

BROOKS ROAD MULTI-FAMILY

ENVIRONMENTAL SUPPLEMENT FOR SOUTH FLORIDA WATER MANAGEMENT DISTRICT ENVIRONMENTAL RESOURCE PERMIT

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- Appendix A: Environmental Plans
- Appendix B: Listed Species Survey Report
- Appendix C: UMAM Forms and Calculations

1 INTRODUCTION

Horizon Tamiami, LLC of Florida (applicant) seeks to develop a multi-family residential community in Lee County known as Brooks Road Multi-Family (project). The project site is located at 1460 N. Tamiami Trail in Section 2 of Township 44 South, Range 24 East, Lee County, Florida (Sheet 1 of Appendix A). The project area can be identified by STRAP # 02-44-24-03-0000B.0010. The property lies north of Brooks Road and east of U.S. 41 (N. Tamiami Trail), in North Fort Myers and is surrounded by low-density single-family homes to the north; Powell Creek to the east; commercial and retail development and single-family homes to the south; and U.S. 41 to the west.

The project site encompasses 27.36 acres and includes 7.20 acres of wetland habitats and 0.29 acres of other surface waters (OSWs). Currently, the project area is an undeveloped parcel of land adjacent to Powell Creek and is heavily infested with invasive plant species, particularly Brazilian pepper (*Schinus terebinthifolia*), melaleuca (*Melaleuca quinquenervia*), and java plum (*Syzygium cumini*).

This document provides information concerning the proposed project as it relates to natural resources and environmental issues. It was written to support an application to the South Florida Water Management District (SFWMD) for an Individual Environmental Resource Permit (ERP) for the project. This environmental supplement provides the necessary environmental items of Section C of the ERP application and addresses environmental considerations outlined in Part III of the ERP Applicant's Handbook Volume I (AH I).

2 EXISTING SITE CONDITIONS (PRE-DEVELOPMENT)

2.1 VEGETATION ASSOCIATIONS AND HABITAT DESCRIPTIONS

The Florida Land Use, Cover, and Forms Classification System (FLUCFCS) manual was used to classify land use and vegetative communities occurring on the project site. The methods and class descriptions found in the FLUCFCS manual were generally followed when delineating and assigning areas to an appropriate FLUCFCS category or “code”. Level III classifications were generally employed. Certain modifications and/or additions were made to the FLUCFCS class definitions and numeric codes presented in the manual in order to better describe and differentiate both plant communities and land uses. ‘E’ codes were used to identify levels of coverage by exotic vegetation. Since an emphasis was placed on plant communities and the type and quality of habitats formed by these communities, the vegetation association present was given more weight than the prevailing land use in some cases.

The FLUCFCS map for the project is provided as Sheet 2 of Appendix A. It should be noted that the original FLUCFCS mapping was conducted by CHW Professional Consultants (CHW) using Lee County aerial photography with flight date of January-March 2022. The wetland lines were flagged and survey located by CHW and subsequently approved by SFWMD as Formal Determination of Wetlands and Surface Waters Permit No. 36-108765-P, issued May 2, 2023. Turrell, Hall & Associates, Inc. (THA) conducted fieldwork in January and February 2025 to verify the FLUCFCS classifications and develop descriptions of the habitat types presented in this report.

There are 12 vegetation associations and land uses (i.e. FLUCFCS Codes) identified and mapped on the project site. The dominant habitat type is upland Pine/Oak/Cabbage Palm, Disturbed (FLUCFCS Code 4349), the majority of which consists of 50-75% coverage by exotic vegetation, particularly Brazilian pepper, melaleuca, and java plum. The property is highly disturbed with a few homeless camps and trash scattered throughout. There are no rare or exceptional vegetation associations present on the project lands. The property’s eastern boundary is the mean high-water line of Powell Creek. While there is mangrove habitat on the edge of Powell Creek, the mangroves do not extend onto the project site. The off-site mangrove areas are shown on the FLUCFCS map for informational purposes.

Table 1 lists each of the FLUCFCS categories, acreages, and percent coverage of each on the property. A description of each FLUCFCS code follows.

Table 1. Existing Major FLUCFCS Categories

FLUCFCS Code	Description	Acres	Percent of Total Site
422	Brazilian Pepper	0.76	2.8%
424	Melaleuca	0.04	0.1%
4349 E2	Pine/Oak/Cabbage Palm, Disturbed (Exotics 25-49%)	0.54	2.0%
4349 E3	Pine/Oak/Cabbage Palm, Disturbed (Exotics 50-75%)	13.20	48.2%
4349 E4	Pine/Oak/Cabbage Palm, Disturbed (Exotics 76-100%)	1.47	5.4%
514	Ditch	0.29	1.0%
514*	Ditch in Wetlands	0.10	0.4%
6109 E3	Mixed Wetland Hardwoods, Disturbed (Exotics 50-75%)	1.75	6.4%
610 E4	Mixed Wetland Hardwoods, Disturbed (Exotics 76-100%)	4.87	17.8%
625 E4	Hydric Pine Flatwoods (Exotics 76-100%)	0.48	1.8%
740	Disturbed Lands	3.56	13.0%
814	Road	0.30	1.1%
Totals		27.36	100.0%

* This portion of the ditch was cut through wetlands and is included as wetland acreage

There are mangroves located on-site along Powell Creek, however the mangroves are located outside of the property line.

422 – Brazilian Pepper

These highly disturbed upland areas lack the vegetative composition of any specific native habitat and are dominated by Brazilian pepper (*Schinus terebinthifolia*) in all strata with occasional cabbage palm (*Sabal palmetto*), melaleuca (*Melaleuca quinquenervia*), and earleaf acacia (*Acacia auriculiformis*). Groundcover vegetation is sparse consisting of species typical to upland disturbed land and may include ragweed (*Ambrosia artemisiifolia*), broomgrass (*Andropogon virginicus*), saw palmetto (*Serenoa repens*), false buttonweed (*Spermacoce* spp.), and muscadine grapevine (*Vitis rotundifolia*).

424 – Melaleuca

The vegetation present in this highly disturbed upland area is dominated by melaleuca in all strata and may include occasional Brazilian pepper. Groundcover vegetation is sparse and includes scattered ragweed and broomgrass. The area lacks the vegetative composition of any specific native habitat.

4349 E2 – Pine/Oak/Cabbage Palm, Disturbed (Exotics 25-49%)

The canopy and midstory vegetation of this upland forested habitat consists of live oak (*Quercus virginiana*), laurel oak (*Quercus laurifolia*), slash pine (*Pinus elliotii*), cabbage palm, Brazilian pepper, melaleuca, earleaf acacia, java plum (*Syzygium cumini*). The groundcover vegetation includes cabbage palm, saw palmetto, broomgrass, wild coffee (*Psychotria nervosa*), dotted wild

coffee (*Psychotria tenuifolia*), and sword fern (*Nephrolepis exaltata*). Vines include muscadine grapevine, and greenbrier (*Smilax* spp.). Coverage by the exotic species is 25-49%.

4349 E3 – Pine/Oak/Cabbage Palm, Disturbed (Exotics 50-75%)

The majority of the project site is comprised of this vegetative community type. The vegetation composition is consistent with FLUCFCS Code 4349 E1 with 50-75% coverage by exotic species, particularly Brazilian pepper and melaleuca.

4349 E4 – Pine/Oak/Cabbage Palm, Disturbed (Exotics 76-100%)

The vegetation composition is consistent with FLUCFCS Code 4349 E1 but with 76-100% coverage by exotic species, particularly Brazilian pepper and melaleuca.

514 – Ditch and 514 – Ditch, Hydric*

This linear man-made feature occurs on the project site within an existing Florida Department of Transportation (FDOT) drainage easement. The ditch traverses the site from U.S. 41 northeast to Powell Creek. The “hydric” portion of the ditch cuts through wetland habitat and is included in the project’s wetland acreage. The vegetation cover, and water depth and duration vary throughout the ditch.

6109 E3 – Mixed Wetland Hardwoods, Disturbed (Exotics 50-75%)

This forested wetland habitat has a canopy and midstory dominated by laurel oak, cabbage palm, myrsine (*Myrsine cubana*), Brazilian pepper, and java plum. The groundcover vegetation includes swamp fern (*Telmatoblechnum serrulatum*) and leather fern (*Acrostichum danaeifolium*). Coverage by exotic vegetation is 50-75% of the habitat.

610 E4 – Mixed Wetland Hardwoods, Disturbed (Exotics 76-100%)

The vegetation composition is consistent with FLUCFCS Code 6109 E3 but with 76-100% coverage by exotic species, particularly Brazilian pepper, java plum, and melaleuca.

625 E4 – Hydric Pine Flatwoods (Exotics 76-100%)

The native vegetation present in the canopy and midstory of this highly disturbed wetland habitat includes slash pine, cabbage palm and myrsine. However, the habitat is dominated by exotic vegetation including melaleuca, Brazilian pepper and java plum. Native groundcover vegetation is sparse but may include swamp fern and/or leather fern.

740 – Disturbed Lands

These highly disturbed upland areas lack the vegetative composition of any specific native habitat. The canopy is open. The midstory is also open but may include occasional Brazilian pepper and/or cabbage palm. The groundcover includes broomgrass, ragweed, false buttonweed, beggarticks (*Bidens alba*), flatsedge (*Cyperus* spp.), Mexican clover (*Richardia* spp.), and common dandelion (*Taraxacum officinale*).

814 – Road

This code identifies the unpaved access road that enters the project site from U.S. 41 and terminates at an adjacent parcel of land containing an FDOT water storage area.

2.2 WETLANDS AND OTHER SURFACE WATERS

The wetlands on-site were delineated and survey located by CHW. Subsequently, the wetlands and other surface waters (OSWs) were reviewed and approved by SFWMD as Formal Determination of Wetlands and Surface Waters Permit No. 36-108765-P, issued May 2, 2023. The surveyed and approved wetland and OSW lines are shown on the FLUCFCS Map (Sheet 2 of Appendix A).

The project site includes approximately 7.20 acres of wetlands. The majority of the wetland acreage is located on the east side of the property adjacent to Powell Creek and is dominated by mixed wetland hardwoods with greater 50-100% exotic coverage (FLUCFCS Codes 6109 E3 and 6109 E4). Table 2 provides a breakdown of the wetland acreage by FLUCFCS code. Descriptions of the vegetation composition documented within each FLUCFCS code can be found in the preceding Section 2.1 of this report.

Table 2. FLUCFCS Breakdown of On-site Wetlands

FLUCFCS Code	Description	Acres	Percent of Total Site
514*	Ditch, Hydric	0.10	0.4%
6109 E3	Mixed Wetland Hardwoods, Disturbed (Exotics 50-75%)	1.75	6.4%
610 E4	Mixed Wetland Hardwoods, Disturbed (Exotics 76-100%)	4.87	17.8%
625 E4	Hydric Pine Flatwoods (Exotics 76-100%)	0.48	1.8%
Totals		7.20	26.4%

* This portion of the ditch was cut through wetlands and is included as wetland acreage

The project site includes 0.29 acres of OSW which is a ditch (FLUCFCS Code 514) occurring on the project site within an existing FDOT drainage easement. The ditch traverses the site from U.S. 41 northeast to Powell Creek; however, the east portion of the ditch that cuts through wetland habitat is included in the project's wetland acreage. The 0.29 acre of OSW on-site is the portion of the ditch that was cut through uplands.

