMPACTION SHALL BE MAINTAINED WITHIN 3% OF THE OPTIMUM MOISTURE CONTENT.
 - SHOULDER SHALL BE COMPACTED NATIVE SOIL.
 - ROAD GRAVEL WIDTH MAY BE EXPANDED TO 20 FEET WIDE AT ENTRANCE OR WHERE SPECIFIED ON PLAN.

Access Road Typical Section

N.T.S.

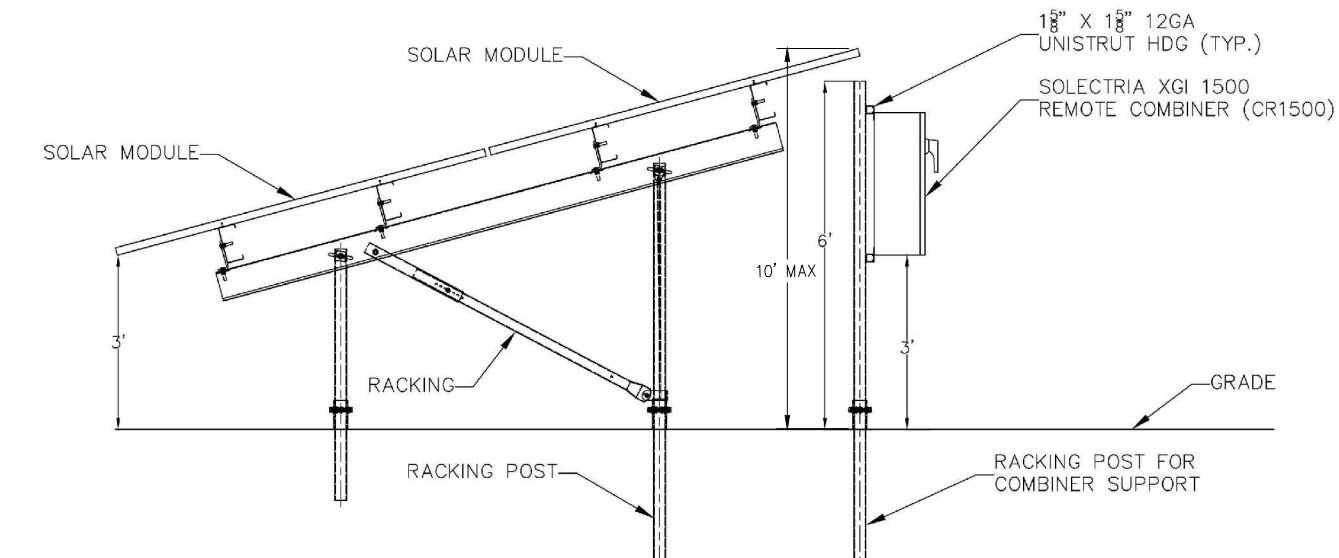
SOLAR EQUIPMENT NOTE:

TYPICAL SECTION DETAIL REPRESENTATIVES ARE SHOWN FOR THE GROUND MOUNTED FIXED-TILT PV MODULE RACKING SYSTEM AND POWER INVERTERS. THE FINAL EQUIPMENT SELECTIONS WILL BE SPECIFIED WITH THE FINAL SITE PLAN SUBMITTAL TO THE COUNTY.



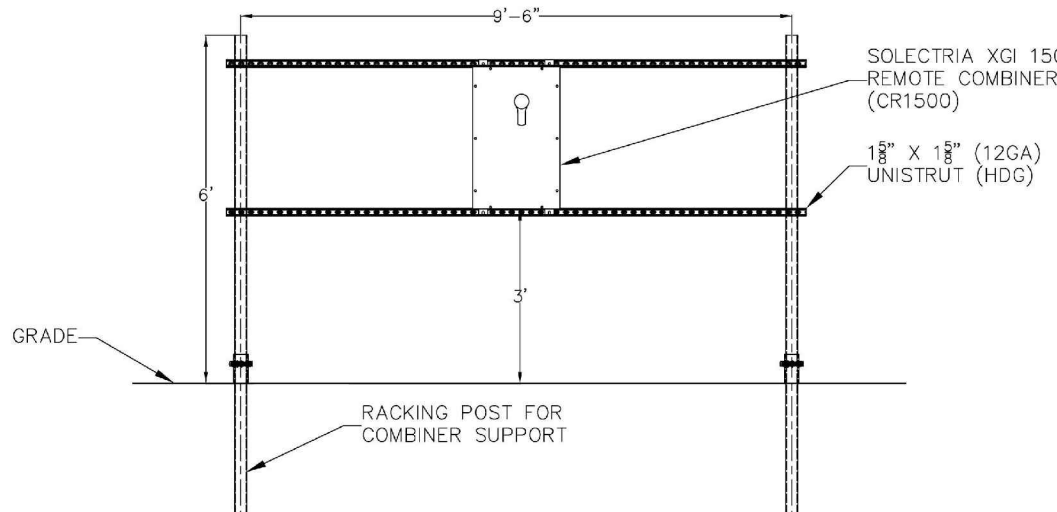
Typical Power Inverter Elevations

N.T.S.



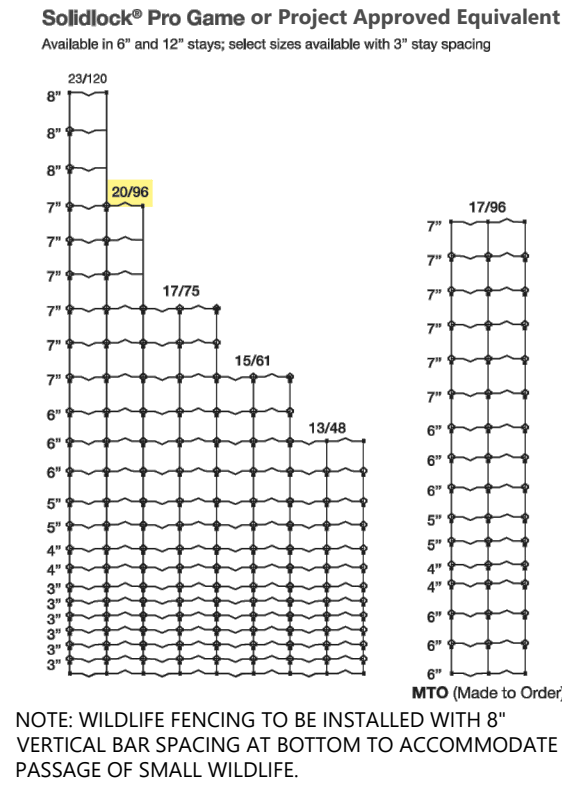
Typical Fixed-Tilt Racking and Combiner Elevations

N.T.S.



Fixed Knot Fence Products

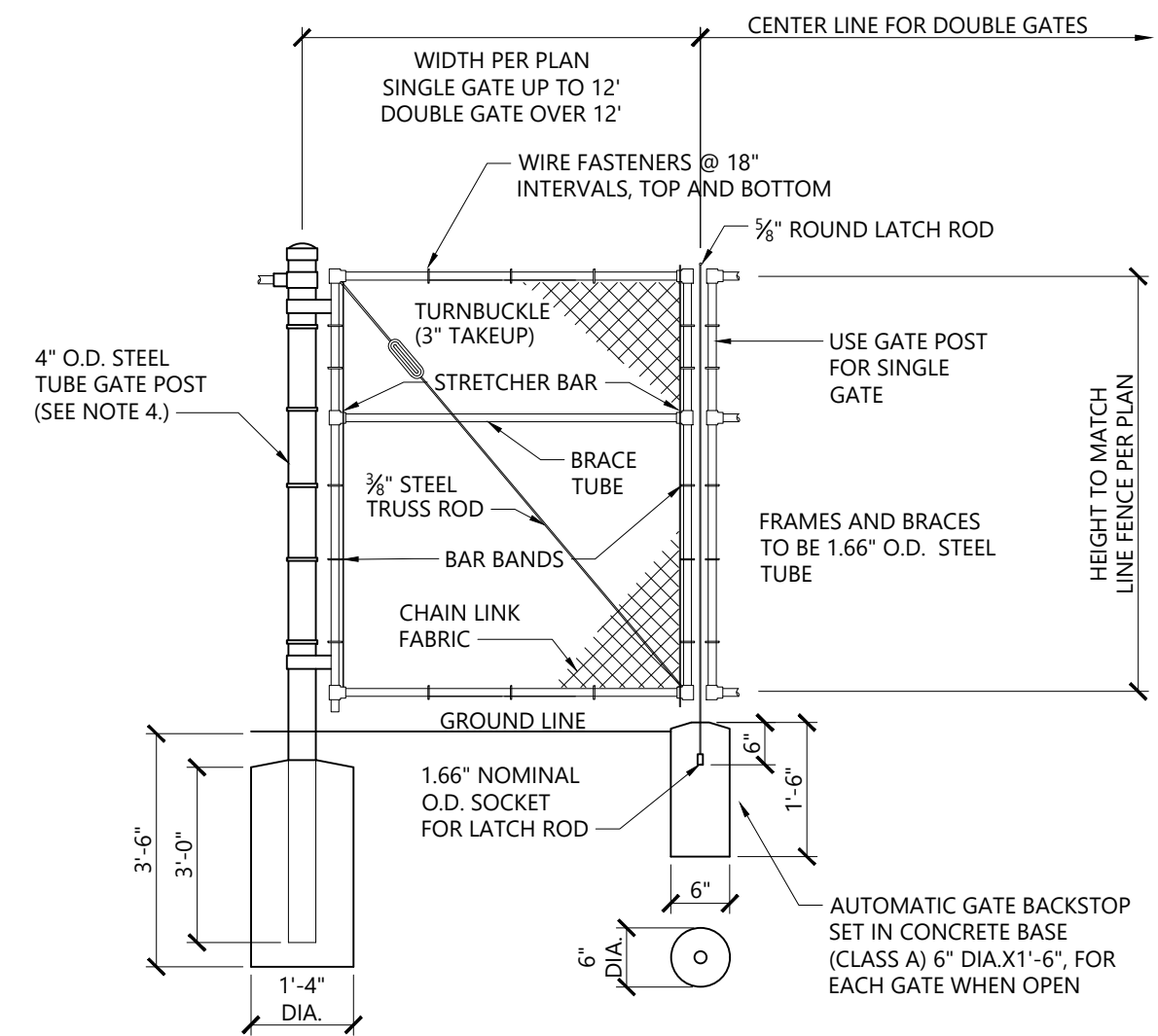
Solidlock® Pro Professional Strength Fixed Knot Game Fence						
Part #	Fence Design	Height	Vertical Spacing	Rail Length	Wire Gauge	Rail Weight
118248	1951-4	61"	6"	330'	12.5g	279 lbs
118209	1775-4	70"	6"	330'	12.5g	327 lbs
118271	2086-3	90"	3"	160'	12.5g	340 lbs
118208	2086-4	90"	6"	330'	12.5g	381 lbs
118376	2086-4	90"	6"	500'	12.5g	601 lbs
118241	2086-12	90"	12"	330'	12.5g	382 lbs
118371	2086-12	90"	12"	660'	12.5g	564 lbs
118318	23120-4	120"	6"	330'	12.5g	492 lbs
182545	2086-6	90"	6"	330'	12.5g	391 lbs
210607	2086-4	90"	6"	800'	12.5g	600 lbs
138261	2086-4	90"	6"	330'	12.5g	360 lbs



Wildlife-Permeable Fencing Specifications*

N.T.S. Source: Bekaert Fixed Knot Fence

*NOTE: FENCING IS SUBJECT TO APPROVAL BY THE LOCAL DISTRIBUTION UTILITY



NOTES

- MATERIALS TO BE SUPPLIED AND INSTALLED IN CONFORMANCE WITH "CHAIN LINK MANUFACTURER'S INSTITUTE" PRODUCT MANUAL.
- CONCRETE FOOTING ON LINE POSTS MAY BE OMITTED IF POSTS ARE BURIED A MIN. OF 2.5 FEET, UNLESS SPECIFIED OTHERWISE BY FENCE MANUFACTURER.
- FENCE FABRIC, POSTS, FRAMEWORKS, AND HARDWARE SHALL BE GALVANIZED STEEL PER SPECIFICATIONS.
- GATE POSTS TO BE USED ON EACH SIDE OF SINGLE AND DOUBLE GATE OPENINGS.

