PLANNING AND ZONING BOARD/LOCAL PLANNING AGENCY

REGULAR MEETING AGENDA

THURSDAY, DECEMBER 3, 2026 - 5:30 PM

CITY HALL - COMMISSION CHAMBERS

1126 EAST STATE ROAD 434, WINTER SPRINGS, FLORIDA

CALL TO ORDER

Roll Call
Invocation
Pledge of Allegiance
Agenda Changes

AWARDS AND PRESENTATIONS

INFORMATIONAL AGENDA

PUBLIC INPUT

Anyone who wishes to speak during Public Input on any Agenda Item or subject matter will need to fill out a "Public Input" form. Individuals will limit their comments to three (3) minutes, and representatives of groups or homeowners' associations shall limit their comments to five (5) minutes, unless otherwise determined by the City Commission.

CONSENT AGENDA

300. Approval of the Thursday, October 1, 2026 Planning and Zoning Board/Local Planning Agency Regular Meeting Minutes.
2026 10 01 Planning and ZoningLPA Regular Meeting Minutes

301. Approval of the Thursday, October 29, 2026 Planning and Zoning Board/Local Planning Agency Special Meeting Minutes.
2026 10 29 Planning and ZoningLPA Special Minutes

PUBLIC HEARINGS AGENDA

Pursuant to F.S. § 286.0115, if the mayor or any city commissioner receives and/or sends ex parte communications regarding any application filed with the city, the mayor or any city commissioner must publicly disclose such communications before or during the hearing at which a vote is taken on the quasi-judicial matter, so that persons who have opinions contrary to those expressed in the ex parte communications are given a reasonable opportunity to refute or respond to the communications.

400. SR419 RV & Boat Storage Lot, 4301 SR 419 – Site/Final Engineering Plan and Development Agreement
SR419 RV Boat Storage Staff Report PZB 12.3.2026 FINAL.pdf
Presentation SR419 RV Boat Storage-PZB 12.3.26.pdf
Exhibit 1-Community Workshop Flyer.pdf
Exhibit 2-Survey.pdf
Exhibit 3-Civil Site Plan.pdf
Exhibit 4-Site Photometric Plan.pdf
Exhibit 5-Site Security Camera Specifications.pdf
Exhibit 6-Site Security Measures & Operations Narrative.pdf
Exhibit 7-Environmental Report.pdf
Exhibit 8-Geotechnical Report.pdf

Exhibit 9-Drainage Report.pdf
Exhibit 10-Site Plan Application.pdf
Exhibit 11-Existing Development Agreement - Executed 2025 01 13.pdf
Exhibit 12-First Modification to Development Agreement.pdf

401. Parcel | Small-Scale Future Land Use Map Amendment from "Recreation" to "Medium Density Residential."
Ord. 2026-10 PZB 12.3.26 PP.pdf
Existing_FLU_34-20-30-526-0P00-0000.pdf
Proposed_FLU_34-20-30-526-0P00-0000.pdf
Ordinance No. 2026-10- Excelsior FLU Amendment.pdf
156-CORY-LN-156_CoryLane_FLUAmendment_Application_Signed-Other_v1.pdf
156-CORY-LN-156_Cory_Lane_FLU_Amendment_Justification_Narrative_REV_30Oct2026_Signed-Application Justification Narrative_v1.pdf
2026 11 23 Ord 2026-10 Affidavit.pdf
2026 11 23 Ordinance 2026-10 [First Reading].pdf
COMP-2026-0008 FL Homes at Excelsior FLU Amend PZB Staff Report - FINAL.pdf

402. Chau Winter Springs Office Phase 2 – SR 434 – Site/Final Engineering Plans, Aesthetic Review, and Development Agreement.
Chau Medical PZB Presentation 12.3.26.pdf
Chau Medical Staff Report PZB 12.3.26 FINAL.pdf
Chau Medical - CW Flyer.pdf
Chau Medical - CW Sign In Sheet.pdf
FEDP-2025-0019 Site Plan.pdf
2018-06-20_DrainageReport_WinterSpringsMedicalOffice.pdf
2018-05-17_GeotechReport_H1185038.pdf
FEDP-2025-0019 - Updated Traffic Study.pdf
FEDP-2025-0019 - Economic Impact Statement.pdf
AERV-2026-0017 Elevations.pdf
AERV-2026-0017 Renderings.pdf
FEDP-2025-0019 Application.pdf
AERV-2026-0017 Application.pdf
DVAG-2026-0016 Application.pdf
Development Agreement 3rd Modification.pdf

REGULAR AGENDA

500. Review of the Meeting Schedule for Calendar Year 2027

REPORTS

PUBLIC INPUT

Anyone who wishes to speak during Public Input on any Agenda Item or subject matter will need to fill out a "Public Input" form. Individuals will limit their comments to three (3) minutes, and representatives of groups or homeowners' associations shall limit their comments to five (5) minutes, unless otherwise determined by the City Commission.

ADJOURNMENT

PUBLIC NOTICE

This is a Public Meeting, and the public is invited to attend and this Agenda is subject to change. Please be advised that one (1) or more Members of any of the City's Advisory Boards and Committees may be in attendance at this Meeting, and may participate in discussions.

Persons with disabilities needing assistance to participate in any of these proceedings should contact the City of Winter Springs at (407) 327-1800 "at least 48 hours prior to meeting, a written request by a physically handicapped person to attend the meeting, directed to the chairperson or director of such board, commission, agency, or authority" - per Section 286.26 *Florida Statutes.*

"If a person decides to appeal any decision made by the board, agency, or commission with respect to any matter considered at such meeting or hearing, he or she will need a record of the proceedings, and that, for such purpose, he or she may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based" - per Section 286.0105 Florida Statutes.

CONSENT AGENDA ITEM 300

PLANNING AND ZONING BOARD/LOCAL PLANNING AGENCY AGENDA | DECEMBER 3, 2026 REGULAR MEETING

TITLE

Approval of the Thursday, October 1, 2026 Planning and Zoning Board/Local Planning Agency Regular Meeting Minutes.

SUMMARY

FUNDING SOURCE

RECOMMENDATION

Staff recommends approval of the Thursday, October 1, 2026 Planning and Zoning Board/Local Planning Agency Regular Meeting Minutes as presented.

PLANNING AND ZONING BOARD/ LOCAL PLANNING AGENCY

REGULAR MEETING MINUTES
OCTOBER 1, 2026

CITY HALL – COMMISSION CHAMBERS
CITY OF WINTER SPRINGS, FLORIDA

CALL TO ORDER

Chairperson Kok Wan Mah called the Thursday, October 1, 2026, Planning and Zoning Board/Local Planning Agency Regular Meeting to Order at 5:30 p.m., in the Commission Chambers of the Municipal Building (City Hall, 1126 East State Road 434, Winter Springs, Florida 32708.)

Roll Call:

Chairperson Kok Wan Mah, present
Vice-Chairperson Michael Ferrante, absent
Board Member Louie Hilal, present
Board Member Rachel Hood, present
Board Member Matthew Criswell, present
Assistant City Attorney Kristin Eick, present
Deputy City Clerk Tristin Tarrant, present

Also present:
Ms. Terrilyn Rolle, Director of the Community Development Department
Mr. John Rabon, Senior Planner, Community Development Department

A moment of silence was held, followed by the Pledge of Allegiance.

Chairperson Mah asked if there were any changes to the agenda and, hearing none, the agenda was adopted.

AWARDS AND PRESENTATIONS

100. Not Used

INFORMATIONAL AGENDA

200. Not Used

PUBLIC INPUT

Chairperson Mah opened Public Input.
No one addressed the Board.
Chairperson Mah closed Public Input

CONSENT AGENDA

300) Approval of the Thursday, September 3, 2026 Planning and Zoning Board/Local Planning Agency Regular Meeting Minutes.

MOTION TO APPROVE [THE THURSDAY, SEPTEMBER 3, 2026 PLANNING AND ZONING BOARD/LOCAL PLANNING AGENCY REGULAR MEETING MINUTES]. MOTION BY BOARD MEMBER CRISWELL. SECONDED BY BOARD MEMBER HILAL. DISCUSSION.

Chairperson Mah noted one clerical error for the record. Deputy City Clerk Tarrant noted and confirmed the clerical error. Board Member Criswell accepted the correction as part of his motion.

VOTE: MAH (AYE); HOOD (AYE); HILAL (AYE); CRISWELL (AYE)
MOTION CARRIED 4-0.

Agenda was discussed as follows

PUBLIC HEARINGS AGENDA

401) Winter Springs Dentistry, SR 434/419 and Michael Blake Boulevard – Site/Final Engineering, Aesthetic Review, Waivers, and Development Agreement

Senior Planner Rabon opened and gave the staff presentation for the Winter Springs Dentistry providing background information, a site plan overview, the landscape plan, elevations and the staff recommendation of approval of the Site/Final Engineering, Aesthetic Review, Development Agreement, Waivers with conditions. Assistant City Attorney Kristin Eick asked for clarification on the conditions of the approval of the waivers for the building orientation and setbacks.

Mr. Ricardo Maristany, Winter Springs Dentistry's co-owner, addressed the Board and thanked them and staff for their time and work. Mr. Maristany requested the Board reconsider the additional glazing condition along State Road 434. Mr. Maristany explains the design already met the glazing requirement, the smaller windows are treatment rooms and require patient privacy, and more glass would add cost and solar heat gain. Mr. Maristany shared and reference photos of similar businesses within the Town Center without this requirement. Additionally, a floor plan overview was provided for the Board to reference. Mr. Jason Mahoney of MB5 (civil engineer and landscape architect) and Mr. Stwart McCree (project architect) answered questions on landscaping, balance of the façade, and the design for Phase 2 utilities and egress.

The Board agreed that the south elevation needed the appearance of an entrance. Options were discussed such as a full-length storefront door element centered on the façade, a stucco-trimmed faux door, and relocating the sign. Chairperson Mah noted that the board had required similar treatment for earlier projects. Staff confirmed that the faux window had already been realigned with the treatment-room windows.

The Board noted that the site plan showed 23 parking spaces rather than the 26 stated in the parking analysis. Director Terrilyn Rolle said the figure would be corrected before the item went to the City Commission. Chairperson Mah raised concerns that the parking analysis and traffic impact analysis covered only Phase 1 even though the agreement would grant entitlements for both phases. He also noted that the traffic study omitted the 7 Brew and Learning Experience developments and questioned operations at Michael Blake Boulevard and Seahawk Cove. The Board also questioned whether Phase 2 could meet parking needs and on-street parking was identified as one possible solution.

Brief discussion ensued on options if the board wanted to wait on deciding and Assistant Attorney Eick relayed the items could be postponed for decision to the special meeting later in the month. The applicant stated a strong preference for a decision to be made that evening over a continuation to the October 29th special meeting. Staff were agreeable to a condition of requiring an updated analysis and parking study before Phase 2 commences.

Chairperson Mah opened the Public Hearing for Item 401.
No one addressed the Board
Chairperson Mah closed the Public Hearing for Item 401.

Board Member Criswell started making a motion but retracted said motion so the Board could further refine and clarify the motion language.

MOTION TO APPROVE ITEM 401 GIVEN THE FOLLOWING CONDITIONS OF APPROVAL. 1. THE EXECUTION OF THE DEVELOPMENT AGREEMENT; 2. ALL GRASS ON THE PROPERTY BEING BAHIA GRASS AND AMEND STAFF RECOMMENDATION OF THE WAIVER TO ACCOMMODATE A DOOR FAÇADE ON THE SOUTH ENTERANCE. ITEM TWO: WINTER SPRINGD DENTISTRY SHALL SUBSTANTIAL COMMENCE VERTICAL CONSTRUCTION OF PHASE 2 WITHIN TWO YEARS OF THE CITY ISSUING A CERTIFICATE OF OCCUPANCY FOR PHASE 1 AND ADD A THIRD CONDITION OF REQUIRING AN UPDATED TIA (TRAFFIC IMPACT ANALYSIS) AND PARKING ANALYSIS PRIOR TO THE PHASE 2 BUILDING PERMIT BEING ISSUED. MOTION BY BOARD MEMBER HOOD. SECONDED BY BOARD MEMBER CRISWELL. DISCUSSION.

Clarification of the language regarding the door façade and parking spaces were asked and answered.

VOTE: MAH (AYE); HOOD (AYE); HILAL (AYE); CRISWELL (AYE)
MOTION CARRIED 4-0.

400) Ordinance 2026-08: Backyard Chickens

Director Rolle presented the proposed Ordinance 2026-08 permitting hen-only backyard chickens, on detached single-family lots, with a maximum of 20 chickens depending on the acreage. The chickens must be kept for personal use only and housed in screened coops and runs in the rear yard, with building permits required for coops over 120 square feet. The coops

must meet space and sanitation standards, and the ordinance does not override HOA covenants. A UF/IFAS course was recommended but not required, and the draft had no registration or permit process.

The Board expressed concern about the lack of a permit, the lack of setbacks for coops, how the coops would be tied down in storms, the language slaughter and including language clarifying "no other winged fowl" is permitted. Assistant City Attorney Eick noted that the draft was silent on setbacks and that accessory structures generally follow principal-building setbacks. Ms. Rolle noted that tie-down inspections fall under the building official. The Board supported a permit and attestation process. Discussion ensued on each concern in detail with Chairperson Mah reviewing to make sure the Board agreed.

The discussion consisted of adding the requirement of obtaining a permit, requiring a IFAC certificated or affidavit to be obtained, setting a minimum setback from the closest neighbor, adding the language that "all other fouls are not permitted", the proper tie downs and remove the language regarding slaughter due to the need for flock control and humane euthanasia.

Chairperson Mah opened the Public Hearing for Item 400.
No one addressed the Board
Chairperson Mah closed the Public Hearing for Item 400.

I WOULD LIKE TO MAKE A MOTION THAT WE RECOMMEND APPROVE OF ORDINANCE 2026-08 WITH THE FOLLOWING CHANGES: THE ADDITION OF A PERMIT PROCESS AS DEFINED BY CITY STAFF, CHANGING THE US IFAC COURSE FROM A RECOMMENDATION TO A REQUIREMENT, ADDING LANGUAGE ABOUT A MINIMUM SETBACK TO REFLECT OUR NEIGHBORS WHICH WOULD BE FIVE FEET FROM THE REAR AND SIDE OF THE YARD AND/OR 20 FEET FROM THE NEBGHORS NEARS PRICIPAL STRUCTURE, ADDING LANGUAGE ABOUT "ALL OTHER FOUL" WOULD NOT BE APPROVED, AND REMOVING THE LANGUAGE AROUND SLAUGHTER. MOTION BY BOARD MEMBER HOOD. SECONDED BY BOARD MEMBER HILAL. DISCUSSION.

Some clarification was asked and answered regarding the language used for the motion.

VOTE: MAH (AYE); HOOD (AYE); HILAL (AYE); CRISWELL (AYE)
MOTION CARRIED 4-0.

REGULAR AGENDA

500. Not Used

REPORTS

PUBLIC INPUT

Chairperson Mah opened Public Input.
No one addressed the board.
Chairperson Mah closed Public Input

ADJOURNMENT

Chairperson Mah adjourned the Regular Meeting at 8:00 p.m.

RESPECTFULLY SUBMITTED:

_____
TRISTIN TARRANT
DEPUTY CITY CLERK

NOTE: These Minutes were approved at the _____, *2026* Planning and Zoning Board/Local Planning Agency Meeting.

CONSENT AGENDA ITEM 301

PLANNING AND ZONING BOARD/LOCAL PLANNING AGENCY AGENDA | DECEMBER 3, 2026 REGULAR MEETING

TITLE

Approval of the Thursday, October 29, 2026 Planning and Zoning Board/Local Planning Agency Special Meeting Minutes.

SUMMARY

FUNDING SOURCE

RECOMMENDATION

Staff recommends approval of the Thursday, October 29, 2026 Planning and Zoning Board/Local Planning Agency Special Meeting Minutes as presented.

PLANNING AND ZONING BOARD/ LOCAL PLANNING AGENCY

SPECIAL MEETING MINUTES
OCTOBER 29, 2026

CITY HALL – COMMISSION CHAMBERS
CITY OF WINTER SPRINGS, FLORIDA

CALL TO ORDER

Chairperson Kok Wan Mah called the Thursday, October 29, 2026, Planning and Zoning Board/Local Planning Agency Special Meeting to Order at 5:30 p.m., in the Commission Chambers of the Municipal Building (City Hall, 1126 East State Road 434, Winter Springs, Florida 32708.)

Roll Call:

Chairperson Kok Wan Mah, present
Vice-Chairperson Michael Ferrante, present
Board Member Louie Hilal, present
Board Member Rachel Hood, present
Board Member Matthew Criswell, present
Assistant City Attorney Kristin Eick, present
Interim City Clerk Tristin Tarrant, present

Also present:
Ms. Terrilyn Rolle, Director of the Community Development Department
Mr. John Rabon, Senior Planner, Community Development Department

A moment of silence was held, followed by the Pledge of Allegiance.

AWARDS AND PRESENTATIONS

100. Not Used

INFORMATIONAL AGENDA

200. Not Used

PUBLIC INPUT

Chairperson Mah opened Public Input.
No one addressed the Board.
Chairperson Mah closed Public Input

CONSENT AGENDA

300) Not Used

PUBLIC HEARINGS AGENDA

400) Ordinance 2026-09: Outdoor Storage and Warehousing Requirements

Director Terrilyn Rolle presented Ordinance 2026-09 amending Chapter 20 of the Land Development Code, Division 8 (C-2 General Commercial District), Section 20-256, which sets supplemental requirements for outdoor storage and warehousing. Director Rolle explained that recent development reviews had involved projects near wetlands or other sensitive areas and that the existing requirement can conflict with drainage calculations, especially on sites with limited buildable area. The amendment would allow the City Commission to reduce impervious surface impacts and permit drive aisles on properties that include or are adjacent to wetland, natural water body, or natural watercourse to be paved with No. 57 stone or Porous Paving Systems. Director Rolle stated that the changes are limited to the C-2 district. Staff recommended that the Board recommend approval of Ordinance 2026-09 to the Commission.

Discussion ensued and questions were asked about pavement markings shown in the staff presentation. Assistant City Attorney Kristin Eick clarified that the amendment applies only to drive aisles, not parking stalls, and that the code separately addresses permitted materials in parking spaces.

Discussion ensued on clarification of specific language being used and staff responded in-kind. Specific questions were asked whether the phrase "City Commission may permit" would require an applicant to obtain a special use permit. Director Rolle responded that a special use permit was not recommended. The option would apply only in unique circumstances, such as proximity to a wetland or creek, and staff would make the determination based on the applicant's proposal. In response to a question about current requirements near wetlands or creeks, Director Rolle explained that concrete or asphalt on a constrained site can affect drainage calculations and project feasibility. An alternative material lets the project still meet drainage requirements.

Further discussion ensued on the limitation to just C-2 properties adjacent to water bodies and not the City. Assistant Attorney Eick explained that the asphalt-or-concrete drive aisle requirement was long-standing and is one of 15 conditions for outdoor use in C-2; likely to prevent loose stone from being dragged off site by vehicles. The amendment relaxes that requirement where nearby water bodies or wetlands are a concern.

Chairperson Mah opened the Public Hearing for Item 400.

Andrew Hood, Winter Springs Resident, identified himself as a stormwater engineer and spoke to pervious pavement generally only being allowed in parking stalls because it does not hold up well under continuous driving. Mr. Hood suggested staff verify whether Florida

Department of Environmental Protection (FDEP) stormwater manual guidance addresses this and recommended setting an inspection and cleaning schedule, particularly for drive aisles.

Chairperson Mah closed the Public Hearing for Item 400.

I WILL MAKE A MOTION THAT WE RECOMMEND APPROVE OF ORDINANCE 2026-09 WITH THE CHANGES TO CHAPTER 20, ZONING, ARTICLE III, ESTABLISHMENT OF DISTRICTS, DIVISION 8, C-2 GENERAL COMMERCIAL DISTRICT, SECTION 20-256, SUPPLEMENTAL OUTDOOR STORAGE AND WAREHOUSING REQUIREMENTS TO ALLOW FOR THE USE OF ADDITIONAL TYPES OF PAVEMENT MATERIALS AT OUTDOOR STORAGE AND WAREHOUSING PARKING FACILITIES. MOTION BY BOARD MEMBER HOOD. SECONDED BY BOARD MEMBER CRISWELL. DISCUSSION.

VOTE: MAH (AYE); FERRANTE (AYE); HOOD (AYE); HILAL (AYE); CRISWELL (AYE)
MOTION CARRIED 5-0.

REGULAR AGENDA

500. Not Used

REPORTS

PUBLIC INPUT

Chairperson Mah opened Public Input.
No one addressed the board.
Chairperson Mah closed Public Input

ADJOURNMENT

Chairperson Mah adjourned the Regular Meeting at 5:46 p.m.

RESPECTFULLY SUBMITTED:

_____
TRISTIN TARRANT
DEPUTY CITY CLERK

NOTE: These Minutes were approved at the _____, *2026* Planning and Zoning Board/Local Planning Agency Meeting.

PUBLIC HEARINGS AGENDA ITEM 400

PLANNING AND ZONING BOARD/LOCAL PLANNING AGENCY AGENDA | DECEMBER 3, 2026 REGULAR MEETING

TITLE

SR419 RV & Boat Storage Lot, 4301 SR 419 – Site/Final Engineering Plan and Development Agreement

SUMMARY

The Community Development Department requests that the Planning & Zoning Board hold a Public Hearing to consider a Site/Final Engineering Plan and Development Agreement regarding the applicant's request to develop an outdoor storage lot for recreational vehicles (RV), boats, and standard vehicles on ±1.1 acres of the ±7.89 acre subject property.

FUNDING SOURCE

RECOMMENDATION

Staff recommends that the Planning & Zoning Board recommend approval of the Site/Final Engineering Development Agreement, subject to the following conditions of approval:

1. Execution of the Development Agreement.
2. All grass on the Property shall be Bahia grass. No St. Augustine grass or grass types with low drought tolerance shall be permitted.
3. The outdoor storage of construction equipment, heavy machinery, and other goods and materials shall be prohibited.
4. The gravesite present upon the property shall not be disturbed during construction of the project. Property owners shall take appropriate measures to ensure the gravesite is not disturbed following development and shall ensure the gravesite is maintained in a neat condition free of trash, junk, debris, and vegetative overgrowth.
5. No more than five (5) cargo or shipping containers may be stored on the Property at one time. Any cargo or shipping containers stored on the Property shall not be stacked one on top of the other such that they are visible from the public road. Individual cargo or shipping containers shall be stored on the Property for periods of thirty (30) days or more to deter short term use.
6. Developer shall comply with the supplemental regulations for outdoor storage and warehousing uses established in Section 20-256 of the City Code, as may be amended from time to time.
7. Approval of the final engineering plan shall be contingent upon the City Commission's adoption of Ordinance 2026-09, for which second reading is scheduled on December 14, 2026, amending Chapter 20, zoning, Article III, Establishment of Districts, Division 8, C-2

General Commercial District, Section 20-256, Supplemental Outdoor Storage and Warehousing requirements to allow for the use of additional types of pavement materials at outdoor storage and warehousing parking facilities. The City Commission approved first reading of Ordinance 2026-09 on November 16, 2026.

PUBLIC HEARINGS AGENDA ITEM

PLANNING & ZONING BOARD
THURSDAY, DECEMBER 3, 2026
REGULAR MEETING

TITLE

SR419 RV & Boat Storage Lot, 4301 SR 419 – Site/Final Engineering Plan and Development Agreement.

SUMMARY

The Community Development Department requests that the Planning & Zoning Board hold a Public Hearing to consider a Site/Final Engineering Plan and Development Agreement regarding the applicant's request to develop an outdoor storage lot for recreational vehicles (RV), boats, and standard vehicles on ±1.1 acres of the ±7.89 acre subject property.

General Information			
Applicant	David Borys, OM Engineering Services Inc.		
Property Owner(s)	Kado Investments, LLC; Youdali International Investments, LLC; and Kira Woods		
Location	4301 State Road 419, Winter Springs, FL 32708		
Tract Size	±1.1 Acres (±7.84 Acre Lot)		
Parcel ID Number	34-20-30-5AW-0000-0250		
Zoning Designation	C-2 General Commercial District		
FLUM Designation	Commercial		
Adjacent Land Use	North: Layer Elementary School & School Bus Yard East: Seminole County Transportation Depot		South: State Road 434; Day Care/Pre-School West: Vacant
Height	50 ft. maximum		
Setbacks	Front: 25 ft.	Rear: 15 ft.	Side: 15 ft.
Development Standards	Lot Coverage: 75% maximum		
Development Permits	Not applicable		
Development Agreement	Pending; prior Development Agreement with Kado Investments LLC, Youdali International Investments LLC, and Kira Woods, recorded at ORB 10756, Page 1375.		

Code Enforcement	Not applicable
City Liens	Not applicable

Background Data:

The development site consists of one lot, totaling 7.89 acres located along S.R. 419 north of the intersection of S.R. 419 and S.R. 434. The property was voluntarily annexed by the applicant into the City of Winter Springs on April 8, 2024, via Ordinance 2024-04. On December 9, 2024, the City Commission adopted Ordinance 2024-09 to amend the Future Land Use Map designation of the subject property from Seminole County "Suburban Estates" to City of Winter Springs "Commercial." Further, the City Commission adopted Ordinance 2024-10 to rezone the property from Seminole County "Agricultural" to City of Winter Springs General Commercial (C-2) on December 9, 2024. The parcel is bisected by Gee Creek and one of Gee Creek's unnamed tributaries, with the project to be constructed just south of their confluence near the north property boundary. The property currently consists of a single-story concrete block building built in 1969, per the Seminole County Property Appraiser, utilized as a single-family residence of approximately 2,466 square feet. Two additional accessory buildings are present upon the property - a metal shed and a one-story detached garage – and will not be demolished. There is also an existing headstone/grave site located upon the property, in the center of the property near the northern boundary, which will remain upon the property and which will be protected during development and appropriately maintained after development is complete.

The applicant is proposing to construct a commercial surface outdoor storage/parking lot totaling 46 parking spaces for the storage of automobiles, RVs, and boats on approximately 1.1 acres of the 7.89-acre lot. The existing residence will remain as a single-family residence, which is considered a nonconforming use as it was rezoned from the Seminole County "Agricultural" that allowed for single-family residential use to City of Winter Springs General Commercial (C-2). The applicant is proposing to install a 6 ft. tall chain link fence with a gate to surround the existing headstone/grave site.

Improvements to be made to the property consist of the proposed storage/parking lot with parking spaces which will be stabilized with existing site soils and a Geosystem Geoweb surface material type. Drive aisles are proposed to consist of the Geosystem Geoweb with a 4-inch top surface depth of No. 57 Stone. There will be a 10 ft. tall masonry wall for frontage screening adjacent to S.R. 419. The proposal also includes improvements to the entry and egress driveways to consist of a concrete material surface type, two (2) access control gates, two (2) security cameras, three (3) security lights, and stormwater ponds. The stormwater system is comprised of swales, curb and gutter, and three (3) water quality ponds. The proposed operations include vehicular site access with gate access and actuators controlled by keypads requiring codes for authorized users.

The approval of the proposed drive aisles surface are contingent upon City Commission's second reading and adoption of Ordinance 2026-09 on December 14, 2026 for changes to Chapter 20, zoning, Article III, Establishment of Districts, Division 8, C-2 General Commercial District, Section 20-256, Supplemental Outdoor Storage and Warehousing requirements to allow for the use of additional types of pavement materials at outdoor storage and warehousing parking facilities. The City Commission's first reading and approval of Ordinance 2026-09 was on November 16, 2026.

Public Notices:

Notices were mailed to all owners of real property adjacent to and within approximately five hundred (500) feet of the subject property and to all Homeowner's Associations on file with the City of Winter on November 13, 2026.

A Community Workshop was held on May 8, 2024 at 6:00 PM at Layer Elementary School. There were no public citizens in attendance at the Community Workshop. Please see (Exhibit "1") Community Workshop Flyer.

Analysis of Final Engineering Plans (Sec. 20-33.1) Criteria:
The criteria for Final Engineering Plans are provided and analyzed below:

(a) Site and final engineering plans and the subdivision of land shall also be subject to the technical requirements set forth in Chapter 9 of the City Code. It is the intent of this section to apply to applications for site and final engineering plans and to any subdivision of land requiring a plat, if applicable, and does not include review and approval of a lot split application.

Please see the discussion below regarding technical requirements of Chapter 9. The Final Engineering Plans have been reviewed by the City's consultant, who concluded that the Plans satisfy the technical requirements, provided the conditions of approval set forth below are met.

(b) Except in situations involving one (1) single-family home, the Planning and Zoning Board shall be required to review all site and final engineering plan and subdivision of land applications and make a written recommendation to the city commission. Such recommendation shall include the reasons for the board's recommendation and show the board has considered the applicable criteria set forth in this section.

(c) Upon receipt of the planning and zoning board's recommendation, the city commission shall make a final decision on the application. If the city commission determines that the planning and zoning board has not made a recommendation on an application within a reasonable period of time, the City Commission may, at its discretion, consider an application without the planning and zoning board's recommendation.

Except in situations involving one (1) single-family home, all site and final engineering plan and subdivision recommendations and final decisions shall be based on whether the site and final engineering plan and subdivision of land comply with all the technical requirements set forth in chapter 9 of the City Code and the following criteria to the extent applicable:

(1) Whether the applicant has demonstrated the site and final engineering plan and subdivision of land, including its proposed density, height, scale and intensity, hours of operation, building and lighting design, setbacks, buffers, noise, refuse, odor, particulates, smoke, fumes and other emissions, parking and traffic-generating characteristics, number of persons anticipated using, residing or working under the plan, and other off-site impacts, is compatible and harmonious with adjacent land uses, and will not adversely impact land use activities in the immediate vicinity.

Analysis: Staff finds that the proposed Development is compatible and harmonious with adjacent land uses and will not adversely impact land use activities in the immediate vicinity. The site lighting features three (3) commercial grade solar lighting fixtures mounted to the top of the wall to illuminate the interior of the lot to prevent a light nuisance to other properties and adding to the site safety for members of the public. Additionally, the surrounding parcel on the north, east, and west sides of the lot is heavily wooded, providing ample buffer between the storage lot and the adjacent commercial uses. The subject property contains Gee Creek and a powerline easement that both aide in restricting the property from unfavorable impacts on the environment and natural resources such as oversized development. The site plan features a stormwater system comprised of swales, curb and gutter, and three (3) water quality ponds that suffices to provide for the protection of Gee Creek and the health and welfare of the City.

