

EW Consultants, Inc.
Natural Resource Management, Wetland, and Environmental Permitting Services



PULTE GROUP

CORNERSTONE

Environmental Assessment Report

Prepared For:

Pulte Group

Prepared By:

EW Consultants, Inc.

August 2024

INTRODUCTION

This Environmental Assessment Report documents and summarizes the natural resource characteristics of the Pulte Group Cornerstone property. The 49.9 +/- acre Cornerstone property is located in Section 24, Township 35 South, Range 39 East within the City of Ft. Pierce, St. Lucie County, Florida. The property is bounded to the north by undeveloped land and a residential home, to the west by I-95 and the State Road 70 interchange, to the south by the NSLRWCD Canal No. 39, and to the east by Jenkins Road.

The site is comprised predominantly of disturbed lands that were previously improved for agricultural use and are now dominated by non-native invasive Brazilian pepper with scattered native trees including laurel oaks, cabbage palms, and wax myrtle. Field observations conducted in June and July of 2024 confirmed the property does not contain any native upland habitat. There is also an area in the western portion of the site that contains wetland characteristics and may, upon review by the South Florida Water Management District, be considered a jurisdictional wetland. The property contains two man-made ditches on site that were constructed for the purpose of providing drainage and irrigation for the former agricultural practices on the property.

SOILS

A Custom Soil Resource Report for the subject property is provided in the Appendix. This report, prepared by the United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) provides descriptions of the soil types within the Cornerstone property along with acreage summaries, soil limitation information, and recommended soil treatments for various proposed land uses.

VEGETATION COMMUNITIES

The following is a summary of the land cover types found on the Cornerstone property site. Land cover classifications were mapped based on the Florida Land Use, Cover and Forms Classification System (FLUCFCS) developed by the Florida Department of Transportation. Field reconnaissance and aerial photograph interpretation were employed in the mapping effort of the land cover types on the subject property.

The vegetative community descriptions include general discussions of potential wildlife habitat provided by the various resources available in those communities. Detailed observations and occurrences of wildlife are discussed in subsequent sections. Application of categories described as wetlands and ditches provides an approximation of the wetland areas or ditch classifications that remain subject to verification by SFWMD and, under current circumstances, the U.S. Army Corps of Engineers (USACE) for Section 404 purposes.

The FLUCFCS classifications observed on the site are described below. A land cover map of the observed community types is included in the Appendix of this report. The communities observed on the property are described as follows:

191 – Undeveloped Land Within Urban Areas –

This land cover is located within the northern and western portions of the property. The vegetation assemblage within these areas is dominated by non-native invasive species, ruderal weeds, and non-native pasture grasses. Vegetation includes Brazilian pepper, Australian pine, guava, smut grass, cogon grass, guinea grass, Caesar weed, and castor bean. Scattered occurrences of native laurel oak, slash pine, cabbage palm, and wax myrtle are also present.

510 – Ditches –

The property contains two man-made ditches that were created in support of the former agricultural practices on the property. The northern of the two ditches is shallow and is vegetated predominantly with non-native invasive species including torpedo grass, limpo grass, Peruvian primrose willow, and Caesar weed. Scattered occurrences of native species including broomsedge, spadeleaf and pennywort are also present. The southern ditch, located near the southern property boundary is a deep, steep sided ditch that contains scattered occurrences of non-native invasive Peruvian primrose willow and native Carolina willow.

643 – Wet Prairie –

There is one area located near the western property boundary that meets the criteria to be considered a wet prairie wetland. Vegetative cover in this area includes native grape vine, Virginia chain fern, and broomsedge, and non-native invasive old-world climbing fern and Peruvian primrose willow.

740 – Disturbed Lands –

This is the predominant land cover type on the subject property, and was previously improved for agricultural use. The vegetation assemblage is currently dominated by non-native invasive Brazilian pepper with scattered occurrences of native laurel oak, cabbage palm, and wax myrtle.