Chain Link Fence Gate

N.T.S.

Source: VHB

REV

12/19

LD_482

Sheet

of

2

7

Project Number

34823.00

LEGEND

- EXISTING TREELINE
- EXISTING CONTOUR (MAJOR)
- EXISTING CONTOUR (MINOR)
- EXISTING ADJOINING PARCELS
- EXISTING WETLAND
- EXISTING SOILS BOUNDARY
- EXISTING EASEMENT
- EXISTING STREAM CENTERLINE
- EXISTING OVERHEAD POWER LINE
- PROJECT BOUNDARY
- FORESTED AREA

X
XX SOIL GROUP INFORMATION



Kenbridge Solar

5844 Oral Oaks Road
Lunenburg, Virginia 23944

No. Revision Date Appr.

Designed by JRN Issued for SCQ Checked by SCQ Date

Conditional Use Permit 3/6/2023

Not Approved for Construction

EXISTING CONDITIONS

Drawing Number

C200

Sheet of

3 7

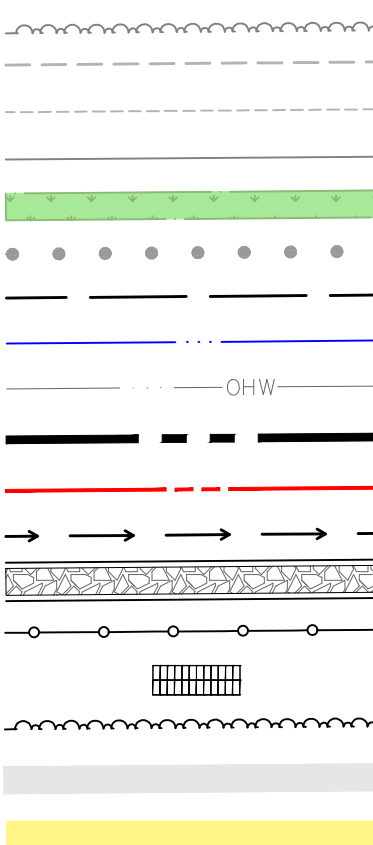
Project Number

34823.00



Adjacent Property Owners Address		
Owner	Address	Tax Map Number
GUSTAF JOSEPH TERRY II	5642 ORAL OAKS ROAD, KENBRIDGE, VA 23944	58-0A-27
WILSON VIRGINIA HAWTHORNE	5844 ORAL OAKS ROAD, KENBRIDGE, VA 23944	58-0A-29A
LUNENBURG COUNTY VIRGINIA	1000 GARY ROAD, KENBRIDGE, VA 23944	058-0A-0-24
PHILLIPS JASON A OR BETH A	596 SAINT JOHNS CHURCH ROAD, KENBRIDGE, VA 23944	058-03-0-D
NOVAK ROBERT OR LISA	1080 UNITY ROAD, KENBRIDGE, VA 23944	58-0A-0-37A
LANGFORD VERNON L OR ORA REGINA,	443 NORTHVIEW LANE, CRESTVIEW, FL 32536	058-03-0-C
GUSTAF JOSEPH TERRY II	5642 ORAL OAKS ROAD, KENBRIDGE, VA 23944	58-0A-0-28B
BLEDSOE RHODESSA TISDALE,	22061 LAKE JORDAN DRIVE, PETERSBURG, VA 23803	058-0A-0-24A
WILSON VIRGINIA HAWTHORNE	5844 ORAL OAKS ROAD, KENBRIDGE, VA 23944	58-0A-0-31
RICHARD WILEY & JAMES JACKSON III & DAVID MARTIN ROBERTS	PO BOX 115, KENBRIDGE, VA 23944	58-0A-0-39A
KILLEN JERRY W	5717 FITZTOWN ROAD, VIRGINIA BEACH, VA 23457	058-0A-0-24C
ELECTRIC POWER SUB-STATION	NULL	58-0A-30

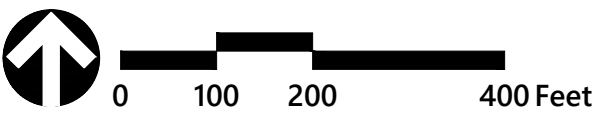
LEGEND



EXISTING TREELINE
EXISTING CONTOUR (MAJOR)
EXISTING CONTOUR (MINOR)
EXISTING ADJOINING PARCELS
EXISTING WETLAND
EXISTING SOILS BOUNDARY
EXISTING EASEMENT
EXISTING STREAM CENTERLINE
EXISTING OVERHEAD POWER LINE
PROJECT BOUNDARY
REQUIRED SETBACK
PROPOSED STORMWATER DITCH
PROPOSED GRAVEL ACCESS ROAD
PROPOSED SECURITY FENCE
PROPOSED SOLAR PANEL
TREE CLEARING LIMITS
FORESTED AREA
*TIMBERED AREA

*EXISTING TREES IN THESE SHADE REDUCTION AREAS ARE TO BE
CLEARED VIA TIMBER PRACTICES THAT PRESERVE THE
STUMPS/ROOTS AND PREVENT LAND DISTURBANCE.

SOIL GROUP INFORMATION



Oral Oaks Road Solar
5844 Oral Oaks Road
Lunenburg, Virginia 23944

No.	Revision	Date	Appvd.
1	Added Wildlife Corridor	6/26/23	SCQ
2	Revised array layout to avoid steep slopes	1/8/24	SCQ

Designed by	JRN	Checked by	SCQ
Issued for		Date	

Conditional Use Permit 3/6/2023

Not Approved for Construction

Drawing Title

OVERALL SITE PLAN

Drawing Number

C300

Sheet 4 of 7

Project Number
34823.00



115 South 15th Street
Suite 200
Richmond, VA 23219
804.343.7100



LEGEND

- EXISTING TREELINE
- EXISTING CONTOUR (MAJOR)
- EXISTING CONTOUR (MINOR)
- EXISTING ADJOINING PARCELS
- EXISTING WETLAND
- EXISTING SOILS BOUNDARY
- EXISTING EASEMENT
- EXISTING STREAM CENTERLINE
- EXISTING OVERHEAD POWER LINE
- PROJECT BOUNDARY
- REQUIRED SETBACK
- PROPOSED STORMWATER DITCH
- PROPOSED GRAVEL ACCESS ROAD
- PROPOSED SECURITY FENCE
- PROPOSED SOLAR PANEL
- TREE CLEARING LIMITS
- FORESTED AREA
- *TIMBERED AREA

*EXISTING TREES IN THESE SHADE REDUCTION AREAS ARE TO BE
CLEARED VIA TIMBER PRACTICES THAT PRESERVE THE
STUMPS/ROOTS AND PREVENT LAND DISTURBANCE.

SOIL GROUP INFORMATION



Oral Oaks Road Solar

5844 Oral Oaks Road
Lunenburg, Virginia 23944

No.	Revision	Date	Appvd.
1	Added Wildlife Corridor	6/26/23	SCQ
2	Revised array layout to avoid steep slopes	1/8/24	SCQ

Designed by JRN
Checked by SCQ

Issued for
Date 3/6/2023

Conditional Use Permit

Not Approved for Construction

Drawing Title
SITE PLAN - WEST

C301

Sheet 5 of 7

Project Number
34823.00



LEGEND

-
- EXISTING TREELINE
 EXISTING CONTOUR (MAJOR)
 EXISTING CONTOUR (MINOR)
 EXISTING ADJOINING PARCELS
 EXISTING WETLAND
 EXISTING SOILS BOUNDARY
 EXISTING EASEMENT
 EXISTING STREAM CENTERLINE
 OHW
 EXISTING OVERHEAD POWER LINE
 PROJECT BOUNDARY
 REQUIRED SETBACK
 PROPOSED STORMWATER DITCH
 PROPOSED GRAVEL ACCESS ROAD
 PROPOSED SECURITY FENCE
 PROPOSED SOLAR PANEL
 TREE CLEARING LIMITS
 FORESTED AREA
 *TIMBERED AREA

*EXISTING TREES IN THESE SHADE REDUCTION AREAS ARE TO BE
CLEARED VIA TIMBER PRACTICES THAT PRESERVE THE
STUMPS/ROOTS AND PREVENT LAND DISTURBANCE.

 SOIL GROUP INFORMATION

Oral Oaks Road Solar
5844 Oral Oaks Road
Lunenburg, Virginia 23944

No.	Revision	Date	Approved
1	Added Wildlife Corridor	6/26/23	SCC
2	Revised array layout to avoid steep slopes	1/8/24	SCC

Designed by	Checked by
JRN	SCQ
Issued for	Date

Conditional Use Permit 3/6/2023

Not Approved for Construction

SITE PLAN - EAST













Drawing Number:

C302

Sheet 6 of

Project Number
34823.00

LEGEND

-  EXISTING CONTOUR (MAJOR)
-  EXISTING CONTOUR (MINOR)
-  PROJECT BOUNDARY
-  REQUIRED SETBACK
-  PROPOSED SECURITY FENCE
-  TREE CLEARING LIMITS
-  EXISTING WETLAND
-  EXISTING STREAM CENTERLINE
-  LIMIT OF DISTURBANCE
-  SWM GRADING AREA
-  SLOPE 8 - 15%
-  SLOPE > 15%



Oral Oaks Road Solar
5844 Oral Oaks Road
Lunenburg, Virginia 23944

No.	Revision	Date	Apprvd.
1	Added Wildlife Corridor	6/26/23	SCQ
2	Revised array layout to avoid steep slopes	1/8/24	SCQ

Designed by	JRN	Checked by	SCQ
Issued for		Date	3/6/2023

Conditional Use Permit

Not Approved for Construction

Drawing Title
SLOPE ANALYSIS

Drawing Number

C400

Sheet 7 of 7

Project Number
34823.00

Staff Report

**Planning Commission Staff Report
Oral Oaks Solar
Conditional Use Permit CUP-1-23
Lunenburg County, Virginia**

**Report Date: February 5, 2024
Planning Commission Meeting Date: March 7, 2024**

APPLICATION SUMMARY

Project: Oral Oaks Road Solar, LLC (Ameresco)

Location: The Property is located along the east side of Oral Oaks Road (Rt 635), Kenbridge, Virginia, near the intersection with Gary Road (Rt 644). The Property is currently used for timber and agricultural uses. The facility is proposed to be developed on one parcel with an area of 128.24 acres, currently zoned A-1, Agricultural District.

Parcel Record Numbers: 058-0A-0-29

Proposal: Applicant's request for a Conditional Use Permit for a 12 megawatt (MW) solar energy facility in the A-1, Agricultural District.

Application Submitted: March 9, 2023
Revised Application April 27, 2023
Revised Application Resubmitted January 19, 2024
2232 Review on September 7, 2023

Applicant: Oral Oaks Road Solar, LLC (Ameresco Inc.)
Tom Holt
111 Speen Street
Framingham, MA 01701

Representative: Tom Holt
(508) 598-3136
tholt@ameresco.com

PLANNING COMMISSION ROLE

The Applicant has submitted a Conditional Use Permit (CUP) application for a solar energy facility. The Planning Commission previously completed their review of the Applicant's proposal as a "public utility facility" under Virginia Code Section 15.2-2232(A) and determined that the general or approximate location, character, and extent of the proposed facility is

substantially in accord with the County's Comprehensive Plan. Now, the Planning Commission may proceed with review of the CUP. Pursuant to Article 8, *Conditional Use Permits*, of the Lunenburg County Zoning Ordinance, as well as Section 4, part 5 of the Ordinance for Solar Energy Facilities, the Planning Commission shall review the application and provide a recommendation to the Board of Supervisors following a public hearing; the Planning Commission may recommend approval or disapproval of the CUP, along with written reasons for its decision, or may defer the application for further discussion and consideration. As part of its recommendation for approval, the Commission may recommend that conditions be imposed to ensure compliance. In considering their recommendation, the Planning Commission shall consider "at least" the criteria contained in Section 8-5, *General requirements for approval of conditional use permits*, of Article 8. The Planning Commission shall issue their recommendation by motion, with the reasons for the recommendation, including a statement of the relationship of the proposed used to the Comprehensive Plan.

