

COMMONWEALTH OF KENTUCKY
BEFORE THE KENTUCKY STATE BOARD ON
ELECTRIC GENERATION AND TRANSMISSION SITING

In the Matter of:

ELECTRONIC APPLICATION OF)	
HUMMINGBIRD ENERGY LLC FOR A)	
CERTIFICATE OF CONSTRUCTION)	
FOR AN APPROXIMATELY 200)	
MEGAWATT MERCHANT ELECTRIC)	
SOLAR GENERATING FACILITY AND)	Case No. 2022-00272
NONREGULATED ELECTRIC)	
TRANSMISSION LINE IN FLEMING)	
COUNTY, KENTUCKY PURSUANT TO)	
KRS 278.700 AND 807 KAR 5:110)	

Application for Certificate of Construction

Hummingbird Energy LLC (the “Applicant” or “Hummingbird”), a wholly owned subsidiary of Recurrent Energy, LLC, files this application seeking from the Kentucky State Board on Electric Generation and Transmission Siting (the “Siting Board” or “Board”) a certificate of construction for an approximately 200 megawatt (MW) merchant electric solar generating facility and nonregulated electric transmission line pursuant to KRS 278.704 and 278.714 (the “Application”). The generating facility and nonregulated electric transmission line for which the certificates are sought will be located in Fleming County, Kentucky.

In support of the Application, the Applicant submits herewith Exhibits A-I. To assist the Board and interested persons in locating information required by various statutes and regulations, the Applicant also submits herewith the Table of Contents required by 807 KAR 5:110 § 3(2)(b) and attaches hereto Indexes of Regulation Requirements, listing the requirements for a generation facility application and nonregulated transmission line application, and the principal place(s) each requirement is addressed in these Application materials. The facts on which the Application is

based are contained in the concurrently filed exhibits, reports, and the statements further made by the Applicant as follows:

I. Applicant Information

1. Pursuant to KRS 278.706(2)(a) and KRS 278.714(2)(a), the name, address, and telephone number of the person proposing to construct and own the merchant electric generating facility and nonregulated transmission line is as follows: Hummingbird Energy LLC; 98 San Jacinto Blvd, Ste. 750, Austin, TX 78701; (512) 240-9107. Communications should be directed to the attention of the Legal Department.

II. Description of Proposed Site

2. The proposed Hummingbird solar project (the “Project”) is a 200 MW solar facility capable of providing enough clean, renewable electricity to power approximately 34,000 Kentucky homes. Photovoltaic (PV) solar modules are used to convert sunlight into direct current (DC) electricity, which is then converted to alternating current (AC) electricity through inverters. Transformers step up AC electricity to a higher voltage so that it can connect to the regional transmission grid.

3. Pursuant to KRS 278.706(2)(b), the Project is located on approximately 4,141 acres near Mt. Carmel, Kentucky, in Fleming County (Exhibit A). The Project footprint, generally the area within the fence line where the Project infrastructure will be located, includes approximately 2,019 acres within the larger Project site after site constraints and proposed setbacks. The site consists of 42 parcels secured pursuant to 38 real estate agreements. Project parcels have generally experienced row crop agriculture, pastureland, and residential uses. Evidence of harvested hay and row crop agriculture were observed within the Project area. Vegetation is sparse aside from forested riparian areas generally associated with the ephemeral and intermittent streams and tributaries that cross through the Project and forested upland areas. Topography is gently sloping

upland with well-draining, non-hydric soils and geology is primarily comprised of limestone and shale. There are twelve residential neighborhoods located within two miles of the proposed facility. The nearest participating residential structure is 260 feet from the proposed facility, and the nearest nonparticipating residential structure is 352 feet from the proposed facility. There are no schools or parks within two miles of the proposed facility. A map depicting a two-mile radius around the proposed facility is enclosed as Exhibit A.

4. Pursuant to KRS 278.714(2)(b), the Project includes a single transmission line. The transmission line will start at approximate coordinates 38°28'12.87"N -83°38'23.0"W, running from the Project's proposed substation southeast approximately 300 feet to a proposed switchyard that will be built and owned by East Kentucky Power Cooperative (EKPC) at approximate coordinates 38°28'22.26"N -83°38'22.26"W. The proposed voltage of the electric transmission line is 138 kV and maintained within a proposed 100 foot right of way. The proposed right of way will be within a single parcel, APN 069-00-00-043.00, owned by Eric and Aileen Carpenter. Maps depicting the proposed route of the transmission line are enclosed as Exhibit A. The transmission line will be approximately 1,300 feet from the nearest participating residential structure and approximately 738 feet from the nearest nonparticipating residential structure. The proposed transmission line will be located within one mile of one residential neighborhood. The proposed transmission line will not be located within one mile of a school or park. Pursuant to KRS 278.714(2)(d), the transmission line and appurtenances will be constructed and maintained in accordance with accepted engineering practices and the National Electric Safety Code.

5. Approximately 344,844 linear feet of private access roads will be utilized within the Project and will be constructed of all-weather gravel. The majority of these roads already exist. Roads will not exceed 16 feet (4.9 meters) in width, except for turning radii, which will not exceed 50 feet

(15.2 meters) in radius. All entrances and driveways will comply with applicable design requirements for safe access and egress. The Project solar arrays will be secured with approximately 278,604 linear feet of perimeter fence, which will consist of six-foot chain link fence with three strand barbed wire. Fixed lighting at the perimeter will be limited to gates and the substation area and will be motion-activated to minimize light spillage. The Project will utilize construction methods that minimize large-scale grading and removal of native soil. Clearing and grubbing will occur where necessary. Minimal grading may be required to level rough or undulating areas of the site and to prepare soils for concrete foundations for substation equipment and inverters. Access roads will also be grubbed, graded, and compacted. The site cut and fill will be appropriately balanced, with no anticipation of import/export necessary.

6. Project components will include a PV solar field consisting of PV solar panel modules mounted on metal structures and anchored to the ground with pilings. Panels will move to track the sun over the course of the day. Other components of the PV system include: an onsite substation, a DC collection system of underground cabling and combiner boxes, and power conversion stations with inverters, transformers, and emergency backup power to convert DC to AC. An underground and/or overhead collection system will be used to convey electricity from the solar array field to the substation. The Project will include an onsite transmission line, fiber optic cable for communications underground or on overhead lines, a meteorological station mounted on a concrete foundation, interior access ways, and a facility perimeter road. In addition, the Project will include, as necessary: an operation and maintenance (“O&M”) building, parking area, and other associated facilities such as above-ground water storage tanks, security gate, signage, and flagpoles. During construction, the Project will include a temporary construction

mobilization and laydown area for construction trailers, construction workforce parking, above-ground water and fuel tanks, materials receiving and materials storage.

7. The PV solar modules will be supported by steel piles driven into the soil. Piles are spaced approximately 10 to 20 feet apart, and the maximum height of the PV modules will be 15 feet. Modules will be oriented in rows running from north to south utilizing a single-axis tracking system. The modules will be connected using DC cables that can either be buried in a trench or attached to the racking system. The DC cables gather at the end of racking systems to combiner boxes which are connected to cables routing to an inverter. The racking system will be supported by steel posts installed with a combination of pile-driving machines and augers. The center height of the racking structures will be approximately 4 feet (1.2 meters) to 6.8 feet (2.1 meters) above the ground. The spacing between array rows is estimated to be approximately eight to 15 feet.

8. Approximately 53 inverters will be installed throughout the Project to convert the DC power from the 1,500 volt DC collection system to AC power, which will then be transmitted to a Project substation via the 34.5 kV AC collection system. The AC collection system will include underground and/or overhead segments. Underground segments of the AC collection system will be buried a minimum of 3 feet (0.9 meters) below grade; and overhead portions will not exceed a maximum height of 45 feet (13.7 meters) above grade. The AC collection system will be comprised of medium voltage (MV) cable that will transfer electricity to the Project substation. Approximately 430,000 linear feet of collection system cables will be installed throughout the Project. Collection cables are congregated into common trenches and run adjacent to one another. All electrical inverters and the transformer will be placed on concrete foundations or steel skids.

9. The Project will require one substation that will include one 230-mega volt ampere (MVA) transformer equipment, control building foundation, an oil containment area, and battery storage

component with storage capacity of up to 200 MW. Concrete pads will be constructed as foundations for substation equipment, and the remaining area will be graveled. Concrete for foundations will be brought on-site from an external batching plant. The substation area will serve as the general parking area for permanent employees and contain all necessary equipment to step up incoming MV electricity to the high voltage electricity necessary to interconnect into the existing Goddard to Plumville 138 kV transmission line owned and operated by EKPC. The proposed gen-tie line will be approximately 300 feet in length, will be located entirely within the Project footprint, and will be constructed by the Applicant. EKPC will be responsible for any additional transmission equipment located within the switchyard it will build. It is anticipated that the gen-tie and substation components will not exceed 85 feet (25.9 meters) above grade.

III. Public Notice Evidence

10. Pursuant to KRS 278.706(2)(c), KRS 278.706(2)(f), and KRS 278.714(2)(e), notice was provided to landowners whose property borders the proposed site. A copy of the list of addresses and names of those landowners who were provided notice of the public information meeting is contained in Exhibit B. Notice of the public information meeting was mailed on March 7, 2023, to each landowner via FedEx, except for two letters sent by U.S. Certified Mail; see Exhibit B for the adjacent landowner form letter and certified mail receipts. Notice of the public meeting was published in the Flemingsburg Gazette on March 8, 2023, and is contained in Exhibit B. The public information meeting to discuss the Project with community members was held on March 23, 2023, at the Mt. Carmel Fire Department. Presentation materials and an attendance sheet are enclosed in Exhibit B.

11. Notice of this application was transmitted in the same manner to the same landowners via FedEx and U.S. certified mail on June 15, 2023. A copy of the adjacent landowner form letter and

a list of addresses and names of those landowners who were provided notice are contained in Exhibit B. Notice of the pending application was published in the Flemingsburg Gazette on June 14, 2023. A scanned copy of the notice of application that was published in the Flemingsburg Gazette is contained in Exhibit B.

IV. Compliance with Local Ordinance and Regulations

12. Pursuant to KRS 278.706(2)(d), the Project is in unincorporated Fleming County, which has not enacted any zoning ordinances or setback requirements pertaining to the location of the Project. There is no planning and zoning commission with jurisdiction over the location of the Project and, therefore, no setback requirements established by such a planning commission exist. The Applicant certifies that the Project will comply with all local ordinances and regulations concerning noise control and with any applicable local planning and zoning ordinances. A statement certifying these facts is enclosed as Exhibit C.

V. Setback Requirements

13. Pursuant to KRS 278.706(2)(e), the Project is not located on the site of a former coal processing plant, will not use any onsite waste coal as a fuel source, and will not include any exhaust stacks or wind turbines as part of the facility. The Project site does not have any existing electricity generating facilities. Fleming County has not established local setback requirements for this location, per the information provided above in Section IV.

