



4221 COLONIAL BOULEVARD

Ecological Assessment

LEE COUNTY, FLORIDA
SECTION 32, TOWNSHIP 44, RANGE 25E

Prepared For:

Fort Myers Hotel LLC
20901 Corkscrew Shores Blvd.
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Prepared By:



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October 2023

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1.0 INTRODUCTION

Earth Tech Environmental (ETE) conducted an Ecological Assessment (EA) on a single parcel located at 4221 Colonial Boulevard (Subject Property), in Lee County, Florida. The field assessment occurred on October 30th, 2023, by an ETE ecologist. The purpose of the assessment was to:

1. Determine the vegetation mapping on the Subject Property according to Florida Land Use Cover and Forms Classification System (FLUCCS).
2. Under current conditions, determine the presence and approximate location of any environmentally sensitive lands such as wetlands.
3. Evaluate the Subject Property for potential listed species concerns.

2.0 PROPERTY LOCATION

The Subject Property for this report consists of a single parcel (Strap # 32-44-25-P2-00007.0040) located on the north side of Colonial Boulevard approximately 1.0-mile west of I-75 in Lee County (see Figures 1 & 2). According to the Lee County Property Appraisers website the Subject Property totals approximately 3.44 acres.

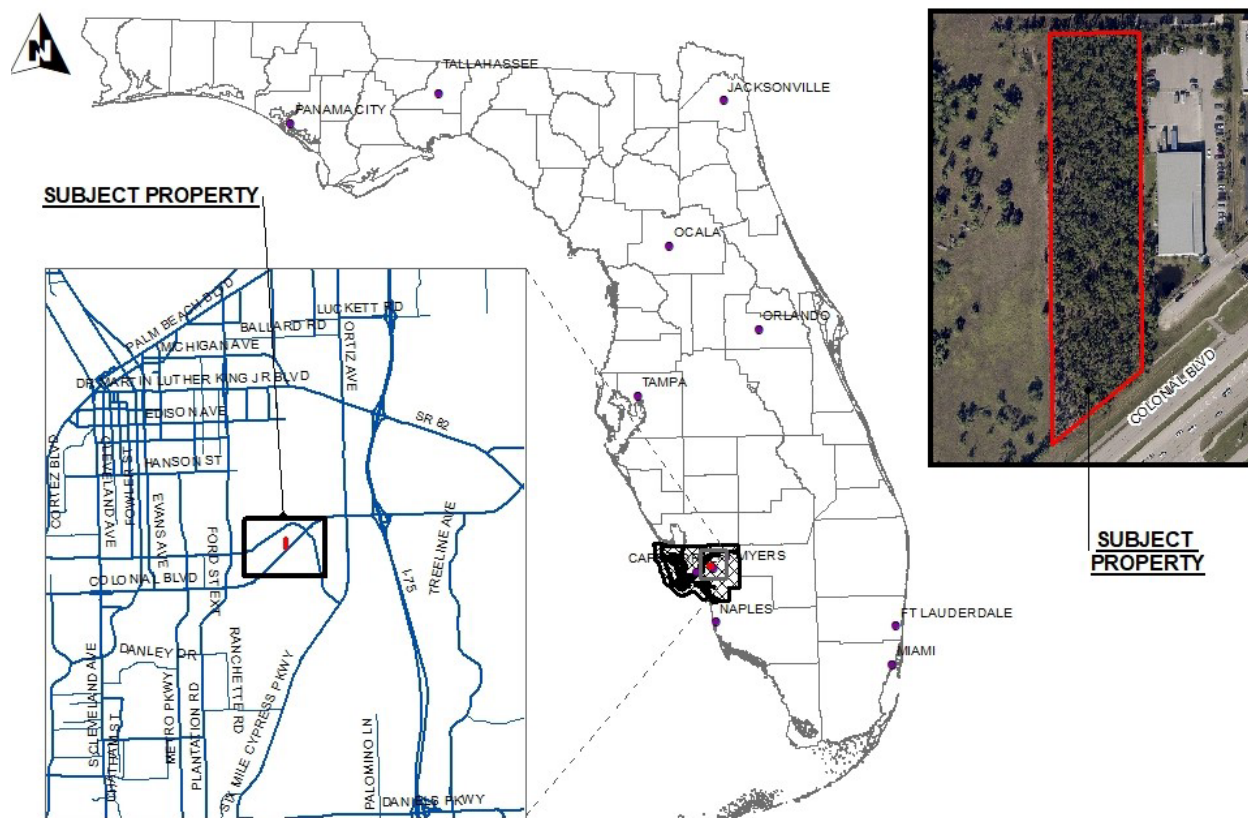


Figure 1. Location Map

3.0 EXISTING SITE CONDITIONS

The Subject Property is vacant and undeveloped. The Subject Property is bound by Colonial Boulevard to the south, a commercial development to the east, and vacant/undeveloped land to the west and north.

The Subject Property contains the following surrounding land uses:

North:	Vacant/Undeveloped
West:	Vacant/Undeveloped
South:	Colonial Boulevard
East:	Commercial



Figure 2. Site Vicinity Map



Figure 3. Aerial Map

4.0 PARCEL HISTORY

A historic aerial analysis was conducted on the Subject Property dating back to 1944 (see attached Historic Aerial Report). According to the historic aerials, the Subject Property has not been developed since 1944.

A permit search was conducted through the South Florida Water Management District's (SFWMD) ePermitting Web App, no Environmental Resource Permits (ERPs) were identified on the Subject Property.