PROPOSED DEVELOPMENT

The facility proposed under CUP-1-23, having a rated capacity of 12 megawatts (12 MW), is classified as a Large-Scale Solar facility (solar facility that generates electricity from sunlight on an area adequate to support a rated capacity of five megawatts (5 MW) alternating current or greater). The facility is proposed to be developed on one (1) parcel totaling approximately 128 acres (the leased area for the project totaling approximately 63 acres, and the disturbed area totaling approximately 55 acres), currently zoned A-1, Agricultural District, and located in an area of the County having a current and future land use designation as *Agricultural*, characterized as areas "foreseen as slow growth, low density areas...expected to remain primarily agricultural, forest, and rural residential land uses."

The Property is located along Oral Oaks Road, Kenbridge, Virginia. The Property is currently used for timber and agricultural uses. The project area of the site inside the fence line (the area within the site used for the construction and operation of the solar energy facility, including security fencing but excluding setbacks and buffer areas) totals approximately 51 acres and approximately 18 acres will be directly under solar panels. The Application indicates the installation of an estimated maximum 27,594 photo-voltaic (PV) fixed tilt solar panels.

EXISTING CONDITIONS AND ZONING

The parcels subject to the Application are currently zoned A-1, Agricultural, and are located in an area of the County having a current and future land use designation as *Agricultural*, characterized as areas "foreseen as slow growth, low density areas...expected to remain primarily agricultural, forest, and rural residential land uses." The Project site includes forested and cleared land, with some areas appearing to have been harvested in recent years. Additionally, a transmission line traverses the site.

ADJACENT AND SURROUNDING USES

The areas surrounding the proposed project area share the same land use and zoning characteristics – rural, low-density residential, agricultural, and forestry uses – as well as the same land use

classifications as the properties comprising the Project. Only one residence immediately abuts the site, owned by the same property owned by the same owner as the Project site.

COMPREHENSIVE PLAN CITATIONS

The Comprehensive Plan includes a Special Policy Areas discussion and recommendations on solar facilities (Chapter V, *Special Policy Areas*), as follows:

Policy Area: Solar Facilities

Solar Facilities are acres of raw farmland covered with solar panels which enable the owner of the solar facilities to capture sunlight, convert that sunlight into electrical energy and then sell that electricity to the utility company.

Solar facilities are located in areas with availability of large tracts of land at low costs as well as available infrastructure (transmission lines) to support additional capacity. The existing land use of Lunenburg County could make the county's open areas an option for Solar Facilities. The County and the Towns should consider the development of alternative energy production while protecting agriculture, forestry lands and watersheds that the county enjoys.

Alternative energy production may be considered by the County and Towns as an attraction to expand employment opportunities and for companies interested in supporting solar development in communities where they are located.

Recommendations:

The County and Town Planning Commissions should consider safe development of solar energy that minimizes impacts to land uses, properties, and the environment, particularly for economic development purposes. They should develop reasonable conditions for the development of Solar Facilities which will protect the character of surrounding properties and will not limit future property development. Any County or Town planning measures which address Solar Facilities siting should also have an effective decommissioning plan developed and funded by the Solar developer before installation.

Additionally, the following Comprehensive Plan citations should be considered:

Chapter V, Special Policy Areas, Policy Area: Loss of Agricultural Land and Open Space, references that "Future residential, commercial and industrial development should be encouraged to locate in areas where adequate public services are available or planned. Any development that does occur in the rural areas should be designed to incorporate significant open spaces and designed to minimize environmental impacts on the land and water resources," and that "Environmental impacts of any newly planned development area should be considered. It is essential to maintain a balance between development and preservation objectives throughout the area." This section recommends that "Commercial and/or industrial developments that are approved in the rural portions of the County should be consistent with the best interest of the community."

Chapter V, *Special Policy Areas, Policy Area: Protection of Water Resources*, references that surface water resources within the County “provide recreational opportunities and are a critical component of the County’s infrastructure and quality of life. As such, protection and enhancement of these water resources should be a primary object of the County and the Towns.”

Chapter V, *Special Policy Areas, Policy Area: Corridor Development*, notes that road corridors, including Route 40, “maintain a high level of service,” and that “Future development along these roads should be planned and designed to ensure that the safety and capacity of these roads are maintained and managed,” and further references that road corridors including Route 40 are important “as “gateways to the County and Towns” these roads create first impressions to visitors coming into the area. The views and character of development is visible from the roadways. Maintenance and enhancement of these gateways can be critical to the success of the economic development and marketing activities in Lunenburg County, the Town of Kenbridge and the Town of Victoria.”

Chapter VI, *Goals, Objectives, and Strategies, B., Economy and Employment:*

- Goal: Promote the expansion of a diversified economy.
 - Objective 1: Encourage quality industries to locate within the County and Towns.
 - Strategy 4: County Government, and other parties, to promote the area to environmentally friendly industries.
 - Objective 2: Provide adequate land and resources for commercial and industrial uses.
 - Strategy 5: Guide community and industrial uses into areas with adequate public utilities and transportation access.

Chapter VI, *Goals, Objectives, and Strategies, C., Land Use:*

- Goal: Promote a balance of land uses that meet economic and demographic needs of Lunenburg County, the Town of Kenbridge and the Town of Victoria.
 - Objective 4: Encourage quality industries to locate within the County and Towns.
 - Strategy 1: Encourage industries to locate in the County and Towns’ industrial parks or in areas where they are compatible to adjacent uses.
 - Strategy 2: Guide community and industrial uses into areas with adequate public utilities and transportation access.
 - Strategy 3: Work with interest groups to attract new industries to the locality. Encourage industries to locate in the industrial parks or in areas where they are compatible to adjacent uses.

- Strategy 4: Liaise with the Chamber of Commerce, and other parties, to promote the area to environmentally friendly industries.

Chapter VI, Goals, Objectives, and Strategies, F., Natural Resources:

- Goal: Protect and preserve the natural resources of the community.
 - Objective 1: Prevent development in areas of critical environmental importance.
 - Strategy 1: Restrict development in flood plains, swamps and drainage ways.
 - Strategy 2: Restrict development on soils that will not adequately support structures.
 - Strategy 4: Identify and protect all open spaces which have recreational potential or which would enhance the environment in Lunenburg County, the Town of Kenbridge and the Town of Victoria.
 - Strategy 5: Promote the preservation and planting of trees, shrubs and other natural foliage.

ZONING ORDINANCE PROVISIONS

The County's Zoning Ordinance includes the following sections relevant to the review of the Conditional Use Permit:

Section 2, Definitions, of the Ordinance for Solar Energy Facilities, defines six types of solar energy systems:

Solar Facility, Community. A facility that generates electricity from sunlight that was not constructed by an investor-owned utility that will be part of an investor-owned utility's community solar pilot program. A community solar facility does not exceed two megawatts (2 MW) alternating current. This facility type is a subset of either integrated PV, small-scale, or medium- scale solar facility.

Solar Energy Facility, Large-scale. A ground-mounted solar facility that generates electricity from sunlight on an area adequate to support a rated capacity of five megawatts (MW) alternating current or greater.

Solar Energy Facility, Medium-Scale. A ground-mounted solar facility that generates electricity from sunlight on an area adequate to support a rated capacity greater than one megawatt (1 MW) and less than five megawatts (5 MW) alternating current.

Solar Facility, Multi-Family. A ground-mounted facility that generates electricity from sunlight that was not constructed by an investor-owned utility and that will be part of an investor-owned utility's multi-family shared solar pilot program. A multi-family shared

solar facility does not exceed three megawatts (3 MW) alternating current at any single location or that does not exceed five megawatts (5 MW) alternating current at contiguous locations owned by the same entity or affiliated entities, serves at least three subscribers, is connected to the electric distribution grid, and is located on a parcel of land on the premises of the multi-family utility customer or adjacent thereto.

Solar Facility, Power Purchase Agreement (PPA). A facility that generates electricity from sunlight that was not constructed by an investor-owned utility and that will be part of an investor-owned utility's power purchase agreement solar pilot program. A facility has a capacity of no less than 50 kilowatts and no more than three megawatts (3 MW) alternating current. This facility type is a subset of either rooftop, small-scale, or medium-scale solar facility.

Solar Energy Facility, Small-Scale. A ground-mounted solar facility that generates electricity from sunlight on an area adequate to support a rated capacity of one megawatt (1 MW) alternating current or less.

Section 3, *Applicability, Permitting*, of the Ordinance for Solar Energy Facilities, shall govern the location, siting, development, construction, installation, operation, and decommissioning of solar energy facilities in the county. Battery energy storage facilities will be addressed by a separate ordinance.

c. *Solar energy facilities, large-scale* are required to have a Conditional Use Permit..

Section 4, *Applications and procedures for solar energy facilities*, of the Ordinance for Solar Energy Facilities:

5. Consideration of the Conditional Use Permit by the Planning Commission. The Planning Commission must consider the Conditional Use Permit application at a public hearing. The Planning Commission has three options:

- a. Recommend approval of the application to the Board of Supervisors with written reasons for its decision.
- b. Recommend denial of the application to the Board of Supervisors with written reasons for its decision.
- c. Defer the application for further discussion and consideration.

Section 5, *Location, appearance, and operational requirements*, of the Ordinance for Solar Energy Facilities,

- A. The following requirements apply to all solar energy facilities that shall be considered by the Lunenburg Planning Commission and the Board of Supervisors in addressing whether to recommend or approve a Conditional Use Permit:
 1. Signage. All signage on the site shall comply with the County Sign Ordinance, as adopted and, from time to time, amended.

2. Noise. Noise levels from the facility shall comply with the County Noise Ordinance, as adopted and, from time to time, amended.
3. Lighting. Lighting shall be limited to the minimum necessary for security purposes and shall be designed to minimize off-site effects. Lighting on the site shall comply with any Dark Skies Ordinance the Board of Supervisors may adopt or, from time to time, amend.
4. Height. The maximum height of the lowest edge of photovoltaic panels shall be ten feet as measured from the finished grade. Solar energy generation facilities shall not exceed a height of 15 feet, which shall be measured from the highest natural grade below each solar panel. This limit shall not apply to utility poles and the interconnection to the overhead electric utility grid. The Board of Supervisors may approve a greater height based upon the demonstration of a significant need where the impacts of increased height are mitigated.
5. Groundcover.
 - a. Groundcover on the site shall consist of pollinator plants, grasses, forbs, and wildflowers native to the County.
 - b. Groundcover shall be maintained in accordance with established performance measures noted in the landscaping plan. A performance bond reflecting the costs of anticipated maintenance shall be posted and maintained.
 - c. Failure to maintain the ground cover shall result in revocation of the CUP and the facility's decommissioning.
 - d. The operator shall notify the County prior to application of pesticides and fertilizers. The County reserves the right to request soil and water testing.
 - e. A list of appropriate plant materials shall be available at the Planning Office. Species listed on DCR's Invasive Plant Species list shall not be used.
6. Fencing. The project area shall be enclosed by security fencing not less than six feet in height and equipped with an appropriate anticlimbing device such as strands of barbed wire on top of the fence. The height and/or location of the fence may be altered in the conditions for a particular permit. Fencing must be installed on the interior of the vegetative buffer. Fencing shall be placed around sections of the infrastructure (not the entire site) to provide access corridors for wildlife to navigate through the facility. The fencing shall be maintained while the facility is in operation.
7. Entry and inspection. For inspections and other requirements, all solar applicants, property owners and solar facility owners shall grant to the County a non-exclusive, perpetual easement for pedestrian, vehicular, and equipment access to the Solar Facility, and an easement across or through applicant's remaining property, which is necessary or convenient for ingress and egress to the Facility. The County will adhere to all safety requirements in gaining access to the Solar Facility.
8. Coordination of local emergency services. The Applicant shall coordinate with the County's emergency services providers to provide materials, education, and/or training on how to safely respond to on-site emergencies.
 - a. Emergency personnel will be given a key or code to access the property in case of an on- site emergency.

