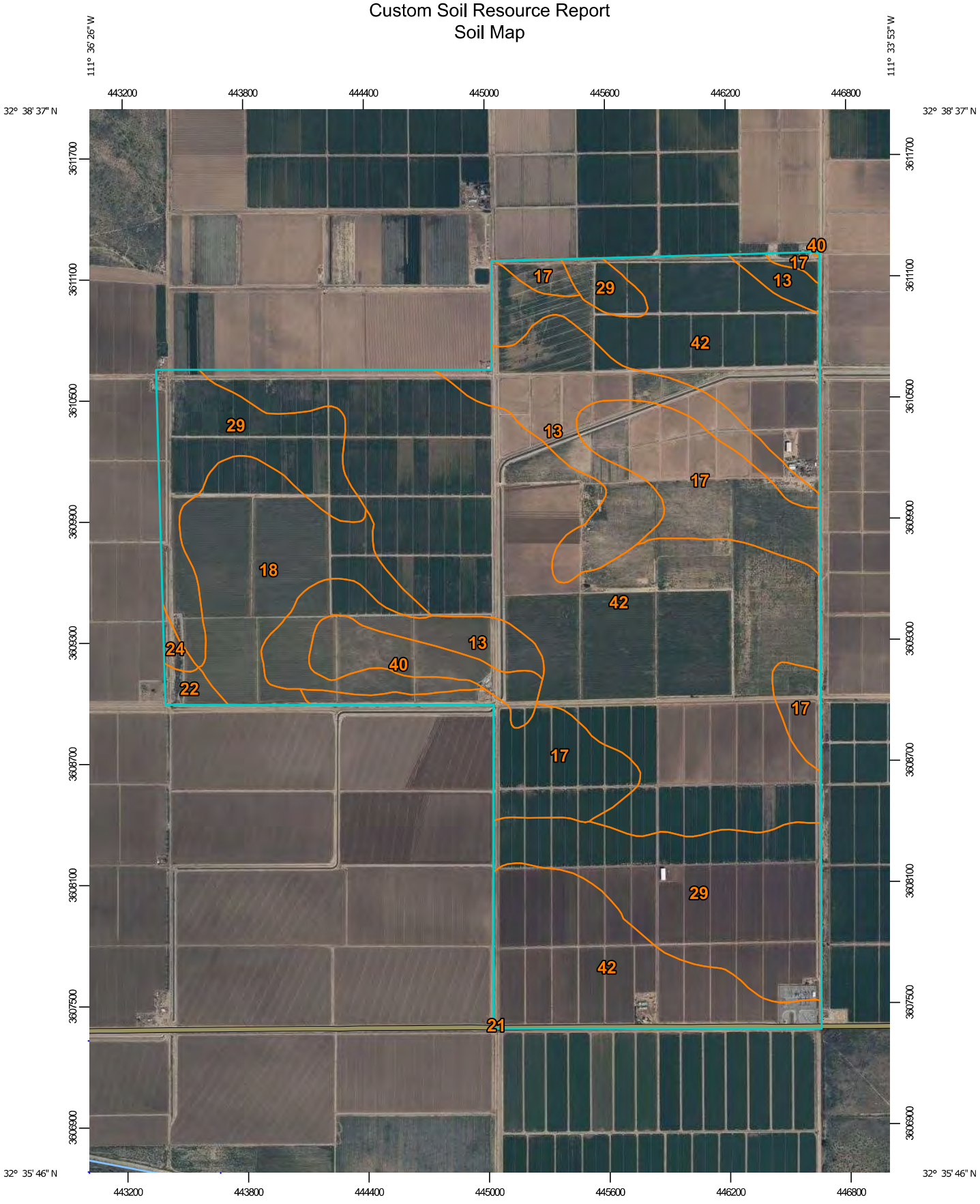
Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



Map Scale: 1:25,700 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 350 700 1400 2100

Feet: 0 1000 2000 4000 6000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 12N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Pinal County, Arizona, Western Part
Survey Area Data: Version 18, Sep 16, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Feb 18, 2020—Mar 7, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
13	Dateland fine sandy loam	265.1	11.9%
17	Denure fine sandy loam, 0 to 1 percent slopes	252.6	11.3%
18	Denure clay loam, 0 to 1 percent slopes	175.2	7.9%
21	Gilman fine sandy loam, 0 to 2 percent slopes	0.3	0.0%
22	Gilman clay loam	10.7	0.5%
24	Glenbar clay loam, 0 to 2 percent slopes	6.1	0.3%
29	Marana silty clay loam	367.2	16.5%
40	Rositas loamy fine sand	55.3	2.5%
42	Sasco silt loam	1,095.4	49.2%
Totals for Area of Interest		**2,227.9**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit

descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Pinal County, Arizona, Western Part

13—Dateland fine sandy loam

Map Unit Setting

National map unit symbol: 1sq0
Elevation: 1,130 to 1,990 feet
Mean annual precipitation: 6 to 8 inches
Mean annual air temperature: 68 to 72 degrees F
Frost-free period: 240 to 325 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Dateland and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Dateland

Setting

Landform: Fan terraces, stream terraces
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Mixed stream and fan alluvium

Typical profile

A - 0 to 2 inches: fine sandy loam
Bk - 2 to 40 inches: fine sandy loam
C - 40 to 60 inches: fine sandy loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: RareNone
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 7.8 inches)

Interpretive groups

Land capability classification (irrigated): 1
Land capability classification (nonirrigated): 7c
Hydrologic Soil Group: B
Ecological site: R040XB207AZ - Limy Fan 7"-10" p.z.
Hydric soil rating: No

Minor Components

Unnamed soils

Percent of map unit: 10 percent
Hydric soil rating: No

17—Denure fine sandy loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: 1sq4
Elevation: 1,130 to 1,990 feet
Mean annual precipitation: 6 to 8 inches
Mean annual air temperature: 68 to 72 degrees F
Frost-free period: 240 to 325 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Denure and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Denure

Setting

Landform: Stream terraces
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Mixed stream alluvium

Typical profile

A - 0 to 2 inches: fine sandy loam
Bk - 2 to 54 inches: sandy loam
2Btk - 54 to 60 inches: sandy clay loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 7.4 inches)

Interpretive groups

Land capability classification (irrigated): 3s
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: A
Ecological site: R040XB207AZ - Limy Fan 7"-10" p.z.
Hydric soil rating: No

Minor Components

Unnamed soils

Percent of map unit: 15 percent
Hydric soil rating: No

18—Denure clay loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: 1sq5
Elevation: 1,130 to 1,990 feet
Mean annual precipitation: 6 to 8 inches
Mean annual air temperature: 68 to 72 degrees F
Frost-free period: 240 to 325 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Denure and similar soils: 95 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Denure

Setting

Landform: Stream terraces
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Mixed stream alluvium

Typical profile

Ap - 0 to 15 inches: clay loam
Bk - 15 to 54 inches: sandy loam
2Btk - 54 to 60 inches: sandy clay loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)

Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 8.6 inches)

Interpretive groups

Land capability classification (irrigated): 2s
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: C
Ecological site: R040XB207AZ - Limy Fan 7"-10" p.z.
Hydric soil rating: No

Minor Components

Unnamed soils

Percent of map unit: 5 percent
Hydric soil rating: No

21—Gilman fine sandy loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2tdtw
Elevation: 800 to 2,000 feet
Mean annual precipitation: 7 to 10 inches
Mean annual air temperature: 70 to 72 degrees F
Frost-free period: 240 to 325 days
Farmland classification: Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season

Map Unit Composition

Gilman and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Gilman

Setting

Landform: Flood plains
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Mixed fan and stream alluvium

Typical profile

Ap1 - 0 to 3 inches: fine sandy loam
Ap2 - 3 to 13 inches: loam
C1 - 13 to 26 inches: loam
C2 - 26 to 44 inches: loam
C3 - 44 to 60 inches: silt loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: NoneOccasional
Frequency of ponding: None
Calcium carbonate, maximum content: 4 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 9.8 inches)

Interpretive groups

Land capability classification (irrigated): 2w
Land capability classification (nonirrigated): 7c
Hydrologic Soil Group: A
Ecological site: R040XB211AZ - Loamy Swale 7"-10" p.z.
Hydric soil rating: No

Minor Components

Unnamed soils

Percent of map unit: 15 percent
Hydric soil rating: No

22—Gilman clay loam

Map Unit Setting

National map unit symbol: 1sqb
Elevation: 1,130 to 1,990 feet
Mean annual precipitation: 6 to 8 inches
Mean annual air temperature: 68 to 72 degrees F
Frost-free period: 240 to 325 days
Farmland classification: Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season

Map Unit Composition

Gilman and similar soils: 95 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Gilman

Setting

Landform: Flood plains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Dip
Down-slope shape: Linear

Across-slope shape: Linear
Parent material: Mixed stream alluvium

Typical profile

Ap - 0 to 12 inches: clay loam
C - 12 to 60 inches: stratified sandy loam to very fine sandy loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: OccasionalNone
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Maximum salinity: Nonsaline to moderately saline (0.0 to 8.0 mmhos/cm)
Sodium adsorption ratio, maximum: 13.0
Available water supply, 0 to 60 inches: High (about 10.5 inches)

Interpretive groups

Land capability classification (irrigated): 2w
Land capability classification (nonirrigated): 7w
Hydrologic Soil Group: C
Ecological site: R040XB211AZ - Loamy Swale 7"-10" p.z.
Hydric soil rating: No

Minor Components

Unnamed soils

Percent of map unit: 5 percent
Hydric soil rating: No

24—Glenbar clay loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2tdtq
Elevation: 980 to 2,000 feet
Mean annual precipitation: 7 to 10 inches
Mean annual air temperature: 70 to 72 degrees F
Frost-free period: 240 to 325 days
Farmland classification: Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season

Map Unit Composition

Glenbar and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Glenbar

Setting

Landform: Flood plains
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Mixed stream alluvium

Typical profile

Ap - 0 to 7 inches: clay loam
Ck1 - 7 to 18 inches: clay loam
Ck2 - 18 to 31 inches: silty clay loam
Ck3 - 31 to 60 inches: silty clay loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: NoneOccasional
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Gypsum, maximum content: 2 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 11.4 inches)

Interpretive groups

Land capability classification (irrigated): 3w
Land capability classification (nonirrigated): 7c
Hydrologic Soil Group: C
Ecological site: R040XB211AZ - Loamy Swale 7"-10" p.z.
Hydric soil rating: No

Minor Components

Unnamed soils

Percent of map unit: 15 percent
Hydric soil rating: No

29—Marana silty clay loam

Map Unit Setting

National map unit symbol: 1sqk
Elevation: 1,130 to 1,990 feet
Mean annual precipitation: 6 to 8 inches
Mean annual air temperature: 68 to 72 degrees F

Frost-free period: 240 to 325 days
Farmland classification: Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season

Map Unit Composition

Marana and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Marana

Setting

Landform: Stream terraces
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Mixed stream alluvium

Typical profile

A - 0 to 2 inches: silty clay loam
C - 2 to 60 inches: silty clay loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: RareNone
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 12.0 inches)

Interpretive groups

Land capability classification (irrigated): 1
Land capability classification (nonirrigated): 7c
Hydrologic Soil Group: C
Ecological site: R040XB213AZ - Loamy Upland 7"-10" p.z.
Hydric soil rating: No

Minor Components

Unnamed soils

Percent of map unit: 10 percent
Hydric soil rating: No

40—Rositas loamy fine sand

Map Unit Setting

National map unit symbol: 1sqz
Elevation: 1,130 to 1,990 feet
Mean annual precipitation: 6 to 8 inches
Mean annual air temperature: 68 to 72 degrees F
Frost-free period: 240 to 325 days
Farmland classification: Farmland of unique importance

Map Unit Composition

Rositas and similar soils: 95 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Rositas

Setting

Landform: Dunes
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Mixed eolian deposits

Typical profile

A1 - 0 to 2 inches: loamy fine sand
C2 - 2 to 60 inches: loamy sand

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Maximum salinity: Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum: 13.0
Available water supply, 0 to 60 inches: Low (about 4.2 inches)

Interpretive groups

Land capability classification (irrigated): 3s
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: A
Ecological site: R040XB217AZ - Sandy Upland 7"-10" p.z.
Hydric soil rating: No

Minor Components

Unnamed soils

Percent of map unit: 5 percent
Hydric soil rating: No

42—Sasco silt loam

Map Unit Setting

National map unit symbol: 1sr1
Elevation: 1,130 to 1,990 feet
Mean annual precipitation: 6 to 8 inches
Mean annual air temperature: 68 to 72 degrees F
Frost-free period: 240 to 325 days
Farmland classification: Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season

Map Unit Composition

Sasco and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sasco

Setting

Landform: Stream terraces
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Mixed stream silty alluvium

Typical profile

A - 0 to 2 inches: silt loam
Bw - 2 to 47 inches: silt loam
2Btb - 47 to 60 inches: clay loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: RareNone
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 11.1 inches)

Interpretive groups

Land capability classification (irrigated): 1
Land capability classification (nonirrigated): 7c
Hydrologic Soil Group: C
Ecological site: R040XB213AZ - Loamy Upland 7"-10" p.z.
Hydric soil rating: No

Minor Components

Unnamed soils

Percent of map unit: 15 percent
Hydric soil rating: No

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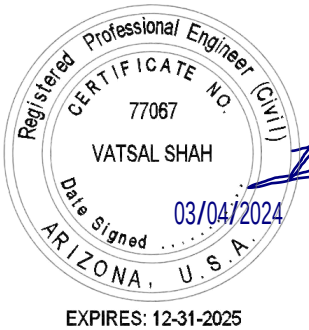
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PRELIMINARY GEOTECHNICAL REPORT

Cactus Flower Solar Project

Pinal County, Arizona

May 2, 2024



EXPIRES: 12-31-2025

Vatsal Shah, PE, Ph.D
AZ PE License No. 77067

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Table A – Substation and Transmission Line Recommendations

Attachments

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Attachment A-2 – Investigation Location Plan
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Attachment G – Seismic Hazard Report
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1 Executive Summary

ANS Geo, Inc. is pleased to provide this Geotechnical Report (Report) to Cypress Creek Renewables (CCR) to summarize the results of our preliminary geotechnical investigation program in support of the proposed Cactus Flower Solar and Battery Energy Storage System (BESS) project located in Pinal County, Arizona. ANS Geo has summarized some of the critical geotechnical items and observations which may impact project design and construction within this Executive Summary from our observations during the completion of the field investigation at the project site.

1. ANS Geo advanced a total of 17 soil borings across the proposed array, substation and BESS areas. An investigation location plan is provided as **Attachment A-2**, and soil boring logs are presented as **Attachment C.**
2. The soils encountered were predominantly medium stiff to stiff, low to moderate plasticity clay, silt and sand mixtures. A summary of encountered subsurface conditions and laboratory test results is provided in **Section 4**, and **Section 5**, respectively.
3. Groundwater was not encountered in soil borings conducted during the investigation. Notwithstanding, groundwater and the presence of perched water due to lower-permeability soil lenses is possible during specific seasons and weather events, therefore, it is recommended that permeability testing be performed during future investigations to evaluate the soil's ability to drain readily.
4. Pile load testing (PLT) was completed at eight (8) test locations across the proposed array areas. A total of eight (8) piles (one (1) pile at each test location) were embedded to between 7 and 10 feet below grade and tested for both uplift and lateral capacities.
5. Based on corrosivity lab testing and field electrical resistivity measurements, the soil conditions generally indicate that soils are "moderately corrosive". It is anticipated that appropriate protective measures for buried steel, such as increased galvanic coating or similar, will be employed. Results of corrosivity testing and discussion of results are provided in **Section 5.3** and **Section 8.1**.
6. It is recommended that foundations be over-excavated by at least twelve (12) inches and backfilled with compacted structural fill over geotextile separation fabric to improve the bearing capacity within/under areas of proposed foundations (ie. concrete slabs, inverter pads, substation foundations), and to provide free-draining material beneath foundations to avoid softening during times of precipitation as well as well as a capillary break between native silty soils and the foundation bases. Traditional and mat shallow foundation recommendations are presented in **Section 8.5**.
7. ANS Geo has provided Substation and BESS Deep Foundation Recommendations in **Table A** directly preceding our provided Attachments. Deep foundation considerations are discussed in **Section 8.6.**
8. Access road subgrades are generally expected to consist of brown to light brown sandy silty clay, sandy silt, and silty, clayey sand. Subgrades may be loose and cohesionless in some areas throughout the site. Various access road constructions and granular base thicknesses are presented in **Section 9.5**, **Table 15**. Cement stabilized subgrade may be desired in areas where cohesionless silty sand subgrades are difficult to handle or compact.
9. The frost depth within the project area is mapped as 12 inches below grade, which may influence bearing or embedment depths for shallow foundations. Shrink/swell of expansive soils was evaluated; soil movements resulting from shrink/swell of clay soils is not anticipated to be of substantial concern at this site. Additional discussion is provided in **Sections 8.2** and **8.3**.

2 Project Description

ANS Geo, Inc. (ANS Geo) is pleased to provide this Geotechnical Report (Report) to Cypress Creek Renewables, LLC (CCR) to summarize the results of our preliminary geotechnical investigation program in support of the proposed Cactus Flower Solar, LLC, to be located in Pinal County, Arizona.

ANS Geo, in collaboration with CCR, developed a geotechnical investigation program intended to provide geotechnical design recommendations and discuss construction considerations for the proposed solar and BESS facility.

Our understanding of project details comes from meetings and email communications with Mr. Mario Carreon, P.E., and Melissa Kempe, Project Developers for CCR. Authorization to proceed with field investigations was received during the project kick-off meeting dated February 21, 2024; scope for testing was completed as detailed in "Option B" as presented in "Proposal for Geotechnical Engineering Services – Cactus Flower Solar, LLC," dated February 13, 2024 (Rev1).

The Cactus Flower Solar project is expected to encompass roughly 2,015 footprint acres for the development of a photovoltaic (PV) facility and was expected to generate 351 megawatts (MW) of renewable energy. Site vicinity is shown in Figure 1, below, and **Attachment A-1**, Site Proximity Map.

ANS Geo's geotechnical investigation program included a study of local geologic conditions using publicly available maps and information; soil borings, pile load testing, in-situ electrical resistivity testing conducted at the site; and laboratory testing of soil for thermal resistivity, corrosivity suite, California Bearing Ratio (CBR), and index properties. Our targeted test locations were focused within solar array areas. A General Location Plan is provided as **Attachment A-2**.

Figure 1: Project Vicinity Map



Area overview with project site limits outlined in yellow. Source: Google Earth, imagery date April 2013. Graphical scale.

2.1 Provided Documents

Prior to commencing our geotechnical investigations, ANS Geo was provided multiple project files from CCR. The referenced files are listed below:

- Exhibit B – Form of Statement of Work – dated 01/24/2024
- Cactus Flower_01-08-2024.kml – dated 01/24/2024
- CactusFlower_ZSP_2023-02-20.pdf – dated 02/21/2024

In addition to these project files, supplemental project information was provided on CCR's online Sharepoint "AZ_Cactus Flower". Site access, project coordination, and additional project details were communicated between ANS Geo and CCR via e-mail and phone conversations.

2.2 Project Assumptions

ANS Geo understands that the proposed solar development will include a solar photovoltaic (PV) system, Battery Energy Storage System (BESS), an underground cable collection system, transformers and similar electrical equipment, and supporting structures and equipment. We understand the project footprint spans across multiple parcels separated by existing county and state roads, and will include the development of unpaved, aggregate access roadways within the project parcels. ANS Geo assumes the project design life to be 35 years.

ANS Geo's scope of work was completed based on our proposal dated 02/13/2024 (Rev1). The recommendations herein presented are site-specific and based on our understanding of the project, communications with CCR, and our experience with solar and BESS developments in similar geological settings. Should the configuration of the system differ from our stated understanding, it is imperative that ANS Geo is contacted to review, confirm, and/or update our recommendations to reflect the planned development. For example, recommendations such as pile design parameters will change if alternate pile installation techniques than those presented in this report are considered, such as pre-drilling, screw piles, helical piles, compaction-and-backfilling, grouting, soil-cement mixing, or other methods; these changes may cause a material change in the design of foundation. Similarly, should the location of access roadways and expected traffic volumes and loading, assumed facility design life, or other site condition change, our recommendations may need to be updated.

3 Methodology

3.1 Soil Boring Explorations

ANS Geo advanced a total of 17 soil borings completed at select locations across the project area from March 9 to March 13, 2024. A total of 15 borings (B-01 through B-15) were advanced within the proposed array areas, each to a depth of 20 ft below ground surface (BGS); one (1) boring was advanced in the proposed BESS area to a depth of 30 ft BGS; one (1) boring was advanced in the proposed substation area to a depth of 30 ft BGS. The soil boring locations are depicted in the Investigation Location Plan, provided within **Attachment A-2**.

A Diedrich D-50 tracked drill rig was used to collect soil samples using the Standard Penetration Test (SPT) Method through solid stem augers (SSA) in general accordance with ASTM Standard D1586. Soil samples were collected continuously within the upper 10 feet in each boring, then in five-foot intervals thereafter to the termination depth. Soil boring locations, proposed by ANS Geo and confirmed by Cypress Creek Renewables, were distributed relatively evenly throughout the project's array areas. BESS and substation borings were completed in the planned BESS and substation areas. All soil borings were overseen and logged by an ANS Geo representative under the direction of a Professional Engineer licensed in the State of Arizona. Typed soil boring logs are presented as **Attachment C**.

3.2 Electrical Resistivity Testing

As part of our field investigation program, ANS Geo performed field Electrical Resistivity Testing (ERT) at 10 locations across the project site. In-situ soil resistivity measurements were obtained by utilizing the Wenner 4-Pin Method in accordance with ASTM G57 and IEEE Standard 81. Two (2) mutually perpendicular traverses were collected at each array area location utilizing electrode "a"-spacings of 2, 5, 10, 25 and 50 feet. In addition, to "a"-spacings of 100 and 150 ft were added in the BESS and substation ERTs, and spacings of 200 and 250 ft were completed in the substation ERT. ERT Test results are presented as **Attachment E**.

3.3 Pile Load Testing

3.3.1 Test Pile Installation

ANS Geo conducted pile load testing at eight (8) accessible locations (PT-01 through PT-08) across the proposed solar array areas. Each pile location included one (1) test pile embedded at various depths ranging between seven (7) and 10 feet below grade. All piles were tested for both uplift and lateral deflection versus load. The nongalvanized W6x9 steel sections ("piles") were installed through the overburden via direct push to significant resistance, then driven to their final depths using a GAYK HRE 4000 Pile Driver.

3.3.2 Uplift Load Testing

Once driven to the final embedment depth (varying between 7 and 10 feet below grade), an uplift load test was performed on each test pile in accordance with the ASTM D3689 (uplift) test method. The tension load was generally applied through the arm of a Pill Handler 12K which aligned the load concentrically to the pile using a chain attached to a dynamometer, as well as a "pacman" clamp attachment to secure the assembly to the pile. Uplift loads were applied in one-minute, 1,000-pound increments up to 15,000 pounds or one-inch of vertical displacement, whichever occurred first. Once achieved, the load was released, and final displacement was recorded.

As noted in our Proposal, for the purposes of analysis, uplift loads to achieve 0.5 in. of vertical deflection were interpolated from experimental results.

3.3.3 Lateral Load Testing

A lateral load test was performed on all piles at each location following each uplift load test, in accordance with ASTM D3966 (lateral) test method. Horizontal loads were applied at approximately four (4) feet above grade on each pile with the pulling force of a hydraulic ram fixed to the excavator. Each test load was applied in one-minute, 500-pound increments up to 5,500 pounds, or until a deflection of one-inch (measured at six inches above grade) was observed. Once achieved, the load was immediately released, and residual deflection was recorded.

As noted in our Proposal, for the purposes of analysis, lateral loads to achieve 0.75 in. of lateral deflection were interpolated from experimental results.

3.3.4 Removal of Piles

Upon completion of the pile load testing program, test piles were extracted. All scrap metal was properly disposed off-site. A summary of pile load testing results can be found in **Section 6**. Detailed pile load test logs including installed piles, uplift testing, lateral testing, and post pile removal are presented as **Attachment F**.

4 Geology, Surface, and Subsurface Conditions

Prior to site mobilization, ANS Geo conducted a brief desktop review of publicly available geologic maps and reports made available by the United States Geological Survey (USGS) and the Arizona Geological Survey online mapping, and other publicly available sources. Our desktop review is summarized herein, along with our observed, site-specific subsurface conditions as identified through our investigation. A discussion of geological and geotechnical hazards relative to solar development at this site is provided in **Section 4.7**.

4.1 Observed Site Conditions

Upon arriving at the site, ANS Geo performed a site walk through to gauge general site conditions and any potential access issues. The site consists of primarily open farmland in use in agricultural and pastoral capacities. Existing structures appear to be limited to sheds and farm equipment storage. The project area consisted of well-maintained access roads and concrete drainage channels between farm and pasture fields. In general, the project site appeared to be nearly level to gently sloping with minor slopes. Trucks could be driven on the majority of site, even following precipitation events.

4.2 Historic & Topographic Setting

The project area is located in Pinal County, Arizona, approximately 15.5 miles south of the city Eloy, Arizona. The site consists of five (5) parcels. These parcels collectively span approximately 2,015 acres of mostly level ground, active farming fields and general agricultural usage. The project site is bounded to the north, south, east, and west by W. Eames Road, Curtis Road, 11 Mile Corner Road, and S. Curry Road, respectively.

Much of the project site is nearly level to gently sloping to the west and north, with an elevation ranging from about 1,650 feet above mean sea-level (AMSL) in the southeast corner of the site, to approximately 1,615 in the northwest corner of the site. The project site is generally nearly level to gently sloping, with slopes averaging about 1%. The project site is approximately bounded by latitudes 32.6028°N to 32.6368°N and longitudes 111.6029°W to 111.5687°W.

4.3 Surficial Geology

ANS Geo reviewed geologic mapping made available by the Arizona Geological Survey (AZGS) and the United States Geological Survey (USGS) which indicate the project area is in the “valley floors” of the southern Basin and Range Province. The landscape of the region has been shaped by tectonic extension that started approximately 17 million years ago during the early Miocene era.

The near-surface sediments consist of Holocene-aged river alluvium and floodplain deposits. At the project site, near surface alluvium deposits of the Holocene age consist of unconsolidated to weakly consolidated sand and gravel in river channels, and sand, silt, and clay in floodplains.

ANS Geo additionally reviewed surficial soil mapping available from the Natural Resource Conservation Service (NRCS) Web Soil Survey application. The NRCS survey was initially created for agricultural purposes and is generally limited to the upper five (5) to six (6) feet BGS; however, the resource provides generalized information pertaining to the soil chemistry and properties. The NRCS mapping identifies the project area to be primarily comprised of the Sasco Silt Loam, Marana Silty Clay Loam, and Dateland fine Sandy Loam.

4.4 Bedrock Geology

ANS Geo reviewed geologic maps made available by the United States Geological Survey (USGS), which indicated the project area is not mapped within any shallow rock formations and rock is not expected to be encountered within the upper 100 feet of the surface. Additionally, bedrock was not encountered at the time of our investigation.

4.5 Observed Subsurface Conditions

ANS Geo has provided the generalized subsurface conditions within Table 1 based observations recorded within our geotechnical investigation program. Soil boring logs have been provided as **Attachment C** and should be reviewed for specific soil condition observations.

Table 1: Generalized Subsurface Profile

Stratum	General Depths Encountered (ft)	Material	Avg. Consistency/ Density	Description
I	0 ~ 12	Sandy Lean Clay (CL), Sandy, Silty Clay (CL-ML), Silty, Clayey Sand (SC-SM)	Soft to Stiff, Loose to Medium Dense	The uppermost soil layers consist of light brown to dark brown sand, silt, and clay mixtures ranging in relative density/hardness from soft to stiff and loose to medium dense. Relative compaction/hardness of alluvial deposits such as these may vary substantially over even short lateral and vertical distances. SPT N-Value generally ranged from 4 to 18 blows per foot (BPF) in this stratum. Groundwater was not encountered in this stratum.
II	12 ~ 25	Sandy Lean Clay (CL), Sandy, Silty Clay (CL-ML), Silty, Clayey Sand (SC-SM)	Stiff to Hard, Loose to Medium Dense	This stratum consists of brown to yellowish-red sand, clay, and silt mixtures. Relative density/hardness tends to increase with depth; soil composition is largely similar to those overlying this stratum. N-Values generally ranged from 9 to 31 BPF, with some fine-grained layers infrequently yielding blow counts in excess of 50 BPF, and with occasional softer/less dense layers. Groundwater was not encountered in this stratum.
III	25 ~ 50	Sandy Silty Clay (CL-ML), Silty, Clayey Sand (SC-SM)	Very stiff, Medium Dense to Dense	This stratum consists of brown to light brown medium dense to dense silty, clayey sand and very stiff sandy silty clay; soil lithology appears to tend to become sandier with depth. N-Values ranged from 26 to 43 BPF. Groundwater was not encountered in this stratum.

4.6 Groundwater

ANS Geo did not encounter static groundwater during the geotechnical investigation. ANS Geo notes that near-surface groundwater conditions may be ephemeral and fluctuate due to seasonal and climate influences. Therefore, some fluctuation should be considered.

4.7 Summary of Geohazards

ANS Geo assessed publicly available information, results of the geotechnical investigation and the site conditions during the investigation to evaluate any potential geotechnical or geological hazards. Most common geohazards for solar project sites and site-specific assessments of these hazards are summarized in **Table 2**.

Table 2: Geohazard Summary Table

Hazard	Relative Risk to Site	Comment
Corrosive Soil	Moderate to Low	Corrosion testing and electrical resistivity testing reveal that the project site soils are moderately corrosive to steel and negligibly corrosive to concrete. NRCS maps indicate that the project site is generally considered to have low to moderate corrosivity.
Flooding	Moderate	FEMA Flood Hazard maps indicate that portions of the proposed project footprint area fall within the 1% annual chance flood hazard (referred to as the 100-year flood hazard zone. These designated flood hazard areas are specifically confined to the southern and western parcels of the project site and run diagonally in a northwest-southeast direction through the central part of the parcels. The remainder of the project site is not subject to flood risk according to current FEMA flood hazard classification. See **Attachment A-3** for a FEMA Flood Hazard Map. This site may be relatively prone to flash flooding, especially in "monsoon" season (usually from June to September).
Earthquake – Seismicity	Low	The project area is mapped within a low hazard zone based on the USGS "2018 Long-term National Seismic Hazard Map". ANS Geo does not anticipate any impact to the proposed facility.
Liquefaction	Low	Given the soils encountered during our investigation and the seismic setting of the site, the site can be considered low to negligible-risk for liquefaction.
Frost Action	Low	The frost depth in Pinal County, Arizona is mapped at approximately 12 inches below grade. Foundations should be constructed considering the frost related forces or with proper remediation against frost. A detailed discussion is provided in **Section** Error! Reference source not found..
Slope Failure	Low	The project site consists of farmlands that have a relatively flat topography.
Collapsible Soil	None	The sand soil units encountered on site are not expected to have collapse potential.
Expansive Soils	None	The soil encountered during the geotechnical investigation did not show any properties associated with swelling soil. Additionally, the Swelling Clays Map of the Conterminous Unites States published by the USGS was reviewed for risk of expansive clays on site. Based on this map, it appears that the project site is mapped within material that contains little or no swelling clay.
Subsidence – Pumping	None	There are no mapped or known mines within the project vicinity which could cause subsidence. However, the site has a gas line running underneath which must be considered when developing the site. This can be done through 811 call-before-you-dig to ensure hazard mitigation for potential gas line rupturing.
Subsidence – Mining	None	Based on online mining databases, there are no known mines within the project boundary. The nearest mines to the site are open pit mines of Silver Bell Mountain, which is located about 14 miles south of the site. ANS Geo does not anticipate any impact due to mining activity to the proposed facility.
Subsidence – Caves/Karst/Gypsum	None	Based on the USGS Mineral Resources On-Line Spatial Database, no karst feature, or formations are mapped near the area. Moreover, no bedrock was encountered at any of the boreholes, and is not expected to be encountered during construction at this site.
Quick Clay	None	Quick clay is a type of clay that when disturbed can suddenly liquefy without warning leading to potential landslides and other hazards. There is no known quick clay within the project area.

5 Laboratory Results

Representative soil samples were collected during our investigation and submitted to ANS's accredited materials testing laboratory. Soil samples will be retained for a period of three (3) months following the initial submission of this Report.

5.1 Soil Index Testing

A summary of the index laboratory test results has been provided within **Table 3** and **Table 4**. As-received laboratory test results are included within **Attachment D**.

Table 3: Soil Index Testing Summary (Sieve Analysis, ASTM D6913)

Location ID	Sample ID	Depth (ft)	% Gravel	% Sand	% Fines	In-Situ Moisture Content (%)
B-02	S - 6	13 - 15	3.3	67.0	29.7	7.6
B-05	S - 3	4 – 6	0.1	63.6	36.3	8.7
B-08	S - 2	2 - 4	0.0	31.3	68.7	4.4
B-10	S - 3	4 – 6	0.0	65.3	34.7	3.8
B-11	S - 2	2 – 4	1.1	83.9	15.0	3.6
B-12	S - 3	4 – 6	0.0	76.7	23.3	6.6
B-BESS-01	S - 9	28 – 30	3.0	75.7	21.3	4.7
B-SS-01	S - 8	23 - 25	10.7	78.2	11.1	3.8

Table 4: Soil Index Testing Summary (Atterberg Limits, ASTM D4318)

Boring ID	Sample ID	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	In-Situ Moisture Content (%)	USCS
B-01	S - 5	13 – 15	20	16	4	16.0	CL-ML
B-02	S - 6	13 – 15	23	16	7	7.6	SC-SM
B-03	S - 4	6 – 8	29	22	7	19.5	CL-ML
B-05	S - 3	4 – 6	NV	NP	NP	8.7	SM
B-09	S - 2	2 – 4	24	16	8	11.8	CL
B-12	S - 7	18 – 20	24	16	8	17.1	CL
B-BESS-01	S - 3	4 – 6	NV	NP	NP	21.1	SM
B-BESS-01	S - 9	28 – 30	22	16	6	4.7	SC-SM
B-SS-01	S - 3	4 – 6	32	21	11	21.1	CL

5.2 Thermal Resistivity Testing

ANS Geo collected bulk samples from ten (10) locations within the project area from three (3) to five (5) feet below grade for laboratory testing of Thermal Resistivity. Bulk soil samples were collected in a five-gallon bucket and delivered to ANS's accredited laboratory for testing. The soil was compacted to 85 percent of its Standard Proctor Density in accordance with ASTM D698, and Thermal Resistivity Testing was conducted in accordance with IEEE Standard 442-2017 and ASTM D5334. Results of the thermal testing summarized within **Table 5**. Complete, as-received results are provided within **Attachment D**.

Table 5: Thermal Resistivity Testing Summary (ASTM D5334)

Location ID	Material Type	% water (°C-cm/W)	% water (°C-cm/W)	% water (°C-cm/W)	% water (°C-cm/W)	% water (°C-cm/W)	Received Moisture Content (%)	Re-Molded Dry Density (lb/ft^3)
B-SS-01	Brown Clay and Silt w/ Sand	0.0	4.3	8.7	13.0	17.3	13.8	90.9
		234.1	**163.6**	**70.3**	**56.9**	**52.9**		
B-BESS-01	Brown Clay and Silt w/ Sand	0.0	4.1	8.1	12.2	16.2	14.5	88.4
		207.3	**167.1**	**90.3**	**67.4**	**61.3**		
B-02	Brown Clay and Silt w/ Sand	0.0	5.0	9.9	14.9	19.8	13.8	88.1
		221.6	**154.8**	**71.2**	**58.9**	**54.6**		
B-03	Brown Clay and Silt w/ Sand	0.0	4.0	8.0	12.0	16.0	14.6	89.7
		214.3	**165.0**	**78.3**	**60.4**	**55.7**		
B-05	Brown Clay and Silt w/ Sand	0.0	3.7	7.4	11.0	14.7	9.7	93.4
		232.6	**147.7**	**63.2**	**54.6**	**51.6**		
B-06	Brown Clay and Silt w/ Sand	0.0	4.2	8.3	12.4	16.5	10.4	91.0
		214.6	**153.5**	**70.6**	**58.7**	**54.8**		
B-08	Brown Clay and Silt w/ Sand	0.0	3.9	7.7	11.6	15.4	7.4	89.3
		217.1	**159.3**	**75.2**	**62.6**	**58.6**		
B-09	Brown Clay and Silt w/ Sand	0.0	4.6	9.1	13.7	18.2	13.3	86.9
		207.7	**159.7**	**79.9**	**63.2**	**58.3**		
B-12	Brown Clay and Silt w/ Sand	0.0	4.7	9.5	14.2	18.9	12.9	89.8
		236.2	**169.7**	**83.4**	**68.1**	**62.6**		
B-15	Brown Clay and Silt w/ Sand	0.0	4.3	8.7	13.0	17.3	11.4	91.2
		225.8	**165.2**	**81.5**	**66.8**	**61.7**		

5.3 Corrosivity Testing

ANS Geo collected bulk samples from two (2) to three (3) feet grade at eleven (11) locations for corrosivity testing. The results of the testing, completed by ANS, are summarized within **Table 6** and detailed within **Attachment D**.

Table 6: Corrosivity Testing Summary

Location ID	pH	Sulfate (mg/kg)	Chloride (mg/kg)	Oxidation Reduction Potential (mV)	Soil Box (Calculated Resistivity) (Ω-cm)
B-01	7.5	360	531	213	270
B-04	7.5	390	349	151	1,420
B-05	7.9	60	246	169	4,290

Location ID	pH	Sulfate (mg/kg)	Chloride (mg/kg)	Oxidation Reduction Potential (mV)	Soil Box (Calculated Resistivity) (Ω-cm)
B-06	8.0	<15	201	190	3,820
B-07	8.5	510	75	212	3,170
B-08	8.3	630	48	227	9,820
B-10	8.2	<15	174	190	4,810
B-11	8.6	330	66	214	9,010
B-12	7.8	750	204	225	1,200
B-13	8.1	30	138	206	2,990
B-15	7.6	900	258	227	1,440

5.4 California Bearing Ratio

ANS Geo collected bulk samples from one (1) to three (3) feet below grade at five (5) locations for testing of California Bearing Ratio (CBR) in accordance with ASTM D1883 at approximately 95 percent of its Standard Proctor Density (ASTM D698). The results of the testing have been summarized within **Table 7** and are detailed within **Attachment D**. CBR testing was completed on soaked samples. Soak CBR values are generally lower than unsoaked CBR values.

Table 7: California Bearing Ratio Summary

CBR Sample ID	Associated Boring ID	CBR Ratio* (%)	Visual-Manual Soil Description
CBR-01	B-SS-01	3.1	Brown silty clay, little sand, trace gravel
CBR-02	B-BESS-01	3.9	Brown silty clay, trace sand
CBR-03	B-01	2.0	Brown silty clay, trace sand
CBR-04	B-10	4.7	Brown silty clay, little sand
CBR-05	B-11	15.4	Brown silty, clayey sand, trace gravel

*at 95% of Standard Proctor Density, soaked

6 Pile Load Testing Results

Table 8 presents the summarized results of the pile load testing program at each test location. Complete load testing logs are provided as **Attachment F** and should be referenced for detailed information.

Table 8: Pile Load Testing Summary

Pile Test ID	Pushed-to Depth (ft)	Target Pile Embedment Depth (ft)	Final Embedment Depth (ft)	Average Drive Time* (sec/ft)	Approx. Uplift Load at 0.5-inch Displacement** (lbs.)	Approx. Lateral Load at 0.75-inch Deflection*** (lbs.)
PT-01	0.5	7.0	7.0	2.6	8,100	3,950
PT-02	1.5	8.0	8.0	1.7	4,050	2,600
PT-03	2.0	9.0	9.0	1.5	7,800	3,800
PT-04	1.5	10.0	10.0	2.4	10,500	3,525
PT-05	1.0	7.0	7.0	2.8	7,400	3,950
PT-06	0.5	8.0	8.0	3.4	>12,000	5,725
PT-07	1.5	9.0	9.0	4.0	>12,000	4,175
PT-08	0.5	10.0	10.0	3.5	6,300	3,225

*Time per ft to advance pile via vibration from pushed-to depth to final embedment depth

Presented values are interpolated to 0.5 inches; see discussion in **Section 3.3.2 and below. Presented values rounded to nearest 25 pound increment.
*** Presented values are interpolated to 0.75 inches; see discussion in **Section 3.3.3** and below

Piles were tested for uplift capacity with load test limits of one (1) inch of vertical displacement or 12,000 lbs. vertical load, whichever was encountered first. Lateral load response was tested for up to 1 in. of lateral deflection or up to 5,500 lbs, whichever was encountered first.

ANS Geo noted the following general observations based on our pull-out testing campaign:

- All eight (8) piles were driven in less than 35 seconds. No piles encountered refusal during installation.
- Pushed-to depths at this site ranged from 0.5 to two (2.0) feet below grade with an average pushed-to depth of about 1.1 feet below grade; piles were subsequently advanced via vibration to final embedment depth.
    - Pushed-to depths of greater than about three (3) ft during installation may indicate relatively soft or loose soil at an installation location with associated lower uplift or lateral capacity.
- Observations and comments on uplift/tensile load testing:
    - During uplift/tensile load testing, the failure envelope tended to transition from a relatively elastic strain response into a plastic strain response after about 0.1 to 0.3 in. of vertical deflection.
    - Residual uplift deflection (deflection measured after last applied uplift load was released) generally ranged from about 0.3 to 0.8 inches.
    - Six (6) of eight (8) vertical pile load tests were arrested after reaching maximum allowable uplift of one (1.0) inch; the remaining two (2) piles reached the maximum uplift test value of 12,000 lbs.
- Observations and comments on lateral loads testing:
    - During lateral load testing, the failure envelope was relatively constant from zero (0) inches deflection until about 0.6 inches deflection; failure envelopes for two piles (PT-05 & PT-07) exhibited an inflection point at about 0.6 to 0.7 inches, after which the strain regime appears to transition to a more plastic strain-response.
    - Seven (7) of the eight (8) tested piles achieved the 1.0 lateral deflection limit prior to achieving the 5,500 lbs. load limit.
    - Residual deflection (deflection measured after final lateral load was released) generally ranged from about 0.2 to 0.4 inches.

For the purposes of analysis, vertical deflection limit is taken to be 0.5 inches, and lateral load limit is taken to be 0.75 inches.

7 Seismic Considerations

7.1 Site Classification

Based on the observations recorded within our subsurface investigation program and our familiarity with the project area, Site Class D is assumed as the average condition across the project site. Risk Category “II” was selected.

The seismic ground motion values for this this were obtained from the USGS Seismic Hazard Maps, referenced in ASCE 7-16 Standard, and provided as **Attachment G,** and are as follows:

- 0.2 second spectral response acceleration, S_S = 0.197 g
- 1 second spectral response acceleration, S_1 = 0.070 g
- Maximum spectral acceleration for short periods, S_{MS} = 316 g
- Maximum spectral acceleration for a 1-second period, S_{M1} = 0.167 g
- 5% damped design spectral acceleration at short periods, S_{DS} = 0.210 g
- 5% damped design spectral acceleration at 1-second period, S_{D1} = 0.111 g

7.2 Historic Seismic Events

According to the United States Geological Survey (USGS) earthquake catalog, there is no earthquakes that occurred within 50-mile radius in the last 50 years in Pinal County, Arizona.

7.3 Preliminary Seismic Evaluation

The designated seismic site class is anticipated based on results from our investigation program and using select areas of the site which have been investigated by ANS Geo. Based on our observation of subsurface conditions, estimated Site Class ratings, and review of USGS's 2018 National Seismic Hazard Map and publicly available information, ANS Geo concludes that the area is generally considered to be a low seismic hazard zone.

8 Foundation Design Considerations

ANS Geo anticipates that, as typical with solar farm construction, embedded posts, such as W6x9 H-piles, will be used to support the proposed solar panels. Conventional shallow foundations such as sonotubes, spread footings, or systems may also be utilized for equipment pads and associated support structures. Deep foundations consisting of drilled, cast-in-place concrete are anticipated for heavily-loaded structures in the substation and BESS area.

8.1 Corrosion Considerations

8.1.1 Buried Steel

Given the available testing results measuring the soil pH level, sulfate and chloride concentrations, resistivity, and redox potential summarized in **Table 6** in **Section 5.3**, in consideration with the soil and moisture conditions observed, the in-situ soil conditions generally indicate soils that are "moderately corrosive" to ferrous materials. It is anticipated that hot dipped galvanized steel with a minimum zinc coating thickness in accordance with ASTM A123 may be able to provide some protection prior to the increased rate of expected bare-steel corrosion loss over the project design life. However, we recommend evaluating the need for increased sacrificial steel thickness or an increased zinc coating thickness of 5-mil to meet the corrosion allowance for steel. For structural steel shapes, a minimum zinc coating thickness typically ranges from 3-mil to 4-mil depending on the steel section size as specified by ASTM A123. For example, a W6x9 shall contain a minimum zinc coating grade of 75 micrometers, or a 3-mil thick coating.

Steel section loss in piles decreases the structural load carrying capacity of the member as well as increases the member deflections. Therefore, it is recommended that the final structural design considers the useful life of galvanized (zinc) coating, followed by the anticipated loss of steel due to corrosion to ensure the structural integrity is maintained throughout the service life. Thicker pile sections, increased zinc coating thickness, or other corrosion protection measures may be necessary to accommodate any

reduction in structural capacity. For example, it is possible that a W6x12 pile with a standard zinc coating thickness could corrode to W6x9-equivalent section throughout the service life depending on the corrosion-related soil properties.

Soil Corrosion:

- **Soil corrosion induced loss of zinc (per side):**
    - **3 mil coating:** ~0.401 mil/year (depletion of zinc occurs in ~7.5 years)
    - **5 mil coating:** ~0.17 mil/year (depletion of zinc occurs in ~31 years)
- **Bare steel loss due to soil corrosion *after* loss of zinc (per side)**: 1.321 mil/year
    - **With 0 mil coating:** ~46.24 mil (at end of 35 years of design life)
    - **With 3 mil coating:** ~36.36 mil (at end of 35 years of design life)
    - **With 5 mil coating:** ~7.31 mil (at end of 35 years of design life)

Atmospheric Corrosion:

- **Atmospheric corrosion loss of zinc**: 0.002 to 0.016 mil/year (Category C2 - Zinc will last over 30 years)

Based on the limited corrosivity and resistivity testing results, it is our professional opinion that a 75-micrometer (3-mil) zinc coating would maintain an approximate lifespan of about seven and one-half (7-1/2) years prior to full depletion. Upon depletion of the zinc coating, bare steel loss would occur at an estimated rate of 1.321 mils (0.0013 inches) per year. For context, under these assumed conditions, a 3-mil coated W6x9 steel pile would experience approximately 36.36 mils (0.036 inches) of steel loss (per side) within a 35-year lifespan.

It is recommended that a separate, detailed corrosion evaluation report be developed by ANS Geo, or others, to interpret the soil corrosivity test results and estimate the rate of corrosion for zinc and bare steel resulting from exposure to the surrounding environment. This detailed corrosion evaluation may be provided to Cypress Creek and/or foundation engineer to incorporate the test results into the design and selection of pile foundations, or other buried steel across the site.

8.1.2 Buried Concrete

Corrosive soils can have a significant impact on below-grade concrete foundations by potentially damaging or weakening the concrete. One of the primary forms of concrete deterioration due to exposure to corrosive soils is sulfate attack. Sulfate attack is a common form of concrete deterioration which occurs when concrete comes in contact with water or soil containing sulfates. Sulfates are typically found in some soils, in seawater, and in wastewater treatment plants. The principal factors which affect the rate and severity of sulfate attack are permeability of concrete, concentration of sulfates, tricalcium aluminate (C_3A) content, and calcium hydroxide content. When sulfates react with C_3A, it will form ettringite which will expand and create internal tension within the concrete that eventually leads to cracking. Therefore, a low C_3A content is one of the main considerations when selecting cement for sulfate resistance.

Recommended concrete properties, including cement type, to resist sulfate attack are based on the site-specific sulfate exposure class, as per ACI 318-19, Table 19.3.1.1. The severity of the exposure of concrete to sulfate is divided into four classes (S0 through S3) depending on the water-soluble sulfate in soil (percent by mass) or dissolved sulfates in water (ppm).

Results of ANS Geo's laboratory testing indicate that water-soluble concentration within soil at two to three feet were equal to or lower than **900 mg/kg.** A sulfate exposure class of **S0 (Water-Soluble Sulfate (SO_4^{2-}) in soil, percent by mass < 0.1%)** is expected to be appropriate for concrete in contact with soil similar to those studied during this investigation. For sulfate exposure class **S0**, external sulfate attack is not likely to be of concern, and there are no recommended restrictions on cement type. It should be noted that the

upper tested limit of 900 mg/kg is on the high end of sulfate exposure class S0. Additionally, multiple samples tested were on the higher end of sulfate exposure class S0. It is recommended that additional testing be completed at the site to determine if S0 is a suitable sulfate exposure design risk classification across the project site.

ANS Geo recommends that concrete adheres to the requirements of ACI 318-19, Table 19.3.2.1 for concrete properties including maximum water-cement ratio, minimum compressive strength (psi), and cement type for the site-specific sulfate exposure class. These recommendations do not consider acidic or basic soils, aggregate attack, or other concrete degradation caused by chemical change which should additionally be considered during cement aggregate selection and mix design. For as-received results of corrosivity testing, see **Attachment D**.

8.2 Frost Considerations

8.2.1 Frost Depth

According to the Department of Development Services of Arizona, the local frost depth within Pinal County, Arizona, is mapped to exist at approximately 12 inches below grade. ANS Geo recommends that all shallow (non-pile) foundations should be embedded at least to this depth. Shallower foundation depths may also be accommodated, provided they are appropriately frost-protected by way of appropriately designed haunched edges, foam insulation, and/or free-draining structural fill extending to the frost depth. Adequate drainage away from structure driplines and foundations is imperative for structure performance.

For shallow foundations which are not load-bearing or sensitive to movement, such foundations may be able to be founded at shallower depths. ANS Geo should be contacted to provide recommendations for minimum embedment depth in this scenario.

8.3 Soil Shrink & Swell Potential

Shrinkage and swelling of soils refer to the volumetric change (decrease and increase) exhibited in primarily fine-grained soils due to a change in moisture conditions. The extent of shrinking and swelling is largely influenced by the type and amount of clay present in the native near-surface soils. Higher-risk soils generally include fine-grained material with a high clay content, greater than 50 percent by weight, and liquid limits of 50 percent or higher (fat clays).

Based on laboratory results and onsite observations, the Stratum I and Stratum II soils throughout the project site did not show properties associated with soil shrink/swell.

8.4 Recommended Parameters for PV Array Pile Design

Based on our interpretation of the subsurface conditions observed within our limited investigation program, and the laboratory testing results, ANS Geo recommends that the soil parameters in **Table 9** be considered for axial and lateral preliminary driven pile designs within array areas only.

Table 9: Recommended LPILE Parameters for Array-Area Driven Pile Design

Depth (ft)	Material Model	Total Unit Weight (pcf)	Internal Friction Angle	Cohesion (psf)	Soil Modulus, k_{static} (pci)	Allowable End Bearing[1,2] (psf)	Allowable Side Resistance[1,2] (psf)
0 – 1	Sand (Reese, et al.)	100	31°	--	[default]	--	--
1 – 3	Sand (Reese, et al.)	110	34°	--	[default]	--	200
3 – 5	Silt/Cemented Soil	115	35°	1,250	[default]	--	275

Depth (ft)	Material Model	Total Unit Weight (pcf)	Internal Friction Angle	Cohesion (psf)	Soil Modulus, k_{static} (pci)	Allowable End Bearing[1,2] (psf)	Allowable Side Resistance[1,2] (psf)
5 - 7	Silt/Cemented Soil	118	35°	1,500	[default]	2,000	300
7 – 10	Silt/Cemented Soil	120	36°	1,500	[default]	2,500	375
10 – 15	Silt/Cemented Soil	120	36°	1,650	[default]	3,000	400

1. These recommendations consider a minimum factor of safety of 1.5 for skin friction conditions on the basis of experimental field data collected for this study. Allowable end-bearing is presented on the basis of soil borings utilizing a minimum factor of safety of 2.5.
2. Equivalent box perimeter area approach was utilized for axial capacities.
3. Allowable end bearing values are recommended based on strain compatibility with mobilized allowable side resistances.
4. Soil parameters from 10 feet to 15 feet are recommended based on soil boring data; no pile load testing was completed within this zone

While no groundwater was encountered during the time of this investigation, if groundwater is encountered at a later investigation date, a design effective unit weight value (calculated by subtracting the unit weight of water, 62.4 lb/ft^3, total unit weight values prescribed in **Table 9**) should be considered for soil layers below the design (average) groundwater table, if applicable.

ANS Geo recommends that allowable side resistance within the upper 12 inches be neglected due to potential erosion, frost impact, or surficial disturbance. For lateral design considerations, ANS Geo additionally recommends that lateral resistance within the upper 12 inches be neglected to account for potential scour; this depth should be confirmed in the Civil Engineer of Record's hydrology study. Pile load testing results and subsurface observations were evaluated by ANS Geo using LPILE software to provide these refined soil parameters. ANS Geo notes that the soil parameters depicted within Table 9 represent values calibrated to curve-fit our lateral load test data; these parameters should not be relied upon for other site foundation designs. It is our recommendation that a verification load testing program and detailed structural calculations, using the intended pile sections and design loads, be performed prior to construction to confirm these recommendations.

ANS Geo notes that these recommendations are based on typical criteria we have observed through our professional experience; once a racking vendor has been selected, the racking vendor's specific criteria should govern over our recommendations.

8.5 Recommended Soil Parameters – Shallow Foundations

ANS Geo anticipates that shallow foundations such as concrete footings, pads, or sonotubes will be used to support transformers, inverters, and similar equipment. As such, we recommend the soil parameters provided in Table 10 be considered for such foundation designs. The parameters apply across site-wide shallow foundations and are based on unsaturated, worst-case observed soil conditions. The foundation depths presented in Table 10 are based on grades existing at the time of our investigation. Load-bearing foundations should be installed atop properly prepared subgrade as indicated in Section 9.3.

Table 10: Recommended Soil Parameters for Shallow Foundations

Stratum	Depth (ft)	Material	Max. Allowable Bearing Pressure (psf)		Vertical Subgrade Modulus	Soil / Concrete Friction Factor
			Strip Footings/ Grade Beams	Isolated Square/ Circular Footings		
I	1 to 2	Lean Clay (CL), Silty Clay (CL-ML) Silt (ML), Silty Sand (SM)	1,000	1,250	20	0.33
I	2 to 3	Lean Clay (CL), Silty Clay (CL-ML) Silt (ML), Silty Sand (SM)	1,250	1500	40	0.33
I	3 to 4	Lean Clay (CL), Silty Clay (CL-ML) Silt (ML), Silty Sand (SM)	1,500	1,750	50	0.35
I	4 +	Lean Clay (CL), Silty Clay (CL-ML) Silt (ML), Silty Sand (SM)	2,000	2,500	60	0.35

The depths and associated allowable bearing pressures presented in **Table 10** are relative to ground surface existing at the time of our study. If final site grading differs from grade existing at the time of our investigation by more than plus or minus two (2) feet, we should be contacted so that these recommendations may be reviewed and, if necessary, updated.

ANS Geo notes that **Table 10** includes bearing capacities for layers which may be impacted by frost. For foundations which are founded within the frost zone (as noted in **Section 8.2**), these foundations should be frost-protected by way of appropriately designed haunched edges, foam insulation, and/or free-draining structural fill extending to the frost depth. Should the maximum allowable bearing capacity be lower than required, ANS Geo recommends over-excavating below the recommended excavation depth and replacement of native material using additional structural fill placed and prepared as noted in **Section 9.3**. For each additional 12-inches of over-excavation and replacement of native sand or clay subgrade with structural fill beyond the recommended minimum recommended 12-inch structural fill pad, an increase of 250 psf can be achieved. For example, if existing subgrade is overexcavated to a depth of two (2) feet and backfilled with structural fill, allowable bearing capacity may be increased from 1,000 psf to 1,250 psf. Structural fill must be consistent with gradation, plasticity, placement, and compaction requirements detailed in this report,

The capacities and parameters noted in **Table 10** are based on foundation considerations and assumptions detailed in **Section 9.3**. The above recommendation in **Table 10** is based on isolated spread footings and strip footings, with strip footings having dimensions producing more than 100 square feet.

8.5.1 Mat Foundations

Mat foundations (100 square feet or larger, such as larger substation slabs) should be founded on at least 18 inches of properly compacted structural fill as indicated in **Section 9.3**. Recommended soil parameters for mat foundations can be found in **Table 11** below. Allowable bearing capacities as presented are applicable to foundation elements bearing on native, undisturbed soil.

Table 11: Recommended Soil Parameters for Mat Foundations

Stratum	Depth (ft)	Material	Max. Allowable Bearing Pressure (psf)		Vertical Subgrade Modulus	Soil / Concrete Friction Factor
			100 to 500 sq. ft	> 500 sq. ft		
I	1.5 to 2	Lean Clay (CL), Silty Clay (CL-ML) Silt (ML), Silty Sand (SM)	750	1,000	20	0.33
I	2 to 4	Lean Clay (CL), Silty Clay (CL-ML) Silt (ML), Silty Sand (SM)	1,000	1,250	40	0.35

Rigid mat foundations placed on properly compacted fill may be designed for a maximum allowable bearing capacity indicated above will experience a maximum settlement of two (2) inches. The mat foundation should be constructed on the compacted structural fill layer. Adequate construction joints and reinforcement should be provided to reduce the potential for cracking of the floor slab due to differential movement.

Lastly, sliding resistance of any shallow foundations will be largely provided by the friction between the concrete foundation and the underlying subgrade soils. Although the concrete foundation will be separated from the native soil by a compacted structural fill layer, we have conservatively considered direct contact on native fine-grained soils for purposes of obtaining a design value. The base friction coefficient for the foundation on native soils are provided in the above table. The strains required to mobilize base friction are not compatible with the strains required to mobilize passive resistance. Therefore, we recommend that passive earth pressure be ignored.

8.6 Recommended Soil Parameters – Deep Foundations

If critical substation structures or transmission poles are subjected to heavy compressive and/or overturning loads, it is recommended that drilled pier foundations be used. Geotechnical design values have been created for use in Ensoft LPILE, Fad Tool's MFAD, or CAISSON software. These parameters have been provided in **Table A** immediately preceding the attachments.

8.6.1 Deep Foundation Capacities

Design capacities can be calculated using the diameter of the shaft, depth of the shaft, installation method, and various geotechnical parameters, provided in **Table A**, that define how the soil will behave under load. A summary of the recommended ultimate skin friction and end bearing values for drilled shaft design is provided in **Table A**. Piers should extend a minimum of 1.5 pier diameters into a given soil stratum to fully develop the recommended design end bearing strengths. Please note that the skin-friction and end-bearing values presented in **Table A** are *ultimate* (not allowable). A minimum factor of safety of two (2) must be applied to the skin friction values and three (3) to the end bearing capacities for design purposes.

Post-construction settlement for drilled piers designed for end bearing should be limited to one (1) inch or less, based on the recommended capacities provided herein. Foundation loads and dimensions would be required to calculate an explicit anticipated settlement. ANS Geo should be consulted with the final dimensions and loading of the proposed foundations to allow calculation of the anticipated settlement of each structure and confirm the settlement remains within a serviceable limit.

8.6.2 Deep Foundation Construction

Based on the presence of sandy soils encountered across the project area and at all explored boring depths, temporary casing may be required, depending on the design embedment depth of the piers, to maintain borehole integrity prior to placement of reinforcing steel and concrete. Contractors should be required to provide bid prices for varying sizes and lengths of temporary casing based on the design depths and diameters of deep foundation elements. Piers should be poured the same day they are drilled and must not be left open overnight. If a pier cannot be poured on the same day as drilling, they may be loosely backfilled and re-drilled the following day for installation.

Pier holes should be inspected for verticality (plumbness), proper depth of drilling, proper bearing strata, and cleanliness of the bottom of the excavation prior to introduction of reinforcing steel or concrete. ANS Geo encourages that concrete should be placed via tremie method to avoid consolidation or segregation of the aggregates in the concrete. Concrete should not be allowed to freefall more than 6 feet.

9 Construction Recommendations

9.1 Excavation

Depending on proposed foundation configurations, degree of earthwork, and depth of utilities, some excavations may extend deeper than four (4) feet below grade. Temporary excavations deeper than four (4) feet should be shored or sloped and benched, in accordance with OSHA regulations, to ensure safe working conditions within the excavations. For benching purposes, overburden clays may be considered as “Type A” material and should be sloped no steeper than 3/4H:1V (horizontal to vertical). Clayey sands, “Type B”, should be limited to 1H:1V or flatter. “Type C”, flowing (non-cohesive) sands, should utilize 1-1/2H:1V or shallower. All OSHA soil classifications should be field-determined by the contractor’s “competent person” prior to excavation. Any proposed shoring systems should be designed by the contractor’s “competent person”, be certified by a Professional Engineer licensed in the State of Arizona and should be submitted to the engineer for review.

9.2 Dewatering

At the time of our geotechnical investigation, perched water and/or groundwater was not encountered within any soil borings. As such, dewatering is not anticipated for shallow excavations. Notwithstanding, the contractor should be prepared to manage groundwater, perched water, and/or infiltrated stormwater as needed using localized sump-and-pump, wellpoint, or similar techniques to allow for concrete foundation construction in-the-dry. Water discharge should be managed in compliance with applicable state and local regulations. The contractor should be sure to grade the surface as necessary to divert stormwater away from open excavation to the extent possible.

In addition, ANS Geo notes that the presence of standing water or shallow water may exist across the site during construction and development. The presence of this shallow water or standing water may make the native soil subgrade softer, and it may require additional site preparation to allow vehicles and equipment to pass. Furthermore, based on the season and time of construction, precipitation may cause wetter soil conditions which need to be considered and managed. The Contractor should take these conditions into consideration, including the need for additional access stone and/or cement or lime for the stabilization of these conditions.

9.3 Subgrade Preparation and Compaction

Prior to the installation of shallow concrete foundations, ANS Geo recommends over-excavating the subgrade by at least 12 inches, proof-rolling the subgrade, lining the exposed material with a geotextile

separation fabric, and bringing the subgrade back up to the design foundation elevation with compacted structural fill as specified within **Table 12**.

Exposed subgrades should be proof-rolled to verify subgrade conditions and identify weak, soft, or compressible subgrade areas. Subgrades should be scarified to a depth of at least eight (8) inches, moisture conditioned to within plus or minus two (2) percent of optimum moisture, and to ≥95% of maximum density, each as determined by ASTM D698 Standard Proctor.

If geotextile fabric is not desired, an additional two (2) inches of stone should be provided to account for some impregnation of the stone into native soil, to maintain a capillary break, and maintain drainage.

Native material beneath the separation fabric should be inspected for unsatisfactory conditions such as standing water, frozen soil, unsuitable soil, organics, protruding cobbles or boulders, or deleterious materials. Should any unsatisfactory conditions exist within the native subgrade, the excavation should be undercut an additional six (6) inches (18 total inches beneath proposed foundation depth) prior to placement of the geotextile separation fabric.

Table 12: Recommended Specification of Structural Fill

Sieve Size	Percent Passing
3-inch	100
¾ inch	60 – 100
No. 8	35 – 80
No. 200	0 – 12
Max. Liquid Limit	**Max. Plasticity Index**
30	10

Should structural fill material not be available in accordance with the specifications highlighted in **Table 12**, ANS Geo should be contacted to evaluate alternate materials. Structural fill should be placed in loose lifts not exceeding 12-inches if using large equipment, or 8-inches if using hand-operated tools such as jumping jacks, tamping plates, or similar equipment. Structural fill should be placed within plus or minus two (±2) percent of its optimum moisture content and be compacted to at least 95 percent of its Proctor Density (ASTM D698). The subgrade preparation (over-excavation, fabric, and structural fill) should horizontally extend at least two (2) times the compacted vertical structural fill thickness beyond each edge of the foundation. For example, a six (6)-inch over-excavation and compacted structural fill thickness should extend at least 12 inches laterally beyond each foundation edge.

9.4 Backfilling and Compaction

9.4.1 Re-Use of Native Soils

ANS Geo notes that any native soils with considerable fine-grained content (more than 20 percent) may be difficult to handle, place, and compact without proper moisture conditioning and protection. ANS Geo recommends the following measures be considered to reduce the adverse impacts of moisture-sensitive soils:

- Positive measures should be implemented and maintained to intercept and direct surface water away from moisture-sensitive subgrade surfaces.
- Subgrade surfaces should be sloped and, as appropriate, seal-rolled to facilitate proper drainage. Surfaces should be properly prepared in anticipation of inclement weather. Moisture should not be allowed to collect on subgrade surfaces.
- To the extent practical, the limits of exposed subgrade should be minimized.
- Construction traffic should be limited to properly constructed haul roads.
- Disturbed soils should be removed and replaced with compacted controlled fill material.
- In place moisture contents should be maintained with two percent wet/dry of the optimum moisture content as determined by the Proctor Test (ASTM D698).

Native Stratum I or Stratum II soils may be re-used across the project area for fill in landscaped areas; however, native soil should not be used under foundations or load-bearing structures, where imported structural fill typically specified. Native material used as backfill for cable trenches should be handled and placed at a moisture content at or above its optimum value to ensure representative thermal properties are maintained. Native soils may also be used in required "fill" areas within the project limits, provided that the material is placed and compacted consistent with the "general backfill" recommendations described herein, and that recompacted native soils are not supporting foundation elements. The recommendations for foundations bearing in native soils as presented in **Table 9**, **Table 10**, **Table 11**, and **Table A** may not be appropriate for re-worked or replaced and recompacted native soils.

9.4.2 General Backfill

In areas around and above installed foundations, large utilities, and other buried site features, ANS Geo recommends well-graded granular soils with less than 20 percent fine-grained content may be used as general backfill. Native soils meeting these criteria, if and where present, may also be used. General backfill material should be screened of any cobbles, boulders, and any particles larger than 3 inches in diameter, and should not be used beneath any load-bearing structures. General backfill should be placed in loose lift thicknesses not exceeding eight (8) inches and be compacted to at least 95 percent of maximum density as determined by Standard Proctor (ASTM D698). Soil used as backfill should not be handled when frozen and should be free of excessive moisture, organics, and deleterious material.

In fill areas beneath foundations and load-bearing structures, ANS Geo recommends structural fill as described in **Section 9.3** and **Table 12**. Granular flexible base for access road construction should be composed and placed as described in **Section 9.5**.

9.4.3 Compaction Testing

Compaction testing should be performed at each discrete equipment foundation location for each compacted lift at a minimum of one test per 2,500 square feet. For linear sections such as trenches, the contractor and/or the owner's representative should perform a visual trench bottom inspection along the length of the trench to confirm no angular, sharp, deleterious, frozen, trash, organic material, or standing water exists at the bottom of trench. For backfilling and compaction of trenches, a minimum of one compaction test per 500 linear feet and minimum one per lift, should be performed. In all cases, the subgrade should be maintained, covered, or protected if concrete is not immediately placed. Excessively wet or dry material should be removed or improved prior to the placement of foundations.

9.5 Access Roads

ANS Geo understands that, as part of the work, access roads will be constructed to provide access for heavy equipment such as a main power transformer, poles, and other ancillary structures, as well as long-term access for site maintenance purposes. It is expected that new, unpaved paths will be constructed of aggregate material placed on native, compacted and proof-rolled subgrade stripped of topsoil and other organic material.

During construction, the delivery and movement of heavier loads such as transformers, inverters, delivery of steel and concrete, and transportation of cabling is expected. Construction loads and vehicles are larger and heavier than the expected vehicles during long-term operation; however, the duration of these activities will be much shorter considering the access road life. Designing for short-duration, construction-phase access road would require increased thickness of aggregate, the use of geogrid, or other soil improvement, but these increased roads would be over-designed for long-term operation including routine light-duty trucks, maintenance vehicles, and infrequent accessibility to emergency personnel including fire-fighting rigs. Therefore, it is typical for access road design to be completed considering the thickness of road base required for long-term use since it is expected that the site subcontractor will be able to maintain serviceable access roads throughout construction and at turn-over of the facility by backfilling ruts greater than two-

inches, back-blading and re-compacting loose and rutted areas, re-shaping roads to promote drainage and safe passage of traffic, and other improvements.

Considering the above, ANS Geo has performed an evaluation of the required access road thickness based on infrequent emergency access for firefighting vehicles as well as occasional light vehicular traffic. Our preliminary road evaluation for a post-construction access road assumed the following:

Table 13: Access Road Design Considerations

Design Consideration	Design Assumption
Equivalent Single-Axle Loads (ESALs)	5,000
Allowable Rut Depth	2 inches
Service Life	35 years
Subgrade Soil	Proof-rolled Stratum I brown to light brown Silt (ML), Clay (CL, CL-ML), or Silty, Clayey Sand (SC-SM)
Assumed Min. Design Subgrade CBR	3% (following proof-roll and compaction)

ANS Geo recommends that road base material (flexible base) consists of clean, crushed stone or roadbase material with particle size distribution as presented in **Table 14**.

Table 14: Gradation of Crushed Stone for Access Roads

Sieve Size	Percent Passing
1 ½-in.	100
¾-in.	55 – 90
No. 4	25 – 50
No. 50	5 – 20
No. 200	3 – 10
1 ½-in.	100

Alternatively, access road flexible base/aggregate stone gradation and maximum plasticity index requirements may conform to the requirements for Aggregate Class 1, 2, 4, or 5 of Table 303-1 within Section 303 of the Arizona Department of Transportation (ADOT) *Standard Specifications for Road and Bridge Construction, 2021*.

ANS Geo has provided a number of access road configurations in **Table 15** based on the assumptions in **Table 13**. The use of a woven geotextile fabric such as a Mirafi 270, or similar, is recommended and presented within our evaluation. In addition, it is possible and likely that certain subgrade areas will require stabilization or additional crushed stone thickness. The overall cross-sectional thickness may be reduced by the use of a Class II geogrid (such as Tensar BX1200 or TX7). Cement can also be utilized to reduce the access road crushed stone thickness. This access road thickness can also be reduced if a greater rut depth is allowed to minimize the access road thickness as long as maintenance is performed to restore the roadway to a serviceable condition as damage occurs. A comparison of various options and configurations has been provided in **Table 15.**

Table 15 – Recommended Aggregate Thickness for Permanent Site Access Roads

Aggregate Construction Option	Access Road Cross Section
Aggregate on prepared native soil	17 inches of Crushed Stone
Aggregate with geotextile fabric	10 inches of Crushed Stone over non-woven geotextile
Aggregate with Class II geogrid and geotextile fabric	6 inches of Crushed Stone over Class II geogrid atop non-woven geotextile
Aggregate over Cement-Stabilized Subgrade	10-inch cement treatment depth of native subgrade w/ 7-9% cement by weight + 4 inches Crushed Stone for wearing surface

Prior to roadway construction, the subgrade should be stripped of vegetation and topsoil, and should be confirmed to maintain a minimum CBR value assumed in **Table 13** and compaction to 95 percent of

maximum density as determined by Standard Proctor (ASTM D698). Should the desired CBR and/or target compaction not be achieved, ANS Geo first recommends that the upper 10-inches be scarified, moisture-conditioned (dried or wetted to within +/- 2% of optimum moisture content), and re-placed and re-compacted. Should this not produce the desired minimum CBR and subgrade performance, soil improvement such as additional stone, and/or additional stabilization may be required to meet ANS Geo's minimum design recommendations. Crushed stone should be placed in loose lifts not exceeding eight (8) inches in height and be compacted to ensure a minimum CBR of 35 percent is achieved.

When using geogrid, it is recommended that a nonwoven geotextile fabric be placed between the clay subgrade and the geogrid to provide separation and avoid the stone aggregate to be blinded with fines. If geotextile fabric is not desired, an additional two (2) inches of stone should be provided to account for some impregnation of the stone into native soil. When geogrid is used, it should be placed in accordance with manufacturer's recommendations such as three (3) foot overlap, fastening overlapping areas, and material storage and handling.

If chemical stabilization is performed, the contractor should perform any necessary due diligence to confirm their design, means, and methods. The subgrade should be verified below the treatment depth to evaluate the CBR value of the subgrade prior to treatment. In addition, the recommended chemical stabilization application rate should be taken as an assumed average. The actual application rate should be determined by the contractor and may vary based on the tested and desired subgrade CBR along the proposed roadway, the treatment depth required, and the moisture content. The application rate and treatment depth should be evaluated by performing several test strips at the project site prior to the start of construction and testing the test strips in the field using a dynamic cone penetrometer or plate load test to confirm the CBR. Then, once the application rate and depth are evaluated, verification and calibration testing should be performed using the dynamic cone penetrometer at intervals of no less than 500-linear feet along the access roadway.

ANS Geo understands that chemically-stabilized subgrades have been shown to deteriorate over time, and the performance of the treated subbase may require some additional maintenance during the design life of the project. Should chemically-stabilized roads be used, ANS Geo recommends that some maintenance (such as adding additional stone, where needed) be considered; or, an additional two inches of crushed stone can be added to the wear course to accommodate the potential deterioration of the chemically-stabilized subgrade.

Field conditions should be verified at the time of construction. Subgrade conditions could vary based on excavation depths, weather, drainage, and construction practices that disturb the subgrade. Dynamic cone penetrometer (DCP) testing should be completed on the prepared subgrade per ASTM D6951 and in a consistent manner by trained personnel to obtain useful and reliable data. ANS Geo recommends that, at minimum, DCP testing should be completed at a frequency of one test per each 500-linear feet of access roadway. Should conditions vary, this frequency may be increased or decreased based on observations from the site, or at the discretion of the Geotechnical Engineer of Record, Civil/Structural Engineer of Record or Owners Engineer. The tests should be staggered across the width of the road at outer wheel-tracks (left and right) and the centerline. However, the variability of the road subgrade strength will only become fully apparent when the tests have been carried out. In order to ensure statistical reliability, at least ten tests should be taken in each uniform section. The use of DCP testing may also be used to decrease the thickness of access road stone, if the prepared subgrade is stiffer (is confirmed to have a higher CBR) than ANS Geo's design assumption and no visible surface water or pumping is observed in the section of roadway being tested. ANS Geo can be contacted to provide a table of access road stone thickness compared to field-confirmed CBR.

ANS Geo notes that the presence of standing water may exist across the site around times of precipitation, during construction and development. The presence of water may make the native soil subgrade softer, and it may require additional site preparation to allow vehicles and equipment to pass. The Contractor should take these conditions into consideration, including the need for additional access stone and/or cement or lime for the stabilization of these conditions.

9.5.1 Cement-Stabilized Subgrade

In areas where silty, clayey sand subgrades are cohesionless and difficult to place or compact, stabilization of the subgrade may be desired in order to make access road subgrades more workable and accessible, while also decreasing the required thickness of granular flexible base/crushed stone. Cement treatment may follow the procedure and testing requirements outlined in Section 302 of the ADOT *Standard Specifications for Road and Bridge Construction, 2021*. Verification of subgrade following cement treatment may be completed by dynamic cone penetrometer taken at regular intervals along the application alignment. Actual application rate should be determined by the contractor and may vary based on the treatment depth required, moisture content, or variations in soil composition.

9.6 Pile Installation Considerations

ANS Geo anticipates that, as typical with solar farm construction, solar panels will be supported by steel H-Piles (wide-flanged sections) driven to approximately 8 to 10 feet below grade. These steel piles are typically installed via direct-push, vibration, and/or percussive hammer methods. ANS Geo recommends verification load testing prior to construction using final design loads, the intended pile profile, and the planned pile depth.

10 Limitations

ANS Geo notes that the findings and recommendations presented within this Geotechnical Report are based on our investigation programs conducted between December 2022 and February 2023, and our engineering judgment. In addition, the current level of investigation does not represent the level of investigation to support a final design, and it is expected that a final, detailed-level geotechnical investigation will be completed at the site prior to final design and start of construction by an EPC to confirm and further define the recommendations provided herein. If ANS Geo's limited and preliminary investigation is used for final design, our recommendations shall only be valid for the exact and specific locations at which field investigations or laboratory testing was completed. All other areas and regions of the site which are not investigated under a final investigation to confirm if our preliminary and limited investigation is valid for the entire project site will be at the risk of the individual or entity using this Report.

If actual site subsurface conditions differ from the inferred conditions on which ANS Geo has based our confirmation-dependent recommendations, ANS Geo will need to modify our confirmation-dependent recommendations to develop final recommendations.

Table A

Recommended Substation Foundation Parameters

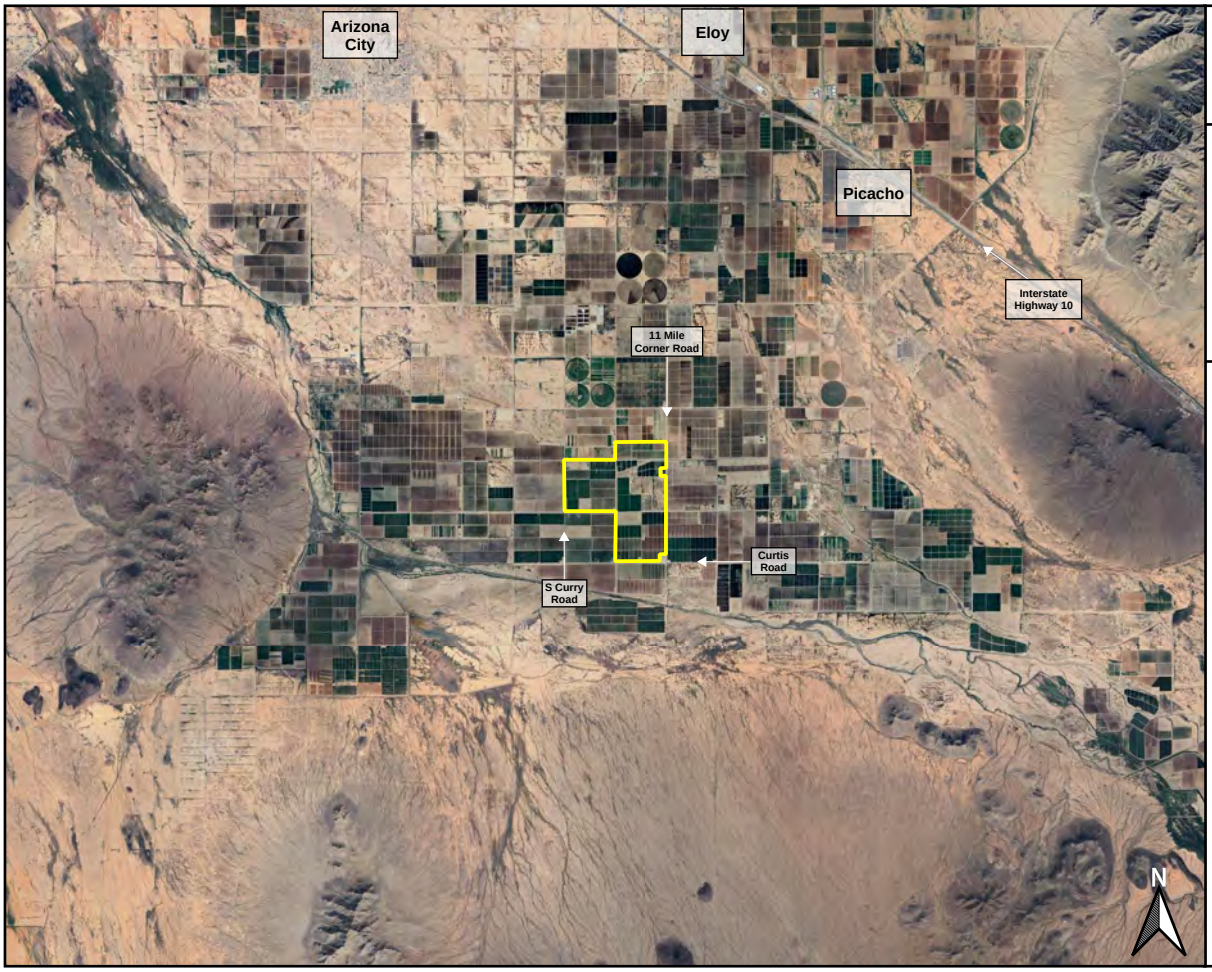
Table A - Recommended Deep Foundation Geotechnical Parameters

Appr. Depth to Top of Layer [ft]	Appr. Depth to Bottom of Layer [ft]	LPILE Material Model	LPile / MFAD			MFAD	Drilled Shafts (Lpile)			Active Earth Pressure Coefficient, K_a	Passive Earth Pressure Coefficient, K_p	Drilled Shafts	
			Effective Unit Weight[1] [pcf]	Friction Angle soil or rock [°]	Cohesion of soil [psf]	Deformation Modulus, Ed [ksi]	p-y Modulus, k (Static Loading) [pci]	p-y Modulus, k (Cyclic Loading) [pci]	Strain Factor, e50			Ultimate Skin Friction [3, 5] [ksf]	Ultimate End Bearing [4, 5] [ksf]
0	1	Stiff Clay w/o Free Water	100	--	500	0.3	--	--	0.02	1.00	1.00	---	---
1	2	Stiff Clay w/o Free Water	105	--	500	0.3	--	--	0.02	1.00	1.00	0.17	--
2	6	Stiff Clay w/o Free Water	110	--	1,000	0.6	--	--	0.009	1.00	1.00	0.39	--
6	16.5	Stiff Clay w/o Free Water	116	--	1,500	0.7	--	--	0.007	1.00	1.00	0.65	7.7
16.5	26.5	Sand (Reese)	120	30	--	0.5	60	--	--	0.33	3.00	0.50	10.6
26.5	36.5	Sand (Reese)	125	34	--	1.6	165	--	--	0.28	3.54	0.80	19.9
36.5	50	Sand (Reese)	130	37	--	2.1	200	--	--	0.25	4.02	1.10	28.4

1. Although groundwater was not encountered in our borings in the vicinity of the substation and BESS area, soil effective unit weight should be reduced by 62.4 pcf for soil below groundwater elevation.
2. Side Resistance within the upper one (1) foot should be neglected due to antipated erosion and frost considerations.
3. ANS Geo recommends that a safety factor of 2.0 be applied to passive earth pressure coefficients and Ultimate Side Resistance values presented herein.
4. ANS Geo recommends that a safety factor of 3.0 be applied to the Ultimate End Bearing values presented herein.
5. ANS Geo recommends any foundation embed a minimum of 1.5 times the diameter of the shaft into a given layer to fully develop the design end bearing capacity.

Attachment A

Site Investigation Mapping



ANS GEO

Client:

CYPRESS CREEK RENEWABLES

ATTACHMENT A-1
SITE VICINITY MAP

CYPRESS CREEK RENWABLES CACTUS FLOWER SOLAR PROJECT
PINAL COUNTY, ARIZONA

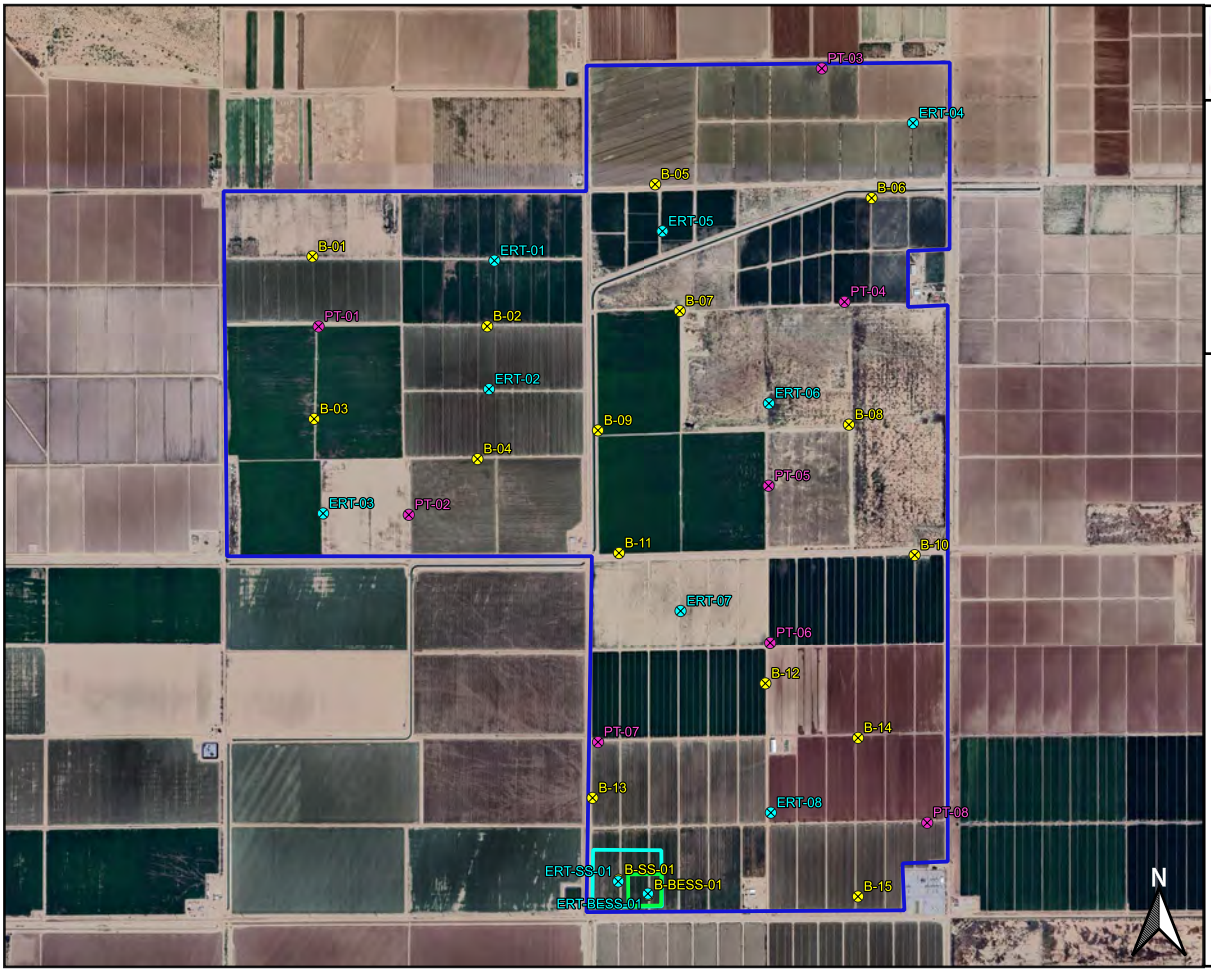
Legend

Project Boundary

0 5,000 10,000 ft

Absolute Scale: 1 inch = 10,000 feet
Scale at 11" x 17" AS SHOWN

Prepared by: Pete Suarez
Date: March 22, 2024
Drawing Number: Site Vicinity Map Rev.0



ANS GEO

Client:

CYPRESS CREEK RENEWABLES

ATTACHMENT A-2
INVESTIGATION LOCATION PLAN

CYPRESS CREEK RENEWABLES
CACTUS FLOWER SOLAR PROJECT
PINAL COUNTY, ARIZONA

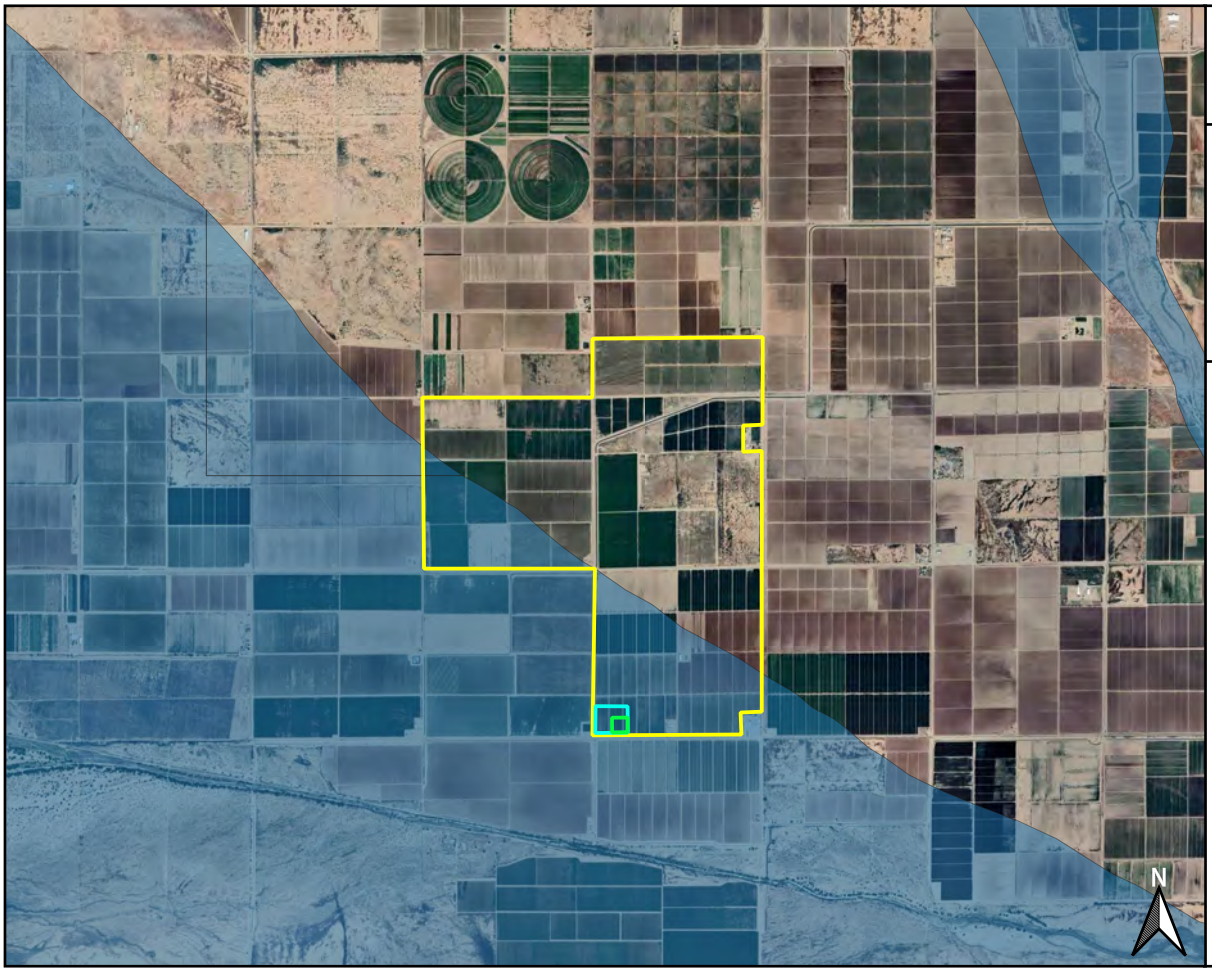
Legend

- Project Boundary
- Substation Boundary
- BESS Boundary
- Soil Boring Locations
- Pile Load Test Locations
- Electrical Resistivity Test Locations

0 1,000 2,000 ft

Absolute Scale: 1 inch = 2000 feet
Scale at 11'' x 17'' AS SHOWN

Prepared by: Amna Al-Ashkhari
Date: February 21, 2024
Drawing Number: ILP-1 Rev.3



ANS GEO

Client:

CYPRESS CREEK RENEWABLES

ATTACHMENT A-3
FEMA FLOOD HAZARD MAP

CYPRESS CREEK RENEWABLES
CACTUS FLOWER SOLAR PROJECT
PINAL COUNTY, ARIZONA

Legend

- Project Boundary
- Substation Boundary
- BESS Boundary

Special Flood Hazard Areas

- 1% Annual Chance Flood Hazard

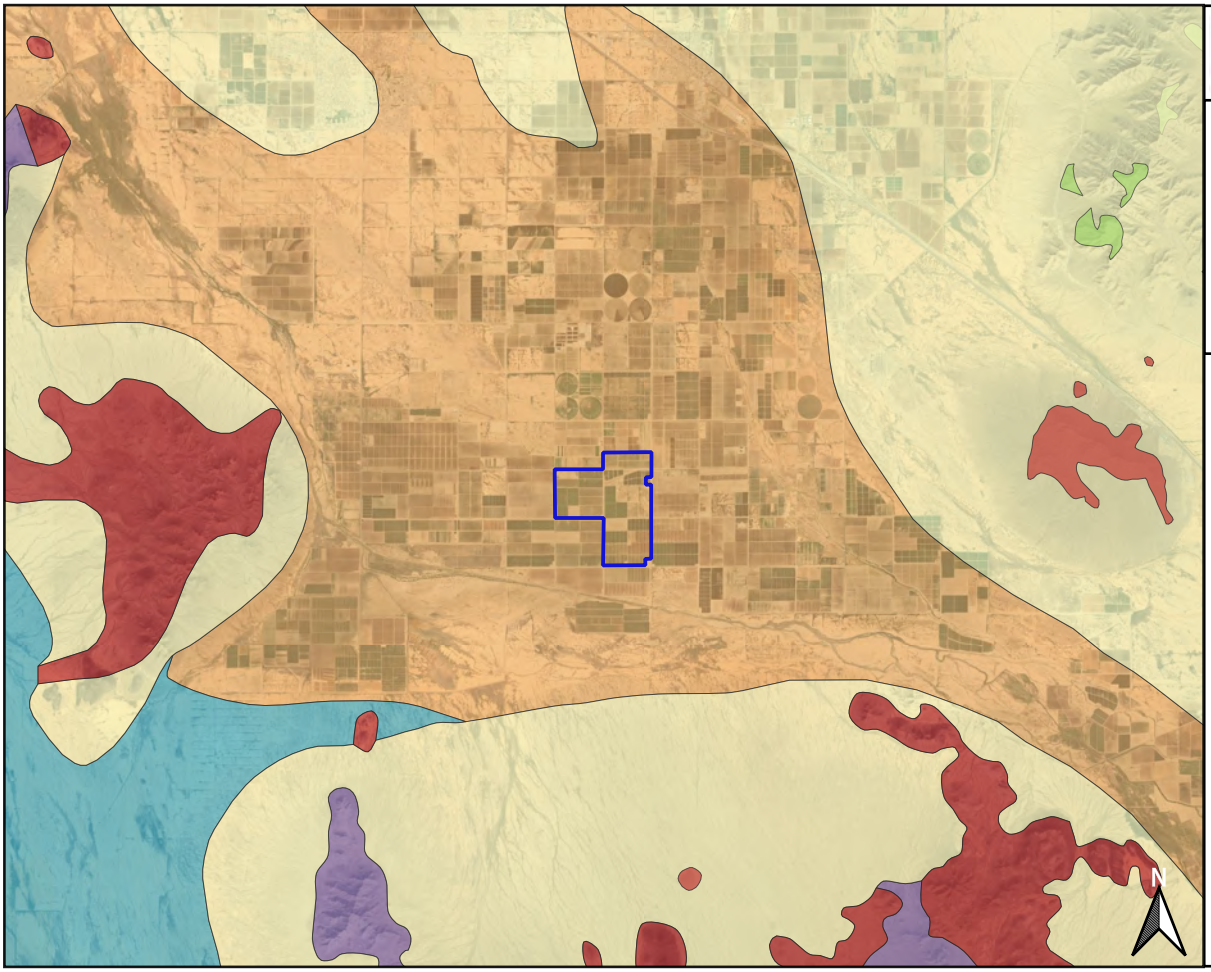
0 1,500 3,000 ft

Absolute Scale: 1 inch = 3,000 feet
Scale at 11" x 17" AS SHOWN

Prepared by: Pete Suarez
Date: March 21, 2024
Drawing Number: FEMA Flood Hazard Map Rev.0

Attachment B

Geologic Mapping



ANS GEO

Client:

CYPRESS CREEK RENEWABLES

GEOLOGIC MAP

CYPRESS CREEK RENEWABLES
CACTUS FLOWER SOLAR PROJECT
PINAL COUNTY, ARIZONA

Legend

- Project Boundary
- Holocene river alluvium
- Mid Miocene to Oligocene Volcanic Rocks
- Tertiary to Early Proterozoic gneissic rocks
- Quaternary surficial deposits, undivided
- Holocene surficial deposits
- Middle Proterozoic granitic rocks

0 10,000 20,000 ft

Absolute Scale: 1 inch = 20000 feet
Scale at 11'' x 17'' AS SHOWN

Prepared by: Amna Al-Ashkhari
Date: February 21, 2024
Drawing Number: GM-1 Rev.0
Source: USGS

Attachment C

Soil Boring Logs

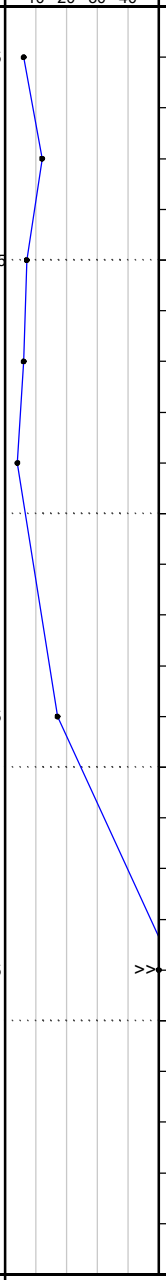
Soil Boring Log

B-01

Client:	Cypress Creek Renewables	**Drilling Firm:**	Core Co. USA	**Coordinates:**	32.62906 N, -111.59886 E
Project:	Cactus Flower Solar Project	**Drill Crew:**	Chris Tillery / Yobani Rosas	**Horiz. Datum:**	WGS84
Location:	Pinal County, Arizona	**Boring Start:**	3/10/2024 10:30:00 AM	**Elevation:**	Grade
Inspector:	Sanket Pawar	**Boring End:**	3/10/2024 11:15:00 AM	**Vert. Datum:**	N/A

Rig Model:	Diedrich D-50	**Sampler Type:**	Split Spoon	**Casing Type:**	N/A
Rig Type:	Track	**Sampler Length:**	24 inches	**Casing Length:**	N/A
Drill Method:	Solid Stem Auger	**Sampler I.D.:**	1.375 inches	**Casing I.D.:**	N/A
Hammer Type:	Automatic	**Hammer Wt.:**	140 pounds	**Hammer Wt.:**	N/A
Drilling Fluid:	None	**Hammer Fall:**	30 inches	**Hammer Fall:**	N/A

Depth (ft)	Sample No.	Rec. (in)	Blows per 6"	N-Value	USCS Symbol	Visual Classification	Toughness	Plasticity	PP (tsf)	TV (tsf)
0	S-1	16	3 2 4 4	6	CL	Medium stiff, brown CLAY, little Silt, little medium to fine Sand, moist (CL)	L	M	3.0	0.25
	S-2	17	4 6 6 4	12	ML	Stiff, brown SILT, trace medium to fine Sand, moist (ML)	L		1.5	0.3
5	S-3	22	3 4 3 3	7		Medium stiff, brown SILT, trace coarse to fine Sand, moist (ML)	L		1.0	0.225
	S-4	10	3 3 3 3	6		Medium stiff, brown SILT, some coarse to fine Sand, moist (ML)	L			
	S-5	24	2 1 3 5	4		Soft, brown SILT, trace fine Sand, moist (ML)	L		1.0	0.1
10	S-6	24	6 8 9 12	17	CL	Very stiff, yellowish red Silty CLAY, trace fine Sand, moist (CL)	L	M	2.5	0.55
15	S-7	10	50/6"	> 50	ML	Hard, brown SILT, little coarse to fine Sand, moist (ML)	L		>4.5	0.75
20						End of boring at 20 feet BGS. Borehole backfilled with soil cuttings.				



Drilling & Strata Notes

In-Borehole Water Levels

Date / Time	Casing Tip (ft)	Bot. of Hole (ft)	Water Lvl (ft)

General Notes

▼ = Water Level (if observed)
BGS = Below Ground Surface
Groundwater not encountered at time of boring.

Toughness: Low (L), Medium (M), High (H)
Plasticity: Non-Plastic (NP), Low (L), Medium (M), High (H)
PP = Pocket Penetrometer, measured in tons per square ft.
TV = Torvane (Shear Vane), measured in tons per square ft.

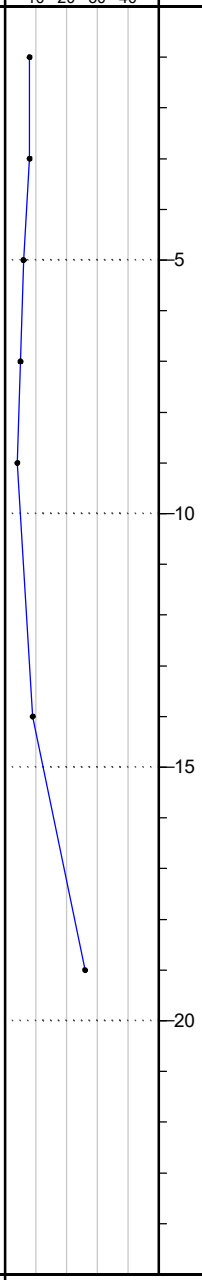
Soil Boring Log

B-02

Client:	Cypress Creek Renewables	**Drilling Firm:**	Core Co. USA	**Coordinates:**	32.62627 N, -111.59055 E
Project:	Cactus Flower Solar Project	**Drill Crew:**	Chris Tillery / Yobani Rosas	**Horiz. Datum:**	WGS84
Location:	Pinal County, Arizona	**Boring Start:**	3/10/2024 1:40:00 PM	**Elevation:**	Grade
Inspector:	Sanket Pawar	**Boring End:**	3/10/2024 2:05:00 PM	**Vert. Datum:**	N/A

Rig Model:	Diedrich D-50	**Sampler Type:**	Split Spoon	**Casing Type:**	N/A
Rig Type:	Track	**Sampler Length:**	24 inches	**Casing Length:**	N/A
Drill Method:	Solid Stem Auger	**Sampler I.D.:**	1.375 inches	**Casing I.D.:**	N/A
Hammer Type:	Automatic	**Hammer Wt.:**	140 pounds	**Hammer Wt.:**	N/A
Drilling Fluid:	None	**Hammer Fall:**	30 inches	**Hammer Fall:**	N/A

Depth (ft)	Sample No.	Rec. (in)	Blows per 6"	N-Value	USCS Symbol	Visual Classification	Toughness	Plasticity	PP (tsf)	TV (tsf)
	S-1	9	5 3 5 4	8	CL	Medium stiff, brown CLAY, some Silt, trace fine Sand, moist (CL)	L	M	3.0	5
	S-2	20	3 4 4 5	8	ML	Medium stiff, brown SILT, little fine Sand, moist (ML)	L		0.5	
5	S-3	20	3 2 4 4	6		Medium stiff, brown SILT, some fine Sand, moist (ML)	L		0.5	
	S-4	19	4 2 3 3	5	SM	Very loose, brown Silty medium to fine SAND, trace Clay, dry (SM)				
	S-5	22	2 1 3 2	4	ML	Soft, brown SILT, some fine Sand, moist (ML)	L			
10										
	S-6	24	4 4 5 7	9	SM	Loose, brown Silty and Clayey coarse to fine SAND, trace fine Gravel, dry (SC-SM)				
15										
	S-7	20	18 15 11 14	26		Medium dense, brown Silty and Clayey coarse to fine SAND, dry (SC-SM)				
20						End of boring at 20 feet BGS. Borehole backfilled with soil cuttings.				



Drilling & Strata Notes

In-Borehole Water Levels

Date / Time	Casing Tip (ft)	Bot. of Hole (ft)	Water Lvl (ft)

General Notes

▼ = Water Level (if observed)
BGS = Below Ground Surface
Calcium carbonate spots present in sample.
Groundwater not encountered at time of boring.

Toughness: Low (L), Medium (M), High (H)
Plasticity: Non-Plastic (NP), Low (L), Medium (M), High (H)
PP = Pocket Penetrometer, measured in tons per square ft.
TV = Torvane (Shear Vane), measured in tons per square ft.

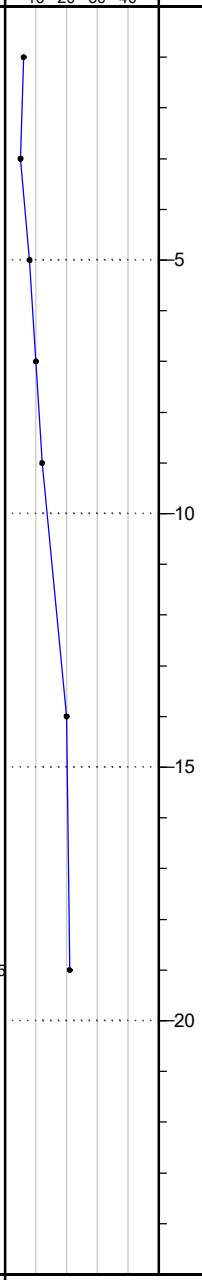
Soil Boring Log

B-03

Client:	Cypress Creek Renewables	**Drilling Firm:**	Core Co. USA	**Coordinates:**	32.62256 N, -111.59878 E
Project:	Cactus Flower Solar Project	**Drill Crew:**	Chris Tillery / Yobani Rosas	**Horiz. Datum:**	WGS84
Location:	Pinal County, Arizona	**Boring Start:**	3/10/2024 11:30:00 AM	**Elevation:**	Grade
Inspector:	Sanket Pawar	**Boring End:**	3/10/2024 12:15:00 PM	**Vert. Datum:**	N/A

Rig Model:	Diedrich D-50	**Sampler Type:**	Split Spoon	**Casing Type:**	N/A
Rig Type:	Track	**Sampler Length:**	24 inches	**Casing Length:**	N/A
Drill Method:	Solid Stem Auger	**Sampler I.D.:**	1.375 inches	**Casing I.D.:**	N/A
Hammer Type:	Automatic	**Hammer Wt.:**	140 pounds	**Hammer Wt.:**	N/A
Drilling Fluid:	None	**Hammer Fall:**	30 inches	**Hammer Fall:**	N/A

Depth (ft)	Sample No.	Rec. (in)	Blows per 6"	N-Value	USCS Symbol	Visual Classification	Toughness	Plasticity	PP (tsf)	TV (tsf)
	S-1	17	3 3 3 4	6	ML	Medium stiff, brown SILT, trace fine Sand, moist (ML)	L		0.75	
	S-2	13	2 2 3 4	5		Medium stiff, brown SILT, trace fine Sand, moist (ML)	L		0.75	
5	S-3	24	3 3 5 8	8		Medium stiff, brown SILT, moist (ML)	L			
	S-4	20	4 5 5 4	10		Stiff, brown SILT, some Clay, trace fine Sand, moist (ML)	L		0.5	
	S-5	23	5 5 7 6	12		Stiff, dark brown SILT, trace fine Sand, moist (ML)	L		1.0	
10						Stiff, dark brown SILT, trace fine Sand, moist (ML)				
	S-6	23	5 9 11 11	20		Very stiff, brown SILT, some fine Sand, moist (ML)	L		3.5	0.3
15										
	S-7	24	8 10 11 14	21	CL	Very stiff, dark brown CLAY, little Silt, trace fine Sand, moist (CL)	L	M	3.0	0.625
20						End of boring at 20 feet BGS. Borehole backfilled with soil cuttings.				



