

NARRATIVE and BURDEN OF PROOF

- Application:** Commercial Solar Energy Facility (“CSEF”) – Special Use Permit
- Project Proposal:** The Applicant is proposing to construct a 35-acre commercial solar energy facility for the purpose of generating electric power from the sun on a 37-acre tract of land. The commercial solar energy facility will consist of solar panels, racking, foundation piles, inverters, and overhead poles and lines.
- Applicant:** North Pana Solar, LLC (the “Applicant”)
- Property Owner:** Connie Knappmiller and Kathy Boren
- Location:** The property is located along N. 2400 East Road, approximately 2,000 feet north of the intersection of E. 400 North Road and N. 2400 East Road, Section 9, Township 11N, in Pana Township (the “Property”).
- Parcel Number:** Christian County Parcel Number 11-25-09-400-004-00
- Zoning:** AG-1 Agricultural
- Attachments:** Attachment 01 – Zoning Application Form
Attachment 02 – Zoning Site Plan
Attachment 03 – Executed AIMA
Attachment 04 – State Historic Preservation Office Consultation Letter
Attachment 05 – Illinois Department of Natural Resources EcoCAT
Attachment 06 – Decommissioning and Deconstruction Plan

Applicable Review and Decision Criteria

On November 21, 2017, Christian County adopted an ordinance regulating solar energy facilities (ordinance number 02017ZN012) pursuant to the authority granted under Illinois Compiled Statutes (ILCS) Chapter 55 Counties Division 5-12 Zoning. As provided in Appendix B of the Christian County Zoning Code (amended and revised June 26, 2023), this ordinance regulating solar energy facilities was last revised on December 15, 2020.

On January 27, 2023, the 102nd Illinois General Assembly passed House Bill 4412 (HB 4412), which was signed into law as P.A. 102-1123. This House Bill, among other things, amended ILCS Chapter 55 Counties Division 5-12 Zoning and provided parameters for Counties to regulate “commercial solar energy facilities”. Of note, 55 ILCS 5/5-12020(d) states “a county with an existing zoning ordinance in conflict with [55 ILCS 5/5-12020] shall amend that zoning ordinance to be in compliance with [55 ILCS 5/5-12020] within 120 days after the effective date of this amendatory Act of the 102nd General Assembly”. Pursuant to 55 ILCS 5/5-12020(d), because Christian County had an existing ordinance that included more restrictive requirements than allowed by HB 4412, the County had 120 days after the effective date of HB 4412 to amend its ordinance. Christian County did not amend its solar ordinance within 120 days (May 27, 2023), or thereafter, and therefore, the County cannot place any restrictions on the installation of a commercial solar energy facility. *See* 55 ILCS 5/5-12020(g).

It is also stated in 55 ILCS 5/5-12020(b) that a County may adopt a zoning ordinance that regulates commercial solar energy facilities; however, “the standards may include the requirements specified in [55 ILCS 5/5-12020] but may not include requirements...that are more restrictive” than specified in the aforementioned Section.

55 ILCS 5/5-12020(a) defines a “commercial solar energy facility” as follows:

“A commercial solar energy system as defined in Section 10-720 of the Property Tax Code. “Commercial solar energy facility” does not mean a utility-scale solar energy facility being constructed at a site that was eligible to participate in a procurement event conducted by the Illinois Power Agency pursuant to subsection (c-5) of Section 1-75 of the Illinois Power Agency Act.”

35 ILCS 200/10-720 defines “commercial solar energy system” as follows:

“Any device or assembly of devices that (i) is ground installed and (ii) uses solar energy from the sun for generating electricity for the primary purpose of wholesale or retail sale and not primarily for consumption on the property on which the device or devices reside.”

North Pana Solar, LLC (the “**Applicant**”) proposes to construct a ground mounted solar energy system for the purpose of generating electricity from the sun. The primary purpose is for the wholesale or retail sale of electricity and not for consumption on the Property. As a result, the proposed system is a commercial solar energy facility (“**CSEF**”).

Notwithstanding the foregoing, the Applicant respectfully submits this land use application to Christian County for a CSEF. While it is the Applicant's position that the County does not currently have an enacted ordinance to regulate a CSEF, as described above, the Applicant intends to work with the County to ensure compliance with the parameters of the state statute, where applicable. In addition, the Applicant has reviewed the Christian County ordinance for siting regulations relating to ground mounted solar facilities, which is found in Christian County zoning code Appendix B, Article V Division I (Agricultural Ag-1 District), and Article XI Division III (Special Use Permits), and is shown in italic text below. The Applicant has provided a response following each item below in plain text.

Notably, 55 ILCS 5/5-12020(g) states:

“A request for siting approval or a special use permit for ... a commercial solar energy facility... *shall be approved* if the request is in compliance with the standards and conditions imposed in this Act, the zoning ordinance adopted consistent with this Code, and the conditions imposed under State and federal statutes and regulations.” (Emphasis added).

As demonstrated in this narrative and its associated attachments, the proposed CSEF meets the requirements 55 ILCS 5/5-12020 *et seq.*, the requirements of Christian County Appendix B that are consistent with state law, and all other applicable sections of the Christian County zoning code. As a result, we respectfully request approval of this application.

Christian County Zoning Code - Ordinance # 02017ZN012 – Appendix B

Authority: This ordinance is adopted pursuant to authority granted by ILCS Chapter 55 Counties Division 5-12 Zoning and Section 5/51063 Building Construction, Alteration, Maintenance.

FINDING: As stated above, the Christian County zoning code and solar energy ordinance was not updated to demonstrate compliance with the new 2023 statutes as found in 55 ILCS 5/5-12 Zoning *et seq.* Specifically, 55 ILCS 5/5-12020(d) states “a county with an existing zoning ordinance in conflict with [55 ILCS 5/5-12020] shall amend that zoning ordinance to be in compliance with [55 ILCS 5/5-12020] within 120 days after the effective date of this amendatory Act of the 102nd General Assembly”.

Pursuant to 55 ILCS 5/5-12020(d), because Christian County had an existing ordinance that included more restrictive requirements than allowed by HB 4412, the County had 120 days after the effective date of HB 4412 to amend its ordinance. The County did not amend its solar ordinance within 120 days (May 27, 2023), or thereafter, and therefore, the County cannot place any restrictions on the installation of a commercial solar energy facility. *See* 55 ILCS 5/5-12020(g).

Purpose: The purpose of this ordinance is to preserve and protect public health and safety without significantly increasing the cost or decreasing the efficiency of a solar energy facility and to allow for the orderly development of land, protect property values and esthetic conditions

within the county. This ordinance does not repeal, abrogate, annul, impair, or interfere with any existing ordinance.

FINDING: The proposed CSEF fulfills this purpose to preserve and protect public health and safety, to allow for the orderly development of land, and to protect property values and esthetic conditions.

Applicability: This ordinance applies to all unincorporated lands within the boundaries of Christian County.

FINDING: The Property is in unincorporated Christian County.

Standards – Location: A solar energy facility may only be located in areas that are zoned AG-1 Agriculture or 1-2 Industrial with special use and building permits.

FINDING: 55 ILCS 5/5-12020(h) states “a county may not adopt zoning regulations that disallow, permanently or temporarily...commercial solar energy facilities from being developed or operated in any district zoned to allow agricultural or industrial uses”. As confirmed by the County, the Property is in the AG-1 Agriculture zoning district and is thus permitted as a special use in accordance with Christian County’s zoning ordinance and state law.

Standards – Setbacks: (a) Setbacks will be in accordance with Section of the zoning ordinance. (b) Improved areas shall be at least 200 feet from any residence or church, measured from the principle building in a non-residential area. Improved areas shall be 50 feet from a residence or church, measured from the property line in a residential area.

FINDING: 55 ILCS 5/5-12020(e) states “a county may require... a commercial solar energy facility to be sited as follows”:

Setback Description	Setback Distance
Occupied Community Buildings and Dwellings on Nonparticipating Properties	150 feet from the nearest point on the outside wall of the structure
Boundary Lines of Participating Property	None
Public Road Rights-of-Way	50 feet from the nearest edge
Boundary Lines of Nonparticipating Property	50 feet to the nearest point on the property line of the nonparticipating property

The Christian County zoning code and solar energy ordinance has not been updated to demonstrate compliance with the new 2023 statutes as found in 55 ILCS 5/5-12 Zoning. Therefore, these setback requirements are not applicable to the proposed facility. However, the Applicant has implemented the setbacks provided in 55 ILCS 5/5-12020(e). These setbacks are included on the zoning site plan submitted with this application. The solar facility is setback at least 150 feet from the nearest point on the outside wall of any dwellings on non-participating properties; setback at least 50 feet from any public road rights-of-way; and, setback at least 50 feet from any boundary lines of a non-participating properties. Note there are no occupied community buildings on non-participating properties in the vicinity of the CSEF.

Standards – Security: (a) Solar energy facilities shall be fenced completely as defined above. The perimeter fence shall be designed to restrict unauthorized access, (b) An information, sign shall be posted and maintained at the entrance(s) which lists the name and phone number of the operator.

FINDING: The proposed facility will implement perimeter fencing as required by the national electric code. The perimeter fence will be at least seven feet tall and will include a locked gate. The proposed facility will include a sign posted and maintained at the entrance which lists the name and phone number(s) of the operator.

Standards – Equipment: (a) On site power lines between solar panels and inverters shall be placed underground. (b) The manufacturers or installer's identification and appropriate warning sign shall be posted on or near the panels in a clearly visible manner. (c) If the solar energy facility consists of batteries or storage of batteries, adequate design must be provided to ensure all local, state and federal requirements regulating outdoor battery storage have been met. (d) The manufacturers or installer's identification and appropriate warning sign shall be posted on or near the panels in a clearly visible manner.

FINDING: The Applicant entered into an Agricultural Impact Mitigation Agreement (AIMA) with the Illinois Department of Agriculture for the proposed solar facility, a copy of which is included with this application. The on-site power lines between solar panels and inverters will be placed underground to the extent required by the AIMA and/or the underlying agreement with the landowner. The manufacturers or installer's identification and appropriate warning sign(s) will be posted on or near the panels in a clearly visible manner. The proposed CSEF does not include batteries or storage of batteries.

Permit Requirements – Special Use Permit: A Special use permit approved by the County Board is required for each solar energy facility. See Christian County Zoning Ordinance for Information on Special Use Hearings.

FINDING: While it is the Applicant's position that the County does not currently have an enacted ordinance to regulate CSEFs, as described above, the Applicant intends to work with the County to ensure compliance with the parameters of the state statute, where applicable.

Permit Requirements – Building Permit: A building permit is required for the installation of each solar energy facility. The building permit fee will be \$15,000.00 for first 2 Mega Watts and \$1,750.00 per Mega Watt after first 2 Mega Watts.

FINDING: The Applicant acknowledges a building permit is required for the installation of a solar energy facility and the Applicant will pay the appropriate building permit fee.

Permit Requirements – Expiration: A Special Use permit issued pursuant to this ordinance expires if: (a) The solar energy facility is not installed and functioning within 2 years from the date the permit is issued; or (b) The solar energy facility is out of service or otherwise unused for a continuous 12-month period. Board may grant extensions to the 2 year deadlines based on hardship conditions.

FINDING: It is the Applicant's position that the County does not currently have an enacted ordinance to regulate commercial solar energy facilities. However, the Applicant acknowledges the timeline specified.

Permit Requirements – Fees: (a) The application for a Special Use permit must be accompanied by the fee required for each solar energy facility. (b) The application for a building permit must be accompanied by the fee required for each solar energy facility. (c) Fee amount for Hearing on Siting of a Solar Farm \$3000.00

FINDING: The Applicant acknowledges the application for a special use permit must be accompanied by the fee required, the application for a building permit must be accompanied by the fee required, and the fee amount for a hearing on the siting of a solar farm is \$3,000.00.

Permit Requirements – Financial Assurance: (a) Reasonable evidence of financial ability to construct the solar energy facility as determined by the County Board is a condition precedent to the issuance of any special use or building permit under this ordinance, (b) Christian County shall require a performance bond or surety bond financial assurance to Christian County for each solar energy facility that guarantees the performance of the restoration requirement set forth.

FINDING: (a) Reasonable evidence of financial ability to construct the solar energy facility is a criterion that is more restrictive than provided in state statute. It is stated in 55 ILCS 5/5-12020(b) that a County may adopt a zoning ordinance that regulates commercial solar energy facilities; however, “the standards may include the requirements specified in [55 ILCS 5/5-12020] but may not include requirements...**that are more restrictive**” than the aforementioned section (emphasis added). There is nothing in the state statute that requires the Applicant to provide the County with reasonable evidence of financial ability to construct the solar energy facility, and therefore, this criterion is more restrictive than the state statute. As a result, this criterion is not applicable to the proposed use.

(b) The Applicant entered into an AIMA with the Illinois Department of Agriculture. Please see Attachment 03 included with this application. Section 17 of the AIMA pertains to “Deconstruction Plans and Financial Assurance of Commercial Solar Energy Facilities”. As required by AIMA Section 17(C), prior to commencement of construction, the Applicant will provide a deconstruction plan to the County. Section 17(D) requires the facility owner to provide the County with financial assurance to cover the estimated costs of deconstruction of the facility. The Applicant will provide Christian County with a bond or other financial assurance to cover the estimated costs of deconstruction of the facility as outlined in the AIMA. The Applicant will be in full compliance with the requirements of the AIMA and the underlying agreement. The Decommissioning and Deconstruction Plan prepared by an IL licensed Professional Engineer is included with this application as Attachment 06.

Restoration Requirement – Abandonment: A solar energy facility that is out of service for a continuous 12-month period will be deemed to have been abandoned or if property owner does not receive payments after this period of time, The Code Administrator may issue a Notice of Abandonment to the owner of a solar energy facility that is deemed to have been abandoned. The

Code Administrator WILL withdraw the Notice of Abandonment if the Board approves an extension based on hardship conditions.

FINDING: The Applicant entered into an AIMA with the Illinois Department of Agriculture. The AIMA includes requirements for abandonment of the proposed solar facility. Section 17(F) of the AIMA states “upon abandonment, the County may take all appropriate actions for deconstruction including drawing upon the financial assurance” provided by the Applicant. The Applicant will be in full compliance with the requirements of the AIMA and the underlying agreement.

Restoration Requirement – Termination: The owner of a solar energy facility shall provide the Code Administrator with a Written Notice of Termination of Operations if the operation of a solar energy facility is terminated,

FINDING: The Applicant will inform the appropriate authorities having jurisdiction in the event the operation of the solar facility is terminated.

Restoration Requirement – Physical Removal: Within 12 months of receipt of Notice of Abandonment or within 12 months of providing Notice of Termination of Operations, the owner of a solar energy facility must: (a) Remove all solar panels, above ground improvements, and outdoor storage; (b) Remove all foundations, pads, and underground electrical wires to a depth of 4 feet below the surface of the ground; and (c) Remove all hazardous material from the property and dispose of the hazardous material in accordance with federal and state law.

FINDING: The Applicant entered into an AIMA with the Illinois Department of Agriculture. Section 17(B) of the AIMA states 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”. The requirements for deconstruction and removal of the proposed facility are included in Section 17 of the AIMA. The Applicant will be in full compliance with the requirements of the AIMA and the underlying agreement.

Restoration Requirement – Failure to Comply: Failure to comply with any of the conditions or restrictions imposed on a Special Use permit shall be deemed a violation of the Zoning Ordinance.

FINDING: The Christian County zoning code and solar energy ordinance has not been updated to demonstrate compliance with the new 2023 statutes as found in 55 ILCS 5/5-12 Zoning. Therefore, the County cannot place any restrictions on the installation of a commercial solar energy facility, as discussed in the opening paragraphs of this narrative. Notwithstanding the foregoing, the Applicant fully intends to comply with the restoration requirements contained in the AIMA and the underlying agreement.

Restoration Requirement – Appeals: All Code Administrator determinations may be appealed to the Board.

FINDING: The Applicant acknowledges all code administrator determinations may be appealed to the Board.

Special Use Permits Procedure – Application: Special Use permit applications shall be submitted to the Code Administrator. The application must be on a form approved by the Code Administrator and must be accompanied by 25 copies of a scaled drawing, other descriptive information sufficient to enable the Committee and Board to determine whether the requirements of this ordinance will be satisfied, and such other information as may be specified on the application form. The Code Administrator will review the application materials for completeness and may request that the applicant provide additional information. When the Code Administrator determines that the application is complete, the Code Administrator will forward it to the Committee and Board. A copy of the application to the utility company that will be purchasing electricity from the proposed site shall be provided.

FINDING: Please refer to the Applicable Review and Decision Criteria section of this Narrative. Notwithstanding the foregoing, the Applicant respectfully submits this request for a special use permit.

Special Use Permits Procedure – Hearing: The Committee and Board will conduct a hearing on the application within 60 days after application submittal and minimum 15-day public notice. The public meeting and hearing both Committee and Board will submit recommendations and finding of facts to the County Board,

FINDING: 55 ILCS 5/5-12020(c) states “... before the county grants siting approval or a special use permit for... a commercial solar energy facility... the county board of the county in which the facility is to be sited or the zoning board of appeals for the county shall hold at least one public hearing. The public hearing shall be conducted in accordance with the Open Meetings Act and shall be held not more than 45 days after the filing of the application for the facility... The county shall make its siting and permitting decisions not more than 30 days after the conclusion of the public hearing.” The Applicant respectfully requests the County to adopt the timeline for a public hearing provided in the state statute.

Special Use Permits Procedure – Special Use Permits: The County Board may grant a special use permit if it determines that the requirements of this ordinance are met and that granting the permit will not unreasonably interfere with the orderly land use and development plans of the county. Both the Board and County Board may include conditions in the permit as provided if those conditions preserve or protect the public health, safety and property values. Both the Board and County Board may consider the following factors when setting conditions:

(c) *Proposed ingress and egress.*

FINDING: The proposed ingress and egress to the Property for the CSEF is shown on the Zoning Site Plan submitted with this application.

(d) *Proximity to transmission lines to link the system to the electric power grid,*

FINDING: The existing power line and point of interconnection to the electric power grid is shown on the Zoning Site Plan submitted with this application.