2.2.1 Jurisdictional Status of Wetlands and Other Surface Waters

All of the on-site wetlands (7.20 acres) and OSWs (0.29 acres) fall under the jurisdiction of the SFWMD as delineated and shown in Formal Determination of Wetlands and Surface Waters Permit No. 36-108765-P, issued May 2, 2023. The isolated 0.06-acre wetland on-site lacks surficial connection to other wetlands or waters and is anticipated to be non-jurisdictional for the U.S. Army Corps of Engineers.

2.3 LISTED WILDLIFE SPECIES

A survey for wildlife species listed as endangered or threatened by the U.S. Fish and Wildlife Service (USFWS) and/or the Florida Fish and Wildlife Conservation Commission (FWC) was conducted on the project site on January 10, 2025, by THA biologists. The listed species survey methodology and results are discussed in detail in Appendix B and summarized below.

No listed species were observed on-site. However, one abandoned gopher tortoise (*Gopherus polyphemus*) burrow was documented in pine/oak/cabbage palm habitat. One cavity in a dead tree was also observed. Tree cavities can potentially provide roosting habitat for the Florida bonneted bat (*Eumops floridanus*). Sheet 8 of Appendix A provides the approximate locations of the abandoned burrow and cavity tree.

In addition to the gopher tortoise and Florida bonneted bat, a few other listed wildlife species have some potential for occurring in certain habitats present on project lands. These species include American alligator (*Alligator mississippiensis*), eastern indigo snake (*Drymarchon couperi*), bald eagle (*Haliaeetus leucocephalus*), state-listed wading birds, and wood stork (*Mycteria americana*). The listed species that could potentially utilize the site are discussed in Section 3.4 of this report.

2.4 HISTORIC/ARCHEOLOGICAL RESOURCES

No historical or archaeological resources are known to occur within the vicinity of the project. Coordination with the Department of State Division of Historical Resources (DHR) will be initiated with the submittal of the ERP application. Any communication from the DHR regarding the project will be provided to the SFWMD upon receipt.

2.5 SOILS

Based on the National Resource Conservation Service (NRCS) "Soil Survey of Lee County Area, Florida" there are four soil types (soil map units) present on the project lands. Sheet 3 of Appendix A provides soils mapping for the project as derived from NRCS mapping. The following subsections provide a brief description of each soil map unit identified on the project lands. Information is provided about the soil's landscape position (i.e. its typical location in the landscape on a county wide basis), the soil's profile (i.e. textural composition and thickness or depth range of the layers or horizons commonly present in the soil), and the soil's drainage and hydrologic characteristics.

The soils occurring on project lands are as follows:

Kesson Fine Sand, Tidal (Map Unit #24)

Landscape position - Tidal marshes on marine terraces

Soil profile - Surface and subsurface layers to a depth of 80 inches consists of fine sand.

Drainage/Hydrologic characteristics - Very poorly drained. Permeability is high to very high. Very frequent flooding. The seasonal high-water table (apparent) is at the surface. Hydric

Soil rating = yes

Immokalee Sand-Urban Land Complex (Map Unit #36)

Landscape position - Flatwoods on marine terraces.

Soil profile - The surface and subsoil horizons to a depth of about 80 inches consist of sand.

Drainage/Hydrologic characteristics - Poorly drained. Permeability is very high. The seasonal high-water table (apparent) can range from 6 to 18 inches. Hydric Soil rating = no.

Isles Fine Sand, Frequently Ponded (Map Unit #39)

Landscape position - Depressions on marine terraces.

Soil profile - Surface and subsurface horizons to a depth of about 21 inches consist of fine sand. Horizons from 21 to 47 inches are typically fine sandy loam, and from 47 to 57 inches is bedrock.

Drainage/Hydrologic characteristics - Very poorly drained. Permeability is moderately high to high. The seasonal high-water table (apparent) is at the surface with frequent ponding. Hydric Soil rating = yes.

Brynwood Fine Sand, Wet-Urban Land Complex (Map Unit #64)

Landscape position - Flatwoods on marine terraces.

Soil profile - Surface and subsurface horizons to a depth of about 12 inches consist of fine sand. Bedrock is typically found from 12 to 22 inches.

Drainage/Hydrologic characteristics - Poorly drained. Permeability is very high. The seasonal high-water table (apparent) is within 3 to 18 inches of the surface. Hydric Soil rating = yes.

3 PROPOSED SITE CONDITIONS (POST-DEVELOPMENT)

3.1 PROPOSED PROJECT

The proposed project is development of a multi-family residential development in Lee County. Sheets 4 and 5 of Appendix A illustrate the overall proposed site plan for the project. Access will be provided from Brooks Road and U.S. Highway 41 (N. Tamiami Trail). Please refer to the engineering plans provided by TDM Consulting, Inc. for site plan details.

3.2 PROJECT IMPACTS TO WETLANDS AND OTHER SURFACE WATERS

3.2.1 *Direct Impacts*

As used herein, the term “direct impacts” refers to actions that will result in the permanent elimination or loss of jurisdictional areas (i.e. excavation and fill). Development of the proposed project will result in direct impacts to 0.06 acre of on-site wetlands. The impacted wetland is a small, isolated wetland of low ecological value located centrally on the project site. The wetland is highly disturbed and infested by Brazilian pepper. Sheet 6 of Appendix A depicts the location of the proposed wetland impact. The project does not propose direct impacts to OSWs on-site.

3.2.2 *Temporary Impacts*

As used herein, "temporary impacts" refer to those impacts that represent a temporary physical disturbance to wetlands, but the affected areas remain as wetlands following this disturbance. Some temporary impact may occur within the proposed preserve area associated with the removal of the exotic vegetation. The size of the preserve area, in conjunction with the density of vegetation, may necessitate mechanical removal of exotic vegetation in portions of the preserve. Any rutting or soil disturbance resulting from the exotic removal will be re-graded. Prior to construction commencement all construction areas will be enclosed with siltation-prevention devices, which will remain in place until the construction is completed.

3.2.3 *Secondary Impacts*

Secondary impacts generally refer to indirect effects from project activities on the remaining wetlands in the project area. As outlined in AH I Section 10.2.7, an applicant must provide reasonable assurances that a regulated activity will not cause adverse secondary impacts to the water resources including water quality and wetland and OSW functions, aquatic and wetland dependent species, historical and archaeological resources, and future development activities.

The project design includes measures to avoid and minimize secondary impacts. To prevent secondary impacts to the proposed on-site wetland preserve area, an upland buffer (minimum 15 feet and an average width of 25 feet) will be provided between the wetland preserve and the development area. The upland buffer will remain vegetated except for the removal of exotic vegetation. The wetland preserve itself will buffer Powell Creek from the project's development activities. There are no other off-site wetlands or waters adjacent to the development area that could be secondarily impacted. To avoid and minimize secondary impacts to listed species, the

applicant proposes to use USFWS and/or FWC management guidelines. Please refer to Section 3.5 of this report regarding historical and archaeological resources.

3.2.4 Cumulative Impacts

As outlined in AH I Section 10.2.8, an applicant must provide reasonable assurance that a regulated activity will not cause unacceptable cumulative impacts upon wetlands and OSWs within the same drainage basin as the regulated activity for which a permit is sought. The impact on wetlands and OSWs will be reviewed by evaluating the impacts to water quality, as well as fish, wildlife, listed species, and their habitats.

The project provides on-site wetland mitigation and therefore no cumulative impacts are anticipated. Please refer to the wetland mitigation program details provided in Section 5.

3.3 PRESERVE AREA AND ON-SITE WETLAND MITIGATION

The proposed project includes the establishment of a preserve area totaling 8.01 acres on the east side of the property, adjacent to Powell Creek. Included in the preserve area are 7.14 acres of wetlands, 0.85 acres of uplands, and 0.02 acres of OSW. The upland and OSW acreage is within the 25-foot buffer designed to eliminate secondary impacts to the preserved wetlands. The 8.01-acre preserve area will be placed under appropriate conservation easement. Sheet 7 of Appendix A depicts the location of the proposed preserve area.

The applicant proposes to offset the project's unavoidable wetland impacts through on-site mitigation. While exotic vegetation will be removed from the entire 8.01-acre preserve, proposed on-site mitigation credit will be generated from the enhancement of 7.04 acres of wetland habitat within the preserve area. The wetland mitigation plan is discussed in detail in Section 5 of this environmental supplement. Table 3 provides a breakdown of the preserve area by FLUCFCS Code and identifies which areas will be used for on-site wetland mitigation credit.

Table 3. Preserve Area and Mitigation by FLUCFCS Code

FLUCFCS Code	FLUCFCS Description	Preserve (Acres)	Mitigation (Acres)
4349 E3	Pine/Oak/Cabbage Palm, Disturbed (Exotics 50-75%)	0.68	-
4349 E4	Pine/Oak/Cabbage Palm, Disturbed (Exotics 76-100%)	0.17	-
514	Ditch	0.02	-
514*	Ditch, Hydric	0.10	-
6109 E3	Mixed Wetland Hardwoods, Disturbed (Exotics 50-75%)	1.75	1.75
610 E4	Mixed Wetland Hardwoods (Exotics 76-100%)	4.81	4.81
625 E4	Hydric Pine Flatwoods (Exotics 76-100%)	0.48	0.48
Totals		8.01	7.04

* This portion of the ditch was cut through wetlands and is included as wetland acreage

3.4 PROJECT IMPACTS TO LISTED SPECIES

As outlined in AH I Section 10.2.2, the applicant must provide reasonable assurances that a regulated activity will not impact the values of wetland and OSW functions so as to cause adverse impacts to the abundance and diversity of fish, wildlife, listed species, and their habitats. Furthermore, as detailed in AH I Section 10.2.2.3, when assessing the value of functions that any wetland or OSW provides to fish, wildlife, and listed species, the SFWMD will consider the condition of the wetland or OSW, hydrologic connection, uniqueness, location, and utilization by fish and wildlife.

The following provides an assessment of the proposed project's potential impacts to various state and federally listed and protected wildlife species. The species addressed include those observed on or in close proximity to the property, as well as wildlife species that could potentially occur on the project site. THA conducted a listed species survey for the project on January 10, 2025. Please refer to Section 2.3 of this report and Appendix B for survey details and results. Table 4 features listed wildlife species observed or that could potentially utilize the project site and a discussion of the project's potential impacts to each species follows.