(2) Whether the applicant has demonstrated the size and shape of the site, the proposed access and internal circulation, and the design enhancements to be adequate to accommodate the proposed density, scale and intensity of the site and final engineering plan requested. The site shall be of sufficient size to accommodate design amenities such as screening, buffers, landscaping, open space, off-street parking, safe and convenient automobile, bicycle, and pedestrian mobility at the site, and other similar site plan improvements needed to mitigate against potential adverse impacts of the proposed use.

Analysis: Staff finds that the Applicant has demonstrated that the size and shape of the site, the proposed access and internal circulation, and the design enhancements to be adequate to accommodate the proposed use and intensity of the site and final engineering plan requested. As referenced in the previous analysis, the lot is surrounded by existing vegetation on three sides, necessitating only additional screening on State Road 419. No structures are being constructed as part of this site plan, and the proposed site plan is consistent with the scope of area found in the plan of the existing rezone Development Agreement.

(3) Whether the proposed site and final engineering plan and subdivision of land will have an adverse impact on the local economy, including governmental fiscal impact, employment, and property values.

Analysis: Staff finds that the proposed site and final engineering plan and subdivision of land will not have an adverse impact on the local economy, including governmental fiscal impact, employment, and property values. Rather, the construction will have a beneficial impact on the local economy, providing additional outdoor storage options for automobiles, RVs, and boats to local residents.

(4) Whether the proposed site and final engineering plan and subdivision of land will have an adverse impact on the natural environment, including air, water, and noise pollution, vegetation and wildlife, open space, noxious and desirable vegetation, and flood hazards.

Analysis: Staff finds that the proposed site and final engineering plan will not have an adverse impact on the natural environment, including air, water, and noise pollution, vegetation and wildlife, open space, noxious and desirable vegetation, and flood hazards. The project is located outside of the special flood hazard area. The City Arborist also determined mitigation on the subject site is not required due to the number of credits for the 55 preserved trees versus credits for the removal of 34 trees. The number for preserved trees outweighs the number for the removed trees.

(5) Whether the proposed site and final engineering plan and subdivision of land will have an adverse impact on historic, scenic, and cultural resources, including views and vistas, and loss or degradation of cultural and historic resources.

Analysis: The proposed site and final engineering plan will have no impact on historical resources that include the headstone/grave site. The applicant's proposal includes for the installation of a 6 ft. tall chain link fence with gate to surround the existing headstone/grave site to preserve the existing historic resource. No additional scenic or cultural resources. Including scenic views or vistas, will be impacted by this site and final engineering plan. The subject property contains Gee Creek and a powerline easement that both aide in restricting the property from unfavorable impacts on the environment and natural resources such as oversized development. The site plan features a stormwater system comprised of swales, curb and gutter, and three (3) water quality ponds that suffices to provide for the protection of Gee Creek and the health and welfare of the City.

(6) Whether the proposed site and final engineering plan and subdivision of land will have an adverse impact on public services, including water, sewer, stormwater and surface water management, police, fire, parks and recreation, streets, public transportation, marina and waterways, and bicycle and pedestrian facilities.

Analysis: City Staff have reviewed this project from a planning and engineering perspective. Staff did not find any adverse impact on any of the public services

listed above. Access to additional water and sewer is not necessary for this development.

(7) Whether the site and final engineering plan and subdivision of land, and related traffic report and plan provided by the applicant, details safe and efficient means of ingress and egress into and out of the neighborhood and adequately addresses the impact of projected traffic on the immediate neighborhood, traffic circulation pattern for the neighborhood, and traffic flow through immediate intersections and arterials.

Analysis: A traffic study was not required due to the small-scale project having minimal impact on surrounding state and local orders since outdoor storage is a passive facility (a boat/RV storage lot where vehicles are parked overnight) generate 100 net new peak-hour trips or 1,000 daily trips.

(8) Whether the proposed site and final engineering plan and subdivision of land will have an adverse impact on housing and social conditions, including variety of housing unit types and prices, and neighborhood quality.

Analysis: As a commercial project, the proposed site and final engineering plan will not have an adverse impact on the variety of housing unit types and prices. As for neighborhood quality, the proposed site and final engineering plan development will not have an adverse impact on neighborhood quality.

(9) Whether the proposed site and final engineering plan and subdivision of land avoids significant adverse odor, emission, noise, glare, and vibration impacts on adjacent and surrounding lands regarding refuse collection, service delivery, parking and loading, signs, lighting, and other site elements.

Analysis: Staff finds that proposed site and final engineering plan avoids significant adverse odor, emissions, noise, glare and vibration impacts on adjacent and surrounding lands regarding refuse collection, service delivery, parking and loading, signs, lighting, and other site elements.

(10) Whether the applicant has provided an acceptable security plan for the proposed establishment to be located on the site and final engineering plan and subdivision of land that addresses the safety and security needs of the establishment and its users and employees and minimizes impacts on the neighborhood, if applicable.

Analysis: Staff finds the safety and security of the site Civil Plans (Exhibit 2) and Site Photometric Plan (Exhibit 3) illustrates that the parking lot area will be sufficiently lit with lighting on site. Additionally, the fire safety plan calls out the proposed route for a fire engine to navigate the site, and the existing fire hydrant that is located south of the proposed site.

(11) Whether the applicant has provided on the site and final engineering plan and subdivision of land an acceptable plan for the mass delivery of merchandise for new

large footprint buildings (greater than twenty thousand (20,000) square feet) including the hours of operation for delivery trucks to come into and exit the property and surrounding neighborhood, if applicable.

Analysis: Not applicable as the proposal does not include the construction of a building.

(12) Whether the applicant has demonstrated that the site and final engineering plan and subdivision of land have been designed to incorporate mitigative techniques and plans needed to prevent adverse impacts addressed in the criteria stated herein or to adjacent and surrounding uses and properties.

Analysis: Staff finds that subject to the Conditions of Approval, the site and final engineering plans have been designed to incorporate mitigative techniques and plans needed to prevent the adverse impacts mentioned in the criteria on adjacent and surrounding uses and properties.

(13) If the proposed conditional use is a residential use, whether the elementary, middle and high schools (K—12) that will be initially assigned to the residential project by the school district at the time the city commission considers final approval of the conditional use have both sufficient capacity, are in close proximity to the project so as to make each of the assigned schools accessible and convenient (e.g., walking distance, travel time, private and public transportation, and quality of route environment) to the majority of the school population that will be drawn from the project, and promote and support the integration of future residents of the project into the existing city of Winter Springs community in a sustainable manner.

Analysis: Not applicable as this is not a residential development.

(14) Whether the applicant has agreed to execute a binding development agreement required by city to incorporate the terms and conditions of approval deemed necessary by the city commission including, but not limited to, any mitigative techniques and plans required by City Code.

Analysis: The applicant has agreed to and is working on a binding development agreement with the City addressing terms and conditions deemed necessary by the City Commission.

Water and Sewer:
Not applicable as the development does not require water and sewer access.

Stormwater:
The applicant has submitted a Drainage Report depicting how the stormwater management capacity for proposed runoff from the project is to be handled. Staff have reviewed and approved the information necessary from this development. Please see Exhibit “8”.

Transportation:

Not applicable for this project as a traffic study was not required.

Parking:
Not applicable for this project as a parking study was not required.

Reports:
The Final Engineering submittal is required to include the following reports or updates of previously prepared reports for the same property.

Reports	
March 28, 2022	Environmental Report (Exhibit 6)
February 24, 2026	Geotechnical Report (Exhibit 7)
June 7, 2026	Drainage Report (Exhibit 8)

Procedural History:	
November 20, 2024	Pre-Application Meeting
December 3, 2026	Planning & Zoning Board | Recommendation on Site/Final Engineering and Development Agreement.
January 11, 2027	City Commission | Hearing on Final Engineering Site/Final Engineering and Development Agreement.

Applicable Law, Public Policy, and Events:
Florida Statutes 163.2511-163.3246: Growth Policy; County and Municipal Planning; Land Development Regulation (Provides that land development regulations for municipal planning be consistent with the Comprehensive Plan).
Home Rule Powers
Code of Ordinances City of Winter Springs.
Section 20-1. Definitions.
Sec. 20-256. - Supplemental outdoor storage and warehousing requirements.

Fiscal Impact:
The Fiscal Impact Report shall be reviewed and approved prior to the project being heard before the City Commission.

Development Agreement:

The Applicant is currently working with the City Attorney on the Development Agreement for the project. The Development Agreement shall be executed prior to any work on the project covered within this document.

STAFF RECOMMENDATION

Staff recommends that the Planning & Zoning Board recommend approval of the Site/Final Engineering Development Agreement, subject to the following conditions of approval:

1. Execution of the Development Agreement.
2. All grass on the Property shall be Bahia grass. No St. Augustine grass or grass types with low drought tolerance shall be permitted.
3. The outdoor storage of construction equipment, heavy machinery, and other goods and materials shall be prohibited.
4. The gravesite present upon the property shall not be disturbed during construction of the project. Property owners shall take appropriate measures to ensure the gravesite is not disturbed following development and shall ensure the gravesite is maintained in a neat condition free of trash, junk, debris, and vegetative overgrowth.
5. No more than five (5) cargo or shipping containers may be stored on the Property at one time. Any cargo or shipping containers stored on the Property shall not be stacked one on top of the other such that they are visible from the public road. Individual cargo or shipping containers shall be stored on the Property for periods of thirty (30) days or more to deter short term use.
6. Developer shall comply with the supplemental regulations for outdoor storage and warehousing uses established in Section 20-256 of the City Code, as may be amended from time to time.
7. Approval of the final engineering plan shall be contingent upon the City Commission's adoption of Ordinance 2026-09, for which second reading is scheduled on December 14, 2026, amending Chapter 20, zoning, Article III, Establishment of Districts, Division 8, C-2 General Commercial District, Section 20-256, Supplemental Outdoor Storage and Warehousing requirements to allow for the use of additional types of pavement materials at outdoor storage and warehousing parking facilities. The City Commission approved first reading of Ordinance 2026-09 on November 16, 2026.

Attachments:

Exhibit "1" – Community Workshop Flyer
Exhibit "2" – Survey
Exhibit "3" – Civil Site Plan
Exhibit "4" – Site Photometric Plan
Exhibit "5" – Site Security Camera Specifications
Exhibit "6 "– Site Security Measures & Operations Narrative
Exhibit "7 "– Environmental Report
Exhibit "8"– Geotechnical Report

Exhibit “9” – Drainage Report
Exhibit “10” – Site Plan Application
Exhibit “11” – Existing Development Agreement – Executed 2025 01 13
Exhibit “12” – First Modification to Development Agreement

SR419 RV & Boat Storage Lot

Planning & Zoning Board

Jenale Garnett

Senior Planner

Background

SR419 RV & Boat Storage Lot
FEDP-2025-0013

Property Address: 4301 State Road 419, Winter Springs, FL 32708 (± 7.89 acres)

Parcel ID: 34-20-30-5AW-0000-0250

November 20, 2024: Preapplication Meeting (PREM-2024-0013)

April 4, 2025: Site Plan Application (FEDP-2025-0013)

October 1, 2026:
Development Agreement Application (DVAG-2026-0021)

November 13, 2026: Public Notice Letters & Signage

Applicant: David Borys, OM Engineering Services Inc.



Public Hearings Agenda

Planning & Zoning Board

December 3, 2026

Background

- Located along S.R. 419 just north of the intersection of S.R. 434 within:
  - General Commercial District (C-2): Ord.2024-010 (Dec. 9, 2024)
  - Commercial (C) Future Land Use: Ord.20024-09 (Dec. 9. 2024)
  - Annexation: Ord.2024-04 (April 8, 2024)
  - Gee Creek and existing powerline easement

- Existing 2,466 gross SF single-family residence:
  - metal shed
  - detached garage
  - existing headstone/grave site

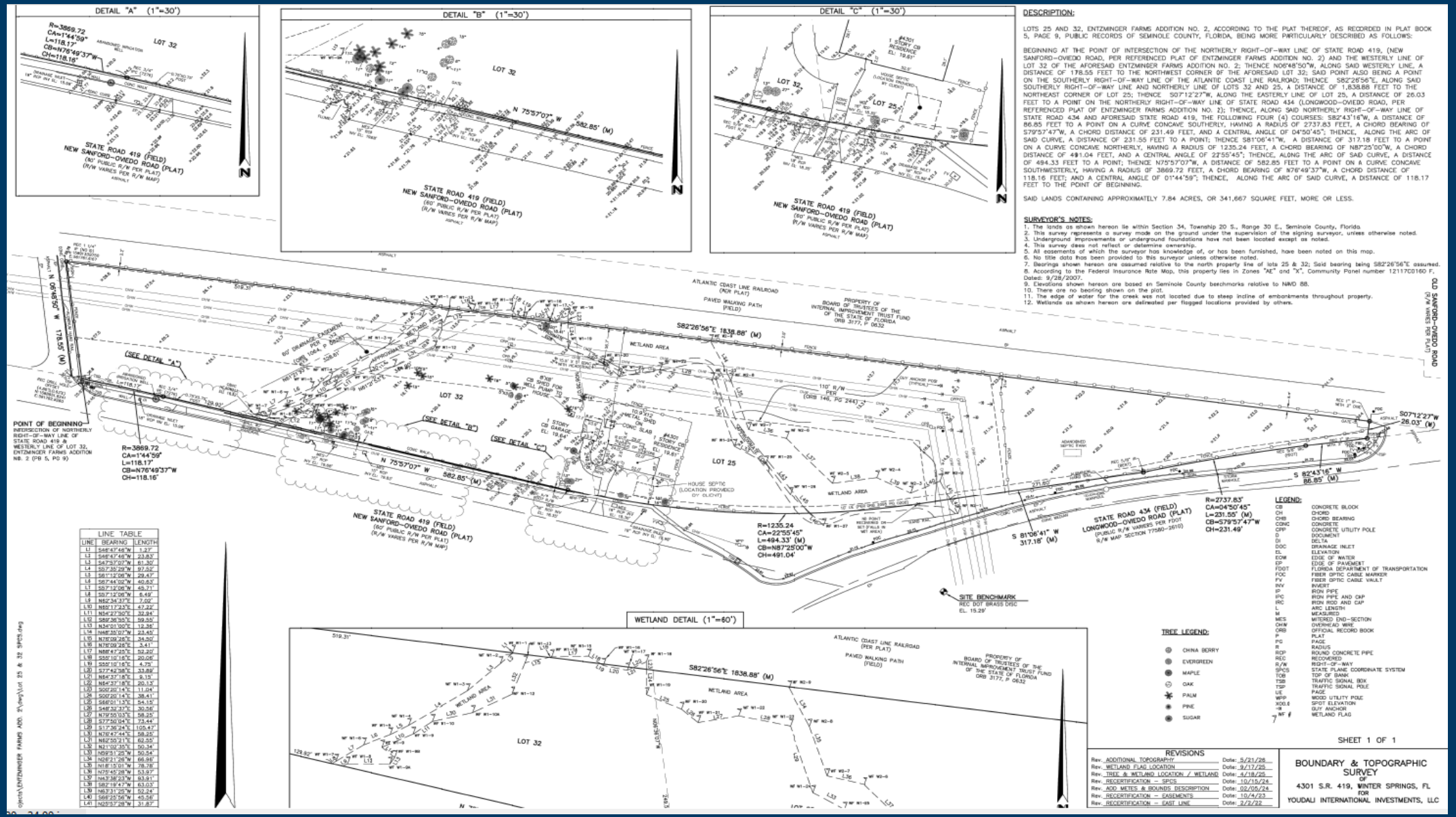
- Proposal is to construct a commercial surface outdoor storage/parking lot totaling 46 parking spaces for automobiles, RV'S, and boats on 1.1 acres of the 7.89 acre lot to include the following improvements:
  - Geosystem Geoweb surface: parking spaces, drive aisles to include No. 57 Stone
  - 10 ft. tall masonry wall
  - 2 access control gates
  - 2 security cameras
  - 3 security lights
  - stormwater system comprised of swales, curb and gutter, and 3 water quality ponds
  - 6 ft. tall chain link fence with gate to surround the existing headstone /grave site

Survey

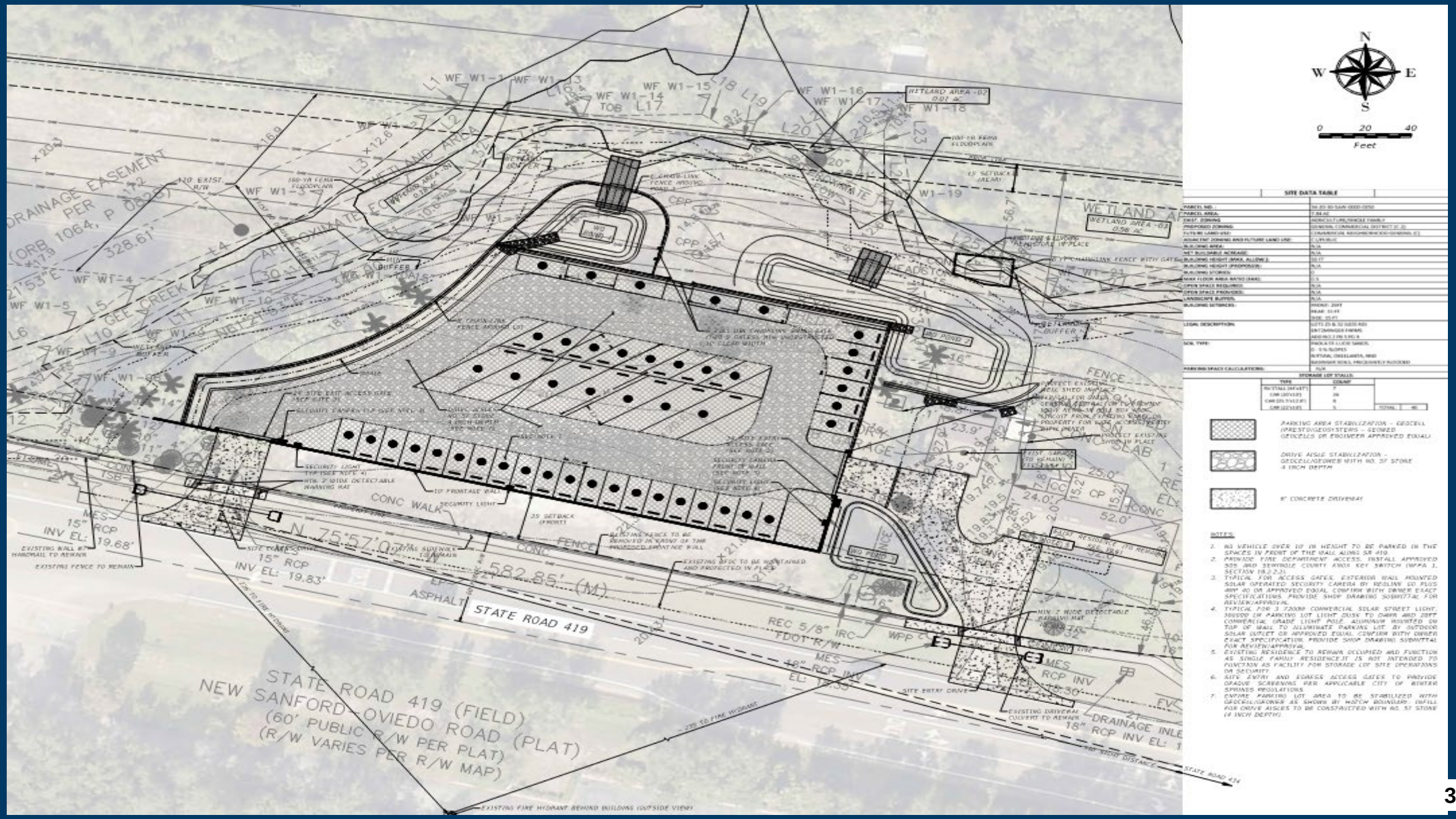
SR419 RV & Boat Storage Lot
FEDP-2025-0013

Public Hearings
Agenda

Planning &
Zoning Board
December 3, 2026



Site Plan



SR419 RV & Boat Storage Lot
FEDP-2025-0013

Public Hearings Agenda

Planning & Zoning Board
December 3, 2026

Proposed Conditions

Staff recommends the Planning & Zoning Board approve FEDP-2025-0013 (site plan), and DVAG-2026-0021 (development agreement) subject to the following conditions:

1. Execution of the Development Agreement.
2. All grass on the Property shall be Bahia grass. No St. Augustine grass or grass types with low drought tolerance shall be permitted.
3. The outdoor storage of construction equipment, heavy machinery, and other goods and materials shall be prohibited.
4. The gravesite present upon the property shall not be disturbed during construction of the project. Property owners shall take appropriate measures to ensure the gravesite is not disturbed following development and shall ensure the gravesite is maintained in a neat condition free of trash, junk, debris, and vegetative overgrowth.
5. No more than five (5) cargo or shipping containers may be stored on the Property at one time. Any cargo or shipping containers stored on the Property shall not be stacked one on top of the other such that they are visible from the public road. Individual cargo or shipping containers shall be stored on the Property for periods of thirty (30) days or more to deter short term use.

Proposed Conditions

6. Developer shall comply with the supplemental regulations for outdoor storage and warehousing uses established in Section 20-256 of the City Code, as may be amended from time to time.
7. Approval of the final engineering plan shall be contingent upon the City Commission's adoption of Ordinance 2026-09, for which second reading is scheduled on December 14, 2026, amending Chapter 20, zoning, Article III, Establishment of Districts, Division 8, C-2 General Commercial District, Section 20-256, Supplemental Outdoor Storage and Warehousing requirements to allow for the use of additional types of pavement materials at outdoor storage and warehousing parking facilities. The City Commission approved first reading of Ordinance 2026-09 on November 16, 2026.

SR419 RV & Boat Storage Lot
FEDP-2025-0013

ANY QUESTIONS?

Public Hearings
Agenda

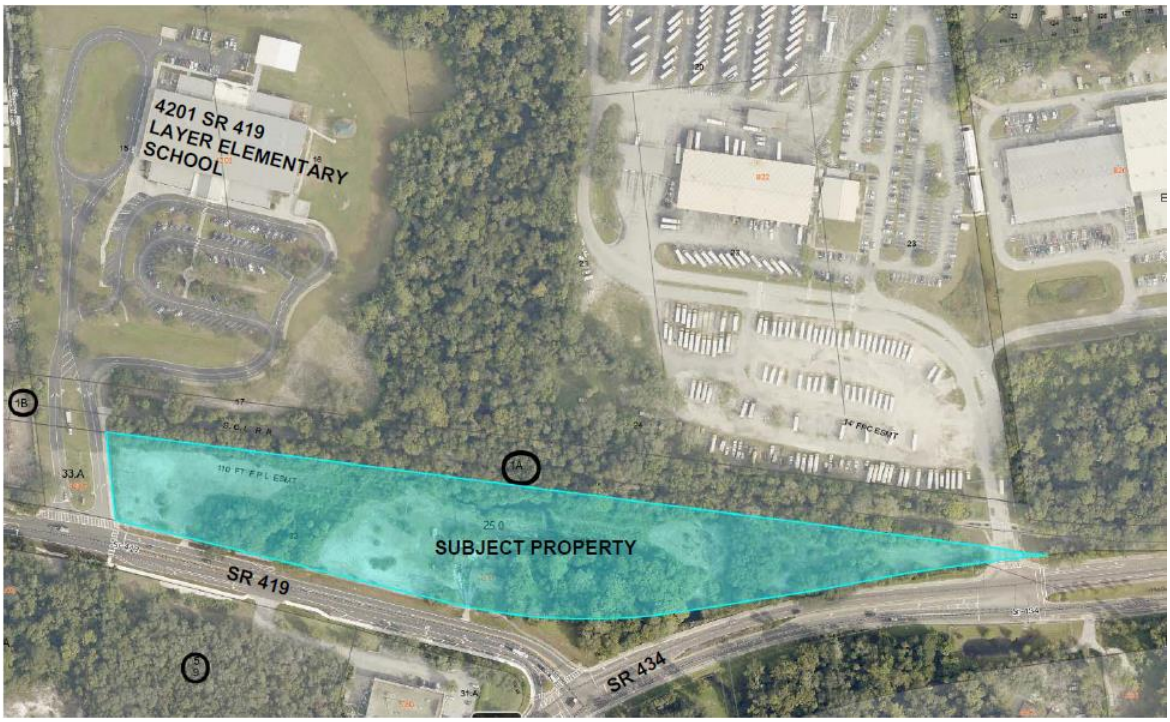
Planning &
Zoning Board
December 3, 2026

COMMUNITY WORKSHOP

Date: Wednesday, May 08th @ 6:00 P.M.

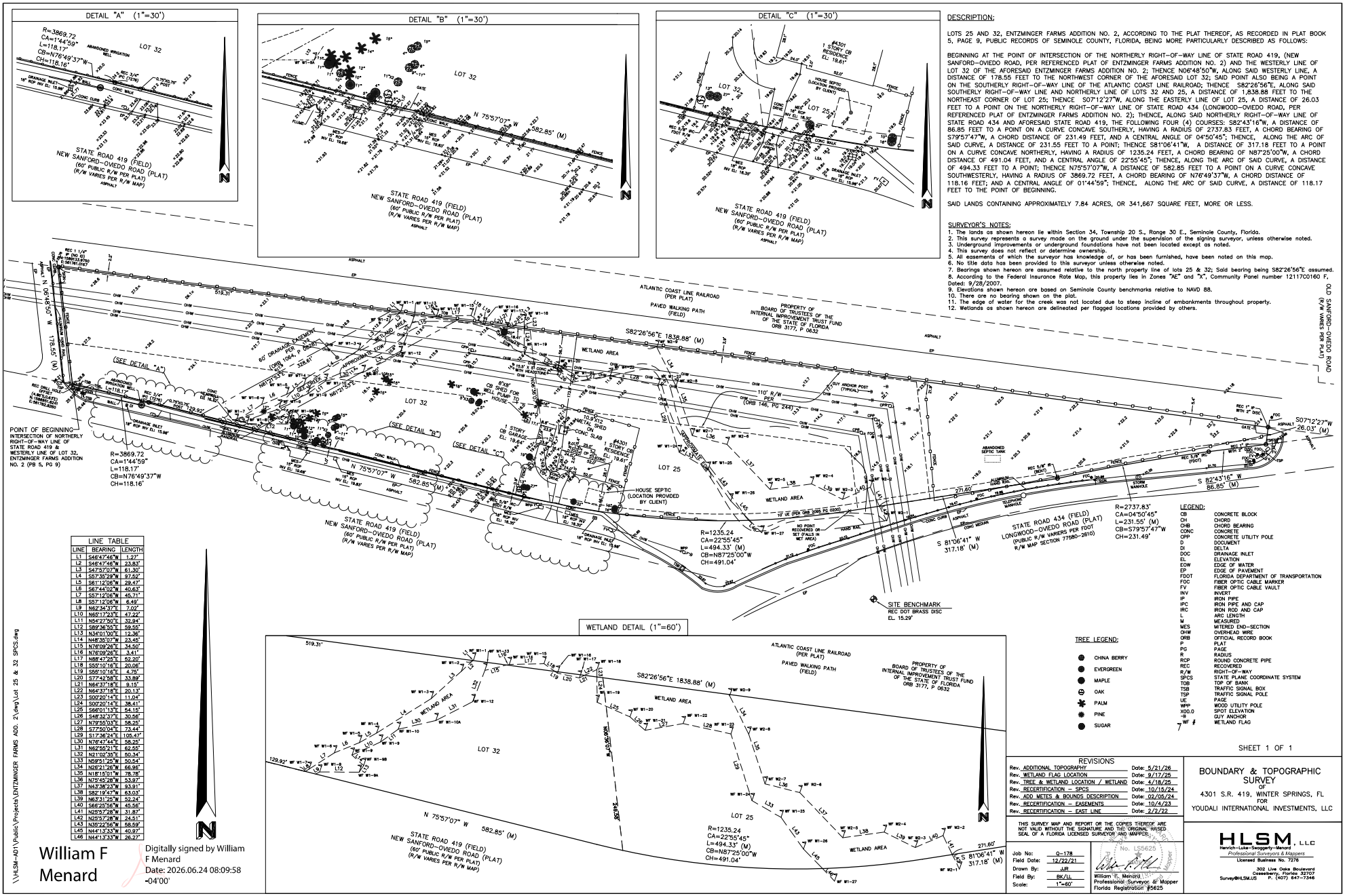
Location: Layer Elementary School, Media Room 102
4201 SR 419 Winter Springs, FL 32708

Community Workshop for Rezoning, Future Land Use, & Site Plan



Project: RV & Boat Storage Facility

Project Location: 4301 SR 419
Parcel ID: 34-20-30-5AW-0000-0250
Acreage: ± 8.17 acres
Proposed Zoning: General Commercial District (C-2)
Proposed Future Land Use: Commercial
Applicant: OM Engineering Services, Inc.
Presenter: Nimesh Bhavsar, PE



LINE TABLE		
LINE	BEARING	LENGTH
L1	S46°47'46"W	1.27'
L2	S46°47'46"W	23.83'
L3	S47°57'07"W	61.30'
L4	S67°35'29"W	97.59'
L5	S61°12'06"W	29.47'
L6	S67°44'02"W	40.63'
L7	S57°12'06"W	45.71'
L8	S57°12'06"W	6.49'
L9	N62°34'37"E	7.02'
L10	N65°17'23"E	47.22'
L11	N54°27'50"E	32.94'
L12	S89°36'55"E	59.55'
L13	N34°01'00"E	12.36'
L14	N48°35'07"W	23.45'
L15	N76°09'26"E	34.50'
L16	N76°09'26"E	3.41'
L17	N88°47'25"E	52.20'
L18	S55°10'16"E	20.06'
L19	S66°10'16"E	4.75'
L20	S77°42'58"E	33.89'
L21	N64°37'18"E	9.15'
L22	N64°37'18"E	20.13'
L23	S00°20'14"E	11.04'
L24	S00°20'14"E	38.41'
L25	S66°01'13"E	54.15'
L26	S48°32'37"E	30.56'
L27	N79°55'03"E	58.25'
L28	S77°50'24"E	73.44'
L29	S17°36'24"E	105.47'
L30	N76°47'44"E	58.25'
L31	N62°56'21"E	62.55'
L32	N21°02'35"E	50.34'
L33	N59°51'25"W	50.54'
L34	N62°21'26"W	66.86'
L35	N18°15'01"W	78.78'
L36	N75°45'28"W	53.97'
L37	N43°36'23"W	93.91'
L38	S82°19'47"W	63.03'
L39	N63°31'25"W	52.24'
L40	S66°25'56"W	45.56'
L41	N25°57'28"W	31.87'
L42	N25°57'28"W	24.51'
L43	N35°22'56"W	58.59'
L45	N44°13'33"W	40.97'
L46	N44°13'33"W	26.27'

