



ecospatial ANALYSTS

October 3, 2020

Mrs. Nicole McCarthy
4605 Kings Highway
Port St John, FL 32922
Email nicolewarren@msn.com
Phone 321-848-6037

Project Address: 4824 Curtis Blvd., Cocoa FL 32927
Project Area: ±1.1 acres
Brevard Parcel ID: 23-35-14-JZ-300-15
Brevard Tax ID: 2303423

Subject: Letter of Determination for Wetlands and Protected Species for Building Permit from Brevard County Natural Resources Management Department

Dear Mr. and Mrs. McCarthy;
Ecospatial Analysts, Inc. conducted an environmental assessment and wetland determination on the above-referenced property (±1.10-acres) on September 26, 2020. The property is a single-family residential parcel located in Cocoa, Brevard Co., Florida (Figure 1). The parcel was a flag lot, bordered by Curtis Blvd to the south with surrounding single-family residence. The parcel boundary is also shown on a 7.5-minute USGS topological quad in Figure 2 and an aerial image in Figure 3.

PURPOSE The purpose of the survey was to identify wetlands and rare, threatened and endangered species habitat that may affect parcel development.

LANDCOVER Landcover (Figure 4) was mapped using the Florida Land Use Cover and Forms Classification System (FLUCFCS) (1999) within the Brevard County Parcel boundary as obtained from the Florida Department of Revenue Geographic Information System (GIS) data. The landcover within the property consisted of three landcover types (Table 1) totaling an area of 1.10-acres (slightly larger than the acreage reported by the Brevard County tax accessor’s office).

Table 1. Landcover types and approximate acreages found with the parcel.

FLUCFCS Code	FLUCFCS Description	Area (acres)*
438	Mixed Hardwoods	0.751
191	Undeveloped Land within Urban Area	0.287
329	Other Shrubs and Brush	0.056
	Approximate Total	1.094

*GIS parcel boundary from Brevard Co does not seemed to be georeferenced accurately. Boundary has been shifted to represent field findings.

The parcel was dominated by Mixed Hardwoods (FLUCFCS 438; ± 0.751) and Undeveloped Land within Urban Areas (FLUCFCS 191; ± 0.287). The canopy was dominated by live oaks (*Quercus virginiana*) with a mix of other native and exotics trees and shrubs. Native species included live oak, cabbage palm (*Sabal palmetto*), saw palmetto (*Sereona repens*), rusty staggerbush (*Lyonia ferruginea*), muscadine (*Vitis rotundifolia*). Exotic plants included but were not limited to, Queen palm (*Syagrus romanzoffiana*), wandering Jew (*Tradescantia* spp.) and Category II invasives; carrotwood (*Cupaniopsis anacardioides*), air potato (*Dioscorea bulbifera*), Asian sword fern (*Nephrolepis multiflora*) and Oyster plant (*Tradescantia spathacea*).

Much of the Undeveloped Land within Urban Areas (FLUCFCS 191) had been cleared of vegetation by roller chopping and mulching. This area contained mostly mulched vegetation. Small portions of dense saw palmetto and vines occurred along some margins of the parcel (FLUCFCS 329; 0.056-acres).

WETLANDS The investigation concluded no jurisdictional wetlands (Chapter 62- 340 of the Florida Administrative Code (F.A.C.)) occurred on the parcel. Soil profiling was conducted throughout the parcel to confirm the presence of hydric soils. No hydric soils were identified.

SOILS One soil series, Myakka sand occurred within the property (Figure 6). The soil characteristics derived from soil profiles were consistent to the soil descriptions for these soils within the Soil Survey of Brevard Co. (Huckle et al. 1974; https://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/florida/FL009/0/Brevard.pdf) or Natural Resource Conservation Service (https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_053171.pdf).