14. The Project will not be required to follow setback requirements set forth in KRS 278.704(3), as no local zoning is present.

15. There are five residential neighborhoods (as defined by KRS 278.700(6)) within two thousand (2,000) feet of the Project's facilities. There are no schools, hospitals, or nursing homes

within two thousand (2,000) feet of the Project's facilities. Pursuant to KRS 278.704(4), a motion for deviation from the Board's setback requirement is forthcoming.

VI. Public Notice Report

16. Pursuant to KRS 278.706(2)(f), the Applicant has made a substantial effort to engage the public in numerous ways regarding the Project. The Applicant created a Project website to publish information about the Project, answer common questions, and to provide an email and telephone number for feedback. In all communications, Hummingbird has endeavored to be transparent regarding the specifics of the proposed Project.

17. As part of the Applicant's proactive preapplication process, an open house meeting on the Project was held on March 15, 2022, at the Mt. Carmel Fire Department. The open house invitation flyer and attendance sheet are enclosed as Exhibit B. The Applicant held a public meeting on the Project on May 24, 2022, at the Mt. Carmel Fire Department. The Applicant published advertisements for the meeting in the Flemingsburg Gazette newspaper on May 11, 2022, and again on May 18, 2022 (Exhibit B). Additionally, the Applicant held a public meeting on the Project on November 14, 2022, at the Mt. Carmel Fire Department. The Applicant published an advertisement for the meeting in the Flemingsburg Gazette newspaper on October 26, 2022 (Exhibit B).

18. The publicly noticed public information meeting for the Project was held on March 23, 2023, at the Mt. Carmel Fire Department. On March 7, 2023, notice letters for the public information meeting were mailed to adjacent property owners (Exhibit B). On March 8, 2023, the Applicant published a public notice in the Flemingsburg Gazette newspaper (Exhibit B). In addition, the Applicant published a Project website

(<https://recurrentenergy.com/project/hummingbird/>) so the general community was made aware of the Project and could access Project details and contact information.

19. During the March 23, 2023 public meeting, attendees were shown enlarged satellite images showing the exact location of the proposed solar arrays and the proposed Project layout. Information boards with technical experts were also available for viewing and discussion on other topics including environmental health and safety of PV, landscape and screening plans, and the impact of solar projects on property values and community economics. Presentation materials are enclosed as Exhibit B. Experts who were present at the public meeting and available to answer questions from attendees included:

- Jayce Walker, Development Manager for Hummingbird Energy, Recurrent Energy
- Adam Peterson, Permitting, Hummingbird Energy, Recurrent Energy
- Karol Kamasinski, Engineering, Hummingbird Energy, Recurrent Energy
- Chad Martin, Senior Principal, Environmental Permitting and Planning, Stantec
- Kris Fields, Community Engagement and Education Manager, Center for Energy Education

20. Table 1 below provides a brief description of other public involvement activities, in addition to the public meeting and various outreach activities/meetings with local stakeholders, undertaken prior to the submission of this Application. Hummingbird will continue these efforts and will participate in any public notice, comment, and hearings which may be initiated as part of ongoing permitting activities.

Table 1. Public Involvement Activities

DATE	ORGANIZATION	ACTIVITY/INVOLVEMENT
5/4/2021 and 8/24/2021	Larry H. Foxworthy, Judge Executive Fleming County	Hummingbird Energy representatives met with Judge Foxworthy on two occasions to discuss the proposed project, specifically the applicability to a potential Industrial Revenue Bond
10/19/2021	Director Crystal Ruark and members of the Fleming Chamber of Commerce	Hummingbird Energy representatives met with Ms. Ruark and the Fleming Chamber of Commerce to discuss solar development and answer questions.

12/10/2021	Flemingsburg Tourist and Convention Commission	Hummingbird Energy representatives volunteered at the commission's annual Holiday Hoopla event.
3/15/2022	Public	Open house community meeting on utility-scale solar and the Hummingbird Energy project with industry experts.
4/23/2022	Cruising for Kids	Hummingbird Energy representatives sponsored and attended the Cruising for Kids event at Fleming County High School to raise awareness for child abuse and neglect.
5/5/2022	Center for Energy Education	Hummingbird Energy representatives attended and helped answer questions at the Center's Solar 101 event held in Flemingsburg.
5/11/2022	Public, Newspaper Advertisement	Advertisement for public meeting regarding Hummingbird Energy's project.
5/18/2022	Public, Newspaper Advertisement	Advertisement for public meeting regarding Hummingbird Energy's project.
5/24/2022	Public	Public meeting held regarding Hummingbird Energy's project.
10/26/22	Public, Newspaper Advertisement	Advertisement for public meeting regarding Hummingbird Energy's project.
11/14/22	Public	Public meeting held regarding Hummingbird Energy's project.
2/14/2023 and 6/7/2023	John Sims Jr., Judge Executive Fleming County	Hummingbird Energy representatives met with Judge Sims on two occasions to discuss the proposed project
3/8/2023	Public, Newspaper Advertisement	Public Notice of Hummingbird Energy's Public Information Meeting.
3/23/2023	Public	Hummingbird Energy's Public Information Meeting conducted.
6/14/2023	Public, Newspaper Advertisement	Public Notice of Application Filing

VII. Efforts to Locate Near Existing Electric Generation

21. No existing electric generating facilities are (or have been) located on the proposed site for the solar generating facility. Consistent with KRS 278.706(2)(g), Hummingbird made efforts to locate the Project on adjoining, or in proximity to the location of existing electric generating facilities. For solar projects like Hummingbird, key factors for site selection are favorable geography, willing landowner participation, and access to transmission lines. The land needed to site the Project was not available on or adjoining to an existing electric generation facility.

However, Hummingbird selected a location in proximity to an existing transmission line. The Project's point of interconnection at the EKPC switchyard, located within the Project boundary, allows the Project to interconnect at the preferred voltage of 138 kV and utilize an existing transmission line owned and operated by EKPC. Information on EKPC's studies of the interconnection cost and infrastructure is included in the system impact studies, enclosed as Exhibit D.

VIII. Proof of Service to County and Municipality Officials

22. Pursuant to KRS 278.706(2)(h), a copy of the Siting Board application for Hummingbird Energy LLC was hand delivered, and electronically transmitted, to the Judge-Executive of Fleming County, John Sims Jr., on the date of electronic filing of this application (June 23, 2023). Proof of service is enclosed as Exhibit E.

IX. Effect on Kentucky Electricity Generation System

23. Pursuant to KRS 278.706(2)(i), an analysis of the proposed solar generating facility's projected effect on the electricity transmission system is provided in Exhibit D.

X. Effect on Local and Regional Economies

24. Pursuant to KRS 278.706(2)(j), an Economic Impact Study was completed for the Project by Mangum Economics, LLC, included in Exhibit F. As the report demonstrates, utility-scale solar energy projects have numerous economic benefits. Solar installations create job opportunities in the local area during both the short-term construction phase and the long-term operational phase. In addition to the workers directly involved in the construction and maintenance of the solar energy project, numerous other jobs are supported through indirect supply chain purchases and the higher spending that is induced by these workers. Solar projects strengthen the local tax base and help improve county services and local infrastructure such as public roads.

25. Construction would provide a one-time pulse of economic output of \$30.2 million to Fleming County and \$136.8 million to the Commonwealth of Kentucky. Ongoing operations are predicted to provide an annual economic output of \$915,034 to Fleming County and \$1.1 million to the Commonwealth of Kentucky. In 2020, construction made up nearly 10 percent of Fleming County's employment by industry. During the construction period, the Project is estimated to employ up to 268 construction workers and support positions generating \$8.3 million in labor income. The employment of local labor is estimated to reach up to 216 jobs during this construction period. Operational support will require four direct jobs and four indirect and induced jobs with an associated labor income of \$234,849, and a total economic output of \$915,034.

26. The Applicant retained Kirkland Appraisals, LLC, to prepare a Property Value Impact Study to assess potential effects of the Project on nearby property values, and it is enclosed as Exhibit G. The matched pair analysis shows no impact on home values due to abutting or adjoining a solar farm, as well as no impact to abutting or adjacent vacant residential or agricultural land where the solar farm is properly screened and buffered. The adjoining properties have sufficient setbacks from the proposed solar panels and supplemental vegetation is proposed to enhance the areas where the existing trees are insufficient to provide proper screening.

XI. Record of Environmental Violations

27. Pursuant to KRS 278.706(2)(k), neither the Applicant, nor any entity with ownership interest in the Project, has violated any state or federal environmental laws or regulations. There are no pending actions, judicial or administrative, against the Applicant nor any entity with ownership interest in the Project.

XII. Site Assessment Report

28. Pursuant to KRS 278.706(2)(l), the site assessment report is being contemporaneously filed

herewith; please see the separate document titled “Hummingbird Energy LLC, Kentucky State Board on Electric Generation and Transmission Application, Site Assessment Report, Case No. 2022-00272”, and enclosed as Exhibit H.

XIII. Decommissioning Requirements

29. The Project will not be required to follow local decommissioning requirements set forth in KRS 278.704(3), as no local decommissioning plan requirements have been established.

30. Pursuant to KRS 278.706(2)(m), the Project’s decommissioning plan is being contemporaneously filed herewith; please see the separate document titled “Decommissioning Plan - Hummingbird Solar Project, Fleming County, Kentucky”, and enclosed as Exhibit I.

Dated this 23rd day of June 2023.