TREE LEGEND:
- CHINA BERRY
- EVERGREEN
- MAPLE
- OAK
- PALM
- PINE
- SUGAR

LEGEND:

CB	CONCRETE BLOCK
CH	CHORD
CHB	CHORD BEARING
CONC	CONCRETE
CPP	CONCRETE UTILITY POLE
D	DOCUMENT
DI	DELTA
DOC	DRAINAGE INLET
EL	ELEVATION
EOW	EDGE OF WATER
EP	EDGE OF PAVEMENT
FDOT	FLORIDA DEPARTMENT OF TRANSPORTATION
FOC	FIBER OPTIC CABLE MARKER
FV	FIBER OPTIC CABLE VAULT
INV	INVERT
IP	IRON PIPE
IPC	IRON PIPE AND CAP
IRC	IRON ROD AND CAP
L	ARC LENGTH
M	MEASURED
MES	MITERED END-SECTION
OHW	OVERHEAD WIRE
ORB	OFFICIAL RECORD BOOK
P	PLAT
PG	PAGE
R	RADIUS
RCP	ROUND CONCRETE PIPE
REC	RECOVERED
R/W	RIGHT-OF-WAY
SPCS	STATE PLANE COORDINATE SYSTEM
TOB	TOP OF BANK
TSB	TRAFFIC SIGNAL BOX
TSP	TRAFFIC SIGNAL POLE
UE	UTILITY EASEMENT
WPP	WOOD UTILITY POLE
XDD.D	SPOT ELEVATION
⊕	GUY ANCHOR
WF #	WETLAND FLAG

DESCRIPTION:

LOTS 25 AND 32, ENTZMINGER FARMS ADDITION NO. 2, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 5, PAGE 9, PUBLIC RECORDS OF SEMINOLE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE POINT OF INTERSECTION OF THE NORTHERLY RIGHT-OF-WAY LINE OF STATE ROAD 419, (NEW SANFORD-OVIEDO ROAD, PER REFERENCED PLAT OF ENTZMINGER FARMS ADDITION NO. 2) AND THE WESTERLY LINE OF LOT 32 OF THE AFORESAID ENTZMINGER FARMS ADDITION NO. 2; THENCE N06°48'50"W, ALONG SAID WESTERLY LINE, A DISTANCE OF 178.55 FEET TO THE NORTHWEST CORNER OF THE AFORESAID LOT 32; SAID POINT ALSO BEING A POINT ON THE SOUTHERLY RIGHT-OF-WAY LINE OF THE ATLANTIC COAST LINE RAILROAD; THENCE S82°26'56"E, ALONG SAID SOUTHERLY RIGHT-OF-WAY LINE AND NORTHERLY LINE OF LOTS 32 AND 25, A DISTANCE OF 1,838.88 FEET TO THE NORTHEAST CORNER OF LOT 25; THENCE S07°12'27"W, ALONG THE EASTERLY LINE OF LOT 25, A DISTANCE OF 26.03 FEET TO A POINT ON THE NORTHERLY RIGHT-OF-WAY LINE OF STATE ROAD 434 (LONGWOOD-OVIEDO ROAD, PER REFERENCED PLAT OF ENTZMINGER FARMS ADDITION NO. 2); THENCE, ALONG SAID NORTHERLY RIGHT-OF-WAY LINE OF STATE ROAD 434 AND AFORESAID STATE ROAD 419, THE FOLLOWING FOUR (4) COURSES: S82°43'16"W, A DISTANCE OF 86.85 FEET TO A POINT ON A CURVE CONCAVE SOUTHERLY, HAVING A RADIUS OF 2737.83 FEET, A CHORD BEARING OF S79°57'47"W, A CHORD DISTANCE OF 231.49 FEET, AND A CENTRAL ANGLE OF 04°50'45"; THENCE, ALONG THE ARC OF SAID CURVE, A DISTANCE OF 231.55 FEET TO A POINT; THENCE S81°06'41"W, A DISTANCE OF 317.18 FEET TO A POINT ON A CURVE CONCAVE NORTHERLY, HAVING A RADIUS OF 1235.24 FEET, A CHORD BEARING OF N87°25'00"W, A CHORD DISTANCE OF 491.04 FEET, AND A CENTRAL ANGLE OF 22°55'45"; THENCE, ALONG THE ARC OF SAID CURVE, A DISTANCE OF 494.33 FEET TO A POINT; THENCE N75°57'07"W, A DISTANCE OF 582.85 FEET TO A POINT ON A CURVE CONCAVE SOUTHWESTERLY, HAVING A RADIUS OF 3869.72 FEET, A CHORD BEARING OF N76°49'37"W, A CHORD DISTANCE OF 118.16 FEET; AND A CENTRAL ANGLE OF 01°44'59"; THENCE, ALONG THE ARC OF SAID CURVE, A DISTANCE OF 118.17 FEET TO THE POINT OF BEGINNING.

SAID LANDS CONTAINING APPROXIMATELY 7.84 ACRES, OR 341,667 SQUARE FEET, MORE OR LESS.

SURVEYOR'S NOTES:
1. The lands as shown hereon lie within Section 34, Township 20 S., Range 30 E., Seminole County, Florida.
2. This survey represents a survey made on the ground under the supervision of the signing surveyor, unless otherwise noted.
3. Underground improvements or underground foundations have not been located except as noted.
4. This survey does not reflect or determine ownership.
5. All easements of which the surveyor has knowledge of, or has been furnished, have been noted on this map.
6. No title data has been provided to this surveyor unless otherwise noted.
7. Bearings shown hereon are assumed relative to the north property line of lots 25 & 32; Said bearing being S82°26'56"E assumed.
8. According to the Federal Insurance Rate Map, this property lies in Zones "AE" and "X", Community Panel number 12117C0160 F, Dated: 9/28/2007.
9. Elevations shown hereon are based on Seminole County benchmarks relative to NAVD 88.
10. There are no bearing shown on the plat.
11. The edge of water for the creek was not located due to steep incline of embankments throughout property.
12. Wetlands as shown hereon are delineated per flagged locations provided by others.

REVISIONS	
Rev. ADDITIONAL TOPOGRAPHY	Date: 5/21/26
Rev. WETLAND FLAG LOCATION	Date: 9/17/25
Rev. TREE & WETLAND LOCATION / WETLAND	Date: 4/18/25
Rev. RECERTIFICATION – SPCS	Date: 10/15/24
Rev. ADD METES & BOUNDS DESCRIPTION	Date: 02/05/24
Rev. RECERTIFICATION – EASEMENTS	Date: 10/4/23
Rev. RECERTIFICATION – EAST LINE	Date: 2/2/22

THIS SURVEY MAP AND REPORT OR THE COPIES THEREOF ARE NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

Job No:	0-178
Field Date:	12/22/21
Drawn By:	JJR
Field By:	BK/LL
Scale:	1"=60'

William F. Menard
Professional Surveyor & Mapper
Florida Registration #5625

SHEET 1 OF 1

BOUNDARY & TOPOGRAPHIC SURVEY
OF
4301 S.R. 419, WINTER SPRINGS, FL
FOR
YOUDALI INTERNATIONAL INVESTMENTS, LLC

HLSM, LLC
Henrich-Luka-Swaggerty-Menard
Professional Surveyors & Mappers
Licensed Business No. 7276
302 Live Oaks Boulevard
Casselberry, Florida 32707
Survey@HLSM.US P: (407) 647-7346

William F Menard
Digitally signed by William F Menard
Date: 2026.06.24 08:09:58 -04'00'

\\HLSM-401\Public\Projects\ENTZMINGER FARMS ADD. 2\dwg\Lot 25 & 32 SPCS.dwg

SR 419 RV & BOAT STORAGE LOT
4301 SR 419 , WINTER SPRINGS, FLORIDA 32708

ZONING MAP



PROJECT LOCATION

PARCEL ID: 34-20-30-5AW-0000-0250

LEGAL DESCRIPTION: LOTS 25 & 32 (LESS RD) ENTZMINGER FARMS ADD NO 2 PB 5 PG 9

Sheet Number	Sheet Title
C-1	Key Sheet
C-2	General Notes
C-3	Existing Condition - Site Survey
C-3A	Demolition Plan
C-4	Proposed Site Plan
C-5	Civil Geometry Plan
C-6	Paving Grading & Drainage (Sheet 1 of 2)
C-6A	Paving Grading & Drainage (Sheet 2 of 2)
C-7	Construction Details (1)
C-8	Construction Details (2)
C-9	Construction Details (3)
C-10	Wall Details
C-11	Signing & Pavement Marking Plan
C-12	Erosion Control Plan
C-13	Stormwater Pollution Prevention Plan (1)
C-14	Stormwater Pollution Prevention Plan (2)
C-15	Stormwater Pollution Prevention Plan (3)
C-16	Fire Truck Routing Plan
L-01	Tree Disposition Plan

CIVIL ENGINEER:
DAVID RETLAW BORYS, P.E.
P.E. LICENSE NO. 75372
OM ENGINEERING SERVICES, INC.
621 E. WASHINGTON ST., STE 8
ORLANDO, FLORIDA 32801
PHONE NO. (407) 704-7815

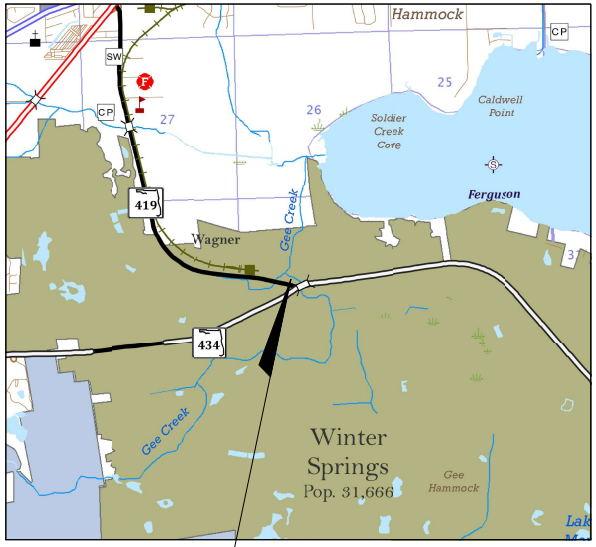
LANDSCAPE ARCHITECT:
MIKE MILLER, PLA
ENGLAND-THIMS & MILLER, INC.
1411 EDGEWATER DR #200,
ORLANDO, FLORIDA 32804
PHONE NO. (407) 459-8213

OWNER & DEVELOPER:
YOUDALI INTERNATIONAL INVESTMENTS LLC,
MATT MERDIAN
1889 BERKLEY CT.
MAITLAND, FLORIDA 32751
INFO@TAXDEEDPRO.COM
PHONE NO. (407) 230-8093
KADO INVESTMENTS LLC,
KIRA WOODS
1857 LAKE SPIER DR.
WINTER PARK, FL 32789

PROFESSIONAL SURVEY & MAPPER:
WILLIAM F. MENARD
FLORIDA REGISTRATION # 5625
302 LIVE OAKS BOULEVARD
CASSELBERRY, FLORIDA 32707
PHONE NO. (407) 647-7346

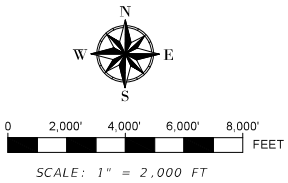
NOTE: THE SCALE OF THESE PLANS MAY HAVE CHANGED DUE TO REPRODUCTION. PLAN SHEET SCALES PROVIDED IN THIS PLAN SET ARE ONLY APPLICABLE FOR 24"X36" SHEETS.

CIVIL PLANS



PROJECT LOCATION

LOCATION MAP



SCALE: 1" = 2,000 FT

SEPTEMBER 2026

PROPERTY INFORMATION:

TOTAL LAND AREA: 7.84 AC
PROPOSED USE: (C-2) COMMERCIAL RV & BOAT STORAGE LOT

UTILITIES:

CHARTER COMMUNICATIONS	CATV,FIBER,TELEPHONE	GARY BLEVINS	813-302-0800
CITY OF WINTER SPRINGS	RECLAIMED WATER SEWER, WATER STORM WATER	DILLON THOMAS	407-327-1800
ZAYO GROUP	FIBER	HENRY KLOBUCAR	406-496-6510
DUKE ENERGY	ELECTRIC	CUSTOMER SERVICE	407-629-1010
FL PUBLIC UTILITIES	GAS	COLIN DUNN	386-785-4554
WOW FIBER INTERNET	FIBER	GREG HUNT	303-927-4994
MCI	COMMUNICATION LINES FIBER	INVESTIGATIONS TEAM	800-624-9675
CROWN CASTLE NG	FIBER	FIBER DIG TEAM	800-654-3110
AT&T	TELEPHONE	DINO FARRUGGIO	800-247-2020
SEMINOLE COUNTY TRAFFIC ENGINEERING	FIBER	KEITHBROWN	321-377-2405
UNITI FIBBER LLC	FIBER	CHARLIE CROFT	251-214-7059

PLANS PREPARED BY:

DAVID R. BORYS LICENSE No 75372 STATE OF FLORIDA PROFESSIONAL ENGINEER

David R Borys

OM ENGINEERING SERVICES, INC.
Civil • Structural • Inspections

621 E. Washington St., Suite 8
Orlando, Florida 32801
Office: (407) 704-7815
www.omengineer.com

GOVERNING DESIGN STANDARDS AND SPECIFICATIONS:

1. ALL DESIGN AND CONSTRUCTION MUST CONFORM TO THE MINIMUM STANDARDS SET FORTH IN THE CITY OF WINTER SPRINGS LAND DEVELOPMENT CODE AND/ OR ZONING REGULATIONS.
2. CITY OF WINTER SPRINGS LAND DEVELOPMENT CODE 2024.
3. FLORIDA DEPARTMENT OF TRANSPORTATION, FY 2025-26, STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION AND APPLICABLE INTERIM REVISIONS.
4. FLORIDA DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION FY 2025-26.

C-1

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

I. GENERAL CONSTRUCTION NOTES

1. ALL ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM 1988.
2. LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES, AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS, ELEVATIONS, AND DIMENSIONS OF ALL EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES AFFECTING THIS WORK PRIOR TO CONSTRUCTION.
3. THE CONTRACTOR SHALL CHECK THE PLANS FOR CONFLICTS, DISCREPANCIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY CONFLICTS OR DISCREPANCIES BEFORE PERFORMING ANY WORK IN THE AFFECTED AREA.
4. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN AREAS OF BURIED UTILITY COMPANIES. IN ORDER TO PERMIT MARKING THE LOCATIONS OF THE EXISTING UNDERGROUND UTILITIES, AND SHALL PROVIDE AT LEAST 48 HOURS NOTICE TO THE VARIOUS UTILITY COMPANIES IN ORDER TO PERMIT MARKING THE LOCATIONS OF THE EXISTING UNDERGROUND UTILITIES, IN ADVANCE OF CONSTRUCTION BY CALLING "SUNSHINE" AT 1-800-432-4770. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL UTILITIES NOT INCLUDED IN THE "SUNSHINE" PROGRAM.
5. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO EXISTING FACILITIES, ABOVE OR BELOW GROUND, THAT MAY OCCUR AS A RESULT OF THE WORK PERFORMED BY THE CONTRACTOR.
6. ALL UNDERGROUND UTILITIES MUST BE IN PLACE AND TESTED OR INSPECTED PRIOR TO BASE AND SURFACE CONSTRUCTION.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BECOME FAMILIAR WITH THE PERMIT AND INSPECTION REQUIREMENTS OF THE VARIOUS GOVERNMENTAL AGENCIES. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION, AND SCHEDULE INSPECTIONS ACCORDING TO AGENCY INSTRUCTION.
8. ALL SPECIFICATIONS AND DOCUMENTS REFERRED TO SHALL BE AS NOTED ON THE KEY SHEET.
9. ALL WORK PERFORMED SHALL COMPLY WITH THE REGULATIONS AND ORDINANCES OF THE VARIOUS GOVERNMENTAL AGENCIES HAVING JURISDICTION OVER THE WORK.
10. THE CONTRACTOR SHALL SUBMIT FOR APPROVAL TO THE OWNER'S ENGINEER, SHOP DRAWINGS ON ALL PRECAST AND MANUFACTURED ITEMS FOR THE SUBJECT SITE. FAILURE TO OBTAIN APPROVAL BEFORE INSTALLATION MAY RESULT IN REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE. ALL SHOP DRAWINGS ARE TO BE REVIEWED AND APPROVED BY THE CONTRACTOR PRIOR TO SUBMITTAL TO THE OWNER'S ENGINEER.
11. AT LEAST THREE (3) WORKING DAYS PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND APPROPRIATE AGENCIES, AND SUPPLY THEM WITH ALL REQUIRED SHOP DRAWINGS, CONTRACTOR'S NAME, STARTING DATE, PROJECTED SCHEDULE, AND OTHER INFORMATION AS REQUIRED. ANY WORK PERFORMED PRIOR TO NOTIFYING THE ENGINEER, OR WITHOUT AGENCY INSPECTOR PRESENT, MAY BE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
12. WORK PERFORMED PURSUANT TO THESE PLANS SHALL INTERFACE SMOOTHLY WITH OTHER WORK BEING PERFORMED ON SITE BY OTHER CONTRACTORS AND UTILITY COMPANIES. IT WILL BE NECESSARY FOR THE CONTRACTOR TO COORDINATE AND SCHEDULE HIS ACTIVITIES, WHERE NECESSARY, WITH OTHER CONTRACTORS AND UTILITY COMPANIES.
13. SEE TRENCHING NOTES FOR BACKFILL REQUIREMENTS AROUND PIPES AND IN AREAS TO BE PAVED.
14. ALL PRIVATE AND PUBLIC PROPERTY AFFECTED BY THIS WORK SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN EXISTING CONDITIONS UNLESS SPECIFICALLY EXEMPTED BY THE PLANS. ADDITIONAL COSTS ARE INCIDENTAL TO OTHER CONSTRUCTION AND NO EXTRA COMPENSATION IS TO BE ALLOWED.
15. ALL DISTURBED AREAS ARE TO BE SEEDED AND MULCHED TO CITY AND COUNTY STANDARDS (WHICHEVER IS MORE STRINGENT), AND MAINTAINED UNTIL A SATISFACTORY STAND OF GRASS, ACCEPTABLE TO THE REGULATORY AGENCY AND ENGINEER, HAVE BEEN OBTAINED. ANY WASHOUTS, REGRADING, RESEEDING, GRASSING WORK, AND OTHER EROSION WORK REQUIRED, WILL BE PERFORMED BY THE CONTRACTOR, UNTIL THE SYSTEM IS ACCEPTED FOR MAINTENANCE BY THE REGULATORY AGENCY AND ENGINEER.
16. ALL SEEDING AND MULCHING SHALL INCLUDE WATERING AND FERTILIZATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THESE AREAS UNTIL THE PROJECT IS COMPLETED AND ACCEPTED BY THE OWNER.
17. CHAPTER 556.105 OF THE FLORIDA STATUTES REQUIRES THAT AN EXCAVATOR NOTIFY ALL GAS UTILITIES A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO EXCAVATING. MAPS, IF ANY, SHOW ONLY THE APPROXIMATE LOCATION OF GAS MAINS AND DO NOT SHOW SERVICE LINES. THE ONLY SAFE AND PROPER WAY TO LOCATE EITHER MAINS OR SERVICE LINES IS BY AN ON-SITE INSPECTION BY THE RESPECTIVE GAS PERSONNEL. THEREFORE, EXCAVATORS ARE INSTRUCTED TO TELEPHONE THE RESPECTIVE GAS COMPANY TWO (2) WORKING DAYS BEFORE ENTERING A CONSTRUCTION AREA.
18. THE CONTRACTOR SHALL LOCATE AND FLAG ALL PROPERTY CORNERS, WITHIN THE LIMITS OF CONSTRUCTION, PRIOR TO FINAL ENGINEERING INSPECTION AND CERTIFICATION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO HAVE PROPERTY CORNERS, WHICH HAVE BEEN LOST DURING CONSTRUCTION, RE-ESTABLISHED BY A PROFESSIONAL LAND SURVEYOR.
19. THE CONTRACTOR IS TO SUPPLY THE OWNER'S ENGINEER WITH A PHOTOCOPY OF ALL COMPACTION TESTS AND ASPHALT RESULTS. THE CONTRACTOR IS TO CERTIFY TO THE ENGINEER, IN WRITING, THAT ALL TESTING REQUIREMENTS, REQUIRED BY THE LOCAL AND STATE REGULATORY AGENCIES FOR THE IMPROVEMENTS, AS REQUIRED BY THE ENGINEERING CONSTRUCTION DRAWINGS, HAVE BEEN SATISFIED. UNLESS OTHERWISE NOTED, SOIL SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
20. THE CONTRACTOR IS RESPONSIBLE FOR APPLICABLE TESTS. TESTS WILL BE REQUIRED PURSUANT WITH THE TESTING REQUIREMENTS AS SHOWN ON THE ENGINEERING CONSTRUCTION DRAWINGS. UPON COMPLETION OF THE WORK, THE CONTRACTOR IS TO SUBMIT CERTIFICATIONS TO THE OWNER'S ENGINEER, STATING THAT ALL REQUIREMENTS HAVE BEEN MET.
21. THE CONTRACTOR SHALL MAINTAIN A COPY OF THE APPROVED PLANS AND PERMITS AT THE CONSTRUCTION SITE.
22. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR MEANS AND METHODS FOR CONSTRUCTION SITE SAFETY.
23. TRAILERS AND ALL OTHER STRUCTURAL COMPONENTS ON SITE ARE DESIGNED AND FURNISHED BY OTHERS.
24. THE CITY OF WINTER SPRINGS GUIDELINES FOR EROSION SEDIMENT CONTROL (AKA THE BLUE SHEET) WILL GUIDE THE IMPLEMENTATION OF EROSION SEDIMENT CONTROL MEASURES.
25. A SINGLE EXISTING GRAVE SITE IS LOCATED NORTHEAST OF THE PROJECT SITE NEAR POND 2 AND IS TO BE PROTECTED IN PLACE. EXCAVATION IN THIS AREA SHALL BE PERFORMED CAUTIOUSLY. GRADING ACTIVITIES IN THIS AREA SHALL CEASE IF ANY ADDITIONAL GRAVE SITES OR REMAINS ARE DISCOVERED DURING EXCAVATION OR GRADING AND CONTRACTOR TO IMMEDIATELY NOTIFY EOR. AS DEPICTED ON THE PLANS A 6 FT CHAIN LINK FENCE WITH GATE (WEST SIDE) SHALL BE ERECTED AT A 5 FT MINIMUM OFFSET FROM THE EXISTING GRAVE SITE.

II. CLEARING AND GRUBBING NOTES

1. COORDINATE WITH OWNER REGARDING THE STATUS OF EXISTING TREES IN THE PROJECT SITE.
2. THE CONTRACTOR SHALL CLEAR AND GRUB, ONLY THOSE PORTIONS OF THE SITE, NECESSARY FOR CONSTRUCTION. DISTURBED AREAS WILL BE SEEDED, MULCHED, OR PLANTED WITH OTHER APPROVED LANDSCAPE MATERIAL IMMEDIATELY FOLLOWING CONSTRUCTION. COORDINATE WITH OWNER.
3. ALL CONSTRUCTION DEBRIS AND OTHER WASTE MATERIAL SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH APPLICABLE REGULATIONS.
4. CLEARING AND LAND DISTURBANCE ALONG THE WEST AND NORTH PROJECT BOUNDARY (ADJACENT TO THE WETLANDS FOR CRF CREEK AND IT'S TRIBUTARY) TO BE MINIMIZED TO WHAT IS NECESSARY FOR TIE-IN TO EXISTING GRADES. NO WORK IS PERMITTED TO BE PERFORMED WITHIN THE 15 FT WETLANDS/UPLAND BUFFER.
5. REFER TO TREE DISPOSITION PLAN AT THE END OF THIS PLAN SET FOR IDENTIFICATION OF TREES TO BE REMOVED AND PROTECTED. TREE REMOVAL AND PROTECTION TO BE IN COMPLIANCE WITH ALL APPLICABLE GUIDELINES AND REGULATIONS FOR CITY OF WINTER SPRINGS. CONTRACTOR TO NOTIFY EOR OF ANY 4" DIAMETER TREES AND LARGER THAT WOULD REQUIRE REMOVAL AND ARE NOT DEPICTED ON THE TREE DISPOSITION PLAN. NO TREES OF 4" DIAMETER OR LARGER MAY BE REMOVED WITHOUT APPROVAL BY CITY OF WINTER SPRINGS.
6. CLEARING AND GRUBBING TO BE LIMITED TO AREA WITHIN THE LAND DISTURBANCE BOUNDARY AS DESIGNATED ON THE PAVING, GRADING, AND DRAINAGE SHEET.

III. PAVING, GRADING, AND DRAINAGE NOTES

1. ALL DELETERIOUS SUBSTANCE MATERIAL (I.E. MUCK, PEAT, BURIED DEBRIS) IS TO BE EXCAVATED AND REMOVED TO A MINIMUM OF 5 FT BEYOND THE PROPOSED STRUCTURE AND PAVEMENT LIMITS IN ACCORDANCE WITH THESE PLANS, OR AS DIRECTED BY THE OWNER'S ENGINEER, OR OWNER'S SOIL TESTING COMPANY. DELETERIOUS MATERIAL IS TO BE STOCKPILED OR REMOVED FROM THE SITE AS DIRECTED BY THE OWNER. EXCAVATED AREAS ARE TO BE BACKFILLED WITH APPROVED MATERIAL COMPRISED OF NON-PLASTIC SANDS WITH 12% OR LESS FINES CONTENT IN ACCORDANCE WITH THESE PLANS, OR AS DIRECTED BY THE OWNER'S ENGINEER, OR OWNER'S SOIL TESTING COMPANY AND COMPACTED TO 95% OF THE MAXIMUM DENSITY AS PER ASTM STANDARD D-1557.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXCAVATIONS AGAINST COLLAPSE AND WILL PROVIDE BRACING, SHEETING, OR SHORING, AS NECESSARY. TRENCHES SHALL BE KEPT DRY WHILE PIPES AND APPURTENANCES ARE BEING PLACED. DEWATERING SHALL BE USED AS REQUIRED.
3. THE CONTRACTOR IS TO INSTALL EXTRA BASE MATERIAL WHEN THE DISTANCE BETWEEN THE PAVEMENT ELEVATION AND THE TOP OF THE PIPE OR BELL IS LESS THAN 1'.
4. STANDARD INDEXES REFER TO THE LATEST EDITION OF FDOT "STANDARD PLANS FOR ROAD CONSTRUCTION."
5. PIPE LENGTHS SHOWN ARE APPROXIMATE.
6. MATERIALS AND CONSTRUCTION METHODS FOR PARKING, DRIVEWAYS, AND STORM DRAINAGE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LOCAL REGULATORY AGENCY AND THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, EDITION NOTED ON KEY SHEET AND SUPPLEMENTAL SPECIFICATIONS THERETO.
7. THE CONTRACTOR SHALL PROVIDE CERTIFIED RECORD DRAWINGS, SIGNED AND SEALED BY A PROFESSIONAL LAND SURVEYOR, IF REQUIRED. THE RECORD DRAWINGS SHALL SHOW FINAL GRADES, INVERTS, AND LOCATIONS OF ALL STORMWATER FACILITIES INCLUDING PROPOSED DRAINAGE STRUCTURES, BERMS AND SWALES. THE CONTRACTOR SHALL PROVIDE TEN (10) COPIES OF THE CERTIFIED RECORD DRAWINGS TO THE ENGINEER FOR THE PURPOSE OF CERTIFYING THE STORMWATER MANAGEMENT SYSTEM(S). AT A MINIMUM, CONTRACTOR SHALL PROVIDE CERTIFIED RECORD DRAWINGS TO THE OWNER AND THE OWNER'S ENGINEER, IDENTIFYING GRADE ELEVATIONS AND SLOPES TO DEMONSTRATE THAT THE MINIMUM SITE GRADING/STORMWATER DESIGN REQUIREMENTS HAVE BEEN MET.
8. MAXIMUM GRADING TIE-IN SLOPES TO BE 2.5:1 (H:V) PER CITY OF WINTER SPRINGS REGULATIONS AND GEOTECHNICAL RECOMMENDATIONS.

IV. PAVING, GRADING, AND DRAINAGE TESTING AND INSPECTION REQUIREMENTS)

1. THE CONTRACTOR SHALL MAINTAIN ALL APPLICABLE STORM DRAINAGE SYSTEMS UNTIL FINAL ACCEPTANCE OF THE PROJECT.
2. THE CONTRACTOR IS RESPONSIBLE FOR APPLICABLE TESTS. TESTS WILL BE REQUIRED PURSUANT WITH THE TESTING REQUIRED BY FDOT SPECIFICATIONS. UPON COMPLETION OF THE WORK, THE CONTRACTOR MUST SUBMIT CERTIFICATIONS TO THE OWNER'S ENGINEER STATING THAT ALL REQUIREMENTS HAVE BEEN MET.

