

CASE NO. 144-S-24

PRELIMINARY MEMORANDUM

September 5, 2024

Petitioners: Little Prairie Solar LLC, c/o BayWa r.e. Solar Projects LLC, 18575 Jamboree Road, Suite 850, Irvine CA 92612, via agent David Holly, Development Manager for BayWa r.e. Solar Projects LLC, and the participating landowners listed in Attachment A

**Brookens Administrative
Center**
1776 E. Washington
Street
Urbana, Illinois 61802

(217) 384-3708
zoningdept@co.champaign.il.us
www.co.champaign.il.us/s/zoning

Request: Authorize a Utility-Scale PV Solar Farm with a total nameplate capacity of 135 megawatts (MW), including access roads and wiring, and an accessory 135 MW Battery Energy Storage System, in the AG-1 Agriculture Zoning District, and including the following waivers of standard conditions:

Part A: A waiver for not entering into a Roadway Upgrade and Maintenance Agreement or waiver therefrom with the relevant local highway authority prior to consideration of the Special Use Permit by the Zoning Board of Appeals, per Section 6.1.5 G.(1)

Part B: A waiver for locating the PV Solar Farm less than one and one-half miles from an incorporated municipality per Section 6.1.5 B.(2)a.

Part C: A waiver for locating the PV Solar Farm 65 feet from a non-participating lot that is 10 acres or less in area in lieu of the minimum required separation of 240 feet between the solar farm fencing and the property line, per Section 6.1.5 D.(3)a.

Part D: A waiver for a separation distance of 225 feet between the solar inverters and the perimeter fence in lieu of the minimum required 275 feet, per Section 6.1.5 D.(6)

Other waivers may be necessary.

Location: In Sidney Township the following sections are included with exceptions as described in Attachment A: Sections 12, 13, 14, 15, 23 and 24, Township 18 North, Range 10 East of the 3rd Principal Meridian.

Site Area: PV Solar Farm Special Use Permit Area is approximately 1047 acres
Fenced solar farm area is approximately 785 acres

Time Schedule for Development: As soon as possible

Prepared by: Charlie Campo
Senior Planner

John Hall
Zoning Administrator

BACKGROUND

The petitioner applied for a Special Use Permit to construct a 135 megawatt (MW) Photovoltaic (PV) utility scale solar farm and an accessory 135 MW Battery Energy Storage System (BESS) on a group of properties southeast of the Village of Sidney. The proposed "Little Prairie Solar" facility would

have 335,634 solar modules and thirty-five (35) inverters along with a 6.8 acre BESS facility with 174 battery modules and 58 inverters, surrounded by an 8 feet tall wire fence with security gates. Access would be from 17 new access points via 20-foot wide native compacted earth or gravel access roads.

REQUESTED WAIVERS

Waiver Part A is for not entering into a Roadway Upgrade and Maintenance Agreement with the relevant local highway authority prior to consideration of the Special Use Permit by the ZBA, per Section 6.1.5 G. As a utility-scale project, a waiver from the relevant highway authority is not an option. The petitioner has coordinated with the Champaign County Engineer and the Sidney Township Highway Commissioner, and attempted to contact the South Homer Township Highway Commissioner with no response. The petitioner plans to use the previously executed Roadway Upgrade and Maintenance Agreement that was executed for the adjacent Prairie Solar 1 project as a template for the agreement for this project. A Special Condition has been added and states that a Roadway Upgrade and Maintenance Agreement signed by relevant County, township, and/or municipal authorities and approved by the Environment and Land Use Committee, shall be submitted at the time of application for a Zoning Use Permit.

Waiver Part B is for locating the PV Solar Farm less than one and one-half miles from an incorporated municipality per 6.1.5 B.(2)a. The subject property is within the one and one-half mile extraterritorial jurisdiction of the Village of Sidney, a municipality with zoning. Zoned municipalities do not have protest rights in Special Use Permit cases. Notice was sent by the department to the Village of Sidney. A copy of the Special Use permit application was provided to the Village of Sidney. A public hearing for a PV Solar Farm within one and one-half miles of a municipality with zoning shall occur at a minimum of two Board meetings no less than 28 days apart unless the requirement is waived by the relevant municipality.

Waiver Part C is for locating the PV Solar Farm 65 feet from a non-participating lot that is 10 acres or less in area in lieu of the minimum required separation of 240 feet between the solar farm fencing and the property line, per Section 6.1.5 D.(3)a. The non-participating property in question is a 7-acre parcel with a property line that lies at the center of CR 900N. The solar farm fencing is more than 600 feet from the residence on the property and the nearest inverter is over 1100 feet away.

Waiver Part D is for a separation distance of 225 feet between the solar inverters and the perimeter fence in lieu of the minimum required 275 feet, per Section 6.1.5 D.(6). The one inverter that cannot meet the required separation is located on a narrow parcel on the east side of the project area and is over 2,000 feet from the nearest building.

FUNDAMENTAL CONSIDERATIONS

The application includes numerous details and reports that create an overall picture for the proposed solar farm. P&Z Staff provide a short summary below, and additional information can be found in the petitioner's submittals.

Separation distances

The solar farm meets or exceeds all required separation distances except for the instances for which the petitioners have requested waivers. The proposed solar farm is less than 1.5 miles from the Village of Sidney but further from the Village than the previously approved Prairie Solar 1

development approved under Special Use Permit Case #898-S-18. The other two waivers are for two locations where equipment is closer than allowed to property lines but in both cases is at least 600 feet away from a building.

Noise results

Noise levels from the 35 proposed solar inverters, 58 BESS inverters and 174 BESS battery modules is a primary concern. As proposed, the equipment noise levels comply with the Illinois Pollution Control Board (IPCB) requirements. A draft sound study prepared by Kimley Horn and received with the application on June 17, 2024, states that noise from the proposed solar farm will be lower than the existing daytime noise level and similar to the existing nighttime noise level.

Landscaped Screening

A Landscape Plan and a Maintenance and Monitoring Plan were received June 17, 2024. The proposed landscape buffer appears to comply with screening requirements.

Drainage & tile

The petitioners submitted a report titled “Agricultural Drainage Considerations Including modifications and maintenance recommendations for ground mounted solar projects within existing agricultural land use areas” by Tom Huddleston of Huddleston McBride Land Drainage, received June 17, 2024.

Most requirements regarding drainage would occur during the construction permitting process, and a special condition has been added to ensure compliance with the requirements.

Decommissioning plan

A Decommissioning Plan for the proposed solar farm was received with the application on June 17, 2024. The applicant has acknowledged all ordinance requirements regarding the Decommissioning Plan. A special condition has been added to require a signed Decommissioning and Site Reclamation Plan that has been approved by the Environment and Land Use Committee is required at the time of application for a Zoning Use Permit that complies with Section 6.1.1 A. and Section 6.1.5 Q. of the Zoning Ordinance, including a decommissioning cost estimate prepared by an Illinois Professional Engineer.

PUBLIC COMMENTS

P&Z Staff have received two comments in support of the project from adjacent landowners. Copies of the emails are included with this memo as Attachment F & G.

PROPOSED SPECIAL CONDITIONS

The following special conditions, combined with the requested waivers, would ensure that the proposed solar farm is in compliance with the Zoning Ordinance.

A. The approved site plan consists of the following documents:

- **Sheet SDP 100 of the Site Plan received August 5, 2024.**
- **Sheets SDP 101-110 of the Site Plan received August 26, 2024**
- **Sheet BSDP 100 of the Site Plan received August 5, 2024**
- **Sheets L 101-107 of the Landscape Plan and sheets L 200-201 of the Maintenance and Monitoring plan received June 17, 2024.**

The special condition stated above is required to ensure the following:

The constructed PV SOLAR FARM is consistent with the special use permit approval.

- B. The Zoning Administrator shall not authorize a Zoning Use Permit Application or issue a Zoning Compliance Certificate on the subject property until the lighting specifications in Paragraph 6.1.2.A. of the Zoning Ordinance have been met.**

The special condition stated above is required to ensure the following:

That exterior lighting for the proposed Special Use meets the requirements established for Special Uses in the Zoning Ordinance.

- C. The Zoning Administrator shall not issue a Zoning Compliance Certificate for the proposed PV SOLAR FARM until the petitioner has demonstrated that the proposed Special Use complies with the Illinois Accessibility Code, if necessary.**

The special condition stated above is necessary to ensure the following:

That the proposed Special Use meets applicable state requirements for accessibility.

- D. A signed Decommissioning and Site Reclamation Plan that has been approved by ELUC is required at the time of application for a Zoning Use Permit that complies with Section 6.1.1 A. and Section 6.1.5 Q. of the Zoning Ordinance, including a decommissioning cost estimate prepared by an Illinois Professional Engineer.**

The special condition stated above is required to ensure the following:

That the Special Use Permit complies with Ordinance requirements and as authorized by waiver.

- E. Roadway Upgrade and Maintenance Agreements signed by the County Highway Engineer Sidney Township Highway Commissioner and any other relevant highway jurisdiction, and approved by the Environment and Land Use Committee, shall be submitted at the time of application for a Zoning Use Permit.**

The special condition stated above is required to ensure the following:

To ensure full compliance with the intent of the Zoning Ordinance in a timely manner that meets the needs of the applicant.

- F. The following submittals are required prior to the approval of any Zoning Use Permit for a PV SOLAR FARM:**
- 1. Documentation of the solar module's unlimited 10-year warranty and the 25-year limited power warranty.**
 - 2. A Storm Water Management Plan which conforms to the Champaign County Storm Water Management and Erosion Control Ordinance.**

3. **Certification by an Illinois Professional Engineer that any relocation of drainage district tile conforms to the Champaign County Storm Water Management and Erosion Control Ordinance.**
4. **An irrevocable letter of credit to be drawn upon a federally insured financial institution with a minimum acceptable long term corporate debt (credit) rating of the proposed financial institution shall be a rating of “A” by S&P or a rating of “A2” by Moody’s within 200 miles of Urbana or reasonable anticipated travel costs shall be added to the amount of the letter of credit.**
5. **A permanent soil erosion and sedimentation plan for the PV SOLAR FARM including any access road that conforms to the relevant Natural Resources Conservation Service guidelines and that is prepared by an Illinois Licensed Professional Engineer.**
6. **Documentation regarding the seed to be used for the pollinator planting, per 6.1.5 F.(9).**
7. **A Transportation Impact Analysis provided by the applicant that is mutually acceptable to the Applicant and the County Engineer and State’s Attorney; or Township Highway Commissioner; or municipality where relevant, as required by 6.1.5 G. 2.**
8. **The telephone number for the complaint hotline required by 6.1.5 S.**
9. **Any updates to the approved Site Plan from Case 144-S-24 per the Site Plan requirements provided in Section 6.1.5 U.1.c.**

The special condition stated above is required to ensure the following:

That the PV SOLAR FARM is constructed consistent with the Special Use Permit approval and in compliance with the Ordinance requirements.

- G. **A Zoning Compliance Certificate shall be required for the PV SOLAR FARM prior to going into commercial production of energy. Approval of a Zoning Compliance Certificate shall require the following:**
1. **An as-built site plan of the PV SOLAR FARM including structures, property lines (including identification of adjoining properties), as-built separations, public access road and turnout locations, substation(s), electrical cabling from the PV SOLAR FARM to the substations(s), and layout of all structures within the geographical boundaries of any applicable setback.**
 2. **As-built documentation of all permanent soil erosion and sedimentation improvements for all PV SOLAR FARM including any access road prepared by an Illinois Licensed Professional Engineer.**
 3. **An executed interconnection agreement with the appropriate electric utility as required by Section 6.1.5 B.(3)b.**

The special condition stated above is required to ensure the following:

That the PV SOLAR FARM is constructed consistent with the special use permit approval and in compliance with the Ordinance requirements.

- H. **The Applicant or Owner or Operator of the PV SOLAR FARM shall comply with the following specific requirements that apply even after the PV SOLAR FARM goes into commercial operation:**
1. **Maintain the pollinator plantings and required visual screening in perpetuity.**
 2. **Cooperate with local Fire Protection District to develop the District's emergency response plan as required by 6.1.5 H.(2).**
 3. **Cooperate fully with Champaign County and in resolving any noise complaints including reimbursing Champaign County any costs for the services of a qualified noise consultant pursuant to any proven violation of the I.P.C.B. noise regulations as required by 6.1.5 I.(4).**
 4. **Maintain a current general liability policy as required by 6.1.5 O.**
 5. **Submit annual summary of operation and maintenance reports to the Environment and Land Use Committee as required by 6.1.5 P.(1)a.**
 6. **Maintain compliance with the approved Decommissioning and Site Reclamation Plan including financial assurances.**
 7. **Submit to the Zoning Administrator copies of all complaints to the telephone hotline on a monthly basis and take all necessary actions to resolve all legitimate complaints as required by 6.1.5 S.**

The special condition stated above is required to ensure the following:

That future requirements are clearly identified for all successors of title, lessees, any operator and/or owner of the PV SOLAR FARM.

ATTACHMENTS

- A Legal Description/Participating Landowners
- B Case Maps (Location Map, Land Use, and Zoning, Annotated Aerial, Participating Parcels, Prairie Solar 1 898-S-18, Project Comparison)
- C Revised Site Plan received August 26, 2024
- D Revised BESS Site Plan received August 5, 2024
- E Select application exhibits received June 17, 2024:
 - 1 Preliminary Landscape Plan L100-L107, L200-L210
 - 2 Decommissioning Plan
 - 3 Drainage and Tile report
 - 4 Sound Study
- F Email from Philip Fiscella received 9/1/24
- G Email from E. Matthew Fischer received 9/4/24
- H SUP Application (*separate bound copy for ZBA members and upon request at P&Z Department*)

Case 144-S-24 Subject Properties and Participating Landowners

Section 12, T18N, R10E of the 3rd P.M., Sidney Township. The Special Use Permit includes that part of the Southwest Quarter of Section 12 that lies south of the railroad tracks and includes the following properties owned by the following participating landowners:

- 32.5 acres owned by Susan Akers, 2705 Bayhill Drive, Champaign IL 61822.
- 34.54 acres owned by Rink Agricultural & Investment Partnership LP, 24332 Stripmine Road, Wilmington IL 60481-9342

Section 13, T18N, R10E of the 3rd P.M., Sidney Township. The Special Use Permit includes part of Section 13 except the Southeast Quarter and includes the following properties owned by the following participating landowners:

- 160 acres owned by Wilmar Solar LLC, H Miller Winston, 3325 Stoneybrook Dr., Champaign IL 61822-5231.
- 40 acres owned by Rink Agricultural & Investment Partnership LP, 24332 Stripmine Road, Wilmington IL 60481-9342.
- 53.33 acres owned by Rink Agricultural & Investment Partnership LP, 24332 Stripmine Road, Wilmington IL 60481-9342.
- 26.67 acres owned by Rink Agricultural & Investment Partnership LP, 24332 Stripmine Road, Wilmington IL 60481-9342.
- 80 acres owned by Rink Agricultural & Investment Partnership LP, 24332 Stripmine Road, Wilmington IL 60481-9342

Section 14, T18N, R10E of the 3rd P.M., Sidney Township. The Special Use Permit includes the North half and the Northwest Quarter of the Southwest Quarter of Section 14 and includes the following properties owned by the following participating landowners:

- 160 acres owned by AP Illinois, LLC, 3333 Lee Parkway, Suite 750, Dallas TX 75219.
- 80 acres owned by O'Neill Farms LLC, 3449 E Lincoln Trail, Fithian IL 61844.
- 120 acres owned by Susan Akers, 2705 Bayhill Drive, Champaign IL 61822.

Section 15, T18N, R10E of the 3rd P.M., Sidney Township. The Special Use Permit includes part of the Southeast Quarter of Section 15 and includes the following properties owned by the following participating landowners:

- 42.5 acres owned by John Grobe c/o Busey Ag Services, 3002 W. Windsor Rd, Champaign IL 61822-6106.
- 42.76 acres owned by Shawn & Kara Walker, 407 W Diller Street, Broadlands IL 61816-9752.

Section 23, T18N, R10E of the 3rd P.M., Sidney Township. The Special Use Permit includes the North Half of Section 23 and includes the following properties owned by the following participating landowners:

- 26.67 acres owned by Rink Agricultural & Investment Partnership LP, 24332 Stripmine Road, Wilmington IL 60481-9342.
- 50.18 acres owned by Rink Agricultural & Investment Partnership LP, 24332 Stripmine Road, Wilmington IL 60481-9342.
- 80 acres owned by David Owens, 15959 Inverrary Ln., Bloomington, IL 61705.
- 100 acres owned by Illinois Presbyterian Home c/o First Mid Ag Services, PO Box 1607, Bloomington IL 61702.

Section 24, T18N, R10E of the 3rd P.M., Sidney Township. The Special Use Permit includes the following properties owned by the following participating landowners in Section 24 except the Southwest Quarter:

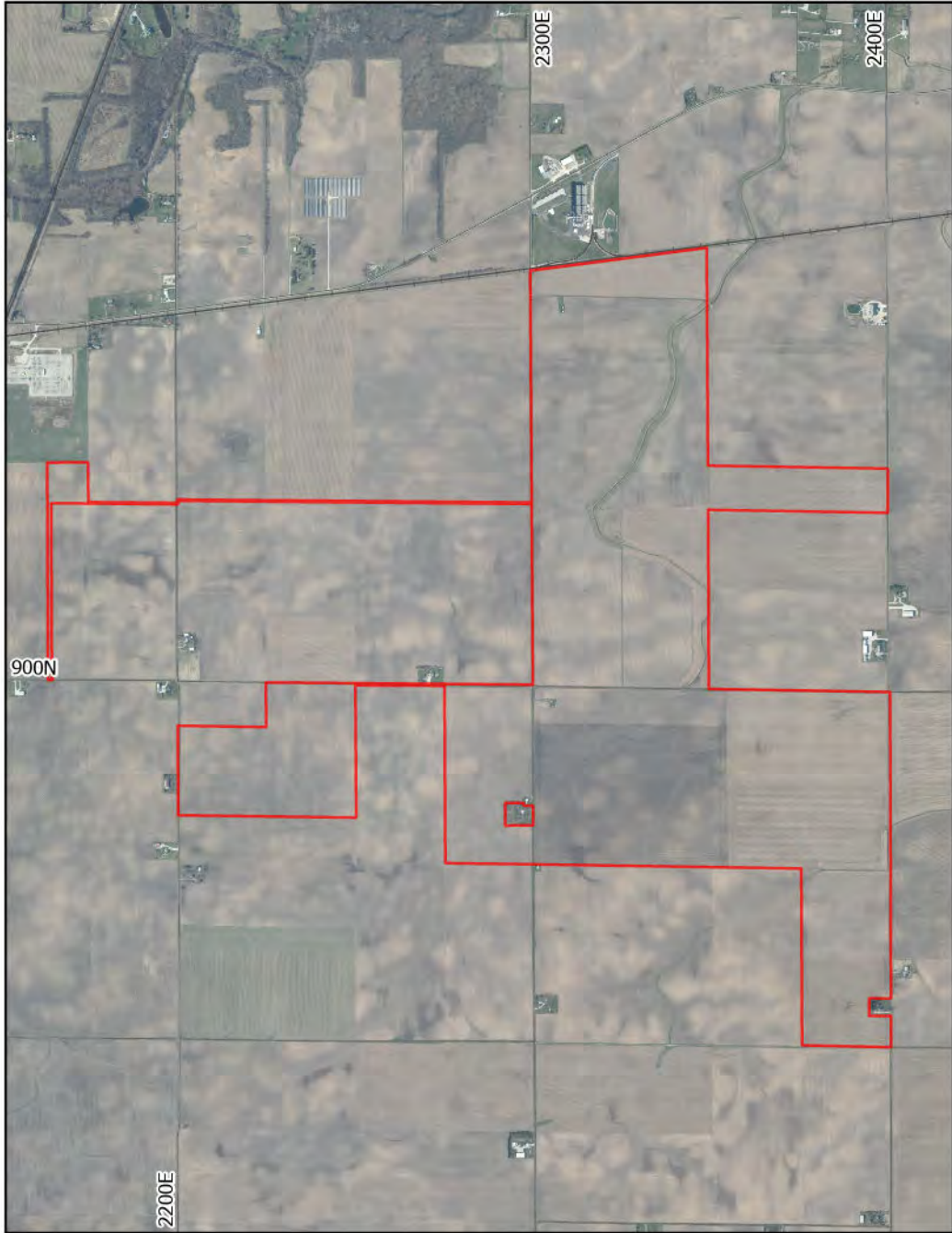
- 16.33 acres owned by Rink Agricultural & Investment Partnership LP, 24332 Stripmine Road, Wilmington IL 60481-9342.
- 16.33 acres owned by Rink Agricultural & Investment Partnership LP, 24332 Stripmine Road, Wilmington IL 60481-9342.
- 32.65 acres owned by Rink Agricultural & Investment Partnership LP, 24332 Stripmine Road, Wilmington IL 60481-9342.
- 80 acres owned by Rink Agricultural & Investment Partnership LP, 24332 Stripmine Road, Wilmington IL 60481-9342.
- 174.69 acres owned by Illinois Presbyterian Home c/o First Mid Ag Services, PO Box 1607, Bloomington IL 61702.
- 80 acres owned by Matthew Fischer, Coffeen-Fischer Farm LLC, 858 San Juan Dr., Pagosa Springs CO 81147.

Location Map

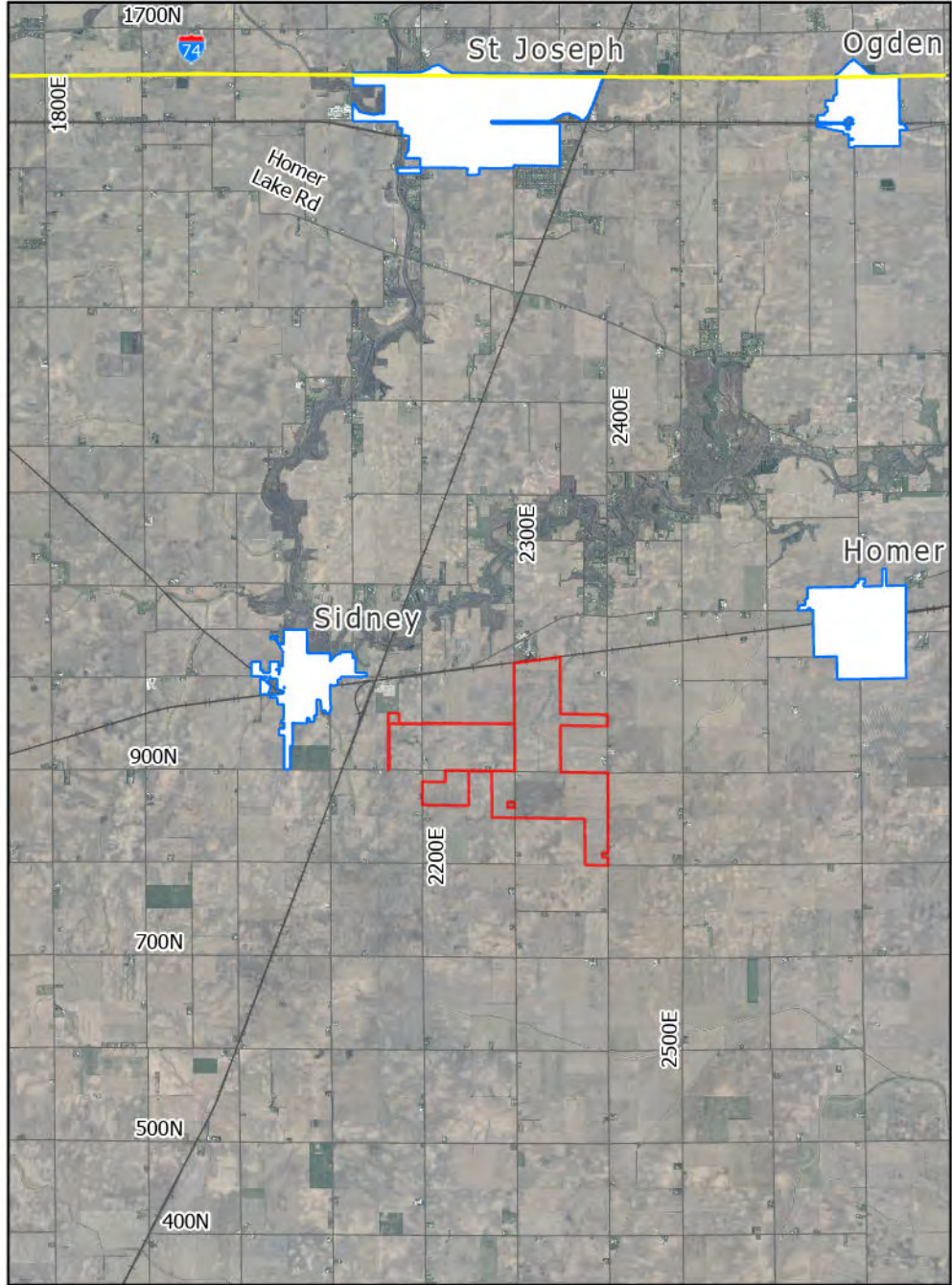
Case 144-S-24

September 12, 2024

Project Area



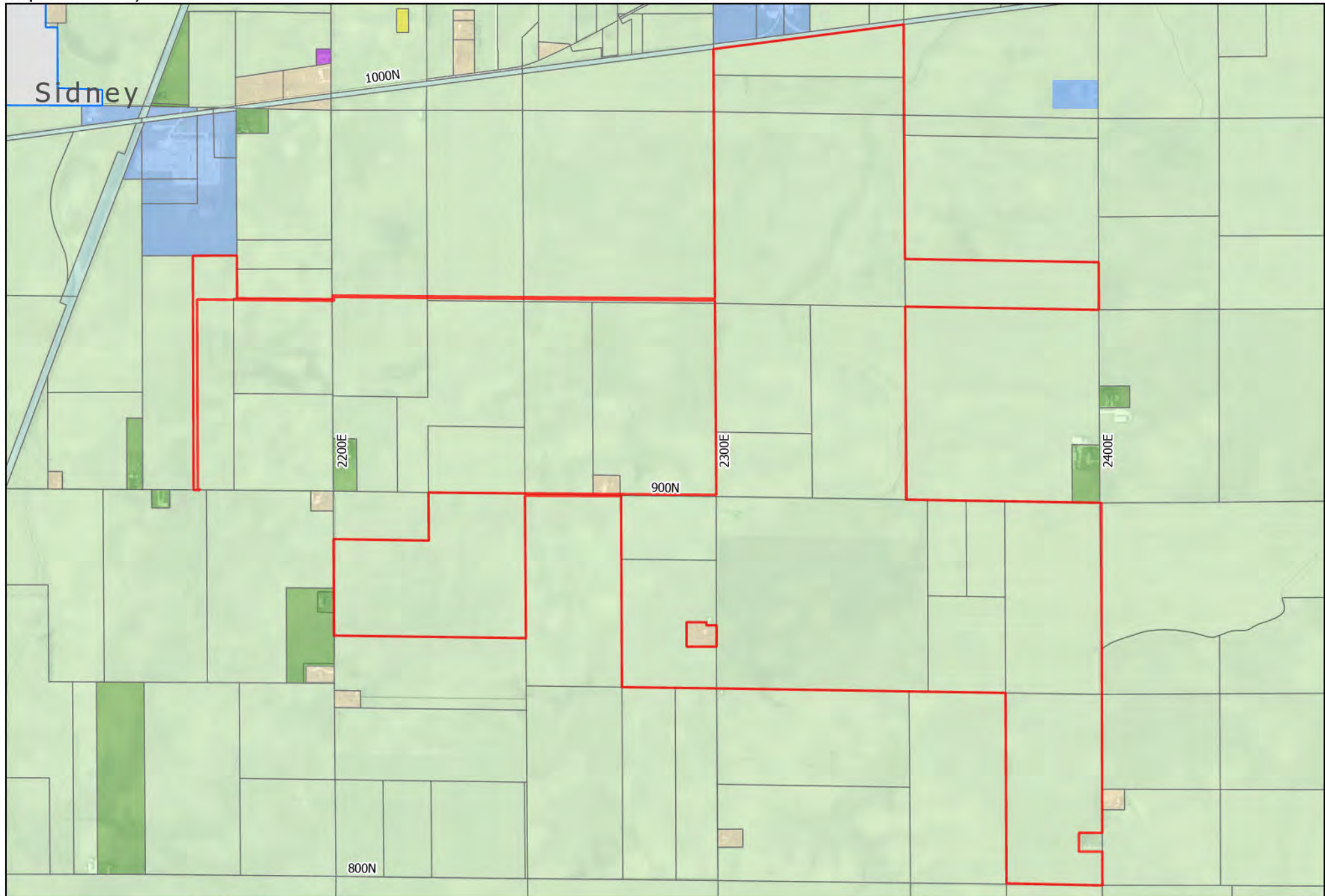
Project Area in Champaign County



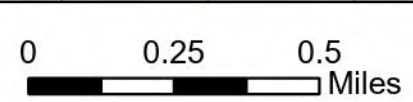
Land Use Map

Case 144-S-24

September 12, 2024

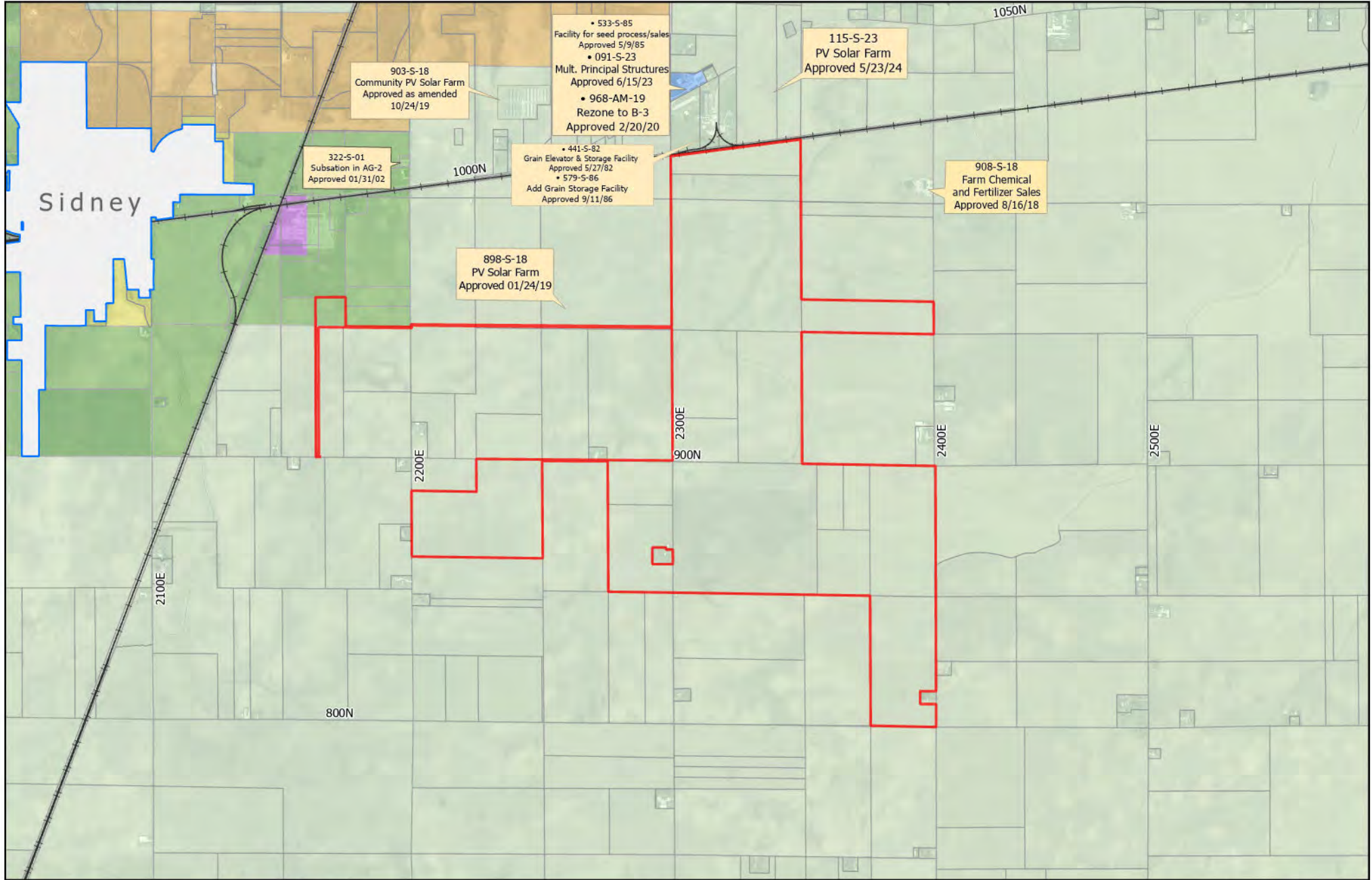


- Project Area
- Agriculture
- Agriculture/Residential
- Residential
- Utility
- Cemetery
- Commercial
- Municipal Boundary

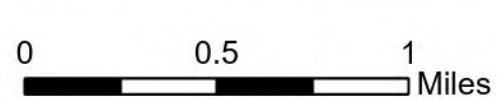


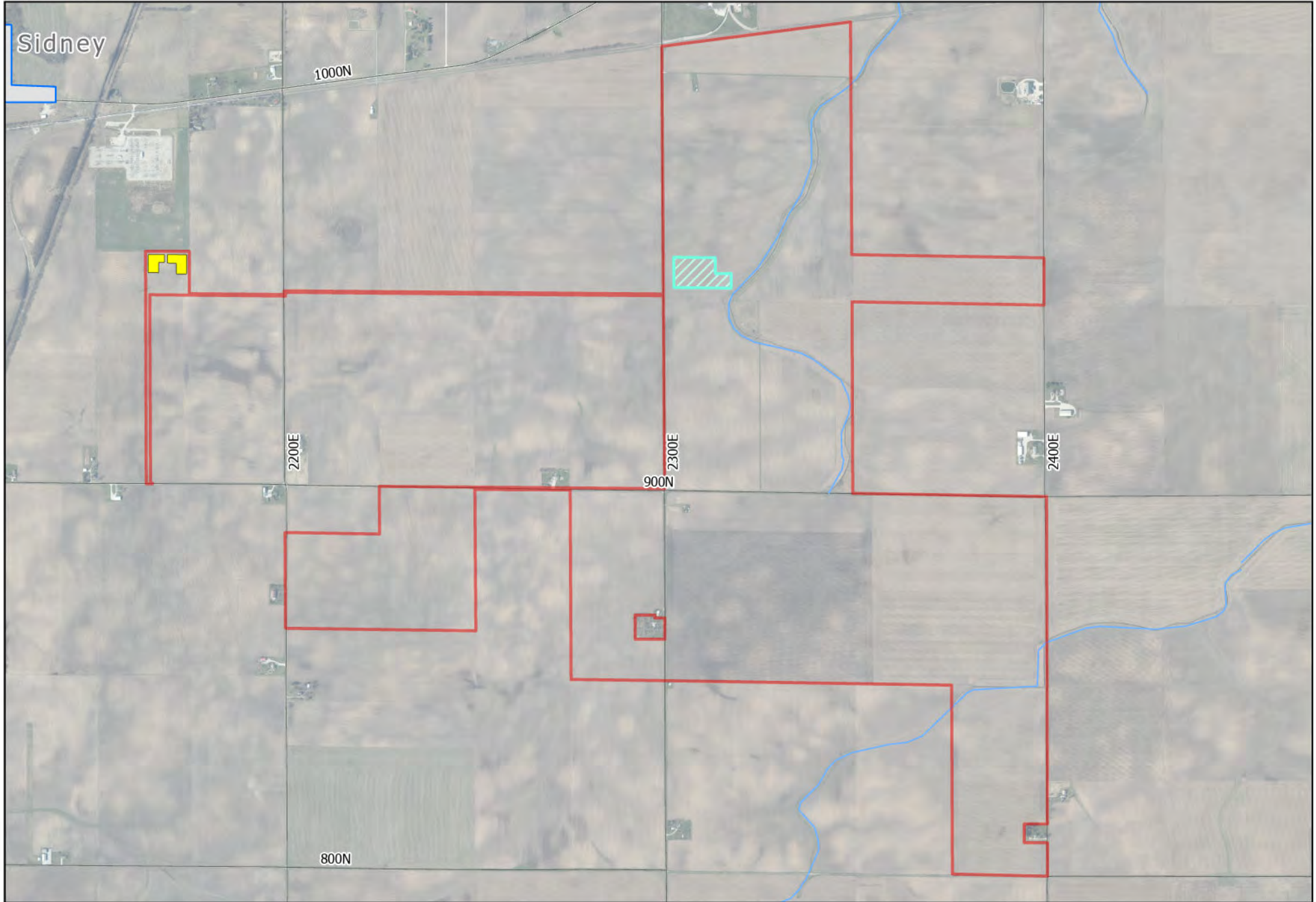
Zoning Map

Case 144-S-24
September 12, 2024

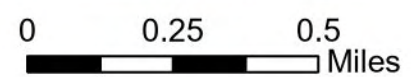


- Project Area
- AG-1 Agriculture
- AG-2 Agriculture
- R-1 Single Family Residence
- I-1 Light Industry
- CR Conservation & Recreation
- B-3 Highway Business
- Municipal Boundary