Drilling & Strata Notes

In-Borehole Water Levels

Date / Time	Casing Tip (ft)	Bot. of Hole (ft)	Water Lvl (ft)

General Notes

▼ = Water Level (if observed)
BGS = Below Ground Surface
Calcium carbonate spots present in sample.
Groundwater not encountered at time of boring.

Toughness: Low (L), Medium (M), High (H)
Plasticity: Non-Plastic (NP), Low (L), Medium (M), High (H)
PP = Pocket Penetrometer, measured in tons per square ft.
TV = Torvane (Shear Vane), measured in tons per square ft.

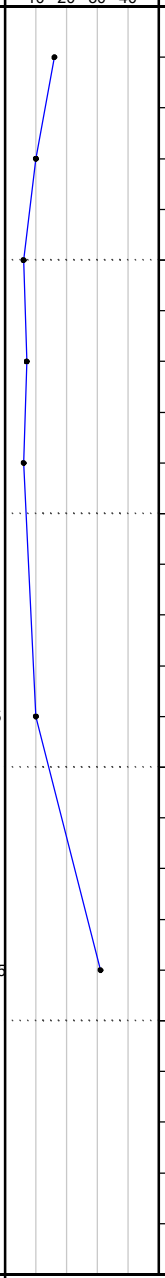
Soil Boring Log

B-04

Client:	Cypress Creek Renewables	**Drilling Firm:**	Core Co. USA	**Coordinates:**	32.62095 N, -111.59101 E
Project:	Cactus Flower Solar Project	**Drill Crew:**	Chris Tillery / Yobani Rosas	**Horiz. Datum:**	WGS84
Location:	Pinal County, Arizona	**Boring Start:**	3/10/2024 12:35:00 PM	**Elevation:**	Grade
Inspector:	Sanket Pawar	**Boring End:**	3/10/2024 1:10:00 PM	**Vert. Datum:**	N/A

Rig Model:	Diedrich D-50	**Sampler Type:**	Split Spoon	**Casing Type:**	N/A
Rig Type:	Track	**Sampler Length:**	24 inches	**Casing Length:**	N/A
Drill Method:	Solid Stem Auger	**Sampler I.D.:**	1.375 inches	**Casing I.D.:**	N/A
Hammer Type:	Automatic	**Hammer Wt.:**	140 pounds	**Hammer Wt.:**	N/A
Drilling Fluid:	None	**Hammer Fall:**	30 inches	**Hammer Fall:**	N/A

Depth (ft)	Sample No.	Rec. (in)	Blows per 6"	N-Value	USCS Symbol	Visual Classification	Toughness	Plasticity	PP (tsf)	TV (tsf)
0	S-1	16	7 8 8 8	16	CL	Very stiff, brown to dark brown CLAY, some fine Sand, little Silt, moist (CL)	M	M	>4.5	
	S-2	23	4 5 5 4	10	ML	Stiff, brown to light brown SILT, some fine Sand, moist (ML)	L			
5	S-3	21	2 2 4 6	6		Medium stiff, dark brown SILT, moist (ML)	L		1.0	
	S-4	19	3 3 4 4	7	SM	Loose, dark brown to brown fine SAND, some Silt, trace Clay, dry (SM)				
	S-5	22	3 3 3 4	6	ML	Medium stiff, brown to light brown SILT, some fine Sand, moist (ML)	L		0.5	
10										
	S-6	24	4 4 6 8	10	CL	Stiff, yellowish red Silty CLAY, trace fine Sand, moist (CL)	L	M	1.5	0.25
15										
	S-7	24	11 11 20 21	31		Hard, brown to yellowish red Silty CLAY, little fine Sand, moist (CL)	L	M	3.75	0.325
20						End of boring at 20 feet BGS. Borehole backfilled with soil cuttings.				



Drilling & Strata Notes

In-Borehole Water Levels

Date / Time	Casing Tip (ft)	Bot. of Hole (ft)	Water Lvl (ft)

General Notes

▼ = Water Level (if observed)
BGS = Below Ground Surface
Groundwater not encountered at time of boring.

Toughness: Low (L), Medium (M), High (H)
Plasticity: Non-Plastic (NP), Low (L), Medium (M), High (H)
PP = Pocket Penetrometer, measured in tons per square ft.
TV = Torvane (Shear Vane), measured in tons per square ft.

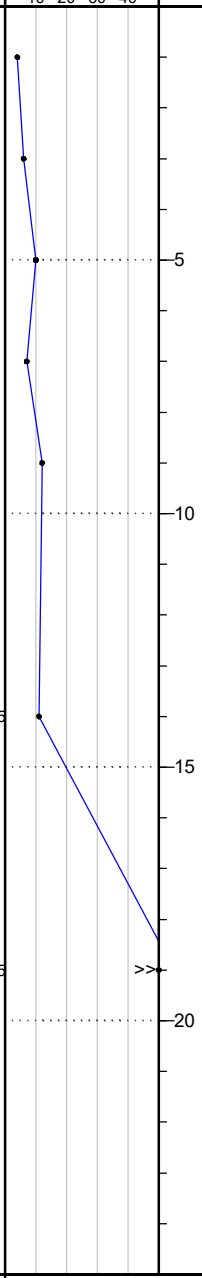
Soil Boring Log

B-05

Client:	Cypress Creek Renewables	**Drilling Firm:**	Core Co. USA	**Coordinates:**	32.63195 N, -111.58257 E
Project:	Cactus Flower Solar Project	**Drill Crew:**	Chris Tillery / Yobani Rosas	**Horiz. Datum:**	WGS84
Location:	Pinal County, Arizona	**Boring Start:**	3/11/2024 10:25:00 AM	**Elevation:**	Grade
Inspector:	Sanket Pawar	**Boring End:**	3/11/2024 11:15:00 AM	**Vert. Datum:**	N/A

Rig Model:	Diedrich D-50	**Sampler Type:**	Split Spoon	**Casing Type:**	N/A
Rig Type:	Track	**Sampler Length:**	24 inches	**Casing Length:**	N/A
Drill Method:	Solid Stem Auger	**Sampler I.D.:**	1.375 inches	**Casing I.D.:**	N/A
Hammer Type:	Automatic	**Hammer Wt.:**	140 pounds	**Hammer Wt.:**	N/A
Drilling Fluid:	None	**Hammer Fall:**	30 inches	**Hammer Fall:**	N/A

Depth (ft)	Sample No.	Rec. (in)	Blows per 6"	N-Value	USCS Symbol	Visual Classification	Toughness	Plasticity	PP (tsf)	TV (tsf)
	S-1	24	1 2 2 2	4	SM	Very loose, light brown to brown Silty coarse to fine SAND, dry (SM)				
	S-2	20	1 2 4 3	6		Loose, brown Silty coarse to fine SAND, trace fine Gravel, dry (SM)				
5	S-3	24	4 4 6 6	10		Loose, brown Silty coarse to fine SAND, trace fine Gravel, dry (SM)				
	S-4	13	3 2 5 5	7	SP	Loose, brown coarse to fine SAND, little coarse to fine Gravel, dry (SP)				
	S-5	15	5 5 7 7	12		Loose, brown coarse to fine SAND, little coarse to fine Gravel, dry (SP)				
10						Medium dense, brown to light brown coarse to fine SAND, little coarse to fine Gravel, trace Silt, dry (SP)				
	S-6	23	7 7 4 8	11	CL	Stiff, yellowish red Silty CLAY, some medium to fine Sand, moist (CL)	L	M	1.5	0.225
15										
	S-7	24	17 18 39 27	> 50		Hard, yellowish red Silty CLAY, some medium to fine Sand, moist (CL)	L	M	4.25	0.525
20						End of boring at 20 feet BGS. Borehole backfilled with soil cuttings.				



Drilling & Strata Notes

In-Borehole Water Levels

Date / Time	Casing Tip (ft)	Bot. of Hole (ft)	Water Lvl (ft)

General Notes

▼ = Water Level (if observed)
BGS = Below Ground Surface
Groundwater not encountered at time of boring.

Toughness: Low (L), Medium (M), High (H)
Plasticity: Non-Plastic (NP), Low (L), Medium (M), High (H)
PP = Pocket Penetrometer, measured in tons per square ft.
TV = Torvane (Shear Vane), measured in tons per square ft.

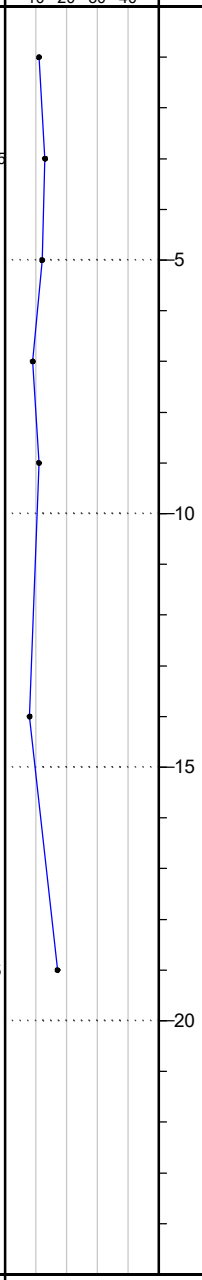
Soil Boring Log

B-06

Client:	Cypress Creek Renewables	**Drilling Firm:**	Core Co. USA	**Coordinates:**	32.6314 N, -111.57229 E
Project:	Cactus Flower Solar Project	**Drill Crew:**	Chris Tillery / Yobani Rosas	**Horiz. Datum:**	WGS84
Location:	Pinal County, Arizona	**Boring Start:**	3/11/2024 11:37:00 AM	**Elevation:**	Grade
Inspector:	Sanket Pawar	**Boring End:**	3/11/2024 12:15:00 PM	**Vert. Datum:**	N/A

Rig Model:	Diedrich D-50	**Sampler Type:**	Split Spoon	**Casing Type:**	N/A
Rig Type:	Track	**Sampler Length:**	24 inches	**Casing Length:**	N/A
Drill Method:	Solid Stem Auger	**Sampler I.D.:**	1.375 inches	**Casing I.D.:**	N/A
Hammer Type:	Automatic	**Hammer Wt.:**	140 pounds	**Hammer Wt.:**	N/A
Drilling Fluid:	None	**Hammer Fall:**	30 inches	**Hammer Fall:**	N/A

Depth (ft)	Sample No.	Rec. (in)	Blows per 6"	N-Value	USCS Symbol	Visual Classification	Toughness	Plasticity	PP (tsf)	TV (tsf)
0	S-1	23	4 5 6 7	11	SM	Medium dense, light brown medium to fine SAND, some Silt, dry (SM)				
	S-2	12	7 7 6 6	13	ML	Stiff, light brown to brown SILT, little medium to fine Sand, moist (ML)	L		2.75	0.625
5	S-3	17	7 7 5 6	12		Stiff, brown to light brown SILT, some medium to fine Sand, moist (ML)	L			
	S-4	14	4 3 6 7	9	SM	Loose, light brown medium to fine SAND, little Silt, dry (SM)				
	S-5	13	4 4 7 7	11		Medium dense, light brown medium to fine SAND, little Silt, dry (SM)				
10										
	S-6	22	3 3 5 5	8		Loose, light brown fine SAND, little Silt, dry (SM)				
15										
	S-7	19	4 7 10 15	17	ML	Very stiff, brown to yellowish red SILT, some medium to fine Sand, moist (ML)	L		1.5	0.35
20						End of boring at 20 feet BGS. Borehole backfilled with soil cuttings.				



Drilling & Strata Notes

In-Borehole Water Levels

Date / Time	Casing Tip (ft)	Bot. of Hole (ft)	Water Lvl (ft)

General Notes

▼ = Water Level (if observed)
BGS = Below Ground Surface
Groundwater not encountered at time of boring.

Toughness: Low (L), Medium (M), High (H)
Plasticity: Non-Plastic (NP), Low (L), Medium (M), High (H)
PP = Pocket Penetrometer, measured in tons per square ft.
TV = Torvane (Shear Vane), measured in tons per square ft.

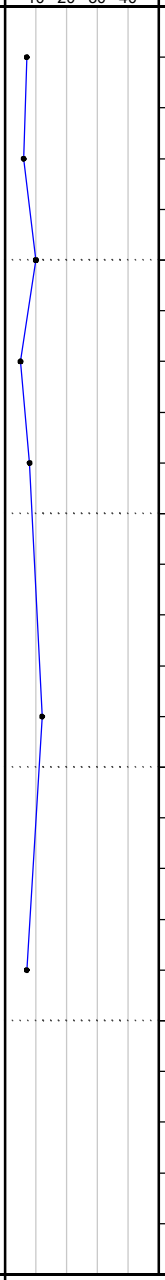
Soil Boring Log

B-07

Client:	Cypress Creek Renewables	**Drilling Firm:**	Core Co. USA	**Coordinates:**	32.62666 N, -111.58111 E
Project:	Cactus Flower Solar Project	**Drill Crew:**	Chris Tillery / Yobani Rosas	**Horiz. Datum:**	WGS84
Location:	Pinal County, Arizona	**Boring Start:**	3/11/2024 12:44:00 PM	**Elevation:**	Grade
Inspector:	Sanket Pawar	**Boring End:**	3/11/2024 1:20:00 PM	**Vert. Datum:**	N/A

Rig Model:	Diedrich D-50	**Sampler Type:**	Split Spoon	**Casing Type:**	N/A
Rig Type:	Track	**Sampler Length:**	24 inches	**Casing Length:**	N/A
Drill Method:	Solid Stem Auger	**Sampler I.D.:**	1.375 inches	**Casing I.D.:**	N/A
Hammer Type:	Automatic	**Hammer Wt.:**	140 pounds	**Hammer Wt.:**	N/A
Drilling Fluid:	None	**Hammer Fall:**	30 inches	**Hammer Fall:**	N/A

Depth (ft)	Sample No.	Rec. (in)	Blows per 6"	N-Value	USCS Symbol	Visual Classification	Toughness	Plasticity	PP (tsf)	TV (tsf)
	S-1	16	3 4 3 3	7	ML	Medium stiff, brown SILT, little fine Sand, moist (ML)	L			
	S-2	23	2 3 3 2	6		Medium stiff, brown SILT, little fine Sand, moist (ML)	L			
5	S-3	21	4 4 6 5	10		Stiff, brown SILT, little fine Sand, moist (ML)	L		0.5	
	S-4	14	3 2 3 3	5		Medium stiff, brown SILT, little fine Sand, moist (ML)	L			
	S-5	17	3 4 4 5	8		Medium stiff, brown SILT, trace fine Sand, moist (ML)	L			
10										
	S-6	24	3 5 7 4	12	SM	Medium dense, yellowish red to light brown medium to fine SAND, little Silt, little fine Gravel, dry (SM)				
15										
	S-7	24	4 3 4 3	7	SP	Loose, yellowish red coarse to fine SAND, some coarse to fine Gravel, dry (SP)				
20						End of boring at 20 feet BGS. Borehole backfilled with soil cuttings.				



Drilling & Strata Notes

In-Borehole Water Levels

Date / Time	Casing Tip (ft)	Bot. of Hole (ft)	Water Lvl (ft)

General Notes

▼ = Water Level (if observed)
BGS = Below Ground Surface
Groundwater not encountered at time of boring.

Toughness: Low (L), Medium (M), High (H)
Plasticity: Non-Plastic (NP), Low (L), Medium (M), High (H)
PP = Pocket Penetrometer, measured in tons per square ft.
TV = Torvane (Shear Vane), measured in tons per square ft.

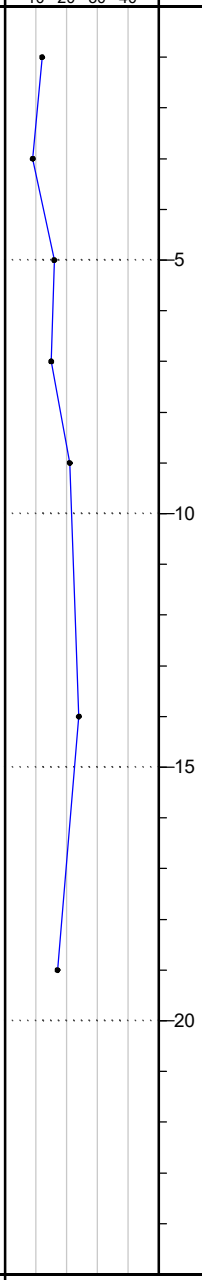
Soil Boring Log

B-08

Client:	Cypress Creek Renewables	**Drilling Firm:**	Core Co. USA	**Coordinates:**	32.62233 N, -111.57336 E
Project:	Cactus Flower Solar Project	**Drill Crew:**	Chris Tillery / Yobani Rosas	**Horiz. Datum:**	WGS84
Location:	Pinal County, Arizona	**Boring Start:**	3/12/2024 8:40:00 AM	**Elevation:**	Grade
Inspector:	Sanket Pawar	**Boring End:**	3/12/2024 9:20:00 AM	**Vert. Datum:**	N/A

Rig Model:	Diedrich D-50	**Sampler Type:**	Split Spoon	**Casing Type:**	N/A
Rig Type:	Track	**Sampler Length:**	24 inches	**Casing Length:**	N/A
Drill Method:	Solid Stem Auger	**Sampler I.D.:**	1.375 inches	**Casing I.D.:**	N/A
Hammer Type:	Automatic	**Hammer Wt.:**	140 pounds	**Hammer Wt.:**	N/A
Drilling Fluid:	None	**Hammer Fall:**	30 inches	**Hammer Fall:**	N/A

Depth (ft)	Sample No.	Rec. (in)	Blows per 6"	N-Value	USCS Symbol	Visual Classification	Toughness	Plasticity	PP (tsf)	TV (tsf)
	S-1	15	4 5 7 7	12	ML	Stiff, brown Sandy SILT, moist (ML)				
	S-2	19	4 5 4 6	9		Stiff, brown Sandy SILT, moist (ML)				
5	S-3	15	4 8 8 10	16		Very stiff, brown SILT, little coarse to fine Sand, moist (ML)				
	S-4	20	7 7 8 9	15		Stiff, brown SILT, little coarse to fine Sand, moist (ML)				
	S-5	24	9 10 11 13	21		Very stiff, brown SILT, little coarse to fine Sand, moist (ML)				
10										
	S-6	12	9 10 14 16	24		Very stiff, light brown SILT, little coarse to fine Sand, moist (ML)	M			
15										
	S-7	22	9 9 8 9	17	SM	Medium dense, yellowish red to light brown Silty coarse to fine SAND, little fine Gravel, dry (SM)				
20						End of boring at 20 feet BGS. Borehole backfilled with soil cuttings.				



Drilling & Strata Notes

In-Borehole Water Levels

Date / Time	Casing Tip (ft)	Bot. of Hole (ft)	Water Lvl (ft)

General Notes

▼ = Water Level (if observed)
BGS = Below Ground Surface
Groundwater not encountered at time of boring.

Toughness: Low (L), Medium (M), High (H)
Plasticity: Non-Plastic (NP), Low (L), Medium (M), High (H)
PP = Pocket Penetrometer, measured in tons per square ft.
TV = Torvane (Shear Vane), measured in tons per square ft.

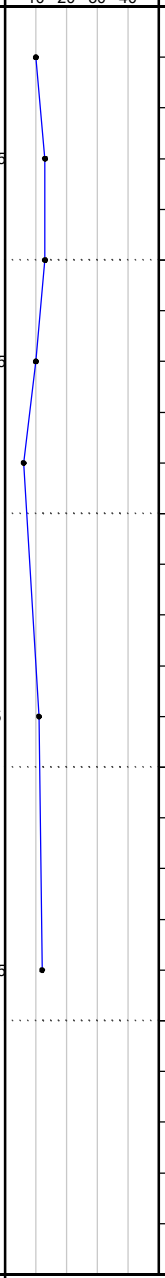
Soil Boring Log

B-09

Client:	Cypress Creek Renewables	**Drilling Firm:**	Core Co. USA	**Coordinates:**	32.6221 N, -111.58526 E
Project:	Cactus Flower Solar Project	**Drill Crew:**	Chris Tillery / Yobani Rosas	**Horiz. Datum:**	WGS84
Location:	Pinal County, Arizona	**Boring Start:**	3/10/2024 2:35:00 PM	**Elevation:**	Grade
Inspector:	Sanket Pawar	**Boring End:**	3/10/2024 3:15:00 PM	**Vert. Datum:**	N/A

Rig Model:	Diedrich D-50	**Sampler Type:**	Split Spoon	**Casing Type:**	N/A
Rig Type:	Track	**Sampler Length:**	24 inches	**Casing Length:**	N/A
Drill Method:	Solid Stem Auger	**Sampler I.D.:**	1.375 inches	**Casing I.D.:**	N/A
Hammer Type:	Automatic	**Hammer Wt.:**	140 pounds	**Hammer Wt.:**	N/A
Drilling Fluid:	None	**Hammer Fall:**	30 inches	**Hammer Fall:**	N/A

Depth (ft)	Sample No.	Rec. (in)	Blows per 6"	N-Value	USCS Symbol	Visual Classification	Toughness	Plasticity	PP (tsf)	TV (tsf)
	S-1	10	7 6 4 4	10	CL	Stiff, pale brown Silty CLAY, little coarse to fine Sand, moist (CL)	L	M	3.25	
	S-2	16	6 6 7 8	13		Stiff, pale brown Silty CLAY, little coarse to fine Sand, moist (CL)	L	M	4.5	0.475
5	S-3	24	5 6 7 8	13	ML	Stiff, light brown to brown SILT, little medium to fine Sand, moist (ML)	L		1.0	0.1
	S-4	24	4 4 6 3	10		Stiff, light brown to brown SILT, little medium to fine Sand, moist (ML)	L		1.5	0.125
	S-5	24	4 3 3 4	6		Medium stiff, light brown to brown SILT, trace fine Sand, moist (ML)	L		1.75	
10										
	S-6	19	6 6 5 7	11	CL	Stiff, brown Silty CLAY, trace fine Sand, moist (CL)	L	M	2.25	0.25
15										
	S-7	18	4 4 8 7	12		Stiff, brown Silty CLAY, trace fine Sand, moist (CL)	L	M	2.0	0.325
20						End of boring at 20 feet BGS. Borehole backfilled with soil cuttings.				



Drilling & Strata Notes

In-Borehole Water Levels

Date / Time	Casing Tip (ft)	Bot. of Hole (ft)	Water Lvl (ft)

General Notes

▼ = Water Level (if observed)
BGS = Below Ground Surface
Groundwater not encountered at time of boring.

Toughness: Low (L), Medium (M), High (H)
Plasticity: Non-Plastic (NP), Low (L), Medium (M), High (H)
PP = Pocket Penetrometer, measured in tons per square ft.
TV = Torvane (Shear Vane), measured in tons per square ft.

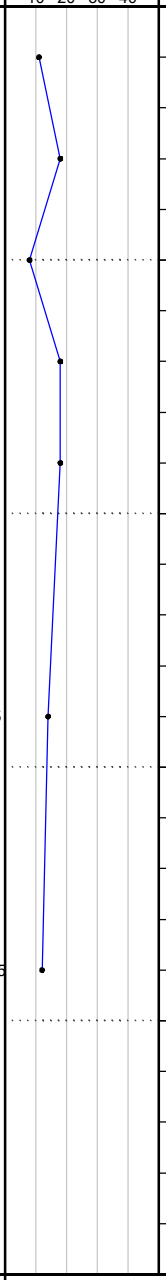
Soil Boring Log

B-10

Client:	Cypress Creek Renewables	**Drilling Firm:**	Core Co. USA	**Coordinates:**	32.61711 N, -111.57024 E
Project:	Cactus Flower Solar Project	**Drill Crew:**	Chris Tillery / Yobani Rosas	**Horiz. Datum:**	WGS84
Location:	Pinal County, Arizona	**Boring Start:**	3/12/2024 9:45:00 AM	**Elevation:**	Grade
Inspector:	Sanket Pawar	**Boring End:**	3/12/2024 10:25:00 AM	**Vert. Datum:**	N/A

Rig Model:	Diedrich D-50	**Sampler Type:**	Split Spoon	**Casing Type:**	N/A
Rig Type:	Track	**Sampler Length:**	24 inches	**Casing Length:**	N/A
Drill Method:	Solid Stem Auger	**Sampler I.D.:**	1.375 inches	**Casing I.D.:**	N/A
Hammer Type:	Automatic	**Hammer Wt.:**	140 pounds	**Hammer Wt.:**	N/A
Drilling Fluid:	None	**Hammer Fall:**	30 inches	**Hammer Fall:**	N/A

Depth (ft)	Sample No.	Rec. (in)	Blows per 6"	N-Value	USCS Symbol	Visual Classification	Toughness	Plasticity	PP (tsf)	TV (tsf)
	S-1	10	3 4 7 8	11	ML	Stiff, brown SILT, some medium to fine Sand, moist (ML)	M		2.25	
	S-2	17	8 8 10 11	18		Very stiff, brown to light brown SILT, little medium to fine Sand, moist (ML)	L			
5	S-3	19	3 4 4 5	8	SM	Loose, pale brown Silty medium to fine SAND, dry (SM)				
	S-4	22	7 8 10 12	18		Medium dense, pale brown Silty medium to fine SAND, dry (SM)				
	S-5	16	6 8 10 10	18		Medium dense, pale brown Silty medium to fine SAND, dry (SM)				
10										
	S-6	23	4 6 8 10	14	ML	Stiff, dark brown SILT, some medium to fine Sand, moist (ML)	L		2.25	0.15
15					SM					
	S-7	24	4 4 8 6	12		Medium dense, brown Silty coarse to fine SAND, trace fine Gravel, dry (SM)				
					ML	Stiff, yellowish red SILT, some coarse to fine Sand, trace fine Gravel, moist (ML)	L		1.75	0.125
20						End of boring at 20 feet BGS. Borehole backfilled with soil cuttings.				



Drilling & Strata Notes

In-Borehole Water Levels

Date / Time	Casing Tip (ft)	Bot. of Hole (ft)	Water Lvl (ft)

General Notes

▼ = Water Level (if observed)
BGS = Below Ground Surface
Calcium carbonate spots present in sample.
Groundwater not encountered at time of boring.

Toughness: Low (L), Medium (M), High (H)
Plasticity: Non-Plastic (NP), Low (L), Medium (M), High (H)
PP = Pocket Penetrometer, measured in tons per square ft.
TV = Torvane (Shear Vane), measured in tons per square ft.

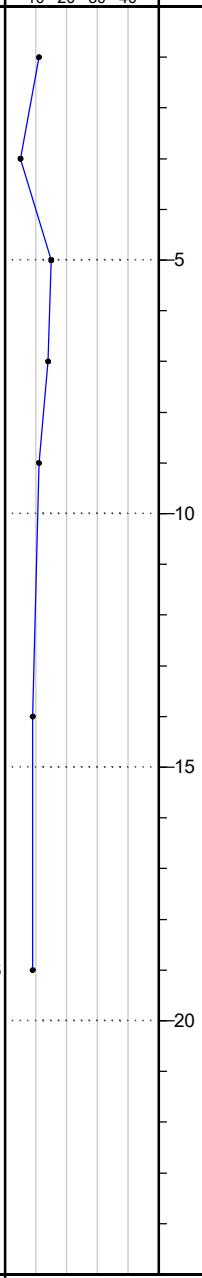
Soil Boring Log

B-11

Client:	Cypress Creek Renewables	**Drilling Firm:**	Core Co. USA	**Coordinates:**	32.61719 N, -111.58429 E
Project:	Cactus Flower Solar Project	**Drill Crew:**	Chris Tillery / Yobani Rosas	**Horiz. Datum:**	WGS84
Location:	Pinal County, Arizona	**Boring Start:**	3/10/2024 3:30:00 PM	**Elevation:**	Grade
Inspector:	Sanket Pawar	**Boring End:**	3/10/2024 4:10:00 PM	**Vert. Datum:**	N/A

Rig Model:	Diedrich D-50	**Sampler Type:**	Split Spoon	**Casing Type:**	N/A
Rig Type:	Track	**Sampler Length:**	24 inches	**Casing Length:**	N/A
Drill Method:	Solid Stem Auger	**Sampler I.D.:**	1.375 inches	**Casing I.D.:**	N/A
Hammer Type:	Automatic	**Hammer Wt.:**	140 pounds	**Hammer Wt.:**	N/A
Drilling Fluid:	None	**Hammer Fall:**	30 inches	**Hammer Fall:**	N/A

Depth (ft)	Sample No.	Rec. (in)	Blows per 6"	N-Value	USCS Symbol	Visual Classification	Toughness	Plasticity	PP (tsf)	TV (tsf)
0	S-1	19	5 6 5 3	11	SM	Medium dense, brown coarse to fine SAND, little Silt, trace fine Gravel, dry (SM)				
	S-2	24	3 2 3 2	5		Very loose, brown coarse to fine SAND, little Silt, trace fine Gravel, dry (SM)				
5	S-3	24	5 7 8 9	15		Medium dense, brown Silty coarse to fine SAND, trace fine Gravel, dry (SM)				
	S-4	22	8 8 6 5	14		Medium dense, brown Silty coarse to fine SAND, trace fine Gravel, dry (SM)				
	S-5	24	4 5 6 7	11		Medium dense, brown Silty coarse to fine SAND, trace fine Gravel, dry (SM)				
10					ML	Stiff, brown SILT, moist (ML)	L			
	S-6	24	4 4 5 6	9						
15					CL	Stiff, brown Silty CLAY, moist (CL)				
	S-7	24	3 3 6 8	9			L	M	2.0	0.25
20						End of boring at 20 feet BGS. Borehole backfilled with soil cuttings.				



Drilling & Strata Notes

In-Borehole Water Levels

Date / Time	Casing Tip (ft)	Bot. of Hole (ft)	Water Lvl (ft)

General Notes

▼ = Water Level (if observed)
BGS = Below Ground Surface
Groundwater not encountered at time of boring.

Toughness: Low (L), Medium (M), High (H)
Plasticity: Non-Plastic (NP), Low (L), Medium (M), High (H)
PP = Pocket Penetrometer, measured in tons per square ft.
TV = Torvane (Shear Vane), measured in tons per square ft.

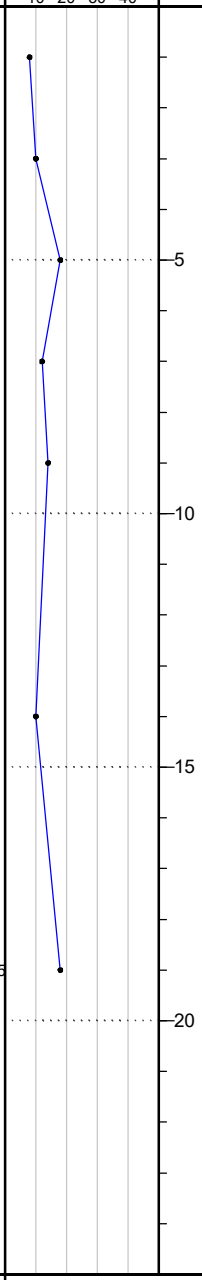
Soil Boring Log

B-12

Client:	Cypress Creek Renewables	**Drilling Firm:**	Core Co. USA	**Coordinates:**	32.61194 N, -111.57694 E
Project:	Cactus Flower Solar Project	**Drill Crew:**	Chris Tillery / Yobani Rosas	**Horiz. Datum:**	WGS84
Location:	Pinal County, Arizona	**Boring Start:**	3/12/2024 10:47:00 AM	**Elevation:**	Grade
Inspector:	Sanket Pawar	**Boring End:**	3/12/2024 11:30:00 AM	**Vert. Datum:**	N/A

Rig Model:	Diedrich D-50	**Sampler Type:**	Split Spoon	**Casing Type:**	N/A
Rig Type:	Track	**Sampler Length:**	24 inches	**Casing Length:**	N/A
Drill Method:	Solid Stem Auger	**Sampler I.D.:**	1.375 inches	**Casing I.D.:**	N/A
Hammer Type:	Automatic	**Hammer Wt.:**	140 pounds	**Hammer Wt.:**	N/A
Drilling Fluid:	None	**Hammer Fall:**	30 inches	**Hammer Fall:**	N/A

Depth (ft)	Sample No.	Rec. (in)	Blows per 6"	N-Value	USCS Symbol	Graphic Log	Visual Classification	Toughness	Plasticity	PP (tsf)	TV (tsf)	Drilling & Strata Notes
	S-1	17	4 4 4 2	8	ML		Medium stiff, brown SILT, little coarse to fine Sand, moist (ML)	M		3.75	0.5	
	S-2	18	4 4 6 6	10	SM		Loose, browm coarse to fine SAND, some Silt, dry (SM)					
5	S-3	14	6 8 10 11	18			Medium dense, brown coarse to fine SAND, some Silt, dry (SM)					
	S-4	16	4 4 8 7	12			Medium dense, brown coarse to fine SAND, some Silt, dry (SM)					
	S-5	17	4 6 8 9	14			Medium dense, brown Silty coarse to fine SAND, dry (SM)					
10												
	S-6	24	4 4 6 8	10			Loose, brown Silty coarse to fine SAND, trace fine Gravel, dry (SM)					
15												
	S-7	24	6 8 10 11	18	CL		Very stiff, brown Silty CLAY, trace coarse to fine Sand, moist (CL)	L	M	3.0	0.225	
20							End of boring at 20 feet BGS. Borehole backfilled with soil cuttings.					



In-Borehole Water Levels

Date / Time	Casing Tip (ft)	Bot. of Hole (ft)	Water Lvl (ft)

General Notes

▼ = Water Level (if observed)
BGS = Below Ground Surface
Groundwater not encountered at time of boring.

Toughness: Low (L), Medium (M), High (H)
Plasticity: Non-Plastic (NP), Low (L), Medium (M), High (H)
PP = Pocket Penetrometer, measured in tons per square ft.
TV = Torvane (Shear Vane), measured in tons per square ft.

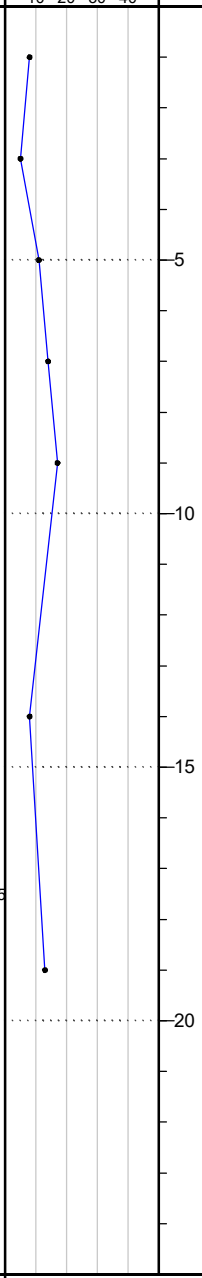
Soil Boring Log

B-13

Client:	Cypress Creek Renewables	**Drilling Firm:**	Core Co. USA	**Coordinates:**	32.60739 N, -111.58555 E
Project:	Cactus Flower Solar Project	**Drill Crew:**	Chris Tillery / Yobani Rosas	**Horiz. Datum:**	WGS84
Location:	Pinal County, Arizona	**Boring Start:**	3/12/2024 1:30:00 PM	**Elevation:**	Grade
Inspector:	Sanket Pawar	**Boring End:**	3/12/2024 2:00:00 PM	**Vert. Datum:**	N/A

Rig Model:	Diedrich D-50	**Sampler Type:**	Split Spoon	**Casing Type:**	N/A
Rig Type:	Track	**Sampler Length:**	24 inches	**Casing Length:**	N/A
Drill Method:	Solid Stem Auger	**Sampler I.D.:**	1.375 inches	**Casing I.D.:**	N/A
Hammer Type:	Automatic	**Hammer Wt.:**	140 pounds	**Hammer Wt.:**	N/A
Drilling Fluid:	None	**Hammer Fall:**	30 inches	**Hammer Fall:**	N/A

Depth (ft)	Sample No.	Rec. (in)	Blows per 6"	N-Value	USCS Symbol	Visual Classification	Toughness	Plasticity	PP (tsf)	TV (tsf)
	S-1	7	4 4 4 5	8	ML	Medium stiff, brown SILT, trace fine Sand, moist (ML)	L		4.0	
	S-2	17	3 2 3 3	5		Medium stiff, brown SILT, some fine Sand, moist (ML)	L			
5	S-3	24	3 5 6 7	11		Stiff, brown SILT, trace fine Sand, moist (ML)	L			
	S-4	16	5 6 8 7	14		Stiff, brown SILT, trace fine Sand, moist (ML)	L		1.0	
	S-5	13	6 8 9 10	17	SM	Medium dense, light brown Silty coarse to fine SAND, dry (SM)				
10										
	S-6	23	3 4 4 5	8		Loose, yellowish red Silty coarse to fine SAND, little fine Gravel, dry (SM)				
15										
					ML		L		4.0	0.625
	S-7	24	5 6 7 7	13		Stiff, brown SILT, some coarse to fine Sand, trace fine Gravel, moist (ML)				
					SM	Medium dense, yellowish red Silty coarse to fine SAND, some coarse to fine Gravel, dry (SM)				
20						End of boring at 20 feet BGS. Borehole backfilled with soil cuttings.				



Drilling & Strata Notes

In-Borehole Water Levels

Date / Time	Casing Tip (ft)	Bot. of Hole (ft)	Water Lvl (ft)

General Notes

▼ = Water Level (if observed)
BGS = Below Ground Surface
Groundwater not encountered at time of boring.

Toughness: Low (L), Medium (M), High (H)
Plasticity: Non-Plastic (NP), Low (L), Medium (M), High (H)
PP = Pocket Penetrometer, measured in tons per square ft.
TV = Torvane (Shear Vane), measured in tons per square ft.

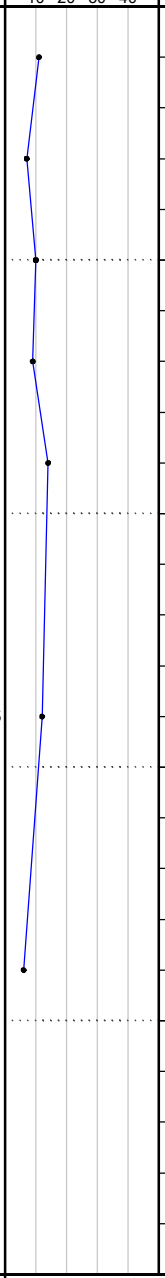
Soil Boring Log

B-14

Client:	Cypress Creek Renewables	**Drilling Firm:**	Core Co. USA	**Coordinates:**	32.60979 N, -111.57293 E
Project:	Cactus Flower Solar Project	**Drill Crew:**	Chris Tillery / Yobani Rosas	**Horiz. Datum:**	WGS84
Location:	Pinal County, Arizona	**Boring Start:**	3/12/2024 12:40:00 PM	**Elevation:**	Grade
Inspector:	Sanket Pawar	**Boring End:**	3/12/2024 1:05:00 PM	**Vert. Datum:**	N/A

Rig Model:	Diedrich D-50	**Sampler Type:**	Split Spoon	**Casing Type:**	N/A
Rig Type:	Track	**Sampler Length:**	24 inches	**Casing Length:**	N/A
Drill Method:	Solid Stem Auger	**Sampler I.D.:**	1.375 inches	**Casing I.D.:**	N/A
Hammer Type:	Automatic	**Hammer Wt.:**	140 pounds	**Hammer Wt.:**	N/A
Drilling Fluid:	None	**Hammer Fall:**	30 inches	**Hammer Fall:**	N/A

Depth (ft)	Sample No.	Rec. (in)	Blows per 6"	N-Value	USCS Symbol	Visual Classification	Toughness	Plasticity	PP (tsf)	TV (tsf)
0	S-1	9	4 5 6 8	11	CL	Stiff, brown Silty CLAY, trace fine Sand, moist (CL)	L	M	3.5	0.6
	S-2	18	4 4 3 4	7	ML	Medium stiff, brown SILT, some fine Sand, moist (ML)	L		1.5	
5	S-3	14	4 4 6 8	10		Stiff, brown SILT, some fine Sand, moist (ML)	L		1.0	
	S-4	13	4 4 5 4	9		Stiff, brown SILT, some fine Sand, moist (ML)	L			
	S-5	22	6 6 8 9	14		Stiff, brown SILT, some fine Sand, moist (ML)	L		0.75	
10										
	S-6	23	5 5 7 8	12		Stiff, brown SILT, trace fine Sand, moist (ML)	L		1.78	0.45
15										
	S-7	24	3 3 3 3	6	SM	Loose, yellowish red Silty coarse to fine SAND, little fine Gravel, dry (SM)				
20						End of boring at 20 feet BGS. Borehole backfilled with soil cuttings.				



Drilling & Strata Notes

In-Borehole Water Levels

Date / Time	Casing Tip (ft)	Bot. of Hole (ft)	Water Lvl (ft)

General Notes

▼ = Water Level (if observed)
BGS = Below Ground Surface
Groundwater not encountered at time of boring.

Toughness: Low (L), Medium (M), High (H)
Plasticity: Non-Plastic (NP), Low (L), Medium (M), High (H)
PP = Pocket Penetrometer, measured in tons per square ft.
TV = Torvane (Shear Vane), measured in tons per square ft.

Soil Boring Log

B-15

Client:	Cypress Creek Renewables	**Drilling Firm:**	Core Co. USA	**Coordinates:**	32.60344 N, -111.57301 E
Project:	Cactus Flower Solar Project	**Drill Crew:**	Chris Tillery / Yobani Rosas	**Horiz. Datum:**	WGS84
Location:	Pinal County, Arizona	**Boring Start:**	3/12/2024 2:40:00 PM	**Elevation:**	Grade
Inspector:	Sanket Pawar	**Boring End:**	3/12/2024 3:10:00 PM	**Vert. Datum:**	N/A

Rig Model:	Diedrich D-50	**Sampler Type:**	Split Spoon	**Casing Type:**	N/A
Rig Type:	Track	**Sampler Length:**	24 inches	**Casing Length:**	N/A
Drill Method:	Solid Stem Auger	**Sampler I.D.:**	1.375 inches	**Casing I.D.:**	N/A
Hammer Type:	Automatic	**Hammer Wt.:**	140 pounds	**Hammer Wt.:**	N/A
Drilling Fluid:	None	**Hammer Fall:**	30 inches	**Hammer Fall:**	N/A

Depth (ft)	Sample No.	Rec. (in)	Blows per 6"	N-Value	USCS Symbol	Visual Classification	Toughness	Plasticity	PP (tsf)	TV (tsf)
	S-1	24	3 3 3 3	6	ML	Medium stiff, light brown SILT, little fine Sand, trace fine Gravel, moist (ML)	L		2.0	0.075
	S-2	15	3 4 5 5	9		Stiff, light brown SILT, trace fine Sand, moist (ML)	L		0.75	
5	S-3	18	4 4 4 4	8		Medium stiff, light brown to brown SILT, trace fine Sand, moist (ML)	L		1.0	
	S-4	16	6 8 7 9	15		Stiff, brown SILT, trace fine Sand, moist (ML)	L			
	S-5	14	5 6 8 9	14		Stiff, brown SILT, trace fine Sand, moist (ML)	L			
10										
	S-6	24	4 4 7 8	11		Stiff, brown SILT, trace fine Sand, moist (ML)	L		1.25	
15										
	S-7	17	4 4 5 5	9	SM	Loose, yellowish red Silty medium to fine SAND, little fine Gravel, dry (SM)				
20						End of boring at 20 feet BGS. Borehole backfilled with soil cuttings.				

N-Value

10 20 30 40

Drilling & Strata Notes

In-Borehole Water Levels

Date / Time	Casing Tip (ft)	Bot. of Hole (ft)	Water Lvl (ft)

General Notes

▼ = Water Level (if observed)

BGS = Below Ground Surface

Groundwater not encountered at time of boring.

Toughness: Low (L), Medium (M), High (H)
Plasticity: Non-Plastic (NP), Low (L), Medium (M), High (H)
PP = Pocket Penetrometer, measured in tons per square ft.
TV = Torvane (Shear Vane), measured in tons per square ft.

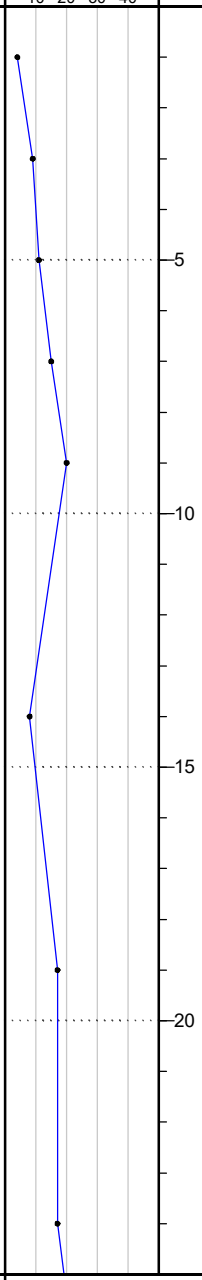
Soil Boring Log

B-BESS-01

Client:	Cypress Creek Renewables	**Drilling Firm:**	Core Co. USA	**Coordinates:**	32.60351 N, -111.5829 E
Project:	Cactus Flower Solar Project	**Drill Crew:**	Chris Tillery / Yobani Rosas	**Horiz. Datum:**	WGS84
Location:	Pinal County, Arizona	**Boring Start:**	3/13/2024 7:45:00 AM	**Elevation:**	Grade
Inspector:	Sanket Pawar	**Boring End:**	3/13/2024 9:25:00 AM	**Vert. Datum:**	N/A

Rig Model:	Diedrich D-50	**Sampler Type:**	Split Spoon	**Casing Type:**	N/A
Rig Type:	Track	**Sampler Length:**	24 inches	**Casing Length:**	N/A
Drill Method:	Solid Stem Auger	**Sampler I.D.:**	1.375 inches	**Casing I.D.:**	N/A
Hammer Type:	Automatic	**Hammer Wt.:**	140 pounds	**Hammer Wt.:**	N/A
Drilling Fluid:	None	**Hammer Fall:**	30 inches	**Hammer Fall:**	N/A

Depth (ft)	Sample No.	Rec. (in)	Blows per 6"	N-Value	USCS Symbol	Visual Classification	Toughness	Plasticity	PP (tsf)	TV (tsf)
	S-1	15	3 2 2 2	4	ML	Soft, brown SILT, little fine Sand, moist (ML)	L	M	1.75	
	S-2	18	4 4 5 6	9		Stiff, brown SILT, little fine Sand, moist (ML)	L	M		
5	S-3	16	4 5 6 6	11	SM	Medium dense, brown fine SAND, some Silt, moist (SM)				
	S-4	17	5 7 8 10	15		Medium dense, light brown fine SAND, some Silt, moist (SM)				
	S-5	14	7 9 11 11	20		Medium dense, light brown fine SAND, some Silt, moist (SM)				
10										
	S-6	22	4 4 4 4	8	ML	Medium stiff, yellowish red SILT, some coarse to fine Sand, little fine Gravel, moist (ML)			1.0	
15										
	S-7	17	7 8 9 8	17		Very stiff, brown SILT, little fine Sand, moist (ML)				
					SM	Medium dense, light brown Silty coarse to fine SAND, little fine Gravel, dry (SM)				
20										
	S-8	11	9 9 8 7	17		Medium dense, light brown Silty coarse to fine SAND, little fine Gravel, dry (SM)				



Drilling & Strata Notes

In-Borehole Water Levels

Date / Time	Casing Tip (ft)	Bot. of Hole (ft)	Water Lvl (ft)

General Notes

▼ = Water Level (if observed)
BGS = Below Ground Surface
Calcium carbonate spots present in sample.
Groundwater not encountered at time of boring.

Toughness: Low (L), Medium (M), High (H)
Plasticity: Non-Plastic (NP), Low (L), Medium (M), High (H)
PP = Pocket Penetrometer, measured in tons per square ft.
TV = Torvane (Shear Vane), measured in tons per square ft.

Soil Boring Log

B-BESS-01
(Continued)

Client:	Cypress Creek Renewables	**Drilling Firm:**	Core Co. USA	**Coordinates:**	32.60351 N, -111.5829 E
Project:	Cactus Flower Solar Project	**Drill Crew:**	Chris Tillery / Yobani Rosas	**Horiz. Datum:**	WGS84
Location:	Pinal County, Arizona	**Boring Start:**	3/13/2024 7:45:00 AM	**Elevation:**	Grade
Inspector:	Sanket Pawar	**Boring End:**	3/13/2024 9:25:00 AM	**Vert. Datum:**	N/A

Depth (ft)	Sample No.	Rec. (in)	Blows per 6"	N-Value	USCS Symbol	Visual Classification	Toughness	Plasticity	PP (tsf)	TV (tsf)	N-Value 10 20 30 40	Drilling & Strata Notes
					SM							
					ML	Very stiff, brown SILT, some medium to fine Sand, little fine Gravel, moist (ML)	L	M				
	S-9	16	11 13 15 18	28								
30					SC-SM	Medium dense, brown Silty and Clayey coarse to fine SAND, trace fine Gravel, dry (SC-SM)						
						End of boring at 30 feet BGS. Borehole backfilled with soil cuttings.						
35												
40												
45												
50												

In-Borehole Water Levels

Date / Time	Casing Tip (ft)	Bot. of Hole (ft)	Water Lvl (ft)

General Notes

▼ = Water Level (if observed)
BGS = Below Ground Surface
Calcium carbonate spots present in sample.
Groundwater not encountered at time of boring.

Toughness: Low (L), Medium (M), High (H)
Plasticity: Non-Plastic (NP), Low (L), Medium (M), High (H)
PP = Pocket Penetrometer, measured in tons per square ft.
TV = Torvane (Shear Vane), measured in tons per square ft.

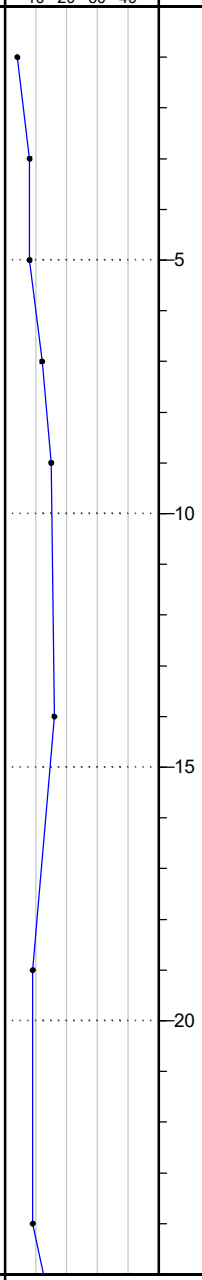
Soil Boring Log

B-SS-01

Client:	Cypress Creek Renewables	**Drilling Firm:**	Core Co. USA	**Coordinates:**	32.60411 N, -111.58431 E
Project:	Cactus Flower Solar Project	**Drill Crew:**	Chris Tillery / Yobani Rosas	**Horiz. Datum:**	WGS84
Location:	Pinal County, Arizona	**Boring Start:**	3/13/2024 9:46:00 AM	**Elevation:**	Grade
Inspector:	Sanket Pawar	**Boring End:**	3/13/2024 10:30:00 AM	**Vert. Datum:**	N/A

Rig Model:	Diedrich D-50	**Sampler Type:**	Split Spoon	**Casing Type:**	N/A
Rig Type:	Track	**Sampler Length:**	24 inches	**Casing Length:**	N/A
Drill Method:	Solid Stem Auger	**Sampler I.D.:**	1.375 inches	**Casing I.D.:**	N/A
Hammer Type:	Automatic	**Hammer Wt.:**	140 pounds	**Hammer Wt.:**	N/A
Drilling Fluid:	None	**Hammer Fall:**	30 inches	**Hammer Fall:**	N/A

Depth (ft)	Sample No.	Rec. (in)	Blows per 6"	N-Value	USCS Symbol	Visual Classification	Toughness	Plasticity	PP (tsf)	TV (tsf)
	S-1	19	3 2 2 2	4	ML	Soft, light brown SILT, trace fine Sand, moist (ML)	L		0.75	
	S-2	11	3 4 4 5	8	CL	Medium stiff, brown Silty CLAY, trace fine Sand, moist (CL)	L	M	4.0	
5	S-3	18	4 4 4 8	8		Medium stiff, brown Silty CLAY, trace fine Sand, moist (CL)	L	M	1.25	
	S-4	24	4 5 7 7	12		Stiff, brown Silty CLAY, trace fine Sand, moist (CL)	L	M		
	S-5	19	6 7 8 10	15		Stiff, brown Silty CLAY, little coarse to fine Sand, moist (CL)	L	M	1.25	
10										
	S-6	18	6 7 9 10	16	ML	Very stiff, yellowish red SILT, some coarse to fine Sand, little fine Gravel, moist (ML)	L		2.75	
15										
	S-7	17	5 5 4 5	9	SM	Loose, brown Silty coarse to fine SAND, some fine Gravel, dry (SP-SM)				
20										
	S-8	15	4 5 4 5	9		Loose, brown Silty coarse to fine SAND, some fine Gravel, dry (SP-SM)				



Drilling & Strata Notes

In-Borehole Water Levels

Date / Time	Casing Tip (ft)	Bot. of Hole (ft)	Water Lvl (ft)

General Notes

▼ = Water Level (if observed)
BGS = Below Ground Surface
Groundwater not encountered at time of boring.

Toughness: Low (L), Medium (M), High (H)
Plasticity: Non-Plastic (NP), Low (L), Medium (M), High (H)
PP = Pocket Penetrometer, measured in tons per square ft.
TV = Torvane (Shear Vane), measured in tons per square ft.

Soil Boring Log

B-SS-01
(Continued)

Client:	Cypress Creek Renewables	**Drilling Firm:**	Core Co. USA	**Coordinates:**	32.60411 N, -111.58431 E
Project:	Cactus Flower Solar Project	**Drill Crew:**	Chris Tillery / Yobani Rosas	**Horiz. Datum:**	WGS84
Location:	Pinal County, Arizona	**Boring Start:**	3/13/2024 9:46:00 AM	**Elevation:**	Grade
Inspector:	Sanket Pawar	**Boring End:**	3/13/2024 10:30:00 AM	**Vert. Datum:**	N/A

Depth (ft)	Sample No.	Rec. (in)	Blows per 6"	N-Value	USCS Symbol	Visual Classification	Toughness	Plasticity	PP (tsf)	TV (tsf)	Drilling & Strata Notes
					SM						
	S-9	24	10 12 14 16	26	SP	Medium dense, light brown coarse to fine SAND, some coarse to fine Gravel, dry (SP)					
30											
	S-10	17	12 17 15 21	32		Dense, light brown coarse to fine SAND, some coarse to fine Gravel, dry (SP)					
35											
	S-11	24	15 23 20 26	43	SM	Dense, light brown Silty coarse to fine SAND, some coarse to fine Gravel, dry (SM)					
40											
	S-12	24	15 18 21 28	39		Dense, light brown Silty coarse to fine SAND, little fine Gravel, dry (SM)					
45											
	S-13	23	14 17 23 29	40		Dense, light brown Silty coarse to fine SAND, little fine Gravel, dry (SM)					
50						End of boring at 50 feet BGS. Borehole backfilled with soil cuttings.					

N-Value: 10 20 30 40

In-Borehole Water Levels

Date / Time	Casing Tip (ft)	Bot. of Hole (ft)	Water Lvl (ft)

General Notes

▼ = Water Level (if observed)
BGS = Below Ground Surface
Groundwater not encountered at time of boring.

Toughness: Low (L), Medium (M), High (H)
Plasticity: Non-Plastic (NP), Low (L), Medium (M), High (H)
PP = Pocket Penetrometer, measured in tons per square ft.
TV = Torvane (Shear Vane), measured in tons per square ft.

Attachment D

Lab Test Results

MOISTURE CONTENT ANALYSIS RESULTS

ANS CONSULTANTS, INC.
4405 South Clinton Avenue
South Plainfield, NJ 07080
Tel: (800) 585-ATUL
(908) 754-8383
Fax: (908) 754-8633
NJ EDA Approved Testing Laboratory • MBE/DBE Certified • NJ DEP Certified

Laboratory Determination of Water (Moisture) Content of Soil and Rock (ASTM D2216)

Client Name: Cypress Creek Renewables, LLC
LAB IRN: 24-T-035
Project Name: Cactus Flower Solar, Pinal County, AZ
Date: 3/28/2024

Investigation ID	B-SS-01	B-BESS-01	B-01	B-10	B-11
Sample ID	CBR-01	CBR-02	CBR-03	CBR-04	CBR-05
Wet soil + Tare (g)	266.2	249.2	228.8	223.6	200.1
Dry soil + Tare (g)	241.3	224.5	195.6	207.7	190.2
Wt. of Tare (g)	15.1	15.1	15.4	15.6	14.9
Moisture Content	**11.0%**	**11.8%**	**18.4%**	**8.3%**	**5.6%**

Investigation ID	B-SS-01	BBESS-01	B-02	B-03	B-05
Sample ID	TRT-01	TRT-02	TRT-03	TRT-04	TRT-05
Wet soil + Tare (g)	253.3	236.2	263.9	293.1	317.4
Dry soil + Tare (g)	224.4	208.3	233.7	257.6	290.7
Wt. of Tare (g)	15.0	15.1	15.2	15.5	15.2
Moisture Content	**13.8%**	**14.5%**	**13.8%**	**14.6%**	**9.7%**

Investigation ID	B-06	B-08	B-09	B-12	B-15
Sample ID	TRT-06	TRT-07	TRT-08	TRT-09	TRT-10
Wet soil + Tare (g)	279.9	246.5	303.3	268.9	252.1
Dry soil + Tare (g)	254.9	230.6	269.4	239.9	227.9
Wt. of Tare (g)	15.2	15.3	15.0	15.4	15.2
Moisture Content	**10.4%**	**7.4%**	**13.3%**	**12.9%**	**11.4%**

Tested By: ES
Checked By: ANS

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South Plainfield, NJ 07080
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Fax: (908) 754-8633
NJ EDA Approved Testing Laboratory • MBE/DBE Certified • NJ DEP Certified

Laboratory Determination of Water (Moisture) Content of Soil and Rock (ASTM D2216)

Client Name: Cypress Creek Renewables, LLC
LAB IRN: 24-T-035
Project Name: Cactus Flower Solar, Pinal County, AZ
Date: 3/28/2024

Investigation ID	B-01	B-04	B-05	B-06	B-07
Sample ID	CORR-01	CORR-02	CORR-03	CORR-04	CORR-05
Wet soil + Tare (g)	208.1	208.2	165.0	243.1	206.6
Dry soil + Tare (g)	170.9	179.4	152.4	224.2	183.0
Wt. of Tare (g)	15.2	15.1	15.0	15.2	15.4
Moisture Content	**23.9%**	**17.5%**	**9.1%**	**9.0%**	**14.1%**

Investigation ID	B-08	B-10	B-11	B-12	B-13
Sample ID	CORR-06	CORR-07	CORR-08	CORR-09	CORR-10
Wet soil + Tare (g)	201.9	264.4	219.5	218.2	208.5
Dry soil + Tare (g)	191.6	242.1	209.3	194.3	188.0
Wt. of Tare (g)	15.4	14.9	15.3	15.2	15.2
Moisture Content	**5.9%**	**9.8%**	**5.3%**	**13.3%**	**11.9%**

Investigation ID	B-15
Sample ID	CORR-11
Wet soil + Tare (g)	234.9
Dry soil + Tare (g)	210.4
Wt. of Tare (g)	15.3
Moisture Content	**12.6%**

Tested By: ES
Checked By: ANS

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Soil, Concrete, Masonry, Rebar, Asphalt, Structural Steel, Precast, Piles, Caissons, Fire-Proofing, Roofing, Soil Boring, Concrete/Rock Coring, UST Removal, Environmental Testing & Reports

Laboratory Determination of Water (Moisture) Content of Soil and Rock (ASTM D2216)

Client Name: Cypress Creek Renewables, LLC
LAB IRN: 24-T-034
Project Name: Cactus Flower Solar, Pinal County, AZ
Date: 3/22/2024

Sample ID	B-01, S-5	B-02, S-6	B--03, S-4	B-05, S-3	B-08, S-2
Depth	8'-10'	13'-15'	6'-8'	4'-6'	2'-4'
Wet soil + Tare (g)	239.7	777.9	219.0	610.4	912.7
Dry soil + Tare (g)	208.7	736.0	185.8	576.0	881.7
Wt. of Tare (g)	15.4	187.6	15.3	182.2	177.8
Moisture Content	**16.0%**	**7.6%**	**19.5%**	**8.7%**	**4.4%**

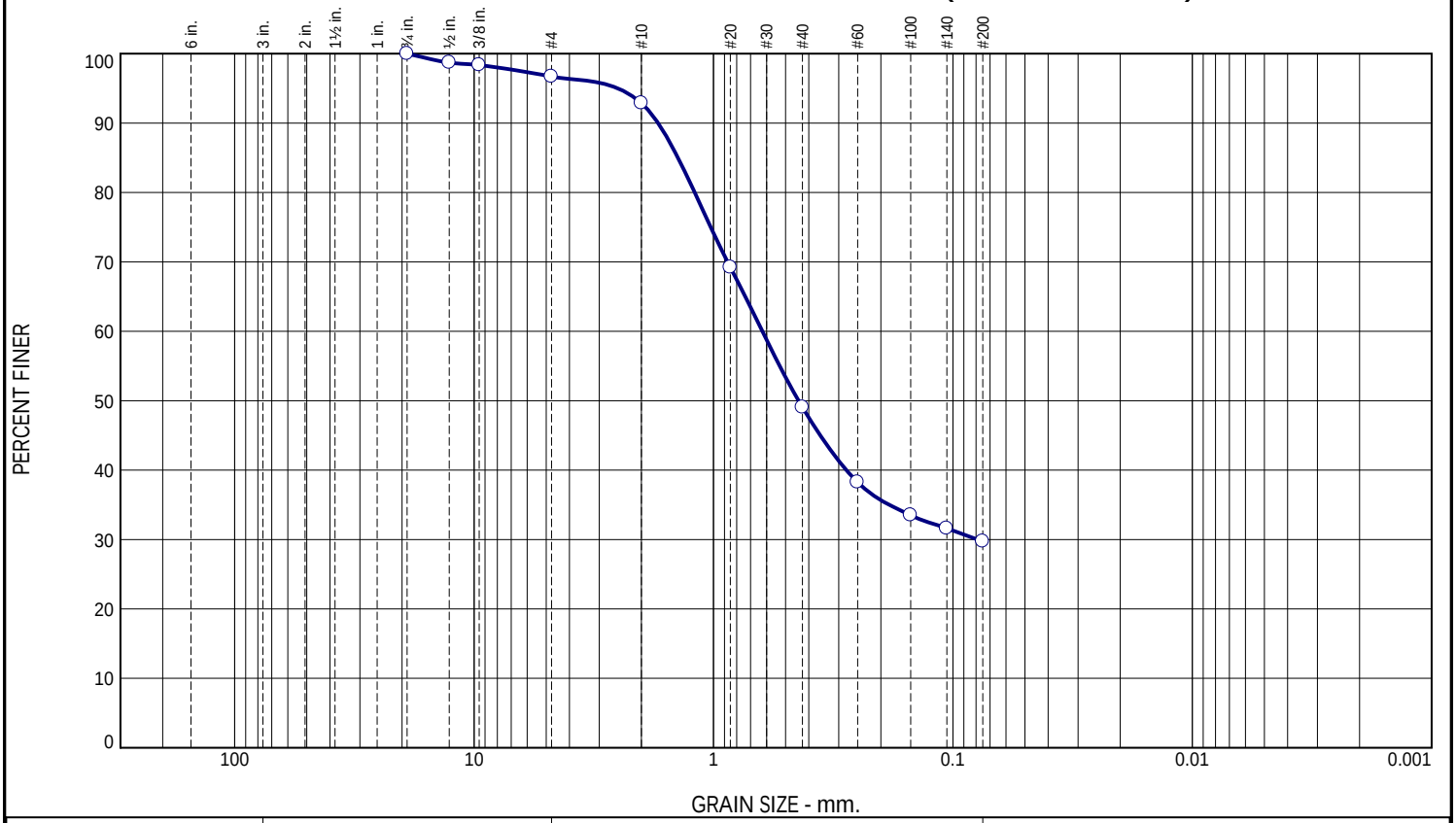
Sample ID	B-09, S-2	B-10, S-3	B-11, S-2	B-12, S-3	B-12, S-7
Depth	2'-4'	4'-6'	2'-4'	4'-6'	18'-20'
Wet soil + Tare (g)	189.7	767.5	885.8	814.7	233.8
Dry soil + Tare (g)	171.3	746.2	861.6	775.6	201.8
Wt. of Tare (g)	15.5	186.4	185.9	183.4	15.4
Moisture Content	**11.8%**	**3.8%**	**3.6%**	**6.6%**	**17.1%**

Sample ID	B-SS-01, S-3	B-SS-01, S-8	B-BESS-01, S-3	B-BESS-01, S-9
Depth	4'-6'	23'-25'	4'-6'	28'-30'
Wet soil + Tare (g)	186.1	935.7	252.5	619.2
Dry soil + Tare (g)	167.8	908.6	211.1	599.3
Wt. of Tare (g)	15.4	187.3	15.2	178.7
Moisture Content	**12.0%**	**3.8%**	**21.1%**	**4.7%**

Tested By: ES
Checked By: ANS

SIEVE ANALYSIS

PARTICLE SIZE DISTRIBUTION REPORT (ASTM D6913)



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	3.3	3.8	43.9	19.3	29.7	

SIEVE SIZE OR DIAMETER	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
0.75"	100.0		
0.5"	98.7		
0.375"	98.4		
#4	96.7		
#10	92.9		
#20	69.2		
#40	49.0		
#60	38.2		
#100	33.5		
#140	31.6		
#200	29.7		

* (no specification provided)

Soil Description

Brown silty, clayey sand

Atterberg Limits

PL= 16 LL= 23 PI= 7

Coefficients

D_{90}= 1.7033 D_{85}= 1.4073 D_{60}= 0.6251
D_{50}= 0.4415 D_{30}= 0.0789 D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= SC-SM AASHTO= A-2-4(0)

Remarks

Sample Number: B-02, S-6 Depth: 13'-15'

Date: 3/22/2024

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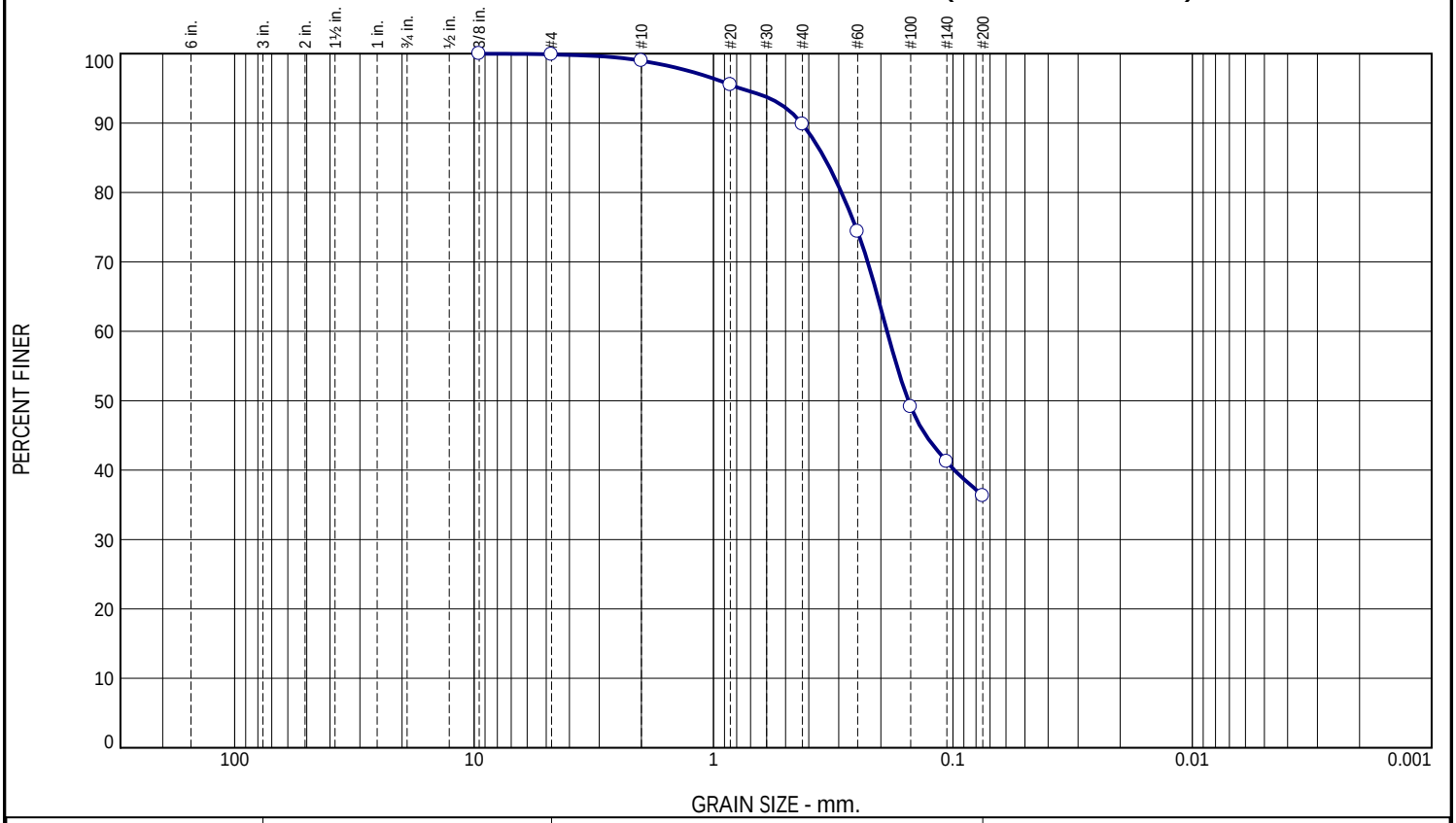
South Plainfield, New Jersey

Client: Cypress Creek Renewables, LLC
Project: Cactus Flower Solar, Pinal County, AZ

Project No: IRN 24-T-034 Figure

Tested By: JE Checked By: ANS

PARTICLE SIZE DISTRIBUTION REPORT (ASTM D6913)



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.1	0.9	9.2	53.5	36.3	

SIEVE SIZE OR DIAMETER	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
0.375"	100.0		
#4	99.9		
#10	99.0		
#20	95.5		
#40	89.8		
#60	74.4		
#100	49.1		
#140	41.2		
#200	36.3		

* (no specification provided)

Soil Description

Brown silty sand

Atterberg Limits

PL= NP LL= NV PI= NP

Coefficients

D_{90}= 0.4288 D_{85}= 0.3442 D_{60}= 0.1883
D_{50}= 0.1536 D_{30}= D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= SM AASHTO= A-4(0)

Remarks

Sample Number: B-05, S-3 Depth: 4'-6'

Date: 3/22/2024

ANS CONSULTANTS, INC.

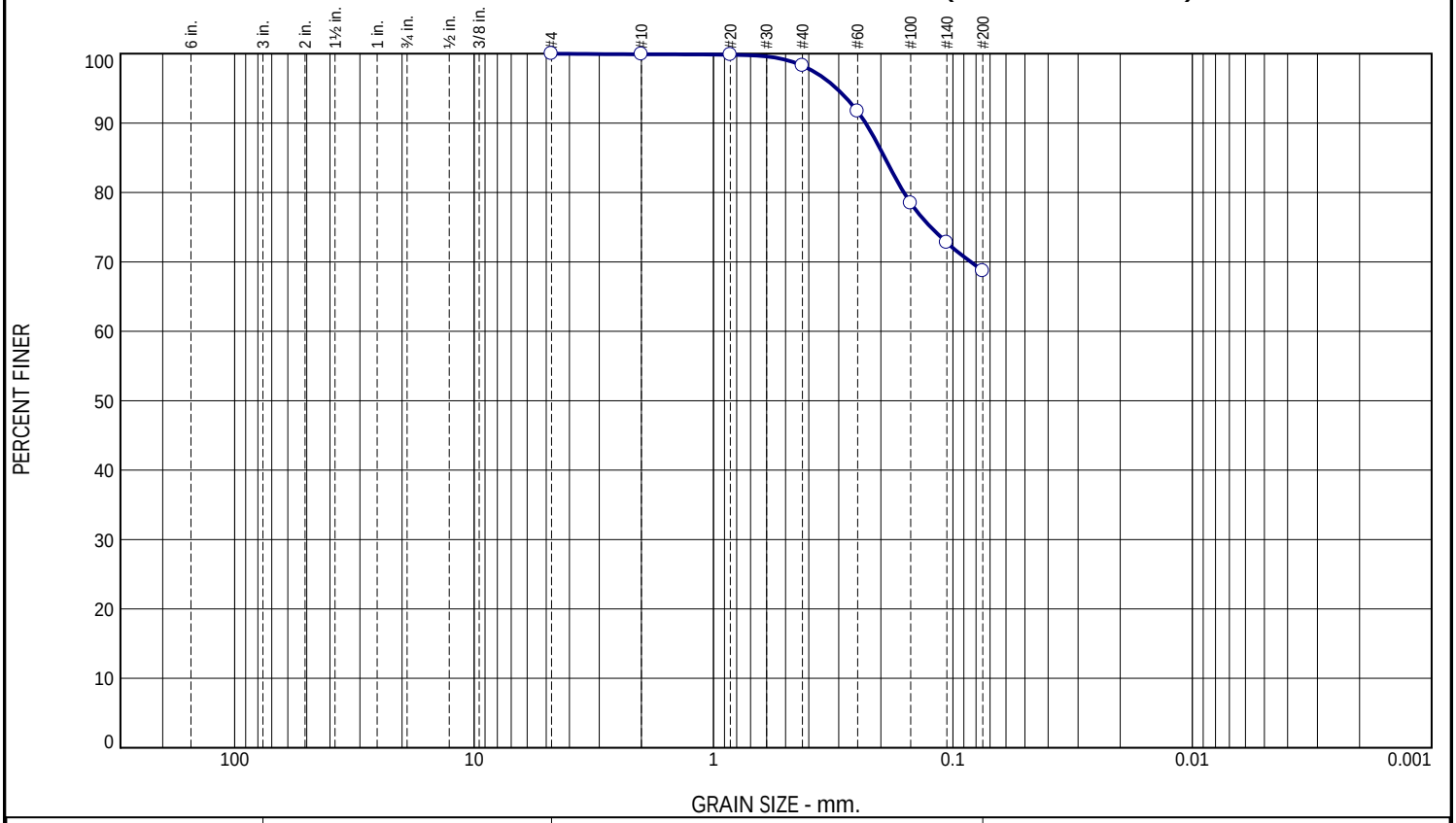
South Plainfield, New Jersey

Client: Cypress Creek Renewables, LLC
Project: Cactus Flower Solar, Pinal County, AZ

Project No: IRN 24-T-034 Figure

Tested By: JE Checked By: ANS

PARTICLE SIZE DISTRIBUTION REPORT (ASTM D6913)



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.1	1.6	29.6	68.7	

SIEVE SIZE OR DIAMETER	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#4	100.0		
#10	99.9		
#20	99.8		
#40	98.3		
#60	91.7		
#100	78.5		
#140	72.8		
#200	68.7		

* (no specification provided)

Soil Description

Brown

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.2313 D_{85}= 0.1923 D_{60}=
D_{50}= D_{30}= D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= AASHTO=

Remarks

Sample Number: B-08, S-2 Depth: 2'-4'

Date: 3/22/2024

ANS CONSULTANTS, INC.

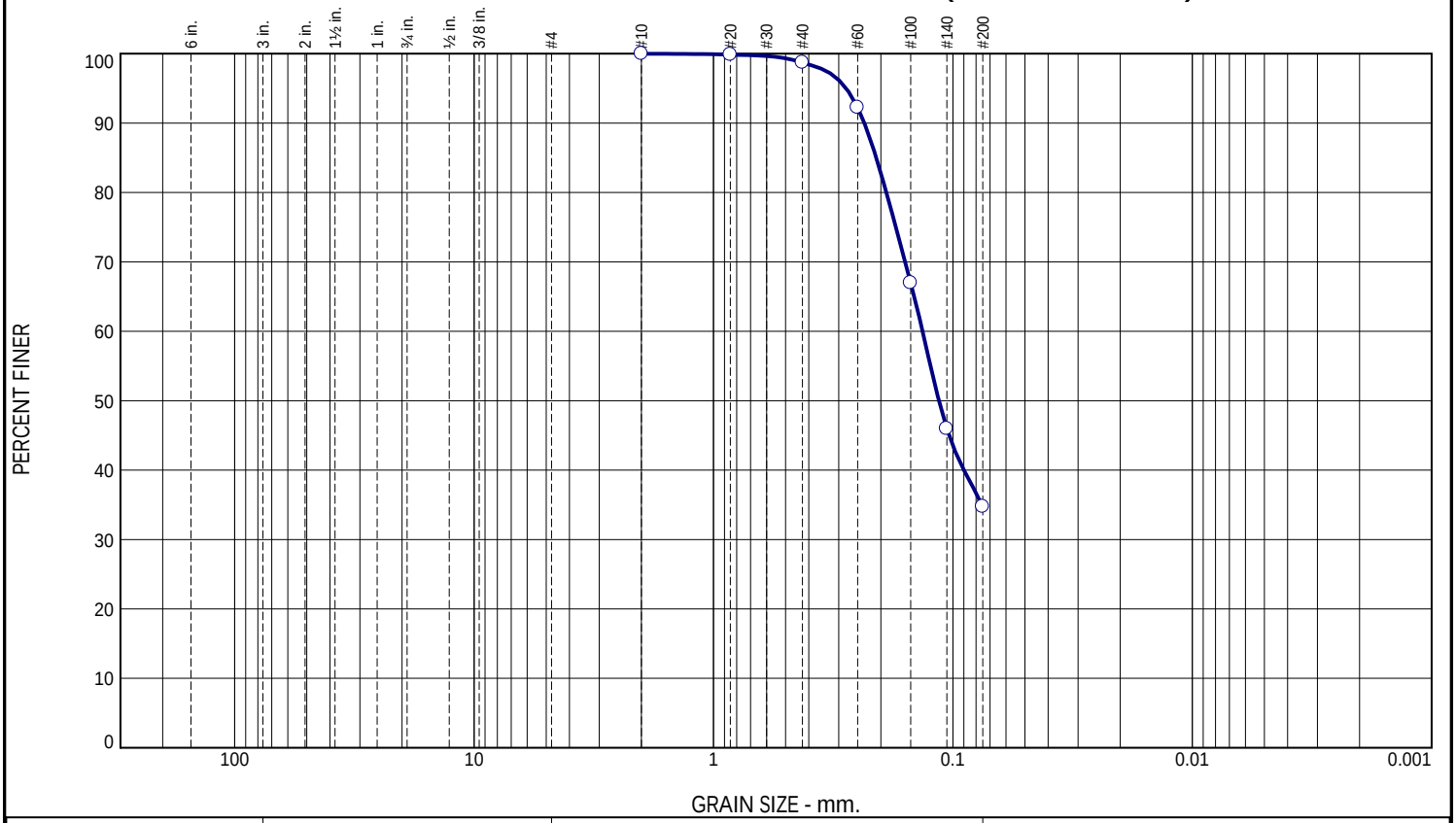
South Plainfield, New Jersey

Client: Cypress Creek Renewables, LLC
Project: Cactus Flower Solar, Pinal County, AZ

Project No: IRN 24-T-034 Figure

Tested By: JE Checked By: ANS

PARTICLE SIZE DISTRIBUTION REPORT (ASTM D6913)



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	1.3	64.0	34.7	

SIEVE SIZE OR DIAMETER	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#10	100.0		
#20	99.9		
#40	98.7		
#60	92.2		
#100	67.0		
#140	46.0		
#200	34.7		

* (no specification provided)

Soil Description

Pale Brown silty sand

Atterberg Limits

PL= NP LL= NV PI= NP

Coefficients

D_{90}= 0.2344 D_{85}= 0.2090 D_{60}= 0.1338
D_{50}= 0.1144 D_{30}= D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= SM AASHTO= A-2-4(0)

Remarks

Sample Number: B-10, S-3 Depth: 4'-6'

Date: 3/22/2024

ANS CONSULTANTS, INC.

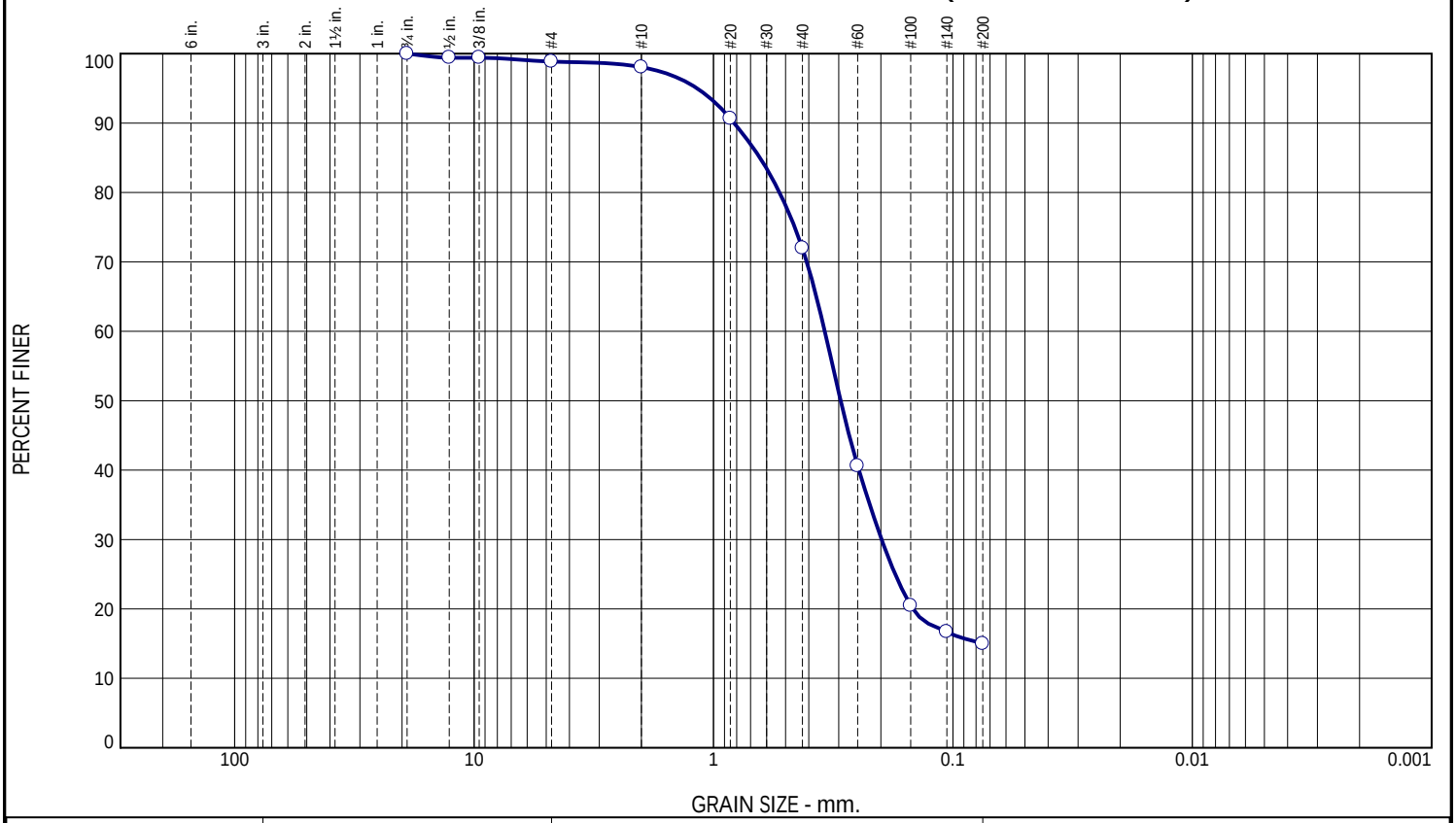
South Plainfield, New Jersey

Client: Cypress Creek Renewables, LLC
Project: Cactus Flower Solar, Pinal County, AZ

Project No: IRN 24-T-034 Figure

Tested By: JE Checked By: ANS

PARTICLE SIZE DISTRIBUTION REPORT (ASTM D6913)



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	1.1	0.8	26.1	57.0	15.0	

SIEVE SIZE OR DIAMETER	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
0.75"	100.0		
0.5"	99.4		
0.375"	99.4		
#4	98.9		
#10	98.1		
#20	90.6		
#40	72.0		
#60	40.6		
#100	20.5		
#140	16.7		
#200	15.0		

* (no specification provided)

Soil Description

Brown silty sand

Atterberg Limits

PL= NP LL= NV PI= NP

Coefficients

D_{90}= 0.8200 D_{85}= 0.6397 D_{60}= 0.3429
D_{50}= 0.2942 D_{30}= 0.1985 D_{15}= 0.0755
D_{10}= C_u= C_c=

Classification

USCS= SM AASHTO= A-2-4(0)

Remarks

Sample Number: B-11, S-2 Depth: 2'-4'

Date: 3/22/2024

ANS CONSULTANTS, INC.

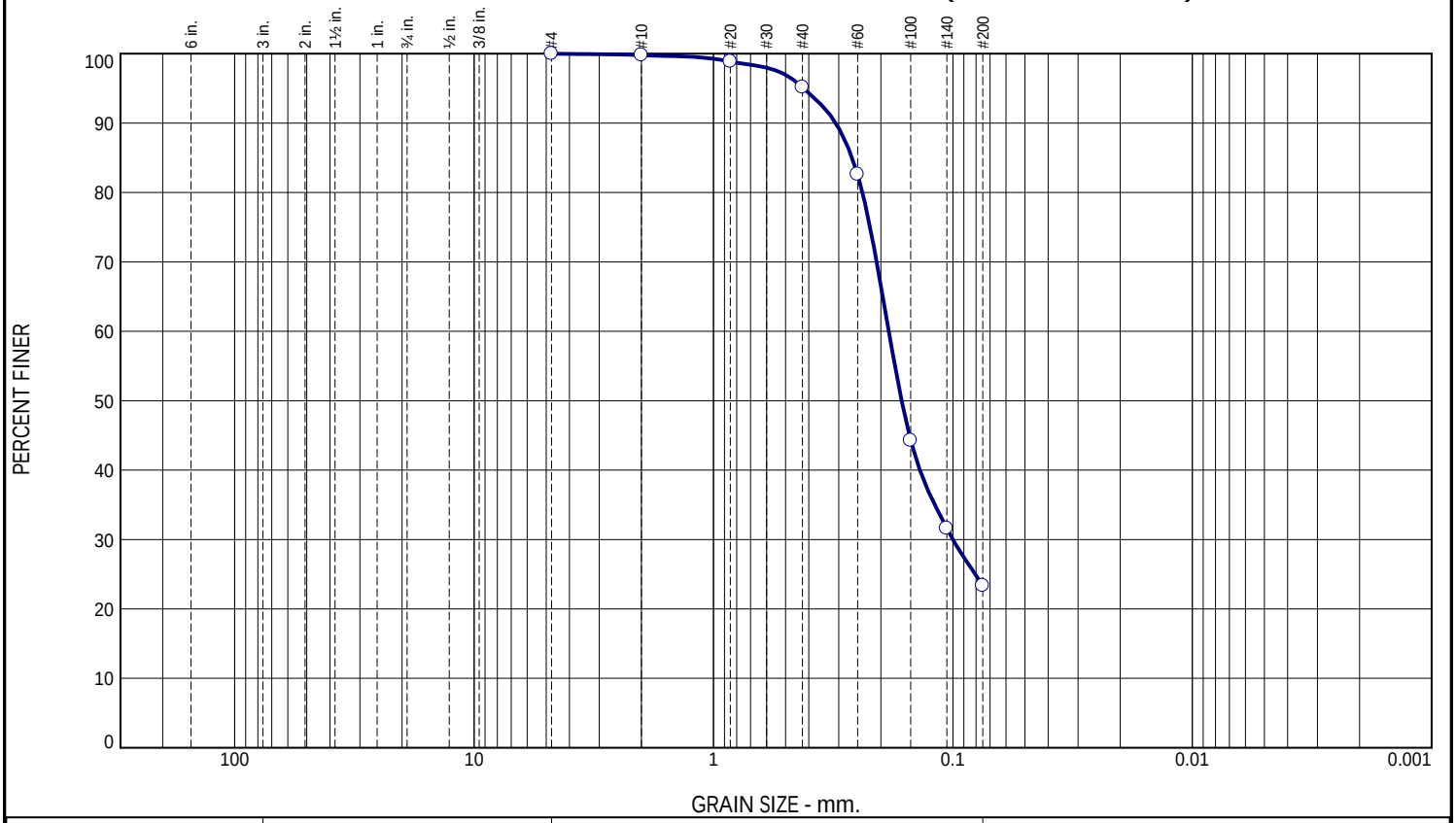
South Plainfield, New Jersey

Client: Cypress Creek Renewables, LLC
Project: Cactus Flower Solar, Pinal County, AZ

Project No: IRN 24-T-034 Figure

Tested By: JE Checked By: ANS

PARTICLE SIZE DISTRIBUTION REPORT (ASTM D6913)



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.2	4.6	71.9	23.3	

SIEVE SIZE OR DIAMETER	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#4	100.0		
#10	99.8		
#20	98.9		
#40	95.2		
#60	82.6		
#100	44.2		
#140	31.6		
#200	23.3		

* (no specification provided)

Soil Description

Brown silty sand

Atterberg Limits

PL= NP LL= NV PI= NP

Coefficients

D_{90}= 0.3084 D_{85}= 0.2636 D_{60}= 0.1852
D_{50}= 0.1638 D_{30}= 0.1001 D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= SM AASHTO= A-2-4(0)

Remarks

Sample Number: B-12, S-3 Depth: 4'-6'

Date: 3/22/2024

ANS CONSULTANTS, INC.

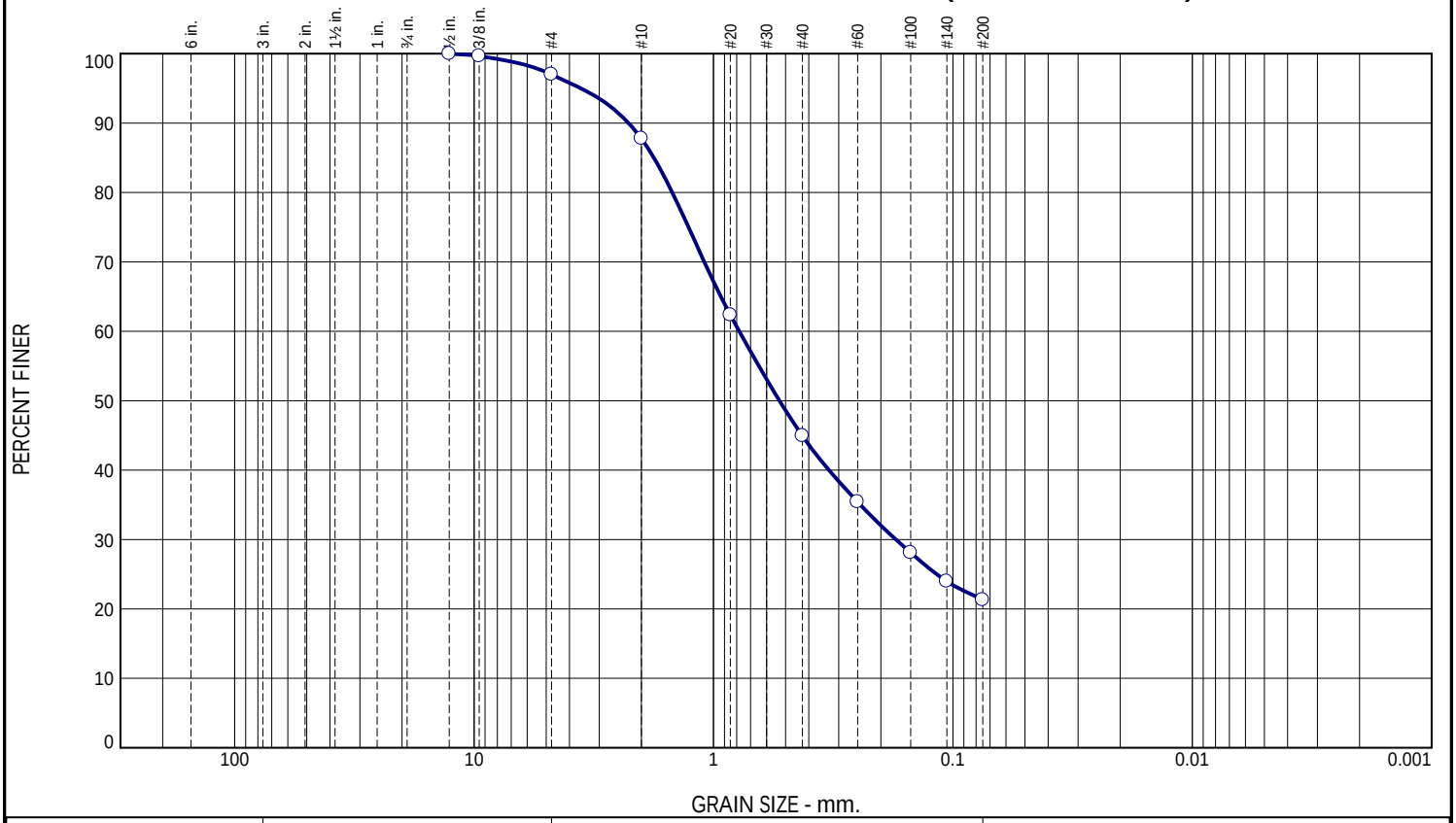
South Plainfield, New Jersey

Client: Cypress Creek Renewables, LLC
Project: Cactus Flower Solar, Pinal County, AZ

Project No: IRN 24-T-034 Figure

Tested By: JE Checked By: ANS

PARTICLE SIZE DISTRIBUTION REPORT (ASTM D6913)



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	3.0	9.2	42.9	23.6	21.3	

SIEVE SIZE OR DIAMETER	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
0.5"	100.0		
0.375"	99.7		
#4	97.0		
#10	87.8		
#20	62.3		
#40	44.9		
#60	35.4		
#100	28.1		
#140	24.0		
#200	21.3		

* (no specification provided)

Soil Description

Brown silty, clayey sand

Atterberg Limits

PL= 16 LL= 22 PI= 6

Coefficients

D_{90}= 2.2631 D_{85}= 1.7731 D_{60}= 0.7799
D_{50}= 0.5302 D_{30}= 0.1729 D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= SC-SM AASHTO= A-1-b

Remarks

Sample Number: B-BESS-01, S-9 Depth: 28'-30'

Date: 3/22/2024

ANS CONSULTANTS, INC.

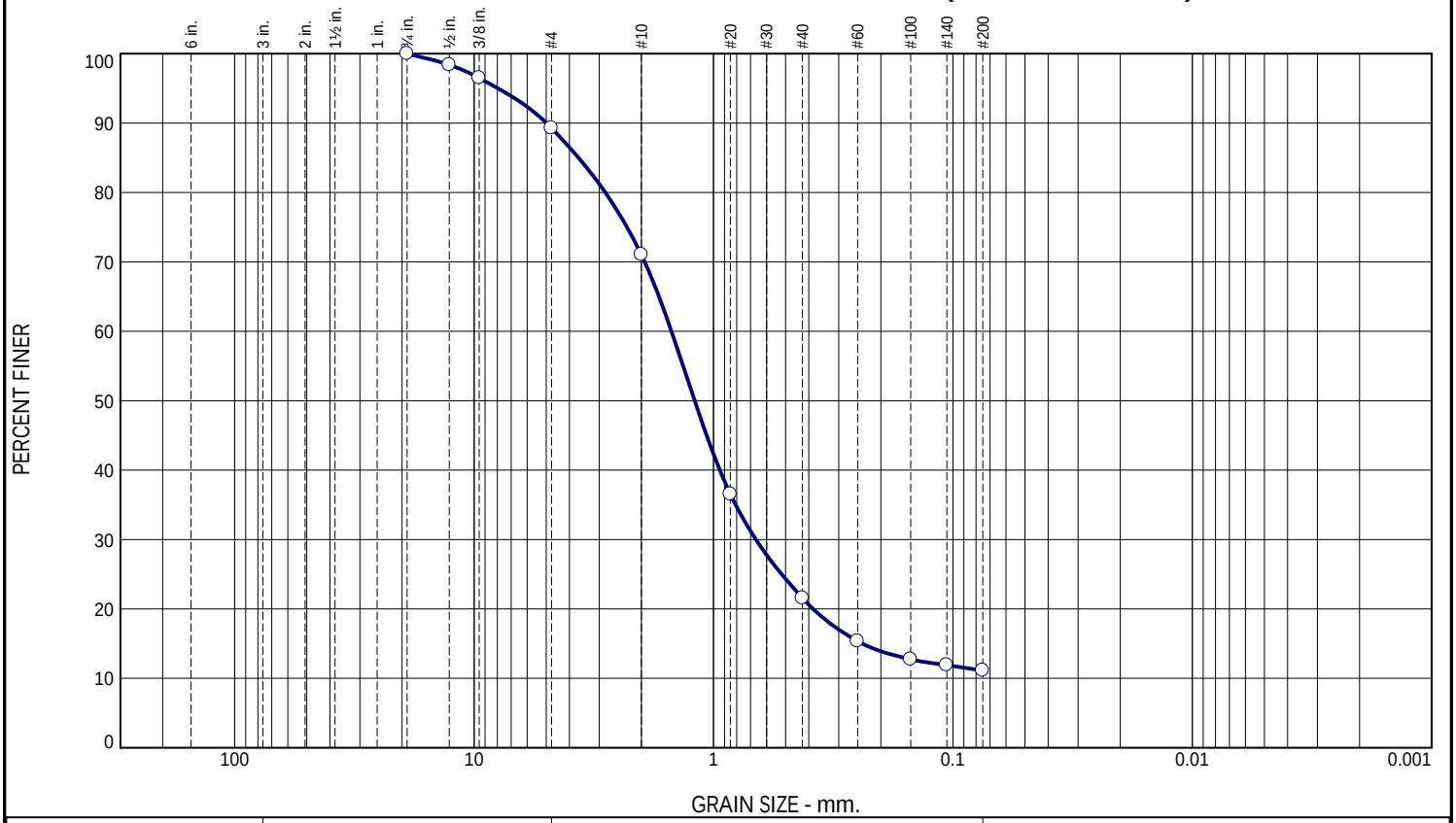
South Plainfield, New Jersey

Client: Cypress Creek Renewables, LLC
Project: Cactus Flower Solar, Pinal County, AZ

Project No: IRN 24-T-034 Figure

Tested By: JE Checked By: ANS

PARTICLE SIZE DISTRIBUTION REPORT (ASTM D6913)



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	10.7	18.3	49.4	10.5	11.1	

SIEVE SIZE OR DIAMETER	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
0.75"	100.0		
0.5"	98.4		
0.375"	96.5		
#4	89.3		
#10	71.0		
#20	36.5		
#40	21.6		
#60	15.4		
#100	12.7		
#140	11.9		
#200	11.1		

* (no specification provided)

Soil Description

Pale Brown poorly graded sand with silt

Atterberg Limits

PL= NP LL= NV PI= NP

Coefficients

D_{90}= 4.9800 D_{85}= 3.6611 D_{60}= 1.4985
D_{50}= 1.1982 D_{30}= 0.6656 D_{15}= 0.2390
D_{10}= C_u= C_c=

Classification

USCS= SP-SM AASHTO= A-1-b

Remarks

Sample Number: B-SS-01, S-8 Depth: 23'-25'

Date: 3/22/2024

ANS CONSULTANTS, INC.

South Plainfield, New Jersey

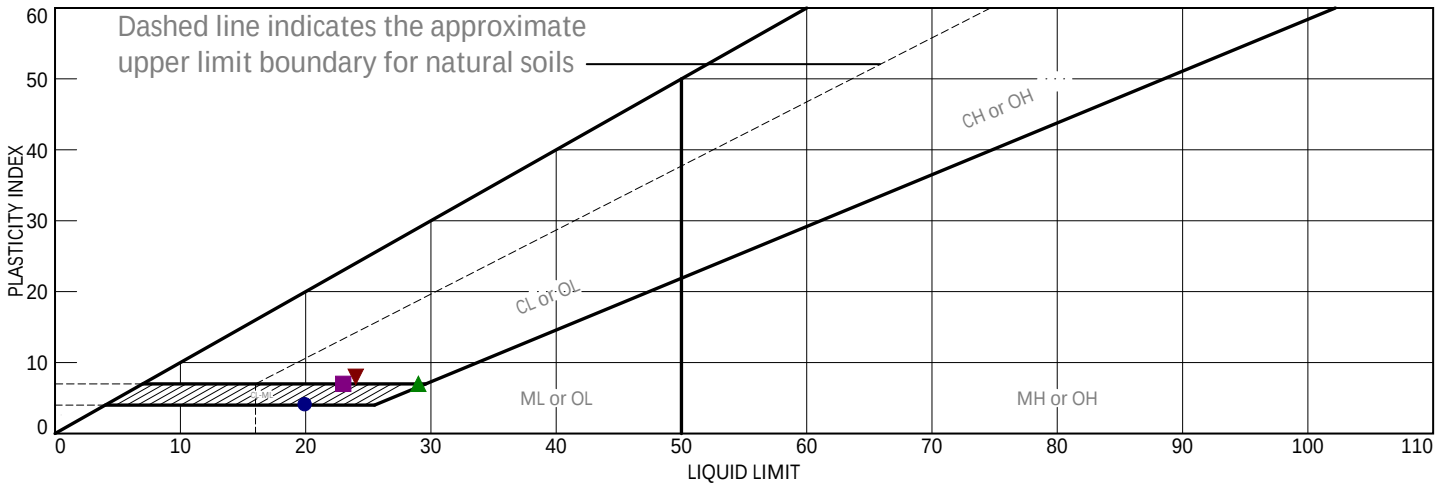
Client: Cypress Creek Renewables, LLC
Project: Cactus Flower Solar, Pinal County, AZ

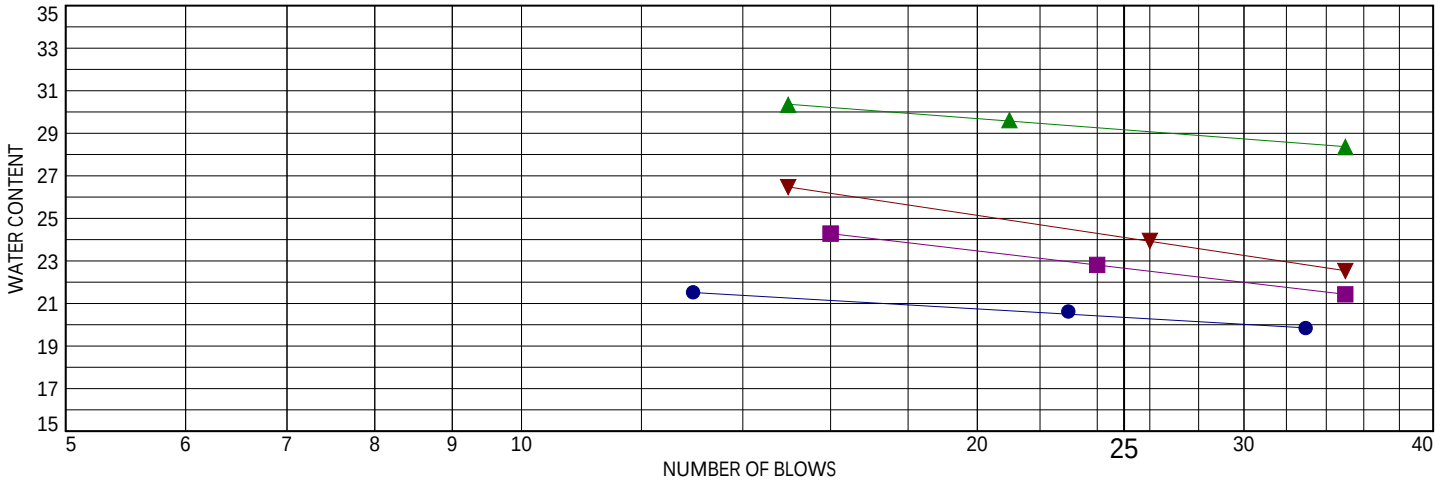
Project No: IRN 24-T-034 Figure

Tested By: JE Checked By: ANS

ATTERBERG
LIMITS RESULTS

LIQUID AND PLASTIC LIMITS TEST REPORT (ASTM D4318)





	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	Brown cmf Sand, and Silt & Clay (Visual)	20	16	4			
■	Brown silty, clayey sand	23	16	7	49.0	29.7	SC-SM
▲	Brown cmf Sand, and Silt & Clay (Visual)	29	22	7			
◆	Brown silty sand	NV	NP	NP	89.8	36.3	SM
▼	Pale Brown cmf Sand, and Silt & Clay (Visual)	24	16	8			

Project No. IRN 24-T-034 Client: Cypress Creek Renewables, LLC

Project: Cactus Flower Solar, Pinal County, AZ

●Depth: 13'-15' Sample Number: B-01, S-5
■Depth: 13'-15' Sample Number: B-02, S-6
▲Depth: 6'-8' Sample Number: B-03, S-4
◆Depth: 4'-6' Sample Number: B-05, S-3
▼Depth: 2'-4' Sample Number: B-09, S-2

ANS CONSULTANTS, INC.