V. TRENCHING NOTES

1. BACKFILL MATERIAL SHALL BE SOLIDLY TAMPED AROUND PIPES IN 6" LAYERS UP TO A LEVEL OF AT LEAST 1' ABOVE THE TOP OF THE PIPE. IN AREAS TO BE PAVED, BACKFILL SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
2. THE MINIMUM SIDE SLOPE SHALL BE PER OSHA REQUIREMENTS.
3. FOR SHORED TRENCHES:
   - A. WHERE SHORING IS NOT EXTENDED TO SURFACE, SLOPE EXCAVATION AWAY FROM TOP OF SHORING PER OSHA REQUIREMENTS.
   - B. PRIOR TO COMPLETION OF FINAL BACKFILL, REMOVE SHEETING ABOVE 1' OF TOP OF PIPE; REMAINDER OF SHEETING TO BE LEFT IN PLACE.
   - C. FOR SHEETING-TYPE CONSTRUCTION, DRIVE SHEETING BELOW BOTTOM OF EXCAVATION FOR LATERAL SUPPORT AS REQUIRED BY THE CONTRACTOR'S REGISTERED ENGINEER.
4. FOR OPEN TRENCHES:
   - A. OPEN TRENCH MAXIMUM VERTICAL WALL HEIGHT SHALL BE PER OSHA REQUIREMENTS.
5. MINIMUM SIDEWALL CLEARANCE SHALL BE 1'.
6. ADDITIONAL EXCAVATION DEPTH (REQUIRED WHERE UNSUITABLE MATERIAL IS ENCOUNTERED) SHALL BE 1'.
7. INITIAL BACKFILL SHALL BE FROM THE PIPE SPRING LINE OR CENTERLINE OF VERTICAL CONDUIT SPAN TO A MINIMUM OF 1' ABOVE THE TOP OF PIPE.
8. HAUNCHING SHALL BE FROM THE BOTTOM OF PIPE TO THE PIPE SPRING LINE OR CENTERLINE OF VERTICAL CONDUIT SPAN.
9. TRENCH ZONE NOTES:
   - A. FINAL BACKFILL SHALL BE INSTALLED IN LIFTS NOT EXCEEDING 6", LOOSE MEASUREMENT.
   - B. INITIAL BACKFILL SHALL BE INSTALLED IN LIFTS NOT EXCEEDING 6", LOOSE MEASUREMENT. ALL LIFTS SHALL BE COMPACTED BY HAND TAMPING OR AN APPROVED METHOD OF MECHANICAL TAMPING.
   - C. HAUNCHING SHALL BE IN COMPLETELY DEWATERED TRENCHES IN LIFTS NOT EXCEEDING 6", LOOSE MEASUREMENT. ALL LIFTS SHALL BE COMPACTED BY HAND TAMPING. HAUNCHING SHALL BE BROUGHT UP EQUALLY ON BOTH SIDES OF THE PIPE.
   - D. BEDDING SHALL BE INSTALLED IN COMPLETELY DEWATERED TRENCHES IN LIFTS NOT EXCEEDING 6", LOOSE MEASUREMENT, AND SHALL BE COMPACTED BY HAND OR MECHANICAL TAMPING. PROPERLY SHAPED BELL HOLES SHALL BE EXCAVATED IN THE BEDDING TO PERMIT ASSEMBLY OF THE PIPE.
   - E. NATIVE, UNDISTURBED MATERIAL IN COMPLETELY DEWATERED TRENCHES MEETING THE COMPACTION AND MATERIAL REQUIREMENTS FOR COMPACTED BEDDING MATERIAL NEED NOT BE REPLACED OR REWORKED, EXCEPT FOR SHAPING OF THE BELL HOLES, AND WHERE REFILL IS REQUIRED.
   - F. NEW MATERIAL SHALL BE REQUIRED WHERE UNSUITABLE MATERIAL IS ENCOUNTERED. NEW MATERIAL SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS FOR BEDDING.

VI. SAFETY NOTES

1. DURING THE CONSTRUCTION AND/OR MAINTENANCE OF THIS PROJECT, ALL SAFETY REGULATIONS ARE TO BE ENFORCED BY THE CONTRACTOR. THE CONTRACTOR OR HIS REPRESENTATIVE SHALL BE RESPONSIBLE FOR THE CONTROL AND SAFETY OF THE TRAVELING PUBLIC AND THE SAFETY OF HIS PERSONNEL. LABOR SAFETY REGULATIONS SHALL CONFORM TO THE PROVISIONS SET FORTH BY OSHA IN THE FEDERAL REGISTER OF THE DEPARTMENT OF TRANSPORTATION.
2. THE MINIMUM STANDARDS AS SET FORTH IN THE CURRENT EDITION OF THE MANUAL OF UNIFORM MINIMUM STANDARDS FOR DESIGN, CONSTRUCTION AND MAINTENANCE FOR STREET AND HIGHWAYS SHALL BE FOLLOWED IN THE DESIGN APPLICATION, INSTALLATION, MAINTENANCE, AND REMOVAL OF ALL CONTROL DEVICES, WARNING DEVICES, AND BARRIERS NECESSARY TO PROTECT THE PUBLIC AND WORK MEN FROM HAZARDS WITHIN THE PROJECT LIMITS, IF APPLICABLE.
3. ALL TRAFFIC CONTROL MARKINGS AND DEVICES SHALL CONFORM TO THE PROVISIONS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES PREPARED BY THE U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION, IF APPLICABLE.
4. LABOR SAFETY REGULATIONS SHALL CONFORM TO THE PROVISIONS SET FORTH BY OSHA IN THE FEDERAL REGISTER OF THE DEPARTMENT OF TRANSPORTATION.
5. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY AND ENFORCE ALL APPLICABLE SAFETY REGULATIONS. THE ABOVE INFORMATION HAS BEEN PROVIDED FOR THE CONTRACTOR'S INFORMATION ONLY AND DOES NOT IMPLY THAT THE OWNER OR ENGINEER WILL INSPECT AND/OR ENFORCE SAFETY REGULATIONS.
6. CONTINUED DRIVEWAY ACCESS FOR EXISTING RESIDENTIAL STRUCTURE AND DETACHED GARAGE TO BE MAINTAINED DURING ALL CONSTRUCTION PHASES. CONTRACTOR TO COORDINATE WITH PROPERTY OWNER AND PROVIDE WRITTEN REQUEST AND RECEIVE OWNERS APPROVAL IF ACCESS CANNOT BE MAINTAINED OR IS NOT PRACTICAL FOR PROPOSED CONSTRUCTION ACTIVITIES.

LEGEND:

CB	CONCRETE BLOCK
CH	CHORD
CHB	CHORD BEARING
CONC	CONCRETE
D	DOCUMENT
DI	DELTA
DOC	DRAINAGE INLET
EOW	EDGE OF WATER
EP	EDGE OF PAVEMENT
FDOT	FLORIDA DEPARTMENT OF TRANSPORTATION
FOC	FIBER OPTIC CABLE MARKER
FV	FIBER OPTIC CABLE VAULT
IRC	IRON ROD AND CAP
L	LENGTH
MES	MITERED END-SECTION
OHW	OVERHEAD WIRE
ORB	OFFICIAL RECORD BOOK
P	PLAT
PG	PAGE
R	RADIUS
REC	RECOVERED
R/W	RIGHT-OF-WAY
TOB	TOP OF BANK
TSB	TRAFFIC SIGNAL BOX
TSP	TRAFFIC SIGNAL POLE
UE	PAGE
WPP	WOOD POWER POLE
O	SET IRON PIPE AND CAP (LB 7276)
	PARKING AREA STABILIZATION - GEOCELL (PRESTO/GEOSYSTEMS - GEOWEB GEOCELLS OR ENGINEER APPROVED EQUAL)
	6" CONCRETE DRIVEWAY
	PROPOSED FENCE
	EXISTING FENCE
	PROPOSED ACCESS GATE
	WETLANDS BOUNDRY
	INLET PROTECTION
	STABILIZED CONSTRUCTION ENTRANCE
	SILT FENCE (TYPE III) (SILT RUNOFF PREVENTION)

CONSULTANT:

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DAVID RETLAW BORYS, P.E.
FL. REG. # 75372

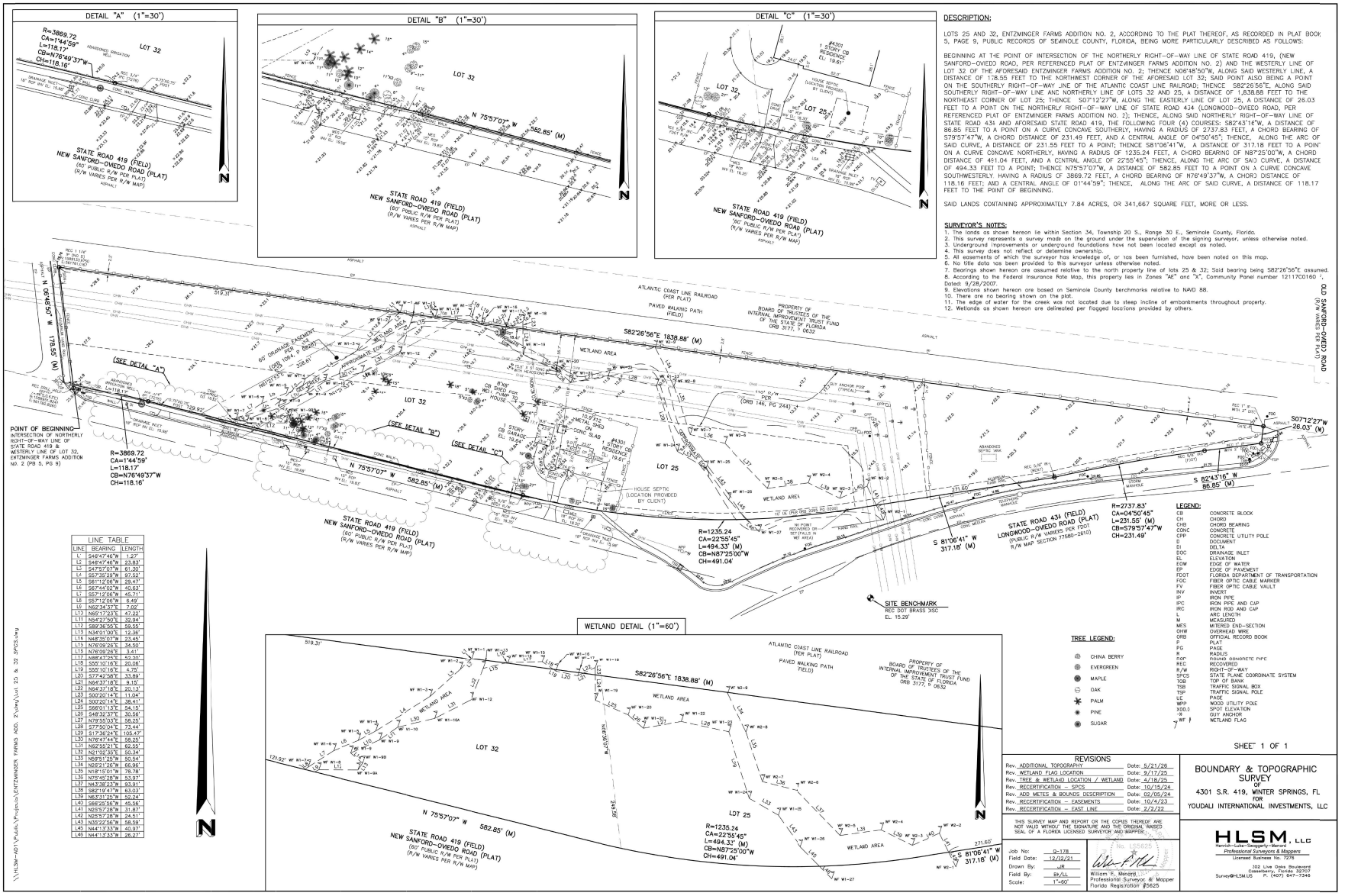
General Notes

SR 419 RV & BOAT STORAGE LOT
4301 SR 419 WINTER SPRINGS, FL 32708

NO. 1	DATE: 2025-06-04
DESCRIPTION: 1st SUB, CITY OF WINTER SPRINGS	
NO. 2	DATE: 2025-11-19
DESCRIPTION: 2nd SUB,CITY OF WINTER SPRINGS	
NO. 3	DATE: 2026-03-31
DESCRIPTION: 3rd SUB,CITY OF WINTER SPRINGS	
NO. 4	DATE: 2026-09-23
DESCRIPTION: 3rd SUB,WINTER SPRINGS,ORB FDOT)	
NO.	DATE:
DESCRIPTION:	
PROJECT NO. 22-2211	

C-2

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.



LINE TABLE		
LINE	BEARING	LENGTH
L1	S48°47'46"W	1.27'
L2	S48°47'46"W	23.85'
L3	S47°57'07"W	61.30'
L4	S57°32'29"W	97.50'
L5	S61°12'06"W	29.47'
L6	S67°44'02"W	40.63'
L7	S57°12'06"W	45.71'
L8	S57°12'06"W	6.49'
L9	N82°34'37"E	7.07'
L10	N82°12'23"E	47.22'
L11	N54°27'50"E	32.94'
L12	S89°36'55"E	59.55'
L13	N34°01'00"E	12.36'
L14	N48°35'07"W	23.45'
L15	N76°09'26"E	34.50'
L16	N76°09'26"E	3.41'
L17	N89°47'35"E	59.35'
L18	S55°10'16"E	20.06'
L19	S55°10'16"E	4.75'
L20	S77°42'58"E	33.89'
L21	N64°37'18"E	9.15'
L22	N64°37'18"E	20.13'
L23	S00°20'14"E	11.04'
L24	S00°20'14"E	38.41'
L25	S68°01'13"E	54.15'
L26	S48°32'37"E	30.56'
L27	N78°47'44"E	58.25'
L28	S77°50'04"E	73.44'
L29	S17°36'24"E	105.47'
L30	N78°47'44"E	58.25'
L31	N82°32'21"E	62.20'
L32	N21°02'35"E	30.34'
L33	N59°51'25"W	50.54'
L34	N29°21'26"W	66.86'
L35	N18°51'01"W	78.78'
L36	N70°45'28"W	53.87'
L37	N43°38'23"W	93.91'
L38	S82°19'47"W	63.03'
L39	N63°31'25"W	52.24'
L40	S66°25'56"W	45.56'
L41	N25°57'28"W	31.87'
L42	N25°57'28"W	24.51'
L43	N30°22'56"W	58.59'
L44	N44°13'33"W	40.97'
L45	N44°13'33"W	26.27'

DESCRIPTION:

LOTS 25 AND 32, ENTZMINGER FARMS ADDITION NO. 2, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 5, PAGE 9, PUBLIC RECORDS OF SEMINOLE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE POINT OF INTERSECTION OF THE NORTHERLY RIGHT-OF-WAY LINE OF STATE ROAD 419, (NEW SANFORD-OVIEDO ROAD, PER REFERENCED PLAT OF ENTZWINGER FARMS ADDITION NO. 2) AND THE WESTERLY LINE OF LOT 32 OF THE AFORESAID ENTZWINGER FARMS ADDITION NO. 2; THENCE N06°48'50"W, ALONG SAID WESTERLY LINE, A DISTANCE OF 118.55 FEET TO THE NORTHWEST CORNER OF THE AFORESAID LOT 32; SAID POINT ALSO BEING A POINT ON THE SOUTHERLY RIGHT-OF-WAY LINE OF THE ATLANTIC COAST LINE RAILROAD; THENCE S82°26'56"E, ALONG SAID SOUTHERLY RIGHT-OF-WAY LINE AND NORTHERLY LINE OF LOTS 32 AND 25, A DISTANCE OF 1,838.88 FEET TO THE NORTHEAST CORNER OF LOT 25; THENCE S07°12'27"W, ALONG THE EASTERLY LINE OF LOT 25, A DISTANCE OF 26.03 FEET TO A POINT ON THE NORTHERLY RIGHT-OF-WAY LINE OF STATE ROAD 434 (LONGWOOD-OVIEDO ROAD, PER REFERENCED PLAT OF ENTZMINGER FARMS ADDITION NO. 2); THENCE, ALONG SAID NORTHERLY RIGHT-OF-WAY LINE OF STATE ROAD 434 AND AFORESAID STATE ROAD 419, THE FOLLOWING FOUR (4) COURSES: S82°43'16"W, A DISTANCE OF 86.85 FEET TO A POINT ON A CURVE CONCAVE SOUTHERLY, HAVING A RADIUS OF 2737.83 FEET, A CHORD BEARING OF S79°57'47"W, A CHORD DISTANCE OF 231.49 FEET, AND A CENTRAL ANGLE OF 04°50'45", THENCE, ALONG THE ARC OF SAID CURVE, A DISTANCE OF 231.55 FEET TO A POINT; THENCE S81°06'41"W, A DISTANCE OF 317.18 FEET TO A POINT ON A CURVE CONCAVE NORTHERLY, HAVING A RADIUS OF 1235.24 FEET, A CHORD BEARING OF N87°25'00"W, A CHORD DISTANCE OF 491.04 FEET, AND A CENTRAL ANGLE OF 22°55'45"; THENCE, ALONG THE ARC OF SAID CURVE, A DISTANCE OF 494.33 FEET TO A POINT; THENCE N75°57'07"W, A DISTANCE OF 582.85 FEET TO A POINT ON A CURVE CONCAVE SOUTHWESTERLY, HAVING A RADIUS CF 3869.72 FEET, A CHORD BEARING OF N76°49'37"W, A CHORD DISTANCE OF 118.16 FEET; AND A CENTRAL ANGLE OF 01°44'59"; THENCE, ALONG THE ARC OF SAID CURVE, A DISTANCE OF 118.17 FEET TO THE POINT OF BEGINNING.

SAID LANDS CONTAINING APPROXIMATELY 7.84 ACRES, OR 341,667 SQUARE FEET, MORE OR LESS.

SURVEYOR'S NOTES:

1. The lands as shown hereon lie within Section 34, Township 20 S., Range 30 E., Seminole County, Florida.
2. This survey represents a survey made on the ground under the supervision of the signing surveyor, unless otherwise noted.
3. Underground improvements or underground foundations have not been located except as noted.
4. This survey does not reflect or determine ownership.
5. All easements of which the surveyor has knowledge of, or has been furnished, have been noted on this map.
6. No title data has been provided to this surveyor unless otherwise noted.
7. Bearings shown hereon are assumed relative to the north property line of lots 25 & 32; Said bearing being S82°26'56"E assumed.
8. According to the Federal Insurance Rate Map, this property lies in Zones "AE" and "X", Community Panel number 12117C0160 F, Dated: 9/28/2007.
9. Elevations shown hereon are based on Seminole County benchmarks relative to NAVD 88.
10. There are no bearing shown on the plat.
11. The edge of water for the creek was not located due to steep incline of embankments throughout property.
12. Wetlands as shown hereon are delineated per flagged locations provided by others.

LEGEND:

CB	CONCRETE BLOCK
CH	CHORD
CHB	CHORD BEARING
CONC	CONCRETE
CPP	CONCRETE UTILITY POLE
D	DOCUMENT
DI	DELTA
DOC	DRAINAGE INLET
EL	ELEVATION
EOW	EDGE OF WATER
EP	EDGE OF PAVEMENT
FDOT	FLORIDA DEPARTMENT OF TRANSPORTATION
FOC	FIBER OPTIC CABLE MARKER
FV	FIBER OPTIC CABLE VAULT
INV	INVERT
IP	IRON PIPE
IPC	IRON PIPE AND CAP
IRC	IRON ROD AND CAP
L	ARC LENGTH
M	MEASURED
MES	MITERED END-SECTION
OHW	OVERHEAD WIRE
ORB	OFFICIAL RECORD BOOK
P	PLAT
PG	PAGE
R	RADIUS
RCP	ROUND CONCRETE PIPE
REC	RECOVERED
R/W	RIGHT-OF-WAY
SPCS	STATE PLANE COORDINATE SYSTEM
TOB	TOP OF BANK
TSB	TRAFFIC SIGNAL BOX
TSP	TRAFFIC SIGNAL POLE
UE	PAGE
WPP	WOOD UTILITY POLE
X00.0	SPOT ELEVATION
⊕	GUY ANCHOR
WF	WETLAND FLAG

TREE LEGEND:

- CHINA BERRY
- EVERGREEN
- MAPLE
- OAK
- PALM
- PINE
- SUGAR

SHEET 1 OF 1

REVISIONS	
Rev. ADDITIONAL TOPOGRAPHY	Date: 5/21/26
Rev. WETLAND FLAG LOCATION	Date: 9/17/25
Rev. TREE & WETLAND LOCATION / WETLAND	Date: 4/18/25
Rev. RECERTIFICATION - SPCS	Date: 10/15/24
Rev. ADD METES & BOUNDS DESCRIPTION	Date: 02/05/24
Rev. RECERTIFICATION - EASEMENTS	Date: 10/4/23
Rev. RECERTIFICATION - EAST LINE	Date: 2/2/22

Job No:	Q-178
Field Date:	12/22/21
Drawn By:	JJR
Field By:	BV/LL
Scale:	1"=60'

THIS SURVEY MAP AND REPORT OF THE COPIES THEREOF ARE NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

William F. Menard
Professional Surveyor & Mapper
Florida Registration #5625

BOUNDARY & TOPOGRAPHIC SURVEY
OF
4301 S.R. 419, WINTER SPRINGS, FL
FOR
YOUDALI INTERNATIONAL INVESTMENTS, LLC

HLSM, LLC
Henrich-Lake-Swaggerty-Menard
Professional Surveyors & Mappers
Licensed Business No. 7276
202 Live Oaks Boulevard
Casselberry, Florida 32707
Survey@HLSM.US P. (407) 647-7346

NOTE: THE SURVEY INFORMATION PROVIDED ON THIS SHEET IS FOR GENERAL REFERENCE PURPOSES ONLY. OM ENGINEERING SERVICES INC. DOES NOT ATTEST TO THE ACCURACY OR CORRECTNESS OF THE SURVEY INFORMATION PROVIDED ON THIS SHEET AND DOES NOT TAKE RESPONSIBILITY FOR THE SURVEY DATA PROVIDED HEREIN. PLEASE REFER TO THE OFFICIAL SITE SURVEY PROVIDED BY HLSM, LLC.

\\HLSM-NAS1\Public\Projects\ENTZMINGER FARMS ADD. 2\dwg\Lot 25 & 32 SPCS.dwg

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CONSULTANT:

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Existing Condition - Site Survey Exhibit

SR 419 RV & BOAT STORAGE LOT

4301 SR 419 WINTER SPRINGS, FL 32708

NO. 1	DATE: 2025-06-04
DESCRIPTION: 1st SUB. CITY OF WINTER SPRINGS	
NO. 2	DATE: 2025-11-19
DESCRIPTION: 2nd SUBCITY OF WINTER SPRINGS	
NO. 3	DATE: 2026-03-31
DESCRIPTION: 3rd SUBCITY OF WINTER SPRINGS	
NO. 4	DATE: 2026-04-23
DESCRIPTION: 3rd SUB.WINTER SPRINGS(NO SUB FDOT)	
NO.	DATE:
DESCRIPTION:	
PROJECT NO. 22-0211	

C-3

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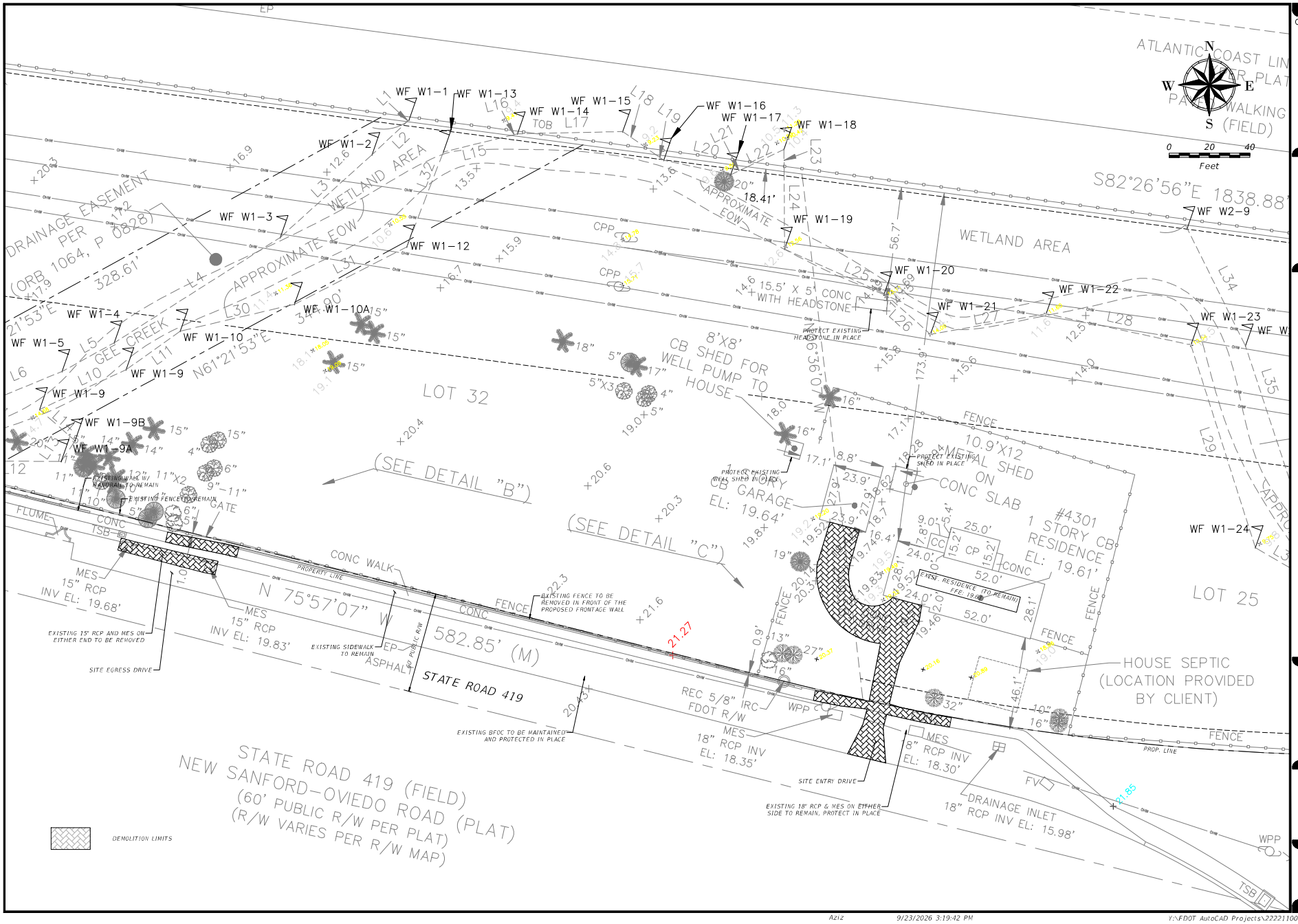

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DAVID RETLAW BORYS, P.E.
FL. REG. # 75372

Demolition Plan

SR 419 RV & BOAT STORAGE LOT

4301 SR 419 WINTER SPRINGS, FL 32708

NO. 1 DATE: 2025-04-04
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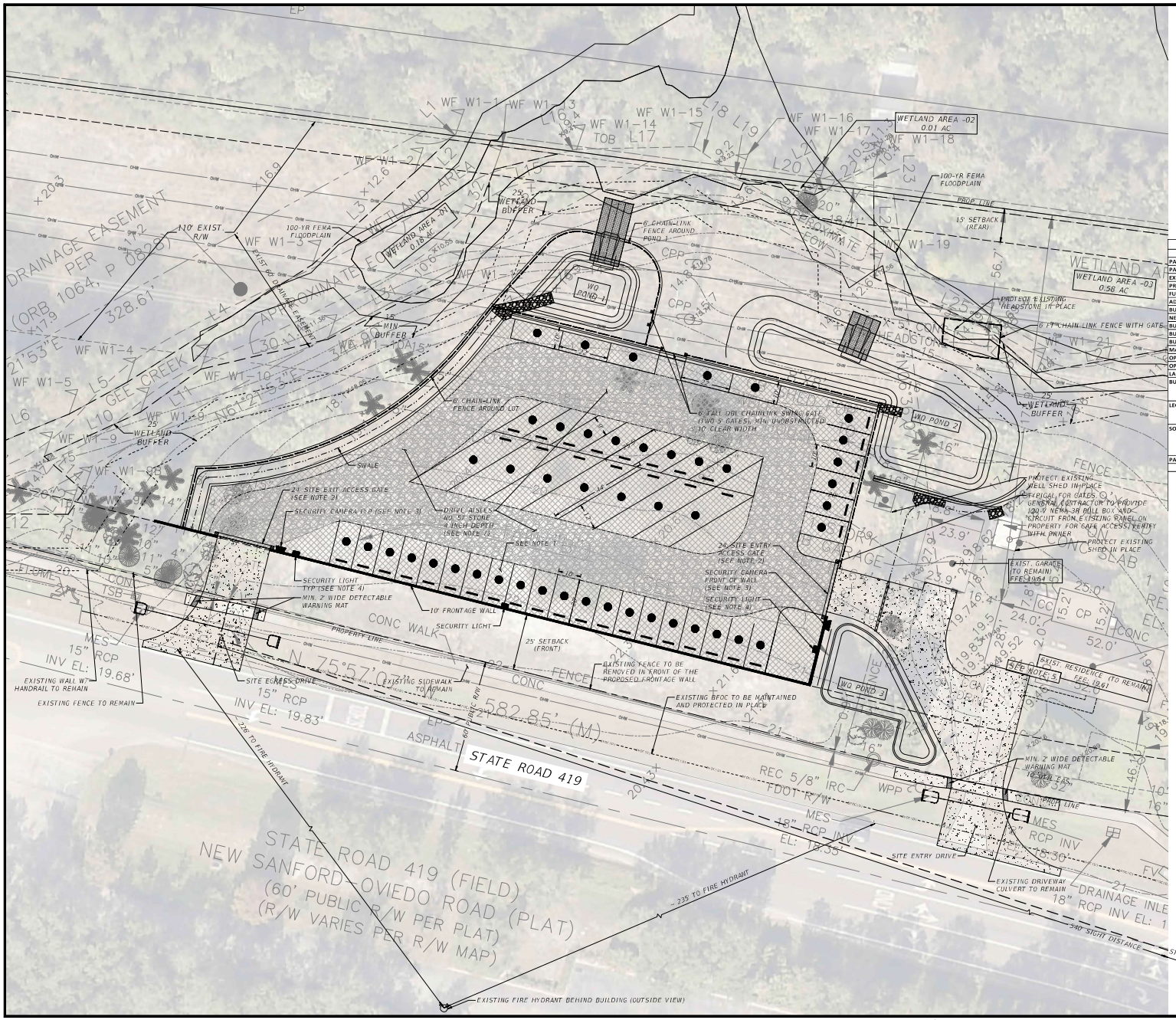
NO. 2 DATE: 2025-11-19
DESCRIPTION: 2nd SUB.CITY OF WINTER SPRINGS
NO. 3 DATE: 2026-03-31
DESCRIPTION: 3rd SUB.CITY OF WINTER SPRINGS
NO. 4 DATE: 2026-09-23
DESCRIPTION: 3rd SUB.WINTER SPRINGS(NO SUB FDOT)
NO. DATE:
DESCRIPTION:
PROJECT NO. 22-0211

C-3A



SITE DATA TABLE	
PARCEL NO. :	34-20-30-5AW-0000-0050
PARCEL AREA:	7.84 AC
EXIST. ZONING	AGRICULTURE/SINGLEFAMILY
PROPOSED ZONING:	GENERAL COMMERCIAL DISTRICT (C-2)
FUTURE LAND USE:	COMMERCIAL NEIGHBORHOOD GENERAL (C)
ADJACENT ZONING AND FUTURE LAND USE:	C1/PUBLIC
BUILDING AREA:	N/A
NET BUILDABLE ACREAGE:	N/A
BUILDING HEIGHT (MAX. ALLOW.):	50 FT
BUILDING HEIGHT (PROPOSED):	N/A
BUILDING STORIES:	0
MAX FLOOR AREA RATIO (FAR):	0.5
OPEN SPACE REQUIRED:	N/A
OPEN SPACE PROVIDED:	N/A
LANDSCAPE BUFFER:	N/A
BUILDING SETBACKS:	FRONT: 25FT REAR: 15 FT SIDE: 15 FT
LEGAL DESCRIPTION:	LOTS 25 & 32 (LESS RD) ENTZMINGER FARMS ADD NO 2 PB 5 PG 9
SOIL TYPE:	PAOLA ST- UCIE SANDS, 0 - 5 % SLOPES NITTAW, OKEELANTA, AND BASINGER SOILS, FREQUENTLY FLOODED
PARKING SPACE CALCULATIONS:	N/A

STORAGE LOT STALLS:

TYPE	COUNT	
RV STALL (44'x17')	7	
CAR (20'x10')	26	
CAR (25.5'x12.8')	8	
CAR (22'x10')	5	TOTAL 46

PARKING AREA STABILIZATION - GEOCELL (PRESTO/GEOSYSTEMS - GEOWEB GEOCELLS OR ENGINEER APPROVED EQUAL)

DRIVE AISLE STABILIZATION - GEOCELL/GEOWEB WITH NO. 57 STONE 4 INCH DEPTH

6" CONCRETE DRIVEWAY

NOTES:

1. NO VEHICLE OVER 10' IN HEIGHT TO BE PARKED IN THE SPACES IN FRONT OF THE WALL ALONG SR 419.
2. PROVIDE FIRE DEPARTMENT ACCESS. INSTALL APPROVED SOS AND SEMINOLE COUNTY KNOX KEY SWITCH (NFPA 1, SECTION 18.2.2.2).
3. TYPICAL FOR ACCESS GATES, EXTERIOR WALL MOUNTED SOLAR OPERATED SECURITY CAMERA BY REOLINK GO PLUS 4MP 4G OR APPROVED EQUAL. CONFIRM WITH OWNER EXACT SPECIFICATIONS. PROVIDE SHOP DRAWING SUBMITTAL FOR REVIEW/APPROVAL.
4. TYPICAL FOR 3 7200W COMMERCIAL SOLAR STREET LIGHT, 100000 LM PARKING LOT LIGHT DUSK TO DAWN AND 20FT COMMERCIAL GRADE LIGHT POLE, ALUMINUM MOUNTED ON TOP OF WALL TO ILLUMINATE PARKING LOT. BY OUTDOOR SOLAR OUTLET OR APPROVED EQUAL. CONFIRM WITH OWNER EXACT SPECIFICATION. PROVIDE SHOP DRAWING SUBMITTAL FOR REVIEW/APPROVAL.
5. EXISTING RESIDENCE TO REMAIN OCCUPIED AND FUNCTION AS SINGLE FAMILY RESIDENCE.IT IS NOT INTENDED TO FUNCTION AS FACILITY FOR STORAGE LOT SITE OPERATIONS OR SECURITY.
6. SITE ENTRY AND EGRESS ACCESS GATES TO PROVIDE OPAQUE SCREENING PER APPLICABLE CITY OF WINTER SPRINGS REGULATIONS.
7. ENTIRE PARKING LOT AREA TO BE STABILIZED WITH GEOCELL/GEOWEB AS SHOWN BY HATCH BOUNDARY. INFILL FOR DRIVE AISLES TO BE CONSTRUCTED WITH NO. 57 STONE (4 INCH DEPTH).

