REQUEST FOR BOARD ACTION

ITEM NO. _20_

DATE OF MEETING: November 23, 2015

REQUESTED BY: Megan O'Hare, Senior Planner, Planning & Community Development

SHORT TITLE: Resolution Requesting Approval of a Special Use Permit (SUP) Revision for the Construction and Operation of a Solar Farm.

BACKGROUND: Bearford Solar II, LLC, applicant, on behalf of Bearford, LLC, owner, is requesting a revision of a Special Use Permit (SUP 11451) for the construction and operation of a solar farm (NAICS 221119) originally issued September 28, 2015 (SUP 11451) for a ± 32.81 acre project area. The requested revision to the SUP will modify the aforementioned project area to include an additional ±53 acre solar farm. The property is zoned RA, Rural Agricultural zoning district and according to the Pender County Unified Development Ordinance §5.2.3 Table of Permitted Uses; other electric power generation (NAICS 221119) is permitted via Special Use Permit. There is one (1) tract associated with this request and is located at 478 Old Savannah Road (SR 1347). The subject property may be further identified by Pender County PIN 3321-14-2767-0000.

SPECIFIC ACTION REQUESTED: To Hold a Public Hearing and Consider the Approval of a Special Use Permit for a solar farm.

RESOLUTION

NOW, THEREFORE BE IT RESOLVED by the Pender County Board of Commissioners that:

on November 23, 2015 the Pender County Board of Commissioners (approved, modified, denied) a Special Use Permit request as described herein. The Chairman/County Manager is authorized to execute any/all documents necessary to implement this resolution.

AMENDMENTS:

MOVED_____ SECONDED_____

APPROVED_____ DENIED_____ UNANIMOUS

YEA VOTES: Williams___ Brown ___ McCoy___ Piepmeyer___ Keith___

_____ 11/23/2015
J. David Williams, Jr., Chairman Date

_____ 11/23/2015
ATTEST Date

PLANNING STAFF REPORT
Special Use Permit

SUMMARY:

Hearing Date:	November 23, 2015
Applicant:	Bearford Solar II, LLC.
Property Owner:	Bearford, LLC.
Case Number:	SUP R (11451 & 000055-2015)

Land Use Proposed: Bearford Solar II, LLC, applicant, on behalf of Bearford, LLC, owner, is requesting approval of a Special Use Permit revision for the construction and operation of a solar farm (NAICS 221119).

Property Record Number and Location: The subject property is located along the west side of US HWY 117, the north side of Old Savannah Road (SR 1347), and the south west side of Interstate 40, near the intersection of US HWY 117 and Interstate 40 in Burgaw, NC. There is one (1) tract associated with this request and is located at 478 Old Savannah Road (SR 1347). The subject property may be further identified by Pender County PIN 3321-14-2767-0000.

Zoning District of Property: The property is zoned RA, Rural Agricultural zoning district and according to the Pender County Unified Development Ordinance §5.2.3 Table of Permitted Uses; other electric power generation (NAICS 221119) is permitted via Special Use Permit.

PROJECT DESCRIPTION:

Bearford Solar II, LLC, applicant, on behalf of Bearford, LLC, owner, is requesting a ±53 acre revision of a Special Use Permit (SUP 11451) for the construction and operation of a solar farm (NAICS 221119) originally issued September 28, 2015 (SUP 11451) for a ± 32.81 acre project area. The requested revision to the SUP will modify the aforementioned project area to include an additional ±53 acre solar farm to create a total solar farm area of ± 85.51 acres. The property is zoned RA, Rural Agricultural zoning district and according to the Pender County Unified Development Ordinance §5.2.3 Table of Permitted Uses; other electric power generation (NAICS 221119) is permitted via Special Use Permit. There is one (1) tract associated with this request and is located at 478 Old Savannah Road (SR 1347). The subject property may be further identified by Pender County PIN 3321-14-2767-0000.

The subject property is zoned RA, Rural Agricultural zoning district, and according to the Pender County Unified Development Ordinance Section 5.2.3; solar farms (NAICS 221119) are permitted via Special Use Permit in the RA, Rural Agricultural zoning district.

The ± 598.07 acre subject parcel is currently occupied by agricultural uses and vacant farmland. The previously approved Special Use Permit (11451) is currently in the Major Site Development Plan approval process (Attachment 1).

The requested revision includes the construction of a solar power plant located on ±53 acres of leased property, in addition to the previously approved ± 32.81 previously approved on the same property. According to the applicant's submitted narrative, the project consists of installing Photovoltaic solar panels on metal racking supported by columns driven into the ground and facing south for optimum energy production. There will be several inverters and transformer assemblies constructed on concrete pads. The power generated from the five (5) megawatt solar farm will be sold to Duke Energy Progress for use by consumers. The project will connect with existing Duke Energy Progress transmission lines. The additional solar farm facility on this property will bring the total solar farm area to ± 85.51 acres.

Hours of Operation
There will be no daily staff used to operate the solar farm. Employees will visit the site on a weekly basis.

Landscape and Buffers
All landscape and buffers are to be approved in accordance with Section 8.2.8, Project Boundary Buffer of the Pender County Unified Development Ordinance. All commercial or uses other than residential uses (excluding industrial uses) in the Residential Districts shall provide a Buffer A along all street boundaries. A Buffer C is required along all boundaries adjacent to single family residential uses or residential lots with a parcel size of less than one (1) acre and when a single family structure is within fifty (50) feet of the boundary of the development. A Buffer B is required along all other non-street boundaries (Attachment 2).

The applicant proposes a B-4 Buffer along the project boundary, which is in compliance with the landscaping standards found in Section 8.2.2 of the Pender County Unified Development Ordinance. Section 8.2.2 states when a site is five (5) acres or larger, the required buffer may be located within the outer perimeter of the limit of disturbance of the project area on the lot or parcel. If the limit of disturbance is expanded, the buffer shall be adjusted accordingly. The applicant's submitted landscaping and buffering is in compliance with ordinance standards.

Driveway Access
The applicant is showing direct access to US HWY 117 via an existing driveway and is subject to review and approval by the NCDOT through a driveway permit which may be required at the Site Development Plan submittal. This access is a separate driveway from the previously approved solar farm located on the same property.

Utilities
The proposed project does not include any water or sewer services.

Solar Farm Considerations
At the point of which the project is no longer operational for 12 months, considerations shall be made for disassembling and dismantling the equipment to ensure the site is vacant. This is accomplished through a Decommissioning Plan separate from the previously approved solar farm site on the same property. If the site ceases to produce energy on a continuous basis for 12 months, it will be considered abandoned unless the current responsible party (or parties) with ownership interest provides substantial evidence (updated every 6 months after 12 months of no energy production) to the Zoning Administrator of the intent to maintain and reinstate the operation of that facility.

Removal shall be considered for all non-utility owned equipment, conduit, structures, fencing, roads and foundations. Such can be captured in a Decommissioning Plan recorded within the Pender County Register of Deeds prior to final electrical inspection of the facility. If the responsible party (or parties) fails to comply, the Zoning Administrator may remove the equipment from the site, sell any removed materials, and initiate judicial proceedings or take any other steps legally authorized against the responsible parties to recover the costs required to remove the facility and restore the site to a non-hazardous condition.

The project bounds shall be fenced to ensure the health, safety and well-being of the site and the surrounding community. Fencing the project is submitted for six (6) feet in height with barbed wire.

Prior to the issuance of final zoning approval, a site development plan must be submitted and approved in accordance with applicable provisions of the Pender County Unified Development Ordinance. In addition,

all other applicable permits and approvals must be obtained including inspections and health department regulation compliance.

		Zoning Districts									
Use Type	**Ref NAICS**	**RA**	**RP**	**RM**	**MH**	**PD**	**GB**	**OI**	**IT**	**GI**	**EC**
MISCELLANEOUS USES											
Other Electrical Power Generation	221119	**S**	S			S			P	P	

EVALUATION:

A. **Public Notifications:** Advertisements for the proposal have been placed in the Pender-Topsail Post & Voice. Adjacent property owners were notified by first class mail; as well as a sign advertising the public hearing was placed on the subject property.

B. **Basis for Granting SUP:** See Attachment A for approval procedures (§3.12.3 of Unified Development Ordinance) and revocation procedures (§3.12.4 of Unified Development Ordinance).

C. **Unified Development Ordinance Compliance:** The property is currently zoned RA, Rural Agricultural, and according to the Pender County Unified Development Ordinance §5.2.3 Table of Permitted Uses; solar farms are permitted via Special Use Permit in the RA, Rural Agricultural zoning district. The Rural Agricultural District is intended to accommodate non-residential agricultural uses and very low density residential development (minimum of 1 du/ac), as well as limited non-residential uses, in rural areas adjacent to agricultural operations. Development in this District should rely predominantly on individual wells and septic tank systems for domestic water supply and sewage disposal.

D. **2010 Comprehensive Land Use Plan Compliance:** The subject property is classified as Rural Growth and Suburban Growth in the 2010 Comprehensive Land Use Plan.

The Rural Growth land use classification defines those areas of Pender County where urban services, i.e., public water and sewer services, are not expected to be extended within the planning horizon. Rural Growth areas are where preservation of agricultural operations is a primary concern and where conflicts between agricultural and non-agricultural uses are to be discouraged. Rural Growth areas are intended to protect agricultural and forestry operations that are a major part of the County's economic base and that are key to preservation of the County's rural landscape. Major job-creating activities that are compatible with farms, forestry and very low-density development are appropriate.

The Suburban Growth land use classification identifies those areas of Pender County where significant residential growth is expected to occur within the planning horizon. Areas designated as Suburban Growth are located primarily adjacent to municipal planning jurisdictions and within or near high growth, unincorporated areas of the County, i.e., Hampstead/Scotts Hill, Rocky Point, and portions of US 421 South. Suburban Growth designates areas where public water and public sewer are available or are planned in the near future. This project is consistent with the Rural Growth and Suburban Growth classifications in the 2010 Pender County Comprehensive Land Use Plan.

a. The SUP request may be supported by policies within the 2010 Comprehensive Land Use Plan:

   i. **Policy 1A.1.5** -The County supports a pro-business/pro-growth attitude, balanced by a concern for preserving the natural assets and quality of life factors that make the area attractive to visitors and permanent residents alike

   ii. **Policy 8A.1.5** Encourage alternative energy development as a viable land use and standards, as necessary, to ensure minimal impact on surrounding land uses

This SUP request does not conflict with any goals and policies in the 2010 Pender County Comprehensive Land Use Plan.

E. **Existing Land Use in Area:** The subject parcel is bordered by low density residential properties and St. Matthew Holy Church to the south, as well as agricultural farm land to the west.

F. **Site Access Conditions:** The applicant is showing direct access to US HWY 117 via an existing driveway and is subject to review and approval by the NCDOT through a driveway permit which may be required at the Site Development Plan submittal.

