

3-20-2025

Lucaya Asset Management, LLC

[REDACTED]

Stanley L. Zepelak, MGR.

I give Enterprise Energy LLC for USA Energy Independence 1, LLC permission to apply and negotiate a special use permit for a community solar project on Parcel # 02-09-400-007. I also grant permission to apply for any building permits the county requires and to apply for consultations to state and federal agencies.

Stanley L. Zepelak, MGR.

[REDACTED]

Date:
Land Use Authority:

March 13th, 2025
Kendall County, IL



ENTERPRISE ENERGY

Application for Variance and Conditional Use Permit

Zepelak (Bristol) 5MW Community Solar Garden

Enterprise Energy LLC for USA Energy Independence 1, LLC

Enterprise Energy LLC, a Illinois limited liability company, doing business in Illinois (“Applicant”) submits this Conditional Use Permit application on behalf of USA Energy Independence 1 LLC, a Illinois limited liability company and subsidiary of Enterprise Energy. Applicant requests a permit to construct 5MW alternating current community solar garden upon property with Tax ID 02-09-400-007, legally described by Section 10 of this Narrative.

The collective engineering components are referred to as the “array” The site was selected due to its compliance with the zoning ordinance, its proximity to electrical infrastructure, it’s physical characteristics and suitability for solar development, and landowner participation.

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CUP Request

1. Summary of Project

A Community Solar Garden is a solar power plant that allows people who don't have a good spot for solar panels to be treated by the electric utility as though these solar panels are on their property. We lease or purchase land somewhere that is good for solar, such as this parcel, and pay to develop and install the Community Solar Garden. When the array puts power into the grid, it receives a "bill credit" from the electric utility for that amount of power. The bill credit grants the right to take that same amount of power out of the electric grid at a different location for no cost. We then sell the bill credit to the people who don't have a good spot for solar, thereby allowing them to save money through solar even though they don't have a good spot for solar panels. The people who buy the bill credits are referred to as the "subscribers" since they subscribe to the Community Solar Garden by agreeing to buy the bill credits. The installation will operate as a "Community Solar Garden" as defined by Illinois statute. The contractual term of the installation is 35 years from the commercial operation date.

The underlying property for this project will be purchased by Enterprise Energy. We will continue to be a stakeholder in this project and the community for the duration of the solar garden and beyond. As such, we have made a number of design choices to benefit the surrounding community today and into the future. These include, but are not limited to, preserving a substantial amount of land off of Corneils Rd for future development; creating large setbacks from existing residences to ensure ample space for robust screening; and maintaining existing trees to have effective screening of the array. This project puts this parcel to its highest and best use today, while maintaining beneficial future development potential where it matters most.

Additionally, the Illinois legislature passed a bill that increases the size of Community Solar developments from 2MW AC to 5MW AC. This size increase is important because projects over 2MW pay more in tax revenue. Solar gardens in Illinois increase tax revenue in two primary ways. First, they increase the assessed value of the property. Every 1MW of solar nameplate capacity is assessed at \$218,000.00. A 5MW solar array like this one will increase the assessed value by \$1,090,000.00. Further, community solar gardens are taxed at the commercial rate rather than the agricultural rate. Thus, generating higher tax revenue on the increased assessed value than other agricultural improvements would.

A 5MW facility will produce 12,500,000 KWh of electricity per year. This electricity will be placed on the local distribution grid to be consumed by local customers. This electricity will be sold to these customers for 10 to 20 percent less than what they pay to ComEd. At 2 cents less (~14%) equates to \$250,000.00 of savings that go directly into the pockets of residences and businesses every single year.



2. Methods of Construction

We would like to begin construction as soon as fall 2025 and complete before winter. However, the actual construction process will only take about three months. We haven't set an exact groundbreaking date yet. The construction process begins with preliminary site testing for soil conditions for footings. A construction trailer and portable toilet will be placed on site when we begin groundbreaking.

Construction can be thought of as five phases: footings, racking, panels, electrical, and testing. Typically, a subsequent phase begins when the previous phase is about halfway done. Footings will consist of rows of I-beams that are driven into the ground to a depth of about 10-15 feet with no concrete footing. When about half of the field has I-beams installed, the racking system begins being placed on the I-beams. When the racking is installed on about half of the field, electricians will begin installing the solar panels on the completed portion. When the solar panels about installed about halfway through the field, electricians will begin wiring the system together. After the installation is complete it will undergo about a month of testing from the installer and the electric utility before it becomes commercially operational.



The racking system is attached to driven I-beam that secures the installation to the ground. The I-Beam is driven directly into the ground. The racking and footings are within accepted professional standards given the local soil and climate, and are professional engineered to withstand winds exceeding 150 MPH.



Solar panels produce direct current (DC) electricity. The electrical grid uses alternating current (AC) electricity. The power produced from the array will be run through an “Inverter” that changes the power from direct current to alternating current. The process of inverting the electricity loses some efficiency. Therefore, it will produce more DC power than AC. This conversion is expressed as a DC/AC ratio. This project will have roughly a 1.5 DC/AC Ratio, meaning that for every MW AC that it produces, it produces 1.5MW direct current.



A community solar garden has two concrete equipment pads that takes up approximately 200 sf each. The solar panels are connected by underground electric conduit that leads to the equipment pad where metering equipment is mounted. The amount of electricity that is produced by the solar development is measured by the solar development owner and the electric utility. The power production and equipment are monitored 24/7 by a satellite or cellular based security system. An emergency shutoff switch is also on site.



After the power is metered at the equipment pad, it interconnects into the electric utility's existing three phase distribution power distribution network. The solar installation includes a pole that houses overhead wires and leads to another pole that is controlled by the electric utility. All 5MW of community solar will have a single point of interconnection.



The solar array will be contained within a 6 foot tall chain link security fence as described by the site plan. The fence will meet electrical code requirements and prevent people from trespassing, while allowing birds, insects, small mammals, and other wildlife to pass through. A single fence will surround all 5 MW of the array.



3. Access, Parking and Roads

Access to the site will from Corneils Rd. A packed class five gravel road approximately 15 feet wide with a 40-foot entrance will be installed and maintained. This will be located on a 20 to 40-foot-wide access road easement. Construction parking will be located entirely within the parcel. No additional offsite parking or road parking is required. Multiple simi truckloads of equipment such as solar panels and steel racking will be delivered through the construction process. Pickup trucks, workers, passenger vehicles, bobcats and equipment will be on site most days during construction. The laydown area will not be graveled, should soil conditions require mats will be placed to support vehicle weight. Any rutting will be subsequently graded and reseeded.



4. Operation

Access to the site will be minimal after construction. An engineer will need to access the property by pickup truck at least twice a year to examine the equipment. Maintenance crews will be on site at least twice a year to manage the vegetative cover and remove weeds.

The array will be monitored 24/7 365 days a year by a computer monitoring system that measures the power being produced on site. If a problem arises, the system will alert the system owner so that appropriate personnel can be dispatched to the site to resolve the issue.

The development will be owned and operated by an owner operator selected by the Developer. We have not determined who the owner will be yet, or if it will be sold at all.

5. Landscape Plan & Visual Impact

The Illinois state legislature has passed a law that encourages solar developers to plant solar arrays in pollinator friendly plantings. The Illinois Power Agency prioritizes projects that have provided for pollinator habitat underneath solar developments, including tools evaluating the establishment and maintenance of the pollinator plantings.

We propose to submit a vegetation management plan in compliance with the abovementioned guidelines. The vegetative management plan will create wildlife habitat for birds, small mammals, and insects that cannot live in farmed soils due to pesticides, as well as animals that eat them. Unlike row crops, the vegetative cover will have deep roots that will improve the permeability of the soil, promote soil health, slow down the velocity of water runoff, and prevent topsoil erosion, thereby naturally improving the quality of any surrounding waterbodies or wetlands.

Illinois has promoted the planting of native pollinators in many ways including creating the CRP program, which pays farmers to remove farmland from agricultural production to create wildlife habitat like this solar installation creates for free. Removing overworked farmland from production and returning it to wildlife habitat is a windfall for the community and farmers.

The access road will improve access to whole site. The wetlands located Northeast of the solar garden will be improved due to no longer farming that area. The vegetation management plan will include wet tolerant species that will improve biodiversity and allow that area to function better as a wetland.

The location of the project places it on flat elevation. This will prevent expansive views of the solar array from Corneils Rd and neighboring properties. Further it will limit views of the solar array to "leading edge views". A double row of trees (one each of Black Hill Spruce and



Buttonbush) on the South and East sides of the project will mitigate the “leading edge” views from neighbors and the public. There are limited residences in the area. Existing screening on the property line already limits views of the subject parcel. Residential areas are also set back from this project in excess of county requirements. Kendall county requires 50-foot setbacks from the road; we have provided over 500 feet. The county requires 50-foot setbacks from property lines and this project has well over 150’ separation. Kendall county requires 150-foot setbacks from neighboring residential structure and we have provided in excess of 250 feet. Between the elevation, new screening, existing screening, and setbacks, there will be no adverse impacts generated to surrounding landowners or the community.



6. Stormwater Management Plan

Stormwater management measures will be determined by a Illinois licensed civil engineer as part of a full civil design set, which will be submitted for a building permit, and be subject to review and approval by environmental staff. The plan will include a SWPPP, stormwater runoff calculations, identify water retention basins, and utilize measures such as erosion control logs, silt fences, and infiltration basins. The stormwater management plan will comply with local laws and rules, as well as the Illinois Board of Soil and Water, DNR, MPCA, and other state and federal requirements. Limited excavation is expected and applicant will submit a completed erosion control plan to be reviewed and approved by county staff prior to the issuance of the building permit.



No County drain tile or cross property tile is located on the parcel. After consultation with the landowner and inspection no private drain tile was identified. Under the lease agreement with the landowner, the developer assumes responsibility for any tile discovered during construction. We have entered into an AIMA with the Illinois Department of Agriculture which requires specific methods of identifying and preserving any discovered drain tile. The developer will comply with the AIMA in all respect concerning the discovery and protection of any discovered drain tile.

7. Decommissioning Plan

The solar tenant and its successors shall be responsible for decommission of the solar installation upon the expiration of the lease, land use permits, or the cessation of power generation for a period longer than 12 months, at which point the solar installation will be deconstructed and removed. All footings, electrical components and underground wires, fences, and other solar equipment will be removed, and the land can be restored to agricultural production.

The solar installation will comply with any decommissioning security requirements or procedures that are required by the land use authority. The land lease for solar installation contains a contractual obligation for the solar tenant to decommission the solar installation and restore the property. It also requires that the tenant post a security for removal in the form of a bond, escrow, or letter of credit prior to construction, payable to the property owner, in the event that the land use authority does not require one. The purpose of the security is to ensure that sufficient money is set aside to remove the solar installation before it is built.

8. Fire Prevention Plan

The solar installation will comply with the international building code, including sections 605.11-605.11.2 regarding the location of underground electrical conduit, the national electric code, and all local electric and fire codes and ordinances. The solar installation will have emergency contact information posted on a sign at the fence entrance. The local fire department will be given an emergency key to the security fence. Solar production will be monitored 24/7 for electrical and mechanical issues.

9. Legal Description

PID 02-09-400-007

That part of the Southeast Quarter of Section 9 and part of the Northeast quarter of Section 16, Township 37 North, Range 7, East of the third principal meridian described as follows: Commencing at the Southwest corner of the Southeast quarter of said section 9. Thence North 01 Degrees 09 Minutes 37 Seconds West along the West line of the Southeast Quarter of Said Section 9, 166.96 feet to the Northwest corner of Bristol Woods Subdivision Unit One, and the Point of Beginning; thence continuing North 01 Degrees 09 Minutes 37 Seconds West, Along the West line

of the Southeast Quarter of said Section 9, 1159.50 Feet to the North line of the South Half of the South Half of the Said Section 9; thence North 87 Degrees 53 Minutes 14 Seconds East, along said North line, 1328.39 feet to the West line of the South East Quarter of the Southeast Quarter of said Section 9; Thence South 01 Degrees 15 Minutes 59 Seconds East, along said West line and West line extended, 1366.35 feet to the center of Corneils road, as occupied and monumented; Thence Southwesterly and Westerly the following four courses along the centerline of Corneils road; thence Southwesterly along a curve to the left with radius of 288.20 feet, chord bearing south 60 Degrees 29 Minutes 21 Seconds West, arc distance of 67.59 feet; thence South 53 Degrees 46 Minutes 14 Seconds West, 153.58 feet; thence Southwesterly along a curve to the right with radius of 281.33 feet, a cord bearing south 70 Degrees 42 Minutes 24 Seconds West, arc distance of 166.99 feet; thence South 88 Degrees 8 Minutes 3 Seconds West, 294.95 feet to the East line of Bristol Woods Unit One; Thence North 01 Degrees 51 Minutes 57 Seconds West, along said East line, 368.40 feet to the North line of Bristol Woods Unit One; Thence South 88 Degrees 08 Minutes 03 Seconds West, Along said North Line, 689.90 feet to the Point of Beginning, In Bristol Township, Kendall County, Illinois.

10. Exhibit List

- a. Special Use Permit Application Form
- b. Site Plan (Site Map)
 - i. Structural Detail Drawing
 - ii. Elevation
 - iii. Fence Detail Drawing
 - iv. Equipment Pad Drawing
 - v. Topographic Map
 - vi. Protected Lands Map
 - vii. Solar Panel Technical Data
 - viii. Certificates
- c. Deed
- d. Title Report
- e. Decommissioning Plan
- f. AIMA
- g. IL Department of Natural Resources (E-Cat)
- h. US Fish & Wildlife Service (iPAC)
- i. State Historic Preservation (SHPO)
- j. Wetland Delineation
- k. Vegetation Management Plan
- l. Wetland Map
- m. Floodplain Map
- n. Zoning Map
- o. Neighboring Zoning Classification
- p. Disturbed Area Calculations
- q. Disclosure of Beneficiaries
- r. Memorandum of Purchase Option
- s. Variance Request



LEGAL DESCRIPTION
NORTH PARCEL

THAT PART OF THE SOUTHEAST QUARTER OF SECTION 9 AND PART OF THE NORTHEAST QUARTER OF SECTION 16, TOWNSHIP 37 NORTH, RANGE 7, EAST OF THE THIRD PRINCIPAL MERIDIAN DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF THE SOUTHEAST QUARTER OF SAID SECTION 9. THENCE NORTH 01 DEGREES 09 MINUTES 37 SECONDS WEST ALONG THE WEST LINE OF THE SOUTHEAST QUARTER OF SAID SECTION 9, 166.96 FEET TO THE NORTHWEST CORNER OF BRISTOL WOODS SUBDIVISION UNIT ONE, AND THE POINT OF BEGINNING; THENCE CONTINUING NORTH 01 DEGREES 09 MINUTES 37 SECONDS WEST, ALONG THE WEST LINE OF THE SOUTHEAST QUARTER OF SAID SECTION 9, 1159.50 FEET TO THE NORTH LINE OF THE SOUTH HALF OF THE SOUTH HALF OF SAID SECTION 9; THENCE NORTH 87 DEGREES 53 MINUTES 14 SECONDS EAST, ALONG SAID NORTH LINE, 1328.39 FEET TO THE WEST LINE OF THE SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SAID SECTION 9; THENCE SOUTH 01 DEGREES 15 MINUTES 59 SECONDS EAST, ALONG SAID WEST LINE AND WEST LINE EXTENDED, 1366.35 FEET TO THE CENTER OF CORNELIS ROAD, AS OCCUPIED AND MONUMENTED; THENCE SOUTHWESTERLY AND WESTERLY THE FOLLOWING FOUR COURSES ALONG THE CENTERLINE OF CORNELIS ROAD; THENCE SOUTHWESTERLY ALONG A CURVE TO THE LEFT WITH RADIUS OF 288.20 FEET, CHORD BEARING SOUTH 60 DEGREES 29 MINUTES 21 SECONDS WEST, ARC DISTANCE OF 67.59 FEET; THENCE SOUTH 53 DEGREES 46 MINUTES 14 SECONDS WEST, 153.58 FEET; THENCE SOUTHWESTERLY ALONG A CURVE TO THE RIGHT WITH RADIUS OF 281.33 FEET, CHORD BEARING SOUTH 70 DEGREES 42 MINUTES 24 SECONDS WEST, ARC DISTANCE OF 166.99 FEET; THENCE SOUTH 88 DEGREES 08 MINUTES 03 SECONDS WEST, 294.95 FEET TO THE EAST LINE OF BRISTOL WOODS UNIT ONE ; THENCE NORTH 01 DEGREES 51 MINUTES 57 SECONDS WEST, ALONG SAID EAST LINE, 368.40 FEET TO THE NORTH LINE OF BRISTOL WOODS UNIT ONE; THENCE SOUTH 88 DEGREES 08 MINUTES 03 SECONDS WEST, ALONG SAID NORTH LINE, 689.90 FEET TO THE POINT OF BEGINNING, IN BRISTOL TOWNSHIP, KENDALL COUNTY, ILLINOIS.



TRUSTEE'S DEED
(Illinois)

202100004104
DEBBIE GILLETTE
RECORDER - KENDALL COUNTY, IL

RECORDED: 2/17/2021 09:05 AM
TRSD: 57.00 RHSPS FEE: 10.00
PAGES: 4

THIS DEED made this 4th day of FEBRUARY, 2021, between STANLEY ZEPELAK, AS TRUSTEE OF THE STANLEY L. ZEPELAK TRUST, of [REDACTED] Grantor, and LUCAYA ASSET MANAGEMENT, LLC, A FLORIDA LIMITED LIABILITY COMPANY, of [REDACTED]

WITNESSES: The Grantor, in consideration of the sum of Ten Dollars (\$10.00) and other good and valuable considerations, receipt whereof is hereby acknowledged, and in pursuance of the power and authority vested in the Grantor as said Trustee and of every other power and authority the Grantor hereunto enabling, does hereby convey and quit claim unto the Grantee, in fee simple, the following described real estate, situated in the County of Kendall, State of Illinois, to wit:

SEE LEGAL DESCRIPTION ATTACHED HERETO AS EXHIBIT A AND MADE A PART HEREOF.

together with the tenements, hereditaments and appurtenances thereunto belonging or in any wise appertaining.

THIS IS NOT HOMESTEAD PROPERTY.

IN WITNESS WHEREOF, the Grantor, as Trustee as aforesaid, hereunto set his hand the day and year first above written.

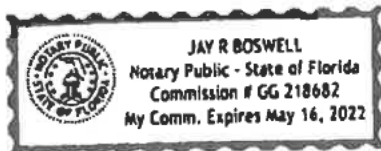
STANLEY L. ZEPELAK TRUST

By: [REDACTED] *Trustee*

STANLEY ZEPELAK, TRUSTEE

I, the undersigned, a Notary Public, in and for said County and in the State aforesaid, DO HEREBY CERTIFY THAT, STANLEY ZEPELAK, as Trustee of the Stanley L. Zepelak Trust, personally known to me to be the same person whose name is subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that he signed, sealed and delivered the said instrument as his free and voluntary act and as such Trustee, for the uses and purposes therein set forth.

GIVEN under my hand and seal this 4 day of February, 2021.



Notary Public
Commission expires: 05/16/2022

**"Exempt under provisions of Paragraph "e"
Section 31-45, Real Estate Transfer Law"**

2/4/2021
Date

Buyer, Seller or Representative

Instrument Prepared by: Craig J. Cobine, Esq., Attorney at Law, 111 E. Jefferson Avenue, Naperville, Illinois 60540

Mail To:

Craig J. Cobine, Esq.
Dommermuth, Cobine, West, Gensler,
Philipchuck and Corrigan, Ltd.

Send Subsequent Tax Bills To:

Lucaya Asset Management, LLC
c/o Stanley J. Zepelak, Manager

OR RECORDER'S OFFICE BOX NO. _____

EXHIBIT A
LEGAL DESCRIPTION

THAT PART OF THE SOUTHEAST QUARTER OF SECTION 9 AND PART OF THE NORTHEAST QUARTER OF SECTION 16, TOWNSHIP 37 NORTH, RANGE 7, EAST OF THE THIRD PRINCIPAL MERIDIAN DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF THE SOUTHEAST QUARTER OF SAID SECTION 9, THENCE NORTH 01 DEGREE 09 MINUTES 37 SECONDS WEST ALONG THE WEST LINE OF THE SOUTHEAST QUARTER OF SAID SECTION 9, 166.96 FEET TO THE NORTHWEST CORNER OF BRISTOL WOODS SUBDIVISION UNIT ONE, AND THE POINT OF BEGINNING; THENCE CONTINUING NORTH 01 DEGREES 09 MINUTES 37 SECONDS WEST, ALONG THE WEST LINE OF THE SOUTHEAST QUARTER OF SAID SECTION 9, 1159.50 FEET TO THE NORTH LINE OF THE SOUTH HALF OF THE SOUTH HALF OF SAID SECTION 9; THENCE NORTH 87 DEGREES 53 MINUTES 14 SECONDS EAST, ALONG SAID NORTH LINE, 1328.39 FEET TO THE WEST LINE OF THE SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SAID SECTION 9; THENCE SOUTH 01 DEGREES 15 MINUTES 50 SECONDS EAST, ALONG SAID WEST LINE AND WEST LINE EXTENDED, 1366.88 FEET TO THE CENTER OF CORNEILS ROAD, AS OCCUPIED AND MONUMENTED; THENCE SOUTHWESTERLY AND WESTERLY THE FOLLOWING FOUR COURSES ALONG THE CENTERLINE OF CORNEILS ROAD; THENCE SOUTHWESTERLY ALONG A CURVE TO THE LEFT WITH RADIUS OF 288.20 FEET, CHORD BEARING SOUTH 60 DEGREES 29 MINUTES 21 SECONDS WEST, ARC DISTANCE OF 67.59 FEET; THENCE SOUTH 53 DEGREES 46 MINUTES 14 SECONDS WEST, 152.58 FEET, THENCE SOUTHWESTERLY ALONG A CURVE TO THE RIGHT WITH A RADIUS OF 281.33 FEET, CHORD BEARING SOUTH 70 DEGREES 42 MINUTES 24 SECONDS WEST, ARC DISTANCE OF 166.99 FEET; THENCE SOUTH 88 DEGREES 08 MINUTES 07 SECONDS WEST, 294.95 FEET TO THE EAST LINE OF BRISTOL WOODS UNIT ONE; THENCE NORTH 01 DEGREES 51 MINUTES 57 SECONDS WEST, ALONG SAID EAST LINE 368.40 FEET TO THE NORTH LINE OF BRISTOL WOODS UNIT ONE; THENCE SOUTH 88 DEGREES 08 MINUTES 03 SECONDS WEST ALONG SAID NORTH LINE 689.90 FEET TO THE POINT OF BEGINNING, IN BRISTOL TOWNSHIP, KENDALL COUNTY, ILLINOIS.

PIN: 02-09-400-007

Address of Real Estate: 40.34 acres Vacant Land (Bristol Farm-North), Corneils Road, Kendall County, Illinois



Debbie Gillette
Kendall County Clerk & Recorder

PLAT ACT AFFIDAVIT OF METES AND BOUNDS

STATE OF ILLINOIS)

)SS

COUNTY OF KENDALL)

Craig J. Cobine, Attorney for Stanley Zepelak, Trustee of the
 Stanley L. Zepelak Trust

, being duly sworn on oath, states that affiant resides at

And further states that: (please check the appropriate box)

A. ☐ That the attached deed is not in violation of 765 ILCS 205/1(a), in that the sale or exchange is of an entire tract of land not being part of a larger tract of land; or

B. ☒ That the attached deed is not in violation of 765 ILCS 205/1(b) for one of the following reasons:
 (please circle the appropriate number)

1. The division or subdivision of land into parcels or tracts of 5.0 acres or more in size which does not involve any new streets or easements of access;
2. The division of lots or blocks of less than one (1) acre in any recorded subdivision which does not involve any new streets or easements of access;
3. The sale or exchange of parcels of land between owners of adjoining and contiguous land;
4. The conveyance of parcels of land or interests therein for use as right of way for railroads or other public utility facilities and other pipe lines which does not involve any new streets or easements of access;
5. The conveyance of land owned by a railroad or other public utility which does not involve any new streets or easements of access;
6. The conveyance of land for highway or other public purposes or grants or conveyances relating to the dedication of land for public use or instruments relating to the vacation of land impressed with a public use;
7. Conveyances made to correct descriptions in prior conveyances;
8. The sale or exchange of parcels or tracts of land following the division into not more than two (2) parts of a particular parcel or tract of land existing on July 17, 1959, and not involving any new streets or easements of access;
9. The sale of a single lot of less than 5.0 acres from a larger tract when a survey is made by an Illinois Registered Land Surveyor; provided, that this exemption shall not apply to the sale of any subsequent lots from the same larger tract of land, as determined by the dimensions and configuration of the larger tract on October 1, 1973, and provided also that this exemption does not invalidate any local requirements applicable to the subdivision of land;
10. The conveyance is of land described in the same manner as title was taken by grantor(s).

AFFIANT further states that ___ he makes this affidavit for the purpose of inducing the Recorder of Deeds of Kendall County, Illinois, to accept the attached deed for recording.

SUBSCRIBED AND SWORN TO BEFORE ME

This 11th day of February, 2021

Signature of Notary Public

Signature of Affiant Craig J. Cobine, Attorney

111 West Fox Street, Yorkville IL 60560-1498

tel: (630) 553-4104 • Fax: (630) 553-4119 • Email: Dgillette@co.kendall.il.us



D.



A Policy Issuing Agent of Stewart Title Guaranty Company

ALTA Commitment - Schedule B-I

File Number: [REDACTED]
 Customer Reference Number: [REDACTED]
 Commitment Date: December 31, 2024

Issued by: Greater Illinois Title Company

Phone: [REDACTED]
 Fax: [REDACTED]

SCHEDULE B - PART I**Requirements**

All of the following Requirements must be met:

- A) THE PROPOSED INSURED MUST NOTIFY THE COMPANY IN WRITING OF THE NAME OF ANY PARTY NOT REFERRED TO IN THIS COMMITMENT WHO WILL OBTAIN AN INTEREST IN THE LAND OR WHO WILL MAKE A LOAN ON THE LAND. THE COMPANY MAY THEN MAKE ADDITIONAL REQUIREMENTS OR EXCEPTIONS.
- B) PAY THE AGREED AMOUNT FOR THE ESTATE OR INTEREST TO BE INSURED.
- C) PAY THE PREMIUMS, FEES, AND CHARGES FOR THE POLICY TO THE COMPANY.
- D) DOCUMENTS SATISFACTORY TO THE COMPANY THAT CONVEY THE TITLE OR CREATE THE MORTGAGE TO BE INSURED, OR BOTH, MUST BE PROPERLY AUTHORIZED, EXECUTED, DELIVERED, AND RECORDED IN THE PUBLIC RECORDS.
- E) FOR EACH POLICY TO BE ISSUED AS IDENTIFIED IN SCHEDULE A, ITEM 2, THE COMPANY SHALL NOT BE LIABLE UNDER THIS COMMITMENT UNTIL IT RECEIVES A DESIGNATION FOR A PROPOSED INSURED, ACCEPTABLE TO THE COMPANY. AS PROVIDED IN COMMITMENT CONDITION 4, THE COMPANY MAY AMEND THIS COMMITMENT TO ADD, AMONG OTHER THINGS, ADDITIONAL EXCEPTIONS OR REQUIREMENTS AFTER THE DESIGNATION OF THE PROPOSED INSURED
- F) THE PROPOSED POLICY AMOUNT(S) MUST BE DISCLOSED TO THE COMPANY, AND SUBJECT TO APPROVAL BY THE COMPANY, ENTERED AS THE PROPOSED POLICY AMOUNT. AN OWNER'S POLICY SHOULD REFLECT THE PURCHASE PRICE OR FULL VALUE OF THE LAND. A LOAN POLICY SHOULD REFLECT THE LOAN AMOUNT OR VALUE OF THE PROPERTY AS COLLATERAL. PROPOSED POLICY AMOUNT(S) WILL BE REVISED AND PREMIUMS CHARGED CONSISTENT THEREWITH WHEN THE FINAL AMOUNTS ARE APPROVED.
- G) PAY ALL TAXES, CHARGES AND ASSESSMENTS AFFECTING THE LAND THAT ARE DUE AND PAYABLE, INCLUDING THOSE SOLD, FORFEITED OR UNPAID FROM PRIOR YEARS AS SET FORTH IN SCHEDULE B - PART II.
- H) AS TO ANY MORTGAGES, LIENS OR RELATED DOCUMENTS SET FORTH IN THIS SCHEDULE B - PARTS I OR II, WE MUST BE FURNISHED SATISFACTIONS OR RELEASES THEREOF, OR SUFFICIENT DOCUMENTATION AND FUNDS TO SATISFY SAID MATTERS.
- I) PLEASE BE ADVISED THAT OUR SEARCH DID NOT DISCLOSE ANY OPEN MORTGAGES OF RECORD. IF YOU SHOULD HAVE KNOWLEDGE OF ANY OUTSTANDING OBLIGATION(S), PLEASE CONTACT OUR OFFICES IMMEDIATELY.

This page is only a part of a 2021 ALTA® Commitment for Title Insurance. This Commitment is not valid without the Notice; the Commitment to Issue Policy; the Commitment Conditions; Schedule A; Schedule B, Part I - Requirements; and Schedule B, Part II - Exceptions; and a countersignature by the Company or its issuing agent that may be in electronic form.

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010-UN ALTA Commitment for Title Insurance Schedule BI (07-01-2021)



A Policy Issuing Agent of Stewart Title Guaranty Company

ALTA Commitment - Schedule B-I (cont.)

File Number [REDACTED]
 Customer Reference Number: [REDACTED]
 Commitment Date: **December 31, 2024**

- J) COMPLIANCE WITH THE PROVISIONS OF THE 'PLAT ACT' (765 ILCS 205/0.01 ET SEQ.) MAY BE NECESSARY PRIOR TO RECORDING ANY DEED CONVEYING THE LAND.
- K) RELATIVE TO LUCAYA ASSET MANAGEMENT, LLC, A LIMITED LIABILITY COMPANY, WE MUST BE FURNISHED (A) CERTIFICATION FROM THE SECRETARY OF STATE THAT LUCAYA ASSET MANAGEMENT, LLC HAS PROPERLY FILED ITS ARTICLES OF ORGANIZATION, (B) A COPY OF THE ARTICLES OF ORGANIZATION, TOGETHER WITH ANY AMENDMENTS THERETO, (C) A COPY OF THE OPERATING AGREEMENT, IF ANY, TOGETHER WITH ANY AMENDMENTS THERETO, (D) A LIST OF INCUMBENT MANAGERS OR OF INCUMBENT MEMBERS IF MANAGERS HAVE NOT BEEN APPOINTED, AND (E) CERTIFICATION THAT NO EVENT OF DISSOLUTION HAS OCCURRED.

NOTE: IN THE EVENT OF A SALE OF ALL OR SUBSTANTIALLY ALL OF THE ASSETS OF THE L.L.C. OR OF A SALE OF L.L.C. ASSETS TO A MEMBER OR MANAGER, WE SHOULD BE FURNISHED A COPY OF A RESOLUTION AUTHORIZING THE TRANSACTION ADOPTED BY THE MEMBERS OF THE L.L.C.

- L) EXISTING UNRECORDED LEASES, IF ANY.
- M) NEW CONSTRUCTION.
- N) ANY LIEN, OR RIGHT TO A LIEN, FOR SERVICES, LABOR OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, IMPOSED BY LAW AND NOT SHOWN BY THE PUBLIC RECORDS.
- O) RELATIVE TO THE NEW IMPROVEMENTS ON THE SUBJECT LAND WE MUST BE FURNISHED THE FOLLOWING DOCUMENTATION A MINIMUM OF 72 HOURS PRIOR TO CLOSING:

A. OWNER'S AND CONTRACTOR'S AFFIDAVITS AND SATISFACTORY MECHANIC LIEN WAIVER DOCUMENTATION WITH EVIDENCE OF PAYMENT.

B. CURRENT SPOTTED SURVEY.

C. THIS COMMITMENT IS SUBJECT TO SUCH FURTHER EXCEPTIONS AS WE MAY DEEM APPROPRIATE.

ALTA 9-06 WILL BE CONSIDERED FOR THE TITLE POLICIES TO ISSUE UPON COMPLIANCE WITH THE SUBJECT EXCEPTION.

- P) THE ABOVE EXCEPTIONS CAN ONLY BE WAIVED UPON CONSULTATION WITH OUR CONSTRUCTION ESCROW DEPARTMENT. PLEASE CONTACT OUR CONSTRUCTION ESCROW DEPARTMENT 72 HOURS PRIOR TO CLOSING FOR CONSULTATION.
- Q) WE MUST BE FURNISHED A STATEMENT THAT THERE IS NO PROPERTY MANAGER EMPLOYED TO MANAGE THE LAND, OR IN THE ALTERNATIVE, A FINAL LIEN WAIVER FROM ANY PROPERTY MANAGER EMPLOYED ON BEHALF OF THE OWNER.
- R) WE HAVE NOT PRE-BILLED FOR ANY COMMERCIAL ESCROW FEES. OUR ESCROW DEPARTMENT MUST BE CONTACTED PRIOR TO CLOSING AND THIS COMMITMENT AND INVOICE ARE SUBJECT TO ANY FURTHER CHANGES WE MAY DEEM NECESSARY.

This page is only a part of a 2021 ALTA® Commitment for Title Insurance. This Commitment is not valid without the Notice; the Commitment to Issue Policy; the Commitment Conditions; Schedule A; Schedule B, Part I - Requirements; and Schedule B, Part II - Exceptions; and a countersignature by the Company or its issuing agent that may be in electronic form.

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010-UN ALTA Commitment for Title Insurance Schedule BI (07-01-2021)



A Policy Issuing Agent of Stewart Title Guaranty Company

ALTA Commitment - Schedule B-I (cont.)

File Number: [REDACTED]

Customer Reference Number: [REDACTED]

Commitment Date: **December 31, 2024**

S) IN THE EVENT WE ARE REQUESTED TO ISSUE ANY OF THE FOLLOWING ENDORSEMENTS:

ALTA 3 (ZONING)
ALTA 9 (COMPREHENSIVE)
ALTA 17 (ACCESS)
ALTA 19 (CONTIGUITY)
ALTA 25 (SURVEY)

WE MUST BE FURNISHED AN ALTA LAND SURVEY PRIOR TO CLOSING FOR REVIEW.

T) THIS COMMITMENT IS SUBJECT TO FINAL UNDERWRITING APPROVAL AND IS PROVIDED FOR CONVENIENCE PURPOSES ONLY. ACCORDINGLY, THIS COMMITMENT, AND POLICIES IF AND WHEN ISSUED, IS SUBJECT TO ADDITIONAL LIMITATIONS, REQUIREMENTS OR EXCEPTIONS AS MAY BE DEEMED NECESSARY UPON FINAL UNDERWRITING REVIEW.

END OF SCHEDULE B - PART I REQUIREMENTS

This page is only a part of a 2021 ALTA® Commitment for Title Insurance. This Commitment is not valid without the Notice; the Commitment to Issue Policy; the Commitment Conditions; Schedule A; Schedule B, Part I - Requirements; and Schedule B, Part II - Exceptions; and a countersignature by the Company or its issuing agent that may be in electronic form.

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010-UN ALTA Commitment for Title Insurance Schedule BI (07-01-2021)



A Policy Issuing Agent of Stewart Title Guaranty Company

ALTA Commitment - Schedule B-II

File Number: [REDACTED]

Issued by: **Greater Illinois Title Company**

Customer Reference Number: [REDACTED]

Commitment Date: **December 31, 2024**

Phone: [REDACTED]

Fax: [REDACTED]

SCHEDULE B - PART II Exceptions

THIS COMMITMENT DOES NOT REPUBLISH ANY COVENANT, CONDITION, RESTRICTION, OR LIMITATION CONTAINED IN ANY DOCUMENT REFERRED TO IN THIS COMMITMENT TO THE EXTENT THAT THE SPECIFIC COVENANT, CONDITION, RESTRICTION, OR LIMITATION VIOLATES STATE OR FEDERAL LAW BASED ON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, GENDER IDENTITY, HANDICAP, FAMILIAL STATUS, OR NATIONAL ORIGIN.

The Policy will not insure against loss or damage resulting from the terms and provisions of any lease or easement identified in Schedule A, and will include the following Exceptions unless cleared to the satisfaction of the Company:

1. RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY PUBLIC RECORDS.
2. ANY ENCROACHMENT, ENCUMBRANCE, VIOLATION, VARIATION, OR ADVERSE CIRCUMSTANCE AFFECTING THE TITLE THAT WOULD BE DISCLOSED BY AN ACCURATE AND COMPLETE LAND SURVEY OF THE LAND.
3. EASEMENTS, OR CLAIMS OF EASEMENTS, NOT SHOWN BY PUBLIC RECORDS.
4. ANY LIEN, OR RIGHT TO A LIEN, FOR SERVICES, LABOR OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, IMPOSED BY LAW AND NOT SHOWN BY THE PUBLIC RECORDS.
5. TAXES OR SPECIAL ASSESSMENTS WHICH ARE NOT SHOWN AS EXISTING LIENS BY THE PUBLIC RECORDS.
6. ANY DEFECT, LIEN, ENCUMBRANCE, ADVERSE CLAIM, OR OTHER MATTER THAT APPEARS FOR THE FIRST TIME IN THE PUBLIC RECORDS OR IS CREATED, ATTACHES, OR IS DISCLOSED BETWEEN THE COMMITMENT DATE AND THE DATE ON WHICH ALL OF THE SCHEDULE B, PART I-REQUIREMENTS ARE MET.
7. GENERAL REAL ESTATE TAXES FOR THE YEAR 2024. TAX NO. 02-09-400-007.
NOTE: THE AMOUNT OF THE 2023 TAXES WAS \$1,297.96.
NOTE: THE 2024 TAXES ARE NOT YET DUE AND PAYABLE.
8. RIGHTS OF THE PUBLIC, THE MUNICIPALITY AND THE STATE IN AND TO THAT PART OF THE LAND TAKEN OR USED FOR ROADS AND HIGHWAYS, IF ANY.
9. DRAINAGE DITCHES, LATERALS, FEEDERS, DRAINAGE TILES OR OTHER DRAINAGE EASEMENT RIGHTS, IF ANY.
10. RIGHTS OF ADJOINING OWNERS TO THE UNINTERRUPTED FLOW OF ANY STREAM WHICH MAY CROSS THE PREMISES.

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010-UN ALTA Commitment for Title Insurance Schedule BII (07-01-2021)



A Policy Issuing Agent of Stewart Title Guaranty Company

ALTA Commitment - Schedule B-II (cont.)

File Number [REDACTED]

Customer Reference Number: [REDACTED]

Commitment Date: **December 31, 2024**

11. MINERALS OF WHATSOEVER KIND, SUBSURFACE AND SURFACE SUBSTANCES, INCLUDING BUT NOT LIMITED TO COAL, LIGNITE, OIL, GAS, URANIUM, CLAY, ROCK, SAND AND GRAVEL IN, ON, UNDER AND THAT MAY BE PRODUCED FROM THE LAND, TOGETHER WITH ALL RIGHTS, PRIVILEGES, AND IMMUNITIES RELATING THERETO, WHETHER OR NOT APPEARING IN THE PUBLIC RECORDS OR LISTED IN SCHEDULE B. THE COMPANY MAKES NO REPRESENTATION AS TO THE PRESENT OWNERSHIP OF ANY SUCH INTERESTS. THERE MAY BE LEASES, GRANTS, EXCEPTIONS OR RESERVATIONS OF INTERESTS THAT ARE NOT LISTED.

END OF SCHEDULE B - PART II EXCEPTIONS

This page is only a part of a 2021 ALTA® Commitment for Title Insurance. This Commitment is not valid without the Notice; the Commitment to Issue Policy; the Commitment Conditions; Schedule A; Schedule B, Part I - Requirements; and Schedule B, Part II - Exceptions; and a countersignature by the Company or its issuing agent that may be in electronic form.

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010-UN ALTA Commitment for Title Insurance Schedule BII (07-01-2021)

PRIVACY NOTICE

Updated: August 24, 2023

STEWART INFORMATION SERVICES CORPORATION GRAMM-LEACH BLILEY PRIVACY NOTICE

This Stewart Information Services Corporation Privacy Notice ("Notice") explains how we and our affiliates and majority-owned subsidiary companies (collectively, "Stewart," "our," or "we") collect, use, and protect personal information, when and to whom we disclose such information, and the choices you have about the use and disclosure of your information. Pursuant to Title V of the Gramm-Leach Bliley Act ("GLBA") and other Federal and state laws and regulations applicable to financial institutions, consumers have the right to limit some, but not all sharing of their personal information. Please read this Notice carefully to understand how Stewart uses your personal information.

The types of personal information Stewart collects, and shares depends on the product or service you have requested.

Stewart may collect the following categories of personal and financial information from you throughout your transaction:

1. Identifiers: Real name, alias, online IP address if accessing company websites, email address, account name, unique online identifier, or other similar identifiers.
2. Demographic Information: Marital status, gender, date of birth.
3. Personal Information and Personal Financial Information: Full name, signature, social security number, address, driver's license number, passport number, telephone number, insurance policy number, education, employment, employment history, bank account number, credit card number, debit card number, credit reports, or any other information necessary to complete the transaction.

Stewart may collect personal information about you from:

1. Publicly available information from government records.
2. Information we receive directly from you or your agent(s), such as your lender or real estate broker.
3. Information we receive from consumer reporting agencies and/or governmental entities, either directly from these entities or through others.

Stewart may use your personal information for the following purposes:

1. To provide products and services to you in connection with a transaction.
2. To improve our products and services.
3. To communicate with you about our affiliates', and others' products and services, jointly or independently.

Stewart may use or disclose the personal information we collect for one or more of the following purposes:

- To fulfill or meet the reason for which the information is provided.
- To provide, support, personalize, and develop our website, products, and services.
- To create, maintain, customize, and secure your account with Stewart.
- To process your requests, purchases, transactions, and payments and prevent transactional fraud.
- To prevent and/or process claims.
- To assist third party vendors/service providers who complete transactions or perform services on Stewart's behalf pursuant to valid service provider agreements.
- As necessary or appropriate to protect the rights, property or safety of Stewart, our customers, or others.
- To provide you with support and to respond to your inquiries, including to investigate and address your concerns and monitor and improve our responses.
- To help maintain the safety, security, and integrity of our website, products and services, databases and other technology-based assets, and business.
- To respond to law enforcement or regulator requests as required by applicable law, court order, or governmental regulations.
- Auditing for compliance with federal and state laws, rules, and regulations.
- Performing services including maintaining or servicing accounts, providing customer service, processing, or fulfilling orders and transactions, verifying customer information, processing payments.

- To evaluate or conduct a merger, divestiture, restructuring, reorganization, dissolution, or other sale or transfer of some or all our assets, whether as a going concern or as part of bankruptcy, liquidation, or similar proceeding, in which personal information held by us is among the assets transferred.

Stewart will not collect additional categories of personal information or use the personal information we collected for materially different, unrelated, or incompatible purposes without providing you notice.

Disclosure of Personal Information to Affiliated Companies and Nonaffiliated Third Parties

Stewart does not sell your personal information to nonaffiliated third parties. Stewart may share your information with those you have designated as your agent throughout the course of your transaction (for example, your realtor, broker, or a lender). Stewart may disclose your personal information to non-affiliated third-party service providers and vendors to render services to complete your transaction.

We share your personal information with the following categories of third parties:

- Non-affiliated service providers and vendors we contract with to render specific services (For example, search companies, mobile notaries, and companies providing credit/debit card processing, billing, shipping, repair, customer service, auditing, marketing, etc.)
- To enable Stewart to prevent criminal activity, fraud, material misrepresentation, or nondisclosure.
- Stewart's affiliated and subsidiary companies.
- Parties involved in litigation and attorneys, as required by law.
- Financial rating organizations, rating bureaus and trade associations, taxing authorities, if required in the transaction.
- Federal and State Regulators, law enforcement and other government entities to law enforcement or authorities in connection with an investigation, or in response to a subpoena or court order.

The law does not require your prior authorization or consent and does not allow you to restrict the disclosures described above. Additionally, we may disclose your information to third parties for whom you have given us authorization or consent to make such disclosure. We do not otherwise share your Personal Information or browsing information with non-affiliated third parties, except as required or permitted by law.

Right to Limit Use of Your Personal Information

You have the right to opt-out of sharing of your personal information among our affiliates to directly market to you. To opt-out of sharing your information with affiliates for direct marketing, you may send an "opt out" request to OptOut@stewart.com, or contact us through other available methods provided under "Contact Information" in this Notice. We do not share your Personal Information with nonaffiliates for their use to directly market to you without your consent.

How Stewart Protects Your Personal Information

Stewart maintains physical, technical, and administrative safeguards and policies to protect your personal information.

Contact Information

If you have specific questions or comments about this Notice, the ways in which Stewart collects and uses your information described herein, or your choices and rights regarding such use, please do not hesitate to contact us at:

Phone: Toll Free at 1-866-571-9270
Email: Privacyrequest@stewart.com

Postal Address: Stewart Information Services Corporation
Attn: Mary Thomas, Chief Compliance and Regulatory Officer
1360 Post Oak Blvd., Ste. 100, MC #14-1
Houston, TX 77056

Effective Date: January 1, 2020Updated: August 24, 2023

STEWART INFORMATION SERVICES CORPORATION PRIVACY NOTICE FOR CALIFORNIA RESIDENTS

Stewart Information Services Corporation and its affiliates and majority-owned subsidiary companies (collectively, "Stewart," "our," or "we") respect and are committed to protecting your privacy. Pursuant to the California Consumer Privacy Act of 2018 ("CCPA") and the California Privacy Rights Act of 2020 ("CPRA"), we are providing this **Privacy Notice** ("CCPA Notice"). This CCPA Notice explains how we collect, use, and disclose personal information, when and to whom we disclose such information, and the rights you, as a California resident have regarding your Personal Information. This CCPA Notice supplements the information contained in Stewart's existing privacy notice and applies solely to all visitors, users, consumers, and others who reside in the State of California or are considered California Residents as defined in the CCPA ("consumers" or "you"). All terms defined in the CCPA & CPRA have the same meaning when used in this Notice.

Personal and Sensitive Personal Information Stewart Collects

Stewart has collected the following categories of personal and sensitive personal information from consumers within the last twelve (12) months:

A. Identifiers. A real name, alias, postal address, unique personal identifier, online identifier, Internet Protocol address, email address, account name, Social Security number, driver's license number, passport number, or other similar identifiers.

B. Personal information categories listed in the California Customer Records statute (Cal. Civ. Code § 1798.80(e)). A name, signature, Social Security number, address, telephone number, passport number, driver's license or state identification card number, insurance policy number, education, employment, employment history, bank account number, credit card number, debit card number, or any other financial information.

C. Protected classification characteristics under California or federal law. Age, race, color, ancestry, national origin, citizenship, marital status, sex (including gender, gender identity, gender expression), veteran or military status.

D. Commercial information. Records of personal property, products or services purchased, obtained, or considered, or other purchasing or consuming histories or tendencies.

E. Internet or other similar network activity. Browsing history, search history, information on a consumer's interaction with a website, application, or advertisement.

F. Geolocation data

Stewart obtains the categories of personal and sensitive information listed above from the following categories of sources:

- Directly and indirectly from customers, their designees, or their agents (For example, realtors, lenders, attorneys, brokers, etc.)
- Directly and indirectly from activity on Stewart's website or other applications.
- From third parties that interact with Stewart in connection with the services we provide.

Use of Personal and Sensitive Personal Information

Stewart may use or disclose the personal or sensitive information we collect for one or more of the following purposes:

- a. To fulfill or meet the reason for which the information is provided.
- b. To provide, support, personalize, and develop our website, products, and services.
- c. To create, maintain, customize, and secure your account with Stewart.
- d. To process your requests, purchases, transactions, and payments and prevent transactional fraud.
- e. To prevent and/or process claims.
- f. To assist third party vendors/service providers who complete transactions or perform services on Stewart's behalf pursuant to valid service provider agreements.
- g. As necessary or appropriate to protect the rights, property or safety of Stewart, our customers, or others.
- h. To provide you with support and to respond to your inquiries, including to investigate and address your concerns and monitor and improve our responses.
- i. To personalize your website experience and to deliver content and product and service offerings relevant to your interests, including targeted offers and ads through our website, third-party sites, and via email or text message (with your consent, where required by law).

- j. To help maintain the safety, security, and integrity of our website, products and services, databases and other technology-based assets, and business.
- k. To respond to law enforcement or regulator requests as required by applicable law, court order, or governmental regulations.
- l. Auditing for compliance with federal and state laws, rules, and regulations.
- m. Performing services including maintaining or servicing accounts, providing customer service, processing, or fulfilling orders and transactions, verifying customer information, processing payments, providing advertising or marketing services or other similar services.
- n. To evaluate or conduct a merger, divestiture, restructuring, reorganization, dissolution, or other sale or transfer of some or all our assets, whether as a going concern or as part of bankruptcy, liquidation, or similar proceeding, in which personal information held by us is among the assets transferred.

Stewart will not collect additional categories of personal or sensitive information or use the personal or sensitive information we collected for materially different, unrelated, or incompatible purposes without providing you notice.

Disclosure of Personal Information to Affiliated Companies and Nonaffiliated Third Parties

Stewart does not sell your personal information to nonaffiliated third parties. Stewart may share your information with those you have designated as your agent throughout the course of your transaction (for example, a realtor, broker, or a lender).

We share your personal information with the following categories of third parties:

- a. Service providers and vendors we contract with to render specific services (For example, search companies, mobile notaries, and companies providing credit/debit card processing, billing, shipping, repair, customer service, auditing, marketing, etc.)
- b. Affiliated Companies.
- c. Parties involved in litigation and attorneys, as required by law.
- d. Financial rating organizations, rating bureaus and trade associations.
- e. Federal and State Regulators, law enforcement and other government entities

In the preceding twelve (12) months, Stewart has disclosed the following categories of personal information:

- Category A: Identifiers
- Category B: California Customer Records personal information categories
- Category C: Protected classification characteristics under California or federal law
- Category D: Commercial Information
- Category E: Internet or other similar network activity
- Category F: Non-public education information

A. Your Consumer Rights and Choices Under CCPA and CPRA

The CCPA and CPRA provide consumers (California residents as defined in the CCPA) with specific rights regarding their personal information. This section describes your rights and explains how to exercise those rights.

i. Access to Specific Information and Data Portability Rights

You have the right to request that Stewart disclose certain information to you about our collection and use of your personal information over the past 12 months. Once we receive and confirm your verifiable consumer request, Stewart will disclose to you:

- The categories of personal information Stewart collected about you.
- The categories of sources for the personal information Stewart collected about you.
- Stewart's business or commercial purpose for collecting that personal information.
- The categories of third parties with whom Stewart shares that personal information.
- The specific pieces of personal information Stewart collected about you (also called a data portability request).
- If Stewart disclosed your personal data for a business purpose, a listing identifying the personal information categories that each category of recipient obtained.

ii. Deletion Request Rights

You have the right to request that Stewart delete any personal information we collected from you and retained, subject to certain exceptions. Once we receive and confirm your verifiable consumer request, Stewart will delete (and direct our service providers to delete) your personal information from our records, unless an exception applies.

Stewart may deny your deletion request if retaining the information is necessary for us or our service providers to:

1. Complete the transaction for which we collected the personal information, provide a good or service that you requested, take actions reasonably anticipated within the context of our ongoing business relationship with you, or otherwise perform our contract with you.
2. Detect security incidents, protect against malicious, deceptive, fraudulent, or illegal activity, or prosecute those responsible for such activities.
3. Debug products to identify and repair errors that impair existing intended functionality.
4. Exercise free speech, ensure the right of another consumer to exercise their free speech rights, or exercise another right provided for by law.
5. Comply with the California Electronic Communications Privacy Act (Cal. Penal Code § 1546 *seq.*).
6. Engage in public or peer-reviewed scientific, historical, or statistical research in the public interest that adheres to all other applicable ethics and privacy laws, when the information's deletion may likely render impossible or seriously impair the research's achievement, if you previously provided informed consent.
7. Enable solely internal uses that are reasonably aligned with consumer expectations based on your relationship with us.
8. Comply with a legal obligation.
9. Make other internal and lawful uses of that information that are compatible with the context in which you provided it.

iii. Opt-Out of Information Sharing and Selling

Stewart does not share or sell information to third parties, as the terms are defined under the CCPA and CPRA. Stewart only shares your personal information as commercially necessary and in accordance with this CCPA Notice.

iv. Correction of Inaccurate Information

You have the right to request that Stewart correct any inaccurate information maintained about.

v. Limit the Use of Sensitive Personal Information

You have the right to limit how your sensitive personal information, as defined in the CCPA and CPRA is disclosed or shared with third parties.

Exercising Your Rights Under CCPA and CPRA

If you have questions or comments about this notice, the ways in which Stewart collects and uses your information described herein, your choices and rights regarding such use, or wish to exercise your rights under California law, please submit a verifiable consumer request to us by the available means provided below:

1. Emailing us at OptOut@stewart.com; or
2. Visiting <https://www.stewart.com/en/quick-links/ccpa-request.html>

Only you, or someone legally authorized to act on your behalf, may make a verifiable consumer request related to your personal information. You may also make a verifiable consumer request on behalf of your minor child, if applicable.

To designate an authorized agent, please contact Stewart through one of the methods mentioned above.

You may only make a verifiable consumer request for access or data portability twice within a 12-month period. The verifiable consumer request must:

- Provide sufficient information that allows us to reasonably verify you are the person about whom we collected personal information or an authorized representative.
- Describe your request with sufficient detail that allows us to properly understand, evaluate, and respond to it.

Stewart cannot respond to your request or provide you with personal information if we cannot verify your identity or authority to make the request and confirm the personal information relates to you.

Making a verifiable consumer request does not require you to create an account with Stewart.

Response Timing and Format

We endeavor to respond to a verifiable consumer request within forty-five (45) days of its receipt. If we require more time (up to an additional 45 days), we will inform you of the reason and extension period in writing.

A written response will be delivered by mail or electronically, at your option.

Any disclosures we provide will only cover the 12-month period preceding the verifiable consumer request's receipt. The response we provide will also explain the reasons we cannot comply with a request, if applicable.

Stewart does not charge a fee to process or respond to your verifiable consumer request unless it is excessive, repetitive, or manifestly unfounded. If we determine that the request warrants a fee, we will tell you why we made that decision and provide you with a cost estimate before completing your request.

Non-Discrimination

Stewart will not discriminate against you for exercising any of your CCPA rights. Unless permitted by the CCPA, we will not:

- Deny you goods or services.
- Charge you a different prices or rates for goods or services, including through granting discounts or other benefits, or imposing penalties.
- Provide you a different level or quality of goods or services.
- Suggest that you may receive a different price or rate for goods or services or a different level or quality of goods or services.

Record Retention

Your personal information will not be kept for longer than is necessary for the business purpose for which it is collected and processed. We will retain your personal information and records based on established record retention policies pursuant to California law and in compliance with all federal and state retention obligations. Additionally, we will retain your personal information to comply with applicable laws, regulations, and legal processes (such as responding to subpoenas or court orders), and to respond to legal claims, resolve disputes, and comply with legal or regulatory recordkeeping requirements.

Changes to This CCPA Notice

Stewart reserves the right to amend this CCPA Notice at our discretion and at any time. When we make changes to this CCPA Notice, we will post the updated Notice on Stewart's website and update the Notice's effective date.

Link to Privacy Notice

<https://www.stewart.com/en/privacy.html>

Contact Information

Stewart Information Services Corporation
Attn: Mary Thomas, Chief Compliance and Regulatory Officer
1360 Post Oak Blvd., Ste. 100, MC #14-1
Houston, TX 77056

[Back to list](#) || [Logout](#)

Project Details

Project Information			
Project ID	016030325	Title	New Construction of a Community Solar Project, USA Energy Independence 1, LLC
County	KE	General Location	Bristol
Law	State	Ownership	Unknown
Received Date	3/3/2025	Completion Date	
Acres	36.9	Surveyed By	
Structural Sites	0	Archeological Sites	0
Comments			

List of Properties						
HARGIS Ref Number	Property Type	Address	City	State Site Number	STR	Determination Of Eligibility
	Archaeological	9318 Cornells Rd., North side of Cornells Road West of West St.	Bristol		9 - 37N - 7E 16 - 37N - 7E	undetermined
No Project Property Found						

Project Status History			Date
Status	Remarks		3/3/2025
Application Received			

List of IN Correspondence			
Correspondence Name	Received Date	Remarks	Archaeology Survey ID
No In Correspondence Found			

List of OUT Correspondence		
Correspondence Name	Date	Correspondence
No OUT Correspondence Found		

Q.

KENDALL COUNTY DISCLOSURE OF BENEFICIARIES FORM

1. Applicant USA Energy Independence 1, LLC
 Address [REDACTED]
 City [REDACTED] State [REDACTED] Zip [REDACTED]
2. Nature of Benefit Sought Special use Permit
3. Nature of Applicant: (Please check one)
 - ☐ Natural Person
 - ☒ Corporation
 - ☐ Land Trust/Trustee
 - ☐ Trust/Trustee
 - ☐ Partnership
 - ☐ Joint Venture
4. If applicant is an entity other than described in Section 3, briefly state the nature and characteristics of the applicant: USA Energy Independence 1, LLC is a wholly owned subsidiary of Enterprise Energy, LLC.
5. If your answer to Section 3 you have checked letter b, c, d, e, or f, identify by name and address each person or entity who is a 5% shareholder in case of a corporation, a beneficiary in the case of a trust or land trust, a joint venture in the case of a joint venture, or who otherwise has proprietary interest, interest in profits and losses or right to control such entity:

NAME	ADDRESS	INTEREST
<u>Enterprise Energy, LLC</u>	[REDACTED]	<u>100%</u>
<u>- Evan Carlson</u>		<u>48.5%</u>
<u>- Eric Pasi</u>		<u>48.5%</u>
6. Name, address, and capacity of person making this disclosure on behalf of the applicant:

Evan CarlsonManager

VERIFICATION

I, Evan Carlson, manager of Enterprise Energy, LLC, being first duly sworn under oath that I am the person making this disclosure on behalf of the applicant, that I am duly authorized to make the disclosure, that I have read the above and foregoing Disclosure of Beneficiaries, and that the statements contained therein are true in both substance and fact.

Subscribed and sworn to before me this 18th day of December, A.D. 2021

(seal)



[REDACTED]
Notary Public

R.

202500000529

DEBBIE GILLETTE

RECORDER - KENDALL COUNTY, IL

RECORDED: 01/14/2025 03:12 PM

RECORDING FEE 57.00

RHSP 19.00

PAGES: 7

(Space Above for Recorder's Use Only)

MEMORANDUM OF PURCHASE AGREEMENT

THIS MEMORANDUM OF PURCHASE AGREEMENT (this "Memorandum") is dated as of JANUARY 10, 2025, _____, Lucaya Asset Management, LLC, a Florida Limited Liability Company, (collectively "Seller"), with an address of _____ and USA Energy Independence 1, LLC an Illinois limited liability company, with an address of _____ and its successors and assigns ("Buyer").

RECITALS

A. Landlord is the owner of certain real property located in the County of Kendall, State of Illinois, and being more particularly described in Exhibit A attached hereto and made a part hereof ("Parcel").

B. Seller and Buyer have entered into that certain Purchase Agreement, dated April 6, 2024 (the "Effective Date") whereby Landlord has agreed to sell to Tenant the Parcel for solar energy purposes.

C. The parties wish to give record notice of the existence of such Purchase Agreement.

NOW THEREFORE, in consideration of the sum of One Dollar (\$1.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, the parties hereto agree as follows:

1. Seller and Buyer have entered into the Purchase Agreement to purchase and demise the Parcel for solar energy. Pursuant to the Purchase Agreement, Buyer has the right to purchase from the Seller the parcel(s) of land listed in Exhibit A.

2. The initial term of the Purchase Agreement is for Three (3) years, commencing on April 30th, 2024 and expiring on April 30th, 2027.

3. The Purchase Agreement granted to Buyer therein shall burden the Parcel and shall run with the land. The Purchase Agreement shall inure to the benefit of and be binding upon Seller and Buyer and, to the extent provided in any assignment or other transfer under the Purchase

Agreement, any assignee or Tenant, and their respective heirs, transferees, successors and assigns, and all persons claiming under them.

4. This Memorandum of Purchase Agreement has been executed and delivered by the parties for the purpose of recording and giving notice of the Purchase Agreement in accordance with the terms, covenants and conditions of the Purchase Agreement.

5. This Memorandum of Purchase Agreement is for notice and recording purposes only and shall not be deemed to change or modify any of the terms, covenants, and conditions stated in the Purchase Agreement. In the event of any inconsistency between the terms of the Purchase Agreement and this Memorandum of Purchase Agreement, the terms of the Purchase Agreement shall control.

6. This Memorandum may be executed in one or more counterparts, each of which, when taken together, shall constitute one and the same document.

7. If in buyer's sole discretion they determine they cannot or will not proceed with the purchase of the parcel prior to expiration of the option, then Buyer agrees to release the lease and promptly file an Affidavit of Termination of Option Agreement at the Kendall County Recorder's Office.

[REST OF PAGE LEFT BLANK; SIGNATURES ON SEPARATE SHEETS]

IN WITNESS WHEREOF, each of the parties hereto has caused this Memorandum to be duly executed as of the day and year first above written.

Buyer: USA Energy Independence 1, LLC
an Illinois limited liability company,

By: 
Name: Evan Carlson
Title: Manager

COUNTY OF Hennepin)
) ss.
STATE OF MINNESOTA)

This instrument was acknowledged before me on 1/13/25 by
Evan Carlson as Manager of **USA Energy Independence 1, LLC** an Illinois limited liability
company, on behalf of the company.