Respectfully submitted,



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**Statutory/Regulation Requirements
Merchant Electric Generation Facility Certificate**

KRS 278.	Description	Filing
<u>278.706(2)(a)</u>	The name, address, and telephone number of the person proposing to construct and own the merchant generating facility.	Application ¶ 1
<u>(2)(b)</u>	A full description of the proposed site, including a map showing the distance of the proposed site from residential neighborhoods, the nearest residential structures, schools, and public and private parks that are located within a two (2) mile radius of the proposed facility	Application ¶ 2-9, Exh. A
<u>(2)(c)</u>	Evidence of public notice that shall include the location of the proposed site and a general description of the project, state that the proposed line is subject to approval by the board, and provide the telephone number and address of the Public Service Commission. Public notice shall be given within thirty (30) days immediately preceding the application filing to: Landowners whose property borders the proposed site; and The general public in a newspaper of general circulation in the county or municipality in which the facility is proposed to be located.	Application ¶ 11, Exh. B
<u>(2)(d)</u>	A statement certifying that the proposed plant will be in compliance with all local ordinances and regulations concerning noise control and with any local planning and zoning ordinances. The statement shall also disclose set back requirements established by the planning and zoning Commission as provided under KRS 278.704(3).	Application ¶ 12, Exh. C
<u>(2)(e) [1st]</u>	If the facility is not proposed to be located on a site ... in an area where a planning and zoning commission has established a setback requirement pursuant to KRS 278.704(3), a statement that...all proposed structures or facilities used for generation of electricity are two thousand (2,000) feet from any residential neighborhood, school, hospital, or nursing home facility...	N/A
<u>(2)(e) [2nd]</u>	If the facility is proposed to be located on a site of a former coal processing plant and the facility will use on-site waste coal as a fuel source, a statement that the proposed site is compatible with the setback requirements provided under KRS 278.704(5).	N/A

<u>(2)(e) [3rd]</u>	If the facility is proposed to be located in a jurisdiction that has established setback requirements pursuant to KRS 278.704(3), a statement that the proposed site is in compliance with those established setback requirements.	Application ¶¶ 13-15
<u>(2)(f)(1)</u>	A complete report of the applicant’s public involvement program activities undertaken prior to the filing of the application, including: The scheduling and conducting of a public meeting in the county or counties in which the proposed facility will be constructed at least ninety (90) days prior to the filing of an application, for the purpose of informing the public of the project being considered and receiving comment on it.	Application ¶¶ 10, 16-20, Exh. B
<u>(2)(f)(2)</u>	Evidence that notice of the time, subject, and location of the meeting was published in the newspaper of general circulation in the county, and that individual notice was mailed to all owners of property adjoining the proposed project at least two (2) weeks prior to the meeting.	Application ¶¶ 10, 18, Exh. B
<u>(2)(f)(3)</u>	Any use of media coverage, direct mailing, fliers, newsletters, additional public meetings, establishment of a community advisory group, and any other efforts to obtain local involvement in the siting process.	Application ¶¶ 16-20, Exh. B
<u>(2)(g)</u>	A summary of the efforts made by the applicant to locate the proposed facility on a site where existing electric generating facilities are located.	Application ¶ 21
<u>(2)(h)</u>	Proof of service of a copy of the application upon the chief executive officer of each county and municipal corporation in which the proposed line is to be located, and upon the chief officer of each public agency charged with the duty of planning land use in the general area in which the line is proposed to be located.	Application ¶ 22
<u>(2)(i)</u>	An analysis of the proposed facility’s projected effect on the electricity transmission system in Kentucky.	Application ¶ 23, Exh. D
<u>(2)(j)</u>	An analysis of the proposed facility’s economic impact on the affected region and the state.	Application ¶¶ 24-26, Exh. F, G
<u>(2)(k)</u>	A detailed listing of all violations by it, or any person with an ownership interest, of federal or state environmental laws, rules, or administrative regulations, whether judicial or administrative, where violations have resulted in criminal convictions or civil or administrative fines exceeding five thousand dollars (\$5,000). The status of any pending action, whether judicial or administrative, shall also be submitted.	Application ¶ 27
<u>(2)(l)</u>	A site assessment report as specified in KRS 278.708.	Application ¶ 28, Exh. H

<u>278.704(2)</u>	Except as provided [by locally-established setback requirements or through a deviation granted pursuant to KRS 278.704(4)] ... all proposed structures or facilities used for generation of electricity are two thousand (2,000) feet from any residential neighborhood, school, hospital, or nursing home facility.	Application ¶¶ 13-15
<u>.704(3)</u>	If the merchant electric generating facility is proposed to be located in a county or a municipality with planning and zoning, then decommissioning and setback requirements from a property boundary, residential neighborhood, school, hospital, or nursing home facility may be established by the planning and zoning commission.	Application ¶¶ 12-15, Exh. G, SAR Exh. G
<u>278.706(2)(m)</u>	A decommissioning plan as specified in KRS 278.706(2)(m)(1) – (7).	Application ¶¶ 29-30, Exh. I
<u>(2)(m)(1)</u>	Unless otherwise requested by the landowner, remove all above-ground facilities;	Application ¶¶ 29-30, Exh. I
<u>(2)(m)(2)</u>	Unless otherwise requested by the landowner, remove any underground components and foundations of above-ground facilities. Facilities removed under this subparagraph shall be removed to a depth of three (3) feet below the surface grade of the land in or on which the component was installed, unless the landowner and the applicant otherwise agree to a different depth;	Application ¶¶ 29-30, Exh. I
<u>(2)(m)(3)</u>	Return the land to a substantially similar state as it was prior to the commencement of construction;	Application ¶¶ 29-30, Exh. I
<u>(2)(m)(4)</u>	Unless otherwise requested by the landowner, leave any interconnection or other facilities in place for future use at the completion of the decommissioning process;	Application ¶¶ 29-30, Exh. I
<u>(2)(m)(5)</u>	Secure a bond or other similar security for the project to assure financial performance of the decommissioning obligation, provided that:	Application ¶¶ 29-30, Exh. I
<u>(2)(m)(5)(a)</u>	The amount of the proposed bond or similar security shall be determined by an independent, licensed engineer who is experienced in the decommissioning of solar electric generating facilities and has no financial interest in either the merchant electric generating facility or any parcel of land upon which the merchant electric generating facility is located. The proposed amount of the bond or similar security shall be either: The net present value of the total estimated cost of completing the decommissioning plan, less the current net salvage value of the merchant electric generating facility's components; or	Application ¶¶ 29-30, Exh. I

	The bond amount required by a county or municipal government that has established a decommissioning bond requirement or similar security obligation in the county or municipality where the merchant electric generating facility will be located. If the facility will be located in more than one (1) county or municipality that has established a decommissioning bond or similar security obligation, then the higher amount shall be required for the facility;	
<u>(2)(m)(5)(b)</u>	The bond or other similar security names: For property that is leased by the applicant, each landowner from whom the applicant leases land and the Energy and Environment Cabinet as the primary co-beneficiaries; or For property that is owned by the applicant, the Energy and Environment Cabinet as the primary beneficiary;	Application ¶¶ 29-30, Exh. I
<u>(2)(m)(5)(c)</u>	If the merchant electric generating facility is to be located in a county or municipality that has not established a decommissioning bond or other similar security obligation, the bond or other similar security shall name the county or municipality as a secondary beneficiary with the county's or municipality's consent;	Application ¶¶ 29-30, Exh. I
<u>(2)(m)(5)(d)</u>	The bond or other similar security shall be provided by an insurance company or surety that shall at all times maintain at least an "Excellent" rating as measured by the AM Best rating agency or an investment grade credit rating by any national credit rating agency and, if available, shall be noncancelable by the provider or the customer until completion of the decommissioning plan or until a replacement bond is secured; and	Application ¶¶ 29-30, Exh. I
<u>(2)(m)(5)(e)</u>	The bond or other similar security shall provide that at least thirty (30) days prior to its cancellation or lapse, the surety shall notify the applicant, its successor or assign, each landowner, the Energy and Environment Cabinet, and the county or city in which the facility is located of the impending cancellation or lapse. The notice shall specify the reason for the cancellation or lapse and provide any of the parties, either jointly or separately, the opportunity to cure the cancellation or lapse prior to it becoming effective. The applicant, its successor, or its assign, shall be responsible for all costs incurred by all parties to cure the cancellation or lapse of the bond. Each landowner, or the Energy and Environment Cabinet with the prior approval of each landowner, may make a demand on the bond and initiate and complete the decommissioning plan.	Application ¶¶ 29-30, Exh. I
<u>(2)(m)(6)</u>	Communicate with each affected landowner at the end of the merchant electric generating facility's useful life so that any requests of the landowner that are in addition to the minimum	Application ¶¶ 29-30, Exh. I

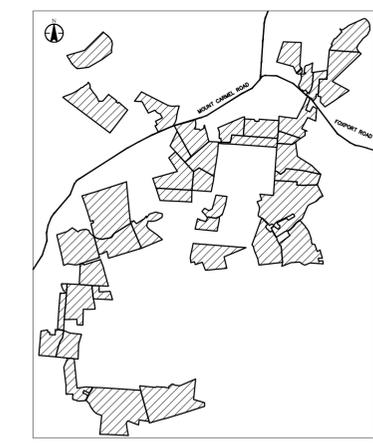
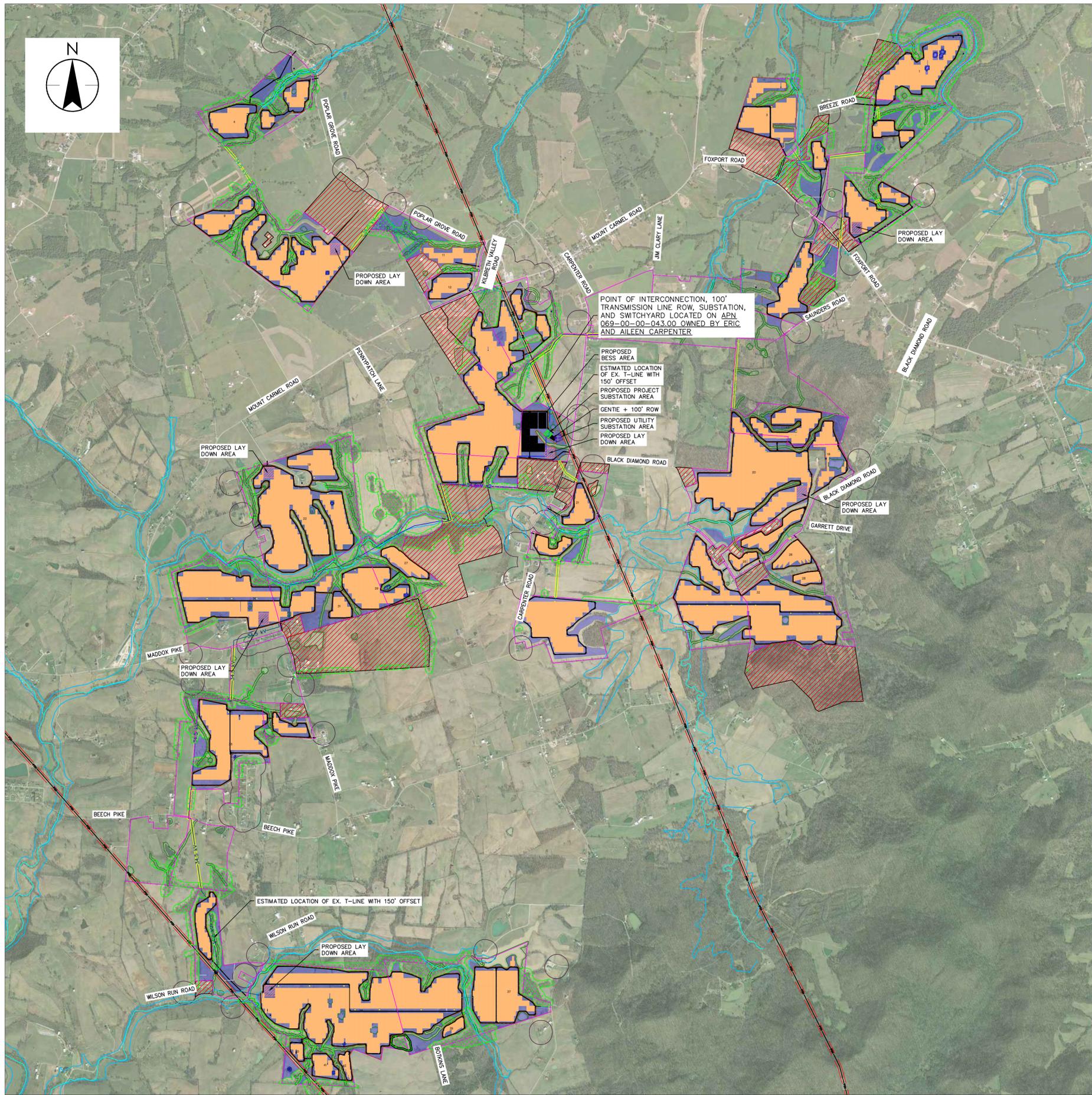
	requirements set forth in this paragraph and in addition to any other requirements specified in the lease with the landowner may, in the sole discretion of the applicant or its successor or assign, be accommodated; and	
<u>(2)(m)(7)</u>	Incorporate the requirements of paragraphs (m)1. to 6. of this subsection into the applicant's leases with landowners	Application ¶¶ 29-30, Exh. I

