

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

**In the Matter of:**

<b>ELECTRONIC APPLICATION OF SEBREE</b>	)	
<b>SOLAR, LLC FOR A CERTIFICATE TO</b>	)	
<b>CONSTRUCT AN APPROXIMATELY 250</b>	)	
<b>MEGAWATT MERCHANT SOLAR ELECTRIC</b>	)	<b>CASE NO. 2021-00072</b>
<b>GENERATING FACILITY AND AN</b>	)	
<b>APPROXIMATELY 4.85 MILE NONREGULATED</b>	)	
<b>ELECTRIC TRANSMISSION LINE IN</b>	)	
<b>HENDERSON COUNTY, KENTUCKY AND</b>	)	
<b>WEBSTER COUNTY, KENTUCKY PURSUANT</b>	)	
<b>TO KRS 278.700 AND 807 KAR 5:110</b>	)	

**RESPONSES TO SITING BOARD STAFF'S POST-HEARING REQUEST FOR  
INFORMATION**

**TO SEBREE SOLAR, LLC**

**DATED JANUARY 3, 2022**

**SEBREE SOLAR, LLC**

**PSC CASE NO. 2021-00072**

**SITING BOARD STAFF REQUEST DATED 1/3/2022**

Sebree Solar, LLC (Sebree Solar) hereby submits responses to the Post-Hearing Request for Information of the State Board on Electric Generation and Transmission Siting (Siting Board) in this case dated January 3, 2022. Each response with its associated supportive reference materials is individually bookmarked.

COMMONWEALTH OF KENTUCKY

BEFORE THE KENTUCKY STATE BOARD ON  
ELECTRIC GENERATION AND TRANSMISSION SITING

IN THE MATTER OF:

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SEBREE SOLAR, LLC FOR A CERTIFICATE )  
TO CONSTRUCT AN APPROXIMATELY 250 )  
MEGAWATT MERCHANT SOLAR ELECTRIC )  
GENERATING FACILITY AND AN )  
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LINE IN HENDERSON COUNTY, KENTUCKY )  
AND WEBSTER COUNTY, KENTUCKY )  
PURSUANT TO KRS 278.700, ET SEQ. AND )  
807 KAR 5:110, ET SEQ. )

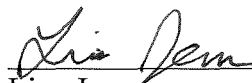
CASE NO. 2021-00072

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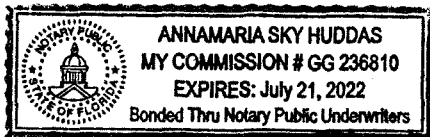
VERIFICATION OF  
LINA JENSEN

---

Comes now Lina Jensen, on behalf of Sebree Solar, LLC and, after first being duly sworn, does hereby swear and affirm that the foregoing responses to post-hearing data requests and information attached thereto is true and correct to the best of my knowledge and belief, formed after reasonable due diligence and inquiry, as of this 14<sup>th</sup> day of January 2022.

  
\_\_\_\_\_  
Lina Jensen

  
\_\_\_\_\_  
NOTARY PUBLIC



Commission No.: \_\_\_\_\_

Commission Expires: \_\_\_\_\_

COMMONWEALTH OF KENTUCKY

BEFORE THE KENTUCKY STATE BOARD ON  
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PURSUANT TO KRS 278.700, ET SEQ. AND )  
807 KAR 5:110, ET SEQ. )

CASE NO. 2021-00072

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VERIFICATION OF  
BRIAN BARTELS

---

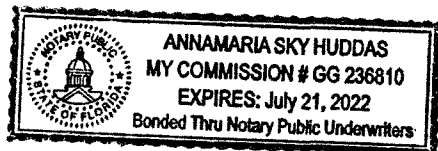
Comes now Brian Bartels, on behalf of Sebree Solar, LLC and, after first being duly sworn, does hereby swear and affirm that the foregoing responses to post-hearing data requests and information attached thereto is true and correct to the best of my knowledge and belief, formed after reasonable due diligence and inquiry, as of this 14<sup>th</sup> day of January 2022.

Brian Bartels  
Brian Bartels

Annamaria Sky Huddas  
NOTARY PUBLIC

Commission No.: \_\_\_\_\_

Commission Expires: \_\_\_\_\_





**SEBREE SOLAR, LLC**

**CASE NO. 2021-00072**

**RESPONSE TO INFORMATION REQUEST**

**SITING BOARD STAFF'S POST-HEARING REQUEST FOR INFORMATION DATED**

**1/3/2022**

**REQUEST 1**

**RESPONSIBLE PARTY: Lina Jensen**

**Request 1.** Provide a copy of the conceptual site plan maps that highlight the parcel boundaries of the Project.

**Response 1.** Please find a copy of the conceptual site plan in Attachment 1. Parcel boundary symbology was updated to differentiate the parcel boundaries with a purple dashed line.

# CONCEPTUAL SITE PLAN

# SEBREE SOLAR PROJECT

PREPARED FOR



**SEBREE SOLAR, LLC**  
**700 UNIVERSE BLVD**  
**JUNO BEACH, FL 33408**

Contact: Lina Jensen, Project Director  
 Sebree Solar, LLC  
 (832) - 613 - 7247

**CITY OF ROBARDS**  
**HENDERSON COUNTY,**  
**KENTUCKY, 40146**

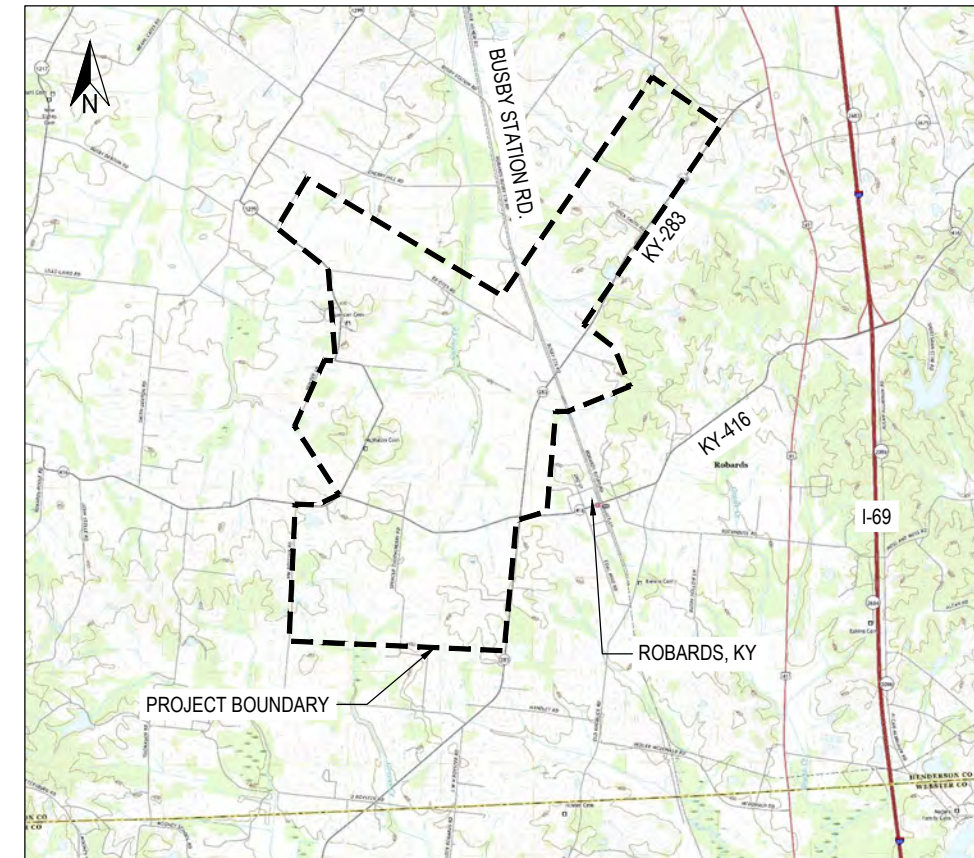
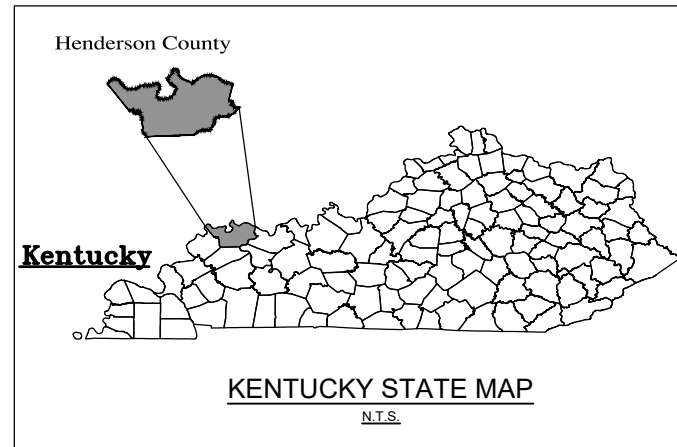
BY



707 East Third Avenue  
 New Smyrna Beach, Florida 32169  
 Tel: (386) 427-0694 Fax: (386) 427-0889  
 Agent's E-mail: cfagerstrom@ectinc.com  
 Agent's Tel: (386) 852-0387  
<http://www.ectinc.com>

ECT PROJECT NUMBER 20-0196

**JANUARY 2022**  
**KENTUCKY SITING BOARD**  
**REVIEW SET**



PROJECT LOCATION MAP  
 N.T.S.

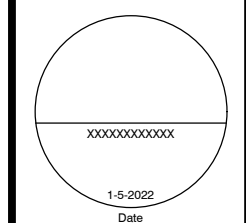
INDEX OF DRAWINGS

C1.00	COVER PAGE
C1.01	EXISTING CONDITIONS
C1.02	OVERALL LAYOUT PLAN
C1.03 -	SITE EXHIBITS
C1.15	
C2.01	CIVIL DETAILS
C2.02	LANDSCAPE ILLUSTRATION

PROJECT SITE INFORMATION	
SITE ADDRESS	TBD
COUNTY PARCEL NUMBERS	SEE APPENDIX 3
GPS COORDINATES	37.689°N, -87.547°W (SUBSTATION)
SITE ELEVATION	450 FT A.M.S.L.
UTILITY NAME	TBD
UTILITY ADDRESS	TBD
UTILITY CONTACT INFORMATION	TBD
DEVELOPER NAME	SEBREE SOLAR, LLC
DEVELOPER ADDRESS	700 UNIVERSE BLVD., JUNO BEACH, FL
DEVELOPER CONTACT	LINA JENSEN
CIVIL ENGINEER OF RECRD (EOR) NAME	TBD
CIVIL EOR ADDRESS	TBD
CIVIL EOR CONTACT INFORMATION	TBD
APPLICABLE BUILDING PERMIT AUTHORITY	KY SITING BOARD, HENDERSON CO.
SYSTEM AC SIZE (MW AT POI)	250
SYSTEM DC SIZE (MW)	361.49
MODULE COUNT	850,564
INVERTER COUNT	78
SWITCHGEAR COUNT	TBD
TRANSFORMER COUNT	1
EQUIPMENT PAD COUNT	78
PROJECT ZONING	AGRICULTURAL
NON PARTICIPATING PARCEL BUFFER	25 FEET
OCCUPIED STRUCTURE BUFFER	100 FEET
ROAD R.O.W. BUFFER	40 FEET
SURFACE WATER BUFFER	25 FEET
WETLAND BUFFER	25 FEET
STREAM BUFFER	25 FEET
FENCED AREA	1,340 ACRES
ROAD LENGTH	69,600 FEET / 13.18 MILES
LANDSCAPE BUFFER	29,930 FEET



ECT PROJECT No.:	20-0196
DESIGNED BY:	Sebree Solar, LLC
DRAWN BY:	MRA
CHECKED BY:	BW
APPROVED BY:	TBD
KY SITING BOARD	08-09-2021
HENDERSON COUNTY	09-07-2021
SUBMITTAL	
KY SITING BOARD	11-05-2021
RESUBMITTAL	








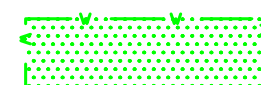


COVER SHEET

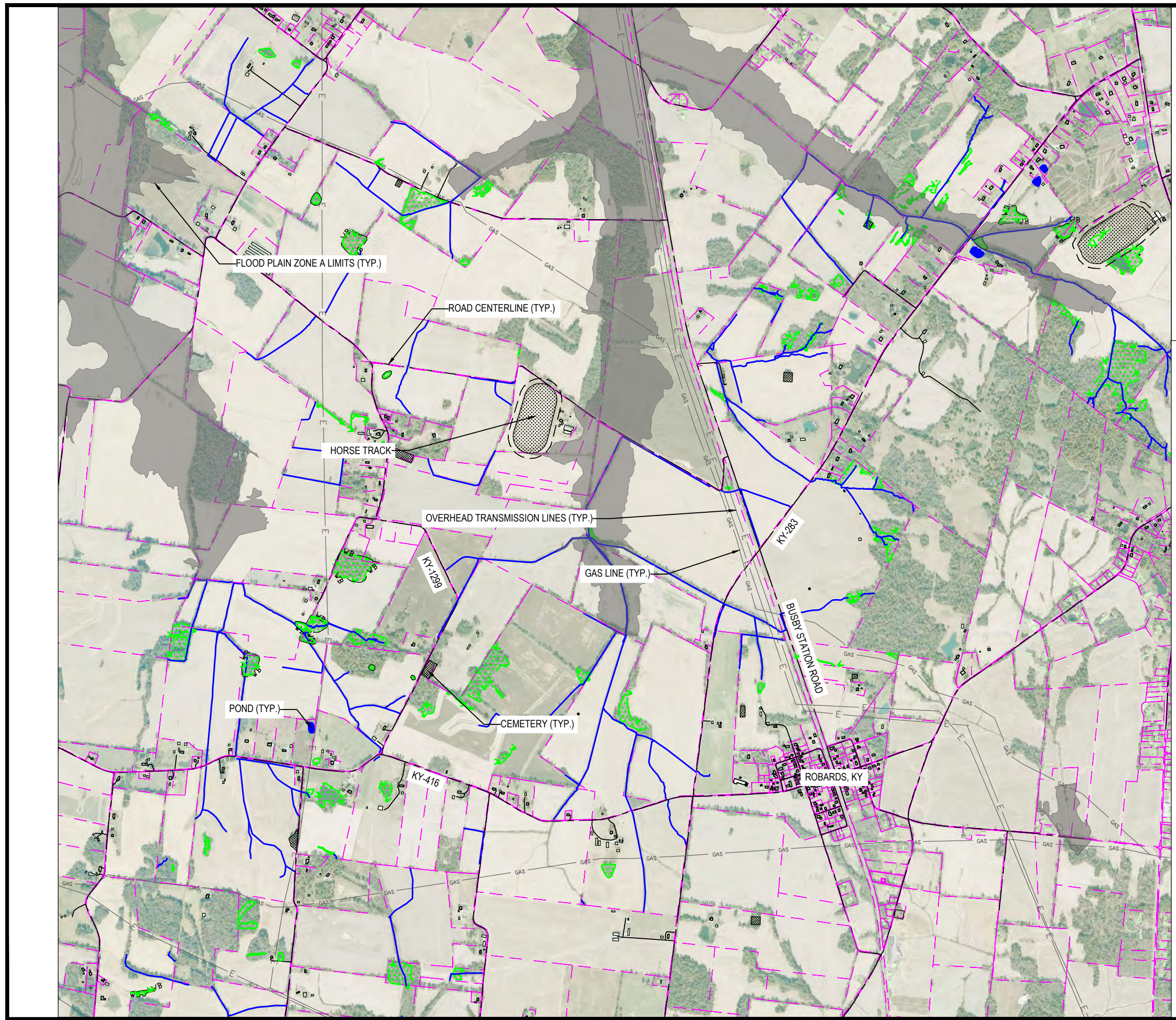
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**C1.00**



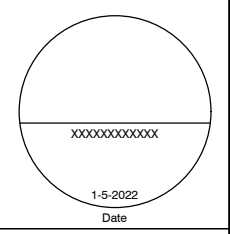
**LEGEND**

-  PARCEL LINE
-  ROAD CENTERLINE
-  OVERHEAD ELECTRIC
-  PIPELINE
-  HORSE TRACK
-  WETLANDS
-  STREAM
-  FLOODPLAIN ZONE A

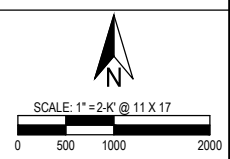


**SEBREE SOLAR  
 HENDERSON CO.  
 KENTUCKY**

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KY SITING BOARD RESUBMITTAL	11-05-2021



**EXISTING  
 CONDITIONS**

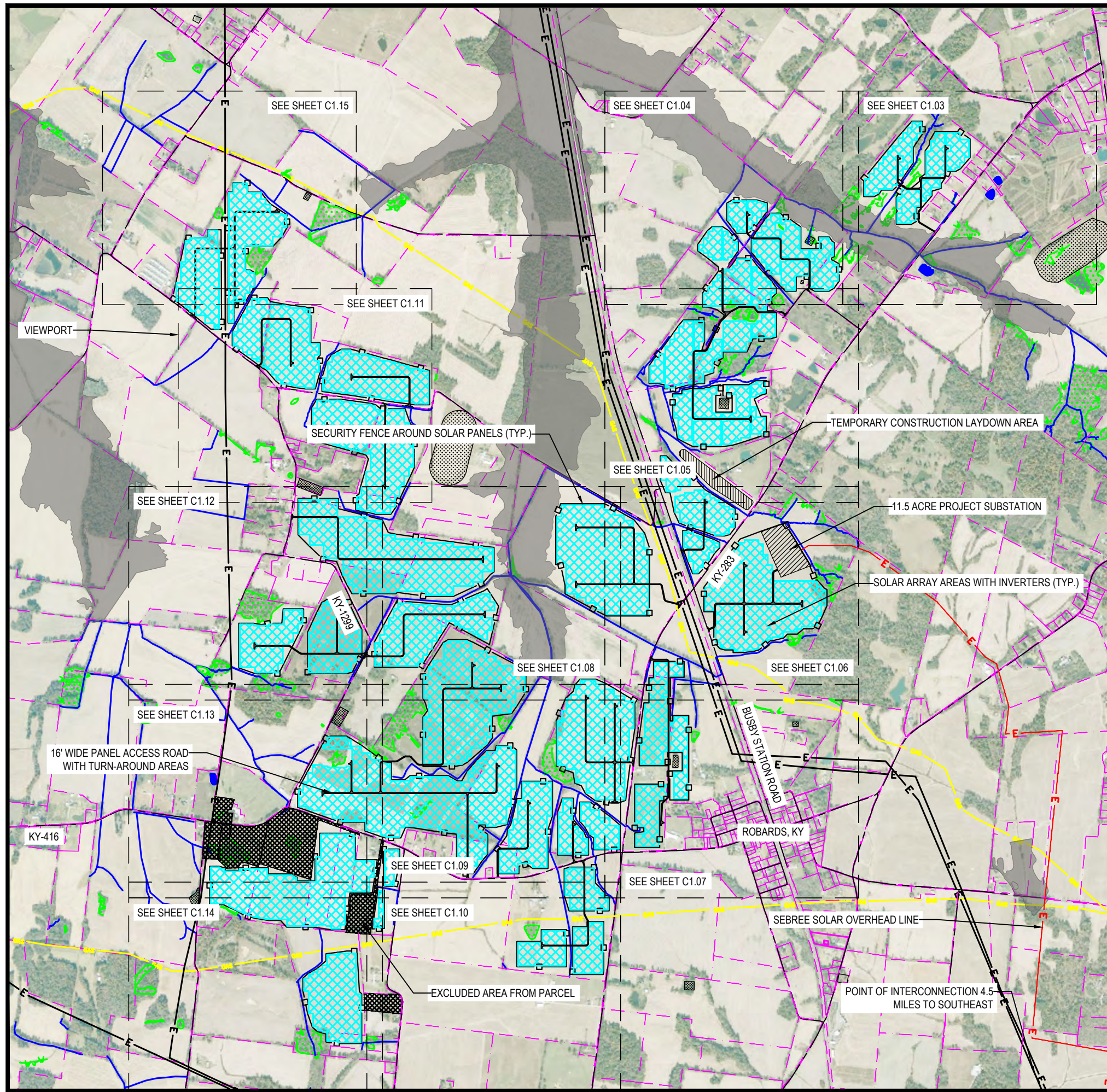


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**C1.01**

NOT FOR CONSTRUCTION





### LEGEND

- PARCEL LINE
- EXCLUDED AREAS
- ROAD CENTERLINE
- OVERHEAD ELECTRIC
- SEBREE SOLAR OVERHEAD LINE
- PIPELINE
- WETLANDS
- STREAM
- FLOODPLAIN ZONE A
- SECURITY FENCE
- SOLAR PANEL AREAS

**NEXTERA ENERGY**

**SEBREE SOLAR  
 HENDERSON CO.  
 KENTUCKY**

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KY SITING BOARD RESUBMITTAL	11-05-2021

XXXXXXXXXXXXX

1-5-2022  
 Date

**OVERALL SITE LAYOUT**

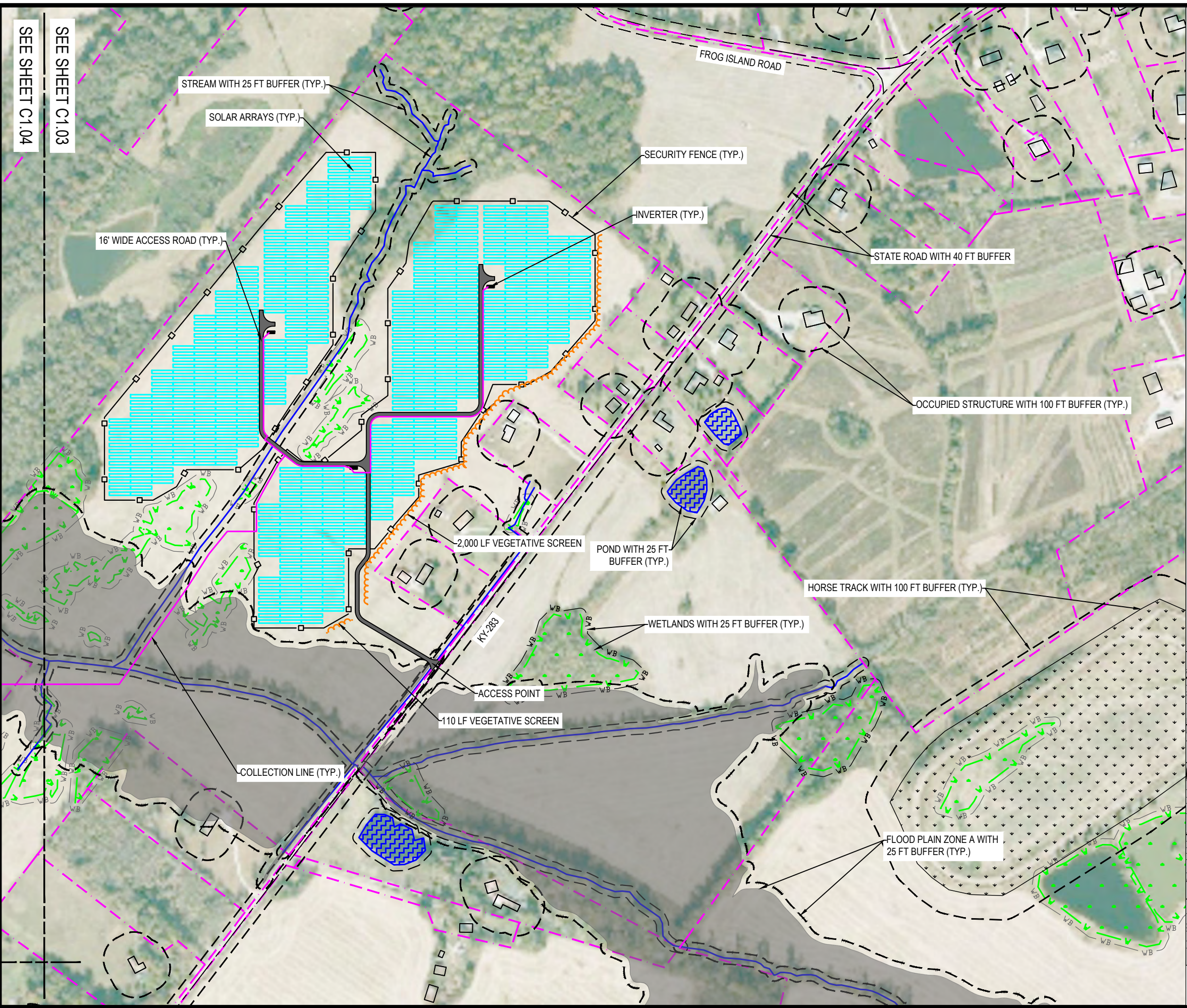
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**C1.02**





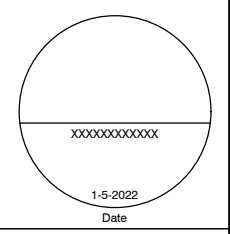
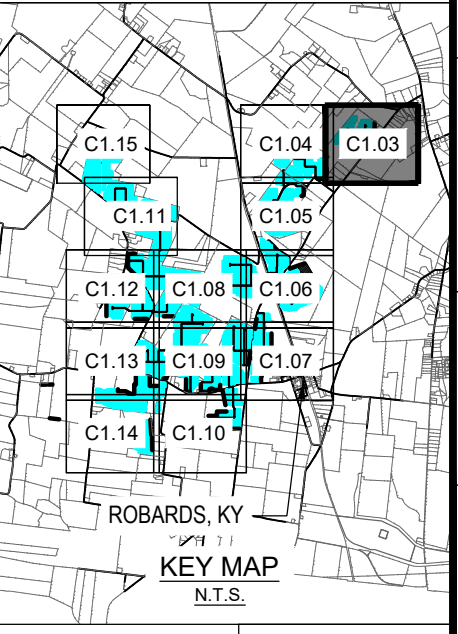
### LEGEND

- PARCEL LINE
- SETBACK LINE
- EXCLUDED AREA FROM PARCEL
- ROAD CENTERLINE
- OVERHEAD ELECTRIC
- SEBREE SOLAR OVERHEAD LINE
- PIPELINE
- COLLECTION LINE
- WETLANDS
- WETLAND BUFFER
- STREAM
- FLOODPLAIN ZONE A
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- SECURITY FENCE
- SOLAR ARRAYS
- INVERTER
- ACCESS ROAD
- VEGETATIVE SCREEN
- AVOIDANCE FEATURE WITH 30 FT BUFFER

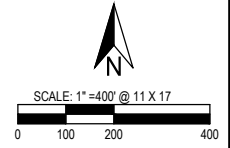
NOTE: COLLECTION LINE ROUTING IS PRELIMINARY ONLY AND SUBJECT TO CHANGE



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KY SITING BOARD HENDERSON COUNTY SUBMITTAL	08-09-2021
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	11-05-2021