Notary Public
My commission expires: 1/31/2028

[Buyer's Signature Page to Memorandum of Purchase Agreement]

Seller: Lucaya Asset Management, LLC

By: [REDACTED]

Name: Stanley L Zepelak

Title: Manager

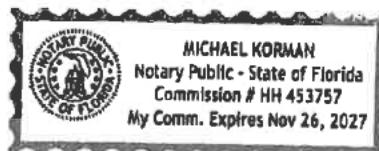
COUNTY OF Sarasota)
) ss.

STATE OF FLORIDA)

This instrument was acknowledged before me on 1/10/25
by Stanley L Zepelak, manager of Lucaya Asset Management, LLC.

[REDACTED]
Notary Public

My commission expires: 11/26/27



THIS INSTRUMENT DRAFTED BY AND
WHEN RECORDED RETURN TO:

Evan Carlson

USA Energy Independence 1, LLC

[REDACTED]

[Seller's Signature Page to Memorandum of Purchase Agreement]

EXHIBIT A
TO MEMORANDUM OF LEASE

DESCRIPTION OF THE PARCEL

PIN # 02-09-400-007

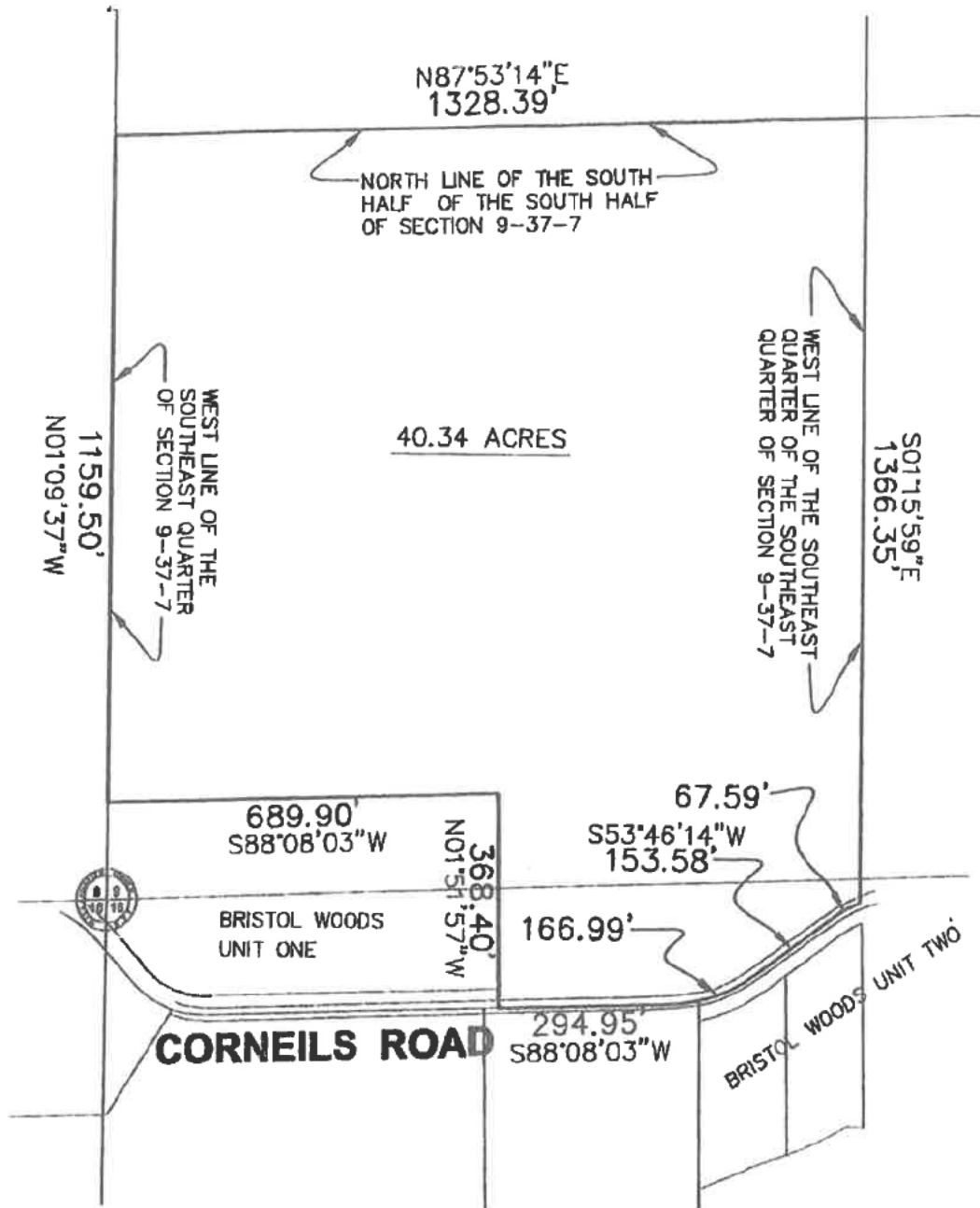
**LEGAL DESCRIPTION
NORTH PARCEL**

THAT PART OF THE SOUTHEAST QUARTER OF SECTION 9 AND PART OF THE NORTHEAST QUARTER OF SECTION 16, TOWNSHIP 37 NORTH, RANGE 7, EAST OF THE THIRD PRINCIPAL MERIDIAN DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF THE SOUTHEAST QUARTER OF SAID SECTION 9. THENCE NORTH 01 DEGREES 09 MINUTES 37 SECONDS WEST ALONG THE WEST LINE OF THE SOUTHEAST QUARTER OF SAID SECTION 9, 166.96 FEET TO THE NORTHWEST CORNER OF BRISTOL WOODS SUBDIVISION UNIT ONE, AND THE POINT OF BEGINNING; THENCE CONTINUING NORTH 01 DEGREES 09 MINUTES 37 SECONDS WEST, ALONG THE WEST LINE OF THE SOUTHEAST QUARTER OF SAID SECTION 9, 1159.50 FEET TO THE NORTH LINE OF THE SOUTH HALF OF THE SOUTH HALF OF SAID SECTION 9; THENCE NORTH 87 DEGREES 53 MINUTES 14 SECONDS EAST, ALONG SAID NORTH LINE, 1328.39 FEET TO THE WEST LINE OF THE SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SAID SECTION 9; THENCE SOUTH 01 DEGREES 15 MINUTES 59 SECONDS EAST, ALONG SAID WEST LINE AND WEST LINE EXTENDED, 1366.35 FEET TO THE CENTER OF CORNELIS ROAD, AS OCCUPIED AND MONUMENTED; THENCE SOUTHWESTERLY AND WESTERLY THE FOLLOWING FOUR COURSES ALONG THE CENTERLINE OF CORNELIS ROAD; THENCE SOUTHWESTERLY ALONG A CURVE TO THE LEFT WITH RADIUS OF 288.20 FEET, CHORD BEARING SOUTH 60 DEGREES 29 MINUTES 21 SECONDS WEST, ARC DISTANCE OF 67.59 FEET; THENCE SOUTH 53 DEGREES 46 MINUTES 14 SECONDS WEST, 153.58 FEET; THENCE SOUTHWESTERLY ALONG A CURVE TO THE RIGHT WITH RADIUS OF 281.33 FEET, CHORD BEARING SOUTH 70 DEGREES 42 MINUTES 24 SECONDS WEST, ARC DISTANCE OF 166.99 FEET; THENCE SOUTH 88 DEGREES 08 MINUTES 03 SECONDS WEST, 294.95 FEET TO THE EAST LINE OF BRISTOL WOODS UNIT ONE ; THENCE NORTH 01 DEGREES 51 MINUTES 57 SECONDS WEST, ALONG SAID EAST LINE, 368.40 FEET TO THE NORTH LINE OF BRISTOL WOODS UNIT ONE; THENCE SOUTH 88 DEGREES 08 MINUTES 03 SECONDS WEST, ALONG SAID NORTH LINE, 689.90 FEET TO THE POINT OF BEGINNING, IN BRISTOL TOWNSHIP, KENDALL COUNTY, ILLINOIS.

BOUNDARY EXHIBIT



0' 150'
SCALE FEET



Engineering Enterprises, Inc.
Civil Engineers & Land Surveyors
52 Wheeler Road
Sugar Grove, Illinois 60554 630/466-9350

P06100 02

Kendall County – Findings of Fact

That the establishment, maintenance, and operation of the special use will not be detrimental to, or endanger, the public health, safety, morals, comfort, or general welfare.

Community solar has beneficial impacts on the public health, safety and welfare of the local community. The purpose of solar is to generate electricity with far less pollution than existing electric generating facilities. By installing community solar less oil and natural gas are burned thereby reducing smog and other airborne pollution. Additionally, community solar has numerous benefits on the local environment. By replacing monoculture agricultural with pollinator friendly ground cover community solar provides habitat for many of Illinois native species. This perennial ground cover also consumes excess phosphate and nitrogen preventing these from entering the ground and surface water resources. Community solar operation is otherwise benign, and does not create light or noise pollution. Nor does it create noxious odors.

Community solar will not have any effect on the morals within the surrounding area.

That the special use will not be substantially injurious to the use and enjoyment of other properties in the immediate vicinity for the purposes already permitted, nor substantially diminish and impair property values within the neighborhood. The Zoning classification of property within the general area of the property in question shall be considered in determining consistency with this standard. The proposed use shall make adequate provisions for appropriate buffers, landscaping, fencing, lighting, building materials, open space and other improvements necessary to insure that the proposed use does not adversely impact adjacent uses and is compatible with the surrounding area and/or the County as a whole.

This project will not be substantially injurious to the use and enjoyment of other properties in the immediate vicinity for the purposes already permitted. Nor will it be detrimental to neighboring property values.

Community Solar is a benign use of land. It does not create, noxious odors, light pollution, or loud noises. Not only does it not pollute the water, land or air, it actively remediates existing pollution from the area, and limits existing sources of that pollution going forward. The only concern stemming from community solar is that some people perceive it to be unsightly. This project in particular has been designed to eliminate views of the solar array to address this potential concern.

This project has been sited and designed to prevent views of the solar array. There are only a handful of local residences. This project has setbacks from these residences substantially greater than the County requires. In addition, there are already a substantial amount of fully grown trees that will screen the views from these residences. We plan to plant additional trees to limit the views in any area where existing screening is insufficient. In addition, we have intentionally left over 15 Acres on the South of the project to set the solar array far back from the road. The majority of this acreage can be developed into lots in the future to put that area to its highest and best use. These lots will have screening trees planted on them, and once construction begins on these lots, the buildings themselves will further prevent views from the road. The whole solar array is placed on a flat ground, that will prevent expansive views of the solar garden from any neighboring property.

People are concerned with how community solar affects their property values. Many studies on this very topic have been performed. Virtually all of them show that community solar either has no impact on property values at all or a slight increase on property values. This project specifically will not detract from neighboring property values because it has robust screening, the elevation is such to not permit expansive views of the project, and is well set back from public roads and neighboring property lines.

This project does have several aspects that will increase property values, not just for the neighbors, but also for the community at large. This project will generate a lot of additional tax revenue for the community. Illinois state law says that the assessed value of a community solar garden is \$218,000.00 per MW of name plate capacity. This 5MW garden will add \$1,090,000.00 to the tax rolls for the community. Further it will be taxed at the commercial rate. This will provide funds for county services. Even better, community solar does not require any additional community services, unlike residential, industrial, or other forms of commercial development. As a result, the additional tax revenue is available to provide other community services or lower taxes across the board.

That adequate utilities, access roads and points of ingress and egress, drainage, and/or other necessary facilities have been or are being provided.

Yes, there are adequate utilities and facilities to support this project. The electricity generated by this project will be placed on the local grid. We have already determined that there is sufficient existing capacity to support this system size. Additionally, the interconnection point will be added at our expense, so no additional costs will be borne by the local consumer. Should ComEd determine that minor upgrades to their system be necessary, those too will be paid for out of our pocket.

Otherwise, community solar does not need access to utility services above what is currently being used on the property.

During the construction phase some local traffic will be generated. The construction phase generally lasts only a few months. All parking will be onsite with no road shoulder parking. Any damage to existing roads will be paid for by the owner operator of the facility. Additionally, an access road will be installed and maintained to facilitate onsite traffic.

During the operation phase of this project minimal traffic will be generated on city roads. Two to four times per year landscape maintenance workers will be onsite to maintain the vegetative undergrowth and inspect screening elements. Additionally, replacement of broken panels may be preformed on an as needed basis, but expected to be less than once per year.

That the special use shall in all other respects conform to the applicable regulations of the district in which it is located, except as such regulations may in each instance be modified by the County Board pursuant to the recommendation of the Zoning Board of Appeals

Yes. Kendall County permits community solar systems in agricultural zoned land. We meet or exceed all setbacks required by the county. In addition, we have supplied all required documentation from state and local authorities requested by the county ordinance and will abide by the recommendations and guidelines set by those agencies. This project is not on protected land. We have a signed AIMA with the Illinois Department of Agricultural. As such all state and local laws and regulations are being followed.

In addition, consultation with all local municipalities within 1.5 miles of the project has occurred, no pre-annexation agreement has been requested.

That the special use is consistent with the purpose and objectives of the Land Resource Management Plan and other adopted County or municipal plans and policies.

Yes, our project is consistent with the Land Resource Management Plan for land use in Kendall County. The plan specifically promotes "Support (for) the public and private use of sustainable energy systems (examples include wind, solar, and geo-thermal). This project will generate over 12,500,000 KWh of renewable energy PER YEAR. This electricity will be placed on the local grid for consumption by local businesses and residences. This results in approximately \$250,000.00 of savings for residences and businesses every year. Further, it improves the robustness of the infrastructure as the community is less reliant on the transmission level grid.

This project protects water and land resources consistent with the Land Resource Management Plan. The existing wetlands near our project are presently farmed. By building this project those areas will be enhanced by no longer being farmed. This will allow native wetland vegetation to thrive providing wetland habitat to local species and allowing wetland to perform their natural functions. This project has no floodplain areas and will preserve the natural drainage patterns on the property. Additionally, this project does not propose cutting any trees. Instead, we will plant dozens of new trees to provide screening from neighbors and Corneils Rd. These trees (along with the native pollinator friendly ground cover) will provide additional habitat and food for pollinators and native animals. Plus, the deep-rooted plants will stabilize the soil and diminish sediment and pollution runoff.

That the particular physical surroundings, shape, or topographical condition of the specific property involved would result in a particular hardship or practical difficulty upon the owner if the strict letter of the regulations were carried out.

Our community solar project is physically located on a parcel within 1.5 miles of the City of Yorkville. Kendall County ordinance S36-282 17(a) says:

All commercial solar energy facilities and test solar energy systems located within one and one-half (1½) miles of a municipality shall either annex to the municipality or obtain an annexation agreement with the municipality requiring the municipality's regulations to flow through the property.

At present there is no known existing annexation agreement, either voluntary or involuntary, that would include this parcel. As such, strict compliance with this requirement is impossible with presently available agreements.

Ultimately the determination of whether the City of Yorkville wishes to annex or enter into a pre-annexation agreement for a given parcel is up to the City of Yorkville and not the developer. This project was presented to the city and upon review they stated that the city does not wish to pursue annexation or a pre-annexation agreement at this time. However, they did recognize that the project may proceed through Kendall County's permitting process rather than the city's process.

The physical surroundings of the parcel (being located within 1.5 miles of the municipality) thus creates an unreasonable hardship and practical difficulty if the strict letter of the regulations were carried out. This project meets all other state and county requirements and is only deficient due to the elective choice by the city to not annex this parcel at this time.

That the conditions upon which the requested variation is based would not be applicable, generally to other property within the same zoning classification.

The conditions upon which the requested variation is based are not generally applicable to other properties within the same zoning classification. Most similarly zoned properties fall outside the 1.5-mile limit of municipalities or are already incorporated into a city. Of the ones inside the limit but unincorporated, the city would likely desire to annex or enter into a pre-annexation agreement prior to development. The variance we are requesting is only necessitated because the subject parcel is unincorporated, falls within 1.5 miles of the city limit, and the city has electively chosen not to annex the parcel at this time. The project otherwise meets all state and county requirements.

That the alleged difficulty or hardship has not been created by any person presently having an interest in the property.

The practical difficulty was created by the interplay of providing an annexation agreement as a condition of obtaining a special use permit and the fact that the city has electively chosen not to annex this particular parcel. In this instance there was nothing the landowner or developer did to create this unique situation.

That the granting of the variation will not materially be detrimental to the public welfare or substantially injurious to other property or improvements in the neighborhood in which the property is located.

The granting of this variance and will not be a detriment to the public welfare or injurious to other property or improvements in the neighborhood. The purpose of the requirement is to give municipalities the right to annex nearby properties at the time of development. The city believes that annexation of this parcel at this time is not beneficial to the city. As such the public welfare is being maintained by allowing the city to choose if annexation is right for them. Further, if at a later date the city chooses to go through with annexation granting a variance now will not hinder that process later.

Community solar by its nature is a very passive use of land. It does not create pollution, odors, noise, light, or vibrations. This project is well screened and substantially setback from neighboring properties and public right of ways so that there will be no detrimental views to the neighborhood. As such, the residents of both Yorkville and Kendall County will continue in their use an enjoyment of their property and improvements as they always have.

Further, this community solar project will be an asset to the community. Community solar will add \$1,090,000.00 in assess value to this parcel, and will be taxed at the commercial rate rather than the agricultural rate. This will generate substantial additional tax revenue for the community. Since community solar does not use additional services unlike other forms of development the additional tax revenue will be available to the county to spend as they desire. It is essentially free money.

This project will generate 12,500,000 KWh of electricity a year. This electricity will be place on the local distribution grid to be consumed by local residences and businesses. The electricity will be sold from 10 to 20 percent cheaper than what is currently being paid. At \$0.02 cheaper (~14%) subscribers will save \$250,000.00 on electricity per year.

That the proposed variation will not impair an adequate supply of light and air to adjacent property, or substantially increase the congestion in the public streets or increase the danger of fire, or endanger the public safety or substantially diminish or impair property values within the neighborhood.

This community solar project will not be a nuisance to the neighborhood. The solar array is set back a substantial distance from neighboring property lines and further still from the small number of neighboring residences. Nether the solar array or screening will not stop adequate supply of light or air to the adjacent properties.

During the approximately 3-month construction period there will be an increase of traffic on Corneils Rd, however, the anticipated traffic will not create congestion. All parking will be on site and no shoulder parking will be permitted. After construction, very limited visits to the site will be necessary as the facility is remotely monitored. Such visits are anticipated to only be a few times a year for vegetation management or occasional maintenance to the solar array as need arises.

Solar panels and their racking are nonflammable and do not pose a fire risk. The planted vegetation has the same level of fire risk as the present agricultural use. This project will not create additional fire risk.

The solar array will be fenced to prevent unauthorized people from entering the site. The site will be electronically monitored 24/7. The site will be maintained and operated in a safe and reliable manner.

Community solar does not substantially diminish or impair property values within the neighborhood. Attached is a property value impact study on a very similar property that shows no discernable effect to property values of neighboring properties. The present proposed project would have substantially

greater setbacks from the neighbors as well as better placed screening making it even less likely to have any adverse effect on neighboring properties.

G.



Illinois Department of Natural Resources

One Natural Resources Way Springfield, Illinois 62702-1271
<http://dnr.state.il.us>

JB Pritzker, Governor

Natalie Phelps Finnie, Director

February 24, 2025

Isabel Cossio
USA Energy Independence 1 LLC

RE: USA Energy Independence 1 LLC
Project Number(s): 2509790
County: Kendall

Dear Applicant:

This letter is in reference to the project you recently submitted for consultation. The natural resource review provided by EcoCAT identified protected resources that may be in the vicinity of the proposed action. The Department has evaluated this information and concluded that adverse effects are unlikely. Therefore, consultation under 17 Ill. Adm. Code Part 1075 is terminated.

However, the Department recommends:

Establishing pollinator-friendly habitat as groundcover wherever feasible. Solar Site Pollinator Establishment Guidelines can be found here:
<https://dnr.illinois.gov/conservation/pollinatorscorecard.html>

The site should be de-compacted before planting.

Long term management of the site should be planned for prior to development to ensure successful native pollinator habitat establishment and prevent the spread of invasive species throughout the lifetime of this project. An experienced ecological management consultant should be hired to assist with long-term management.

Required fencing, excluding areas near or adjacent to public access areas, should have a 6-inch gap along the bottom to prevent the restriction of wildlife movement. Woven wire or a suitable habitat wildlife friendly fence should be used. Barbed wire should be avoided.

Trees should be cleared between November 1st and March 31st. All night lighting should follow IDA guidance.



Illinois Department of Natural Resources

JB Pritzker, Governor

One Natural Resources Way Springfield, Illinois 62702-1271
<http://dnr.state.il.us>

Natalie Phelps Finnie, Director

This consultation is valid for two years unless new information becomes available that was not previously considered; the proposed action is modified; or additional species, essential habitat, or Natural Areas are identified in the vicinity. If the project has not been implemented within two years of the date of this letter, or any of the above listed conditions develop, a new consultation is necessary.

The natural resource review reflects the information existing in the Illinois Natural Heritage Database at the time of the project submittal, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, you must comply with the applicable statutes and regulations. Also, note that termination does not imply IDNR's authorization or endorsement of the proposed action.

Please contact me if you have questions regarding this review.



Isabella Newingham
Division of Ecosystems and Environment
217-785-5500

H.



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Illinois-Iowa Ecological Services Field Office
Illinois & Iowa Ecological Services Field Office
1511 47th Ave
Moline, IL 61265-7022
Phone: (309) 757-5800 Fax: (309) 757-5807



In Reply Refer To:

12/19/2024 23:55:07 UTC

Project Code: 2025-0034319

Project Name: USA Energy Independence 1 LLC

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The attached species list identifies federally threatened, endangered, proposed and candidate species that may occur within the boundary of your proposed project or may be affected by your proposed project. The list also includes designated critical habitat, if present, within your proposed project area or affected by your project. This list is provided to you as the initial step of the consultation process required under section 7(c) of the Endangered Species Act, also referred to as Section 7 Consultation.

Under 50 CFR 402.12(e) (the regulations that implement Section 7 of the Endangered Species Act) **the accuracy of this species list should be verified after 90 days**. This verification can be completed formally or informally. You may verify the list by visiting the ECOSPHERE Information for Planning and Consultation (IPaC) website <https://ipac.ecosphere.fws.gov> at regular intervals during project planning and implementation and completing the same process you used to receive the attached list.

Section 7 Consultation

Section 7 of the Endangered Species Act of 1973 requires that actions authorized, funded, or carried out by Federal agencies not jeopardize federally threatened or endangered species or adversely modify designated critical habitat. To fulfill this mandate, Federal agencies (or their designated non-federal representative) must consult with the U.S. Fish and Wildlife Service (Service) if they determine their project "may affect" listed species or designated critical habitat. Under the ESA, it is the responsibility of the Federal action agency or its designated representative to determine if a proposed action may affect endangered, threatened, or proposed species, or designated critical habitat, and if so, to consult with the Service further. Similarly, it is the responsibility of the Federal action agency or project proponent, not the Service to make "no effect" determinations. If you determine that your proposed action will have no effect on threatened or endangered species or their respective designated critical habitat, you do not need to seek concurrence with the Service.

Note: For some species or projects, IPaC will present you with *Determination Keys*. You may be able to use one or

more Determination Keys to conclude consultation on your action.

Technical Assistance for Listed Species

1. For assistance in determining if suitable habitat for listed, candidate, or proposed species occurs within your project area or if species may be affected by project activities, you can obtain information on the species life history, species status, current range, and other documents by selecting the species from the thumbnails or list view and visiting the species profile page.

No Effect Determinations for Listed Species

1. If there are *no* species or designated critical habitats on the Endangered Species portion of the species list: conclude "no species and no critical habitat present" and document your finding in your project records. No consultation under ESA section 7(a)(2) is required if the action would result in no effects to listed species or critical habitat. Maintain a copy of this letter and IPaC official species list for your records.
2. If any species or designated critical habitat are listed as potentially present in the **action area** of the proposed project the project proponents are responsible for determining if the proposed action will have "no effect" on any federally listed species or critical habitat. No effect, with respect to species, means that no individuals of a species will be exposed to any consequence of a federal action or that they will not respond to such exposure.
3. If the species habitat is not present within the action area or current data (surveys) for the species in the action area are negative: conclude "no species habitat or species present" and document your finding in your project records. For example, if the project area is located entirely within a "developed area" (an area that is already graveled/paved or supports structures and the only vegetation is limited to frequently mowed grass or conventional landscaping, is located within an existing maintained facility yard, or is in cultivated cropland conclude no species habitat present. Be careful when assessing actions that affect: 1) rights-of-ways that contains natural or semi-natural vegetation despite periodic mowing or other management; structures that have been known to support listed species (example: bridges), and 2) surface water or groundwater. Several species inhabit rights-of-ways, and you should carefully consider effects to surface water or groundwater, which often extend outside of a project's immediate footprint.
4. Adequacy of Information & Surveys - Agencies may base their determinations on the best evidence that is available or can be developed during consultation. Agencies must give the benefit of any doubt to the species when there are any inadequacies in the information. Inadequacies may include uncertainty in any step of the analysis. To provide adequate information on which to base a determination, it may be appropriate to conduct surveys to determine whether listed species or their habitats are present in the action area. Please contact our office for more information or see the survey guidelines that the Service has made available in IPaC.

May Effect Determinations for Listed Species

1. If the species habitat is present within the action area and survey data is unavailable or inconclusive: assume the species is present or plan and implement surveys and interpret results in coordination with our office. If assuming species present or surveys for the species are positive continue with the may affect determination process. May affect, with respect to a species, is the appropriate conclusion when a species might be exposed to a consequence of a federal action and could respond to that exposure. For critical habitat, 'may affect' is the appropriate conclusion if the action area overlaps with mapped areas of critical habitat and an essential physical or biological feature may be exposed to a consequence of a federal action and could change in response to that exposure.
2. Identify stressors or effects to the species and to the essential physical and biological features of critical habitat that overlaps with the action area. Consider all consequences of the action and assess the potential for each life stage of the species that occurs in the action area to be exposed to the stressors. Deconstruct the action into its component parts to be sure that you do not miss any part of the action that could cause effects to the species or physical and biological features of critical habitat. Stressors that affect species' resources may have consequences even if the species is not present when the project is implemented.
3. If no listed or proposed species will be exposed to stressors caused by the action, a 'no effect' determination may be appropriate – be sure to separately assess effects to critical habitat, if any overlaps with the action

area. If you determined that the proposed action or other activities that are caused by the proposed action may affect a species or critical habitat, the next step is to describe the manner in which they will respond or be altered. Specifically, to assess whether the species/critical habitat is "not likely to be adversely affected" or "likely to be adversely affected."

4. Determine how the habitat or the resource will respond to the proposed action (for example, changes in habitat quality, quantity, availability, or distribution), and assess how the species is expected to respond to the effects to its habitat or other resources. Critical habitat analyses focus on how the proposed action will affect the physical and biological features of the critical habitat in the action area. If there will be only beneficial effects or the effects of the action are expected to be insignificant or discountable, conclude "may affect, not likely to adversely affect" and submit your finding and supporting rationale to our office and request concurrence.
5. If you cannot conclude that the effects of the action will be wholly beneficial, insignificant, or discountable, check IPaC for species-specific Section 7 guidance and conservation measures to determine whether there are any measures that may be implemented to avoid or minimize the negative effects. If you modify your proposed action to include conservation measures, assess how inclusion of those measures will likely change the effects of the action. If you cannot conclude that the effects of the action will be wholly beneficial, insignificant, or discountable, contact our office for assistance.
6. Letters with requests for consultation or correspondence about your project should include the Consultation Tracking Number in the header. Electronic submission is preferred.

For additional information on completing Section 7 Consultation including a Glossary of Terms used in the Section 7 Process, information requirements for completing Section 7, and example letters visit the Midwest Region Section 7 Consultations website at: <https://www.fws.gov/office/midwest-region-headquarters/midwest-section-7-technical-assistance>.

You may find more specific information on completing Section 7 on communication towers and transmission lines on the following websites:

- Incidental Take Beneficial Practices: Power Lines - <https://www.fws.gov/story/incidental-take-beneficial-practices-power-lines>
- Recommended Best Practices for Communication Tower Design, Siting, Construction, Operation, Maintenance, and Decommissioning. - <https://www.fws.gov/media/recommended-best-practices-communication-tower-design-siting-construction-operation>

Tricolored Bat Update

On September 14, 2022, the Service published a proposal in the Federal Register to list the tricolored bat (*Perimyotis subflavus*) as endangered under the Endangered Species Act (ESA). The Service has up to 12-months from the date the proposal published to make a final determination, either to list the tricolored bat under the Act or to withdraw the proposal. The Service determined the bat faces extinction primarily due to the rangewide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across North America. Because tricolored bat populations have been greatly reduced due to WNS, surviving bat populations are now more vulnerable to other stressors such as human disturbance and habitat loss. Species proposed for listing are not afforded protection under the ESA; however, as soon as a listing becomes effective (typically 30 days after publication of the final rule in the Federal Register), the prohibitions against jeopardizing its continued existence and "take" will apply. Therefore, if your future or existing project has the potential to adversely affect tricolored bats after the potential new listing goes into effect, we recommend that the effects of the project on tricolored bat and their habitat be analyzed to determine whether authorization under ESA section 7 or 10 is necessary. Projects with an existing section 7 biological opinion may require

reinitiation of consultation, and projects with an existing section 10 incidental take permit may require an amendment to provide uninterrupted authorization for covered activities. Contact our office for assistance.

Other Trust Resources and Activities

Bald and Golden Eagles

Although no longer protected under the Endangered Species Act, be aware that bald eagles are protected under the Bald and Golden Eagle Protection Act and Migratory Bird Treaty Act, as are golden eagles. Projects affecting these species may require measures to avoid harming eagles or may require a permit. If your project is near an eagle nest or winter roost area, please contact our office for further coordination. For more information on permits and other eagle information visit our website <https://www.fws.gov/library/collections/bald-and-golden-eagle-management>. We appreciate your concern for threatened and endangered species. Please feel free to contact our office with questions or for additional information.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Illinois-Iowa Ecological Services Field Office
Illinois & Iowa Ecological Services Field Office
1511 47th Ave
Moline, IL 61265-7022
(309) 757-5800

Project code: 2025-0034319

12/19/2024 23:55:07 UTC

PROJECT SUMMARY

Project Code: 2025-0034319

Project Name: USA Energy Independence 1 LLC

Project Type: Power Gen - Solar

Project Description: A community solar garden on cropped, developed farmland for clean energy production

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@41.694465699999995,-88.43628827940599,14z>



Counties: Kendall County, Illinois

ENDANGERED SPECIES ACT SPECIES

There is a total of 5 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. 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.

Project code: 2025-0034319

12/19/2024 23:55:07 UTC

MAMMALS

NAME

STATUS

Indiana Bat *Myotis sodalis*

Endangered

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.Species profile: <https://ecos.fws.gov/ecp/species/5949>**BIRDS**

NAME

STATUS

Whooping Crane *Grus americana*

Experimental

Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY)

Population,

No critical habitat has been designated for this species.

Non-

Species profile: <https://ecos.fws.gov/ecp/species/758>

Essential

INSECTS

NAME

STATUS

Monarch Butterfly *Danaus plexippus*

Proposed

There is **proposed** critical habitat for this species.

Threatened

Species profile: <https://ecos.fws.gov/ecp/species/9743>Western Regal Fritillary *Argynnis idalia occidentalis*

Proposed

No critical habitat has been designated for this species.

Threatened

Species profile: <https://ecos.fws.gov/ecp/species/12017>**FLOWERING PLANTS**

NAME

STATUS

Eastern Prairie Fringed Orchid *Platanthera leucophaea*

Threatened

No critical habitat has been designated for this species.

Species profile: <https://ecos.fws.gov/ecp/species/601>**CRITICAL HABITATS**

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIESAny 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 OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

-
1. The [Bald and Golden Eagle Protection Act](#) of 1940.
 2. The [Migratory Birds Treaty Act](#) of 1918.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#)

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

NAME

Bald Eagle *Haliaeetus leucocephalus*

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.

<https://ecos.fws.gov/ecp/species/1626>

BREEDING SEASON

Breeds Oct 15 to
Aug 31

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 "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (●)

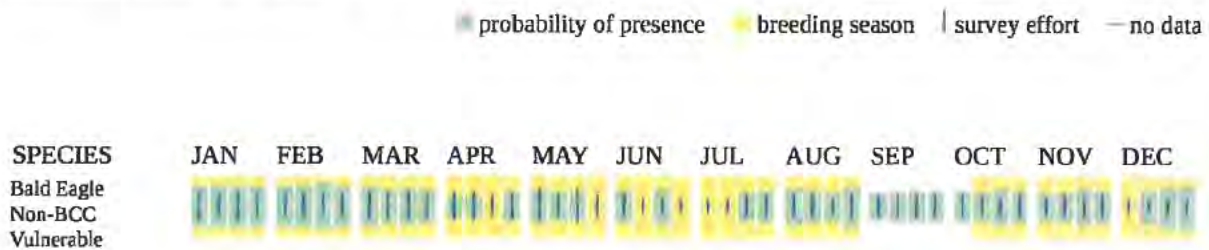
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

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



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

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 habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

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

NAME	BREEDING SEASON
American Golden-plover <i>Pluvialis dominica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10561	Breeds elsewhere
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. https://ecos.fws.gov/ecp/species/1626	Breeds Oct 15 to Aug 31
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10
Bobolink <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9454	Breeds May 20 to Jul 31
Cerulean Warbler <i>Setophaga cerulea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/2974	Breeds Apr 21 to Jul 20
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	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. https://ecos.fws.gov/ecp/species/10678	Breeds May 1 to Aug 20
Grasshopper Sparrow <i>Ammodramus savannarum perpallidus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8329	Breeds Jun 1 to Aug 20
Henslow's Sparrow <i>Centronyx henslowii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3941	Breeds May 1 to Aug 31

NAME	BREEDING SEASON
Kentucky Warbler <i>Geothlypis formosa</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9443	Breeds Apr 20 to Aug 20
Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Pectoral Sandpiper <i>Calidris melanotos</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9561	Breeds elsewhere
Prothonotary Warbler <i>Protonotaria citrea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9439	Breeds Apr 1 to Jul 31
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9396	Breeds May 10 to Sep 10
Rusty Blackbird <i>Euphagus carolinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9478	Breeds elsewhere
Semipalmated Sandpiper <i>Calidris pusilla</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9603	Breeds elsewhere
Short-billed Dowitcher <i>Limnodromus griseus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9480	Breeds elsewhere
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9431	Breeds May 10 to Aug 31

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 "[Supplemental](#)

Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

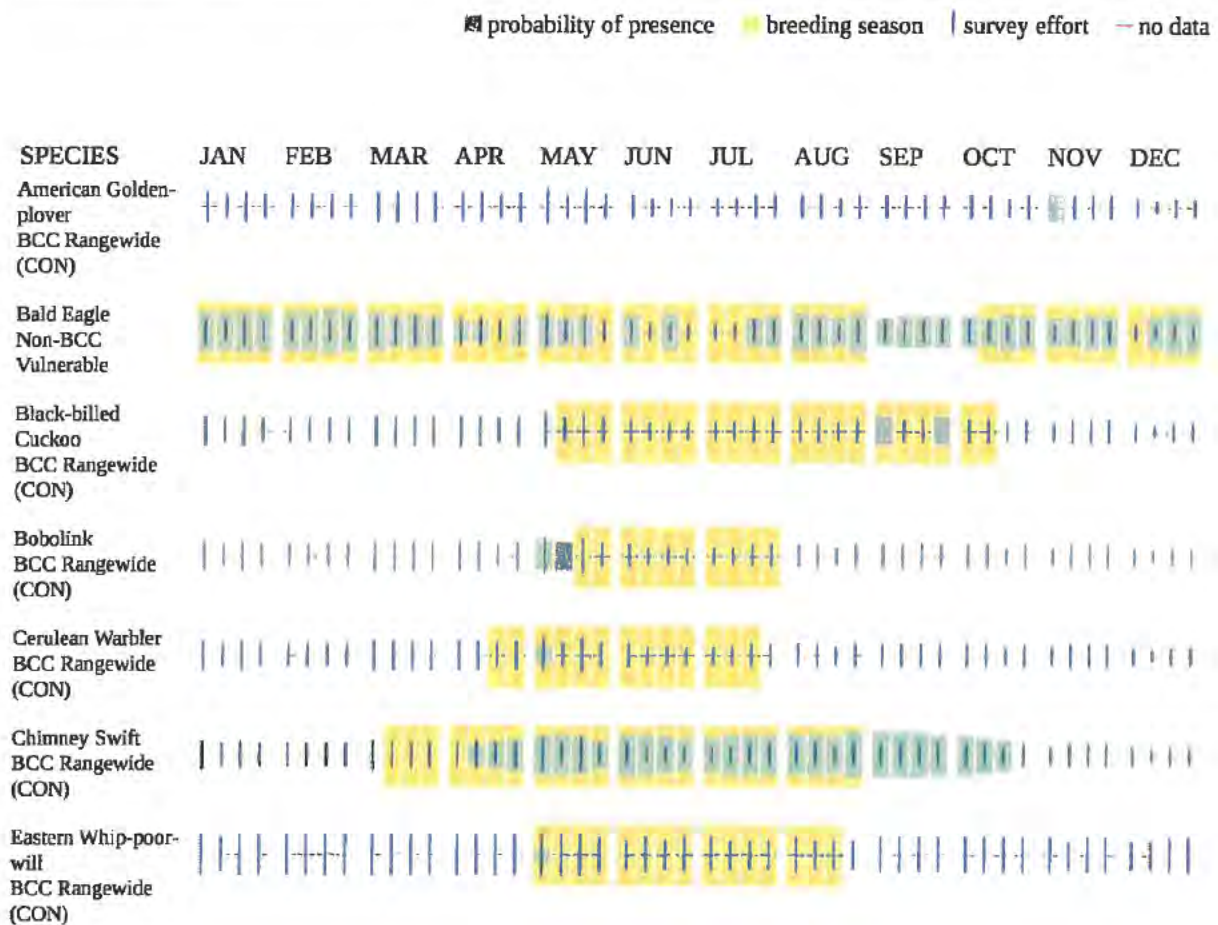
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

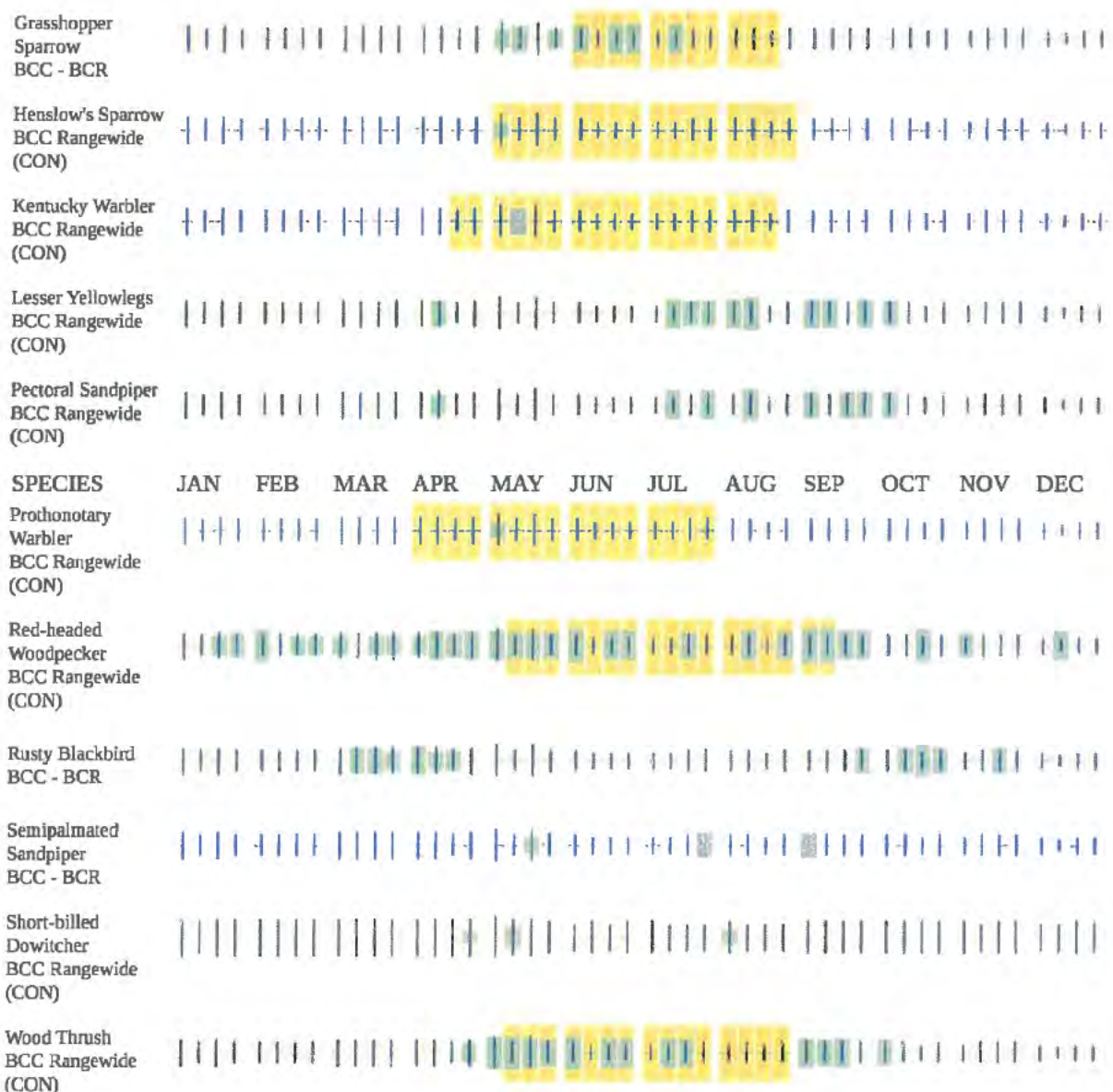
No Data (—)

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



Project code: 2025-0034319

12/19/2024 23:55:07 UTC



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- 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>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

WETLANDS

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.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

FRESHWATER EMERGENT WETLAND

- PEM1C

IPAC USER CONTACT INFORMATION

Agency: Private Entity

Name: Isabel Cossio

Address:

City:

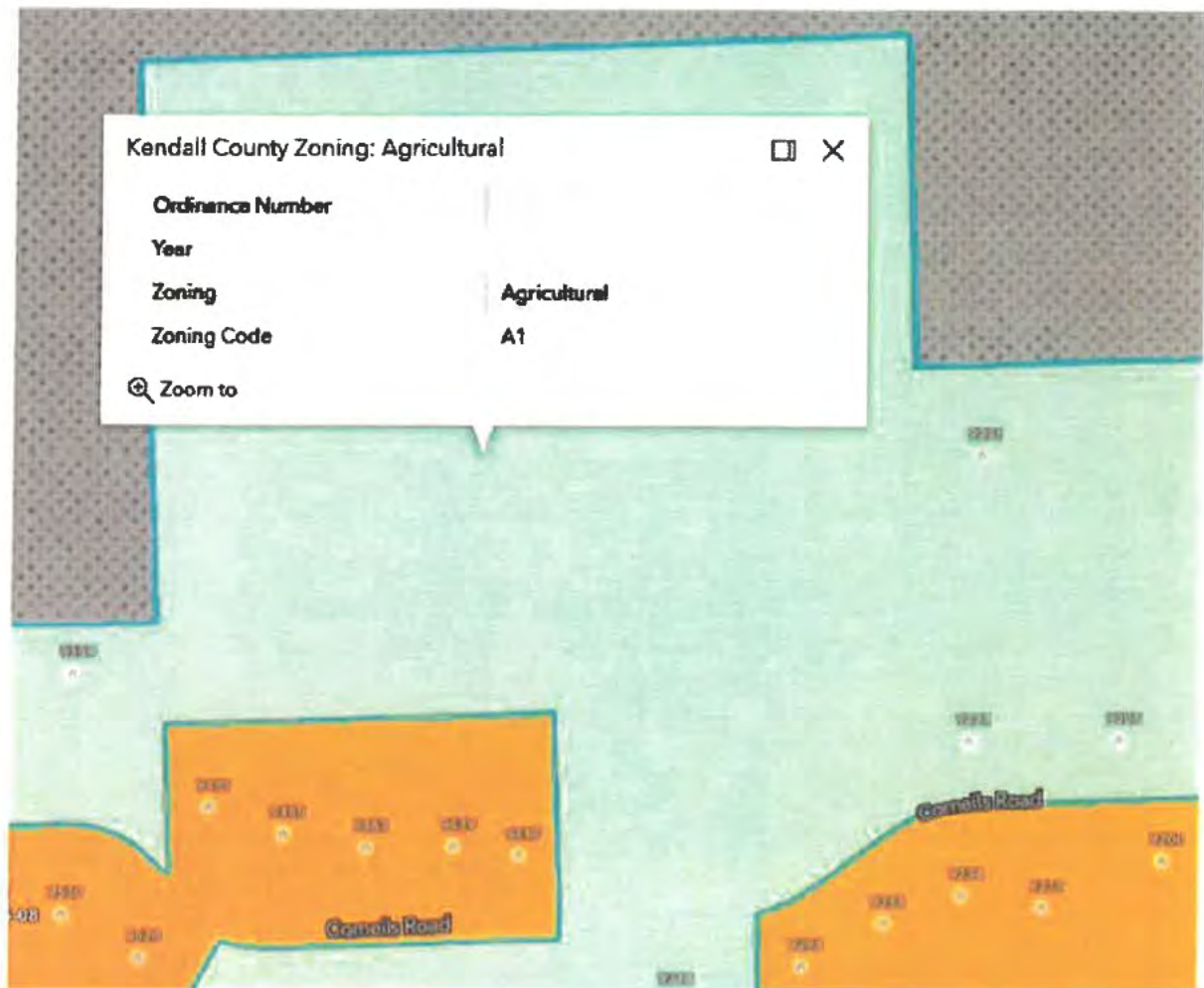
State:

Zip:

Email

Phone:





The screenshot displays a 'Subdivided Property Information Map'. On the left, a legend lists various land use designations with corresponding color swatches: Single-Family Detached (light blue), Single-Family Attached (dark blue), Multi-Family (yellow), Commercial (orange), Industrial (red), and others. The map itself shows a grid of land parcels. A yellow rectangle highlights a specific parcel, likely the subject of the report. The map also shows roads, including one labeled '47', and other geographical features.

STORMWATER MANAGEMENT PERMIT

PERMIT APPLICATION # _____

Conformance with all Federal, State, and County Regulations is required. Applicants are encouraged to read the Stormwater Management Division of the Kendall County Code and consider a pre-application meeting with Department staff prior to submittal. See attached highlights of regulations.

Property: Name LUCAYA ASSET MANAGEMENT LLC

Owner Address _____

Phone _____

Agent: Name Daniel Gorman

Address _____

Phone _____

Site: Address or Location Unincorporated Ag Land on Cornells Rd S9-37-7

Tax Parcel # 02-09-400-007

Zoning/Land Use/Acres Ag/Ag/40.34

Proposed Development:

A 5MW fixed tilt Community Solar garden.

Attachments: Plat x Construction Plans x

Soils x Landscaping x

Grading None/Access Road Phasing See Narrative of SUP

Other _____

Fees \$50.00 Processing Fee (\$50.00)

\$2500.00 Engineering Review Deposit (\$2,500.00 or 2% of estimated cost of the proposed improvements, whichever is greater. A \$3,500.00 Construction Inspection Services Fee and General Consultation Fee Might Be Required as the Project Progresses)

TOTAL \$ 2550.00 One check is acceptable made out to the Kendall County Treasurer

Staff will contact Applicant regarding schedule and reviews.

I hereby certify that the information on this application, on the documents attached, and on other submittals made during the review process is true and correct; that I am authorized to file this application; and that I agree to conform to all requirements set forth by the County and all conditions of the Kendall County Code related to stormwater management. I understand that by signing this form, that the property in question may be visited by County Staff and County Engineers throughout the permit and construction process. I also understand that I am responsible for all costs associated with this application. The applicant attests that they are free of debt or current on all debts owed to Kendall County as of the application date.

Owner's Signature (Including Middle Initial) _____

Date 4-7-2025

Agent's Signature (Including Middle Initial) _____

Date 4/7/25

Kendall County Planning, Building, & Zoning Department

807 West John Street

Yorkville, Illinois 60560

Phone: (630) 553-4139, Fax (630) 553-4179

www.kendallcountyil.gov

P.

Disturbed Area Calc

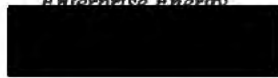
	Diameter (in)	Area (sq in)	Area (sq ft)	Quantity	Total sq ft
				#' fence/ 1	
	D	$\pi/4 \cdot D^2$	$\pi/4 \cdot D^2/144$	post/10'	Area * Quantity
Fence Post	2	3.142	0.0218	367	8.007
				# Modules*2	
I beam		12.27	0.0852	24240	2065.5
Equipment pad			260	2	520
Access Road			25766	1	25766
			Sum all area		28359 sq ft
			=		0.6510 acres

J.

Level 1 Wetland Delineation Report
Energy Independence 1 LLC
Kendall County, Illinois

Prepared for:

Enterprise Energy



Prepared by:

Area M Consulting, LLC
Environmental Consultants
2023 Alameda Street
Roseville, MN 55113
www.areasconsulting.com

AREAM

March 2025

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I certify that, to the best of my knowledge, this wetland delineation and report were completed following current wetland standards as set forth by the USACE, NRCS, and other agencies. Findings in this report represent Area M's best judgement based on conditions and information available at the time of the wetland delineation.



Jonathan Knudsen, WDC, MS
Field Director/Wetland Specialist
MN Certified Wetland Delineator 1307
Virginia DPOR Professional Wetland Delineator 3402000205

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APPENDICES

Appendix A. Maps

Appendix B: FEMA Firmette

Appendix C: Soils Report/Hydric Rating by Soils Unit and Hydric Soils List – All Components

Appendix D: Aerial Imagery Slides

INTRODUCTION

Area M Consulting (Area M), on behalf of Enterprise Energy (Client) conducted a wetland delineation for the USA Energy Independence 1 LLC Project (Project) located within Kendall County, Illinois. The Area M biologist conducted a Level 1 Delineation as defined by the United States Army Corps of Engineers (USACE) within the Project boundaries following procedures and methods outlined by the USACE Wetland Delineation Manual (USACE, 1987), Midwest Regional Supplement (USACE, 2012), and Illinois Mapping Conventions protocol (NRCS, 1998). This wetland delineation only included a desktop component; a field investigation was not conducted, and Area M acknowledges that field testing may be required to confirm wetland boundaries, despite the Project being entirely cropped. This wetland delineation report is assembled to assist the Client with internal planning and to meet regulatory requirements necessary for permitting a community solar garden (CSG) in Macon County, Illinois for the Illinois Adjustable Block Program.

PROJECT DESCRIPTION

The Project, encompassing approximately 21 acres, is located 2.4 miles north of Yorkville, Illinois in Section 9, T37N:R7W (Study Area) (Map 1 & Map 2; Appendix A). The Study Area includes a rolling agricultural field bounded to the south by residential lots and to the east by a deciduous woodlot. Open farmland borders the northern and northeastern boundaries of the Study Area. The entire Study Area is agricultural, with rotating soybeans and corn cropped annually. The surrounding landscape is a mosaic of cropland, residential lots, and riparian corridors. The entire Study Area is private property.

OFF-SITE REVIEW

Prior to fieldwork, Area M conducted a comprehensive desktop review of data sources to identify the presence/absence and extent of wetlands that could occur within the Study Area. Areas with wetland signatures, suggesting potential wetland conditions, were evaluated in greater detail during the field investigation. The following data sources were reviewed; the analysis of each data set is discussed in greater detail in the later part of this section.

- ☐ Hydrologic soil data
- ☐ Elevation Data
 - Illinois Light Detection and Ranging (LiDAR) Data
 - United States Geological Survey (USGS) topographic maps
- ☐ Mapped Wetlands/Waterbodies
 - U.S. Fish and Wildlife Services (USFWS) National Wetland Inventory (NWI)
 - Illinois Department of Natural Resources (IDNR) Public Waters
 - National Hydrography Dataset (NHD)
- ☐ Historic and current aerial photographs

Mapped Wetland Data

The NWI (USFWS, 2025), Illinois Public Waters (IDNR, 2024), and NHD (USGS, 2025) data sets were reviewed to document mapped wetlands and/or waterbodies within the Study Area. Features within these databases do not intersect the Study Area (Map 3; Appendix A). The Federal Emergency Management Agency (FEMA) flood map was also reviewed to identify high-risk flood zones. The Study Area is entirely within low-flood risk zones (FEMA, 2025) (Appendix B).

Soils

The Web Soil Survey (NRCS, 2024) was accessed to summarize mapped soil types occurring within the Study Area. Slightly hydric soil units are found throughout the Study Area. A full list of hydric soil components and attributes is presented in Appendix C.

Topographic Data

Elevation and topographic data were reviewed within the Study Area to identify potential basins and depressional areas which could be indicative of wetlands. The Study Area includes a gently rolling agricultural field which slopes towards the north. The total topographic relief of the Study Area is approximately 8 feet.

Historic Aerial Photography Review

Historical aerial slides were analyzed for wetland signatures in conjunction with antecedent precipitation to identify potential wetlands prior to the field delineation. Evaluating imagery is a useful method for identifying wetlands, particularly in farm fields, due to the lack of natural vegetation and/or hydrology. Wetland signatures were identified on each slide, following the Illinois Wetland Mapping Conventions protocol (NRCS, 1998). Areas within each slide showing wetland signatures, such as ponding, were outlined and are presented on each slide (labeled as Areas). Aerial imagery dates and antecedent precipitation status for each slide are listed below (Table 1). Antecedent precipitation data for the imagery (Dry, Normal, or Wet) was determined based on the NRCS/USACE method for using hydrology and meteorological data to evaluate wetland hydrology (Sprecher and Warne, 1997). The antecedent precipitation data was accessed using the Environmental Protection Agency (EPA) Antecedent Precipitation Tool (EPA, 2024). After slide review, three agricultural areas (Area 1, Area 2, and Area 3) showing wetland hydrology signatures on aerial slides were identified within the Study Area (Appendix D).

Table 1. Imagery dates and antecedent precipitation status.

Imagery Date	Wetland Signature ¹			Antecedent Precipitation Status ²
	Area 1	Area 2	Area 3	
April 1993	Yes	Yes	Yes	Normal
April 1998	Yes	Yes	Yes	Normal
February 2002	No	No	No	Normal
June 2002	Yes	No	No	Normal
April 2005	Yes	No	No	Normal
June 2005	Yes	No	No	Normal
June 2006	No	No	No	Normal
June 2007	Yes	No	No	Normal
April 2008	Yes	No	No	Wet
June 2009	Yes	Yes	No	Wet
September 2011	Yes	Yes	No	Normal
May 2013	No	No	No	Wet
September 2015	No	No	No	Dry
June 2016	No	No	No	Wet
April 2017	No	No	No	Dry
September 2017	No	No	No	Wet
March 2018	Yes	Yes	Yes	Wet
October 2019	Yes	Yes	Yes	Dry
June 2023	Yes	No	Yes	Wet

¹Wetland Mapping Conventions (NRCS, 1998)

²Antecedent Precipitation Tool (EPA, 2025)

OBS – Obscured Imagery

Off-site Summary

Overall, the off-site review suggests one wetland is present within the Study Area based on the slide review in conjunction with local topography, NWI, and soil data.

Wetland 1 – PEMAF

Wetland 1, within Area 1, is contained within a small depression and toe slope in the northeastern corner of the Study Area. Wetland 1 is cropped most years but is frequently drowned-out or ponded. Wetland 1 was determined to be a wetland after aerial imagery review, where 12 of 19 slides (7 of 9 slides with normal antecedent precipitation) showed wetland hydrology signatures. Wetland 1 was mapped by averaging the extent of wetland hydrology signatures observed in slides with normal antecedent precipitation.

Area 2 - Upland

Area 2, located in an isolated depression in the east-central portion of the Study Area, was determined to be upland after aerial imagery review where 6 of 19 slides (3 of 9 slides with normal antecedent precipitation) showed wetland hydrology signatures. Wetland 1 was mapped by averaging the extent of

wetland hydrology signatures observed in slides with normal antecedent precipitation. Area M understands that further field review may be necessary to confirm wetland absence during the growing season.

Area 3 - Upland

Area 3, located in the southeastern portion of the Study Area, was determined to be upland after aerial imagery review where 5 of 19 slides (2 of 9 with normal antecedent precipitation) showed wetland hydrology indicators. Area M understands that further field review may be necessary to confirm wetland absence during the growing season.

RESULTS AND RECOMMENDATIONS

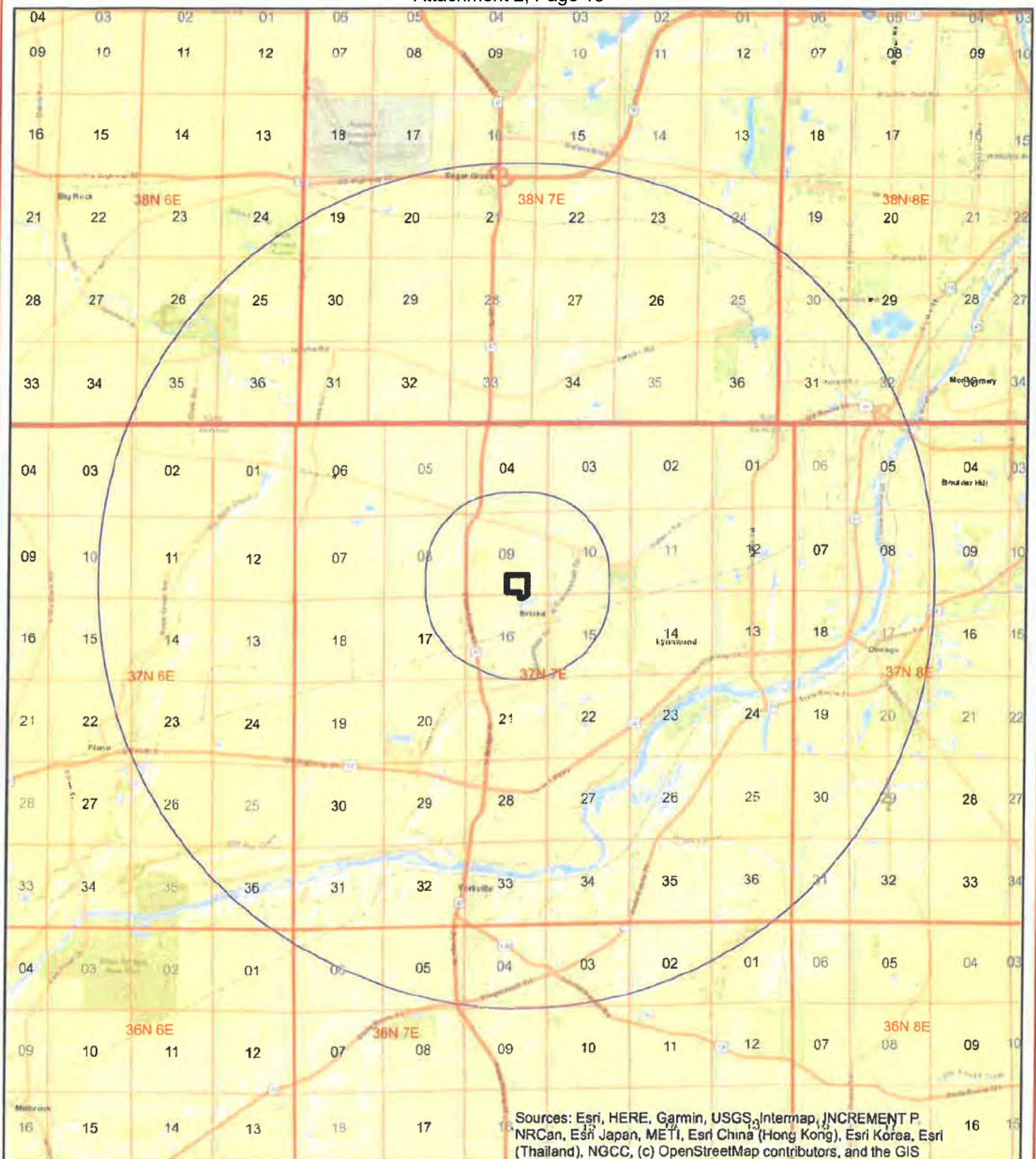
Based upon this routine Level 1 Wetland Delineation, it is the professional opinion of Area M that the Study Area contains one feature (Wetland 1) that likely satisfies the criteria to be a wetland pursuant to the Army Corps of Engineers' 1987 Manual with subsequent clarification memoranda and pursuant to confirmation by the USACE (Map 5; Appendix A). This wetland is likely non-jurisdictional under Section 404 of the Clean Water Act (CWA) due to its isolation and lack of surface connectivity to Waters of the United States. Activities impacting wetlands and waterways are regulated through the USACE, which administers the CWA. The wetlands and wetland boundaries described within this report are described based on the conditions in the field at the time of the survey and subject to verification by state, federal, and local agencies, which have final authority over wetland presence, extent, and jurisdictional status. Area M understands that further field investigation during the growing season may be required to confirm wetland presence, absence, and extent.