**Statutory/Regulation Requirements
Nonregulated Electric Transmission Line Certificate**

KRS 278.714	Description	Filing
<u>(2)(a)</u>	The name, address, and telephone number of the person proposing construction of the nonregulated electric transmission line or the carbon dioxide transmission pipeline.	Application ¶ 1
<u>(2)(b)</u>	A full description of the proposed route of the electric transmission line or the carbon dioxide transmission pipeline and its appurtenances. The description shall include a map or maps showing: <ol style="list-style-type: none"> 1. The location of the proposed line or pipeline and all proposed structures that will support it; 2. The proposed right-of-way limits; 3. Existing property lines and the names of persons who own the property over which the line or pipeline will cross; and 4. The distance of the proposed electric transmission line from residential neighborhoods, schools, and public and private parks within one (1) mile of the proposed facilities. 	Application ¶¶ 4, 9, 21, Exhibit A
<u>(2)(c)</u>	With respect to electric transmission lines, a full description of the proposed line and appurtenances, including the following: <ol style="list-style-type: none"> 1. Initial and design voltages and capacities; 2. Length of line; 3. Terminal points; and 4. Substation connections. 	Application ¶¶ 4, 9, 21, Exhibit D
<u>(2)(d)</u>	A statement that the proposed electric transmission line and appurtenances will be constructed and maintained in accordance with accepted engineering practices and the National Electric Safety Code.	Application ¶ 4
<u>(2)(e)</u>	Evidence that public notice has been given by publication in a newspaper of general circulation in the general area concerned. Public notice shall include the location of the proposed electric transmission line or carbon dioxide pipeline, shall state that the proposed line or pipeline is subject to approval by the board, and shall provide the telephone number and address of the Public Service Commission.	Application ¶¶ 10-11, Exhibit B

<u>(2)(f)</u>	Proof of service of a copy of the application upon the chief executive officer of each county and municipal corporation in which the proposed electric transmission line or carbon dioxide transmission pipeline is to be located, and upon the chief officer of each public agency charged with the duty of planning land use in the general area in which the line or pipeline is proposed to be located.	Application ¶ 22, Exhibit E
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Exhibit A



LEGEND

[Symbol]	PROPOSED SOLAR ARRAY
[Symbol]	INVERTER STATION
[Symbol]	BATTERY ENERGY STORAGE SYSTEM
[Symbol]	PROPOSED FENCELINE
[Symbol]	PROPERTY BOUNDARY
[Symbol]	PROPOSED SCREENING
[Symbol]	E-34.5kV-OH-25MW-1x
[Symbol]	E-34.5kV-OH-25MW-2x
[Symbol]	E-34.5kV-OH-50MW-1x
[Symbol]	E-34.5kV-OH-50MW-2x
[Symbol]	PROPOSED ACCESS ROADS
[Symbol]	WETLAND AND WATERWAY SETBACKS
[Symbol]	FEMA FLOOD ZONE - 100 YEAR FLOOD PLAN AREA
[Symbol]	FEMA FLOOD ZONE - 100 YEAR - WATER LINE
[Symbol]	EX. OVERHEAD POWER OFFSET
[Symbol]	EX. OVERHEAD POWER
[Symbol]	NONPARTICIPATING RESIDENT
[Symbol]	PARTICIPATING RESIDENT
[Symbol]	KARST AREAS
[Symbol]	KARST AREAS OFFSETS
[Symbol]	MV AND HV EASEMENT
[Symbol]	BUILDABLE AREA
[Symbol]	EXCLUSION AREA
[Symbol]	PROPOSED PROJECT SUBSTATION LOCATION
[Symbol]	PROPOSED UTILITY SUBSTATION LOCATION
[Symbol]	PROPOSED BESS LOCATION
[Symbol]	PROPOSED LAY DOWN AREA
[Symbol]	EXISTING VEGETATIVE BUFFER

PROJECT DATA

PARCEL AREA	4,141 ACRES
PARCEL AREA WITHOUT EXCLUSION AREAS	3,507 ACRES
BUILDABLE AREA	2,032 ACRES

NOTES:

- PROJECT AREAS ARE SUBJECT TO CHANGE PENDING FUTURE DESIGN CONSTRAINTS

OFFSETS:

- WETLANDS - 25'
- STREAMS - 25'
- NON-PARTICIPATING ADJACENT OR BUSINESS - 300'
- PARTICIPATING LANDOWNERS - 200'
- EXISTING TRANSMISSION LINE - 25'
- TREE SHADING - SOUTH 20'
- TREE SHADING - NORTH, EAST AND WEST 80'
- OPEN WATER - 25'
- FEMA FLOOD PLAN 25'
- ROADS - 100' FROM EDGE

D	ISSUED FOR SSB SUBMISSION	DK	CM	2023.05.26
C	ISSUED FOR REVIEW	JB	DK	2023.02.08
B	ISSUED FOR REVIEW	ZG	DK	2022.07.11
A	ISSUED FOR REVIEW	ZG	DK	2022.05.19

Revision

CONCEPTUAL LAYOUT	ZG	DK	2022.05.19	
	By	Appd	YYYY.MM.DD	
File Name: 193708901_C100	ZG	DK	2022.03.25	
	Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Permit/Seal

Client/Project Logo



Client/Project
HUMMINGBIRD SOLAR PROJECT, LLC

HUMMINGBIRD SOLAR PROJECT

Mt. Carmel, Kentucky (Fleming County)

Title
CONCEPTUAL LAYOUT
OVERALL SITE

Project No.
193708901

Scale
NTS

Revision Sheet
D 1 of 1

Drawing No.
C100

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Consultant



LEGEND

- PROPOSED SOLAR ARRAY
- INVERTER STATION
- BATTERY ENERGY STORAGE SYSTEM
- PROPOSED FENCELINE
- PROPERTY BOUNDARY
- PROPOSED SCREENING
- E-34.5kV-OH-25MW-1x
- E-34.5kV-OH-25MW-2x
- E-34.5kV-OH-50MW-1x
- E-34.5kV-OH-50MW-2x
- PROPOSED ACCESS ROADS
- WETLAND AND WATERWAY SETBACKS
- FEMA FLOOD ZONE - 100 YEAR FLOOD PLAN AREA
- FEMA FLOOD ZONE - 100 YEAR - WATER LINE
- EX. OVERHEAD POWER OFFSET
- EX. OVERHEAD POWER
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- KARST AREAS
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- MV AND HV EASEMENT
- BUILDABLE AREA
- EXCLUSION AREA
- PROPOSED PROJECT SUBSTATION LOCATION
- PROPOSED UTILITY SUBSTATION LOCATION
- PROPOSED BESS LOCATION
- PROPOSED LAY DOWN AREA
- EXISTING VEGETATIVE BUFFER

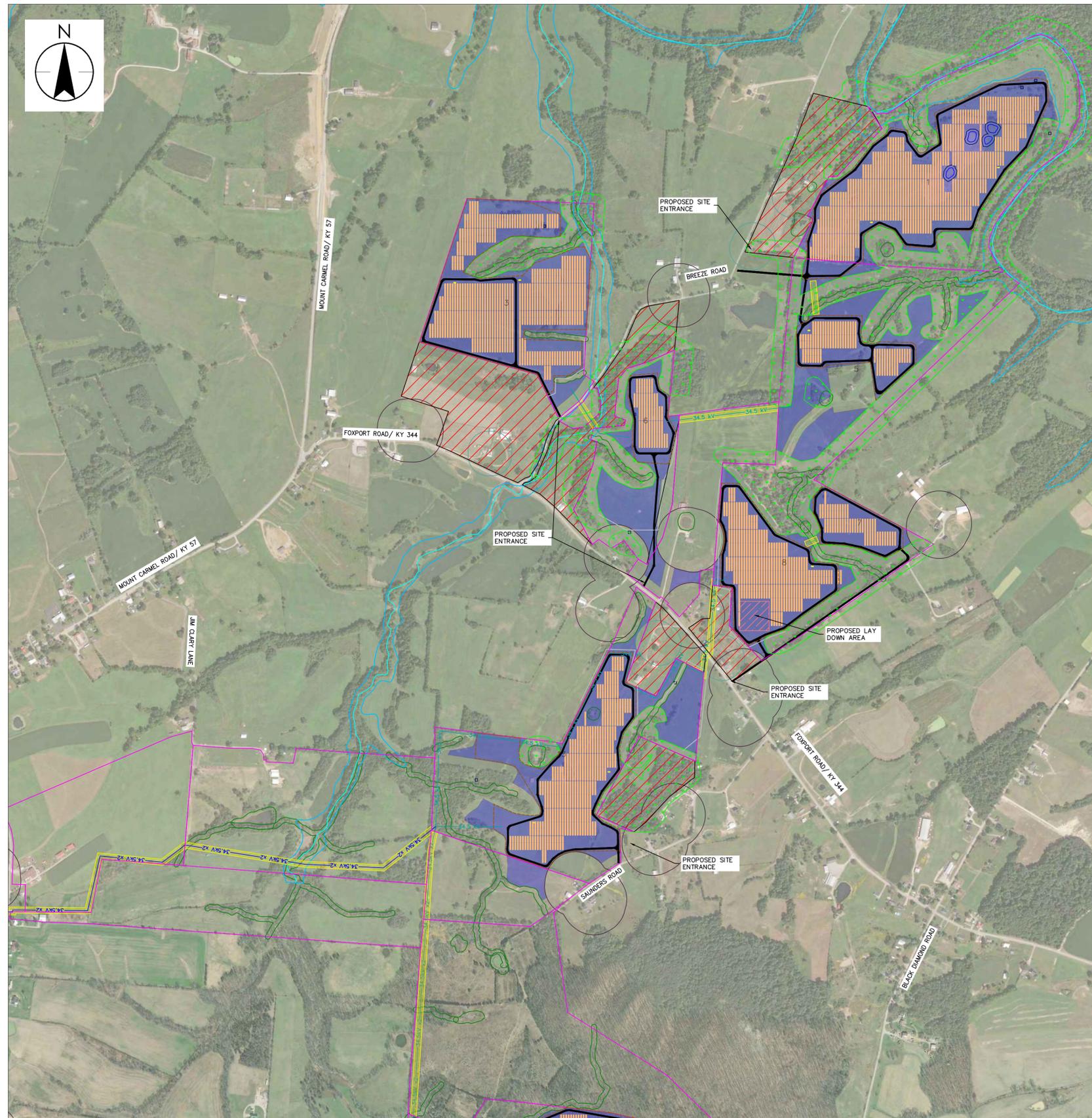
PROJECT DATA	
PARCEL AREA	4,141 ACRES
PARCEL AREA WITHOUT EXCLUSION AREAS	3,507 ACRES
BUILDABLE AREA	2,032 ACRES