5.0 PRELIMINARY WETLAND ASSESSMENT

The South Florida Water Management District (SFWMD), Florida Department of Environmental Protection (FDEP), and/or the U.S. Army Corps of Engineers (USACE), are the agencies that regulate development activities in wetlands. In general, to be considered a wetland by the agencies, the area should exhibit hydric soils, wetland hydrology, and wetland vegetation. Ultimately, these agencies have the final say in determining if a property contains wetlands in Florida, despite the opinions of the preparer of this report. ETE searched the Subject Property for indicators of the aforementioned parameters.

5.1 SOILS

The soils on the Subject Property have been previously mapped by the Natural Resource Conservation Service (NRCS). These mappings are general in nature but can provide a certain level of information about the property as to the possible extent of wetland areas. According to NRCS, the entire Subject Property is underlain by Hallandale fine sand (Hydric). See Figure 4 below for NRCS mappings on the Subject Property.



Figure 4. NRCS Soils Map

5.2 WETLAND HYDROLOGY

Wetland hydrology is normally present if the soil is saturated or inundated for a long duration, which in South Florida normally occurs during the rainy season. In our region, the rainy season occurs in the summer through early fall. Therefore, if an area exhibits soil saturation or is inundated for an extended period of time, the area is considered to have wetland hydrology. In the absence of visual signs of saturation or inundation, one may use secondary indicators of hydrology such as adventitious rooting, lichen lines, or algal matting. The field assessment for this report was conducted during the rainy season.

5.3 FLUCCS VEGETATION MAPPING

Vegetation communities were mapped on the Subject Property according to the Florida Land Use, Cover and Forms Classification System (FLUCCS) (Department of Transportation, Surveying & Mapping Geographic Mapping Section, 1999) used by the regulatory agencies. Vegetation is one parameter used in determining the presence of a wetland. Wetland vegetation is present if the majority of the plants present in the habitat are those which are adapted to saturated soil conditions.

The Florida Invasive Species Council's (FISC) list of invasive species contains Category I and Category II species that may be found on the Subject Property. Category I species are invasive exotics that are altering native plant communities by displacing native species, changing community structures or ecological functions, or hybridizing with natives. Category II species are invasive exotics that are increasing in abundance or frequency but have not yet altered Florida plant communities. A significant factor in

mapping vegetative associations and local habitats is the invasion of these species such as Brazilian pepper (*Schinus terebinthifolia*), earleaf acacia (*Acacia auriculiformis*), and melaleuca (*Melaleuca quinquenervia*). Levels of exotic density were mapped by using field observations and photo interpretation as shown in Figure 5. Modifiers, or “E” designators, are appended to the FLUCCS codes to indicate the approximate density of exotics within each FLUCCS community.

Listed below are the FLUCCS communities identified on the Subject Property. The community descriptions correspond to the mappings on the FLUCCS map in Figure 5. See Florida Land Use, Cover and Forms Classification System for definitions. All acreages are approximate as boundaries have not been surveyed/flagged in the field.

TABLE 1. VEGETATION COMMUNITY SUMMARY		
FLUCCS CODE	DESCRIPTION	ACREAGE
625-E2	Hydric Pine Flatwoods (26-50% Exotics)	3.44
TOTAL:		3.44

E1 = Exotics <25% of total cover
 E2 = Exotics 26-50% of total cover
 E3 = Exotics 51-75% of total cover
 E4 = Exotics >75% of total cover



Figure 5. FLUCCS Map

FLUCCS DESCRIPTIONS:

* = exotic species

5.4 UPLAND COMMUNITIES

No upland communities were identified on the Subject Property.

5.5 WETLAND COMMUNITIES

Based on the presence of wetland vegetation and hydric indicators, the following communities would likely be considered wetlands by the agencies:

625-E2, Hydric Pine Flatwoods (26-50% Exotics)

This community makes up the entire Subject Property. Canopy vegetation consists of slash pine (*Pinus elliottii*), *earleaf acacia (*Acacia auriculiformis*), *melaleuca (*Melaleuca quinquenervia*), and scattered cabbage palm (*Sabal palmetto*). Midstory vegetation consists of cabbage palm, *melaleuca, *earleaf acacia, cocoplum (*Chrysobalanus icaco*), myrsine (*Myrsine cubana*), and wax myrtle (*Morella cerifera*). Groundcover vegetation was sparse and consists of saw palmetto (*Serenoa repens*), sawgrass (*Cladium jamaicense*), whitehead bogbuttons (*Lachnocaulon anceps*), and spadeleaf (*Centella asiatica*).

Based on the habitat descriptions above and the presence of hydric indicators, Figure 6 shows the FLUCCS communities and anticipated wetland limits observed on the Subject Property. The entire Subject Property consists of anticipated jurisdictional wetlands. All acreages are approximate as boundaries have not been GPS-recorded in the field or approved by any agency. No listed species or signs of listed species were observed on the Subject Property.



Figure 6. Anticipated Jurisdictional Wetland Map

6.0 LISTED SPECIES

The Subject Property does have community types in which protected species could reside, though the site is largely surrounded by development to the south, east, and north. A formal Protected Species Survey would be needed prior to development to document the presence or absence of any listed species utilizing the Subject Property. During permitting, the following listed species concerns may be raised by the agencies:

Big Cypress Fox Squirrel (*Sciurus niger avicennia*)

The Subject Property falls within the distribution range for Big Cypress fox squirrel. The Subject Property contains suitable habitat for fox squirrels, though is largely fragmented from contiguous offsite habitat. Should Big Cypress fox squirrel be observed utilizing the Subject Property, a Management Plan and coordination with the regulatory agencies will likely be required before development may occur.