WILDLIFE

Wildlife Observations –

During field reconnaissance conducted for the preparation of this environmental assessment, observations were made for wildlife presence and indicators of utilization. Field observations conducted in June and July 2024 include a variety of common avian species present within the property including mourning dove, American crow, boat-tail grackle, northern mockingbird, and cattle egret. Reptile species observed include Cuban anole and a black racer snake. Indicators of the occurrence of mammals (scat, tracks, or other physical indicators) included raccoon, armadillo, coyote, feral hog, and rodents.

Listed Species and Evaluation –

The survey methodologies used for determining the status of state and/or federally listed wildlife species occurrence on the site followed generally accepted protocols as specified in state and Federal guidance documents. The geographic range of the property and its associated habitats, vegetative cover types, and natural or disturbed status were the primary considerations in assessing potential occurrence of listed species.

Pedestrian and vehicular surveys were employed to assess relative habitat quality and wildlife utilization. In addition, the protected species evaluations and survey methodologies have been, and will continue to be, addressed on a species-specific basis in accordance with Florida Fish and Wildlife Conservation Commission (FWCC) and U.S. Fish and Wildlife Service (USFWS) protocols and techniques relative to the species under consideration.

The state and/or federally listed wildlife species known or expected to occur on the subject site is summarized in the following table. Likelihood of occurrence has been indicated based on species-specific evaluations and best professional judgement and noted as either observed during site review or likelihood of occurrence as high, medium, or low.

Table 1. Known and Potentially Occurring Listed Faunal Species

Common Name	Scientific Name	Preferred Habitat	Sampling Method	Occurrence*	Listed Status
					<i>State/Federal</i>
American alligator	<i>Alligator mississippiensis</i>	Wetland and aquatic habitat	Pedestrian and vehicular transects	M	FT/SA
Audubon’s crested caracara	<i>Caracara cheriway</i>	Dry prairie, open rangeland	Pedestrian and vehicular transects	L	FT
Bald eagle	<i>Haliaeetus leucocephalus</i>	Nest in tall trees (usually pine) near coasts, rivers, lakes and wetlands	Pedestrian and vehicular transects	L	No longer listed Nest trees protected

Common Name	Scientific Name	Preferred Habitat	Sampling Method	Occurrence*	Listed Status
Eastern indigo snake	<i>Drymarchon corais couperi</i>	A diversity of upland/low land habitat	Pedestrian and vehicular transects	L	FT
Florida bonneted bat	<i>Eumops floridanus</i>	A diversity of forested habitats	Acoustic and roost surveys	L	FE
Florida burrowing owl	<i>Athene cunicularia</i>	Sandhills, ruderal communities, dry prairies	Pedestrian and vehicular transects	L	ST
Florida pine snake	<i>Pituophis melanoleucus mugitus</i>	Well drained sandy soils, moderate to open pine canopy	Pedestrian and vehicular transects	L	ST
Florida sandhill crane	<i>Grus canadensis pratensis</i>	Breed in emergent palustrine wetlands; forage in pastures/prairies	Pedestrian and vehicular transects; aerial nest survey	L	ST
Florida scrub-jay	<i>Aphelocoma coerulescens</i>	Xeric oak scrub and scrubby flatwoods on sandy ridges and dunes	Pedestrian and vehicular transects	L	FT
Gopher tortoise	<i>Gopherus polyphemus</i>	Sandhills, xeric oak scrub, sand pine scrub, scrubby flatwoods; agricultural lands	Burrow survey 100% of suitable habitat	M	ST
Little blue heron	<i>Egretta caerulea</i>	Breeding: marshes, swamps, ponds, estuaries, rivers; nest in shrubs and small trees	Pedestrian and vehicular transects	M	ST
Red-cockaded woodpecker	<i>Picoides borealis</i>	Mature pine woodlands	Pedestrian and vehicular transects	L	FE
Reddish egret	<i>Egretta rufescens</i>	Breeding: marshes, swamps, ponds, estuaries, rivers; nest in shrubs and small trees	Pedestrian and vehicular transects	L	ST
Roseate spoonbill	<i>Ajaia ajaja</i>	Breeding: marshes, swamps, ponds, estuaries, rivers; nest in shrubs and small trees	Pedestrian and vehicular transects	M	ST
Southeast American kestrel	<i>Falco sparverius paulus</i>	Sandhill and open rangeland nest in cavities of dead trees and	Pedestrian and vehicular transects	L	ST