Table 4: Listed Wildlife Species with Potential to Occur On-site

Common Name	Scientific Name	Listing Status
Reptiles		
American alligator	<i>Alligator mississippiensis</i>	FT (S/A)
Eastern indigo snake	<i>Drymarchon couperi</i>	FT
Gopher tortoise	<i>Gopherus polyphemus</i>	ST
Birds		
Bald eagle	<i>Haliaeetus leucocephalus</i>	*
Little blue heron	<i>Egretta caerulea</i>	ST
Roseate spoonbill	<i>Platalea ajaja</i>	ST
Tricolored heron	<i>Egretta tricolor</i>	ST
Wood stork	<i>Mycteria americana</i>	FT
Mammals		
Florida bonneted bat	<i>Eumops floridanus</i>	FE

FE = Federally Endangered FT = Federally Threatened ST = State Threatened
 FT (S/A) = Federally designated Threatened species due to similarity of appearance
 * = Non-listed protected species

3.4.1 American Alligator (*Alligator mississippiensis*)

Though the American alligator is no longer considered endangered, it is currently listed as federally threatened due to its similarity in appearance to the American crocodile (*Crocodylus acutus*). No American alligators were observed on the project site; however, it is likely that alligators utilize Powell Creek and the FDOT water storage areas adjacent to the project site. Potential alligator habitat on-site includes the ditch and the wetlands adjacent to Powell Creek.

The proposed wetland impacts have been limited to an isolated, small and highly degraded wetland. The project does not propose impacts to the wetlands adjacent to Powell Creek or the on-site ditch. As such, there are no anticipated impacts to American alligators due to the project. Rather, the enhancement of the wetland preserve area adjacent to Powell Creek is anticipated to improve habitat for the American alligator.

3.4.2 Eastern Indigo Snake (*Drymarchon corais couperi*)

The eastern indigo snake is classified as federally threatened under the Endangered Species Act. Generally, this species lives and hunts in a wide variety of habitats, and its territory can cover large areas. It can be associated with gopher tortoise burrows and favors pine flatwoods, palmetto prairies, and scrub habitats as well as wetland edges. It is relatively reclusive in nature and is rarely observed in the wild. No eastern indigo snakes have been observed on-site. Although unlikely, eastern indigo snakes could utilize parts of the project area.

Special construction guidelines to protect the eastern indigo snake will be followed by construction personnel during all phases of construction work performed on-site. These guidelines will include appropriate measures for helping ensure the protection of indigo snakes throughout the development of the project. The particulars of the protection plan for indigo snakes will follow the USFWS's prescribed "Standard Protection Measures for the Eastern Indigo Snake". There are no potentially occupied gopher tortoise burrows on the project lands where an indigo snake could be buried or trapped and injured during project activities.

3.4.3 Gopher Tortoise (*Gopherus polyphemus*)

Gopher tortoises and their burrows are protected by state law. The gopher tortoise is classified as a state-designated threatened species in the Florida Endangered and Threatened Species List (dated December 2022). The species prefers upland habitats, particularly xeric scrub communities, and higher-elevation palmetto prairies and pine flatwoods. They can also be found in disturbed upland areas, including fallow, and abandoned agricultural fields, perimeters of active crop fields, pastures and vacant lots.

Although one abandoned gopher tortoise burrow was found, no gopher tortoise sightings, potentially occupied tortoise burrows, or other sign (i.e., scat, tracks) were observed by THA biologists during their survey. Since the survey transects covered 100% of the project site, no further surveying should be needed for the gopher tortoise. The abandoned burrow will not require excavation, and gopher tortoise permitting by FWC should not be required for development. Although the project site may have provided suitable gopher tortoise habitat in the past, disturbance of the site and the dense coverage by exotic vegetation has made the habitat unsuitable now. The project is not anticipated to have adverse effects on the gopher tortoise.

3.4.4 Bald Eagle (*Haliaeetus leucocephalus*)

While no longer a listed species, at a state or federal level, the bald eagle is still protected by state rule 68A-16.002, Florida Administrative Code (F.A.C.), and federal laws (Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act). An incidental take permit may be needed for activities taking place within 660 feet of an eagle nest during the breeding season (October 1 -

May 15). The nearest eagle nest documented by the Audubon EagleWatch Program is LE133 located approximately 0.22 miles southwest of the project site in the Twin Pine Village community. The status of Nest LE133 is documented by Audubon EagleWatch as occupied in 2024. No bald eagles or their nests were observed on the project site by THA biologists. As such, no state or federal permitting is anticipated for the bald eagle.

3.4.5 State-Listed Wading Birds

Various state-listed wading birds could utilize the project's wetlands including little blue herons (*Egretta caerulea*), tricolored herons (*Egretta tricolor*), and roseate spoonbills (*Platalea ajaja*). No wading birds or their nests or rookeries have been observed on-site by THA biologists. The wetland habitats on-site are severely degraded by exotic vegetation, particularly dense Brazilian pepper, thus limiting utilization by wading birds. Project development will result in minimal impacts to on-site wetlands. The proposed Project will preserve and enhance the wetlands adjacent to Powell Creek, providing for better quality wading bird habitat than what currently exists.

3.4.6 Wood Stork (*Mycteria americana*)

The wood stork is a large wading bird classified as federally threatened under the Endangered Species Act as a result of habitat loss and degradation. The species is typically found in forested freshwater and estuarine wetlands in the southeastern United States. Wood storks prefer shallow and fluctuating water levels with low turbidity for foraging. They forage in shallow open water with water depths between 2 and 15 inches that can support and concentrate small fish, frogs and other aquatic prey. Suitable foraging habitat only becomes available when aquatic prey is concentrated in the shallow open areas as water draws down seasonally.

No wood storks or their nests, rookeries, or roosting sites were observed on or adjacent to the project site by THA biologists. However, the site does contain forested wetlands and a ditch which are considered suitable foraging habitat for the wood stork. In addition, there are two wood stork colonies documented on the Caloosahatchee River approximately 3.2 miles and 5.4 miles east-northeast of the project site. Projects within 18.6 miles of a documented colony are considered by the USFWS to be within a "Core Foraging Area" for the wood stork. The USFWS requires impacts to greater than half an acre of suitable foraging habitat within a Core Foraging Area to be mitigated with foraging value similar to the impacted wetlands. Since the project's wetland impacts are less than half an acre and the habitat being impacted is of minimal quality, the requirement for wood stork specific mitigation is not anticipated. Furthermore, enhancement and preservation of wetlands on-site will considerably improve available suitable foraging habitat for wood storks.

3.4.7 Florida Bonneted Bat (*Eumops floridanus*)

The Florida bonneted bat (FBB) is a federally endangered species and the largest species of bat occurring in Florida. The FBB utilizes relatively open terrestrial and freshwater areas as foraging habitat and as a source of drinking water. Their roosting habitat includes a variety of structures, both natural and artificial. Tree cavities, snags, rock crevices, and foliage are examples of natural roosts. FBBs are active year-round although they may become torpid during periods of extended

cold weather. They feed at night on insects using in-flight echolocation to detect and capture their prey. The closest documented FBB roosts occur in Babcock-Webb Wildlife Management Area approximately 9 miles to the north of the project site.

The project is located within the USFWS Consultation Area for the FBB and contains potential roosting and foraging habitat. THA biologists documented one cavity tree on-site which could be utilized for roosting by FBBs. This cavity should be inspected by means of a small camera and a monitor system prior to construction to ensure that they are unoccupied prior to being cut down. An acoustic survey for FBBs was conducted by CHW Professional Consultants from August 18 to September 3, 2023, during which FBB foraging calls were detected on five of the 17 survey nights. Consultation with USFWS will be required to assess the impact of project development on the FBB.

3.5 PROJECT IMPACTS TO ARCHAEOLOGICAL/HISTORICAL RESOURCES

It is anticipated that the proposed project will have no effect on cultural resources listed or eligible for listing in the National Register of Historic Places. As noted in Section 2.4 above, coordination with DHR will be initiated with the submittal of this ERP application. Any communication from DHR regarding the Project will be provided to the SFWMD upon receipt.

If suspected prehistoric or historic artifacts such as pottery or ceramics, stone or shell tools or metal implements, or any other physical remains that could be associated with Native American cultures or early colonial or American settlement are encountered at any time within the project area, all activities involving subsurface disturbance in the immediate vicinity of such discoveries will cease and DHR will be contacted. Development will be suspended for a sufficient length of time to enable appropriate regulatory staff (or a designated consultant) to assess the find and determine the proper course of action.

4 ELIMINATION OR REDUCTION OF WETLAND IMPACTS

As outlined in AH I Section 10.2.1, the applicant must implement practicable design modifications to reduce or eliminate adverse impacts to wetlands and OSWs. To receive agency approval, an activity cannot cause a net adverse impact on wetland and OSW functions that is not offset by mitigation. However, as detailed in AH I Section 10.2.1.2, the agency will not require the applicant to implement practicable design modifications to reduce or eliminate impacts when: a) the ecological value of the functions provided by the area of wetland or OSW to be adversely affected is low, and the proposed mitigation will provide greater long term ecological value than the area of wetland or OSW to be adversely affected; or b) the applicant proposes mitigation that implements all or part of a plan that provides regional ecological value and that provides greater long term ecological value than the area of wetland or OSW to be adversely affected.

The applicant has made considerable efforts to avoid and minimize impacts to jurisdictional wetlands in the site design for the Brooks Road Multi-Family project. The project's wetland impacts have been limited to unavoidable impacts to a 0.06-acre isolated wetland area of low ecological value. The proposed site plan has been designed to avoid impacts to the more valuable wetlands on the east side of the property adjacent to Powell Creek. On-site mitigation is proposed to offset wetland impacts. Approximately 7.14 acres of on-site wetlands adjacent to Powell Creek will be enhanced through the eradication of exotic vegetation and installation of supplemental plantings of native species thus improving wetland functions and habitat for wildlife. The wetland preserve will be buffered from the development by a 25-foot upland buffer. The on-site preserve area will be placed under conservation easement.

5 WETLAND MITIGATION PROGRAM

The Brooks Road Multi-Family project will result in unavoidable direct impacts to 0.06 acre of SFWMD jurisdictional wetlands. The project proposes to mitigate for these wetland impacts through on-site wetland mitigation. The project proposes the establishment of an 8.01-acre contiguous preserve area on the east side of the site adjacent to Powell Creek. The preserve area includes 7.14 acres of wetlands, 0.85 acres of uplands, and 0.02 acres of OSW. Sheet 7 of Appendix A depicts the location of the preserve area. The preliminary mitigation plan provided herein, outlines the general enhancement activities proposed within the on-site preserve.

5.1 MITIGATION ACTIVITIES

5.1.1 Wetland Enhancement

The project's proposed mitigation plan is the enhancement and preservation of 7.04 acres of wetlands on-site. Currently the habitats to be preserved consist mostly of mixed wetland hardwood forests with 50-100% coverage by exotics (FLUCFCS Codes 6109 E3 and 6109 E4).