(e) *Number of solar panels and their location.*

FINDING: The proposed location for the solar panels is shown on the Zoning Site Plan submitted with this application. This is a preliminary layout and that may be modified after additional due diligence is conducted on the Property. The final number of solar panels will be determined based upon what is available in the market at the time the equipment is procured. At the time of this application, the estimated number of solar panels is approximately 12,480.

(f) *Nature of land use on adjacent and nearby properties.*

FINDING: The nature of land use on adjacent and nearby properties is not a criteria for approval included in the state statutes regulating CSEF facilities, or of the AIMA agreement with the Illinois Department of Agriculture. Nonetheless, the surrounding properties are primarily agricultural and industrial. There is farmland to the north, east, south, and west. The Property is surrounded by high voltage transmission lines. There is a single-family home to the east, next to a high voltage electric substation and communication towers.

(g) *Location of other energy systems in the surrounding area.*

FINDING: The Applicant is not aware of any other CSEF in the surround area. However, there is a high voltage transmission substation located directly across the street adjacent to the subject Property. In addition, there are high voltage transmission lines that abut the north property line and the south property line of the subject Property.

(h) *Surrounding topography.*

FINDING: The surrounding topography is shown on the Zoning Site Plan submitted with this application.

(i) *Proximity to residential structures, residential zoning districts, or areas identified for future residential use.*

FINDING: The proximity to residential structures is regulated by state statute. 55 ILCS 5/5-12020(e) states “a county may require... a commercial solar energy facility to be sited as follows”:

Setback Description	Setback Distance
Occupied Community Buildings and Dwellings on Nonparticipating Properties	150 feet from the nearest point on the outside wall of the structure

As provided, a County may require the solar energy facility to be located 150 feet from the nearest wall of a dwelling. The Christian County zoning code and solar energy ordinance has

not been updated to demonstrate compliance with the new 2023 statutes as found in 55 ILCS 5/5-12 Zoning. As a result, the County does not have an ordinance that requires the solar facility to be setback 150 feet from a residential structure.

Notwithstanding the foregoing, the solar facility is sited to be setback 150 feet from the nearest point on the outside wall of any dwelling. This setback is demonstrated on the Zoning Site Plan submitted with this application.

(j) Design characteristics that may reduce or eliminate visual obtrusiveness.

FINDING: This criterion is more restrictive than the requirements contained in state statute or in the AIMA. As a result, this regulation is not applicable. Nonetheless, the proposed facility will implement the setback distances in the state statute.

(k) Possible adverse effects on animals and wildlife,

FINDING: The natural resource review provided by EcoCAT (Ecological Compliance Assessment Tool) for the proposed facility was received from the Illinois Department of Natural Resources (IDNR) on February 27, 2023. As stated in the letter, the Illinois Natural Heritage Database showed the protected Franklin’s Ground Squirrel may be in the vicinity of the project location. An IDNR staff member further evaluated this potential, and provided a follow-up letter dated March 3, 2023, that stated the “Department has evaluated this information and concluded that adverse effects are unlikely. Therefore, consultation... is terminated.” As a result, no further action is necessary. A copy of both letters received from IDNR are submitted with this application as Attachment 05.

(l) Possible adverse effects of stray voltage, interference with broadcast signals, and noise.

FINDING: The Applicant does not anticipate any adverse effects of stray voltage, interference with broadcast signals, and noise. Regarding noise, the proposed facility will be designed to comply with the sound limitations established by the Illinois Pollution Control Board (“IPCB”) standards under 35 Illinois Administrative Code Parts 900, 901, and 910.

(m) Impact on the orderly development, property values, and esthetic conditions within the county.

FINDING: The impact on orderly development, property values, and esthetic conditions within the county are not considerations allowed by state statute. 55 ILCS 5/5-12020(k) states “A county may not condition approval of a... commercial solar energy facility on a property value guarantee”. Therefore, the County may not base decisions to grant siting approval on these conditions. Notwithstanding the foregoing, the proposed facility supports the orderly development of the area, increases the property taxes for the Property, and does not affect esthetic conditions any more than existing conditions on the Property and on surrounding properties.

(n) *Map of surface drainage patterns.*

FINDING: There are no known drainage tiles on the Property. Prior to commencement of construction of the proposed CSEF, the location of potential drainage tiles will be reviewed. The standards for rerouting and/or repairing agricultural drainage tiles, if required, will be completed in accordance with the standards and policies contained in the AIMA and the agreement with the landowner.

(o) *Drainage tile map.*

FINDING: There are no known drainage tiles on the subject Property. Prior to commencement of construction of the proposed CSEF, the location of potential drainage tiles will be reviewed. The standards for rerouting and/or repairing agricultural drainage tiles, if required, will be completed in accordance with the standards and policies contained in the AIMA and the agreement with the landowner.

(p) *All State Drainage Laws must be followed.*

FINDING: The Applicant acknowledges all state drainage laws must be followed. The CSEF will be constructed and operated in compliance with all local, state, and federal laws and regulations.

(q) *Any other factors relevant to proposed system.*

FINDING: The CSEF is a self-contained facility that will have no anticipated adverse impacts beyond the perimeter fence of the facility.

(r) *[blank]*

FINDING: This criterion is blank.

(1) *Recommendations of any aggrieved parties that may be affected by the solar energy facility.*

FINDING: 55 ILCS 5/5-12020(g) states:

“A request for siting approval or a special use permit for ... a commercial solar energy facility... *shall be approved* if the request is in compliance with the standards and conditions imposed in this Act, the zoning ordinance adopted consistent with this Code, and the conditions imposed under State and federal statutes and regulations.” (Emphasis added).

The recommendations of any aggrieved parties that may be affected by the solar energy facility is not applicable because it is not allowed under state statute. As referenced above, the state statute provides that siting approval shall be approved if the request is in

compliance with the state statute. Notwithstanding the foregoing, the CSEF is a self-contained facility that will have no anticipated adverse impacts beyond the perimeter fence of the facility.

- (2) *Also if any damage done to any existing field tile with installation of panels or fencing it would be repaired immediately,*

FINDING: Any damage done to any existing field tile with installation of panels or fencing will be completed as quickly as possible in accordance with the standards and policies contained in the AIMA, the agreement with the landowner, and state drainage code.

- (3) *That there would be a weed control plan for inside and outside of the fenced in property.*

FINDING: Section 15 of the AIMA provides regulations for weed/vegetation control for the proposed CSEF. The Applicant will implement these standards in the AIMA and control methods agreed to with the landowner alongside the CSEF.

Special Use Permits Procedure – Variances: The Board may consider variances to one or more of the factors, See Christian County Zoning Ordinance "Variances".

FINDING: The Applicant is not requesting a variance for the proposed facility.

Special Use Permits Procedure – Final Determination: The Committee and Board recommendations, finding of facts and any conditions will be recorded in the minutes and forwarded to the County Board for final determination.

FINDING: The Applicant acknowledges the committee and board recommendations, finding of facts and any conditions will be recorded in the minutes and forwarded to the county board for final determination.

Special Use Permits Procedure – Appeals: The County Board's decision to approve or reject the special use permit application may be appealed According to the Christian County Zoning Ordinance.

FINDING: The Applicant acknowledges the county board's decision may be appealed.

Building Permit Procedure

FINDING: This application is for the special use permit and is not for the building permit.

Signal Interference: The owner of a solar energy facility must take such reasonable steps as are necessary to prevent, eliminate, or mitigate any interference with cellular, radio or television signals caused by the solar energy facility.

FINDING: The Applicant does not anticipate any interference with cellular, radio or television signals caused by the CSEF. The proposed facility will be constructed and operated in accordance with all applicable local, state, and federal laws and regulations.

Violations: It is unlawful for any person to construct, install, maintain, modify, or operate a solar energy system that is not in compliance with this ordinance or with any condition contained in a special use or building permit issued pursuant to this ordinance. See applicable Zoning Ordinance, and ILCS sections.

FINDING: Please refer to the Applicable Review and Decision Criteria section of this Narrative. The proposed facility will be constructed and operated in accordance with all applicable local, state, and federal laws and regulations.

Administration and Enforcement – Administration: This ordinance shall be administered by the Code Administrator.

FINDING: Please refer to the Applicable Review and Decision Criteria section of this Narrative. The proposed facility will be constructed and operated in accordance with all applicable local regulations.

Administration and Enforcement – Entering Property: The Code Administrator may enter any property for which a special use or building permit has been issued under this ordinance to conduct an inspection to determine whether the conditions stated in the permit have been met as specified by statute, ordinance and code.

FINDING: Please refer to the Applicable Review and Decision Criteria section of this Narrative. The proposed facility will be constructed and operated in accordance with all applicable local regulations.

Penalties – Zoning Petty Offense: Maximum \$500 fine with each week violation continues uncorrected constituting a separate offense. Building - petty offense. Maximum \$500 fine with each week violation continues uncorrected constituting a separate offense.

FINDING: Please refer to the Applicable Review and Decision Criteria section of this Narrative. The proposed facility will be constructed and operated in accordance with all applicable local regulations.

Penalties – Enforcement: Nothing in this section shall be construed to prevent the county from using any other lawful means to enforce this ordinance.

FINDING: Please refer to the Applicable Review and Decision Criteria section of this Narrative. The proposed facility will be constructed and operated in accordance with all applicable local regulations.

County Highway and Township Road Agreements: Each solar energy facility shall have a written agreement with County Engineer and respective Township Highway Commissioner(s)

regarding use of county/township road, bridges and right-of-way. Performance/surety bonds or other financial assurance documents may be required to guarantee the performance of the road agreements before a building permit can be issued.

FINDING: The Property is bordered by N. 2400 East Road along the east property line. The Applicant will work in good faith to enter into a County Highway and/or Township Road Agreement regarding use of county/township road, bridges, and right-of-way. The Applicant is agreeable to the following condition of approval:

Prior to the commencement of construction of the proposed facility, and provided it is required by the authority having jurisdiction over said roads, the Applicant shall enter into a road use agreement with the authority having jurisdiction over any roads utilized by the Applicant during construction of the CSEF.

Related Rules and Regulations: Each solar energy system shall comply with all applicable local, state and federal requirements.

FINDING: Please refer to the Applicable Review and Decision Criteria section of this Narrative. The proposed facility will be constructed and operated in accordance with all applicable local, state, and federal laws and regulations.

Severability: The provisions of this ordinance are severable, and the invalidity of any section, subdivision, paragraph, or other part of this ordinance shall not affect the validity or effectiveness of the remainder of the ordinance.

FINDING: Please refer to the Applicable Review and Decision Criteria section of this Narrative. Notwithstanding the foregoing, the Applicant respectfully submits this Application to Christian County.

Decommissioning Plan – Elements: A. A decommission plan shall be required to ensure that facilities are properly removed after their useful life. Decommissioning of solar panels must occur in the event they are not in use for 12 consecutive months, the operating company and or the land owner have 12 months to complete the decommission plan or the county can grant an extension if needed or the county will take necessary decommission steps. The plan shall include provisions for removal of all structures (including equipment, fencing and roads) and foundations, restoration of soil and vegetation and a plan ensuring financial resources will be available to fully decommission the site. Decommissioning security financing shall be required by the county in order to assure the proper decommissioning of the site and in no instance shall the financial security be less than \$1,000.00 per acre. This security financing shall be in the form of a bond, The decommissioning plan and financial security must be presented to and accepted by the Christian County Board prior to the issuance of a building permit for the facility.

An update to this decommissioning plan should be submitted to the county every three years. In addition any decommissioning plan signed by the party responsible for decommissioning and the landowner (if different) shall be submitted with the application.

The county reserves the right to require additional information or components to the plan as the county deems necessary to ensure that an adequate proposal is in place to decommission the facility in its entirety and that adequate funds are available.

FINDING: The Applicant entered into an AIMA with the Illinois Department of Agriculture. Please see Attachment 03 included with this application. Section 17 of the AIMA pertains to “Deconstruction Plans and Financial Assurance of Commercial Solar Energy Facilities”. As required by AIMA Section 17(C), prior to commencement of construction, the Applicant will provide a deconstruction plan with the County. Section 17(D) requires the facility owner to provide the County with financial assurance to cover the estimated costs of deconstruction of the facility. The Applicant will provide Christian County with a bond or other financial assurance to cover the estimated costs of deconstruction of the facility as outlined in the AIMA. The Decommissioning and Deconstruction Plan prepared by an IL licensed Professional Engineer in accordance with the AIMA is included with this application as Attachment 06. The Applicant will be in full compliance with the requirements of the AIMA and the underlying agreement.

Decommissioning Plan – Review: The County Board shall approve the Plan after review that the decommission plan meets industry standards once as part of the application process.

FINDING: The Applicant will comply with the requirements of the AIMA and the underlying agreement with the landowner regarding AIMA Section 17 “Deconstruction Plans and Financial Assurance of Commercial Solar Energy Facilities”. The Decommissioning and Deconstruction Plan prepared by an IL licensed Professional Engineer is included with this application as Attachment 06.

Decommissioning Plan – Remedies: If the owner-or-operator fails at any point to comply with the approved plan, the.. County has the following remedies:

- A. The Applicant's, Owner's, or Operator's failure to materially comply with any of the above provisions shall constitute grounds for a revocation of the construction permit or default under this Ordinance. Approval of the special use for a solar energy facility shall be deemed conclusive evidence that the Applicant, Owner, or Operator has complied with the above provisions with respect to application for and approval of such special use or.*
- B. Prior to implementation of the existing County procedures for the resolution of such default(s), the appropriate County body shall first provide written notice to the Owner and Operator, setting forth the alleged default(s). Such written notice shall provide the Owner and Operator a reasonable time period, not to exceed 60 days, for good faith negotiations to resolve the alleged default(s) or,*
- C. If after the 60 (sixty) day period: (i) the Applicant, Owner, or Operator has not cured the alleged default, or (ii) the County determines in its discretion, that the parties cannot resolve the alleged default(s) within the good faith negotiation period, the existing Christian County Solar Energy Facilities Ordinance provisions in addressing the resolution of such default(s) shall govern.*

FINDING: The Applicant entered into an AIMA with the Illinois Department of Agriculture. The Applicant will be in full compliance with the requirements of the AIMA and the underlying agreement.

Christian County Zoning Code - Article V. Division I. – Agricultural Ag-1 District

Section 1-5-4 Special Uses.

The following uses may be permitted in the AG-1 District only upon the issuance of a special use permit in accordance with the provisions of Section 1-10-20 to provide for the location of special classes of uses which are deemed desirable for the public welfare within this district, but which are potentially incompatible with uses herein permitted in it, a classification of —special uses is hereby established.

Special Uses permitted in accordance with the provisions of 1-10-20.

FINDING: Please refer to the Applicable Review and Decision Criteria section of this Narrative. Notwithstanding the foregoing, the list of special uses in 1-5-4 does not include a CSEF. As provided above, Appendix B of the Christian County Zoning Code provides a commercial solar energy facility is permitted by special use permit in the AG-1 Agriculture district.

1-5-5 REQUIRED LOT AREA. Each dwelling structure shall be located on a lot or tract in such manner as to comply with the yard regulations of this district, and such lot or tract shall have a minimum area of two (2) acres and a minimum width at the setback or front yard line whichever is applicable, of one hundred fifty (150) feet with the following exceptions which shall be deemed to conform with the regulations of this district:

(A) Any dwelling existing at the time of passage of this Code.

(B) Lots or tracts of record at the time of passage of this Code, which are less than one (1) acre in area or less than one hundred fifty (150) feet in width, may be used for the erection of a single-family dwelling or two-family dwelling, provided that two (2) or more contiguous lots in common ownership of record at the time of passage of this Code shall be combined in one (1) parcel to approach the required area insofar as possible, that the intent of the yard regulations of this District be reasonably observed, and that the area or parcel so obtained is not reduced in transfer.

(C) This does not relieve any person from the duty to comply with the Illinois Plat Act or the Subdivision Code.

(D) Each dwelling structure shall be located on a lot or tract in such a manner as to comply with the yard regulations of this district, and such lot or tract shall have a minimum of two (2) acres and minimum width at the set back of front yard line whichever

is applicable, of one hundred fifty (150) feet with the following exceptions which shall be deemed to conform with the regulations

(E) In the event the special use permit encompasses an area greater than 20 acres, the applicant will provide a valid footprint (area in which the applicant intends to build). The applicant will pay an application fee and the County Zoning Administrator will provide the applicant a Checklist of additional required information. A copy of the footprint will be maintained as public record. In the event a footprint is modified, the applicant must provide an updated copy to the County Zoning Administrator within 10 days of an amendment. If the footprint expansion is greater than 40 acres, the applicant will be required to submit a new application fee. The County Clerk will also maintain a copy of the footprint and will confirm when processing renewable leases, that all renewable leases are within the documented footprint. Any leases found outside the footprint will not be processed and the applicant will be fined for the non-compliance with this Code. Non-compliant renewable leases will not be processed until the applicant has paid all fines and required application fees.

(F) All renewable leases filed with the County Clerk will be submitted within 10 days of the agreed contract date. The County Clerk can and will contact the property owner to confirm the existence of the contract and confirm the date of the agreement if deemed necessary. Any contract filed and found not compliant with this Code will be assessed a fine and renewable lease will not be processed until the applicant has paid all fines incurred.

FINDING: The proposed use does not include a dwelling. A zoning site plan that demonstrates compliance with the applicable property line setbacks included in state law and the proposed footprint of the solar array is included with this Application. This criterion is met.

1-5-6 HEIGHT REGULATIONS. No dwelling shall exceed thirty (30) feet in height unless each side yard is increased over the required minimum by five (5) feet for every five (5) feet or fraction thereof of additional height over thirty (30) feet. In no case shall the building height exceed fifty (50) feet. Dwellings shall not have a height of less than eight (8) feet over a majority of the area of the ground floor.

FINDING: The proposed use does not include a dwelling. This criterion is not applicable.

1-5-7 YARDS REQUIRED. Except as required in the Setback Regulations, no building shall be erected within fifty (50) feet of the right-of-way line of any public road or highway, nor within fifteen (15) feet, or one (1) foot for each foot of building height, whichever is the greater, of any lot-line.