Florida Bonneted Bat (*Eumops floridanus*)

The Subject Property falls within the United States Fish & Wildlife Service's (USFWS) bonneted bat consultation area. The Subject Property is surrounded by development and lacks trees/habitat typical of bonneted bat roosting.

7.0 DISCUSSION & SUMMARY

Wetland locations were drawn using a non-rectified aerial with approximate property boundaries. Approximate wetland limits have not been flagged in the field or verified by SFWMD, FDEP, or USACE.

Per ETE's FLUCCS mapping, the site contains approximately 3.44 acres of anticipated jurisdictional wetlands. The South Florida Water Management District (SFWMD) is the regulatory agency that handles wetlands and storm water management permitting on the state level. A wetland jurisdictional determination is required during the environmental resource permitting process if impacts to wetlands are proposed. An Environmental Resource Permit (ERP) from the SFWMD and a State 404 permit from FDEP will be required for authorization to fill and/or dredge onsite wetlands.

Any impacts to onsite wetlands will require mitigation to offset the impacts. Mitigation is typically provided through the purchase of off-site wetland credits at an approved wetland mitigation bank prior to commencement of construction. Uniform Mitigation Assessment Methodology (UMAM) worksheets along with the acreage of wetland impacts are used to calculate the exact number of functional units that would be required to offset wetland impacts. The current cost of one forested freshwater credit is approximately \$190,000 at Corkscrew Regional Mitigation Bank.

Site Photos 10/30/23



Typical interior view of the Subject Property (note hydric indicators at the base of the melaleuca trees)



Hydric indicators (i.e. algal matting, base rot, etc.) identified on the Subject Property.



Typical interior view of the Subject Property, moderate exotic vegetation coverage.



Hydric indicator (hummocking) on the base of the slash pine.

8.0 REFERENCES

Environmental Data Management, Inc., Historical Aerial Photograph Report: “4221 Colonial Boulevard, Strap #: 32-44-25-P2-00007.0040, Fort Myers, Florida 33966”, October 24, 2023.

Atlas of Florida Plants. Institute for Systematic Botany. <https://florida.plantatlas.usf.edu/>

Collier County Property Appraiser. <https://collierappraiser.com>

ePermitting Web App. South Florida Water Management Geospatial Services.
<https://apps.sfwmd.gov/WAB/ePermittingWebApp/index.html?mobileBreakPoint=300&slayer=0&exprnum=0&research=>

“Florida’s Endangered and Threatened Species”- Official List. Florida Fish & Wildlife Conservation Commission. Updated December 2022.

<https://myfwc.com/media/1945/threatened-endangered-species.pdf>

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Florida Invasive Species Council’s (FISC) 2019 List of Invasive Plant Species.

<https://floridainvasivespecies.org/plantlist.cfm>

Florida Land Use, Cover and Forms Classification (FLUCCS) Handbook. Florida Department of Transportation, Surveying & Mapping Geographic Mapping Section. January 1999.

<http://www.fdot.gov/geospatial/documentsandpubs/fluccmanual1999.pdf>

http://www.fdot.gov/geospatial/doc_pubs.shtm

Google Earth Historical Images. <https://www.google.com/earth/>

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Soil Survey of Collier County, Florida. United States Department of Agriculture. Soil Conservation Service. 1998.

APPENDIX A

Historic Aerial Report

Historical Aerial Photograph Report

Subject Property:

4221 Colonial Boulevard
Strap #: 32-44-25-P2-00007.0040
Fort Myers, Florida 33966

Prepared For:

Earth Tech Environmental, LLC
10600 Jolea Avenue
Bonita Springs, FL 34135

Prepared By:



Environmental Data Management, Inc.
2840 West Bay Drive, Suite 208
Belleair Bluffs, Florida 33770

October 24, 2023



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(727) 586-1700
<http://www.edm-net.com>

October 24, 2023

Andrew McAuley
Earth Tech Environmental, LLC
10600 Jolea Avenue
Bonita Springs, FL 34135

Subject: **Historical Aerial Photos-- EDM Project #: 26702**
Client Project#

Dear Mr. McAuley:

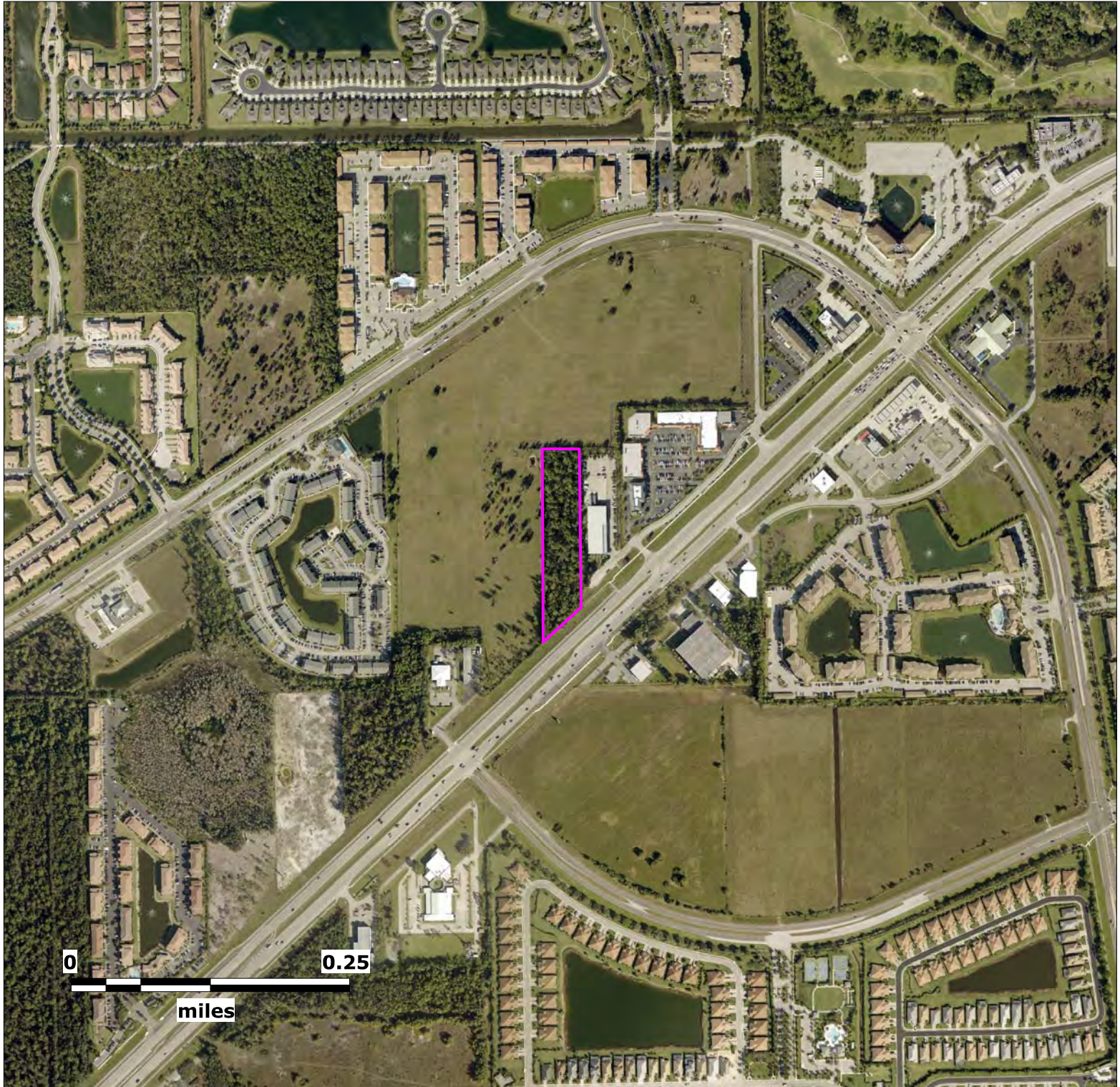
Thank you for choosing Environmental Data Management, Inc. The following report contains a series of Historical Aerial Photographic images for the following location:

4221 Colonial Boulevard
Strap #: 32-44-25-P2-00007.0040
Fort Myers, Florida 33966

These images were selected to provide you with an aerial photographic record of this location at approximate ten year intervals and/or one photograph per decade, where available.

Should you have any questions regarding this report or our service, please feel free to contact us. We appreciate the opportunity to be of service to you and look forward to working with you in the future.

ENVIRONMENTAL DATA MANAGEMENT, INC.