G. Conditions To Consider In Issuing the Special Use Permit For This Project:

1. The project shall comply with all requirements of the Pender County Unified Developed Ordinance.
2. Any violations of the conditions of this permit, confirmed by the Zoning Administrator shall result in this permit becoming void, if not corrected within 30 days of receipt of the notice of violation.
3. The applicant shall meet all other local, state and federal regulations.
4. The obligations imposed by this permit will be the responsibility of the property owner and operator and shall continue in affect for the duration of this permit.
5. The facility must be fenced surrounding the entire project bounds.
6. A Decommissioning Plan shall be recorded within the Pender County Register of Deeds to include the acreage added in the revision of this permit. The plan shall identify and establish procedures for removal of equipment, conduit, structures, fencing, roads, and foundations.
7. A site that ceases to produce energy on a continuous basis for 12 months will be considered abandoned unless the current responsible party (or parties) with ownership interest provides substantial evidence (updated every 6 months after 12 months of no energy production) to the Zoning Administrator of the intent to maintain and reinstate the operation of that facility. Upon determination of abandonment, the Zoning Administrator shall notify the party (or parties) responsible they must remove the facility and restore the site to its condition prior to development of the site within three hundred and sixty (360) days of notice by the Zoning Administrator.
8. If the responsible party (or parties) fails to comply, the Zoning Administrator may remove the equipment from the site, sell any removed materials, and initiate judicial proceedings or take any other steps legally authorized against the responsible parties to recover the costs required to remove the facility and restore the site to a non-hazardous condition.
9. Any expansions of solar farm acreage shall require a revision to the Special Use Permit approval.

Attachment A

3.12.3 Procedures for Reviewing Applications

A. The special uses, as specified in the various districts, may be established only after review and approval by the Board of Commissioners.
B. The Board of County Commissioners, acting in a quasi-judicial manner and setting, shall hear evidence from the applicant and any interested members of the public.
C. The Board of Commissioners shall hold a public hearing on the application for a Special Use Permit within sixty (60) days after the completed application is filed.
D. The Administrator shall cause notice of the hearing to be published once a week for two successive calendar weeks. The notice shall be published for the first time not less than ten (10) nor more than twenty-five (25) days before the date fixed for the hearing.
E. All Special Use Permit applications must be presented to the Administrator for a determination of completeness.
F. An appeal from a completeness determination may be made to the Board of Adjustment within twenty (20) days of the determination.
G. The Board of Commissioners shall approve, modify, or deny the application for a Special Use Permit. In approving a Special Use Permit, the Board of Commissioners, with due regard to the nature and state of all adjacent structures and uses in the district within same is located, shall make written findings that the following are fulfilled:
    1. The use requested is listed among the special uses in the district for which application is made, or is similar in character to those listed in that district;
    2. The requested use will not impair the integrity or character of the surrounding or adjoining districts, nor adversely affect the safety, health, morals, or welfare of the community or of the immediate neighbors of the property;
    3. The proposed use shall not constitute a nuisance or hazard;
    4. The requested use will be in conformity with the Pender County Land Use Plan and other official plans or policies adopted by the Board of County Commissioners;
    5. Adequate utilities, access roads, drainage, sanitation or other necessary facilities have been or are being provided;
    6. That adequate measures have been or will be taken to provide ingress and egress so designed as to minimize the traffic congestion in the public roads;
    7. That the special use shall, in all other respects, conform to the applicable regulations of the district in which it is located; and
    8. The proposed use shall not adversely affect surrounding uses and shall be placed on a lot of sufficient size to satisfy the space requirements of said use.

3.12.4 General Provisions Concerning Special Use Permits

B. Revocation - In any case where the Special Use Permit or the conditions of a Special Use Permit have not been or are not being complied with, the Administrator may initiate a notice of violation for the provisions of this ordinance and the conditions of the Special Use Permit not in compliance or the Administrator, may initiate notice of a public hearing to consider revocation of the permit by the Board of Commissioners or both actions may be initiated. Procedures for notice of such hearing shall be the same as procedures for consideration of an initial application for a Special Use Permit and the permittee shall be notified.

APPLICATION FOR SPECIAL USE PERMIT

THIS SECTION FOR OFFICE USE			
Application No.	SUP 000055-2015	**Date**	10-9-15
Application Fee	$ 780.00	**Receipt No.**	Invoice 00000021
Pre-Application Conference	–	**Hearing Date**	11-23-15

SECTION 1: APPLICANT INFORMATION

Applicant's Name:	Bearford Solar II LLC	**Owner's Name:**	Bearford, LLC
Applicant's Address:	3250 Ocean Park Blvd, Ste 355	**Owner's Address:**	4429 South US 117
City, State, & Zip	Santa Monica, CA 90405	**City, State, & Zip**	Rose Hill, NC 28458
Phone Number:	310-581-6299	**Phone Number:**	
Legal relationship of applicant to land owner:	contract-tenant		

SECTION 2: PROJECT INFORMATION

Property Identification Number (PIN):	3321-14-2767-000	**Total property acreage:**	53± acres of 598± acres tract
Zoning Classification:	RA	**Acreage to be disturbed:**	46± acres
Project Address :	478 Old Savannah Rd., Burgaw NC 28425	**NAICS Code:**	221119
Description of Project Location:	Near intersection of		
Describe activities to be undertaken on project site:	Other electric power generation (ground mounted solar farm)		

SECTION 3: SIGNATURES

Applicant's Signature	Bearford Solar II, LLC by:	**Date:**	10/8/15
Owner's Signature	Bearford, LLC by:	**Date:**	

NOTICE TO APPLICANT

1. Applicant must also submit the information described on the Special Use Checklist.
2. Applicant or agent authorized in writing must attend the public hearing.
3. Once the public hearing has been advertised, the case will be heard unless the applicant withdraws the application or unless the Board of Commissioners or other authorized person agrees to table or delay the hearing.
4. Applicant may wish to review the required findings for approval of a Special Use Permit found on page 1 of this application
5. **Permit will become void after 12 months if a final zoning permit is not obtained, unless specifically requested at the time of public hearing.**

Office Use Only

☒ General/ Fees: $300 +$10 per acre over 5 acres, Max. of $5,000 ☐ Tower over 75 Feet/ Fees $500 ☐ Minor Revisions /Fees $100 ☐ Mining Fees $750 53ac - 5ac = 48 300 + 480 = 780.00	Total Fee Calculation: $ 780.00 Application#: 000055-2015 Date of Hearing: 11-23-15

Attachments Included with Application: (Please include # of copies)

CD /other digital version	☐ Y ☐ N	Plan Sets	# of large 5	# of 11X17	Other documents/Reports	☐ Y ☐ N

Payment Method:	Cash : ☐ $_____	Credit Card: ☐ Master Card ☐ Visa	Check: ☒ Check # 2179
Application received by:	[signature]		Date: 10-9-15
Application completeness approved by:	[signature]		Date: 10-15-15

Special Use Permit Checklist

☑	Signed Application Form (Both Applicant and Owner)
☑	Application fee
☑	Legible list of all property owners adjacent to the property upon which the use is to be located. The list shall include the mailing address & physical address of these property owners (The application will not be advertised for public hearing until the list is accurate & complete
☑	One business size envelope legibly addressed with first class postage for each of the adjacent property owners on the above list.
☑	Project Narrative--Written description of the project (max of 3 pages) including the following: ☐ Location of the project and type of access to project site ☐ Detailed description of the activities to be undertaken on the site, including hrs. of operation, # of employees, etc. ☐ Description of all construction activities to be undertaken on the site ☐ Describe type of utilities that will serve project and status of approval from applicable providers ☐ List of all state and federal permits that will be required for the project ☐ Applicant must specifically address the 8 written findings for Special Use Permit approval which are identified on page 1 of this application and in the Pender County Unified Development Ordinance (Section 3.12.3.G.). Describe any potential impacts the project will have on the community or adjacent properties such as traffic, noise, etc. and explain efforts to mitigate these impacts. The applicant may also wish to describe any positive benefits the project will provide for the community and/or neighbors of the project.
☑	Project Map(s)--Map or maps of the special use project site with boundaries of the project if less than the parcel boundaries. This map or maps shall be drawn to a readable scale. The scale shall be not more than 200' to the inch. The map shall display an accurate bar graph scale, date prepared, north arrow and the author of the map. This map(s) shall show the following: ☑ Boundaries of the property upon which the special use will be located, the acreage in the property and project site, with a north arrow and bar graph. ☑ Access from the site and/or project boundaries to the nearest publicly maintained road. ☑ Location of any existing structures or uses on the property and within 50' of the property. ☑ Location of the project boundaries if they do not coincide with the property boundaries. ☑ Existing and proposed structures, other on-site improvements, and location of all activities associated with the use, location of well, septic tank, and/or other utilities. ☑ Boundary of all clearing, grading, and/or land disturbing activities on the site and the calculated acreage of all land disturbing activities on the site. ☑ Parking, loading areas, and access to the project (See Article 7, Pender County UDO) NA ☑ Landscaping and buffering (See Article 8, Pender County UDO) ☑ All signs to be located on the property (See Article 10, Pender County UDO) NA ☑ Pedestrian walks, area lighting and flood lighting. NA ☑ Existing natural features of the site including, wooded areas, tree lines, ponds, streams, other water bodies or ditches on or adjacent to the site, designated flood hazard areas & known or designated wetlands on the site. ☐ Drainage plan and/or direction of flow of runoff from the project and site. ☐ After review by the Planning and Community Development Department, additional information may be required to be submitted. ☑ Two full size and twenty reduced size (max. 11"x17") copies of this map(s) shall be submitted.

RETURN COMPLETED APPLICATION TO:
Pender County Planning & Community Development
P.O. Box 1519
Burgaw, NC 28425

Bearford Solar II, LLC
Special Use Permit Application
Pender County Property Identification Number: 3321-14-2767-000

Project Narrative

I. Location of the project and type of access to project site

Bearford Solar II, LLC proposes a solar farm on 53± acres of the 598± acre tract of land owned by Bearford, LLC and located near the intersection of Highway 117 and I-40 at 478 Old Savannah Road in Burgaw, NC. The subject property is zoned Residential Agricultural ("RA"). A portion of the site is actively farmed and the remaining land is vacant. Surrounding land is currently utilized for homes, farms and a church. The proposed solar farm will be accessible via Highway 117.

II. Detailed description of the activities to be undertaken on the site (including hrs. of operation, # of employees, etc.)

The solar farm will contain rows of Photovoltaic (PV) cell panels mounted on posts set in the ground individually. These rows of panels are referred to as "solar arrays." The solar arrays will be fixed in place facing south in order to receive the maximum amount of solar energy. This configuration contains no moving parts. The power generated from the solar farm will be sold to Duke Energy Progress for use by consumers to replace energy produced from a non-renewable source.

The solar farm will operate during daylight hours. There will be no on-site employees. After construction, employees will visit the site weekly or less frequently for routine maintenance of the panels and the property.

III. Description of all construction activities to be undertaken on the site

Construction of a solar farm consists primarily of installing solar panels on metal racking supported by posts that are individually driven into the ground. In addition, there will be several inverters and transformers installed on top of concrete pads and located internal to the solar farm. Power poles will be added at the point of interconnection to connect with the existing Duke Progress power lines.