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Common Name	Scientific Name	Preferred Habitat	Sampling Method	Occurrence*	Listed Status
Tricolored heron	<i>Egretta tricolor</i>	Breeding: marshes, swamps, ponds, nest in shrubs and small trees	Pedestrian and vehicular transects	M	ST
Wood stork	<i>Mycteria americana</i>	Estuarine or freshwater wetlands; nest in tops of trees in cypress or mangrove swamps	Pedestrian and vehicular transects	M	FT

O* = Observed; ¹ Observed transient; ² Observed nesting and/or resident
 Probability of Occurrence: H= High; M= Medium; L= Low;

FE = Federally-designated Endangered; FT = Federally-designated Threatened; FXN = Federally-designated Threatened Nonessential Experimental Population; FT(S/A) = Federally-designated Threatened species due to similarity of appearance; ST = State-designated Threatened; SSC = State Species of Special Concern

The American alligator is listed as Federally Threatened due to similarity of appearance with the American crocodile. Alligators are relatively common throughout the region in wetland and aquatic systems. Although none were observed during the field reconnaissance for this environmental assessment, there is a moderate potential for alligators to occur within the on-site ditches.

The subject site is within the consultation area of Audubon’s crested caracara. The subject site; however, does not contain suitable nesting or foraging habitat and no crested caracara or caracara nests were observed during site reconnaissance conducted in June and July of 2024.

Bald eagles, while no longer listed, remain protected under the Bald and Golden Eagle Protection Act. The property does not contain any suitable nesting or foraging habitat for bald eagles and no bald eagles or bald eagle nests were observed on site.

A reptile species that was not observed but has potential to occur on the site is the federally threatened eastern indigo snake. The eastern indigo snake is a secretive species that ranges widely over a diversity of upland and wetland habitats, and is known to occur in the region. Standardized and specific construction awareness and notification procedures will be implemented for the protection of this species during site development.

The Florida bonneted bat is listed as endangered by the U.S. Fish and Wildlife Service (USFWS). This species preferred habitat for roosting and nesting includes a variety of forested habitats and man-made structures. The property is located outside of the designated consultation area for this species, thus its potential for occurrence is considered low.

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The Florida burrowing owl is a small ground-dwelling owl often found in open fields with little to no tree canopy coverage, where it spends most of its time on the ground, perching on dirt mounds, fence posts, or short shrubs. The site does not contain suitable habitat for burrowing owls, thus there is a low potential for this species to occur. No burrowing owls or burrowing owl burrows were observed on the property.

The Florida pine snake inhabits areas that feature well-drained sandy soils with moderate to open canopy. According to the FFWCC publicly available database, the subject site is located within the distribution area for this species. The property does not contain any suitable habitat for this species, thus the potential for this species to occur is considered low and no Florida pine snakes were observed during field reconnaissance.

No Florida sandhill crane nests were observed on the site; however, this species is relatively common within the region. The preferred nesting habitat for sandhill cranes is freshwater herbaceous marsh wetland which does not occur on site and no sandhill cranes or sandhill crane nests were observed during field reconnaissance.

The Florida scrub-jay is a Federally threatened species that inhabits xeric oak and scrubby flatwoods habitats along sandy ridges and dunes. The subject property does not contain any suitable habitat for this species and no Florida scrub-jays were observed or heard during field reconnaissance.

In July 2024, a representative habitat survey was conducted by Jason Hahner (Licensed Gopher Tortoise Agent #GTA-14-00024H) in order to identify any occurrence of gopher tortoises, their burrows, or indicators of their presence. The habitat survey was conducted in accordance with Florida Fish and Wildlife Conservation Commission (FFWCC) *Gopher Tortoise Permitting Guidelines* (revised April 2023).