FINDING: 55 ILCS 5/5-12020(e) states “a county may require... a commercial solar energy facility to be sited as follows”:

Setback Description	Setback Distance
----------------------------	-------------------------

Occupied Community Buildings and Dwellings on Nonparticipating Properties	150 feet from the nearest point on the outside wall of the structure
Boundary Lines of Participating Property	None
Public Road Rights-of-Way	50 feet from the nearest edge
Boundary Lines of Nonparticipating Property	50 feet to the nearest point on the property line of the nonparticipating property

The proposed facility is sited in accordance with the setback requirements of 55 ILCS 5/5-12020.

1-5-8 GROUND FLOOR AREA REQUIRED. One-story dwellings shall have a total ground floor area of not less than nine hundred eighty (980) square feet measured from the exterior faces of exterior walls, including utility rooms, but excluding open porches, garages, and terraces. Dwellings having more than one story shall have not less than eight hundred twenty-five (825) square feet of ground floor area measured as prescribed for one-story dwellings.

FINDING: The proposed use does not include a dwelling. This criterion is not applicable.

Christian County Zoning Code - Article XI. Division III. – Special Use Permits

1-11-20 SPECIAL USES BY PERMIT. This Code divides the County into various districts and permits in each district, as a matter of right, only those uses which are clearly compatible with one another. Certain other uses, because of their special operational or physical characteristics, may or may not have a detrimental impact on nearby permitted uses, depending upon their precise location, manner of operation, and other factors. Such "special uses" require careful case-by-case review, and may be allowed only by permission of the County Board. State Statute 55ILCS 5/5-12009.5

FINDING: Please refer to the Applicable Review and Decision Criteria section of this Narrative. The Christian County zoning code and solar energy ordinance has not been updated to demonstrate compliance with the new 2023 statutes as found in 55 ILCS 5/5-12 Zoning. The zoning district for the Property is AG-1 Agricultural. 55 ILCS 5/5-12020(h) states “A county may not adopt zoning regulations that disallow... commercial solar energy facilities from being developed or operated in any district zoned to allow agricultural... uses.” Notwithstanding the foregoing, the Applicant respectfully submits this request for a special use permit.

1-11-21 APPLICATION. Every applicant for special use permit shall submit to the Administrator, in narrative and graphics form on forms provided by the County, the items of information listed below. [Every special use permit application shall also be filed with the Christian County Soil and Water Conservation District as per State law, (See 70 ILCS Sec. 405/22.02a) and, if the land in question is within one and one-half (1 ½) miles of a municipality, with the Clerk of that municipality.] The Administrator shall promptly transmit the completed application, and any comments or recommendation he/she might wish to make, to the Board of Appeals. (NOTE: Filing fee required.)

ITEMS OF INFORMATION:

- (A) name and address of the applicant;*
- (B) name and address of the owner or operator of the proposed structure or use, if different from (A);*
- (C) nature of the proposed use, including type of activity, manner of operation, number of occupants or employees, and similar matters;*
- (D) location of the proposed use or structure, and its relationship to existing adjacent uses or structures;*
- (E) area and dimensions of the site for the proposed structure or use;*
- (F) existing topography of the site (USGS 10-foot contour data is acceptable), and proposed finished grade;*
- (G) existing and proposed screening, landscaping, and erosion control features on the site, including the parking area;*
- (H) height and setbacks of the proposed structure;*
- (I) number and size of the proposed dwelling units, if any;*
- (J) documentation of age and pictures to show proof of condition of proposed mobile home;*
- (K) number and location of proposed parking/loading spaces and access ways;*
- (L) identification and location of all existing or proposed utilities, whether public or private; and/or*
- (M) any other pertinent information that the Administrator may require.*

FINDING: For items A and B, the Applicant and owner/operator is North Pana Solar, LLC, 3519 NE 15th Ave. #106, Portland, OR 97212. For item C, the proposed use is a commercial solar energy facility, which will be an unmanned facility that generates approximately one vehicle trip per month. Items D through H are included on the attached site plan. Items I and J are not applicable to the proposed use. Items K and L are demonstrated on the attached site plan.

1-11-22 PUBLIC HEARING NOTICE: SPECIAL-USE. The Board of Appeals shall hold a public hearing on every special use permit application within a reasonable time after said application is submitted to them. At the hearing any interested party may appear and testify, either in person or by duly authorized agent or attorney. Notice indicating the time, date and place of the hearing, and the nature of the proposed special use, shall be given not more than thirty (30) nor less than fifteen (15) days before the hearing:

- (A) by first class mail to the applicant and by certified mail to all parties whose properties are adjacent to the property for which the special use permit is sought; and*
- (B) by publication in a newspaper of general circulation within the County.*

FINDING: The Applicant acknowledges the process outlined for a public hearing.

1-11-23 ADVISORY REPORT, FACTORS CONSIDERED. Within a reasonable time after the public hearing, the Board of Appeals shall submit its advisory report to the County Board. In deciding what its advice should be, the Board of Appeals shall consider the following factors:

(A) whether the proposed design, location, and manner of operation of the proposed special use will adequately protect the public health, safety and welfare, and the physical environment;

FINDING: The proposed use is designed and located in a manner that will adequately protect the public health, safety and welfare and the physical environment. As demonstrated the proposed use is in full compliance of the applicable state statutes regarding site of the facility.

(B) the effect the proposed special use would have on the value of neighboring properties and on the County's overall tax base;

FINDING: This criterion is specifically prohibited by state statute. 55 ILCS 5/5-12020(k) states "A county may not condition approval of a... commercial solar energy facility on a property value guarantee". Therefore, the County may not base decisions to grant siting approval on these conditions.

(C) whether there are any facilities near the proposed special use (e.g. schools, hospitals, etc.) that require special protection or consideration.

FINDING: There are no facilities near the proposed special use (e.g. schools, hospitals, etc.) that require special protection or consideration. Although it is not codified by Christian County, the proposed CSEF has implemented the setbacks provided in state statute. The state law includes the setbacks to protect facilities such as these. Therefore, because we meet the setbacks in the state statute, this criterion is met.

(D) The recommendation to the full County Board by the Board of Appeals can be : to Deny, Grant or Grant subject to conditions.

FINDING: The Applicant has demonstrated compliance with state statutes regarding siting the proposed CSEF. 55 ILCS 5/5-12020(g) states:

"A request for siting approval or a special use permit for ... a commercial solar energy facility... ***shall be approved*** if the request is in compliance with the standards and conditions imposed in this Act, the zoning ordinance adopted consistent with this Code, and the conditions imposed under State and federal statutes and regulations." (Emphasis added).

As a result, this application shall be approved.

(E) Four (4) members of a seven (7) member Board of Appeals shall constitute a quorum; and the affirmative vote of four (4) members shall be necessary to recommend any variation or modification to the County Board per State Statute 55ILCS 5/5-12009.5.

FINDING: Please refer to the Applicable Review and Decision Criteria section of this Narrative. The Christian County zoning code and solar energy ordinance has not been updated to demonstrate compliance with the new 2023 statutes as found in 55 ILCS 5/5-12 Zoning. Notwithstanding the foregoing, the proposed use is in full compliance of the statutory requirements for siting the facility.

1-11-24 ACTION BY COUNTY BOARD. The County Board shall act on every request for special use permit at its next regularly scheduled meeting following submission of the Board of Appeals' advisory report. The County Board may grant a special use permit by an ordinance passed by a simple majority vote of all members then holding office.

FINDING: The Applicant acknowledges the process for action by the County Board.

Conclusion: Based on the above, this application complies with the relevant criteria in 55 ILCS 5/5-12020 et seq. As a result, in accordance with 55 ILCS 5/5-12020(g), this application shall be approved.

Application: Commercial Solar Energy Facility – Special Use Permit

Project Proposal: The Applicant is proposing to construct a 35-acre commercial solar energy facility for the purpose of generating electric power from the sun on a 37-acre tract of land. The solar facility will consist of solar panels, racking, foundation piles, inverters, and overhead poles and lines.

Applicant: North Pana Solar, LLC (the “Applicant”)

The Special Use Permit Submission Checklist provided by Christian County is included below. The checklist items are in italic text followed by the Applicant’s response in plain text.

Special Use Permit Submission Checklist:

- 1. Description of the company (including parent company); description of the project and why the company has interest in Christian County.*

The Applicant is North Pana Solar, LLC, which is wholly owned by GreenKey Development, LLC.

- 2. Geographical location and total acreage of the project. Including initial project and any future expansion plans.*

The property is located along N. 2400 East Road, approximately 2,000 feet north of the intersection of E. 400 North Road and N. 2400 East Road, Section 9, Township 11N, in Pana Township. The Applicant is proposing to construct a 35-acre commercial solar energy facility for the purpose of generating electric power from the sun on a 37-acre tract of land. There are no future expansion plans.

- 3. Footprint of the project. (*Any deviation from the proposed footprint needs to be forwarded to the Zoning Administrator within five days of a change or subject to a fine.)*

The Applicant is proposing to construct a 35-acre commercial solar energy facility for the purpose of generating electric power from the sun on a 37-acre tract of land. The proposed footprint of the facility is shown on the site plan submitted with the Application.

- 4. Name and addresses of any bordering land owners or home owners impacted by the project.*

There will be no impact on neighboring land owners or home owners. The proposed use is a self-contained facility that will have no anticipated adverse impacts beyond the perimeter fence of the facility. 55 ILCS 5/5-12020(b) states that a County may adopt a zoning ordinance that regulates commercial solar energy facilities; however, “the standards may include the requirements specified in [55 ILCS 5/5-12020] but may not include requirements...that are more restrictive” than specified in the aforementioned Section. This requirement is more restrictive than permitted by state law and thus is not applicable to this application.

- 5. Complete financials – Balance sheet, Income statement, and cash flow of the project. Must highlight the gross and net benefit of the project.*

The proposed facility is a private development that will not include federal, state, or local funding. As a result, there is no requirement to disclose complete financials of the project, or the gross and net benefit of the project. 55 ILCS 5/5-12020(b) states that a County may adopt a zoning ordinance that regulates commercial solar energy facilities; however, “the standards may include the requirements specified in [55 ILCS 5/5-12020] but may not include requirements...that are more restrictive” than specified in the aforementioned Section. This requirement is more restrictive than permitted by state law and thus is not applicable to this application.

6. Projected gross and net benefit annually and for the total life of the project.

The proposed facility is a private development that will not include federal, state, or local funding. As a result, there is no requirement to disclose the gross and net benefit annually and for the total life of the project. 55 ILCS 5/5-12020(b) states that a County may adopt a zoning ordinance that regulates commercial solar energy facilities; however, “the standards may include the requirements specified in [55 ILCS 5/5-12020] but may not include requirements...that are more restrictive” than specified in the aforementioned Section. This requirement is more restrictive than permitted by state law and thus is not applicable to this application.

7. A list of all tax benefits and grants related to the project including but not limited to the Inflation Reduction Act, Production tax credit, small business grants etc.

55 ILCS 5/5-12020(b) states that a County may adopt a zoning ordinance that regulates commercial solar energy facilities; however, “the standards may include the requirements specified in [55 ILCS 5/5-12020] but may not include requirements...that are more restrictive” than specified in the aforementioned Section. This requirement is more restrictive than permitted by state law and thus is not applicable to this application.

8. List of all required permits and status of the permits (applied, pending etc.)

The Applicant anticipates a driveway permit from the County and/or the Township will be required to access the proposed facility on N. 2400 East Road. Prior to commencement of construction, the Applicant will be required to obtain a building permit from Christian County. This application for siting approval is the first step to obtain the access permit and the building permit.

9. Interconnection agreement status.

The Applicant has submitted an Interconnection Application to Ameren for the proposed facility. Ameren is in the advanced stages of their study process and has issued a Supplemental Review for the proposed facility. The Interconnection Agreement is anticipated to be received by the Applicant as soon as commercially practicable for Ameren.

10. Your estimated annual tax benefit to the county.

The proposed use is expected to increase the overall tax base. Per Illinois ILCS 200/10-720, the solar facility will be valued at \$218,000 per megawatt of nameplate capacity as of 2018. This valuation is indexed to 2018 and adjusted for inflation annually. The Illinois Department of

Revenue directs the chief county assessment officer to add an inflationary increase called a trending factor. The nameplate capacity for the proposed facility is 4.99 megawatts (alternating current).

11. Status of all studies and reports including but not limited to:

A. Environmental impact

The natural resource review provided by EcoCAT (Ecological Compliance Assessment Tool) for the proposed facility was received from the Illinois Department of Natural Resources (IDNR) on February 27, 2023. As stated in the letter, the Illinois Natural Heritage Database showed the protected Franklin’s Ground Squirrel may be in the vicinity of the project location. An IDNR staff member further evaluated this potential, and provided a follow-up letter dated March 3, 2023, that stated the “Department has evaluated this information and concluded that adverse effects are unlikely. Therefore, consultation... is terminated.” As a result, no further action is necessary. A copy of both of these letters received from IDNR are submitted with the Application.

B. Noise study

The proposed facility will be designed to comply with the sound limitations established by the Illinois Pollution Control Board (“IPCB”) standards under 35 Illinois Administrative Code Parts 900, 901, and 910. The IPCB regulations are based on octave band center frequency (Hertz), decibels of sound emitted, and land use classifications. The three land use classifications established by Part 901 are Class A (e.g., private households, housing services for the elderly, and hotels/motels), Class B (e.g., retail sales or services, banks, and restaurants) and Class C (e.g., manufacturing, heavy construction, and agriculture).

The proposed project is in an agricultural field (Class C), and the most restrictive sound emission regulations are for sounds emitted to residential land uses (Class A). To demonstrate compliance with the most restrictive limitations, the tables for maximum sound emissions on Class A land are provided below.

Section 901.102(a):

Section 901.102(a): Sound Emitted to Class A Land in Daytime Hours.			
Octave Band Center Frequency (Hertz)	Allowable Octave Band Sound Pressure Levels (dB) of Sound Emitted to any Receiving Class A Land from		
	Class C Land	Class B Land	Class A Land
31.5	75	72	72
63	74	71	71
125	69	65	65
250	64	57	57
500	58	51	51
1000	52	45	45
2000	47	39	39
4000	43	34	34

8000	40	32	32
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Section 901.102(b):

Section 901.102(b): Sound Emitted to Class A Land in Nighttime Hours.			
Octave Band Center Frequency (Hertz)	Allowable Octave Band Sound Pressure Levels (dB) of Sound Emitted to any Receiving Class A Land from		
	Class C Land	Class B Land	Class A Land
31.5	69	63	63
63	67	61	61
125	62	55	55
250	54	47	47
500	47	40	40
1000	41	35	35
2000	36	30	30
4000	32	25	25
8000	32	25	25

The only source of noise is from the inverter cooling fans that run on warm and sunny days. Considering solar projects only generate electricity during daylight hours, no noise is produced after sunset. The rated output frequency of inverters typical to the proposed project is 60 Hertz with an output frequency range of 57 to 63 Hertz, and the typical manufacturer specifications state audible noise is 65 decibels at one meter and 77 degrees Fahrenheit. At five meters (or less than seventeen feet), noise ratings from manufacturers for a typical inverter the project will use indicate that noise levels are comparable to the perceived ambient noise of a quiet rural or suburban setting at nighttime – about 35-40 decibels. As shown in the table above for Section 901.102(a), the maximum sound pressure level at 63 Hertz is 71 decibels. Therefore, the proposed solar facility emits far less noise than the decibel limits outlined in Part 901. This demonstrates the proposed solar facility complies with the most restrictive sound emission limitations found in Part 901.

Further, due to the placement of the inverters within the project area, any noise will be effectively obstructed and dissipated by the other project components such that the decibel level from inverter fan noise will be indistinguishable from ambient noise at any point beyond the project area. As a result, the sound emissions from the solar facility will be far less than the most restrictive limits required by Part 901. In addition, since the sound produced by the inverters is typically audible only by those located next to the inverter, the land use setback rules for neighboring properties provide further assurance that the project complies with all applicable noise emission standards. The proposed use, once installed, is relatively passive and remains that way during the life of the facility. None of the facility's remaining components actively produce any significant sound.

If required by the County, a third-party qualified professional will complete a noise study after the commercial solar energy facility is constructed and operational, which will confirm compliance with the IPCB sound limitations.

C. Historic preservation study

The Applicant engaged a private consultant to address the proposed facility's potential impacts on State-registered historic sites under the Illinois State Agency Historic Resources Preservation Act. The consultant submitted a consultation letter to the Illinois State Historic Preservation Office regarding the facility. Based on the consultant's research of the state archaeological database, there is no "area of high probability" for the occurrence of archaeological resources in the proposed project location. A copy of this consultation letter is included with the application.

D. Economic impact study

The proposed facility is similar to any real estate development. Prior to breaking ground on construction, the Applicant will engage professionals to complete several due diligence items to prepare the site for construction. Once construction begins, a significant number of contractors, electricians, and other professionals will work to construct the site. It is typical for a lot of this work to be completed by local professionals and contractors. In addition to the pre-construction and construction economic impacts, the proposed facility will increase the property tax base for the subject property for the lifetime of the solar facility. There is no doubt the proposed project will have a positive economic impact. At present, an economic impact study has not been conducted for the proposed facility. There is no nexus to provide an economic impact study in the Christian County code or in the state statutes relevant to the proposed use. In the event Christian County demonstrates a requirement to provide this study, the Applicant will provide the applicable information requested.

E. Property value report

55 ILCS 5/5-12020(k) states "[a] county may not condition approval of a... commercial solar energy facility on a property value guarantee". Notwithstanding the foregoing, Studies by licensed appraisers on the impacts of a solar facility on neighboring property values have shown that there is no or negligible impacts to property values. The criteria for making downward adjustments on property values such as appearance, noise, odor, and traffic all indicate that a solar farm is a compatible use in rural/residential areas.¹

Additionally, numerous studies found the impact of wind energy generation on neighboring property values to be negligible. As solar farms do not have the same impacts as wind farms (i.e., PV facilities do not cast a shadow on neighboring properties, cause light flicker or flashing, or have the same visual impact as wind farms), the impacts on property values caused by solar farms are anticipated to be much less than the impacts of wind farms.²

¹ Kirkland Appraisals, LLC, "Fox Solar Impact Study" (Raleigh, North Carolina, June 28, 2016).