IV. Describe type of utilities that will serve project and status of approval from applicable providers.

The proposed solar farm will connect with Duke Progress to transmit the electricity created by the solar farm to the existing power grid. No other utilities are required on-site. This facility will be unmanned-there will be no space designed or utilized for human occupancy. Water and sewage disposal facilities are not necessary, and will not be provided to the site. Solid waste disposal will be similarly unnecessary. Any refuse generated by landscape maintenance or facility repair will be removed from the site and disposed of by the professional service providers using approved and safe methods.

The solar farms will consume practically no county services: no seats in county schools or on school buses, virtually no refuse or recycling needs, no special sheriff protection, no light pollution, no emissions of any kind, no demand for water from depleted aquifers and no sewage disposal.

V. List of all state and federal permits that will be required for the project

VI. The Proposed Solar Farm Meets all Required Finding of Fact under Pender County Unified Development Ordinance Section 3.12.3(G)(1) – (8).

1. The use requested is listed among the special uses in the district for which application is made, or is similar in character to those listed in that district

The proposed solar farm is permitted as a special use in the Residential Agricultural ("RA") zoning district pursuant to Section 5.2.3, Table of Permitted Uses of the Pender County Unified Development Ordinance as "Other Electric Power Generation Facility". The subject property is zoned RA. and surrounding properties are utilized as homes, farms and a church. The proposed solar farm is consistent with the uses existing in the area and permitted under the RA zoning district.

2. The requested use will not impair the integrity or character of the surrounding or adjoining districts, nor adversely affect the safety, health, morals, or welfare of the community or of the immediate neighbors of the property

The proposed solar farm will not impair the integrity or character of the surrounding or adjoining district nor adversely affect the safety, health, morals, or welfare of the community or immediate neighbors of the property. The solar farm is consistent with the residential and agricultural land use pattern that exists in the area today. Solar farms make good neighbors: they are quiet and they do not create dust or odor as farming can. Solar panels are lower in height than a typical home or barn. Solar farms generate fewer vehicle trips than one single-family home after construction. Solar farms are low-impact uses.

The proposed solar farm will not negatively impact the public health, safety or general welfare for the same reasons described above.

3. The proposed use shall not constitute a nuisance or hazard.

The proposed solar farm will not constitute a nuisance of a hazard. Solar farms have none of the characteristics of a nuisance or a hazard: the farms are quiet, they generate very little traffic, they are lower in height than the typical home or barn, and they create no dust, odor or environmental issues.

4. The requested use will be in conformity with the Pender County Land Use Plan and other official plans or policies adopted by the Board of County Commissioners

The subject property is split between Rural Growth and Suburban Growth Areas in the Pender County 2010 Comprehensive Land Use Plan. The Rural Growth land use classification includes area where utilities are not expected to be extended within the foreseeable future and where active farming is to be encouraged and protected from incompatible land uses. The Suburban Growth land use classification includes areas where significant residential growth is expected within the foreseeable future.

In addition, the overarching policies of the 2010 Comprehensive Land Use Plan support the proposed solar farm. The County encourages alternative energy development, such as solar farms, in Policy 8A.1.5. In addition, the County espouses a pro-business/ pro-growth attitude.

Solar farms are good neighbors to both active farming operations and homes. Allowing the subject property to develop as a solar farm provides an opportunity for locally generated energy resources in Pender County and creates income for the property owner and tax base for the County.

Solar farms allow property owners to maintain large tracts of land that are easily redeveloped at the appropriate time in the future.

5. Adequate utilities, access roads, drainage, sanitation or other necessary facilities have been or are being provided

Adequate utilities, access roads, drainage, sanitation and other necessary facilities are being provided. The active area of the solar array -public utility will be enclosed by a six foot (6') high fence and gated for security purposes. Access codes to the gate will be provided to local police, fire, and emergency service providers. Vehicular access to the site is adequate for the use proposed and for emergency services. There will be no buildings or employees on the property so there is no need for sewage disposal facilities, solid waste, and water on the site.

6. That adequate measures have been or will be taken to provide ingress and egress so designed as to minimize the traffic congestion in the public roads

Adequate measure will be taken to provide ingress and egress so designed as to minimize traffic congestion on the public streets. Access to the site will be from Hwy 117. Employees visit the site on a weekly basis or less after construction. There will be very few vehicle trips associated with the proposed solar farm.

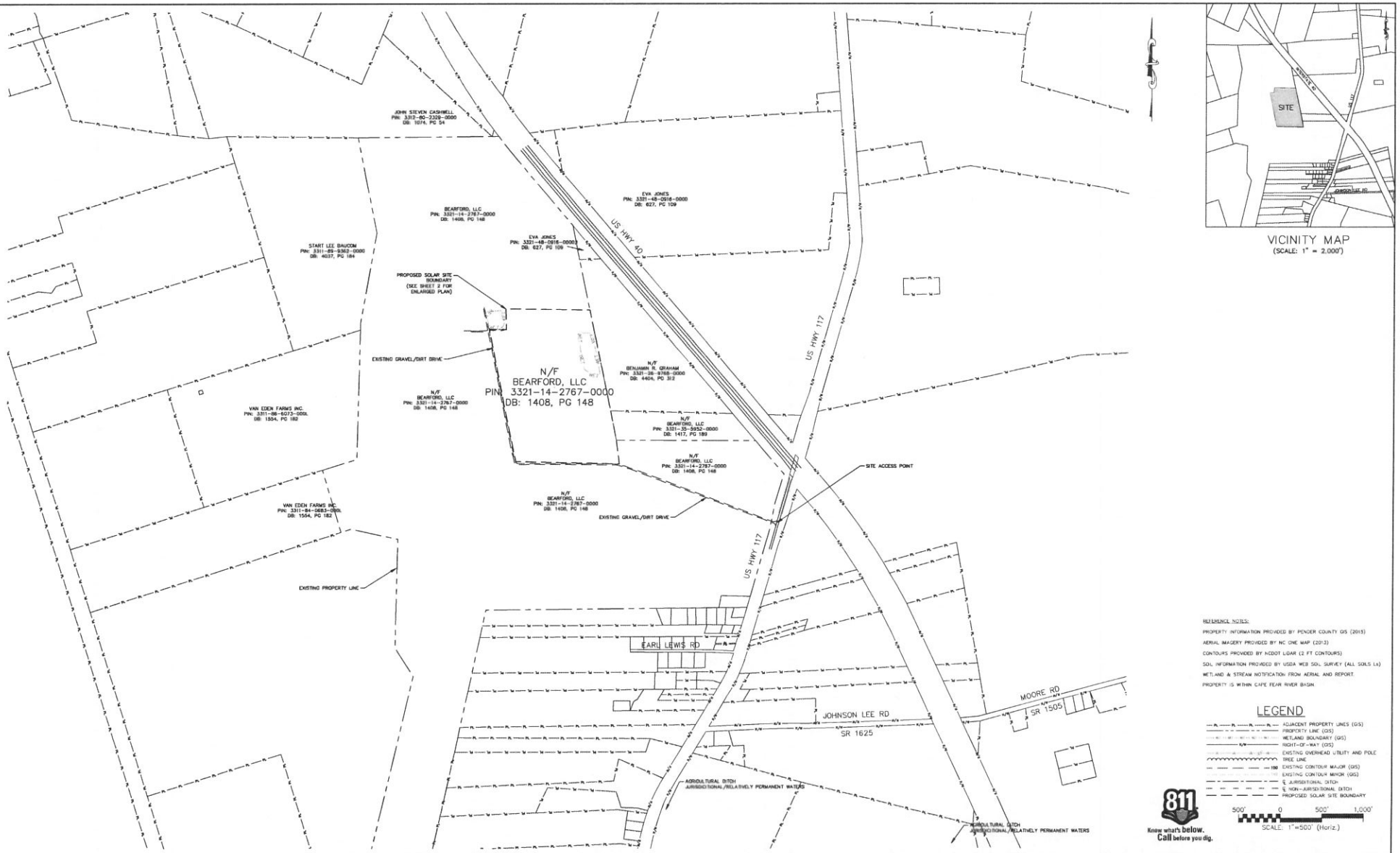
7. That the special use shall, in all other respects, conform to the applicable regulations of the district in which it is located

The proposed solar farm will, in all other respects, conform to the applicable regulations of the RA zoning district. The proposed solar farm provides a service to the community in that it will generate clean energy for use by the community and surrounding areas.

8. The proposed use shall not adversely affect surrounding uses and shall be placed on a lot of sufficient size to satisfy the space requirements of said use.

The proposed solar farm will not adversely affect surrounding uses. The proposed solar farm is consistent with the residential and agricultural land use pattern that exists in the area today. Solar farms make good neighbors: they are quiet and they do not create dust or odor as farming can can. Solar panels are shorter in height than a typical home or barn. The lot is sufficiently sized to to satisfy the space requirements of the use. The proposed 53± acre site is sufficient for the proposed solar farm and all supporting improvements.

For these reasons, we respectfully request approval of the proposed special use permit.



REVISIONS		
REVNO	DESCRIPTIONS	DATE

SEAL

SEAL

McKIM&CREED
8020 Tower Point Drive
Charlotte, North Carolina 28227
Phone: (704)841-2588, Fax: (704)841-2567
F-1222
www.mckimcreed.com