Myakka sand (Mk) This is a nearly level poorly drained sandy soil in broad areas in the flatwoods and in areas between sand ridges and sloughs and ponds. It has the profile described as representative of the series. In most years the water table is within a depth of 10 inches for 1 to 4 months and between 10 and 40 inches for more than 6 months. In dry seasons it is below a depth of 40 inches. The soil is flooded for 2 to 7 days once in 1 to 5 years. Included with this soil in mapping are small areas of Immokalee and St Johns sands, some areas of Myakka fine sand, a few areas that contain loamy material below the weakly cemented layer and small areas where the substratum is coquina rock. Also included are areas on the coastal ridge where sand and shells are below the weakly cemented layers. A large part of the acreage is in natural vegetation of open forest of second growth longleaf or slash pine and an understory of saw palmetto, runner oak, native grass and in places, gallberry. Some areas are used for range. If drainage water control and irrigation are adequate this soil is moderately well suited to vegetables.

PROTECTED SPECIES No rare, threatened or endangered species were seen on the parcel. No impacts to protected species are anticipated with developing this parcel.

REFERENCES

Florida Department of Transportation Surveying and Mapping Section. January 1999, Third Edition. Florida Land Use, Cover and Forms Classification System (FLUCFCS). 95 pp.

Huckle et al. 1974, Soil Survey of Brevard County, Soil Conservation Service, U.S. Department of Agriculture, 130 pp.

USDA NRCS. 2002 Field Indicators of Hydric Soils in the United States, version 5.0. G.W. Hurt, P.M. Whited and R.F. Pringle (eds). USDA, NRCS in cooperation with the National Technical Committee for Hydric soils, Fort Worth, TX.

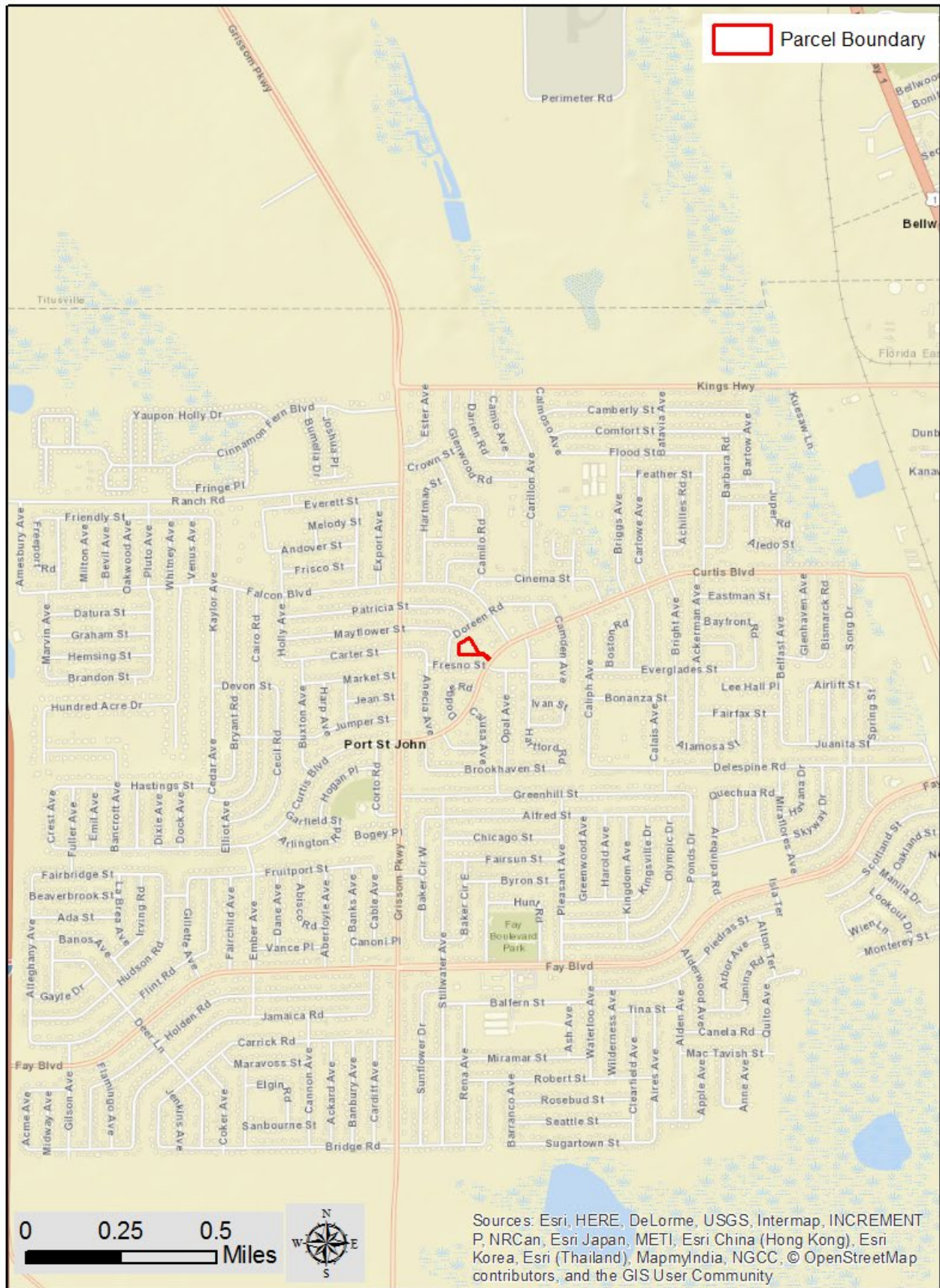
Please contact me if you have any questions regarding the information provided or other environmental questions related to this proposed single-family residence.