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DAVID RETLAW BORYS, P.E.
FL. REG. # 75372

Proposed Site Plan

SR 419 RV & BOAT STORAGE LOT

4301 SR 419 WINTER SPRINGS, FL 32708

NO. 1 DATE: 2025-06-04
DESCRIPTION: 1st SUB. CITY OF WINTER SPRINGS
NO. 2 DATE: 2025-11-19
DESCRIPTION: 2nd SUB.CITY OF WINTER SPRINGS
NO. 3 DATE: 2026-01-21
DESCRIPTION: 3rd SUB.CITY OF WINTER SPRINGS
NO. 4 DATE: 2026-03-23
DESCRIPTION: 3rd SUB.WINTER SPRINGS& SUB FDOT)
NO. DATE:
DESCRIPTION:

PROJECT NO. 22-2211

C-4

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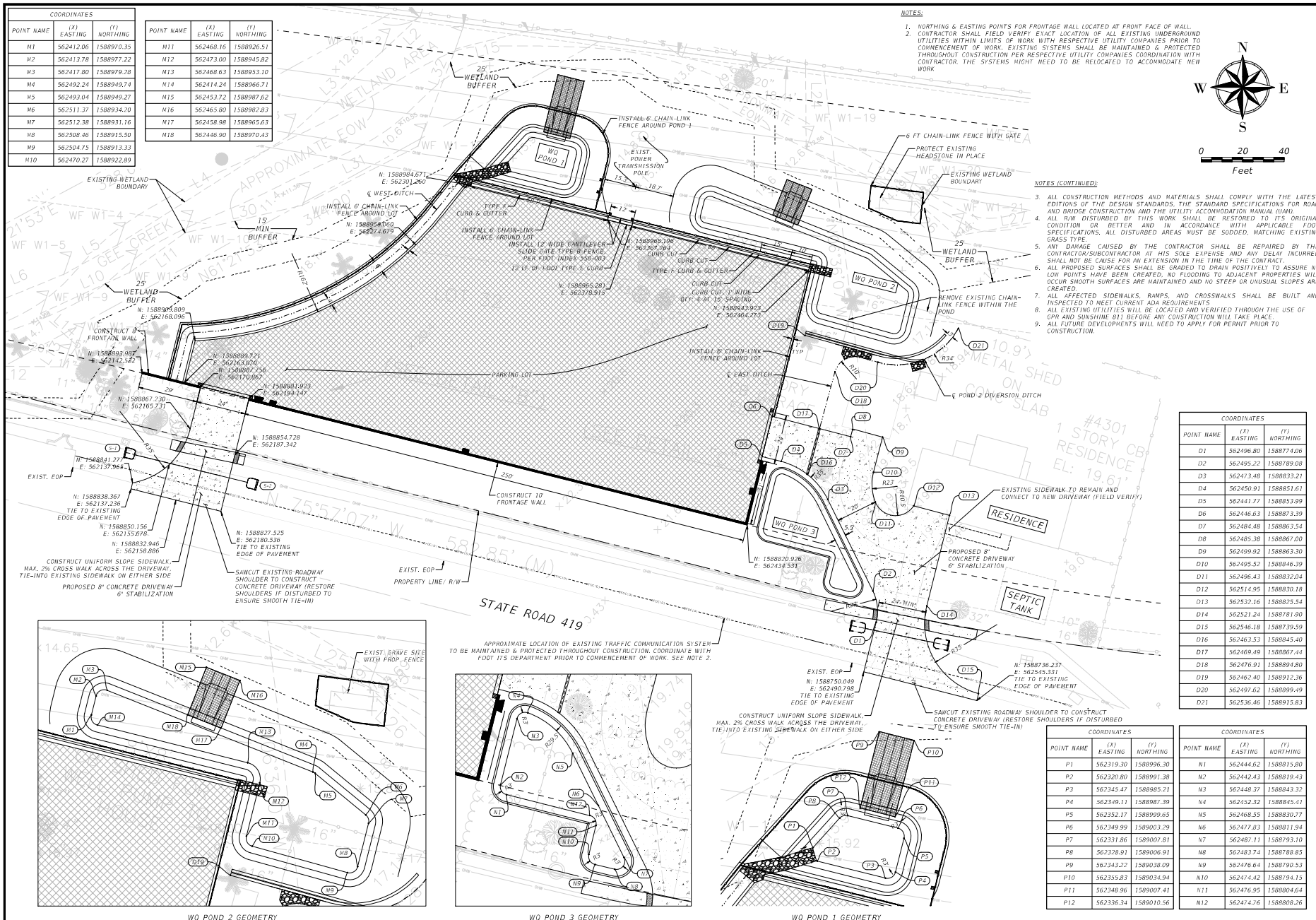

COORDINATES		
POINT NAME	(X) EASTING	(Y) NORTHING
M1	562412.06	1588970.35
M2	562413.78	1588977.22
M3	562417.80	1588979.28
M4	562492.24	1588949.74
M5	562493.04	1588949.27
M6	562511.37	1588934.20
M7	562512.38	1588931.16
M8	562508.46	1588915.50
M9	562504.75	1588913.33
M10	562470.27	1588922.89

COORDINATES		
POINT NAME	(X) EASTING	(Y) NORTHING
M11	562468.16	1588926.51
M12	562473.00	1588945.82
M13	562468.63	1588953.10
M14	562414.24	1588966.71
M15	562453.72	1588987.62
M16	562465.80	1588982.83
M17	562458.98	1588965.63
M18	562446.90	1588970.43

COORDINATES		
POINT NAME	(X) EASTING	(Y) NORTHING
D1	562496.80	1588774.06
D2	562495.22	1588789.08
D3	562473.48	1588833.21
D4	562450.91	1588851.61
D5	562441.77	1588853.99
D6	562446.63	1588873.39
D7	562484.48	1588863.54
D8	562485.38	1588867.00
D9	562499.92	1588863.30
D10	562495.52	1588846.39
D11	562496.43	1588832.04
D12	562514.95	1588830.18
D13	562532.16	1588825.54
D14	562521.24	1588781.90
D15	562546.18	1588739.59
D16	562463.53	1588845.40
D17	562469.49	1588867.44
D18	562476.91	1588894.80
D19	562462.40	1588912.36
D20	562497.62	1588899.49
D21	562536.46	1588915.83

COORDINATES		
POINT NAME	(X) EASTING	(Y) NORTHING
P1	562319.30	1588996.30
P2	562320.80	1588991.38
P3	562345.47	1588985.21
P4	562349.11	1588987.39
P5	562352.17	1588999.65
P6	562349.99	1589003.29
P7	562331.86	1589007.81
P8	562328.91	1589006.91
P9	562343.22	1589038.09
P10	562355.83	1589034.94
P11	562348.96	1589007.41
P12	562336.34	1589010.56

COORDINATES		
POINT NAME	(X) EASTING	(Y) NORTHING
N1	562444.62	1588815.80
N2	562442.43	1588819.43
N3	562448.37	1588843.32
N4	562452.32	1588845.41
N5	562468.55	1588830.77
N6	562477.83	1588811.94
N7	562487.11	1588793.10
N8	562483.74	1588788.85
N9	562476.64	1588790.53
N10	562474.42	1588794.15
N11	562476.95	1588804.64
N12	562474.76	1588808.26

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FL. REG. # 75372

Civil Geometry Plan

SR 419 RV & BOAT STORAGE LOT

4301 SR 419 WINTER SPRINGS, FL 32708

NO. 1 DATE: 2025-06-04
DESCRIPTION: 1st SUB, CITY OF WINTER SPRINGS
NO. 2 DATE: 2025-11-19
DESCRIPTION: 2nd SUB,CITY OF WINTER SPRINGS
NO. 3 DATE: 2026-01-21
DESCRIPTION: 3rd SUB,CITY OF WINTER SPRINGS
NO. 4 DATE: 2026-03-23
DESCRIPTION: 3rd SUB,WINTER SPRINGS(NO SUB FDOT)
NO. DATE:
DESCRIPTION:
PROJECT NO. 22-2211

C-5

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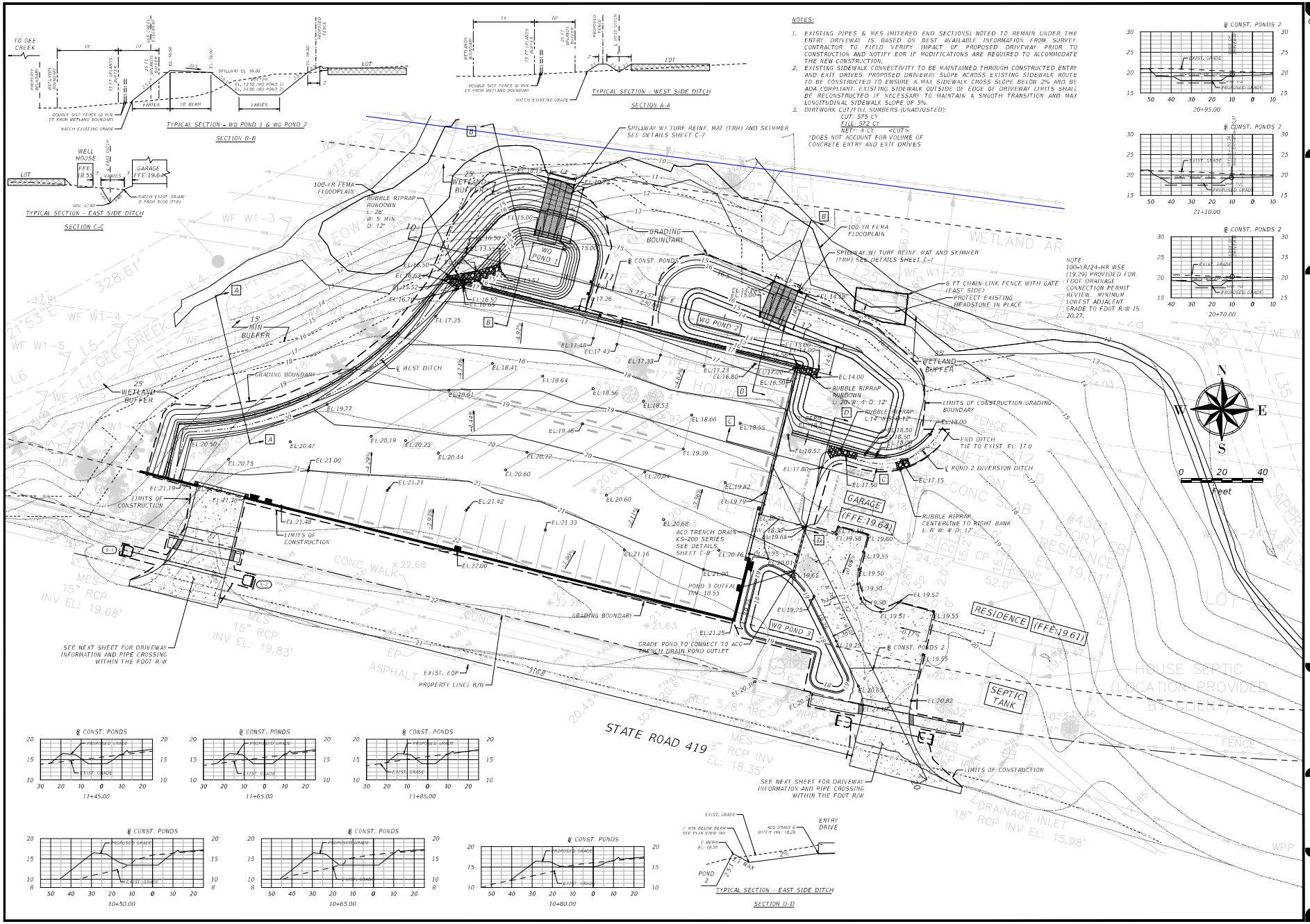

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Paving Grading & Drainage (Sheet 1 of 2)

SR 419 RV & BOAT STORAGE LOT

4301 SR 419 WINTER SPRINGS, FL 32708

NO. 1	DATE: 2025-06-04
DESCRIPTION: 1st SUB. CITY OF WINTER SPRINGS	
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NO. 3	DATE: 2026-01-21
DESCRIPTION: 3rd SUBCITY OF WINTER SPRINGS	
NO. 4	DATE: 2026-03-23
DESCRIPTION:	
NO.	DATE:
DESCRIPTION:	
PROJECT NO. 22-0211	

C-6

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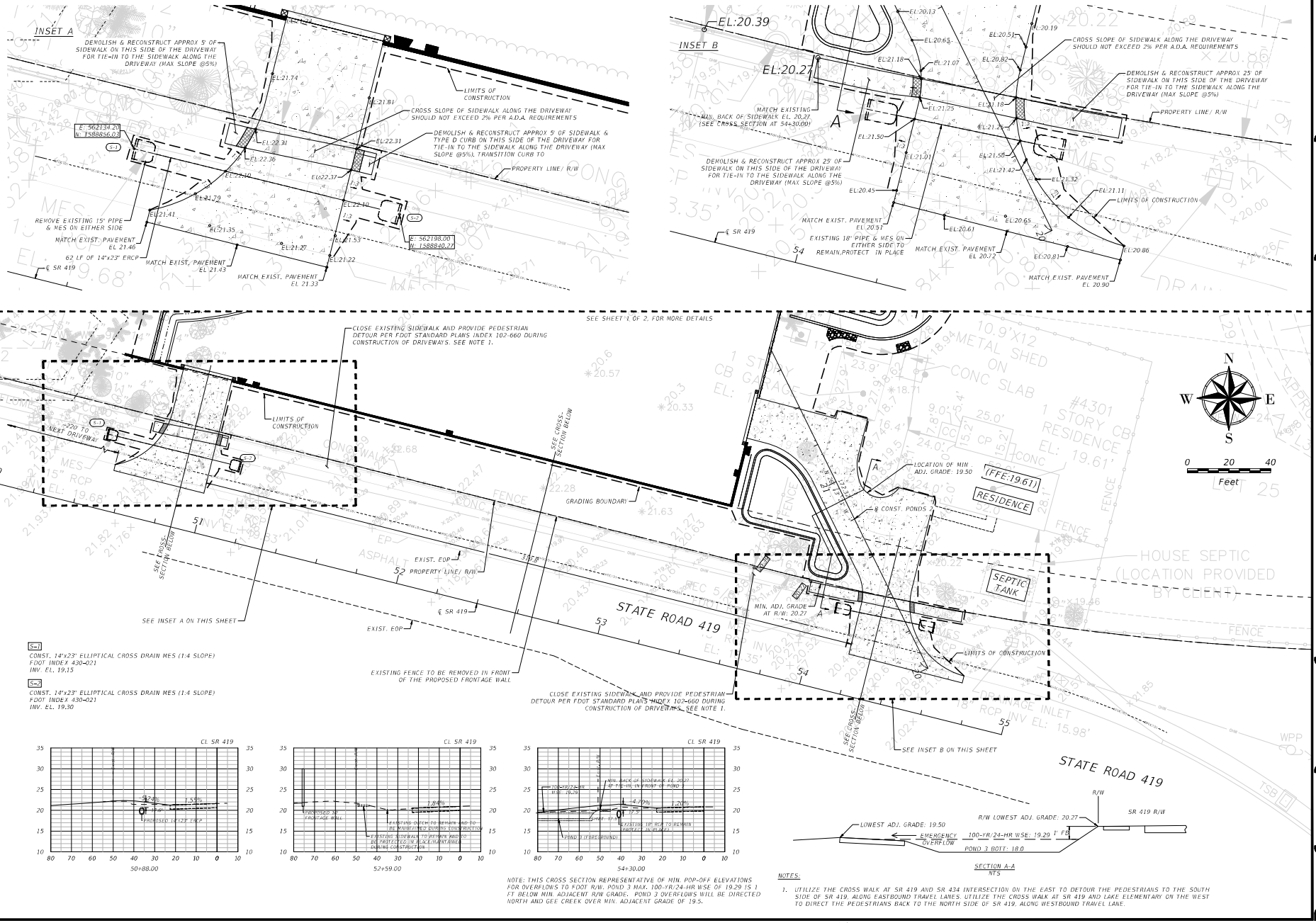

NOTE: THIS CROSS SECTION REPRESENTATIVE OF MIN. POP-OFF ELEVATIONS FOR OVERFLOWS TO FDOT R/W. POND 3 MAX. 100-YR/24-HR WSE OF 19.29 IS 1 FT BELOW MIN. ADJACENT R/W GRADE. POND 3 OVERFLOWS WILL BE DIRECTED NORTH AND GEE CREEK OVER MIN. ADJACENT GRADE OF 19.5.

NOTES:

1. UTILIZE THE CROSS WALK AT SR 419 AND SR 434 INTERSECTION ON THE EAST TO DETOUR THE PEDESTRIANS TO THE SOUTH SIDE OF SR 419, ALONG EASTBOUND TRAVEL LANES. UTILIZE THE CROSS WALK AT SR 419 AND LAKE ELEMENTARY ON THE WEST TO DIRECT THE PEDESTRIANS BACK TO THE NORTH SIDE OF SR 419, ALONG WESTBOUND TRAVEL LANE.

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Paving Grading & Drainage (Sheet 2 Of 2)

SR 419 RV & BOAT STORAGE LOT

4301 SR 419 WINTER SPRINGS, FL 32708

NO. 1	DATE: 2025-06-24
DESCRIPTION: 1st SUB, CITY OF WINTER SPRINGS	
NO. 2	DATE: 2025-11-19
DESCRIPTION: 2nd SUB,CITY OF WINTER SPRINGS	
NO. 3	DATE: 2026-03-31
DESCRIPTION: 3rd SUB,CITY OF WINTER SPRINGS	
NO. 4	DATE: 2026-09-23
DESCRIPTION: 3rd SUB,WINTER SPRINGS/NO SUB FDOT)	
NO.	DATE:
DESCRIPTION:	
PROJECT NO. 22-0211	

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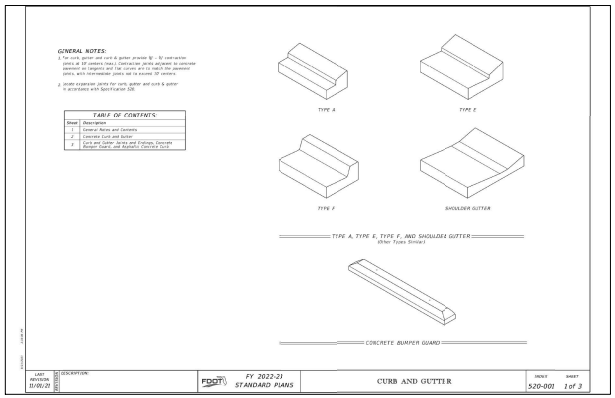
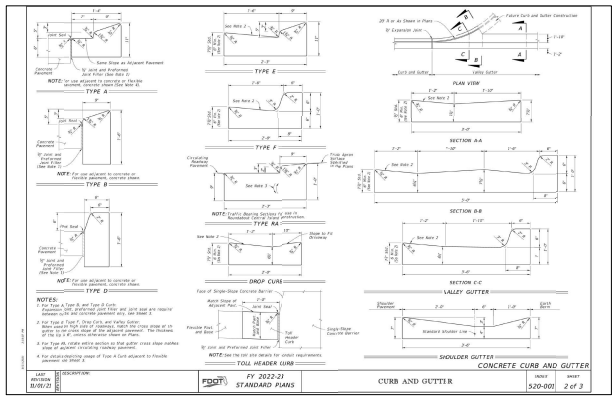
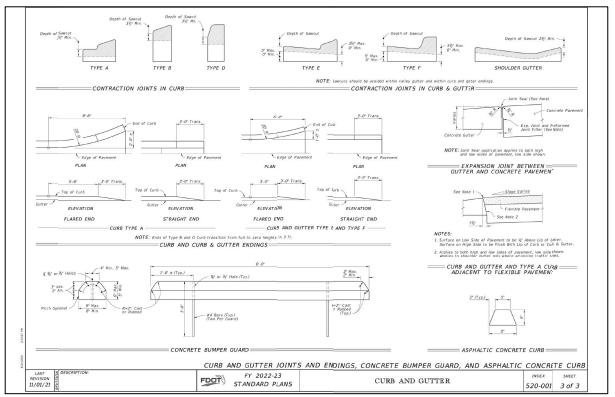
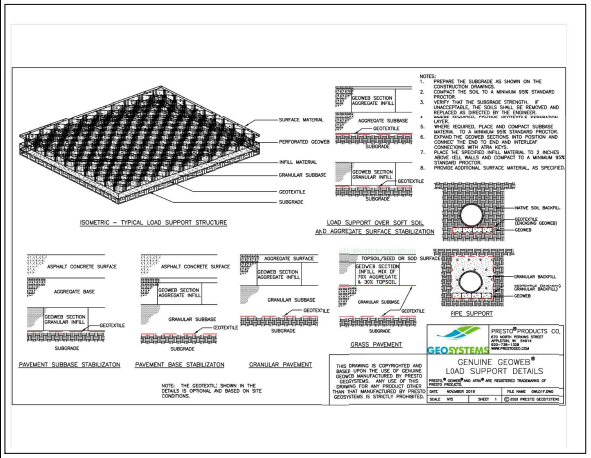


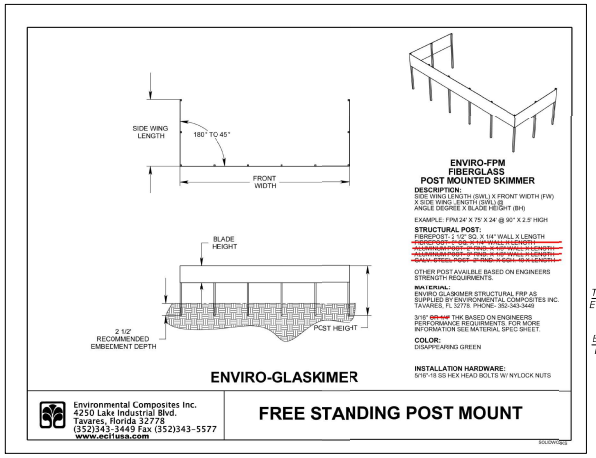




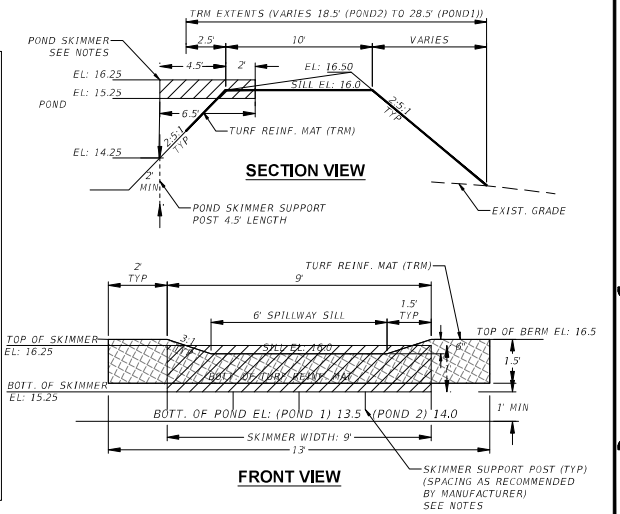
FDOT TYPE E & F CURB N.T.S.



GEOCELL - GEOWEB N.T.S.



SPILLWAY AND SKIMMER DETAILS (PONDS 1&2) N.T.S.



NOTES:

1. POND SKIMMERS TO BE FREE STANDING POST MOUNT SKIMMER (3/16"), ENVIRO GLASKIMMER STRUCTURAL FIBER REINFORCED PLASTIC (FRP) BY ECI USA (AKA-EJ) OR MANUFACTURED BY SIMILAR FDOT APPROVED FACILTY.
2. POSTS TO BE FIBERPOST- 2-½" SQ. X ¼" WALL. MIN. POST BURY DEPTH OF 2.5' OR AS RECOMMENDED BY MANUFACTURER.
3. HARDWARE AND FASTENERS AS RECOMMENDED BY MANUFACTURER.
4. SHOP DRAWINGS FOR SKIMMER TO BE SUBMITTED TO OM ENGINEERING SERVICES, INC FOR REVIEW AND APPROVAL

CONSULTANT:
OM ENGINEERING SERVICES, INC.
Civil • Structural • Inspections
621 E. Washington St., Suite 8
Orlando, Florida 32801
Office: (407) 704-7815
www.omengineer.com
DAVID RETLAW BORYS, P.E.
FL. REG. # 75372

Construction Details (1)

SR 419 RV & BOAT STORAGE LOT

4301 SR 419 WINTER SPRINGS, FL 32708

NO. 1	DATE: 2025-06-04
DESCRIPTION: 1st SUB, CITY OF WINTER SPRINGS	
NO. 2	DATE: 2025-11-19
DESCRIPTION: 2nd SUB CITY OF WINTER SPRINGS	
NO. 3	DATE: 2026-01-21
DESCRIPTION: 3rd SUB CITY OF WINTER SPRINGS	
NO. 4	DATE: 2026-03-23
DESCRIPTION: 3rd SUB,WINTER SPRINGS(NO SUB FDOT)	
NO.	DATE:
DESCRIPTION:	
PROJECT NO. 22-2211	

C-7

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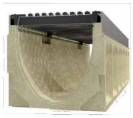
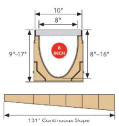
ACO DRAIN
KlassikDrain K200/KS200

KlassikDrain K200/KS200

8" Internal Width General Purpose System





K200 is an 8" wide system with galvanized steel edge rail and wide choice of grates in different materials and slot styles up to Load Class E (60 ton) featuring either patented DrainLock or QuickLok® bottless locking systems.

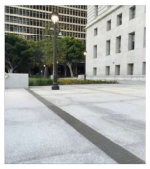
KS200 is the same system, but the edge rail is grade 304 stainless steel. KS200 should be used where increased aesthetics are required, or where increased corrosion resistance is required.

Typical Applications:

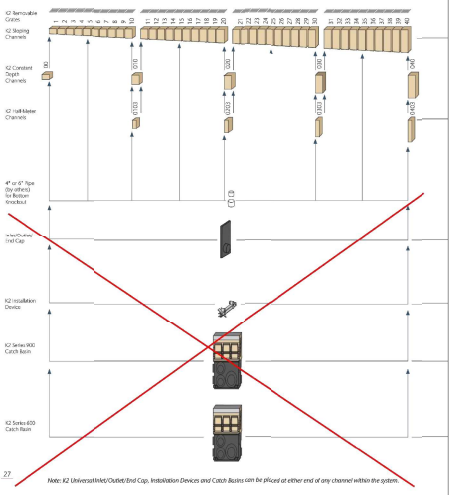
- Parking lots & garages
- Pedestrian areas
- Light industrial areas
- Commercial areas
- Internal applications

KLASSIKDRAIN K200/KS200 SELECTION CRITERIA

- Light to industrial duty loads
- Product can be used towards LEED & EPA requirements
- Resistant to many everyday chemicals
- Multiple grate options to meet legal requirements
- Multiple grate options to meet design requirements
- Increased hydraulic capacity
- Constant depth and/or sloped depth channels



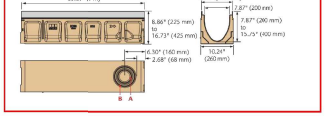
K200/KS200 System Layout



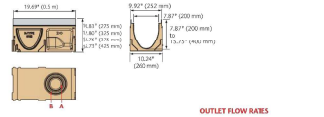
Note: K2 Universal Inlet/Outlet/End Cap, Installation Devices and Catch Basins can be placed at either end of any channel within the system.

