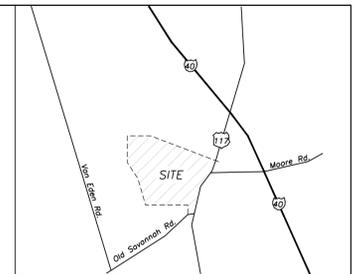




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 Chapel Hill, NC 27517  
 919-960-6015  
 www.stratasolar.com  
 NC License No.: D-0298

DEVELOPER/CONSULTANTS



VICINITY MAP  
 NOT TO SCALE

NOTES

1. EXISTING PROPERTY INFORMATION

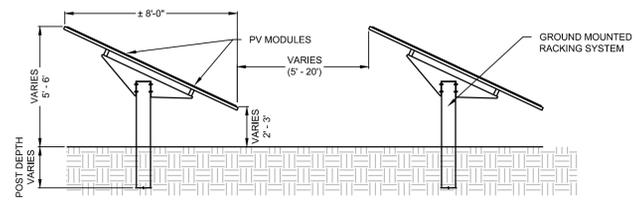
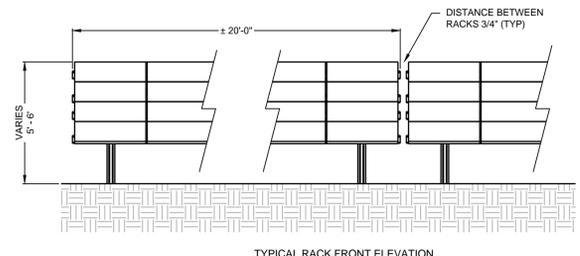
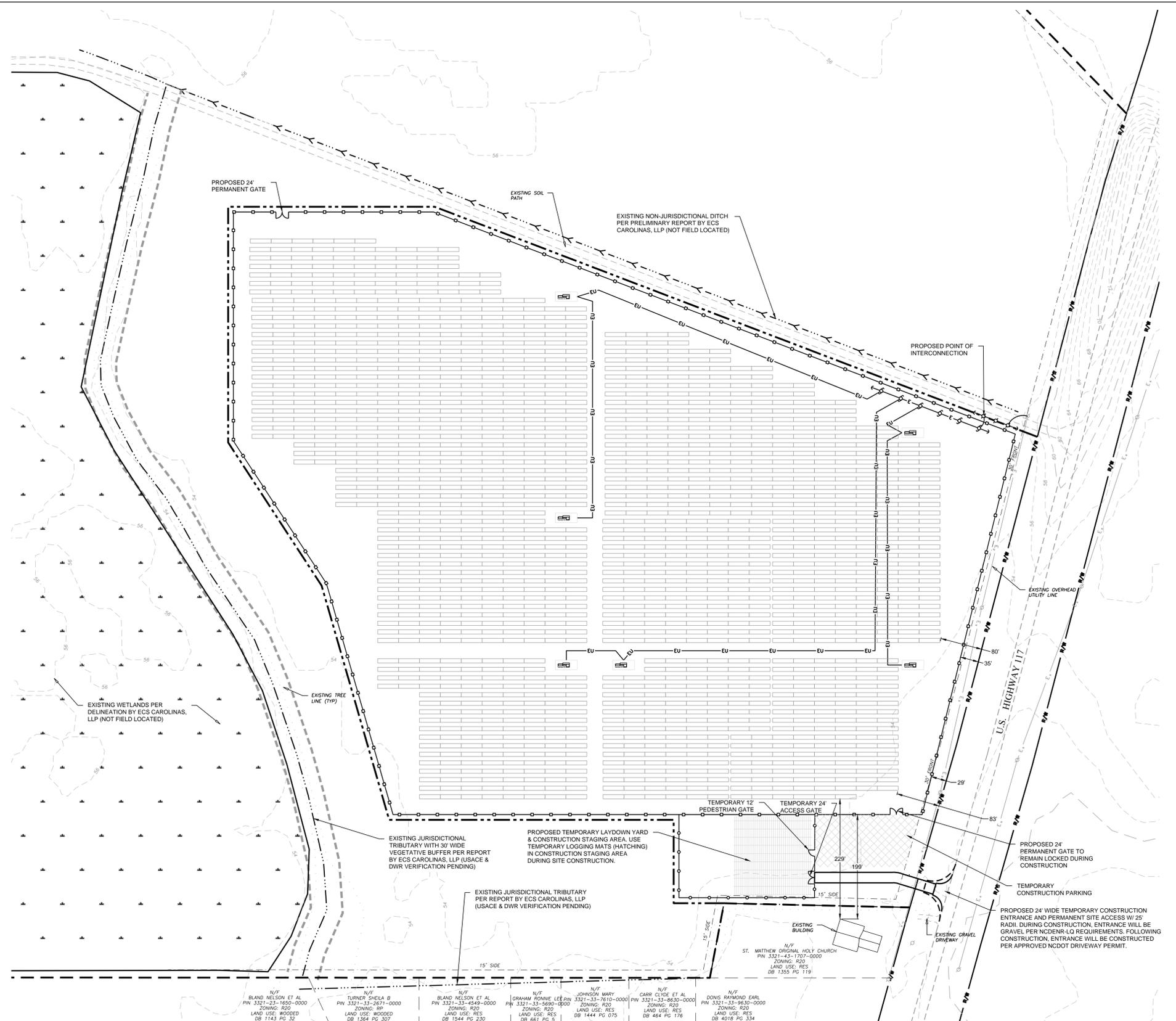
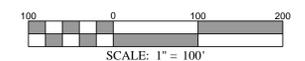
PIN	OWNER	DB/PG	ZONING	PARCEL ACREAGE	LEASED ACREAGE	LAND USE
3321-14-2767-0000	BEARFORD LLC.	1408/148	RA	598.07	32.81	VACANT
				TOTAL ACREAGE	598.07	32.81