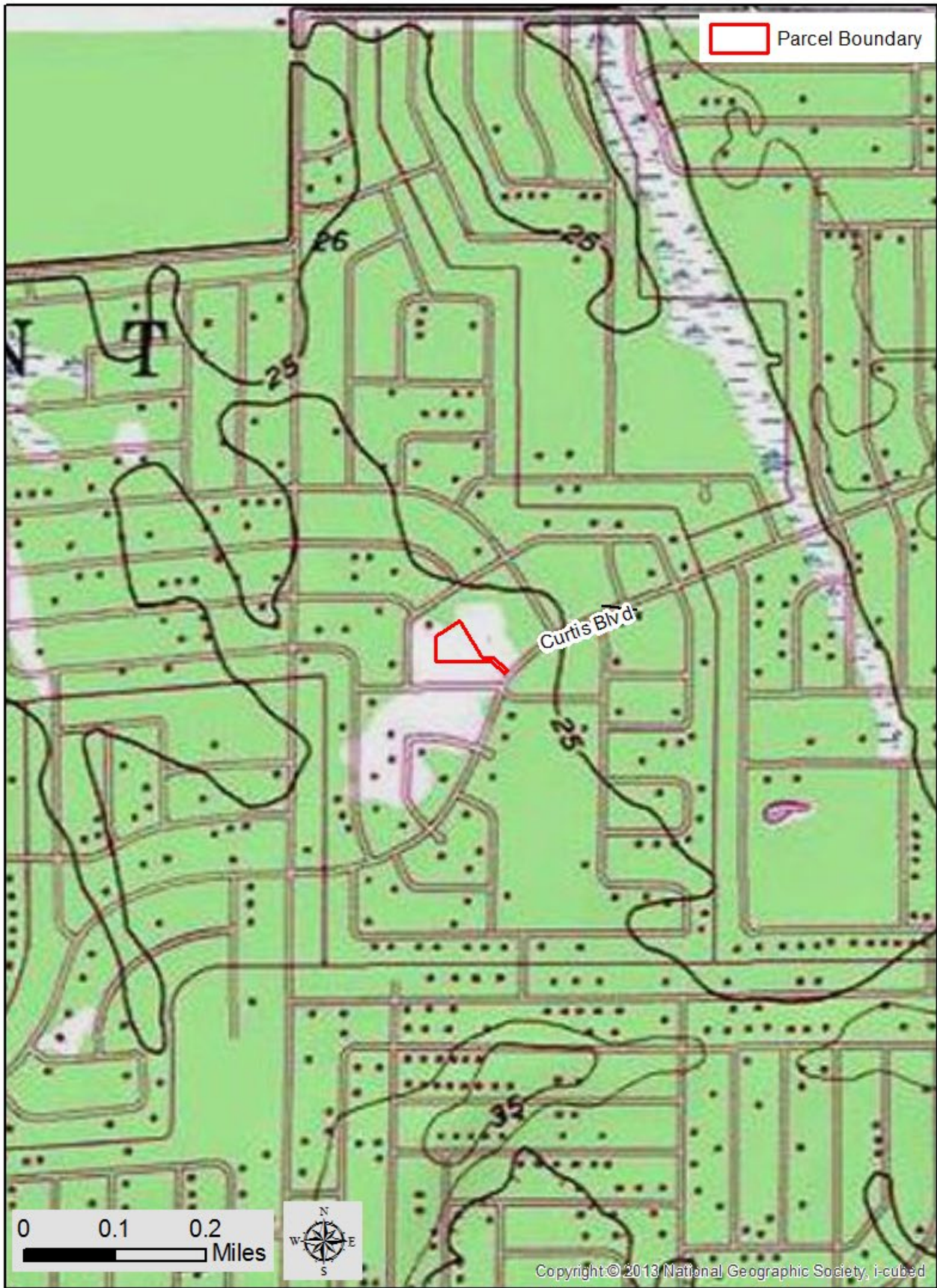
Regards,

A handwritten signature in cursive script that reads "Vickie Larson". The signature is written in black ink on a light-colored background.

(electronically submitted)