Source: Florida Department of Transportation


Map Scale and Property Boundaries are Approximate

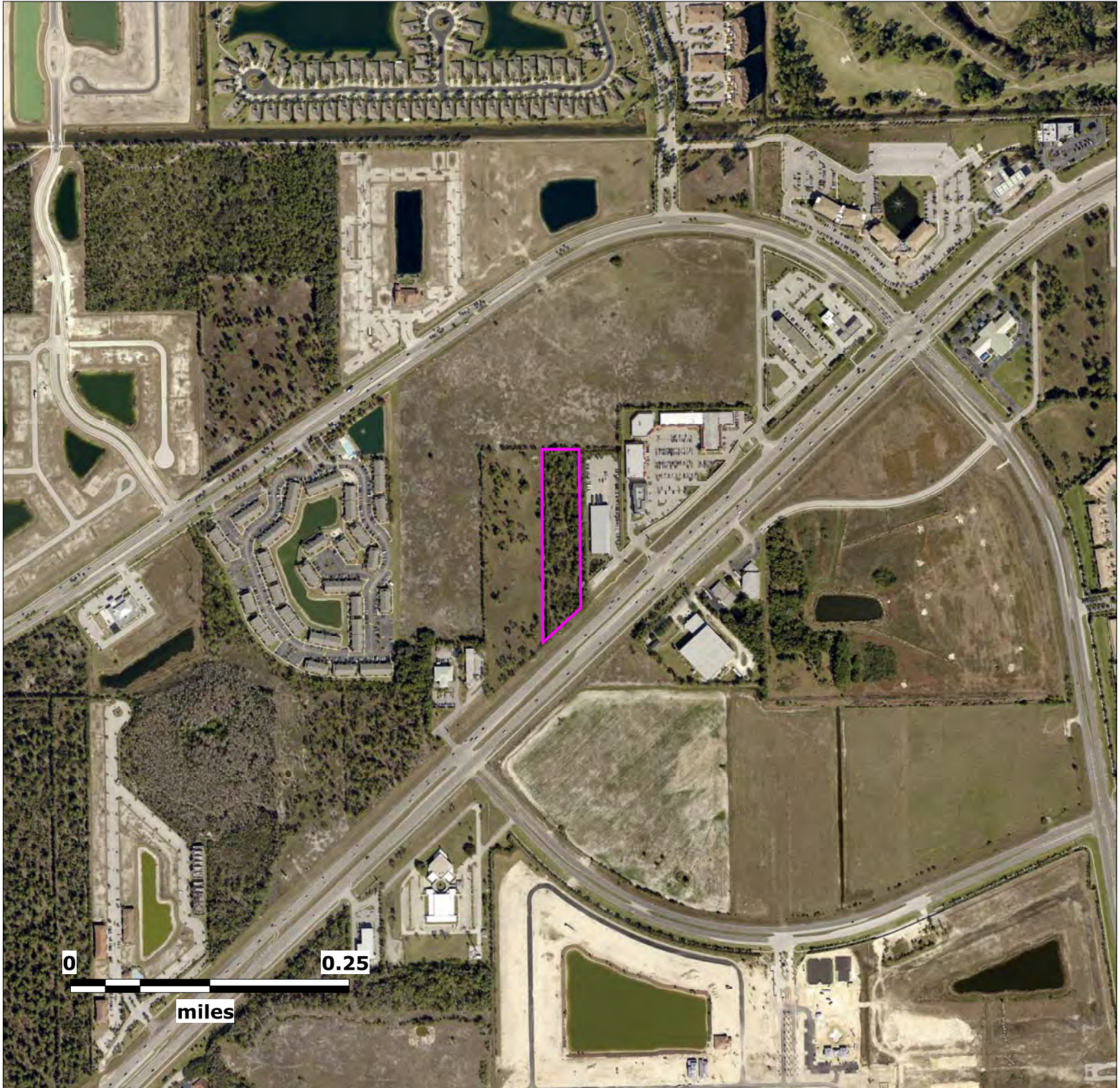
Subject Property

4221 Colonial Boulevard
Strap #: 32-44-25-P2-00007.0040
Fort Myers, Florida 33966

Lat (DMS): 26 36' 25.0992"
Lon (DMS): -81 49' 34.518"