South Plainfield, New Jersey

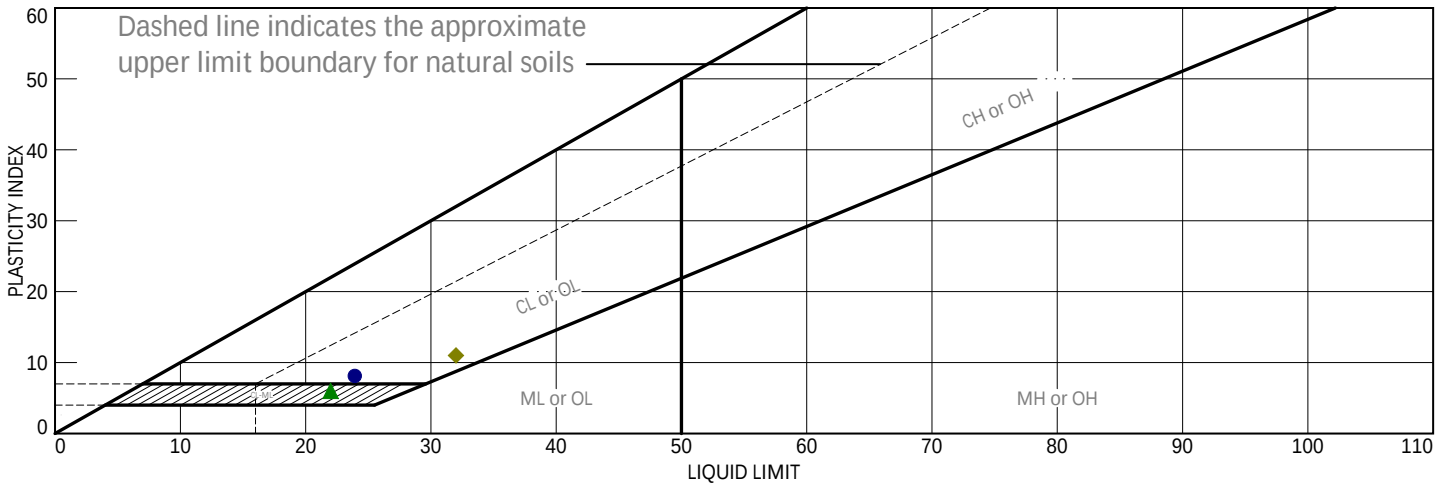
Remarks:

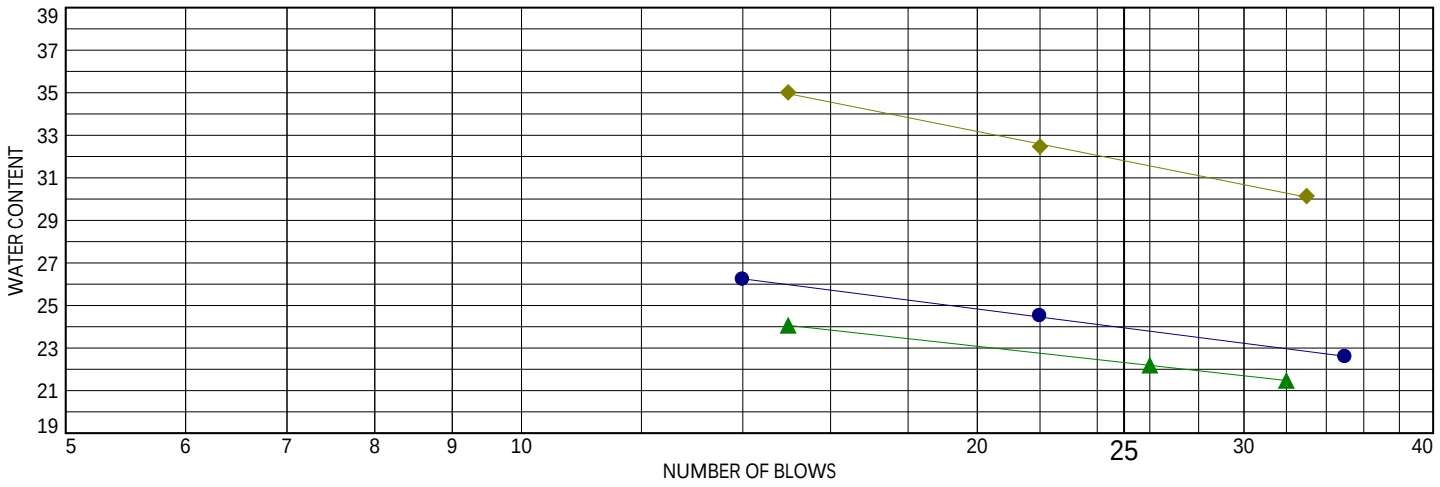
●ASTM D4318 - Sample Air-Dried, LL Device: Manual, PL Rolling Method: Hand-Rolled, Grooving Tool: Metal
3/22/2024

Figure

Tested By: JE Checked By: ANS

LIQUID AND PLASTIC LIMITS TEST REPORT (ASTM D4318)





	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	Brown cmf Sand, and Silt & Clay (Visual)	24	16	8			
■	Brown cmf Sand, some(-) Silt & Clay (Visual)	NV	NP	NP			
▲	Brown silty, clayey sand	22	16	6	44.9	21.3	SC-SM
◆	Brown Clay & Silt, little(+) cmf Sand (Visual)	32	21	11			

Project No. IRN 24-T-034 Client: Cypress Creek Renewables, LLC

Project: Cactus Flower Solar, Pinal County, AZ

● Depth: 18'-20' Sample Number: B-12, S-7

■ Depth: 4'-6' Sample Number: B-BESS-01, S-3

▲ Depth: 28'-30' Sample Number: B-BESS-01, S-9

◆ Depth: 4'-6' Sample Number: B-SS-01, S-3

ANS CONSULTANTS, INC.

South Plainfield, New Jersey

Remarks:

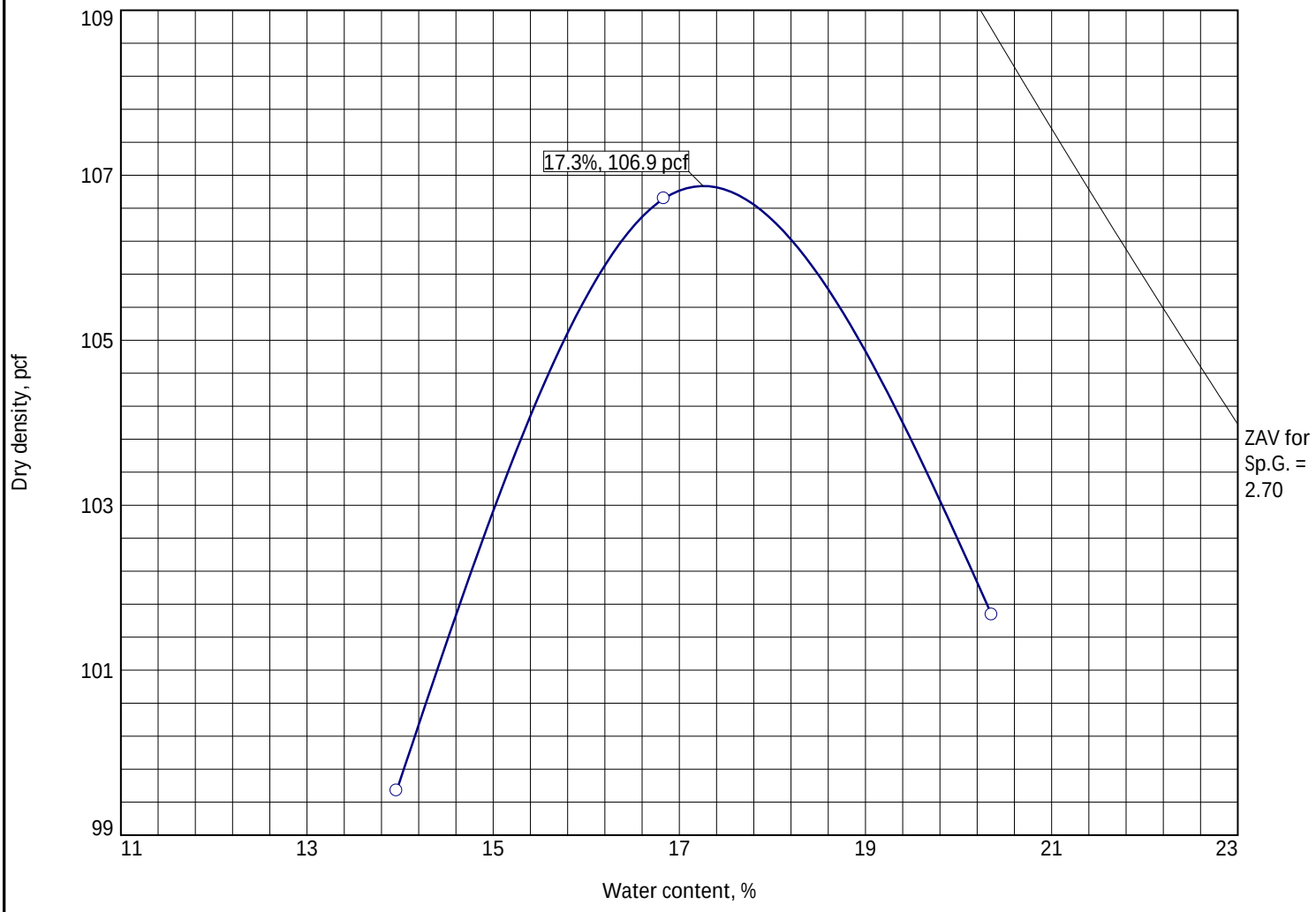
● ASTM D4318 - Sample Air-Dried, LL Device: Manual, PL Rolling Method: Hand-Rolled, Grooving Tool: Metal
3/22/2024

Figure

Tested By: JE Checked By: ANS

THERMAL RESISTIVITY RESULTS

COMPACTION TEST REPORT



Test specification: ASTM D 698-12 Method B Standard

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/8 in.	% < No.200
	USCS	AASHTO						
				2.7			0	

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 106.9 pcf Optimum moisture = 17.3 %	Brown Clay & Silt, little cmf Sand (Visual)

Project No. IRN 24-T-035 Client: Cypress Creek Renewables, LLC

Project: Cactus Flower Solar, Pinal County, AZ

Date: 3/28/2024

○ Sample Number: B-SS-01, TRT-01

ANS CONSULTANTS, INC.

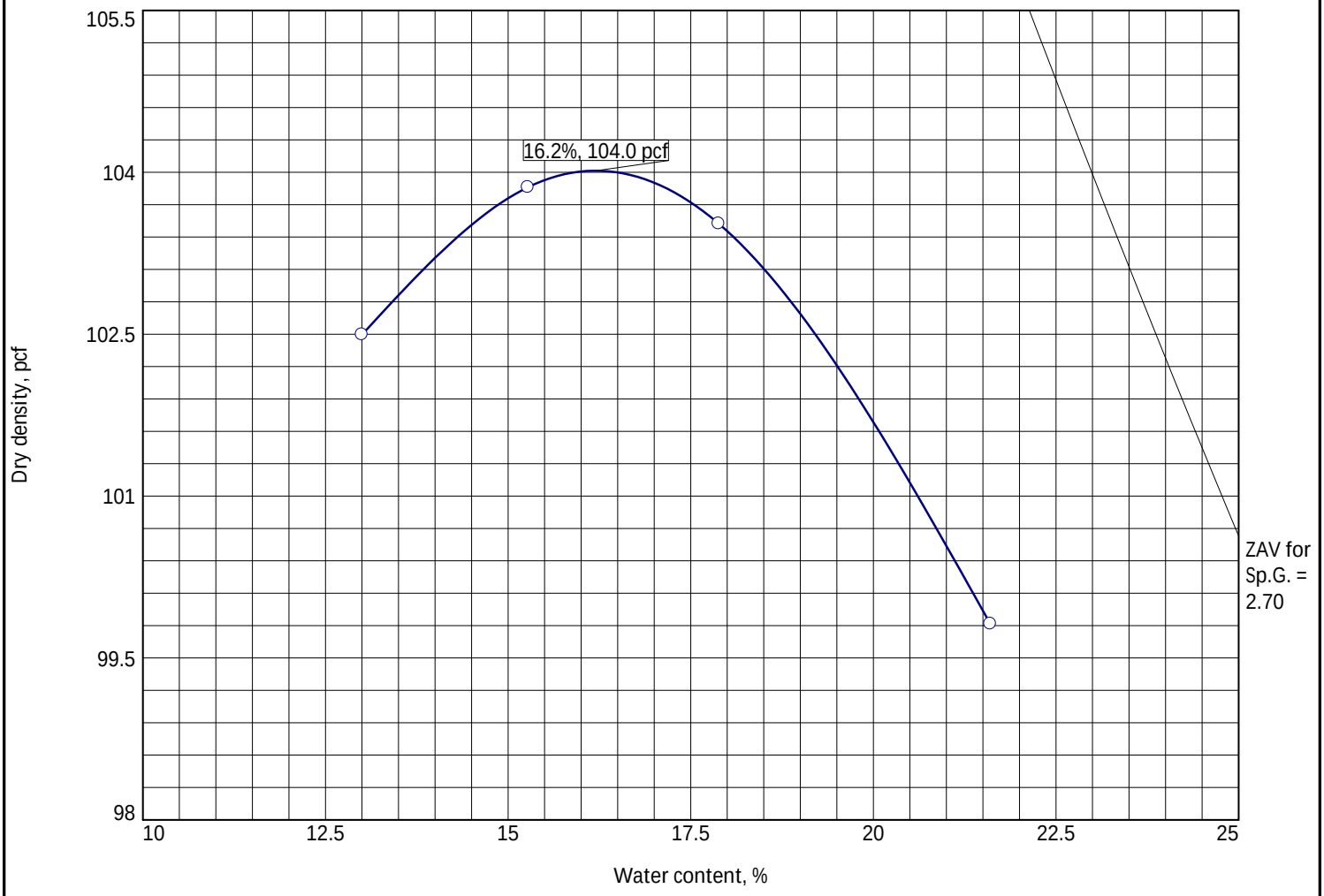
South Plainfield, New Jersey

Remarks:
SG Assumed

Figure

Tested By: JS Checked By: ANS

COMPACTION TEST REPORT



Test specification: ASTM D 698-12 Method B Standard

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/8 in.	% < No.200
	USCS	AASHTO						
				2.7			0	

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 104.0 pcf Optimum moisture = 16.2 %	Brown Silt & Clay, little cmf Sand (Visual)

Project No. IRN 24-T-035 Client: Cypress Creek Renewables, LLC

Project: Cactus Flower Solar, Pinal County, AZ

Date: 3/28/2024

○ Sample Number: B-BESS-01, TRT-02

ANS CONSULTANTS, INC.

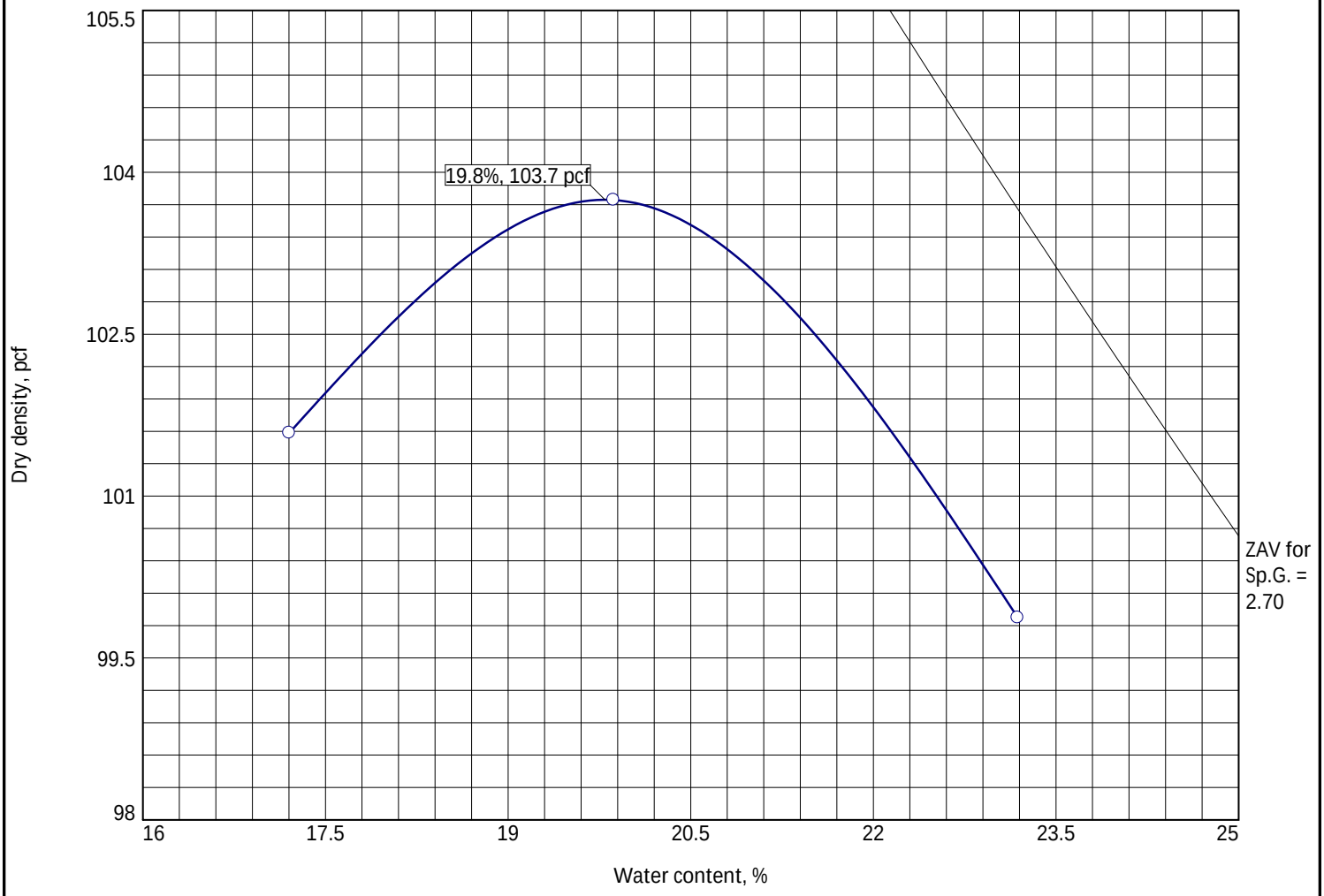
South Plainfield, New Jersey

Remarks:
SG Assumed

Figure

Tested By: JS Checked By: ANS

COMPACTION TEST REPORT



Test specification: ASTM D 698-12 Method B Standard

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/8 in.	% < No.200
	USCS	AASHTO						
				2.7			0	

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 103.7 pcf Optimum moisture = 19.8 %	Brown Clay & Silt, trace cmf Sand (Visual)

Project No. IRN 24-T-035 Client: Cypress Creek Renewables, LLC

Project: Cactus Flower Solar, Pinal County, AZ

Date: 3/28/2024

○ Sample Number: B-02, TRT-03

ANS CONSULTANTS, INC.

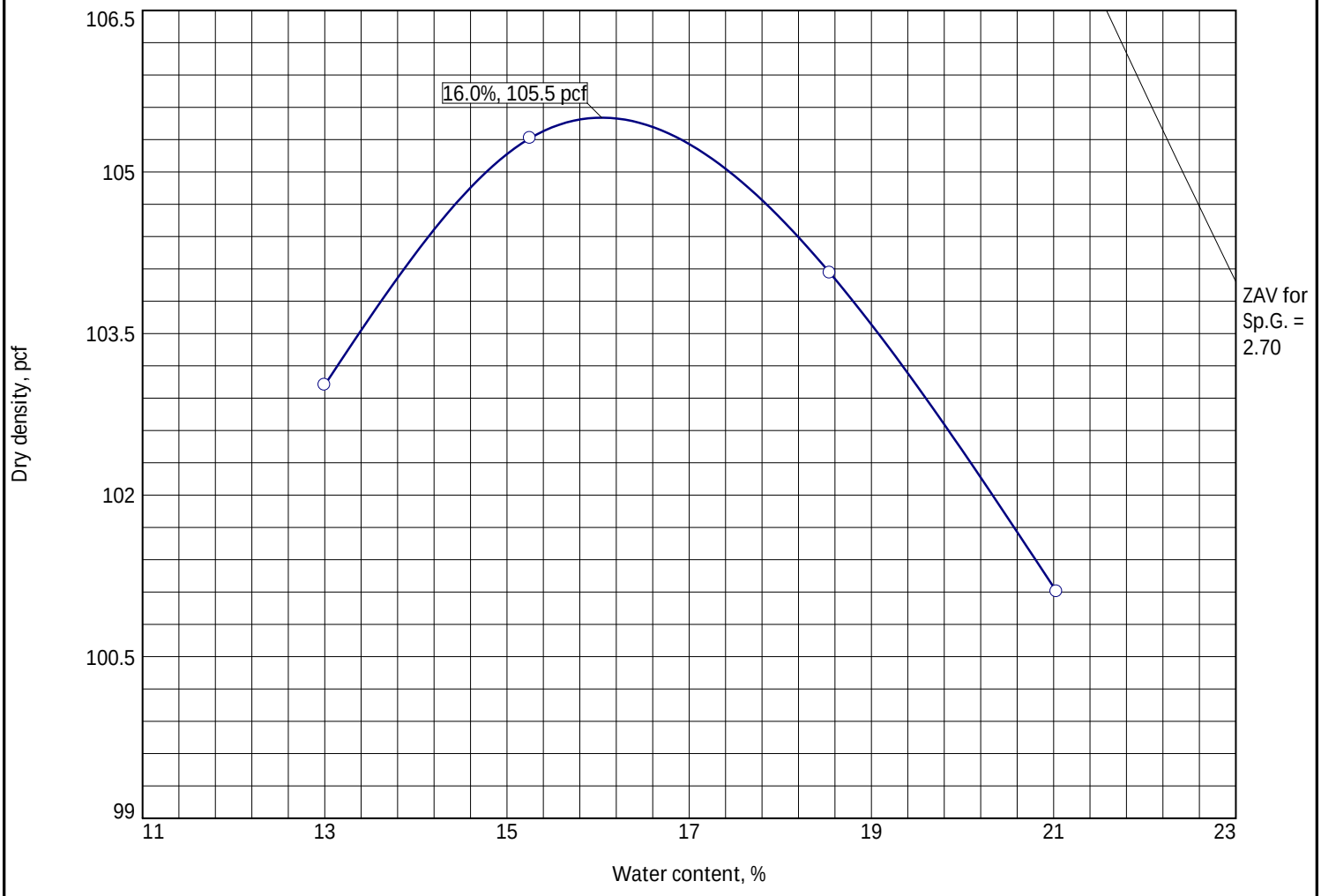
South Plainfield, New Jersey

Remarks:
SG Assumed

Figure

Tested By: JS Checked By: ANS

COMPACTION TEST REPORT



Test specification: ASTM D 698-12 Method B Standard

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/8 in.	% < No.200
	USCS	AASHTO						
				2.7			0	

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 105.5 pcf Optimum moisture = 16.0 %	Brown Silt & Clay, little cmf Sand (Visual)

Project No. IRN 24-T-035 Client: Cypress Creek Renewables, LLC

Project: Cactus Flower Solar, Pinal County, AZ

Date: 3/28/2024

○ Sample Number: B-03, TRT-04

ANS CONSULTANTS, INC.

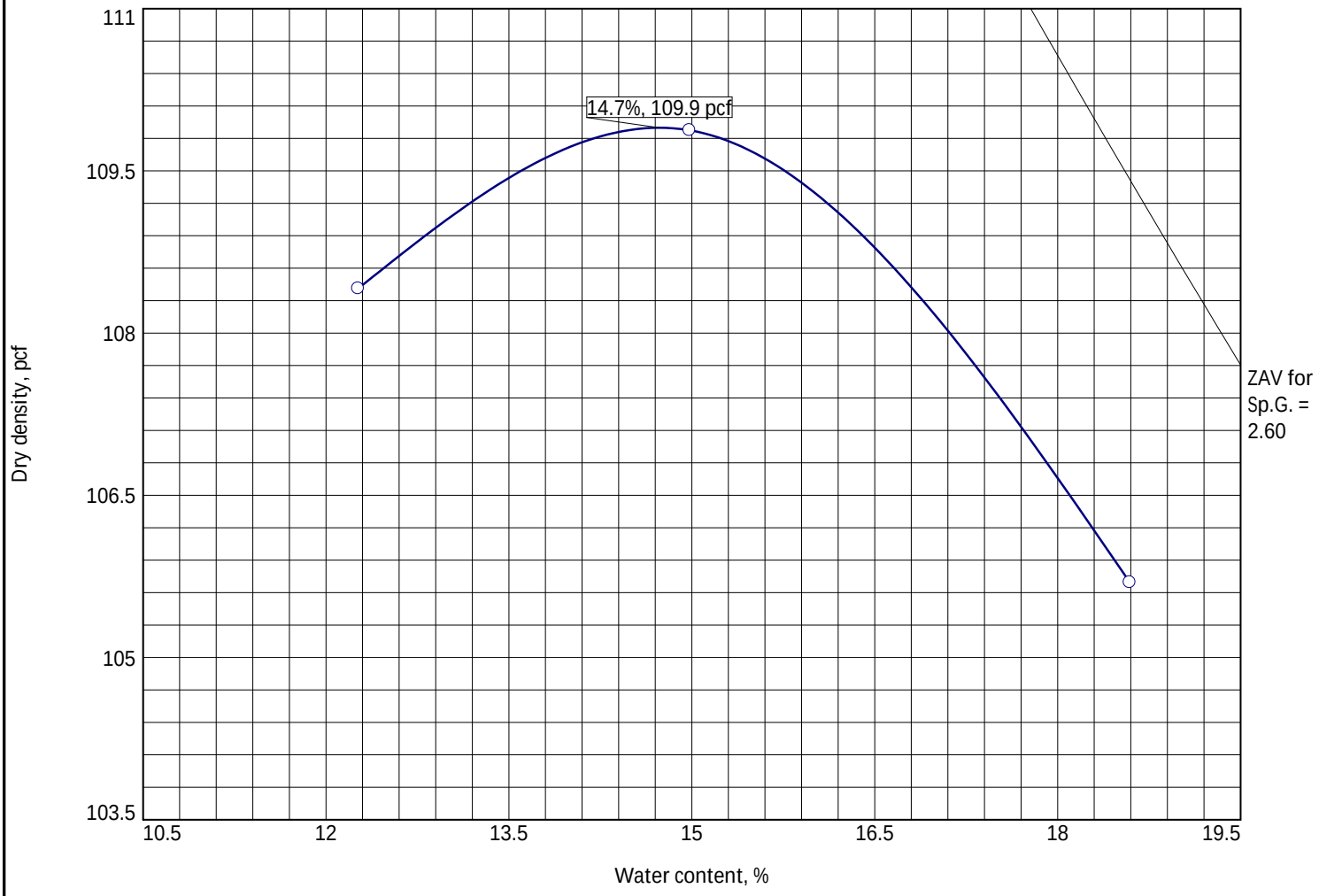
South Plainfield, New Jersey

Remarks:
SG Assumed

Figure

Tested By: JS Checked By: ANS

COMPACTION TEST REPORT



Test specification: ASTM D 698-12 Method B Standard

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/8 in.	% < No.200
	USCS	AASHTO						
				2.7			0	

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 109.9 pcf Optimum moisture = 14.7 %	Brown Silt & Clay, little cmf Sand (Visual)

Project No. IRN 24-T-035 Client: Cypress Creek Renewables, LLC

Project: Cactus Flower Solar, Pinal County, AZ

Date: 3/28/2024

○ Sample Number: B-05, TRT-05

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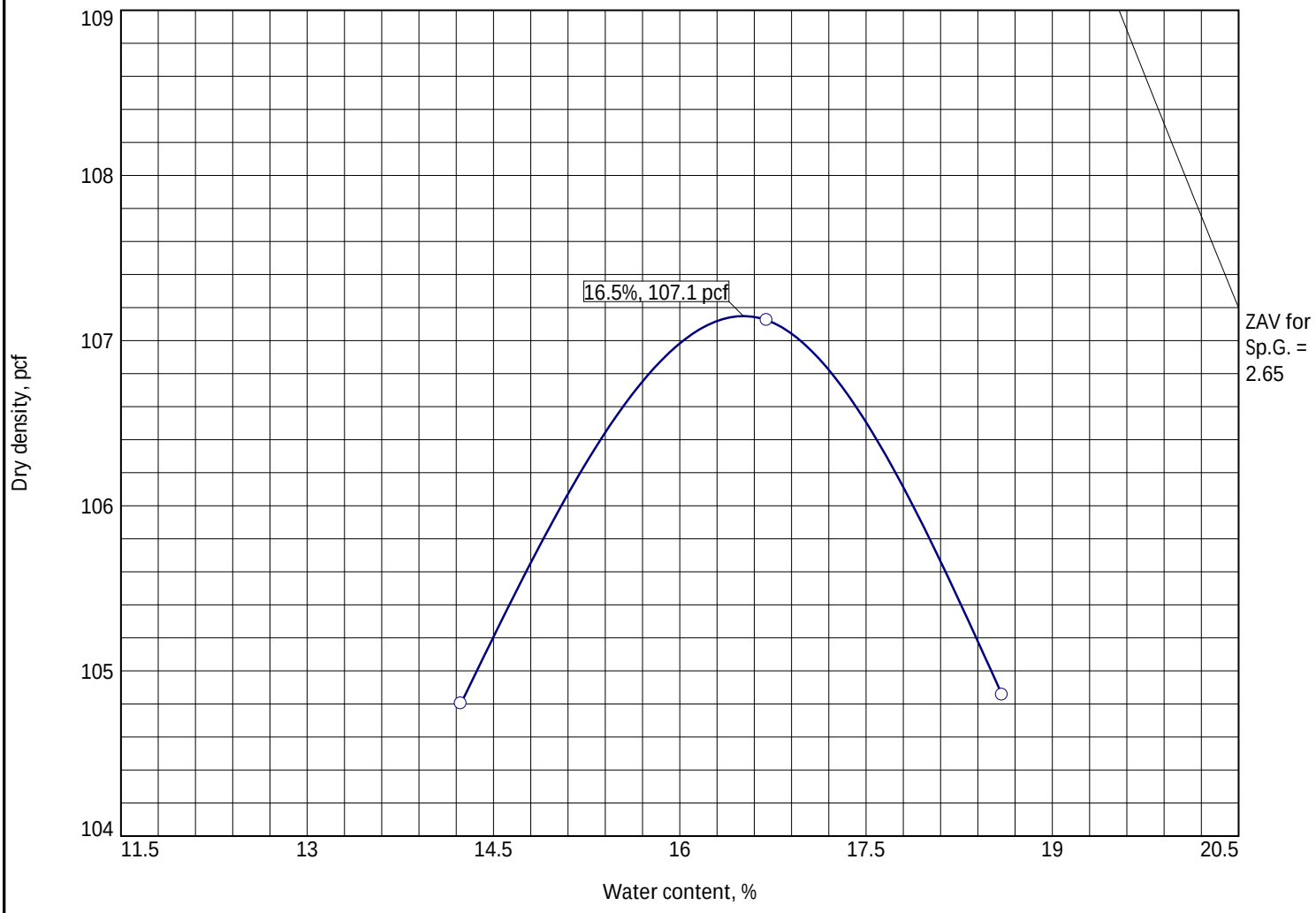
South Plainfield, New Jersey

Remarks:
SG Assumed

Figure

Tested By: JS Checked By: ANS

COMPACTION TEST REPORT



Test specification: ASTM D 698-12 Method B Standard

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/8 in.	% < No.200
	USCS	AASHTO						
				2.7			0	

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 107.1 pcf Optimum moisture = 16.5 %	Brown Silt & Clay, little cmf Sand (Visual)

Project No. IRN 24-T-035 Client: Cypress Creek Renewables, LLC

Project: Cactus Flower Solar, Pinal County, AZ

Date: 3/28/2024

○ Sample Number: B-06, TRT-06

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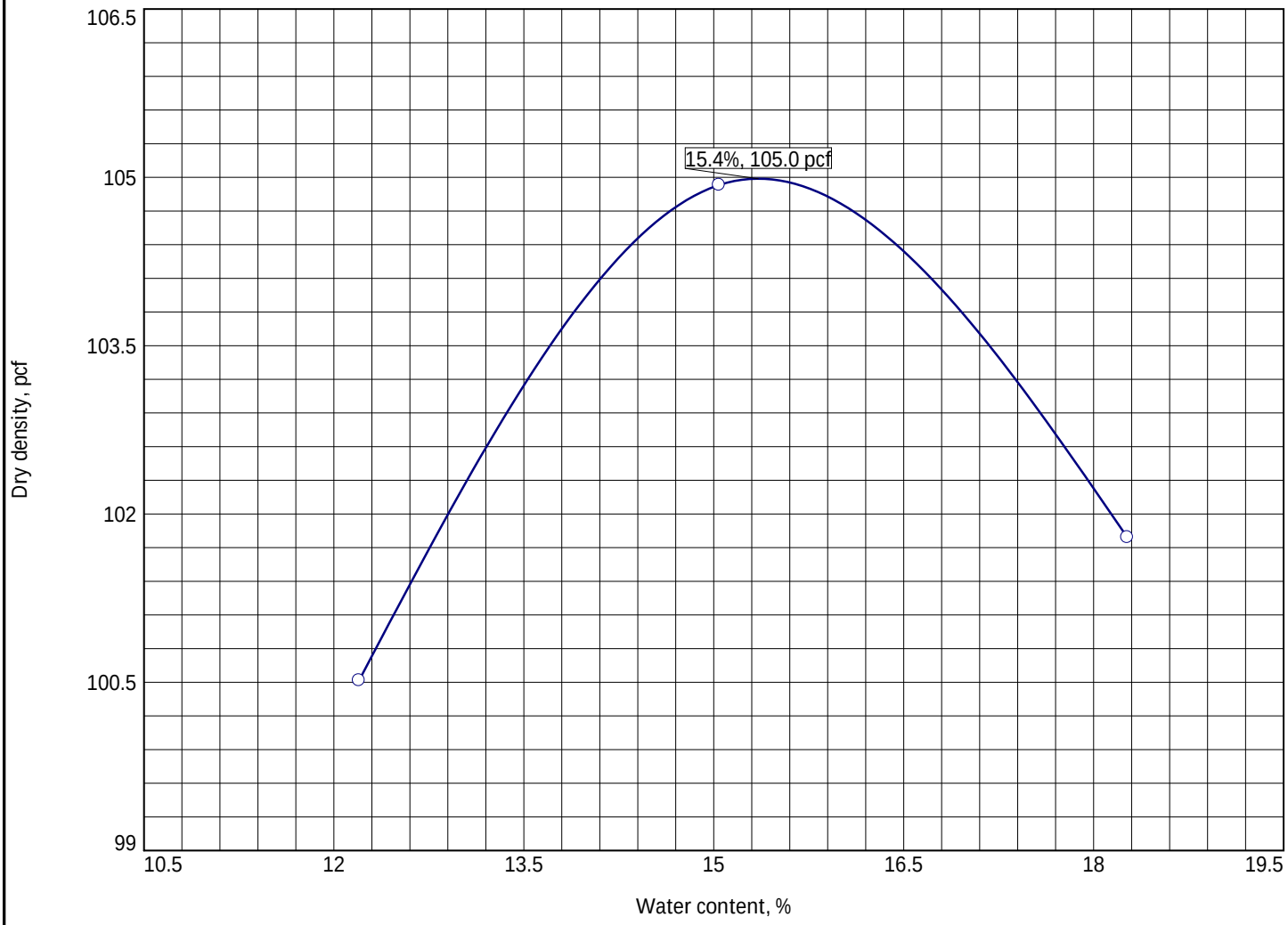
South Plainfield, New Jersey

Remarks:
SG Assumed

Figure

Tested By: JS Checked By: ANS

COMPACTION TEST REPORT



Test specification: ASTM D 698-12 Method B Standard

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/8 in.	% < No.200
	USCS	AASHTO						
				2.7			0	

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 105.0 pcf Optimum moisture = 15.4 %	Brown Silt & Clay, little cmf Sand (Visual)

Project No. IRN 24-T-035 Client: Cypress Creek Renewables, LLC

Project: Cactus Flower Solar, Pinal County, AZ

Date: 3/28/2024

○ Sample Number: B-08, TRT-07

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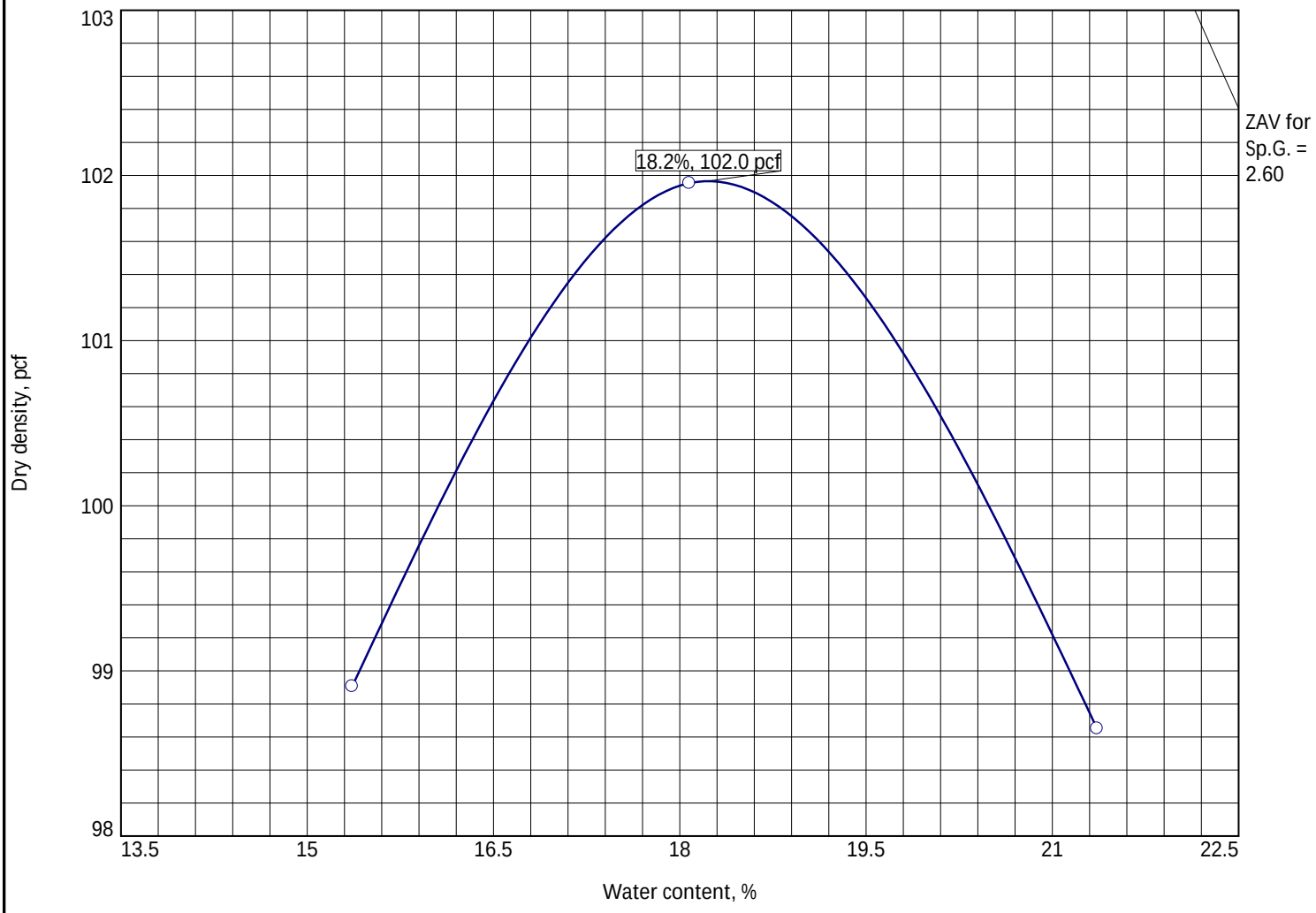
South Plainfield, New Jersey

Remarks:
SG Assumed

Figure

Tested By: JS Checked By: ANS

COMPACTION TEST REPORT



Test specification: ASTM D 698-12 Method B Standard

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/8 in.	% < No.200
	USCS	AASHTO						
				2.7			0	

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 102.0 pcf Optimum moisture = 18.2 %	Brown Clay & Silt, trace cmf Sand (Visual)

Project No. IRN 24-T-035 Client: Cypress Creek Renewables, LLC

Project: Cactus Flower Solar, Pinal County, AZ

Date: 3/28/2024

○ Sample Number: B-09, TRT-08

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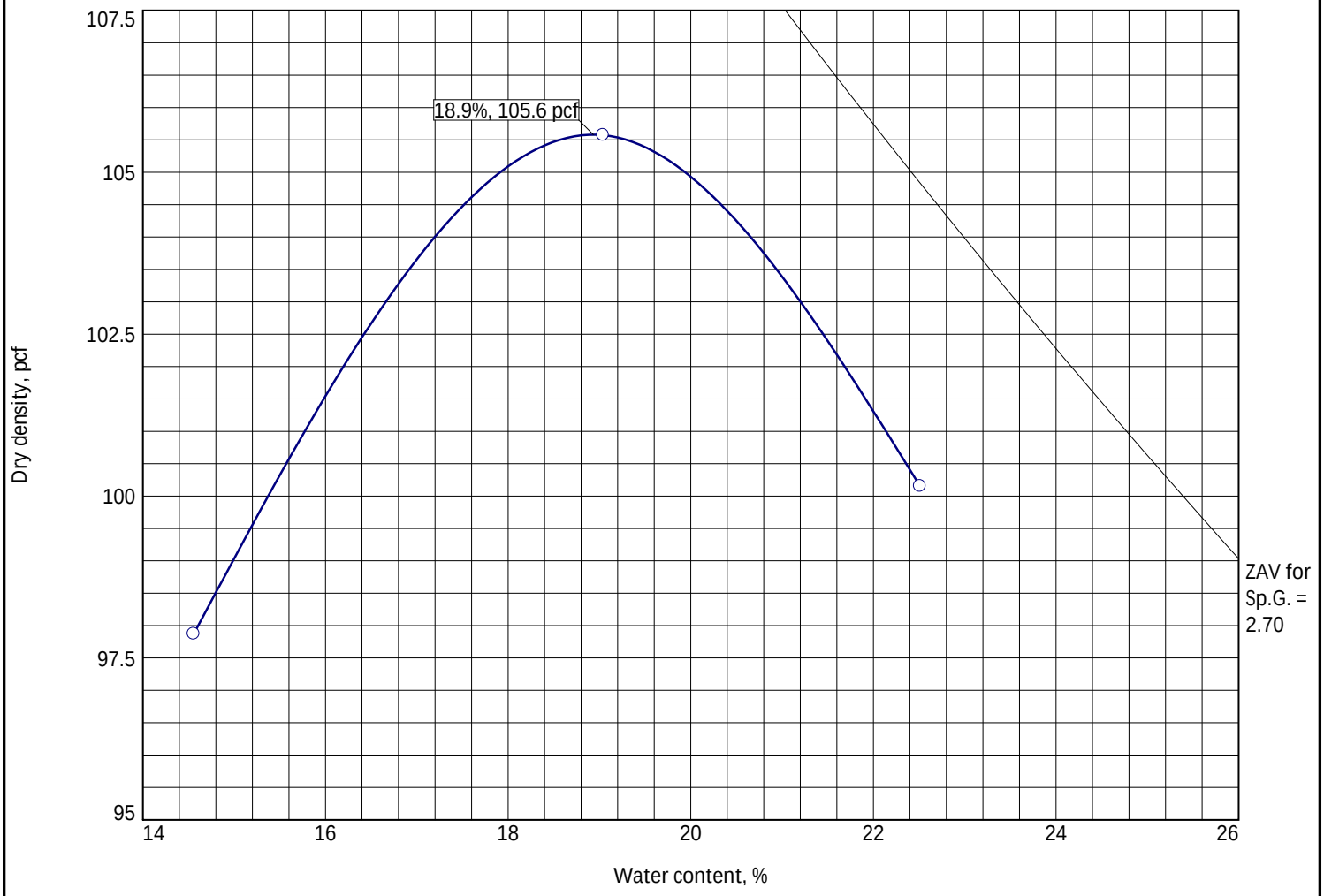
South Plainfield, New Jersey

Remarks:
SG Assumed

Figure

Tested By: JS Checked By: ANS

COMPACTION TEST REPORT



Test specification: ASTM D 698-12 Method B Standard

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/8 in.	% < No.200
	USCS	AASHTO						
				2.7			0	

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 105.6 pcf Optimum moisture = 18.9 %	Brown Clay & Silt, little cmf Sand (Visual)

Project No. IRN 24-T-035 Client: Cypress Creek Renewables, LLC

Project: Cactus Flower Solar, Pinal County, AZ

Date: 3/28/2024

○ Sample Number: B-12, TRT-09

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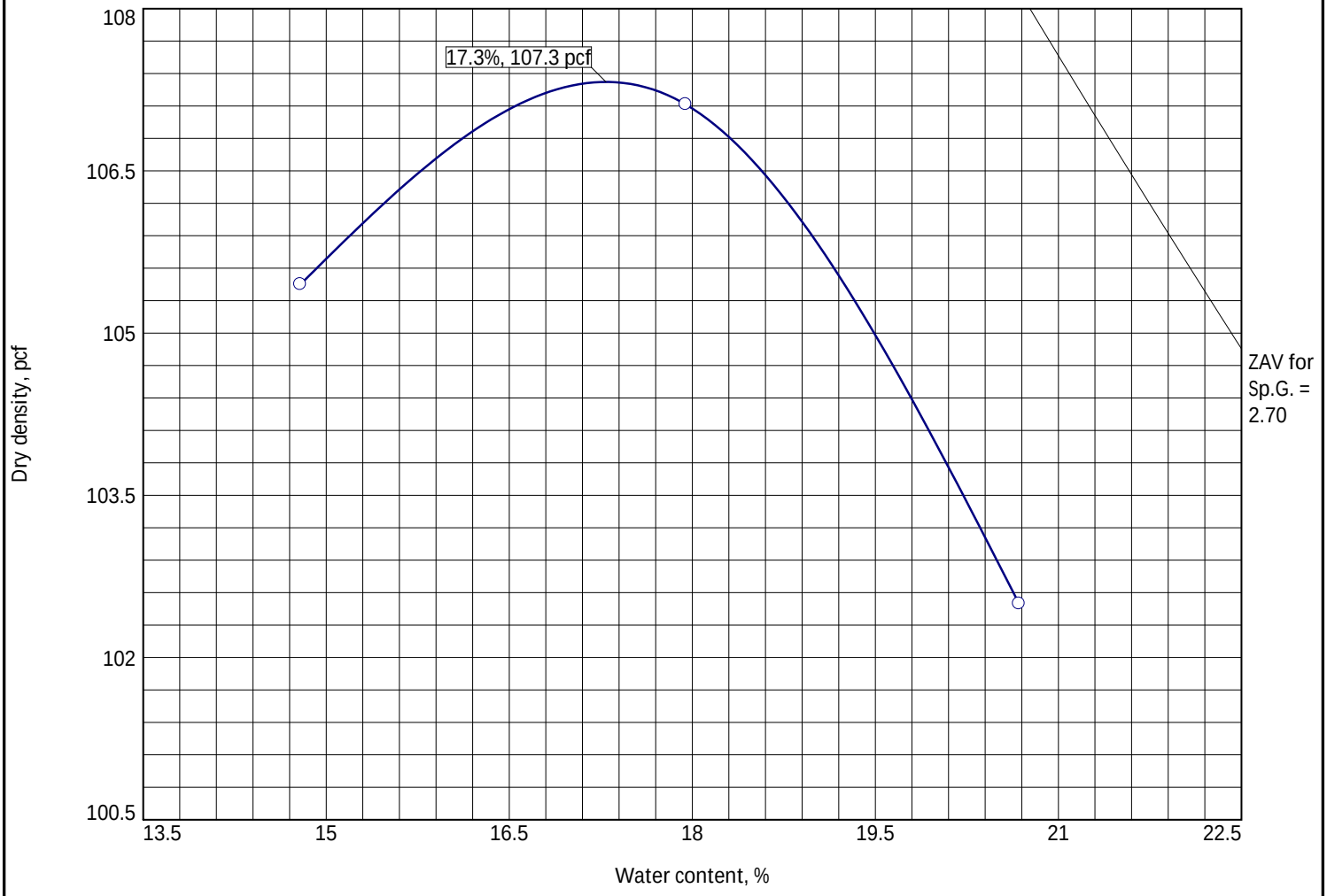
South Plainfield, New Jersey

Remarks:
SG Assumed

Figure

Tested By: JS Checked By: ANS

COMPACTION TEST REPORT



Test specification: ASTM D 698-12 Method B Standard

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/8 in.	% < No.200
	USCS	AASHTO						
				2.7			0	

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 107.3 pcf Optimum moisture = 17.3 %	Brown Clay & Silt, little cmf Sand (Visual)

Project No. IRN 24-T-035 Client: Cypress Creek Renewables, LLC

Project: Cactus Flower Solar, Pinal County, AZ

Date: 3/28/2024

○ Sample Number: B-15, TRT-10

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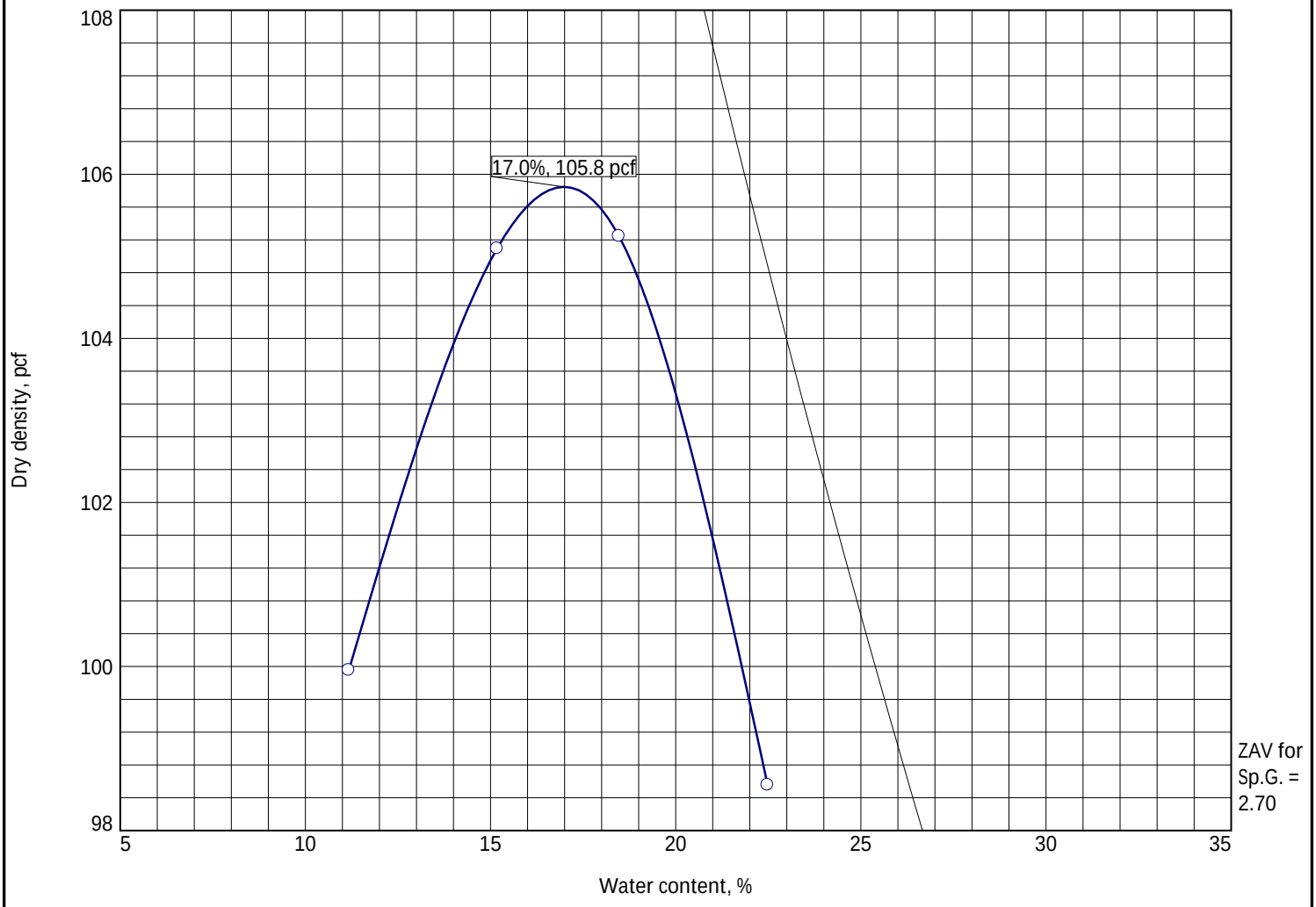
South Plainfield, New Jersey

Remarks:
SG Assumed

Figure

Tested By: JS Checked By: ANS

COMPACTION TEST REPORT



Test specification: ASTM D 698-12 Method B Standard

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/8 in.	% < No.200
	USCS	AASHTO						
				2.7			0	

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 105.8 pcf Optimum moisture = 17.0 %	Brown Clay & Silt, little cmf Sand, trace mf Gravel (Visual)

Project No. IRN 24-T-035 Client: Cypress Creek Renewables, LLC

Project: Cactus Flower Solar, Pinal County, AZ

Date: 3/28/2024

○ Sample Number: B-SS-01, CBR-01

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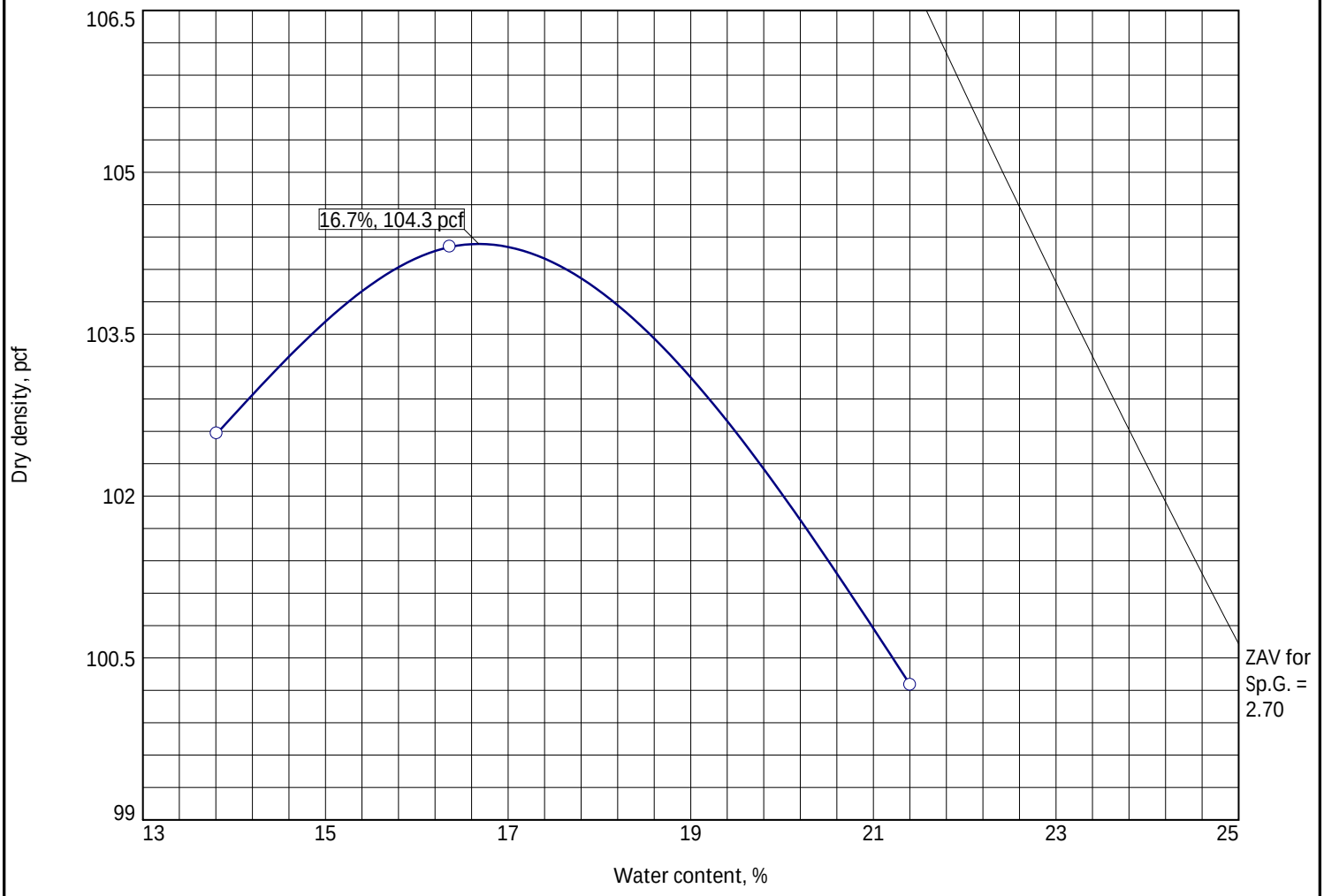
South Plainfield, New Jersey

Remarks:
SG Assumed

Figure

Tested By: HC Checked By: ANS

COMPACTION TEST REPORT



Test specification: ASTM D 698-12 Method B Standard

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/8 in.	% < No.200
	USCS	AASHTO						
				2.7			0	

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 104.3 pcf Optimum moisture = 16.7 %	Brown Silt & Clay, trace cmf Sand (Visual)

Project No. IRN 24-T-035 Client: Cypress Creek Renewables, LLC

Project: Cactus Flower Solar, Pinal County, AZ

Date: 3/28/2024

○ Sample Number: B-BESS-01, CBR-02

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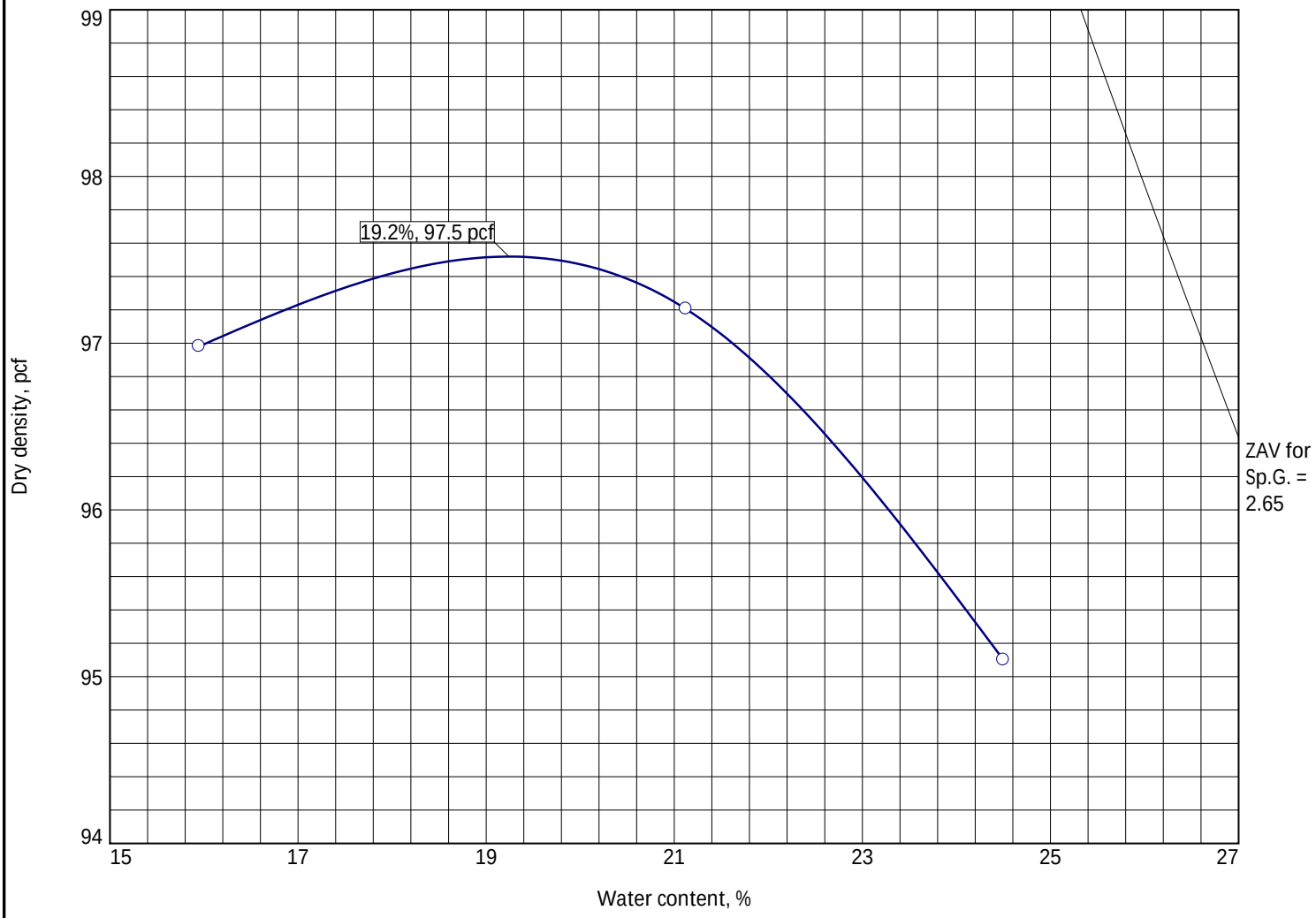
South Plainfield, New Jersey

Remarks:
SG Assumed

Figure

Tested By: ES Checked By: ANS

COMPACTION TEST REPORT



Test specification: ASTM D 698-12 Method B Standard

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/8 in.	% < No.200
	USCS	AASHTO						
				2.7			0	

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 97.5 pcf Optimum moisture = 19.2 %	Brown Clay & Silt, trace cmf Sand (Visual)

Project No. IRN 24-T-035 Client: Cypress Creek Renewables, LLC

Project: Cactus Flower Solar, Pinal County, AZ

Date: 3/28/2024

○ Sample Number: B-01, CBR-03

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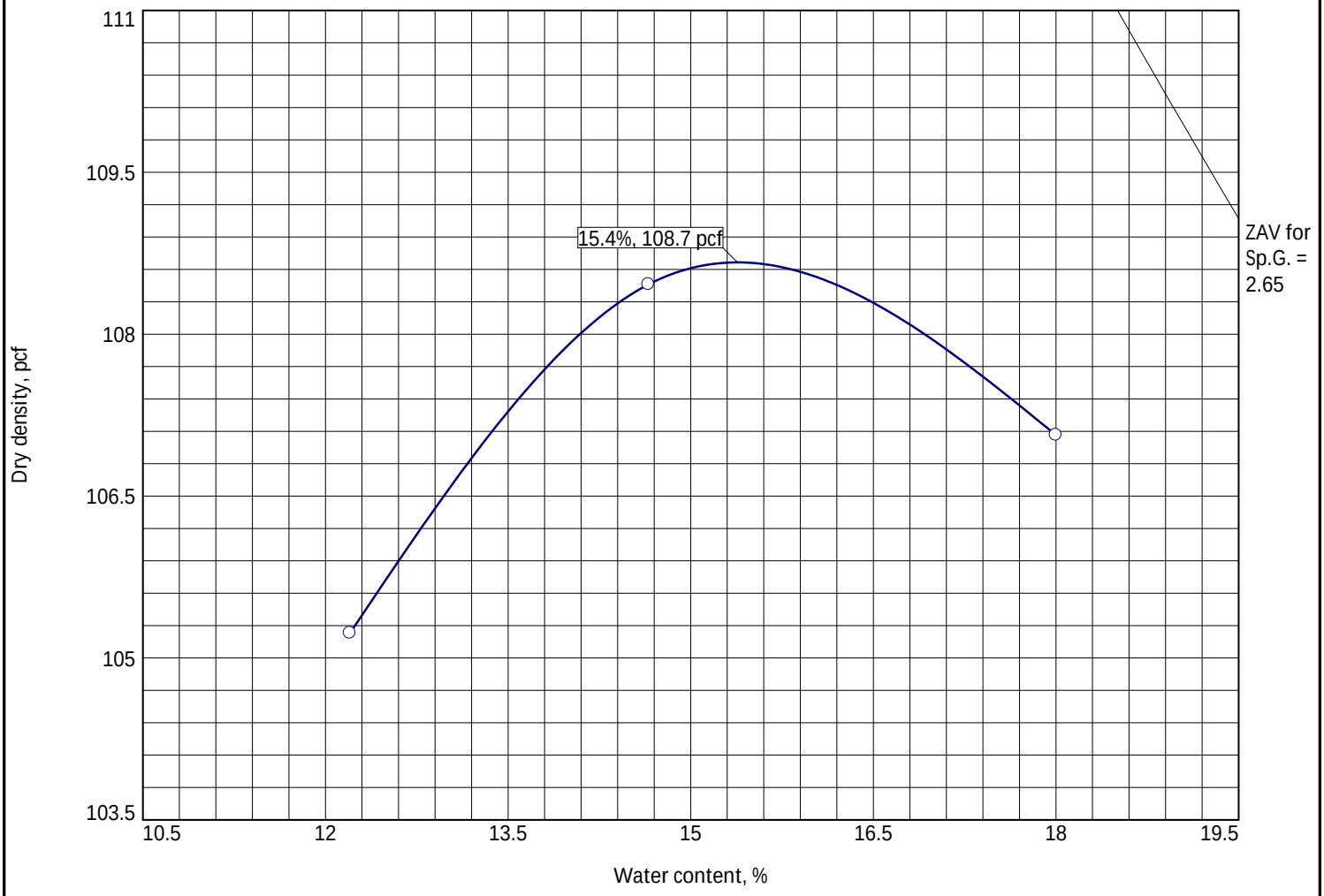
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Remarks:
SG Assumed

Figure

Tested By: ES Checked By: ANS

COMPACTION TEST REPORT



Test specification: ASTM D 698-12 Method B Standard

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/8 in.	% < No.200
	USCS	AASHTO						
				2.7			0	

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 108.7 pcf Optimum moisture = 15.4 %	Brown Silt & Clay, little cmf Sand (Visual)

Project No. IRN 24-T-035 Client: Cypress Creek Renewables, LLC

Project: Cactus Flower Solar, Pinal County, AZ

Date: 3/28/2024

○ Sample Number: B-10, CBR-04

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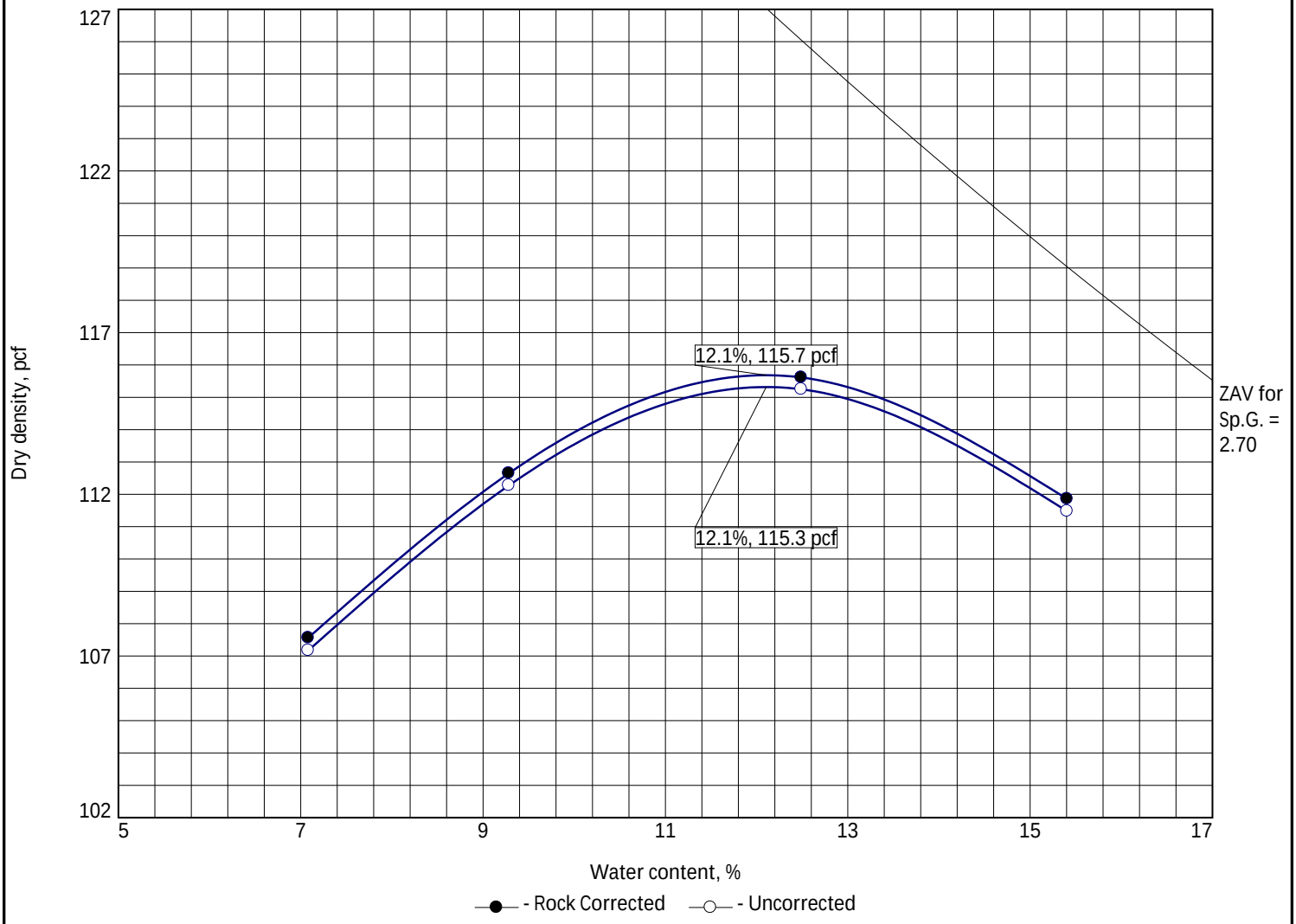
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Remarks:
SG Assumed

Figure

Tested By: ES

COMPACTION TEST REPORT



Test specification: ASTM D 698-12 Method B Standard
ASTM D4718-15 Oversize Corr. Applied to Each Test Point

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/8 in.	% < No.200
	USCS	AASHTO						
				2.7			1	

ROCK CORRECTED TEST RESULTS	UNCORRECTED	MATERIAL DESCRIPTION
Maximum dry density = 115.7 pcf	115.3 pcf	Brown cmf Sand, some Silt & Clay, trace mf Gravel (Visual)
Optimum moisture = 12.1 %	12.1 %	

Project No. IRN 24-T-035 Client: Cypress Creek Renewables, LLC
Project: Cactus Flower Solar, Pinal County, AZ
Date: 3/28/2024
○ Sample Number: B-11, CBR-05

Remarks:
SG Assumed

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Figure

Tested By: ES Checked By: ANS

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Determination of Thermal Conductivity of Soil and Rock by Thermal Needle Probe (ASTM D5334)

Client Name: Cypress Creek Renewables, LLC
LAB IRN: 24-T-035
Project Name: Cactus Flower Solar, Pinal County, AZ
Date: 3/28/2024

Sample ID: B-SS-01, TRT-01
Description: Brown Clay & Silt, little cmf Sand (Visual)

Specimen type: Reconstituted (85% D698)
Recompaction Dry Density: 90.9 PCF
In-Situ Moisture: 13.8 %
Optimum Moisture: 17.3 %

S.No.	Moisture (%)		Thermal Conductivity (W/m-K)	Thermal Resistivity (°C-cm/W)
1	Dry	0.0	0.4272	234.1
2	¼ OMC	4.3	0.6114	163.6
3	½ OMC	8.7	1.4231	70.3
4	¾ OMC	13.0	1.7583	56.9
5	OMC	17.3	1.8921	52.9

Remarks:

1. Needle size: 2.4 mm diameter × 100 mm length.
2. Thermal grease used: High-density polysynthetics silver thermal compound
3. Tested under controlled room temperature conditions (20°C to 22°C).

Tested By: JS/JE
Checked By: ANS

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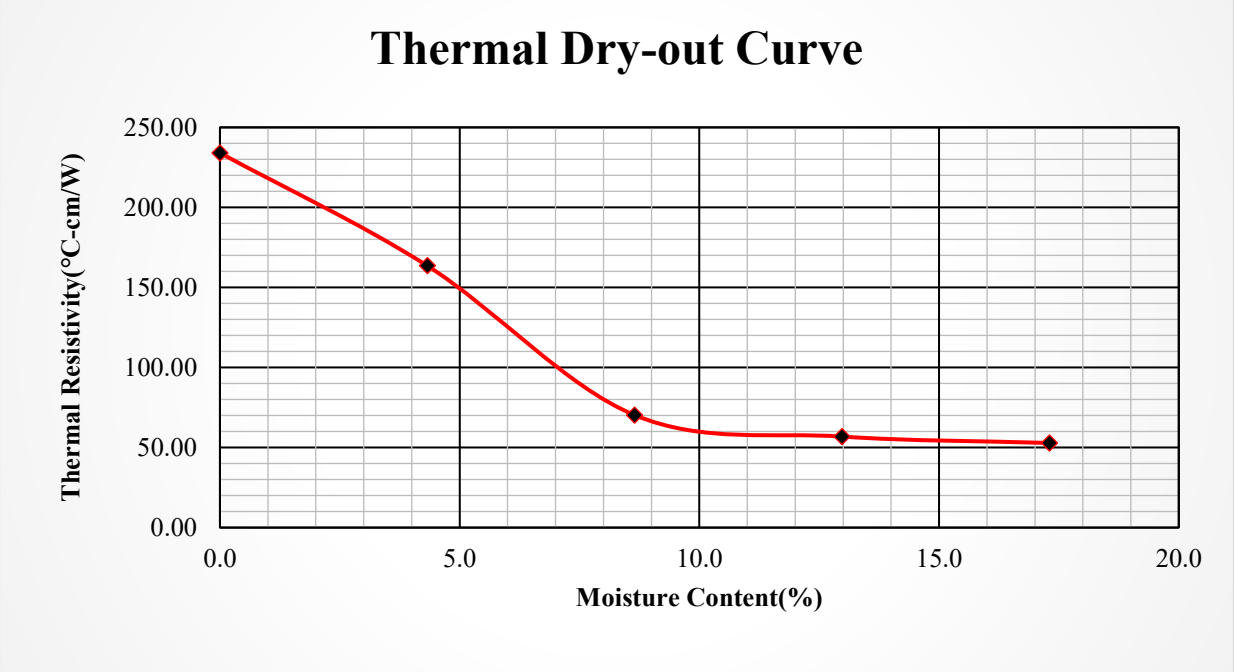
Thermal Dryout Curve (ASTM D5334)

Client Name:	Cypress Creek Renewables, LLC	LAB IRN:	24-T-035
Project Name:	Cactus Flower Solar, Pinal County, AZ	Date:	3/28/2024

Sample ID: B-SS-01, TRT-01

Description: Brown Clay & Silt, little cmf Sand (Visual)

Specimen type:	Reconstituted (85% D698)	Recompaction Dry Density:	90.9 PCF
In-Situ Moisture:	13.8 %	Optimum Moisture:	17.3 %



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Determination of Thermal Conductivity of Soil and Rock by Thermal Needle Probe (ASTM D5334)

Client Name: Cypress Creek Renewables, LLC
LAB IRN: 24-T-035
Project Name: Cactus Flower Solar, Pinal County, AZ
Date: 3/28/2024

Sample ID: B-BESS-01, TRT-02
Description: Brown Silt & Clay, little cmf Sand (Viusal)

Specimen type: Reconstituted (85% D698)
Recompaction Dry Density: 88.4 PCF
In-Situ Moisture: 14.5 %
Optimum Moisture: 16.2 %

S.No.	Moisture (%)		Thermal Conductivity (W/m-K)	Thermal Resistivity (°C-cm/W)
1	Dry	0.0	0.4823	207.3
2	¼ OMC	4.1	0.5984	167.1
3	½ OMC	8.1	1.1075	90.3
4	¾ OMC	12.2	1.4847	67.4
5	OMC	16.2	1.6303	61.3

Remarks:

1. Needle size: 2.4 mm diameter × 100 mm length.
2. Thermal grease used: High-density polysynthetics silver thermal compound
3. Tested under controlled room temperature conditions (20°C to 22°C).

Tested By: JS/JE
Checked By: ANS

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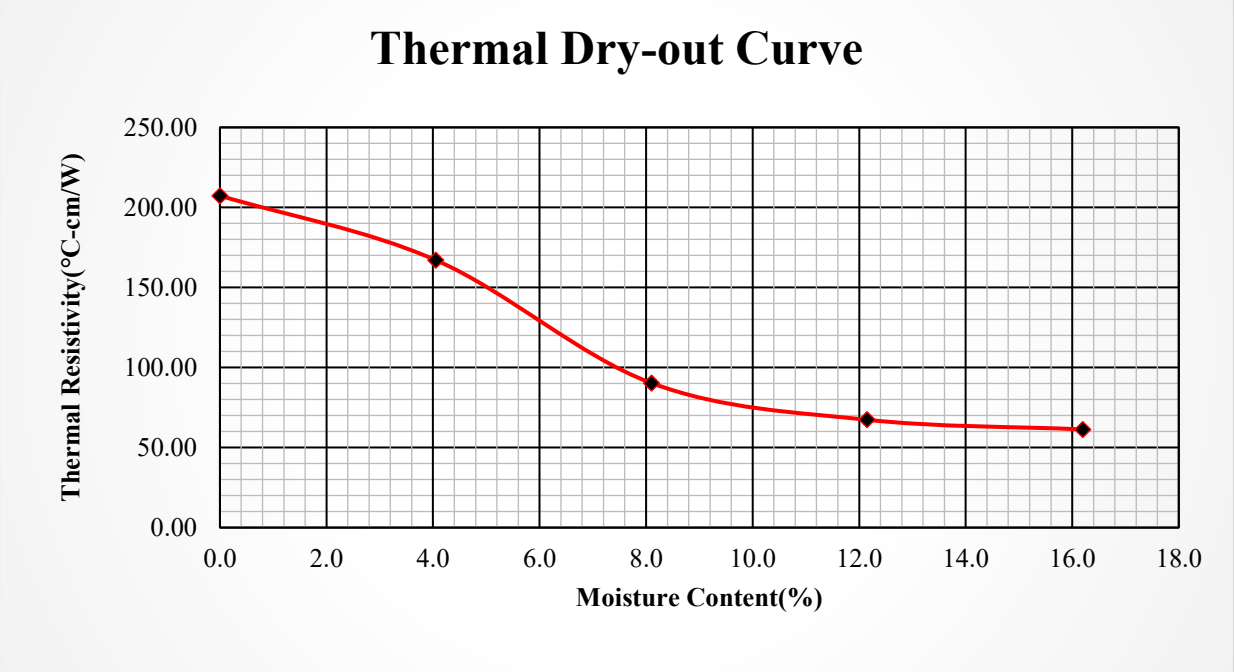
Thermal Dryout Curve (ASTM D5334)

Client Name:	Cypress Creek Renewables, LLC	LAB IRN:	24-T-035
Project Name:	Cactus Flower Solar, Pinal County, AZ	Date:	3/28/2024

Sample ID: B-BESS-01, TRT-02

Description: Brown Silt & Clay, little cmf Sand (Viusal)

Specimen type:	Reconstituted (85% D698)	Recompaction Dry Density:	88.4 PCF
In-Situ Moisture:	14.5 %	Optimum Moisture:	16.2 %



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Determination of Thermal Conductivity of Soil and Rock by Thermal Needle Probe (ASTM D5334)

Client Name: Cypress Creek Renewables, LLC
LAB IRN: 24-T-035
Project Name: Cactus Flower Solar, Pinal County, AZ
Date: 3/28/2024

Sample ID: B-02, TRT-03
Description: Brown Clay & Silt, trace cmf Sand (Visual)

Specimen type: Reconstituted (85% D698)
Recompaction Dry Density: 88.1 PCF
In-Situ Moisture: 13.8 %
Optimum Moisture: 19.8 %

S.No.	Moisture (%)		Thermal Conductivity (W/m-K)	Thermal Resistivity (°C-cm/W)
1	Dry	0.0	0.4512	221.6
2	¼ OMC	5.0	0.6458	154.8
3	½ OMC	9.9	1.4040	71.2
4	¾ OMC	14.9	1.6978	58.9
5	OMC	19.8	1.8304	54.6

Remarks:

1. Needle size: 2.4 mm diameter × 100 mm length.
2. Thermal grease used: High-density polysynthetics silver thermal compound
3. Tested under controlled room temperature conditions (20°C to 22°C).

Tested By: JS/JE
Checked By: ANS

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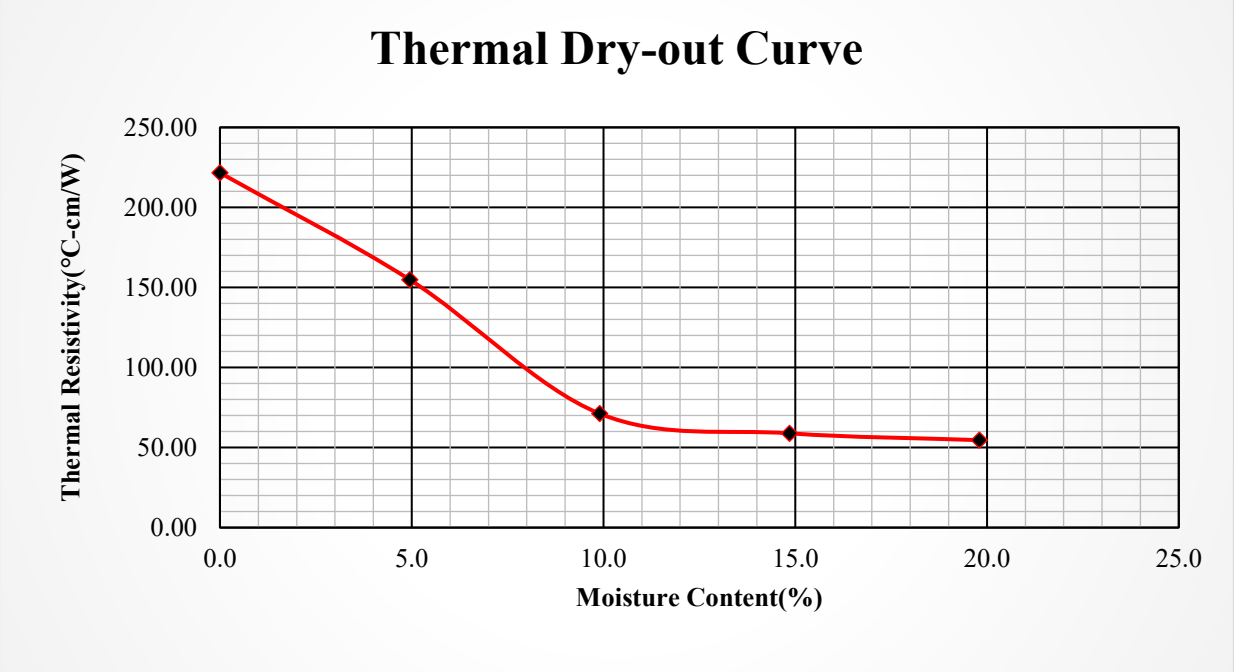
Thermal Dryout Curve (ASTM D5334)

Client Name:	Cypress Creek Renewables, LLC	LAB IRN:	24-T-035
Project Name:	Cactus Flower Solar, Pinal County, AZ	Date:	3/28/2024

Sample ID: B-02, TRT-03

Description: Brown Clay & Silt, trace cmf Sand (Visual)

Specimen type:	Reconstituted (85% D698)	Recompaction Dry Density:	88.1 PCF
In-Situ Moisture:	13.8 %	Optimum Moisture:	19.8 %



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Determination of Thermal Conductivity of Soil and Rock by Thermal Needle Probe (ASTM D5334)

Client Name: Cypress Creek Renewables, LLC
LAB IRN: 24-T-035
Project Name: Cactus Flower Solar, Pinal County, AZ
Date: 3/28/2024

Sample ID: B-03, TRT-04
Description: Brown Silt & Clay, little cmf Sand (Visual)

Specimen type: Reconstituted (85% D698)
Recompaction Dry Density: 89.7 PCF
In-Situ Moisture: 14.6 %
Optimum Moisture: 16.0 %

S.No.	Moisture (%)		Thermal Conductivity (W/m-K)	Thermal Resistivity (°C-cm/W)
1	Dry	0.0	0.4666	214.3
2	¼ OMC	4.0	0.6060	165.0
3	½ OMC	8.0	1.2778	78.3
4	¾ OMC	12.0	1.6562	60.4
5	OMC	16.0	1.7952	55.7

Remarks:

1. Needle size: 2.4 mm diameter × 100 mm length.
2. Thermal grease used: High-density polysynthetics silver thermal compound
3. Tested under controlled room temperature conditions (20°C to 22°C).

Tested By: JS/JE
Checked By: ANS

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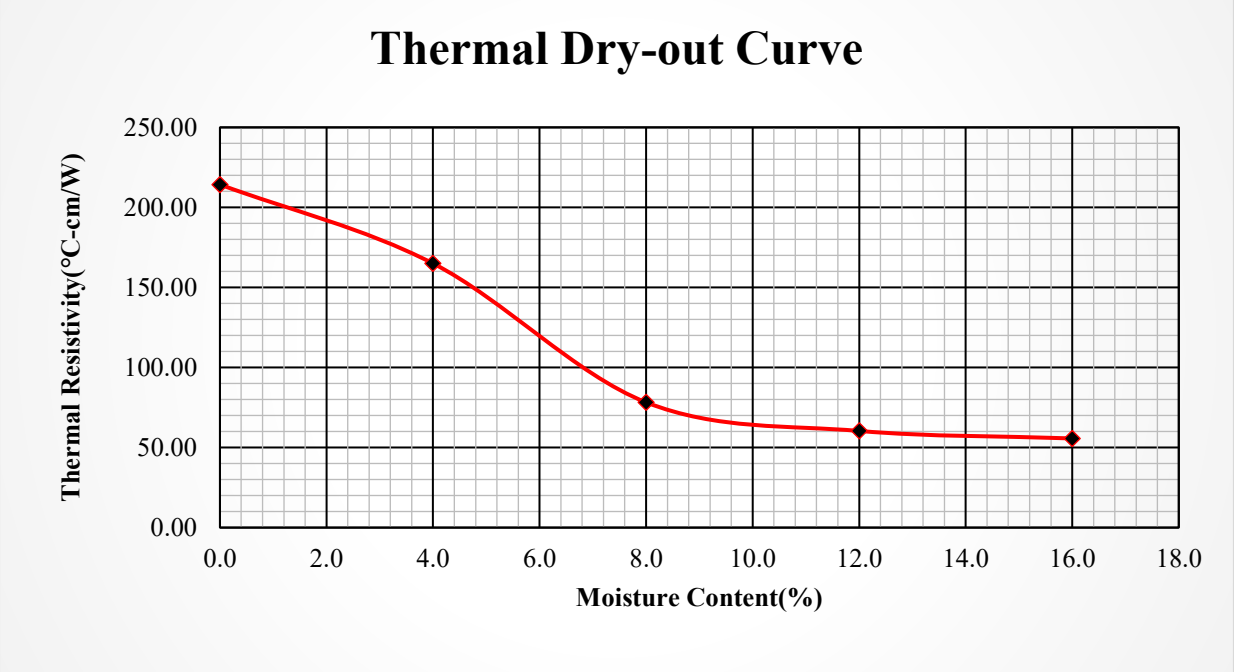
Thermal Dryout Curve (ASTM D5334)

Client Name:	Cypress Creek Renewables, LLC	LAB IRN:	24-T-035
Project Name:	Cactus Flower Solar, Pinal County, AZ	Date:	3/28/2024

Sample ID: B-03, TRT-04

Description: Brown Silt & Clay, little cmf Sand (Visual)

Specimen type:	Reconstituted (85% D698)	Recompaction Dry Density:	89.7 PCF
In-Situ Moisture:	14.6 %	Optimum Moisture:	16.0 %



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Determination of Thermal Conductivity of Soil and Rock by Thermal Needle Probe (ASTM D5334)

Client Name: Cypress Creek Renewables, LLC
LAB IRN: 24-T-035
Project Name: Cactus Flower Solar, Pinal County, AZ
Date: 3/28/2024

Sample ID: B-05, TRT-05
Description: Brown Silt & Clay, little cmf Sand (Visual)

Specimen type: Reconstituted (85% D698)
Recompaction Dry Density: 93.4 PCF
In-Situ Moisture: 9.7 %
Optimum Moisture: 14.7 %

S.No.	Moisture (%)		Thermal Conductivity (W/m-K)	Thermal Resistivity (°C-cm/W)
1	Dry	0.0	0.4300	232.6
2	¼ OMC	3.7	0.6769	147.7
3	½ OMC	7.4	1.5811	63.2
4	¾ OMC	11.0	1.8312	54.6
5	OMC	14.7	1.9406	51.5

Remarks:

1. Needle size: 2.4 mm diameter × 100 mm length.
2. Thermal grease used: High-density polysynthetics silver thermal compound
3. Tested under controlled room temperature conditions (20°C to 22°C).

Tested By: JS/JE
Checked By: ANS

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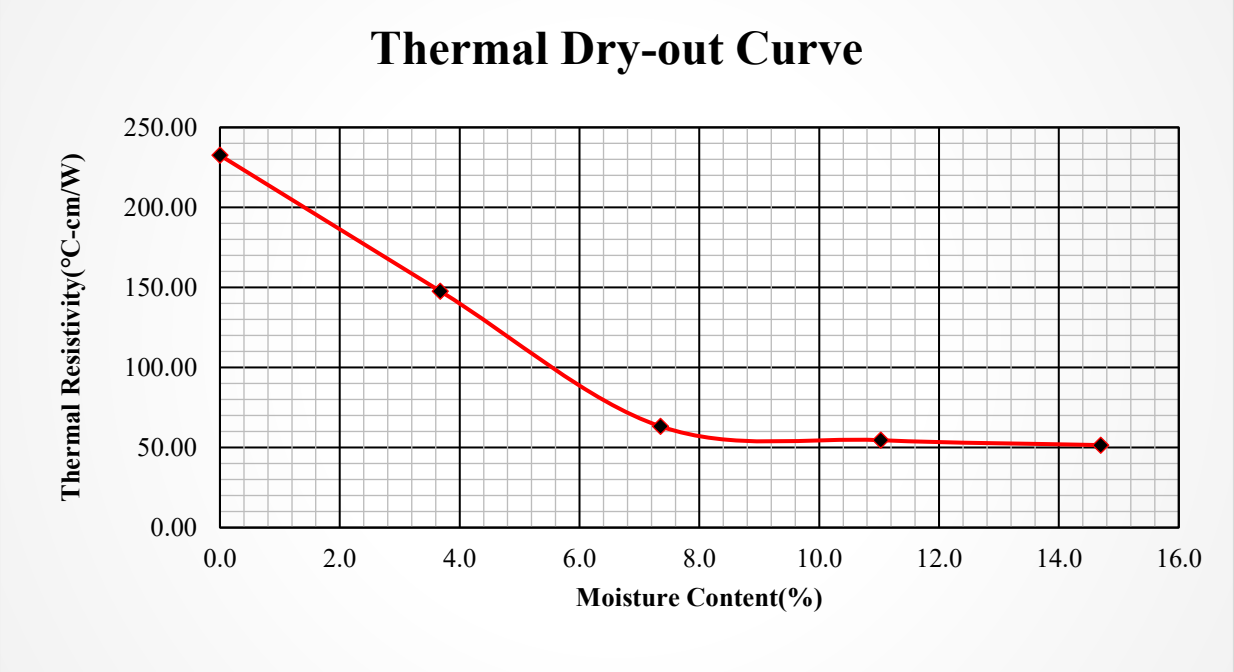
Thermal Dryout Curve (ASTM D5334)

Client Name:	Cypress Creek Renewables, LLC	LAB IRN:	24-T-035
Project Name:	Cactus Flower Solar, Pinal County, AZ	Date:	3/28/2024

Sample ID: B-05, TRT-05

Description: Brown Silt & Clay, little cmf Sand (Visual)

Specimen type:	Reconstituted (85% D698)	Recompaction Dry Density:	93.4 PCF
In-Situ Moisture:	9.7 %	Optimum Moisture:	14.7 %



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Determination of Thermal Conductivity of Soil and Rock by Thermal Needle Probe (ASTM D5334)

Client Name: Cypress Creek Renewables, LLC
LAB IRN: 24-T-035
Project Name: Cactus Flower Solar, Pinal County, AZ
Date: 3/28/2024

Sample ID: B-06, TRT-06
Description: Brown Silt & Clay, little cmf Sand (Visual)

Specimen type: Reconstituted (85% D698)
Recompaction Dry Density: 91.0 PCF
In-Situ Moisture: 10.4 %
Optimum Moisture: 16.5 %

S.No.	Moisture (%)		Thermal Conductivity (W/m-K)	Thermal Resistivity (°C-cm/W)
1	Dry	0.0	0.4659	214.6
2	¼ OMC	4.1	0.6513	153.5
3	½ OMC	8.3	1.4158	70.6
4	¾ OMC	12.4	1.7030	58.7
5	OMC	16.5	1.8248	54.8

Remarks:

1. Needle size: 2.4 mm diameter × 100 mm length.
2. Thermal grease used: High-density polysynthetics silver thermal compound
3. Tested under controlled room temperature conditions (20°C to 22°C).

Tested By: JS/JE
Checked By: ANS

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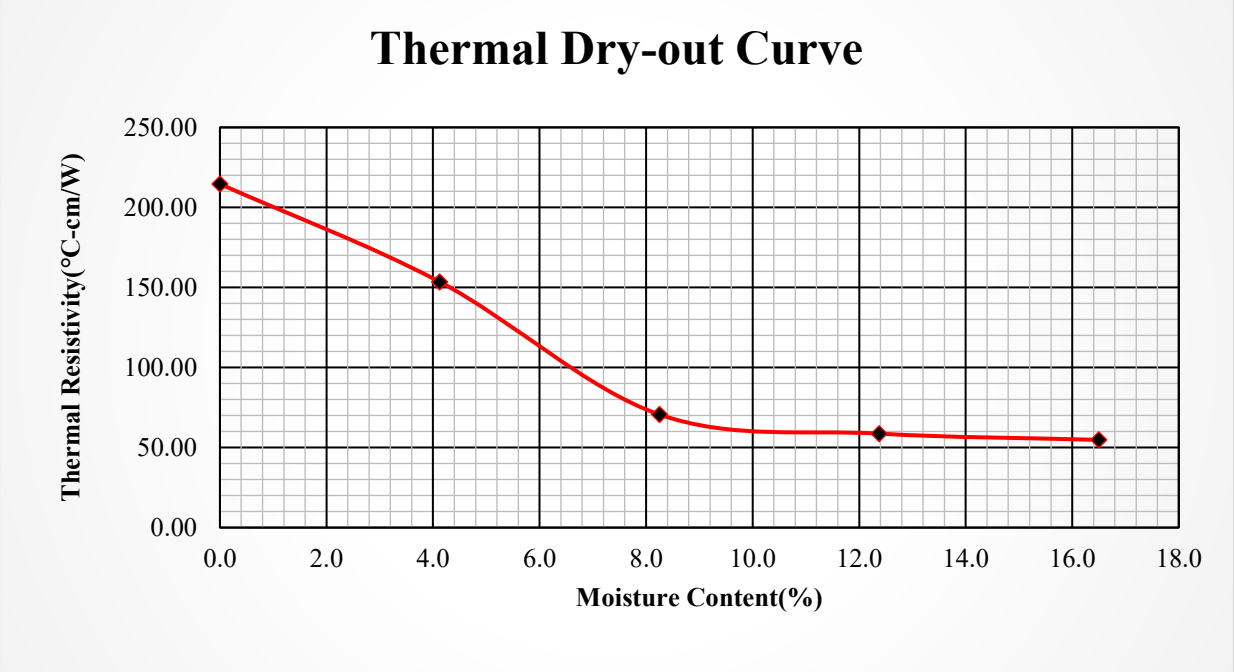
Thermal Dryout Curve (ASTM D5334)

Client Name:	Cypress Creek Renewables, LLC	LAB IRN:	24-T-035
Project Name:	Cactus Flower Solar, Pinal County, AZ	Date:	3/28/2024

Sample ID: B-06, TRT-06

Description: Brown Silt & Clay, little cmf Sand (Visual)

Specimen type:	Reconstituted (85% D698)	Recompaction Dry Density:	91.0 PCF
In-Situ Moisture:	10.4 %	Optimum Moisture:	16.5 %



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Determination of Thermal Conductivity of Soil and Rock by Thermal Needle Probe (ASTM D5334)

Client Name: Cypress Creek Renewables, LLC
LAB IRN: 24-T-035
Project Name: Cactus Flower Solar, Pinal County, AZ
Date: 3/28/2024

Sample ID: B-08, TRT-07
Description: Brown Silt & Clay, little cmf Sand (Visual)

Specimen type: Reconstituted (85% D698)
Recompaction Dry Density: 89.3 PCF
In-Situ Moisture: 7.4 %
Optimum Moisture: 15.4 %

S.No.	Moisture (%)		Thermal Conductivity (W/m-K)	Thermal Resistivity (°C-cm/W)
1	Dry	0.0	0.4606	217.1
2	¼ OMC	3.9	0.6279	159.3
3	½ OMC	7.7	1.3304	75.2
4	¾ OMC	11.6	1.5964	62.6
5	OMC	15.4	1.7070	58.6

Remarks:

1. Needle size: 2.4 mm diameter × 100 mm length.
2. Thermal grease used: High-density polysynthetics silver thermal compound
3. Tested under controlled room temperature conditions (20°C to 22°C).

Tested By: JS/JE
Checked By: ANS

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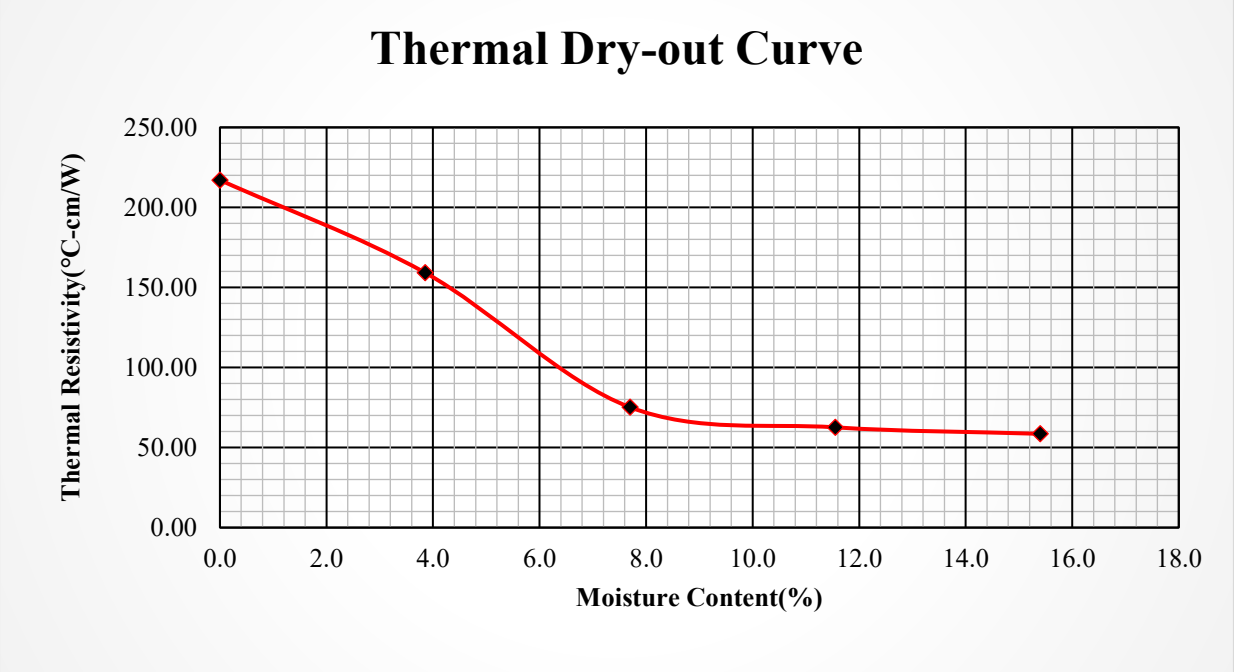
Thermal Dryout Curve (ASTM D5334)

Client Name:	Cypress Creek Renewables, LLC	LAB IRN:	24-T-035
Project Name:	Cactus Flower Solar, Pinal County, AZ	Date:	3/28/2024

Sample ID: B-08, TRT-07

Description: Brown Silt & Clay, little cmf Sand (Visual)

Specimen type:	Reconstituted (85% D698)	Recompaction Dry Density:	89.3 PCF
In-Situ Moisture:	7.4 %	Optimum Moisture:	15.4 %



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Determination of Thermal Conductivity of Soil and Rock by Thermal Needle Probe (ASTM D5334)

Client Name: Cypress Creek Renewables, LLC
LAB IRN: 24-T-035
Project Name: Cactus Flower Solar, Pinal County, AZ
Date: 3/28/2024

Sample ID: B-09, TRT-08
Description: Brown Clay & Silt, trace cmf Sand (Visual)

Specimen type: Reconstituted (85% D698)
Recompaction Dry Density: 86.9 PCF
In-Situ Moisture: 13.3 %
Optimum Moisture: 18.2 %

S.No.	Moisture (%)		Thermal Conductivity (W/m-K)	Thermal Resistivity (°C-cm/W)
1	Dry	0.0	0.4814	207.7
2	¼ OMC	4.6	0.6260	159.7
3	½ OMC	9.1	1.2508	79.9
4	¾ OMC	13.7	1.5814	63.2
5	OMC	18.2	1.7150	58.3

Remarks:

1. Needle size: 2.4 mm diameter × 100 mm length.
2. Thermal grease used: High-density polysynthetics silver thermal compound
3. Tested under controlled room temperature conditions (20°C to 22°C).

Tested By: JS/JE
Checked By: ANS

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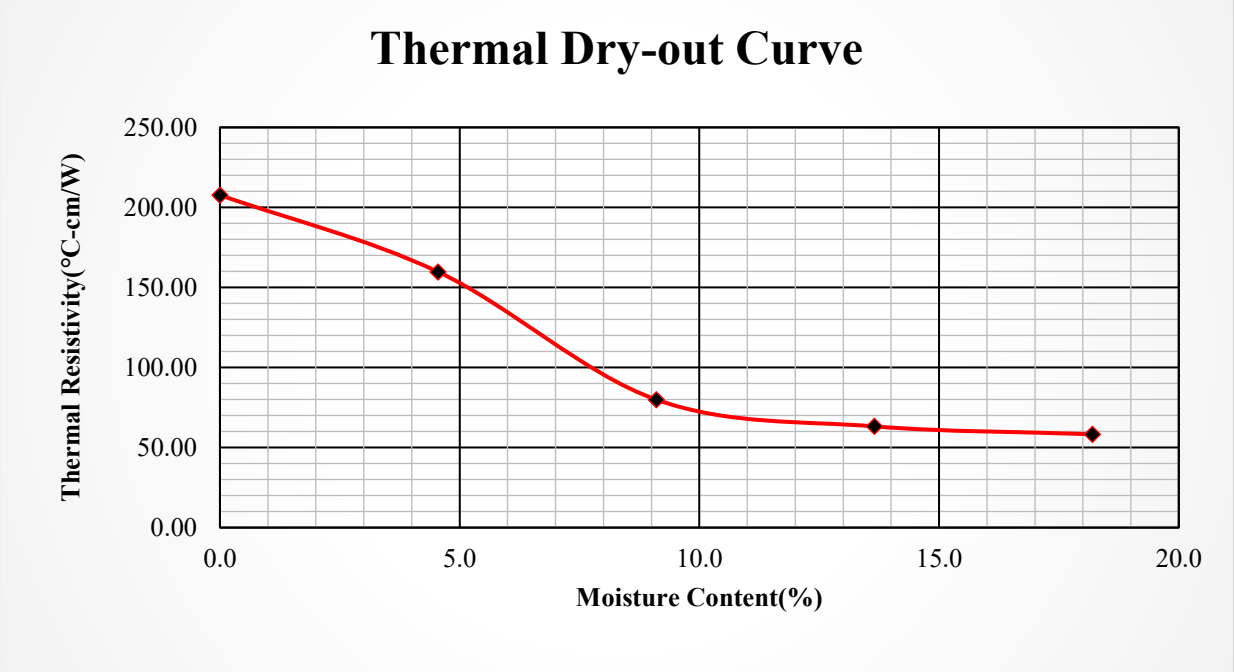
Thermal Dryout Curve (ASTM D5334)

Client Name:	Cypress Creek Renewables, LLC	LAB IRN:	24-T-035
Project Name:	Cactus Flower Solar, Pinal County, AZ	Date:	3/28/2024

Sample ID: B-09, TRT-08

Description: Brown Clay & Silt, trace cmf Sand (Visual)

Specimen type:	Reconstituted (85% D698)	Recompaction Dry Density:	86.9 PCF
In-Situ Moisture:	13.3 %	Optimum Moisture:	18.2 %



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Determination of Thermal Conductivity of Soil and Rock by Thermal Needle Probe (ASTM D5334)

Client Name: Cypress Creek Renewables, LLC
LAB IRN: 24-T-035
Project Name: Cactus Flower Solar, Pinal County, AZ
Date: 3/28/2024

Sample ID: B-12, TRT-09
Description: Brown Clay & Silt, little cmf Sand (Visual)

Specimen type: Reconstituted (85% D698)
Recompaction Dry Density: 89.8 PCF
In-Situ Moisture: 12.9 %
Optimum Moisture: 18.9 %

S.No.	Moisture (%)		Thermal Conductivity (W/m-K)	Thermal Resistivity (°C-cm/W)
1	Dry	0.0	0.4233	236.2
2	¼ OMC	4.7	0.5893	169.7
3	½ OMC	9.5	1.1989	83.4
4	¾ OMC	14.2	1.4681	68.1
5	OMC	18.9	1.5969	62.6

Remarks:

1. Needle size: 2.4 mm diameter × 100 mm length.
2. Thermal grease used: High-density polysynthetics silver thermal compound
3. Tested under controlled room temperature conditions (20°C to 22°C).