Dimensions & Outlet Flow Rates

K2 Meter Channels



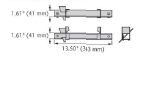
K2 Half-Meter Channels



K2 Universal Inlet/Outlet/End Cap



K2 Installation Device



OUTLET FLOW RATES

Channel Outlet	Channel	Size (ID/OD)	Invert In	GPM	CFS
A	K240	4" round	7.87	153	0.34
	K240	4" round	15.75	216	0.48
B	K200	6" round	7.87	344	0.77
	K240	6" round	15.75	486	1.08
C	K220	4" round	7.87	132	0.29
	K240	4" round	15.75	202	0.45
D	K240	6" round	7.87	346	0.77
	K240	6" round	15.75	457	0.97

Note: These are pipe flow rates at specified outlet, NOT channel flow rates.

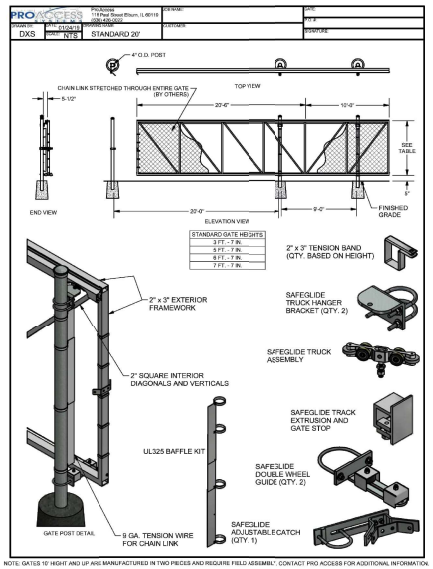
ACO DRAIN
KlassikDrain K200/KS200

K200/KS200 Parts

Part No. K200	KS200	Invert/Depth in female	in male	mm female	mm male	Overall Depth in female	in male	mm female	mm male	Volume gal	Weight lbs
K2-00 Constant Depth Channel - 39.37" (1 m)*	75041	75441	7.87	7.87	200	200	8.86	8.86	225	225	7.54	83.6
K2-1 Sloped Channel - 39.37" (1 m)	75001	75401	7.87	8.07	200	205	8.86	9.06	225	230	7.94	85.6
K2-2 Sloped Channel - 39.37" (1 m)	75002	75402	8.07	8.27	205	210	9.06	9.25	230	235	8.13	84.7
K2-3 Sloped Channel - 39.37" (1 m)	75003	75403	8.27	8.46	210	215	9.25	9.45	235	240	8.33	85.8
K2-4 Sloped Channel - 39.37" (1 m)	75004	75404	8.46	8.66	215	220	9.45	9.65	240	245	8.53	86.9
K2-5 Sloped Channel - 39.37" (1 m)*	75005	75405	8.66	8.86	220	225	9.65	9.84	245	250	8.74	88.0
K2-6 Sloped Channel - 39.37" (1 m)	75006	75406	8.86	9.06	225	230	9.84	10.04	250	255	8.95	89.1
K2-7 Sloped Channel - 39.37" (1 m)	75007	75407	9.06	9.25	230	235	10.04	10.24	255	260	9.16	90.2
K2-8 Sloped Channel - 39.37" (1 m)	75008	75408	9.25	9.45	235	240	10.24	10.43	260	265	9.37	91.3
K2-9 Sloped Channel - 39.37" (1 m)	75009	75409	9.45	9.65	240	245	10.43	10.63	265	270	9.58	92.4
K2-10 Sloped Channel - 39.37" (1 m)*	75010	75410	9.65	9.84	245	250	10.63	10.83	270	275	9.79	93.5
K2-0100 Constant Depth Channel - 39.37" (1 m)*	75043	75443	**9.84**	**9.84**	**250**	**250**	**10.83**	**10.83**	**275**	**275**	**9.59**	**93.5**
K2-0103 Constant Depth Channel - 19.69" (0.5 m)*	75044	75444	**9.84**	**9.84**	**250**	**250**	**10.83**	**10.83**	**275**	**275**	**4.80**	**56.0**
K2-11 Sloped Channel - 39.37" (1 m)	75011	75411	9.84	10.04	250	255	10.83	11.02	275	280	10.20	94.6
K2-12 Sloped Channel - 39.37" (1 m)	75012	75412	10.04	10.24	255	260	11.02	11.22	280	285	10.22	95.7
K2-13 Sloped Channel - 39.37" (1 m)	75013	75413	10.24	10.43	260	265	11.22	11.42	285	290	10.44	96.8
K2-14 Sloped Channel - 39.37" (1 m)	75014	75414	10.43	10.63	265	270	11.42	11.61	290	295	10.66	97.9
K2-15 Sloped Channel - 39.37" (1 m)*	75015	75415	10.63	10.83	270	275	11.61	11.81	295	300	10.88	99.0
K2-16 Sloped Channel - 39.37" (1 m)	75016	75416	10.83	11.02	275	280	11.81	12.01	300	305	11.10	100.1
K2-17 Sloped Channel - 39.37" (1 m)	75017	75417	11.02	11.22	280	285	12.01	12.20	305	310	11.32	101.2
K2-18 Sloped Channel - 39.37" (1 m)	75018	75418	11.22	11.42	285	290	12.20	12.40	310	315	11.54	102.3
K2-19 Sloped Channel - 39.37" (1 m)	75019	75419	11.42	11.61	290	295	12.40	12.60	315	320	11.76	103.4
K2-20 Sloped Channel - 39.37" (1 m)*	75020	75420	11.61	11.81	295	300	12.60	12.80	320	325	11.98	104.5
K2-0200 Constant Depth Channel - 39.37" (1 m)*	75045	75445	**11.81**	**11.81**	**300**	**300**	**12.80**	**12.80**	**325**	**325**	**11.78**	**104.5**
K2-0203 Constant Depth Channel - 19.69" (0.5 m)*	75046	75446	**11.81**	**11.81**	**300**	**300**	**12.80**	**12.80**	**325**	**325**	**5.89**	**64.0**
K2-21 Sloped Channel - 39.37" (1 m)	75021	75421	11.81	12.01	300	305	12.80	12.99	325	330	12.23	105.6
K2-22 Sloped Channel - 39.37" (1 m)	75022	75422	12.01	12.20	305	310	12.99	13.19	330	335	12.42	106.7
K2-23 Sloped Channel - 39.37" (1 m)	75023	75423	12.20	12.40	310	315	13.19	13.39	335	340	12.65	107.8
K2-24 Sloped Channel - 39.37" (1 m)	75024	75424	12.40	12.60	315	320	13.39	13.58	340	345	12.87	108.9
K2-25 Sloped Channel - 39.37" (1 m)*	75025	75425	12.60	12.80	320	325	13.58	13.78	345	350	13.10	110.0
K2-26 Sloped Channel - 39.37" (1 m)	75026	75426	12.80	12.99	325	330	13.78	13.98	350	355	13.32	111.1
K2-27 Sloped Channel - 39.37" (1 m)	75027	75427	12.99	13.19	330	335	13.98	14.17	355	360	13.54	112.2
K2-28 Sloped Channel - 39.37" (1 m)	75028	75428	13.19	13.39	335	340	14.17	14.37	360	365	13.77	113.3
K2-29 Sloped Channel - 39.37" (1 m)	75029	75429	13.39	13.58	340	345	14.37	14.57	365	370	13.99	114.4
K2-30 Sloped Channel - 39.37" (1 m)*	75030	75430	13.58	13.78	345	350	14.57	14.76	370	375	14.21	115.5
K2-0300 Constant Depth Channel - 39.37" (1 m)*	75047	75447	**13.78**	**13.78**	**350**	**350**	**14.76**	**14.76**	**375**	**375**	**14.01**	**115.5**
K2-0303 Constant Depth Channel - 19.69" (0.5 m)*	75048	75448	**13.78**	**13.78**	**350**	**350**	**14.76**	**14.76**	**375**	**375**	**7.08**	**68.0**
K2-31 Sloped Channel - 39.37" (1 m)	75031	75431	13.78	13.98	350	355	14.76	14.96	375	380	14.43	117.8
K2-32 Sloped Channel - 39.37" (1 m)	75032	75432	13.98	14.17	355	360	14.96	15.16	380	385	14.65	118.9
K2-33 Sloped Channel - 39.37" (1 m)	75033	75433	14.17	14.37	360	365	15.16	15.35	385	390	14.88	119.8
K2-34 Sloped Channel - 39.37" (1 m)	75034	75434	14.37	14.57	365	370	15.35	15.55	390	395	15.10	120.9
K2-35 Sloped Channel - 39.37" (1 m)*	75035	75435	14.57	14.76	370	375	15.55	15.75	395	400	15.34	121.9
K2-36 Sloped Channel - 39.37" (1 m)	75036	75436	14.76	14.96	375	380	15.75	15.94	400	405	15.56	122.1
K2-37 Sloped Channel - 39.37" (1 m)	75037	75437	14.96	15.16	380	385	15.94	16.14	405	410	15.78	123.2
K2-38 Sloped Channel - 39.37" (1 m)	75038	75438	15.16	15.35	385	390	16.14	16.34	410	415	16.00	124.3
K2-39 Sloped Channel - 39.37" (1 m)	75039	75439	15.35	15.55	390	395	16.34	16.54	415	420	16.23	125.4
K2-40 Sloped Channel - 39.37" (1 m)*	75040	75440	15.55	15.75	395	400	16.54	16.73	420	425	16.46	126.5
K2-0400 Constant Depth Channel - 39.37" (1 m)*	75049	75449	**15.75**	**15.75**	**400**	**400**	**16.73**	**16.73**	**425**	**425**	**16.27**	**126.5**
K2-0403 Constant Depth Channel - 19.69" (0.5 m)*	75050	75450	**15.75**	**15.75**	**400**	**400**	**16.73**	**16.73**	**425**	**425**	**8.14**	**77.0**
K2 Universal Inlet/Outlet/End Cap	96821	15.75	15.75	400	400	16.54	16.54	420	420	-	1.4
K2 Debris Strainer for 4" Bottom Knockout	93488	-	-	-	-	-	-	-	-	-	0.2
K2 Installation Device	97478	-	-	-	-	-	-	-	-	-	4.0
Crate Removal Tool	01318	-	-	-	-	-	-	-	-	-	0.3
K2 QuikLok® Locking Bar	10457	-	-	-	-	-	-	-	-	-	0.5

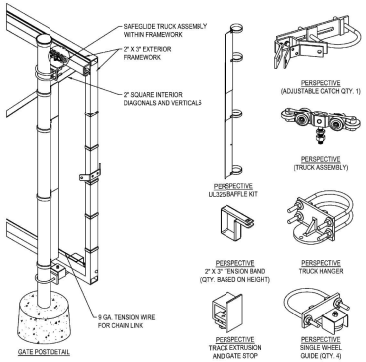
Notes:
1. K200 has a galvanized steel edge rail for general use. KS200 has a grade 304 stainless steel edge rail for use where increased aesthetics or corrosion resistance is required.
2. KlassikDrain is sold as channel only. Choose appropriate grate from pages 55-56.
3. Delete answer details for 4" dia. outlet on page 108.
4. See Catch Basin Parts List on page 49.
*This channel features 4" dia 9° bottom knockouts.

NOTE: SITE ENTRY AND EGRESS ACCESS GATES TO PROVIDE OPAQUE SCREENING PER APPLICABLE CITY OF WINTER SPRINGS REGULATIONS.



NOTE: GATES 16' HIGHT AND UP ARE MANUFACTURED IN TWO PIECES AND REQUIRE FIELD ASSEMBLY. CONTACT PRO ACCESS FOR ADDITIONAL INFORMATION.

PRO ACCESS SYSTEMS
116 PAUL ST.
ELBURN, IL 60119
PHONE: (630) 426-0022
FAX: (630) 620-0063
www.gbpro.com



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5. CONTRACTOR'S NOTE FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info AND ENTER REFERENCE NUMBER:5377-035.

SAFEGLIDE GATES®
SINGLE TRICK GATE AND POST DETAILS (PART 1 OF 5)

5377-035 REVISION DATE 14/09/2020

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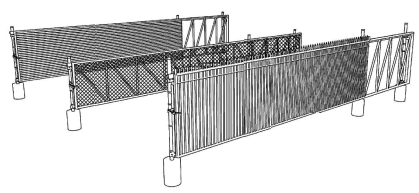

PERSPECTIVE

SINGLE-TRACK CANTILEVER SLIDE GATE					
OPENING	COUNTER BALANCE	COUNTER BALANCE POSTS (INSIDE TO INSIDE)	GATE PROPER LENGTH	OVERALL LENGTH	GRADE CLEARANCE
10'	5'-0"	5'-6"	17'-0"	17'-0"	5"
12'	5'-6"	5'-6"	21'-6"	19'-0"	5"
14'	6'-0"	7'-6"	21'-0"	23'-0"	5"
16'	6'-6"	7'-6"	25'-0"	25'-0"	5"
18'	10'-0"	9'-0"	25'-0"	29'-0"	5"
20'	10'-0"	9'-0"	29'-6"	30'-6"	5"
22'	10'-0"	9'-0"	33'-6"	32'-6"	5"
24'	12'-0"	11'-0"	34'-6"	36'-6"	5"
26'	12'-0"	11'-0"	38'-6"	38'-6"	5"
28'	12'-0"	11'-0"	38'-6"	42'-6"	5"
30'	12'-0"	11'-0"	42'-6"	42'-6"	5"

MANUFACTURER'S NOTES:
1. PLEASE REFER TO LISTING ON caddetails.com/product/95019 FOR FURTHER INFORMATION.

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SAFEGLIDE GATES®
SINGLE TRACK SIZING TABLE (PART 2 OF 5)

5377-036 REVISION DATE 24/11/2020

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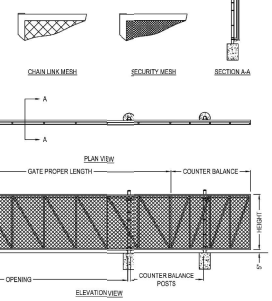
SELECT DESIRED GATE HEIGHT:
- 5'-7"
- 6'-7"
- 6'-7"
- 7'-7"



MANUFACTURER'S NOTES:
1. PLEASE REFER TO SIZING TABLE ON caddetails.com/listing/5377-038 FOR FURTHER INFORMATION.

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SAFEGLIDE GATES®
SINGLE TRICK WITH CHAIN LINK OR SECURITY MESH (PART 4 OF 5)

5377-038 REVISION DATE 24/11/2020

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CONSULTANT:

OM ENGINEERING SERVICES, INC.
Civil • Structural • Inspections

621 E. Washington St., Suite 8
Orlando, Florida 32801
Office: (407) 704-7815
www.omengineer.com

DAVID RETLAW BORYS, P.E.
FL. REG. # 75372

Construction Details (2)

SR 419 RV & BOAT STORAGE LOT

4301 SR 419 WINTER SPRINGS, FL. 32708

NO. 1	DATE: 2025-06-04
DESCRIPTION: 1st SUB, CITY OF WINTER SPRINGS	
NO. 2	DATE: 2025-11-19
DESCRIPTION: 2nd SUB,CITY OF WINTER SPRINGS	
NO. 3	DATE: 2026-03-31
DESCRIPTION: 3rd SUB,CITY OF WINTER SPRINGS	
NO. 4	DATE: 2026-09-23
DESCRIPTION: 3rd SUB,WINTER SPRINGS,SR 434 FDOT)	
NO.	DATE:
DESCRIPTION:	
PROJECT NO. 22-0211	

C-8

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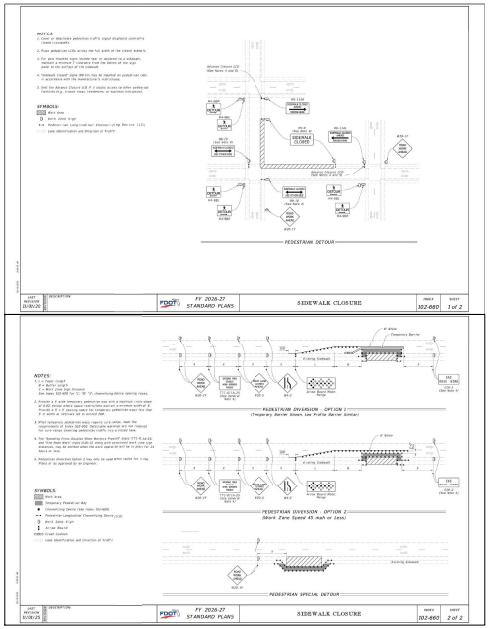
A2:2 9/28/2026 2:53:09 PM Y:\FDOT AutoCAD Projects\22221100000\Roadway\ACCESS CONTROL GATE _DETAILS.dwg

NOTES:

GATE OPERATOR & ACCESS CONTROLS SYSTEMS:

1. FURNISH & INSTALL ALL-O-MATIC OR APPROVED EQUAL SL-45DC PRO SLIDE GATE SYSTEM 1/2 HP AT 115V (GATE WIDTH MAX 30FT, 800LBS) SIZED PER GATE SPECIFICATIONS.
2. PROVIDE GATE CONTROLLERS AND ALL NECESSARY EQUIPMENT FOR A COMPLETE GATE OPERATOR & ACCESS CONTROL SYSTEMS.
3. VERIFY THE EXACT REQUIREMENTS WITH OWNER PRIOR TO SUBMITTING BIDS.
4. CONTACT: ALL-O-MATIC
   SHAWN LALLI
   EAST REGIONAL SALES MANAGER
   (704) 778-0384
   SHAWN@ALLOMATIC.NET.
5. PROVIDE SHOP DRAWING SUBMITTALS ALONG WITH GATE SUBMITTALS FOR EOR REVIEW & APPROVAL.





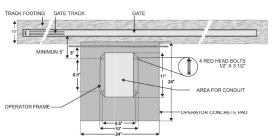
OPERATOR SPECIFICATIONS

	SL-45 DC	SL-90 DC
Max Gate Weight	800 lbs.	1,600 lbs.
Max Gate Length	30 feet	50 feet
Warranty	5 year residential	7 year residential 5 year commercial
Motor	24VDC brushless with planetary gearbox	24 VDC brushless 1/2 HP motor
Gate Speed	2" per second	12" per second
Power Options	115 VAC 50/60Hz single phase - 4 amps 230 VAC 50/60Hz single phase - 2 amps 24 VDC solar panel up to 60 watts	115 VAC 50/60Hz single phase - 4 amps 230 VAC 50/60Hz single phase - 2 amps 24 VDC solar panel up to 60 watts
Duty Cycle	Continuous	Continuous
Temperature Range	-40° to 160°	-40° to 160°
Gearbox Ratio	Approx. 29:1	20:1 with internal disconnect
Width X Length X Height	11" WX 14.5" L X 15.5" H	15.5" W X 18.5" L X 16" H
Shipping Weight	60 lbs.	95 lbs.
Emergency Release	Push open in the event of a power failure	Mechanical foot pedal release
Belt Size	N/A	4L-230 (AX21)
Main Sprocket Size	41B15X5/8	41B22X7/8
Chain Size	41NP (20' included)	41NP (20' included)
Gearbox Sprocket	N/A	N/A
Limit Shaft Sprocket	41B10X5/8"	41B15X5/8
Breaker Requirement	2C amp dedicated	20 amp dedicated
Gearbox Pulley	N/A	2 1/2" with 5/8" bore
Motor Pulley	N/A	2" with 5/8" bore
UL Classes	I & II	I, II, III & IV

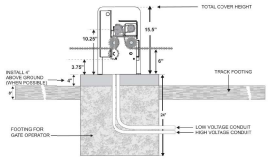
4

SL-45 DC CONCRETE PAD

TOP VIEW



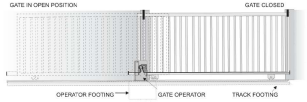
FRONT VIEW



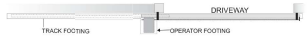
6

FRONT MOUNT INSTALLATION

FRONT VIEW



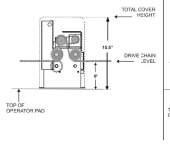
OVERHEAD VIEW



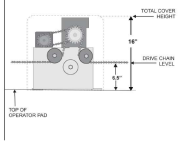
10

FRONT MOUNT INSTALLATION (CONTINUED)

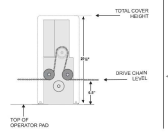
SL-45 DC



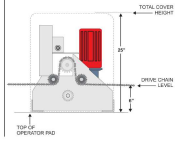
SL-90F? DC



SL-100 DC & SL-100 DC FP



SL-150 DC



11

NOTE: DETAILS FOR FRONT MOUNT SHOWN, VERIFY THE EXACT REQUIREMENTS WITH OWNER PRIOR TO SUBMITTING BIDS.

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DAVID RETLAW BORYS, P.E.
FL. REG. # 75372

Construction Details (3)

SR 419 RV & BOAT STORAGE LOT

4301 SR 419 WINTER SPRINGS, FL 32708

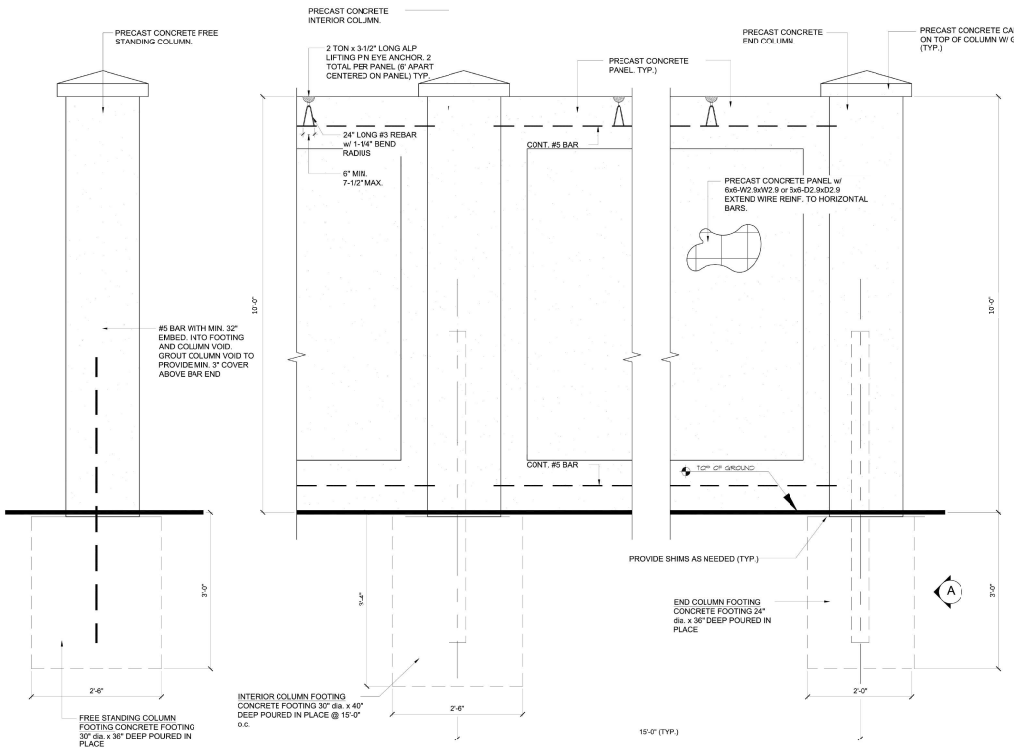
NO. 1 DATE: 2025-04-24
DESCRIPTION: 1st SUB, CITY OF WINTER SPRINGS
NO. 2 DATE: 2025-11-19
DESCRIPTION: 2nd SUB,CITY OF WINTER SPRINGS
NO. 3 DATE: 2026-01-21
DESCRIPTION: 3rd SUB,CITY OF WINTER SPRINGS
NO. 4 DATE: 2026-03-23
DESCRIPTION: 3rd SUB,WINTER SPRINGS,SUB FDOT)
NO. DATE:
DESCRIPTION:

PROJECT NO. 22-2211

C-9

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

Aziz 9/23/2026 3:22:19 PM Y:\FDOT AutoCAD Projects\22221100000\Roadway\ACCESS CONTROL GATE _DETAILS.dwg



FREE STANDING COLUMN ELEVATION

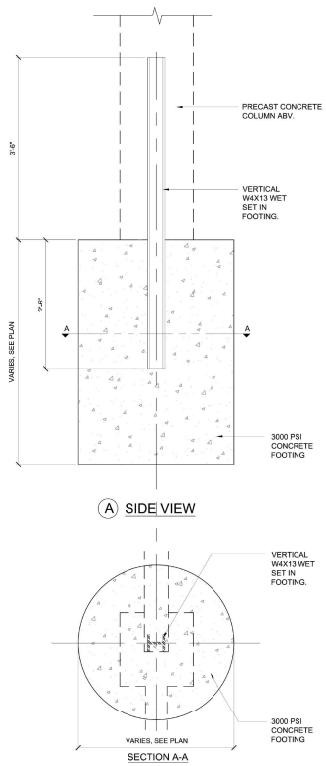
SCALE: 1"=1'-0"

INTERIOR COLUMN ELEVATION

SCALE: 1"=1'-0"

END COLUMN ELEVATION

SCALE: 1"=1'-0"



TYPICAL CONCRETE FOOTING

SCALE: 1"=1'-0"

THIS STRUCTURE IS DESIGNED TO WITHSTAND 130 MPH (Vult) WINDS PER THE FLORIDA BUILDING CODE 2023 8th EDITION (REF. ASCE-7-22) AND IS CERTIFIED AS SUCH.

NOTE: WALL DETAIL INFORMATION PROVIDED ON THIS SHEET IS FOR GENERAL REFERENCE FOR SITE PLAN REVIEW. OM ENGINEERING SERVICES INC. DOES NOT TAKE RESPONSIBILITY FOR THE ACCURACY OF THE DESIGN INFORMATION PROVIDED ON THIS SHEET. REFER TO APPROVED WALL DETAIL DRAWINGS FOR CONSTRUCTION INFORMATION.

REV.	DESCRIPTION	DATE

SHEET TITLE

PROJECT
SEMINOLE MASONRY
SAMPLE
SAMPLE

DESIGN | DRAWN
CHECKED JF
JOB SM-XX
SCALE AS NOTED
DATE 00.00.2024

SHT OF 2

DBSS INC. Engineering and Design Services
CA#27371
PHONE: 321.251.6006
3962 AVALON PARK EAST BLVD.
SUITE 277
ORLANDO, FL 32828

CONSULTANT:

OM ENGINEERING SERVICES, INC.
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FL. REG. # 75372

Wall Details

SR 419 RV & BOAT STORAGE LOT

4301 SR 419 WINTER SPRINGS, FL 32708

NO. 1 DATE: 2025-04-24
DESCRIPTION: 1st SUB. CITY OF WINTER SPRINGS
NO. 2 DATE: 2025-11-19
DESCRIPTION: 2nd SUB.CITY OF WINTER SPRINGS
NO. 3 DATE: 2026-03-31
DESCRIPTION: 3rd SUB.CITY OF WINTER SPRINGS
NO. 4 DATE: 2026-09-23
DESCRIPTION: 3rd SUB.WINTER SPRINGS(NO SUB FDOT)
NO. DATE:
DESCRIPTION:
PROJECT NO. 22-2211

C-10

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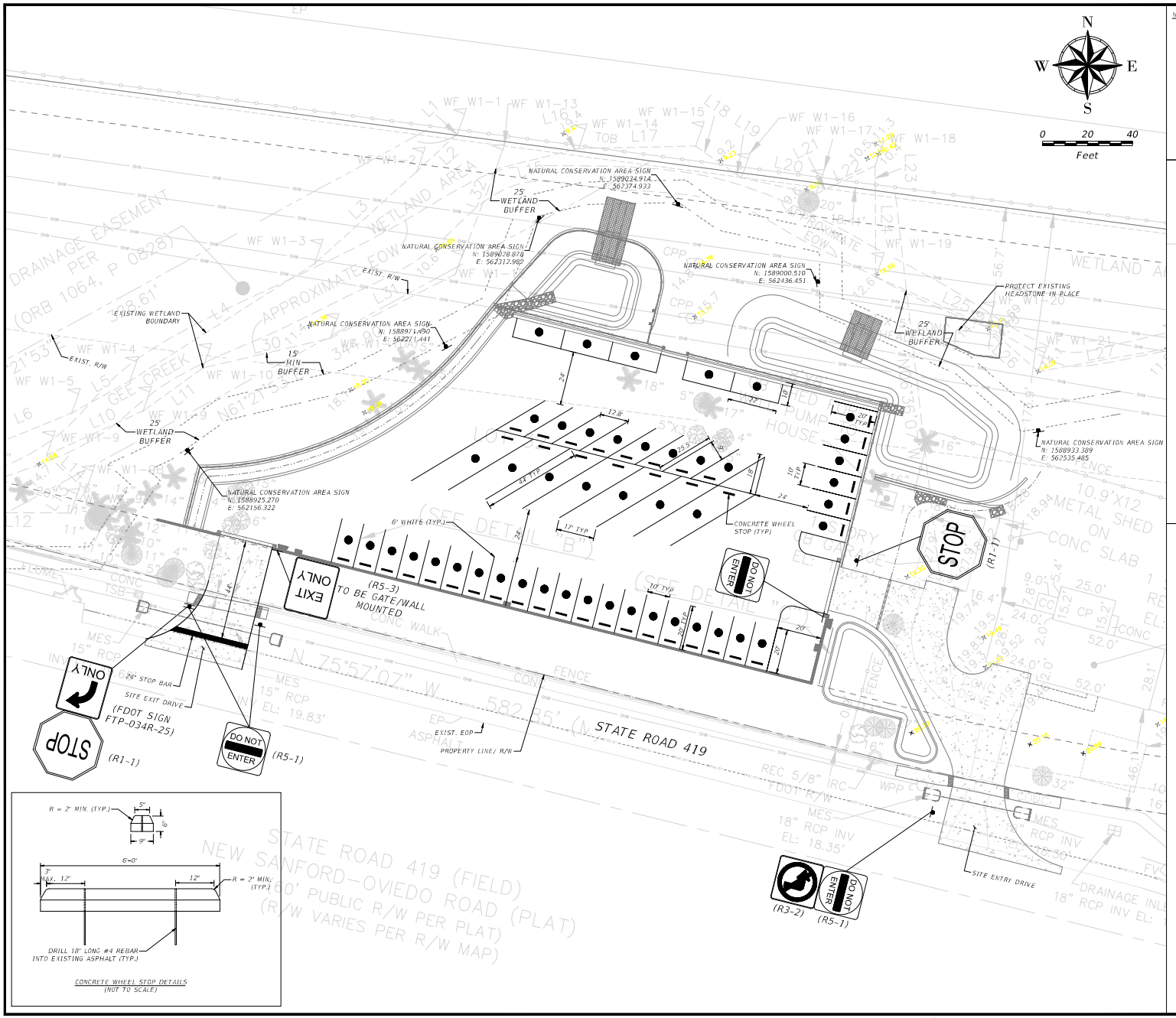
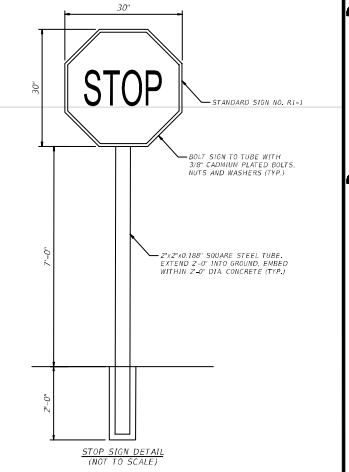


R = 2" MIN. (TYP.)
5"
6"
9"
6'-0"
12" MAX.
12"
R = 2" MIN. (TYP.)
DRILL 18" LONG #4 REBAR INTO EXISTING ASPHALT (TYP.)