The preserve areas will be enhanced by eradicating exotic and nuisance plants. Exotic/invasive plant species include Category I and Category II species identified in the current "Invasive Plant List" published by the Florida Invasive Species Council (FISC) as well as Class I and Class II Prohibited Aquatic Plants listed in Chapter 62C-52.011, F.A.C. Nuisance plant species will include native species deemed detrimental due to their potential adverse competition with desirable native species. Examples of potential nuisance plant species include dog fennel (*Eupatorium spp.*), ragweed (*Ambrosia spp.*), cattail (*Typha spp.*), grapevine (*Vitis spp.*), climbing hempvine (*Mikania scandens*, *M. micrantha*), pepper vine (*Ampelopsis arborea*), and love vine (*Cassytha filiformis*).

Exotic and nuisance vegetation will be eradicated using a combination of non-mechanized procedures where possible, and selective mechanized clearing and removal of exotics where infestation levels dictate such treatment. Non-mechanized methods include the use of hand implements such as chainsaws and machetes to cut down exotic vegetation with follow-up applications of herbicides to the stump, as well as directed herbicide applications alone. The method used will be dictated by the specific conditions and species encountered.

Mechanized exotic clearing methods will be employed in portions of the wetland preserve where exotic infestations are the densest. Such methods involve the use of heavy machinery such as excavators, hydroaxes, gyro-tracs, etc. to fell and remove exotic vegetation from areas where said vegetation has replaced the native plant community. Any rutting created by mechanized equipment will be re-graded. Desirable native canopy and, to a lesser degree, sub-canopy species will be retained where feasible during this process.

During the initial exotic/nuisance vegetation eradication process, felled materials will be generally removed from the preserved areas. Some felled woody plants may be stacked or chipped on-site in uplands; however, chipping will be avoided unless deemed necessary to best preserve desirable vegetation and provide for re-growth of desirable plants. Where (and if)

chipping is employed, chips will be segregated into a limited number of scattered piles rather than spreading the chips. Stacking, if employed will be done into segregated piles placed at least 100 feet on center from each other in upland habitats only.

Following the initial exotic removal efforts, the need for supplemental plantings will be assessed. Supplemental plantings will be conducted in areas with less than 50% coverage by native vegetation to provide tree, midstory and ground cover components as warranted by the target habitat type. In this case, the target habitats of the project's wetland preserve are mixed wetland hardwood forest (FLUCFCS Code 610) and hydric pine (FLUCFCS Code 625). Specifications for supplemental plantings for these wetland forest habitats follow.

Wetland Forest - Canopy species will be planted on 25-foot centers (average). Canopy species will be minimum 3-gallon stock with a minimum height of 4 feet. Sub-canopy species will be planted on 20-foot centers (average) using minimum 3-gallon stock. Ground cover species will be planted on 3-foot centers (average) using minimum bare-root or liner stock. Planting configurations will vary, likely employing uniform spacing and scattered groups or clusters. The final determination of plant species to install may vary from these tables depending on site conditions and the species availability.

FORESTED WETLAND PLANTINGS		
Canopy	Mid-story	Ground Cover
Laurel Oak (<i>Quercus laurifolia</i>)	Buttonbush (<i>Cephalanthus occidentalis</i>)	Swamp Fern (<i>Telmatoblechnum serrulatum</i>)
Red Maple (<i>Acer rubrum</i>)	Marlberry (<i>Ardisia escallonioides</i>)	Sawgrass (<i>Cladium jamaicense</i>)
Dahoon Holly (<i>Ilex cassine</i>)	Cocoplum (<i>Chrysobalanus icaco</i>)	Sand Cordgrass (<i>Spartina alterniflora</i>)
Swamp Bay (<i>Persea palustris</i>)	Wax Myrtle (<i>Morella cerifera</i>)	Crinum Lily (<i>Crinum americanum</i>)
Slash Pine (<i>Pinus elliottii</i>)	Myrsine (<i>Myrsine cubana</i>)	St. John's Wort (<i>Hypericum spp.</i>)

These lists are not all inclusive and alternative appropriate native vegetation may be used.

5.1.2 Upland Buffer/Preserve

To prevent secondary impacts to the wetland preserve, a 25-foot wide upland buffer will be provided between the wetland preserve and the development area. This upland buffer consists of 0.85 acre of pine/oak/cabbage palm habitat. Removal of exotic and nuisance vegetation will be conducted within the upland buffer.

5.2 ADDITIONAL COMPONENTS OF MITIGATION PROGRAM

In addition to the mitigation and enhancement activity described above, the wetland mitigation program will have other facets, which are discussed in the following paragraphs.

5.2.1 *Conservation Easement*

The preserve area will be placed under appropriate conservation easement granted to SFWMD which will protect the future integrity of the created, restored, and enhanced wetlands and will ensure the areas are preserved and protected in perpetuity.

5.2.2 *Maintenance Eradication of Exotic and Nuisance Plants*

The preserve area will be maintained to ensure that the area remains free from exotic and nuisance plant species to the extent that exotic and nuisance plant species will each constitute no more than 5% of the total plant cover in the interim between maintenance events. Visual inspection for exotic, non-native and nuisance plant growth will be conducted annually and all exotic, non-native and nuisance vegetation found within the preserve areas will be flagged, mapped and reported for treatment. Maintenance exotic removal efforts will commonly employ non-mechanized methods. These methods may include physical removal of exotics and/or directed herbicide applications. Felled material will be removed from the preserve areas where possible or killed in place where removal would cause unacceptable damage to the surrounding native areas. Any stumps remaining after the exotic, non-native and nuisance removal will be treated with a U.S. EPA approved herbicide and visible tracer dye to prevent regeneration from the roots. These maintenance activities will be performed as needed until success criteria are met (see Section 6 below).

5.2.3 *Preserve Delineation*

The preserve areas will be clearly delineated with appropriate signage both during and after construction activities. Protective barricades will be used to cordon off construction areas and keep construction equipment out of preserve areas. A double row of silt fence will be used along preserve areas to separate them from the construction activities. The silt fence will remain in place until the perimeter berm is installed around the area of excavation. Appropriate signage will be placed along the perimeter of the preserves at 100 to 150 foot spacing.

6 WETLAND MITIGATION PROGRAM SUCCESS CRITERIA

Success criteria for the wetland mitigation program are described in the following paragraphs.

1. Record Conservation Easement(s).
2. Complete initial eradication of exotic/invasive and nuisance plant species. Exotic/invasive species will include Category I and Category II species identified in the current "Invasive Plant List" published by the Florida Invasive Species Council (FISC) as well as Class I and Class II Prohibited Aquatic Plants listed in Chapter 62C-52.011, F.A.C. Nuisance plant species will include native species deemed detrimental due to their potential adverse competition with desirable native species. Examples of potential nuisance plant species include dog fennel (*Eupatorium spp.*), ragweed (*Ambrosia spp.*), cattail (*Typha spp.*), grapevine (*Vitis spp.*), wild balsam apple (*Momordica charantia*), climbing hempvine (*Mikania scandens*, *M. micrantha*), pepper vine (*Ampelopsis arborea*), and love vine (*Cassytha filiformis*).
3. Complete initial planting and native canopy, sub-canopy, and ground cover plant species.
4. Maintain preserve areas exotic free through intensive exotic removal maintenance follow-up treatments. Reduce exotic vegetation regeneration to less than 5% coverage.
5. Achieve a minimum average ground cover of 70% by planted ground cover species and/or naturally recruited native ground cover species. This criterion does not apply to the open marsh areas which will be left partially bare (40% to 60% coverage) to facilitate wading bird foraging opportunities.
6. Monitoring preserve areas at least annually to track planting success and exotic and nuisance vegetation infestations.
7. Maintain all conservation areas such that the total vegetative cover accounted for by exotic and nuisance plants each constitute no more than 5% of the total plant cover.

7 WETLAND MONITORING PROGRAM

The permittee will submit monitoring reports to SFWMD documenting general conditions in the preserve areas established for the project's wetland impact mitigation program. One "baseline", one "time-zero", and five annual monitoring reports will be submitted.

The "baseline" monitoring report (with monitoring conducted prior to initiation of mitigation activities) will provide the following information:

1. Brief description of current conditions within the preserve area.
2. Brief description of anticipated maintenance/management work to be conducted over the next year.
3. A summary of rainfall data collected during the year preceding the monitoring report based on rainfall data recorded at an on-site station.
4. Photographs documenting conditions in the preserve areas at the time of monitoring. Photos will be taken at permanent photo stations within the on-site preserves. At least two photos will be taken at each station with the view of each photo always orientation in the same general direction from one year to the next.
5. Quantitative data collected from various habitat types documenting existing vegetation composition and wildlife utilization.

The "time-zero" monitoring report (with monitoring conducted shortly after completion of all initial mitigation activities) and five annual monitoring reports will provide the following information:

1. Brief description of maintenance and/or management and/or mitigation work performed since the previous monitoring report along with discussion of any other significant occurrences.
2. Brief description of anticipated maintenance/management work to be conducted over the next year.
3. A summary of rainfall data collected during the year preceding the monitoring report based on rainfall data recorded at an on-site station.
4. A summary of water table elevation data collected from the on-site piezometers or continuous recording water level gauges. Data (water table elevations) will be collected at least bi-weekly during the peak of wet season (late July through mid-October).
5. Photographs documenting conditions in the preserve areas at the time of monitoring. Photos will be taken at permanent photo stations within the on-site preserves. At least two photos will be taken at each station.
6. Quantitative data will be collected from mitigation/enhancement areas as outlined in the following paragraphs.

Wetland Forest Areas

To gather data concerning canopy and sub-canopy species, belt transects approximately 50 feet wide will be established. The location and length of these transects will be determined in the field and will be oriented to pass through planted areas. Data recorded

within these transects will include average percent survival of planted canopy and sub-canopy species (as necessary pursuant to success criteria); average density of native canopy and sub-canopy species; and average percent cover by exotic and nuisance species in the canopy or sub-canopy strata. Large sampling plots may be substituted for belt transects to gather these data or the data may be collected using the point-centered quarter method or nearest neighbor method of sampling. Data from multiple transects, plots, or points will be averaged for reporting.

Data concerning groundcover species and nuisance and exotic plant species will be gathered from sampling quadrats. Quadrats will be established either along the axis of the belt transects, within the boundaries of large sampling plots, or at sampling points established for point-centered quarter/nearest neighbor measurements, depending on which sampling method is used for monitoring canopy and sub-canopy vegetation. Each sampling quadrat will be approximately 2 meters by 2 meters in size. Data recorded in each quadrat will include average percent cover by native ground cover species (both planted and naturally recruited species), average percent cover by exotic and nuisance species, and, as necessary pursuant to success criteria, average percent survival of planted species. Data collected from individual quadrats will be averaged by transect for reporting.

7. Other general observations made in various portions of the preserve area. These observations will address potential problem zones, general condition of native vegetation including planted species, wildlife utilization as observed during monitoring, and other pertinent factors.
8. A plan view drawing of the preserve area showing mitigation features, monitoring transects/sampling plots, photo stations, and piezometers/staff gage locations.
9. A summary assessment of all data and observations along with recommendations as to actions necessary to help meet mitigation and management/maintenance goals and mitigation success criteria.
10. A summary of all observed wildlife sightings and evidence of wildlife utilization.