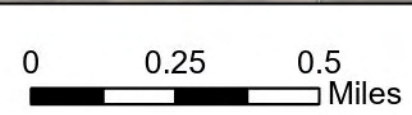
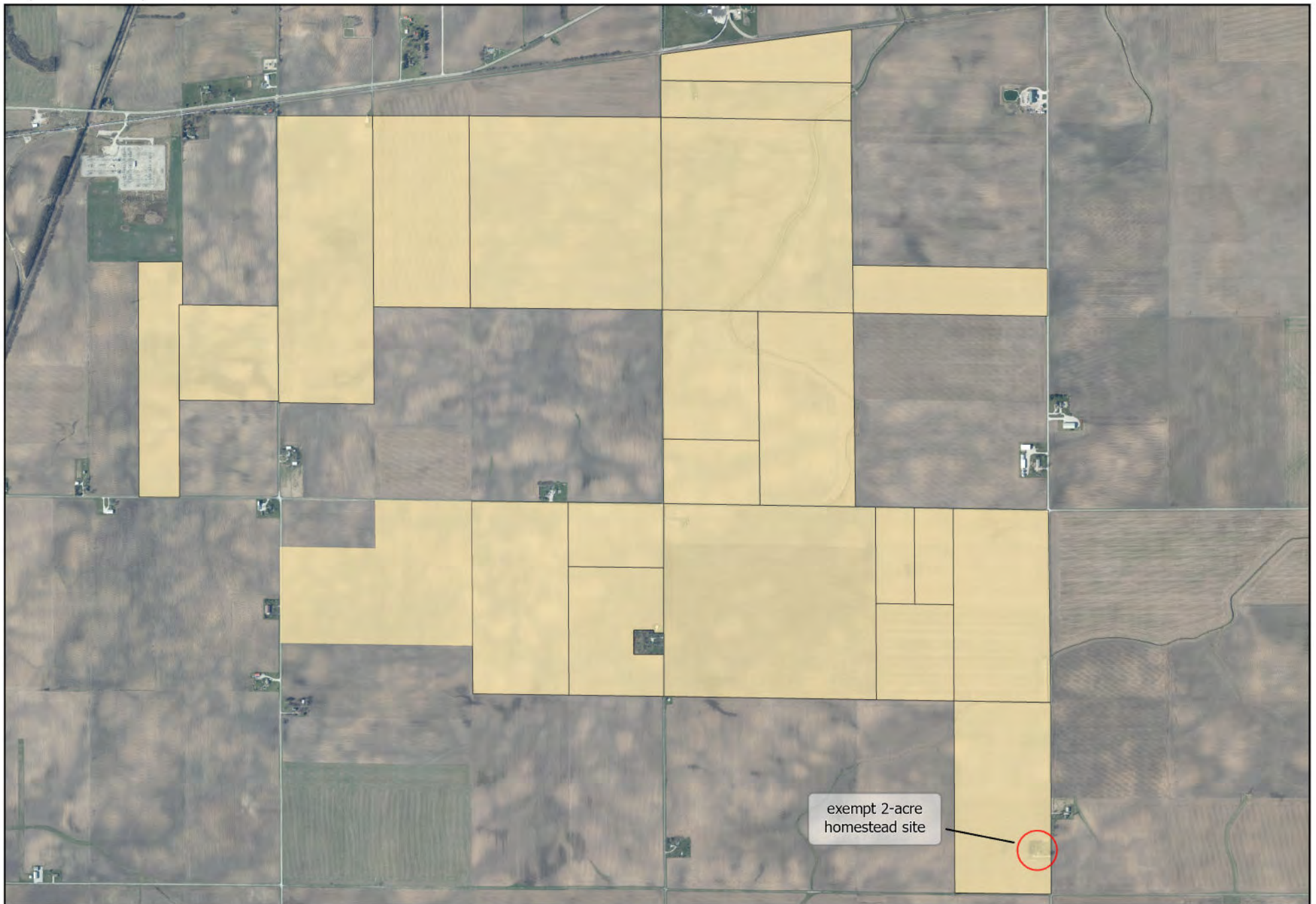


- Project Area
- Substations
- Municipal Boundary
- BESS Storage



Participating Parcels

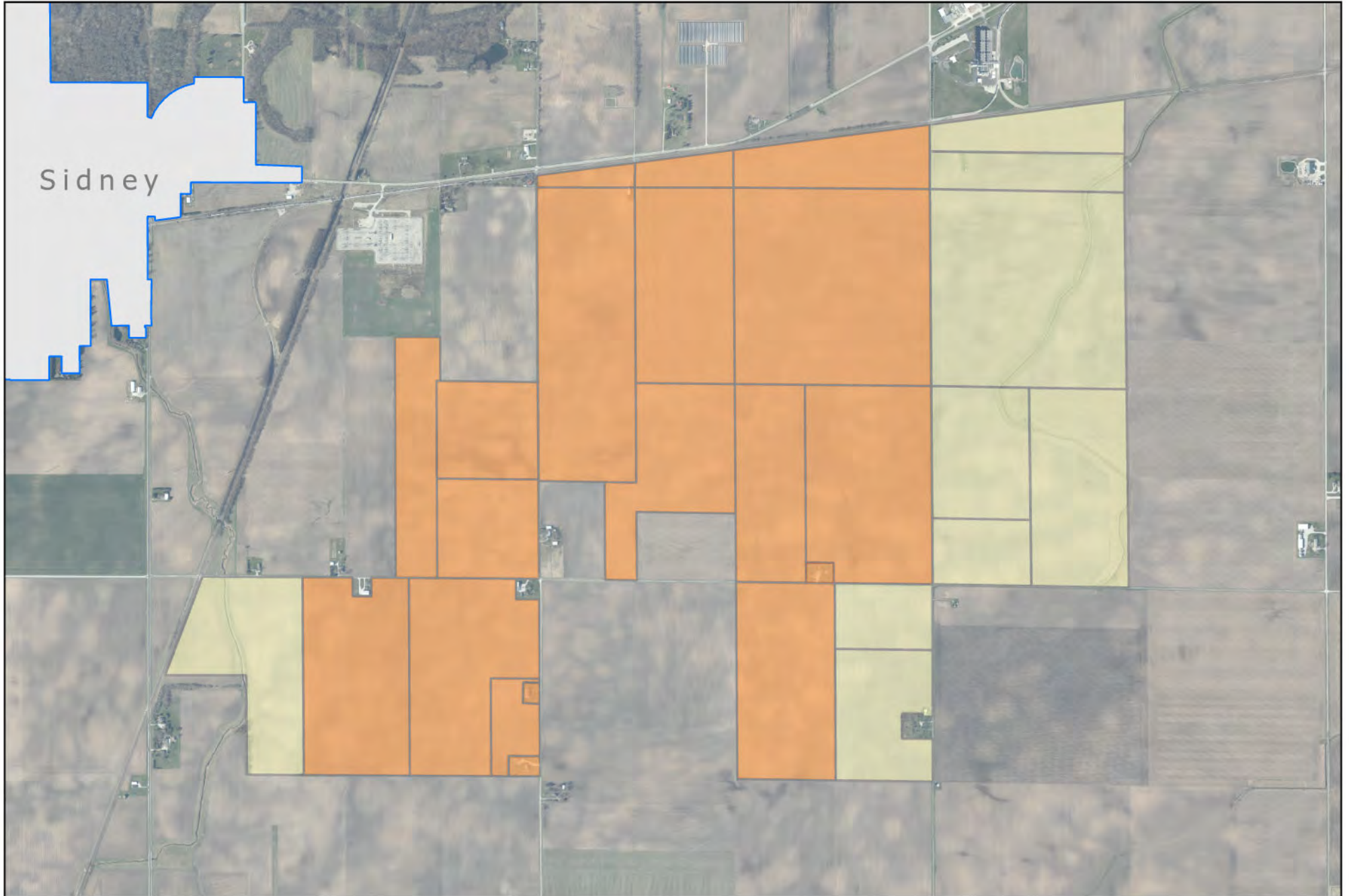
Case 144-S-24
September 12, 2024



Prairie Solar 1 898-S-18

Case 144-S-24

September 12, 2024



 ZUPA 221-24-01 Project Boundary (Under Review)

 Prairie Solar 1 898-S-18

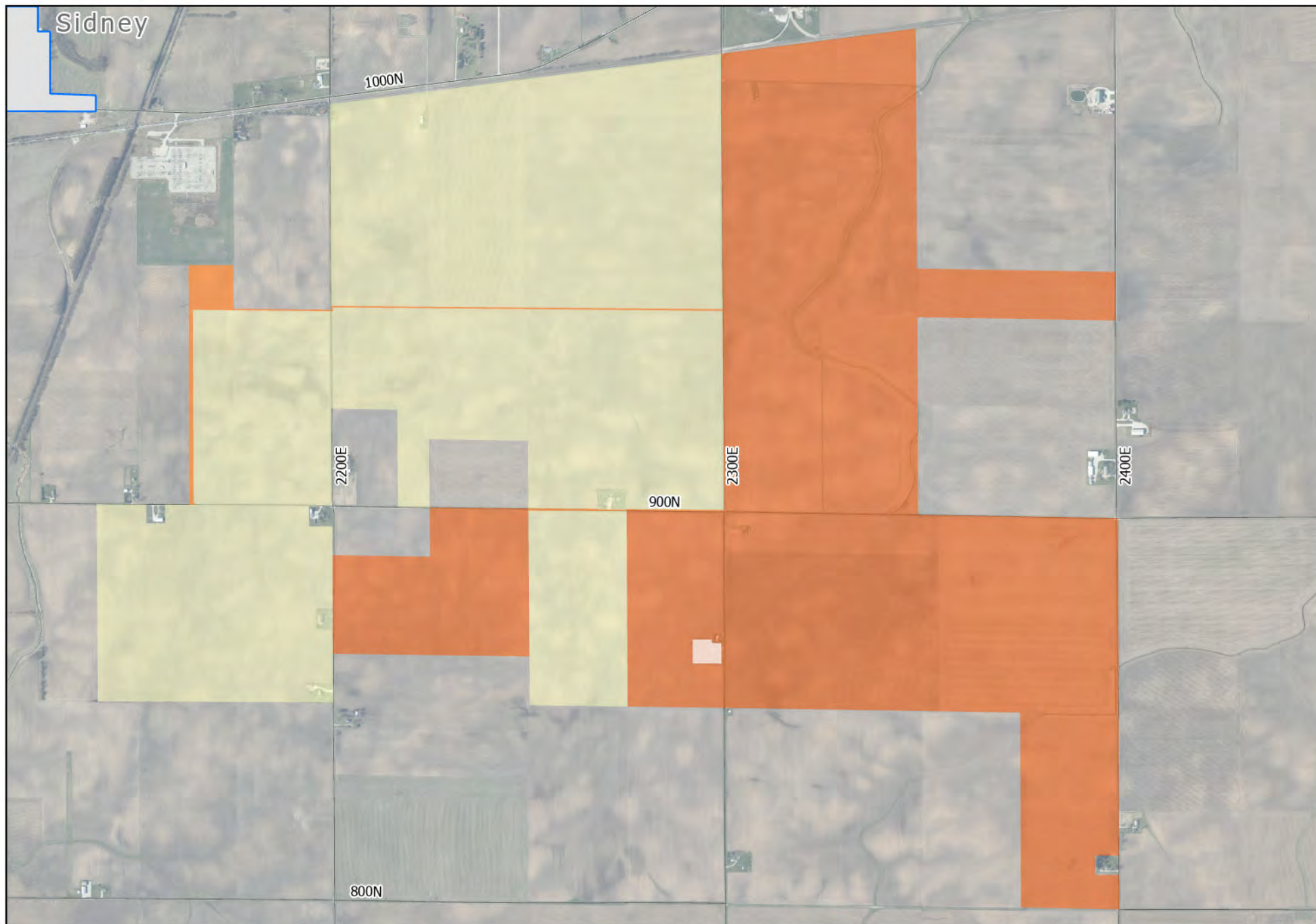
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Project Comparison

Case 144-S-24

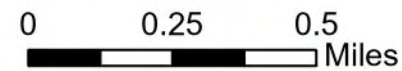
September 12, 2024



 Little Prairie Solar 144-S-24

 Municipal Boundary

 Prairie Solar 1 898-S-18



Owner/Developer	BayWa r.e.
Latitude:	40.012334
Longitude:	-88.028735
Min Elevation:	658
Max Elevation:	698
Total Project Boundary Acres:	1047.0
Total Buildable Acres:	859.4
Total Fenced Acres:	785.4
Total Array Acres:	655.8
Annual Cooling Design Temp:	91.3° F
Extreme Annual Min DB Mean Temp:	-9.4° F
Wind Load:	100 mph
Snow Load:	27 psf
Seismic	
Ss:	0.28
S1:	0.11

Design Information

Rotation/Tilt Angle	60
Module Wattage	550
Quantity of Modules	334,022
MWac PV	135.00
MWac BESS	135.0
BESS MWh	540
GCR	35%
Row Spacing	21.35

Notes:

This is a Preliminary Site Improvement Plan and subject to revisions. Preliminary Site Improvement Plan was placed using AutoCAD files provided by BayWa r.e. Aerial map is shown for reference only.

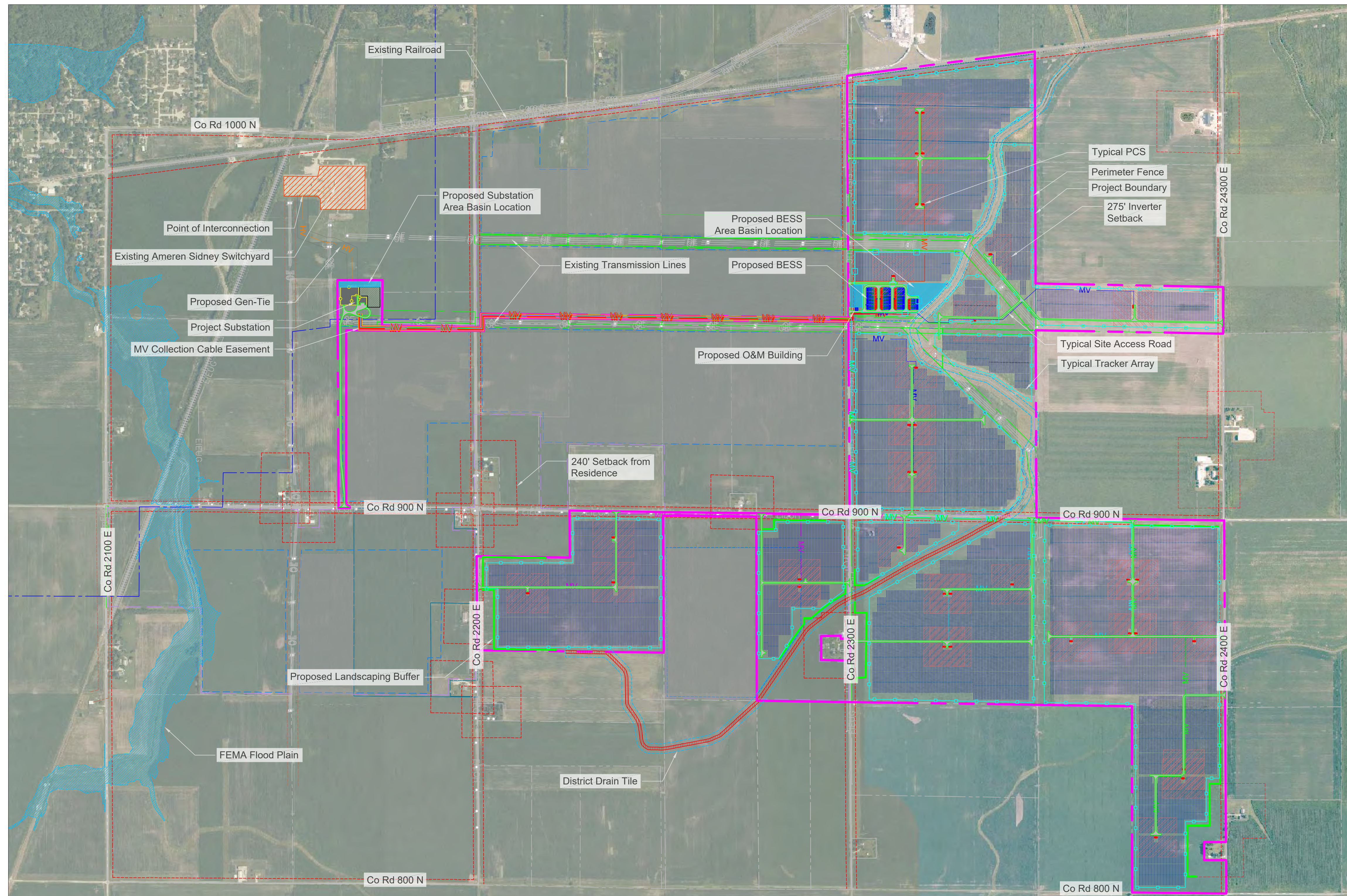
Vegetative screening for all dwellings within 1,000 feet of PV Solar Farm.

Access Roads

20' Wide (PV)
24' Wide (BESS)

Perimeter Fence

Approximately 82,307' LF of minimum 7-foot tall perimeter fence with 24' wide security gates

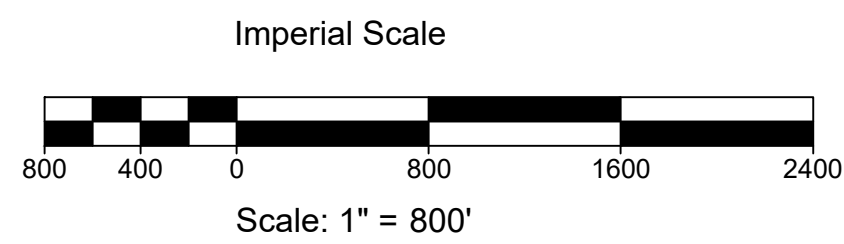


LEGEND

- Project Boundary / Special Use Permit Boundary
- OE Existing Overhead Line
- Existing Easement
- Existing Railroad
- Existing Contours
- HV High Voltage Line
- Proposed Fence
- Proposed MV Cable
- 0.5 Mile Sidney Village Municipal Setback
- 65' Road Setback
- 10/20' Side and Rear Setback
- 20' Fence Setback
- 50' District Drain Tile Setback
- 75' Overhead C/L Setback
- 240' Setback from Residence
- 275' Inverter Setback
- Solar Array
- Access Roads
- Proposed Landscape Buffer
- FEMA Flood Plain
- Project Substation
- PCS Station (35)

SITE IMPROVEMENT PLAN

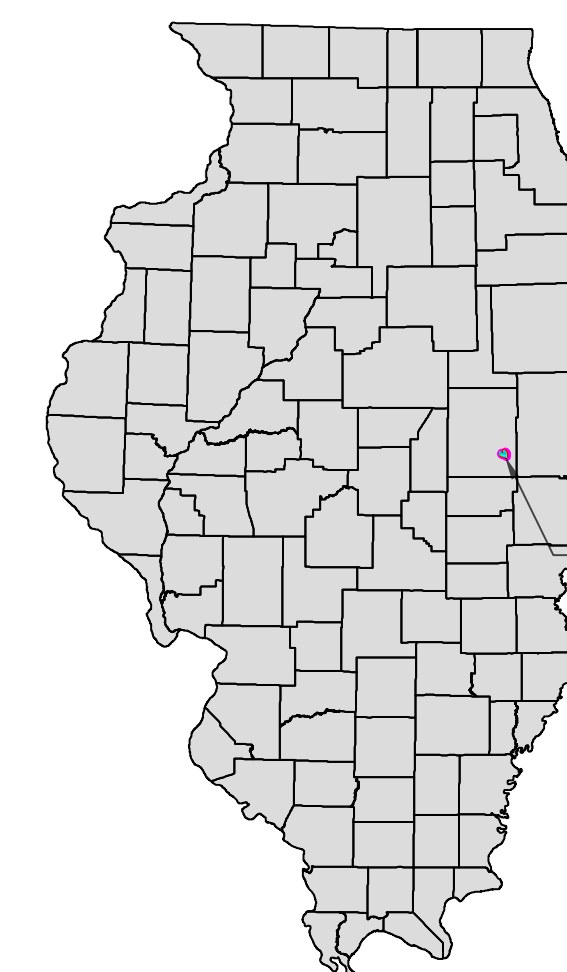
SCALE: 1" = 800'



RECEIVED
AUG 26, 2024
CHAMPAIGN COUNTY
PLANNING & ZONING

Information used to prepare this drawing		
Item	Source	Date, Revision
Boundary Information	CAD file provided by BayWa r.e.: ACAD-418736-Boundary-20240412.dwg	4/16/2024
CUP/SUP	None	N/A
Site Constraints	CAD file provided by BayWa r.e.: ACAD-418736-Boundary-20240412.dwg	4/16/2024
Geotechnical Report	None	N/A
FEMA Panel	Panel: 17019C0475D	10/1/2013
Topographic Survey	USGS	N/A
Hydrology Information	None	N/A
Wetlands Information	National Wetland Database	N/A
Point of Interconnection	Little Prairie Solar Project Site Plan	2/27/24, A
Aerial Imagery	Bing Map	N/A
ASHRAE Data	http://ashrae-meteo.info/index.php	ASHRAE 2021
Wind Load Source	https://asce7hazardtool.online/	(ASCE 7-21)
Snow Load Source	https://asce7hazardtool.online/	(ASCE 7-21)
Seismic Load Source	https://asce7hazardtool.online/	(ASCE 7-21)

*Files are based on State Plane Coordinate System NAD83



KEY MAP
SCALE: NTS

NOT FOR CONSTRUCTION



LITTLE PRAIRIE SOLAR LLC
SIDNEY, CHAMPAIGN COUNTY, ILLINOIS

THE DESIGN DRAWINGS ("DRAWINGS") PROVIDED HERewith ARE INTENDED FOR INFORMATIONAL PURPOSES ONLY AND SHOULD NOT BE CONSIDERED AS FINAL OR AUTHORITATIVE FOR CONSTRUCTION, FABRICATION, OR ANY RELATED ACTIVITIES. THE USER ACKNOWLEDGES AND AGREES THAT THESE DRAWINGS MAY NOT BE COMPLETE, ACCURATE, OR SUITABLE FOR CONSTRUCTION OR SUBMITTALS.

REV	DATE	DESCRIPTION
E	3/28/24	ADDED CAPACITY FOR PV AND BESS
F	4/22/24	REVISED BOUNDARY
G	4/24/24	CORRECTED BOUNDARY
H	5/29/24	CORRECTED BOUNDARY
I	7/14/24	REVISED FENCE, ACCESS ROAD & ADDED BASIN
J	7/31/24	REVISED ACCESS ROAD AND BESS SPACING
K	8/26/24	REVISED ACCESS ROAD

TITLE:
SITE IMPROVEMENT PLAN

PROJECT NO.:	ES-2024-01.003
DRAWN BY:	##
REVIEWED BY:	##
SCALE:	AS NOTED

SDP-100

SHEET 1 OF 1



www.enersol.design.com



LITTLE PRAIRIE SOLAR LLC
SIDNEY, CHAMPAIGN COUNTY, ILLINOIS

THE DESIGN DRAWINGS ("DRAWINGS") PROVIDED HERewith ARE INTENDED FOR INFORMATIONAL PURPOSES ONLY AND SHOULD NOT BE CONSIDERED AS FINAL OR AUTHORITY FOR CONSTRUCTION, FABRICATION, OR ANY RELATED ACTIVITIES. THE USER, ACKNOWLEDGES AND AGREES THAT THESE DRAWINGS MAY NOT BE COMPLETE, ACCURATE, OR SUITABLE FOR CONSTRUCTION OR SUBMITTALS.

REV	DATE	DESCRIPTION	DWN	CHK	APV
B	3/25/24	ISSUED FOR REVIEW	MP	MP	MP
C	3/27/24	ISSUED FOR REVIEW	MP	MP	MP
D	3/28/24	ADDED PARCEL INFORMATION	MP	MP	MP
E	4/22/24	REVISED BOUNDARY	MP	MP	MP
F	4/24/24	CORRECTED BOUNDARY	MP	MP	MP
G	5/29/24	CORRECTED BOUNDARY	MP	MP	MP
H	7/14/24	REVISED ACCESS ROAD	MP	MP	MP

TITLE:
SITE IMPROVEMENT PLAN

PROJECT NO.: ES-2024-01.002
DRAWN BY: MP
REVIEWED BY: MP
SCALE: AS NOTED

SDP-101
SHEET 2 OF 11

LEGEND

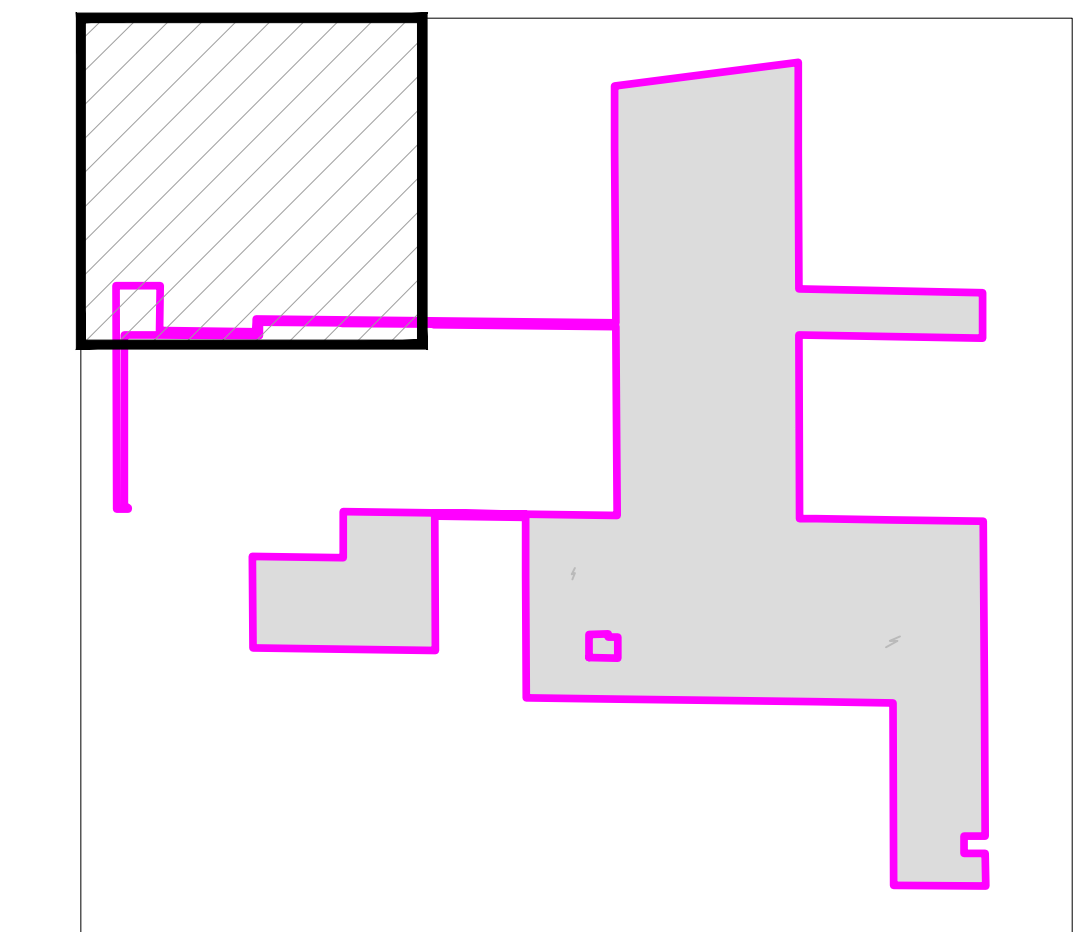
- Project Boundary / Special Use Permit Boundary
- Existing Overhead Line
- Existing Easement
- Existing Railroad
- Existing Contours
- HV High Voltage Line
- MV Proposed MV Cable
- 0.5 Mile Sidney Village Municipal Setback
- 65' Road Setback
- 10'/20' Side and Rear Setback
- 20' Fence Setback
- 50' District Drain Tile Setback
- 75' Overhead C/L Setback
- 240' Setback from Residence
- 275' Inverter Setback
- Solar Array
- Access Roads
- Proposed Landscape Buffer
- FEMA Flood Plain
- Project Substation
- PCS Station (35)

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Vegetative screening for all dwellings within 1,000 feet of PV Solar Farm.

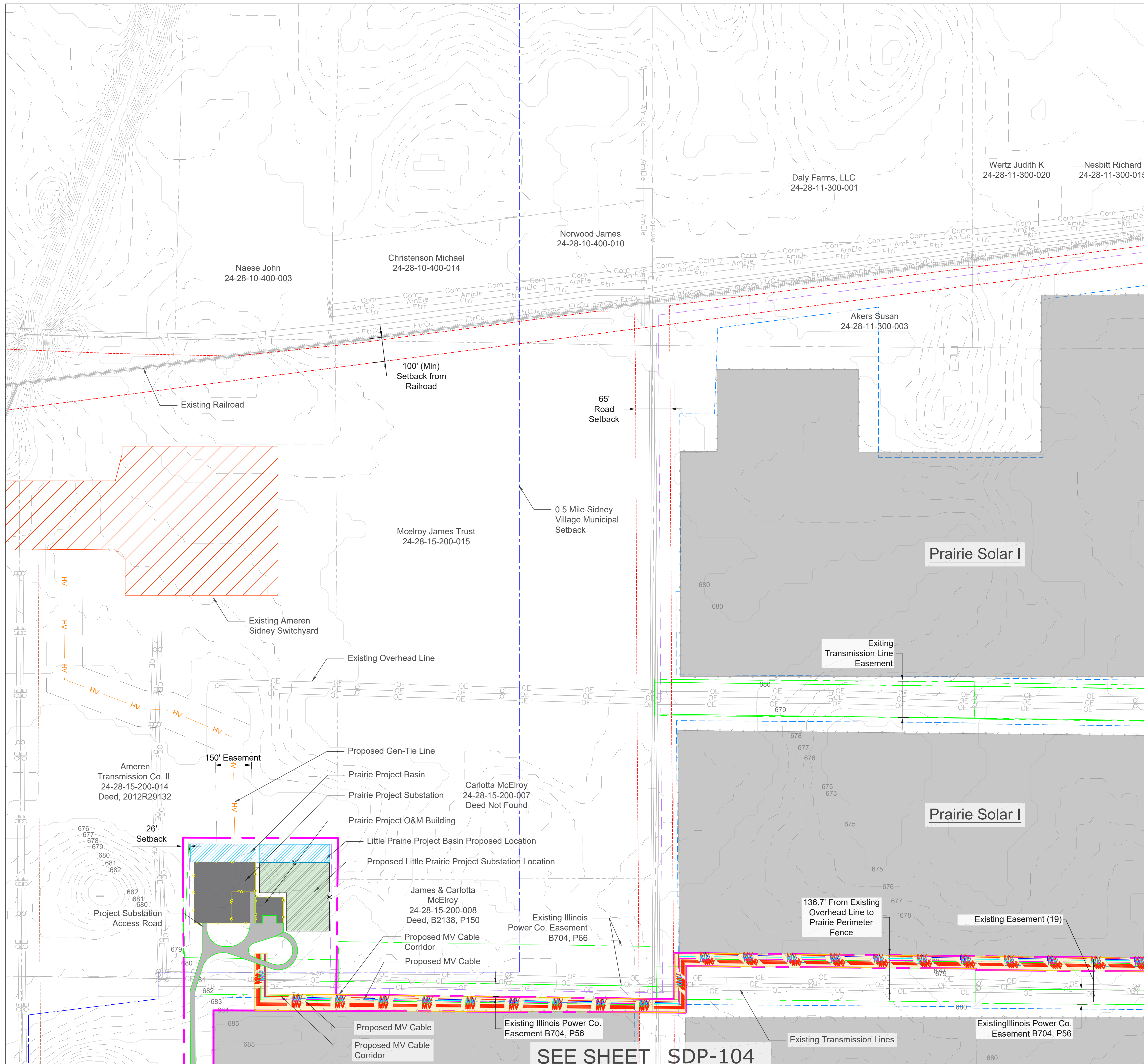
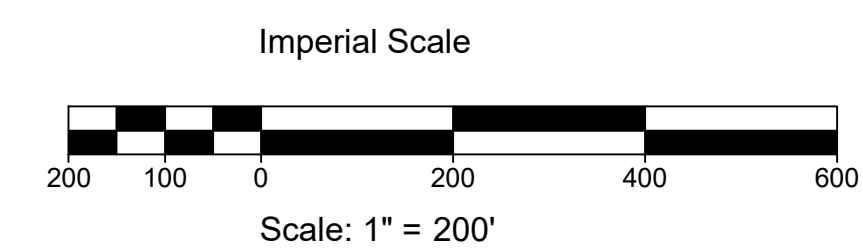
Access Roads
20' Wide (PV)
24' Wide (BESS)

Perimeter Fence
Approximately 82,307' LF of minimum 7-foot tall perimeter fence with 24' wide security gates



KEY MAP
SCALE: NTS
NORTH

NOT FOR CONSTRUCTION



SEE SHEET SDP-102

SEE SHEET SDP-104

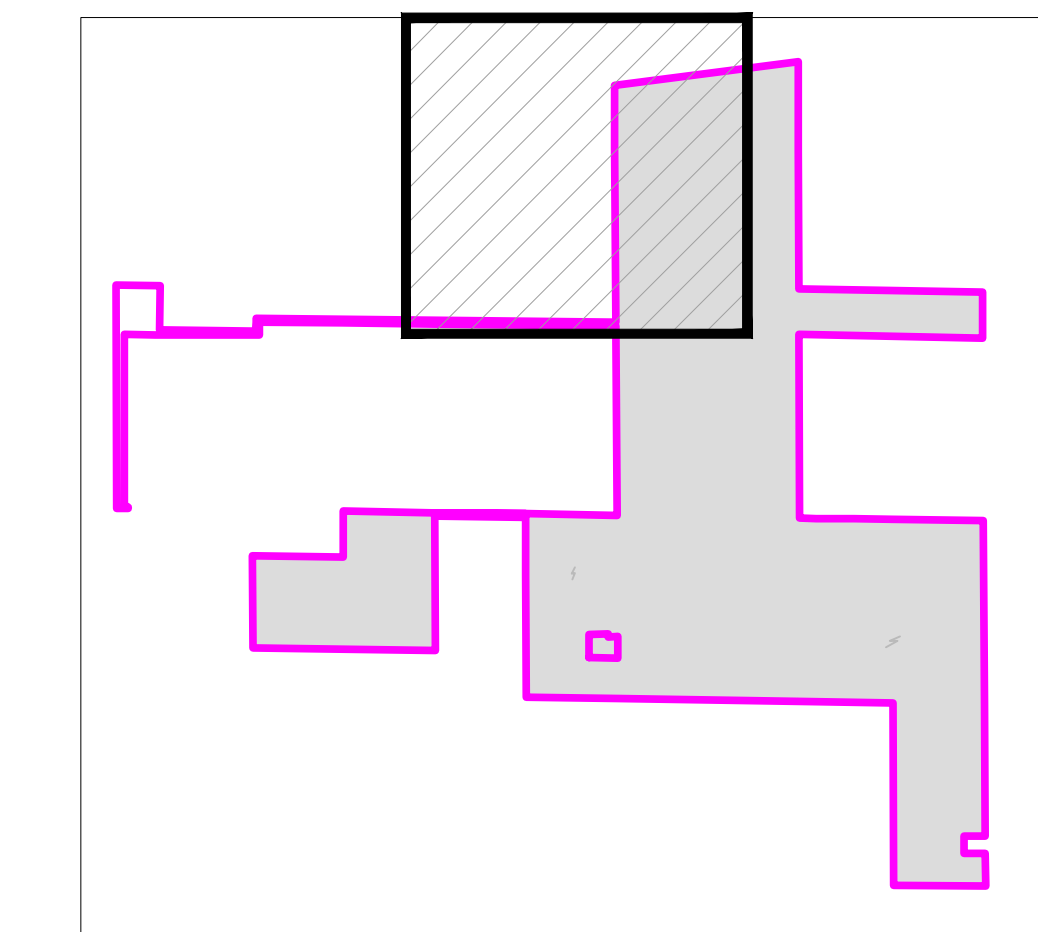
- Project Boundary / Special Use Permit Boundary
- Existing Overhead Line
- Existing Easement
- Existing Railroad
- Existing Contours
- High Voltage Line
- Proposed Fence
- Proposed MV Cable
- 0.5 Mile Sidney Village Municipal Setback
- 65' Road Setback
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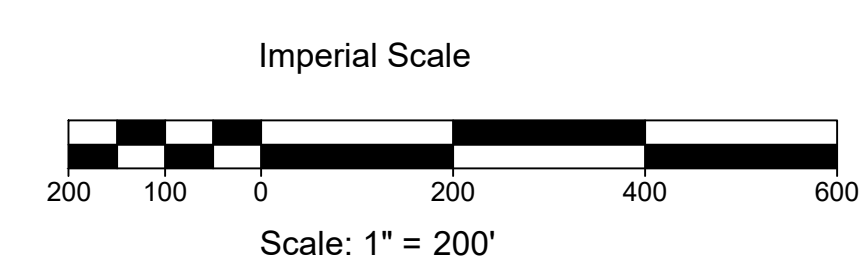
Access Roads
 20' Wide (PV)
 24' Wide (BESS)