² National Association of Realtors, "Field Guide to Wind Farms and Their Effect on Property Values" (Chicago, IL, 2017), <https://www.nar.realtor/field-guides/field-guide-to-wind-farms-their-effect-on-property-values>.

F. Satellite and Communication tower study

All solar facilities similar to the proposed facility are required to be approved by the Federal Aviation Administration (FAA) to ensure there is no adverse effect. 55 ILCS 5/5-12020(b) states that a County may adopt a zoning ordinance that regulates commercial solar energy facilities; however, “the standards may include the requirements specified in [55 ILCS 5/5-12020] but may not include requirements...that are more restrictive” than specified in the aforementioned Section. This requirement is more restrictive than permitted by state law and thus is not applicable to this application.

G. Ag impact mitigation

The Applicant entered into an Agricultural Impact Mitigation Agreement (AIMA) with the Illinois Department of Agriculture for the proposed solar facility. A copy of the AIMA agreement is included with the application. In addition, a Decommissioning and Deconstruction Plan will be implemented along with the proposed facility. There will be no impact on drainage flow for the subject property or neighboring properties due to the proposed facility through construction, operation, and deconstruction. The Applicant will implement the policies and regulations for drainage required by the AIMA as well as state drainage code.

H. Potential road use plan

The property is bordered by N. 2400 East Road along the east property line. The Applicant will access the property from N. 2400 East Road.

I. Decommissioning plan

The Applicant has entered into an AIMA with the Illinois Department of Agriculture. A copy of the AIMA agreement is included with the application. Section 17 of the AIMA pertains to “Deconstruction Plans and Financial Assurance of Commercial Solar Energy Facilities”. As required by AIMA Section 17(C), prior to commencement of construction, the Applicant will provide a deconstruction plan with the County. Section 17(D) requires the facility owner to provide the County with financial assurance to cover the estimated costs of deconstruction of the facility. The Applicant will provide Christian County with a bond or other financial assurance to cover the estimated costs of deconstruction of the facility as outlined in the AIMA. The Applicant will be in full compliance with the requirements of the AIMA and the underlying agreement

J. Please submit 18 copies of all required information requested above

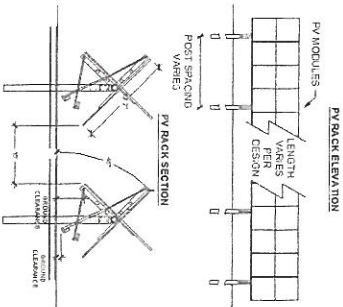
The Applicant will submit 18 copies of the full Application packet.



1 ZONING SITE PLAN
SCALE: 1" = 300'



2 VICINITY MAP
SCALE: N/A



3 PV RACK DETAILS (TYP)
SCALE: N/A

SITE DATA	
PARCEL NUMBER	11-25-09-000-001
OWNER	CONVEYANCE
CONTRACT NUMBER	2400 E ROAD
SITE ADDRESS	37 ACRES
PROJECT ADDRESS	35 ACRES
PROJECT ADDRESS	33 ACRES
PROJECT ADDRESS	31 ACRES
PROJECT ADDRESS	29 ACRES
PROJECT ADDRESS	27 ACRES
PROJECT ADDRESS	25 ACRES
PROJECT ADDRESS	23 ACRES
PROJECT ADDRESS	21 ACRES
PROJECT ADDRESS	19 ACRES
PROJECT ADDRESS	17 ACRES
PROJECT ADDRESS	15 ACRES
PROJECT ADDRESS	13 ACRES
PROJECT ADDRESS	11 ACRES
PROJECT ADDRESS	9 ACRES
PROJECT ADDRESS	7 ACRES
PROJECT ADDRESS	5 ACRES
PROJECT ADDRESS	3 ACRES
PROJECT ADDRESS	1 ACRES

LINE TYPE LEGEND	
(E) PAVED ROAD	---
(E) PROPERTY LINE	---
(E) BUILDING SETBACK LINE	---
COMPANY ACCESS ROAD	---
PV MODULES & RACKING	---
ELECTRICAL EQUIPMENT PAD	---
CHAIN LINK SECURITY FENCE	---
SETBACKS	---
RIGHT-OF-WAY	---
150' SETBACK	---

GENERAL NOTES:

- BOUNDARY INFORMATION SHOWN ON THIS PLAN IS PER CHRISTIAN COUNTY GIS DATA.
- TAX MAP INFORMATION OBTAINED FROM CHRISTIAN COUNTY GIS SERVER.
- DIMENSIONS PROVIDED ARE FOR GUIDANCE ONLY.
- DRIVEWAY PERMITS MUST BE APPROVED BY THE ADJACENT HAVING JURISDICTION PRIOR TO CONSTRUCTION.
- PROJECT AREA INCLUDING CONSTRUCTION STAGING AREAS, WILL BE CLEARED AND GRUBBED AS NECESSARY. REMAINING PRE-DEVELOPMENT DAMAGE (PILTS, STUMPS, ETC.) SHALL BE REMOVED. THE ONLY PERMANENT IMPROVEMENTS WILL BE CONCRETE EQUIPMENT PADS AND PILE SECTIONS FOR SUPPORT OF THE PV STRUCTURE.
- PROPOSED TEMPORARY LAY DOWN YARD CONSTRUCTION A PORTION OF THIS AREA WILL BE COVERED WITH GRAVEL, OR OTHER TEMPORARY SURFACE TO ALLOW DELIVERY OF CONSTRUCTION MATERIALS FOLLOWING CONSTRUCTION. THE BIRCH AREA IS RESTORED TO PRE-CONSTRUCTION CONDITIONS.
- PROPOSED 20' WIDE ACCESS GATE AND 11' SECTIONS OF TALL CHAIN LINK FENCE TO BARRIER WIRE MESH FENCE WILL BE INSTALLED TO ALLOW EMERGENCY PERSONNEL ACCESS (AS DESIGNATED BY CHRISTIAN COUNTY).
- NO LIGHTS PROPOSED FOR THE SITE.
- ALUMINUM SIGNS (TOWER, HIGH VOLTAGE, AND NUMBER) AND TRAFFIC SIGNS WILL BE PLACED ON PERMANENT TALL SECURITY FENCING.
- SYSTEMS, EQUIPMENT AND STRUCTURES WILL NOT EXCEED 12' IN HEIGHT WHEN GROUND MOUNTED EXCEPT FROM THIS HEIGHT PERMITMENT ARE ELECTRIC TRANSMISSION LINES AND UTILITY POLES.
- IT IS ASSUMED WITHIN THIS PRELIMINARY DESIGN, THAT THE USER SHALL OBTAIN NECESSARY PERMITS, EASEMENTS, AND SEVERANCE CONTROL COUNTY AND/OR STATE REQUIREMENTS. ASSUMED BARRIERS INCLUDE BUT ARE NOT LIMITED TO: SETBACK FIREBROCK, WASHOUT PITS, A TEMPORARY GRAVEL CONSTRUCTION ENTRANCE AND SEEDING AS NECESSARY.
- THE LOCATION OF PROPOSED IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO: PERKINS SQUARE, INVERTER, TRANSFORMER PAD, OVERHEAD POLES, LINES ETC., ARE SUBJECT TO MODIFICATION DUE TO SITE CONDITIONS. ADDITIONAL PERMITTING REQUIREMENTS, EQUIPMENT SPECIFICATIONS, AND/OR OTHER CONSTRAINTS.

NORTH PANA SOLAR, LLC
PV SOLAR GROUND MOUNT

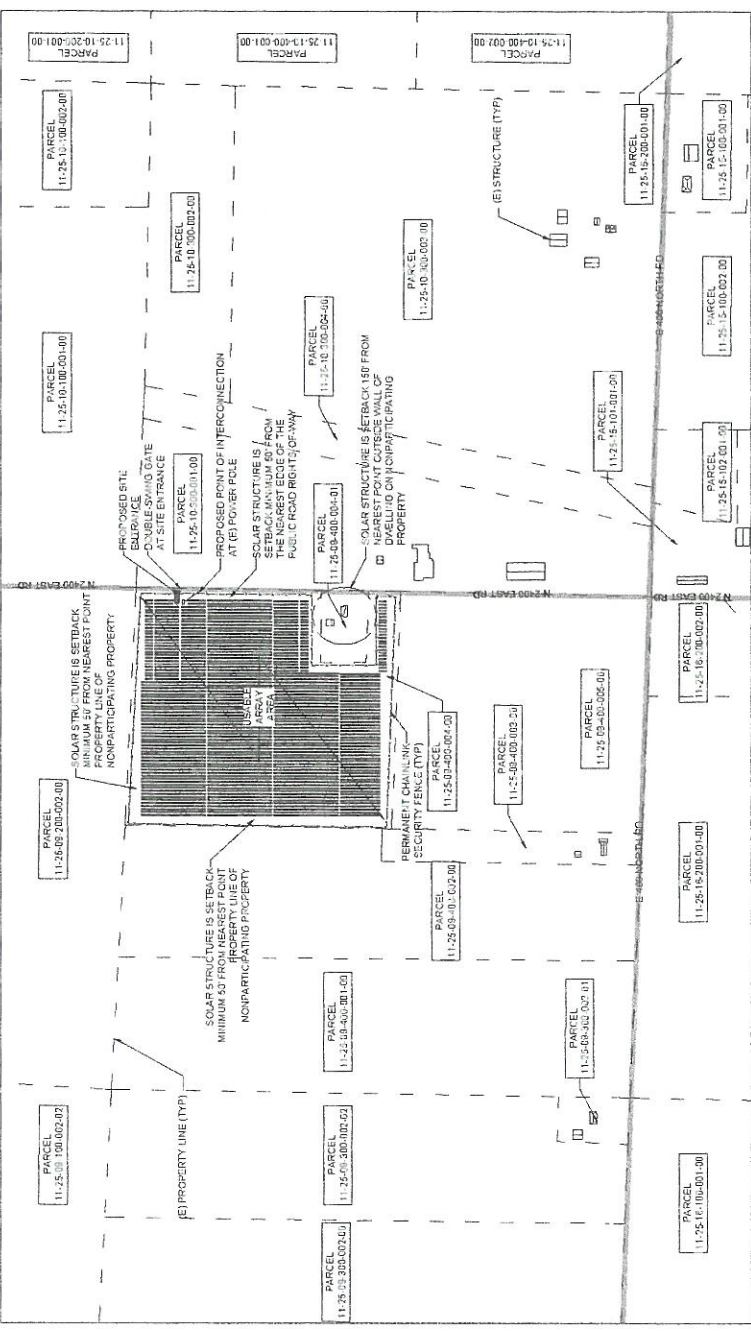
POST-CONSTRUCTION ONLY
NOT FOR CONSTRUCTION

ZONING SITE PLAN

DATE	1/14/2020
BY	W-101

GENERAL NOTES:

1. BOUNDARY INFORMATION SHOWN ON THIS PLAN IS PER CHRISTIAN COUNTY GIS DATA
2. TAX MAP INFORMATION OBTAINED FROM CHRISTIAN COUNTY GIS WEBER
3. DIMENSIONS PROVIDED ARE FOR GUIDANCE ONLY
4. DRIVEWAY PERMITS MUST BE APPROVED BY THE AUTHORITY HAVING JURISDICTION PRIOR TO CONSTRUCTION
5. PROJECT AREA INCLUDING CONSTRUCTION STAIRS AREAS SHALL BE RESTORED TO ORIGINAL CONDITIONS. NECESSARY REMAINING PRE-LEVEL GRADIENT DRAINAGE PATTERNS (I.E. NO MASS GRADING) THE ONLY PERMANENT IMPROVEMENTS SURFACES WILL BE CONCRETE EQUIPMENT PADS AND P.I.E. SECTIONS FOR SUPPORT OF THE PV STRUCTURE
6. PROPOSED TEMPORARY LAY DOWN YARD CONSTRUCTION A PORTION OF THE AREA WILL BE CONSTRUCTED TO ALLOW DELIVERY OF CONSTRUCTION MATERIALS FOLLOWING CONSTRUCTION THE ENTIRE AREA IS RESTORED TO PRE-CONSTRUCTION CONDITIONS
7. PROPOSED 27' WIDE ACCESS GATE (TWO 11' SECTIONS) 9' TALL CHAIN LINK WITH 3 STRANDS OF BARBED WIRE (NOX BOX) WILL BE PROVIDED TO ALLOW EMERGENCY PERSONNEL ACCESS (AS DESIRED BY CHRISTIAN COUNTY)
8. NO LIGHT IS PROPOSED FOR THE SITE
9. ALUMINUM SIGNS (DANGER - HIGH VOLTAGE AND 'DANGER - NO TRESPASSING'), WILL BE PLACED ON PERMANENT 7' TALL SECURITY FENCING
10. SYSTEMS EQUIPMENT AND STRUCTURES WILL NOT EXCEED 17' IN HEIGHT WHEN DESIGN MOUNTED EXCLUDED FROM THIS HEIGHT REQUIREMENT ARE ELECTRIC TRANSMISSION LINES AND UTILITY POLES
11. IT IS ASSUMED WITHIN THIS PRELIMINARY DESIGN, THAT THE USABLE SPACE ACCOMMODATES EARTHQUAKE EROSION & SEDIMENTATION CONTROL MEASURES. THE YIELD WILL BE COVERED UNDER THE USABLE SPACE REQUIREMENTS. THE MEASUREMENTS SHALL BE LIMITED TO 50' PER FEET. FIBER ROLL Y-SHOUT PATS, A TEMPORARY GRAVEL CONSTRUCTION ENTRANCE AND SEEDING AS NECESSARY
12. THE LOCATION OF PROPOSED IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO FENCING, SOLAR ARRAY ORIENTATION, ARRAY ROWING, SOLAR ARRAY ORIENTATION, MEASUREMENTS, CONSTRUCTION OF POLES & LINES, ETC. SHALL BE SUBJECT TO THE LOCAL PERMITS SITE CONDITIONS, ADDITIONAL PERMITTING REQUIREMENTS, EQUIPMENT SPECIFICATIONS, AND/OR OTHER CONSTRAINTS

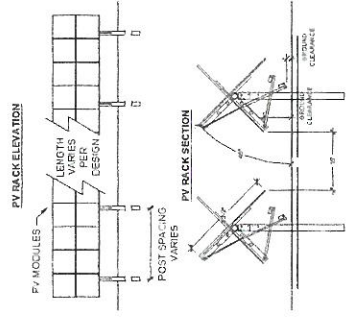


LINE TYPE LEGEND

(E) PAVED ROAD
(E) PROPERTY LINE
(E) BUILDING SETBACK LINE
COMP NATIVE ACCESS ROAD
PV MODULES & BACKING
ELECTRICAL EQUIPMENT PAD
CHAIN LINK SECURITY FENCE
DOUBLE SWING GATE
150' SETBACK

SITE DATA

PARCEL NUMBER	11-25-00-400-00-00
OWNER	CONNIE KNAPP MILLER AND KATHY BOKEN
SITE ADDRESS	11-25-00-400-00-00
PARCEL ACREAGE	37.4 ACRES
PROJECT ACREAGE	33.4 ACRES
CURRENT LAND USE	AG CULTURE / CROPS
PROPOSED USE AREA	SOLAR ENERGY SYSTEM
SETBACKS	45 FT FROM NEAREST PUBLIC ROAD RIGHT-OF-WAY



1 ZONING SITE PLAN
SCALE: 1" = 200'



2 VICINITY MAP
SCALE: NTS

3 PV RACK DETAILS (TYP)
SCALE: NTS

NORTH PANA SOLAR, LLC
 PV SOLAR GROUND MOUNT

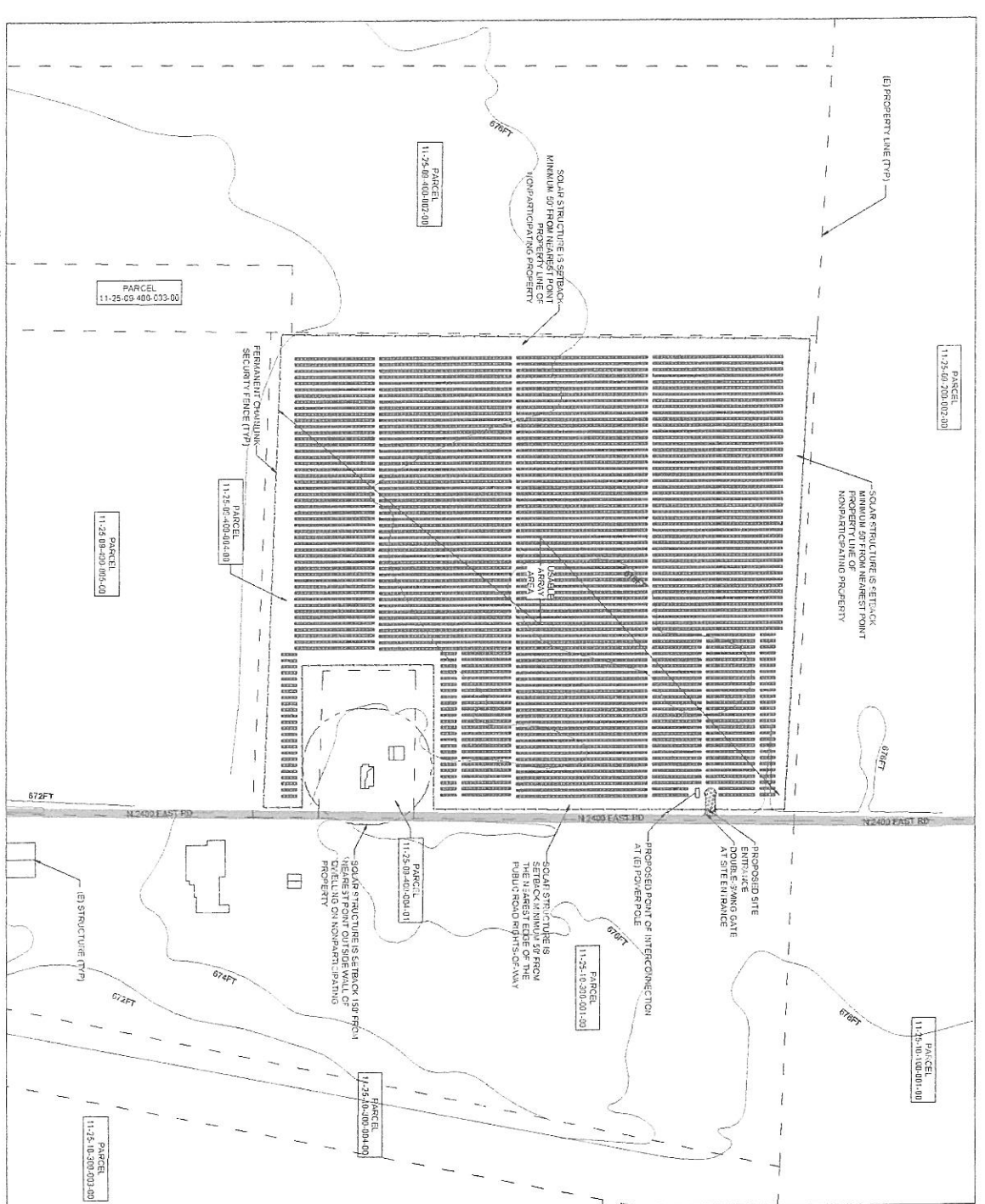
FOR ZONING PURPOSES ONLY
 NOT FOR CONSTRUCTION

DATE: 11/11/2024
TIME: 10:30:00 AM
PROJECT: NORTH PANA SOLAR, LLC
DRAWN BY: JMM

NO.	DATE	DESCRIPTION	BY	CHKD

ZONING
SITE PLAN

1 SITE PLAN
SCALE: 1" = 200'



LINE TYPE LEGEND

(B) PAVED ROAD	(E) PROPERTY LINE
(E) BUILDING SETBACK LINE	COMP. NATIVE ACCESS ROAD
PV MODULES & RACHING	ELECTRICAL EQUIPMENT PAD
CHAIN LINK SECURITY FENCE	DOUBLE SWING GATE
50' SETBACK FOR SOLAR PANELS	