The following provides the currently anticipated monitoring schedule for the project's wetland mitigation program:

Monitoring Event Report	Report Submittal Date
Baseline Monitoring Report	
Time Zero Monitoring Report	
1 st Annual Monitoring Report	
2 nd Annual Monitoring Report	
3 rd Annual Monitoring Report	
4 th Annual Monitoring Report	
5 th Annual Monitoring Report	

The time zero report will be submitted following completion of the initial exotic eradication efforts and initial planting activities. This report will document initial conditions in the preserve

areas following the initial plantings and the number, size, and species of plants installed. It will also contain the information and data described above for annual reports.

Subsequent annual monitoring reports will be submitted over a period of five consecutive years following submittal of the time-zero report. These annual reports will contain the monitoring information described and will focus on changes from the conditions documented in the preceding monitoring report, and attainment of success criteria. The permittee will notify SFWMD if alterations to the anticipated monitoring schedule become necessary.

The permittee shall retain the ability to modify this monitoring program should it become necessary to make the program consistent with monitoring requirements of any government agencies or to improve the information provided by the monitoring program.

8 PRESERVE AREA MAINTENANCE PROGRAM

The preserve areas will be maintained to suppress infestation by exotic/invasive and nuisance plant species. Maintenance/management actions will be conducted as required to meet the enhancement success criteria previously described. These areas will be maintained in perpetuity such that exotic and nuisance plant infestations do not exceed the maximum allowed by the original success criteria.

After initial eradication efforts are complete, follow-up exotic and nuisance plant control will include directed herbicide applications and/or physical removal methods throughout all portions of the preserve areas. Exotic/nuisance plant control is likely to occur on at least a semi-annual basis for the first three years following completion of initial eradication efforts. Such maintenance events may be conducted more frequently if field observations indicate the need. At the end of this period, the frequency of activities necessary to adequately control nuisance and exotic plants will be re-assessed and a program developed for future maintenance. At a minimum there will be at least one exotic/nuisance plant control event per year.

Follow-up plantings of previously planted areas will be conducted as necessary when and where survivorship, density, and/or percent cover goals are not achieved. The need for such re-plantings will typically be assessed on an annual basis. Management/maintenance activities may include removal of dead, dying, or diseased plants (both planted and existing plants) as deemed necessary.

A qualified biologist or similar environmental professional will initially inspect the conservation areas at least once a year. During the first few years inspections will likely occur more frequently in an effort to rectify any potential problem situations (e.g., exotic/nuisance plant infestations, mortality of planted species, etc.) before they worsen. The necessary maintenance activities will be determined by the biologist during these inspections. Future inspections may be modified to a two- or three-year time period if preserves are shown to be maintaining success criteria without intervention.

Following completion of the mitigation monitoring program, the preserve areas will be maintained such that the total vegetative cover accounted for by exotic and nuisance plants each constitute no more than 5% of total plant cover.

9 FINANCIAL RESPONSIBILITY FOR THE WETLAND MITIGATION PROGRAM

The permittee will provide SFWMD with a performance bond, an irrevocable letter of credit, or other form of surety acceptable to the Agencies in order to establish a financial responsibility mechanism for the mitigation program pursuant to applicable sub-sections within the ERP Applicant's Handbook and federal guidance. The amount of financial responsibility ensured through this mechanism would be equal to the estimated cost of the mitigation activities plus 10%.

As the mitigation activities are concluded, the permittee will request the release of portions of this bond in amounts applicable to the portion of mitigation, maintenance, and/or monitoring successfully completed. Appropriate documentation would be provided with these written requests pursuant to agency requirements.

Long term maintenance will become the responsibility of the Community Development District (CDD) or Homeowners Association (HOA) once completed.

10 BASIS OF WETLAND MITIGATION PROGRAM AS ADEQUATE COMPENSATION FOR PROPOSED WETLAND IMPACTS

The wetland mitigation program for the Brooks Road Multi-Family project involves wetland enhancement activities within the on-site conservation area (wetland preserve). As demonstrated through analysis using the Uniform Mitigation Assessment Method (UMAM), it is anticipated that this mitigation program will compensate for the projects proposed impacts.

UMAM forms (e.g. Part 1 and Part 2 forms) and calculation tables for existing conditions in jurisdictional wetlands that will be impacted by the proposed project are provided in Appendix C. UMAM net functional gain calculations or "functional lift" that will be derived from the proposed wetland enhancement program as calculated using mitigation time-lag factors are also contained in Appendix C.

The project development as proposed will impact 0.06 acres of wetlands that fall under the jurisdiction of the SFWMD. Table 5 summarizes the functional loss due to the proposed wetland impacts, and Table 6 provides a summary of the functional gain that will be achieved through the through the enhancement and preservation of 7.04 acres of SFWMD wetlands.

Table 5. Functional Loss from Direct Impacts

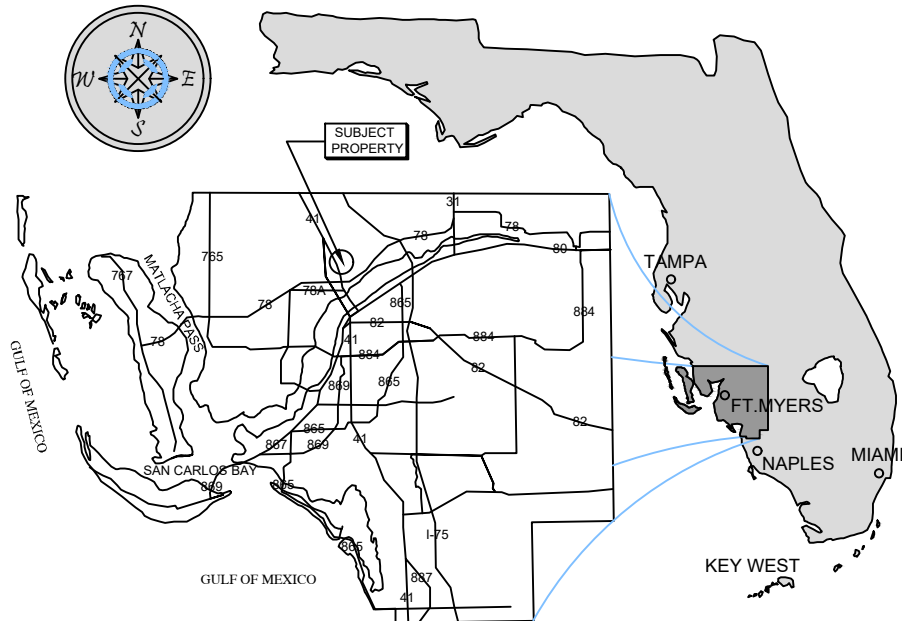
FLUCFCS Code	Without Project Score	With Project Score	Delta	Direct Impact Acres	Functional Loss
6109 E4	0.23	0.00	0.23	0.06	0.01
TOTALS				0.06	0.01

Table 6. Functional Gain from Wetland Enhancement

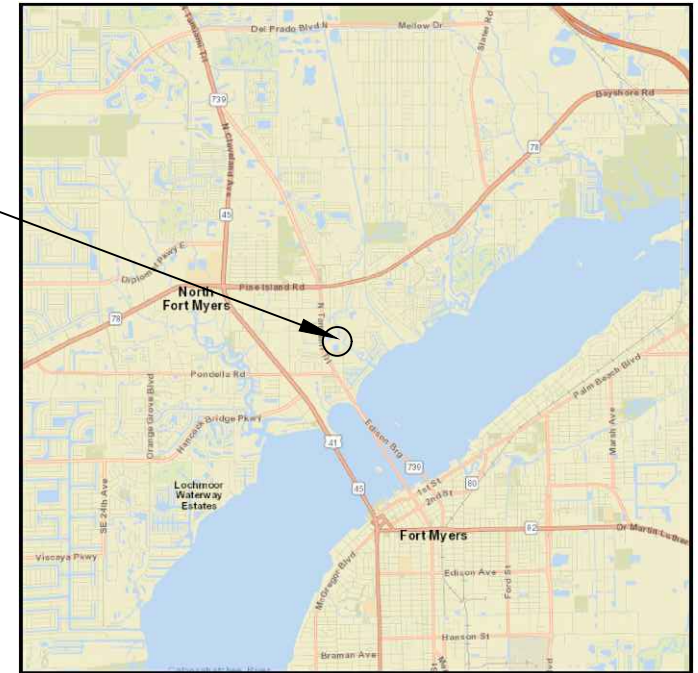
Existing FLUCFCS Code	Target FLUCFCS Code	Without Project Score	With Project Score	Delta	RFG	Mitigation Acres	Functional Gain
6109 E3	610	0.47	0.57	0.10	0.05	1.75	0.09
6109 E4	610	0.40	0.57	0.17	0.09	4.81	0.43
625 E4	625	0.40	0.57	0.17	0.09	0.48	0.04
TOTALS						7.04	0.56

As shown in Tables 5 and 6, the proposed mitigation program will generate a total net functional gain that more than compensates for the functional loss that will result from the project's proposed impacts to SFWMD jurisdictional wetlands (total functional loss = 0.01; total net functional gain = 0.56; gain exceeds loss by 0.55 wetland functional units).