Perimeter Fence
 Approximately 82,307' LF of minimum 7-foot tall perimeter fence with 24' wide security gates



KEY MAP
 SCALE: NTS
 NORTH

NOT FOR CONSTRUCTION



LITTLE PRAIRIE SOLAR LLC
 SIDNEY, CHAMPAIGN COUNTY, ILLINOIS

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REV	DATE	DESCRIPTION	DWN	CHK	APV
C	3/25/22	ISSUED FOR REVIEW	MP	MP	MP
D	3/28/24	ADDED PARCEL INFORMATION	MP	MP	MP
E	4/22/24	REVISED BOUNDARY AND BESS	MP	MP	MP
F	4/24/24	CORRECTED BOUNDARY AND ADDED BESS CAPACITY	MP	MP	MP
G	5/29/24	CORRECTED BOUNDARY	MP	MP	MP
H	7/14/24	REVISED FENCE AND ADD BASIN	MP	MP	MP
I	7/31/24	REVISED BESS ACCESS ROADS AND SPACING	MP	MP	MP

TITLE:
SITE IMPROVEMENT PLAN

PROJECT NO.: ES-2024-01.002
 DRAWN BY: MP
 REVIEWED BY: MP
 SCALE: AS NOTED

SDP-102
 SHEET 3 OF 11

SEE SHEET SDP-101

SEE SHEET SDP-103

SEE SHEET SDP-105

C:\Users\Mike.Perez\OneDrive\Documents\EnerSol\Design\Little Prairie Solar LLC\Project Files\04_WIP\01_Active Drawings\Site Plans\Prairie SDP-100.dwg August 26, 2024



LITTLE PRAIRIE SOLAR LLC
SIDNEY, CHAMPAIGN COUNTY, ILLINOIS

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REV	DATE	DESCRIPTION	APV	CHK	DWN
B	3/25/24	ISSUED FOR REVIEW	MP	MP	MP
C	3/25/24	ISSUED FOR REVIEW	MP	MP	MP
D	3/28/24	SHIFTED PCS & ADDED PARCEL INFORMATION	MP	MP	MP
E	4/22/24	REVISED BOUNDARY	MP	MP	MP
F	4/24/24	CORRECTED BOUNDARY	MP	MP	MP
G	5/29/24	CORRECTED BOUNDARY	MP	MP	MP
H	7/14/24	REVISED FENCE AND ACCESS ROAD	MP	MP	MP

TITLE:
SITE IMPROVEMENT PLAN

PROJECT NO.:	ES-2024-01.002
DRAWN BY:	MP
REVIEWED BY:	MP
SCALE:	AS NOTED

SDP-103
SHEET 4 OF 11

LEGEND

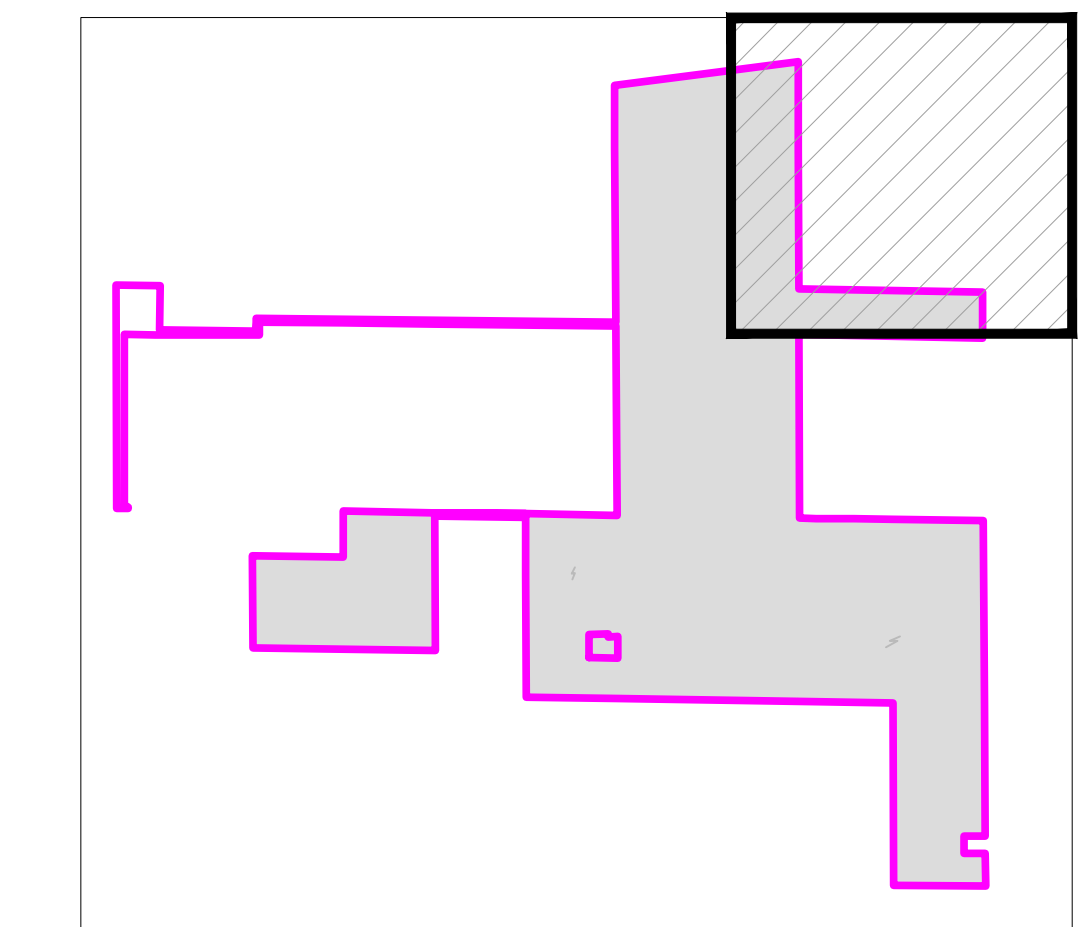
- Project Boundary / Special Use Permit Boundary
- Existing Overhead Line
- Existing Easement
- Existing Railroad
- Existing Contours
- High Voltage Line
- Proposed Fence
- Proposed MV Cable
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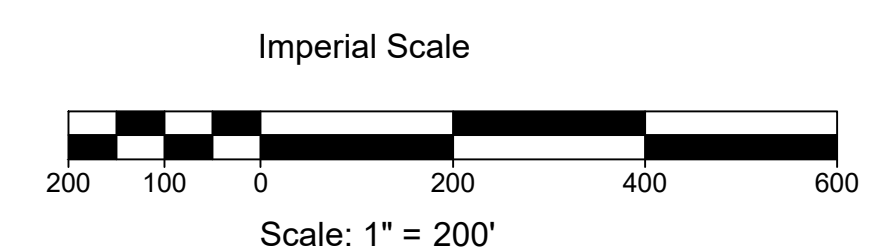
Access Roads
20' Wide (PV)
24' Wide (BESS)

Perimeter Fence
Approximately 82,307' LF of minimum 7-foot tall perimeter fence with 24' wide security gates



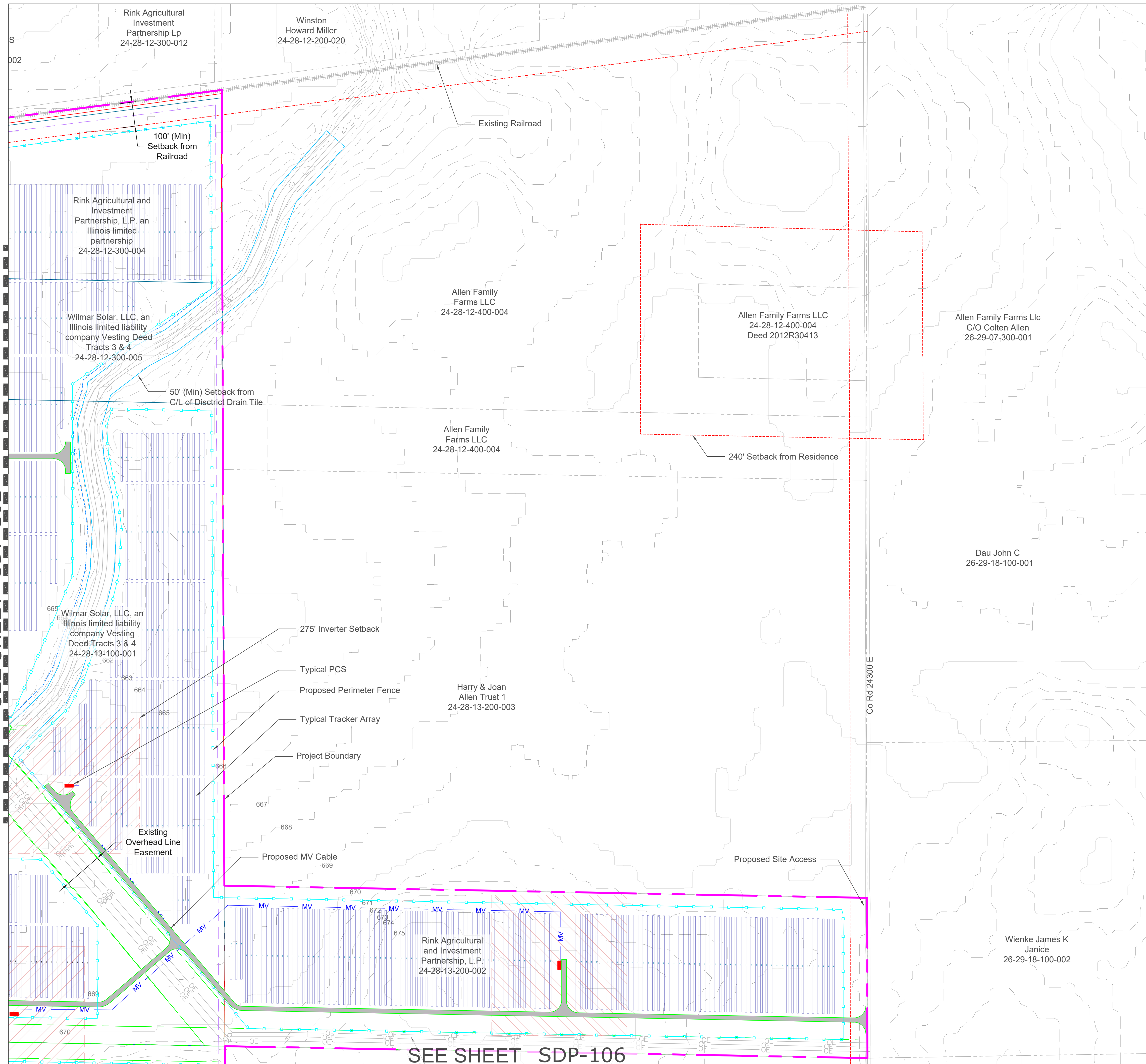
KEY MAP
SCALE: NTS
NORTH

NOT FOR CONSTRUCTION



SEE SHEET SDP-102

SEE SHEET SDP-106





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SIDNEY, CHAMPAIGN COUNTY, ILLINOIS

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C	3/27/24	ISSUED FOR REVIEW	MP	MP	MP
D	3/28/24	ADDED PARCEL INFORMATION	MP	MP	MP
E	4/22/24	REVISED BOUNDARY	MP	MP	MP
F	4/24/24	CORRECTED BOUNDARY	MP	MP	MP
G	5/29/24	CORRECTED BOUNDARY	MP	MP	MP
H	7/14/24	REVISED FENCE AND ACCESS ROAD	MP	MP	MP

TITLE: **SITE IMPROVEMENT PLAN**

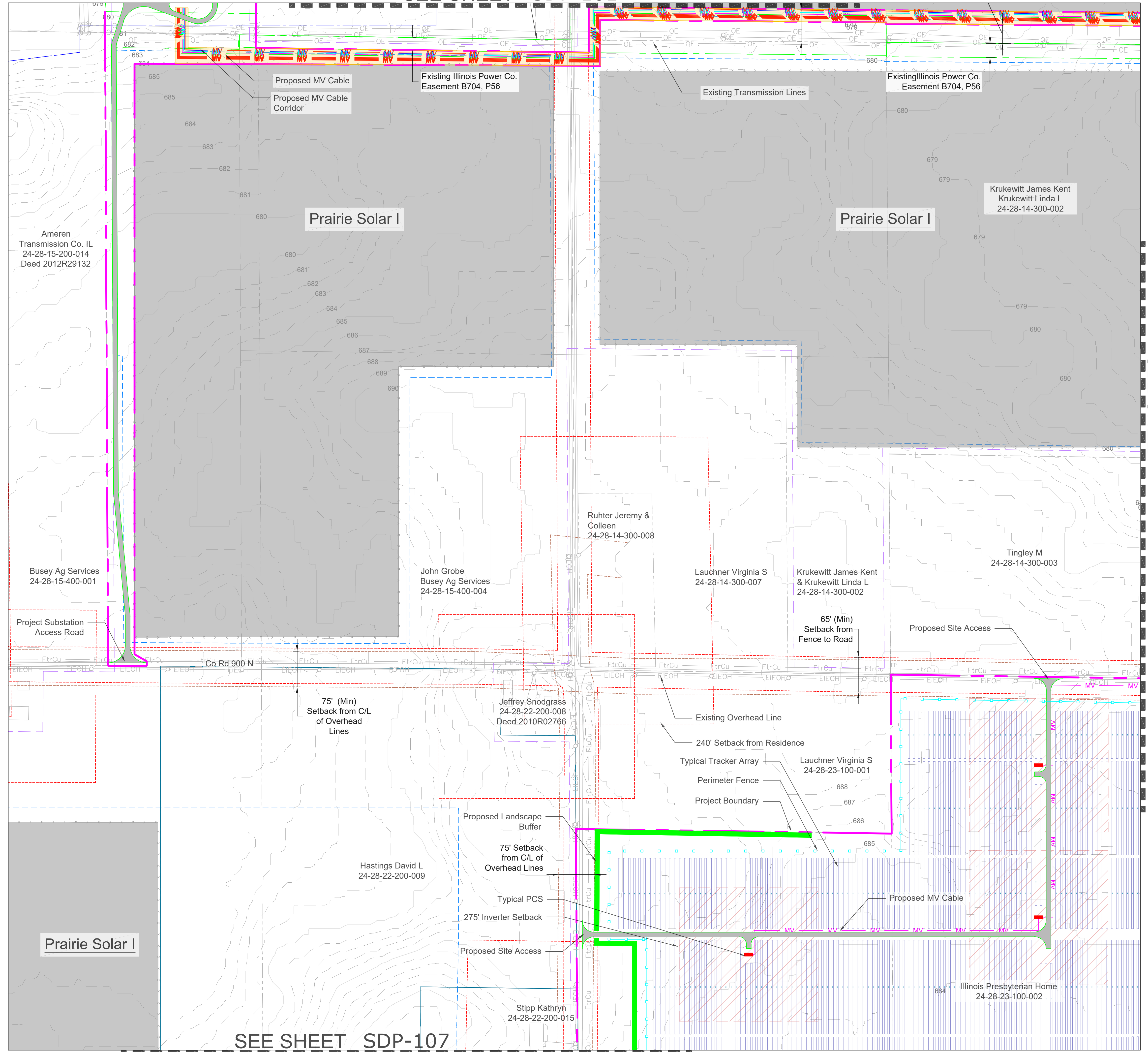
PROJECT NO.:	ES-2024-01.002
DRAWN BY:	MP
REVIEWED BY:	MP
SCALE:	AS NOTED

SDP-104
SHEET 5 OF 11

SEE SHEET SDP-101

SEE SHEET SDP-105

SEE SHEET SDP-107



LEGEND

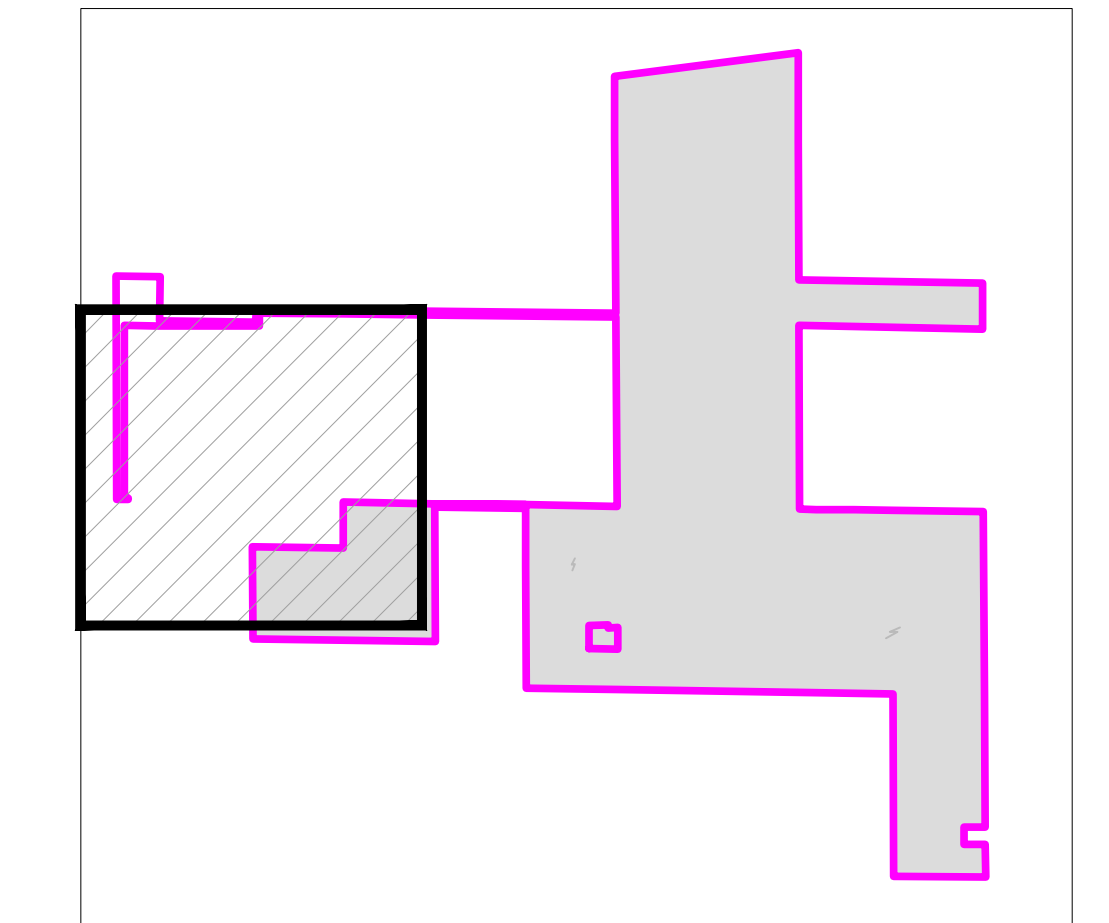
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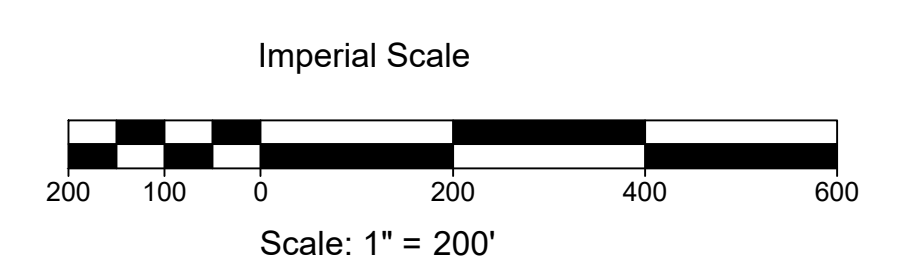
Access Roads
20' Wide (PV)
24' Wide (BESS)

Perimeter Fence
Approximately 82,307' LF of minimum 7-foot tall perimeter fence with 24' wide security gates



KEY MAP
SCALE: NTS
NORTH

NOT FOR CONSTRUCTION



SEE SHEET SDP-102



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SIDNEY, CHAMPAIGN COUNTY, ILLINOIS

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3/25/24	ISSUED FOR REVIEW	MP	MP	MP	MP	MP	MP	MP	MP	MP
3/27/24	ISSUED FOR REVIEW	MP	MP	MP	MP	MP	MP	MP	MP	MP
3/28/24	ADDED PARCEL INFORMATION	MP	MP	MP	MP	MP	MP	MP	MP	MP
4/22/24	REVISED BOUNDARY	MP	MP	MP	MP	MP	MP	MP	MP	MP
4/24/24	CORRECTED BOUNDARY	MP	MP	MP	MP	MP	MP	MP	MP	MP
5/29/24	CORRECTED BOUNDARY	MP	MP	MP	MP	MP	MP	MP	MP	MP
7/14/24	REVISED FENCE AND ACCESS ROAD	MP	MP	MP	MP	MP	MP	MP	MP	MP

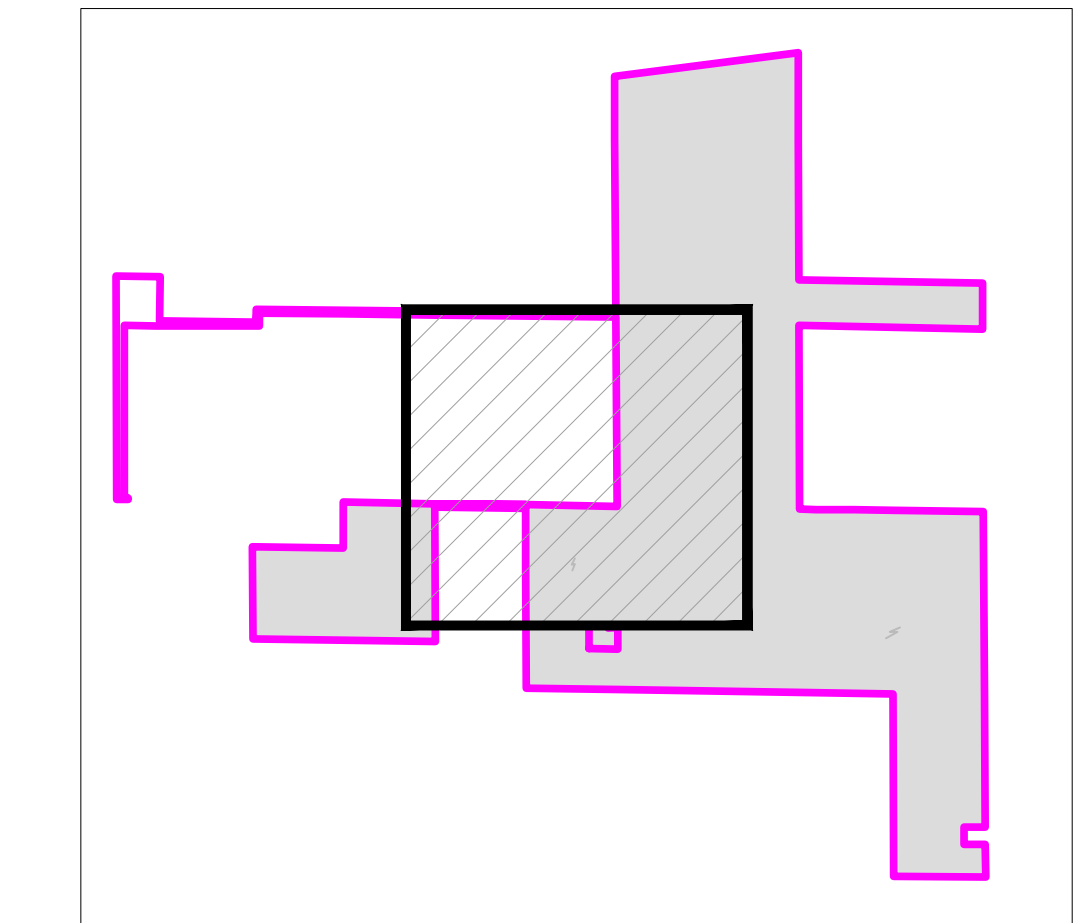
- LEGEND**
- Project Boundary / Special Use Permit Boundary
 - Existing Overhead Line
 - Existing Easement
 - Existing Railroad
 - Existing Contours
 - High Voltage Line
 - Proposed Fence
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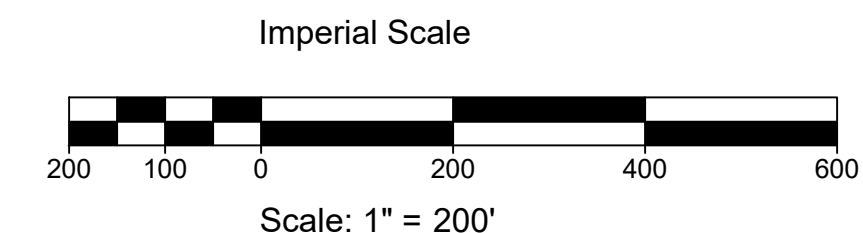
Access Roads
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24' Wide (BESS)

Perimeter Fence
Approximately 82,307' LF of minimum 7-foot tall perimeter fence with 24' wide security gates



KEY MAP
SCALE: NTS
NORTH

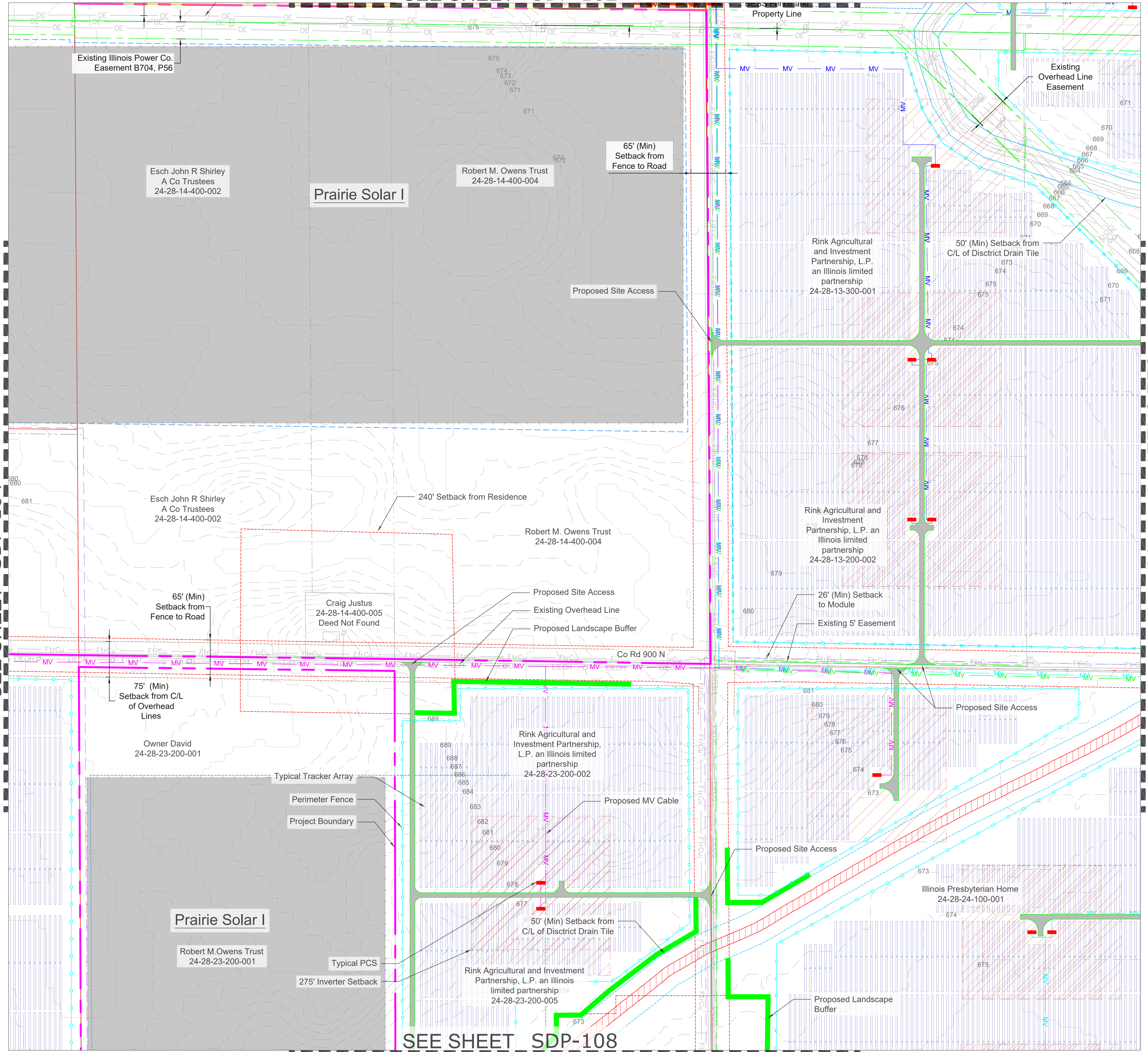
NOT FOR CONSTRUCTION



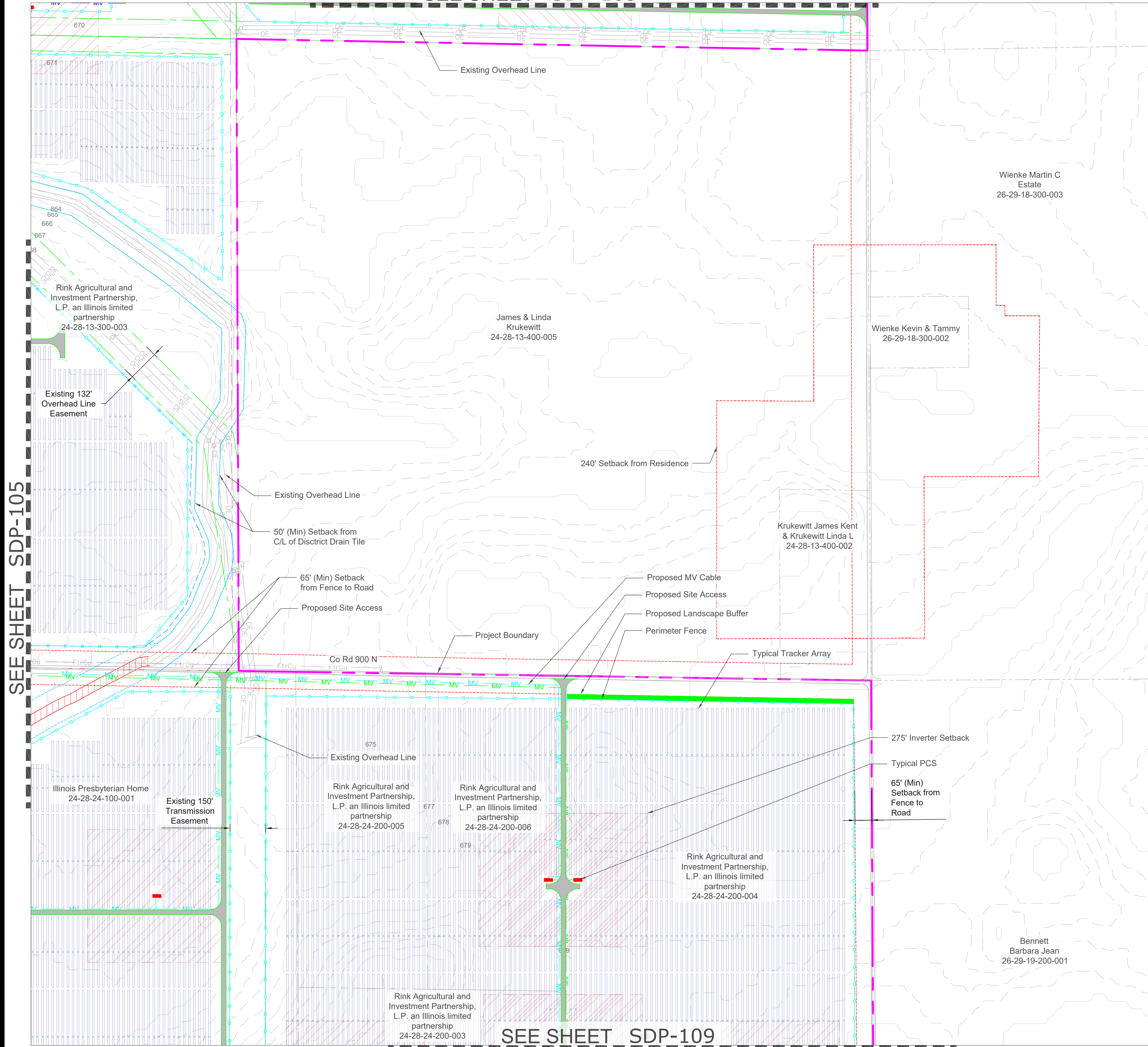
SEE SHEET SDP-108

SEE SHEET SDP-106

SEE SHEET SDP-104



SEE SHEET SDP-103



SEE SHEET SDP-105

SEE SHEET SDP-109

LEGEND

- Project Boundary / Special Use Permit Boundary
- Existing Overhead Line
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- Existing Contours
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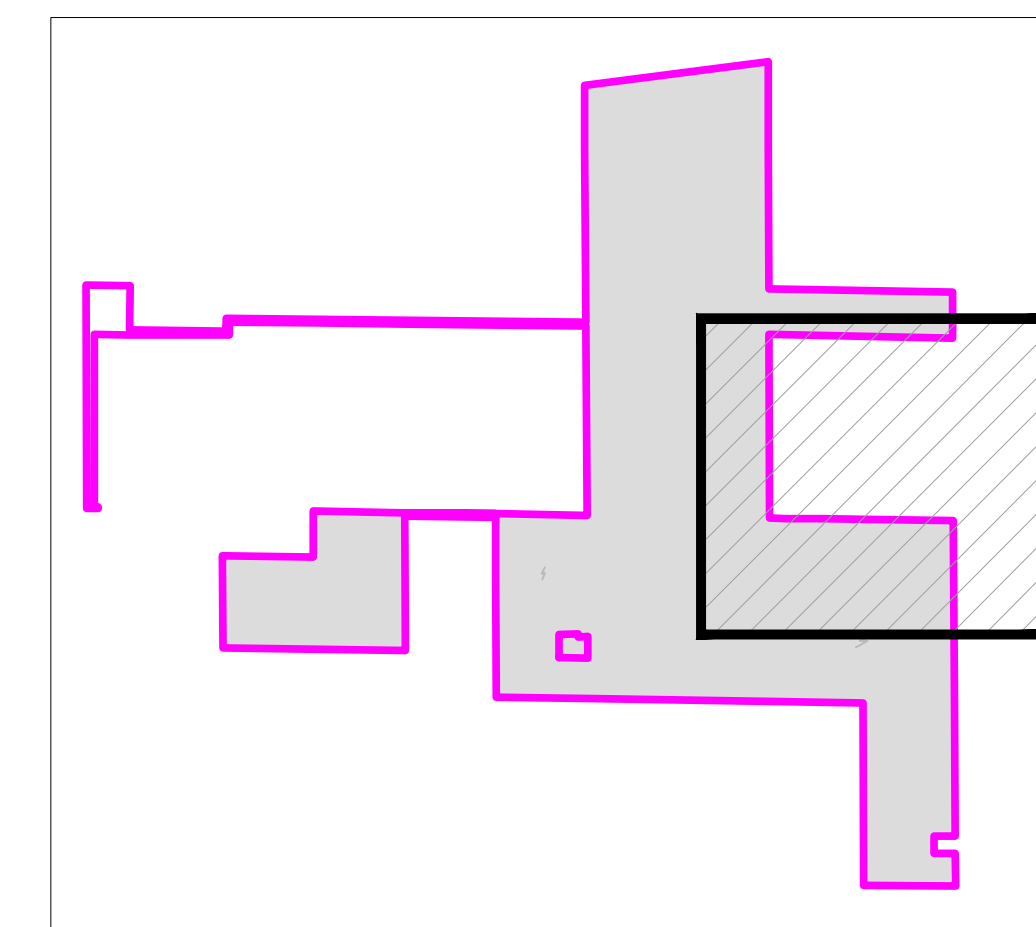
Access Roads
20' Wide (PV)
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Perimeter Fence
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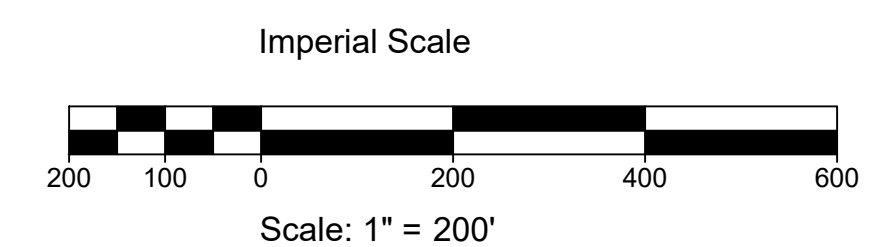
LITTLE PRAIRIE SOLAR LLC
SIDNEY, CHAMPAIGN COUNTY, ILLINOIS