CYPRESS CREEK
RENEWABLES

CYPRESS CREEK RENEWABLES

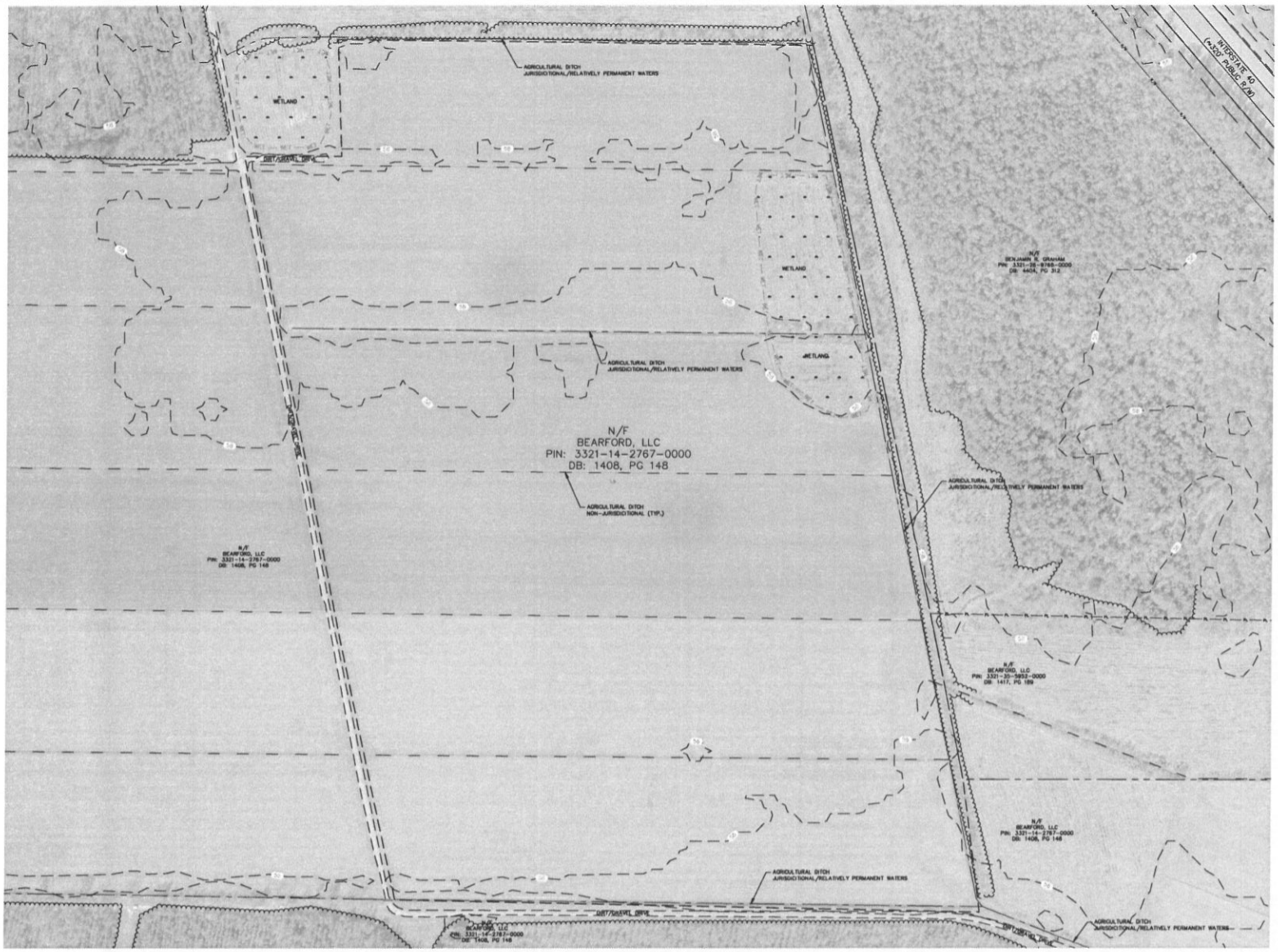
EXISTING CONDITIONS SITE PLAN
BEARFORD II SOLAR FARM
PENDER COUNTY, NC

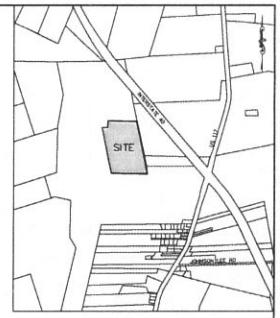
DATE:	10/08/15
MCE PROJ. #	6838-0017
DRAWN:	JPM
DESIGNED:	JPM
CHECKED:	DKD
PROJ. MGR.	DKD

SCALE
HORIZONTAL: 1" = 500'
VERTICAL: N/A

MKC FILE NUMBER: CX-101
DRAWING NUMBER: 1

STATUS: PRELIMINARY NOT FOR CONSTRUCTION
REVISION: ---





VICINITY MAP
(SCALE: 1" = 2,000')

REFERENCE NOTES:

PROPERTY INFORMATION PROVIDED BY PENDER COUNTY GIS (2015)

AERIAL IMAGERY PROVIDED BY NC ONE MAP (2013)

CONTOURS PROVIDED BY NCDOT LIDAR (2 FT CONTOURS)

SOIL INFORMATION PROVIDED BY USDA WEB SOIL SURVEY (ALL SOILS Ls)

WETLAND & STREAM NOTIFICATION FROM AERIAL AND REPORT.

PROPERTY IS WITHIN CAPE FEAR RIVER BASIN.

LEGEND

- ADJACENT PROPERTY LINES (GIS)
- PROPERTY LINE (GIS)
- WETLAND BOUNDARY (GIS)
- RIGHT-OF-WAY (GIS)
- EXISTING OVERHEAD UTILITY AND POLE
- TREE LINE
- EXISTING CONTOUR MAJOR (GIS)
- EXISTING CONTOUR MINOR (GIS)
- ℄ JURISDITIONAL DITCH
- ℄ NON-JURISDITIONAL DITCH
- PROPOSED SOLAR SITE BOUNDARY

811 Know what's below. Call before you dig.

100' 0 100' 200'
SCALE: 1"=100' (Horiz.)

REV.NO.	DESCRIPTIONS	DATE
	REVISIONS	

SEAL

SEAL

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 37496 DOUGLAS A. DRAFFEN 1/4/15

McKIM&CREED
8020 Tower Point Drive
Charlotte, North Carolina 28227
Phone: (704)841-2588, Fax: (704)841-2567
F-1222
www.mckimcreed.com

CYPRESS CREEK
RENEWABLES

CYPRESS CREEK RENEWABLES

EXISTING CONDITIONS ENLARGED PLAN
BEARFORD II SOLAR FARM
PENDER COUNTY, NC

DATE:	10/08/15
MCC PROJ. #	6838-0017
DRAWN	JPM
DESIGNED	JPM
CHECKED	DKD
PROJ. MGR	DKD

SCALE
HORIZONTAL: 1" = 100'
VERTICAL: N/A

MKC FILE NUMBER: CX-102
DRAWING NUMBER: 2

STATUS: PRELIMINARY NOT FOR CONSTRUCTION
REVISION: ---

LEGEND

— PL — PL —	ADJACENT PROPERTY LINES (GIS)
	PROPERTY BOUNDARY LINE (GIS)
	PROPOSED LEASE BOUNDARY
	WETLAND BOUNDARY (GIS)
R/W	RIGHT-OF-WAY
	EXISTING OVERHEAD UTILITY AND POLE
	EXISTING TREE LINE
90	EXISTING CONTOUR MAJOR (GIS)
	EXISTING CONTOUR MINOR (GIS)
	PROPOSED 6' CHAIN LINK FENCE
	PROPOSED TREELINE
	℄ JURISDITIONAL DITCH
	℄ NON-JURISDITIONAL DITCH
	PROPOSED 25' BUFFER
	LANDSCAPE BUFFER

VICINITY MAP
(SCALE: 1" = 2,000')

SITE DATA

PIN #	OWNER	DB/PG	SITE ADDRESS
3321-14-2767-0000	BEARFORD, LLC BURGAW, NC	1408/148	478 OLD SAVANNAH ROAD

ZONING	PARCEL ACREAGE	CURRENT LAND USE	LEASED AREA
RA (RURAL-AGRICULTURAL)	±598.07 AC	AGRICULTURAL/WOODS	TBD

RIVER BASIN	WATERSHED
CAPE FEAR	BURGAW CREEK WATERSHED

PROPOSED USE	PRELIMINARY LEASE AREA*	PRELIMINARY DISTURBED AREA*	PRELIMINARY SOLAR ARRAY AREA*
SOLAR ENERGY SYSTEM	53 AC	46 AC	30 AC

ZONING DISTRICT	RA (RURAL AGRICULTURAL)	
SETBACKS	REQUIRED	PROPOSED
MIN. FRONT YARD	20 FT	20 FT
MIN. SIDE YARD	20 FT	20 FT
MIN. REAR YARD	20 FT	20 FT

BUFFER/SCREENING: 25' ALL SIDES VEGETATED (TYPE B)

*PRELIMINARY AREA SUBJECT TO CHANGE

AERIAL IMAGERY PROVIDED BY NC ONE MAP (2013)

CONTOURS PROVIDED BY NCDOT LIDAR (2 FT CONTOUS)

UTILITY AND BUILDING INFORMATION FROM AERIAL IMAGERY

APPROXIMATE SEDIMENT BASIN AREA: ±3.03 ACRES

1 TYPICAL RACK EAST/WEST ELEVATION

2 TYPICAL RACK NORTH ELEVATION

NOTE:

1. BUFFER B-4 SHALL BE IMPLEMENTED AS PER 8.2.6 OF THE PENDER COUNTY UDO ALONG ALL LEASE LINES.
2. 5 UNDERSTORY TREES PER 100 LF SHALL BE PLANTED AS PER PENDER COUNTY UDO. USE APPENDIX B FOR SPECIES.
3. EXISTING TREES AND VEGETATION SHALL REMAIN TO MEET THE REQUIRED PLANTING WHERE APPLICABLE.

3 TYPE B-4 25' PLANTED BUFFER

100' 0 100' 200'
SCALE: 1"=100' (Horiz.)