SITE DATA

PARCEL NUMBER	11-25-00-200-002-00
OWNER	CONNIE HANFRAILL ER AND KATHY BOREN
SITE ADDRESS	2400 EAST RD
PROJECT ACREAGE	35 ACRES
CURRENT LAND USE	AGRICULTURE / CROPS / NAT. ENERGY SYSTEM
PROPOSED USE AREA	SE TRACUS
	RUBLIC ROAD
	RIGHTS OF WAY
	50 FT FROM NEAREST POINT
	PROPERTY LINE OF
	AND OVERLAPS ON
	NON-ADJACENT PROPERTY

NORTH PANA SOLAR, LLC
PV SOLAR GROUND MOUNT

FOR ZONING PURPOSES ONLY
NOT FOR CONSTRUCTION

10/11/2018
NORTH PANA SOLAR, LLC

ZONING
SITE PLAN
W-103

STANDARD AGRICULTURAL IMPACT MITIGATION AGREEMENT

between
North Pana Solar, LLC

and the
ILLINOIS DEPARTMENT OF AGRICULTURE
Pertaining to the Construction of a Commercial Solar Energy Facility
in
Christian 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).

North Pana Solar, LLC, hereafter referred to as Commercial Solar Energy Facility Owner, or simply as Facility Owner, plans to develop and/or operate a 4.99 MW (AC) Commercial Solar Energy Facility in Christian County [GPS Coordinates: 89.0836029°W 39.4105860°N], which will consist of up to 35 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.

- 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.

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.

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: <ol style="list-style-type: none">(1) the estimated Deconstruction cost, in current dollars at the time of filing, for the Facility, considering among other things:<ol style="list-style-type: none">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.

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.

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.

- 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.

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.

- 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.

- 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);

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.

- 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

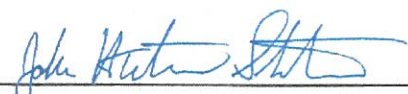
The Illinois Department of Agriculture and North Pana Solar, LLC concur that this AIMA is the complete AIMA governing the mitigation of agricultural impacts that may result from the Construction and Deconstruction of the solar farm project in Christian County within the State of Illinois.

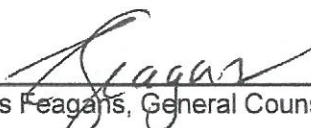
The effective date of this AIMA commences on the date of execution.

**STATE OF ILLINOIS
DEPARTMENT OF AGRICULTURE**

North Pana Solar, LLC


By: Jerry Costello II, Director 6


By John Hunter Strader


By Tess Feagan, General Counsel

John Hunter Strader, Authorized Person

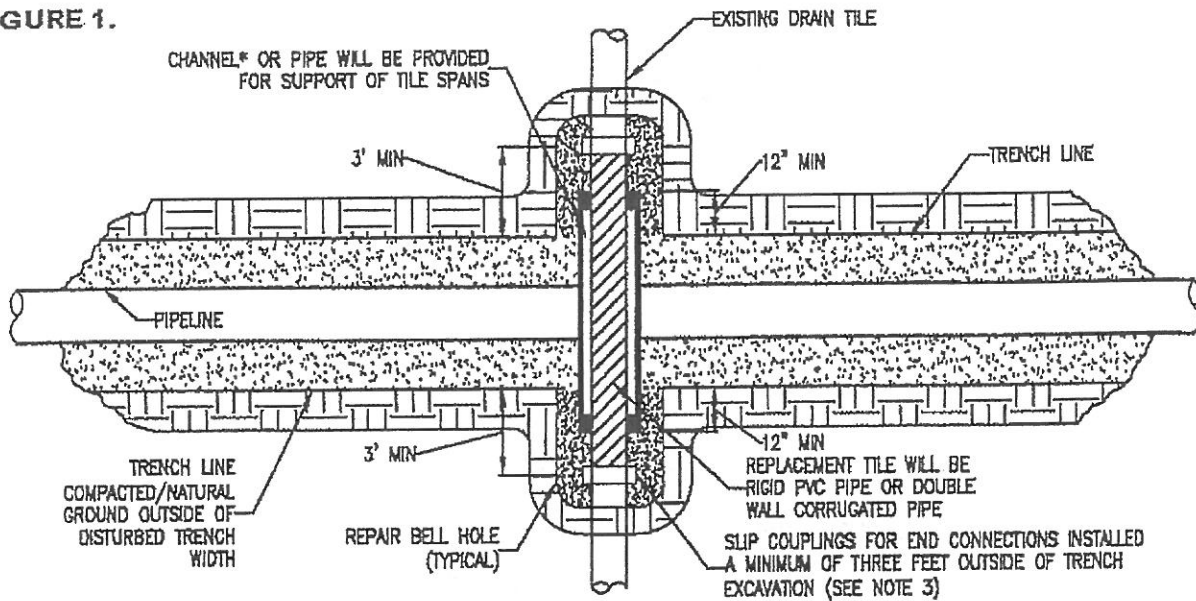
801 E. Sangamon Avenue, 62702
State Fairgrounds, POB 19281 Springfield,
IL 62794-9281

Address
North Pana Solar, LLC
Attn: GreenKey Solar, LLC
3519 NE 15th Ave. #106
Portland, OR 97212

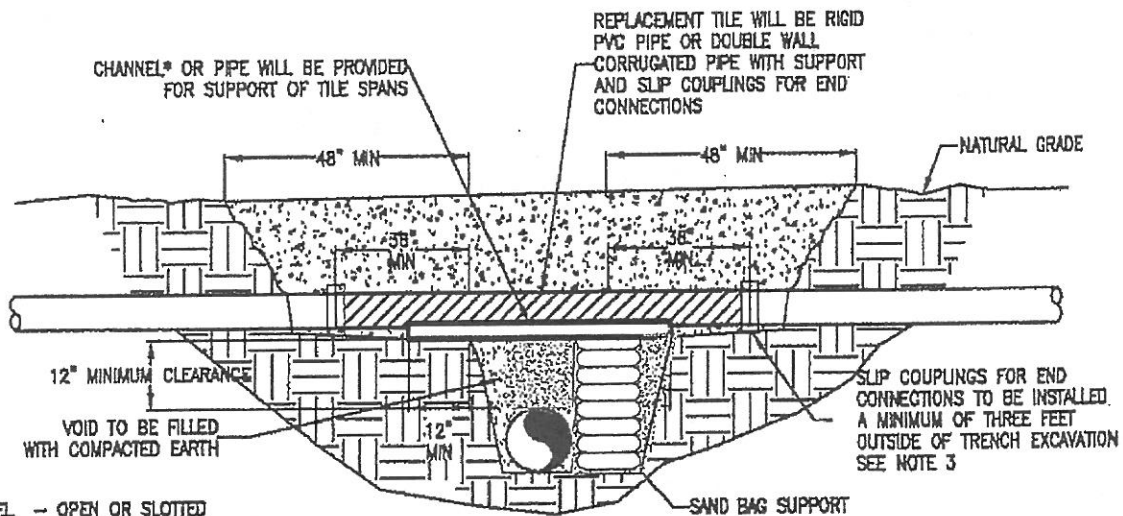
July 27, 2023

July 20, 2023

FIGURE 1.



PLAN
N.T.S.



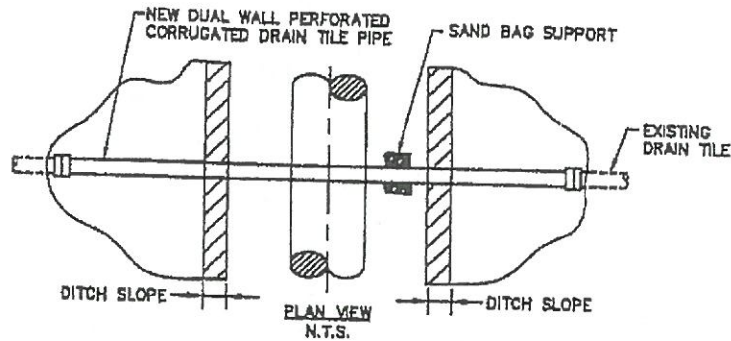
CROSS SECTION
N.T.S.

NOTE:

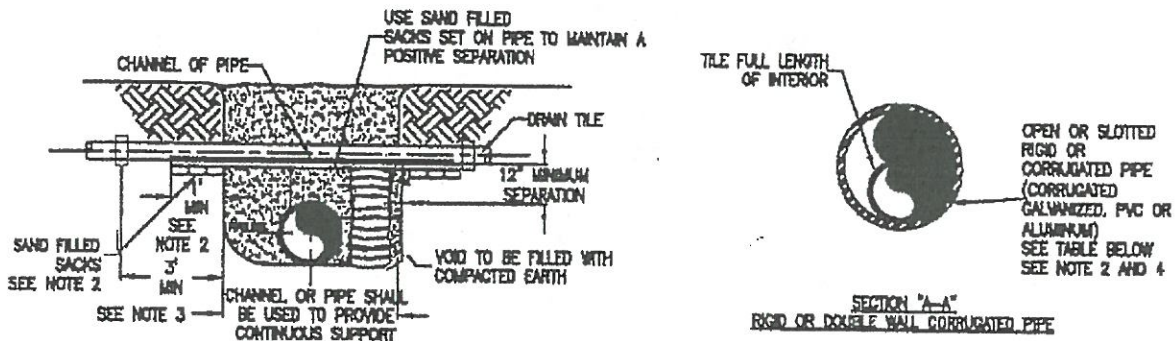
1. IMMEDIATELY REPAIR TILE IF WATER IS FLOWING THROUGH TILE AT TIME OF TRENCHING. IF NO WATER IS FLOWING AND TEMPORARY REPAIR IS DELAYED, OR NOT MADE BY THE END OF THE WORK DAY, A SCREEN OR APPROPRIATE 'NIGHT CAP' SHALL BE PLACED ON OPEN ENDS OF TILE TO PREVENT ENTRAPMENT OF ANIMALS ETC.
2. CHANNEL OR PIPE (OPEN OR SLOTTED) MADE OF CORRUGATED GALVANIZED PIPE, PVC OR ALUMINUM WILL BE USED FOR SUPPORT OF DRAIN TILE SPANS.
3. INDUSTRY STANDARDS SHALL BE FOLLOWED TO ENSURE PROPER SEAL OF REPAIRED DRAIN TILES.

TEMPORARY DRAIN TILE REPAIR

FIGURE 2.



PLAN VIEW



END VIEWS

MINIMUM SUPPORT TABLE		
TILE SIZE	CHANNEL SIZE	PIPE SIZE
3"	4" @ 5.4 #/ft	4" STD. WT.
4"-5"	5" @ 8.7 #/ft	6" STD. WT.
8"-9"	7" @ 9.8 #/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



WISCONSIN OFFICE
8669 N. Deerwood Drive
Milwaukee, WI 53209
(414) 446-4121

August 10, 2023
W-2581/WR-2258

Jeff Kruchten, Chief Archaeologist
Illinois State Historic Preservation Office
One Old State Capitol Plaza
Springfield, Illinois 62701

**RE: Cultural Literature and Records Review
GreenKey North Pana Solar Project
Christian County, Illinois**

Dear Mr. Kruchten,

GreenKey intends to develop the proposed North Pana Solar Project (Project) in Christian County, Illinois. Commonwealth Heritage Group, LLC (Commonwealth) has completed this cultural literature and records review in support of the project.

To complete this review, Commonwealth consulted the Illinois Inventory of Archaeological Sites (IIAS), the online databases and GIS mapping tools for Illinois archaeology, to compile background research for previously identified archaeological and architectural/historic resources and surveys within and around the Project Area of Potential Effect (APE). Historic plat maps and aerial photographs were reviewed to determine if post-Contact structures and other features may have been present in the project area and what past disturbances may have occurred.

Project Description

The Project APE encompasses 37.66 acres (ac) (15.24 hectares [ha]). It is located on the north side of Pana in the southeast corner of Christian County, Illinois (Figure 1). The APE is on the west side of North 2400 East Road, across the street from the Ameren Illinois Power Operating Center and north of East 400 North Road. It is situated in the northeast quarter of the southeast quarter of Section 9, Township 11 North, Range 1 East, of the Third Principal Meridian. The APE is in a cultivated agricultural field and is cut out near its southeastern corner to avoid a domestic structure along North 2400 East Road; no other structures are contained within the APE (Figure 2). The Project area is bounded to the north, west, and south by contiguous agricultural fields. Agricultural fields also lie beyond North 2400 East Road and the Ameren Illinois Power Operating Center to the east. Transmission lines connected to the power center run along the north and south edges of the APE. A communications tower is located across the road on the north side of the power plant. The grided streets and structures of Pana begin less than 1 mile (mi) (approximately 1 kilometer [km]) south of the project area. The APE is set on level, low terrain, in a valley between glacial moraine ridges. The area drains into Coal Creek to the south, which empties into Becks Creek, which in turn empties into the Kaskaskia River, a Mississippi tributary.

The Project is not located on public lands and will not receive public funding and is therefore a private undertaking as defined in Section 3(3i) of the Illinois State Agency Historic Resources Preservation Act (20 ILCS 3420).

Dexter, MI (HQ) | Tuscaloosa, AL | Tempe, AZ | Tucson, AZ | Gainesville, FL | Lakeland, FL | Pensacola, FL
Columbus, GA | Traverse City, MI | Littleton, MA | Minneapolis, MN | Tarboro, NC | Buffalo, NY
Columbus, OH | West Chester, PA | Memphis, TN | Ogden, UT | Chantilly, VA | Milwaukee, WI

www.commonwealthheritagegroup.com

Environmental Context

The Project survey area was not covered by ice during the last glacial maximum (Wisconsin Glacial Episode), but it was glaciated earlier during the Illinois Glacial Episode. It is in an area of Illinoian glacial till consisting of hard, compact sand and gravel (Lineback 1979). Soils of the Project area consist of mostly silt loam, primarily of the Herrick series (United States Department of Agriculture [USDA] 2023). The soils mapped in the APE formed in loess, with Herrick silt loam in particular forming in loess over silty pedisement. According to the IAS, prior to European settlement the Project was in an area of contiguous prairie, only interrupted by the drainage basin around Lake Pana 2.5 mi (4.0 km) to the southeast, which was wooded.

Historic and Archaeological Context

No archaeological or cemetery/burial sites have been reported in or immediately adjacent to the APE (Figures 1 and 2). Two archaeological sites have been reported within 1 mi (1.6 km) of the APE: 11CN544 (Welty/Low Site) and 11CN545 (Colby/Molz Site), both identified west of the APE in 2014. Site 11CN544 is a scatter of late 19th and early 20th century debris. Site 11CN545 is a post-Contact material scatter with a depression to the south. These sites represent past residences. Approximately a dozen small sites have been identified on the northeast side of Pana, approximately 1.5–2 mi (2.4–3.2 km) to the east. The closest known cemetery is over a mile away to the southwest, west of Pana.

One previous archaeological survey overlaps the APE (Survey #20881) (Figures 1 and 2). This was a survey along the Pana to Faraday Transmission Corridor conducted in 2015, overlapping the north edge of the APE where it meets the northern transmission corridor (Rein and Craig 2015). This survey did not identify any sites within 1 mi (1.6 km) of the APE.

No portion of the APE overlap an area of “high probability” for the occurrence of archaeological resources (Figures 1 and 2).