REFERENCES

- Federal Emergency Management Agency (FEMA). 2024. Flood Map Service, access at <https://msc.fema.gov/portal/home>
- Environmental Laboratory. 1987. *Corp of Engineers Wetlands Delineation Manual*. Wetlands Research Program. Technical Report Y-87-1. Department of the Army, Waterways Experiment Station, US Army Corp of Engineers. Vicksburg, Mississippi, USA.
- Environmental Laboratory. 2010. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)*. U.S. Army Corps of Engineers, U.S. Army Engineer Research and Development Center, Vicksburg, Mississippi, USA.
- Environmental Protection Agency (EPA). 2024. Antecedent Precipitation Tool. *Downloaded from:* <https://www.epa.gov/wotus/antecedent-precipitation-tool-apt>
- Illinois Department of Natural Resources (IDNR). 2024. Public waters of the State, Ill. Adm. Code Ch. I, Sec. 3704. *Accessed February 2018 from* www.dnr.illinois.gov/WaterResources/Pages/PublicWaters.aspx
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- United States Fish and Wildlife Service (USFWS). 2024. National Wetland Inventory: Wetlands Online Mapper. *Accessed from* <http://www.fws.gov/wetlands/data/mapper.HTML>
- Sprecher, S.W. and Andrew G. Warne, A.G., 2000. Accessing and Using Meteorological Data to Evaluate Wetland Hydrology. WRAP Technical Notes Collection, ERDC/EL TR-WRAP-00-1. U.S. Army Engineer Research and Development Center, Vicksburg, MS.

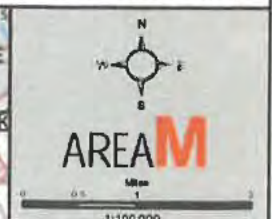
Appendix A:

Maps

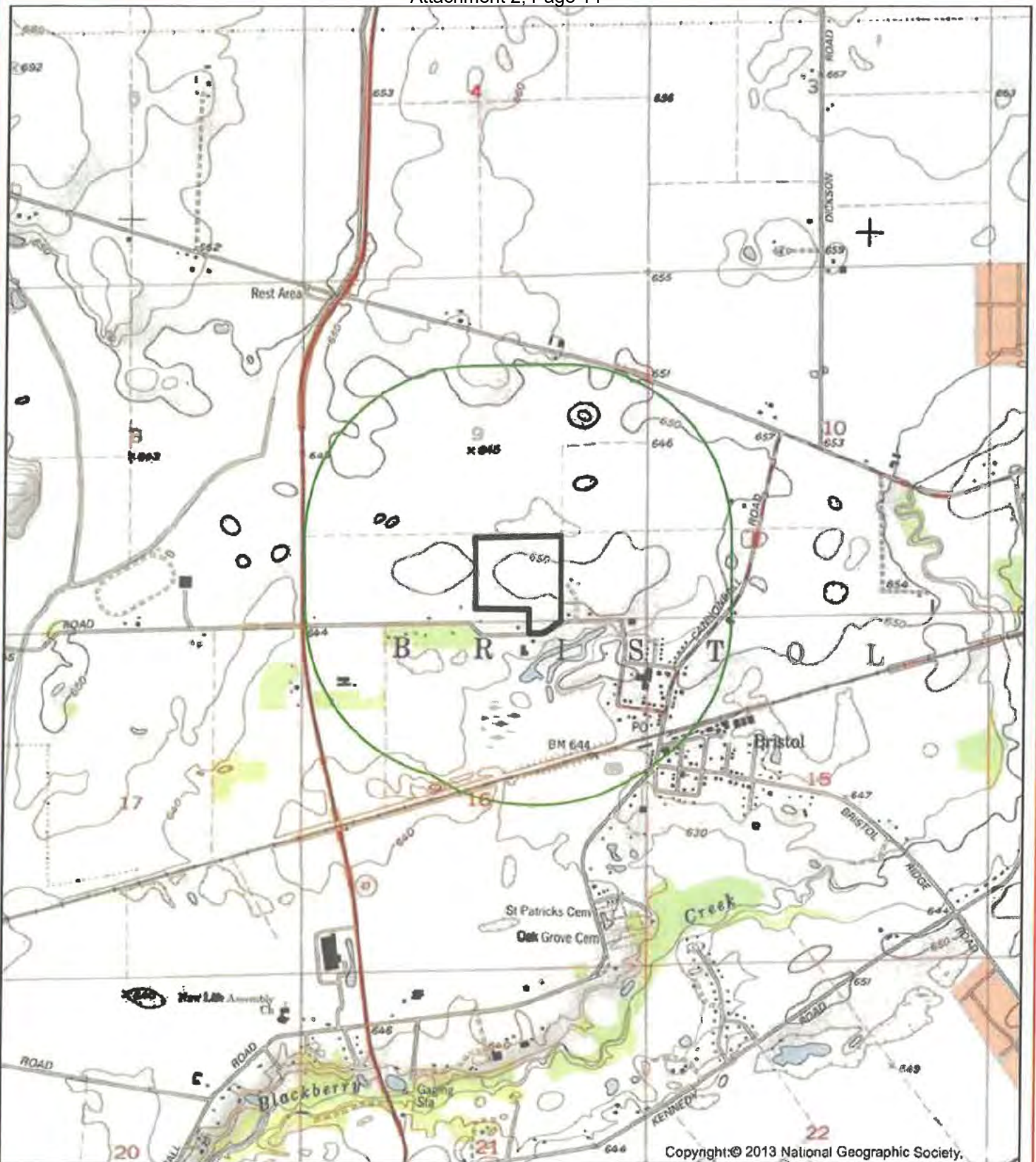
**USA Energy Independence 1 LLC**

Kendall County, IL
S9 T37N:R7E
36.9 Acres
NAD 83, Zone 16
380532 E
4616737 N

-  Project Location
  Section Line
 Project Area
  Township Line
 1-Mile Buffer
  County Line
 5-mile Buffer



Map 1. Location Map



USA Energy Independence 1 LLC

Map 2. 1:24,000 Topographic

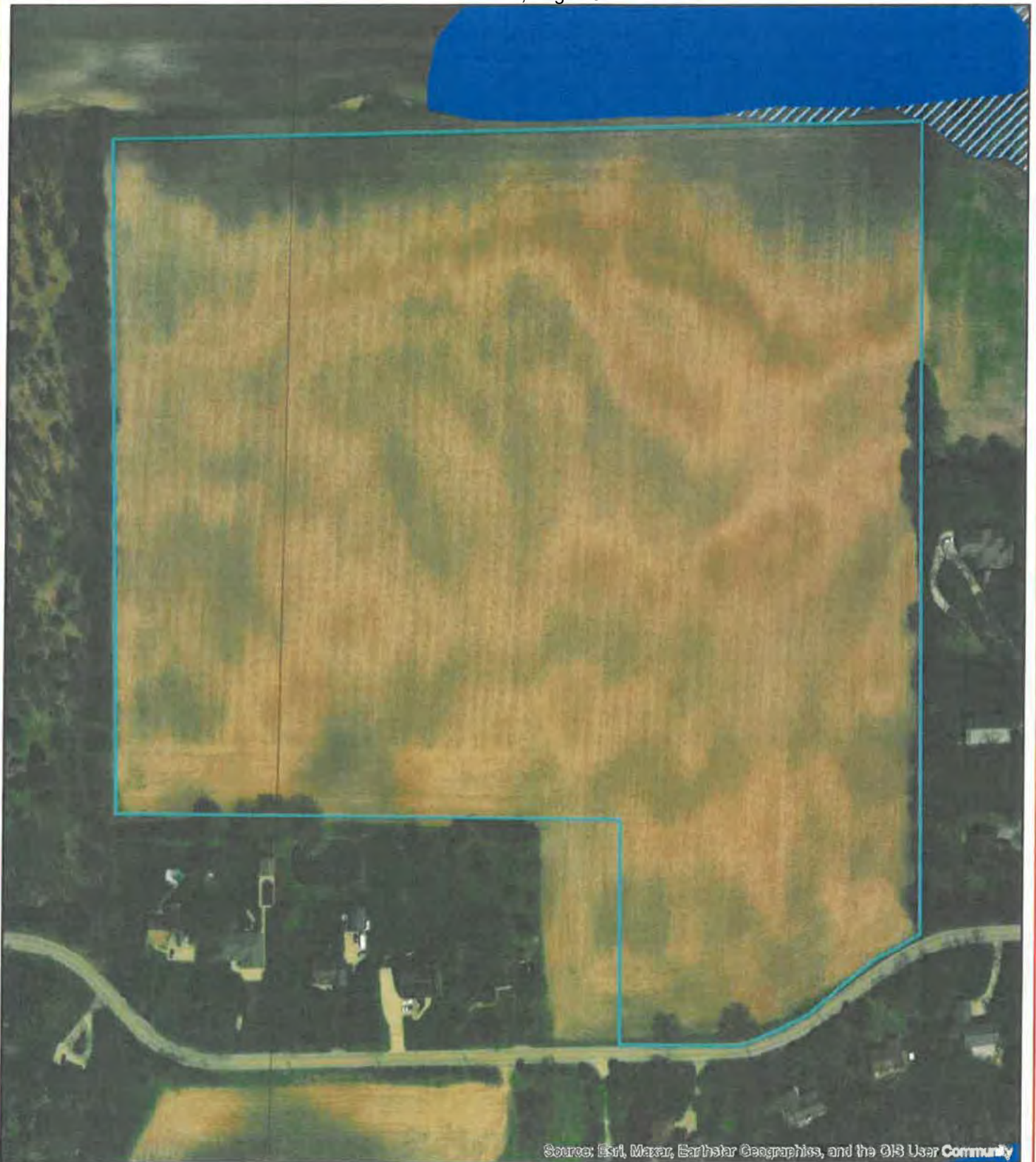
Kendall County, IL

- Project Area
- 0.5-Mile Buffer



AREAM

0 0.125 0.25 0.5
1:24,000



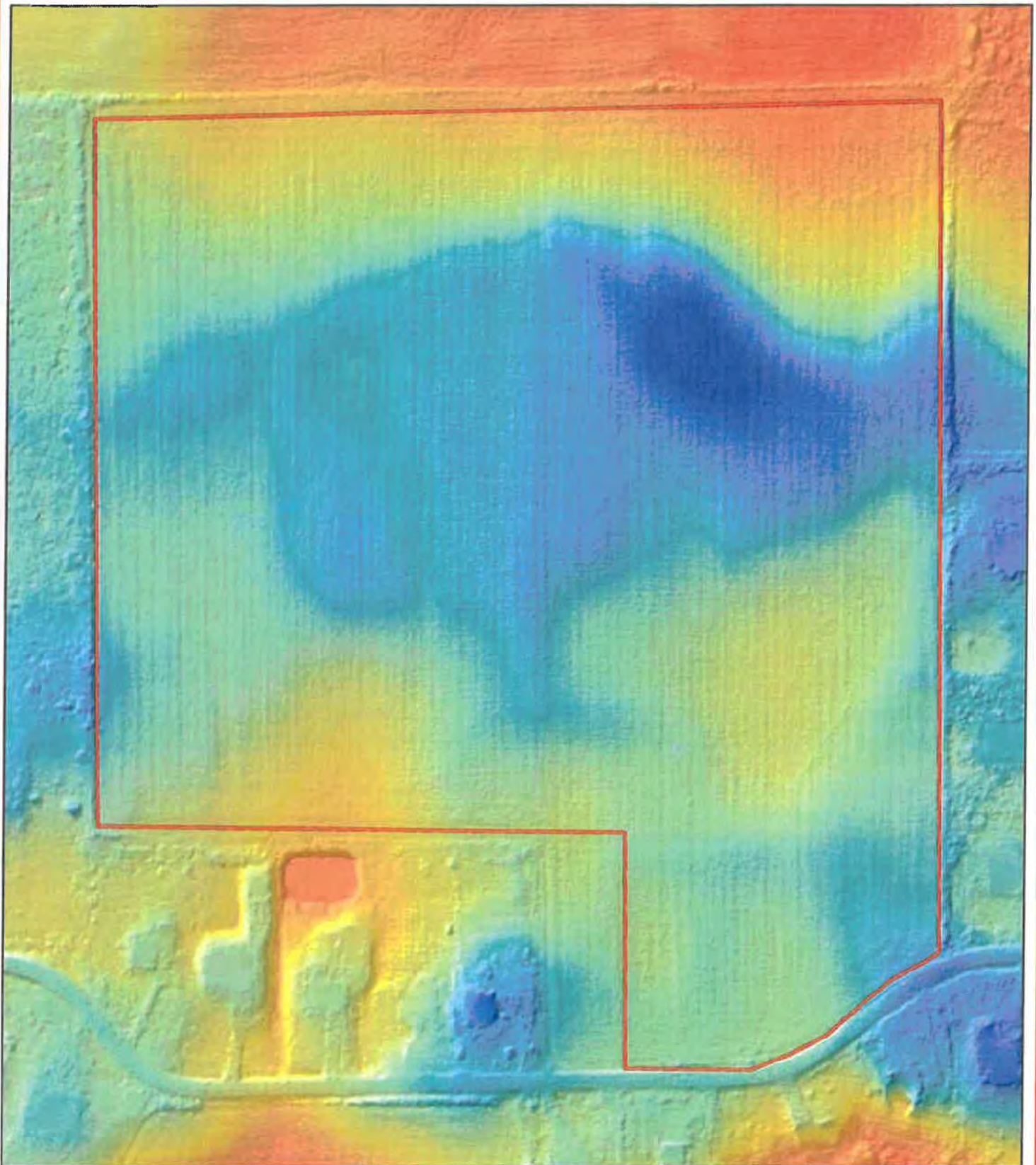
USA Energy Independence 1 LLC

Map 3. Wetland Map

Kendall County, IL

- | | | | |
|---|-----------------|---|----------------------|
|  | Project Polygon |  | Floodway |
|  | NWI Wetland |  | 100-year Floodplain |
|  | NHD Flowline |  | 500-year Floodplain |
|  | NHD Waterbody |  | Minimal Flood Hazard |





USA Energy Independence 1 LLC

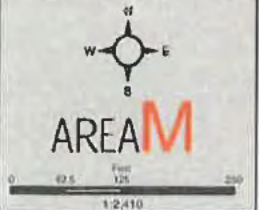
Map 4. Lidar Map

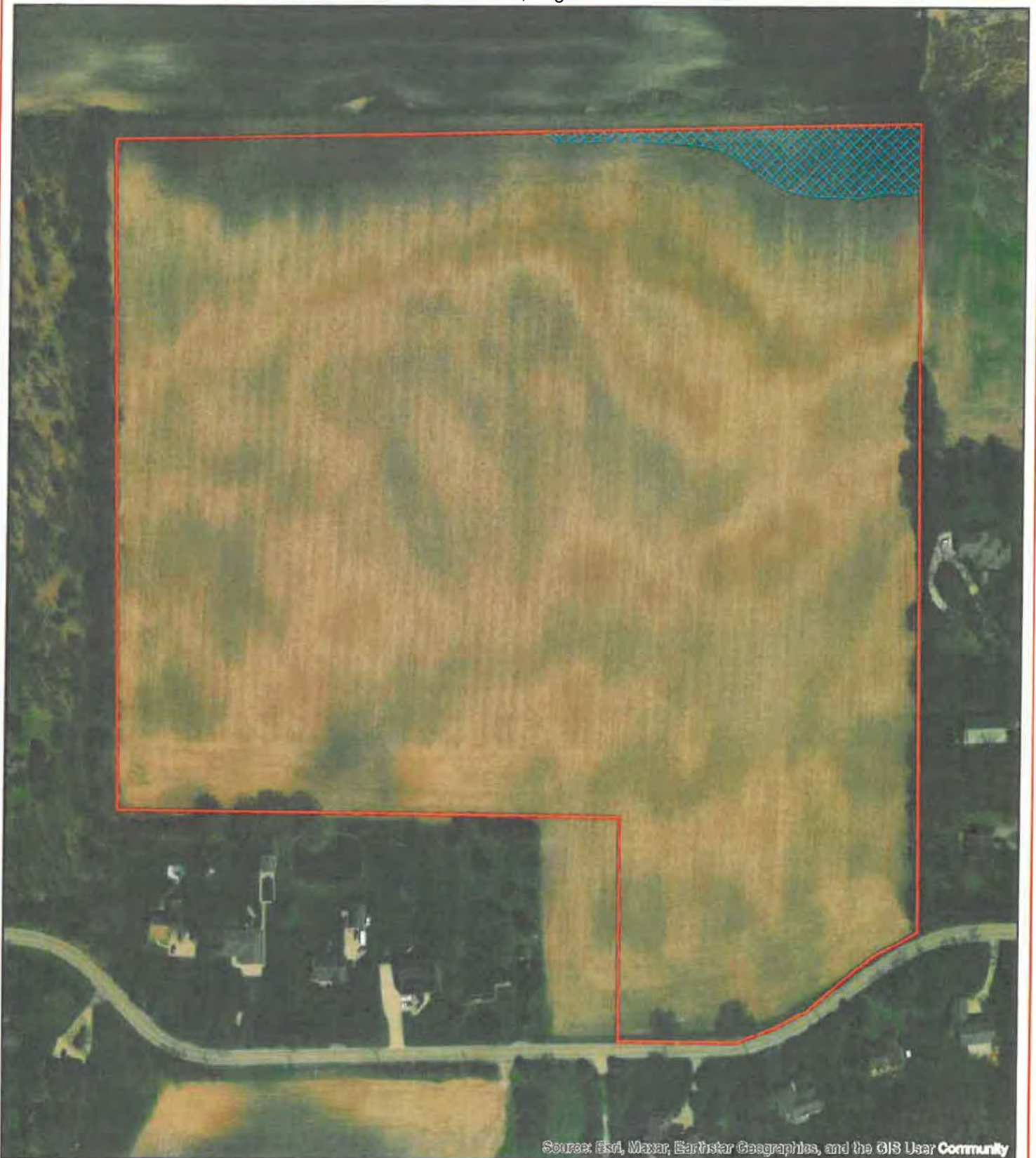
Kendall County, IL

 Study Area

Relative Elevation

 High
Low





USA Energy Independence 1 LLC

Map 5. Wetland Delineation Map

Kendall County, IL



Study Area



L1 Wetland
Boundary



AREAM

0 55 Feet 120 240
1/2520

Appendix B:
FEMA Firmette

National Flood Hazard Layer FIRMette

88°25'29"W 41°41'48"N

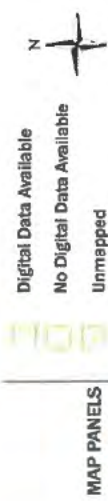
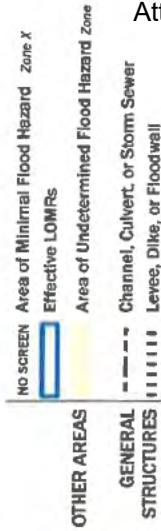


0 250 500 1,000 1,500 2,000 1:6,000 Feet

88°25'51"W 41°41'23"N

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/14/2025 at 3:55 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Appendix C:

Soils Report

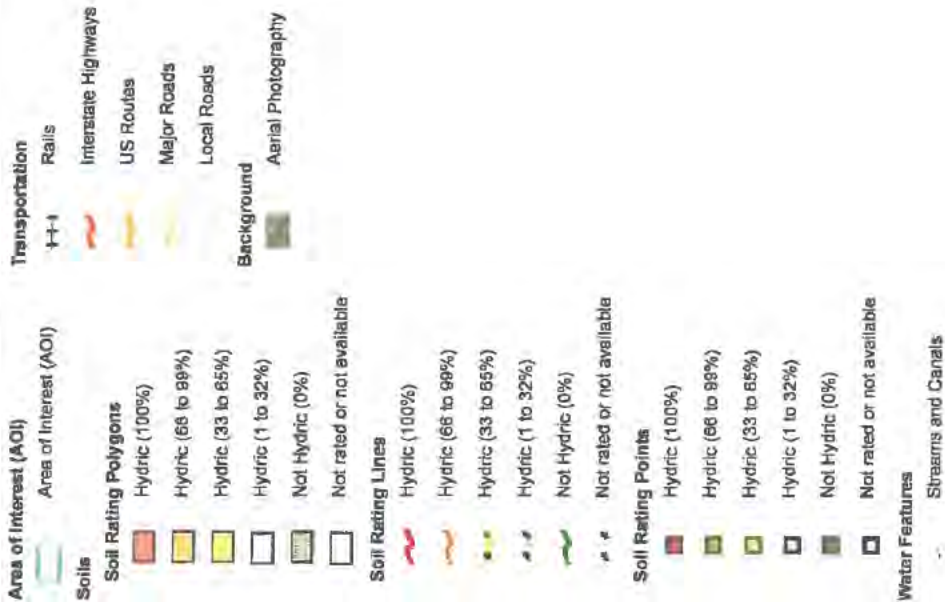
Hydric Rating by Soils Unit and Hydric Soil List – All components

Hydric Rating by Map Unit—Kendall County, Illinois
(PA_USA_Energy_Independence_1_LLC)



Hydric Rating by Map Unit—Kendall County, Illinois
(PA_USA_Energy_Independence_1_LLC)

MAP LEGEND



MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.
Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Kendall County, Illinois
Survey Area Data: Version 21, Aug 21, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 18, 2020—Jul 3, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
103A	Houghton muck, 0 to 2 percent slopes	100	0.6	1.6%
152A	Drummer silty clay loam, 0 to 2 percent slopes	100	3.7	9.9%
219A	Millbrook silt loam, 0 to 2 percent slopes	3	3.1	8.3%
318C2	Lorenzo loam, 4 to 6 percent slopes, eroded	0	2.7	7.2%
791A	Rush silt loam, 0 to 2 percent slopes	6	12.5	33.9%
791B	Rush silt loam, 2 to 4 percent slopes	6	14.4	39.0%
Totals for Area of Interest			36.9	100.0%

Description

This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

The thematic map is color coded based on the composition of hydric components. The five color classes are separated as 100 percent hydric components, 66 to 99 percent hydric components, 33 to 65 percent hydric components, 1 to 32 percent hydric components, and less than one percent hydric components.

In Web Soil Survey, the Summary by Map Unit table that is displayed below the map pane contains a column named 'Rating'. In this column the percentage of each map unit that is classified as hydric is displayed.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Rating Options

Aggregation Method: Percent Present

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Hydric Soil List - All Components

This table lists the map unit components and their hydric status in the survey area. This list can help in planning land uses; however, onsite investigation is recommended to determine the hydric soils on a specific site (National Research Council, 1995; Hurt and others, 2002).

The three essential characteristics of wetlands are hydrophytic vegetation, hydric soils, and wetland hydrology (Cowardin and others, 1979; U.S. Army Corps of Engineers, 1987; National Research Council, 1995; Tiner, 1985). Criteria for all of the characteristics must be met for areas to be identified as wetlands. Undrained hydric soils that have natural vegetation should support a dominant population of ecological wetland plant species. Hydric soils that have been converted to other uses should be capable of being restored to wetlands.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). These soils, under natural conditions, are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

Hydric soils are identified by examining and describing the soil to a depth of about 20 inches. This depth may be greater if determination of an appropriate indicator so requires. It is always recommended that soils be excavated and described to the depth necessary for an understanding of the redoximorphic processes. Then, using the completed soil descriptions, soil scientists can compare the soil features required by each indicator and specify which indicators have been matched with the conditions observed in the soil. The soil can be identified as a hydric soil if at least one of the approved indicators is present.

Map units that are dominantly made up of hydric soils may have small areas, or inclusions, of nonhydric soils in the higher positions on the landform, and map units dominantly made up of nonhydric soils may have inclusions of hydric soils in the lower positions on the landform.

The criteria for hydric soils are represented by codes in the table (for example, 2). Definitions for the codes are as follows:

1. All Histels except for Folistels, and Histosols except for Folists.
2. Soils in Aquic suborders, great groups, or subgroups, Albolls suborder, Historthels great group, Histoturbels great group, Pachic subgroups, or Cumulic subgroups that:
 - A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
 - B. Show evidence that the soil meets the definition of a hydric soil;
3. Soils that are frequently ponded for long or very long duration during the growing season.
 - A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
 - B. Show evidence that the soil meets the definition of a hydric soil;
4. Map unit components that are frequently flooded for long duration or very long duration during the growing season that:
 - A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
 - B. Show evidence that the soil meets the definition of a hydric soil;

Hydric Condition: Food Security Act information regarding the ability to grow a commodity crop without removing woody vegetation or manipulating hydrology.

References:

- Federal Register. July 13, 1994. Changes in hydric soils of the United States.
- Federal Register. Doc. 2012-4733 Filed 2-28-12. February, 28, 2012. Hydric soils of the United States.
- Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.
- Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.
- Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.
- Vasilas, L.M., G.W. Hurt, and C.V. Noble, editors. Version 7.0, 2010. Field indicators of hydric soils in the United States.

Report—Hydric Soil List - All Components

Hydric Soil List - All Components--IL093-Kendall County, Illinois					
Map symbol and map unit name	Component/Local Phase	Comp. pct.	Landform	Hydric status	Hydric criteria met (code)
103A: Houghton muck, 0 to 2 percent slopes	Houghton	85-100	Depressions on ground moraines	Yes	1
	Selma	0-9	Drainageways on ground moraines	Yes	2
	Hooppole	0-9	Swales on ground moraines	Yes	2
	Lena	0-9	Depressions on ground moraines	Yes	1
152A: Drummer silty clay loam, 0 to 2 percent slopes	Drummer-Drained	90-100	Stream terraces on outwash plains, stream terraces on till plains, swales on outwash plains, swales on till plains	Yes	2
	Peotone-Drained	0-9	Depressions on outwash plains	Yes	2
	Harpster-Drained	0-9	Depressions on outwash plains	Yes	2
219A: Millbrook silt loam, 0 to 2 percent slopes	Millbrook	90	Outwash plains, stream terraces	No	—
	Drummer	3	Ground moraines, outwash plains	Yes	2
318C2: Lorenzo loam, 4 to 6 percent slopes, eroded	Lorenzo-Eroded	88-100	Outwash plains, stream terraces	No	—
	Kane	0-9	Outwash plains, stream terraces	No	—
791A: Rush silt loam, 0 to 2 percent slopes	Urban land	0-5	—	No	—
	Rush	90	Outwash plains, stream terraces	No	—
	Dunham	3	Outwash plains, stream terraces	Yes	2
	Drummer	3	Ground moraines, outwash plains	Yes	2

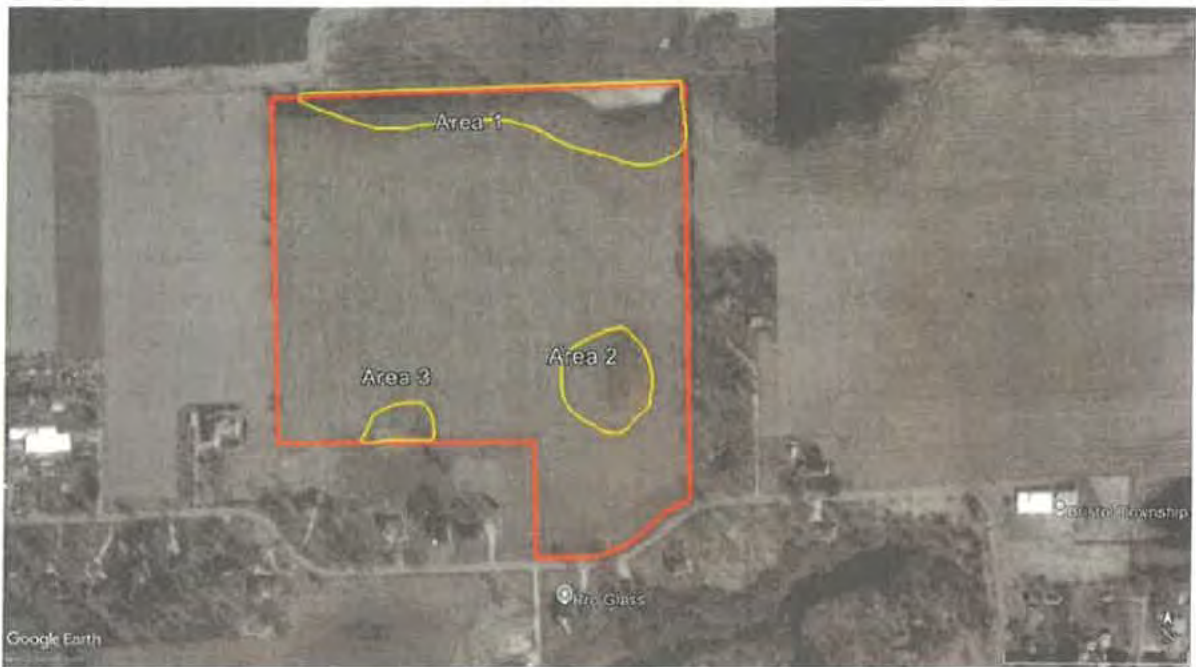
Hydric Soil List - All Components--IL093-Kendall County, Illinois					
Map symbol and map unit name	Component/Local Phase	Comp. pct.	Landform	Hydric status	Hydric criteria met (code)
791B: Rush silt loam, 2 to 4 percent slopes	Rush	90	Outwash plains, stream terraces	No	—
	Dunham	3	Outwash plains, stream terraces	Yes	2
	Drummer	3	Ground moraines, outwash plains	Yes	2

Data Source Information

Soil Survey Area: Kendall County, Illinois

Survey Area Data: Version 21, Aug 21, 2024

Appendix D:
Aerial Imagery Slides



March 1993



April 1998



February 2002



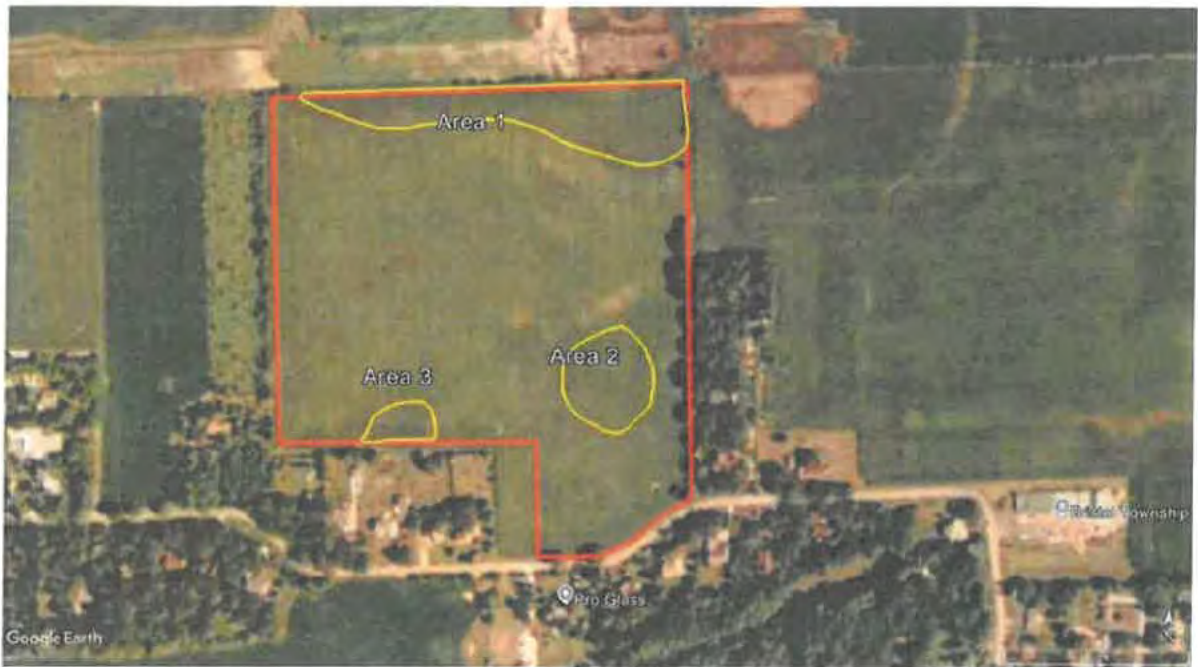
June 2002



April 2005



June 2005



June 2006



June 2007



April 2008



June 2009



September 2011



May 2013



September 2015



June 2016



April 2017



September 2017



March 2018



October 2019



June 2023

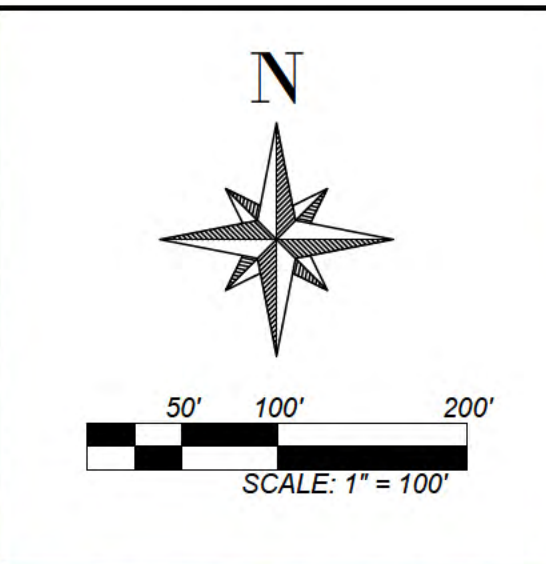
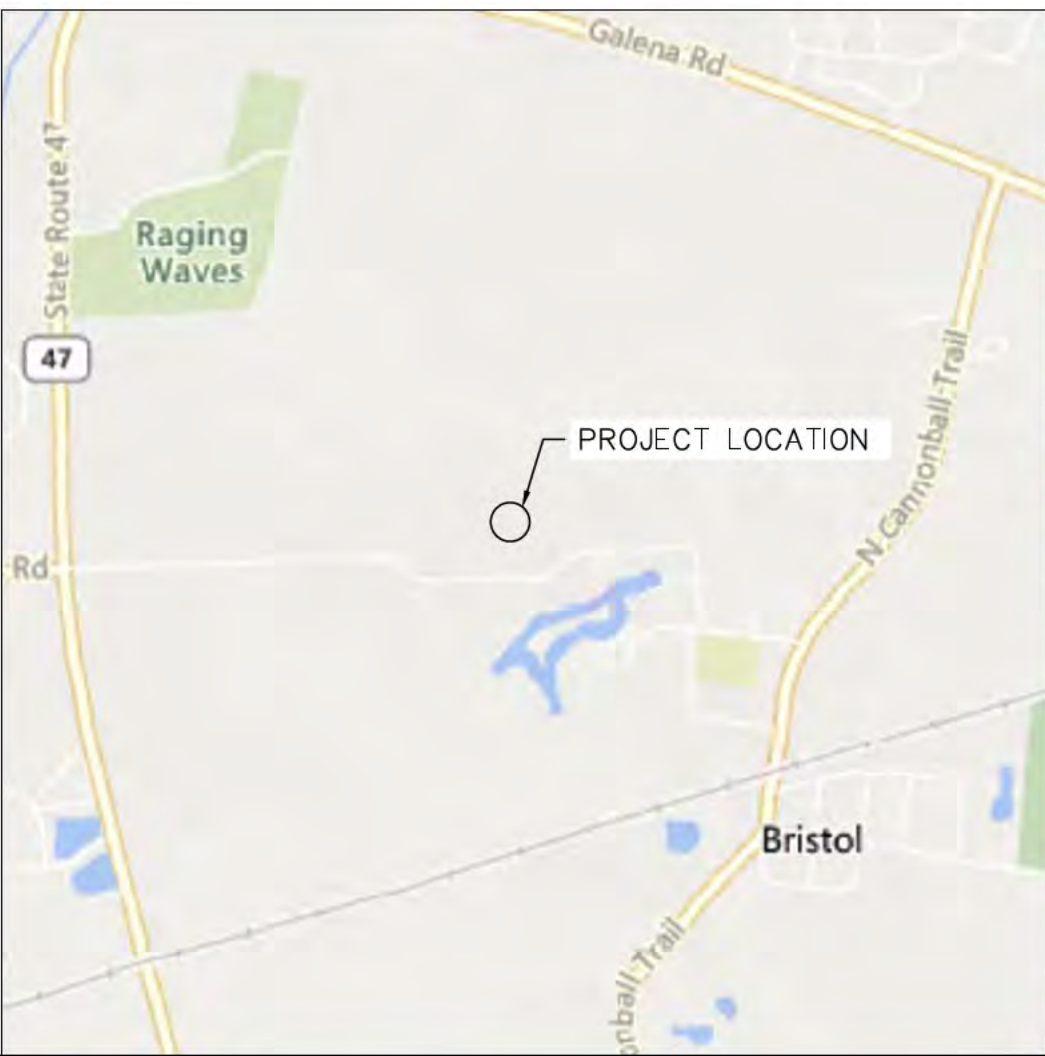
L.
Wetland Map



M.

Floodplain Map (None Found)







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PV SYSTEM OVERVIEW	
DC SYSTEM SIZE (kWDC)	7,151
AC SYSTEM SIZE (kWAC)	5,000
DC/AC RATIO	1.430
QTY PV MODULES	12,120
QTY INVERTERS	20
ARRAY TILT	30
ARRAY AZIMUTH	179
PV MODULE SPECIFICATIONS	
MANUFACTURER	Q CELLS
MODEL NUMBER	Q.PEAK DUO XL-G11S.3/BFG
POWER (WDC-STC)	590
MAX SYSTEM VOLTAGE (VDC)	1500
PV INVERTER SPECIFICATIONS	
MANUFACTURER	SOLECTRIA
MODEL NUMBER	XGI 1500 250/250-600
MAX OUTPUT POWER (kWAC / kVA)	250 / 250
OUTPUT VOLTAGE (VAC)	600
MAX INPUT VOLTAGE (VDC)	1,500

ENGINEER'S STAMP:
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NO.	INITIALS	REVISION / ISSUE	DATE
0	SC	INTERCONNECTION APPLICATION	4/17/2024
1	SC	PLANTED SOLAR	10/22/2024
2	ISA COSSIO	CUP PACKAGE	12/23/2024
3	IC	DESIGN CHANGES - FT	1/16/2025
4	IC	POLES MOVED WEST; SCREENING SHIFT	2/3/2025
5	IC	MATERIAL MODIFICATION	2/13/2025
6	IC	WETLAND UPDATE & ROAD MOVED	3/18/2025
7			
8			
9			
10			
11			

PROJECT NAME:
ZEPELAK CSG
USA ENERGY INDEPENDENCE 1, LLC

LOCATION:
9318 CORNELIS RD
YORKVILLE, IL 60560
41.692298°, -88.435083°
KENDALL COUNTY, IL

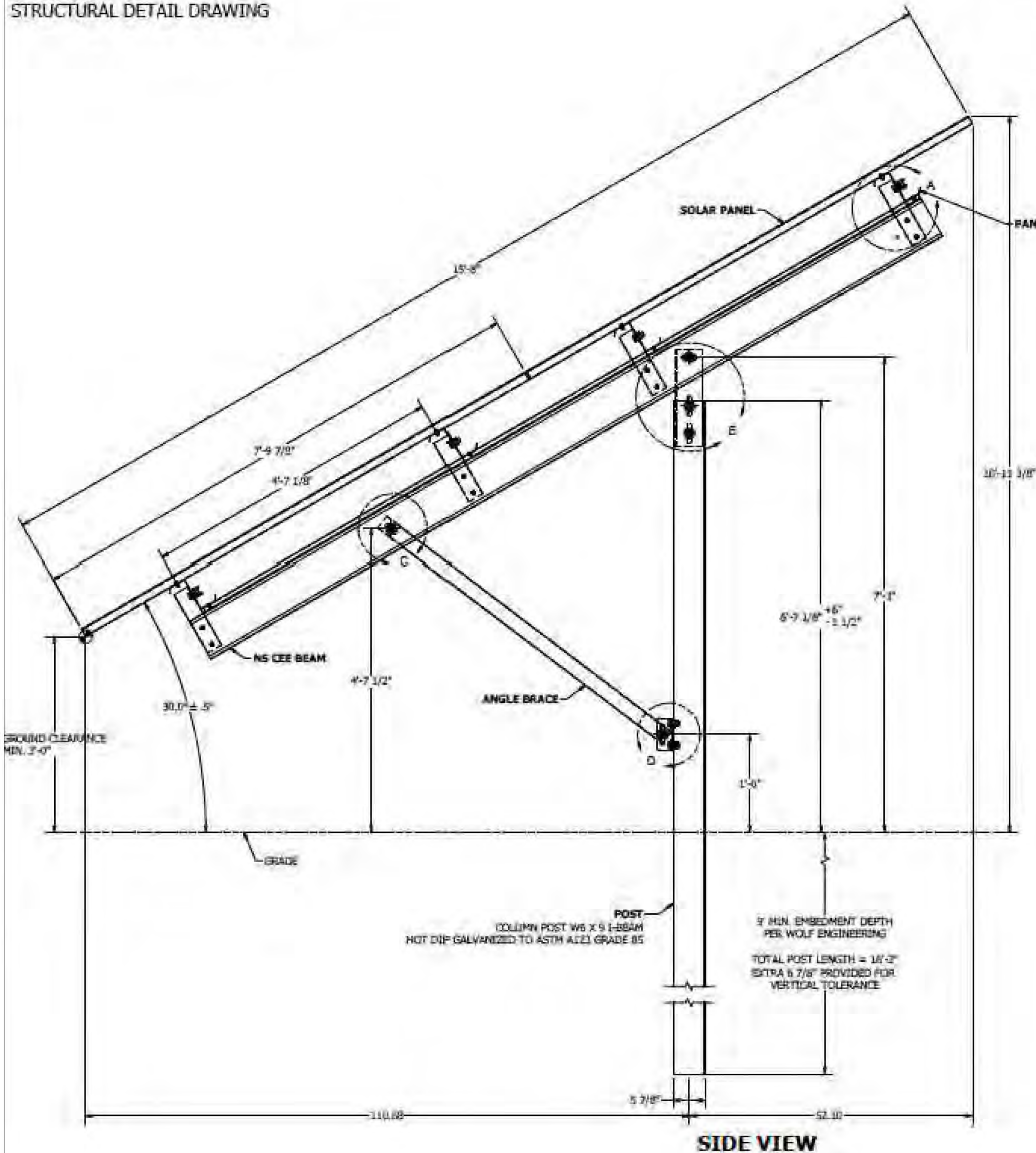
EPC OPERATOR:
COMED

DRAWING TITLE:
SITE PLAN

SHEET:
A001

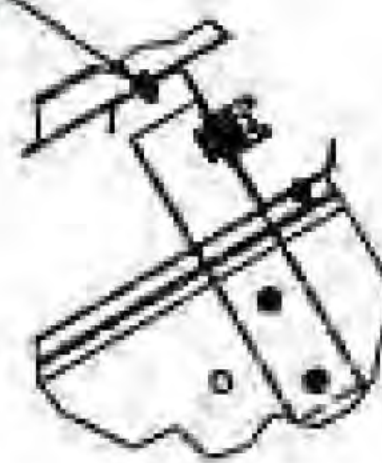
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22"x34"

APPENDIX- A
STRUCTURAL DETAIL DRAWING



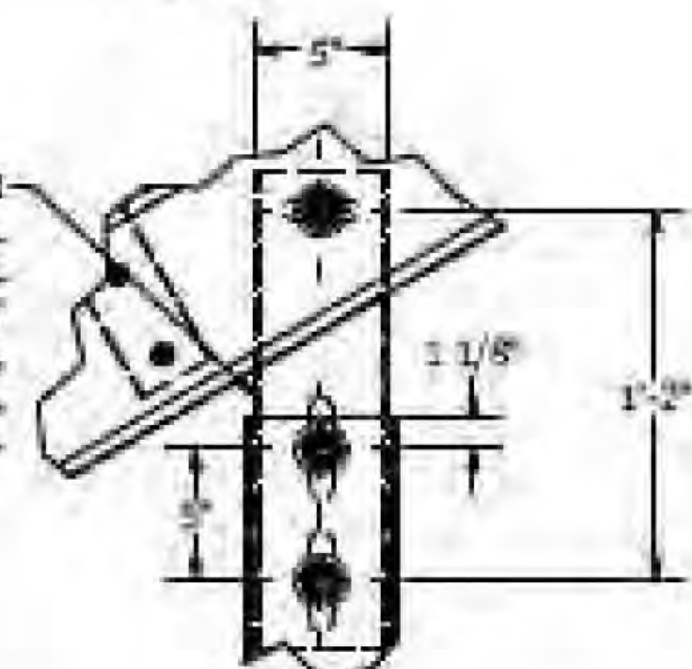
ALL PANEL MOUNTING HARDWARE CALLED OUT BELOW WILL BE PROVIDED BY DCE SOLAR. ANY CUSTOMIZED PANEL MOUNTING HARDWARE PROVIDED BY OTHERS MAY VOID DCE SOLAR'S UL2703 CERTIFICATION.

PANEL ATTACHES TO PANEL BEAMS WITH (4) 5/16-18 X 3/4" SERRATED FLANGE CAP SCREWS AND 5/16-18 SERRATED FLANGE NUTS. TORQUE TO 15 FT-LBS.



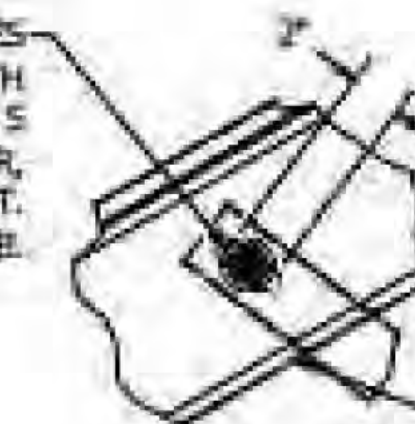
DETAIL A
SCALE 1 / 8

TOP BEAM ADAPTER 5" X 1.75" X .86" CHANNEL, 18FL G115, ASTM A653 GRADE 50 SS STEEL. ATTACHES TO NS BEAM AND COLUMN POST WITH (3) 3/4-10 X 1.5" GRADE 5 STEEL HHCS, WASHERS, AND SERRATED FLANGE NUTS. TORQUE TO 250 FT-LB.



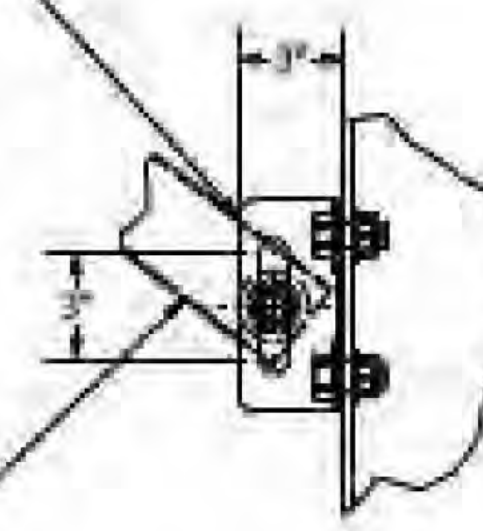
DETAIL B
SCALE 1 / 8

ANGLE BRACE ATTACHES TO NS CEE BEAM WITH (1) 3/4-10 X 1.5" GRADE 5 STEEL HHCS, WASHER, AND SERRATED FLANGE NUT. TORQUE TO 250 FT-LB.



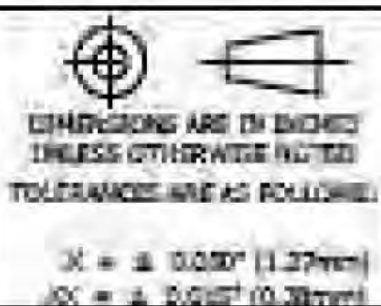
DETAIL C
SCALE 1 / 8

LOWER MOUNT BRACKET 6" X 3" X 0.188" BENT PLATE, A36 3/16" STEEL, HOT DIP GALVANIZED TO ASTM A123. ATTACHES TO ANGLE BRACE AND I-BEAM WITH (3) 3/4-10 X 1.5" GRADE 5 STEEL HHCS, WASHERS, AND SERRATED FLANGE NUTS. TORQUE TO 250 FT-LB.



DETAIL D
SCALE 1 / 8

ANGLE BRACE 2.75" X 1.75" U-CHANNEL 14 GAUGE, ASTM A653 GRADE 50 SS STEEL G115 GALVANIZED





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PV SYSTEM OVERVIEW		
DC SYSTEM SIZE (kWDC)	7,151	
AC SYSTEM SIZE (kWAC)	5,000	
DC/AC RATIO	1.430	
QTY PV MODULES	12,120	
QTY INVERTERS	20	
ARRAY TILT	30	
ARRAY AZIMUTH	179	
PV MODULE SPECIFICATIONS		
MANUFACTURER	Q.CELLS	
MODEL NUMBER	Q.PEAK DUO XL-G11S.3/B/G	
POWER (WDC-STC)	590	
MAX SYSTEM VOLTAGE (VDC)	1500	
PV INVERTER SPECIFICATIONS		
MANUFACTURER	SOLECRIA	
MODEL NUMBER	XGI 1500 250/250-600	
MAX OUTPUT POWER (kWAC / kVA)	250 / 250	
OUTPUT VOLTAGE (VAC)	600	
MAX INPUT VOLTAGE (VDC)	1,500	

ENGINEER'S STAMP:

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7			
8			
9			
10			
11			

PROJECT NAME:

ZEPELAK CSG
USA ENERGY INDEPENDENCE 1, LLC

LOCATION:

9318 CORNELIS RD
YORKVILLE, IL 60560
41.692298°, -88.435083°
KENDALL COUNTY, IL

EPC OPERATOR:

COMED

DRAWING TITLE:

FT ELEVATION PROFILE

SHEET:	SHEET SIZE:
A002	22"x34"

PV SYSTEM OVERVIEW	
DC SYSTEM SIZE (kWDC)	7,151
AC SYSTEM SIZE (kWAC)	5,000
DC/AC RATIO	1.430
QTY PV MODULES	12,120
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ARRAY TILT	30
ARRAY AZIMUTH	179
PV MODULE SPECIFICATIONS	
MANUFACTURER	Q.CELLS
MODEL NUMBER	Q.PEAK DUO XL-G11S.3/BFG
POWER (WDC-STC)	590
MAX SYSTEM VOLTAGE (VDC)	1500
PV INVERTER SPECIFICATIONS	
MANUFACTURER	SOLECTRIA
MODEL NUMBER	XGI 1500 250/250-600
MAX OUTPUT POWER (kWAC / kVA)	250 / 250
OUTPUT VOLTAGE (VAC)	600
MAX INPUT VOLTAGE (VDC)	1,500

ENGINEER'S STAMP:

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5	IC	MATERIAL MODIFICATION	2/13/2025
6	IC	WETLAND UPDATE & ROAD MOVED	3/18/2025
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9			
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11			

PROJECT NAME:

ZEPELAK CSG
USA ENERGY INDEPENDENCE 1, LLC

LOCATION:

9318 CORNELIS RD
YORKVILLE, IL 60560
41.692298°, -88.435083°
KENDALL COUNTY, IL

EPC OPERATOR:

COMED

DRAWING TITLE:

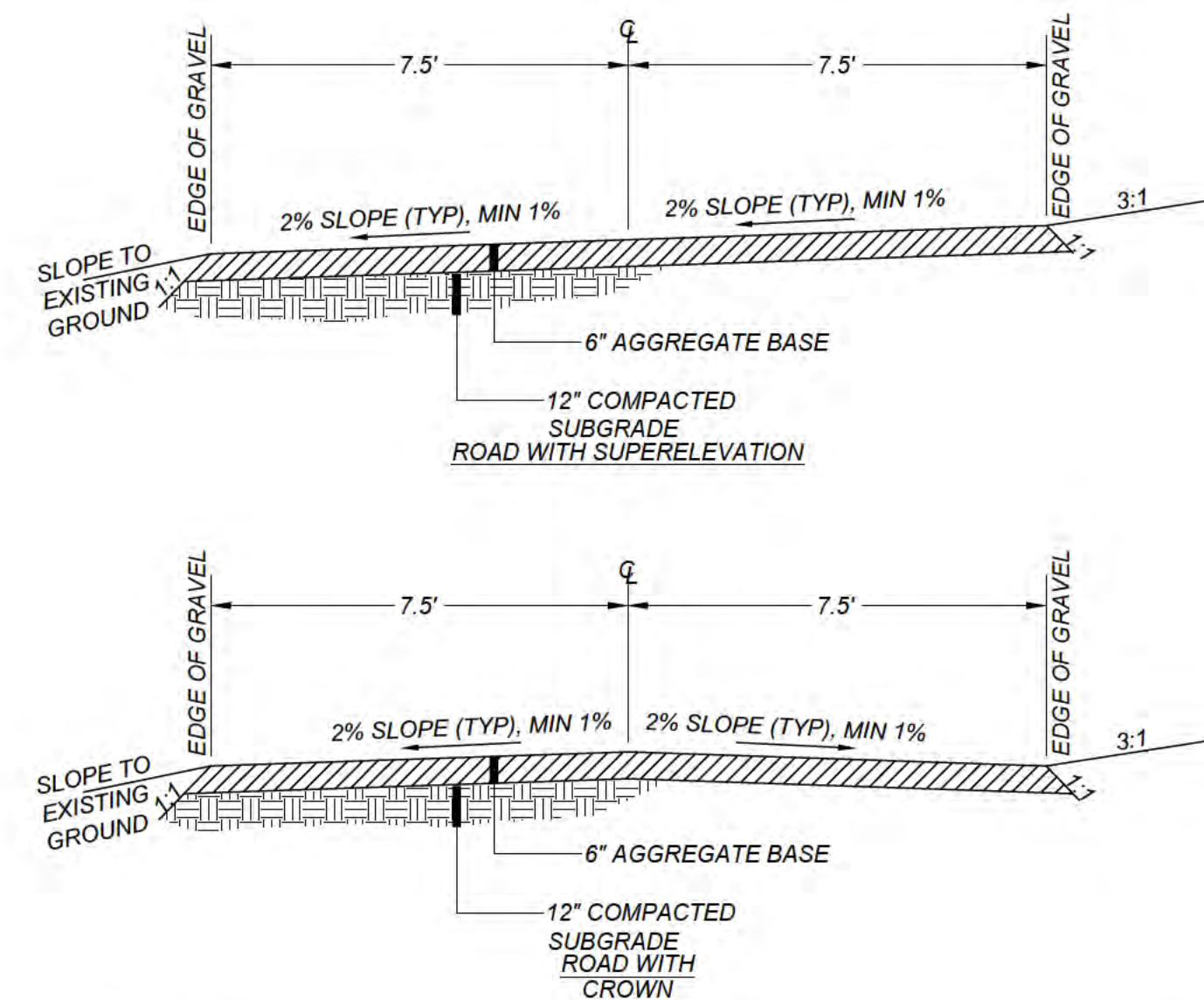
PRELIM CIVIL DETAILS

SHEET:

A003

SHEET SIZE:

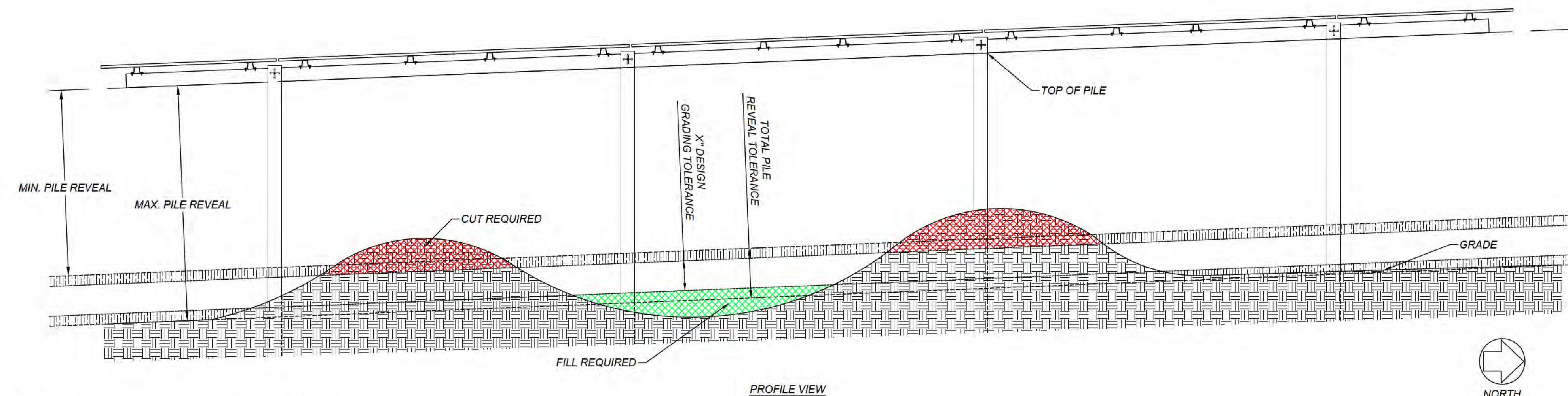
22"x34"



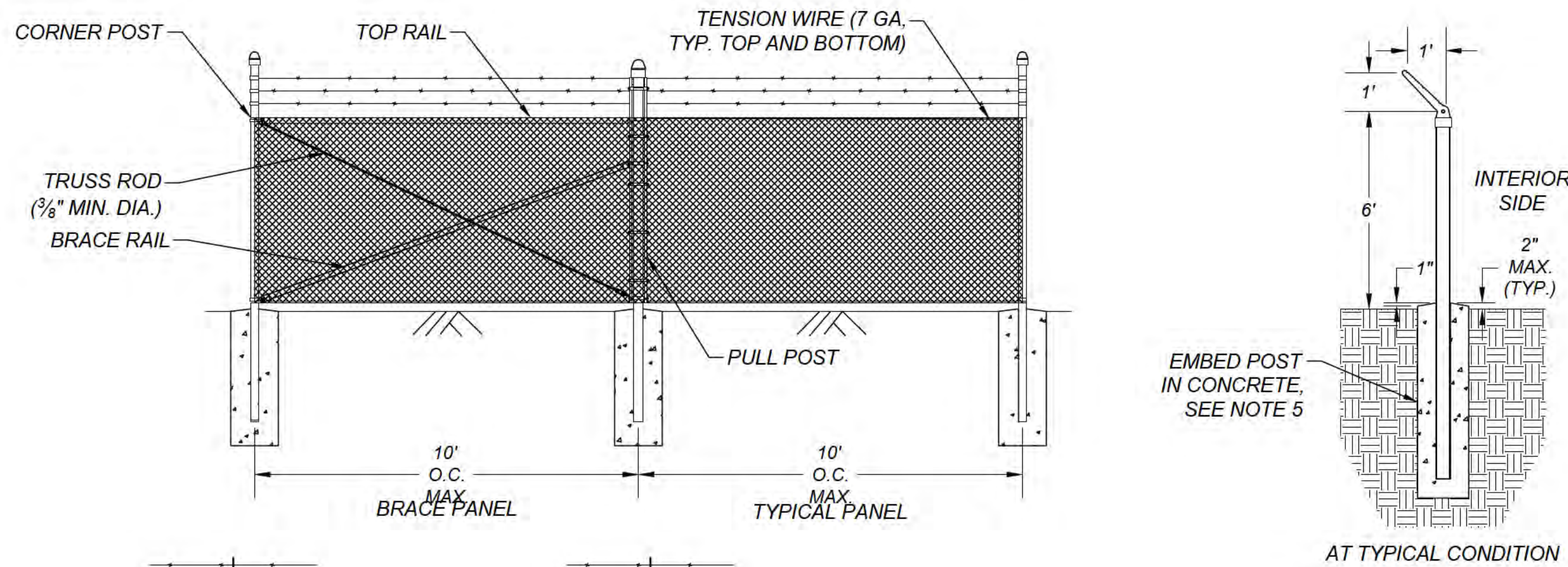
NOTES:

- 2% CROSS SLOPE IS TYPICAL, BUT CAN BE ADJUSTED DOWN TO MATCH EXISTING GROUND SLOPE IN ORDER TO PROMOTE CONTINUED SHEET DRAINAGE ACROSS ROAD. CROSS SLOPE SHALL NOT BE LESS THAN 1%.
- ROAD GRADES ARE TYPICALLY INTENDED TO MATCH ADJACENT GRADE ALLOWING DRAINAGE TO SHEET ON AND OFF OF ROADS EVENLY. CARE SHOULD BE TAKEN TO FIELD ADJUST ROAD GRADES OR DITCH AND LOW WATER CROSSING LOCATIONS AS NECESSARY TO PREVENT RUNOFF FROM CONCENTRATING ALONG ROAD EDGES CAUSING EROSION.
- NO GEOTECH REPORT HAS BEEN COMPLETED. ROAD SECTION DESIGN SHOWN IS PRELIMINARY AND MAY CHANGE PENDING THE FINAL GEOTECH REPORT. STRUCTURAL DESIGN OR ANALYSIS HAS NOT BEEN PERFORMED REGARDING ACCESS ROAD DETAILS.