GENERAL NOTES

1. THE PURPOSE OF THIS PLAN IS FOR SITE PLAN APPROVAL FOR REVIEW AND APPROVAL TO CONSTRUCT A SOLAR ENERGY SYSTEM.
2. ALL DIMENSIONS SHOWN ARE AT 90 DEGRESS UNLESS OTHERWISE NOTED.
3. THE PURPOSE OF THIS PLAN IS FOR REVIEW AND APPROVAL OF THE REGULATED ITEMS REQUIRED TO CONSTRUCT A SOLAR STATIC TRANSFORMER STATION. THE LOCATION OF PROPOSED IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO: FENCING, SOLAR ARRAY RACKING, INVERTERS, OVERHEAD POLES AND LINES, ETC., SHOWN IS APPROXIMATE AND MAY BE SUBJECT TO MODIFICATION DUE TO SITE CONDITIONS, ADDITIONAL PERMITTING REQUIREMENTS (NCDOT, NCDENR, USACOE, ETC), EQUIPMENT SPECIFICATIONS, AND/OR OTHER CONSTRAINTS. ANY REVISIONS WILL BE SUBMITTED FOR STAFF APPROVAL PRIOR TO CONSTRUCTION TO VERIFY COMPLIANCE WITH ZONING REQUIREMENTS AND CONDITIONS AS APPROVED.
4. PROJECT AREA, INCLUDING CONSTRUCTION STAGING AREAS, WILL BE CLEARED AND GRUBBED AS NECESSARY, RETAINING PRE-DEVELOPMENT DRAINAGE PATTERNS (I.E. NO MASS GRADING). MINOR GRADING WILL OCCUR AROUND INVERTER AREAS TO DIVERT SURFACE DRAINAGE. CONSTRUCTION STAGING AND AREAS SUBJECT TO RUTTING DURING CONSTRUCTION WILL BE TEMPORARILY STABILIZED WITH GRAVEL WHICH WILL REMAIN AFTER CONSTRUCTION. SOIL CONDITIONS AND EQUIPMENT LOADS WILL DETERMINE FINAL DESIGN.
5. PROPOSED TEMPORARY LAYDOWN YARD/CONSTRUCTION STAGING AREA TO BE USED DURING SITE CONSTRUCTION. A PORTION OF THIS AREA (SEE PLAN) WILL BE STABILIZED WITH GRAVEL TO ALLOW DELIVERY OF CONSTRUCTION MATERIALS. PRIOR TO CONSTRUCTION, THIS AREA WILL BE COMPACTED BY A SMOOTH DRUM OR SHEEPSFOOT ROLLER TO REDUCE/PREVENT RUTTING. FOLLOWING CONSTRUCTION, THE GRAVEL WILL BE REMOVED, AND THE AREA SCARIFIED, AERATED, AND RE-SEEDED.
6. ACCESS AISLES SHOWN ON THIS PLAN INDICATE CONSTRUCTION AND MAINTENANCE ACCESS POINTS FOR INGRESS/EGRESS. PRIOR TO CONSTRUCTION, THESE AISLES ARE COMPACTED BY A SMOOTH DRUM OR SHEEPSFOOT ROLLER PRIOR TO REDUCE/PREVENT RUTTING. GRAVEL MAY BE PLACED IN HIGH TRAFFIC OR POORLY DRAINED AREAS DURING CONSTRUCTION ACTIVITIES TO IMPROVE ACCESS. SOIL ACCESS AISLE WILL BE SCARIFIED, AERATED, AND RE-SEEDED AFTER CONSTRUCTION. ACCESS AISLES TO INVERTERS MAY REQUIRE GRAVEL TO SUPPORT DELIVERY EQUIPMENT LOADS. SOIL CONDITIONS AND FINAL EQUIPMENT SELECTION WILL DETERMINE IF GRAVEL ACCESS AISLES WILL BE REQUIRED TO INVERTER LOCATIONS.
7. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS FOR EXCAVATIONS; FINAL RULE 29CFR PART 1926, SUBPART "P" APPLIES TO ALL EXCAVATIONS EXCEEDING THE DESIGN OF FIVE (5) FEET IN DEPTH. EXCAVATION EXCEEDING TWENTY (20) FEET IN DEPTH REQUIRES A TRENCH SAFETY SYSTEM BY A REGISTERED PROFESSIONAL ENGINEER, PROVIDED BY CONTRACTOR RESPONSIBLE FOR EXCAVATION.
8. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE TO PROVIDE SIGNS, BARRICADES, WARNING LIGHTS, GUARD RAILS, AND EMPLOY FLAGGERS AS NECESSARY WHEN CONSTRUCTION ENDANGERS EITHER VEHICULAR OR PEDESTRIAN TRAFFIC. THESE DEVICES SHALL REMAIN IN PLACE UNTIL THE TRAFFIC MAY PROCEED NORMALLY AGAIN.
9. CONTRACTOR SHALL MAINTAIN ACCESS AND UTILITY SERVICES TO ALL REMAINING BUILDINGS AND ADJACENT BUILDINGS THROUGHOUT THE DEMOLITION AND CONSTRUCTION PHASES.
10. CONTRACTOR SHALL NOTIFY "NORTH CAROLINA ONE CALL" (1-800-632-4949) AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION OR EXCAVATION TO HAVE EXISTING UTILITIES LOCATED. CONTRACTOR TO CONTACT ANY LOCAL UTILITIES THAT PROVIDE THEIR OWN LOCATOR SERVICES INDEPENDENT OF "NORTH CAROLINA ONE CALL" AND ALSO CONTRACT A PRIVATE UTILITY LOCATOR TO LOCATE ALL UNC GREENSBORO UTILITIES. REPORT ANY DISCREPANCIES TO THE ENGINEER IMMEDIATELY.
11. CONTRACTOR IS RESPONSIBLE FOR COORDINATING CONSTRUCTION ACTIVITIES WITH THE APPROPRIATE UTILITY COMPANIES FOR ANY REQUIRED DEMOLITION AND/OR RELOCATION (I.E. GAS, POWER, TELEPHONE, CABLE, WATER, SEWER, ETC.)
12. NO FIELD SURVEY OF THE SITE HAS BEEN COMPLETED AT THIS TIME. EXISTING UTILITIES SHOWN ARE BASED ON GIS AND AERIAL IMAGERY. THE CONTRACTOR SHALL VERIFY CONDITIONS PRIOR TO BEGINNING CONSTRUCTION. ANY DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THE PLANS SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
13. EXISTING IMPROVEMENTS DAMAGED DURING CONSTRUCTION SHALL BE REPLACED/RESTORED TO TO THE SATISFACTION OF THE OWNER BY THE CONTRACTOR RESPONSIBLE FOR THE DAMAGE.
14. ALL DIMENSIONS AND GRADES SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE OWNER IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN OR GRADE CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO CONTRACTOR FOR ANY WORK DONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.
15. EQUIPMENT AND PRODUCTS OTHER THAN THOSE SPECIFIED MAY BE USED PROVIDED APPROVAL HAS BEEN OBTAINED FROM THE OWNER IN WRITING PRIOR TO ORDERING OR INSTALLATION. THE CONTRACTOR SHALL WAIVE ANY CLAIM FOR ADDITIONAL COST RELATED TO THE SUBSTITUTION OF ALTERNATE EQUIPMENT.
16. CONTRACTOR SHALL MAINTAIN AN "AS-BUILT" SET OF DRAWINGS TO RECORD THE EXACT LOCATION OF ALL UTILITIES PRIOR TO CONCEALMENT. DRAWINGS SHALL BE GIVEN TO THE OWNER UPON COMPLETION OF THE PROJECT WITH A COPY OF THE TRANSMITTAL LETTER TO THE ENGINEER.

REV NO.	DESCRIPTIONS	DATE
	REVISIONS	

SEAL

SEAL — NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 31496 DOUGLAS A. DRAFFEN 10/8/15

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Phone: (704)841-2588, Fax: (704)841-2567
F-1222
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CYPRESS CREEK RENEWABLES

CYPRESS CREEK RENEWABLES

SITE PLAN
BEARFORD II SOLAR FARM
PENDER COUNTY, NC

DATE:	10/08/15
MCE PROJ. #	6838-0017
DRAWN	JPM
DESIGNED	JPM
CHECKED	DKD
PROJ. MGR	DKD

SCALE — HORIZONTAL: 1" = 100' — VERTICAL: N/A

MMC FILE NUMBER: CS-101

DRAWING NUMBER: 3

STATUS: PRELIMINARY NOT FOR CONSTRUCTION

REVISION: --

Attachment 1

REQUEST FOR BOARD ACTION

ITEM NO. 14

DATE OF MEETING: September 28, 2015

REQUESTED BY: Megan O'Hare, Senior Planner, Planning & Community Development

SHORT TITLE: Resolution Requesting Approval of a Special Use Permit (SUP) for the Construction and Operation of a Solar Farm.

BACKGROUND: Bearford Farm, LLC, applicant and owner, is requesting approval of a Special Use Permit for the construction and operation of a solar farm (NAICS 221119). The property is zoned RA, Rural Agricultural zoning district and according to the Pender County Unified Development Ordinance §5.2.3 Table of Permitted Uses; other electric power generation (NAICS 221119) is permitted via Special Use Permit. There is one (1) tract associated with this request and is located at 478 Old Savannah Road (SR 1347). The subject property may be further identified by Pender County PIN 3321-14-2767-0000.

SPECIFIC ACTION REQUESTED: To Hold a Public Hearing and Consider the Approval of a Special Use Permit for a solar farm.

RESOLUTION

NOW, THEREFORE BE IT RESOLVED by the Pender County Board of Commissioners that:

on September 28, 2015 the Pender County Board of Commissioners (approved, modified, denied) a Special Use Permit request as described herein. The Chairman/County Manager is authorized to execute any/all documents necessary to implement this resolution.

AMENDMENTS:

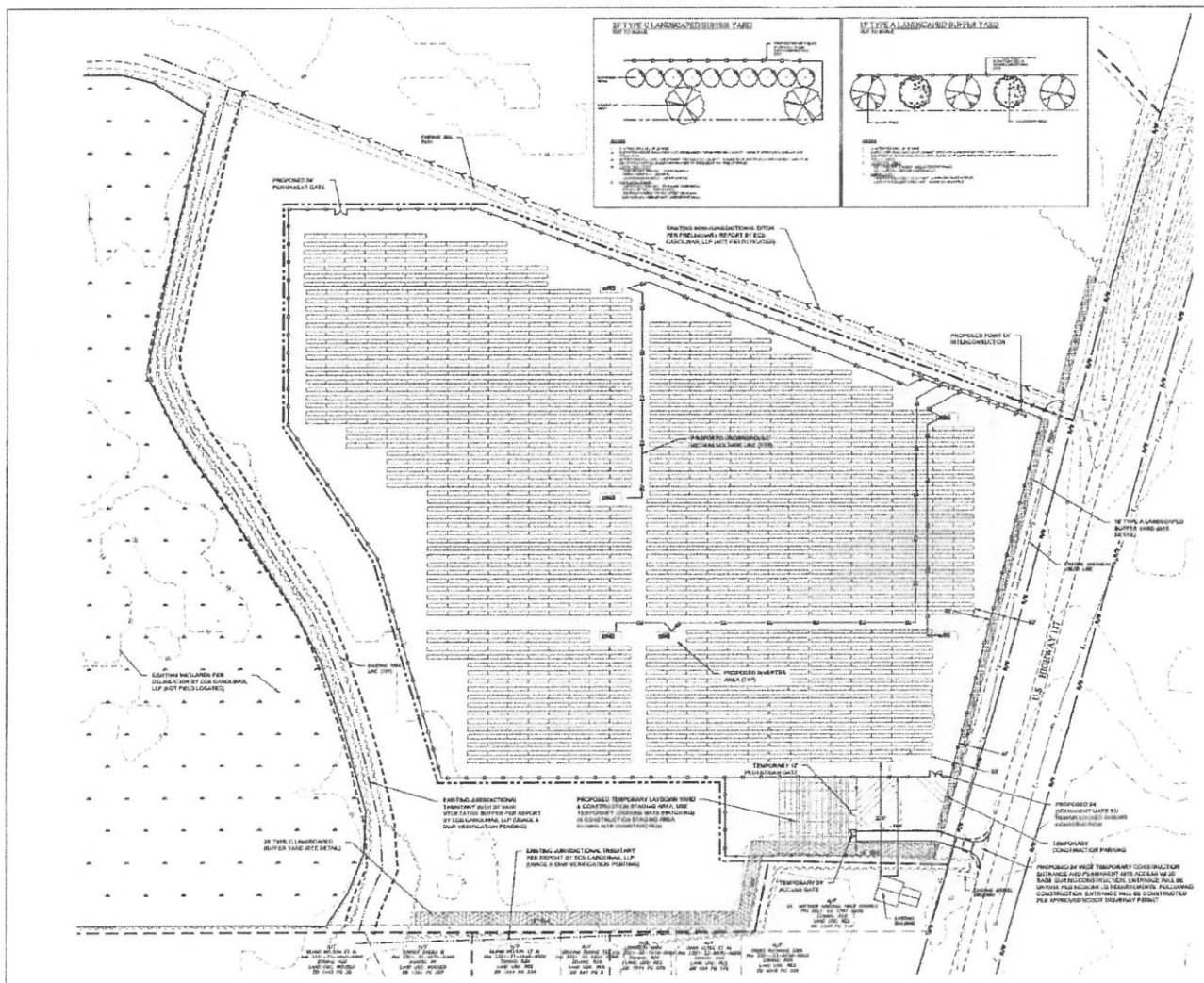
MOVED McCoy SECONDED Piepmeyer

APPROVED ✓ DENIED _____ UNANIMOUS

YEA VOTES: Williams___ Brown ___ McCoy___ Piepmeyer___ Keith___

J. David Williams, Jr., Chairman 9/28/2015 Date

Melissa Pederson 9/28/2015
ATTEST Date



VICINITY MAP
NOT TO SCALE

NOTES:

1. EXISTING PROPERTY INFORMATION

PIN	OWNER	DB/PG	ZONING	PARCEL ACREAGE	LEASED ACREAGE	LAND USE
3220-14-9780-0000	BEARFORD LLC	2406/146	RA	986.37	30.07	VACANT

