COMMONWEALTH OF KENTUCKY

BEFORE THE KENTUCKY STATE BOARD ON ELECTRIC GENERATION AND TRANSMISSION SITING

In the Matter of:

ELECTRONIC APPLICATION OF SEBREE SOLAR II, LLC FOR A CERTIFICATE TO CONSTRUCT AN APPROXIMATELY 150 MEGAWATT MERCHANT SOLAR ELECTRIC GENERATING FACILITY IN HENDERSON COUNTY, KENTUCKY AND WEBSTER COUNTY, KENTUCKY PURSUANT TO KRS 278.700 AND 807 KAR 5:110	))))))))	**CASE NO. 2022-00131**

SEBREE SOLAR II, LLC RESPONSES TO SECOND REQUEST FOR INFORMATION

Filed: July 21, 2023

RESPONSES TO SITING BOARD STAFF'S SECOND REQUEST FOR INFORMATION

TO SEBREE SOLAR II, LLC

DATED JULY 7, 2023

SEBREE SOLAR II, LLC

PSC CASE NO. 2022-00131

Sebree Solar II, LLC (Sebree Solar II) hereby submits responses to the Second Request for Information of the State Board on Electric Generation and Transmission Siting (Siting Board) in this case dated July 7, 2023. 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:

ELECTRONIC APPLICATION OF SEBREE SOLAR II, LLC FOR A CERTIFICATE TO CONSTRUCT AN APPROXIMATELY 150 MEGAWATT MERCHANT SOLAR ELECTRIC GENERATING FACILITY IN HENDERSON COUNTY, KENTUCKY AND WEBSTER COUNTY, KENTUCKY PURSUANT TO KRS 278.700 AND 807 KAR 5:110	)))))))	**CASE NO. 2022-00131**

VERIFICATION OF JASON ANDREWS

STATE OF FLORIDA)

COUNTY OF PALM BEACH)

Comes now Jason Andrews, Project Director of NextEra Energy Resources, Inc., being first duly sworn, and states that he has supervised the preparation of certain responses of Sebree Solar II, LLC to the Siting Board Staff's Second Request for Information in the above-referenced case dated July 7, 2023, and that the matters and things set forth therein are true and accurate to the best of his knowledge, information and belief, formed after reasonable inquiry.

Jason Andrews

Subscribed and sworn to before me on this 14 day of July 2023.

Notary Public State of Florida
Jennifer Reynoso
My Commission HH 091424
Expires 02/21/2025

Jennifer Reynoso

Notary ID: HH091424

Expires: 2-21-25

COMMONWEALTH OF KENTUCKY

BEFORE THE KENTUCKY STATE BOARD ON ELECTRIC GENERATION AND TRANSMISSION SITING

In the Matter of:

ELECTRONIC APPLICATION OF SEBREE SOLAR II, LLC FOR A CERTIFICATE TO CONSTRUCT AN APPROXIMATELY 150 MEGAWATT MERCHANT SOLAR ELECTRIC GENERATING FACILITY IN HENDERSON COUNTY, KENTUCKY AND WEBSTER COUNTY, KENTUCKY PURSUANT TO KRS 278.700 AND 807 KAR 5:110	)	CASE NO. 2022-00131

VERIFICATION OF ERIN BOWEN

STATE OF ARIZONA)

COUNTY OF MARICOPA)

Comes now Erin Bowen of CohnReznick, Consultant for Sebree Solar II, LLC, being first duly sworn, and states that he has supervised the preparation of certain responses of Sebree Solar II, LLC to the Siting Board Second Request for Information in the above-referenced case dated July 7, 2023, and that the matters and things set forth therein are true and accurate to the best of his knowledge, information and belief, formed after reasonable inquiry.

Erin Bowen

Subscribed and sworn to before me on this 4th day of July 2023.

William Segar JR

Notary ID: 645 31

Expires: 03/13/2027

WILLIAM SEGAR, JR
Notary Public - State of Arizona
MARICOPA COUNTY
Commission # 645754
Expires March 13, 2027

COMMONWEALTH OF KENTUCKY

BEFORE THE KENTUCKY STATE BOARD ON ELECTRIC GENERATION AND TRANSMISSION SITING

In the Matter of:

ELECTRONIC APPLICATION OF SEBREE SOLAR II, LLC FOR A CERTIFICATE TO CONSTRUCT AN APPROXIMATELY 150 MEGAWATT MERCHANT SOLAR ELECTRIC GENERATING FACILITY IN HENDERSON COUNTY, KENTUCKY AND WEBSTER COUNTY, KENTUCKY PURSUANT TO KRS 278.700 AND 807 KAR 5:110	))))))))	**CASE NO. 2022-00131**

VERIFICATION OF JOSHUA CRAWFORD

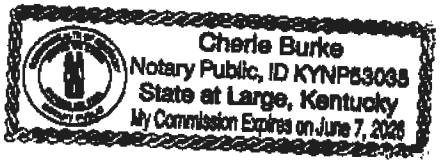
STATE OF KENTUCKY)

COUNTY OF JEFFERSON)

Comes now Joshua Crawford of Pegasus Institute, Consultant for Sebree Solar II, LLC, being first duly sworn, and states that he has supervised the preparation of certain responses of Sebree Solar II, LLC to the Siting Board Staff's Second Request for Information in the above-referenced case dated July 7, 2023, and that the matters and things set forth therein are true and accurate to the best of his knowledge, information and belief, formed after reasonable inquiry.

Joshua Crawford

Subscribed and sworn to before me on this 17 day of July 2023.



Cherie Burke

Notary ID: KYNP53035

Expires: 06/07/2026

COMMONWEALTH OF KENTUCKY

BEFORE THE KENTUCKY STATE BOARD ON ELECTRIC GENERATION AND TRANSMISSION SITING

In the Matter of:

ELECTRONIC APPLICATION OF SEBREE SOLAR II, LLC FOR A CERTIFICATE TO CONSTRUCT AN APPROXIMATELY 150 MEGAWATT MERCHANT SOLAR ELECTRIC GENERATING FACILITY IN HENDERSON COUNTY, KENTUCKY AND WEBSTER COUNTY, KENTUCKY PURSUANT TO KRS 278.700 AND 807 KAR 5:110	)	**CASE NO. 2022-00131**

VERIFICATION OF ELIZABETH WILBURN

STATE OF Ohio)

COUNTY OF Hamilton)

Comes now Elizabeth Wilburn of ECT, Consultant for Sebree Solar II, LLC, being first duly sworn, and states that she has supervised the preparation of certain responses of Sebree Solar II, LLC to the Siting Board Staff's Second Request for Information in the above-referenced case dated July 7, 2023, and that the matters and things set forth therein are true and accurate to the best of her knowledge, information and belief, formed after reasonable inquiry.

Elizabeth Wilburn

Subscribed and sworn to before me on this 11th day of July 2023.

TENNILLE NEWSOME
Notary Public, State of Michigan
County of Washtenaw
My Commission Expires Feb. 15, 2028
Acting in the County of _____

Notary ID: Tennille Newsome
Expires: 2/15/2028

SEBREE SOLAR II, LLC

CASE NO. 2022-00131

RESPONSE TO INFORMATION REQUEST

SITING BOARD STAFF'S FIRST REQUEST FOR INFORMATION DATED 7/07/2023

REQUEST 1

RESPONSIBLE PARTY: Jason Andrews

Request 1. Provide any written communication, or a summary of conversations, with the Henderson County Road Department regarding road use agreements and road safety during construction and operation of the project.

Response 1. Sebree Solar II has not had any written communication with the Henderson County Road Department. The Henderson County Road Department serves as a primary member of the Henderson County Land Development Committee. On May 23, 2023 Sebree Solar II presented a development site plan for review and the Henderson County Road Department was in attendance. The Henderson County Road Department representative reviewed the site plan and recommended approval for the Henderson County Planning Commission. The Sebree Solar II site plan was approved by the Henderson County Planning Commission on June 6, 2023.

SEBREE SOLAR II, LLC

CASE NO. 2022-00131

RESPONSE TO INFORMATION REQUEST

SITING BOARD STAFF'S FIRST REQUEST FOR INFORMATION DATED 7/07/2023

REQUEST 2

RESPONSIBLE PARTY: Jason Andrews

Request 2. Provide any geotechnical reports or surveys that have been conducted for the project. If no geotechnical survey has been completed to date, provide an estimate of when it will be completed.

Response 2. Please see the attached preliminary geotechnical report for Sebree Solar II. The attached Sebree Solar II geotechnical survey covers both Sebree Solar and a majority of the Sebree Solar II parcels. The final report has not been finalized. Sebree Solar II intends to complete the report by the end of the calendar year. Sebree Solar II's intent is to complete the survey of the remaining parcels once crops have been harvested in the area to minimize disruption to the landowners and farmers.

Preliminary Geotechnical Engineering Report

Sebree Solar Project
Robards, Henderson County, Kentucky
April 3, 2022
Terracon Project No. 57215063

Prepared for:
NextEra Energy Resources LLC
Juno Beach, Florida 33408

Prepared by:
Terracon Consultants, Inc.
Louisville, Kentucky

April 3, 2022

NextEra Energy Resources LLC
700 Universe Boulevard
Juno Beach, Florida 33408

Attn: Ms. Amanda Klaristenfeld / E&C Solar Early Stage
P: (561) 694-4818
E: Amanda.Klaristenfeld@nexteraenergy.com

Re: Preliminary Geotechnical Engineering Report
Sebree Solar Project
Robards, Henderson County, Kentucky
Terracon Project No. 57215063

Dear Ms. Klaristenfeld:

We have completed the Preliminary Geotechnical Engineering services for the above referenced project. This study was performed in general accordance with Terracon Proposal No. P57215063 dated November 9, 2021. This report presents the findings of the subsurface exploration and provides Preliminary-Level geotechnical engineering recommendations for the design and construction of foundations for the proposed solar power facility and the associated site work for the proposed project.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning this report or if we may be of further service, please contact us.

Sincerely,
Terracon Consultants, Inc.

Sadra Javadi, Ph.D.
Senior Staff Engineer

Benjamin W. Taylor, P.E., P.G.
Principal, Regional Manager

SME Review by: James M. Jackson, P.E. (FL)

REPORT TOPICS

INTRODUCTION 1
SITE CONDITIONS 2
PROJECT DESCRIPTION 3
GEOTECHNICAL CHARACTERIZATION 4
INFILTRATION TESTING 5
CORROSIVITY 6
SEISMIC CONSIDERATIONS 7
PILE LOAD TESTING 7
GEOTECHNICAL OVERVIEW 12
CONTRIBUTORY RISK COMPONENTS 12
FROST CONSIDERATIONS 14
DRIVEN STEEL PILE FOUNDATIONS 14
PRELIMINARY RECOMMENDATIONS FOR ISOLATED SLAB FOUNDATIONS 17
PRELIMINARY DRILLED SHAFT RECOMMENDATIONS 18
PRELIMINARY EARTHWORK RECOMMENDATIONS 20
GENERAL COMMENTS 21

Note: This report was originally delivered in a web-based format. **Orange Bold** text in the report indicates a referenced section heading. The PDF version also includes hyperlinks which direct the reader to that section and clicking on the ***GeoReport*** logo will bring you back to this page. For more interactive features, please view your project online at client.terracon.com.

ATTACHMENTS

EXPLORATION AND TESTING PROCEDURES
SITE LOCATION, AND EXPLORATION PLANS
FIGURES
EXPLORATION RESULTS (General Notes, Unified Classification System, Boring Logs, Atterberg Limits Results, Moisture Density Relationship Test Results, Laboratory Thermal Resistivity Test Results, Results of Corrosion Analysis, Field Electrical Resistivity Test Results)
PILE DRIVING AND LOAD TESTING RESULTS (PLT Location Plan, Pile Zone Plans, Pile Drive Time Graphs, Axial Tension Pile Load Test Results, Axial Compression Load Test Results, and Lateral Pile Load Test Results)
Note: Refer to each individual Attachment for a listing of contents.

Preliminary Geotechnical Engineering Report

Sebree Solar Project

Robards, Henderson County, Kentucky

Terracon Project No. 57215063

April 3, 2022

INTRODUCTION

This report presents the results of our subsurface exploration and preliminary geotechnical engineering services performed for the proposed Sebree Solar Facility project located in Robards, Henderson County, Kentucky. The purpose of these services is to provide information and preliminary geotechnical engineering recommendations relative to:

- Subsurface soil conditions
- Pile load test results and analysis
- Site preparation and earthwork
- Preliminary foundation design and construction
- Groundwater conditions
- Seismic considerations
- Access roadways

Maps showing the site and exploration locations are shown in the **SITE LOCATION PLAN AND EXPLORATION PLAN** attachments. The results of the pile load tests are included in **PILE LOAD TEST RESULTS** attachment. The results of the field exploration and laboratory testing performed on soil samples obtained from the site during both the current and previous field explorations are included in the **EXPLORATION RESULTS** section. The field electrical resistivity, corrosion testing and laboratory thermal resistivity test results are also included in this section.

SITE CONDITIONS

The following description of site conditions is derived from our site visit in association with the field exploration and our review of publicly available geologic and topographic maps.

Item	Description
Parcel Information	The project is located on north and south side of the state road 416 in Robards, Henderson County, Kentucky. Based on the preliminary site layout ***Sebree Geotech.kmz*** received from NEER on October 27, 2021, the total project boundary is about 3,076-acres. Approximate Latitude/Longitude: 37.679953°, - 87.559202°. See **SITE LOCATION PLAN**.
Existing Improvements	Mostly undeveloped parcels used for agriculture, farming, some residential structures, and driveways. Smaller portions of the site consist of thickly vegetated areas.
Current Ground Cover	Mostly cultivated fields, some drainage features and pocketed areas of vegetation with isolated stands of trees, residential houses, barns, ponds, roads and driveways.
Existing Topography	Site-specific topographic survey was not available at the time of this report. Based on review of Google Earth Pro ™, the ground surface ranges from about elevation 400 feet on the north to 470 feet on the south-west. The agricultural lands appear to be relatively level.
Geology **Robards Quadrangle** **GQ-1084** **Henderson and Webster Counties, Kentucky by the Kentucky Geological Survey (KGS)**	**Loess, Alluvium, and Glacial Outwash Deposits** *Primary lithology: Gravel, Sand, Silt, and Clay* The Quaternary aged sediments consist of unconsolidated gravel, sand, silt, and clay and locally contain sparse to abundant organic matter and may include redeposited coal. The loess in the AOI is mostly comprised of windblown silts probably derived from glacial outwash in the Ohio and Mississippi Valleys to the north and west. The Kentucky Geological Survey (KGS) Borehole database lists several exploratory coal boreholes within the AOI that show deeper units of sandstone, shale, coal, and limestone from at least 20 to 40 feet below ground surface (bgs). The site is reported by the KGS to have a low karst potential. At the request of NEER, a preliminary karst desktop review was performed for the site. While karst features were not identified, we did identify topographical features that may be indicative of subsidence from mining that warrant further investigation as the project plans develop. Refer to our **Karst Survey Desktop Review** report dated January 6, 2022

PROJECT DESCRIPTION

Our initial understanding of the project was provided in our proposal and was discussed during project planning. A period of collaboration has transpired since the project was initiated, and our final understanding of the project conditions is as follows:

Item	Description
Project Description	We understand that the project site is being considered for development of a photovoltaic (PV) solar power facility. The total buildable project area covers about 2,150 acres of the site. The power facility is also anticipated to include inverters, transformers, switchgear and buried or overhead power lines. The size of the project in MWac is unknown at the time of this report.
Proposed Structures	The steel pile foundations for the solar array are anticipated to consist of wide flange steel piles (W6x9 or similar). In addition, we understand the inverters may also be supported on wide flange steel piles, while transformers, and other appurtenant equipment is anticipated to be supported on shallow spread or mat foundations. Other various aspects of the project include overhead or underground electrical circuits and pads for electrical equipment such as switchgear, transformers, inverters and substation.
Maximum Loads (Estimated by Terracon)	Structural loads were not provided but have been estimated based on our experience with fixed rack systems. ■ Downward: 3 kips ■ Uplift: 2 kips ■ Lateral: 1.5 kips ■ Ancillary structures in the array: 50 kips ■ Substation Structures: 250 kips ■ O&M Building: 5 kips per linear foot (klf)
Building Construction	We understand the solar structures will be supported on driven steel piles, although other foundation options will be considered, and equipment structures will be supported on mat foundations.
Grading	Site grading plans have not been provided at the time of this report; however, we anticipate finished grade will be within a couple of feet of existing grade. Mostly, up to 2 feet of cut and 2 feet of fill may be required to develop final grades in areas. Based on the existing site grade, fill/cut greater than 2 feet may be required at some local area to achieve the final grades. Final slope angles no steeper than 3H:1V (Horizontal: Vertical).
Access Roads	We understand that access road cross sections used for construction of the project will be the responsibility of the EPC, and that only post construction traffic with an allowable rut depth of 2 inches is what we are to design for in this report. We anticipate low-volume, aggregate-surfaced and native soil access roads will have a maximum vehicle load of 30,000 lbs. and will travel over the access roads only once per week.

GEOTECHNICAL CHARACTERIZATION

We have developed a general characterization of the subsurface conditions based upon our review of the subsurface exploration, laboratory data, geologic setting and our understanding of the project. This characterization, termed GeoModel, forms the basis of our geotechnical calculations and evaluation of site preparation and foundation options. Conditions encountered at each exploration point are indicated on the individual logs. The individual logs can be found in the **Exploration Results** section and the GeoModel can be found in the **Figures** section of this report.

The surface layer at the site generally consisted of a tilled zone (cultivated soil) approximately 6 to 8 inches thick. Beneath this surficial layer, the subsurface profile consisted of predominately native cohesive soil underlain by weathered rock which was found at depths ranging from about 7½ to 40½ feet below the ground surface. The native cohesive soil encountered generally exhibited medium stiff to very stiff consistency. As requested by NEER, geotechnical exploration was not performed at borings B-1, B-2, B-8, and B-12 because the access to the exploration location was not granted at the time of our exploration.

The subsurface conditions at the boring locations can be generalized as follows:

Model Layer	Layer Name	General Description
1	MEDIUM STIFF CLAY	Lean and Silty Lean Clay (CL/CL-ML), brown and gray, soft to medium stiff
2	STIFF CLAY	Lean and Silty Lean Clay (CL/CL-ML), brown and gray, stiff to very stiff
3	MEDIUM DENSE SAND	Poorly Graded Sand (SP), reddish brown, medium dense
4	WEATHERED BEDROCK	Weathered Shale and Sandstone, black and gray, highly to completely weathered
5	SHALE	Shale, brownish gray, very close to moderate fracture spacing, laminated bedding, slightly to moderately weathered, very weak to weak rock
6	SANDSTONE	Sandstone, gray, moderate to wide spacing, thin bedding, unweathered, medium strong rock

Groundwater

The boreholes were observed while drilling and after completion for the presence and level of groundwater. Groundwater was only observed in borings SB-1 at the depth of about 7 feet below the ground surface after completion of drilling. However, this does not necessarily mean the borings terminated above groundwater. Due to the relatively low permeability of the soils encountered in the boring, a relatively long period of time may be necessary for a groundwater level to develop and stabilize in a borehole in these materials. Long-term observations in

piezometers or observation wells sealed from the influence of surface water are often required to define groundwater levels in materials of this type.

Groundwater level fluctuations occur due to seasonal variations in the amount of rainfall, runoff and other factors not evident at the time the borings were performed. Therefore, groundwater levels during construction or at other times in the life of the structure may be higher or lower than the levels indicated on the boring logs. The possibility of groundwater level fluctuations should be considered when developing the design and construction plans for the project.

INFILTRATION TESTING

The double ring infiltrometer test (ASTM D 3385) was used to measure the rate of infiltration at 4 locations approximately 1-foot below the existing ground surface. The test setup consisted of a 12-inch inner ring and a 24-inch outer ring. With a constant head method, water was consistently added to both the outer and inner ring to maintain a constant level of 150-mm. The volume of water needed to maintain the fixed level was measured, and the infiltration rate was calculated using the following equation:

$$V_{IR}=\Delta V_{IR} / (A_{IR}. \Delta t)$$

where:

V_{IR} = inner ring infiltration rate, in/h
ΔV_{IR} = volume of liquid used during time interval to maintain constant head in the inner ring, in^3
A_{IR} = internal area of inner ring, in^2
Δt = time interval, hr

Upon testing, the preliminary infiltration rate at four locations were calculated as follow:

Location	Soil Type	Latitude	Longitude	Infiltration Rate (in/hr)
I-1	Lean Clay	37.690010	-87.546846	0.10
I-2	Silty Lean Clay	37.676889	-87.562827	0.40
I-3	Lean Clay	37.684910	-87.580331	0.18
I-4	Lean Clay	37.702465	-87.581368	0.34

The test result generally can be affected by the soil structure, soil layering, condition of the soil surface, degree of saturation of the soil, chemical and physical nature of the soil, head of the applied liquid, temperature of the liquid, and diameter and depth of embedment of rings. It should be noticed that the performance of the full-scale working facility might have a different infiltration rate due to soil disturbance caused by site grading, and due to the accumulation of sediment during construction activities. Presence of groundwater and bedrock at shallower depths, as

observed in the boring located near infiltration test location I-1, could potentially impact the calculated rate of infiltration at this location.

CORROSIVITY

Corrosivity testing was performed on eight samples collected from bulk samples from borings B-4, B-7, B-7, B-10, B-13, B-17, B-19, and SB-2. These values may be used to estimate potential corrosive characteristics of the on-site soils with respect to contact with the various underground materials which will be used for project construction.

Corrosivity Test Results Summary

Boring	Sample Depth (feet)	Soluble Sulfate (ppm)	Soluble Chloride (ppm)	pH	Sulfides (μ g/kg)	ORP (mV)	Electrical Resistivity (Ω-cm)
SB-2	0 to 2	21	31	6.8	0	+490	8,260
B-4	0 to 2	28	25	6.7	0	+530	7,021
B-7	0 to 2	57	19	6.7	0	+515	3,820
B-10	0 to 2	55	25	6.7	0	+509	5,472
B-13	0 to 2	23	25	6.7	0	+492	7,434
B-17	0 to 2	25	31	6.4	0	+591	6,918
B-19	0 to 2	5	19	5.7	0	+621	23,748
B-24	0 to 2	44	25	5.7	0	+584	7,228

These test results are provided to assist in determining the type and degree of corrosion protection that may be required. We recommend that a certified corrosion engineer be retained to analyze the need for corrosion protection and to design appropriate protective measures, if required.

As discussed in Section 10.7.5 of the AASHTO LRFD Bridge Manual, 8th Edition, 2017, the following soil or site conditions should be considered as indicative of potential deterioration or corrosion situation for steel piles:

- Soil electrical resistivity less than 2,000 ohm-cm
- pH less than 5.5
- pH between 5.5 and 8.5 with high organic content
- Sulfate concentration greater than 1,000 ppm (mg/kg)

SEISMIC CONSIDERATIONS

The seismic design requirements for structures are based on Seismic Design Category. Site Classification is required to determine the Seismic Design Category for a structure. The Site Classification is based on the upper 100 feet of the site profile defined by a weighted average value of either shear wave velocity, standard penetration resistance, or undrained shear strength in accordance with Section 20.4 of ASCE 7 and the International Building Code (IBC). Based on the soil properties encountered at the site and as described on the exploration logs and results, it is our professional opinion that the **Seismic Site Classification is D**. Subsurface explorations at this site were extended to a maximum depth of 50½ feet. The site properties below the boring depth to 100 feet were estimated based on our experience and knowledge of geologic conditions of the general area. Additional deeper borings or geophysical testing may be performed to confirm the conditions below the current boring depth.

PILE LOAD TESTING

Pile load tests were performed at a total of eleven locations across the site. The test piles consisted of wide flange W6x9 steel piles. These test piles were installed to embedment depths of 5 to 9 feet below ground surface. The piles are identified in this report as text “PLT” followed by test number followed by letter “A” (piles embedded to depths of 8 and 9 feet below existing ground surface) and “B” (piles embedded to depths of 5 and 6 feet below existing ground surface) and “C” (piles embedded to depths of 5 and 6 feet below existing ground surface). The piles were tested for axial tension first and lateral load next.

The following table summarizes the pile test location, penetration depth, total pile length and type of test performed on the piles.

Test Location	PILE (A) (W 6X9)		PILE (B) (W 6x9)		PILE (C) (W 6x9)	
	Tests: Axial Tension, Lateral, and Compression					
	Embedment Depth [1]	Total Pile Length	Embedment Depth [1]	Total Pile Length	Embedment Depth [1]	Total Pile Length
	feet	feet	feet	feet	feet	feet
PLT-1	9	13	6	10	6	10
PLT-2	9	13	6	10	6	10
PLT-3	8	13	5	10	5	10
PLT-4	9	13	6	10	6	10
PLT-5	8	13	5	10	5	10
PLT-6	9	13	6	10	6	10
PLT-7	8	13	5	10	5	10
PLT-8	9	13	6	10	6	10

Test Location	PILE (A) (W 6X9)		PILE (B) (W 6x9)		PILE (C) (W 6x9)	
	Tests: Axial Tension, Lateral, and Compression					
	Embedment Depth [1]	Total Pile Length	Embedment Depth [1]	Total Pile Length	Embedment Depth [1]	Total Pile Length
	feet	feet	feet	feet	feet	feet
PLT-9	8	13	5	10	5	10
PLT-10	9	13	6	10	6	10
PLT-11	9	13	6	10	6	10

1. Embedment depth measured from ground surface.

PILE DRIVING

The pile driving operation was performed with a track-mounted, Vermeer 10 pile driver. The piles were installed to the depths as shown in the previous table. A summary of the time required to advance each pile to its specified embedment depth is summarized in the following table.

Test Location	PILE (A)			PILE (B)			PILE (C)		
	Embedment Depth [1]	Total Drive Time	Avg. Drive Time	Embedment Depth [1]	Total Drive Time	Avg. Drive Time	Embedment Depth [1]	Total Drive Time	Avg. Drive Time
	ft	sec	sec/ft	ft	sec	sec/ft	ft	sec	sec/ft
PLT-1	9	74.1	8.2	6	33.5	5.6	6	20.5	3.4
PLT-2	9	55.8	6.2	6	30.5	5.1	6	28.8	4.8
PLT-3	8	26.4	3.3	5	11.6	2.3	5	9.3	1.9
PLT-4	9	53.6	6.0	6	28.8	4.8	6	27.1	4.5
PLT-5	8	20.3	2.5	5	9.9	2.0	5	8.4	1.7
PLT-6	9	33.4	3.7	6	16	2.7	6	16.4	2.7
PLT-7	8	23.9	3.0	5	9.7	1.9	5	9.3	1.9
PLT-8	9	38.8	4.3	6	17.1	2.9	6	18.4	3.1
PLT-9	8	45.2	5.7	5	14.1	2.8	5	13.3	2.7
PLT-10	9	50.3	5.6	6	19.9	3.3	6	24	4.0
PLT-11	9	38.9	4.3	6	20.6	3.4	6	17.3	2.9

1. Embedment depth measured from ground surface.

PILE LOAD TEST PROCEDURES AND EQUIPMENT

Pile load tests were performed on January 18th to 22nd, 2022. The pile load tests were performed three or more days after the piles were installed. An Enerpac 10-ton hydraulic pull jack and an Enerpac hydraulic pump were used to apply the test loads using chains and other accessories all

rated for at least a 10-ton safe working capacity. Deflections were measured with digital dial gauges with magnetic bases. Loads were measured with a Dillon ED Junior Dynamometer 25-kip electronic load cell for tension, compression, and lateral loads. The following types of load tests were performed:

- Axial Tension Load Tests for skin friction evaluation;
- Lateral Load Tests;
- Axial Compression test for tip resistance evaluation.

The sequence of testing is as follows: Axial tension load tests were performed on piles designated as A and B at each pile load test location. For axial tension testing, Terracon's proprietary steel tri-pod system was used to develop the vertical tension reaction. A locking "E"- plate clamp was used to grip the top of the web. Terracon set up a 10-foot long, steel reference beam to rest the gauges and record movements relative to the test pile. The ends of the reference beam were supported such that they were 6-inches above ground and seated firmly on the ground surface. Magnetic bases were attached to the web of the test pile approximately 6 inches above the ground surface to provide a suitable surface for the deflection gauges to rest against. The test loads were applied following a pre-determined load sequence. Deflections and loads were measured using a pair of calibrated Starrett dial gauges.

For lateral load testing, Terracon connected two (2) test piles together to test both piles simultaneously with each pile being the reaction pile for the other. The piles were spaced at an approximate horizontal distance of 10 feet. A flange clamp was set on each of the W-section piles to apply horizontal loading approximately 36 inches above the ground surface. Two reference beams were positioned near the outside edge of each test pile flange. Two calibrated two-inch stroke dial gauges were positioned on each pile along the strong axis horizontally with the magnetic base approximately 6 inches above ground surface to bear on the reference beam. The test loads were applied using a pre-determined cyclic-type load sequence. The load was measured using the electronic readout device from the load cell. The bottom and top deflections were recorded using the electronic readout device. The lateral load was applied in increments and decrements (i.e., loading and unloading cycles). The sequence of loading and unloading cycle includes 500-, 1000-, 1500-, 0-, 1500-, 2000-, 2500-, 0-, 2500-, 3000-, 4000- and 0- lb, and so on. The loads were applied until the maximum lateral load of 7,000 lbs. was reached or the pile reached 2-inch of lateral displacement measured at 6 inches above the ground surface.

The axial compression tests were performed using a ½ inch plate being placed on the top of the pile followed by the Rice Lake DC-390 compression load cell, which was used to record the loads. The compression tests were performed in the shallower embedment piles only. These piles were designated as C piles. The deflection as measured using two calibrated Starrett dial gages. An Enerpac 5-ton cylinder jack was then placed on top of the load cell. The bucket of an excavator was used to provide the reaction load. The axial compression load was applied in load increments of 500 lbs. to a maximum of 13,000 lbs was reached or until the pile reached ¾ of an inch of vertical displacement.

SUMMARY OF PILE LOAD TEST RESULTS

Summary of the axial tension loads for pile movements of about ¼ inch.

Pile Load Test Location (A)	Embedment Depth [1]	Tension Load at ¼" Disp.	Pile Load Test Location (B)	Embedment Depth [1]	Tension Load at ¼" Disp.
	feet	lbs.		feet	lbs.
PLT-1A	9.0	>10,000	PLT-1B	6.0	6,930
PLT-2A	9.0	10,000	PLT-2B	6.0	8,390
PLT-3A	8.0	5,820	PLT-3B	5.0	3,050
PLT-4A	9.0	10,000	PLT-4B	6.0	8,690
PLT-5A	8.0	6,000	PLT-5B	5.0	4,210
PLT-6A	9.0	6,150	PLT-6B	6.0	4,750
PLT-7A	8.0	6,140	PLT-7B	5.0	4,370
PLT-8A	9.0	8,060	PLT-8B	6.0	5,480
PLT-9A	8.0	10,000	PLT-9B	5.0	7,550
PLT-10A	8.0	10,000	PLT-10B	6.0	6,500
PLT-11A	9.0	9,740	PLT-11B	6.0	6,380

1. Embedment depth measured from ground surface.

The ">" sign indicates the load was achieved prior to reaching the noted deflection.

Summary of the axial compression loads for pile movements of about ¼ inch.

Pile Load Test Location (C)	Embedment Depth [1]	Compression Load at ¼" Disp.
	feet	lbs.
PLT-1C	6.0	10,880
PLT-2C	6.0	>13,000
PLT-3C	5.0	9,220
PLT-4C	6.0	13,000
PLT-5C	5.0	3,080
PLT-6C	5.0	4,560
PLT-7C	6.0	13,000
PLT-8C	5.0	10,010
PLT-9C	6.0	13,000
PLT-10C	6.0	9,040
PLT-11C	6.0	10,880

1. Embedment depth measured from ground surface.

The ">" sign indicates the load was achieved prior to reaching the noted deflection.

Summary of the pile embedment depth and lateral load at 2-inch lateral displacement at 6-inches above ground surface.

Pile Load Test Location (A)	Embedment Depth [1]	Lateral Load at ½" Disp.	Pile Load Test Location (B)	Embedment Depth [1]	Lateral Load at ½" Disp.
	feet	lbs.		feet	lbs.
PLT-1A	9.0	2,130	PLT-1B	6.0	1,850
PLT-2A	9.0	2,540	PLT-2B	6.0	3,000
PLT-3A	8.0	1,320	PLT-3B	5.0	800
PLT-4A	9.0	4,340	PLT-4B	6.0	4,150
PLT-5A	8.0	2,960	PLT-5B	5.0	1,690
PLT-6A	9.0	3,190	PLT-6B	6.0	3,060
PLT-7A	8.0	3,420	PLT-7B	5.0	2,580
PLT-8A	9.0	2,950	PLT-8B	6.0	2,820
PLT-9A	8.0	2,420	PLT-9B	5.0	1,610
PLT-10A	8.0	4,290	PLT-10B	6.0	2,790
PLT-11A	9.0	3,320	PLT-11B	6.0	2,580

1. Embedment depth measured from ground surface.

GEOTECHNICAL OVERVIEW

The site appears suitable for the proposed construction of a solar PV facility based upon geotechnical conditions encountered at the site, provided that the findings and preliminary geotechnical engineering recommendations presented in this report are incorporated into project design and construction. It should be noted that the exploration locations and pile load tests were performed at large distances from each other, therefore actual conditions may vary from those encountered. The **General Comments** section provides an understanding of the report limitations.

CONTRIBUTORY RISK COMPONENTS

ITEM	DESCRIPTION
Supplemental Exploration and Testing	Additional soil test borings should be performed to adequately explore the site as part of a design-level study. Additionally, a full-scale pile load testing (PLT) program should be considered as the project design progresses. The results of a full scale PLT program in conjunction with soil test boring/test pit results are often successful in reducing the design embedment depth when compared to designs solely based on explorative results and analytical methods.
Soil Conditions	Subsurface profile consisted of predominately native cohesive soil with some occasional layers of native granular soils underlain by weathered rock and bedrock to the depths explored. The surface layer at the site generally contained topsoil (cultivated soil) approximately 6 to 8 inches thick. These soils are not considered suitable for subgrade support or reuse as fill material.
Access	Wet and soft surface conditions due to disturbance and rainwater will create access issues. The site will generally be more accessible in the summer and early fall due to the improved drying conditions. The existing dirt/gravel roads across the project site have a limited number of crossings, likely designed to facilitate access with agricultural equipment.
Grading	A final grading plan was not available as of this report's preparation. However, we anticipate the development will follow the existing site grades and may require minimal grading. On-site materials that are used as fill or backfill will likely require drying prior to re-compaction as engineered fill. Alternatively, these materials could be replaced with imported soils containing an appropriate moisture content. We expect localized areas of unsuitable conditions will be encountered prior to placing fill and within the subgrade for roadways and shallow foundations that are planned. Stabilization measures, such as over-excavation and replacement, should be expected.
Groundwater	Groundwater was encountered only at boring SB-1 at a depth of about 7 feet bgs. Groundwater was not observed in any of the remaining borings while drilling, or for the short duration the borings could remain open. However, this does not necessarily mean the borings terminated above groundwater. Due to the relatively low permeability of the soils encountered in the boring, a relatively

ITEM	DESCRIPTION
	long period of time may be necessary for a groundwater level to develop and stabilize in a borehole in these materials. Based on our experience in the project area, groundwater level fluctuation should be anticipated at times during the design period for the project. Excavations, such as trenches for electrical cable and conduit, could encounter groundwater and require dewatering. Excavations for shallow foundations could also encounter groundwater, especially if construction is performed during periods of seasonally high groundwater.
Site Drainage	Final site grading may impact the drainage within the site. A drainage study should be performed once a grading plan has been finalized to review potential drainage or flooding issues.
Corrosion Hazard [1]	The field resistivity data and laboratory testing for electrical resistivity and chemical properties are performed as a part of the scope of this report. The results of our laboratory testing of soil chemical properties (provided in the attachment) are expected to assist a qualified engineer to design corrosion protection for the production piles and other project elements.
Excavation Hazards	Based on the exploration results and pile load testing, and our experience with the geology of the project site, stiff to very stiff soil was encountered below depths ranging from 0-2 feet at 3 locations, below 5-7.5 feet at 9 locations, and below 9-15 feet at 4 locations. At 6 locations medium stiff was encountered to auger refusal at depths of 15 to 20 feet. Difficult excavation conditions or obstructions to pile driving operations may be encountered across this site. Additionally, we expect general instability in the form of caving, sloughing, and raveling to be encountered in excavations. Excavations will likely require bracing, sloping, and/or other means to create safe and stable working conditions.
Anticipated Pile Drivability	Our exploration encountered weathered bedrock below depths of about 7.5 to 20 feet at each exploration location. Auger refusal was encountered at 13 locations at depths ranging between about 15 to 20 feet bgs. Although weathered bedrock and auger refusal were encountered, all 33 of the test piles were installed to the intended embedment depths of 9 feet. However, the potential need for pre-drilling should be considered at some areas.
General Construction Considerations	The near-surface soils are moderately moisture sensitive and subject to degradation with exposure to moisture. To the extent practical, earthwork should be performed during warmer and drier periods of weather to reduce the amount of necessary subgrade remedial measures for soft and unsuitable conditions beneath access roadways, equipment pads, etc.

1. The soil properties that can significantly affect the aggressiveness of corrosion to buried metal structures include: pH, oxidation-reduction potential, sulfates, sulfides, total dissolved salts, chlorides, resistivity, and moisture content. These properties were measured, and the results are reported in the attachment. These test results are provided to assist the designers of corrosion protection for the project.

FROST CONSIDERATIONS

Grade Supported Structures

Exterior slabs should be anticipated to heave during winter months. If frost action needs to be eliminated in critical areas, we recommend the use of non-frost susceptible (NFS) fill or structural slabs (for instance, structural stoops in front of building doors). Placement of NFS material in large areas may not be feasible; however, the following recommendations are provided to help reduce potential frost heave:

- Provide surface drainage away from the building and slabs, and toward the site storm drainage system.
- Install drains around the perimeter of the building, stoops, below exterior slabs and access roadways, and connect them to the storm drainage system.
- Grade clayey subgrades, so groundwater potentially perched in overlying more permeable subgrades, such as sand or aggregate base, slope toward a site drainage system.
- Place NFS fill as backfill beneath slabs and access roadways critical to the project.
- Place a 3 horizontal to 1 vertical (3H:1V) transition zone between NFS fill and other soils.

As an alternative to extending NFS fill to the full frost depth of 2 feet, consideration can be made to placing extruded polystyrene or cellular concrete under a buffer of at least 2 feet of NFS material.

Driven Steel Piles

Based on the provided information, the solar arrays for this project are anticipated to be supported by driven piles. The driven piles should be designed to resist design loads including compression, uplift, frost heave action and lateral forces. The majority of the soils on this site are frost susceptible. The typical frost depth in the area for foundation design frost considerations is about 12 inches. The shallowest groundwater encountered in the test borings was about 7 feet below ground surface and therefore the frost heave action of piles is considered to be negligible for this site.

DRIVEN STEEL PILE FOUNDATIONS

Axial Capacity

The axial uplift capacity of driven piles may be estimated based on skin friction developed along the perimeter of the pile, while the compression capacity may be estimated using the skin friction and end bearing. When determining embedment depths, the perimeter of a wide flange beam should be taken as twice the sum of the flange width and section depth. The upper 12 inches of

soil for each pile should be neglected in the axial capacity analyses and compression load conditions due to the disturbance.

Based on the results of the pile load testing program, the majority of the site appears to be relatively uniform. Below is a table of values recommended for the areas in proximity to the pile load tests:

Zone 1 (PLT-1, 3, 5, 6, 7, and 8), Zone 2 (PLT-10 and 11) and Zone 3 (PLT-2, 4, and 9)				
Description	**Depth (feet bgs)**	**Minimum Drive Time (sec/ft.)**	**Ultimate Side Friction (psf)**	**Ultimate End Bearing (lbs)**
Zone 1	1.0 – 9.0	3.5	450	2,000
Zone 2	1.0 – 6.0	3.3	650	3,000
	6.0 – 9.0		800	
Zone 3	1.0 – 9.0	2.8	850	3,000

The above values are to be used in the following equations to obtain the ultimate uplift or compression load capacity of a pile:

$$\boldsymbol{Q_{ult\ (compressive)} = Q_{ult\ (end)} + H \times P \times q_s}$$
$$\boldsymbol{Q_{ult\ (uplift)} = H \times P \times q_s}$$

$Q_{ult} = Ultimate\ uplift\ or\ compression\ capacity\ of\ post\ (lbs)$
$Q_{ult-(end)} = Ultimate\ end\ bearing\ capacity\ per\ the\ table\ above\ (lbs)$
$H = Depth\ of\ pile\ embedment\ (ft)$
$P = Perimeter\ area\ of\ pile\ (i.e. W6 \times 9 = 1.64\ sqft/ft)$
$q_s = Skin\ friction\ per\ depth\ per\ the\ table\ above$

The provided preliminary skin friction values are applicable for piles that are driven using a Vermeer PD-10 pile driver with a hydraulically operated hammer. If a smaller or larger drive hammer is used, we recommend that Terracon be consulted to determine the minimum drive time based on the actual equipment to be used.

For Allowable Stress Design (ASD), we recommend the allowable skin friction and end bearing values be determined by applying a factor of safety (FOS) of at least 1.5 to the ultimate values.

Piles should have a minimum center-to-center spacing of at least 3 times their largest cross-sectional dimension to prevent reduction in the axial capacities due to group effects.

The results of the analyses described above should be supplemented with additional pile load testing to confirm/modify the results prior to use in design. The results provided in this report are

intended to assist you in roughly evaluating construction costs and development viability for the proposed project

Final pile design to be completed by an engineering licensed in the State of Kentucky based upon information contained in this geotechnical report, final design phase study and independent pile load testing.

Lateral Capacity

Lateral load response of pile foundations was calculated using the computer program *L-Pile 2019*, by Ensoft, Inc. The stiffness of the pile and the stress-strain properties of the surrounding soils determine the lateral resistance of the foundation. We modeled the lateral response of the tested piles to evaluate L-Pile input parameters that can be used for design of the production piles. Recommended L-Pile input parameters for preliminary lateral load analysis for driven pile foundations are shown in the following table:

All Zones						
GeoModel Layer	**Depth (feet bgs)**	**LPILE Soil Model**	**Effective Unit Weight γ, (pcf)** [1]	**Estimated Cohesion, c (psf)**	**Estimated Friction Angle, ϕ (°)**	**Strain Factor, (ε_{50}) and Static Lateral Subgrade Modulus (k)** [1]
1	0 – 7	Stiff clay w/o free water	120	1,000	--	default
2	7 – 15	Stiff clay w/o free water	62.6	2,500	--	default
3	15 - 20	Stiff clay w/o free water	67.6	3,000	--	default

1. Groundwater estimated to be at 7 feet below the ground surface.

L-PILE analyses were performed by applying the field test load that resulted in approximately ½-inch deflection at a point about 6 inches above the ground surface. The shear load was applied at approximately 3 feet above the ground surface. The effective unit weight, friction angle was based on the results of the SPT borings. The p-multiplier was then adjusted (by trial and error method) such that the applied load resulted in a deflection value that matched the load test results. Please note that this procedure was based on only one discrete set of data determined at about six inches from the ground surface during the field load testing. These results should be used for L-PILE analysis only using the 2019 version of L-Pile. These parameters are only applicable to

piles embedded between five to nine feet below grade. In our evaluation, the piles were modeled as a Steel AISC Section Strong Axis.

P-Multiplier Table [1]		
Zone	**Embedment Depth (feet)**	**P-Multiplier [2]**
Zone A (PLT- 1 and 3)	5	1.1 [3]
	6	1.6
	8	1.1
	9	1.6
Zone B (PLT- 2, 4, 5, 6, 7, 8, 9, 10, and 11)	5	1.9 [3]
	6	2.7
	8	2.6
	9	2.6

1. P-Multipliers in this table only apply to embedded to depths of 5 to 9 feet.
2. Linearly interpolate between values for piles embedded to depths between the above depths.
3. The p-multiplier should be reduced by 30% in the upper 1 foot to account for seasonal freeze/thaw effects.

The structural engineer should evaluate the moment capacity of the pile as part of their structural evaluation. Piles should have a minimum center-to-center spacing of at least five times their largest cross-sectional dimension in the direction of the lateral loads, or the lateral capacities should be reduced due to group effects. If piles will be spaced closer than five times their largest cross-sectional dimension, we should be notified to provide supplemental recommendations regarding resistance to lateral loads.

PRELIMINARY RECOMMENDATIONS FOR ISOLATED SLAB FOUNDATIONS

We understand that some equipment may be supported on mat/slab foundations while other structures and O&M building may be supported on shallow foundations. Soft to medium stiff clays were encountered near the surface. If unsuitable bearing soils are encountered in footing excavations, the excavations should be extended deeper to suitable soils (at least stiff consistency or medium dense relative density) and the footings could bear directly on these soils at the lower level or on lean concrete backfill placed in the excavations. The footings could also bear on properly compacted backfill extending down to the suitable soils. Over-excavation for compacted backfill placement below footings should extend laterally beyond all edges of the footings at least 8 inches per foot of over excavation depth below footing base elevation. The over excavation should then be backfilled up to the footing base elevation with engineered fill placed in lifts of 8 inches or less in loose thickness and compacted to at least 98 percent of the material's maximum dry density (ASTM D 698). We would expect an allowable bearing capacity of 2,000

psf with total settlement of about 1 inch, depending on minimum foundation width and embedment.

PRELIMINARY DRILLED SHAFT RECOMMENDATIONS

Our recommendations provided below are based on the exploration results for SB-1 and SB-2. If the location of the new substation and equipment pad areas change, we should be consulted prior to the design and construction of foundations.

It is anticipated that some of the substation structures/appurtenances will be supported on deep foundation systems such as drilled shaft foundation elements. It is recommended that each drilled shaft element be at least 1.5 feet in diameter with shaft lengths of at least 15 feet, and it should be terminated within GeoModel layer 2 consistency or socketed minimum 3 feet into the competent bedrock. Competent bedrock can be defined as rock stratum with RQD greater than %75 and uniaxial compressive strength of 5,000 psi or greater. Geotechnical engineer should inspect the bearing stratum to confirm the competency of the bedrock layer.

It is recommended that the drilled shaft design should incorporate a factor of safety of 3 for end bearing, 2.5 for side resistance in axial compression, and 3 is recommended for side resistance against uplift. Soil parameters for axial design of drilled shaft are provided in the following section.

Design Parameters

Recommended geotechnical parameters of drilled shaft foundations have been developed for use in the L-PILE computer program. Based on our exploration results, generalized engineering properties have been provided in the following table:

GeoModel Layer	Depth (feet bgs)	Ultimate Unit Skin Friction, f (psf)	Ultimate End Bearing Pressure, Qp (psf)
1 / 2	0 – 2 [1]	---	---
1 / 2	2 – 7	840	---
2 / 4	7 – 20	1,100	22,500 [2]
4 / 5	20 - 30	15,700	30,000
5	30 – 35½	11,200	9,000
6	35½ - 50	15,700	16,500

1. The side resistance of the uppermost 2 feet of the soil should be ignored due to the potential for disturbance caused during the drilled shaft construction and frost affect.
2. Drilled shafts should be founded at a depth of at least 15 feet below the ground surface.

Depth (feet bgs)	LPILE Soil Type	Unit Weight (pcf)	Undrained Cohesion, c (psf)	Uniaxial Compressive Strength (psi)	Strain Factor ε_{50}	RQD (%)	Rock Mass (PSI)
0 – 2		120	1,000	---	default	---	---

Depth (feet bgs)	LPILE Soil Type	Unit Weight (pcf)	Undrained Cohesion, c (psf)	Uniaxial Compressive Strength (psi)	Strain Factor ε_{50}	RQD (%)	Rock Mass (PSI)
2– 7	Stiff Clay without Free Water (Reese)		1,500				
7 – 20		125	4,000				
20 - 30	Strong Rock	150	---	4,000	---	50	---
30 – 35½	Weak Rock (Reese) [1]	135	---	2,000	0.00001	30	50,000
35½ - 50	Strong Rock	150	---	4,000	---	60	---

1. For the shale stratum with lower RQD, we assumed preliminary rock mass parameter based on our experience with similar projects.

Drilled shaft length may need to be adjusted (increased) to resist the lateral loads and moments acting at or near the ground surface elevation (structural loads). Soil Parameters and Models for Lateral Load Analyses of Drilled Shafts section provided above for the detailed lateral load analyses of drilled shaft foundation. The following additional construction considerations, during the drilled shaft installations, should be followed:

- It is anticipated that drilled shafts can be constructed using the dry or temporary casing method.
- The actual bearing elevation at each drilled shaft location should be determined in the field during construction through inspection by an authorized representative of the Geotechnical Engineer.
- If effective dewatering is not practical, concrete should be placed at the bottom of the excavation by pumping or by using a tremie pipe.
- To facilitate pier construction, concrete should be on-site and ready for placement as pier excavations are completed.
- It is recommended that no completed drilled shaft holes be left open overnight without being filled with concrete.
- If casing is used it should be removed after concrete is placed. Casing should not be left in place permanently as voids/gaps could be created between the casing and the surrounding soils. If the casing cannot be removed, jet grouting could be performed to completely fill the gaps/voids between the casing and the surrounding soils. In that case there may still be a reduction in the skin friction capacity of the shaft, which will have to be evaluated by the project geotechnical and structural engineers.

PRELIMINARY EARTHWORK RECOMMENDATIONS

The site work conditions will be largely dependent on the weather conditions and the contractor's means and methods in controlling surface drainage and protecting the subgrade. The near-surface clayey soils encountered in the borings should provide acceptable subgrade soils for construction. Site preparation where inverter mat foundations will be installed should include clearing and grubbing, installation of a site drainage system (where necessary), subgrade preparation, proof rolling and vibratory densification as necessary. Site preparation is not necessary in the PV Array field or where inverters will be supported on driven piles except to improve site drainage where necessary.

We would expect typical earthmoving equipment (bulldozers, excavators, sheepsfoot, steel drum vibratory rollers) to be suitable for completion of earthwork activities on the site. The most challenging obstacle for earthwork construction will be the control of surface and groundwater, especially during the typical Kentucky wet season. The site should be graded to prevent ponding of surface water. Additionally, dewatering (rim ditches, sump pumps, well points, etc.) may be needed to lower the groundwater and allow for adequate compaction in trenches.

Typical unpaved access roads in the lightly loaded array areas consisting of about 4 to 6 inches of aggregate base on compacted native soil should be suitable. The substation access road will likely require 6 to 8 inches of aggregate base over 12 inches of stabilized subgrade or native soils reinforced with a geogrid.

GENERAL COMMENTS

Our analysis and opinions are based upon our understanding of the project, the geotechnical conditions in the area, and the data obtained from our site exploration. Natural variations will occur between exploration point locations or due to the modifying effects of construction or weather. The nature and extent of such variations may not become evident until during or after construction. Prior to construction of the project, Terracon should be retained as the Geotechnical Engineer to provide design level geotechnical engineering services.

Our Scope of Services does not include either specifically or by implication any environmental or biological (e.g., mold, fungi, bacteria) assessment of the site or identification or prevention of pollutants, hazardous materials or conditions. If the owner is concerned about the potential for such contamination or pollution, other studies should be undertaken.

Our services and any correspondence or collaboration through this system are intended for the sole benefit and exclusive use of our client for specific application to the project discussed and are accomplished in accordance with generally accepted geotechnical engineering practices with no third-party beneficiaries intended. Any third-party access to services or correspondence is solely for information purposes to support the services provided by Terracon to our client. Reliance upon the services and any work product is limited to our client and is not intended for third parties. Any use or reliance of the provided information by third parties is done solely at their own risk. No warranties, either express or implied, are intended or made.

Site characteristics as provided are for design purposes and not to estimate excavation cost. Any use of our report in that regard is done at the sole risk of the excavating cost estimator as there may be variations on the site that are not apparent in the data that could significantly impact excavation cost. Any parties charged with estimating excavation costs should seek their own site characterization for specific purposes to obtain the specific level of detail necessary for costing. Site safety, and cost estimating including, excavation support, and dewatering requirements/design are the responsibility of others. If changes in the nature, design, or location of the project are planned, our conclusions and recommendations shall not be considered valid unless we review the changes and either verify or modify our conclusions in writing.

ATTACHMENTS

EXPLORATION AND TESTING PROCEDURES

Field Exploration

Number of Explorations	Type of Exploration	Depth or Description	Planned Location
20 [1]	SPT Borings	15 to 40½ feet bgs	Array Area
2		21 to 50½ feet bgs	Substation Area
10	Field Electrical Resistivity	1, 2, 4, 8, 15, 25 and 50 feet	Array Area
1		0.5, 2, 4, 6, 8, 10, 25, 50, 100, 150, 200, 300 and 450 feet	Substation Area

1. 26 borings were initially planned, 4 boring locations B-1, B-2, B-8, and B-12 were on-hold by NEER for geotechnical drilling due to the access issue.

Boring Layout and Elevations: Unless otherwise noted, Terracon personnel provided the boringlayout. Coordinates were obtained with a handheld GPS unit (estimated horizontal accuracy of about ±20 feet) and approximate elevations were obtained by interpolation from terrain data in Google Earth PRO ™. If more precise boring elevations and layout are desired, we recommend borings be surveyed following completion of fieldwork.

Subsurface Exploration Procedures: We advanced soil borings with a track and ATV-mounted drill rigs using rotary wash techniques. Four samples were obtained in the upper 10 feet of each boring and at intervals of 5 feet thereafter. Soil sampling was performed using a standard 2-inch outer diameter split barrel sampling spoon that was driven into the ground by a 140-pound automatic hammer falling a distance of 30 inches. The number of blows required to advance the sampling spoon the middle 12 inches of a 24-inch sampling interval or the last 12 inches of an 18-inch sampling interval was recorded as the Standard Penetration Test (SPT) resistance value. The SPT resistance values, also referred to as N-values, are indicated on the boring logs at the test depths. The samples were placed in appropriate containers, taken to our soil laboratory for testing, and classified by a Geotechnical Engineer. In addition, we observed and recorded groundwater levels during sampling.

Upon encountering bedrock or refusal-to-drilling conditions, rock coring (using NQ/NX rock core barrel) was performed at boring SB-1 at the footprint of the proposed substation structure. Water was used as a drilling fluid for rock coring and the spent water was discharged on site.

Our exploration team prepared field boring logs as part of standard drilling operations including sampling depths, penetration distances, and other relevant sampling information. Field logs included visual classifications of materials encountered during drilling, and our interpretation of

subsurface conditions between samples. Final boring logs, prepared from field logs, represent the Geotechnical Engineer's interpretation, and include modifications based on observations and laboratory tests.

Infiltration Testing: Double Ring Infiltrometer (DRI) tests was performed at depths of 1 to 1½ feet bgs in general accordance with ASTM D3385 at four location with relatively lower elevations across the site.

Field Electrical Resistivity Testing: Field measurements of soil electrical resistivity were performed were performed using the "Wenner Four Electrode Method". For this EER survey, the electrodes consisted of ½-inch diameter, copper-coated steel grounding rods. The electrodes were inserted into the ground to a depth of 6 inches at electrode spacings of less than 10 feet and 12 inches for electrode spacings of 10 feet and greater.

The resistivity values measured in the field may vary by material type, moisture content, surface temperature, groundwater depth, and other climatic conditions. During the site visit, our field representative indicated that the ground surface cover consisted of moist clay at each test location. The weather conditions during the site visit are indicated on the field data sheets.

The soil resistivity testing was performed at the locations identified in the Attachments (section of this report). Results of the soil resistivity measurements and test line location plan are presented in **Field Electrical Resistivity Test Results** section of this report

Laboratory Testing

The project engineer reviewed the field data and assigned various laboratory tests to better understand the engineering properties of the various soil strata as necessary for this project. Procedural standards noted below are for reference to methodology in general. In some cases, variations to methods are applied because of local practice or professional judgment. Standards noted below include reference to other, related standards. Such references are not necessarily applicable to describe the specific test performed.

- ASTM D2216 Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass
- ASTM D4318 Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils
- ASTM D422 Standard Test Method for Particle-Size Analysis of Soils
- ASTM D698 Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort
- ASTM D7263 Standard Test Methods for Laboratory Determination of Density (Unit Weight) of Soil
- ASTM D1883 Standard Test Methods for CBR (California Bearing Ratio) of Laboratory-Compacted Soils

Our laboratory testing program also included examination of soil samples by an engineer. Based on observation and test data, the engineer classified the soil samples in accordance with the **Unified Soil Classification System** (ASTM D2487).

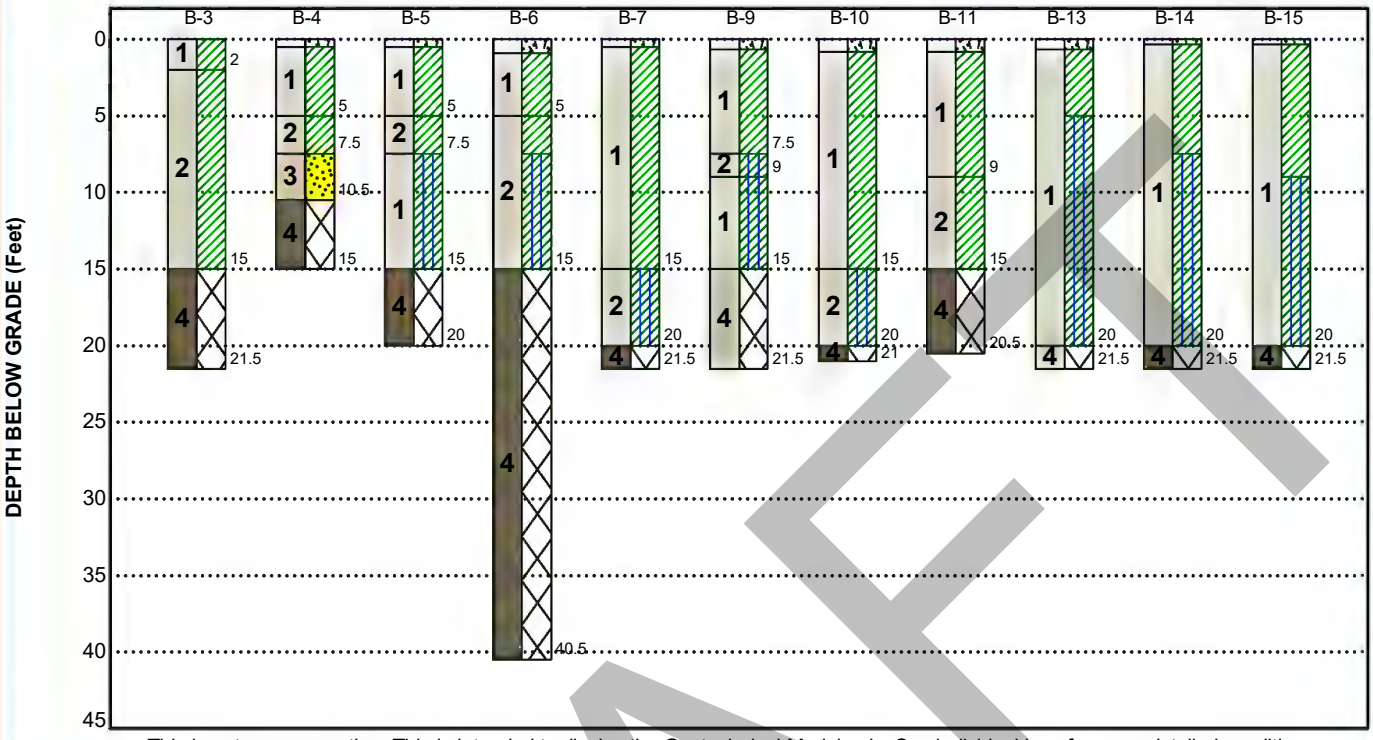
Thermal Resistivity Testing: At the time of this draft report, laboratory thermal resistivity testing is in process at Terracon's laboratory. Thermal resistivity testing will be conducted on six soil bulk samples obtained during our current field exploration from a depth of approximately 0 to 4 feet below the existing ground surface and six Shelby tube samples collected from a depth of about 4.0 to 4.5 feet below existing ground surface. The thermal resistivity testing was performed in general accordance with the IEEE standard. The dry-out curves were developed from soil specimens compacted to 90% of the standard Proctor criteria (ASTM D698) at the optimum moisture content and dried to 0% moisture and on the undisturbed Shelby tube samples. The results of these thermal resistivity tests as well as tests performed during the original preliminary study are presented in the **Exploration Results** section.

Corrosion Testing: Bulk soil samples were collected from 0 to 2 feet bgs at multiple locations at the project site and sent to Terracon's office for corrosivity testing. The testing included water-soluble sulfate ion content in soil in accordance with ASTM C1580 presented in percent by weight, water-soluble chloride ion content in accordance with ASTM D512 presented in percent by weight, pH in accordance with ASTM G51, Sulfides in accordance with ASTM D4658, Oxidation Reduction Potential in accordance with ASTM G200, and electrical resistivity using the "soil box" method in accordance with ASTM G187. The results of the corrosion testing are presented in the **Exploration Results** section.

FIGURES

GEOMODEL

Sebree Solar Project ■ Robards, KY
Terracon Project No. 57215063



This is not a cross section. This is intended to display the Geotechnical Model only. See individual logs for more detailed conditions.

LEGEND

- Lean Clay
- Topsoil
- Silty Clay
- Weathered Rock
- Poorly-graded Sand

Model Layer	Layer Name	General Description
1	MEDIUM STIFF CLAY	Lean and Silty Lean Clay (CL/CL-ML), brown and gray, soft to medium stiff
2	STIFF CLAY	Lean and Silty Lean Clay (CL/CL-ML), brown and gray, stiff to very stiff
3	MEDIUM DENSE SAND	Clayey Sand and Poorly Graded Sand (SP), reddish brown, medium dense
4	WEATHERED BEDROCK	Weathered Shale and Sandstone, black and gray, highly to completely weathered
5	SHALE	Shale, brownish gray, very close to moderate fracture spacing, laminated bedding, slightly to moderately weathered, very weak to weak rock
6	SANDSTONE	Sandstone, gray, moderate to wide spacing, thin bedding, unweathered, medium strong rock

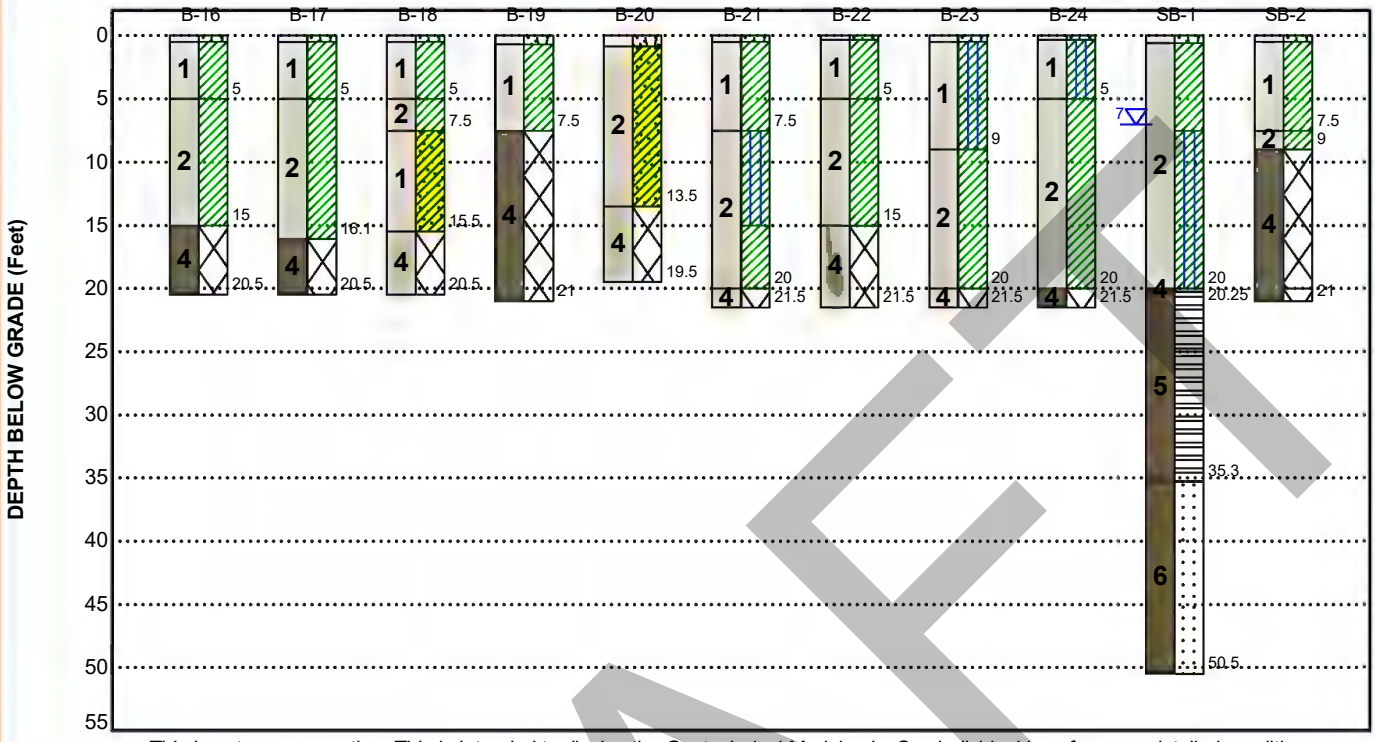
NOTES:
Layering shown on this figure has been developed by the geotechnical engineer for purposes of modeling the subsurface conditions as required for the subsequent geotechnical engineering for this project.