**SITE EXHIBIT**



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**C1.03**

SEE SHEET C1.03  
 SEE SHEET C1.04





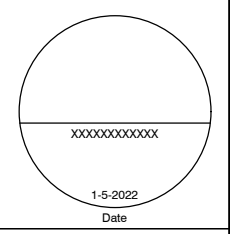
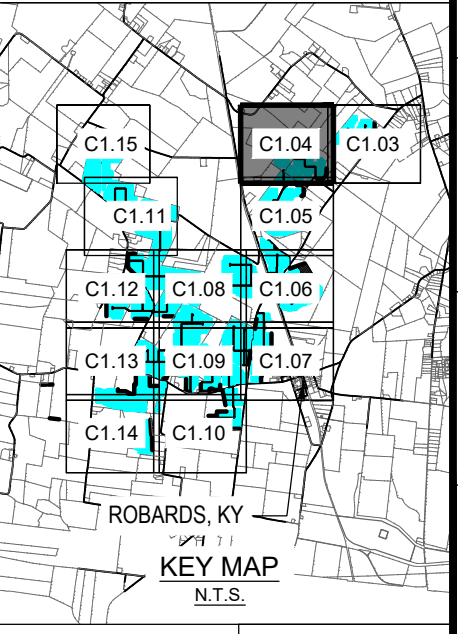
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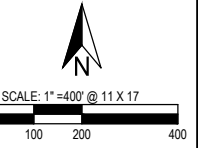
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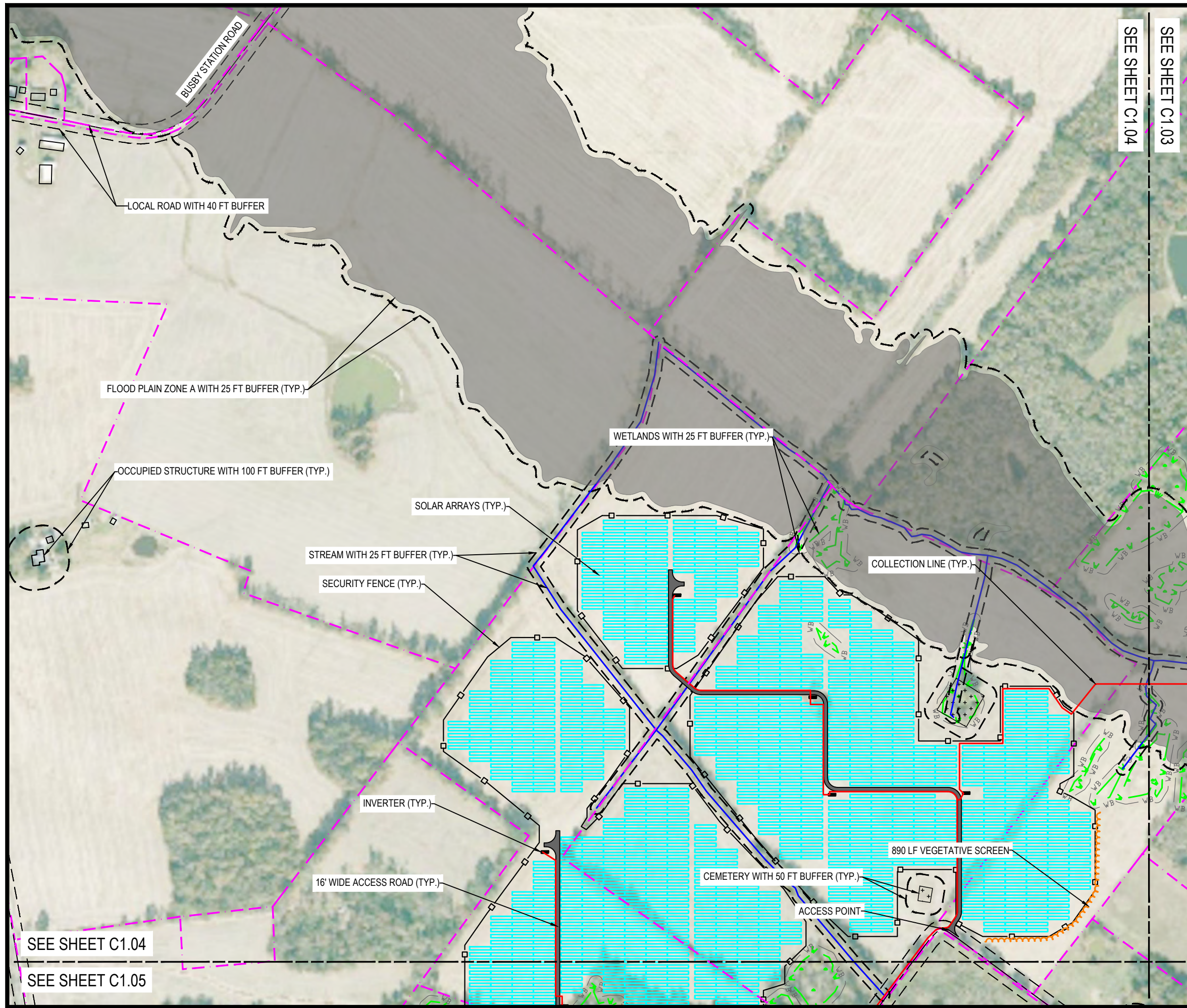
**SITE EXHIBIT**



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**C1.04**

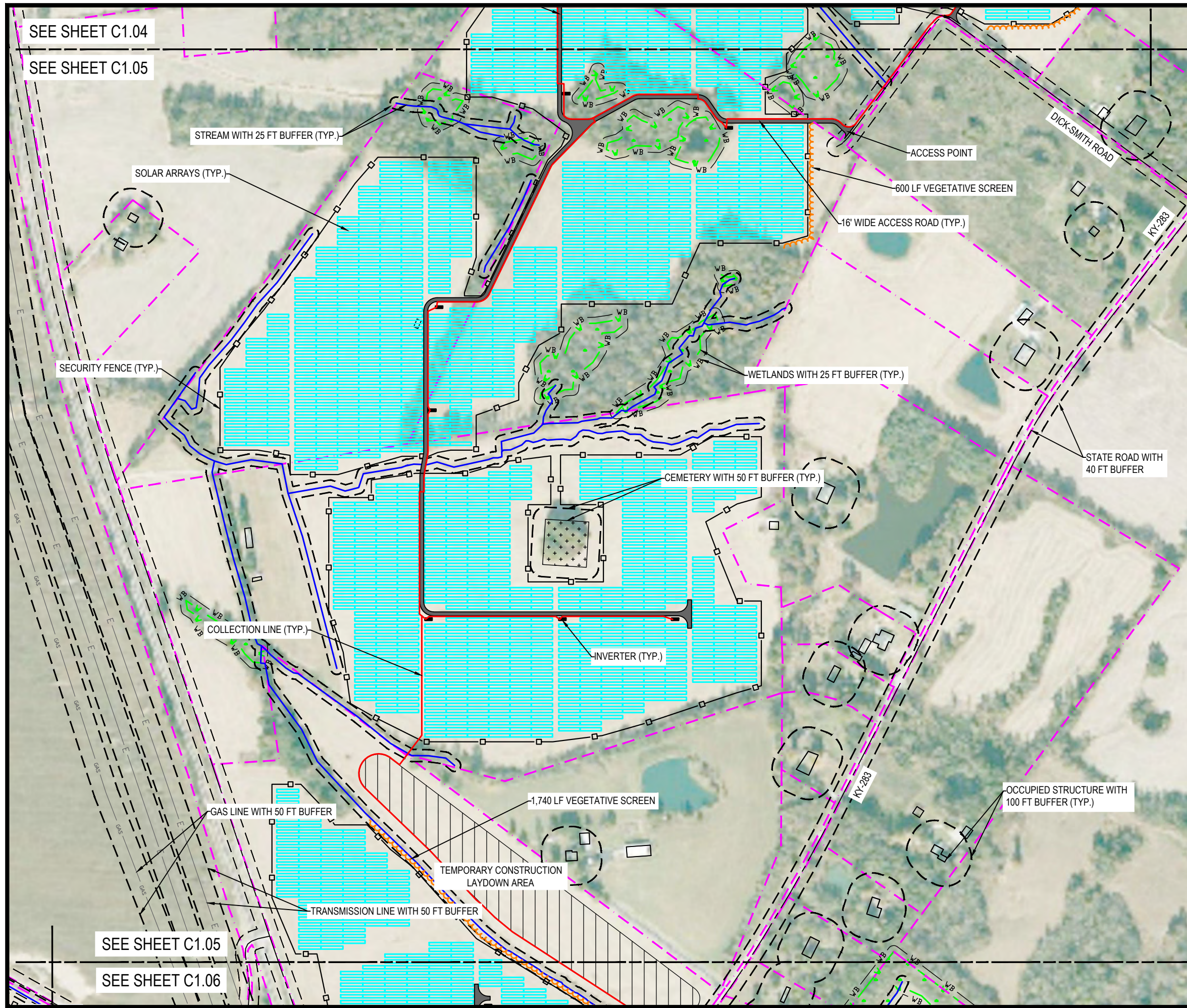
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SEE SHEET C1.04

SEE SHEET C1.05



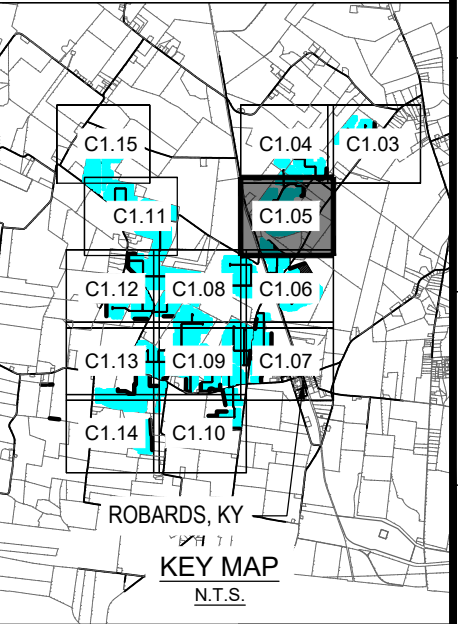


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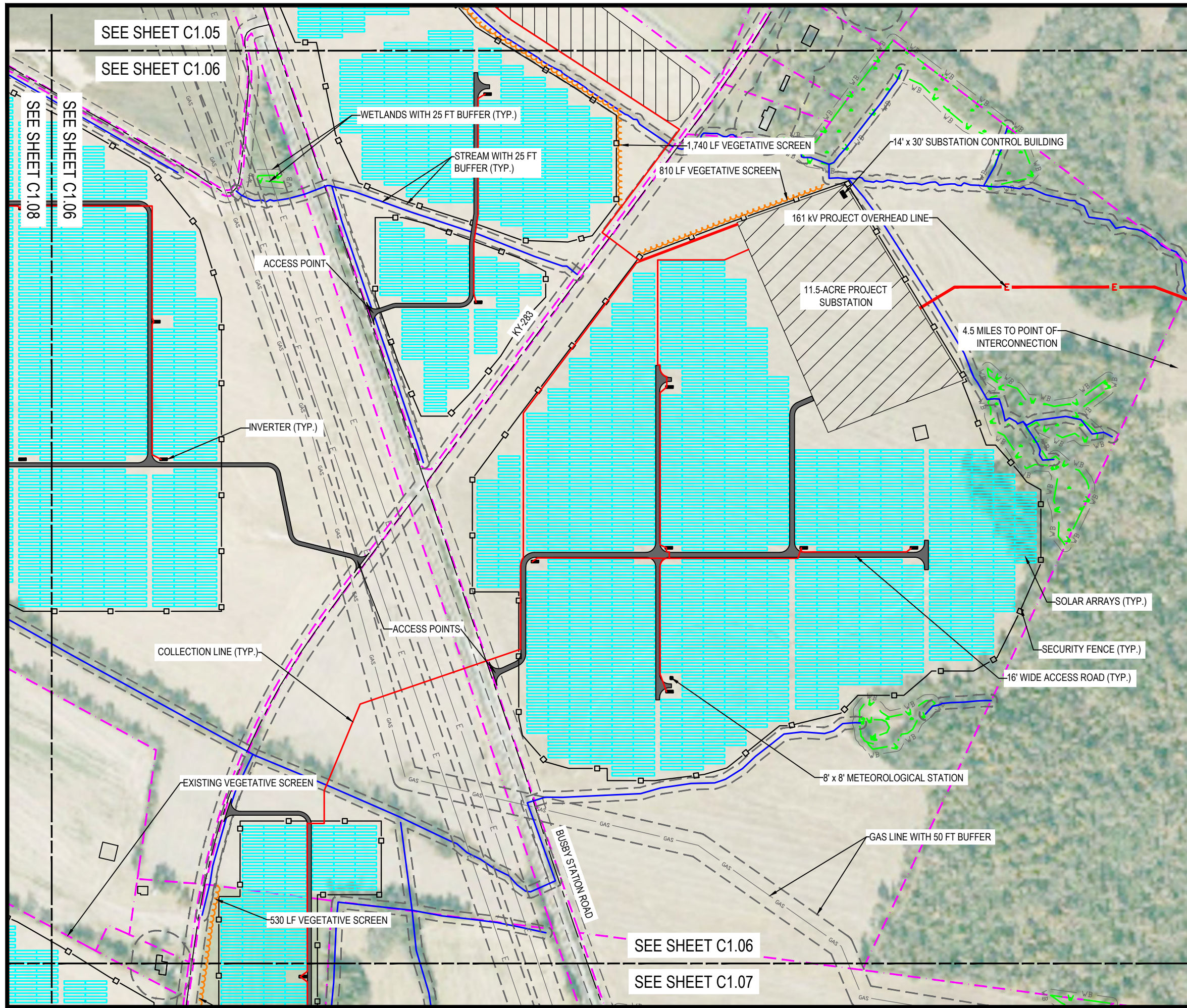
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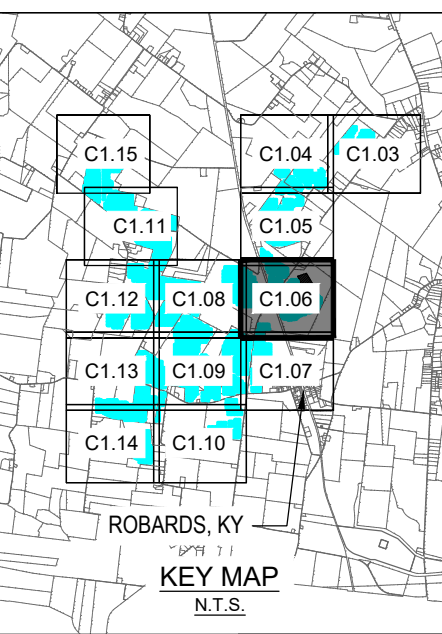




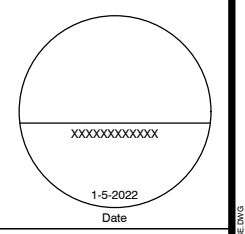
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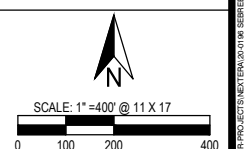
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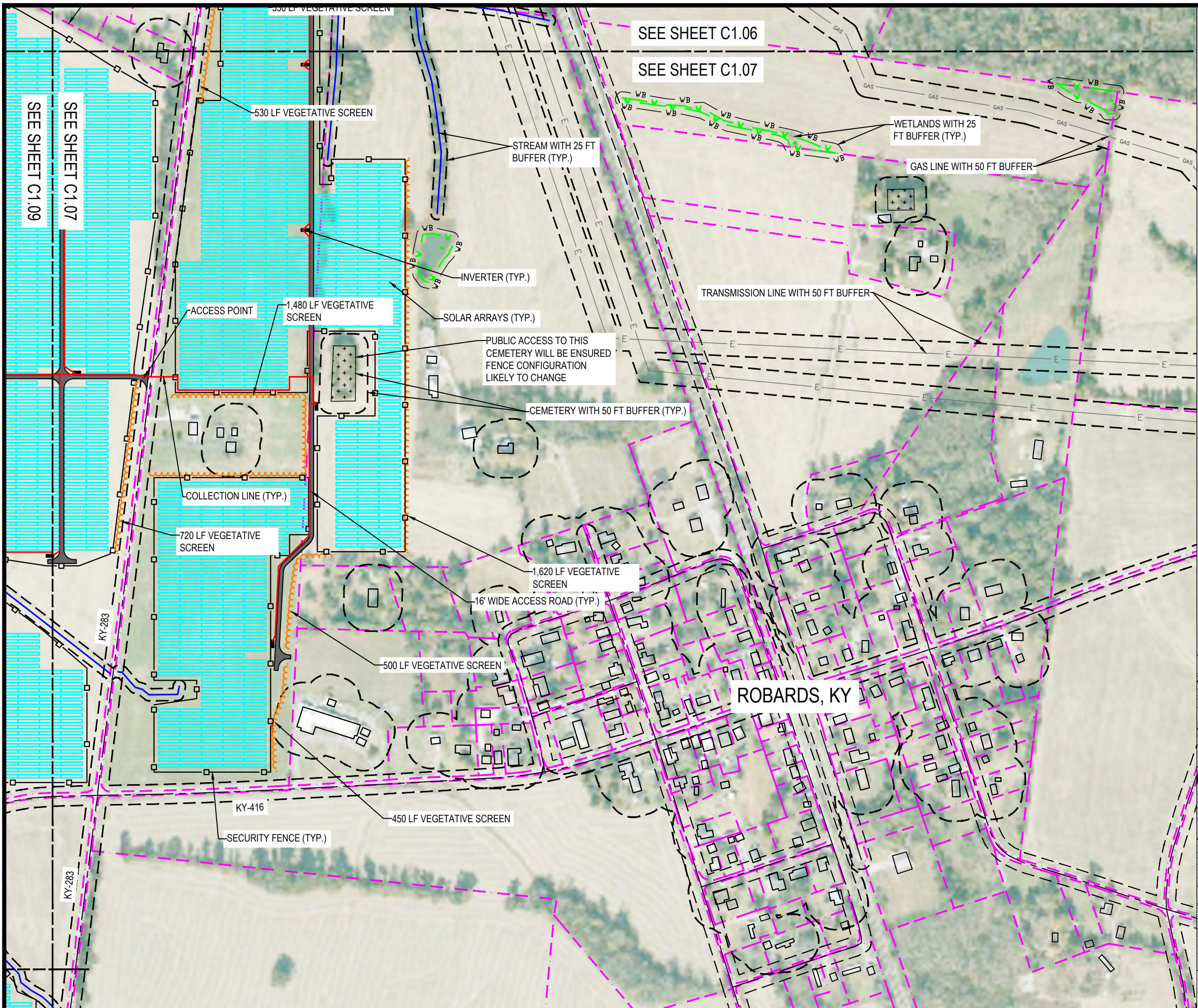


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**C1.06**

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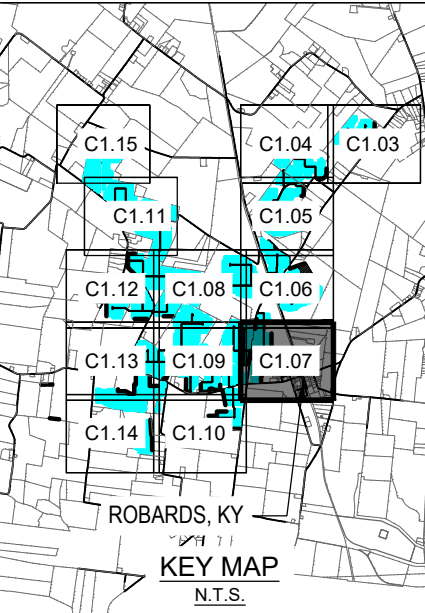




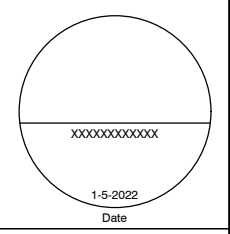
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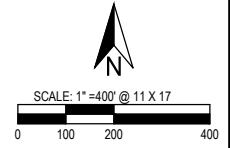
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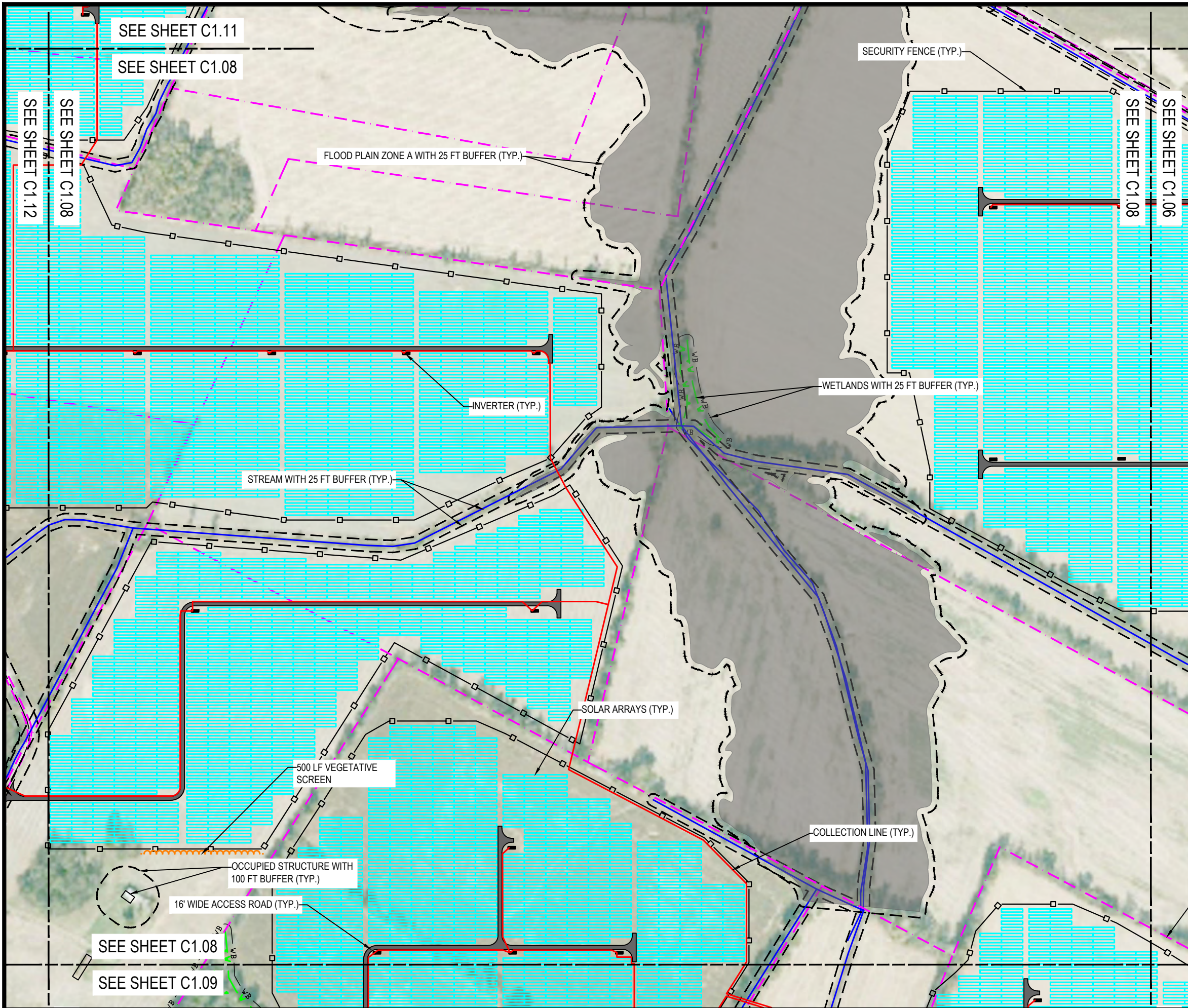
**SITE EXHIBIT**



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**C1.07**

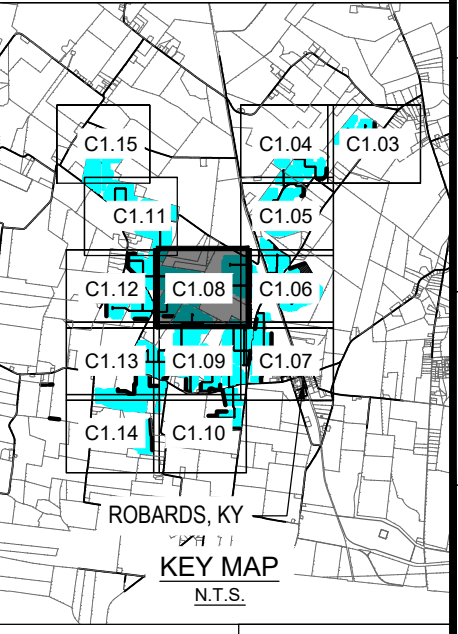




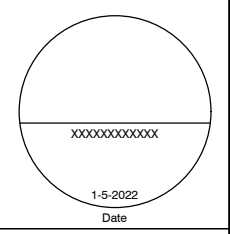
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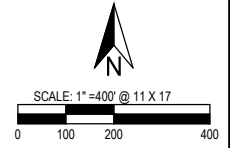
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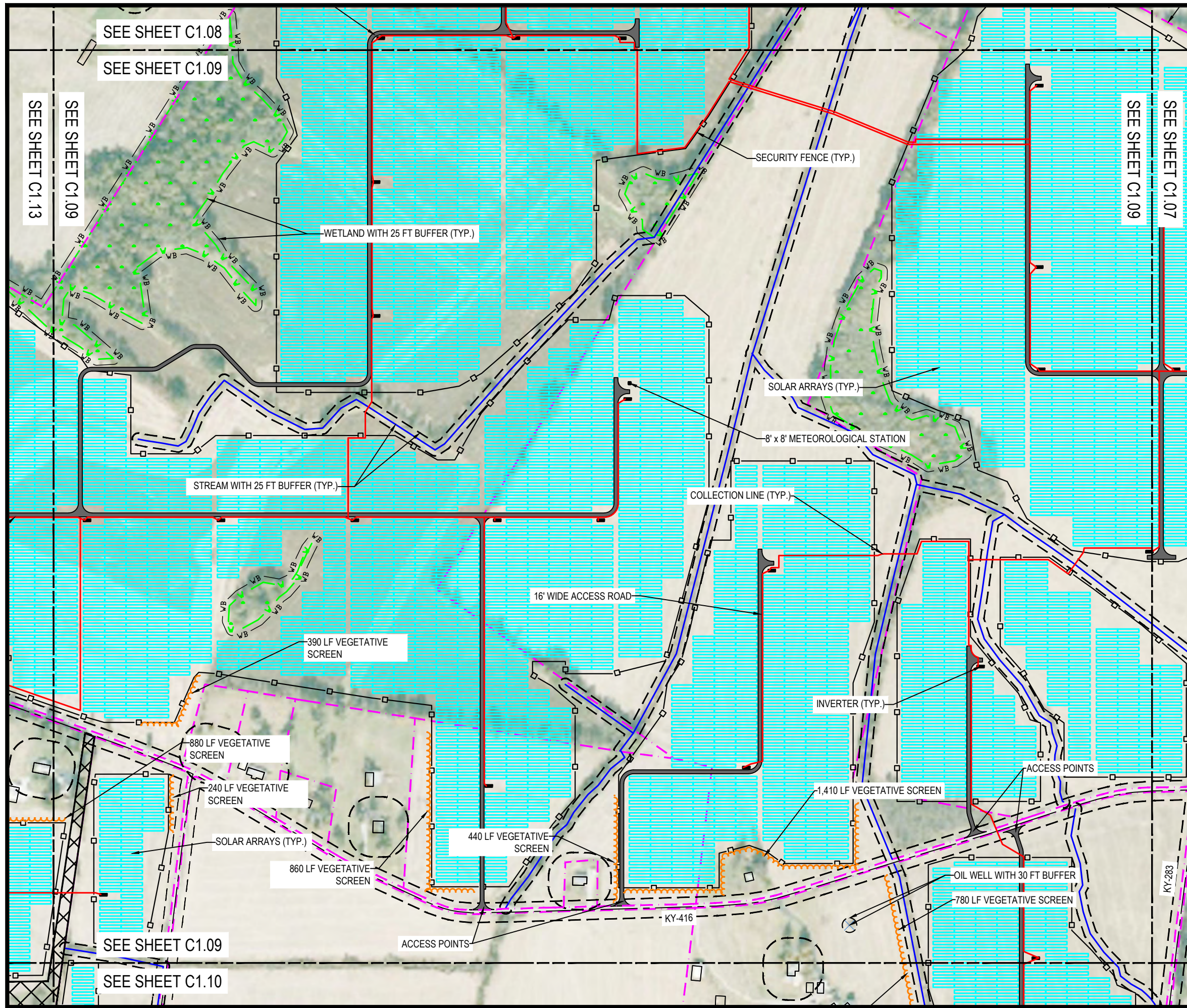
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**C1.08**

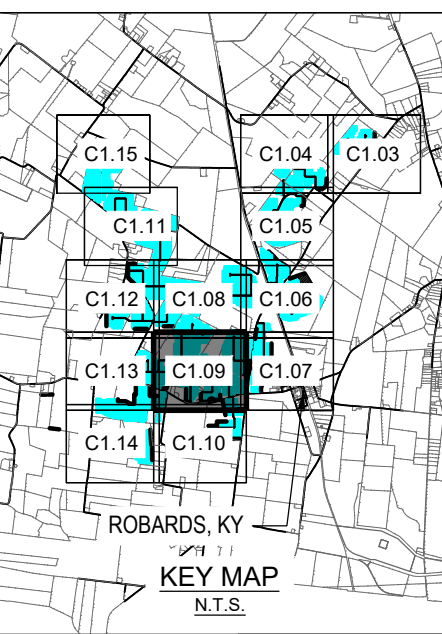




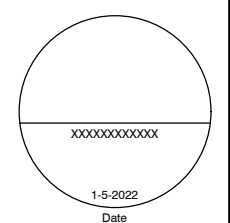
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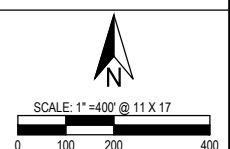
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CHECKED BY:	BW
APPROVED BY:	TBD
KY SITING BOARD	08-09-2021
HENDERSON COUNTY	09-07-2021
SUBMITTAL	
KY SITING BOARD	11-05-2021
RESUBMITTAL	