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KEY MAP
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B	3/25/24	ISSUED FOR REVIEW	MP	MP	MP
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D	3/28/24	ADDED PARCEL INFORMATION	MP	MP	MP
E	4/22/24	REVISED BOUNDARY	MP	MP	MP
F	4/24/24	CORRECTED BOUNDARY	MP	MP	MP
G	5/29/24	CORRECTED BOUNDARY	MP	MP	MP
H	7/14/24	REVISED FENCE AND ACCESS ROAD	MP	MP	MP

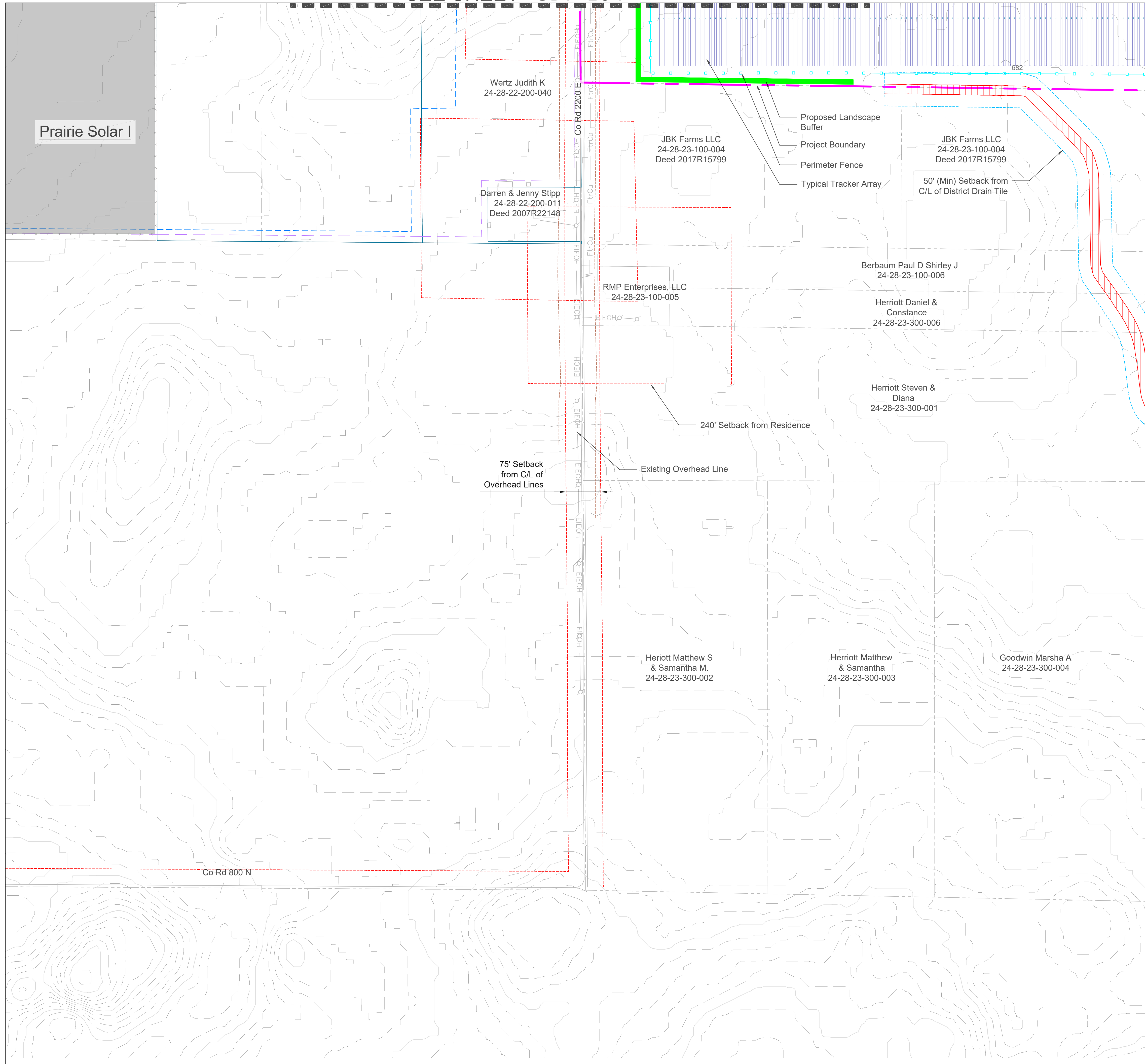
TITLE:
SITE IMPROVEMENT PLAN

PROJECT NO.:	ES-2024-01.002
DRAWN BY:	MP
REVIEWED BY:	MP
SCALE:	AS NOTED

SDP-106

SHEET 7 OF 11

SEE SHEET SDP-104



SEE SHEET SDP-108

LEGEND

- Project Boundary / Special Use Permit Boundary
- Existing Overhead Line
- Existing Easement
- Existing Railroad
- Existing Contours
- HV High Voltage Line
- Proposed Fence
- Proposed MV Cable
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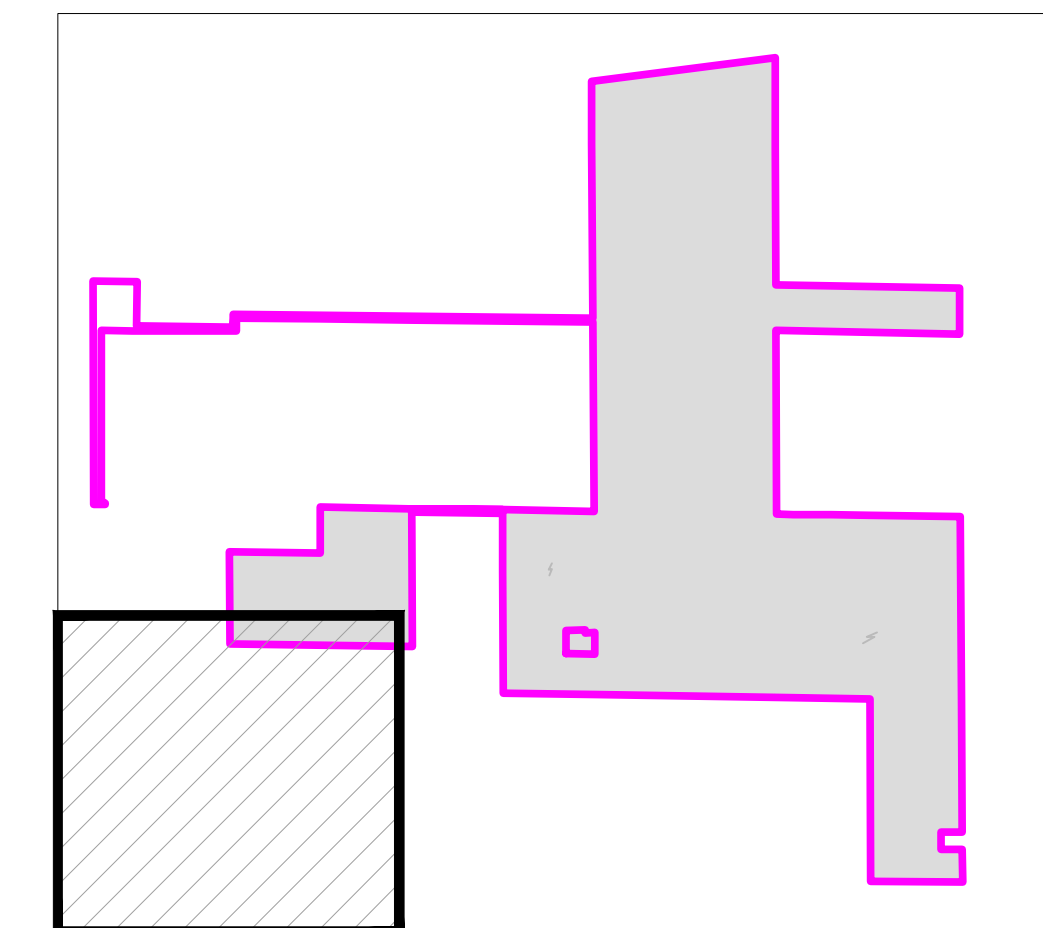
Access Roads
20' Wide (PV)
24' Wide (BESS)

Perimeter Fence
Approximately 82,307' LF of minimum 7-foot tall perimeter fence with 24' wide security gates



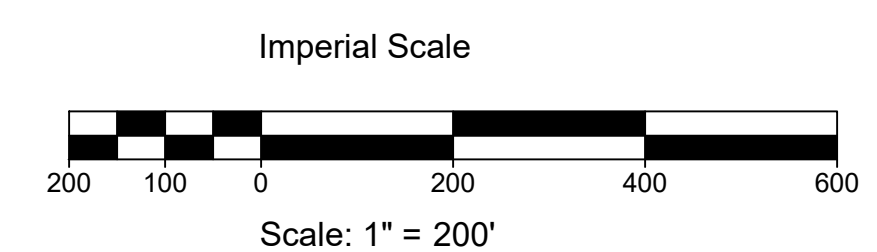
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KEY MAP
SCALE: NTS
NORTH

NOT FOR CONSTRUCTION



REV	DATE	DESCRIPTION	DWN	CHK	APV
B	3/25/24	ISSUED FOR REVIEW	MP	MP	MP
C	3/27/24	ISSUED FOR REVIEW	MP	MP	MP
D	3/28/24	ADDED PARCEL INFORMATION	MP	MP	MP
E	4/22/24	REVISED BOUNDARY	MP	MP	MP
F	4/24/24	CORRECTED BOUNDARY	MP	MP	MP
G	5/29/24	CORRECTED BOUNDARY	MP	MP	MP
H	7/14/24	REVISED FENCE AND ACCESS ROAD	MP	MP	MP

TITLE:
SITE IMPROVEMENT PLAN

PROJECT NO.: ES-2024-01.002
DRAWN BY: MP
REVIEWED BY: MP
SCALE: AS NOTED

SDP-107
SHEET 8 OF 11



LITTLE PRAIRIE SOLAR LLC
SIDNEY, CHAMPAING COUNTY, ILLINOIS

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D	3/28/24	ADDED PARCEL INFORMATION	MP	MP	MP
E	4/22/24	REVISED BOUNDARY	MP	MP	MP
F	4/24/24	CORRECTED BOUNDARY	MP	MP	MP
G	5/29/24	CORRECTED BOUNDARY	MP	MP	MP
H	7/14/24	REVISED FENCE AND ACCESS ROAD	MP	MP	MP

TITLE:
SITE IMPROVEMENT PLAN

PROJECT NO.: ES-2024-01.002
DRAWN BY: MP
REVIEWED BY: MP
SCALE: AS NOTED

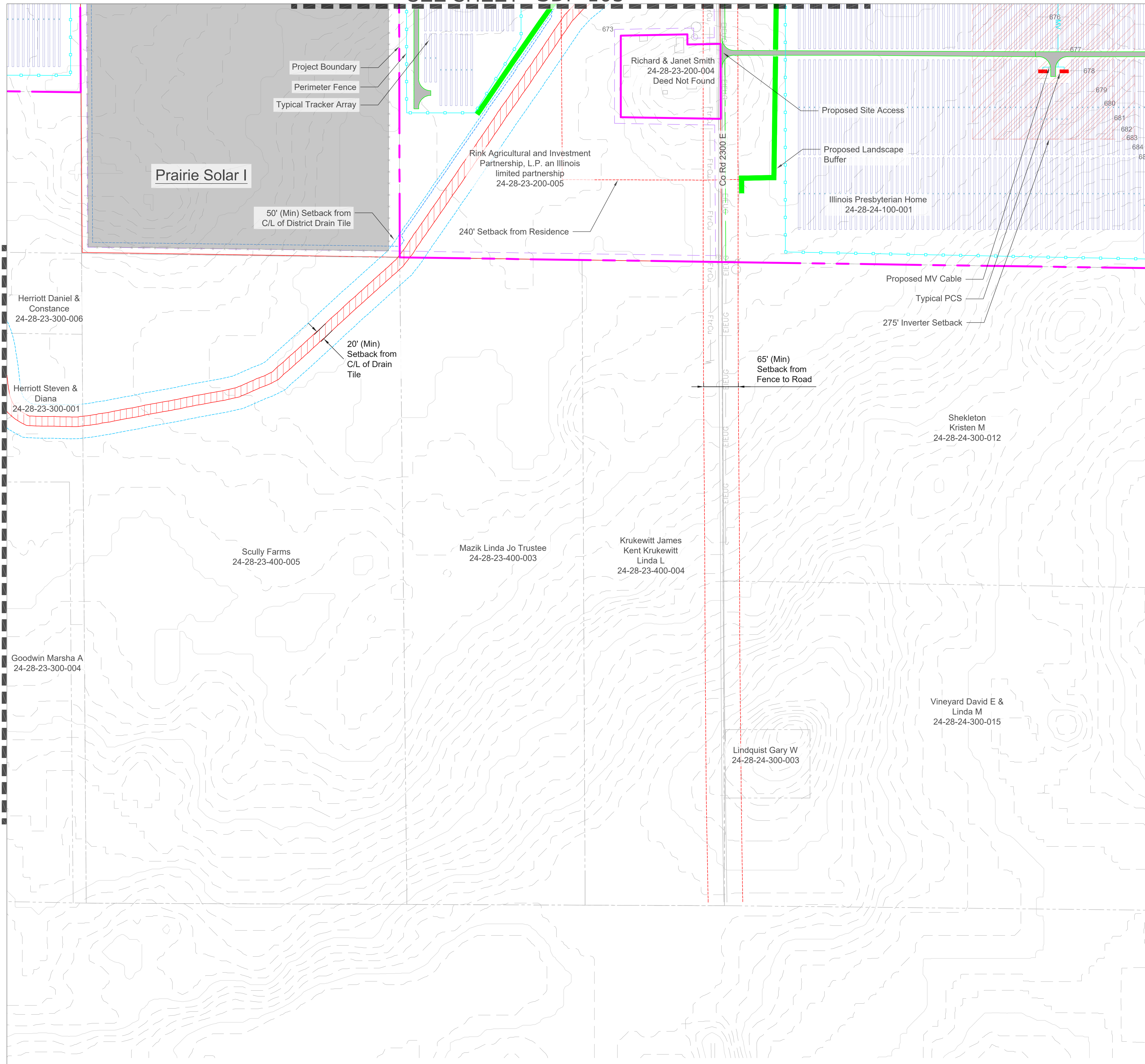
SDP-108

SHEET 9 OF 11

SEE SHEET SDP-105

SEE SHEET SDP-109

SEE SHEET SDP-107



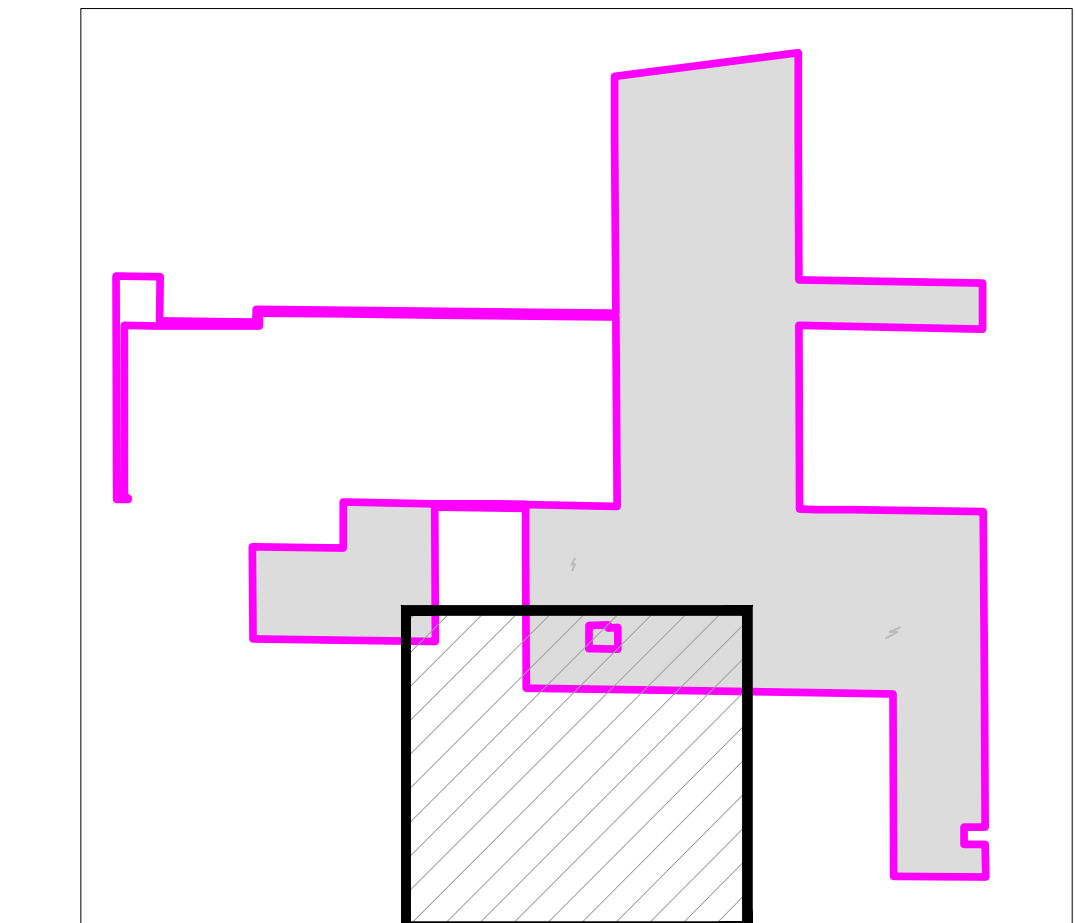
- LEGEND**
- Project Boundary / Special Use Permit Boundary
 - Existing Overhead Line
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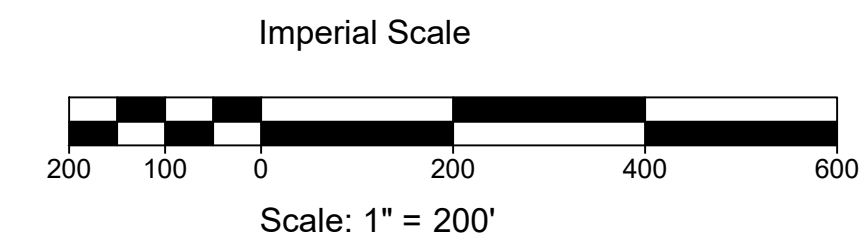
Access Roads
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Perimeter Fence
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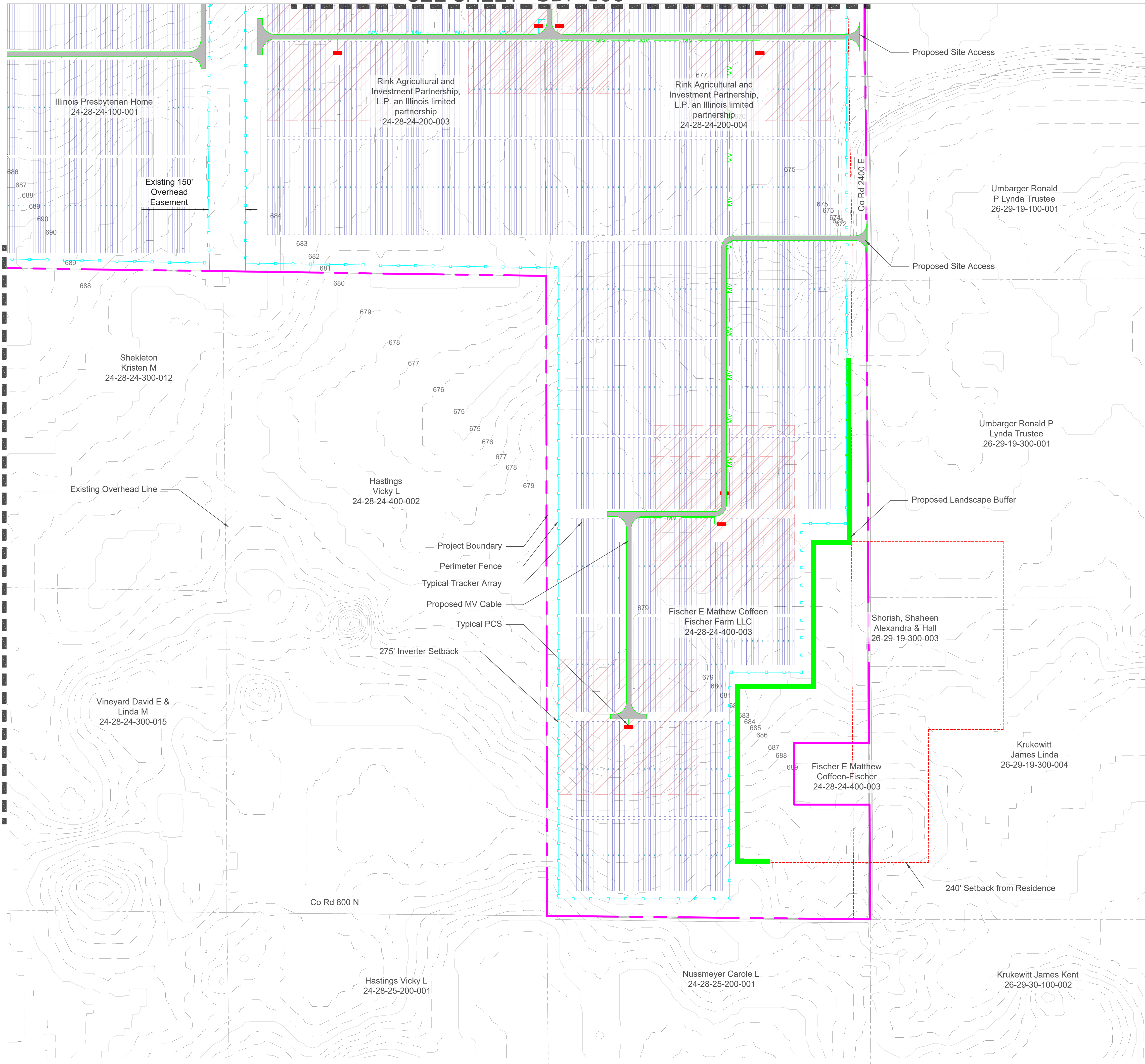
KEY MAP
SCALE: NTS
NORTH

NOT FOR CONSTRUCTION



SEE SHEET SDP-106

SEE SHEET SDP-108



LEGEND

- Project Boundary / Special Use Permit Boundary
- Existing Overhead Line
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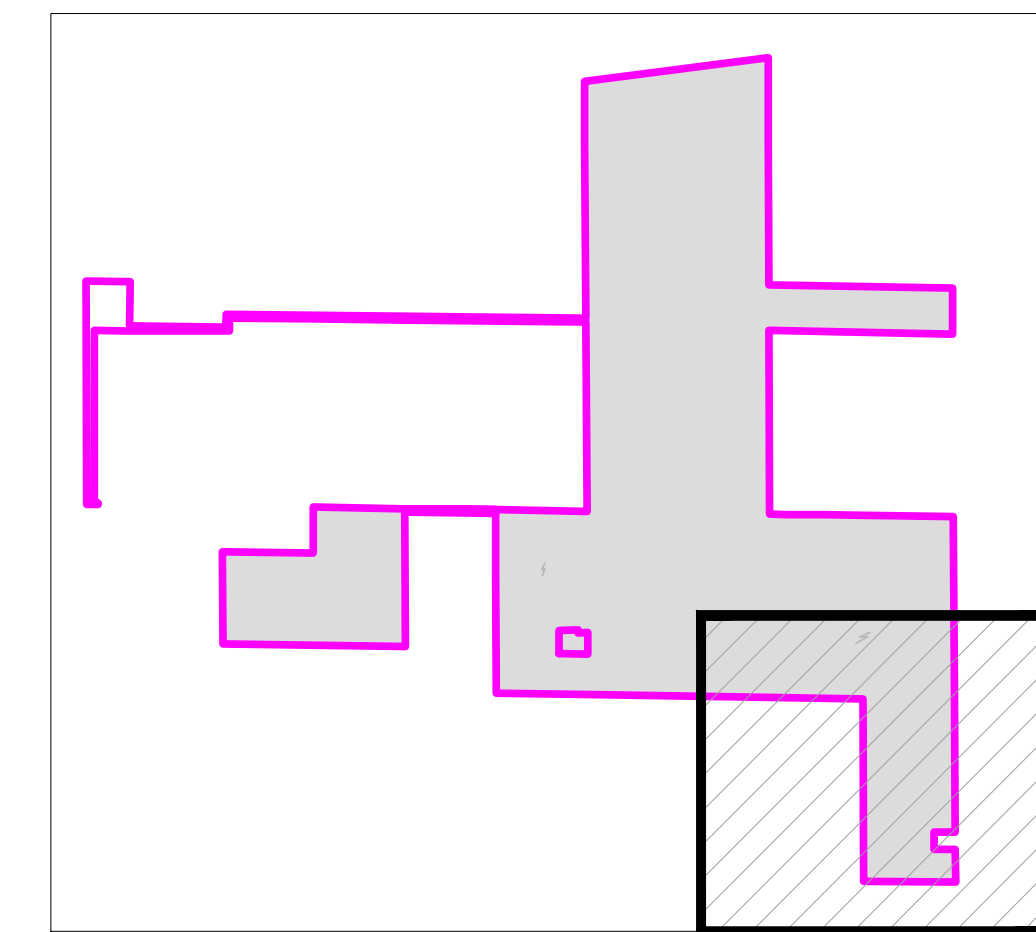
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LITTLE PRAIRIE SOLAR LLC
SIDNEY, CHAMPAIGN COUNTY, ILLINOIS

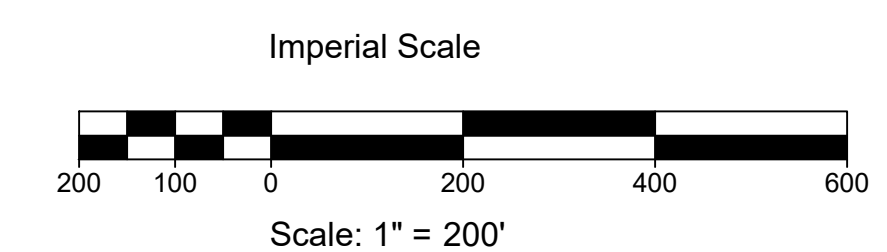
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D	3/28/24	ADDED PARCEL INFORMATION	MP	MP	MP
E	4/22/24	REVISED BOUNDARY	MP	MP	MP
F	4/24/24	CORRECTED BOUNDARY	MP	MP	MP
G	5/29/24	CORRECTED BOUNDARY	MP	MP	MP
H	7/14/24	REVISED FENCE AND ACCESS ROAD	MP	MP	MP
I	8/26/24	REVISED ACCESS ROAD	MP	MP	MP



KEY MAP
SCALE: NTS
NORTH

NOT FOR CONSTRUCTION



TITLE:

SITE IMPROVEMENT PLAN

PROJECT NO.:	ES-2024-01.002
DRAWN BY:	MP
REVIEWED BY:	MP
SCALE:	AS NOTED

SDP-109

SHEET 10 OF 11

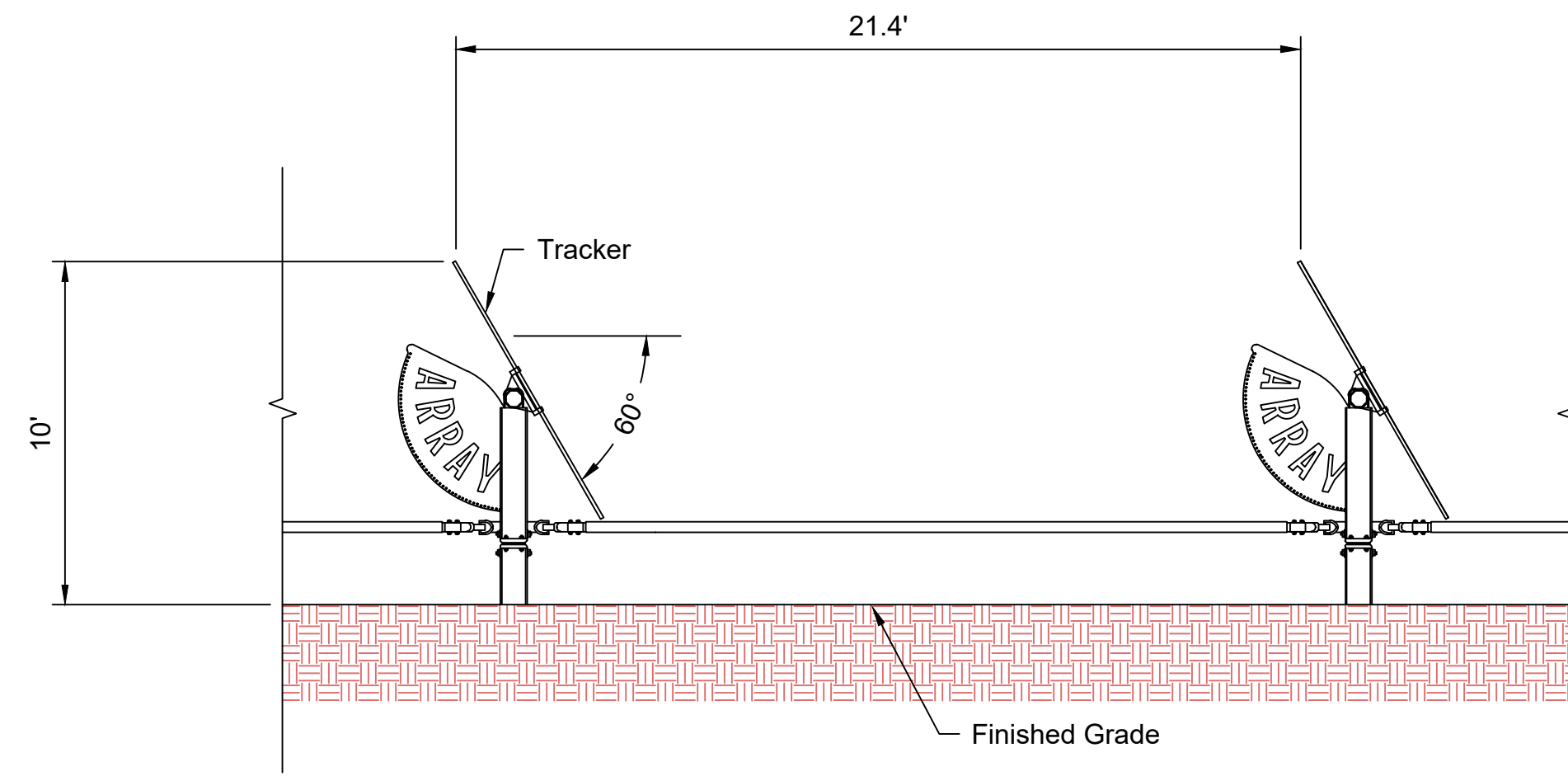
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REV	DATE	DESCRIPTION	ISSUED FOR REVIEW	ISSUED FOR REVIEW	ISSUED FOR REVIEW	REVISED MODULE HEIGHT
A	3/15/24	ISSUED FOR REVIEW	MP	MP	MP	MP
B	3/25/24	ISSUED FOR REVIEW	MP	MP	MP	MP
C	3/27/24	ISSUED FOR REVIEW	MP	MP	MP	MP
D	8/28/24	REVISED MODULE HEIGHT	MP	MP	MP	MP

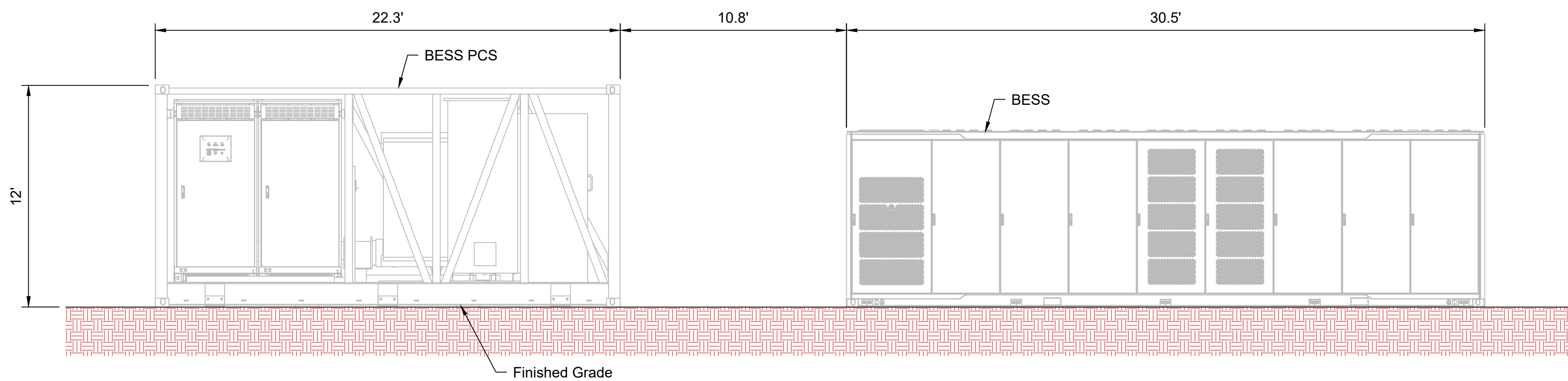
TITLE:

DETAILS	
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PROJECT NO.:	ES-2024-01.002
DRAWN BY:	MP
REVIEWED BY:	MP
SCALE:	AS NOTED



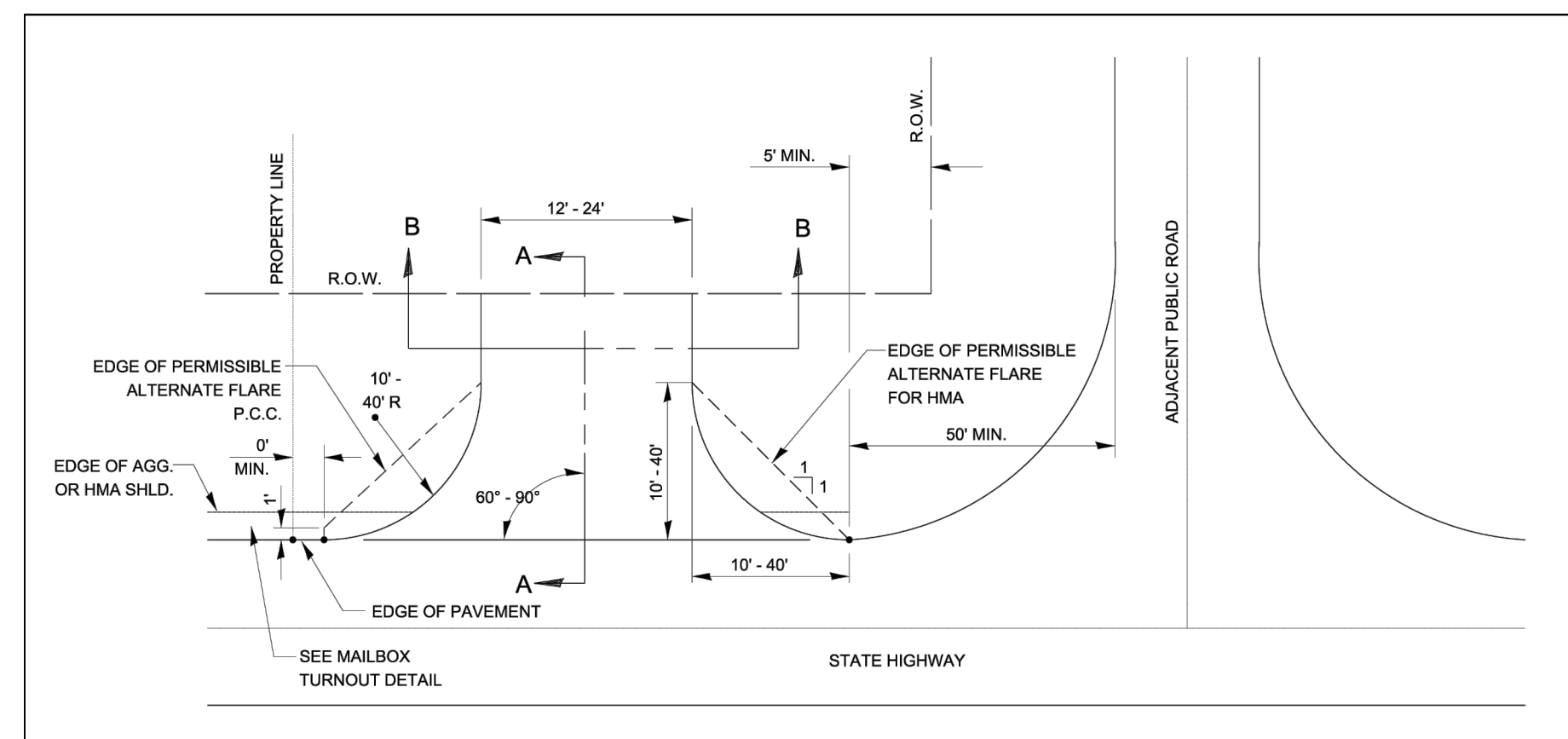
TYPICAL TRACKER ELEVATION
SCALE: NTS



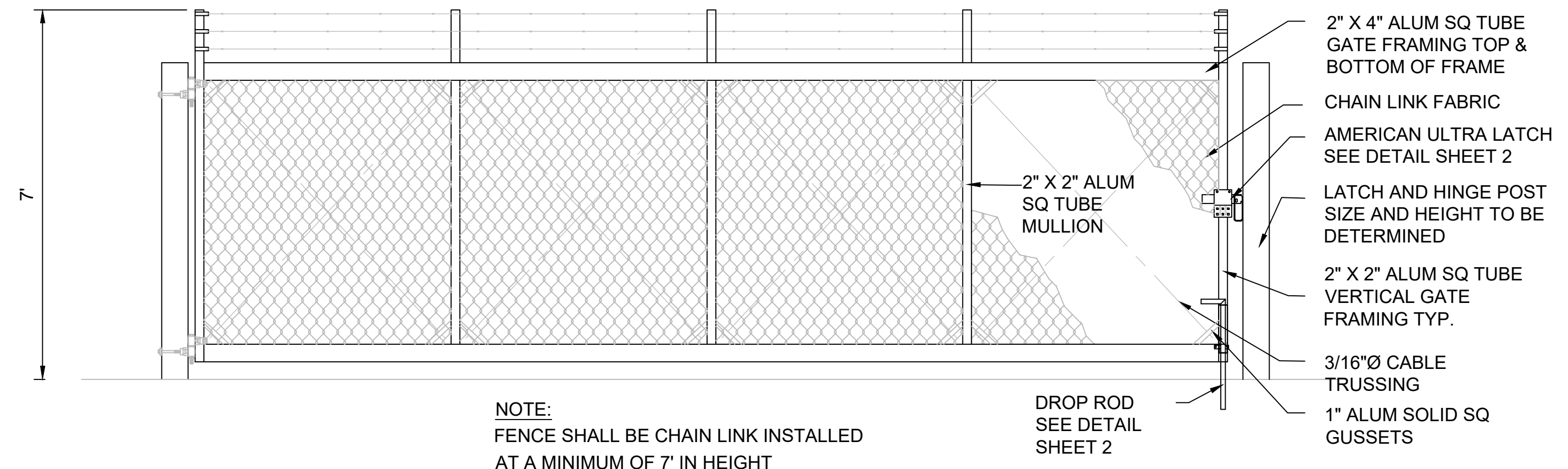
TYPICAL BATTERY ENERGY STORAGE SYSTEM (BESS) ELEVATION VIEW
SCALE: NTS

NOTES:

1. BESS ENCLOSURES ARE ASSUMED TO BE WHITE IN COLOR WITH ENCLOSURE DIMENSIONS 19.9'x9.5'x8'. EACH ENCLOSURE WALL AND ROOF IS ASSUMED TO BE MADE OF STEEL AND CONTAINS TEN 1P416S PACKS.
2. INVERTERS ARE ASSUMED TO HAVE THE SAME COLOR AND MATERIAL AS BESS ENCLOSURES.
3. BESS UNIT SPECIFICATIONS ARE SUBJECT TO CHANGE DUE TO ADVANCEMENT IN BATTERY TECHNOLOGY OR PRODUCT AVAILABILITY.