There were no gopher tortoises, potentially occupied gopher tortoise burrows, or other indicators of the presence of gopher tortoises observed on the property during field reconnaissance and the representative habitat survey conducted in July 2024. In accordance with FFWCC gopher tortoise permitting guidelines, prior to any land clearing or site work, a 100% habitat survey for this species must be completed. A gopher tortoise relocation permit will need to be obtained through FFWCC for any gopher tortoise burrows that cannot be avoided from impacts by a radius of at least 25 feet from a burrow's entrance.

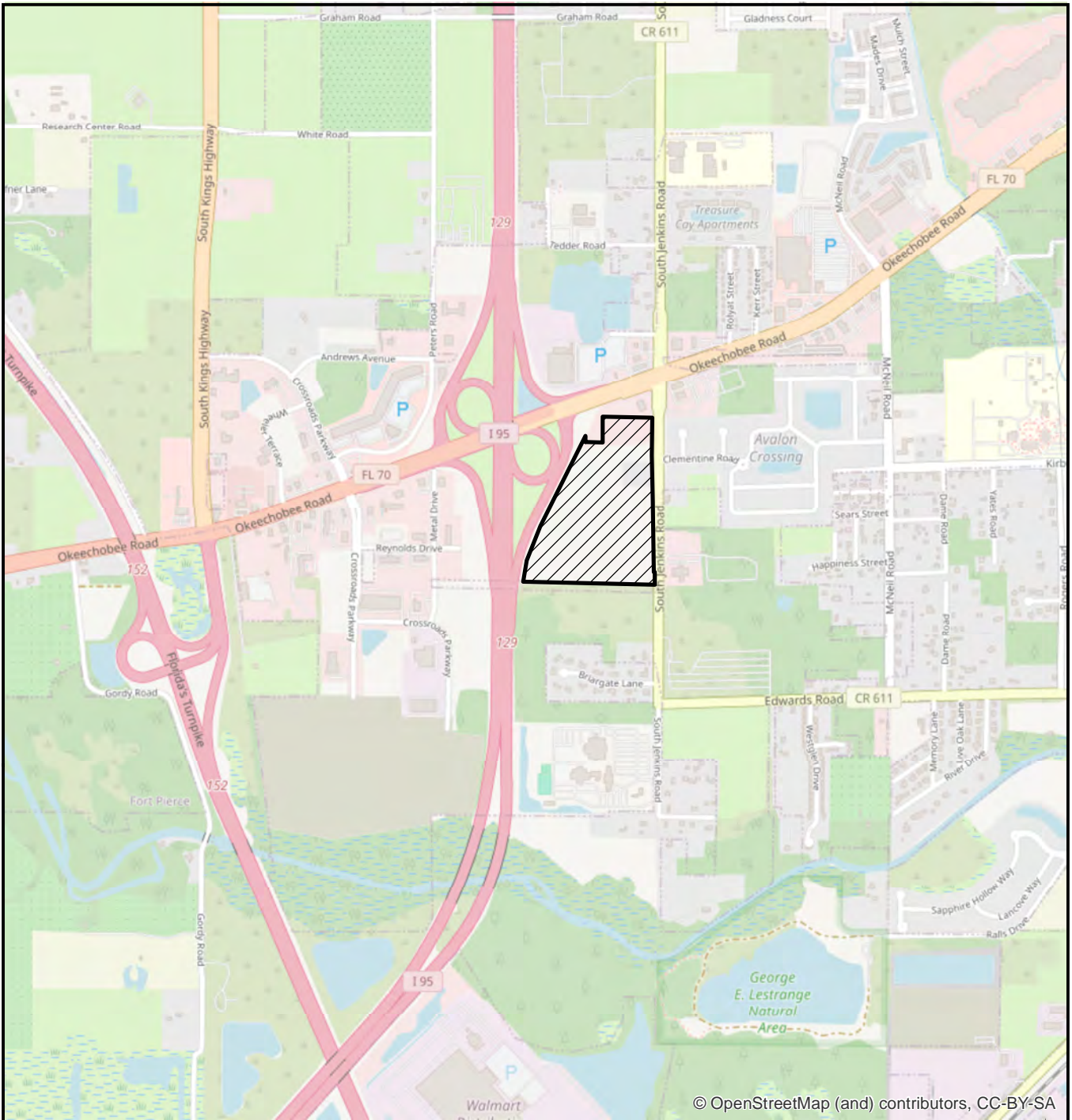
The presence of surface water (ditches) and a wet prairie wetland indicates a moderate potential for occurrence of State-designated threatened wading bird species including the little blue heron, tricolored heron, and roseate spoonbill, and the Federally-designated threatened wood stork. The property does not contain suitable nesting habitat for any of these species and no such nesting activity was observed. Therefore, any occurrence of these wading bird species on the property would be for the purpose of transient foraging.