STATE OF FLORIDA



LEE COUNTY



VICINITY MAP



COUNTY AERIAL

SITE ADDRESS:

<> 1460 N TAMiami TR <> LATITUDE: N 26.672887
N FORT MYERS, FL 33903 <> LONGITUDE: W -81.881009

NOTES:

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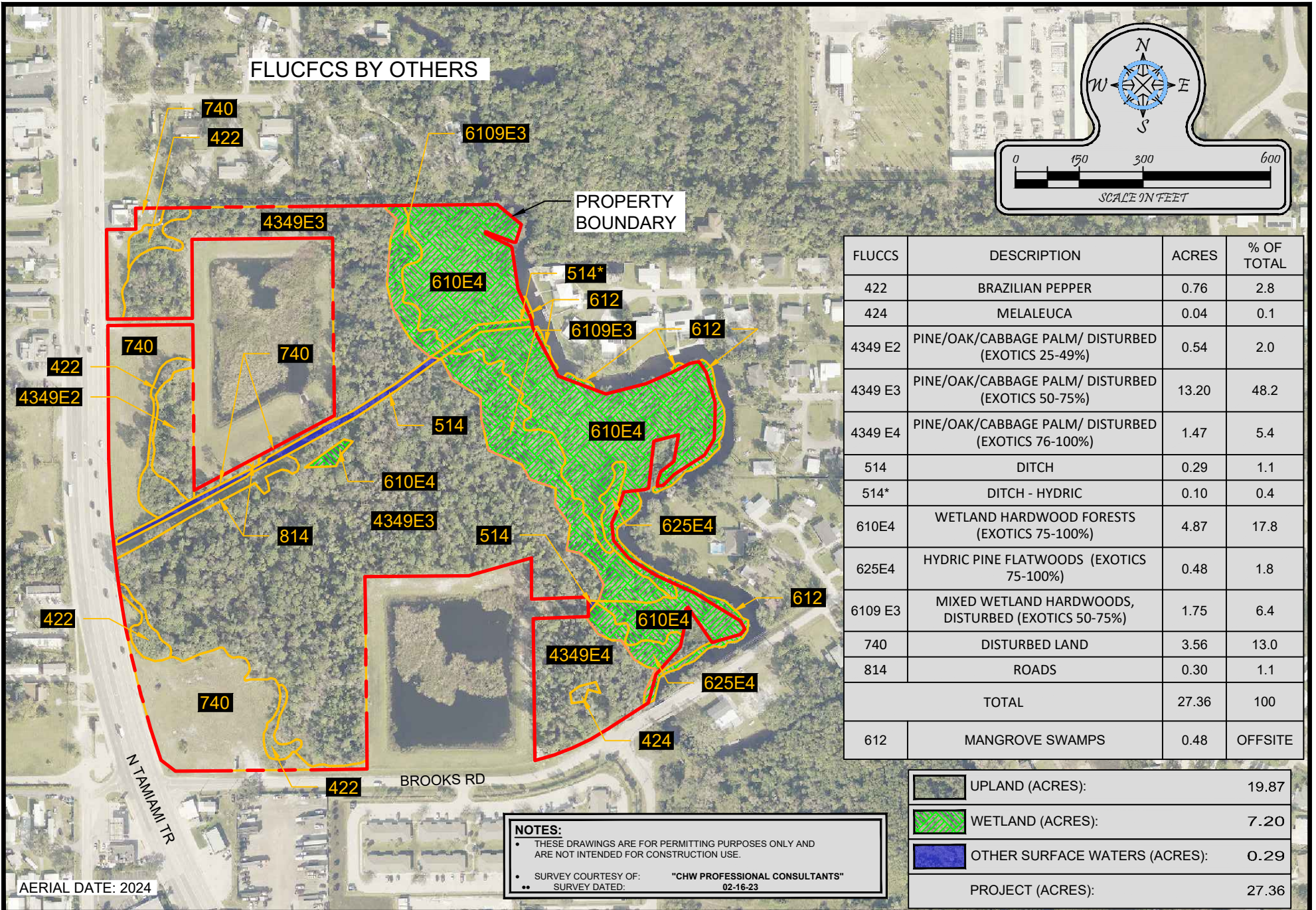
BROOKS RD MULTI-FAMILY LOCATION MAP

RY NO. 5875

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DESIGNED:	AP	REV	REV BY	DATE	CHK BY	CHANGED
DRAWN BY:	RMJ	1.	-	-	-	-
CREATED:	02-19-25	2.	-	-	-	-
JOB NO.:	22144.37	3.	-	-	-	-
SHEET NO.:	01 OF 08	4.	-	-	-	-
		5.	-	-	-	-
SECTION- 2		TOWNSHIP- 44 S		RANGE- 24 E		

p:\22144.00\dm consulting - master file\22144.37\dm -1460 n tamiami trail\CAD\PERMIT-STATE\22144.37\STATE.dwg FLUCFCS MAP 3/12/2025



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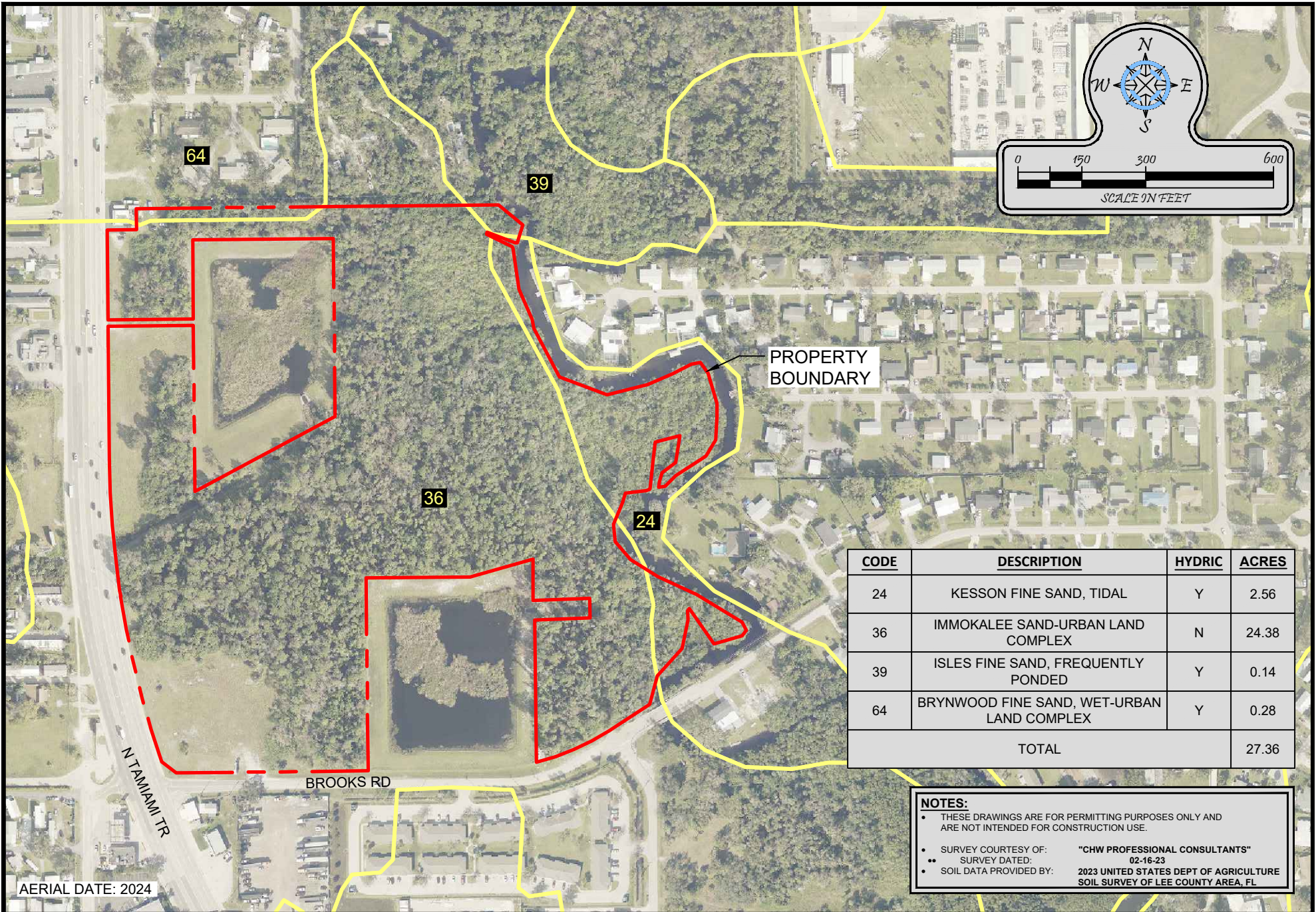
BROOKS RD MULTI-FAMILY FLUCFCS MAP

RY NO. 5875

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CREATED:	02-19-25	2.	-	-	-	-
JOB NO.:	22144.37	3.	-	-	-	-
SHEET NO.:	02 OF 08	4.	-	-	-	-
		5.	-	-	-	-

p:\22144.00\dm consulting - master file\22144.37\dm - 1460 n tamiami trail\CAD\PERMIT-STATE\22144.37\STATE.dwg SOILS MAP 3/12/2025



CODE	DESCRIPTION	HYDRIC	ACRES
24	KESSON FINE SAND, TIDAL	Y	2.56
36	IMMOKALEE SAND-URBAN LAND COMPLEX	N	24.38
39	ISLES FINE SAND, FREQUENTLY PONDED	Y	0.14
64	BRYNWOOD FINE SAND, WET-URBAN LAND COMPLEX	Y	0.28
TOTAL			27.36

NOTES:

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- SURVEY COURTESY OF: "CHW PROFESSIONAL CONSULTANTS"
- SURVEY DATED: 02-16-23
- SOIL DATA PROVIDED BY: 2023 UNITED STATES DEPT OF AGRICULTURE SOIL SURVEY OF LEE COUNTY AREA, FL



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BROOKS RD MULTI-FAMILY SOILS MAP

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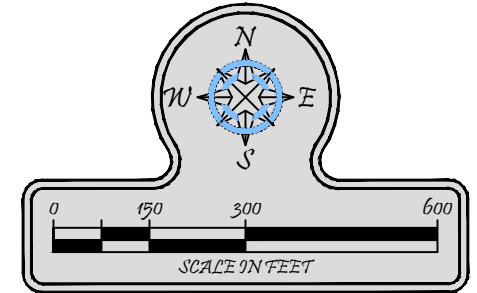
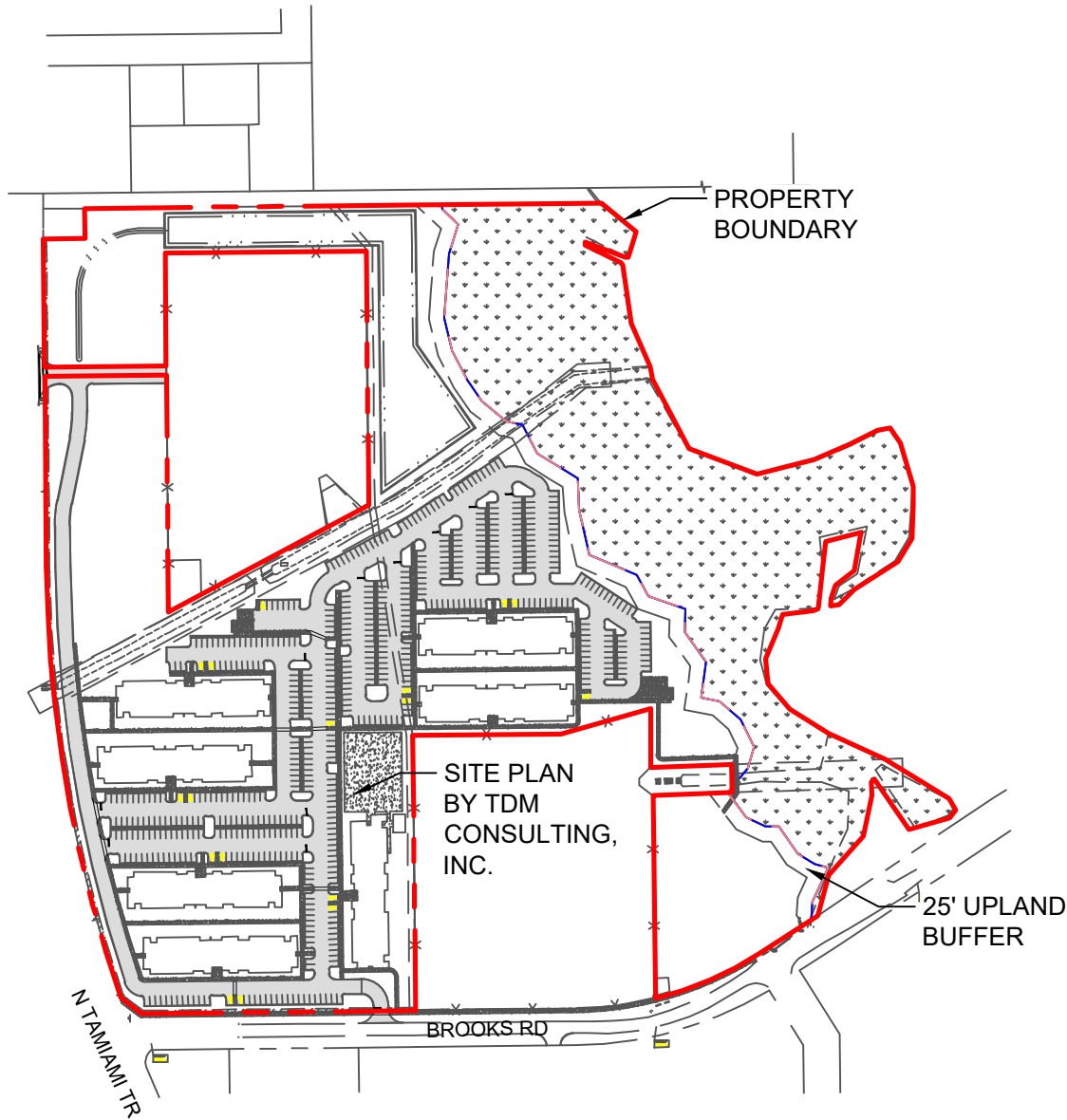
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JOB NO.:	22144.37	3.	-	-	-	-
SHEET NO.:	03 OF 08	4.	-	-	-	-
5.	-	-	-	-	-	-