NOTES:

1. PROJECT AREAS ARE SUBJECT TO CHANGE PENDING FUTURE DESIGN CONSTRAINTS

OFFSETS:

1. WETLANDS - 25'
2. STREAMS - 25'
3. NON-PARTICIPATING ADJACENT OR BUSINESS - 300'
4. PARTICIPATING LANDOWNERS - 200'
5. EXISTING TRANSMISSION LINE - 25'
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7. TREE SHADING - NORTH, EAST AND WEST 80'
8. OPEN WATER - 25'
9. FEMA FLOOD PLAN 25'
10. ROADS - 100' FROM EDGE



Revision	By	Appd	YYYY.MM.DD	
D	ISSUED FOR SUBMISSION	DK	CM	2023.05.26
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B	ISSUED FOR REVIEW	ZG	DK	2022.07.11
A	ISSUED FOR REVIEW	ZG	DK	2022.03.19

CONCEPTUAL LAYOUT	ZG	DK	2022.05.19
	By	Appd	YYYY.MM.DD

File Name: 193708901_C200	ZG	DK	2022.03.25	
	Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Permit/Seal

Client/Project Logo



Client/Project
HUMMINGBIRD SOLAR PROJECT, LLC

HUMMINGBIRD SOLAR PROJECT

Mt. Carmel, Kentucky (Fleming County)

Title
CONCEPTUAL LAYOUT
SECTIONAL VIEW

Project No. 193708901	Scale NTS
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Revision Sheet D	1 of 5	Drawing No. C200
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LEGEND

- PROPOSED SOLAR ARRAY
- INVERTER STATION
- BATTERY ENERGY STORAGE SYSTEM
- PROPOSED FENCELINE
- PROPERTY BOUNDARY
- PROPOSED SCREENING
- E-34.5kV-OH-25MW-1x
- E-34.5kV-OH-25MW-2x
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- KARST AREAS
- KARST AREAS OFFSETS
- MV AND HV EASEMENT
- BUILDABLE AREA
- EXCLUSION AREA
- PROPOSED PROJECT SUBSTATION LOCATION
- PROPOSED UTILITY SUBSTATION LOCATION
- PROPOSED BESS LOCATION
- PROPOSED LAY DOWN AREA
- EXISTING VEGETATIVE BUFFER

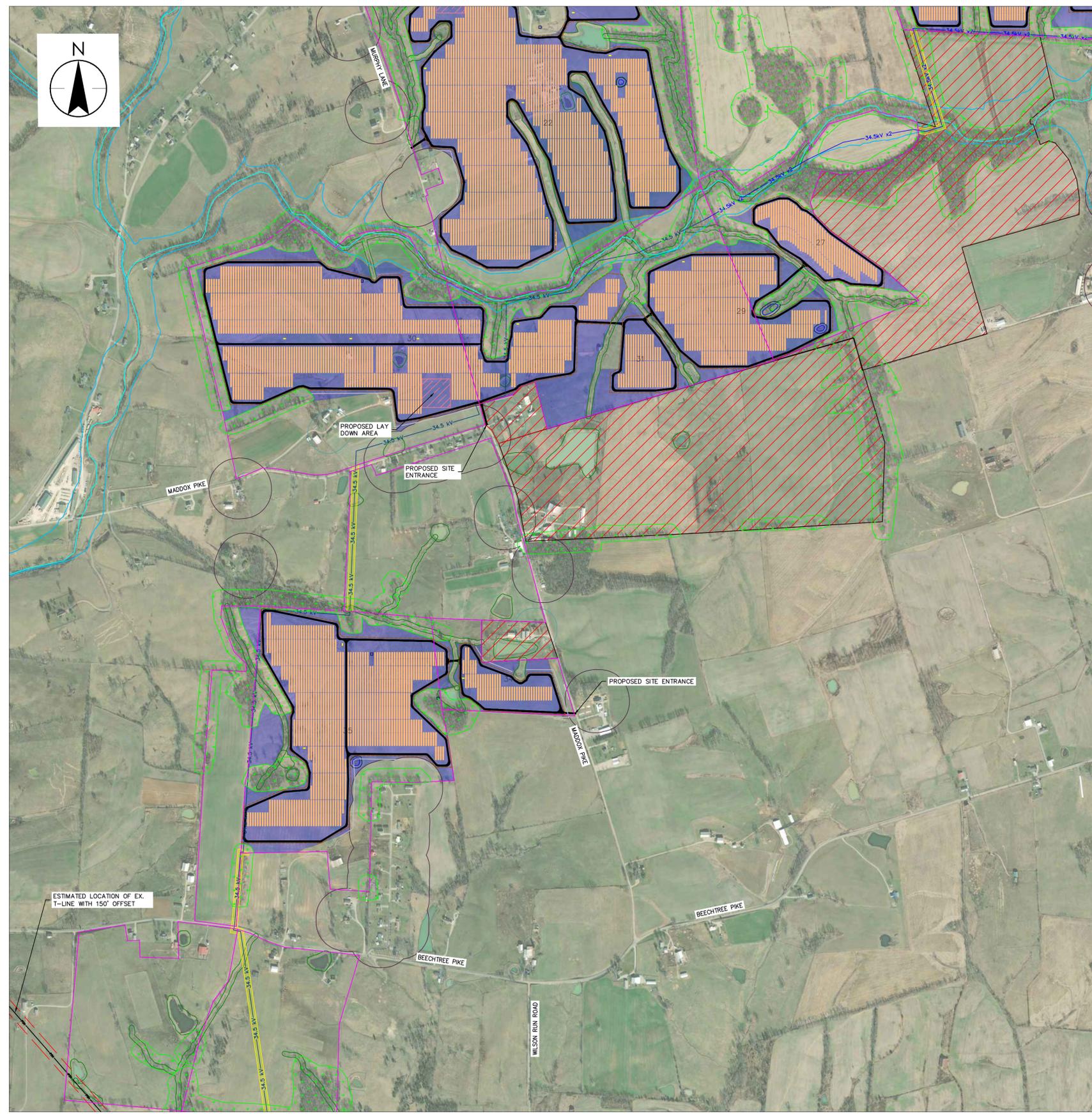
PROJECT DATA	
PARCEL AREA	4,141 ACRES
PARCEL AREA WITHOUT EXCLUSION AREAS	3,507 ACRES
BUILDABLE AREA	2,032 ACRES

NOTES:

- PROJECT AREAS ARE SUBJECT TO CHANGE PENDING FUTURE DESIGN CONSTRAINTS

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Revision	By	Appd	YYYY.MM.DD	
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CONCEPTUAL LAYOUT	ZG	DK	2022.05.19	
	By	Appd	YYYY.MM.DD	
File Name: 193708901_C200	ZG	DK	2022.03.25	
	Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

Permit/Seal

Client/Project Logo



Client/Project
HUMMINGBIRD SOLAR PROJECT, LLC

HUMMINGBIRD SOLAR PROJECT

Mt. Carmel, Kentucky (Fleming County)