▽ First Water Observation

Groundwater levels are temporal. The levels shown are representative of the date and time of our exploration. Significant changes are possible over time.
Water levels shown are as measured during and/or after drilling. In some cases, boring advancement methods mask the presence/absence of groundwater. See individual logs for details.

GEOMODEL

Sebree Solar Project ■ Robards, KY
Terracon Project No. 57215063



This is not a cross section. This is intended to display the Geotechnical Model only. See individual logs for more detailed conditions.

Model Layer	Layer Name	General Description
1	MEDIUM STIFF CLAY	Lean and Silty Lean Clay (CL/CL-ML), brown and gray, soft to medium stiff
2	STIFF CLAY	Lean and Silty Lean Clay (CL/CL-ML), brown and gray, stiff to very stiff
3	MEDIUM DENSE SAND	Clayey Sand and Poorly Graded Sand (SP), reddish brown, medium dense
4	WEATHERED BEDROCK	Weathered Shale and Sandstone, black and gray, highly to completely weathered
5	SHALE	Shale, brownish gray, very close to moderate fracture spacing, laminated bedding, slightly to moderately weathered, very weak to weak rock
6	SANDSTONE	Sandstone, gray, moderate to wide spacing, thin bedding, unweathered, medium strong rock

LEGEND

- Topsoil
- Weathered Rock
- Silty Clay
- Sandstone
- Lean Clay
- Sandy Lean Clay
- Shale

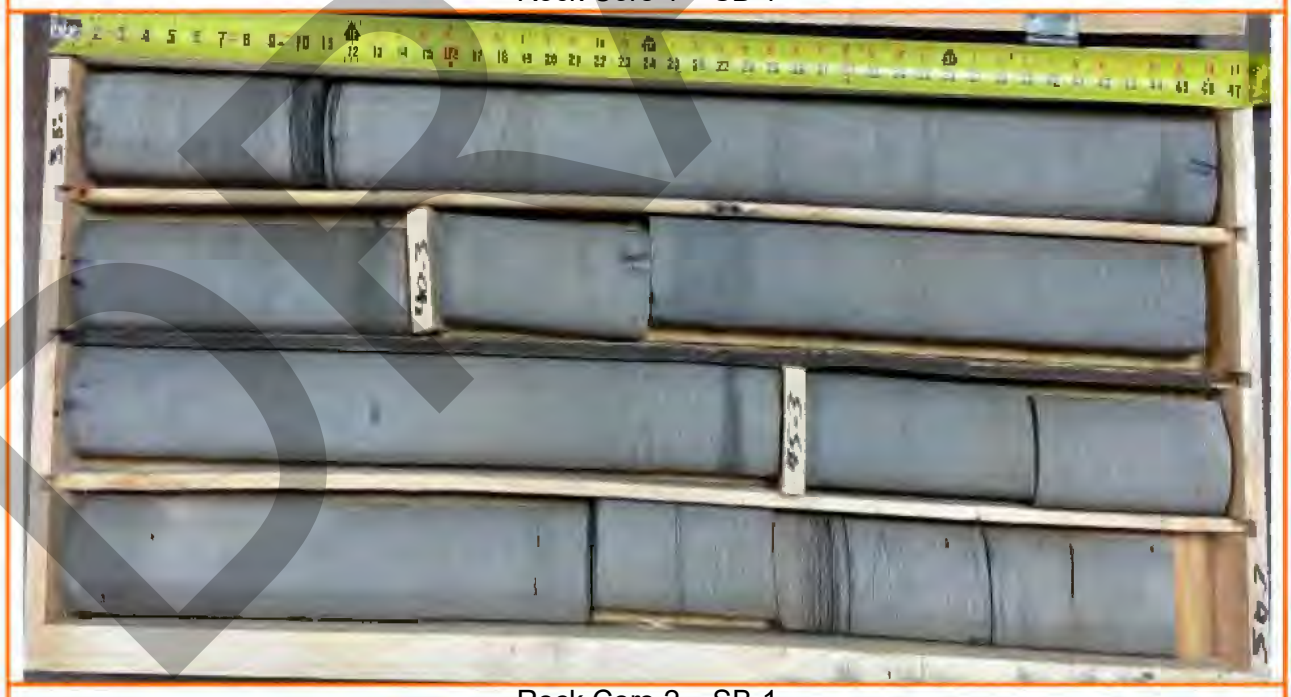
NOTES:
Layering shown on this figure has been developed by the geotechnical engineer for purposes of modeling the subsurface conditions as required for the subsequent geotechnical engineering for this project.

▽ First Water Observation

Groundwater levels are temporal. The levels shown are representative of the date and time of our exploration. Significant changes are possible over time.
Water levels shown are as measured during and/or after drilling. In some cases, boring advancement methods mask the presence/absence of groundwater. See individual logs for details.

PHOTOGRAPHY LOG

Rock Core 1 – SB-1



Rock Core 2 – SB-1

SITE LOCATION AND EXPLORATION PLANS

Contents:

Site Location Plan
Exploration Plans

Note: All attachments are one page unless noted above.

SITE LOCATION PLAN

Sebree Solar Project ■ Robards, Henderson County, Kentucky
April 3, 2022 ■ Terracon Project No. 57215063

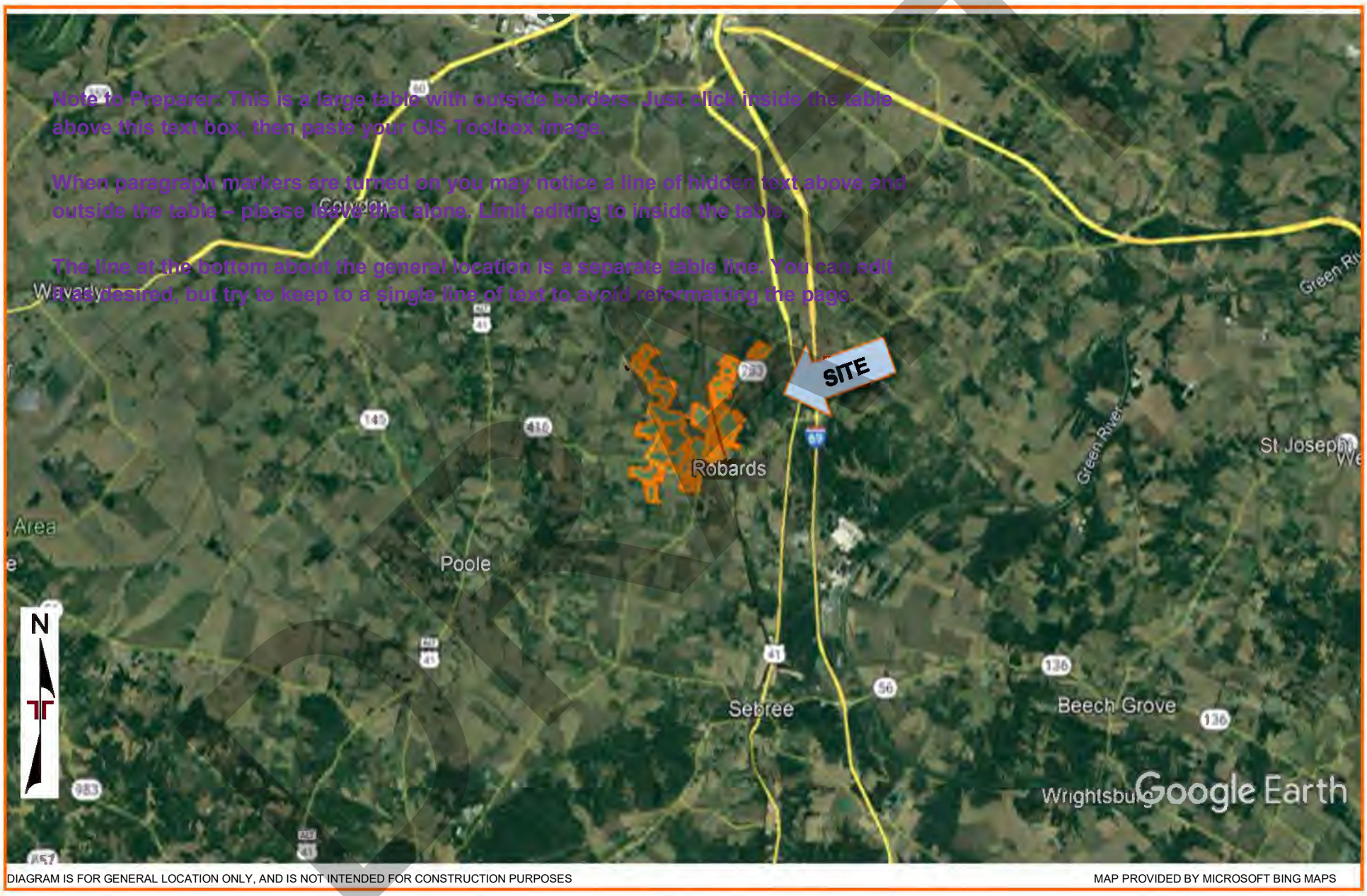


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

MAP PROVIDED BY MICROSOFT BING MAPS

Terracon GeoReport

EXPLORATION PLAN

Sebree Solar Project ■ Robards, Henderson County, Kentucky
April 3, 2022 ■ Terracon Project No. 57215063

Project Boundary

Boring Location - Completed

Boring Locations - On Hold

FER Locations

PLT Locations

Note to Preparer: This is a large table with outside borders. Just click inside the table above this text box, then paste your GIS Toolbox image.

When paragraph marks are turned on you may notice a line of hidden text above and outside the table – please leave that alone. Limit editing to inside the table.

The line at the bottom about the general location is a separate table line. You can edit it as desired, but try to keep to a single line of text to avoid reformatting the page.

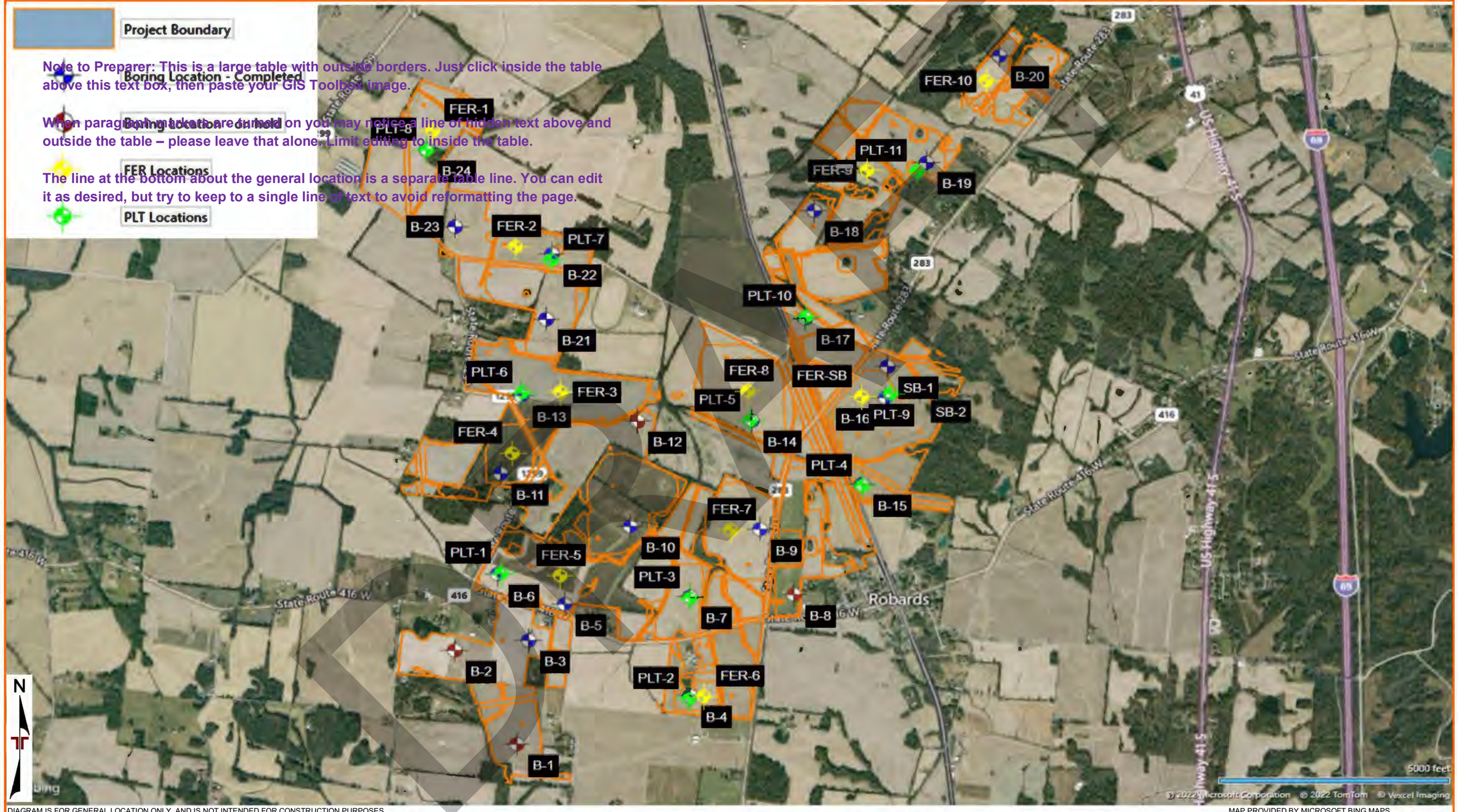


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

MAP PROVIDED BY MICROSOFT BING MAPS

EXPLORATION RESULTS

Contents:

General Notes
Unified Soil Classification System
Boring Logs (B-3 to -7, B-9 to -11, B-13 to -24, SB-1 and -2) (26 pages)
Atterberg Limits Results
Moisture Density Relationship Test Results (7 pages)
Laboratory Thermal Resistivity Test Results (2 pages)
Chemical Laboratory Test Report
Field Electrical Resistivity Test Results (11 pages)

Note: All attachments are one page unless noted above.

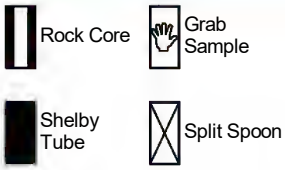
GENERAL NOTES

DESCRIPTION OF SYMBOLS AND ABBREVIATIONS

Sebree Solar Project ■ Robards, KY

Terracon Project No. 57215063

SAMPLING



WATER LEVEL

Water Initially Encountered

Water Level After a Specified Period of Time

Water Level After a Specified Period of Time

Cave In Encountered

Water levels indicated on the soil boring logs are the levels measured in the borehole at the times indicated. Groundwater level variations will occur over time. In low permeability soils, accurate determination of groundwater levels is not possible with short term water level observations.

FIELD TESTS

N	**Standard Penetration Test Resistance (Blows/Ft.)**
(HP)	**Hand Penetrometer**
(T)	**Torvane**
(DCP)	**Dynamic Cone Penetrometer**
UC	**Unconfined Compressive Strength**
(PID)	**Photo-Ionization Detector**
(OVA)	**Organic Vapor Analyzer**

DESCRIPTIVE SOIL CLASSIFICATION

Soil classification as noted on the soil boring logs is based Unified Soil Classification System. Where sufficient laboratory data exist to classify the soils consistent with ASTM D2487 "Classification of Soils for Engineering Purposes" this procedure is used. ASTM D2488 "Description and Identification of Soils (Visual-Manual Procedure)" is also used to classify the soils, particularly where insufficient laboratory data exist to classify the soils in accordance with ASTM D2487. In addition to USCS classification, coarse grained soils are classified on the basis of their in-place relative density, and fine-grained soils are classified on the basis of their consistency. See "Strength Terms" table below for details. The ASTM standards noted above are for reference to methodology in general. In some cases, variations to methods are applied as a result of local practice or professional judgment.

LOCATION AND ELEVATION NOTES

Exploration point locations as shown on the Exploration Plan and as noted on the soil boring logs in the form of Latitude and Longitude are approximate. See Exploration and Testing Procedures in the report for the methods used to locate the exploration points for this project. Surface elevation data annotated with +/- indicates that no actual topographical survey was conducted to confirm the surface elevation. Instead, the surface elevation was approximately determined from topographic maps of the area.

STRENGTH TERMS

RELATIVE DENSITY OF COARSE-GRAINED SOILS (More than 50% retained on No. 200 sieve.) Density determined by Standard Penetration Resistance		**CONSISTENCY OF FINE-GRAINED SOILS** (50% or more passing the No. 200 sieve.) Consistency determined by laboratory shear strength testing, field visual-manual procedures or standard penetration resistance			**BEDROCK**	
Descriptive Term (Density)	**Standard Penetration or N-Value Blows/Ft.**	**Descriptive Term (Consistency)**	**Unconfined Compressive Strength Qu, (tsf)**	**Standard Penetration or N-Value Blows/Ft.**	**Standard Penetration or N-Value Blows/Ft.**	**Descriptive Term (Consistency)**
Very Loose	0 - 3	Very Soft	less than 0.25	0 - 1	< 20	Weathered
Loose	4 - 9	Soft	0.25 to 0.50	2 - 4	20 - 29	Firm
Medium Dense	10 - 29	Medium Stiff	0.50 to 1.00	4 - 8	30 - 49	Medium Hard
Dense	30 - 50	Stiff	1.00 to 2.00	8 - 15	50 - 79	Hard
Very Dense	> 50	Very Stiff	2.00 to 4.00	15 - 30	>79	Very Hard
		Hard	> 4.00	> 30		

RELEVANCE OF SOIL BORING LOG

The soil boring logs contained within this document are intended for application to the project as described in this document. Use of these soil boring logs for any other purpose may not be appropriate.

UNIFIED SOIL CLASSIFICATION SYSTEM

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests [A]				Soil Classification	
				Group Symbol	Group Name [B]
Coarse-Grained Soils: More than 50% retained on No. 200 sieve	**Gravels:** More than 50% of coarse fraction retained on No. 4 sieve	**Clean Gravels:** Less than 5% fines [C]	$Cu \geq 4$ and $1 \leq Cc \leq 3$ [E]	GW	Well-graded gravel [F]
			$Cu < 4$ and/or [$Cc<1$ or $Cc>3.0$] [E]	GP	Poorly graded gravel [F]
		Gravels with Fines: More than 12% fines [C]	Fines classify as ML or MH	GM	Silty gravel [F, G, H]
			Fines classify as CL or CH	GC	Clayey gravel [F, G, H]
	Sands: 50% or more of coarse fraction passes No. 4 sieve	**Clean Sands:** Less than 5% fines [D]	$Cu \geq 6$ and $1 \leq Cc \leq 3$ [E]	SW	Well-graded sand [I]
			$Cu < 6$ and/or [$Cc<1$ or $Cc>3.0$] [E]	SP	Poorly graded sand [I]
		Sands with Fines: More than 12% fines [D]	Fines classify as ML or MH	SM	Silty sand [G, H, I]
			Fines classify as CL or CH	SC	Clayey sand [G, H, I]
Fine-Grained Soils: 50% or more passes the No. 200 sieve	**Silts and Clays:** Liquid limit less than 50	**Inorganic:**	PI > 7 and plots on or above "A"	CL	Lean clay [K, L, M]
			PI < 4 or plots below "A" line [J]	ML	Silt [K, L, M]
		Organic:	Liquid limit - oven dried / Liquid limit - not dried < 0.75	OL	Organic clay [K, L, M, N] / Organic silt [K, L, M, O]
	Silts and Clays: Liquid limit 50 or more	**Inorganic:**	PI plots on or above "A" line	CH	Fat clay [K, L, M]
			PI plots below "A" line	MH	Elastic Silt [K, L, M]
		Organic:	Liquid limit - oven dried / Liquid limit - not dried < 0.75	OH	Organic clay [K, L, M, P] / Organic silt [K, L, M, Q]
Highly organic soils:	Primarily organic matter, dark in color, and organic odor			PT	Peat

[A] Based on the material passing the 3-inch (75-mm) sieve.

[B] If field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.

[C] Gravels with 5 to 12% fines require dual symbols: GW-GM well-graded gravel with silt, GW-GC well-graded gravel with clay, GP-GM poorly graded gravel with silt, GP-GC poorly graded gravel with clay.

[D] Sands with 5 to 12% fines require dual symbols: SW-SM well-graded sand with silt, SW-SC well-graded sand with clay, SP-SM poorly graded sand with silt, SP-SC poorly graded sand with clay.

[E] $Cu = D_{60}/D_{10}$ $\quad Cc = \dfrac{(D_{30})^2}{D_{10} \times D_{60}}$

[F] If soil contains ≥ 15% sand, add "with sand" to group name.

[G] If fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.

[H] If fines are organic, add "with organic fines" to group name.

[I] If soil contains ≥ 15% gravel, add "with gravel" to group name.

[J] If Atterberg limits plot in shaded area, soil is a CL-ML, silty clay.

[K] If soil contains 15 to 29% plus No. 200, add "with sand" or "with gravel," whichever is predominant.

[L] If soil contains ≥ 30% plus No. 200 predominantly sand, add "sandy" to group name.

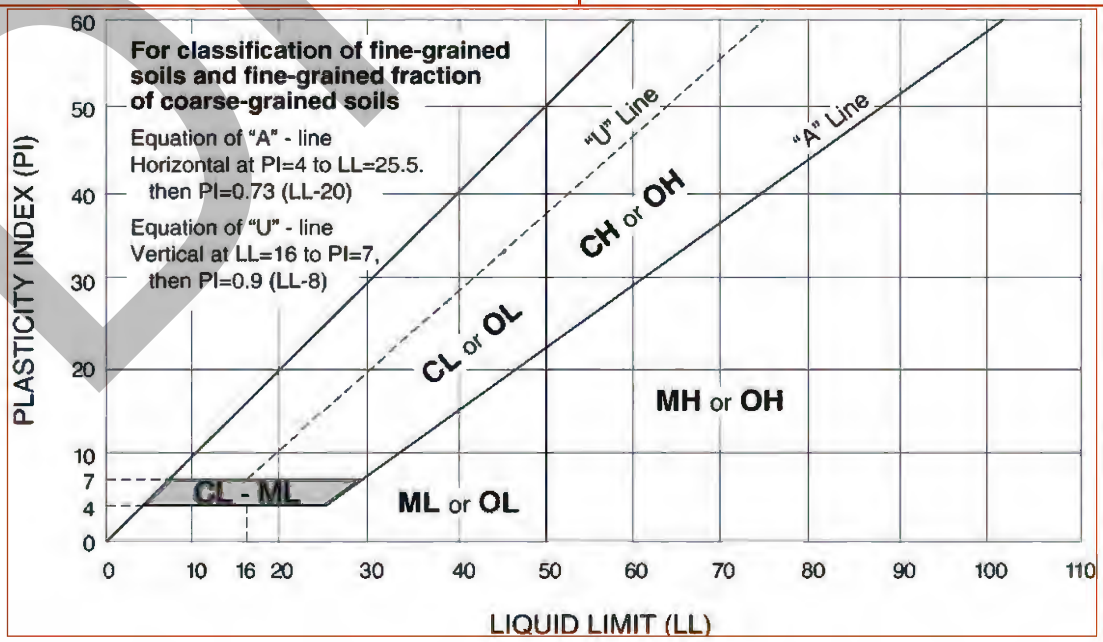
[M] If soil contains ≥ 30% plus No. 200, predominantly gravel, add "gravelly" to group name.

[N] PI ≥ 4 and plots on or above "A" line.

[O] PI < 4 or plots below "A" line.

[P] PI plots on or above "A" line.

[Q] PI plots below "A" line.



DESCRIPTION OF ROCK PROPERTIES

WEATHERING	
Term	**Description**
Unweathered	No visible sign of rock material weathering, perhaps slight discoloration on major discontinuity surfaces.
Slightly weathered	Discoloration indicates weathering of rock material and discontinuity surfaces. All the rock material may be discolored by weathering and may be somewhat weaker externally than in its fresh condition.
Moderately weathered	Less than half of the rock material is decomposed and/or disintegrated to a soil. Fresh or discolored rock is present either as a continuous framework or as corestones.
Highly weathered	More than half of the rock material is decomposed and/or disintegrated to a soil. Fresh or discolored rock is present either as a discontinuous framework or as corestones.
Completely weathered	All rock material is decomposed and/or disintegrated to soil. The original mass structure is still largely intact.
Residual soil	All rock material is converted to soil. The mass structure and material fabric are destroyed. There is a large change in volume, but the soil has not been significantly transported.

STRENGTH OR HARDNESS		
Description	**Field Identification**	**Uniaxial Compressive Strength, psi (MPa)**
Extremely weak	Indented by thumbnail	40-150 (0.3-1)
Very weak	Crumbles under firm blows with point of geological hammer, can be peeled by a pocket knife	150-700 (1-5)
Weak rock	Can be peeled by a pocket knife with difficulty, shallow indentations made by firm blow with point of geological hammer	700-4,000 (5-30)
Medium strong	Cannot be scraped or peeled with a pocket knife, specimen can be fractured with single firm blow of geological hammer	4,000-7,000 (30-50)
Strong rock	Specimen requires more than one blow of geological hammer to fracture it	7,000-15,000 (50-100)
Very strong	Specimen requires many blows of geological hammer to fracture it	15,000-36,000 (100-250)
Extremely strong	Specimen can only be chipped with geological hammer	>36,000 (>250)

DISCONTINUITY DESCRIPTION			
Fracture Spacing (Joints, Faults, Other Fractures)		**Bedding Spacing (May Include Foliation or Banding)**	
Description	**Spacing**	**Description**	**Spacing**
Extremely close	< ¾ in (<19 mm)	**Laminated**	< ½ in (<12 mm)
Very close	¾ in – 2-1/2 in (19 - 60 mm)	**Very thin**	½ in – 2 in (12 – 50 mm)
Close	2-1/2 in – 8 in (60 – 200 mm)	**Thin**	2 in – 1 ft. (50 – 300 mm)
Moderate	8 in – 2 ft. (200 – 600 mm)	**Medium**	1 ft. – 3 ft. (300 – 900 mm)
Wide	2 ft. – 6 ft. (600 mm – 2.0 m)	**Thick**	3 ft. – 10 ft. (900 mm – 3 m)
Very Wide	6 ft. – 20 ft. (2.0 – 6 m)	**Massive**	> 10 ft. (3 m)

Discontinuity Orientation (Angle): Measure the angle of discontinuity relative to a plane perpendicular to the longitudinal axis of the core. (For most cases, the core axis is vertical; therefore, the plane perpendicular to the core axis is horizontal.) For example, a horizontal bedding plane would have a 0-degree angle.

ROCK QUALITY DESIGNATION (RQD) [1]	
Description	**RQD Value (%)**
Very Poor	0 - 25
Poor	25 – 50
Fair	50 – 75
Good	75 – 90
Excellent	90 - 100

1. The combined length of all sound and intact core segments equal to or greater than 4 inches in length, expressed as a percentage of the total core run length.

Reference: U.S. Department of Transportation, Federal Highway Administration, Publication No FHWA-NHI-10-034, December 2009 Technical Manual for Design and Construction of Road Tunnels – Civil Elements

BORING LOG NO. B-1

PROJECT: Sebree Solar Project

CLIENT: NextEra Energy Resources LLC
Juno Beach, FL

SITE: State Road 416
Robards, KY

MODEL LAYER	GRAPHIC LOG	LOCATION See Exploration Plan Latitude: 37.6645° Longitude: -87.5757° Approximate Surface Elev.: 429 (Ft.) +/- DEPTH ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	RQD (%)	LABORATORY HP (tsf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI
		Boring Terminated at 0 Foot Drilling Pending due to Access Restriction										

Stratification lines are approximate. In-situ, the transition may be gradual.

Advancement Method:

Abandonment Method:

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevations were interpolated from Google Earth Pro

Notes:

WATER LEVEL OBSERVATIONS

No free water observed

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Started:

Boring Completed:

Drill Rig:

Driller:

Project No.: 57215063

BORING LOG NO. B-2

PROJECT: Sebree Solar Project

CLIENT: NextEra Energy Resources LLC
Juno Beach, FL

SITE: State Road 416
Robards, KY

MODEL LAYER	GRAPHIC LOG	LOCATION See Exploration Plan Latitude: 37.6708° Longitude: -87.5803° Approximate Surface Elev.: 413 (Ft.) +/- DEPTH ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	RQD (%)	LABORATORY HP (tsf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI
		Boring Terminated at 0 Foot Drilling Pending due to Access Restriction										

Stratification lines are approximate. In-situ, the transition may be gradual.

Advancement Method:

Abandonment Method:

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevations were interpolated from Google Earth Pro

Notes:

WATER LEVEL OBSERVATIONS

No free water observed

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Started:	Boring Completed:
Drill Rig:	Driller:
Project No.: 57215063	

BORING LOG NO. B-3

PROJECT: Sebree Solar Project

CLIENT: NextEra Energy Resources LLC
Juno Beach, FL

SITE: State Road 416
Robards, KY

LOCATION See Exploration Plan

Latitude: 37.6714° Longitude: -87.5748°

Approximate Surface Elev.: 434 (Ft.) +/-

MODEL LAYER	GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	RQD (%)	LABORATORY HP (tsf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI
1		0.0	434+/-										
		LEAN CLAY (CL), brown, medium stiff					18	3-2-3 N=5		2.0 (HP)	23.4		
		2.0	432+/-				10	6-7-10 N=17		2.0 (HP)	16.4		
2		**LEAN CLAY (CL)**, brown, stiff to very stiff		5			18	7-5-5 N=10		2.0 (HP)	21.4		
							18	5-5-5 N=10		3.5 (HP)	21.2		
				10			18	8-10-12 N=22		4.0 (HP)	23.6		
		15.0	419+/-										
4		**WEATHERED SHALE**, gray to black, highly weathered		15			18	5-5-7 N=12			21.1		
		21.5	412.5+/-	20			16	15-22-49 N=71			10.6		
		Boring Terminated at 21.5 Feet											

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
3.25 in. HSA

Abandonment Method:
Boring backfilled with auger cuttings upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevations were interpolated from Google Earth Pro

Notes:

WATER LEVEL OBSERVATIONS

No free water observed

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Started: 12-07-2021 | Boring Completed: 12-07-2021

Drill Rig: #585 | Driller: L. Slate

Project No.: 57215063

BORING LOG NO. B-4

PROJECT: Sebree Solar Project

CLIENT: NextEra Energy Resources LLC
Juno Beach, FL

SITE: State Road 416
Robards, KY

LOCATION See Exploration Plan

Latitude: 37.6678° Longitude: -87.5627°

Approximate Surface Elev.: 402 (Ft.) +/-

MODEL LAYER	GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	RQD (%)	LABORATORY HP (tsf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI
		0.5	401.5+/-										
		TOPSOIL, brown											
1		**LEAN CLAY (CL)**, brown, medium stiff				X	18	3-2-3 N=5		1.5 (HP)	23.1		
		5.0	397+/-	5									
2		**LEAN CLAY (CL)**, brown, stiff				X	18	5-5-7 N=12		2.0 (HP)	17.0		30-17-13
		7.5	394.5+/-										
3		**POORLY GRADED SAND (SP)**, brown, medium dense				X	18	8-8-18 N=26			17.5		
		10.5	391.5+/-	10		X	14	10-45-50/3"			13.8		
4		**WEATHERED SANDSTONE**, gray, highly weathered											
		15.0	387+/-	15			1	50/1"			7.2		
		Auger Refusal at 15 Feet											

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
3.25 in. HSA

Abandonment Method:
Boring backfilled with auger cuttings upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevations were interpolated from Google Earth Pro

Notes:

WATER LEVEL OBSERVATIONS

No free water observed

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Started: 12-08-2021 | Boring Completed: 12-08-2021

Drill Rig: #585 | Driller: L. Slate

Project No.: 57215063

BORING LOG NO. B-5

PROJECT: Sebree Solar Project

CLIENT: NextEra Energy Resources LLC
Juno Beach, FL

SITE: State Road 416
Robards, KY

LOCATION See Exploration Plan

Latitude: 37.6739° Longitude: -87.5721°

Approximate Surface Elev.: 422 (Ft.) +/-

MODEL LAYER	GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	RQD (%)	LABORATORY HP (tsf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI
		0.5	421.5+/-										
		TOPSOIL, brown											
1		**LEAN CLAY (CL)**, brown, medium stiff					18	2-3-3 N=6		1.0 (HP)	22.7		
		5.0	417+/-	5									
2		**LEAN CLAY (CL)**, brown, stiff					18	4-5-6 N=11		2.0 (HP)	21.5		
		7.5	414.5+/-										
		SILTY CLAY (CL-ML), brown, medium stiff					18	3-3-4 N=7		2.0 (HP)	18.0		
1				10			18	3-3-4 N=7		1.0 (HP)	18.8		
		15.0	407+/-										
		WEATHERED SANDSTONE, orange, highly weathered		15			3	50/5"			8.1		
4		20.0	402+/-										
		Auger Refusal at 20 Feet		20			1	50/1"			11.4		

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
3.25 in. HSA

Abandonment Method:
Boring backfilled with auger cuttings upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevations were interpolated from Google Earth Pro

Notes:

WATER LEVEL OBSERVATIONS

No free water observed

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Started: 12-03-2021
Boring Completed: 12-03-2021
Drill Rig: #585
Driller: L. Slate
Project No.: 57215063

BORING LOG NO. B-6

PROJECT: Sebree Solar Project

CLIENT: NextEra Energy Resources LLC
Juno Beach, FL

SITE: State Road 416
Robards, KY

LOCATION See Exploration Plan

Latitude: 37.6758° Longitude: -87.5771°

Approximate Surface Elev.: 406 (Ft.) +/-

MODEL LAYER	GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	RQD (%)	LABORATORY HP (tsf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI
		0.9	405+/-										
		TOPSOIL, brown											
1		**LEAN CLAY (CL)**, brown, medium stiff				X	18	3-2-3 N=5		1.5 (HP)	22.4		
		5.0	401+/-	5									
		LEAN CLAY (CL), brown, stiff				X	18	7-5-7 N=12		2.5 (HP)	23.5		
		7.5	398.5+/-										
2		**SILTY CLAY (CL-ML)**, brown and gray, stiff				X	18	3-5-6 N=11		2.0 (HP)	20.1		
				10		X	18	5-6-6 N=12		4.0 (HP)	26.0		
		15.0	391+/-										
		WEATHERED SHALE, gray and black, highly weathered		15		X	18	5-33-39 N=72			28.5		
				20		X	8	39-50/2"			8.3		
4				25		X	3	50/3"			7.3		
				30		X	5	50/5"			5.9		
				35		X	9	37-50/3"			5.6		
		40.5	365.5+/-	40		X	3	50/3"			5.6		
		Auger Refusal at 40.5 Feet											

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
3.25 in. HSA

Abandonment Method:
Boring backfilled with auger cuttings upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevations were interpolated from Google Earth Pro

Notes:

WATER LEVEL OBSERVATIONS

No free water observed

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Started: 12-02-2021 | Boring Completed: 12-02-2021

Drill Rig: #585 | Driller: L. Slate

Project No.: 57215063

BORING LOG NO. B-7

PROJECT: Sebree Solar Project

CLIENT: NextEra Energy Resources LLC
Juno Beach, FL

SITE: State Road 416
Robards, KY

LOCATION See Exploration Plan

Latitude: 37.6744° Longitude: -87.5627°

Approximate Surface Elev.: 424 (Ft.) +/-

MODEL LAYER	GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	RQD (%)	LABORATORY HP (tsf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI
		0.5	423.5+/-										
			TOPSOIL, brown										
			LEAN CLAY (CL), brown, medium stiff				18	3-2-4 N=6		2.5 (HP)	20.9		
1				5			18	3-3-4 N=7		3.0 (HP)	22.7		37-21-16
							18	3-4-3 N=7		3.0 (HP)	19.5		
				10			18	3-4-4 N=8		2.0 (HP)	19.6		
		15.0	409+/-										
2			**SILTY CLAY (CL-ML)**, reddish brown and gray, stiff	15			18	3-4-5 N=9		0.5 (HP)	21.6		
		20.0	404+/-										
4		21.5	**WEATHERED SHALE**, gray, highly weathered	20			18	10-12-16 N=28			13.3		
		402.5+/-											
			Boring Terminated at 21.5 Feet										

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
3.25 in. HSA

Abandonment Method:
Boring backfilled with auger cuttings upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevations were interpolated from Google Earth Pro

Notes:

WATER LEVEL OBSERVATIONS

No free water observed

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Started: 12-02-2021 | Boring Completed: 12-02-2021

Drill Rig: #585 | Driller: L. Slate

Project No.: 57215063

BORING LOG NO. B-8

PROJECT: Sebree Solar Project

CLIENT: NextEra Energy Resources LLC
Juno Beach, FL

SITE: State Road 416
Robards, KY

MODEL LAYER	GRAPHIC LOG	LOCATION See Exploration Plan Latitude: 37.6745° Longitude: -87.5549° Approximate Surface Elev.: 443 (Ft.) +/- DEPTH ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	RQD (%)	LABORATORY HP (tsf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI
		Boring Terminated at 0 Foot Drilling Pending due to Access Restriction										

Stratification lines are approximate. In-situ, the transition may be gradual.

Advancement Method:

Abandonment Method:

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevations were interpolated from Google Earth Pro

Notes:

WATER LEVEL OBSERVATIONS

No free water observed

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Started:

Boring Completed:

Drill Rig:

Driller:

Project No.: 57215063

BORING LOG NO. B-9

PROJECT: Sebree Solar Project

CLIENT: NextEra Energy Resources LLC
Juno Beach, FL

SITE: State Road 416
Robards, KY

LOCATION See Exploration Plan

Latitude: 37.6788° Longitude: -87.5574°

Approximate Surface Elev.: 415 (Ft.) +/-

MODEL LAYER	GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	RQD (%)	LABORATORY HP (tsf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI
		0.7	414.5+/-										
			TOPSOIL, brown										
1			**LEAN CLAY (CL)**, brown, medium stiff				18	3-2-3 N=5		1.5 (HP)	23.4		
							18	3-3-3 N=6		2.0 (HP)	19.3		43-20-23
				5						1.5 (HP)			
		7.5	407.5+/-										
2		9.0	**SILTY CLAY (CL-ML)**, light brown, stiff				18	3-5-5 N=10		1.0 (HP)	18.4		
		406+/-					18	3-3-4 N=7		2.0 (HP)	21.4		
1			**SILTY CLAY (CL-ML)**, light brown, medium stiff	10									
		15.0	400+/-										
			WEATHERED SHALE, gray, highly weathered	15			18	19-23-26 N=49			11.1		
4													
		21.5	393.5+/-	20			18	16-26-31 N=57			11.3		
			Boring Terminated at 21.5 Feet										

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
3.25 in. HSA

Abandonment Method:
Boring backfilled with auger cuttings upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevations were interpolated from Google Earth Pro

Notes:

WATER LEVEL OBSERVATIONS

No free water observed

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Started: 12-03-2021 | Boring Completed: 12-03-2021

Drill Rig: #585 | Driller: L. Slate

Project No.: 57215063

BORING LOG NO. B-10

PROJECT: Sebree Solar Project

CLIENT: NextEra Energy Resources LLC
Juno Beach, FL

SITE: State Road 416
Robards, KY

LOCATION See Exploration Plan

Latitude: 37.6790° Longitude: -87.5672°

Approximate Surface Elev.: 436 (Ft.) +/-

MODEL LAYER	GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	RQD (%)	LABORATORY HP (tsf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI
		0.8	435+/-										
			TOPSOIL, brown										
1			**LEAN CLAY (CL)**, grayish brown to light brown, medium stiff			X	18	3-2-3 N=5		1.0 (HP)	20.4		
				5		X	18	2-2-2 N=4		1.0 (HP)	23.8		
						X	18	2-2-3 N=5		1.5 (HP)	21.6		
				10		X	18	2-3-3 N=6		3.0 (HP)	21.8		
		15.0	421+/-										
2			**SILTY CLAY (CL-ML)**, brown and gray, stiff	15		X	18	3-5-6 N=11		2.5 (HP)	21.4		
		20.0	416+/-										
4		21.0	**WEATHERED SHALE**, gray, highly weathered	20		X	9	27-50/3"			9.1		
			Auger Refusal at 21 Feet										

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
3.25 in. HSA

Abandonment Method:
Boring backfilled with auger cuttings upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevations were interpolated from Google Earth Pro

Notes:

WATER LEVEL OBSERVATIONS

No free water observed

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Started: 12-02-2021 | Boring Completed: 12-02-2021

Drill Rig: #585 | Driller: L. Slate

Project No.: 57215063

BORING LOG NO. B-11

PROJECT: Sebree Solar Project

CLIENT: NextEra Energy Resources LLC
Juno Beach, FL

SITE: State Road 416
Robards, KY

LOCATION See Exploration Plan

Latitude: 37.6825° Longitude: -87.5769°

Approximate Surface Elev.: 431 (Ft.) +/-

MODEL LAYER	GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	RQD (%)	LABORATORY HP (tsf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI
		0.8	430+/-										
			TOPSOIL, brown				18	4-2-4 N=6		1.5 (HP)	25.9		
			LEAN CLAY (CL), brown, medium stiff				18	2-3-3 N=6		1.5 (HP)	21.0		
1				5			1.5			4.0 (HP)			
		9.0	422+/-				18	3-3-3 N=6		1.5 (HP)	18.6		
			LEAN CLAY (CL), brown, stiff	10			18	3-4-6 N=10		2.5 (HP)	19.2		
2		15.0	416+/-										
			WEATHERED SHALE, brown and gray, highly weathered	15			18	16-25-39 N=64			18.0		
4		20.5	410.5+/-	20			6	50-50/0"			9.6		
			Auger Refusal at 20.5 Feet										

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
3.25 in. HSA

Abandonment Method:
Boring backfilled with auger cuttings upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevations were interpolated from Google Earth Pro

Notes:

WATER LEVEL OBSERVATIONS

No free water observed

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Started: 12-02-2021 | Boring Completed: 12-02-2021

Drill Rig: #585 | Driller: L. Slate

Project No.: 57215063

BORING LOG NO. B-12

PROJECT: Sebree Solar Project

CLIENT: NextEra Energy Resources LLC
Juno Beach, FL

SITE: State Road 416
Robards, KY

MODEL LAYER	GRAPHIC LOG	LOCATION See Exploration Plan Latitude: 37.6860° Longitude: -87.5666° Approximate Surface Elev.: 472 (Ft.) +/- DEPTH ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	RQD (%)	LABORATORY HP (tsf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI
		Boring Terminated at 0 Foot Drilling Pending due to Access Restriction										

Stratification lines are approximate. In-situ, the transition may be gradual.

Advancement Method:

Abandonment Method:

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevations were interpolated from Google Earth Pro

Notes:

WATER LEVEL OBSERVATIONS

No free water observed

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Started:

Boring Completed:

Drill Rig:

Driller:

Project No.: 57215063

BORING LOG NO. B-13

PROJECT: Sebree Solar Project

CLIENT: NextEra Energy Resources LLC
Juno Beach, FL

SITE: State Road 416
Robards, KY

LOCATION See Exploration Plan

Latitude: 37.6877° Longitude: -87.5753°

Approximate Surface Elev.: 446 (Ft.) +/-

MODEL LAYER	GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	RQD (%)	LABORATORY HP (tsf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI
		0.7	445.5+/-										
			TOPSOIL, brown										
			LEAN CLAY (CL), dark grayish brown, medium stiff			X	18	3-2-2 N=4		1.0 (HP)	20.9		
		5.0	441+/-	5									
			SILTY CLAY (CL-ML), gray and light brown, medium stiff			X	18	3-2-4 N=6		1.5 (HP)	23.2		
1						X	18	2-2-2 N=4		1.5 (HP)	23.9		
				10		X	18	2-2-3 N=5		2.25 (HP)	21.6		
				15		X	18	3-4-4 N=8		2.5 (HP)	21.1		
		20.0	426+/-										
4		21.5	424.5+/-	20		X	18	11-12-18 N=30			18.1		
			WEATHERED SHALE, gray and brown, highly weathered										
			Boring Terminated at 21.5 Feet										

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
3.25 in. HSA

Abandonment Method:
Boring backfilled with auger cuttings upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevations were interpolated from Google Earth Pro

Notes:

WATER LEVEL OBSERVATIONS

No free water observed

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Started: 12-02-2021 | Boring Completed: 12-02-2021

Drill Rig: #585 | Driller: L. Slate

Project No.: 57215063

BORING LOG NO. B-14

PROJECT: Sebree Solar Project

CLIENT: NextEra Energy Resources LLC
Juno Beach, FL

SITE: State Road 416
Robards, KY

LOCATION See Exploration Plan

Latitude: 37.6860° Longitude: -87.5580°

Approximate Surface Elev.: 414 (Ft.) +/-

MODEL LAYER	GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	RQD (%)	LABORATORY HP (tsf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI
		0.3	413.5+/-										
			TOPSOIL, brown										
			LEAN CLAY (CL), light grayish brown, medium stiff				18	2-2-2 N=4		4.0 (HP)	22.1		
				5			18	4-4-4 N=8		2.0 (HP)	21.1		
		7.5	406.5+/-										
1			**SILTY CLAY (CL-ML)**, light brown and gray, medium stiff				18	3-3-3 N=6		2.0 (HP)	25.7		
				10			18	2-2-3 N=5		1.0 (HP)	27.4		
				15			18	3-3-3 N=6		2.0 (HP)	20.6		
		20.0	394+/-										
4		21.5	**WEATHERED SANDSTONE**, brown, highly weathered	20			16	19-34-50 N=84			10.3		
			392.5+/-										
			Boring Terminated at 21.5 Feet										

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
3.25 in. HSA

Abandonment Method:
Boring backfilled with auger cuttings upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevations were interpolated from Google Earth Pro

Notes:

WATER LEVEL OBSERVATIONS

No free water observed

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Started: 12-01-2021 | Boring Completed: 12-01-2021

Drill Rig: #585 | Driller: L. Slate

Project No.: 57215063

BORING LOG NO. B-15

PROJECT: Sebree Solar Project

CLIENT: NextEra Energy Resources LLC
Juno Beach, FL

SITE: State Road 416
Robards, KY

LOCATION See Exploration Plan

Latitude: 37.6818° Longitude: -87.5498°

Approximate Surface Elev.: 420 (Ft.) +/-

MODEL LAYER	GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	RQD (%)	LABORATORY HP (tsf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI
		0.3	419.5+/-										
			TOPSOIL, brown										
			LEAN CLAY (CL), brown, medium stiff				18	3-2-4 N=6		2.0 (HP)	18.5		
				5			18	4-4-4 N=8		1.5 (HP)	23.6		
		9.0	411+/-				18	3-3-4 N=7		0.5 (HP)	20.4		
1			**SILTY CLAY (CL-ML)**, brown, medium stiff	10			18	3-3-4 N=7		2.5 (HP)	20.5		
				15			18	5-4-4 N=8		1.0 (HP)	24.0		
		20.0	400+/-										
4		21.5	**WEATHERED SHALE**, brown, highly weathered	20			12	30-35-50/2"			11.1		
			398.5+/-										
			Auger Refusal at 21.5 Feet										

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
3.25 in. HSA

Abandonment Method:
Boring backfilled with auger cuttings upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevations were interpolated from Google Earth Pro

Notes:

WATER LEVEL OBSERVATIONS

No free water observed

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Started: 12-01-2021 | Boring Completed: 12-01-2021

Drill Rig: #585 | Driller: L. Slate

Project No.: 57215063

BORING LOG NO. B-16

PROJECT: Sebree Solar Project

CLIENT: NextEra Energy Resources LLC
Juno Beach, FL

SITE: State Road 416
Robards, KY

LOCATION See Exploration Plan

Latitude: 37.6875° Longitude: -87.5480°

Approximate Surface Elev.: 414 (Ft.) +/-

MODEL LAYER	GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	RQD (%)	LABORATORY HP (tsf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI
		0.5	413.5+/-										
		TOPSOIL, brown											
1		**LEAN CLAY (CL)**, brown and gray, medium stiff				X	18	4-3-3 N=6		0.5 (HP)	22.3		
		5.0	409+/-										
		LEAN CLAY (CL), brown and gray, stiff to very stiff		5		X	18	6-7-8 N=15		2.0 (HP)	23.7		
2						X	18	3-4-6 N=10		4.0 (HP)	22.9		
				10		X	18	6-8-13 N=21		3.75 (HP)	23.1		
		15.0	399+/-										
4		**WEATHERED SHALE**, gray, highly weathered		15		X	14	29-35-50 N=85			9.4		
		20.5	393.5+/-	20		X	5	50/5"			8.4		
		Auger Refusal at 20.5 Feet											

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
3.25 in. HSA

Abandonment Method:
Boring backfilled with auger cuttings upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevations were interpolated from Google Earth Pro

Notes:

WATER LEVEL OBSERVATIONS

No free water observed

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Started: 12-01-2021 | Boring Completed: 12-01-2021

Drill Rig: #585 | Driller: L. Slate

Project No.: 57215063

BORING LOG NO. B-17

PROJECT: Sebree Solar Project

CLIENT: NextEra Energy Resources LLC
Juno Beach, FL

SITE: State Road 416
Robards, KY

LOCATION See Exploration Plan

Latitude: 37.6928° Longitude: -87.5540°

Approximate Surface Elev.: 418 (Ft.) +/-

MODEL LAYER	GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	RQD (%)	LABORATORY HP (tsf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI
		0.5	417.5+/-										
		TOPSOIL, brown											
1		**LEAN CLAY (CL)**, brown to reddish brown, medium stiff					18	2-3-3 N=6		1.5 (HP)	24.4		
		5.0	413+/-										
		LEAN CLAY (CL), brown to reddish brown, stiff		5			18	4-5-5 N=10		1.5 (HP)	22.3		
2							18	4-4-4 N=8		1.5 (HP)	20.5		
				10			18	4-5-6 N=11		2.5 (HP)	26.1		
		16.1	402+/-	15			12	6-24-50/1"		1.5 (HP)	16.8		
4		**WEATHERED SANDSTONE**, brown, completely weathered											
		20.5	397.5+/-	20			2	50/2"			9.4		
		Auger Refusal at 20.5 Feet											

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
3.25 in. HSA

Abandonment Method:
Boring backfilled with auger cuttings upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevations were interpolated from Google Earth Pro

Notes:

WATER LEVEL OBSERVATIONS

No free water observed

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Started: 11-30-2021 | Boring Completed: 11-30-2021

Drill Rig: #585 | Driller: L. Slate

Project No.: 57215063

BORING LOG NO. B-18

PROJECT: Sebree Solar Project

CLIENT: NextEra Energy Resources LLC
Juno Beach, FL

SITE: State Road 416
Robards, KY

LOCATION See Exploration Plan

Latitude: 37.6999° Longitude: -87.5534°

Approximate Surface Elev.: 448 (Ft.) +/-

MODEL LAYER	GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	RQD (%)	LABORATORY HP (tsf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI
		0.5	447.5+/-										
		TOPSOIL, brown											
1		**LEAN CLAY (CL)**, brown, medium stiff				X	18	2-2-3 N=5		1.0 (HP)	25.3		
		5.0	443+/-	5									
2		**LEAN CLAY (CL)**, brown, stiff				X	18	4-4-5 N=9		2.0 (HP)	25.1		
		7.5	440.5+/-										
1		**SANDY LEAN CLAY (CL)**, brown, medium stiff				X	18	3-3-4 N=7		1.25 (HP)	17.0		
				10		X	18	2-2-3 N=5		1.5 (HP)	16.6		
		15.5	432.5+/-	15		X	13	16-50-50/1"					
4		**WEATHERED SANDSTONE**, brown, completely weathered											
		20.5	427.5+/-	20			1	50/1"			12.6		
		Auger Refusal at 20.5 Feet											

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
3.25 in. HSA

Abandonment Method:
Boring backfilled with auger cuttings upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevations were interpolated from Google Earth Pro

Notes:

WATER LEVEL OBSERVATIONS

No free water observed

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Started: 12-09-2021 | Boring Completed: 12-09-2021

Drill Rig: #585 | Driller: L. Slate

Project No.: 57215063

BORING LOG NO. B-19

PROJECT: Sebree Solar Project

CLIENT: NextEra Energy Resources LLC
Juno Beach, FL

SITE: State Road 416
Robards, KY

LOCATION See Exploration Plan

Latitude: 37.7031° Longitude: -87.5449°

Approximate Surface Elev.: 458 (Ft.) +/-

MODEL LAYER	GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	RQD (%)	LABORATORY HP (tsf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI
1		0.7	457.5+/-				18	1-4-4 N=8		1.0 (HP)	21.4		
							18	3-2-3 N=5		1.0 (HP)	20.2		
				5						4.5 (HP)			
		7.5	450.5+/-				18	12-21-38 N=59		2.0 (HP)			
4				10			18	22-20-20 N=40		0.5 (HP)	10.8		
				15			9	44-50/5"			7.5		
		21.0	437+/-	20			6	20-50/3"			16.9		

TOPSOIL, brown

LEAN CLAY (CL), brown, medium stiff

WEATHERED SANDSTONE, gray and brown, highly weathered

Auger Refusal at 21 Feet

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
3.25 in. HSA

Abandonment Method:
Boring backfilled with auger cuttings upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevations were interpolated from Google Earth Pro

Notes:

WATER LEVEL OBSERVATIONS

No free water observed

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Started: 11-30-2021 | Boring Completed: 11-30-2021

Drill Rig: #585 | Driller: L. Slate

Project No.: 57215063

BORING LOG NO. B-20

PROJECT: Sebree Solar Project

CLIENT: NextEra Energy Resources LLC
Juno Beach, FL

SITE: State Road 416
Robards, KY

LOCATION See Exploration Plan

Latitude: 37.7102° Longitude: -87.5394°

Approximate Surface Elev.: 444 (Ft.) +/-

MODEL LAYER	GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	RQD (%)	LABORATORY HP (tsf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI
		0.8	443+/-										
			TOPSOIL, brown										
2			**SANDY LEAN CLAY (CL)**, reddish brown, stiff to very stiff	5			18	2-3-6 N=9					22-14-8
							18	6-6-10 N=16			12.0		
							18	6-6-7 N=13		1.5 (HP)	14.2		
				10			18	4-4-6 N=10		1.0 (HP)	16.6		
		13.5	430.5+/-										
4			**WEATHERED SANDSTONE**, reddish brown to light brown, highly weathered	15			18	14-26-50 N=76		0.5 (HP)	16.2		
		19.5	424.5+/-				8	19-50/4"			12.9		
			Auger Refusal at 19.5 Feet										

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
3.25 in. HSA

Abandonment Method:
Boring backfilled with auger cuttings upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevations were interpolated from Google Earth Pro

Notes:

WATER LEVEL OBSERVATIONS

No free water observed

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Started: 11-30-2021 | Boring Completed: 11-30-2021

Drill Rig: #585 | Driller: L. Slate

Project No.: 57215063

BORING LOG NO. B-21

PROJECT: Sebree Solar Project

CLIENT: NextEra Energy Resources LLC
Juno Beach, FL

SITE: State Road 416
Robards, KY

LOCATION See Exploration Plan

Latitude: 37.6927° Longitude: -87.5735°

Approximate Surface Elev.: 436 (Ft.) +/-

MODEL LAYER	GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	RQD (%)	LABORATORY HP (tsf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI
		0.5	435.5+/-										
			TOPSOIL, brown										
1			**LEAN CLAY (CL)**, grayish brown, medium stiff				18	2-4-2 N=6		1.0 (HP)	21.1		
				5			18	4-4-4 N=8		1.0 (HP)	20.8		
		7.5	428.5+/-										
2			**SILTY CLAY (CL-ML)**, gray and brown, stiff				18	3-4-6 N=10		2.0 (HP)	24.2		
				10			18	3-4-4 N=8		0.5 (HP)	23.5		
		15.0	421+/-										
			LEAN CLAY (CL), brown, stiff	15			18	4-5-7 N=12		2.0 (HP)	23.8		
		20.0	416+/-										
4		21.5	**WEATHERED SHALE**, light brown, highly weathered	20			18	15-22-37 N=59			12.3		
			414.5+/-										
			Boring Terminated at 21.5 Feet										

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
3.25 in. HSA

Abandonment Method:
Boring backfilled with auger cuttings upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevations were interpolated from Google Earth Pro

Notes:

WATER LEVEL OBSERVATIONS

No free water observed

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Started: 12-07-2021 | Boring Completed: 12-07-2021

Drill Rig: #585 | Driller: L. Slate

Project No.: 57215063

BORING LOG NO. B-22

PROJECT: Sebree Solar Project

CLIENT: NextEra Energy Resources LLC
Juno Beach, FL

SITE: State Road 416
Robards, KY

LOCATION See Exploration Plan

Latitude: 37.6970° Longitude: -87.5730°

Approximate Surface Elev.: 413 (Ft.) +/-

MODEL LAYER	GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	RQD (%)	LABORATORY HP (tsf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI
		0.3	412.5+/-										
		TOPSOIL, brown											
1		**LEAN CLAY (CL)**, light brown and gray, soft				X	18	3-1-2 N=3		2.0 (HP)	24.2		
		5.0	408+/-										
		LEAN CLAY (CL), light brown and gray, stiff		5		X	18	4-5-6 N=11		2.5 (HP)	22.4		
2						X	18	3-3-4 N=7		2.5 (HP)	20.6		
				10		X	18	4-4-5 N=9		2.5 (HP)	20.5		
		15.0	398+/-										
		WEATHERED SHALE, light brown, highly weathered		15		X	18	17-22-32 N=54			12.4		
4		21.5	391.5+/-	20		X	18	18-22-28 N=50			10.1		
		Boring Terminated at 21.5 Feet											

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
3.25 in. HSA

Abandonment Method:
Boring backfilled with auger cuttings upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevations were interpolated from Google Earth Pro

Notes:

WATER LEVEL OBSERVATIONS

No free water observed

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Started:	Boring Completed:
Drill Rig: #585	Driller: L. Slate
Project No.: 57215063	

BORING LOG NO. B-23

PROJECT: Sebree Solar Project

CLIENT: NextEra Energy Resources LLC
Juno Beach, FL

SITE: State Road 416
Robards, KY

LOCATION See Exploration Plan

Latitude: 37.6989° Longitude: -87.5803°

Approximate Surface Elev.: 429 (Ft.) +/-

MODEL LAYER	GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	RQD (%)	LABORATORY HP (tsf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI
		0.5	428.5+/-										
			TOPSOIL, brown										
			SILTY CLAY (CL-ML), brown, medium stiff			X	18	2-2-4 N=6		2.0 (HP)	25.2		
1				5		X	18	3-3-3 N=6		0.5 (HP)	26.7		
		9.0	420+/-			X	18	3-2-5 N=7		1.5 (HP)	20.2		
			LEAN CLAY (CL), reddish brown, stiff to very stiff	10		X	18	3-5-5 N=10		2.5 (HP)	26.0		
2				15		X	18	6-8-10 N=18		4.5 (HP)	18.8		
		20.0	409+/-										
4		21.5	**WEATHERED SHALE**, gray to black, highly weathered	20		X	18	18-12-14 N=26			19.1		
			407.5+/-										
			Boring Terminated at 21.5 Feet										

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
3.25 in. HSA

Abandonment Method:
Boring backfilled with auger cuttings upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevations were interpolated from Google Earth Pro

Notes:

WATER LEVEL OBSERVATIONS

No free water observed

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Started:

Boring Completed:

Drill Rig: #585

Driller: L. Slate

Project No.: 57215063

BORING LOG NO. B-24

PROJECT: Sebree Solar Project

CLIENT: NextEra Energy Resources LLC
Juno Beach, FL

SITE: State Road 416
Robards, KY

LOCATION See Exploration Plan

Latitude: 37.7040° Longitude: -87.5825°

Approximate Surface Elev.: 423 (Ft.) +/-

MODEL LAYER	GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	RQD (%)	LABORATORY HP (tsf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI
1		0.3	422.5+/-										
			TOPSOIL, brown										
			SILTY CLAY (CL-ML), brown, soft			X	18	2-1-2 N=3		0.5 (HP)	28.7		
		5.0	418+/-	5									
2			**LEAN CLAY (CL)**, brown and grayish brown, stiff			X	18	4-5-4 N=9		2.0 (HP)	23.0		
						X	18	3-3-4 N=7		1.5 (HP)	24.1		
				10		X	18	4-4-5 N=9		2.5 (HP)	19.5		
				15		X	18	5-6-8 N=14		3.0 (HP)	21.8		
		20.0	403+/-										
4		21.5	**WEATHERED SHALE**, gray, highly weathered	20		X	18	8-16-28 N=44			12.8		
			Boring Terminated at 21.5 Feet										

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
3.25 in. HSA

Abandonment Method:
Boring backfilled with auger cuttings upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevations were interpolated from Google Earth Pro

Notes:

WATER LEVEL OBSERVATIONS

No free water observed

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Started: 12-08-2021 | Boring Completed: 12-08-2021