**SITE EXHIBIT**

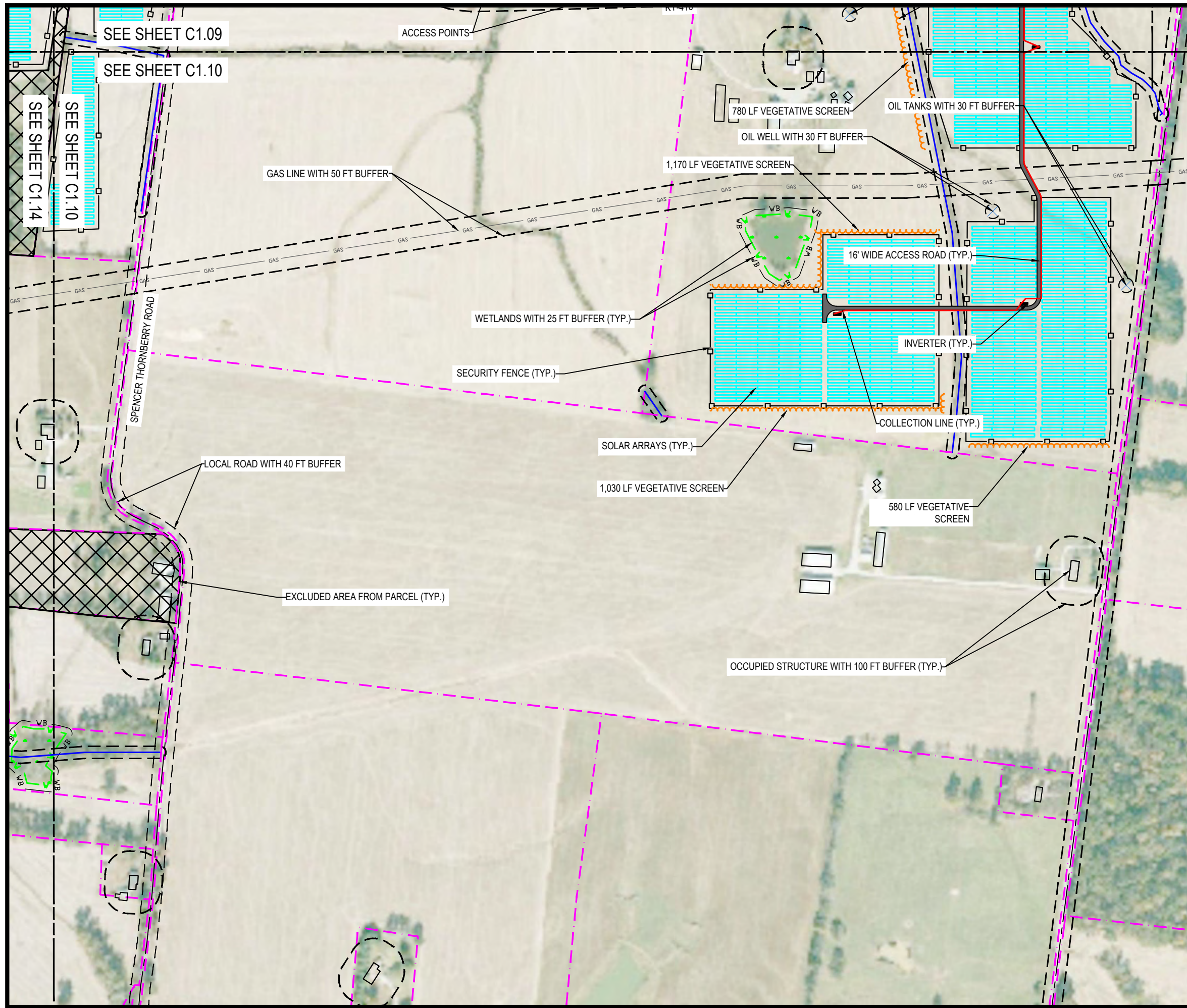


CALL BEFORE YOU DIG  
 811

**C1.09**

NOT FOR CONSTRUCTION

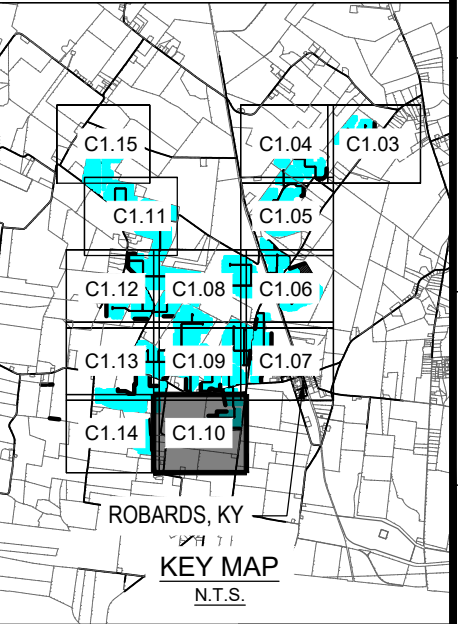




**LEGEND**

- PARCEL LINE
- SETBACK LINE
- EXCLUDED AREA FROM PARCEL
- ROAD CENTERLINE
- OVERHEAD ELECTRIC
- SEBREE SOLAR OVERHEAD LINE
- PIPELINE
- COLLECTION LINE
- WETLANDS
- WETLAND BUFFER
- STREAM
- FLOODPLAIN ZONE A
- SURFACE WATER
- SECURITY FENCE
- SOLAR ARRAYS
- INVERTER
- ACCESS ROAD
- VEGETATIVE SCREEN
- AVOIDANCE FEATURE WITH 30 FT BUFFER

NOTE: COLLECTION LINE ROUTING IS PRELIMINARY ONLY AND SUBJECT TO CHANGE



**NEXTERA ENERGY**

**SEBREE SOLAR  
HENDERSON CO.  
KENTUCKY**

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KY SITING BOARD RESUBMITTAL	11-05-2021

XXXXXXXXXXXX

1-5-2022  
Date

**SITE EXHIBIT**

SCALE: 1" = 400' @ 11 X 17

0 100 200 400

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**C1.10**





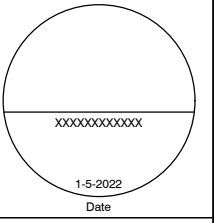
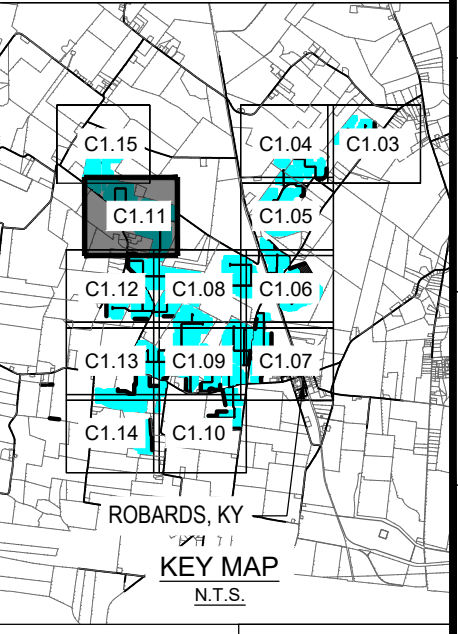
**SEBREE SOLAR  
HENDERSON CO.  
KENTUCKY**

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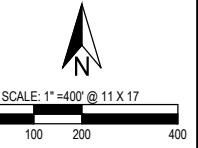
**LEGEND**

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NOTE: COLLECTION LINE ROUTING IS PRELIMINARY ONLY AND SUBJECT TO CHANGE



**SITE EXHIBIT**



**C1.11**

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SEE SHEET C1.15

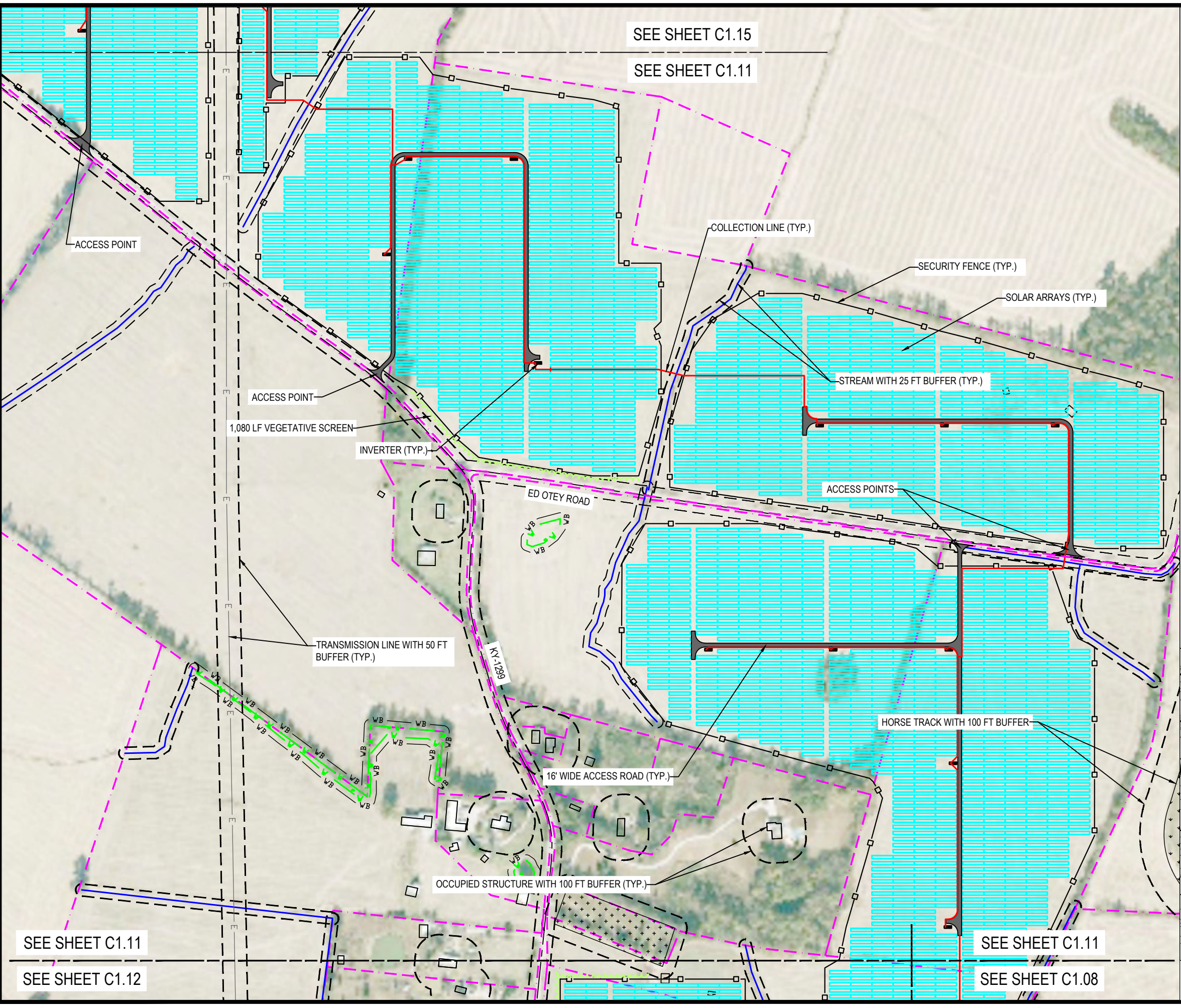
SEE SHEET C1.11

SEE SHEET C1.11

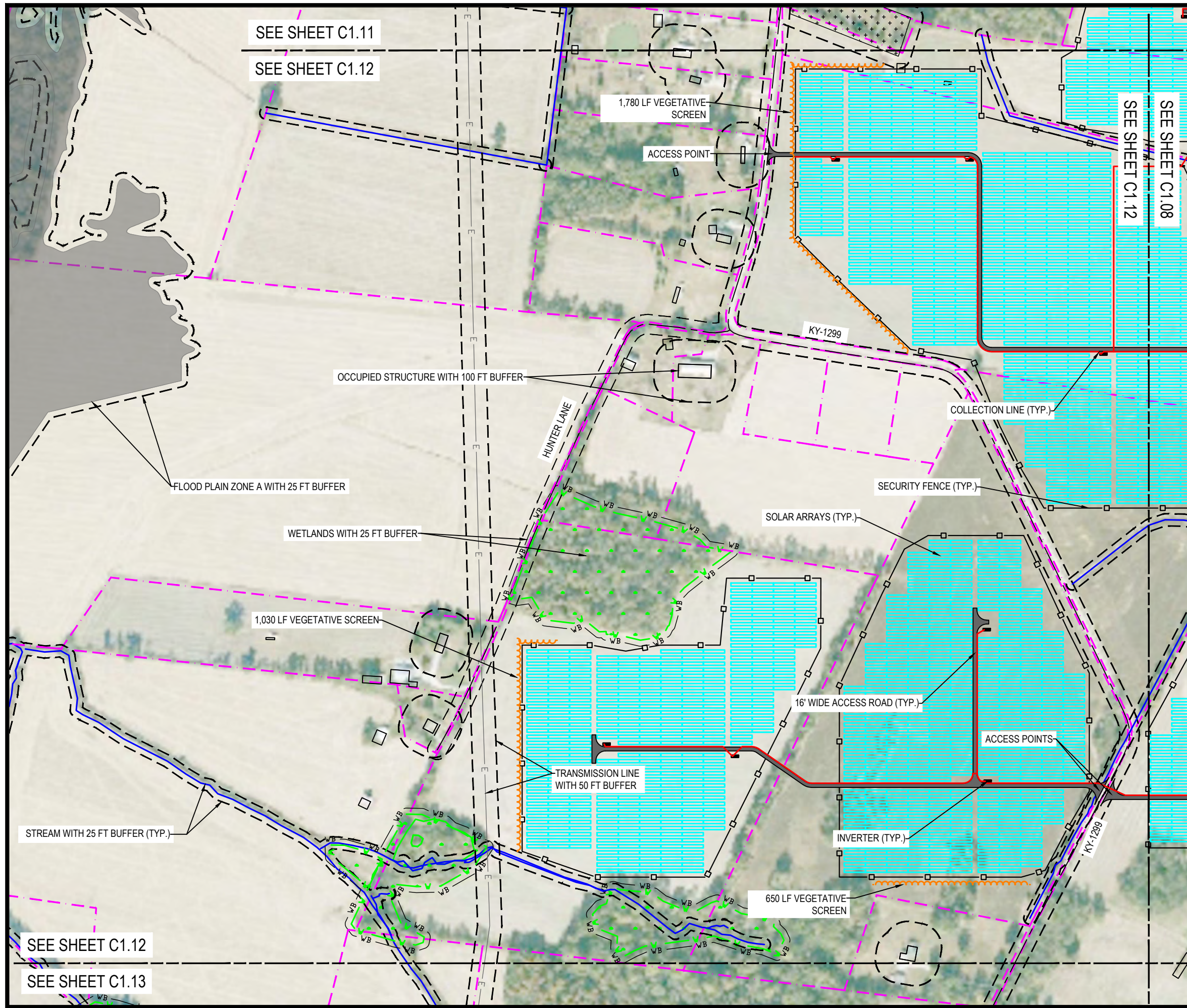
SEE SHEET C1.08

SEE SHEET C1.11

SEE SHEET C1.12



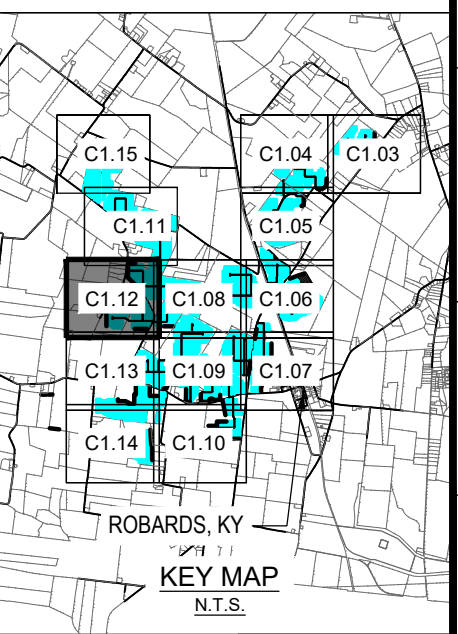




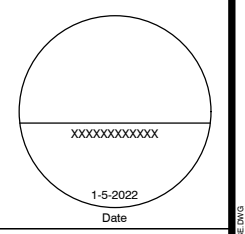
### LEGEND

- PARCEL LINE
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KY SITING BOARD RESUBMITTAL	11-05-2021



**SITE EXHIBIT**

**C1.12**

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707 E. 3rd Ave.  
New Smyrna Beach, FL, 32169  
Phone: (386) 427-0694  
www.ectinc.com



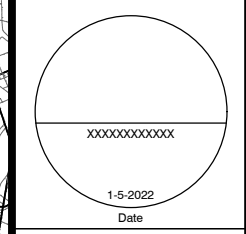
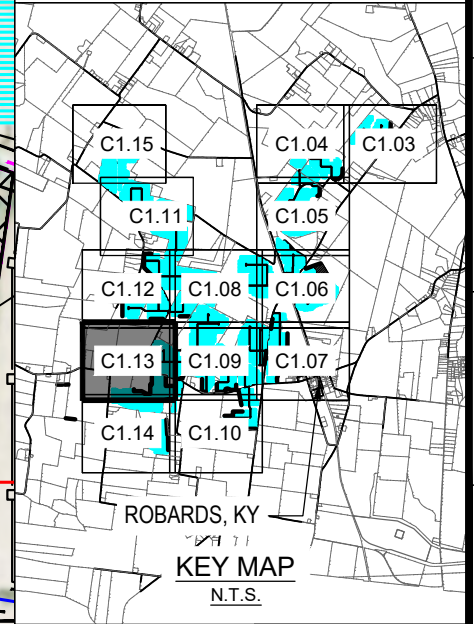
### SEBREE SOLAR HENDERSON CO. KENTUCKY

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APPROVED BY:	TBD
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KY SITING BOARD RESUBMITTAL	11-05-2021

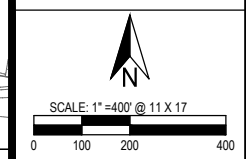
## LEGEND

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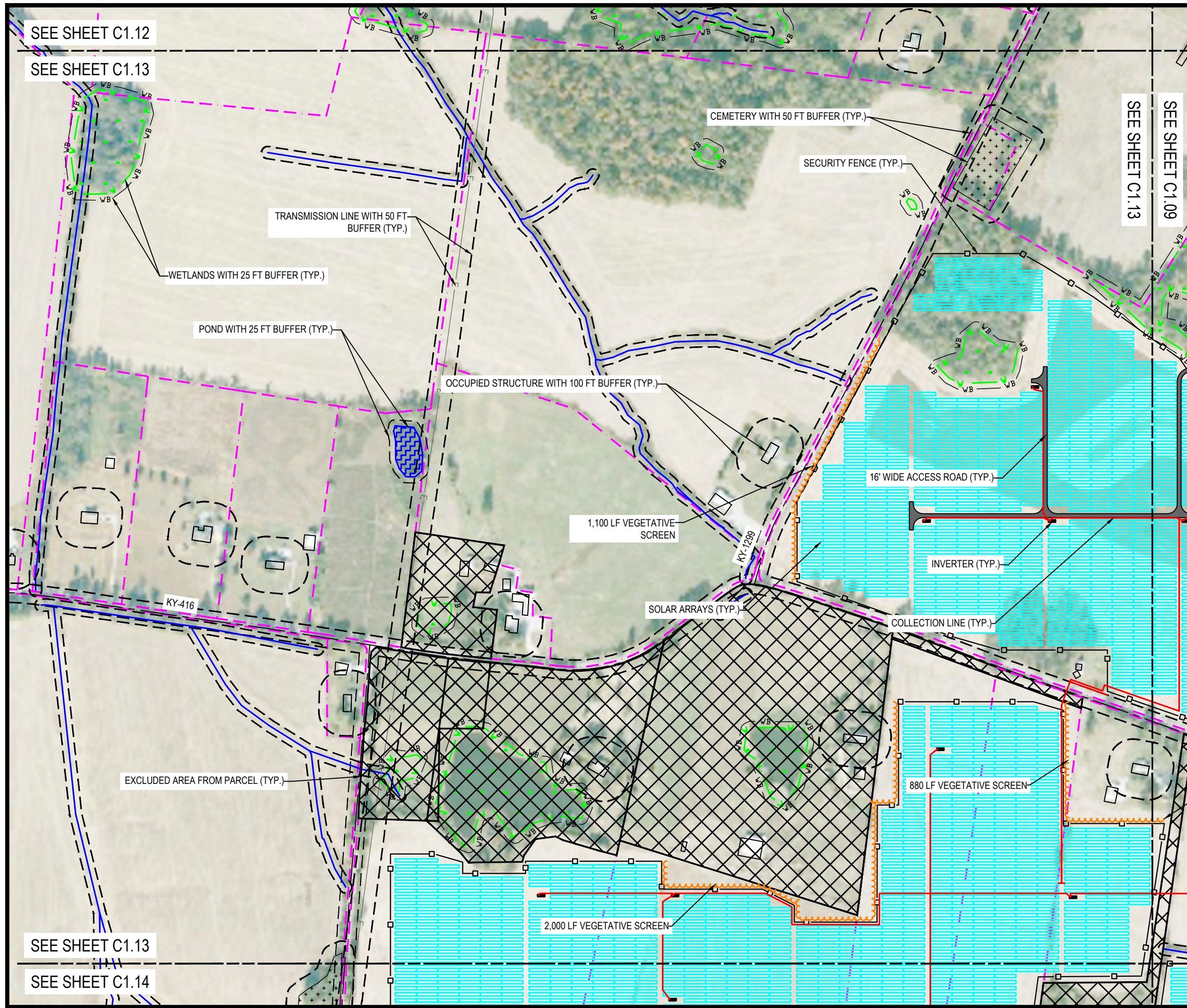


### SITE EXHIBIT

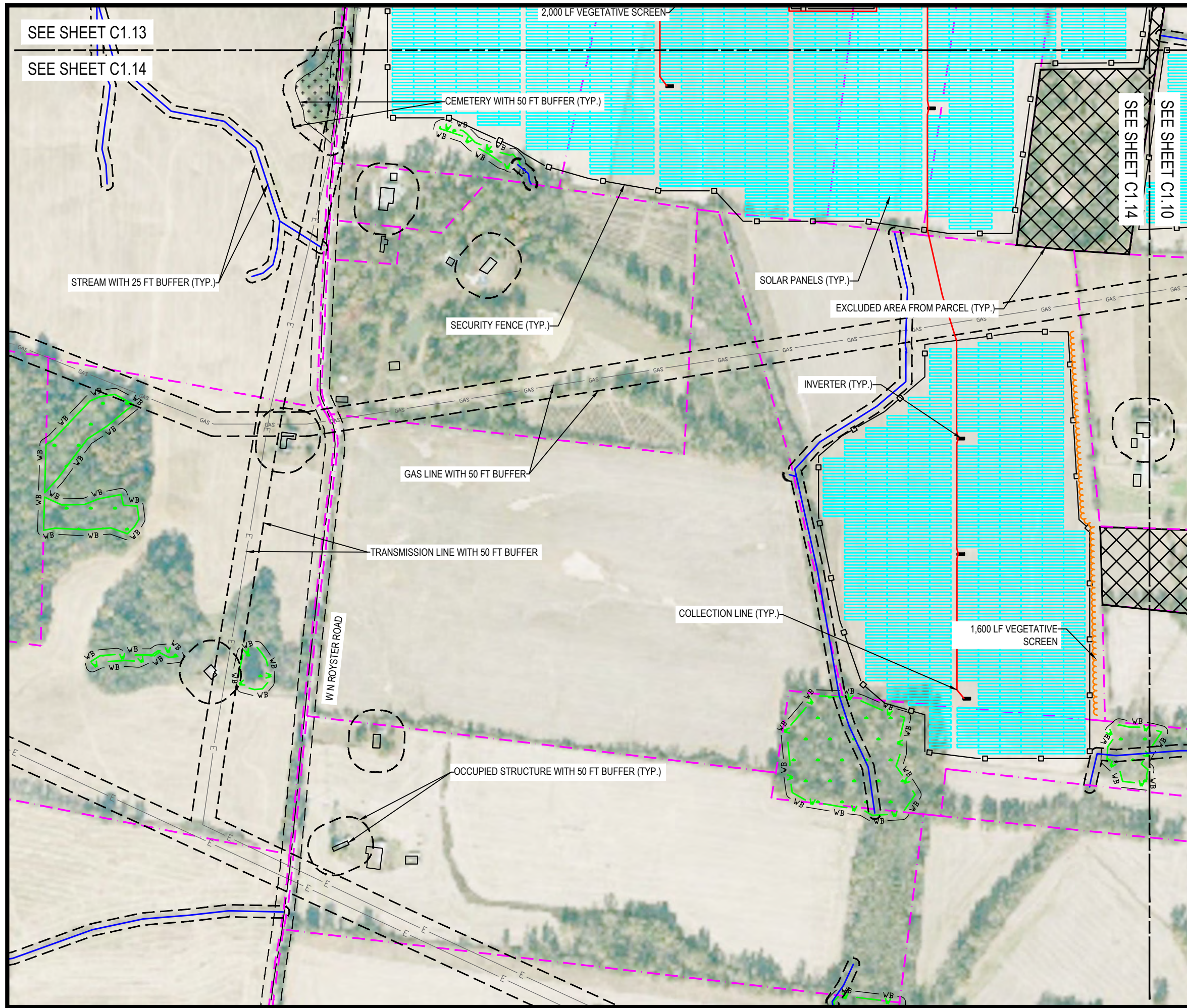


# C1.13

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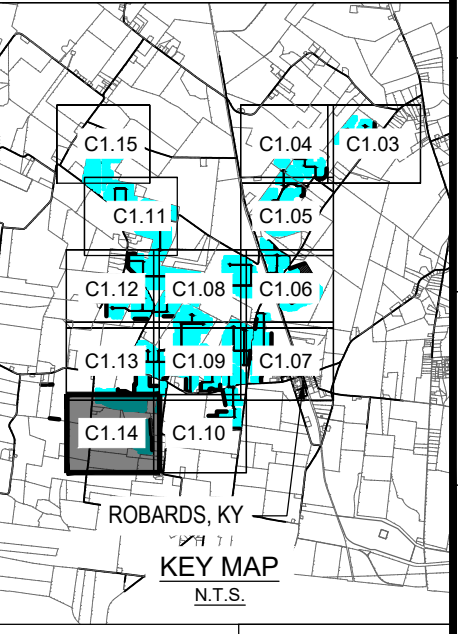




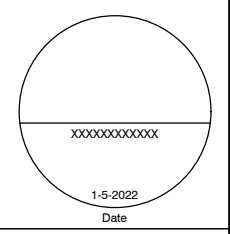


**LEGEND**

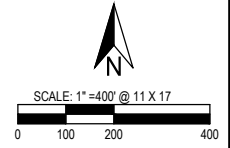
- PARCEL LINE
  - SETBACK LINE
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KY SITING BOARD RESUBMITTAL	09-07-2021
	11-05-2021



**SITE EXHIBIT**



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**C1.14**

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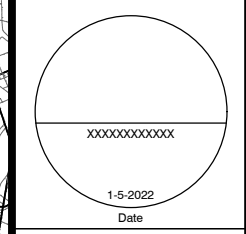
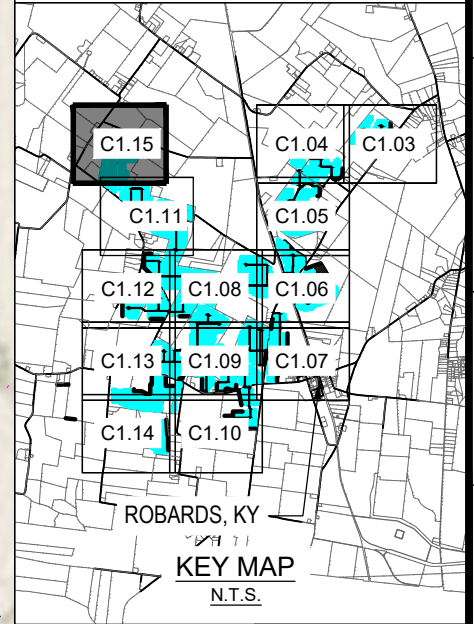
### SEBREE SOLAR HENDERSON CO. KENTUCKY