SITE ADDRESS: 478 OLD SAVANNAH ROAD, BURGAW, PENDER COUNTY, NC
BOOK 53/261, CAPE FEAR
(MAP 59/453) BURGAW CREEK
MINIMUM SETBACK REQUIREMENTS:

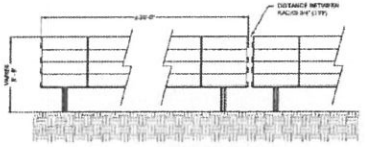
FRONT	50'
SIDE	15'
REAR	30'

2. THE PURPOSE OF THIS PLAN SITE IS A SPECIAL USE PERMIT APPLICATION FOR REVIEW AND APPROVAL BY PENDER COUNTY TO CONSTRUCT A SOLAR ELECTRIC POWER PLANT. THE LOCATION OF PROPOSED IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO, FENCING, SOLAR ARRAY RACKING, INVERTERS, OVERHEAD POLES & LINING, ETC., SHOWN IS APPROXIMATE AND MAY BE SUBJECT TO MODIFICATION DUE TO SITE CONDITIONS, ADDITIONAL PERMITTING REQUIREMENTS (NCDOT, NCDENR, NHPSHPO, ETC.), EQUIPMENT SPECIFICATIONS, AND/OR OTHER CONSTRAINTS. ANY REVISIONS WILL BE SUBMITTED FOR STAFF APPROVAL PRIOR TO CONSTRUCTION TO VERIFY COMPLIANCE WITH ZONING REQUIREMENTS AND CONDITIONS AS APPROVED.
3. TOPOGRAPHIC DATA & EASEMENTS SHOWN ON THIS PLAN IS PER NCDOT LIDAR TOPOGRAPHY, PENDER COUNTY GIS AND AERIAL IMAGERY.
4. WATERS OF THE US SHOWN PER PRELIMINARY REPORT BY ECS CAROLINAS, LLP.
5. THE PROPERTY SHOWN HEREON DOES NOT CONTAIN SPECIAL FLOOD HAZARD AREAS (ARE SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD) AS SHOWN ON FIRM PANEL #3720870700J, EFFECTIVE DATE FEBRUARY 16, 2007.
6. ALL RIGHT-OF-WAYS ARE PUBLIC, UNLESS NOTED OTHERWISE.
7. UTILITY LINES AND SERVICES SHOWN HEREON ARE APPROXIMATE PER AERIAL PHOTOGRAPHY OR AS REPORTED BY VARIOUS INDIVIDUALS PARTIES. CONTRACTOR OF UNDERGROUND UTILITIES ARE APPROXIMATE AND MUST BE FIELD VERIFIED. CALL NC ONE CALL (811) BEFORE BEGINNING AT SITE.
8. UPON USE OF ALL PERMITS AND APPROVED PLANS MUST BE KEPT ON SITE IN A PERMIT BOX THAT IS CONSPICUOUSLY LOCATED AND EASILY ACCESSIBLE DURING CONSTRUCTION.
9. ASSESSMENT AND EROSION CONTROL PLAN WILL BE APPROVED BY NCDENR LQS PRIOR TO BEGINNING CONSTRUCTION.
10. A DRIVEWAY PERMIT WILL BE APPROVED BY NCDOT PRIOR TO BEGINNING CONSTRUCTION.
11. PROJECT AREA, INCLUDING CONSTRUCTION STAGING AREAS, WILL BE CLEARED AND GRUBBED AS REQUIRED, ATTAINING PRE-DEVELOPMENT DRAINAGE PATTERNS AS NO MAJOR GRADING. A PORTION OF PROJECT AREA MAY CONSIST OF TREE CLEARING ONLY AND GRUBBING TO ALLEVIATE BUNCHING OF THE ARRAY. AS INDICATED ON THE SITE PLAN, MINOR GRADING MAY TAKE PLACE INCLUDING INVERTER AREAS TO ENSURE SURFACE DRAINAGE. CONSTRUCTION STAGING AND AREAS SUBJECT TO RUTTING DURING CONSTRUCTION WILL BE TEMPORARILY SURFACED WITH LUMBER MATS, WHICH WILL BE REMOVED FOLLOWING CONSTRUCTION. THE ONLY PERMANENT IMPERVIOUS SURFACES WILL BE LESS THAN 500 SF OF CONCRETE AT EACH INVERTER AREA.
12. PROPOSED TEMPORARY LAYDOWN YARD/CONSTRUCTION STAGING AREA TO BE USED DURING SITE CONSTRUCTION. A PORTION OF THIS AREA PREVIOUSLY WILL BE COVERED WITH LUMBER MATS TO ALLOW DELIVERY OF CONSTRUCTION MATERIALS. PRIOR TO CONSTRUCTION, THIS AREA WILL BE COMPACTED BY A SMOOTH DRUM ROLLER TO REDUCE/PREVENT RUTTING. FOLLOWING CONSTRUCTION, THE LUMBER MATS ARE REMOVED AND THE ENTIRE AREA IS RESTORED TO PRE-CONSTRUCTION CONDITIONS.
13. ACCESS AISLES ARE COMPACTED BY A SMOOTH DRUM ROLLER TO REDUCE/PREVENT RUTTING. LUMBER MATS MAY BE PLACED IN HIGH TRAFFIC OR POORLY DRAINED AREAS DURING CONSTRUCTION ACTIVITIES TO IMPROVE ACCESS. NO PERMANENT IMPERVIOUS SURFACES OR REPURPOSED SURFACES (I.E. MINERAL OR ASPHALT) WILL BE INSTALLED OR REMOVED AS PART OF THIS CONSTRUCTION OR MAINTENANCE ACTIVITIES.
14. PROPOSED 24' ACCESS GATE (YARD 14' WIDE GATE) & 6' TALL CHAIN LINK WITH 3 STRANDS OF BARBED WIRE. GATE WILL BE LOCKED WITH STANDARD KEYED OR COMBINATION LOCK. EMERGENCY PERSONNEL WILL BE ALLOWED BY PRIVATE EXPERTS WILL BE PROVIDED A KEY OR COMBINATION FOR ACCESS.
15. NO LIGHTING IS PROPOSED FOR THIS SITE.
16. ALUMINUM SIGNS (LAMINATE - WHITE VINYL WITH BLACK LETTERING) MEASURING 14" X 10" IN SIZE, WILL BE PLACED ON PERIMETER SECURITY FENCING, ALTERNATING EVERY 100' AROUND THE ARRAY.
17. SYSTEMS, EQUIPMENT AND STRUCTURES WILL NOT EXCEED FIFTEEN (15) FEET IN HEIGHT WHEN GROUND MOUNTED. EXCLUDED FROM THIS HEIGHT REQUIREMENT, HOWEVER, ARE OVERHEAD ELECTRIC DISTRIBUTION LINES AND UTILITY POLES.
18. THE INCREASE IN POST DEVELOPMENT RUNOFF RATE IS EXPECTED TO BE MINIMAL DUE TO THE LOW IMPERVIOUS SURFACE ASSOCIATED WITH THIS PROPOSED PROJECT. THEREFORE, A STORMWATER MANAGEMENT PLAN HAS NOT BEEN PREPARED. THE SOLAR PANELS ARE INSTALLED USING A 5 INCH AMP ABOVE AND BELOW EACH MODULE AND NOTHING OVER DISTURBING THE SOLAR INSTALLATION AS PREVIOUS FOR THE PURPOSE OF STORMWATER CALCULATIONS. IF REQUIRED, A STORMWATER PERMIT WILL BE OBTAINED FROM NCDENR-DEMLR.

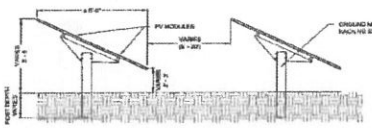
SITE PLAN LEGEND

EXISTING PROPERTY LINE
EXISTING PROPERTY LINE
EXISTING RIGHT-OF-WAY
EXISTING SETBACK
PROPOSED LEASE LINE
EXISTING FENCE LINE
PERMANENT SECURITY FENCE
TEMPORARY SECURITY FENCE
EXISTING OVERHEAD POWER LINE
PROPOSED OVERHEAD MEDIUM VOLTAGE LINE
PROPOSED UNDERGROUND MEDIUM VOLTAGE LINE
EXISTING TREE LINE
PROPOSED TREE LINE
PROPOSED TREE CLEARING
PROPOSED SOLAR ARRAY
PROPOSED INVERTER AREA
EXISTING UTILITY POLE
PROPOSED UTILITY POLE (BY STRATA)
PROPOSED UTILITY POLE (BY OTHERS)
PROPOSED GUY WIRE

SCALE: 1" = 100'



TYPICAL RACK HEIGHT ELEVATION



TYPICAL RACK SIDE ELEVATION

DC SYSTEM SIZE (MW)	5.0
AC SYSTEM SIZE (MW)	5.000
MODULE MANUFACTURER	TBD
MODULES	14,175W
MAX OVERHANG	11.75
TILT	25 YOM
MODULE ORIENTATION	90°
AZIMUTH	180°
ROW SPACING	8' (LMR)
RACKS (MODULES)	2X14
RACKS (STRING)	1X70

STRATA SOLAR PLLC
30300 Bainbridge Drive, Suite 200
Duluth, NC 30097
(678) 580-0100
www.strata-solar.com
NC License No. 0x3894

BEARFORD SOLAR ELECTRIC POWER PLANT
478 OLD SAVANNAH RD.
BURGAW, NC
PENDER COUNTY

07/09/2015
C-348-14-BEAR
BEARFORD
5.00 MWp AC
BTN
JMH
JRD / APL

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 038161 JAMES R. DEMPSEY II
09/01/2015

REVISIONS

#	DESCRIPTION	BY
1	ADD SLOPES	JRD
2	09/15/15	JRD

PRELIMINARY SITE PLAN

1" = 100'

C 2.1

8.2.4 Prohibited Use of Buffer Area

A buffer area shall not be used for any building or use, accessory building or use, parking or loading area, storage area, or other principal or accessory uses except as specifically permitted in this Ordinance.

8.2.5 Planting in Easements

A. Where required plantings are located in easements, the property owner shall be responsible for replacement of such required vegetation if maintenance or other utility requirements require their removal.

B. No trees shall be planted in wet retention ponds, drainage maintenance easement, or any utility maintenance easements.

C. Shrubs may be planted within easements, provided they are only within the outer three feet of the easement. No new trees may be planted in an easement.

D. Existing trees may remain in dry retention ponds provided that the natural grade is undisturbed to the tree line, they are a species adapted to seasonal flooding and the pond is adequately maintained.

8.2.6 Buffer Descriptions and Options

The following descriptions list the specifications of each buffer. The requirements reflect the minimum and the developer may increase the buffer at his/her option. Buffer requirements are stated in terms of width of the buffer and the number of plant units required per one hundred (100) linear feet of buffer. The requirements of a buffer may be satisfied by any of the options under each letter designation or existing equivalent vegetation. All mathematical rounding shall be upward and shall be applied to the total amount of plant material required in the buffer, not to each one hundred (100) foot length. The required canopy and understory trees shall generally be spread uniformly along the buffer. Shrubs may be clustered when a 98% grass cover is provided in all areas of the buffer other than within 4 ft. of the base of any tree or shrub.