Drill Rig: #585 | Driller: L. Slate

Project No.: 57215063

BORING LOG NO. SB-1

PROJECT: Sebree Solar Project

CLIENT: NextEra Energy Resources LLC
Juno Beach, FL

SITE: State Road 416
Robards, KY

LOCATION See Exploration Plan

Latitude: 37.6896° Longitude: -87.5478°

Approximate Surface Elev.: 424 (Ft.) +/-

MODEL LAYER	GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	RQD (%)	Uniaxial Compressive Strength (psi)	LABORATORY HP (tsf)	STRENGTH TEST: TEST TYPE	STRENGTH TEST: COMPRESSIVE STRENGTH (tsf)	STRENGTH TEST: STRAIN (%)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS: LL-PL-PI
		0.6	423.5+/-														
			TOPSOIL, brown														
			LEAN CLAY (CL), brown, stiff				18	2-5-7 N=12			2.5 (HP)				19.9		
				5			18	4-4-4 N=8			1.0 (HP)				24.3		
		7.5	416.5+/-		▽												
2			**SILTY CLAY (CL-ML)**, brown, stiff				18	4-4-5 N=9			2.5 (HP)				18.4		
				10			18	3-5-5 N=10			2.5 (HP)				20.4		
				15			18	3-5-7 N=12			3.5 (HP)				19.5		
4		20.0	404+/-														
		20.3	404+/-	20			3	50/3"							9.0		
			WEATHERED SHALE, gray, highly weathered														
			SHALE, brownish gray, very close to close fracture spacing, laminated bedding, moderately weathered, very weak to weak rock				60		52	605						135	
		25.0	399+/-	25													
5			**SHALE**, gray, close to moderate fracture spacing, laminated bedding, slightly weathered, weak rock				60		49	5061						148	
				30			60		33								
		35.3	388.5+/-	35													
			SANDSTONE, gray, moderate to wide spacing, thin bedding, unweathered, medium strong				60		57								
6				40			60		60								
				45			60		59								
		50.5	373.5+/-	50													
			Boring Terminated at 50.5 Feet														

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
3.25 in. HD
NQ2 sized core

Abandonment Method:
Boring backfilled with auger cuttings upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevations were interpolated from Google Earth Pro

Notes:

WATER LEVEL OBSERVATIONS

▽ *At completion of drilling*

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

Boring Started: 11-30-2021 | Boring Completed: 12-01-2021

Drill Rig: #585 | Driller: L. Slate

Project No.: 57215063

BORING LOG NO. SB-2

PROJECT: Sebree Solar Project

CLIENT: NextEra Energy Resources LLC
Juno Beach, FL

SITE: State Road 416
Robards, KY

LOCATION See Exploration Plan

Latitude: 37.6880° Longitude: -87.5454°

Approximate Surface Elev.: 436 (Ft.) +/-

MODEL LAYER	GRAPHIC LOG	DEPTH	ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	RQD (%)	LABORATORY HP (tsf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI
		0.5	435.5+/-										
			TOPSOIL, brown										
			LEAN CLAY (CL), brown, medium stiff				18	3-3-3 N=6		1.0 (HP)	24.2		
1							18	3-3-4 N=7		1.0 (HP)	21.1		
				5			2			2.5 (HP)			
		7.5	428.5+/-										
2		9.0	**LEAN CLAY (CL)**, brown, stiff 427+/-				18	4-5-7 N=12		4.0 (HP)	21.9		
			WEATHERED SHALE, light brown, highly weathered	10			18	12-16-23 N=39			9.4		
4				15			8	39-50/2"			8.7		
		20.0	416+/-										
		21.0	**WEATHERED SANDSTONE**, red and brown, completely weathered 415+/-	20			3	49-50/2"			15.7		
			Auger Refusal at 21 Feet										

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
3.25 in. HSA

Abandonment Method:
Boring backfilled with auger cuttings upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Elevations were interpolated from Google Earth Pro

Notes:

WATER LEVEL OBSERVATIONS

No free water observed

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

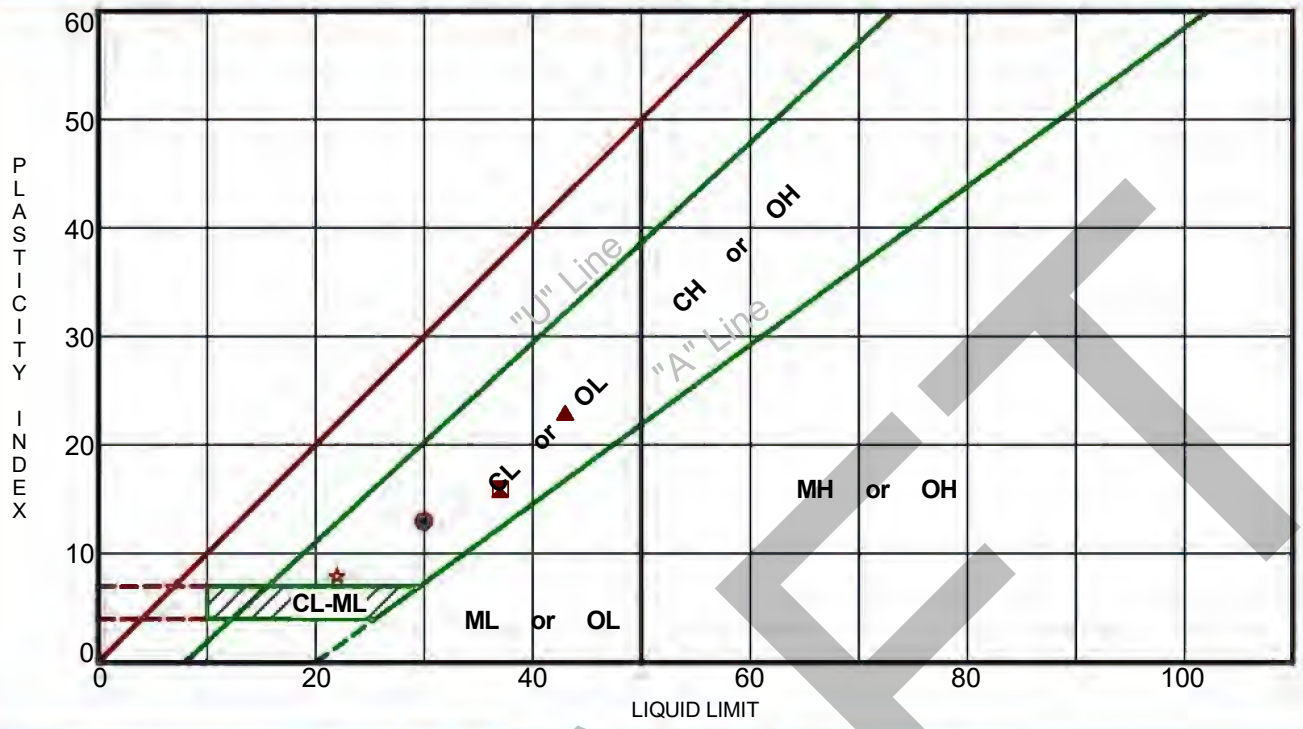
Boring Started: 12-01-2021 | Boring Completed: 12-01-2021

Drill Rig: #585 | Driller: L. Slate

Project No.: 57215063

ATTERBERG LIMITS RESULTS

ASTM D4318



Boring ID		Depth (Ft)	LL	PL	PI	Fines	USCS	Description
●	B-4	5 - 6.5	30	17	13		CL	Lean Clay
⊠	B-7	5 - 6.5	37	21	16		CL	Lean Clay
▲	B-9	1.5 - 3	43	20	23		CL	Lean Clay
★	B-20	1 - 2.5	22	14	8		CL	Sandy Lean Clay

PROJECT: Sebree Solar Project

PROJECT NUMBER: 57215063

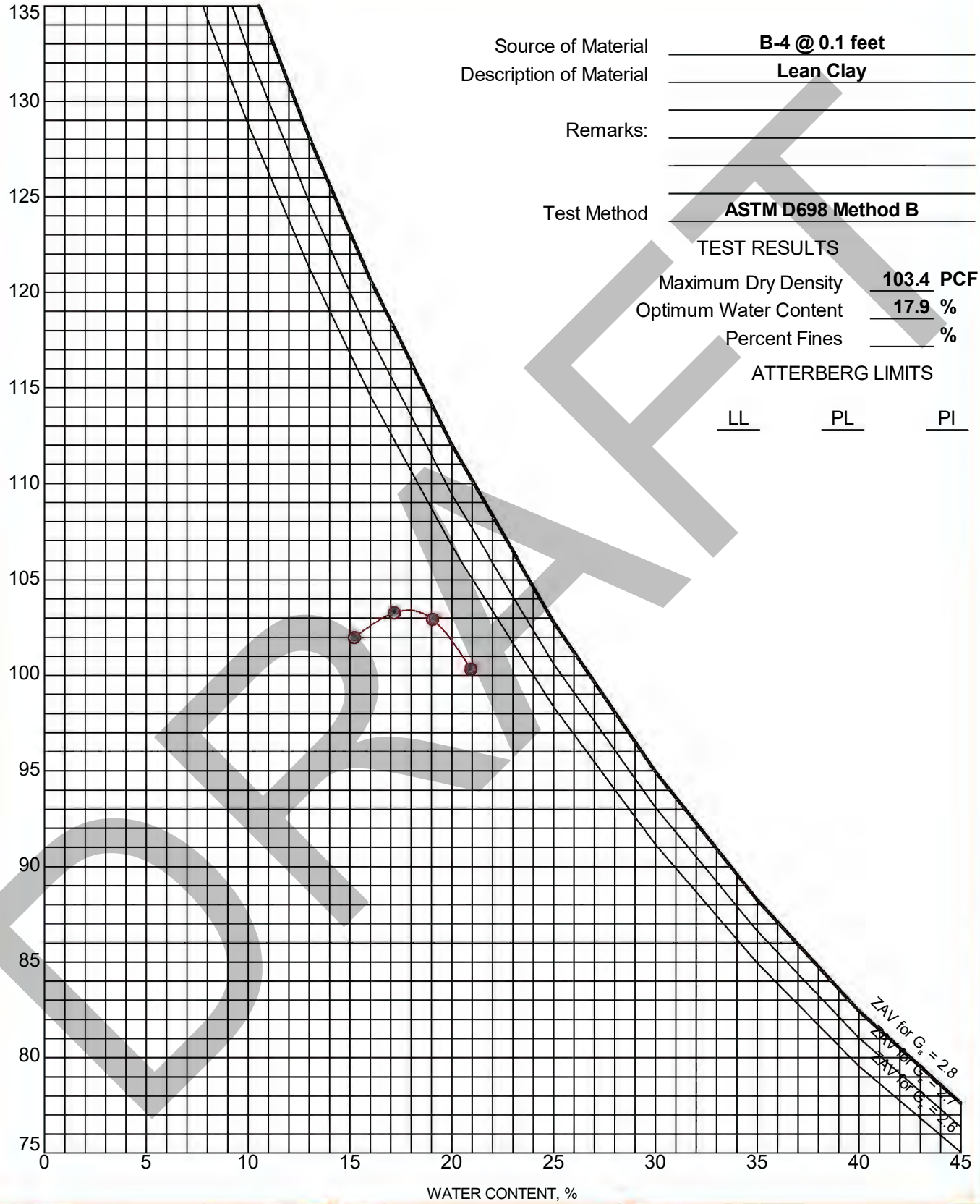
SITE: State Road 416
Robards, KY

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

CLIENT: NextEra Energy Resources LLC
Juno Beach, FL

MOISTURE-DENSITY RELATIONSHIP

ASTM D698/D1557



Source of Material	**B-4 @ 0.1 feet**
Description of Material	**Lean Clay**
Remarks:	
Test Method	**ASTM D698 Method B**

TEST RESULTS

Maximum Dry Density	**103.4**	**PCF**
Optimum Water Content	**17.9**	**%**
Percent Fines		**%**

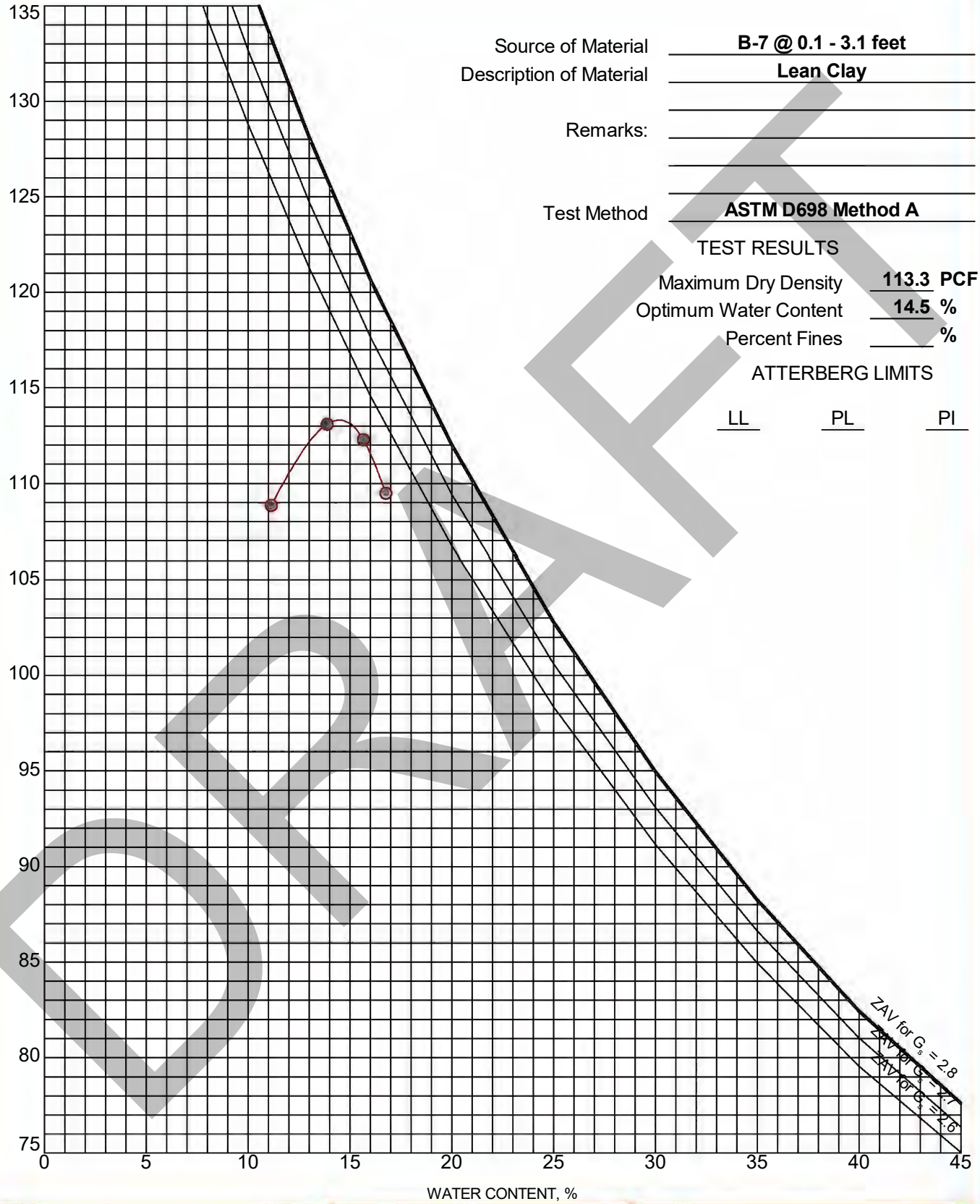
ATTERBERG LIMITS

LL	PL	PI

PROJECT: Sebree Solar Project	Terracon 13050 Eastgate Park Way Ste 101 Louisville, KY	PROJECT NUMBER: 57215063
SITE: State Road 416 Robards, KY		CLIENT: NextEra Energy Resources LLC Juno Beach, FL

MOISTURE-DENSITY RELATIONSHIP

ASTM D698/D1557



Source of Material	**B-7 @ 0.1 - 3.1 feet**
Description of Material	**Lean Clay**
Remarks:	
Test Method	**ASTM D698 Method A**

TEST RESULTS

Maximum Dry Density	**113.3**	**PCF**
Optimum Water Content	**14.5**	**%**
Percent Fines		**%**

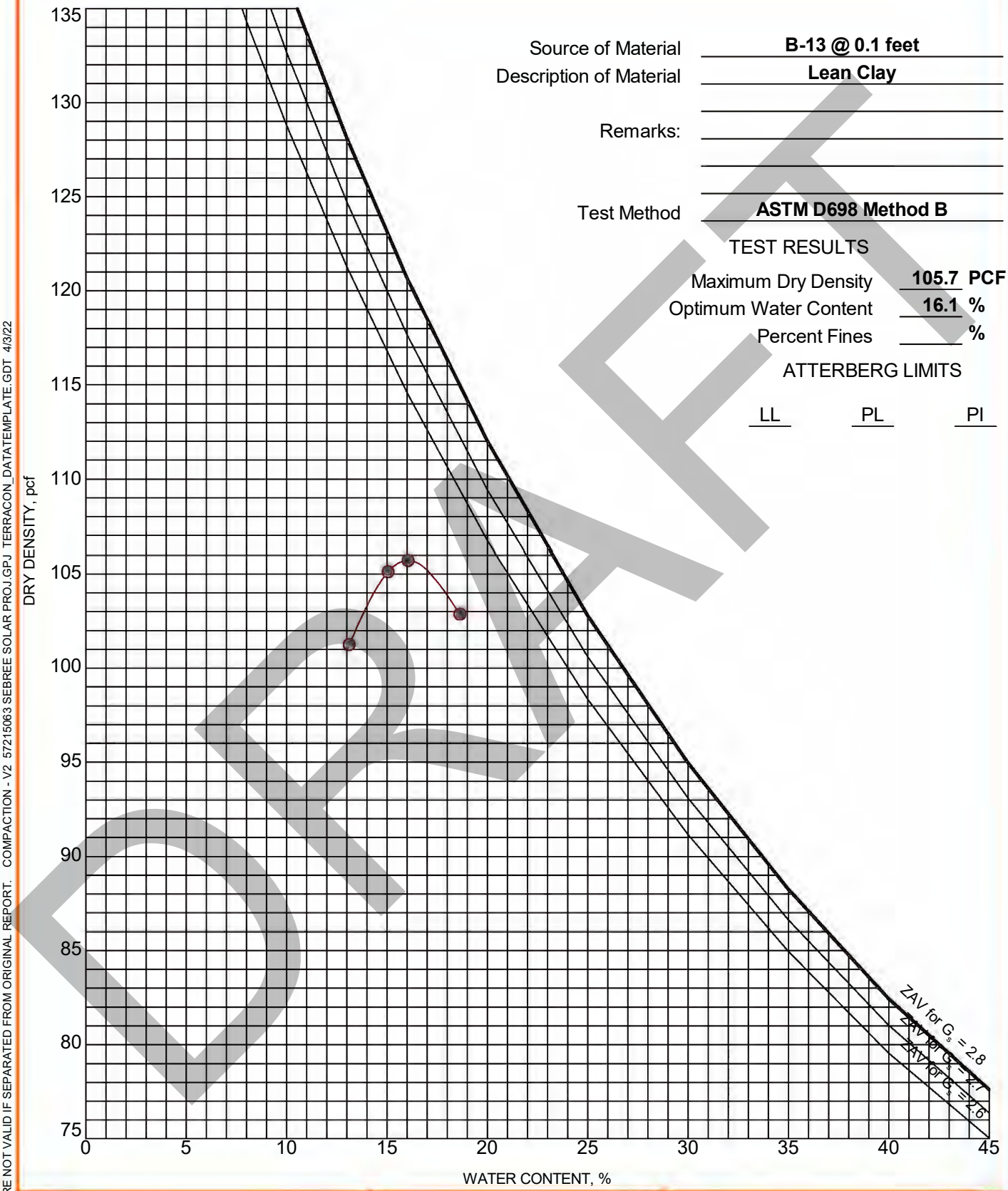
ATTERBERG LIMITS

LL	PL	PI

PROJECT: Sebree Solar Project	Terracon 13050 Eastgate Park Way Ste 101 Louisville, KY	PROJECT NUMBER: 57215063
SITE: State Road 416 Robards, KY		CLIENT: NextEra Energy Resources LLC Juno Beach, FL

MOISTURE-DENSITY RELATIONSHIP

ASTM D698/D1557



Source of Material: **B-13 @ 0.1 feet**

Description of Material: **Lean Clay**

Remarks:

Test Method: **ASTM D698 Method B**

TEST RESULTS

Maximum Dry Density	**105.7**	**PCF**
Optimum Water Content	**16.1**	**%**
Percent Fines		**%**

ATTERBERG LIMITS

LL	PL	PI

PROJECT: Sebree Solar Project

PROJECT NUMBER: 57215063

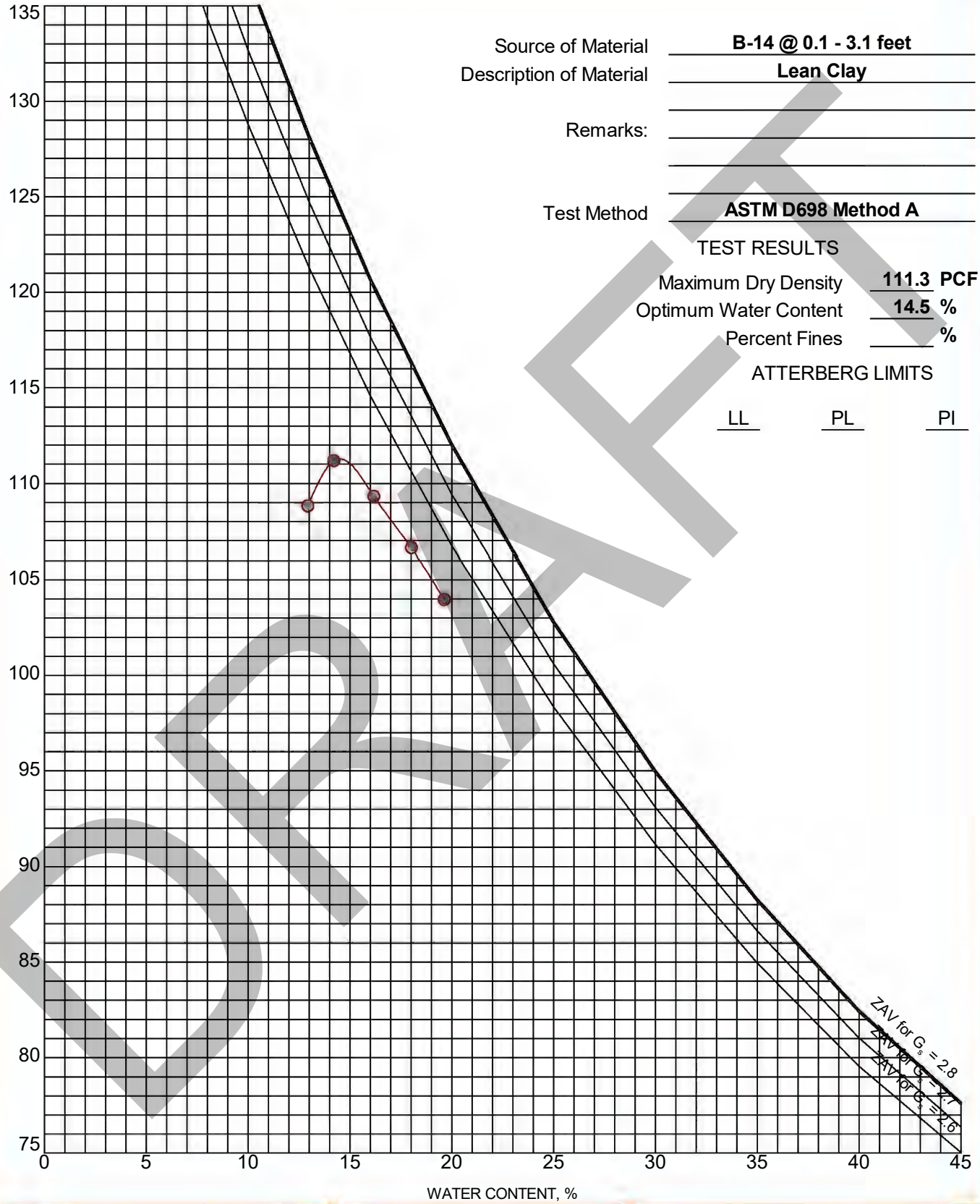
SITE: State Road 416
Robards, KY

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

CLIENT: NextEra Energy Resources LLC
Juno Beach, FL

MOISTURE-DENSITY RELATIONSHIP

ASTM D698/D1557



Source of Material: **B-14 @ 0.1 - 3.1 feet**

Description of Material: **Lean Clay**

Remarks:

Test Method: **ASTM D698 Method A**

TEST RESULTS

Maximum Dry Density	**111.3**	**PCF**
Optimum Water Content	**14.5**	**%**
Percent Fines		**%**

ATTERBERG LIMITS

LL	PL	PI

PROJECT: Sebree Solar Project

PROJECT NUMBER: 57215063

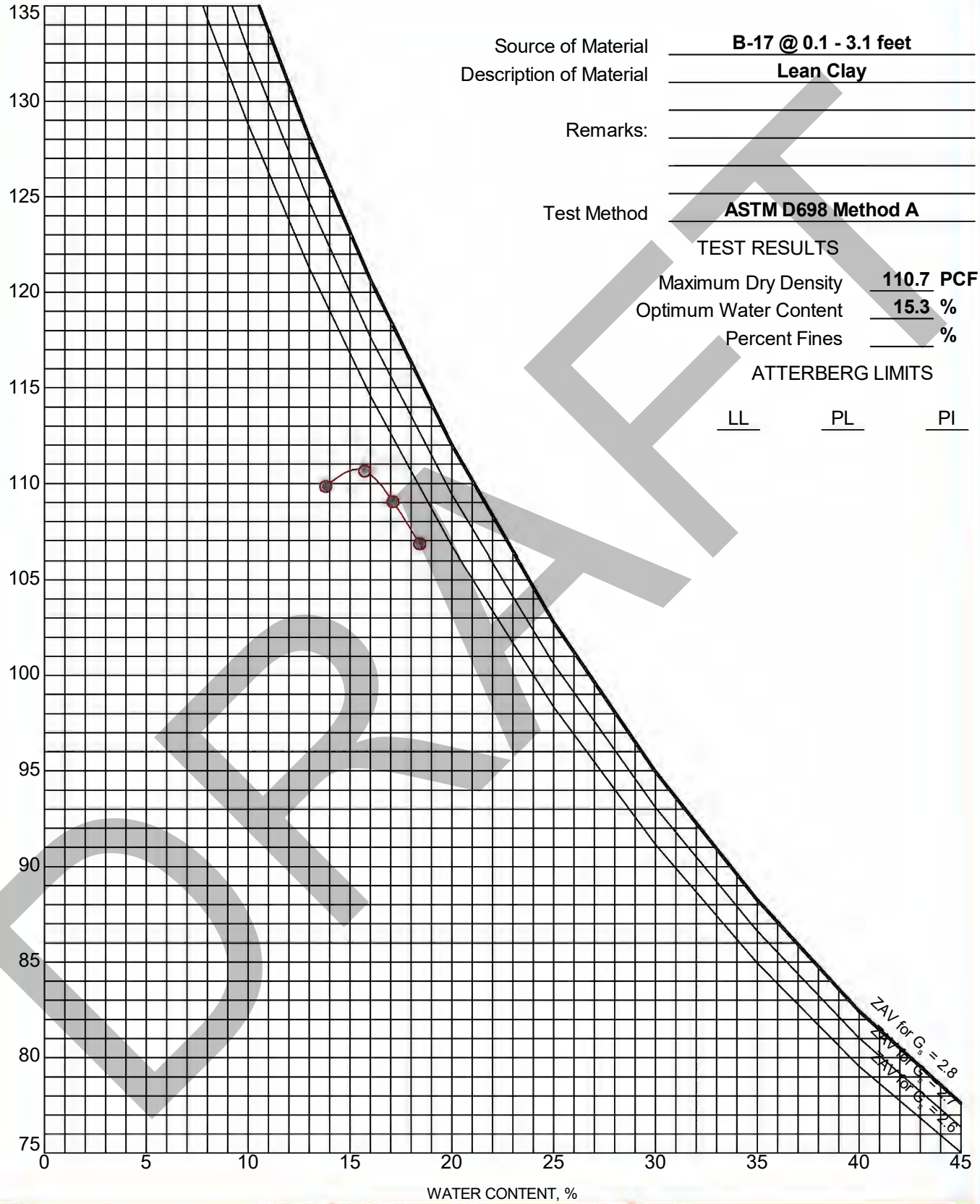
SITE: State Road 416
Robards, KY

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

CLIENT: NextEra Energy Resources LLC
Juno Beach, FL

MOISTURE-DENSITY RELATIONSHIP

ASTM D698/D1557



Source of Material: **B-17 @ 0.1 - 3.1 feet**

Description of Material: **Lean Clay**

Remarks:

Test Method: **ASTM D698 Method A**

TEST RESULTS

Maximum Dry Density	**110.7**	**PCF**
Optimum Water Content	**15.3**	**%**
Percent Fines		**%**

ATTERBERG LIMITS

LL	PL	PI

PROJECT: Sebree Solar Project

PROJECT NUMBER: 57215063

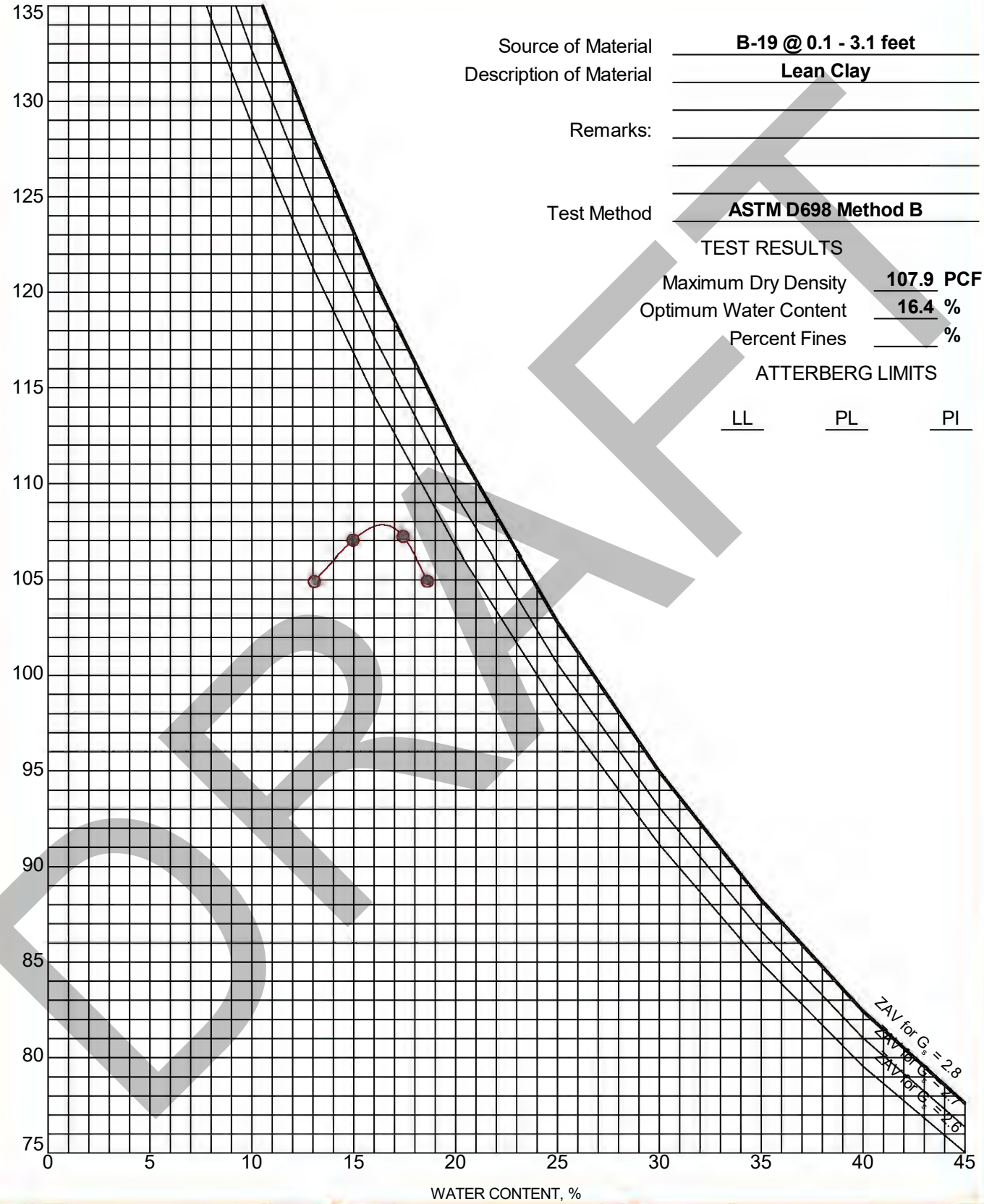
SITE: State Road 416
Robards, KY

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

CLIENT: NextEra Energy Resources LLC
Juno Beach, FL

MOISTURE-DENSITY RELATIONSHIP

ASTM D698/D1557



Source of Material	**B-19 @ 0.1 - 3.1 feet**
Description of Material	**Lean Clay**
Remarks:	
Test Method	**ASTM D698 Method B**

TEST RESULTS

Maximum Dry Density	**107.9**	**PCF**
Optimum Water Content	**16.4**	**%**
Percent Fines		**%**

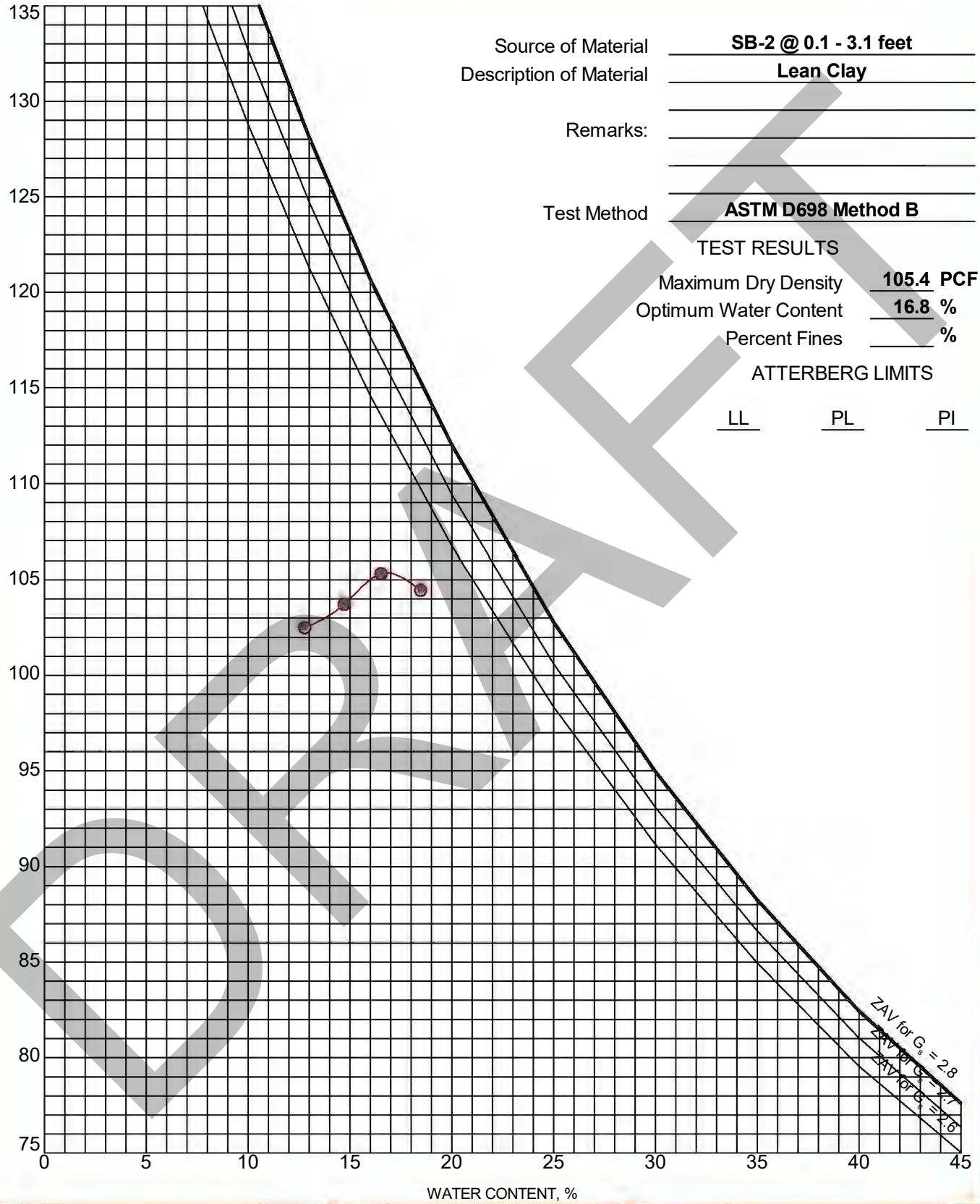
ATTERBERG LIMITS

LL	PL	PI

PROJECT: Sebree Solar Project	Terracon 13050 Eastgate Park Way Ste 101 Louisville, KY	PROJECT NUMBER: 57215063
SITE: State Road 416 Robards, KY		CLIENT: NextEra Energy Resources LLC Juno Beach, FL

MOISTURE-DENSITY RELATIONSHIP

ASTM D698/D1557



Source of Material: **SB-2 @ 0.1 - 3.1 feet**

Description of Material: **Lean Clay**

Remarks:

Test Method: **ASTM D698 Method B**

TEST RESULTS

Maximum Dry Density	**105.4**	**PCF**
Optimum Water Content	**16.8**	**%**
Percent Fines		**%**

ATTERBERG LIMITS

LL	PL	PI

PROJECT: Sebree Solar Project

PROJECT NUMBER: 57215063

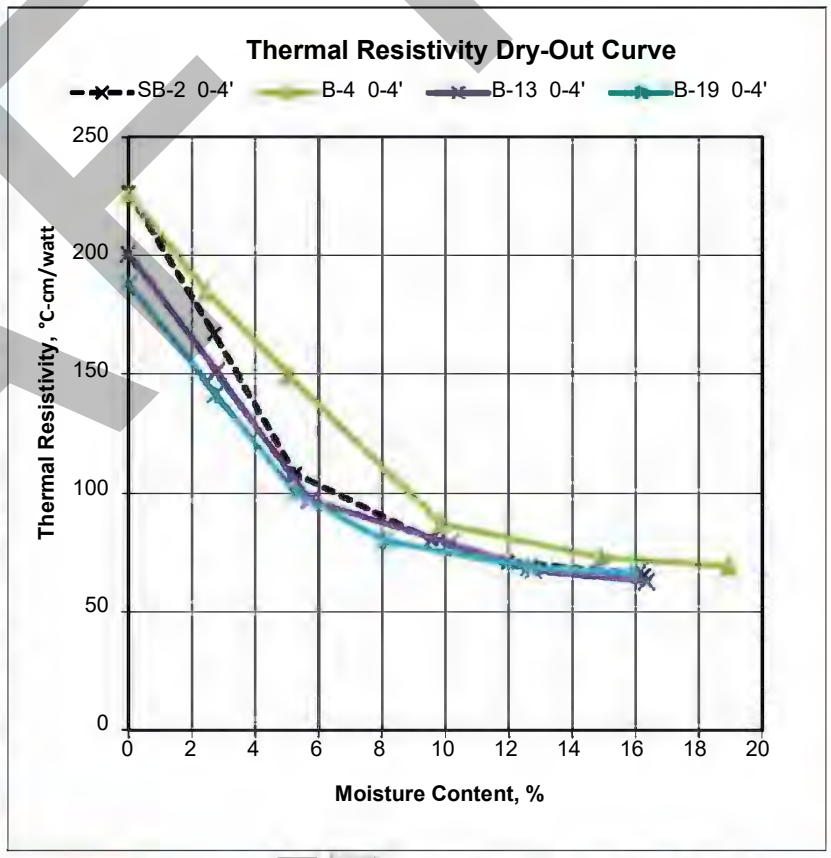
SITE: State Road 416
Robards, KY

Terracon
13050 Eastgate Park Way Ste 101
Louisville, KY

CLIENT: NextEra Energy Resources LLC
Juno Beach, FL

Project Name: Sebree Solar project
Project Number: 57215063

Sample ID	Soil Type	Proctor Method	Max. Dry Density (pcf)	Optimum Moisture Content (%)	Sample Compaction (%)	Thermal Resistivity Test Results		
						Moisture Content (%)	Thermal Resistivity (°C-cm/watt)	Temperature (°C)
SB-2 0-4'	CL	ASTM D 698-A	105.4	16.8	90	0.0	227	21.8
						2.7	167	21.1
						5.3	108	21.0
						9.6	80	19.2
						12.0	71	23.0
						16.3	65	20.9
B-4 0-4'	CL	ASTM D 698-A	103.4	17.9	90	0.0	225	22.1
						2.5	184	21.4
						5.1	149	21.3
						9.9	87	20.6
						14.9	73	22.9
						18.9	69	21.1
B-13 0-4'	CL	ASTM D 698-A	105.7	16.1	90	0.0	201	21.6
						2.8	151	21.4
						5.7	97	21.0
						10.2	79	19.7
						12.8	67	22.6
						16.4	63	20.9
B-19 0-4'	CL	ASTM D 698-A	107.9	16.4	90	0.0	188	22.0
						2.8	142	21.1
						5.3	100	21.1
						8.1	80	20.7
						12.6	68	22.7
						16.1	66	21.1

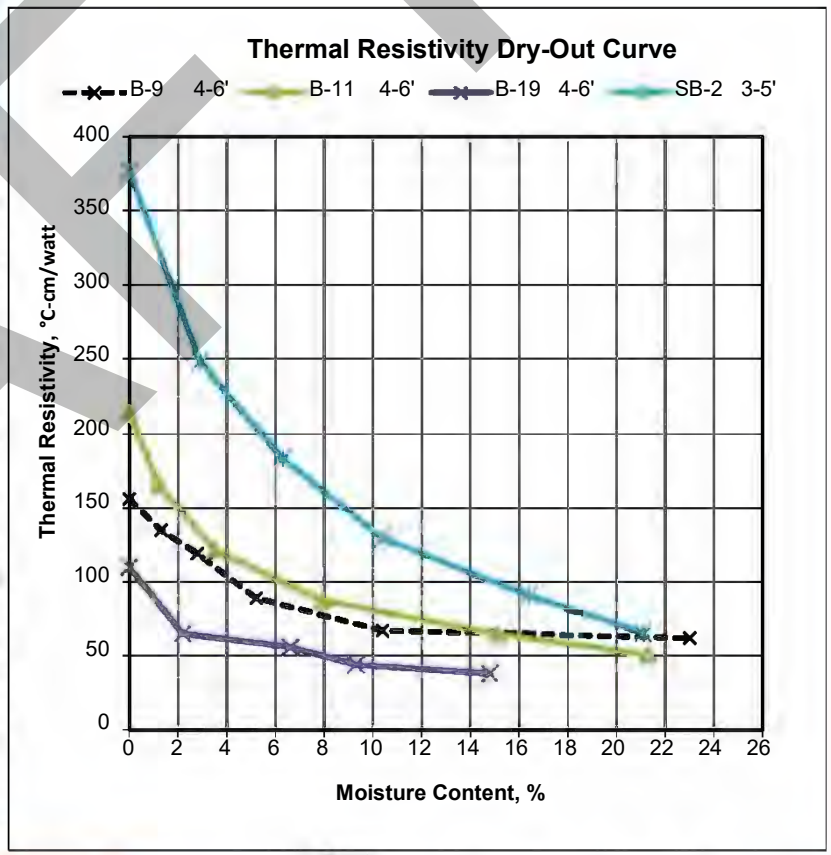


Date: 3/2/2022 | Run By: TKS | Reviewed By: RB

Terracon

Project Name: 57215063
Project Number: Sebree Solar Project

Sample ID	Soil Type	Proctor Method	Dry Density (pcf)	Natural Moisture Content (%)	Sample Compaction (%)	Thermal Resistivity Test Results		
						Moisture Content (%)	Thermal Resistivity (°C-cm/watt)	Temperature (°C)
B-9 4-6'	CL	Shelby Tube	100.0	23.0	In-Situ	0.0	156	21.9
						1.3	135	22.7
						2.8	119	21.7
						5.2	89	19.1
						10.4	67	17.2
						23.0	62	17.0
B-11 4-6'	CL	Shelby Tube	99.8	21.3	In-Situ	0.0	214	21.5
						1.2	165	21.2
						3.5	121	19.8
						7.9	87	17.8
						15.1	64	17.9
						21.3	50	16.6
B-19 4-6'	CL	Shelby Tube	108.5	14.8	In-Situ	0.0	110	21.9
						2.2	65	20.2
						6.6	56	18.4
						9.3	44	17.9
						14.8	38	16.6
SB-2 3-5'	CL	Shelby Tube	97.2	21.1	In-Situ	0.0	376	21.5
						2.9	248	20.9
						6.3	183	18.0
						10.4	129	18.1
						16.4	90	18.5
						21.1	65	16.1



Date: 3/8/2022 | Run By: TKS | Reviewed By: RB

Terracon

CHEMICAL LABORATORY TEST REPORT

Project Number: 57215063
Service Date: 02/04/22
Report Date: 02/04/22

Terracon
10400 State Highway 191
Midland, Texas 79707
432-684-9600

Client

NextEra Energy Resources LLC
PO Box 14000
Juno Beach, FL 33408-0420

Project

Sebree Solar Project
State Road 416
Robards, KY

Sample Location	SB-2	B-4	B-7	B-10	B-13	B-17	B-19	B-24
Sample Depth (ft.)	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2
pH Analysis, ASTM - G51-18	6.8	6.7	6.7	6.7	6.7	6.4	5.7	5.7
Water Soluble Sulfate (SO4), ASTM C 1580 (mg/kg)	21	28	57	55	23	25	5	44
Sulfides, ASTM - D4658-15, (mg/kg)	nil	nil	nil	nil	nil	nil	nil	nil
Chlorides, ASTM D 512 , (mg/kg)	31	25	19	25	25	31	19	25
RedOx, ASTM D-1498, (mV)	+490	+530	+515	+509	+492	+591	+621	+584
Total Salts, ASTM D1125-14, (mg/kg)	109	102	201	130	109	106	30	97
Resistivity, ASTM G187, (ohm-cm)	8,260	7,021	3,820	5,472	7,434	6,918	23,748	7,228

Analyzed By: Zach Robertson

Zach Robertson
Engineering Technician III

Terracon GeoReport

FIELD ELECTRICAL RESISTIVITY TEST DATA

FER-1 test line with approximate center point: 37.70517°, -87.58202°

Project	Sebree Solar	**Weather**	Cloudy
Location	Robards, KY	**Surface Soil**	Lean Clay
Project #	57215063	**Instrument**	AEMC Model 6471
Test Date	December 9, 2021	**Tested By**	Mo Joshaghani & Colton Hall

Electrode Spacing "a"		Electrode Depth "b"		"A" Test (Extended E-W)		"B" Test (Extended N-S)	
[feet]	[meters]	[feet]	[meters]	Measured Resistance "R" [Ohms]	Apparent Resistivity "ρ" [Ohm-cm]	Measured Resistance "R" [Ohms]	Apparent Resistivity "ρ" [Ohm-cm]
1	0.30	0.5	0.15	43.60	10988.3	34.30	8644.4
2	0.61	0.5	0.15	25.10	10572.2	21.70	9140.1
4	1.22	0.5	0.15	12.70	9988.4	11.80	9280.6
8	2.44	0.5	0.15	4.47	6895.0	4.42	6817.9
15	4.57	0.5	0.15	1.400	4029.5	1.440	4144.7
25	7.62	0.5	0.15	0.650	3114.2	0.610	2922.6
50	15.24	0.5	0.15	0.380	3639.4	0.360	3447.8

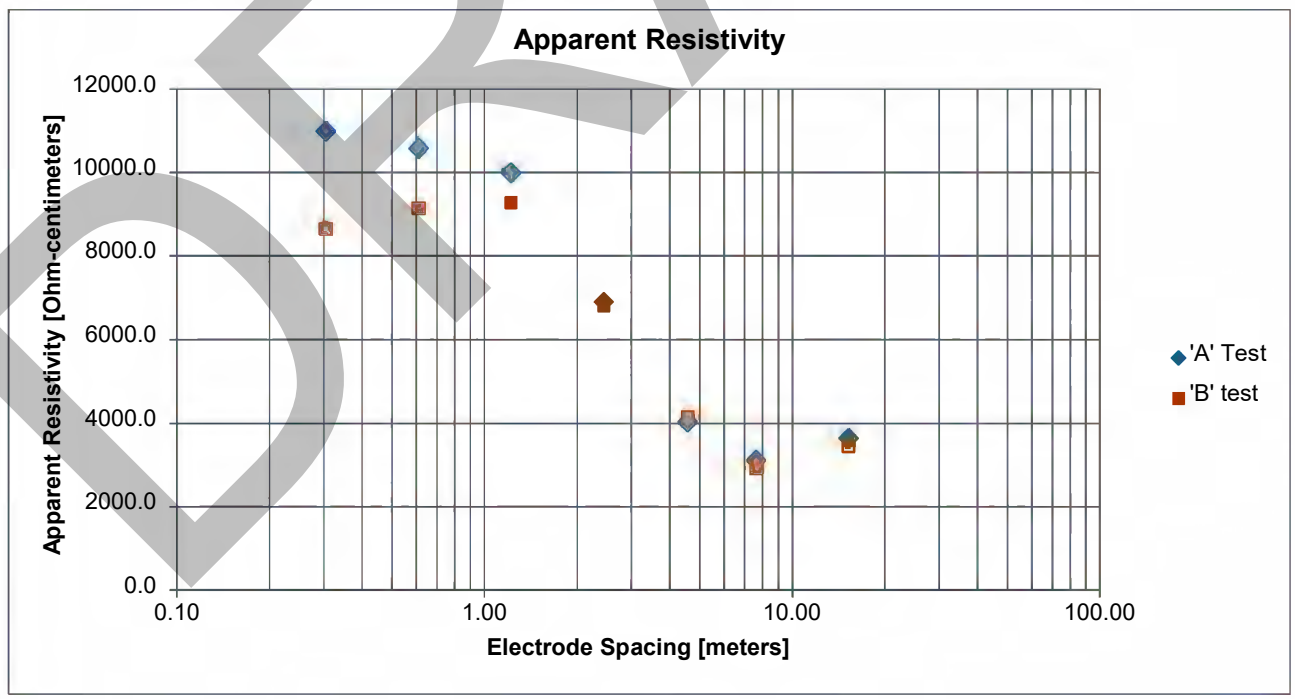
East- West End Points:

(37.70515, -87.58225) and (37.70525, -87.58178)

North South End Points:

(37.70537, -87.58204) and (37.70498, -87.58195)

Apparent resistivity p is calculated as : $$\rho = \frac{4\pi aR}{1 + \frac{2a}{\sqrt{a^2+4b^2}} - \frac{a}{\sqrt{a^2+b^2}}}$$



Terracon GeoReport

FIELD ELECTRICAL RESISTIVITY TEST DATA

FER-2 test line with approximate center point: 37.69747°, -87.57565°

Project	Sebree Solar	**Weather**	Cloudy
Location	Robards, KY	**Surface Soil**	Lean Clay
Project #	57215063	**Instrument**	AEMC Model 6471
Test Date	December 9, 2021	**Tested By**	Mo Joshaghani & Colton Hall

Electrode Spacing "a"		Electrode Depth "b"		"A" Test (Extended E-W)		"B" Test (Extended N-S)	
[feet]	[meters]	[feet]	[meters]	Measured Resistance "R" [Ohms]	Apparent Resistivity "ρ" [Ohm-cm]	Measured Resistance "R" [Ohms]	Apparent Resistivity "ρ" [Ohm-cm]
1	0.30	0.5	0.15	21.80	5494.1	23.20	5847.0
2	0.61	0.5	0.15	12.20	5138.7	10.10	4254.1
4	1.22	0.5	0.15	5.34	4199.9	5.59	4396.5
8	2.44	0.5	0.15	2.72	4195.6	2.63	4056.8
15	4.57	0.5	0.15	1.38	3972.0	1.35	3885.6
25	7.62	0.5	0.15	0.81	3880.8	0.70	3353.8
50	15.24	0.5	0.15	0.39	3735.1	0.42	4022.4

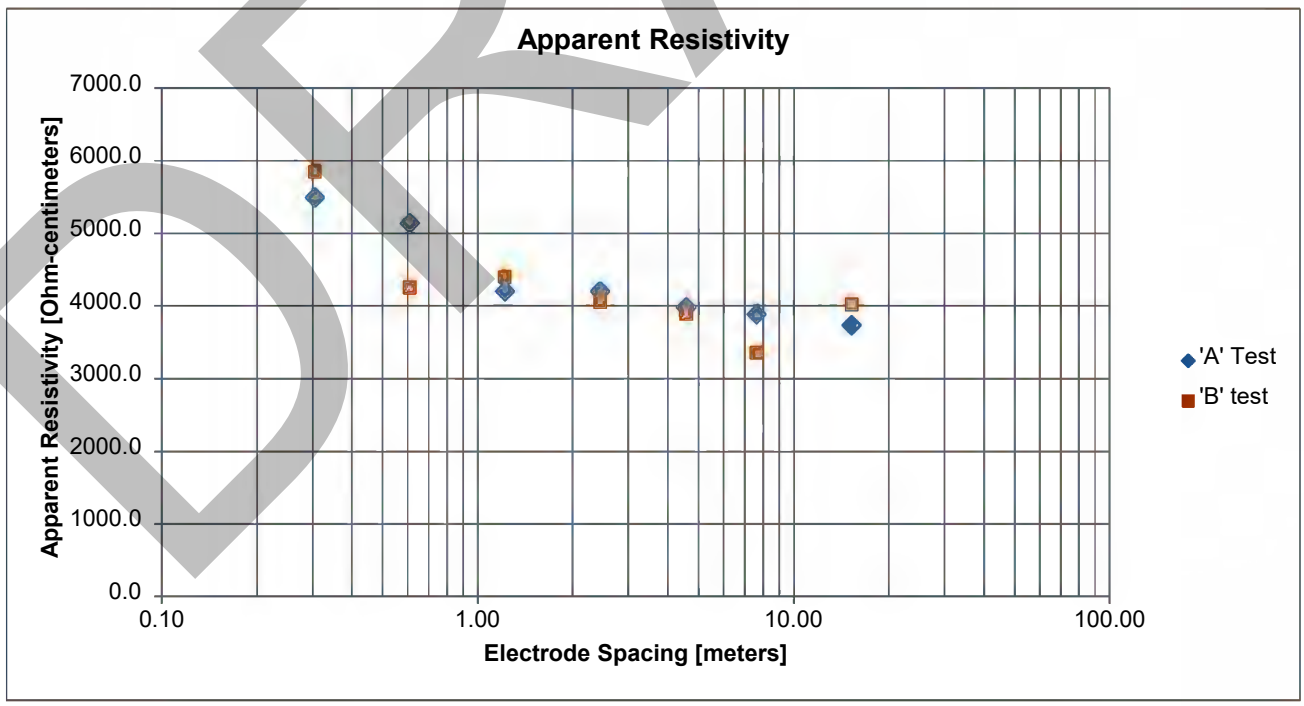
East- West End Points:

(37.6975, -87.57539) and (37.69742, -87.57590)

North South End Points:

(37.69729, -87.57559) and (37.69768, -87.57570)

Apparent resistivity p is calculated as : $$\rho = \frac{4\pi a R}{1 + \frac{2a}{\sqrt{a^2 + 4b^2}} - \frac{a}{\sqrt{a^2 + b^2}}}$$



Terracon GeoReport

FIELD ELECTRICAL RESISTIVITY TEST DATA

FER-3 test line with approximate center point: 37.68793°, -87.57242°

Project	Sebree Solar	**Weather**	Cloudy
Location	Robards, KY	**Surface Soil**	Lean Clay
Project #	57215063	**Instrument**	AEMC Model 6471
Test Date	December 9, 2021	**Tested By**	Mo Joshaghani & Colton Hall

Electrode Spacing "a"		Electrode Depth "b"		"A" Test (Extended E-W)		"B" Test (Extended N-S)	
[feet]	[meters]	[feet]	[meters]	Measured Resistance "R" [Ohms]	Apparent Resistivity "ρ" [Ohm-cm]	Measured Resistance "R" [Ohms]	Apparent Resistivity "ρ" [Ohm-cm]
1	0.30	0.5	0.15	38.20	9627.3	43.90	11063.9
2	0.61	0.5	0.15	24.70	10403.7	26.40	11119.7
4	1.22	0.5	0.15	10.90	8572.8	10.50	8258.2
8	2.44	0.5	0.15	3.85	5938.6	3.25	5013.1
15	4.57	0.5	0.15	1.63	4691.5	1.54	4432.5
25	7.62	0.5	0.15	0.97	4647.4	0.97	4647.4
50	15.24	0.5	0.15	0.55	5267.5	0.56	5363.3

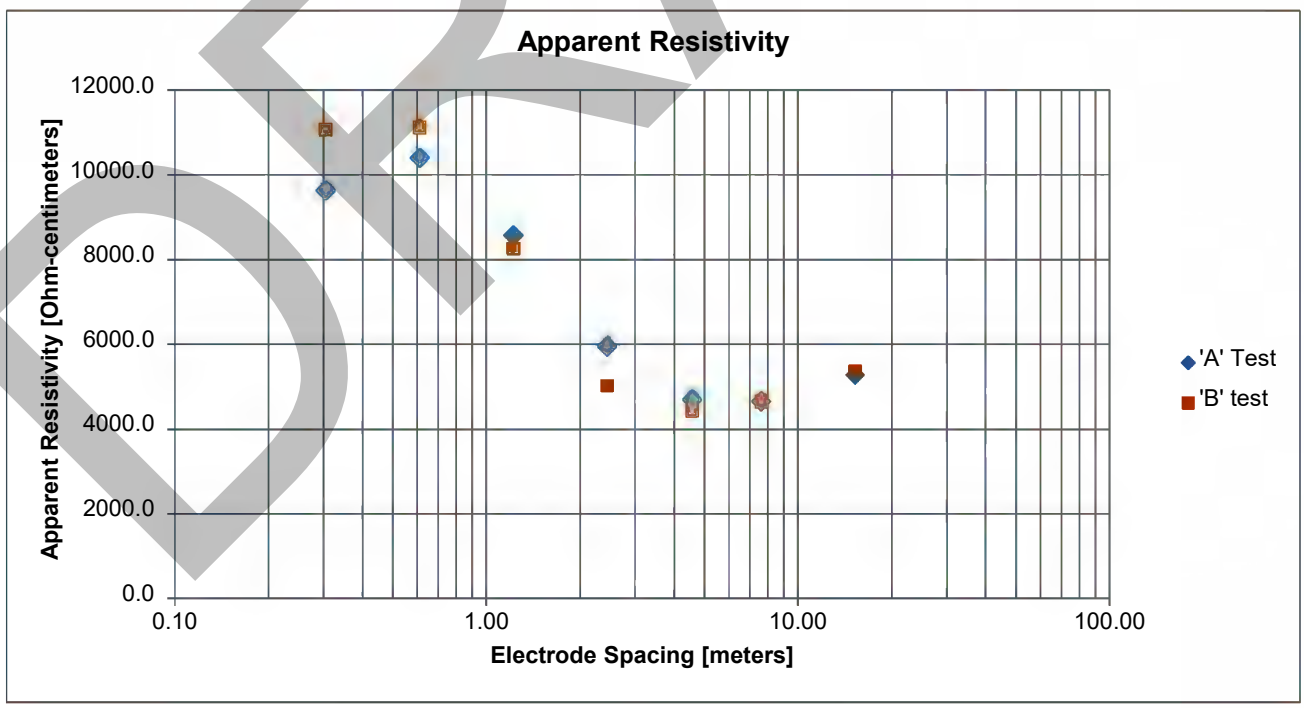
East- West End Points:

(37.68795, -87.57218) and (37.68791, -87.57272)

North South End Points:

(37.68814, -87.57251) and (37.68774, -87.57241)

Apparent resistivity p is calculated as : $$\rho = \frac{4\pi aR}{1 + \frac{2a}{\sqrt{a^2 + 4b^2}} - \frac{a}{\sqrt{a^2 + b^2}}}$$



Terracon GeoReport

FIELD ELECTRICAL RESISTIVITY TEST DATA

FER-4 test line with approximate center point: 37.68407°, -87.57587°

Project	Sebree Solar	**Weather**	Cloudy
Location	Robards, KY	**Surface Soil**	Lean Clay
Project #	57215063	**Instrument**	AEMC Model 6471
Test Date	December 9, 2021	**Tested By**	Mo Joshaghani & Colton Hall

Electrode Spacing "a"		Electrode Depth "b"		"A" Test (Extended E-W)		"B" Test (Extended N-S)	
[feet]	[meters]	[feet]	[meters]	Measured Resistance "R" [Ohms]	Apparent Resistivity "ρ" [Ohm-cm]	Measured Resistance "R" [Ohms]	Apparent Resistivity "ρ" [Ohm-cm]
1	0.30	0.5	0.15	28.40	7157.5	29.10	7333.9
2	0.61	0.5	0.15	13.80	5812.6	14.10	5939.0
4	1.22	0.5	0.15	6.84	5379.6	9.19	7227.9
8	2.44	0.5	0.15	2.96	4565.8	3.16	4874.3
15	4.57	0.5	0.15	1.50	4317.4	1.46	4202.2
25	7.62	0.5	0.15	0.77	3689.2	0.79	3785.0
50	15.24	0.5	0.15	0.40	3830.9	0.41	3926.7

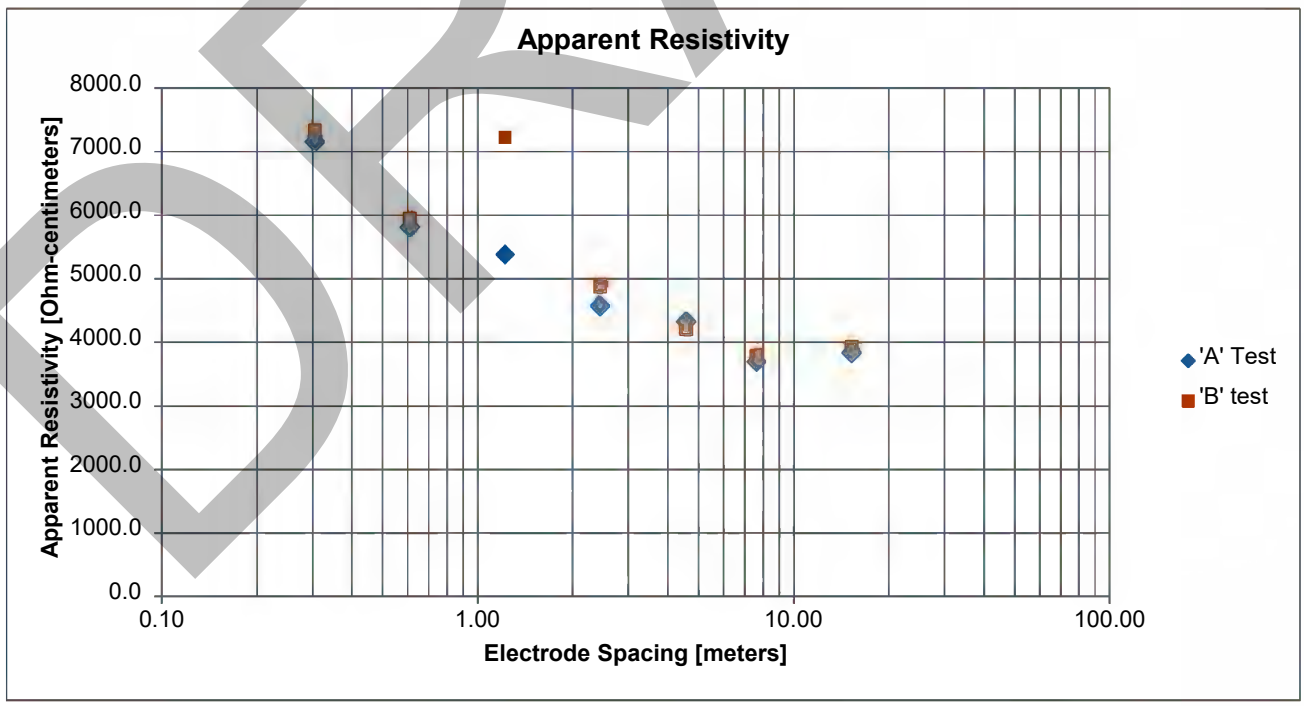
East- West End Points:

(37.68406, -87.57561) and (37.68409, -87.57613)

North South End Points:

(37.68387, -87.57587) and (37.68428, -87.57587)

Apparent resistivity p is calculated as : $$\rho = \frac{4\pi a R}{1 + \frac{2a}{\sqrt{a^2 + 4b^2}} - \frac{a}{\sqrt{a^2 + b^2}}}$$



Terracon GeoReport

FIELD ELECTRICAL RESISTIVITY TEST DATA

FER-5 test line with approximate center point: 37.68051°, -87.56923°

Project	Sebree Solar	**Weather**	Cloudy
Location	Robards, KY	**Surface Soil**	Lean Clay
Project #	57215063	**Instrument**	AEMC Model 6471
Test Date	December 9, 2021	**Tested By**	Mo Joshaghani & Colton Hall

Electrode Spacing "a"		Electrode Depth "b"		"A" Test (Extended E-W)		"B" Test (Extended N-S)	
[feet]	[meters]	[feet]	[meters]	Measured Resistance "R" [Ohms]	Apparent Resistivity "ρ" [Ohm-cm]	Measured Resistance "R" [Ohms]	Apparent Resistivity "ρ" [Ohm-cm]
1	0.30	0.5	0.15	35.10	8846.1	39.00	9828.9
2	0.61	0.5	0.15	19.70	8297.7	17.20	7244.7
4	1.22	0.5	0.15	8.45	6645.9	9.15	7196.4
8	2.44	0.5	0.15	3.72	5738.1	3.65	5630.1
15	4.57	0.5	0.15	1.50	4317.4	1.58	4547.6
25	7.62	0.5	0.15	0.73	3497.5	0.76	3641.3
50	15.24	0.5	0.15	0.38	3639.4	0.39	3735.1

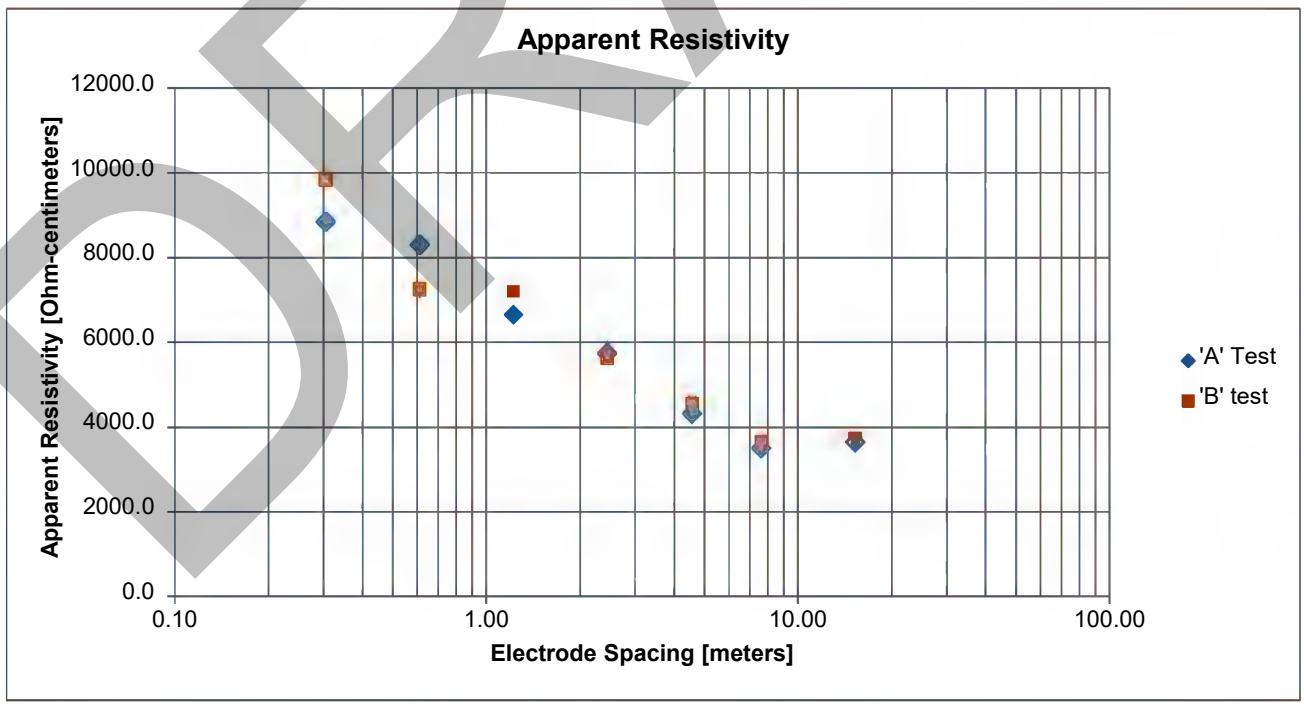
East- West End Points:

(37.68056, -87.56898) and (37.68048, -87.56947)

North South End Points:

(37.68032, -87.56915) and (37.68069, -87.56934)

Apparent resistivity p is calculated as : $$\rho = \frac{4\pi a R}{1 + \frac{2a}{\sqrt{a^2 + 4b^2}} - \frac{a}{\sqrt{a^2 + b^2}}}$$



Terracon GeoReport

FIELD ELECTRICAL RESISTIVITY TEST DATA

FER-6 test line with approximate center point: 37.67593°, -87.57278°

Project	Sebree Solar	**Weather**	Cloudy
Location	Robards, KY	**Surface Soil**	Lean Clay
Project #	57215063	**Instrument**	AEMC Model 6471
Test Date	December 9, 2021	**Tested By**	Mo Joshaghani & Colton Hall

Electrode Spacing "a"		Electrode Depth "b"		"A" Test (Extended E-W)		"B" Test (Extended N-S)	
[feet]	[meters]	[feet]	[meters]	Measured Resistance "R" [Ohms]	Apparent Resistivity "ρ" [Ohm-cm]	Measured Resistance "R" [Ohms]	Apparent Resistivity "ρ" [Ohm-cm]
1	0.30	0.5	0.15	38.90	9803.7	34.20	8619.2
2	0.61	0.5	0.15	17.60	7413.2	22.00	9266.5
4	1.22	0.5	0.15	10.10	7943.6	10.80	8494.1
8	2.44	0.5	0.15	4.70	7249.8	4.61	7110.9
15	4.57	0.5	0.15	1.86	5353.5	1.97	5670.1
25	7.62	0.5	0.15	0.98	4695.3	1.03	4934.9
50	15.24	0.5	0.15	0.44	4214.0	0.49	4692.9

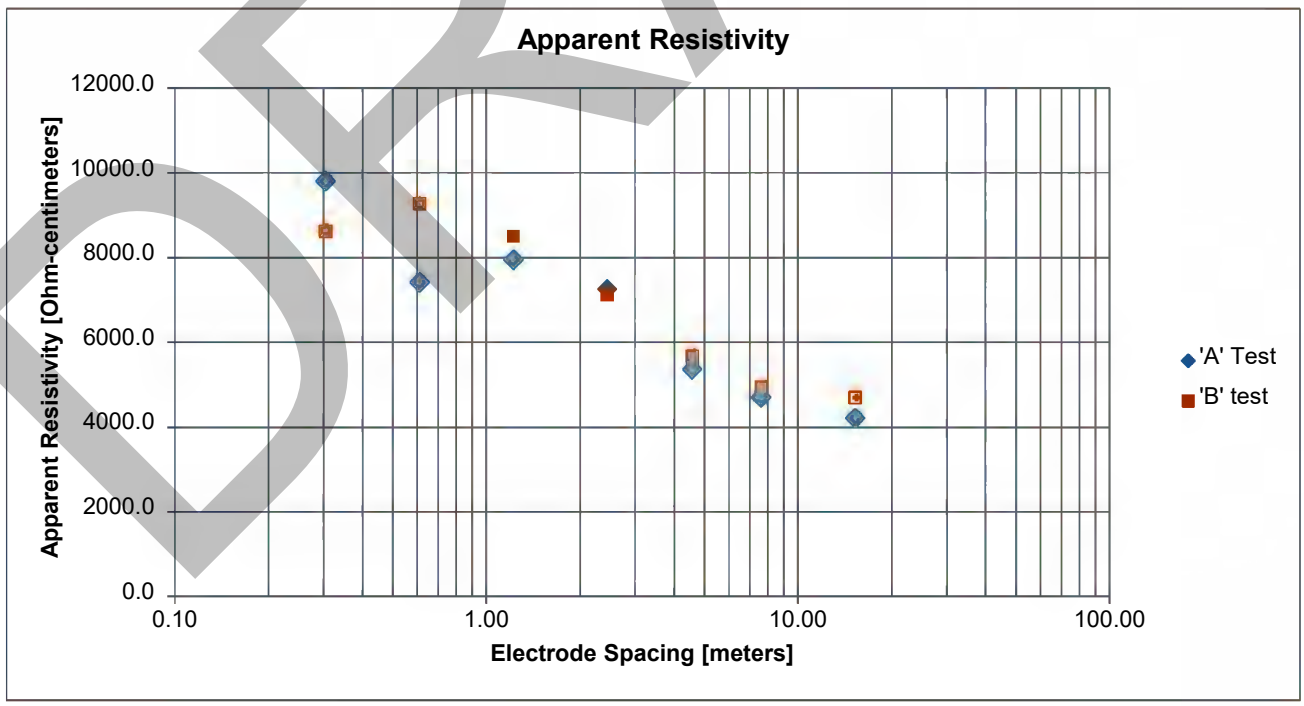
East- West End Points:

(37.67587, -87.57304) and (37.67598, -87.57255)

North South End Points:

(37.67611, -87.57285) and (37.6757, -87.57275)

Apparent resistivity p is calculated as : $$\rho = \frac{4\pi a R}{1 + \frac{2a}{\sqrt{a^2 + 4b^2}} - \frac{a}{\sqrt{a^2 + b^2}}}$$



Terracon GeoReport

FIELD ELECTRICAL RESISTIVITY TEST DATA

FER-7 test line with approximate center point: 37.66761°, -87.56171°

Project	Sebree Solar	**Weather**	Cloudy
Location	Robards, KY	**Surface Soil**	Lean Clay
Project #	57215063	**Instrument**	AEMC Model 6471
Test Date	December 9, 2021	**Tested By**	Mo Joshaghani & Colton Hall

Electrode Spacing "a"		Electrode Depth "b"		"A" Test (Extended E-W)		"B" Test (Extended N-S)	
[feet]	[meters]	[feet]	[meters]	Measured Resistance "R" [Ohms]	Apparent Resistivity "ρ" [Ohm-cm]	Measured Resistance "R" [Ohms]	Apparent Resistivity "ρ" [Ohm-cm]
1	0.30	0.5	0.15	27.20	6855.1	31.90	8039.6
2	0.61	0.5	0.15	11.90	5012.3	13.20	5559.9
4	1.22	0.5	0.15	5.30	4168.4	5.15	4050.4
8	2.44	0.5	0.15	2.39	3686.6	2.41	3717.4
15	4.57	0.5	0.15	1.24	3569.0	1.20	3453.9
25	7.62	0.5	0.15	0.78	3737.1	0.73	3497.5
50	15.24	0.5	0.15	0.50	4788.6	0.48	4597.1

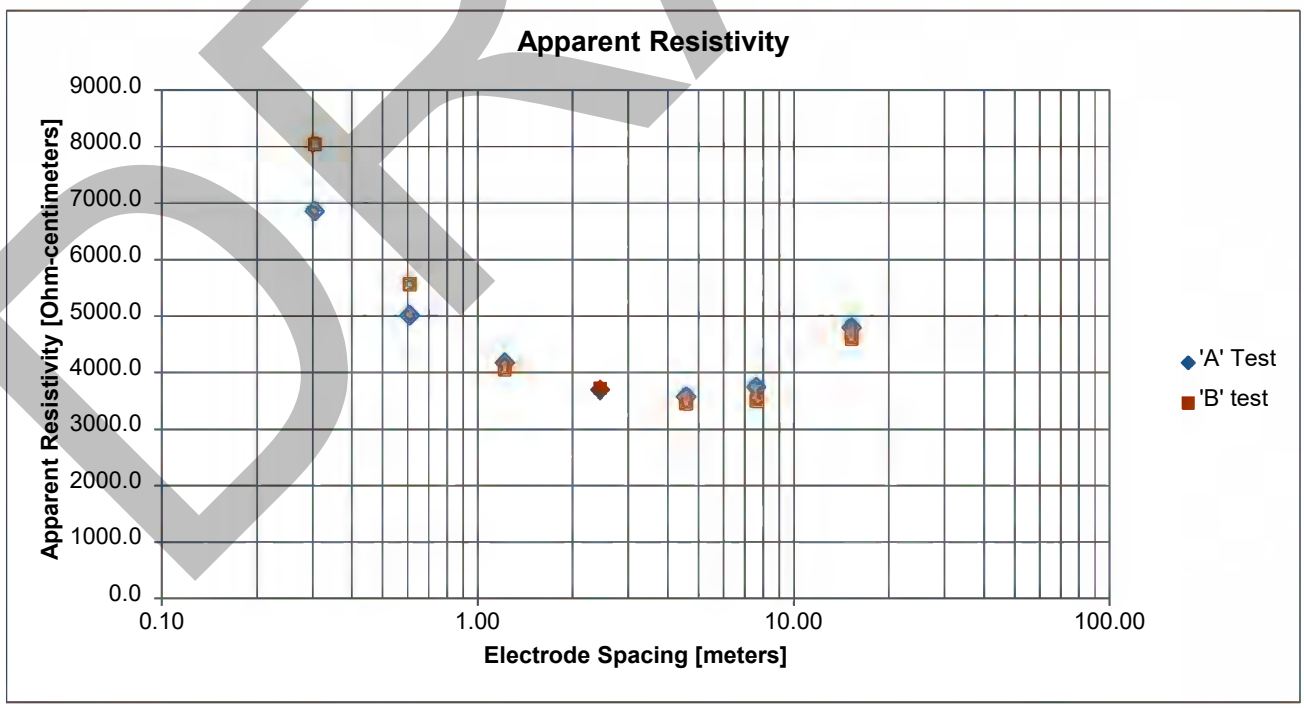
East- West End Points:

(37.66765, -87.56145) and (37.66756, -87.56196)

North South End Points:

(37.6678, -87.56178) and (37.66739, -87.56165)

Apparent resistivity p is calculated as : $$\rho = \frac{4\pi aR}{1 + \frac{2a}{\sqrt{a^2 + 4b^2}} - \frac{a}{\sqrt{a^2 + b^2}}}$$



Terracon GeoReport

FIELD ELECTRICAL RESISTIVITY TEST DATA

FER-8 test line with approximate center point: 37.67871°, -87.55937°

Project	Sebree Solar	**Weather**	Cloudy
Location	Robards, KY	**Surface Soil**	Lean Clay
Project #	57215063	**Instrument**	AEMC Model 6471
Test Date	December 9, 2021	**Tested By**	Mo Joshaghani & Colton Hall

Electrode Spacing "a"		Electrode Depth "b"		"A" Test (Extended E-W)		"B" Test (Extended N-S)	
[feet]	[meters]	[feet]	[meters]	Measured Resistance "R" [Ohms]	Apparent Resistivity "ρ" [Ohm-cm]	Measured Resistance "R" [Ohms]	Apparent Resistivity "ρ" [Ohm-cm]
1	0.30	0.5	0.15	20.40	5141.3	11.50	2898.3
2	0.61	0.5	0.15	7.73	3255.9	8.21	3458.1
4	1.22	0.5	0.15	4.16	3271.8	4.34	3413.4
8	2.44	0.5	0.15	2.46	3794.6	2.41	3717.4
15	4.57	0.5	0.15	1.29	3712.9	1.27	3655.4
25	7.62	0.5	0.15	0.77	3689.2	0.80	3832.9
50	15.24	0.5	0.15	0.52	4980.2	0.53	5075.9

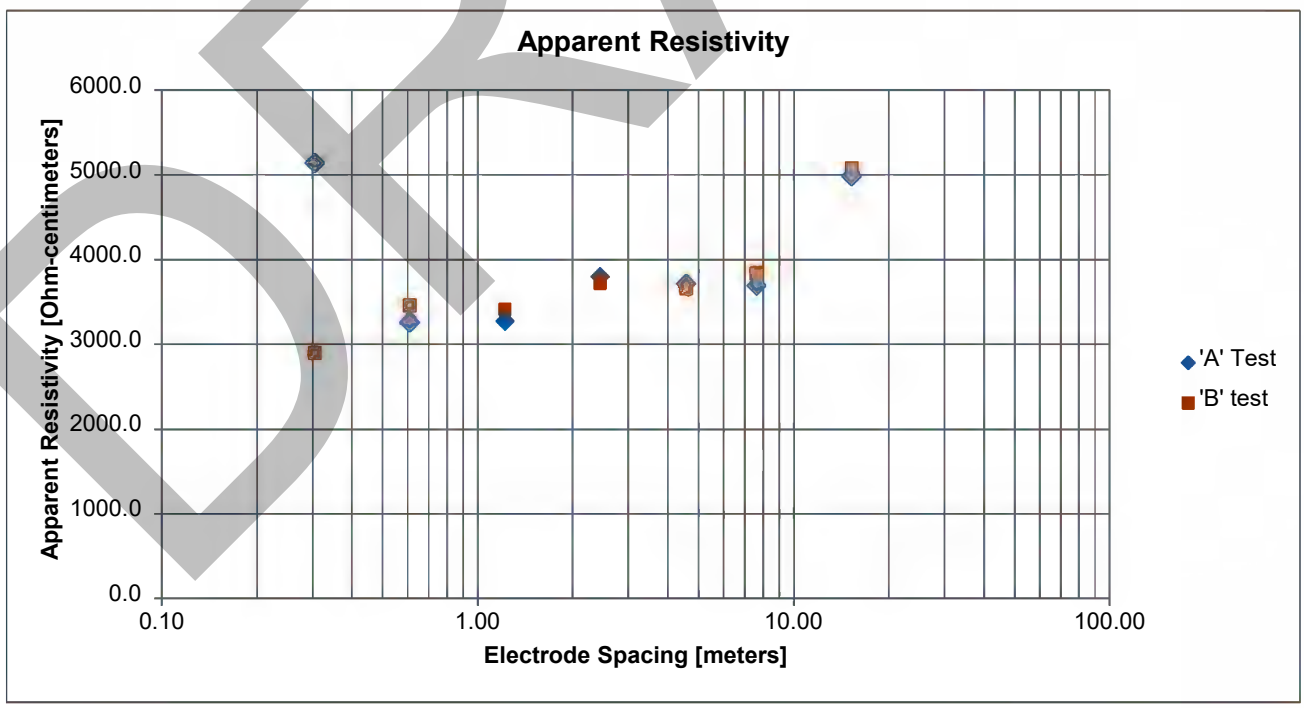
East- West End Points:

(37.6788, -87.55912) and (37.67866, -87.55961)

North South End Points:

(37.67847, -87.55954) and (37.67851, -87.55933)

Apparent resistivity p is calculated as : $$\rho = \frac{4\pi a R}{1 + \frac{2a}{\sqrt{a^2 + 4b^2}} - \frac{a}{\sqrt{a^2 + b^2}}}$$



Terracon GeoReport

FIELD ELECTRICAL RESISTIVITY TEST DATA

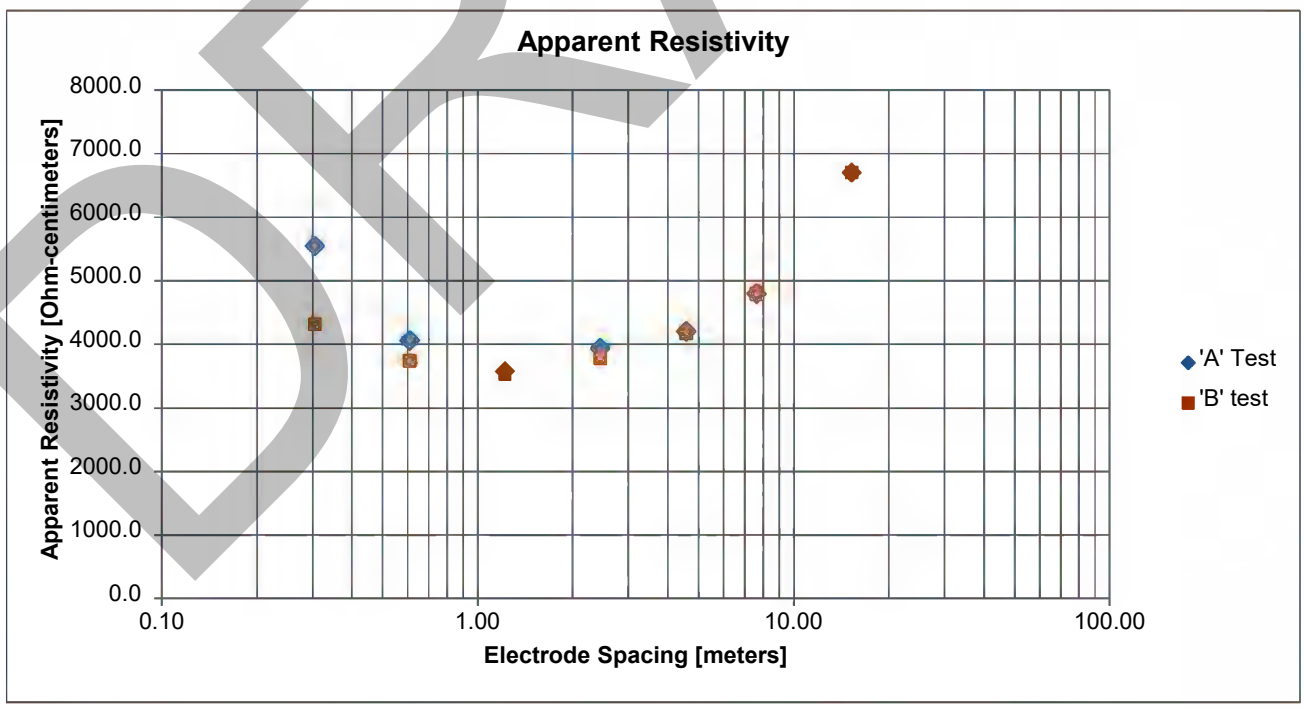
FER-9 test line with approximate center point: 37.68792°, -88.55833°

Project	Sebree Solar	**Weather**	Cloudy
Location	Robards, KY	**Surface Soil**	Lean Clay
Project #	57215063	**Instrument**	AEMC Model 6471
Test Date	December 8, 2021	**Tested By**	Mo Joshaghani & Colton Hall

Electrode Spacing "a"		Electrode Depth "b"		"A" Test (Extended E-W)		"B" Test (Extended N-S)	
[feet]	[meters]	[feet]	[meters]	Measured Resistance "R" [Ohms]	Apparent Resistivity "ρ" [Ohm-cm]	Measured Resistance "R" [Ohms]	Apparent Resistivity "ρ" [Ohm-cm]
1	0.30	0.5	0.15	22.00	5544.5	17.10	4309.6
2	0.61	0.5	0.15	9.63	4056.2	8.88	3740.3
4	1.22	0.5	0.15	4.54	3570.7	4.49	3531.3
8	2.44	0.5	0.15	2.55	3933.4	2.45	3779.1
15	4.57	0.5	0.15	1.46	4202.2	1.45	4173.5
25	7.62	0.5	0.15	1.00	4791.1	1.00	4791.1
50	15.24	0.5	0.15	0.70	6704.1	0.70	6704.1

East- West End Points:
(37.68794, -87.5581) and (37.68788, -87.55861)
North South End Points:
(37.68772, -87.55831) and (37.68812, -87.55835)

Apparent resistivity p is calculated as : $$\rho = \frac{4\pi a R}{1 + \frac{2a}{\sqrt{a^2 + 4b^2}} - \frac{a}{\sqrt{a^2 + b^2}}}$$



Terracon GeoReport

FIELD ELECTRICAL RESISTIVITY TEST DATA

FER-10 test line with approximate center point: 37.70292°, -87.54964°

Project	Sebree Solar	**Weather**	Cloudy
Location	Robards, KY	**Surface Soil**	Lean Clay
Project #	57215063	**Instrument**	AEMC Model 6471
Test Date	December 8, 2021	**Tested By**	Mo Joshaghani & Colton Hall

Electrode Spacing "a"		Electrode Depth "b"		"A" Test (Extended E-W)		"B" Test (Extended N-S)	
[feet]	[meters]	[feet]	[meters]	Measured Resistance "R" [Ohms]	Apparent Resistivity "ρ" [Ohm-cm]	Measured Resistance "R" [Ohms]	Apparent Resistivity "ρ" [Ohm-cm]
1	0.30	0.5	0.15	40.50	10207.0	36.90	9299.7
2	0.61	0.5	0.15	25.20	10614.3	22.70	9561.3
4	1.22	0.5	0.15	16.90	13291.7	15.10	11876.0
8	2.44	0.5	0.15	8.38	12926.2	8.51	13126.7
15	4.57	0.5	0.15	4.27	12290.1	4.530	13038.5
25	7.62	0.5	0.15	3.07	14708.8	3.250	15571.2
50	15.24	0.5	0.15	2.09	20016.5	2.190	20974.2

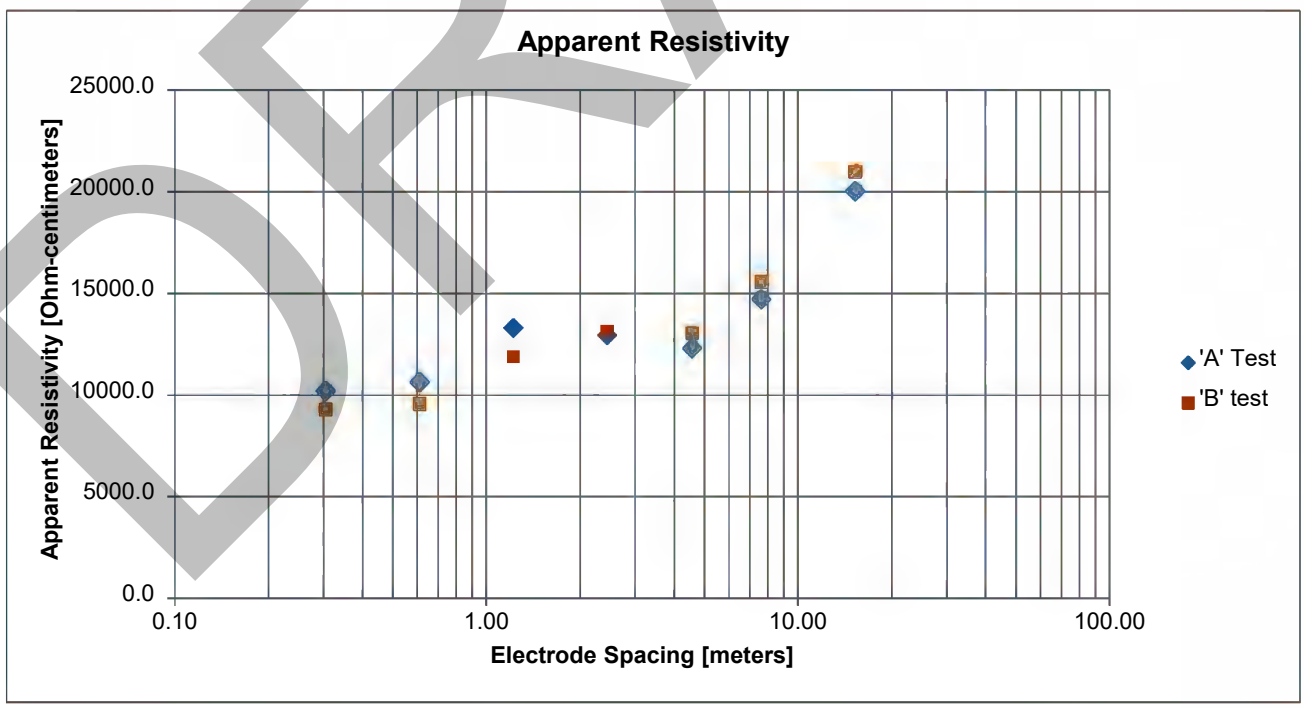
East- West End Points:

(37.70281, -87.54988) and (37.70302, -87.5494)

North South End Points:

(37.70311, -87.54973) and (37.70273, -87.54956)

Apparent resistivity p is calculated as : $$\rho = \frac{4\pi a R}{1 + \frac{2a}{\sqrt{a^2 + 4b^2}} - \frac{a}{\sqrt{a^2 + b^2}}}$$



Terracon GeoReport

FIELD ELECTRICAL RESISTIVITY TEST DATA

SB FER test line with approximate center point: 37.68755°, -87.54925°

Project	Sebree Solar	**Weather**	Cloudy
Location	Robards, KY	**Surface Soil**	Lean Clay
Project #	57215063	**Instrument**	AEMC Model 6471
Test Date	December 8, 2021	**Tested By**	Mo Joshaghani & Colton Hall

Electrode Spacing "a"		Electrode Depth "b"		"A" Test (Extended E-W)		"B" Test (Extended N-S)	
[feet]	[meters]	[feet]	[meters]	Measured Resistance "R" [Ohms]	Apparent Resistivity "ρ" [Ohm-cm]	Measured Resistance "R" [Ohms]	Apparent Resistivity "ρ" [Ohm-cm]
0.5	0.15	0.5	0.15	48.00	7742.3	60.30	9726.2
2	0.61	0.5	0.15	15.90	6697.1	16.30	6865.6
4	1.22	0.5	0.15	7.31	5749.3	7.59	5969.5
6	1.83	0.5	0.15	4.38	5093.4	4.17	4849.2
8	2.44	0.5	0.15	3.09	4766.3	3.15	4858.9
10	3.05	0.5	0.15	2.40	4616.3	2.32	4462.4
25	7.62	0.5	0.15	0.77	3689.2	0.81	3880.8
50	15.24	1.5	0.46	0.47	4507.6	0.45	4315.8
100	30.48	2.5	0.76	0.31	5943.3	0.30	5751.6
150	45.72	3.5	1.07	0.25	7188.5	0.23	6613.4
200	60.96	4.5	1.37	0.21	8050.6	0.18	6900.5
300	91.44	5.5	1.68	0.15	8623.1	0.12	6898.5
450	137.16	6.5	1.98	0.10	8621.2	0.09	7759.0

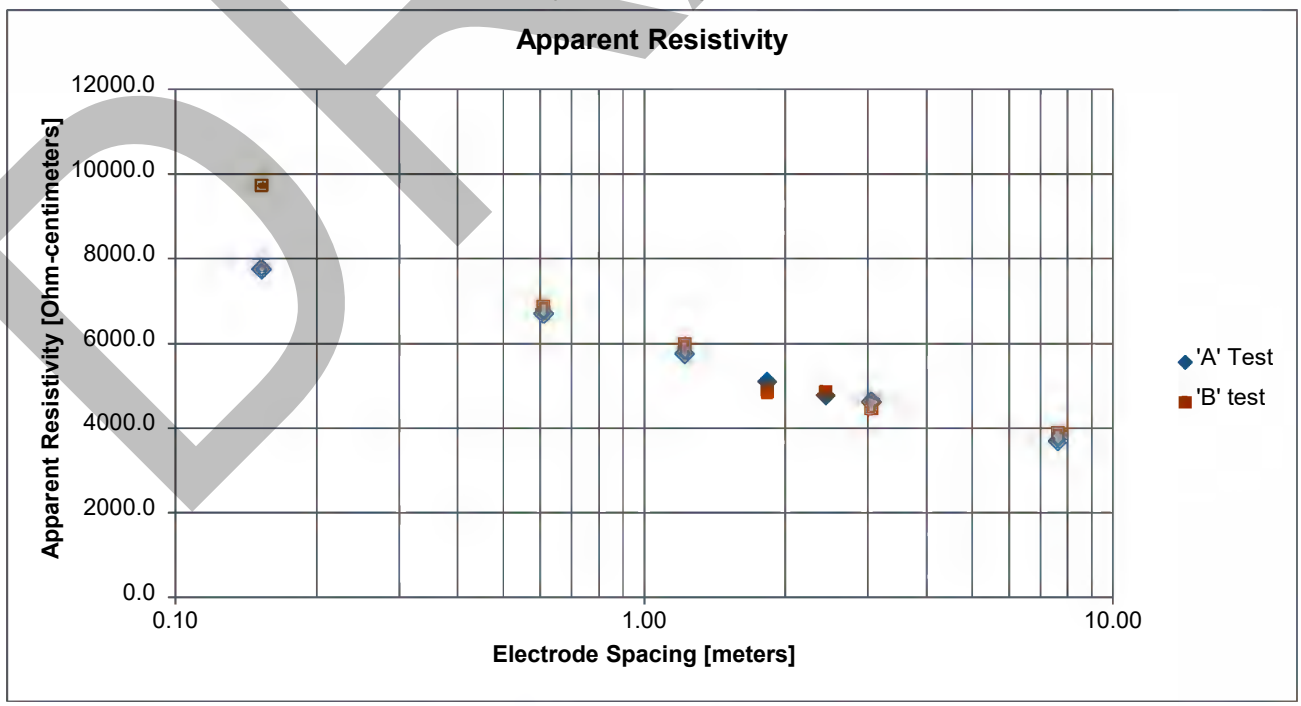
East- West End Points:

(37.687566, -87.55146) and (37.687672, -87.546879)

North South End Points:

(37.689405, -87.549433) and (37.685748, -87.549088)

Apparent resistivity p is calculated as : $\rho = \dfrac{4\pi a R}{1 + \dfrac{2a}{\sqrt{a^2 + 4b^2}} - \dfrac{a}{\sqrt{a^2 + b^2}}}$



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PILE DRIVING AND LOAD TESTING RESULTS

PILE LOAD TEST & ZONE PLANS

Contents:

Axial Pile Zone Plan
Lateral Pile Zone Plan

Note: All attachments are one page unless noted above.

Terracon GeoReport

AXIAL PILE ZONE PLAN

Sebree Solar Project ■ Robards, Henderson County, Kentucky
April 3, 2022 ■ Terracon Project No. 57215063

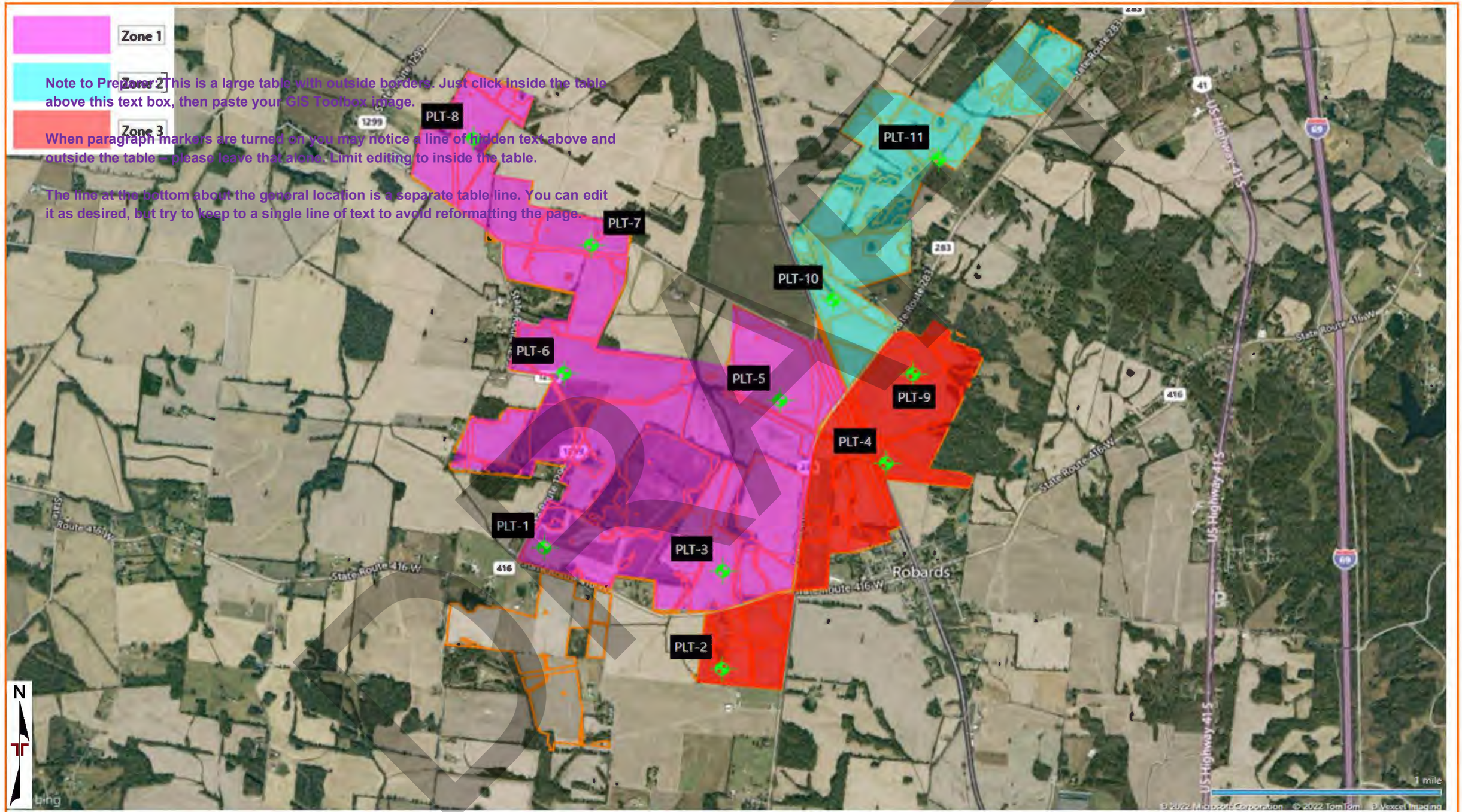


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

MAP PROVIDED BY MICROSOFT BING MAPS

Terracon GeoReport

LATERAL PILE ZONE PLAN

Sebree Solar Project ■ Robards, Henderson County, Kentucky
April 3, 2022 ■ Terracon Project No. 57215063

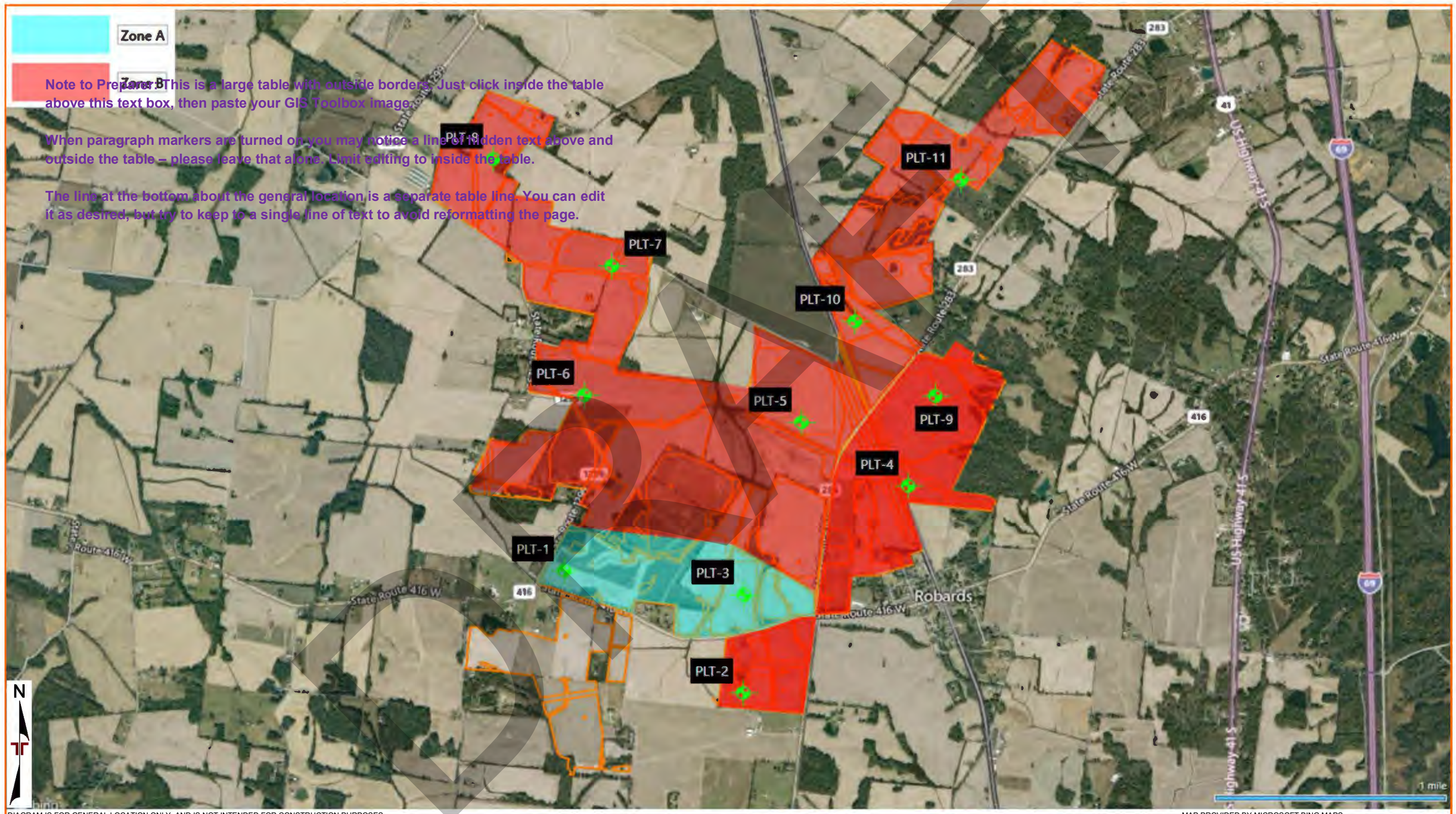


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

MAP PROVIDED BY MICROSOFT BING MAPS

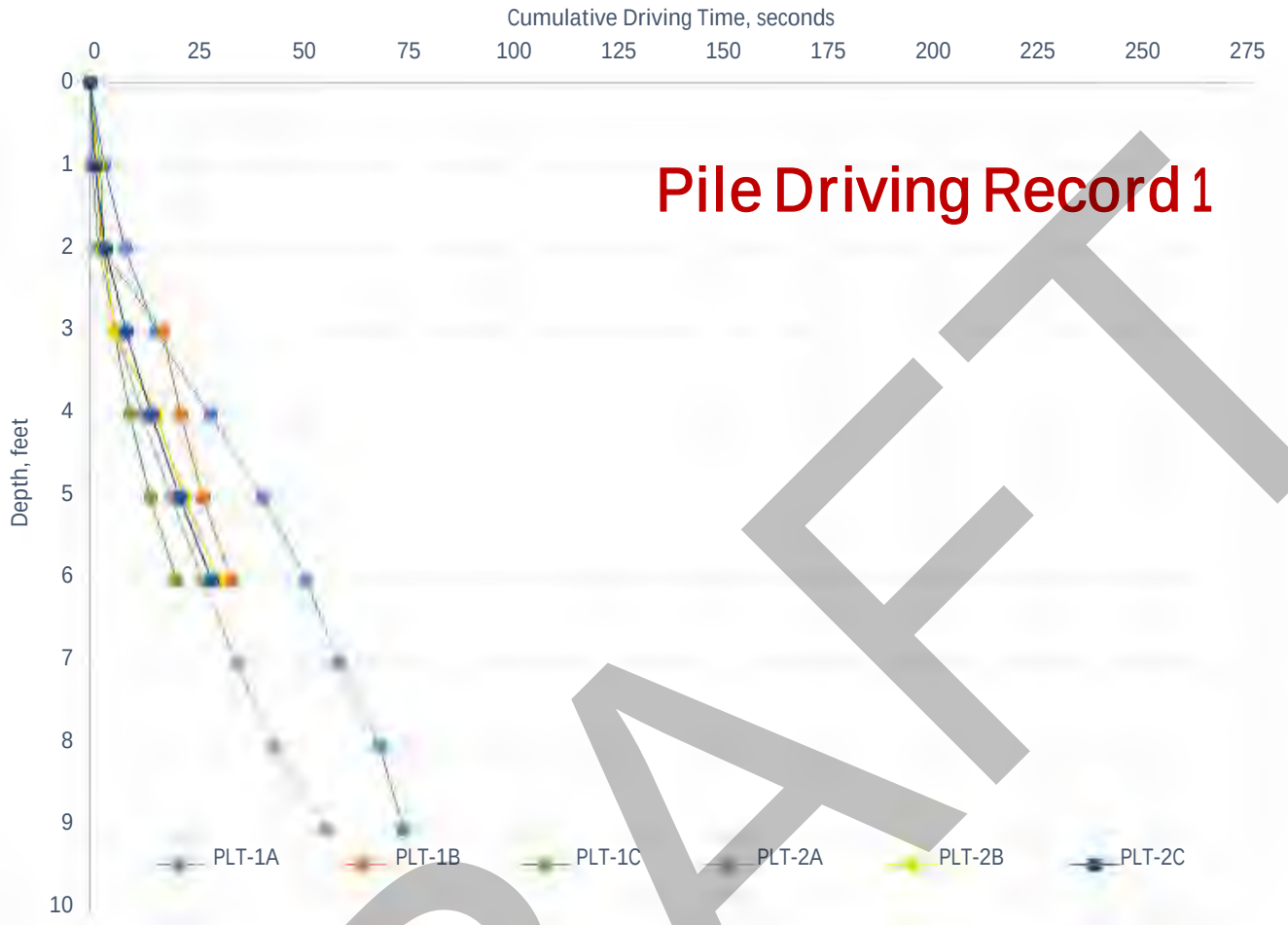
PILE LOAD TESTING RESULTS

Contents:

Pile Driving Time Graphs	(6 pages)
Axial Tension Load Testing Results	(22 pages)
Axial Compression Load Testing Results	(11 pages)
Lateral Load Testing Results	(22 pages)

Note: All attachments are one page unless noted above.

PILE DRIVING TIME GRAPHS



Pile Driving Record 1

Depth (feet)	Cumulative Driving Time, seconds							
	PLT-1A	PLT-1B	PLT-1C	PLT-1D	PLT-2A	PLT-2B	PLT-2C	PLT-2D
0	0	0	0		0	0	0	
1	3.4	1.5	2.4		0.6	1.6	1.1	
2	8.4	2.7	3.3		2.0	3.0	3.7	
3	15.5	17.2	5.8		6.3	5.9	8.5	
4	28.6	21.5	9.5		12.4	15.6	14.6	
5	40.9	26.7	14.3		19.3	22.3	21.3	
6	51.1	33.5	20.5		26.8	30.5	28.8	
7	58.9				34.8			
8	68.5				43.6			
9	74.1				55.8			
Embedment Depth, ft	9.0	6.0	6.0		9.0	6.0	6.0	
Total Drive Time, sec	74.1	33.5	20.5		55.8	30.5	28.8	
Average, sec/ft	8.2	5.6	3.4		6.2	5.1	4.8	

NOTES:

Piles advanced with Vermeer PD-10 hydraulic ram. Installation depth started at the ground surface

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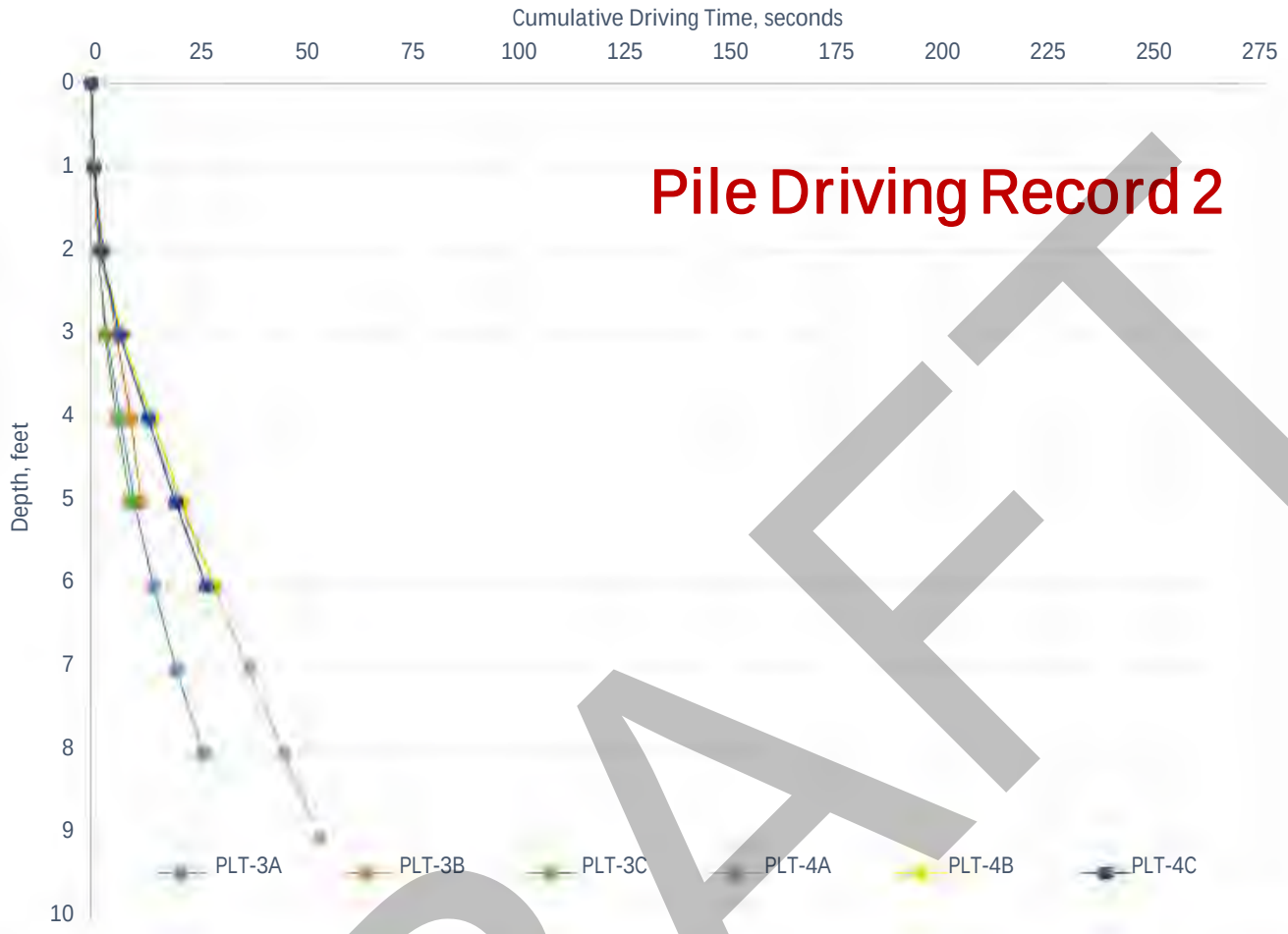
Pile Driving Record 2

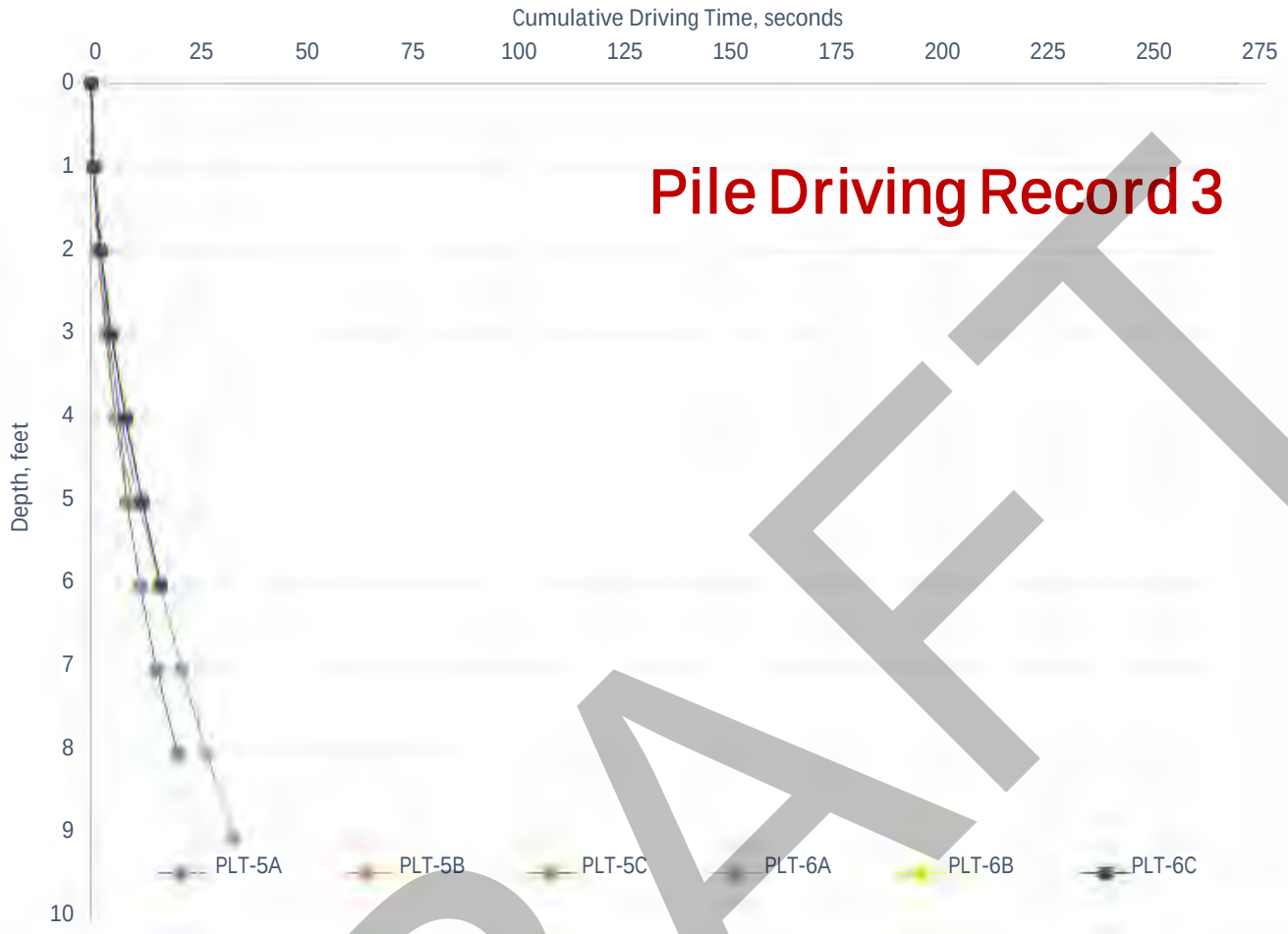


Depth (feet)	Cumulative Driving Time, seconds							
	PLT-3A	PLT-3B	PLT-3C	PLT-3D	PLT-4A	PLT-4B	PLT-4C	PLT-4D
0	0	0	0		0	0	0	
1	0.8	0.8	0.7		0.6	0.8	0.8	
2	1.6	2.9	1.7		1.6	2.4	2.3	
3	3.7	5.9	3.3		6.9	7.2	6.7	
4	6.9	9.4	6.0		13.2	14.3	13.5	
5	10.2	11.6	9.3		20.9	21.4	19.9	
6	14.7				28.8	28.8	27.1	
7	20.1				37.1			
8	26.4				45.3			
9					53.6			
Embedment Depth, ft	8.0	5.0	5.0		9.0	6.0	6.0	
Total Drive Time, sec	26.4	11.6	9.3		53.6	28.8	27.1	
Average, sec/ft	3.3	2.3	1.9		6.0	4.8	4.5	

NOTES:

Piles advanced with Vermeer PD-10 hydraulic ram. Installation depth started at the ground surface

Terracon



Pile Driving Record 3

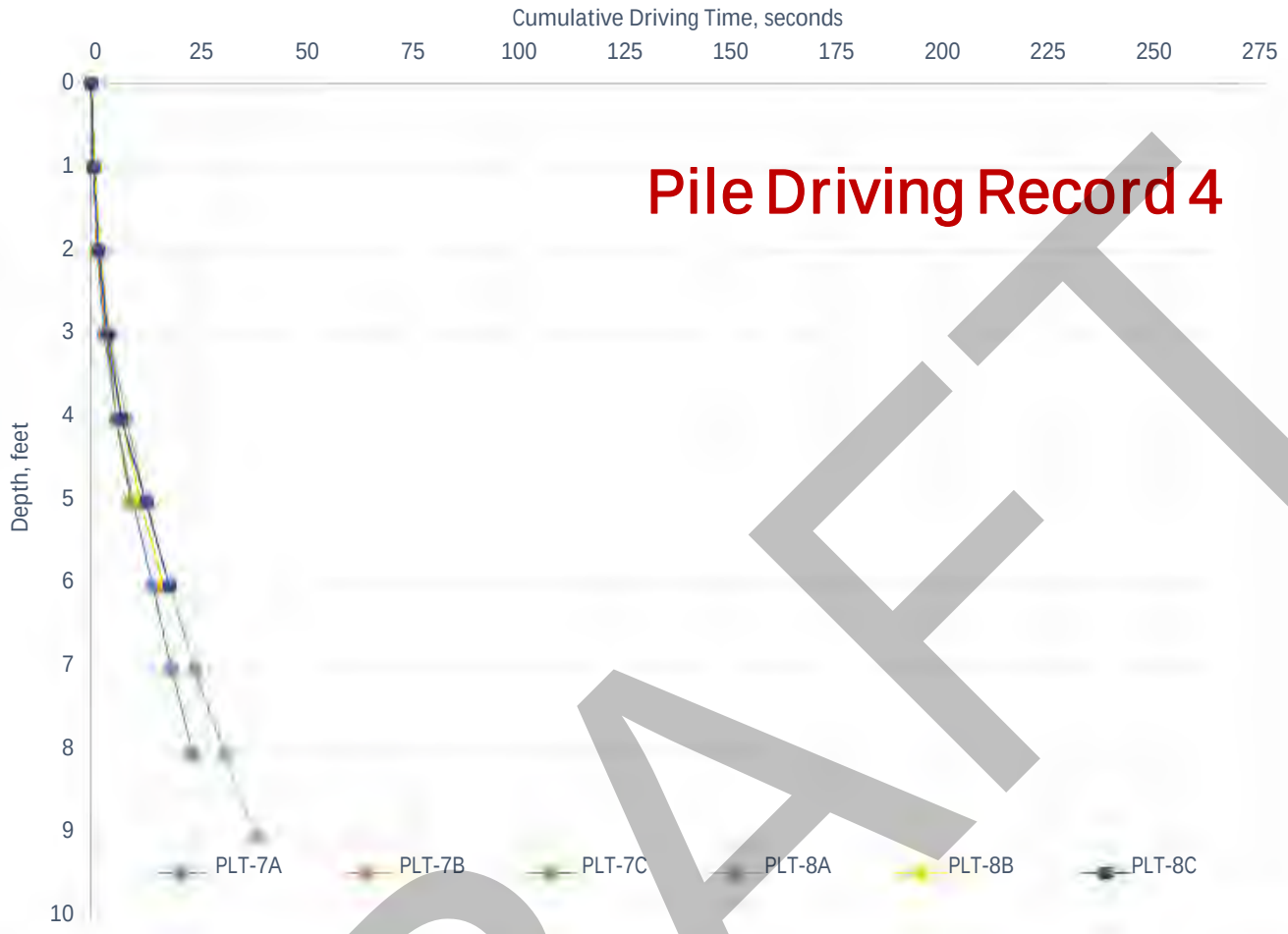
Depth (feet)	Cumulative Driving Time, seconds							
	PLT-5A	PLT-5B	PLT-5C	PLT-5D	PLT-6A	PLT-6B	PLT-6C	PLT-6D
0	0	0	0		0	0	0	
1	0.7	0.6	1.0		0.9	0.4	0.5	
2	1.9	1.6	2.5		1.9	2.4	2.2	
3	3.7	3.4	4.2		4.0	5.0	4.8	
4	5.8	5.8	6.7		7.0	8.5	8.1	
5	8.5	9.9	8.4		11.2	12.0	12.1	
6	11.5				16.3	16.0	16.4	
7	15.5				21.3			
8	20.3				27.2			
9					33.4			
Embedment Depth, ft	8.0	5.0	5.0		9.0	6.0	6.0	
Total Drive Time, sec	20.3	9.9	8.4		33.4	16.0	16.4	
Average, sec/ft	2.5	2.0	1.7		3.7	2.7	2.7	

NOTES:

Piles advanced with Vermeer PD-10 hydraulic ram. Installation depth started at the ground surface

Terracon

Pile Driving Record 4

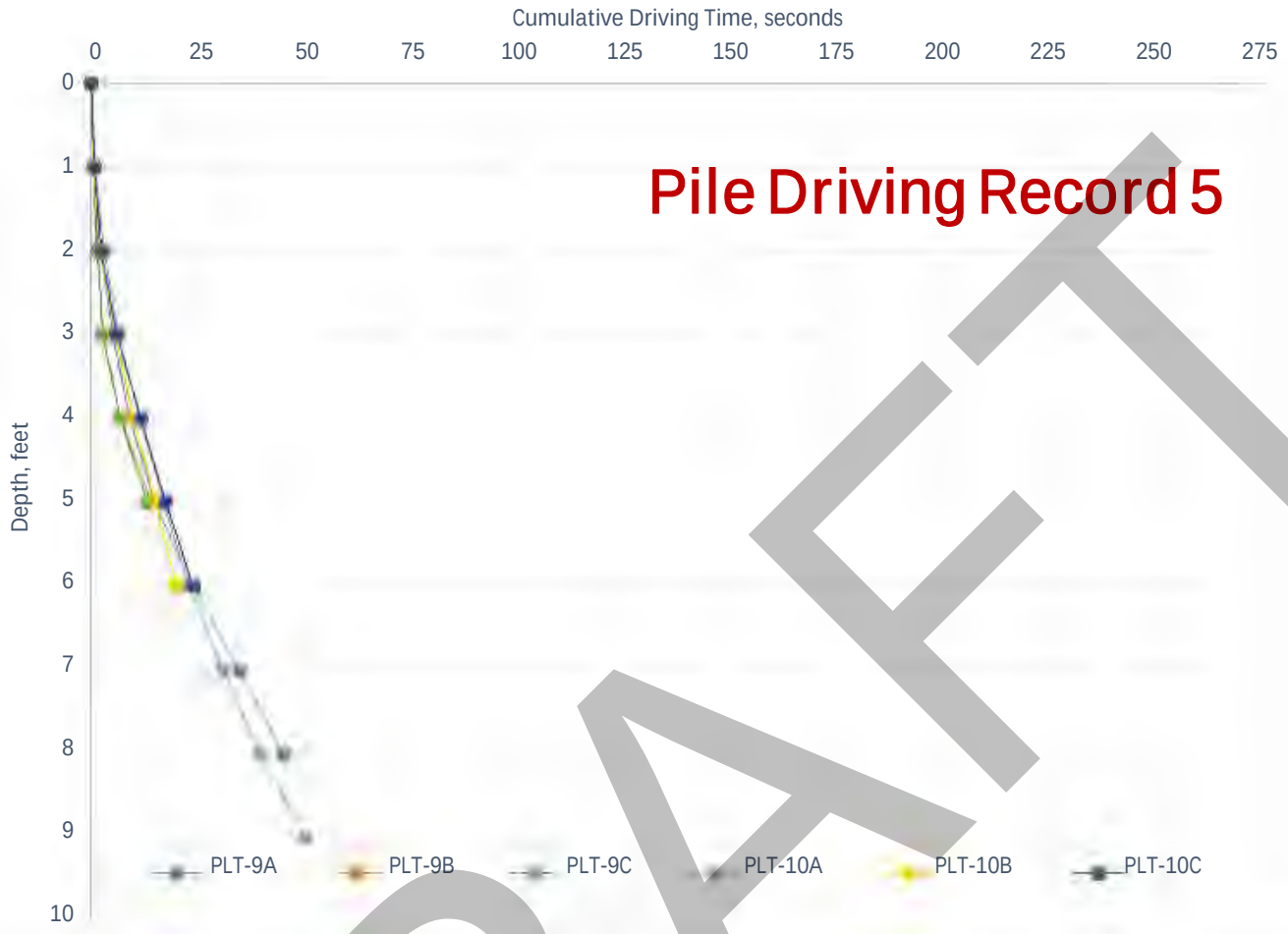


Depth (feet)	Cumulative Driving Time, seconds							
	PLT-7A	PLT-7B	PLT-7C	PLT-7D	PLT-8A	PLT-8B	PLT-8C	PLT-8D
0	0	0	0		0	0	0	
1	0.6	0.5	0.9		0.7	0.7	0.5	
2	1.5	1.5	2.1		2.1	2.1	1.8	
3	3.1	3.6	4.0		4.3	4.1	3.9	
4	6.0	6.1	5.9		8.3	7.3	7.1	
5	9.9	9.7	9.3		12.9	11.7	13.0	
6	14.5				18.5	17.1	18.4	
7	18.9				24.4			
8	23.9				31.3			
9					38.8			
Embedment Depth, ft	8.0	5.0	5.0		9.0	6.0	6.0	
Total Drive Time, sec	23.9	9.7	9.3		38.8	17.1	18.4	
Average, sec/ft	3.0	1.9	1.9		4.3	2.9	3.1	