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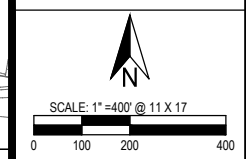
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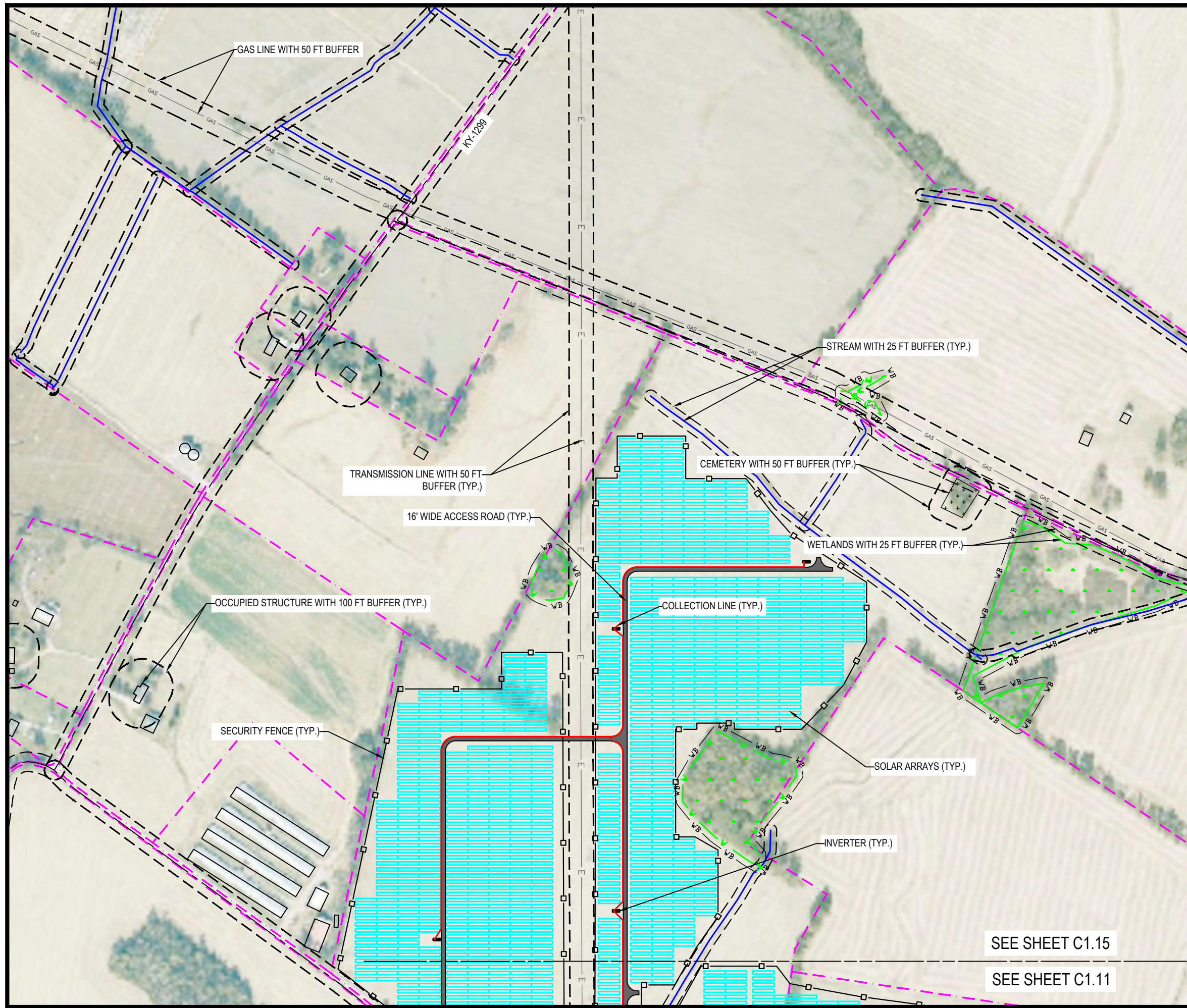


### SITE EXHIBIT



# C1.15

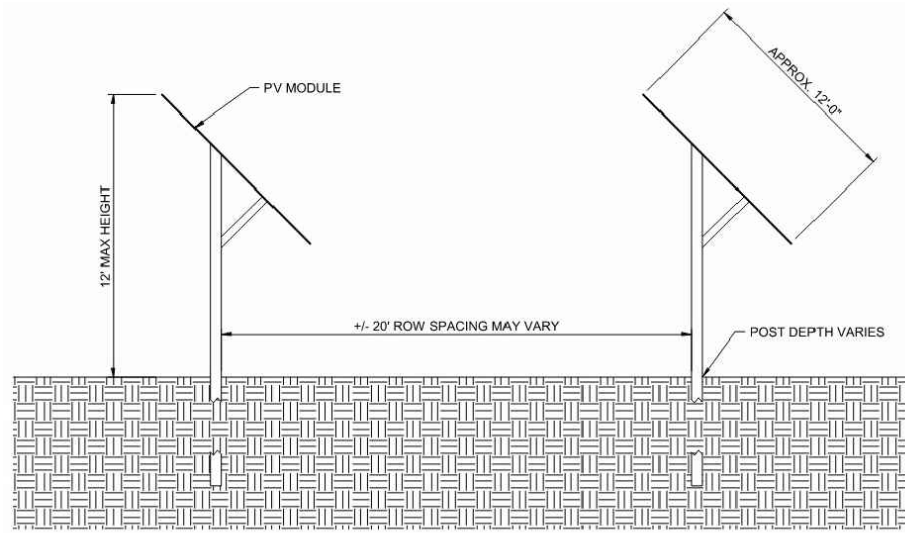
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811



SEE SHEET C1.15

SEE SHEET C1.11



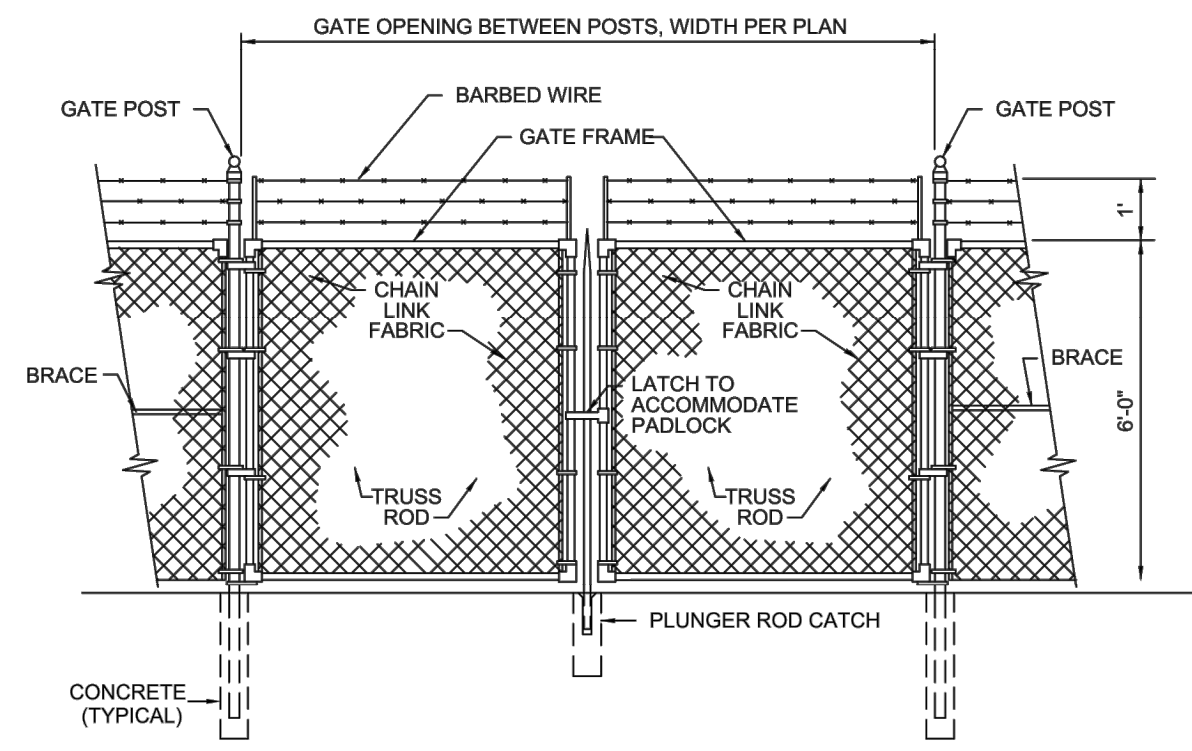


**FIXED PANEL RACK SECTION DETAIL**  
 SCALE: NTS

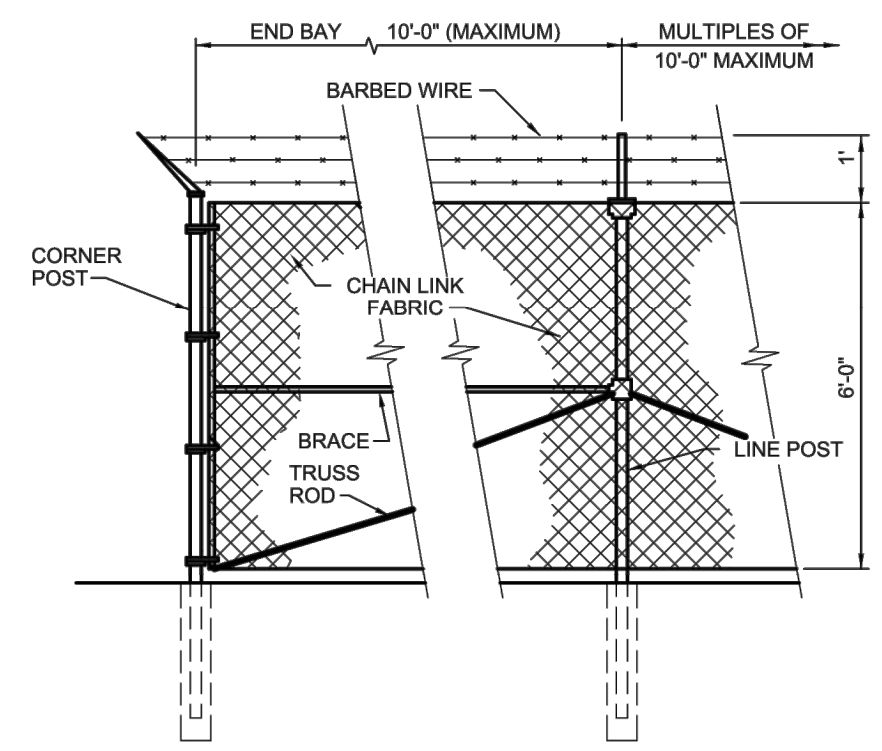
**NOTE:**

1. DETAILS ON THIS DRAWING ARE CONCEPTUAL ONLY.
2. FOUNDATION AND EQUIPMENT CONFIGURATION SUBJECT TO CHANGE DURING DETAILED DESIGN.
3. PILE EMBEDMENT DEPTH VARIES ON GEOTECHNICAL STUDY RESULTS AND STRUCTURAL DESIGN.
4. ACTUAL OPTIMAL DIMENSIONS MAY DEPEND ON SPECIFIC CONDITIONS OF THE SITE.

**NEXTERA ENERGY**  
**SEBREE SOLAR HENDERSON CO. KENTUCKY**



**DOUBLE SWING GATE DETAIL**  
 NOT TO SCALE



**SECURITY FENCE DETAIL**  
 NOT TO SCALE

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SUBMITTAL	
KY SITING BOARD	11-05-2021
RESUBMITTAL	

XXXXXXXXXXXX  
 1-5-2022  
 Date

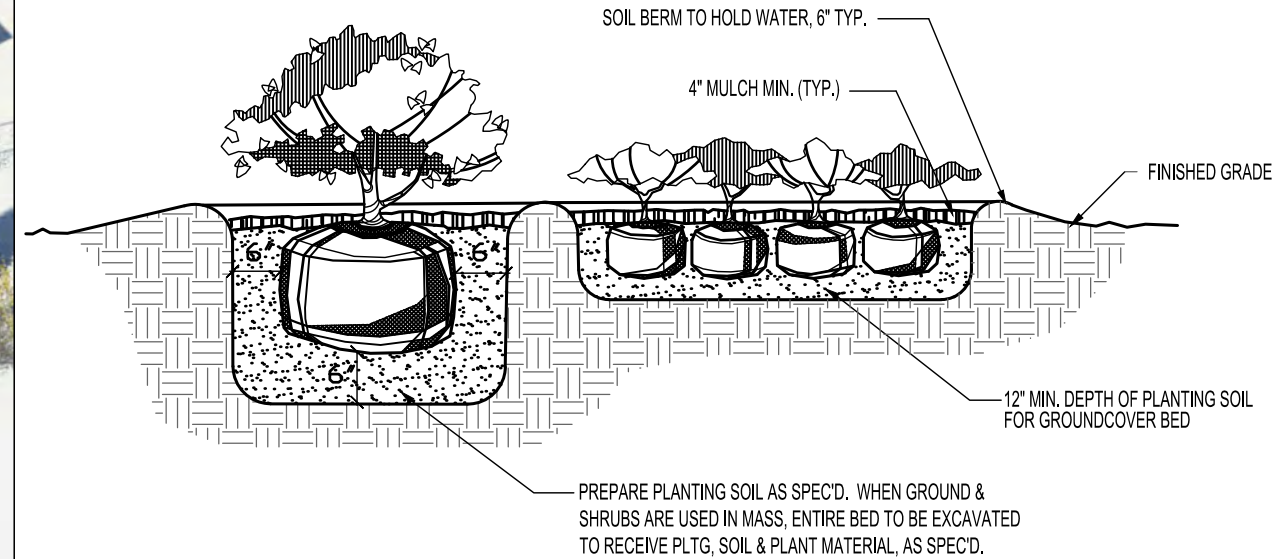
**CIVIL DETAILS**

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 811

**C2.01**

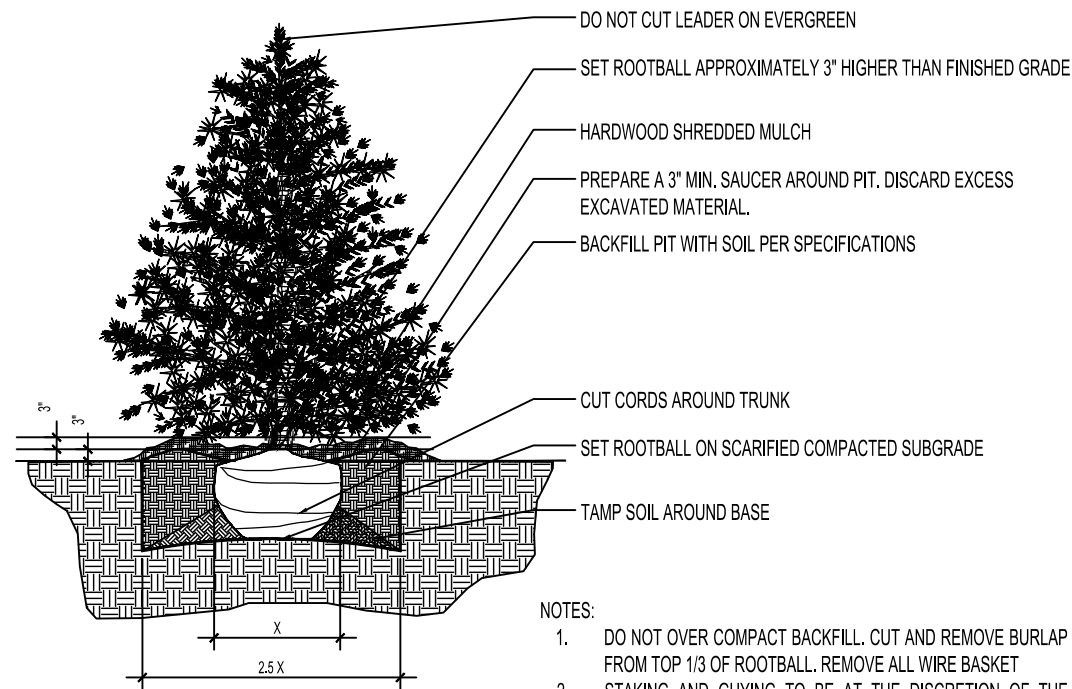


**LANDSCAPE ILLUSTRATION**



NOTE: CONTRACTOR SHALL ASSURE PERCOLATION OF ALL PLANTING PITS / BEDS PRIOR TO INSTALLATION

**SHRUB AND GROUNDCOVER DETAIL**



**EVERGREEN PLANTING DETAIL**

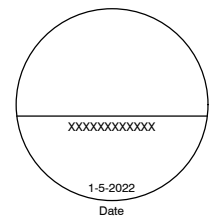
**Table 1. Potential Evergreen and Deciduous Species Utilized by the Proposed Project**

Type	Species	Scientific Name
Coniferous Trees and Shrubs	White Pine	<i>Pinus strobus</i>
	Virginia Pine	<i>Pinus virginiana</i>
	Red Cedar	<i>Juniperus virginiana</i>
	Common Juniper*	<i>Juniperus communis</i>
	Eastern Hemlock	<i>Tsunga canadensis</i>
Broadleaf Small Trees and Shrubs	Serviceberry	<i>Amelanchier spp.</i>
	Dogwood	<i>Cornus spp.</i>
	Winterberry	<i>Ilex spp.</i>
	Chokecherry	<i>Prunus virginiana</i>
	Ninebark	<i>Physocarpus opulifolius</i>
	Sumac	<i>Rhus spp.</i>
	Viburnum	<i>Viburnum spp.</i>
Redbud	<i>Cercis canadensis</i>	

\* an upright growing habitat cultivar



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SUBMITTAL	
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RESUBMITTAL	



**LANDSCAPE ILLUSTRATION**

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**C2.02**

**SEBREE SOLAR, LLC**

**CASE NO. 2021-00072**

**RESPONSE TO INFORMATION REQUEST**

**SITING BOARD STAFF'S POST-HEARING REQUEST FOR INFORMATION DATED**

**1/3/2022**

**REQUEST 2**

**RESPONSIBLE PARTY: Lina Jensen**

**Request 2.** Provide a copy of all leases for the leased properties in the Project, including the proposed solar facility and the proposed transmission line.

**Response 2.** Please find Confidential Attachment 2a for all executed Solar Lease Agreements for the proposed solar array. There is a group of parcels for which agreement has not yet been reached, connected with one landowner: 61-30, 61-31, 61-37, and 61-39. The Project is currently in active negotiations with this landowner and is also waiting on the closing of open probate documents to finalize these agreements. In parallel, we obtained consent from this landowner to include their parcels in the Application. This consent is included in Attachment 2b.

Please find Confidential Attachment 2c for all executed Option & Transmission Easement Agreements for the proposed transmission line. There are two parcels for which agreement has not yet been reached, connected with two landowners: 81-1.1 (Tyson Poultry) and 81-13 (KB Alloys). These agreements are both in active negotiations.

**Confidential Attachment 2a**

**Filed as a Separate Document**



copy

**DESIGNATION OF LANDOWNER CONSENT TO INCLUSION IN STATE AND COUNTY SEBREE SOLAR, LLC PERMIT APPLICATIONS**

The undersigned is the owner of property described below (the "**Property**") included in the following applications (the "**Applications**") to permit construction of the proposed Sebree Solar, LLC Project (the "**Project**"):

- Level 3 Solar Energy System Site Plan Application for Henderson County, Kentucky
- Application for Construction Certificate for the Kentucky State Board on Electric Generation and Transmission Siting.

By signing below, Owner confirms that as to the Property, Owner:

- Has authority to act on behalf of any additional owners of the Property to sign this Consent to Permit Application.
- Acknowledges that the Owner is negotiating in good faith with the Project towards an executed lease option or purchase option agreement.
- Consents to inclusion of the Property listed below in the Applications.

Signature Lavefa Daniel

Printed Name: Lavefa Daniel

Property Description, Henderson County PVA Parcel Numbers:

Henderson County, KY PVA Number # 61-31

---

**DESIGNATION OF LANDOWNER CONSENT TO INCLUSION IN STATE AND COUNTY SEBREE SOLAR, LLC PERMIT APPLICATIONS**

The undersigned is the owner of property described below (the "**Property**") included in the following applications (the "**Applications**") to permit construction of the proposed Sebree Solar, LLC Project (the "**Project**"):

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By signing below, Owner confirms that as to the Property, Owner:

- Has authority to act on behalf of any additional owners of the Property to sign this Consent to Permit Application.
- Acknowledges that the Owner is negotiating in good faith with the Project towards an executed lease option or purchase option agreement.
- Consents to inclusion of the Property listed below in the Applications.

Signature Laveta Daniel  
Printed Name: Laveta Daniel

Property Description, Henderson County PVA Parcel Numbers:

- Henderson County, KY PVA Number # 61-28
  - Henderson County, KY PVA Number # 61-30
  - Henderson County, KY PVA Number # 61-37
  - Henderson County, KY PVA Number # 61-39
  - Henderson County, KY PVA Number # 61-52
-

**Confidential Attachment 2c**

**Filed as a Separate Document**



**SEBREE SOLAR, LLC**

**CASE NO. 2021-00072**

**RESPONSE TO INFORMATION REQUEST**

**SITING BOARD STAFF'S POST-HEARING REQUEST FOR INFORMATION DATED**

**1/3/2022**

**REQUEST 3**

**RESPONSIBLE PARTY: Lina Jensen**

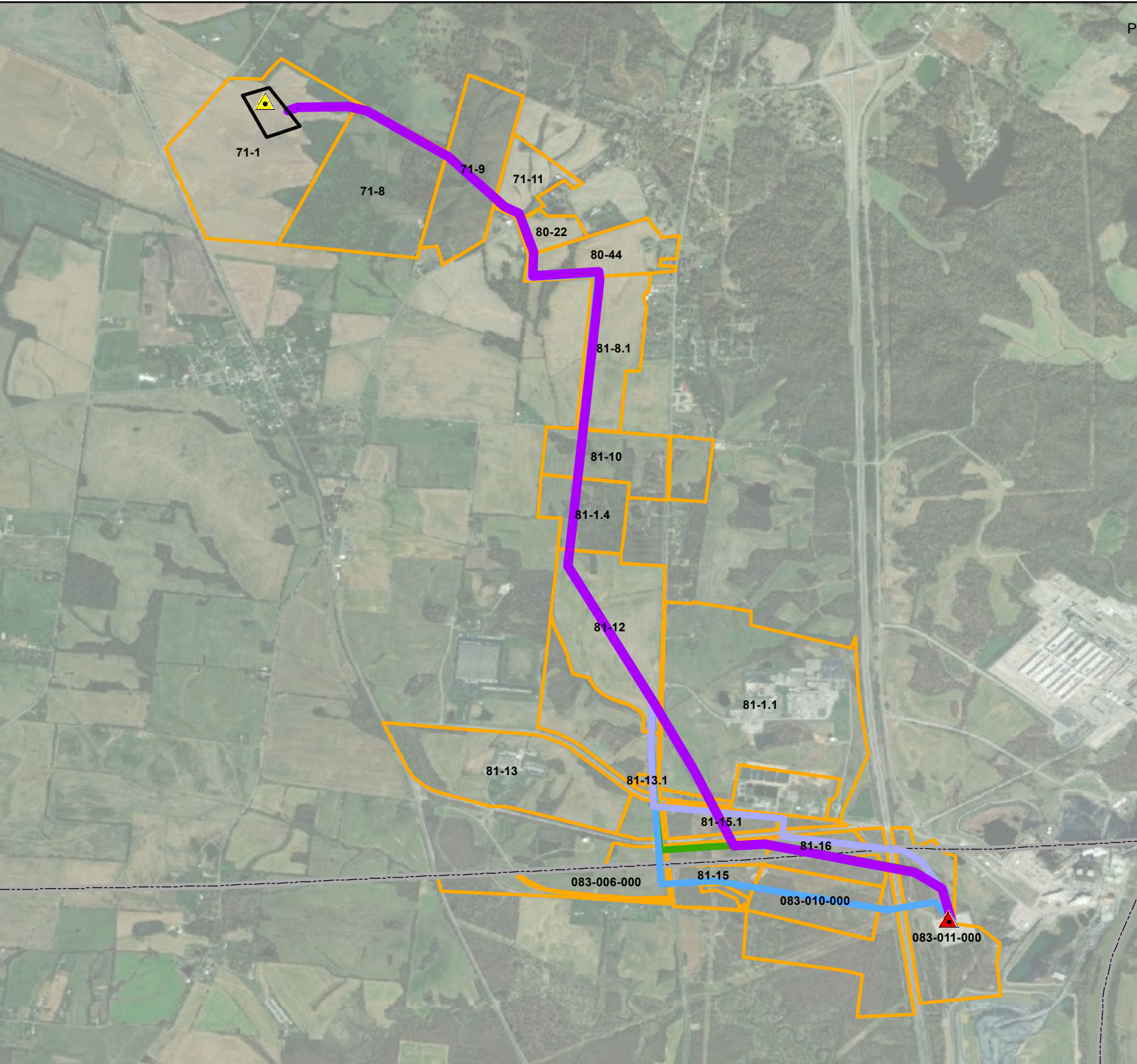
**Request 3.** Identify any alternate routes that are considered for the proposed transmission line, including a table identifying all parcels of land that may be utilized.

**Response 3.** Please see Attachment 3 for an exhibit of alternative transmission line routes and for the associated table containing parcel numbers.










**Attachment 3 – Transmission Line Alternative Routes**

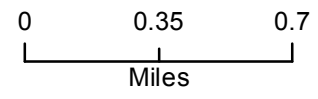
<b>Parcel</b>	<b>County</b>	<b>Landowner Name</b>
71-1	Henderson	LEO KING FARM LLC
71-8	Henderson	Hugh Walter Sellers
71-9	Henderson	Hester John, Melissa
71-11	Henderson	Hester John, Melissa
80-22	Henderson	SNEDDON LOUIS T IRREV TRUST
80-44	Henderson	SNEDDON LOUIS T IRREV TRUST
81-8.1	Henderson	WALKER NANCY CAROLE
81-10	Henderson	EAKINS MARION LEE III ESTATE
81-1.4	Henderson	EAKINS MARION LEE III ESTATE
81-12	Henderson	INDEPENDENCE BANK CUSTODIAN FOR W C WILSON III & STEVEN KURTIS WILSON
81-1.1	Henderson	TYSON CHICKEN, INC
81-13	Henderson	K B ALLOYS
81-13.1	Henderson	MALCOM JOHN K
81-15	Henderson	WEST KY REG IND DEV AUTH INC
81-15.1	Henderson	WEST KY REG IND DEV AUTH INC
81-14.1	Henderson	WEST KY REG IND DEV AUTH INC
81-16	Henderson	KENTUCKY FIVE STAR ENERGY LLC
083-006-000	Webster	WEST KENTUCKY INDUSTRIAL DEVELOPMENT AUTHORITY
083-011-000	Webster	KENTUCKY FIVE STAR ENERGY LLC
083-010-000	Webster	WEST KENTUCKY INDUSTRIAL DEVELOPMENT AUTHORITY
083-012-000	Webster	PUBLIC SERVICE BIG RIVERS ELECTRIC CORP

# Sebree Solar



## Legend

-  POI
-  Collection Sub
-  Transmission Parcels
-  County Line
- Transmission Options**
-  Option 1
-  Option 3
-  Option 2
-  Option 4
-  Project Substation



**SEBREE SOLAR, LLC**

**CASE NO. 2021-00072**

**RESPONSE TO INFORMATION REQUEST**

**SITING BOARD STAFF'S POST-HEARING REQUEST FOR INFORMATION DATED**

**1/3/2022 - REQUEST 4**

**RESPONSIBLE PARTY: Lina Jensen**

**Request 4.** Provide a table identifying the participating residences within 1,000 feet to the proposed solar panels. Include in the table for each residence the distance to the closest solar panel; the anticipated sound pressure level measured in dBA from pile driving activity at each residence; and the anticipated sound pressure level measured in dBA from operations of the facility at the residence.