SECTION-2

TOWNSHIP- 44S

RANGE- 24E

p:\22144.00 tdm consulting - master file\22144.37 tdm - 1460 n tamiami trail\CAD\PERMIT-STATE\22144.37-STATE.dwg SITE PLAN 3/12/2025



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- SURVEY DATED: 02-16-23



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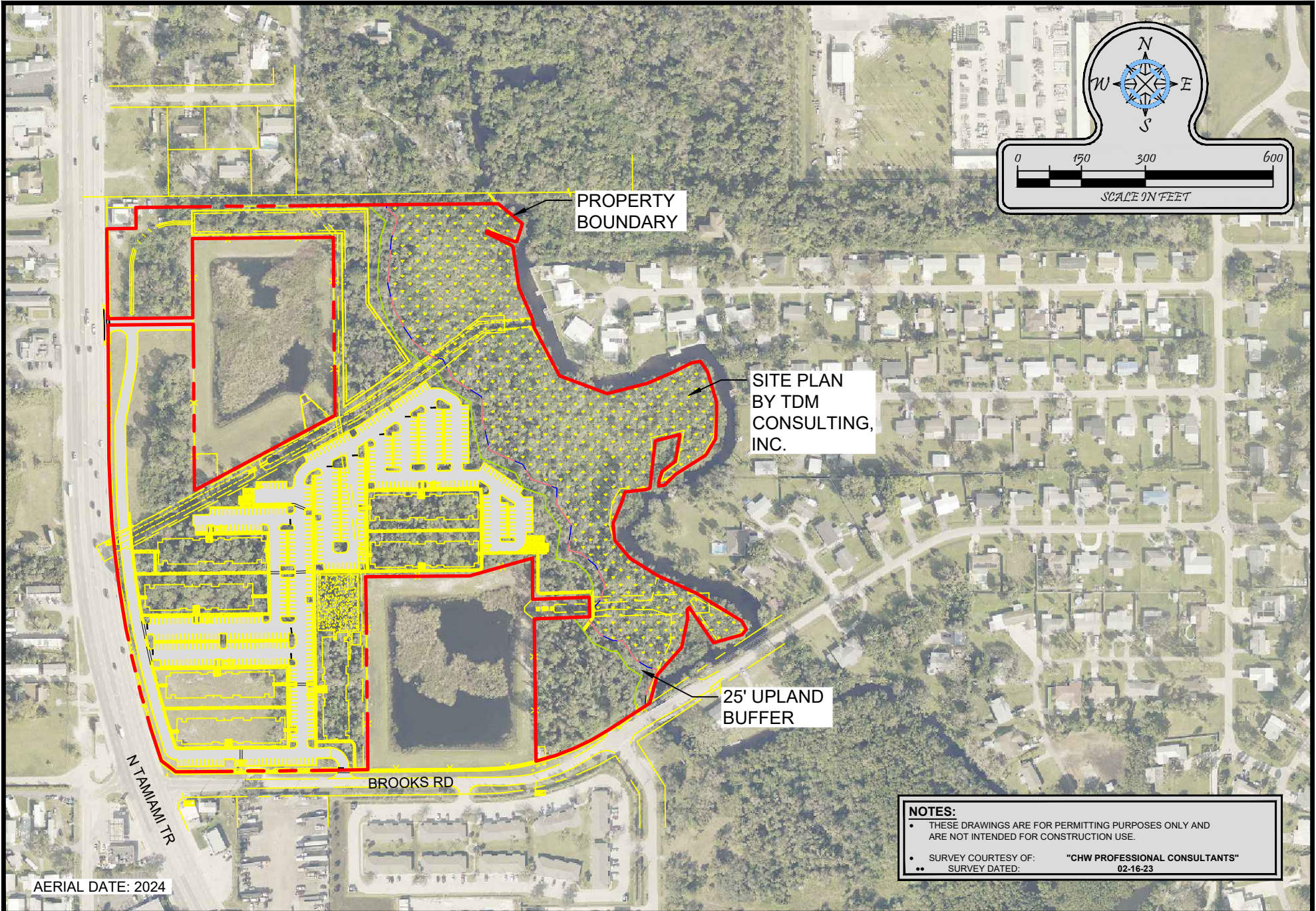
BROOKS RD MULTI-FAMILY SITE PLAN

RY NO. 5875

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		5.	-	-	-	-
SECTION-2		TOWNSHIP- 44 S		RANGE- 24 E		

P:\22144.00 tdm consulting - master file\22144.37 tdm -1460 n tamiami trail\CAD\PERMIT-STATE\22144.37-STATE.dwg SITE PLAN WITH AERIAL 3/12/2025



Turrell, Hall & Associates, Inc.
Marine & Environmental Consulting
3584 Exchange Ave. Naples, FL 34104-3732

Email: tuna@thanaples.com Phone: (239) 643-0166 Fax: (239) 643-6632

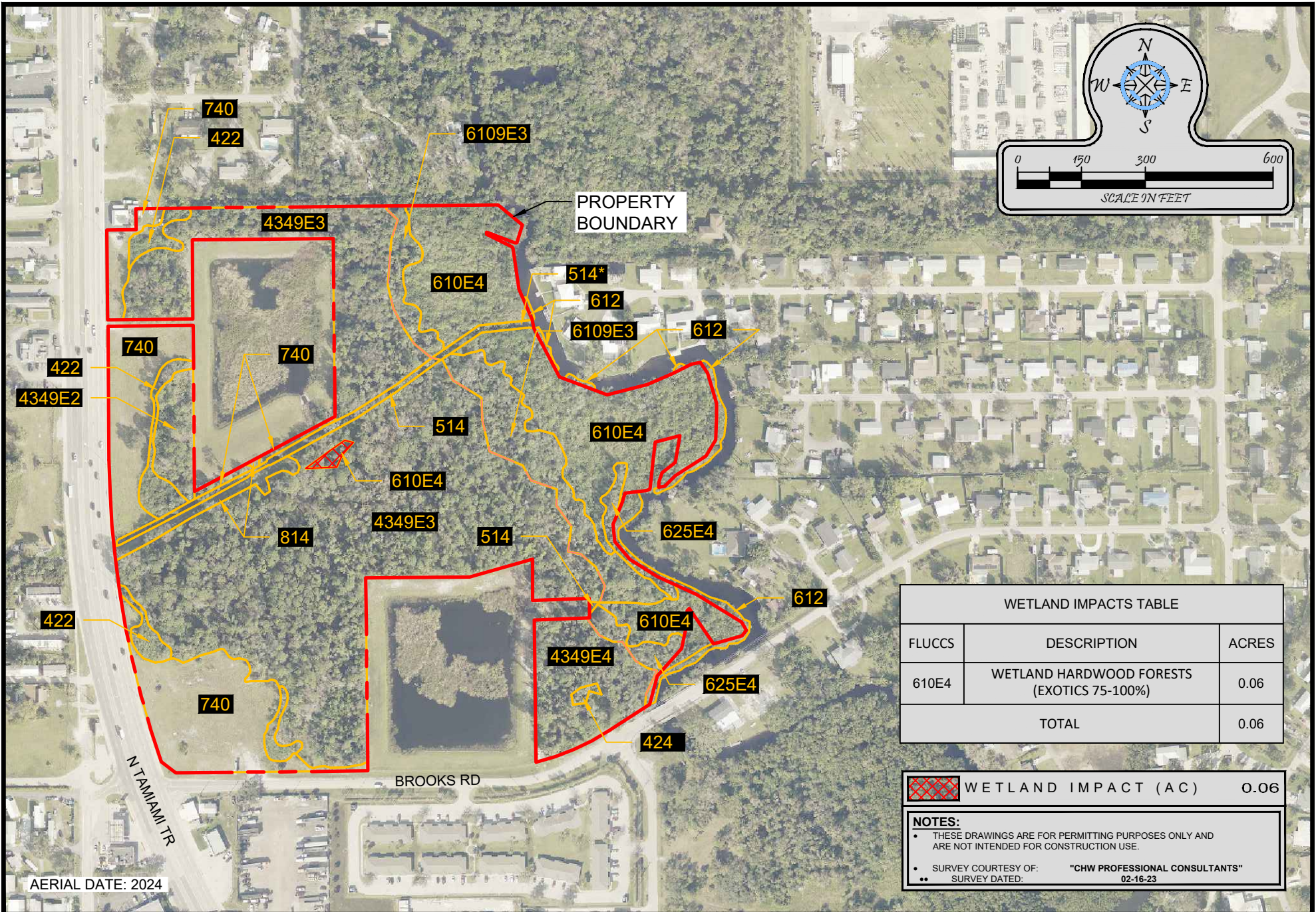
BROOKS RD MULTI-FAMILY SITE PLAN WITH AERIAL

RY NO. 5875

THESE DRAWINGS ARE FOR PERMITTING PURPOSES ONLY AND ARE NOT INTENDED FOR CONSTRUCTION USE.