9. Conditions pursuant to Virginia Code § 15.2-2288.8 that shall apply to all solar facilities. The Board of Supervisors may grant a condition that includes (i) dedication of real property of substantial value or (ii) substantial cash payments for or construction of substantial public improvements, the need for which is not generated solely by the granting of a Conditional Use Permit, so long as such conditions are reasonably related to the project.
10. Siting Agreement. The applicant shall enter into a Siting Agreement with the County unless that requirement is waived by the County.

B. The following requirements also apply to large-scale solar energy facilities:

1. Applications for medium-scale solar energy facilities located within 1 mile of a town shall be shared with the town for review and comment. No projects within the 1-mile zone around a town shall be sited within 1 mile of another solar facility without town approval.
2. Setbacks. Setbacks are measured from the outermost structures including the security fence, substation, and inverters but not including the driveways and power poles.
 - a. The project area shall be set back a distance of at least
 - i. 100 feet from adjacent property lines,
 - ii. 125 feet from the centerline of all adjoining public rights-of-way, and
 - iii. 400 feet from residential structures on non-project parcels. Exceptions may be made for adjoining parcels that are owned by the applicant.
 - b. Increased setbacks up to 200 feet and additional buffering may be included in the conditions for a particular permit.
 - c. Solar energy facilities also shall meet all setback requirements for primary structures for the zoning district in which the facility is located, in addition to the requirements set forth above.
 - d. In the case of the facility location incorporating multiple zoning districts, the more restrictive requirements shall apply.
 - e. Access, erosion and stormwater structures, and interconnection to the electrical grid may be made through setback areas provided that such are generally perpendicular to the property line.
3. Vegetated Buffer. A vegetated buffer sufficient to mitigate the visual impact of the facility is required.
 - a. The buffer shall consist of a landscaped strip at least 25 feet wide, shall be located within the setbacks and outside of the security fencing required under this Section, and shall run around the entire perimeter of the property.
 - b. The buffer shall consist of existing vegetation and, if deemed necessary for the issuance of a Conditional Use Permit, an installed landscaped strip consisting of

multiple rows of staggered trees and other vegetation. This buffer should be made up of plant materials at least three feet tall at the time of planting, and that are expected to grow to a minimum height of eight feet within three years.

- c. Landscaping intended for screening shall consist of plants, shrubs, trees, grasses, forbs, and wildflowers native to the County. If sufficient quantities of native plants cannot be procured, non-invasive plants may be used. A list of appropriate plant materials shall be available at the Planning Office. Species listed on the DCR Virginia Invasive Plant Species List shall not be used.
- d. The Planning Commission or Board of Supervisors may require increased setbacks and additional or taller vegetative buffering in situations where the height of structures or the topography affects the visual impact of the facility.
- e. A recommendation that the screening and/or buffer creation requirements be waived or altered may be made by the Planning Commission when the applicant proposes to use existing wetlands or woodlands. The wetlands or woodlands shall be permanently protected for use as a buffer.
- f. Existing trees and vegetation may be maintained within such buffer areas except where dead, diseased or as necessary for development or to promote healthy growth, and such trees and vegetation may supplement or satisfy landscaping requirements as applicable. If existing trees and vegetation are disturbed, new plantings shall be provided for the buffer.
- g. The buffer shall be maintained for the life of the facility.

Article 8, *Conditional Use Permits*, of the Zoning Ordinance, establishes the procedures and standards for consideration of conditional use permit applications. **Section 8-5, *General requirements for approval of conditional use permits***, establishes that a conditional use permit shall be approved by the board of supervisors only if it finds that the proposed conditional use and related plans:

- (a) Will not be contrary to the purposes of this ordinance as stated in section 2-3;
- (b) Will not be in conflict with the objectives of the comprehensive plan for the county;
- (c) Conform with all applicable provisions of this article, all other applicable requirements of the district in which such use is located and any specific conditions applicable to the proposed conditional use specified elsewhere in this ordinance; and
- (d) Include satisfactory provision for or arrangement of the following, where applicable:
 - (1) Sewer, water and other public utilities;
 - (2) Ingress and egress, including access for fire and other emergency vehicles;
 - (3) Off-street parking, loading and vehicle circulation, including adequate consideration of the safety of motorists and pedestrians;
 - (4) Yards, open spaces, relationship among buildings and other elements of the site;
 - (5) Retention of natural vegetation and topographic features; and
 - (6) Landscaping, buffers, screening, fences and other features or means of separation to protect adjacent properties from potential adverse effects of the conditional use.

STAFF REVIEW, ANALYSIS, AND COMMENTS

Staff has reviewed the subject Application pursuant to Article 8, *Conditional Use Permits*, of the County's Zoning Ordinance, and specifically Section 8-5, *General requirements for approval of conditional use permits*, with respect to whether the application will not be contrary to the purposes of the Zoning Ordinance, or in conflict with the objectives of the Comprehensive Plan for the County, will conform with the provisions and requirements of the Zoning Ordinance, and includes satisfactory provision for or arrangement of certain infrastructure and physical development conditions. Please consider the following:

Whether the proposed conditional use and related plans will not be contrary to the purposes of this ordinance as stated in section 2-3

The purpose of the County's Zoning Ordinance, as provided in Section 2-3, Purpose, is as follows:

“...to classify the unincorporated territory of the county into zoning districts for the general purpose of promoting the health, safety and general welfare of the public and of further accomplishing the objectives of Code of Virginia, § 15.2-2200. To these ends, and pursuant to the provisions of Code of Virginia, § 15.2-2283, this ordinance is designed to give reasonable consideration to each of the following purposes, where applicable:

- (a) To provide for adequate light, air, convenience of access and safety from fire, flood, crime and other dangers;
- (b) To reduce or prevent congestion in the public streets;
- (c) To facilitate the creation of a convenient, attractive and harmonious community;
- (d) To facilitate the provision of adequate police and fire protection, disaster evacuation, civil defense, transportation, water, sewerage, flood protection, schools, parks, forests, playgrounds, recreational facilities, airports and other public requirements;
- (e) To protect against destruction of or encroachment upon historic areas;
- (f) To protect against one or more of the following: overcrowding of land, undue density of population in relation to the community facilities existing or available, obstruction of light and air, danger and congestion in travel and transportation or loss of life, health or property from fire, flood, panic or other dangers;
- (g) To encourage economic development activities that provide desirable employment and enlarge the tax base;
- (h) To provide for the preservation of agricultural and forestal lands and other lands of significance for the protection of the natural environment;
- (i) To protect approach slopes and other safety areas of licensed airports, including United States government and military air facilities;
- (j) To promote the creation and preservation of affordable housing suitable for meeting the current and future needs of the county as well as a

reasonable proportion of the current and future needs of the planning district; and

- (k) To protect surface water and ground water as defined in Code of Virginia, § 62.1-255.

Staff is of the opinion that the proposed use and related plans, with the imposition of reasonable conditions, will be consistent with the purposes of the Zoning Ordinance. Further elaboration on Staff's position is provided below with respect to relevant policies contained in the Comprehensive Plan.

Whether the proposed conditional use and related plans will not be in conflict with the objectives of the comprehensive plan for the county

As noted herein, the Planning Commission previously completed their review of the Applicant's proposal as a "public utility facility" under Virginia Code Section 15.2-2232(A) and determined that the general or approximate location, character, and extent of the proposed facility is substantially in accord with the County's Comprehensive Plan. This determination was made at the Planning Commission's meeting on September 7, 2023, with members of the Commission referencing, among other reasons, that the proposed facility fits the County's guidelines and any potential adverse impacts will be sufficiently mitigated through imposed conditions.

As noted within the staff report for the 2232 review, Staff reviewed and analyzed the Application with respect to the above referenced Comprehensive Plan citations and offered the following opinions with respect to whether the Project is substantially in accord with the Comprehensive Plan, or for these purposes, whether the proposed conditional use and related plans conflict with the objectives of the Comprehensive Plan for the County:

- With respect to the *Solar Facilities* policy area, Staff is of the opinion that the proposed facility can be characterized as safe development that generally minimizes, or will minimize through reasonable conditions, impacts to land uses, properties, and the environments.
- With respect to the *Loss of Agricultural Land and Open Space* policy area, significant areas of the project will remain undeveloped, and the project is designed to minimize environmental impacts, and/or such impacts will be minimized through reasonable conditions. It is important to note that none of the leased lands comprising the Project rank as having suitability (high or otherwise) under the Agricultural Model used for the Virginia Department of Conservation and Recreation's (DCR's) Virginia Natural Heritage Data Explorer.
- With respect to the *Protection of Water Resources* policy area, Staff is of the opinion that the project will be subject to Virginia Department of Environmental Quality regulations and permitting, which will work to ensure protection of the County's water resources. It is important to note that there are areas along streams

within the Project that rank low impact under the Watershed Impact Model used for the Virginia DCR's Virginia Natural Heritage Data Explorer. It is notable that the project design employs setbacks of developed areas from identified streams and wetlands and will preserve the 5.5 acres of existing wetlands within the Project parcel, however, there are areas proposed for development that have slopes greater than 15%, which constitutes a steep slope, along with areas with slopes greater than 8%, a threshold which the County has identify as a concern. While the Applicant revised the Plans on January 8, 2024, additional information serves to demonstrate that significant portions of the development area have slopes of 8% or greater, as well as 15% and greater.

- With respect to applicable *Economy and Employment* goals, objectives, and strategies. Staff is of the opinion that the proposed development works to expand a diversified economy within the County, and would constitute an environmentally friendly industrial use, primarily due to the proposed scale of operation, generally sited in an area with adequate and necessary utility access.
- With respect to applicable *Land Use* goals, objectives, and strategies, while the area has adequate and necessary utility access and constitutes a more environmentally friendly industrial use, it is not inherently compatible with adjacent uses, which are almost entirely residential and agricultural. Significant setbacks and buffers/screening work to mitigate for this incompatibility and additional reasonable conditions should be considered as part of the review of the Conditional Use Permit.
- With respect to applicable *Natural Resources* goals, objectives, and strategies, Staff is of the opinion that the proposed development does not negatively impact natural resources of the County, especially areas of critical environmental importance. Staff acknowledges that the project works to promote the preservation of existing trees by retaining existing vegetated areas along the periphery of the site and would suggest that additional reasonable conditions to support the long-term maintenance of these areas be considered as part of the review of the Conditional Use Permit. It is important to note that while some areas of the Project, not under panel, rank as Moderate for Forest Conservation Value on Virginia DCR's Natural Heritage Data Explorer, most forested areas rank as Average. Further, areas of the Project rank as Moderate or General for Ecological Cores, with no areas ranking as High, Very High, or Outstanding. However, as noted with respect to the *Protection of Water Resources* policy area, development of slopes greater than 15%, and as low as 8% with recent DEQ guidance, may have negative effects on natural resources and stormwater conditions.

Whether the proposed conditional use and related plans will conform with all applicable provisions of Article 8, *Conditional Use Permits*, all other applicable requirements of the district in which such use is located and any specific conditions applicable to the proposed conditional use specified elsewhere in the Zoning Ordinance

Staff had previously determined, in a report dated May 18, 2023 that the subject Application was complete and compliant/conforming with all applicable requirements of the County's Zoning Ordinance, specifically the County's Solar Energy Facilities Ordinance.