TYPICAL NONCOMMERCIAL - RURAL (PRICATE ENTRANCE)
SCALE: NTS



NOTE:
FENCE SHALL BE CHAIN LINK INSTALLED AT A MINIMUM OF 7' IN HEIGHT

TYPICAL PERIMETER FENCE DETAIL
SCALE: NTS

NOT FOR CONSTRUCTION



LITTLE PRAIRIE SOLAR LLC
SIDNEY, CHAMPAIGN COUNTY, ILLINOIS

Little Prairie Solar LLC	
Sidney, Champaign County, Illinois	
Owner/Developer	BayWa r.e.
Latitude:	40.012334
Longitude:	-88.028735
Min Elevation:	658
Max Elevation:	698
Total Fenced Acres:	6.8
Total BESS Acres:	4.05
Annual Cooling Design Temp:	91.3° F
Extreme Annual Min DB Mean Temp:	-9.4° F
Wind Load:	100 mph
Snow Load:	27 psf
Seismic	
Ss:	0.28
S1:	0.11

BESS Energy Data	
Inverter Type	Power Electronics*
Quantity in Inverters	58*
Battery Supplier	BYD*
Quantity of BESS Units	174*
Design Duration (hr)	4*
MWh	540*
MWac	135*

*Project Vendor and Quantities are subject to change based on market conditions prior to the submission of the building permit.

Notes:
This is a Preliminary BESS Site Improvement Plan and subject to revisions. Preliminary BESS Site Improvement Plan was placed using AutoCAD files provided by BayWa r.e. Aerial map is shown for reference only.

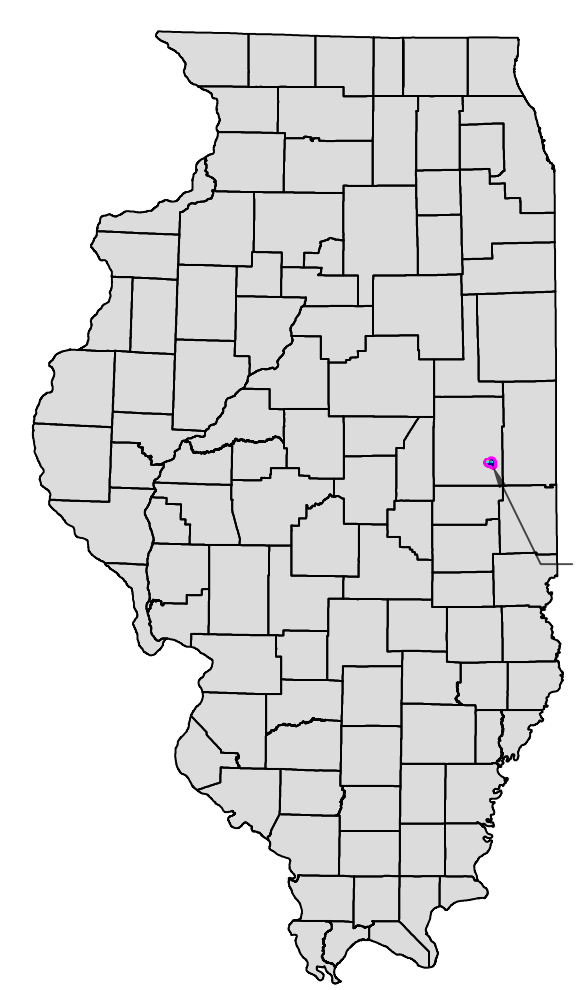
All on-site utility lines shall be placed underground to the extent feasible and as permitted by the serving utility, with the exception of the main service connection at the utility company right-of-way and any new interconnection equipment, including without limitation any poles, with new easements and right-of-way.

Areas within 10 feet on each side of the BESS shall be cleared of combustible vegetation and other combustible growth.

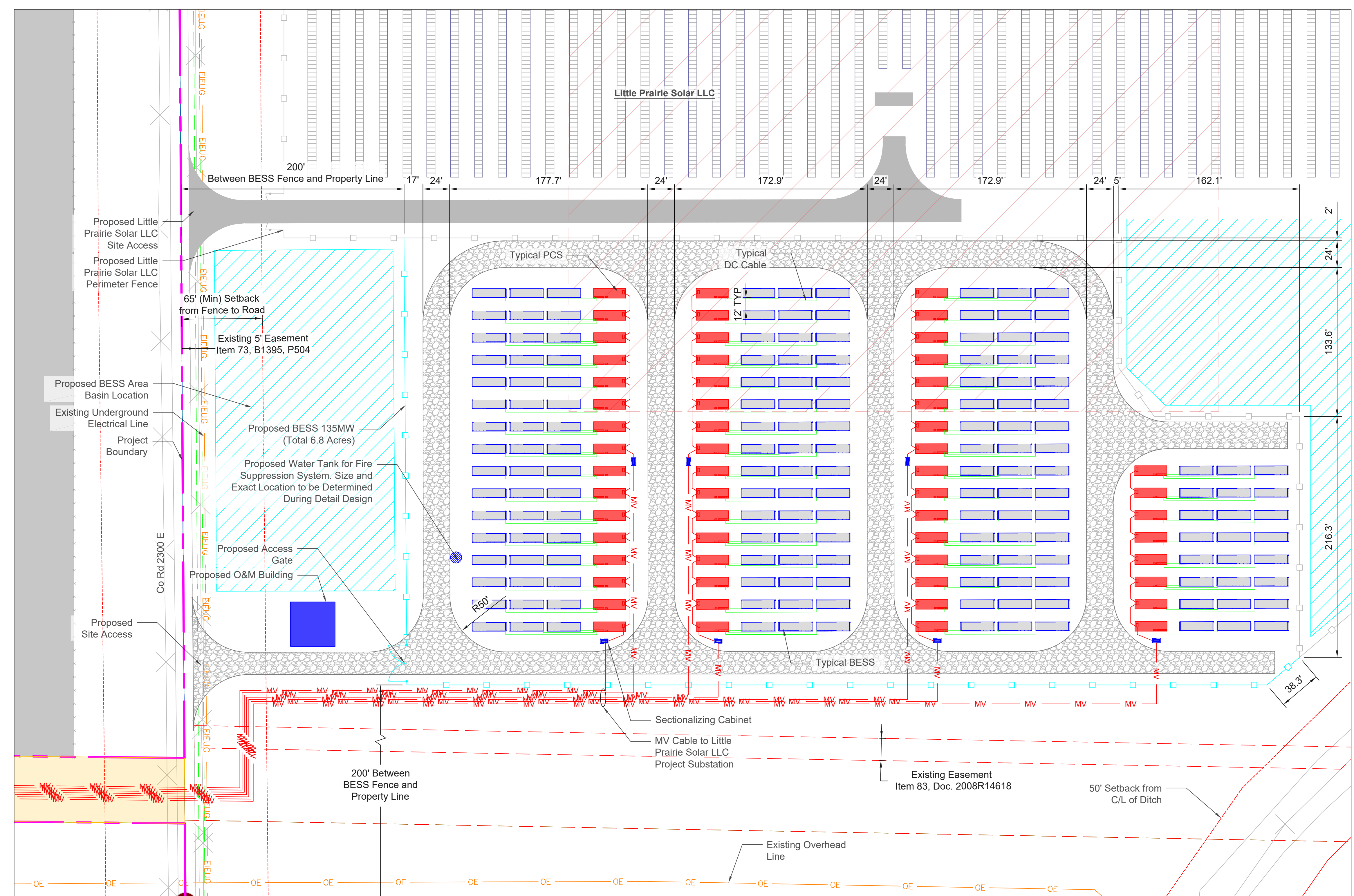
BESS equipment and structures shall be fully enclosed and secured by a fence with a minimum height of 7 feet.

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REV	DATE	DESCRIPTION
B	3/22/24	ISSUED FOR REVIEW
C	3/25/24	ADDED ACCESS ROAD TO O&M
D	3/27/24	ISSUED FOR REVIEW
E	4/22/24	REVISED BOUNDARY AND BESS CAPACITY
F	4/24/24	ADDED CAPACITY
G	7/15/24	ADDED BASIN LOCATION
H	7/31/24	REVISED ACCESS ROAD AND BESS SPACING



KEY MAP
SCALE: NTS



LEGEND

- Project Boundary
- Existing Overhead Line
- Existing Easement
- Setback
- Existing Contours
- Proposed Fence
- Proposed MV Cable
- Access Roads
- Project Substation
- PCS Station (Inverter & Transformer)
- BESS (Battery Energy Storage System)
- BESS Basin Location

BESS SITE IMPROVEMENT PLAN
SCALE: 1" = 50'

Imperial Scale
Scale: 1" = 50'



Information used to prepare this drawing		
Item	Source	Date, Revision
Boundary Information	CAD file provided by BayWa r.e.: ACAD-418736-Boundary-20240412.dwg	4/16/2024
CUP/SUP	None	N/A
Site Constraints	CAD file provided by BayWa r.e.: ACAD-418736-Boundary-20240412.dwg	4/16/2024
Geotechnical Report	None	N/A
FEMA Panel	Panel: 17019C0475D	10/1/2013
Topographic Survey	USGS	N/A
Hydrology Information	None	N/A
Wetlands Information	National Wetland Database	N/A
Point of Interconnection	Little Prairie Solar Project Site Plan	2/27/24, A
Aerial Imagery	Bing Map	N/A
ASHRAE Data	http://ashrae-meteo.info/index.php	ASHRAE 2021
Wind Load Source	https://asce7hazardtool.online/	(ASCE 7-21)
Snow Load Source	https://asce7hazardtool.online/	(ASCE 7-21)
Seismic Load Source	https://asce7hazardtool.online/	(ASCE 7-21)

*Files are based on State Plane Coordinate System NAD83

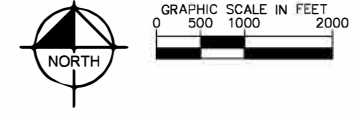
NOT FOR CONSTRUCTION

TITLE:

BESS SITE IMPROVEMENT PLAN

PROJECT NO.:	ES-2024-01.003
DRAWN BY:	MP
REVIEWED BY:	MP
SCALE:	AS NOTED

Drawing name: K:\GIS_DEVELOPMENT\Projects\GIS\Design\Overall Landscape Plan.dwg Overall Landscape Plan May 21, 2024 2:41pm by Chris Wilson
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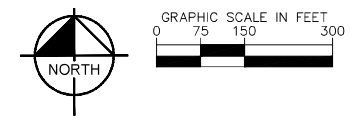
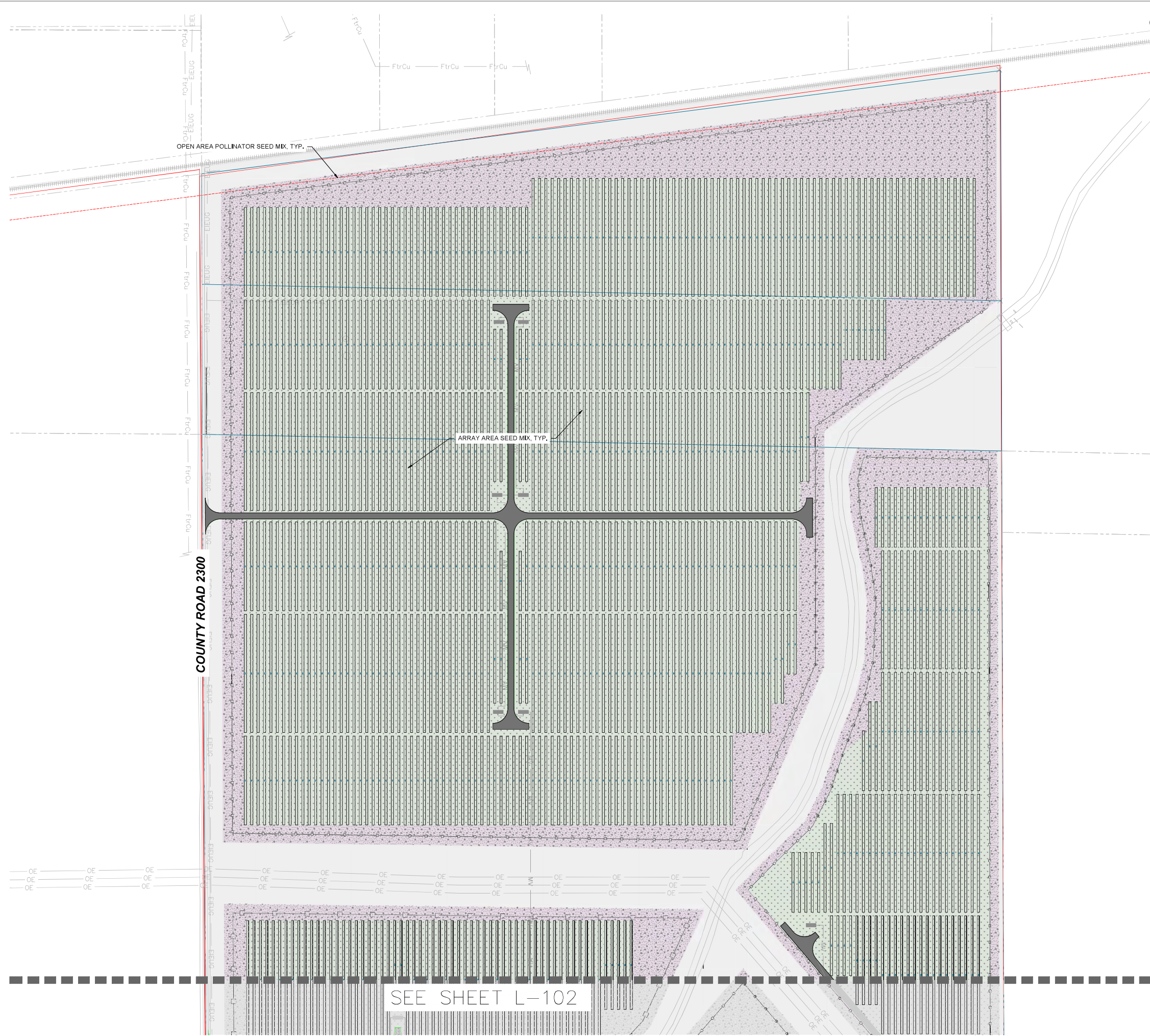






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 JUNE 17, 2024
 CHAMPAIGN COUNTY
 PLANNING & ZONING



SHEET NUMBER L-100	LITTLE PRAIRIE SOLAR, LLC CHAMPAIGN COUNTY, IL	OVERALL LANDSCAPE PLAN	KITA PROJECT 268634000	DATE 05/13/2024	SCALE AS SHOWN JCC	DESIGNED BY JCC	CHECKED BY JCC
			<p>© 2024 KIMLEY-HORN AND ASSOCIATES, INC. 570 LAKE COOK ROAD, SUITE 200 DEERFIELD, IL 60015 (630) 487-3449 WWW.KIMLEY-HORN.COM</p>				
						REVISIONS	
						DATE	


Drawing name: K:\CHS_DEV\268634000_BayWa_LittlePrairie_LL\Design\CAD\Exhibits\Prelim_Landscape\PRELIM_LANDSCAPE_PLAN.dwg PRELIMINARY LANDSCAPE PLAN May 23, 2024 2:41pm By: Chris Wilson
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- CONCEPT PLANT SCHEDULE**
-  NATIVE EVERGREEN TREE
 -  NATIVE EVERGREEN SHRUB
 -  ARRAY AREA SEED MIX
 -  BUFFER AREA SEED MIX

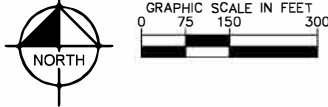
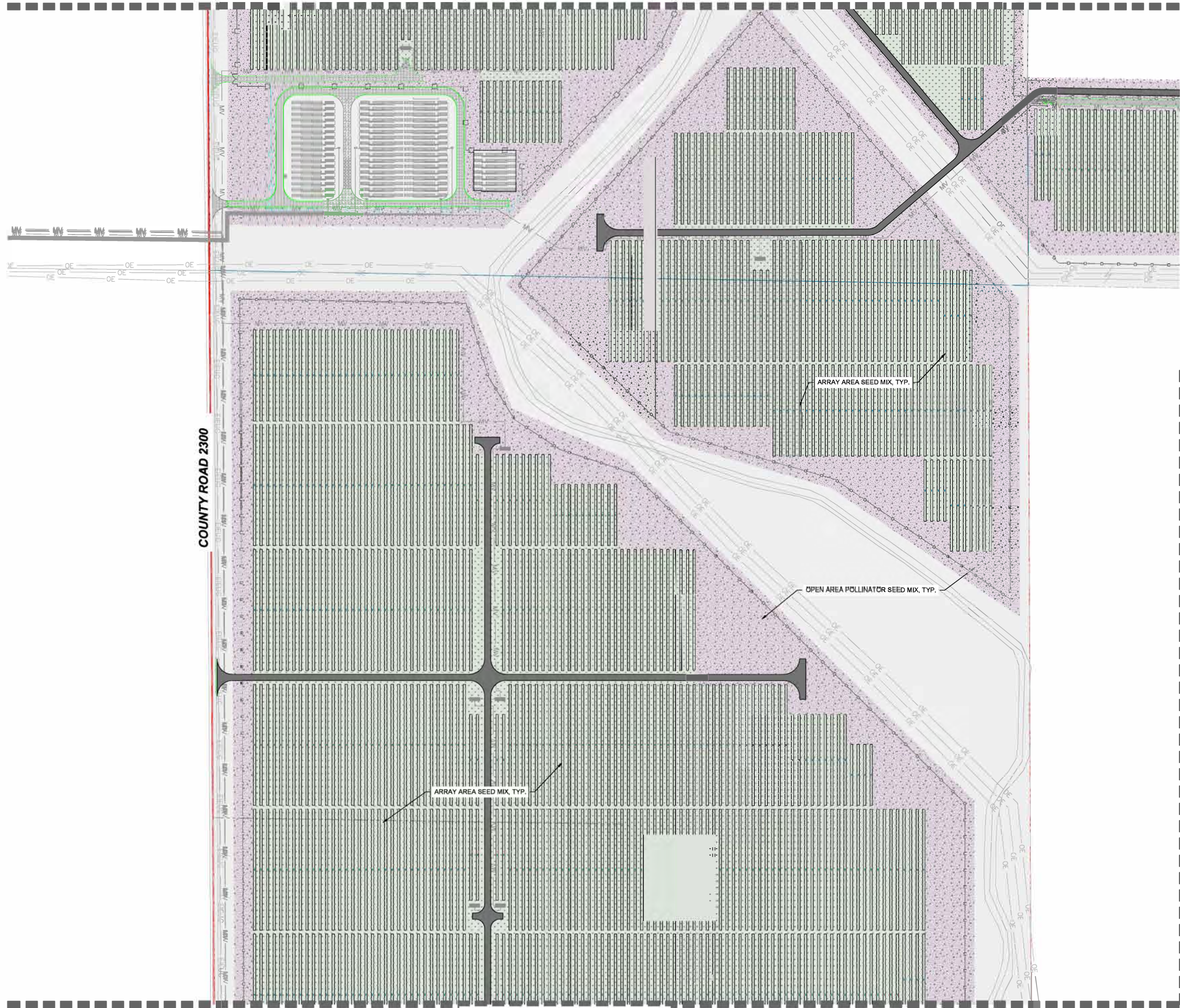
SEE SHEET L-102







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	KIA PROJECT: 268634000 DATE: 05/13/2024 SCALE: AS SHOWN DESIGNED BY: JCC DRAWN BY: ANG CHECKED BY: JCC
PRELIMINARY LANDSCAPE PLAN	LITTLE PRAIRIE SOLAR, LLC CHAMPAIGN COUNTY, IL
SHEET NUMBER L-101	SHEET NUMBER L-101

Drawing name: K:\GIS_LIVE\26834000_BayWa_LittlePrairie_IL\Design\26834000_Prelim_Landscape\PRELIM_LANDSCAPE_PLANNING L-102 May 23, 2024 2:43pm By: Chris Wilson
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CONCEPT PLANT SCHEDULE

-  NATIVE EVERGREEN TREE
-  NATIVE EVERGREEN SHRUB
-  ARRAY AREA SEED MIX
-  BUFFER AREA SEED MIX

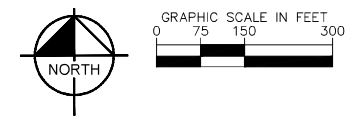
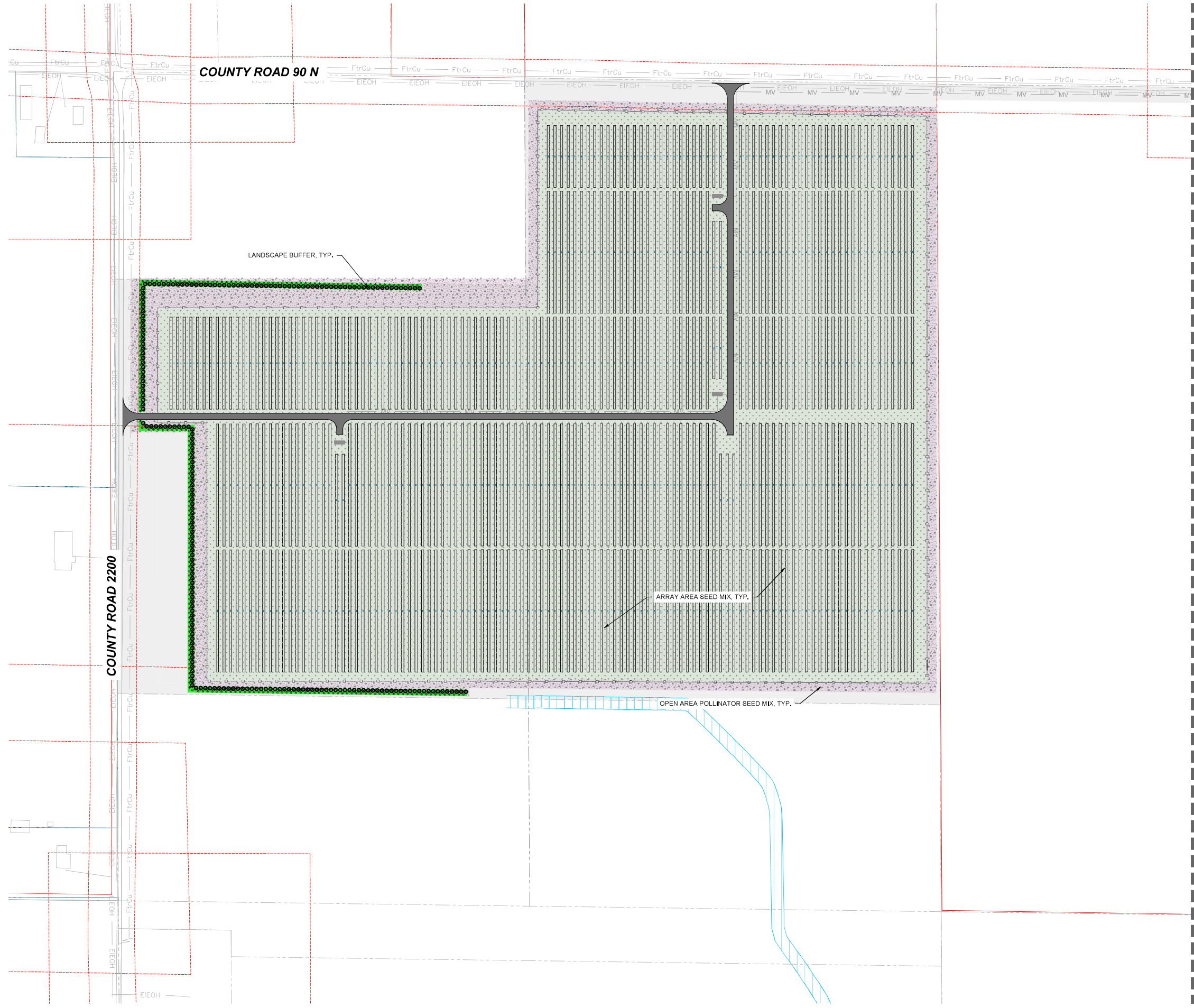
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KHA PROJECT 268634000	DATE 05/13/2024	SCALE AS SHOWN	DESIGNED BY JCC	DRAWN BY ANG	CHECKED BY JCC
LITTLE PRAIRIE SOLAR, LLC CHAMPAIGN COUNTY, IL	PRELIMINARY LANDSCAPE PLAN	SHEET NUMBER L-102			

Drawing name: K:\CHS_DEV\26864000_BayWa_LittlePrairie_IL_V_Design\CAD\Exhibits\PRELIM_LANDSCAPE_PLAN.dwg L-104 May 23, 2024 2:42pm By: Chris Wilson
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CONCEPT PLANT SCHEDULE

-  NATIVE EVERGREEN TREE
-  NATIVE EVERGREEN SHRUB
-  ARRAY AREA SEED MIX
-  BUFFER AREA SEED MIX

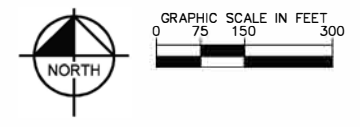
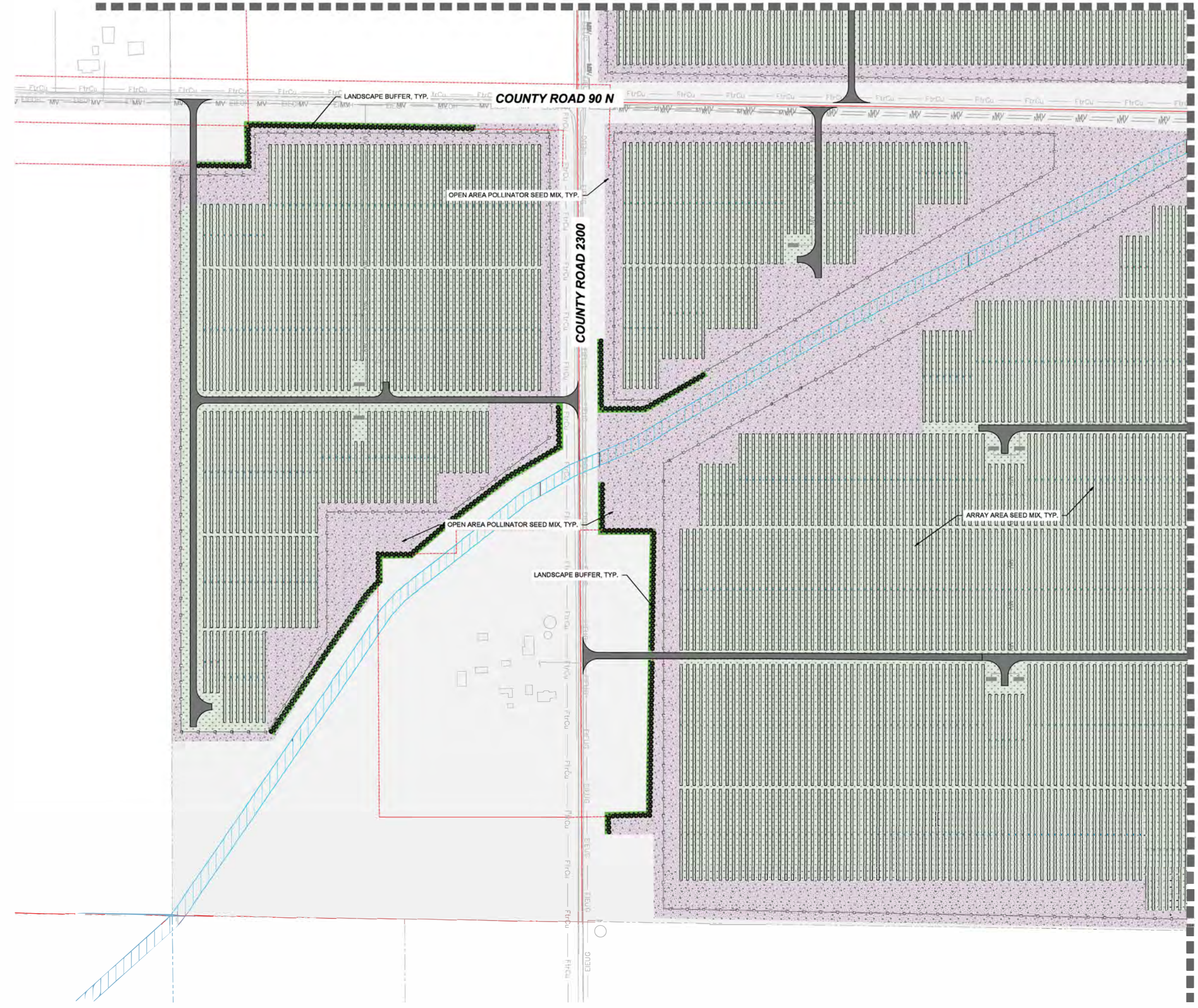
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	PRELIMINARY LANDSCAPE PLAN		LITTLE PRAIRIE SOLAR, LLC CHAMPAIGN COUNTY, IL			
	SHEET NUMBER L-104		REVISIONS		DATE	

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SEE SHEET L-102



CONCEPT PLANT SCHEDULE

- NATIVE EVERGREEN TREE
- NATIVE EVERGREEN SHRUB
- ARRAY AREA SEED MIX
- BUFFER AREA SEED MIX

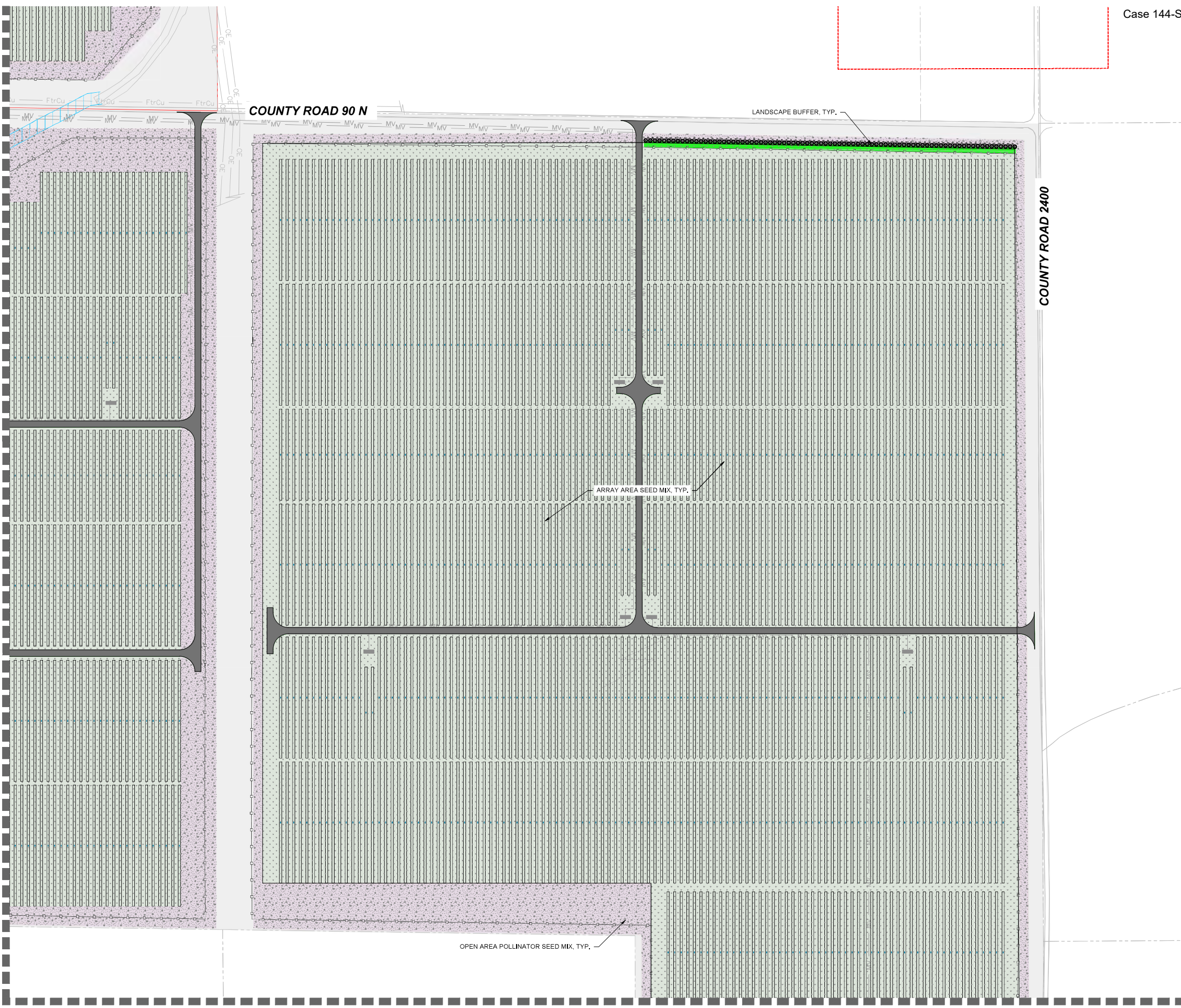
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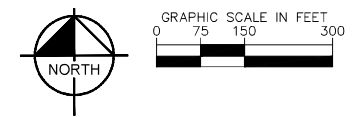
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KHA PROJECT 268634000	DATE 05/13/2024	SCALE AS SHOWN	DESIGNED BY JCC	DRAWN BY ANG	CHECKED BY JCC
LITTLE PRAIRIE SOLAR, LLC CHAMPAIGN COUNTY, IL		PRELIMINARY LANDSCAPE PLAN			
SHEET NUMBER L-105		DATE			

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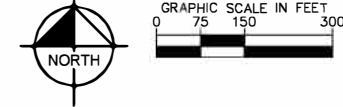
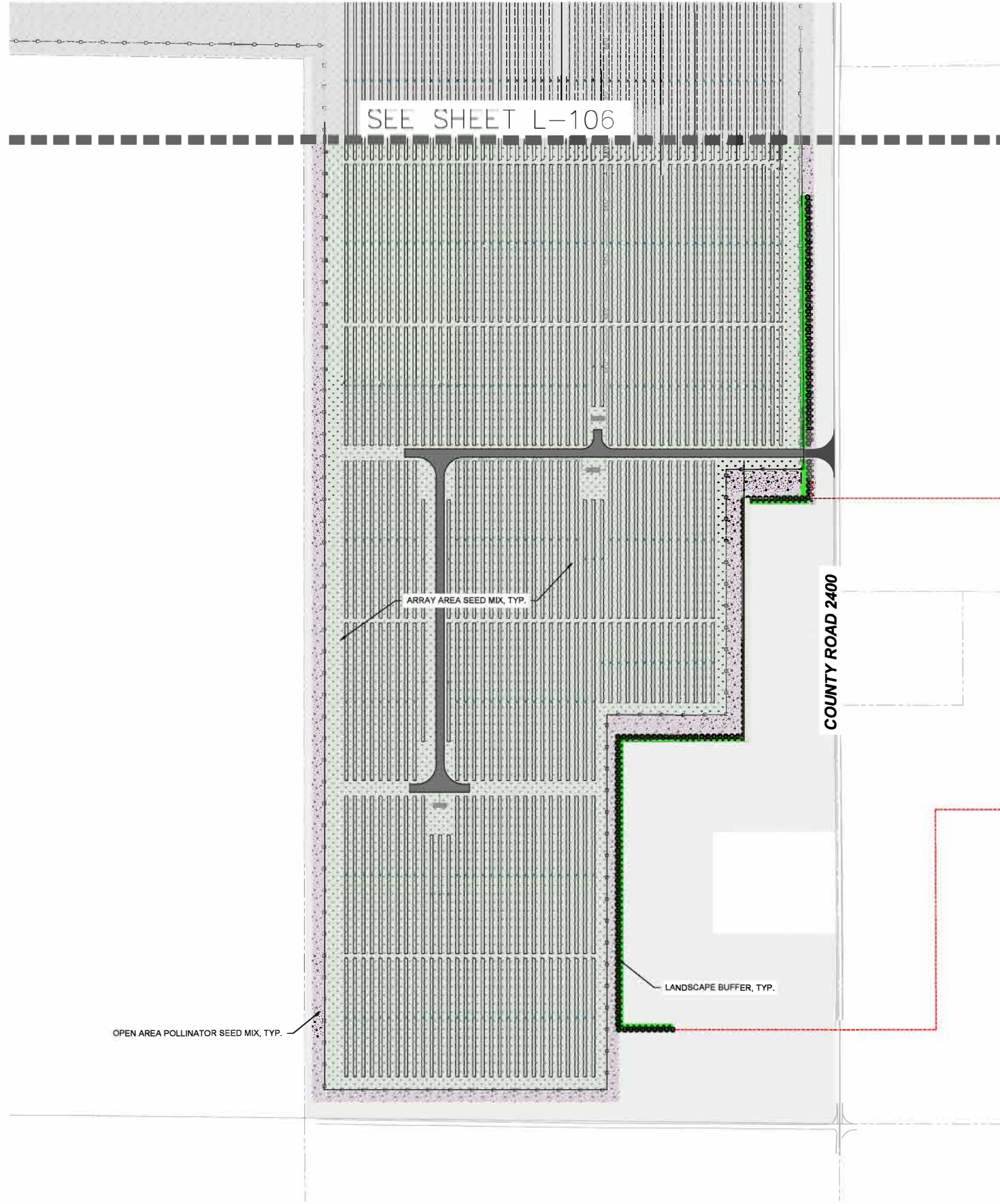


CONCEPT PLANT SCHEDULE





-  NATIVE EVERGREEN TREE
-  NATIVE EVERGREEN SHRUB
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-  BUFFER AREA SEED MIX

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LITTLE PRAIRIE SOLAR, LLC CHAMPAIGN COUNTY, IL	PRELIMINARY LANDSCAPE PLAN	KHA PROJECT	268634000	
		DATE	05/13/2024	
 Call Before You Dig 1-800-892-0123	SHEET NUMBER L-106	SCALE AS SHOWN	JCC	
		DESIGNED BY	JCC	
		DRAWN BY	ANG	
		CHECKED BY	JCC	



Drawing name: K:\GIS_DE\26864000\Boysie_Little_Prairie_LV_Design\LV_Design\Prelim_Landscape\PRELIM_LANDSCAPE_PLANS.dwg L-107 May 23, 2024 2:46pm by Chris.Watson
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CONCEPT PLANT SCHEDULE

-  NATIVE EVERGREEN TREE
-  NATIVE EVERGREEN SHRUB
-  ARRAY AREA SEED MIX
-  BUFFER AREA SEED MIX



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KHA PROJECT 268634000	DATE 05/13/2024	SCALE AS SHOWN	DESIGNED BY JCC	DRAWN BY ANG	CHECKED BY JCC
PRELIMINARY LANDSCAPE PLAN		LITTLE PRAIRIE SOLAR, LLC CHAMPAIGN COUNTY, IL			
SHEET NUMBER L-107					

GROUND COVER MAINTENANCE REQUIREMENTS

MAINTENANCE PROGRAMS SHALL BE SITE SPECIFIC AND COORDINATED WITH THE LANDSCAPE CONTRACTOR AND COUNTY FOR ADEQUATE MAINTENANCE PROCEDURES. A FIVE YEAR STEWARDSHIP PROGRAM IS NECESSARY TO ENSURE PROPER ESTABLISHMENT AND HEALTH OF GROUND COVER, TO CONTROL INVASIVE SPECIES, AND TO PREVENT OVERGROWTH AND SHADING OF EQUIPMENT. AFTER THE FIFTH GROWING SEASON, PROGRAM IS TO BE REDUCED TO TWO VISITS PER YEAR, DEPENDENT UPON SITE CONDITIONS AND REQUIRED STRATEGIES TO MAINTAIN GOOD HEALTH OF THE SITE SUCH AS DETHACHING, ADDITIONAL MOWING, OR HERBICIDE TREATMENTS.