Tested By: JS/JE
Checked By: ANS

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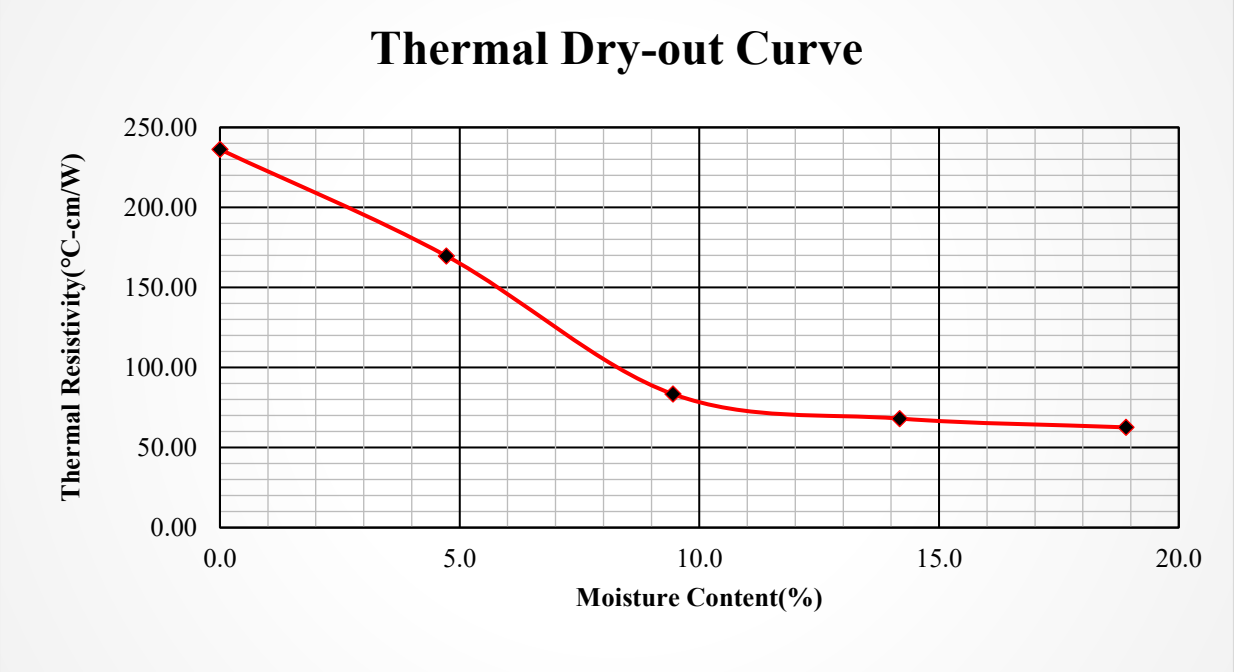
Thermal Dryout Curve (ASTM D5334)

Client Name:	Cypress Creek Renewables, LLC	LAB IRN:	24-T-035
Project Name:	Cactus Flower Solar, Pinal County, AZ	Date:	3/28/2024

Sample ID: B-12, TRT-09

Description: Brown Clay & Silt, little cmf Sand (Visual)

Specimen type:	Reconstituted (85% D698)	Recompaction Dry Density:	89.8 PCF
In-Situ Moisture:	12.9 %	Optimum Moisture:	18.9 %



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Determination of Thermal Conductivity of Soil and Rock by Thermal Needle Probe (ASTM D5334)

Client Name: Cypress Creek Renewables, LLC
LAB IRN: 24-T-035
Project Name: Cactus Flower Solar, Pinal County, AZ
Date: 3/28/2024

Sample ID: B-15, TRT-10
Description: Brown Clay & Silt, little cmf Sand (Visual)

Specimen type: Reconstituted (85% D698)
Recompaction Dry Density: 91.2 PCF
In-Situ Moisture: 11.4 %
Optimum Moisture: 17.3 %

S.No.	Moisture (%)		Thermal Conductivity (W/m-K)	Thermal Resistivity (°C-cm/W)
1	Dry	0.0	0.4429	225.8
2	¼ OMC	4.3	0.6054	165.2
3	½ OMC	8.7	1.2270	81.5
4	¾ OMC	13.0	1.4965	66.8
5	OMC	17.3	1.6206	61.7

Remarks:

1. Needle size: 2.4 mm diameter × 100 mm length.
2. Thermal grease used: High-density polysynthetics silver thermal compound
3. Tested under controlled room temperature conditions (20°C to 22°C).

Tested By: JS/JE
Checked By: ANS

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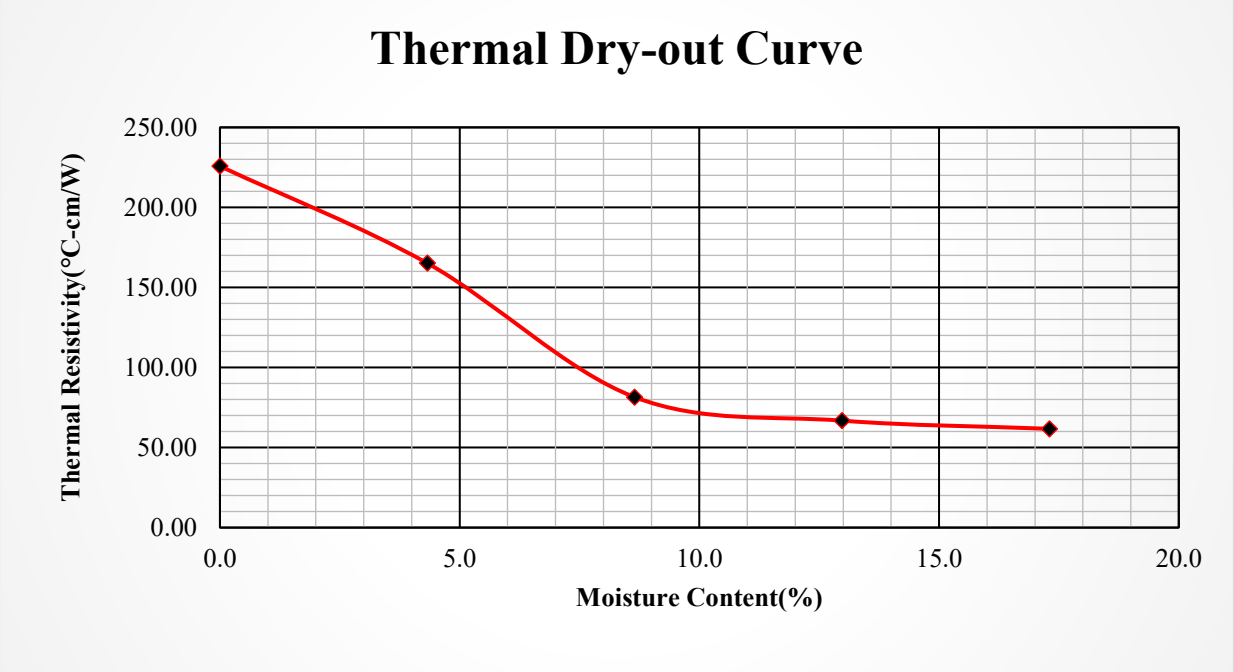
Thermal Dryout Curve (ASTM D5334)

Client Name:	Cypress Creek Renewables, LLC	LAB IRN:	24-T-035
Project Name:	Cactus Flower Solar, Pinal County, AZ	Date:	3/28/2024

Sample ID: B-15, TRT-10

Description: Brown Clay & Silt, little cmf Sand (Visual)

Specimen type:	Reconstituted (85% D698)	Recompaction Dry Density:	91.2 PCF
In-Situ Moisture:	11.4 %	Optimum Moisture:	17.3 %



CORROSIVITY SUITE RESULTS

ANS CONSULTANTS, INC.
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Corrosivity Testing of Soil

Client Name: Cypress Creek Renewables, LLC
Project Name: Cactus Flower Solar, Pinal County, AZ
LAB IRN: 24-T-035
Date: 3/28/2024

S.No.	Investigation ID	Sample ID	Soil Resistivity (ohm-cm)	pH of Soil	Sulfate Content (mg/kg)	Chloride Content (mg/kg)	Oxidation-Reduction Pot. (mV)
		Natural Moisture	ASTM G187	ASTM G51	ASTM C1580	AASHTO T291	ASTM G200
1	B-01	CORR-1	270	7.5	360	531	213
		23.9%		Dark Brown C&S, trace cmf Sand (Visual)			
2	B-04	CORR-2	1,420	7.5	390	349	151
		17.5%		Brown S&C, little cmf Sand (Visual)			
3	B-05	CORR-3	4,290	7.9	60	246	169
		9.1%		Brown S&C, little cmf Sand (Visual)			
4	B-06	CORR-4	3,820	8.0	<15	201	190
		9.0%		Brown S&C, little cmf Sand (Visual)			
5	B-07	CORR-5	3,170	8.5	510	75	212
		14.1%		Brown S&C, little cmf Sand (Visual)			
6	B-08	CORR-6	9,820	8.3	630	48	227
		5.9%		Pale Brown cmf Sand, some C&S (Visual)			
7	B-10	CORR-7	4,810	8.2	<15	174	190
		9.8%		Brown S&C, little cmf Sand (Visual)			
8	B-11	CORR-8	9,010	8.6	330	66	214
		5.3%		Brown cmf Sand, some C&S (Visual)			
9	B-12	CORR-9	1,200	7.8	750	204	225
		11.9%		Brown C&S, little cmf Sand (Visual)			

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Corrosivity Testing of Soil

Client Name: Cypress Creek Renewables, LLC
Project Name: Cactus Flower Solar, Pinal County, AZ
LAB IRN: 24-T-035
Date: 3/28/2024

S.No.	Investigation ID	Sample ID	Soil Resistivity (ohm-cm)	pH of Soil	Sulfate Content (mg/kg)	Chloride Content (mg/kg)	Oxidation-Reduction Pot. (mV)
		Natural Moisture	ASTM G187	ASTM G51	ASTM C1580	AASHTO T291	ASTM G200
10	B-13	CORR-10	2,990	8.1	30	138	206
		12.6%		Brown S&C, little cmf Sand (Visual)			
11	B-15	CORR-11	1,440	7.6	900	258	227
		12.6%		Brown C&S, trace cmf Sand (Visual)			

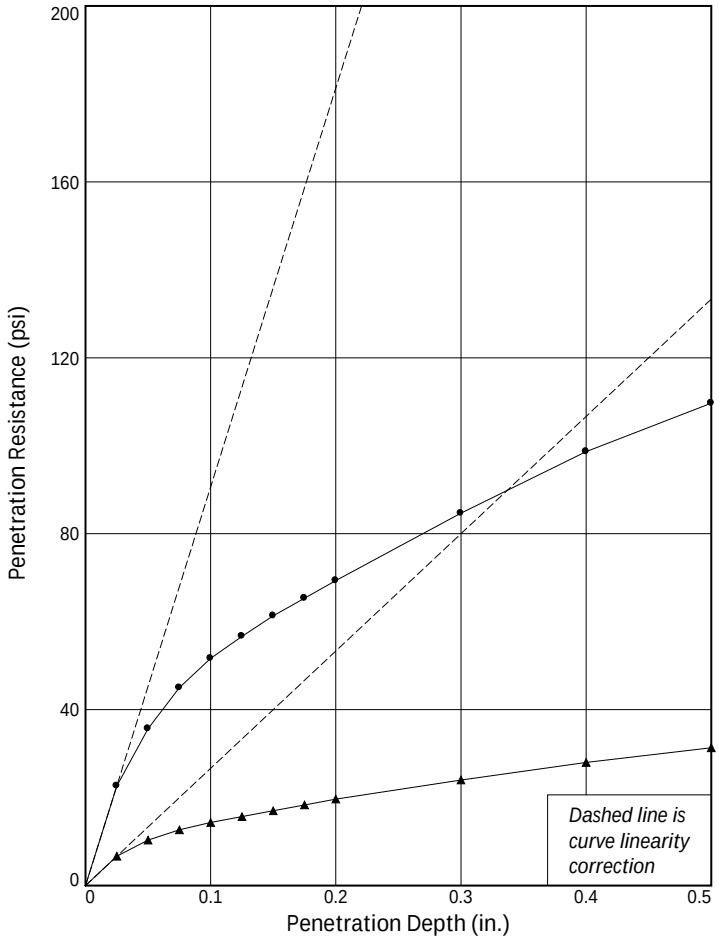
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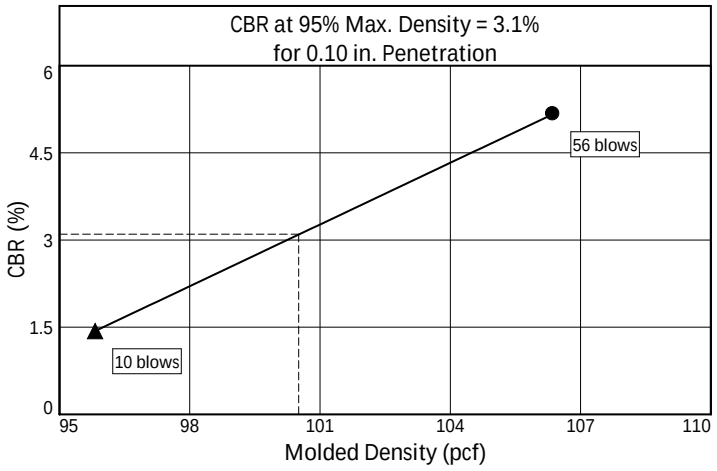
1. Turbidimetric procedure used for ASTM C1580.
2. Mohr's procedure with Silver Nitrate used for AASHTO T291.
3. Miller 400D Resistance Meter used for Resistivity testing, Multiplication factor = 1.
4. Tests conducted under standard laboratory conditions of temperature (72°F) and humidity.

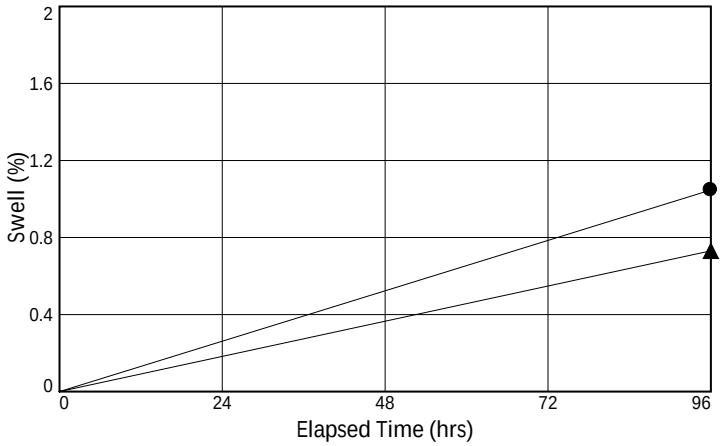
Tested By: HC/JE
Checked By: ANS

CALIFORNIA BEARING RATIO

BEARING RATIO TEST REPORT
ASTM D1883-21







	Molded			Soaked			CBR (%)		Linearity Correction (in.)	Surcharge (lbs.)	Max. Swell (%)
	Density (pcf)	Percent of Max. Dens.	Moisture (%)	Density (pcf)	Percent of Max. Dens.	Moisture (%)	0.10 in.	0.20 in.			
1 ●	106.4	100.6	17.0	105.3	99.5	23.7	5.2	4.6	0.000	10	1
2 ▲	95.8	90.5	17.0	95.1	89.9	29.0	1.4	1.3	0.000	10	0.7
3 ■											

Material Description	USCS	Max. Dens. (pcf)	Optimum Moisture (%)	LL	PI
Brown Clay & Silt, little cmf Sand, trace mf Gravel (Visual)		105.8	17.0		

Project No: IRN 24-T-035
Project: Cactus Flower Solar, Pinal County, AZ
Sample Number: B-SS-01, CBR-01

Date: 3/28/2024

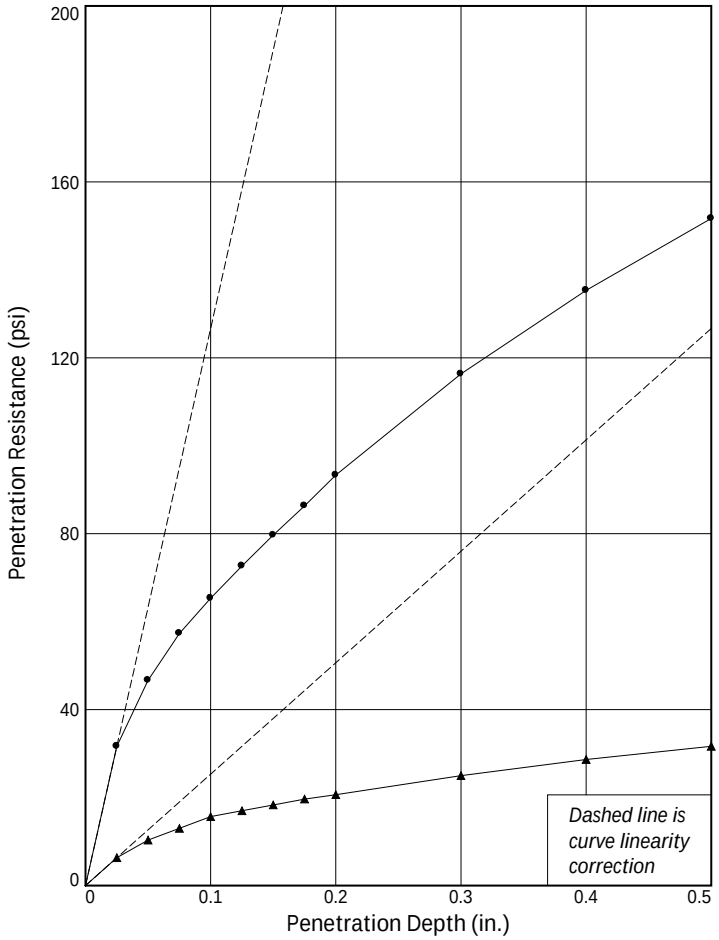
BEARING RATIO TEST REPORT
ANS CONSULTANTS, INC.

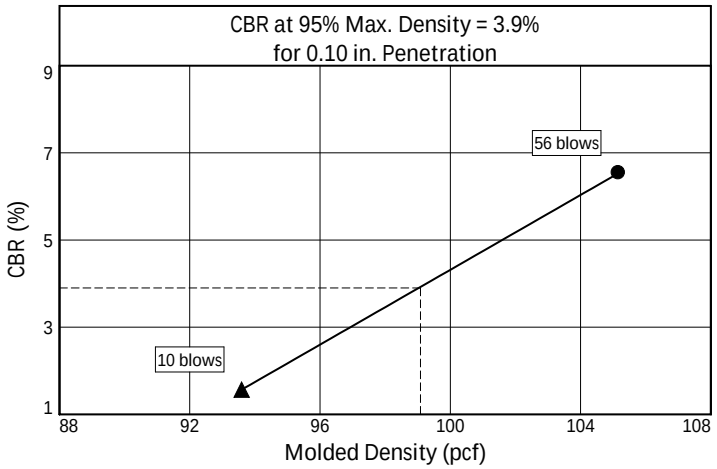
Test Remarks:
Saturation Period: 96 Hours

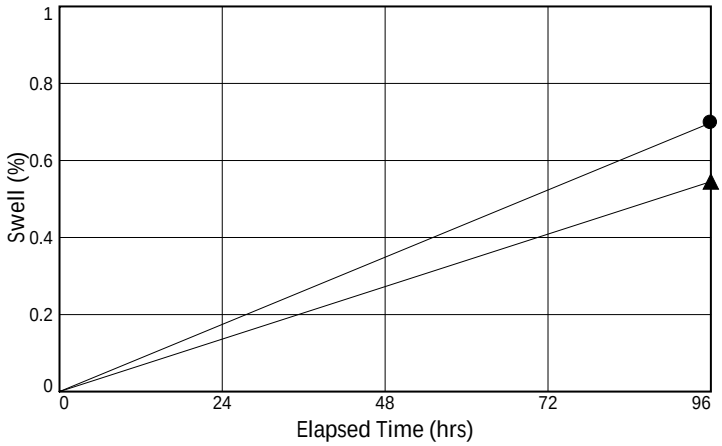
Figure _____

Tested By: ES Checked By: ANS

BEARING RATIO TEST REPORT
ASTM D1883-21







	Molded			Soaked			CBR (%)		Linearity Correction (in.)	Surcharge (lbs.)	Max. Swell (%)
	Density (pcf)	Percent of Max. Dens.	Moisture (%)	Density (pcf)	Percent of Max. Dens.	Moisture (%)	0.10 in.	0.20 in.			
1 ●	105.2	100.9	16.8	104.4	100.1	23.0	6.5	6.2	0.000	10	0.7
2 ▲	93.6	89.7	16.8	93.1	89.2	27.8	1.6	1.4	0.000	10	0.5
3 ■											

Material Description	USCS	Max. Dens. (pcf)	Optimum Moisture (%)	LL	PI
Brown Silt & Clay, trace cmf Sand (Visual)		104.3	16.7		

Project No: IRN 24-T-035
Project: Cactus Flower Solar, Pinal County, AZ
Sample Number: B-BESS-01, CBR-02

Date: 3/28/2024

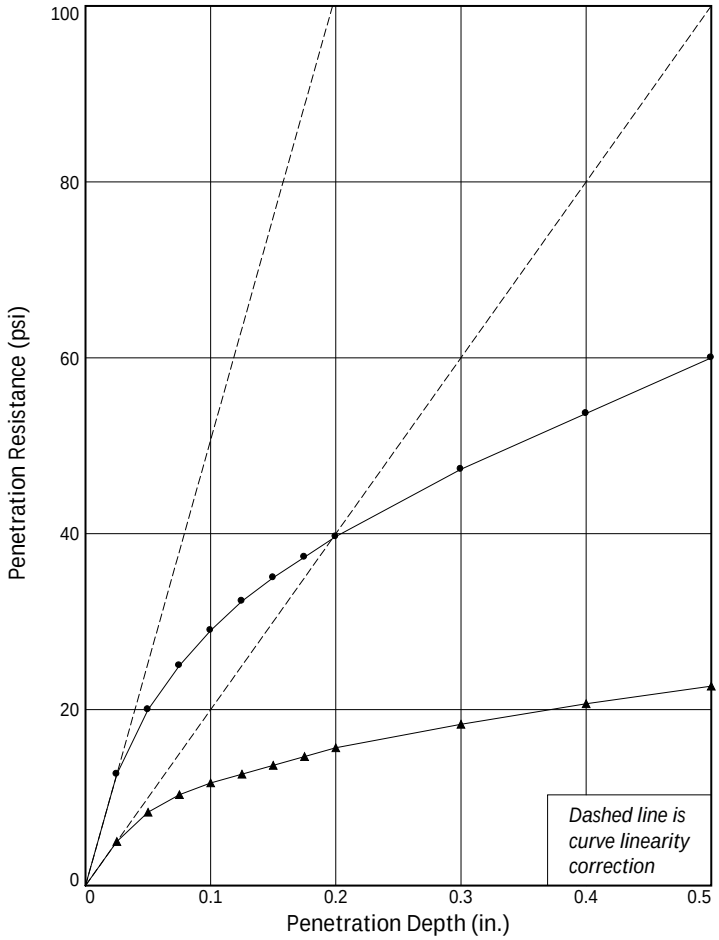
BEARING RATIO TEST REPORT
ANS CONSULTANTS, INC.

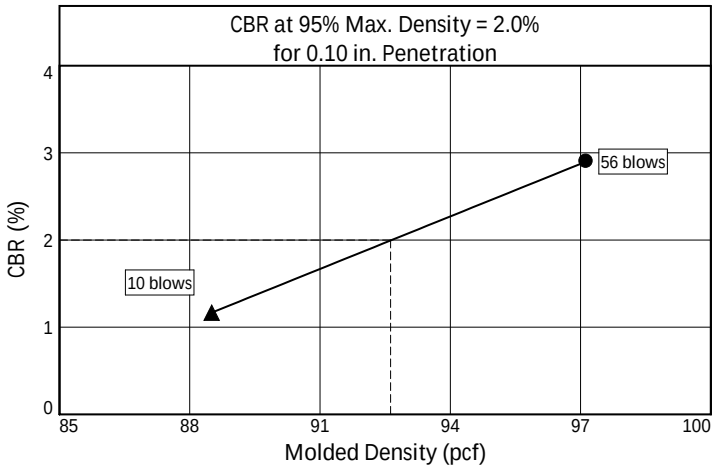
Test Remarks:
Saturation period: 96 Hours

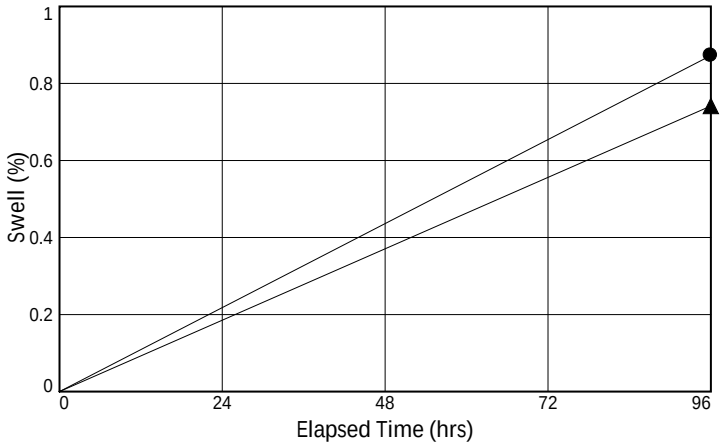
Figure _____

Tested By: HC Checked By: ANS

BEARING RATIO TEST REPORT
ASTM D1883-21







	Molded			Soaked			CBR (%)		Linearity Correction (in.)	Surcharge (lbs.)	Max. Swell (%)
	Density (pcf)	Percent of Max. Dens.	Moisture (%)	Density (pcf)	Percent of Max. Dens.	Moisture (%)	0.10 in.	0.20 in.			
1 ●	97.1	99.6	19.2	96.3	98.8	30.5	2.9	2.6	0.000	10	0.9
2 ▲	88.5	90.8	19.2	87.9	90.1	33.6	1.2	1.0	0.000	10	0.7
3 ■											

Material Description	USCS	Max. Dens. (pcf)	Optimum Moisture (%)	LL	PI
Brown Clay & Silt, trace cmf Sand (Visual)		97.5	19.2		

Project No: IRN 24-T-035
Project: Cactus Flower Solar, Pinal County, AZ
Sample Number: B-01, CBR-03

Date: 3/28/2024

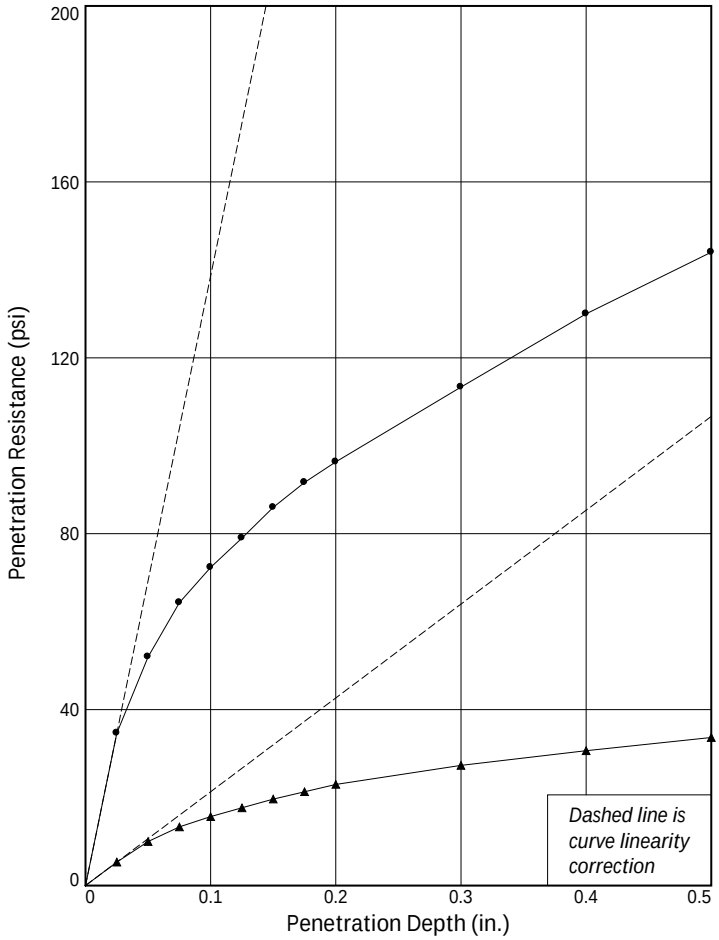
BEARING RATIO TEST REPORT
ANS CONSULTANTS, INC.

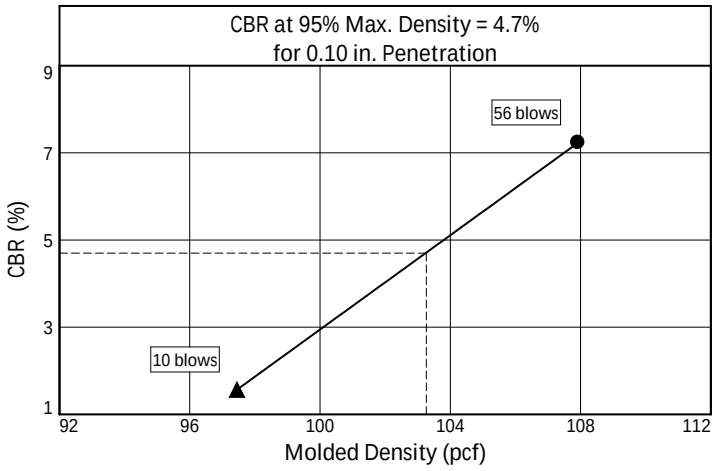
Test Remarks:
Saturation period: 96 Hours

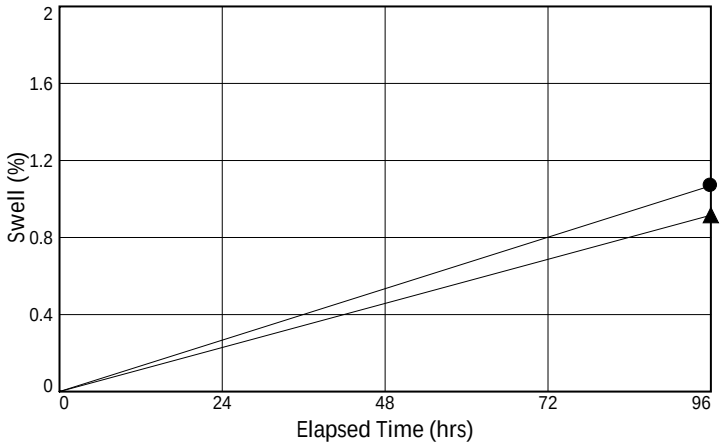
Figure _____

Tested By: HC Checked By: ANS

BEARING RATIO TEST REPORT
ASTM D1883-21







	Molded			Soaked			CBR (%)		Linearity Correction (in.)	Surcharge (lbs.)	Max. Swell (%)
	Density (pcf)	Percent of Max. Dens.	Moisture (%)	Density (pcf)	Percent of Max. Dens.	Moisture (%)	0.10 in.	0.20 in.			
1 ●	107.9	99.3	16.4	106.8	98.2	21.2	7.2	6.4	0.000	10	1.1
2 ▲	97.4	89.6	16.4	96.6	88.8	25.7	1.6	1.5	0.000	10	0.9
3 ■											

Material Description	USCS	Max. Dens. (pcf)	Optimum Moisture (%)	LL	PI
Brown Silt & Clay, little cmf Sand (Visual)		108.7	15.4		

Project No: IRN 24-T-035
Project: Cactus Flower Solar, Pinal County, AZ
Sample Number: B-10, CBR-04

Date: 3/28/2024

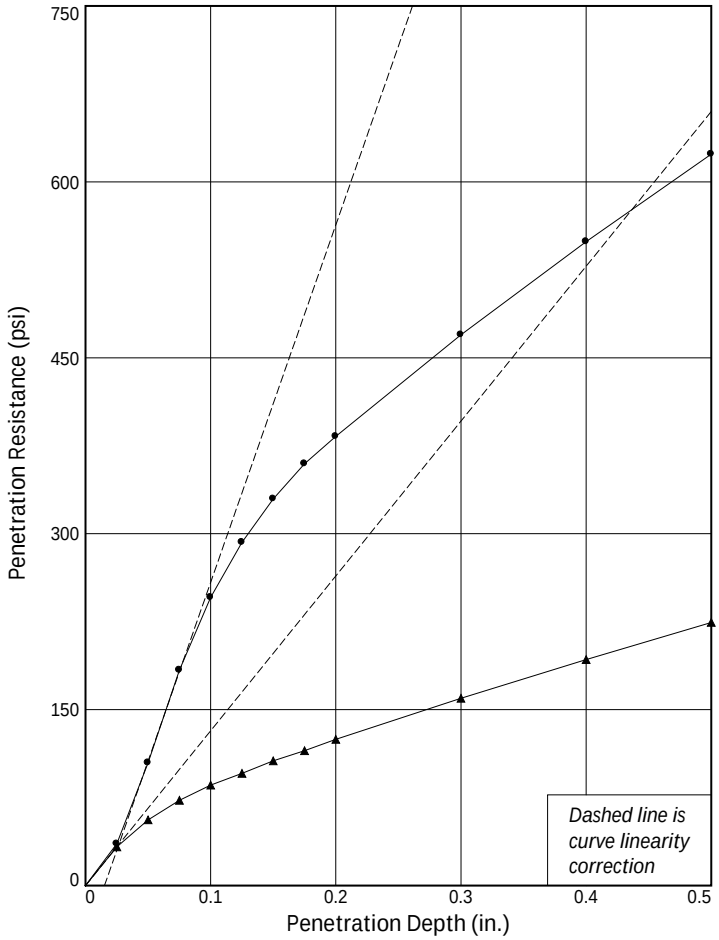
BEARING RATIO TEST REPORT
ANS CONSULTANTS, INC.

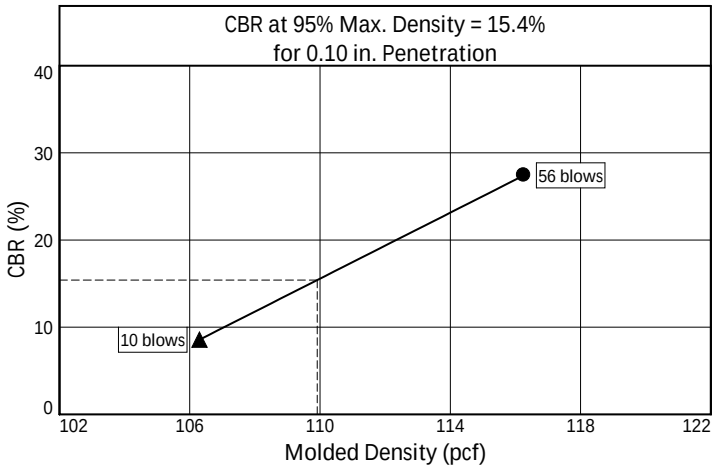
Test Remarks:
Saturation period: 96 Hours

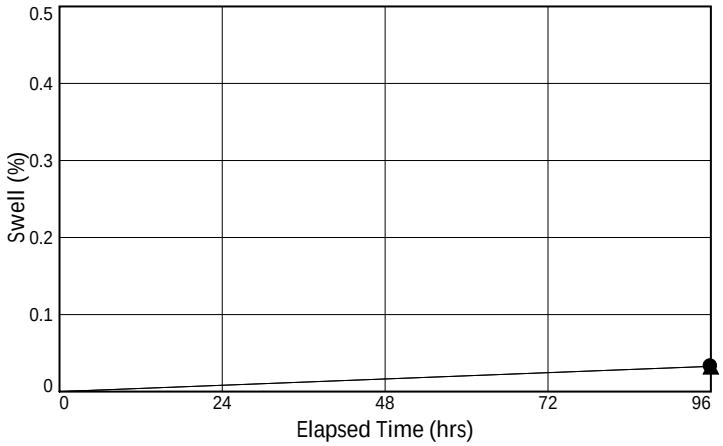
Figure _____

Tested By: ES Checked By: ANS

BEARING RATIO TEST REPORT
ASTM D1883-21







	Molded			Soaked			CBR (%)		Linearity Correction (in.)	Surcharge (lbs.)	Max. Swell (%)
	Density (pcf)	Percent of Max. Dens.	Moisture (%)	Density (pcf)	Percent of Max. Dens.	Moisture (%)	0.10 in.	0.20 in.			
1 ●	116.3	100.5	12.1	116.2	100.5	13.4	27.4	26.4	0.015	10	0
2 ▲	106.3	91.9	12.1	106.3	91.8	16.3	8.6	8.3	0.000	10	0
3 ■											

Material Description	USCS	Max. Dens. (pcf)	Optimum Moisture (%)	LL	PI
Brown cmf Sand, some Silt & Clay, trace mf Gravel (Visual)		115.7	12.1		

Project No: IRN 24-T-035
Project: Cactus Flower Solar, Pinal County, AZ
Sample Number: B-11, CBR-05

Date: 3/28/2024

BEARING RATIO TEST REPORT
ANS CONSULTANTS, INC.

Test Remarks:
Saturation period: 96 Hours

Figure _____

Tested By: ES Checked By: ANS

Attachment E

Electrical Resistivity Test Results

Soil Resistivity Results

Client:	Cypress Creek Renewables	Date:	3/11/2024
Project Name:	Cactus Flower Solar	Weather:	Sunny
Project Location:	Pinal County, Arizona	Temperature:	65°F
Equipment:	L and R Instruments Mini Res		
Test Method:	Wenner 4 Electrode Array		

Array		Data	Array spacing (ft)				
			2.00	5.00	10.00	25.00	50.00
ERT-01	N-S	Measured Resistance (Ω)	8.493	3.228	1.692	1.038	0.613
		Apparent Resistivity (Ω-m)	32.53	30.91	32.40	49.70	58.70
	E-W	Measured Resistance (Ω)	8.07	3.13	1.67	1.13	0.73
		Apparent Resistivity (Ω-m)	30.93	29.97	31.90	54.03	69.45
ERT-02	N-S	Measured Resistance (Ω)	5.144	2.119	0.893	0.649	0.4
		Apparent Resistivity (Ω-m)	19.70	20.29	17.10	31.07	38.30
	E-W	Measured Resistance (Ω)	2.33	2.008	1.28	0.75	0.445
		Apparent Resistivity (Ω-m)	8.92	19.23	24.51	35.91	42.61
ERT-03	N-S	Measured Resistance (Ω)	12.882	6.571	3.55	1.21	0.782
		Apparent Resistivity (Ω-m)	49.34	62.92	67.99	57.93	74.88
	E-W	Measured Resistance (Ω)	11.894	6.859	3.426	1.3194	0.7941
		Apparent Resistivity (Ω-m)	45.56	65.68	65.61	63.17	76.04
ERT-04	N-S	Measured Resistance (Ω)	13.62	9.285	6.588	2.235	0.772
		Apparent Resistivity (Ω-m)	52.17	88.91	126.17	107.01	73.92
	E-W	Measured Resistance (Ω)	13.918	9.342	5.793	2.047	0.68
		Apparent Resistivity (Ω-m)	53.31	89.46	110.94	98.01	65.11
		Site Average (Ω)	9.54	5.32	3.11	1.30	0.65
		Site Average (Ω-m)	36.56	50.92	59.58	62.10	62.38

Soil Resistivity Results

Client:	Cypress Creek Renewables	Date:	3/12/2024
Project Name:	Cactus Flower Solar	Weather:	Sunny
Project Location:	Pinal County, Arizona	Temperature:	65°F
Equipment:	L and R Instruments Mini Res		
Test Method:	Wenner 4 Electrode Array		

Array		Data	Array spacing (ft)				
			2.00	5.00	10.00	25.00	50.00
ERT-05	N-S	Measured Resistance (Ω)	11.781	6.504	3.919	1.302	0.386
		Apparent Resistivity (Ω-m)	45.12	62.28	75.05	62.34	36.96
	E-W	Measured Resistance (Ω)	12.11	6.51	3.59	1.07	0.40
		Apparent Resistivity (Ω-m)	46.38	62.33	68.79	51.42	38.11
ERT-06	N-S	Measured Resistance (Ω)	18.418	10.374	6.232	1.641	0.502
		Apparent Resistivity (Ω-m)	70.55	99.34	119.35	78.57	48.07
	E-W	Measured Resistance (Ω)	18.17	9.188	5.978	1.71	0.501
		Apparent Resistivity (Ω-m)	69.60	87.98	114.49	81.87	47.97
ERT-07	N-S	Measured Resistance (Ω)	21.7	13.876	9.111	2.514	0.622
		Apparent Resistivity (Ω-m)	83.12	132.87	174.49	120.36	59.56
	E-W	Measured Resistance (Ω)	22	14.992	8.275	2.464	0.542
		Apparent Resistivity (Ω-m)	84.27	143.56	158.48	117.97	51.90
ERT-08	N-S	Measured Resistance (Ω)	3.595	2.396	1.645	0.886	0.568
		Apparent Resistivity (Ω-m)	13.77	22.94	31.50	42.42	54.39
	E-W	Measured Resistance (Ω)	3.56	2.282	1.673	0.948	0.574
		Apparent Resistivity (Ω-m)	13.64	21.85	32.04	45.39	54.96
		Site Average (Ω)	13.92	8.27	5.05	1.57	0.51
		Site Average (Ω-m)	53.30	79.14	96.77	75.04	48.99

Soil Resistivity Results

Client:	Cypress Creek Renewables			Date:	3/12/2024
Project Name:	Cactus Flower Solar			Weather:	Sunny
Project Location:	Pinal County, Arizona			Temperature:	65°F
Equipment:	L and R Instruments Mini Res				
Test Method:	Wenner 4 Electrode Array				

Array		Data	Array spacing (ft)								
			2.00	5.00	10.00	25.00	50.00	100.00	150.00	200.00	250.00
ERT-SS-01	N-S	Measured Resistance (Ω)	6.251	3.112	2.33	1.369	1.018	0.582	0.367	0.258	0.18
		Apparent Resistivity (Ω-m)	23.94	29.80	44.62	65.54	97.48	111.46	105.43	98.82	86.18
	E-W	Measured Resistance (Ω)	4.969	2.888	2.252	1.402	1.017	0.59	0.363	0.257	0.167
		Apparent Resistivity (Ω-m)	1.51	0.88	0.69	0.43	0.31	0.18	0.11	0.08	0.05
		Site Average (Ω)	5.61	3	2.291	1.3855	1.0175	0.586	0.365	0.2575	0.1735
		Site Average (Ω-m)	12.73	15.34	22.65	32.99	48.89	55.82	52.77	49.45	43.12

Soil Resistivity Results

Client:	Cypress Creek Renewables	Date:	3/12/2024
Project Name:	Cactus Flower Solar	Weather:	Sunny
Project Location:	Pinal County, Arizona	Temperature:	65°F
Equipment:	L and R Instruments Mini Res		
Test Method:	Wenner 4 Electrode Array		

Array		Data	Array spacing (ft)						
			2.00	5.00	10.00	25.00	50.00	100.00	150.00
ERT-BESS-01	N-S	Measured Resistance (Ω)	6.52	2.876	1.666	0.952	0.737	0.413	0.317
		Apparent Resistivity (Ω-m)	24.97	27.54	31.91	45.58	70.57	79.09	91.06
	E-W	Measured Resistance (Ω)	6.892	2.81	1.641	0.93	0.74	0.435	0.308
		Apparent Resistivity (Ω-m)	2.10	0.86	0.50	0.28	0.23	0.13	0.09
		Site Average (Ω)	6.706	2.843	1.6535	0.941	0.7385	0.424	0.3125
		Site Average (Ω-m)	13.54	14.20	16.20	22.93	35.40	39.61	45.58

Attachment F

Pile Load Test Logs

Pile Load Test Log

Project Name:	Cypress Creek - Cactus Flower Solar	Embedment Depth (ft):	7.0	Pile ID:	PT-01
Site Location:	Pinal County, Arizona	Pushed to Depth (ft):	0.5	Pile Section:	W6x9
Date Installed:	3/7/2024	Pre-Excavation Depth (ft):	N/A	Pile Length (ft):	15.0
Date Tested:	3/9/2024	Pre-Drill Diameter (in):	N/A	Total Drive Time (sec):	16.83
Location:	32.626262°, -111.598568°	Pre-Drill Depth (ft):	N/A	Avg. Installation Rate (sec/ft):	2.6

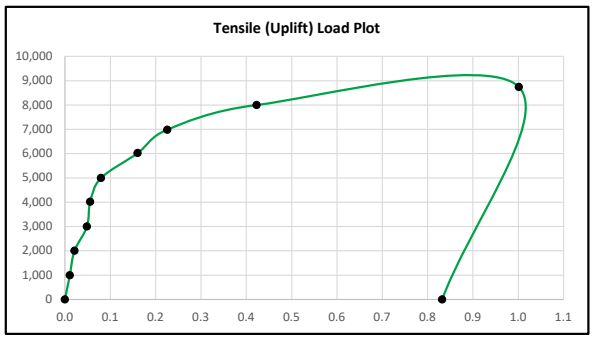
Embedment Data

Depth (ft)	Time (s)
1	2.74
2	2.58
3	2.11
4	1.97
5	3.27
6	4.16
Total Time (s) =	16.83

Field Notes

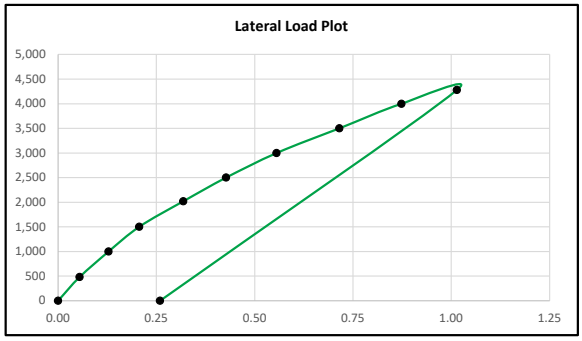
Tensile (Uplift) Testing

Hold Time (min)	Target Load (lbs)	Applied Load (lbs)	Deflection 1 (in.)	Deflection 2 (in.)	Average Deflection (in.)
1	0	0	0.0000	0.0000	0.0000
1	1,000	1,000	0.0175	0.0035	0.0105
1	2,000	2,000	0.0355	0.0065	0.0210
1	3,000	3,000	0.0750	0.0220	0.0485
1	4,000	4,020	0.0850	0.0265	0.0558
1	5,000	5,000	0.1120	0.0475	0.0798
1	6,000	6,020	0.1975	0.1235	0.1605
1	7,000	6,980	0.2635	0.1875	0.2255
1	8,000	8,000	0.4625	0.3830	0.4228
1	9,000	8,740	1.0160	0.9865	1.0013
	0	0	0.8660	0.7980	0.8320



Lateral Testing

Lateral Load Height Above Grade (ft):		4.0	Deflection Gauge Height (in):		6
Hold Time (min)	Target Load (lbs)	Applied Load (lbs)	Deflection 1 (in.)	Deflection 2 (in.)	Average Deflection (in.)
1	0	0	0.0000	0.0000	0.0000
1	500	480	0.0920	0.0170	0.0545
1	1,000	1,000	0.1880	0.0690	0.1285
1	1,500	1,500	0.2715	0.1415	0.2065
1	2,000	2,020	0.3855	0.2510	0.3183
1	2,500	2,500	0.4910	0.3630	0.4270
1	3,000	3,000	0.6080	0.5035	0.5558
1	3,500	3,500	0.7380	0.6920	0.7150
1	4,000	4,000	0.8585	0.8880	0.8733
1	4,500	4,280	0.9900	1.0380	1.0140
	0	0	0.2235	0.2945	0.2590



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Pile Load Test Log

Project Name:	Cypress Creek - Cactus Flower Solar	Embedment Depth (ft):	8.0	Pile ID:	PT-02
Site Location:	Pinal County, Arizona	Pushed to Depth (ft):	1.5	Pile Section:	W6x9
Date Installed:	3/7/2024	Pre-Excavation Depth (ft):	N/A	Pile Length (ft):	15.0
Date Tested:	3/9/2024	Pre-Drill Diameter (in):	N/A	Total Drive Time (sec):	10.73
Location:	32.618727°, -111.594281°	Pre-Drill Depth (ft):	N/A	Avg. Installation Rate (sec/ft):	1.7

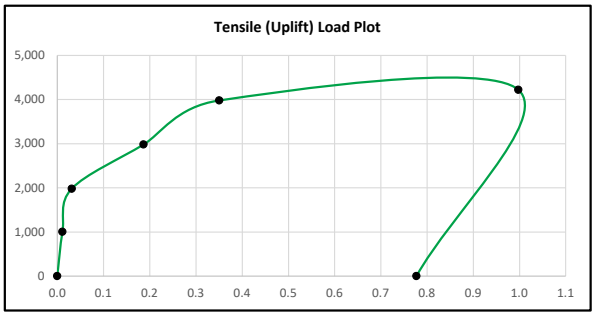
Embedment Data

Depth (ft)	Time (s)
2	2.14
3	1.57
4	1.43
5	1.66
6	1.79
7	2.14
Total Time (s) =	10.73

Field Notes

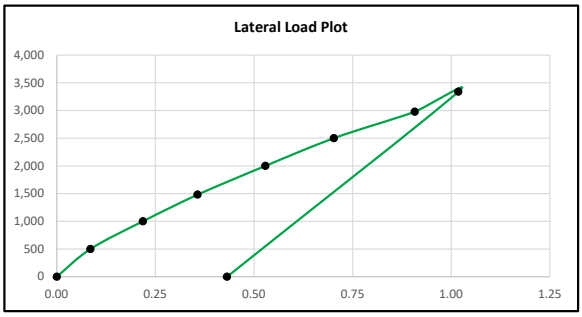
Tensile (Uplift) Testing

Hold Time (min)	Target Load (lbs)	Applied Load (lbs)	Deflection 1 (in.)	Deflection 2 (in.)	Average Deflection (in.)
1	0	0	0.0000	0.0000	0.0000
1	1,000	1,000	0.0185	0.0040	0.0113
1	2,000	1,980	0.0495	0.0130	0.0313
1	3,000	2,980	0.2115	0.1620	0.1868
1	4,000	3,980	0.3755	0.3250	0.3503
1	5,000	4,220	1.0600	0.9350	0.9975
	0	0	0.7625	0.7920	0.7773



Lateral Testing

Lateral Load Height Above Grade (ft):	4.0	Deflection Gauge Height (in):		6
Hold Time (min)	Target Load (lbs)	Applied Load (lbs)	Deflection 1 (in.)	Deflection 2 (in.)	Average Deflection (in.)
1	0	0	0.0000	0.0000	0.0000
1	500	500	0.1555	0.0160	0.0858
1	1,000	1,000	0.3985	0.0380	0.2183
1	1,500	1,480	0.5485	0.1655	0.3570
1	2,000	2,000	0.7140	0.3430	0.5285
1	2,500	2,500	0.8675	0.5370	0.7023
1	3,000	2,980	1.0440	0.7705	0.9073
1	3,500	3,340	1.1360	0.9000	1.0180
	0	0	0.3550	0.5085	0.4318



Pile Load Test Log

Project Name:	Cypress Creek - Cactus Flower Solar	Embedment Depth (ft):	9.0	Pile ID:	PT-03
Site Location:	Pinal County, Arizona	Pushed to Depth (ft):	2.0	Pile Section:	W6x9
Date Installed:	3/7/2024	Pre-Excavation Depth (ft):	N/A	Pile Length (ft):	15.0
Date Tested:	3/9/2024	Pre-Drill Diameter (in):	N/A	Total Drive Time (sec):	10.69
Location:	32.636588°, -111.574658°	Pre-Drill Depth (ft):	N/A	Avg. Installation Rate (sec/ft):	1.5

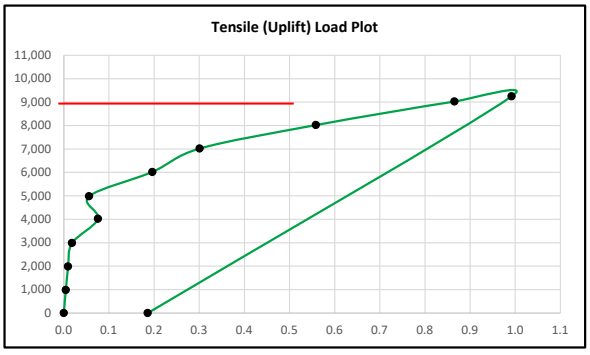
Embedment Data

Depth (ft)	Time (s)
3	1.54
4	1.26
5	1.15
6	1.36
7	1.61
8	1.24
9	2.53
Total Time (s) =	10.69

Field Notes

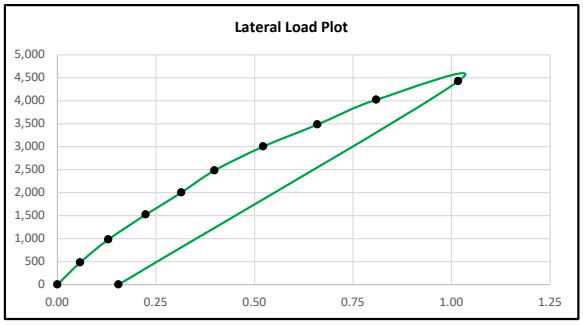
Tensile (Uplift) Testing

Hold Time (min)	Target Load (lbs)	Applied Load (lbs)	Deflection 1 (in.)	Deflection 2 (in.)	Average Deflection (in.)
1	0	0	0.0000	0.0000	0.0000
1	1,000	980	0.0045	0.0050	0.0048
1	2,000	1,980	0.0070	0.0125	0.0098
1	3,000	2,980	0.0120	0.0245	0.0183
1	4,000	4,020	0.0625	0.0890	0.0758
1	5,000	4,980	0.0990	0.0129	0.0560
1	6,000	6,020	0.1825	0.2105	0.1965
1	7,000	7,020	0.2860	0.3160	0.3010
1	8,000	8,020	0.5455	0.5720	0.5588
1	9,000	9,020	0.8470	0.8840	0.8655
1	10,000	9,240	0.9750	1.0090	0.9920
	0	0	0.1565	0.2150	0.1858



Lateral Testing

Lateral Load Height Above Grade (ft):		4.0	Deflection Gauge Height (in):		6
Hold Time (min)	Target Load (lbs)	Applied Load (lbs)	Deflection 1 (in.)	Deflection 2 (in.)	Average Deflection (in.)
1	0	0	0.0000	0.0000	0.0000
1	500	480	0.0675	0.0480	0.0578
1	1,000	980	0.1715	0.0860	0.1288
1	1,500	1,520	0.2790	0.1690	0.2240
1	2,000	2,000	0.3585	0.2700	0.3143
1	2,500	2,480	0.4300	0.3660	0.3980
1	3,000	3,000	0.5270	0.5165	0.5218
1	3,500	3,480	0.6270	0.6920	0.6595
1	4,000	4,020	0.7350	0.8825	0.8088
1	4,500	4,420	0.9855	1.0475	1.0165
	0	0	0.0190	0.2900	0.1545



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Pile Load Test Log

Project Name:	Cypress Creek - Cactus Flower Solar	Embedment Depth (ft):	10.0	Pile ID:	PT-04
Site Location:	Pinal County, Arizona	Pushed to Depth (ft):	1.5	Pile Section:	W6x9
Date Installed:	3/7/2024	Pre-Excavation Depth (ft):	N/A	Pile Length (ft):	15.0
Date Tested:	3/9/2024	Pre-Drill Diameter (in):	N/A	Total Drive Time (sec):	20.56
Location:	32.627250°, -111.573580°	Pre-Drill Depth (ft):	N/A	Avg. Installation Rate (sec/ft):	2.4

Embedment Data

Depth (ft)	Time (s)
1	0.92
2	1.08
3	1.27
4	1.33
5	1.47
6	2.46
7	6.48
8	3.95
9	1.6
Total Time (s) =	20.56

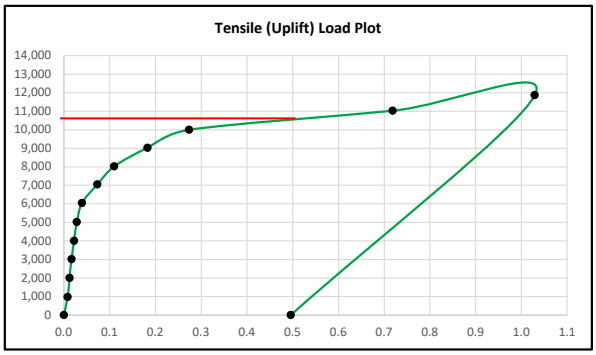
Field Notes

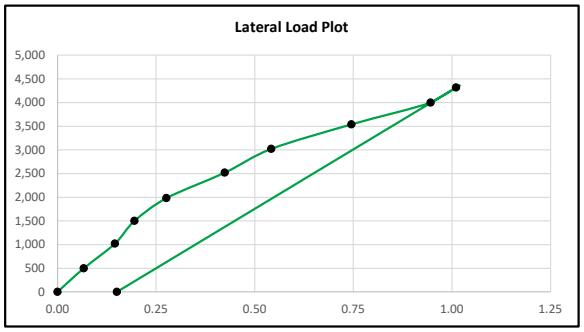
Tensile (Uplift) Testing

Hold Time (min)	Target Load (lbs)	Applied Load (lbs)	Deflection 1 (in.)	Deflection 2 (in.)	Average Deflection (in.)
1	0	0	0.0000	0.0000	0.0000
1	1,000	980	0.0065	0.0100	0.0083
1	2,000	2,000	0.0085	0.0160	0.0123
1	3,000	3,020	0.0125	0.0205	0.0165
1	4,000	4,000	0.0150	0.0290	0.0220
1	5,000	5,020	0.0195	0.0370	0.0283
1	6,000	6,040	0.0235	0.0550	0.0393
1	7,000	7,040	0.0545	0.0910	0.0728
1	8,000	8,020	0.0930	0.1270	0.1100
1	9,000	9,020	0.1675	0.1975	0.1825
1	10,000	10,000	0.2595	0.2880	0.2738
1	11,000	11,020	0.4480	0.9895	0.7188
1	12,000	11,860	0.9985	1.0600	1.0293
	0	0	0.1345	0.8570	0.4958

Lateral Testing

Lateral Load Height Above Grade (ft):	4.0	Deflection Gauge Height (in):		6
Hold Time (min)	Target Load (lbs)	Applied Load (lbs)	Deflection 1 (in.)	Deflection 2 (in.)	Average Deflection (in.)
1	0	0	0.0000	0.0000	0.0000
1	500	500	0.0980	0.0350	0.0665
1	1,000	1,020	0.1455	0.1450	0.1453
1	1,500	1,500	0.1845	0.2060	0.1953
1	2,000	1,980	0.2480	0.3045	0.2763
1	2,500	2,520	0.3725	0.4760	0.4243
1	3,000	3,020	0.4660	0.6180	0.5420
1	3,500	3,540	0.6300	0.8605	0.7453
1	4,000	4,000	0.7855	1.1070	0.9463
1	4,500	4,320	0.8085	1.2125	1.0105
	0	0	0.0105	0.2900	0.1503





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Pile Load Test Log

Project Name:	Cypress Creek - Cactus Flower Solar	Embedment Depth (ft):	7.0	Pile ID:	PT-05
Site Location:	Pinal County, Arizona	Pushed to Depth (ft):	1.0	Pile Section:	W6x9
Date Installed:	3/7/2024	Pre-Excavation Depth (ft):	N/A	Pile Length (ft):	15.0
Date Tested:	3/9/2024	Pre-Drill Diameter (in):	N/A	Total Drive Time (sec):	16.71
Location:	32.619890°, -111.577190°	Pre-Drill Depth (ft):	N/A	Avg. Installation Rate (sec/ft):	2.8

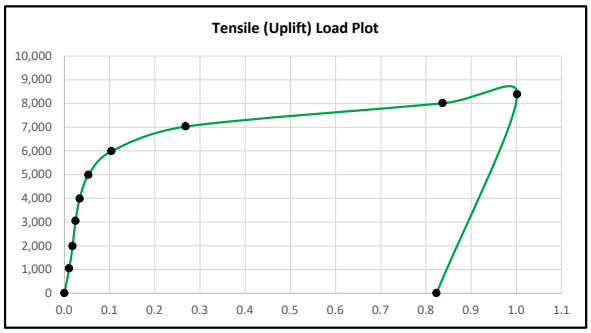
Embedment Data

Depth (ft)	Time (s)
2	2.33
3	2.22
4	2.72
5	3.01
6	2.54
7	3.89
Total Time (s) =	16.71

Field Notes

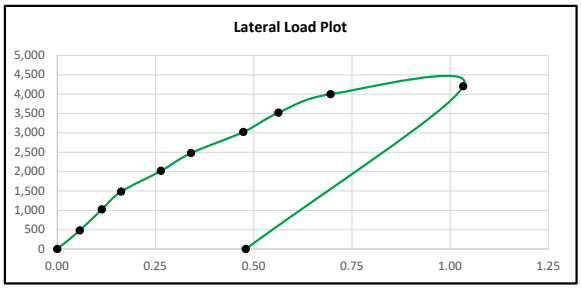
Tensile (Uplift) Testing

Hold Time (min)	Target Load (lbs)	Applied Load (lbs)	Deflection 1 (in.)	Deflection 2 (in.)	Average Deflection (in.)
1	0	0	0.0000	0.0000	0.0000
1	1,000	1,040	0.0150	0.0065	0.0108
1	2,000	1,980	0.0270	0.0095	0.0183
1	3,000	3,040	0.0365	0.0130	0.0248
1	4,000	3,980	0.0500	0.0180	0.0340
1	5,000	4,980	0.0775	0.0295	0.0535
1	6,000	5,980	0.1365	0.0715	0.1040
1	7,000	7,020	0.3030	0.2340	0.2685
1	8,000	8,000	0.8680	0.8060	0.8370
1	9,000	8,380	1.0060	0.9980	1.0020
	0	0	0.8795	0.7675	0.8235



Lateral Testing

Lateral Load Height Above Grade (ft):	4.0	Deflection Gauge Height (in):	6	
Hold Time (min)	Target Load (lbs)	Applied Load (lbs)	Deflection 1 (in.)	Deflection 2 (in.)	Average Deflection (in.)
1	0	0	0.0000	0.0000	0.0000
1	500	480	0.1090	0.0065	0.0578
1	1,000	1,020	0.1805	0.0460	0.1133
1	1,500	1,480	0.2335	0.0920	0.1628
1	2,000	2,020	0.3065	0.2215	0.2640
1	2,500	2,480	0.3530	0.3280	0.3405
1	3,000	3,020	0.4295	0.5175	0.4735
1	3,500	3,520	0.4490	0.6765	0.5628
1	4,000	4,000	0.5225	0.8690	0.6958
1	4,500	4,200	0.7600	1.3060	1.0330
	0	0	0.1195	0.8405	0.4800



ANS GEO

Pile Load Test Log

Project Name:	Cypress Creek - Cactus Flower Solar	Embedment Depth (ft):	8.0	Pile ID:	PT-06
Site Location:	Pinal County, Arizona	Pushed to Depth (ft):	0.5	Pile Section:	W6x9
Date Installed:	3/7/2024	Pre-Excavation Depth (ft):	N/A	Pile Length (ft):	15.0
Date Tested:	3/9/2024	Pre-Drill Diameter (in):	N/A	Total Drive Time (sec):	26.33
Location:	32.613600°, -111.577110°	Pre-Drill Depth (ft):	N/A	Avg. Installation Rate (sec/ft):	3.5

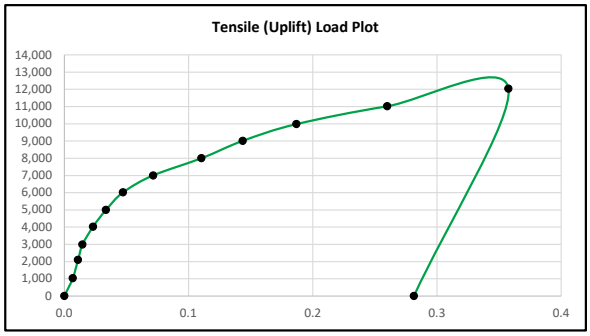
Embedment Data

Depth (ft)	Time (s)
1	3.38
2	4.15
3	3.45
4	3.42
5	3.36
6	3.76
7	4.81
Total Time (s) =	26.33

Field Notes

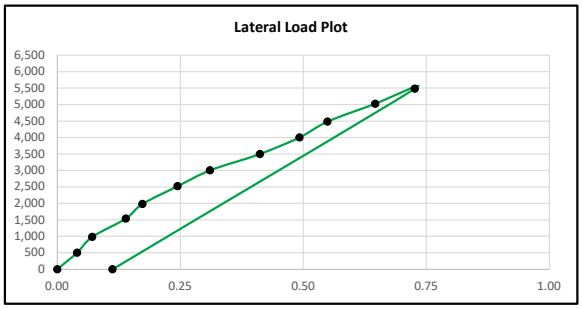
Tensile (Uplift) Testing

Hold Time (min)	Target Load (lbs)	Applied Load (lbs)	Deflection 1 (in.)	Deflection 2 (in.)	Average Deflection (in.)
1	0	0	0.0000	0.0000	0.0000
1	1,000	1,040	0.0090	0.0045	0.0068
1	2,000	2,100	0.0160	0.0060	0.0110
1	3,000	2,980	0.0215	0.0075	0.0145
1	4,000	4,020	0.0325	0.0135	0.0230
1	5,000	5,000	0.0495	0.0175	0.0335
1	6,000	6,020	0.0685	0.0260	0.0473
1	7,000	7,000	0.0950	0.0480	0.0715
1	8,000	8,000	0.1355	0.0850	0.1103
1	9,000	9,000	0.1690	0.1180	0.1435
1	10,000	9,980	0.2130	0.1605	0.1868
1	11,000	11,020	0.2855	0.2345	0.2600
1	12,000	12,040	0.3845	0.3305	0.3575
		0	0.2875	0.2755	0.2815



Lateral Testing

Lateral Load Height Above Grade (ft):		4.0	Deflection Gauge Height (in):		6
Hold Time (min)	Target Load (lbs)	Applied Load (lbs)	Deflection 1 (in.)	Deflection 2 (in.)	Average Deflection (in.)
1	0	0	0.0000	0.0000	0.0000
1	500	500	0.0790	0.0015	0.0403
1	1,000	980	0.1185	0.0235	0.0710
1	1,500	1,540	0.1855	0.0935	0.1395
1	2,000	1,980	0.2160	0.1300	0.1730
1	2,500	2,520	0.2790	0.2100	0.2445
1	3,000	3,000	0.3345	0.2865	0.3105
1	3,500	3,500	0.4170	0.4070	0.4120
1	4,000	4,000	0.4825	0.5020	0.4923
1	4,500	4,480	0.5270	0.5715	0.5493
1	5,000	5,020	0.6026	0.6900	0.6463
1	5,500	5,480	0.6675	0.7855	0.7265
	0	0	0.0900	0.1345	0.1123



ANS GEO

Pile Load Test Log

Project Name:	Cypress Creek - Cactus Flower Solar	Embedment Depth (ft):	9.0	Pile ID:	PT-07
Site Location:	Pinal County, Arizona	Pushed to Depth (ft):	1.5	Pile Section:	W6x9
Date Installed:	3/7/2024	Pre-Excavation Depth (ft):	N/A	Pile Length (ft):	15.0
Date Tested:	3/9/2024	Pre-Drill Diameter (in):	N/A	Total Drive Time (sec):	30.37
Location:	32.609630°, -111.585290°	Pre-Drill Depth (ft):	N/A	Avg. Installation Rate (sec/ft):	4.0

Embedment Data

Depth (ft)	Time (s)
2	1.21
3	2.06
4	5.24
5	4.17
6	4.05
7	4.44
8	6.46
9	2.74
Total Time (s) =	30.37

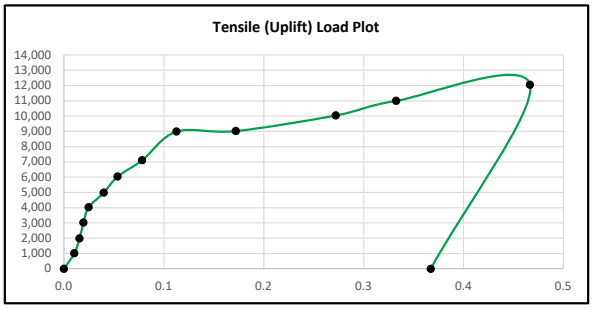
Field Notes

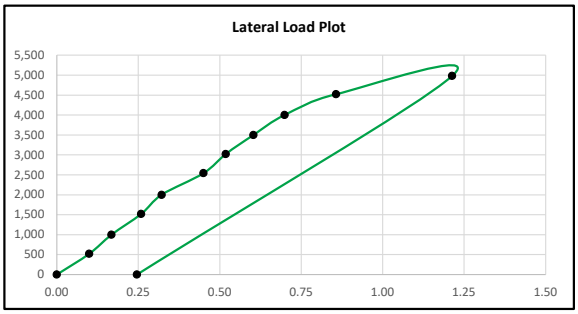
Tensile (Uplift) Testing

Hold Time (min)	Target Load (lbs)	Applied Load (lbs)	Deflection 1 (in.)	Deflection 2 (in.)	Average Deflection (in.)
1	0	0	0.0000	0.0000	0.0000
1	1,000	1,020	0.0060	0.0150	0.0105
1	2,000	1,980	0.0090	0.0220	0.0155
1	3,000	3,020	0.0100	0.0290	0.0195
1	4,000	4,020	0.0130	0.0365	0.0248
1	5,000	4,980	0.0190	0.0605	0.0398
1	6,000	6,040	0.0285	0.0790	0.0538
1	7,000	7,100	0.0385	0.1180	0.0783
1	8,000	8,980	0.0700	0.1555	0.1128
1	9,000	9,020	0.1245	0.2195	0.1720
1	10,000	10,040	0.2195	0.3250	0.2723
1	11,000	11,000	0.2790	0.3860	0.3325
1	12,000	12,040	0.4095	0.5235	0.4665
	0	0	0.3050	0.4295	0.3673

Lateral Testing

Lateral Load Height Above Grade (ft):	4.0	Deflection Gauge Height (in):		6
Hold Time (min)	Target Load (lbs)	Applied Load (lbs)	Deflection 1 (in.)	Deflection 2 (in.)	Average Deflection (in.)
1	0	0	0.0000	0.0000	0.0000
1	500	520	0.0630	0.1360	0.0995
1	1,000	1,000	0.1240	0.2115	0.1678
1	1,500	1,520	0.2135	0.3040	0.2588
1	2,000	2,000	0.2750	0.3680	0.3215
1	2,500	2,540	0.3970	0.5030	0.4500
1	3,000	3,020	0.4605	0.5760	0.5183
1	3,500	3,500	0.5395	0.6670	0.6033
1	4,000	4,000	0.6240	0.7740	0.6990
1	4,500	4,520	0.7510	0.9625	0.8568
1	5,000	4,980	0.0.8535	1.2130	1.2130
	0	0	0.1175	0.3745	0.2460





ANS GEO

Pile Load Test Log

Project Name:	Cypress Creek - Cactus Flower Solar	Embedment Depth (ft):	10.0	Pile ID:	PT-08
Site Location:	Pinal County, Arizona	Pushed to Depth (ft):	1.5	Pile Section:	W6x9
Date Installed:	3/7/2024	Pre-Excavation Depth (ft):	N/A	Pile Length (ft):	15.0
Date Tested:	3/9/2024	Pre-Drill Diameter (in):	N/A	Total Drive Time (sec):	29.6
Location:	32.606400°, -111.569650°	Pre-Drill Depth (ft):	N/A	Avg. Installation Rate (sec/ft):	3.5

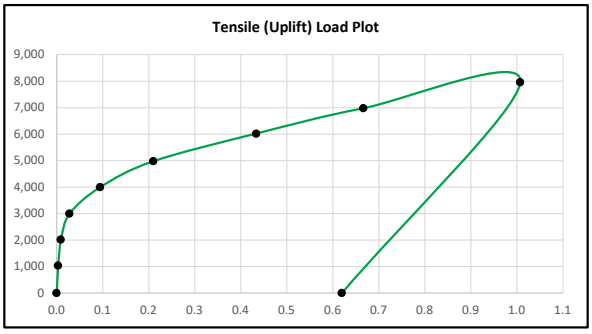
Embedment Data

Depth (ft)	Time (s)
2	0.68
3	3.72
4	3.22
5	2.9
6	3.19
7	3.04
8	3.77
9	3.95
10	5.13
Total Time (s) =	29.6

Field Notes

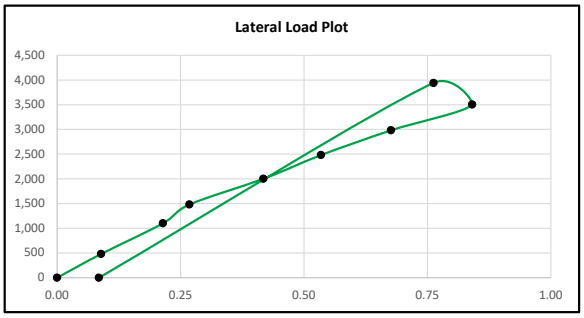
Tensile (Uplift) Testing

Hold Time (min)	Target Load (lbs)	Applied Load (lbs)	Deflection 1 (in.)	Deflection 2 (in.)	Average Deflection (in.)
1	0	0	0.0000	0.0000	0.0000
1	1,000	1,040	0.0055	0.0010	0.0033
1	2,000	2,020	0.0125	0.0060	0.0093
1	3,000	3,000	0.0330	0.0230	0.0280
1	4,000	4,000	0.1030	0.0865	0.0948
1	5,000	4,980	0.2195	0.2010	0.2103
1	6,000	6,020	0.4440	0.4235	0.4338
1	7,000	6,980	0.6775	0.6555	0.6665
1	8,000	7,960	0.9665	1.0485	1.0075
	0	0	0.6115	0.6280	0.6198



Lateral Testing

Lateral Load Height Above Grade (ft):		4.0	Deflection Gauge Height (in):		6
Hold Time (min)	Target Load (lbs)	Applied Load (lbs)	Deflection 1 (in.)	Deflection 2 (in.)	Average Deflection (in.)
1	0	0	0.0000	0.0000	0.0000
1	500	480	0.1590	0.0195	0.0893
1	1,000	1,100	0.3145	0.1145	0.2145
1	1,500	1,480	0.3720	0.1640	0.2680
1	2,000	2,000	0.5205	0.3150	0.4178
1	2,500	2,480	0.6240	0.4445	0.5343
1	3,000	2,980	0.7435	0.6085	0.6760
1	3,500	3,500	0.8750	0.8065	0.8408
1	4,000	3,940	0.4980	1.0270	0.7625
	0	0	0.0305	0.1385	0.0845



Attachment G

Seismic Support Data

ASCE Hazards Report

Address:
No Address at This Location

Standard:	ASCE/SEI 7-16	**Latitude:**	32.617641
Risk Category:	II	**Longitude:**	-111.585532
Soil Class:	D - Stiff Soil	**Elevation:**	1636.6146140777028 ft (NAVD 88)





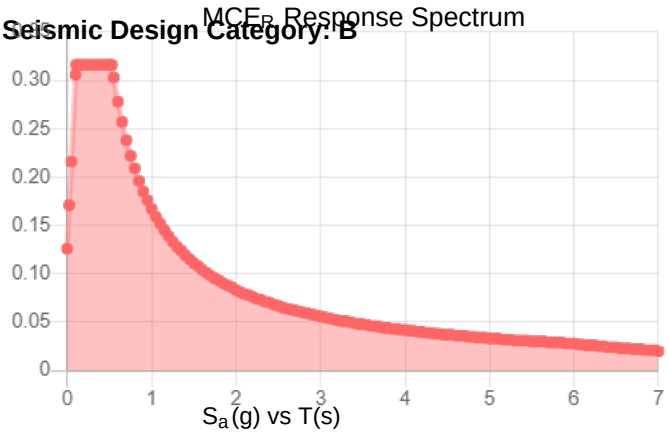
Seismic

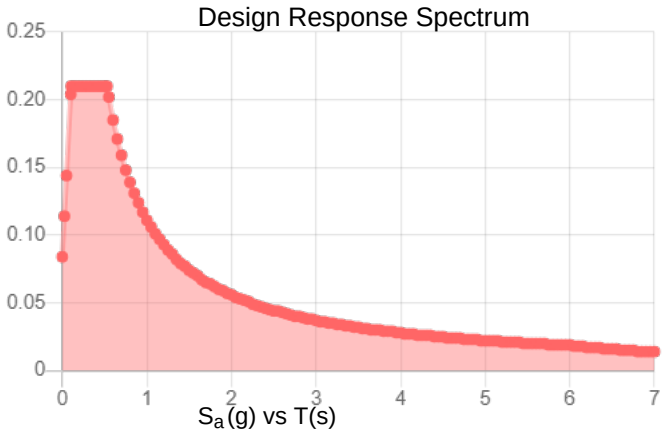
Site Soil Class: D - Stiff Soil

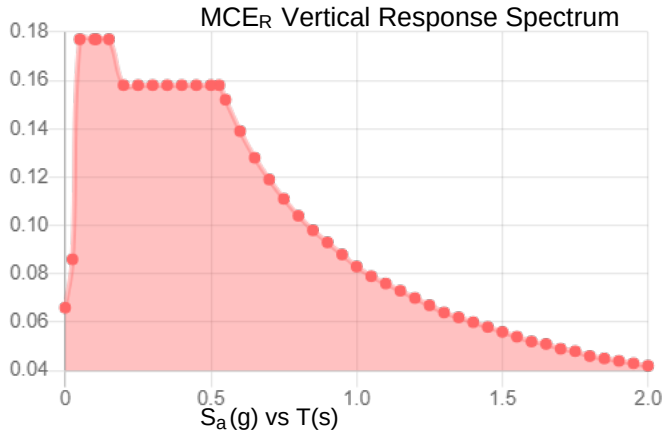
Results:

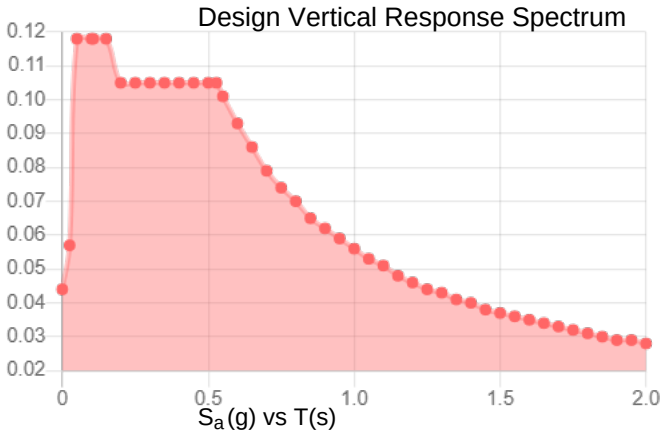
S_S :	0.197	S_{D1} :	0.111
S_1 :	0.07	T_L :	6
F_a :	1.6	PGA :	0.087
F_v :	2.4	PGA_M :	0.139
S_{MS} :	0.316	F_{PGA} :	1.6
S_{M1} :	0.167	I_e :	1
S_{DS} :	0.21	C_v :	0.7

Seismic Design Category: B









Data Accessed: **Tue Mar 19 2024**

Date Source:

USGS Seismic Design Maps based on ASCE/SEI 7-16 and ASCE/SEI 7-16 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-16 Ch. 21 are available from USGS.

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Attachment H

NRCS Mapping

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Pinal County, Arizona, Western Part



March 4, 2024

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

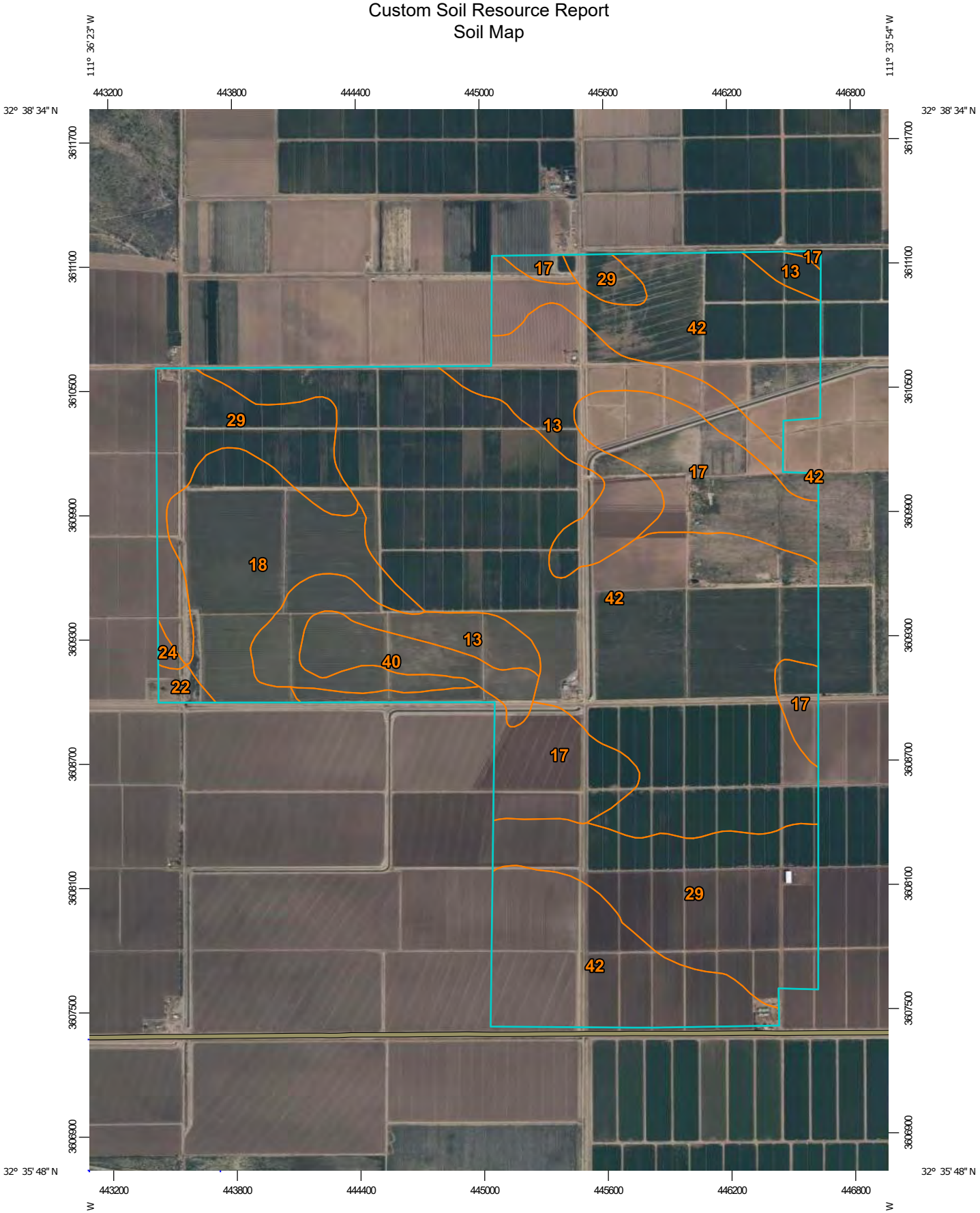
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



Map Scale: 1:25,000 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 350 700 1400 2100

Feet: 0 1000 2000 4000 6000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 12N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Pinal County, Arizona, Western Part
Survey Area Data: Version 20, Sep 8, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Feb 18, 2020—Mar 7, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
13	Dateland fine sandy loam	257.3	12.3%
17	Denure fine sandy loam, 0 to 1 percent slopes	235.1	11.2%
18	Denure clay loam, 0 to 1 percent slopes	174.8	8.3%
22	Gilman clay loam	8.8	0.4%
24	Glenbar clay loam, 0 to 2 percent slopes	3.7	0.2%
29	Marana silty clay loam	334.6	15.9%
40	Rositas loamy fine sand	55.2	2.6%
42	Sasco silt loam	1,030.5	49.1%
Totals for Area of Interest		**2,100.1**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not

mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Pinal County, Arizona, Western Part

13—Dateland fine sandy loam

Map Unit Setting

National map unit symbol: 1sq0
Elevation: 1,130 to 1,990 feet
Mean annual precipitation: 6 to 8 inches
Mean annual air temperature: 68 to 72 degrees F
Frost-free period: 240 to 325 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Dateland and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Dateland

Setting

Landform: Fan terraces, stream terraces
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Mixed stream and fan alluvium

Typical profile

A - 0 to 2 inches: fine sandy loam
Bk - 2 to 40 inches: fine sandy loam
C - 40 to 60 inches: fine sandy loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Rare
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 7.8 inches)

Interpretive groups

Land capability classification (irrigated): 1
Land capability classification (nonirrigated): 7c
Hydrologic Soil Group: B
Ecological site: R040XB207AZ - Limy Fan 7"-10" p.z.
Hydric soil rating: No

Minor Components

Unnamed soils

Percent of map unit: 10 percent
Hydric soil rating: No

17—Denure fine sandy loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: 1sq4
Elevation: 1,130 to 1,990 feet
Mean annual precipitation: 6 to 8 inches
Mean annual air temperature: 68 to 72 degrees F
Frost-free period: 240 to 325 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Denure and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Denure

Setting

Landform: Stream terraces
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Mixed stream alluvium

Typical profile

A - 0 to 2 inches: fine sandy loam
Bk - 2 to 54 inches: sandy loam
2Btk - 54 to 60 inches: sandy clay loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 7.4 inches)

Interpretive groups

Land capability classification (irrigated): 3s
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: A
Ecological site: R040XB207AZ - Limy Fan 7"-10" p.z.
Hydric soil rating: No

Minor Components

Unnamed soils

Percent of map unit: 15 percent
Hydric soil rating: No

18—Denure clay loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: 1sq5
Elevation: 1,130 to 1,990 feet
Mean annual precipitation: 6 to 8 inches
Mean annual air temperature: 68 to 72 degrees F
Frost-free period: 240 to 325 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Denure and similar soils: 95 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Denure

Setting

Landform: Stream terraces
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Mixed stream alluvium

Typical profile

Ap - 0 to 15 inches: clay loam
Bk - 15 to 54 inches: sandy loam
2Btk - 54 to 60 inches: sandy clay loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)

Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 8.6 inches)

Interpretive groups

Land capability classification (irrigated): 2s
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: C
Ecological site: R040XB207AZ - Limy Fan 7"-10" p.z.
Hydric soil rating: No

Minor Components

Unnamed soils

Percent of map unit: 5 percent
Hydric soil rating: No

22—Gilman clay loam

Map Unit Setting

National map unit symbol: 1sqb
Elevation: 1,130 to 1,990 feet
Mean annual precipitation: 6 to 8 inches
Mean annual air temperature: 68 to 72 degrees F
Frost-free period: 240 to 325 days
Farmland classification: Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season

Map Unit Composition

Gilman and similar soils: 95 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Gilman

Setting

Landform: Flood plains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Mixed stream alluvium

Typical profile

Ap - 0 to 12 inches: clay loam
C - 12 to 60 inches: stratified sandy loam to very fine sandy loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Maximum salinity: Nonsaline to moderately saline (0.0 to 8.0 mmhos/cm)
Sodium adsorption ratio, maximum: 13.0
Available water supply, 0 to 60 inches: High (about 10.5 inches)

Interpretive groups

Land capability classification (irrigated): 2w
Land capability classification (nonirrigated): 7w
Hydrologic Soil Group: C
Ecological site: R040XB211AZ - Loamy Swale 7"-10" p.z.
Hydric soil rating: No

Minor Components

Unnamed soils

Percent of map unit: 5 percent
Hydric soil rating: No

24—Glenbar clay loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2tdtq
Elevation: 980 to 2,000 feet
Mean annual precipitation: 7 to 10 inches
Mean annual air temperature: 70 to 72 degrees F
Frost-free period: 240 to 325 days
Farmland classification: Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season

Map Unit Composition

Glenbar and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Glenbar

Setting

Landform: Flood plains
Landform position (three-dimensional): Talf
Down-slope shape: Linear

Across-slope shape: Linear
Parent material: Mixed stream alluvium

Typical profile

Ap - 0 to 7 inches: clay loam
Ck1 - 7 to 18 inches: clay loam
Ck2 - 18 to 31 inches: silty clay loam
Ck3 - 31 to 60 inches: silty clay loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Gypsum, maximum content: 2 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 11.4 inches)

Interpretive groups

Land capability classification (irrigated): 3w
Land capability classification (nonirrigated): 7c
Hydrologic Soil Group: C
Ecological site: R040XB211AZ - Loamy Swale 7"-10" p.z.
Hydric soil rating: No

Minor Components

Unnamed soils

Percent of map unit: 15 percent
Hydric soil rating: No

29—Marana silty clay loam

Map Unit Setting

National map unit symbol: 1sqk
Elevation: 1,130 to 1,990 feet
Mean annual precipitation: 6 to 8 inches
Mean annual air temperature: 68 to 72 degrees F
Frost-free period: 240 to 325 days
Farmland classification: Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season

Map Unit Composition

Marana and similar soils: 90 percent
Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Marana

Setting

Landform: Stream terraces
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Mixed stream alluvium

Typical profile

A - 0 to 2 inches: silty clay loam
C - 2 to 60 inches: silty clay loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Rare
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 12.0 inches)

Interpretive groups

Land capability classification (irrigated): 1
Land capability classification (nonirrigated): 7c
Hydrologic Soil Group: C
Ecological site: R040XB213AZ - Loamy Upland 7"-10" p.z.
Hydric soil rating: No

Minor Components

Unnamed soils

Percent of map unit: 10 percent
Hydric soil rating: No

40—Rositas loamy fine sand

Map Unit Setting

National map unit symbol: 1sqz
Elevation: 1,130 to 1,990 feet
Mean annual precipitation: 6 to 8 inches
Mean annual air temperature: 68 to 72 degrees F
Frost-free period: 240 to 325 days

Farmland classification: Farmland of unique importance

Map Unit Composition

Rositas and similar soils: 95 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Rositas

Setting

Landform: Dunes
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Mixed eolian deposits

Typical profile

A1 - 0 to 2 inches: loamy fine sand
C2 - 2 to 60 inches: loamy sand

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Maximum salinity: Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum: 13.0
Available water supply, 0 to 60 inches: Low (about 4.2 inches)

Interpretive groups

Land capability classification (irrigated): 3s
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: A
Ecological site: R040XB217AZ - Sandy Upland 7"-10" p.z.
Hydric soil rating: No

Minor Components

Unnamed soils

Percent of map unit: 5 percent
Hydric soil rating: No

42—Sasco silt loam

Map Unit Setting

National map unit symbol: 1sr1
Elevation: 1,130 to 1,990 feet
Mean annual precipitation: 6 to 8 inches
Mean annual air temperature: 68 to 72 degrees F
Frost-free period: 240 to 325 days
Farmland classification: Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season

Map Unit Composition

Sasco and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sasco

Setting

Landform: Stream terraces
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Mixed stream silty alluvium

Typical profile

A - 0 to 2 inches: silt loam
Bw - 2 to 47 inches: silt loam
2Btb - 47 to 60 inches: clay loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Rare
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 11.1 inches)

Interpretive groups

Land capability classification (irrigated): 1
Land capability classification (nonirrigated): 7c
Hydrologic Soil Group: C
Ecological site: R040XB213AZ - Loamy Upland 7"-10" p.z.

Hydric soil rating: No

Minor Components

Unnamed soils

Percent of map unit: 15 percent
Hydric soil rating: No

Soil Information for All Uses

Suitabilities and Limitations for Use

The Suitabilities and Limitations for Use section includes various soil interpretations displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each interpretation.

Building Site Development

Building site development interpretations are designed to be used as tools for evaluating soil suitability and identifying soil limitations for various construction purposes. As part of the interpretation process, the rating applies to each soil in its described condition and does not consider present land use. Example interpretations can include corrosion of concrete and steel, shallow excavations, dwellings with and without basements, small commercial buildings, local roads and streets, and lawns and landscaping.

Corrosion of Concrete

ENG

Engineering

AGR

Agronomy

"Risk of corrosion" pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens concrete. The rate of corrosion of concrete is based mainly on the sulfate and sodium content, texture, moisture content, and acidity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The concrete in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than the concrete in installations that are entirely within one kind of soil or within one soil layer.

The risk of corrosion is expressed as "low," "moderate," or "high."


111° 36' 23" W
111° 33' 54" W
443200
443800
444400
445000
445600
446200
446800
32° 38' 34" N
32° 35' 48" N
3611700
3611100
3610500
3609900
3609300
3608700
3608100
3607500
3606900
17
29
13
42
18
24
40
22
Map Scale: 1:25,000 if printed on A portrait (8.5" x 11") sheet.
N
0
350
700
1400
2100
Meters
0
1000
2000
4000
6000
Feet
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 12N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- High
- Moderate
- Low
- Not rated or not available

Soil Rating Lines
- High
- Moderate
- Low
- Not rated or not available

Soil Rating Points
- High
- Moderate
- Low
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

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Soil Survey Area: Pinal County, Arizona, Western Part
Survey Area Data: Version 20, Sep 8, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Feb 18, 2020—Mar 7, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Corrosion of Concrete

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
13	Dateland fine sandy loam	Low	257.3	12.3%
17	Denure fine sandy loam, 0 to 1 percent slopes	Low	235.1	11.2%
18	Denure clay loam, 0 to 1 percent slopes	Low	174.8	8.3%
22	Gilman clay loam	Moderate	8.8	0.4%
24	Glenbar clay loam, 0 to 2 percent slopes	Low	3.7	0.2%
29	Marana silty clay loam	Low	334.6	15.9%
40	Rositas loamy fine sand	Moderate	55.2	2.6%
42	Sasco silt loam	Low	1,030.5	49.1%
Totals for Area of Interest			**2,100.1**	**100.0%**

Rating Options—Corrosion of Concrete

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Corrosion of Steel

ENG

Engineering

AGR

Agronomy

"Risk of corrosion" pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens uncoated steel. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The steel in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than the steel in installations that are entirely within one kind of soil or within one soil layer.

The risk of corrosion is expressed as "low," "moderate," or "high."

Custom Soil Resource Report
Map—Corrosion of Steel



Map Scale: 1:25,000 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 350 700 1400 2100

Feet: 0 1000 2000 4000 6000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 12N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- High
- Moderate
- Low
- Not rated or not available

Soil Rating Lines
- High
- Moderate
- Low
- Not rated or not available

Soil Rating Points
- High
- Moderate
- Low
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Pinal County, Arizona, Western Part
Survey Area Data: Version 20, Sep 8, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Feb 18, 2020—Mar 7, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Corrosion of Steel

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
13	Dateland fine sandy loam	Moderate	257.3	12.3%
17	Denure fine sandy loam, 0 to 1 percent slopes	Moderate	235.1	11.2%
18	Denure clay loam, 0 to 1 percent slopes	Moderate	174.8	8.3%
22	Gilman clay loam	High	8.8	0.4%
24	Glenbar clay loam, 0 to 2 percent slopes	Moderate	3.7	0.2%
29	Marana silty clay loam	Moderate	334.6	15.9%
40	Rositas loamy fine sand	Moderate	55.2	2.6%
42	Sasco silt loam	Moderate	1,030.5	49.1%
Totals for Area of Interest			**2,100.1**	**100.0%**

Rating Options—Corrosion of Steel

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Land Management

Land management interpretations are tools designed to guide the user in evaluating existing conditions in planning and predicting the soil response to various land management practices, for a variety of land uses, including cropland, forestland, hayland, pastureland, horticulture, and rangeland. Example interpretations include suitability for a variety of irrigation practices, log landings, haul roads and major skid trails, equipment operability, site preparation, suitability for hand and mechanical planting, potential erosion hazard associated with various practices, and ratings for fencing and waterline installation.

Erosion Hazard (Off-Road, Off-Trail)

The ratings in this interpretation indicate the hazard of soil loss from off-road and off-trail areas after disturbance activities that expose the soil surface. The ratings are based on slope, soil erosion factor K, and an index of rainfall erosivity (R). The soil loss is caused by sheet or rill erosion in off-road or off-trail areas where 50 to 75 percent of the surface has been exposed by logging, grazing, mining, or other kinds of disturbance.

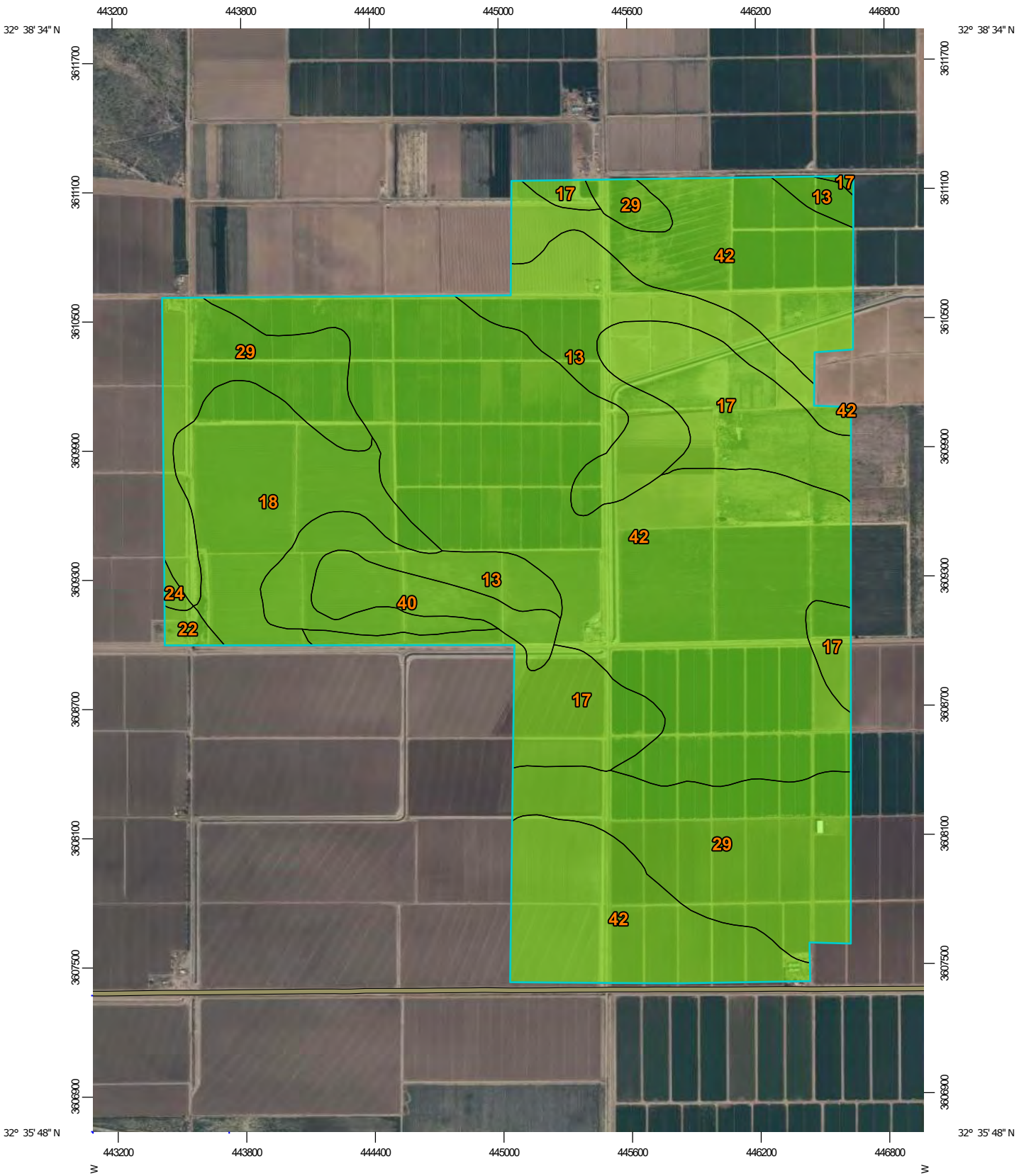
The ratings are both verbal and numerical. The hazard is described as "slight," "moderate," "severe," or "very severe." A rating of "slight" indicates that erosion is unlikely under ordinary climatic conditions; "moderate" indicates that some erosion is likely and that erosion-control measures may be needed; "severe" indicates that erosion is very likely and that erosion-control measures, including revegetation of bare areas, are advised; and "very severe" indicates that significant erosion is expected, loss of soil productivity and off-site damage are likely, and erosion-control measures are costly and generally impractical.

Numerical ratings indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the specified aspect of forestland management (1.00) and the point at which the soil feature is not a limitation (0.00).

The map unit components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as listed for the map unit. The percent composition of each component in a particular map unit is presented to help the user better understand the percentage of each map unit that has the rating presented.

Other components with different ratings may be present in each map unit. The ratings for all components, regardless of the map unit aggregated rating, can be viewed by generating the equivalent report from the Soil Reports tab in Web Soil Survey or from the Soil Data Mart site. Onsite investigation may be needed to validate these interpretations and to confirm the identity of the soil on a given site.

Custom Soil Resource Report
Map—Erosion Hazard (Off-Road, Off-Trail)



Map Scale: 1:25,000 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 350 700 1400 2100

Feet: 0 1000 2000 4000 6000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 12N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- Very severe
- Severe
- Moderate
- Slight
- Not rated or not available

Soil Rating Lines
- Very severe
- Severe
- Moderate
- Slight
- Not rated or not available

Soil Rating Points
- Very severe
- Severe
- Moderate
- Slight
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Pinal County, Arizona, Western Part
Survey Area Data: Version 20, Sep 8, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Feb 18, 2020—Mar 7, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Tables—Erosion Hazard (Off-Road, Off-Trail)

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
13	Dateland fine sandy loam	Slight	Dateland (90%)		257.3	12.3%
17	Denure fine sandy loam, 0 to 1 percent slopes	Slight	Denure (85%)		235.1	11.2%
18	Denure clay loam, 0 to 1 percent slopes	Slight	Denure (95%)		174.8	8.3%
22	Gilman clay loam	Slight	Gilman (95%)		8.8	0.4%
24	Glenbar clay loam, 0 to 2 percent slopes	Slight	Glenbar (85%)		3.7	0.2%
29	Marana silty clay loam	Slight	Marana (90%)		334.6	15.9%
40	Rositas loamy fine sand	Slight	Rositas (95%)		55.2	2.6%
42	Sasco silt loam	Slight	Sasco (85%)		1,030.5	49.1%
Totals for Area of Interest					**2,100.1**	**100.0%**

Rating	Acres in AOI	Percent of AOI
Slight	2,100.0	100.0%
Totals for Area of Interest	**2,100.1**	**100.0%**

Rating Options—Erosion Hazard (Off-Road, Off-Trail)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Erosion Hazard (Road, Trail)

FOR - Forestry

The ratings in this interpretation indicate the hazard of soil loss from unsurfaced roads and trails. The ratings are based on soil erosion factor K, slope, and content of rock fragments.

The ratings are both verbal and numerical. The hazard is described as "slight," "moderate," or "severe." A rating of "slight" indicates that little or no erosion is likely;

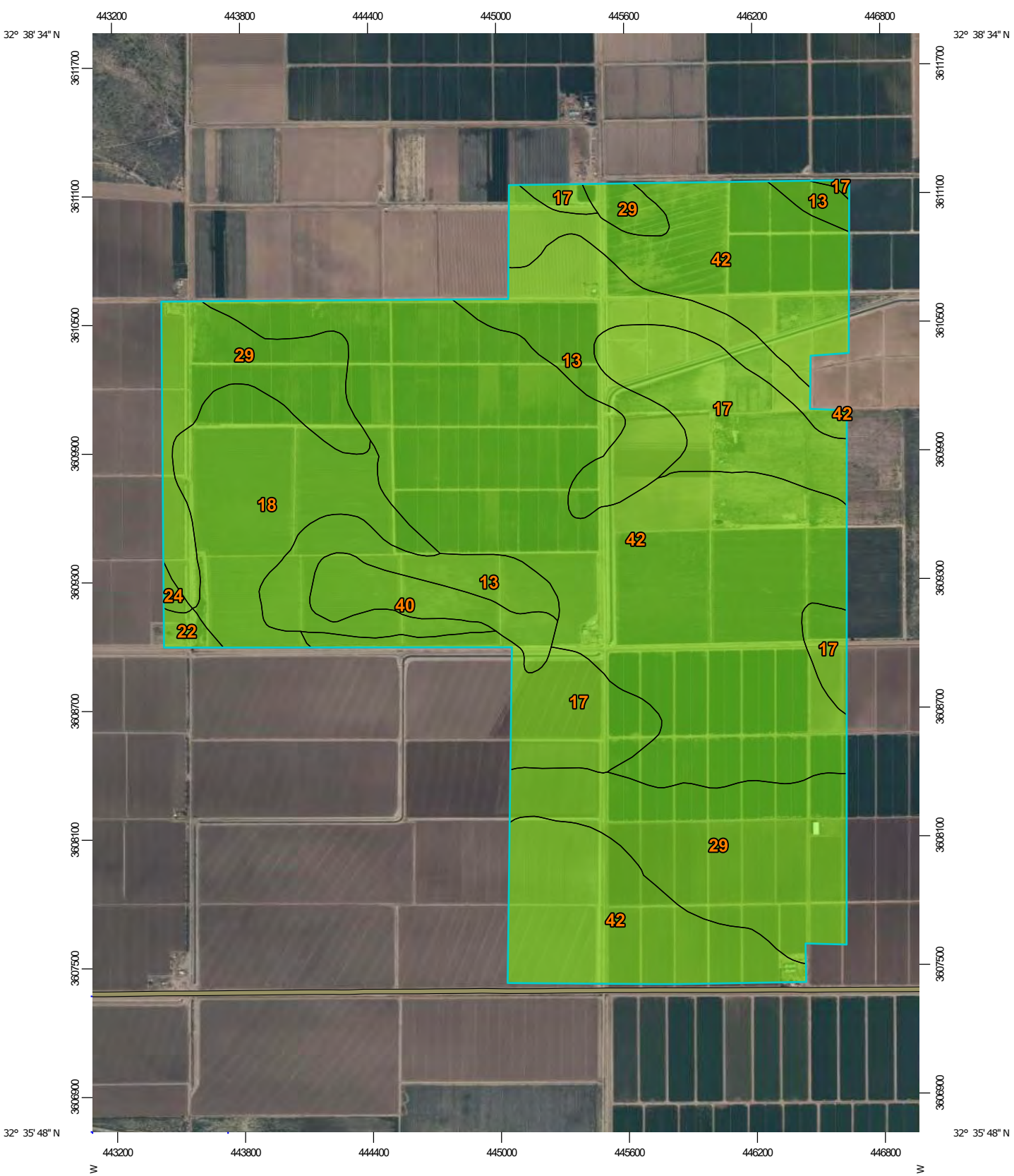
"moderate" indicates that some erosion is likely, that the roads or trails may require occasional maintenance, and that simple erosion-control measures are needed; and "severe" indicates that significant erosion is expected, that the roads or trails require frequent maintenance, and that costly erosion-control measures are needed.