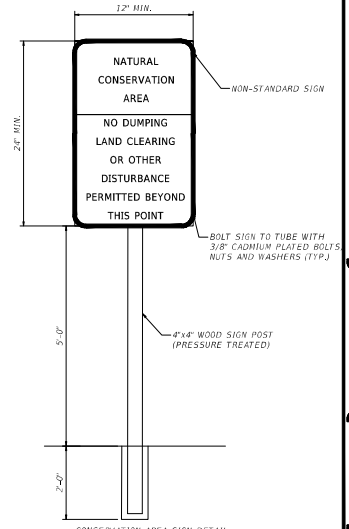
CONCRETE WHEEL STOP DETAILS
(NOT TO SCALE)

NOTES:

1. STOP BAR MARKINGS SHALL BE THERMOPLASTIC AND SHALL BE INSTALLED IN ACCORDANCE WITH FDOT STANDARD PLANS INDEX 711-001.
2. ALL SIGNS SHALL CONFORM TO STATE AND LOCAL AGENCY REQUIREMENTS.
3. CONTRACTOR SHALL COORDINATE WITH OWNER FOR ENTRY MONUMENT SIGN DETAILS.
4. NO CONCRETE INSTALLATIONS.
5. STREET SIGN POSTS TO BE SQUARE GALVANIZED STEEL AND HOLES SHALL BE CORED. 2" SQUARE GALVANIZED POLES SHALL BE PRE-SCORED, ALSO QUICK PUNCH.
6. ALL TRAFFIC CONTROL SIGNS WITHIN THE RIGHT-OF-WAY SHALL BE MANUFACTURED USING DIAMOND REFLECTIVE SHEETING. ALL SIGNS SHALL BE CONSTRUCTED IN ACCORDANCE WITH MUTCD AND CITY OF WINTER SPRINGS CRITERIA FOR SIGN AND SHAPE AND LETTERING DIMENSIONS.



STOP SIGN DETAIL
(NOT TO SCALE)



CONSERVATION AREA SIGN DETAIL
(NOT TO SCALE)

NOTE:
SIGNS TO BE INSTALLED ON UPLAND SIDE OF 25 FT WETLAND BUFFER

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FL. REG. # 75372

Signing & Pavement Marking Plan

SR 419 RV & BOAT STORAGE LOT

4301 SR 419 WINTER SPRINGS, FL 32708

NO. 1	DATE: 2025-06-06
DESCRIPTION: 1st SUB. CITY OF WINTER SPRINGS	
NO. 2	DATE: 2025-11-19
DESCRIPTION: 2nd SUB.CITY OF WINTER SPRINGS	
NO. 3	DATE: 2026-01-21
DESCRIPTION: 3rd SUB.CITY OF WINTER SPRINGS	
NO. 4	DATE: 2026-03-23
DESCRIPTION: 3rd SUB.WINTER SPRINGS/2ND SUB FDOT)	
NO.	DATE:
DESCRIPTION:	
PROJECT NO. 22-0211	

C-11

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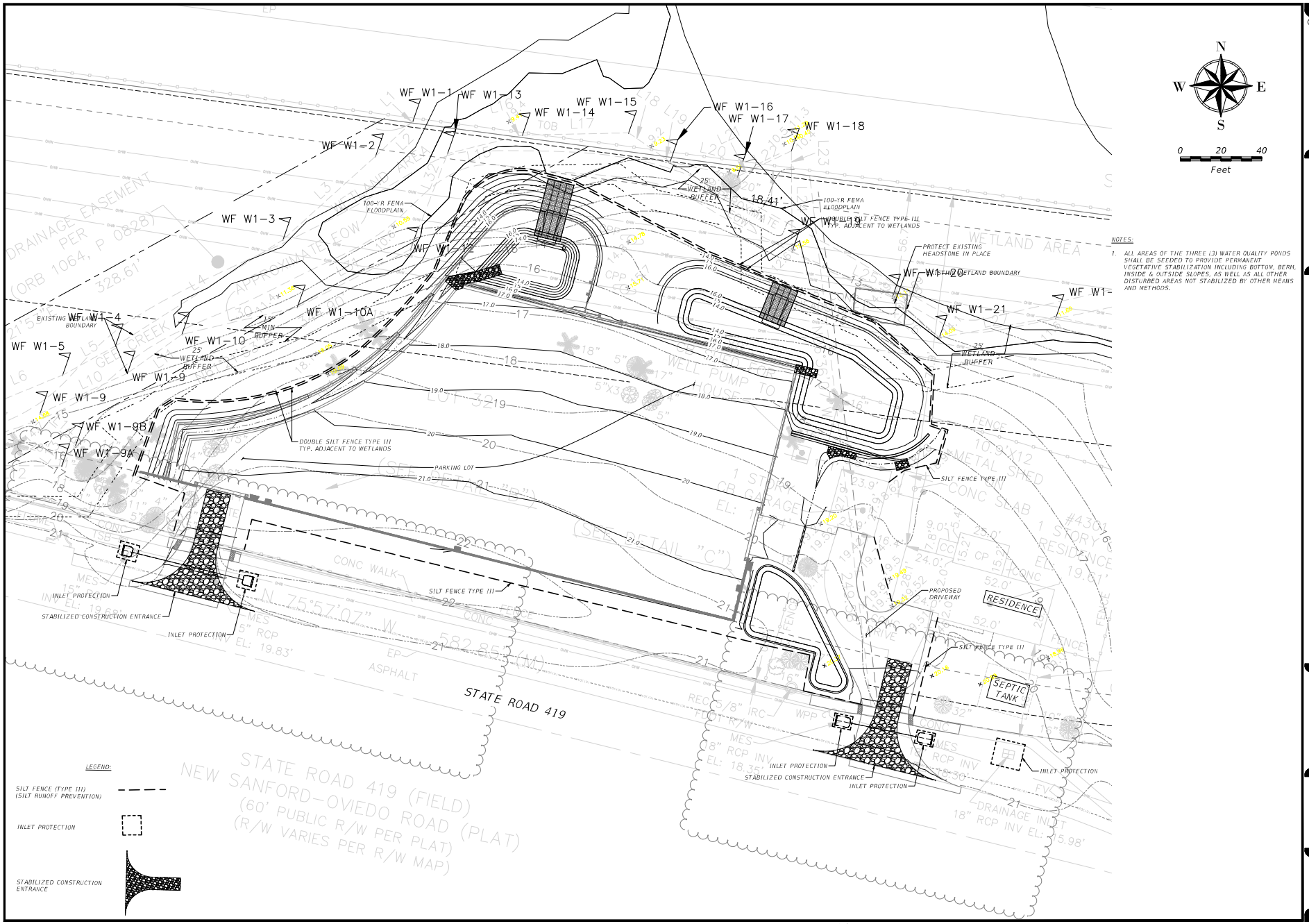

N
W E
S
0 20 40
Feet

NOTES:

1. ALL AREAS OF THE THREE (3) WATER QUALITY PONDS SHALL BE SEEDED TO PROVIDE PERMANENT VEGETATIVE STABILIZATION INCLUDING BOTTOM, BERM, INSIDE & OUTSIDE SLOPES, AS WELL AS ALL OTHER DISTURBED AREAS NOT STABILIZED BY OTHER MEANS AND METHODS.

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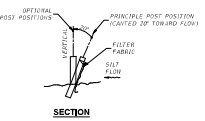
Erosion Control Plan

SR 419 RV & BOAT STORAGE LOT

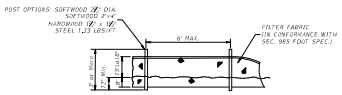
4301 SR 419 WINTER SPRINGS, FL 32708

NO. 1	DATE: 2025-04-04
DESCRIPTION: 1st SUB. CITY OF WINTER SPRINGS	
NO. 2	DATE: 2025-11-19
DESCRIPTION: 2nd SUB.CITY OF WINTER SPRINGS	
NO. 3	DATE: 2026-03-31
DESCRIPTION: 3rd SUB.CITY OF WINTER SPRINGS	
NO. 4	DATE: 2026-09-23
DESCRIPTION: 3rd SUB.WINTER SPRINGS(NO SUB FDOT)	
NO.	DATE:
DESCRIPTION:	
PROJECT NO. 22-2211	

C-12

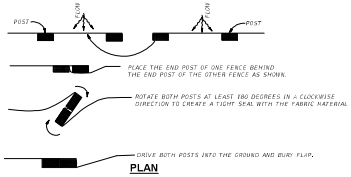


SECTION



ELEVATION

TYPE III SILT FENCE
N.T.S.



PLAN

JOINING TWO SILT FENCES
N.T.S.

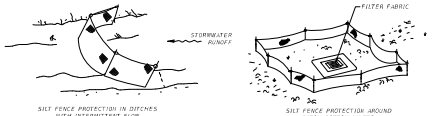
NOTES FOR SILT FENCES

1. TYPE III SILT FENCE TO BE USED AT A HOST LOCATIONS. WHERE USED IN DITCHES, THE SPACING FOR TYPE III SILT FENCE SHALL BE IN ACCORDANCE WITH CHART 1, SHEET 1.

2. TYPE IV SILT FENCE TO BE USED WHERE LARGE SEDIMENT LOADS ARE ANTICIPATED, SUGGESTED USE IS WHERE FILL SLOPE IS 1:2 OR STEEPER AND LENGTH OF SLOPE EXCEEDS 25 FEET. AVOID USE WHERE THE DETAINED WATER MAY BACK INTO TRAVEL LANES OR OFF THE RIGHT OF WAY.

3. DO NOT CONSTRUCT SILT FENCES ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES AE TO BE AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.

4. WHERE USED AS SLOPE PROTECTION, SILT FENCE IS TO BE CONSTRUCTED ON 0% LONGITUDINAL GRADE TO AVOID CHANNELIZING RUNOFF ALONG THE LENGTH OF THE FENCE.



SILT FENCE PROTECTION IN DITCHES WITH INTERMITTENT FLOW

SILT FENCE PROTECTION AROUND DITCH BOTTOM INLETS.

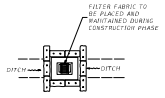
NOTES:

1. BALES TO BE STAKED AT THE DIRECTION OF THE ENGINEER.

2. PUT FILTER FABRIC UNDER GRATE DURING CONSTRUCTION

3. DO NOT DEPLOY IN A MANNER THAT SILT FENCES WILL ACT AS A DAM ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE USED AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.

SILT FENCE APPLICATIONS
N.T.S.



DITCH BOTTOM INLET

PROTECTION AROUND INLETS OR SIMILAR STRUCTURES
N.T.S.

NOTES FOR SYNTHETIC BALE BARRIERS

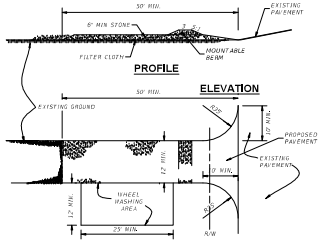
1. TYPE I AND II BARRIERS SHOULD BE SPACED IN ACCORDANCE WITH CHART 1, SHEET 1 OF THE F.D.O.T. INDEX NO. 102.

2. SYNTHETIC BALES SHALL BE TRENCHED 3" TO 4" AND ANCHORED WITH 2 - 2"X2" X(R 1" DIA), 1' 4' WOOD STAKES. STAKES OF OTHER MATERIAL OR SHAPE PROVIDING EQUIVALENT STRENGTH MAY BE USED IF APPROVED BY THE ENGINEER. STAKES OTHER THAN WOOD SHALL BE REMOVED UPON COMPLETION OF THE PROJECT.

3. RAILS AND POSTS SHALL BE 2"x4" WOOD. OTHER MATERIALS PROVIDING EQUIVALENT STRENGTH MAY BE USED IF APPROVED BY THE ENGINEER.

4. ADJACENT BALES SHALL BE BUTTED FIRMLY TOGETHER. UNAVOIDABLE GAPS SHALL BE PLUGGED TO PREVENT SILT FROM PASSING.

5. WHERE USED IN CONJUNCTION WITH SILT FENCE, SYNTHETIC BALES SHALL BE PLACED ON THE UPSTREAM SIDE OF THE FENCE.



PLAN VIEW

NOTES:

1. STONE SIZE-USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.

2. LENGTH-AS REQUIRED, BUT NOT LESS THAN 50 FEET.

3. THICKNESS-NOT LESS THAN SIX (6) INCHES.

4. WIDTH-TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.

5. FILTER CLOTH-WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.

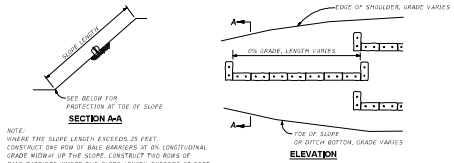
6. SURFACE WATER-ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE, IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.

7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACK OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.

8. WASHING - WHEELS SHALL BE CLEANED TO REMOVED SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.

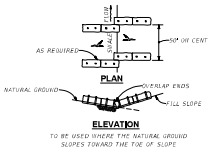
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE
N.T.S.



NOTE:
WHERE THE SLOPE LENGTH EXCEEDS 25 FEET, CONSTRUCT ONE ROW OF BALE BARRIERS AT 0% LONGITUDINAL GRADE MIDWAY UP THE SLOPE. CONSTRUCT TWO ROWS OF BALE BARRIERS WHERE THE SLOPE LENGTH EXCEEDS 50 FEET.

ALONG FILL SLOPE



AT TOE OF SLOPE

BARRIERS FOR FILL SLOPES
N.T.S.

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FL. REG. # 75372

Stormwater Pollution Prevention Plan (1)

SR 419 RV & BOAT STORAGE LOT

4301 SR 419 WINTER SPRINGS, FL 32708

NO. 1 DATE: 2025-04-04
DESCRIPTION: 1st SUB, CITY OF WINTER SPRINGS
NO. 2 DATE: 2025-11-19
DESCRIPTION: 2nd SUB,CITY OF WINTER SPRINGS
NO. 3 DATE: 2026-01-21
DESCRIPTION: 3rd SUB,CITY OF WINTER SPRINGS
NO. 4 DATE: 2026-03-23
DESCRIPTION: 3rd SUB,WINTER SPRINGS/SR FDOT)
NO. DATE:
DESCRIPTION:
PROJECT NO. 22-2211

C-13

THE FOLLOWING NARRATIVE OF THE STORMWATER POLLUTION PREVENTION PLAN CONTAINS REFERENCES TO THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, FDOT DESIGN STANDARDS, AND OTHER SHEETS OF THESE CONSTRUCTION PLANS.

THE COMPLETE STORMWATER POLLUTION PREVENTION PLAN INCLUDES SEVERAL ITEMS: THIS NARRATIVE DESCRIPTION, THE DOCUMENTS REFERENCED IN THIS NARRATIVE, THE APPROVED EROSION CONTROL PLAN PREPARED BY THE CONTRACTOR AND REPORTS OF INSPECTIONS MADE DURING CONSTRUCTION.

1. SITE DESCRIPTION:

1.A. NATURE OF CONSTRUCTION ACTIVITY:

THE PROJECT IS THE CONSTRUCTION OF A MEDICAL OFFICE BUILDING AND PARKING LOT. THIS INVOLVES CONSTRUCTING THE ENTRY DRIVE, OFFICE BUILDING, PARKING LOT, SHEET PILE AND MSE RETAINING WALLS, ROADWAY SURFACE, SIGNING AND PAVEMENT MARKINGS, FENCING, CURB AND GUTTER, SIDEWALK, STORM DRAIN SYSTEMS, AND STORMWATER MANAGEMENT FACILITY (WET POND) AND OUTFALL. THE PROJECT SITE IS LOCATED WITHIN THE REMINGTON COMMERCIAL PARK IN SEMINOLE COUNTY, FLORIDA.

1.B. SEQUENCE OF MAJOR SOIL DISTURBING ACTIVITIES:

IN THE SEDIMENT AND EROSION CONTROL PLAN, THE CONTRACTOR SHALL PROVIDE A DETAILED SEQUENCE OF CONSTRUCTION FOR ALL CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL FOLLOW THE SEQUENCE OF MAJOR ACTIVITIES DESCRIBED BELOW, UNLESS THE CONTRACTOR PROPOSES A DIFFERENT SEQUENCE THAT IS EQUAL OR BETTER AT CONTROLLING EROSION AND TRAPPING SEDIMENT AND IS APPROVED BY THE ENGINEER OF RECORD. FOR EACH CONSTRUCTION PHASE, INSTALL PERIMETER CONTROLS AFTER CLEARING AND GRUBBING NECESSARY FOR INSTALLATION OF CONTROLS BUT BEFORE BEGINNING OTHER WORK FOR THE CONSTRUCTION PHASE. REMOVE PERIMETER CONTROLS ONLY AFTER ALL UPSTREAM AREAS ARE STABILIZED.

1. CLEARING AND GRUBBING, EARTHWORK FOR POND CONSTRUCTION.
2. EARTHWORK ASSOCIATED WITH THE CONSTRUCTION OF DRIVEWAYS, PARKING LOT, CURB, SUBGRADE, BASE AND PAVEMENT.

1.C. AREA ESTIMATES:

TOTAL SITE AREA:	0.97 ACRES
TOTAL AREA TO BE DISTURBED:	0.86 ACRES

1.D. RUNOFF DATA:

RUNOFF COEFFIECIENTS:

BEFORE:	0.20
DURING:	VARIES FROM 0.20 TO 0.58
AFTER:	0.58

SOILS DATA:

OUTFALL INFORMATION:

THERE IS ONE OUTFALL TO THE EXISTING STORM SEWER SYSTEM WITHIN REMINGTON DRIVE.

#1 DESCRIPTION: WET POND. LOCATED IN THE SOUTHEAST CORNER OF THE SITE. THIS POND IS BOUND ON THE NORTH SIDE BY A SHEET PILE WALL AND ON THE SOUTH SIDE WITH A BERM. IT RECEIVES RUNOFF FROM THE PARKING LOT AND OTHER SURROUNDING AREAS. STORMWATER IS TREATED IN THE POND AND SLOWLY RELEASED VIA WATER QUALITY ORIFICE AND WEIRS FOR LARGER EVENTS. THE POND OUTLET STRUCTURE DISCHARGES TO THE EXISTING "DEAD-END" STORM MANHOLE THAT CONNECTS TO THE EXISTING STORM SEWER SYSTEM WITHIN REMINGTON DRIVE THAT CONVEYS FLOWS WEST.

LOCATION: LATITUDE 28° 56' 32.7" N, LONGITUDE 81° 38' 41.7" W.

1.E. SITE MAP:

THE PROPOSED SITE PLAN AND CONSTRUCTION PLANS ARE BEING USED AS THE SITE MAPS, THE LOCATION OF THE REQUIRED INFORMATION IS DESCRIBED BELOW. THE SHEET NUMBERS FOR THE PLAN SHEETS REFERENCED ARE IDENTIFIED ON THE KEY SHEET OF THESE CONSTRUCTION PLANS.

* DRAINAGE PATTERNS: THE FLOW DIRECTIONS ARE SHOWN ON THE GRADING PLAN AND POND DETAIL SHEETS.

*APPROXIMATE SLOPES: THE SLOPES OF THE SITE CAN BE SEEN IN THE PAVING AND GRADING SHEETS AND DRAINAGE MAPS PROVIDED WITH THE DRAINAGE REPORT.

*AREAS OF SOIL DISTURBANCE: THE AREAS TO BE DISTURBED ARE INDICATED ON THE EROSION CONTROL SHEET. ANY AREAS WHERE PERMANENT FEATURES ARE SHOWN TO BE CONSTRUCTED ABOVE OR BELOW GROUND WILL BE DISTURBED.

*AREAS NOT TO BE DISTURBED: A MAJORITY OF THE SITE WILL BE DISTURBED ASIDE FROM SMALL AREAS WITH TREES AND VEGETATION ALONG THE NORTH AND SOUTH PROPERTY BOUNDARIES.

*LOCATIONS OF TEMPORARY CONTROLS: THESE ARE SHOWN ON THE EROSION CONTROL SHEET.

* LOCATIONS OF PERMANENT CONTROLS: THE WET POND IS THE PRIMARY PERMANENT STORMWATER MANAGEMENT CONTROL. THIS IS SHOWN ON THE POND DETAIL SHEET. ROLLED EROSION CONTROL PRODUCTS (RECP'S) ARE IDENTIFIED ON THE PAVING, GRADING, AND DRAINAGE SHEETS.

* AREAS TO BE STABILIZED. TEMPORARY STABILIZATION PRACTICES ARE SHOWN IN THE SAME LOCATION AS THE TEMPORARY CONTROLS MENTIONED ABOVE. PERMANENT STABILIZATION IS SHOWN ON THE PAVING, GRADING, AND DRAINAGE SHEET.

*SURFACE WATERS: THERE ARE NO SURFACE WATER IN THIS PROJECT.

1.F. RECEIVING WATERS: EXISTING STORM SYSTEM WITHIN REMINGTON DRIVE.

2. CONTROLS:

2.A. EROSION AND SEDIMENT CONTROLS:

IN THE SEDIMENT AND EROSION CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE PROPOSED STABILIZATION AND STRUCTURAL PRACTICES BASED ON THESE CONSTRUCTION PLANS. THE CONTRACTOR MAY CHOOSE TO ACCEPT THE FOLLOWING RECOMMENDED GUIDELINES OR MODIFY THEM, SUBJECT TO APPROVAL BY THE ENGINEER OF RECORD.

AS WORK PROGRESSES, THE CONTRACTOR SHALL MODIFY THE PLAN TO ADAPT TO SEASONAL VARIATION, CHANGES IN CONSTRUCTION ACTIVITIES, AND THE NEED FOR BETTER PRACTICES.

THE CONTRACTOR SHALL INSTALL PERIMETER CONTROLS AFTER CLEARING AND GRUBBING NECESSARY FOR INSTALLATION OF CONTROLS BUT BEFORE BEGINNING OTHER WORK FOR THE CONSTRUCTION PHASE. REMOVE PERIMETER CONTROLS ONLY AFTER ALL UPSTREAM AREAS ARE STABILIZED.

2.A.1 STABILIZATION PRACTICES:

* DRAINAGE

IN THE SEDIMENT AND EROSION CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE STABILIZATION PRACTICES PROPOSED TO CONTROL EROSION. THE CONTRACTOR SHALL INITIATE ALL STABILIZATION MEASURES AS SOON AS PRACTICAL, BUT IN NO CASE MORE THAN 7 DAYS, IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. THE STABILIZATION PRACTICES SHALL INCLUDE AT LEAST THE FOLLOWING, UNLESS OTHERWISE APPROVED BY THE ENGINEER OF RECORD.

TEMPORARY:

* ARTIFICIAL COVERINGS IN ACCORDANCE WITH FDOT SPECIFICATION SECTION 104.
* TURF AND SOD IN ACCORDANCE WITH FDOT SPECIFICATION SECTION 104.

PERMANENT:

* ASPHALT OR CONCRETE SURFACE.
* SOD IN ACCORDANCE WITH FDOT SPECIFICATION SECTION 570.

2.A.2 STRUCTURAL PRACTICES:

IN THE SEDIMENT AND EROSION CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE PROPOSED STRUCTURAL PRACTICES TO CONTROL OR TRAP SEDIMENT AND OTHERWISE PREVENT THE DISCHARGE OF POLLUTANTS FROM EXPOSED AREAS OF THE SITE. SEDIMENT CONTROLS SHALL BE IN PLACE BEFORE DISTURBING SOIL UPSTREAM OF THE CONTROL. THE STRUCTURAL PRACTICES SHALL INCLUDE AT LEAST THE FOLLOWING, UNLESS OTHERWISE APPROVED BY THE ENGINEER OF RECORD:

LOCATIONS OF TEMPORARY CONTROLS:

* SILT FENCE IN ACCORDANCE WITH FDOT SPECIFICATION SECTION 104.

* SYNTHETIC BALES IN ACCORDANCE WITH FDOT SPECIFICATION SECTION 104.

* STAKED AND FLOATING TURBIDITY BARRIERS IN ACCORDANCE WITH DETAILS SHOWN IN PLANS.

* INLET PROTECTION IN ACCORDANCE WITH FDOT SPECIFICATION SECTION 104 AND DETAILS SHOWN IN PLANS

LOCATIONS OF PERMANENT CONTROLS:

* SOD IN ACCORDANCE WITH FDOT SPECIFICATION SECTION 570.
* STORMWATER PONDS
*ROLLED EROSION CONTROL PRODUCTS (RECP'S)

2.B STORMWATER MANAGEMENT:

ONE STORM DRAIN SYSTEMS WILL BE CONSTRUCTED TO CONVEY RUNOFF TO THE WET STORMWATER RETENTION/DETENTION POND. THE FACILITY HAS BEEN PERMITTED BY THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT (SJRWMD) AND COMPLIES WITH APPLICABLE DESIGN STANDARDS.

2.C OTHER CONTROLS:

2.C.1 WASTE DISPOSAL:

IN THE SEDIMENT AND EROSION CONTROL PLAN (PREPARED BY CONTRACTOR), THE CONTRACTOR SHALL DESCRIBE THE PROPOSED METHODS TO PREVENT THE DISCHARGE OF SOLID MATERIALS, INCLUDING BUILDING MATERIALS, TO WATERS OF THE UNITED STATES. THE PROPOSED METHODS SHALL INCLUDE AT LEAST THE FOLLOWING, UNLESS OTHERWISE APPROVED BY THE ENGINEER OF RECORD.

* PROVIDING LITTER CONTROL AND COLLECTION WITHIN THE PROJECT DURING CONSTRUCTION ACTIVITIES.

* DISPOSING OF ALL FERTILIZER OR OTHER CHEMICAL CONTAINERS ACCORDING TO EPA'S STANDARD PRACTICES AS DETAILED BY THE MANUFACTURER.

* DISPOSING OF SOLID MATERIALS INCLUDING BUILDING AND CONSTRUCTION MATERIALS OFF THE PROJECT SITE BUT NOT IN SURFACE WATERS, OR WETLANDS.

2.C.2 OFF-SITE VEHICLE TRACKING & DUST CONTROL:

IN THE SEDIMENT AND EROSION CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE PROPOSED METHODS FOR MINIMIZING OFFSITE VEHICLE TRACKING OF SEDIMENTS AND GENERATING DUST. THE PROPOSED METHODS SHALL INCLUDE AT LEAST THE FOLLOWING, UNLESS OTHERWISE APPROVED BY THE ENGINEER OF RECORD.

* COVERING LOADED HAUL TRUCKS WITH TARPAULINS.

* REMOVING EXCESS DIRT FROM ROADS DAILY.

* STABILIZING CONSTRUCTION ENTRANCES ACCORDING TO THE FDEP EROSION AND SEDIMENT CONTROL DESIGNER AND REVIEWER MANUAL.

* USING A COMBINATION OF ROADWAY SWEEPERS, WATER TRUCKS AND SOIL TRACKING PREVENTION DEVICES DURING DUST GENERATING ACTIVITIES SUCH AS EXCAVATION AND MILLING OPERATIONS.

2.C.3 STATE AND LOCAL REGULATIONS FOR WASTE DISPOSAL, SANITARY SEWER, OR SEPTIC TANK REGULATIONS:

IN THE EROSION CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE PROPOSED PROCEDURES TO COMPLY WITH APPLICABLE STATE AND LOCAL REGULATIONS FOR WASTE DISPOSAL, AND SANITARY SEWER OR SEPTIC SYSTEMS.

2.C.4 FERTILIZERS AND PESTICIDES:

IN THE SEDIMENT AND EROSION CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE PROCEDURES FOR APPLYING FERTILIZERS AND PESTICIDES. THE PROPOSED PROCEDURES SHALL COMPLY WITH APPLICABLE SUBSECTIONS OF SECTION 570 OF THE SPECIFICATIONS.

2.C.5 HAZARDOUS MATERIALS:

THE CONTRACTOR SHALL PROVIDE ENGINEER AND OWNER WITH A LIST OF ALL HAZARDOUS MATERIALS AND COPIES OF UP-TO-DATE SAFETY DATA SHEETS (SDSs) THAT ARE STORED, USED OR OTHERWISE PRESENT AT ANY TIME ON THE JOB SITE. CONTRACTOR TO MINIMIZE THE QUANTITIES OF HAZARDOUS MATERIALS PRESENT AT ANY TIME ON THE JOB SITE TO THE MINIMUM QUANTITIES REASONABLY REQUIRED FOR THE WORK BEING PERFORMED. ALL HAZARDOUS MATERIALS TO BE STORED IN COMPLIANCE WITH ALL REGULATORY REQUIREMENTS, INCLUDING THE PROVISION FOR SECONDARY CONTAINMENT WHERE APPROPRIATE.