1 TYPICAL SOLAR ACCESS ROAD
NOT TO SCALE

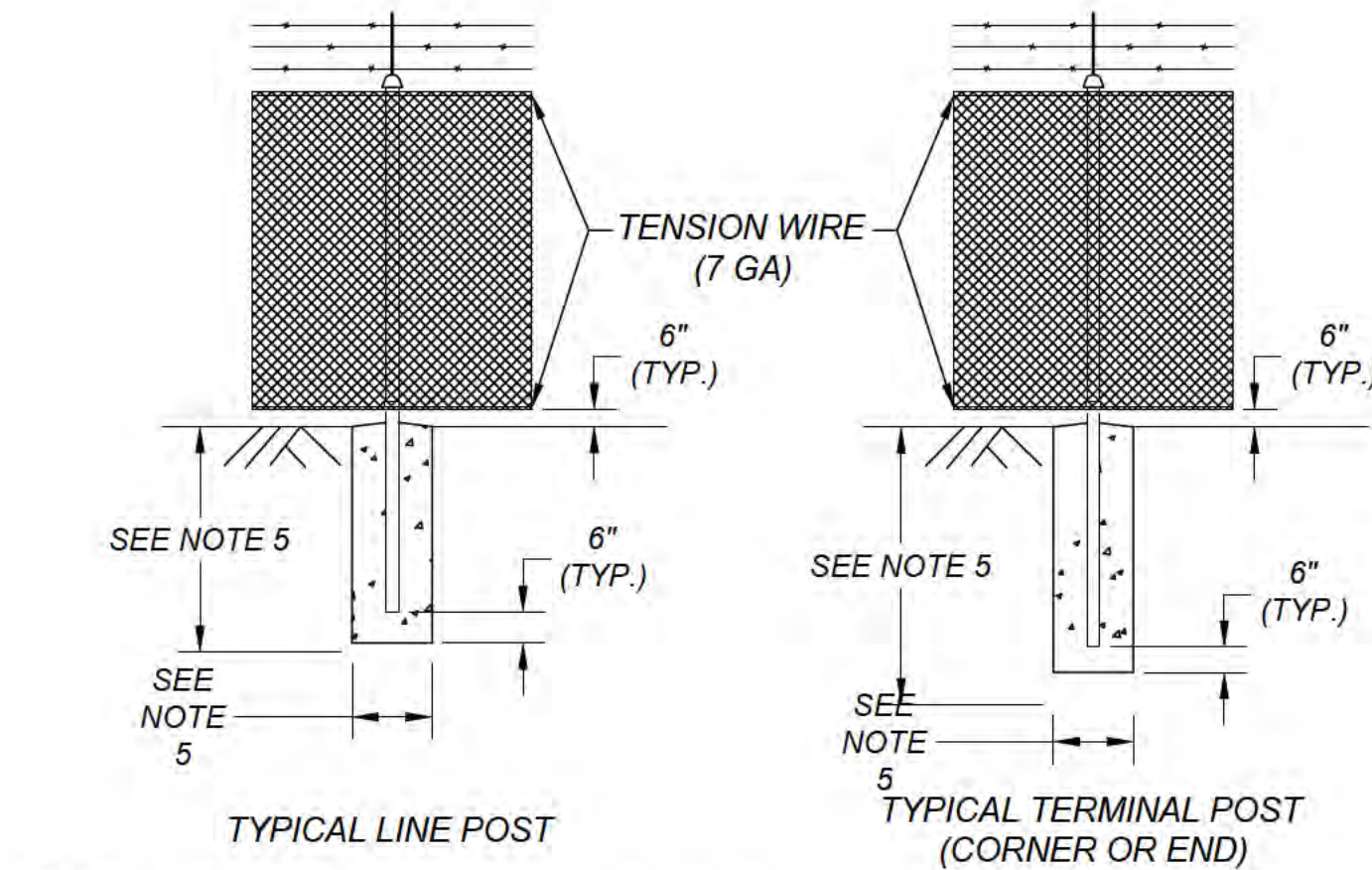


2 TRACKER X-SECTION & GRADING TOLERANCE EXHIBIT
NOT TO SCALE

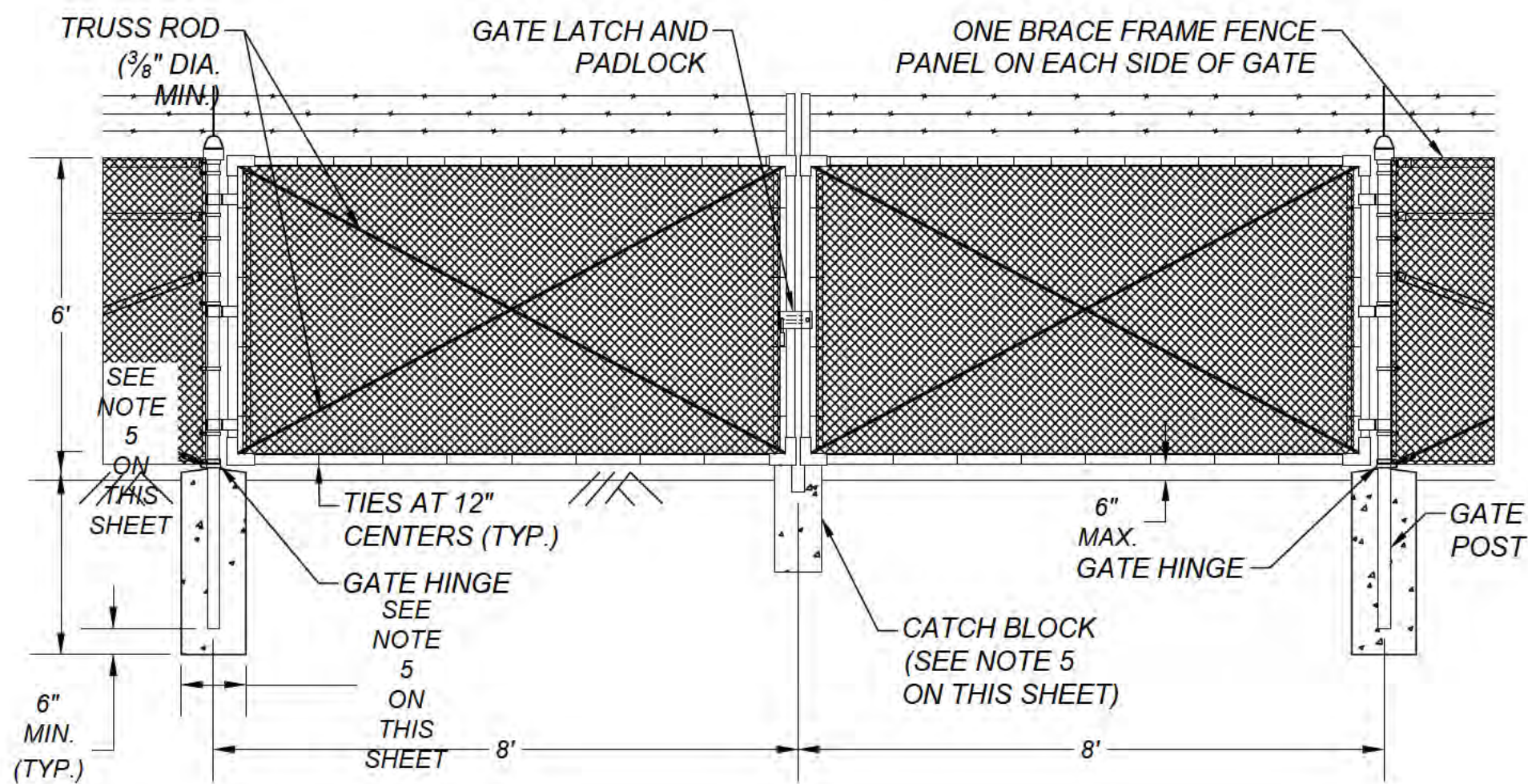


FENCE NOTES:

1. FENCE WIRE SHALL BE 6" ABOVE FINISHED GRADE TO PROVIDE PASS TO WILDLIFE.
2. FENCE WIRE - 9 GAUGE, 2" MESH; GALVANIZED ASTM A392, CLASS 1; TWISTED SELVAGE ON BOTTOM, KNUCKLED SELVAGE ON TOP.
3. ALL RAIL, WIRE AND GATES SHALL BE GALVANIZED.
4. BARBED WIRE TOPPING SHALL CONSIST OF THREE STRANDS OF 12.5 MINIMUM GAUGE WIRE HAVING 4-POINT BARBS OF 14 GAUGE WIRE AT 5 INCHES MAXIMUM SPACING IN COMPLIANCE WITH ASTM A121. BARBED WIRE SHALL BE INSTALLED WITH 45-DEGREE EXTENSION ARMS FACING OUTWARD, AWAY FROM THE SECURED AREA.
5. DETAILS AND DIMENSIONS ARE PRELIMINARY. POST SIZING, FOUNDATIONS, EMBEDMENT DEPTHS/FREQUENCY, AND MATERIALS ARE ALL TO BE CONFIRMED DURING FINAL DESIGN.



1 CHAIN LINK SECURITY FENCE WITH BARBED WIRE AND POSTS
NOT TO SCALE



2 20 FOOT SWINGING ACCESS GATE
NOT TO SCALE



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PV SYSTEM OVERVIEW	
DC SYSTEM SIZE (kWDC)	7,151
AC SYSTEM SIZE (kWAC)	5,000
DC/AC RATIO	1.430
QTY PV MODULES	12,120
QTY INVERTERS	20
ARRAY TILT	30
ARRAY AZIMUTH	179
PV MODULE SPECIFICATIONS	
MANUFACTURER	Q.CELLS
MODEL NUMBER	Q.PEAK DUO XL-G11S.3/B/G
POWER (WDC-STC)	590
MAX SYSTEM VOLTAGE (VDC)	1500
PV INVERTER SPECIFICATIONS	
MANUFACTURER	SOLECTRIA
MODEL NUMBER	XGI 1500 250/250-600
MAX OUTPUT POWER (kWAC / KVA)	250 / 250
OUTPUT VOLTAGE (VAC)	600
MAX INPUT VOLTAGE (VDC)	1,500

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KENDALL COUNTY, IL

EPC OPERATOR:

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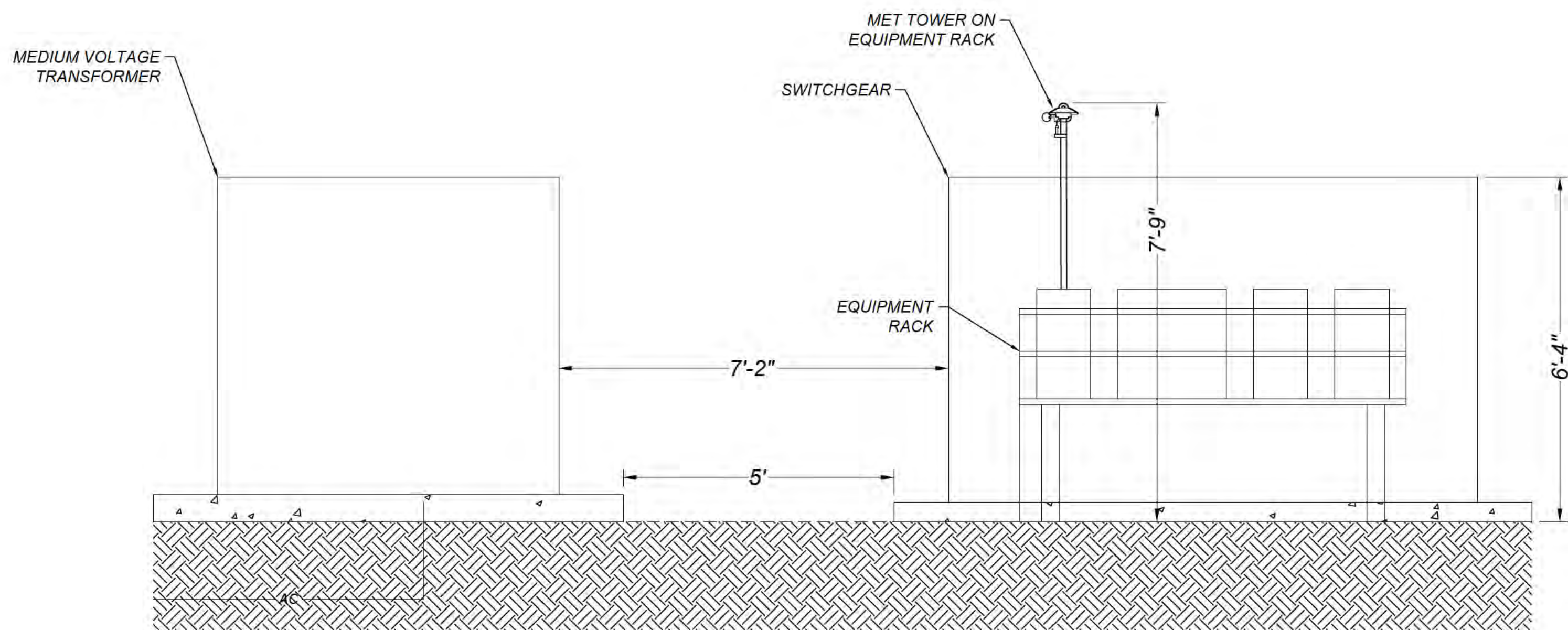
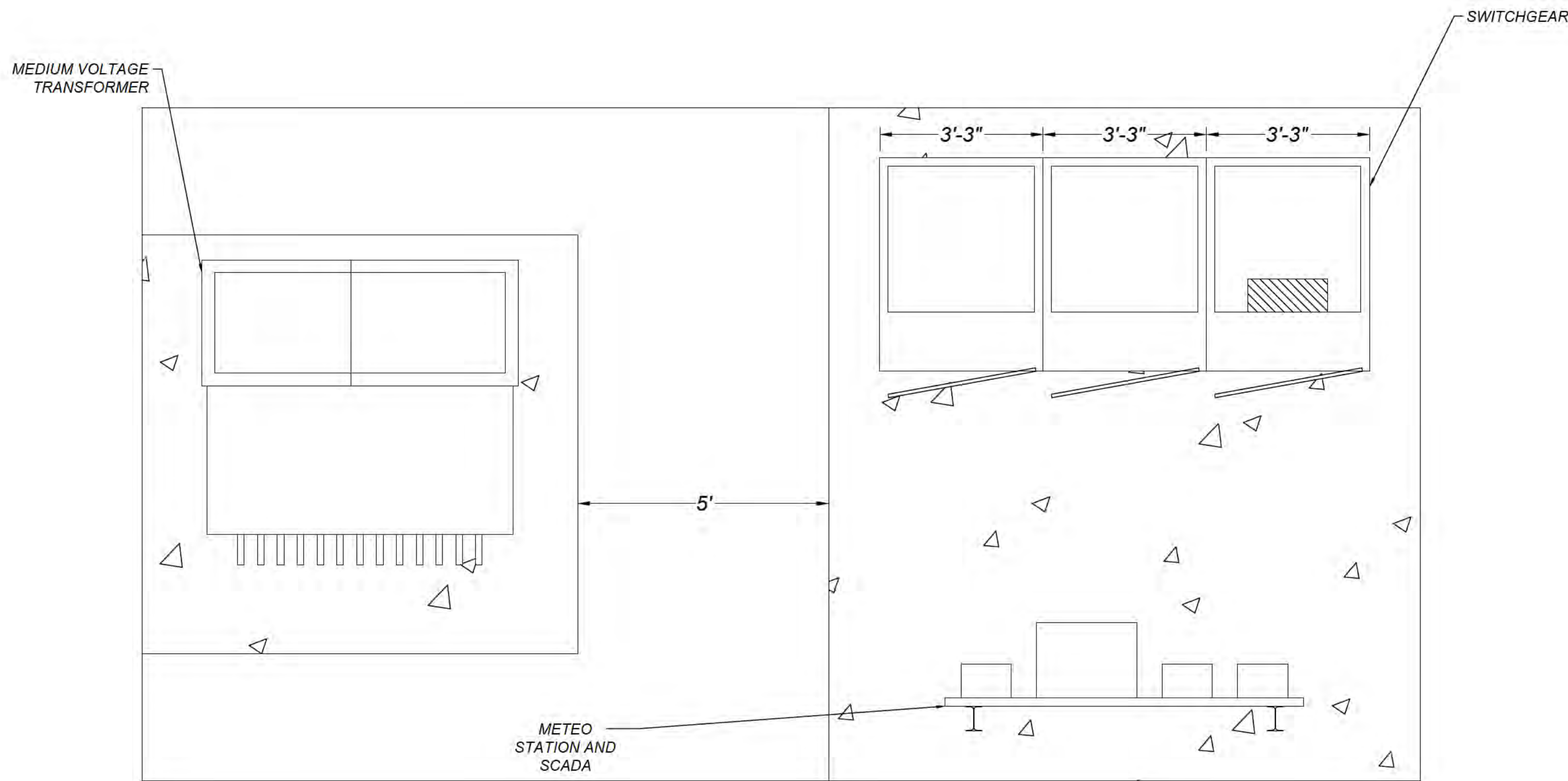
FENCE DETAIL

SHEET:

A004

SHEET SIZE:

22"x34"





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ENERGY**

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PV SYSTEM OVERVIEW	
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AC SYSTEM SIZE (kWAC)	5,000
DC/AC RATIO	1.430
QTY PV MODULES	12,120
QTY INVERTERS	20
ARRAY TILT	30
ARRAY AZIMUTH	179

PV MODULE SPECIFICATIONS	
MANUFACTURER	Q.CELLS
MODEL NUMBER	Q.PEAK DUO XL-G11S.3/BFG
POWER (WDC-STC)	590
MAX SYSTEM VOLTAGE (VDC)	1500

PV INVERTER SPECIFICATIONS	
MANUFACTURER	SOLECRIA
MODEL NUMBER	XGI 1500 250/250-600
MAX OUTPUT POWER (kWAC / KVA)	250 / 250
OUTPUT VOLTAGE (VAC)	600
MAX INPUT VOLTAGE (VDC)	1,500

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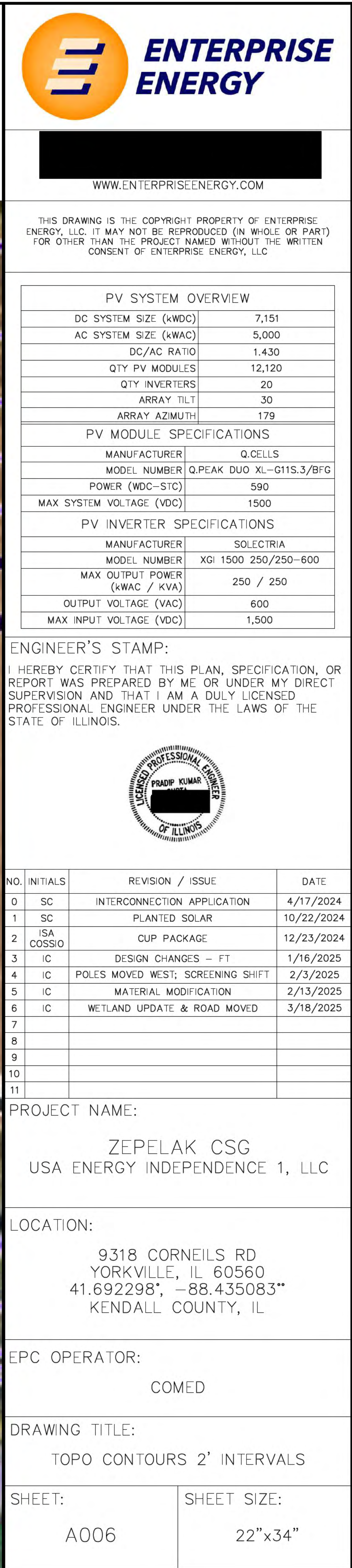
EPC OPERATOR:

COMED

DRAWING TITLE:

EQUIPMENT PAD DETAIL

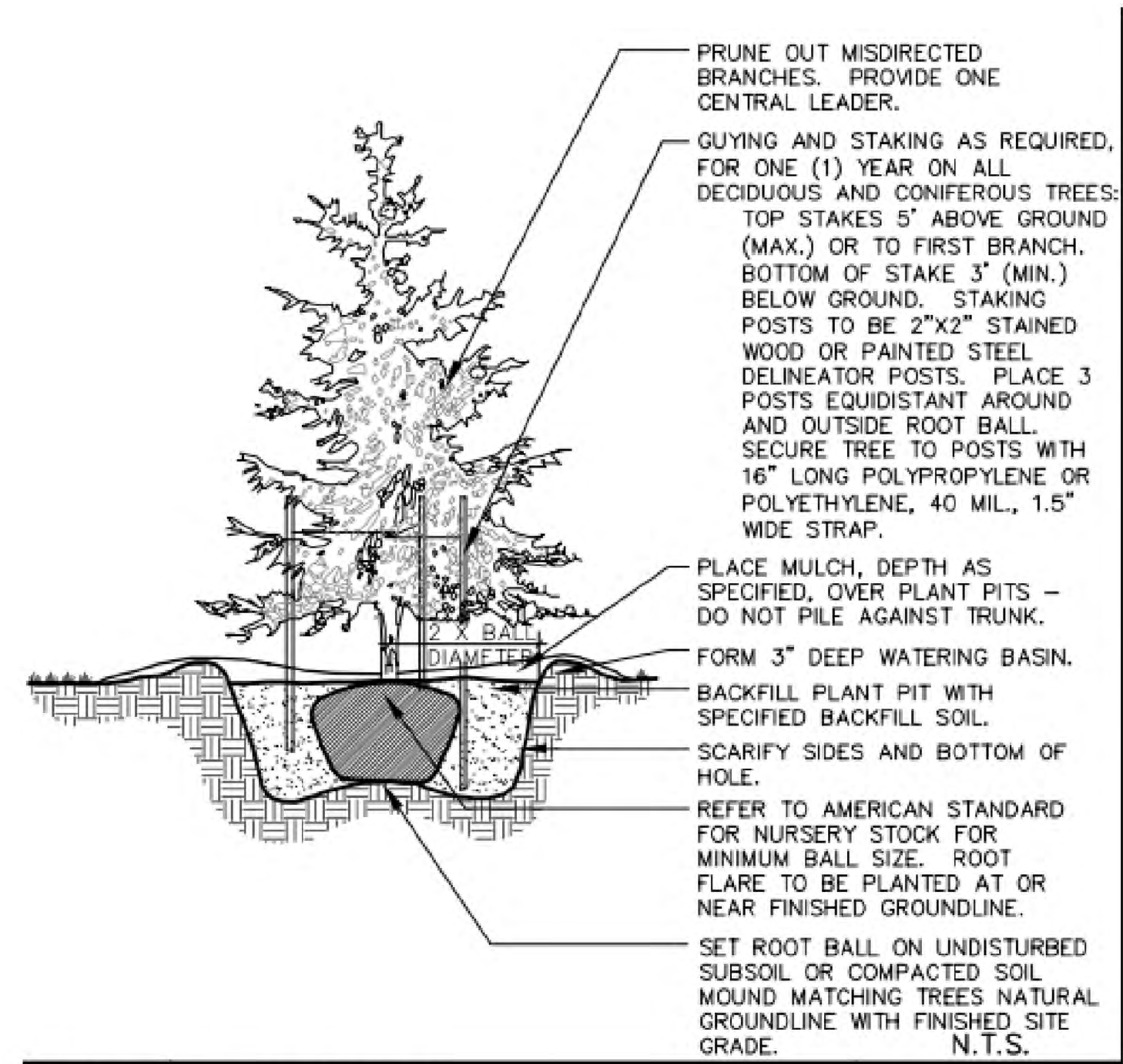
SHEET:	SHEET SIZE:
A005	22"x34"





1 BLACK HILLS SPRUCE SCREENING

Scale: N.T.S.



3 EVERGREEN PLANTING DETAIL

Scale: N.T.S.

PLANTING SCHEDULE

TYPE : BLACK HILLS SPRUCE

HEIGHT : 6' MIN WITHIN 3 YEARS OF PLANTING

NUMBER OF ROWS: 1

SPACING: 12' O.C.

TYPE : BUTTONBUSH SHRUB

HEIGHT : 4' MIN WITHIN 3 YEARS OF PLANTING

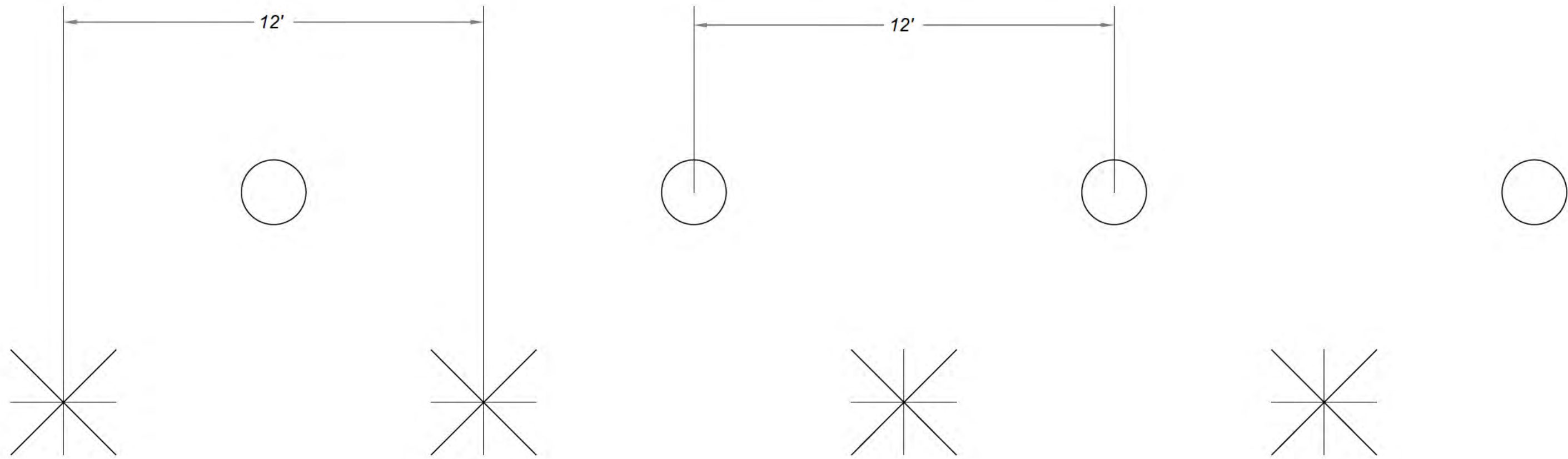
NUMBER OF ROWS: 1

SPACING: 12' O.C.



2 BUTTONBUSH SHRUB SCREENING

Scale: N.T.S.



4 PLAN VIEW

Scale: N.T.S.



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PV MODULE SPECIFICATIONS	
MANUFACTURER	Q.CELLS
MODEL NUMBER	Q.PEAK DUO XL-G11S.3/BFG
POWER (WDC-STC)	590
MAX SYSTEM VOLTAGE (VDC)	1500
PV INVERTER SPECIFICATIONS	
MANUFACTURER	SOLECRIA
MODEL NUMBER	XGI 1500 250/250-600
MAX OUTPUT POWER (kWAC / KVA)	250 / 250
OUTPUT VOLTAGE (VAC)	600
MAX INPUT VOLTAGE (VDC)	1,500

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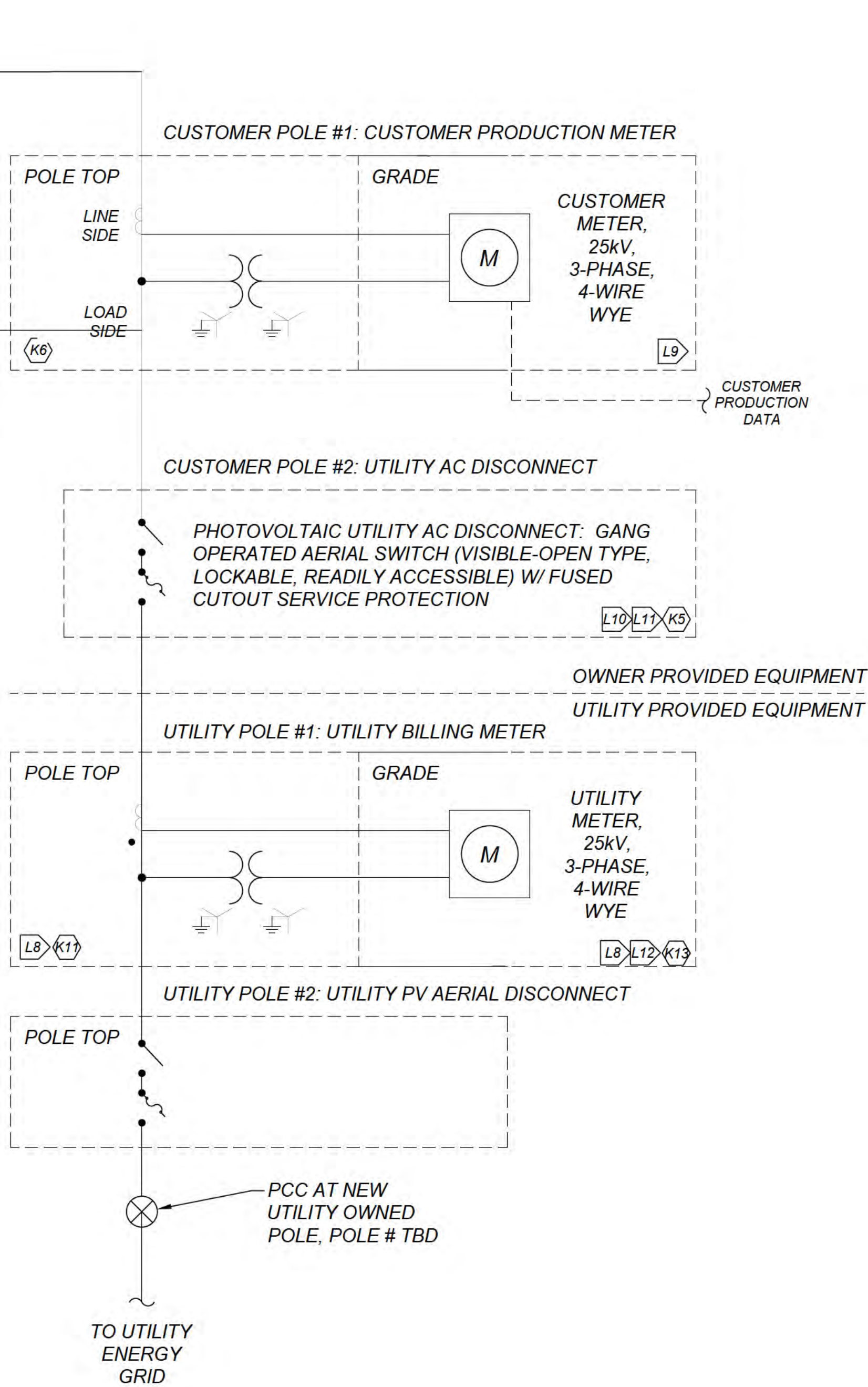
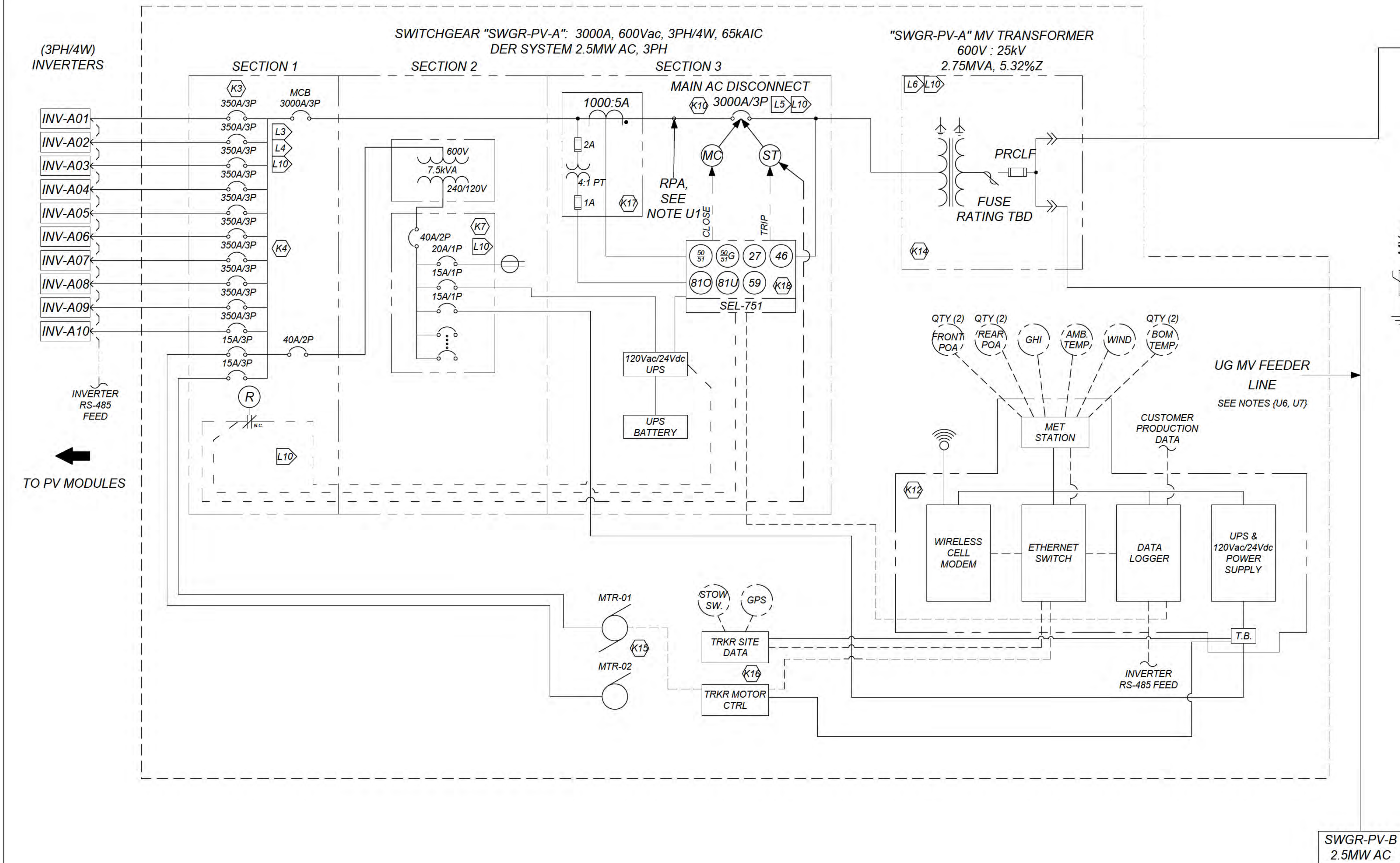
TREE PLAN

SHEET:

A008

SHEET SIZE:

22"x34"



KEYNOTES

- (K1) PHOTOVOLTAIC MODULE DC ARRAY. MODULE MAKE/MODEL, WATTAGE, STRING LENGTH & ELECTRICAL SPECIFICATIONS AS SHOWN IN TABLES ON THIS SHEET. MODULES ARE UL1703 LISTED WITH PRE-INSTALLED QUICK CONNECTS ON MODULE LEADS. DO NOT ALTER THE QUICK CONNECTS AS THIS COULD VOID WARRANTY. STRING HOMERUN CONDUCTOR CONNECTORS SHALL MATCH FACTORY-INSTALLED MODULE LEAD CONNECTORS.
- (K2) PHOTOVOLTAIC INVERTER. INVERTER MAKE/MODEL, WATTAGE, VOLTAGE & ELECTRICAL SPECIFICATIONS AS SHOWN IN TABLES ON THIS SHEET. INVERTER IS UL1741-SA AND UL1741-SB LISTED AND IEEE1547 COMPLIANT WITH INTEGRAL ANTI-ISLANDING PROTECTION, DC GROUND FAULT PROTECTION, AND DC & AC LOAD BREAK DISCONNECTS. ONLY POSITIVE DC INPUTS SHOWN FOR CLARITY. INVERTERS DO NOT REQUIRE AN OUTPUT NEUTRAL WIRE FOR NORMAL OPERATION PER INSTALLATION MANUAL. INVERTERS ARE LISTED TO UL1699B FOR AFCI PROTECTION.
- (K3) INVERTER OUTPUT BREAKER, TYP. BREAKERS SIZED PER INVERTER MANUFACTURER REQUIREMENTS.
- (K4) SWITCHGEAR AC INVERTER INPUT & 600Vdc AUXILIARY LOAD SECTION. BREAKER SIZE & QUANTITIES AS SHOWN.
- (K5) VISIBLE-OPEN TYPE, LOCKABLE, AND 24/7 READILY ACCESSIBLE GANG OPERATED AERIAL SWITCH LISTED/RATED TO MEET UTILITY AND NEC STANDARDS
- (K6) METER CT SHALL HAVE PROVISIONS FOR WINDOW-TYPE CT'S AS WELL AS PROVISIONS FOR METER VOLTAGE REFERENCES. CT'S SHALL BE METER GRADE AND 0.3% ACCURACY OR BETTER.
- (K7) 40A 240/120VAC AUXILIARY PANEL "AUX-01". FED BY SECONDARY OF 7.5kVA AUXILIARY TRANSFORMER WITH SECONDARY PROTECTIVE BREAKER AS SHOWN. AUXILIARY PANEL SHALL HAVE BREAKERS OF SIZE/QUANTITY SHOWN.
- (K8) UNUSED
- (K9) UNUSED
- (K10) MAIN AC DISCONNECT BREAKER, SIZED AS SHOWN WITH LI TRIP ADJUSTABILITY. BREAKER SHALL BE FITTED WITH A SHUNT TRIP UNIT WHICH OPERATES UNDER APPLICATION OF 120VAC CONTROL VOLTAGE. BREAKER SHALL ALSO BE FITTED WITH A MOTORIZED CLOSING DEVICE FOR REMOTE CLOSING OF BREAKER.
- (K11) UTILITY MAIN BILLING METER CT, MEDIUM VOLTAGE, 3PH/4W.
- (K12) CUSTOMER DATA ACQUISITION SYSTEM (DAS) ENCLOSURE. DAS ENCLOSURE TO HOUSE CUSTOMER METER, POWER SUPPLY & UPS, DATA LOGGER AND CELL MODEM AT A MINIMUM. DAS ENCLOSURE SHALL BE CONNECTED TO THE MET STATION ENCLOSURE, WHICH IN TURN RECEIVES SIGNALS FROM THE SENSORS AS SHOWN. SPECIFIC COMPONENTS AND CONFIGURATION PENDING DAS VENDOR FINAL DESIGN, AND SHOWN HERE FOR INFORMATIONAL PURPOSES ONLY. DAS AND MET STATION WILL ONLY BE ON SWGR-PV-A.
- (K13) UTILITY MEDIUM VOLTAGE 3PH/4W MAIN BILLING METER ENCLOSURE AND METER MOUNTED ON UTILITY-OWNED POLE. METER SHALL BE LOCATED APPROX. 40FT AWAY FROM MAIN PV AC DISCONNECT. REFERENCE UTILITY NOTES U2, U3, AND U6 FOR DETAILS AND REQUIREMENTS FOR UTILITY MAIN BILLING METERING. A LABEL SHALL BE APPLIED SHOWING LOCATION OF METER. ANOTHER LABEL SHALL BE APPLIED SHOWING LOCATION OF UTILITY AC DISCONNECT.
- (K14) CUSTOMER-SUPPLIED INTERCONNECTION TRANSFORMER, SIZED AND WITH MAJOR SPECIFICATIONS AS SHOWN, OR EQUIVALENT.
- (K15) 600V/3PH TRACKER MOTORS. POWER MOTORS FROM THREE-PHASE BREAKERS IN SECTION 1 OF SWGR-PV. COMM. CABLE (SUPPLIED BY TRACKER MANUFACTURER) CONNECTED FROM MOTORS TO TRACKER MOTOR CONTROLLER ENCLOSURE.
- (K16) TRACKER SITE DATA ENCLOSURE AND TRACKER MOTOR CONTROLLER, SUPPLIED BY TRACKER MANUFACTURER. GPS AND STOW SWITCH, INCLUDING SENSOR LEADS INCLUDED AND SUPPLIED BY MANUFACTURER. POWER UNITS FROM 120V MINI POWER CENTER AS SHOWN.
- (K17) RELAYING CT'S FOR SEL-751. RATIO AS SHOWN, RATED FOR RELAYING USE AND WITH A MIN. THERMAL RATING OF 2.0.
- (K18) MULTI-FUNCTION RELAY, SEL-751. CURRENT INPUTS FROM CT'S AS SHOWN - (3) FROM PHASE BUSSING ON SWITCHGEAR. POWER RELAY WITH 120Vdc/24Vdc UPS AS SHOWN. RELAY SHALL SERVE AS GROUND FAULT PROTECTION DEVICE FOR SYSTEM.

LEGEND

- (L#) LABEL IDENTIFIER
- (##) KEYNOTE IDENTIFIER

UTILITY NOTES

- U1. REFERENCE POINT OF APPLICABILITY (RPA). THIS IS THE LOCATION AT WHICH ANTI-ISLANDING AND SINGLE PHASE TESTING WILL OCCUR IN ACCORDANCE WITH IEEE STANDARDS 1547 AND 1547.1.
- U2. THE METER SOCKET FOR THE MAIN BILLING METER SHALL BE MARKED WITH A STAMPED BRASS, ALUMINUM OR STAINLESS STEEL TAG INDICATING THE ADDRESS.
- U3. PV SYSTEM WARNING LABELS, PLACARDS AND BRASS TAGS SHALL MEET UTILITY REQUIREMENTS AS SPECIFIED. UTILITY METER DEPARTMENT TO REVIEW AND APPROVE METER LOCATIONS. PLACARDS SHALL CLEARLY STATE LOCATION OF NEW MAIN BILLING METER.
- U4. PV SYSTEM LABELS SHALL MEET NEC 2020 REQUIREMENTS AS SPECIFIED IN ARTICLE 690 (AND ELSEWHERE AS REQUIRED). ALL EQUIPMENT, CONDUCTORS, AND PROTECTIVE DEVICES HAVE BEEN DESIGNED TO MEET NEC 2020 CODE, SPECIFICALLY SECTIONS 690, 705, 310, 240, 250 AND OTHERS AS APPLICABLE.
- U5. INVERTER DC GROUNDING CONFIGURATION IS A FUNCTIONALLY GROUNDED SYSTEM PER NEC 690.2 & 690.41(A). ONLY POSITIVE CONDUCTORS SHALL BE FUSED AT THE COMBINER INPUTS. POSITIVE CONDUCTOR INSULATION SHALL BE RED, NEGATIVE CONDUCTOR INSULATION SHALL BE BLACK - WHITE CONDUCTOR INSULATION SHALL NOT BE USED.
- U6. IF APPLICABLE, INSTALLER WILL ENSURE EACH CO-LOCATED PROJECT SHALL HAVE EACH EQUIPMENT DEMARCATED WITH UNIQUE IDENTIFIER ON ALL CONSTRUCTION DRAWINGS AND DRAWINGS OF RECORD, AND LIKEWISE SHALL BE LABELED AS SUCH IN THE FIELD.
- U7. IF APPLICABLE, CO-LOCATED UTILITY TRANSFORMERS MAY BE FED BY MEDIUM VOLTAGE UNDERGROUND LINES DAISY CHAINED FROM ONE DUAL-INPUT TRANSFORMER TO ANOTHER



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AC SYSTEM SIZE (kWAC)	5,000
DC/AC RATIO	1.430
QTY PV MODULES	12,120
QTY INVERTERS	20
ARRAY TILT	30
ARRAY AZIMUTH	179
PV MODULE SPECIFICATIONS	
MANUFACTURER	Q.CELLS
MODEL NUMBER	Q.PEAK DUO XL-G11S.3/BFG
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MAX SYSTEM VOLTAGE (VDC)	1500
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MANUFACTURER	SOLECRIA
MODEL NUMBER	XGI 1500 250/250-600
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OUTPUT VOLTAGE (VAC)	600
MAX INPUT VOLTAGE (VDC)	1,500

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EPC OPERATOR:

COMED

DRAWING TITLE:

SINGLE LINE DIAGRAM

SHEET:

E001

SHEET SIZE:

22"x34"

Q.PEAK DUO XL-G11S SERIES



590-605 Wp | 156 Cells
21.7% Maximum Module Efficiency

MODEL: Q.PEAK DUO XL-G11S.3/BFG



Bifacial energy yield gain of up to 21%
Bifacial QJANTUM solar cells make efficient use of light shining on the module rear-side for radically improved LCOE.

Low electricity generation costs
QJANTUM DUO technology with optimized module layout to boost module power and improve LCOE.

A reliable investment
Double glass module design enables extended lifetime with 12-year product warranty and improved 30-year performance warranty.

Enduring high performance
Long-term yield security with Anti LiD and Anti PID Technology*, Hot-Spot Protect.

Frame for versatile mounting options
High-tech aluminum alloy frame protects from damage, enables use of a wide range of mounting structures and is certified regarding IEC for high snow (5400Pa) and wind loads (3750 Pa).

Innovative all-weather technology
Optimal yields, whatever the weather with excellent low-light and temperature behavior.

* See data sheet on rear for further information.
* API test confirms according to IEC 61215 Ed.2 (2016) without B (1500V/168h) including post-treatment according to IEC 61215-41 Ed. 2:2 (2016)
* See Installation Manual for instructions

The ideal solution for:

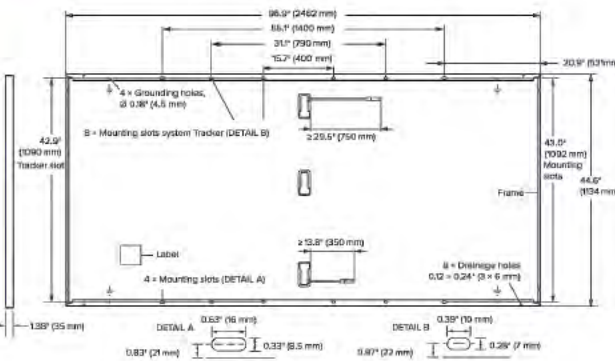
Ground-mounted solar power plants



Q.PEAK DUO XL-G11S SERIES

Mechanical Specification

Format	96.9 in × 44.6 in × 1.38 in (including frame) (2462 mm × 1134 mm × 35 mm)
Weight	76.9 lbs (34.9 kg)
Front Cover	0.08 in (2.0 mm) thermally pre-stressed glass with anti-reflection technology
Back Cover	0.08 in (2.0 mm) semi-tempered glass
Frame	Anodized aluminium
Cell	6 × 26 monocrystalline QJANTUM solar half cells
Junction box	2.09 × 98 × 126 × 236 × 0.169-0.71 in (53-231 mm × 32-60 mm × 15-18 mm), Protection class IP67, with bypass diodes
Cable	4 mm ² Solar cable (1) × 22.5 in (570 mm), (1) × 13.8 in (350 mm)
Connector	Solubul MCA, Solubul MCA-Evo2 - IP68



Electrical Characteristics

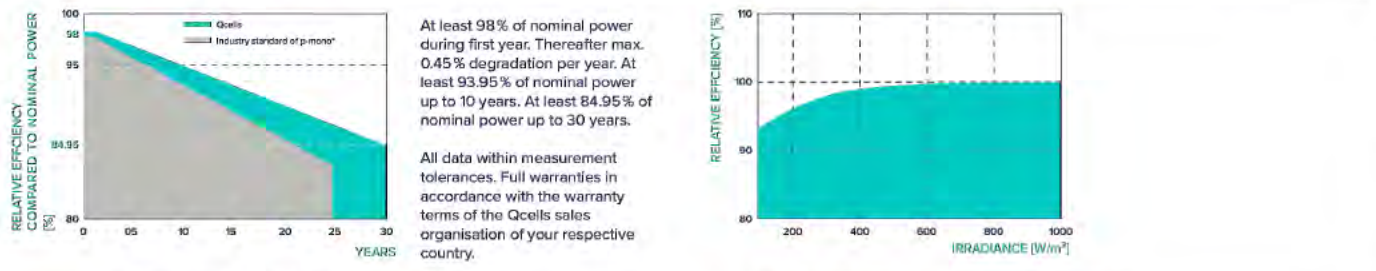
POWER CLASS			590	595	600	605				
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC (POWER TOLERANCE ±5 W / ±0 W)										
Minimum	Power at MPP ¹	P _{MPP} [W]	590	645.4	595	650.8	600	656.3	605	661.8
	Short Circuit Current ¹	I _{sc} [A]	13.74	15.04	13.77	15.07	13.80	15.10	13.82	15.13
	Open Circuit Voltage ¹	V _{oc} [V]	53.60	53.79	53.63	53.82	53.66	53.85	53.68	53.87
	Current at MPP	I _{MPP} [A]	13.12	14.36	13.17	14.41	13.22	14.46	13.27	14.52
	Voltage at MPP	V _{MPP} [V]	44.96	44.95	45.18	45.17	45.39	45.38	45.60	45.59
	Efficiency ¹	η [%]	>21.1		>21.3		>21.5		>21.7	

Bifaciality of P_{MPP} and I_{sc} 70% ±5% • Bifaciality given for rear side irradiation on top of STC (front side) • According to IEC 60904-1-2
Measurement tolerances P_{MPP} ±3%, I_{sc}, V_{oc} ±5% at STC: 1000 W/m², ϕ = 35 W/m², ϕ = 70°, 25 ±2 °C, AM 1.5 according to IEC 60904-3

MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT ¹						
Minimum	Power at MPP	P _{MPP} [W]	444.2	448.0	451.8	455.5
	Short Circuit Current	I _{sc} [A]	11.07	11.09	11.11	11.13
	Open Circuit Voltage	V _{oc} [V]	50.69	50.72	50.75	50.77
	Current at MPP	I _{MPP} [A]	10.34	10.38	10.42	10.47
	Voltage at MPP	V _{MPP} [V]	42.97	43.15	43.34	43.52

¹ Measurement tolerances P_{MPP} ±3%, I_{sc}, V_{oc} ±5% at STC: 1000 W/m², 25 ±2 °C, AM 1.5 according to IEC 60904-3 • * 600 W/m², NMOT, spectrum AM 1.5

Qcells PERFORMANCE WARRANTY



* Standard terms of guarantee for the 5 PV companies with the highest production capacity in 2021 (January 2022)

TEMPERATURE COEFFICIENTS	α	β	γ
Temperature Coefficient of V _{oc}	[%/K]	+0.04	-0.27
Temperature Coefficient of P _{MPP}	[%/K]	-0.34	-0.18

Properties for System Design

Maximum System Voltage	V _{sys} [V]	1500	PV module classification	Class II
Maximum Series Fuse Rating	[A DC]	30	Fire Rating based on ANSI/UL 61730	TYPE 297
Max. Push Load*, Test/Design	[lbs/ft ²]	113 (5400 Pa) / 75 (3600 Pa)	Permitted Module Temperature on Continuous Duty	-40 °F up to +185 °F (-40 °C up to +85 °C)
Max. Pull Load*, Test/Design	[lbs/ft ²]	78 (3750 Pa) / 52 (2500 Pa)		

* See Installation Manual for instructions

Qualifications and Certificates



* Contact your Qcells Sales Representative for details regarding the module's eligibility to be Buy American Act (BAA) compliant.
Qcells pursues minimizing paper output in consideration of the global environment.
Note: Installation instructions must be followed. Contact our technical service for further information on approved installation of this product.
Headquarters: Q-CELLS America Inc., 400 Spectrum Center Circle, Suite 300, Irvine, CA 92614, USA | Tel.: +1 949 788 99 99 | Email: us-technical@qcells.com | www.qcells.com

qcells

SOLECTRIA® XGI 1500-250 SERIES TECHNICAL DATA

SPECIFICATIONS

PRODUCT SPECIFICATION	XGI 1500 INVERTER MODEL			
	XGI 1500 250/250-600	XGI 1500 225-600	XGI 1500 200/200-480	XGI 1500 175-480
DC Input	1500 VDC			
	Absolute Maximum Input Voltage			
	Maximum Power Voltage Range (MPPT)			
	Operating Voltage Range (MPPT)			
	Number of MPPT Trackers			
	Maximum Operating Input Current			
	Maximum Operating PV Power			
	Maximum DC/AC Ratio Max Rated PV Power			
	Max Rated PV Short-Circuit Current (I _{sc} x 1.25)			
	Nominal Output Voltage			
AC Output	600 VAC, 3-Phase			
	480 VAC, 3-Phase			
	AC Voltage Range			
	Continuous Real Output Power			
	Continuous Apparent Output Power (kVA)			
	Maximum Output Current (A _{max})			
	Fault Current Contribution (1 cycle RMS)			
	Conductor Compatibility			
	Nominal Output Frequency			
	Power Factor (Unity default)			
Efficiency	Total Harmonic Distortion (THD) @ Rated Load			
	Grid Connection Type			
	Peak Efficiency			
	CEC Average Efficiency			
	Tare Loss			
	Ambient Temperature Range			
	De-Rating Temperature			
	Storage Temperature Range			
	Relative Humidity (non-condensing)			
	Operating Altitude			
Communications	Advanced Graphical User Interface			
	Communication Interface			
	Third-Party Monitoring Protocol			
	Web-Based Monitoring			
	Firmware Updates			
	Safety Listings & Certifications			
	Advanced Grid Support Functionality			
	Testing Agency			
	FCC Compliance			
	Standard and Options			
Warranty	Acoustic Noise Rating			
	DC Disconnect			
	Mounting Angle			
	Dimensions			
	Weight			
	Enclosure Rating and Finish			
Enclosure				



YASKAWA
SOLECTRIA SOLAR

Yaskawa Solectria Solar 1-978-683-9700 | Email: sales@solectria.com | solectria.com
Document No. FL-XGI1500-04 | 10/04/2023 | © 2021 Yaskawa America, Inc.

SOLECTRIA® XGI 1500-250 SERIES

PREMIUM 3-PHASE TRANSFORMERLESS
UTILITY-SCALE INVERTERS

FEATURES

- NEW and MORE POWERFUL!
 - XGI 1500-250/250-600
 - XGI 1500-225-600 (Selectable: 225kW/225kVA or 225kW/250kVA)
 - XGI 1500-200/200-480
 - XGI 1500-175-480 (Selectable: 175kW/175kVA or 175kW/200kVA)
- Industry-leading maximum DC/AC Ratio of 2.0
- Accepts two Input PV Output: Circuits, with no overcurrent protection required
- Made in the USA with global components
- Buy American Act (BAA) compliant
- 98.0% peak efficiency
- Flexible solution for distributed and centralized system architecture
- Advanced grid-support functionality Rule 21/UL1741SB
- Robust, dependable and built to last
- Lowest O&M and installation costs
- Access all inverters on site via WiFi from one location
- Remote diagnostics and firmware upgrades
- SunSpec Modbus Certified
- Tested compatible with the TESLA PowerPack Microgrid System

OPTIONS

- PV Source Circuit Combiners
- Web-based monitoring
- Extended warranty



YASKAWA
SOLECTRIA SOLAR

Yaskawa Solectria Solar 1-978-683-9700 | Email: sales@solectria.com | solectria.com
Document No. FL-XGI1500-04 | 10/04/2023 | © 2021 Yaskawa America, Inc.

Yaskawa Solectria Solar is pleased to introduce its most powerful XGI 1500 inverters, with the XGI 1500-250 models at 600 Vac, and the XGI 1500-200 models for 480 Vac service.



The XGI 1500-250 and XGI 1500-200 feature SiC technology, high power and high efficiency that places them at the top end of the utility-scale string inverters in the market.

Yaskawa Solectria Solar designs all XGI 1500 utility-scale string inverters for high reliability and builds them with the highest quality components – selected, tested and proven to last beyond their warranty. The XGI 1500 inverters provide advanced grid-support functionality and meet the latest IEEE 1547 and UL 1741 standards for safety.

The XGI 1500 inverters provide ideal solutions for ground-mounted utility-scale PV systems, with models available for service connections at 600 Vac and 480 Vac. Designed and engineered in Lawrence, MA, the SOLECTRIA XGI Inverters are assembled and tested at Yaskawa America's facilities in Buffalo Grove, IL. The XGI 1500 inverters are Made in the USA with global components, and are compliant with the Buy American Act.



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PV SYSTEM OVERVIEW	
DC SYSTEM SIZE (kWDC)	7,151
AC SYSTEM SIZE (kWAC)	5,000
DC/AC RATIO	1.430
QTY PV MODULES	12,120
QTY INVERTERS	20
ARRAY TILT	30
ARRAY AZIMUTH	179

PV MODULE SPECIFICATIONS	
MANUFACTURER	Q.CELLS
MODEL NUMBER	Q.PEAK DUO XL-G11S.3/BFG
POWER (WDC-STC)	590
MAX SYSTEM VOLTAGE (VDC)	1500

PV INVERTER SPECIFICATIONS	
MANUFACTURER	SOLECTRIA
MODEL NUMBER	XGI 1500 250/250-600
MAX OUTPUT POWER (kWAC / kVA)	250 / 250
OUTPUT VOLTAGE (VAC)	600
MAX INPUT VOLTAGE (VDC)	1,500

ENGINEER'S STAMP:

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF ILLINOIS.



NO.	INITIALS	REVISION / ISSUE	DATE
0	SC	INTERCONNECTION APPLICATION	4/17/2024
1	SC	PLANTED SOLAR	10/22/2024
2	ISA COSSIO	CUP PACKAGE	12/23/2024
3	IC	DESIGN CHANGES – FT	1/16/2025
4	IC	POLES MOVED WEST; SCREENING SHIFT	2/3/2025
5	IC	MATERIAL MODIFICATION	2/13/2025
6	IC	WETLAND UPDATE & ROAD MOVED	3/18/2025
7			
8			
9			
10			
11			

PROJECT NAME:

ZEPELAK CSG
USA ENERGY INDEPENDENCE 1, LLC

LOCATION:

9318 CORNELIS RD
YORKVILLE, IL 60560
41.692298°, -88.435083°
KENDALL COUNTY, IL

EPC OPERATOR:

COMED

DRAWING TITLE:

DATASHEETS

SHEET:

E003

SHEET SIZE:

22"x34"

Certificate



Certificate no.

US 72226018 01

License Holder:
Solectria Renewables LLC
360 Merrimack Street, Bldg. 9, 2nd
Lawrence MA 01843
USA

Manufacturing Plant:
Yaskawa America Inc
1067 Johnson Drive
Buffalo Grove IL 60089
USA

Test report no.: USA-LHUS22OTAY 001

Client Reference: Thomas Shanahan

Tested to:

UL 1741:2010 R2.18

Certified Product: Grid Support Utility Interactive Inverter

License Fee - Units

Model Designation:
1) XGI 1500-125/125-UL; 2) XGI 1500-125/150-UL;
3) XGI 1500-150/166-UL; 4) XGI 1500-166/166-UL;
5) XGI 1500-125/125-3S; 6) XGI 1500-166/166-3S;
7) XGI 1500-125/125-UL-A; 8) XGI 1500-125/150-UL-A;
9) XGI 1500-150/166-UL-A; 10) XGI 1500-166/166-UL-A;
11) XGI 1500 250/250-600; 12) XGI 1500 225-600;
13) XGI 1500 200/200-480; 14) XGI 1500 175-480

Rated Voltage: DC 1500V max.
Operating Voltage Range: 1) -12) DC 860-1450V;
13)-14) DC 750-1450V
Appendix: 1, 1-40

Licensed Test mark:



Date of Issue
(day/month)

10/06/2022

TUV Rheinland of North America, Inc., 295 Foster Street, Suite 100, Littleton, MA 01460, Tel +1 (978) 266 9500, Fax +1 (978) 266-9992

Certificate



Certificate no.

US 72226018 04

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Lawrence MA 01843
USA

Manufacturing Plant:
Yaskawa America Inc
1067 Johnson Drive
Buffalo Grove IL 60089
USA

Test report no.: USA-LHUS22OTAY 003

Client Reference: Thomas Shanahan

Tested to:

UL 1741:2021

Certified Product: Grid Support Utility Interactive Inverter

License Fee - Units

Change:
Upgrade of standard for all models: see above
Special Remarks: Also evaluated to:
1) UL 1741 Edition 3 Supplement SB for grid interactive functions and IEEE 1547-2018 and IEEE 1547.1-2020
- IEEE1547.1-2020: Normal Operating Performance B;
- Abnormal Operating Performance III
2) UL 1741 Edition 3 Supplement SB for interoperability
- IEEE 1547-2018 and IEEE 1547.1-2020:
Using SunSpec Modbus protocol
Appendix: 1, 1-40

Licensed Test mark:



Date of Issue
(day/month)

30/01/2023

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PROJECT NAME:

ZEPELAK CSG
USA ENERGY INDEPENDENCE 1, LLC

LOCATION:

9318 CORNEILS RD
YORKVILLE, IL 60560
41.692298°, -88.435083°
KENDALL COUNTY, IL

EPC OPERATOR:

COMED

DRAWING TITLE:

CERTIFICATIONS

SHEET:

E004

SHEET SIZE:

22"x34"

K.



Vegetation Installation and Management Plan for Zepelak CSG

Prepared March 2025 by:



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1. Zepelak CSG Vegetation Management Plan (VMP) Overview

1.1. Site Developer

Enterprise Energy



1.2. Project Location

9316 Corneils RD
Yorkville, IL 60560

1.3. Vegetation Restoration Consultant

Natural Resource Services, Inc
2885 Quail Road NE
Sauk Rapids, MN 56379
320.290.5363

and

16425 W. State Route 90
Princeville, IL 61559

1.4. Project Description

The proposed Zepelak CSG project is a 5 MW AC project planned for approximately 20 acres in Kendall County, Yorkville, IL. Fixed panels with a leading edge of about 36" are planned on site. Due to the shaded and more arid conditions beneath the fixed panels, a fescue mix will be seeded in these areas, with fescues extending 2 feet out from the leading edge of panels. Aisles of the solar array will be planted with a fully native pollinator mix. Other areas, such as buffer zones in the north, north east, and parts of the southern section, will be planted with a basin mix because of the higher soil moisture.

An infiltration basin is planned to be installed on the eastern edge of the array along with vegetative screening on the southern and south-eastern sections of the parcel. Native species that will be planted are Black Hills Spruce (*Picea glauca* var. *densata*) and Common Buttonbush (*Cephalanthus occidentalis*) which are adapted to the climatic and soil moisture conditions. A small portion of a wetland identified by the USFWS National Wetlands Inventory is found on the northern part of the parcel boundary, outside of the array fence.

1.5. VMP Use and Objectives

The VMP was written to provide a brief overview and description of the project and to act as a guide for vegetation installation and management. It has been custom-written based on information known at the time of writing. The VMP should be treated as a living document and adjusted as additional information about the site is gathered both pre and post construction. A qualified native vegetation contractor with a history of success

working on native vegetation restorations should be contracted to implement the procedures outlined in this document and to provide feedback and suggestions for the VMP during the lifespan of the project.

2. Site Information

2.1. Site Location

The Zepelak project is located on the north side of Corneils RD and under $\frac{3}{4}$ of a mile to the east of the convergence of North Bridge St. (IL-47) and Corneils RD. Zepelak is located in Yorkville, Illinois and the GPS coordinates are 41.692298, -88.435083. The address of the project is 9318 Corneils RD, Yorkville, IL 60560.



2.2. Map of Array Layout



2.3. Site Conditions

A review of historical aerial photos shows that the entire site has been in traditional row crops for the majority of the last 30 years. Little to no ponding can be seen in the aerial photos. A review of the soils on the USDA/NRCS Web Soil Survey shows a variety of loam soils, varying from poorly drained to well drained. A majority of the site is ecologically classified as Rush Silt Loam (~ 80%) followed by Lorenzo loam, Drummer silty clay loam and Millbrook silt loam. Drummer silty loam is classified as hydric.