**Response 4.** Please see the chart on the following page. While pile-driving is expected to take place on the Project over an approximate twelve (12) month period, the activity will be moving around the Project over that time. It is anticipated that the longest that pile-driving would take place within 1,000 feet of any particular noise sensitive receptor is one month. Once pile-driving is complete in an area, Green River does not anticipate a need to return to that area for further pile-driving.

The project has considered the use of sound blankets on fencing or another comparable method of noise suppression during pile driving. This will likely result in significant additional construction costs, including procurement and installation of sound barriers and negative impacts to crew productivity by forcing work to be undertaken in a non-sequential fashion. Moreover, the benefit of sound blankets is itself uncertain. As much as anything, terrain features, existing vegetation and ambient conditions will impact the extent to which a noise sensitive receptor perceives noise from the pile-driving activity.

**PARTICIPATING RESIDENCES WITHIN 1,000 FEET OF THE PROJECT**

Receptor ID	UTM Coordinates Zone 16, NAD 83 Datum Easting (m)	UTM Coordinates Zone 16, NAD 83 Datum Northing (m)	Distance to Nearest Boundary plus 10 ft [feet] <sup>1</sup>	Sound Pressure Level at Receptor from Pile Driving (dBA) <sup>1</sup>	Sound Pressure Level at Receptor from Pile Driving (dB) <sup>1</sup>	Distance to Nearest Sound Source [feet] <sup>2</sup>	Sound Pressure Level at Receptor from Inverter/Transformer (dBA) <sup>2</sup>	Sound Pressure Level at Receptor from Inverter/Transformer (dB) <sup>2</sup>
32	451039	4170098	136	86.2	93.0	389	50.7	81.8
63	450372	4169429	442	76.0	82.8	850	47.5	79.5
64	451383	4170100	425	76.3	83.1	798	45.8	77.9
105	451043	4170117	170	84.3	91.0	352	51.0	82.0
203	449425	4169668	234	81.5	88.3	579	49.6	81.0
208	448743	4169660	150	85.4	92.2	575	48.2	79.4
274	449065	4169701	164	84.6	91.4	355	49.9	80.5

<sup>1</sup> As part of the First Request for Information of the State Board on Electric Generation and Transmission Siting (Siting Board), Sebree Solar submitted a table containing the Sound Pressure Level dBA and dB at the participant receptor’s location, when pile driving occurs at the nearest distance during the construction for Response #14. To be conservative, the distance to the nearest Project fence line boundary (plus 10 feet due to a designed 10-foot setback off the fence line for the PV panels) was used for this calculation instead of specific panel locations. Using this distance instead of distances to the closest individual PV panel allows PV panel locations to shift within the allocated array areas without altering the sound pressure levels shown in this table, which represent the highest sound pressure levels that would be experienced for each participating residence.

<sup>2</sup> As part of the noise study report, dated August 6, 2021, that was submitted as Exhibit 4 in the Site Assessment Report (dated August 2021), Sebree Solar provided the operational sound pressure levels for all participating residences for the Project. These operational sound pressure levels were calculated to include the sound contribution from both the closest inverter and the substation transformer operating simultaneously for each receptor.

**SEBREE SOLAR, LLC**

**CASE NO. 2021-00072**

**RESPONSE TO INFORMATION REQUEST**

**SITING BOARD STAFF'S POST-HEARING REQUEST FOR INFORMATION DATED**

**1/3/2022**

**REQUEST 5**

**RESPONSIBLE PARTY: Lina Jensen**

**Request 5.** Provide a table identifying the five nearest participating residences to an inverter. Include in the table for each residence the distance to the closest inverter and the anticipated sound pressure level measured in dBA produced by operations of the facility at the residence.

**Response 5.** See chart in Response 4 – the highlighted rows in yellow are the five (5) closest participating residences to an inverter.

**SEBREE SOLAR, LLC**

**CASE NO. 2021-00072**

**RESPONSE TO INFORMATION REQUEST**

**SITING BOARD STAFF'S POST-HEARING REQUEST FOR INFORMATION DATED**

**1/3/2022**

**REQUEST 6**

**RESPONSIBLE PARTY: Lina Jensen**

**Request 6.** Provide a table identifying the five nearest participating residences to a proposed substation transformer. Include in the table for each residence the distance to the substation and transformer and the anticipated sound pressure level measured in dBA produced by operations of the facility at the residence.

**Response 6.** The seven participating residences for the Project are over 4,500 feet from the substation. Please see the chart on the following page for distances from the substation. See the last two columns in the Response 4 table for the sound pressure levels for the participating residences from the closest inverter and the substation transformer operating simultaneously.

**PARTICIPATING RESIDENCES DISTANCE FROM SUBSTATION TRANSFORMER**

<b>Receptor ID</b>	<b>UTM Coordinates Zone 16, NAD 83 Datum Easting (m)</b>	<b>UTM Coordinates Zone 16, NAD 83 Datum Northing (m)</b>	<b>Distance to Transformer [feet]<sup>1</sup></b>
32	451039	4170098	5,099
63	450372	4169429	8,099
64	451383	4170100	4,696
105	451043	4170117	5,036
203	449425	4169668	9,647
208	448743	4169660	11,499
274	449065	4169701	10,537



**SEBREE SOLAR, LLC**

**CASE NO. 2021-00072**

**RESPONSE TO INFORMATION REQUEST**

**SITING BOARD STAFF'S POST-HEARING REQUEST FOR INFORMATION DATED**

**1/3/2022**

**REQUEST 7**

**RESPONSIBLE PARTY: Lina Jensen**

**Request 7.** Provide updated tables in response to Siting Board Staff's Second Request for Information, Item 5, to include any previously omitted noise receptors.

**Response 7.** Please see Attachment 7 for the updated tables in response to the Siting Board Staff's Second Request for Information, Item 5.

NON-PARTICIPATING RESIDENCES WITHIN 1,000 FEET OF THE PROJECT AND DISTANCE TO CLOSEST SOLAR PANELS (USING OCTOBER 2021 SITE LAYOUT DATA)

Receptor ID	COORDINATES OF OCCUPIED STRUCTURE		PARCEL INFORMATION		Distance to Closest Solar Panel (feet) from edge of building	Sound Pressure Level from Pile Driving (dBA)	Sound Pressure Level from Pile Driving (dB)	Sound Pressure Level from Operations (dBA)	Sound Pressure Level from Operations (dB)
	Easting <sup>1</sup> of centroid of building	Northing <sup>1</sup> of centroid of building	Parcel Number	Property Address					
249	1117708.703980	2136160.754270	71-50	6585 283 HWY	134	86.3	93.1	50.4	81.9
132	1123705.994320	2145886.850830	70-30	5771 HWY 283	163	84.7	91.4	44.7	75.6
67	1114894.985380	2132739.983230	71-46.2	8701 STATE ROUTE 416 W	167	84.4	91.2	48.0	79.5
72	1118573.432990	2133926.272510	71A-14	1237 CLARK ST	172	84.2	90.9	48.4	79.7
248	1113382.967790	2133262.967700	71-46.3	8893 STATE ROUTE 416 W	195	83.1	89.9	48.1	79.8
85	1111146.941400	2134508.879260	60-46	7885 STATE ROUTE 1299	198	83.0	89.7	45.4	76.8
83	1123520.825660	2145527.536680	70-31	5793 HWY 283	200	82.9	89.6	44.2	75.0
154	1114064.769700	2132962.972090	71-47	8875 STATE ROUTE 416 W	217	82.2	88.9	48.7	80.2
207	1123359.573600	2145306.591330	70-32	5805 HWY 283	226	81.8	88.6	43.0	73.7
52	1111049.859560	2139505.520170	60-40.3	7251 HWY 1299 ROBARDS 42452	228	81.8	88.5	47.6	78.2
124	1120448.669000	2141872.800170	70-42	6025 HWY 283	248	81.0	87.8	45.8	77.5
172	1110767.874060	2141801.406320	60-37	7059 STATE ROUTE 1299	263	80.5	87.3	46.5	78.1
123	1110971.632100	2139159.469020	60-40	7263 1299 HEY	283	79.9	86.6	46.6	78.2
118	1124139.632590	2146002.026190	70-29	5741 283 HWY	287	79.7	86.5	43.3	74.6
111	1120483.527880	2141126.495240	70-42.3	6145 HWY 283	292	79.6	86.4	45.5	76.9
291	1112158.618950	2140478.499810	60-60.1	7168 1299 HWY	294	79.5	86.3	47.4	78.9
179	1112700.990320	2130836.632360	61-36	8317 SPENCER THORNSBERRY RD	302	79.3	86.1	45.5	77.0
43	1111737.828150	2136206.860600	60-45.1	7531 STATE ROUTE 1299	303	79.3	86.1	46.4	78.1
62	1109574.669520	2131790.755290	61-56	8340 WN ROYSTER RD	311	79.1	85.4	42.4	74.2
273	1124388.297760	2146307.072500	70-26	5701 HWY 283	325	78.7	85.8	42.7	74.3
257	1109804.745060	2137490.392930	60-41	7643 HUNTER LN	330	78.5	85.3	43.3	75.0
3	1113557.345560	2133182.287350	71-46.4	8881 STATE ROUTE 416 W	341	78.2	85.0	48.0	79.8
319	1120374.782380	2140758.231650	70-44	6165 HWY 283	357	77.9	84.6	45.1	76.4
2	1109759.861970	2137147.886400	60-42	7673 HUNTER LN	368	77.6	84.3	44.1	75.7
56	1124453.197310	2146391.103740	70-26	5701 HWY 283	375	77.4	84.2	41.8	73.5
243	1110853.415620	2139815.609170	60-40.2	7235 HWY 1299 ROBARDS 42452	409	76.7	83.4	44.6	75.9
298	1111224.562990	2140831.545060	60-60	7134 STATE ROUTE 1299	425	76.3	83.1	46.0	77.8
311	1111518.880060	2140489.833400	60-60	7140 STATE ROUTE 1299	450	75.8	82.6	46.3	78.0
102	1110799.621430	2139925.650260	60-40.1	7227 1299 HWY	456	75.7	82.5	44.1	75.5
191	1111165.023290	2140865.016100	60-60	7134 STATE ROUTE 1299	459	75.7	82.4	45.8	77.6
55	1124343.953680	2145934.448810	70-55	5732 HWY 283	469	75.5	82.3	42.1	73.9
320	1109997.149970	2131511.560890	61-55	8368 WN ROYSTER RD	469	75.5	82.2	44.1	76.1
34	1119399.460980	2140374.993200	70-46	6257 HWY 283	474	75.4	82.2	48.3	79.4
11	1119092.610120	2133850.574450	71A-12		479	75.3	82.1	43.7	75.6
97	1120686.486850	2141267.870520	70-43	6133 HWY 283	479	75.3	82.1	44.1	75.6
114	1124479.556140	2146096.592720	80-1.1	5720 283 HWY	484	75.2	82.0	41.7	73.6
318	1121729.297170	2143390.599860	70-37	2016 DICK SMITH RD	524	74.5	81.3	41.4	73.3
100	1124614.613420	2146274.651650	79-6.11	5712 HWY 283 Robards	539	74.3	81.0	41.1	73.1
219	1116934.356430	2130259.728580	71-44	7053 HWY 283 ROBARDS 42452	548	74.1	80.9	42.9	75.3
233	1124325.958990	2145827.857920	70-55	5732 HWY 283	559	74.0	80.7	41.8	73.7
146	1120210.079820	2139657.839230	70-47	6264 HWY 283	565	73.9	80.6	50.8	78.0
101	1117591.249400	2143009.541640	70-7	4892 ROBARDS-BUSBY STA. RD. 42452	623	73.0	79.8	43.3	75.8
27	1113105.654680	2129942.973930	61-38	8245 SPENCER-THORNSBERRY RD	630	72.9	79.7	43.1	75.0
127	1119098.532450	2133601.756740	71A-10	1115 3RD ST	631	72.9	79.7	43.2	75.0
180	1109402.744500	2133476.684360	61.29.1	8221 WN ROYSTER RD	634	72.9	79.6	41.9	73.7
304	1119366.120280	2134129.511830	71A-17	1003 SECOND ST	637	72.8	79.6	43.0	75.1
267	1122170.245370	2143692.642490	70-36	5959 HWY 283	654	72.6	79.4	40.1	72.0
84	1121556.659610	2142953.274420	70-40	6017 HWY 283	679	72.3	79.0	41.3	73.4
95	1110851.091320	2138613.074870	60-44.1		679	72.3	79.0	43.3	74.9
194	1119348.257860	2133911.358800	71A-15	1221 CLARK ST	681	72.2	79.0	43.0	75.1
285	1119301.137430	2133762.574210	71A-11	1230 CLARK ST	682	72.2	79.0	42.7	74.7
35	1118829.989120	2133340.193940	71A-1	8145 416 HWY W	683	72.2	79.0	44.6	76.5
187	1119229.264960	2133674.724590	71A-11	1230 CLARK ST	683	72.2	79.0	42.6	74.5
156	1111022.548420	2140504.262710	60-38	7155 HWY 1299	696	72.1	78.8	44.8	76.7
272	1119124.683430	2133527.766760	71A-8	1121 3RD ST # 42452	703	72.0	78.7	43.0	75.0
37	1120282.436270	2139802.525070	70-47	6256 HWY 283	704	72.0	78.7	49.4	77.6
287	1123247.384110	2147762.328140	70-24	2132 BUSBY STATION RD	713	71.8	78.6	39.8	72.1
204	1119409.666130	2133913.102330	71A-16	1019 2ND ST	740	71.5	78.3	42.7	74.9
307	1117813.754600	2130613.480740	71-40	7028 283 HWY	745	71.5	78.2	40.4	72.9
218	1119035.239910	2133450.615100	71A-8.1	1125 3RD ST ROBARDS 42452	754	71.4	78.1	43.9	75.9
29	1113052.119820	2128974.691650	61-41.1	8135 SPENCER THORNSBERRY RD	761	71.3	78.0	40.9	73.1

79	1119457.525700	2133956.500940	71A-16	1019 2ND ST	767	71.2	78.0	42.6	74.8
22	1119266.608400	2133565.667350	71A-7	1120 3RD ST	768	71.2	78.0	42.4	74.4
14	1118943.194150	2133303.537610	71A-1	8145 416 HWY W	778	71.1	77.8	43.9	75.9
76	1122470.921140	2144272.843870	70-34	5925 HWY 283	809	70.7	77.5	41.6	73.6
214	1119531.005000	2134173.302550	71A-18	1006 2ND ST	810	70.7	77.5	42.0	74.2
263	1119453.800980	2133838.422130	71A-21	1105 2ND ST	815	70.7	77.5	42.5	74.7
59	1119499.347160	2133849.660740	71A-21	1105 2ND ST	839	70.4	77.2	42.2	74.4
38	1120387.040340	2139997.296720	70-48	6248 HWY 283	843	70.4	77.2	48.2	77.6
53	1119272.161210	2133484.946210	71A-6	1130 3RD ST	854	70.3	77.0	42.3	74.3
107	1119571.523790	2134086.671220	71A-19	1010 2ND ST	864	70.2	76.9	42.3	74.6
6	1119517.619370	2133783.686750	71A-24	1111 2ND ST	874	70.1	76.8	41.9	74.0
175	1124966.908600	2146361.018400	80-1.3	5700 STATE ROUTE 283	878	70.0	76.8	36.2	68.1
10	1119039.305290	2133261.530330	71A-2	8139 HWY 416 W	888	69.9	76.7	43.4	75.5
201	1119589.764770	2133983.974790	71A-20	1020 SECOND ST	891	69.9	76.7	42.2	74.4
119	1119600.564550	2134054.608660	71A-19	1010 2ND ST	898	69.8	76.6	42.2	74.4
121	1119532.550000	2133731.402020	71A-25	1115 2ND ST	909	69.7	76.5	41.6	73.7
266	1119528.992030	2133502.762620	71A-31.1	1216 E. RAILROAD ST 42452	909	69.7	76.5	41.3	73.4
262	1119086.658940	2133271.264640	71A-3	8131 HWY 416 W ROBARDS 42452	923	69.6	76.4	43.1	75.2
45	1119615.707150	2133887.515250	71A-22	1104 2ND ST	935	69.5	76.3	41.6	73.7
164	1119150.842910	2133275.005090	71A-4	8125 HWY 416 W	939	69.4	76.2	42.5	74.6
69	1123136.286520	2148009.691580	70-24	2132 BUSBY STATION RD	960	69.3	76.0	39.1	71.7
303	1119657.596640	2133827.138150	71A-23	1110 2ND ST	975	69.1	75.9	40.9	72.9
226	1110080.822270	2133800.724180	60-47	9475 STATE ROUTE 416 W	976	69.1	75.9	44.1	76.2
299	1119674.151400	2133992.012160	71A-20	1020 SECOND ST	982	69.1	75.8	40.6	72.5
254	1119570.315360	2133630.636400	71A-27	1125 2ND ST	989	69.0	75.8	41.3	73.4
222	1120916.210800	2140387.650110	70-50	6208 HWY 283	995	68.9	75.7	45.8	76.5
228	1125068.575460	2146860.033660	79-6.19	5660 283 HWY	996	68.9	75.7	35.5	67.4

<sup>1</sup> Calculated using NAD\_1983\_StatePlane\_Kentucky\_South\_FIPS\_1602\_Feet

Note: Receptor locations and distance to solar panels were provided by ECT and not verified by DNV

Highlighted records indicate receptors erroneously omitted during the 2nd data response to KY58 in Table SA. Receptor IDs added for reference.

**FIVE CLOSEST NON-PARTICIPATING RESIDENCES TO INVERTERS (USING OCTOBER 2021 SITE LAYOUT DATA)**

Receptor ID	COORDINATES OF RESIDENCE		PARCEL INFORMATION		Distance to Closest Inverter (feet) from edge of building	Sound Pressure Level from Pile Driving (dBA) <sup>2</sup>	Sound Pressure Level from Pile Driving (dB) <sup>2</sup>	Sound Pressure Level from Operations (dBA)	Sound Pressure Level from Operations (dB)
	Easting <sup>1</sup> of centroid of building	Northing <sup>1</sup> of centroid of building	Parcel Number	Property Address					
52	1111049.85922	2139505.51965	60-40.3	7251 HWY 1299 ROBARDS 42452	360	81.8	88.5	47.6	78.2
72	1118573.46041	2133926.20598	71A-14	1237 CLARK ST	411	84.2	90.9	48.4	79.7
249	1117708.98352	2136161.84788	71-50	6585 283 HWY	420	86.3	93.1	50.4	81.8
154	1114064.76932	2132962.97173	71-47	8875 STATE ROUTE 416 W	441	82.2	88.9	48.7	80.2
63	1123520.84522	2145527.53073	70-31	5793 HWY 283	456	82.9	89.6	44.2	75.0

<sup>1</sup> Calculated using NAD\_1983\_StatePlane\_Kentucky\_South\_FIPS\_1602\_Feet

<sup>2</sup> Note: Distance used for pile driving calculations based on distance to nearest solar panel edge

No changes to Table 5B compared to the 2nd data response to KY5B - just added in Receptor ID information

**FIVE CLOSEST NON-PARTICIPATING RESIDENCES TO TRANSFORMER**

Receptor ID	COORDINATES OF RESIDENCE		PARCEL INFORMATION		Distance to Transformer (feet) from edge of building	Sound Pressure Level from Pile Driving (dBA) <sup>1</sup>	Sound Pressure Level from Pile Driving (dB) <sup>2</sup>	Sound Pressure Level from Operations (dBA)	Sound Pressure Level from Operations (dB)
	Easting <sup>1</sup> of centroid of building	Northing <sup>1</sup> of centroid of building	Parcel Number	Property Address					
146	1120210.59434	2139657.14543	70-47	6264 HWY 283	545	73.9	80.6	50.8	78.0
37	1120282.45443	2139802.48208	70-47	6256 HWY 283	695	72.0	78.7	49.4	77.6
38	1120387.03999	2139997.29419	70-48	6248 HWY 283	879	70.4	77.2	48.2	77.6
30	1120649.35659	2140161.32032	70-49	6216 HWY 283	1,096	68.8	75.6	47.0	77.0
222	1120916.39900	2140386.90308	70-50	6208 HWY 283	1,412	68.9	75.7	45.8	76.5

<sup>1</sup> Calculated using NAD\_1983\_StatePlane\_Kentucky\_South\_FIPS\_1602\_Feet

<sup>2</sup> Note: Distance used for pile driving calculations based on distance to nearest solar panel edge

No changes to Table 5C compared to the 2nd data response to KY58 - just added in Receptor ID information

**SEBREE SOLAR, LLC**

**CASE NO. 2021-00072**

**RESPONSE TO INFORMATION REQUEST**

**SITING BOARD STAFF'S POST-HEARING REQUEST FOR INFORMATION DATED**

**1/3/2022**

**REQUEST 8**

**RESPONSIBLE PARTY: Lina Jensen**

**Request 8.** Provide a table identifying the distances between participating and nonparticipating residences within 1,000 feet of all support structures for the proposed transmission line. Include in the table for each residence the distance to the closest support structure and the anticipated sound pressure level measured in dBA produced by operations of the support structure at the residence.

**Response 8.** A final proposed transmission line route has not been determined for the Project to date; therefore, the structure locations have not been finalized. The table below provides all participating and non-participating residences within 1,000 feet of the proposed route (Option 1) and three alternatives (Option 2, Option 3, and Option 4). The distance listed in the table is the distance (feet) between the closest edge of the structure and the nearest point on the transmission line since transmission routes have not been finalized.

## Siting Board Post-Hearing Request 8

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No sound or noise study has been conducted for the transmission line to date. The Project requested input from external consultant DNV, who conducted the noise study for the solar array, to provide input on sound pressure levels for transformers or other equipment associated with transmission lines. In response, DNV indicated that this type of sound/noise study is not normally conducted due to the negligible sound produced by transmission line equipment.

A study conducted for a 500-kV transmission line project in Minnesota indicated that within the right-of-way (ROW) of the transmission line the sound pressure level was 51 dBA. The sound pressure levels decreased to 48 dBA and 43 dBA, at 48 feet from edge of ROW and 300 feet from centerline, respectively ([Appendix H Noise Supplement \[mn.gov\]](#)). The proposed transmission line for this Project is planned to be a 161 kV line, which is significantly less than the 500 kV line proposed in the Minnesota study.

Twenty-one (21) occupied receptors are mapped within 1,000 feet of the transmission line options proposed for this Project. This includes two participating residences and nineteen (19) non-participating residences. The closest receptor is approximately 150 feet from three of the proposed routes (Option 1, Option 2, and Option 3). The closest receptor to the fourth alternative route (Option 4) is approximately 290 feet from the line. These two receptors that are the closest to the transmission line routes are located on participating parcels. The closest non-participating receptor to Option 1, Option 2, and Option 3 is approximately 566 feet from the centerlines and the closest non-participating receptor to Option 4 route is approximately 724 feet from the centerline. It appears that based on these distances the estimated dBA from reviewing publicly available data would be approximately 43-48 dBA, which is equivalent to the ambient noise level in an urban residence.

See the table below for the twenty-one (21) receptors within 1,000 feet of the transmission line route options for the Project. Note, again, the distances are conservatively showing the distance from the edge of the residence closest to the transmission line route to the centerline. This conservative approach was taken in lieu of not having exact transmission route at this time.



## Siting Board Post-Hearing Request 8

### RESIDENCES WITHIN 1,000 FEET OF THE TRANSMISSION LINE ROUTES

Receptor ID	COORDINATES OF RESIDENCE		PARCEL INFORMATION		Distance to Transmission Line Route	Route	Participating Parcel?
	Easting <sup>1</sup> of centroid of building	Northing <sup>1</sup> of centroid of building	Parcel Number	Property Address			
16	1126374.32945	2124983.11106	81-13.1	14873 US HIGHWAY 41 S	145	Option 2	Yes
16	1126374.32945	2124983.11106	81-13.1	14873 US HIGHWAY 41 S	159	Option 1,3	Yes
16	1126374.32945	2124983.11106	81-13.1	14873 US HIGHWAY 41 S	823	Option 4	Yes
2	1124938.31571	2136642.40421	80-22	7120 HWY 416 W	293	All	Yes
15	1127271.02550	2127958.71622	81-1.1	14660 US HIGHWAY 41 S	566	Option 1,2,3	No
14	1127219.81619	2129123.73924	81-19	14600 US HIGHWAY 41 S	461	Option 1,2,3	No
3	1125319.44220	2136946.86200	80-23	7059 STATE ROUTE 416 W	724	All	No
5	1125332.87433	2137229.16616	71-12	7048 STATE ROUTE 416 W	873	All	No
4	1125110.96765	2137134.01386	71-12	7048 STATE ROUTE 416 W	624	All	No
8	1126574.69330	2130244.99318	81-11.6	14501 US HIGHWAY 41 S	849	Option 1,2,3	No
10	1127026.98655	2130071.51580	81-11.4	14526 US HIGHWAY 41 S	760	Option 1,2,3	No
13	1127002.40712	2129465.80168	81-11.11	14550 US HIGHWAY 41 S	274	Option 1,2,3	No
12	1127048.73768	2129679.00182	81-11	14542 US HIGHWAY 41 S	444	Option 1,2,3	No
9	1127069.93199	2130254.07774	81-11.3	14518 US HIGHWAY 41 S	967	Option 1,2,3	No
11	1127063.89224	2129879.13854	81-11.5	14534 US HIGHWAY 41 S	610	Option 1,2,3	No
6	1126731.10040	2134810.62922	81A-56	14133 US HIGHWAY 41 S	921	All	No
1	1120212.09681	2139654.53170	70-47	6264 HWY 283	936	All	No
7	1124700.10552	2132433.24531	81-9	3329 ROCKHOUSE RD	796	All	No
18	1126020.36413	2122321.35426	083-008-003	153 MCDONALD RD	667	Option 3	No
17	1125861.67175	2122242.68185	083-008-004	181 MCDONALD RD	858	Option 3	No
20	1126396.40406	2122327.36996	083-007-000	77 MCDONALD RD	353	Option 3	No
21	1127183.41948	2122216.29454	083-008-002	2622 US HWY 41 N	404	Option 3	No
19	1126263.67110	2122324.06899	083-008-001	105 MCDONALD RD	460	Option 3	No

<sup>1</sup> Calculated using NAD\_1983\_StatePlane\_Kentucky\_South\_FIPS\_1602\_Feet

**SEBREE SOLAR, LLC**

**CASE NO. 2021-00072**

**RESPONSE TO INFORMATION REQUEST**

**SITING BOARD STAFF'S POST-HEARING REQUEST FOR INFORMATION DATED**

**1/3/2022**

**REQUEST 9**

**RESPONSIBLE PARTY: Brian Bartels**

**Request 9.** Provide a copy of Sebree Solar's Information for Planning and Consultation  
- US Fish and Wildlife report.

**Response 9.** Please see Attachment 9, Sebree Solar's Threatened and Endangered  
Species Assessment, which includes a copy of Sebree Solar's Information for Planning and  
Consultation – U.S. Fish and Wildlife report.

3720 Wilder Road, Unit B, Bay City, Michigan 48706

# Threatened and Endangered Species Assessment

## SEBREE SOLAR PROJECT HENDERSON COUNTY, KENTUCKY



Prepared for:

**NextEra Energy Resources, LLC**  
700 Universe Blvd  
Juno Beach, FL 33408

**April 24, 2020**

ECT No. 200196

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## APPENDICES

### Appendix A – Background Maps

1. Site Location Map
2. National Land Cover Database Map
3. Water Resources Map
4. Protected and Public Lands Map

### Appendix B – USFWS IPaC Results

### Appendix C – County Distribution Maps of State and Federally Listed Bat Species



## 1.0 INTRODUCTION

NextEra Energy Resources, LLC (NEER) contracted Environmental Consulting & Technology, Inc. (ECT) to conduct a threatened and endangered (T&E) species assessment for the proposed Sebree Solar Project located in Henderson County, Kentucky (the Project). The Project is currently planned as a 250-megawatt (MW) solar energy generating facility. The Project boundary encompasses approximately 5,734 acres and is primarily composed of agricultural land with scattered small woodlots and treed fence rows (the Site; refer to **Appendix A: Figure 1. Site Location Map**).

The site is approximately 4 miles northwest of town of Sebree and 8 miles southeast of the city of Henderson. Aerial imagery analyses determined that the site is mostly unchanged in the previous 20 years.