Whether the proposed conditional use and related plans include satisfactory provision for or arrangement of the following, where applicable:

- (1) Sewer, water and other public utilities;
- (2) Ingress and egress, including access for fire and other emergency vehicles;
- (3) Off-street parking, loading and vehicle circulation, including adequate consideration of the safety of motorists and pedestrians;
- (4) Yards, open spaces, relationship among buildings and other elements of the site;
- (5) Retention of natural vegetation and topographic features; and
- (6) Landscaping, buffers, screening, fences and other features or means of separation to protect adjacent properties from potential adverse effects of the conditional use.

Staff is of the opinion that the proposed use and related plans satisfactorily provide or arrange for necessary utilities, ingress and egress, parking, loading, and vehicle circulation, yards and open space, the retention of natural vegetation, and landscaping, buffers, screening, fences, and other means of separation. However, with consideration of revised Plans, Staff is concerned that the proposed conditional use and related plans do not include satisfactory provision or arrangement with respect to the retention of topographic features.

As noted above under the review of objectives of the County's Comprehensive Plan, there are areas proposed for development that have slopes greater than 8% and greater than 15% which could result in erosion and sedimentation issues. As further noted, development of slopes greater than 15% (and as low as 8% with recent DEQ guidance) may have negative effects on natural resources and stormwater conditions. The plan indicates areas where slopes are 8% - 15% and 15% and greater; the plan further notes that development of slopes greater than 20% will be avoided where possible. Based upon submitted plans, it appears that the intent is to develop the site without changing much of the natural topography (except in areas to accommodate stormwater management infrastructure, and areas to be filled), which is generally favorable, unless there is development occurring on slopes greater than 15%, if not greater than 8%. Based upon recent Plan revisions, portions of the development and grading areas for proposed solar panels consist of slopes greater than 8%.

STAFF RECOMMENDATION

Based upon the above review, and for the reasons noted herein, Staff recommends **approval with conditions of the Conditional Use Permit as proposed.** It is important to note that Staff's recommended conditions include a prohibition on disturbance grading, or clearing of any land that would create a permanent slope greater than eight percent (8%) and also prohibiting the

placement of solar panels on any land that has a steep slope greater than fifteen percent (15%), intended to address concerns regarding development impacts to existing topographic conditions, the scale of grading planned or determined to be necessary, and the effects on erosion and sedimentation, natural resources, and stormwater conditions.

PLANNING COMMISSION ACTION; DRAFT OPTIONS

As noted, after holding a public hearing on the Conditional Use Permit, the Planning Commission may recommend approval or disapproval of the Conditional Use Permit, or approval with conditions to ensure compliance with the requirements of the County's Zoning Ordinance. In making its recommendation, the Commission shall consider, at least, the aforementioned criteria specified in Section 8-5, *General requirements for approval of conditional use permits*, of Article 8, *Conditional Use Permits*. The recommendation of the Commission shall be in the form of a motion, giving the reasons for the Commission's action and the vote of each member. The motion and recommendation to the board shall include a statement of the relationship of the proposed conditional use to the comprehensive plan. In any case where the commission is unable to adopt a motion to recommend approval, approval with conditions or disapproval, it shall report to the board of supervisors stating such fact and summarizing its deliberations. Failure of the Commission to provide a recommendation or report to the Board of Supervisors within 100 days after the first meeting of the Commission after the conditional use permit application was referred to the Commission shall be considered a recommendation of approval, unless the Application has been withdrawn by the Applicant prior to expiration of the time period.

Staff Recommendation - Option 1 - Recommend approval of the application with the stated (or amended) conditions

I move to recommend to the Board of Supervisors that Oral Oaks Road, LLC's Conditional Use Permit for a proposed 12-megawatt large-scale solar energy facility, as presented, be approved with conditions to ensure the project's consistency with the following findings and compliance with the applicable requirements of the County's Zoning Ordinance:

1. The proposed use and plans are not contrary to the purposes of the County's Zoning Ordinance.
2. The proposed use and plans are consistent with the objectives of the comprehensive plan for the County, namely that:
 - a. The proposed solar facility can be characterized as safe development that minimizes, or will be expected to minimize through conditions, impacts to land uses, properties, and the environments;
 - b. The project will be subject to Virginia Department of Environmental Quality regulations and permitting, which will work to ensure protection of the County's water resources;
 - c. The proposed development works to expand a diversified economy within the County, and would constitute an environmentally friendly industrial use,

- primarily due to the proposed scale of operation, generally sited in an area with adequate and necessary utility access;
- d. The area of the proposed project has adequate and necessary utility access and the project constitutes a more environmentally friendly industrial use; while not inherently compatible with adjacent uses, which are almost entirely residential and agricultural, significant setbacks and buffers/screening will work to mitigate for this incompatibility and additional conditions can be considered as part of the review of the Conditional Use Permit; and
 - e. The proposed development does not negatively impact natural resources of the County, especially areas of critical environmental importance. Further, the project works to promote the preservation of existing trees by retaining existing vegetated areas along the periphery of the site.
3. The proposed use and plans conform with all applicable provisions of Article 8, *Conditional Use Permits*, all other applicable requirements of the district in which the use is located, and the specific regulations applicable to large-scale solar energy facilities.
 4. The proposed use and plans include satisfactory provision for or arrangement of:
 - a. Sewer, water and other public utilities;
 - b. Ingress and egress, including access for fire and other emergency vehicles;
 - c. Off-street parking, loading and vehicle circulation, including adequate consideration of the safety of motorists and pedestrians;
 - d. Yards, open spaces, relationship among buildings and other elements of the site;
 - e. Retention of natural vegetation and topographic features; and
 - f. Landscaping, buffers, screening, fences and other features or means of separation to protect adjacent properties from potential adverse effects of the conditional use.

Conditions recommended by the Commission are as follows: *please refer to the end of this Report below* (will be supplemented)

Option 2 - Denial of the application

I move to recommend to the Board of Supervisors that Oral Oaks Road, LLC's Conditional Use Permit for a proposed 12-megawatt large-scale solar energy facility, as presented, be denied; among other concerns, the Planning Commission finds the following:

1. The proposed use and plans are contrary to the purposes of the County's Zoning Ordinance.
2. The proposed use and plans are inconsistent with the objectives of the comprehensive plan for the County, namely that:
 - a. The proposed solar facility cannot be characterized as safe development and does not minimize impacts to land uses, properties, and the environment;

- b. The location of the proposed solar facility is a rural area, the amount of undeveloped area within the project is insufficient and the project is not designed to minimize environmental impacts;
 - c. Despite being subject to Virginia Department of Environmental Quality regulations and permitting, the project will have negative effects on the County's water resources;
 - d. The proposed development does not work to expand a diversified economy within the County, and, given the scale of the proposal, would not constitute an environmentally friendly industrial use; furthermore, utility and transportation access to support the development are inadequate;
 - e. The proposed development negatively impacts natural resources of the County, especially areas of critical environmental importance such as existing stands of trees and the isolated wetland to the east of the project site.
3. The proposed use and plans do not include satisfactory provision for or arrangement of:
- a. Sewer, water and other public utilities;
 - b. Ingress and egress, including access for fire and other emergency vehicles;
 - c. Off-street parking, loading and vehicle circulation, including adequate consideration of the safety of motorists and pedestrians;
 - d. Yards, open spaces, relationship among buildings and other elements of the site;
 - e. Retention of natural vegetation and topographic features; or
 - f. Landscaping, buffers, screening, fences and other features or means of separation to protect adjacent properties from potential adverse effects of the conditional use.

Option 3 - Deferral of the application

I move that the Planning Commission defer issuance of a recommendation on Oral Oaks Road, LLC's proposed 12-megawatt large-scale solar energy facility until the Planning Commission meeting scheduled to begin at ____ p.m. on _____, in the 2nd floor Courtroom; Lunenburg Courts Building, Lunenburg, VA 23952.

OPTION 1 RECOMMENDED CONDITIONS

Proposed Conditions

Proposed Conditions

ORAL OAKS SOLAR

CONDITIONS FOR CONDITIONAL USE PERMIT

Proposed Conditions

The Planning Commission recommends the following conditions to mitigate the adverse impacts of this proposed “Solar Energy Facilities, Large Scale” (referred to herein as the “Solar Facility”, “Solar Facilities” or “Project”), as that term is defined in section 2 of the Ordinance for Solar Energy Facilities in Lunenburg County, VA enacted by the Lunenburg County Board of Supervisors on September 9, 2021 (the “Solar Facilities Ordinance”) with any recommendation for approval.

1. The Applicant shall develop, construct, operate, and maintain the site in substantial conformance with the conceptual plans dated March 6, 2023, last revised January 8, 2024 (the “Concept Plan”), all assurances and commitments made within the Conditional Use Permit application materials submitted for approval of the Solar Facilities, and the conditions imposed on the issued conditional use permit, as determined by the Zoning Administrator. Substantial conformance will be determined by the Zoning Administrator based on his/her review of the record. Deviations determined not to be in substantial conformance with the Concept Plan shall require review and approval as an amendment to the Conditional Use Permit, following the process for the granting of a Conditional Use Permit. As used in these conditions, the “Project Area” shall include the land upon which the Solar Facilities are to be installed as shown on the Concept Plan. Further, the term "Applicant" shall include the terms "Applicant", “Owner”, “Facility Owner”, “Developer”, or “Operator”, and the successors and assigns thereof, and the term “Zoning Administrator” shall include the designee of the Zoning Administrator.
2. The Project capacity shall be limited to a maximum of twelve Megawatts Alternating Current (12MW AC).
3. The Project, as presented, does not include battery energy storage systems; the addition of battery energy storage shall require the submission of a new Conditional Use Permit application.
4. Site Plan Requirements. In addition to all Virginia site plan requirements and written site plan requirements of the Zoning Administrator, the Applicant shall provide the following plans for review and approval for the Solar Facility prior to the issuance of a building permit:
 - a. *Construction Management Plan*. The Applicant shall prepare a Construction Management Plan (the “Construction Management Plan”) for each applicable site plan for the Solar Facility, and each Construction Management Plan shall address the following:

- i. Construction traffic shall be limited to 7:00 A.M. to 7:00 P.M. Monday through Saturday; provided however, upon the showing of good cause, construction may occur outside these times during the installation of the transformer equipment which will be limited to three (3) days. The Applicant will give the Zoning Administrator prior notice of the extended construction periods.
- ii. Deliveries by three-axle trucks or larger shall be limited to Monday through Friday and shall not occur during 7:00 A.M. to 8:00 A.M. or 3:00 P.M. to 4:00 P.M. on school days. Delivery vehicles shall utilize Routes 635, 655, 40, and 637 for all deliveries to the Project Area as defined in Condition herein.
- iii. Additional safety precautions to be considered in the Construction Management Plan may include flagging, speed limit restrictions, and other measures reasonably necessary to ensure the safety of the residential community.
- iv. Traffic Control Methods (in coordination with the Virginia Department of Transportation [VDOT] prior to initiation of construction) shall include, at a minimum, plans and procedures for:
 1. Lane closures,
 2. Signage, and
 3. Flagging procedures.
- v. Site Access Planning. Directing employee and delivery traffic to minimize conflicts with local traffic.
- vi. Site Security. The Applicant shall implement security measures prior to the commencement of construction of Solar Facilities on the Project Area.
- vii. Lighting. During construction of the Solar Facility, any temporary construction lighting shall be positioned downward, inward, and shielded to eliminate glare from all adjacent properties. Emergency and/or safety lighting shall be exempt from this construction lighting condition.
- viii. Water Supply. In the event that on-site wells are used during construction of the Solar Facility, the Applicant shall prepare and submit for review to the County hydrogeologic information necessary for the County to determine the potential impact to pre-existing users for the same aquifer proposed to be used for the Solar Facility and a plan to mitigate impacts to pre-existing users within the area of impact of the Project. If the County, in consultation with the Virginia Department of Environmental Quality ("DEQ"), or any other third-party consultant hired by the County, which costs shall be borne by the Applicant, determines that the installation of a well will not adversely affect existing users, the Applicant may proceed

with well construction in compliance with approval by the DEQ. At the end of the construction of the Solar Facility, the well shall not thereafter be used except for personal toilet and lavatory facilities as required by the Uniform Statewide Building Code for operations and maintenance buildings, and for irrigation purposes to maintain existing, preserved and planted vegetation.