A review of historic maps and aerial photographs demonstrates that the Project area has been an open field since at least the late 1800s (Figures 3–10). In 1872, the east half of the southeast quarter of Section 9 was owned by W. B. Holloway (Snyder 1872) (Figure 3). There was a residence in the location of the extant residence along North 2400 East Road. The railroad tracks to the east were operated by the Illinois Central Railroad, according to the 1872 map. This would remain true on all historic maps consulted. The parcel was owned by Mrs. H. M. Clawson in 1891 (Alden, Ogle and Company 1891) (Figure 4). By 1902, the parcel had been divided in half and now the northeast quarter of the southeast quarter of Section 9 was owned by A. Swayze (Potts 1902) (Figure 5). There is no residence marked in this parcel, although one is indicated in the northeast corner of the property to the south, which may be an error. The parcel was owned by Benton Swayze in 1911 and a residence is marked in the parcel (Geo. A. Ogle and Company 1911) (Figure 6). The next three maps consulted to not indicate any residences on any properties. The APE was owned by B. Swayzee in 1918, J. Simons in 1924, and William Bickerdike in ca. 1937 (Christian County Genealogical Society 1995; Kenyon Company 1924; W. W. Hixson and Company ca. 1937) (Figures 7–9). The ca. 1958 map does indicate residences but not one in the northeast quarter of the southeast quarter (Farm Plat Book Publication Company ca. 1958) (Figure 10). The property was owned by Susan Bickerdike at that time. The power plant parcel across the road is shown as being within the limits of Pana since 1911 (Geo. A. Ogle and Company 1911) (Figure 6)

A 1938 aerial photograph shows the APE to have been agricultural fields at that time (United States Department of Agriculture, Agricultural Adjustment Administration [USDA-AAA] 1938). The residence along North 2400 East Road was a farmstead with at least five buildings. The power plant across the road

August 10, 2023

Page 3

did not yet exist and the railroad tracks further east were active at that time. The power plant had been built by 1956, although it was far smaller at that time than at present (United States Army Map Service 1956). By 1971, two communications towers had been constructed north of the power plant, across the road from the APE (NASA Johnson Space Center 1971). These are labeled as microwave towers on the 1982 United States Geological Survey (USGS) topographic map (USGS 1982). By 1979, the farmstead had been reduced to two buildings: the house and one outbuilding, although the latter was not the garage that exists at present (USGS 1979). The transmission lines to south had been constructed by this time. A third communications tower was constructed in 2012–2014 (Nationwide Environmental Title Research 2023). The original two towers north of the power plant were removed in 2014–2015. The transmission line to the north was constructed between 2015 and 2017.

Conclusions and Recommendations

The North Pana Solar Project in Christian County, Illinois is not located on public lands and will not receive public funding. If the project has no federal involvement (e.g., federal permitting) then the project will be a private undertaking as defined in Section 3(3i) of the Illinois State Agency Historic Resources Preservation Act (20 ILCS 3420). As no portion of the APE falls within an area of “high probability” for the occurrence of archaeological resources, as defined within Section 3(3j) of 20 ILCS 3420, Commonwealth does not recommend archaeological survey within the APE, and only recommends architectural/history survey of standing structures in close proximity to the APE.

If the North Pana Solar Project will have federal involvement, Commonwealth recommends archaeological survey of the entire APE as well as architectural/history survey.

If you have any questions or concerns, please feel free to contact me directly at 414-446-4121 x 111 (office) or 612-246-0509 (cell), or electronically at rjones@chg-inc.com.

Sincerely,



Rhiannon Jones, M.A., RPA
Principal Investigator

CC: Madison Barr, Rabe Consulting

Works Cited

Alden, Ogle and Company

1891 *Plat Book of Christian County, Illinois*. Alden, Ogle and Company, Chicago, Illinois.

Christian County Genealogical Society

1995 *Wall Maps, 1872, 1902, 1918 and Plat Maps 1891, 1911, 1924 of Christian County, Illinois*. Christian County Genealogical Society; Taylorville, Illinois.

Farm Plat Book Publication Company

ca. 1958 *Official County Plat Book and rural Directory of Christian County, Illinois*. Farm Plat Book Publication Company, Mankato, Minnesota.

Geo. A. Ogle and Company

1911 *Standard Atlas of Christian County, Illinois*. Geo. A. Ogle and Company, Chicago, Illinois.

Kenyon Company

1924 *Plat Book and Complete Survey of Christian County, Illinois*. The Kenyon Company, Des Moines, Iowa.

Lineback, Jerry A.

1979 *Quaternary Deposits of Illinois* [Map]. Illinois State Geological Survey, Urbana, Illinois.

Snyder, Louis M. (editor)

1872 *Map of Christian County, Illinois*. Snyder Brothers, Chicago, Illinois.

NASA Johnson Space Center

1971 Project 17100 40-4431 [aerial photograph]. April 22, 1971. NASA Johnson Space Center, Houston, Texas. Electronic document: <http://earthexplorer.usgs.gov/>, accessed August 8, 2023

Nationwide Environmental Title Research

2023 NETROnline Historic Aerials. Electronic resource: <https://www.historicaerials.com>, accessed August 2, 2023.

Potts, Cyrus A.

1902 *Map of Christian County, Illinois*. Cyrus A. Potts, Taylorville, Illinois.

Rein, Jason and Joseph Craig

2015 *32-Mile Pana to Faraday Transmission Corridor, Christian, Shelby, and Macon Counties, Illinois: Phase I Cultural Resource Survey*. Prepared for Ameren Services, St. Louis, Missouri. Prairie Archaeology & Research, Springfield, Illinois.

~~United States Army Map Service~~

1956 Project 55033 8-748 [aerial photograph]. May 3, 1956. U. S. Department of the Interior, U.S. Geological Survey, Reston, Virginia. Electronic document: <http://earthexplorer.usgs.gov/>, accessed August 8, 2023.

United States Department of Agriculture (USDA)

2023 Web Soil Survey. Online Database, <http://websoilsurvey.nrcs.usda.gov>, accessed July 26, 2023.

August 10, 2023

Page 5

United States Department of Agriculture, Agricultural Adjustment Administration (USDA-AAA)

1938 BGB-1-36 [aerial photograph]. October 16, 1938. United States Department of Agriculture, Agricultural Adjustment Administration. Electronic document: <https://clearinghouse.isgs.illinois.edu/data/imagery/1937-1947-illinois-historical-aerial-photography>, Accessed August 8, 2023.

United States Geological Survey (USGS)

1979 GS-SWKE 1-320 [aerial photograph]. December 20, 1979. U. S. Department of the Interior, U.S. Geological Survey, Reston, Virginia. Electronic document: <http://earthexplorer.usgs.gov/>, accessed August 8, 2023.

1982 *Pana Quadrangle, Illinois*, Provisional Edition, 7.5 Minute Series (Topographic). 1:24,000 scale. U. S. Department of the Interior, U.S. Geological Survey, Reston, Virginia. Electronic document: <http://ngmdb.usgs.gov/maps/TopoView/>, accessed August 10, 2023.

W. W. Hixson and Company

ca. 1937 *Plat Book of Christian County, Illinois*. W. W. Hixson and Company, Rockford, Illinois.

North Pana Solar Project Christian County, Illinois

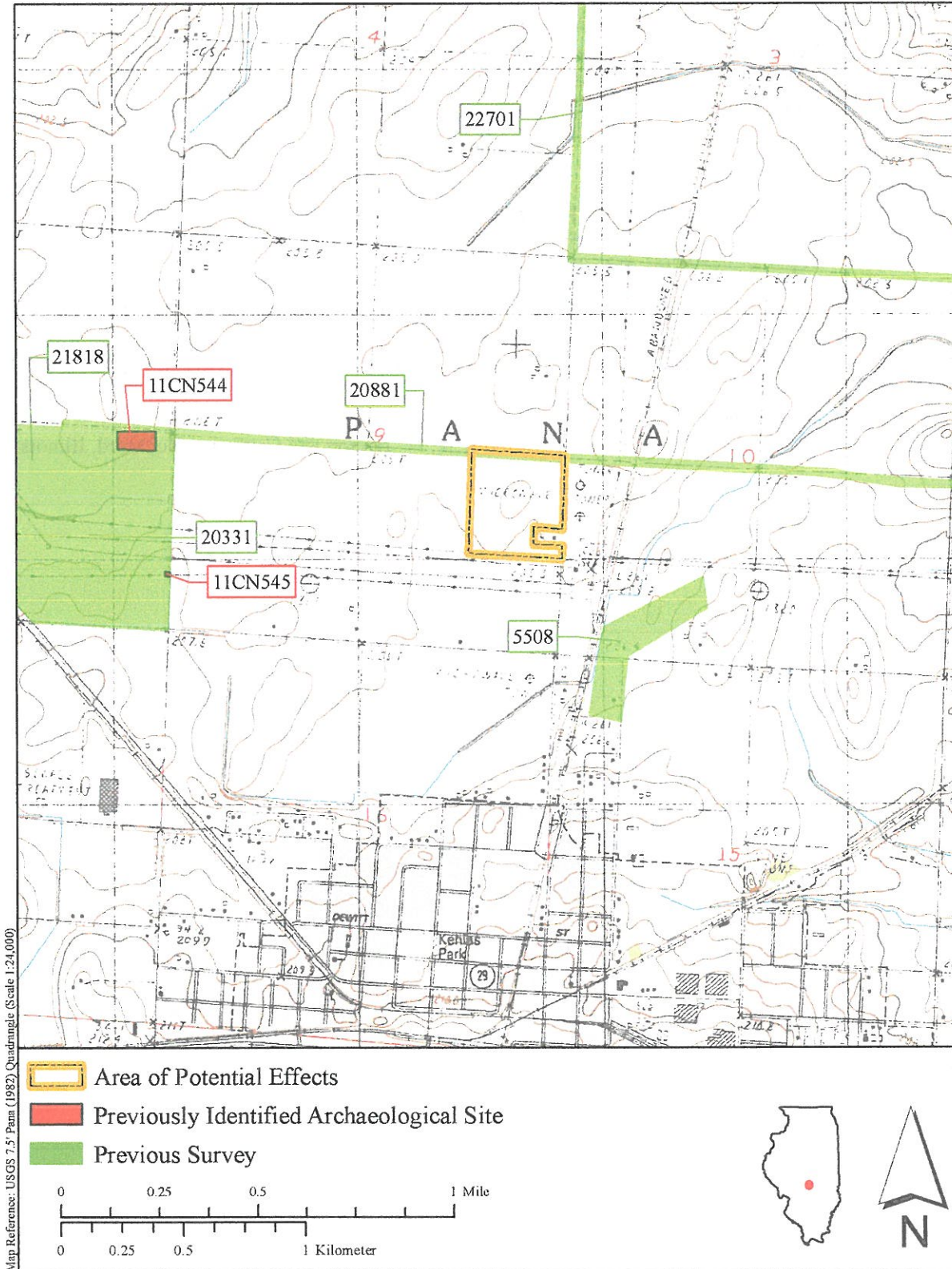


Figure 1. Area of Potential Effects, Previously Identified Archaeological Sites, and Intersecting Previous Cultural Survey

North Pana Solar Project Christian County, Illinois

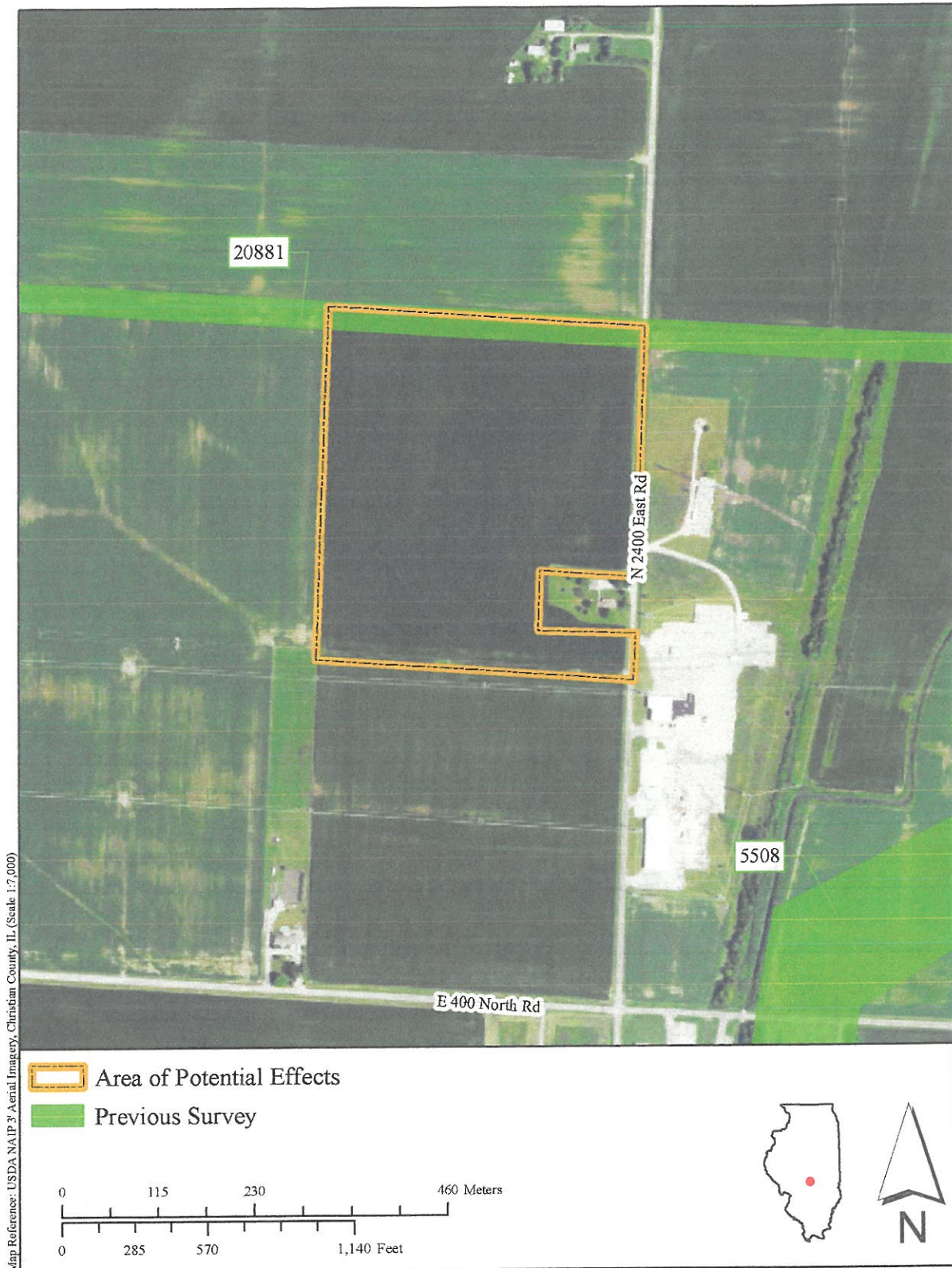


Figure 2. Area of Potential Effects, Previously Identified Archaeological Sites, and Intersecting Previous Cultural Survey

North Pana Solar Project
 Christian County, Illinois



Map Reference: 1872 Historic Plat, Christian County, IL (Scale 1:24,000)