EDM Job No: 26702
October 24, 2023

 Approximate Site Location



Source: Florida Department of Transportation


Map Scale and Property Boundaries are Approximate

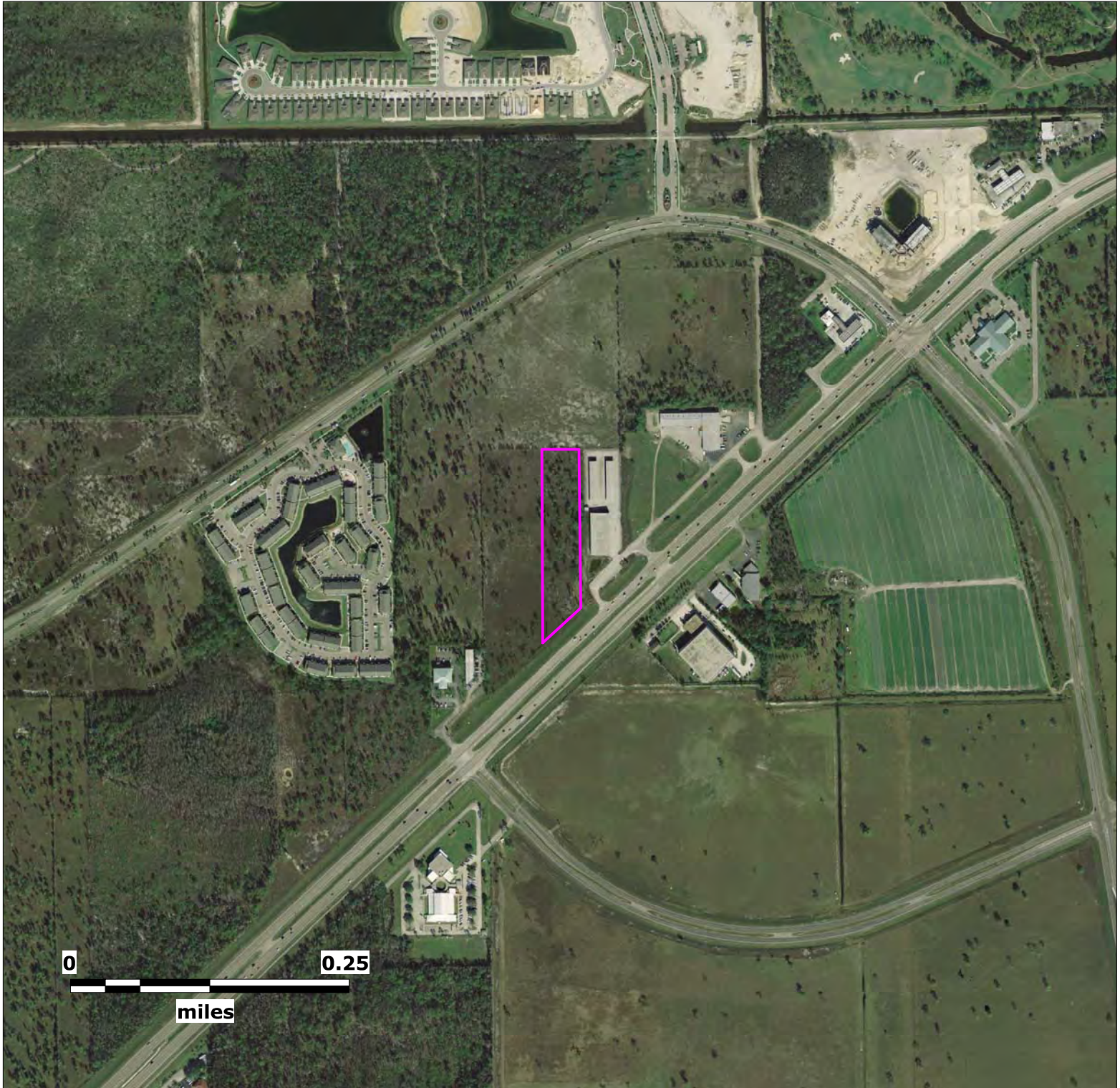
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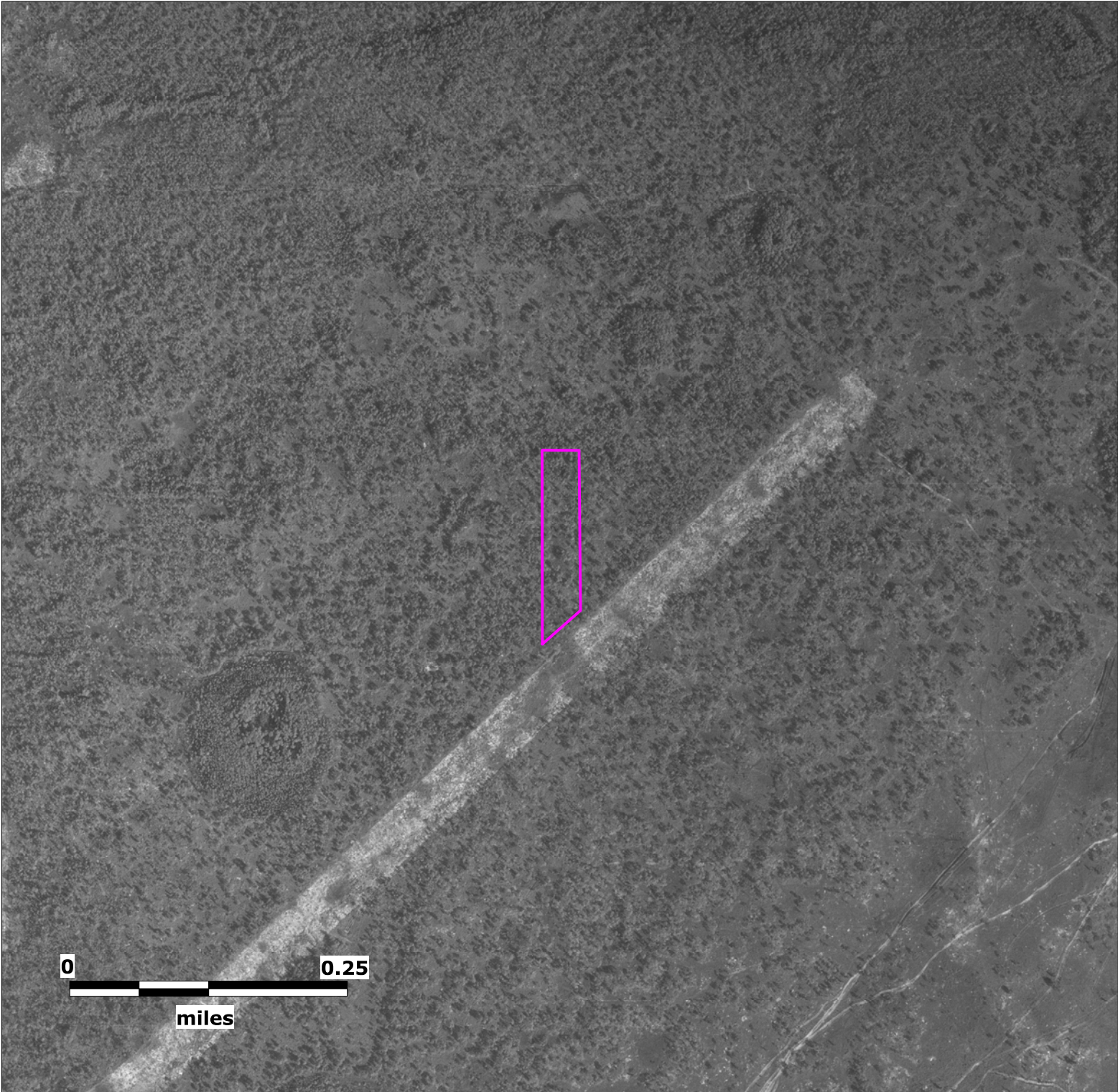