- b. *Construction Mitigation Plan.* The Applicant shall prepare a Construction Mitigation Plan (a “Construction Mitigation Plan”) for each applicable site plan for the Solar Facility, and each Construction Mitigation Plan shall address the effective mitigation of dust, burning operations, hours of construction activity, access and road maintenance and improvements, and handling of general construction complaints as set forth and described in the application materials and to the satisfaction of the Zoning Administrator. Damage to public roads as a result of Applicant’s construction activities shall be repaired as soon as possible and not postponed until construction completion. The Applicant shall provide written notice to the Zoning Administrator of the plans for making such repairs, including time within which repairs will be commenced and completed, within thirty (30) days of any written notice received from the Zoning Administrator.
- i. Driving of posts and blasting shall be limited to 7:00 am to 6:00 pm, Monday through Friday. Driving of posts shall be prohibited on state and federal holidays. The Applicant may request permission from the Zoning Administrator to conduct post driving activity on Saturdays or Sundays, but such permission will be granted or denied at the sole discretion of the Zoning Administrator after consultation with the Board of Supervisors.
 - ii. Other construction activity on-site shall be permitted Monday through Sunday in accordance with the provisions of the County’s Noise Ordinance codified at Chapter 58, Article III of the Lunenburg County Code (the “County Noise Ordinance”).
 - iii. During construction, the setbacks may be used for staging of materials and parking. No material and equipment laydown area, construction staging area, or construction trailer shall be located within four hundred (400) feet of any residential dwelling.
 - iv. Construction lighting shall be minimized and shall be directed downward.
 - v. Prior to the commencement of construction, a video will be taken at the direction of the County to establish the pre-construction condition of all roads over which construction traffic will travel. This video will be used to monitor maintenance and repairs to roads which Applicant shall undertake during and following construction. All such maintenance and repairs shall be made within thirty (30) days of Applicant becoming aware of any damage or maintenance requirements on such roads.
 - vi. The County may require the Applicant to install wash stations to clean

construction vehicles prior to entering public roadways should construction traffic cause excessive mud, sediment, or damage to the roads, as to be reasonably determined by the Zoning Administrator. Should the construction traffic continue to cause excessive mud, sediment, or damage to the roads after the County has provided written notice to the Applicant, then the County may revoke the Conditional Use Permit pursuant to the terms of Section 8-9 of the Lunenburg County Zoning Ordinance (the “Zoning Ordinance”).

- c. *Performance Bond.* The Applicant shall be required to obtain a Performance Bond, issued by an entity or institution approved by the County, which shall be effective upon the receipt of the building permit and maintained for the life of the Solar Facility, until six (6) months after the facility has been decommissioned. The amount of the Performance Bond will approved by the Zoning Administrator after consultation with the County Attorney; provided that the amount is reasonably estimated to anticipate the damage resulting from the Applicant’s obligations in this Condition 4.c. The Performance Bond shall be used to pay for mitigate and remediation as may be reasonably necessary hereunder or as a result of the construction or operation of the Solar Facility upon Applicant’s failure to promptly undertake the same, and after any applicable notice and cure period to the Applicant. The performance bond may be used to:
- i. Correct any damage to adjoining or other properties during the construction of the Solar Facility, which is not cured by the Applicant within sixty (60) days of the Applicant receiving written notice, or longer than sixty (60) days provided the applicant provides written notice showing good cause as to why such damage cannot be corrected in sixty (60) days and that applicant provides proof that it is taking commercially reasonable efforts to correct such damage;
 - ii. Enforce the Siting Agreement’s liquidated damages provision after a second “30 day” breach that occurs within any twelve (12) month period should the County choose not to enforce the liquidated damages provision in lieu of the County terminating the Conditional Use Permit and the Siting Agreement; or
 - iii. Indemnify the County from any action brought by an adjoining or other property owner seeking damages arising from the applicant’s intentional or negligent actions resulting in personal injury, property taking, property damage, and/or inverse condemnation, with the exception of any causes of action arising from grossly negligent or willful acts or omissions of the County, its officers, agents, servants, employees and residents.
 - iv. In the event that the County reasonably believes that the financial condition of the issuer of the Performance Bond is insufficient to secure the Applicant’s obligations, the County may request financial statements from the Applicant. The County may engage a qualified third-party professional to conduct a review of the Applicant’s financial statements

and financial condition of the issuer of the Performance Bond. If the third-party review reasonably determines that the credit rating of the issuer is insufficient to meet the Applicant's obligations, the County shall require Developer to, modify their Bond within ninety (90) days after notice to the Developer to the commercially reasonable satisfaction of the County. Absent extraordinary circumstances, the third-party review will occur no more frequently than on an annual basis. The costs the County incurs for the third-party review shall be borne by the Applicant.

- d. *Damage to Adjoining or Other Properties.* If during the construction or operation of the Solar Facility, there is actual, physical damage that occurs to adjoining or other properties as a direct result of such construction, and if the impacted property owners give the Applicant notice of such claim, then the Applicant shall notify the County of the claim. The Applicant shall use commercially reasonable efforts to cooperate with such property owner to determine the amount of actual, physical damage, if any, and to develop a plan to remedy any such damage to such property owner's property. The Applicant or its agents shall maintain a commercial general liability insurance policy to cover the claims made by such property owners and upon request by the County, the Applicant shall provide the County with evidence of such insurance policy. The Applicant's obligations to the adjoining and other properties located in the County shall be in addition to any fines or penalties assessed by the DEQ. The Applicant shall use commercially reasonable efforts to correct any actual, physical damage within sixty (60) days after written notification to Applicant, or such longer period if such damage is not capable of being corrected within sixty (60) days. If the Applicant and the property owner are unable to reach agreement on the scope of the Applicant's remedy within the sixty (60) day period, then the Applicant shall notify the County. The Applicant shall pay to retain, an independent licensed contractor of the property owner's choosing to evaluate the damage to the property owner's property and the Applicant's proposed remedy. The Applicant will obtain a written recommendation from the licensed contractor and the Applicant will then provide the written recommendation to the property owner and to the County. If the property owner approves the licensed contractor's recommendation, the Applicant will correct such damage in accordance with the recommendations. If the Applicant and the property owner agree on the remedy but the Applicant fails to correct any verified physical damage to a property owner's property that is directly caused by construction or operation of the Solar Facility, then the County may revoke the Conditional Use Permit pursuant to the terms of Section 8-9 of the Zoning Ordinance.
- e. *Grading plan.* The Applicant will submit a final Grading Plan (the "Grading Plan") for review and approval by the Zoning Administrator, or a third-party consultant, which costs shall be borne by the Applicant. The Project shall be constructed in compliance with the Grading Plan as determined and approved by the Zoning Administrator or his/her designee prior to the commencement of any construction activities and a bond or other security will be posted for the grading operations. The Grading Plan shall:
 - i. Clearly show existing and proposed contours;

- ii. Note the locations and amount of topsoil to be removed (if any) and the percent of the site to be graded;
 - iii. Limit grading to the greatest extent practicable by avoiding steep slopes and laying out arrays parallel to land forms;
 - iv. An earthwork balance will be achieved on-site with no import or export of soil;
 - v. In areas proposed to be permanent access roads which will receive gravel or in any areas where more than a few inches of cut are required, topsoil will first be stripped and stockpiled on-site to be used to increase the fertility of areas intended to be seeded;
 - vi. Take advantage of natural flow patterns in drainage design and keep the amount of impervious surface as low as possible to reduce stormwater storage needs; and
 - vii. Provide for the installation of all stormwater and erosion and sediment control infrastructure (the “Stormwater Facilities”) at the outset of the Project to ensure protection of water quality. Once the Stormwater Facilities are complete and approved by the Virginia Erosion and Sediment Control Program authority (as that term is defined in Virginia Administrative Code, 9VAC25-840-10, the “VЕСP authority”), no more than sixty (60) acres of the land disturbance areas as reflected on the approved site plan shall be disturbed without temporary soil stabilization (i.e., “Stabilized” as that term is defined in Virginia Administrative Code, 9VAC25-840-10) at any one time. Stabilization for purposes of erosion and sediment control of the Stormwater Facilities shall mean land that has been treated to withstand normal exposure to natural forces without incurring erosion damage.
- f. *Erosion and Sediment Control Plan.* The Applicant will submit a final “Erosion and Sediment Control Plan” for review and approval by the Zoning Administrator. The Owner or Operator shall construct, maintain, and operate the Project in compliance with the approved plan. As authorized and allowed by Virginia DEQ, a separate Erosion and Sediment Control Plan may be submitted for various development areas on the Project Area. An Erosion and Sediment Control Bond (herein, an “E&S Bond”) will be posted for the construction portion of the Project in accordance with the County’s Erosion and Sediment Control Ordinance (codified as Lunenburg County Code Chapter 42, Article II) and/or the VЕСP authority and applicable regulations. If the Project is subsequently sold to a non-investment grade entity or the Applicant’s credit rating is downgraded to below investment grade, a bond or other security will be required from the transferee or Applicant, as applicable.
- i. The Applicant shall be allowed to complete timbering throughout the entire Project Area after perimeter controls are installed, The Applicant

will complete phases of timbering, clearing, grubbing, and grading in accordance with approved Erosion and Sediment Control Plan; provided, however that no more than sixty (60) acres of the total area of development/ disturbance may be disturbed at any one time. Disturbed land will be stabilized and reseeded before further clearing and construction on additional acres can proceed.

- ii. The Erosion and Sediment Control Plan will be designed so that the Applicant minimizes disturbance of steep slopes (as determined by the DEQ) on the Property. Applicant shall not disturb, grade, or clear any land to create a permanent slope greater than eight percent (8%) with the exception of stormwater management infrastructure.
- iii. The Applicant shall not place any panels on any meaningfully contiguous areas of land, meaning those areas on the Concept Plan which are identified in red and encircled by dashed lines as is identified on the Concept Plan attached hereto as Exhibit A, that have slopes of fifteen percent (15%) or greater.

g. *Stormwater Management Plan.*

- i. The Applicant will submit a final Stormwater Management Plan (a “Stormwater management Plan”) for review and approval by the DEQ, or a third-party consultant, if applicable, prior to any land disturbing activity. The owner or operator shall construct, maintain, and operate the Project in compliance with the approved plan. As authorized and allowed by Virginia DEQ, a separate Stormwater Management Plan may be submitted for various development areas on the Project Area. A Stormwater Control Bond will be posted for the Project for both construction and post construction as applicable in accordance with the Virginia Stormwater Management Act.
- ii. Prior to the commencement of construction of the Solar Facility, the Applicant will drill test wells within the Perimeter (as defined in Condition 6.a herein) and at the locations shown on the Concept Plan, in areas approved by the County. The Applicant will conduct an initial study of the groundwater in those wells prior to the commencement of construction, which study will test for contaminants in the National Primary Drinking Water Regulations (the “Drinking Water Regulations”) as compiled by the United States Environmental Protection Agency. Once each year for the first two (2) years after completion of construction of the Solar Facility, the Applicant will test the groundwater in those wells to determine if there are any contaminants in the groundwater that is in excess of the limits set by the Drinking Water Regulations that were not already present in the pre-construction test. The Applicant shall provide the results of these tests to the County. On year three (3), this condition (and every three years thereafter) shall be reviewed and the scope and/or frequency of the testing shall be reduced unless there is a showing (after year two) that the Solar Facility has introduced contaminants into the groundwater in those monitoring wells.

- iii. The Applicant shall have no less than one (1) sediment and/or drainage pond acre per twenty-five (25) acres, or as many sediment and/or drainage pond as required by DEQ.

h. Landscaping and Screening Plan.