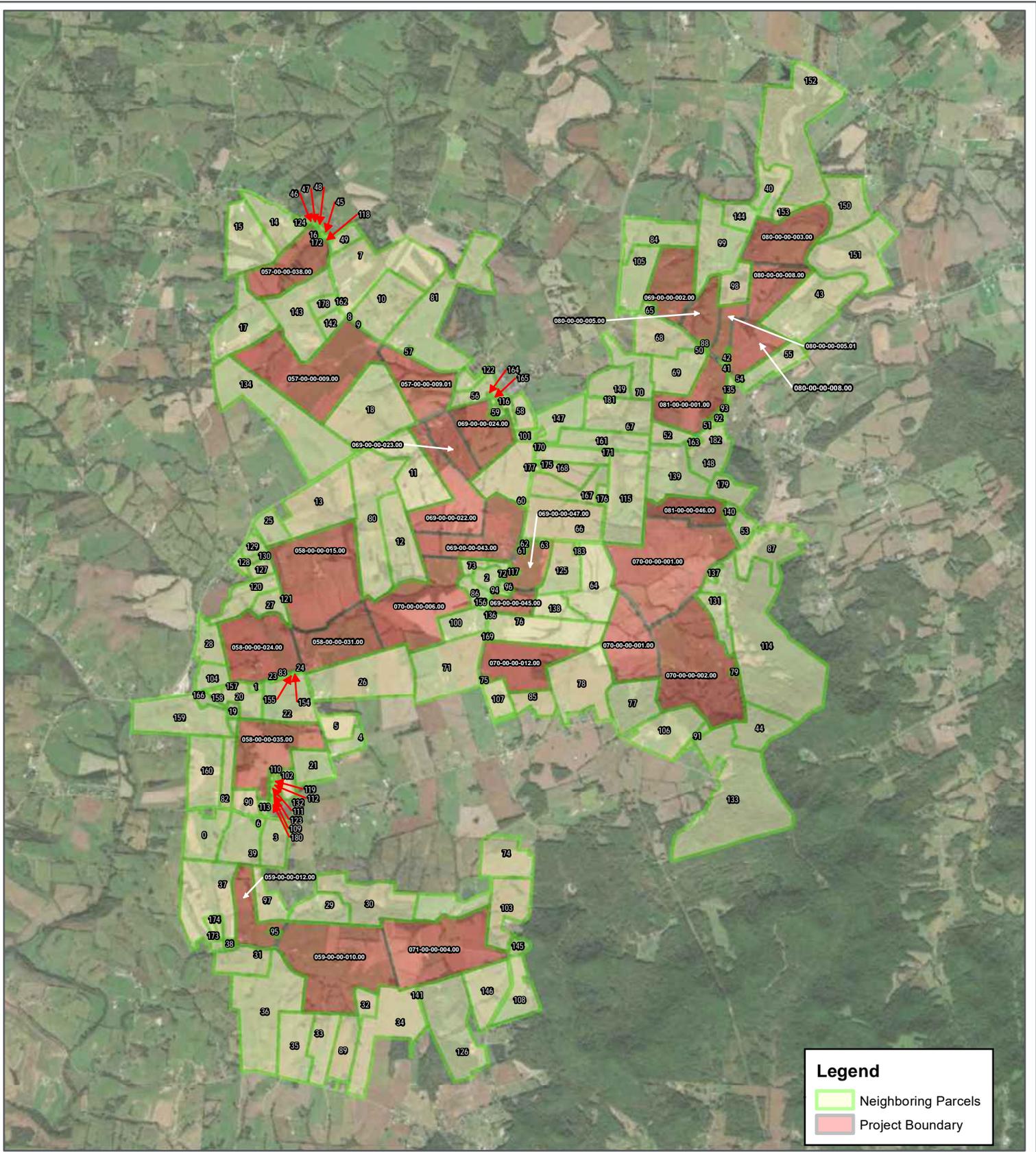
Title
CONCEPTUAL LAYOUT
SECTIONAL VIEW

Project No.
193708901

Scale
NTS

Revision Sheet
D 4 of 5

Drawing No.
C200



Legend

- Neighboring Parcels
- Project Boundary



7.5' Quadrangles:
 Flemingsburg, KY (2022)
 Burtonville, KY (2022)
 Tollesboro, KY (2022)
 Orangeburg, KY (2022)

PLSS: unsectioned

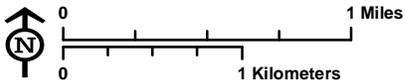
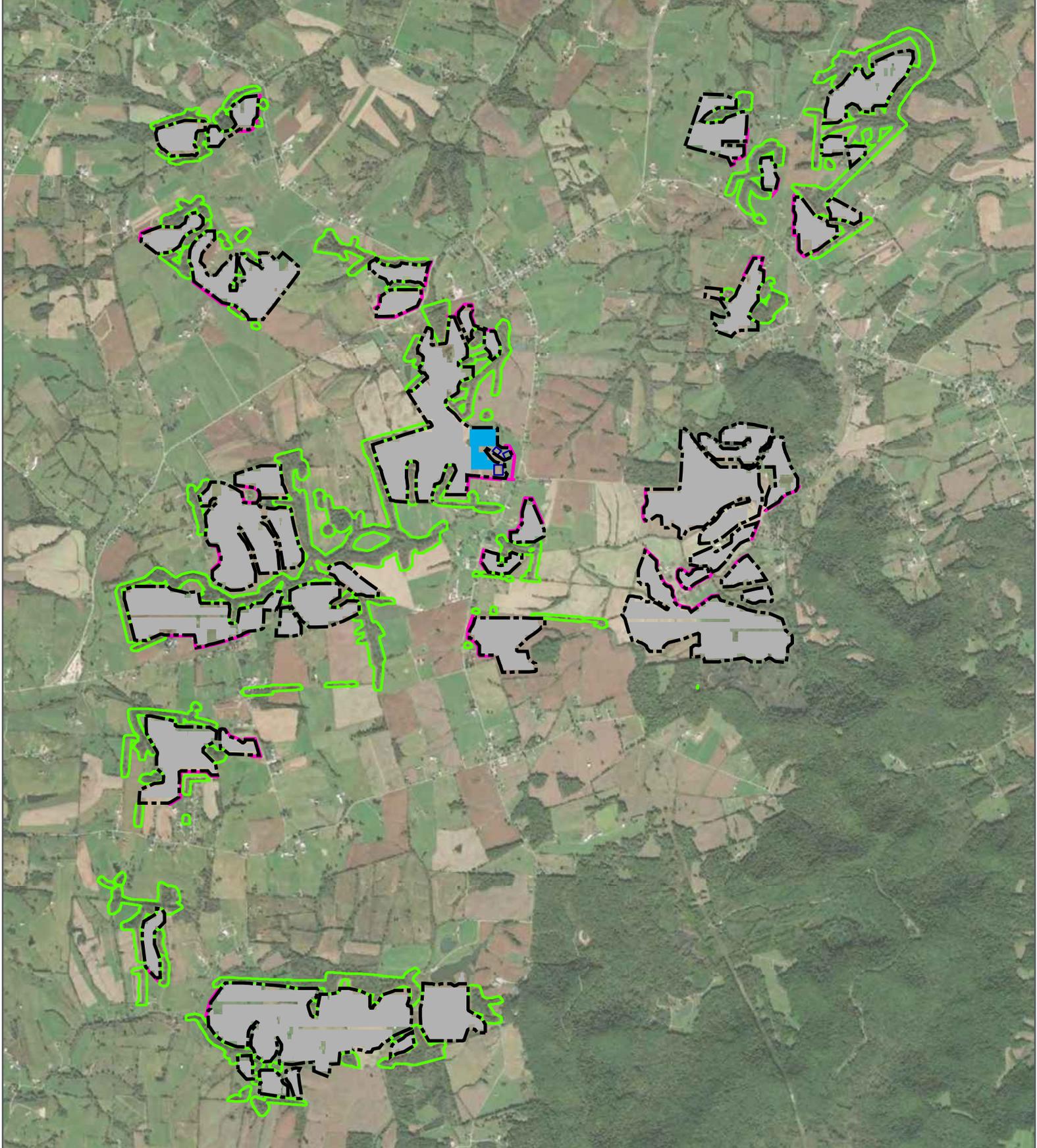
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C201: Parcel Information within the Study Area

Visual Resource Assessment for the Hummingbird Solar Project
 Hummingbird Solar, LLC
 Fleming County, Kentucky

Stantec

76 San Marcos Street
 Austin, TX 78702 USA
 Phone (+1) 512.745.8129
 www.stantec.com



Fence
 PV_Modules
 Existing_Buffer
 Screening
 Substation
 BESS

7.5' Quadrangles:
 Flemingsburg, KY (2019)
 Orangeburg, KY (2019)
 Burtonville, KY (2019)

PLSS: unsectioned

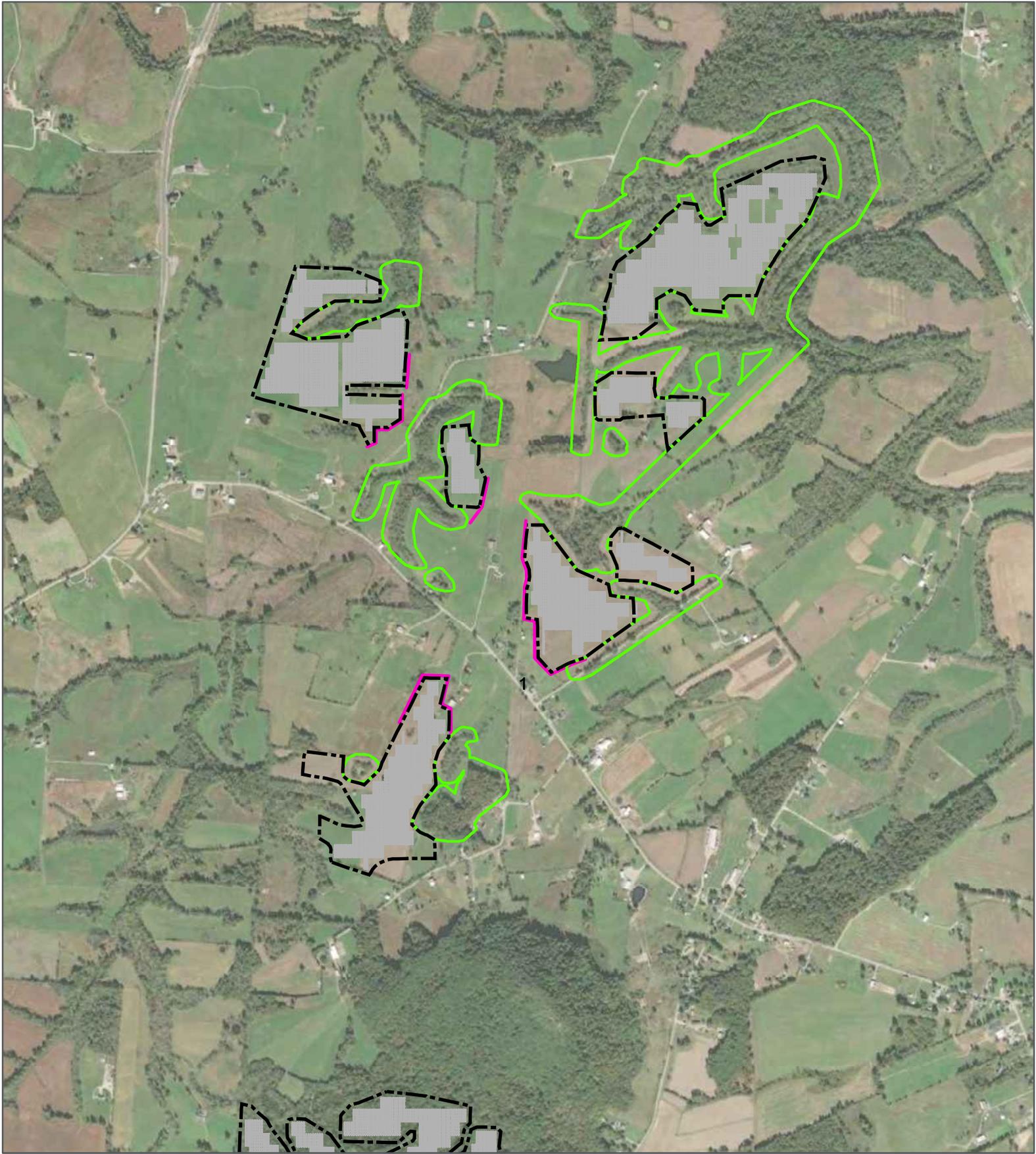
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C202: Preliminary Landscaping Plan

Visual Resource Assessment for the Hummingbird Solar Project

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Fleming County, Kentucky

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1

--- Fence — PV_Modules — Existing_Buffer — Screening — BESS

7.5' Quadrangles:
 Flemingsburg, KY (2019)
 Orangeburg, KY (2019)
 Burtonville, KY (2019)