3. Overview of Vegetation Establishment and Management

3.1. Vegetative Goals

The primary vegetative goal is to establish permanent vegetation that does not interfere with solar production. This solar site is being planted with 100% native species. The species chosen produce an emphasis on native pollinator habitat to achieve and maintain Pollinator Friendly status as defined in the Illinois Pollinator Friendly Solar Site Act (525 ILCS 55/)¹.

3.2. Contribution of Native Habitat on Solar Sites

Economical production of power is the foremost goal of solar sites. There is a parallel opportunity to provide critically important native pollinator-friendly habitat throughout the array while capitalizing on the long-term low maintenance needs of native vegetation.

Establishing prairies and other native plant communities within the confines of solar sites provides a tremendous opportunity to restore ecosystems that have been severely degraded or eliminated across all areas of the country.

Native plants have profound root systems, many reaching 12 or more feet deep into the soil. Rainwater follows those roots into the ground, helping to reduce water runoff and promote the drainage of standing water into an aquifer. Those deep roots also stabilize the soil, preventing erosion from rain and wind. The plants provide seeds for songbirds, cover for game birds and, of course, provide blossoms and host plants for our beloved butterflies and other nectar-loving insects.

Native grasses and forbs will be selected based on their ecological appropriateness to the specific conditions of this site, with consideration to their mature height to not interfere with panel productivity. These species will not require irrigation, fertilizer, or other soil amendments.

The contribution to habitat restoration cannot be overstated given the acreage impacted and lifespan of the project.



¹ <https://www.ilga.gov/legislation/ilcs/ilcs3.asp?ActID=3900&ChapterID=44>

3.3. Vegetation Installation Overview

The native mix planned for this array is selected for ecological appropriateness to the soil moisture, types and site conditions as well as the mature plant height of 24" underneath solar panels so as to not interfere with panel productivity. The habitat provides low-maintenance vegetation that won't require fertilizer, amended soils or irrigation on this site.

It is important to note that the species selected for this site are based on their ability to successfully establish from seed and thrive within the unique conditions found on solar sites. From a practical standpoint, the species contained in these mixes are generally available in the marketplace and, as a whole, have reasonable price points. Ultimately, the list consists of well-performing, workhorse species coupled with smaller amounts of more unique species for a robust mixture.

3.4. Vegetation Management Overview

Maintenance plays a vital role in the eventual success of any native landscape installation, especially during the establishment period of years one through three. Active management is similar in all areas of the project site. All areas of the site are inspected annually followed by maintenance necessary to encourage healthy native species while discouraging non-native/invasive species. During the growing season of the first year of establishment, the site shall be inspected a minimum of three times.



4. Vegetation Installation Procedures

4.1. Site Inspections and Monitoring

Site inspections and monitoring throughout the installation process are vital to continually assess site conditions and determine what procedures are needed and the timing of those procedures. The pre-construction site inspection is particularly important to determine the need for any herbicide application or mowing prior to soil preparation and seeding.

4.2. Site Preparation Herbicide Application

A site preparation herbicide application, if deemed necessary, should be performed by a licensed, qualified contractor using appropriate herbicides to kill all actively growing weeds on the project site. Typically, only glyphosate herbicide is necessary, but if certain perennial weed species are present such as Canada thistle, a broadleaf additive may be necessary. The contractor should carefully select an herbicide with a short soil residual, such as Garlon 3A, to minimize the impact on germination of the permanent seeding. The vegetation should not be disturbed for a minimum of 14 days after an herbicide application to allow time for effective weed elimination.

4.3. Site Preparation Mowing

Site preparation mowing may be required to reset vegetative growth to prepare for an herbicide application. Additionally, site preparation mowing may be needed to cut and mulch vegetation to simplify the soil preparation and seeding process.

4.4. Soil and Seedbed Preparation

Soil and seedbed preparation is vital to the success of any planting. Disking and harrowing (or raking) the site is common and extremely effective. If extreme compaction is present on site, a ripper may be needed to mitigate the compaction. The seedbed should be relatively smooth and firm prior to seeding. Soil that is too clumpy or too fluffy may result in seeds being planted too deep in the soil to germinate and survive.

4.5. Seed and Seeding

A custom native pollinator seed mix has been designed for use on this project and is found in Section 8. Seeding will be completed through broadcasting by using a mechanical spreader appropriate for the specified seed mixes. Large and fluffy seeds (such as most grasses and cover crop) should be broadcast first and then lightly harrowed/raked into the soil. Following the harrowing, small seeds (such as most forbs, sedges, and rushes) should be broadcast on top of the soil.

4.6. Tree and Shrub Installation

Tree and shrub installation can occur either before or after permanent seeding depending on the preferences of the contractor, timing of seeding, and the site conditions. If installation occurs after permanent seeding, touchup seeding in the disturbed areas may need to be completed. All trees and shrubs should be watered at the time of installation and properly mulched. A watering plan should be in place in the event of inadequate rainfall.

4.7. Erosion control

Erosion control measures should be implemented as required after permanent seeding is completed.

5. Vegetation Management Procedures

5.1. Adaptive Management

An adaptive management strategy is vital to the success of any project, but especially so for native pollinator restorations. Adaptive management consists of continual monitoring and adjusting maintenance strategies based on the site conditions in order to achieve the best outcomes. No two sites are exactly the same and responding to changing site conditions, weed pressures, weather, and a multitude of other variables is essential to the success of the planting.

5.2. Complete Site Maintenance Mowing

Complete site maintenance mowing consists of mowing the entire project area during the growing season, including trimming as appropriate around equipment or in inaccessible areas. Complete site maintenance mowing is implemented primarily during the establishment phase of the restoration (years 1-3) for several reasons. First, if a closed canopy of vegetation develops, mowing is implemented to knock back the taller vegetation and allow sunlight to reach the native seedlings below. Second, if weed species are present and actively nearing their seed set, mowing is implemented to prevent those weeds from producing viable seed. Third, vegetation has become tall enough to shade the panels or impact other solar equipment on site and must be cut down.

5.3. Integrated Vegetation Maintenance

Integrated vegetation maintenance or IVM is a method using a combination of targeted mowing/trimming and herbicide application aimed at reducing or eliminating weed species and promoting the desired vegetation. IVM can also include grazing, haying, and other maintenance options as appropriate. IVM is implemented starting towards the end of the 2nd full growing season typically and is used throughout the life of the project. 3 IVM visits are typical on most sites until year 5 when a reduction to 1-2 visits per year can be made if site conditions allow.

5.4. Dormant Mowing

Dormant mowing is a type of complete site mow implemented when vegetation is not actively growing on site. This method is typically performed in early spring or fall. Oftentimes, dormant mows are completed in the fall to mulch up dead vegetation and encourage decomposition. This practice also has a dual purpose of cleaning up the site to make electrical maintenance easier and to reduce the chance of accidental fire.

6. Vegetation Installation and Management Timeline

6.1. Site Prep and Installation Phase

Site Preparation:

1. Prior to the start of construction, a cover crop may be seeded to aid in erosion control, soil moisture management, and weed suppression.
2. Inspection of the project area to assess site conditions and determine the need for any site prep mowing or spraying activities.
3. If necessary, an herbicide application will be completed using glyphosate (Round-up® or equivalent) as per manufacturer's directions in areas with actively growing vegetation. Allow a minimum of 14 days before disturbing the soil or completing seeding activities.
4. When perennial broadleaf vegetation is present a triclopyr herbicide will be added (Garlon 3A® or equivalent) as per manufacturer's directions. When a broadleaf herbicide is used allow a minimum of 30 days before disturbing the site or completing seeding.
5. Depending on the density and type of undesirable vegetation present (i.e., annual vs perennial) a complete site mowing might be advisable in lieu of an herbicide application. For instance, if the site is dominated by Foxtail (an annual), mowing would be preferable to an herbicide application.

Soil Prep and Seeding:

1. Construction debris, garbage, and building materials will be removed and/or staged outside the intended seeding areas.
2. Disk soil within the project area in preparation for seeding. Harrow or rake the soil to achieve the proper seedbed.
3. Broadcast the large and fluffy seed (mostly grasses) along with a cover crop of winter wheat or oats.
4. Harrow or rake the soil to work the seed to a proper depth.
5. Broadcast the small seeds (forbs, sedges, rushes, small grass seeds) on top of the soil.

Vegetative Screening Installation

1. Prior to tree and shrub installation, planting locations should be marked to ensure proper placement and spacing of the trees and shrubs. Spacing is planned to be 12' between individual plants.
2. Install trees and shrubs using appropriate equipment and procedures, including watering at the time of installation, mulch rings, and staking or guying if necessary.
3. Implement a watering plan post-installation to ensure survival.

Installation Phase Maintenance

If the site is seeded in the summer or early fall, 1-2 complete site mowings may be needed during this first partial growing season.

6.2. Establishment Phase

Year 1 is defined as the 1st full growing season for the vegetation. A recommendation of 3 complete site mowings is most common for this phase. Depending on site conditions and vegetation growth, more or less may be needed.

Year 2 is the second full growing season. 3 total visits are typical with 2 complete site mowings and 1 Integrated Vegetation Maintenance visit the most likely combination.

Year 3 typically requires 3 IVM site visits depending on vegetation status.

6.3. Maintenance Phase

Year 4 – 34. During the maintenance phase, 2 IVM visits are typical.

7. Monitoring

Consistent project monitoring is essential to evaluate vegetative establishment, weed presence, and possible erosion concerns. This information helps determine which management procedures to utilize, the proper timing for those procedures, and whether any other remedial action is required such as reseeding or replanting. As the site's vegetation matures, adaptive management should be utilized as previously described.

8. Seed Mix

 Zepelak CSG Native Seed Mix Seeding Rate - 12.5 lb/acre - 75 seed/ft ²						
Common Name	Scientific Name	Bloom Month	% of Mix by Weight	Lbs/Acre	Seeds per ft ²	% of Mix by Seeds/ft ²
Sideoats Grama	<i>Bouteloua curtipendula</i>		34.25%	4.28	9.43	12.58%
Prairie Brome	<i>Bromus kalmii</i>		0.80%	0.10	0.29	0.39%
Plains Oval Sedge	<i>Carex brevior</i>		2.80%	0.35	3.72	4.97%
Bicknell's Sedge	<i>Carex bicknellii</i>		0.96%	0.12	0.75	1.00%
Troublesome Sedge	<i>Carex molesta</i>		1.84%	0.23	2.11	2.82%
Brown Fox Sedge	<i>Carex vulpinoidea</i>		2.00%	0.25	9.18	12.24%
Silky Wild Rye	<i>Elymus villosus</i>		6.00%	0.75	1.52	2.02%
Little Bluestem	<i>Schizachyrium scoparium</i>		26.96%	3.37	18.57	24.75%
Prairie Dropseed	<i>Sporobolus heterolepis</i>		0.40%	0.05	0.29	0.39%
Graminoid Total			76.00%	9.50	45.87	61.15%
Common Yarrow	<i>Achillea millefolium</i>	Jun-Aug	0.44%	0.06	3.63	4.84%
Nodding Onion	<i>Allium cernuum</i>	Jul-Aug	0.24%	0.03	0.08	0.11%
Lead Plant	<i>Amorpha canescens</i>	Jun-Aug	1.33%	0.17	0.98	1.30%
Canada Anemone	<i>Anemone canadensis</i>	May-Jun	0.04%	0.01	0.02	0.02%
Wild Columbine	<i>Aquilegia canadensis</i>	Apr-Jun	0.04%	0.01	0.07	0.10%
Common Milkweed	<i>Asclepias syriaca</i>	Jun-Aug	0.34%	0.04	0.06	0.08%
Butterfly Milkweed	<i>Asclepias tuberosa</i>	Jun-Aug	0.32%	0.04	0.06	0.08%
Canada Milkvetch	<i>Astragalus canadensis</i>	Jun-Aug	1.08%	0.14	0.84	1.13%
Partridge Pea	<i>Chamaecrista fasciculata</i>	Jul-Sep	3.11%	0.39	0.39	0.51%
White Prairie Clover	<i>Dalea candida</i>	Jun-Sep	4.08%	0.51	3.56	4.74%
Purple Prairie Clover	<i>Dalea purpurea</i>	Jul-Sep	6.02%	0.75	4.98	6.63%
Cream Gentian	<i>Gentiana flavida</i>	Aug-Sep	0.04%	0.01	0.27	0.36%
Prairie Blazing Star	<i>Liatris pycnostachya</i>	Jul-Sep	0.24%	0.03	0.12	0.16%
Virginia Mountain Mint	<i>Pycnanthemum virginianum</i>	Jun-Sep	0.09%	0.01	0.95	1.26%
Prairie Wild Rose	<i>Rosa arkansana</i>	Jun-Aug	0.29%	0.04	0.03	0.04%
Black-eyed Susan	<i>Rudbeckia hirta</i>	Jun-Oct	1.92%	0.24	8.13	10.83%
Gray Goldenrod	<i>Solidago nemoralis</i>	Aug-Oct	0.04%	0.01	0.57	0.76%
Ohio Goldenrod	<i>Solidago ohioensis</i>	Aug-Sep	0.04%	0.01	0.21	0.28%
Calico Aster	<i>Symphotrichum lateriflorum</i>	Aug-Oct	0.04%	0.01	0.48	0.64%
Sky Blue Aster	<i>Symphotrichum oolentangiense</i>	Aug-Oct	0.16%	0.02	0.57	0.76%
Ohio Spiderwort	<i>Tradescantia ohiensis</i>	May-Jul	0.24%	0.03	0.09	0.12%
Hoary Vervain	<i>Verbena stricta</i>	Jun-Sep	1.44%	0.18	1.85	2.46%
Golden Alexanders	<i>Zizia aurea</i>	Apr-Jun	2.40%	0.30	1.21	1.62%
Forb Total			24.00%	3.00	29.14	38.85%
Mix Total			100.00%	12.50	75.01	100.00%

Northern IL poorly drained soil mix

March 2025

 Zepelak Solar Array Mix Seeding Rate - 125 Lb/acre - 1,423.3 seeds/ft ²					
Common Name	Scientific Name	% of Mix	Lbs/Acre	Seeds/ft ²	% of Mix by Seeds/ft ²
Hard Fescue	<i>Festuca trachyphylla</i>	25.00%	31.25	401.75	28.23%
Chewings Fescue	<i>Festuca rubra commutata</i>	25.00%	31.25	321.40	22.58%
Creeping Red Fescue	<i>Festuca rubra</i>	25.00%	31.25	321.40	22.58%
Sheeps Fescue	<i>Festuca ovina</i>	25.00%	31.25	378.80	26.61%
Mix Total		100.00%	125.00	1423.35	100.00%

 Zepelak CSG Basin Mix Seeding Rate - 7lb/acre - 167.7 seeds/ft ²						
Common Name	Scientific Name	Bloom Month	% of Mix by Weight	Lbs/Acre	Seeds/ft ²	% of Mix by Seeds/ft ²
Bottlebrush Sedge	<i>Carex comosa</i>		3.57%	0.25	2.75	1.64%
Fringed Sedge	<i>Carex crinita</i>		5.71%	0.40	3.38	2.01%
Pointed-broom Sedge	<i>Carex scoparia</i>		2.86%	0.20	6.17	3.68%
Common Fox Sedge	<i>Carex stipata</i>		2.86%	0.20	2.50	1.49%
Brown Fox Sedge	<i>Carex vulpinoidea</i>		2.86%	0.20	7.35	4.38%
Canada Wild Rye	<i>Elymus canadensis</i>		11.88%	0.83	1.59	0.95%
Virginia Wild Rye	<i>Elymus virginicus</i>		17.88%	1.25	1.93	1.15%
Fowl Manna Grass	<i>Glyceria striata</i>		0.29%	0.02	1.18	0.70%
Dudley's Rush	<i>Juncus dudleyi</i>		0.29%	0.02	23.51	14.01%
Fowl Bluegrass	<i>Poa palustris</i>		11.14%	0.78	37.25	22.20%
Little Bluestem	<i>Schizachyrium scoparium</i>		17.14%	1.20	6.61	3.94%
Graminoid Total			76.43%	5.35	94.20	56.16%
Canada Anemone	<i>Anemone canadensis</i>	May-Jun	1.29%	0.09	0.27	0.16%
Canada Milkvetch	<i>Astragalus canadensis</i>	Jun-Aug	2.65%	0.19	1.16	0.69%
Nodding Bur Marigold	<i>Bidens cernua</i>	Jun-Sep	0.65%	0.05	0.35	0.21%
Southern Blue Flag Iris	<i>Iris virginica shrevei</i>	May-Jul	1.29%	0.09	0.03	0.02%
Great Blue Lobelia	<i>Lobelia siphilitica</i>	Jul-Oct	1.03%	0.07	13.28	7.91%
Monkey Flower	<i>Mimulus ringens</i>	Jun-Sep	0.52%	0.04	30.54	18.20%
Virginia Mountain Mint	<i>Pycnanthemum virginianum</i>	Jun-Sep	1.29%	0.09	7.30	4.35%
Black-eyed Susan	<i>Rudbeckia hirta</i>	Jun-Oct	3.55%	0.25	8.40	5.01%
Calico Aster	<i>Symphyotrichum lateriflorum</i>	Aug-Oct	0.77%	0.05	4.98	2.97%
Ohio Spiderwort	<i>Tradescantia ohiensis</i>	May-Jul	3.23%	0.23	0.66	0.40%
Blue Vervain	<i>Verbena hastata</i>	Jul-Sep	2.14%	0.15	5.12	3.05%
Golden Alexanders	<i>Zizia aurea</i>	Apr-Jun	5.16%	0.38	1.46	0.87%
Forb Total			23.67%	1.65	73.54	43.84%
Mix Total			100.00%	7.00	167.74	100.00%

9. Pollinator Scorecard

Illinois Solar Site Pollinator Habitat Planning Form

Use this form as a draft before completing the *Illinois Planned Pollinator Habitat on Solar Sites Scorecard* online

In Between and Under Solar Panels

1. PLANNED PLANT DIVERSITY IN ROWS & UNDER SOLAR ARRAY (choose up to 2)

- ☐ 4-6 species +5 pts
☒ 7 or More species +8 pts
☒ All Native Species (minimum 4 species) +10 pts

Perimeter and Buffer Area

2. VEGETATIVE BUFFER PLANNED ADJACENT TO THE SOLAR SITE (choose all that apply)

- ☒ Buffer planned outside of array fencing +5 pts
☐ Buffer is 30-49ft wide measured from array fencing +5 pts
☐ Buffer is at least 50ft wide measured from array fencing +10 pts
☒ Buffer has Native shrubs/trees that provide food for wildlife +5 pts

3. SEEDS USED FOR NATIVE PERIMETER & BUFFER AREAS (choose all that apply)

- ☒ Mixes are seeded using at least 20 seeds per square foot of Pure Live Seed or 40 Seeds per square foot on slopes > 5% +10 pts
☐ All seeds are from a source within 150 miles of site +5 pts
☐ At least 2% milkweed cover is planned to be established from seeds/plants +5 pts

4. PLANNED # OF NATIVE SPECIES IN SITE PERIMETER & BUFFER AREA (species with more than 1% cover)(choose 1)

- ☐ 5-10 species +2 pts
☐ 10-15 species +5 pts
☐ 16-20 species +10 pts
☒ >20 species +15 pts

Exclude invasive and non-native plant species from total

5. PLANNED PERCENT OF PERIMETER & BUFFER AREA DOMINATED BY NATIVE PLANT SPECIES (choose 1)

- ☐ 26- 50 % +2 pts
☐ 51-75 % +10 pts
☒ More than 75% +15 pts

Whole Site

6. PLANNED PERCENT OF SITE VEGETATION COVER TO BE DOMINATED BY DESIRABLE WILDFLOWERS (choose 1)

- ☒ 26- 50 % +2 pts
☐ 51-75 % +10 pts
☐ More than 75% +15 pts



7. PLANNED SEASONS WITH AT LEAST THREE BLOOMING NATIVE SPECIES PRESENT (choose all that apply)

- ☒ Spring (April-May) +5 pts
☒ Summer (June-August) +5 pts
☒ Fall (September-October) +5 pts

8. HABITAT SITE PREPARATION PRIOR TO IMPLEMENTATION (choose all that apply)

- ☒ Soil preparation done to promote germination and reduce erosion as appropriate for the site. +10 pts
☒ Measures taken to control weeds prior to seeding +10 pts
☐ None -10 pts

9. AVAILABLE HABITAT COMPONENTS WITHIN 0.25 MILES (choose all that apply)

- ☐ Native bunch grass for bee nesting +2 pts
☒ Native trees/shrubs for bee nesting +2 pts
☒ Clean, perennial water sources +2 pts
☐ Created habitat nesting features +2 pts

10. SITE PLANNING AND MANAGEMENT(choose all that apply)

- ☒ Detailed establishment and management plan developed +10 pts
☐ Signage legible at forty or more feet stating "pollinator friendly solar habitat" +3 pts

11. INSECTICIDE RISK (choose all that apply)

- ☐ Planned on-site use of insecticide or pre-planting seed/plant treatment (excluding buildings/electrical boxes, etc.) -40 pts
☐ Communication/registration with local chemical applicators or on www.fieldwatch.com to prevent drift +5 pts

Total Points: 115

Meets Preliminary Pollinator Standards - 85
 Provides Exceptional Habitat - 110 and higher

Owner: Zepelak CSG 1

Vegetation Consultant: Natural Resource Services, Inc

Project Location: Yorkville, Illinois

Project Size: 20.1 acres

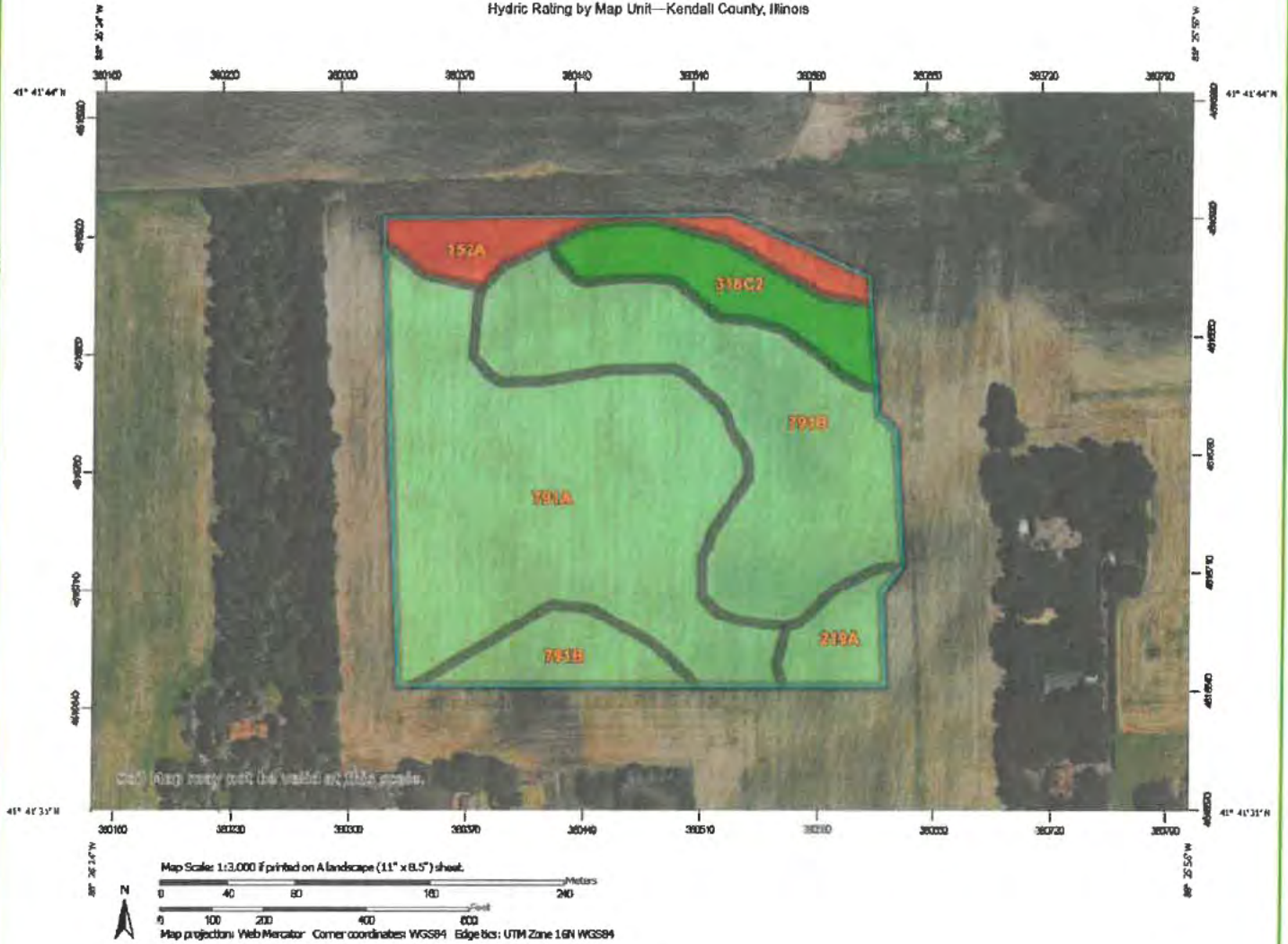
Final Seeding Date: May 2020

This form is designed (with the help of the Solar Site Pollinator Guidelines found on IDNR's website) to guide owners or managers of solar sites to meet the requirements to be able to claim a site is pollinator friendly according to the "Pollinator Friendly Solar Site Act (525 ILCS 55)". This form is for company records only and does not grant the title of a Pollinator Friendly Solar Site until the "Illinois Planned Pollinator Habitat on Solar Sites Scorecard" is completed with a score of 85 or higher on IDNR's website. This preliminary recognition is good for 3yrs, after which the "Established Pollinator Habitat on Solar Sites Scorecard" will need to be completed every 5 years to maintain recognition as a Pollinator Friendly Solar Site

12/3/2019

10. Soils Maps

Hydric Rating by Map Unit—Kendall County, Illinois



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

3/3/2025
Page 1 of 5

MAP LEGEND

Area of Interest (AOI)	Transportation
 Area of Interest (AOI)	 Rails
Soils	 Interstate Highways
Soil Rating Polygons	 US Routes
 Hydric (100%)	 Major Roads
 Hydric (66 to 99%)	 Local Roads
 Hydric (33 to 65%)	Background
 Hydric (1 to 32%)	 Aerial Photography
 Not Hydric (0%)	
 Not rated or not available	
Soil Rating Lines	
 Hydric (100%)	
 Hydric (66 to 99%)	
 Hydric (33 to 65%)	
 Hydric (1 to 32%)	
 Not Hydric (0%)	
 Not rated or not available	
Soil Rating Points	
 Hydric (100%)	
 Hydric (66 to 99%)	
 Hydric (33 to 65%)	
 Hydric (1 to 32%)	
 Not Hydric (0%)	
 Not rated or not available	
Water Features	
 Streams and Canals	

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Kendall County, Illinois
Survey Area Data: Version 21, Aug 21, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 18, 2020—Jul 3, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

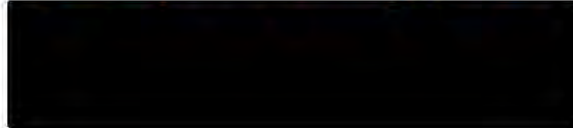
Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
152A	Drummer silty clay loam, 0 to 2 percent slopes	100	1.4	6.8%
218A	Millbrook silt loam, 0 to 2 percent slopes	3	0.8	4.2%
318C2	Lorenzo loam, 4 to 6 percent slopes, eroded	0	1.7	8.7%
791A	Rush silt loam, 0 to 2 percent slopes	6	8.9	44.6%
791B	Rush silt loam, 2 to 4 percent slopes	6	7.1	35.6%
Totals for Area of Interest			20.0	100.0%

E.

USA Energy Independence 1 LLC Decommissioning Plan

Enterprise Energy, LLC



DECOMMISSIONING PLAN

The Solar Garden consists of many recyclable materials, including glass, semiconductor material, steel, aluminum, copper, and plastics. When the Solar Garden reaches the end of its operational life, the component parts will be dismantled and recycled as described below. We have a lease contract with the property owner, which requires us to decommission and restore the site at our expense. The decommissioning plan would commence at the end of the lease term or in the event of twelve (12) months of non-operation. At the time of decommissioning, the Solar Garden components will be dismantled and removed using minimal impact construction equipment, and materials will be safely recycled or disposed of. USA Energy Independence 1 LLC will be responsible for all the decommissioning costs.

REMOVAL PROCESS

The decommissioning of the Solar Garden proceeds in the following reverse order of the installation:

1. The solar system will be disconnected from the utility power grid
2. PV modules will be disconnected and removed
3. Electrical cables will be removed and recycled off-site
4. PV module racking will be removed and recycled off-site
5. PV module support posts will be removed and recycled off-site
6. Electrical devices, including transformers and inverters, will be removed and recycled off-site
7. Concrete pads will be removed and recycled off-site
8. Fencing will be removed and recycled off-site
9. Reclaim soils in the access driveway and equipment pad areas by removing imported aggregate material and concrete foundations; replace with soils as needed

The Solar Garden site may be converted to other uses in accordance with applicable land use regulations at the time of decommissioning. There are no permanent changes to the site, and it will be returned in terrific condition. This is one of the many great things about community solar gardens. If desired, the site can return to productive farmland after the system is removed.



USA Energy Independence 1 LLC Decommissioning Plan

DECOMMISSIONING CONSIDERATIONS

We ask that Kendall County take note of 3 important considerations: 1) a community solar garden is not a public nuisance, 2) the resale and recycle value are expected to greatly offset the cost of decommissioning, and 3) Kendall County and taxpayers are not at risk.

1) Our modules do not contain hazardous materials and the Solar Garden is not connected to government utilities (water, sewer, etc.). The Solar Garden will be fenced in for security and will be sheltered from sight with new screening. Additionally, almost all the land is permanent vegetation which improves erosion control, soil quality, and water quality. For these reasons, the Solar Garden, whether operational or non-operational, is not a public nuisance threat that would require government involvement in decommissioning or removal of the Solar Garden. Compare this to an abandoned home, barn, etc. that may regularly include hazardous materials and/or become a public nuisance.

2) Upon the end of the Solar Garden's life, the component parts may be resold and recycled. The aggregate value of the equipment is expected to greatly offset the cost of decommissioning and removal. Solar modules, for example, have power output warranties guaranteeing a minimum power output in Year 25 of at least 80% of Year 1. Since the value of solar panels is measured by their production of watts and the value of electricity, it is easy to calculate expected resale value. Even using extremely conservative assumptions, the value of the solar modules greatly offsets the cost of decommissioning. This does not factor in the recycle value of other raw materials like steel, copper, etc.

3) In the extremely unlikely, "worst-case" scenario where (1) the Solar Garden Owner fails to decommission and neither our lender nor any power generation entities want the assets, and then (2) the landowner fails to decommission the Solar Garden (which the landowner would have the right to do under the Property lease), and then (3) the decommissioning financial surety was insufficient to decommission the Solar Garden, Kendall County would have its standard police powers to enforce decommissioning. If that process ultimately resulted in Kendall County gaining ownership of the property, Kendall County could sell the parcel which would absolutely exceed the decommissioning cost.

DECOMMISSIONING FINANCIAL SURETIES

Despite the considerations of 1) the Solar Garden is not a public nuisance, 2) the resale and recycle value is expected to greatly offset the cost of decommissioning, and 3) Kendall County and taxpayers are not at risk, we are cognizant that Kendall County will require the posting of a bond, letter of credit, or the establishment of an escrow account as a condition of issuing USA Energy Independence 1 LLC a Conditional Use Permit. Of course, Kendall County would be the beneficiary of any required security.

We are offering a \$50,000 bond for a decommissioning financial surety, to Kendall County.



USA Energy Independence 1 LLC Decommissioning Plan

This financial surety provides an extra layer of security that the Solar Garden site will be returned to the appropriate condition at the end of the Solar Garden's useful life or earlier, should the Solar Garden cease operations for a twelve-month period. Kendall County will be the designated beneficiary of the fund and the landowner will be provided a copy of the document, thereby establishing the obligation before construction commences.

INSURANCE INFORMATION

USA Energy Independence 1 LLC will be required to meet insurance requirements under long-term contracts with several parties, including the site landowner, the electric utility, and its Solar Garden lenders and investors. USA Energy Independence 1 LLC will be listed on a policy that includes:

- Liability coverage that will include \$1,000,000 in coverage against damage to rented property Excess liability coverage of an additional \$1,000,000 per occurrence
- Property coverage in an amount necessary to cover the value of the Solar Garden and up to one year of lost revenue in the event the project is destroyed and needs to be rebuilt.

1.0 DECOMMISSIONING PLAN

1.1 General

USA Energy Independence 1 LLC is a proposed 7.151-megawatt direct current (MW-dc) or 5.0-megawatt alternating current (MW-ac) solar electric generating facility using ground-mounted photovoltaic panels located in Kendall County, IL. The facility will be located in a fenced area of approximately 20 acres. The vast majority of the site is currently in agricultural use, most of it farmed in row crops. Following decommissioning of the facility, the land will be restored to its pre-construction condition to the extent practicable.

The decommissioning plan (plan) presents the following provisions that are intended to ensure that facilities are properly removed after their useful life. The plan includes provisions for the complete removal of all structures, foundations, underground cables, transformers, inverters, foundations, and the restoration of soil and vegetation. The Contractors will comply with the requirements of all permits during the decommissioning process. Disposal of structures and foundations will comply with any applicable County Solid Waste regulations.

1.2 Decommissioning and Reclamation

Solar projects typically have a life span of approximately 30-40 years, though some replacing or updating of equipment may occur during that time frame. The Solar Garden Owner will be responsible for the removal of all aboveground and underground equipment to full depth within



USA Energy Independence 1 LLC Decommissioning Plan

the Project area at the end of the solar project life span. The Solar Garden Owner will restore and reclaim the site to pre-construction topography and topsoil to the extent practical.

Decommissioning includes removing the solar panels, solar panel racking, steel foundation posts and beams, inverters, transformers, overhead and underground cables and lines, equipment pads and foundations, equipment cabinets, and ancillary equipment. The civil facilities, access road, security fence, and any drainage structures are also included in the scope. Standard decommissioning practices would be utilized, including dismantling and repurposing, salvaging/recycling, or disposing of the solar energy improvements.

After all the equipment is removed, any holes or voids created by poles, concrete pads, and other equipment will be filled in with native soil to the surrounding grade and the site will be restored to pre-construction conditions, to the extent practicable. All access roads and other areas compacted by the equipment will be de-compacted to a depth necessary to ensure drainage of the soil and root penetration prior to fine grading and tilling to a farmable condition.

1.3 List of Decommissioning Activities

1.3.1 Timeline

Decommissioning is estimated to take approximately 25-30 weeks to complete. The decommissioning crew(s) will ensure that all equipment and materials are recycled or disposed of properly.

1.3.2 Removal and Disposal of Site Components

The removal and disposal details of the site components are found below.

Modules: Modules will be inspected for physical damage, tested for functionality, and disconnected and removed from racking. Functioning modules will be packed, palletized, and shipped to an offsite facility for reuse or resale. Non-functioning modules will be shipped to the manufacturer or a third party for recycling or disposal.

Racking: Racking and racking components will be disassembled and removed from the steel foundation posts, processed to an appropriate size, and sent to a metal recycling facility.

Steel Foundation Posts: All structural foundation steel posts will be pulled out to full depth, removed, processed to an appropriate size, and shipped to a recycling facility. The posts can be removed using backhoes or similar equipment. During decommissioning, the area around the foundation posts may be compacted by equipment and, if compacted, the area will be de-compacted in a manner to adequately restore the topsoil and sub-grade material to a density consistent for vegetation.

USA Energy Independence 1 LLC Decommissioning Plan

Overhead and Underground Cables and Lines: All underground cables and conduits will be removed to full depth in a way that will not impede the reintroduction of farming. Topsoil will be segregated and stockpiled for later use prior to any excavation and the subsurface soils will be staged next to the excavation. The subgrade will be compacted per standards. Topsoil will be redistributed across the disturbed area. Overhead lines will be removed from the project and taken to a recycling facility.

Inverters, Transformers, and Ancillary Equipment: All electrical equipment will be disconnected and disassembled. All parts will be removed from the site and reconditioned and reused, sold as scrap, recycled, or disposed of appropriately, at the Owner's sole discretion, consistent with applicable regulations and industry standards.

Equipment Foundation and Ancillary Foundations: The ancillary foundation for USA Energy Independence 1 LLC are pile foundations for the equipment pads. As with the solar array steel foundation posts, the foundation Piles are typically removed full depth using a vibratory hammer mounted on a backhoe or similar type of equipment. During the excavation, the topsoil will be segregated from the subsoil, so that the soil can be replaced in the excavation and compacted to restore the pre-construction soil profile. Duct banks will be excavated to full depth. All unexcavated areas compacted by equipment used in decommissioning will be de-compacted in a manner to adequately restore the topsoil and sub-grade material to a density similar to the surrounding soils. All materials will be removed from the site and reconditioned and reused, sold as scrap, recycled, or disposed of appropriately, at the Owner's sole discretion, consistent with applicable regulations and industry standards.

Fence: All fence parts and foundations will be removed from the site and reconditioned and reused, sold as scrap, recycled, or disposed of appropriately, at the Owner's sole discretion, consistent with applicable regulations and industry standards. The surrounding areas will be restored to pre-solar farm conditions to the extent feasible.

Access Roads: Facility access roads will be used for decommissioning purposes, after which removal of roads will be discussed with the Landowner, using the following process:

- 1) After final clean-up, access roads may be left intact through mutual agreement of the landowner and the Owner.
- 2) If a road is to be removed, aggregate will be removed and shipped from the site to be reused, sold, or disposed of appropriately, at the Owner's sole discretion, consistent with applicable regulations and industry standards. Clean aggregate can often be used as "daily cover" at landfills for no disposal cost. All internal service roads are constructed with geotextile fabric and eight inches of aggregate over compacted subgrade. Any ditch crossing connecting access roads to public roads will be removed unless the landowner requests it remains. The subgrade will be de-compacted using a chisel plow or other appropriate subsoiling equipment.

USA Energy Independence 1 LLC Decommissioning Plan

All rocks larger than four inches will be removed. The access roads and adjacent areas that are compacted by the equipment will be de-compacted.

1.3.3 Restoration/Reclamation of Site

The Owner will restore and reclaim the site to the pre-solar farm condition to the extent practical consistent with the site lease agreement. The Owner assumes that most of the site will be returned to farmland and/or pasture after decommissioning and will implement appropriate measures to facilitate such uses. If no specific use is identified, the Owner will vegetate the site with a seed mix approved by the local soil and water conservation district or similar agency. The goal of restoration will be to restore natural hydrology and plant communities to the extent practicable while minimizing new disturbance and removal of native vegetation. The decommissioning effort will implement best management practices (BMPs) to minimize erosion and to contain sediment on the Project to the extent practicable with the intent of meeting this goal include:

1. Minimize new disturbance and removal of native vegetation to the greatest extent practicable.
2. Remove solar equipment and all access roads up to full depth, backfill with subgrade material and cover with suitable topsoil to allow adequate root penetration for plants, and so that subsurface structures do not substantially disrupt groundwater movements.
3. Any topsoil that is removed from the surface for decommissioning will be stockpiled to be reused when restoring plant communities. Once decommissioning activity is complete, topsoil will be re-spread to assist in establishing and maintaining plant communities.
4. Stabilize soils and return them to agricultural use according to the lease agreements.
5. Prior to and after decommissioning activities, install erosion and sediment control measures, such as silt fences, bio-rolls, and ditch checks in all disturbance areas where the potential for erosion and sediment transport exists, consistent with stormwater management objectives and requirements.

Decommissioning and restoration activities at each site will be completed within 5-6 weeks after the solar energy farm is considered a discontinued use.

1.4 Post-Restoration Monitoring

Decommissioning of the site will comply with permits for the National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) Construction Storm Water (CSW) Permit, Spill Containment, and Countermeasure (SPCC) Plan, and Storm Water Pollution



USA Energy Independence 1 LLC Decommissioning Plan

Prevention Plan (SWPPP), if grading activities are necessary and exceed applicable permit thresholds. Decommissioning may include post-restoration monitoring as required by the NPDES/SDS CSW Permit and SWPPP and other applicable requirements.

Decommissioning Costs Table**Project Name: USA Energy Independence 1 LLC****Date: Feb 17, 2025****Project Size 7.151 MW-DC | 5MW-AC**

	<i>Quantity</i>	<i>Unit</i>	<i>Unit Price</i>	<i>Line Item Price</i>
Mobilization/Demobilization	1	Lump Sum	\$33,114	\$33,114
Mobilization was estimated to be approximately 7% of total cost of other items. This number was developed from speaking with contractors.				
Permitting				
State Permits	1	Lump Sum	\$10,000	\$10,000
Subtotal Permitting				\$10,000
Decommissioning will require a SWPPP and SPCC plan, cost is an estimate of the permit preparation cost.				
Civil Infrastructure				
Removal Gravel Surfacing from Road	642.30	Cubic Yards	\$2.59	\$1,663.55
Haul Gravel Removed from Road	642.30	Cubic Yards	\$5.44	\$3,494.09
Disposal of Gravel Removal from Road	959	Tons	\$0.00	\$0.00
Removal Geotextile Fabric from Road Area	2,889	Square Yards	\$1.40	\$4,044.44
Haul Geotech Fabric Removed from Beneath Access Roads	0.80	Tons	\$3.99	\$3.18
Disposal of Geotech Fabric Removed from Beneath Access Roads	0.80	Tons	\$81.00	\$64.53
Removal Culvert from Beneath Road	1	Each	\$1,200.00	\$1,200.00
Haul Culvert Removed from Road	1	Each	\$3.99	\$3.99
Disposal of Culverts	1	Each	\$24.30	\$24.30
Grade Road Corridor (Re-spread Topsoil)	1,300	Linear Feet	\$1.59	\$2,067.00
Erosion and Sediment Control for Road Restoration	1,300	Linear Feet	\$3.29	\$4,277.00
Till to Farmable Condition	0.597	Acres	\$402.87	\$240.46
Removal of Security Fence	3,630	Linear Feet	\$12.43	\$45,120.90
Subtotal Civil Infrastructure				\$62,203.44
Structural Infrastructure				
Removal Steel Foundation Posts (Arrays, Equipment, Met Towers)	1241	Each	\$13.38	\$16,606.94
Haul Tracker Steel Post	91	Tons	\$10.24	\$933.65
Removal Fixed Tilt Racking	505	Each	\$20.00	\$10,100.00
Haul Fixed Tilt Racking	118	Ton	\$10.24	\$1,207.03
Subtotal Structural Infrastructure				\$28,847.62
Steel removal costs were calculated by using information from array manufacturers for installation rates and using the same rates to calculate total days to remove equipment. Hauling calculations are based on the locations of metals recyclers.				
Electrical Collection/Transmission System				
Removal of PV Modules	12,120	Each	\$5.27	\$63,872.40
Haul PV Modules for Disposal	313	Tons	\$3.99	\$1,250.02
Disposal of PV Modules	313	Tons	\$81.00	\$25,376.25
Removal of Inverters	10	Each	\$48.00	\$480.00
Removal of PCU Station (Inverters/Panelboard/Transformer)	1	Each	\$4,000.00	\$4,000.00
Haul PCU Equipment to Recycler	1	Each	\$230.50	\$230.50
Remove Equipment Pad and Foundations	1	Each	\$784.49	\$784.49
Haul Concrete Foundations	10	Tons	\$3.99	\$39.90
Disposal of Concrete from Transformer Foundation	10	Tons	\$81.00	\$810.00
Remove, Haul, and Dispose of Timber Transmission Poles	7	Each	\$1,000.00	\$7,000.00
Remove and Haul MV Power Cables	1100	Linear Feet	\$18.14	\$19,954.00
Removal of DC Collector System Cables (copper)	5	Per MW AC	\$1,950.00	\$9,750.00
Removal of Underground (AC) Cables	1250	Linear Foot	\$2.70	\$3,375.00
Load and Haul Cables for Recycling	12.02	Ton	\$8.25	\$99.16
Subtotal Electrical Collection/Transmission System				\$137,021.71

Electrical removal costs of PV Modules and Combiner Boxes were based on industry standards for installation rates of a two man work crew. PCU Station, MV Equipment and Scada Equipment removal cost are based on removal of equipment, concrete pads, and conduits using a truck mounted crane and contractor provided information on installation rates. Cable removal assumed using trenching, standard industry production rates.

Site Restoration

Stabilized Construction Entrance	1	Each	\$2,000.00	\$2,000.00
Perimeter Controls	3,630	Linear Feet	\$3.29	\$11,942.70
Till to farmable condition at array areas and basin	20	Acres	\$150.48	\$3,009.60
Clearing and grubbing for Trees	0.44	Acres	\$7,259.43	\$3,194.15
Remove Sedimentation Basin	1	Each	\$2,332.60	\$2,332.60
Subtotal Site Restoration				\$22,479.05

Site restoration costs are based on past solar project experience.

Project Management

Project Manager - half time	25	Weeks	\$1,900.00	\$47,500.00
Superintendent	25	Weeks	\$3,525.00	\$88,125.00
Field Engineer	25	Weeks	\$2,325.00	\$58,125.00
Clerk	25	Weeks	\$750.00	\$18,750.00
Subtotal Project Management				\$212,500.00

Standard industry weekly rates from RS Means 2 week schedule used

Subtotal Demolition/Removals **\$506,165.45**

Contingency (10%) **\$50,616.55**

Total Demolition/Removals **\$556,782.00**

Salvage

Fencing	51	Tons	\$348.75	\$17,723.48
Steel Posts	91	Tons	\$348.75	\$31,797.79
Module Racking	118	Tons	\$348.75	\$41,108.65
PV Modules	12,120	Each	\$32.76	\$397,051.20
Inverters and Transformers	1	Each	\$8,904.18	\$8,904.18
Scada Equipment	1	Each	\$1,000.00	\$1,000.00
DC Collection Lines	27,000	Pounds	\$0.75	\$20,250.00
AC Collection Lines	18000	Pounds	\$0.38	\$6,840.00

Salvage values are a combination of the following factors; current market metal salvage prices, current secondary market for solar panel module recycling, discussions with national companies that specialize in recycling and reselling electrical transformers and inverters, and the assumption that care is taken to prevent any damage or breakage of equipment

Subtotal Salvage **\$524,675.30**

Net Demolition Minus Salvage **\$32,106.70**

Notes:

1. Prices used in analysis are estimated based on research of current average costs and salvage values.
2. Prices provided are estimates and may fluctuate over the life of the project.
3. Contractor means and methods may vary and price will be affected by these.

USA Energy Independence 1 LLC Decommissioning Plan

Decommissioning Assumptions

To develop a cost estimate for the decommissioning of the Project, the following assumptions and pricing references were utilized. Costs were estimated based on current pricing, technology, and regulatory requirements. The assumptions are listed in order from top to bottom of the estimate spreadsheet.

1. The projected life of the Project is 25-35 years.
2. Decommissioning will utilize a full-time Project Manager or support staff.
3. Common labor will be used for most of the tasks except for heavy equipment operation.
4. Mobilization was estimated at approximately 7% of the total cost of other items.
5. Permit applications required include the preparation of a Storm Water Pollution Protection Plan (SWPPP) and a Spill Prevention Control and Countermeasure (SPCC) Plan.
6. Road gravel removal was estimated on a time and material basis using a 16-foot width and an 8-inch thickness for the access roads. Because the material will not remain on-site, a hauling cost is added to the removal cost. Road aggregate can often be disposed of by giving to landowners for use on driveways and parking areas. Many landfills will accept clean aggregate for use as "daily cover" and do not charge for the disposal.
7. Grade Road Corridor reflects the cost of mobilizing and operating light equipment to spread and smooth the topsoil stockpiled on-site to replace the aggregate removed from the road.
8. Erosion and sediment control along roads reflect the cost of silt fence on the downhill side of the roads and surrounding all on-site wetlands.
9. In most cases, topsoil is required to be stockpiled on the Project site during construction, therefore any such stockpiled topsoil can be used to replace the road aggregate, once removed. This will help in eliminating the costs for any borrowed landfill. Tilling to an agriculture-ready condition is estimated at \$402.87 per acre (based on DOT bid prices for Soil Bed Preparation). The majority of the Project area is assumed to be tilled to an agriculture-ready condition. Because decommissioning activities are not expected to eliminate the grasses and vegetation under the arrays or heavily compact the soils the restoration effort is expected to be limited. Array areas left as pasture will require little restoration effort because the arrays will have been planted with native plants and pollinator seed mixes. As a result, the soils will have been rejuvenated by having been removed from intensive farming.
10. Fence removal includes loading, hauling, and recycling or disposal. The fence and posts weigh approximately 10 pounds per foot.

USA Energy Independence 1 LLC Decommissioning Plan

11. Array support posts are generally lightweight "I" beam sections installed deep into the ground. Crew productivity is approximately 30 posts per hour, and the same crew and equipment should have similar productivity removing the posts, resulting in a per ton cost of approximately \$13.38. When salvage values have not been recognized the costs for processing metal to size and the hauling cost to a more distant recycling facility are generally not included, but the minimum decommissioning financial security controls by such a large margin that the lower price for removals and freight are not shown.

12. The underground collector system cables are placed in trenches with a minimum of four feet of cover.

13. To reduce tracking of sediment off-site by trucks removing materials, we have included a stabilized construction entrance price to the "Site Restoration" section based on state DOT bid prices for similar items.

14. Perimeter control pricing is based on a sediment fence placed on the downgrade side of the work area perimeters and protecting wetlands and drainage swales within the project area.

15. No topsoil will be removed from the landowner's property or used on other landowner's property during decommissioning. The majority of the Project site is not anticipated to have been compacted by heavy truck or equipment traffic so no topsoil will need to be imported, and very few areas will need to be de-compacted.

F.

STANDARD AGRICULTURAL IMPACT MITIGATION AGREEMENT
between

USA Energy Independence 1, LLC

and the

ILLINOIS DEPARTMENT OF AGRICULTURE

Pertaining to the Construction of a Commercial Solar Energy Facility
in

Kendall County, Illinois

Pursuant to the Renewable Energy Facilities Agricultural Impact Mitigation Act (505 ILCS 147), the following standards and policies are required by the Illinois Department of Agriculture (IDOA) to help preserve the integrity of any Agricultural Land that is impacted by the Construction and Deconstruction of a Commercial Solar Energy Facility. They were developed with the cooperation of agricultural agencies, organizations, Landowners, Tenants, drainage contractors, and solar energy companies to comprise this Agricultural Impact Mitigation Agreement (AIMA).

USA Energy Independence 1, LLC, hereafter referred to as Commercial Solar Energy Facility Owner, or simply as Facility Owner, plans to develop and/or operate a 5 Mw Commercial Solar Energy Facility in Kendall County [GPS Coordinates: 41.6913834364, -88.473623334], which will consist of up to 20.2 acres that will be covered by solar facility related components, such as solar panel arrays, racking systems, access roads, an onsite underground collection system, inverters and transformers and any affiliated electric transmission lines. This AIMA is made and entered between the Facility Owner and the IDOA.

If Construction does not commence within four years after this AIMA has been fully executed, this AIMA shall be revised, with the Facility Owner's input, to reflect the IDOA's most current Solar Farm Construction and Deconstruction Standards and Policies. This AIMA, and any updated AIMA, shall be filed with the County Board by the Facility Owner prior to the commencement of Construction.

The below prescribed standards and policies are applicable to Construction and Deconstruction activities occurring partially or wholly on privately owned agricultural land.

Conditions of the AIMA

The mitigative actions specified in this AIMA shall be subject to the following conditions:

- A. All Construction or Deconstruction activities may be subject to County or other local requirements. However, the specifications outlined in this AIMA shall be the minimum standards applied to all Construction or Deconstruction activities. IDOA may utilize any legal means to enforce this AIMA.
- B. Except for Section 17. B. through F., all actions set forth in this AIMA are subject to modification through negotiation by Landowners and the Facility Owner, provided such changes are negotiated in advance of the respective Construction or Deconstruction activities.
- C. The Facility Owner may negotiate with Landowners to carry out the actions that Landowners wish to perform themselves. In such instances, the Facility Owner shall offer Landowners the area commercial rate for their machinery and labor costs.

Standard Solar AIMA V.8.19.19

Standard Solar Agricultural Impact Mitigation Agreement

- D. All provisions of this AIMA shall apply to associated future Construction, maintenance, repairs, and Deconstruction of the Facility referenced by this AIMA.
- E. The Facility Owner shall keep the Landowners and Tenants informed of the Facility's Construction and Deconstruction status, and other factors that may have an impact upon their farming operations.
- F. The Facility Owner shall include a statement of its adherence to this AIMA in any environmental assessment and/or environmental impact statement.
- G. Execution of this AIMA shall be made a condition of any Conditional/Special Use Permit. Not less than 30 days prior to the commencement of Construction, a copy of this AIMA shall be provided by the Facility Owner to each Landowner that is party to an Underlying Agreement. In addition, this AIMA shall be incorporated into each Underlying Agreement.
- H. The Facility Owner shall implement all actions to the extent that they do not conflict with the requirements of any applicable federal, state and local rules and regulations and other permits and approvals that are obtained by the Facility Owner for the Facility.
- I. No later than 45 days prior to the Construction and/or Deconstruction of a Facility, the Facility Owner shall provide the Landowner(s) with a telephone number the Landowner can call to alert the Facility Owner should the Landowner(s) have questions or concerns with the work which is being done or has been carried out on his/her property.
- J. If there is a change in ownership of the Facility, the Facility Owner assuming ownership of the Facility shall provide written notice within 90 days of ownership transfer, to the Department, the County, and to Landowners of such change. The Financial Assurance requirements and the other terms of this AIMA shall apply to the new Facility Owner.
- K. The Facility Owner shall comply with all local, state and federal laws and regulations, specifically including the worker protection standards to protect workers from pesticide exposure.
- L. Within 30 days of execution of this AIMA, the Facility Owner shall use Best Efforts to provide the IDOA with a list of all Landowners that are party to an Underlying Agreement and known Tenants of said Landowner who may be affected by the Facility. As the list of Landowners and Tenants is updated, the Facility Owner shall notify the IDOA of any additions or deletions.
- M. If any provision of this AIMA is held to be unenforceable, no other provision shall be affected by that holding, and the remainder of the AIMA shall be interpreted as if it did not contain the unenforceable provision.

Definitions

Abandonment

When Deconstruction has not been completed within 12 months after the Commercial Solar Energy Facility reaches the end of its useful life. For purposes of this definition, a Commercial Solar Energy Facility shall be presumed to have reached the end of its useful life if the Commercial Solar Energy Facility Owner fails, for a period of 6 consecutive months, to pay the Landowner amounts owed in accordance with an Underlying Agreement.

Standard Solar Agricultural Impact Mitigation Agreement

Aboveground Cable	Electrical power lines installed above ground surface to be utilized for conveyance of power from the solar panels to the solar facility inverter and/or point of interconnection to utility grid or customer electric meter.
Agricultural Impact Mitigation Agreement (AIMA)	The Agreement between the Facility Owner and the Illinois Department of Agriculture (IDOA) described herein.
Agricultural Land	Land used for Cropland, hayland, pastureland, managed woodlands, truck gardens, farmsteads, commercial ag-related facilities, feedlots, livestock confinement systems, land on which farm buildings are located, and land in government conservation programs used for purposes as set forth above.
Best Efforts	Diligent, good faith, and commercially reasonable efforts to achieve a given objective or obligation.
Commercial Operation Date	The calendar date of which the Facility Owner notifies the Landowner, County, and IDOA in writing that commercial operation of the facility has commenced. If the Facility Owner fails to provide such notifications, the Commercial Operation Date shall be the execution date of this AIMA plus 6 months.
Commercial Solar Energy Facility (Facility)	A solar energy conversion facility equal to or greater than 500 kilowatts in total nameplate capacity, including a solar energy conversion facility seeking an extension of a permit to construct granted by a county or municipality before June 29, 2018. "Commercial solar energy facility" does not include a solar energy conversion facility: (1) for which a permit to construct has been issued before June 29, 2018; (2) that is located on land owned by the commercial solar energy facility owner; (3) that was constructed before June 29, 2018; or (4) that is located on the customer side of the customer's electric meter and is primarily used to offset that customer's electricity load and is limited in nameplate capacity to less than or equal to 2,000 kilowatts.
Commercial Solar Energy Facility Owner deemed (Facility Owner)	A person or entity that owns a commercial solar energy facility. A Commercial Solar Energy Facility Owner is not nor shall it be to be a public utility as defined in the Public Utilities Act.
County	The County or Counties where the Commercial Solar Energy Facility is located.
Construction	The installation, preparation for installation and/or repair of a Facility.
Cropland	Land used for growing row crops, small grains or hay; includes land which was formerly used as cropland, but is currently enrolled in a government conservation program; also includes pastureland that is classified as Prime Farmland.

Standard Solar Agricultural Impact Mitigation Agreement

Deconstruction	The removal of a Facility from the property of a Landowner and the restoration of that property as provided in the AIMA.
Deconstruction Plan	A plan prepared by a Professional Engineer, at the Facility's expense, that includes: (1) the estimated Deconstruction cost, in current dollars at the time of filing, for the Facility, considering among other things: i. the number of solar panels, racking, and related facilities involved; ii. the original Construction costs of the Facility; iii. the size and capacity, in megawatts of the Facility; iv. the salvage value of the facilities (if all interests in salvage value are subordinate to that of the Financial Assurance holder if abandonment occurs); v. the Construction method and techniques for the Facility and for other similar facilities; and (2) a comprehensive detailed description of how the Facility Owner plans to pay for the Deconstruction of the Facility.
Department	The Illinois Department of Agriculture (IDOA).
Financial Assurance	A reclamation or surety bond or other commercially available financial assurance that is acceptable to the County, with the County or Landowner as beneficiary.
Landowner	Any person with an ownership interest in property that is used for agricultural purposes and that is party to an Underlying Agreement.
Prime Farmland	Agricultural Land comprised of soils that are defined by the USDA Natural Resources Conservation Service (NRCS) as "Prime Farmland" (generally considered to be the most productive soils with the least input of nutrients and management).
Professional Engineer	An engineer licensed to practice engineering in the State of Illinois.
Soil and Water Conservation District (SWCD)	A unit of local government that provides technical and financial assistance to eligible Landowners for the conservation of soil and water resources.
Tenant	Any person, apart from the Facility Owner, lawfully residing or leasing/renting land that is subject to an Underlying Agreement.
Topsoil	The uppermost layer of the soil that has the darkest color or the highest content of organic matter; more specifically, it is defined as the "A" horizon.
Underlying Agreement	The written agreement between the Facility Owner and the Landowner(s) including, but not limited to, an easement, option, lease, or license under the terms of which another person has constructed, constructs, or intends to construct a Facility on the property of the Landowner.

Standard Solar Agricultural Impact Mitigation Agreement

Underground Cable	Electrical power lines installed below the ground surface to be utilized for conveyance of power within a Facility or from a Commercial Solar Energy Facility to the electric grid.
USDA Natural Resources Conservation Service (NRCS)	An agency of the United States Department of Agriculture that provides America's farmers with financial and technical assistance to aid with natural resources conservation.

Construction and Deconstruction Standards and Policies

1. Support Structures

- A. Only single pole support structures shall be used for the Construction and operation of the Facility on Agricultural Land. Other types of support structures, such as lattice towers or H-frames, may be used on nonagricultural land.
- B. Where a Facility's Aboveground Cable will be adjacent and parallel to highway and/or railroad right-of-way, but on privately owned property, the support structures shall be placed as close as reasonably practicable and allowable by the applicable County Engineer or other applicable authorities to the highway or railroad right-of-way. The only exceptions may be at jogs or weaves on the highway alignment or along highways or railroads where transmission and distribution lines are already present.
- C. When it is not possible to locate Aboveground Cable next to highway or railroad right-of-way, Best Efforts shall be expended to place all support poles in such a manner to minimize their placement on Cropland (i.e., longer than normal above ground spans shall be utilized when traversing Cropland).

2. Aboveground Facilities

Locations for facilities shall be selected in a manner that is as unobtrusive as reasonably possible to ongoing agricultural activities occurring on the land that contains or is adjacent to the Facility.

3. Guy Wires and Anchors

Best Efforts shall be made to place guy wires and their anchors, if used, out of Cropland, pastureland and hayland, placing them instead along existing utilization lines and on land other than Cropland. Where this is not feasible, Best Efforts shall be made to minimize guy wire impact on Cropland. All guy wires shall be shielded with highly visible guards.

4. Underground Cabling Depth

- A. Underground electrical cables located outside the perimeter of the (fence) of the solar panels shall be buried with:
 1. a minimum of 5 feet of top cover where they cross Cropland.
 2. a minimum of 5 feet of top cover where they cross pastureland or other non-Cropland classified as Prime Farmland.
 3. a minimum of 3 feet of top cover where they cross pastureland and other Agricultural Land not classified as Prime Farmland.