FIRST YEAR

SPRING:

-EARLIEST POSSIBLE INSTALLATION MAY OCCUR IN THE SPRING OF THE FIRST YEAR. NO MAINTENANCE ACTIONS ARE REQUIRED TO BE PERFORMED DURING THE FIRST SEASON OF INSTALL. IF SEED APPLICATION TAKES PLACE IN SUMMER OR FALL OF THE FIRST YEAR, MAINTENANCE AND MONITORING SHOULD START THE FOLLOWING SEASON.

SUMMER:

-SITE VISITS ARE TO BE PERFORMED THREE TIMES THROUGHOUT THE SUMMER AT THE MIDDLE OR END OF EACH MONTH, WITH MONITORING AND EVALUATION OF VEGETATION HEIGHT AND PRESENCE OF INVASIVE SPECIES OCCURRING AT EACH VISIT.

-CONTROL INVASIVE WOODY AND HERBACEOUS FLORA THROUGH PHYSICAL REMOVAL OR SPOT *HERBICIDE TREATMENTS.
-CONDUCT MOWING UP TO THREE TIMES MAXIMUM DURING THE SUMMER IN AREAS OF THE SITE IDENTIFIED TO HAVE VEGETATION OVER 16 INCHES IN HEIGHT. AREAS WITH HEIGHT UNDER 16 INCHES MAY REMAIN UNTIL THE NEXT SCHEDULED MONITORING VISIT. NEWLY SEEDED AREAS SHOULD BE CUT BACK TO 10 INCHES IN HEIGHT.

FALL:

-SITE VISITS ARE TO BE PERFORMED THREE TIMES THROUGHOUT THE FALL AT THE MIDDLE OR END OF EACH MONTH, WITH MONITORING AND EVALUATION OF VEGETATION HEIGHT AND PRESENCE OF INVASIVE SPECIES OCCURRING AT EACH VISIT.
-CONTROL INVASIVE WOODY AND HERBACEOUS FLORA THROUGH PHYSICAL REMOVAL OR SPOT *HERBICIDE TREATMENTS.
-CONDUCT MOWING UP TO THREE TIMES MAXIMUM DURING THE FALL IN AREAS OF THE SITE IDENTIFIED TO HAVE VEGETATION OVER 16 INCHES IN HEIGHT. AREAS WITH HEIGHT UNDER 16 INCHES MAY REMAIN UNTIL THE NEXT SCHEDULED MONITORING VISIT. NEWLY SEEDED AREAS SHOULD BE CUT BACK TO 10 INCHES IN HEIGHT.

SECOND YEAR

SPRING:

-SITE VISITS ARE TO BE PERFORMED THREE TIMES THROUGHOUT THE SPRING AT THE MIDDLE OR END OF EACH MONTH, WITH MONITORING AND EVALUATION OF VEGETATION HEIGHT AND PRESENCE OF INVASIVE SPECIES OCCURRING AT EACH VISIT.

-DURING FIRST VISIT, MOWING SHOULD OCCUR TO CUT BACK ANY VEGETATION TO A HEIGHT OF 10 INCHES AND REMOVE DEAD STALKS AND SEED HEADS FROM THE PREVIOUS GROWING SEASON.
-CONTROL INVASIVE WOODY AND HERBACEOUS FLORA THROUGH PHYSICAL REMOVAL OR SPOT *HERBICIDE TREATMENTS.
-CONDUCT MOWING UP TO THREE TIMES MAXIMUM DURING THE SPRING IN AREAS OF THE SITE IDENTIFIED TO HAVE VEGETATION OVER 16 INCHES IN HEIGHT. AREAS WITH HEIGHT UNDER 16 INCHES MAY REMAIN UNTIL THE NEXT SCHEDULED MONITORING VISIT. SEEDED AREAS SHOULD BE CUT BACK TO 12 INCHES IN HEIGHT.

-PLANT SUPPLEMENTAL SEED AS NEEDED TO ADDRESS AREAS OF POOR COVERAGE AND TO INCREASE COMPETITION AND BIO-DIVERSITY.

SUMMER:

-SITE VISITS ARE TO BE PERFORMED THREE TIMES THROUGHOUT THE SUMMER AT THE MIDDLE OR END OF EACH MONTH, WITH MONITORING AND EVALUATION OF VEGETATION HEIGHT AND PRESENCE OF INVASIVE SPECIES OCCURRING AT EACH VISIT.

-CONTROL INVASIVE WOODY AND HERBACEOUS FLORA THROUGH PHYSICAL REMOVAL OR SPOT *HERBICIDE TREATMENTS.
-CONDUCT MOWING UP TO THREE TIMES MAXIMUM DURING THE SUMMER IN AREAS OF THE SITE IDENTIFIED TO HAVE VEGETATION OVER 16 INCHES IN HEIGHT. AREAS WITH HEIGHT UNDER 16 INCHES MAY REMAIN UNTIL THE NEXT SCHEDULED MONITORING VISIT. SEEDED AREAS SHOULD BE CUT BACK TO 12 INCHES IN HEIGHT.

FALL:

-SITE VISITS ARE TO BE PERFORMED THREE TIMES THROUGHOUT THE FALL AT THE MIDDLE OR END OF EACH MONTH, WITH MONITORING AND EVALUATION OF VEGETATION HEIGHT AND PRESENCE OF INVASIVE SPECIES OCCURRING AT EACH VISIT.
-CONTROL INVASIVE WOODY AND HERBACEOUS FLORA THROUGH PHYSICAL REMOVAL OR SPOT *HERBICIDE TREATMENTS.
-CONDUCT MOWING UP TO THREE TIMES MAXIMUM DURING THE FALL IN AREAS OF THE SITE IDENTIFIED TO HAVE VEGETATION OVER 16 INCHES IN HEIGHT. AREAS WITH HEIGHT UNDER 16 INCHES MAY REMAIN UNTIL THE NEXT SCHEDULED MONITORING VISIT. SEEDED AREAS SHOULD BE CUT BACK TO 12 INCHES IN HEIGHT.

THIRD, FOURTH, AND FIFTH YEAR

SPRING:

-SITE VISIT IS TO BE PERFORMED ONE TIME DURING THE EARLY SPRING, WITH MONITORING AND EVALUATION OF VEGETATION HEIGHT AND PRESENCE OF INVASIVE SPECIES OCCURRING.

-MOWING SHOULD OCCUR TO CUT BACK ANY VEGETATION TO A HEIGHT OF 10 INCHES AND REMOVE DEAD STALKS AND SEED HEADS FROM THE PREVIOUS GROWING SEASON.
-IF INVASIVE WOODY AND HERBACEOUS FLORA HAVE BEEN IDENTIFIED, PHYSICAL REMOVAL OR SPOT *HERBICIDE TREATMENTS ARE REQUIRED.

SUMMER:

-SITE VISIT IS TO BE PERFORMED ONE TIME DURING THE SUMMER, WITH MONITORING AND EVALUATION OF VEGETATION HEIGHT AND PRESENCE OF INVASIVE SPECIES OCCURRING.

-MOWING SHOULD OCCUR IN AREAS OF THE SITE IDENTIFIED TO HAVE VEGETATION OVER 16 INCHES IN HEIGHT. AREAS WITH HEIGHT UNDER 16 INCHES MAY REMAIN UNTIL THE NEXT SCHEDULED MONITORING VISIT. SEEDED AREAS SHOULD BE CUT BACK TO 12 INCHES IN HEIGHT.
-IF INVASIVE WOODY AND HERBACEOUS FLORA HAVE BEEN IDENTIFIED, PHYSICAL REMOVAL OR SPOT *HERBICIDE TREATMENTS ARE REQUIRED.

FALL:

-SITE VISIT IS TO BE PERFORMED ONE TIME DURING THE FALL, WITH MONITORING AND EVALUATION OF VEGETATION HEIGHT AND PRESENCE OF INVASIVE SPECIES OCCURRING.
-MOWING SHOULD OCCUR IN AREAS OF THE SITE IDENTIFIED TO HAVE VEGETATION OVER 24 INCHES IN HEIGHT. AREAS WITH HEIGHT UNDER 24 INCHES MAY REMAIN UNTIL THE NEXT SCHEDULED MONITORING VISIT. SEEDED AREAS SHOULD BE CUT BACK TO 12 INCHES IN HEIGHT.
-IF INVASIVE WOODY AND HERBACEOUS FLORA HAVE BEEN IDENTIFIED, PHYSICAL REMOVAL OR SPOT *HERBICIDE TREATMENTS ARE REQUIRED.

FOLLOWING THE FIFTH YEAR

-SITE VISITS ARE TO BE PERFORMED TWICE A YEAR, DURING THE EARLY SPRING AND LATE SUMMER, WITH MONITORING AND EVALUATION OF VEGETATION HEIGHT AND PRESENCE OF INVASIVE SPECIES OCCURRING AT EACH VISIT.
-DURING THE SPRING, MOWING SHOULD OCCUR TO CUT BACK ANY VEGETATION TO A HEIGHT OF 10 INCHES AND REMOVE DEAD STALKS AND SEED HEADS FROM THE PREVIOUS GROWING SEASON.
-DURING THE FALL, MOWING SHOULD OCCUR IN AREAS OF THE SITE IDENTIFIED TO HAVE VEGETATION OVER 24 INCHES IN HEIGHT. AREAS WITH HEIGHT UNDER 24 INCHES MAY REMAIN UNTIL THE NEXT SCHEDULED MONITORING VISIT. SEEDED AREAS SHOULD BE CUT BACK TO 12 INCHES IN HEIGHT.
-IF INVASIVE WOODY AND HERBACEOUS FLORA HAVE BEEN IDENTIFIED, PHYSICAL REMOVAL OR SPOT *HERBICIDE TREATMENTS ARE REQUIRED.

*ALL HERBICIDES ARE TO BE ANIMAL FRIENDLY AND APPLIED BY A TRAINED PERSONNEL.

PERFORMANCE STANDARDS

SATISFACTORY LANDSCAPE DEVELOPMENT ASSOCIATED WITH NATURALIZED VEGETATION WILL BE BASED ON THE FOLLOWING ITEMS.

FIRST YEAR:

WITHIN THREE MONTHS OF SEED INSTALLATION (OR THREE MONTHS AFTER THE START OF THE GROWING SEASON FOLLOWING DORMANT SEEDING), APPROXIMATELY 90 PERCENT OF THE SEEDED AREA, AS MEASURED BY AERIAL COVER, WILL BE VEGETATED OR OTHERWISE STABILIZED AGAINST EROSION. THE COVER CROP MAY BE INCLUDED IN THIS MEASUREMENT. IF MINIMUM IS NOT MET, ADDITIONAL SEEDING IS REQUIRED IN AREAS WITH POOR COVER.

SECOND YEAR:

BY THE END OF THE SECOND GROWING SEASON, THE PLANTED AREAS ARE DESIGNED TO HAVE A MINIMUM OF 50 PERCENT GROUND COVER BY SPECIES IN FINAL SEED MIX (NOT TO INCLUDE TEMPORARY COVER CROP OR UNDESIRABLE / INVASIVE SPECIES).

THIRD YEAR:

BY THE END OF THE THIRD GROWING SEASON, THE PLANTED AREAS ARE DESIGNED TO HAVE A MINIMUM OF 75 PERCENT GROUND COVER BY SPECIES IN FINAL SEED MIX (NOT TO INCLUDE TEMPORARY COVER CROP OR UNDESIRABLE / INVASIVE SPECIES).

IF PERFORMANCE STANDARD IS NOT MET AT EACH OBSERVATION, LANDSCAPE CONTRACTOR IS TO NOTIFY OWNER AND DEVELOP CORRECTIVE ACTION SUCH AS SEEDING OR HERBICIDE TREATMENT

GENERAL LANDSCAPE NOTES

1. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING MATERIALS AND PLANTS SHOWN ON THE LANDSCAPE PLAN. THE CONTRACTOR IS RESPONSIBLE FOR THE COST TO REPAIR UTILITIES, ADJACENT LANDSCAPE, PUBLIC AND PRIVATE PROPERTY THAT IS DAMAGED BY THE CONTRACTOR OR THEIR SUBCONTRACTOR'S OPERATIONS DURING INSTALLATION OR DURING THE SPECIFIED MAINTENANCE PERIOD. CALL FOR UTILITY LOCATIONS PRIOR TO ANY EXCAVATION.
2. THE CONTRACTOR SHALL REPORT ANY DISCREPANCY IN PLAN VS. FIELD CONDITIONS IMMEDIATELY TO THE LANDSCAPE ARCHITECT, PRIOR TO CONTINUING WITH THAT PORTION OF WORK.
3. NO PLANTING WILL BE INSTALLED UNTIL ALL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF ANY OF THEIR TRENCHES OR EXCAVATIONS THAT SETTLE..
5. DO NOT DISTURB THE EXISTING PAVING, LIGHTING, OR LANDSCAPING THAT EXISTS ADJACENT TO THE SITE UNLESS OTHERWISE NOTED ON PLAN.
6. PLANT QUANTITIES SHOWN ARE FOR THE CONVENIENCE OF THE OWNER AND JURISDICTIONAL REVIEW AGENCIES. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL PLANT QUANTITIES AS DRAWN.
7. THE CONTINUED MAINTENANCE OF ALL REQUIRED LANDSCAPING SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY ON WHICH SAID MATERIALS ARE REQUIRED. ALL PLANT MATERIALS REQUIRED BY THIS SECTION SHALL BE MAINTAINED AS LIVING VEGETATION AND SHALL BE PROMPTLY REPLACED IF THE PLANT MATERIAL HAS DIED PRIOR TO FINAL ACCEPTANCE.
8. NO GENERAL SPRAY OF HERBICIDES IS TO BE USED FOR ANY SEEDED AREAS.
9. ONLY HERBICIDES FORMULATED FOR ANIMAL SAFETY SHALL BE USED.
10. ALL WORK DEEMED NATURAL AREA TO BE SEEDED OR PLANTED SHALL BE PERFORMED BY A QUALIFIED LANDSCAPE CONTRACTOR.
11. SEED SHALL BE OBTAINED FROM SOURCE SPECIALIZING IN NATIVE SPECIES, WHERE AVAILABLE OR AS APPROVED BY CLIENT OR CLIENT'S REPRESENTATIVE.
12. ALL SEED MIXES SHALL BE INSTALLED WITH A COVER CROP DEPENDENT ON SEASON AND REQUIREMENTS SPECIFIED PER SEED MIX / SEED SUPPLIER.

ESTABLISHMENT NOTES AND STANDARDS

SEED AREA ESTABLISHMENT

PREPARATION

-SOIL IN AREAS OF EXISTING AGRICULTURAL USAGE IS RECOMMENDED TO BE TESTED FOR HIGH LEVELS OF HERBICIDES, AND AMENDED APPROPRIATELY TO BRING CONCENTRATION DOWN TO LEVELS APPROPRIATE FOR COMMON GRASSES. SOILS IDENTIFIED TO BE HIGH IN HERBICIDES OR CONTAMINATES SHOULD BE EVALUATED BY AN ENVIRONMENTAL SPECIALIST OR SOIL SCIENTIST TO DETERMINE REQUIRED METHODS OF REMEDIATION.
-SOILS SHALL BE UNIFORM, WITHOUT EXCESSIVE FURROWS, RUTS, OR RIDGES, AND LOW AREAS WHERE WATER MAY COLLECT.
-SOILS SHOULD BE CLEARED OF TRASH, DEBRIS, AND INVASIVE SPECIES PRIOR TO FINAL SEEDING APPLICATION.
-SOIL PREPARATION SHALL OCCUR WHEN WEATHER PERMITS AND TIMING ALLOWS FOR AT LEAST A FOLLOWING 48 HOURS WHERE SEEDING AND STABILIZATION METHODS MAY TAKE PLACE.

TIMING

-TO PROMOTE EARLY AND STRONG ESTABLISHMENT OF SPECIFIED SEED MIX, DORMANT SEASON SEED APPLICATION SHOULD BE UTILIZED IF POSSIBLE AND AS CONSTRUCTION TIMELINE PERMITS.
-DORMANT SEASON SEEDING SHOULD UTILIZE WINTER-TOLERANT SEED FROM THE SPECIFIED SEED MIX, ALONG WITH 20-30 LBS PER ACRE OF A WINTER NURSE CROP SUCH AS SECALE CEREALE, PISUM SATIVUM, OR AVENA SATIVA.
-TO APPLY DORMANT SEED, SITE SHOULD BE CLEARED OF INVASIVE WEEDS, LIGHTLY TILLED OR DISKED, THEN DRILL APPLIED ACROSS THE ENTIRE AREA OF AGRICULTURAL SOIL.
-ACTIVE SEASON SEED APPLICATION SHOULD BE PERFORMED BETWEEN APRIL 1ST AND MAY 30TH, AFTER RISK OF MAJOR FREEZING CONDITIONS IS MINIMIZED, FOR IDEAL ESTABLISHMENT AND MINIMIZING INVASIVE SPECIES COMPETITION.

APPLICATION

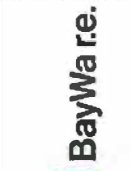
-SEED MIXTURES ARE RECOMMENDED TO BE MECHANICALLY DRILLED. BROADCAST APPLICATION MAY BE PERFORMED DEPENDENT ON SEASON AND SITE CONDITIONS AT TIME OF APPLICATION, AND FOLLOWING CLIENT APPROVAL.
-IF SEED IS APPLIED BY MECHANICAL DRILL, NO STRAW MULCH IS REQUIRED UNLESS NEEDED FOR STEEP SLOPES, SOIL STABILIZATION, OR OTHER AREAS THAT ARE IDENTIFIED FOR EROSION PREVENTION.
-SEED SHALL BE APPLIED AT INDICATED RATES WITH COVER CROP OATS, JAPANESE MILLET, WINTER WHEAT, ANNUAL RYE, OR SPECIFIED CROP DEPENDENT ON SEASON AND SOIL CONDITIONS.
-SEED SPECIES SHALL BE LOCALLY SOURCED WHEN FEASIBLE.
-FINAL SEED MIX MAY VARY DEPENDENT UPON SPECIFIC SPECIES AVAILABILITY AND TIME OF INSTALLATION.
-FINAL SEED MIX SHALL BE APPROVED BY OWNER, OWNER'S REPRESENTATIVE, OR LANDSCAPE ARCHITECT.
-IF SEEDING IS PERFORMED PRIOR TO FINAL SITE INSTALLATION, ADDITIONAL SEED MAY BE APPLIED BY A LOW SPREADER IN AREAS THAT WERE DISTURBED.
-SITE SHOULD BE MONITORED FOLLOWING INSTALLATION FOR AREAS IDENTIFIED FOR ADDITIONAL RESEEDING UNTIL SEED MIX IS SUFFICIENTLY ESTABLISHED.

INVASIVE WEED CONTROL, MONITORING, AND MANAGEMENT

-A WORK PLAN SHOULD BE DEVELOPED TO AVOID THE SPREAD OF INVASIVE PLANTS FROM THESE AREAS.
-IF SUBSTANTIAL AREAS OF INVASIVE HERBACEOUS SPECIES ARE FOUND PRIOR TO OR AFTER PROJECT DEVELOPMENT, FOLIAR OR BROADCAST HERBICIDE APPLICATIONS MAY BE REQUIRED.
-FOR INVASIVE TREES, SHRUBS, AND VINES, MANAGEMENT MAY REQUIRE CUT-STEM HERBICIDE TREATMENTS.
-ALL INVASIVE SPECIES MANAGEMENT SHOULD BE CONDUCTED DURING THE SUMMER MONTHS WHILE THE TARGET PLANTS ARE ACTIVELY GROWING.
-TREATMENTS SHOULD BE CONDUCTED ACCORDING TO MAINTENANCE PLANS EACH YEAR AND SHOULD BE SEPARATED BY AT LEAST TWO WEEKS.
-HERBICIDE USE REPORTING WILL ADHERE TO ALL APPLICATOR LICENSING REQUIREMENTS.

TREE AND SHRUB INSTALLATION

-ALL PLANTS TO BE SPECIMEN GRADE, WELL BRANCHED, HEALTHY, FULL, PRE-INOCULATED, AND FERTILIZED. PLANTS SHALL BE FREE FROM DISEASE, PESTS, WOUNDS, AND SCARS. PLANTS SHALL BE FREE FROM NOTICEABLE GAPS, HOLES, OR DEFORMITIES. PLANTS SHALL BE FREE FROM BROKEN OR DEAD BRANCHES.
-TRUNKS WILL BE WRAPPED IF NECESSARY TO PREVENT SUN SCALD AND INSECT DAMAGE. THE LANDSCAPE CONTRACTOR SHALL REMOVE THE WRAP AT THE PROPER TIME AS PART OF THIS CONTRACT.
-THE OWNER'S REPRESENTATIVE MAY REJECT ANY PLANT MATERIALS THAT ARE DISEASED, DEFORMED, OR OTHERWISE NOT EXHIBITING SUPERIOR QUALITY.
-ALL NURSERY STOCK SHALL BE GUARANTEED, BY THE CONTRACTOR, FOR ONE YEAR FROM DATE OF FINAL INSPECTION. THE GUARANTEE BEGINS ON THE DATE OF THE LANDSCAPE ARCHITECT'S OR OWNER'S WRITTEN ACCEPTANCE OF THE INITIAL PLANTING. REPLACEMENT PLANT MATERIAL SHALL HAVE A ONE YEAR GUARANTEE COMMENCING UPON PLANTING.
-PLANTS ARE TO MEET AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1-2014 OR MOST CURRENT VERSION) REQUIREMENTS FOR SIZE AND TYPE SPECIFIED.
-PRUNE PLANTS AS NECESSARY PER STANDARD NURSERY PRACTICE AND TO CORRECT POOR BRANCHING OF EXISTING AND PROPOSED TREES.
-CONTRACTOR SHALL INSTALL SHREDDED HARDWOOD MULCH AT A 3" DEPTH TO ALL TREE AND SHRUB AREAS. TREES PLACED IN AREA COVERED BY TURF SHALL RECEIVE A 4' WIDE TREE RING WITH 3" DEPTH SHREDDED HARDWOOD MULCH.



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KHA PROJECT	DATE	SCALE	DESIGNED BY	JCC
268634000	05/13/2024	AS SHOWN	JCC	ANG
			DRAWN BY	JCC
			CHECKED BY	JCC

MAINTENANCE AND MONITORING PLAN

LITTLE PRAIRIE SOLAR, LLC

SHEET NUMBER L-201



1-800-892-0123

Drawing name: K:\CHS\268634000\Byline_LittlePrairieSolar_V2 Design\CAD\Exhibits\Exhib1 Landscape\PRELIM Landscape\PLAN.dwg
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DECOMMISSIONING PLAN

Little Prairie Solar
Champaign County, IL

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JUNE 17, 2024

CHAMPAIGN COUNTY
PLANNING & ZONING

TABLE OF CONTENTS

<i>1.0 INTRODUCTION</i>	<i>1</i>
Background	1
<i>2.0 PROJECT COMPONENTS</i>	<i>2</i>
PV Equipment Installation	2
Internal Power Collection System	2
Earthwork	2
Roads	2
Fencing	2
<i>3.0 PROJECT DECOMMISSIONING AND RECYCLING</i>	<i>3</i>
Decommissioning Preparation	3
Permits and Approvals	3
PV Equipment Removal and Recycling	3
Internal Power Collection System	3
Roads	4
Fencing	4
Landscaping	4
Site Restoration	4
<i>4.0 FUTURE LAND USE</i>	<i>5</i>
<i>5.0 ADDITIONAL CHAMPAIGN COUNTY REQUIREMENTS</i>	<i>7</i>
General Decommissioning Acknowledgements	5
Financial Assurance Acknowledgements	7
<i>6.0 PROJECT DECOMMISSION COSTS AND FINANCIAL ASSURANCE</i>	<i>10</i>

Appendices

- A. Opinion of Probable Construction Cost With Salvage

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1.0 INTRODUCTION

Background

Little Prairie Solar, LLC (Project Company) is developing the Little Prairie Solar Project (Project) on approximately 1,047 acres of land. The Project will be located within Sidney Township, Champaign County, Illinois. Refer to **Exhibit B: Special Use Permit Plans** of the Special Use Permit Application Package for general location and Project layout.

The Project is located north of County Road 800 N Road, west of County Road 2400 E, east of County Road 2100 E (S Bryant St), and south of County Road 1000 N. In existing conditions, the site is agricultural land. The Project area is located within a Zone X, area of minimal flood risk, as classified by the Federal Emergency Management Agency (FEMA).

This Decommissioning Plan is developed in compliance with the Agricultural Impact Mitigation Agreement (AIMA) as well as the Champaign County Zoning Ordinance. Refer to **Exhibit O** of the Special Use Permit Application Package for the Project's executed AIMA.

This Plan covers the following elements:

- Removal of structures and foundations
- Stabilization and restoration of soil and vegetation
- Repairing any damage to drain tiles and other drainage systems
- Repairs to any streets that damage occurs from a result of decommissioning, which is not already covered in the road maintenance agreement

Per section 17.B. of the signed AIMA, if the Project ceases to perform its intended function for more than six (6) consecutive months, the Project will be removed within twelve (12) months, and the site restored in accordance with the decommissioning plan.

2.0 PROJECT COMPONENTS

The Project Components that are subject to decommissioning include the equipment summarized below. The decommissioning activities associated with these components are discussed in Section 3.0 of this Plan.

PV Equipment Installation

The Project will use approximately 335,634 Solar Photovoltaic (PV) modules mounted on single axis trackers installed on steel pile foundations.

Internal Power Collection System

Since the final engineering design has not been completed as of the date of this decommissioning plan, a site of similar size was used to derive potential quantities for AC/DC cables (scaling from 150 MW to 135 MW). The PV-generated DC power will be collected from each of the multiple rows of PV modules through one or more combiner boxes and conveyed to inverters. The inverters will convert the DC power to AC power. Project substations will be constructed to convert the electricity voltage, as necessary. A proposed battery storage yard will also be constructed as part of this Project. The Project Substation will connect to Ameren's Sidney Switchyard. All 35 Inverters, 58 PCS Stations, and PV combining switchgear will be mounted on concrete pad or steel pile foundations.

Earthwork

It is anticipated that the site will require minimal grading for the Project. Site grading and drainage will be conducted in accordance with Final Civil Construction plans. The project aims to minimize earthwork to the greatest extent possible in the final civil plans to best protect existing topsoil and align with the requirements of AIMA. To comply with Section 5. of the AIMA during grading, topsoil will be removed and stockpiled, then later applied to the graded areas to preserve topsoil. The same grading procedure will occur for any grading that may be required during decommissioning.

Roads

There will be multiple access points to the Project via County Road 2200 E, County Road 2300 E, County Road 2400 E, and County Road 900 N. The site access points will be constructed in accordance with Champaign County and/or Township requirements. The total surface area of on-site access roads equates to approximately 20 acres and will be comprised of compacted dirt or gravel in accordance with the Final Geotechnical Report. Culverts may be required at each entrance and will be determined/designed as part of final engineering.

Fencing

The Project site will be fenced with 82,307 linear feet of at least a seven-foot-high cyclone type or chain link type fence for security purposes. An entry gate will be provided at all site access points.

3.0 PROJECT DECOMMISSIONING AND RECYCLING

Decommissioning includes removal of above-ground and below-ground structures as well as proper soil restoration relating to the Solar PV portions of the Project. Temporary erosion and sedimentation control Best Management Practices will be implemented during the decommissioning phase of the Project. The age of decommissioning of this estimate is 40 years.

Decommissioning Preparation

The first step in the decommissioning process will be to assess existing site conditions and prepare the site for demolition. Onsite storage area(s) will be established, for collection and temporary storage of demolition debris, pending final transportation and disposal and/or recycling according to the procedures below.

Permits and Approvals

It is anticipated that an NPDES Permit from the Illinois Environmental Protection Agency (IEPA) and a SWPPP will be required. The site is not anticipated to impact Waters of the United States. Appropriate applications for permits will be submitted and approved prior to decommissioning activities, including any permits required through the Soil and Water Conservation District, Sidney Township, and Champaign County.

PV Equipment Removal and Recycling

During decommissioning, Project components that are no longer needed will be removed from the site and recycled or disposed of at an appropriately licensed disposal facility. Above ground portions of the PV module supports will be removed. Below ground portions of the PV module supports will be removed entirely where practical, but to a depth of five feet at a minimum per AIMA requirements. Those supports that are more firmly anchored (e.g., such as embedded in bedrock) may be cut off at least five feet below ground or to the depth of bedrock, and the remaining support left in place. This depth will avoid impact of underground equipment on future farming or other construction activities. The demolition debris and removed equipment may be cut or dismantled into pieces that can be safely lifted or carried with the onsite equipment being used. The debris and equipment will be processed for transportation and delivery to an appropriately licensed disposal facility or recycling center. Modules will be disposed of or recycled in accordance with local, state, and federal regulations.

Internal Power Collection System

The combiner boxes, cables, inverters, and transformers will be dismantled. The concrete foundations will be broken up, removed, and recycled. Per Section 6.1.5.Q.(3)h. of the Champaign County Zoning Ordinance, the Project's removal depth of concrete foundations does not need to be certified and submitted to the zoning administrator since this plan proposes the removal of all concrete foundation in its entirety.

If ground-screw or steel foundations are used, they will be removed and recycled. The underground cable and conduit will be removed at a depth up to five feet, per the AIMA and Section 6.1.5.Q.(3)i. of Champaign County code. Overhead conductors will be removed from the poles, and the poles and pole foundations will be removed. Aluminum from the conductors will be recycled or removed from the site to an appropriately licensed disposal facility. All components of the Project substation and battery energy storage system including, but not limited to, foundations, buildings, batteries, gravel yard rock, fences, machinery, equipment, cabling, and connections to transmission lines will be removed.

Roads

Unless requested in writing by the landowner, gravel from on-site access roads will be removed and recycled. Once the gravel is removed, the soil below the gravel along compacted dirt access roads shall be scarified a depth of 18-inches and blended, as noted in the Site Restoration section below. Per Section 6.1.5.Q.(2) of the Champaign County Zoning Ordinance, the Project Company acknowledges financial responsibility to repair any public street damaged during the reclamation of the solar farm.

Fencing

Unless requested in writing by the landowner, Project site perimeter fence will be removed at the end of the decommissioning Project. Since the Project site is not currently fenced, this includes removal of all posts, footings, fencing material, gates, etc. to return the site to pre-Project condition.

Landscaping

Unless requested in writing by the landowner to be removed, all vegetative landscaping and screening installed as part of the Project will be left in place. Landscape areas in which landscaping is removed will be restored as noted in the Site Restoration section below.

Site Restoration

Once removal of all Project equipment and landscaping is complete, all areas of the Project site that were traversed by vehicles and construction and/or decommission equipment that exhibit compaction and rutting will be restored by the Project Company. All prior agricultural land shall be ripped at least 18 inches deep or to the extent practicable and all pasture will be ripped at least 12 inches deep or to the extent practicable. The existence of drain tile lines or underground utilities may necessitate less ripping depth. Once this is complete, seed will be distributed for the establishment of vegetative land cover.

4.0 FUTURE LAND USE

Per the requirements of the Illinois Department of Agriculture (IDOA), an Agricultural Impact Mitigation Agreement (AIMA) must be signed by the Facility owner and filed the County Board prior to the Commencement of Construction. The IDOA prepared the AIMA to help preserve the integrity of any Agricultural Land that is impacted by the Construction and Decommission of a Commercial Solar Energy Facility. Per the AIMA, all solar panels shall be removed from the property and the land must be restored to its pre-existing condition for agricultural use at the end of the Project life cycle. This Decommission Plan is consistent with the AIMA requirements to return the land to its pre-Project conditions, suitable for agricultural use.

5.0 ADDITIONAL CHAMPAIGN COUNTY REQUIREMENTS

The Project Company shall comply with all decommissioning requirements of the Champaign County Zoning Ordinance (as amended through 02/23/2023), pertinent sections as follows.