NOTES:

Piles advanced with Vermeer PD-10 hydraulic ram. Installation depth started at the ground surface

Terracon



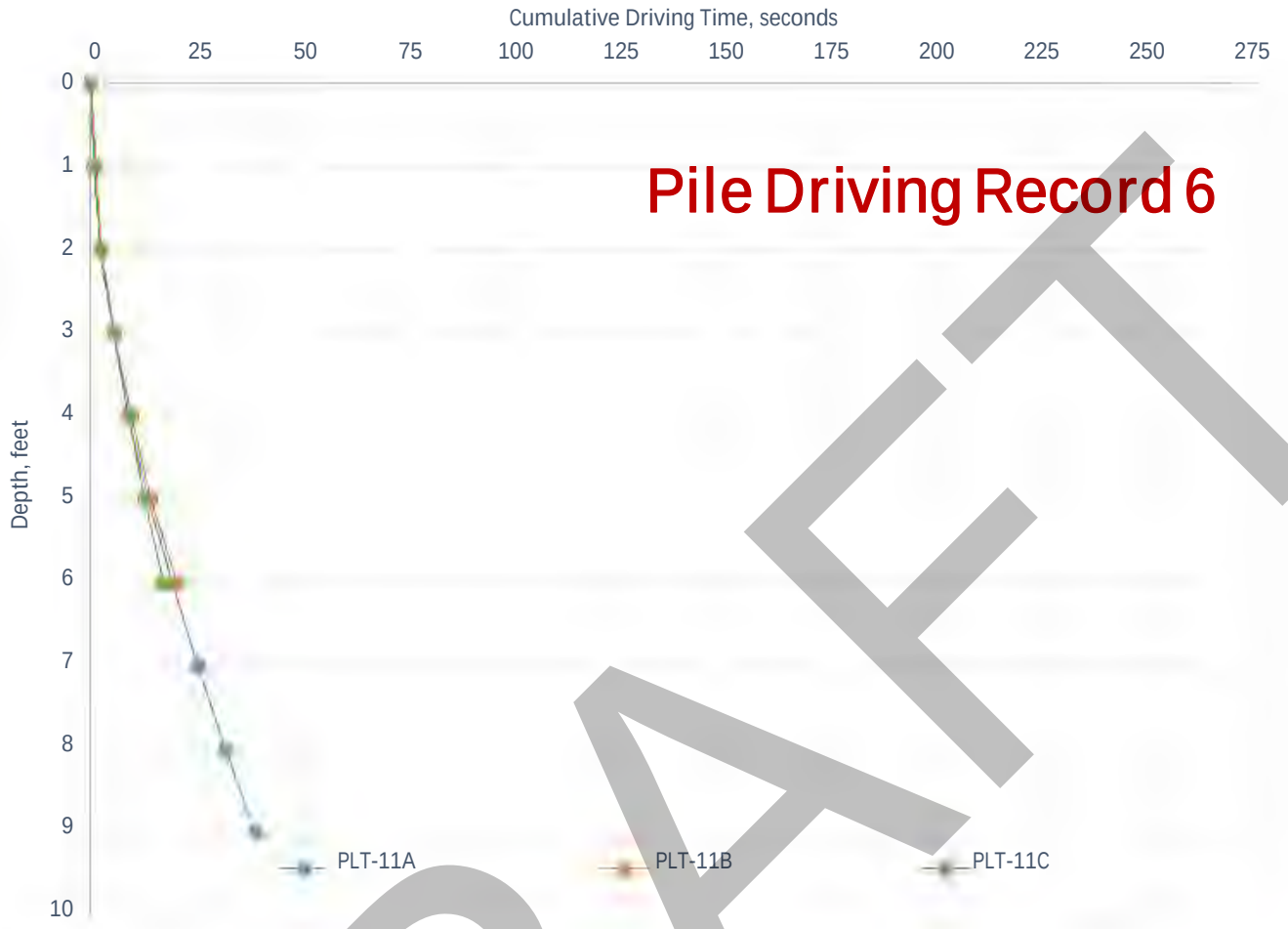
Pile Driving Record 5

Depth (feet)	Cumulative Driving Time, seconds							
	PLT-9A	PLT-9B	PLT-9C	PLT-9D	PLT-10A	PLT-10B	PLT-10C	PLT-10D
0	0	0	0		0	0	0	
1	1.0	0.4	0.6		1.0	0.6	0.8	
2	2.3	1.5	1.6		3.0	2.2	2.4	
3	5.1	2.9	2.7		6.5	5.7	6.1	
4	9.2	7.0	6.9		11.5	10.0	11.8	
5	15.0	14.1	13.3		17.2	15.1	17.6	
6	24.0				23.0	19.9	24.0	
7	34.7				31.0			
8	45.2				39.7			
9					50.3			
Embedment Depth, ft	8.0	5.0	5.0		9.0	6.0	6.0	
Total Drive Time, sec	45.2	14.1	13.3		50.3	19.9	24.0	
Average, sec/ft	5.7	2.8	2.7		5.6	3.3	4.0	

NOTES:

Piles advanced with Vermeer PD-10 hydraulic ram. Installation depth started at the ground surface

Terracon



Pile Driving Record 6

Depth (feet)	Cumulative Driving Time, seconds							
	PLT-11A	PLT-11B	PLT-11C	PLT-11D				
0	0	0	0					
1	1.4	1.3	0.8					
2	2.2	2.6	2.4					
3	5.5	5.6	5.6					
4	9.0	9.7	9.1					
5	13.7	14.2	12.8					
6	19.4	20.6	17.3					
7	25.4							
8	32.0							
9	38.9							
Embedment Depth, ft	9.0	6.0	6.0					
Total Drive Time, sec	38.9	20.6	17.3					
Average, sec/ft	4.3	3.4	2.9					

NOTES:

Piles advanced with Vermeer PD-10 hydraulic ram. Installation depth started at the ground surface

Terracon

AXIAL TENSION LOAD TEST RESULT

Tension Load Test Result for PLT-1A

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

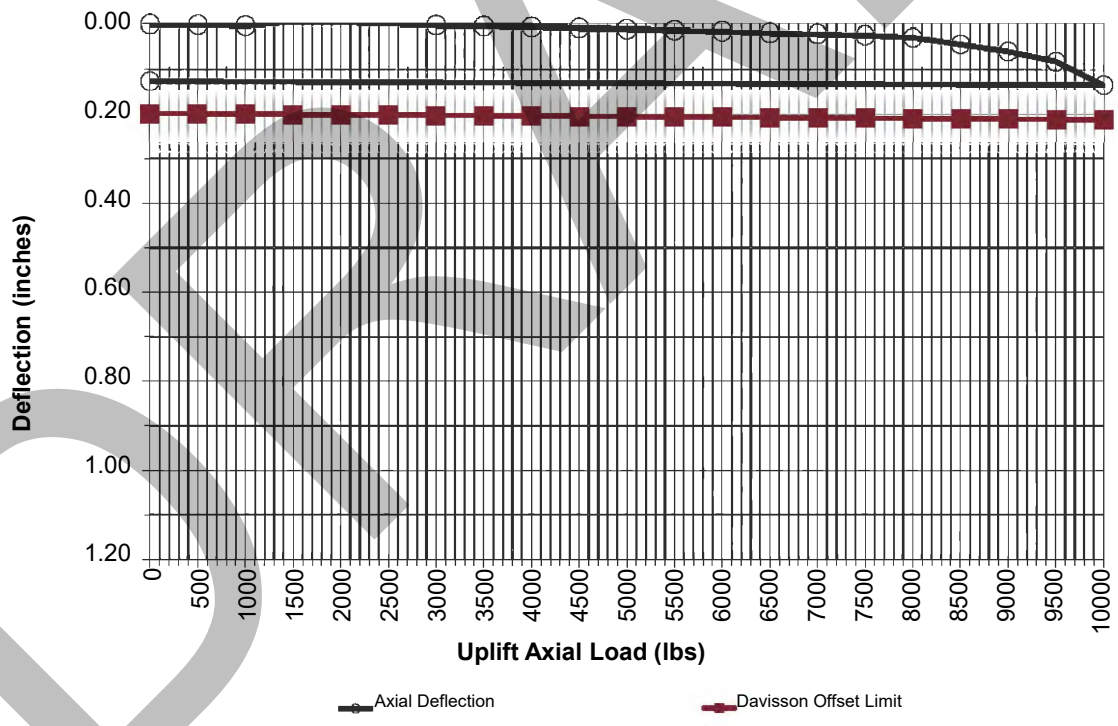
Test Date and Representative

Tested By Terracon Rep:	M.J. & I.H.
Date Tested:	1/18/2022

Pile Information

Pile ID:	PLT-1A
Latitude:	37.112349°
Longitude:	-85.099162°
Pile Type:	W6X9
Pile Embedment Depth [in]:	108
Pile Diameter [in]:	5.9
Pile Stick-Up [in]:	48
Axial Design Load [lbs]:	10000
Pile Area [sq. in]:	2.68
Elastic Modulus [ksi]:	29,000
Drive Time [sec]:	74.1

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in) (PL/AE)	Davisson Offest Limit (in) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.001	0.001	0.200	
10%	1000	0.003	0.001	0.201	
15%	1500	-0.004	0.002	0.201	
20%	2000	-0.002	0.003	0.202	
25%	2500	-0.001	0.003	0.203	
30%	3000	0.002	0.004	0.203	
35%	3500	0.004	0.005	0.204	
40%	4000	0.006	0.006	0.205	
45%	4500	0.009	0.006	0.205	
50%	5000	0.011	0.007	0.206	
55%	5500	0.014	0.008	0.207	
60%	6000	0.016	0.008	0.208	
65%	6500	0.019	0.009	0.208	
70%	7000	0.022	0.010	0.209	
75%	7500	0.025	0.010	0.210	
80%	8000	0.029	0.011	0.210	
85%	8500	0.044	0.012	0.211	
90%	9000	0.060	0.013	0.212	
95%	9500	0.083	0.013	0.212	
100%	10000	0.136	0.014	0.213	
0%	0	0.127	0.000	0.199	



Tension Load Test Result for PLT-1B

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

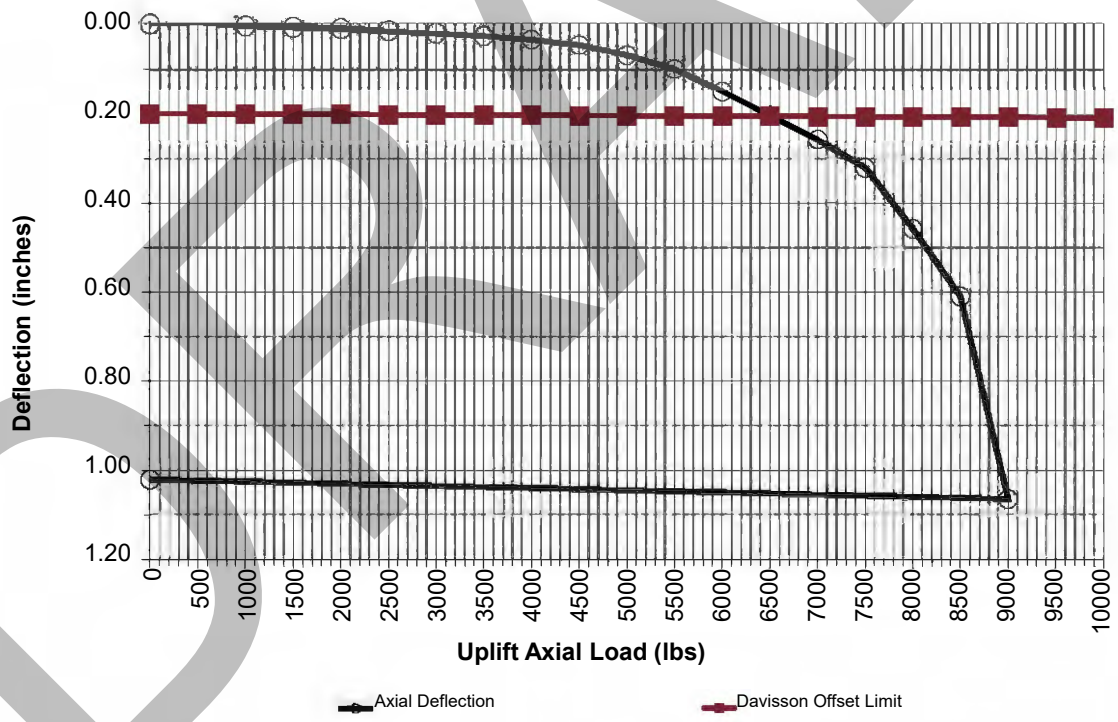
Test Date and Representative

Tested By Terracon Rep:	M.J. & I.H.
Date Tested:	1/18/2022

Pile Information

Pile ID:	PLT-1B
Latitude:	37.112349°
Longitude:	-85.099162°
Pile Type:	W6X9
Pile Embedment Depth [in]:	72
Pile Diameter [in]:	5.9
Pile Stick-Up [in]:	48
Axial Design Load [lbs]:	10000
Pile Area [sq. in]:	2.68
Elastic Modulus [ksi]:	29,000
Drive Time [sec]:	33.5

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in) (PL/AE)	Davisson Offest Limit (in) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	-0.003	0.000	0.200	
10%	1000	0.004	0.001	0.200	
15%	1500	0.007	0.001	0.201	
20%	2000	0.010	0.002	0.201	
25%	2500	0.015	0.002	0.201	
30%	3000	0.020	0.003	0.202	
35%	3500	0.026	0.003	0.202	
40%	4000	0.033	0.004	0.203	
45%	4500	0.046	0.004	0.203	
50%	5000	0.069	0.005	0.204	
55%	5500	0.100	0.005	0.204	
60%	6000	0.150	0.006	0.205	
65%	6500	0.204	0.006	0.205	
70%	7000	0.257	0.006	0.206	
75%	7500	0.321	0.007	0.206	
80%	8000	0.458	0.007	0.207	
85%	8500	0.610	0.008	0.207	
90%	9000	1.065	0.008	0.208	
95%	9500		0.009	0.208	
100%	10000		0.009	0.208	
0%	0	1.021	0.000	0.199	



Tension Load Test Result for PLT-2A

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

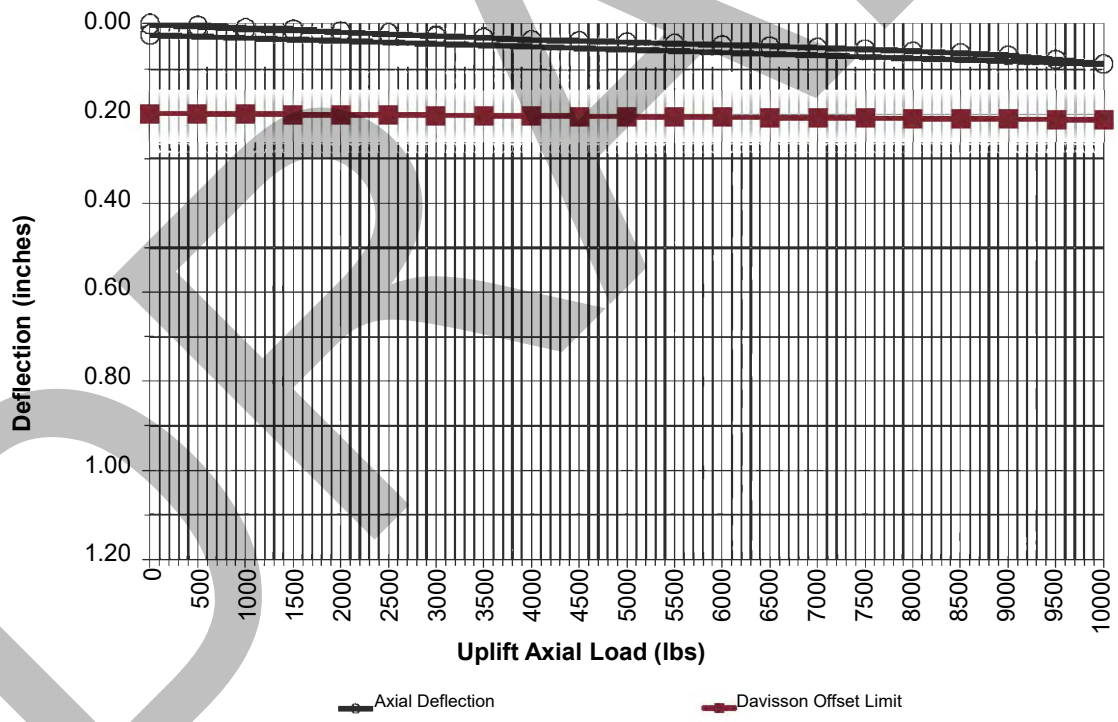
Test Date and Representative

Tested By Terracon Rep:	M.J. & I.H.
Date Tested:	1/18/2022

Pile Information

Pile ID:	PLT-2A
Latitude:	37.112891°
Longitude:	-85.095568°
Pile Type:	W6X9
Pile Embedment Depth [in]:	108
Pile Diameter [in]:	5.9
Pile Stick-Up [in]:	48
Axial Design Load [lbs]:	10000
Pile Area [sq. in]:	2.68
Elastic Modulus [ksi]:	29,000
Drive Time [sec]:	55.8

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in) (PL/AE)	Davisson Offest Limit (in) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.005	0.001	0.200	
10%	1000	0.010	0.001	0.201	
15%	1500	0.013	0.002	0.201	
20%	2000	0.017	0.003	0.202	
25%	2500	0.021	0.003	0.203	
30%	3000	0.025	0.004	0.203	
35%	3500	0.029	0.005	0.204	
40%	4000	0.034	0.006	0.205	
45%	4500	0.036	0.006	0.205	
50%	5000	0.039	0.007	0.206	
55%	5500	0.042	0.008	0.207	
60%	6000	0.045	0.008	0.208	
65%	6500	0.048	0.009	0.208	
70%	7000	0.051	0.010	0.209	
75%	7500	0.055	0.010	0.210	
80%	8000	0.060	0.011	0.210	
85%	8500	0.063	0.012	0.211	
90%	9000	0.069	0.013	0.212	
95%	9500	0.078	0.013	0.212	
100%	10000	0.088	0.014	0.213	
0%	0	0.023	0.000	0.199	



Tension Load Test Result for PLT-2B

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

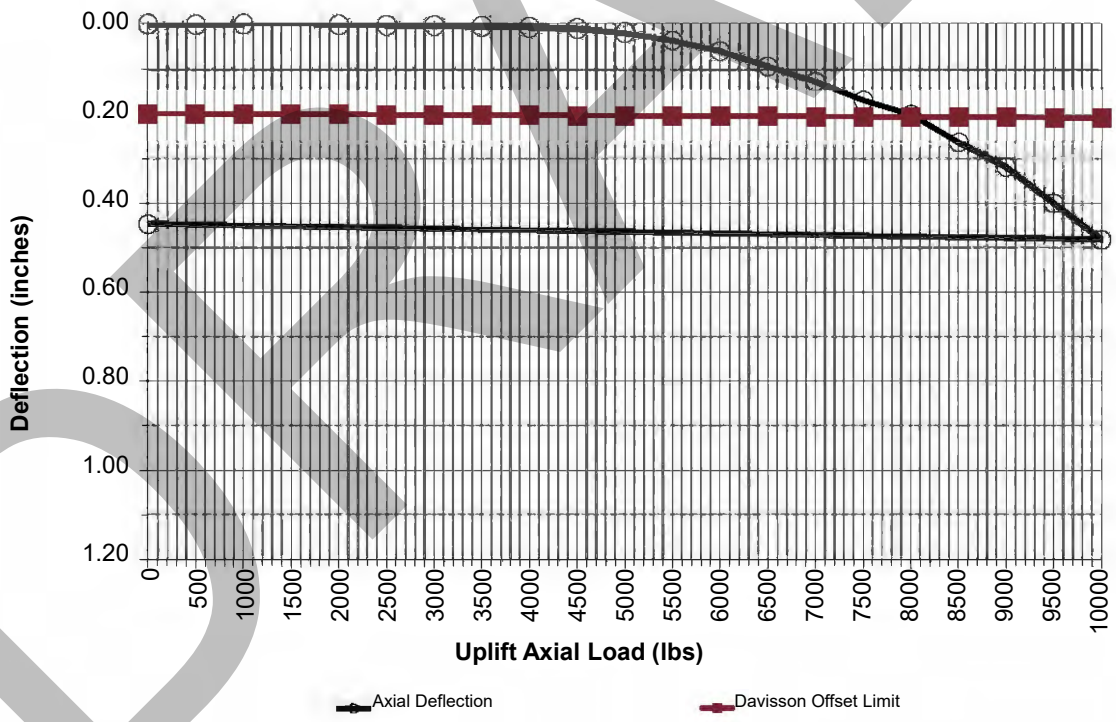
Test Date and Representative

Tested By Terracon Rep:	M.J. & I.H.
Date Tested:	1/18/2022

Pile Information

Pile ID:	PLT-2B
Latitude:	37.112891°
Longitude:	-85.095568°
Pile Type:	W6X9
Pile Embedment Depth [in]:	72
Pile Diameter [in]:	5.9
Pile Stick-Up [in]:	48
Axial Design Load [lbs]:	10000
Pile Area [sq. in]:	2.68
Elastic Modulus [ksi]:	29,000
Drive Time [sec]:	30.5

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in) (PL/AE)	Davisson Offest Limit (in) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.001	0.000	0.200	
10%	1000	0.000	0.001	0.200	
15%	1500	-0.001	0.001	0.201	
20%	2000	0.002	0.002	0.201	
25%	2500	0.003	0.002	0.201	
30%	3000	0.003	0.003	0.202	
35%	3500	0.005	0.003	0.202	
40%	4000	0.007	0.004	0.203	
45%	4500	0.010	0.004	0.203	
50%	5000	0.019	0.005	0.204	
55%	5500	0.036	0.005	0.204	
60%	6000	0.059	0.006	0.205	
65%	6500	0.094	0.006	0.205	
70%	7000	0.128	0.006	0.206	
75%	7500	0.170	0.007	0.206	
80%	8000	0.201	0.007	0.207	
85%	8500	0.263	0.008	0.207	
90%	9000	0.319	0.008	0.208	
95%	9500	0.401	0.009	0.208	
100%	10000	0.483	0.009	0.208	
0%	0	0.448	0.000	0.199	



Tension Load Test Result for PLT-3A

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

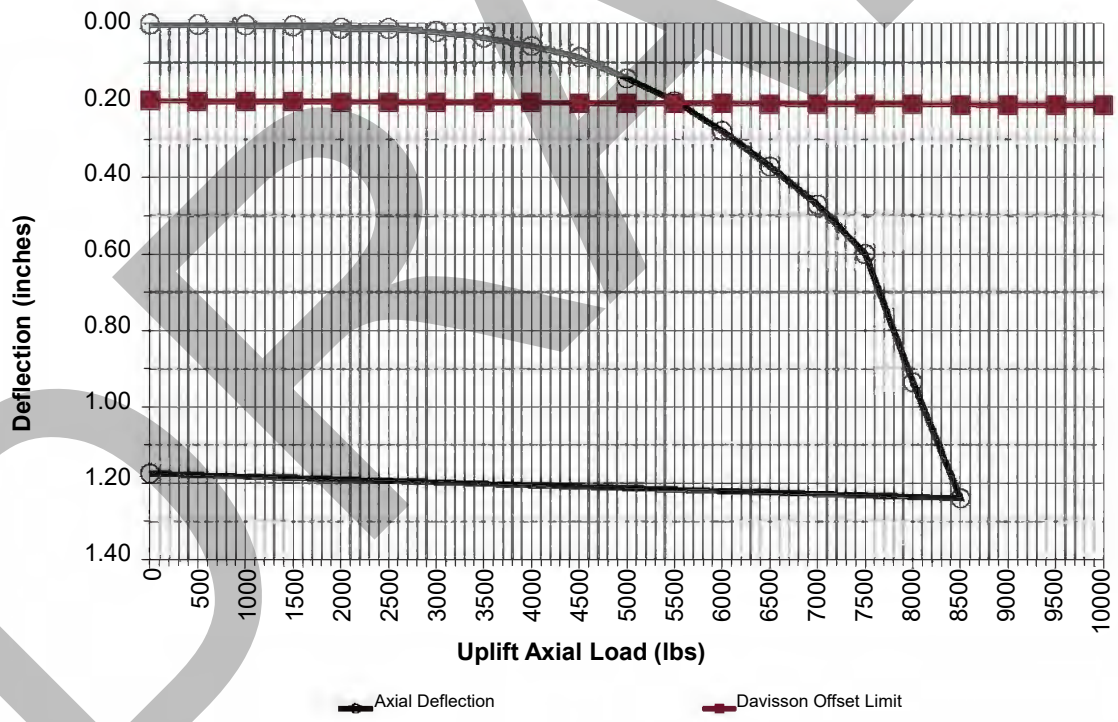
Test Date and Representative

Tested By Terracon Rep:	M.J. & I.H.
Date Tested:	1/19/2022

Pile Information

Pile ID:	PLT-3A
Latitude:	37.113137°
Longitude:	-85.090334°
Pile Type:	W6X9
Pile Embedment Depth [in]:	96
Pile Diameter [in]:	5.9
Pile Stick-Up [in]:	60
Axial Design Load [lbs]:	10000
Pile Area [sq. in]:	2.68
Elastic Modulus [ksi]:	29,000
Drive Time [sec]:	26.4

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in) (PL/AE)	Davisson Offest Limit (in) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.001	0.001	0.200	
10%	1000	0.002	0.001	0.200	
15%	1500	0.004	0.002	0.201	
20%	2000	0.011	0.002	0.202	
25%	2500	0.012	0.003	0.202	
30%	3000	0.019	0.004	0.203	
35%	3500	0.034	0.004	0.203	
40%	4000	0.056	0.005	0.204	
45%	4500	0.085	0.006	0.205	
50%	5000	0.141	0.006	0.205	
55%	5500	0.200	0.007	0.206	
60%	6000	0.278	0.007	0.207	
65%	6500	0.371	0.008	0.207	
70%	7000	0.471	0.009	0.208	
75%	7500	0.601	0.009	0.208	
80%	8000	0.937	0.010	0.209	
85%	8500	1.241	0.010	0.210	
90%	9000		0.011	0.210	
95%	9500		0.012	0.211	
100%	10000		0.012	0.212	
0%	0	1.176	0.000	0.199	



Tension Load Test Result for PLT-3B

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

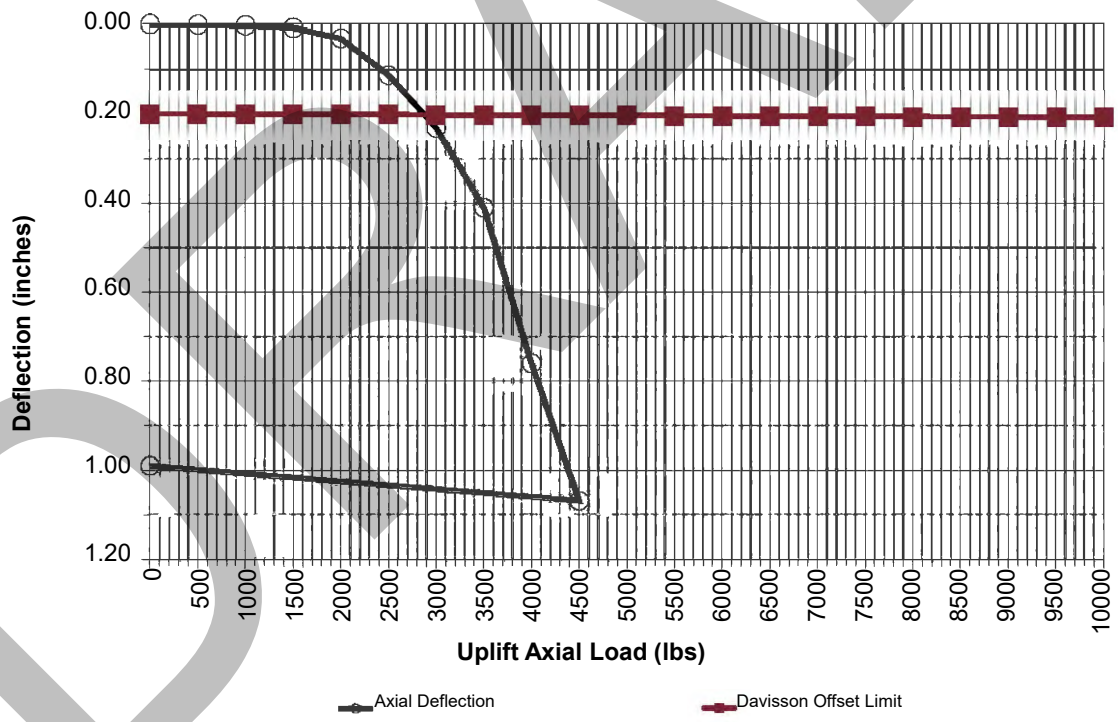
Test Date and Representative

Tested By Terracon Rep:	M.J. & I.H.
Date Tested:	1/19/2022

Pile Information

Pile ID:	PLT-3B
Latitude:	37.113137°
Longitude:	-85.090334°
Pile Type:	W6X9
Pile Embedment Depth [in]:	60
Pile Diameter [in]:	5.9
Pile Stick-Up [in]:	60
Axial Design Load [lbs]:	10000
Pile Area [sq. in]:	2.68
Elastic Modulus [ksi]:	29,000
Drive Time [sec]:	11.6

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in) (PL/AE)	Davisson Offest Limit (in) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.001	0.000	0.200	
10%	1000	0.003	0.001	0.200	
15%	1500	0.008	0.001	0.200	
20%	2000	0.031	0.002	0.201	
25%	2500	0.114	0.002	0.201	
30%	3000	0.231	0.002	0.201	
35%	3500	0.411	0.003	0.202	
40%	4000	0.760	0.003	0.202	
45%	4500	1.069	0.003	0.203	
50%	5000		0.004	0.203	
55%	5500		0.004	0.203	
60%	6000		0.005	0.204	
65%	6500		0.005	0.204	
70%	7000		0.005	0.205	
75%	7500		0.006	0.205	
80%	8000		0.006	0.205	
85%	8500		0.007	0.206	
90%	9000		0.007	0.206	
95%	9500		0.007	0.207	
100%	10000		0.008	0.207	
0%	0	0.990	0.000	0.199	



Tension Load Test Result for PLT-4A

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

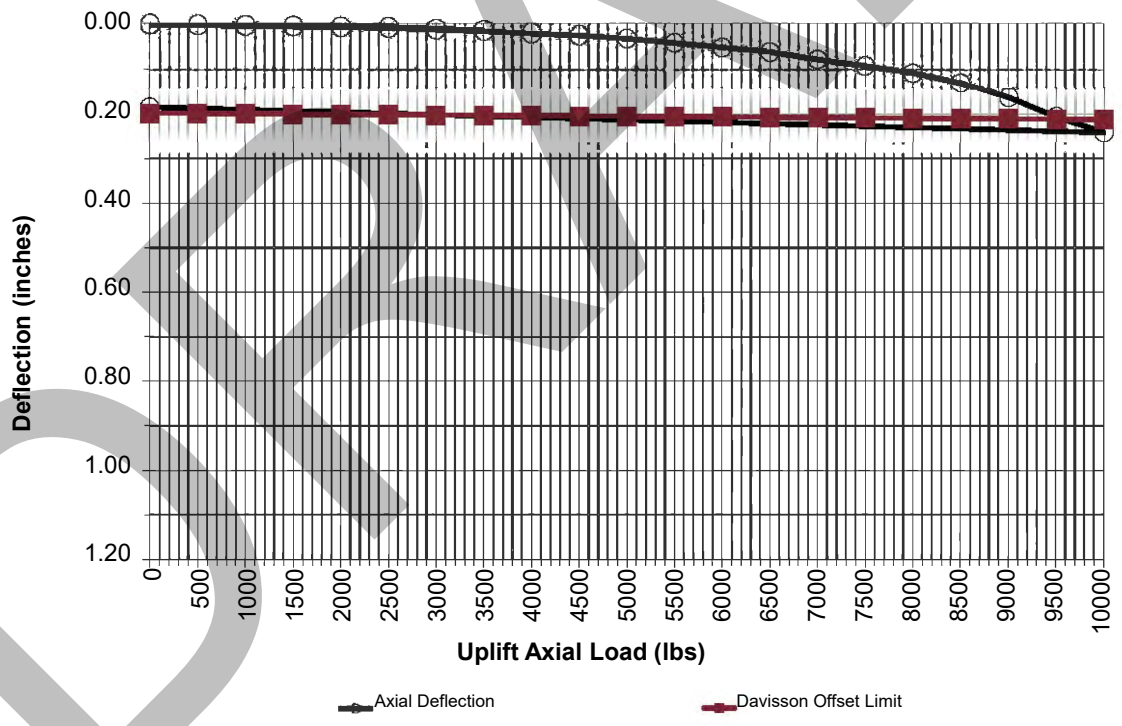
Test Date and Representative

Tested By Terracon Rep:	M.J. & I.H.
Date Tested:	1/20/2022

Pile Information

Pile ID:	PLT-4A
Latitude:	37.110831°
Longitude:	-85.101540°
Pile Type:	W6X9
Pile Embedment Depth [in]:	108
Pile Diameter [in]:	5.9
Pile Stick-Up [in]:	48
Axial Design Load [lbs]:	10000
Pile Area [sq. in]:	2.68
Elastic Modulus [ksi]:	29,000
Drive Time [sec]:	53.6

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in) (PL/AE)	Davisson Offest Limit (in) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.002	0.001	0.200	
10%	1000	0.003	0.001	0.201	
15%	1500	0.005	0.002	0.201	
20%	2000	0.006	0.003	0.202	
25%	2500	0.008	0.003	0.203	
30%	3000	0.011	0.004	0.203	
35%	3500	0.015	0.005	0.204	
40%	4000	0.020	0.006	0.205	
45%	4500	0.025	0.006	0.205	
50%	5000	0.031	0.007	0.206	
55%	5500	0.040	0.008	0.207	
60%	6000	0.051	0.008	0.208	
65%	6500	0.061	0.009	0.208	
70%	7000	0.078	0.010	0.209	
75%	7500	0.093	0.010	0.210	
80%	8000	0.109	0.011	0.210	
85%	8500	0.131	0.012	0.211	
90%	9000	0.164	0.013	0.212	
95%	9500	0.208	0.013	0.212	
100%	10000	0.242	0.014	0.213	
0%	0	0.186	0.000	0.199	



Tension Load Test Result for PLT-4B

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

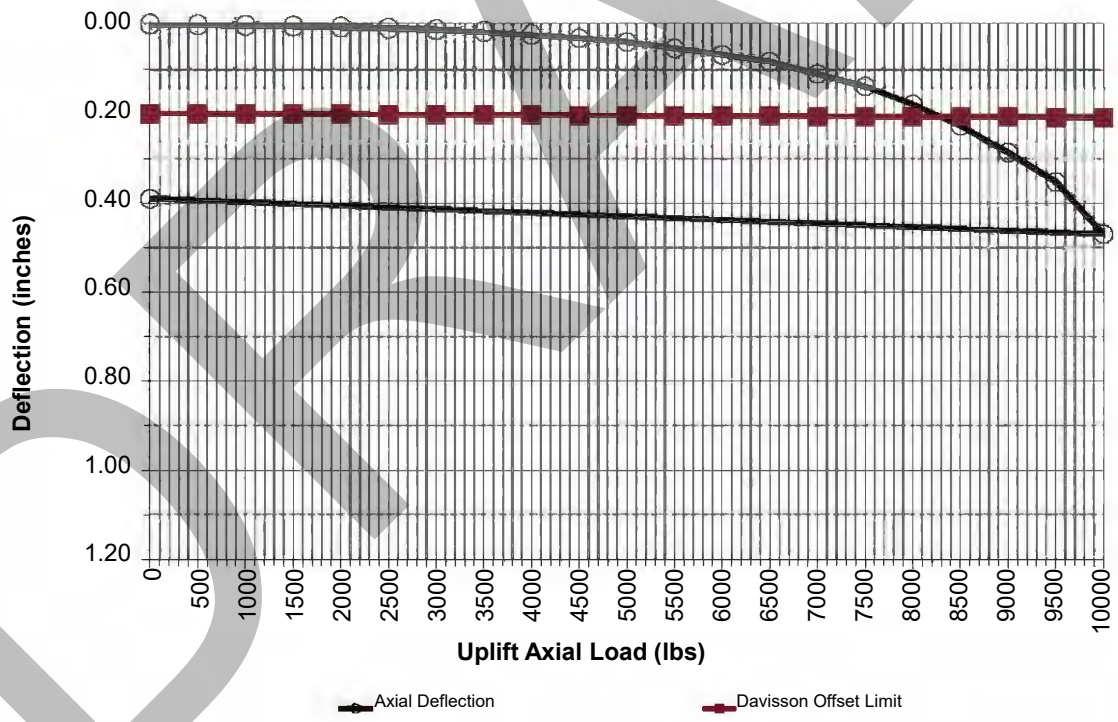
Test Date and Representative

Tested By Terracon Rep:	M.J. & I.H.
Date Tested:	1/20/2022

Pile Information

Pile ID:	PLT-4B
Latitude:	37.110831°
Longitude:	-85.101540°
Pile Type:	W6X9
Pile Embedment Depth [in]:	72
Pile Diameter [in]:	5.9
Pile Stick-Up [in]:	48
Axial Design Load [lbs]:	10000
Pile Area [sq. in]:	2.68
Elastic Modulus [ksi]:	29,000
Drive Time [sec]:	28.8

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in) (PL/AE)	Davisson Offest Limit (in) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.002	0.000	0.200	
10%	1000	0.003	0.001	0.200	
15%	1500	0.005	0.001	0.201	
20%	2000	0.007	0.002	0.201	
25%	2500	0.009	0.002	0.201	
30%	3000	0.012	0.003	0.202	
35%	3500	0.017	0.003	0.202	
40%	4000	0.023	0.004	0.203	
45%	4500	0.030	0.004	0.203	
50%	5000	0.039	0.005	0.204	
55%	5500	0.053	0.005	0.204	
60%	6000	0.068	0.006	0.205	
65%	6500	0.083	0.006	0.205	
70%	7000	0.111	0.006	0.206	
75%	7500	0.139	0.007	0.206	
80%	8000	0.179	0.007	0.207	
85%	8500	0.227	0.008	0.207	
90%	9000	0.287	0.008	0.208	
95%	9500	0.353	0.009	0.208	
100%	10000	0.471	0.009	0.208	
0%	0	0.390	0.000	0.199	



Tension Load Test Result for PLT-5A

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

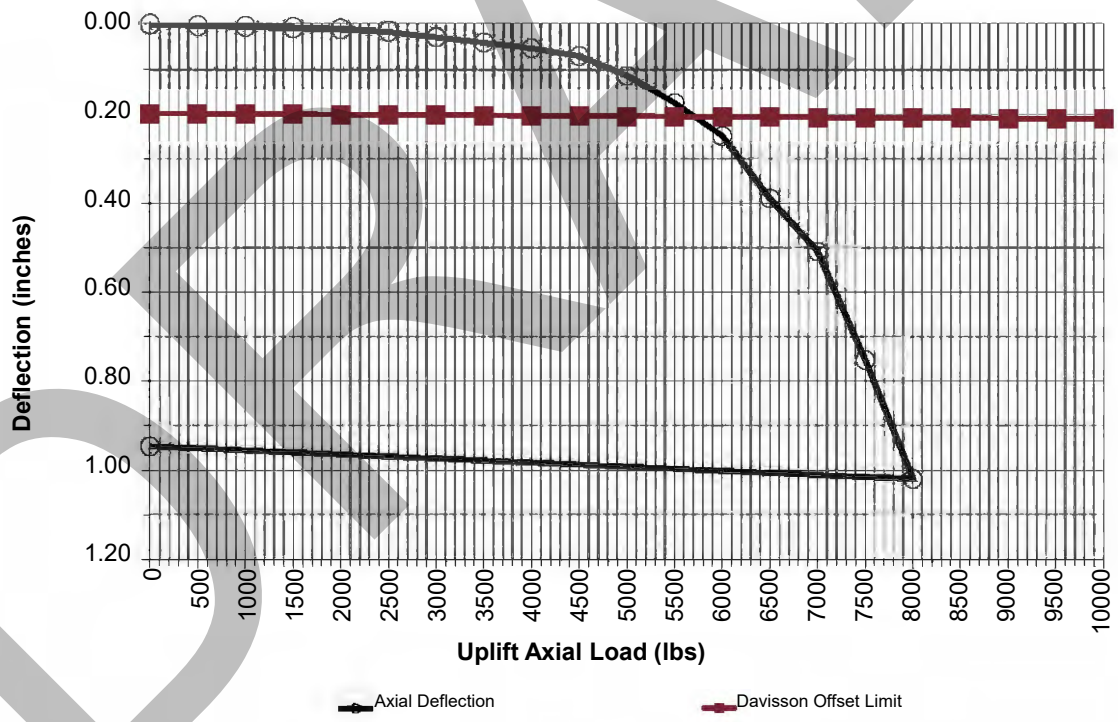
Test Date and Representative

Tested By Terracon Rep:	M.J. & I.H.
Date Tested:	1/20/2022

Pile Information

Pile ID:	PLT-5A
Latitude:	37.109982°
Longitude:	-85.097446°
Pile Type:	W6X9
Pile Embedment Depth [in]:	96
Pile Diameter [in]:	5.9
Pile Stick-Up [in]:	60
Axial Design Load [lbs]:	10000
Pile Area [sq. in]:	2.68
Elastic Modulus [ksi]:	29,000
Drive Time [sec]:	20.3

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in) (PL/AE)	Davisson Offest Limit (in) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.003	0.001	0.200	
10%	1000	0.005	0.001	0.200	
15%	1500	0.008	0.002	0.201	
20%	2000	0.011	0.002	0.202	
25%	2500	0.016	0.003	0.202	
30%	3000	0.028	0.004	0.203	
35%	3500	0.039	0.004	0.203	
40%	4000	0.053	0.005	0.204	
45%	4500	0.070	0.006	0.205	
50%	5000	0.115	0.006	0.205	
55%	5500	0.176	0.007	0.206	
60%	6000	0.250	0.007	0.207	
65%	6500	0.390	0.008	0.207	
70%	7000	0.509	0.009	0.208	
75%	7500	0.753	0.009	0.208	
80%	8000	1.020	0.010	0.209	
85%	8500		0.010	0.210	
90%	9000		0.011	0.210	
95%	9500		0.012	0.211	
100%	10000		0.012	0.212	
0%	0	0.947	0.000	0.199	



Tension Load Test Result for PLT-5B

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

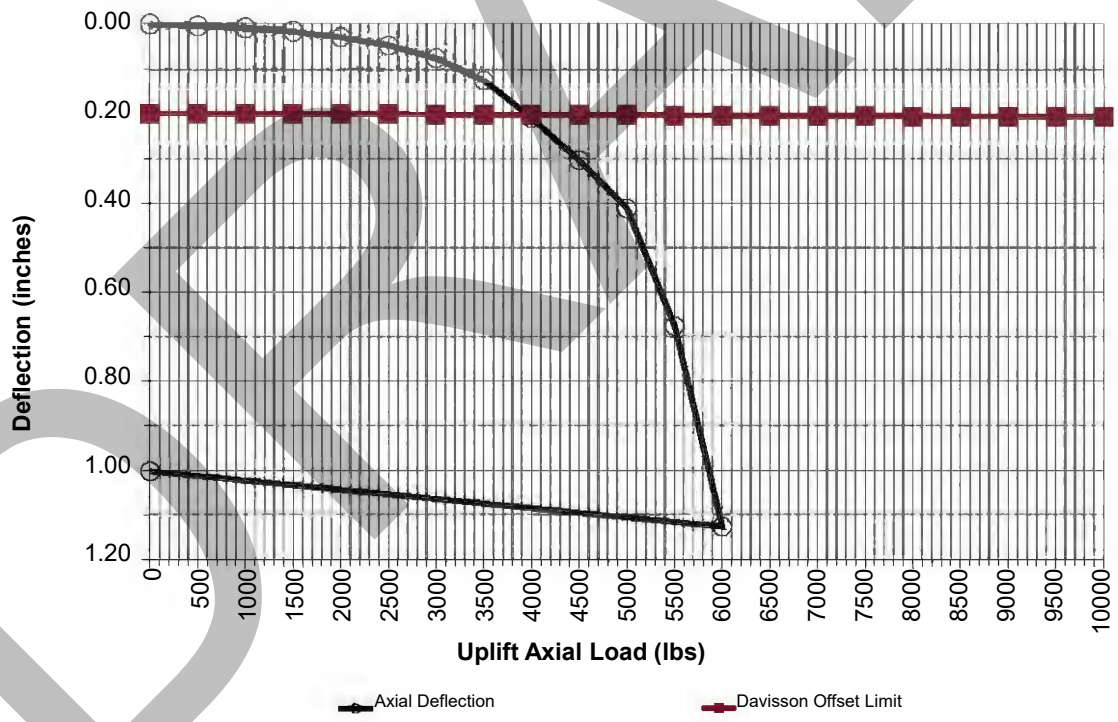
Test Date and Representative

Tested By Terracon Rep:	M.J. & I.H.
Date Tested:	1/20/2022

Pile Information

Pile ID:	PLT-5B
Latitude:	37.109982°
Longitude:	-85.097446°
Pile Type:	W6X9
Pile Embedment Depth [in]:	60
Pile Diameter [in]:	5.9
Pile Stick-Up [in]:	60
Axial Design Load [lbs]:	10000
Pile Area [sq. in]:	2.68
Elastic Modulus [ksi]:	29,000
Drive Time [sec]:	9.9

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in) (PL/AE)	Davisson Offest Limit (in) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.004	0.000	0.200	
10%	1000	0.009	0.001	0.200	
15%	1500	0.016	0.001	0.200	
20%	2000	0.029	0.002	0.201	
25%	2500	0.047	0.002	0.201	
30%	3000	0.076	0.002	0.201	
35%	3500	0.126	0.003	0.202	
40%	4000	0.209	0.003	0.202	
45%	4500	0.304	0.003	0.203	
50%	5000	0.413	0.004	0.203	
55%	5500	0.677	0.004	0.203	
60%	6000	1.127	0.005	0.204	
65%	6500		0.005	0.204	
70%	7000		0.005	0.205	
75%	7500		0.006	0.205	
80%	8000		0.006	0.205	
85%	8500		0.007	0.206	
90%	9000		0.007	0.206	
95%	9500		0.007	0.207	
100%	10000		0.008	0.207	
0%	0	1.003	0.000	0.199	



Tension Load Test Result for PLT-6A

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

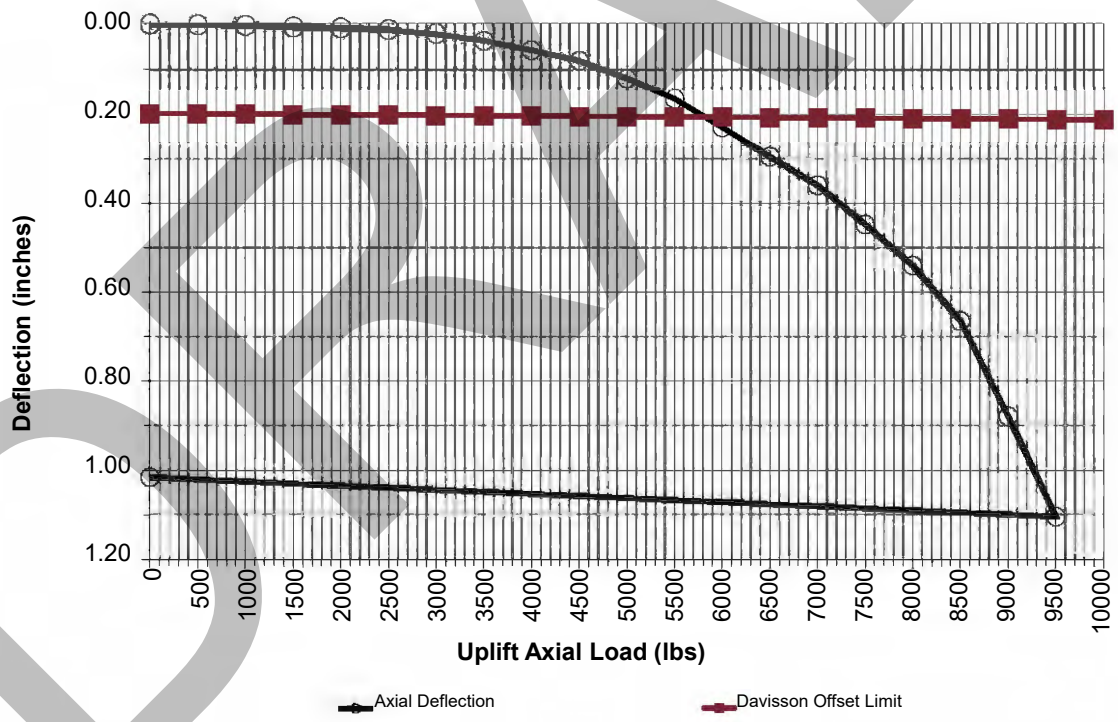
Test Date and Representative

Tested By Terracon Rep:	M.J. & I.H.
Date Tested:	1/21/2022

Pile Information

Pile ID:	PLT-6A
Latitude:	37.110538°
Longitude:	-85.092048°
Pile Type:	W6X9
Pile Embedment Depth [in]:	108
Pile Diameter [in]:	5.9
Pile Stick-Up [in]:	48
Axial Design Load [lbs]:	10000
Pile Area [sq. in]:	2.68
Elastic Modulus [ksi]:	29,000
Drive Time [sec]:	33.4

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in) (PL/AE)	Davisson Offest Limit (in) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.002	0.001	0.200	
10%	1000	0.003	0.001	0.201	
15%	1500	0.007	0.002	0.201	
20%	2000	0.009	0.003	0.202	
25%	2500	0.013	0.003	0.203	
30%	3000	0.021	0.004	0.203	
35%	3500	0.036	0.005	0.204	
40%	4000	0.057	0.006	0.205	
45%	4500	0.081	0.006	0.205	
50%	5000	0.121	0.007	0.206	
55%	5500	0.167	0.008	0.207	
60%	6000	0.231	0.008	0.208	
65%	6500	0.296	0.009	0.208	
70%	7000	0.361	0.010	0.209	
75%	7500	0.449	0.010	0.210	
80%	8000	0.541	0.011	0.210	
85%	8500	0.666	0.012	0.211	
90%	9000	0.879	0.013	0.212	
95%	9500	1.105	0.013	0.212	
100%	10000		0.014	0.213	
0%	0	1.017	0.000	0.199	



Tension Load Test Result for PLT-6B

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

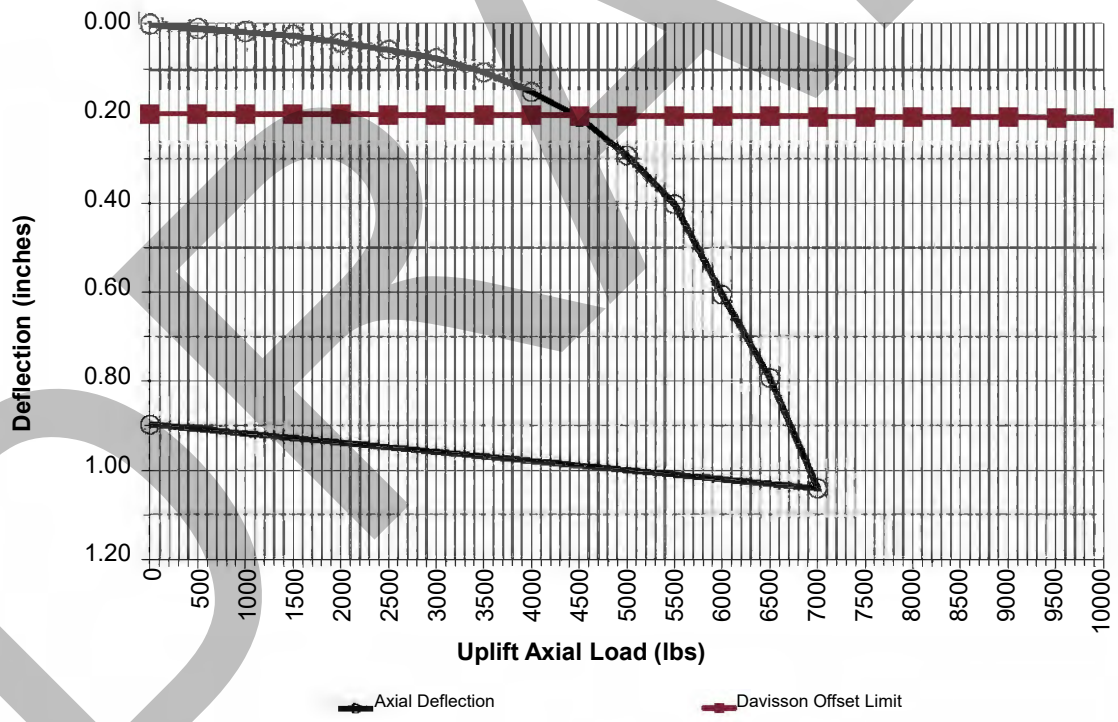
Test Date and Representative

Tested By Terracon Rep:	M.J. & I.H.
Date Tested:	1/21/2022

Pile Information

Pile ID:	PLT-6B
Latitude:	37.110538°
Longitude:	-85.092048°
Pile Type:	W6X9
Pile Embedment Depth [in]:	72
Pile Diameter [in]:	5.9
Pile Stick-Up [in]:	48
Axial Design Load [lbs]:	10000
Pile Area [sq. in]:	2.68
Elastic Modulus [ksi]:	29,000
Drive Time [sec]:	16

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in) (PL/AE)	Davisson Offest Limit (in) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.010	0.000	0.200	
10%	1000	0.017	0.001	0.200	
15%	1500	0.025	0.001	0.201	
20%	2000	0.039	0.002	0.201	
25%	2500	0.056	0.002	0.201	
30%	3000	0.075	0.003	0.202	
35%	3500	0.107	0.003	0.202	
40%	4000	0.151	0.004	0.203	
45%	4500	0.207	0.004	0.203	
50%	5000	0.293	0.005	0.204	
55%	5500	0.403	0.005	0.204	
60%	6000	0.607	0.006	0.205	
65%	6500	0.793	0.006	0.205	
70%	7000	1.041	0.006	0.206	
75%	7500		0.007	0.206	
80%	8000		0.007	0.207	
85%	8500		0.008	0.207	
90%	9000		0.008	0.208	
95%	9500		0.009	0.208	
100%	10000		0.009	0.208	
0%	0	0.898	0.000	0.199	



Tension Load Test Result for PLT-7A

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

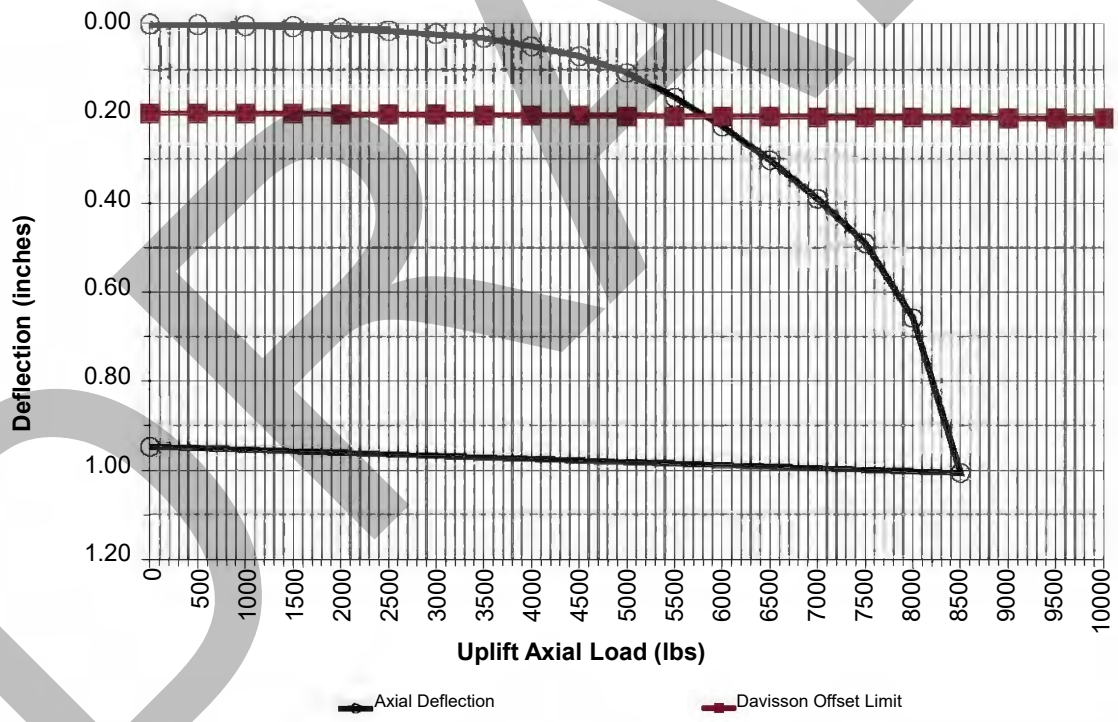
Test Date and Representative

Tested By Terracon Rep:	M.J. & I.H.
Date Tested:	1/21/2022

Pile Information

Pile ID:	PLT-7A
Latitude:	37.110845°
Longitude:	-85.089316°
Pile Type:	W6X9
Pile Embedment Depth [in]:	96
Pile Diameter [in]:	5.9
Pile Stick-Up [in]:	60
Axial Design Load [lbs]:	10000
Pile Area [sq. in]:	2.68
Elastic Modulus [ksi]:	29,000
Drive Time [sec]:	23.9

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in) (PL/AE)	Davisson Offest Limit (in) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.002	0.001	0.200	
10%	1000	0.004	0.001	0.200	
15%	1500	0.006	0.002	0.201	
20%	2000	0.010	0.002	0.202	
25%	2500	0.015	0.003	0.202	
30%	3000	0.022	0.004	0.203	
35%	3500	0.030	0.004	0.203	
40%	4000	0.049	0.005	0.204	
45%	4500	0.071	0.006	0.205	
50%	5000	0.108	0.006	0.205	
55%	5500	0.165	0.007	0.206	
60%	6000	0.229	0.007	0.207	
65%	6500	0.304	0.008	0.207	
70%	7000	0.391	0.009	0.208	
75%	7500	0.491	0.009	0.208	
80%	8000	0.659	0.010	0.209	
85%	8500	1.007	0.010	0.210	
90%	9000		0.011	0.210	
95%	9500		0.012	0.211	
100%	10000		0.012	0.212	
0%	0	0.948	0.000	0.199	



Tension Load Test Result for PLT-7B

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

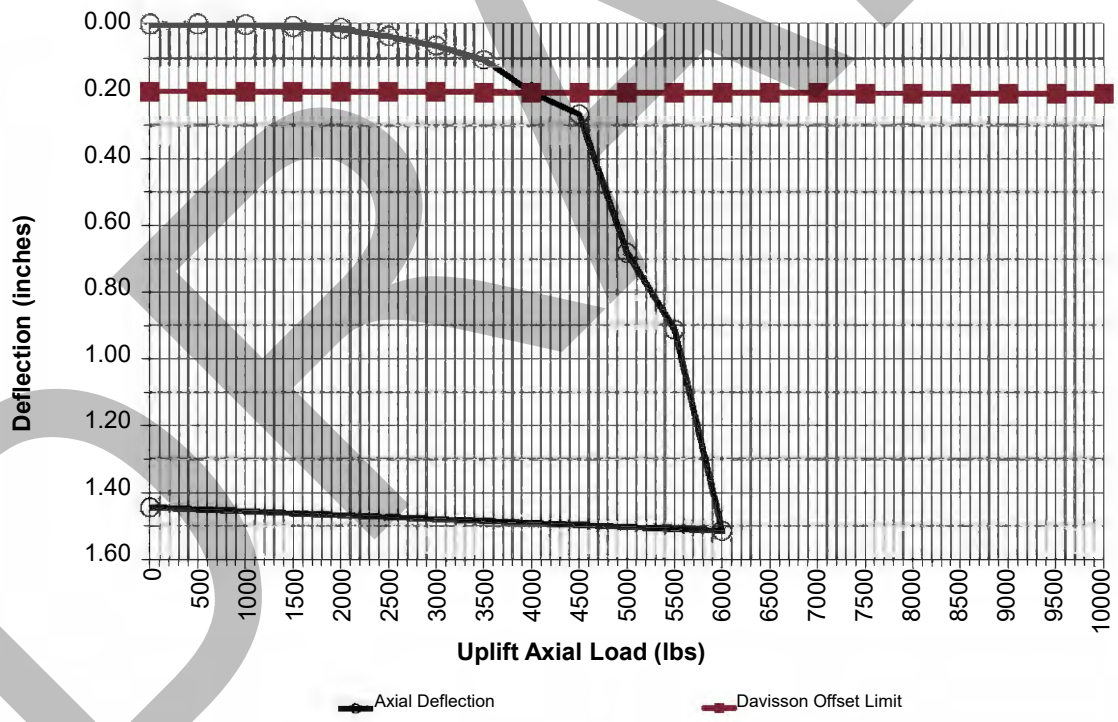
Test Date and Representative

Tested By Terracon Rep:	M.J. & I.H.
Date Tested:	1/21/2022

Pile Information

Pile ID:	PLT-7B
Latitude:	37.110845°
Longitude:	-85.089316°
Pile Type:	W6X9
Pile Embedment Depth [in]:	60
Pile Diameter [in]:	5.9
Pile Stick-Up [in]:	60
Axial Design Load [lbs]:	10000
Pile Area [sq. in]:	2.68
Elastic Modulus [ksi]:	29,000
Drive Time [sec]:	9.7