PLSS: unsectioned

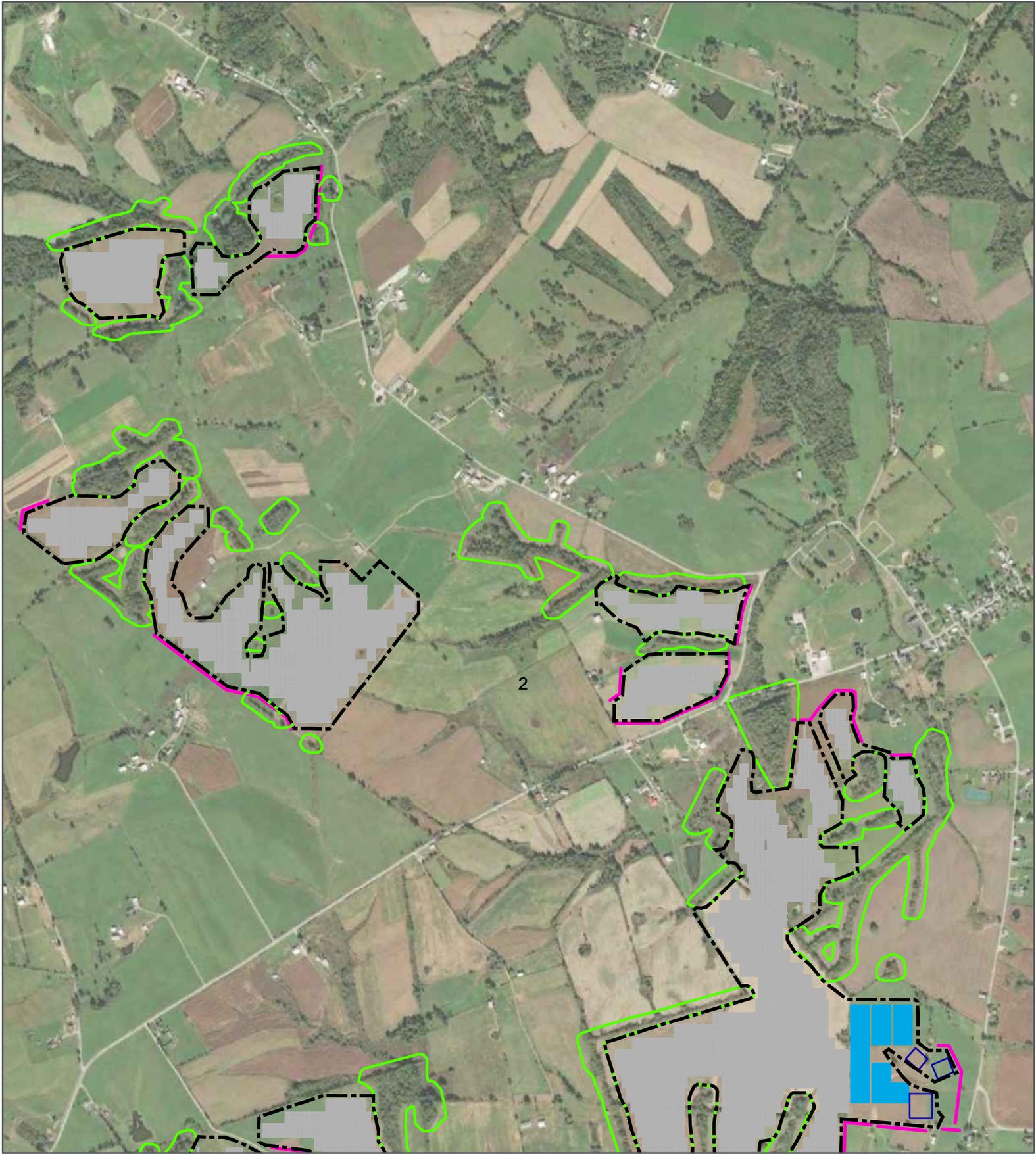
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C202: Preliminary Landscaping Plan

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Hummingbird Solar, LLC
 Fleming County, Kentucky

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2

--- Fence — PV_Modules — Existing_Buffer — Screening — Substation — BESS

7.5' Quadrangles:
 Flemingsburg, KY (2019)
 Orangeburg, KY (2019)
 Burtonville, KY (2019)

PLSS: unsectioned

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C202: Preliminary Landscaping Plan

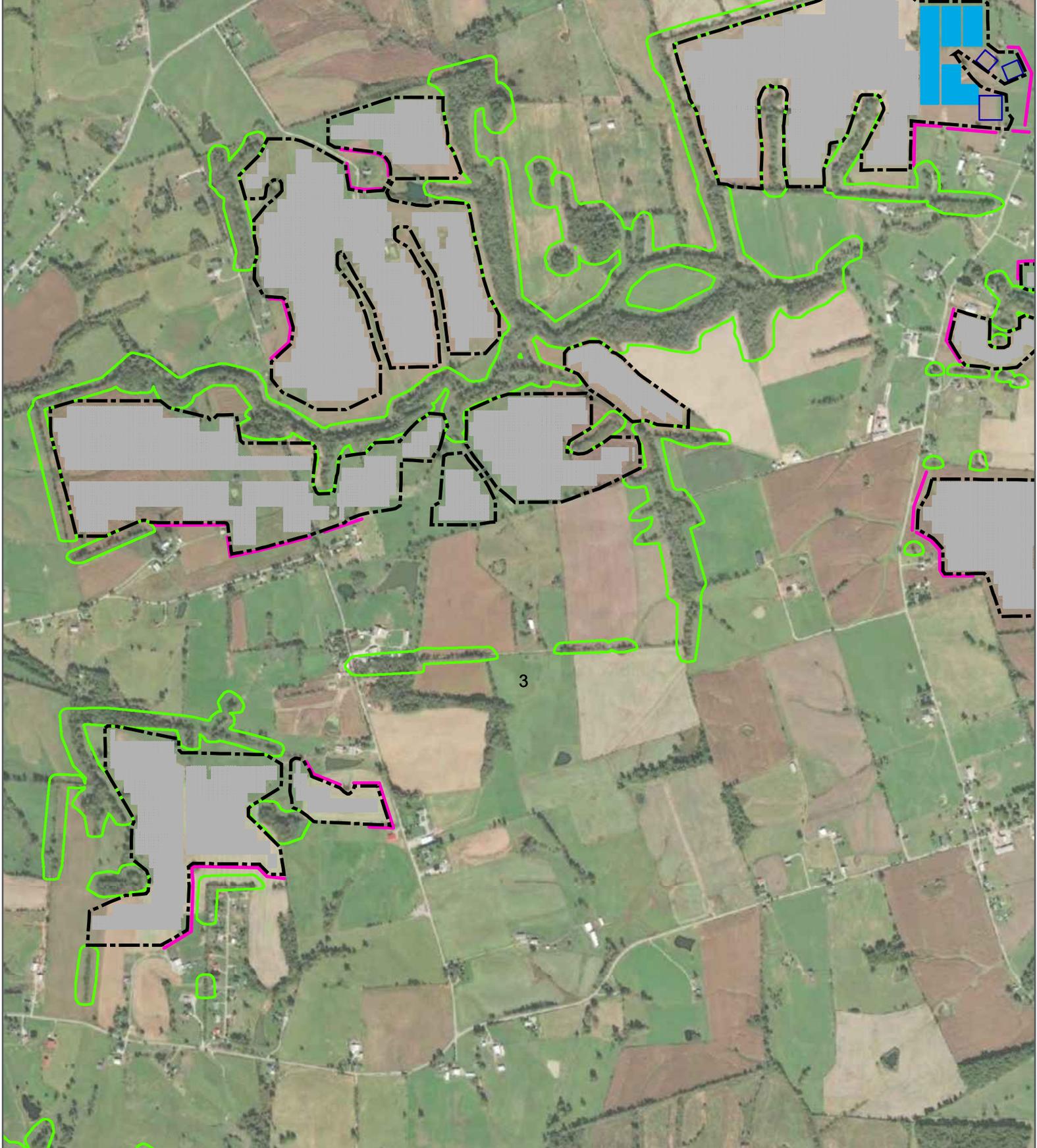
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Fleming County, Kentucky

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3

 Fence
  PV_Modules
  Existing_Buffer
  Screening
  Substation
  BESS

7.5' Quadrangles:
 Flemingsburg, KY (2019)
 Orangeburg, KY (2019)
 Burtonville, KY (2019)

PLSS: unsectioned

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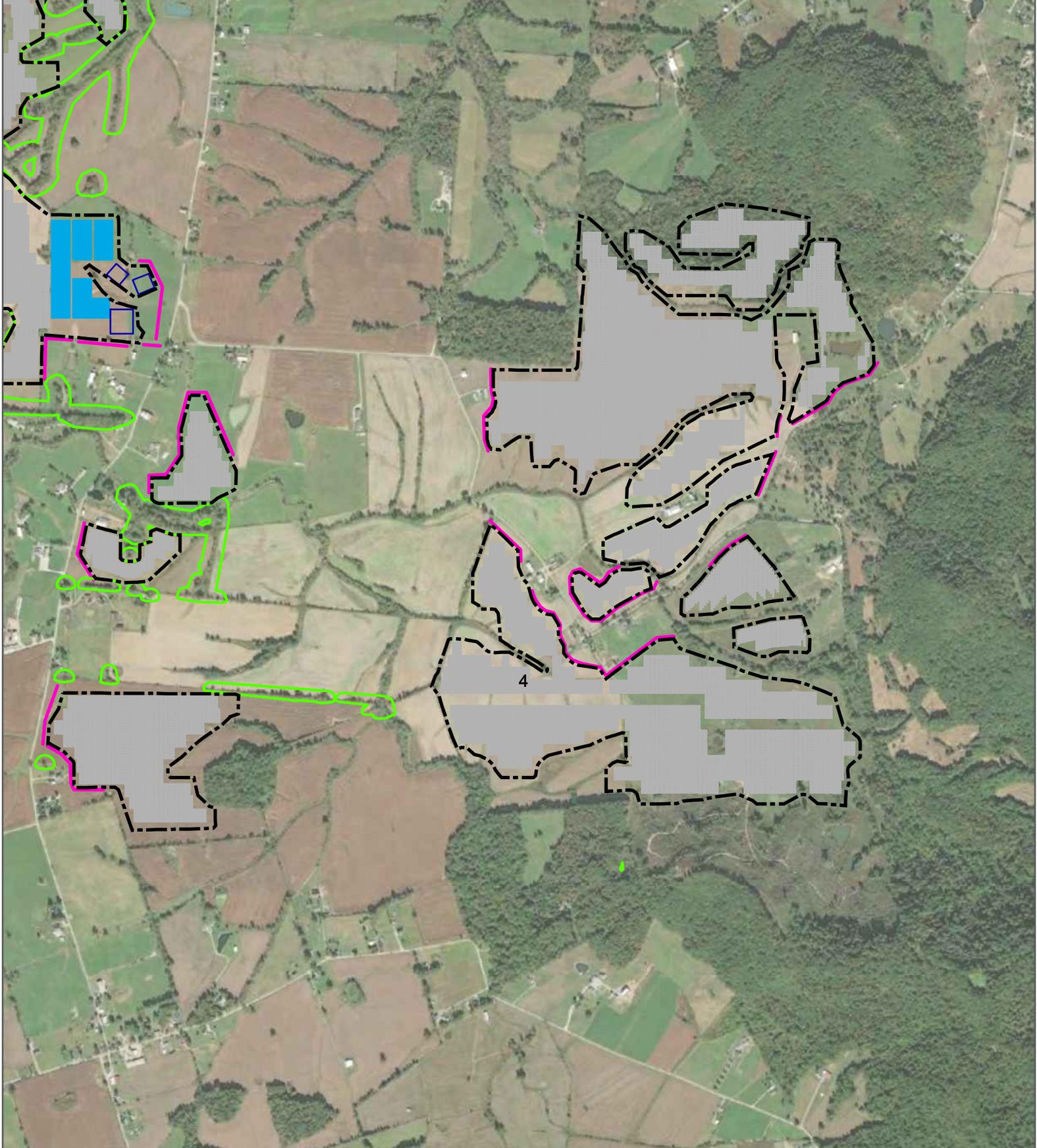
C202: Preliminary Landscaping Plan