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
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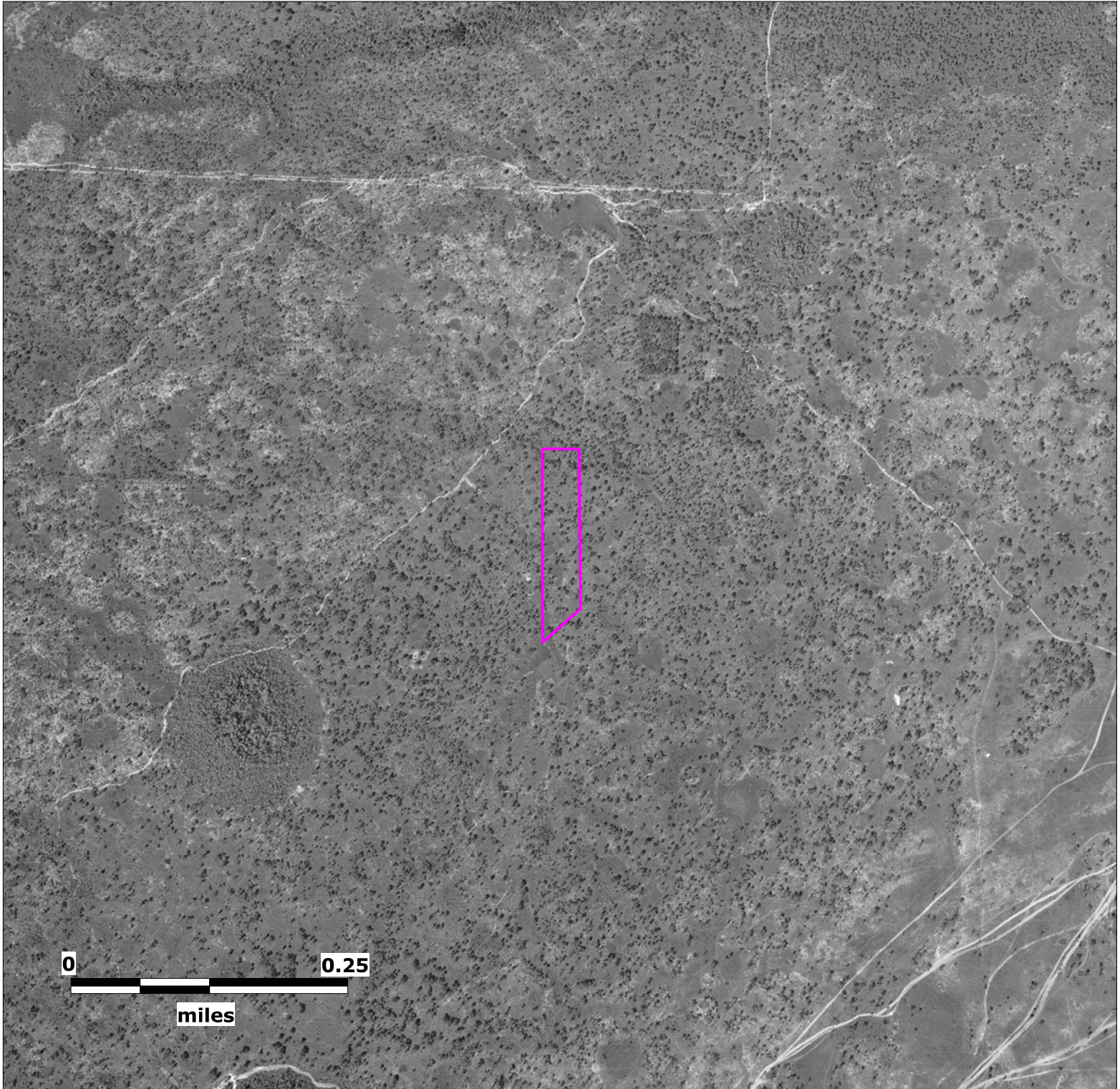
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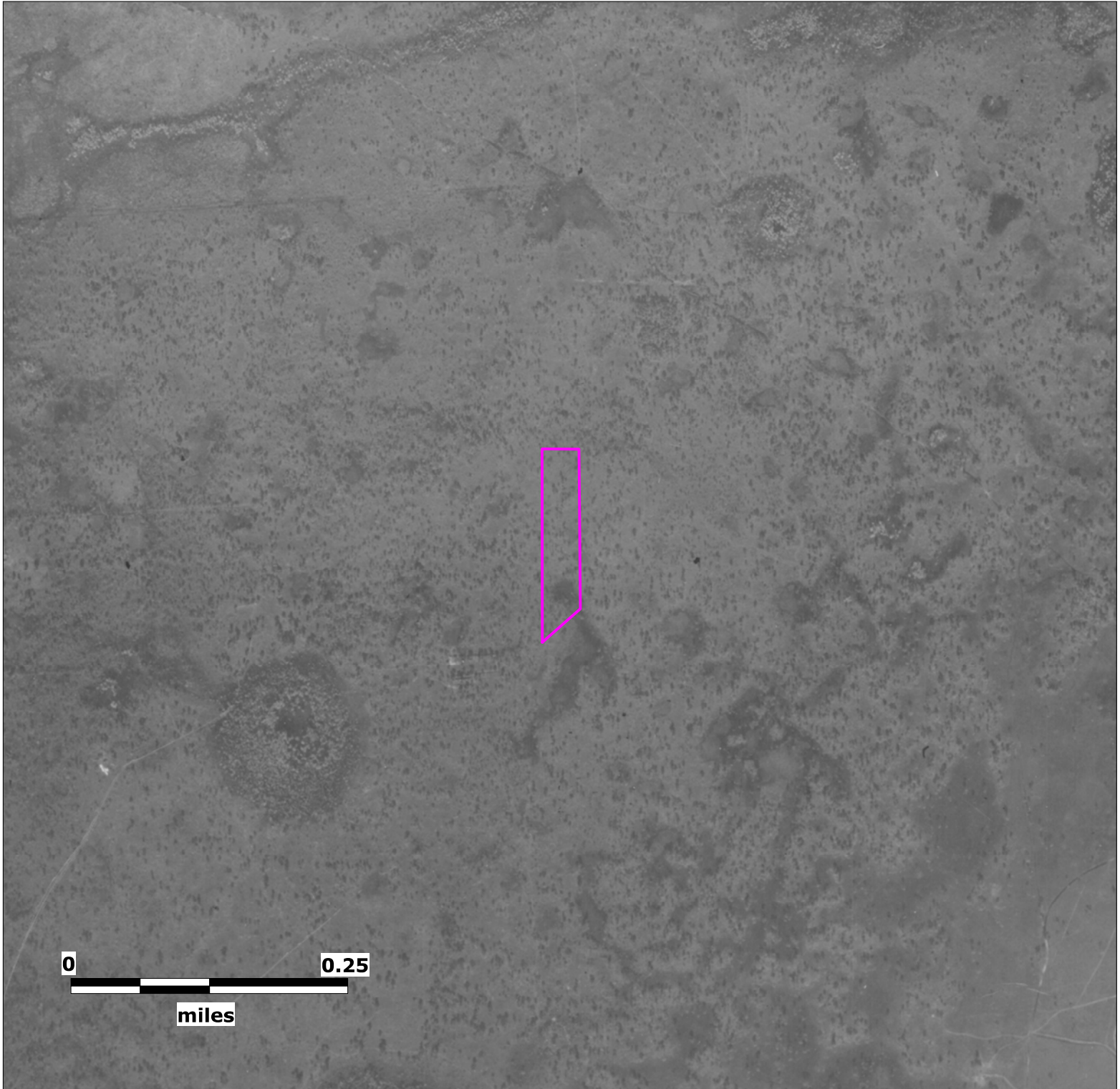
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Source: University of Florida