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in) (PL/AE)	Davisson Offest Limit (in) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.000	0.000	0.200	
10%	1000	0.002	0.001	0.200	
15%	1500	0.007	0.001	0.200	
20%	2000	0.014	0.002	0.201	
25%	2500	0.035	0.002	0.201	
30%	3000	0.063	0.002	0.201	
35%	3500	0.106	0.003	0.202	
40%	4000	0.203	0.003	0.202	
45%	4500	0.268	0.003	0.203	
50%	5000	0.683	0.004	0.203	
55%	5500	0.913	0.004	0.203	
60%	6000	1.516	0.005	0.204	
65%	6500		0.005	0.204	
70%	7000		0.005	0.205	
75%	7500		0.006	0.205	
80%	8000		0.006	0.205	
85%	8500		0.007	0.206	
90%	9000		0.007	0.206	
95%	9500		0.007	0.207	
100%	10000		0.008	0.207	
0%	0	1.445	0.000	0.199	



Tension Load Test Result for PLT-8A

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

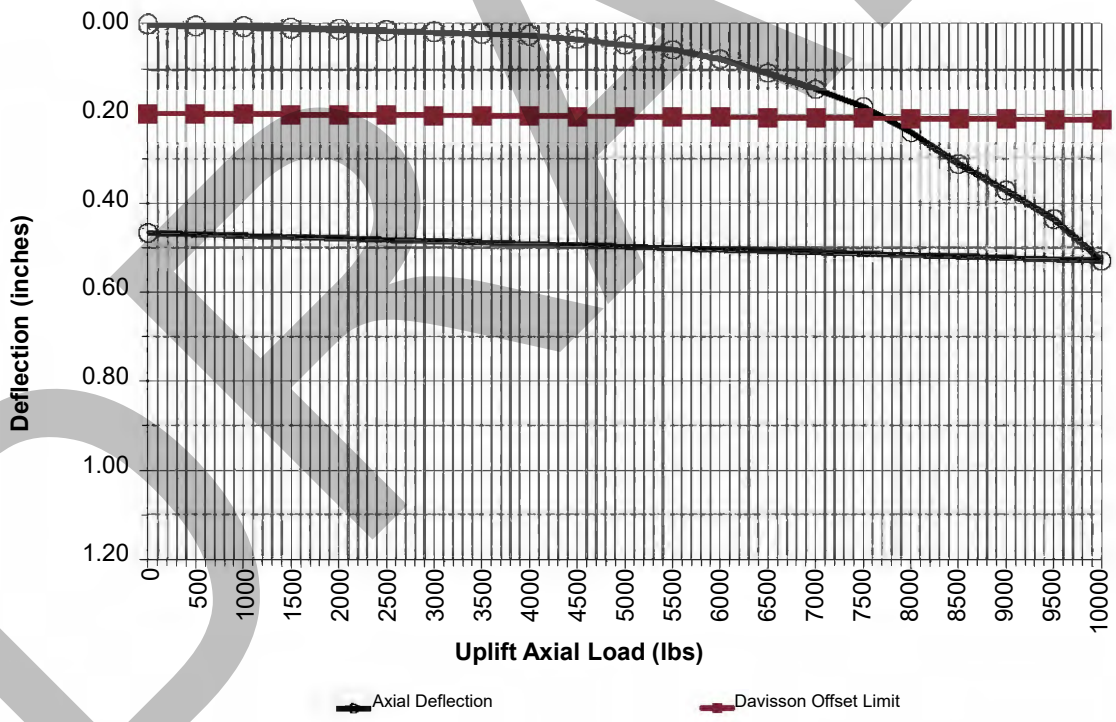
Test Date and Representative

Tested By Terracon Rep:	M.J. & I.H.
Date Tested:	1/21/2022

Pile Information

Pile ID:	PLT-8A
Latitude:	37.115605°
Longitude:	-85.076225°
Pile Type:	W6X9
Pile Embedment Depth [in]:	108
Pile Diameter [in]:	5.9
Pile Stick-Up [in]:	48
Axial Design Load [lbs]:	10000
Pile Area [sq. in]:	2.68
Elastic Modulus [ksi]:	29,000
Drive Time [sec]:	38.8

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in) (PL/AE)	Davisson Offest Limit (in) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.004	0.001	0.200	
10%	1000	0.006	0.001	0.201	
15%	1500	0.009	0.002	0.201	
20%	2000	0.011	0.003	0.202	
25%	2500	0.014	0.003	0.203	
30%	3000	0.017	0.004	0.203	
35%	3500	0.021	0.005	0.204	
40%	4000	0.024	0.006	0.205	
45%	4500	0.033	0.006	0.205	
50%	5000	0.046	0.007	0.206	
55%	5500	0.056	0.008	0.207	
60%	6000	0.077	0.008	0.208	
65%	6500	0.108	0.009	0.208	
70%	7000	0.145	0.010	0.209	
75%	7500	0.185	0.010	0.210	
80%	8000	0.241	0.011	0.210	
85%	8500	0.313	0.012	0.211	
90%	9000	0.373	0.013	0.212	
95%	9500	0.437	0.013	0.212	
100%	10000	0.530	0.014	0.213	
0%	0	0.467	0.000	0.199	



Tension Load Test Result for PLT-8B

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

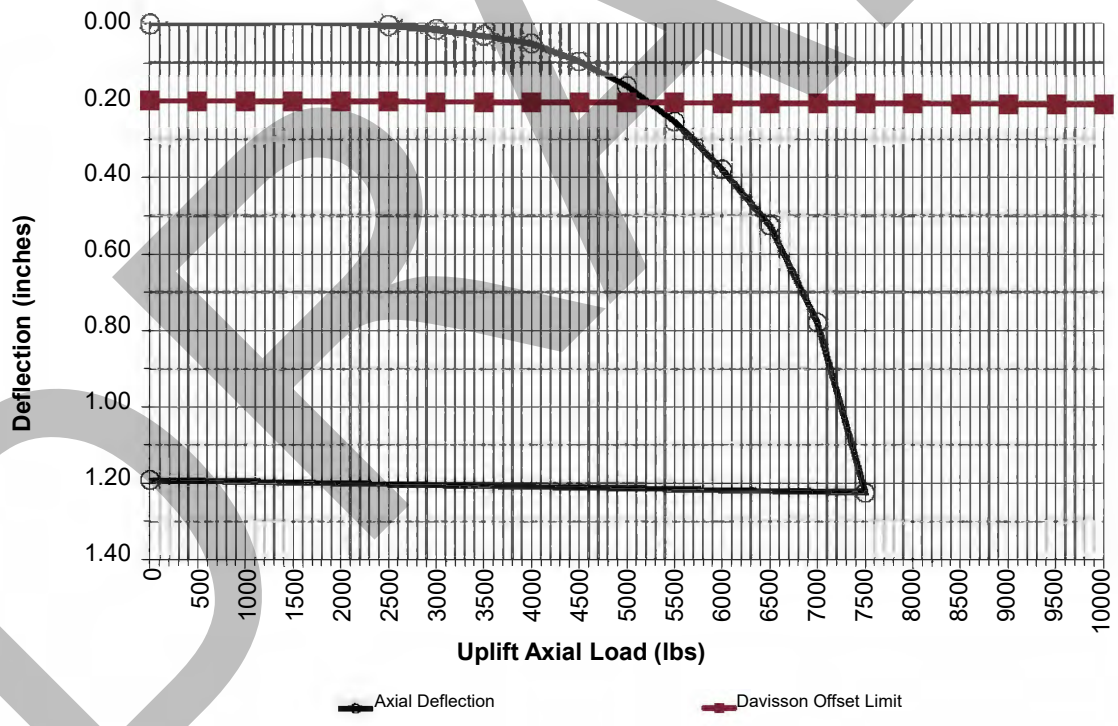
Test Date and Representative

Tested By Terracon Rep:	M.J. & I.H.
Date Tested:	1/21/2022

Pile Information

Pile ID:	PLT-8B
Latitude:	37.115605°
Longitude:	-85.076225°
Pile Type:	W6X9
Pile Embedment Depth [in]:	72
Pile Diameter [in]:	5.9
Pile Stick-Up [in]:	48
Axial Design Load [lbs]:	10000
Pile Area [sq. in]:	2.68
Elastic Modulus [ksi]:	29,000
Drive Time [sec]:	17.1

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in) (PL/AE)	Davisson Offest Limit (in) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	-0.002	0.000	0.200	
10%	1000	-0.002	0.001	0.200	
15%	1500	-0.003	0.001	0.201	
20%	2000	-0.001	0.002	0.201	
25%	2500	0.003	0.002	0.201	
30%	3000	0.014	0.003	0.202	
35%	3500	0.029	0.003	0.202	
40%	4000	0.049	0.004	0.203	
45%	4500	0.095	0.004	0.203	
50%	5000	0.162	0.005	0.204	
55%	5500	0.253	0.005	0.204	
60%	6000	0.379	0.006	0.205	
65%	6500	0.526	0.006	0.205	
70%	7000	0.781	0.006	0.206	
75%	7500	1.226	0.007	0.206	
80%	8000		0.007	0.207	
85%	8500		0.008	0.207	
90%	9000		0.008	0.208	
95%	9500		0.009	0.208	
100%	10000		0.009	0.208	
0%	0	1.193	0.000	0.199	



Tension Load Test Result for PLT-9A

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

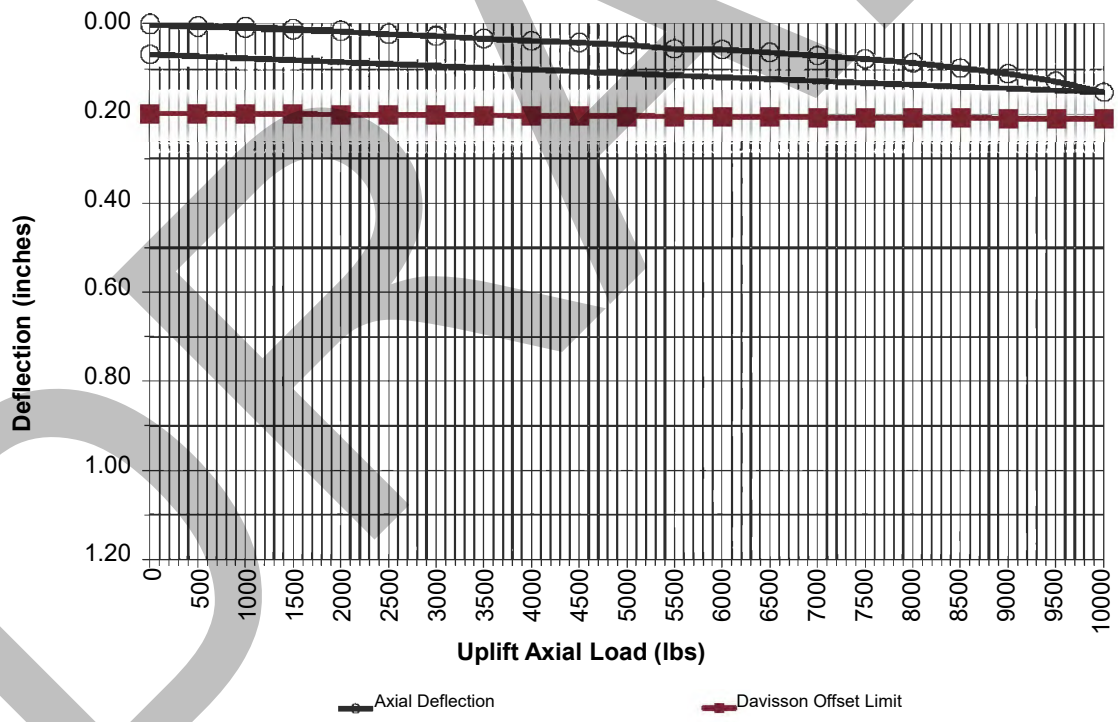
Test Date and Representative

Tested By Terracon Rep:	M.J. & I.H.
Date Tested:	1/20/2022

Pile Information

Pile ID:	PLT-9A
Latitude:	37.113382°
Longitude:	-85.077813°
Pile Type:	W6X9
Pile Embedment Depth [in]:	96
Pile Diameter [in]:	5.9
Pile Stick-Up [in]:	60
Axial Design Load [lbs]:	10000
Pile Area [sq. in]:	2.68
Elastic Modulus [ksi]:	29,000
Drive Time [sec]:	45.2

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in) (PL/AE)	Davisson Offest Limit (in) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.005	0.001	0.200	
10%	1000	0.008	0.001	0.200	
15%	1500	0.011	0.002	0.201	
20%	2000	0.015	0.002	0.202	
25%	2500	0.022	0.003	0.202	
30%	3000	0.026	0.004	0.203	
35%	3500	0.031	0.004	0.203	
40%	4000	0.036	0.005	0.204	
45%	4500	0.040	0.006	0.205	
50%	5000	0.045	0.006	0.205	
55%	5500	0.055	0.007	0.206	
60%	6000	0.055	0.007	0.207	
65%	6500	0.062	0.008	0.207	
70%	7000	0.069	0.009	0.208	
75%	7500	0.076	0.009	0.208	
80%	8000	0.085	0.010	0.209	
85%	8500	0.097	0.010	0.210	
90%	9000	0.110	0.011	0.210	
95%	9500	0.127	0.012	0.211	
100%	10000	0.152	0.012	0.212	
0%	0	0.066	0.000	0.199	



Tension Load Test Result for PLT-9B

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

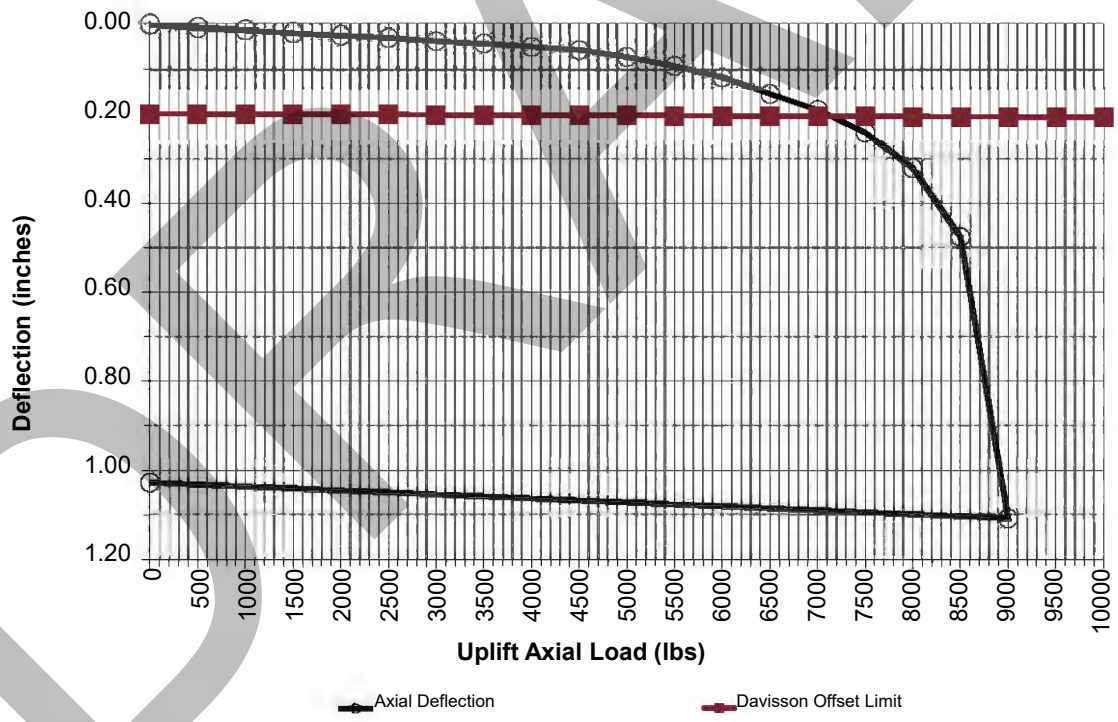
Test Date and Representative

Tested By Terracon Rep:	M.J. & I.H.
Date Tested:	1/20/2022

Pile Information

Pile ID:	PLT-9B
Latitude:	37.113382°
Longitude:	-85.077813°
Pile Type:	W6X9
Pile Embedment Depth [in]:	60
Pile Diameter [in]:	5.9
Pile Stick-Up [in]:	60
Axial Design Load [lbs]:	10000
Pile Area [sq. in]:	2.68
Elastic Modulus [ksi]:	29,000
Drive Time [sec]:	14.1

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in) (PL/AE)	Davisson Offest Limit (in) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.008	0.000	0.200	
10%	1000	0.013	0.001	0.200	
15%	1500	0.019	0.001	0.200	
20%	2000	0.025	0.002	0.201	
25%	2500	0.029	0.002	0.201	
30%	3000	0.037	0.002	0.201	
35%	3500	0.042	0.003	0.202	
40%	4000	0.050	0.003	0.202	
45%	4500	0.057	0.003	0.203	
50%	5000	0.073	0.004	0.203	
55%	5500	0.093	0.004	0.203	
60%	6000	0.118	0.005	0.204	
65%	6500	0.155	0.005	0.204	
70%	7000	0.191	0.005	0.205	
75%	7500	0.242	0.006	0.205	
80%	8000	0.323	0.006	0.205	
85%	8500	0.477	0.007	0.206	
90%	9000	1.109	0.007	0.206	
95%	9500		0.007	0.207	
100%	10000		0.008	0.207	
0%	0	1.028	0.000	0.199	



Tension Load Test Result for PLT-10A

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

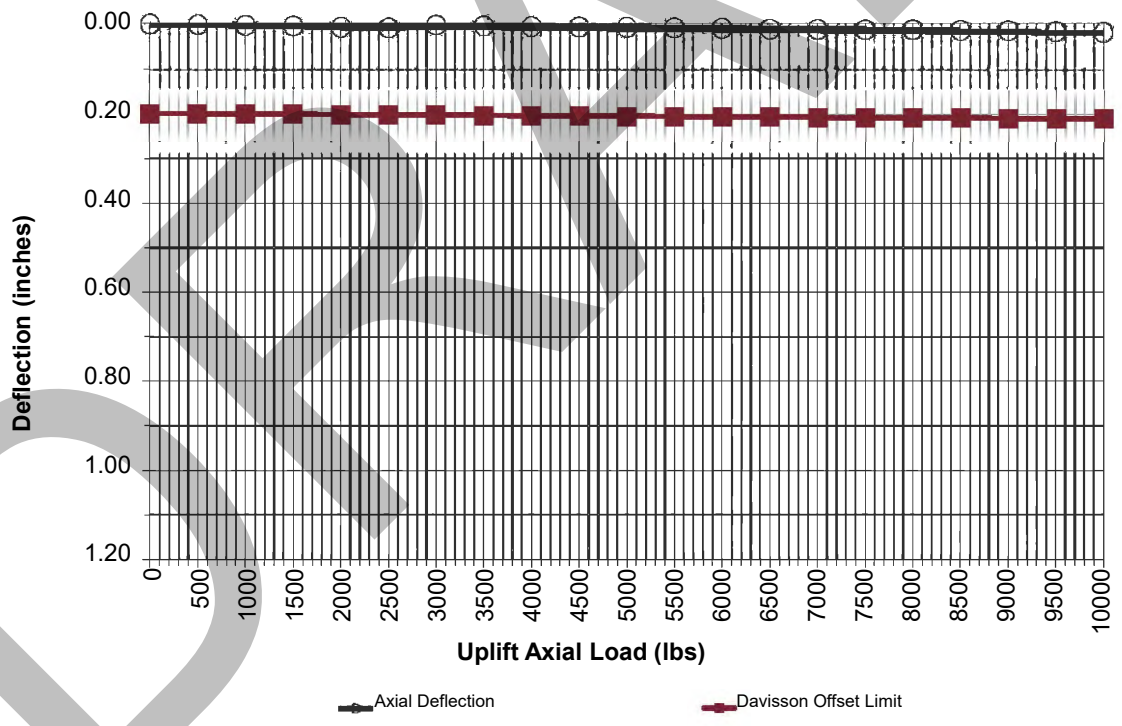
Test Date and Representative

Tested By Terracon Rep:	M.J. & I.H.
Date Tested:	1/20/2022

Pile Information

Pile ID:	PLT-10A
Latitude:	37.111253°
Longitude:	-85.080016°
Pile Type:	W6X9
Pile Embedment Depth [in]:	96
Pile Diameter [in]:	5.9
Pile Stick-Up [in]:	60
Axial Design Load [lbs]:	10000
Pile Area [sq. in]:	2.68
Elastic Modulus [ksi]:	29,000
Drive Time [sec]:	50.3

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in) (PL/AE)	Davisson Offest Limit (in) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.001	0.001	0.200	
10%	1000	0.003	0.001	0.200	
15%	1500	0.004	0.002	0.201	
20%	2000	0.007	0.002	0.202	
25%	2500	0.009	0.003	0.202	
30%	3000	0.002	0.004	0.203	
35%	3500	0.004	0.004	0.203	
40%	4000	0.005	0.005	0.204	
45%	4500	0.007	0.006	0.205	
50%	5000	0.008	0.006	0.205	
55%	5500	0.009	0.007	0.206	
60%	6000	0.010	0.007	0.207	
65%	6500	0.011	0.008	0.207	
70%	7000	0.012	0.009	0.208	
75%	7500	0.013	0.009	0.208	
80%	8000	0.013	0.010	0.209	
85%	8500	0.014	0.010	0.210	
90%	9000	0.015	0.011	0.210	
95%	9500	0.017	0.012	0.211	
100%	10000	0.019	0.012	0.212	
0%	0	0.000	0.000	0.199	



Tension Load Test Result for PLT-10B

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

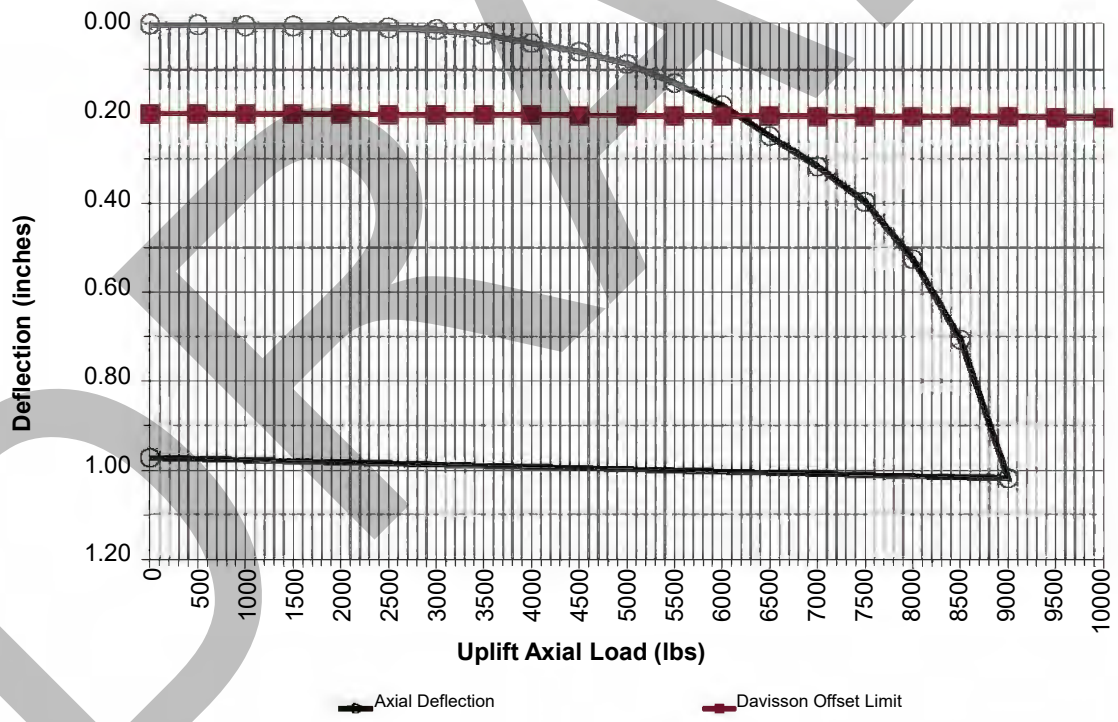
Test Date and Representative

Tested By Terracon Rep:	M.J. & I.H.
Date Tested:	1/20/2022

Pile Information

Pile ID:	PLT-10B
Latitude:	37.111253°
Longitude:	-85.080016°
Pile Type:	W6X9
Pile Embedment Depth [in]:	72
Pile Diameter [in]:	5.9
Pile Stick-Up [in]:	48
Axial Design Load [lbs]:	10000
Pile Area [sq. in]:	2.68
Elastic Modulus [ksi]:	29,000
Drive Time [sec]:	19.9

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in) (PL/AE)	Davisson Offest Limit (in) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.002	0.000	0.200	
10%	1000	0.003	0.001	0.200	
15%	1500	0.004	0.001	0.201	
20%	2000	0.006	0.002	0.201	
25%	2500	0.008	0.002	0.201	
30%	3000	0.013	0.003	0.202	
35%	3500	0.023	0.003	0.202	
40%	4000	0.041	0.004	0.203	
45%	4500	0.060	0.004	0.203	
50%	5000	0.088	0.005	0.204	
55%	5500	0.131	0.005	0.204	
60%	6000	0.181	0.006	0.205	
65%	6500	0.250	0.006	0.205	
70%	7000	0.318	0.006	0.206	
75%	7500	0.398	0.007	0.206	
80%	8000	0.526	0.007	0.207	
85%	8500	0.707	0.008	0.207	
90%	9000	1.019	0.008	0.208	
95%	9500		0.009	0.208	
100%	10000		0.009	0.208	
0%	0	0.972	0.000	0.199	



Tension Load Test Result for PLT-11A

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

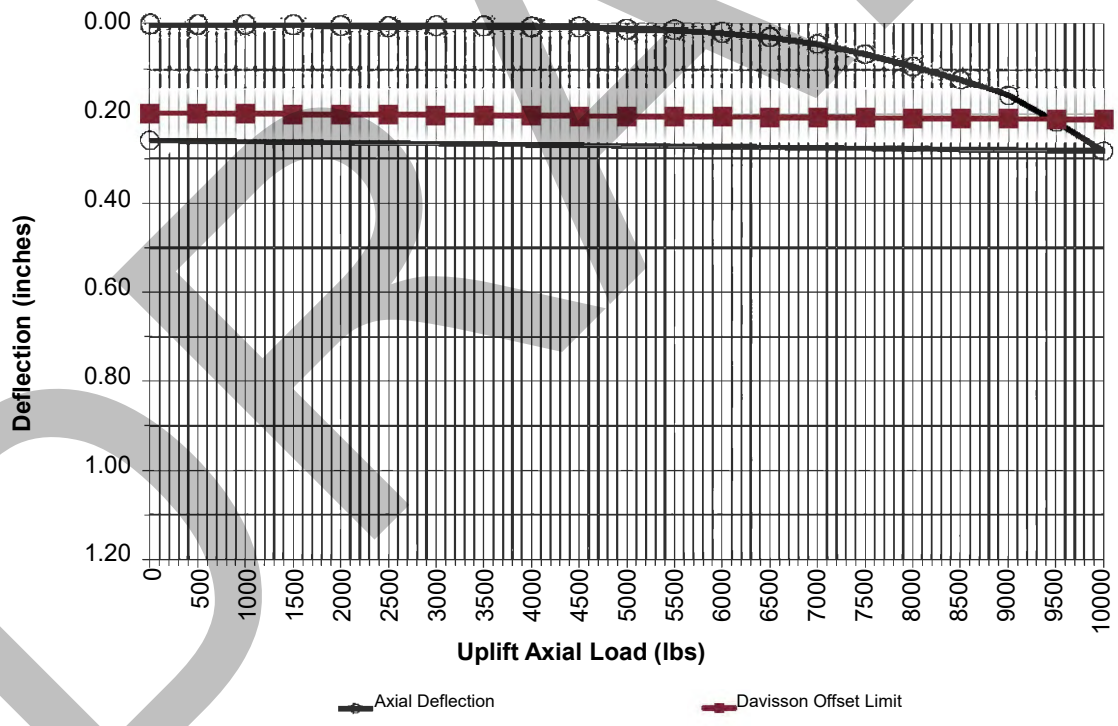
Test Date and Representative

Tested By Terracon Rep:	M.J. & I.H.
Date Tested:	1/21/2022

Pile Information

Pile ID:	PLT-11A
Latitude:	37.110211°
Longitude:	-85.086819°
Pile Type:	W6X9
Pile Embedment Depth [in]:	108
Pile Diameter [in]:	5.9
Pile Stick-Up [in]:	48
Axial Design Load [lbs]:	10000
Pile Area [sq. in]:	2.68
Elastic Modulus [ksi]:	29,000
Drive Time [sec]:	38.9

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in) (PL/AE)	Davisson Offest Limit (in) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.001	0.001	0.200	
10%	1000	0.001	0.001	0.201	
15%	1500	0.002	0.002	0.201	
20%	2000	0.003	0.003	0.202	
25%	2500	0.006	0.003	0.203	
30%	3000	0.004	0.004	0.203	
35%	3500	0.005	0.005	0.204	
40%	4000	0.006	0.006	0.205	
45%	4500	0.006	0.006	0.205	
50%	5000	0.011	0.007	0.206	
55%	5500	0.013	0.008	0.207	
60%	6000	0.019	0.008	0.208	
65%	6500	0.028	0.009	0.208	
70%	7000	0.043	0.010	0.209	
75%	7500	0.066	0.010	0.210	
80%	8000	0.094	0.011	0.210	
85%	8500	0.124	0.012	0.211	
90%	9000	0.160	0.013	0.212	
95%	9500	0.219	0.013	0.212	
100%	10000	0.284	0.014	0.213	
0%	0	0.260	0.000	0.199	



Tension Load Test Result for PLT-11B

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

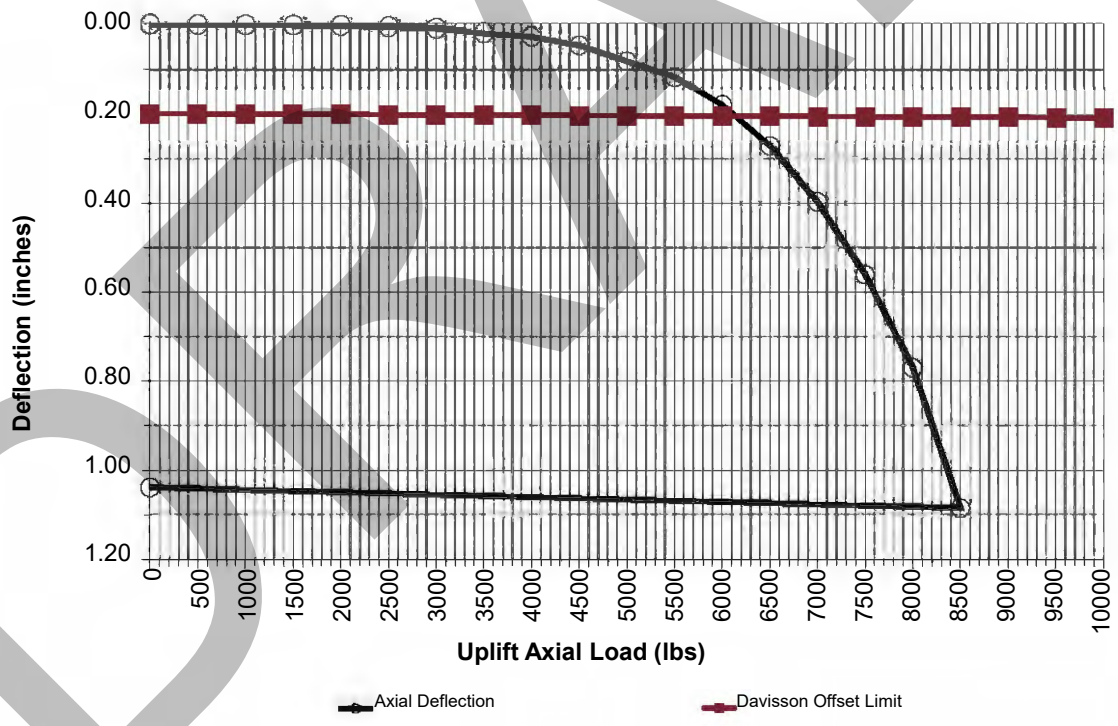
Test Date and Representative

Tested By Terracon Rep:	M.J. & I.H.
Date Tested:	1/21/2022

Pile Information

Pile ID:	PLT-11B
Latitude:	37.110211°
Longitude:	-85.086819°
Pile Type:	W6X9
Pile Embedment Depth [in]:	72
Pile Diameter [in]:	5.9
Pile Stick-Up [in]:	48
Axial Design Load [lbs]:	10000
Pile Area [sq. in]:	2.68
Elastic Modulus [ksi]:	29,000
Drive Time [sec]:	20.6

Tension Test Results			Davisson Offset Limit Lines		
% of Design Load	Axial Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Elastic Data (in) (PL/AE)	Davisson Offest Limit (in) (0.15+D/120+(PL/AE))	Comments
0%	0	0.000	0.000	0.199	
5%	500	0.001	0.000	0.200	
10%	1000	0.002	0.001	0.200	
15%	1500	0.002	0.001	0.201	
20%	2000	0.003	0.002	0.201	
25%	2500	0.006	0.002	0.201	
30%	3000	0.009	0.003	0.202	
35%	3500	0.019	0.003	0.202	
40%	4000	0.027	0.004	0.203	
45%	4500	0.046	0.004	0.203	
50%	5000	0.082	0.005	0.204	
55%	5500	0.117	0.005	0.204	
60%	6000	0.180	0.006	0.205	
65%	6500	0.271	0.006	0.205	
70%	7000	0.398	0.006	0.206	
75%	7500	0.561	0.007	0.206	
80%	8000	0.770	0.007	0.207	
85%	8500	1.085	0.008	0.207	
90%	9000		0.008	0.208	
95%	9500		0.009	0.208	
100%	10000		0.009	0.208	
0%	0	1.039	0.000	0.199	



AXIAL COMPRESSION LOAD TEST RESULT

Compression Load Test Result for PLT-11

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

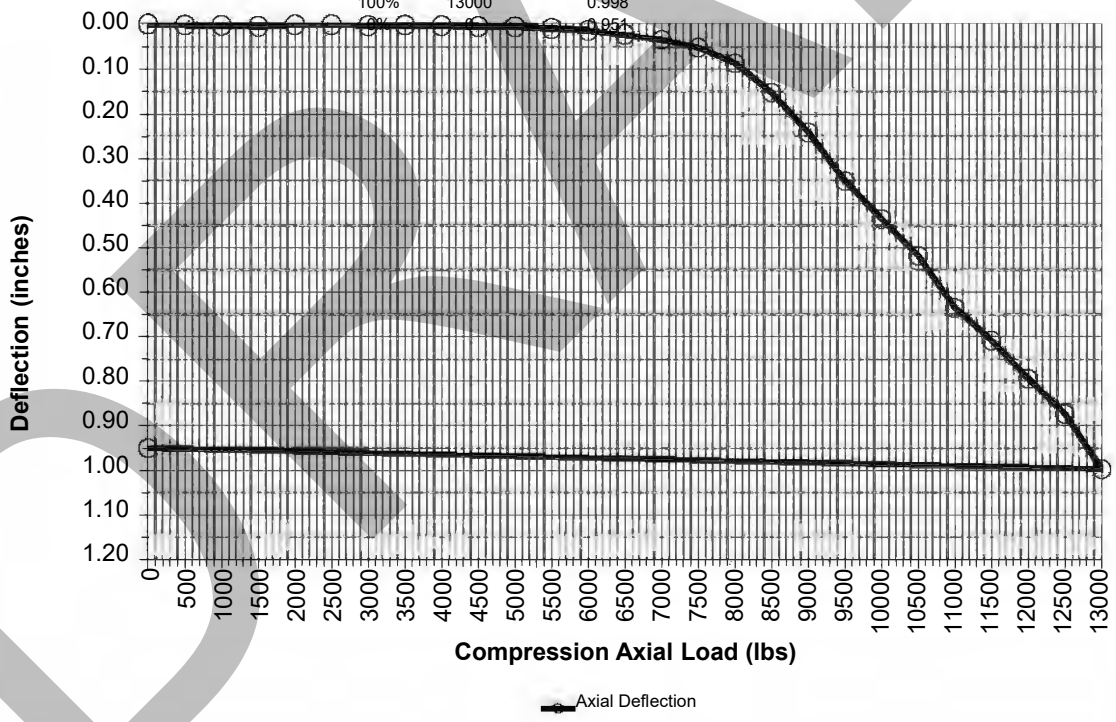
Test Date and Representative

Tested By Terracon Rep:	M.J.&I.H.
Date Tested:	1/21/2022

Pile Information

Pile ID:	PLT-11
Latitude:	37.110211°
Longitude:	-85.086819°
Pile Type:	W6X9
Pile Embedment Depth [in]:	72
Pile Diameter [in]:	5.9
Pile Stick-Up [in]:	48
Axial Design Load [lbs]:	13000
Pile Area [sq. in]:	2.68
Elastic Modulus [ksi]:	29,000
Drive Time [sec]:	17.3

Compression Test Results			
% of Design Load	Axial Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
4%	500	0.002	
8%	1000	0.003	
12%	1500	0.005	
15%	2000	0.002	
19%	2500	0.001	
23%	3000	0.003	
27%	3500	0.002	
31%	4000	0.004	
35%	4500	0.006	
38%	5000	0.006	
42%	5500	0.010	
46%	6000	0.015	
50%	6500	0.023	
54%	7000	0.034	
58%	7500	0.052	
62%	8000	0.087	
65%	8500	0.152	
69%	9000	0.242	
73%	9500	0.351	
77%	10000	0.436	
81%	10500	0.519	
85%	11000	0.636	
88%	11500	0.709	
92%	12000	0.795	
96%	12500	0.874	
100%	13000	0.998	
0%	0	0.951	



Compression Load Test Result for PLT-1

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

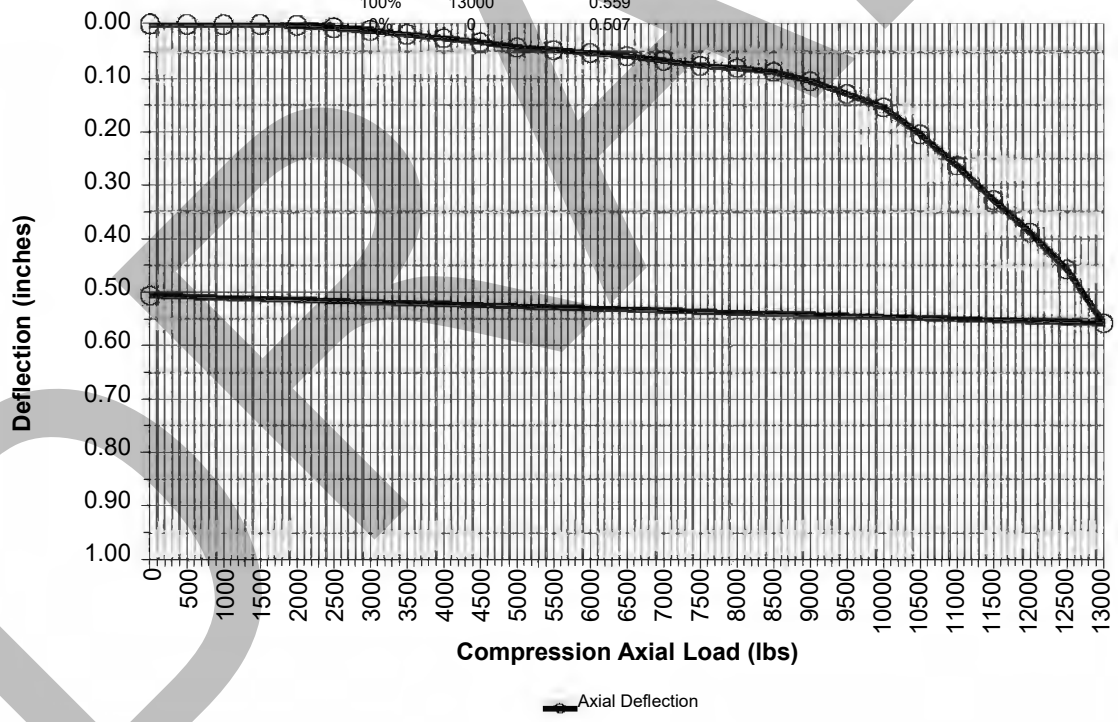
Test Date and Representative

Tested By Terracon Rep:	M.J.&I.H.
Date Tested:	1/18/2022

Pile Information

Pile ID:	PLT-1
Latitude:	37.112349°
Longitude:	-85.099162°
Pile Type:	W6X9
Pile Embedment Depth [in]:	72
Pile Diameter [in]:	5.9
Pile Stick-Up [in]:	48
Axial Design Load [lbs]:	13000
Pile Area [sq. in]:	2.68
Elastic Modulus [ksi]:	29,000
Drive Time [sec]:	20.5

Compression Test Results			
% of Design Load	Axial Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
4%	500	0.000	
8%	1000	0.001	
12%	1500	0.001	
15%	2000	0.003	
19%	2500	0.007	
23%	3000	0.012	
27%	3500	0.019	
31%	4000	0.026	
35%	4500	0.033	
38%	5000	0.043	
42%	5500	0.047	
46%	6000	0.053	
50%	6500	0.059	
54%	7000	0.067	
58%	7500	0.077	
62%	8000	0.081	
65%	8500	0.088	
69%	9000	0.106	
73%	9500	0.129	
77%	10000	0.155	
81%	10500	0.205	
85%	11000	0.264	
88%	11500	0.328	
92%	12000	0.389	
96%	12500	0.458	
100%	13000	0.559	
0%	0	0.507	



Compression Load Test Result for PLT-2

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

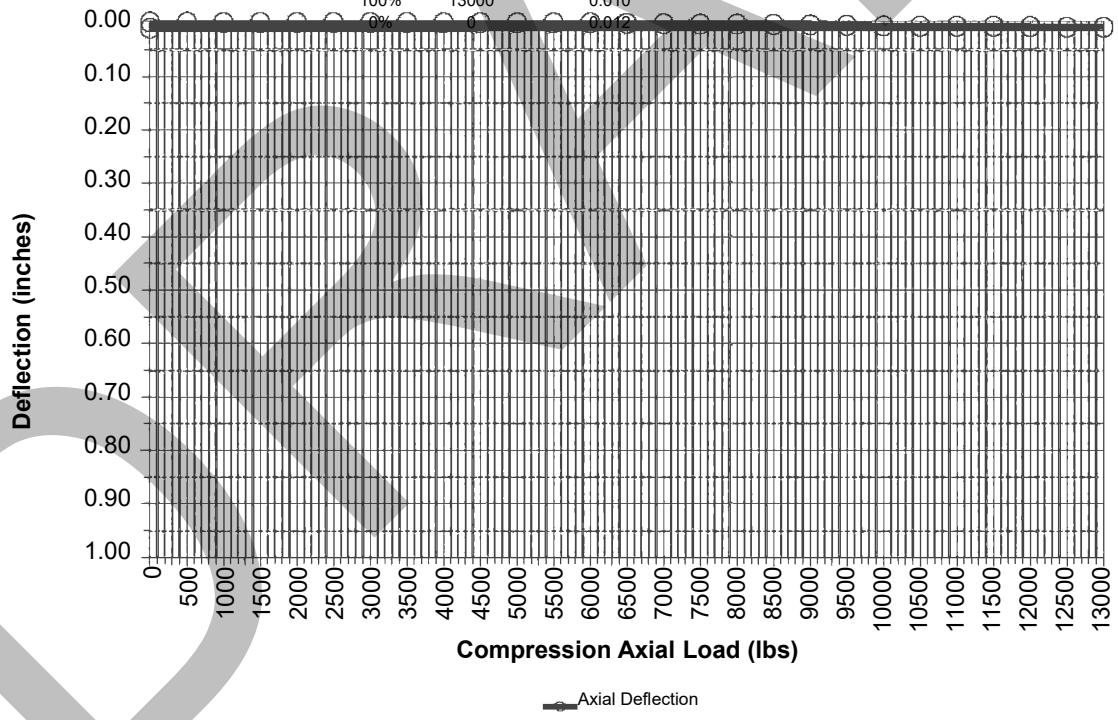
Test Date and Representative

Tested By Terracon Rep:	M.J.&I.H.
Date Tested:	1/18/2022

Pile Information

Pile ID:	PLT-2
Latitude:	37.112891°
Longitude:	-85.095568°
Pile Type:	W6X9
Pile Embedment Depth [in]:	72
Pile Diameter [in]:	5.9
Pile Stick-Up [in]:	48
Axial Design Load [lbs]:	13000
Pile Area [sq. in]:	2.68
Elastic Modulus [ksi]:	29,000
Drive Time [sec]:	28.8

Compression Test Results			
% of Design Load	Axial Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
4%	500	0.000	
8%	1000	0.000	
12%	1500	0.000	
15%	2000	0.001	
19%	2500	0.001	
23%	3000	0.001	
27%	3500	0.001	
31%	4000	0.001	
35%	4500	0.001	
38%	5000	0.001	
42%	5500	0.001	
46%	6000	0.001	
50%	6500	0.002	
54%	7000	0.003	
58%	7500	0.004	
62%	8000	0.004	
65%	8500	0.004	
69%	9000	0.005	
73%	9500	0.006	
77%	10000	0.007	
81%	10500	0.008	
85%	11000	0.008	
88%	11500	0.008	
92%	12000	0.009	
96%	12500	0.009	
100%	13000	0.010	
0%	0	0.012	



Compression Load Test Result for PLT-3

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

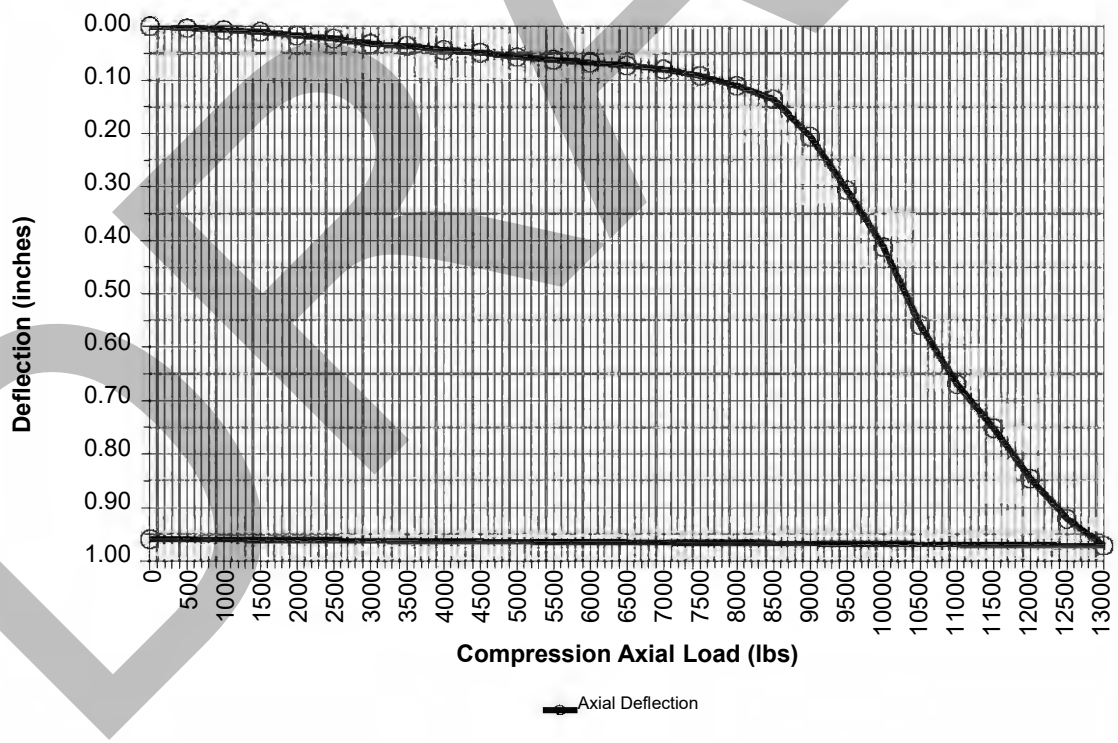
Test Date and Representative

Tested By Terracon Rep:	M.J.&I.H.
Date Tested:	1/19/2022

Pile Information

Pile ID:	PLT-3
Latitude:	37.113137°
Longitude:	-85.090334°
Pile Type:	W6X9
Pile Embedment Depth [in]:	60
Pile Diameter [in]:	5.9
Pile Stick-Up [in]:	60
Axial Design Load [lbs]:	13000
Pile Area [sq. in]:	2.68
Elastic Modulus [ksi]:	29,000
Drive Time [sec]:	9.3

Compression Test Results			
% of Design Load	Axial Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
4%	500	0.003	
8%	1000	0.007	
12%	1500	0.010	
15%	2000	0.017	
19%	2500	0.023	
23%	3000	0.033	
27%	3500	0.037	
31%	4000	0.044	
35%	4500	0.050	
38%	5000	0.058	
42%	5500	0.063	
46%	6000	0.068	
50%	6500	0.073	
54%	7000	0.081	
58%	7500	0.093	
62%	8000	0.112	
65%	8500	0.137	
69%	9000	0.207	
73%	9500	0.307	
77%	10000	0.414	
81%	10500	0.559	
85%	11000	0.670	
88%	11500	0.752	
92%	12000	0.846	
96%	12500	0.922	
100%	13000	0.972	
0%	0	0.960	



Compression Load Test Result for PLT-4

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

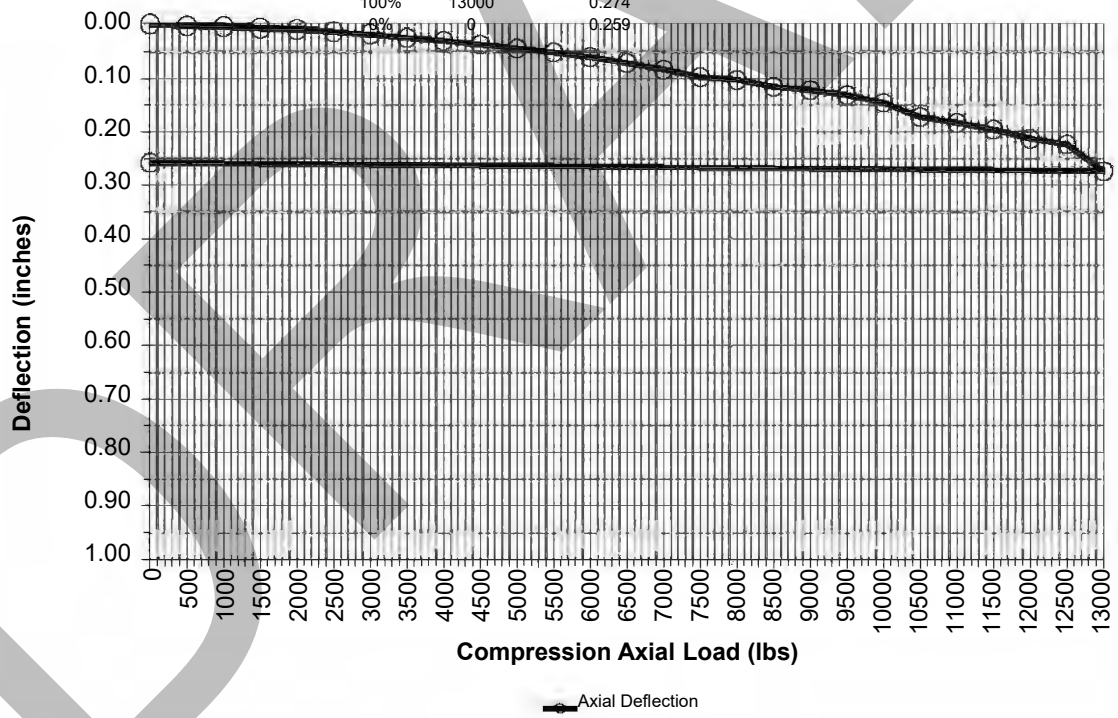
Test Date and Representative

Tested By Terracon Rep:	M.J.&I.H.
Date Tested:	1/20/2022

Pile Information

Pile ID:	PLT-4
Latitude:	37.110831°
Longitude:	-85.101540°
Pile Type:	W6X9
Pile Embedment Depth [in]:	72
Pile Diameter [in]:	5.9
Pile Stick-Up [in]:	48
Axial Design Load [lbs]:	13000
Pile Area [sq. in]:	2.68
Elastic Modulus [ksi]:	29,000
Drive Time [sec]:	27.1

Compression Test Results			
% of Design Load	Axial Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
4%	500	0.004	
8%	1000	0.005	
12%	1500	0.007	
15%	2000	0.010	
19%	2500	0.014	
23%	3000	0.019	
27%	3500	0.025	
31%	4000	0.030	
35%	4500	0.038	
38%	5000	0.045	
42%	5500	0.052	
46%	6000	0.061	
50%	6500	0.072	
54%	7000	0.084	
58%	7500	0.098	
62%	8000	0.104	
65%	8500	0.117	
69%	9000	0.123	
73%	9500	0.132	
77%	10000	0.146	
81%	10500	0.173	
85%	11000	0.184	
88%	11500	0.197	
92%	12000	0.214	
96%	12500	0.224	
100%	13000	0.274	
0%	0	0.259	



Compression Load Test Result for PLT-5

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

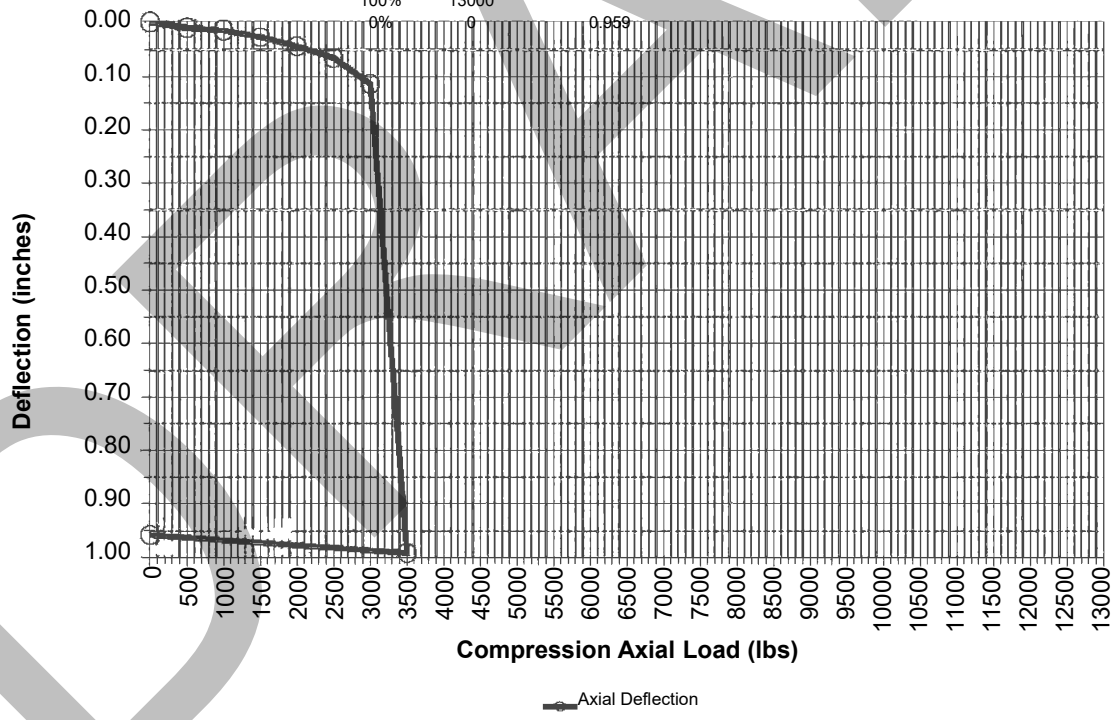
Test Date and Representative

Tested By Terracon Rep:	M.J.&I.H.
Date Tested:	1/20/2022

Pile Information

Pile ID:	PLT-5
Latitude:	37.109982°
Longitude:	-85.097446°
Pile Type:	W6X9
Pile Embedment Depth [in]:	60
Pile Diameter [in]:	5.9
Pile Stick-Up [in]:	60
Axial Design Load [lbs]:	13000
Pile Area [sq. in]:	2.68
Elastic Modulus [ksi]:	29,000
Drive Time [sec]:	8.4

Compression Test Results			
% of Design Load	Axial Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
4%	500	0.011	
8%	1000	0.015	
12%	1500	0.027	
15%	2000	0.044	
19%	2500	0.066	
23%	3000	0.114	
27%	3500	0.992	
31%	4000		
35%	4500		
38%	5000		
42%	5500		
46%	6000		
50%	6500		
54%	7000		
58%	7500		
62%	8000		
65%	8500		
69%	9000		
73%	9500		
77%	10000		
81%	10500		
85%	11000		
88%	11500		
92%	12000		
96%	12500		
100%	13000		
0%	0	0.959	



Compression Load Test Result for PLT-6

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

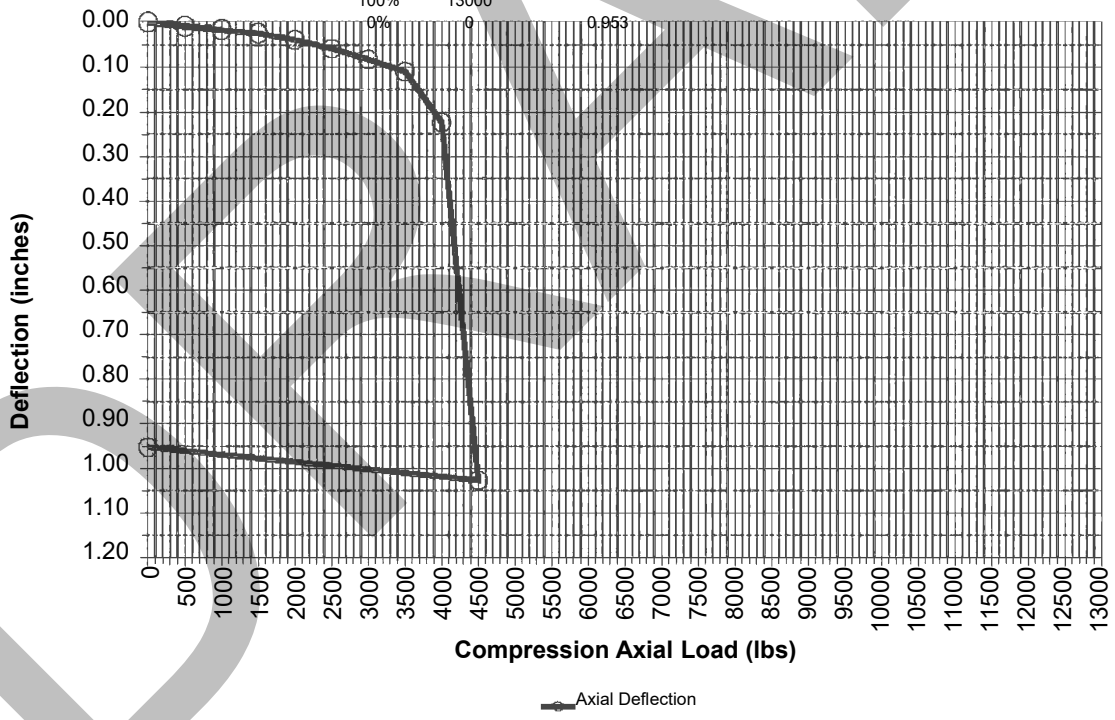
Test Date and Representative

Tested By Terracon Rep:	M.J.&I.H.
Date Tested:	1/21/2022

Pile Information

Pile ID:	PLT-6
Latitude:	37.110538°
Longitude:	-85.092048°
Pile Type:	W6X9
Pile Embedment Depth [in]:	72
Pile Diameter [in]:	5.9
Pile Stick-Up [in]:	48
Axial Design Load [lbs]:	13000
Pile Area [sq. in]:	2.68
Elastic Modulus [ksi]:	29,000
Drive Time [sec]:	16.4

Compression Test Results			
% of Design Load	Axial Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
4%	500	0.009	
8%	1000	0.016	
12%	1500	0.024	
15%	2000	0.039	
19%	2500	0.058	
23%	3000	0.083	
27%	3500	0.110	
31%	4000	0.224	
35%	4500	1.028	
38%	5000		
42%	5500		
46%	6000		
50%	6500		
54%	7000		
58%	7500		
62%	8000		
65%	8500		
69%	9000		
73%	9500		
77%	10000		
81%	10500		
85%	11000		
88%	11500		
92%	12000		
96%	12500		
100%	13000		
0%	0	0.953	



Compression Load Test Result for PLT-7

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

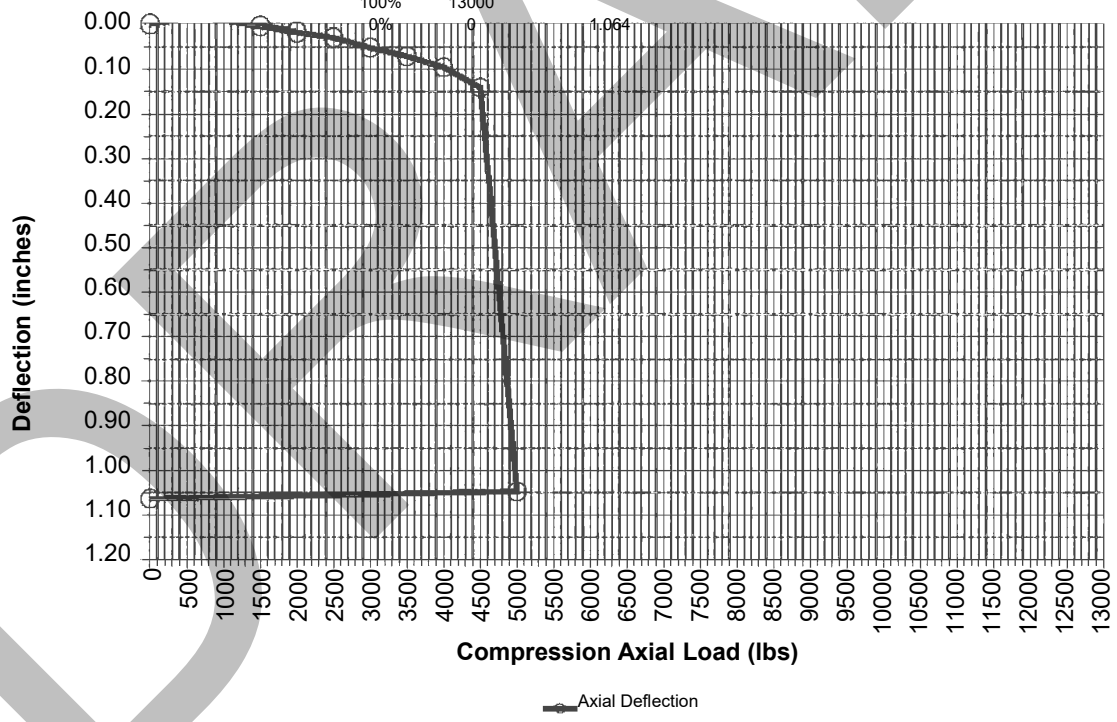
Test Date and Representative

Tested By Terracon Rep:	M.J.&I.H.
Date Tested:	1/21/2022

Pile Information

Pile ID:	PLT-7
Latitude:	37.110845°
Longitude:	-85.089316°
Pile Type:	W6X9
Pile Embedment Depth [in]:	60
Pile Diameter [in]:	5.9
Pile Stick-Up [in]:	60
Axial Design Load [lbs]:	13000
Pile Area [sq. in]:	2.68
Elastic Modulus [ksi]:	29,000
Drive Time [sec]:	9.3

Compression Test Results			
% of Design Load	Axial Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
4%	500	-0.009	
8%	1000	-0.005	
12%	1500	0.004	
15%	2000	0.018	
19%	2500	0.029	
23%	3000	0.052	
27%	3500	0.071	
31%	4000	0.096	
35%	4500	0.141	
38%	5000	1.048	
42%	5500		
46%	6000		
50%	6500		
54%	7000		
58%	7500		
62%	8000		
65%	8500		
69%	9000		
73%	9500		
77%	10000		
81%	10500		
85%	11000		
88%	11500		
92%	12000		
96%	12500		
100%	13000		
0%	0	1.064	



Compression Load Test Result for PLT-8

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

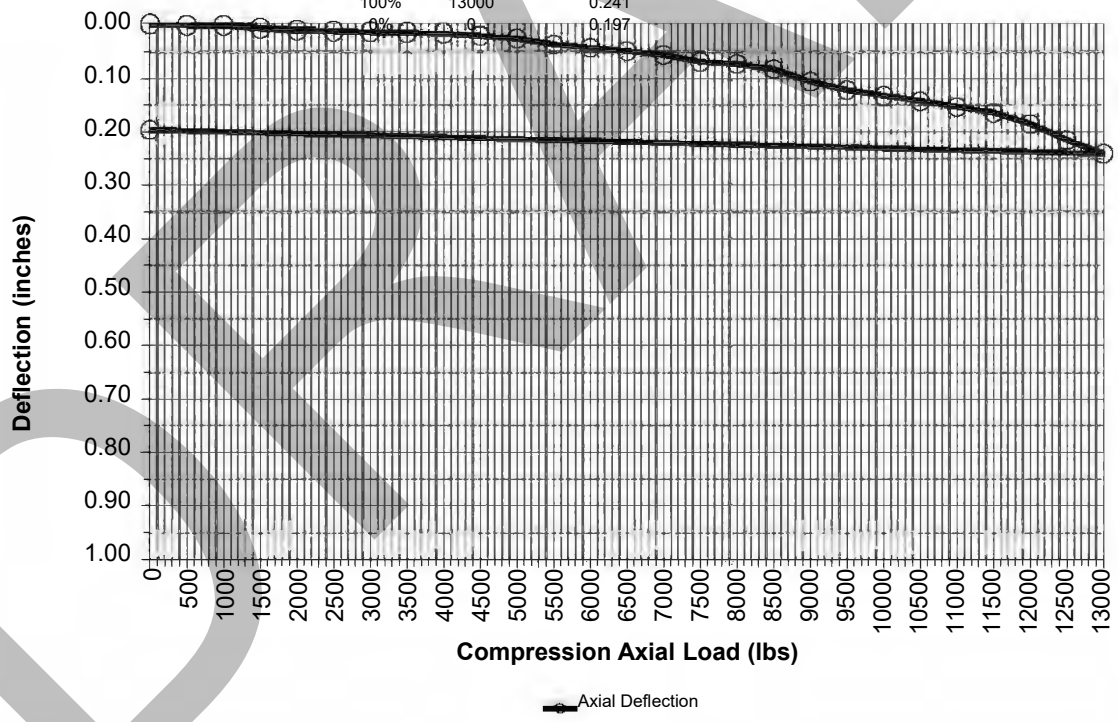
Test Date and Representative

Tested By Terracon Rep:	M.J.&I.H.
Date Tested:	1/21/2022

Pile Information

Pile ID:	PLT-8
Latitude:	37.115605°
Longitude:	-85.076225°
Pile Type:	W6X9
Pile Embedment Depth [in]:	72
Pile Diameter [in]:	5.9
Pile Stick-Up [in]:	48
Axial Design Load [lbs]:	13000
Pile Area [sq. in]:	2.68
Elastic Modulus [ksi]:	29,000
Drive Time [sec]:	18.4

Compression Test Results			
% of Design Load	Axial Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
4%	500	0.002	
8%	1000	0.002	
12%	1500	0.008	
15%	2000	0.011	
19%	2500	0.013	
23%	3000	0.014	
27%	3500	0.015	
31%	4000	0.017	
35%	4500	0.021	
38%	5000	0.026	
42%	5500	0.037	
46%	6000	0.043	
50%	6500	0.050	
54%	7000	0.057	
58%	7500	0.070	
62%	8000	0.073	
65%	8500	0.083	
69%	9000	0.107	
73%	9500	0.122	
77%	10000	0.133	
81%	10500	0.143	
85%	11000	0.154	
88%	11500	0.165	
92%	12000	0.186	
96%	12500	0.216	
100%	13000	0.241	
0%	0	0.197	



Compression Load Test Result for PLT-9

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

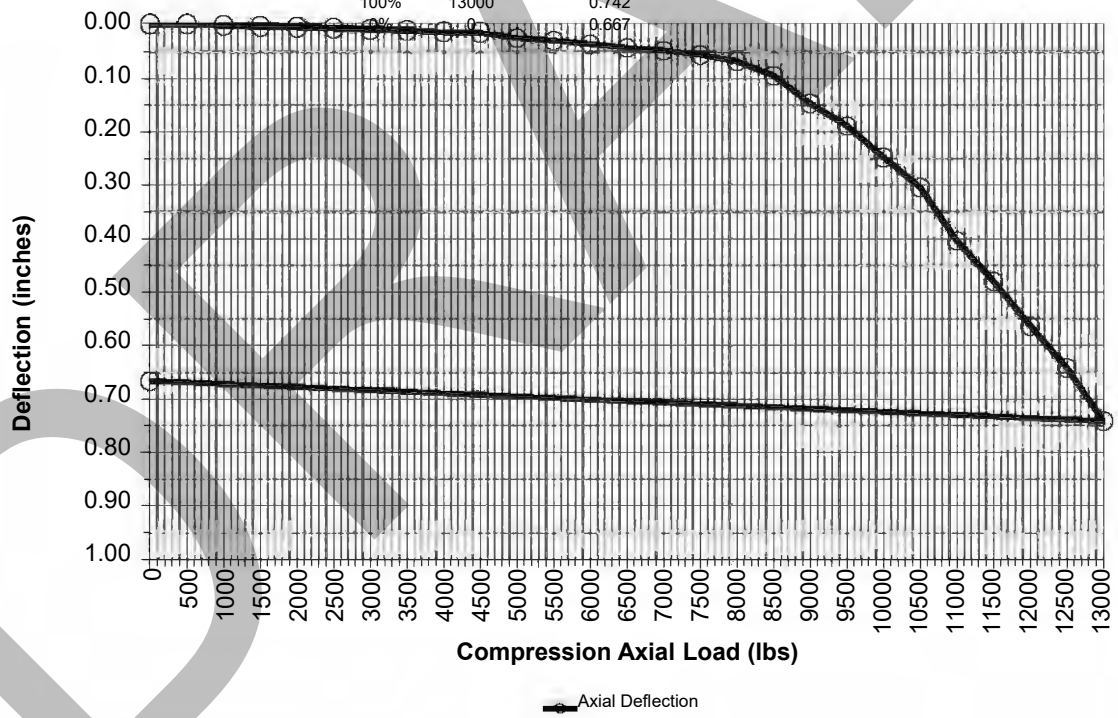
Test Date and Representative

Tested By Terracon Rep:	M.J.&I.H.
Date Tested:	1/20/2022

Pile Information

Pile ID:	PLT-9
Latitude:	37.113382°
Longitude:	-85.077813°
Pile Type:	W6X9
Pile Embedment Depth [in]:	60
Pile Diameter [in]:	5.9
Pile Stick-Up [in]:	60
Axial Design Load [lbs]:	13000
Pile Area [sq. in]:	2.68
Elastic Modulus [ksi]:	29,000
Drive Time [sec]:	13.3

Compression Test Results			
% of Design Load	Axial Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
4%	500	0.000	
8%	1000	0.002	
12%	1500	0.004	
15%	2000	0.006	
19%	2500	0.008	
23%	3000	0.010	
27%	3500	0.012	
31%	4000	0.014	
35%	4500	0.015	
38%	5000	0.025	
42%	5500	0.030	
46%	6000	0.036	
50%	6500	0.043	
54%	7000	0.048	
58%	7500	0.056	
62%	8000	0.069	
65%	8500	0.095	
69%	9000	0.147	
73%	9500	0.190	
77%	10000	0.249	
81%	10500	0.305	
85%	11000	0.405	
88%	11500	0.480	
92%	12000	0.564	
96%	12500	0.643	
100%	13000	0.742	
0%	0	0.667	



Compression Load Test Result for PLT-10

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Axial Load Test Set Up

Number of Gauges:	2
Height of Gauges [in]:	6
Load Cell:	25k Ed Jr.