WETLANDS AND WATERBODIES

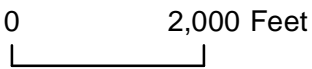
Preliminary field evaluation has identified an area within the property boundaries that may be considered state-jurisdictional wetlands. However, this opinion has not yet been verified by the South Florida Water Management District (SFWMD) for the proposed project. The review of the SFWMD online e-permitting database for publicly available permitting files revealed that a permit (permit 56-02924-P) authorizing construction and operation of a surface water management system on the subject property was previously issued by SFWMD on August 16, 2013. The previously issued permit includes a statement that no wetlands were present on the property at the time of permit issuance. A site review with SFWMD staff to verify whether wetlands are present, and the extent of any wetlands identified will be required upon submittal of a new Environmental Resource Permit (ERP) application.


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APPENDIX



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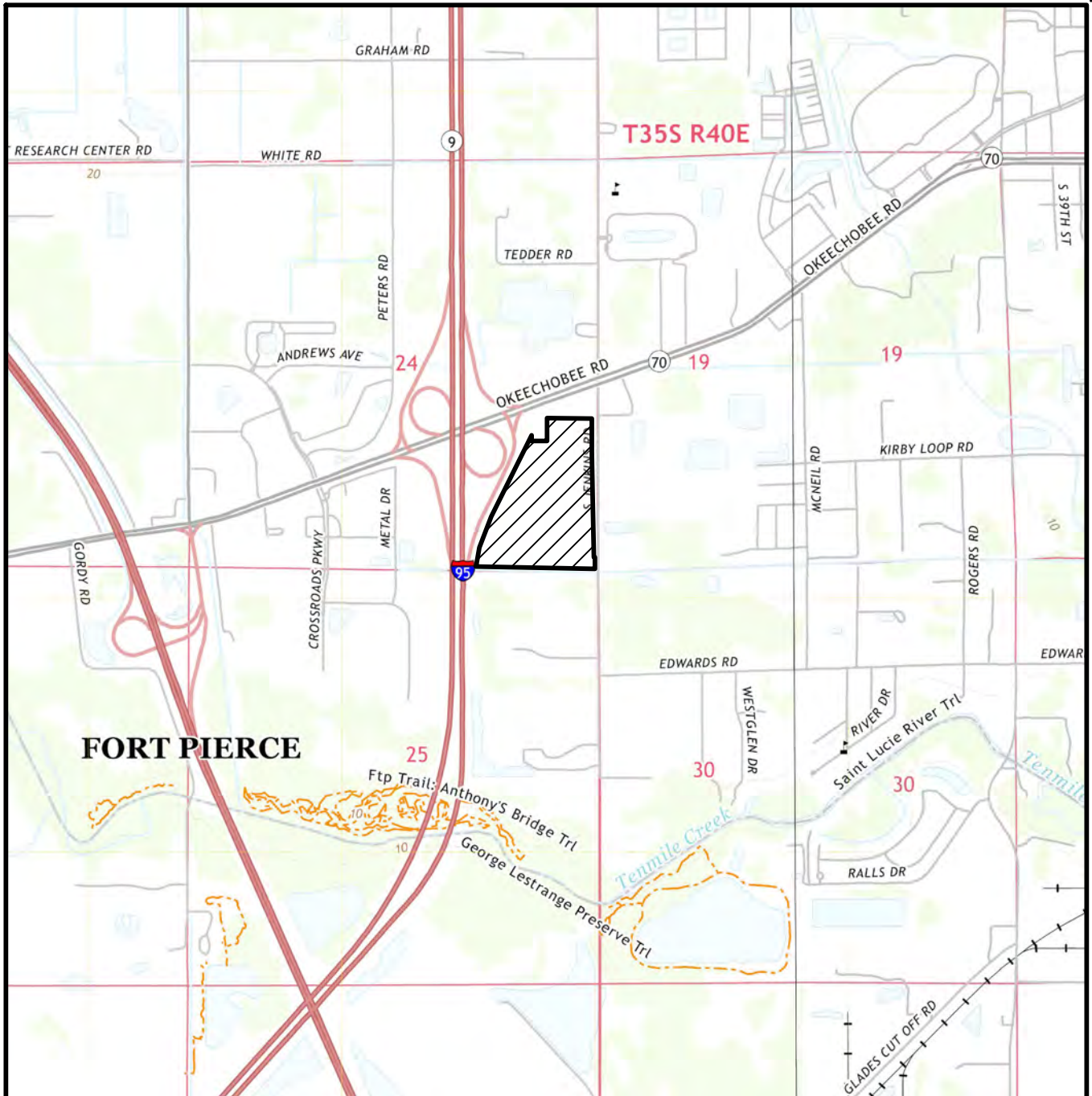
LEGEND
 - SITE (49.9+/- AC)