## 2.0 STUDY METHODS

The objective of this T&E Species Assessment is to comprehensively and systematically assess the site within a landscape context to determine whether the proposed Project poses significant risk to species of concern and/or their habitats. Because the Project area boundary is ecologically arbitrary, this desktop review evaluates the Project area as well as a 2-mile buffer around the Project's boundary.

### 2.1 Desktop Review

Publicly available information and geospatial data from multiple sources including federal, state, and county agencies as well as non-governmental organizations were utilized for preparation of this report. Datasets and resources reviewed include, but are not limited to, the following:

- 2016 National Land Use Land Cover Database;
- U.S. Geological Survey (USGS) Topographic Maps;
- USGS Protected Areas Database of the United States (PAD-US);
- U.S. Fish and Wildlife Services (USFWS) Critical Habitat Viewer;
- USFWS Information for Planning and Consultation (IPaC) Tool;
- Kentucky Nature Preserve (KNP) Kentucky Biological Tool (KyBAT);
- NatureServe;
- KNP rare plant database; and
- Kentucky Department of Fish and Wildlife Resources.

Selected datasets were used to display critical environmental and ecological features. The datasets were then processed, projected, and clipped to the Project area and a 1-mile buffer for acreage calculations, percentages, and to visually display critical features.

## 2.2 Agency Coordination

Pending Agency Consultation.

## 2.3 Field Assessment

Pending Field Review.

# 3.0 SITE CHARACTERISTICS

## 3.1 Land Use and Land Cover

The 2016 National Land indicates that land cover within the Project consists primarily of cultivated crops (71.23%) as well as pasture and hay fields (6.88%). The remaining land cover consists of deciduous, evergreen, and mixed forest (16.51%), woody and emergent wetlands (0.19%), open water (0.22%), developed open space (4.21%) and low to high intensity developed land (10.6%), barren, herbaceous and scrub shrub account for the remaining 0.06% (Homer et al. 2015; refer to **Appendix A: Figure 2. National Land Cover Database Map**).

## 3.2 Wetlands and Watercourses

A review of mapped USFWS National Wetland Inventory (NWI) provides a general overview of the wetland community types within the Project and 2-mile buffer (**Appendix A: Figure 3. Water Resources Map**). Wetland community types within the Project and 2-mile buffer are generally consistent with the dominant wetland types associated with riverine systems. According to NWI, there are 416 acres of freshwater forested/shrub wetlands and 349 acres of freshwater ponds within the Project and 2-mile buffer (Table 1). Wetlands within the Project and 2-mile buffer are primarily located along forested riparian corridors. Mapped freshwater ponds are generally distributed evenly throughout the Project and 2-mile buffer. Emergent wetlands comprise a relatively small amount of the Project and 2-mile buffer and are typically associated with agricultural areas.

Several large named streams are found throughout the Project and 2-mile buffer (**Appendix A: Figure 3. Water Resources Map**). Groves Creek flows northeast to southwest across the southern portion of the Project area. Canoe Creek flows south to north through the central portion



of the Project area. Lastly, Grane Creek flows northwest to southeast across the southeastern portion of the Project area. Named streams within the 2-mile buffer include West Fork Canoe Creek, Groves Creek, Canoe Creek, East Fork Canoe Creek, Grane Creek and Sputzman Creek.

### 3.3 Public Lands and Conservation Easements

The KyBAT database indicated that the Project and 2-mile buffer do not contain any wild rivers, state natural areas, state nature preserves, heritage land conservation funds areas, or USFWS critical habitats (refer to **Appendix A: Figure 4. Protected and Public Lands Map**).

### 3.4 Sensitive Habitats

The USFWS Critical Habitat portal provides information regarding T&E Species Critical Habitat designation. Critical habitat is a specific geographic area that contains features essential for the conservation of a T&E species, and that may require special management and protection. Critical habitat may include an area that is not currently occupied by the species but is critical to its recovery.

Based on currently available information from the USFWS's IPaC tool and Critical Habitat portal, there are no USFWS-designated critical habitats within the Project or 2-mile buffer (USFWS, 2020).

## 4.0 REGULATORY AND PERMIT REQUIREMENTS

### 4.1 Federal

Federally listed T&E species are protected under federal law by the Endangered Species Act (ESA) of 1973 (16 U.S.C §1531-1544). The act provides protections to T&E species as well as some of their habitat. Listed wildlife species are protected from take and/or harm. If avoidance measures and/or best management practices (BMPs) cannot be utilized, a take permit may be required from USFWS. "Take" is defined by the ESA as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect." There are some exceptions for species listed as threatened and periods of inactivity (outside of nesting and breeding season) where certain activities can take place (example, tree clearing in winter). Consultation with USFWS will guide specific BMPs or avoidance strategies applicable to the T&E species at the Site.





## 4.2 State

State-listed T&E species in Kentucky are protected by the Endangered Species Protection Act of 1972. Federal laws and policies have placed the chief jurisdiction for wildlife conservation programs with the states. Chapter 150 of Kentucky Revised Statutes (KRS) establishes the Kentucky Department of Fish and Wildlife Resources (KDFWR) as the State agency responsible for the conservation of the State's wildlife resources. In an effort to provide additional conservation to state species KDFWR worked in partnership with organizations and the public to develop the Kentucky Comprehensive Wildlife Conservation Strategy (CWCS). The CWCS is an attempt to identify and conserve Kentucky's Species of Greatest Conservation Need (SGCN) and to comply with the requirements of the congressionally authorized State and Tribal Wildlife Grants (STWG) Program for non-game conservation funding. Species within the CWCS are organized by a State Rank. The state rank was developed by Kentucky State Nature Preserve commission (KNSPC) to indicate the status of a species or community. A list of state ranked species within Henderson County is provided in **Table 1**.

## 5.0 THREATENED AND ENDANGERED SPECIES ASSESSMENT

This section provides detailed background information of State and Federally listed T&E species that have potential to occur within the Project and 2-mile buffer, whether suitable habitat is present within/near the Project and if there are known occurrence records. The USFWS IPaC Tool, the Kentucky Nature Preserve (KNP) Kentucky Biological Tool (KyBAT) database, NatureServe's rare species by county viewer, KNP rare plant database, and the Kentucky Department of Fish and Wildlife Resources (KDFWR) were used to compile a list of T&E species that may occur within the Site.

### 5.1 Federally Listed Species

The IPaC provides information regarding federally listed T&E species, designated critical habitat and migrating birds protected under the Migratory Bird Treaty Act of 1918 and the Bald and Golden Eagle Protection Act of 1940. For this report, the approximate Project boundary and a 2-mile buffer were reviewed (**Appendix A: Figure 1. Site Location Map**).

The IPaC resource list, indicates that the Project and 2-mile buffer is within the range (i.e., contains documented records and/or has the potential to harbor critical habitat) of sixteen (16) federally listed T&E species. IPaC results are provided in **Appendix B**.





The IPaC listed resources included:

- Indiana Bat (*Myotis Sodalis*);
- Gray Bat (*Myotis grisescens*);
- Northern Long-eared Bat (*Myotis septentrionalis*);
- Least Tern (*Sterna antillarum*);
- Clubshell (*Pleurobema Clava*);
- Fanshell (*Cyprogenia stegaria*);
- Fat Pocketbook (*Potamilus capax*);
- Northern Riffleshell (*Epioblasma torulosa rangiana*);
- Orangefoot Pimpleback (*Plethobasus cooperianus*);
- Pink Mucket (*Lampsilis abrupta*);
- Purple Cat's Paw (*Epioblasma obliquata obliquata*);
- Rabbitsfoot (*Quadrula cylindrica cylindrica*);
- Ring Pink (*Obovaria retusa*);
- Rough Pigtoe (*Pleurobema plenum*);
- Sheepnose Mussel (*Plethobasus cyphus*); and
- Spectaclecase (*Cumberlandia monodonta*).

No critical habitat for the federal T&E species is designated within the Site.

### **Indiana Bat (*Myotis septentrionalis*)**

The Indiana bat is federally listed as endangered. Summer habitat for the Indiana bat includes a variety of forested/wooded habitats such as riparian zones, bottomland and floodplain habitats, and upland communities. Suitable foraging habitat includes adjacent and interspersed non-forested habitats, such as emergent wetlands, edges of agricultural fields, wooded fencerows, and old fields or open pastures with isolated trees that provide roosting habitat (USFWS, 2020a). Indiana bats eat terrestrial and aquatic insects while foraging in forested stream corridors, upland and bottomland forests, forested wetlands, and along wooded edges of agricultural fields, pastures, and impounded bodies of water at night (USFWS, 2020a). Suitable roost includes live trees and/or snags  $\geq 5$ " diameter at breast height (dbh) that have exfoliating bark, cracks, crevices, and/or hollows, as well as linear features such as fencerows, riparian forests, and other wooded corridors. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet of forested/wooded habitat (USFWS, 2020a). The Indiana bat hibernates colonially during winter in caves and

abandoned mines. (USFWS, 2020a).

This species uses a wide variety of structures and tree species for its roost, including manmade structures. The Project contains forested areas adjacent to wetlands and agricultural fields. Portions of the Project are forested and may provide summer roosting habitat for the Indiana bat provided the suitable tree species and sizes are present. The surrounding 2-mile buffer also contains patches of forested habitat, water sources, hedgerows and many of these areas are adjacent to wetlands and fields.

The Project is not located within the karst terrain of Kentucky (UKGS, 2020). According to Kentucky Emergency Management (KYEM) assessment of Karst and sinkhole hazards, there is a low potential for sinkholes to occur within Henderson County (KYEM, 2018). According to KDFWR there are no major hibernaculum records in Henderson County for the Indiana bat (KDFWR, 2017). There are state records of maternity/reproductive for Indiana bat in Henderson County (KDFWR, 2017; **Appendix C: Indiana Bat County Distribution Map**).

The Project and 2-mile buffer may contain suitable summer habitat for Indiana bats. However, no direct impacts to suitable foraging or roosting habitats are anticipated and therefore the Project is unlikely to affect the Indiana bat.

### **Gray Bat (*Myotis grisescens*)**

The gray bat is federally listed as endangered. Gray bats live in caves year-round. During winter, gray bats hibernate in deep, vertical caves. In summer, they roost and form maternity colonies in caves which are scattered along streams, rivers and reservoirs (USFWS, 2019). The Project is not located within the karst terrain of Kentucky (UKGS, 2020). According to Kentucky Emergency Management (KYEM) assessment of Karst and sinkhole hazards there is a low potential for sinkholes to occur within Henderson County (KYEM, 2018). According to KDFWR there are no major hibernaculum, maternity/reproductive, or individual species records for the gray bat in Henderson County (KDFWR, 2017; **Appendix C: Gray Bat County Distribution Map**).

The Project and 2-mile buffer have a low potential for sinkholes that could provide possible suitable habitat for the Gray bat. However, there are no state records of major hibernaculum, maternity/reproductive, or individual species records for the Gray within Henderson County; therefore, the Project is unlikely to affect the Gray bat.

### **Northern Long-eared Bat (*Myotis septentrionalis*)**

The northern long-eared bat (NLEB) is federally listed as a threatened species. It is a migratory species that forages and travels within forested habitat, including upland forest, lowland forest, forested linear elements such as tree lined hedgerows and stream corridors, and occasionally adjacent and interspersed emergent wetlands, old fields, and agricultural fields (USFWS, 2015). The NLEB typically roosts in forested habitats underneath loose bark and/or in cavities of a wide variety of tree species with a dbh of  $\geq 3$  inches, in both living and dead trees (USFWS, 2020). The NLEB uses a wide variety of structures and tree species for its roost, including manmade structures. The NLEB hibernates colonially during winter in caves and abandoned mines with constant temperatures, high humidity, and no air currents. (USFWS, 2020),

Section 4(d) of Endangered Species Act allows USFWS to define protections for species listed as threatened. Unpermitted take of the NLEB is often exempt per the 4(d) Rule. “Take” is defined by the ESA as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect.” For the NLEB, incidental take is prohibited if it occurs within a hibernaculum, within 0.25 miles of a known hibernaculum, or if a maternity roost tree or other tree within a 150-foot radius of a maternity roost tree is cut or destroyed during the pup season (June 1 through July 31). Outside of these prohibited activities, incidental take of the NLEB is not prohibited. The NLEB is present year-round in Kentucky. The Project contains forested areas adjacent to agricultural fields. The surrounding 2-mile buffer also contains patches of forested habitat, water sources, hedgerows and many of these areas are adjacent to wetlands and fields. Portions of the Project are forested and may provide summer roosting habitat for the NLEB depending on the tree dbh and tree species.

The Project is not located within the karst terrain of Kentucky (UKGS, 2020). According to Kentucky Emergency Management (KYEM) assessment of Karst and sink hole hazards there is a low potential for sinkholes to occur within Henderson County (KYEM, 2018). According to KDFWR there are no major hibernaculum or maternity/reproductive records for NLEB in Henderson County (KDFWR, 2017, **Appendix C: Northern Long-Eared Bat County Distribution Map**). There are state records of individual species for NLEB in Henderson County (KDFWR, 2017).

The Project and 2-mile buffer may contain suitable summer habitat for NLEB. However, no direct impacts to suitable foraging or roosting habitats are anticipated and therefore the Project is unlikely to affect NLEB.



### **Least Tern (*Sterna antillarum*)**

The least tern is listed by USFWS as an endangered species. The least tern is a migratory bird species that commonly nest along freshwater habitats of the Missouri and Mississippi rivers and their major tributaries. Although they are primarily found along river channels, they also nest on reservoirs, as well as sand and gravel mines, coal mines, and industrial sites where conditions are appropriate. Least terns primarily feed on small fish (USFWS, 2019).

The Project and 2-mile buffer are unlikely to provide suitable habitat for the least tern.

### **Clubshell (*Pleurobema Clava*)**

The clubshell mussel is listed by USFWS as an endangered species. The clubshell is found in small to medium streams with gravel/sand substrate and relatively little silt (USFWS, 2019). Portions of the Project and 2-mile buffer contain Canoe Creek. Clubshell mussel could potentially occur in Canoe Creek, East Fork Canoe Creek, West Fork Canoe Creek and its tributaries. The 2-mile buffer around the Project contains Grane Creek, Groves Creek, and an unnamed tributary of Groves Creek that drain southeast into the Green River. According to IPaC results, the species only requires consideration if significant, direct or indirect impacts to the Green River occur.

The Project contains small and medium streams with possible suitable habitat for the clubshell mussel. However, no direct impacts to these streams are anticipated and therefore the Project is unlikely to affect the clubshell mussel.

### **Fanshell (*Cyprogenia stegaria*)**

The fanshell mussel is listed by USFWS as an endangered species. The fanshell inhabits medium to large rivers (USFWS, 2019). The 2-mile buffer around the Project contains Grane Creek, Groves Creek, and an unnamed tributary of Groves Creek that drain southeast into the Green River. According to IPaC results, the species only require consideration if significant, direct or indirect impacts to the Green River occur.

The Project is unlikely to affect the fanshell due to lack of suitable habitat.

### **Fat Pocketbook (*Potamilus capax*)**

The fat pocketbook mussel is listed by USFWS as an endangered species. The fat pocketbook is found in large rivers with muddy or fine gravel bottoms (USFWS, 2019). The 2-mile buffer around the Project contain Grane Creek, Groves Creek, and an unnamed tributary of Groves Creek



that drain into the Green River. According to IPaC results, the species only require consideration if significant, direct or indirect impacts to the Green River occur.

The Project is unlikely to affect the fat pocketbook due to lack of suitable habitat.

### **Northern Riffleshell (*Epioblasma torulosa rangiana*)**

The northern riffleshell mussel is listed by USFWS as an endangered species. The northern riffleshell mussel utilizes a variety of streams (USFWS, 2019). It buries itself in bottoms of firmly packed sand or gravel within swift currents and riffle runs. Portions of the Project and 2-mile buffer contain Canoe Creek, East Fork Canoe Creek, West Fork Canoe Creek and its tributaries may provide habitat for the northern riffleshell. The 2-mile buffer contains Grane Creek, Groves Creek, and an unnamed tributary of Groves Creek that drain southeast into the Green River. According to IPaC results, the species only require consideration if significant, direct or indirect impacts to the Green River occur.

The Project contains a variety of streams with possible suitable habitat for the clubshell mussel. However, no direct impacts to these streams are anticipated and therefore the Project is unlikely to affect the northern riffleshell mussel.

### **Orangefoot Pimpleback (*Plethobasus cooperianus*)**

The orangefoot pimpleback mussel is listed by USFWS as an endangered species. The orangefoot pimpleback is found in medium to large rivers (USFWS, 2019). The 2-mile buffer contains Grane Creek, Groves Creek, and an unnamed tributary of Groves Creek that drain southeast into the Green River. According to IPaC results, the species only require consideration if significant, direct or indirect impacts to the Green River occur.

The Project is unlikely to affect the orangefoot pimpleback due to lack of suitable habitat.

### **Pink Mucket (*Lampsilis abrupta*)**

The pink mucket mussel is listed by USFWS as an endangered species. The pink mucket is found in shallow riffles of large rivers and tributaries. The 2-mile buffer contains Grane Creek, Groves Creek, and an unnamed tributary of Groves Creek that drain southeast into the Green River. According to IPaC results, the species only require consideration if significant, direct or indirect impacts to the Green River occur.

The Project is unlikely to affect the pink mucket due to lack of suitable habitat.



### **Purple Cat's Paw (*Epioblasma obliquata obliquata*)**

The purple cat's paw mussel is listed by USFWS as an endangered species. The purple cat's paw is found in large rivers with sandy gravel bottoms (USFWS, 2019). The 2-mile buffer contains Grane Creek, Groves Creek, and an unnamed tributary of Groves Creek that drain southeast into the Green River. According to IPaC results, the species only require consideration if significant, direct or indirect impacts to the Green River occur.

The Project is unlikely to affect the purple cat's paw due to lack of suitable habitat.

### **Rabbitsfoot (*Quadrula cylindrica cylindrica*)**

The rabbitsfoot mussel is listed by USFWS as a threatened species. The rabbitsfoot is found in small to medium rivers (USFWS, 2019). The 2-mile buffer contains Grane Creek, Groves Creek, and an unnamed tributary of Groves Creek that drain into the Green River. According to IPaC results, the species only require consideration if significant, direct or indirect impacts to the Green River occur.

The Project is unlikely to affect the rabbitsfoot due to lack of suitable habitat.

### **Ring Pink (*Obovaria retusa*)**

The ring pink mussel is listed by USFWS as an endangered species. The ring pink is found in the large rivers with sandy and gravel bottoms (USFWS, 2019). The 2-mile buffer contains Grane Creek, Groves Creek, and an unnamed tributary of Groves Creek that drain into the Green River. According to IPaC results, the species only require consideration if significant, direct or indirect impacts to the Green River occur.

The Project is unlikely to affect the ring pink due to lack of suitable habitat.

### **Rough Pigtoe (*Pleurobema plenum*)**

The rough pigtoe mussel is listed by USFWS as an endangered species. The rough pigtoe is found in large rivers with sandy and gravel bottoms (USFWS, 2019). The 2-mile buffer contains Grane Creek, Groves Creek, and an unnamed tributary of Groves Creek that drain into the Green River. According to IPaC results, the species only require consideration if significant, direct or indirect impacts to the Green River occur.



The Project is unlikely to affect the orangefoot pimpleback due to lack of suitable habitat.

### **Sheepnose Mussel (*Plethobasus cyphus*)**

The sheepnose mussel is listed by USFWS as an endangered species. The sheepnose mussel is found in large rivers, although it also inhabits medium-sized rivers, with currents and mud, sand, or gravel bottoms (USFWS, 2019). The 2-mile buffer contains Grane Creek, Groves Creek, and an unnamed tributary of Groves Creek that drain southeast into the Green River. According to IPaC results, the species only require consideration if significant, direct or indirect impacts to the Green River occur.

The Project is unlikely to affect the rough pigtoe due to lack of suitable habitat.

### **Spectaclecase (*Cumberlandia monodonta*)**

The spectaclecase mussel is listed by USFWS as an endangered species. The spectaclecase mussel is found in large rivers, although it also inhabits medium-sized rivers, with currents and mud, sand, or gravel bottoms (USFWS, 2019). The 2-mile buffer contains Grane Creek, Groves Creek, and an unnamed tributary of Groves Creek that drain into the Green River. According to IPaC results, the species only require consideration if significant, direct or indirect impacts to the Green River occur.

The Project is unlikely to affect the spectaclecase due to lack of suitable habitat.

## **5.2 State Listed Species**

The Office of Kentucky Nature Preserves (KNP) works in partnership with NatureServe, the international natural heritage network that monitors biodiversity of plants, animals, ecological communities, and other natural features. NatureServe is a comprehensive source of existing data on Kentucky's endangered, threatened, or otherwise significant plant and animal species, natural plant communities, and other natural features (KNP, 2020). Records in the database indicate that a qualified observer has documented the presence of T&E species or special natural feature. Records within a query area do not guarantee the presence of T&E species at a site. Likewise, the absence of records in the database for a specific location does not preclude the potential presence of T&E species at a specific site.





According to the KDFWR, NatureServe, the CWCS, and KNP rare plant data base, the Project is within the range of 12 state listed T&E species. The rose turtlehead and blue scorpion-weed are species of special concern. A list of state threatened and endangered species from NatureServe and KNP rare plant database for Henderson County is provided in **Table 1**.

**Table 1. State Listed Threatened and Endangered Species**

Common Name	Scientific Name	Federal Status †	State Status †	State Rank+
<b>Gray Bat</b>	<i>Myotis grisescens</i>	LE	T	S2
<b>Indiana Bat</b>	<i>Myotis sodalis</i>	LE	E	S1/S2
<b>Northern Long-eared Bat</b>	<i>Myotis septentrionalis</i>	LT	E	S3
<b>Tri-colored Bat</b>	<i>Perimyotis subflavus</i>	-	-	S4/S5
<b>Sheepnose Mussel</b>	<i>Plethobasus cyphus</i>	LE	E	S1
<b>Pyramid Pigtoe Mussel</b>	<i>Pleurobema rubrum</i>	-	-	S1
<b>Fat Pocketbook Mussel</b>	<i>Potamilus capax</i>	LE	E	S1
<b>Rabbitsfoot Mussel</b>	<i>Theliderma cylindrica</i>	LT	T	S2
<b>River Bulrush</b>	<i>Bolboschoenus fluviatilis</i>	-	E	S1
<b>Rose Turtlehead</b>	<i>Chelone obliqua var. speciosa</i>	-	S	S1
<b>Burhead</b>	<i>Echinodorus berteroi</i>	-	T	S2
<b>Floating Pennywort</b>	<i>Hydrocotyle ranunculoides</i>	-	E	S1/S2
<b>Small-flower Baby-blue-eyes</b>	<i>Nemophila aphylla</i>	-	T	S2
<b>Blue Scorpion-weed</b>	<i>Phacelia ranunculacea</i>	-	S	S3
<b>Tennessee Leafcup</b>	<i>Polymnia laevigata</i>	-	E	S1/S2
<b>Pickerelweed</b>	<i>Pontederia cordata</i>	-	T	S1/S2
<b>Large Bur-reed</b>	<i>Sparganium eurycarpum</i>	-	E	S1

† Status Key: LT=federally threatened; LE=federally endangered; E=state endangered T=state threatened. (USFWS 2019b)

+State Rank Key: S1 (critically imperiled); S2 (imperiled); S3 Vulnerable; S4 Apparently Secure; S5 Secure

### Tri-colored Bat

The Tri-colored bat is listed by NatureServe as a SGCN. SGNC are species already listed as threatened or endangered or at risk due to habitat loss and declining populations. The tri-colored bat is state ranked as S4/S5 apparently secure-secure. Summer habitat for the tri-colored bat

includes open woods, edge habitats near mixed agricultural use, and in trees adjacent to water edges. This species uses a wide variety of areas for foraging. The tri-colored bat hibernates colonially during winter in caves and abandoned mines that maintain temperatures above freezing (KDFWR, 2020). According to KDFWR there are no major hibernaculum or maternity/reproductive records for the tri-colored bat in Henderson County (KDFWR, 2017).

The Project is not located within the karst terrain of Kentucky (UKGS, 2020). According to Kentucky Emergency Management (KYEM) assessment of Karst and sink hole hazards there is a low potential for sinkholes to occur within Henderson County (KYEM, 2018). There are individual species records of the tri-colored in Henderson County (KDFWR, 2017; Appendix C: Figure 9. Tri-Colored Bat County Distribution Map).

The Project and 2-mile buffer may provide suitable habitat for the tri-colored bat. The species is not protected and there are no regulatory requirements. Nonetheless, no direct impacts to suitable foraging or roosting habitats are anticipated and therefore the Project is unlikely to affect the Indiana bat.

### **Pyramid Pigtoe**

The pyramid pigtoe mussel is listed by NatureServe as a SGNC. SGNC are species already listed as threatened or endangered or at risk due to habitat loss and declining populations. The pyramid pigtoe is state ranked as S1 critically imperiled. The pyramid pigtoe mussel is found in medium and large rivers with riffles.

The Project is unlikely to affect the pyramid pigtoe due to lack of suitable habitat.

### **River Bulrush and Large Bur-reed**

River bulrush and large bur-reed are listed by the state as an endangered species, with a state rank of S1 critically imperiled. River bulrush and large bur-reed are found in marshes, standing water, fresh-tidal or freshwater shores, shallow waters, and riverbanks.

The Project and 2-mile buffer may provide suitable habitat for the river bulrush and large bur-reed.

### **Burhead and Pickerelweed**

Burhead and pickerelweed are listed by the state as a threatened species, with a state rank of S1/S2



critically imperiled/ imperiled. Burhead and pickerelweed are found in marshes and shallow water, sloughs, open swamps, and ditches.

The Project and 2-mile buffer may provide suitable habitat for burhead and pickerelweed.

### **Floating Pennywort**

Floating pennywort is listed by the state as an endangered species, with a state rank of S1/S2 critically imperiled/ imperiled. Floating pennywort is found in mucky shores, ditches and sloughs.

The Project and 2-mile buffer may provide suitable habitat for floating pennywort.

### **Small-flower Baby-blue-eyes**

Small-flower baby-blue-eyes is listed by the state as a threatened species, with a state rank of S2 imperiled. Small-flower baby-blue-eyes is found in moist, nutrient-rich floodplain forests, and mesic woods on loess soils.

The Project and 2-mile buffer may provide suitable habitat for small-flower baby-blue-eyes.

### **Tennessee Leafcup**

Tennessee leafcup is listed by the state as an endangered species, with a state rank of S1/S2 critically imperiled/ imperiled. Tennessee leafcup is found in deep loess or alluvial soils in light to dense shade of rich mesic wooded slopes associated with large river valleys. The Project and 2-mile buffer are unlikely to provide suitable habitat for the Tennessee leafcup.

The Project and 2-mile buffer are unlikely to provide suitable habitat for the Tennessee leafcup.

## **6.0 CONCLUSIONS & RECOMMENDATIONS**

This T&E species assessment has identified potential concerns that should be considered during planning, design, and operation phases of the proposed Project. Eleven (11) federally endangered and one (1) federally threatened fresh mussel species were listed in IPaC. According to IPaC results, these eleven (11) federally listed mussel species only require consideration if significant, direct or indirect impacts to the Green River occur. Avoidance of Grane Creek, Groves Creek, and an unnamed tributary of Groves Creek that drain into the Green River within the 2-mile buffer should prevent impacts to federally listed freshwater mussel species. Additionally, two (2) species of federally listed mussels, the clubshell and northern riffle shell have USFWS habitat requirements that could potentially occur within Canoe Creek, East Fork Canoe Creek, West Fork



Canoe Creek and its tributaries onsite. Avoidance of Canoe Creek, East Fork Canoe Creek, West Fork Canoe Creek and its tributaries should prevent impacts to federally listed freshwater mussel species.

Two (2) federally endangered species, the Indiana bat and Gray bat, one (1) federally threatened species, the NLEB, and one (1) SGCN ranked S4/S5 apparently secure-secure, the tri-colored bat have a potential to occur within the Project and 2-mile buffer. Avoidance to the extent practicable of forested areas and potential sinkholes related to karst features will prevent impacts to bat species within the Project and 2-mile buffer.

Six (6) state listed threatened and endangered plant species have a low potential to occur onsite. The Project area and 2-mile buffer provide limited suitable habitat for these species within riparian, and wetland habitats within the Project area. Avoidance to the extent practicable of riparian, and wetland habitats areas will prevent impacts to state listed threatened and endangered plant species.