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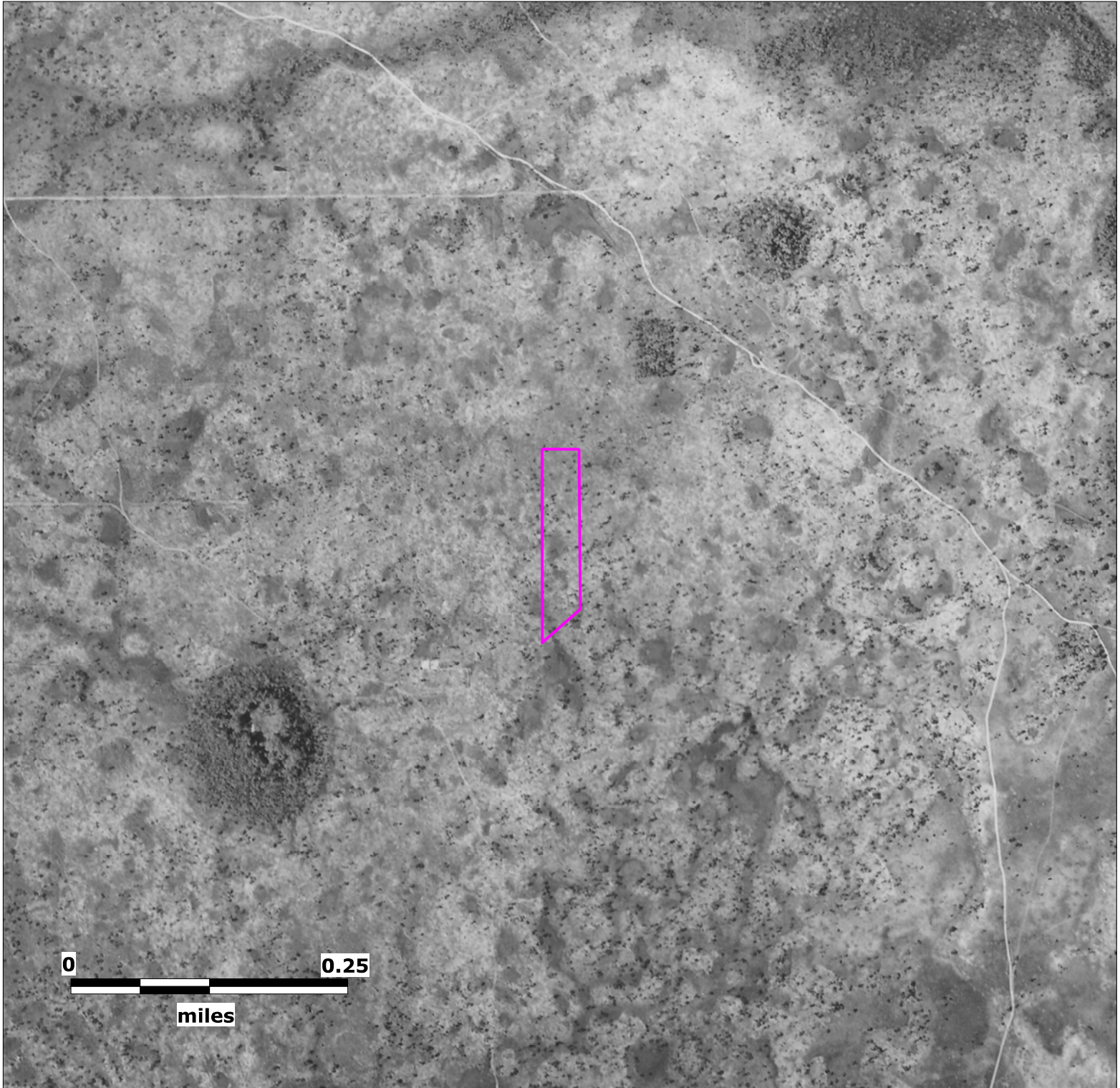
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