Buffer A

Buffer "A" This buffer is designed primarily for road frontage areas and should run parallel to the street to provide a continuous, aesthetically pleasing streetscape. The requirements for buffer "A" shall be met by any one of the following:
A-1) 15 foot wide strip with 3 canopy trees, 2 understory trees and a grass cover of at least 98 % coverage (except within 4 feet of the base of any tree), per 100 linear feet (width may be reduced to 10' for existing developed lots that are subject to new buffer requirements), or
A-2) 20 foot wide strip with 3 canopy trees, 2 understory trees and either a grass cover of at least 98 % coverage (except within 4 feet of the base of any tree or shrub) or 18 shrubs per 100 linear feet, or
A-3) 25 foot wide strip with 1 canopy tree, 2 understory trees and either a grass cover of at least 98 % coverage (except within 4 feet of the base of any tree or shrub) or 21 shrubs per 100 linear feet, or
A-4) 30 foot wide strip with 1 canopy tree, 2 understory trees and either a grass or other approved vegetative ground cover of at least 98 % coverage (except within 4 feet of the base of any tree or shrub) or 32 shrubs per 100 linear feet.

Buffer B

Buffer "B" This buffer is a medium density planting area to be used primarily along non street boundary lines to provide spatial separation between similar types of uses. The requirements for buffer "B" shall be met by any one of the following:
B-1) 10 foot wide strip with 3 canopy trees, 4 understory trees and a grass cover of at least 98 % coverage (except within 4 feet of the base of any tree), per 100 linear feet, or
B-2) 15 foot wide strip with 3 canopy tree, 2 understory trees and a grass cover of at least 98 % coverage (except within 4 feet of the base of any tree), per 100 linear feet, or
B-3) 20 foot wide strip with 1 canopy tree, 2 understory tree and either a grass cover of at least 98 % coverage (except within 4 feet of the base of any tree or shrub) or 15 shrubs per 100 linear feet, or
B-4) 25 foot wide strip with 0 canopy trees, 5 understory trees and either a grass cover of at least 98 % coverage (except within 4 feet of the base of any tree or shrub) or 21 shrubs per 100 linear feet.

Buffer C

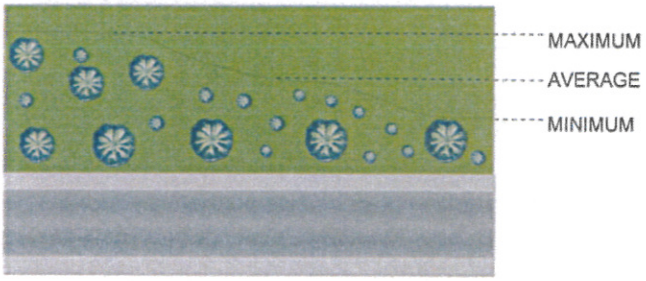
Buffer "C" This buffer is designed to provide a high density screen primarily along non street boundary lines to provide buffer and separation between different categories of uses such as commercial adjacent to residential uses or other non-residential uses adjacent to high density single family residential uses. The requirements for buffer "C" shall be met be any one of the following:
C-1) 10 foot wide strip with a 6 foot high wood stockade, basket weave, or other solid wood fence and 2 canopy trees and a grass cover of at least 98 % coverage (except within 4 feet of the base of any tree), per 100 linear feet, or
C-2) 15 foot wide strip with a 6 foot high wood stockade, basket weave, or other solid wood fence or an evergreen hedge* that will provide a continuous screen at least 6' high within 4 years and 1 canopy tree, 4 understory trees and a grass cover of at least 98 % coverage (except within 4 feet of the base of any tree), per 100 linear feet, or *Reference spacing requirements in plant list for specific species and spacing to achieve evergreen hedge
C-3) 20 foot wide strip with an evergreen hedge that will provide a continuous screen at least 6' high within 4 years and 1 canopy tree or 3 understory trees and a grass cover of at least 98 % coverage (except within 4 feet of the base of any tree), per 100 linear feet, or
C-4) 25 foot wide strip with an evergreen hedge that will provide a continuous screen at least 6' high within 4 years, 2 understory trees and a grass cover of at least 98 % coverage (except within 4 feet of the base of any tree), per 100 linear feet.

Buffer D

Buffer "D" This buffer is a low density planting area to be used along boundary lines in rural areas between large lots or tracts with substantial buffer width and setbacks to provide spatial separation between uses that are developed at very low density. The requirements for buffer "D" shall be met by any one of the following:
D-1) 15 foot wide strip with 3 canopy trees and a grass or other approved vegetative ground cover of at least 98 % coverage (except within 4 feet of the base of any tree) per 100 linear feet, or
D-2) 20 foot wide strip with 2 canopy trees, 2 understory trees and a grass or other approved vegetative ground cover of at least 98 % coverage (except within 4 feet of the base of any tree) per 100 linear feet, or
D-3) 25 foot wide strip with 1 canopy tree, 3 understory trees and a grass or other approved vegetative ground cover of at least 98 % coverage (except within 4 feet of the base of any tree) per 100 linear feet.

8.2.7 Buffer Depth Averaging

While the buffer depth is normally calculated as parallel to the property line, design variations are allowed and are calculated on the average depth of the buffer per 100 feet of linear width measured along the property line. Minimum depth of buffer in any case shall not be less than 50% the required depth of the buffer chosen. Maximum depth shall not be more than 150% the required depth of the buffer chosen.



8.2.8 Project Boundary Buffer

The following are the buffering requirements of listed permitted uses in each district and certain special types of development. Special uses may be required to meet additional buffer requirements, but shall in all cases be required to have at a minimum the same buffer as permitted uses. Existing vegetation that meets or exceeds the requirements of the specific buffer is desired and allowed instead of any required new plantings.

Buffers Required for Mobile Home Parks - Mobile home parks shall be required to have the following buffers:	
Location of Buffer for Mobile Home Parks	Type Buffer
Along all boundaries adjacent to a street	Buffer A
Along all boundaries adjacent to single family residential uses or residential lots with a parcel size of less than 1 acre and when a single family structure is within 50' of the boundary of the park	Buffer C
Along all other boundaries	Buffer B

Buffers Required for Multifamily and Planned Developments - Multifamily and Planned Developments shall be required to have the following buffers:	
Location of Buffer for Multi-family & Planned Developments	Type Buffer
Along all boundaries adjacent to a street	Buffer A
Along all boundaries adjacent to single family residential uses or residential lots with a parcel size of less than 1 acre and when a single family structure is within 50' of the boundary of the development	Buffer C
Along all other boundaries	Buffer B

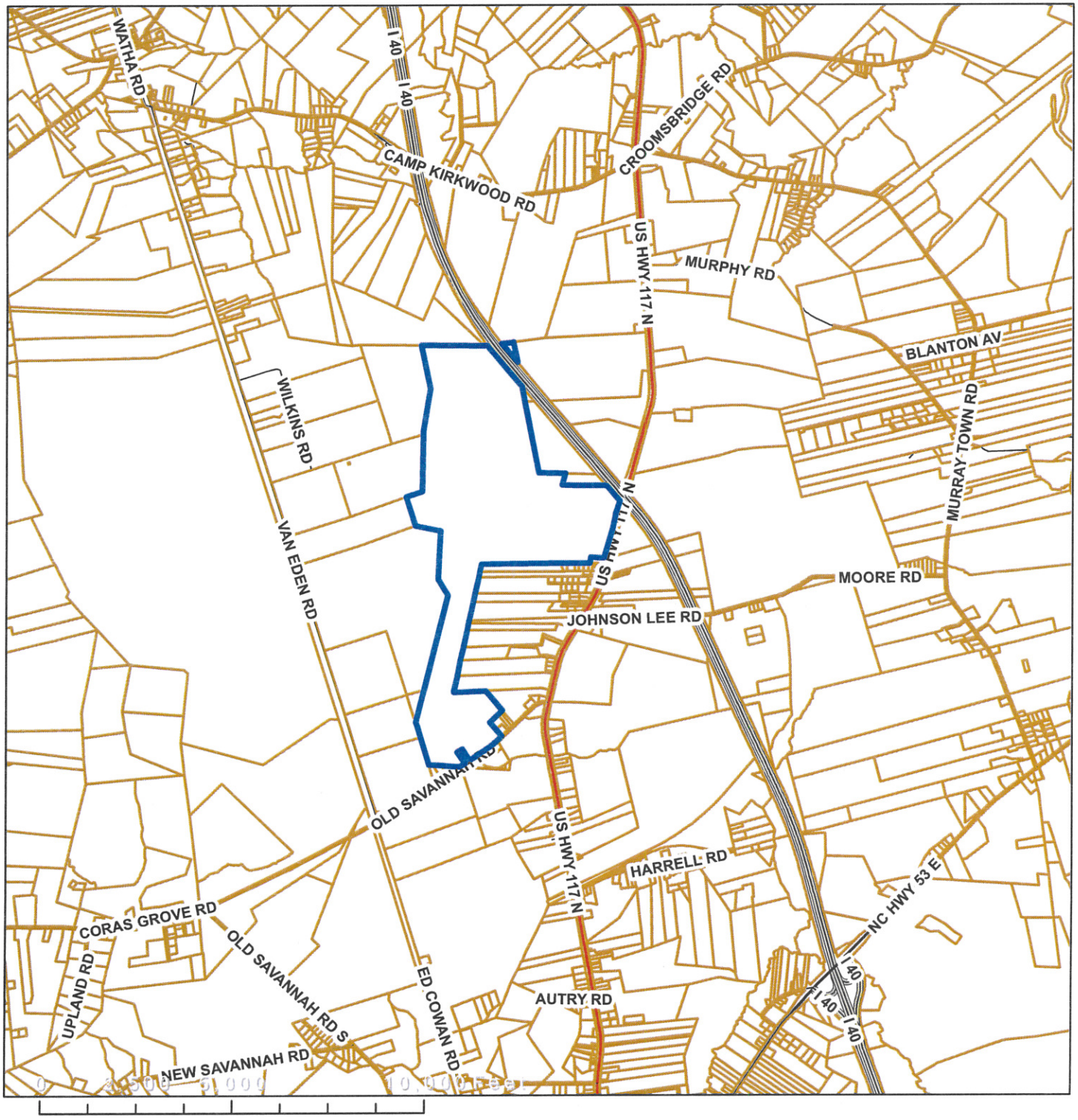
Buffers Required for Shopping Centers - Shopping centers shall be required to have the following buffers:	
Location of Buffer for Shopping Centers	Type Buffer
Along all boundaries adjacent to a street	Buffer A
Along all boundaries adjacent to Residential Districts or uses and adjacent to single family residential uses or residential lots with a parcel size of less than 1 acre and when a single family structure is within 50' of the boundary of the development	Buffer C
Along all other boundaries	Buffer B