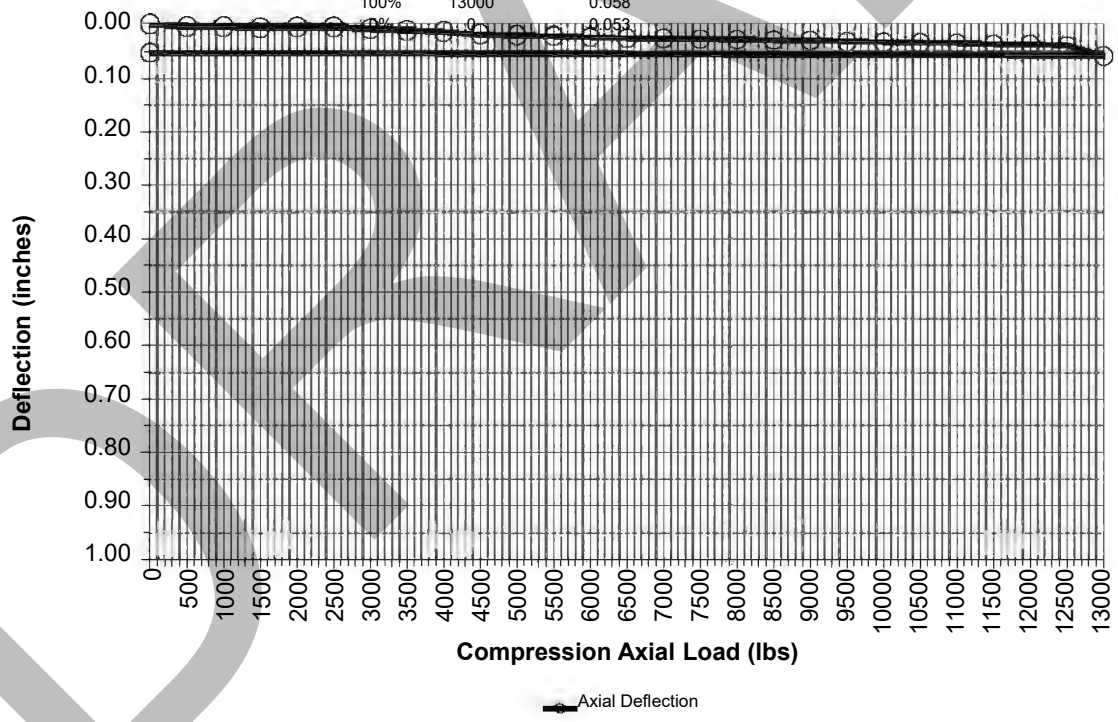
Test Date and Representative

Tested By Terracon Rep:	M.J.&I.H.
Date Tested:	1/20/2022

Pile Information

Pile ID:	PLT-10
Latitude:	37.111253°
Longitude:	-85.080016°
Pile Type:	W6X9
Pile Embedment Depth [in]:	72
Pile Diameter [in]:	5.9
Pile Stick-Up [in]:	48
Axial Design Load [lbs]:	13000
Pile Area [sq. in]:	2.68
Elastic Modulus [ksi]:	29,000
Drive Time [sec]:	24

Compression Test Results			
% of Design Load	Axial Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
4%	500	0.005	
8%	1000	0.005	
12%	1500	0.007	
15%	2000	0.006	
19%	2500	0.006	
23%	3000	0.009	
27%	3500	0.012	
31%	4000	0.014	
35%	4500	0.019	
38%	5000	0.021	
42%	5500	0.022	
46%	6000	0.023	
50%	6500	0.025	
54%	7000	0.026	
58%	7500	0.027	
62%	8000	0.028	
65%	8500	0.029	
69%	9000	0.029	
73%	9500	0.032	
77%	10000	0.033	
81%	10500	0.034	
85%	11000	0.035	
88%	11500	0.036	
92%	12000	0.036	
96%	12500	0.039	
100%	13000	0.058	
0%	0	0.053	



LATERAL LOAD TEST RESULT

Lateral Load Test Result for PLT-1A

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in]:	6
Height of Bottom Gauges [in]:	6
Height of Applied Load [in]:	36
Load Cell:	25k Ed Jr.

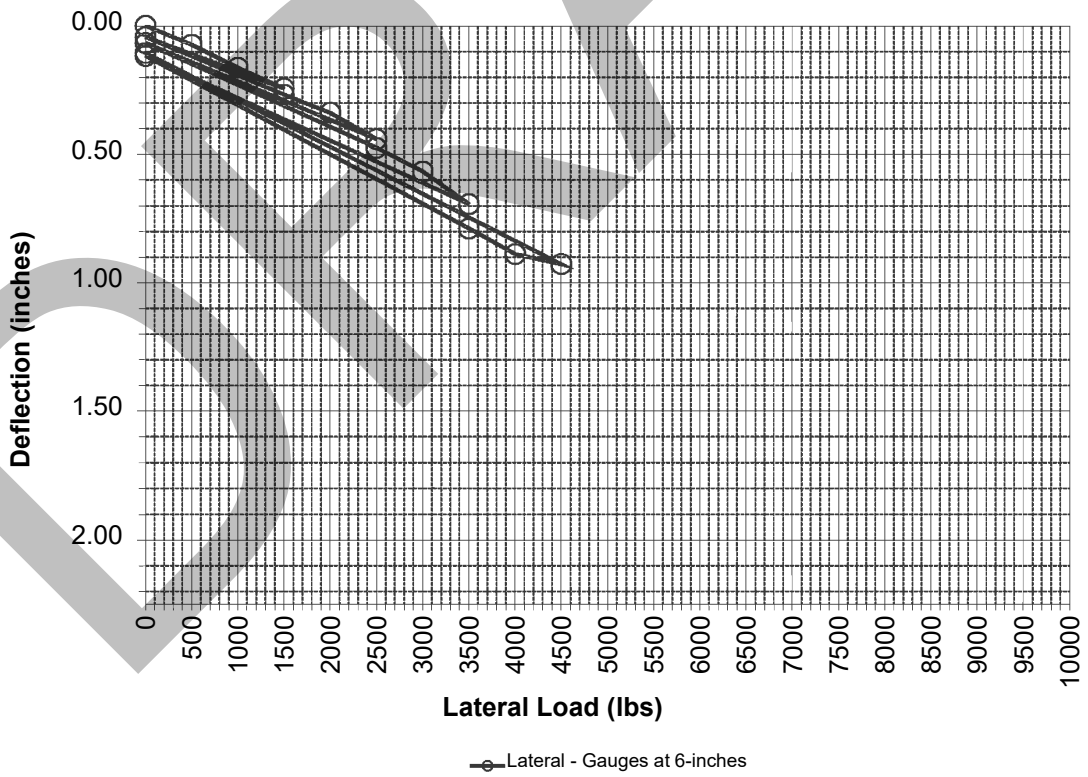
Test Date and Representative

Tested By Terracon Rep:	M.J.& I.H.
Date Tested:	1/18/2022

Pile Information

Pile ID:	PLT-1A
Latitude:	37.112349°
Longitude:	-85.099162°
Pile Type:	W6X9
Pile Embedment Depth [in]:	108
Pile Stick-Up [in]:	48
Lateral Design Load [lbs]:	10000
Drive Time [sec]:	74.1

% of Design Load	Lateral Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.074	
10%	1000	0.163	
15%	1500	0.245	
0%	0	0.044	
15%	1500	0.268	
20%	2000	0.339	
25%	2500	0.442	
0%	0	0.067	
25%	2500	0.476	
30%	3000	0.568	
35%	3500	0.695	
0%	0	0.117	
35%	3500	0.789	
40%	4000	0.889	
45%	4500	0.928	
50%	5000		
0%	0		
40%	4000		
50%	5000		
55%	5500		
60%	6000		
65%	6500		
70%	7000		
0%	0	0.106	



Lateral Load Test Result for PLT-1B

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in]:	6
Height of Bottom Gauges [in]:	6
Height of Applied Load [in]:	36
Load Cell:	25k Ed Jr.

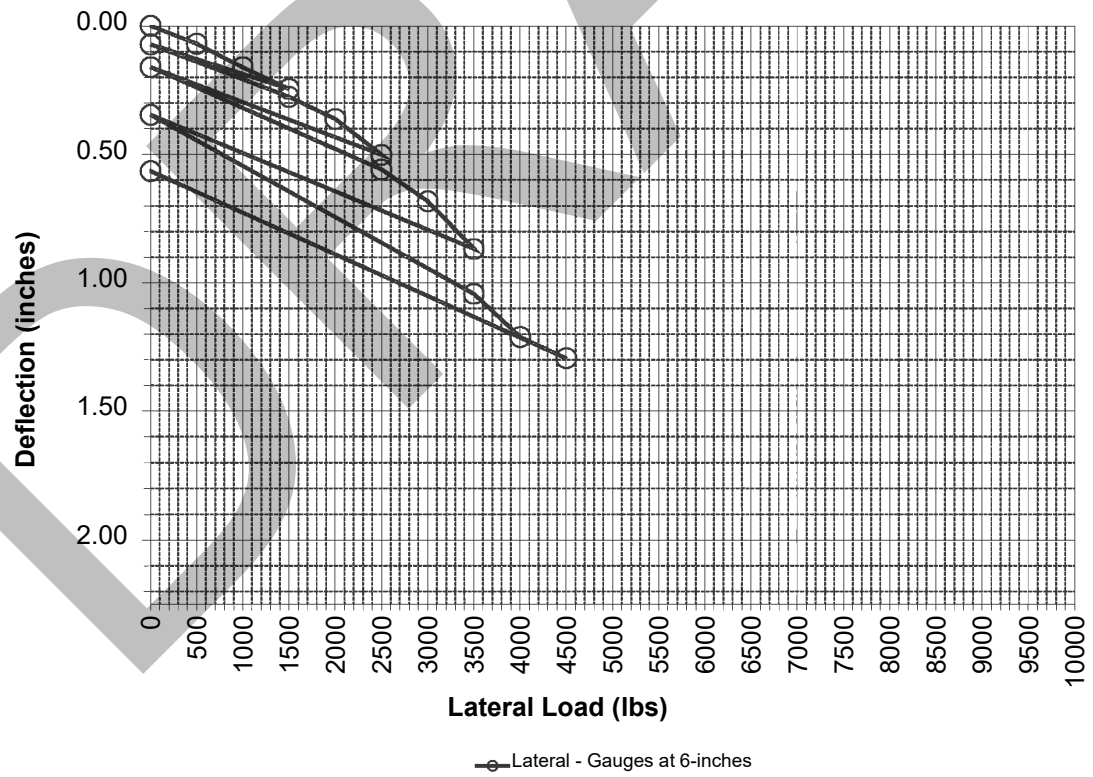
Test Date and Representative

Tested By Terracon Rep:	M.J.& I.H.
Date Tested:	1/18/2022

Pile Information

Pile ID:	PLT-1B
Latitude:	37.112349°
Longitude:	-85.099162°
Pile Type:	W6X9
Pile Embedment Depth [in]:	72
Pile Stick-Up [in]:	48
Lateral Design Load [lbs]:	10000
Drive Time [sec]:	33.5

% of Design Load	Lateral Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.070	
10%	1000	0.162	
15%	1500	0.246	
0%	0	0.073	
15%	1500	0.277	
20%	2000	0.362	
25%	2500	0.502	
0%	0	0.161	
25%	2500	0.561	
30%	3000	0.683	
35%	3500	0.869	
0%	0	0.347	
35%	3500	1.044	
40%	4000	1.212	
45%	4500	1.295	
50%	5000		
0%	0		
40%	4000		
50%	5000		
55%	5500		
60%	6000		
65%	6500		
70%	7000		
0%	0	0.567	



Lateral Load Test Result for PLT-2A

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in]:	6
Height of Bottom Gauges [in]:	6
Height of Applied Load [in]:	36
Load Cell:	25k Ed Jr.

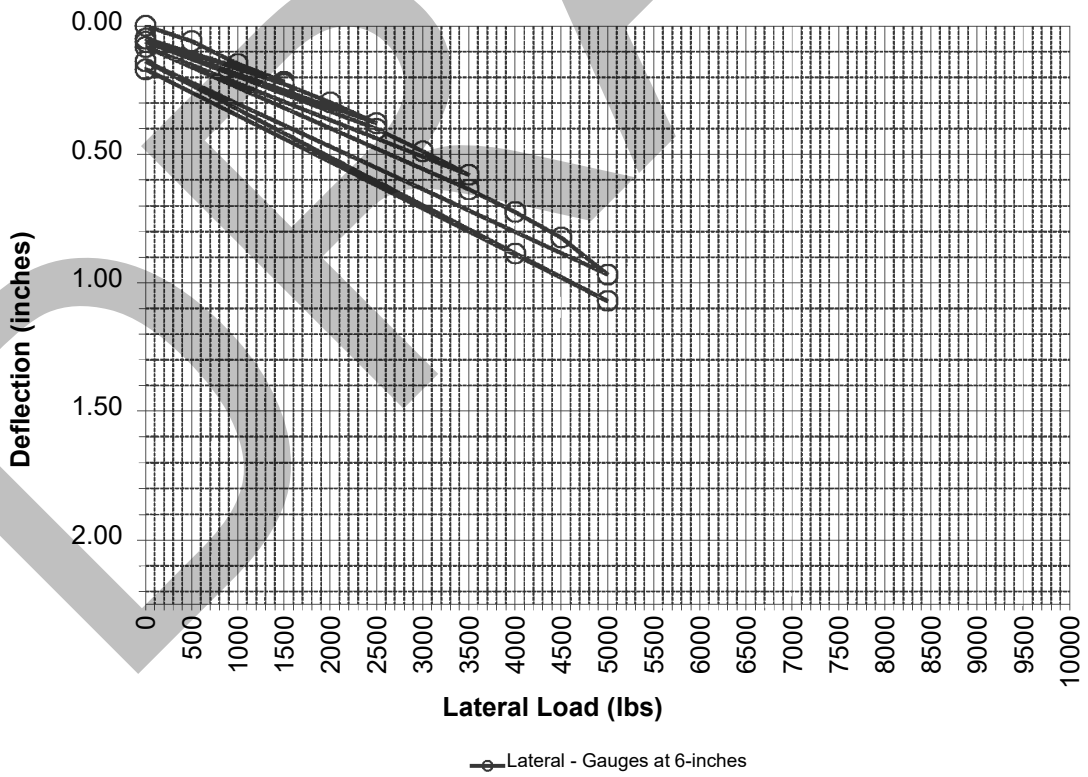
Test Date and Representative

Tested By Terracon Rep:	M.J.& I.H.
Date Tested:	1/18/2022

Pile Information

Pile ID:	PLT-2A
Latitude:	37.112891°
Longitude:	-85.095568°
Pile Type:	W6X9
Pile Embedment Depth [in]:	108
Pile Stick-Up [in]:	48
Lateral Design Load [lbs]:	10000
Drive Time [sec]:	55.8

% of Design Load	Lateral Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.060	
10%	1000	0.149	
15%	1500	0.218	
0%	0	0.050	
15%	1500	0.227	
20%	2000	0.298	
25%	2500	0.379	
0%	0	0.063	
25%	2500	0.402	
30%	3000	0.490	
35%	3500	0.581	
0%	0	0.082	
35%	3500	0.637	
40%	4000	0.725	
45%	4500	0.825	
50%	5000	0.969	
0%	0	0.138	
40%	4000	0.887	
50%	5000	1.071	
55%	5500		
60%	6000		
65%	6500		
70%	7000		
0%	0	0.171	



Lateral Load Test Result for PLT-2B

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in]:	6
Height of Bottom Gauges [in]:	6
Height of Applied Load [in]:	36
Load Cell:	25k Ed Jr.

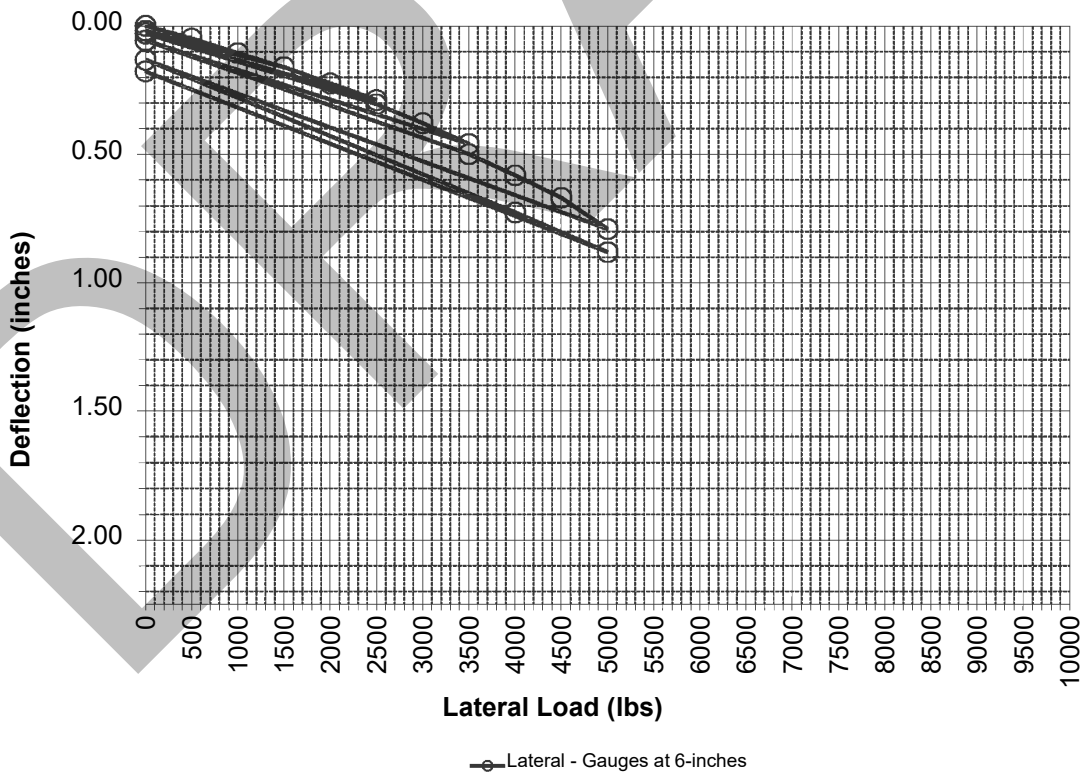
Test Date and Representative

Tested By Terracon Rep:	M.J.& I.H.
Date Tested:	1/18/2022

Pile Information

Pile ID:	PLT-2B
Latitude:	37.112891°
Longitude:	-85.095568°
Pile Type:	W6X9
Pile Embedment Depth [in]:	72
Pile Stick-Up [in]:	48
Lateral Design Load [lbs]:	10000
Drive Time [sec]:	30.5

% of Design Load	Lateral Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.050	
10%	1000	0.106	
15%	1500	0.162	
0%	0	0.020	
15%	1500	0.161	
20%	2000	0.224	
25%	2500	0.290	
0%	0	0.030	
25%	2500	0.306	
30%	3000	0.379	
35%	3500	0.460	
0%	0	0.057	
35%	3500	0.500	
40%	4000	0.583	
45%	4500	0.669	
50%	5000	0.791	
0%	0	0.133	
40%	4000	0.727	
50%	5000	0.882	
55%	5500		
60%	6000		
65%	6500		
70%	7000		
0%	0	0.178	



Lateral Load Test Result for PLT-3A

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in]:	6
Height of Bottom Gauges [in]:	6
Height of Applied Load [in]:	36
Load Cell:	25k Ed Jr.

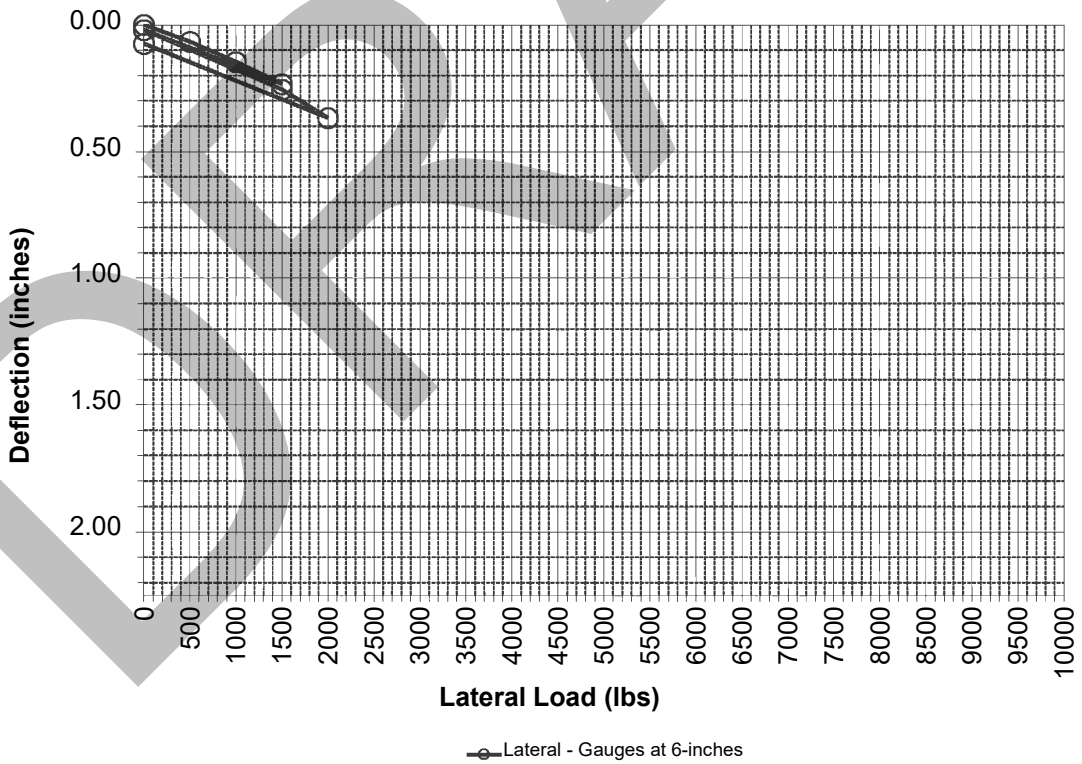
Test Date and Representative

Tested By Terracon Rep:	M.J.& I.H.
Date Tested:	1/19/2022

Pile Information

Pile ID:	PLT-3A
Latitude:	37.113137°
Longitude:	-85.090334°
Pile Type:	W6X9
Pile Embedment Depth [in]:	96
Pile Stick-Up [in]:	60
Lateral Design Load [lbs]:	10000
Drive Time [sec]:	26.4

% of Design Load	Lateral Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.067	
10%	1000	0.147	
15%	1500	0.234	
0%	0	0.021	
15%	1500	0.256	
20%	2000	0.368	
25%	2500		
0%	0		
25%	2500		
30%	3000		
35%	3500		
0%	0		
35%	3500		
40%	4000		
45%	4500		
50%	5000		
0%	0		
40%	4000		
50%	5000		
55%	5500		
60%	6000		
65%	6500		
70%	7000		
0%	0	0.075	



Lateral Load Test Result for PLT-3B

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in]:	6
Height of Bottom Gauges [in]:	6
Height of Applied Load [in]:	36
Load Cell:	25k Ed Jr.

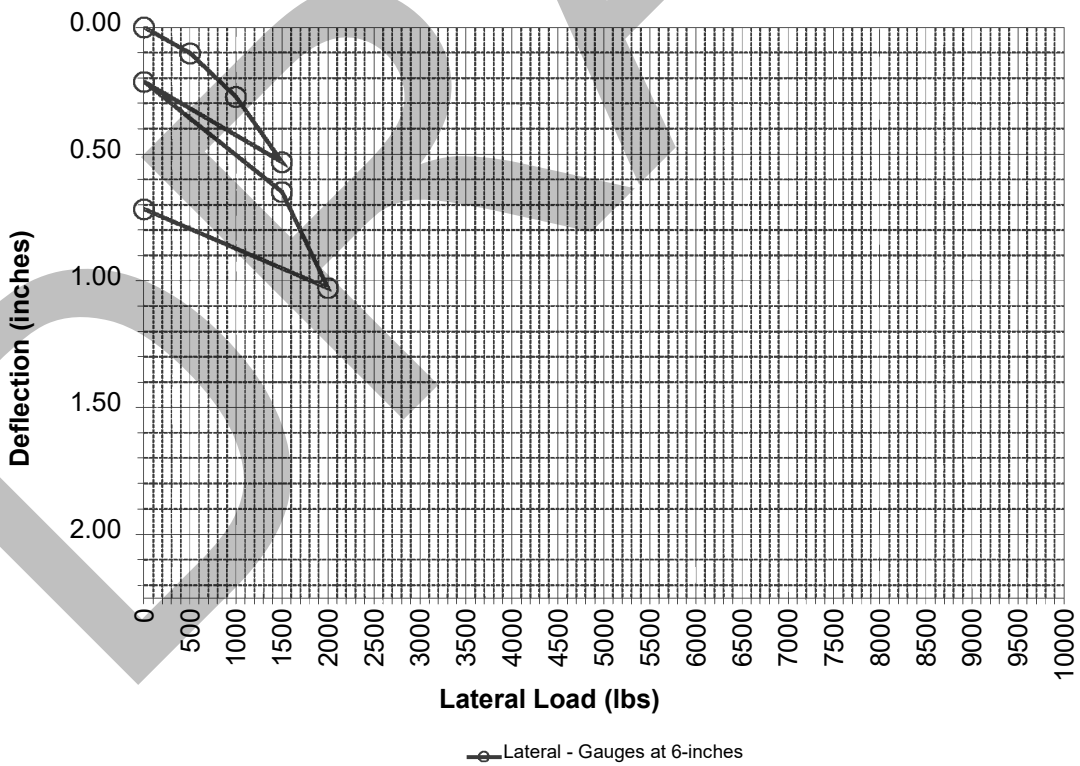
Test Date and Representative

Tested By Terracon Rep:	M.J.& I.H.
Date Tested:	1/19/2022

Pile Information

Pile ID:	PLT-3B
Latitude:	37.113137°
Longitude:	-85.090334°
Pile Type:	W6X9
Pile Embedment Depth [in]:	60
Pile Stick-Up [in]:	60
Lateral Design Load [lbs]:	10000
Drive Time [sec]:	11.6

% of Design Load	Lateral Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.103	
10%	1000	0.274	
15%	1500	0.533	
0%	0	0.215	
15%	1500	0.650	
20%	2000	1.029	
25%	2500		
0%	0		
25%	2500		
30%	3000		
35%	3500		
0%	0		
35%	3500		
40%	4000		
45%	4500		
50%	5000		
0%	0		
40%	4000		
50%	5000		
55%	5500		
60%	6000		
65%	6500		
70%	7000		
0%	0	0.719	



Lateral Load Test Result for PLT-4A

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in]:	6
Height of Bottom Gauges [in]:	6
Height of Applied Load [in]:	36
Load Cell:	25k Ed Jr.

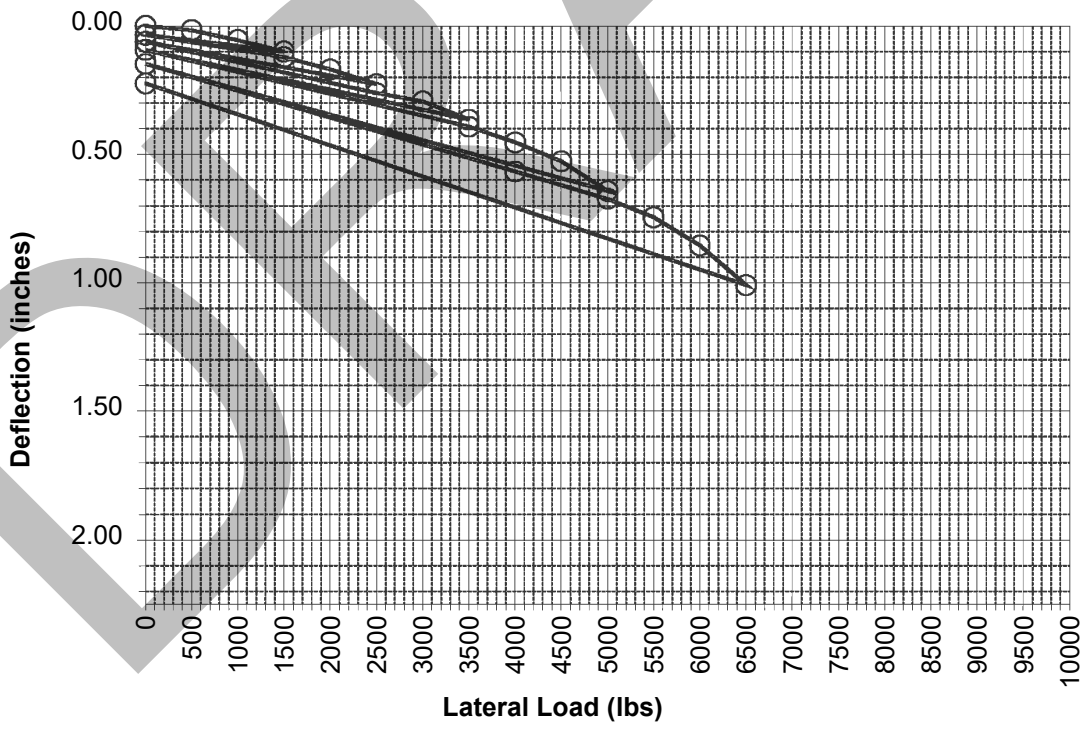
Test Date and Representative

Tested By Terracon Rep:	M.J.& I.H.
Date Tested:	1/20/2022

Pile Information

Pile ID:	PLT-4A
Latitude:	37.110831°
Longitude:	-85.101540°
Pile Type:	W6X9
Pile Embedment Depth [in]:	108
Pile Stick-Up [in]:	48
Lateral Design Load [lbs]:	10000
Drive Time [sec]:	53.6

% of Design Load	Lateral Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.017	
10%	1000	0.056	
15%	1500	0.101	
0%	0	0.036	
15%	1500	0.122	
20%	2000	0.170	
25%	2500	0.228	
0%	0	0.063	
25%	2500	0.262	
30%	3000	0.294	
35%	3500	0.365	
0%	0	0.094	
35%	3500	0.392	
40%	4000	0.454	
45%	4500	0.527	
50%	5000	0.644	
0%	0	0.149	
40%	4000	0.567	
50%	5000	0.674	
55%	5500	0.746	
60%	6000	0.856	
65%	6500	1.009	
70%	7000		
0%	0	0.225	



Lateral Load Test Result for PLT-4B

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in]:	6
Height of Bottom Gauges [in]:	6
Height of Applied Load [in]:	36
Load Cell:	25k Ed Jr.

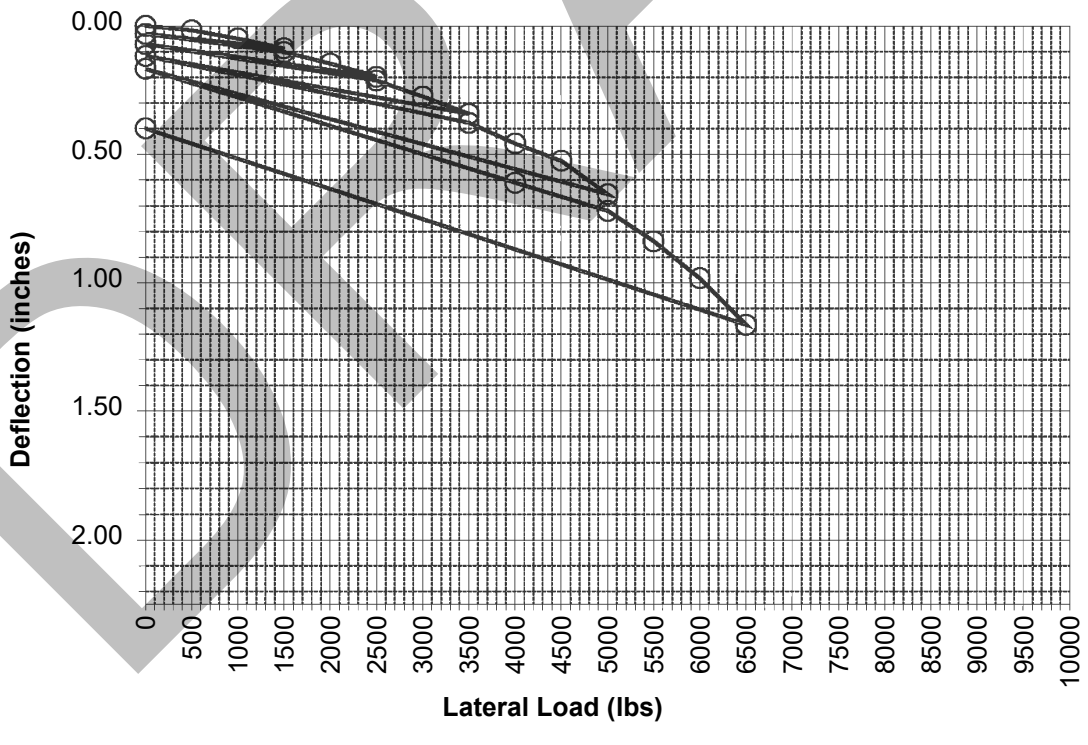
Test Date and Representative

Tested By Terracon Rep:	M.J.& I.H.
Date Tested:	1/20/2022

Pile Information

Pile ID:	PLT-4B
Latitude:	37.110831°
Longitude:	-85.101540°
Pile Type:	W6X9
Pile Embedment Depth [in]:	72
Pile Stick-Up [in]:	48
Lateral Design Load [lbs]:	10000
Drive Time [sec]:	28.8

% of Design Load	Lateral Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.018	
10%	1000	0.050	
15%	1500	0.088	
0%	0	0.032	
15%	1500	0.102	
20%	2000	0.147	
25%	2500	0.199	
0%	0	0.072	
25%	2500	0.213	
30%	3000	0.276	
35%	3500	0.343	
0%	0	0.117	
35%	3500	0.378	
40%	4000	0.458	
45%	4500	0.525	
50%	5000	0.656	
0%	0	0.168	
40%	4000	0.611	
50%	5000	0.721	
55%	5500	0.839	
60%	6000	0.983	
65%	6500	1.164	
70%	7000		
0%	0	0.400	



Lateral Load Test Result for PLT-5A

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in]:	6
Height of Bottom Gauges [in]:	6
Height of Applied Load [in]:	36
Load Cell:	25k Ed Jr.

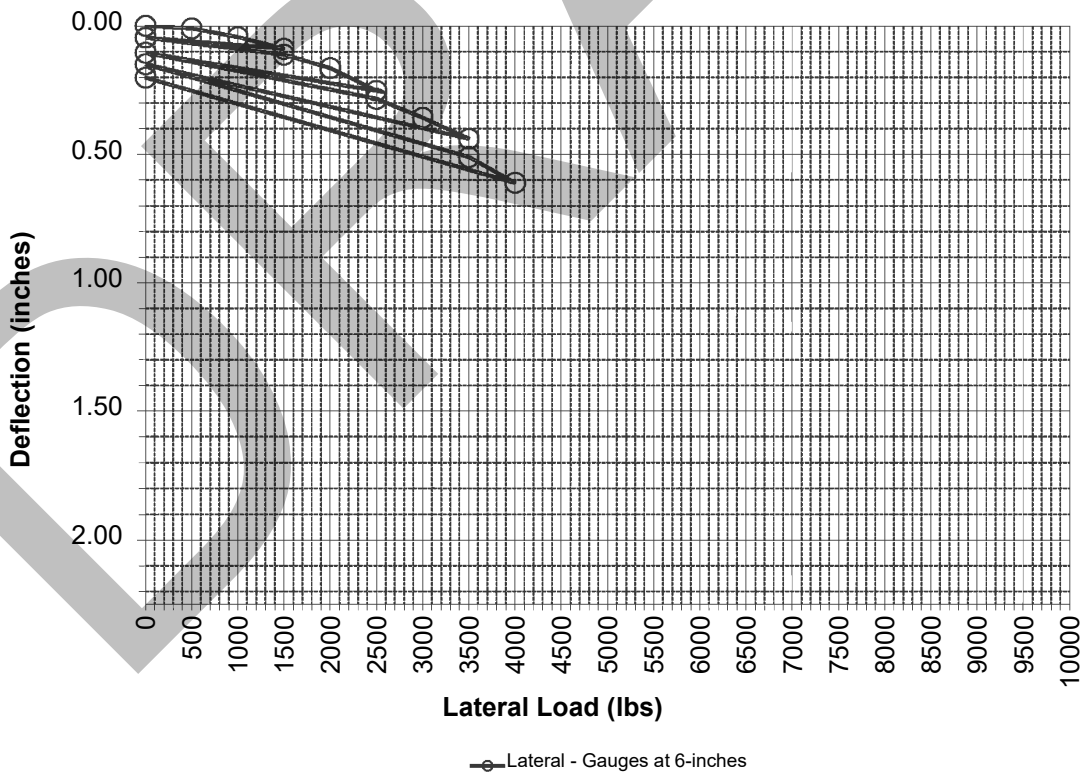
Test Date and Representative

Tested By Terracon Rep:	M.J.& I.H.
Date Tested:	1/20/2022

Pile Information

Pile ID:	PLT-5A
Latitude:	37.109982°
Longitude:	-85.097446°
Pile Type:	W6X9
Pile Embedment Depth [in]:	96
Pile Stick-Up [in]:	60
Lateral Design Load [lbs]:	10000
Drive Time [sec]:	20.3

% of Design Load	Lateral Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.010	
10%	1000	0.045	
15%	1500	0.090	
0%	0	0.047	
15%	1500	0.113	
20%	2000	0.164	
25%	2500	0.253	
0%	0	0.104	
25%	2500	0.285	
30%	3000	0.358	
35%	3500	0.440	
0%	0	0.150	
35%	3500	0.511	
40%	4000	0.612	
45%	4500		
50%	5000		
0%	0		
40%	4000		
50%	5000		
55%	5500		
60%	6000		
65%	6500		
70%	7000		
0%	0	0.203	



Lateral Load Test Result for PLT-5B

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in]:	6
Height of Bottom Gauges [in]:	6
Height of Applied Load [in]:	36
Load Cell:	25k Ed Jr.

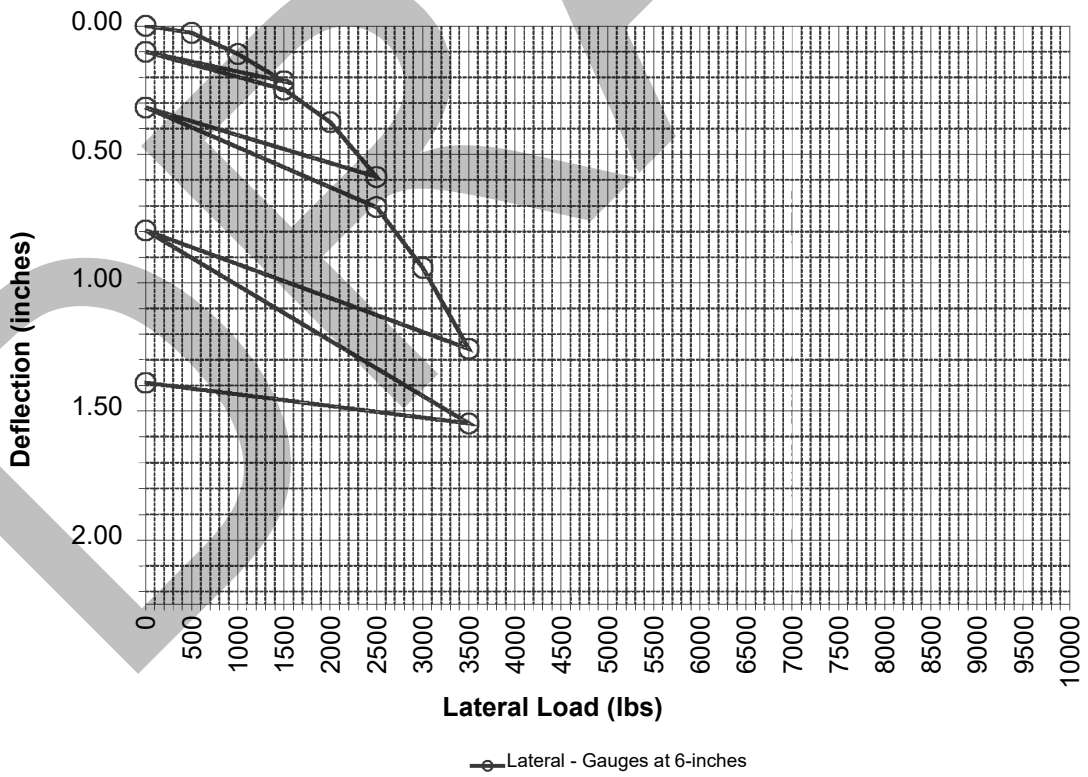
Test Date and Representative

Tested By Terracon Rep:	M.J.& I.H.
Date Tested:	1/20/2022

Pile Information

Pile ID:	PLT-5B
Latitude:	37.109982°
Longitude:	-85.097446°
Pile Type:	W6X9
Pile Embedment Depth [in]:	60
Pile Stick-Up [in]:	60
Lateral Design Load [lbs]:	10000
Drive Time [sec]:	9.9

% of Design Load	Lateral Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.027	
10%	1000	0.110	
15%	1500	0.217	
0%	0	0.102	
15%	1500	0.248	
20%	2000	0.376	
25%	2500	0.589	
0%	0	0.318	
25%	2500	0.706	
30%	3000	0.942	
35%	3500	1.257	
0%	0	0.797	
35%	3500	1.548	
40%	4000		
45%	4500		
50%	5000		
0%	0		
40%	4000		
50%	5000		
55%	5500		
60%	6000		
65%	6500		
70%	7000		
0%	0	1.390	



Lateral Load Test Result for PLT-6A

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in]:	6
Height of Bottom Gauges [in]:	6
Height of Applied Load [in]:	36
Load Cell:	25k Ed Jr.

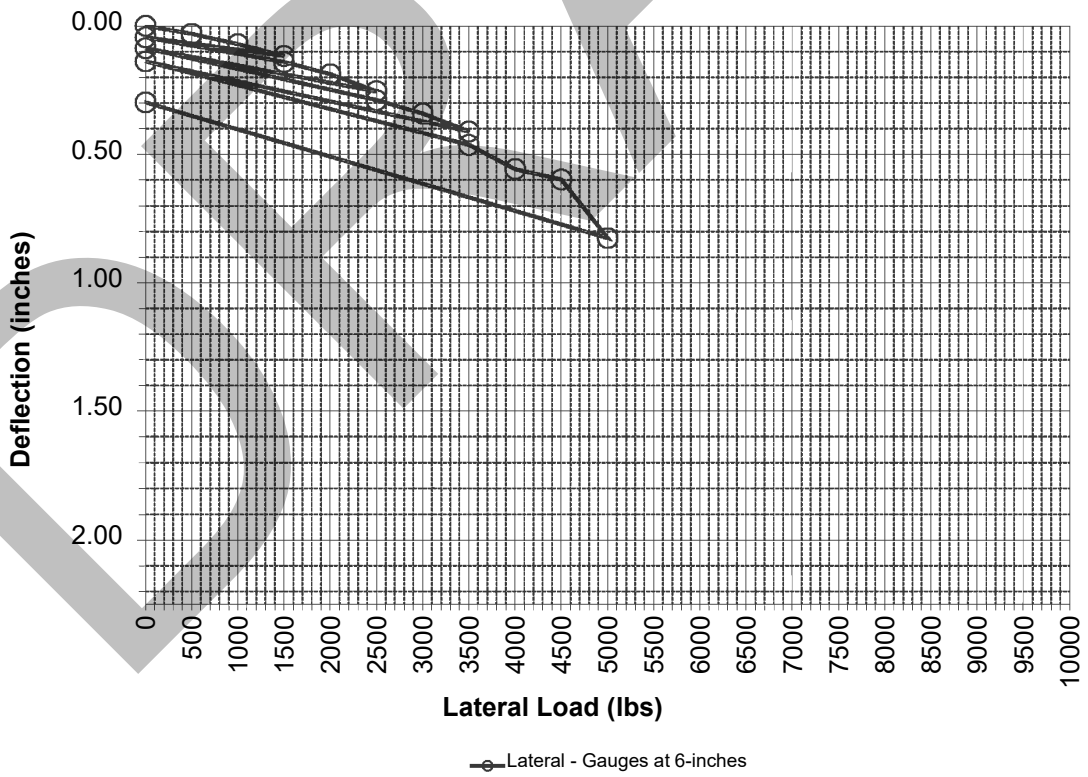
Test Date and Representative

Tested By Terracon Rep:	M.J.& I.H.
Date Tested:	1/21/2022

Pile Information

Pile ID:	PLT-6A
Latitude:	37.110538°
Longitude:	-85.092048°
Pile Type:	W6X9
Pile Embedment Depth [in]:	108
Pile Stick-Up [in]:	48
Lateral Design Load [lbs]:	10000
Drive Time [sec]:	33.4

% of Design Load	Lateral Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.031	
10%	1000	0.072	
15%	1500	0.118	
0%	0	0.045	
15%	1500	0.142	
20%	2000	0.189	
25%	2500	0.255	
0%	0	0.087	
25%	2500	0.289	
30%	3000	0.342	
35%	3500	0.412	
0%	0	0.139	
35%	3500	0.464	
40%	4000	0.558	
45%	4500	0.599	
50%	5000	0.827	
0%	0		
40%	4000		
50%	5000		
55%	5500		
60%	6000		
65%	6500		
70%	7000		
0%	0	0.299	



Lateral Load Test Result for PLT-6B

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in]:	6
Height of Bottom Gauges [in]:	6
Height of Applied Load [in]:	36
Load Cell:	25k Ed Jr.

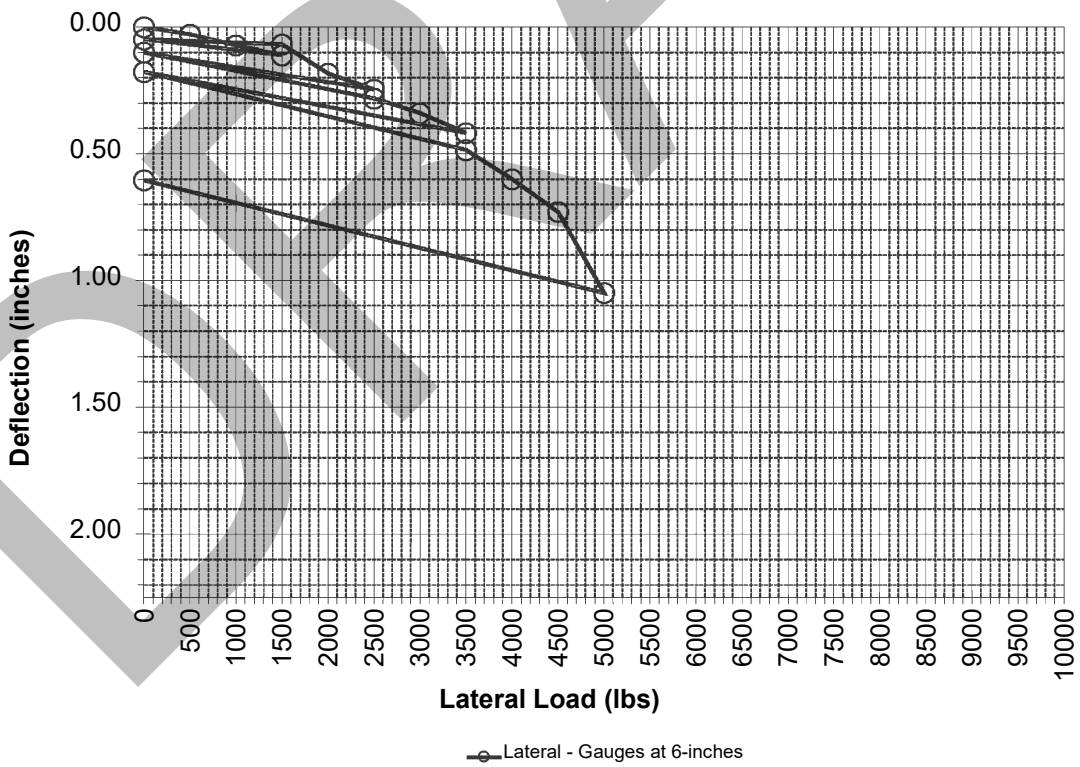
Test Date and Representative

Tested By Terracon Rep:	M.J.& I.H.
Date Tested:	1/21/2022

Pile Information

Pile ID:	PLT-6B
Latitude:	37.110538°
Longitude:	-85.092048°
Pile Type:	W6X9
Pile Embedment Depth [in]:	72
Pile Stick-Up [in]:	48
Lateral Design Load [lbs]:	10000
Drive Time [sec]:	16

% of Design Load	Lateral Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.030	
10%	1000	0.073	
15%	1500	0.112	
0%	0	0.048	
15%	1500	0.068	
20%	2000	0.183	
25%	2500	0.246	
0%	0	0.101	
25%	2500	0.282	
30%	3000	0.341	
35%	3500	0.419	
0%	0	0.177	
35%	3500	0.485	
40%	4000	0.600	
45%	4500	0.730	
50%	5000	1.049	
0%	0		
40%	4000		
50%	5000		
55%	5500		
60%	6000		
65%	6500		
70%	7000		
0%	0	0.605	



Lateral Load Test Result for PLT-7A

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in]:	6
Height of Bottom Gauges [in]:	6
Height of Applied Load [in]:	36
Load Cell:	25k Ed Jr.

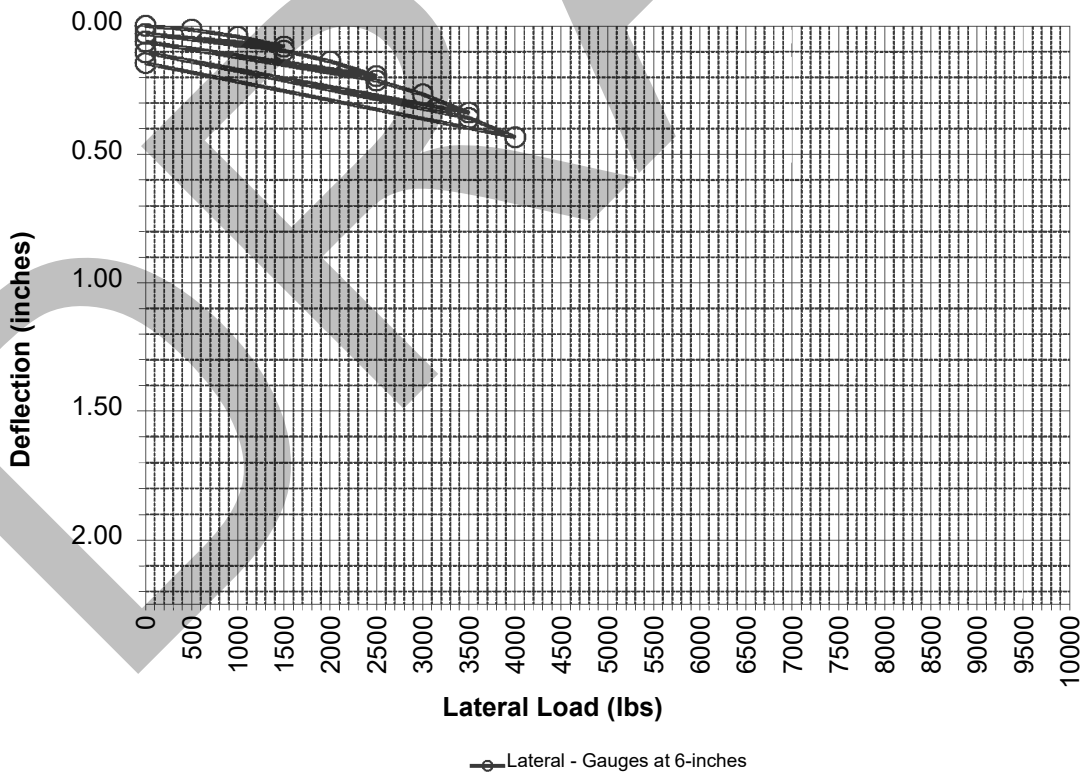
Test Date and Representative

Tested By Terracon Rep:	M.J.& I.H.
Date Tested:	1/21/2022

Pile Information

Pile ID:	PLT-7A
Latitude:	37.110845°
Longitude:	-85.089316°
Pile Type:	W6X9
Pile Embedment Depth [in]:	96
Pile Stick-Up [in]:	60
Lateral Design Load [lbs]:	10000
Drive Time [sec]:	23.9

% of Design Load	Lateral Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.015	
10%	1000	0.043	
15%	1500	0.082	
0%	0	0.032	
15%	1500	0.097	
20%	2000	0.139	
25%	2500	0.197	
0%	0	0.062	
25%	2500	0.213	
30%	3000	0.268	
35%	3500	0.339	
0%	0	0.104	
35%	3500	0.360	
40%	4000	0.434	
45%	4500		
50%	5000		
0%	0		
40%	4000		
50%	5000		
55%	5500		
60%	6000		
65%	6500		
70%	7000		
0%	0	0.146	



Lateral Load Test Result for PLT-7B

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in]:	6
Height of Bottom Gauges [in]:	6
Height of Applied Load [in]:	36
Load Cell:	25k Ed Jr.

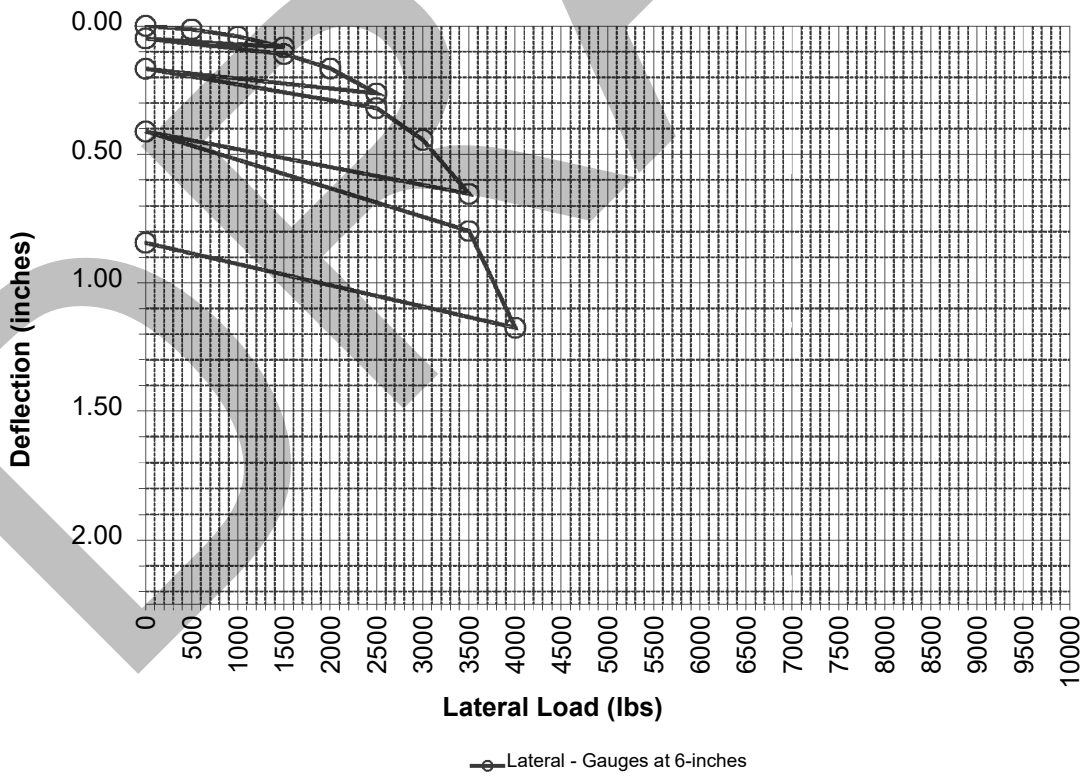
Test Date and Representative

Tested By Terracon Rep:	M.J.& I.H.
Date Tested:	1/21/2022

Pile Information

Pile ID:	PLT-7B
Latitude:	37.110845°
Longitude:	-85.089316°
Pile Type:	W6X9
Pile Embedment Depth [in]:	60
Pile Stick-Up [in]:	60
Lateral Design Load [lbs]:	10000
Drive Time [sec]:	9.7

% of Design Load	Lateral Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.014	
10%	1000	0.041	
15%	1500	0.084	
0%	0	0.049	
15%	1500	0.110	
20%	2000	0.166	
25%	2500	0.264	
0%	0	0.167	
25%	2500	0.321	
30%	3000	0.443	
35%	3500	0.654	
0%	0	0.411	
35%	3500	0.799	
40%	4000	1.175	
45%	4500		
50%	5000		
0%	0		
40%	4000		
50%	5000		
55%	5500		
60%	6000		
65%	6500		
70%	7000		
0%	0	0.844	



Lateral Load Test Result for PLT-8A

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in]:	6
Height of Bottom Gauges [in]:	6
Height of Applied Load [in]:	36
Load Cell:	25k Ed Jr.