Vickie L. Larson
President





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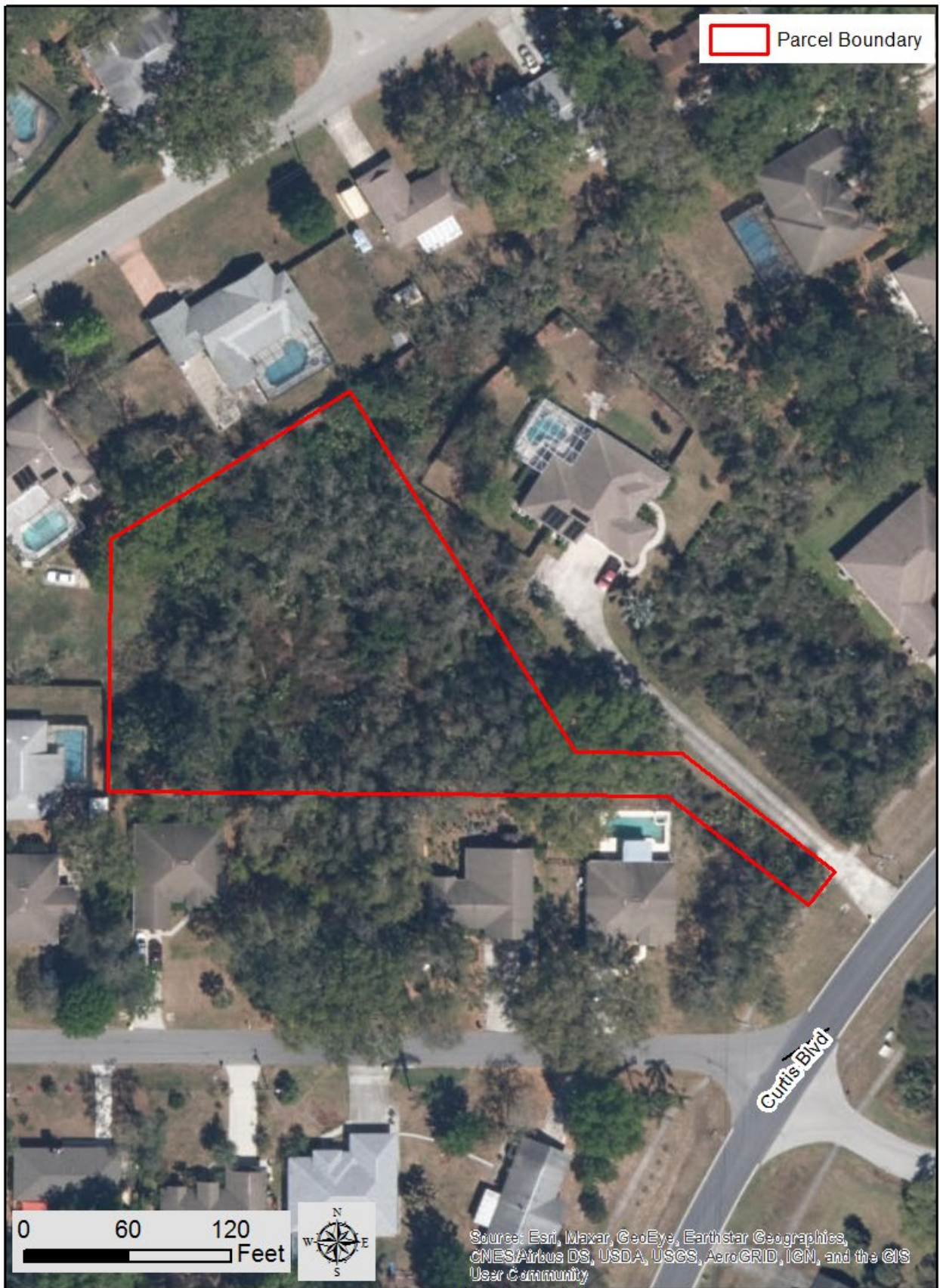
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3245 N. Courtenay Pkwy Ste 37
Merritt Island, FL 32953
321.403.5147

Title: USGS 7.5 minute Quad Topography (1.1 acres)
Address: 4824 Curtis Blvd, Cocoa FL 32927
Parcel ID: 23-35-14-JZ-300-15
Tax Account: 2303423
Source: ESRI USA Topo Basemap, Brevard Co. Parcel Data
Notes: Locations approximate. Site visit 9/26/20

Figure No.

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3245 N. Courtenay Pkwy Ste 37
Merritt Island, FL 32953
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Title: Aerial Imagery (1.1 acres)
Address: 4824 Curtis Blvd, Cocoa FL 32927
Parcel ID: 23-35-14-JZ-300-15
Tax Account: 2303423
Source: ESRI Basemap Imagery, Brevard Co. Parcel Data
Notes: Locations approximate. Site visit 9/26/20

Figure No.

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3245 N. Courtenay Pkwy Ste 37
Merritt Island, FL 32953
321.403.5147

Title: Landcover (1.1 acres)