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4. a minimum of 3 feet of top cover where they cross wooded/brushy land.
 - B. Provided that the Facility Owner removes the cables during Deconstruction, underground electric cables may be installed to a minimum depth of 18 inches:
 1. Within the fenced perimeter of the Facility; or
 2. When buried under an access road associated with the Facility provided that the location and depth of cabling is clearly marked at the surface.
 - C. If Underground Cables within the fenced perimeter of the solar panels are installed to a minimum depth of 5 feet, they may remain in place after Deconstruction.
- 5. Topsoil Removal and Replacement**
- A. Any excavation shall be performed in a manner to preserve topsoil. Best Efforts shall be made to store the topsoil near the excavation site in such a manner that it will not become intermixed with subsoil materials.
 - B. Best Efforts shall be made to store all disturbed subsoil material near the excavation site and separate from the topsoil.
 - C. When backfilling an excavation site, Best Efforts shall be used to ensure the stockpiled subsoil material will be placed back into the excavation site before replacing the topsoil.
 - D. Refer to Section 7 for procedures pertaining to rock removal from the subsoil and topsoil.
 - E. Refer to Section 8 for procedures pertaining to the repair of compaction and rutting of the topsoil.
 - F. Best Efforts shall be performed to place the topsoil in a manner so that after settling occurs, the topsoil's original depth and contour will be restored as close as reasonably practicable. The same shall apply where excavations are made for road, stream, drainage ditch, or other crossings. In no instance shall the topsoil materials be used for any other purpose unless agreed to explicitly and in writing by the Landowner.
 - G. Based on the mutual agreement of the landowner and Facility Owner, excess soil material resulting from solar facility excavation shall either be removed or stored on the Landowner's property and reseeded per the applicable National Pollution Discharge Elimination System (NPDES) permit/Stormwater Pollution Prevention Plan (SWPPP). After the Facility reaches the end of its Useful Life, the excess subsoil material shall be returned to an excavation site or removed from the Landowner's property, unless otherwise agreed to by Landowner.
- 6. Rerouting and Permanent Repair of Agricultural Drainage Tiles**
- The following standards and policies shall apply to underground drainage tile line(s) directly or indirectly affected by Construction and/or Deconstruction:
- A. Prior to Construction, the Facility Owner shall work with the Landowner to identify drainage tile lines traversing the property subject to the Underlying Agreement to the extent reasonably practicable. All drainage tile lines identified in this manner shall be shown on the Construction and Deconstruction Plans.

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- B. The location of all drainage tile lines located adjacent to or within the footprint of the Facility shall be recorded using Global Positioning Systems (GPS) technology. Within 60 days after Construction is complete, the Facility Owner shall provide the Landowner, the IDOA, and the respective County Soil and Water Conservation District (SWCD) with "as built" drawings (strip maps) showing the location of all drainage tile lines by survey station encountered in the Construction of the Facility, including any tile line repair location(s), and any underground cable installed as part of the Facility.
- C. **Maintaining Surrounding Area Subsurface Drainage**
- If drainage tile lines are damaged by the Facility, the Facility Owner shall repair the lines or install new drainage tile line(s) of comparable quality and cost to the original(s), and of sufficient size and appropriate slope in locations that limit direct impact from the Facility. If the damaged tile lines cause an unreasonable disruption to the drainage system, as determined by the Landowner, then such repairs shall be made promptly to ensure appropriate drainage. Any new line(s) may be located outside of, but adjacent to the perimeter of the Facility. Disrupted adjacent drainage tile lines shall be attached thereto to provide an adequate outlet for the disrupted adjacent tile lines.
- D. **Re-establishing Subsurface Drainage Within Facility Footprint**
- Following Deconstruction and using Best Efforts, if underground drainage tile lines were present within the footprint of the facility and were severed or otherwise damaged during original Construction, facility operation, and/or facility Deconstruction, the Facility Owner shall repair existing drainage tiles or install new drainage tile lines of comparable quality and cost to the original, within the footprint of the Facility with sufficient capacity to restore the underground drainage capacity that existed within the footprint of the Facility prior to Construction. Such installation shall be completed within 12 months after the end of the useful life of the Facility and shall be compliant with Figures 1 and 2 to this Agreement or based on prudent industry standards if agreed to by Landowner.
- E. If there is any dispute between the Landowner and the Facility Owner on the method of permanent drainage tile line repair, the appropriate County SWCD's opinion shall be considered by the Facility Owner and the Landowner.
- F. During Deconstruction, all additional permanent drainage tile line repairs beyond those included above in Section 6.D. must be made within 30 days of identification or notification of the damage, weather and soil conditions permitting. At other times, such repairs must be made at a time mutually agreed upon by the Facility Owner and the Landowner. If the Facility Owner and Landowner cannot agree upon a reasonable method to complete this restoration, the Facility Owner may implement the recommendations of the appropriate County SWCD and such implementation constitutes compliance with this provision.
- G. Following completion of the work required pursuant to this Section, the Facility Owner shall be responsible for correcting all drainage tile line repairs that fail due to Construction and/or Deconstruction for one year following the completion of Construction or Deconstruction, provided those repairs were made by the Facility Owner. The Facility Owner shall not be responsible for drainage tile repairs that the Facility Owner pays the Landowner to perform.

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7. Rock Removal

With any excavations, the following rock removal procedures pertain only to rocks found in the uppermost 42 inches of soil, the common freeze zone in Illinois, which emerged or were brought to the site as a result of Construction and/or Deconstruction.

- A. Before replacing any topsoil, Best Efforts shall be taken to remove all rocks greater than 3 inches in any dimension from the surface of exposed subsoil which emerged or were brought to the site as a result of Construction and/or Deconstruction.
- B. If trenching, blasting, or boring operations are required through rocky terrain, precautions shall be taken to minimize the potential for oversized rocks to become interspersed in adjacent soil material.
- C. Rocks and soil containing rocks removed from the subsoil areas, topsoil, or from any excavations, shall be removed from the Landowner's premises or disposed of on the Landowner's premises at a location that is mutually acceptable to the Landowner and the Facility Owner.

8. Repair of Compaction and Rutting

- A. Unless the Landowner opts to do the restoration work on compaction and rutting, after the topsoil has been replaced post-Deconstruction, all areas within the boundaries of the Facility that were traversed by vehicles and Construction and/or Deconstruction equipment that exhibit compaction and rutting shall be restored by the Facility Owner. All prior Cropland shall be ripped at least 18 inches deep or to the extent practicable, and all pasture and woodland shall be ripped at least 12 inches deep or to the extent practicable. The existence of drainage tile lines or underground utilities may necessitate less ripping depth. The disturbed area shall then be disked.
- B. All ripping and disking shall be done at a time when the soil is dry enough for normal tillage operations to occur on Cropland adjacent to the Facility.
- C. The Facility Owner shall restore all rutted land to a condition as close as possible to its original condition upon Deconstruction, unless necessary earlier as determined by the Landowner.
- D. If there is any dispute between the Landowner and the Facility Owner as to what areas need to be ripped/disked or the depth at which compacted areas should be ripped/disked, the appropriate County SWCD's opinion shall be considered by the Facility Owner and the Landowner.

9. Construction During Wet Weather

Except as provided below, construction activities are not allowed on agricultural land during times when normal farming operations, such as plowing, disking, planting or harvesting, cannot take place due to excessively wet soils. With input from the landowner, wet weather conditions may be determined on a field by field basis.

- A. Construction activities on prepared surfaces, surfaces where topsoil and subsoil have been removed, heavily compacted in preparation, or otherwise stabilized (e.g. through cement mixing) may occur at the discretion of the Facility Owner in wet weather conditions.

Standard Solar Agricultural Impact Mitigation Agreement

- B. Construction activities on unprepared surfaces will be done only when work will not result in rutting which may mix subsoil and topsoil. Determination as to the potential of subsoil and topsoil mixing will be made in consultation with the underlying Landowner, or, if approved by the Landowner, his/her designated tenant or designee.

10. Prevention of Soil Erosion

- A. The Facility Owner shall work with Landowners and create and follow a SWPPP to prevent excessive erosion on land that has been disturbed by Construction or Deconstruction of a Facility.
- B. If the Landowner and Facility Owner cannot agree upon a reasonable method to control erosion on the Landowner's property, the Facility Owner shall consider the recommendations of the appropriate County SWCD to resolve the disagreement.
- C. The Facility Owner may, per the requirements of the project SWPPP and in consultation with the Landowner, seed appropriate vegetation around all panels and other facility components to prevent erosion. The Facility Owner must utilize Best Efforts to ensure that all seed mixes will be as free of any noxious weed seeds as possible. The Facility Owner shall consult with the Landowner regarding appropriate varieties to seed.

11. Repair of Damaged Soil Conservation Practices

Consultation with the appropriate County SWCD by the Facility Owner shall be carried out to determine if there are soil conservation practices (such as terraces, grassed waterways, etc.) that will be damaged by the Construction and/or Deconstruction of the Facility. Those conservation practices shall be restored to their preconstruction condition as close as reasonably practicable following Deconstruction in accordance with USDA NRCS technical standards. All repair costs shall be the responsibility of the Facility Owner.

12. Compensation for Damages to Private Property

The Facility Owner shall reasonably compensate Landowners for damages caused by the Facility Owner. Damage to Agricultural Land shall be reimbursed to the Landowner as prescribed in the applicable Underlying Agreement.

13. Clearing of Trees and Brush

- A. If trees are to be removed for the Construction or Deconstruction of a Facility, the Facility Owner shall consult with the Landowner to determine if there are trees of commercial or other value to the Landowner.
- B. If there are trees of commercial or other value to the Landowner, the Facility Owner shall allow the Landowner the right to retain ownership of the trees to be removed and the disposition of the removed trees shall be negotiated prior to the commencement of land clearing.

14. Access Roads

- A. To the extent practicable, access roads shall be designed to not impede surface drainage and shall be built to minimize soil erosion on or near the access roads.

Standard Solar Agricultural Impact Mitigation Agreement

- B. Access roads may be left intact during Construction, operation or Deconstruction through mutual agreement of the Landowner and the Facility Owner unless otherwise restricted by federal, state, or local regulations.
- C. If the access roads are removed, Best Efforts shall be expended to assure that the land shall be restored to equivalent condition(s) as existed prior to their construction, or as otherwise agreed to by the Facility Owner and the Landowner. All access roads that are removed shall be ripped to a depth of 18 inches. All ripping shall be performed consistent with Section 8.

15. Weed/Vegetation Control

- A. The Facility Owner shall provide for weed control in a manner that prevents the spread of weeds. Chemical control, if used, shall be done by an appropriately licensed pesticide applicator.
- B. The Facility Owner shall be responsible for the reimbursement of all reasonable costs incurred by owners of agricultural land where it has been determined by the appropriate state or county entity that weeds have spread from the Facility to their property. Reimbursement is contingent upon written notice to the Facility Owner. Facility Owner shall reimburse the property owner within 45 days after notice is received.
- C. The Facility Owner shall ensure that all vegetation growing within the perimeter of the Facility is properly and appropriately maintained. Maintenance may include, but not be limited to, mowing, trimming, chemical control, or the use of livestock as agreed to by the Landowner.
- D. The Deconstruction plans must include provisions for the removal of all weed control equipment used in the Facility, including weed-control fabrics or other ground covers.

16. Indemnification of Landowners

The Facility Owner shall indemnify all Landowners, their heirs, successors, legal representatives, and assigns from and against all claims, injuries, suits, damages, costs, losses, and reasonable expenses resulting from or arising out of the Commercial Solar Energy Facility, including Construction and Deconstruction thereof, and also including damage to such Facility or any of its appurtenances, except where claims, injuries, suits, damages, costs, losses, and expenses are caused by the negligence or intentional acts, or willful omissions of such Landowners, and/or the Landowners heirs, successors, legal representatives, and assigns.

17. Deconstruction Plans and Financial Assurance of Commercial Solar Energy Facilities

- A. Deconstruction of a Facility shall include the removal/disposition of all solar related equipment/facilities, including the following utilized for operation of the Facility and located on Landowner property:
 - 1. Solar panels, cells and modules;
 - 2. Solar panel mounts and racking, including any helical piles, ground screws, ballasts, or other anchoring systems;
 - 3. Solar panel foundations, if used (to depth of 5 feet);

Standard Solar Agricultural Impact Mitigation Agreement

4. Transformers, inverters, energy storage facilities, or substations, including all components and foundations; however, Underground Cables at a depth of 5 feet or greater may be left in place;
 5. Overhead collection system components;
 6. Operations/maintenance buildings, spare parts buildings and substation/switching gear buildings unless otherwise agreed to by the Landowner;
 7. Access Road(s) unless Landowner requests in writing that the access road is to remain;
 8. Operation/maintenance yard/staging area unless otherwise agreed to by the Landowner; and
 9. Debris and litter generated by Deconstruction and Deconstruction crews.
- B. The Facility Owner shall, at its expense, complete Deconstruction of a Facility within twelve (12) months after the end of the useful life of the Facility.
- C. During the County permit process, or if none, then prior to the commencement of construction, the Facility Owner shall file with the County a Deconstruction Plan. The Facility Owner shall file an updated Deconstruction Plan with the County on or before the end of the tenth year of commercial operation.
- D. The Facility Owner shall provide the County with Financial Assurance to cover the estimated costs of Deconstruction of the Facility. Provision of this Financial Assurance shall be phased in over the first 11 years of the Project's operation as follows:
1. On or before the first anniversary of the Commercial Operation Date, the Facility Owner shall provide the County with Financial Assurance to cover ten (10) percent of the estimated costs of Deconstruction of the Facility as determined in the Deconstruction Plan.
 2. On or before the sixth anniversary of the Commercial Operation Date, the Facility Owner shall provide the County with Financial Assurance to cover fifty (50) percent of the estimated costs of Deconstruction of the Facility as determined in the Deconstruction Plan.
 3. On or before the eleventh anniversary of the Commercial Operation Date, the Facility Owner shall provide the County with Financial Assurance to cover one hundred (100) percent of the estimated costs of Deconstruction of the Facility as determined in the updated Deconstruction Plan provided during the tenth year of commercial operation.

The Financial Assurance shall not release the surety from liability until the Financial Assurance is replaced. The salvage value of the Facility may only be used to reduce the estimated costs of Deconstruction if the County agrees that all interests in the salvage value are subordinate or have been subordinated to that of the County if Abandonment occurs.

Standard Solar Agricultural Impact Mitigation Agreement

- E. The County may, but is not required to, reevaluate the estimated costs of Deconstruction of any Facility after the tenth anniversary, and every five years thereafter, of the Commercial Operation Date. Based on any reevaluation, the County may require changes in the level of Financial Assurance used to calculate the phased Financial Assurance levels described in Section 17.D. required from the Facility Owner. If the County is unable to its satisfaction to perform the investigations necessary to approve the Deconstruction Plan filed by the Facility Owner, then the County and Facility may mutually agree on the selection of a Professional Engineer independent of the Facility Owner to conduct any necessary investigations. The Facility Owner shall be responsible for the cost of any such investigations.
- F. Upon Abandonment, the County may take all appropriate actions for Deconstruction including drawing upon the Financial Assurance.

Concurrence of the Parties to this AIMA

The Illinois Department of Agriculture and USA Energy Independence I, LLC concur that this AIMA is the complete AIMA governing the mitigation of agricultural impacts that may result from the Construction and Deconstruction of the solar farm project in Kendall County within the State of Illinois.

The effective date of this AIMA commences on the date of execution.

**STATE OF ILLINOIS
DEPARTMENT OF AGRICULTURE**

[Redacted Signature]

By: Jerry Costello II, Director 4

[Redacted Signature]

By Clay Nordsiek, Deputy General Counsel

USA Energy Independence I, LLC

[Redacted Signature]

By Daniel J. Gorman

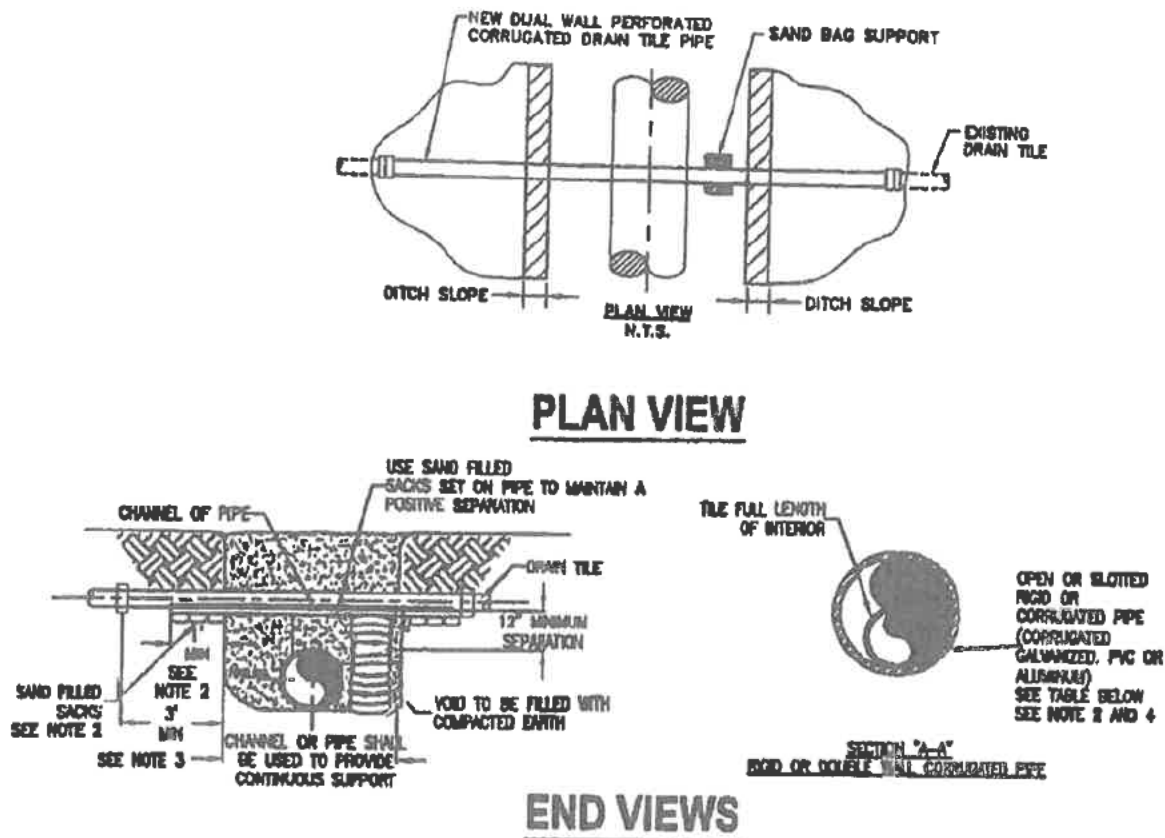
[Redacted Signature]

Address

801 E. Sangamon Avenue,
State Fairgrounds, POB 19281
Springfield, IL 62794-9281

2/7, 2025

January 10th, 2025

FIGURE 2.

MINIMUM SUPPORT TABLE			
TILE SIZE	CHANNEL SIZE	PIPE SIZE	
3"	4" @ 8.4 #/ft	4"	STD. WT.
4"-5"	5" @ 6.7 #/ft	6"	STD. WT.
6"-8"	7" @ 8.8 #/ft	9"-10"	STD. WT.
10"	10" @ 15.3 #/ft	12"	STD. WT.

NOTE:

1. TILE REPAIR AND REPLACEMENT SHALL MAINTAIN ORIGINAL ALIGNMENT GRADIENT AND WATER FLOW TO THE GREATEST EXTENT POSSIBLE. IF THE TILE NEEDS TO BE RELOCATED, THE INSTALLATION ANGLE MAY VARY DUE TO SITE SPECIFIC CONDITIONS AND LANDOWNER RECOMMENDATIONS.
2. 1'-0" MINIMUM LENGTH OF CHANNEL OR RIGID PIPE (OPEN OR SLOTTED CORRUGATED GALVANIZED, PVC OR ALUMINUM CRADLE) SHALL BE SUPPORTED BY UNDISTURBED SOIL, OR IF CROSSING IS NOT AT RIGHT ANGLES TO PIPELINE, EQUIVALENT LENGTH PERPENDICULAR TO TRENCH. SHIM WITH SAND BAGS TO UNDISTURBED SOIL FOR SUPPORT AND DRAINAGE GRADIENT MAINTENANCE (TYPICAL BOTH SIDES).
3. DRAIN TILES WILL BE PERMANENTLY CONNECTED TO EXISTING DRAIN TILES A MINIMUM OF THREE FEET OUTSIDE OF EXCAVATED TRENCH LINE USING INDUSTRY STANDARDS TO ENSURE PROPER SEAL OF REPAIRED DRAIN TILES INCLUDING SLIP COUPLINGS.
4. DIAMETER OF RIGID PIPE SHALL BE OF ADEQUATE SIZE TO ALLOW FOR THE INSTALLATION OF THE TILE FOR THE FULL LENGTH OF THE RIGID PIPE.
5. OTHER METHODS OF SUPPORTING DRAIN TILE MAY BE USED IF ALTERNATE PROPOSED IS EQUIVALENT IN STRENGTH TO THE CHANNEL/PIPE SECTIONS SHOWN AND IF APPROVED BY COMPANY REPRESENTATIVES AND LANDOWNER IN ADVANCE. SITE SPECIFIC ALTERNATE SUPPORT SYSTEM TO BE DEVELOPED BY COMPANY REPRESENTATIVES AND FURNISHED TO CONTRACTOR FOR SPANS IN EXCESS OF 20', TILE GREATER THEN 10" DIAMETER, AND FOR "HEADER" SYSTEMS.
6. ALL MATERIAL TO BE FURNISHED BY CONTRACTOR.
7. PRIOR TO REPAIRING TILE, CONTRACTOR SHALL PROBE LATERALLY INTO THE EXISTING TILE TO FULL WIDTH OF THE RIGHTS OF WAY TO DETERMINE IF ADDITIONAL DAMAGE HAS OCCURRED. ALL DAMAGED/DISTURBED TILE SHALL BE REPAIRED AS NEAR AS PRACTICABLE TO ITS ORIGINAL OR BETTER CONDITION.

PERMANENT DRAIN TILE REPAIR

Matt Asselmeier

From: Krysti Barksdale-Noble <knoble@yorkville.il.us>
Sent: Monday, January 27, 2025 1:16 PM
To: Dan Gorman
Cc: bolson@yorkville.il.us
Subject: RE: Enterprise Energy - Revised Site Plan

Importance: High

Good Afternoon Dan,

I have had the opportunity to follow up with the City Administrator, and the general consensus is that staff would not support the proposed solar farm plan for annexation and development within Yorkville for the following reasons:

- The parcel is directly adjacent to several residential homes to the south, east, and west.
- The proposed plan does not meet the City's required minimum setback of 1,000 feet from the roadway; the plan currently proposes a setback of approximately 800 feet from Corneils Road. Corneils Road is designated as a potential future major east/west collector roadway in Yorkville.
- The location of the solar panels is adjacent to a suspected wetland area to the north.
- The plan includes five new utility poles proposed near existing residential properties to the east.

Additionally, the City does not intend to engage in a pre-annexation agreement for this development, even if the project proceeds under Kendall County's jurisdiction. I hope this provides clarity and direction regarding the proposal. Please let me know if you have any further questions.

Best Regards,

Krysti J. Barksdale-Noble, AICP
(she/her)
Community Development Director
United City of Yorkville
651 Prairie Pointe Drive
Yorkville, Illinois 60560
☎ (630) 553-8573
☎ (630) 742-7808
🌐 www.yorkville.il.us

From: Dan Gorman <[REDACTED]>
Sent: Monday, January 13, 2025 9:29 AM
To: Krysti Barksdale-Noble <knoble@yorkville.il.us>
Subject: Enterprise Energy - Revised Site Plan

Good Morning,

Thank you for discussing our proposal and potential pre-annexation agreement this morning. Please find attached the preliminary site plan. We have moved the facility significantly North and added a substantial amount of screening.

Matt Asselmeier

From: Krysti Barksdale-Noble <knoble@yorkville.il.us>
Sent: Tuesday, March 25, 2025 2:01 PM
To: Matt Asselmeier
Cc: Seth Wormley; Christina Burns; bolson@yorkville.il.us
Subject: RE: [External]Zepelak Community Solar Garden

Hello Matt,

Please see responses to your questions below:

Does Yorkville have a trail planned along the eastern border of this property? **Not to my knowledge.**

Would Yorkville want a ROW dedication for a trail along Corneils Road? **We would want a dedicated 40' right of way along the frontage of this subject property, but not specifically for trails.**

Let me know if you have any additional questions.

Best Regards,

Krysti J. Barksdale-Noble, AICP

(she/her)

Community Development Director

United City of Yorkville

651 Prairie Pointe Drive

Yorkville, Illinois 60560

☎(630) 553-8573

📠(630) 742-7808

🌐 www.yorkville.il.us

Matt Asselmeier

From: bristolwsp@comcast.net
Sent: Wednesday, April 2, 2025 10:31 AM
To: Matt Asselmeier
Subject: RE: [External]Zepelak Community Solar Garden

Good morning,

Based on the information below, there is not an objection to the ROW dedication.

Thanks,
Kate
Admin Assistant
Bristol Township, Highway Department
630-553-0101
bristolwsp@comcast.net
P.O. Box 165
9075 Corneils Road
Bristol, IL 60512

From: Matt Asselmeier <masselmeier@kendallcountyil.gov>
Sent: Tuesday, March 25, 2025 02:55 PM
To: Robert Walker (bristolwsp@comcast.net) <bristolwsp@comcast.net>
Subject: FW: [External]Zepelak Community Solar Garden

Since Corneils Road is presently a township road, does Bristol Township have any objections to the ROW dedication as outlined in the following email?

Thanks,

Matthew H. Asselmeier, AICP, CFM
Director
Kendall County Planning, Building & Zoning
807 West John Street
Yorkville, IL 60560-9249
PH: 630-553-4139
Fax: 630-553-4179

From: Krysti Barksdale-Noble <knoble@yorkville.il.us>
Sent: Tuesday, March 25, 2025 2:01 PM
To: Matt Asselmeier <masselmeier@kendallcountyil.gov>
Cc: Seth Wormley <swormley@kendallcountyil.gov>; Christina Burns <cburns@kendallcountyil.gov>; bolson@yorkville.il.us
Subject: RE: [External]Zepelak Community Solar Garden

Hello Matt,

Please see responses to your questions below:

I.



March 3, 2025

Mr. Jeff Krutchen
Chief Archaeologist
Illinois State Historic Preservation Office, IDNR
One Natural Resources Way
Springfield, IL 62702

Subject: Literature Search and Archaeological Assessment for the USA Energy Independence 1, LLC, Kendall County, Illinois

Dear Mr. Krutchen,

This letter report provides a summary of a cultural resources literature search and assessment of archaeological potential for the USA Energy Independence 1, LLC (Project), located within the city of Yorkville, Kendall County, Illinois. This report is intended to initiate communication with the Illinois State Historic Preservation Office (IL SHPO), request an IL SHPO project log number, and receive IL SHPO determination of jurisdiction under Section 6 of the Illinois State Agency Historic Resources Preservation Act (20 ILCS 3420, as amended, 17IAC 4180).

PROJECT DESCRIPTION

The proposed Project will produce up to 5MW. Ground between rows of photovoltaic generators will be planted with seed and vegetation maintenance will occur for the life of the Projects. The lifespan of solar equipment can be up to 40 years, with an energy contract between 20 and 25 years.

LOCATION

The Project parcel, encompassing approximately 36.9 acres, is located within an agricultural field within Yorkville, IL in Section 9 and 16, T37N:R7E (Review Area) (Maps 1-2). The Review Area is located entirely on a rolling, agricultural landform, bound by Corneils Road and residential development to the south, a wooded parcel to the west, residential development to the east, and open farmland to the north (Map 3).

The Review Area is based on the entirety of the proposed Project parcel. However, once the final design of the project is received, a more restricted area of ground disturbing activities will be determined based on construction footprint. Although the Project will impact a much smaller area, the entirety of the Review Area is included within this literature review and assessment.

PURPOSE

As currently defined, the Project is not considered a federal undertaking as defined by Section 106 of the NHPA, as amended, and its implementing regulations (36 CFR 800) and is located entirely on private land. Community Solar projects are typically subject to municipal-level or county-level permitting only.

However, as part of a suit of due diligence and risk assessment studies, this cultural resource literature search was conducted in order to determine if the Review Area has the potential to



contain intact archaeological resources or historic properties that may be affected eligible for listing to the National Register of Historic Places (National Register).

LITERATURE SEARCH RESULTS

On March 3, 2025, Area M conducted a desktop review of previously recorded archaeological sites and surveys (IIAS Portal) and historic resources (HARGIS portal). Additional historical maps, as well as historical aerial photographs, topographic maps, satellite imagery, LiDAR imagery, and other sources were reviewed online. This research was conducted to identify those portions of the project area that have a higher potential for containing intact archaeological resources.

The current Review Area is located within a rolling agricultural landform (Maps 3-4). The Review Area has been cultivated historically and continues to be cultivated through present day. The surrounding landscape is dominated by cropland and rural residential development. A review of historical maps and aerial photographs indicates that other than agricultural activities, the Review Area is undisturbed (Maps 3-4).

Previous Archaeological Investigations

Background research within the IIAS Portal revealed no previous archaeological investigations have been documented within the Review Area. A total of 14 archaeological surveys are documented within a one-mile (1.6-km) radius of the Review Area, related to road corridors and development within the city of Yorkville, IL.

Previously Identified Archaeological Resources

Background research within the OSA Portal revealed 32 previously-recorded archaeological resources have been recorded within a one-mile (1.6 km) radius of the Review Area (Table 1). Of the previously identified resources, 24 are documented as prehistoric archaeological sites, four are recorded as historical archaeological sites, while four are recorded as multi-component (having both prehistoric and historical artifacts). Portions of two sites, 11KE119 and 11KE260, were previously identified within the Review Area. A brief synopsis of both of sites is included below.

11KE119

Site 11KE119 is a landowner and artifact collector reported location of Archaic projectile points first documented in 1988. The site location was identified through conversations with landowners and private collectors from the area and "Site forms filled out for this location because the landowner/collector could precisely identify it as a site, and ...could identify specific artifacts in their possession as being from the site" (Henning 1988). The site collection is described as simply "Archaic points" and it was noted that the site was not visited as part of the study (Henning 1988). Only a small portion of the site is located within the current Review Area, however the site location boundaries have not been field verified.

11KE260 (Robin Stuck No. 1)

Site 11KE260 is a lithic scatter first documented within an agricultural field in 1997. The site collection included "4 flakes, 1 point fragment, 1 side-notched dart point" with the



point described as resembling a Graham Cave or Raddatz type (Kullen, 1997). Based on artifact content, the site is either a Early or Middle Archaic site. Portions of 11KE260 are located within the current Review Area, however no previous survey area or associated report could be located as part of this literature review.

Archaeological Potential

The Review Area's terrain and topography, distance to water sources and other natural resources, and other landscape conditions, both as they exist current and as they were historically, were studied to estimate the potential for the Review Area to hold unrecorded cultural resources.

Prehistoric Site Potential

A review of the IAPM probability layer indicates that the Review Area is located entirely within areas of low archaeological potential. However, a review of the landscape, environment, and topographic features suggest that topographically elevated portions of the Review Area contain moderate archaeological potential. Further, the proximity of numerous previously identified archaeological sites, along with the presence of portions of both 11KE119 and 11KE260 also suggests moderate potential for prehistoric archaeological resources.

Historical-Site Potential

A review of 19th and 20th century Public Land Survey (PLS) resources and historical aerial photographs indicates a former farmstead proximate to the Review Area to the southwest. The farmstead is present as early as 1859 and was demolished and replaced by modern development c.1983-1993. Review of current arials and LiDAR do not indicate the presence of any surface features, and significant ground disturbing activities have occurred throughout former property. Although the core of the farmstead is located outside the Review Area, areas directly proximate the former farmstead may have moderate potential to contain historical archaeological resources.

HISTORIC AND ARCHITECTURAL RESOURCES

Background research within the HARGIS Portal revealed that no previously identified historical standing structures have been recorded within a one-mile (1.6-km) radius of the Review Area.

STANDING STRUCTURE INVENTORY

On February 3, 2024 Area M conducted a desktop review of standing structures within the Review Area and a surrounding 0.25 mile buffer. Desktop review was utilized to determine visual impact through analysis of topography, vegetation, other structures, and any other viewshed disturbance (e.g. taller hills or heavy slopes, wooded lots, and/or taller or larger structures between the Project area and identified properties).

For properties within the 0.25 mile buffer of the Review Area, date of construction was determined through using publicly available data such as county tax records, online parcel viewers, and general address searches (GLO 1842; Geo A. Ogle & Co. 1903, 1922; L.G. Bennit & J. McWilliams 1859; n.a. 1932, 1951, 1955, 1959). If no date of construction can



be determined via those resources, historical aerial photographs and plat maps are utilized to determine the closest date of construction range as possible.

A total of 45 properties were determined to be located within a 0.25 mile visual buffer of the Review Area (Table 2; Map 5). Of those, 30 properties were determined to potentially have viewsheds that would be impacted by the solar development or could be impacted in the future (Table 2; Map 5).

SUMMARY OF FINDINGS

The results of the literature review indicate that two previously identified archaeological sites (11KE119 and 11KE260) are present within the property. Neither site has been evaluated for the National Register and there is no documented evidence of previous formal archaeological survey within the Review Area.

A desktop assessment of general archaeological potential determined the Review Area is located in an area of generally moderate potential for both prehistoric and historical archaeological resources based on general topography and proximity to previously identified archaeological sites.

CULTURAL STUDY RECOMMENDATIONS

Based on the results of the literature search and desktop review, Area M recommends additional cultural study and archaeological survey of the Review Area. See below for recommended survey and study methods.

- Area M recommends the Review Area undergo Phase I archaeological survey based on the presence of previously identified archaeological resources (11KE119 and 11KE260) and moderate potential for both prehistoric and historical archaeological resources.
- Based on initial reconnaissance, Area M recommends systematic pedestrian survey at 5-m intervals of the agricultural portions of the Review Area exhibiting moderate potential for archaeological resources *IF greater than 40% surface visibility is present*.
- Area M recommends limited shovel testing of both 11KE119 and 11KE260 in order to determine site integrity.
- Based on the results of the Phase I survey, Phase II evaluations of portions of 11KE119 and 11KE260 may also be recommended if intact portions of the site are determined to fall within 50 feet of the final project plans area of ground disturbing activities.
- Area M recommends all standing structure properties with potentially affected viewsheds (see Table 2) undergo field documentation. Field documentation should include, photographs to IL SHPO standards as available the public right-of-way (ROW) or publicly accessible areas.

As currently defined, the Project will not utilize federal or state funds, does not require federal or state permits, and is located entirely on private land. As such, the Project is not considered a federal or state undertaking. Area M is requesting IL SHPO communication and comment, based on the current Project definition, in order to obtain an IL SHPO project log number, and receive IL SHPO determination of jurisdiction under Section 6 of the Illinois State



Agency Historic Resources Preservation Act (20 ILCS 3420 , as amended, 17IAC 4180).

If you have any questions, or comments, regarding this letter report, please feel free to contact me.

Sincerely,

Area M Consulting, LLC



Joseph K. Pnewski
Senior Archaeologist and Principal Investigator



612.308.9888
jpnewski@areamconsulting.com

REFERENCES CITED

n.a.

1932 Plat Book of Kendall Co., Ill. Accessed on the Illinois Inventory of Archaeological Sites Online Portal.

1951 Farm Plat Book and Business Guide, Kendall County, Illinois. Accessed on the Illinois Inventory of Archaeological Sites Online Portal.

1955 Farm Plat Book and Business Guide, Kendall County, Illinois. Accessed on the Illinois Inventory of Archaeological Sites Online Portal.

1959 Farm Plat Book with Index to Owners, Kendall County, Illinois. Accessed on the Illinois Inventory of Archaeological Sites Online Portal.

General land Office

1842 Township No. 37N., Range No. 7 East of the 3rd Mer. Min. General Land Office, Bureau of Land Management, Department of the Interior, Washington, D.C.

Geo. A. Ogle & Co.

1903 Standard Atlas of Kendall County Illinois. Geo. A. Ogle & Co. Chicago.

1922 Standard Atlas of Kendall County Illinois. Geo. A. Ogle & Co. Chicago.

Henning, G.

1988 11KE119 Illinois Archaeological Site Recording Form. Accessed on the Illinois Inventory of Archaeological Sites Online Portal.

Henning, Burt L. and Maynard Clark

1941 Atlas and History of Kendall County, Illinois. Sponsored by Board of Supervisors of Kendall County. Accessed on the Illinois Inventory of Archaeological Sites Online Portal.



Kullen, D.

1997 11KE260 Illinois Archaeological Site Recording Form. Accessed on the Illinois Inventory of Archaeological Sites Online Portal.

L.G. Bennit & J. McWilliams

1859 Map of Kendall County Illinois. Compiled by L.G. Bennett & J. McWilliams. Accessed on the Illinois Inventory of Archaeological Sites Online Portal.

TABLES

Table 1. Archaeological Resources within One-Mile of the Review Area

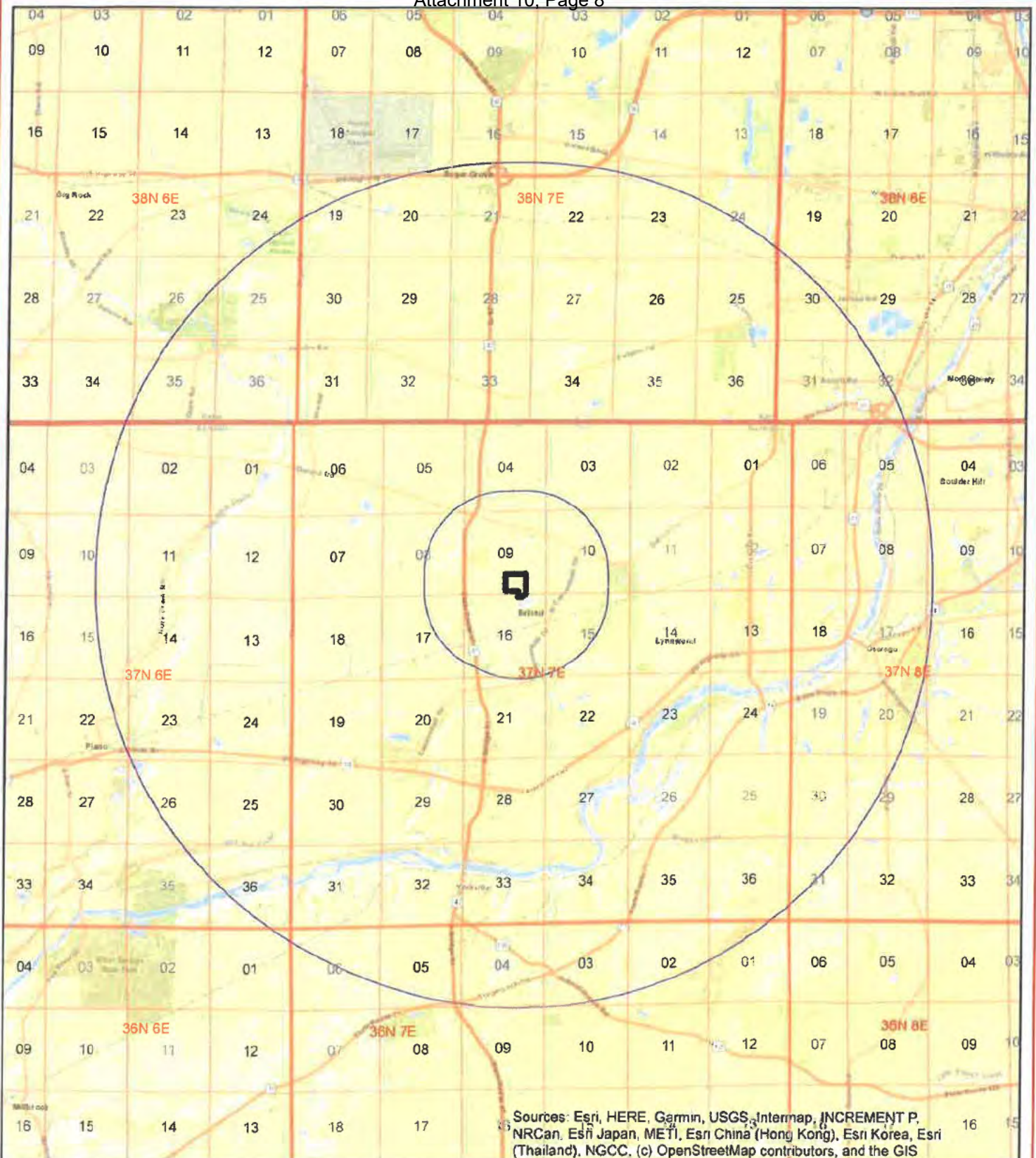
Site Num	Name	TRS	Description
11KE035	Rider Site	T37N R7E S10	Lithic Scatter
11KE038	Cusic Site #1	T37N R7E S16	Lithic Scatter
11KE039	Cusic Site #2	T37N R7E S16	Lithic Scatter
11KE040	Cusic Site #3	T37N R7E S16	Lithic Scatter
11KE041	Cusic Site #4	T37N R7E S16	Lithic Scatter
11KE042	Butchas Site #1	T37N R7E S15	Lithic Scatter
11KE106		T37N R7E S10	Lithic Scatter
11KE118		T37N R7E S9	Lithic Scatter
11KE119*		T37N R7E S9	Private Collection (Archaic Projectile Points)
11KE121		T37N R7E S16	Lithic Scatter
11KE131		T37N R7E S16	Historic Health Sanitorium Location
11KE260*	Robin Stuck No. 1	T37N R7E S16	Lithic Scatter (Archaic)
11KE364		T37N R7E S17	Extant Farmstead
11KE365		T37N R7E S17	Lithic Findspot
11KE366		T37N R7E S17	Lithic Scatter
11KE492		T37N R7E S8	Lithic Scatter
11KE493		T37N R7E S8	Lithic Scatter
11KE494		T37N R7E S8	Lithic Scatter
11KE588		T37N R7E S9	Lithic Scatter
11KE589		T37N R7E S9	Lithic Scatter
11KE590		T37N R7E S9	Lithic Scatter
11KE674		T37N R7E S5	Historical Artifact Scatter
11KE795		T37N R7E S9	Lithic Scatter
11KE796		T37N R7E S9	Lithic Scatter
11KE797		T37N R7E S9	Lithic Scatter
11KE1145		T37N R7E S16	Lithic Scatter
11KE1147		T37N R7E S9	Lithic Scatter and Historical Artifact Scatter
11KE1148		T37N R7E S9	Lithic Scatter and Historical Artifact Scatter
11KE1149		T37N R7E S9	Lithic Scatter and Historical Artifact Scatter
11KE1150		T37N R7E S9	Lithic Scatter and Historical Artifact Scatter
11KE1381		T37N R7E S8	Lithic Scatter (Archaic)
11KE1410		T37N R7E S16	Historic Farmstead with Artifact Scatter

*Located within Review Area



Table 2. Properties within 0.25 Mile of Review Area

Map Num	Address Yorkville, IL 60560	Description	Cons. Date	Viewshed	National Register Status
0.25 Mi. of Review Area (Potential Visual Impact)					
1	9705 Comeils Rd	Residential	1989	Part Obscured	Not Eligible
2	9685 Comeils Rd	Residential	1993	Part Obscured	Not Eligible
3	9675 Comeils Rd	Residential	1999	Part Obscured	Not Eligible
4	9619 Comeils Rd	Residential	c.1939-1952	Part Obscured	Uneval.
5	9559 Comeils Rd	Residential	1988	Part Obscured	Not Eligible
6	9499 Comeils Rd	Residential	1986	Unobscured	Not Eligible
7	9485 Comeils Rd	Residential	2000	Unobscured	Not Eligible
8	9463 Comeils Rd	Residential	1992	Unobscured	Not Eligible
9	9439 Comeils Rd	Residential	1987	Unobscured	Not Eligible
10	9417 Comeils Rd	Residential	1989	Unobscured	Not Eligible
11	9221 A Comeils Rd	Residential	2006	Unobscured	Not Eligible
12	9221 B Comeils Rd	Residential	2007	Unobscured	Not Eligible
13	9205 Comeils Rd	Residential	1988	Part Obscured	Not Eligible
14	9318 Comeils Rd	Residential	1988	Unobscured	Not Eligible
15	9296 Comeils Rd	Residential	1990	Unobscured	Not Eligible
16	9268 Comeils Rd	Residential	c.1983-1993	Unobscured	Not Eligible
17	9234 Comeils Rd	Residential	1993	Unobscured	Not Eligible
18	9218 Comeils Rd	Residential	1999	Part Obscured	Not Eligible
19	9200 Comeils Rd	Residential	1990	Part Obscured	Not Eligible
20	9180 Comeils Rd	Residential	1999	Part Obscured	Not Eligible
21	9720 Comeils Rd	Residential	1987	Part Obscured	Not Eligible
22	9702 Comeils Rd	Residential	1990	Part Obscured	Not Eligible
23	9674 Comeils Rd	Residential	1988	Part Obscured	Not Eligible
24	9638 Comeils Rd	Residential	1988	Part Obscured	Not Eligible
25	9610 Comeils Rd	Residential	1987	Part Obscured	Not Eligible
26	9596 Comeils Rd	Residential	1988	Part Obscured	Not Eligible
27	9582 Comeils Rd	Residential	1988	Part Obscured	Not Eligible
28	9562 Comeils Rd	Residential	1988	Part Obscured	Not Eligible
29	9530 Comeils Rd	Residential	1988	Part Obscured	Not Eligible
30	9520 Comeils Rd	Residential	1991	Part Obscured	Not Eligible
0.25 Mi. of Review Area (No Potential Visual Impact)					
31	9075 Comeils Rd	Commercial	c.1973-1983	Obscured	Not Eligible
32	2042 Comeils Rd	Residential	1976	Obscured	Not Eligible
33	64 West St	Residential	c.1973-1983	Obscured	Not Eligible
34	58 West St	Residential	2019	Obscured	Not Eligible
35	71 West St T	Residential	1993	Obscured	Not Eligible
36	50 Hunter Ln	Residential	c.1952-1973	Obscured	Not Eligible
37	64 Hunter Ln	Residential	1993	Obscured	Not Eligible
38	68 Hunter Ln	Residential	2000	Obscured	Not Eligible
39	72 Hunter Ln	Residential	1993	Obscured	Not Eligible
40	76 Hunter Ln	Residential	1993	Obscured	Not Eligible
41	75 Hunter Ln	Residential	1995	Obscured	Not Eligible
42	43 Hunter Ln	Residential	1991	Obscured	Not Eligible
43	43 West St	Residential	1971	Obscured	Uneval.
44	41 West St	Residential	1986	Obscured	Not Eligible
45	37 West St	Residential	1880	Obscured	Uneval.

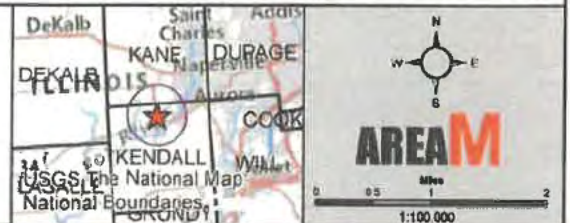


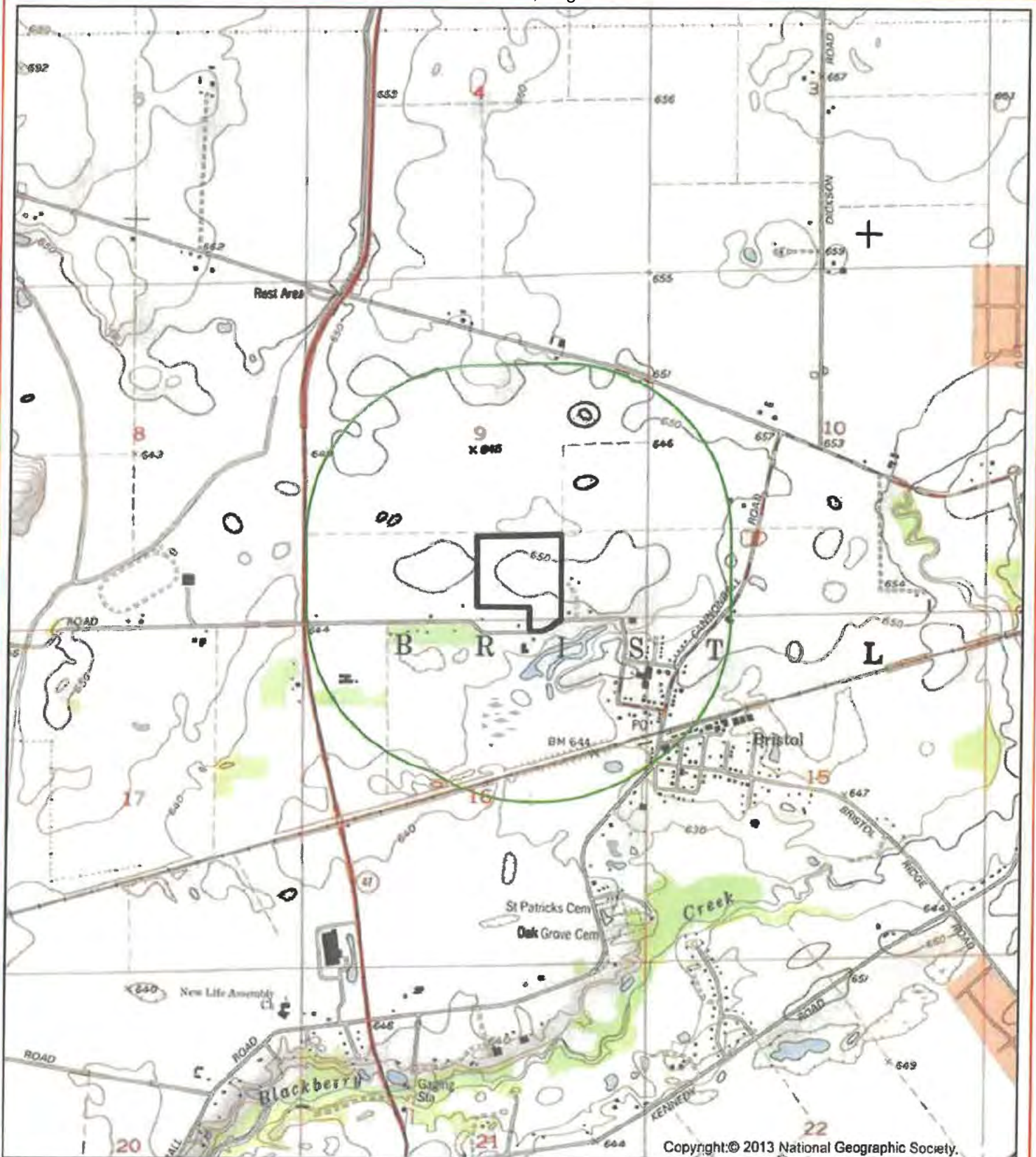
USA Energy Independence 1 LLC

Map 1. Location Map

Kendall County, IL
 S9 T37N:R7E
 36.9 Acres
 NAD 83, Zone 16
 380532 E
 4616737 N

- ★ Project Location
- Project Area
- 1-Mile Buffer
- 5-mile Buffer
- Section Line
- Township Line
- County Line





USA Energy Independence 1 LLC

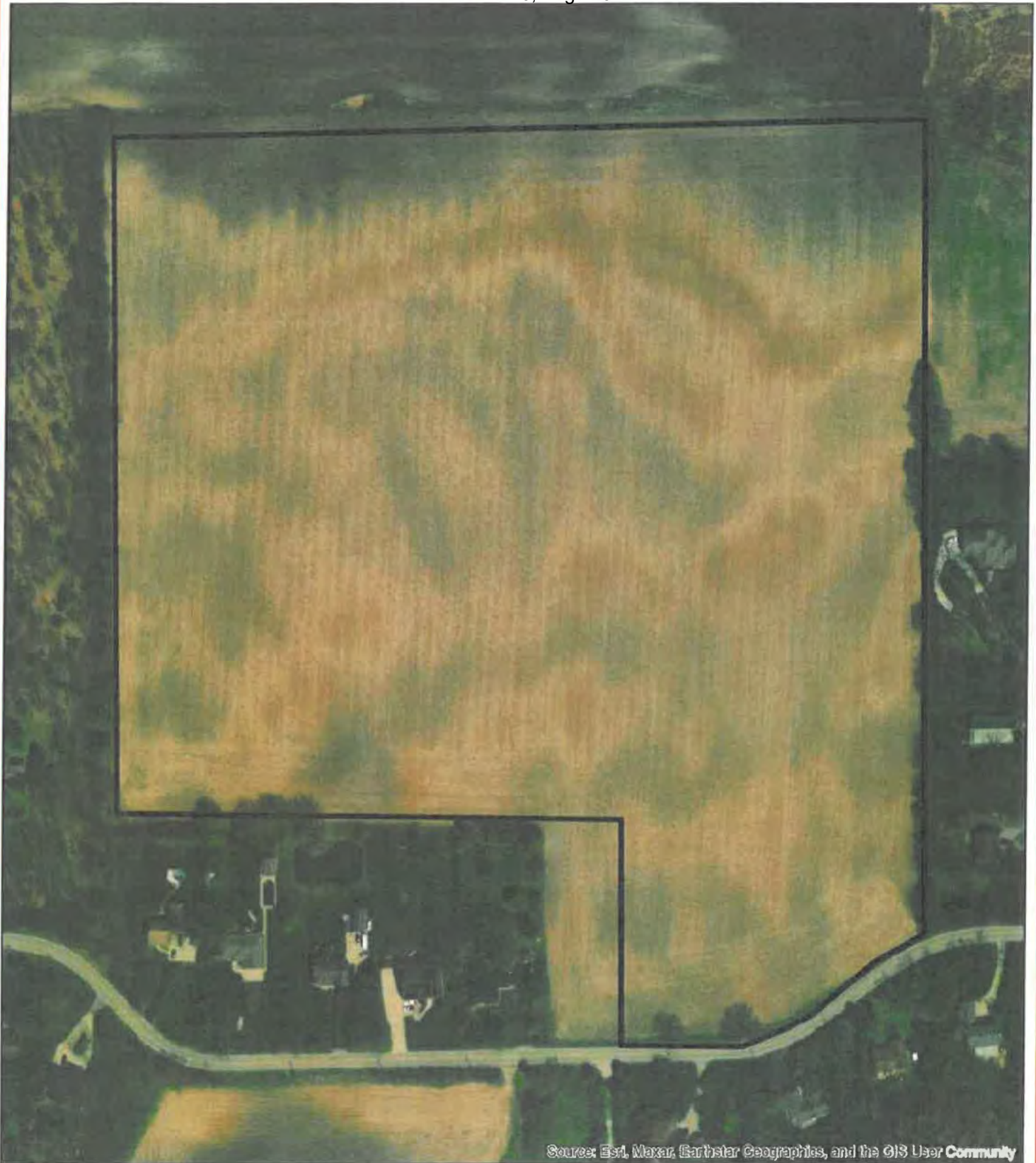
Map 2. 1:24,000 Topographic

Kendall County, IL

- Review Area
- 0.5-Mile Buffer



AREAM



Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

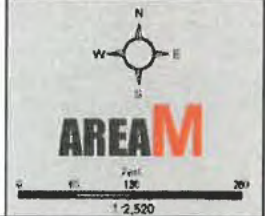
USA Energy Independence 1 LLC

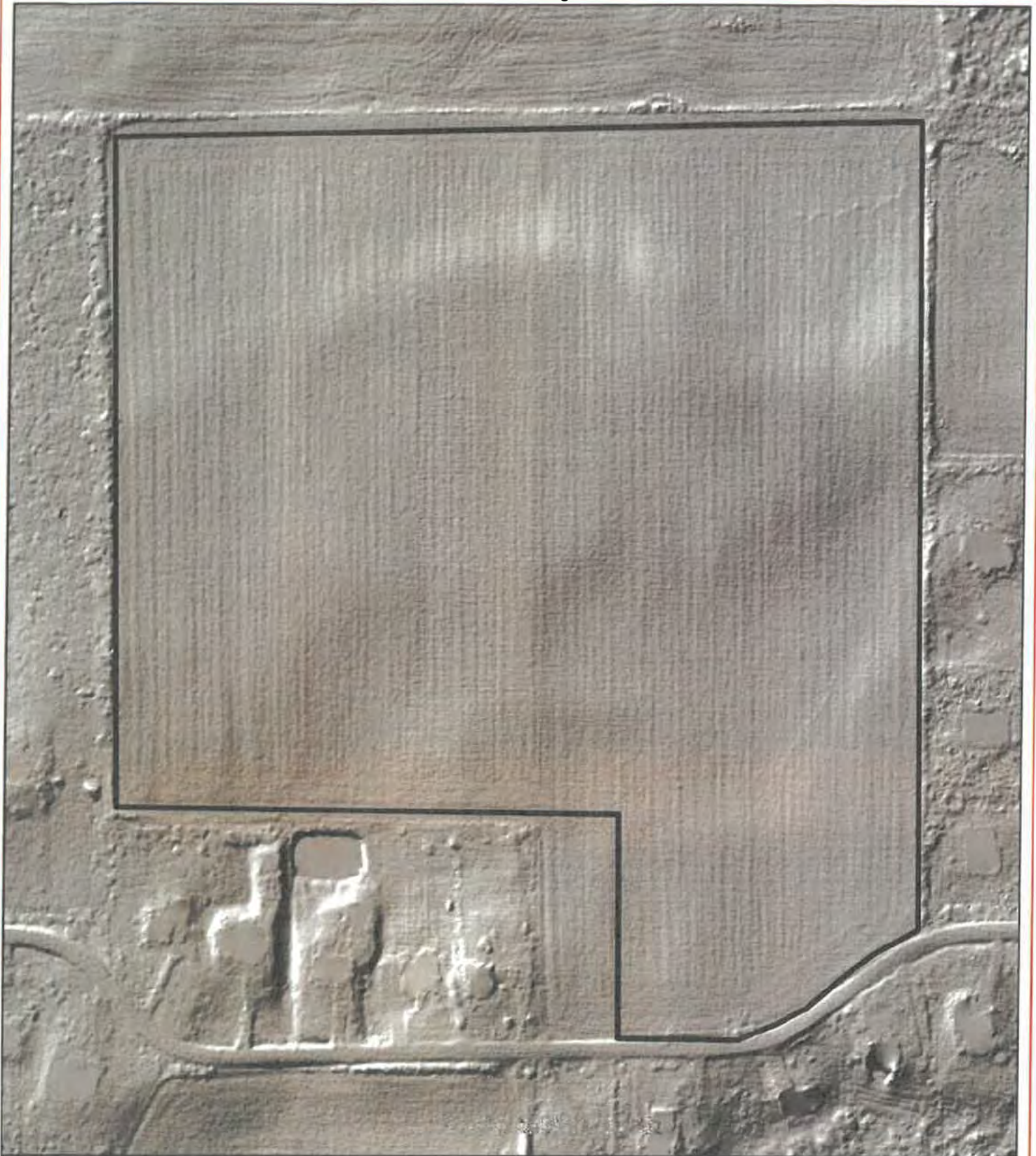
Map 3. Phase I Archaeological Survey: Aerial Sketch Map

Kendall County, IL

 Review Area

Imagery Source:
Esri, Maxar, Earthstar
Geographics, and GIS
User Community
8/31/2023





USA Energy Independence 1 LLC

Map 4. Phase I Archaeological Survey: LiDAR Map

Kendall County, IL



Review Area



AREAM

0 50 100 200
Feet
1:2,500



Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

USA Energy Independence 1 LLC

Map 5. Standing Structure Inventory: Aerial Map

Kendall County, IL

- Review Area
- 0.25-Mile Buffer

Imagery Source:
Esri, Maxar, Earthstar
Geographics, and GIS
User Community
8/31/2023



Project Details

Project Information			
Project ID	016030325	Title	New Construction of a Community Solar Project, USA Energy Independence 1, LLC
County	KE	General Location	Bristol
Law	State	Ownership	Unknown
Received Date	3/3/2025	Completion Date	
Acres	36.9	Surveyed By	
Structural Sites	0	Archeological Sites	0
Comments			

List of Properties						
HARGIS Ref. Number	Property Type	Address	City	State Site Number	STR	Determination Of Eligibility
	Archaeological	9318 Corneils Rd., North side of Corneils Road West of West St.	Bristol		9 - 37N - 7E 16 - 37N - 7E	undetermined
No Project Property Found						

Project Status History			
Status	Remarks		Date
Application Received			3/3/2025
List of IN Correspondence			
Correspondence Name	Received Date	Remarks	Archaeology Survey ID
No In Correspondence Found			

List of OUT Correspondence			
Correspondence Name	Date	Correspondence	
No OUT Correspondence Found			



Illinois
Department of
**Natural
Resources**

Attachment 10, Page 14

JB Pritzker, Governor • Natalie Phelps Finnie, Director
One Natural Resources Way • Springfield, Illinois 62702-1271

www.dnr.illinois.gov

Kendall County
Bristol
N of 9318 Corneils Road
Sections: 9, 16-Township: 37N-Range: 7E
Known Sites: 11KE119, 11KE260
CUP-Due Diligence
New Construction of a Community Solar Project,
USA Energy Independence 1, LLC

PLEASE REFER TO: SHPO LOG #016030325

SURVEY REQUEST

March 25, 2025

Joseph Pnewski
Area M Consulting, LLC
7302 Claredon Dr.
Edina, MN 55439

The Illinois State Historic Preservation Office is required by the Illinois State Agency Historic Resources Preservation Act (20 ILCS 3420, as amended, 17 IAC 4180) (Act) to review all state funded, permitted, or licensed undertakings for their effect on cultural resources. We have received information indicating that the referenced project will, pursuant to that law, require comments from our office and our comments follow. Should you have any contrary information, please contact our office at the number below.

According to the information provided there is no federal involvement in your project. Be aware that the state law is less restrictive than the federal cultural resource laws concerning archaeology. Therefore, if your project will use federal loans or grants, need federal agency permits, or is on federal property then your project must be reviewed by us pursuant to the National Historic Preservation Act of 1966, as amended. Please notify us immediately if such is the case, as additional archaeological survey coverage beyond what is described below may be necessary.