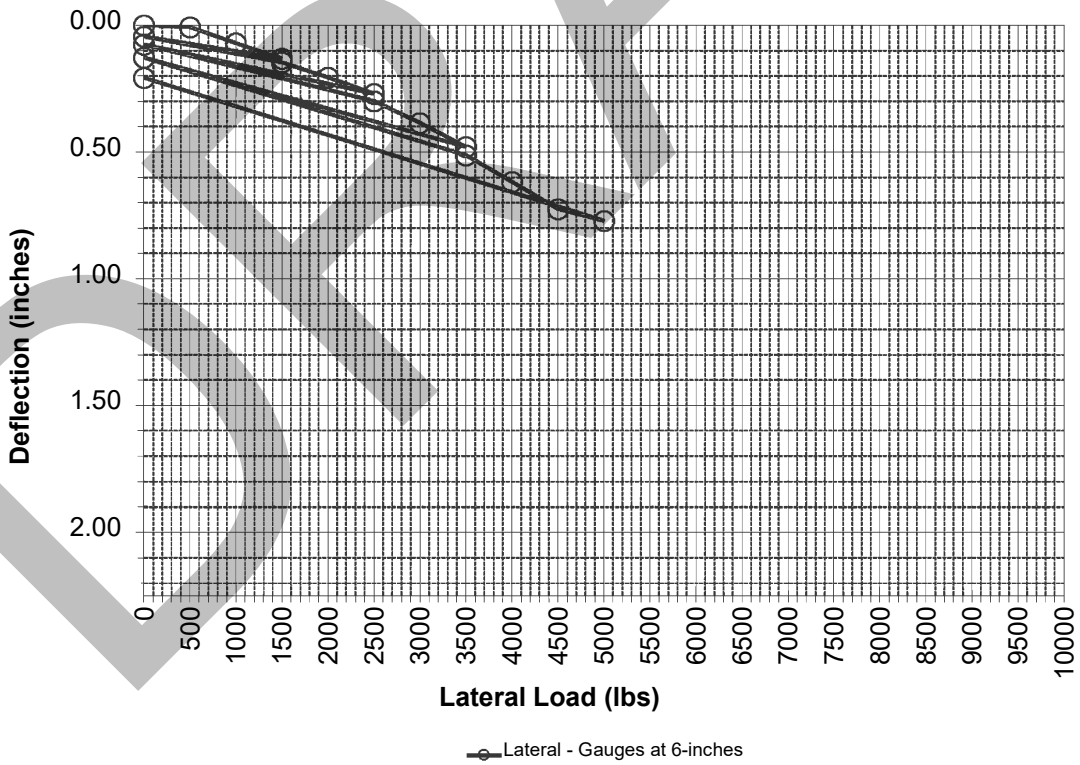
Test Date and Representative

Tested By Terracon Rep:	M.J.& I.H.
Date Tested:	1/21/2022

Pile Information

Pile ID:	PLT-8A
Latitude:	37.115605°
Longitude:	-85.076225°
Pile Type:	W6X9
Pile Embedment Depth [in]:	108
Pile Stick-Up [in]:	48
Lateral Design Load [lbs]:	10000
Drive Time [sec]:	38.8

% of Design Load	Lateral Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.008	
10%	1000	0.071	
15%	1500	0.132	
0%	0	0.044	
15%	1500	0.146	
20%	2000	0.207	
25%	2500	0.270	
0%	0	0.076	
25%	2500	0.299	
30%	3000	0.386	
35%	3500	0.481	
0%	0	0.128	
35%	3500	0.514	
40%	4000	0.618	
45%	4500	0.726	
50%	5000	0.772	
0%	0		
40%	4000		
50%	5000		
55%	5500		
60%	6000		
65%	6500		
70%	7000		
0%	0	0.208	



Lateral Load Test Result for PLT-8B

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in]:	6
Height of Bottom Gauges [in]:	6
Height of Applied Load [in]:	36
Load Cell:	25k Ed Jr.

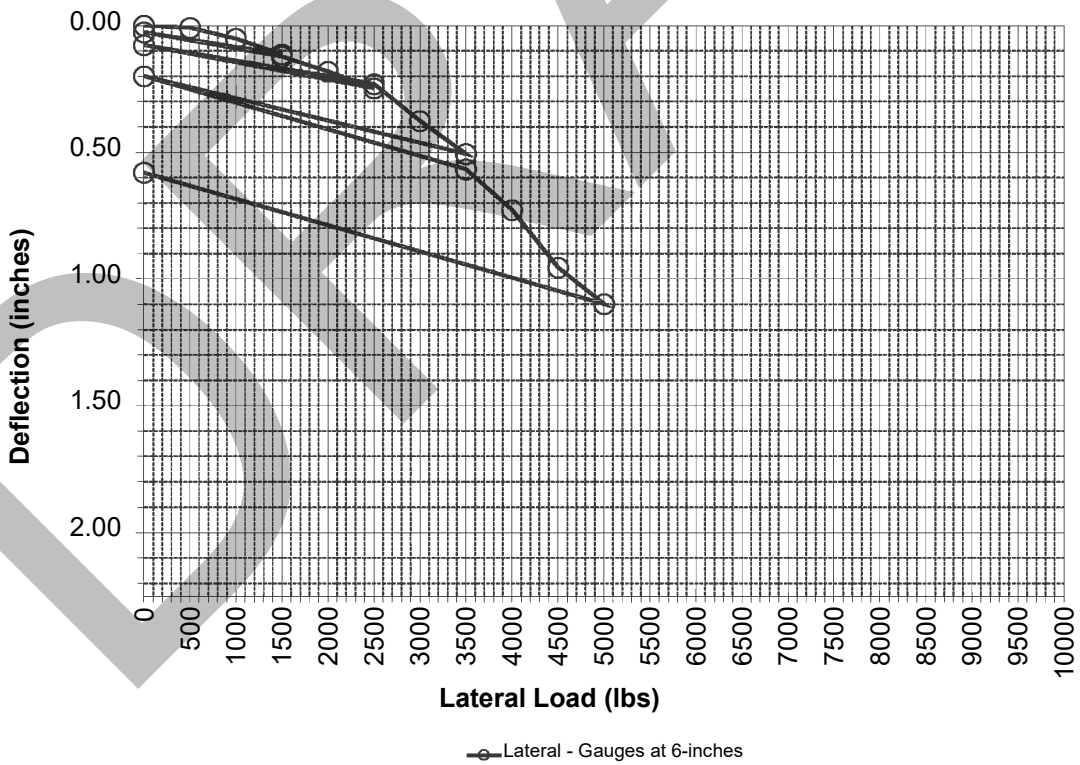
Test Date and Representative

Tested By Terracon Rep:	M.J.& I.H.
Date Tested:	1/21/2022

Pile Information

Pile ID:	PLT-8B
Latitude:	37.115605°
Longitude:	-85.076225°
Pile Type:	W6X9
Pile Embedment Depth [in]:	72
Pile Stick-Up [in]:	48
Lateral Design Load [lbs]:	10000
Drive Time [sec]:	17.1

% of Design Load	Lateral Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.009	
10%	1000	0.052	
15%	1500	0.114	
0%	0	0.027	
15%	1500	0.123	
20%	2000	0.182	
25%	2500	0.248	
0%	0	0.077	
25%	2500	0.231	
30%	3000	0.377	
35%	3500	0.507	
0%	0	0.200	
35%	3500	0.568	
40%	4000	0.729	
45%	4500	0.955	
50%	5000	1.100	
0%	0		
40%	4000		
50%	5000		
55%	5500		
60%	6000		
65%	6500		
70%	7000		
0%	0	0.581	



Lateral Load Test Result for PLT-9A

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in]:	6
Height of Bottom Gauges [in]:	6
Height of Applied Load [in]:	36
Load Cell:	25k Ed Jr.

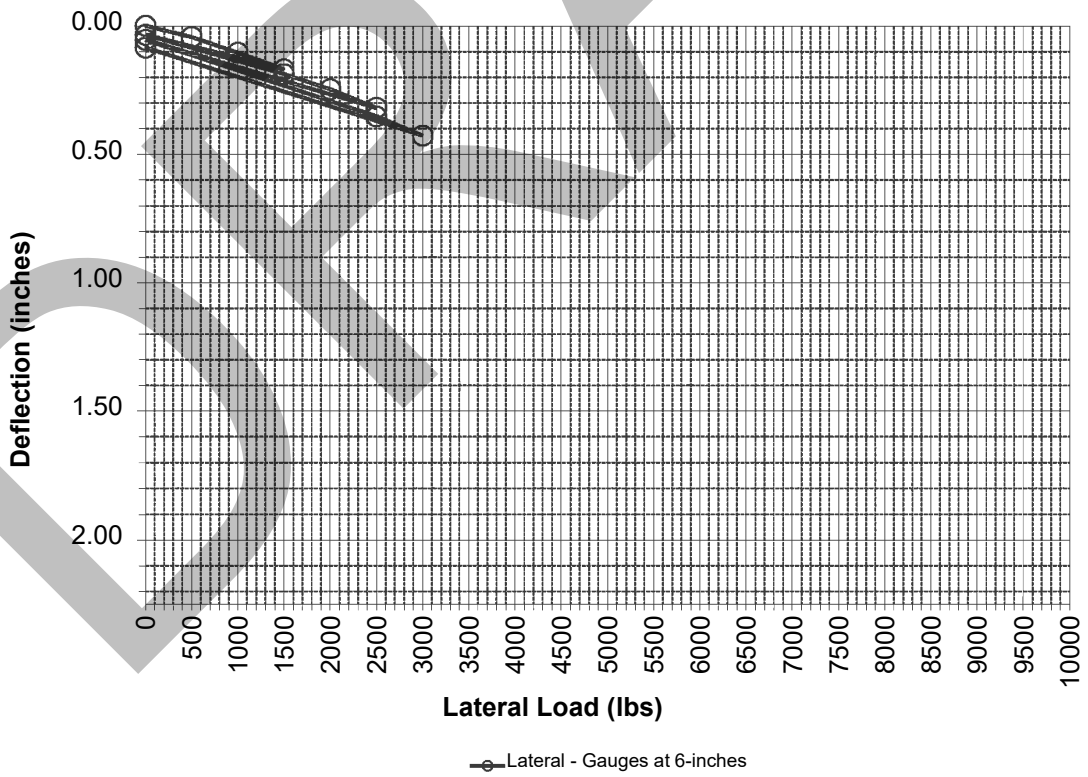
Test Date and Representative

Tested By Terracon Rep:	M.J.& I.H.
Date Tested:	1/20/2022

Pile Information

Pile ID:	PLT-9A
Latitude:	37.113382°
Longitude:	-85.077813°
Pile Type:	W6X9
Pile Embedment Depth [in]:	96
Pile Stick-Up [in]:	60
Lateral Design Load [lbs]:	10000
Drive Time [sec]:	45.2

% of Design Load	Lateral Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.043	
10%	1000	0.104	
15%	1500	0.170	
0%	0	0.036	
15%	1500	0.188	
20%	2000	0.247	
25%	2500	0.320	
0%	0	0.055	
25%	2500	0.353	
30%	3000	0.427	
35%	3500		
0%	0		
35%	3500		
40%	4000		
45%	4500		
50%	5000		
0%	0		
40%	4000		
50%	5000		
55%	5500		
60%	6000		
65%	6500		
70%	7000		
0%	0	0.085	



Lateral Load Test Result for PLT-9B

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in]:	6
Height of Bottom Gauges [in]:	6
Height of Applied Load [in]:	36
Load Cell:	25k Ed Jr.

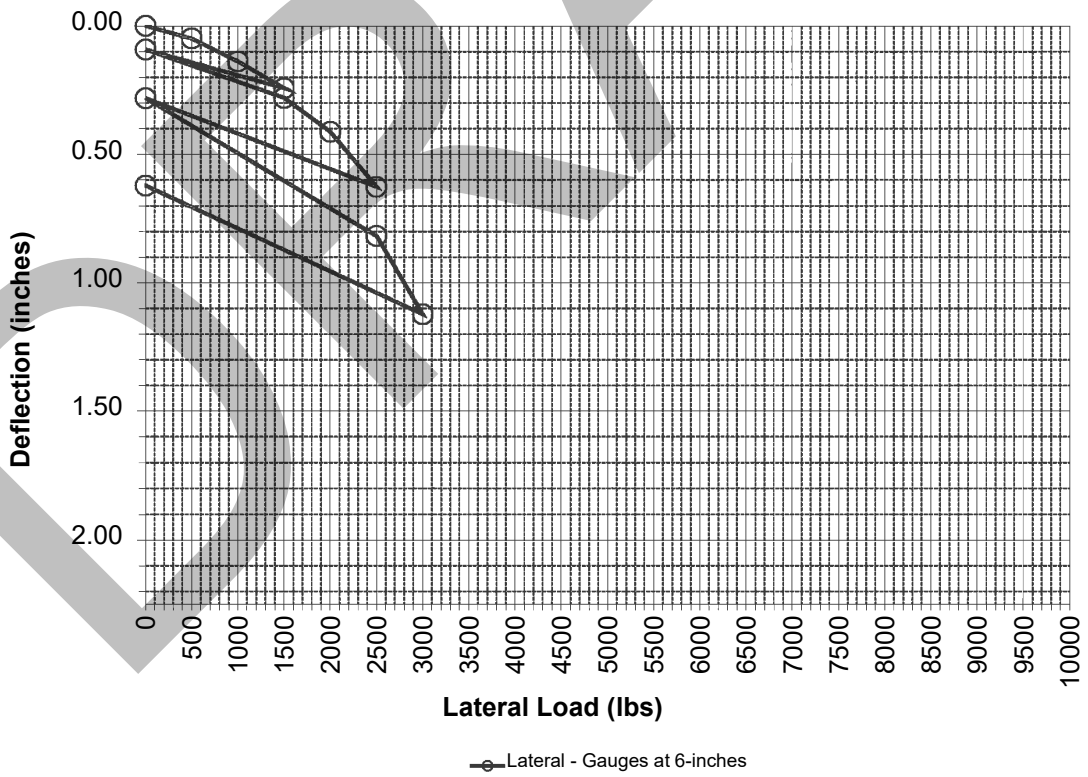
Test Date and Representative

Tested By Terracon Rep:	M.J.& I.H.
Date Tested:	1/20/2022

Pile Information

Pile ID:	PLT-9B
Latitude:	37.113382°
Longitude:	-85.077813°
Pile Type:	W6X9
Pile Embedment Depth [in]:	60
Pile Stick-Up [in]:	60
Lateral Design Load [lbs]:	10000
Drive Time [sec]:	14.1

% of Design Load	Lateral Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.050	
10%	1000	0.139	
15%	1500	0.244	
0%	0	0.093	
15%	1500	0.281	
20%	2000	0.413	
25%	2500	0.628	
0%	0	0.282	
25%	2500	0.819	
30%	3000	1.124	
35%	3500		
0%	0		
35%	3500		
40%	4000		
45%	4500		
50%	5000		
0%	0		
40%	4000		
50%	5000		
55%	5500		
60%	6000		
65%	6500		
70%	7000		
0%	0	0.623	



Lateral Load Test Result for PLT-10A

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in]:	6
Height of Bottom Gauges [in]:	6
Height of Applied Load [in]:	36
Load Cell:	25k Ed Jr.

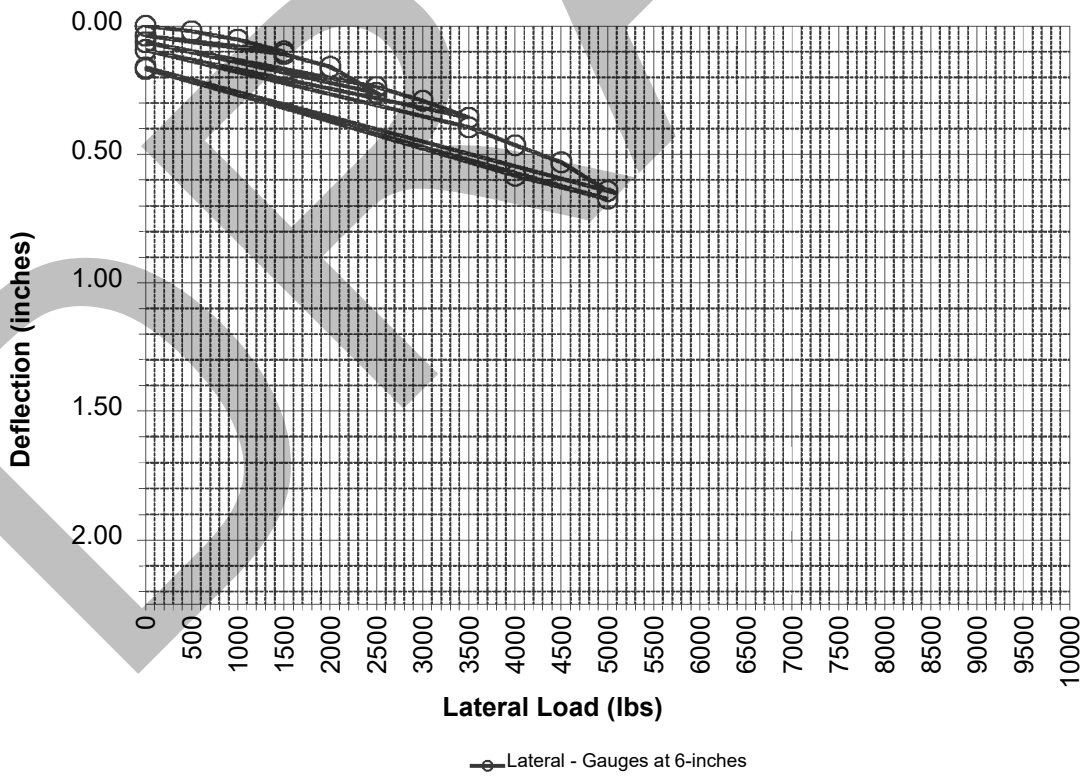
Test Date and Representative

Tested By Terracon Rep:	M.J.& I.H.
Date Tested:	1/20/2022

Pile Information

Pile ID:	PLT-10A
Latitude:	37.111253°
Longitude:	-85.080016°
Pile Type:	W6X9
Pile Embedment Depth [in]:	96
Pile Stick-Up [in]:	60
Lateral Design Load [lbs]:	10000
Drive Time [sec]:	50.3

% of Design Load	Lateral Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.022	
10%	1000	0.054	
15%	1500	0.101	
0%	0	0.039	
15%	1500	0.110	
20%	2000	0.160	
25%	2500	0.261	
0%	0	0.064	
25%	2500	0.238	
30%	3000	0.292	
35%	3500	0.358	
0%	0	0.095	
35%	3500	0.396	
40%	4000	0.465	
45%	4500	0.531	
50%	5000	0.644	
0%	0	0.162	
40%	4000	0.584	
50%	5000	0.674	
55%	5500		
60%	6000		
65%	6500		
70%	7000		
0%	0	0.169	



Lateral Load Test Result for PLT-10B

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in]:	6
Height of Bottom Gauges [in]:	6
Height of Applied Load [in]:	36
Load Cell:	25k Ed Jr.

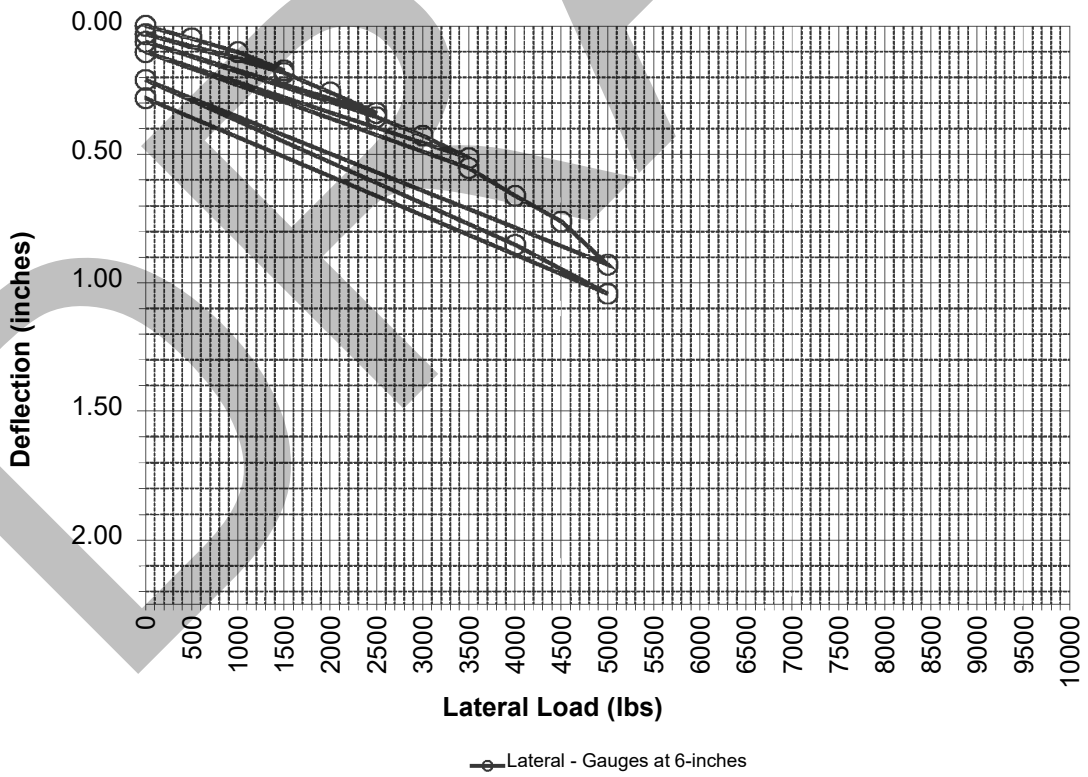
Test Date and Representative

Tested By Terracon Rep:	M.J.& I.H.
Date Tested:	1/20/2022

Pile Information

Pile ID:	PLT-10B
Latitude:	37.111253°
Longitude:	-85.080016°
Pile Type:	W6X9
Pile Embedment Depth [in]:	72
Pile Stick-Up [in]:	48
Lateral Design Load [lbs]:	10000
Drive Time [sec]:	19.9

% of Design Load	Lateral Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.050	
10%	1000	0.102	
15%	1500	0.174	
0%	0	0.033	
15%	1500	0.184	
20%	2000	0.259	
25%	2500	0.339	
0%	0	0.063	
25%	2500	0.356	
30%	3000	0.427	
35%	3500	0.515	
0%	0	0.103	
35%	3500	0.555	
40%	4000	0.663	
45%	4500	0.762	
50%	5000	0.931	
0%	0	0.211	
40%	4000	0.854	
50%	5000	1.043	
55%	5500		
60%	6000		
65%	6500		
70%	7000		
0%	0	0.283	



Lateral Load Test Result for PLT-11A

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in]:	6
Height of Bottom Gauges [in]:	6
Height of Applied Load [in]:	36
Load Cell:	25k Ed Jr.

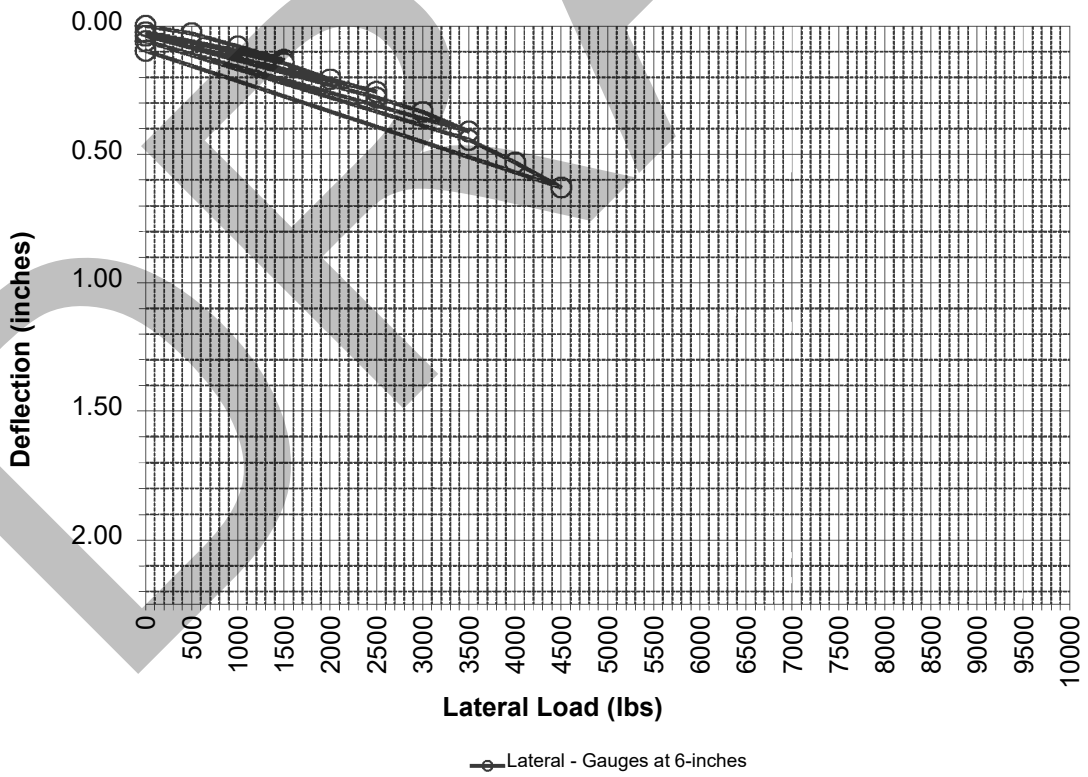
Test Date and Representative

Tested By Terracon Rep:	M.J.& I.H.
Date Tested:	1/21/2022

Pile Information

Pile ID:	PLT-11A
Latitude:	37.110211°
Longitude:	-85.086819°
Pile Type:	W6X9
Pile Embedment Depth [in]:	108
Pile Stick-Up [in]:	48
Lateral Design Load [lbs]:	10000
Drive Time [sec]:	38.9

% of Design Load	Lateral Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.029	
10%	1000	0.080	
15%	1500	0.133	
0%	0	0.026	
15%	1500	0.146	
20%	2000	0.208	
25%	2500	0.257	
0%	0	0.039	
25%	2500	0.280	
30%	3000	0.335	
35%	3500	0.411	
0%	0	0.061	
35%	3500	0.443	
40%	4000	0.532	
45%	4500	0.630	
50%	5000		
0%	0		
40%	4000		
50%	5000		
55%	5500		
60%	6000		
65%	6500		
70%	7000		
0%	0	0.098	



Lateral Load Test Result for PLT-11B

Project Information

Project Name:	Sebree Solar Project
Project Location:	St. Rd 416, Robards, KY
Project Number:	57215063

Lateral Load Test Set Up

Number of Top Gauges:	0
Number of Bottom Gauges:	2
Height of Top Gauges [in]:	6
Height of Bottom Gauges [in]:	6
Height of Applied Load [in]:	36
Load Cell:	25k Ed Jr.

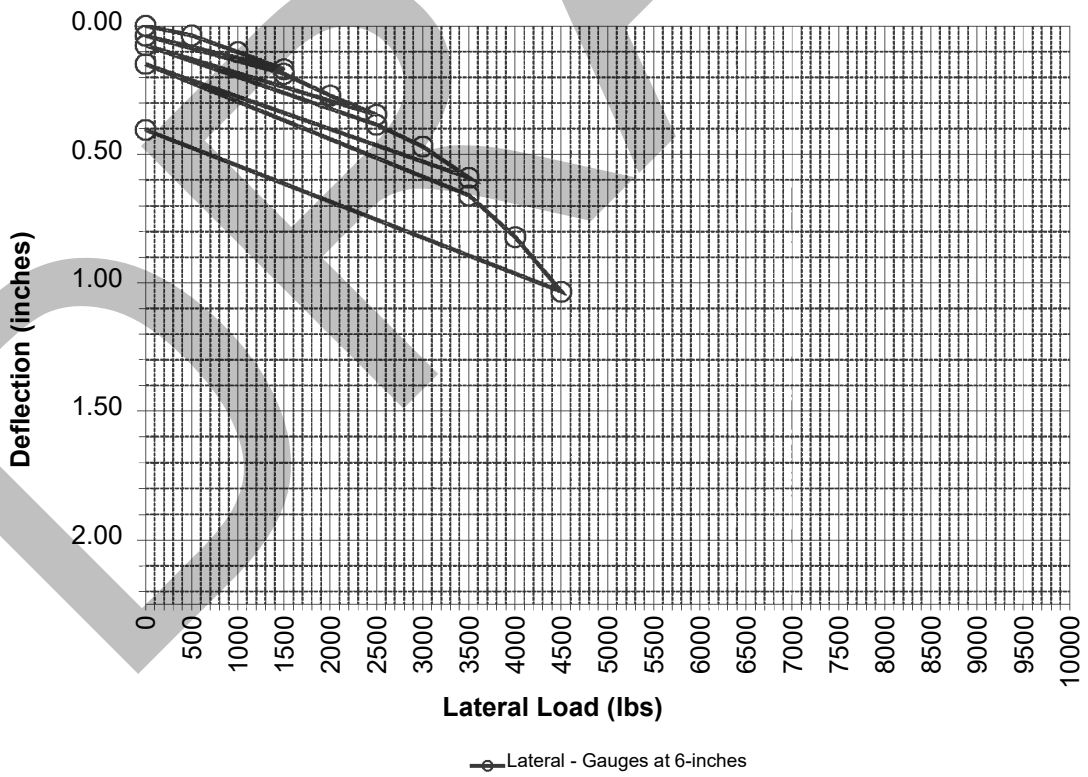
Test Date and Representative

Tested By Terracon Rep:	M.J.& I.H.
Date Tested:	1/21/2022

Pile Information

Pile ID:	PLT-11B
Latitude:	37.110211°
Longitude:	-85.086819°
Pile Type:	W6X9
Pile Embedment Depth [in]:	72
Pile Stick-Up [in]:	48
Lateral Design Load [lbs]:	10000
Drive Time [sec]:	20.6

% of Design Load	Lateral Load [lbs]	Deflection Δ (in.) Gauges #1 & #2	Comments
0%	0	0.000	
5%	500	0.038	
10%	1000	0.102	
15%	1500	0.169	
0%	0	0.039	
15%	1500	0.187	
20%	2000	0.272	
25%	2500	0.346	
0%	0	0.076	
25%	2500	0.385	
30%	3000	0.470	
35%	3500	0.592	
0%	0	0.150	
35%	3500	0.661	
40%	4000	0.823	
45%	4500	1.035	
50%	5000		
0%	0		
40%	4000		
50%	5000		
55%	5500		
60%	6000		
65%	6500		
70%	7000		
0%	0	0.405	



SEBREE SOLAR II, LLC

CASE NO. 2022-00131

RESPONSE TO INFORMATION REQUEST

SITING BOARD STAFF'S FIRST REQUEST FOR INFORMATION DATED 7/07/2023

REQUEST 3

RESPONSIBLE PARTY: Jason Andrews

Request 3. Provide the stormwater management plan for the project.

Response 3. The stormwater management plan for the project has not been fully designed. The stormwater management plan will be finalized prior to the start of construction and Sebree Solar II will comply with the Kentucky Pollution Discharge Elimination System (KPDES) Stormwater Construction General Permit (KYR10).

SEBREE SOLAR II, LLC

CASE NO. 2022-00131

RESPONSE TO INFORMATION REQUEST

SITING BOARD STAFF'S FIRST REQUEST FOR INFORMATION DATED 7/07/2023

REQUEST 4

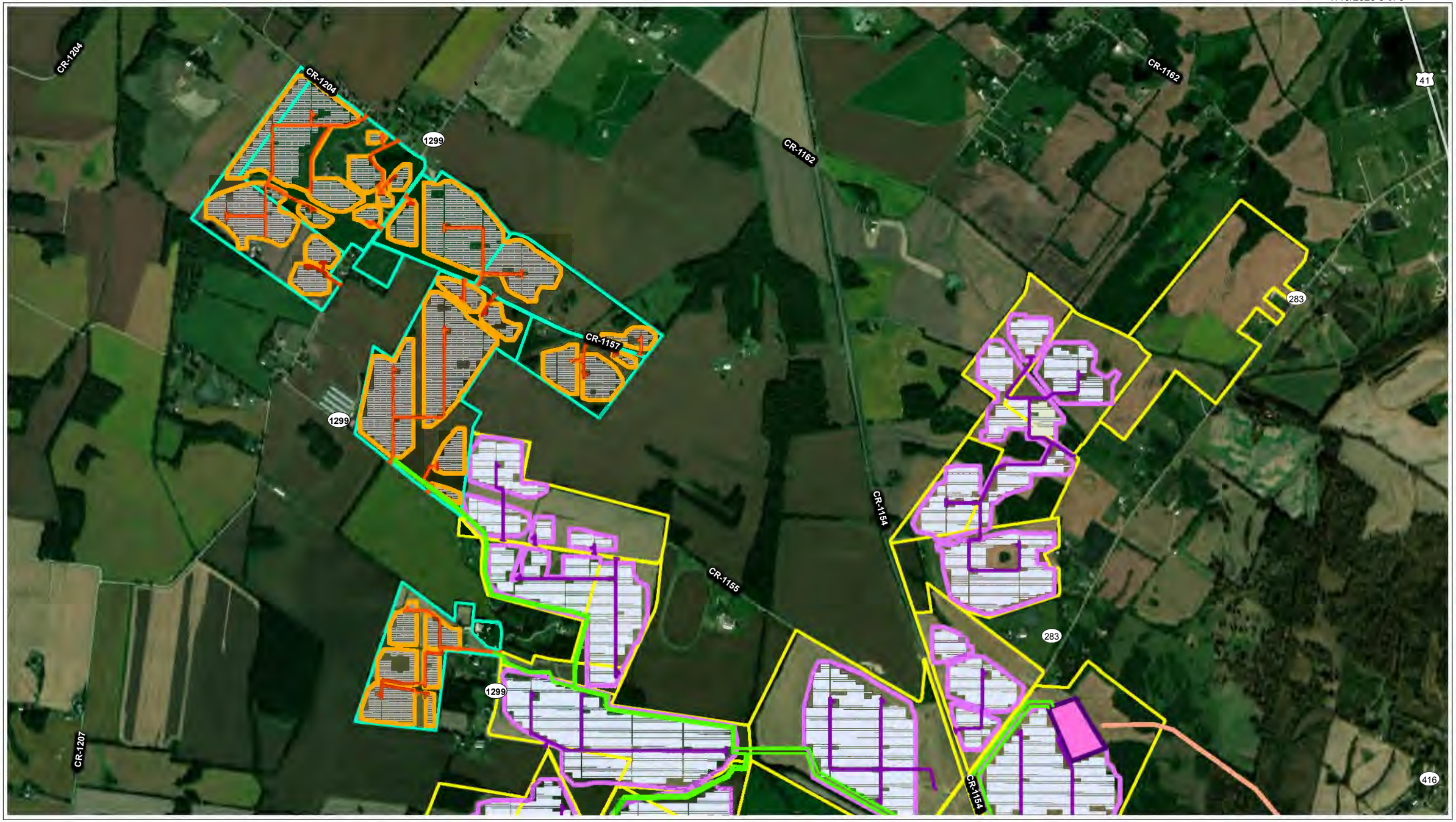
RESPONSIBLE PARTY: Jason Andrews

Request 4. Provide a one-page map that shows both the Sebree Solar II project and the project in Case No. 2021-00072.[1] In the map, clearly distinguish between the projects. Include the solar arrays for each project, state/county roads, access roads, substation, collector substation, collection lines, solar meteorological station, and control houses.

Response 4. Please see the attached three maps. These maps include an overview figure (Figure 4-1) at a 1:42,000 scale (1-foot equals 3,500 feet) with the Sebree Solar Project (Case No. 2021-00072) boundary, the Sebree Solar II Project (Case No. 2022-00131) boundary, collector substation, substation, and labeled roads, and two detailed figures (Figures 4-2A and 4-2B) at a 1:18,000 scale (1-foot equals 1,500 feet) showing the project boundaries, solar arrays, access roads, MV collection corridor, the collector substation, and the substation that the gen-tie

[1] Case No. 2021-00072, *Electronic Application of Sebree Solar, LLC for a Certificate to Construct an Approximately 250 Megawatt Merchant Solar Electric Generating Facility and Approximately 4.5 Mile Nonregulated Electric Transmission Line in Henderson County, Kentucky and Webster County, Kentucky Pursuant to KRS 278.700 and 807 KAR 5:110* (Ky. PSC Feb. 9, 2022).

transmission line is tying into. The solar meteorological station and control houses are not shown on these maps as the location of these features is to be determined later during the detailed engineering design. The layout of the Sebree Solar Project (Case No. 2021-00072) is preliminary as detailed engineering design is ongoing for this project, and this layout does not represent the Final Site Plan submittal. The Final Site Plan submittal for Sebree Solar Project is expected to be submitted later this year to support a start of construction by year end 2023.



KY State Siting Board - Case No. 2022-00131
Sebree Solar Project and Sebree Solar II
Figure 2A - Project Infrastructure
Henderson County, Kentucky
Date: 7/12/2023

Legend

- Substation
- MV Collection Corridor (Sebree Solar and Sebree Solar II)

Sebree Solar Project Components (Case No. 2021-00072)

- Sebree Solar Project Boundary
- PV Panel
- Fenced Array Area
- Proposed Sebree Collector Substation
- Access Road
- Proposed Gen-Tie Transmission Line

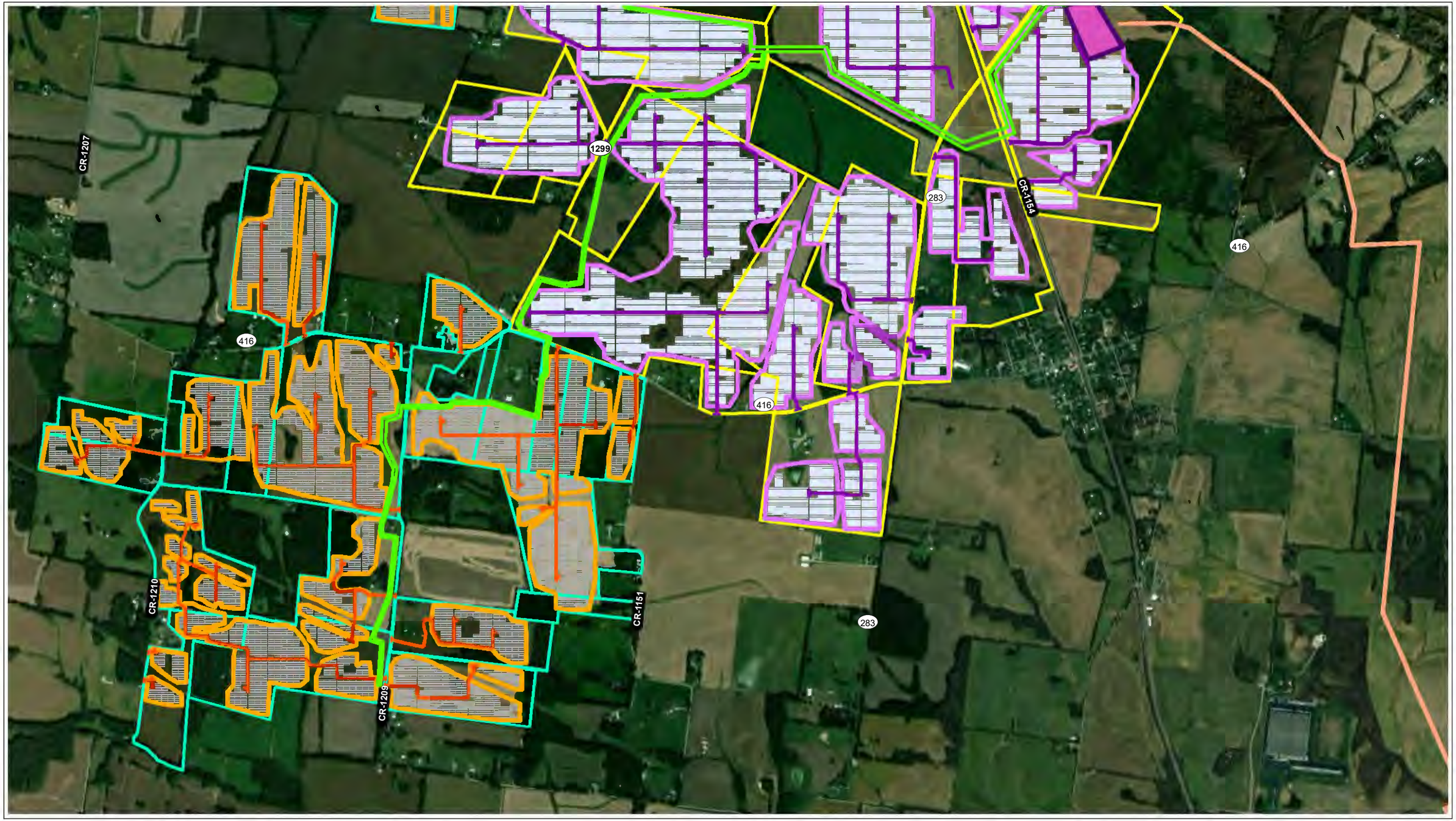
Sebree Solar II Project Components (Case No. 2022-00131)

- Sebree Solar II Project Boundary
- PV Panel
- Fenced Array Area
- Access Road

N

0 750 1,500
Feet

ECT



KY State Siting Board - Case No. 2022-00131
Sebree Solar Project and Sebree Solar II
Figure 2B - Project Infrastructure
Henderson County, Kentucky
Date: 7/12/2023

Legend

- Substation
- MV Collection Corridor (Sebree Solar and Sebree Solar II)

Sebree Solar Project Components (Case No. 2021-00072)

- Sebree Solar Project Boundary
- PV Panel
- Fenced Array Area
- Proposed Sebree Collector Substation
- Access Road
- Proposed Gen-Tie Transmission Line

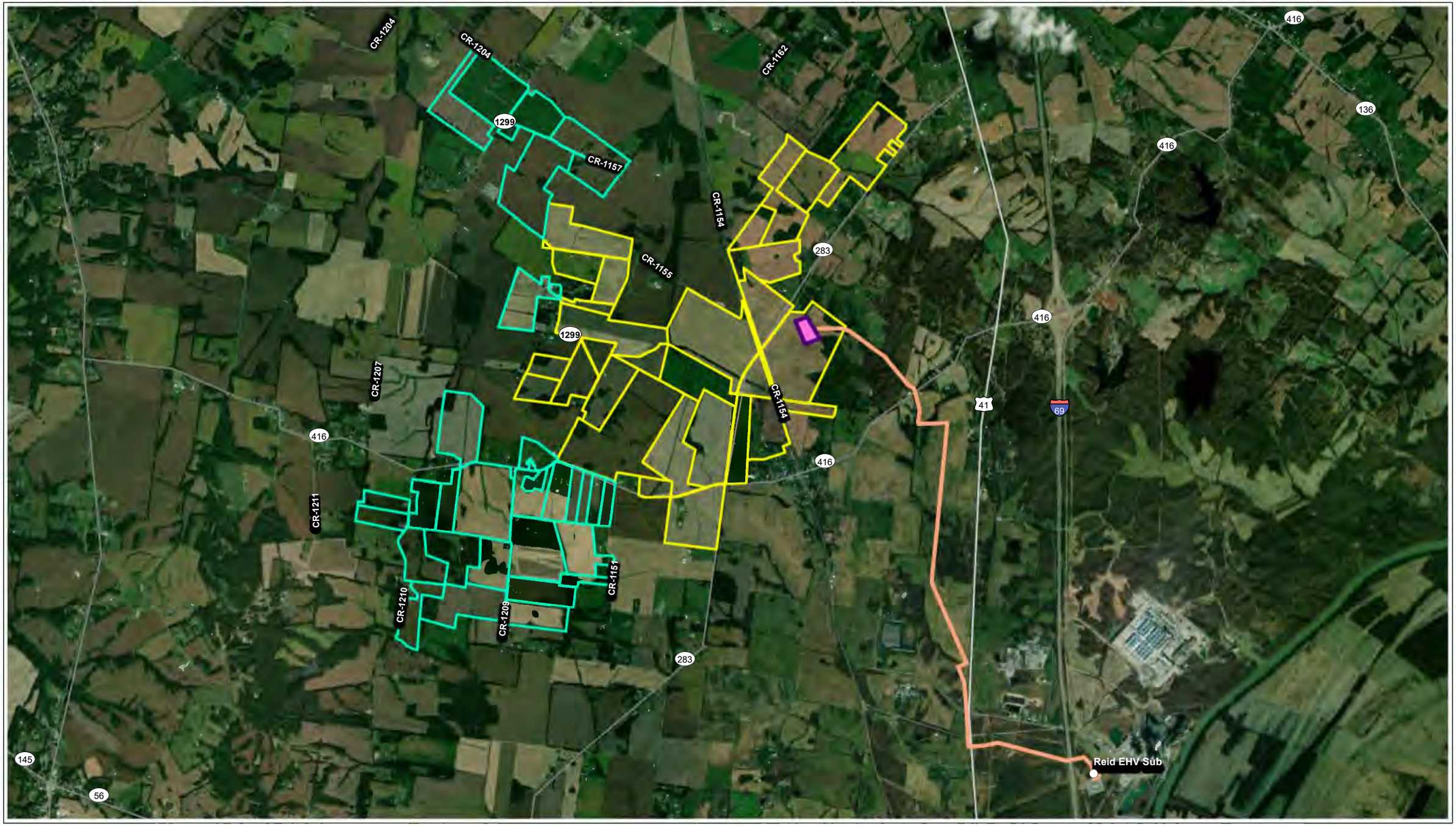
Sebree Solar II Project Components (Case No. 2022-00131)

- Sebree Solar II Project Boundary
- PV Panel
- Fenced Array Area
- Access Road

N

0 750 1,500
Feet

ECT



KY State Siting Board - Case No. 2022-00131
Sebree Solar Project and Sebree Solar II
Figure 4-1 - Project Overview
Henderson County, Kentucky
Date: 7/12/2023

Legend

- Substation

Sebree Solar Project Components (Case No. 2021-00072)

- Sebree Solar Project Boundary
- Proposed Sebree Collector Substation
- Proposed Gen-Tie Transmission Line

Sebree Solar II Project Components (Case No. 2022-00131)

- Sebree Solar II Project Boundary

N

0 1,750 3,500

ECT

SEBREE SOLAR II, LLC

CASE NO. 2022-00131

RESPONSE TO INFORMATION REQUEST

SITING BOARD STAFF'S FIRST REQUEST FOR INFORMATION DATED 7/07/2023

REQUEST 5

RESPONSIBLE PARTY: Jason Andrews

Request 5. Texas Gas Transmission LLC has two pipelines carrying natural gas through the project.

a. Explain if any access roads or collection lines will cross over the pipelines.

b. Provide any communication, or summary of oral communication, with Texas Gas Transmission LLC regarding the project and the natural gas pipelines.

Response 5.

a. Sebree Solar II has three access roads that cross the Texas Gas Transmission LLC pipeline. Additionally, one of Sebree Solar II's Medium Voltage (MV) corridors crosses the Texas Gas Transmission LLC pipeline.

b. The Sebree Solar Project and Sebree Solar II Project have been in communication with Texas Gas Transmission LLC since 2021 concerning coordination of design and construction activities. In 2022, Sebree Solar LLC and Texas Gas Transmission LLC

executed a Consent and Crossing Agreement to establish a method and practice for mutual cooperation with respect to the various easement crossings in the Robards, KY area. This agreement references the existing Sebree Solar and Sebree Solar II lease agreements, the existing Texas Gas Transmission pipeline easement agreements, and planned Texas Gas Transmission pipeline easement agreements which are in close proximity or adjacent to each other in the Robards, KY area. This agreement establishes priority between the existing and future solar leases and pipeline easements so that interfaces are clear and there is no overlap between Texas Gas Transmission easements and the location of solar generating equipment, except at future defined crossing locations. This agreement also contains templates defining requirements to be met to allow for underground crossing, overhead transmission line crossings, and access road crossings in Texas Gas Transmission easements. This coordination and communication is ongoing and will continue through the construction of the new Texas Gas Transmission LLC pipeline and construction of the Sebree Solar Project and Sebree Solar II Project.

SEBREE SOLAR II, LLC

CASE NO. 2022-00131

RESPONSE TO INFORMATION REQUEST

SITING BOARD STAFF'S FIRST REQUEST FOR INFORMATION DATED 7/07/2023

REQUEST 6

RESPONSIBLE PARTY: Jason Andrews

Request 6. Provide any communication with Henderson County Water District regarding supplying water for construction or operations of the project.

Response 6. Sebree Solar II has not had any written communication with the Henderson County Water District. The Henderson County Water District serves as a primary member of the Henderson County Land Development Committee. On May 23, 2023 Sebree Solar II presented a development site plan for review and the Henderson County Water District was in attendance. The Henderson County Water District representative reviewed the site plan and recommended approval for the Henderson County Planning Commission. The Sebree Solar II site plan was approved by the Henderson County Planning Commission on June 6, 2023.

SEBREE SOLAR II, LLC

CASE NO. 2022-00131

RESPONSE TO INFORMATION REQUEST

SITING BOARD STAFF'S FIRST REQUEST FOR INFORMATION DATED 7/07/2023

REQUEST 7

RESPONSIBLE PARTY: Jason Andrews

Request 7. Refer to the Application, Exhibit 10, Attachment A. Confirm whether Sebree II intends to pursue an Industrial Revenue Bond (IRB) and a Payment In Lieu Of Taxes (PILOT) Agreement with Henderson County, or any other form of tax abatement with Kentucky.

Response 7. Sebree Solar II does not intend to pursue an Industrial Revenue Bond and a Payment In Lieu Of Taxes (PILOT) agreement with Henderson County, or any other form of tax abatement with Kentucky.

SEBREE SOLAR II, LLC

CASE NO. 2022-00131

RESPONSE TO INFORMATION REQUEST

SITING BOARD STAFF'S FIRST REQUEST FOR INFORMATION DATED 7/07/2023

REQUEST 8

RESPONSIBLE PARTY: Joshua Crawford

Request 8. Refer to Sebree Solar II's Response to Siting Board's First Request for Information (Response to Staff's First Request), Item 20.

a. Confirm whether only county-level data for Henderson County was considered when calculating the secondary economic impacts for the construction phase.

b. Provide the secondary economic impacts of the construction phase of the project using state-level data.

Response 8 item a. Both Henderson County data and State level data were considered when calculating the secondary economic impacts for the construction phase.

Response 8 item b. The IMPLAN model used provides detailed information secondary impacts, using the regional economy to estimate the benefits provided by increased household spending. This includes increases in the retail and service sectors because of direct compensation and

subsequent consumption increases. The model likewise provides for impacts on local businesses, including predictions on how local supply chains might be utilized to meet project needs as well as additional sales that might support the project. These factors, both local and state level data combine to predict the secondary impacts resulting from the initial investment. Using the metrics for the specific region, we project a secondary impact of an additional 58 jobs equaling $1,487,724 in additional payroll. This will bring the total payroll impact of the construction phase to $7,487,724.

SEBREE SOLAR II, LLC

CASE NO. 2022-00131

RESPONSE TO INFORMATION REQUEST

SITING BOARD STAFF'S FIRST REQUEST FOR INFORMATION DATED 7/07/2023

REQUEST 9

RESPONSIBLE PARTY: Joshua Crawford

Request 9. Refer to the Response to Staff's First Request, Item 21. Confirm that there are no occupational taxes for Henderson County.

Response 9. Henderson County levies an occupational tax on corporations and individuals. As of January 2023, Henderson County has a county payroll tax of 1.65% of the gross compensation paid for the work done within the county and a 1.65% net profits tax.

SEBREE SOLAR II, LLC

CASE NO. 2022-00131

RESPONSE TO INFORMATION REQUEST

SITING BOARD STAFF'S FIRST REQUEST FOR INFORMATION DATED 7/07/2023

REQUEST 10

RESPONSIBLE PARTY: Joshua Crawford-a. and Jason Andrews-b.

Request 10. Refer to the Response to Staff's First Request, Item 21.

a. Explain why sales taxes cannot be estimated for the project.

b. Based on prior solar facility development experience, provide the estimated proportion of in-state versus out-of-state materials purchased for the project during the construction phase for this project.

Response 10 item a. There will be sales tax revenue effects in Kentucky because of the Project. The Project estimates that approximately $966,000 in Kentucky sales tax revenues will be generated as a result of the Project, separate from other tax calculations presented in the economic impact assessment originally provided. The basis for this calculation is a 6% sales tax rate applied to 7% of the construction costs. There are many factors that support this estimate which have not been finalized, including project finance structure.

Response 10 item b. The materials and equipment for Sebree Solar II have not been contracted as of the date of this response. The materials will be sourced through the open market and while it is encouraged to purchase locally, due to the nature of these types of projects, that is not always possible. Estimated percentages cannot be determined at this time.

SEBREE SOLAR II, LLC

CASE NO. 2022-00131

RESPONSE TO INFORMATION REQUEST

SITING BOARD STAFF'S FIRST REQUEST FOR INFORMATION DATED 7/07/2023

REQUEST 11

RESPONSIBLE PARTY: Elizabeth Wilburn

Request 11. Refer to the Response to Staff's First Request, Item 12. Since the construction dates of the other projects are not known, based upon the public information available, perform an analysis of the cumulative construction noise from Sebree Solar II, the project in Case No. 2020-00242,[2] and Case No. 2020-00391[3] using the assumption all would be under construction at the same time.

Response 11. The Applicant considered cumulative noise impacts from operational activities when conducting the noise study for the Sebree Solar II Project. While the information request asks the applicant to assume that the Sebree Solar II Project and the Sebree Solar Project will operate simultaneously, the noise study for the Sebree Solar II Project did not factor in overlap in

[2] Case No. 2020-00242, *Electronic Application of Unbridled Solar, LLC for a Certificate of Construction for an Approximately 160-Megawatt Merchant Electric Solar Generating Facility and Nonregulated Electric Transmission Line in Henderson and Webster Counties, Kentucky*. (Ky. PSC June 4, 2021).

[3] Case No. 2020-00391, *Electronic Application of Henderson County Solar LLC for a Certificate of Construction for an Approximately 50-Megawatt Merchant Electric Solar Generating Facility in Henderson County, Kentucky Pursuant to KRS 278.700 and 807 KAR 5:100* (Ky. PSC Dec. 22, 2021).

construction schedules for the Sebree Solar II Project and the Sebree Solar Project because the projected construction schedules show no overlap.

While the Applicant inquired with its consultants to prepare a response using the assumption presented, to perform an analysis of the cumulative construction noise for all four projects: the Sebree Solar II Project, Sebree Solar Project, the Unbridled Solar Project, and the Henderson County Solar Project, the Applicant would need data files showing the inverter locations and PV panel locations along with detailed information on the inverters (IE. make, model, etc.). The Applicant does not have access to this specific project data for the Unbridled Solar project or the Henderson County Solar project that would be needed to build a model to show cumulative noise impacts from all four projects. Sebree Solar II has included an attachment that identifies the boundaries of all four projects. The Henderson County Solar project is approximately four miles away from the Sebree II project. The Unbridled project, while adjacent to Sebree II should have minimal to no overlap in construction schedule based on the verbal conversations with the Unbridled Solar developer.

SEBREE SOLAR II, LLC

CASE NO. 2022-00131

RESPONSE TO INFORMATION REQUEST

SITING BOARD STAFF'S FIRST REQUEST FOR INFORMATION DATED 7/07/2023

REQUEST 12

RESPONSIBLE PARTY: Jason Andrews

Request 12. Refer to the Response to Staff's First Request, Items 12 and 13. Provide any communication Sebree Solar II has had with the developers of the other solar projects in Henderson County to determine if the construction schedules will overlap.

Response 12. Sebree Solar II has made communications with a developer for Unbridled Solar LLC. On June 5, 2023 Sebree Solar II verbally discussed the status of the Unbridled Solar's construction status with one of the project developers. Unbridled Solar stated they were projected to commence construction in July 2023. Sebree Solar II is projected to commence construction in early 2025 and does not anticipate a construction overlap. Sebree Solar II has made multiple attempts to contact Henderson County Solar. Sebree Solar II has left multiple voice messages and emails directly to the Henderson County Solar website without success. Sebree Solar II will continue to reach out and utilize local contacts in an attempt to gain point-of-contact information for the Henderson County Solar project.

SEBREE SOLAR II, LLC

CASE NO. 2022-00131

RESPONSE TO INFORMATION REQUEST

SITING BOARD STAFF'S FIRST REQUEST FOR INFORMATION DATED 7/07/2023

REQUEST 13

RESPONSIBLE PARTY: Erin Bowen

Request 13. Refer to the Response to Staff's First Request, Item 14. The response did not address the cumulative effect on property value of four projects sited in close proximity. Provide an updated response that evaluates the effect on property values when there are multiple projects within one county.

Response 13. CohnReznick has evaluated and continues to evaluate solar projects and their potential impacts on surrounding property values nationwide, as the trend for new renewable energy resources continues to increase. While total output for all of the projects approved/slated for development around Sebree Solar II totals 676 MW (Unbridled Solar – 160 MW; Henderson Solar - 117 MW; Sebree & Sebree II – 400 MW), this is not necessarily inconsistent with solar development occurring in other parts of the Midwest region.

There are many other large projects in the same county or in close proximity that have been approved for development and/or are operating and/or under development:

- Illinois: Owens Creek Solar (500 MW) and Red Maple Solar (300MW) – 800 MW within 10 miles approved in Dekalb County Illinois
- Indiana: Mammoth Solar – 3 projects 1,000 MW in Beardstown County IN + Mayapple Solar 224 MW – 4 projects totaling 1,224 MW within 10 miles.
- Ohio: Hecate Energy (300 MW) and New Market Solar (65 MW) and Hillcrest Solar (200 MW) and Willowbrook Solar (150 MW) all within 12 miles totaling 815 MW
- Ohio: Yellowbud Solar (274 MW) + Salt City Solar (50 MW) + Atlanta Farms Solar (200 MW) – 524 MW within 15 miles
- Michigan: Calhoun Solar (200 MW) and Cereal City Solar (100 MW) reflect 300 MW within 2.5 miles of each other

These approvals would not have proceeded without those applicants also proving their respective developments would not cause any negative impact to surrounding property values. As indicated in the reports provided to the siting board, there is no evidence of measurable and consistent negative impacts to adjacent property values for existing solar farms of considerable size in similar areas to Henderson County. Further, academic studies reviewing thousands of sales in a multiple regression analysis show very little to no impact for rural areas next to operating solar farms. CohnReznick's interviews with local County assessors and real estate brokers with solar in their communities have not indicated any negative impacts due to the operation of proximate solar farms.

In addition, given that solar array structures are typically less than 16-20 feet at their highest point, it is impossible for any home located farther than 2-3 miles from a project to see that project. Given the amount of mitigation most solar developers employ to limit direct views (including fencing, native plant screening, and leaving perimeter wooded areas on site) as well as the fact that views from any single home site would likely be limited to less than 40-60 acres at a time in any

direction, the cumulative effect on any single property owner would be negligible. Since Henderson Solar is located more than 4.4 miles north of Sebree II (See Maps related to Response #11 and #12) , any impact caused by the simultaneous operation of both solar farms is considered moot.

Most importantly, CohnReznick analyzed transactions of homes that had direct view of solar on all four sides, specifically 300 to 1,200 linear feet from panel to house. In the case of the North Star Solar Farm in North Branch, Minnesota, CohnReznick measured that a single home (see page 47-50 in the CohnReznick Report (Application Exhibit 12-Att A Ex 1-P_A) being within ¼ mile of 100 MW of solar operation sold at a price point that reflected an amount 30% greater than its cohort of control sales in the area, sold at a unit price the highest the county had ever seen for a home of its style, and reflected a monthly appreciation rate greater than that expressed by the average for all homes in the zip code (according to the FHFA price index). Given that property values are typically influenced by proximity to certain uses, this is a prime example of how solar does not negatively impact homes, even when they are surrounded by solar panels in four directions.

Finally, Henderson County's total land area is approximately 436 square miles, or approximately 300,000 acres. The total land area to be utilized by the solar farms would be a maximum of 4,341 acres (2,100 acres Sebree; 1,700 acres Unbridled; 541 acres Henderson) or less than 1.5% of all land area within the County. The cumulative usage is not considered large enough to change the character of the County as a whole, despite its ability to add substantial tax revenue to the local area and State, as well as provide the cooperating landowners with a safe and long-term income stream.

Overall, CohnReznick does not believe that the cumulative impact will be deleterious to the existing property and uses proximate to Sebree Solar II.

CASE NO. 2022-00131

RESPONSE TO INFORMATION REQUEST

SITING BOARD STAFF'S FIRST REQUEST FOR INFORMATION DATED 7/07/2023

REQUEST 14

RESPONSIBLE PARTY: Jason Andrews

Request 14. Provide the anticipated number of years for project operations.

Response 14. The project is anticipated to be in operation for 30 years with land agreements that extend to 40 years from start of construction.

SEBREE SOLAR II, LLC

CASE NO. 2022-00131

RESPONSE TO INFORMATION REQUEST

SITING BOARD STAFF'S FIRST REQUEST FOR INFORMATION DATED 7/07/2023

REQUEST 15

RESPONSIBLE PARTY: Jason Andrews

Request 15. Refer to the Response to Staff's Second Request, Item 37. Explain the method Sebree Solar II utilized to state 200 full time equivalent jobs will be created by the project if "[t]he Project has not secured an Engineering, Procurement, Construction (EPC) contract to be able to identify and specify the exact numbers to put against the type of job listed in Exhibit 10, Attachment A, page 10."

Response 15. Sebree Solar II has estimated the number of 200 full-time equivalent jobs based on nameplate capacity, total acreage of the project, and historical experience in constructing solar projects across the United States. The specific number and type of jobs cannot be identified until the Engineering, Procurement, Construction (EPC) contract is awarded. The EPC contractor will conduct a site survey of the project area and conduct their own internal analysis on the number and specific job types required. The EPC will maintain responsibility for hiring the number and type of specific workers to construct the project on the scheduled timeline.