ECT recommends avoidance to the extent practicable of forested areas; as well as, potential sinkholes related to karst features. Should Project development be unable to avoid forested areas, ECT recommends scheduling cutting activities per the USFWS seasonal guidelines (October 1 to March 31) to prevent potential impacts to bats. Additionally, streams and wetlands within the Project and 2-mile buffer may provide habitat for clubshell, northern riffle shell, and state listed threatened and endangered plant species. Avoidance to the extent practicable of streams and wetlands and the implementations of appropriate BMPs should prevent impacts to these species. Project construction is currently planned to avoid impacts to forested, riparian, and wetland habitats. A field assessment for potential threatened and endangered species habitat is recommended.

Impacts to T&E species within areas of the Sebree Solar Project are anticipated to be minimized through avoidance of suitable habitat to the extent practicable and through the implementation of BMPs. Avoidance of forested areas and potential karst features should prevent impacts to bats within the Project and 2-mile buffer. With the minimization of tree clearing and implementation of the previously mentioned measures, adverse effects to bats are not anticipated. Avoidance to the extent practicable of streams and wetlands and the implementations of appropriate BMPs should avoid impact to rare plant species and freshwater mussel species. Should Project development be unable to avoid sensitive areas or should there be a need to conduct tree clearing



during bat breeding season, further coordination with wildlife agencies is recommended. Additional wildlife studies and surveys may also be conducted to determine the presence / absence of sensitive species if impacts to their potential habitat is unavoidable. A field assessment for potential threatened and endangered species habitat is planned prior to construction.



## 7.0 REFERENCES

- .2019. “Clubshell Fact Sheet.”  
<https://www.fws.gov/midwest/endangered/clams/clubshell/index.html>
- .2019. “Fanshell.” <https://www.fws.gov/southeast/wildlife/mussels/fanshell/>  
"Gray Bat." Accessed April 13, 2020. <https://fw.ky.gov/Wildlife/Pages/Gray-Bat.aspx>
- . 2019. “Gray Bat Fact Sheet.”  
[https://www.fws.gov/midwest/endangered/mammals/grbat\\_fc.html](https://www.fws.gov/midwest/endangered/mammals/grbat_fc.html)
- .2017. “Gray bat county distribution map.”  
<https://fw.ky.gov/Wildlife/Documents/graybatcountydistribution.pdf>
- .2017. “Indiana bat county distribution map.”  
<https://fw.ky.gov/Wildlife/Documents/indianabatcountydistribution.pdf>
- "Indiana Bat." Accessed April 13, 2020. <https://fw.ky.gov/Wildlife/Pages/Indiana-Bat.aspx>.
- .2018. “[Kentucky Emergency Management, Commonwealth of Kentucky enhanced hazard mitigation plan: Risk assessment: Kentucky Emergency Management.](https://www.kyem.ky.gov/CK-EHMP%202018,%20S3-S6,%20Risk%20Assessment,%20Hazard%20Identification,%208,%20Karst,%20Original%20Submittal)”  
[https://kyem.ky.gov/CK-EHMP 2018, S3-S6, Risk Assessment, Hazard Identification, 8, Karst, Original Submittal.](https://kyem.ky.gov/CK-EHMP%202018,%20S3-S6,%20Risk%20Assessment,%20Hazard%20Identification,%208,%20Karst,%20Original%20Submittal)
- "KyBAT". Accessed April 8, 2020. <http://kynaturepreserves.org/content/map>.
- “MRLC Consotium. 2019. “National Land Cover Database (NLCD) 2016 - Geospatial Data.”  
Multi-Resolution Land Characteristics (MRLC) Consortium. <https://www.mrlc.gov/data>.
- .2019. “Least Tern Fact Sheet.”  
<https://www.fws.gov/midwest/endangered/birds/leasttern/intleastternfactsheet.html>
- “Monitoring Biodiversity with Kentucky's Natural Heritage Program.” Accessed April 10, 2020.  
<https://eec.ky.gov/Nature-Preserves/biodiversity/Pages/default.aspx>
- "NatureServes Rare Species County Viewer." Accessed April 8, 2020.  
<https://www.natureserve.org/conservation-tools/listed-and-imperiled-species-county-and-watershed/county-map>.
- "Northern Long-eared bat." Accessed April 13, 2020. <https://fw.ky.gov/Wildlife/Pages/Northern-Long-eared-Bat.aspx>
- . 2020. “Northern Long-eared Bat Fact Sheet.”  
<https://www.fws.gov/midwest/endangered/mammals/nleb/nlebFactSheet.html>
- .2017. “Northern Long-Eared bat county distribution map.”  
<https://fw.ky.gov/Wildlife/Documents/northernlongearedbatcountydistribution.pdf>

———.2019. “Northern Riffleshell Fact Sheet.”

<https://www.fws.gov/midwest/endangered/clams/n-riffleshell.html>

“Office of Kentucky Nature Preserves Rare Plant Database.” 2018.

<http://eppcapp.ky.gov/nprareplants/search.aspx?county=Henderson>

———.2019. “Orangefoot pimpleback.”

<https://www.fws.gov/southeast/wildlife/mussels/orangefoot-pimpleback/>

———.2019. “Pink Mucket Fact Sheet.”

[https://www.fws.gov/midwest/endangered/clams/pinkmucket/pinkm\\_fc.html](https://www.fws.gov/midwest/endangered/clams/pinkmucket/pinkm_fc.html)

———.2019. “Purple Cat's Paw Pearlymussel.”

<https://www.fws.gov/southeast/wildlife/mussels/purple-cats-paw/>

———.2019. “Rabbitsfoot Fact Sheet.”

<https://www.fws.gov/midwest/endangered/clams/rabbitsfoot/index.html>

———.2020a. “2020 Range-Wide Indiana Bat Summer Survey Guidelines.” U.S. Fish and Wildlife Service.

<https://www.fws.gov/midwest/endangered/mammals/inba/surveys/pdf/2017INBASummerSurveyGuidelines9May2020.pdf>.

———.2019. “Ring Pink.” <https://www.fws.gov/southeast/wildlife/mussels/ring-pink/>

———.2019. “Rough Pigtoe.” <https://www.fws.gov/southeast/wildlife/mussels/rough-pigtoe/>

———.2019. “Sheepnose Mussel Fact Sheet.”

<https://www.fws.gov/midwest/endangered/clams/sheepnose/index.html>

———.2019.”Spectaclecase Fact Sheet.”

<https://www.fws.gov/midwest/endangered/clams/spectaclecase/SpectaclecaseFactSheet.html>

———.2020.University of Kentucky Geological Survey.

[https://www.uky.edu/KGS/karst/karst\\_location.php](https://www.uky.edu/KGS/karst/karst_location.php)

“USFWS IPaC Information for Planning and Consultation.” n.d. Accessed April 7, 2020.

<https://ecos.fws.gov/ipac/>.

"Wildlife Diversity." Accessed April 8, 2020. <https://fw.ky.gov/Wildlife/Pages/Wildlife-Diversity.aspx>.

———.2020. “Working with Indiana and northern long-eared bats in Kentucky.”

[https://www.fws.gov/frankfort/indiana\\_bat\\_procedures.html](https://www.fws.gov/frankfort/indiana_bat_procedures.html)





## Appendix A

### Background Maps

Figure 1 Site Location Map

Figure 2 NLCD Map

Figure 3 Wetland and Surface Waters Map

Figure 4 Protected Lands Map

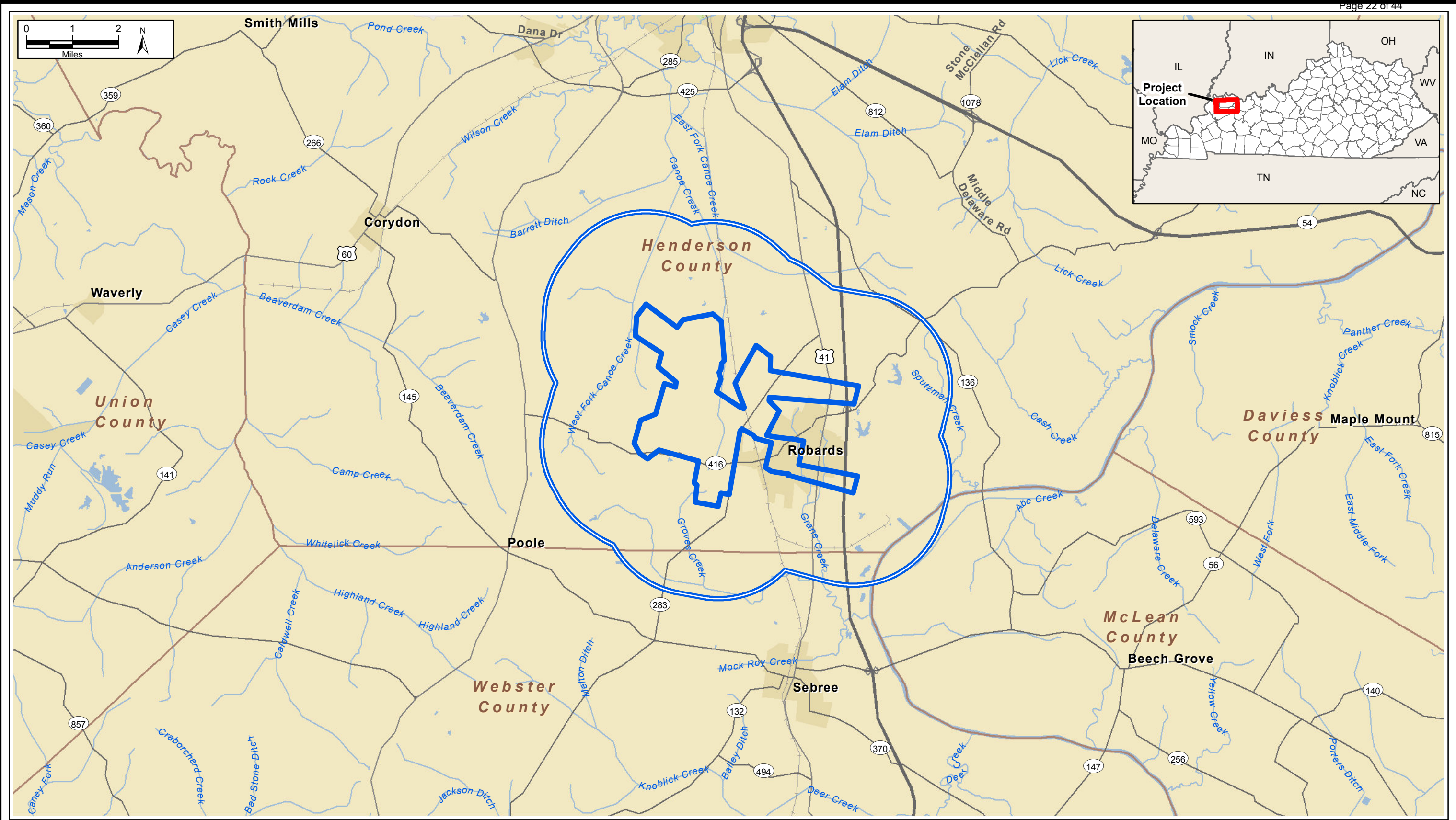


FIGURE 1.  
SITE LOCATION MAP  
SEBREE SOLAR SITE  
HENDERSON COUNTY, KENTUCKY

Sources: ESRI, 2019; USGS, 2019; ECT, 2020.

**BUSINESS CONFIDENTIAL - NOT FOR DISTRIBUTION**

**LEGEND**  
[Blue outline] Site Boundary  
[Thick blue outline] 2-Mile Site Buffer





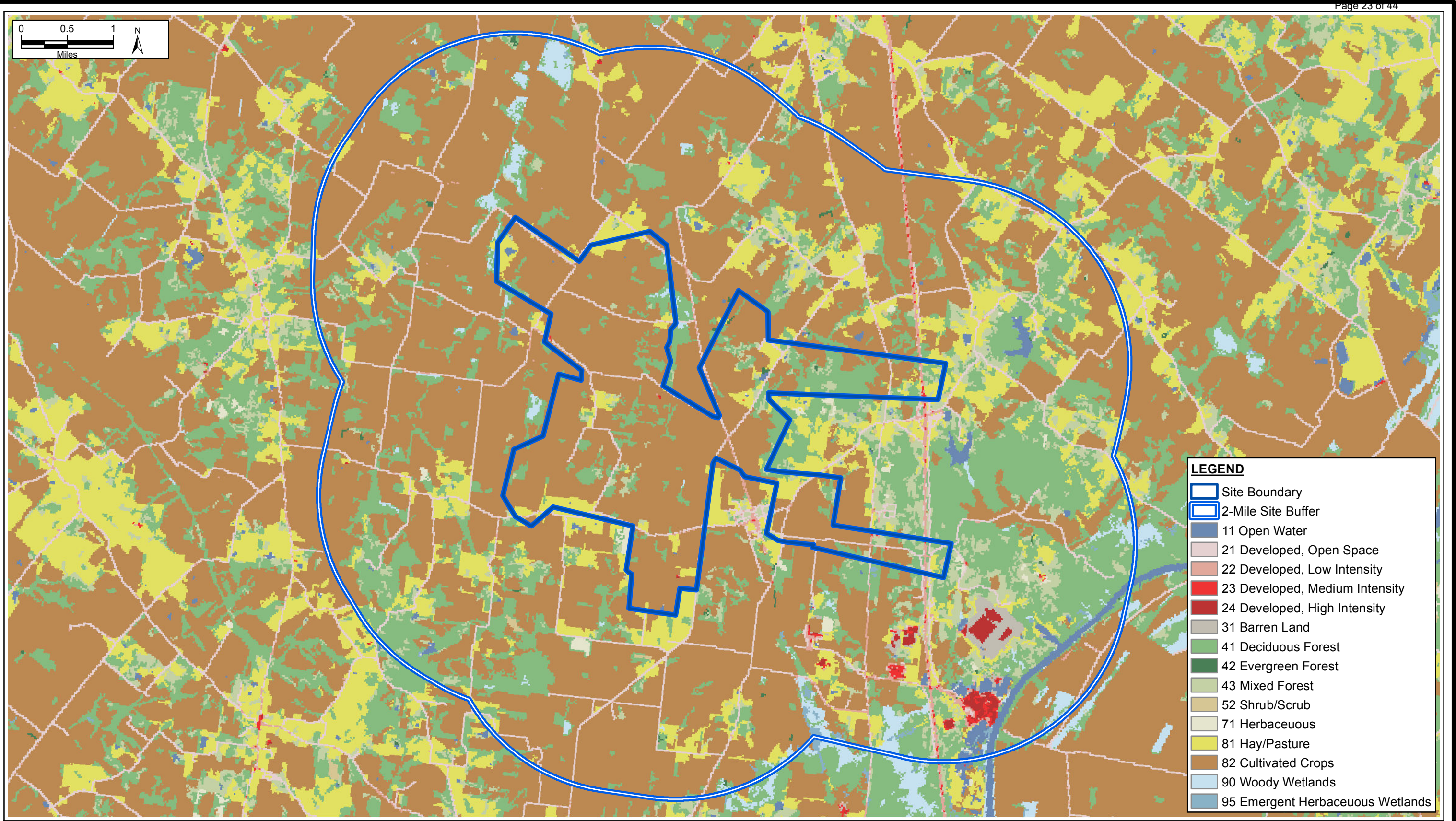


FIGURE 2.  
 NATIONAL LAND COVER DATABASE MAP  
 SEBREE SOLAR SITE  
 HENDERSON COUNTY, KENTUCKY

**BUSINESS CONFIDENTIAL - NOT FOR DISTRIBUTION**



Sources: USGS, 2016; ECT, 2020.





FIGURE 3.  
 WATER RESOURCES MAP  
 SEBREE SOLAR SITE  
 HENDERSON COUNTY, KENTUCKY

Sources: USFWS, 2019; USGS, 2019; FEMA, 2019; Maxar, WV2 Imagery, 2016; ECT, 2020.

**LEGEND**

- Site Boundary
- 2-Mile Site Buffer
- Creeks/Streams

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland

- Freshwater Pond/Lake
- Riverine

**BUSINESS CONFIDENTIAL - NOT FOR DISTRIBUTION**

- Flood Zone**
- A
  - AE
  - X, 0.2 % Annual Chance Flood Hazard
  - X, Area of Minimal Flood Hazard

- AE, FLOODWAY





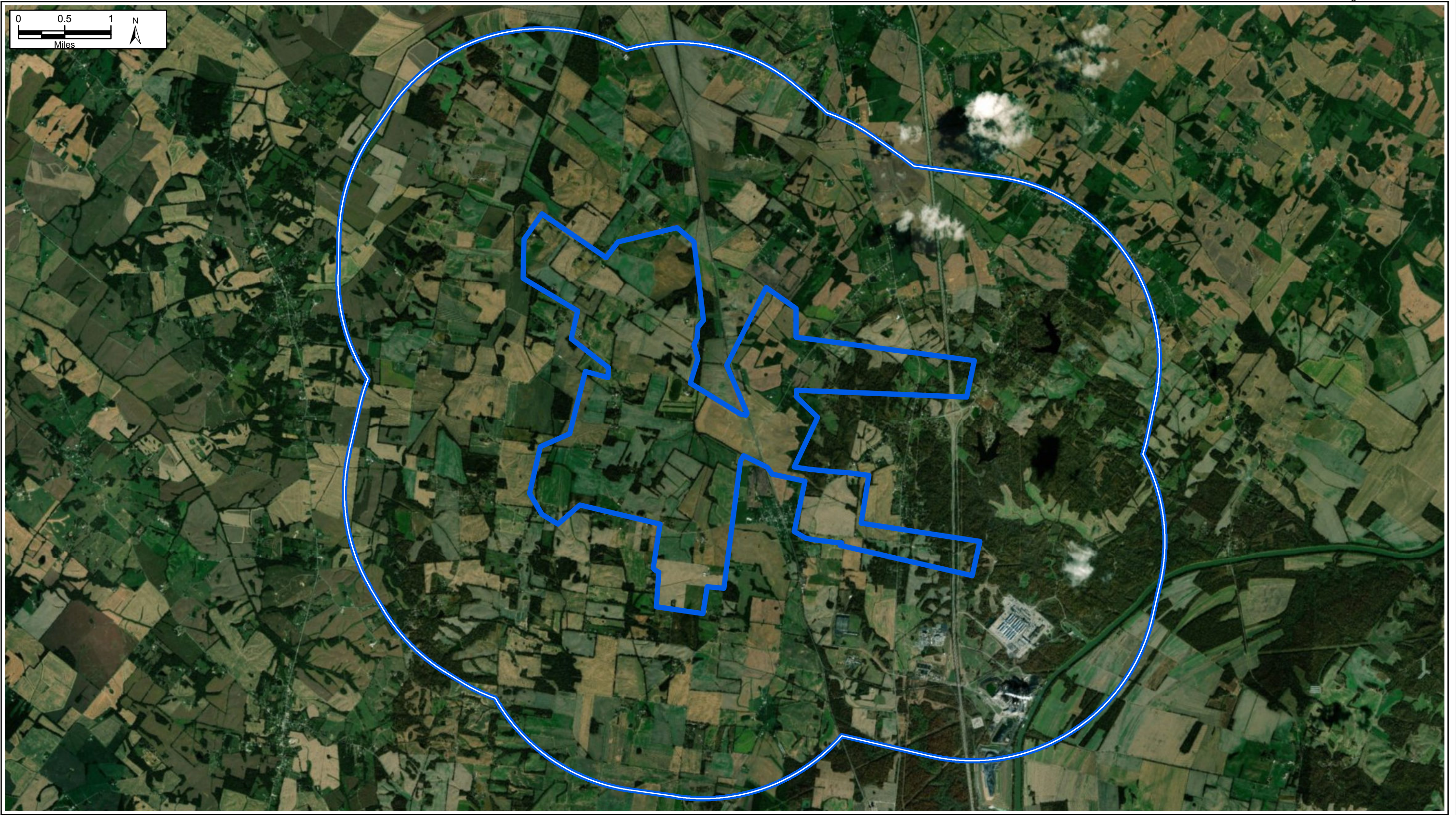
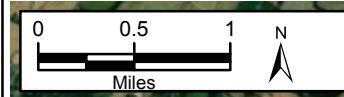




FIGURE 4.  
PROTECTED AND PUBLIC LANDS MAP  
SEBREE SOLAR SITE  
HENDERSON COUNTY, KENTUCKY

**BUSINESS CONFIDENTIAL - NOT FOR DISTRIBUTION**

**LEGEND**

-  Site Boundary
-  2-Mile Site Buffer



Sources: State of Kentucky, 2020; USGS, 2019; Maxar WV2 Imagery 2016; ECT, 2020.



## Appendix B

### IPac Data

# IPaC resource list

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

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

## Location

Henderson and Webster counties, Kentucky



## Local office

Kentucky Ecological Services Field Office

☎ (502) 695-0468

📅 (502) 695-1024

J C Watts Federal Building, Room 265  
330 West Broadway  
Frankfort, KY 40601-8670

<http://www.fws.gov/frankfort/>



# Endangered species

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

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

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

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

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

Listed species<sup>1</sup> and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries<sup>2</sup>).

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

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information.
2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

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

## Mammals

NAME

STATUS

**Gray Bat** *Myotis grisescens*

**Endangered**

This species only needs to be considered if the following condition applies:

- The project area includes potential gray bat habitat.

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/6329>

**Indiana Bat** *Myotis sodalis*

**Endangered**

This species only needs to be considered if the following condition applies:

- The project area includes 'potential' habitat. All activities in this location should consider possible effects to this species.

There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/5949>

**Northern Long-eared Bat** *Myotis septentrionalis*

**Threatened**

This species only needs to be considered if the following condition applies:

- The specified area includes areas in which incidental take would not be prohibited under the 4(d) rule. For reporting purposes, please use the "streamlined consultation form," linked to in the "general project design guidelines" for the species.

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/9045>

## Birds

NAME

STATUS

**Least Tern** *Sterna antillarum*

**Endangered**

This species only needs to be considered if the following condition applies:

- This species should be addressed if the action area includes bare open areas with sparse to no vegetation (e.g., sand and gravel pits, agricultural fields) and the action would occur during the nesting season (April - August).

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/8505>

## Clams

NAME

STATUS

**Clubshell** *Pleurobema clava*

Endangered

This species only needs to be considered if the following condition applies:

- The species may be affected by projects that significantly impact, directly or indirectly, the following rivers: Barren, Green, Licking, or Ohio.

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/3789>

**Fanshell** *Cyprogenia stegaria*

Endangered

This species only needs to be considered if the following condition applies:

- The species may be affected by projects that significantly impact, directly or indirectly, the following rivers: Barren, Green, Licking, Ohio, Rolling Fork Salt, or Tennessee.

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/4822>

**Fat Pocketbook** *Potamilus capax*

Endangered

This species only needs to be considered if the following condition applies:

- The species may be affected by projects that significantly impact, directly or indirectly, the following rivers: Clarks, Cumberland, Green, Mississippi, Ohio, Tradewater, or Tennessee.

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/2780>

**Northern Riffleshell** *Epioblasma torulosa rangiana*

Endangered

This species only needs to be considered if the following condition applies:

- The species may be affected by projects that significantly impact, directly or indirectly, the following rivers: Green, Licking, or Ohio.

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/527>

**Orangefoot Pimpleback (pearlymussel)** *Plethobasus cooperianus*

Endangered

This species only needs to be considered if the following condition applies:

- The species may be affected by projects that significantly impact, directly or indirectly, the following rivers: Green, Ohio, Salt, or Tennessee.

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/1132>

<p><b>Pink Mucket (pearlymussel)</b> <i>Lampsilis abrupta</i></p> <p>This species only needs to be considered if the following condition applies:</p> <ul style="list-style-type: none"> <li>The species may be affected by projects that significantly impact, directly or indirectly, the following rivers: Barren, Green, Licking, Rolling Fork, or Salt.</li> </ul> <p>No critical habitat has been designated for this species. <a href="https://ecos.fws.gov/ecp/species/7829">https://ecos.fws.gov/ecp/species/7829</a></p>	Endangered
<p><b>Purple Cat's Paw (=purple Cat's Paw Pearlymussel)</b> <i>Epioblasma obliquata obliquata</i></p> <p>This species only needs to be considered if the following condition applies:</p> <ul style="list-style-type: none"> <li>The species may be affected by projects that significantly impact, directly or indirectly, the following rivers: Green, Licking, or Ohio.</li> </ul> <p>No critical habitat has been designated for this species. <a href="https://ecos.fws.gov/ecp/species/5602">https://ecos.fws.gov/ecp/species/5602</a></p>	Endangered
<p><b>Rabbitsfoot</b> <i>Quadrula cylindrica cylindrica</i></p> <p>This species only needs to be considered if the following condition applies:</p> <ul style="list-style-type: none"> <li>The species may be affected by projects that significantly impact, directly or indirectly, the following rivers: Barren, Cumberland (below the falls), Green, Ohio, Rolling Fork Salt, South Fork Kentucky, or Tennessee.</li> </ul> <p>There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. <a href="https://ecos.fws.gov/ecp/species/5165">https://ecos.fws.gov/ecp/species/5165</a></p>	Threatened
<p><b>Ring Pink (mussel)</b> <i>Obovaria retusa</i></p> <p>This species only needs to be considered if the following condition applies:</p> <ul style="list-style-type: none"> <li>The species may be affected by projects that significantly impact, directly or indirectly, the following rivers: Barren, Cumberland (below the falls), Green, Ohio, or Tennessee.</li> </ul> <p>No critical habitat has been designated for this species. <a href="https://ecos.fws.gov/ecp/species/4128">https://ecos.fws.gov/ecp/species/4128</a></p>	Endangered
<p><b>Rough Pigtoe</b> <i>Pleurobema plenum</i></p> <p>This species only needs to be considered if the following condition applies:</p> <ul style="list-style-type: none"> <li>The species may be affected by projects that significantly impact, directly or indirectly, the following rivers: Barren, Green, Licking, or Ohio.</li> </ul> <p>No critical habitat has been designated for this species. <a href="https://ecos.fws.gov/ecp/species/6894">https://ecos.fws.gov/ecp/species/6894</a></p>	Endangered

### Sheepnose Mussel *Plethobasus cyphus*

Endangered

This species only needs to be considered if the following condition applies:

- The species may be affected by projects that significantly impact, directly or indirectly, the following rivers: Barren, Green, Kentucky, Licking, Ohio, Salt, or Tennessee.

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/6903>

### Spectaclecase (mussel) *Cumberlandia monodonta*

Endangered

This species only needs to be considered if the following condition applies:

- The species may be affected by projects that significantly impact, directly or indirectly, the following rivers: Barren, Cumberland (below the falls), Green, Little South Fork of the Cumberland, Ohio, or Tennessee.