Job : Date Saved: 8/7/2023 3:49:21 PM

Figure 3. Area of Potential Effects on 1872 Plat Map

North Pana Solar Project
Christian County, Illinois

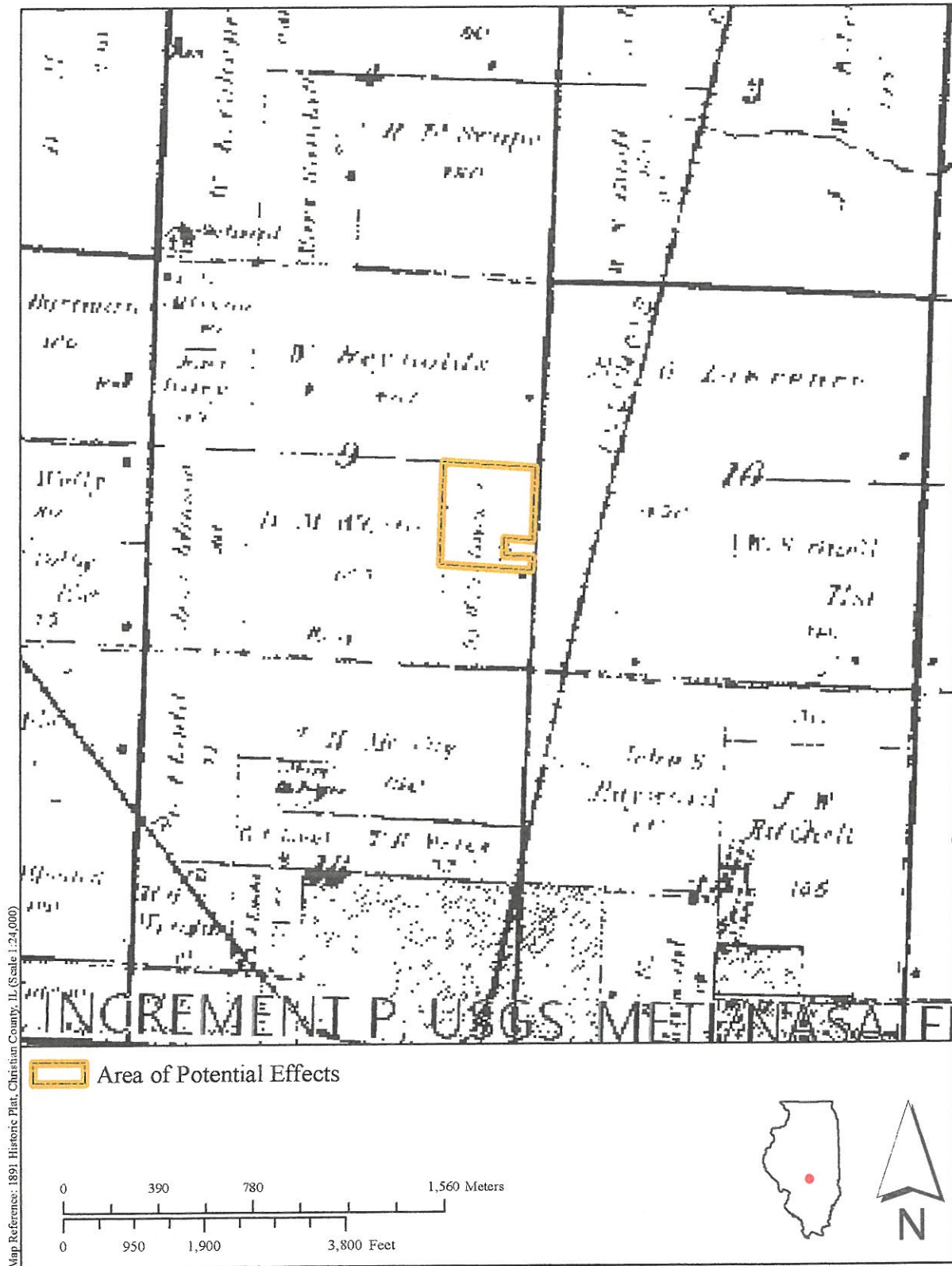


Figure 4. Area of Potential Effects on 1891 Plat Map

North Pana Solar Project
Christian County, Illinois

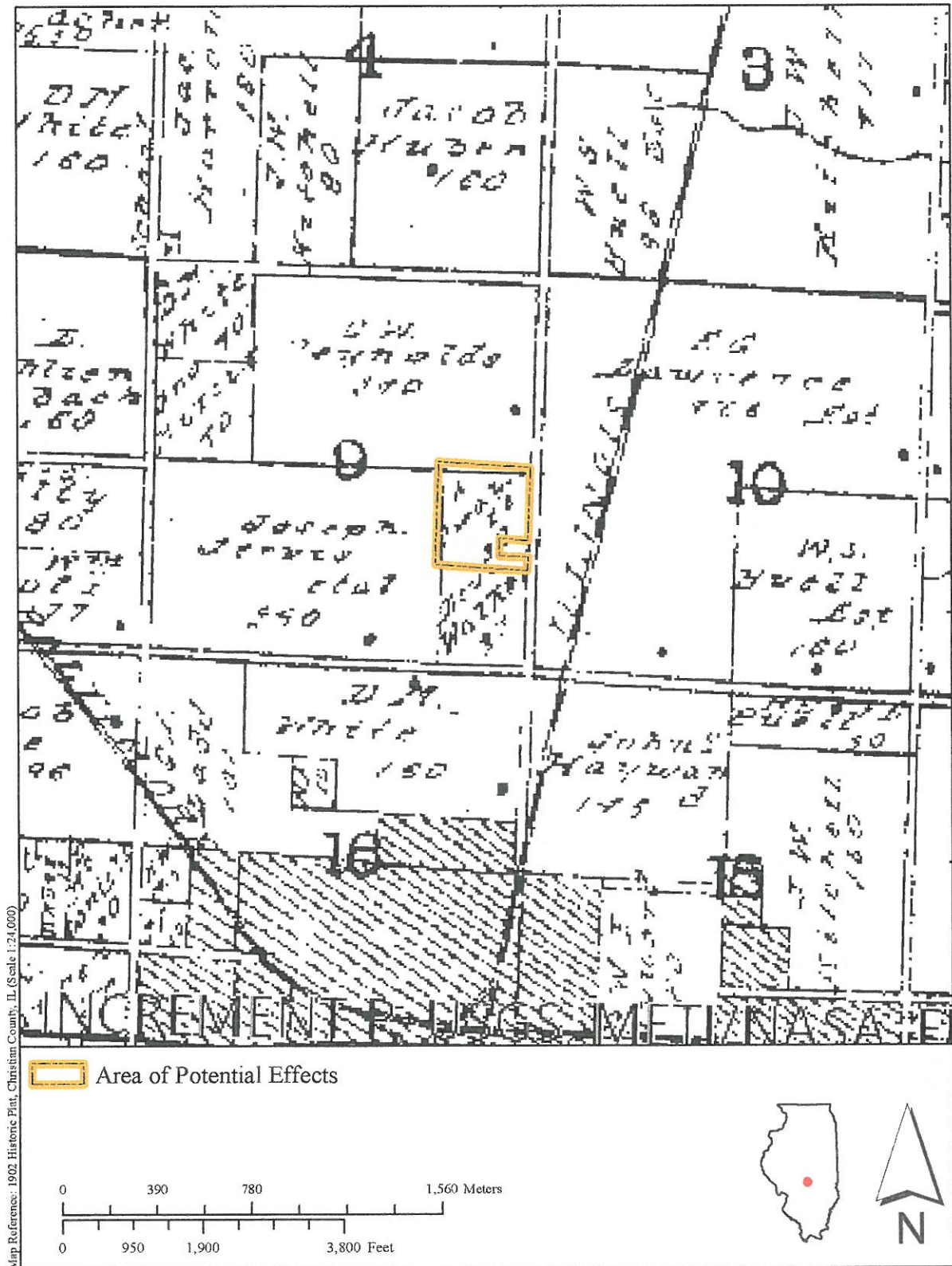


Figure 5. Area of Potential Effects on 1902 Plat Map

North Pana Solar Project
 Christian County, Illinois



Figure 6. Area of Potential Effects on 1911 Plat Map

North Pana Solar Project
 Christian County, Illinois

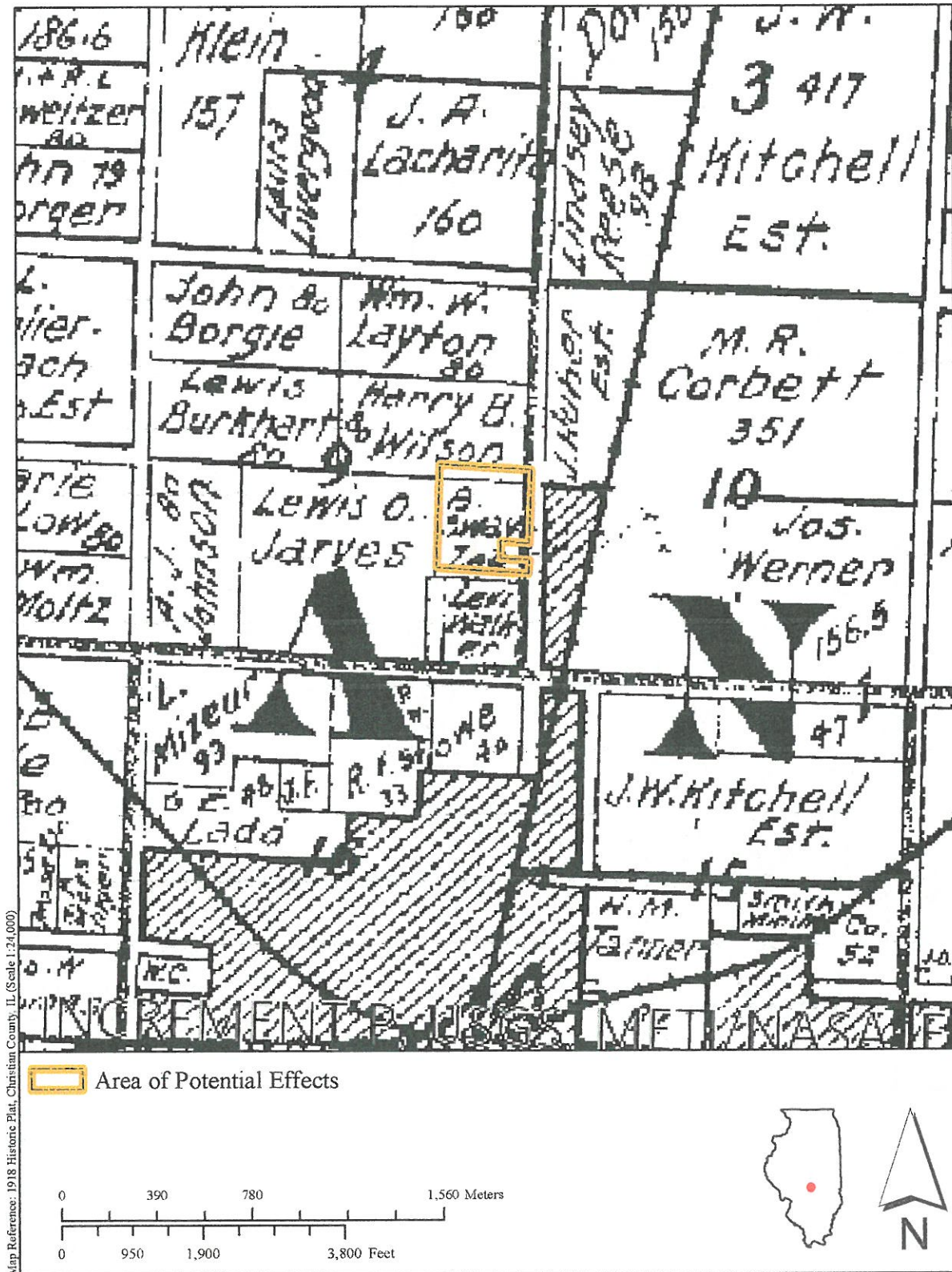


Figure 7. Area of Potential Effects on 1918 Plat Map

North Pana Solar Project
 Christian County, Illinois



Figure 8. Area of Potential Effects on 1924 Plat Map

North Pana Solar Project
Christian County, Illinois

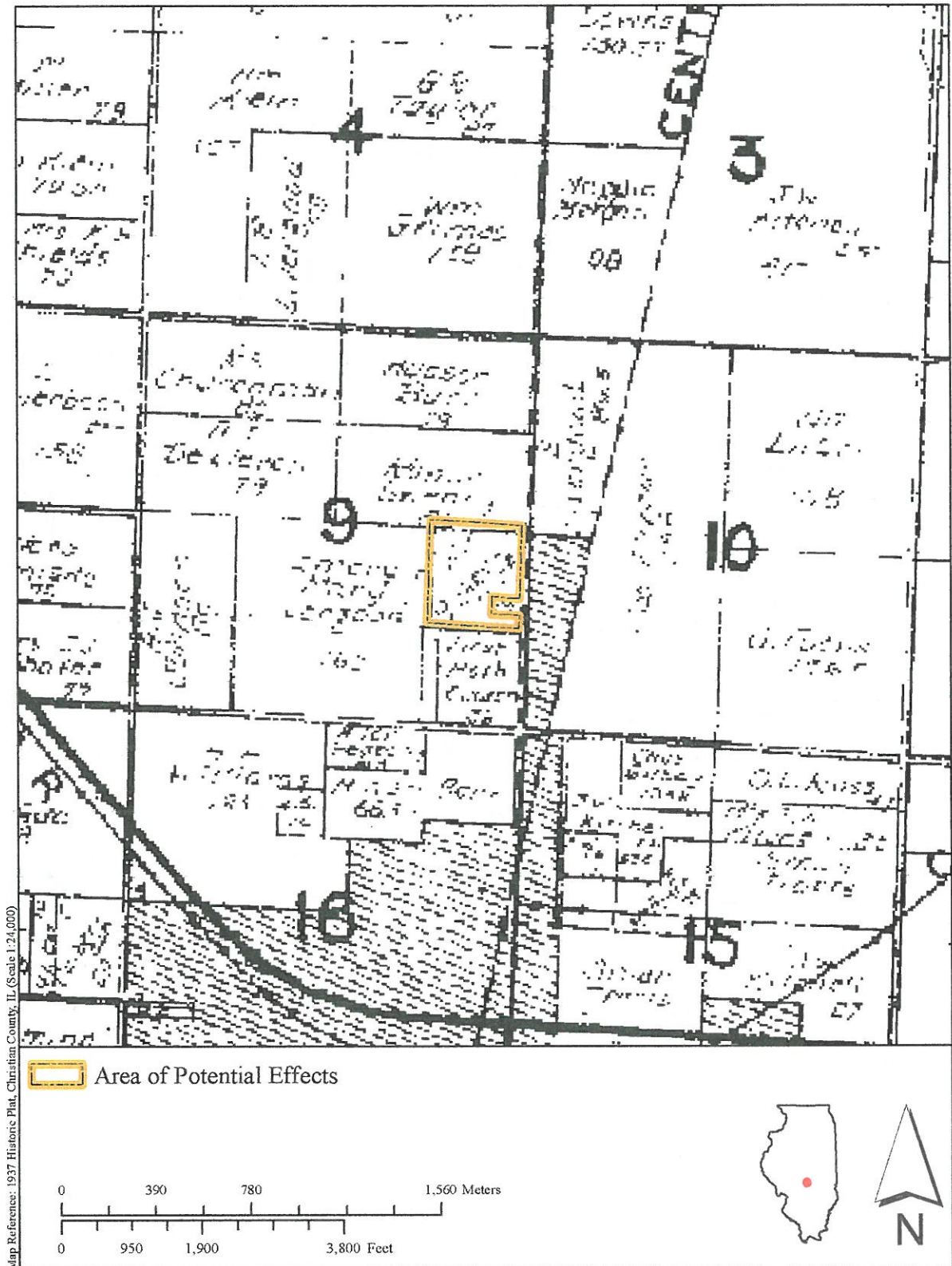


Figure 9. Area of Potential Effects on 1937 Plat Map

North Pana Solar Project
Christian County, Illinois

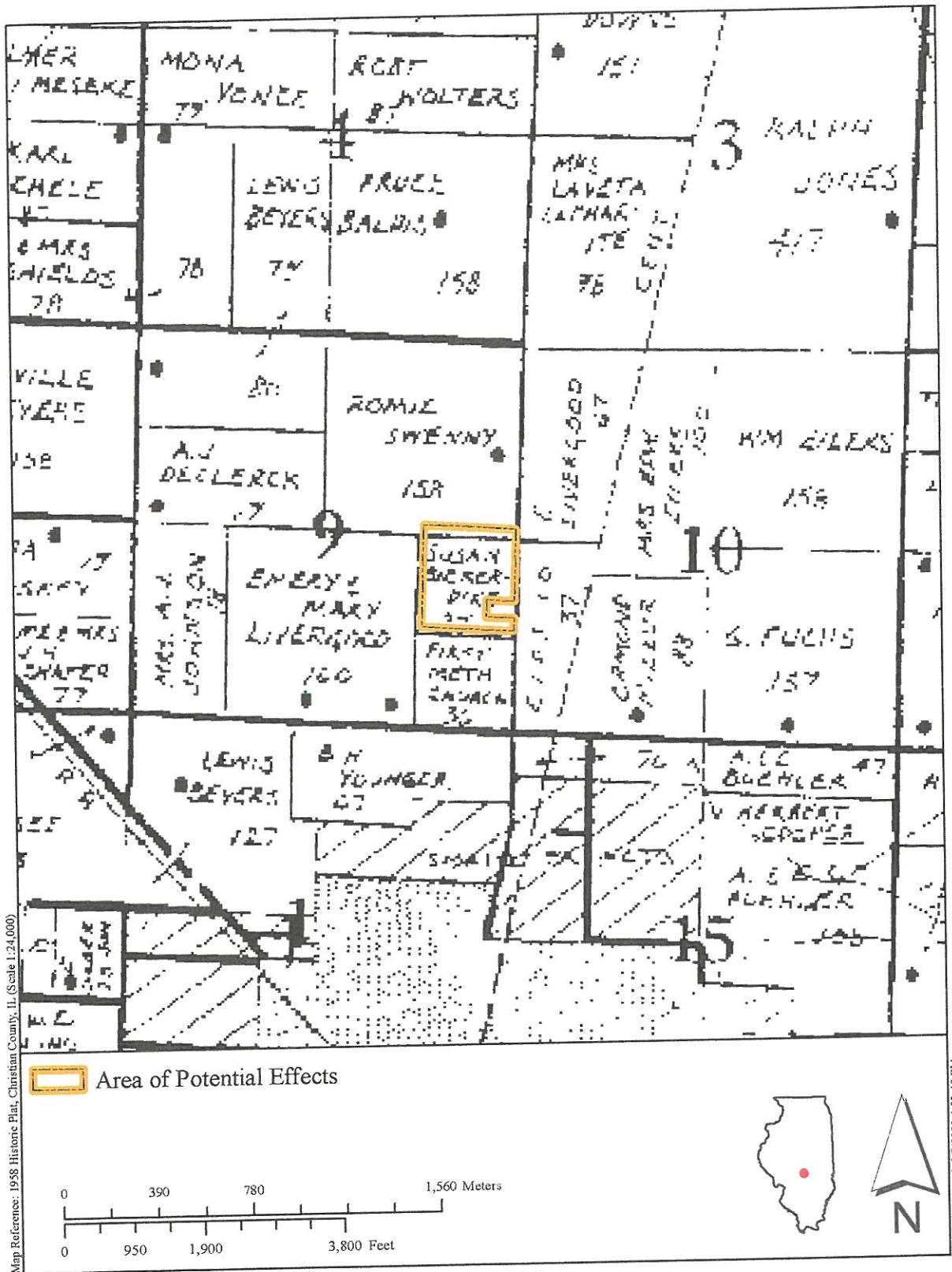


Figure 10. Area of Potential Effects on 1958 Plat Map

Applicant: GreenKey Development
Contact: McKenzie Kargel
Address: 3519 NE 15th Ave # 106
Portland, OR 97212

IDNR Project Number: 2310815
Date: 02/27/2023

Project: North Pana Solar
Address: 2400 East Rd, Pana

Description: This project is a ground-mounted photovoltaic solar array consisting of solar panels, racking, inverters, overhead poles and lines, and perimeter fencing.

Natural Resource Review Results

Consultation for Endangered Species Protection and Natural Areas Preservation (Part 1075)

The Illinois Natural Heritage Database shows the following protected resources may be in the vicinity of the project location:

Franklin's Ground Squirrel (*Spermophilus franklinii*)

An IDNR staff member will evaluate this information and contact you to request additional information or to terminate consultation if adverse effects are unlikely.

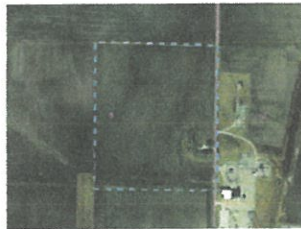
Location

The applicant is responsible for the accuracy of the location submitted for the project.

County: Christian

Township, Range, Section:

11N, 1E, 9
11N, 1E, 10



IL Department of Natural Resources
Contact
Kyle Burkwald
217-785-5500
Division of Ecosystems & Environment

Government Jurisdiction
Christian County
Supervisor Of Assessments
101 S Main St
Taylorville, Illinois 62568 -0000

Disclaimer

The Illinois Natural Heritage Database cannot provide a conclusive statement on the presence, absence, or condition of natural resources in Illinois. This review reflects the information existing in the Database at the time of this inquiry, 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, compliance with applicable statutes and regulations is required.

Terms of Use

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1. The IDNR EcoCAT website was developed so that units of local government, state agencies and the public could request information or begin natural resource consultations on-line for the Illinois Endangered Species Protection Act, Illinois Natural Areas Preservation Act, and Illinois Interagency Wetland Policy Act. EcoCAT uses databases, Geographic Information System mapping, and a set of programmed decision rules to determine if proposed actions are in the vicinity of protected natural resources. By indicating your agreement to the Terms of Use for this application, you warrant that you will not use this web site for any other purpose.

2. Unauthorized attempts to upload, download, or change information on this website are strictly prohibited and may be punishable under the Computer Fraud and Abuse Act of 1986 and/or the National Information Infrastructure Protection Act.