CORNERSTONE LOCATION MAP



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 FIGURE
1



USGS QUAD "FORT PIERCE NW", SECTION 24, TOWNSHIP 35 SOUTH, RANGE 39 EAST, CITY OF FORT PIERCE, ST. LUCIE COUNTY, FLORIDA, LATITUDE 27°04'47" LONGITUDE -80°23'06"

LEGEND

 - SITE (49.9± AC)



**CORNERSTONE
QUAD**

Cornerstone.dwg QUAD



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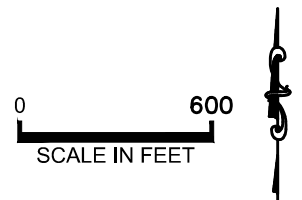
AUG 2024

FIGURE

2



FDOT AERIALS DATED 2024



CORNERSTONE AERIAL

Cornerstone.dwg AERIAL



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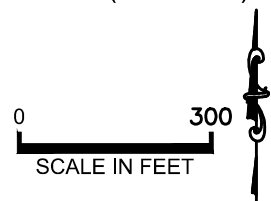
AUG 2024
FIGURE
3



FDOT AERIALS DATED 2023

LEGEND

- 191 - UNDEVELOPED LAND WITHIN URBAN AREAS (12.4± AC)
- 510 - DITCH (0.6± AC)
- 643 - WET PRAIRIE (0.1± AC)
- 740 - DISTURBED LANDS (36.8± AC)
- TOTAL SITE (49.9± AC)