Buffers Required for All Non-residential Uses (Excludes Industrial Uses) in All Residential Districts, (RA, RP, RM, MH) - Residential uses in Residential Districts are not required to have buffers, except as required for mobile home parks, Multifamily and Planned Developments. All commercial or uses other than residential uses (excluding industrial uses) in the Residential Districts shall provide the following buffers: Uses in these districts that require a special use permit will in addition, provide other buffers as specified in the special use permit.	
Location of Buffer for Non-residential Uses in the Residential Districts	Type Buffer
Along all street boundaries of the Development	Buffer A
Along all boundaries adjacent to single family residential uses or residential lots with a parcel size of less than 1 acre and when a single family structure is within 50' of the boundary of the development	Buffer C
Along all other non-street boundaries	Buffer B

Buffers Required for the Commercial Districts - All uses in the General Business and Office & Institutional Districts shall be required to have the following buffers:	
Location of Buffer for GB and OI Districts	Type Buffer
Along all boundaries adjacent to street right-of-ways	Buffer A
Along all non-street boundaries adjacent to Residential Districts and adjacent to single family residential uses or residential lots with a parcel size of less than 1 acre and when a single family structure is within 50' of the boundary of the development	Buffer C
Along all other boundaries	Buffer B

Buffers Required For The Industrial Districts And Industrial Uses In Any Other Districts	
Location of Buffer for Industrial Districts	Type Buffer
Along all street boundaries	Buffer D
Along all non-street boundaries adjacent to Residential Districts when adjacent to single family residential structures within 50' of the project boundary	Buffer C
Along all other boundaries	Buffer D

Buffers Required in the Watershed Overlays (WS-PA & WS-CA).	
Type Use	Buffer Requirement Watershed Districts
Bona fide Farms	Bona fide Farms in the Watershed Critical Area District (WSCA) shall maintain a 10 foot permanently vegetated buffer adjacent to all perennial waters as shown on the most recent edition of the USGS 1:24000 (7.5 minute) topographic map. The buffer shall remain vegetated and shall be used only for access and utilities.
Silviculture Activities	Silviculture activities shall maintain buffers (Streamside Management Zones) as described in the Division of Forest Resources Rules and Best Management Practices Manual.
All activities, other than bona fide farms and silviculture activities	All activities, other than bona fide farms and silviculture activities shall maintain a 30 foot vegetated buffer adjacent to all perennial waters as shown on the most recent edition of the USGS 1:24000 (7.5 minute) topographic map. The buffer shall remain vegetated and shall be used only for access and utilities.



Applicant:
Bearford Solar II, LLC.

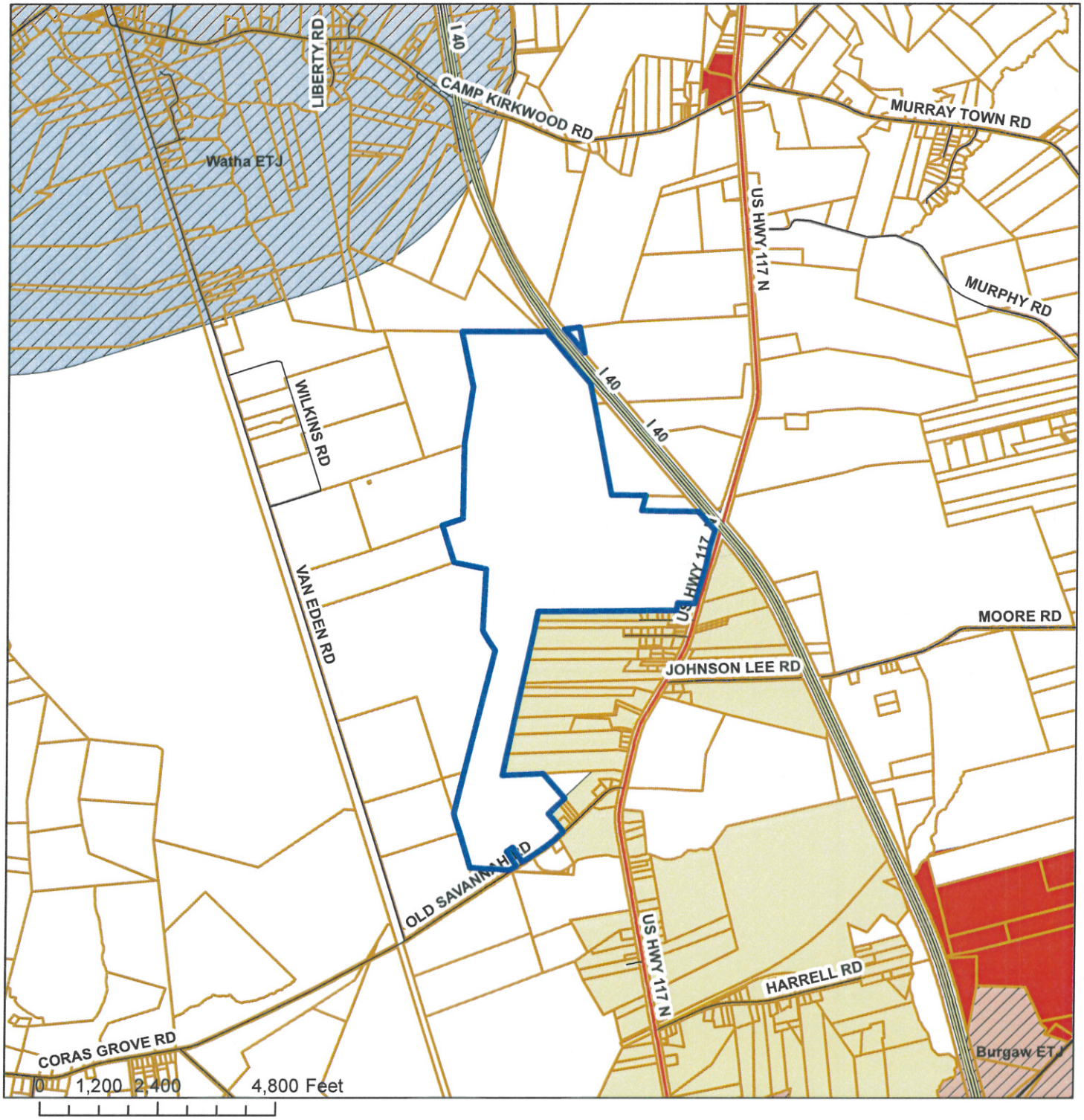
Owner:
Bearford, LLC.

Special Use Permit:
#000055-2015

Legend

Subject Property

Vicinity



Applicant:
Bearford Solar II, LLC.

Owner:
Bearford, LLC.

Special Use Permit:
#000055-2015

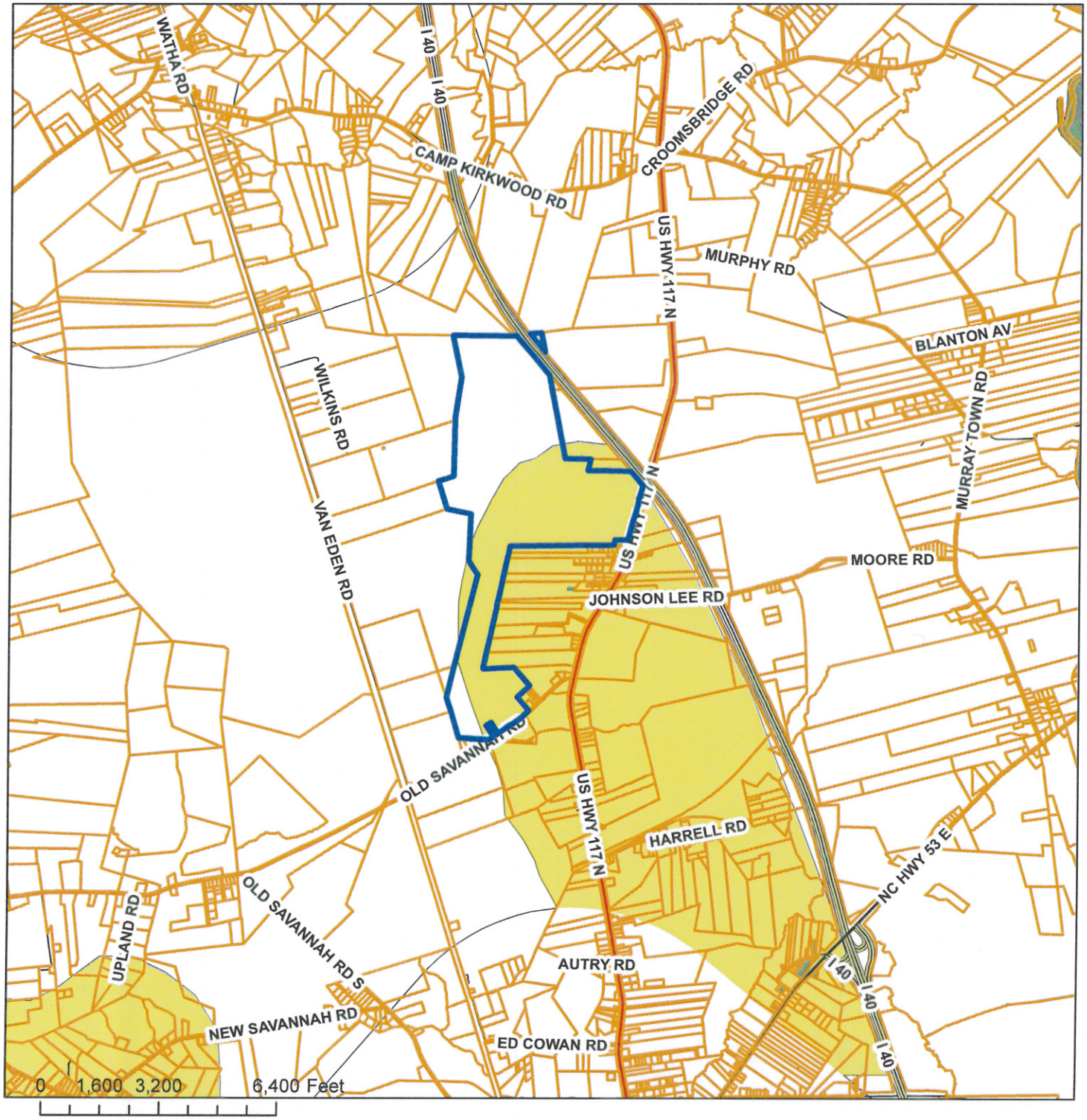
Legend

UDO Zoning

- EC, Environmental Conservation
- GB, General Business
- GI, General Industrial
- Incorporated
- IT, Industrial Transition
- MH, Manufactured Housing
- O&I, Office & Institutional
- PD, Planned Development
- RA, Rural Agricultural
- RA-Conditional Zoning 1
- RP, Residential Performance
- Subject Property

N

Current Zoning



Applicant:
Bearford Solar II, LLC.

Owner:
Bearford, LLC.

Special Use Permit:
#000055-2015

Legend

Future Land Use

- Industrial
- Mixed Use
- Office, Institutional, Business
- Rural Growth
- Suburban Growth
- Subject Property

N

Future Land Use

Applicant:
Bearford Solar II, LLC.

Owner:
Bearford, LLC.

Special Use Permit:
#000055-2015

Legend

Subject Property

2012 Aerial