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/7867>

## Critical habitats

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

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

## Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

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

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

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>

- Nationwide conservation measures for birds

<http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

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

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

NAME

BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

**Bald Eagle** *Haliaeetus leucocephalus*

Breeds Sep 1 to Jul 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

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

**Henslow's Sparrow** *Ammodramus henslowii*

Breeds May 1 to Aug 31

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

<https://ecos.fws.gov/ecp/species/3941>

**Kentucky Warbler** *Oporornis formosus*

Breeds Apr 20 to Aug 20

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



**Prairie Warbler** *Dendroica discolor*

Breeds May 1 to Jul 31

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

**Wood Thrush** *Hylocichla mustelina*

Breeds May 10 to Aug 31

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

## Probability of Presence Summary

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

### Probability of Presence (■)

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

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

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

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

### Breeding Season (■)

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

### Survey Effort (|)

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



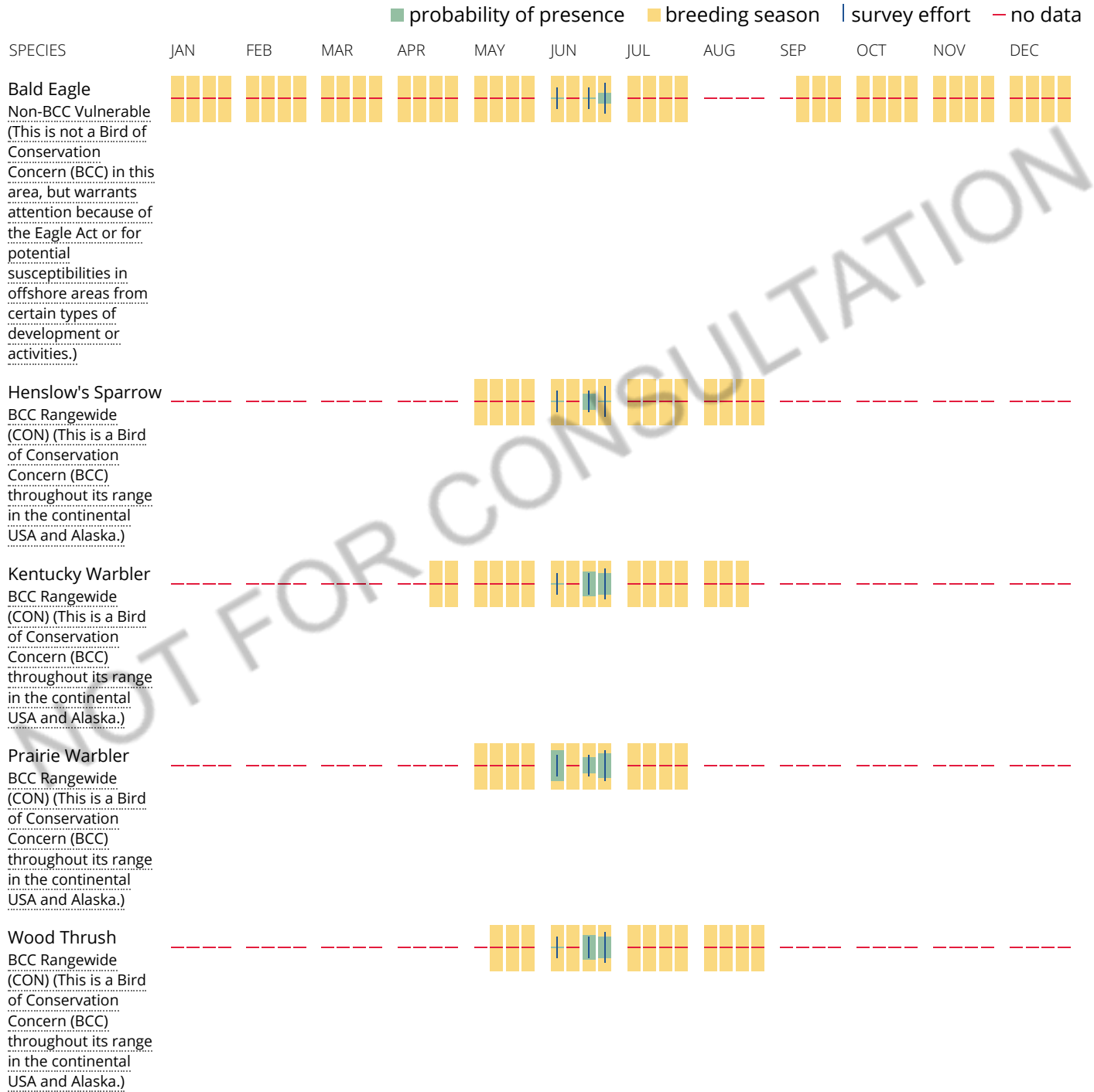
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

### No Data (-)

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

### Survey Timeframe

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



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

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

### **What does IPaC use to generate the migratory birds potentially occurring in my specified location?**

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

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

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

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

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

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

### **How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?**

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

### **What are the levels of concern for migratory birds?**

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

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

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

### Details about birds that are potentially affected by offshore projects

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

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

### What if I have eagles on my list?

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

### Proper Interpretation and Use of Your Migratory Bird Report

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

## Facilities

### National Wildlife Refuge lands

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

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

## Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

## Wetlands in the National Wetlands Inventory

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

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

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

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

### Data limitations

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

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

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

### Data exclusions

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

### Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this

inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.




NOT FOR CONSULTATION

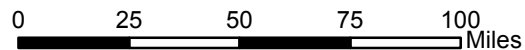
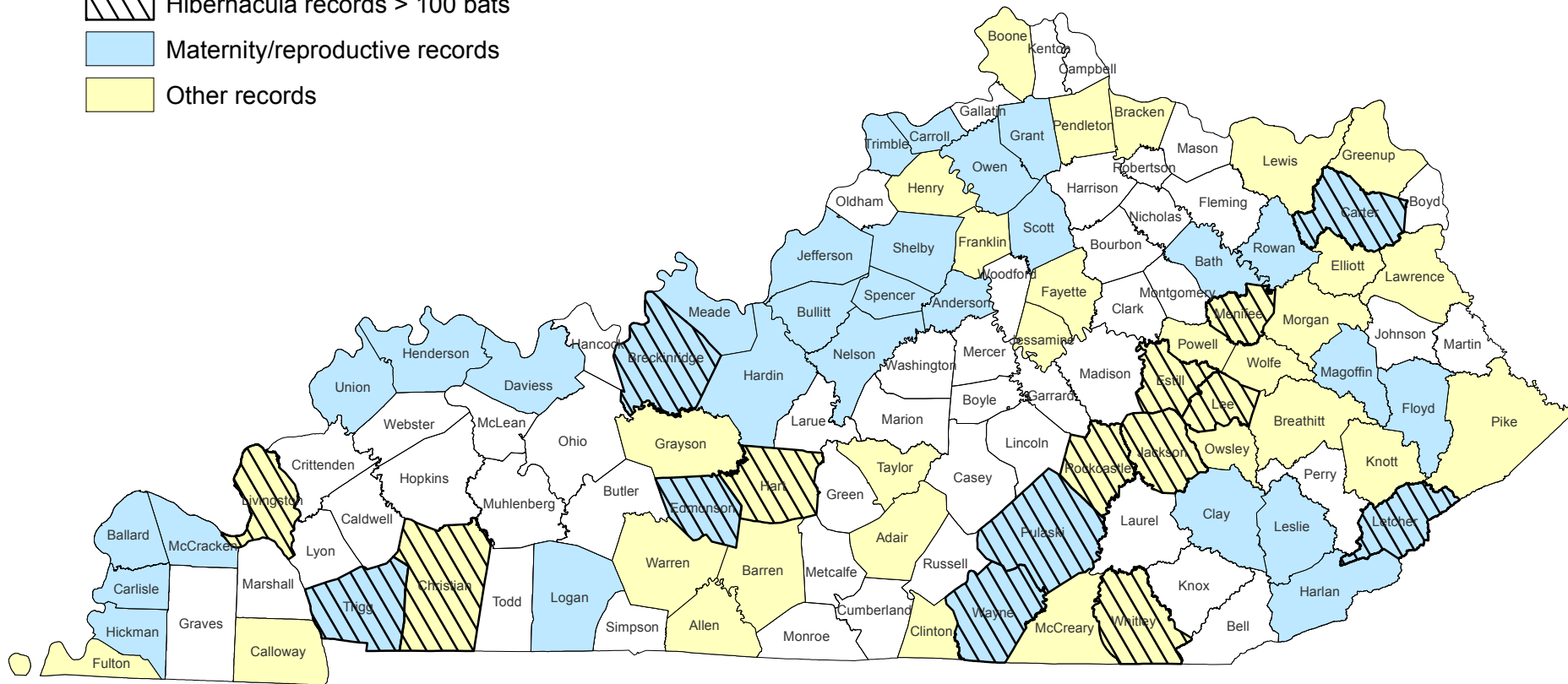
# Appendix C

## County Distribution Maps of State and Federally Listed Bat Species



# Indiana bat (*Myotis sodalis*)

-  Hibernacula records > 100 bats
-  Maternity/reproductive records
-  Other records






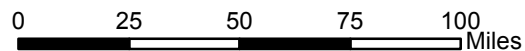
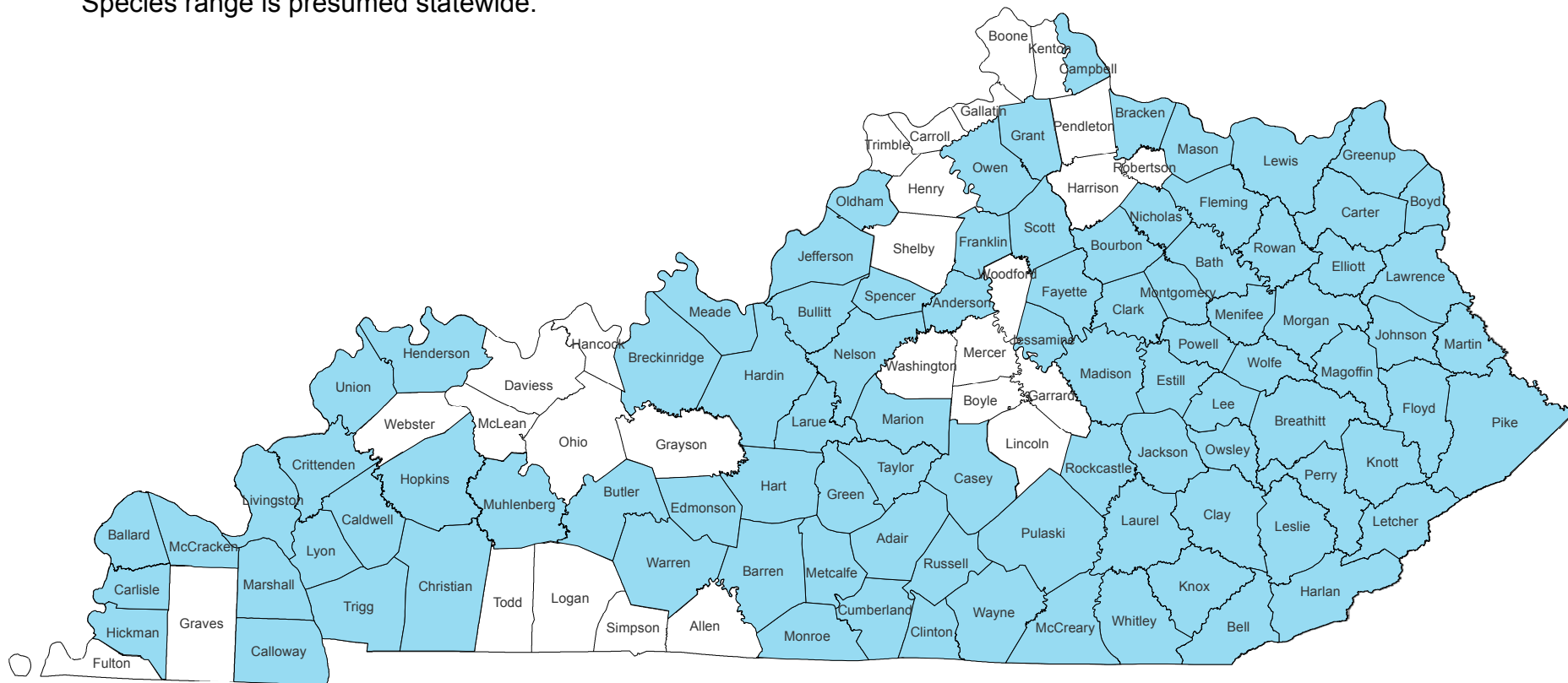




# Northern long-eared bat (*Myotis septentrionalis*)


 County records

Species range is presumed statewide.

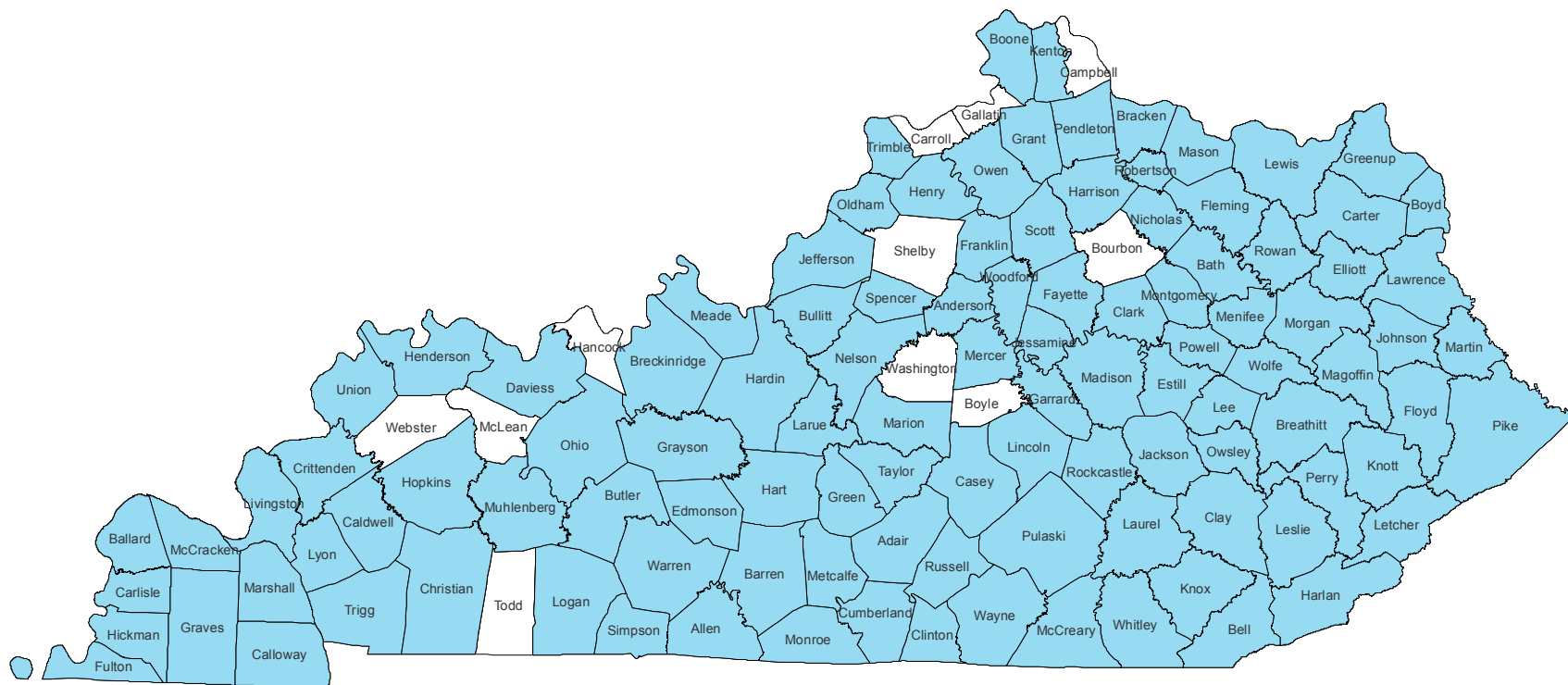




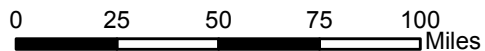
# Tri-colored bat (*Perimyotis subflavus*)\*

 County records

Species range is statewide.



\*formerly Eastern pipistrelle  
(*Pipistrellus subflavus*)



**SEBREE SOLAR, LLC**

**CASE NO. 2021-00072**

**RESPONSE TO INFORMATION REQUEST**

**SITING BOARD STAFF'S POST-HEARING REQUEST FOR INFORMATION DATED**

**1/3/2022**

**REQUEST 10**

**RESPONSIBLE PARTY: Brian Bartels**

**Request 10.** Provide a copy of Sebree Solar's Kentucky Biological Assessment Tool report.

**Response 10.** Please see Attachment 9, Sebree Solar's Threatened and Endangered Species Assessment, Section 3.3 which states that "The KyBAT database indicated that the Project and 2-mile buffer do not contain any wild rivers, state natural areas, state nature preserves, heritage land conservation funds areas, or USFWS critical habitats (refer to Appendix A:Figure 4.Protected and Public Lands Map)."

**SEBREE SOLAR, LLC**

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**1/3/2022**

**REQUEST 11**

**RESPONSIBLE PARTY: Lina Jensen**

**Request 11.** Provide Sebree Solar's specific proposal for a complaint resolution program for the Project.

**Response 11.** Please see Attachment 11 for Sebree Solar's proposal for a complaint resolution program.



# **SEBREE SOLAR COMPLAINT RESOLUTION PLAN**

**January 2022**

**FACILITY OPERATOR:**  
Sebree Solar, LLC  
700 Universe Boulevard  
Juno Beach, FL 33408

**Contents**

1.0 Complaint Resolution Plan ..... 2  
2.0 Procedure for Filing Complaints ..... 2  
3.0 Resolution of Complaints..... 3  
4.0 Documentation of Complaints ..... 4  
5.0 Public Notification of Complaint Process..... 4



## 1.0 Complaint Resolution Plan

Sebree Solar, LLC has prepared this Complaint Resolution Plan (Plan) to establish a consistent method and procedure by which the Project will address public complaints that may be received during construction and operation. This Plan is a draft and will be modified as we get closer to construction and operations.

## 2.0 Procedure for Filing Complaints

The following procedures outline the process by which a Complainant may file a complaint related to the Project:

1. Submit a complaint in writing by mailing a detailed complaint to the following address:

Sebree Solar, LLC  
700 Universe Blvd., FEW/JB  
Juno Beach, FL 33408

or via email at [sebresolar@nexteraenergy.com](mailto:sebresolar@nexteraenergy.com).

Submitting a complaint in writing to the Project staff by mail or email is the preferred means of contact. This will allow Sebree Solar to address such complaints in a timely manner. Complaints submitted to local governmental agencies, emergency service providers, Kentucky state agencies or other third parties may not be communicated to Sebree Solar and therefore, may not be addressed.

2. Call Sebree Solar or the Construction Manager during construction or the Site Leader once the Project is operational.

3. Submit a complaint in writing by emailing a detailed complaint to Sebree Solar at the following email address:

sebreesolar@nexteraenergy.com.

For the Project to address a complaint, the complaint should be as detailed as possible and include the information below:

- Name of Complainant;
- Date of complaint;
- Complainant's phone number;
- Complainant's address;
- Complainant's email address;
- Property owner(s) name (if different from the Complainant name);
- Location of issue;
- Duration of the issue; and
- Detailed description of the complaint (if possible, include the date and time that the issue occurred, the exact location and duration of the issue, and any other details that can help pinpoint the issue).

In circumstances whereby a third party receives a complaint about the Project, Sebree Solar, LLC requests that the third party refer the Complainant to the Complaint Resolution Plan on the Project's website and, if possible, forward the complaint to the Project within 7 business days.

### **3.0 Resolution of Complaints**

Sebree Solar will work in good faith to address and/or resolve reasonable complaints as soon as is practicable; however, some complaints will take time to evaluate and determine proper resolution and some complaints cannot reasonably be resolved. Safety and good community relations are among the highest priorities of Sebree Solar; as such, speedy resolution of legitimate complaints is imperative.

#### **4.0 Documentation of Complaints**

During construction and operation of the Project, Sebree Solar, LLC will keep a complaint log with records of complaints received. The complaint log will include, if available, the date of the complaint, the name of the complainant, contact information for the complainant including address and phone number, and a detailed description of the complaint. It will also include a description of the complaint resolution if resolution is feasible. The complaint log will be maintained by Sebree Solar, LLC,

#### **5.0 Public Notification of Complaint Process**

No fewer than 2 weeks prior to the commencement of construction, Sebree Solar, LLC will publish a summary of the Complaint Resolution Plan on the Project's website and will be available at the temporary construction office.



# COMPLAINT LOGGING FORM (for Operator)

Personnel Answering the Phone:	
Date (MM/DD/YY):	(circle) Mon. Tue. Wed. Thur. Fri. Sat. Sun.
Time of the Call:	

### Complaint Information

Name of Caller:
Address of Caller:
Phone Number of Caller:
Name of Person with the Complaint:
Address of Person with the Complaint:
Phone Number of Person with the Complaint:
Time of Bothersome Activity:
Construction or Operational Sound Complaint? (circle one)
Complaint:

Construction Equipment Activity During the Time of the Complaint (if applicable):
Closest Inverter or Array to the Complaint Location:

Follow-Up Action and/or Resolution of Complaint:
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Signature:	
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**SEBREE SOLAR, LLC**

**CASE NO. 2021-00072**

**RESPONSE TO INFORMATION REQUEST**

**SITING BOARD STAFF'S POST-HEARING REQUEST FOR INFORMATION DATED**

**1/3/2022**

**REQUEST 12**

**RESPONSIBLE PARTY: Lina Jensen**

**Request 12.** Provide the current tax revenue on all parcels involved in the Project, with no projected change.

**Response 12.** Given that the specific prior use of the parcels is unknown, previous income, sales, and occupational taxes are unable to be determined. Response 38k from the Sebree Solar Response to First Data Information Request on October 15 contains information on average cost and output per acre in Henderson County. This information could be used to determine average income, sales, and occupational taxes on a per acre basis.

For property tax calculations, the Henderson County PVA website was utilized to determine prior property tax payments. In 2020 the total property tax collected for all participating parcels amounted to approximately \$79,000. For the 35-year comparable duration to the life of the project, the estimated property tax revenue from the existing parcels is approximately \$2.8M, modeled without escalations, inflation, or other sensitivities.

**SEBREE SOLAR, LLC**

**CASE NO. 2021-00072**

**RESPONSE TO INFORMATION REQUEST**

**SITING BOARD STAFF'S POST-HEARING REQUEST FOR INFORMATION DATED**

**1/3/2022**

**REQUEST 13**

**RESPONSIBLE PARTY: Lina Jensen**

**Request 13.** Provide the projected “net new tax revenue,” on all parcels involved in the Project.

**Response 13.** The original Sebree Solar Application included an estimate of \$13.8M expected property taxes over the 35-year life of the project. Sebree Solar has since updated the estimates of property taxes based on the latest guidance from the Kentucky Department of Revenue in April 2020 for solar facilities. Previously the split of property values was used between the three major categories of solar electric equipment: manufacturing machinery, tangible personal, and real property, resulting in an underestimate. The updated estimate of property taxes is \$22.2M over the full 35-year life of the project, including both state and local property taxes. The 35-year estimated property tax revenue would be a net new property tax revenue in excess of \$19.4 million and an average annual increase in property tax of more than \$550,000.

## **Siting Board Post-Hearing Request 13**

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This local and state property tax analysis does not reflect tax abatement at any level. The Project does not have any abatement agreements in place currently but will be seeking a Payment in Lieu of Taxes (PILOT) agreement with Henderson County and seeking tax abatement at the state level. Sebree Solar is willing to update the Kentucky Siting Board if an agreement is reached with local and/or state authorities regarding tax abatement, including any updated tax payment projections.

Because the specific prior use of the parcels is unknown, net new tax revenue is not calculable with relation to income, sales, or occupational tax revenue. Response 38k from the Sebree Solar Response to First Data Information Request on October 15 contains information on average cost and output per acre in Henderson County. This information could be used to determine average income, sales, and occupational taxes on a per acre basis.



**SEBREE SOLAR, LLC**

**CASE NO. 2021-00072**

**RESPONSE TO INFORMATION REQUEST**

**SITING BOARD STAFF'S POST-HEARING REQUEST FOR INFORMATION DATED**

**1/3/2022**

**REQUEST 14**

**RESPONSIBLE PARTY: Lina Jensen**

**Request 14.** Provide Sebree Solar's plan for decommissioning the proposed transmission line.

**Response 14.** The Applicant prepared a decommissioning plan as part of the Henderson County Site Plan Application. This has also been provided in response to the Siting Board Staff's First Request for Information, included in Confidential Attachment 35. The decommissioning plan previously provided includes and describes Sebree Solar's plans for decommissioning of the proposed transmission line. It was also approved by the Henderson Planning and Zoning Commission.

**SEBREE SOLAR, LLC**

**CASE NO. 2021-00072**

**RESPONSE TO INFORMATION REQUEST**

**SITING BOARD STAFF'S POST-HEARING REQUEST FOR INFORMATION DATED**

**1/3/2022**

**REQUEST 15**

**RESPONSIBLE PARTY: Lina Jensen**

**Request 15.** Confirm whether Sebree Solar has addressed the apparent inconsistency in the Henderson County Ordinance requirements for a Level 3 Solar Energy System regarding setbacks for all equipment of 25 feet from the perimeter property line of the Project area verses 50 feet from the perimeter property line, and explain which figure the proposed Project is in compliance with.

**Response 15.** Please see Attachment 15, which confirms the Henderson County Setback Ordinance for a Level 3 Solar System is 25ft. The 50 ft setback is a requirement within the city limits of City of Henderson, which has a separate Solar Energy System Ordinance from Henderson County. The Sebree Solar project site layout is not located within the city limits of the City of Henderson.

## Jensen, Lina

---

**From:** Randy Tasa <rtasa@hendersonky.us>  
**Sent:** Tuesday, January 4, 2022 12:13 PM  
**To:** Jensen, Lina  
**Cc:** Brian Bishop  
**Subject:** RE: Setback clarification

Caution - External Email (rtasa@hendersonky.us)

[Report this Email](#) [Quick response](#) [Emergency response](#) [Tips](#)

Lina,  
I have attached a link to the Henderson County Ordinance for Solar Energy Systems and have also copied the section below that deals with the 25' setback. You are correct in that Henderson County, outside the limits of the City of Henderson, requires all equipment to be at least 25' feet from the perimeter property lines.

<https://ecode360.com/HE3160/laws/LF1242372.pdf>

**Section 30.02.** Requirements Solar Energy Systems (SES) shall comply with the following criteria:

- a. The height of any ground mounted SES shall not exceed twenty-five (25) feet as measured from the highest natural grade below each solar panel (excludes utility poles, substations and antennas constructed for the project).
- b. Setback requirements for Level 1 and Level 2 SES shall be in compliance with the zoning classification for the parcel.
- c. **Setback requirements for Level 3 SES shall be as follows: ( 1) All equipment shall be at least twenty-five (25) feet from the perimeter property lines** of the project area; (2) No interior property line setbacks shall be required if the project spans multiple contiguous properties;; (3) All equipment shall be located at least one hundred ( 100) feet from any residential structure and; the maximum height of any individual component will be 25 feet measured from the local ground level of the component

---

**From:** Brian Bishop  
**Sent:** Tuesday, January 4, 2022 8:57 AM  
**To:** 'Jensen, Lina' <Lina.Jensen@nexteraenergy.com>  
**Cc:** Jennifer Marks <jmarks@hendersonplanning.org>; Farley, Sisana <Sisana.Farley@nexteraenergy.com>; Randy Tasa <rtasa@hendersonky.us>  
**Subject:** RE: Setback clarification

Hey, Lina.

This is better suited for Randy Tasa. I have copied him so he can answer it.

Thanks,  
Brian

---

**From:** Jensen, Lina [<mailto:Lina.Jensen@nexteraenergy.com>]  
**Sent:** Tuesday, January 4, 2022 8:35 AM  
**To:** Brian Bishop <[bbishop@hendersonplanning.org](mailto:bbishop@hendersonplanning.org)>  
**Cc:** Jennifer Marks <[jmarks@hendersonplanning.org](mailto:jmarks@hendersonplanning.org)>; Farley, Sisana <[Sisana.Farley@nexteraenergy.com](mailto:Sisana.Farley@nexteraenergy.com)>  
**Subject:** Setback clarification



**CAUTION:** This email originated from outside of the organization. Do not click links, open attachments, or reply unless you recognize the sender and know the content is safe.

Hi Brian,

Hope you were able to enjoy the holidays and time off with your family! Happy New Year

There was a question raised by the Kentucky State Siting Board regarding setback requirements in Henderson County, see question below:

*15. Confirm whether Sebree Solar has addressed the apparent inconsistency in the Henderson County Ordinance requirements for a Level 3 Solar Energy System regarding setbacks for all equipment of 25 feet from the perimeter property line of the Project area versus 50 feet from the perimeter property line, and explain which figure the proposed Project is in compliance with.*

The project's understanding is that the Henderson County Solar Ordinance, Section 30.02 (b) requires a 25 foot setback from perimeter property lines of the project area. This was the basis for our site plan approved by Henderson County Planning Commission on Oct 5.

I think the apparent inconsistency that the KY State Siting Board is referencing is stemming from a City of Henderson Solar Ordinance, Section 4.22 (c), which requires a 50 foot setback. However, since we aren't within the city limits of the City of Henderson, this would not apply.

Can you confirm that the 25' setback is the appropriate perimeter property setback to use for Sebree Solar, and that the 50' setback is only applicable within the City of Henderson city limits?

Thanks!

Lina Jensen  
Project Director  
NextEra Energy Resources  
Cell: (832)-613-7247  
[Lina.jensen@nexteraenergy.com](mailto:Lina.jensen@nexteraenergy.com)