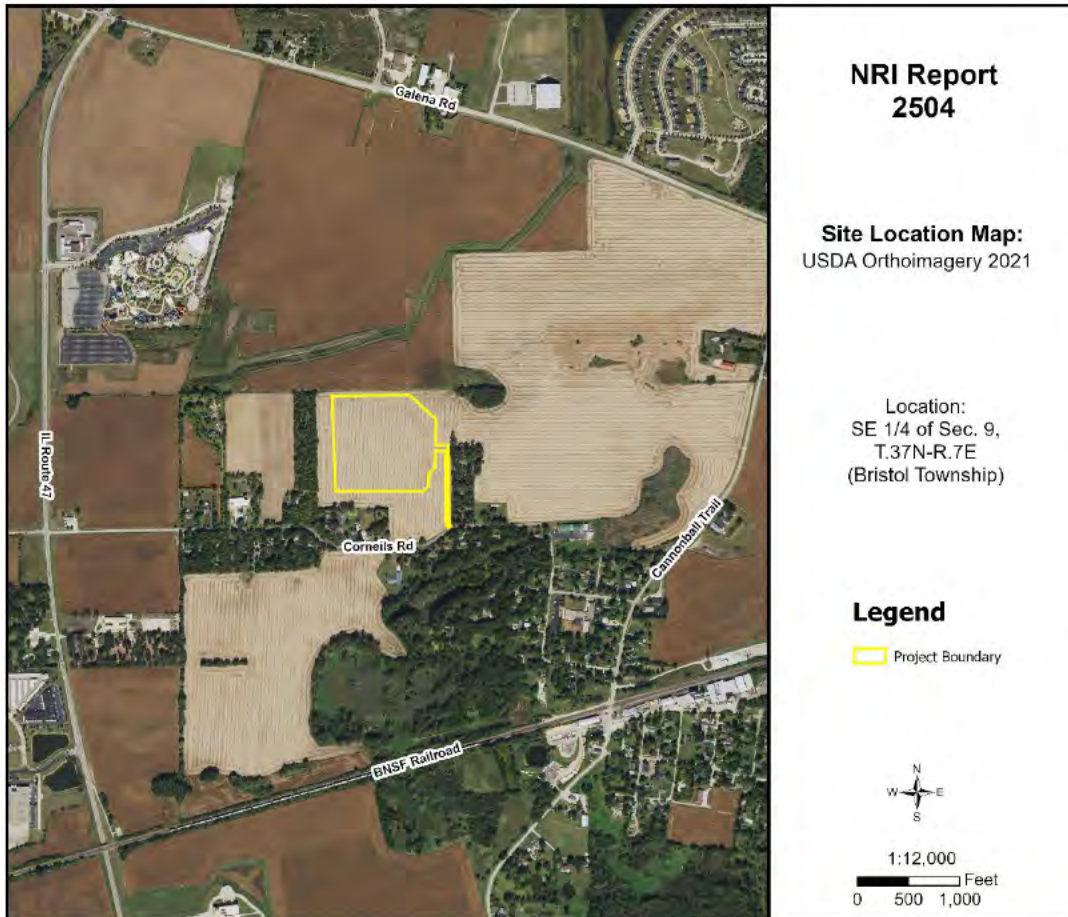
Two known archaeological sites are present within the project area. Accordingly, a Phase I archaeological **survey** to locate, identify, and record these archaeological resources, at a legal minimum pursuant to Section 6 of the Act, **will be required**. Survey beyond these known site areas is not *required*, but we are always open to reviewing the results of any additional due diligence survey coverage that may help prevent unanticipated discoveries during construction and potential construction delays. This decision is based upon our understanding that there has not been any large-scale disturbance of the ground surface (excluding agricultural activities) or major construction activity within the project area which would have destroyed existing cultural resources prior to your project. If the area has been disturbed, please contact our office with the appropriate written and/or photographic evidence. If you have questions, please contact Jeff Kruchten, Principal Archaeologist, at 217/785-1279 or jeff.kruchten@illinois.gov.

In addition to the archaeological survey, we also require addresses and current color photographs of all structures in or adjacent to the project area. This includes structures within the one-quarter mile (0.25) visual area of potential effects. If there are right-of-way issues, please note that in your report. Please submit these, if possible, separately from the archaeological survey report. If you have questions about this, please contact Steve Dasovich, Cultural Resources Manager, at 217/782-7441 or steve.dasovich@illinois.gov.

Sincerely,

Carey L. Mayer, AIA
Deputy State Historic Preservation Officer

NATURAL RESOURCES INFORMATION (NRI) REPORT: #2504



Apr.
2025

Petitioner: USA Energy Independence 1, LLC
Contact: Daniel Gorman

Prepared By:



7775A Route 47
Yorkville, Illinois 60560
Phone: (630) 553-5821 x3
www.kendallswcd.org

KENDALL COUNTY SOIL AND WATER CONSERVATION DISTRICT NATURAL RESOURCES INFORMATION (NRI) REPORT

Natural Resources Information Report Number	2504
Date District Board Reviews Application	April 2025
Applicant's Name	USA Energy Independence 1, LLC
Size of Parcel	(+/-) 20.65 acres
Current Zoning & Use	A-1 Agricultural District; Agricultural land
Proposed Zoning & Use	A-1 Agricultural Special Use; Community Solar Garden
Parcel Index Number(s)	02-09-400-007
Contact Person	Daniel Gorman

Copies of this report or notification of the proposed land-use change was provided to:	Yes	No
The Applicant	X	
The Applicant's Legal Representation		X
The Local/Township Planning Commission	X	
The Village/City/County Planning and Zoning Department or Appropriate Agency	X	
The Kendall County Soil and Water Conservation District Files	X	

Report Prepared By: *Alyse Olson* Position: *Resource Conservationist*

PURPOSE AND INTENT

The purpose of this report is to provide officials of the local governing body and other decision-makers with natural resource information. This information may be useful when undertaking land use decisions concerning variations, amendments or relief of local zoning ordinances, proposed subdivision of vacant or agricultural lands and the subsequent development of these lands. This report is a requirement under Section 22.02a of the Illinois Soil and Water Conservation Districts Act.

The intent of this report is to present the most current natural resource information available in a readily understandable manner. It contains a description of the present site conditions, the present resources, and the potential impacts that the proposed change may have on the site and its resources. The natural resource information was gathered from standardized data, on-site investigations and information furnished by the petitioner. This report must be read in its entirety so that the relationship between the natural resource factors and the proposed land use change can be fully understood.

Due to the limitations of scale encountered with the various resource maps, the property boundaries depicted in the various exhibits in this report provide a generalized representation of the property location and may not precisely reflect the legal description of the PIQ (Parcel in Question).

This report, when used properly, will provide the basis for proper land use change decisions and development while protecting the natural resource base of the county. It should not be used in place of detailed environmental and/or engineering studies that are warranted under most circumstances, but in conjunction with those studies.

The conclusions of this report in no way indicate that a certain land use is not possible, but it should alert the reader to possible problems that may occur if the capabilities of the land are ignored. Any questions on the technical data supplied in this report or if anyone feels that they would like to see more additional specific information to make the report more effective, please contact:

Kendall County Soil and Water Conservation District
7775A Route 47, Yorkville, IL 60560
Phone: (630) 553-5821 ext. 3
E-mail: Alyse.Olson@il.nacdnet.net

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EXECUTIVE SUMMARY

Natural Resources Information Report Number	2504
Petitioner	USA Energy Independence 1, LLC
Contact Person	Daniel Gorman
County or Municipality the Petition is Filed With	Kendall County
Location of Parcel	Southeast ¼ of Section 9, Township 37 North, Range 7 East (Bristol Township) of the 3 rd Principal Meridian
Project or Subdivision Name	Zepelak Community Solar Garden
Existing Zoning & Land Use	A-1 Agricultural District; Agricultural land
Proposed Zoning & Land Use	A-1 Agricultural Special Use; Community Solar Garden
Proposed Water Source	Not applicable
Proposed Type of Sewage Disposal System	Not applicable
Proposed Type of Storm Water Management	Infiltration basin
Size of Site	(+/-) 20.65 acres
Land Evaluation Site Assessment (LESA) Score	179 (Land Evaluation: 80; Site Assessment: 99)

NATURAL RESOURCE CONSIDERATIONS

SOIL INFORMATION

Based on information from the United States Department of Agriculture-Natural Resources Conservation Service (USDA-NRCS) 2008 Kendall County Soil Survey, this project area contains the soil types shown in Figure 1 and Table 1. Please note this does not replace the need for or results of onsite soil testing. If completed, please refer to onsite soil test results for planning/engineering purposes.

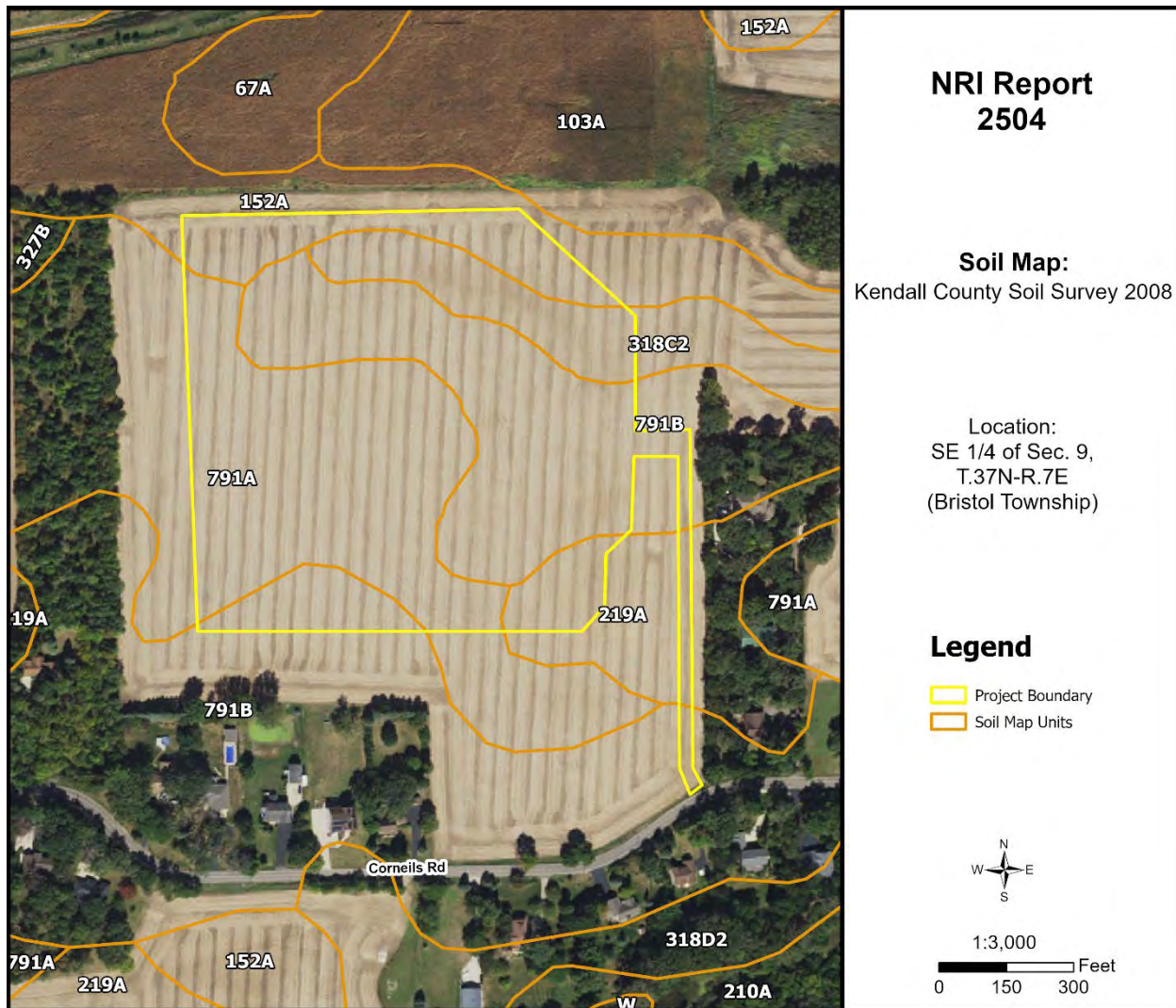


Figure 1: Soil Map

Table 1: Soils Information

Soil Type	Soil Name	Drainage Class	Hydrologic Group	Hydric Designation	Farmland Designation	Acres	% Area
152A	Drummer silty clay loam, 0-2% slopes	Poorly Drained	B/D	Hydric	Prime Farmland if Drained	1.9	9.0%
219A	Millbrook silt loam, 0-2% slopes	Somewhat Poorly Drained	C/D	Non-Hydric w/ Hydric Inclusions	Prime Farmland if Drained	1.2	5.8%
318C2	Lorenzo loam, 4-6% slopes, eroded	Well Drained	B	Non-Hydric	Farmland of Statewide Importance	2.1	10.1%
791A	Rush silt loam, 0-2% slopes	Well Drained	B	Non-Hydric w/ Hydric Inclusions	Prime Farmland	7.5	36.1%
791B	Rush silt loam, 2-4% slopes	Well Drained	B	Non-Hydric w/ Hydric Inclusions	Prime Farmland	8.1	39.0%

Hydrologic Soil Groups – Soils have been classified into four (A, B, C, D) hydrologic groups based on runoff characteristics due to rainfall. If a soil is assigned to a dual hydrologic group (A/D, B/D or C/D), the first letter is for drained areas and the second letter is for undrained areas.

- **Hydrologic group A:** Soils have a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.
- **Hydrologic group B:** Soils have a moderate infiltration rate when thoroughly wet, consist chiefly of moderately deep to deep, moderately well drained to well drained soils that have a moderately fine to moderately coarse texture. These soils have a moderate rate of water transmission.
- **Hydrologic group C:** Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.
- **Hydrologic group D:** Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

Hydric Soils – A hydric soil is one that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part of the soil profile that supports the growth or regeneration of hydrophytic vegetation. Soils with hydric inclusions have map units dominantly made up of non-hydric soils that may have inclusions of hydric soils in the lower positions on the landscape. Of the soils found onsite, one is classified as hydric soil (152A Drummer silty clay loam), one is classified as non-hydric soil (318C2 Lorenzo loam), and three are classified as non-hydric soil with hydric inclusions likely (219A Millbrook silt loam, 791A Rush silt loam, and 791B Rush silt loam).

Prime Farmland – Prime farmland is land that has the best combination of physical and chemical characteristics for agricultural production. Prime farmland soils are an important resource to Kendall County and some of the most productive soils in the United States occur locally. Of the soils found onsite, two are designated as prime farmland (791A Rush silt loam and 791B Rush silt loam), two are designated

as prime farmland if drained (152A Drummer silty clay loam and 219A Millbrook silt loam), and one is designated as farmland of statewide importance (318C2 Lorenzo loam).

Soil Limitations – The USDA-NRCS Web Soil Survey rates the limitations of soils for dwellings, small commercial buildings, solar arrays, shallow excavations, lawns/landscaping, local roads and streets, etc. Soils have different properties which influence the development of building sites. The USDA-NRCS classifies soils as Not Limited, Somewhat Limited, and Very Limited. Soils that are Not Limited indicates that the soil has properties that are favorable for the specified use. They will perform well and will have low maintenance. Soils that are Somewhat Limited are moderately favorable, and their limitations can be overcome through special planning, design, or installation. Soils that are Very Limited have features that are unfavorable for the specified use, and their limitations cannot easily be overcome.

Table 2: Soil Limitations

Soil Type	Solar Arrays	Shallow Excavations	Lawns/ Landscaping	Local Roads / Streets
152A	Very Limited	Very Limited	Very Limited	Very Limited
219A	Very Limited	Very Limited	Somewhat Limited	Very Limited
318C2	Somewhat Limited	Somewhat Limited	Somewhat Limited	Somewhat Limited
791A	Very Limited	Somewhat Limited	Somewhat Limited	Very Limited
791B	Very Limited	Somewhat Limited	Somewhat Limited	Very Limited

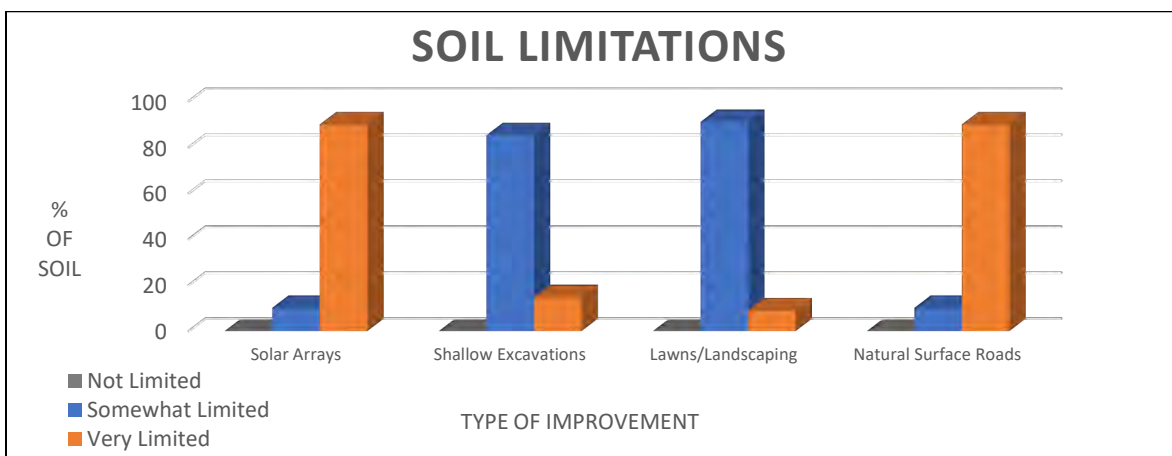


Figure 2: Soil Limitations

KENDALL COUNTY LAND EVALUATION AND SITE ASSESSMENT (LESA)

Decision-makers in Kendall County use the Land Evaluation and Site Assessment (LESA) system to determine the suitability of a land use change and/or a zoning request as it relates to agricultural land. The LESA system was developed by the United States Department of Agriculture-Natural Resources Conservation Service (USDA-NRCS) and takes into consideration local conditions such as physical characteristics of the land, compatibility of surrounding land-uses, and urban growth factors. The LESA system is a two-step procedure that includes:

- **Land Evaluation (LE):** The soils of a given area are rated and placed in groups ranging from the best to worst suited for a stated agriculture use, cropland, or forestland. The best group is

assigned a value of 100 and all other groups are assigned lower values. The Land Evaluation is based on data from the Kendall County Soil Survey. The Kendall County Soil and Water Conservation District is responsible for this portion of the LESA system.

- The Land Evaluation score for this site is **80 out of 100**, indicating that the soils are **well suited** for agricultural uses.
- **Site Assessment (SA):** The site is numerically evaluated according to important factors that contribute to the quality of the site. Each factor selected is assigned values in accordance with the local needs and objectives. The Site Assessment value is based on a 200-point scale and accounts for 2/3 of the total score. The Kendall County LESA Committee is responsible for this portion of the LESA system.
 - The Site Assessment score for this site is **99 out of 200**.

The **LESA Score for this site is 179 out of a possible 300, which indicates a low level of protection** for the proposed project site. Selecting the project site with the lowest total points will generally protect the best farmland located in the most viable areas and maintain and promote the agricultural industry in Kendall County.

WETLANDS

The U.S. Fish & Wildlife Service's National Wetlands Inventory map indicates the presence of wetland(s)/waters on or near the proposed project site. To determine if a wetland is present, a wetland delineation specialist, who is recognized by the U.S. Army Corps of Engineers, should determine the exact boundaries and value of the wetlands.

FLOODPLAIN

The Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps (FIRM) for Kendall County, Community Panel No. 17093C0035H (effective date January 8, 2014) and 17093C0030G (effective date February 4, 2009) were reviewed to determine the presence of floodplain and floodway areas within the project site. According to the map, the site does not appear to contain areas of regulated floodplain or floodway.

SEDIMENT AND EROSION CONTROL

Development on this site should include an erosion and sediment control plan in accordance with local, state, and federal regulations. Soil erosion on construction sites is a resource concern as suspended sediment from areas undergoing development is a primary nonpoint source of water pollution. Please consult the *Illinois Urban Manual* (<https://illinoisurbanmanual.org/>) for appropriate best management practices.

STORMWATER POLLUTION

A National Pollutant Discharge Elimination System (NPDES) permit (Permit No. ILR10) from the Illinois Environmental Protection Agency (IEPA) is required for stormwater discharges from construction sites that will disturb 1 or more acres of land. Conditions of the NPDES ILR10 permit require the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) to reduce stormwater pollutants on the construction site before they can cause environmental issues.

ECOLOGICAL CONSIDERATIONS

Developers of solar project sites are encouraged to plant native groundcover. Native shrubs, grasses, and wildflowers offer benefits such as improved erosion control, pesticide avoidance, stormwater infiltration, wildlife habitat, and reduced overall maintenance. Naturalized areas, once established, are more drought tolerant, require little to no fertilization, and only need to be mowed once or twice a year. Native fruiting and flowering plants also provide a food source and habitat for native pollinators which offer the ecological service of pollinating our agricultural crops.

The district recognizes two potential sources of water pollution from solar farms including cracked panels and oil leaks or spills from transformers. Cracked panels can leach toxic materials if many broken panels are exposed to precipitation over a long period of time. To prevent this issue, solar farm operators should regularly inspect for cracked panels. Cracked or broken panels must be immediately stored under protective cover and should be periodically transported offsite for recycling or proper offsite storage.

Electrical transformers are used to increase output voltage from solar farms to the electrical grid. These transformers contain oil, which can leak or spill resulting in environmental damage. To reduce environmental damage, biodegradable oil can be used in the transformers. Larger transformers typically use mineral-based oil unless biodegradable oil is specifically requested. Leaks and spills of biodegradable oil must still be prevented, but the risk for groundwater contamination would be reduced and clean-up efforts simplified in the event of a release. Secondary containment systems such as trays, membranes, or vaults can also be used in the event of a leak or spill. Containment systems must be designed to manage stormwater so adequate containment volume is maintained. This would be the responsibility of the solar developer.

LAND USE FINDINGS:

The Kendall County Soil and Water Conservation District (SWCD) Board has reviewed the proposed site plans for petitioner USA Energy Independence 1, LLC. The petitioner is requesting an A-1 Agricultural Special Use Permit from Kendall County on one parcel (Parcel Index Number 02-09-400-007), totaling approximately 20.65 acres. The petitioner plans to construct a community solar garden within Section 9 of Bristol Township (T.37N – R.7E) in Kendall County, IL. Based on the information provided by the petitioner and a review of natural resource related data available to the Kendall County SWCD, the SWCD Board presents the following information.

The Kendall County SWCD has always had the opinion that prime farmland soils should be preserved whenever feasible due to their highly productive qualities for growing agriculturally important crops in our community. Of the soils found onsite, 90% are designated as prime farmland or prime farmland if drained.

A land evaluation (LE), which is a part of the Land Evaluation and Site Assessment (LESA), was conducted on this parcel. The soils on this parcel scored an 80 out of a possible 100 points indicating that the soils are well suited for agricultural uses. The total LESA score for this site is 179 out of a possible 300, which indicates a low level of protection for the proposed project site. Selecting the project site with the lowest total points will generally protect the best farmland located in the most viable areas and maintain and promote the agricultural industry in Kendall County.

Soils found on the project site are rated for specific uses and can have potential limitations for development. Soil types with severe limitations do not preclude the ability to develop the site for the proposed use, but it is important to note that the limitation may require soil reclamation, special design/engineering, or maintenance to obtain suitable soil conditions to support development with significant limitations. This report indicates that for soils located on the parcel, 90% are considered very limited for supporting solar arrays and local roads/streets, 15% are considered very limited for supporting shallow excavations, and 9% are considered very limited for supporting lawns/landscaping. The remaining soils are considered somewhat limited for these types of developments/uses. This information is based on the soil in an undisturbed state.

This site is located within the Lower Fox River watershed and the East Run – Blackberry Creek sub watershed (HUC 12 – 071200070202). The sub watershed comprises approximately 18,638 acres covering parts of Yorkville, Bristol, Sugar Grove, and Aurora.

This development should include a soil erosion and sediment control plan to be implemented during construction. It is critical to have vegetative cover during and after construction to protect the soil from erosion. Sediment may become a primary non-point source of pollution; eroded soils during the construction phase can create unsafe conditions on roadways, degrade water quality and destroy aquatic ecosystems lower in the watershed.

The Kendall County SWCD strongly recommends the use of native ground cover, specifically plant varieties beneficial to pollinator species, be used to vegetate the site. Native vegetation benefits soil health, creates habitat, provides resiliency to drought and prolonged wet conditions, and reduces maintenance needs after successful establishment.

For intense use, it is recommended that a drainage tile survey be completed on the parcel to locate the subsurface drainage tile and should be taken into consideration during the land use planning process. Drainage tile expedites drainage and facilitates farming. It is imperative that these drainage tiles remain undisturbed. Impaired tile may affect a few acres or hundreds of acres of drainage.

The information that is included in this Natural Resources Information Report is to assure that the Land Developers take into full consideration the limitations of that land that they wish to develop. Guidelines and recommendations are also a part of this report and should be considered in the planning process. The Natural Resource Information Report is required by the Illinois Soil and Water Conservation District Act (Ill. Compiled Statutes, Ch. 70, Par 405/22.02a).



SWCD Board Representative

4/14/2025

Date

PARCEL LOCATION

Southeast quarter of Section 9, Township 37 North, Range 7 East (Bristol Township). This site is approximately 20.65 acres and is located on the north side of Corneils Road, south of Galena Road, east of Illinois Route 47, and west of Cannonball Trail near Yorkville, IL.

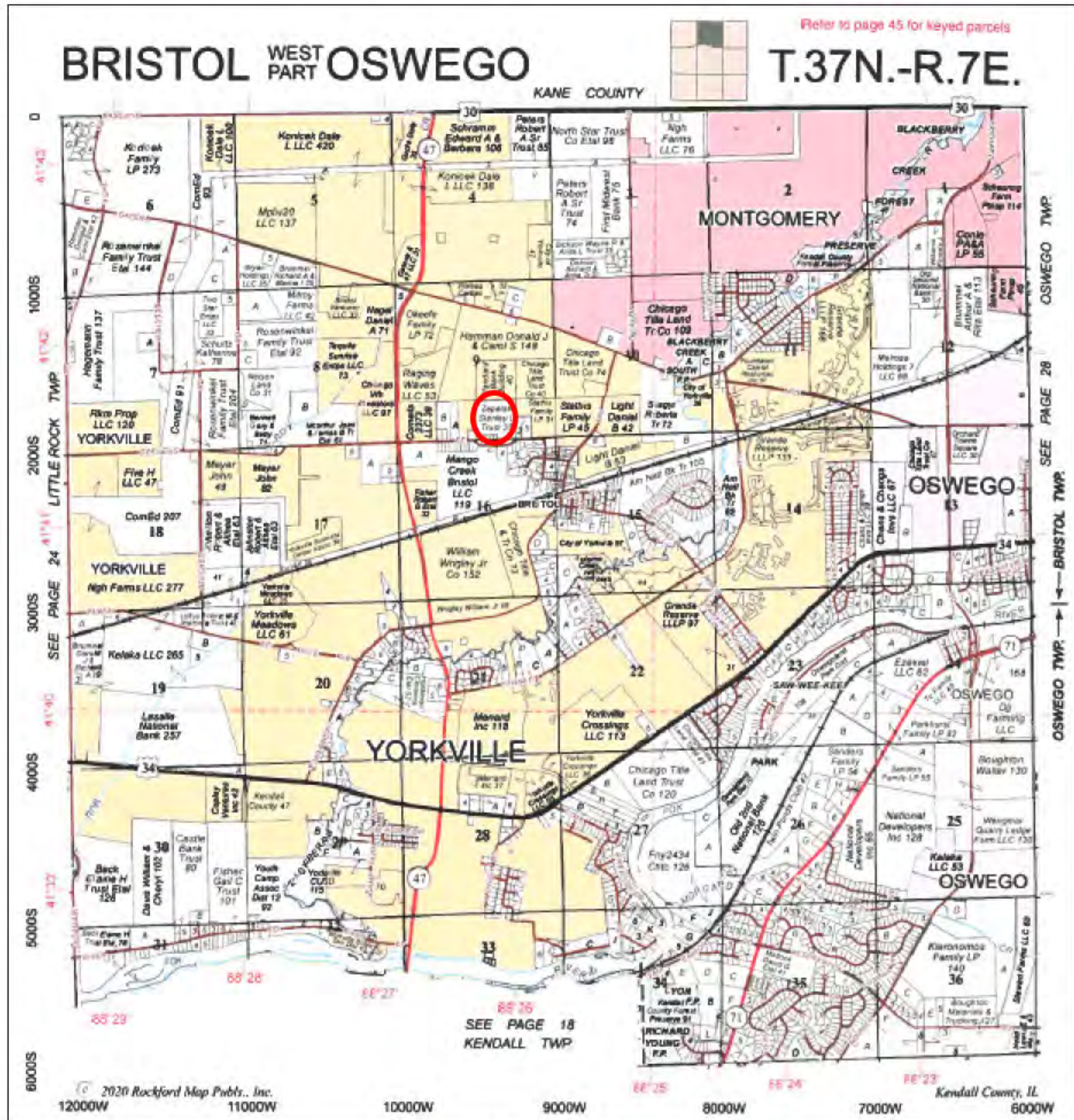


Figure 3: 2021 Plat Map

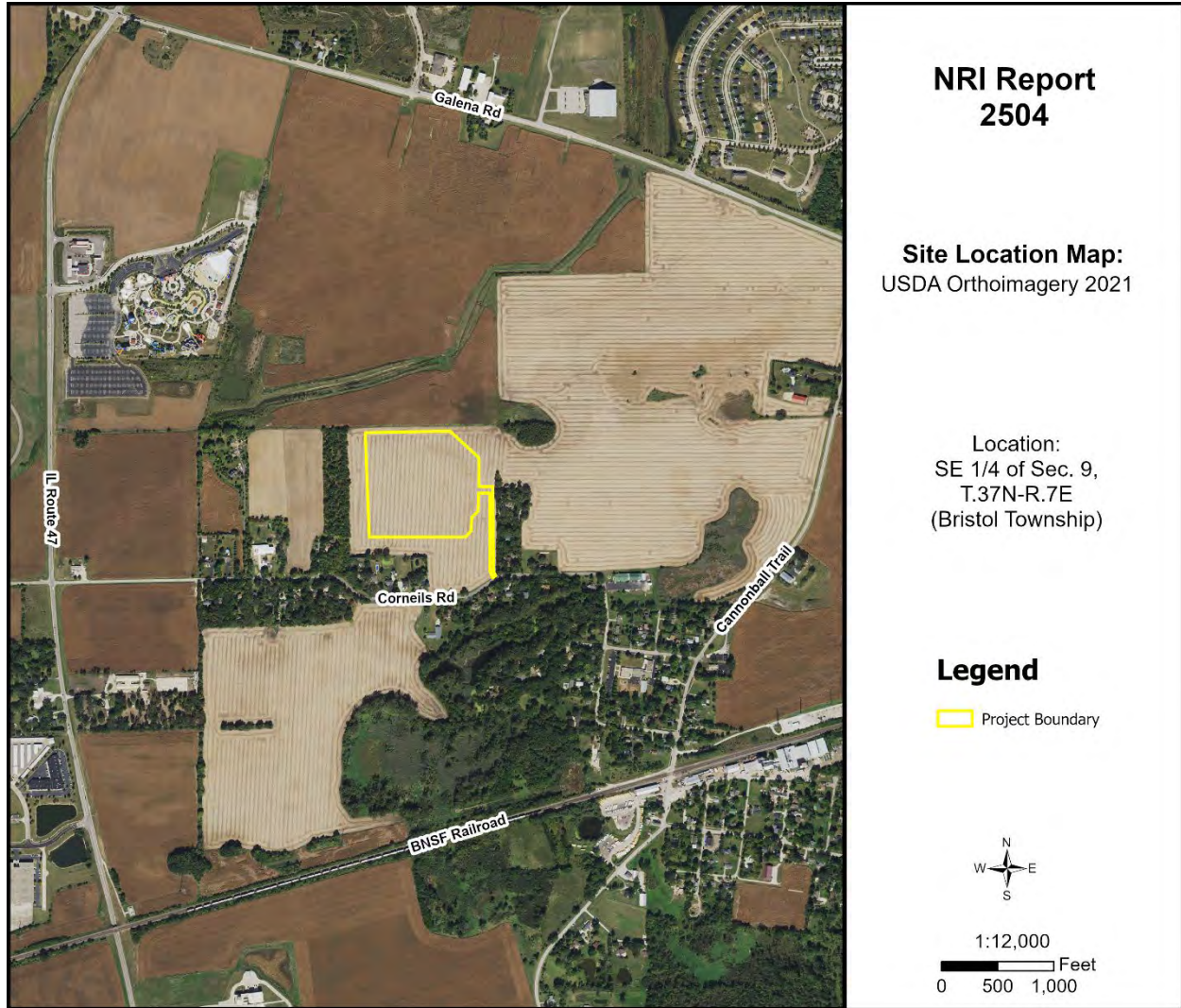


Figure 4: Aerial Map with NRI Project Boundary

ARCHAEOLOGIC/CULTURAL RESOURCES INFORMATION

Simply stated, cultural resources are all the past activities and accomplishments of people. They include the following: buildings; objects made or used by people; locations; and less tangible resources, such as stories, dance forms, and holiday traditions.

The Soil and Water Conservation District most often encounters cultural resources as historical properties. These may be prehistoric or historical sites, buildings, structures, features, or objects. The most common type of historical property that the Soil and Water Conservation District may encounter is non-structural archaeological sites. These sites often extend below the soil surface and must be protected against disruption by development or other earth moving activity if possible. Cultural resources are *non-renewable* because there is no way to “grow” a site to replace a disrupted site.

Landowners with historical properties on their land have ownership of that historical property. However, the State of Illinois owns all the following: human remains, grave markers, burial mounds, and artifacts associated with graves and human remains.

Non-grave artifacts from archaeological sites and historical buildings are the property of the landowner. The landowner may choose to disturb a historical property but may not receive federal or state assistance to do so. If an earth moving activity disturbs human remains, the landowner must contact the county coroner within 48 hours.

The Illinois State Historic Preservation Office has not been notified of the proposed land use change by the Kendall County SWCD. There may be historic features in the area. The applicant may need to contact them according to current Illinois law.

ECOLOGICALLY SENSITIVE AREAS

WHAT IS BIOLOGICAL DIVERSITY AND WHY SHOULD IT BE CONSERVED?¹

Biological diversity, or biodiversity, is the range of life on our planet. A more thorough definition is presented by botanist Peter H. Raven: “At the simplest level, biodiversity is the sum total of all the plants, animals, fungi and microorganisms in the world, or in a particular area; all of their individual variation; and all of the interactions between them. It is the set of living organisms that make up the fabric of the planet Earth and allow it to function as it does, by capturing energy from the sun and using it to drive all of life’s processes; by forming communities of organisms that have, through the several billion years of life’s history on Earth, altered the nature of the atmosphere, the soil and the water of our Planet; and by making possible the sustainability of our planet through their life activities now” (Raven 1994).

It is not known how many species occur on our planet. Presently, about 1.4 million species have been named. It has been estimated that there are perhaps 9 million more that have not been identified. What is known is that they are vanishing at an unprecedented rate. Reliable estimates show extinction occurring at a rate several orders of magnitude above “background” in some ecological systems (Wilson 1992, Hoose 1981).

The reasons for protecting biological diversity are complex, but they fall into four major categories. First, loss of diversity generally weakens entire natural systems. Healthy ecosystems tend to have many natural checks and balances. Every species plays a role in maintaining this system. When simplified by the loss of diversity, the system becomes more susceptible to natural and artificial perturbations. The chances of a system-wide collapse increase. In parts of the midwestern United States, for example, it was only the remnant areas of natural prairies that kept soil intact during the dust bowl years of the 1930s (Roush 1982).

Simplified ecosystems are almost always expensive to maintain. For example, when synthetic chemicals are relied upon to control pests, the target species are not the only ones affected. Their predators are almost always killed or driven away, exasperating the pest problem. In the meantime, people are unintentionally breeding pesticide-resistant pests. A process has begun where people become perpetual guardians of the affected area, which requires the expenditure of financial resources and human ingenuity to keep the system going.

A second reason for protecting biological diversity is that it represents one of our greatest untapped resources. Great benefits can be reaped from a single species. About 20 species provide 90% of the world’s food. Of these 20, just three, wheat, maize, and rice supply over one half of that food. American wheat farmers need new varieties every five to 15 years to compete with pests and diseases. Wild strains of wheat are critical genetic reservoirs for these new varieties.

Further, every species is a potential source of human medicine. In 1980, a published report identified the market value of prescription drugs from higher plants at over \$3 billion. Organic alkaloids, a class of

chemical compounds used in medicines, are found in an estimated 20% of plant species. Yet only 2% of plant species have been screened for these compounds (Hoose 1981).

The third reason for protecting diversity is that humans benefit from natural areas and depend on healthy ecosystems. The natural world supplies our air, our water, our food and supports human economic activity. Further, humans are creatures that evolved in a diverse natural environment between forest and grasslands. People need to be reassured that such places remain. When people speak of “going to the country,” they generally mean more than getting out of town. For reasons of their own sanity and wellbeing, they need a holistic, organic experience. Prolonged exposure to urban monotony produces neuroses, for which cultural and natural diversity cure.

Historically, the lack of attention to biological diversity, and the ecological processes it supports, has resulted in economic hardships for segments of the basin’s human population.

The final reason for protecting biological diversity is that species and natural systems are intrinsically valuable. The above reasons have focused on the benefits of the natural world to humans. All things possess intrinsic value simply because they exist.

BIOLOGICAL RESOURCES CONCERNING THE SUBJECT PARCEL

As part of the Natural Resources Information Report, staff checks office maps to determine if any nature preserves or ecologically sensitive areas are in the general vicinity of the parcel in question. If there is a nature preserve in the area, then that resource will be identified as part of the report. The SWCD recommends that every effort be made to protect that resource. Such efforts should include, but are not limited to erosion control, sediment control, stormwater management, and groundwater monitoring.

Office maps indicate that there are no nature preserves in the vicinity of the parcel in question (PIQ). Adjacent to the PIQ is a mapped freshwater emergent wetland to the north and a mapped freshwater pond to the south. These are ecologically sensitive areas.

¹Taken from *The Conservation of Biological Diversity in the Great Lakes Ecosystem: Issues and Opportunities*, prepared by the Nature Conservancy Great Lakes Program 79W. Monroe Street, Suite 1309, Chicago, IL 60603, January 1994.

SOILS INFORMATION

IMPORTANCE OF SOILS INFORMATION

Soils information comes from the Natural Resources Conservation Service Soil Maps and Descriptions for Kendall County. This information is important to all parties involved in determining the suitability of the proposed land use change.

Each soil polygon is given a number, which represents its soil type. The letter found after the soil type number indicates the soils slope class.

Each soil map unit has limitations for a variety of land uses such as septic systems, buildings with basements, and buildings without basements. It is important to remember that soils do not function independently of each other. The behavior of a soil depends upon the physical properties of adjacent soil types, the presence of artificial drainage, soil compaction, and its position in the local landscape.

The limitation categories (not limited, somewhat limited, or very limited) indicate the potential for difficulty in using that soil unit for the proposed activity and, thus, the degree of need for thorough soil borings and engineering studies. A limitation does not necessarily mean that the proposed activity cannot be done on that soil type. It does mean that the reasons for the limitation need to be thoroughly understood and dealt with to complete the proposed activity successfully. Very limited indicates that the proposed activity will be more difficult and costly to do on that soil type than on a soil type with a somewhat limited or not limited rating.

Soil survey interpretations are predictions of soil behavior for specified land uses and specified management practices. They are based on the soil properties that directly influence the specified use of the soil. Soil survey interpretations allow users of soil surveys to plan reasonable alternatives for the use and management of soils.

Soil interpretations do not eliminate the need for on-site study and testing of specific sites for the design and construction for specific uses. They can be used as a guide for planning more detailed investigations and for avoiding undesirable sites for an intended use. The scale of the maps and the range of error limit the use of the soil delineation.

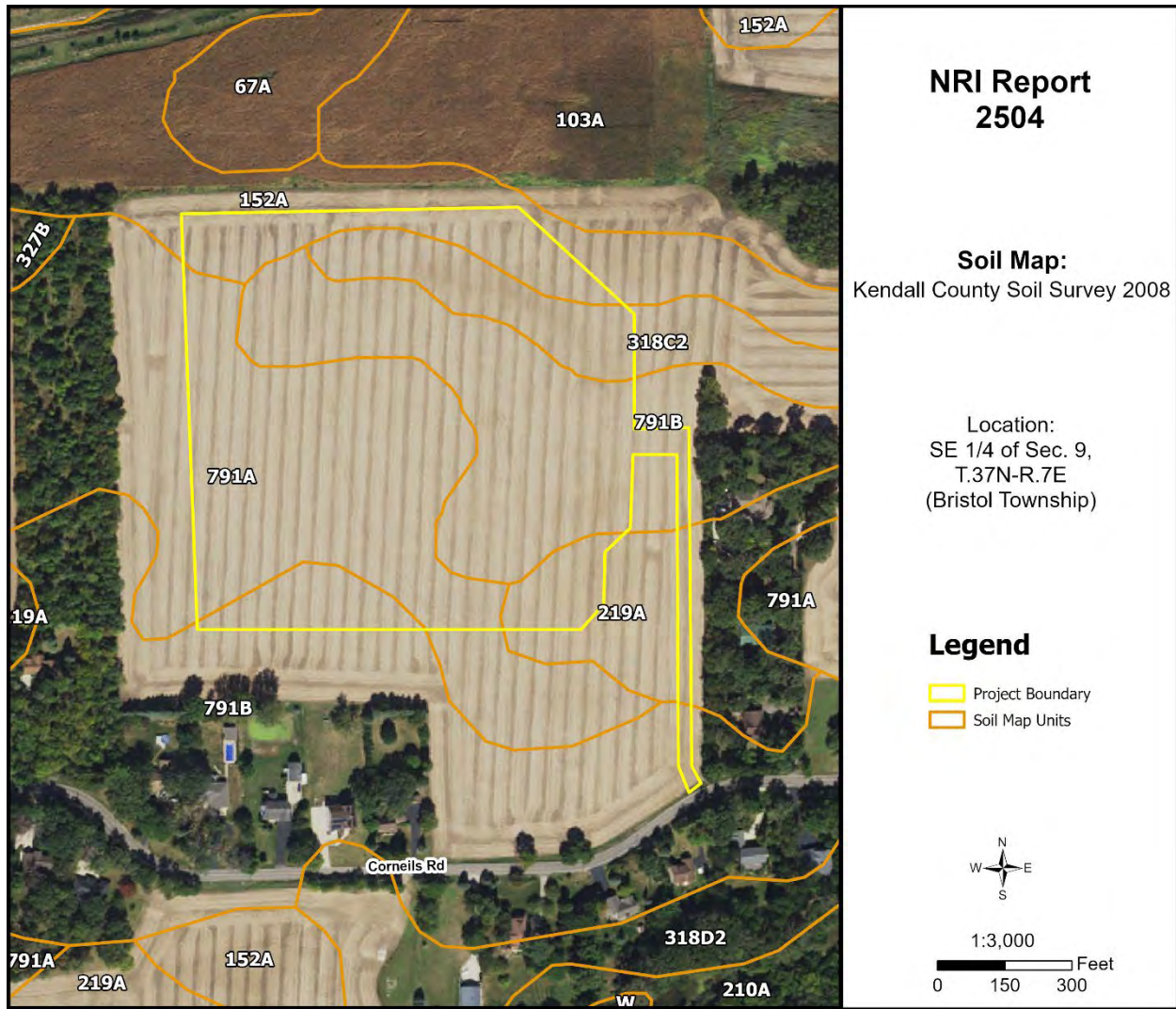


Figure 5: Soil Map

Table 3: Soil Map Unit Descriptions

Soil Type	Soil Name	Acres	Percent
152A	Drummer silty clay loam, 0-2% slopes	1.9	9.0%
219A	Millbrook silt loam, 0-2% slopes	1.2	5.8%
318C2	Lorenzo loam, 4-6% slopes, eroded	2.1	10.1%
791A	Rush silt loam, 0-2% slopes	7.5	36.1%
791B	Rush silt loam, 2-4% slopes	8.1	39.0%

Source: National Cooperative Soil Survey – USDA-NRCS

SOILS INTERPRETATIONS EXPLANATION

GENERAL – NONAGRICULTURAL

These interpretative ratings help engineers, planners, and others to understand how soil properties influence behavior when used for nonagricultural uses such as building site development or construction materials. This report gives ratings for proposed uses in terms of limitations and restrictive features. The tables list only the most restrictive features.

Other features may need treatment to overcome soil limitations for a specific purpose. Ratings come from the soil's "natural" state, that is, no unusual modification occurs other than that which is considered normal practice for the rated use. Even though soils may have limitations, an engineer may alter soil features or adjust building plans for a structure to compensate for most degrees of limitations. Most of these practices, however, are costly. The final decision in selecting a site for a particular use generally involves weighing the costs for site preparation and maintenance. Soil properties influence development of building sites, including the selection of the site, the design of the structure, construction, performance after construction, and maintenance. Soil limitation ratings of not limited, somewhat limited, and very limited are given for the types of proposed improvements that are listed or inferred by the petitioner as entered on the report application and/or zoning petition. The most common types of building limitation that this report gives limitations ratings for is septic systems. It is understood that engineering practices can overcome most limitations for buildings with and without basements, and small commercial buildings. Limitation ratings for these types of buildings are not commonly provided. Organic soils, when present on the parcel, are referenced in the hydric soils section of the report. This type of soil is considered unsuitable for all types of construction.

LIMITATIONS RATINGS

- **Not Limited:** This soil has favorable properties for the use. The degree of limitation is minor. The people involved can expect good performance and low maintenance.
- **Somewhat Limited:** This soil has moderately favorable properties for the use. Special planning, design, or maintenance can overcome this degree of limitation. During some part of the year, the expected performance is less desirable than for soils rated slight.
- **Very Limited:** This soil has one or more properties that are unfavorable for the rated use. These may include the following: steep slopes, bedrock near the surface, flooding, high shrink-swell potential, a seasonal high water table, or low strength. This degree of limitation generally requires major soil reclamation, special design, or intensive maintenance, which in most situations is difficult and costly.

BUILDING LIMITATIONS

BUILDING ON POORLY SUITED OR UNSUITABLE SOILS

Building on poorly suited or unsuitable soils can present problems to future property owners such as cracked foundations, wet basements, lowered structural integrity and high maintenance costs associated with these problems. The staff of the Kendall County SWCD strongly urges scrutiny by the plat reviewers when granting parcels with these soils exclusively.

Solar Arrays, Soil-Penetrating Anchor Systems – Ground-based solar arrays are sets of photovoltaic panels that are not situated on a building or pole. These installations consist of a racking system that holds the panel in the desired orientation and the foundation structures that hold the racking system to the ground. Two basic methods are used to hold the systems to the ground, based on site conditions and cost. One method employs driven piles, screw augers, or concrete piers that penetrate the soil to provide a stable foundation.

Shallow Excavations – Trenches or holes dug to a maximum depth of 5 or 6 feet for utility lines, open ditches, or other purposes. Ratings are based on soil properties that influence the ease of digging and the resistance to sloughing.

Lawns and Landscaping – Require soils on which turf and ornamental trees and shrubs can be established and maintained (irrigation is not considered in the ratings). The ratings are based on the soil properties that affect plant growth and trafficability after vegetation is established.

Local Roads and Streets – They have an all-weather surface and carry automobile and light truck traffic all year. They have a subgrade of cut or fill soil material, a base of gravel, crushed rock or soil material stabilized by lime or cement; and a surface of flexible material (asphalt), rigid material (concrete) or gravel with a binder. The ratings are based on the soil properties that affect the ease of excavation and grading and the traffic-supporting capacity.

Table 4: Building Limitations

Soil Type	Solar Arrays	Shallow Excavations	Lawns & Landscaping	Local Roads & Streets	Acres	%
152A	Very Limited: Ponding Depth to saturated zone Frost action Low strength Steel corrosion Shrink-swell	Very Limited: Ponding Depth to saturated zone Dusty Unstable excavation walls Too clayey	Very Limited: Ponding Depth to saturated zone Dusty	Very Limited: Ponding Depth to saturated zone Frost action Low strength Shrink-swell	1.9	9.0%
219A	Very Limited: Frost action Depth to saturated zone Steel corrosion Shrink-swell Hillslope position Ponding Low strength	Very Limited: Depth to saturated zone Dusty Unstable excavation walls Ponding	Somewhat Limited: Depth to saturated zone Dusty	Very Limited: Frost action Depth to saturated zone Shrink-swell Low strength Ponding	1.2	5.8%
318C2	Somewhat Limited: Steel corrosion Frost action Hillslope position Depth to saturated zone Shrink-swell Low strength	Somewhat Limited: Unstable excavation walls Dusty	Somewhat Limited: Droughty Dusty Depth to saturated zone	Somewhat Limited: Frost action Depth to saturated zone Low strength Shrink swell	2.1	10.1%
791A	Very Limited: Frost action Steel corrosion Low strength Shrink-swell Hillslope position Ponding Depth to saturated zone	Somewhat Limited: Dusty Unstable excavation walls	Somewhat Limited: Dusty	Very Limited: Frost action Low strength Shrink-swell Ponding Depth to saturated zone	7.5	36.1%

Soil Type	Solar Arrays	Shallow Excavations	Lawns & Landscaping	Local Roads & Streets	Acres	%
791B	Very Limited: Frost action Steel corrosion Shrink-swell Hillslope position Slope shape across Ponding Depth to saturated zone Low strength	Somewhat Limited: Dusty Unstable excavation walls	Somewhat Limited: Dusty	Very Limited: Frost action Shrink-swell Low strength Ponding Depth to saturated zone	8.1	39.0%
% Very Limited	89.9%	14.8%	9.0%	89.9%		

Figure 6A: Map of Building Limitations - Solar Arrays & Local Roads / Streets



Attachment 11, Page 25
Figure 6B: Map of Building Limitations - Shallow Excavations

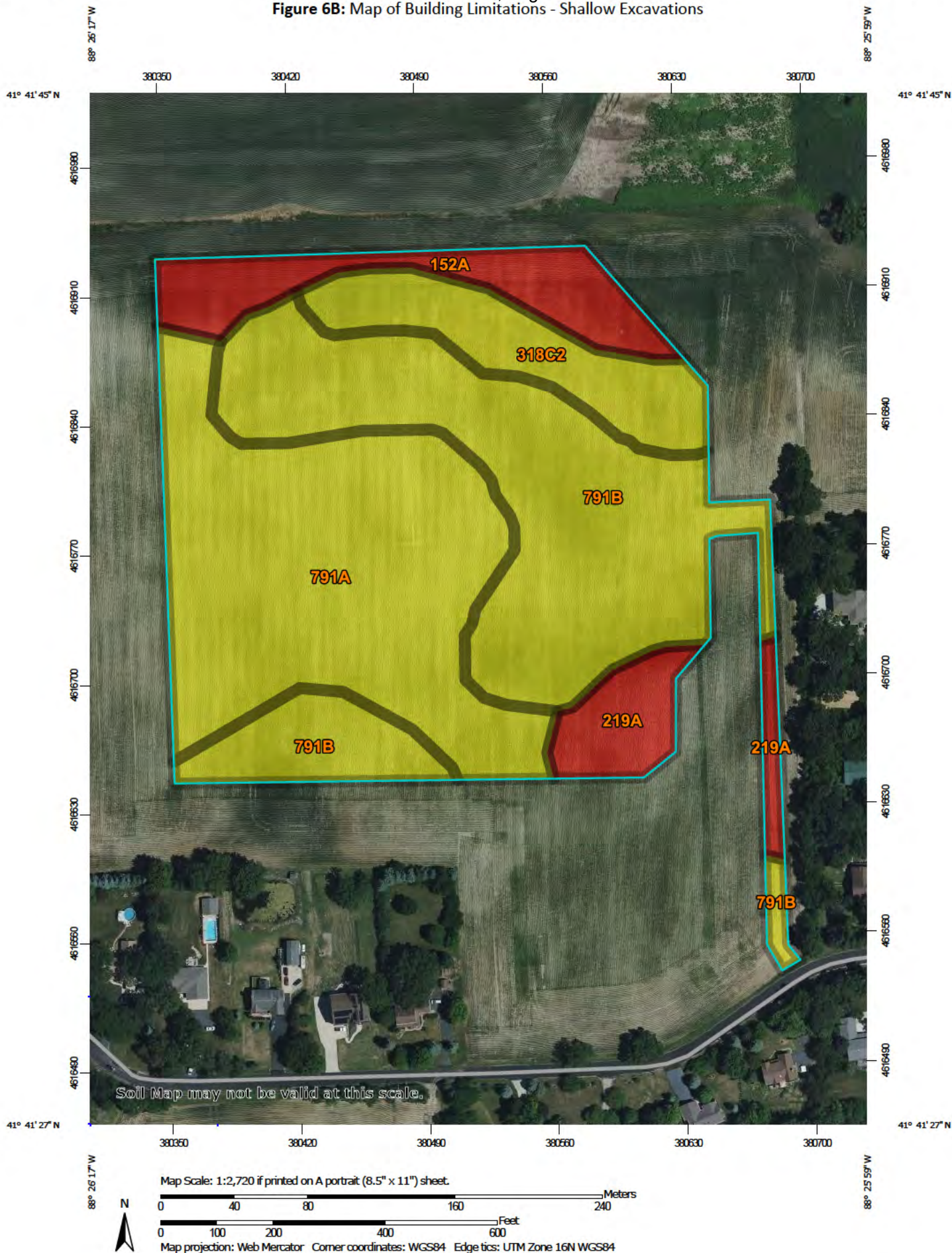


Figure 6C: Map of Building Limitations - Lawns / Landscaping



SOIL WATER FEATURES

Table 5, below, gives estimates of various soil water features that should be taken into consideration when reviewing engineering for a land use project.

HYDROLOGIC SOIL GROUPS (HSGs) – The groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

- **Group A:** Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.
- **Group B:** Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained, or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.
- **Group C:** Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.
- **Group D:** Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

Note: If a soil is assigned to a dual hydrologic group (A/D, B/D or C/D) the first letter is for drained areas and the second is for undrained areas.

SURFACE RUNOFF – Surface runoff refers to the loss of water from an area by flow over the land surface. Surface runoff classes are based upon slope, climate and vegetative cover and indicates relative runoff for very specific conditions (it is assumed that the surface of the soil is bare and that the retention of surface water resulting from irregularities in the ground surface is minimal). The classes are negligible, very low, low, medium, high, and very high.

MONTHS – The portion of the year in which a water table, ponding, and/or flooding is most likely to be a concern.

WATER TABLE – Water table refers to a saturated zone in the soil and the data indicates, by month, depth to the top (upper limit) and base (lower limit) of the saturated zone in most years. These estimates are based upon observations of the water table at selected sites and on evidence of a saturated zone (grayish colors or mottles (redoximorphic features)) in the soil. Note: A saturated zone that lasts for less than a month is not considered a water table.

PONDING – Ponding refers to standing water in a closed depression, and the data indicates surface water depth, duration, and frequency of ponding.

- **Duration:** Expressed as *very brief* if less than 2 days, *brief* if 2 to 7 days, *long* if 7 to 30 days and *very long* if more than 30 days.
- **Frequency:** Expressed as: *none* meaning ponding is not possible; *rare* means unlikely but possible under unusual weather conditions (chance of ponding is 0-5% in any year); *occasional* means that it occurs, on the average, once or less in 2 years (chance of ponding is 5 to 50% in any year); and *frequent* means that it occurs, on the average, more than once in 2 years (chance of ponding is more than 50% in any year).

FLOODING – The temporary inundation of an area caused by overflowing streams, by runoff from adjacent slopes, or by tides. Water standing for short periods after rainfall or snowmelt is not considered flooding, and water standing in swamps and marshes is considered ponding rather than flooding.

- **Duration:** Expressed as: *extremely brief* if 0.1 hour to 4 hours; *very brief* if 4 hours to 2 days; *brief* if 2 to 7 days; *long* if 7 to 30 days; and *very long* if more than 30 days.
- **Frequency:** Expressed as: *none* means flooding is not probable; *very rare* means that it is very unlikely but possible under extremely unusual weather conditions (chance of flooding is less than 1% in any year); *rare* means that it is unlikely but possible under unusual weather conditions (chance of flooding is 1 to 5% in any year); *occasional* means that it occurs infrequently under normal weather conditions (chance of flooding is 5 to 50% in any year but is less than 50% in all months in any year); and *very frequent* means that it is likely to occur very often under normal weather conditions (chance of flooding is more than 50% in all months of any year).

Note: The information is based on evidence in the soil profile. In addition, consideration is also given to local information about the extent and levels of flooding and the relation of each soil on the landscape to historic floods. Information on the extent of flooding based on soil data is less specific than that provided by detailed engineering surveys that delineate flood-prone areas at specific flood frequency levels.

Table 5: Water Features

Soil Type	Hydrologic Group	Surface Runoff	Water Table	Ponding	Flooding
152A	B/D	Negligible	January – May Upper Limit: 0.0'-1.0' Lower Limit: 6.0'	January – May Surface Water Depth: 0.0'-0.5' Duration: Brief (2-7 days) Frequency: Frequent	January – December Frequency: None
219A	C/D	Low	January – May Upper Limit: 0.5'-2.0' Lower Limit: 6.0'	January – December Frequency: None	January – December Frequency: None
318C2	B	Medium	January – December Upper Limit: -- Lower Limit: --	January – December Frequency: None	January – December Frequency: None
791A	B	Low	January – December Upper Limit: -- Lower Limit: --	January – December Frequency: None	January – December Frequency: None
791B	B	Low	January – December Upper Limit: -- Lower Limit: --	January – December Frequency: None	January – December Frequency: None

SOIL EROSION AND SEDIMENT CONTROL

Erosion is the wearing away of the soil by water, wind, and other forces. Soil erosion threatens the Nation's soil productivity and contributes the most pollutants in our waterways. Water causes about two thirds of erosion on agricultural land. Four properties, mainly, determine a soil's erodibility: texture, slope, structure, and organic matter content.

Slope has the most influence on soil erosion potential when the site is under construction. Erosivity and runoff increase as slope grade increases. The runoff then exerts more force on the particles, breaking their bonds more readily and carrying them farther before deposition. The longer water flows along a slope before reaching a major waterway, the greater the potential for erosion.

Soil erosion during and after this proposed construction can be a primary non-point source of water pollution. Eroded soil during the construction phase can create unsafe conditions on roadways, decrease the storage capacity of lakes, clog streams and drainage channels, cause deterioration of aquatic habitats, and increase water treatment costs. Soil erosion also increases the risk of flooding by choking culverts, ditches, and storm sewers and by reducing the capacity of natural and man-made detention facilities.

The general principles of erosion and sedimentation control measures include:

- Reducing/diverting flow from exposed areas, storing flows, or limiting runoff from exposed areas
- Staging construction to keep disturbed areas to a minimum
- Establishing or maintaining temporary or permanent groundcover
- Retaining sediment on site
- Properly installing, inspecting, and maintaining control measures

Erosion control practices are useful controls only if they are properly located, installed, inspected, and maintained. Soil erosion and sedimentation control plans, including maintenance responsibilities, should be clearly communicated to all contractors working on the site.

The SWCD recommends an erosion and sediment control plan for all building sites, especially if there is a wetland or stream nearby. Additionally, a National Pollutant Discharge Elimination System (NPDES) permit (Permit No. ILR10) from the Illinois Environmental Protection Agency (IEPA) is required for stormwater discharges from construction sites that will disturb 1 or more acres of land. Conditions of the NPDES ILR10 permit require the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) to reduce stormwater pollutants on the construction site before they can cause environmental issues.

Table 6: Soil Erosion Potential

Soil Type	Slope	Rating	Acreage	Percent of Project Area
152A	0-2%	Slight	1.9	9.0%
219A	0-2%	Slight	1.2	5.8%
318C2	4-6%	Moderate	2.1	10.1%
791A	0-2%	Slight	7.5	36.1%
791B	2-4%	Slight	8.1	39.0%

PRIME FARMLAND SOILS

Prime farmland soils are an important resource to Kendall County. Some of the most productive soils in the United States occur locally. Each soil map unit in the United States is assigned a prime or non-prime rating. Prime agricultural land does not need to be in the production of food & fiber.

Section 310 of the NRCS general manual states that urban or built-up land on prime farmland soils is not prime farmland. The percentages of soil map units on the parcel reflect the determination that urban or built-up land on prime farmland soils is not prime farmland.