General Decommissioning Acknowledgments

Per Section 6.1.5.Q.(3), the Project Company acknowledges that:

- a. They must notify the governing body by certified mail of the commencement of voluntary or involuntary bankruptcy proceeding, naming the Project Company as debtor, within ten days of commencement of proceeding.
- b. They agree that the sale, assignment in fact or law, or such other transfer of Project Company's financial interest in the PV Solar Farm shall in no way affect or change the Project Company's obligation to continue to comply with the terms of this plan. Any successor in interest, assignee, and all parties to the decommissioning and site reclamation plan shall assume the terms, covenants, and obligations of this plan and agrees to assume all reclamation liability and responsibility for the PV Solar Farm.
- c. They must authorize the governing body and its authorized representatives to enter the PV Solar Farm premises for the purpose of inspecting the methods of reclamation or for performing actual reclamation if necessary.
- d. They must enter into a Roadway Use and Repair Agreement with the relevant highway authority at the time of decommissioning. (*Requirement for the Project Company, its successors in interest, and all parties to the decommissioning and site reclamation plan*)
- e. They must provide evidence of any new, additional, or substitute financing or security agreement to the Zoning Administrator throughout the operating lifetime

- of the project. *(Requirement for the Project Company, its successors in interest, and all parties to the decommissioning and site reclamation plan).*
- f. They must oblige to perform the work in the decommissioning and site reclamation plan before abandoning the PV Solar Farm or prior to ceasing production of electricity from the PV Solar Farm, after it has begun, other than in the ordinary course of business. This obligation shall be independent of the obligation to pay financial assurance and shall not be limited by the amount of financial assurance. The obligation to perform the reclamation work shall constitute a covenant running with the land. *(Requirement for the Project Company, its successors in interest, and all parties to the decommissioning and site reclamation plan).*
 - g. They must provide payment for any associated costs that Champaign County may incur in the event that decommissioning is actually required. Associated costs include all administrative and ancillary costs associated with drawing upon the financial assurance and performing the reclamation work and shall include but not be limited to: attorney's fees; construction management and other professional fees; and the costs of preparing requests for proposals and bidding documents required to comply with State law or Champaign County purchasing policies.
 - h. *See proof of compliance in Section 3.0 of this Decommissioning Plan.*
 - i. *See proof of compliance in Section 3.0 of this Decommissioning Plan.*
 - j. Any holes left behind as a result of concrete foundation removal during decommissioning must be backfilled as follows:
 - (a) The excavation resulting from the removal of foundation concrete shall only be backfilled with subsoil and topsoil in similar depths and similar types as existed at the time of the original PV Solar Farm construction except that a lesser quality topsoil or a combination of a lesser quality topsoil and a subsoil that is similar to the native subsoil may be used at depths corresponding to the native subsoil but not less than 12 inches below grade
 - (b) The native soils excavated at the time of the original PV Solar Farm construction may be used to backfill the concrete foundation excavations at the time of decommissioning provided that the soils are adequately stored throughout the operating lifetime of the PV Solar Farm. The methods for storing the excavated native soils during the operating lifetime of the PV Solar Farm shall be included in the decommissioning and site reclamation plan.
 - (c) If the excavated native soils are not stored for use for backfilling the concrete foundation excavations, a qualified soil scientist of Illinois Licensed Professional Engineer shall certify that the actual soils used to backfill the concrete foundation excavations are of equal or greater quality than the native soils or that, in the case of subsoil, the backfill soil meets the requirements of this paragraph. The certification shall be submitted to the Zoning Administrator.

- (d) An Illinois Licensed Professional Engineer shall certify in writing that the concrete foundation excavations have been backfilled with soil to such a depth and with a minimum of compaction that is consistent with the restoration of productive agricultural use such that the depth of soil is expected to be no less than 54 inches within one year after backfilling.
- k. Should the decommissioning and site reclamation plan be deemed invalid by a court of competent jurisdiction the PV Solar Farm Special Use Permit shall be deemed void.
- l. The Project Company has obligation to complete the decommissioning and site reclamation plan and to pay all associated costs shall be independent of the Project Company's obligation to provide financial assurance.
- m. The liability of the Project Company's failure to complete the decommissioning and site reclamation plan or any breach of the decommissioning and site reclamation plan requirement shall not be capped by the amount of financial assurance.
- n. If the Project Company desires to remove equipment or property credited to the estimated salvage value without the concurrent replacement of the property with property of equal or greater salvage value, or if the Project Company installs equipment or property increasing the cost of decommissioning after the PV Solar Farm begins to produce electricity, at any point, the Project Company shall first obtain the consent of the Zoning Administrator. If the Project Company's lien holders remove equipment or property credited to the salvage value, the Project Company shall promptly notify the Zoning Administrator. In either of these events, the total financial assurance shall be adjusted to reflect any change in total salvage value and total decommissioning costs resulting from any such removal or installation.

Financial Assurance Acknowledgments

Per Sections 6.1.5.Q.(4)(c.-i.), the Project Company acknowledges the following:

- c. The governing body has the right to require multiple letters of credit based on the regulations governing federal insurance for deposits.
- d. The Project Company, its successors in interest, and all parties to the decommissioning and site reclamation plan shall adjust the amount of the financial assurance to ensure that it reflects current and accurate information as follows:
- (a) At least once every three years for the first 12 years of the financial assurance and at least once every two years thereafter or, if the PV Solar Farm modules have an unlimited warranty of a least 10 years and also have a limited power warranty to provide not less than 80% nominal power output up to 25 years and proof of that warranty is provided at the time of Zoning Use Permit approval, then at least once every five years for the first

- 25 years of the financial assurance and at least once every two years thereafter, the Project Company, its successors in interest, and all parties to the decommissioning and site reclamation plan shall use an independent Illinois Licensed Professional Engineer to provide updated estimates of decommissioning costs and salvage value, by including any changes due to inflation and/or change in salvage price. The Project Company, its successors in interest, and all parties to the decommissioning and site reclamation plan shall, upon receipt, provide a copy of the adjusted Professional Engineer's report to the Zoning Administrator.
- (b) At all times, the value of the irrevocable letter of credit shall equal or exceed the amount of the independent engineer's cost estimate as increased by known and documented rates of inflation based on the Consumer Price Index since the PV Solar Farm was approved.
- e. The long-term corporate debt (credit) rating of the letter of credit issuing financial institution by both Standard & Poor's Financial Services LLC (S&P) and Moody's Investors Service (Moody's) shall be equal to or greater than the minimum acceptable long term corporate debt (credit) rating, as follows:
- (a) The Zoning Administrator shall verify the long-term corporate debt (credit) rating of the proposed financial institution by Standard and Poor's Financial Services LLC (S&P) and/or Moody's Investors Service (Moody's) and/or the Kroll Bond Rating Agency
- (b) The minimum acceptable long term corporate debt (credit) rating of the proposed financial institution shall be a rating of "A-" by S&P or a rating of "A3" by Moody's, or a rating of "A-" by Kroll Bond Rating Agency.
- (c) Whenever the most current long term corporate debt (credit) rating of the proposed financial institution by either S&P, Moody's, or Kroll Bond Rating Agency is lower than the minimum acceptable long term corporate debt (credit) rating, the letter of credit shall be replaced with a new irrevocable letter of credit from an issuing financial institution whose most current long term corporate debt (credit) rating by either S&P, Moody's, or Kroll Bond Rating Agency meets or exceeds the minimum acceptable long term corporate debit (credit) rating.
- f. At all times the value of the irrevocable letter of credit shall be increased annually as necessary to reflect actual rates of inflation over the life span of the PV Solar Farm and the amount shall be equal to or exceed 125% of the amount of the independent engineer's cost estimate as increased by known and documented rates of inflation since the PV Solar Farm was approved.
- g. Should the salvage value of components be adjusted downward or the decommissioning costs adjusted upward pursuant to paragraph 6.1.5Q.4.d., the amount of the irrevocable letter of credit pursuant to this paragraph 6.1.5Q.4. shall be increased to reflect the adjustment, as if the adjusted estimate were the initial estimate.

- h. Any financial assurance required per the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.5R. shall count towards the total financial assurance required for compliance with paragraph 6.1.1A.5.
- i. Unless the Governing Body approves otherwise, the Champaign County State's Attorney's Office shall review and approve every Letter of Credit prior to acceptance by the Zoning Administrator.

Per Section 6.1.5.Q.(5), the Project Company acknowledges that the Administrator may also draw on the funds for the following reasons:

- a. In the event that any PV Solar Farm or component thereof ceases to be functional for more than six consecutive months after it starts producing electricity and the Owner is not diligently repairing such PV Solar Farm or component.
- b. In the event that the Owner declares the PV Solar Farm or any PV Solar Farm component to be functionally obsolete for tax purposes.
- c. There is a delay in the construction of any PV Solar Farm of more than 6 months after construction on that PV Solar Farm begins.
- d. Any PV Solar Farm or component thereof that appears in a state of disrepair or imminent collapse and/or creates an imminent threat to the health or safety of the public or any person.
- e. Any PV Solar Farm or component thereof that is otherwise derelict for a period of 6 months.
- f. The PV Solar Farm is in violation of the terms of the PV Solar Farm Special Use Permit for a period exceeding ninety (90) days.
- g. The Project Company, its successors in interest, and all parties to the decommissioning and site reclamation plan has failed to maintain financial assurance in the form and amount required by the Special Use Permit or compromised the county's interest in the decommissioning and site reclamation plan.
- h. The county discovers any material misstatement of fact of misleading omission of fact made by the Project Company in the course of the Special Use Permit Zoning Case.

The Project Company has either failed to receive a copy of the certification of design compliance required by paragraph 6.1.5D. or failed to submit it to the county within 12 consecutive months of receiving a Zoning Use Permit regardless of the efforts of the Project Company to obtain such certification.

Per Section 6.1.5.Q.(6), the Project Company acknowledges that the Zoning Administrator may, but is not required to, deem the PV Solar Farm abandoned, or the standards set forth in Section 6.1.5.Q.5. met, with respect to some, but not all, of the PV Solar Farm. In that event, the Zoning Administrator may draw upon the financial assurance to perform the reclamation work as to that portion of the PV Solar Farm only. Upon completion of that reclamation work, the salvage value and reclamation costs shall be recalculated as to the remaining PV Solar Farm.

Per Section 6.1.5.Q.(7), the Project Company acknowledges that the decommissioning and site reclamation plan shall be included as a condition of approval by the Board and the signed and executed irrevocable letter of credit and evidence of the escrow account must be submitted to the Zoning Administrator prior to any Zoning Use Permit approval.

6.0 PROJECT DECOMMISSION COSTS AND FINANCIAL ASSURANCE

Upon approval and issuance of a Photovoltaic (PV) Solar Farm County Board Special Use Permit, Section 6.1.5.Q.(4) of the Champaign County Zoning Ordinance (as amended through 02/23/2023) requires the Project Company to provide financial assurance in the form of an irrevocable letter of credit in an amount sufficient to cover 125% of the decommissioning cost. The financial security shall be in an amount determined by the County, and agreed upon by the Project, to be reasonably sufficient to restore the property to its previous condition prior to construction and operation of the solar farm. To aid in this, a project decommissioning cost estimate was created. See **Appendix A: Opinion of Probable Construction Cost with Salvage**. Industry standard prices in 2024 for removal costs were determined using RS Means cost data. Removal costs includes materials, contractor installation/demolition, mobilization and demobilization, overhead and profit, and performance bonding. Material salvage values were based off of current US salvage exchange rates.

Net salvage was deducted from the total estimated decommissioning cost in accordance with Section 6.1.5.Q.(4)b. of the ordinance as follows:

- (a) The Project Company will meet one of the following standards:
 - i. The Project Company, its successors in interest, and all parties to the decommissioning and site reclamation plan shall maintain the PV Solar Farm free and clear of liens and encumbrances, including financing liens and shall provide proof of the same prior to issuance of the Special Use Permit; or
 - ii. The Project Company, its successors in interest, and all parties to the decommissioning and site reclamation plan shall deduct from the salvage value credit the amount of any lien or encumbrance on the PV Solar Farm; or

- iii. Any and all financing and/or financial security agreements entered into by the Project Company, its successors in interest, and all parties to the decommissioning and site reclamation plan shall expressly provide that the agreements are subject to the covenant required by Section 6.1.1A.2 that the reclamation work be done.
- (b) The Project Company, its successors in interest, and all parties to the decommissioning and site reclamation plan shall provide proof of compliance with paragraph 6.1.5Q.4.b.(1). prior to the issuance of any Zoning Use Permit and upon every renewal of the financial assurance and at any other time upon the request of the Zoning Administrator.
- (c) The Project Company, its successors in interest, and all parties to the decommissioning and site reclamation plan shall provide in the decommissioning and site reclamation plan for legal transfer of the structure to the demolisher to pay the costs of reclamation work, should the reclamation work be performed.
- (d) The net estimated salvage value that is deducted from the estimated decommissioning costs shall be the salvage value that results after all related costs for demolition and any required preparation for transportation for reuse or recycling or for simple disposal and other similar costs including but not limited to the decommissioning of the PV Solar Farm Structures, equipment, and access roads.
- (e) Estimated salvage value shall be based on the average salvage price of the past five years as published in a reputable source for salvage values and shall reflect sound engineering judgement as to anticipated changes in salvage prices prior to the next update of estimated net salvage value.
- (f) The deduction from the estimated decommissioning costs for net estimated salvage value shall be capped at 70% of the total net estimated salvage value even though the total actual salvage value shall be available in the event that decommissioning is actually required.
- (g) The total financial assurance after deduction of the net estimated salvage value shall not be less than \$1,000 per acre.
- (h) The credit for net estimated salvage value attributable to any PV Solar Farm may not exceed the estimated cost of removal of the above-ground portion of that PV Solar Farm on the subject site



APPENDIX A

Opinion of Probable Construction Cost With Salvage



Little Prairie Solar LLC Champaign County, IL Decommissioning Estimate Pro Forma w/ Salvage						
The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs. LS = Lump Sum, HR = Hours, EA = Each, LF = Linear Feet.						
Item	Quantity	Unit	Unit Price	Total Salvage	Total Price (incl. markups)	Total Price
Mobilization	1	LS		\$ -	\$ 219,680	\$ (219,680)
Supervision	653	HR	\$93.00	\$ -	\$ 60,774	\$ (60,774)
Temporary Facilities	1	LS		\$ -	\$ 25,220	\$ (25,220)
Safety	1	LS		\$ -	\$ 17,090	\$ (17,090)
Legal Expenses	1	LS		\$ -	\$ 4,480	\$ (4,480)
General Liability Insurance	1	LS		\$ -	\$ 18,310	\$ (18,310)
Contractor's G&A	1	LS		\$ -	\$ 34,580	\$ (34,580)
SWPPP, Erosion Control Measures (Disturbed Area)	785	Ac	\$670.00	\$ -	\$ 525,950	\$ (525,950)
Seeding	40	Ac	\$2,814.09	\$ -	\$ 111,157	\$ (111,157)
Tilling 6" topsoil/scarifying access road and rough grading existing soil	20	Ac	\$3,560.49	\$ -	\$ 71,210	\$ (71,210)
Remove and Recycle Chainlink Fence	82,307	LF	\$5.02	\$ 44,545	\$ 413,404	\$ (368,859)
Disconnection and Demolition of Switchyard/Substation Equipment	1	EA	\$175,167.42	\$ 35,033	\$ 175,167	\$ (140,134)
Remove and Recycle AC Cables	25,227	LF	\$0.73	\$ 4,125	\$ 18,398	\$ (14,274)
Remove and Recycle DC Cables	338,039	LF	\$0.28	\$ 55,269	\$ 93,120	\$ (37,851)
Backfill AC and DC trenches	93,238	LF	\$0.39	\$ -	\$ 36,591	\$ (36,591)
Remove and Recycle Inverters	35	EA	\$490.61	\$ 189,000	\$ 17,171	\$ 171,829
Remove and Recycle PCS Station (BESS Inverters)	58	EA	\$381.79	\$ 42,000	\$ 22,144	\$ 19,856
Remove and Recycle Photovoltaic Modules	335,634	EA	\$4.92	\$ 1,048,881	\$ 1,651,319	\$ (602,439)
Remove and Recycle Piles	67,500	EA	\$4.71	\$ 831,600	\$ 317,925	\$ 513,675
Remove and Recycle Support Assemblies	10,416,843	LB	\$0.06	\$ 1,145,853	\$ 614,123	\$ 531,729
Remove BESS Batteries	174	EA	\$1,871.98	\$ -	\$ 325,725	\$ (325,725)
Subtotal:				\$ 3,396,305	\$ 4,773,538	\$ (2,396,124)
Max Salvage (70% of Net Value):				\$ 2,377,414		
					Minimum Financial Assurance (\$1,000/acre):	\$ (785,000)
					Financial Assurance (125% of Total Decommissioning Cost):	\$ (2,995,156)
Notes: 1. Quantities were recorded on 05/21/2024. 2. Equipment rental rates and labor productivity and unit rates were derived from RSMeans Online (Heavy Construction, 2024 data). 3. Labor, material, and equipment rates are based on the RSMeans City Cost Index (CCI) for Champaign. 4. PV Module Removal/Recycle labor and equipment costs are computed at present values. 5. The age at decommissioning of this estimate is 40 years. 6. This estimate assumes 500 piles per MWac. 7. This estimate assumes 77,162 LB of support assemblies per 1 MW output. 8. Material salvage values were based off of current US salvage exchange rates. 9. Photovoltaic Module material salvage rate is based on straight-line depreciation of modules (-0.5% per year). 10. Material salvage values were determined using the most prevalent salvageable metal in each component. Copper Wire @\$0.16/LF (AC and DC Cables) and Steel @\$0.54/LF of fence, @\$0.77/pile, and @\$0.11/LB. 11. Inverter resale value is dependent on the assumption that all inverters will be decommissioned and resold half way through their useful life (every 5 years). 12. A site of similar size was used to derive potential quantities for AC/DC cables (scaling from 150 MW to 135 MW). Quantities were determined by comparing "unit/MW" quantities directly.						



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David Holly, PWS, Associate Developer
BayWa r.e. Solar Projects, LLC
18575 Jamboree Road, Suite 850
Irvine, CA 92612

Re: Introduction letter for proposed Little Prairie Solar LLC, Champaign County, IL.

To whom it may concern,

The objective of this letter is to give notice that Huddleston McBride Land Drainage Co., has been retained by Little Prairie Solar LLC for the purpose of maintaining local and regional agricultural drainage systems within and related to the proposed Little Prairie Solar LLC, Champaign County Solar project.

Huddleston - McBride Land Drainage Co., Day Drainage and Countryside Drainage, (Hudmac Group) have been actively involved in providing subsurface agricultural drainage mapping, evaluation, construction and consulting services for over 48 years. The Huddmac Group also owns and operates a complete fleet of subsurface drainage tile installation and maintenance equipment and support tools and exclusively designs, installs and maintains agricultural drain tile systems throughout Illinois.

Hudmac Group provides complete design, and construction services for agriculture, solar, pipeline, roadway, environmental restoration, commercial and municipal underdrain projects. We also have developed methodology for the location and evaluation of existing subsurface drainage tile systems including hydrologic benefit and efficiency. Our research projects include evaluation and testing in efforts to improve solutions for water table management, hydrology restoration, soil permeability, water quality, drainage system abandonment and construction procedures.

Hudmac Group owns and operates a complete construction equipment fleet and support. Our construction crews maintain and install subsurface drainage systems on over 500 Illinois farms annually. Existing agri drainage tile investigation and evaluation services for solar land use include over 250 individual parcels ranging from 10 to 7,000 acres in size and totaling over 30,000 acres annually.

It shall be The Huddmac Group's intent to work with The Little Prairie Solar LLC professional design team to identify, locate, map, design and install agricultural drainage improvements for the Little Prairie Solar project and to maintain the regional existing agricultural hydrology condition.

Thank you for the opportunity to introduce our company we look forward to working on this project.

Sincerely,
Thomas L. Huddleston III
Huddleston McBride Drainage Co.,

RECEIVED
JUNE 17, 2024
CHAMPAIGN COUNTY
PLANNING & ZONING



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Page 1 of 7

Agricultural Drainage Considerations
Including modifications and maintenance recommendations
For ground mounted solar projects within existing agricultural land use areas.

Prepared for Little Prairie Solar LLC

Tom Huddleston, Huddleston McBride Land Drainage, February 28, 2024
Huddleston McBride Doc no. 24194

This brief has been prepared for proposed solar projects and is intended to clarify the basics of subsurface agricultural drainage tile systems including onsite evaluation and recommendations for maintenance, modification, and restoration.

1. Agricultural Drainage History and Basics

Agricultural drainage is used throughout the mid-west farm belt to improve crop production by removing excess surface (flooding) and subsurface (root zone) water from agricultural fields.

It was over 300 years ago that the first discovery was made that wet land could produce greater crops when excessive water was removed by subsurface tile drain systems. It is also known that tile drains have been installed in the Ohio agricultural areas since the early 1890's and many of these systems still operate today. Since that time, additional newer drain tile systems have modified and replaced existing systems and are included in practically all agricultural regions. These systems have made possible increase acreage and yield of crops from previously unproductive areas.

Crop production on certain soil types and landscapes are significantly enhanced by subsurface drainage. This includes areas with low permeability soils, isolated low depressions and lands with low slope gradients. Only water draining freely from the soil profile by gravity is removed by drain tiles. Tile drains are intended to function at atmospheric pressure as gravity flow systems. Flow occurs as a result of differences in the water surface elevation (e.g., the water table and tile elevations), thus making a positive (free flowing or pumped) outlet critical to their operation. The initial flow collector in the tile drain system is the perforated lateral. The depth to which tile laterals will lower the water table and water removal rate are a function of drain depth, spacing, and soil permeability. Drain depth typically ranges from 3 to 6 ft and spacing from 30 to 100 ft. Laterals drain to mains and submains where the flow rate is governed by inside pipe roughness, pipe size and slope. Mains and submains must be sized to convey the flow from all upstream lateral systems. Tile drain systems eventually discharge into a surface water conveyance system or ditch. These ditches are part of a mutual legal public drainage system or jurisdictional drainage district system, both administered and governed by Illinois Drainage Laws . Existing agricultural drain tile systems have improved drainage within naturally wet soil types which completely changes the native hydraulic soil characteristic and creates stable aeriated conditions for improved crop performance. After many years of subsurface drainage, these regional soils have developed dependence on artificial drainage which is essential to productive farming. Disturbance or malfunction of these systems will cause immediate failure to the local water table and produce saturated lands.

Agricultural Drainage for Solar Projects
Little Prairie Solar LLC
February 28, 2024, Page 2 of 7

Huddleston McBride Land Drainage Co.

2. Agricultural Drainage Evaluation and Mapping

During the planning phases of any land use change within agricultural areas, it is essential to understand drainage characteristics within the proposed local site and adjoining watershed. Agri drainage systems are generally considered to be regional designs that improve drainage efficiencies within an area wide or watershed basis.

Therefore, drainage management within a single land tract must take in consideration the consequences and effects to the lands of others as indicated and required by Illinois Drainage Law and local ordinances.

Onsite drainage investigation and evaluation is critical to comprehend on site hydrology conditions and significance to adjacent land tracts. Drainage investigation map reports should include procedures and applications as follows:

Listed on page 3 are sample plans of Existing Agricultural Drainage Plans in accordance with standard practices.

Agricultural Drainage Modeling, Field reconnaissance and record research work should be completed in efforts to identify all areas which are typical to installation of existing drain tile. Existing features such as soils, watertable, topographical elevations, surface channels, depressions, wetlands and natural drainage ingress and egress locations are considered. Field modeling including existing conditions evaluation shall be completed which is a typical design event prior to new drain tile design and will delineate hydric area conducive to existing drain tile location.

Following design modeling and field review, investigation areas are staked and slit trenched to verify existence of drain tile. All existing drain tiles encountered during the investigation procedure are located by electronic tracing and hand probing, All findings are logged on field mapping and repaired to their original state according to U.S.D.A., Natural Resource Conservation Service construction repair practices. Drain tile routes are field staked at <20' intervals including cut stakes for invert elevations and location at parcel ingress and egress locations or where necessary.

Record mapping shall be completed according to typical civil engineering autocad mapping standards. The developer or project engineer should furnish base map computer data files of the investigation area including mapped topography, easements, right-of-ways, wetland delineation areas and project boundary limits.

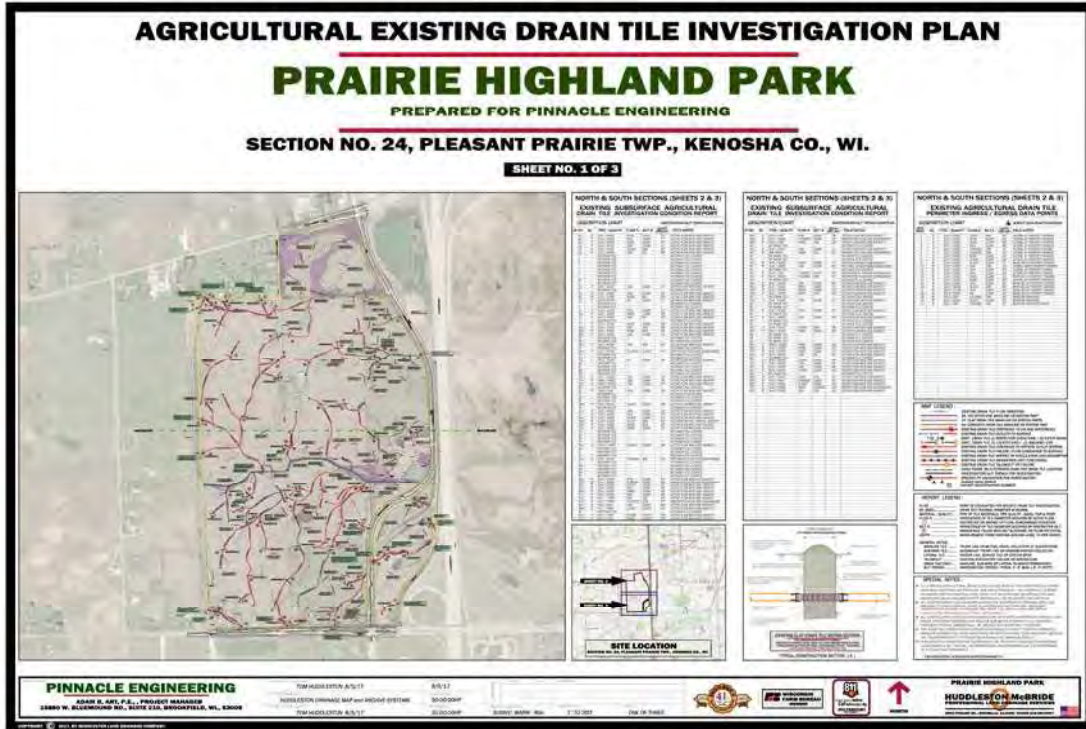
All existing found drain tile routes will field located by Trimble GPS location systems (<1m., *Illinois State Plane*) and recorded on final cad plans. It is critical that mutual drainage tiles and surface flow systems that benefit the lands of others are carefully identified, protected, modified and rerouted to maintain flow integrity and their right to drain.

Final drain tile mapping shall be computer drafted on a base map including recent color digital aerial photography, topography and project limits. Mapped information will include the location of all existing drain tile routes and applicable drainage findings encountered during the field investigation process. A field report shall be attached to the plan containing evaluation information including size, flow, system effectiveness, restrictive siltation, pipe invert to ground surface depth, pipe type / quality, system classification and specific field notes.

Agricultural Drainage for Solar Projects
Little Prairie Solar LLC
February 28, 2024, Page 3 of 7

Huddleston McBride Land Drainage Co.

3. Agricultural Drain Tile Investigation Plan Samples



Agricultural Drainage for Solar Projects
Little Prairie Solar LLC
February 28, 2024, Page 4 of 7

Huddleston McBride Land Drainage Co.

4. Agricultural Drainage Modification Recommendations for Ground Mounted Solar Projects.

Depending on the project site and existing drainage conditions, it shall be mandatory to maintain existing agricultural mutual drainage system which are necessary to maintain drainage rights of the lands of others. It will be recommended to maintain local (onsite) drainage systems which will assure stable watertable and preserve the ability for continued farming after the duration of the solar project. It shall also be noted that poorly maintained local drainage systems during the solar project existence may cause jurisdictional wetland conditions which will alter future farm practices and the ability for correction or improvement.

It is our professional opinion, there are three basic methods of farm drainage preservation for the solar project lifespan which include:

- A. Complete Avoidance and Protection
- B. Existing System Replacement By "like kind" Procedures. (most common)
- C. New subsurface drainage system installation including pattern drainage and mainline reconstruction.

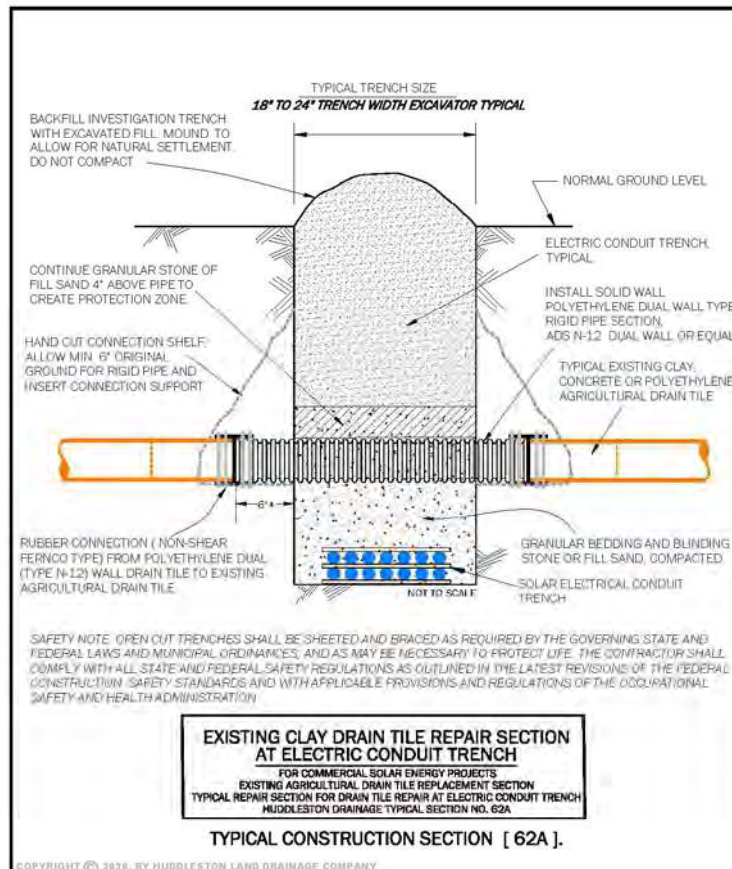
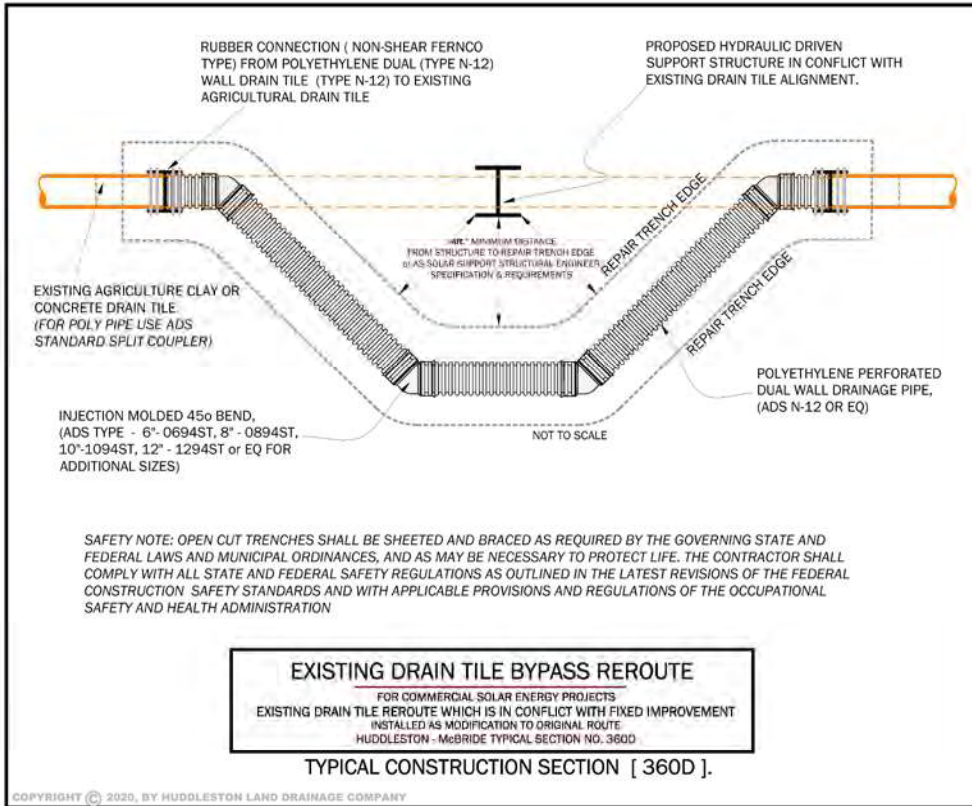
A. Complete Avoidance and Protection

Many of the drain tile system which have been identified on preliminary mapping are original clay pipe systems which were part of early farm development and date from 1920 to 1970. Other random and pattern polyethylene drain tile systems were installed which supplement and replace original clay systems and were installed from 1970 to present.

Since the clay drain tile systems were installed at an early date there are no manufactural material specifications and standards, therefore it is not possible to professionally evaluate and warranty the quality and life expectancy of these systems. Many early clay drain tiles are cracked and held in place only by consolidated ground compression and will fail if disturbed.

The "Avoidance and Protection" method would require that all existing drainage systems would be carefully evaluated for obvious failures and repair splices would be implemented. Each solar support location would need to be checked by hand probe transects to verify drain tile conflicts. Existing drain tiles in conflict with specific solar support column locations would need to be rerouted by "warp section" repair (*see typical 360D on page 5*). These tile systems would also need to be located and delineated by surface staking and protected from heavy intense surface traffic, low ground pressure construction equipment would be necessary during construction. Existing drain tile sections encountered by solar electric trenching shall be repaired in accordance with drain tile repair standards (*see typical 62a on page 5*).

The existing clay drain tile structural pipe integrity is unknown and section failure may occur during the solar project life span, therefore it will be necessary to create contingency plans for access and drain tile repair if needed during solar operation.



Agricultural Drainage for Solar Projects
 Little Prairie Solar LLC
 February 28, 2024, Page 6 of 7

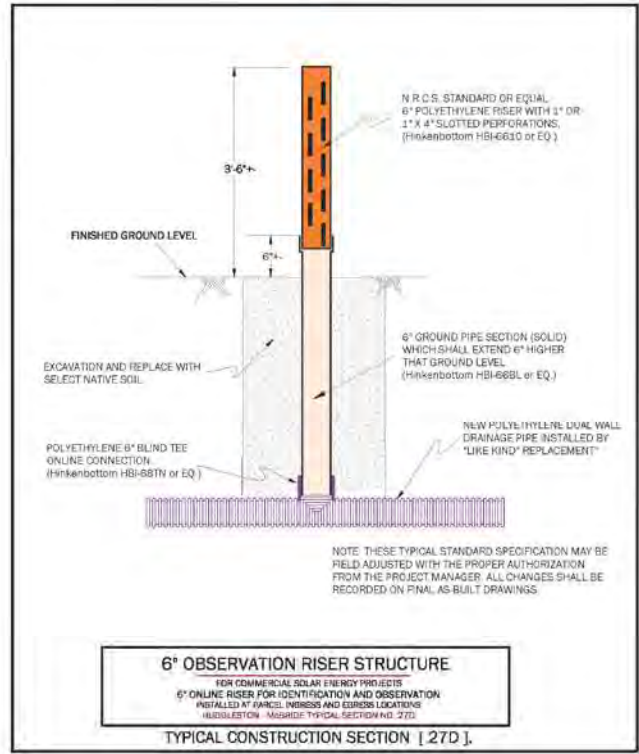
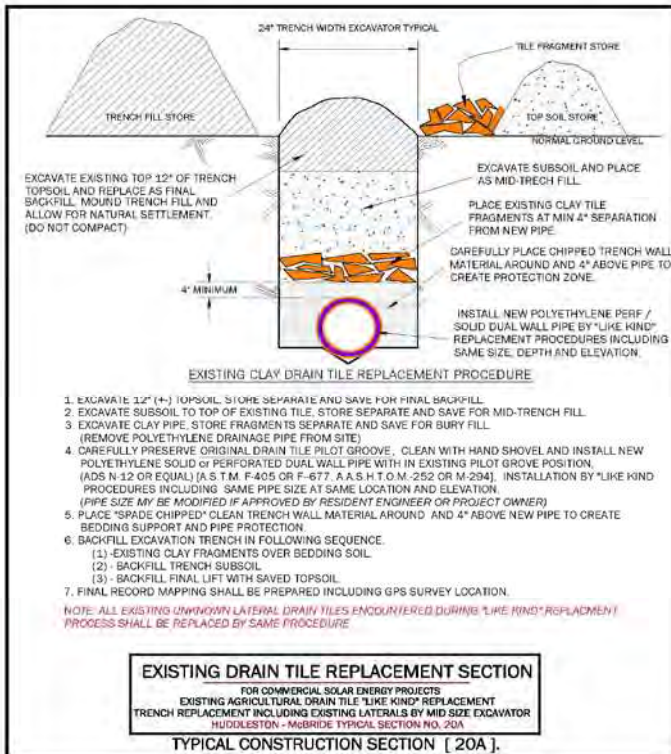
Huddleston McBride Land Drainage Co.