SITE ADDRESS: 478 OLD SAVANNAH ROAD, WILLARD, PENDER COUNTY, NC  
 RIVER BASIN: CAPE FEAR  
 WATERSHED: BURGAW CREEK  
 MINIMUM SETBACK REQUIREMENTS:  
 ZONING RA  
 FRONT 30'  
 SIDE 15'  
 REAR 30'

- THE PURPOSE OF THIS PLAN IS FOR 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 & LINES, ETC., SHOWN IS APPROXIMATE AND MAY BE SUBJECT TO MODIFICATION DUE TO SITE CONDITIONS, ADDITIONAL PERMITTING REQUIREMENTS (NCDOT, NCDENR, USADCOE, 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.
- TOPOGRAPHIC DATA & EXISTING IMPROVEMENTS SHOWN ON THIS PLAN IS PER NCDOT LIDAR TOPOGRAPHY, PENDER COUNTY GIS AND AERIAL IMAGERY.
- WATERS OF THE US SHOWN PER PRELIMINARY REPORT BY ECS CAROLINAS, LLP.
- THE PROPERTY SHOWN HEREON DOES NOT CONTAIN SPECIAL FLOOD HAZARD AREAS (SFHAS) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD (I.E. 100-YR. EVENT) PER FEMA FIRM MAP PANEL NO. 3720332100J EFFECTIVE DATE FEBRUARY 16, 2007.
- ALL RIGHT-OF-WAYS ARE PUBLIC, UNLESS NOTED OTHERWISE.
- UTILITY LINES AND SERVICES SHOWN HEREON ARE APPROXIMATE PER AERIAL PHOTOGRAPHY OR AS REPORTED BY VARIOUS RESPONSIBLE PARTIES. LOCATION OF UNDERGROUND UTILITIES ARE APPROXIMATE AND MUST BE FIELD VERIFIED. CALL NC ONE CALL CENTER BEFORE DIGGING AT 811.
- COPIES OF ALL PERMITS AND APPROVED PLANS MUST BE KEPT ON-SITE IN A PERMIT BOX THAT IS CONSPICUOUSLY LOCATED AND EASILY ACCESSIBLE DURING CONSTRUCTION.
- A SEDIMENT AND EROSION CONTROL PLAN WILL BE APPROVED BY NCDENR-LQS PRIOR TO BEGINNING CONSTRUCTION.
- A DRIVEWAY PERMIT WILL BE APPROVED BY NCDOT PRIOR TO BEGINNING CONSTRUCTION.
- PROJECT AREA, INCLUDING CONSTRUCTION STAGING AREAS, WILL BE CLEARED AND GRUBBED AS NECESSARY. RETAINING PRE-DEVELOPMENT DRAINAGE PATTERNS (I.E. NO MASS GRADING). A PORTION OF PROJECT AREAS MAY CONSIST OF TREE CLEARING ONLY (NO GRUBBING) TO ALLEVIATE SHADING OF THE ARRAY, AS INDICATED ON THE SITE PLAN. MINOR GRADING ONLY WILL OCCUR AROUND INVERTER AREAS TO DIVERT SURFACE DRAINAGE. CONSTRUCTION STAGING AND AREAS SUBJECT TO RUTTING DURING CONSTRUCTION WILL BE TEMPORARILY STABILIZED WITH LOGGING MATS, WHICH WILL BE REMOVED FOLLOWING CONSTRUCTION. THE ONLY PERMANENT IMPERVIOUS SURFACES WILL BE LESS THAN 200 SF OF CONCRETE AT EACH INVERTER AREA.
- PROPOSED TEMPORARY LAYDOWN YARD/CONSTRUCTION STAGING AREA TO BE USED DURING SITE CONSTRUCTION. A PORTION OF THIS AREA (HATCHED) WILL BE COVERED WITH LOGGING 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 LOGGING MATS ARE REMOVED AND THE ENTIRE AREA IS RESTORED TO PRE-CONSTRUCTION CONDITIONS.