CORNERSTONE

FLUCFCS

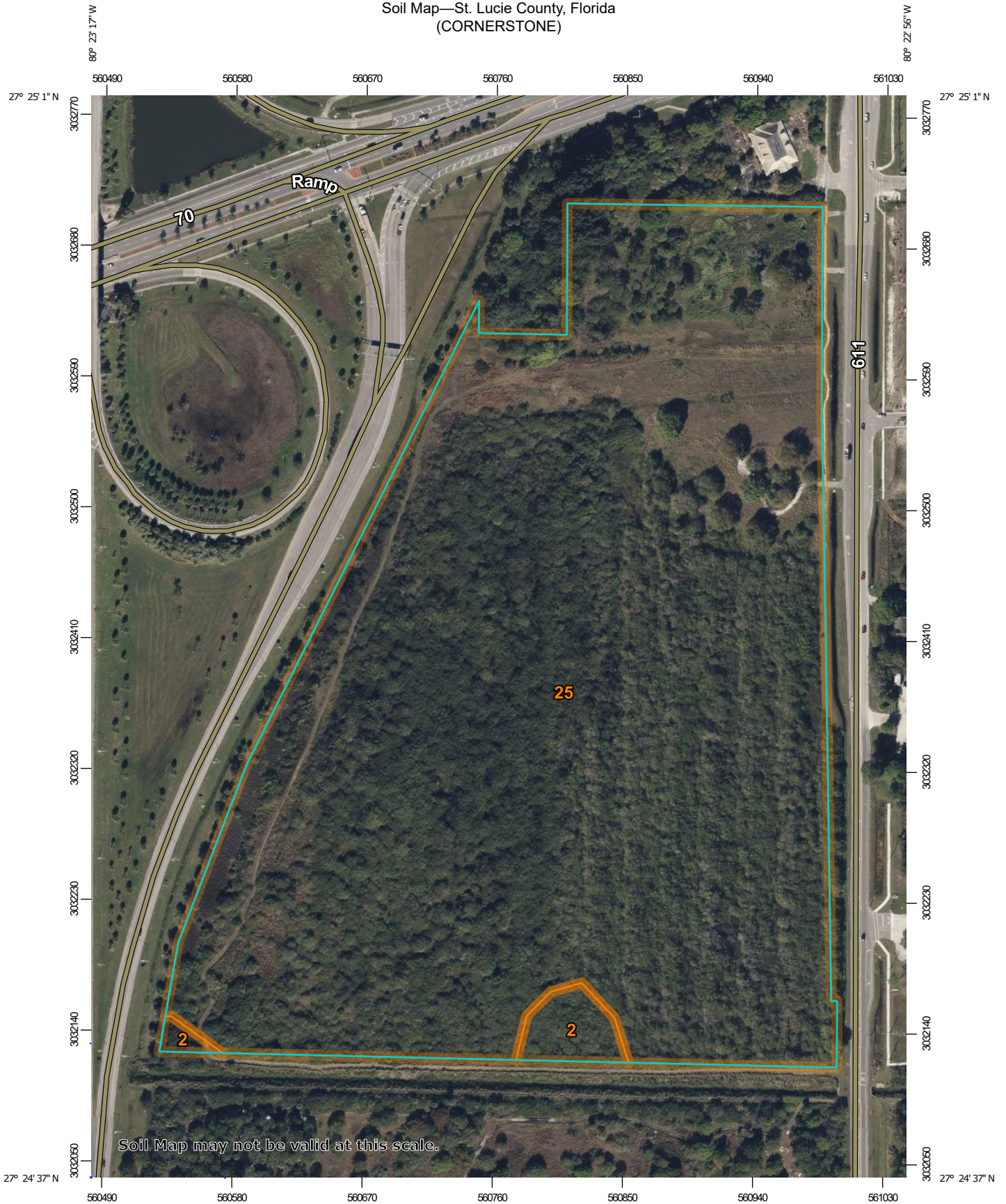
Cornerstone.dwg FLUCFCS



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FIGURE
4

Soil Map—St. Lucie County, Florida
(CORNERSTONE)



Map Scale: 1:3,630 if printed on A portrait (8.5" x 11") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84




Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

8/8/2024
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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

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.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

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: St. Lucie County, Florida

Survey Area Data: Version 17, Sep 6, 2023

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

Date(s) aerial images were photographed: Jan 18, 2022—Jan 30, 2022

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
2	Ankona and Farnton sands	0.9	1.8%
25	Nettles and Oldsmar sands	49.0	98.2%
Totals for Area of Interest		49.9	100.0%