- i. The Applicant will submit a final Landscaping and Screening Plan for review and approval by the Zoning Administrator, or a third-party consultant, which cost shall be borne by the Applicant. The owner or operator shall construct, maintain, and operate the Facility in compliance with the approved plan. A separate security shall be posted for the estimated costs of ongoing maintenance of the Project's land cover and vegetative buffers in an amount deemed sufficient by the Zoning Administrator with the advice of a professional arborist or forester, at the cost of the Applicant. Failure to maintain the landscaping in accordance with the plan may result in the issuance of a notice of violation by the Zoning Administrator. If the Applicant fails to maintain the Project in accordance with the Landscaping and Screening Plan after written notice from the County, the County may use the security to complete the maintenance and require the Applicant to post additional security, or in the discretion of the Board of Supervisors, revoke this Conditional Use Permit pursuant to the terms of Section 8-9 of the Zoning Ordinance.
- ii. Pollinator habitats. The portions of the land within the Perimeter where the Solar Facilities will be installed (the "Project Area"), any other area where the Developer has caused land disturbance during construction and operation, except those areas designated as right of ways, setbacks with required natural or vegetative buffers, and where the VESCP authority requires stabilization and/or replanting, will be seeded or replanted with appropriate pollinator- friendly plants, shrubs, trees, forbs, and wildflowers native to the County where compatible with site conditions and where practicable and, in all cases, shall be approved by the Zoning Administrator, or a third-party consultant for the County, which shall be paid for by the Applicant. Such portions of the Project Area will be seeded immediately following completion of construction, in an approved section, in such a manner as to reduce invasive weed growth and sediment in the Project Area.
- iii. Screening and planted vegetation shall include appropriate pollinator-friendly plants, shrubs, trees, forbs, and wildflowers native to the County where compatible with site conditions and, in all cases, shall be approved by the Zoning Administrator, or a third-party consultant for the County, which shall be paid for by the Applicant.
- iv. Only EPA approved herbicides shall be used for vegetative and weed control at the Solar Facility by a Licensed Applicator. No herbicides shall be used within one-hundred and fifty (150) feet of the location of an approved groundwater well. The Applicant shall submit an Herbicide

Land Application Plan prior to approval of the Certificate of Occupancy (or equivalent final inspection). The plan shall specify the type of herbicides to be used, the frequency of land application, the identification of approved groundwater wells, wetlands, streams, and the distances from land application areas to features such as wells, wetlands, streams, and other bodies of water. At least seven (7) days prior to application, the Operator shall notify the County of the application of the pesticides and fertilizers. The County reserves the right to request soil and water testing, provided that such testing occurs no more frequently than on an annual basis.

- v. Except for de minimis amounts topsoil removed from land that is situated within the Perimeter or Project Area incidental to equipment, vehicles, and individuals entering and leaving the Perimeter or the Project Area, all topsoil shall remain within the Perimeter or Project Area and shall be used to stabilize the soil and to facilitate growth of Pollinator habitats, screening vegetation, and other vegetation required under the Landscaping and Screening Plan. Debris removed from the Project Area, which may contain incidental amounts of topsoil, may be disposed of at the County Landfill pursuant to the Landfill's requirements for such disposal; provided, however, if the County Landfill is unwilling or unable to accept any of the foregoing, the same may be disposed of at a landfill within the Commonwealth of Virginia where disposal is permitted by applicable law. Removal of any topsoil, other than that described above from the Project Area or from the County shall be deemed grounds for revocation of the Applicant's Conditional Use Permit pursuant to the terms of Section 8-9 of the Zoning Ordinance.

i. Decommissioning and Reclamation Plan.

- i. The Applicant will submit a final Decommissioning and Reclamation Plan (the "Decommissioning Plan") for review and approval by the Zoning Administrator, and a third-party consultant for the County, which costs of the third-party consultant shall be paid for by the Applicant. The Decommissioning Plan will provide procedures and requirements for removal of all parts of the Solar Facility and its various structures at the end of the useful life of the Facility or if it is deemed abandoned. The Decommissioning Plan shall include the anticipated life of the Facility, the estimated overall cost of decommissioning the Solar Facilities in current dollars excluding salvage value, the methodology for determining such estimate, and the process by which the Project will be decommissioned.
- ii. Prior to construction, the Applicant must provide security in the amount of the estimated cost of the decommissioning as identified in the approved Decommissioning Plan (the "Decommissioning Security"). Options for the Decommissioning Security include a cash escrow, a performance, surety bond, a certified check or other security acceptable to the County

in an amount equal to the decommissioning cost developed and updated in accordance with the approved Decommissioning Plan.

- iii. The Decommissioning Security must remain valid until the decommissioning obligations have been met. The Decommissioning Security may be adjusted up or down, by the County after consultation with a third-party consultant, which the costs shall be borne by the Applicant, if the estimated cost of decommissioning the Facility changes. The Decommissioning Security must be renewed or replaced, if necessary, to account for any changes in the total estimated overall decommissioning cost in accordance with the periodic updated estimates required by the Decommissioning Plan. Obtaining and maintaining the requisite Decommissioning Security will be a mandatory condition of the Conditional Use Permit. The Decommissioning Security shall be in favor of the County and shall be obtained and delivered to the County before any construction commences.
- iv. The Decommissioning Plan and the estimated decommissioning cost will be reviewed and updated once every five (5) years. Failure of the Applicant, Owner, Conditional Use Permit holder, or other responsible party to provide updated decommissioning costs, after notice from the County and a failure by the Applicant to cure such default within thirty (30) days thereafter, shall be grounds for suspension or revocation of the Conditional Use Permit pursuant to the terms of Section 8-9 of the Zoning Ordinance; provided, however, that if such default, despite good faith efforts, cannot be remedied within such thirty (30) day period and Applicant commences to diligently remedy such default, with such thirty (30) day period and thereafter pursues a cure of such default, and evidence of the Applicant's efforts to diligently remedy such default is provided to the County and is deemed sufficient, then such cure period may be extended as is necessary to allow Applicant to cure the default, except that in no event shall the cure period extend for more than ninety (90) days after the date of notice from the County.
- v. The Applicant shall provide the Property Owner(s) a copy of the Decommissioning Plan and the estimated decommissioning cost, along with written notice stating that if the Applicant fails to perform its obligations pursuant to the Decommissioning Plan, due to insolvency or otherwise, or if the Decommissioning Security fails to cover the cost of completing the Decommissioning of the Project pursuant to the Decommissioning Plan, the Property Owner shall be responsible, and not the County, for bearing the financial obligations required to complete the decommissioning of the Project, as it pertains to the decommissioning obligations for any portion of the Solar Facilities located on said Property Owner(s)' property. The Applicant shall certify to the Zoning Administrator that the Applicant provided the notice required herein to the Property Owner(s) within fourteen (14) days of approval of the Decommissioning Plan. This condition shall only be applicable if said

condition does not contradict any pre-existing contracts, options, or leases that the Applicant has with the Property Owner(s).

- j. The Applicant shall reimburse the County its costs in obtaining independent third-party reviews and inspections as required by these conditions and all applicable laws and regulations.
 - k. The design, installation, maintenance, and repair of the Solar Facility shall be in accordance with the most current National Electrical Code (NFPA 70) available (2014 version or later as applicable).
 - l. Any panels that are damaged during the transportation, installation, or operation of the Solar Facility shall be removed from the Project Area within a reasonable amount of time under the circumstances upon the applicant obtaining actual knowledge of said damage. Should the panels be deemed unfit or are incapable of being repaired and require disposal, the panels may be recycled, if possible, provided that any part or all of such panels that must be disposed shall be disposed in a landfill outside of Lunenburg County where disposal of such panels is permitted pursuant to applicable laws.
 - m. Unless the lease agreement that the Applicant has with the landowner ("Property Owner") restricts the right of the Applicant to do so or the landowner elects to have the land restored to a different standard, the Applicant shall reasonably restore the land within the Perimeter of the Project, as is hereinafter defined, to the land's pre-existing condition. With respect to any prime farmland or prime forestland, the Applicant shall restore any pre-existing prime farmland or prime forestland, as such areas are identified the Concept Plan, by planting native vegetation, trees, or crops. The Applicant shall reimburse the County for any costs in obtaining independent third-party reviews and inspections to determine whether the Applicant has complied with the condition contained herein. In no event shall this condition be deemed to modify the Applicant's basic restoration requirements as required under the Decommissioning Plan.
5. Height. The maximum height of the lowest edge of photovoltaic panels shall be ten (10) feet as measured from the finished grade. Solar Facilities shall not exceed a height of fifteen (15) feet, which shall be measured from the highest natural grade below each solar panel. This limit shall not apply to utility poles and the interconnection to the overhead electric utility grid.
6. Setbacks.
- a. *Perimeter*. The term "Perimeter" shall mean the "Approximate Project Boundary", of all properties leased or owned by the Applicant, or as such boundary is identified on the Concept Plan.
 - b. The Project Area shall be set back a distance of at least two hundred (200) feet from the centerline of all adjoining public rights-of-way and two hundred (200) feet from adjacent property lines. Further, the Project Area shall be set back a distance of at

- least four hundred (400) feet from residential structures on adjoining parcel. Notwithstanding the foregoing, the Project Area may be constructed within four hundred (400) feet from a residential structure on property being leased by the Applicant for the Project or on an adjoining property not being leased for the Project provided that the owner of the property where such residential structure is located consents to such encroachment in a written agreement that is recorded in the Clerk's Office of the Circuit Court of Lunenburg County and a copy is provided to the Lunenburg Planning and Zoning Department.
- c. County approved permanent, buffered setback easements with property owned by non-Solar Facility landowners may be utilized to meet these setback requirements so long as the Solar Facility setbacks from public rights-of-way are maintained. Upon approval and ratification, the Applicant shall record such easement between the Applicant and the applicable non-Solar Facility landowner in the Circuit Court Clerk's Office of Lunenburg County, Virginia and provide documentation to the Lunenburg Planning and Zoning Department.
 - d. Setbacks of at least one hundred (100) feet from the 100-year floodplain and all waterways exterior to the Project Area shall be maintained.
 - e. In accordance with DEQ stormwater design specifications, the Applicant shall provide an access area/setback around the Stormwater Facilities. The width of the setback shall be sufficient to allow vehicular movement around the exterior of the Stormwater Facilities, but in no event, shall the setback around the Stormwater Facilities be less than fifteen (15) feet in width.
 - f. Access, erosion and sediment control structures, Stormwater Facilities, and electrical facilities and structures constructed for interconnection to the electrical grid may be made through setback areas provided that such are generally perpendicular to the property line.
7. Vegetative Buffer. A vegetated buffer sufficient to mitigate the visual impact of the Solar Facility is required.
- a. The Vegetative Buffer shall consist of a landscaped strip at least fifty (50) feet wide, shall be located within the setbacks and outside of security fencing, and shall run around and within the Perimeter, excluding gates in the security fencing for facility entrances.
 - b. Any planted portion of the Vegetative Buffer shall consist of native non-invasive vegetation and/or an installed landscaped strip consisting of multiple rows of staggered trees and other vegetation. This buffer should be made up of plant materials at least three (3) feet tall at the time of planting, and that are expected to grow to a minimum height of eight (8) feet within three (3) years.
 - c. Pollinator-friendly and/or wildlife-friendly plants, shrubs, trees, grasses, forbs, and wildflowers native to the County must be used in the Vegetative Buffer. If sufficient quantities of native plants cannot be secured, non-invasive plants may be used. No

plants on the DCR Virginia Invasive Plants Species List may be used.