Numerical ratings indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the specified aspect of forestland management (1.00) and the point at which the soil feature is not a limitation (0.00).

The map unit components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as listed for the map unit. The percent composition of each component in a particular map unit is presented to help the user better understand the percentage of each map unit that has the rating presented.

Other components with different ratings may be present in each map unit. The ratings for all components, regardless of the map unit aggregated rating, can be viewed by generating the equivalent report from the Soil Reports tab in Web Soil Survey or from the Soil Data Mart site. Onsite investigation may be needed to validate these interpretations and to confirm the identity of the soil on a given site.

Custom Soil Resource Report
Map—Erosion Hazard (Road, Trail)



Map Scale: 1:25,000 if printed on A portrait (8.5" x 11") sheet.

N

0 350 700 1400 2100 Meters

0 1000 2000 4000 6000 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 12N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- Very severe
- Severe
- Moderate
- Slight
- Not rated or not available

Soil Rating Lines
- Very severe
- Severe
- Moderate
- Slight
- Not rated or not available

Soil Rating Points
- Very severe
- Severe
- Moderate
- Slight
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Pinal County, Arizona, Western Part
Survey Area Data: Version 20, Sep 8, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Feb 18, 2020—Mar 7, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Tables—Erosion Hazard (Road, Trail)

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
13	Dateland fine sandy loam	Slight	Dateland (90%)		257.3	12.3%
17	Denure fine sandy loam, 0 to 1 percent slopes	Slight	Denure (85%)		235.1	11.2%
18	Denure clay loam, 0 to 1 percent slopes	Slight	Denure (95%)		174.8	8.3%
22	Gilman clay loam	Slight	Gilman (95%)		8.8	0.4%
24	Glenbar clay loam, 0 to 2 percent slopes	Slight	Glenbar (85%)		3.7	0.2%
29	Marana silty clay loam	Slight	Marana (90%)		334.6	15.9%
40	Rositas loamy fine sand	Slight	Rositas (95%)		55.2	2.6%
42	Sasco silt loam	Slight	Sasco (85%)		1,030.5	49.1%
Totals for Area of Interest					**2,100.1**	**100.0%**

Rating	Acres in AOI	Percent of AOI
Slight	2,100.0	100.0%
Totals for Area of Interest	**2,100.1**	**100.0%**

Rating Options—Erosion Hazard (Road, Trail)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

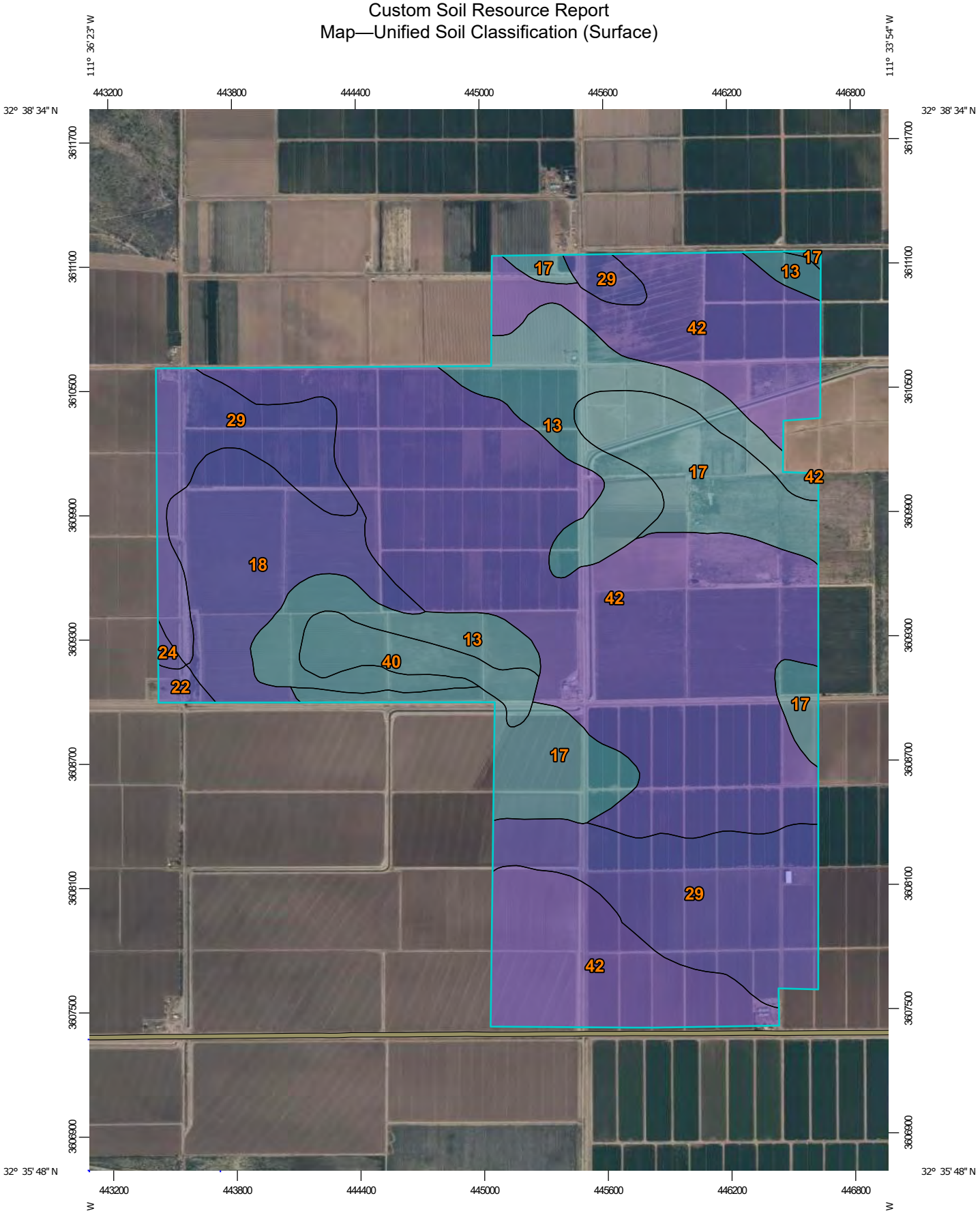
Unified Soil Classification (Surface)

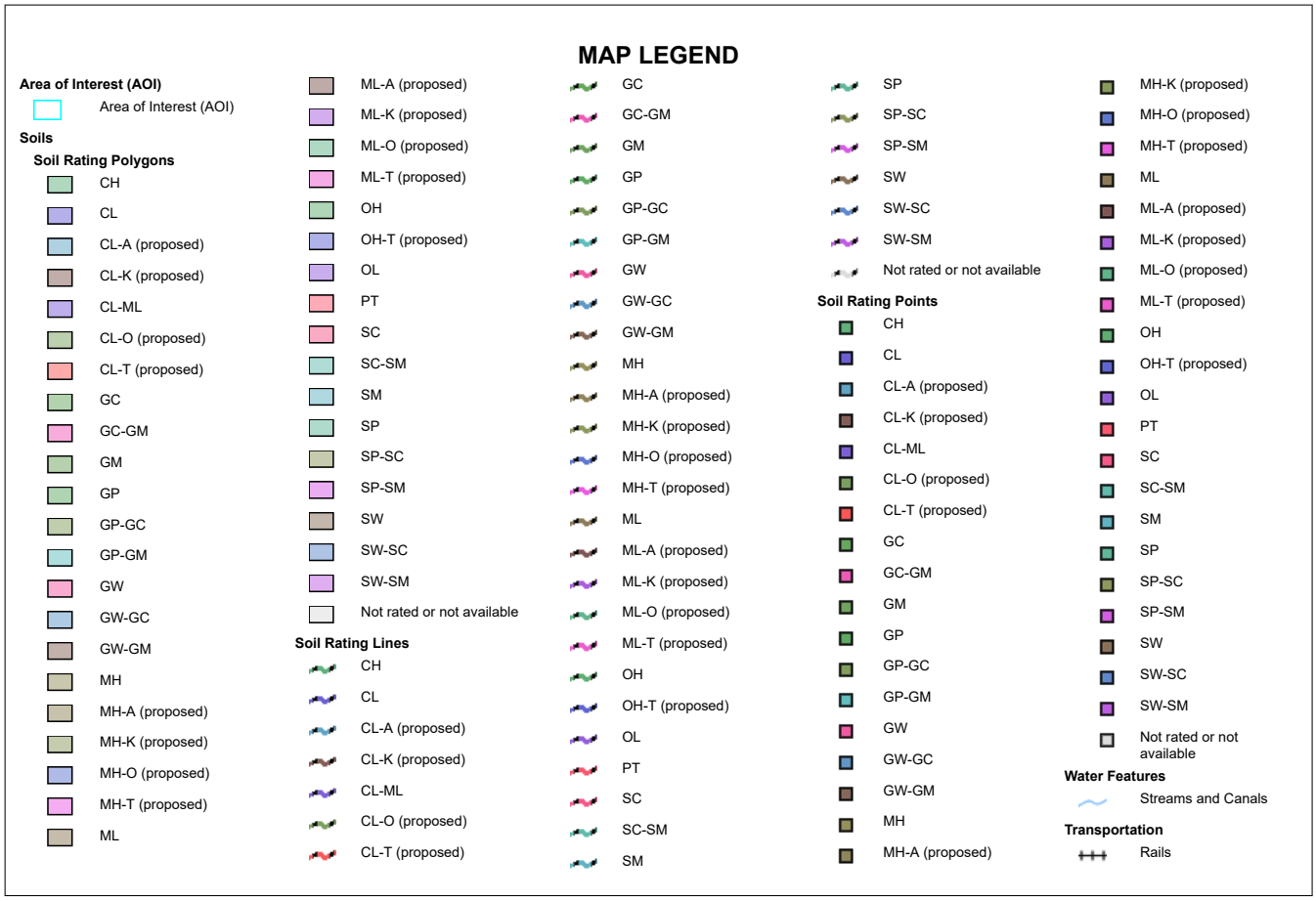
The Unified soil classification system classifies mineral and organic mineral soils for engineering purposes on the basis of particle-size characteristics, liquid limit, and plasticity index. It identifies three major soil divisions: (i) coarse-grained soils having less than 50 percent, by weight, particles smaller than 0.074 mm in diameter; (ii) fine-grained soils having 50 percent or more, by weight, particles smaller than 0.074 mm in diameter; and (iii) highly organic soils that demonstrate certain organic characteristics. These divisions are further subdivided into a total of 15 basic soil groups. The major soil divisions and basic soil groups are determined on the basis of estimated or measured values for grain-size distribution and Atterberg limits. ASTM D 2487 shows the criteria chart used for classifying soil in the Unified system and the 15 basic soil groups of the system and the plasticity chart for the Unified system.

The various groupings of this classification correlate in a general way with the engineering behavior of soils. This correlation provides a useful first step in any field or laboratory investigation for engineering purposes. It can serve to make some general interpretations relating to probable performance of the soil for engineering uses.

For each soil horizon in the database one or more Unified soil classifications may be listed. One is marked as the representative or most commonly occurring. The representative classification is shown here for the surface layer of the soil.

Map—Unified Soil Classification (Surface)




MAP LEGEND
Area of Interest (AOI)
Area of Interest (AOI)
Soils
Soil Rating Polygons
CH
CL
CL-A (proposed)
CL-K (proposed)
CL-ML
CL-O (proposed)
CL-T (proposed)
GC
GC-GM
GM
GP
GP-GC
GP-GM
GW
GW-GC
GW-GM
MH
MH-A (proposed)
MH-K (proposed)
MH-O (proposed)
MH-T (proposed)
ML
ML-A (proposed)
ML-K (proposed)
ML-O (proposed)
ML-T (proposed)
OH
OH-T (proposed)
OL
PT
SC
SC-SM
SM
SP
SP-SC
SP-SM
SW
SW-SC
SW-SM
Not rated or not available
Soil Rating Lines
CH
CL
CL-A (proposed)
CL-K (proposed)
CL-ML
CL-O (proposed)
CL-T (proposed)
GC
GC-GM
GM
GP
GP-GC
GP-GM
GW
GW-GC
GW-GM
MH
MH-A (proposed)
MH-K (proposed)
MH-O (proposed)
MH-T (proposed)
ML
ML-A (proposed)
ML-K (proposed)
ML-O (proposed)
ML-T (proposed)
OH
OH-T (proposed)
OL
PT
SC
SC-SM
SM
SP
SP-SC
SP-SM
SW
SW-SC
SW-SM
Not rated or not available
Soil Rating Points
CH
CL
CL-A (proposed)
CL-K (proposed)
CL-ML
CL-O (proposed)
CL-T (proposed)
GC
GC-GM
GM
GP
GP-GC
GP-GM
GW
GW-GC
GW-GM
MH
MH-A (proposed)
MH-K (proposed)
MH-O (proposed)
MH-T (proposed)
ML
ML-A (proposed)
ML-K (proposed)
ML-O (proposed)
ML-T (proposed)
OH
OH-T (proposed)
OL
PT
SC
SC-SM
SM
SP
SP-SC
SP-SM
SW
SW-SC
SW-SM
Not rated or not available
Water Features
Streams and Canals
Transportation
Rails

MAP INFORMATION

Interstate Highways

US Routes

Major Roads

Local Roads

Background


Aerial Photography

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Pinal County, Arizona, Western Part
Survey Area Data: Version 20, Sep 8, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Feb 18, 2020—Mar 7, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Unified Soil Classification (Surface)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
13	Dateland fine sandy loam	SM	257.3	12.3%
17	Denure fine sandy loam, 0 to 1 percent slopes	SM	235.1	11.2%
18	Denure clay loam, 0 to 1 percent slopes	CL	174.8	8.3%
22	Gilman clay loam	CL	8.8	0.4%
24	Glenbar clay loam, 0 to 2 percent slopes	CL	3.7	0.2%
29	Marana silty clay loam	CL	334.6	15.9%
40	Rositas loamy fine sand	SM	55.2	2.6%
42	Sasco silt loam	CL-ML	1,030.5	49.1%
Totals for Area of Interest			**2,100.1**	**100.0%**

Rating Options—Unified Soil Classification (Surface)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Layer Options (Horizon Aggregation Method): Surface Layer (Not applicable)

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Attachment I

Investigation Photo Log


ANS
GEO

Table 2-2a Runoff curve numbers for urban areas [1/]

Cover description: Cover type and hydrologic condition	Average percent impervious area [2/]	Curve numbers for hydrologic soil group: A	B	C	D
Fully developed urban areas (vegetation established)					
Open space (lawns, parks, golf courses, cemeteries, etc.) [3/]:					
Poor condition (grass cover < 50%)		68	79	86	89
Fair condition (grass cover 50% to 75%)		49	69	79	84
Good condition (grass cover > 75%)		39	61	74	80
Impervious areas:					
Paved parking lots, roofs, driveways, etc. (excluding right-of-way)		98	98	98	98
Streets and roads:					
Paved; curbs and storm sewers (excluding right-of-way)		98	98	98	98
Paved; open ditches (including right-of-way)		83	89	92	93
Gravel (including right-of-way)		76	85	89	91
Dirt (including right-of-way)		72	82	87	89
Western desert urban areas:					
Natural desert landscaping (pervious areas only) [4/]		63	77	85	88
Artificial desert landscaping (impervious weed barrier, desert shrub with 1- to 2-inch sand or gravel mulch and basin borders)		96	96	96	96
Urban districts:					
Commercial and business	85	89	92	94	95
Industrial	72	81	88	91	93
Residential districts by average lot size:					
1/8 acre or less (town houses)	65	77	85	90	92
1/4 acre	38	61	75	83	87
1/3 acre	30	57	72	81	86
1/2 acre	25	54	70	80	85
1 acre	20	51	68	79	84
2 acres	12	46	65	77	82
Developing urban areas					
Newly graded areas (pervious areas only, no vegetation) [5/]		77	86	91	94
Idle lands (CN's are determined using cover types similar to those in table 2-2c).					

[1] Average runoff condition, and $I_a = 0.2S$.

[2] The average percent impervious area shown was used to develop the composite CN's. Other assumptions are as follows: impervious areas are directly connected to the drainage system, impervious areas have a CN of 98, and pervious areas are considered equivalent to open space in good hydrologic condition. CN's for other combinations of conditions may be computed using figure 2-3 or 2-4.

[3] CN's shown are equivalent to those of pasture. Composite CN's may be computed for other combinations of open space cover type.

[4] Composite CN's for natural desert landscaping should be computed using figures 2-3 or 2-4 based on the impervious area percentage (CN = 98) and the pervious area CN. The pervious area CN's are assumed equivalent to desert shrub in poor hydrologic condition.

[5] Composite CN's to use for the design of temporary measures during grading and construction should be computed using figure 2-3 or 2-4 based on the degree of development (impervious area percentage) and the CN's for the newly graded pervious areas.

Table 2-2b Runoff curve numbers for cultivated agricultural lands [1/]

Cover description			Curve numbers for hydrologic soil group			
Cover type	Treatment [2/]	Hydrologic condition [3/]	A	B	C	D
Fallow	Bare soil	—	77	86	91	94
	Crop residue cover (CR)	Poor	76	85	90	93
		Good	74	83	88	90
Row crops	Straight row (SR)	Poor	72	81	88	91
		Good	67	78	85	89
	SR + CR	Poor	71	80	87	90
		Good	64	75	82	85
	Contoured (C)	Poor	70	79	84	88
		Good	65	75	82	86
	C + CR	Poor	69	78	83	87
		Good	64	74	81	85
	Contoured & terraced (C&T)	Poor	66	74	80	82
		Good	62	71	78	81
	C&T+ CR	Poor	65	73	79	81
		Good	61	70	77	80
Small grain	SR	Poor	65	76	84	88
		Good	63	75	83	87
	SR + CR	Poor	64	75	83	86
		Good	60	72	80	84
	C	Poor	63	74	82	85
		Good	61	73	81	84
	C + CR	Poor	62	73	81	84
		Good	60	72	80	83
	C&T	Poor	61	72	79	82
		Good	59	70	78	81
	C&T+ CR	Poor	60	71	78	81
		Good	58	69	77	80
Close-seeded or broadcast legumes or rotation meadow	SR	Poor	66	77	85	89
		Good	58	72	81	85
	C	Poor	64	75	83	85
		Good	55	69	78	83
	C&T	Poor	63	73	80	83
		Good	51	67	76	80

[1] Average runoff condition, and I_a=0.2S

[2] Crop residue cover applies only if residue is on at least 5% of the surface throughout the year.

[3] Hydraulic condition is based on combination factors that affect infiltration and runoff, including (a) density and canopy of vegetative areas, (b) amount of year-round cover, (c) amount of grass or close-seeded legumes, (d) percent of residue cover on the land surface (good ≥ 20%), and (e) degree of surface roughness.

Poor: Factors impair infiltration and tend to increase runoff.

Good: Factors encourage average and better than average infiltration and tend to decrease runoff.

Table 2-2c Runoff curve numbers for other agricultural lands [1/]

Cover description		Curve numbers for hydrologic soil group			
Cover type	Hydrologic condition	A	B	C	D
Pasture, grassland, or range—continuous forage for grazing. [2/]	Poor	68	79	86	89
	Fair	49	69	79	84
	Good	39	61	74	80
Meadow—continuous grass, protected from grazing and generally mowed for hay.	—	30	58	71	78
Brush—brush-weed-grass mixture with brush the major element. [3/]	Poor	48	67	77	83
	Fair	35	56	70	77
	Good	30 [4/]	48	65	73
Woods—grass combination (orchard or tree farm). [5/]	Poor	57	73	82	86
	Fair	43	65	76	82
	Good	32	58	72	79
Woods. [6/]	Poor	45	66	77	83
	Fair	36	60	73	79
	Good	30 [4/]	55	70	77
Farmsteads—buildings, lanes, driveways, and surrounding lots.	—	59	74	82	86

1 Average runoff condition, and $I_a = 0.2S$.

2 *Poor:* <50%) ground cover or heavily grazed with no mulch.
Fair: 50 to 75% ground cover and not heavily grazed.
Good: > 75% ground cover and lightly or only occasionally grazed.

3 *Poor*: <50% ground cover.
Fair: 50 to 75% ground cover.
Good: >75% ground cover.

4 Actual curve number is less than 30; use CN = 30 for runoff computations.

5 CN's shown were computed for areas with 50% woods and 50% grass (pasture) cover. Other combinations of conditions may be computed from the CN's for woods and pasture.

6 *Poor:* Forest litter, small trees, and brush are destroyed by heavy grazing or regular burning.
Fair: Woods are grazed but not burned, and some forest litter covers the soil.
Good: Woods are protected from grazing, and litter and brush adequately cover the soil.

Table 2-2d Runoff curve numbers for arid and semiarid rangelands [1/]

Cover description		Curve numbers for hydrologic soil group			
Cover type	Hydrologic condition [2/]	A [3/]	B	C	D
Herbaceous—mixture of grass, weeds, and low-growing brush, with brush the minor element.	Poor		80	87	93
	Fair		71	81	89
	Good		62	74	85
Oak-aspen—mountain brush mixture of oak brush, aspen, mountain mahogany, bitter brush, maple, and other brush.	Poor		66	74	79
	Fair		48	57	63
	Good		30	41	48
Pinyon-juniper—pinyon, juniper, or both; grass understory.	Poor		75	85	89
	Fair		58	73	80
	Good		41	61	71
Sagebrush with grass understory.	Poor		67	80	85
	Fair		51	63	70
	Good		35	47	55
Desert shrub—major plants include saltbush, greasewood, creosotebush, blackbrush, bursage, palo verde, mesquite, and cactus.	Poor	63	77	85	88
	Fair	55	72	81	86
	Good	49	68	79	84

1 Average runoff condition, and I_a, = 0.2S. For range in humid regions, use table 2-2c.
2 Poor: <30% ground cover (litter, grass, and brush overstory).
Fair: 30 to 70% ground cover.
Good: > 70% ground cover.
3 Curve numbers for group A have been developed only for desert shrub.

Figure 2-3 Composite CN with connected impervious area.

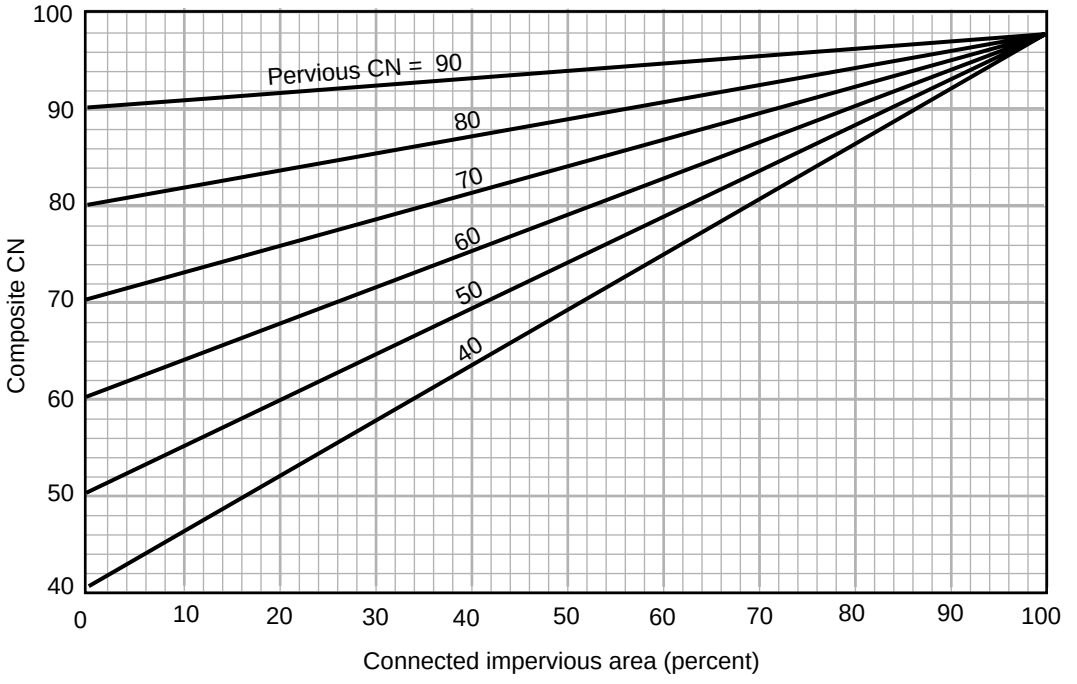
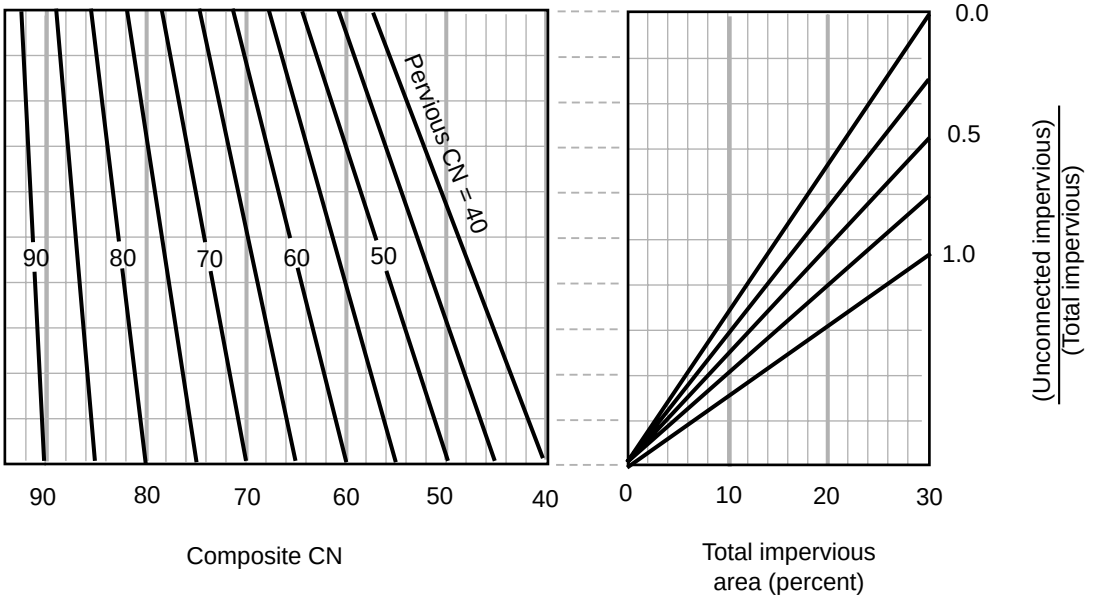


Figure 2-4 Composite CN with unconnected impervious areas and total impervious area less than 30%



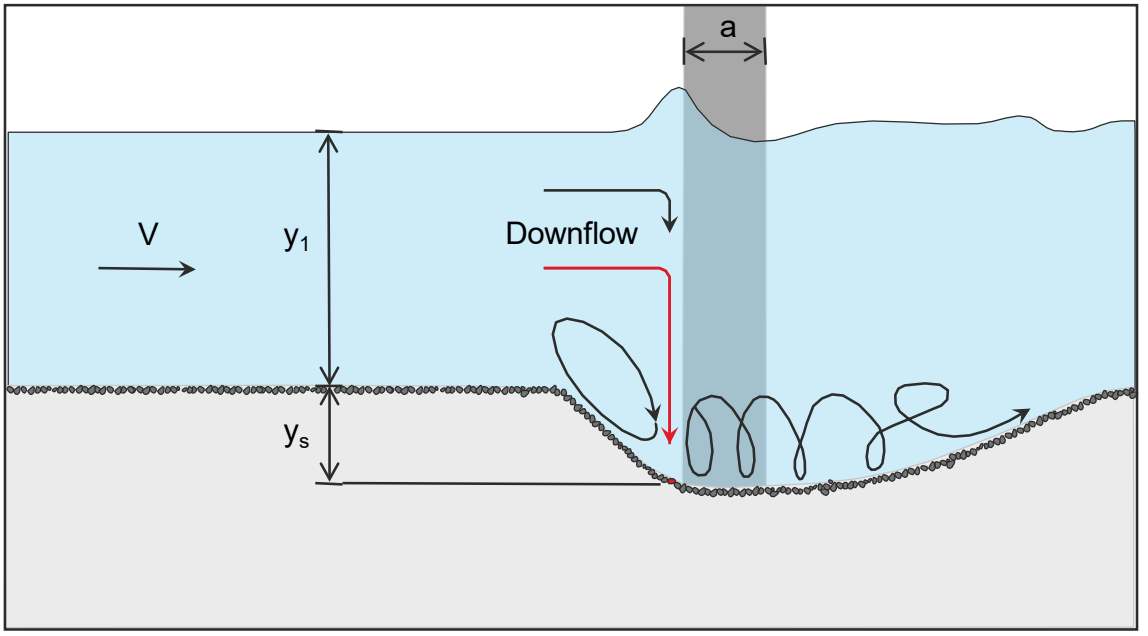


Figure 7.2. Definition sketch for pier scour.

The HEC-18 equation is:

$$\frac{y_s}{y_1} = 2.0\ K_1\ K_2\ K_3 \left(\frac{a}{y_1}\right)^{0.65} Fr_1^{0.43} \qquad (7.1)$$

As a Rule of Thumb, the maximum scour depth for round nose piers aligned with the flow is:

$y_s \leq 2.4$ times the pier width (a) for $Fr \leq 0.8$ (7.2)
$y_s \leq 3.0$ times the pier width (a) for $Fr > 0.8$

In terms of y_s/a, Equation 7.1 is:

$$\frac{y_s}{a} = 2.0\ K_1\ K_2\ K_3 \left(\frac{y_1}{a}\right)^{0.35} Fr_1^{0.43} \qquad (7.3)$$

where:

y_s = Scour depth, ft (m)
y_1 = Flow depth directly upstream of the pier, ft (m)
K_1 = Correction factor for pier nose shape from Figure 7.3 and Table 7.1
K_2 = Correction factor for angle of attack of flow from Table 7.2 or Equation 7.4
K_3 = Correction factor for bed condition from Table 7.3
a = Pier width, ft (m)
L = Length of pier, ft (m)
Fr_1 = Froude Number directly upstream of the pier = $V_1/(gy_1)^{1/2}$
V_1 = Mean velocity of flow directly upstream of the pier, ft/s (m/s)
g = Acceleration of gravity (32.2 ft/s^2) (9.81 m/s^2)

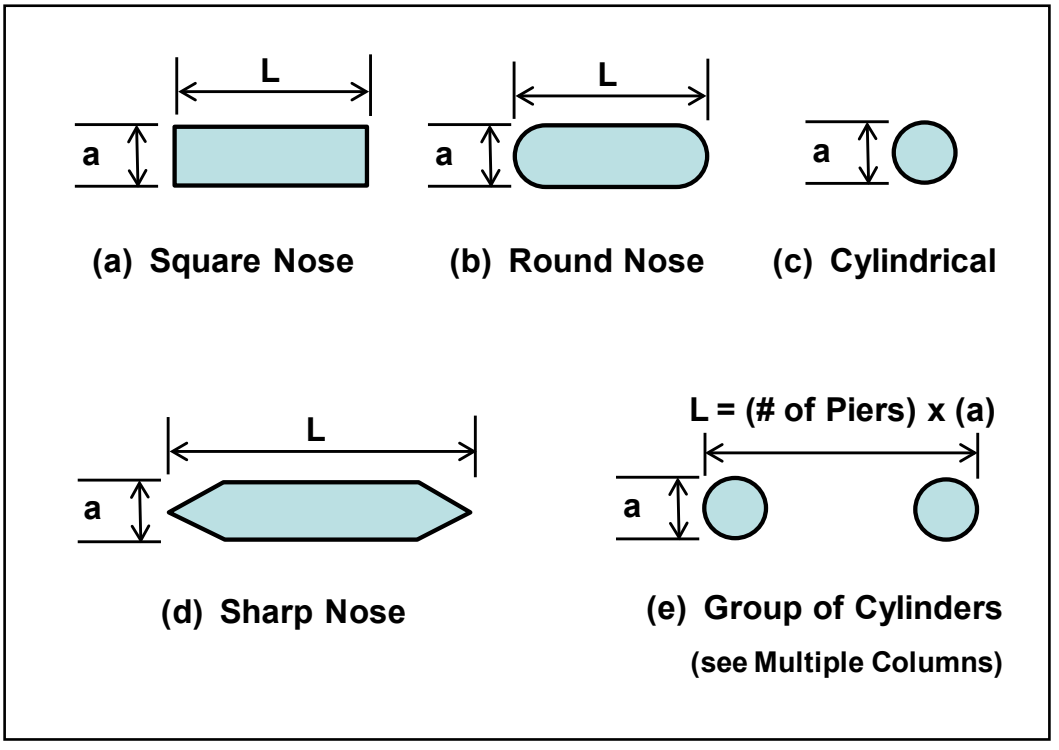


Figure 7.3. Common pier shapes.

The correction factor, K_2, for angle of attack of the flow, 2, is calculated using the following equation:

$$K_2 = (\text{Cos}\ \theta + \frac{L}{a}\ \text{Sin}\ \theta)^{0.65} \qquad (7.4)$$

If L/a is larger than 12, use L/a = 12 as a maximum in Equation 7.4 and Table 7.2. Table 7.2 illustrates the magnitude of the effect of the angle of attack on local pier scour.

Table 7.1. Correction Factor, K_1, for Pier Nose Shape.

Shape of Pier Nose	K_1
(a) Square nose	1.1
(b) Round nose	1.0
(c) Circular cylinder	1.0
(d) Group of cylinders	1.0
(e) Sharp nose	0.9

Table 7.2. Correction Factor, K_2, for Angle of Attack, 2, of the Flow.

Angle	L/a=4	L/a=8	L/a=12
0	1.0	1.0	1.0
15	1.5	2.0	2.5
30	2.0	2.75	3.5
45	2.3	3.3	4.3
90	2.5	3.9	5.0

Angle = skew angle of flow
L = length of pier

Table 7.3. Increase in Equilibrium Pier Scour Depths, K_3, for Bed Condition.		
Bed Condition	Dune Height ft	K_3
Clear-Water Scour	N/A	1.1
Plane bed and Antidune flow	N/A	1.1
Small Dunes	$10 > H \geq 2$	1.1
Medium Dunes	$30 > H \geq 10$	1.2 to 1.1
Large Dunes	$H \geq 30$	1.3

Notes:

1. The correction factor K_1 for pier nose shape should be determined using Table 7.1 for angles of attack up to 5 degrees. **For greater angles, K_2 dominates and K_1 should be considered as 1.0**. If L/a is larger than 12, use the values for L/a = 12 as a maximum in Table 7.2 and Equation 7.4.

2. The values of the correction factor K_2 should be applied only when the field conditions are such that the entire length of the pier is subjected to the angle of attack of the flow. Use of this factor will result in a significant over-prediction of scour if (1) a portion of the pier is shielded from the direct impingement of the flow by an abutment or another pier; or (2) an abutment or another pier redirects the flow in a direction parallel to the pier. For such cases, judgment must be exercised to reduce the value of the K_2 factor by selecting the effective length of the pier actually subjected to the angle of attack of the flow. **Equation 7.4 should be used for evaluation and design**. Table 7.2 is intended to illustrate the importance of angle of attack in pier scour computations and to establish a cutoff point for K_2 (i.e., a maximum value of 5.0).

3. The correction factor K_3 results from the fact that for plane-bed conditions, which is typical of most bridge sites for the flood frequencies employed in scour design, the maximum scour may be 10 percent greater than computed with Equation 7.1. In the **unusual** situation where a dune bed configuration **with large dunes** exists at a site during flood flow, the maximum pier scour may be 30 percent greater than the predicted equation value. This may occur on very large rivers, such as the Mississippi. For smaller streams that have a dune bed configuration at flood flow, the dunes will be smaller and the maximum scour may be only 10 to 20 percent larger than equilibrium scour. For antidune bed configuration the maximum scour depth may be 10 percent greater than the computed equilibrium pier scour depth.

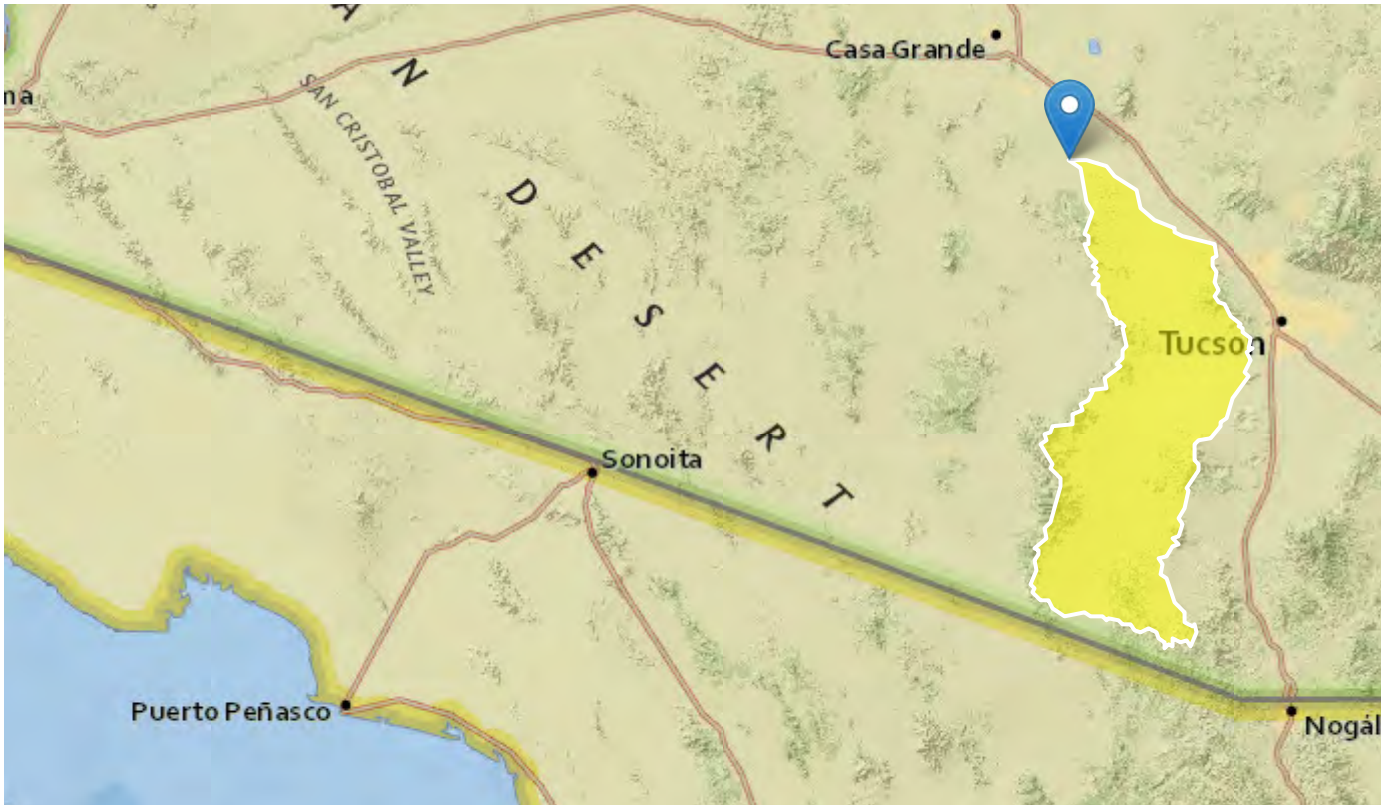
4. Piers set close to abutments (for example at the toe of a spill through abutment) must be carefully evaluated for the angle of attack and velocity of the flow coming around the abutment.

7.3 FLORIDA DOT PIER SCOUR METHODOLOGY

Equation 7.1 has been included in all previous versions of HEC-18 and has been used for bridge scour evaluations and bridge design for countless bridges in the U.S. and worldwide. This equation, which was developed and modified over several decades, could be improved by including bed material size and a more detailed consideration of the bridge pier flow field (see Section 3.6.2). An NCHRP study (NCHRP 2011a) evaluated 22 pier scour equations and found that although the HEC-18 equation did well in comparison to the other equations, the Sheppard and Miller (2006) equation generally performed better for both laboratory and

StreamStats Report

Region ID: AZ
Workspace ID: AZ20211104173111263000
Clicked Point (Latitude, Longitude): 32.58773, -111.55212
Time: 2021-11-04 10:31:41 -0700



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
CONTDA	Area that contributes flow to a point on a stream	1442.65	square miles
ELEV	Mean Basin Elevation	3102.098	feet
DRNAREA	Area that drains to a point on a stream	1442.65	square miles

Peak-Flow Statistics Parameters [100.0 Percent (1440 square miles) Peak Region 5 SE Basin Range 2014 5211]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
CONTDA	Contributing Drainage Area	1442.65	square miles	0.155	2925
ELEV	Mean Basin Elevation	3102.098	feet		

Peak-Flow Statistics Flow Report [100.0 Percent (1440 square miles) Peak Region 5 SE Basin Range 2014 5211]

PIl: Prediction Interval-Lower, PIu: Prediction Interval-Upper, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	PIl	PIu	ASEp
50-percent AEP flood	3370	ft^3/s	148	76500	86.6
20-percent AEP flood	8110	ft^3/s	1000	65700	61.5
10-percent AEP flood	12800	ft^3/s	2120	77200	52.4
4-percent AEP flood	20500	ft^3/s	4060	103000	45.8
2-percent AEP flood	27600	ft^3/s	5910	129000	43.5
1-percent AEP flood	35500	ft^3/s	7900	160000	42.6
0.5-percent AEP flood	45600	ft^3/s	9750	213000	42.4
0.2-percent AEP flood	60000	ft^3/s	12800	281000	43.2

Peak-Flow Statistics Citations

Paretti, N.V., Kennedy, J.R., Turney, L.A., and Veilleux, A.G.,2014, Methods for estimating magnitude and frequency of floods in Arizona, developed with unregulated and rural peak-flow data through water year 2010: U.S. Geological Survey Scientific Investigations Report 2014-5211, 61 p., http://dx.doi.org/10.3133/sir20145211. (http://pubs.usgs.gov/sir/2014/5211/)

Bankfull Statistics Parameters [Intermontane Plateau D Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	1442.65	square miles	3.62934	7579.9152

Bankfull Statistics Parameters [Basin and Range P Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	1442.65	square miles	3.949803	5008.971825

Bankfull Statistics Parameters [USA Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	1442.65	square miles	0.07722	59927.7393

Bankfull Statistics Flow Report [Intermontane Plateau D Bieger 2015]

Statistic	Value	Unit
Bieger_D_channel_width	111	ft
Bieger_D_channel_depth	3.44	ft
Bieger_D_channel_cross_sectional_area	363	ft^2

Bankfull Statistics Flow Report [Basin and Range P Bieger 2015]

Statistic	Value	Unit
Bieger_P_channel_width	123	ft
Bieger_P_channel_depth	3.13	ft
Bieger_P_channel_cross_sectional_area	368	ft^2

Bankfull Statistics Flow Report [USA Bieger 2015]

Statistic	Value	Unit
Bieger_USA_channel_width	160	ft
Bieger_USA_channel_depth	5.68	ft
Bieger_USA_channel_cross_sectional_area	868	ft^2

Bankfull Statistics Flow Report [Area-Averaged]

Statistic	Value	Unit
Bieger_D_channel_width	111	ft
Bieger_D_channel_depth	3.44	ft
Bieger_D_channel_cross_sectional_area	363	ft^2
Bieger_P_channel_width	123	ft
Bieger_P_channel_depth	3.13	ft
Bieger_P_channel_cross_sectional_area	368	ft^2
Bieger_USA_channel_width	160	ft
Bieger_USA_channel_depth	5.68	ft
Bieger_USA_channel_cross_sectional_area	868	ft^2

Bankfull Statistics Citations

Bieger, Katrin; Rathjens, Hendrik; Allen, Peter M.; and Arnold, Jeffrey G.,2015, Development and Evaluation of Bankfull Hydraulic Geometry Relationships for the Physiographic Regions of the United States, Publications from USDA-ARS / UNL Faculty, 17p. (https://digitalcommons.unl.edu/usdaarsfacpub/1515?utm_source=digitalcommons.unl.edu%2Fusdaarsfacpub%2F1515&utm_medium=PDF&utm_can

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Application Version: 4.6.2
StreamStats Services Version: 1.2.22
NSS Services Version: 2.1.2

Leo Lew
County Manager

PINAL COUNTY
WIDE OPEN OPPORTUNITY

Mary Ellen Sheppard
Deputy County Manager

Himanshu Patel
Deputy County Manager

Open Space, Trails & Regional Parks Department
Development Review Comment Letter

Project Name: Cactus Flower Solar, LLC
Case Number: PZ-PA-007-24
Reviewed By: Kelley Fox, Urban Wildlife Planner
Review Type: Major Comprehensive Plan Amendment Application
08/01/2024

Comment #	RESPOND TO ALL COMMENTS
1	Canal and irrigation systems have been shown to provide movement corridors and habitat for wildlife. A 50ft buffer around canal/irrigation districts and wildlife friendly fencing is recommended to be incorporated into the project development plan.
2	Noxious weeds, such as *Oncosiphon piluliferum,* have become increasingly problematic in areas of development/ large projects where vegetation management plans are not created or maintained. Due to the increasing threat noxious weeds, have on the Sonoran desert and Pinal County landscape it is recommended that the applicant incorporate invasive species/noxious weed management plans for development. Information regarding noxious weeds and the state legislation associated with them can be found on the Arizona Department of Agriculture's website.
3	Incorporating current guidelines (and any updated publications) for Solar development within Arizona provided by Arizona Game and Fish Department is highly recommended. These guidelines can be found at https://s3.amazonaws.com/azgfd-portal-wordpress/PortalImages/files/wildlife/planningFor/wildlifeFriendlyGuidelines/FinalSolarGuidelines03122010.pdf
4	Review AZGFD fencing guidelines which are in consonance with Pinal County expectations below: https://s3.amazonaws.com/azgfd-portal-wordpress/PortalImages/files/wildlife/planningFor/wildlifeFriendlyGuidelines/110125_AGFD_fencing_guidelines.pdf
5	Any clarifications regarding these comments or recommended guidelines can be directed towards Kelley Fox via email Kelley.fox@pinal.gov or via phone at 520-866-6661

Project Name: Cactus Flower
Case Number: PZ-PA-007-24
Reviewed By: Arizona Game and Fish Department
Major Comprehensive Plan Amendment 60 day agency review

	Comments
General	The Department would like to work closely with Pinal County and project proponents throughout the preliminary area evaluation, site characterization and design, construction, operation, and decommissioning of the facility. Project proponents should refer to the Solar Communications Framework for a guide on how to maintain effective communication with the Department throughout the life of a solar project.
General	Although each of these projects individually may have a minimal impact on the broader landscape, these projects cumulatively could result in loss of habitat, impact wildlife movements, and affect wildlife-related recreation. Additionally, long-term effects to wildlife can extend several kilometers beyond the footprint of a solar project area (Sawyer et al. 20221).
Genera;	Department also encourages consideration and incorporation of setbacks and design recommendations from the Pinal County Open Space, Parks and Trails Plan (Pinal 2007), Pinal County Open Space and Recreation Area Guideline Manual (2012), Pinal County Floodplain Management Ordinance (2019), and lighting ordinances to be consistent with the vision of Pinal County.
	The Department offers the following recommendations to reduce potential impacts to wildlife and habitat for all proposed projects:
General	The Department recommends conducting surveys in the project areas to determine species presence. These surveys should be of sufficient duration and intensity to adequately assess all habitat types and potential wildlife species occurrence in and adjacent to the project area. Department staff are available to assist project proponents in determining appropriate surveys to conduct and design features and best management practices that can help minimize potential
Wildlife	The Sonoran pronghorn, listed as endangered under the Endangered Species Act, could occur in the project area and adjacent lands for Cactus Flower Solar. Sonoran pronghorn have specific habitat requirements based on their life history and survival strategy. The Department would like to work with the project proponent to minimize any potential impacts to this species. The Department recommends scheduling construction activities outside the fawning season for Sonoran pronghorn (February 1 to July 15) and requests coordination prior to construction activities in order to exchange information on current Sonoran pronghorn use in the project area. If pronghorn are

	detected during project activities, please notify the U.S. Fish and Wildlife Service (USFWS) and the Department's Sonoran Pronghorn Program Lead (rgardner@azgfd.gov) as soon as possible.
	Suitable habitat for the western burrowing owl, a special status species that is regulated under the Migratory Bird Treaty Act (MBTA), is present within or adjacent to the project area for Cactus Flower Solar. The Department recommends conducting occupancy surveys for this species in advance of the design phase to understand distribution of burrowing owls in the project site; avoidance of a large burrowing owl population may be advisable over removal or other conservation measures. Guidelines for conducting this survey are found in *Burrowing Owl Project Clearance Guidance for Landowners*. Please note that the survey should be conducted by a surveyor who is certified by the Department or has similar training and qualifications. If an active burrowing owl burrow is detected, please contact the Department and the USFWS for direction, in accordance with the guidelines.
Wildlife	The Department recommends conducting surveys for nesting birds prior to vegetation removal and/or construction activities that occur during the breeding season. The vegetation within the project area may provide nesting opportunities for avian species that are regulated under the Migratory Bird Treaty Act (MBTA). If it is anticipated the project will not be in compliance with MBTA, the Department recommends contacting the USFWS for technical assistance.
Wildlife	Burrowing mammals could occur within the project area and could be influenced by construction activities and by loss of habitat. Surveys for these species are recommended to determine their presence and to inform pre-construction activities. Department staff are available to assist in identifying suitable conservation measures, such as one-way exclosures on burrows that allow wildlife to exit the burrows and disperse to adjacent lands in advance of construction.
Site Plan	The Department recommends incorporating open unfenced corridors across the project area into the project design to facilitate wildlife movement, including within upland habitats as well as maintaining the ephemeral washes that occur in the project area in their natural state without fencing or other barriers to wildlife movement. These washes serve multiple functions in the ecosystem, including landscape-level conveyance corridors for wildlife movement.
Site Plan	For all projects, the Department recommends conducting minimal grading in the project area. For solar projects, it is recommended that to the extent possible habitat features are retained underneath solar panels, including vegetation and soils. The topography in the majority of the project sites is flat

	and would require minimal trimming of shrubs and existing vegetation to install the panels. Keeping the existing soil and root structures intact would serve to minimize erosional run-off and help reduce biodiversity loss within the site (Grodsky and Hernandez 20208).
Site Plan	The Department's Wildlife Compatible Fencing Guidelines provide information on how fencing impacts wildlife, ways to design fencing to prevent wildlife entanglement and impalement, and to ensure wildlife movement is not restricted. Department personnel are available as resources to help determine appropriate fencing design and layout that will achieve its objective while reducing impact on wildlife, such as leaving a 6–8-inch gap between the ground surface and bottom of the fence to allow for smaller wildlife species to move freely through the area and make use of any habitat within the project boundary.
Site Plan	The Department recommends designing power lines and substations to be bird safe by following standards established by the Avian Power Line Interaction Committee (APLIC) for new power lines, which can be found in *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006*[12] and *Reduced Avian Collisions with Power Lines: The State of the Art in 2012*[13]. Birds of prey, such as raptors, owls, vultures, and eagles, are vulnerable to powerline strikes and electrocution during construction and operation of transmission lines and substations; power poles can also serve as perches for birds of prey. Tuk Jacobson, the Department's Raptor Coordinator, can provide further information on specific design features and best management practices; he can be contacted at raptors@azgfd.gov or 623-236-7575.
Vegetation	Please ensure the Project complies with Arizona Native Plant Law regulations. A Native Plant Inventory may also be needed to be conducted to identify, record, and coordinate plant salvage efforts for species that are Protected under the Arizona Native Plant Law.
Vegetation	To minimize the potential introduction or spread of exotic invasive species, including aquatic and terrestrial plants, animals, insects, and pathogens, the Department encourages taking precautions to wash and/or decontaminate equipment before entering and leaving the site. See the Arizona Department of Agriculture website for a list of prohibited and restricted noxious weeds and the Arizona Native Plant Society for recommendations on how to control them. To view a list of documented invasive species or to report invasive species in or near the Project area, visit iMapInvasives, which is a national cloud-based application for tracking and managing invasive species.
Vegetation	The Department recommends revegetating disturbed areas with native drought-tolerant species that represent the natural surrounding landscape. Landscaping with native plants can help support wildlife and pollinator species

	in the area while reducing dust and erosion. In addition, the applicable land management agencies should be consulted regarding guidelines for revegetation efforts.
Conservation	Additionally, maximizing the spacing between solar panels can reduce the appearance of the array as a body of water. The Department would like to emphasize the recommendation that a qualified biologist survey for bird species within the project area to better understand potential impacts from this project. It is also encouraged that the developer implements post-construction monitoring for avian injuries and fatalities.
Conservation	Recommendations for monitoring design and frequency can be found in the U.S. Geological Survey's 2016 Mortality Monitoring Design for Utility-Scale Solar Power Facilities. Any avian injuries or fatalities should be reported both to the Department and by using the USFWS Injury and Mortality Reporting website. Department staff are available to assist in developing the monitoring protocol and to further refine the monitoring and reporting recommendations in order to develop feasible and repeatable protocols to be implemented during operations. The Department is also available to help determine adaptive management measures based on results of the post-construction monitoring. For example, the U.S. Geological Survey has been conducting research that indicates birds are most attracted to solar arrays around midday, and tilting of panels during key times of strikes could reduce bird attraction.
Decommission	The decommissioning plan should include management of invasive species, revegetation with a weed free native seed mix that is commensurate with the surrounding area. The plan should also include fencing removal with other recycling components.
	Guidelines for Solar development within Arizona provided by Arizona Game and Fish Department can be found at in Guidelines for Solar Development in Arizona

DEPARTMENT OF THE AIR FORCE
AIR EDUCATION AND TRAINING COMMAND

21 August 2024

Mr. Christopher P. Toale
Director, Community Initiatives Team
56th Fighter Wing
14185 W. Falcon Street
Luke AFB AZ 85309-1629

Mr. Kendall Riley
Pinal County Development Services
85 N. Florence St.
Florence, AZ 85132

Re: PZ-PA-007-24; Cactus Flower Solar

Dear Mr. Riley

Thank you for allowing Luke AFB to comment on the Cactus Flower Solar project which proposes to re-designate 2,148± acres from Residential to Green Energy Production for a photovoltaic Solar Power Plant. The site is located 8 miles south of Eloy and approximately 7 miles south of I-10 in the unincorporated area of Pinal County, AZ.

A portion of this project is located underneath a low-level military training route (VR241); therefore, Luke AFB requests the project be submitted for an informal review through the DoD Siting Clearinghouse for Energy, Installations, and Environment by sending the project narrative, to include coordinates and heights of transmission towers, for review to: osd.dod-siting-clearinghouse@mail.mil. Our determination of no impact is conditional upon their review/inputs.

If you have any questions, please contact Mr. Mark James at (623) 856-6175.

Sincerely

CHRISTOPHER P. TOALE

cc:
Colonel Matthew Johnston, Deputy Commander, 56th Fighter Wing
Ms. Demetria Themistocles, GS-13, General Law Attorney, 56th Fighter Wing

NOTICE OF PUBLIC HEARING BY THE PINAL COUNTY CITIZENS ADVISORY COMMITTEE AT 6:00 P.M. ON THE **5TH** DAY OF **SEPTEMBER 2024**, AT THE IRONWOOD ROOM, (HISTORIC COURT HOUSE) 135 NORTH PINAL STREET, FLORENCE, ARIZONA 85132, TO CONSIDER AN APPLICATION FOR **MAJOR COMPREHENSIVE PLAN AMENDMENT** TO THE PINAL COUNTY COMPREHENSIVE PLAN.

PZ-PA-007-24 – PUBLIC HEARING/ACTION: Cypress Creek Renewables, LLC, applicant/agent, Heather Wise, requesting a Major Comprehensive Plan Amendment to amend the Land Use Plan and re-designate 2,148.94± acres of land from Very Low Density Residential (VLDR, 0-1 du/ac) and Moderate Low Density Residential (MLDR, 1-3.5 du/ac) to Green Energy Production for a utility scale photovoltaic Solar Power Plant, situated on a portions of sections 13, 23, 24, and 25, T09S, R07E of the Gila and Salt River Base and Meridian (legal on file) tax parcels: 408-11-025B, 408-11-025C, 408-11-025D,408-11-024A, 408-11-024C, 408-11-0230, 408-15-0020, 408-15-0010, 408-12-0020, 408-12-0030 located eight miles south of Eloy and approximately seven miles south of interstate 10 within the unincorporated area of Pinal County.

ALL PERSONS INTERESTED IN THIS MATTER MAY APPEAR AND SPEAK AT THE PUBLIC HEARING AT THE DATE, TIME, AND PLACE DESIGNATED ABOVE.

DOCUMENTS PERTAINING TO THIS CASE CAN BE FOUND ON THE NOTICE OF HEARING PAGE FOR THE P&Z COMMISSION AT:
https://www.pinal.gov/236/Notice-of-Hearings

DATED THIS **5th** DAY OF **AUGUST 2024**, by Pinal County Community Development Department.

TO QUALIFY FOR FURTHER NOTIFICATION IN THIS LAND USE MATTER YOU MUST FILE WITH THE PLANNING DEPARTMENT A WRITTEN STATEMENT OF SUPPORT OR OPPOSITION TO THE SUBJECT APPLICATION. YOUR STATEMENT **MUST** CONTAIN THE FOLLOWING INFORMATION:

1) Planning Case Number (see above)
2) Your name, address, telephone number and property tax parcel number **(Print or type)**
3) A brief statement of reasons for supporting or opposing the request
4) Whether or not you wish to appear and be heard at the hearing

WRITTEN STATEMENTS MUST BE FILED WITH:
PINAL COUNTY DEVELOPMENT SERVICES DEPARTMENT
85 N. FLORENCE STREET, PO BOX 749.
FLORENCE, AZ 85132

Contact for this matter: Sangeeta Deokar, Senior Planner
E-mail address: Sangeeta.deokar@pinal.gov
Phone # (520) 866-6641

[*Anything below this line is not for publication*.]

TO BE PUBLISHED:
Pinal Central Dispatch
Arizona Republic

Pinal Central Dispatch

AFFIDAVIT OF PUBLICATION

State of Texas, County of Bexar, ss:

Hayden Lipsky, being first duly sworn, deposes and says: That (s)he is a duly authorized signatory of Column Software, PBC, duly authorized agent of Pinal Central Dispatch, a newspaper published at Casa Grande, Pinal County, Arizona,Thursday of each week; that a notice, a full, true and complete printed copy of which is hereunto attached, was printed in the regular edition of said newspaper, and not in a supplement thereto, for 1 issues. The publications thereof having been on the following dates:

PUBLICATION DATES:
Aug. 15, 2024

NOTICE ID: ItCg8YnmUEimhAtYr09u
NOTICE NAME: PZ-PA-007-24

(Signed) Hayden Lipsky

VERIFICATION

State of Texas
County of Bexar

NOTARY PUBLIC STATE OF TEXAS
Robert Hollie III
ID NUMBER
133582194
COMMISSION EXPIRES
February 10, 2026

Subscribed in my presence and sworn to before me on this: 08/16/2024

Notary Public
Electronically signed and notarized online using the Proof platform.

NOTICE OF PUBLIC HEARING BY THE PINAL COUNTY CITIZENS ADVISORY COMMITTEE AT 6:00 P.M. ON THE 5TH DAY OF SEPTEMBER 2024, AT THE IRONWOOD ROOM, (HISTORIC COURT HOUSE) 135 NORTH PINAL STREET, FLORENCE, ARIZONA 85132, TO CONSIDER AN APPLICATION FOR MAJOR COMPREHENSIVE PLAN AMENDMENT TO THE PINAL COUNTY COMPREHENSIVE PLAN.

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4) Whether or not you wish to appear and be heard at the hearing

WRITTEN STATEMENTS MUST BE FILED WITH:
PINAL COUNTY DEVELOPMENT SERVICES DEPARTMENT
85 N. FLORENCE STREET, PO BOX 749.
FLORENCE, AZ 85132
Contact for this matter: Sangeeta Deokar, Senior Planner

E-mail address: Sangeeta.deokar@pinal.gov
Phone # (520) 866-6641
No. of publications: 1: date of publication: Aug 15, 2024

LocaliQ
Arizona
GANNETT

PO Box 632099, Cincinnati, OH 45263-2099

AFFIDAVIT OF PUBLICATION

Meaghan Austin
Swca Environmental Consultants
1645 S Plaza WAY
Flagstaff AZ 86001-7102

STATE OF WISCONSIN, COUNTY OF BROWN

The Arizona Republic, a newspaper published in the city of Phoenix and general circulation in the counties of Maricopa, Coconino, Pima and Pinal, State of Arizona, and personal knowledge of the facts herein state and that the notice hereto annexed was Published in said newspapers in the issue:

08/10/2024

and that the fees charged are legal.
Sworn to and subscribed before on 08/10/2024

Legal Clerk

Notary, State of WI, County of Brown

2.1428

My commission expires

Publication Cost:	$1643.00	
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THIS IS NOT AN INVOICE!

Please do not use this form for payment remittance.

KEEGAN MORAN
Notary Public
State of Wisconsin

NOTICE OF PUBLIC HEARING BY THE PINAL COUNTY CITIZENS ADVISORY COMMITTEE AT 6:00 P.M. ON THE 5TH DAY OF SEPTEMBER 2024, AT THE IRONWOOD ROOM, (HISTORIC COURT HOUSE) 135 NORTH PINAL STREET, FLORENCE, ARIZONA 85132, TO CONSIDER AN APPLICATION FOR MAJOR COMPREHENSIVE PLAN AMENDMENT TO THE PINAL COUNTY COMPREHENSIVE PLAN.
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3) A brief statement of reasons for supporting or opposing the request
4) Whether or not you wish to appear and be heard at the hearing
WRITTEN STATEMENTS MUST BE FILED WITH:
PINAL COUNTY DEVELOPMENT SERVICES DEPARTMENT
85 N. FLORENCE STREET, PO BOX 749.
FLORENCE, AZ 85132
Contact for this matter:
Sangeeta Deokar, Senior Planner
E-mail address:
Sangeeta.deokar@pinal.gov
Phone # (520) 866-6641
Pub: Aug 10, 2024

AFFIDAVIT OF POSTING OF BROADCAST SIGN

I, _____, Applicant for case PZ-PA-007-24 (Case number), personally caused 34 sign(s) to be posted in a visible place on or near the proposed project site on Tommy Blassingame (Date), at least 28 days before the Planning and Zoning Commission Public Hearing, regarding the proposed Green Energy Solar (Type of application), in unincorporated Pinal County

The notice was posted as indicated on the attached map and photograph.

T Blassingame
Applicant

Notary Public State of Arizona
Maricopa County
Dorena Marie Mello
My Commission Expires 05/28/2025
Commission Number 604187

STATE OF ARIZONA)
) ss:
COUNTY OF PINAL)

Subscribed and sworn to me by Tommy Blassingame this 14 day of August, 2024.

Dorena Mello
Notary Public

My Commission Expires: 05/28/2025

AFFIDAVIT OF MAILING OF PUBLIC NOTICES

I, FedEx Corporation, on behalf of Applicant for case PZ-PA-007-24 (Case number), personally caused thirteen public notices to be mailed to landowners on or near the proposed project site on 08/19/2024 (Date), at least 15 days before the Citizen Advisory Committee Public Hearing, regarding the proposed Major Comprehensive Plan Amendment (Type of application), in unincorporated Pinal County.

The notice was mailed to landowners as indicated in the attached mailing list.

Aaron Freeman

FedEx Corporation Rep.

STATE OF ~~ARIZONA~~ Washington)

COUNTY OF ~~PINAL~~ Whatcom) ss:

Subscribed and sworn to me by Aaron D Freeman this 20 day of August, 20 24.

Notary Public

My Commission Expires: 04-24-28

NICKOLAS T. ELKE
License 20104407
NOTARY PUBLIC
Expires 04-24-28
STATE OF WASHINGTON

Parcel	Name	Address	City	State	Zip Code
408170020	TRICO ELECTRIC CORP	PO BOX 930	MARANA	AZ	85653
40817001A	VALENTIC WILLIAM	PO BOX 2966	CHANDLER	AZ	85244
40811024D	USA	12155 WEST ALAMEDA PARKWAY	LAKEWOOD	CO	80228
40811025C, 40811025D, 40811024C, 40811025B, 40811024A	CURTIS 1035 LLC	PO BOX 1969	QUEEN CREEK	AZ	85142
40811026A, 40811027B, 40811026B, 40816001A	LOCOMOTIVE FARMS LLC	2100 MCKINNEY AVE STE 1500	DALLAS	TX	75201
408150020, 408110230	GORDITA L P C/O ANIMAL NUTRITION SYSTEMS	571 N 54TH ST	CHANDLER	AZ	85226
408150010	STAMBAUGH FARMS LLC	27830 S 11 MILE CORNER RD	ELOY	AZ	85131
411320120	WALKER PLOW LTD PSHIP LLP	PO BOX 1652	HIGLEY	AZ	85236
408120020, 408120030	TOONE FAMILY LTD PSHIP #3	817 N YORK CIR	MESA	AZ	85213
40811012A	BARNES HARVESTING LLC	3095 S TREKELL RD	CASA GRANDE	AZ	85193
408130030	JOHN M FOSTER TURF OF ARIZONA LLC	PO BOX 4563	PALM DESERT	CA	92261
408120010, 411320110	WALKER PLOW LTD PSHIP LLP	PO BOX 1652	HIGLEY	AZ	85236
41135001D	DONLEY JOHN PATRICK & MELINDA REV TRUST	10475 W QUARTZ DR	CASA GRANDE	AZ	85193

Meter Report

FedEx Store #2306 – Cactus Flower DM

Date	QTY	Description	Rate	Postage
8/16/24	13	5.5" x 8.5" Postcard	$0.73 ea.	1st Class Letter

Pinal Central Dispatch

AFFIDAVIT OF PUBLICATION

State of New Jersey, County of Hudson, ss:

Bailee Liston, being first duly sworn, deposes and says: That (s)he is a duly authorized signatory of Column Software, PBC, duly authorized agent of Pinal Central Dispatch, a newspaper published at Casa Grande, Pinal County, Arizona,Thursday of each week; that a notice, a full, true and complete printed copy of which is hereunto attached, was printed in the regular edition of said newspaper, and not in a supplement thereto, for 1 issues. The publications thereof having been on the following dates:

PUBLICATION DATES:
Sep. 5, 2024

NOTICE ID: iuclLqeGmkVcxABi8QDI
NOTICE NAME: PZ-PA-007-24 Cypress Creek

Bailee Liston

(Signed)_____

SHANNEA H HOLMES
NOTARY PUBLIC
STATE OF NEW JERSEY
My Commission Expires August 1, 2026

VERIFICATION

State of New Jersey
County of Hudson

Subscribed in my presence and sworn to before me on this: 09/06/2024

Shannea H. Holmes

Notary Public
Notarized remotely online using communication technology via Proof.

NOTICE OF PUBLIC HEARING BY THE PINAL COUNTY PLANNING AND ZONING COMMISSION AT 9:00 A.M. ON THE 25TH DAY OF SEPTEMBER 2024, IN THE PINAL COUNTY EMERGENCY OPERATIONS CENTER, 301 E. 11TH STREET, FLORENCE, ARIZONA, TO CONSIDER AN APPLICATION FOR MAJOR COMPREHENSIVE PLAN AMENDMENT TO THE PINAL COUNTY COMPREHENSIVE PLAN.

PZ-PA-007-24 - PUBLIC HEARING/ACTION: Cypress Creek Renewables, LLC, applicant/agent, Heather Wise, requesting a Major Comprehensive Plan Amendment to amend the Land Use Plan and re-designate 2,148.94+ acres of land from Very Low Density Residential (VLDR, 0-1 du/ac) and Moderate Low Density Residential (MLDR, 1-3.5 du/ac) to Green Energy Production for a utility scale photovoltaic Solar Power Plant, situated on a portions of sections 13, 23, 24, and 25, T09S, R07E of the Gila and Salt River Base and Meridian (legal on file) tax parcels: 408-11-025B, 408-11-025C, 408-11-025D, 408-11-024A, 408-11-024C, 408-11-0230, 408-15-0020, 408-15-0010, 408-12-0020, 408-12-0030 located eight miles south of Eloy and approximately seven miles south of interstate 10 within the unincorporated area of Pinal County.

ALL PERSONS INTERESTED IN THIS MATTER MAY APPEAR AND SPEAK AT THE PUBLIC HEARING AT THE DATE, TIME, AND PLACE DESIGNATED ABOVE.

DOCUMENTS PERTAINING TO THIS CASE CAN BE FOUND ON THE NOTICE OF HEARING PAGE FOR THE P&Z COMMISSION AT: https://www.pinal.gov/236/Notice-of-Hearings

DATED THIS 26th DAY OF AUGUST 2024, by Pinal County Community Development Department.

TO QUALIFY FOR FURTHER NOTIFICATION IN THIS LAND USE MATTER YOU MUST FILE WITH THE PLANNING DEPARTMENT A WRITTEN STATEMENT OF SUPPORT OR OPPOSITION TO THE SUBJECT APPLICATION. YOUR STATEMENT MUST CONTAIN THE FOLLOWING INFORMATION:

1) Planning Case Number (see above)
2) Your name, address, telephone number and property tax parcel number (Print or type)
3) A brief statement of reasons for supporting or opposing the request
4) Whether or not you wish to appear and be heard at the hearing

WRITTEN STATEMENTS MUST BE FILED WITH:
PINAL COUNTY DEVELOPMENT SERVICES DEPARTMENT
85 N. FLORENCE STREET, PO BOX 749.
FLORENCE, AZ 85132
Contact for this matter: Sangeeta

Deokar, Senior Planner E-mail address: Sangeeta.deokar@pinal.gov
Phone # (520) 866-6641
No. of publications: 1: date of publication: Sep 05, 2024

LocaliQ
Arizona
GANNETT

PO Box 632099, Cincinnati, OH 45263-2099

AFFIDAVIT OF PUBLICATION

Donna Morey
SWCA Incorporated
20 E Thomas RD # 1700
Phoenix AZ 85012-3127

STATE OF WISCONSIN, COUNTY OF BROWN

The Arizona Republic, a newspaper published in the city of Phoenix and general circulation in the counties of Maricopa, Coconino, Pima and Pinal, State of Arizona, and personal knowledge of the facts herein state and that the notice hereto annexed was Published in said newspapers in the issue:

09/03/2024

and that the fees charged are legal.
Sworn to and subscribed before on 09/03/2024

Legal Clerk

Notary, State of WI, County of Brown

3·7·27

My commission expires

Publication Cost:	$1748.00	
Tax Amount:	$0.00	
Payment Cost:	$1748.00	
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PO #:	LAZS0150972	

THIS IS NOT AN INVOICE!

Please do not use this form for payment remittance.

KAITLYN FELTY
Notary Public
State of Wisconsin

NOTICE OF PUBLIC HEARING BY THE PINAL COUNTY PLANNING AND ZONING COMMISSION AT 9:00 A.M. ON THE 25TH DAY OF SEPTEMBER 2024, IN THE PINAL COUNTY EMERGENCY OPERATIONS CENTER, 301 E. 11TH STREET, FLORENCE, ARIZONA, TO CONSIDER AN APPLICATION FOR MAJOR COMPREHENSIVE PLAN AMENDMENT TO THE PINAL COUNTY COMPREHENSIVE PLAN.

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Planning Case Number (see above)
Your name, address, telephone number and property tax parcel number (Print or type)
A brief statement of reasons for supporting or opposing the request
Whether or not you wish to appear and be heard at the hearing

WRITTEN STATEMENTS MUST BE FILED WITH:
PINAL COUNTY DEVELOPMENT SERVICES DEPARTMENT 85 N. FLORENCE STREET, PO BOX 749.
FLORENCE, AZ 85132

Contact for this matter: Sangeeta Deokar, Senior Planner E-mail address: Sangeeta.deokar@pinal.gov
Phone # (520) 866-6641
September 3 2024
LAZS0150972

AFFIDAVIT OF MAILING OF PUBLIC NOTICES

I, FedEx Corporation, on behalf of Applicant for case PZ-PA-007-24 (Case number), personally caused thirteen public notices to be mailed to landowners on or near the proposed project site on 08/30/2024 (Date), at least 15 days before the Planning and Zoning Commission Public Hearing, regarding the proposed Major Comprehensive Plan Amendment (Type of application), in unincorporated Pinal County.

The notice was mailed to landowners as indicated in the attached mailing list.

Aaron Freeman
FedEx Corporation Rep.

STATE OF ~~ARIZONA~~ Washington)
COUNTY OF ~~PINAL~~ Whatcom) ss:

Subscribed and sworn to me by Aaron Freeman this 10th day of September, 2024.

Brody T. Enyeart
Notary Public

My Commission Expires: 2/12/2028

BRODY THOMAS ENYEART License 20104303 NOTARY PUBLIC Expires 02-12-28 STATE OF WASHINGTON

Parcel	Name	Address	City	State	Zip Code
408170020	TRICO ELECTRIC CORP	PO BOX 930	MARANA	AZ	85653
40817001A	VALENTIC WILLIAM	PO BOX 2966	CHANDLER	AZ	85244
40811024D	USA	12155 WEST ALAMEDA PARKWAY	LAKEWOOD	CO	80228
40811025C, 40811025D, 40811024C, 40811025B, 40811024A	CURTIS 1035 LLC	PO BOX 1969	QUEEN CREEK	AZ	85142
40811026A, 40811027B, 40811026B, 40816001A	LOCOMOTIVE FARMS LLC	2100 MCKINNEY AVE STE 1500	DALLAS	TX	75201
408150020, 408110230	GORDITA L P				
	C/O ANIMAL NUTRITION SYSTEMS	571 N 54TH ST	CHANDLER	AZ	85226
408150010	STAMBAUGH FARMS LLC	27830 S 11 MILE CORNER RD	ELOY	AZ	85131
411320120	WALKER PLOW LTD PSHIP LLP	PO BOX 1652	HIGLEY	AZ	85236
408120020, 408120030	TOONE FAMILY LTD PSHIP #3	817 N YORK CIR	MESA	AZ	85213
40811012A	BARNES HARVESTING LLC	3095 S TREKELL RD	CASA GRANDE	AZ	85193
408130030	JOHN M FOSTER TURF OF ARIZONA LLC	PO BOX 4563	PALM DESERT	CA	92261
408120010, 411320110	WALKER PLOW LTD PSHIP LLP	PO BOX 1652	HIGLEY	AZ	85236
41135001D	DONLEY JOHN PATRICK & MELINDA REV TRUST	10475 W QUARTZ DR	CASA GRANDE	AZ	85193

AFFIDAVIT OF POSTING OF BROADCAST SIGN

I, Zackary Parrill, Applicant for case __PZ- PA-007-24__ (Case number), personally caused 2 sign(s) to be posted in a visible place on or near the proposed project site on 8/29/24 (Date), at least 28 days before the Planning and Zoning Commission Public Hearing, regardingthe proposed Green Energy Production (Type of application), in unincorporated Pinal County

The notice was posted as indicated on the attached map and photograph.

Applicant

STATE OF ARIZONA)
) ss:
COUNTY OF PINAL)

Subscribed and sworn to me by Zackary Parrill this 29 day of August, 2024.

Notary Public

My Commission Expires: 5/28/2025

PINAL COUNTY CITIZEN ADVISORY COMMITTEE
(PO NUMBER 249810)

9:00 a.m.
Thursday, September 5, 2024
Emergency Operations Center
301 E. 11th Street, Florence, Arizona

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II. PZ-PA-006-24 (I-8 & Montgomery) – pp. 124-131
III. PZ-PA-007-24 (Cactus Flower Solar) – pp. 131-140
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VI. PZ-PA-010-24 (Frontier West Solar) – pp. 71 (Withdrawn)
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TRANSCRIPTION PROVIDED BY

Julie A. Fish
Quick Response Transcription Services
829 East Windsor Avenue
Phoenix, Arizona 85006
602-561-2283

ORIGINAL PREPARED FOR:
PINAL COUNTY, ARIZONA

RIGGS: Oh yeah, I say we follow the – whoever's here for the most (inaudible) for each one, let's go there so they can get home. Bella first.

OLGIN: So we'll do that then? Is that the decision of the Committee? Okay, so the one with the most controversial will go first. As I said before, the first case, we'll have the senior planner, Sangeeta, gonna start the presentation, but then we'll start with Project Bella.

DEOKAR: Good evening everyone. Welcome CAC Members to this 2024 Major Comprehensive Plan Amendment meeting. Sangeeta Deokar, who would be sharing with you an overview of the 2024 Major Comprehensive Plan Amendment proposals that have been received by the County. To begin with, this is the schedule which begins first of every year. It's a yearly process. We have May as the deadline for receiving all the applications, and we have the deadline for application mailed to agencies across the County. That's a 60 day review period, after which we had the work session with the Planning and Zoning, and then we had the deadline where we received the comments back from all agencies across the County. August 14th was the work session with the Board of Supervisors, and this is the first public hearing, which is the CAC Advisory Committee meeting, and that is the Committee that gives recommendations to the Planning and Zoning. Moving forward, we have the Planning and Zoning, which is September, and then

we have the final Board of Supervisors, which is October 30th, when the final decisions are either approved or disapproved by the Board. Planning and Zoning Commission also is a recommending body to the Board. So here we are at this stage of our Major Comprehensive Plan Amendment, and September 5th with the CAC meeting. So we had eight proposals that we received, and you can see that five of them are solar projects. The ones which have been showed in gray are the other than solar, which is the I-8 and Montgomery, which is the RV storage, the Project Bella, which is the thermal gas-fired power generation facility, and the last one which is the SunHill Project, which is the data center. I'm going to directly go to Project Bella as requested by the Chair and the Committee Members. So Project Bella. This is a request to redesignate 350 acres from Moderate Low Density Residential to General Public Facilities/Services for a 480 megawatt natural gas-fired power plant with 440 megawatt battery storage facility. The size of this project is - the project boundaries is 350 acres. It's located south of Selma Highway, north of I-8 and 1.5 miles south of the City of Casa Grande. Owners are Brian and April Rhodes, and we have the applicant/agent Withey Morris Baugh PLC, Alex Hayes representing the owners for this project. This is the location map that shows in a red star the location along I-8, and it is located central west of the County. And

Comprehensive Plan designation existing is Moderate Low Density Residential, which allows from 1 to 3.5 dwelling units per acre. And a proposed land use designation is for General Public Facilities/Services. This is the vicinity map with electrical infrastructure showing the location and the surrounding development along I-8. To give you a perspective, it is north of I-8, and one can also see from the grain and texture in terms of the subdivisions that are on the further east side. However, to the south it's pretty much open, not developed. This map also shows the existing 500 kV transmission line and a 230 kV line, which is the WAPA transmission, actually cutting across east-west in the red dotted line that has been shown. There is an El Paso gas pipeline that is along the north of this project area, and which cuts across. And this access is from Midway for this project. This further map shows you the surroundings of this area. The Project Bella, which is shown in the northern part – is the pointer working?

SUPRAK: There is no pointer.

DEOKAR: There is. I think - there we go. Okay, sorry. You can see that there is this Activity Center and the land use is Moderate Low Density, which is shown in yellow all around. This also gives an idea of the, again, the grain and texture showing the project area being used for agriculture currently. And you can see the subdivisions that have been

platted towards the eastern portion. There are some residences to the north of it; however, to the south and west and further east southward, there is no development that has happened. Just to give you a perspective, the second project that has been identified is within that red circle, which is the RV and the boat storage, which the next planner would be talking about, but this just gives you an idea of the two Comprehensive Plan amendments that the County has received. There's a Greene Wash with an open space that goes along the south of this boundary of this Project Bella. It has been shown in a blue line and it is connected with the open space and a canal that is bordering the southern portion of the project. Some pictures that have been taken along the east/west, along I-8, and further east on the northeast side, which is showing the Casa Grande Carmel Solar, which was approved last year. This is the map which shows the flood zone that is existing on this project area and the parcels. You can see that there are two zones that are existing, Flood Zone X and Flood Zone A, which is the southern portion of this parcel or project boundary. Again, showing you a perspective from an open space map that shows the open space connections that are planned at a regional level, and you can see that being highlighted in blue, which is the southern portion of the project area. And again, the Greene Wash with the canal and the interconnectedness of these open spaces. Current site

conditions, access and use. The site is accessed by a private driveway from Midway Road and currently used for agricultural operations. It's surrounded by Low Density Residential, which is GR and CR-2 zoning. There are two zones, Flood Zone A and X, which I just showed you in a map. There's an open space, Greene Wash, part of a connected open space, which is a major drainage feature. Water flows northwesterly with a riparian habitat. Existing gas and electrical infrastructure, which was shown, is 140 foot high (inaudible) Pinal Central 500 kV line and a 230 WAPA transmission line. There's an existing El Paso natural gas pipeline to the north edge of the boundary property. The project overview is basically a thermal gas-fired power generation facility using the natural gas and tapping onto this location where this has been proposed, which is one of the first ones in Pinal County. Development of two principal components of this project includes the thermal gas-fired generation and the battery energy storage system. The site plan, basically the project footprint is in the northern portion of the site. In the packet you did have a draft of the site plan that was shared with you, which is 158 acres of the 350 acres. The southern portion has been left open as of now. Utilizes existing easements and infrastructure for high voltage transmission and the natural gas pipelines. There's a 500 kV switchyard that will occur on site, so there is no additional electrical or gas infrastructure that is going to

be required for this project. It utilizes in the potential that it has in terms of its location. We received eight letters in opposition for the following concerns: proximity to houses, loss of rural lifestyle environment, fire hazard, air pollution during any fires, use of water from the well, which is depletion of the water table. Sound of the power plant that could be expected during its operations. Smell due to chemicals stored and used for the plant, which is ammonia. We received one letter in support. And I'm open for any questions.

OLGIN: Sangeeta, we're going to stop there and go to open, the public hearing. At the discretion of the Chairman, if you'd open the public hearing.

RIGGINS: Yeah, we'll open up for questions to the public.

OLGIN: Open the public hearing? You're going to open the public hearing?

RIGGS: Yes, let's open up the public hearing. When you come up, you'll need to state your name and address.

OLGIN: Perfect.

SUPRAK: We also have a sign-in sheet, please sign in as well.

OLGIN: Project Bella, please come up if you have questions or concerns, or you'd like to – and as I said before, please focus on statements. This isn't truly a

rebuttal, it's just statements to them, and then once all the statements have been made, we'll have the applicant come up and then we'll take – then we'll have questions from the Committee.

DUGAN: Ready? Good evening, Chair Riggs, Members of the Committee. My name is Tena Dugan, and I'm here in opposition to this project. I attended the recent hearings that were held at Francisco Grande Resort. I didn't get to see all of them, but I did attend some of them. My biggest concern - and we own property very close to this, right off of Mammoth Road. There's also homes which she didn't really – she did say there were some to the north, but if you saw the little black lines, they're 600 feet - two football fields - from the outside of this project. And I don't know about you, but two football fields isn't a really good buffer for me. Most everyone there is a rural lifestyle. It is currently zoned for a low density housing, which is what everyone that's around there has already. And the concern is how do you evacuate? Again, like some of the other ones said, the smells. The battery storage is probably my biggest concern. I'm sure all of you know this is not in the city limits. There is no fire department. Just recently on Anderson Road, the house next door to the gal that works for me at Napa, burned completely to the ground because there was no fire department. And that's about five miles from here, it's very

close. It's out Stanfield way. So my opposition is based upon safety and the rural lifestyle that everyone around there – we have a three acre parcel out there, horses, those type of things. It's really difficult to accept something this close to our property. Thank you.

OLGIN: Anybody else wish to speak on this case? Please come up. As we said before, you'll have three minutes to present to them, or we'll ask you to conclude.

SMITH: Thanks for taking the time. My name is Boyd Smith, I represent Desert Springs Ranch.

SUPRAK: Please be sure to sign-in.

SMITH: Does that count as my three minutes, or?

OLGIN: Great question.

SMITH: Thanks for taking the time and spending the time, I appreciate it. So my name is Boyd Smith, I represent the Desert Springs Ranch, which is a seasonal 55+ retirement community and golf course. It's just west of the property. We represent anywhere between 120 and 175 residents at any given time, mostly during the winter season. The neighboring community next to us has about 230 residents at any given time. And then we've got a lot of residential residents with about an acre to two acres, to three acres, quite around there on the – so the west of us, east of this project. So the thought that this is not a residential area is just blatantly not true. They can say south of the 8 is not, but that's just

not accurate at all. This is very much a residential community that is continually growing. We have lots in the area, we're going to build barndominiums. So this is very much a residential area. So a couple of things they said in here that I think are - again, I'm obviously not opposed to the project - because country living, it's in a flood zone. So what happens if there's a major flood that comes through there and they've got their factory going? Is there going to be a major hazard? Is that going to be on the County at some point? Who knows? It's a unicorn. It's a big towered facility in the middle of nowhere with all this residential meant around it. I mean if they wanted, if they want to be productive and do something like this, they should go into town next to Lucid where all the industrial is happening, it would make a little more sense. They've got the same supplies, and they probably don't want to do it because they'd probably have to pay more for the land, is my guess. It's a fossil fuel project. I totally support solar and green energy. In fact if it was just solar in this location, I'd say go for it, you know? We've got plenty of sun here, it was 110 degrees today, so I'd encourage something like that. Renewables make sense. Again, why are we doing fossil fuel when we're going towards green energy? It doesn't make sense and it really doesn't make sense in our neighborhood. The last thing I'd just like you to think about, would you put

this in your backyard? Thanks.

OLGIN: Thank you. Anybody else to speak on this case, please come up. Please sign in.

KAPLAN: Sorry. I'll finish this when I finish my speech. Very quickly, my name is Joel Kaplan. I own 85 acres less than a mile away from this proposed project, which is residential. And I haven't had a lot of time to do, unfortunately, a lot of research, but I just received this information only about a week ago or less. But I understand there's a need to provide power to Casa Grande; however, these kind of facilities have a real problem, and the power plant is contentious. It does numerous negative externalies [sic], including elevated levels of air pollution, haze, noise and traffic. They emit carbon monoxide, sulfur dioxide and nitrogen oxides, uranium, chlorium [sic], and other radioactive elements, as well as mercury and other heavy metals with a substantial health impact, including cognitive impairment, autism, blindness, asthma, respiratory disease, cardiovascular diseases, and premature death over a large geographical area. Power plants and transmission infrastructures also may be localized. So this information is gathered from federal documents. In 2022, 40 percent of electricity was generated by power fuels by natural gas. Natural gas produces significant heat trapping emissions. In one year, they emit 661 million metric tons of CO2 and more

than 13 percent of the United States energy related to CO2 emissions. I don't want to sit here and throw out thousands of numbers and put that in perspective, but I can tell you that one of the items that's very important is that when Bill Clinton had signed, is an executive order that's actually ordering counties and states to do a survey of people to find out why they're putting these things in here, and it's been found out that the demographics are a key to why they want to design these systems where they are. For instance, there's one in the Irvington Generating Station in Tucson where the demographic index is 82 percent low income, 85 percent non-White, 88 percent less than high school, and linguistically isolated, 85 percent. Population under 5, 80 percent. And the emissions in 2021 was 401 tons of noxious oxide.

OLGIN: Sir, please conclude.

KAPLAN: Okay, sorry. My answer is, I don't think this is a really good idea, and I don't - I have a lot more information, but I can't have the time to do it. So I'm going to sign my name, and thank you very much. Can I just move this?

OLGIN: Thank you, anybody else wish to speak? Come on up.

RYL-KUCHAR: Good evening, my name is Ed Ryl-Kuchar, and I live less than a mile from the project. Thank you. We have issues with water usage. We're looking at - this plant

is looking at numbers that are outrageous. You know, we're talking about, today we're were talking about 400 acre feet over a three year average. You know, acre feet is very confusing, it's 130 million gallons of water a year. That's going to affect our aquifer. In that area for residential, the wells are not as deep as they are for farms and agriculture. The wells are 500-650 feet deep. The water table is going to drop, there's no doubt about it, with the amount of water that they're going to be using. Now, God forbid they have some kind of an accident where their fire pumps kick in. Fire pumps take 360 - I'm sorry, 36,000 gallons per minute. Per minute. Now, we're talking about a BESS system, which is a battery energy storage system, and as we all know, these batteries are very unreliable. I mean recently, just on, oh, near California, a truck battery caught on fire, they spent two weeks pouring water on it. It's a chemical reaction. So if anything happens, those fire pumps are going to start pumping and they're going to keep on pumping. There's no other choice. So that becomes a very large concern for the residents in the area. Our water table drops and our wells go dry. The evaporative ponds, of course, and the ammonia tanks. You know, the evaporative ponds are not EPA regulated, so whatever evaporates into the air, it doesn't matter to anybody because EPA doesn't regulate evaporative ponds. They have no emissions controls. So one

of the other problems is our property values and insurance costs.

OLGIN: Sir, please conclude.

RYL-KUCHAR: We don't know what they're going to be like. In conclusion, you know, the battery energy storage system is one of our biggest problems. They're a fire hazard. It's on top of our aquifer. If there is an accident, it will go into the ground and the aquifer will be affected by the poisons from those batteries. And it's out in the open over – you know, we have 115 degree days, these systems are cooled, but at 113 degrees, they start to deteriorate. At 130 degrees inside those cabinets, the batteries, it's catastrophic.

OLGIN: Sir, please conclude.

RYL-KUCHAR: Thank you very much.

CALLAWAY: My name is Joh.

SUPRAK: Jon, did you get signed in?

OLGIN: Please sign-in.

CALLAWAY: I just want to - a lot of things have been covered already, water issues, whatever. Property values are all a concern. I'd like for the board to consider a balance, balance of property in Pinal County. This has been talked about a lot in the past. There's very few areas like ours, horse properties, ranch - rural ranch, and why devastate the whole County? I look at the area around Eleven Mile Corner, it's already being developed with this type of thing.

Why can't this type of thing be confined to those areas that are already zoned for that? If for some reason the project has to go through, I would highly consider - I would ask you guys to consider impact, impact fee for the local residents in the area. There's a lot of potential for things that can go wrong. I know the project owners tell you there's no chance for mishaps, but that exists. There's a big chance of something going wrong. Who pays for the evacuation of the livestock in the area, when that goes wrong? Pollution of the water table, when that goes wrong. So my main point is, please consider areas and maintaining areas in the County that are - if you fill everything up. Thank you for your time. I think you get the point.

OLGIN: Thank you, sir. Who's next?

CALLAWAY: By the way, I live just north of Selma. There's a whole community there of 5 to 20 acre parcels. People live there. If something goes wrong, all those people are going to have issues and the impact fees will be a lot higher than what the company is proposing now. Their proposal – what they're proposing is penance. You get the idea.

OLGIN: Thank you.

EDWARDS: Wow, good evening everybody. Everybody's so excited to be here tonight. I'm happy that we have – my name is Ken Edwards and I live in Maricopa, and this is my first meeting here. I'm really happy that we were able to

find a place that was air conditioned, and congratulations on transferring the gavel. That's a lot of responsibility and good luck to you. You've got a herd here. I wanted to say ditto to the folks who spoke before me. I think that they have an excellent point on all the issues, the environmental impact that could possibly happen, the -with our water usage, with - if we don't use water to extinguish fire - possible fires - we're going to have to use chemicals, and what will the chemicals do if they go into the aquifer? It makes my - this gentleman here, my heart soared. He loves this land. And when you're driving, just as an outsider when people are traversing Arizona, and we're trying to attract new business like Intel, the expansion at Intel, and Lucid and progressive industries, and the people who work for those industries, they're looking for quality of life and it's not with carbon. So I think that when you're crossing Arizona from San Diego to I-10 on Interstate 8, and you see this facility that is carbon-generating facility, and you're scratching your head. There's more sun here, why are they doing this? And it looks new. So I think it says a lot about our mentality and what direction we want to go. And I'm concerned about my granddaughters, I'm concerned about their kids. And so I just wanted to be here and let you know how I feel. Thank you.

OLGIN: Thank you.

PENCE: Good evening, my name is Deanna Pence, I

live just north of where this will go in. I am opposed to it. My biggest concern about this is what it's bringing it to our community that we don't have right now. We don't have a high risk with chemicals or other potential fire hazards, and one of the biggest ones I have is for the battery storage facility. That will be about a half mile from my home, and that is going to be a problem for us if something happens to it. And these things do have problems. Just on May 15th, a fire broke out at a battery storage facility in East Otay Mesa, a San Diego suburb near the Mexican border. It burned – the fire burned through the roof of the building housing the lithium ion batteries at LS Powers, a Gateway Project. The local fire officials had to issue an evacuation order and road closures in that area. And that took six days to contain the fire and was still smoldering 11 days later. Now, these can't be put out with conventional firefighting, they have to just contain them and let them burn. And they give off a lot of different chemicals. I have that information in here, but I'm not going to go into it because I don't have enough time. Those chemicals will be coming into our area. We have horses, we have goats, we have chickens. I'm going to have to evacuate my home because somebody's putting this here, and this isn't an environment for that. We're not set up for that, we don't have fire departments. Like somebody said earlier, we've had a house across the street from us, which

will be close to this, just burned down a couple of months ago and the fire department just sat and watched. They'll only intervene if somebody's life is threatened. So our property is definitely on the line with this, as is our health and potentially our lives. And a half a mile from my home, this is a little close. I don't think this is the right environment for it. There are a lot of other places that this could go that are already zoned for those things. The type of living we have, this will infringe on that. So thank you.

OLGIN: Thank you. Anybody else?

CHRISTY: Good evening, I'm Junghi Christy, I own the farmland 430 acre just south of this project, and I'm opposed to the solar project called Bella. Previous speakers mention already about the health hazard, environment hazard, but as a farm owner I want to address about the water quality and quantity. There'll be a lot of water used from our groundwater and that means farmers will have less water. They already suffer with water issues, and water contamination and also O_X pollution. Or with this, the plant biodiversity, and in fact growth and survival of a plant. Which means eventually we'll lose a farmer farm. And many will say, what's the big deal that you will have industrial acreage instead of your farm, but many residents and property owner chose to live here. The rural life and farm and see the green things and, and get to the point. So many people are opposed

and I'm just wondering why we are forced to live in unsafe environment. Please oppose for the sake of the people who live here. Thank you.

OLGIN: Thank you.

SUPRAK: Ma'am, if you could please sign in as well.

OLGIN: Anybody else? Please come up.

CATALDO: Good evening, my name is Paul Cataldo, and I live just north of the proposed project. And basically all the concerns are being - have been addressed. One thing that a lot of people kind of discard is the noise. Imagine your air conditioner outside your home and it's running 24/7. You stand 10 feet away from it, that's about 47 decibels. That's going to happen 24/7. That's what we will hear - I will hear - 24/7 at our house because of the battery systems. I don't know, I can't recall right offhand how many containers. 480 megawatt is a lot of batteries, each one of those units runs about 65 decibels. Their engineers said, oh it's going to sound like a refrigerator. But when I took my dB meter on my phone and stood beside my AC unit, it was 47 decibels, that's about what they're saying it's going to sound like, 24/7. Now, our area is very rural and sound travels, especially at night. The proposed turbines are running from 10 p.m. – 6 p.m. to 10 p.m.. As demand grows, those turbines are going to run longer. They're in the business to sell electricity. They're not going to be limited. Once it hits the WAPA

system, the federal government can sell it to whoever. If there's an increase in demand, the turbines run longer. And as more of these BESS systems go online, it's going to create an artificial demand in the low peaks during the day. Once it platforms and starts creating a demand, guess what? Turbines get turned on earlier. So the noise, the sound, it's not what we bought our property 20 years ago. We invested our whole life savings to these - I actually own two homes right there, and it's going to be a disruption. Where do we go? What can we, what can we do as property owners? What about our rights? It was once said in Arizona Corporation Commission, the need outweighs the environmental and economic area. So I disagree with that. We all have rights too. We're not big business, we don't have the money behind us, and Pinal can do better. There's areas already said that this can be kind of put in White and Parker.

OLGIN: Sir, please conclude.

CATALDO: There's a WAPA substation on White and Parker towards Maricopa, it's got all the necessary tie-ins, the same as us. Nobody around it. SRP is already proposing a solar site out that way as well. So I hope you guys consider what we say and choose to oppose it and deny it. Thank you so much.

OLGIN: Anybody else wish to speak on this case? No? So, at the discretion of the Committee, you may close the

public hearing.

RIGGINS: We will close the public hearing for this portion.

OLGIN: And now we'll bring up the applicant and he'll take any questions that the Committee has. Now keep in mind, staff is going to make sure that the questions are focused on land use and not zoning. We've been - it's already been about 35 minutes, so you have some time.

HAYES: (Inaudible).

OLGIN: Absolutely, no problem.

HAYES: Good evening Committee Members, my name is Alex Hayes. I'm here on behalf of Seguro Energy Partners and Project Bella. You know, I can understand the kind of reflexive apprehension of the neighbors and surrounding area and some of the folks we've heard from tonight. I think it's human nature to be – have some anxiety about an unknown use and maybe something they're not quite familiar with. But I think it's important for this Committee to consider the facts of the use of this project, and rather than the fear and the emotion, and when you consider the facts, I think you'll see that it's really a positive project for Pinal County and for the State. Now, in about 90 seconds I don't think I can give you all the facts of this case, but we do have the benefit of just coming out of the Line Siting Committee of the Arizona Corporation Commission which has jurisdiction over this

project, and that review included four days of testimony, 900 pages of submitted expert testimony, two public comment periods, a site visit from the members of that committee, and it was approved 11-0. And there are some other important aspects that I think are worth mentioning resulting from that recommendation of approval. There were conditions that were placed on this project, and some of those are very relevant to the way that it looks and feels for the surrounding residents. I think the first one that is worth mentioning is Seguro and Project Bella has agreed to establish a community working group, and that community working group will be comprised of four members from the surrounding community living within one mile of the project, two members of the project team, and then two members of Pinal County. And Project Bella will fund that community working group with $4.1 million over 10 years, 650,000 for the first - each of the first four years, and 250,000 for years 5 through 10. And so that working group will promote transparency, open communication, and ultimately accountability. Before construction, they'll have purview into things like the lighting plan, design review, landscaping, ingress and egress plans, timelines, traffic, all those kind of initial design and planning elements. And then during the operational period - and this Committee will be meeting four times a year, coordinated by an independent facilitator. They'll be exposed or communicated with air

emissions reporting, other compliance reporting that's going to the Corporation Commission, generation studies, groundwater pumping reports, evaporation (inaudible) reports, wildlife impacts, everything related to the operations and potential impacts of the site, the community will have visibility into. And I think that's a very important component because that will ultimately lead to more transparency and more accountability. Additionally, the conditions of that approval included stipulations regarding noise, which we heard from. So this project will be required to comply with the Pinal County noise ordinance, which means our initial sound modeling shows 55 decibels at the property line, 40 decibels at the nearest residence to the east, about 45 decibels the nearest residence to the north. Again, that's all within - in compliance with the Pinal County noise ordinance. Now, that condition of compliance also requires that within 120 days of commencement of operations at the facility, that an actual sound study must be conducted - because this is modeling - but an actual sound study must come out and measure the sounds. And if it is out of compliance, then additional mitigation, sound mitigation measures must be undertaken, and that - so that that creates an enforcement mechanism.

OLGIN: Alex, please conclude. They're going to ask your questions, so please conclude.

HAYES: Okay, I'll just touch on a couple more

because water was an important one, and I think this is essential. That there's been some conversations or comments that this would be very harmful to the water table. There is a stipulation that requires this Project Bella to use no more than 90 percent of the existing use on site. So this project will actually use less water than is currently being pumped onsite, so actually it will be a better outcome for the water table and for the residents in the surrounding area as it relates to the water table. So, you know, obviously I have plenty more I can share, but I know it's time for questions.

OLGIN: Thank you. So if you, the Committee Members, please, if you'd like to ask some questions, now's the time. Like I said, we're 40 minutes into this case, so we need to wrap it up, but please, questions.

MOORE: I want some con – Pat Moore, and I want some concrete figures on what water usage is now, and how you are going to mitigate that, whether – if you - it said in our booklets that you were over what is usually used in that area, and water is our, one of our number one problems right now, and I want to hear how you're going to protect the water table and how you're going to replace it.

OLGIN: Chair and Committee Members, that isn't really relevant. Because this is policy. So today's conversation and discussion is focused on policy. Water is very important, we understand that, but –

MOORE: It is.

OLGIN: That's a more zoning-focused question. So if you have questions in regards to land use and its applicability to this site, is this a good area for this type of land use, because that's the focus that we need to stay on.

HAYES: And I'll just comment that we submitted a presentation that will answer that question for you.

MOORE: Okay.

HAYES: They can share that slide that will show the existing use, our use, and how it's (inaudible).

MOORE: Okay.

OLGIN: Do we have any other questions, the Committee Members?

RIGGS: Steve.

KALANDROS: When we talk about land use, we usually talk about the impact on transportation. My understanding is there is no exit from I-8 onto Montgomery, which is a principal access to this site. So does that mean during construction you're going to have trucks rumbling off of the next exit over, which I think is Midway, then down Cornman to your site, through a residential area?

OLGIN: Sir, Committee, if I may, my apologies. You're talking about construction and site plans and that's not the focus of tonight's conversation. Impacts was a good one, environmental issues, absolutely, but the site plan is

not what we're talking about tonight. So my apologies.

KALANDROS: Okay, next question. You will have 10 turbines.

HAYES: Correct.

KALANDROS: At this site. And a lot of your application is talking about renewable energy and how the idea is to let other solar power in the area charge up your batteries during the day, and then these would only turn on at night after you've exhausted the stored up energy. Is it really feasible to say you're going to put 10 turbines in this thing and you're only going to use them occasionally, or are they eventually going to be ramping up and using - being used all the time?

HAYES: So that's a good question, and that is the nature of what's called the quick ramping peaker plant. They're utilized to meet those periods of high demand, and it defers some separate combined cycle plants that are usually running for a more extended period of time and provide that baseload power. This is really just for that, those periods of high demand. But we also have an air permit that's been approved by the Pinal County Air Quality Control Division, and that limits our operation time. So we – that we are already capped at how many hours per year we could run.

OLGIN: Any other questions?

KALANDROS: I have more.

??: I have one.

KALANDROS: I don't know if it's okay, then, as part of the presentation you're talking about how in regards to fire safety, pre-incident planning process, annual reviews, the fire marshal, local fire department's got site design, all this, and yet the public indicated there's no fire department in the area. How are you going to be holding safety meetings and annual reviews if no fire department?

HAYES: That's a great question and we're actively having conversations with neighboring jurisdictions and other fire service providers about extending service to our territory, and we're talking with other potential users in the area about fire service options. But ultimately what we'll have to submit is an emergency response plan as part of the certificate of environmental compatibility process, and we'll have those answers, Chairman, then, and we won't be able to operate without an approved plan.

OLGIN: And for the Committee, a lot of these are – I'm trying to be respectful, but this is information we get at the zoning level, so these details - and I appreciate you trying to work through the questions - but a lot of these details are going to be covered at the zoning.

KALANDROS: I have one more question, definitely for land use, but this one's directed to staff. Do you want me to save that for later, or do you want to hear it now?

OLGIN: Let’s save it for later, just because one has gone quite way over on the schedule. This has the most controversy, so (inaudible).

RIGGS: All right, one more question on the end.

RIGGS: We have one more question on the end.

??: I just have a question, where are you going to get the gas from for this plant? I know, so the El Paso pipeline, but that’s only part of it, where’s the rest of it coming from?

HAYES: That’s where we’ll pull all the gas for the generation.

??: Okay.

HAYES: That’s what makes this site so ideal. No additional infrastructure needed.

??: Okay.

RIGGS: All right, one more. Another question.

??: I have one final question. How does the noise of this facility compare to the noise that’s generated by a cogeneration plant?

HAYES: I don’t have the specific numbers, but I believe this would be less. And perhaps we have, yeah, about half. Yeah.

RIGGS: Any other questions?

OLGIN: Real quick. If you can just say your last name before you enter any, or ask any questions for the

minutes. We don't know who's talking.

BRISTOW: Okay. My name's Alicia Bristow, and I'm not sure if this is appropriate or not, but from a State level, the 1980 groundwater act was in place and I know the County has its own groundwater people, experts, how do those coordinate together? How do you follow, or does the County, the one, the contacts, follow the rules? I was the director of an environmental commission, so I helped establish that in 1980 and I'm wondering how a project like this follows the 1980 groundwater laws and rules.

OLGIN: Alex, do you want to handle? I have a canned answer.

HAYES: Sure.

OLGIN: Well fortunately/unfortunately, the County doesn't - isn't involved in the water service, towns and cities are. We don't provide that service, typically because we're so big, we're 5,600 square miles. So in regards to that, I don't have an answer for you because we don't get involved in that. We just require to provide the assurance of water when you come to build these types of facilities. So that's something that we can investigate. We do have a new water person on our team that could probably get back to you on that, but I don't have an answer, an accurate one at least, to provide you tonight. But great question, but we could have staff write that down and have Sangeeta get you an answer next

week.

BRISTOW: The reason I asked is when that law came into place, we used to travel all over Arizona taking public input on environmental issue, and at one time, I think when Symington came in, they got rid of that commission, unfortunately, and I had left moved out of State. But we looked at all these - the noise pollutions, the chemicals, the land use, so - and my late husband was the game and fish director, so I even knew a lot about the habitat and wildlife. So I'm very interested in all these new things popping up all over and the impacts that they have. Thank you.

OLGIN: So we'll have our staff reach out to you next week, and we'll see what we can provide you an answer that. Thank you. Any other questions from the Committee? Yes.

ROBERTSON: Thank you. Bill Robertson from Maricopa. There was a lot of concern that we heard tonight about fire danger. Being a retired fire chief I understand that completely, so I'm concerned about what fire suppression systems will be in place, incorporated to mitigate this, especially with the lack of public fire service that we currently have.

OLGIN: I hate to be the bearer of bad news, but that's a focus on the site plan and/or at the zoning level. So if you have another question, we'd be happy to entertain

it.