DESIGNED:	AP	REV#	REV BY	DATE	CHK BY	CHANGED
DRAWN BY:	RMJ	1.	-	-	-	-
CREATED:	02-19-25	2.	-	-	-	-
JOB NO.:	22144.37	3.	-	-	-	-
SHEET NO.:	05 OF 08	4.	-	-	-	-
		5.	-	-	-	-
SECTION-2		TOWNSHIP- 44 S		RANGE- 24 E		

p:\22144.00\dm consulting - master file\22144.37\dm - 1460 n tamiami trail\CAD\PERMIT-STATE\22144.37\STATE.dwg IMPACT MAP 3/12/2025



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BROOKS RD MULTI-FAMILY IMPACT MAP

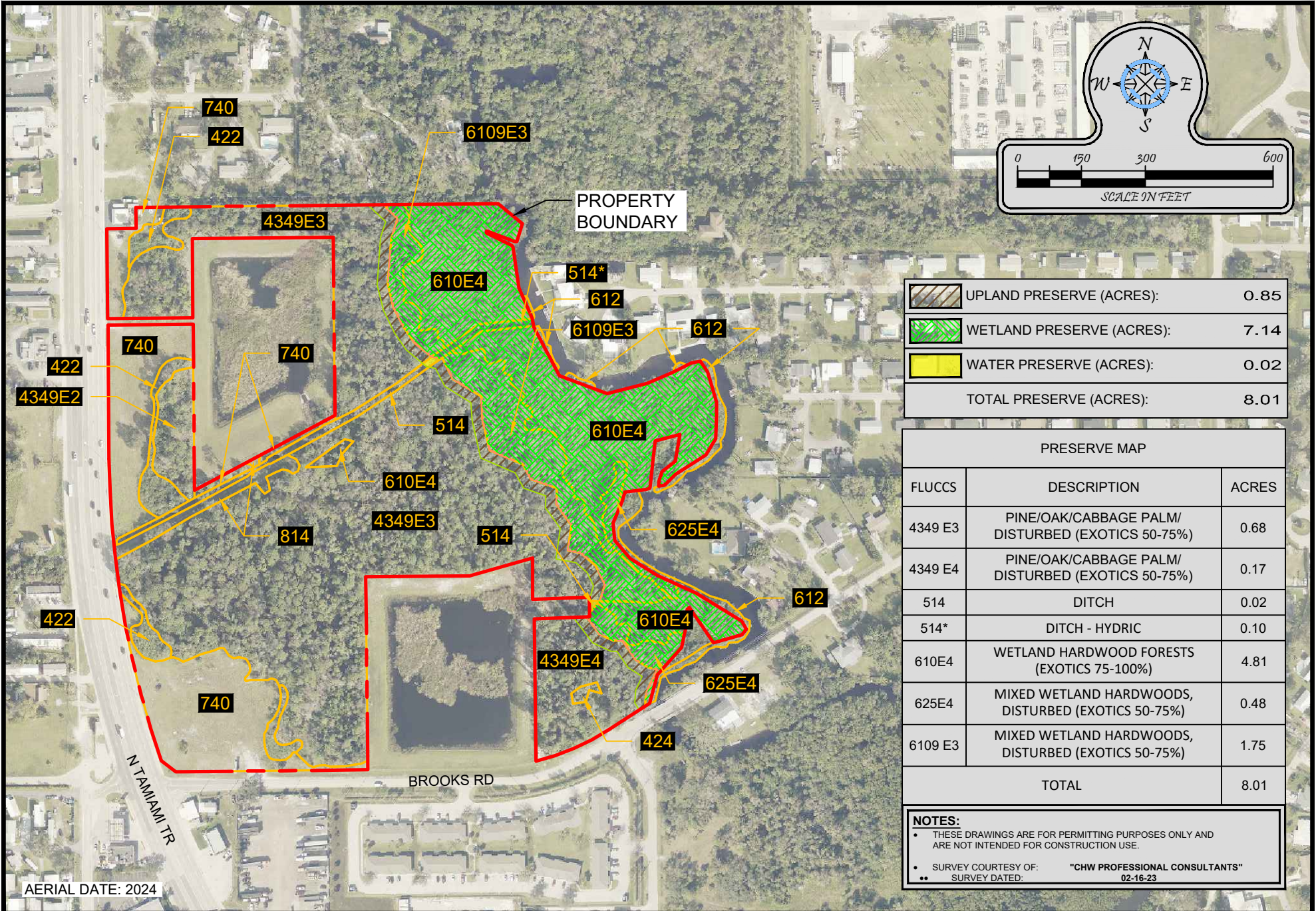
RY NO. 5875

THESE DRAWINGS ARE FOR PERMITTING PURPOSES ONLY AND ARE NOT INTENDED FOR CONSTRUCTION USE.

DESIGNED:	AP	REV#	REV BY	DATE	CHK BY	CHANGED
DRAWN BY:	RMJ	1.	-	-	-	-
CREATED:	02-19-25	2.	-	-	-	-
JOB NO.:	22144.37	3.	-	-	-	-
SHEET NO.:	06 OF 08	4.	-	-	-	-
		5.	-	-	-	-

SECTION-2	TOWNSHIP- 44 S	RANGE- 24 E
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p:\22144.00\dm consulting - master file\22144.37\dm - 1460 n tamiami trail\CAD\PERMIT-STATE\22144.37\STATE.dwg PRESERVE MAP 3/12/2025



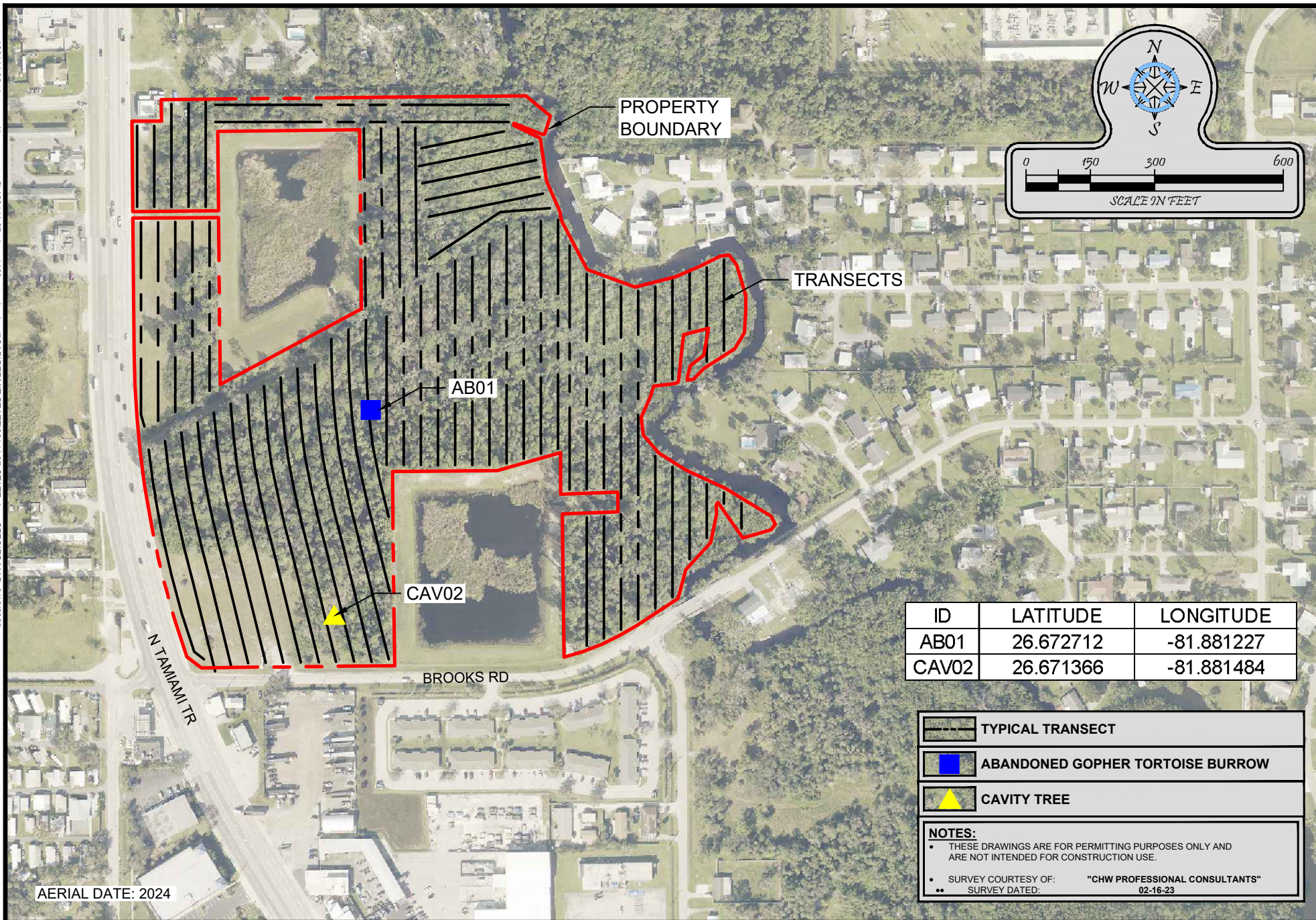
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BROOKS RD MULTI-FAMILY PRESERVE MAP

RY NO. 5875

THESE DRAWINGS ARE FOR PERMITTING PURPOSES ONLY AND ARE NOT INTENDED FOR CONSTRUCTION USE.

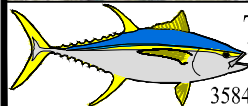
DESIGNED:	AP	REV#	REV BY	DATE	CHK BY	CHANGED
DRAWN BY:	RMJ	1.	-	-	-	-
CREATED:	02-19-25	2.	-	-	-	-
JOB NO.:	22144.37	3.	-	-	-	-
SHEET NO.:	07 OF 08	4.	-	-	-	-
		5.	-	-	-	-
SECTION-2		TOWNSHIP- 44 S		RANGE- 24 E		



AERIAL DATE: 2024

ID	LATITUDE	LONGITUDE
AB01	26.672712	-81.881227
CAV02	26.671366	-81.881484

	TYPICAL TRANSECT
	ABANDONED GOPHER TORTOISE BURROW
	CAVITY TREE
NOTES: - THESE DRAWINGS ARE FOR PERMITTING PURPOSES ONLY AND ARE NOT INTENDED FOR CONSTRUCTION USE. - SURVEY COURTESY OF: "CHW PROFESSIONAL CONSULTANTS" - SURVEY DATED: 02-16-23	



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BROOKS RD MULTI-FAMILY SPECIES MAP

RY NO. 5875

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DESIGNED:	AP	REV#	REV BY	DATE	CHK BY	CHANGED
DRAWN BY:	RMJ	1.	-	-	-	-
CREATED:	02-19-25	2.	-	-	-	-
JOB NO.:	22144.37	3.	-	-	-	-
SHEET NO.:	08 OF 08	4.	-	-	-	-
		5.	-	-	-	-
SECTION- 2		TOWNSHIP- 44 S		RANGE- 24 E		