- d. Views of the Solar Facilities from public roadways must be screened and buffered according to these criteria. The screening and buffer plan must be approved by the County prior to facility construction.
 - e. The Vegetative Buffer shall be maintained for the life of the Solar Facility.
8. Wildlife Corridors. Corridors allowing wildlife to traverse the property from east to west and north to south shall be provided pursuant to the requirements and/or recommendations of the DEQ or the Department of Wildlife Resources. Wildlife corridors shall be indicated on the approved site plan pursuant to the requirements and/or recommendations of the DEQ or the Department of Wildlife Resources and in no location shall a wildlife corridor prohibit the useful and safe passage of black bears (*Ursus americanus*) and other native wildlife in the area.
9. Traffic.
- a. The Applicant shall comply with all Virginia Department of Transportation (VDOT) recommendations for traffic management during construction and decommissioning of the Solar Facility.
 - b. The roads shall be maintained in a safe operating condition during the construction phase and be brought back to the original condition, or improved, upon completion of the construction and decommissioning phases, as directed in Condition 4b, herein.
 - c. Construction traffic shall be limited to 7:00 A.M. to 7:00 P.M. Monday through Saturday; provided however, construction may occur outside these times during installation of the transformer equipment which shall be limited to three days. The Applicant will give the Zoning Administrator prior notice, and receive approval from the Zoning Administrator, which approval shall not be unreasonably withheld or delayed, of the extended construction periods.
 - d. Deliveries by three-axle trucks or larger shall be limited to Monday through Friday and shall not occur during 7:00 A.M. to 8:00 A.M. or 3:00 P.M. to 4:00 P.M. on school days.
 - e. Additional safety precautions to be considered in the plan may include flagging, speed limit restrictions, and other measures reasonably necessary to ensure the safety of the residential community.
 - f. All construction and delivery vehicles shall be limited to utilizing Routes 635, 655, 40, and 637 within Lunenburg County. The Applicant shall be responsible to ensure such vehicles use only these routes during the facility construction process.
 - g. The Applicant shall coordinate with the Zoning Administrator in conjunction with the County's Sheriff's Department for the implementation of speed monitoring plans and devices prior to initiation of construction.

10. Operations.

- a. Fencing. The Project Area shall be enclosed by security fencing not less than six (6) feet in height and equipped with an appropriate anticlimbing device such as strands of barbed wire on top of the fence, or wildlife friendly fencing if approved by the County on the site plan. Fencing must be installed on the interior of the vegetative screen. The fencing shall be maintained while the facility is in operation.
- b. Signage. All signage on the site shall comply with the County Sign Ordinance, as adopted and, from time to time, amended.
- c. Noise. Noise levels from the Solar Facility shall comply with the County Noise Ordinance, as adopted and, from time to time, amended.
- d. Lighting. Lighting shall be limited to the minimum necessary for security purposes and shall be designed to minimize off-site effects. When installed, such lighting on the site shall comply with any “Dark Sky” or other, similar ordinance that the Board of Supervisors may adopt or, from time to time, amended.
- e. Ingress/Egress. Permanent access roads and parking areas will be stabilized with gravel, asphalt, or concrete to minimize dust and impacts to adjacent properties.
- f. Water Supply. After completion of construction, water may be utilized for the purpose of washing panels.

11. Entry and inspection.

- a. For inspections and other requirements, the Applicant and Property Owners of any portion of land located within the Perimeter that is leased by the Applicant shall grant to the County a non-exclusive, perpetual easement for pedestrian, vehicular and equipment access to the Solar Facility, and an easement across or through applicant’s remaining property, which is necessary or convenient for ingress and egress to the Solar Facility. The County will adhere to all safety requirements in gaining access to the Solar Facility. The easement will be granted prior to site plan approval and in a form reasonably acceptable to the County Attorney. Additionally, the Zoning Administrator shall be provided with access codes or keys required to use the easement for the purposes set forth herein.
- b. The Applicant shall reimburse the County its costs in obtaining an independent third-party to conduct inspections required by local and state laws and regulations.

12. Coordination of local emergency services. The Applicant shall coordinate with the Zoning Administrator and the County’s emergency services providers to provide materials, education, and/or training on how to safely respond to on-site emergencies.

- a. Emergency personnel will be given a key or code to access the property in case of an on-site emergency.
- b. Signage shall be posted in a visible and conspicuous location at the Facility

- containing the names and contact information of the Applicant's designated emergency response personnel to be contacted should an on-site emergency occur.
- c. Prior to the end of construction of the Project Site, the Applicant, shall hold training classes with the County's first responders (Fire, Rescue, and Law Enforcement) as well as the Zoning Administrator to provide materials, education, and training on responding to onsite emergencies. The training classes shall be scheduled with the assistance of the Zoning Administrator or his/her designee.
 - d. The Applicant or any future owner or operator shall provide ongoing training as deemed necessary by the Zoning Administrator or his/her designee.
 - e. In the event any upgrades or changes in technology associated with the Solar Facility results in any change in emergency procedure, the Applicant or any future owner/operator will notify the Zoning Administrator within thirty (30) days, who may, at their discretion, schedule an additional training on the new equipment.
 - f. The Applicant shall provide the County with necessary keys or codes to access the Project Site in the case of emergency.
 - i. This information will be shared with the County's 911 Center to have on file if a County Representative is not available to respond in the event of an emergency.
13. Compliance. The Solar Facilities shall be designed, constructed, and tested to meet relevant local, state, and federal standards as applicable.
14. Indemnification. The Applicant agrees to indemnify and hold harmless the County from any claims, demands and actions (including court costs and reasonable attorney's fees) brought by an adjoining or other property owner against the County seeking damages arising from the Applicant's intentional or negligent actions in connection with Applicant's use of the solar facility, in any capacity, including personal injury, property taking, property damage, and/or inverse condemnation.
15. Decommissioning and Reclamation. In addition to the requirements found in Condition 4.i, herein, the following requirements for Decommissioning and reclamation apply:
- a. If any Solar Energy Generation Facility is not operated for a continuous period of twelve (12) months, the County may notify the Facility Owner by registered mail and provide forty-five (45) days for a response. In its response, the Facility Owner shall set forth reasons for the operational difficulty and provide a reasonable timetable for corrective action. If the County deems the timetable for corrective action to be unreasonable, it may notify the Facility Owner, Property Owner, or Operator and the Facility Owner shall remove the Solar Facility in compliance with Decommissioning Plan established for such Facility.
 - b. At such time that a Solar Facility is scheduled to be abandoned, the Facility Owner, Property Owner, or Operator shall notify the Zoning Administrator in writing.

- c. Within three-hundred and sixty-five (365) days of the date of abandonment, whether as declared by the County under or as scheduled by the Facility Owner, Property Owner, or Operator shall complete the physical removal of the Solar Facility in compliance with Decommissioning Plan established for such Solar Facility. This period may be extended at the request of the Facility Owner or Operator upon approval of the Board of Supervisors.
 - d. When the Facility Owner, Property Owner, or Operator decommissions a Solar Facility, he/she shall handle and dispose of the equipment and other facility components in conformance with federal, state, and local requirements. All equipment, both above and below ground, must be removed in accordance with the approved Decommissioning Plan. Internal paths, roads, travel-ways, and landscaping may be left at the discretion of a Property Owner (as to portions of the Project Area that is leased from a Property Owner) or the Facility Owner (as to portions of the Project Areas that are owned in fee simple by the Facility Owner).
 - e. The site will be reseeded or replanted to stimulate pre-timbered pre-development conditions as indicated on the approved site plan. The exception to reforestation would be upon written request from the current or future landowner or the County indicating areas where reforestation is not requested.
 - f. If the Facility Owner or Operator fails to timely remove or repair an unsafe or abandoned Solar Facility after written notice, the County may pursue a legal action to have the Facility removed at the expense of the Facility Owner or Operator, each of whom shall be jointly and severally liable for the expense of removing or repairing the Facility. The County also may call upon the decommissioning security to remove the Facility.
 - g. The County may enter the Project Area in accordance with Code of Virginia Section 15.2-2241.2. Nothing herein shall limit other rights or remedies that may be available to the County to enforce the obligations of the Applicant, including under the County's zoning powers.
 - h. Should the Facility be abandoned, deemed unsafe without potential for cure, or become inoperable due to the Applicant becoming insolvent and unable to carry out the approved decommissioning and reclamation plan, the Site Owner shall be financially responsible for decommissioning and reclamation of the Facility and all equipment located therein. The Applicant shall be required to notify the Site Owner of the requirement contained in this provision 15(h) and provide the County with proof of said notice to the Site Owner with the Applicant's proposed decommissioning and reclamation plan submitted to the County.
16. The Conditional Use Permit shall be terminated if the solar facility does not receive a building permit within eighteen (18) months after the Applicant receives (a) any required state approvals; (b) any approvals of the regional transmission organization; and (c) any approvals required by the State Corporation Commission, but no more than thirty-six (36) months after approval of the Conditional Use Permit. Notwithstanding the

limitation in the foregoing sentence, if the construction of the Facility is delayed as a result of a third-party approval or a consequence of such third-party approval and the Applicant demonstrates to the Zoning Administrator that such delay is beyond the control of the Applicant and the Applicant is pursuing commercially reasonable efforts to satisfy the cause of the delay, the Zoning Administrator may grant up to two (2) twelve (12) month extensions to the Conditional Use Permit expiration.

17. The Applicant shall provide the County with a list of capital equipment, including but not limited to solar photovoltaic equipment proposed to be installed, whether or not it has yet been certified as pollution control equipment by the Virginia Department of Environmental Quality (DEQ), and lists of all other taxable tangible property. Thereafter, on an annual basis, the Applicant shall provide the County with any updates to this information.
18. If the Solar Facilities are declared to be unsafe, due to a violation of building or electrical codes, as determined by the Fire Marshal, Building Official, or the County's third-party consultant, and the operator of the Facility fails to respond in writing to such official within thirty (30) days, the County may revoke the right for the Facility to continue operation until the unsafe condition is brought into compliance with the applicable building or electrical code. If the unsafe condition cannot be remedied within ninety (90) days, the Conditional Use Permit may be revoked pursuant to the terms of Section 8-9 of the Lunenburg County Zoning Ordinance, and the Solar Facilities shall be decommissioned; provided, however, that if such unsafe condition cannot, despite good faith efforts, be remedied within such thirty (30) day period and Applicant commences to diligently remedy such unsafe condition within such ninety (90) day period and thereafter diligently pursues a remedy of such unsafe condition, and evidence of the Applicant's diligent efforts to diligently remedy such default is provided to the County and is deemed sufficient, then such cure period shall be extended as shall be necessary to allow Applicant to remedy the unsafe condition, except that in no event shall the cure period extend for more than one hundred eighty (180) days after the date of determination by the Fire Marshal or Building Official.
19. Pursuant to Virginia Code Section 15.2-2316.7, the Board of Supervisors may negotiate a Siting Agreement in addition to this Conditional Use Permit.
20. Should the Applicant run fiber optic cable ("Broadband") to any portion of the Site or Project Area, the Applicant shall be required to inform the County when the Broadband route is determined and its location. Pursuant to 15.2-2316.7(B), and as further defined in the Siting Agreement, the Applicant shall assist the County in the deployment of Broadband to the dwellings of Property Owners along the Broadband route as further detailed in the siting agreement between the Applicant and the County.
21. Should the Applicant construct any towers within the Site or Project Area suitable to accommodate emergency communications equipment, the Applicant shall allow the County to connect emergency communications equipment upon said towers at no cost to the County.

22. No transfer or assignment of the Conditional Use Permit shall occur without the express written consent of the County, which consent shall not be unreasonably withheld (“Board approval”). The County shall consider the financial strength and the operational experience of the proposed assignee. The Applicant may provide information on one or more proposed assignees for review by the County prior to the potential transfer. Any assignment, other than to an affiliate or subsidiary of the Applicant, without the consent of the County shall be void. This Conditional Use Permit shall not be transferred or assigned unless the Applicant complies with this condition. As a condition to transferring or assigning the Conditional Use Permit, the transferee or assignee must provide written notice to the Board that it agrees to abide by all conditions and financial obligations approved by the County. The purchaser, transferee, or assignee shall be required to provide any documentation reasonably requested by the County prior to the approval or denial of the sale, transfer, or assignment.
23. The Solar Facilities shall be designed, constructed, and tested to meet relevant local, state, and federal standards as applicable.
24. Applicant shall comply with all state, federal, and local laws, including the Lunenburg County Solar Ordinance, as may be amended.

Public Comments
Received

Other Business

County Attorney Update

Next Meeting

The next
meeting is
scheduled for
Thursday, April
4th, 2024, at
7:00 p.m.

(Meeting time could change contingent on agenda items.)