ROBERTSON: I have several –

OLGIN: (Inaudible) directly about what to do when the structure's there, and this is about land use. I'm sorry.

ROBERTSON: Well I understand that, and this is a public hearing, and I know these people want answers, so I'm a little disappointed that we don't get the answer, ask all the questions we have.

OLGIN: You're more than welcome to reach out to the applicant.

ROBERTSON: What other hazardous materials will be stored on the facility that are required to operate the facility?

OLGIN: That information, as well, will be - it'll be talked about the zoning level.

ROBERTSON: Okay, thank you.

OLGIN: So we apologize. Any other question from the Committee? We can conclude this one, then, thank you.

HAYES: Thank you.

OLGIN: The next case that we have –

??: Wait, don't we vote?

OLGIN: Would be TAP Solar.

RIGGS: Do we vote on this?

KALANDROS: (Inaudible) like staff question for –

OLGIN: Oh, I apologize, yes. You need to - I

totally blew that, yes. We would have to – hold on – you'd have to make a motion and a second in regards to this case if you wish to approve it –

KALANDROS: I just had a quick question for staff.

OLGIN: Yes, yes.

KALANDROS: Steve Kalandros from San Tan Valley. Given that this proposal only changes the land use designation of these, you know, the affected lots, and then the lots around it stay the same, is staff going to go back and revisit that? Or are you still going to, you know, have the area immediately adjacent to this plant zoned for residential?

OLGIN: So zoning is hard zoned, so that can't be changed.

KALANDROS: The land use, rather.

OLGIN: What we're looking at here is the policy, the Comprehensive Plan. In some areas, an area plan. So in regards to that statement, the policy can change, it doesn't affect the properties around it. Now, the impact of what's going to be put there because of this policy change, could impact those areas, but the zoning doesn't be – isn't impacted. And the only thing that's going to change per the decision tonight as it goes to the Board, is the policy itself. So it doesn't really impact the areas around it until we get to the zoning. If that helps. Any other questions for staff or for the public? Or for the applicant? If not, then

we can – yes sir.

??: I do have a question for staff. The staff recommendation is no recommendation, could you explain that to us?

OLGIN: Absolutely. So we owe it to ourselves to wait for us to get – collect all of the information from not just the public. This means specifically, we haven't – we've gotten letters of opposition, obviously, but we would like to wait - with most cases, you want to hear all the public opposition. Not just the public opposition, but also the agency letters, different cities and towns that are around us or near us, and we haven't collected all of that. Now, we're hoping by the P&Z we'll have that, but I don't think it's fair for us to make a support or non-support without all the facts. And to be honest with you, we don't understand the temperature of the Committee. We do now. So I think now after we have this information, we will then render a support or no support at the next level, which would be the Planning and Zoning Commission. And that's pretty typical in regards to the process, but yeah, this is – it takes a year for a reason and we like to have all the facts, concerns, comments, prior to support/no support, plus the attorneys get mad at us when we don't (inaudible) on that, so…. That was a joke. But anyways, anything else I can answer? No? All right. So then it's on the Committee –

KALANDROS: Mr. Chair?

RIGGS: Yes.

OLGIN: I would like to move to recommend denial of PZ-PA-008-24.

??: I'd like to second it.

RIGGS: Okay, so I have a motion to – do we need – oh yeah, make sure you say your names when you're making a comment.

KALANDROS: Sorry, motion by Steve Kalandros.

RIGGS: Second by Charlene?

HARTMAN: Yeah, Shirley Ann Hartman.

RIGGS: So, we'll go to a vote. All those in –

KALANDROS: Mr. Chair, point of order. The motion and the second usually opens the topic for debate among the Committee, and then the Committee Members should be offered a chance to argue for or against the motion, before we go to the –

OLGIN: Chair, Vice Chair, no. There's a motion a second, and then that motion's closed. If you wish to debate, you do it before you make the motion.

KALANDROS: That is not consistent with Robert's Rules of Order.

OLGIN: Understood.

KALANDROS: Because there was no opportunity for debate. We had questions, we had a motion.

OLGIN: Fine.

KALANDROS: I realize you're trying to speed things up, and I'm with you on that, and therefore I do ask that the Chair limit us to, let's say two minutes per member to make arguments for or against so we can move this along.

RIGGS: Well, let's have a – we have a motion and a second. The motion is to deny the recommendation on this project. Any discussion from the Committee?

KALANDROS: Mr. Chair, I just want to say the reason I want to deny this is because of the homes nearby. If it weren't for that, I'd say this would be an ideal place for this, in that you have this intersection of transmission wires and a gas supply right there, but this is too big of a change. You're just really pulling the rug out of the people who live nearby, and that's why I oppose. Thank you.

RIGGS: Thank you. Any other comments?

TODD: Yeah, I'm Phil Todd from Gold Canyon. I spent 30 years with General Electric Company putting in gas turbines. The issue that we're facing right now is a challenge that I have. Pinal County has 22,000 acres of solar, we have no real emergency power if we get into trouble. And last year someone told me at this meeting that when the sun goes down and the power stops after four hours, and I ask how am I going to charge my Tesla, they said you should be in bed. Now, the challenge that we've got right now - and I

agree with this gentleman over here - you people have bought, you're around there, I'm positive you know that the GE turbines, but I don't think you need to be pushed into having to listen to turbines and doing all of that stuff. I am, you know, that's where I'm at right now.

RIGGS: Thank you, next.

ROBERTSON: Again, Bill Robertson from Maricopa. I'm opposed to this for a couple reasons, mostly from what I heard from the folks. And I'm a little bit appalled that the Corporation Commission would dare say that the need outweighs the concerns of you people. I can't buy into that. So I'm against this for the same reason that Mr. Olgin said, that we don't have enough information. You don't have enough information to make a recommendation, neither do we.

??: Right.

STOCKTON: I'm Jeanne Stockton here. I'd like to make a couple of comments. I am also in favor of denying this, but I found it a little offensive for somebody to say move it into the town. If it's not good enough for the country, it shouldn't be good enough for a densely populated area. I will also support a denial vote.

BRISTOW: Alicia Bristow from Oracle. I, as well, do not agree with going forward with this without more information. You've got groundwater issues, you've got chemical issues, you've got noise issues, safety issues, and I

also am a land owner. I live on 12 acres, but I also have some land between Gila Bend and Casa Grande that my late husband purchased, and I just think there's too many unanswered questions. And I agree, if it's unanswered for the staff, it's certainly unanswered for us hearing all the comments. And most of us our age own our own home, so we know the, you know, these impacts are real and can change our lives quickly. Thank you.

RIGGS: Any other comments? Hearing none, we'll move forward with the vote. All in favor to you – all there to oppose, say aye.

KALANDROS: I'm sorry, Mr. Chair, can you can you clarify what you're asking?

RIGGS: The motion right now is that we recommend to deny approval of this project. Thank you. What's the technical?

OLGIN: It's a recommendation. It's a recommending vote.

RIGGS: We recommend that we deny the –

OLGIN: Yeah, a favorable recommendation (inaudible).

RIGGS: So a yes vote is going to be to deny. So all in favor say yes if you want to deny.

COLLECTIVE: Yes/aye.

RIGGS: Any opposed? Okay, it looks like it's a

unanimous. All right, next item. I think we're – are we going to keep it the idea of majority, it would be TAP Solar?

OLGIN: Yes, the next case will be to have TAP Solar. We have five people that want to speak on this case.

RIGGS: All right, staff.

BAK: Okay, so Mr. Chair, so moving on here. PZ-PA-009-24, otherwise known as TAP Solar, is a request to redesignate 1,092 acres for Moderate Low Density Residential to Green Energy. This is for a proposed 250 megawatt photovoltaic plant, with a also 250 megawatt BESS. This location here is North Hidden Valley Road and West Val Vista Road in the Hidden Valley, Maricopa area. Applicant/agent is Keith Nichter with Kimley-Horn and Rose Law Group. This gives you the map here with the general location, a little southwest of Maricopa. Existing land use designations here, Moderate Low Density Residential and the proposed is to Green Energy Production. This shows you here the Vekol Wash along the east edge of the proposed. And then we have canals in the nearby area here, the Santa Rosa Canal, along with the canal bisecting the project area. Let me backtrack here. So we also have, I wanted to mention, the proposed I-11 corridor. So current site conditions, we've got close proximity to the Vekol Wash. Most of the parcel's located in Flood Zone X, which is a low flood potential area. Flat topography. ERT tool identified impacted species potentially with this, and

PZ-PA-007-24

Leo Lew
County Manager

PINAL COUNTY
WIDE OPEN OPPORTUNITY

MEETING DATE: SEPTEMBER 5, 2024

TO: PINAL COUNTY- CITIZEN ADVISORY COMMITTEE

CASE NO: **PZ-PA-007-24 CACTUS FLOWER SOLAR**

CASE COORDINATOR: SANGEETA DEOKAR, SENIOR PLANNER

Executive Summary: *Pinal County Comprehensive Plan Major Amendment request by Cactus Flower Solar LLC, applicant/agent to re-designate 2,148.94± acres from Very Low Density Residential (VLDR, 0-1 du/ac) and Moderate Low Density Residential (MLDR, 1-3.5 du/ac) to Green Energy Production for a photovoltaic Solar Power Plant.*

If this request is approved by the Board:
If this major amendment to the Pinal County Comprehensive Plan is approved, the action will allow the applicant to begin the process of rezoning the property to develop a photovoltaic solar energy production facility on 2,148.94± acres.

Staff Recommendation:
Staff offers **no recommendation** at this time.

LEGAL DESCRIPTION: 2,148.94± acres, situated on a portions of sections 13, 23, 24, and 25, T09S, R07E of the Gila and Salt River Base and Meridian (legal on file)

TAX PARCELS: 408-11-025B, 408-11-025C, 408-11-025D, 408-11-024A, 408-11-024C, 408-11-0230, 408-15-0020, 408-15-0010, 408-12-0020, 408-12-0030

APPLICANT/AGENT: Cypress Creek Renewables, LLC, applicant/agent, Heather Wise

REQUESTED ACTION & PURPOSE **PZ-PA-007-24**: **PUBLIC HEARING/ACTION:** Cypress Creek Renewables, LLC, applicant/agent, Heather Wise, requesting a Major Comprehensive Plan Amendment to amend the Land Use Plan and re-designate 2,148.94± acres of land from Very Low Density Residential (VLDR, 0-1 du/ac) and Moderate Low Density Residential (MLDR, 1-3.5 du/ac) to Green Energy Production for a utility scale photovoltaic Solar Power Plant, situated on a portions of sections 13, 23, 24, and 25, T09S, R07E of the Gila and Salt River Base and Meridian (legal on file) tax parcels: 408-11-025B, 408-11-025C, 408-11-025D,408-11-024A, 408-11-024C, 408-11-0230, 408-15-0020, 408-15-0010, 408-12-0020, 408-12-0030 located eight miles south of Eloy and approximately seven miles south of interstate 10 within the unincorporated area of Pinal County.

LOCATION: Located eight miles south of Eloy and approximately seven miles south of interstate 10 within the unincorporated area of Pinal County

SIZE: 2,148.94± acres.

STAFF FINDINGS-

PUBLIC COMMENT:
To date no comments in writing have been received from surrounding property owners.

PUBLIC PARTICIPATION:

60 day review period:	6/10/2024 to 8/10/2024
Newspaper Publication:	08/10/2024 & 08/15/24
Site Posting:	08/13/2024
Property mail outs:	08/19/2024
Web posting:	08/15/2024

OTHER REVIEW AGENCY COMMENTS:
As of the writing of this report AZ Game and Fish agency comments has been received. These have been included in the discussion and recommendations.

County also received comments from Department of Air Force, Air Education and Training Command, Luke AFB. Their input has been added under the analysis for the case.

PLAN AMENDMENT DISCUSSION:

Request to change Land-use:
The applicant is requesting a major amendment of the Pinal County Comprehensive Plan to amend the Land Use Plan from **Very Low Density Residential (VLDR, 0-1 du/ac**) and **Moderate Low Density Residential (1-3.5 du/ac)** to **Green Energy Production** on approximately 2,148.94± acres. The property, currently zoned General Rural (GR) and previously used for agriculture, borders the eastern edge of the Eloy Solar project, which was approved in 2021 for Green Energy Production on 1,251.7± acres. Additionally, 5 miles south-west of this proposal is another approved Utility scale solar project called the Sonak Solar.

Very Low Density Residential (VLDR, 0-1 du/ac) and Moderate Low Density Residential (MLDR, 1-3.5 du/ac) land use classifications are for residential development planned for rural lifestyle and suburban residential pattern. Currently the parcel sites are far from development and have almost no houses in the vicinity of the project area. The area is not platted or zoned, therefore there are no entitlements existing on the parcels or surrounding areas.

Green Energy Production Land-use classification is specifically designated for Utility scale Solar projects. Solar project away from existing and planned urban, sub-urban areas in remote places are preferred as they have minimal impact.

Location of the proposed Cactus Solar project is in a remote area with minimal development in the near vicinity. This also falls in the extended planning area for the city of Eloy.

Project Proposal:
Cactus Flower Solar LLC, a subsidiary of Cypress Creek Renewables Development, is proposing a solar generation project with a capacity of 270 megawatts alternating current (MWac) and a 270 megawatt

(MW) battery energy storage system (BESS). The project encompasses 10 parcels of privately-owned land in unincorporated Pinal County, covering 2,148.94± acres of flat, actively farmed land. It will include a solar photovoltaic (PV) array, BESS, an on-site substation, and an Operations & Maintenance (O&M) building for site maintenance and monitoring.

The proposed project includes a new 13-mile gen-tie transmission line to connect to a new APS substation. This new substation will be part of the APS' Tat Momoli-Saguaro 230 kV transmission line. The new gen-tie will be located southwest of the project. The project falls within the Transitional Cluster Study process with APS regarding a Large Generator Interconnection Agreement ("LGIA"). Targeted execution for the LGIA is 2025. This agreement will govern the interconnection timeline and ability for the Project to connect to the new APS substation and the regional grid. APS currently serves multiple communities in this region of Pinal County such as the City of Eloy, City of Coolidge, the Town of Florence and multiple other portions of the unincorporated Pinal County.

Location and Accessibility

The proposed project is situated 8 miles south of Eloy and about 7 miles south of Interstate 10 (I-10). Access to the site is available via existing gravel roads, including Ellis Road and E Greene Reservoir Road for western and eastern access, and S. Eleven Mile Corner Road, S. Tweedy Road, and S. Curry Road for northern and southern access points.

Site Data

The land is presently dedicated to agricultural activities by its owners. Due to inadequate groundwater, farmers are facing difficulties in sustaining their farming operations. As a result, farmers are exploring alternative land uses due to reduced water allocations from the Central Arizona Project (CAP). The project site and surrounding areas are farmlands with almost negligible development. This region south of the City of Eloy is sparsely developed and a preferred area with little impact the surrounding population. Utility-scale solar projects have emerged as a popular option because they require minimal water usage and offer financial benefits through leasing or selling the land to solar companies.

Flood Zone

The project site is situated within FEMA Zone A, indicating a 1% annual chance of flood hazard covering 668 acres, and Zone X, indicating a 0.2% annual chance of flood hazard covering 1,480 acres. Additionally, the site lies within the 100-year floodplain.

Environmental study

The Project encompasses predominantly flat agricultural land with a gentle slope of 0.01 foot per foot from west to east. Environmental studies conducted by the applicant revealed no significant environmental issues onsite. There were no suitable habitats for federally listed or protected species, although western burrowing owls and migratory nesting bird species were identified in the project area. Various assessments have been conducted for the site, including the Critical Issue Analysis (CIA), Phase 1 Environmental Site Assessment (ESA Phase 1), Wetland and other Waters of the United States Delineation report, Biological Resources Assessment (BRA), and Cultural Resources assessment. These assessments will guide the development of design and mitigation measures for the project going forward.

The portion of the project is located underneath a low-level military training route (VR241) and therefore Luke AFB informal review will require to be completed by the applicant. This review process would be through the DoD Siting Clearinghouse for Energy, Installations, and Environment to ensure that there would be no impact to the training operations conducted.

STAFF ANALYSIS AND RECOMMENDATION:

The Cactus Flower Solar project proposal is situated in a remote area, distanced from major developments proposed nearby. It is not proximate to any current or planned towns, housing, employment centers, parks, or recreational trails. The land use designation is Very Low Density Residential (VLDR) and Medium Low Density Residential (MLDR), far away from immediate urbanization. The project lies south of the City of Eloy, within a preferred location for large-scale solar projects, and borders Green Energy Production land use along its eastern boundary.

The project is located far from towns, housing, commercial centers, parks and areas that may expand in the near future. This has minimal impact and therefore aligns with the policy 3.1.1.5 – 'locate more impactful commercial and industrial uses in area away from homes where negative impacts can be mitigated'

The project is located along existing transportation corridors. Solar projects do not generate additional traffic once constructed and does not interfere with traffic patterns existing within this region. Half of the project area intersects with the proposed I-11 corridor. The I-11 Highway spans 2000 feet wide, with a 400-feet wide alignment planned for the highway right-of-way. Since 2016, the Arizona Department of Transportation (ADOT) and the Federal Highway Administration conducted preliminary reviews and released a Final Tier 1 Environmental Impact Statement (EIS) in 2021. No land use approvals for the I-11 corridor have been granted, necessitating additional studies.

Solar energy is a renewable resource that uses minimal water and provides a cleaner alternative to meet the growing energy demand. This project supports the County's sustainability vision and leadership goals by:

1. Aligning with following objectives outlined in the Pinal County Comprehensive Plan:
   Goal 7.2: Safeguard the long-term water supply for Pinal County
   Goal 7.3: Enhance energy efficiency in Pinal County
   Goal 7.6: Increase the use of renewable energy in Pinal County
   Goal 7.6: Ensure adequate future energy provision while preserving the natural environment and resources

2. Being located away from urban areas with minimal surrounding development, thus having a negligible impact on nearby areas.

3. Not affecting any environmentally sensitive areas due to the proposed change.

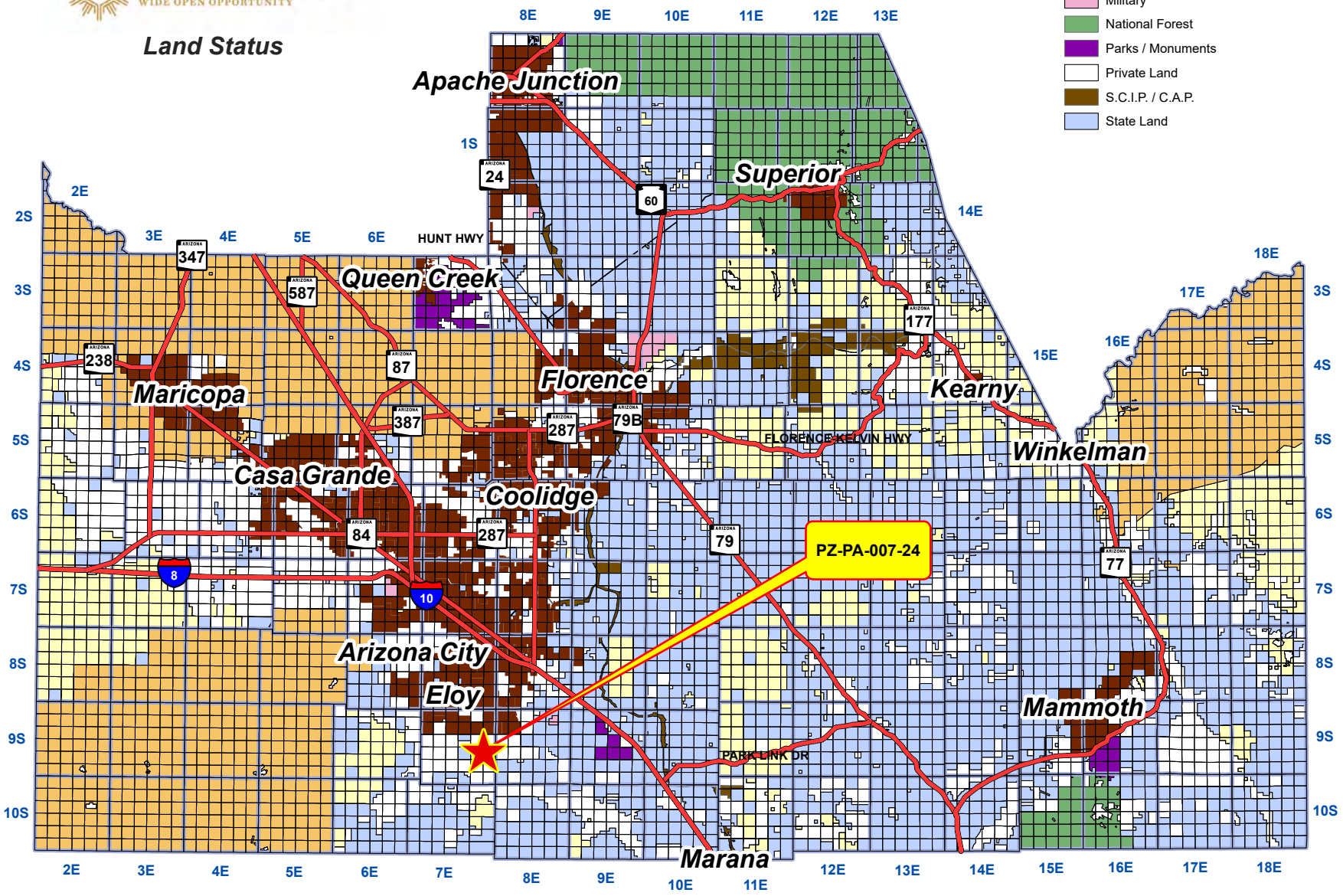
After a thorough review of the request, the Pinal County Comprehensive Plan, and the Pinal County Development Services Code, staff is currently **not making a recommendation** regarding the land use change. Further analysis is needed to assess the implications of the proposed high-capacity I-11 corridor, the effects of Flood Zone A on a large portion of the site, and the necessary Luke AFB clearances for military training operations.

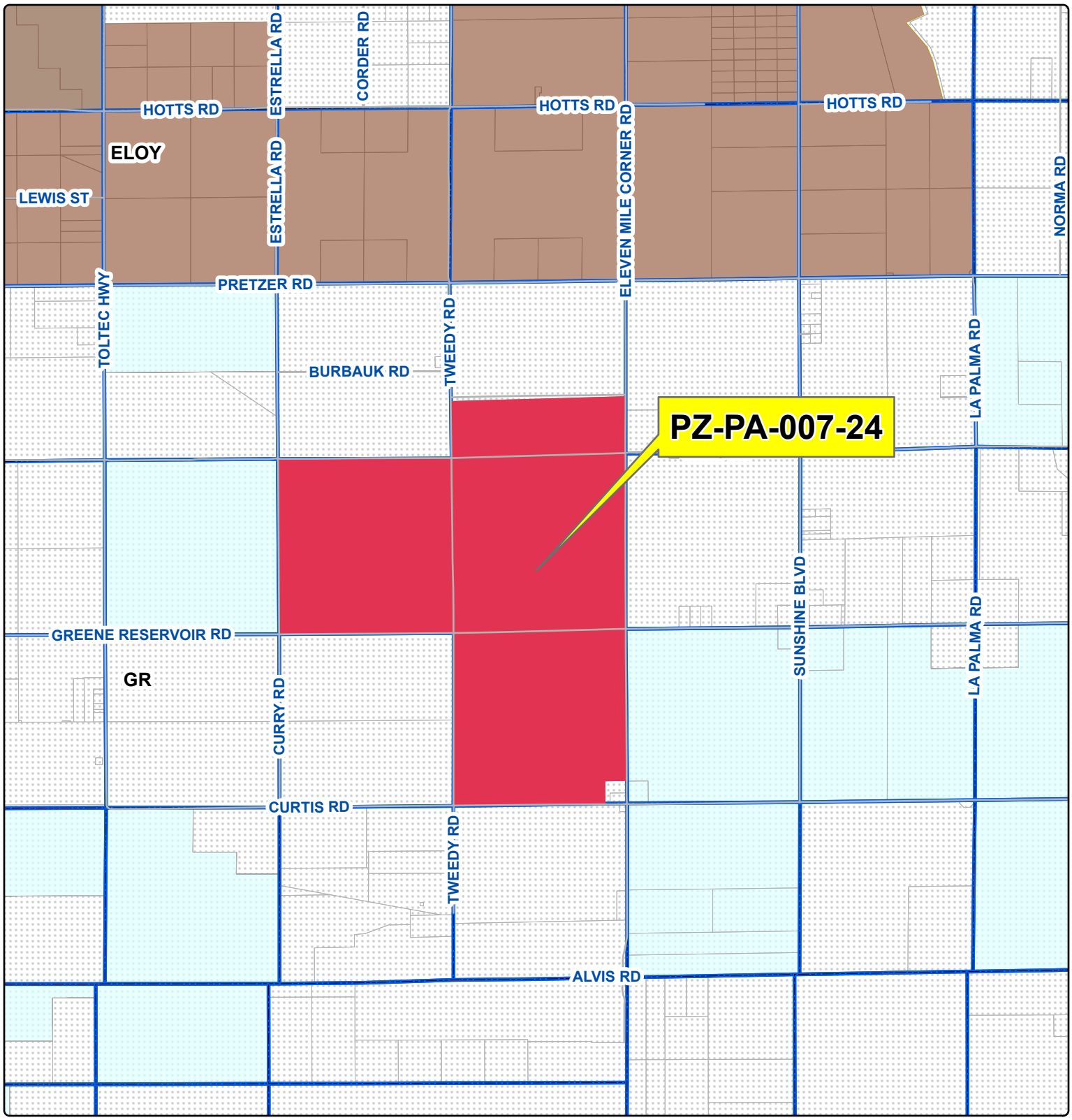
However, should the Citizen Advisory Committee find, after the presentation of the applicant and together with the testimony and evidence presented at the public hearing, that this Major Comprehensive Plan amendment is needed and necessary at this location and time, will not negatively impact adjacent properties, will promote orderly growth and development of the County and will be compatible and consistent with the applicable goals and policies of the Pinal County Comprehensive Plan, then staff will recommend that the Citizen Advisory Committee forward **PZ-PA-007-24**, to the Planning and Zoning Commission with a favorable recommendation. If the Citizen Advisory Committee cannot find all of the factors listed above grounds for approval, then staff recommends that the Citizen Advisory Committee forward this case to the Planning and Zoning Commission with recommendation of denial.

Date Prepared: 08/22/24 SD

PINAL COUNTY
WIDE OPEN OPPORTUNITY

Land Status





Community Development

PINAL COUNTY
WIDE OPEN OPPORTUNITY

Legal Description:
Situated on a portions of sections 13, 23, 24, and 25, T09S, R07E of the Gila and Salt River Base and Meridian (legal on file) tax parcels: 408-11-025B, 408-11-025C, 408-11-025D,408-11-024A, 408-11-024C, 408-11-0230, 408-15-0020, 408-15-0010, 408-12-0020, 408-12-0030 located eight miles south of Eloy and approximately seven miles south of interstate 10 within the unincorporated area of Pinal County.

SEC 13, 23, 24, & 25, TWN 09S, RNG 07E

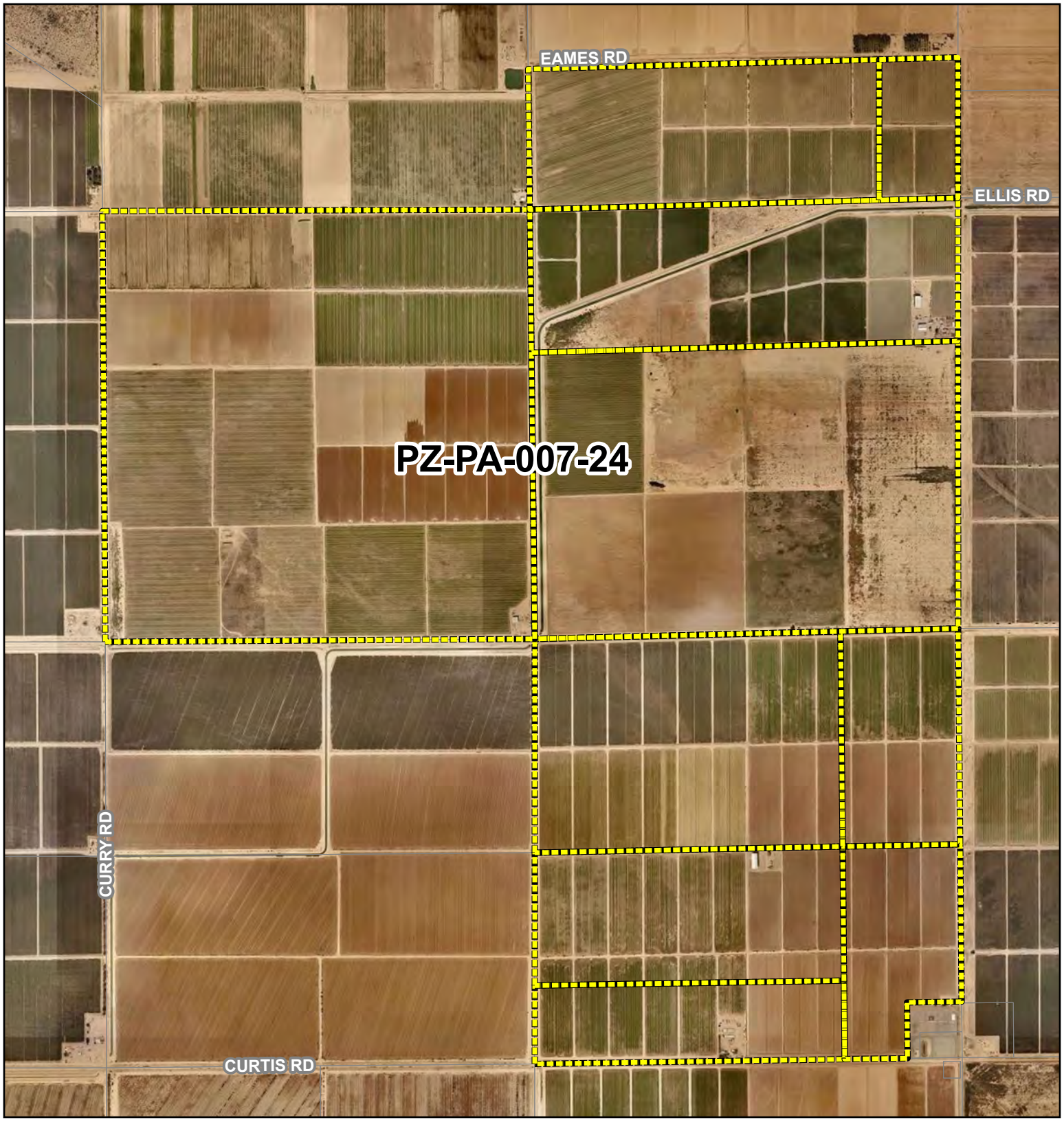
Sheet No. 1 of 1

Owner/Applicant: CYPRESS CREEK RENEWABLES, LLC

Drawn By:	Date:
GIS / IT / RWH	07/8/2024

Section	Township	Range
13, 23, 24, & 25	09S	07E

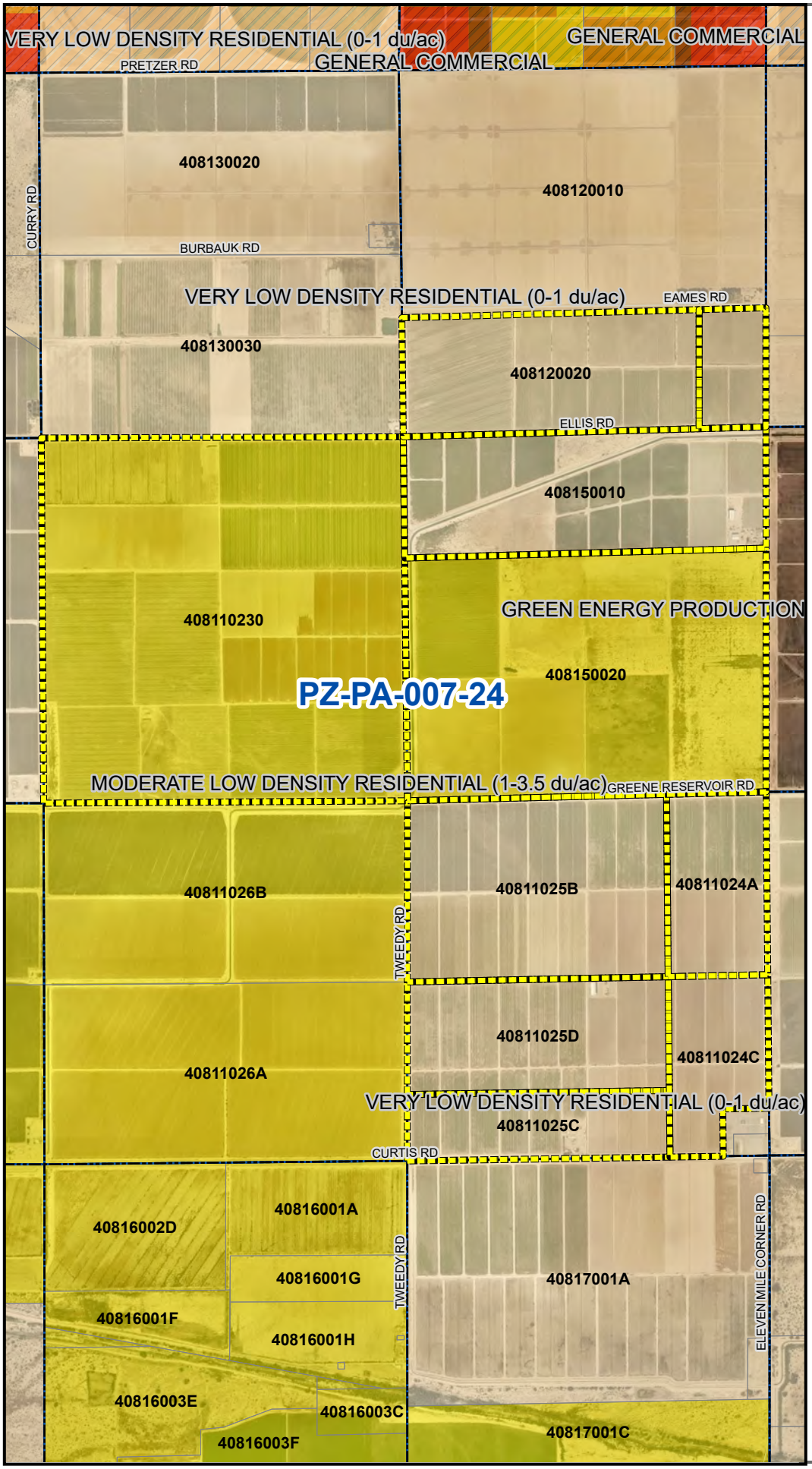
Case Number: PZ-PA-007-24



Community Development

PINAL COUNTY
WIDE OPEN OPPORTUNITY

PZ-PA-007-24



PINAL COUNTY
WIDE OPEN OPPORTUNITY

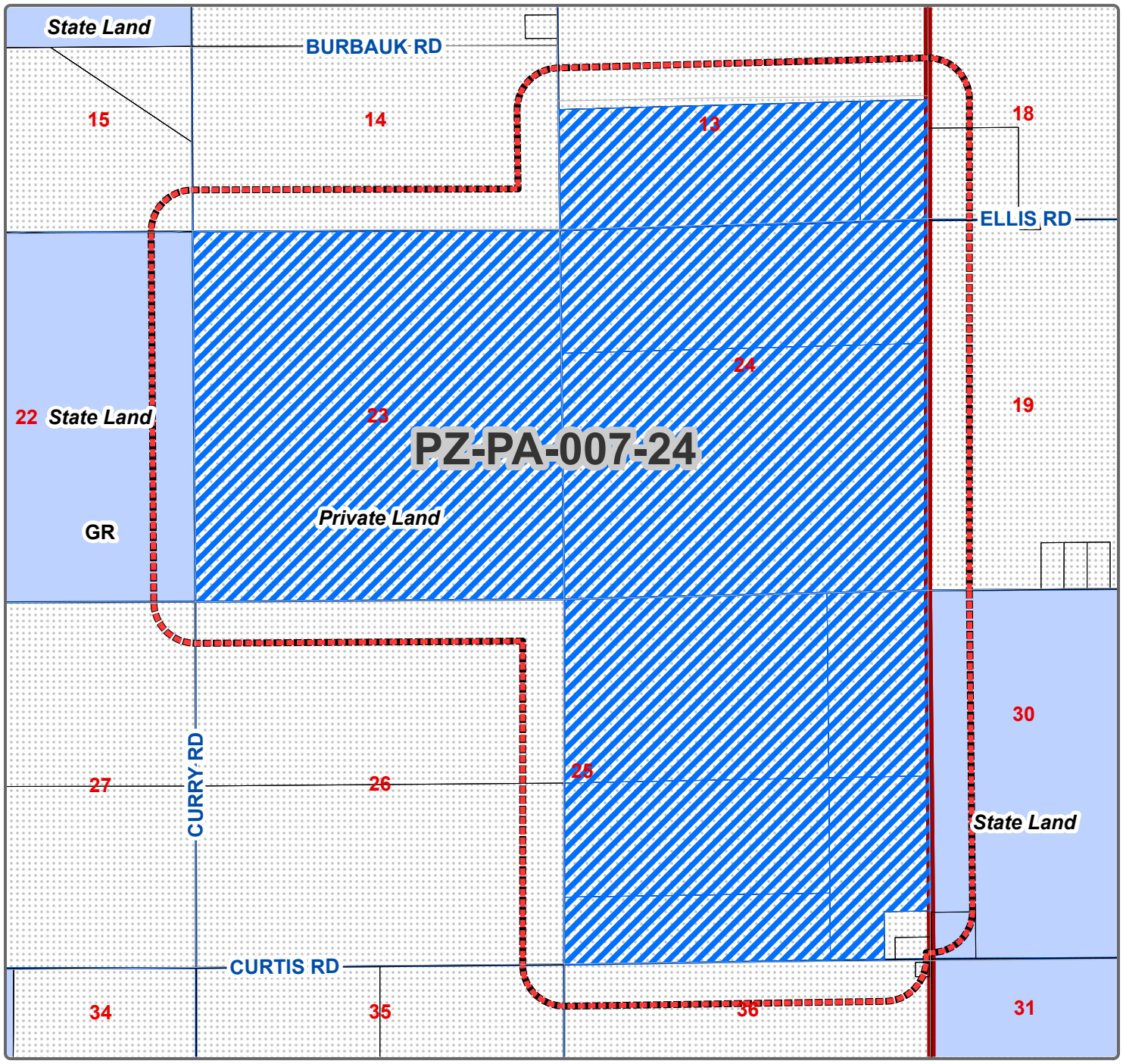
PZ-PA-007-24

FROM:

VERY LOW DENSITY RESIDENTIAL, MODERATE LOW DENSITY RESIDENTIAL

TO:

GREEN ENERGY PRODUCTION



Community Development

PZ-PA-007-24 – PUBLIC HEARING/ACTION: Cypress Creek Renewables, LLC, applicant/agent, Heather Wise, requesting a Major Comprehensive Plan Amendment to amend the Land Use Plan and re-designate ±2,123 acres of land from Very Low Density Residential (VLDR, 0-1 du/ac) and Moderate Low Density Residential (MLDR, 1-3.5 du/ac) to Green Energy Production for a utility scale photovoltaic Solar Power Plant, situated on a portions of sections 13, 23, 24, and 25, T09S, R07E of the Gila and Salt River Base and Meridian (legal on file) tax parcels: 408-11-025B, 408-11-025C, 408-11-025D,408-11-024A, 408-11-024C, 408-11-0230, 408-15-0020, 408-15-0010, 408-12-0020, 408-12-0030 located eight miles south of Eloy and approximately seven miles south of interstate 10 within the unincorporated area of Pinal County.

Current Zoning: GR

Current Land Use: VLDR, MLDR

PINAL COUNTY
WIDE OPEN OPPORTUNITY

Legal Description: Situated on a portions of sections 13, 23, 24, and 25, T09S, R07E of the Gila and Salt River Base and Meridian (legal on file) tax parcels: 408-11-025B, 408-11-025C, 408-11-025D,408-11-024A, 408-11-024C, 408-11-0230, 408-15-0020, 408-15-0010, 408-12-0020, 408-12-0030 located eight miles south of Eloy and approximately seven miles south of interstate 10 within the unincorporated area of Pinal County.
SEC 13, 23, 24, and 25, TWN 09S, RNG 07E

Sheet No. 1 of 1

Owner/Applicant: CYPRESS CREEK RENEWABLES, LLC			
Drawn By: GIS / IT /RWH			Date: 07/08/2024
Section 13, 23, 24, and 25	Township 09S	Range 07E	
Case Number: PZ-PA-007-24			

DocuSign Envelope ID: DEF97335-E250-42A8-9F9C-7262D70F00B7

PINAL COUNTY
WIDE OPEN OPPORTUNITY

Leo Lew
County Manager

PROCEDURE AND APPLICATION FOR A PROPOSED NON-MAJOR COMPREHENSIVE PLAN AMENDMENT

A. Attend a Concept Review (Zoning pre-application (Z-PA)) meeting with the Planning Department and affected County agencies.

B. File an application and all required supporting documentation for a Comprehensive Plan Amendment. Please use the attached application forms.

C. Public hearing before the Planning Commission with Commission recommendation to the Board of Supervisors. Time frame is approximately 10 to 15 weeks from application acceptance by the Planning Department.

D. Public hearing, (approximately 4 to 8 weeks after Planning Commission hearing), before the Board of Supervisors.

PROCEDURE FOR A PROPOSED MAJOR COMPREHENSIVE PLAN AMENDMENT

A. Attend a Concept Review (Zoning Pre-Application (Z-PA)) meeting with the Planning Department and affected County agencies.

B. File an application and all required supporting documentation for a Comprehensive Plan Amendment. Please use the attached application forms.

C. Public meeting with the Citizens Advisory Committee.

D. Public hearing before the Planning Commission with Commission recommendation to the Board of Supervisors.

E. Public hearing before the Board of Supervisors.

*Public hearing schedule will be made available in June.

FEE SCHEDULE FOR MAJOR AND NON-MAJOR AMENDMENTS

A. Major Comprehensive Plan Amendment: $5,091.00

B. Non-major Comprehensive Plan Amendment:

   a. 0-499 mailouts: $4,478.00
   b. 500 or more mailouts: $4,824.00
   c. With accompanying zone change: $3,354.00

COMMUNITY DEVELOPMENT
Planning Division

85 N. Florence St., PO Box 2973, Florence, AZ 85132 T 520-866-6442 FREE 888-431-1311 F 520-866-6530
www.pinalcountyaz.gov

DocuSign Envelope ID: DEF97335-E250-42A8-9F9C-7262D70F00B7

PINAL COUNTY
WIDE OPEN OPPORTUNITY

Leo Lew
County Manager

APPLICATION FOR A COMPREHENSIVE PLAN AMENDMENT IN AN UNINCORPORATED AREA OF PINAL COUNTY, ARIZONA
(All Applications Must Be Typed or Written in Ink)

Comprehensive Plan Amendment unincorporated & Property Information:
(Feel free to include answers and to these questions in a Supplementary Narrative, when doing so write see narrative on the space provided)

1. The legal description of the property: See application Narrative, Appendix D

2. Parcel Number(s): 40811025B, 40811025D, 40811024A, 40811024C , 40811025C, 408150010, 408110230, 408150020, 408120020, 408120030 Total Acreage: 2,148.94 acres

3. Current Land Use Designation: Very Low and Moderate Low Density Residential

4. Requested Land Use Designation: Green Energy Production

5. Date of Concept Review: 5/14/2024 Concept Review Number: Z-PA-0380-24

6. Why is this Comprehensive Plan Amendment being requested? (You must provide a summary of the anticipated development on this page, if not provided, the application cannot be processed.): The Applicant is requesting an Amendment for approximately 2,145 acres across 10 parcels, all-privately-owned, in unincorporated Pinal County. The Amendment is requesting to change the land use classification for all parcels from Very Low Density Residential and Moderate Low Density Residential to Green Energy Production. This Amendment would allow for the development of a solar generation and energy storage facility in the far south of the county, in an area distant from towns, current and planned residential development, employment hubs, state parks, and scenic areas. It is on land that has been used as farmland, but can often no longer get sufficient water from the Central Arizona Project and is looking to be re-purposed.

7. Discuss any recent changes in the area that would support your application. The land is presently being used for agricultural purposes, but the landowners' abilities to continue to farm are being diminished by insufficient ground water and a shrinking water allocation from the Central Arizona Project. The landowners currently are unable to fully utilize their agricultural lands with their current water supplies. Thus, the landowners, who are long-time agricultural practitioners and champions, are considering new uses for the land. As an alternative to agriculture with high water use, a solar and energy storage facility would utilize little to no water during operations and limited water during construction eliminating the need for water allocation to this 2,145-acre Project. Additionally, the Project directly abuts existing GEP land use known as Eloy Solar (Figure 3), approved by the Board of Supervisors on November 17, 2021 (PZ-PA-005-21).

8. Explain why the proposed amendment is needed and necessary at this time. New energy generation is in high demand and the existing landowners are looking to find a new use for this land, as for many of them it is no longer adequately or optimally supporting farming. This solar and energy storage project is currently in a priority interconnection study with APS, and the results are expected in June 2024 with an interconnection agreement expected by early next year. The project has completed significant development and site work, 10-20% engineering is underway, and discussions are ongoing with potential utility and corporate customers. As the Pinal County processes typically take 1.5 years, this application cycle reflects the appropriate time to start the amendment process to align with the project development timeline.

INV#: AMT: DATE: CASE: Xref:

DocuSign Envelope ID: DEF97335-E250-42A8-9F9C-7262D70F00B7

PINAL COUNTY COMPREHENSIVE PLAN AMENDMENT APPLICATION

IN ADDITION TO THIS APPLICATION, YOU WILL NEED TO SUBMIT:

- ☐ A. **Certified Boundary Survey**, including legal descriptions of the proposed designations
- ☐ B. Location map which identifies the property and its relationship to Pinal Countyenvirons.
- ☐ C. Map showing the topography of the property.
- ☐ D. Site map which specifically identifies the property including parcels under separate ownership.
- ☐ E. Property owner(s) authorization for the Comprehensive Plan Amendment.
- ☐ F. Other information as may be determined necessary by the Planning staff or other information the applicant feels is pertinent to this request.
- ☐ G. Non-refundable filing fee as shown on the cover page.
- ☐ H. Narrative in PDF format.
- ☐ I. Neighborhood meeting report

Your application must be submitted digitally via the online submittal portal site at https://citizenaccess.pinalcountyaz.gov/CitizenAccess/Default.aspx

Please call or email the Planning Division for more information.

I certify the information included in this application is accurate, to the best of my knowledge. I have read the application and I have included the information, as requested. I understand if the information submitted is incomplete, this application cannot be processed.

Cactus Flower Solar, LLC	445 Bush Street, San Francisco, CA 94108	406-431-0686
Name of Landowner (Applicant)	Address	Phone Number

DocuSigned by: Heather Wise 8F057EB0506541D...	5/30/2024	heather.wise@ccrenew.com
Signature of Landowner (Applicant)		E-Mail Address

Heather Wise	445 Bush Street, San Francisco, CA 94108	406-431-0686
Name of Agent	Address	Phone Number

DocuSigned by: Heather Wise 8F057EB0506541D...	5/30/2024	heather.wise@ccrenew.com
Signature of Agent		E-Mail Address

The Agent has the authority to act on behalf of the landowner. The Agent will be the contact person for Planning staff and must be present at all hearings. Please use the attached Agency Authorization form, if applicable

AGENCY AUTHORIZATION

(To be completed by landowners of subject property when landowners do not represent themselves. Instructions for completing required information are in bold and brackets below lines. If applicant is a company, corporation, partnership, joint venture, trustee, etc., please use the corporate signature block and have the notary fill in the notarization section for corporations not individuals and cannot be submitted digitally)

TO: Pinal County Planning & Development Services
P.O. Box 2973
Florence, AZ 85132

Curtis 1035 LLC
[Insert Name -- If a Corporation, Partnership or Association, Include State of Incorporation]

hereinafter referred to as "Owner," is/are the owner(s) of 632 acres located at along Curtis Rd between S 11 Mile Corner Rd and S Tweedy Rd, and further identified
[Insert Address of Property]

as assessor parcel number 40811025B, 40811025D, 40811024A, 40811024C, 40811025C and legally described as follows:
[Insert Parcel Number]

[Legal Description is attached hereto as Exhibit A]

Said property is hereinafter referred to as the "Property."

Owner hereby appoints Cactus Flower Solar, LLC
[Insert Agent's Name. If the Agent Is a Company, Insert Company Name Only]

hereinafter referred to as "Agent," to act on Owner's behalf in relation to the Property in obtaining approvals from Pinal County for any necessary amendment to Pinal County's Comprehensive Plan; zone changes; planned area development overlay districts; platting of the subject property; special use permit or industrial use permit; and to file applications and make the necessary submittals for such approvals.

Owner consents and agrees to be bound by all stipulations agreed to by this Agent in connection with any of above-referenced processes.

[Individual PROPERTY OWNER signature block and acknowledgment. DO NOT SIGN HERE IF SIGNING AS AN OFFICER OF A CORPORATION ON THE NEXT PAGE.]

[Signature]

5685 S Topaz Pl Chandler AZ 85249
[Address]

Dated: 4/19/24

[Signature]

[Address]

Dated: _____

STATE OF Arizona)
) ss.
COUNTY OF Maricopa)

The foregoing instrument was acknowledged before me this 19 day of April by Brian Blevins.
[Insert Name of Signor(s)]

My commission expires 11-30-2026

Lorri Rodriguez
Printed Name of Notary

LORRI RODRIGUEZ
Notary Public - Arizona
Pinal County
Commission # 640304
My Comm. Expires Nov 30, 2026

Lorri Rodriguez
Signature of Notary Public

ENTITY INFORMATION

Search Date and Time: 4/23/2024 2:45:45 PM

Entity Details

Entity Name:	CURTIS 1035, L.L.C.	Entity ID:	L18524114
Entity Type:	Domestic LLC	Entity Status:	Active
Formation Date:	6/7/2013	Reason for Status:	In Good Standing
Approval Date:	6/11/2013	Status Date:	
Original Incorporation Date:	6/7/2013	Life Period:	12/31/2075
Business Type:		Last Annual Report Filed:	
Domicile State:	Arizona	Annual Report Due Date:	
		Years Due:	
Original Publish Date:	6/26/2013		

Statutory Agent Information

Name:	STAT AGENT RP LLC	Appointed Status:	Active
Attention:			
Address:	99 East Virginia Avenue, Suite 205, PHOENIX, AZ 85004, USA		
Agent Last Updated:	9/29/2021	E-mail:	
Attention:		Mailing Address:	99 East Virginia Avenue, Suite 205, PHOENIX, AZ 85004, USA
County:	Maricopa		

Principal Information

Title	Name	Attention	Address	Date of Taking Office	Last Updated
Manager	BRIAN C BLEVINS		4815 W HARMON RD, ELOY, AZ, 85131, USA	9/3/2013	1/7/2015
Manager	M CRAIG CABALLERO		4815 W HARMON RD, ELOY, AZ, 85131, USA	9/3/2013	1/7/2015
Member	DAIRYVIEW INVESTMENTS LLC		4815 W HARMON RD, ELOY, AZ, 85131, USA	9/3/2013	1/7/2015

Page 1 of 1, records 1 to 3 of 3

Address

Attention:	Address: 2562 E SCORPIO PL, CHANDLER, AZ, 85249, USA	County: Maricopa	Last Updated: 6/10/2013

Entity Principal Office Address

Attention:	Address:	County:	Last Updated:

Back | Return to Search | Return to Results | Document History | Name/Restructuring History | Pending Documents | Microfilm History

AGENCY AUTHORIZATION

(To be completed by landowners of subject property when landowners do not represent themselves. Instructions for completing required information are in bold and brackets below lines. If applicant is a company, corporation, partnership, joint venture, trustee, etc., please use the corporate signature block and have the notary fill in the notarization section for corporations not individuals and cannot be submitted digitally)

TO: Pinal County Planning & Development Services
P.O. Box 2973
Florence, AZ 85132

Stambaugh Farms LLC
[Insert Name -- If a Corporation, Partnership or Association, Include State of Incorporation]

hereinafter referred to as "Owner," is/are the owner(s) of 216.5 acres located at 27830 S 11 Mile Corner Rd, Eloy, AZ 85131, and further identified
[Insert Address of Property]

as assessor parcel number 408150010 and legally described as follows:
[Insert Parcel Number]

[Legal Description is attached hereto as Exhibit A]

Said property is hereinafter referred to as the "Property."

Owner hereby appoints Cactus Flower Solar, LLC
[Insert Agent's Name. If the Agent Is a Company, Insert Company Name Only]

hereinafter referred to as "Agent," to act on Owner's behalf in relation to the Property in obtaining approvals from Pinal County for any necessary amendment to Pinal County's Comprehensive Plan; zone changes; planned area development overlay districts; platting of the subject property; special use permit or industrial use permit; and to file applications and make the necessary submittals for such approvals.

Owner consents and agrees to be bound by all stipulations agreed to by this Agent in connection with any of above-referenced processes.

[Individual PROPERTY OWNER signature block and acknowledgment. DO NOT SIGN HERE IF SIGNING AS AN OFFICER OF A CORPORATION ON THE NEXT PAGE.]

[Signature] *[Signature]*

27830 S Eleven mile Corner Rd Eloy AZ 85131
[Address] *[Address]*

Dated: 4-20-2024 Dated: _____

STATE OF Arizona)
) ss.
COUNTY OF Pinal)

The foregoing instrument was acknowledged before me this 20 day of April by David Stambaugh
[Insert Name of Signor(s)]

My commission expires November 30, 2026

Lorri Rodriguez
Printed Name of Notary

Lorri Rodriguez
Signature of Notary Public

LORRI RODRIGUEZ
Notary Public - Arizona
Pinal County
Commission # 640304
My Comm. Expires Nov 30, 2026

LIMITED LIABILITY COMPANY OPERATING AGREEMENT
OF
Stambaugh Farms LLC

This Multi-member LLC Operating Agreement represents Stambaugh Farms LLC that was formed in the State of Arizona on November 26 2019, hereinafter known as the "Company".

There are a total of Two (2) Members in the Company known as:

David Graham Stambaugh, of 27830 S. 11 Mile Corner Rd. , Eloy, Arizona, 85131 and has 50% percent ownership-interest in the Company;

Sawyer Graham Stambaugh, of 27830 W. 11 Mile Corner Rd. , Eloy, Arizona, 85131 and has 50% percent ownership-interest in the Company;

hereinafter known as the "Member(s)".

WHEREAS the Member(s) desire to create a limited liability company under the laws of the State of Arizona and set forth the terms herein of the Company's operation and the relationship between Member(s).

THEREFORE, in consideration of the mutual covenants set forth herein and other valuable consideration, the receipt and sufficiency of which hereby are acknowledged, the Member(s) and the Company agree as follows:

CCR-Data Room (Clients Flowers)
melissa.kemp@ccrenv.com
4/23/2024 9:48:09 PM
Melissa Kemp

1. Name and Principal Place of Business

The name of the Company is Stambaugh Farms LLC with a principal place of business at 27830 S. 11 Mile Corner Rd. , Eloy, Arizona, 85131. The mailing address shall be the same address as the principal office location.

2. Registered Agent

The name of the Registered Agent is David Graham Stambaugh with a registered office located at 27830 S. 11 Mile Corner Rd., Eloy, Arizona, 85131 for the service of process as of November 26 2019. This may change at any time by the Company filing an amendment with the Secretary of State, or respective office, in the State of Arizona.

3. Formation

The Company was formed on November 26 2019, when the Member(s) filed the Articles of Organization with the office of the Secretary of State pursuant to the statutes governing limited liability companies in the State of Arizona (the "Statutes").

4. Purpose

The purpose of the Company is to engage in and conduct any and all lawful businesses, activities or functions, and to carry on any other lawful activities in connection with or incidental to the foregoing, as the Member(s) in their discretion shall determine.

5. Term

The term of the Company shall be perpetual, commencing on the filing of the Articles of Organization of the Company, and continuing until terminated under the provisions set forth herein.

6. Member(s) Capital Contributions

The Member(s) shall not be providing any initial capital contributions to the LLC.

7. Distributions

For purposes of this Agreement "net profits" and "net losses" mean the profits or losses of the Company resulting from the conduct of the Company's business, after all expenses, including depreciation allowance, incurred in connection with the conduct of its business for which such expenses have been accounted.

The term "Cash Receipts" shall mean all Cash Receipts of the Company from whatever source derived, including without limitation capital contributions made by the Member(s); the proceeds of any sale, exchange, condemnation or other disposition of all or any part of the assets of the Company; the proceeds of any loan to the Company; the proceeds of any mortgage or refinancing of any mortgage on all or any part of the assets of the Company; the proceeds of any insurance policy for fire or other casualty damage payable to the Company; and the proceeds from the liquidation of assets of the Company following termination.

The term "Capital Transactions" shall mean any of the following: the sale of all or any part of the assets of the Company; the refinancing of mortgages or other liabilities of the Company; the receipt of insurance proceeds; and any other receipts or proceeds are attributable to capital.

The "Capital Account" for each Member shall mean the account created and maintained for the Member(s) in accordance with Section 704(b) of the Internal Revenue Code and Treasury Regulation Section 1.704-1(b)(2)(iv).

The term "Members' Percentage Interests" shall mean the percentages set forth with the name of each Member.

During each annual period the net profits and net losses of the Company (other than from Capital Transactions), and each item of income, gain, loss, deduction or credit entering into the computation thereof, shall be credited or charged, as the case may be, to the capital accounts of each Member in proportion to the Members' Percentage Interests. The net profits of the Company from Capital Transactions shall be allocated in the following order of priority: (a) to offset any negative balance in the capital accounts of the Member(s) in proportion to the amounts of the negative balance in their respective capital accounts, until all negative balances in the capital accounts have been eliminated; then (b) to the Members in proportion to the Members' Percentage Interests. The net losses of the Company from Capital Transactions shall be allocated in the following order of priority: (a) to the extent that the balance in the capital accounts of any Member(s) are in excess of their original contributions, to such Members in proportion to the excess balances until all such excess balances have been reduced to zero; then (b) to the Member(s) in proportion to the Members' Percentage Interests.

The Cash Receipts of the Company shall be applied in the following order of priority: (a) to the payment of interest or amortization on any mortgages on the assets of the Company, amounts due on debts and liabilities of the Company other than those due to any Member(s), costs of the construction of the improvements to the assets of the Company and operating expenses of the

Company; (b) to the payment of interest and establishment of cash reserves determined by the Member(s) to be necessary or appropriate, including without limitation, reserves for the operation of the Company's business, construction, repairs, replacements, taxes and contingencies; and (d) to the repayment of any loans made to the Company by any Member(s). Thereafter, the Cash Receipts of the Company shall be distributed among the Members as hereafter provided.

Except as otherwise provided in this Agreement or otherwise required by law, distributions of Cash Receipts of the Company, other than from Capital Transactions, shall be allocated among the Member(s) in proportion to the Members' Percentage Interests.

Except as otherwise provided in this Agreement or otherwise required by law, distributions of Cash Receipts from Capital Transactions shall be allocated in the following order or priority: (a) to the Member(s) in proportion to their respective capital accounts until each Member has received cash distributions equal to any positive balance in their capital account; then (b) to the Member(s) in proportion to the Members' Percentage Interests.

It is the intention of the Member(s) that the allocations under this Agreement shall be deemed to have "substantial economic effect" within the meaning of Section 704 of the Internal Revenue Code and Treas. Reg. Section 1.704-1. Should the provisions of this Agreement be inconsistent with or in conflict with Section 704 of the Code or the Regulations thereunder, then Section 704 of the Code and the Regulations shall be deemed to override the contrary provisions thereof. If Section 704 or the Regulations at any time require that limited liability company operating agreements contain provisions which are not expressly set forth herein, such provisions shall be incorporated into this Agreement by reference and shall be deemed a part of this Agreement to the same extent as though they had been expressly set forth herein.

8. Books, Records and Tax Returns

The Member(s), or their designees, shall maintain complete and accurate records and books of the Company's transactions in accordance with generally accepted accounting principles.

The Company shall furnish each Member, within seventy-five (75) days after the end of each fiscal year, an annual report of the Company including a balance sheet, a profit and loss statement a capital account statement; and the amount of such Member's share of the Company's income, gain, losses, deductions and other relevant items for federal income tax purposes.

The Member(s) intends that the Company shall be taxed as a Partnership in accordance with the provisions of the Internal Revenue Code. The Company shall prepare all Federal, State and local income tax and information returns for the Company, and shall cause such tax and information returns to be timely filed. Within seventy-five (75) days after the end of each fiscal year, the Company shall forward to each person who was a Member during the preceding fiscal year a true copy of the Company's information return filed with the Internal Revenue Service for the preceding fiscal year.
All elections required or permitted to be made by the Company under the Internal Revenue Code, and the designation of a tax matters partner pursuant to Section 6231(a)(7) of the Internal Revenue Code for all purposes permitted or required by the Code, shall be made by the Company by the affirmative vote or consent of Member(s) holding a majority of the Members' Percentage Interests.

Upon request, the Company shall furnish to each Member, a current list of the names and addresses of all of the Member(s) of the Company, and any other persons or entities having any financial interest in the Company.

9. Bank Accounts

All funds of the Company shall be deposited in the Company's name in a bank account or accounts as chosen by the Member(s). Withdrawals from any bank accounts shall be made only in the regular course of business of the Company and shall be made upon such signature or signatures as the Member(s) from time to time may designate.

10. Management of the Company

The business and affairs of the Company shall be conducted and managed by the Member(s) in accordance with this Agreement and the laws of the State of Arizona.

Except as expressly provided elsewhere in this Agreement, all decisions respecting the management, operation and control of the business and affairs of the Company and all determinations made in accordance with this Agreement shall be made by a vote of the Members unanimously.

Notwithstanding any other provision of this Agreement, the Members shall not, without the prior authorization of the Members unanimously in favor to sell, exchange, lease, assign or otherwise transfer all or substantially all of the assets of the Company; sell, exchange, lease (other than space leases in the ordinary course of business), assign or transfer the Company's assets; mortgage, pledge or encumber the Company's assets other than is expressly authorized by this Agreement; prepay, refinance, modify, extend or consolidate any existing mortgages or encumbrances; borrow money on behalf of the Company; lend any Company funds or other assets to any person; establish any reserves for working capital repairs, replacements, improvements or any other purpose; confess a Judgment against the Company; settle, compromise or release, discharge or pay any claim, demand or debt, including claims for insurance; approve a merger or consolidation of the Company with or into any other limited liability company, corporation, partnership or other entity; or change the nature or character of the business of the Company.

The Members shall receive such sums for compensation as Members of the Company as may be determined from time to time by the affirmative vote or consent of Members holding a majority of the Members' Percentage Interests.

11. Meetings of Members

The annual meeting of the Members shall be held on the 26th of November (day/month) at the principal office of the Company or at such other time and place as the Members determine, for the purpose of transacting such business as may lawfully come before the meeting. If the day fixed for the annual meeting shall be a legal holiday, such meeting shall be held on the next succeeding business day.

The Members may by resolution prescribe the time and place for the holding of regular meetings and may provide that the adoption of such resolution shall constitute notice of such regular meetings.

Special meetings of the Members, for any purpose or purposes, may be called by any Members (or such other number of Members as the Members from time to time may specify).

Written or electronic notice stating the place, date, and time of the meeting, the means of electronic video screen communication or transmission, if any, and describing the purposes for which the meeting is called, shall be delivered not fewer than ten (10) days and not more than sixty (60) days

before the date of the meeting to each Member, by or at the direction of the Manager or the Member(s) calling the meeting, as the case may be.

At any meeting of the Members, the presence of Members holding a majority of the Members' Percentage Interests, as determined from the books of the Company, represented in person or by proxy, shall constitute a quorum for the conduct of the general business of the Company. However, if any particular action by the Company shall require the vote or consent of some other number or percentage of Members pursuant to this Agreement, a quorum for the purpose of taking such action shall require such other number or percentage of Members. If a quorum is not present, the meeting may be adjourned from time to time without further notice, and if a quorum is present at the adjourned meeting any business may be transacted which might have been transacted at the meeting as originally notified. The Members present at a duly organized meeting may continue to transact business until adjournment, notwithstanding the withdrawal of enough Members to leave less a quorum.

At all meetings of the Members, a Member may vote by proxy executed in writing by the Member or by a duly authorized attorney-in-fact of the Member. Such proxy shall be filed with the Company before or at the time of the meeting.

A Member of the Company who is present at a meeting of the Members at which action on any matter is taken shall be presumed to have assented to the action taken, unless the dissent of such Member shall be entered in the minutes of the meeting or unless such Member shall file a written dissent to such action with the person acting as the secretary of the meeting before the meeting's adjournment. Such right to dissent shall not apply to a Member who voted in favor of such action.

Unless otherwise provided by law, any action required to be taken at a meeting of the Members, or any other action which may be taken at a meeting of the Members, may be taken without a meeting if a consent in writing, setting forth the action so taken, shall be signed by all of the Members entitled to vote with respect to the subject.

Members of the Company may participate in any meeting of the Members by means of conference telephone or similar communication if all persons participating in such meeting can hear one another for the entire discussion of the matters to be voted upon. Participation in a meeting pursuant to this paragraph shall constitute presence in person at such meeting.

12. Assignment of Interests

Except as otherwise provided in this Agreement, no Member or other person holding interest in the Company may assign, pledge, hypothecate, transfer or otherwise dispose of all or any part of their interest in the Company, including without limitation, the capital, profits or distributions of the Company without the unanimous vote of the Members in each instance.

A Member may assign all or any part of such Member's interest in the allocations and distributions of the Company to any of the following (collectively the "permitted assignees"): any person, corporation, partnership or other entity as to which the Company has permitted to the assignment of such interest in the allocations and distributions of the Company in accordance with Section 14 of this Agreement. An assignment to a permitted assignee shall only entitle the permitted assignee to the allocations and distributions to which the assigned interest is entitled unless such permitted assignee applies for admission to the Company and is admitted to the Company as a Member in accordance with this Agreement.

The Members agree that a Member may voluntarily withdraw from the Company only with the approval, vote, or consent consisting of a unanimous vote of the Members. Unless the withdrawing member's ownership interest was sold it shall be transferred to the remaining Member(s) in the Company at the same ownership interest percentage ratio that exists at the time of withdrawal. After being removed from the Company the withdrawing Member shall be unequivocally released from any legal or financial liability that is related to the Company unless otherwise agreed upon.
An assignment, pledge, hypothecation, transfer or other disposition of all or any part of the interest of a Member in the Company or other person holding any interest in the Company in violation of the provisions hereof shall be null and void for all purposes.

No assignment, transfer or other disposition of all or any part of the interest of any Member permitted under this Agreement shall be binding upon the Company unless and until a duly executed and acknowledged counterpart of such assignment or instrument of transfer, in form and substance satisfactory to the Company, has been delivered to the Company.

No assignment or other disposition of any interest of any Member may be made if such assignment or disposition, alone or when combined with other transactions, would result in the termination of the Company within the meaning of Section 708 of the Internal Revenue Code or under any other relevant section of the Code or any successor statute. No assignment or other disposition of any interest of any Member may be made without an opinion of counsel satisfactory to the Company that such assignment or disposition is subject to an effective registration under, or exempt from the registration requirements of, the applicable Federal and State securities laws. No interest in the Company may be assigned or given to any person below the age of 21 years or to a person who has been adjudged to be insane or incompetent.

Anything herein contained to the contrary, the Company shall be entitled to treat the record holder of the interest of a Member as the absolute owner thereof, and shall incur no liability by reason of distributions made in good faith to such record holder, unless and until there has been delivered to the Company the assignment or other instrument of transfer and such other evidence as may be reasonably required by the Company to establish to the satisfaction of the Company that an interest has been assigned or transferred in accordance with this Agreement.

13. Right of First Refusal

If a Member desires to sell, transfer or otherwise dispose of all or any part of their interest in the Company, such Member (the "Selling Member") shall first offer to sell and convey such interest to the other Members of the Company before selling, transferring or otherwise disposing of such interest to any other person, corporation or other entity. Such offer shall be in writing, shall be given to every other Member, and shall set forth the interest to be sold, the purchase price to be paid, the date on which the closing is to take place (which date shall be not less than thirty nor more than sixty (60) days after the delivery of the offer), the location at which the closing is to take place, and all other material terms and conditions of the sale, transfer or other disposition.

Within fifteen (15) days after the delivery of said offer, the other Members shall deliver to the Selling Member a written notice either accepting or rejecting the offer. Failure to deliver said notice within said fifteen (15) days conclusively shall be deemed a rejection of the offer. Any or all of the other Members may elect to accept the offer, and if more than one of the other Members elects to accept the offer, the interest being sold and the purchase price, therefore, shall be allocated among the Members so accepting the offer in proportion to their Members' Percentage Interests, unless they otherwise agree in writing.

If any or all of the other Members elect to accept the offer, then the closing of title shall be held in accordance with the offer and the Selling Member shall deliver to the other Members who have accepted the offer an assignment of the interest being sold by the Selling Member, and said other Members shall pay the purchase price prescribed in the offer.

If no other Member accepts the offer, or if the Members who have accepted such offer default in their obligations to purchase the interest, then the Selling Member, within one-hundred and twenty (120) days after the delivery of the offer, may sell such interest to any other person or entity at a purchase price which is not less than the purchase price prescribed in the offer and upon the terms and conditions which are substantially the same as the terms and conditions set forth in the offer, provided all other applicable requirements of this Agreement are complied with. An assignment of such interest to a person or entity who is not a Member of the Company shall only entitle such person or entity to the allocations and distributions to which the assigned interest is entitled, unless such person or entity applies for admission to the Company and is admitted to the Company as a Member in accordance with this Agreement.

If the Selling Member does not sell such interest within said one-hundred and twenty (120) days, then the Selling Member may not thereafter sell such interest without again offering such interest to the other Members in accordance with this Agreement.

14. Admission of New Members

The Company may admit new Members (or transferees of any interests of existing Members) into by the purchase of another Member's ownership interest and a vote for adding the new Member consisting of the unanimous vote of the Members in each instance.

As a condition to the admission of a new Member, such Member shall execute and acknowledge such instruments, in form and substance satisfactory to the Company, as the Company may deem necessary or desirable to effectuate such admission and to confirm the agreement of such Member to be bound by all of the terms, covenants and conditions of this Agreement, as the same may have been amended. Such new Member shall pay all reasonable expenses in connection with such admission, including without limitation, reasonable attorneys' fees and the cost of the preparation, filing or publication of any amendment to this Agreement or the Articles of Organization, which the Company may deem necessary or desirable in connection with such admission.

No new Member shall be entitled to any retroactive allocation of income, losses, or expense deductions of the Company. The Company may make pro rata allocations of income, losses or expense deductions to a new Member for that portion of the tax year in which the Member was admitted in accordance with Section 706(d) of the Internal Revenue Code and regulations thereunder.

In no event shall a new Member be admitted to the Company if such admission would be in violation of applicable Federal or State securities laws or would adversely affect the treatment of the Company as a partnership for income tax purposes.

15. Sale of Company

The sale of the Company, either partially or in its entirety, shall only be approved by a unanimous vote of the Members. Any purchase agreement that is presented to the Company shall be reviewed by up to fifteen (15) days by the Members and put up to a vote within a seven (7) day period thereafter. At the option of any Member, the vote may be delayed by up to thirty (30) days to review the details of the purchase.

If an agreement to sell the Company is approved by the Members, then all sale proceeds shall first be paid to the debt of the Company unless the Buyer is accepting some or all of the debt as part of the purchase. All remaining proceeds shall be dispersed in relation to each Member's percent ownership-interest in the Company.

16. Withdrawal Events

In the event of the death, retirement, withdrawal, expulsion, or dissolution of a Member, or an event of bankruptcy or insolvency, as hereinafter defined, with respect to a Member, or the occurrence of any other event which terminates the continued membership of a Member in the Company pursuant to the Statutes (each of the foregoing being hereinafter referred to as a "Withdrawal Event"), the Company shall terminate sixty (60) days after notice to the Members of such withdrawal Event unless the business of the Company is continued as hereinafter provided.

Notwithstanding a Withdrawal Event with respect to a Member, the Company shall not terminate, irrespective of applicable law, if within aforesaid sixty-day period the remaining Members, by the unanimous vote or consent of the Members (other than the Member who caused the Withdrawal Event), shall elect to continue the business of the Company.

In the event of a Withdrawal Event with respect to a Member, any successor in interest to such Member (including without limitation any executor, administrator, heir, committee, guardian, or other representative or successor) shall not become entitled to any rights or interests of such Member in the Company, other than the allocations and distributions to which such Member is entitled, unless such successor in interest is admitted as a Member in accordance with this Agreement.

An "event of bankruptcy or insolvency" with respect to a Member shall occur if such Member: (1) applies for or consents to the appointment of a receiver, trustee or liquidator of all or a substantial part of their assets; or (2) makes a general assignment for the benefit of creditors; or (3) is adjudicated a bankrupt or an insolvent; or (4) files a voluntary petition in bankruptcy or a petition or an answer seeking an arrangement with creditors or to take advantage of any bankruptcy, insolvency, readjustment of debt or similar law or statute, or an answer admitting the material allegations of a petition filed against them in any bankruptcy, insolvency, readjustment of debt or similar proceedings; or (5) takes any action for the purpose of effecting any of the foregoing; or (6) an order, judgment or decree shall be entered, with or without the application, approval or consent of such Member, by any court of competent jurisdiction, approving a petition for or appointing a receiver or trustee of all or a substantial part of the assets of such Member, and such order, judgment or decree shall be entered, with or without the application, approval or consent of such Member, by any court of competent jurisdiction, approving a petition for or appointing a receiver or trustee of all or a substantial part of the assets of such Member, and such order, judgment or decree shall continue unstated and in effect for thirty (30) days.

17. Dissolution and Liquidation

The Company shall terminate upon the occurrence of any of the following : (i) the election by the Members to dissolve the Company made by the Members unanimously; (ii) the occurrence of a Withdrawal Event with respect to a Member and the failure of the remaining Members to elect to continue the business of the Company as provided for in this Agreement above; or (iii) any other event which pursuant to this Agreement, as the same may hereafter be amended, shall cause a termination of the Company.

The liquidation of the Company shall be conducted and supervised by a person designated for such purposes by the affirmative vote or consent of Members holding a majority of the Members' Percentage Interests (the "Liquidating Agent"). The Liquidating Agent hereby is authorized and empowered to execute any and all documents and to take any and all actions necessary or desirable to effectuate the dissolution and liquidation of the Company in accordance with this Agreement.

Promptly after the termination of the Company, the Liquidating Agent shall cause to be prepared and furnished to the Members a statement setting forth the assets and liabilities of the Company as of the date of termination. The Liquidating Agent, to the extent practicable, shall liquidate the assets of the Company as promptly as possible, but in an orderly and businesslike manner so as not to involve undue sacrifice.

The proceeds of sale and all other assets of the Company shall be applied and distributed in the following order of priority: (1) to the payment of the expenses of liquidation and the debts and liabilities of the Company, other than debts and liabilities to Members; (2) to the payment of debts and liabilities to Members; (3) to the setting up of any reserves which the Liquidating Agent may deem necessary or desirable for any contingent or unforeseen liabilities or obligations of the Company, which reserves shall be paid over to licensed attorney to hold in escrow for a period of two years for the purpose of payment of any liabilities and obligations, at the expiration of which period the balance of such reserves shall be distributed as provided; (4) to the Members in proportion to their respective capital accounts until each Member has received cash distributions equal to any positive balance in their capital account, in accordance with the rules and requirements of Treas. Reg. Section 1.704-1(b)(2)(ii)(b); and (5) to the Members in proportion to the Members' Percentage Interests.

The liquidation shall be complete within the period required by Treas. Reg. Section 1.704-1(b)(2)(ii)(b).

Upon compliance with the distribution plan, the Members shall no longer be Members, and the Company shall execute, acknowledge and cause to be filed any documents or instruments as may be necessary or appropriate to evidence the dissolution and termination of the Company pursuant to the Statutes.

18. Representation of Members

Each of the Members represents, warrants and agrees that the Member is acquiring the interest in the Company for the Member's own account for investment purposes only and not with a view to the sale or distribution thereof; the Member, if an individual, is of legal age; if the Member is an organization, such organization is duly organized, validly existing and in good standing under the laws of its State of organization and that it has full power and authority to execute this Agreement and perform its obligations hereunder; the execution and performance of this Agreement by the Member does not conflict with, and will not result in any breach of, any law or any order, writ, injunction or decree of any court or governmental authority against or which binds the Member, or of any agreement or instrument to which the Member is a party; and the Member shall not dispose of such interest or any part thereof in any manner which would constitute a violation of the Securities Act of 1933, the Rules and Regulations of the Securities and Exchange Commission, or any applicable laws, rules or regulations of any State or other governmental authorities, as the same may be amended.

19. Certificates Evidencing Membership

Every membership interest in the Company shall be evidenced by a Certificate of Membership issued by the Company. Each Certificate of Membership shall set forth the name of the Member holding the membership interest and the Member's Percentage Interest held by the Member, and shall bear the following legend:

"The membership interest represented by this certificate is subject to, and may not be transferred except in accordance with, the provisions of the Operating Agreement of Stambaugh Farms LLC dated effective as of November 26 2019, as the same from time to time may be amended, a copy of which is on file at the principal office of the Company."

20. Notices

All notices, demands, requests or other communications which any of the parties to this Agreement may desire or be required to give hereunder shall be in writing and shall be deemed to have been properly given if sent by courier or by registered or certified mail, return receipt requested, with postage prepaid, addressed as follows: (a) if to the Company, at the principal place of business of the Company designated by the Company; and (b) if to any Member, to the address of said Member first above written, or to such other address as may be designated by said Member by notice to the Company and the other Members pursuant to this Agreement.

21. Arbitration

Any dispute, controversy or claim arising out of or in connection with this Agreement or any breach or alleged breach hereof shall, upon the request of any party involved, be submitted to, and settled by, arbitration in the city in which the principal place of business of the Company is then located, pursuant to the commercial arbitration rules then in effect of the American Arbitration Association (or at any other time or place or under any other form of arbitration mutually acceptable to the parties involved). Any award rendered shall be final and conclusive upon the parties and a judgment thereon may be entered in a court of competent jurisdiction. The expenses of the arbitration shall be borne equally by the parties to the arbitration, provided that each party shall pay for and bear the cost of its own experts, evidence and attorneys' fees, except that in the discretion of the arbitrator any award may include the attorney's fees of a party if the arbitrator expressly determines that the party against whom such award is entered has caused the dispute, controversy or claim to be submitted to arbitration as a dilatory tactic or in bad faith.

22. Amendments

This Agreement may not be altered, amended, changed, supplemented, waived or modified in any respect or particular unless the same shall be in writing and agreed to by the affirmative vote or consent of Members holding a majority of the Members' Percentage Interests. No amendment may be made to Articles that apply to the financial interest of the Members, except by the vote or consent of all of the Members. No amendment of any provision of this Agreement relating to the voting requirements of the Members on any specific subject shall be made without the affirmative vote or consent of at least the number or percentage of Members required to vote on such subject.

23. Miscellaneous

This Agreement and the rights and liabilities of the parties hereunder shall be governed by and determined in accordance with the laws of the State of Arizona. If any provision of this Agreement shall be invalid or unenforceable, such invalidity or unenforceability shall not affect the other provisions of this Agreement, which shall remain in full force and effect.

The captions in this Agreement are for convenience only and are not to be considered in construing this Agreement. All pronouns shall be deemed to be the masculine, feminine, neuter, singular or plural as the identity of the person or persons may require. References to a person or persons shall include partnerships, corporations, limited liability companies, unincorporated associations, trusts, estates and other types of entities.

This Agreement, and any amendments hereto, may be executed in counterparts all of which taken together shall constitute one agreement.

This Agreement sets forth the entire agreement of the parties hereto with respect to the subject matter hereof. It is the intention of the Member(s) that this Agreement shall be the sole agreement of the parties, and, except to the extent a provision of this Agreement provides for the incorporation of federal income tax rules or is expressly prohibited or ineffective under the Statutes, this Agreement shall govern even when inconsistent with, or different from, the provisions of any applicable law or rule. To the extent any provision of this Agreement is prohibited or otherwise ineffective under the Statutes, such provision shall be considered to be ineffective to the smallest degree possible in order to make this Agreement effective under the Statutes.

Subject to the limitations on transferability set forth above, this Agreement shall be binding upon and inure to the benefit of the parties hereto and to their respective heirs, executors, administrators, successors and assigns.

No provision of this Agreement is intended to be for the benefit of or enforceable by any third party.

IN WITNESS WHEREOF, the Member(s) have executed this Agreement on November 26 2019.

The Member(s) of Stambaugh Farms LLC

David Graham Stambaugh

Sawyer Graham Stambaugh

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Melissa Kemp

AGENCY AUTHORIZATION

(To be completed by landowners of subject property when landowners do not represent themselves. Instructions for completing required information are in bold and brackets below lines. If applicant is a company, corporation, partnership, joint venture, trustee, etc., please use the corporate signature block and have the notary fill in the notarization section for corporations not individuals and cannot be submitted digitally)

TO: Pinal County Planning & Development Services
P.O. Box 2973
Florence, AZ 85132

Toone Family Limited Partnership #3
[Insert Name – If a Corporation, Partnership or Association, include State of Incorporation]

hereinafter referred to as "Owner," is/are the owner(s) of 213.2 acres located at On E Ellis Rd between S 11 Mile Corner Rd and S Tweedy Rd, and further identified as assessor parcel number 408120020, 408120030 and legally described as follows:
[Insert Address of Property] *[Insert Parcel Number]*

[Legal Description is attached hereto as Exhibit A]

Said property is hereinafter referred to as the "Property."

Owner hereby appoints Cactus Flower Solar, LLC
[Insert Agent's Name. If the Agent is a Company, Insert Company Name Only]

hereinafter referred to as "Agent," to act on Owner's behalf in relation to the Property in obtaining approvals from Pinal County for any necessary amendment to Pinal County's Comprehensive Plan; zone changes; planned area development overlay districts; platting of the subject property; special use permit or industrial use permit; and to file applications and make the necessary submittals for such approvals.

Owner consents and agrees to be bound by all stipulations agreed to by this Agent in connection with any of above-referenced processes.

[Individual PROPERTY OWNER signature block and acknowledgment. DO NOT SIGN HERE IF SIGNING AS AN OFFICER OF A CORPORATION ON THE NEXT PAGE.]

[Signature]
317 N York Cir, Mesa, AZ 85213
[Address]

Dated: 4-19-2024

[Signature]
317 N. York Cir, Mesa, AZ 85213
[Address]

Dated: 4-19-2024

STATE OF Arizona)
) ss.
COUNTY OF Maricopa)

The foregoing instrument was acknowledged before me this 19 day of April by Michael Carol Toone
[Insert Name of Signer(s)]

My commission expires Dec 21 2026

Josh Wheaton
Printed Name of Notary

Signature of Notary Public

Family Limited Partnership Agreement

of

Toone Family Limited Partnership

Partnership III

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Prepared for you exclusively by:

Ilene L. McCauley, Ltd.
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Phoenix, Arizona 85008
(602) 231-0100

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Family Limited Partnership Agreement

of

Toone Family Limited Partnership

Partnership

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Family Limited Partnership Agreement
of the Toone Family Limited Partnership

This Family Limited Partnership Agreement of the Toone Family Limited Partnership, a Family Limited Partnership organized pursuant to the Arizona Family Limited Partnership Act, is entered into and shall be effective as of the Effective Date, by and among the Partnership and the persons executing this Agreement as Partners.

ARTICLE I
FORMATION

1. **Organization** - The Partners hereby organize the Partnership as an Arizona Family Limited Partnership pursuant to the provisions of the Act.

2. **Agreement, Effect of Inconsistencies with Act** - For and in consideration of the mutual covenants herein contained and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Partners executing the Partnership Agreement hereby agree to the terms and conditions of the Partnership Agreement, as it may from time to time be amended according to its terms. It is the express intention of the Partners that the Partnership Agreement shall be the sole source of agreement of the parties, and, except to the extent a provision of the Partnership Agreement expressly incorporates federal income tax rules by reference to sections of the Code or Regulations or is expressly prohibited or ineffective under the Act, the Partnership Agreement shall govern, even when

inconsistent with, or different than, the provisions of the Act or any other law or rule. To the extent any provision of the Partnership Agreement is prohibited or ineffective under the Act, the Partnership Agreement shall be considered amended to the smallest degree possible in order to make the agreement effective under the Act. In the event the Act is subsequently amended or interpreted in such a way to make any provision of the Partnership Agreement that was formerly invalid valid, such provision shall be considered to be valid from the effective date of such interpretation or amendment. The Partners hereby agree that each Partner shall be entitled to rely on the provisions of this agreement, and no Partner shall be liable to the Partnership or to any Partner for any action or refusal to act taken in good faith reliance on the terms of this agreement. The Partners and the Partnership hereby agree that the duties and obligations imposed on the Partners of the Partnership as such shall be those set forth in this Family Limited Partnership Agreement, which is intended to govern the relationship among the Partnership, the Partners, notwithstanding any provision of the Act [the Arizona Family Limited Partnership act] or common law to the contrary.

3. **Name** - The name of the Partnership is the Toone Family Limited Partnership, and all business of the Partnership shall be conducted under that name or under any other name, but in any case, only to the extent permitted by applicable law.

4. **Effective Date** - The Partnership Agreement shall become effective upon the filing of the Certificate of Limited Partnership with the Arizona Secretary of State.

5. **Term** - The Partnership shall be dissolved and its affairs wound up in accordance with the Arizona Limited Partnership Act and the Partnership Agreement

on December 31, 2030 unless the term shall be extended by amendment to the Partnership Agreement and the Partnership Agreement, or unless the Partnership shall be sooner dissolved and its affairs wound up in accordance with the Arizona Limited Partnership Act or the Partnership Agreement.

6. **Registered Agent and Office** - The registered agent for the service of process and the registered office shall be that Person and location reflected in the Certificate of Limited Partnership as filed in the office of the Arizona Secretary of State. The General Partners, may, from time to time, change the registered agent or office through appropriate filings with the Arizona Secretary of State. In the event the registered agent ceases to act as such for any reason or the registered office shall change, the General Partners shall promptly designate a replacement registered agent or file a notice of change of address as the case may be. If the General Partners shall fail to designate a replacement registered agent or change of address of the registered office, any Partner may designate a replacement registered agent or file a notice of change of address.

7. **Principal Office** - The Principal Office of the Partnership shall be located at:

817 North York Circle

Mesa, AZ 85213-6024

ARTICLE II

DEFINITIONS

For purposes of this Family Limited Partnership Agreement, unless the context clearly indicates otherwise, the following terms shall have the following meanings:

1. **Act** - The Arizona Limited Partnership Act and all amendments to the Act.

2. **Additional Partner** - A Partner other than an Initial Partner or a Substitute Partner who has acquired a Partnership Interest from the Partnership.

3. **Admission Agreement** - The Agreement between an Additional Partner and the Partnership described in Article XIII.

4. **Partnership Agreement** - The Partnership Agreement found in the Agreement of Partnership as properly adopted and amended from time to time by the Partners and the Certificates as may be filed with the Arizona Secretary of State.

5. **Assignee** - A Person to whom a Partnership Interest has been transferred who has not been admitted as a Substituted Partner.

6. **Bankrupt Partner** - A Partner who: (1) has become the subject of an Order for Relief under the United States Bankruptcy Code, (2) has initiated, either in an original Proceeding or by way of answer in any state insolvency or receivership

proceeding, an action for liquidation arrangement, composition, readjustment, dissolution, or similar relief.

7. **Business Day** - Any day other than Saturday, Sunday or any legal holiday observed in the State of Arizona.

8. **Capital Account** - The account maintained for a Partner or Assignee determined in accordance with Article VIII.

9. **Capital Contribution** - Any contribution of Property, services or the obligation to contribute Property or services made by or on behalf of a Partner or Assignee.

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Melissa Kent

10. **Code** - The Internal Revenue Code of 1986 as amended from time to time.

11. **Commitment** - The Capital Contributions that a Partner or Assignee is obligated to make.

12. **Partnership** - Toone Family Limited Partnership, a Family Limited Partnership formed under the laws of the State of Arizona, and any successor Family Limited Partnership.

13. **Partnership Agreement** - This Partnership Agreement including all amendments adopted in accordance with the Partnership Agreement and the Act.

14. **Partnership Liability** - Any enforceable debt or obligation for which the Partnership is liable or which is secured by any Partnership Property.

15. **Partnership Minimum Gain** - An amount determined by first computing for each Partnership Nonrecourse Liability any gain the Partnership would realize if it disposed of the Partnership Property subject to that liability for no consideration other than full satisfaction of the liability, and then aggregating the separately computed gains. The amount of Partnership Minimum Gain includes such minimum gain arising from a conversion, refinancing, or other change to a debt instrument, only to the extent a Partner is allocated a share of that minimum gain. For any Taxable Year, the net increase or decrease in Partnership Minimum Gain is determined by comparing the Partnership Minimum Gain on the last day of the immediately preceding Taxable Year with the Minimum Gain on the last day of the current Taxable Year. Notwithstanding any provision to the contrary contained herein, Partnership Minimum Gain and increases and decreases in Partnership Minimum Gain are intended to be computed in accordance with section 704 of the Code the Regulations issued thereunder, as the same may be issued and interpreted from time to time. **A Partner's share of Partnership Minimum Gain** at the end of any Taxable Year equals: the sum of Nonrecourse Deductions allocated to that Partner (and to that Partner's predecessors in interest) up to that time and the distributions made to that Partner (and to that Partner's predecessors in interest) up to that time of proceeds of a nonrecourse liability allocable to an increase in Partnership Minimum Gain minus the sum of that Partner's (and that Partner's predecessors' in interest) aggregate share of the net decreases in Partnership Minimum Gain plus their aggregate share of decreases

resulting from revaluations of Partnership Property subject to one or more Partnership Nonrecourse Liabilities.

16. **Partnership Nonrecourse Liability** - A Partnership Liability to the extent that no Partner or Related Person bears the economic risk of loss (as defined in §1.752-2 of the Regulations) with respect to the liability.

17. **Partnership Property** - Any Property owned by the Partnership.

18. **Contributing Partners** - Those partners making contributions as a result of the failure of a Delinquent Partner to make the contributions required by the Commitment as described in Article VIII.

19. **Default Interest Rate** - The higher of the legal rate or the then-current prime rate quoted by the largest commercial bank in the jurisdiction of the Principal Office plus three percent.

20. **Delinquent Partner** - A Partner or Assignee who has failed to meet the Commitment of that Partner or Assignee.

21. **Distribution** - A transfer of Property to a partner on account of a Partnership Interest as described in Article IX.

22. **Disposition (Dispose)** - Any sale, assignment, transfer, exchange, mortgage, pledge, grant, hypothecation, or other transfer, absolute or as security or encumbrance (including dispositions by operation of law).

23. **Dissociation** - Any action which causes a Person to cease to be Partner as described in Article XII hereof.

24. **Immediate Family** - A Partner's Immediate Family includes the Partner's spouse, children (including natural, adopted and stepchildren), grandchildren, and parents.

25. **Initial Capital Contribution** - The Capital Contribution agreed to be made by the Initial Partners as described in Article VIII.

26. **Initial Partners** - Those persons identified on Exhibit A attached hereto and made a part hereof by this reference who have executed the Partnership Agreement.

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27. **Majority of the General Partners** - A majority by number of all of the General Partners.

28. **Majority of the Partners** - General Partners having Sharing Ratios in excess of one half of the Sharing Ratios of all the Partners entitled to vote on, consent to, or approve a particular matter. Assignees shall not be considered Partners entitled to vote for the purpose of determining a Majority. In the case of a Partner who has Disposed of that Partner's entire Partnership Interest to an Assignee, but has not ceased to be a Partner as provided below, the Sharing Ratio of such Assignee shall be considered in determining a Majority of the Partners and such Partner's vote or consent shall be determined by such Sharing Ratio.

29. **Majority of the Remaining General Partners** - A majority by number of all the Remaining General Partners.

30. **Majority of the Remaining Partners** - A majority by number of all the Remaining General Partners. Assignees shall not be considered Partners entitled to vote for the purpose of determining a Majority of Remaining Partners. A Partner who has Disposed of that Partner's entire Partnership Interest to an Assignee, but has not been ceased to be a Partner as provided below, shall be considered a Partner for the purpose of determining a Majority of Remaining Partners.

31. **Management Right** - The right of a General Partner to participate in the management of the Partnership, including the rights to information and to consent or approve actions of the Partnership. The rights and authority of a General Partner that exceed those of a Partner who is not a General Partner are not considered Management Rights for purposes of the Partnership Agreement.

32. **General Partner** - A Partner selected to manage the affairs of the Partnership under Article VII hereof.

33. **Limited Partner** - A Limited Partner, Substituted Limited Partner or Additional Limited Partner, including, unless the context expressly indicates to the contrary, a General Partner or Assignee. Limited Partners shall bear no liability of debts of the Partnership in excess of the Contribution amounts, or as may be outlined in the Act.

34. **Partner Minimum Gain** - An amount determined by first computing for each Partner Nonrecourse Liability any gain the Partnership would realize if it disposed of the Partnership Property subject to that liability for no consideration other than full satisfaction of the liability, and then aggregating the separately computed gains. The amount of Partner Minimum Gain includes such minimum gain arising from a conversion, refinancing, or other change to a debt instrument, only to the extent a Partner is allocated a share of that minimum gain. For any Taxable Year, the net increase or decrease in Partner Minimum Gain is determined by comparing the Partner Minimum Gain on the last day of the immediately preceding Taxable Year with the Minimum Gain on the last day of the current Taxable Year. Notwithstanding any provision to the contrary contained herein, Partner Minimum Gain and increases and decreases in Partner Minimum Gain are intended to be computed in accordance with section 704 of the Code the Regulations issued thereunder, as the same may be issued and interpreted from time to time.

35. **Partner Nonrecourse Liability** - Any Partnership Liability to the extent the liability is nonrecourse under Arizona law, and on which a Partner or Related Person bears the economic risk of loss under §1.752-2 of the Code because, for example, the Partner or Related Person is the creditor or a guarantor.

36. **Partnership Interest** - The rights of a Partner or, in the case of an Assignee, the rights of the assigning Partner in Distributions (liquidating or otherwise) and allocations of the profits, losses, gains, deductions, and credits of the Partnership.

37. **Money** - Cash or other legal tender of the United States, or any obligation that is immediately reducible to legal tender without delay or discount. Money shall be considered to have a fair market value equal to its face amount.

38. **Net Losses** - The losses and deductions of the Partnership determined in accordance with accounting principles consistently applied from year to year employed under the method of accounting adopted by the Partnership and as reported separately or in the aggregate, as appropriate, on the tax return of the Partnership filed for federal income tax purposes.

39. **Net Profits** - The income and gains of the Partnership determined in accordance with accounting principles consistently applied from year to year employed under the method of accounting adopted by the Partnership and as reported separately or in the aggregate, as appropriate, on the tax return of the Partnership filed for federal income tax purposes.

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40. **Nonrecourse Liabilities** - Nonrecourse liabilities include Partnership Nonrecourse Liabilities and Partner Nonrecourse Liabilities.

41. **Notice** - Notice shall be in writing. Notice to the Partnership shall be considered given when mailed by first class mail postage prepaid addressed to any General Partner in care of the Partnership at the address of Principal Office. Notice is to a Partner shall be considered given when mailed by first class mail postage prepaid addressed to the Partner at the address reflected in the Partnership Agreement unless the Partner has given the Partnership a Notice of a different address.

42. **Offsettable Decrease** - Any allocation that unexpectedly causes or increases a deficit in the Partner's Capital Account as of the end of the taxable year to which the allocation relates attributable to depletion allowances under §1.704(b)(2)(iv)(*k*) of the Regulations, allocations of loss and deductions under §704(e)(2) or 706 of the Code or under §1.751-1 of the Regulations, or distributions that, as of the end of the year are reasonably expected to made to the extent they exceed the offsetting increases to such Partner's Capital Account that reasonably are expected to occur during or (prior to) the taxable years in which the such distributions are expected to be made (other than increases pursuant to a Minimum Gain Chargeback).

43. **Organization** - A Person other than a natural person. Organization includes, without limitation, corporations (both non-profit and other corporations), partnerships (both limited and general), joint ventures, limited liability companies, and unincorporated associations, but the term does not include joint tenancies and tenancies by the entirety.

44. **Organization Expenses** - Those expenses incurred in the organization of the Partnership including the costs of preparation of the Partnership Agreement.

45. **Property** - Any property real or personal, tangible or intangible, including money and any legal or equitable interest in such property, but excluding services and promises to perform services in the future.

46. **Permitted Transferee** - Any partner of the Partner's Immediate Family, or an Organization controlled by such Partner or by partners of the Partner's Immediate Family.

47. **Person** - An individual, trust, estate, or any incorporated or unincorporated organization permitted to be a partner of a Family Limited Partnership under the laws of the State of Arizona.

48. **Proceeding** - Any administrative, judicial, or other adversary proceeding, including, without limitation, litigation, arbitration, administrative adjudication, mediation, and appeal or review of any of the foregoing.

49. **Regulations** - Except where the context indicates otherwise, the permanent, temporary, proposed, or proposed and temporary regulations of Department of the Treasury under the Code as such regulations may be lawfully changed from time to time.

50. **Related Person** - A person having a relationship to a Partner that is described in § 1.752-4(b) of the Regulations.

51. **Remaining General Partners** - In the event of a General Partner who has any potential conflict of interest or transaction between a General Partner and the Partnership, the General Partners not having the potential conflict of interest or participating in the transaction. In the event of the transfer of a Restricted Partnership Interest, all of the General Partners other than the Partner who has transferred the

Partnership Interest. If the Restricted Partnership Interest is not held by a General Partner, Remaining General Partners means all the General Partners.

52. **Remaining Partners** - In the event of the Dissociation of a General Partner, all of the Partners at the time of such Dissociation other than the Partner who has dissociated. In the event of a General Partner who has any potential conflict of interest or transaction between a General Partner and the Partnership, the Partners not having the potential conflict of interest or participating in the transaction.

53. **Removal** - The act of the Remaining Partners by which a General Partner is Removed as a General Partner but continues to be a Partner.

54. **Resignation** - The act of the General Partner by which such Partner ceases to be a General Partner but continues to be a Partner.

55. **Restricted Partnership Interest** - The Partnership Interests so designated on Exhibit A. At any time Limited Partnership Interests are less than 50% of all of the Partnership Interests would be Restricted Partnership Interests as defined in the previous sentence.

56. **Reviewed Proceeding** - Any taxable judicial or administrative trial, hearing or other activity, civil criminal or investigative, the result of which may be that a court, arbitrator, or governmental agency may enter a judgment, order, decree, or other determination which, if not appealed and reversed, would be binding upon the

Partnership, a Partner or other Person subject to the jurisdiction of such court, arbitrator, or governmental agency.

57. **Sharing Ratio** - With respect to any Partner, a fraction (expressed as a percentage), the numerator of which is the total of the Partner's Capital Account and the denominator is the total of all Capital Accounts of all Partners and Assignees.

58. **Substitute Partner** - An Assignee who has been admitted to all of the rights of partnership pursuant to the Partnership Agreement.

59. **Taxable Year** - The taxable year of the Partnership as determined pursuant to §706 of the Code.

60. **Taxing Jurisdiction** - Any state, local, or foreign government that collects tax, interest or penalties, however designated, on any Partner's share of the income or gain attributable to the Partnership.

ARTICLE III
NATURE OF BUSINESS

The Partnership may engage in any lawful business permitted by the Act or the laws of any jurisdiction in which the Partnership may do business. The Partnership shall have the authority to do all things necessary or convenient to the accomplish its purpose and operate its business as described in this Article III. The Partnership exists only for the purpose specified in this Article III, and may not conduct any other

business without the unanimous consent of the General Partners. The authority granted to the General Partners hereunder to bind the Partnership shall be limited to actions necessary or convenient to this business.

The initial business of the Partnership shall be to maintain the real estate located in Utah County, State of Utah, hereinafter referred to as the "Santa Barbara Condominium" and more fully described as follows:

"Parcel 1: Unit 318, Phase II, SANTA BARBARA VILLA CONDOMINIUMS, as the same is identified in the Recorded Survey Map in Utah County, Utah, as Entry No. 78382, and Map Filing No. 678980, (as said Record of Survey Map may have heretofore been amended or supplemented) and in the Declaration of Condominium of Santa Barbara Villa Condominiums, recorded in Utah County, Utah as Entry No. 35202, Book 4264, at Page 186 (as Said Declaration may have heretofore been amended or supplemented).

Parcel 2: The pertinent nonexclusive easement interest over and rights of use and enjoyment of said Project's Common Areas as established in the Declaration of Condominium of Santa Barbara Villa Condominiums and allowing for periodic alteration both in the magnitude of said interest and in the composition of the Common Areas and Facilities to which said interest relates.

Property Address 542 North 720 East No. 318, Provo, Utah, 84606.

ARTICLE IV

ACCOUNTING AND RECORDS

1. **Records to be Maintained** - The General Partners shall maintain the following records at the Principal Office:

1.1. A current list of the full name and last known business address of each Partner, former Partner and other holder of a Partnership Interest;

1.2. A copy of the Partnership Agreement and all amendments thereto, together with executed copies of any powers of attorney pursuant to which Partnership Agreement has been executed;

1.3. Copies of the Partnership's federal, foreign, state and local income tax returns and reports, if any, for the three most recent years;

1.4. Copies of the Partnership Agreement including all amendments thereto;

1.5. Any financial statements of the Partnership for the three most recent years;

1.6. If not set forth in this Partnership Agreement, a writing or other data compilation from which information can be obtained through retrieval devices into reasonably usable form setting forth the following:

1.6.1. The amount of cash and a description and statement of the agreed value of the other property or services contributed by each Partner and which each Partner has agreed to contribute;

1.6.2. The times at which or events on the happening of which any additional Commitments agreed to be made by each Partner are to be made;

1.6.3. Any right of a Partner to receive, or of the Partnership to make, distributions to a Partner which include a return of all or any part of the Partner's Capital Contribution; and

1.6.4. Any events upon the happening of which the Partnership is to be dissolved and its affairs wound up.

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2. **Reports to Partners:**

2.1. The General Partners shall provide reports at least annually to the Partners at such time and in such manner as the General Partners may determine reasonable.

2.2. The General Partners shall provide all Partners and Assignees with those information returns required by the Code and the laws of any state.

ARTICLE V
NAMES AND ADDRESSES OF PARTNERS AND GENERAL PARTNERS

The names and addresses of the Initial Partners and the designation of General Partners are as reflected on Exhibit A attached hereto and by this reference made a part hereof as if set forth fully herein.

ARTICLE VI
RIGHTS AND DUTIES OF PARTNERS

1. **Management Rights** - All Partners who have not Dissociated shall be entitled to vote on any matter submitted to a vote of the Partners. Except as otherwise provided in the Partnership Agreement, any difference with respect to the ordinary course of the business action may be taken on the approval or consent, either in writing or at a meeting of the General Partners of a Majority of the General Partners and any other action may be taken on the consent or affirmative vote on the approval or consent, either in writing or at a meeting of the Partners of a Majority of Partners.

2. **Liability of Partners** - No Partner shall be liable as such for the liabilities of the Partnership. The failure of the Partnership to observe any formalities or requirements relating to the exercise of its powers or management of its business or affairs under the Partnership Agreement or the Act shall not be grounds for imposing personal liability on the Partners for liabilities of the Partnership.

3. **Indemnification** - The Partnership may indemnify the Partners, General Partners, and agents for all costs, losses, liabilities, and damages paid or accrued by

such Partner or agent in connection with the business of the Partnership, to the fullest extent provided or allowed by the laws of the State of Arizona.

4. **Representations and Warranties** - Each partner, and in the case of an organization, the person(s) executing the Partnership Agreement on behalf of the organization, hereby represents and warrants to the Partnership and each other Partner that: (a) if that Partner is a organization, that it is duly organized, validly existing, and in good standing under the law of its state of organization and that it has full organizational power to execute and agree to the Partnership Agreement to perform its obligations hereunder; (b) that the Partner is acquiring its interest in the Partnership for the Partner's own account as an investment and without an intent to distribute the interest; (c) the Partner acknowledges that the interests have not been registered under the Securities Act of 1933 or any state securities laws, and may not be resold or transferred by the Partner without appropriate registration or the availability of an exemption from such requirements.

5. **Conflicts of Interest**

5.1. A Partner, including a General Partner, shall be entitled to enter into transactions that may be considered to be competitive with, or a business opportunity that may be beneficial to, the Partnership, it being expressly understood that some of the Partners may enter into transactions that are similar to the transactions into which the Partnership may enter. Notwithstanding the foregoing, Partners shall account to the Partnership and hold as trustee for it any property, profit, or benefit derived by the Partner, without the consent of a Majority of the Remaining General Partners, or, if

none, a Majority of the Remaining Partners, in the conduct and winding up of the Partnership business or from a use or appropriation by the Partner of Partnership property including information developed exclusively for the Partnership and opportunities expressly offered to the Partnership.

5.2. A Partner, including a General Partner does not violate a duty or obligation to the Partnership merely because the Partner's conduct furthers the Partner's own interest. A Partner may lend money to and transact other business with the Partnership. The rights and obligations of a Partner who lends money to or transacts business with the Partnership are the same as those of a person who is not a Partner, subject to other applicable law. No transaction with the Partnership shall be voidable solely because a Partner has a direct or indirect interest in the transaction if either the transaction is fair to the Partnership or a Majority of the Remaining General Partners or, if none, a Majority of the Remaining Partners, in either case knowing the material facts of the transaction and the Partner's interest, authorize, approve, or ratify the transaction.

ARTICLE VII
GENERAL PARTNERS

1. **General Partners** - The ordinary and usual decisions concerning the business affairs of the Partnership shall be made by the Manager, each of whom shall be a General Partners. There shall be three General Partners who must be Partners of the Partnership. The initial General Partners are identified on Exhibit A.

2. **Term of General Partner** - No General Partner shall have any contractual right to such position. Each General Partner shall serve until the earliest of:

2.1. The Dissociation of such General Partner;

2.2. The Resignation of such General Partner; or

2.3. Removal of the General Partner for gross negligence, self-dealing, or embezzlement by a Majority of the Remaining Partners.