B. Existing System Replacement By “Like Kind” Procedures.

Existing drain tile systems installed many years ago have an unpredictable lifecycle and may not be reliable or warranted for the extent of the solar project. The “like kind” replacement procedure includes replacement and modification of existing drain tile systems with new certified pipe materials and installation procedures which would assure reliable performance and warranty the drainage system for the proposed solar project term.

Replacement by “like kind” Procedures are more construction intensive than the avoidance and protection method and will require as follows.

1. All existing agricultural drain tile systems are field staked and delineated in accordance with the Drainage Investigation Plan.
2. All existing clay drain tile systems are removed by “like kind” procedures which include the removal and replacement of all original systems including the same size, depth, grade and location. *(in accordance with attached typical no. 20A, below on this page)*
3. Existing drain tile “like kind” replacement which conflict with specific solar support column locations will need to be rerouted by “warp route” installation and would maintain a lateral separation from the support column of ≥ 4 ft.
4. All existing drain tiles that egress or ingress the solar site would include a 6” online riser pipe located on or within 2ft (+-) of the project boundary. *(or as otherwise indicated by project owner)* This riser pipe will serve as an observation port for flow verification, system identification and pipeline ventilation. *(in accordance with attached typical no. 27D, below)*
5. All additional existing drain tile feeder laterals encountered during the “like kind” replacement process and not listed on investigation plans shall be evaluated and considered for replacement by this same procedure.
6. All existing replacement systems shall be located by gps at state plane coordinates and drafted on final record plans.



Agricultural Drainage for Solar Projects
 Little Prairie Solar LLC
 February 28, 2024, Page 7 of 7

Huddleston McBride Land Drainage Co.

C. New subsurface drainage system installation including pattern drainage and mainline reconstruction.

Agricultural farmland within historic intensely farmed areas are know to have many generations of existing drain tile system construction. These systems in many cases have been installed by “haphazard” and random design methods which may not be adequate for modern precision farming operations. Some of these areas have been pattern tiled although the location may not be compatible with solar support geometrics and are in conflict.

Original mutual mainlines which benefit upland tributary farm tracts were designed to service random drainage areas and in many cases do not have to capacity for present day drainage demands or upland pattern drain systems. Therefore, it may be necessary to meet with upland land owners to assess their future drainage plans and consider upgrading mainline outfalls through the proposed solar facility (*as indicated in item 2 below*).

Comprehensive drainage evaluation and adequately sized mainline replacement including pattern drainage system installation will provide substantial benefit to future farming operations and the proposed solar project.

Mainline modification and pattern drainage installation will provide benefits listed below.

1. *Existing drainage mainlines shall be delineated and replaced with adequately sized polyethylene perforated dual wall pipe ready for pattern drainage system installation. Regional watershed mainlines which benefit upland large watersheds of others should consider mainline installation within maintenance condors 30' to 40' to assure proper access for maintenance or modification.*
2. *Upland off-site parcel owners which are tributary to project mainlines should have the opportunity to participate in size upgrades.*
3. *All pattern drain tile systems will be installed to avoid solar post installation and will be designed exclusive to parcel ownership.*
4. *Inline water control valves may be considered for stationing throughout the project which will provide water management benefits including water quality, system flow release, performance observation, watershed retention and “real time” adjustment for specific objectives.*
5. *All pipe materials shall hold proper certification and warranty from the material manufacture for the term of the solar project and the future farming operation after solar project decommissioning.*
6. *All new drainage improvements and existing drainage tiles encountered during construction shall be located by gps in state plane coordinate systems and recorded on final record drawings.*

Opinion Summary

Since a typical ground mounted solar project may have a time duration of 30 to 40 years it is essential to preserve and maintain prime existing farmland resources for future generations. Soil structures may be maintained and regenerated by planting short native grass mixtures which balance out nutrient profiles and eliminate soil erosion.

Existing drain tile management and modification will provide water balance benefits for the regional watershed including the following benefits.

1. *New mainline restoration for better upland tributary access and capacity.*
2. *Hydrology management including volume and drawdown control within the idle solar lands with inline water control valves.*
3. *Soil void water retention including stormwater storage within natural depressions and calibrated flow discharge to open ditch systems.*

Therefore, it is our opinion that implementation of existing drain tile location, evaluation, modification and restoration by “Like Kind” replacement will preserve and improve farmland quality, hydrology stabilization, water quality and provide overall watershed benefits for future farm generations.

February 28, 2024, END

HUDDLESTON - MCBRIDE LAND DRAINAGE CO.

Huddleston McBride Doc no. 24194



May 21, 2024

David Holly, PWS
Associate Developer

RECEIVED

JUNE 17, 2024

CHAMPAIGN COUNTY
PLANNING & ZONING

Subject: *Little Prairie Solar Sound Study
Champaign County, Illinois*

Executive Summary

The purpose of this technical memorandum is to summarize the measured existing ambient noise levels and evaluated sound levels associated with the operational equipment located at the proposed Little Prairie Solar Site in Champaign County, IL. The proposed solar photovoltaic project site is approximately three (3) miles east of Sydney and approximately three (3) miles west of Homer. The site is generally located south of County Road 1000 N and Norfolk Southern railroad tracks, east of County Road 2200 E, west of County Road 2400 E, and north of County Road 800 N. The solar site will be located on agricultural land with rural residences surrounding the project area. The location of the proposed Little Prairie Solar Site is shown in **Figure 1**.

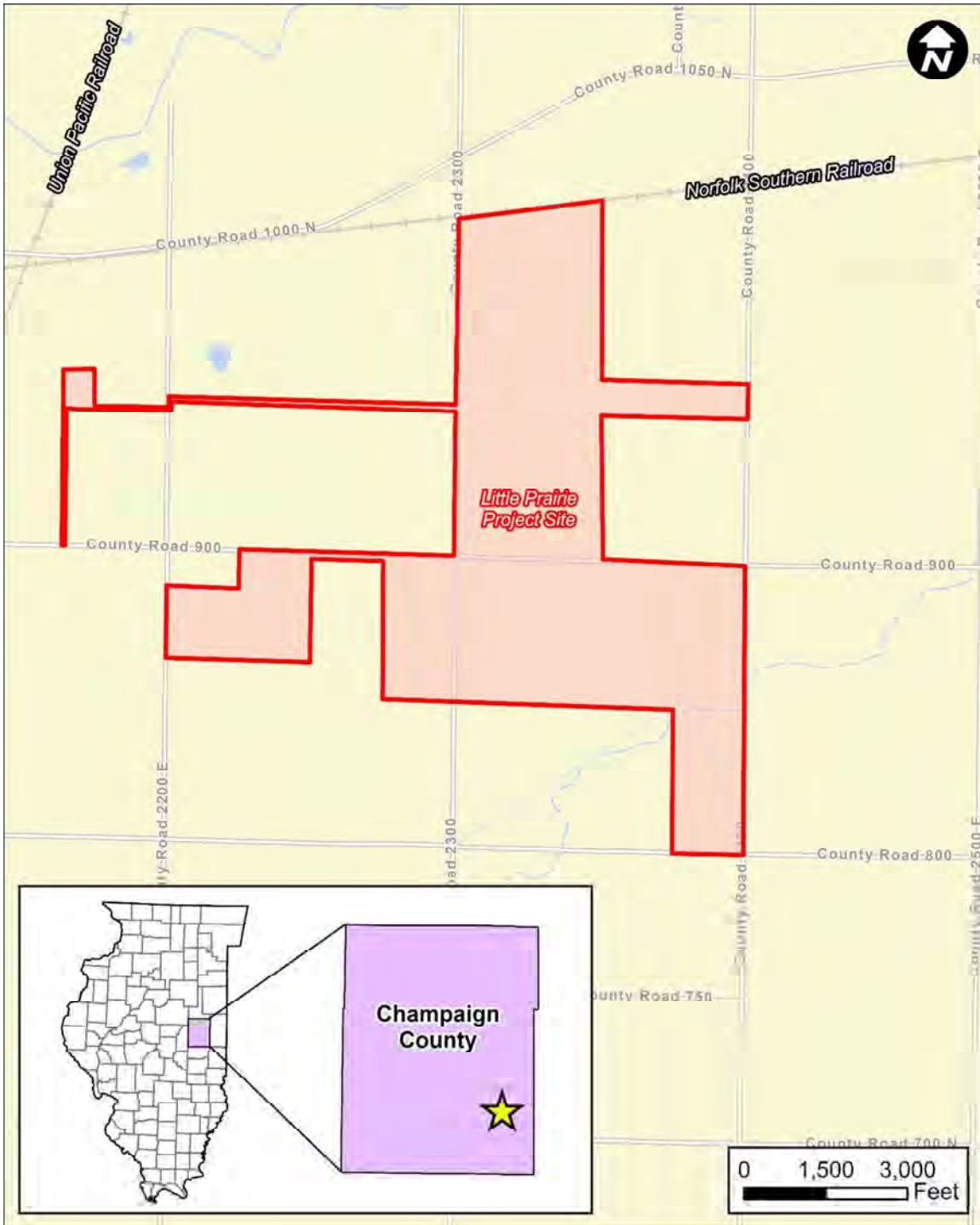
Analysis Findings

- The solar photovoltaic project will be located on agricultural land with rural residential land uses surrounding the project area. The Champaign County Zoning Ordinance specifies that photovoltaic solar farms shall comply with the Illinois Pollution Control Board (IPCB) noise regulations, which are based on allowable octave band sound pressure levels that vary depending on the category of land the noise is generated from and the category of land the noise is received at. Modeled operational octave band sound pressure levels at surrounding Class A property boundaries (i.e., residences) are not anticipated to exceed 45 dB(A), which is below the reference limits established by IPCC. Therefore, noise mitigation is not recommended at this time.*

Project Description

The proposed Little Prairie Solar Site will be developed on approximately 1,047 acres of agricultural land within an unincorporated portion of Champaign County, IL. The solar site will consist of solar arrays and equipment pads with inverter equipment throughout the site, as well as a Battery Energy Storage System (BESS) east of County Road 2300 E in the northern portion of the site, and a substation west of the project site area.

Figure 1: Site Location and Vicinity



Characteristics of Noise

Noise is generally defined as unwanted sound. It is emitted from many natural and man-made sources. Sound pressure levels are usually measured and expressed in decibels (dB). The decibel scale is logarithmic and expresses the ratio of the sound pressure unit being measured to a standard reference level. Most sounds occurring in the environment do not consist of a single frequency, but rather a broad band of differing frequencies. The intensities of each frequency add together to generate sound. Because the human ear does not respond to all frequencies equally, the method commonly used to quantify environmental noise consists of evaluating all of the frequencies of a sound according to a weighting system. It has been found that the A-weighted decibel [dB(A)] filter on a sound level meter, which includes circuits to differentially measure selected audible frequencies, best approximates the frequency response of the human ear.

The degree of disturbance from exposure to unwanted sound – noise – depends upon three factors:

1. The amount, nature, and duration of the intruding noise
2. The relationship between the intruding noise and the existing sound environment; and
3. The situation in which the disturbing noise is heard

In considering the first of these factors, it is important to note that individuals have varying sensitivity to noise. Loud noises bother some people more than other people, and some individuals become increasingly upset if an unwanted noise persists. The time patterns and durations of noise(s) also affect perception as to whether or not it is offensive. For example, noises that occur during nighttime (sleeping) hours are typically considered to be more offensive than the same noises in the daytime.

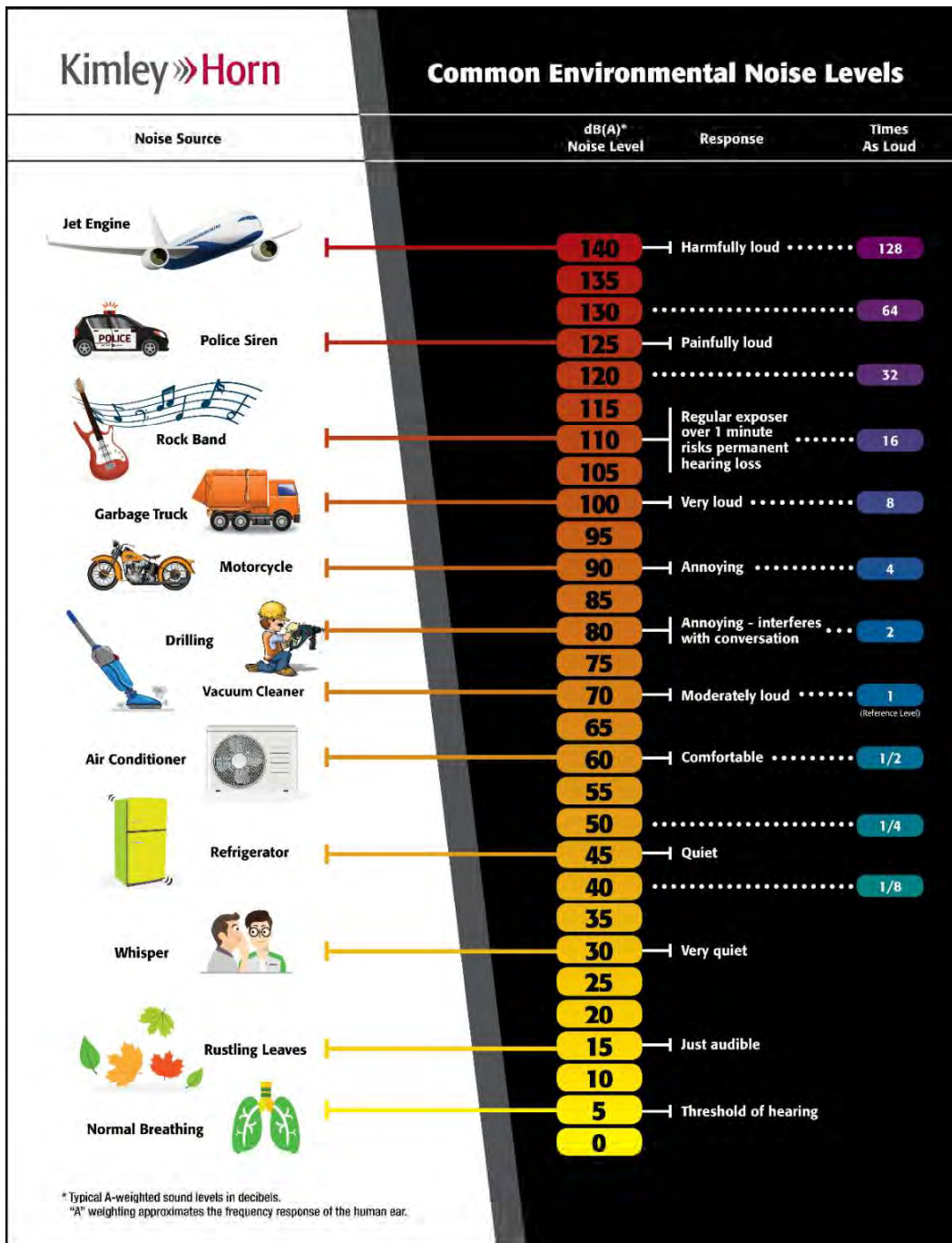
With regard to the second factor, individuals tend to judge the annoyance of an unwanted noise in terms of its relationship to noise from other sources (background noise). A car horn blowing at night when background noise levels are low would generally be more objectionable than one blowing in the afternoon when background noise levels are typically higher. The response to noise stimulus is analogous to the response to turning on an interior light. During the daytime an illuminated bulb simply adds to the ambient light, but when eyes are conditioned to the dark of night, a suddenly illuminated bulb can be temporarily blinding.

The third factor – situational noise – is related to the interference of noise with activities of individuals. In a 60 dB(A) environment such as is commonly found in a large business office, normal conversation would be possible, while sleep might be difficult. Loud noises may easily interrupt activities that require a quiet setting for greater mental concentration or rest; however, the same loud noises may not interrupt activities requiring less mental focus or tranquility.

As shown in **Figure 2**, most individuals are exposed to fairly high noise levels from many sources on a regular basis. To perceive sounds of greatly varying pressure levels, human hearing has a non-linear sensitivity to sound pressure exposure. Doubling the sound pressure results in a three decibel change in the noise level; however, variations of three decibels [3 dB(A)] or less are commonly considered “barely perceptible” to normal human hearing. A five decibel [5 dB(A)] change is more readily noticeable. A ten-fold increase in the sound pressure level correlates to a 10 decibel [10 dB(A)] noise level increase; however, it is judged by most people as only sounding “twice as loud”.



Figure 2: Common Noise Levels



Prolonged and/or extremely loud noise(s) can prevent use of exterior and interior spaces and has been theorized to pose health risks.



Noise Regulations

The Little Prairie Solar Site and surrounding land uses are located within Champaign County, IL. Section 6.1.5(I) of the Champaign County Zoning Ordinance states that “noise levels from an PV (Photovoltaic) Solar Farm shall be in compliance with the applicable Illinois Pollution Control Board (IPCB) regulations (35 Illinois Administrative Code, Subtitle H: Noise, Parts 900, 901, 910).” This section also states that “the pre-development 24-hour ambient background sound level shall be identified at representative locations near the site of the proposed PV solar farm.”

The Illinois Pollution Control Board (IPCB) noise regulations are based on allowable octave band sound pressure levels during daytime and nighttime hours. According to Title 35 (Environmental Protection), Subtitle H (Noise), Chapter I (Pollution Control Board), Part 901 (Sound Emission Standards and Limitations for Property Line-Noise Sources), a facility operating in an agricultural field (Class C Land) cannot cause an exceedance of sound levels at any point within a residential land use (Class A Land) during daytime hours as shown in **Table 1**.

Table 1: Maximum Allowable Sound Emitted to Class A Land During 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

The IPCB has also established the allowable octave band sound pressure levels for nighttime hours shown in **Table 2**. However, these values are not applicable to the Little Prairie Solar Site, as it will not be operational during nighttime hours. These values are included for reference purposes only.

Table 2: Maximum Allowable Sound Emitted to Class A Land During 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



Sound frequencies are reported in units of Hertz (Hz), which correspond to the number of vibrations per second of a given tone. A cumulative 'sound level' is equivalent to ten times the base-10 logarithm of the ratio of the sum of the sound pressures of all frequencies to the reference sound pressure. To simplify the mathematical process of determining sound levels, sound frequencies are grouped into ranges, or 'bands.' Sound levels are then calculated by adding the cumulative sound pressure levels within each band.

The commonly accepted limitation of human hearing to detect sound frequencies is between 20 Hz and 20,000 Hz, and human hearing is most sensitive to the frequencies between 1,000 Hz – 6,000 Hz. Although people are generally not as sensitive to lower-frequency sounds as they are to higher frequencies, most people lose the ability to hear high-frequency sounds as they age. To accommodate varying receptor sensitivities, frequency sound levels are commonly adjusted, or 'filtered', before being logarithmically added and reported as a single 'sound level' magnitude of that filtering scale. The 'A-weighted' decibel filtering scale applies numerical adjustments to sound frequencies to emphasize the frequencies at which human hearing is sensitive, and to minimize the frequencies to which human hearing is not as sensitive.

Table 3 shows the A-weighted adjusted sound levels at Class A land based on the daytime IPCB frequency limits.

Table 3: Frequency Scaling for Sound Emitted to Class A Land During Daytime Hours

Octave Band Center Frequency (Hertz)	Allowable Octave Band Sound Pressure Levels (dB) to any Receiving Class A Land from Class C Land	A-weighted Adjustment ¹	Adjusted Frequency Sound Levels (A-weighted)
31.5	75	-39.53	35.47
63	74	-26.22	47.78
125	69	-16.19	52.81
250	64	-8.67	55.33
500	58	-3.25	54.75
1000	52	0.00	52.00
2000	47	1.20	48.20
4000	43	0.96	43.96
8000	40	-1.14	38.86
Overall Sound Level			60.61 dB(A)²
<p>1. Based on the ISO 226:2003 standard for normal equal-loudness contours, the A-weighted decibel network filtering scale is defined for a frequency, f, by the equation: $20 \times \log_{10} (A(f) / A(1000))$, where $A(f) = [12,200^2 \times f^4] / [(f^2 + 20.6^2) \times (f^2 + 12,200^2) \times (f^2 + 107.7^2)^{0.5} \times (f^2 + 737.9^2)^{0.5}]$.</p> <p>2. Based on the daytime frequency limits, the sound level would be perceived as a sound level of 60.61 dB(A) by human hearing due to the decreased sensitivity of human hearing to lower sound frequencies.</p>			

Table 4 shows the A-weighted adjusted sound levels at Class A land based on the nighttime IPCB frequency limits. However, these values are not applicable to the Little Prairie Solar Site, as it will not be operational during nighttime hours. These values are included for reference purposes only.



Table 4: Frequency Scaling for Sound Emitted to Class A Land During Nighttime Hours

Octave Band Center Frequency (Hertz)	Allowable Octave Band Sound Pressure Levels (dB) to any Receiving Class A Land from Class C Land	A-weighted Adjustment ¹	Adjusted Frequency Sound Levels (A-weighted)
31.5	69	-39.53	29.47
63	67	-26.22	40.78
125	62	-16.19	45.81
250	54	-8.67	45.33
500	47	-3.25	43.75
1000	41	0.00	41.00
2000	36	1.20	37.20
4000	32	0.96	32.96
8000	32	-1.14	30.86
Overall Sound Level			51.13 dB(A)²
<p>1. Based on the ISO 226:2003 standard for normal equal-loudness contours, the A-weighted decibel network filtering scale is defined for a frequency, f, by the equation: $20 \times \log_{10} (A(f) / A(1000))$, where $A(f) = [12,200^2 \times f^4] / [(f^2 + 20.6^2) \times (f^2 + 12,200^2) \times (f^2 + 107.7^2)^{0.5} \times (f^2 + 737.9^2)^{0.5}]$.</p> <p>2. Based on the nighttime frequency limits, the sound level would be perceived as a sound level of 51.13 dB(A) by human hearing due to the decreased sensitivity of human hearing to lower sound frequencies.</p>			

The allowable octave band sound pressure levels result in overall A-weighted sound pressure levels at Class A land uses of approximately 60 dB(A) during daytime hours and approximately 51 dB(A) during nighttime hours.

Existing Conditions

The Little Prairie Solar site is generally located south of County Road 1000 N and Norfolk Southern railroad tracks, east of County Road 2200 E, west of County Road 2400 E, and north of County Road 800 N. The solar site will be located on agricultural land with rural residences surrounding the project area.

The predominant sources of noise in the vicinity of the proposed delivery station were observed to be traffic along County Road 1000 N, County Road 2200 E, County Road 2300 E, County Road 2400 E, County Road 800 N, and other rural roadways. Additionally, noise from rail pass-by events were observed. Based on the Federal Railroad Administration Rail Crossing Inventory, approximately 10 rail pass-by events are anticipated to occur daily on the Union Pacific railroad tracks west of the site, and approximately 20 rail pass-by events are anticipated to occur daily on the Norfolk Southern railroad tracks north of the site. Other sources of noise include ambient environmental noise, which includes wind, birds chirping, insects, household appliances, landscaping equipment, etc. It should be noted that sustained winds with intermittent wind gusts were observed during the measurement period, which also contributed to the existing noise environment.

To assess existing noise conditions near the proposed Little Prairie Solar site, three long-term noise measurements were collected for 24-hour durations from March 18, 2024, to March 19, 2024. One Norsonic NOR140 Precision Integrating Meter and two Larson Davis LxT noise meters were set up in the vicinity of the proposed site: one north of the residence at 863 County Road 2300 E, one west of



County Road 2400 E and north of the residence at 811 County Road 2400 E, and one in the southwest quadrant of the County Road 900 N and County Road 2400 E intersection, south of the residence and farming equipment storage at 911 County Road 2400 E. Long-term noise measurement hourly Leq values obtained in the field ranged between approximately 32 dB(A) and 70 dB(A). A summary of the long-term noise field data is shown in **Table 1**.

Table 1: Long-term Noise Measurement Data

Setup	Location Description	Measurement Time	24-hr Leq Noise Level [dB(A)]	Average Daytime Leq Noise Level [dB(A)]	Average Nighttime Leq Noise Level [dB(A)]
LT1	North of the Residence at 863 County Road 2300 E	1:00 PM (03/18) – 1:00 PM (03/19)	53.3	54.4	50.7
LT2	West of Country Road 2400 E and north of the residence at 811 County Road 2400 E	1:00 PM (03/18) – 1:00 PM (03/19)	57.1	59.0	44.0
LT3	Southwest quadrant of County Road 900 N and County Road 2400 E intersection, south of the residence and farming equipment storage at 911 County Road 2400 E	1:00 PM (03/18) – 1:00 PM (03/19)	62.7	64.7	44.6

The measurements were taken using the A-weighted scale and are reported in decibels [dB(A)]. Data collected by the noise meters included time, average noise level (Leq), maximum noise level (Lmax), and instantaneous peak noise level (Lpk) for each interval. Hourly average noise levels (Leq(h)) were derived from the Leq values. The existing noise measurements were collected under meteorologically acceptable conditions and were conducted based on the acceptable collection of existing noise level readings. The locations of the monitoring sites are showing in **Figure 3**, and the pictures of the field monitoring setups are shown in **Table 2**.

Figure 3: Measurement Site Location

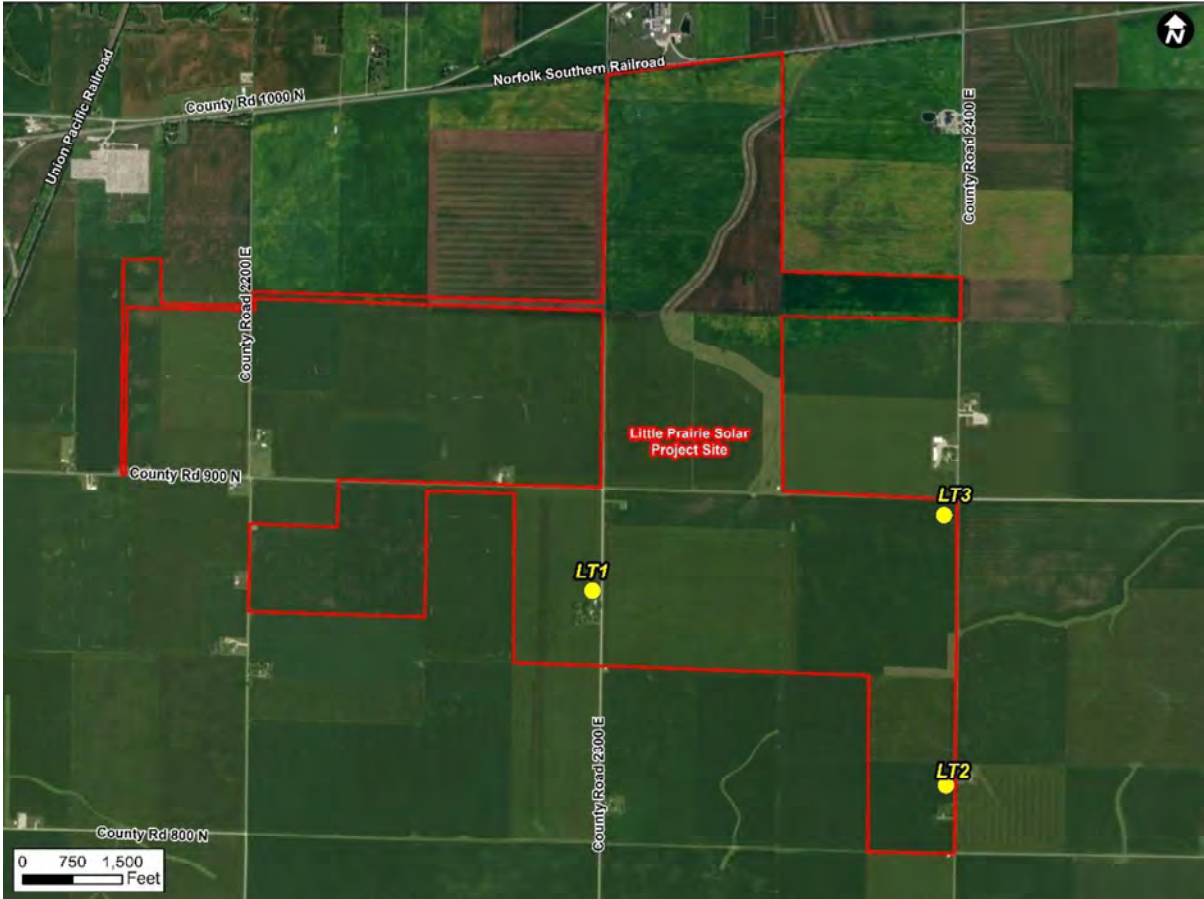


Table 2: Noise Measurement Setup Pictures

LT 1: Facing South	LT 2: Facing East
LT 3: Facing North	

Noise Analysis

Sound levels from the proposed Little Prairie Solar Site, as well as within a 1,500-foot radius surrounding the proposed project, were evaluated using SoundPLAN. This program computes predicted sound levels at noise-sensitive areas through a series of adjustments to reference sound levels. The anticipated sources of noise, described below, were modeled as area sources with manufacturer specified reference sound levels for each type of equipment. Existing terrain was also included in the model and all groundcover within the project area and the 1,500-foot radius of the project area were modeled as field grass. SoundPLAN also accounts for the distance from all noise sources to predict anticipated operational noise levels at noise-sensitive receptors as well as develop operational noise contours for the project. Sound levels generated from inverters are anticipated to be the main source of sound from the proposed solar photovoltaic project site.



It should be noted that noise from surrounding roadways and railroad was not modeled in this analysis, although County Road 1000 N, County Road 2200 E, County Road 2300E, County Road 2400 E, County Road 800 N, other rural roadways, and Union Pacific and Norfolk Southern Railroad tracks were observed to contribute to the ambient noise environment throughout the entire day.

Additionally, it should be noted that the site is not anticipated to be operational during nighttime hours, as power can not be generated at the solar facility when the sun is down; therefore, operational noise levels were not considered for nighttime hours.

Inverters

Photovoltaic (PV) inverter equipment generates steady, unvarying sound that can create issues when located near noise-sensitive areas. PV inverters were modeled throughout the solar site based on the current layout. Based on measured noise emissions levels for typical Freesun HEM inverters, a reference sound level of approximately 79 dB(A) at one (1) meter was used for each PV inverter. The sound from the simultaneous operation of the PV inverter equipment was calculated at the closest noise-sensitive receptors surrounding the project area using SoundPLAN.

Sound generated by the inverters is not anticipated to significantly contribute to the existing environmental sound levels surrounding the site. Also, sound generated by the inverters is expected to be mitigated by providing sufficient offsets between the inverters and surrounding noise-sensitive land uses as well as by the physical presence of the solar arrays, which are anticipated to shield and disperse some of the sound generated by the inverters.

Transformers/Substation

Transformers also generate steady, unvarying sound that can create issues when located near noise-sensitive areas. It was assumed that transformers would be located at the proposed substation west of the project site, south of the Norfolk Southern Railroad and west of County Road 2200 E. A reference sound level for a transformer of approximately 75 dB(A) at one (1) meter was used. The sound from the simultaneous operation of the transformers was calculated at the closest noise-sensitive receptors in the area near the proposed substation using SoundPLAN.

Sound generated by the transformers is not anticipated to significantly contribute to the existing environmental sound levels surrounding the site. Also, sound generated by the transformers is expected to be mitigated by providing sufficient offsets between the transformers and surrounding noise-sensitive land uses.

Battery Energy Storage System (BESS)

The BESS located on-site is anticipated to consist of battery storage cabinets throughout the BESS area. Battery cabinets are typically containerized liquid cooling battery systems that also generate steady, unvarying sound that can create issues when located near noise-sensitive uses. It was assumed that the BESS would be located east of County Road 2300 E in the northern portion of the site. Based on the noise emission data for typical battery storage cabinets, a reference noise level of



approximately 75 dB(A) at one (1) meter was used. The battery storage cabinets within the BESS were assumed to operate continuously during daytime hours.

Sound generated by battery storage cabinets is not anticipated to significantly contribute to the existing environmental sound levels surrounding the site. Also, sound generated by the battery storage cabinets is expected to be generally mitigated by the physical presence of the battery storage cabinet enclosures.

Results

The SoundPLAN-predicted maximum operational sound levels at the property boundary of the closest Class A land uses around the site are anticipated to be near or below approximately 45 dB(A), which is below the reference approximate overall equivalent IPCB permissible sound pressure level limits for Class A land uses.

Since the SoundPLAN-predicted maximum noise levels at surrounding Class A property boundaries, are not anticipated to exceed the limits established by IPCB, noise mitigation measures do not need to be included in the project design at this time. The anticipated operational sound contours are shown in **Figure 4**.

Figure 4: Operational Sound Contours



Conclusions

The site is generally located south of County Road 1000 N and Norfolk Southern railroad tracks, east of County Road 2200 E, west of County Road 2400 E, and north of County Road 800 N. The solar site will be located on agricultural land with rural residences surrounding the project area.



After modeling and analyzing the anticipated operational sound levels throughout the proposed solar site, it was determined that noise mitigation measures are not needed at this time since the predicted operational sound levels are anticipated to remain below the reference approximate overall equivalent IPCB permissible sound pressure level limits at the nearest Class A land uses. Additionally, operational noise levels are anticipated to remain below the measured daytime noise levels and remain near the measured nighttime noise levels around the project site.

Charles W. Campo

From: Philip Fiscella <fiscella@gmail.com>
Sent: Sunday, September 1, 2024 9:38 AM
To: zoningdept
Subject: Public Comment 144-S-24

CAUTION: External email, be careful when opening.

Dear John,

I just wanted to say that I am very excited to hear that this project might be moving forward in the near future.

As you are likely aware, I have the log cabin across the tracks from this project near the existing Nexamp solar project just East of Sidney.

We've had no problems at all with the existing project, and this stands to do fantastic things for Unity Schools, our neighbors who are considering a rental deal, and for the other taxing bodies.

I hope that your department can work with these developers to make this the best possible project for us, and to hopefully make more of these come to fruition in the area.

Sincerely,

Phil Fiscella
Finch Management, LLC
217-840-9978

RECEIVED
SEPT 1, 2024
CHAMPAIGN COUNTY
PLANNING & ZONING

Charles W. Campo

From: Matt Fischer <emfischer1987@gmail.com>
Sent: Wednesday, September 4, 2024 11:45 AM
To: zoningdept
Subject: Public Hearing - Case # 144-S-24

CAUTION: External email, be careful when opening.

Mr. John Hall & Champaign County Commissioners,

My name is E. Matthew Fischer, and I am one of the owners of the Coffeen-Fischer Farm LLC. Our farm is one of the petitioners for Case 144-S-24, the Little Prairie Solar Project. Our 80 acre farm is located at 811 2400E, Homer Il. 61849.

I am retired and living in rural Colorado, and will not be able to be present at the Sept. 12 hearing. It is my hope that you can communicate / share this note with the decision makers at or before this hearing.

I am the 6th generation that has owned this farm. Over 150 years, touching 3 centuries, we have owned farmland in Champaign county. What was once many more acres than the last 80 we own now has dwindled generation after generation due to splitting up upon inheritance as selling the land became the only way to "split" the property up. My ancestors have played a large role in shaping life in Champaign County. It was their leadership & thinking that one winter spurred the townsfolk to put all the buildings on snow sleds and pull them to what is now present day Homer. Moving the town to the railway allowed Homer to continue to thrive. I would say forward thinking like the Little Prairie Solar Project are what we need from ourselves and our County Commissioners if we are to continue to survive into the future as my ancestors did so long ago.

In deciding on whether to lease our land to BayWa or not and become a "solar farm" I spoke with my two adult children who will ultimately inherit this farm. They agreed and in fact we discussed that maintaining the farm in its present state, (leasing the land to a local farmer, and renting the home) may not be feasible. It is increasingly difficult to find farmers and tenants that are good stewards and will maintain the land and the home in a fashion that is acceptable. The Little Prairie Solar Project provides us with an easy way to keep the farm in our family for generations to come and I am excited to have this opportunity.

I also understand that a solar farm can be very controversial. However, I would offer the following positive or supportive comments for the solar farm -

- 1) As stated above, this may be the only way we can keep our farm in the family.
- 2) As I understand the project will bring increased revenues to the county and the schools, as much as 19 million dollars
- 3) Giving our prime farmland a "rest" from farming for a few decades can have positive long term benefits to the soil and future yields etc...
- 4) Moving to more renewable sources of energy might just be one of the keys to our future.

In closing I want to thank you and our County Commissioners for your public service. It is not an easy job and you are appreciated. Whatever you decide, you will continue to have our support.

Sincerely,
E. Matthew Fischer
Member - Coffeen-Fischer Farm LLC

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SEPT 4, 2024
CHAMPAIGN COUNTY
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