- ACCESS AISLES ARE COMPACTED BY A SMOOTH DRUM ROLLER TO REDUCE/PREVENT RUTTING. LOGGING MATS MAY BE PLACED IN HIGH TRAFFIC OR POORLY DRAINING AREAS DURING CONSTRUCTION ACTIVITIES TO IMPROVE ACCESS. NO PERMANENT IMPROVEMENTS OR IMPERVIOUS SURFACES (I.E. GRAVEL OR ASPHALT) WILL BE INSTALLED IN ACCESS AISLES FOR CONSTRUCTION OR MAINTENANCE ACTIVITIES.
- PROPOSED 24' ACCESS GATE (TWO 12' SECTIONS) IS 6' TALL CHAIN LINK WITH 3 STRANDS OF BARBED WIRE. GATE WILL BE LOCKED WITH STANDARD KEYS OR COMBINATION LOCK. EMERGENCY PERSONNEL (AS DESIGNATED BY PENDER COUNTY) WILL BE PROVIDED A KEY OR COMBINATION FOR ACCESS.
- NO LIGHTING IS PROPOSED FOR THIS SITE.
- ALUMINUM SIGNS ("DANGER - HIGH VOLTAGE" AND "DANGER - NO TRESPASSING") MEASURING 14" X 10" IN SIZE, WILL BE PLACED ON PERMANENT SECURITY FENCING, ALTERNATING EVERY 100' AROUND THE ARRAY.
- 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.
- THE INCREASE IN POST DEVELOPMENT RUNOFF RATE IS EXPECTED TO BE MINIMAL DUE TO THE LOW IMPERVIOUS SURFACE ASSOCIATED WITH THE PROPOSED PROJECT. THEREFORE, A STORMWATER MANAGEMENT PLAN HAS NOT BEEN PREPARED. THE SOLAR PANELS ARE INSTALLED USING A 1/4" GAP ABOVE AND BELOW EACH MODULE AND NCDENR-DWR CONSIDERS THE SOLAR INSTALLATION AS PERVIOUS FOR THE PURPOSE OF STORMWATER CALCULATIONS. IF REQUIRED, A STORMWATER PERMIT WILL BE OBTAINED FROM NCDENR-DWR.

SITE PLAN LEGEND

- EXISTING PROPERTY LINE
- EXISTING PROPERTY LINE (NOT SURVEYED)
- EXISTING RIGHT-OF-WAY
- EXISTING SETBACK
- PROPOSED LEASE LINE
- EXISTING FENCE LINE
- PERMANENT SECURITY FENCE (6' CHAIN-LINK WITH 3 STRANDS BARBED WIRE)
- TEMPORARY SECURITY FENCE (6' CHAIN-LINK)
- 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



BEARFORD 5/26/2015	
AC SYSTEM SIZE (MW)	5.0
DC SYSTEM SIZE (MW)	6.498
SYSTEM VOLTAGE	1000
INVERTER	6 x C9800
RACK CONFIGURATION	4 L 10
PANEL	FS 110W
MODULE INCLINATION	20°
AZIMUTH	180°
ROW SPACING	8'(2.44m)
RACKS REQUIRED	1476
RACKS PROVIDED	1476

BEARFORD SOLAR  
 ELECTRIC POWER PLANT  
 478 OLD SAVANNAH RD.  
 WILLARD, NC 28478  
 PENDER COUNTY

DATE	07/09/2015
PROJECT NUMBER	C-346-14-BEAR
PROJECT NAME	BEARFORD
SYSTEM SIZE	5.00 MWp AC
ENGINEER	BTN
CHECKER	JMH
DRAWN BY	JRD / APL



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REVISIONS	
NO.	DESCRIPTION
1	
2	
3	
4	
5	
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9	
10	

DRAWING DESCRIPTION  
**PRELIMINARY SITE PLAN**

SCALE  
 1" = 100'

**C 2.1**