3. **Authority of Partners to Bind the Partnership** - Only the General Partners and agents of the Partnership authorized by the General Partners shall have the authority to bind the Partnership. No Partner who is not either a General Partner or otherwise authorized as an agent shall take any action to bind the Partnership, and each Partner shall indemnify the Partnership for any costs or damages incurred by the Partnership as a result of the unauthorized action of such Partner. Subject to section VI. 1., each General Partner has the power, on behalf of the Partnership, to do all things necessary or convenient to carry out the business and affairs of the Partnership, including, without limitation:

3.1. The institution, prosecution and defense of any Proceeding in the Partnership's name;

3.2. The purchase, receipt, lease or other acquisition, ownership, holding, improvement, use and other dealing with, Property, wherever located;

3.3. The sale, conveyance, mortgage, pledge, lease, exchange, and other disposition of Property;

3.4. The entering into contracts and guaranties; incurring of liabilities; borrowing money, issuance of notes, bonds, and other obligations; and the securing of any of its obligations by mortgage or pledge of any of its Property or income;

3.5. The lending of money, investment and reinvestment of the Partnership's funds, and receipt and holding of Property as security for repayment, including, without limitation, the loaning money to, and otherwise helping Partners, officers, employees, and agents;

3.6. The conduct of the Partnership's business, the establishment of Partnership offices, and the exercise of the powers of the Partnership within or without the State of Arizona;

3.7. The appointment of employees and agents of the Partnership, the defining of their duties, the establishment of their compensation;

3.8. The payment of pensions and establishment of pension plans, pension trusts, profit sharing plans, and benefit and incentive plans for all or any of the current or former Partners, employees, and agents of the Partnership;

3.9. The making of donations to the public welfare or for religious, charitable, scientific, literary or educational purposes;

3.10. The payment or donation, or any other act that furthers the business and affairs of the Partnership;

3.11. To payment of compensation, or additional compensation to any or all Partners, and employees on account of services previously rendered to the Family Limited Partnership, whether or not an agreement to pay such compensation was made before such services were rendered;

3.12. The purchase of insurance on the life of any of its Partners, or employees for the benefit of the Partnership;

3.13. The participation in partnership agreements, joint ventures, or other associations of any kind with any person or persons;

3.13.0.1. The indemnification of Partners or any other Person.

3.14. The General Partner may sell, lease, transfer, exchange, grant options with respect to , or other dispose of the Partnership property. The General Partner may deal with the Partnership property at such time or times, for such purpose, for such considerations and upon such terms, credits, and conditions, and for such periods of time, as may be required. The General Partner may also make such

contracts, deed, leases, and any other instruments it deems proper under the immediate circumstances, and may deal with the Partnership Property in all other ways.

3.15. The General Partner may retain and continue any business in which the Partnership has any interest as a shareholder, partner, or a participant in a joint venture. The General Partner may execute partnership agreements, buy-sell agreement, and any amendment to them which pertain to Partnership property. The General Partner may participate in the incorporation of any Partnership property; any reorganization, merger, consolidation, recapitalization, liquidation, dissolution or any stock redemption or cross purchase agreement. The General Partner shall vote to elect or employ directors, officers, employees, and agents and compensate them for their services.

3.16. The General Partner shall have the power to inspect any Partnership property to determine compliance with any environmental law affecting such property or to respond to any environmental law affection property help by the Partnership. "Environmental Law" shall mean any federal, state, or local law, rule, regulation, ordinance relating to protection of the environment or of human health. The General Partner shall also have to power to refuse to accept property if the General Partner determines that there is a substantial risk that such property is contaminated by any hazardous substance or has previously, or is currently, being used for any activities directly or indirectly involving hazardous substances which could result in liability to the Partnership assets. "Hazardous substance" shall mean any substance defined as hazardous or toxic by any federal, state, or local law, rule , regulation, or ordinance. The General Partner shall also have the power to take any necessary action to prevent, abate, clean up or otherwise respond to any actual or threatened violation of any

environmental law affecting Partnership property prior to or after the initiation or enforcement of any action by any governmental body. Further, the General Partner may disclaim or release any power granted to it or implied by any document, statute, or rule of law which the General Partner determines may cause the Partners or the Partnership to incur liability under any environmental law.

3.17. The General Partner shall have the ability to borrow money upon such terms and conditions as it shall deems advisable, including, in the case of a corporate fiduciary the power to borrow from its own banking or commercial department. The General partner shall have the power to obligate the Partnership for the repayment of any sums borrowed where the best interest of the Partnership has been taken into consideration. The General Partner shall also have the power to encumber the Partnership property, in whole or in part, by a mortgage or mortgages, deeds of trust, or by pledge, hypothecation or otherwise, even though such encumbrance may continue to be effective after the term of the Partnership Agreement. Furthermore, the General Partner shall have the power to enter into any mortgage or deed of trust, whether as a mortgagee or mortgagor, to purchase mortgages on the open market, and to otherwise buy, sell or trade in first or subordinate mortgages. The General Partner may also reduce the interest rate on any mortgage on consent to the modification or release of any guaranty of any mortgage. The General Partner may continue mortgages upon and after maturity with or without renewal or extension, and may foreclose any mortgage. It may purchase the mortgaged property or acquire it by deed from the mortgagor without foreclosure.

4. **Actions of the General Partners** - Each General Partner has the power to bind the Partnership as provided in this Article VII. Any difference arising as to any matter within the Authority of the General Partners shall be decided by a Majority in number of the General Partners. No act of a Partner in contravention of such determination shall bind the Partnership to Persons having knowledge of such determination. Notwithstanding such determination, the act of General Partner for the purpose of apparently carrying on the usual way the business or affairs of the Partnership, including the exercise of the authority indicated in this Article VII, and no person dealing with the Partnership shall have any obligation to inquire into the power or authority of the General Partner acting on behalf of the Partnership.

5. **Compensation of General Partner** - Each General Partner shall be reimbursed all reasonable expenses incurred in managing the Partnership and shall be entitled to compensation, in an amount to be determined from time to time by the affirmative vote of a Majority of the Partners.

6. **General Partners' Standard of Care** - A General Partner's duty of care in the discharge of the General Partner's duties to the Partnership and the other Partners limited to refraining from engaging in grossly negligent or reckless conduct, intentional misconduct, or a knowing violation of law. In discharging its duties, a General Partner shall be fully protected in relying in good faith upon the records required to be maintained under Article IV and upon such information, opinions, reports or statements by any of its other Partners, or agents, or by any other person, as to matters the General Partner reasonably believes are within such other person's professional or expert competence and who has been selected with reasonable care by

or on behalf of the Partnership, including information, opinions, reports or statements as to the value and amount of the assets, liabilities, profits or losses of the Partnership or any other facts pertinent to the existence and amount of assets from which distributions to partners might properly be paid.

7. **Removal of General Partner** - Any General Partner may be Removed by the affirmative vote of a Majority of the Partners for gross negligence, self-dealing, proven medical problems that prevent rational judgment or behavior, or embezzlement by a Majority of the Remaining Partners.

ARTICLE VIII

CONTRIBUTIONS AND CAPITAL ACCOUNTS

1. **Initial Contributions** - Each Initial Partner shall make the Capital Contribution described for that Partner on Exhibit A at the time and on the terms specified on Exhibit A and shall perform that Partner's Commitment. If no time for contribution is specified, the Capital Contributions shall be made upon the filing of the Partnership Agreement with the Arizona Corporation Commission. The value of the Capital Contributions shall be as set forth on Exhibit A. No interest shall accrue on any Capital Contribution and no Partner shall have the right to withdraw or be repaid any Capital Contribution except as provided in the Partnership Agreement. Each Additional Partner shall make the Initial Capital Contribution described in the Admission Agreement. The value of the Additional Partner's Initial Capital Contribution and the time for making such contribution shall be set forth in the Admission Agreement.

2. **Additional Contributions** - In addition to the Initial Capital Contributions and Commitments, the General Partners may determine from time to time that additional contributions are needed to enable the Partnership to conduct its business. Upon making such a determination, the General Partners shall give Notice to all Partners in writing at least ten Business Days prior to the date on which such contribution is due. Such Notice shall set forth the amount of additional contribution needed, the purpose for which the contribution is needed, and the date by which the Partners should contribute. Each Partner shall be entitled to contribute a proportionate share of such additional contribution. Except to the extent of a Partner's unpaid Commitment, no Partner shall be obligated to make any such additional contributions. In the event any one or more Partners do not make their additional contribution, the other partners shall be given the opportunity to make the contributions. Each Additional Partner shall make the Capital Contribution to which such Partner has agreed, at the time or times and upon the terms to which the General Partners and the Additional Partner agree.

3. **Enforcement of Commitments** - In the event any Partner (a Delinquent Partner) fails to perform the Delinquent Partner's Commitment, the General Partners shall give the Delinquent Partner a Notice of the failure to meet the Commitment. If the Delinquent Partner fails to perform the Commitment (including any costs associated with the failure to demand compliance with the Commitment and interest on such obligation at the Default Interest Rate) within ten Business days of the giving of Notice, the General Partners may take such action, including but not limited to enforcing the Commitment in the court of appropriate jurisdiction in the state in which

the Principal Office is located or the state of the Delinquent Partner's address as reflected in the Partnership Agreement. Each Partner expressly agrees to the jurisdiction of such courts but only for the enforcement of Commitments. The General Partners may elect to allow the other Partners to contribute the amount of the Commitment in proportion to such Partners' sharing ratios, with those Partners who contribute (Contributing Partners) to contribute additional amounts equal to any amount of the Commitment not contributed. The Contributing Partners shall be entitled to treat the amounts contributed pursuant to this section as a loan from the Contributing Partners bearing interest at the Default Interest Rate secured by the Delinquent Partner's interest in the Partnership. Until they are fully repaid the Contributing Partners shall be entitled to all Distributions to which the Delinquent Partner would have been entitled. Notwithstanding the foregoing, no Commitment or other obligation to make an additional contribution may be enforced by a creditor of the Partnership or other Person other than the Partnership unless the Partner expressly consents to such enforcement or to the assignment of the obligation to such creditor.

4. **Maintenance of Capital Accounts** - The Partnership shall establish and maintain Capital Accounts for each Partner and Assignee. Each Partner's Capital Account shall be increased by (1) the amount of any Money actually contributed by the Partner to the capital of the Partnership, (2) the fair market value of any Property contributed, as determined by the Partnership and the contributing Partner at arm's length at the time of contribution (net of liabilities assumed by the Partnership or subject to which the Partnership takes such Property, within the meaning of Section 752 of the Code), and (3) the Partner's share of Net Profits and of any separately allocated items of income or gain except adjustments of the Code (including any gain

and income from unrealized income with respect to accounts receivable allocated to the Partner to reflect the difference between the book value and tax basis of assets contributed by the Partner). Each Partner's Capital Account shall be decreased by (1) the amount of any Money distributed to the Partner by the Partnership, (2) the fair market value of any Property distributed to the Partner, as determined by the Partnership and the contributing Partner at arm's length at the time of contribution (net of liabilities of the Partnership assumed by the Partner or subject to which the Partner takes such Property within the meaning of Section 752 of the Code), and (3) the Partner's share of Net Losses and of any separately allocated items of deduction or loss (including any loss or deduction allocated to the Partner to reflect the difference between the book value and tax basis of assets contributed by the Partner).

5. **Distribution of Assets** - If the Partnership at any time distributes any of its assets in-kind to any Partner, the Capital Account of each Partner shall be adjusted to account for the that Partner's allocable share (as determined under Article IX below) of the Net Profits or Net Losses that would have been realized by the Partnership had it sold the assets that were distributed at their respective fair market values immediately prior to their distribution.

6. **Sale or Exchange of Interest** - In the event of a sale or exchange of some or all of a Partner's Interest in the Partnership, the Capital Account of the Transferring Partner shall become the capital account of the Assignee, to the extent it relates to the portion of the Interest Transferred.

7. **Compliance with Section 704(b) of the Code** - The provisions of this Article VIII as they relate to the maintenance of Capital Accounts are intended, and shall be construed, and, if necessary, modified to cause the allocations of profits, losses, income, gain and credit pursuant to Article IX to have substantial economic effect under the Regulations promulgated under Section 704(b) of the Code, in light of the distributions made pursuant to Partnership Agreement Article IX and XIV and the Capital Contributions made pursuant to this Article VIII. Notwithstanding anything herein to the contrary, this Partnership Agreement shall not be construed as creating a deficit restoration obligation or otherwise personally obligate any Partner to make a Capital Contribution in excess of the Initial Contribution.

ARTICLE IX
ALLOCATIONS AND DISTRIBUTIONS

1. **Allocations of Net Profits and Net Losses from Operations** - Except as may be required by section 704(c) of the Code, and §§ 2, 3, and 4 of this Article IX, net profits, net losses, and other items of income, gain, loss, deduction and credit shall be apportioned among the Partners in proportion to their Sharing Ratios.

2. **Partnership Minimum Gain Chargeback** - If there is a net decrease in Partnership Minimum Gain for a Taxable Year, each Partner must be allocated items of income and gain for that Taxable Year equal to that Partner's share of the net decrease in Partnership Minimum Gain. A Partner's share of the net decrease in Partnership Minimum Gain is the amount of the total net decrease multiplied by the Partner's percentage share of the Partnership Minimum Gain at the end of the immediately

preceding Taxable Year. A Partner's share of any decrease in Partnership Minimum Gain resulting from a revaluation of Partnership Property equals the increase in the Partner's Capital Account attributable to the revaluation to the extent the reduction in minimum gain is caused by the revaluation. A Partner is not subject to the Partnership Minimum Gain Chargeback Requirement to the extent the Partner's share of the net decrease in Partnership Minimum Gain is caused by a guarantee, refinancing, or other change in the debt instrument causing it to become partially or wholly a Recourse Liability or a Partner Nonrecourse Liability, and the Partner bears the economic risk of loss (within the meaning of §1.752-2 of the regulations) for the newly guaranteed, refinanced, or otherwise changed liability.

3. **Partner Minimum Gain Chargeback -** If during a Taxable Year there is a net decrease in Partner Minimum Gain, any Partner with a share of that Partner Minimum Gain (as determined under §1.704-2(i)(5)of the Regulations) as of the beginning of that Taxable Year must be allocated items of income and gain for that Taxable Year (and, if necessary, for succeeding Taxable Years) equal to that Partner's share of the net decrease in the Partnership Minimum Gain. A Partner's share of the net decrease in Partner Minimum Gain is determined in a manner consistent with the provisions of paragraph (g)(2) of this section. A Partner is not subject to this Partner Minimum Gain Chargeback, however, to the extent the net decrease in Partner Minimum Gain arises because the liability ceases to be Partner Nonrecourse Liability due to a conversion, refinancing, or other change in the debt instrument that causes it to become partially or wholly a Partnership Nonrecourse Liability. The amount that would otherwise be subject to the Partner Minimum Gain Chargeback is added to the Partner's share of Partnership Minimum Gain. In addition, rules consistent with those

applicable to Partnership Minimum Gain shall be applied to determine the shares of Partner Minimum Gain and Partner Minimum Gain Chargeback to the extent provided under the Regulations issued pursuant to §704(b) of the Code.

4. **Qualified Income Offset** - In the event any Partner, in such capacity, unexpectedly receives an Offsettable Decrease, such Partner will be allocated items of income and gain (consisting of a pro rata portion of each item of partnership income and gain for such year) in an amount and manner sufficient to offset such Offsettable Decrease as quickly as possible.

5. **Interim Distributions** - From time to time, the General Partners shall determine in their reasonable judgment to what extent, if any, the Partnership's cash on hand exceeds the current and anticipated needs, including, without limitation, needs for operating expenses, debt service, acquisitions, reserves, and mandatory distributions, if any. To the extent such excess exists, the General Partners may make distributions to the Partners in accordance with their Sharing Ratios. Such distributions shall be in cash or Property (which need not be distributed proportionately) or partly in both, as determined by the General Partners.

6. **Limitations on Distributions** - No distribution shall be declared and paid unless, after the distribution is made, the assets of the Partnership are in excess of all liabilities of the Partnership, except liabilities to Partners on account of their Capital Accounts.

ARTICLE X

TAXES

1. **Elections** - The General Partners may make any tax elections for the Partnership allowed under the Code or the tax laws of any state or other jurisdiction having taxing jurisdiction over the Partnership.

2. **Taxes of Taxing Jurisdictions** - To the extent that the laws of any Taxing Jurisdiction requires, each Partner and Economic Interest Holder (or such Partners as may be required by the Taxing Jurisdiction) will submit an agreement indicating that the Partner will make timely income tax payments to the Taxing Jurisdiction and that the Partner accepts personal jurisdiction of the Taxing Jurisdiction with regard to the collection of income taxes attributable to the Partner's income, and interest, and penalties assessed on such income. If the Partner fails to provide such agreement, the Partnership may withhold and pay over to such Taxing Jurisdiction the amount of tax, penalty and interest determined under the laws of the Taxing Jurisdiction with respect to such income. Any such payments with respect to the income of a Partner shall be treated as a distribution for purposes of Article IX.

The General Partners may, where permitted by the rules of any Taxing Jurisdiction, file a composite, combined or aggregate tax return reflecting the income of the Partnership and pay the tax, interest and penalties of some or all of the Partners on such income to the Taxing Jurisdiction, in which case the Partnership shall inform the Partners of the amount of such tax interest and penalties so paid.

3. **Tax Matters Partner** - The General Partners shall designate one of their number or, if there are no General Partners eligible to act as tax matters partner any other Partner, as the *tax matters partner* of the Partnership pursuant to Section 6231(a)(7) of the Code. Any Partner designated as tax matters partner shall take such action as many be necessary to cause each other Partner to become a *notice partner* within the meaning of Section 6223 of the Code. Any Partner who is designated tax matter partner may not take any action contemplated by sections 6222 through 6232 of the Code without the consent of the General Partners.

4. **Cash Method of Accounting** - The records of the Partnership shall be maintained on a cash receipts and disbursements method of accounting.

ARTICLE XI
DISPOSITION OF PARTNERSHIP INTERESTS

1. **Disposition** - Any Partner or Assignee may dispose of all or a portion of the Partner's or Assignee's Partnership Interest upon compliance with this Section 1. No Partnership Interest shall be Disposed of:

1.1. if such disposition, alone or when combined with other transactions, would result in a termination of the Partnership within the meaning of Section 708 of the Code;

1.2. without an opinion of counsel satisfactory to the General Partners that such assignment is subject to an effective registration under, or exempt from the registration requirements of, the applicable state and federal securities laws;

1.3. unless and until the Partnership receives from the Assignee the information and agreements that the General Partners may reasonably require, including but not limited to any taxpayer identification number and any agreement that may be required by any Taxing Jurisdiction.

2. **Dispositions not in Compliance with this Article Void**. Any attempted Disposition of a Partnership Interest, or any part thereof, not in compliance with this Section 1. other than in accordance with this Section 1. shall be, and is declared to be, null and void *ab initio*.

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melissa@ccrenew.com
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3. **Transfers as Collateral.** No partnership interest shall be used as collateral to secure any indebtedness without the express written consent of the general partners.

ARTICLE XII
DISSOCIATION OF A PARTNER

1. **Dissociation** - A Person shall cease to be a Partner upon the happening of any of the following events:

1.1. the Resignation of a Partner after the expiration of the Term. No Partner may withdraw prior to the expiration of the Term.

1.2. the Partner's becoming a Bankrupt Partner;

1.3. in the case of a Partner who is a natural person, the death of the Partner or the entry of an order by a court of competent jurisdiction adjudicating the Partner incompetent to manage the Partner's personal estate;

1.4. in the case of a Partner who is acting as a Partner by virtue of being a trustee of a trust, the termination of the trust (but not merely the substitution of a new trustee);

1.5. in the case of a Partner that is a separate Organization other than a corporation, the dissolution and commencement of winding up of the separate Organization;

1.6. in the case of a Partner that is a corporation, the filing of a certificate of dissolution, or its equivalent, for the corporation or the revocation of its charter; or

1.7. in the case of an estate, the distribution by the fiduciary of the estate's entire interest in the Family Limited Partnership.

ARTICLE XIII

ADMISSION OF ASSIGNEES AND ADDITIONAL PARTNERS

1. **Rights of Assignees** - The Assignee of a Partnership Interest has no right to participate in the management of the business and affairs of the Partnership or to become a Partner. The Assignee is only entitled to receive the Distributions and return of capital , and to be allocated the Net Profits and Net Losses attributable the Partnership Interest.

2. **Admission of Substitute Partners** - An Assignee of a Partnership Interest shall be admitted as a Substitute Partner and admitted to all the rights of the Partner who initially assigned the Partnership Interest, but an Assignee of a Restricted Partnership Interest shall be so admitted only with the approval, which may be withheld in their sole and absolute discretion, of a Majority of the Remaining General Partners (or of a Majority of the Remaining Partners at any time General Partners own in the aggregate: (1) an interest in each material item of the income, gain, loss, deduction, or credit of the Partnership equal to at least the lesser of one percent or $500,000 divided by total contributions to the Partnership , and (2) maintain a Capital Account balance equal to at least the lesser of one percent of total positive capital account balances or $500,000). The Remaining General Partners may grant or withhold the approval of such admission for any in their sole and absolute discretion. If so admitted, the Substitute Partner has all the rights and powers and is subject to all the restrictions and liabilities of the Partner originally the Partnership Interest. The admission of a Substitute Partner, without more, shall not release the Partner originally

assigning the Partnership Interest from any liability to Partnership that may existed prior to the approval.

3. **Admission of Permitted Transferees** - Notwithstanding Section 2. hereof, the Partnership Interest of any Partner shall be transferable without the consent of the General Partners if (i) the transfer occurs by reason of or incident to the death, dissolution, divorce, liquidation, merger or termination of the transferor Partner, and (ii) the Transferee is a Permitted Transferee.

4. **Admission of Additional Partners** - The Partners may permit the admission of Additional Partners and determine the Capital Contributions of such Partners.

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ARTICLE XIV
DISSOLUTION AND WINDING UP

1. **Dissolution** - The Partnership shall be dissolved and its affairs wound up, upon the first to occur of the following events:

1.1. the expiration of the Term;

1.2. the unanimous written consent of all of the Partners;

1.3. the Dissociation of any General Partner (or of any Partner at any time General Partners do not in the aggregate both: (1) own an interest in each material item

of the income, gain, loss, deduction, or credit of the Partnership equal to at least the lesser of one percent or $500,000 divided by total contributions to the Partnership , and (2) maintain a Capital Account balance equal to at least the lesser of one percent of total positive capital account balances or $500,000), unless the business of the Partnership is continued with the consent of:

(1) Remaining Partners holding a majority of the Sharing Ratios of all the Remaining Partners based on any reasonable estimate of profits from the date of the dissociation to the projected termination of the Partnership, taking into account present and future allocations of profits under the partnership agreement that is in effect as of the date of the dissolution event; and

(2) Remaining Partners holding a majority of the Capital Accounts of all of the Remaining Partners determined as of the date of the dissociation.

2. **Effect of Dissolution** - Upon dissolution, the Partnership shall cease carrying on as distinguished from the winding up of the Partnership business, but the Partnership is not terminated, but continues until the winding up of the affairs of the Partnership is completed and the Certificate of Dissolution has be issued by the Arizona Corporation Commission.

3. **Distribution of Assets on Dissolution** - Upon the winding up of the Partnership, the Partnership Property shall be distributed:

3.1. to creditors, including Partners who are creditors, to the extent permitted by law, in satisfaction of Partnership Liabilities;

3.2. to Partners in accordance with positive Capital Account balances taking into account all Capital Account adjustments for the Partnership's taxable year in which the liquidation occurs. Liquidation proceeds shall be paid within 60 days of the end of the Partnership's taxable year or, if later, within 90 days after the date of liquidation. Such distributions shall be in cash or Property (which need not be distributed proportionately) or partly in both, as determined by the General Partners.

4. **Winding Up and Certificate of Dissolution** - The winding up of a Family Limited Partnership shall be completed when all debts, liabilities, and obligations of the Family Limited Partnership have been paid and discharged or reasonably adequate provision therefor has been made, and all of the remaining property and assets of the Family Limited Partnership have been distributed to the partners. Upon the completion of winding up of the Partnership, a certificate of dissolution shall be delivered to the Arizona Corporation Commission for filing. The certificate of dissolution shall set forth the information required by the Act.

ARTICLE XV

AMENDMENT

1. **Partnership Agreement May Be Modified** - The Partnership Agreement may be modified as provided in this Article XV (as the same may, from time to time be amended). No Partner or General Partner shall have any vested rights in the Partnership Agreement which may not be modified through an amendment to the Partnership Agreement.

2. **Amendment or Modification of Partnership Agreement** - The Partnership Agreement may be amended or modified from time to time only by a written instrument adopted by the General Partners and executed by a Majority of the Partners.

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Melissa Kemp@ccrenew.com
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Melissa Kemp

ARTICLE XVI

MISCELLANEOUS PROVISIONS

1. **Entire Agreement** - The Partnership Agreement represents the entire agreement among all the Partners and between the Partners and the Partnership.

2. **Partnership Intended for Nontax Purposes** - The Partners have formed the Partnership under the Act, and expressly do intend hereby to form a partnership under the Arizona Uniform Limited Partnership Act. The Partners do intend to be partners one to another, and partners as to any third party.

3. **Rights of Creditors and Third Parties under Partnership Agreement** - The Partnership Agreement is entered into among the Partnership and the Partners for the exclusive benefit of the Partnership, its Partners, and their successors and assignees. The Partnership Agreement is expressly not intended for the benefit of any creditor of the Partnership or any other Person. Except and only to the extent provided by applicable statute, no such creditor or third party shall have any rights under the Partnership Agreement, Admission Agreement or any agreement between the Partnership and any Partner with respect to any Capital Contribution or otherwise.

IN WITNESS WHEREOF, we have hereunto set out hand and seals on September 15, 1999.

Toone Family Limited Partnership

Michael J. and Carol H. Toone Revocable Living Trust u/t/d April 14, 1999

Michael J. Toone, Trustee

Carol H. Toone, Trustee

EXHIBIT A

Partner	Initial Capital Contribution and Value	Interests

General Partner

MICHAEL J. TOONE and CAROL H. TOONE, Trustees, or their successors in trust, under the MICHAEL J. TOONE and CAROL H. TOONE REVOCABLE LIVING TRUST, dated April 14, 1999.

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melissa.kemp@altis.com
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Melissa Kemp

Limited Partner

MICHAEL J. TOONE and CAROL H. TOONE, Trustees, or their successors in trust, under the MICHAEL J. TOONE and CAROL H. TOONE REVOCABLE LIVING TRUST, dated April 14, 1999.

AGENCY AUTHORIZATION

(To be completed by landowners of subject property when landowners do not represent themselves. Instructions for completing required information are in bold and brackets below lines. If applicant is a company, corporation, partnership, joint venture, trustee, etc., please use the corporate signature block and have the notary fill in the notarization section for corporations not individuals and cannot be submitted digitally)

TO: Pinal County Planning & Development Services
P.O. Box 2973
Florence, AZ 85132

Gordita LLLP
[Insert Name -- If a Corporation, Partnership or Association, Include State of Incorporation]

hereinafter referred to as "Owner," is/are the owner(s) of 1083.6 acres located at 28518 S Tweedy Rd, Eloy, AZ 85131, and further identified
[Insert Address of Property]

as assessor parcel number 408110230, 408150020 and legally described as follows:
[Insert Parcel Number]

[Legal Description is attached hereto as Exhibit A]

Said property is hereinafter referred to as the "Property."

Owner hereby appoints Cactus Flower Solar, LLC
[Insert Agent's Name. If the Agent Is a Company, Insert Company Name Only]

hereinafter referred to as "Agent," to act on Owner's behalf in relation to the Property in obtaining approvals from Pinal County for any necessary amendment to Pinal County's Comprehensive Plan; zone changes; planned area development overlay districts; platting of the subject property; special use permit or industrial use permit; and to file applications and make the necessary submittals for such approvals.

Owner consents and agrees to be bound by all stipulations agreed to by this Agent in connection with any of above-referenced processes.

[Individual PROPERTY OWNER signature block and acknowledgment. DO NOT SIGN HERE IF SIGNING AS AN OFFICER OF A CORPORATION ON THE NEXT PAGE.]

[Signature] _____

[Address] 571 N 54TH STREET, CHANDLER AZ 85226

Dated: 05/29/2023

[Signature] _____

[Address]

Dated: _____

SCOTT COOMBE
Notary Public, State of Arizona
Maricopa County
Commission # 610499
My Commission Expires
August 14, 2025

STATE OF Arizona)
) ss.
COUNTY OF Maricopa)

The foregoing instrument was acknowledged before me this 29 day of May 2024 by Arnaldo Burgos.
[Insert Name of Signor(s)]

My commission expires August 14th 2025

Scott Coombe
Printed Name of Notary

_____
Signature of Notary Public

ARTICLES AND CERTIFICATE
OF
LIMITED PARTNERSHIP
OF
GORDITA LIMITED PARTNERSHIP

THE UNITS OFFERED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"), OR THE SECURITIES ACT OF ARIZONA IN RELIANCE UPON THE EXEMPTIONS FROM REGISTRATION PROVIDED BY SECTIONS 3(b) AND 4(2) OF THE ACT, AS AMENDED, AND REGULATION D PROMULGATED THEREUNDER AND BY THE SECURITIES ACT OF ARIZONA. UNITS MAY BE TRANSFERRED ONLY IN COMPLIANCE WITH APPLICABLE SECURITIES LAWS, RULES AND REGULATIONS. TRANSFERABILITY OF THE UNITS IS FURTHER RESTRICTED BY THE TERMS OF THESE ARTICLES. IN ADDITION, ANY RESALE OR TRANSFER OF SUCH UNITS MUST COMPLY WITH OTHER REQUIREMENTS DESCRIBED HEREIN.

Cross-reference information required by Section A.R.S. 29-313(d):

	Information Required by A.R.S. Section 29-308(a)	**Section of Articles of Limited Partnership**
1.	Partnership Name	2.02
2.	General Character of Business	2.06
3.	Information Required by Section 29-304	2.03, 2.04
4.	Name and Business Address of Each Partner	Schedule "A"
5.	Cash Paid and Description of Value of Other Property Contributed by Partners	Schedule "A"
6.	Timing of Additional Contributions	3.02
7.	Assignment by Limited Partners	Article Seven
8.	Voluntary Termination	3.05, Article Seven, and Article Eight
9.	Distributions	Article Five
10.	Return of Capital	3.05, 8.03
11.	Dissolution and Winding-Up	Article Eight
12.	Continuation Upon Withdrawal or Removal of General Partner	8.01

13. Other Matters:

The General Partners by unanimous vote may elect one or more General Partners as Managing Partners of the Partnership and/or their successors, each to serve until such named Managing Partner ceases to serve in such capacity by resignation, termination or removal by a majority of the General Partners. Any person or entity may resign as Managing Partner, with or without cause, by giving written notice to each of the General Partners and Limited Partners. The Managing Partner (which term throughout these Articles shall apply to each Managing Partner then serving, whether one or more) is hereby authorized and directed by all of the General Partners, without the need for any other Managing Partner to join except as otherwise expressly provided herein, to manage and control the assets of the Partnership with full authority to exercise, on behalf of the Partnership, all of the powers which could be exercised by unanimous action of the General Partners. The General Partners hereby elect DAIRY MANAGEMENT SYSTEMS, INC., an Arizona corporation, to be the initial Managing Partner, with the President thereof, Arnaldo Burgos, empowered to sign on behalf of the Corporation and the Partnership. Any person dealing with the Partnership may rely upon the latest filed Certificate of Limited Partnership as designating the current Managing Partner.

Recording Requested by:
First American Title Insurance Agency, Inc.

When recorded mail to:
Gordita, L.P.
P.O. Box 3280
Chandler, AZ 85244

OFFICIAL RECORDS OF
PINAL COUNTY RECORDER
LAURA DEAN-LYTLE

DATE/TIME: 01/13/05 1648
FEE: $19.00
PAGES: 3
FEE NUMBER: 2005-004509

WARRANTY DEED

File No. **242-4386145 (sdc)**

For the consideration of TEN AND NO/100 DOLLARS, and other valuable considerations, I or we,

Kizer, LLC, a Arizona Limited Liability Company, as to an undivided 2/3 interest and Shannon Earl Kizer, an unmarried man, as to an undivided 1/3 interest, the GRANTOR does hereby convey to

Gordita, L.P., a Arizona Limited Partnership, the GRANTEE

the following described property situate in **Pinal** County, **Arizona:**

PARCEL NO. 1:

ALL OF SECTION 23, TOWNSHIP 9 SOUTH, RANGE 7 EAST, GILA AND SALT RIVER BASE AND MERIDIAN, PINAL COUNTY, ARIZONA;

EXCEPT ALL GAS, OIL, METALS AND MINERAL RIGHTS AS RESERVED UNTO THE STATE OF ARIZONA IN THE PATENT OF SAID LAND.

PARCEL NO. 2:

ALL OF SECTION 24, TOWNSHIP 9 SOUTH, RANGE 7 EAST, GILA AND SALT RIVER BASE AND MERIDIAN, PINAL COUNTY, ARIZONA;

EXCEPT THE NORTH 1760 FEET THEREOF; AND

EXCEPT ALL MINERALS, ORES, METALS OF EVERY KIND AND CHARACTER, AND ALL COAL, ASPHALTUM, OIL, GASES, FERTILIZER, FOSSILS AND OTHER SUBSTANCES IN, OR UNDER, SAID LAND, AS RESERVED UNTO THE STATE OF ARIZONA, AS SET FORTH IN THE PATENT TO SAID LAND.

Subject To: Existing taxes, assessments, liens, encumbrances, covenants, conditions, restrictions, rights of way and easements of record.

And the GRANTOR binds itself and its successors to warrant the title as against its acts and none other, subject to the matters set forth.

DATED: November 03, 2004

COPY

Kizer, LLC, an Arizona Limited Liability Company

By: Aaron Kizer, Member

By: Mack Kizer, Member

Shannon Earl Kizer

Unofficial

STATE OF Arizona)
)ss.
County of Pinal)

On 1-11-05, before me, the undersigned Notary Public, personally appeared **Aaron Kizer, Mack Kizer and Shannon Earl Kizer**, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies) and that his/her/their signature(s) on the instrument the person(s) or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Shay D Carr
Notary Public

My Commission Expires:
9-14-08

SHAY D. CARR
NOTARY PUBLIC - ARIZONA
PINAL COUNTY
My Commission Expires
September 14, 2008

Official

CYPRESS CREEK RENEWABLES



Cactus Flower Solar, LLC
Application for Major Comprehensive Plan Amendment
Application Narrative

May 30, 2024

Cactus Flower Solar, LLC
Application for a Major Comprehensive Plan Amendment
Application Narrative

Case Number: Z-PA-038-23

Submitted to
Pinal County Planning Division
85 N Florence Street, First Floor
Florence, AZ 85132
Attention: Sangeeta Deokar

Submitted by
Cypress Creek Renewables, LLC
3402 Pico Boulevard, Suite 215
Santa Monica, CA 90405
Applicant: Cactus Flower Solar, LLC

May 30, 2024

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SECTION 1 – EXECUTIVE SUMMARY

Cactus Flower Solar, LLC ("Applicant" and "Project"), wholly and directly owned by Cypress Creek Renewables Development, LLC ("CCRD"), is applying for a Major Comprehensive Plan Amendment ("MCPA"). The Applicant is proposing a 270-megawatt with alternating current ("MWac") solar generation and 270-megawatt ("MW") battery energy storage system ("BESS"). The project includes 10 parcels of all privately-owned land in unincorporated Pinal County, located on 2,148.94 acres of flat, active agricultural land, approximately eight miles south of the City of Eloy (Figure 1 and Figure 2).

The parcels are currently designated as Very Low Density Residential ("VLDR", 0-1 du/ac) and Moderate Low Density Residential ("MLDR", 1-3.5 du/ac) under the Comprehensive Plan (Table 1). The Applicant is requesting to change the land use classifications for all parcels to Green Energy Production ("GEP"). The legal description of the Project is included in Appendix D.

The Project would be comprised of a solar photovoltaic ("PV") array, BESS, on-site substation, and an Operations & Maintenance ("O&M") building for site maintenance and monitoring.

The Project was sited intentionally to follow Pinal County and citizens' request to locate new energy development away from current and proposed towns, housing, employment hubs, parks, scenic areas, and recreational trails. Additionally, the Project directly abuts existing GEP land use known as Eloy Solar (Figure 3), approved by the Board of Supervisors on November 17, 2021 (PZ-PA-005-21). This supports the County's preference to collocate land use designations between like uses and cluster development.

Subject to requisite Pinal County approvals, the Applicant would subsequently apply for a zoning change from General Rural to Industrial Zoning District ("I-3") with a Planned Area Development ("PAD") overlay district. The MCPA and rezoning timeline is included in the Project development plan prior to commencing construction to achieve commercial operation in coordination with APS, as the interconnection utility. Once operational, Cypress Creek Renewables, LLC (or one or more of its affiliates) will serve as owner and operator of the Project throughout the duration of its 40-year asset life.

Table 1. MCPA Project Parcels

APN	Owner	Acreage*	Current Land Use Designation	Current Zoning
40811025B 40811025D 40811024A 40811024C 40811025C	Curtis 1035, LLC	633.450	Very Low Density Residential	General Rural
408110230 408150020	Gordita, LLLP	652.164 433.595	Moderate Low Density Residential	General Rural
408150010	Stambaugh Farms, LLC	214.451	Very Low Density Residential	General Rural
408120020 408120030	Toone Family Limited Partnership #3	215.283	Very Low Density Residential	General Rural

*Note: Parcels associated with Curtis 1035, LLC, and Toone Family Limited Partnership #3 were surveyed as one area or included within one legal description, respectively, and the associated acreage for individual parcels is not available at this time.

SECTION 2 – PROPOSED LAND USE

The Applicant is requesting a Major Comprehensive Plan Amendment ("MCPA") for 2,148.94 acres across 10 parcels, all privately-owned, in unincorporated Pinal County, Arizona. The parcels are currently designated as Very Low Density Residential ("VLDR") and Moderate Low Density Residential ("MLDR") under the Comprehensive Plan (Table 1). The Applicant is requesting to change the land use classification for all parcels to Green Energy Production ("GEP"). The legal description of the Project is included in Appendix D in addition to a certified boundary survey (attachment SUB1_Certified Boundary Survey and Topographic Map_Cactus Flower Solar).

2.1 LOCATION, ACCESSIBILITY, AND ADJACENT GEP LAND USE

The proposed Project is located eight miles south of Eloy and approximately seven miles south of Interstate 10 ("I-10") (Figure 2). The site can be accessed on existing gravel roads including Ellis Road, E. Greene Reservoir Road, and E. Curtis Road providing western and eastern access points, and S. Eleven Mile Corner Road, S. Tweedy Road, and S. Curry Road providing northern and southern access points.

The Project was intentionally sited to follow Pinal County and citizens' guidance for new energy development to be located away from current and proposed towns, housing, employment hubs, parks, scenic areas, and recreational trails. The Project is consistent with Policy 3.1.1.5 included in the Comprehensive Plan's Sense of Community vision component: "locate more impactful commercial and industrial uses in areas away from homes where negative impacts can be mitigated." The location is remote with few neighbors isolating any visual impacts to a confined area. Furthermore, the site boundary is contiguous allowing for concentrated and efficient construction within the defined acreage.

Additionally, the Proposed project abuts GEP land use to its east known as Eloy Solar (Figure 3) which was approved by the Board of Supervisors on November 17, 2021 (PZ-PA-005-21). The location of adjacent GEP land use encourages collocated designation with surrounding and existing land uses which we understand is a priority for the County. These considerations, site location and adjacent GEP land use, encourage a well-sited Project that adheres to Pinal County and citizens' feedback on placement for new energy development.

2.2 LANDOWNER SUPPORT FOR PROPOSED LAND USE

The land is presently being used for agricultural purposes, but the landowners' abilities to continue to farm are being diminished by insufficient ground water and a shrinking water allocation from the Central Arizona Project. The landowners currently are unable to fully utilize their agricultural lands with their current water supplies and have identified no financially viable short-term or long-term solutions to increase their water supplies. Thus, the landowners, who are long-time agricultural practitioners and champions, are considering new uses for the land. They aim to address both financial and practical concerns, particularly in light of the challenges posed by water allocation. The denial of the MCPA would likely hinder the overall long-term financial prospects of these landowners and their ability to maintain their farming operations in general.

As an alternative to agriculture with high water use, a solar and energy storage facility would utilize little to no water during operations and limited water during construction eliminating the need for water allocation to this 2,145-acre Project. Please see attached letters of support included in Appendix B from

the following landowners highlighting their support for a solar and energy storage project:

- Michael Toone, associated parcels under Toone Family Limited Partnership #3
- Brian Blevins, associated parcels under Curtis 1035, LLC
- David Stambaugh, associated parcels under Stambaugh Farms Partnership

2.3 CITY OF ELOY COMMENTS

The Applicant, represented by Ms. Stacy Gramazio, CCR's Director of External Affairs, met with City of Eloy staff David Malewitz, City Manager and Dan Symer, Community Development Director, in-person on May 22, 2024. The Applicant shared the location of the Project and that it would neighbor the proposed Eloy Solar project, which has the GEP land use classification and is already zoned for GEP.

City staff noted that its location south of I-10 was in their preferred area for large scale solar development. The Applicant noted the specific circumstances of the participating landowners for this Project, namely that reduced water supply has resulted in farming being a nonviable option for their land going forward. Economic benefits of the Project were also discussed; including estimated property tax revenue for the County, job creation, and general economic activity that is often a result of large construction projects. The uncertainty surrounding future plans for the I-11 transportation corridor was discussed as well.

Lastly, the Applicant communicated past and future plans for community outreach efforts, including the Community Meeting that was held on May 14, 2024. City staff suggested that the Applicant put together a Project summary for the County to reference and noted that the County could contact them directly for further discussion throughout the MCPA review process as needed.

2.4 COMMUNITY ENGAGEMENT

The Applicant has been active in the community since November 2022. They are a member of the Pinal Partnership, Eloy Chamber of Commerce, Pinal Alliance, Greater Florence Chamber of Commerce, and Ms. Gramazio is President of the Central Arizona College Foundation and serves on the Board of Directors for the Eloy Chamber of Commerce and Pinal Alliance. The Applicant has donated thousands of dollars in local sponsorships, including Paladin Sports, Central Arizona College, Eloy Chamber of Commerce, Pinal Partnership, and is in active communication with the Eloy Chamber of Commerce about future community investment opportunities. Recently, three graduating high school seniors in the County were awarded scholarships through the Applicant's Energizing Tomorrow's Leaders Scholarship program. Along with consistent in-person outreach to members of the public and the general business community, the Applicant has met with the City of Eloy to keep them informed of the Project and to take note of any comments or questions. They plan to continue outreach to the public, local businesses, the fire department, and the City of Eloy throughout the development process and beyond.

2.5 NEIGHBORHOOD MEETING

As part of the MCPA process, the Applicant was required to hold a neighborhood meeting that complies with the citizen review process outlined in Chapter 2.166.050, Section E: Citizen Review, of the Pinal County Development Services Code. To contact the potentially affected residents and stakeholders, the Applicant developed an informational mailer that announced the neighborhood meeting and provided a telephone line, email address, and physical address to submit questions and comments regarding the project. The Applicant facilitated an in-person public open house on May 14, 2024. These outreach efforts provided information to members of the public and solicited feedback on the Project and were designed to help identify potential issues relative to the Project.

The Applicant has prepared a Public Participation Report (Appendix C) to document that the Applicant complied with the neighborhood meeting process and to meet the reporting requirements described in Chapter 2.166.050, Section E: Citizen Review, of the Pinal County Development Services Code. Applicant welcomes citizen feedback and is committed to being a good neighbor.

SECTION 3 – PROJECT OVERVIEW

3.1 PROJECT DESCRIPTION

The proposed Project consists of a PV solar array comprised of bifacial solar panels. The PV system size will be 270 MWac. A potential 270 MW BESS would be collocated with the solar array. The solar panels will be mounted on a single axis tracking system allowing the panels to track the sunlight and provide optimal solar generation. Centralized inverters will be located strategically throughout the array to convert the energy from direct current ("DC") to alternating current ("AC"). Energy from the inverters will be conveyed to the substation via medium voltage cables. An Operations & Maintenance ("O&M") building for maintenance and monitoring will be located on-site as well. The PV solar array, BESS, inverters, and O&M building will comprise the project in total.

From the generator site, the Project will connect to a new APS substation via an approximate 13-mile gen-tie transmission line. This new substation will be part of APS' Tat Momoli-Saguaro 230 kV transmission line. The gen-tie line would be located southwest of the Project.

Once the project is operational, the energy will be dispatched to the local and regional grid or stored in the BESS for future dispatch at the directive of the offtake counterparty who will be purchasing the power. The Project is currently within the Transitional Cluster Study process with APS regarding a Large Generator Interconnection Agreement ("LGIA"). Ongoing studies are underway by APS, and targeted execution of the LGIA is March 2025, subject to ongoing feedback. This agreement will govern the interconnection timeline and ability for the Project to connect to the new APS substation and regional grid. APS currently serves multiple communities in Pinal County, such as the City of Eloy, the City of Coolidge, the Town of Florence, and others, and serves portions of unincorporated Pinal County.

3.2 SITE SUITABILITY AND DESIGN

The Project is comprised of generally flat agricultural land which will require minimal site preparation and grading during construction. The general slope is 0.01 foot/foot percent from west to east. A detailed topographical map with elevation labels has been included in the ALTA survey (attachment SUB1_Certified Boundary Survey and Topographic Map Cactus Flower Solar). Additionally, the site is contiguous across 10 parcels allowing for efficient construction and ease of access for construction crew mobilization and demobilization.

The Applicant has conducted environmental due diligence on the project which is outlined and discussed further in Section 3.4. No wetlands are present on-site, and existing canals will not be impacted by the solar design as they will be avoided (Figure 1). Environmental database review and analysis, in combination with an initial field survey concluded that there is no suitable habitat for federal listed or protected species.

The proposed preliminary site plan includes 50-foot setbacks from all parcel lines, existing overhead electrical equipment, existing wells, and road centerlines. Gravel access roads will be constructed for site access within the project. Access gates and requisite signage will be installed along the site boundary and

can be referenced in Figure 1. The site plan also includes 100-foot setbacks from any existing residential property in addition to opaque fencing near residences. It should be noted that this site plan is preliminary and subject to ongoing engineering and design adjustments in coordination with and compliance with county feedback and requirements.

The Project falls within the Federal Emergency Management Agency ("FEMA") Zone A (1 percent annual chance flood hazard) and Zone X (0.2 percent annual chance flood hazard). It is also partially within the 100-year floodplain. The Project is predominantly located within Zone X, 1,480 acres, with the remaining 668 acres falling within Zone A (Figure 4). The Applicant is in the process of submitting a Letter of Map Change ("LOMC") to FEMA to request a study of the existing flood zones within the Project to officially change the effective Flood Insurance Rate Map ("FIRM").

3.3 EXISTING INFRASTRUCTURE AND PUBLIC SERVICES

The Applicant is proposing to interconnect to the APS Tat Momoli-Saguaro 230 kV transmission line located Southwest of the Project. This line is approximately 33 miles long and runs primarily through open desert near the Pinal/Pima county line on wooden H-frame poles. It shares a corridor with the Marana - Saguaro 115 kV line near Saguaro substation to the East and South Loop - Pinal West 345 kV line near Tat Momoli substation to the West. The gen-tie transmission line will connect the project substation to the APS transmission line which will be developed through ongoing engineering design to connect to existing infrastructure or construct new infrastructure, as necessary. APS currently serves multiple communities in Pinal County, such as the City of Eloy, the City of Coolidge, the Town of Florence, and others, and serves portions of unincorporated Pinal County.

During construction, water would be trucked to the site, as needed. Any road improvements or construction would be developed and coordinated with Pinal County staff. The Applicant will obtain the appropriate Fire District's approval of the water plans prior to County approval. The Project will utilize necessary fire protections protocols as required by the County, and the Project will be routinely maintained by dedicated O&M staff on-site.

3.4 ENVIRONMENTAL IMPACT AND MITIGATION MEASURES

The Applicant has performed environmental due diligence on the Project site to determine initial environmental constraints within the Study Area, consisting of 2,115 acres. Tetra Tech was retained to provide a Critical Issues Analysis ("CIA"); Phase I Environmental Site Assessment ("Phase I ESA"); Wetland and Other Waters of the United States Delineation; and Biological Resources Assessment ("BRA"). A summary of results is included below, and documents can be provided by the Applicant upon request. Overall, due diligence conducted to date indicates that there are no overriding considerations or constraints from hazardous materials or wetlands or other waters, however there are potential constraints due to the presence of western burrowing owls (*Athene cunicularia hypugaea*) in the Study Area, along with other unknown impacts to State Species of Greatest Conservation Need ("SGCN") and migratory nesting bird species on or near the Project site. The Applicant will be conducting protocol burrowing owl surveys in 2024 to determine more precise locations of burrows for solar array design considerations.

- **Critical Issues Analysis** – Dated June 14, 2022. The CIA identified areas for Applicant's consideration. These included reference to County requirements for landscaping or screening of the Project; rezoning requirements; industrial buffer; Project setback of not less than 10 percent of the lot depth on all sides; potential presence of Arizona Game and Fish Department ("AZGFD").

  The CIA provided the necessary information to move forward with additional due diligence and studies at the proposed Project.

- **Phase I Environmental Site Assessment (Phase I ESA)** - Dated May 31, 2023. The Phase I ESA was prepared in accordance with ASTM International Standard E1527-21. No Recognized Environmental Conditions ("RECs"), Historical RECs, or Controlled RECs were identified.

  The Applicant will avoid impacting the irrigation wells and will work with the landowners on the cleanup of the dumped household and construction materials. The Applicant will be preparing a new Phase I ESA prior to construction for financing purposes.

- **Wetland and Other Waters of the United States Delineation Report** – Dated November 15, 2023. No wetlands were identified within the PV portion of the Study Area. However, a total of two (2) streams were identified within the PV portion of the Study Area which are characterized as cement lined canals (S-01 and S-02).

  The Applicant will not impact either of the canals (S-01 and S-02) within the Project. Construction of solar panel arrays will be located away from each of the canals to ensure vehicle and equipment access to the canals and stormwater controls from the project.

- **Biological Resources Assessment** – Dated January 24, 2024. The BRA addresses a number of resource concerns which include wildlife, vegetation and botanical resources, noxious and invasive weeds, and wildlife corridors.

  No sensitive areas or U.S. Fish and Wildlife Service ("USFWS") critical habitat occur within or in close proximity to the Project.

- **Cultural Resources** – The Applicant is currently conducting a detailed cultural resources Class I database review for the Project and gen-tie alignment. This report will be made available to the County upon request.

3.5 PROJECT DECOMMISSIONING

The Applicant ensures that the Cactus Flower Solar facility shall be removed, at the expense of the operator or its successor(s), in the unlikely event that the system ceases power production, or the land lease expires or is terminated prior to its expected 40-year useful life. The Applicant has a legal obligation to landowners via associated site control documentation to decommission the Project at the end of its operational life. The equipment will be removed, and appropriate site restoration will be completed, as needed. The Applicant will prepare a decommissioning plan.

SECTION 4 – ADDITIONAL CONSIDERATIONS

4.1 POTENTIAL FUTURE HIGH CAPACITY I-11 CORRIDOR

During the pre-application meeting with Pinal County regarding the proposed MCPA, it was noted that the Project falls within the proposed I-11 Highway and that there was concern about potential conflicting land use. Specifically, Pinal County was worried about the potential for I-11 to no longer be built within the Project should the MCPA be approved. The Applicant has provided additional clarification regarding this potential conflict in the sections noted below.

Currently the Project parcels are situated in the preferred alternative corridor for the proposed I-11 Highway. This corridor is 2,000-feet wide, and the selected alignment would be 400-feet wide for the highway rights-of-way. Beginning in 2016, the Arizona Department of Transportation ("ADOT") and the Federal Highway Administration ("FHWA") conducted its preliminary review and released a Final Tier 1 Environmental Impact Statement ("EIS") in 2021. The EIS includes language related to land use approvals, ongoing planning, and future development at the county level that will require the need for flexibility in the ongoing study process.

Specific language in the Draft Tier 1 EIS released in March 2019 states that no land use approvals would be granted as part of the EIS process, allowing for counties to continue review and regulate planning within their jurisdiction within the proposed corridors.

> "*This land use section documents existing and planned land uses from available data and information provided by local governments. No formal local land use approvals would occur as the result of this Draft Tier 1 Environmental Impact Statement and Preliminary Section 4(f) Evaluation*" (FHWA and ADOT, 2019: page 3.3-1)

Additionally, the Draft Tier 1 EIS acknowledges the need to review and amend the proposed route:

> "*It is important to acknowledge that land use planning is an ongoing activity. Therefore, information related to all of these land use topics will be updated during Tier 2 studies to maintain the most up-to-date information*" (FHWA and ADOT, 2019: page 3.3-2)

> "*Future land uses are speculative and development patterns can quickly change to respond to new opportunities and constraints, such as a new transportation corridor, changing demographics, or the attraction of a major employer*" (FHWA and ADOT, 2019: page 3.3-5)

Based on the specific language noted in the Draft Tier 1 EIS, ADOT understood that no land use approvals were secured as part of the current I-11 studies and that they would need to reevaluate land use as part of the next study. Therefore, the Applicant presumes that ADOT understood that they were not guaranteed to have secured the I-11 corridors noted in the current studies nor were they requesting jurisdictions or landowners to hinder development in the preferred or alternative corridors as part of these corridor studies. This is based on ADOT noting they would need to reevaluate land use in the next I-11 study and that land uses can quickly change, suggesting they acknowledge that further developments would occur in the I-11 preferred and alternative corridors that they would need to consider land use in the next study.

Finally, the Applicant notes that another GEP land use designation was approved within the I-11 corridor in unincorporated Pinal County. Specifically, the Arizona City Solar Project (PZ-PA-004-21) was approved in

November 2021 by the Pinal County Board of Supervisors, is located on private property in unincorporated Pinal County and intersects the preferred alternative corridor for the proposed I-11 Highway. Therefore, GEP land use designations being sited and approved within the I-11 corridor has precedent.

The Applicant reached out directly to ADOT's previous State Engineer (Mr. Dallas Hammit) and to ADOT's Multi-modal Planning Department Director (Mr. Paul Patane) for more information relating to Tier 2 funding and potential timing for additional studies and assessments. Pending information from ADOT, the Applicant understands that funding for the I-11 project is subject to federal Congressional funding for new alignments as well as improvements to existing highway infrastructure. At this time, the Applicant is relying on the above referenced language from the Tier 1 EIS and intends to move forward with Project planning and development. The Applicant will work with the County Engineer and Public Works Department to address any comments related to the location of the Project within the alternative corridor for the proposed I-11 corridor.

4.2 PINAL COUNTY PUBLIC WORKS DISCUSSION AND COMMENTS

The Applicant met with County Engineer, Christopher Wanamaker, on May 28, 2024, to address comments shared regarding the Applicant's pre-application and meeting held with Pinal County staff on May 14, 2024. County staff indicated that the drainage report and associated drainage waiver as well as the required Traffic Impact Statement ("TIS") could be submitted later following the Applicant's initial submission. The Applicant has engaged a consultant to provide these deliverables in a timely manner and will share this with County staff once available.

Additionally, specific comments received from the Pinal County Engineering Division dated May 6, 2024, were discussed and incorporated into the preliminary site design, as needed. The Applicant will continue to incorporate feedback from Pinal County throughout the review process.

4.3 APPLICANT EXPERIENCE AND SAFETY RECORD

Since its founding in 2014, CCR has become one of the nation's largest and most reputable solar energy companies, developing over 12 gigawatts ("GW") of operational solar capacity across the country. CCR is a fully integrated renewable platform: we develop, finance, own, and operate projects. The company currently owns over 2.2 GW of solar projects across 14 states, and our in-house O&M provider (Cypress Creek Solutions, LLC) is the fourth largest solar O&M provider in the United States, managing over 4.9 GW of solar and storage projects.

Cypress Creek Solutions, LLC has contracts with over 500 operation projects with greater than 99% contract availability. The team is made up of 150 team members and there is a 24/7 control center and NERC Generator Operator located in Durham, North Carolina, which facilitates around the clock monitoring. The total average reported incident rate is 0.21% between 2018-2023. We pride ourselves on our safety record and ability to quickly respond and address any issues that arise during operations.

SECTION 5 – ALIGNMENT WITH COUNTY COMPREHENSIVE PLAN GOALS

The Project is aligned with many of the goals, policies, and objectives of the Pinal County Comprehensive Plan. The following reviews some of the goals, policies, and objectives by which the Project is aligned:

- **Goal 7.1** Environmental Stewardship
- **Objective 7.1.1** Promotion of ecologically responsible development in Pinal County
- **Objective 7.1.2** Improve the County's air quality
- **Goal 7.2** Protect the long-term water supply for Pinal County
- **Goal 7.3** Improve the energy efficiency of Pinal County
- **Goal 7.6** Expand renewable energy in Pinal County
- **Policy 7.6.1.6** Support the transmission of renewable energy from sources within and outside of Pinal County
- **Objective 7.6.2.2** Support the growth of the renewable energy in Pinal County.
- **Goal 7.7** Support the provision of adequate energy for the future while protecting the natural environment and resources
- **Policy 7.7.2.2** Support innovative designs for new generating facilities that minimize water use
- **Objective 7.7.3** Provide information to citizens and the development community regarding future energy facilities

Appendix A includes the Comprehensive Plan Compliance Checklist that ensures conformity of the Project to the Pinal County Comprehensive Plan. The Proposed Amendment complies with Pinal County's Vision Components as outlined below.

- **5.1 Sense of Community**

  The Project would provide local dependable power and avoid conflict with the community by being located far from towns, housing, employment centers, parks, and recreational trails, and areas where those may expand in the foreseeable future. The Project proposes to locate in an area where the current land use is decreasing in viability, and there would not be a significant impact on the sense of community or the dominant rural character. With close proximity to only one or two full-time residences, the Project is consistent with Policy 3.1.1.5, which is included in the Comprehensive Plan's Sense of Community vision component: "locate more impactful commercial and industrial uses in areas away from homes where negative impacts can be mitigated."

- **5.2 Mobility and Connectivity**

  The Project would not generate any new traffic patterns or congestion outside of construction, and thus it would not interfere with the existing and proposed transportation corridors' abilities to move people and goods effectively with minimal impact on the native wildlife. There will be a temporary, minimal increase in traffic volumes on surrounding parcel roads due to the work force and materials and equipment delivery during construction, but there will be no significant increase in traffic during the operational life of the Project. Additionally, the Project includes plans to develop road access for construction workers and equipment and operational needs. The Project will, therefore, have

no material impact on mobility and connectivity for the transportation corridors within Pinal County, or the State.

- **5.3 Economic Sustainability**

  The Project would expand the opportunities for the current residents and landowners of these parcels to improve their prosperity through a new use for their land and thus hopefully remain in Pinal County. The Project will also provide significant increased tax revenue to the county, an estimated 400+ well-paying construction jobs for 12-18 months, and several permanent jobs over the lifetime of the Project. The power is also anticipated to support residential growth and job creation by providing clean and affordable electricity. This energy will support the growing industrial, manufacturing, and electric vehicle market that is rapidly expanding the economy in Pinal County.

- **5.4 Open Spaces and Places**

  According to the Pinal County Comprehensive Plan viewer, the Project does not intersect any proposed open spaces or proposed trails. There are no existing trails, parks, or other recreational facilities within the project. The Project is not designated as a Recreation/Conservation area in the Comprehensive Plan. The nearest designated recreational area is the Ironwood Forest National Monument, which is ~12.5 miles to the south. Additionally, the Project is located on private land, so it is not taking away any State of Federal land that is often used for recreation and grazing purposes. The Project is considering using ranch style fencing that allows the continued movement of smaller wildlife across the site.

- **5.5 Environmental Stewardship**

  The development of clean, renewable energy projects benefits all residents of Pinal County by replacing polluting energy sources with cleaner alternatives. Integrating renewable energy to meet the County's growing energy demands is an ideal way to secure a clean environment for the future. The Project therefore aligns perfectly with Pinal County's vision and leadership in environmental sustainability. Additionally, this type of project is extremely low water use reducing any added impact to water resources within the County.

  The Project has diligently examined any potential environmental impacts and is committed to minimizing impacts to the human, natural, and cultural environments resulting from the proposed development. The Project will comply with all applicable federal, state, and local laws, regulations, and guidelines, as required.

- **5.6 Happy, Healthy Residents**

  The Project will support Pinal County's goal to be a healthy safe place by supporting good air, soil, and water quality and producing no waste products during its construction or operation. The Project will ensure its decommissioning by developing a plan to ensure equipment removal, disposal, and recycling, and restoration of the land to its original condition. The Project would also provide additional tax revenue, which would support Pinal County services overall.

- **5.7 Quality Educational Opportunities**

The Project has sponsored three scholarships in the area this through our annual Energizing Tomorrow's Leaders Scholarship Program," and it will continue to do so each year for at least the next four years. The project has also contributed to Central Arizona College Foundation and is exploring additional opportunities for supporting local schools and STEM programs. The Project can be made available from time to time to educate residents and local schools on renewable energy and sustainability.

Appendix A includes the Comprehensive Plan Compliance Checklist that ensures conformity of the Project to the Pinal County Comprehensive Plan. The Proposed Amendment addresses the Plan's Key Concepts illustrated on Land Use, Economic, and Circulation as outlined below.

- **Consistency with the Land Use Designation shown on the graphics**

  The land is currently designated as very low density and moderate low density residential. Given the current density appears to be significantly less than the 0-1 or 1-3.5 du/ac listed for these classifications, and the development of housing seems far off given the distance to employment, shopping, and current housing, the Project is proposing an amendment to update this designation to Green Energy Production ("GEP"). Located in a remote area in Pinal County, the amendment will not conflict with other nearby proposed developments or sensitive land uses. Additionally, GEP utilized for a renewable energy project would not have significant impacts to surrounding land uses.

- **Consistency with the Mixed Use Activity Center Concept**

  The Project is 6-14 miles, depending on the direction, from targeted Mixed Use Activity Centers.

- **Consistency with the Planning Guidelines described in the Land Use element**

  The Land Use element does not include Planning Guidelines for the GEP land use classification; however, Agricultural Planning Guidelines state "Solar and wind energy production and other renewable energy production are compatible with the farming heritage." The Project would be a passive, low-intensity use, the MCPA would be consistent with surrounding land uses which include agriculture, transmission lines, and state land for grazing.

- **Quality Employment Opportunities County-wide**

  The Project will provide significant increased tax revenue to the county, an estimated 400+ well-paying construction jobs for 12-18 months, and several permanent jobs over the lifetime of the Project.

- **Viable Agriculture, Equestrian, and Rural Lifestyle**

  The Project's site plan will be designed to cluster development of solar panels and facility components to protect surrounding open space and land use. The Project will redevelop active agricultural land to reduce the impact on water allocation in Pinal County. Additionally, once decommissioned, the Project will return to its previous condition, and could be used as open space or agricultural land uses in the future. The Applicant will prepare a decommissioning plan as part of the PAD and Zone Change process.

- **System of Connected Trails and Preservation of Open Space**

According to Pinal County's Open Space and Trails Master Plan and Map, the Project is not located within any current or proposed open spaces or trails. There are no existing trails, parks, or other recreational facilities within the Project. The closest proposed multi-use trail corridors to the Project are to the north near Eloy and to the south just above the Ironwood National Monument lands, each over 10 miles away.

- **Natural and Cultural Resource Conservation**

  By using previously farmed flat land, the Project avoids any development in sensitive mountains, foothills, and wash areas. The Applicant has completed desktop biological studies of the land and is completing field studies to confirm there will be no significant wildlife disturbance. Additionally, the Project will avoid minimize, and mitigate impacts to natural and cultural resources in accordance with applicable laws, regulations, and permit conditions.

- **Water Resources, Public Facilities/Services, and Infrastructure Support**

  The Project will develop the gen-tie transmission line through ongoing engineering design to connect to existing infrastructure or construct new infrastructure, as needed, to avoid any impact to public services. During construction, water would be trucked to the site, as a minimal amount is estimated to be needed. Any road improvements or construction would be developed and coordinated with Pinal County staff. The Applicant will obtain the appropriate Fire District's approval of the water plans prior to County approval.

SECTION 6 – LITERATURE CITED

Federal Highway Administration (FHWA) and Arizona Department of Transportation (ADOT). 2019. *Interstate 11 Corridor: Draft Tier 1 Environmental Impact Statement and Preliminary Section 4(f) Evaluation*. Available online at: http://i11study.com/Arizona/Documents.asp. Accessed May 2024.

APPENDICES & FIGURES

APPENDIX A: COMPREHENSIVE PLAN COMPLIANCE CHECKLIST

Appendix A: Comprehensive Plan Compliance Checklist

Purpose:

Provide guidance to ensure conformity of development proposals with the Pinal County Comprehensive Plan.

Intent:

1. Explain how to determine if development proposals are compatible with the Comprehensive Plan.
2. Explain why unique conditions exist to deviate from the Plan.

The Pinal County Comprehensive Plan graphics, Land Use, Circulation (two graphics), and Economic Development, are not intended to be zoning maps that outlines specific locations and parcel-by-parcel determination for land uses and facilities. The Comprehensive Plan's intent is to provide policy direction and a framework for how the Pinal County "development form" or layout should occur over time. It is not the intent to predetermine specifically where land uses must occur. Guidelines within the Land Use element provide direction on development and how it relates to transportation corridors, surrounding land uses, public facilities, and natural environment.

Determination:

Comprehensive Plan Compliance is determined by the development's conformity with the Comprehensive Plan's land use designations (Land Use graphic and Land Use element text) and activity centers (Land Use and Economic Development graphics and Economic Development element text) as well as the goals, objectives, policies and guidelines outlined in the Pinal County Comprehensive Plan. Planning guidelines for each of the land use designations and Activity Centers are also included in the Land Use element. It is important to note that all components and concepts may not apply to every potential proposal.

Organization:

The Compliance Checklist focuses on two major components:

1. Consistency with Pinal County's Vision Components
2. Consistency with the Plan's Key Concepts illustrated on Land Use, Circulation, and Economic Development graphics.

How Is the Checklist Used?

Various concepts are discussed and a "YES" checkbox is provided to indicate if the proposal complies with the key concepts of the Plan.

- If a project complies, it receives a ✓ in the appropriate box.
- If it does not comply, the checkbox will remain blank, and additional information would need to be provided to explain the unique circumstance, if applicable.

- If a project has no relation to a particular check list item, a "non applicable" response is acceptable with a brief explanation.

Who Should Use the Checklist?

Developers, staff, and decision-makers should use the Comprehensive Plan Compliance Checklist.

- ✓ Developers should use this checklist as a guide to the Plan's policies in the early stages of a development proposal and when submitting an application for review.
- ✓ Staff should use it to review development proposals and to make recommendations to decision-makers. The checklist can assist in developing the staff report.
- ✓ Decision-makers can use the checklist to better understand how well a proposal does or does not comply with the Pinal County Comprehensive Plan.

PART ONE

Consistency with Pinal County's Vision Components

The Pinal County Comprehensive Plan is a vision-based plan that provides the framework that all decisions related to growth and development are measured against. The following is intended to describe how the proposal meets the various vision components.

Pinal County Vision The County recognizes the importance of the region's strategic location between the Phoenix and Tucson Metropolitan Areas and its relationship to the overall well-being of the state of Arizona. What happens in Pinal County does not stay in Pinal County; the decisions made here will impact the entire state on many levels: business development, mobility, land management, air quality, water, and overall quality of life. People choose Pinal County for the diverse opportunities it offers; this diversity is what makes Pinal County unique but also represents a challenge as Pinal County continues to grow and change.

Pinal County is a place where history, culture and heritage are the foundation for its future. Pinal County will be seen as a leader in environmental stewardship and conservation practices by ensuring that the natural environment is preserved, yet still available to be discovered. Pinal County provides quality educational and training opportunities placing residents in cutting edge, environmentally-compatible jobs within the County. While communities within Pinal County retain and celebrate their unique qualities, governments and agencies share a collaborative spirit to ensure successes across Pinal County and remain responsive and accountable to their constituents.

Sense of Community—Pinal County is a collection of unique communities, each of which has something special to offer residents and visitors. Balancing emerging urban centers and Pinal County's rural character is important to residents; ensuring that the threads of Pinal County's history, heritage, and culture are woven into its future is what makes Pinal County unique from other regions. Ensuring places exist for people to gather and for communities to showcase the diversity of places, people, lifestyles, cultures, and opportunities will help to define Pinal County's identity.

The proposal:

☑ Is consistent with the **Sense of Community** vision component

Please explain:

This project would provide local dependable power and avoid conflict with the community by being located far from towns, housing, employment centers, parks, and recreational trails, and areas where those may expand in the foreseeable future. The project proposes to locate in an area where the current land use is decreasing in viability, and there would not be a significant impact on the sense of community or the dominant rural character. With close proximity to only one or two full-time residences, the project is consistent with Policy 3.1.1.5, which is included in the Comprehensive Plan's Sense of Community vision component: "locate more impactful commercial and industrial uses in areas away from homes where negative impacts can be mitigated."

Mobility and Connectivity—Ensuring Pinal County has adequate transportation corridors and a variety of multimodal transportation options addressing all populations is essential for moving goods and people throughout the County and State with minimal affect on Pinal County's native wildlife. Offering multiple mobility and communication options, to effectively connect communities and activity centers throughout the County, will reduce congestion and improve air quality while enhancing the area's quality of life.

The proposal:

☑ Is consistent with the **Mobility and Connectivity** vision component

Please explain:

The Project would not generate any new traffic patterns or congestion outside of construction, and thus it would not interfere with the existing and proposed transportation corridors' abilities to move people and goods effectively with minimal impact on the native wildlife. Additionally, the Project includes plans to develop sufficient access roads for construction workers/equipment and operational needs. See application Narrative for more information.

Economic Sustainability—Expanding opportunities for residents to live, work, learn, and play in close proximity promotes long-term economic viability. Pinal County desires activity centers that serve the current and future residents' needs offering services, businesses and employment opportunities, including high-tech and environmentally-friendly employers who champion Pinal County's conservation philosophy. The creation of the full range of quality jobs that allow residents to start their career, raise a family, and move up instead of out of Pinal County for career advancement is essential. (This may not apply to all projects)

The proposal:

☑ Is consistent with the **Economic Sustainability** vision component

Please explain:

The Project would expand the opportunities for the current residents and landowners of these parcels to improve their prosperity through a new use for their land and thus hopefully remain in Pinal County. The project will also provide significant increased tax revenue to the county, an estimated 400+ well-paying construction jobs for 12-18 months and several permanent jobs over the lifetime of the Project. The power is also anticipated to support residential growth and job creation by providing clean and affordable electricity. This energy will support the growing industrial, manufacturing, and electric vehicle market that is rapidly expanding the economy in Pinal County.

Open Spaces and Places—Residents value the large connected open spaces and unique places of Pinal County, not only as part of their quality of life, but as an important resource to sustain the region's immense wildlife habitat and their corridors. From the majestic mountains rising from the desert floor in the west to the high desert and rugged mountain terrain to the east, enjoyment of and respect for the natural surroundings is a big part of why people choose Pinal County to live and visit.

The proposal:

☑ Is consistent with the **Open Spaces and Places** vision component

Please explain:

According to the Pinal County Comprehensive Plan viewer, the Project does not intersect any proposed open spaces or proposed trails. There are no existing trails, parks, or other recreational facilities within the Project. The Project is not designated as a Recreation/Conservation area in the Comprehensive Plan. The nearest designated recreational area is the Ironwood Forest National Monument, which is ~12.5 miles to the south. The Project is considering including ranch style fencing that allows the continued movement of smaller wildlife across the site.

Environmental Stewardship—People value the views of the mountains and open vistas during the day and the stars at night. These values have translated to a strong conservation ethic that stresses the importance of maintaining the quality of Pinal County's natural resources for future generations. Pinal County is the leader in environmental stewardship, and rewards and encourages sustainable practices such as innovative land use planning, sustainable agriculture, water conservation, green building development, and the use of renewable and alternative energy sources.

The proposal:

☑ Is consistent with the **Environmental Stewardship** vision component

Please explain:

The development of clean, renewable energy projects benefits all residents of Pinal County by replacing polluting energy sources with cleaner alternatives. Integrating renewable energy to meet the County's growing energy demands is an ideal way to secure a clean environment for the future. The Project therefore aligns perfectly with Pinal County's vision and leadership in environmental sustainability. Additionally, this type of project is extremely low water use reducing any added impact to water resources within the County. See application Narrative for more information.

Healthy, Happy Residents—Access to quality healthcare and healthy lifestyle choices is a priority. Pinal County is a healthy, safe place where residents can walk or ride to activity centers and where interaction in Pinal County's clean, natural environment is encouraged. Ensuring residents are healthy, safe and happy in their community is a priority for Pinal County.

The proposal:

☑ Is consistent with the **Healthy, Happy Residents** vision component

Please explain:

The Project will support Pinal County's goal to be a healthy safe place by supporting good air, soil, and water quality and producing no waste products during its construction or operation. The Project will ensure its decommissioning by developing a plan to ensure equipment removal, disposal, and recycling, and restoration of the land to its original condition. The Project would also provide additional tax revenue ,which would support Pinal County services overall.

Quality Educational Opportunities—Quality, community-based Pre k-12 programs that provide youth with a competitive edge along with a wide variety of post-secondary educational opportunities and technical or specialized workforce training are necessities. Pinal County residents seek out life-long opportunities that help to expand their minds and diversify their experiences. (This may not apply to all projects)

The proposal:

☑ Is consistent with the **Quality Educational Opportunities** vision component

Please explain:

The Project has sponsored three scholarships in the area this through our annual Energizing Tomorrow's Leaders Scholarship Program," and it will continue to do so each year for at least the next four years. The project has also contributed to Central Arizona College Foundation and is exploring additional opportunities for supporting local schools and STEM programs. The Project can be made available from time to time to educate residents and local schools on renewable energy and sustainability.

PART TWO

Consistency with the Plan's Key Concepts illustrated on Land Use, Economic, and Circulation graphics

Consistency with the Land Use Designation shown on the graphics

The project land uses:

☐ Are shown as indicated on the Land Use and Economic Development graphic

☑ Are not shown as indicated on the Land Use and Economic Development graphic

The land is currently designated as very low density and moderate low density residential. Given the current density appears to be significantly less than the 0-1 or 1-3.5 du/ac listed for these classifications, and the development of housing seems far off given the distance to employment, shopping, and current housing, the Project is proposing an amendment to update this designation to Green Energy Production ("GEP"). Located in a remote area in Pinal County, the amendment will not conflict with other nearby proposed developments or sensitive land uses. Additionally, GEP utilized for a renewable energy project would not have significant impacts to surrounding land uses.

Consistency with the Mixed Use Activity Center Concept

The project land uses:

☐ Meet the Mixed Use Activity Center requirements

☑ Are not shown within a Mixed Use Activity Center

If shown within a Mixed Use Activity Center, explain how it meets the planning guidelines outlined in the Land Use element.

This Project is 6-14 miles, depending on the direction, from targeted future Mixed Use Activity Centers.

The land use proposal includes a Mixed Use project, not shown in a Mixed Use Activity Center; explain how it meets the planning guidelines and intent of the Plan.

N/A

Consistency with the Planning Guidelines described in the Land Use element

The project land uses:

☐ Are consistent with the applicable Planning Guidelines described in the Land Use element

The Land Use element does not include Planning Guidelines for the GEP land use classification; however, Agricultural Guidelines state "Solar and wind energy production and other renewable energy production are compatible with the farming heritage."

The Project would be a passive, low-intensity use, the MCPA would be consistent with surrounding land uses which include agriculture, transmission lines, and state land for grazing.

Quality Employment Opportunities County-wide

The Comprehensive Plan stresses the importance of increasing the number of opportunities to locate quality jobs County-wide in order to increase the jobs-to-population ratio.

The proposal:

☑ Is consistent with the Economic Development element

☐ Includes additional information about how the development addresses the Economic Development Vision embodied in the Comprehensive Plan.

Please explain:

The Project will provide significant increased tax revenue to the county, an estimated 400+ well-paying construction jobs for 12-18 months, and several permanent jobs over the lifetime of the Project.

Viable Agriculture, Equestrian and Rural Lifestyle

Historically, agriculture has played an important role in Pinal County's economy and lifestyle. Encouraging the continuation of viable agriculture and protecting it is an important component of the Plan. Additionally, supporting an equestrian and rural lifestyle has a place in Pinal County as it continues to urbanize.

The proposal:

☑ Clusters development to protect open space and agriculture

☑ Includes additional information about how the development addresses Viable Agriculture, Equestrian, and Rural Lifestyle.

Please explain:

The Project's site plan will be designed to cluster development of solar panels and facility components to protect surrounding open space and land use. The Project will redevelop active agricultural land to reduce the impact on water allocation in Pinal County. Additionally, once decommissioned, the Project will return to its previous condition, and could be used as open space or agricultural land uses in the future. The Applicant will prepare a decommissioning plan as part of the PAD and Zone Change process.

System of Connected Trails and Preservation of Open Space

Pinal County is committed to the preservation of large swaths of open space and the development of a connected system of trails. This applies to <u>all</u> projects/proposals/actions.

The proposal:

☑ Is consistent with *Pinal County Trails and Open Space Master Plan* and Comprehensive Plan Open Space and Places Chapter

☐ Includes additional information about how the development addresses the open space Vision and goals

Please explain:

According to Pinal County's Open Space and Trails Master Plan and Map, the Project is not located within any current or proposed open spaces or trails. There are no existing trails, parks, or other recreational facilities within the Project. The closest proposed multi-use trail corridors to the Project are to the north near Eloy and to the south just above the Ironwood National Monument lands, each over 10 miles away.

Natural and Cultural Resource Conservation

The Comprehensive Plan strives to protect natural/cultural resources, wildlife corridors and environmentally-sensitive areas such as mountains and foothills, major washes, and vistas. These areas are predominantly undeveloped and contain sensitive resources or natural hazard areas.

The proposal:

☑ Address environmentally sensitive areas it may impact.

☐ Includes additional information about how the development addresses the natural and cultural resource conservation.

Please explain:

By using previously farmed flat land, the Project avoids any development in sensitive mountains, foothills, and wash areas. The Applicant has completed desktop biological studies of the land and is completing field studies to confirm there will be no significant wildlife disturbance. Additionally, the Project will avoid, minimize, and mitigate impacts to natural and cultural resources in accordance with applicable laws, regulations, and permit conditions.

Water Resources, Public Facilities/Services, and Infrastructure Support

All developments must bring adequate water resources and the necessary infrastructure to support the intensity of development in order to minimize the impact on the County's ability to provide public services. All development and growth, public and private, must acknowledge its impacts and pay its own way.

The proposal:

☑ Ensures that adequate public facilities are in place or planned for within a reasonable time of the start of the new development

Please explain:

The Project will develop the gen-tie transmission line through ongoing engineering design to connect to existing infrastructure or construct new infrastructure, as needed, to avoid any impact to public services. During construction, water would be trucked to the site, as a minimal amount is estimated to be needed. Any road improvements or construction would be developed and coordinated with Pinal County staff. The Applicant will obtain the appropriate Fire District's approval of the water plans prior to County approval.

APPENDIX B: LANDOWNER LETTERS OF SUPPORT

May 26, 2024

To whom it may concern,

I own 212 acres in Eloy (408-12-002 and 408-12-003) that is part of the future Cactus Flower Solar Farm. I have owned the property for about 20 years, and it has been leased to farmers to grow agricultural crops. However, in the past few years, the water supply to raise crops on this property has been cut in half. This has resulted in the farmers only growing half the crops they used to.

This water shortage is not just on my property, but the entire Central Arizona Irrigation and Drainage District area. Converting this property to a solar farm allows the water rights to be transferred to other farmers in the area allowing them to increase the amount of crops they grow. Solar farms will be a benefit to the Central Arizona area where some of the finest cotton in the world is raised.

I have also watched with anticipation when the I-11 freeway was announced about 10 years ago. The progress has been slow as there are many decisions to be made, government regulation to comply with, and interested parties to appease. Various routes for the freeway have been proposed, but as far as I know, no decision has been made for the exact location of the freeway west of I-10. It will be more than a decade before we see any construction begin on I-11 between Casa Grande and Nogales.

The area where Cactus Flower is developing the solar farm is so far west of I-10, that even after the freeway is constructed, it will still be many years before any residential or commercial construction would begin.

Without question, the best use of my property for the next 20 years is the development of a solar farm to provide clean electricity, and assist farmers by sharing the water resources to grow more crops than they are currently able to.

Sincerely,

Michael Toone

Michael Toone

Brian Blevins
5685 S. Topaz Place
Chandler, AZ 85249

Pinal County Planning Division
85 N Florence Street, First Floor
Florence, Arizona 85132

June 5, 2024

Dear Pinal County Planning Division:

My name is Brian Blevins, and my family owns Curtis 1035 LLC here in Pinal County. We have a contract with Cypress Creek Renewables for the site control and eventual purchase of five of our parcels in Pinal County - 631 acres - for the development of Cactus Flower Solar and Storage. We strongly support the request for the land use classification change from Very Low and Moderate Low Density Residential to Green Energy Production so that the development of this facility can move forward.

The reality of farming in Pinal County is that it has been very challenging lately. We have lost all of the Central Arizona Project water, so are left with groundwater supplied through the District. This is half of what was supplied to us just a few years ago and has resulted in half the crop output. I have been farming all my life, but my family simply can no longer rely on farming as a viable income stream going forward.

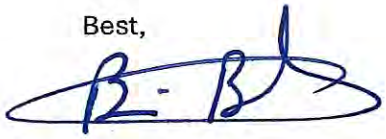
Aside from the fact that selling my land to Cypress Creek for the development of Cactus Flower makes sense financially, it could also help agricultural production in the area. My water allotment could be redistributed to other farmers that could then have greater crop output with the increased water supply.

Lastly, the I-11 corridor should not be a consideration in this rezone request. My understanding is that ADOT's current map of the corridor shows the entire 2,000-foot range, of which only 400 feet will be selected for the corridor. Seeing that funding has not yet been secured, the development timeline is still entirely unknown, and the exact location of the 400-foot I-11 corridor is still undecided, preventing development in the meantime seems illogical and would prevent the County from seeing the economic benefits that occur from projects such as Cactus Flower.

This is my private property, and with respect hope that my decision to sell my land to Cypress Creek Renewables for the Cactus Flower site holds some weight when considering this land use reclassification request. Cactus Flower would bring substantial property tax revenue, jobs, and a ripple effect of economic activity in the wider City of Eloy area. It could help boost agricultural production for other farmers by increasing the water availability for them.

Thank you for considering this letter of support in your review of the land use reclassification application for Cactus Flower.

Best,



Brian Blevins

David Stambaugh
27830 S Eleven Mile Corner Rd
Eloy, Arizona 85131

Pinal County Planning Division
85 N Florence Street, First Floor
Florence, Arizona 85132

June 3, 2024

Dear Pinal County Planning Division:

Thank you for considering this letter in your review of the Cactus Flower Solar and Battery land use reclassification application.

My family has a long history of farming in Pinal County. I grew up in Mammoth and have been farming my entire adult life, but times have been hard in recent years. Crop output has significantly declined mainly due to having lost access to the Central Arizona Project's water, which left us with groundwater from the District and about half the water supply that we used to receive. This is a direct hit to income generated from our farming. As such, we have had to reevaluate what to do with our property.

So when Cypress Creek Renewables approached us for purchasing our land- one parcel, about 216 acres- for use of a solar and battery site, it seemed like an obvious win for all parties involved. We would no longer be faced with the difficult reality of our farmland no longer being viable, the County would see substantial property tax revenue from the solar farm- from what we understand would be tens of millions of dollars throughout the life of the project, construction jobs would be created, and my property's water credits could be distributed to other agricultural productions so that their yields could be higher.

The theoretical plan for the I-11 corridor is just that at this point- theoretical. The approximately 400-foot corridor needed for the interstate is in no way set in stone. Should funding for this project occur in the future and plans for it actually move forward, there would be significant time to figure out an alternate route. Preventing Cactus Flower from moving forward because of a potential future project with an unknown timeline, and other development (is the County planning to prevent any and all development from occurring in this corridor?)- when I am confident that ADOT could find another 400-foot corridor route if it comes to it- seems to me like that County would be stalling economic development in a region that could really benefit from it.

I respectfully ask that the County respect my private property rights and support my decision to sell my land to Cypress Creek Renewables for the Cactus Flower project. I ask that this letter of support be considered as part of the review process for the land use classification change from Very Low and Moderate Low Density Residential to Green Energy Production so that development on the Cactus Flower project can move forward.

Thank you for your time and consideration,

David Stambaugh

APPENDIX C: PUBLIC PARTICIPATION REPORT

Public Participation Report | Cactus Flower Solar, LLC

Cactus Flower Solar, LLC ("Project" and "Applicant") is a proposed 270 MWac solar and 270 MW battery energy storage project located on 2,148.94 acres of flat, active agriculture land in unincorporated Pinal County, Arizona, approximately eight miles south of the City of Eloy. The roughly 2,000 acres are composed of 10 privately owned parcels that are currently zoned for Very Low Density Residential and Moderate Low Density Residential under the Comprehensive plan. This Public Participation Report ("Report") is required by Pinal County Development Code as part of the Comprehensive Plan Formal Application for Cactus Flower Solar, LLC, where the Applicant is requesting a change in land use classification to Green Energy Production (GEP) for these 10 parcels.

Required prior to any public hearing for this change in land use classification request is to conduct and hold at least one neighborhood/community meeting at a specific date and time to allow stakeholders in the vicinity of the Project to be informed of the proposed land use change and provide an opportunity for questions and comments. Notice of said community meeting must be sent to the head of any homeowners' or community associations located nearest the property proposed for rezoning, as well as to all real property owners within 1,200 feet of the proposed area for rezoning. The Applicant went beyond the minimum 1,200 requirement and sent notices to property owners within 1,500 feet of vicinity to ensure that any properties on the fringe received notice as well.

As such, the Applicant held a community meeting ("Meeting") for the Project at the Toltec Community Center in the City of Eloy on Tuesday, May 14, 2024, from 5:30pm – 7:30pm. Twenty-one landowners and stakeholders, primarily businesses, LLCs and administrations were identified as being within the previously specified designations. Notices were mailed to these 21 stakeholders that included information on the Applicant, plans for the proposed land use change, the date, time and location of the Meeting, and Applicant contact information. One member of the public attended the Meeting. The attendee asked general questions about the Project, including development timeline and location, and expressed his general support of solar in Pinal County.

More generally, the Applicant has been active in the community since November 2022. They are a member of the Pinal Partnership, Eloy Chamber of Commerce, Pinal Alliance, Greater Florence Chamber of Commerce; and the Director of External Affairs is President of Central Arizona College Foundation and serves on the Board of Directors for the Eloy Chamber of Commerce and Pinal Alliance. The Applicant has donated thousands of dollars in local sponsorships, including Paladin Sports, Central Arizona College, Eloy Chamber of Commerce, Pinal Partnership, and is in active communication with the Eloy Chamber of Commerce about future community investment opportunities. Recently, three graduating high school seniors in the County were awarded scholarships through the Applicants' Energizing Tomorrow's Leaders Scholarship program. Along with consistent in-person outreach to members of the public and the general business community, the Applicant has met with the City of Eloy to keep them informed of the Project and to take note of any comments or questions. They plan to continue outreach to the public, local businesses, the fire department and the City of Eloy throughout the development process and beyond.

Attachments to this Report include:

1. Notice – *Invitation to Community Meeting for Cactus Flower, LLC*
2. Landowners and Stakeholders List – *Contacts within 1,500 feet of proposed area for rezoning who were mailed notices of Community Meeting*
3. Fact Sheet – *Provided copies at Community Meeting*
4. Poster Files – *On display at Community Meeting*
5. Sign-up Sheet – *Provided at Community Meeting; attendee information redacted*
6. Responses from Public – *One email received from the Western Area Power Administration (WAPA); response from Applicant*

Note that Sections J and K of the Public Participation Report regulations will be included as designated activities have occurred. The Applicant can only report on sections 1 – 6 of the Public Participation Report to date.

April 30, 2024

Invitation to learn about the proposed Cactus Flower Solar Project

Dear Interested Party:

We invite you to join us for an in-person neighborhood meeting to meet our team, provide input, and learn more about our company and the proposed Cactus Flower Solar project (the project).

Cactus Flower Solar, LLC (Applicant) proposes to construct, operate, and maintain a 350-megawatt (MW) direct current/270-MW alternating current solar generation and 270-MW energy storage project on approximately 2,145 acres of private land in unincorporated south Pinal County, Arizona. The project in unincorporated Pinal County is outlined in Figures 1a and 1b (see attachment). The project includes a photovoltaic solar array, battery energy storage system, project substation, and a 230-kilovolt (kV) generation intertie transmission line, as well as minor components needed to support the major components of the project.

The Applicant has applied for a pre-application meeting for a major comprehensive plan amendment (MCPA) from the Pinal County Planning Department to request a comprehensive plan amendment from the current comprehensive plan land use designations in the project (very low and moderate low density residential) to the green energy production land use designation. The green energy production land use designation would allow for the project's proposed use. The Applicant intends to submit a formal MCPA application in the 2024 calendar year. Should the MCPA application be approved, the Applicant intends to request a zone change and associated planned area development for the project.

Please join us for the neighborhood meeting. Details are listed below.

Neighborhood meeting

- **Date**: Tuesday, May 14, 2024
- **Time**: 5:30–7:30 p.m.
- **Location**: Toltec Community Center—3650 W. Shedd Road, Eloy, Arizona 85131

Participants are encouraged to view the project information, ask questions, and provide written comments.

Should you wish to provide comments or learn more about the Project, please send your questions and/or comments via email to stacy.gramazio@ccrenew.com or call (480) 879-3115. Written comments or questions may also be mailed to Stacy Gramazio, Cactus Flower Solar, LLC, 5310 S. Alston Avenue, Building 300, Durham, North Carolina 27713.

Sincerely,

Stacy Gramazio
Cactus Flower Solar, LLC

Attachments: Project site map

Figure 1a. Proposed project site (highlighted in green)

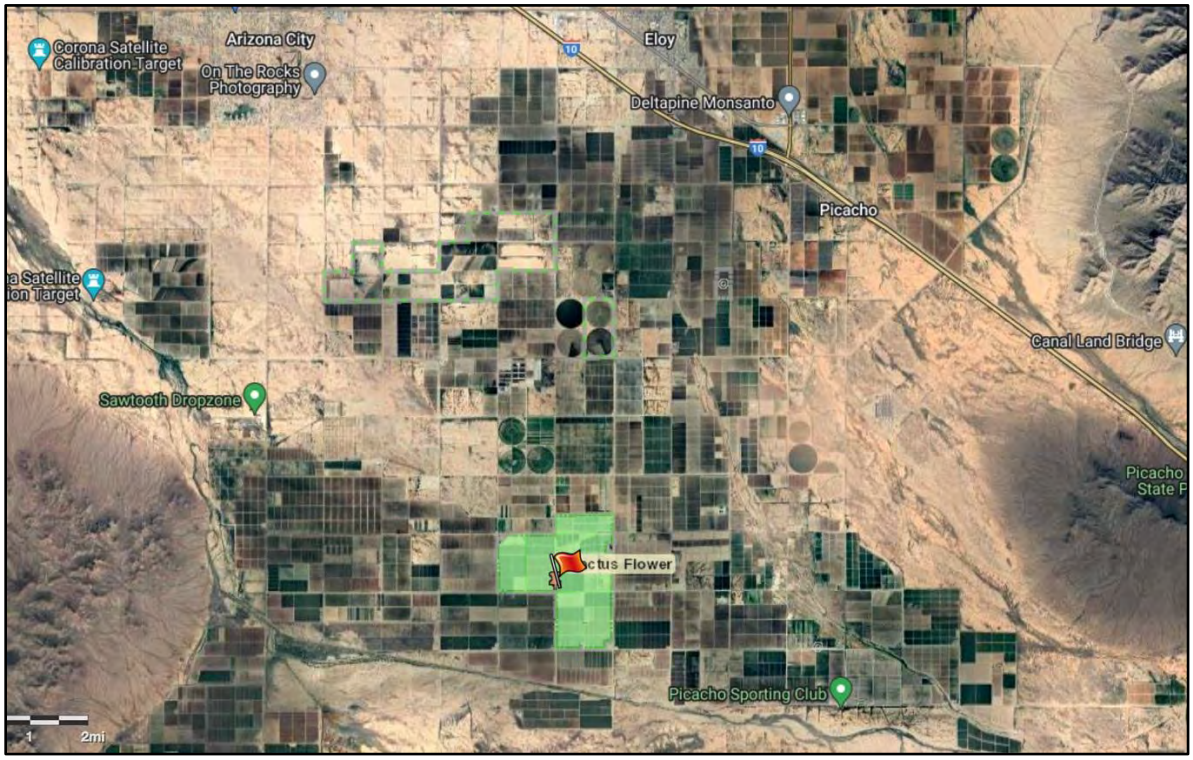
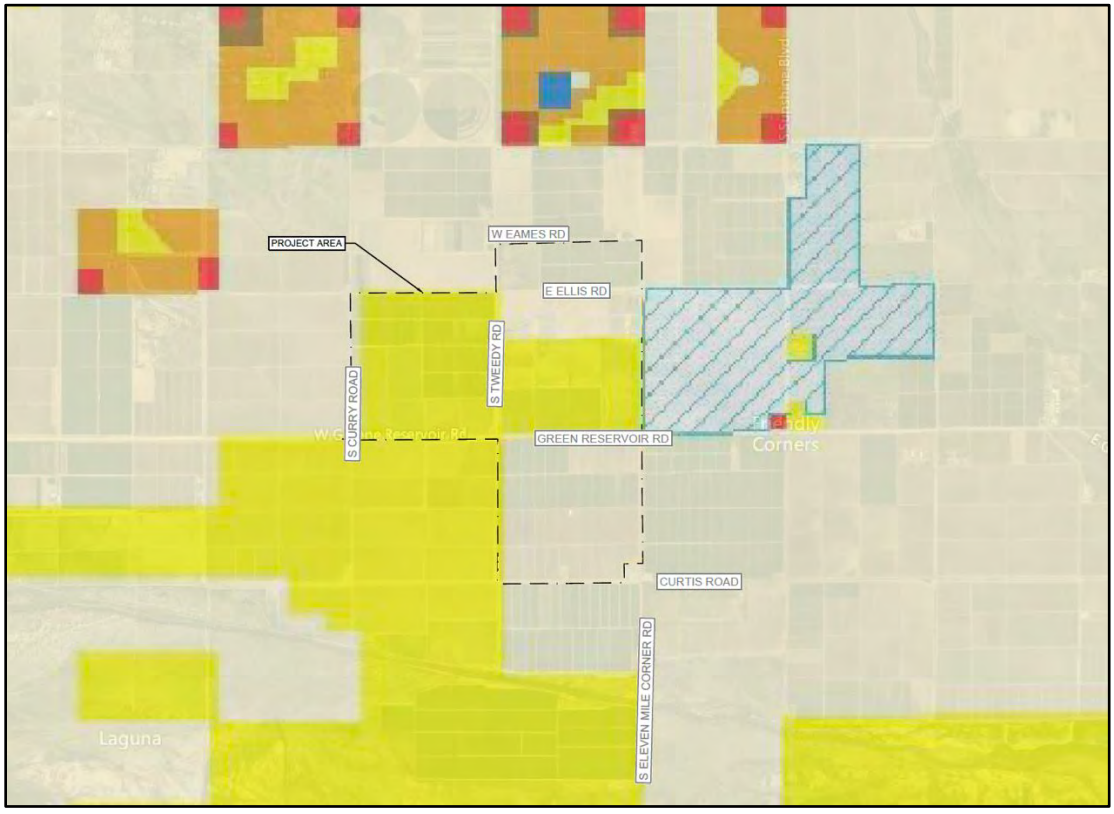


Figure 1b. Proposed project site (outlined in black dashes)



Landowners within 1,500 feet of the Project

Parcel ID	Landowner - First Line	Landowner - Second Line	Address	City	State	Zip
408170020	TRICO ELECTRIC CORP		PO BOX 930	MARANA	AZ	85653
40817001A	VALENTIC WILLIAM		PO BOX 2966	CHANDLER	AZ	85244
40811024D	Western Area Power Administration		12155 WEST ALAMEDA PARKWAY	LAKEWOOD	CO	80228
40811025C, 40811025B, 40811024A, 40811025D	CURTIS 1035 LLC		24953 S 206TH PL	QUEEN CREEK	AZ	85142
40811026A, 40811027B, 40811026B, 40816001A	LOCOMOTIVE FARMS LLC		2100 MCKINNEY AVE STE 1500	DALLAS	TX	75201
40811024C	CURTIS 1035 LLC		PO BOX 1969	QUEEN CREEK	AZ	85142
408150020, 408110230	GORDITA L P	C/O ANIMAL NUTRITION SYSTEMS	571 N 54TH ST	CHANDLER	AZ	85226
408150010	STAMBAUGH FARMS LLC		27830 S 11 MILE CORNER RD	ELOY	AZ	85131
411320120	WALKER PLOW LTD PSHIP LLP		PO BOX 1652	HIGLEY	AZ	85236
408120020, 408120030	TOONE FAMILY LTD PSHIP #3		817 N YORK CIR	MESA	AZ	85213
40811012A, 40811012B	BARNES HARVESTING LLC		3095 S TREKELL RD	CASA GRANDE	AZ	85193
408130030	JOHN M FOSTER TURF OF ARIZONA LLC		PO BOX 4563	PALM DESERT	CA	92261
408130010, 408130020, 408120010, 411320110	WALKER PLOW LTD PSHIP LLP		PO BOX 1652	HIGLEY	AZ	85236
41135001C	CENTRAL ARIZONA IRRIGATION & DRAINAGE DISTRICT		231 S SUNSHINE BLVD	ELOY	AZ	85131
41135001D	DONLEY JOHN PATRICK & MELINDA REV TRUST		10475 W QUARTZ DR	CASA GRANDE	AZ	85193
40816001G	BROWN EDDIE RYAN & KATILYN		36556 N NIGHT ST	SAN TAN VALLEY	AZ	85140
		Other Stakeholders				
	Arizona State Land Department		1110 W Washington St	Phoenix	AZ	85007
	City of Eloy Community Development	Attn: Dan Symer, Community Development Direct	595 C St Suite 102	Eloy	AZ	85131
	Pinal County Community Development Director	Attn: Brent Billingsley, Director	P.O. Box 749	Florence	AZ	85132
	Pinal County Board of Supervisors	Attn: Jeffrey McClure, District 4 Supervisor	135 N Pinal Street	Florence	AZ	85132
	Pinal County Board of Supervisors	Attn: Stephen Miller, District 3 Supervisor	820 E Cottonwood Lane, Building A	Casa Grande	AZ	85122

CYPRESS CREEK RENEWABLES

Cactus Flower Solar

Local Benefits for Pinal County and Eloy, AZ



^ A 208MW site with a 40MW BESS developed by Cypress Creek

Located in **Pinal County, AZ** approximately 9 miles south of Eloy

270MW Solar + 270MW BESS (Battery Energy Storage System)

46,000 single-family homes powered annually

400+ solar jobs during construction

Community & Environmental Benefits:

- Cactus Flower Solar will use minimal amounts of water and have zero carbon emissions during operation while still creating significant economic benefits for the area.
- The current landscape will be preserved through minimal grading, and the site could be returned to farming after decommissioning, if desired by landowners.
- Cypress Creek strives to create a positive impact in the communities where we develop and operate through scholarships, sponsorships, and workforce development initiatives. To date, Cypress Creek has contributed thousands of dollars toward Pinal County nonprofits and students, and we expect our involvement in the community to grow as the project advances.
- The project will create low-growing native plant vegetation communities, compatible with Sonoran Desert species, providing a potential habitat and food source for wildlife.

Positive Economic Impact:

- The project will generate millions in local property tax revenue over its lifespan for Pinal County, AZ. Early tax estimates indicate a potential annual average payment of up to $2 million for lifetime revenue of $50 to $77 million (subject to final project size and construction cost).
- Cactus Flower Solar is expected to create more than 400 construction jobs, using local contractors where feasible, as well as additional permanent positions.
- Cactus Flower Solar will generate millions of dollars in new economic activity for the area providing increased activity for hotels, restaurants, and retail as well as contracting opportunities for local small businesses.

Questions, Comments, Inquiries?

Contact Stacy Gramazio |(480) 370-2615| stacy.gramazio@ccrenew.com

Contact Heather Wise |(406) 431-0686| heather.wise@ccrenew.com

For more information about Cypress Creek Renewables, please visit ccrenew.com

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Frequently Asked Questions

Why Solar?

Solar is a low-impact, domestic electricity source. Many companies moving to Arizona are demanding a percentage of their electricity comes from clean energy resources. Also, Arizona's growing population requires that utilities seek a more diverse energy portfolio.

Why was the location chosen?

The location chosen for Cactus Flower Solar offers ideal proximity to transmission infrastructure and availability of flat land. The site is part of unincorporated Pinal County approximately 9 miles south of the City of Eloy, which city officials have identified as ideal for solar development.

What is the permitting process?

Cactus Flower Solar has applied for a major comprehensive plan amendment through Pinal County. The process allows for ongoing local input and collaboration and will include a public hearing where residents can have their voices heard.

Is solar equipment safe for people and the environment?

Our solar equipment meets the highest national standards (ANSI and UL) and does not affect the atmosphere, soil, or groundwater. The Cactus Flower Solar facility will be remotely monitored 24/7, with local technicians to manage maintenance and emergency response. In addition, we will take great care to mitigate any impact to the environment. Third-party studies have been completed to understand the needs of local wildlife and plants, and the results have been incorporated into project micro-siting and comprehensive permitting applications.

Will property values be impacted?

Numerous property studies by appraisers throughout the nation have found that solar does not create a negative impact on surrounding property values.

Will Cactus Flower Solar benefit the community?

The project will require few government services while providing an important source of new tax revenue. Cactus Flower is estimated to create approximately 400 full-time jobs during construction and additional permanent positions.

Cypress Creek Renewables strives to support community initiatives such as scholarships and workforce development programs in the areas where it operates – and we intend to continue these efforts in Pinal County.

What happens at the end of the project's lifespan and who is responsible for decommissioning?

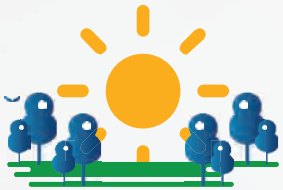
Once the project's lease has expired, Cypress Creek will remove all equipment and panels and will be responsible for any associated costs. All equipment, conduits, structures, and foundations will be removed to a depth of at least three feet below grade, fencing will be removed, and the land will be maintained and returned to its natural state. Our approach to project siting involves extensive screening to ensure we are leaving the smallest mark possible.

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Solar Project Development

CYPRESS CREEK RENEWABLES

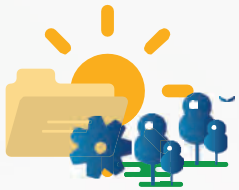
1



Signing Agreements with Landowners

- Work with landowners on lease or purchase agreements

2



Planning the Development

- Site Diligence
- Utility Agreements
- Surveying
- Engineering
- Zoning
- Environmental

3



Building the Project – "EPC"

E – Engineering

- Drawings (civil, electrical, structural)
- Permits

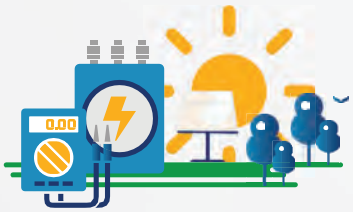
P – Procurement

- Purchase System Equipment
- Hire Contractors

C – Construction

- Ground Clearing & Grading
- Building Roads & Fencing
- Drive Posts
- Mount Racking & Modules
- Pour Concrete Pads for Inverters
- Mount Inverters
- Mechanical Completion

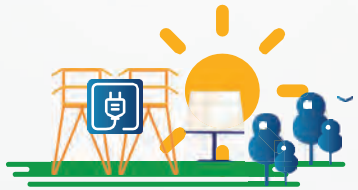
4



Commissioning the Site

- Electrical Current Inspection
- Utility Upgrade
- Electrical Testing
- Inverter Commissioning

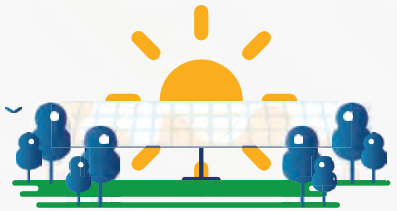
5



Energizing the Site

- Data Acquisition System (DAS) & Placed in Service (PIS)
- Performance Testing
- Substantial Completion

6

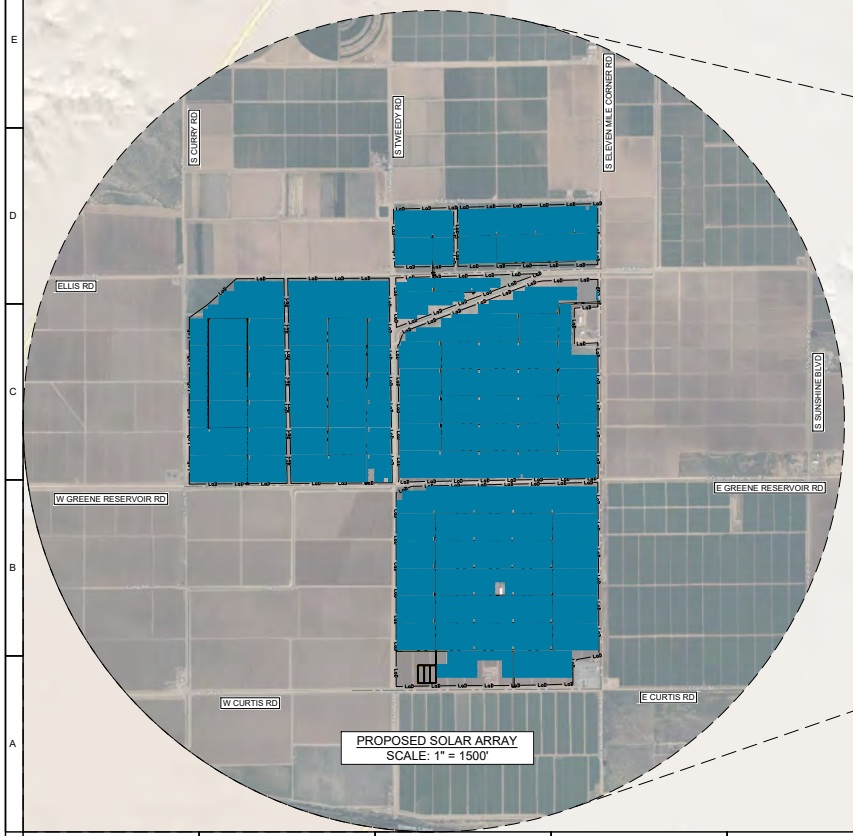


Finishing the Project

- Punch list closeout
- Construction crew exits site
- Re-seeding & landscaping finished

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CACTUS FLOWER SOLAR
PINAL COUNTY, AZ



PROPOSED SOLAR ARRAY
SCALE: 1" = 1500'

CYPRESS CREEK RENEWABLES
3402 PICO BOULEVARD - STE 215 - SANTA MONICA, CA 90405
5310 SOUTH ALSTON AVE. - BLDG. 300 - DURHAM, NC. 27713

PERMIT DRAWING - NOT RELEASED FOR CONSTRUCTION

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NO	DATE	REVISIONS DESCRIPTION

CACTUS FLOWER SOLAR, LLC
PINAL COUNTY, AZ

DATE:	5/9/2024
DRAWN BY:	DP
CHECKED BY:	--

PV LAYOUT

CO-101

Cactus Flower Solar, LLC
May 14, 2024
Community Meeting, Eloy, AZ

CYPRESS CREEK RENEWABLES

Name	Email	Phone	Address
[redacted]			

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From: Wilmington, Abigail (CONTR) <Wilmington@WAPA.GOV>
Sent: Wednesday, May 15, 2024 10:59 AM
To: Stacy Gramazio <stacy.gramazio@ccrenew.com>
Cc: Ortega, Natalie <NOrtega@WAPA.GOV>
Subject: Cactus Flower Solar Project

You don't often get email from wilmington@wapa.gov. Learn why this is important

CAUTION: *** STOP and VERIFY! *** This email originated from outside of Cypress Creek.
Before clicking any links, we strongly advise you to hover over them to review the URL and verify the sender's email address.
If you feel the email is suspicious in nature, please click the Report or Report Message button in the Outlook application.
Forwarding the suspicious email to: abuse@ccrenew.com will complete the same function as the button.
Wait for a reply indicating the safety of the reported email.