Address: 4824 Curtis Blvd, Cocoa FL 32927

Parcel ID: 23-35-14-JZ-300-15

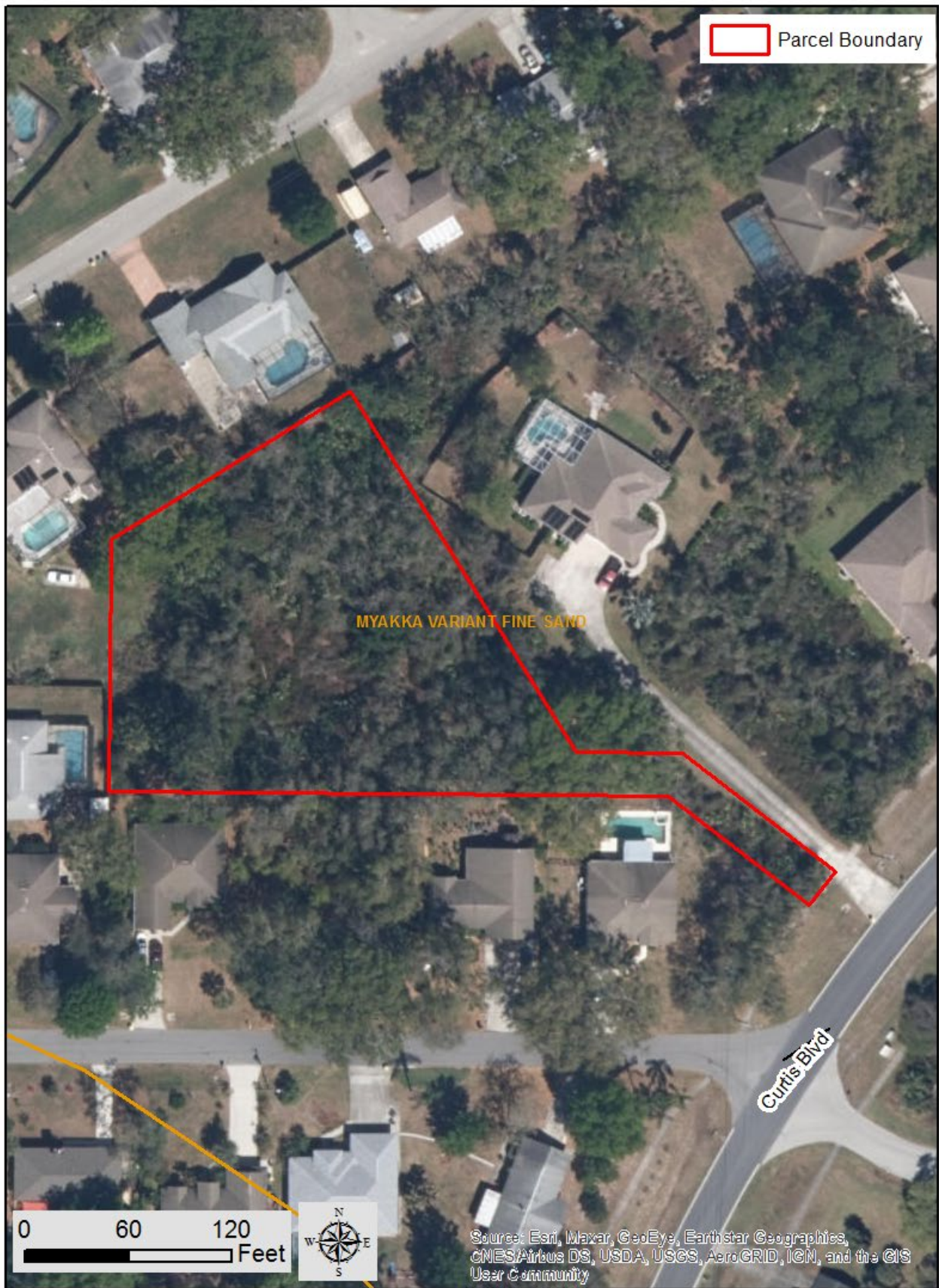
Tax Account: 2303423

Source: ESRI Basemap Imagery, Brevard Co. Parcel Data

Notes: Locations approximate. Site visit 9/26/20

Figure No.

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3245 N. Courtenay Pkwy Ste 37
Merritt Island, FL 32953
321.403.5147

Title: Soils - NRCS (1.1 acres)
Address: 4824 Curtis Blvd, Cocoa FL 32927
Parcel ID: 23-35-14-JZ-300-15
Tax Account: 2303423
Source: ESRI Basemap Imagery, Brevard Co. Parcel Data
Notes: Locations approximate. Site visit 9/26/20

Figure
No.

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