Table 7: Prime Farmland Soils

Soil Type	Prime Designation	Acreage	Percent
152A	Prime Farmland if Drained	1.9	9.0%
219A	Prime Farmland if Drained	1.2	5.8%
318C2	Farmland of Statewide Importance	2.1	10.1%
791A	Prime Farmland	7.5	36.1%
791B	Prime Farmland	8.1	39.0%
% Prime Farmland	89.9%		

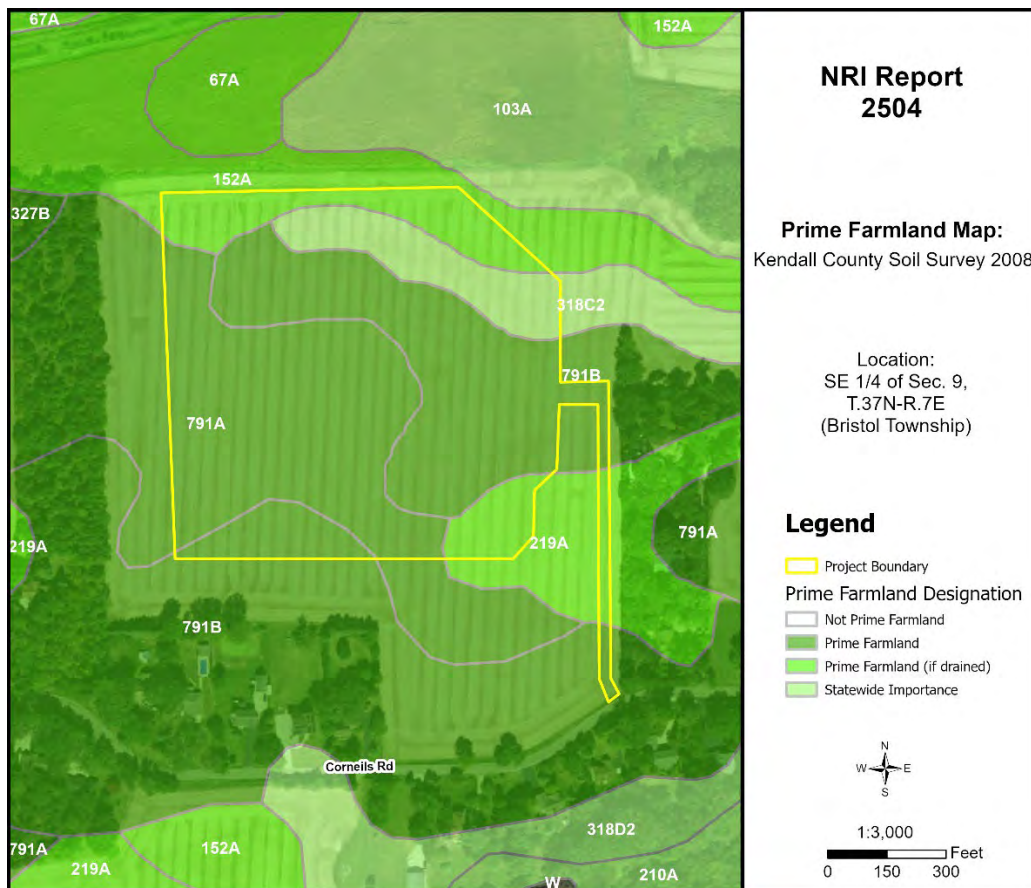


Figure 7: Prime Farmland Soils

LAND EVALUATION AND SITE ASSESSMENT (LESA)

Decision-makers in Kendall County use the Land Evaluation and Site Assessment (LESA) system to determine the suitability of a land use change and/or a zoning request as it relates to agricultural land. The LESA system was developed by the United States Department of Agriculture-Natural Resources Conservation Service (USDA-NRCS) and takes into consideration local conditions such as physical characteristics of the land, compatibility of surrounding land-uses, and urban growth factors. The LESA system is a two-step procedure that includes:

LAND EVALUATION (LE)

The soils of a given area are rated and placed in groups ranging from the best to worst suited for a stated agriculture use, cropland, or forestland. The best group is assigned a value of 100, and all other groups are assigned lower values. The Land Evaluation is based on data from the Kendall County Soil Survey. The LE score is calculated by multiplying the relative value of each soil type by the number of acres of that soil. The sum of the products is then divided by the total number of acres; the answer is the Land Evaluation score on this site. The Kendall County Soil and Water Conservation District is responsible for this portion of the LESA system.

SITE ASSESSMENT (SA)

The site is numerically evaluated according to important factors that contribute to the quality of the site. Each factor selected is assigned values in accordance with the local needs and objectives. The value group is a predetermined value based upon prime farmland designation. The Kendall County LESA Committee is responsible for this portion of the LESA system.

Please Note: A land evaluation (LE) score will be compiled for every project parcel. However, when a parcel is located within municipal planning boundaries, a site assessment (SA) score is not compiled as the scoring factors are not applicable. As a result, only the LE score is available, and a full LESA score is unavailable for the parcel.

Table 8A: Land Evaluation Computation

Soil Type	Value Group	Relative Value	Acres*	Product (Relative Value x Acres)
152A	1	100	1.9	190.0
219A	3	87	1.2	104.4
318C2	6	69	2.1	144.9
791A	4	79	7.5	592.5
791B	4	79	8.1	639.9
			20.8	1,671.7
LE Calculation			(Product of relative value / Total Acres) 1,671.7 / 20.8 = 80.4	
LE Score			LE = 80	

*Acreage listed in this chart provides a generalized representation and may not precisely reflect exact acres of each soil type.

The Land Evaluation score for this site is 80, indicating that the soils on this site are designated as land that is well suited for agricultural uses considering the Land Evaluation score is at or above 80.

Table 8B: Site Assessment Computation

A.	Agricultural Land Uses	Points
	1. Percentage of area in agricultural uses within 1.5 miles of site. (20-10-5-0)	5
	2. Current land use adjacent to site. (30-20-15-10-0)	15
	3. Percentage of site in agricultural production in any of the last 5 years. (20-15-10-5-0)	20
	4. Size of site. (30-15-10-0)	10
B.	Compatibility / Impact on Uses	
	1. Distance from city or village limits. (20-10-0)	0
	2. Consistency of proposed use with County Land Resource Management Concept Plan and/or municipal comprehensive land use plan. (20-10-0)	20
	3. Compatibility of agricultural and non-agricultural uses. (15-7-0)	0
C.	Existence of Infrastructure	
	1. Availability of public sewage system. (10-8-6-0)	8
	2. Availability of public water system. (10-8-6-0)	8
	3. Transportation systems. (15-7-0)	7
	4. Distance from fire protection service. (10-8-6-2-0)	6
	Site Assessment Score:	99

Land Evaluation Value: 80 + Site Assessment Value: 99 = LESA Score: 179

Table 9: LESA Score Summary

LESA SCORE	LEVEL OF PROTECTION
0-200	Low
201-225	Medium
226-250	High
251-300	Very High

The LESA Score for this site is 179 which indicates a low level of protection for the proposed project site. Selecting the project site with the lowest total points will generally protect the best farmland located in the most viable areas and maintain and promote the agricultural industry in Kendall County.

LAND USE PLANS

Many counties, municipalities, villages, and townships have developed land-use plans. These plans are intended to reflect the existing and future land-use needs of a given community. Please contact Kendall County for information regarding their comprehensive land use plan and map.

DRAINAGE, RUNOFF, AND FLOOD INFORMATION

U.S.G.S Topographic maps give information on elevations, which are important mostly to determine slopes, drainage directions, and watershed information.

Elevations determine the area of impact of floods of record. Slope information determines steepness and erosion potential. Drainage directions determine where water leaves the PIQ, possibly impacting surrounding natural resources.

Watershed information is given for changing land use to a subdivision type of development on parcels greater than 10 acres.

WHAT IS A WATERSHED?

Simply stated, a watershed is the area of land that contributes water to a certain point. The watershed boundary is important because the area of land in the watershed can now be calculated using an irregular shape area calculator such as a dot counter or planimeter.

Using regional storm event information, and site-specific soils and land use information, the peak stormwater flow through the point marked “O” for a specified storm event can be calculated. This value is called a “Q” value (for the given storm event) and is measured in cubic feet per second (CFS).

When construction occurs, the Q value naturally increases because of the increase in impermeable surfaces. This process decreases the ability of soils to accept and temporarily hold water. Therefore, more water runs off and increases the Q value.

Theoretically, if each development, no matter how large or small, maintains their preconstruction Q value after construction by the installation of stormwater management systems, the streams and wetlands and lakes will not suffer damage from excessive urban stormwater.

For this reason, the Kendall County SWCD recommends that the developer for intense uses, such as a subdivision, calculate the preconstruction Q value for the exit point(s). A stormwater management system

should be designed, installed, and maintained to limit the postconstruction Q value to be at or below the preconstruction value.

IMPORTANCE OF FLOOD INFORMATION

A floodplain is defined as land adjoining a watercourse (riverine) or an inland depression (non-riverine) that is subject to periodic inundation by high water. Floodplains are important areas demanding protection since they have water storage and conveyance functions which affect upstream and downstream flows, water quality and quantity, and suitability of the land for human activity. Since floodplains play distinct and vital roles in the hydrologic cycle, development that interferes with their hydrologic and biologic functions should be carefully considered.

Flooding is both dangerous to people and destructive to their properties. The following maps, when combined with wetland and topographic information, can help developers and future homeowners to “sidestep” potential flooding or ponding problems.

Flood Insurance Rate Maps (FIRMs), produced by the Federal Emergency Management Agency (FEMA), define flood elevation adjacent to tributaries and major bodies of water and superimpose that onto a simplified USGS topographic map. The scale of the FIRM maps is generally dependent on the size and density of parcels in that area. This is to correctly determine the parcel location and floodplain location. The FIRM map has three (3) zones. Zone A includes the 100-year flood (1% annual chance flood), Zone B or Zone X (shaded) is the 100 to 500-year flood (between limits of the 1% and the 0.2% annual chance flood), and Zone C or Zone X (unshaded) is outside the floodplain (outside the 0.2% annual chance flood).

The Hydrologic Atlas (H.A.) Series of the Flood of Record Map is also used for the topographic information. This map is different from the FIRM map mainly because it will show isolated or pocketed flooded areas. Kendall County uses both these maps in conjunction with each other for flooded area determinations. The Flood of Record maps show the areas of flood for various years. Both maps stress that the recurrence of flooding is merely statistical. A 100-year flood may occur twice in one year, or twice in one week, for that matter.

It should be noted that greater floods than those shown on the two maps are possible. The flood boundaries indicated provide a historic record only until the map publication date. Additionally, these flood boundaries are a function of the watershed conditions existing when the maps were produced. Cumulative changes in runoff characteristics caused by urbanization can result in an increase in flood height of future flood episodes.

Floodplains play a vital role in reducing the flood damage potential associated with an urbanizing area and, when left in an undisturbed state, also provide valuable wildlife habitat benefits. If it is the petitioner's intent to conduct floodplain filling or modification activities, the petitioner, and the Unit of Government responsible need to consider the potentially adverse effects this type of action could have on adjacent properties. The change or loss of natural floodplain storage often increases the frequency and severity of flooding on adjacent property.

If the available maps indicate the presence of a floodplain on the PIQ, the petitioner should contact the IDNR-OWR and FEMA to delineate a floodplain elevation for the parcel. If a portion of the property is indeed floodplain, applicable state, county, and local regulations will need to be reflected in the site plans.

Another indication of flooding potential can be found in the soils information. Hydric soils indicate the presence of drainage ways, areas subject to ponding, or a naturally occurring high water table. These need to be considered along with the floodplain information when developing the site plan and the stormwater management plan. Development on hydric soils can contribute to the loss of water storage within the soil and the potential for increased flooding in the area.

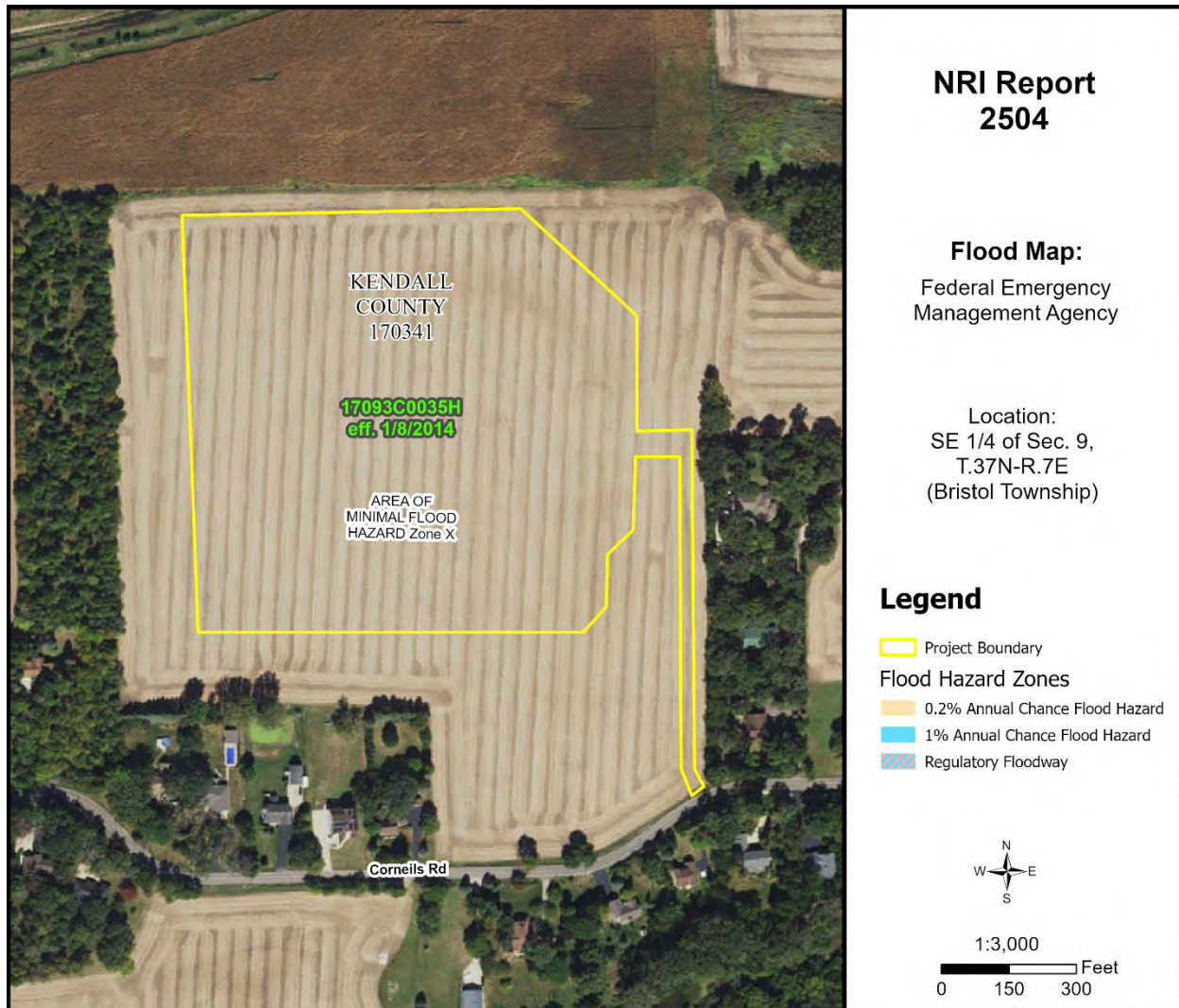


Figure 8: Flood Map

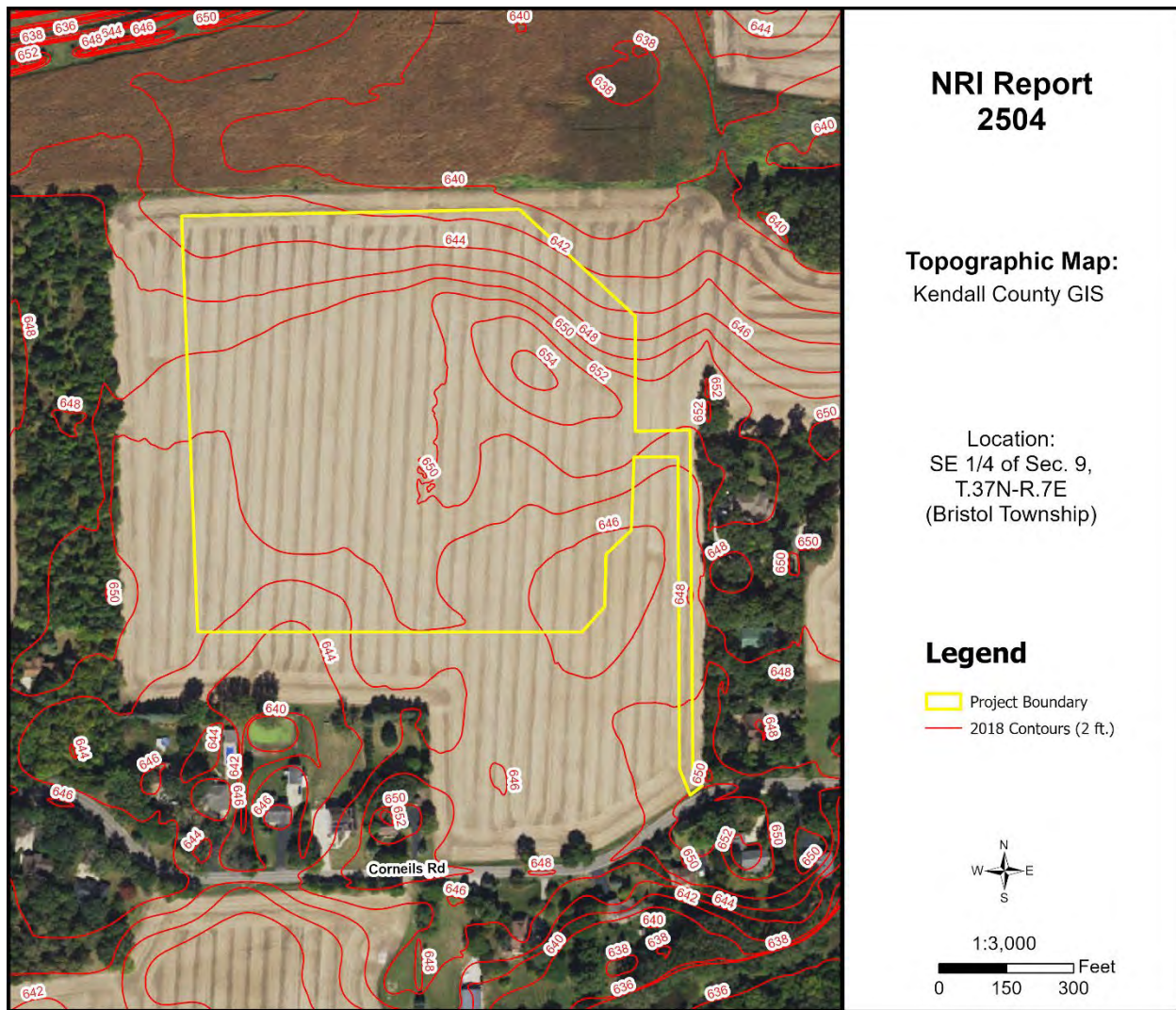


Figure 9: Topographic Map

This parcel contains slopes of 0% to 6% with an elevation range of approximately 642'-654' above sea level. The highest point is in the northwest portion of the site, and the lowest point is along the northern boundary. According to the FEMA Flood Map (Figure 8), the parcel does not appear to contain areas of regulated floodplain or floodway. The parcel is mapped as Zone X (unshaded), an area of minimal flood hazard determined to be outside of the 0.2% annual chance floodplain.

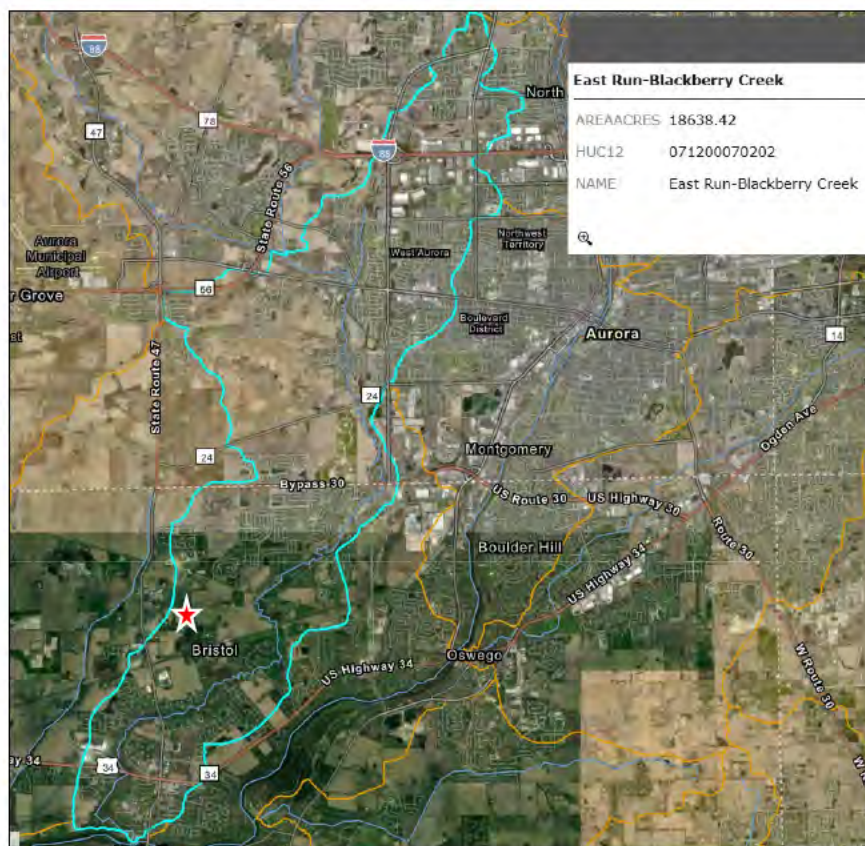
WATERSHED PLANS

WATERSHED AND SUB WATERSHED INFORMATION

A watershed is the area of land that drains into a specific point including a stream, lake, or other body of water. High points on the Earth's surface, such as hills and ridges define watersheds. When rain falls in the watershed, it flows across the ground towards a stream or lake. Rainwater carries pollutants such as oils, pesticides, and soil.

Everyone lives in a watershed. Their actions can impact natural resources and people living downstream. Residents can minimize this impact by being aware of their environment and the implications of their activities, implementing practices recommended in watershed plans, and educating others about their watershed.

The following are recommendations to developers for protection of this watershed: Preserve open space; maintain wetlands as part of development; use natural water management; prevent soil from leaving a construction site; protect subsurface drainage; use native vegetation; retain natural features; mix housing styles and types; decrease impervious surfaces; reduce area disturbed by mass grading; shrink lot size and create more open space; maintain historical and cultural resources; treat water where it falls; preserve views; and establish and link trails.



This parcel is located within the Lower Fox River watershed and the East Run – Blackberry Creek sub watershed (HUC 12 – 071200070202). The sub watershed comprises approximately 18,638 acres covering parts of Yorkville, Bristol, Sugar Grove, and Aurora.

Figure 10: Sub Watershed Map

WETLAND INFORMATION

IMPORTANCE OF WETLAND INFORMATION

Wetlands function in many ways to provide numerous benefits to society. They control flooding by offering a slow release of excess water downstream or through the soil. They cleanse water by filtering out sediment and some pollutants and can function as rechargers of our valuable groundwater. They also are essential breeding, rearing, and feeding grounds for many species of wildlife.

These benefits are particularly valuable in urbanizing areas as development activity typically adversely affects water quality, increases the volume of stormwater runoff, and increases the demand for groundwater. In an area where many individual homes rely on shallow groundwater wells for domestic water supplies, activities that threaten potential groundwater recharge areas are contrary to the public good. The conversion of wetlands, with their sediment trapping and nutrient absorbing vegetation, to biologically barren stormwater detention ponds can cause additional degradation of water quality in downstream or adjacent areas.

It has been estimated that over 95% of the wetlands that were historically present in Illinois have been destroyed while only recently has the true environmental significance of wetlands been fully recognized. America is losing 100,000 acres of wetland a year and has saved 5 million acres total (since 1934). One acre of wetland can filter 7.3 million gallons of water a year. These are reasons why our wetlands are high quality and important.

This section contains the National Wetlands Inventory, which is the most comprehensive inventory to date. The National Wetlands Inventory is reproduced from an aerial photo at a scale of 1" equals 660 feet. The NRCS developed these maps in cooperation with U.S. EPA (Environmental Protection Agency,) and the U.S. Fish and Wildlife Service, using the National Food Security Act Manual, 3rd Edition. The main purpose of these maps is to determine wetland areas on agricultural fields and areas that may be wetlands but are in a non-agriculture setting.

The National Wetlands Inventory in no way gives an exact delineation of the wetlands, but merely an outline, or the determination that there is a wetland within the outline. For the final, most accurate wetland **determination** of a specific wetland, a wetland **delineation** must be certified by NRCS staff using the National Food Security Act Manual (on agricultural land.) On urban land, a certified wetland delineator must perform the delineation using the ACOE 1987 Manual. *See the glossary section for the definitions of "delineation" and "determination."*

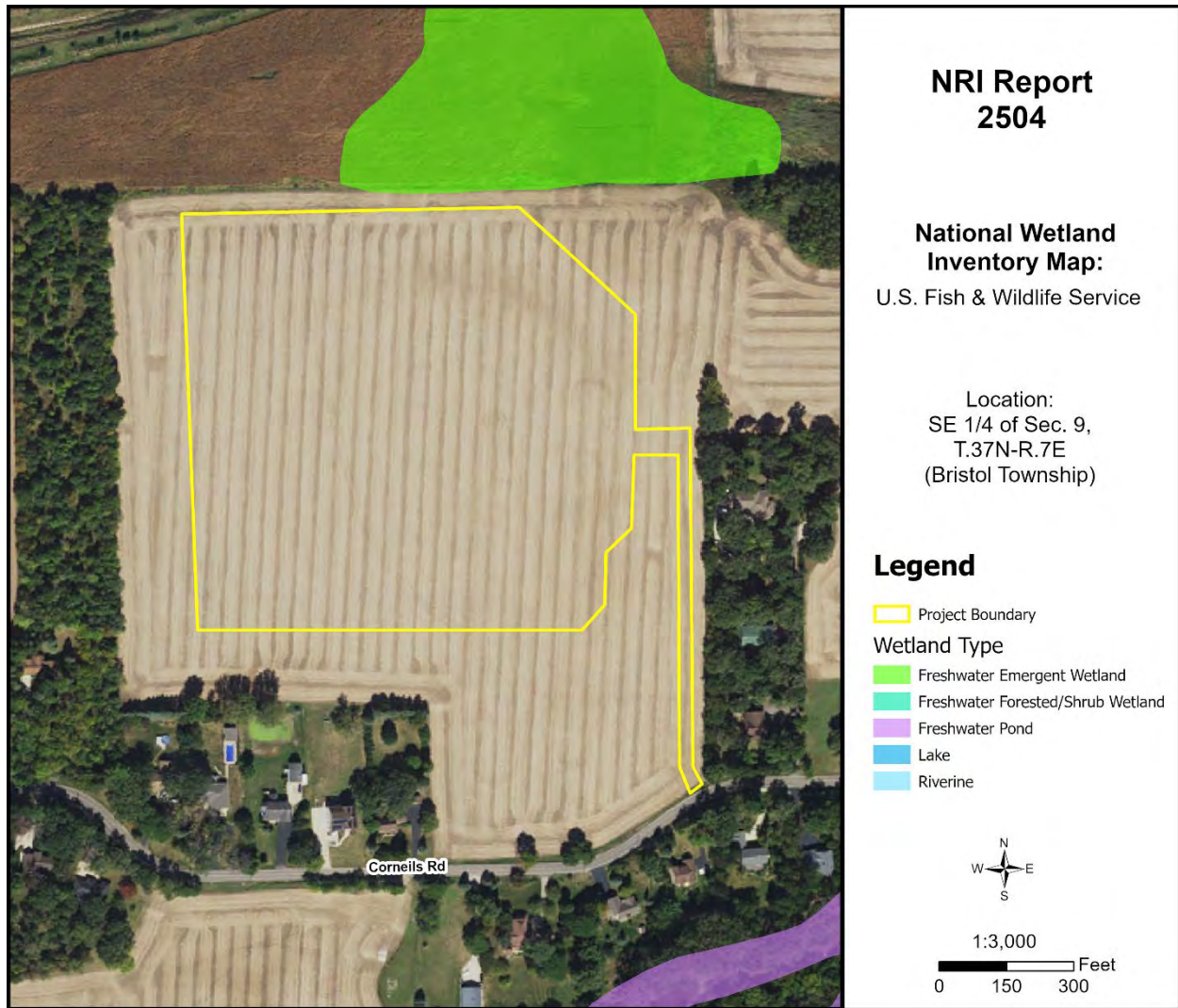


Figure 11: Wetland Map

Office maps indicate that mapped wetlands/waters are not present on the parcel in question (PIQ). To determine the presence of wetlands, a wetland delineation specialist, who is recognized by the U.S. Army Corps of Engineers, should determine the exact boundaries and value of the wetlands.

HYDRIC SOILS

Soils information gives another indication of flooding potential. The soils map on the following page indicates the soil(s) on the parcel that the Natural Resources Conservation Service indicates as hydric. Hydric soils, by definition, have seasonal high water at or near the soil surface and/or have potential flooding or ponding problems. All hydric soils range from poorly suited to unsuitable for building. One group of the hydric soils are the organic soils, which formed from dead organic material. Organic soils are unsuitable for building because of not only the high water table but also their subsidence problems.

It is important to add the possibility of hydric inclusions in a soil type. An inclusion is a soil polygon that is too small to appear on these maps. While relatively insignificant for agricultural use, hydric soil inclusions become more important to more intense uses such as a residential subdivision.

While considering hydric soils and hydric inclusions, it is noteworthy to mention that subsurface agriculture drainage tile occurs in almost all poorly drained and somewhat poorly drained soils. Drainage tile expedites drainage and facilitates farming. It is imperative that these drainage tiles remain undisturbed. A damaged subsurface drainage tile may return original hydrologic conditions to all the areas that drained through the tile (ranging from less than one acre to many square miles.)

For an intense land use, the Kendall County SWCD recommends the following: a topographical survey with 1 foot contour intervals to accurately define the flood area on the parcel, an intensive soil survey to define most accurately the locations of the hydric soils and inclusions, and a drainage tile survey on the area to locate the tiles that must be preserved to maintain subsurface drainage.

Table 10: Hydric Soils

Soil Types	Drainage Class	Hydric Designation	Hydric Inclusions Likely	Hydric Rating %	Acreage	Percent
152A	Poorly Drained	Hydric	N/A	100%	1.9	9.0%
219A	Somewhat Poorly Drained	Non-Hydric	Yes	3%	1.2	5.8%
318C2	Well Drained	Non-Hydric	No	0%	2.1	10.1%
791A	Well Drained	Non-Hydric	Yes	6%	7.5	36.1%
791B	Well Drained	Non-Hydric	Yes	6%	8.1	39.0%

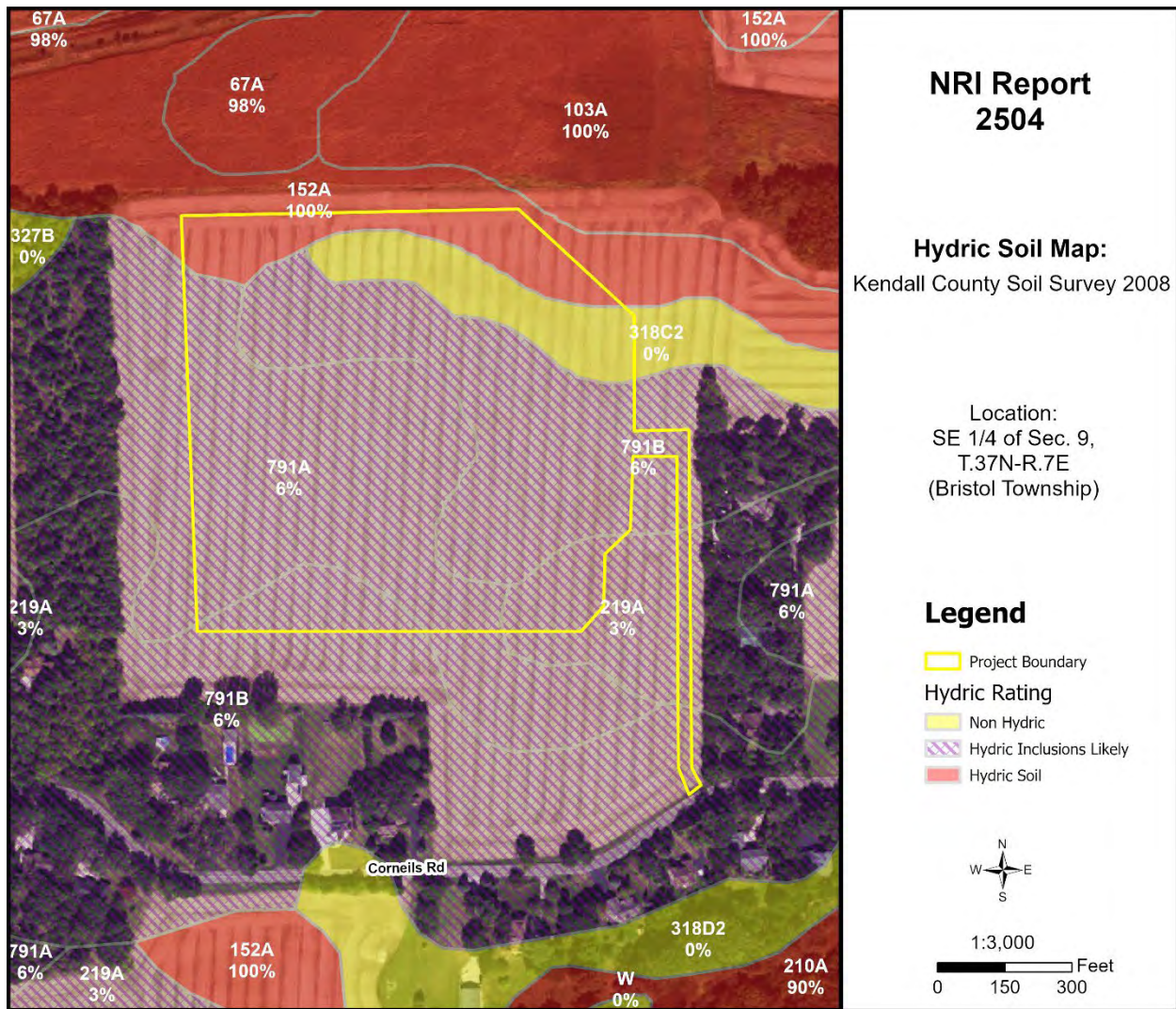


Figure 12: Hydric Soil Map

WETLAND AND FLOODPLAIN REGULATIONS

PLEASE READ THE FOLLOWING IF YOU ARE PLANNING TO DO ANY WORK NEAR A STREAM (THIS INCLUDES SMALL UNNAMED STREAMS), LAKE, WETLAND OR FLOODWAY.

The laws of the United States and the State of Illinois assign certain agencies specific and different regulatory roles to protect the waters within the State's boundaries. These roles, when considered together, include protection of navigation channels and harbors, protection against floodway encroachments, maintenance and enhancement of water quality, protection of fish and wildlife habitat and recreational resources, and, in general, the protection of total public interest. Unregulated use of the waters within the State of Illinois could permanently destroy or alter the character of these valuable resources and adversely impact the public. Therefore, please contact the proper regulatory authorities when planning any work associated with Illinois waters so that proper consideration and approval can be obtained.

WHO MUST APPLY?

Anyone proposing to dredge, fill, rip rap, or otherwise alter the banks or beds of, or construct, operate, or maintain any dock, pier, wharf, sluice, dam, piling, wall, fence, utility, floodplain or floodway subject to State or Federal regulatory jurisdiction should apply for agency approvals.

REGULATORY AGENCIES

- **Wetland or U.S. Waters:** U.S. Army Corps of Engineers, Chicago District, 231 South LaSalle Street, Suite 1500, Chicago, IL 60604. Phone: (312) 846-5530
- **Floodplains:** Illinois Department of Natural Resources - Office of Water Resources, One Natural Resources Way, Springfield, IL 62702-1270. Phone: (217) 782-6302
- **Water Quality/Erosion Control:** Illinois Environmental Protection Agency, 1021 North Grand Avenue East, P.O. Box 19276, Springfield, IL 62794-9276. Phone: (217) 782-3397

COORDINATION

We recommend early coordination with the regulatory agencies BEFORE finalizing work plans. This allows the agencies to recommend measures to mitigate or compensate for adverse impacts. Also, the agency can make possible environmental enhancement provisions early in the project planning stages. This could reduce time required to process necessary approvals.

CAUTION: Contact with the United States Army Corps of Engineers is strongly advised before commencement of any work in or near a Waters of the United States. This could save considerable time and expense. Persons responsible for willful and direct violation of Section 10 of the River and Harbors Appropriation Act of 1899 or Section 404 of the Clean Water Act are subject to fines ranging up to \$16,000 per day of violation, with a maximum cap of \$187,500 in any single enforcement action, as well as criminal enforcement.

GLOSSARY

AGRICULTURAL PROTECTION AREAS (AG AREAS) - Allowed by P.A. 81-1173. An AG AREA consists of a minimum of 350 acres of farmland, as contiguous and compact as possible. Petitioned by landowners, AG AREAS protect for a period of ten years initially, then reviewed every eight years thereafter. AG AREA establishment exempts landowners from local nuisance ordinances directed at farming operations, and designated land cannot receive special tax assessments on public improvements that do not benefit the land, e.g. water and sewer lines.

AGRICULTURE - The growing, harvesting and storing of crops including legumes, hay, grain, fruit and truck or vegetable including dairying, poultry, swine, sheep, beef cattle, pony and horse production, fur farms, and fish and wildlife farms; farm buildings used for growing, harvesting and preparing crop products for market, or for use on the farm; roadside stands, farm buildings for storing and protecting farm machinery and equipment from the elements, for housing livestock or poultry and for preparing livestock or poultry products for market; farm dwellings occupied by farm owners, operators, tenants or seasonal or year around hired farm workers.

BEDROCK - Indicates depth at which bedrock occurs. Also lists hardness as rippable or hard.

FLOODING - Indicates frequency, duration, and period during year when floods are likely to occur.

HIGH WATER TABLE - A seasonal high water table is a zone of saturation at the highest average depth during the wettest part of the year. May be apparent, perched, or artesian kinds of water tables.

- **Water table, Apparent:** A thick zone of free water in the soil. An apparent water table is indicated by the level at which water stands in an uncased borehole after adequate time is allowed for adjustment in the surrounding soil.
- **Water table, Artesian:** A water table under hydrostatic head, generally beneath an impermeable layer. When this layer is penetrated, the water level rises in an uncased borehole.
- **Water table, Perched:** A water table standing above an unsaturated zone. In places an upper, or perched, water table is separated from a lower one by a dry zone.

DELINEATION - For Wetlands: A series of pink or orange flags placed on the ground by a certified professional that outlines the wetland boundary on a parcel.

DETERMINATION - A polygon drawn on a map using map information that gives an outline of a wetland.

HYDRIC SOIL - This type of soil is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part (USDA Natural Resources Conservation Service 1987).

INTENSIVE SOIL MAPPING - Mapping done on a smaller more intensive scale than a modern soil survey to determine soil properties of a specific site, e.g. mapping for septic suitability.

LAND EVALUATION AND SITE ASSESSMENT (L.E.S.A.) - LESA is a systematic approach for evaluating a parcel of land and to determine a numerical value for the parcel for farmland preservation purposes.

MODERN SOIL SURVEY - A soil survey is a field investigation of the soils of a specific area, supported by information from other sources. The kinds of soil in the survey area are identified and their extent shown on a map, and an accompanying report describes, defines, classifies, and interprets the soils. Interpretations predict the behavior of the soils under different used and the soils' response to management. Predictions are made for areas of soil at specific places. Soils information collected in a soil survey is useful in developing land-use plans and alternatives involving soil management systems and in evaluating and predicting the effects of land use.

PERMEABILITY - Values listed estimate the range (in rate and time) it takes for downward movement of water in the major soil layers when saturated but allowed to drain freely. The estimates are based on soil texture, soil structure, available data on permeability and infiltration tests, and observation of water movement through soils or other geologic materials.

PIQ - Parcel in question

POTENTIAL FROST ACTION - Damage that may occur to structures and roads due to ice lens formation causing upward and lateral soil movement. Based primarily on soil texture and wetness.

PRIME FARMLAND - Prime farmland soils are lands that are best suited to food, feed, forage, fiber and oilseed crops. It may be cropland, pasture, woodland, or other land, but it is not urban and built up land or water areas. It either is used for food or fiber or is available for those uses. The soil qualities, growing season, and moisture supply are those needed for a well-managed soil economically to produce a sustained high yield of crops. Prime farmland produces in highest yields with minimum inputs of energy and economic resources and farming the land results in the least damage to the environment. Prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation. The temperature and growing season are favorable. The level of acidity or alkalinity is acceptable. Prime farmland has few or no rocks and is permeable to water and air. It is not excessively erodible or saturated with water for long periods and is not frequently flooded during the growing season. The slope ranges mainly from 0 to 5 percent (USDA Natural Resources Conservation Service).

SEASONAL - When used in reference to wetlands indicates that the area is flooded only during a portion of the year.

SHRINK-SWELL POTENTIAL - Indicates volume changes to be expected for the specific soil material with changes in moisture content.

SOIL MAPPING UNIT - A map unit is a collection of soil areas of miscellaneous areas delineated in mapping. A map unit is generally an aggregate of the delineations of many different bodies of a kind of soil or miscellaneous area but may consist of only one delineated body. Taxonomic class names and accompanying phase terms are used to name soil map units. They are described in terms of ranges of soil properties within the limits defined for taxa and in terms of ranges of taxadjuncts and inclusions.

SOIL SERIES - A group of soils, formed from a particular type of parent material, having horizons that, except for texture of the A or surface horizon, are similar in all profile characteristics and in arrangement in the soil profile. Among these characteristics are color, texture, structure, reaction, consistence, and mineralogical and chemical composition.

SUBSIDENCE - Applies mainly to organic soils after drainage. Soil material subsides due to shrinkage and oxidation.

TOPSOIL - That portion of the soil profile where higher concentrations of organic material, fertility, bacterial activity and plant growth take place. Depths of topsoil vary between soil types.

WATERSHED - An area of land that drains to an associated water resource such as a wetland, river or lake. Depending on the size and topography, watersheds can contain numerous tributaries, such as streams and ditches, and ponding areas such as detention structures, natural ponds and wetlands.

WETLAND - An area that has a predominance of hydric soils and that is inundated or saturated by surface or groundwater at a frequency and duration sufficient enough to support, and under normal circumstances does support, a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions.

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Noise Impact Considerations

Perivoliotis CSG - Samuel's Solar 2 LLC



Version 1
February, 2025

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Project Overview

Zepelak CSG is a community solar garden that will employ a fixed tilt solar array proposed in Kendall County, IL. The project will be developed on previously cropped and developed farm land. The total area will encompass approximately 20.1 acres.

The project will consist of three phases which could potentially cause noise pollution: (1) a construction phase of approximately 6-12 months, (2) a project lifetime of approximately 30-35 years, and (3) a decommissioning phase of approximately 20-25 weeks.

The following document is a preliminary analysis of potential noise caused by the three phases of this community solar project. The noise-causing equipment will be highlighted and analyzed for each phase of the project.

**The following document was prepared by Enterprise Energy LLC, a community solar developer and not a professional acoustic consultant. Data and information for this analysis was acquired by a 47 page Noise Impact Analysis performed by AECOM Environmental for a 250MW solar project in a similar developed farm landscape in Imperial County, California (1).*



Site Location and Design

Site Address: Zepelak Community Solar Garden,
Samuel's Solar 2 LLC
9318 Corneils Ave
Yorkville, IL
60560

Site Developer: Enterprise Energy LLC

Developer Contact: Dan Gorman

Tel: [REDACTED]



Project Design

For standard noise reduction practices, all construction and operating equipment during the project's lifetime will be located at least 50' from the parcel boundary. Decibel thresholds are measured at a distance of 50' from the sound source.

All diesel equipment should be operated with appropriate mufflers, and with engine doors closed.

Whenever possible, electrical power should be used in place of generators, to reduce noise.

Construction will occur only between 7:00 AM and 7:00 PM Monday through Friday, 9:00 AM to 5:00 PM on Saturdays, and no operation of equipment on Sundays

Any inverters located within 100' of a residence will be shielded with some type of structural barrier to reduce noise to less than 10dBA continuous noise level.

Facility components include:

1. PV modules and Single Axis Trackers
2. Inverters
3. Transformer
4. Switchgears



Noise Terminology and Thresholds

Noise is typically described as unwanted sound. Sound is mechanical energy transmitted as a wave through a fluid to a hearing organ. Sound is described by frequency and amplitude, that define pitch and loudness respectively. The audible frequency range for humans is 20Hz-20,000Hz.

Noise effects on humans range from annoyance to hearing impairment, depending on the pitch and loudness, which is defined in decibels (dB). A-weighted noise levels are decibel measurements, but weighted similarly to the Richter scale, to reflect how the human ear perceives sound. The human ear perceives loudness depending on the frequency of the sound, which is different from the purely physical wave intensity. All noise levels in this report are therefore reported in A-weighted decibels (dBA).

Typical Construction Noise Levels:

Table 4. Typical Construction Equipment Noise Levels

Type of Equipment	Range of Maximum Sound Levels Measured (dBA at 50 feet)	Suggested Maximum Sound Levels for Analysis (dBA at 50 feet)
Rock Drills	83-99	96
Jack Hammers	75-85	82
Pneumatic Tools	78-88	85
Pumps	74-84	80
Dozers	77-90	85
Scrapers	83-91	87
Haul Trucks	83-94	88
Cranes	79-86	82
Portable Generators	71-87	80
Rollers	75-82	80
Tractors	77-82	80
Front-End Loaders	77-90	86
Hydraulic Backhoe	81-90	86
Hydraulic Excavators	81-90	86
Graders	79-89	86
Air Compressors	76-89	86
Trucks	81-87	86
Pile Driver (Vermeer PD10) ¹	-	84

Source: Bolt, Beranek & Newman, 1987.

¹ Based on a 105.8 dBA at the operator's ear, as specified by Vermeer (2012). According to Mr. Dale Siever of Vermeer Sales Southwest, the operator's ear is approximately 4 feet from the part of the pile driver where noise is emitted. Therefore, based on the standard noise attenuation rate of -6 dBA per doubling of distance for point sources, noise from the pile driver would



Corona Noise

Corona noise is emitted when the intensity of an electric field surrounding a conductor exceeds the rating of its insulator, causing a dissipation of energy that may result in audible noise. Irregularities or water on the surface of the insulator surface can make audible corona noise more likely. Audible noise from conductors is more likely during wet weather. See below for a table of noise levels for wet transmission lines (the “worst-case scenario”).

Table 5. Transmission Line Voltage and Audible Noise Level

Line Voltage (kV)	Audible Noise Level Directly Below the Conductor (dBA)
138	33.5
240	40.4
356	51.0

kV = kilovolt

Sources: EPRI 1978, EPRI 1987

Vibration and Vibration Noise

Construction can also generate vibrations, defined as waves traveling through mass, such as soil. Vibrations from construction sources do not typically reach levels that could cause any structural damage to nearby residences or other structures. Damage could be possible depending on the construction activity, for structures within 25 feet of activity. Vibrations dissipate greatly due to dispersion and friction losses the further from the source of vibration, so keeping all residences at least 50 feet away from the project should eliminate any risk of vibration-borne damage.

Vibrations can, however, cause annoyance to humans. See the table below for effects of vibration on people and structures

Table 6. Effects on People and Structures at Various Vibration Levels

Vibration Level (in/sec ppv)	Effects on People	Effects on Structures
0.006-0.019	Threshold of perception; possibility of intrusion	Unlikely to cause damage of any type
0.08	Vibrations readily perceptible	Recommended upper level for ruins and ancient monuments
0.1	Threshold of annoyance	Virtually no risk of damage
0.2	Annoying to people in buildings	Threshold of risk of architectural damage to normal dwelling with plastered walls and ceilings
0.4-0.6	Considered unpleasant	Architectural damage and possibly minor structural damage

Source: Jones & Stokes 2004

Note: Caltrans considers most construction vibrations, with the exception of pile driving and blasting, to be continuous.



Table 7. Typical Construction Equipment Vibration Emissions

Equipment	Peak Particle Velocity (inches per second) ¹		
	At 25 feet	At 50 feet	At 100 feet
Clam Shovel Drop (slurry wall)	0.202	0.071	0.025
Vibratory Roller	0.210	0.074	0.026
Hoe Ram	0.089	0.031	0.011
Large Bulldozer	0.089	0.031	0.011
Caisson Drilling	0.089	0.031	0.011
Loaded Trucks	0.076	0.027	0.010
Jackhammer	0.035	0.012	0.004
Small Bulldozer	0.003	0.001	0.0004

Source: Federal Transit Administration: Transit Noise and Vibration Impact Assessment, 2006

¹ Bold values are considered an annoyance to people.

In keeping construction activities at least 50' from occupied residences, no vibrations that exceed annoyance levels will be experienced at neighboring properties.

Federal Noise Regulations

Federal noise regulations were developed following the recognition of noise impact on humans in the Noise Control Act of 1972.

The Occupational Safety and Health Administration agency (OSHA) limits noise exposure for workers to 90dB L_{eq} or less for 8 hours and 105 dB L_{eq} for 1 hour. Appropriate noise PPE shall be worn by all workers.

The EPA recommends that noise levels be limited to 55 dBA average over 24 hours, in order to protect human welfare. A 70 dBA average should not be exceeded in order to prevent hearing loss (2).

Illinois Pollution Board Regulations

The *Illinois Noise Related Statutes and Regulations* document (3) classifies our project as Industrial or Non-building Construction, corresponding to LBCS Function Code 7450. Using this LBCS code classifies our project as a Class C Land Use according to Illinois Pollution Control Board's *Environmental Protection Document: Subtitle H: Noise* (4).

The *Environmental Protection Document: Subtitle H: Noise* recommends daytime (6:00AM to 11:00PM) noise levels be limited to 58 dBA, except explosive noise which cannot exceed 107 dBA, when measured 25' from neighboring property lines. As construction activities will always be at a minimum 200' from neighboring residences, these limits are not likely to be exceeded. However, when construction begins, sound testing may be done at neighboring parcel lines to confirm levels are in compliance with both the EPA and the Illinois Noise Regulations.



Noise Impact:

Phase I: Construction Activities

Approximately 6-12 months

Initial development would begin with grading and building of the access road, followed by the establishment of temporary laydown areas, as designated by the final site plan. On this laydown area, equipment may include, but is not limited to: construction trailer, temporary restroom, parking area, material receiving and storage, recycling and waste area, construction power sources.

Daily road usage activities include, but are not limited to: delivery of construction equipment, project materials, and worker trips. Number of vehicles and workers expected could vary throughout the construction period.

Construction of the array may include, but is not limited to: grading, compacting, excavating. Equipment used for such activities may include, but is not limited to: backhoes, bulldozers, pile drivers, excavation equipment, as well as hand tools.

Equipment likely to generate the most noise (as seen in Table 4), are earth moving and pile-driving equipment, which generate approximately 85 dBA at 50 feet. This maximum noise level would last between 2-4 minutes at a time. Average noise levels during array construction would be around 75 dBA at 50 feet.

However, as our project is unlikely to require much, if any grading (other than for the 1250 foot access road), maximum and average noise levels during construction time would likely be lower than these “worst-case scenario” levels.

Equipment usage and construction activities will be limited to the hours of 7:00 AM to 7:00 PM Monday through Friday, 9:00 AM to 5:00 PM on Saturdays, and no operation of equipment on Sundays

Phase II: Operation

Approximately 30-35 years

Operational activities would generate low levels of noise, and be limited to daylight hours (when PV arrays operate), which is when other ambient noise is generally highest. Daily noise would come from operation of the inverter when electricity is being produced, the transformer, the small motors for the trackers, and potentially the corona noise from the feeder lines.

Inverter: The Solectria 250kW inverter is rated at 67 dBA at 10 feet, as per the manufacturer’s data spec sheet. Using sound attenuation inverse square law, noise levels at 50 feet would therefore be approximately 53 dBA. This is the maximum noise output of the inverter at 50 feet, so noise levels for residences more than 100 feet away would be considerably less. Furthermore, the maximum noise levels would only occur during daylight hours, so the 24-hour average noise level would be much less, and far below regulatory requirements.



Transformer: The exact model of transformer used for this project will be determined by the Utility that is responsible for our interconnection. However, average decibel levels for medium voltage transformers between 2001-2500 kVa, appropriate for our project size, are 62 dBA. This level is at 50 feet, and our transformers will be 100+ feet from any residence.

Single Axis Trackers: These small motors are what use power to slowly rotate the modules throughout the day to maximize solar input. The trackers rotate from -52° to +52° throughout the day, rotating roughly 1° every 3.5 minutes. The motors are stored in housing compartments, which greatly reduce the noise levels such that they should not have any significant effect on the overall project noise impact. Another possible source of noise would be the friction between the linkages between the tracker rods and the modules. Again, this noise will be insignificant (5).

Corona Noise: Feeder lines at this site are 12kV which is far below the minimum of 138kV listed in Table 5. As corona noise levels decrease with voltage, the noise emitted from the 12kV feeder line will likely be negligible.

Phase III: Decommissioning

Approximately 20-25 weeks

Decommissioning will likely consist of activities including but not limited to excavation, ground work, pile-driving, and most other activities also associated with project construction. Therefore levels of noise would be similar to those of construction, and will be below regulatory thresholds. Decommissioning should last only approximately 20-25 weeks.



Conclusion:

As no phase of project lifetime (construction, operation, or decommissioning) is likely to exceed federal or local regulatory thresholds when performed at the setbacks as designed in the site plan, this project does not plan any further noise mitigation efforts.



Sources

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Analysis of Glare

Enterprise Energy has analyzed the proposed Solar Facility in Bristol Township for its potential to cause glare visible from surrounding properties. Below is a summary of the methodology used to assess the potential for glare.

1. The site plan was assessed to determine the most likely areas for potential glare.
2. Three areas of occupancy within the area most likely to receive glare were then identified.
3. Utilizing the software PV GlareCheck the maximum theoretical glare at all three locations was established.
4. The results from the PV GlareCheck were then analyzed by our engineering team to correct for software assumptions that do not exist at this location.
5. Final results were determined.

Determination of Glare Prone Areas

The proposed solar facility has a fixed tilt solar array. It is composed of rows of solar panels that run from East to West. These solar panels are tilted to the South in order to capture the maximum amount of sun light. The area to the South of the solar array would be the most likely to experience glare as any reflection of the sun would be primarily directed Southward.

Points of Interest

Three points within the area mostly likely to experience glare were identified. The criteria used to select these points are as follows:

Point 1: This location is the closest residence to the solar facility.

Point 2: This location is the closest residence with the least existing screening to the solar facility.

Point 3: This location is a public right of way, and could be occupied by pedestrian and car traffic.

PV-GlareCheck Software Results

The results of the PV GlareCheck have been attached hereto. These results are considered the Maximum Theoretical glare at the three designated points. At all three locations the Maximum Theoretical glare is within allowable limits and demonstrates minimal glare potential to adjacent landowners or the public.

Analysis of Results

Pv-GlareCheck modeled the potential of glare at all three locations. At all three location there was either no potential for glare or minimal potential for glare. The maximum theoretical potential for glare at all three locations were within acceptable standards.

Closer analysis of the site-specific features and the glare results strongly suggest that there is no likelihood at all for glare at any of the three sites. PV-GlareCheck relies on certain universal standards needed to model the maximum theoretical glare. However, site specific conditions can radically reduce or eliminate glare.

Sunrise and Sunset Angle: Due to the short duration of potential glare shown in the PV-GlareCheck report at Site 1 and 3 the glare being shown is most certainly sunrise glare at Site 1 and unset glare at Site 3. PV-GlareCheck utilized a 5-degree angle at sunrise and sunset. At this particular site there are full-grown trees to the East and West of the solar array. The Sun will need to be visible over these trees before it can be reflected off of the solar array (approximately 7-9 degrees above horizon). As such, the brief duration of glare at both of these locations is likely not to materialize as the sun will be below the tree canopy during these times.

Screening: PV-GlareCheck has no ability to add intervening screening between the solar array and potential points of interest. This particular project includes planting substantial vegetative screening between the array and all neighboring residences. This screening would block glare from the solar array before it gets to any of the surrounding residences. In addition, much of the Southern portion is already screened by fully grown trees and already is not visible from the neighboring properties.

Final Results

The maximum theoretical potential glare from this project falls within accepted standards. Considering that several of the site-specific conditions will reduce or eliminate glare potential it is safe to say that glare will not be a hinderance to neighbors or the public at large. Glare will be monitored after construction to ensure its compliance with regulatory standards and good neighbor practices. Should glare be found after construction it is readily solvable through fence modification/slatting or other measures.



Glare Simulation Report

Bristol 100

User ID: lWIUCjYJ9LhgluHccsN3d5STGpE2

Project ID: iyRYIVTLAQxVfwhKdjTb

Simulation ID: ZCIRONA98127

Timestamp: 2025-04-18 16:22:23

Version Calculator: 0.9.9 (beta)

1. Overview Map

Figure 1: Overview map showing PV areas (blue) and detection points (red).

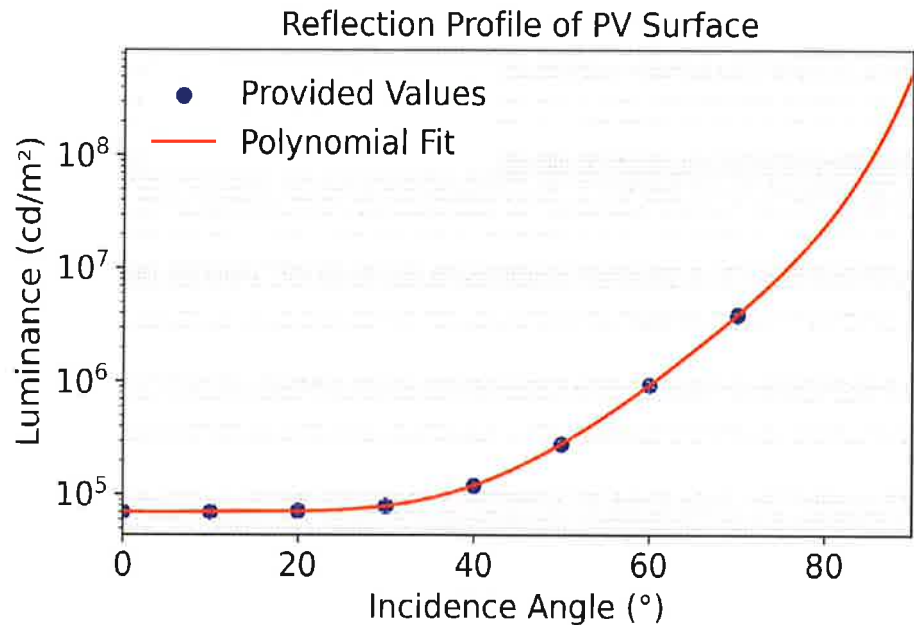


2. Simulation Parameters

Table 1: Simulation parameters used in the glare analysis.

Parameter	Value	Description
Resolution	5 min	Time resolution for simulations.
Sun Elevation Threshold	5°	Threshold for solar elevation: glare is only evaluated when the sun is above this angle.
Beam Spread	5.0°	Angular spread of the reflected beam.
Sun Angle	0.5°	Defines the apparent diameter of the sun as seen from Earth.
Sun Reflection Threshold	10.0°	Minimum angle between incident sunlight and its reflection, below which the glare from the sun itself dominates and renders the reflection irrelevant.
Intensity Threshold	30000 cd/m²	Minimum luminance threshold for a reflection to be considered relevant glare.
Module Type	Standard Module with ARC	Defines the type of photovoltaic module applied in the simulation.

Figure 2: Reflection profile as measured and fitted (values valid at 100,000 lux). The blue markers represent the provided values and the red line shows the polynomial fit. The y-axis is logarithmic.



3. Evaluation of Results

This evaluation is based on three key guidelines: the German LAI guideline (issued by the Bund/Länder-Arbeitsgemeinschaft für Immissionsschutz), the Austrian OVE guideline R 11-3 (2016), and the Swissolar guideline for photovoltaic systems in Switzerland. These guidelines provide thresholds for acceptable glare exposure at sensitive locations such as residential buildings or other protected areas.

To assess the potential impact of glare, we apply a traffic light system derived from the most restrictive limits defined in the guidelines:

Green: No or minor glare impact. This applies when glare at the detection point does not exceed 30 minutes per day and 30 hours per year. No further action is required.

Yellow: Moderate glare impact. This category meets the Swiss guideline but not the stricter German and Austrian thresholds. Glare is limited to a maximum of 30 minutes per day on any given day, up to 60 minutes per day on no more than 60 days per year, and up to 120 minutes per day on no more than 20 days per year (with a total not exceeding 50 hours annually). In this case, a more detailed assessment is recommended.

Red: Severe glare impact. All guideline thresholds are exceeded. Further analysis and the implementation of mitigation measures are strongly recommended.

The following table explains the traffic light system:

Table 2: Traffic light system for glare evaluation.

Color	Impact Level	Description
Green	No/Minor Glare	≤ 30 min/day and ≤ 30 h/year; no action needed.
Yellow	Moderate Glare	Within Swiss limits but exceeds LAI/OVE: ≤ 30 min/day (any day), ≤ 60 min/day (max 60 days/year), ≤ 120 min/day (max 20 days/year), total ≤ 50 h/year; further analysis recommended.
Red	Severe Glare	Exceeds all limits; further analysis and mitigation likely required.

The evaluation is based solely on the relevant glare effects identified during the calculations.

4. Summary of Results

This table summarizes the results for each detection point (DP).

Table 3: Summary of glare results per detection point.

DP Number	Max. Glare per Day (min)	Glare per Year (min)	Days with Glare	Days with >30 min Glare	Days with >60 min Glare	Days with >120 min Glare
1	5	45	9	0	0	0
2	0	0	0	0	0	0
3	25	790	44	0	0	0

5. Impact Level Assessment

Table 4: Impact level assessment for each detection point.

DP Number	Impact Level
1	No/Minor Glare
2	No/Minor Glare
3	No/Minor Glare

6. PV Areas Details

Table 5: Overview of PV areas with Azimuth and tilt.

PV Area	Azimuth (°)	Tilt (°)
PV AREA 1	176.5	29.5

Table 6: List of the original corner points of the PV areas.

PV Area	Latitude	Longitude	Ground Elevation (m)	Height Above Ground (m)
PV AREA 1	41.6929	-88.434489	198.5	3.5
PV AREA 1	41.692812	-88.438104	198.5	3.5
PV AREA 1	41.695038	-88.438151	198.5	2.5
PV AREA 1	41.695127	-88.43451	198.5	2.5

7. Detection Points (DPs) Details

Table 7: Details of detection points.

DP Number	Latitude	Longitude	Ground Elevation (m)	Height Above Ground (m)
1	41.691664	-88.43763	196.8	1.5
2	41.691592	-88.436718	197	1.5
3	41.691461	-88.434112	197	1.5