Dear Mrs. Gramazio:

Thank you for the notification letter regarding the Cactus Flower Solar Project.

Western Area Power Administration (WAPA) appreciates being kept updated on projects in the vicinity of WAPA's transmission lines. Please continue to keep WAPA updated on the project.

Thank you,

Abigail Wilmington | Environmental Project Manager *(she/her/hers)*
Civil Design & Engineering (CD&E) on contract to
Western Area Power Administration | Desert Southwest Region |Phoenix, AZ
(M) 480.790.3282 | wilmington@wapa.gov



APPENDIX D: LEGAL DESCRIPTION OF THE PROJECT

LEGAL DESCRIPTION
PARCEL 4
CURTIS 1035, LLC LAND

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF PINAL, STATE OF ARIZONA, AND IS DESCRIBED AS FOLLOWS:

ALL OF SECTION 25, TOWNSHIP 9 SOUTH, RANGE 7 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, PINAL COUNTY, ARIZONA;

EXCEPT THE SOUTH 693.00 FEET OF THE EAST 677.00 FEET THEREOF;

THE ABOVE ALSO DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING AT A FOUND 2" ALUM CAP MARKED "DICKSON LS 466", SAME BEING THE NORTHEAST CORNER OF SECTION 25, TOWNSHIP 9 SOUTH, RANGE 7 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, PINAL COUNTY, ARIZONA;

THENCE SOUTH 00°27'01" EAST ALONG THE EAST LINE OF THE NORTHEAST CORNER OF SAID SECTION 25 A DISTANCE OF 2680.66 FEET TO A FOUND 5/8 INCH REBAR WITH ORANGE PLASTIC CAP 0.7 FEET BELOW GRADE, SAME BEING THE EAST ONE-QUARTER CORNER OF SAID SECTION 25;

THENCE SOUTH 00°27'04" EAST ALONG THE EAST LINE OF THE SOUTHEAST QUARTER OF SAID SECTION 25 A DISTANCE OF 1987.45 FEET TO A CALCULATED POINT;

THENCE LEAVING THE EAST LINE OF THE SOUTHEAST QUARTER OF SAID SECTION 25 SOUTH 89°28'46" WEST A DISTANCE OF 677.00 FEET TO A CALCULATED POINT;

THENCE SOUTH 00°27'04" EAST A DISTANCE OF 693.00 FEET TO A CALCULATED POINT ON THE SOUTH LINE OF SAID SECTION 25;

THENCE SOUTH 89°28'46" WEST ALONG THE SOUTH LINE OF SAID SECTION 25 A DISTANCE OF 4619.82 FEET TO A FOUND 1" IRON PIPE 0.8 FEET BELOW GRADE, SAME BEING REFERENCED ON RECORD OF SURVEY FEE NO. 2013-096071 FILED 12/17/2013 OFFICIAL RECORDS OF PINAL COUNTY RECORDER, SAME BEING THE SOUTHWEST CORNER OF SAID SECTION 25;

THENCE NORTH 00°00'05" WEST ALONG THE WEST LINE OF SAID SECTION 25 A DISTANCE OF 5276.88 FEET TO A FOUND 1/2 INCH IRON PIPE 0.2 FEET BELOW GRADE, SAME BEING THE NORTHWEST CORNER OF SAID SECTION 25;

THENCE NORTH 88°33'32" EAST ALONG THE NORTH LINE OF SAID SECTION 25 A DISTANCE OF 5256.23 FEET TO THE POINT OF BEGINNING; AND

EXCEPT ALL GAS, OIL, METALS AND MINERAL RIGHTS AS RESERVED UNTO THE STATE OF ARIZONA IN THE PATENT OF SAID LAND.

CONTAINING 633.450 ACRES (27,593,062 SQ. FT.) OF LAND, MORE OR LESS.

APN: 408-11-025B, 408-11-025D, 408-11-024A, 408-11-024C, & 408-11-025C

BASIS OF BEARING: BEARINGS ARE BASED ON THE ARIZONA STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, NAD 83(2011). THE DISTANCES ARE ADJUSTED TO SURFACE USING A COMBINED SCALE FACTOR OF 1.000161059603405

_____

TYLER G. TRUJILLO
PLS NO. 76803
SURVEYING AND MAPPING, LLC.

LEGAL DESCRIPTION
PARCEL 5
GORDITA, L.P. LAND

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF PINAL, STATE OF ARIZONA, AND IS DESCRIBED AS FOLLOWS:

ALL OF SECTION 23, TOWNSHIP 9 SOUTH, RANGE 7 EAST, GILA AND SALT RIVER BASE AND MERIDIAN, PINAL COUNTY, ARIZONA;

THE ABOVE ALSO DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING AT A FOUND 3/4 INCH IRON PIPE 1.0 FEET BELOW GRADE, SAME BEING REFERENCED ON RECORD OF SURVEY FEE NO. 2006-065248 FILED 05/05/2006 OFFICIAL RECORDS OF PINAL COUNTY RECORDER, SAME BEING REFERENCED ON RECORD OF SURVEY FEE NO. 2005-121310 FILED 09/14/2005 OFFICIAL RECORDS OF PINAL COUNTY RECORDER, SAME BEING THE NORTHEAST CORNER OF SECTION 23, TOWNSHIP 9 SOUTH, RANGE 7 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, PINAL COUNTY, ARIZONA;

THENCE SOUTH 00°40’58” EAST ALONG THE EAST LINE OF SAID SECTION 23 A DISTANCE OF 5332.98 FEET TO A FOUND 1/2 INCH IRON PIPE 0.2 FEET BELOW GRADE, SAME BEING THE SOUTHEAST CORNER OF SAID SECTION 23;

THENCE SOUTH 89°36’58” WEST ALONG THE SOUTH LINE OF SAID SECTION 23 A DISTANCE OF 5331.55 FEET TO A FOUND 2 INCH IRON PIPE 0.2 FEET BELOW GRADE, SAME BEING REFERENCED ON RECORD OF SURVEY FEE NO. 2013-096071 FILED 12/17/2013 OFFICIAL RECORDS OF PINAL COUNTY RECORDER, SAME BEING THE SOUTHWEST CORNER OF SAID SECTION 23;

THENCE NORTH 00°24’58” WEST ALONG THE WEST LINE OF SAID SECTION 23 A DISTANCE OF 5348.66 FEET TO A FOUND 2 INCH IRON PIPE 1.0 FEET BELOW GRADE, SAME BEING THE NORTHWEST CORNER OF SAID SECTION 23;

THENCE NORTH 89°47’11” EAST ALONG THE NORTH LINE OF SAID SECTION 23 A DISTANCE OF 5306.76 FEET TO THE POINT OF BEGINNING;

EXCEPT ALL GAS, OIL, METALS AND MINERAL RIGHTS AS RESERVED UNTO THE STATE OF ARIZONA IN THE PATENT OF SAID LAND.

CONTAINING 652.164 ACRES (28,408,250 SQ. FT.) OF LAND, MORE OR LESS.

APN: 408-11-023

BASIS OF BEARING: BEARINGS ARE BASED ON THE ARIZONA STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, NAD 83(2011). THE DISTANCES ARE ADJUSTED TO SURFACE USING A COMBINED SCALE FACTOR OF 1.000161059603405

_____
TYLER G. TRUJILLO
PLS NO. 76803
SURVEYING AND MAPPING, LLC.

LEGAL DESCRIPTION
PARCEL 6
GORDITA, L.P. LAND

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF PINAL, STATE OF ARIZONA, AND IS DESCRIBED AS FOLLOWS:

ALL OF SECTION 24, TOWNSHIP 9 SOUTH, RANGE 7 EAST, GILA AND SALT RIVER BASE AND MERIDIAN, PINAL COUNTY, ARIZONA;

EXCEPT THE NORTH 1760 FEET THEREOF;

THE ABOVE ALSO DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING AT A FOUND 2 INCH ALUMINUM CAP MARKED “DICKSON LS 466” 0.3 FEET BELOW GRADE, SAME BEING THE SOUTHEAST CORNER OF SECTION 24, TOWNSHIP 9 SOUTH, RANGE 7 EAST, GILA AND SALT RIVER BASE AND MERIDIAN, PINAL COUNTY, ARIZONA;

THENCE SOUTH 88°33’32” WEST ALONG THE SOUTH LINE OF SAID SECTION 24 A DISTANCE OF 5256.23 FEET TO A FOUND 1/2 INCH IRON PIPE 0.2 FEET BELOW GRADE, SAME BEING THE SOUTHWEST CORNER OF SAID SECTION 24;

THENCE NORTH 00°40’58” WEST ALONG THE WEST LINE OF SAID SECTION 24 A DISTANCE OF 3572.75 FEET TO A CALCULATED POINT ON THE WEST LINE OF SAID SECTION 24;

THENCE NORTH 88°24’33” EAST A DISTANCE OF 5297.56 FEET TO A CALCULATED POINT ON THE EAST LINE OF SAID SECTION 24;

THENCE SOUTH 00°01’33” EAST ALONG THE EAST LINE OF SAID SECTION 24 A DISTANCE OF 3587.37 FEET TO THE POINT OF BEGINNING;

EXCEPT ALL MINERALS, ORES, METALS OF EVERY KIND AND CHARACTER, AND ALL COAL, ASPHALTUM, OIL, GASES, FERTILIZER, FOSSILS AND OTHER LIKE SUBSTANCES IN, OR UNDER, SAID LAND, AS RESERVED UNTO THE STATE OF ARIZONA, AS SET FORTH IN THE PATENT TO SAID LAND.

CONTAINING 433.595 ACRES (18,887,378 SQ. FT.) OF LAND, MORE OR LESS.

APN: 408-15-002

BASIS OF BEARING: BEARINGS ARE BASED ON THE ARIZONA STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, NAD 83(2011). THE DISTANCES ARE ADJUSTED TO SURFACE USING A COMBINED SCALE FACTOR OF 1.000161059603405

_____
TYLER G. TRUJILLO
PLS NO. 76803
SURVEYING AND MAPPING, LLC.

LEGAL DESCRIPTION
PARCEL 7
TOONE FAMILY LIMITED PARTNERSHIP #3 LAND

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF PINAL, STATE OF ARIZONA, AND IS DESCRIBED AS FOLLOWS:

THE SOUTH 1760 FEET OF SECTION 13, TOWNSHIP 9 SOUTH, RANGE 7 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, PINAL COUNTY, ARIZONA;

THE ABOVE ALSO DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING AT A FOUND 3/4 INCH IRON PIPE 1.0 FEET BELOW GRADE, SAME BEING REFERENCED ON RECORD OF SURVEY FEE NO. 2005-121310 FILED 09/14/2005 OFFICIAL RECORDS OF PINAL COUNTY RECORDER, SAME BEING REFERENCED ON RECORD OF SUREY FEE NO. 2006-065248 FILED 05/05/2006, SAME BEING THE SOUTHWEST CORNER OF SECTION 13, TOWNSHIP 9 SOUTH, RANGE 7 EAST, GILA AND SALT RIVER BASE AND MERIDIAN, PINAL COUNTY, ARIZONA;

THENCE NORTH 00°41’11” WEST ALONG THE WEST LINE OF SAID SECTION 13 A DISTANCE OF 1760.22 FEET TO A CALCULATED POINT ON THE WEST LINE OF SAID SECTION 13;

THENCE LEAVING THE WEST LINE OF SAID SECTION 13 NORTH 88°24’34” EAST A DISTANCE OF 5338.75 FEET TO A CALCULATED POINT ON THE EAST LINE OF SAID SECTION 13;

THENCE SOUTH 00°00’10” EAST ALONG OF THE EAST LINE OF SAID SECTION 13 A DISTANCE OF 1760.68 FEET TO A CALCULATED POINT, SAME BEING THE SOUTHEAST CORNER OF SAID SECTION 13;

THENCE SOUTH 88°24’34” WEST ALONG THE SOUTH LINE OF SAID SECTION 13 A DISTANCE OF 5317.75 FEET TO THE POINT OF BEGINNING;

EXCEPT ALL RIGHTS TO ANY AND ALL MINERALS, ORES, AND METALS OF EVERY KIND AND CHARACTER, AND ALL COAL, ASPHALTUM, OIL, GASES, FERTILIZER, FOSSILS AND OTHER SUBSTANCES AS RESERVED TO THE STATE OF ARIZONA, AS SET FORTH IN THE PATENT TO SAID LAND.

CONTAINING 215.283 ACRES (9,377,724 SQ. FT.) OF LAND, MORE OR LESS.

APN: 408-12-002 AND 408-12-003

BASIS OF BEARING: BEARINGS ARE BASED ON THE ARIZONA STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, NAD 83(2011). THE DISTANCES ARE ADJUSTED TO SURFACE USING A COMBINED SCALE FACTOR OF 1.000161059603405

_____
TYLER G. TRUJILLO
PLS NO. 76803
SURVEYING AND MAPPING, LLC.

LEGAL DESCRIPTION
PARCEL 8
STAMBAUGH FARMS, LLC LAND

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF PINAL, STATE OF ARIZONA, AND IS DESCRIBED AS FOLLOWS:

THE NORTH 1760 FEET OF SECTION 24, TOWNSHIP 9 SOUTH, RANGE 7 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, PINAL COUNTY, ARIZONA;

THE ABOVE ALSO DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING AT A FOUND 3/4 INCH IRON PIPE 1.0 FEET BELOW GRADE, SAME BEING REFERENCED ON RECORD OF SURVEY FEE NO. 2005-121310 FILED 09/14/2005 OFFICIAL RECORDS OF PINAL COUNTY RECORDER, SAME BEING REFERENCED ON RECORD OF SUREY FEE NO. 2006-065248 FILED 05/05/2006, SAME BEING THE NORTHWEST CORNER OF SECTION 24, TOWNSHIP 9 SOUTH, RANGE 7 EAST, GILA AND SALT RIVER BASE AND MERIDIAN, PINAL COUNTY, ARIZONA;

THENCE NORTH 88°24’34” EAST ALONG THE NORTH LINE OF SAID SECTION 24 A DISTANCE OF 5317.75 FEET TO A CALCULATED POINT, SAME BEING THE NORTHEAST CORNER OF SAID SECTION 24;

THENCE SOUTH 00°01’33” EAST ALONG THE EAST LINE OF SAID SECTION 24 A DISTANCE OF 1760.66 FEET TO A CALCULATED POINT ON THE EAST LINE OF SAID SECTION 24;

THENCE LEAVING THE EAST LINE OF SAID SECTION 24 SOUTH 88°24’33” WEST A DISTANCE OF 5297.56 FEET TO A CALCULATED POINT ON THE WEST LINE OF SAID SECTION 24;

THENCE NORTH 00°40’58” WEST ALONG THE WEST LINE OF SAID SECTION 24 A DISTANCE OF 1760.22 FEET TO THE POINT OF BEGINNING;

EXCEPT ALL MINERALS, ORES, METALS OF EVERY KIND AND CHARACTER, AND ALL COAL, ASPHALTUM, OIL, GASES, FERTILIZERS, FOSSILS AND OTHER LIKE SUBSTANCES AS RESERVED IN THE PATENT TO SAID LAND.

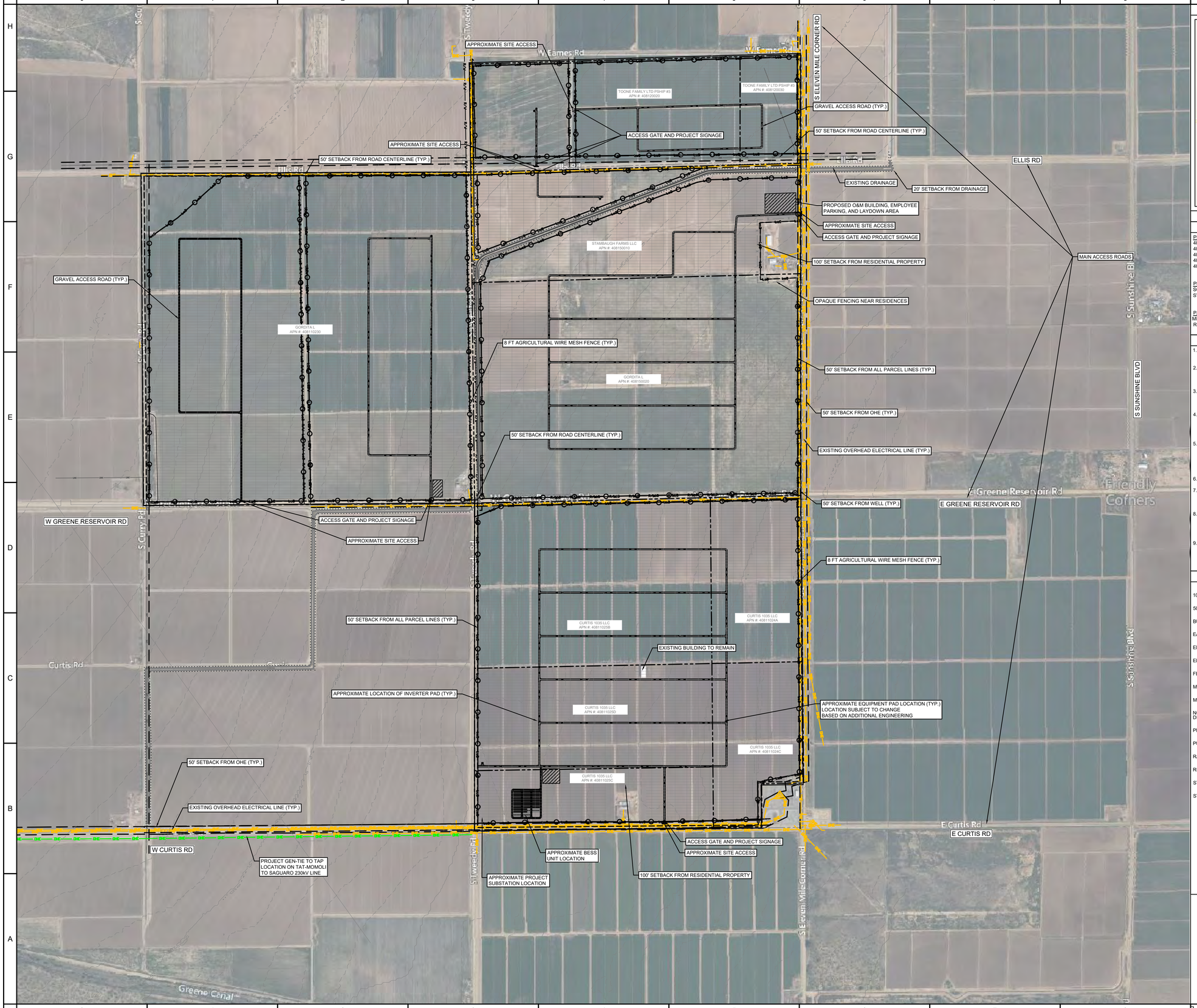
CONTAINING 214.451 ACRES (9,341,483 SQ. FT.) OF LAND, MORE OR LESS.

APN: 408-15-001

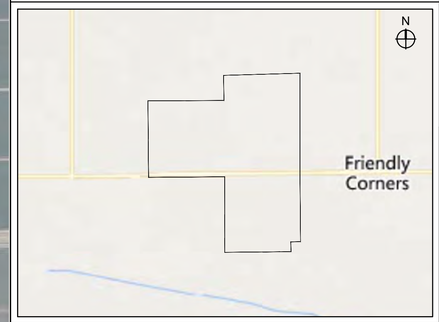
BASIS OF BEARING: BEARINGS ARE BASED ON THE ARIZONA STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, NAD 83(2011). THE DISTANCES ARE ADJUSTED TO SURFACE USING A COMBINED SCALE FACTOR OF 1.000161059603405

_____
TYLER G. TRUJILLO
PLS NO. 76803
SURVEYING AND MAPPING, LLC.

FIGURE 1: SITE MAP – PROJECT PARCELS



VICINITY MAP



SCALE 1" = 5000'

SITE DATA

PIN #	PROPERTY OWNER	ACRES	CURRENT LAND USE
408120020; 408120030 408110230; 408150020 408150010; 408110250B 408110324A; 408110250D 40811025C; 40811024C	TOONE FAMILY LTD PSHIP #3 GORDITA L STAMBAUGH FARMS LLC CURTIS 1035 LLC	± 2148.94 AC	CROP LAND, FIELD CROPS, ROW CROPS (ALL SOIL CLASSES)

PROPOSED USE	PRELIMINARY DISTURBED AREA	PRELIMINARY SOLAR AREA	ZONING JURISDICTION
SOLAR ENERGY SYSTEM	± 1951.59AC	± 1885.57AC	PINAL COUNTY

PRELIMINARY ARE SUBJECT TO CHANGE

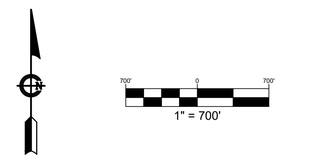
PARCEL LINE SETBACKS	REQUIRED
MIN. SETBACK	50FT
RESIDENTIAL SETBACK	100FT

GENERAL NOTES

1. THE PURPOSE OF THIS PLAN IS FOR REVIEW BY PINAL COUNTY, AZ TO CONSTRUCT A SOLAR ENERGY SYSTEM AS PART OF THE APPLICANT'S MAJOR COMPREHENSIVE PLAN AMENDMENT APPLICATION.
2. THIS PLAN WAS PRODUCED UTILIZING GIS RESOURCES AND INFORMATION FROM MULTIPLE SOURCES, INCLUDING USDA NRCS, TOPOGRAPHIC/BOUNDARY SURVEYS PERFORMED BY SAM, DATED 04/19/2024, AND ON-SITE WETLANDS DELINEATED PER THE TETRA TECH WETLANDS REPORT DATED 12/07/2023.
3. A PORTION OF THE SUBJECT PROPERTY DOES NOT LIE WITHIN A SPECIAL FLOOD HAZARD AS SHOWN ON THE FLOOD INSURANCE RATE MAP (COMMUNITY PANEL 04021C2350E, DATED 12/4/2007) PUBLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA).
4. THE LOCATIONS OF PROPOSED IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO: FENCING, SOLAR ARRAY RACKING, INVERTER/TRANSFORMER PADS, OVERHEAD POLES AND LINES, ETC., SHOWN ARE APPROXIMATE AND ARE SUBJECT TO MODIFICATION DUE TO SITE CONDITIONS, ADDITIONAL PERMITTING REQUIREMENTS, EQUIPMENT SPECIFICATIONS, AND/OR OTHER CONSTRAINTS.
5. PROJECT AREA, INCLUDING CONSTRUCTION STAGING AREAS, WILL BE CLEARED AND GRUBBED AS NECESSARY, RETAINING PRE-DEVELOPMENT DRAINAGE PATTERNS TO THE BEST EXTENT POSSIBLE. CONSTRUCTION STAGING AND AREAS SUBJECT TO RUTTING DURING CONSTRUCTION WILL BE TEMPORARILY STABILIZED WITH GRAVEL. SOIL CONDITIONS AND EQUIPMENT LOADS WILL DETERMINE FINAL DESIGN.
6. ALL DIMENSIONS SHOWN ARE AT 90 DEGREES UNLESS OTHERWISE NOTED.
7. CONTRACTOR SHALL CALL AT LEAST 72 HOURS PRIOR TO BEGINNING CONSTRUCTION OR EXCAVATION TO HAVE EXISTING UTILITIES LOCATED. ADDITIONALLY, CONTRACTOR SHALL CONTACT ANY LOCAL UTILITIES THAT PROVIDE THEIR OWN LOCATOR SERVICES.
8. CONTRACTOR SHALL MAINTAIN ACCESS AND UTILITY SERVICES TO ANY REMAINING BUILDING(S) OR ADJACENT BUILDING(S) THROUGHOUT THE DEMOLITION AND CONSTRUCTION PHASES. EXISTING IMPROVEMENTS DAMAGED DURING CONSTRUCTION SHALL BE REPLACED/RESTORED TO THE SATISFACTION OF THE OWNER BY THE CONTRACTOR RESPONSIBLE FOR THE DAMAGE.
9. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE TO PROVIDE SIGNS, BARRICADES, WARNING LIGHTS, GUARD RAILS, AND EMPLOY FLAGGERS AS NECESSARY WHEN CONSTRUCTION ENDANGERS EITHER VEHICULAR OR PEDESTRIAN TRAFFIC. THESE DEVICES SHALL REMAIN IN PLACE UNTIL THE TRAFFIC MAY PROCEED NORMALLY AGAIN.

LEGEND

EXISTING CONDITIONS	PROPOSED CONDITIONS
100 YEAR FLOOD ZONE	EASEMENTS
500 YEAR FLOOD ZONE	EQUIPMENT PAD
BUILDING SETBACK	LIMIT OF DISTURBANCE
EASEMENTS	ELECTRICAL (OVERHEAD)
EDGE OF PAVEMENT	ELECTRICAL (UNDERGROUND)
ELECTRICAL (OVERHEAD)	PROJECT AREA
FENCE	SECURITY FENCE
MAJOR CONTOURS	SHADE BUFFER
MINOR CONTOURS	SITE ACCESS
NON-JURISDICTIONAL DITCH	VEGETATIVE BUFFER
PROPERTY LINES	
PUC (ORIGINAL AREA)	
RAILROAD	
RIGHT-OF-WAY	
STREET CENTERLINE	
STRUCTURES	



CYPRESS CREEK RENEWABLES
3402 PICO BOULEVARD :: STE 215 :: SANTA MONICA, CA 90405
5310 SOUTH ALSTON AVE. :: BLDG. 300 :: DURHAM, NC. 27713

SEAL

PERMIT DRAWING - NOT RELEASED FOR CONSTRUCTION

SEAL

ELECTRONIC FILES ARE INSTRUMENTS OF SERVICE PROVIDED BY CYPRESS CREEK RENEWABLES, LLC FOR THE CONVENIENCE OF THE INTENDED RECIPIENT(S), AND NO WARRANTY IS EITHER EXPRESSED OR IMPLIED. ANY REUSE OR REDISTRIBUTION OF THIS DOCUMENT IN WHOLE OR PART WITHOUT THE WRITTEN AUTHORIZATION OF CYPRESS CREEK RENEWABLES, LLC, WILL BE AT THE SOLE RISK OF THE RECIPIENT. IF THERE IS A DISCREPANCY BETWEEN THE ELECTRONIC FILES AND THE SIGNED AND SEALED HARD COPIES, THE HARD COPIES SHALL GOVERN. USE OF ANY ELECTRONIC FILES GENERATED OR PROVIDED BY CYPRESS CREEK RENEWABLES, LLC, CONSTITUTES AN ACCEPTANCE OF THESE TERMS AND CONDITIONS.

CONSULTANT

NO.	DATE	REVISIONS DESCRIPTION

PLT STAMP

JORGEABAR 7/25/2024 2:17 PM C:\ACTUS FLOWER - SITE\PLAN_ISSUE.DWG

PROJECT

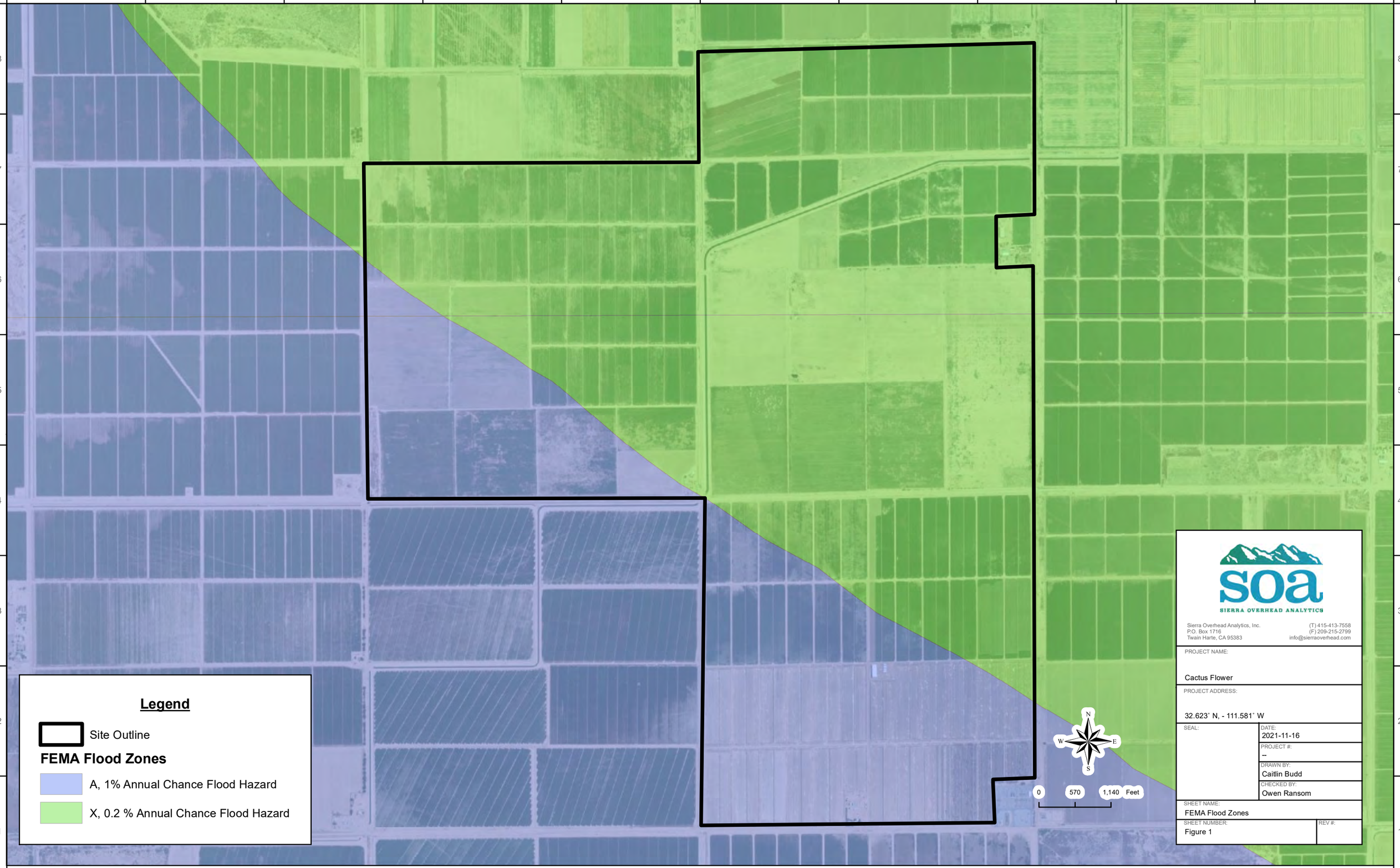
CACTUS FLOWER SOLAR, LLC
PINAL COUNTY, AZ

DATE:	7/25/2024
DRAWN BY:	DP
CHECKED BY:	--

PV LAYOUT

E-101

FIGURE 4: FEMA FLOOD ZONE MAP



soa
SIERRA OVERHEAD ANALYTICS
Sierra Overhead Analytics, Inc.
P.O. Box 1716
Twain Harte, CA 95383
(T) 415-413-7558
(F) 209-215-2799
info@sierraoverhead.com

PROJECT NAME:
Cactus Flower

PROJECT ADDRESS:
32.623° N, - 111.581° W

SEAL:

DATE: 2021-11-16

PROJECT #: --

DRAWN BY: Caitlin Budd

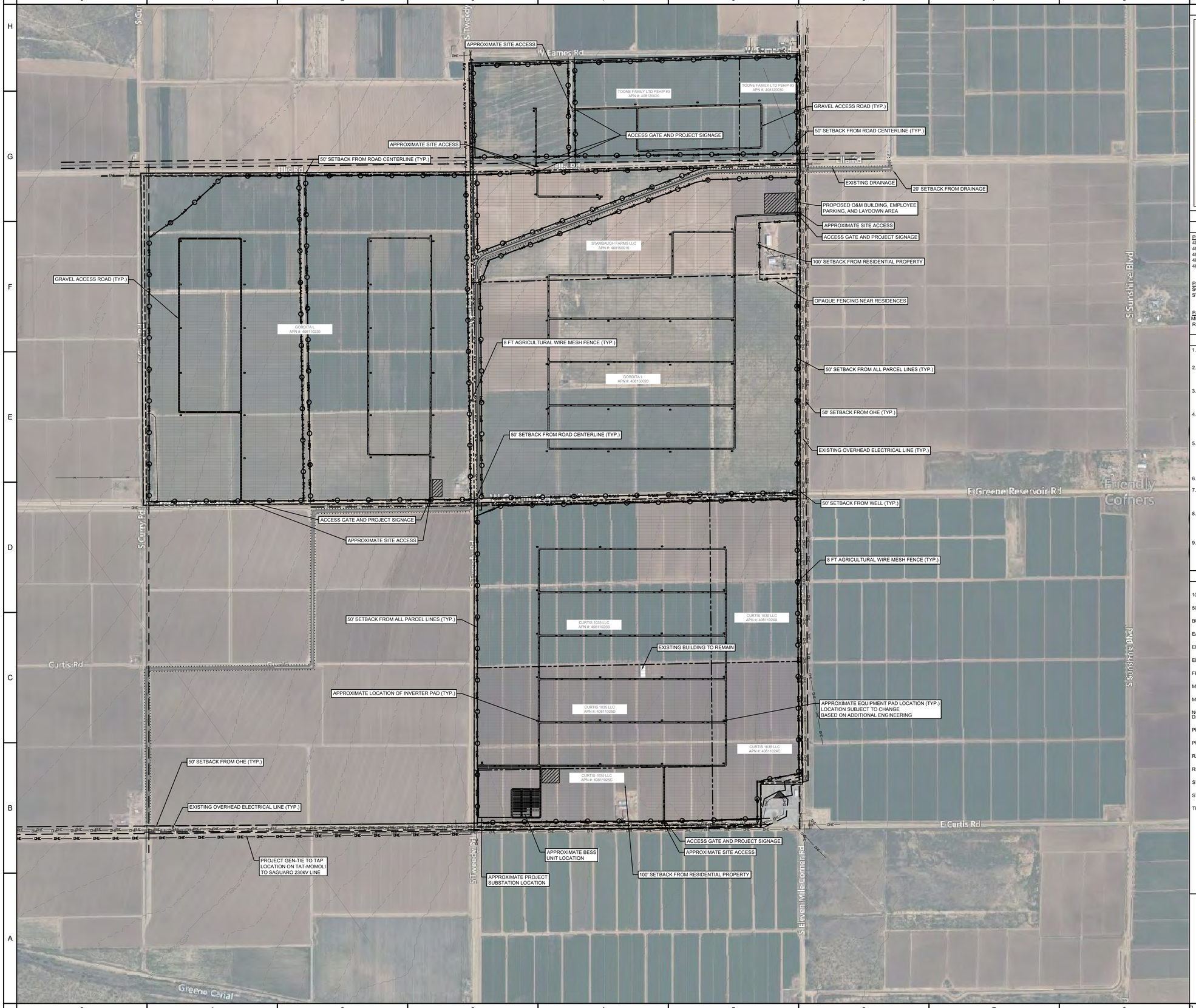
CHECKED BY: Owen Ransom

SHEET NAME: FEMA Flood Zones

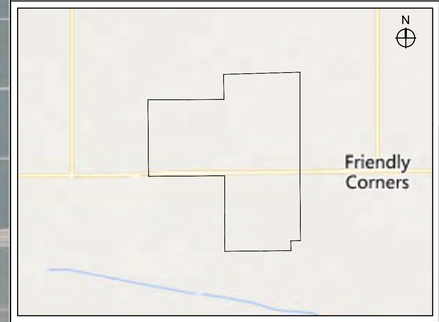
SHEET NUMBER: Figure 1

REV #:

Coordinate System: NAD 1983 StatePlane Arizona Central FIPS 0202 Feet Basemap Source: ESRI Land Ownership and PLSS Source: BLM SEZ Source: Argonne National Laboratory



VICINITY MAP



SCALE 1" = 5000'

SITE DATA

PIN #	PROPERTY OWNER	ACRES	CURRENT LAND USE
408120020; 408120030 408110230; 408150020 408150010; 408110258 408110240A; 408110250 408110250C; 40811024C	TOONE FAMILY LTD PSHIP #3 GORDITA L STAMBAUGH FARMS LLC CURTIS 1035 LLC	± 2144.95 AC	CROP LAND, FIELD CROPS, ROW CROPS (ALL SOIL CLASSES)

PROPOSED USE	PRELIMINARY DISTURBED AREA	PRELIMINARY SOLAR AREA	ZONING JURISDICTION
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PRELIMINARY ARE SUBJECT TO CHANGE

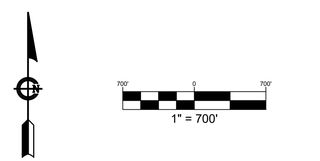
PARCEL LINE SETBACKS	REQUIRED
MIN. SETBACK	50FT
RESIDENTIAL SETBACK	100FT

GENERAL NOTES

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3. A PORTION OF THE SUBJECT PROPERTY DOES NOT LIE WITHIN A SPECIAL FLOOD HAZARD AS SHOWN ON THE FLOOD INSURANCE RATE MAP (COMMUNITY PANEL 04021C2350E, DATED 12/4/2007) PUBLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA).
4. THE LOCATIONS OF PROPOSED IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO: FENCING, SOLAR ARRAY RACKING, INVERTER/TRANSFORMER PADS, OVERHEAD POLES AND LINES, ETC., SHOWN ARE APPROXIMATE AND ARE SUBJECT TO MODIFICATION DUE TO SITE CONDITIONS, ADDITIONAL PERMITTING REQUIREMENTS, EQUIPMENT SPECIFICATIONS, AND/OR OTHER CONSTRAINTS.
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6. ALL DIMENSIONS SHOWN ARE AT 90 DEGREES UNLESS OTHERWISE NOTED.
7. CONTRACTOR SHALL CALL AT LEAST 72 HOURS PRIOR TO BEGINNING CONSTRUCTION OR EXCAVATION TO HAVE EXISTING UTILITIES LOCATED. ADDITIONALLY, CONTRACTOR SHALL CONTACT ANY LOCAL UTILITIES THAT PROVIDE THEIR OWN LOCATOR SERVICES.
8. CONTRACTOR SHALL MAINTAIN ACCESS AND UTILITY SERVICES TO ANY REMAINING BUILDING(S) OR ADJACENT BUILDING(S) THROUGHOUT THE DEMOLITION AND CONSTRUCTION PHASES. EXISTING IMPROVEMENTS DAMAGED DURING CONSTRUCTION SHALL BE REPLACED/RESTORED TO THE SATISFACTION OF THE OWNER BY THE CONTRACTOR RESPONSIBLE FOR THE DAMAGE.
9. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE TO PROVIDE SIGNS, BARRICADES, WARNING LIGHTS, GUARD RAILS, AND EMPLOY FLAGGERS AS NECESSARY WHEN CONSTRUCTION ENDANGERS EITHER VEHICULAR OR PEDESTRIAN TRAFFIC. THESE DEVICES SHALL REMAIN IN PLACE UNTIL THE TRAFFIC MAY PROCEED NORMALLY AGAIN.

LEGEND

EXISTING CONDITIONS	PROPOSED CONDITIONS
100 YEAR FLOOD ZONE	EASEMENTS
500 YEAR FLOOD ZONE	EQUIPMENT PAD
BUILDING SETBACK	LIMIT OF DISTURBANCE
EASEMENTS	ELECTRICAL (OVERHEAD)
EDGE OF PAVEMENT	ELECTRICAL (UNDERGROUND)
ELECTRICAL (OVERHEAD)	PROJECT AREA
FENCE	SECURITY FENCE
MAJOR CONTOURS	SHADE BUFFER
MINOR CONTOURS	SITE ACCESS
NON-JURISDICTIONAL DITCH	TREELINE
PROPERTY LINES	VEGETATIVE BUFFER
PUC (ORIGINAL AREA)	
RAILROAD	
RIGHT-OF-WAY	
STREET CENTERLINE	
STRUCTURES	
TREELINE	



CYPRESS CREEK RENEWABLES
3402 PICO BOULEVARD :: STE 215 :: SANTA MONICA, CA 90405
5310 SOUTH ALSTON AVE. :: BLDG. 300 :: DURHAM, NC. 27713

SEAL

PERMIT DRAWING - NOT RELEASED FOR CONSTRUCTION

SEAL

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CONSULTANT

NO.	DATE	REVISIONS DESCRIPTION

PLT STAMP

DAVIDPRESSMAN 6/20/2024 2:23 PM CACTUS FLOWER_SITEPLAN_2024-05-28.DWG

PROJECT

CACTUS FLOWER SOLAR, LLC
PINAL COUNTY, AZ

DATE:	5/29/2024
DRAWN BY:	DP
CHECKED BY:	--

PV LAYOUT

E-101

ALTA / NSPS LAND TITLE SURVEY

SITUATED IN SECTIONS 13, 23, 24 & 25, TOWNSHIP 9 SOUTH, RANGE 7 EAST, GILA AND SALT RIVER BASE AND MERIDIAN, ALL IN THE COUNTY OF PINAL, STATE OF ARIZONA

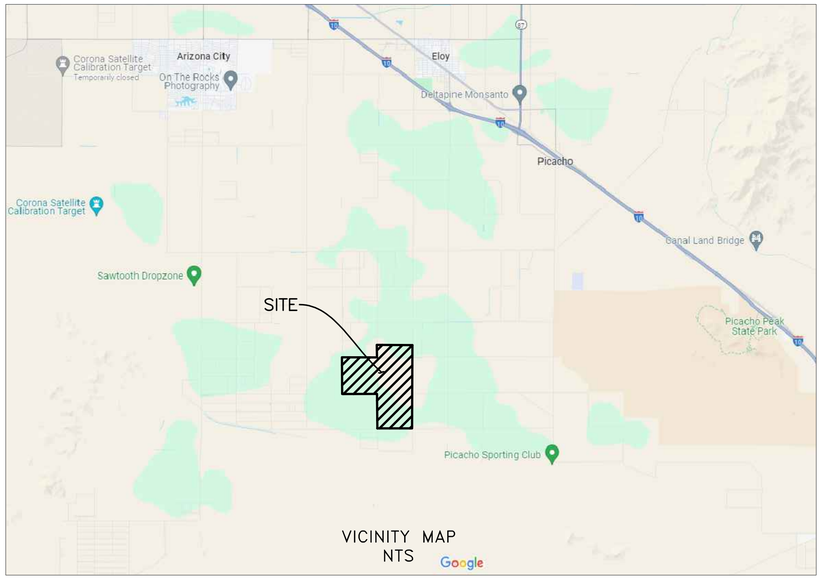


TABLE "A" TITLE NOTES

TABLE A ITEMS ADDRESSED IN THIS SURVEY

ITEM 1: MONUMENTS PLACED (OR A REFERENCE MONUMENT OR WITNESS TO THE CORNER) AT ALL MAJOR CORNERS OF THE BOUNDARY OF THE SURVEYED PROPERTY, UNLESS ALREADY MARKED OR REFERENCED BY EXISTING MONUMENTS OR WITNESSES IN CLOSE PROXIMITY TO THE CORNER. **(AS SHOWN)**

ITEM 2: ADDRESS(ES) OF THE SURVEYED PROPERTY IF DISCLOSED IN DOCUMENTS PROVIDED TO OR OBTAINED BY THE SURVEYOR, OR OBSERVED WHILE CONDUCTING THE FIELDWORK. **(NO STREET ADDRESSES PROVIDED)**

ITEM 3: FLOOD ZONE CLASSIFICATION (WITH PROPER ANNOTATION BASED ON FEDERAL FLOOD INSURANCE RATE MAPS OR THE STATE OR LOCAL EQUIVALENT) DEPICTED BY SCALED MAP LOCATION AND GRAPHIC PLOTTING ONLY.
THE SUBJECT PROPERTY LIES WITHIN ZONE: **ZONE A AND X PER FEMA PANEL 04021C1975F, REVISED MAY 16, 2019 ZONE A & X PER FEMA PANEL 04021C2350E, EFFECTIVE DATE: DEC 4, 2007**

ITEM 4: GROSS LAND AREA (AND OTHER AREAS IF SPECIFIED BY THE CLIENT).
THE SURVEYED PARCEL CONTAINS A TOTAL OF **2,148.944 ACRES**, MORE OR LESS.

ITEM 5: VERTICAL RELIEF WITH THE SOURCE OF INFORMATION (E.G., GROUND SURVEY, AERIAL MAP), CONTOUR INTERVAL, DATUM, WITH ORIGINATING BENCHMARK, WHEN APPROPRIATE. **(COLLECTED 3-16-24, FIXED WING AERIAL LIDAR BASED ON GROUND CONTROL, SUPPLEMENTED WITH GROUND SURVEY CONTOUR INTERVAL IS 2 FOOT, NAVD 88 DATUM)**

ITEM 6: (A) IF THE CURRENT ZONING CLASSIFICATION, SETBACK REQUIREMENTS, THE HEIGHT AND FLOOR SPACE AREA RESTRICTIONS, AND PARKING REQUIREMENTS SPECIFIC TO THE SURVEYED PROPERTY ARE SET FORTH IN A ZONING REPORT OR LETTER PROVIDED TO THE SURVEYOR BY THE CLIENT OR THE CLIENT'S DESIGNATED REPRESENTATIVE, LIST THE ABOVE ITEMS ON THE PLAT OR MAP AND IDENTIFY THE DATE AND SOURCE OF THE REPORT OR LETTER. **(A LETTER WAS NOT PROVIDED TO THE SURVEYOR)**

(B) IF THE ZONING SETBACK REQUIREMENTS SPECIFIC TO THE SURVEYED PROPERTY ARE SET FORTH IN A ZONING REPORT OR LETTER PROVIDED TO THE SURVEYOR BY THE CLIENT OR THE CLIENT'S DESIGNATED REPRESENTATIVE, AND IF THOSE REQUIREMENTS DO NOT REQUIRE AN INTERPRETATION BY THE SURVEYOR, GRAPHICALLY DEPICT THOSE REQUIREMENTS ON THE PLAT OR MAP AND IDENTIFY THE DATE AND SOURCE OF THE REPORT OR LETTER.**(A LETTER WAS NOT PROVIDED TO THE SURVEYOR)**

ITEM 7: (A) EXTERIOR DIMENSIONS OF ALL BUILDINGS AT GROUND LEVEL. **(NO BUILDINGS ON PROPERTY)**

(B) SQUARE FOOTAGE OF:
(1) EXTERIOR FOOTPRINT OF ALL BUILDINGS AT GROUND LEVEL.
(2) OTHER AREAS AS SPECIFIED BY THE CLIENT.

(C) MEASURED HEIGHT OF ALL BUILDINGS ABOVE GRADE AT A LOCATION SPECIFIED BY THE CLIENT. IF NO LOCATION IS SPECIFIED, THE POINT OF MEASUREMENT SHALL BE IDENTIFIED.

ITEM 8: SUBSTANTIAL FEATURES OBSERVED IN THE PROCESS OF CONDUCTING THE FIELDWORK (IN ADDITION TO THE IMPROVEMENTS AND FEATURES REQUIRED PURSUANT TO SECTION 5 ABOVE) (E.G., PARKING LOTS, BILLBOARDS, SIGNS, SWIMMING POOLS, LANDSCAPED AREAS, SUBSTANTIAL AREAS OF REFUSE). **(AS SHOWN)**

ITEM 9: NUMBER AND TYPE (E.G., DISABLED, MOTORCYCLE, REGULAR AND OTHER MARKED SPECIALIZED TYPES) OF CLEARLY IDENTIFIABLE PARKING SPACES ON SURFACE PARKING AREAS, LOTS AND IN PARKING STRUCTURES. STRIPING OF CLEARLY IDENTIFIABLE PARKING SPACES ON SURFACE PARKING AREAS AND LOTS. **(NO PARKING SPACES ON SUBJECT PROPERTY)**

ITEM 10: AS DESIGNATED BY THE CLIENT, A DETERMINATION OF THE RELATIONSHIP AND LOCATION OF CERTAIN DIVISION OR PARTY WALLS WITH RESPECT TO ADJOINING PROPERTIES. **(NO PARTY WALLS ON SUBJECT PROPERTY)**

ITEM 11: EVIDENCE OF UNDERGROUND UTILITIES EXISTING ON OR SERVING THE SURVEYED PROPERTY (IN ADDITION TO THE OBSERVED EVIDENCE OF UTILITIES REQUIRED PURSUANT TO SECTION 5.E.IV.) AS DETERMINED BY:

(A) PLANS AND/OR REPORTS PROVIDED BY CLIENT (WITH REFERENCE AS TO THE SOURCES OF INFORMATION)
(UTILITY LOCATE REQUEST SUBMITTED UNDER TICKET NUMBER 2024022100806)

COMPANY	CONTACT	PHONE NUMBER	EMAIL	RESPONSE	RECEIVED	UTILITIES IN AREA Y/N	TYPE	NOTES
CENTURYLINK	USIC DISPATCH CENTER	800-778-9140	NONE PROVIDED	YES	PDF	YES	UNDERGROUND; NONE SPECIFIED	MAPPED APPROX.
EL PASO NATURAL GAS	KELLEY_SIMS@CAIDD	520-663-4223	KELLEY_SIMS@KINDERMORGAN.COM	YES	PDF	NO	UNDERGROUND GAS	MAPPED APPROX.
ELECTRICAL DISTRICT NO. 4	RON WILHITE	520-466-7336	MELISSA@CAIDD.COM	YES	NO	YES	OVERHEAD ELECTRIC	WAITING ON REF. DOCS.
SOUTHWEST GAS-CASA GRANDE PINAL	STEPHANIE RODRIQUEZ	520-289-0481	STEPHANIE.RODRIGUEZ@ELMUTILITY.COM	YES	PDF	YES	UNDERGROUND GAS	MAPPED APPROX.
ZAYO GROUP, LLC	ZAYO LOCATE DESK	800-961-6500	ZAYO.RELO.ARIZONA@ZAYO.COM	YES	PNG	YES	UNDERGROUND; NONE SPECIFIED	UNABLE TO PLOT

TABLE "A" TITLE NOTES CONT.

(B) MARKINGS COORDINATED BY THE SURVEYOR PURSUANT TO A PRIVATE UTILITY LOCATE REQUEST.

NOTE TO THE CLIENT, INSURER, AND LENDER - WITH REGARD TO TABLE A, ITEM 11, INFORMATION FROM THE SOURCES CHECKED ABOVE WILL BE COMBINED WITH OBSERVED EVIDENCE OF UTILITIES PURSUANT TO SECTION 5.E.IV. TO DEVELOP A VIEW OF THE UNDERGROUND UTILITIES. HOWEVER, LACKING EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY, AND RELIABLY DEPICTED. IN ADDITION, IN SOME JURISDICTIONS, 811 OR OTHER SIMILAR UTILITY LOCATE REQUESTS FROM SURVEYORS MAY BE IGNORED OR RESULT IN AN INCOMPLETE RESPONSE, IN WHICH CASE THE SURVEYOR SHALL NOTE ON THE PLAT OR MAP HOW THIS AFFECTED THE SURVEYOR'S ASSESSMENT OF THE LOCATION OF THE UTILITIES. WHERE ADDITIONAL OR MORE DETAILED INFORMATION IS REQUIRED, THE CLIENT IS ADVISED THAT EXCAVATION MAY BE NECESSARY.**(AS SHOWN)**

ITEM 12: AS SPECIFIED BY THE CLIENT, GOVERNMENTAL AGENCY SURVEY-RELATED REQUIREMENTS (E.G., HUD SURVEYS, SURVEYS FOR LEASES ON BUREAU OF LAND MANAGEMENT MANAGED LANDS). THE RELEVANT SURVEY REQUIREMENTS ARE TO BE PROVIDED BY THE CLIENT OR CLIENT'S DESIGNATED REPRESENTATIVE.**(NONE PROVIDED)**

ITEM 13: NAMES OF ADJOINING OWNERS ACCORDING TO CURRENT TAX RECORDS. IF MORE THAN ONE OWNER, IDENTIFY THE FIRST OWNER'S NAME LISTED IN THE TAX RECORDS FOLLOWED BY "ET AL."**(AS SHOWN)**

ITEM 14: AS SPECIFIED BY THE CLIENT, DISTANCE TO THE NEAREST INTERSECTING STREET.**(ROADS ARE SHOWN)**

ITEM 15: RECTIFIED ORTHOPHOTOGRAPHY, PHOTOGRAMMETRIC MAPPING, REMOTE SENSING, AIRBORNE/MOBILE LASER SCANNING AND OTHER SIMILAR PRODUCTS, TOOLS OR TECHNOLOGIES AS THE BASIS FOR SHOWING THE LOCATION OF CERTAIN FEATURES (EXCLUDING BOUNDARIES) WHERE GROUND MEASUREMENTS ARE NOT OTHERWISE NECESSARY TO LOCATE THOSE FEATURES TO AN APPROPRIATE AND ACCEPTABLE ACCURACY RELATIVE TO A NEARBY BOUNDARY. THE SURVEYOR MUST (A) DISCUSS THE RAMIFICATIONS OF SUCH METHODOLOGIES (E.G., THE POTENTIAL PRECISION AND COMPLETENESS OF THE DATA GATHERED THEREBY) WITH THE INSURER, LENDER, AND CLIENT PRIOR TO THE PERFORMANCE OF THE SURVEY, AND (B) PLACE A NOTE ON THE FACE OF THE SURVEY EXPLAINING THE SOURCE, DATE, PRECISION, AND OTHER RELEVANT QUALIFICATIONS OF ANY SUCH DATA. **(COLLECTED 3-16-24, FIXED WING AERIAL LIDAR BASED ON GROUND CONTROL, SUPPLEMENTED WITH GROUND SURVEY CONTOUR INTERVAL IS 1 FOOT, NAVD 88 DATUM, 7.5 CM FLIGHT, 60PPSM LIDAR, HORIZONTAL AND VERTICAL MAPPING ACCURACY OR BETTER, ROOT MEAN SQUARE METHOD)**

ITEM 16: EVIDENCE OF RECENT EARTH MOVING WORK, BUILDING CONSTRUCTION, OR BUILDING ADDITIONS OBSERVED IN THE PROCESS OF CONDUCTING THE FIELDWORK. **(NONE OBSERVED)**

ITEM 17: PROPOSED CHANGES IN STREET RIGHT OF WAY LINES, IF SUCH INFORMATION IS MADE AVAILABLE TO THE SURVEYOR BY THE CONTROLLING JURISDICTION. EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS OBSERVED IN THE PROCESS OF CONDUCTING THE FIELDWORK. **(NO INFORMATION PROVIDED TO SURVEYOR OR OBSERVED)**

ITEM 18: PURSUANT TO SECTIONS 5 AND 6 (AND APPLICABLE SELECTED TABLE A ITEMS, EXCLUDING TABLE A ITEM 1), INCLUDE AS PART OF THE SURVEY ANY PLOTTABLE OFFSITE (I.E., APPURTENANT) EASEMENTS DISCLOSED IN DOCUMENTS PROVIDED TO OR OBTAINED BY THE SURVEYOR.
(NOT APPLICABLE)

ITEM 19: PROFESSIONAL LIABILITY INSURANCE POLICY OBTAINED BY THE SURVEYOR IN THE MINIMUM AMOUNT OF $_____ TO BE IN EFFECT THROUGHOUT THE CONTRACT TERM. CERTIFICATE OF INSURANCE TO BE FURNISHED UPON REQUEST, BUT THIS ITEM SHALL NOT BE ADDRESSED ON THE FACE OF THE PLAT OR MAP.

NOTES

1. THIS SURVEY MEETS OR EXCEEDS THE RELATIVE ACCURACY STANDARDS AND FIELD TRAVERSE STANDARDS FOR SUBURBAN AND RURAL LAND BOUNDARY SURVEYS AS SET FORTH IN ARIZONA BOUNDARY SURVEY MINIMUM STANDARDS, BEING 0.25 FEET, PLUS 100 PARTS PER MILLION AT 95% CONFIDENCE LEVEL AND A 1:5000 MINIMUM LINEAL CLOSURE.
2. BASIS OF BEARING: HORIZONTAL DATUM - BASED UPON THE ARIZONA STATE PLANE COORDINATE SYSTEM (CENTRAL ZONE, NAD83(2011), EPOCH DATE: 2010, INTERNATIONAL FEET. SAID BEARINGS ORIGINATED FROM SAID COORDINATE SYSTEM BY GPS OBSERVATIONS AND OBSERVATIONS OF SELECTED STATIONS IN THE NATIONAL GEODETIC SURVEY CONTINUOUSLY OPERATING REFERENCE STATION (NGS CORS) NETWORK. VERTICAL DATUM IS BASED ON NAVD88, GEOID 18. ALL DISTANCES HAVE BEEN SCALED TO GROUND (SCALE FACTOR = 1.000161059603405).
3. THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY SURVEYING AND MAPPING (SAM), LLC TO DETERMINE OWNERSHIP OR EASEMENTS OF RECORD. FOR ALL INFORMATION REGARDING EASEMENTS, RIGHT-OF-WAY AND TITLE RECORD, SURVEYING AND MAPPING (SAM), LLC RELIED UPON A FILE NUMBER 22000370428, PREPARED BY STEWART TITLE GUARANTY COMPANY, DATED: OCTOBER 24, 2022.
4. THIS SURVEY DOES NOT CERTIFY TO SUBSURFACE FEATURES, IMPROVEMENTS, UTILITIES OR BURIED LINES OF ANY TYPE, LOCATION DEPICTED HEREON ARE DERIVED FROM FIELD SURVEY OF UTILITY FLAGGING / PAINT MARKING.
5. THE FIELD WORK FOR THIS SURVEY WAS COMPLETED ON MARCH 9, 2024.
6. THE ACCOMPANYING SURVEY WAS DONE THROUGH AERIAL SURVEY AND CORRECTLY SHOWS THE LOCATION OF ALL BUILDINGS, STRUCTURES AND OTHER IMPROVEMENTS SITUATED ON THE ABOVE PREMISES; THERE ARE NO VISIBLE ENCROACHMENTS ON THE SUBJECT PROPERTY OR UPON ADJACENT LAND ABUTTING SAID PROPERTY EXCEPT AS SHOWN HEREON AND WAS MADE IN ACCORDANCE WITH LAWS AND/OR MINIMUM STANDARDS OF THE STATE OF ARIZONA.
7. THE TAX PARCEL NUMBER(S) ASSIGNED TO THE SURVEY PROPERTY DO NOT INCLUDE ANY LAND OTHER THAN THE SURVEYED PROPERTY.
8. THE LAND SURVEYED IS THE LAND DESCRIBED IN THE TITLE COMMITMENT LYING WITHIN SECTIONS 13, 23, 24, AND 25, TOWNSHIP 9 SOUTH, RANGE 7 EAST, GILA AND SALT RIVER MIERIDIAN, PINAL COUNTY, ARIZONA.
9. ALL PUBLIC ROADS, STREETS, AND HIGHWAYS SHOWN ARE COMPLETED AND DEDICATED PUBLIC STREETS HAVE BEEN ACCEPTED FOR PUBLIC MAINTENANCE.
10. THERE IS NOT OBSERVABLE EVIDENCE THAT THE SUBJECT PROPERTY WAS USED AS A SOLID WASTE DUMP OR SANITARY LANDFILL.
11. THE SURVEY SHOWS THE LOCATION OF ALL BUILDINGS, STRUCTURES, PARKING AREAS AND OTHER IMPROVEMENTS SITUATED ON THE SURVEYED PROPERTY.
12. EXCEPT AS SHOWN, THERE ARE NOT ANY VISIBLE OR RECORDED EASEMENTS OR RIGHT-OF-WAY ACROSS THE SURVEYED PROPERTY.
13. THERE ARE NO OTHER EASEMENTS OR RIGHTS-OF-WAY OF WHICH THE SURVEYOR HAS BEEN ADVISED.
14. THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS. VERTICAL ACCURACY DOES NOT EXCEED 10% OF THE ELEVATIONS TESTED NOT MORE THAN 1/2 THE CONTOUR INTERVAL.
15. SURVEYED PROPERTY HAS DIRECT ACCESS TO A DEDICATED PUBLIC RIGHT OF WAY.
16. THE SURVEYOR DID NOT OBSERVE ANY LANDFILLS, GRAVES/ BURIAL GROUNDS ON SITE.

PROPERTY DESCRIPTION

PARCEL NO. 1:
THE SOUTH 990.00 FEET OF THE WEST 3,821.056 FEET OF SECTION 25, TOWNSHIP 9 SOUTH, RANGE 7 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, PINAL COUNTY, ARIZONA;
EXCEPT ALL GAS, OIL, METALS AND MINERAL RIGHTS AS RESERVED UNTO THE STATE OF ARIZONA IN THE PATENT TO SAID LAND. APN: 408-11-025C

PARCEL NO. 2:
THE WEST 3,821.056 FEET OF SECTION 25, TOWNSHIP 9 SOUTH, RANGE 7 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, PINAL COUNTY, ARIZONA;

EXCEPT THE SOUTH 990.00 FEET OF THE WEST 3821.056 FEET THEREOF; AND

EXCEPT ALL GAS, OIL, METALS AND MINERAL RIGHTS AS RESERVED UNTO THE STATE OF ARIZONA IN THE PATENT OF SAID LAND. APN: 408-11-025D

PARCEL NO. 3:
THE EAST 1,458.944 FEET OF SECTION 25, TOWNSHIP 9 SOUTH, RANGE 7 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, PINAL COUNTY, ARIZONA:

EXCEPT THE SOUTH 693.00 FEET OF THE EAST 677.00 FEET THEREOF; AND

EXCEPT ALL GAS, OIL, METALS AND MINERAL RIGHTS AS RESERVED UNTO THE STATE OF ARIZONA IN THE PATENT OF SAID LAND.

APN: 408-11-024A, 408-11-024C

PARCEL NO. 4:
ALL OF SECTION 25, TOWNSHIP 9 SOUTH, RANGE 7 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, PINAL COUNTY, ARIZONA; EXCEPT THE SOUTH

693 FEET OF THE EAST 677.00 FEET THEREOF; AND

EXCEPT ALL GAS, OIL, METALS AND MINERAL RIGHTS AS RESERVED UNTO THE STATE OF ARIZONA IN THE PATENT OF SAID LAND. APN: 408-11-025B

PARCEL NO 5:
ALL OF SECTION 23, TOWNSHIP 9 SOUTH, RANGE 7 EAST, GILA AND SALT RIVER BASE AND MERIDIAN, PINAL COUNTY, ARIZONA; EXCEPT ALL GAS, OIL, METALS AND MINERAL RIGHTS AS RESERVED UNTO THE STATE OF ARIZONA IN THE PATENT OF SAID LAND.
APN: 408-11-023

PARCEL NO. 6:
ALL OF SECTION 24, TOWNSHIP 9 SOUTH, RANGE 7 EAST, GILA AND SALT RIVER BASE AND MERIDIAN, PINAL COUNTY, ARIZONA
EXCEPT THE NORTH 1760 FEET THEREOF; AND

EXCEPT ALL MINERALS, ORES, METALS OF EVERY KIND AND CHARACTER, AND ALL COAL, ASPHALTUM, OIL, GASES, FERTILIZER, FOSSILS AND OTHER SUBSTANCES IN, OR UNDER, SAID LAND, AS RESERVED UNTO THE STATE OF ARIZONA, AS SET FORTH IN THE PATENT TO SAID LAND.

APN: 408-15-002

PARCEL NO. 7:
THE SOUTH 1760 FEET OF SECTION 13, TOWNSHIP 9 SOUTH, RANGE 7 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, PINAL COUNTY, ARIZONA;

EXCEPT ALL RIGHTS TO ANY AND ALL MINERALS, ORES AND METALS OF EVERY KIND AND CHARACTER, AND ALL COAL, ASPHALTUM, OIL, GASES, FERTILIZERS, FOSSILS AND OTHER LIKE SUBSTANCES, AS RESERVED TO THE STATE OF ARIZONA IN THE PATENT TO SAID LAND.

APN: 408-12-002 AND 408-12-003

PARCEL NO. 8:
THE NORTH 1760 FEET OF SECTION 24, TOWNSHIP 9 SOUTH, RANGE 7 EAST OF THE GILA AND SALT RIVER MERIDIAN, PINAL COUNTY, ARIZONA;

EXCEPT ALL MINERALS, ORES AND METALS OF EVERY KIND AND CHARACTER, AND ALL COAL, ASPHALTUM, OIL, GASES, FERTILIZERS, FOSSILS AND OTHER LIKE SUBSTANCES AS RESERVED IN THE PATENT TO SAID LAND.

APN: 408-15-001

SURVEYOR'S CERTIFICATE

TO: CYPRESS CREEK RENEWABLES AND STEWART TITLE GUARANTY COMPANY

THIS MAP CORRECTLY REPRESENTS A SURVEY MADE BY ME OR UNDER DIRECTION CONFORMANCE WITH THE REQUIREMENTS OF THE SURVEY RECORDING ACT AT THE REQUEST OF COUNTY COMMISSIONERS IN 04-22

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 6A, 6B, 7A, 7B, 7C, 8, 9, 10, 11A, 11B, 12, 13, 14, 15, 16, 17, 18 AND 19 OF TABLE A THEREOF. THE FIELDWORK WAS COMPLETED ON MARCH 9, 2024.

TYLER TRUJILLO, PLS 76803
DATE: 02/20/2023
JOB NO. 1024086474

BASIS OF BEARING SYSTEM

SURVEY DATUM IS STATE PLANE, ARIZONA CENTRAL, NAD 83, INTERNATIONAL FOOT, SCALED TO GROUND DISTANCES

CYPRESS CREEK RENEWABLES

PROJECT: CYPRESS CREEK RENEWABLES
CACTUS FLOWER ALTA

JOB NUMBER: 1024086474
DATE: 04/19/2024
SURVEYOR: TYLER TRUJILLO
TECHNICIAN: TYLER HARPER
DRAWING: 86474 - CACTUS FLOWER - ALTA.DWG
TRACT ID:
PARTYCHIEF:
FIELDBOOKS:

ALTA / NSPS LAND TITLE SURVEY
SITUATED IN SECTIONS 13, 23, 24 & 25, TOWNSHIP 9 SOUTH, RANGE 7 EAST, GILA AND SALT RIVER BASE AND MERIDIAN, ALL IN THE COUNTY OF PINAL, STATE OF ARIZONA

SHEET 1

NO.	DATE	BY	DESCRIPTION

SAM™
488 E. Winchester Street
Suite 125
Murray, UT 84107
Ofc: 801.601.4342
email: info@sam.biz

PATH:\\SAMINC\SLC\PROJECTS\1024086474\100\SURVEY\06PLATS\86474 - CACTUS FLOWER - ALTA.DWG

ALTA / NSPS LAND TITLE SURVEY

SITUATED IN SECTIONS 13, 23, 24 & 25, TOWNSHIP 9 SOUTH, RANGE 7 EAST,
GILA AND SALT RIVER BASE AND MERIDIAN, ALL IN THE COUNTY OF PINAL, STATE OF ARIZONA

SCHEDULE B EXCEPTIONS

(ITEMS 1-22 ARE NOT SURVEY RELATED, NO DOCUMENTS PROVIDED TO SURVEYOR, AND NOT ADDRESSED ON THIS SURVEY.)

23 EASEMENT FOR TRANSMISSION LINE AND RIGHTS INCIDENT THERETO, AS SET FORTH IN INSTRUMENT RECORDED IN DOCKET 19, PAGE 103.
PARCELS 1-4 **(AFFECTS PARCELS 1 AND 3, SHOWN ON SURVEY)**

24 EASEMENT FOR PIPE LINE, TELEPHONE LINE, TRANSMISSION LINE AND RIGHTS INCIDENT THERETO, AS SET FORTH IN INSTRUMENT RECORDED IN DOCKET 22, PAGE 231.
PARCELS 1-4 **(DOES NOT AFFECT, NOT SHOWN)**

25 MATTERS SHOWN ON SURVEY RECORDED IN BOOK 15 OF SURVEYS, PAGE 55 AND AMENDMENT RECORDED IN BOOK 17 OFSURVEYS, PAGE 262.
PARCEL 7 **(AFFECTS PARCEL 7, REFERENCED ON CURRENT SURVEY)**

26 MATTERS SHOWN ON SURVEY RECORDED IN BOOK 17 OF SURVEYS, PAGE 263. PARCEL 8 **(AFFECTS PARCEL 8, REFERENCED ON CURRENT SURVEY)**

27 TERMS AND CONDITIONS AS CONTAINED IN INSTRUMENT ENTITLED RESOLUTION BY THE BOARD OF SUPERVISORS OF PINAL COUNTY STATING THAT A ROADWAY IS ESTABLISHED, RECORDED FEBRUARY 21, 1964, BOOK 375, PAGE 572.
PARCEL 7 **(DOES NOT AFFECT, NOT SHOWN)**

28 EASEMENT FOR TELEPHONE AND TELEGRAPH LINES AND RIGHTS INCIDENT THERETO, AS SET FORTH IN INSTRUMENT RECORDED FEBRUARY 18, 1965, BOOK 409, PAGE 43.
PARCEL 7 **(AFFECTS PARCEL 7, SHOWN ON SURVEY)**

29 EASEMENT FOR TELEPHONE AND TELEGRAPH LINES AND RIGHTS INCIDENT THERETO, AS SET FORTH IN INSTRUMENT RECORDED FEBRUARY 18, 1965, BOOK 409, PAGE 47.
PARCEL 7 **(AFFECTS PARCEL 7, SHOWN ON SURVEY)**

30 TERMS AND CONDITIONS AS CONTAINED IN INSTRUMENT ENTITLED MEMORANDUM OF UNDERSTANDING AND AGREEMENT, RECORDED APRIL 11, 1984, BOOK 1218, PAGE 250.
PARCELS 7 AND 8 **(AFFECTS PARCELS 6, 7, 8 BLANKET AREA, PLOTABLE WELLS SHOWN ON SURVEY)**

31 TERMS AND CONDITIONS AS CONTAINED IN INSTRUMENT ENTITLED MEMORANDUM OF UNDERSTANDING AND AGREEMENT, RECORDED AUGUST 6, 1984, BOOK 1239, PAGE 373.
PARCEL 5 **(AFFECTS PARCELS 1-6, 8 BLANKET AREA, PLOTABLE WELLS SHOWN ON SURVEY)**

32 TERMS AND CONDITIONS AS CONTAINED IN INSTRUMENT ENTITLED NOTICE OF EXERCISE OF RESERVED RIGHT-OF-WAY, RECORDED NOVEMBER 3, 1986, DOCKET 1397, PAGE 811 AND RE-RECORDED MARCH 24, 1987 IN DOCKET 1430, PAGE 651.
PARCELS 1-6 **(AFFECTS PARCEL 2, 4, 5, 6, SHOWN ON SURVEY)**

33 TERMS AND CONDITIONS AS CONTAINED IN INSTRUMENT ENTITLED NOTICE OF EXERCISE OF RESERVED RIGHT OF WAY BY THE UNITED STATES OF AMERICA, RECORDED NOVEMBER 3, 1986, DOCKET 1397, PAGE 827 AND AGREEMENT RELATING TO EXERCISE OF RESERVED RIGHT OF WAY RECORDED IN DOCKET 1418, PAGE 372.
PARCEL 8 **(AFFECTS PARCEL 8, SHOWN ON SURVEY)**

34 TERMS AND CONDITIONS AS CONTAINED IN INSTRUMENT ENTITLED NOTICE OF EXERCISE OF RESERVED RIGHT-OF-WAY, RECORDED NOVEMBER 3, 1986, DOCKET 1397, PAGE 839 AND RE-RECORDED NOVEMBER 18, 1986 IN DOCKET 1400, PAGE 932 AND RE-RECORDED MARCH 24, 1987 IN DOCKET 1430, PAGE 647.
PARCELS 1-6 **(AFFECTS PARCELS 2, 4, SHOWN ON SURVEY)**

35 TERMS AND CONDITIONS AS CONTAINED IN INSTRUMENT ENTITLED AGREEMENT RELATING TO EXERCISE OF RESERVED RIGHT-OF- WAY, RECORDED JULY 21, 1987, DOCKET 1458, PAGE 829.
PARCELS 1-6 **(AFFECTS PARCELS 2, 4, 5, 6 SHOWN ON SURVEY)**

36 TERMS AND CONDITIONS AS CONTAINED IN INSTRUMENT ENTITLED NOTICE OF EXERCISE OF RESERVED RIGHT OF WAY TO PRIVATE INTEREST OR CORPORATION FOR OPEN CANAL, RECORDED SEPTEMBER 10, 1987, BOOK 1470, PAGE 857.
PARCELS 5, 6 AND 7 **(AFFECTS PARCEL 7, SHOWN ON SURVEY, AMBIGUOUS ACCESS EASEMENT LOCATION, NOT SHOWN)**

37 TERMS AND CONDITIONS AS CONTAINED IN INSTRUMENT ENTITLED NOTICE OF EXERCISE OF RESERVED RIGHT OF WAY TO PRIVATE INTEREST OR CORPORATION FOR OPEN CANAL, RECORDED SEPTEMBER 10, 1987, BOOK 1470, PAGE 863.
PARCEL 5 **(AFFECTS PARCEL 5, SHOWN ON SURVEY, AMBIGUOUS ACCESS EASEMENT LOCATION, NOT SHOWN)**

38 TERMS AND CONDITIONS AS CONTAINED IN INSTRUMENT ENTITLED AGREEMENT RELATING TO EXERCISE OF RESERVED RIGHT OF WAY, RECORDED FEBRUARY 10, 1988, BOOK 1505, PAGE 581.
PARCEL 5 **(AFFECTS PARCEL 5, SHOWN ON SURVEY, AMBIGUOUS ACCESS EASEMENT LOCATION, NOT SHOWN)**

39 TERMS AND CONDITIONS AS CONTAINED IN INSTRUMENT ENTITLED AGREEMENT RELATING TO THE EXERCISE OF RESERVED RIGHT- OF-WAY, RECORDED SEPTEMBER 15, 1988, BOOK 1554, PAGE 768.
PARCEL 7 **(AFFECTS PARCEL 7, SHOWN ON SURVEY, AMBIGUOUS ACCESS EASEMENT LOCATION, NOT SHOWN)**

40 TERMS AND CONDITIONS AS CONTAINED IN INSTRUMENT ENTITLED NOTICE OF LANDS INCLUDED WITHIN CENTRAL ARIZONA IRRIGATION AND DRAINAGE DISTRICT, RECORDED JANUARY 20, 1989, DOCKET 1580, PAGE 919.
PARCELS 1-4 **(AFFECTS ALL PARCELS, BLANKET IN NATURE, NOT SHOWN)**

41 TERMS AND CONDITIONS AS CONTAINED IN INSTRUMENT ENTITLED AGREEMENT RELATING TO EXERCISE OF RESERVED RIGHT OF WAY, RECORDED APRIL 11, 1989, BOOK 1596, PAGE 944.
PARCELS 6 AND 8 **(AFFECTS PARCEL 8, SHOWN ON SURVEY)**

42 TERMS AND CONDITIONS AS CONTAINED IN INSTRUMENT ENTITLED AGREEMENT RELATING TO EXERCISE OF RESERVED RIGHT OF WAY, RECORDED APRIL 11, 1989, BOOK 1596, PAGE 963.
PARCEL 6 **(AFFECTS PARCELS 1, 5, SHOWN ON SURVEY, AMBIGUOUS ACCESS EASEMENT LOCATION, NOT SHOWN)**

43 TERMS AND CONDITIONS AS CONTAINED IN INSTRUMENT ENTITLED AGREEMENT RELATING TO EXERCISE OF RESERVED RIGHT-OF- WAY, RECORDED OCTOBER 11, 1989, DOCKET 1634, PAGE 921.
PARCEL 8 **(AFFECTS PARCEL 8, SHOWN ON SURVEY)**

44 TERMS AND CONDITIONS AS CONTAINED IN INSTRUMENT ENTITLED AGREEMENT FOR PROJECT WATER SERVICE, RECORDED MARCH 26, 1990, DOCKET 1665, PAGE 294 AND MODIFICATION RECORDED NOVEMBER 4, 1994, IN DOCKET 2054, PAGE 870.
PARCELS 1-6 **(AFFECTS PARCELS 1-6, BLANKET IN NATURE, NOT SHOWN)**

45 TERMS AND CONDITIONS AS CONTAINED IN INSTRUMENT ENTITLED AGREEMENT FOR PROJECT WATER SERVICE, RECORDED MARCH 26, 1990, DOCKET 1665, PAGE 311 AND MODIFICATION RECORDED NOVEMBER 4, 1994 IN DOCKET 2054, PA GE 870.
PARCELS 1-6 **(AFFECTS PARCELS 1-6, BLANKET IN NATURE, NOT SHOWN)**

46 TERMS AND CONDITIONS AS CONTAINED IN INSTRUMENT ENTITLED AGREEMENT FOR PROJECT WATER SERVICE, RECORDED JULY 30, 1990, BOOK 1690, PAGE 215.
PARCELS 6, 7 AND 8 **(AFFECTS PARCELS 7,7, MAY AFFECT PARCEL 6, BLANKET IN NATURE, NOT SHOWN)**

47 TERMS AND CONDITIONS AS CONTAINED IN INSTRUMENT ENTITLED AGREEMENT RELATING TO EXERCISE OF RESERVED RIGHT-OF- WAY, RECORDED DECEMBER 18, 1990, BOOK 1715, PAGE 88.
PARCELS 1-4 AND 6 **(AFFECTS PARCELS 1-6, BLANKET IN NATURE, NOT SHOWN)**

48 EASEMENT FOR TELECOMMUNICATION FACILITIES AND RIGHTS INCIDENT THERETO, AS SET FORTH IN INSTRUMENT RECORDED JULY 1, 1991, BOOK 1756, PAGE 992.
PARCEL 7 **(AFFECTS PARCEL 7, SHOWN ON SURVEY)**

49 EASEMENT FOR COMMUNICATIONS SYSTEMS, MARKERS AND SPLICING BOXES AND RIGHTS INCIDENT THERETO, AS SET FORTH IN INSTRUMENT RECORDED DECEMBER 23, 1999, FEE NO. 1999-057316.
PARCELS 7 AND 8 **(AFFECTS PARCELS 7 & 8, SHOWN ON SURVEY)**

50 EASEMENT FOR UNDERGROUND COMMUNICATION SYSTEMS AND RIGHTS INCIDENT THERETO, AS SET FORTH IN INSTRUMENT RECORDED DECEMBER 23, 1999, FEE NO. 1999-057317.
PARCELS 1-4 **(AFFECTS PARCELS 1 & 4, SHOWN ON SURVEY)**

51 EASEMENT FOR UNDERGROUND COMMUNICATION SYSTEMS AND RIGHTS INCIDENT THERETO, AS SET FORTH IN INSTRUMENT RECORDED DECEMBER 23, 1999, FEE NO. 1999-057318.
PARCELS 1-4 **(AFFECTS PARCELS 2 & 4, SHOWN ON SURVEY)**

52 TERMS AND CONDITIONS AS CONTAINED IN INSTRUMENT ENTITLED COMMUNICATIONS RIGHT OF WAY AGREEMENT, RECORDED DECEMBER 23, 1999, FEE NO. 1999-057319.
PARCELS 6 AND 8 **(AFFECTS PARCEL 6, SHOWN ON SURVEY)**

53 TERMS AND CONDITIONS AS CONTAINED IN INSTRUMENT ENTITLED RESOLUTION NO. 2005-01, RESOLUTION AND ORDER OF THE BOARD OF DIRECTORS OF CENTRAL ARIZONA IRRIGATION AND DRAINAGE DISTRICT GRANTING PETITION FOR EXCLUSION AND INCLUSION OF LANDS IN SAID DISTRICT, RECORDED NOVEMBER 7, 2008, FEE NO. 2008-107048.
PARCELS 1-4 **(AFFECTS PARCELS 1, 2, 4, APPROXIMATE LOCATIONS PER TITLE DOCUMENT, NOT SHOWN)**

54 TERMS AND CONDITIONS AS CONTAINED IN INSTRUMENT ENTITLED RESOLUTION NO. 2008-01 RESOLUTION AND ORDER OF THE BOARD OF DIRECTORS OF CENTRAL ARIZONA IRRIGATION AND DRAINAGE DISTRICT GRANTING PETITION FOR EXCLUSION AND INCLUSION OF LANDS IN SAID DISTRICT, RECORDED AUGUST 11, 2009, FEE NO. 2009-081947.
PARCELS 5 AND 6 **(AFFECTS PARCELS 5, 6, BLANKET IN NATURE, NOT SHOWN)**

55 TERMS AND CONDITIONS AS CONTAINED IN INSTRUMENT ENTITLED LAND PURCHASE CONTRACT FOR THE EDS SUBSTATION AND GRANT OF EASEMENT FOR THE ED4-ED5 TRANSMISSION LINE, RECORDED FEBRUARY 29, 2012, FEE NO. 2012-016359. PARCELS 1-4 **(AFFECTS PARCELS 3, 4, SHOWN ON SURVEY)**

56 TERMS AND CONDITIONS AS CONTAINED IN INSTRUMENT ENTITLED RESOLUTION 2013-01, RESOLUTION OF THE BOARD OF DIRECTORS OF ELECTRICAL DISTRICT NUMBER FIVE OF PINAL COUNTY, ARIZONA, DEFINING THE BOUNDARIES OF AND LAND INCLUDED IN ELECTRICAL DISTRICT NUMBER FIVE OF PINAL COUNTY, ARIZONA, RECORDED MARCH 27, 2013, FEE NO. 2013-025107. PARCELS 1-4
(AFFECTS PARCELS 5, 6, BLANKET IN NATURE, NOT SHOWN)

57 UNRECORDED LEASE UNDER THE TERMS AND CONDITIONS CONTAINED THEREIN MADE BY CAROLYN BRAY AND TPC HOLDINGS, LLC, LESSOR, AND STAMBAUGH FARMS, AND ARIZONA GENERAL PARTNERSHIP, LESSEE, DATED AUGUST 26, 2005, AS DISCLOSED BY AGRICULTURAL LEASE, RECORDED NOVEMBER 15, 2005, FEE NO. 2005-157921 AND ASSIGNMENT RECORDED NOVEMBER 15, 2005, FEE NO. 2005-157923.
PARCEL 7 **(MAY AFFECT SUBJECT PARCELS, UNDEFINED AREA, NOT SHOWN)**

58 ANY CLAIM THAT THE TITLE IS SUBJECT TO A TRUST OR LIEN CREATED UNDER THE PERISHABLE AGRICULTURAL COMMODITIES ACT (7 U.S.C. 499A, ET SEQ.) OR THE POULTRY AND STOCKYARDS ACT (7 U.S.C. 181 ET SEQ.) OR UNDER SIMILAR STATE LAWS. ALL PARCELS
(NOT A SURVEY MATTER, NOT SHOWN)

59 UNRECORDED LEASE UNDER THE TERMS AND CONDITIONS CONTAINED THEREIN MADE BY CURTIS 1035, L.L.C., AN ARIZONA LIMITED LIABILITY COMPANY, LESSOR, AND DAIRYVIEW FARMS, LLC, AN ARIZONA LIMITED LIABILITY COMPANY, LESSEE, DATED JANUARY 1, 2014, AS DISCLOSED BY SUBORDINATION AGREEMENT, RECORDED SEPTEMBER 9, 2013, FEE NO. 2013-073424. **(AFFECTS PARCELS 1-4, BLANKET IN NATURE, NOT SHOWN)**

60 RIGHTS OF PARTIES IN POSSESSION.
NOTE: THIS EXCEPTION MAY BE MADE MORE SPECIFIC UPON OUR EXAMINATION OF DOCUMENTS WHICH ENTITLE THE OCCUPANTS TO POSSESSION.
(NOT A SURVEY MATTER, NOT SHOWN)

CYPRESS CREEK RENEWABLES

PROJECT: CYPRESS CREEK RENEWABLES
CACTUS FLOWER ALTA

JOB NUMBER: 1024086474
DATE: 04/19/2024
SURVEYOR: TYLER TRUJILLO
TECHNICIAN: TYLER HARPER
DRAWING: 86474 - CACTUS FLOWER - ALTA.DWG
TRACT ID:
PARTYCHIEF:
FIELDBOOKS:

ALTA / NSPS LAND TITLE SURVEY
SITUATED IN SECTIONS 13, 23, 24 & 25,
TOWNSHIP 9 SOUTH, RANGE 7 EAST,
GILA AND SALT RIVER BASE AND MERIDIAN, ALL
IN THE COUNTY OF PINAL, STATE OF ARIZONA

NO.	DATE	BY	DESCRIPTION

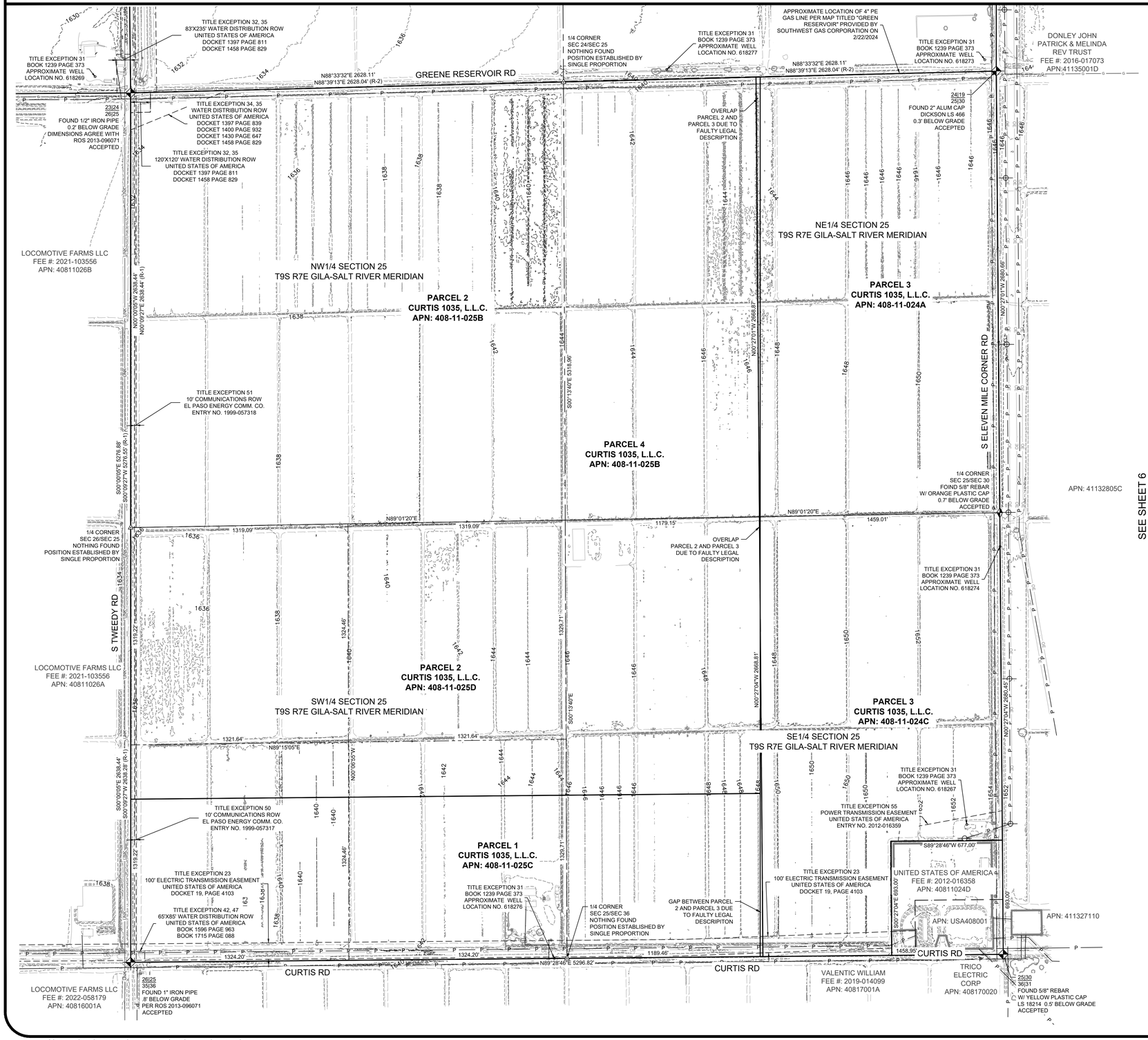
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ALTA / NSPS LAND TITLE SURVEY

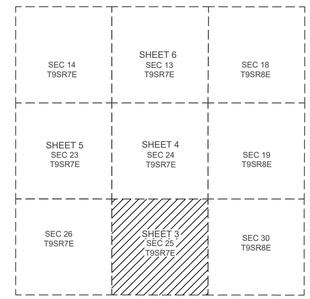
SITUATED IN SECTIONS 13, 23, 24 & 25, TOWNSHIP 9 SOUTH, RANGE 7 EAST,
GILA AND SALT RIVER BASE AND MERIDIAN, ALL IN THE COUNTY OF PINAL, STATE OF ARIZONA



INDEX MAP for SHEET 3

NORTH

NOT TO SCALE



LEGEND

- QUARTER CORNER MONUMENT AS NOTED
- CALCULATED POINT
- FOUND MONUMENT
- POWER POLE
- APPROX. WELL LOCATION AS NOTED
- GENERAL POLE
- STRUCTURE ANTENAE
- GENERAL POLE
- GENERAL POLE
- MANHOLE
- TANK
- SIGN
- PARCEL BOUNDARY
- ADJOINING PARCEL BOUNDARY
- SECTION LINE
- QUARTER SECTION LINE
- SUBDIVISIONAL SECTION LINE
- EASEMENT
- FENCE
- OVERHEAD ELECTRIC TRANSMISSION
- APPROX. CENTURYLINK BURIED ASSET AS NOTED
- APPROX. UNDERGROUND GAS AS NOTED
- CULVERT
- CONCRETE DRAIN
- BRIDGE DECK
- DEBRIS PILE
- GENERAL ROAD FEATURE
- LOW CONFIDENCE AREA
- OVERHEAD ELECTRIC CENTERLINE
- DRAINAGE INLET
- DRAINAGE PIPE
- DRAINAGE RIPRAP
- DRAINAGE WATER
- SIDEWALK
- DIRT ROAD
- STRUCTURE BUILDING
- CONSTRUCTION AREA
- FENCE
- STAIRS
- TANK
- UNIDENTIFIED
- WALL
- PIPELINE
- SUBSTATION OUTLINE
- WOODS
- MAJOR CONTOURS
- MINOR CONTOURS

N

SCALE: 1" = 300'

0 300' 600'

GRAPHIC SCALE

REFERENCE DOCUMENTS

R-1 RECORD OF SURVEY FEE NO. 2013-096071, RECORDS OF PINAL COUNTY, ARIZONA
R-2 RECORD OF SURVEY FEE NO. 2006-65248, RECORDS OF PINAL COUNTY, ARIZONA
R-3 RECORD OF SURVEY FEE NO. 2005-121310, RECORDS OF PINAL COUNTY, ARIZONA

CYPRESS CREEK RENEWABLES

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TRACT ID:
PARTYCHIEF:
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SHEET 3

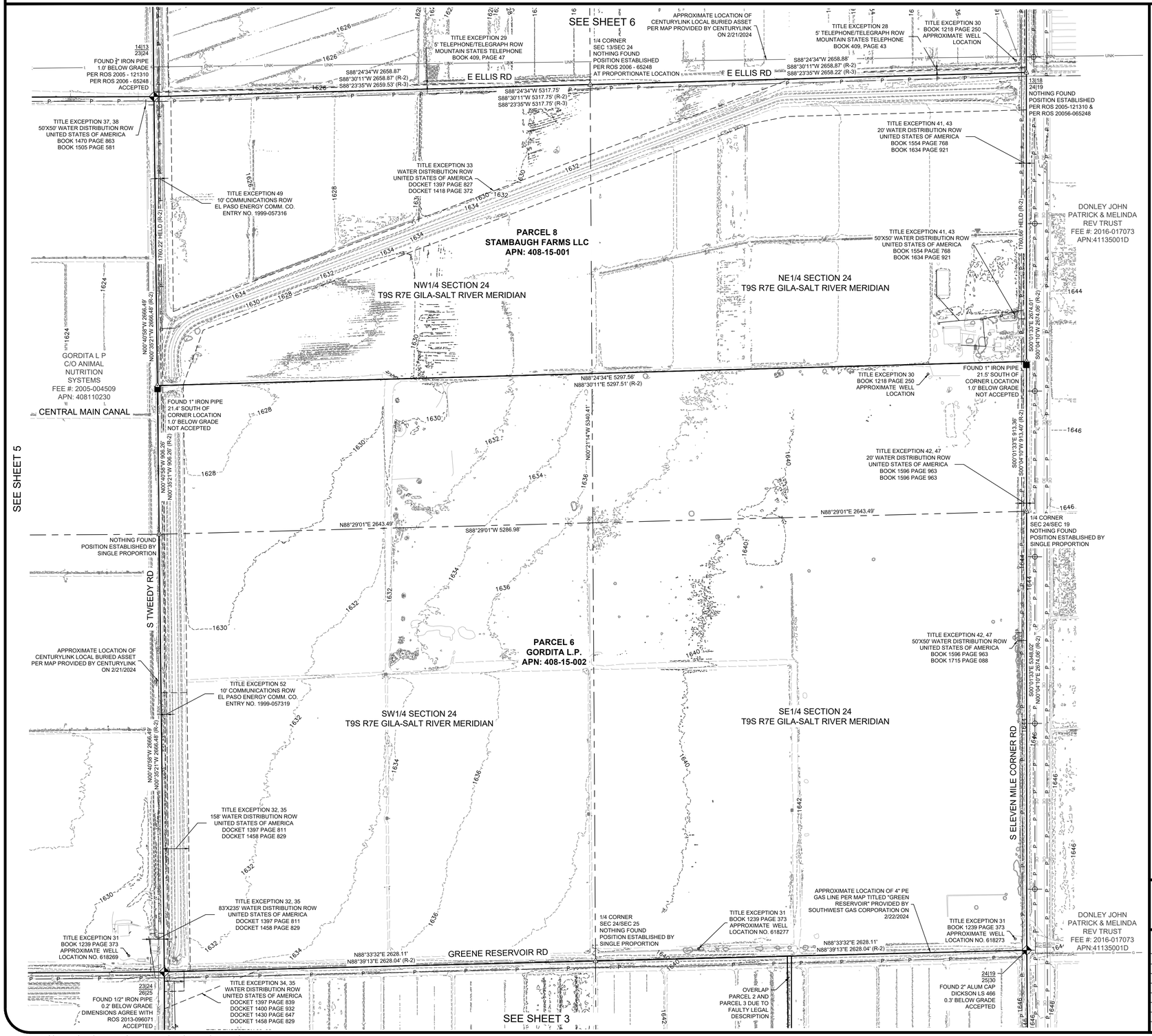
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ALTA / NSPS LAND TITLE SURVEY

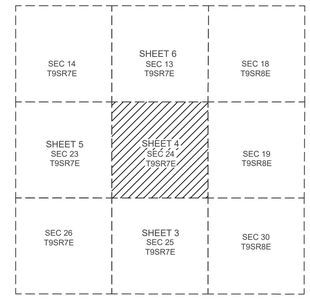
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INDEX MAP for SHEET 4

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SHEET 4

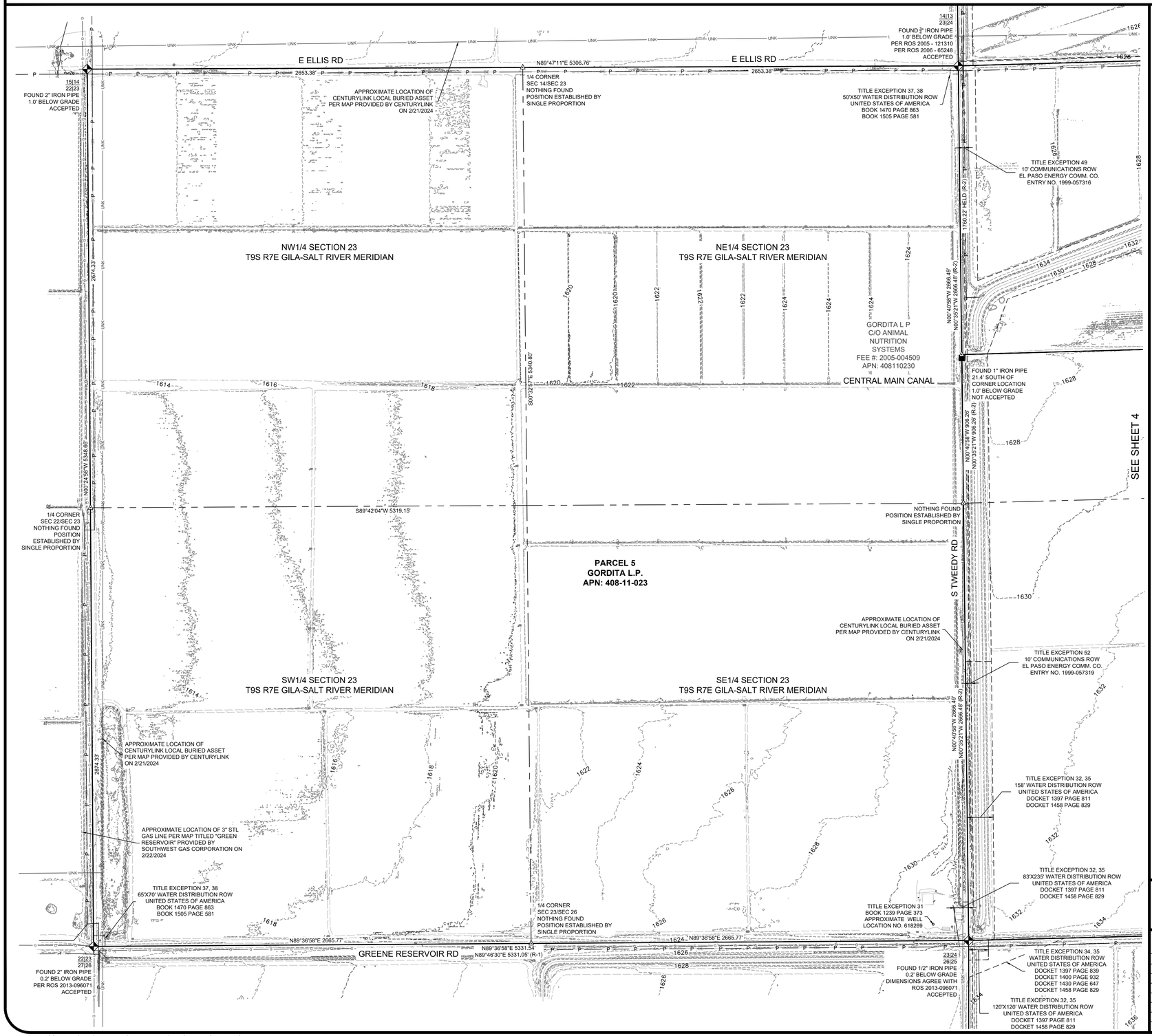
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ALTA / NSPS LAND TITLE SURVEY

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NOT TO SCALE

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SHEET 5 SEC 23 T9SR7E	SHEET 4 SEC 24 T9SR7E	SEC 19 T9SR8E
SEC 26 T9SR7E	SHEET 3 SEC 25 T9SR7E	SEC 30 T9SR8E

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SHEET 5

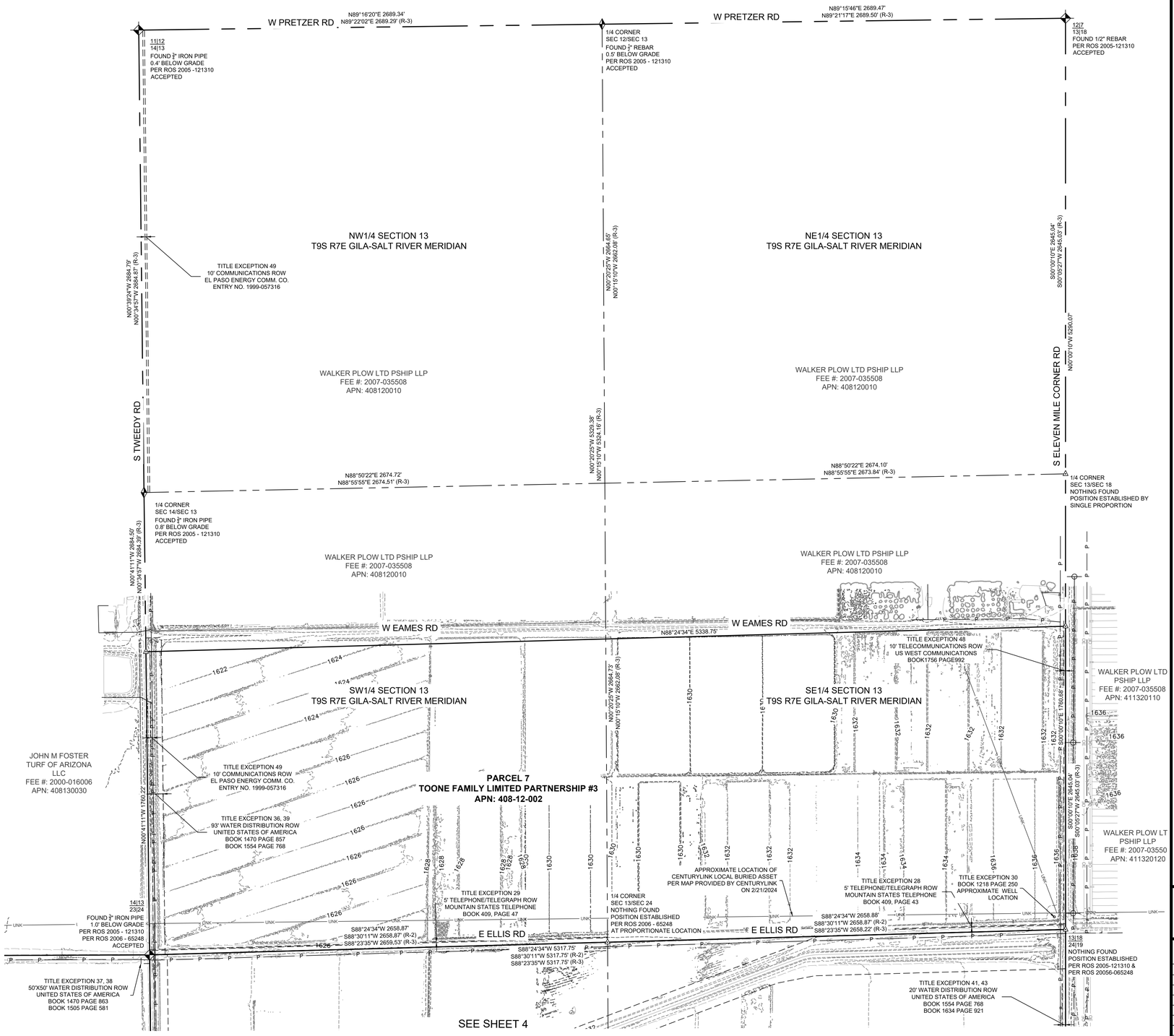
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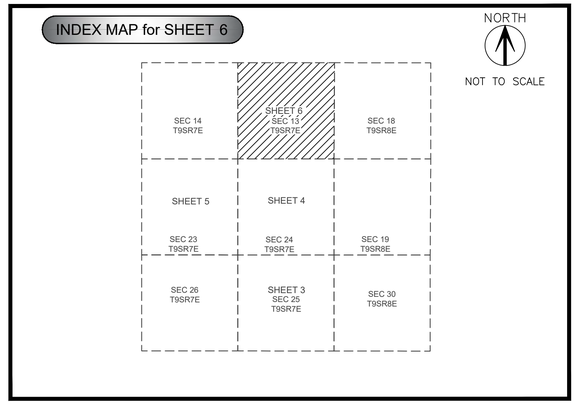
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ALTA / NSPS LAND TITLE SURVEY

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GRAPHIC SCALE

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SHEET 6

NO.	DATE	BY	DESCRIPTION

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