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4

--- Fence — PV_Modules — Existing_Buffer — Screening — Substation — BESS

7.5' Quadrangles:
 Flemingsburg, KY (2019)
 Orangeburg, KY (2019)
 Burtonville, KY (2019)

PLSS: unsectioned

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C202: Preliminary Landscaping Plan

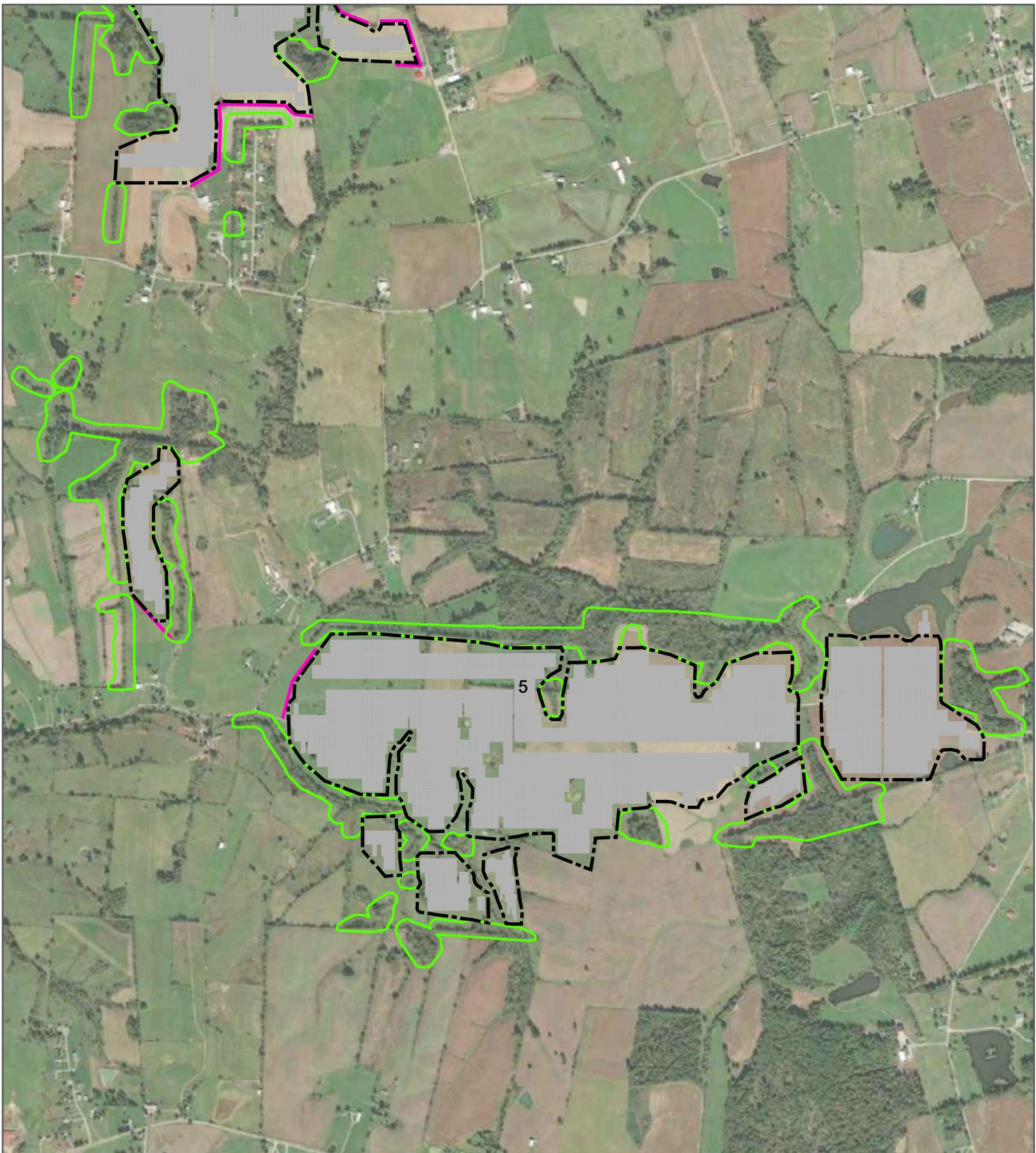
Visual Resource Assessment for the Hummingbird Solar Project

Hummingbird Solar, LLC

Fleming County, Kentucky

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5

--- Fence — PV_Modules — Existing_Buffer — Screening — BESS

7.5' Quadrangles:
 Flemingsburg, KY (2019)
 Orangeburg, KY (2019)
 Burtonville, KY (2019)

PLSS: unsectioned

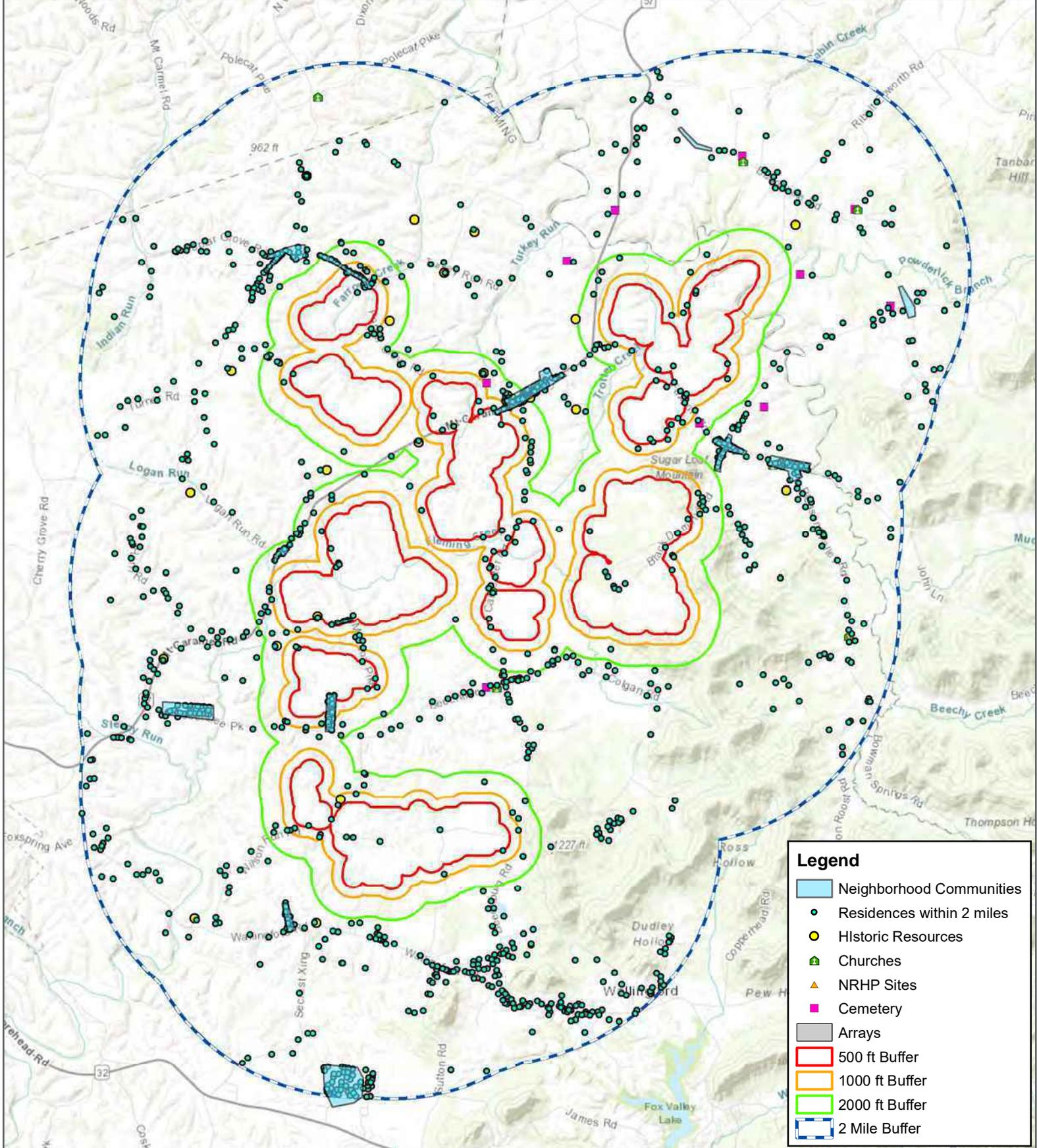
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C202: Preliminary Landscaping Plan

Visual Resource Assessment for the Hummingbird Solar Project
 Hummingbird Solar, LLC
 Fleming County, Kentucky

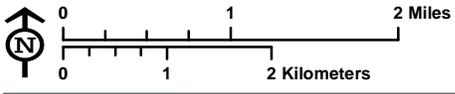
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Legend

- Neighborhood Communities
- Residences within 2 miles
- Historic Resources
- Churches
- NRHP Sites
- Cemetery
- Arrays
- 500 ft Buffer
- 1000 ft Buffer
- 2000 ft Buffer
- 2 Mile Buffer



*No Schools or Parks were identified within 2-miles of the facility.

7.5' Quadrangles:
 Flemingsburg, KY (2019)
 Orangeburg, KY (2019)
 Burtonville, KY (2019)

PLSS: unsectioned

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C203: Public Resources within 2 Miles of the Study Area

Visual Resource Assessment for the Hummingbird Solar Project

Hummingbird Solar, LLC

Fleming County, Kentucky

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 Austin, TX 78702 USA
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