3. IDNR reserves the right to enhance, modify, alter, or suspend the website at any time without notice, or to terminate or restrict access.

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EcoCAT operates on a state of Illinois computer system. We may use software to monitor traffic and to identify unauthorized attempts to upload, download, or change information, to cause harm or otherwise to damage this site. Unauthorized attempts to upload, download, or change information on this server is strictly prohibited by law.

Unauthorized use, tampering with or modification of this system, including supporting hardware or software, may subject the violator to criminal and civil penalties. In the event of unauthorized intrusion, all relevant information regarding possible violation of law may be provided to law enforcement officials.

Privacy

EcoCAT generates a public record subject to disclosure under the Freedom of Information Act. Otherwise, IDNR uses the information submitted to EcoCAT solely for internal tracking purposes.



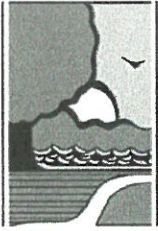
EcoCAT Receipt	Project Code 2310815
-----------------------	-----------------------------

APPLICANT	DATE
GreenKey Development McKenzie Kargel 3519 NE 15th Ave # 106 Portland, OR 97212	2/27/2023

DESCRIPTION	FEE	CONVENIENCE FEE	TOTAL PAID
EcoCAT Consultation	\$ 125.00	\$ 2.81	\$ 127.81

TOTAL PAID \$ 127.81

Illinois Department of Natural Resources
One Natural Resources Way
Springfield, IL 62702
217-785-5500
dnr.ecocat@illinois.gov



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

March 03, 2023

McKenzie Kargel
GreenKey Development
3519 NE 15th Ave # 106
Portland, OR 97212

RE: North Pana Solar
Project Number(s): 2310815
County: Christian

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.

The Department encourages all new and existing solar energy facilities to participate in the Pollinator Scorecard Program. More information can be found here:
<https://www2.illinois.gov/dnr/conservation/pollinatorscorecard/pages/default.aspx>

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.

Kyle Burkwald
Division of Ecosystems and Environment
217-785-5500

Decommissioning and Deconstruction Plan
North Pana Solar Facility
Pana Township
Christian County, Illinois

September 29, 2023

PREPARED FOR:

North Pana Solar, LLC
3519 NE 15th Ave. #106
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PREPARED AND SEALED BY:

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09/29/2023



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Introduction

North Pana Solar, LLC (“NPS”) proposes to build a photovoltaic (PV) solar facility (“Solar Facility”) in Pana Township, Christian County, Illinois. The Solar Facility will be located on N. 2400 East Road north of Pana, IL, on Christian County parcel identification number 11-25-09-400-004-00. The facility site is accessible on the west side of N. 2400 East Road.

The Solar Facility is planned to have a nameplate capacity of approximately 4.99 megawatts (MW) alternating current (AC) and will be built on a 35-acre portion of private agricultural land (“Facility Site”).

The site is located adjacent to predominately agricultural parcels to the north, south, and west. These parcels are mostly comprised of farmland used for annual crop production. The parcel to the east is a high voltage electric substation owned by Ameren, with high voltage utility lines extending in many directions, including along the north property line of the subject property and the south property line of the subject property. In between the subject property and the substation is a single-family home with a garage and some trees. The existing conditions on the Facility Site include agricultural land in annual crop production with a high voltage transmission lines bordering the north and south property lines. The landowner is unsure if there is drainage tile infrastructure on the subject property. The Facility Site is located outside of any U.S. Fish and Wildlife National Wetlands Inventory mapped wetlands and outside of any flood hazard areas identified by the Federal Emergency Management Agency (FEMA).

This Decommissioning and Deconstruction Plan (“Plan”) is developed according to the standards within the Agricultural Impact Mitigation Agreement (Standard Solar AIMA V.8.19.19)¹ and 55 ILCS 5/5-12020. This Plan provides an overview of activities that will occur during the decommissioning phase of the Solar Facility, including the following: activities related to the restoration of land, removal of underground cabling and support structures, repair of compaction and rutting, prevention of soil erosion, removal of access roads, weed mitigation, the management of materials and waste, projected costs, and financial assurance or funds overview.

The Solar Facility will have an estimated useful lifetime of 30 years or more. This Plan assumes that the Solar Facility will be dismantled and that the Facility Site will be restored to a state substantially similar to its pre-construction condition at the end of its useful lifetime or upon abandonment of a Solar Facility for any reason. Typically, decommissioning will occur upon the end of the agreed term with the landowner. As stated in the AIMA, decommissioning of the facility shall occur within twelve months after the useful life of the Solar Facility.

Deconstruction and decommissioning of the Solar Facility will include the disconnection of the Solar Facility from the electrical grid and the removal of all Solar Facility related equipment in accordance with the AIMA and the agreement with the landowner, including:

- Photovoltaic (PV) modules (panels), panel racking, and foundation supports;
- Inverter units, substation(s), transformer(s), energy storage facilities, and other electrical equipment;
- Access roads, wiring cables, communication tower, perimeter fencing; and,

¹ Illinois Department of Agriculture, “Agricultural Impact Mitigation Agreements,” Standard Solar Agricultural Impact Mitigation Agreement (V.8.19.19), 2023, <https://agr.illinois.gov/resources/aima.html>.

- Storage containers, staging yard areas, buildings (if any), and concrete foundations.

This decommissioning plan is based on current best management practices and procedures. Nonetheless, this Plan may be subject to revision based on new standards and emergent best management practices at the time of decommissioning. Permits will be obtained as required and notification will be given to stakeholders prior to decommissioning.

Decommissioning of the Solar Facility

At the time of decommissioning, the installed components will be removed, reused, disposed of, and recycled, where possible. Decommissioning includes removal of structures installed above ground and below ground. The Facility Site will be restored to a state substantially similar to its pre-construction condition. All removal of equipment will be done in accordance with any applicable local, state, and federal regulations and manufacturer recommendations. All applicable permits will be acquired.

Equipment Dismantling and Removal

Generally, the decommissioning of a Solar Facility proceeds in the reverse order of the installation.

1. The Solar Facility shall be disconnected from the utility power grid.
2. PV modules shall be disconnected, collected, and disposed of at an approved solar module recycler or reused / resold on the market. Although the PV modules will not be cutting edge technology at the time of decommissioning, they are estimated to still produce electricity output and add value for many years.
3. All aboveground, and all underground up to a depth mutually agreed upon between landowner and NPS, electrical interconnection and distribution cables shall be removed and disposed off-site by an approved facility.
4. Galvanized steel PV module support and racking system support posts shall be removed and disposed off-site by an approved facility. All above ground portions of the supports shall be removed, and below ground portions shall be removed to a depth of mutually agreed upon between the landowner and NPS.
5. Electrical and electronic devices, including transformers and inverters shall be removed and disposed off-site by an approved facility.
6. Concrete foundations shall be removed and disposed off-site by an approved facility.
7. Fencing shall be removed and will be disposed off-site at an approved facility.

The below ground portions of the Solar Facility will be removed entirely where practical. Any supports that are more firmly anchored, or difficult to pull out, will be cut off to a depth below the surface mutually agreed upon between the landowner and NPS, and the remaining support may be left in place. This depth will not impact the ability of the land to be returned to farming or agricultural activities.

No hazardous materials are used during the construction or operation of the solar facility. As such, the disposal of any hazardous materials or waste will not be required as part of the decommissioning process.

Environmental Effects

Decommissioning activities, particularly the removal of project components, could result in environmental effects similar to those of the construction phase. For example, there is the potential for disturbance (erosion/sedimentation/fuel spills) to adjacent watercourses or significant natural features. Mitigation measures similar to those employed during the construction phase of the Solar Facility will be implemented. These will remain in place until the site is stabilized in order to mitigate erosion and silt/sediment runoff and any impacts on the significant natural features or water bodies located adjacent to the Facility Site. It is anticipated that a Storm Water Pollution Prevention Plan (SWPPP) and a National Pollutant Discharge Elimination System (NPDES) Permit from the Illinois Environmental Protection Agency (IEPA) will be required as part of the decommissioning process.

Road traffic will temporarily increase due to the movement of decommissioning crews and equipment. There may be an increase in particulate matter (dust) in adjacent areas during the decommissioning phase. Decommissioning activities may lead to temporary elevated noise levels from heavy machinery and an increase in trips to the project location. Work will be undertaken during daylight hours and conform to any applicable restrictions.

Site Restoration

Through the decommissioning phase, the Facility Site will be restored to a state similar to its pre-construction condition. All project components will be removed.

All portions of the Facility Site that were impacted by vehicles or machinery during construction, operation, and decommissioning that experienced compaction and/or rutting will be restored. The prior agricultural land will be ripped to a depth of 18 inches where practicable to restore the land to equivalent conditions prior to construction. These disturbed areas shall then be disked. Rehabilitated lands may be seeded with appropriate vegetation, such as low-growing species, to help stabilize soil conditions, enhance soil structure, and increase soil fertility.

Managing Materials and Waste

During the decommissioning phase a variety of excess materials and waste will be generated. Most of the materials used in a Solar Facility are reusable or recyclable and some equipment may have manufacturer take-back and recycling requirements. Any remaining materials will be removed and disposed of off-site at an appropriate licensed facility. NPS will establish policies and procedures to maximize recycling and reuse and will work with manufacturers, local subcontractors, and waste firms to segregate material to be disposed of, recycled, or reused.

NPS will be responsible for the logistics of collecting and recycling the PV modules and to minimize the potential for modules to be discarded in the municipal waste stream. Currently, some manufacturers and new companies are looking for ways to recycle and/or reuse solar modules when they have reached the end of their lifespan. It is anticipated there will be more recycling options available for solar modules at the time of decommissioning. NPS proposes to determine the best way of disposing of the solar modules using best management practices at the time of decommissioning.

Decommissioning Notification

Decommissioning activities may require the notification of stakeholders given the nature of the works at the Facility Site. Christian County in particular will be notified prior to commencement of any decommissioning activities. Six months prior to decommissioning, NPS will update their list of stakeholders and notify appropriate municipalities of decommissioning activities. Federal, county, and local authorities will be notified as needed to discuss the potential approvals required to engage in decommissioning activities.

Decommissioning Costs and Financial Assurance

NPS will provide the County with financial assurance to cover the estimated net costs of deconstruction of the Solar Facility. The estimated net cost to decommission the Solar Facility is provided in Exhibit A. As defined in the AIMA, the term “financial assurance” is a reclamation or surety bond or other commercially available financial assurance that is acceptable to the County, with the County or Landowner as beneficiary. Provision of this financial assurance will be phased in over the first 11 years of the Solar Facility’s operation according to the requirements in the AIMA as follows:

1. On or before the first anniversary of the commercial operation date, NPS shall provide Christian County with financial assurance to cover ten (10) percent of the estimated net costs of deconstruction of the facility as determined in the deconstruction plan.
2. On or before the sixth anniversary of the commercial operation date, NPS shall provide Christian County with financial assurance to cover fifty (50) percent of the estimated net costs of deconstruction of the facility as determined in the deconstruction plan.
3. On or before the eleventh anniversary of the commercial operation date, NPS shall provide Christian County with financial assurance to cover one hundred (100) percent of the estimated net costs of deconstruction of the facility as determined in the updated deconstruction plan provided during the tenth year of commercial operation.

Prior to the commencement of construction, NPS will file this Plan with the County. The County shall have access to the financial assurance for the expressed purpose of completing decommissioning if decommissioning is not completed by NPS within twelve months of the end of the project life or facility abandonment. The County will have access to the facility property, pursuant to reasonable notice, to effect or complete decommissioning using the facility owner’s financial security for decommissioning. This Plan ensures financial resources will be available to fully decommission the site. A draft Performance Guaranty between NPS and the County, which identifies procedures for County’s access to financial assurances, is provided in Exhibit B.

Approvals

Well-planned and well-managed commercial solar energy facilities are not expected to pose environmental risks at the time of decommissioning. Decommissioning of a Solar Facility will follow all applicable standards present at the time deconstruction and decommissioning occurs. NPS will ensure that any required permits are obtained prior to decommissioning, including any

applicable Christian County ordinances and/or regulations of the Illinois Environmental Protection Agency or the United States Environmental Protection Agency.

As required by the Illinois Department of Agriculture ("IDOA"), a signed AIMA between the facility owner and IDOA is included with NPS's application to Christian County for a special use permit. The standards contained within the AIMA are applicable to the construction and deconstruction activities which occur on privately owned agricultural land. Except for specific items in the financial assurance section of the AIMA, all actions set forth in the AIMA are subject to modification through negotiation by NPS and the landowner. The decommissioning will be in compliance with 55 ILCS 5/5-12020. This statute states a County shall not require standards for decommissioning or deconstruction of a commercial solar energy facility or relate financial assurances that are more restrictive than those included in the Department of Agriculture's standard solar agricultural impact mitigation agreement, version 8.19.19, as applicable and in effect on December 31, 2022.

In accordance with the AIMA, Christian County may, but is not required to, reevaluate the estimated costs of deconstruction of the Solar Facility after the tenth anniversary of the commercial operations date, and every five years thereafter. This Plan will be updated and submitted to Christian County as necessary over the term of the Solar Facility to ensure that changes in technology and site restoration methods are taken into consideration.

Conclusion

This Decommissioning and Deconstruction Plan ensures the Solar Facility is properly decommissioned upon the end of the useful life of the facility. The terms of this decommissioning plan will be binding upon the facility owner and any of its successors, assigns, or heirs.

Exhibit A

Estimated Net Deconstruction Costs

Decommissioning Costs					
Project Name	North Pana Solar, LLC				
County	Christian County, Illinois				
Nameplate Capacity	4.990MW(AC)				
NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
Removal/Disposal					
1	Solar Modules	12,480	Units	\$3.00	\$37,440.00
2	Inverters	40	Units	\$150.00	\$6,000.00
3	Transformer	1	Units	\$3,000.00	\$3,000.00
4	Racking Frame (Steel)	437	Units	\$140.00	\$61,152.00
5	Racking Posts (Steel)	1,373	Units	\$5.50	\$7,550.40
6	Wire (Aluminum)	28,330	LF	\$0.15	\$4,249.44
7	Wire (Copper)	72,384	LF	\$0.08	\$5,790.72
8	Asphalt	0	SY	\$50.00	\$0.00
9	Concrete	70	CY	\$80.00	\$5,608.99
10	Gravel	351	CY	\$3.00	\$1,051.69
11	Chain Link Fence	9,816	LF	\$1.00	\$9,815.73
Site Restoration					
12	Grading/Seeding/Mulching	37	AC	\$750.00	\$27,750.00
				Sub Total	\$169,408.96
Salvage Value					
13	Solar Modules	12,480	Units	\$4.00	\$49,920.00
14	Inverters	40	Units	\$175.00	\$7,000.00
15	Transformer	1	Units	\$4,000.00	\$4,000.00
16	Racking Frame (Steel)	350,422	LB	\$0.09	\$31,537.94
17	Racking Posts (Steel)	140,084	LB	\$0.09	\$12,607.60
18	Wire (Aluminum)	11,919	LB	\$0.65	\$7,747.42
19	Wire (Copper)	5,258	LB	\$3.25	\$17,089.89
20	Chain Link Fence	42,011	LB	\$0.11	\$4,621.25
				Sub Total	\$134,524.10
Net Cost of Decommissioning					\$34,884.87

Exhibit B

Draft Performance Guaranty

PERFORMANCE GUARANTY

This performance guaranty ("Guaranty") is made as of _____, 2023, North Pana Solar, LLC, an Illinois limited liability company ("Applicant"), to and for the benefit of Christian County, Illinois ("County"), and its successors and assigns.

RECITALS:

A. Applicant applied for a special use permit ("SUP") from County for the development and operation of a 35-acre commercial solar energy facility in Christian County on Parcel Number 11-25-09-400-004-00 ("Project"). Christian County approved the application granting the requested SUP pursuant to _____ effective _____. The SUP approval obligates the Applicant to completely remove the solar panels and related equipment in accordance with the decommissioning plan submitted with its application ("Decommissioning Plan") within twelve months of the end of the solar facility's operating life. In particular, the SUP approval requires Applicant to provide a performance guarantee in a form approved by the County for payment to County should Applicant fail to perform its decommissioning obligations.

B. Applicant has provided County with a copy of the Decommissioning and Deconstruction Plan, including a cost analysis, dated _____, prepared by José J. Rivera, an Illinois licensed Professional Engineer (Illinois License Number 062-071261), of Rivera Engineering. The plan estimates that the projected cost of decommissioning in accordance with the Decommissioning Plan will be thirty four thousand eight hundred and eighty four and 87/100 dollars (\$34,884.87) ("Estimate").

C. County is willing to accept this Guaranty from Applicant as fulfilling the requirements imposed on Applicant under the SUP only if the Applicant agrees to provide a bond from a surety company that unconditionally guarantees payment of up the full amount of the Estimate, which is the sum of thirty four thousand eight hundred and eighty four and 87/100 dollars (\$34,884.87) ("Guaranteed Sum").

AGREEMENT

NOW, THEREFORE, to satisfy County's condition to the granting of the SUP to Applicant, enabling Applicant to proceed with the development of the Project, Applicant agrees as follows:

1. **Guaranty.** Applicant irrevocably, unconditionally, and absolutely guarantees to and for the benefit of County the due, punctual and full payment of the costs

such invalidity or unenforceability and shall be deemed modified to conform to such statute, regulation or rule of law. The remainder of this Guaranty and the application of any such invalid or unenforceable provision to parties, jurisdictions or circumstances other than those to whom or to which it is held invalid or unenforceable, shall not be affected by such invalidity or unenforceability nor shall such invalidity or unenforceability affect the validity or enforceability of any other provision of this Guaranty.

12. **General Provisions.** This Guaranty shall be binding upon the respective heirs, legal representatives, successors and assigns of Applicant, and shall inure to the benefit of County and its successors and assigns. Descriptive headings of the Sections of this Guaranty have been inserted herein for convenience of reference only and shall not define or limit the provisions hereof.

APPLICANT:

North Pana Solar, LLC,
an Illinois limited liability company

By: _____

Name: _____

Its: _____

Address:

3519 NE 15th Ave. #106
Portland, OR 97212

EXHIBIT A
[Form of Surety Bond]