2.D APPROVED STATE AND LOCAL PLANS AND PERMITS:

* FDEP RULE CHAPTER 62-25 F.A.C.
* SJRWMD - ERP - SEMINOLE COUNTY

3. MAINTENANCE:

IN THE SEDIMENT AND EROSION CONTROL PLAN, THE CONTRACTOR SHALL PROVIDE A PLAN FOR MAINTAINING ALL EROSION AND SEDIMENT CONTROLS THROUGHOUT CONSTRUCTION. THE MAINTENANCE PLAN SHALL AT A MINIMUM, COMPLY WITH THE FOLLOWING:

* SILT FENCE: MAINTAIN PER FDOT SPECIFICATION SECTION 104. THE CONTRACTOR SHOULD ANTICIPATE REPLACING SILT FENCE ON 12 MONTH INTERVALS.

* SEDIMENT BARRIERS: REMOVE SEDIMENT AS PER MANUFACTURER'S RECOMMENDATIONS OR WHEN WATER PONDS IN UNACCEPTABLE AMOUNTS OR AREAS.

* PONDS: THE PONDS ARE TEMPORARY SEDIMENT BASINS UNTIL THE AREAS THAT DRAIN TO THEM ARE STABILIZED. SO UNTIL THEN, REMOVE SEDIMENT FROM THE POND WHEN IT BECOMES 1.5' DEEP AT ANY POINT.

4. INSPECTIONS:

QUALIFIED PERSONNEL SHALL INSPECT THE FOLLOWING ITEMS AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.50 INCHES OR GREATER. TO COMPLY, THE CONTRACTOR SHALL INSTALL AND MAINTAIN RAIN GAUGES AND RECORD THE DAILY RAINFALL. WHERE SITES HAVE BEEN PERMANENTLY STABILIZED, INSPECTIONS SHALL BE CONDUCTED AT LEAST ONCE EVERY MONTH. THE CONTRACTOR SHALL ALSO INSPECT THAT CONTROLS INSTALLED IN THE FIELD AGREE WITH THE LATEST STORMWATER POLLUTION PREVENTION PLAN.

* POINTS OF DISCHARGE TO WATERS OF THE UNITED STATES.

* POINTS OF DISCHARGE TO MUNICIPAL SEPARATE STORM DRAIN SYSTEMS.

* DISTURBED AREAS OF THE SITE THAT HAVE NOT BEEN FINALLY STABILIZED.

* AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION.

* STRUCTURAL CONTROLS.

* STORMWATER MANAGEMENT SYSTEMS.

* LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE.

THE CONTRACTOR SHALL INITIATE REPAIRS WITHIN 24 HOURS OF INSPECTIONS THAT INDICATE ITEMS ARE NOT IN GOOD WORKING ORDER. IF INSPECTIONS INDICATE THAT THE INSTALLED STABILIZATION AND STRUCTURAL PRACTICES ARE NOT SUFFICIENT TO MINIMIZE EROSION, RETAIN SEDIMENT, AND PREVENT DISCHARGING POLLUTANTS, THE CONTRACTOR SHALL PROVIDE ADDITIONAL MEASURES, AS APPROVED BY THE ENGINEER OF RECORD.

5. NON-STORMWATER DISCHARGES:

PER FDOT SECTION 104 EROSION CONTROL PLAN, THE CONTRACTOR SHALL IDENTIFY ALL ANTICIPATED NON-STORMWATER DISCHARGES (EXCEPT FLOWS IDENTIFY ALL ANTICIPATED NON-STORMWATER DISCHARGES (EXCEPT FLOWS FROM FIRE FIGHTING ACTIVITIES). THE CONTRACTOR SHALL DESCRIBE THE PROPOSED MEASURES TO PREVENT POLLUTION OF THESE NON-STORMWATER DISCHARGES. IF THE CONTRACTOR ENCOUNTERS CONTAMINATED SOIL OR GROUNDWATER, CONTACT THE ENGINEER OF RECORD AT (407)704-7815.

CONSULTANT:

OM ENGINEERING SERVICES, INC.
Civil • Structural • Inspections

621 E. Washington St., Suite 8
Orlando, Florida 32801
Office: (407) 704-7815
www.omengineer.com

DAVID RETLAW BORYS, P.E.
FL. REG. # 75372

Stormwater Pollution Prevention Plan (2)

SR 419 RV & BOAT STORAGE LOT

4301 SR 419 WINTER SPRINGS, FL 32708

NO. 1	DATE: 2025-04-04
DESCRIPTION: 1st SUB, CITY OF WINTER SPRINGS	
NO. 2	DATE: 2025-11-19
DESCRIPTION: 2nd SUB,CITY OF WINTER SPRINGS	
NO. 3	DATE: 2026-03-31
DESCRIPTION: 3rd SUB,CITY OF WINTER SPRINGS	
NO. 4	DATE: 2026-09-23
DESCRIPTION: 3rd SUB,WINTER SPRINGS/SR 419 FDOT)	
NO.	DATE:
DESCRIPTION:	
PROJECT NO. 22-2211	

C-14

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

BEST MANAGEMENT PRACTICES:

THIS PLAN HAS BEEN PREPARED TO ENSURE COMPLIANCE WITH APPROPRIATE CONDITIONS OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP), SEMINOLE COUNTY LAND DEVELOPMENT REGULATIONS AND THE APPROPRIATE WATER MANAGEMENT DISTRICT. THE PLAN ADDRESSES THE FOLLOWING AREAS:

1. GENERAL EROSION CONTROL.
2. PROTECTION OF SURFACE WATER QUALITY DURING AND AFTER CONSTRUCTION.
3. CONTROL OF WIND EROSION.

THE VARIOUS TECHNIQUES OR ACTIONS IDENTIFIED UNDER EACH SECTION INDICATE THE APPROPRIATE SITUATION WHEN THE TECHNIQUES SHOULD BE EMPLOYED. IT SHOULD BE NOTED THAT THE MEASURES IDENTIFIED ON THIS PLAN ARE ONLY SUGGESTED BMP(S). THE CONTRACTOR SHALL PROVIDE POLLUTION PREVENTION AND EROSION CONTROL MEASURES AS SPECIFIED IN FDOT SPECIFICATION SECTION 104 AND AS NECESSARY FOR EACH SPECIFIC APPLICATION

SECTION 1 GENERAL EROSION CONTROL:

1.1 GENERAL EROSION CONTROL BEST MANAGEMENT PRACTICES SHALL BE EMPLOYED TO MINIMIZE SOIL EROSION AND POTENTIAL POND SLOPE CAVE-INS. WHILE THE VARIOUS TECHNIQUES REQUIRED WILL BE SITE AND PLAN SPECIFIC, THEY SHOULD BE EMPLOYED AS SOON AS POSSIBLE DURING CONSTRUCTION ACTIVITIES.

1.2 SLOPES OF BANKS OF RETENTION/DETENTION PONDS SHALL BE CONSTRUCTED NOT STEEPER THAN 2% FROM OUTSIDE TOP OF BANK TO INSIDE TOP OF BANK.

1.3 THE CONTRACTOR WILL STABILIZE BY SEED AND MULCH, SOD, OR OTHER APPROVED MATERIALS ANY DISTURBED AREAS WITHIN ONE WEEK FOLLOWING CONSTRUCTION OF THE UTILITY SYSTEMS AND PAVEMENT AREAS. CONTRACTOR SHALL MAINTAIN SUCH AREAS UNTIL FINAL ACCEPTANCE BY OWNER. CONTRACTOR TO COORDINATE WITH OWNER REGARDING TYPE OF MATERIAL, LANDSCAPING, AND IRRIGATION REQUIREMENTS.

1.4 CLEARED SITE DEVELOPMENT AREAS NOT CONTINUALLY SCHEDULED FOR CONSTRUCTION ACTIVITIES SHALL BE COVERED WITH HAY OR OVERSEEDED AND PERIODICALLY WATERED SUFFICIENTLY TO STABILIZE THE TEMPORARY GROUNDCOVER.

SECTION 2 PROTECTION OF SURFACE WATER QUALITY DURING AND AFTER CONSTRUCTION:

2.1 SURFACE WATER QUALITY SHALL BE MAINTAINED BY EMPLOYING THE FOLLOWING BEST MANAGEMENT PRACTICES IN THE CONSTRUCTION PLANNING AND CONSTRUCTION OF ALL IMPROVEMENTS.

2.2 WHERE PRACTICAL, STORMWATER SHALL BE CONVEYED BY SWALES.

2.3 EROSION CONTROL MEASURES SHALL BE EMPLOYED TO MINIMIZE TURBIDITY OF SURFACE WATERS LOCATED DOWNSTREAM OF ANY CONSTRUCTION ACTIVITY. WHILE THE VARIOUS MEASURES REQUIRED WILL BE SITE SPECIFIC, THEY SHALL BE EMPLOYED AS NEEDED IN ACCORDANCE WITH THE FOLLOWING:

A. IN GENERAL, EROSION SHALL BE CONTROLLED AT THE FURTHEST PRACTICAL UPSTREAM LOCATION.
B. STORMWATER INLETS SHALL BE PROTECTED DURING CONSTRUCTION AS SHOWN ON THIS SHEET. PROTECTION MEASURES SHALL BE EMPLOYED AS SOON AS PRACTICAL DURING THE VARIOUS STAGES OF INLET CONSTRUCTION. SILT BARRIERS SHALL REMAIN IN PLACE UNTIL SODDING AROUND INLETS IS COMPLETE.

2.4 HEAVY CONSTRUCTION EQUIPMENT PARKING AND MAINTENANCE AREAS SHALL BE DESIGNED TO PREVENT OIL, GREASE, AND LUBRICANTS FROM ENTERING SITE DRAINAGE FEATURES INCLUDING STORMWATER COLLECTION AND TREATMENT SYSTEMS. CONTRACTORS SHALL PROVIDE BROAD DIKES, HAY BALES OR SILT SCREENS AROUND, AND SEDIMENT SUMPS WITHIN, SUCH AREAS AS REQUIRED TO CONTAIN SPILLS OF OIL, GREASE OR LUBRICANTS. CONTRACTORS SHALL HAVE AVAILABLE, AND SHALL USE, ABSORBENT FILTER PADS TO CLEAN UP SPILLS AS SOON AS POSSIBLE AFTER OCCURRENCE.

2.5 SILT BARRIERS, ANY SILT WHICH ACCUMULATES BEHIND THE BARRIERS, AND ANY FILL USED TO ANCHOR THE BARRIERS SHALL BE REMOVED PROMPTLY AFTER THE END OF THE MAINTENANCE PERIOD SPECIFIED FOR THE BARRIERS.

2.6 WHERE REQUIRED TO PREVENT EROSION FROM SHEET FLOW ACROSS BARE GROUND FROM ENTERING A LAKE OR SWALE, A TEMPORARY SEDIMENT SUMP SHALL BE CONSTRUCTED. THE TEMPORARY SEDIMENT SUMP SHALL REMAIN IN PLACE UNTIL VEGETATION IS ESTABLISHED ON THE GROUND DRAINING TO THE SUMP.

2.7 ALL PAINT(S) AND OTHER HAZARDOUS MATERIALS SHALL BE CONTAINED WITHIN A SINGLE ON-SITE AREA WITHIN SEALED CONTAINERS.

2.8 INSPECTION AND MAINTENANCE PROCEDURES FOR CONTROL MEASURES IDENTIFIED IN THE PLAN:

A. THE CONTRACTOR IS REQUIRED TO PROVIDE A QUALIFIED INSPECTOR TO PERFORM AND DOCUMENT REQUIRED INSPECTIONS.
B. ALL DISTURBED AREAS, STORAGE AREAS, AND CONSTRUCTION EXITS MUST BE INSPECTED. THIS INCLUDES OFF-SITE CONSTRUCTION AREAS.
C. INSPECTIONS MUST BE COMPLETED ONCE EVERY SEVEN DAYS AND/OR WITHIN 24 HOURS OF A STORM EVENT OF 0.5 INCHES OR GREATER (CONTRACTOR TO PROVIDE AN ON-SITE RAIN GAUGE AND PROVIDE DAILY RECORDING OF RAIN EVENTS).
D. ALL AREAS OF UNSATISFACTORY CONTROLS (INCLUDING EXISTING CONTROL MEASURES OR AREAS REQUIRING ADDITIONAL CONTROL MEASURES) SHALL BE REPAIRED/MAINTAINED/INSTALLED WITHIN 24 HOURS OF THE OBSERVANCE OR PRIOR TO AN ANTICIPATED RAIN EVENT IF FORECAST SOONER THAN 24 HOURS.

2.9 ALL WATER RUNOFF RESULTING FROM SOURCES OTHER THAN RAINFALL EVENTS (I.E. BLOW-OFF FROM HYDRO-STATIC TESTING, PROCESS WATER FROM VEHICLE WASHDOWN, ETC.) SHALL BE DIRECTED TOWARDS THE ON-SITE SURFACE WATER MANAGEMENT SYSTEM, WHETHER IN TEMPORARY OR FINAL CONDITION, SO THAT IT HAS NO ADVERSE IMPACTS TO DOWNSTREAM WATER QUALITY CONDITIONS.

3.1 WIND EROSION SHALL BE CONTROLLED BY EMPLOYING THE FOLLOWING METHODS AS NECESSARY AND APPROPRIATE:

A. BARE EARTH AREAS SHALL BE WATERED DURING CONSTRUCTION AS NECESSARY TO MINIMIZE THE TRANSPORT OF FUGITIVE DUST. IT MAY BE NECESSARY TO LIMIT CONSTRUCTION VEHICLE SPEED IF BARE EARTH HAS NOT BEEN EFFECTIVELY WATERED. IN NO CASE SHALL FUGITIVE DUST BE ALLOWED TO LEAVE THE SITE UNDER CONSTRUCTION.

B. AS SOON AS PRACTICAL AFTER COMPLETION OF CONSTRUCTION, BARE EARTH AREAS SHALL BE VEGETATED.

C. AT ANY TIME BOTH DURING AND AFTER SITE CONSTRUCTION THAT WATERING AND/OR VEGETATION ARE NOT EFFECTIVE IN CONTROLLING WIND EROSION AND/OR TRANSPORT OF FUGITIVE DUST, OTHER METHODS AS ARE NECESSARY FOR SUCH CONTROL SHALL BE EMPLOYED. THESE METHODS MAY INCLUDE ERECTION OF DUST CONTROL FENCES. IF REQUIRED, DUST CONTROL FENCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAIL FOR A SILT FENCE SHOWN ON THIS SHEET EXCEPT THE MINIMUM HEIGHT SHALL BE 4 FEET.

CLEARING AND SITE PREPARATION NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER INSTALLATION OF THE EROSION CONTROL DEVICES, AS SHOWN ON THE CONSTRUCTION PLANS, PRIOR TO ANY SITE CLEARING AND/OR DEMOLITION. REFER TO THE "EROSION CONTROL NOTES" SECTION CONTAINED HEREIN FOR ADDITIONAL REQUIREMENTS.

2. PRIOR TO ANY SITE CLEARING, ALL TREES SHOWN TO REMAIN, AS INDICATED ON THE CONSTRUCTION PLANS, SHALL BE PROTECTED IN ACCORDANCE WITH LOCAL TREE ORDINANCES, AND DETAILS CONTAINED IN THESE PLANS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THESE TREES IN GOOD CONDITION. NO TREE(S) SHOWN TO REMAIN SHALL BE REMOVED WITHOUT WRITTEN APPROVAL FROM THE OWNER AND THE LOCAL AGENCY HAVING JURISDICTION OVER THESE ACTIVITIES.

3. THE CONTRACTOR SHALL CLEAR AND GRUB ONLY THOSE PORTIONS OF THE SITE NECESSARY FOR CONSTRUCTION. ALL DISTURBED AREAS MUST BE SEEDED, MULCHED, SODDED OR PLANTED WITH OTHER APPROVED LANDSCAPE MATERIAL IMMEDIATELY FOLLOWING CONSTRUCTION.

4. THE TOP 4" TO 6" OF GROUND REMOVED DURING CLEARING AND GRUBBING ACTIVITIES SHALL BE STOCKPILED, TO BE USED FOR LANDSCAPING PURPOSES, UNLESS OTHERWISE DIRECTED BY THE OWNER. REMAINING EARTHWORK THAT RESULTS FROM CLEARING AND GRUBBING OR SITE EXCAVATION IS TO BE UTILIZED ON-SITE, PROVIDED THE MATERIAL IS DEEMED SUITABLE BY THE OWNER'S SOILS TESTING COMPANY. EXCESS MATERIAL IS TO EITHER BE STOCKPILED ON-SITE, AS DIRECTED BY THE OWNER OR OWNER'S ENGINEER, OR REMOVED FROM THE SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ANY PERMITS THAT ARE NECESSARY FOR REMOVING ANY EXCESS MATERIAL FROM THE SITE.

5. ALL EXISTING DEBRIS (ABOVE OR BELOW GROUND), CONSTRUCTION DEBRIS AND OTHER WASTE MATERIAL SHALL BE DISPOSED OF OFF-SITE BY THE CONTRACTOR, IN ACCORDANCE WITH APPLICABLE REGULATORY AGENCY REQUIREMENTS.

6. THE CONTRACTOR IS TO PREPARE THE SITE IN ACCORDANCE WITH THE SOILS REPORT. COPIES OF WHICH ARE AVAILABLE THROUGH THE OWNER OR SOILS TESTING COMPANY DIRECTLY.

7. CONTRACTOR TO BE RESPONSIBLE FOR INSTALLATION OF TEMPORARY CONSTRUCTION FENCE AROUND ENTIRE PERIMETER OF PROPERTY. TYPE OF FENCE TO BE SUBMITTED BY CONTRACTOR TO ENGINEER FOR APPROVAL.

8. CONTRACTOR SHALL MAINTAIN STORMWATER MANAGEMENT SYSTEM TO INSURE NO DAMAGE TO ADJACENT PROPERTIES OCCURS DURING STORM EVENTS.

9. DISTURBED AREA(S) WITHIN THE ROW WILL COMPACTED TO 98% OF MAXIMUM DENSITY AND SODDED.

10. DO NOT DISTRUB EXISTING UNDERDRAIN OR STORM SYSTEMS.

11. NO STOCKPILING OF MATERIAL IN ROADWAY OR ON SIDEWALK. ALL DIRT AND DEBRIS WILL BE REMOVED FROM JOB SITE DAILY. ROADS AND SIDEWALK TO BE SWEPT DAILY AS PART OF DAILY CLEAN-UP.

12. CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS TO EXISTING CONDITIONS OR BETTER, CONTRACTOR SHALL PROVIDE TO ENGINEER PHOTOGRAPH OF PRE-CONSTRUCTION CONDITIONS AND POST-CONSTRUCTION CONDITIONS AS REQUESTED BY ENGINEER.

13. PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, AND OTHER FACILITIES FROM DAMAGE CAUSED BY SETTLEMENT, LATERAL MOVEMENT, UNDERMINING, WASHOUT AND OTHER HAZARDS CREATED BY THE DEMOLITION OPERATION.

14. REMOVE WASTE MATERIALS AND UNSUITABLE AND EXCESS TOPSOIL FROM PROPERTY AND DISPOSE OF OFF SITE IN A LEGAL MANNER.

CLEARING AND SITE PREPARATION NOTES:
(CONT.)

15. DURING PREPARATION OF THE SUB GRADE AND UNTIL THE PAVING IS IN PLACE, THE CONTRACTOR SHALL PROMPTLY TAKE REASONABLE MEASURES TO OBTAIN AND MAINTAIN A DRY SITE CONDITION. SUCH MEASURES SHALL INCLUDE PUMPING OF FREE SURFACE WATER, MINOR HAND AND/OR MACHINE SHAPING OF FACILITATE WATER REMOVAL, AND OTHER OPERATIONS TO SPEED DRYING.

16. ALL DELETERIOUS SUBSURFACE MATERIAL (I.E. MUCK, PEAT, BURIED DEBRIS, ETC.) IS TO BE EXCAVATED AND REPLACED WITH SUITABLE/COMPACTED SOILS, AS DIRECTED BY THE OWNER, THE OWNERS ENGINEERS, OR OWNERS SOILS TESTING COMPANY. DELETERIOUS MATERIAL IS TO BE STOCKPILED OR REMOVED FROM THE SITE AS DIRECTED BY THE OWNER. EXCAVATED AREAS ARE TO BE BACKFILLED WITH APPROVED MATERIALS AND COMPACTED AS SHOWN ON THESE PLANS. CONTRACTOR IS RESPONSIBLE FOR ACQUIRING ANY PERMITS THAT ARE NECESSARY FOR REMOVING DELETERIOUS MATERIAL FROM THE SITE.

17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXCAVATIONS AGAINST COLLAPSE AND WILL PROVIDE BRACING, SHEETING OR SHORING AS NECESSARY. DEWATERING METHODS SHALL BE USED AS REQUIRED TO KEEP TRENCHES DRY WHILE PIPE AND APPURTENANCES ARE BEING PLACED.

18. THE CONTRACTOR WILL STABILIZE BY SEED AND MULCH, SOD, OR OTHER APPROVED MATERIALS ANY DISTURBED AREAS WITHIN ONE WEEK FOLLOWING CONSTRUCTION OF THE UTILITY SYSTEMS AND PAVEMENT AREAS. CONTRACTOR SHALL MAINTAIN SUCH AREAS UNTIL FINAL ACCEPTANCE BY OWNER. CONTRACTOR TO COORDINATE WITH OWNER REGARDING TYPE OF MATERIAL, LANDSCAPING AND IRRIGATION REQUIREMENTS.

19. THE CONTRACTOR SHALL REMOVE ALL VEGETATION, SURPLUS SOIL, DEMOLITION RUBBLE, AND OTHER UNDESIRABLE MATERIALS. SUCH MATERIALS SHALL BE PROMPTLY HAULED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH THE GRADING PLAN, TAKING INTO ACCOUNT THE THICKESS OF THE PAVING SYSTEM. THE TOLERANCE OF ROUGH GRADING SHALL BE WITHIN 1/2" HIGH TO 1" LOW.

DEMOLITION NOTES:

1. CONTRACTOR SHALL SUBMIT DEMOLITION SCHEDULE TO OWNER PRIOR TO PROCEEDING WITH DEMOLITION ACTIVITIES.

2. EXTENT OF SITE CLEARING IS SHOWN ON DRAWINGS.

3. SITE DEMOLITION WORK INCLUDES, BUT IS NOT LIMITED TO:

A) ROADWAY/CURB & GUTTER
B) DRAINAGE AREAS
C) SITE UTILITIES
D) VEGETATION/LANDSCAPING

4. CONDUCT SITE DEMOLITION OPERATIONS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS, AND OTHER ADJACENT OCCUPIED OR USED FACILITIES. DO NOT CLOSE OR OBSTRUCT STREETS, WALKS OR OTHER OCCUPIED OR USED FACILITIES WITHOUT PERMISSION FROM AUTHORITIES HAVING JURISDICTION.

5. PROVIDE PROTECTION NECESSARY TO PREVENT DAMAGE TO EXISTING IMPROVEMENTS INDICATED ON PLAN "EXISTING TO REMAIN."

6. RESTORE DAMAGED IMPROVEMENTS TO THEIR ORIGINAL CONDITION, AS ACCEPTABLE TO PARTIES HAVING JURISDICTION.

7. REMOVE WASTE MATERIALS AND UNSUITABLE AND EXCESS TOPSOIL FROM PROPERTY AND DISPOSE OF OFF SITE IN A LEGAL MANNER.

8. LOCATE EXISTING ABOVE GROUND AND UNDERGROUND UTILITIES IN AREAS OF WORK IF UTILITIES ARE TO REMAIN IN PLACE, PROVIDE ADEQUATE MEANS OF SUPPORT AND PROTECTION DURING DEMOLITION OPERATION.

9. SHOULD UNCHARTED, OR INCORRECTLY CHARTED, PIPING OR OTHER UTILITIES BE ENCOUNTERED DURING DEMOLITION, CONSULT PROJECT ENGINEER AND UTILITY OWNER FOR IMMEDIATE ACTION.

10. DEMOLISH AND COMPLETELY REMOVE FROM SITE MATERIAL INDICATED ON PLAN OR NOTES "TO BE REMOVED."

11. PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, AND OTHER FACILITIES FROM DAMAGE CAUSED BY SETTLEMENT, LATERAL MOVEMENT, UNDERMINING, WASHOUT AND OTHER HAZARDS CREATED BY THE DEMOLITION OPERATION.

12. FOR SELECTIVE CLEARING REFER TO LANDSCAPE PLAN.

13. CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS TO EXISTING CONDITIONS OR BETTER. FURTHERMORE CONTRACTOR SHALL PROVIDE TO ENGINEER PHOTOGRAPH OF PRE-CONSTRUCTION CONDITIONS AND POST-CONSTRUCTION CONDITIONS AS NOTED ON PLANS.

14. CONTRACTOR SHALL MAINTAIN STORMWATER MANAGEMENT SYSTEM TO INSURE NO DAMAGE TO ADJACENT PROPERTIES OCCURS DURING 100-YEAR STORM EVENTS.

EROSION AND SILTATION CONTROL:

1. GENERAL - ALL EROSION AND SILTATION CONTROL METHODS SHALL BE IMPLEMENTED PRIOR TO THE START OF CONSTRUCTION. DURING CONSTRUCTION, DENUDED AREAS SHALL BE COVERED BY MULCHES AND FILTER FABRIC. ALL STORM SEWER INLETS IN THE VICINITY OF THE PROJECT SHALL BE PROTECTED BY SEDIMENT TRAPS OR SYNTHETIC BALES. THESE SHALL BE MAINTAINED AND MODIFIED DURING THE CONSTRUCTION PROCESS TO MINIMIZE DOWNSTREAM SILTATION. WHEN CONSTRUCTION IS COMPLETED, DETENTION AREAS WILL BE RESHAPED, CLEANED OF SILT, MUD AND DEBRIS, AND RE-SODDED TO PROPERLY DETAIN THE INTENDED STORM QUANTITIES.

2. PROTECTION AND STABILIZATION OF ON-SITE SOIL STOCKPILES - FILL MATERIAL STOCKPILES SHALL BE PROTECTED AT ALL TIMES BY ON-SITE DRAINAGE CONTROLS WHICH PREVENT EROSION OF THE STOCKPILED MATERIAL. CONTROL OF DUST FROM SUCH STOCKPILES MAY BE REQUIRED, DEPENDING UPON THEIR LOCATION AND THE EXPECTED LENGTH OF TIME THE STOCKPILES WILL BE PRESENT. IN NO CASE SHALL ANY UNSTOCKPILED MATERIAL REMAIN MORE THAN THIRTY (30) CALENDAR DAYS AFTER SUBSTANTIAL PROJECT COMPLETION.

3. PROTECTION OF EXISTING STORM SEWER SYSTEMS: DURING CONSTRUCTION, ALL STORM SEWER INLETS IN THE VICINITY OF THE PROJECT SHALL BE PROTECTED BY SEDIMENT TRAPS SUCH AS SECURED SYNTHETIC BALES, SOD, STONE, ETC., WHICH SHALL BE MAINTAINED AND MODIFIED AS REQUIRED BY CONSTRUCTION PROGRESS, AND WHICH MUST BE APPROVED BY THE ENGINEER BEFORE INSTALLATION.

4. SEDIMENT BASINS AND TRAPS, SEDIMENT TRAPPING MEASURES: PERIMETER BERMS, SEDIMENT BARRIERS, VEGETATIVE BUFFERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT AND/OR PREVENT THE TRANSPORT OF SEDIMENT ONTO ADJACENT PROPERTIES, OR INTO EXISTING BODIES OF, MUST BE INSTALLED, CONSTRUCTED OR, IN THE CASE OF VEGETATIVE BUFFERS, PROTECTED FROM DISTURBANCE, AS A FIRST STEP IN THE LAND ALTERATION PROCESS. SUCH SYSTEMS SHALL BE FULLY OPERATIVE BEFORE ANY OTHER DISTURBANCE OF THE SITE BEGINS. EARTHEN STRUCTURES INCLUDING BUT NOT LIMITED TO BERMS, EARTH FILTERS, DAMS OR DIKES SHALL BE STABILIZED AND PROTECTED FROM DRAINAGE DAMAGE OR EROSION WITHIN ONE WEEK OF INSTALLATION.

5. ALL SWALES, DITCHES AND CHANNELS: CHANNELS LEADING FROM THE SITE SHALL BE SODDED WITH ARGENTINE BAHIA WITHIN THREE (3) DAYS OF EXCAVATION.

6. THE CONSTRUCTION OF UNDERGROUND UTILITY CONSTRUCTION: UNDERGROUND UTILITY LINES AND OTHER STRUCTURES SHALL BE DONE IN ACCORDANCE WITH THE FOLLOWING STANDARDS:

A. NO MORE THAN 500 LINEAR FEET OF TRENCH SHALL BE OPEN AT ANY ONE TIME.
B. WHEREVER CONSISTENT WITH SAFETY AND SPACE CONSIDERATION, EXCAVATED MATERIAL SHALL BE CAST TO THE UPHILL SIDE OF TRENCHES. TRENCH MATERIAL SHALL NOT BE CAST INTO OR ONTO THE SLOPE OF ANY STREAM, CHANNEL, ROAD, DITCH OR WATERWAY.

7. ALL EROSION AND SILTATION CONTROL DEVICES SHALL BE CHECKED REGULARLY, ESPECIALLY AFTER EACH RAINFALL AND WILL BE CLEANED OUT AND/OR REPAIRED AS REQUIRED.

8. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO RAIN SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE STORMWATER SYSTEM.

9. APPLICATION RATES AND METHODS FOR USE OF FERTILIZERS AND PESTICIDES AT THE CONSTRUCTION SITE SHALL CONFORM WITH ALL LOCAL AND STATE ORDINANCES. NUTRIENTS SHALL BE APPLIED ONLY AT RATES NECESSARY TO ESTABLISH AND MAINTAIN VEGETATION SUCH THAT DISCHARGES WILL NOT CAUSE OR CONTRIBUTE TO VIOLATIONS OF STATE SURFACE OR GROUND WATER QUALITY STANDARDS.

10. OFF-SITE VEHICLE TRACKING OF SEDIMENTS AND THE GENERATION OF DUST SHALL BE MINIMIZED BY CONTRACTOR.

DEWATERING NOTES:

1. DURING THE EXCAVATION OF THE STORMWATER POND THE CONTRACTOR MUST CONSTRUCT A SEDIMENT BASIN TO PROVIDE A DISCHARGE POINT FOR DEWATERING. THE SEDIMENT BASIN CAN BE HELD IN THE PROPOSED EXCAVATION AREA OF THE POND OR IT CAN BE A BERMED AREA ABOVE GROUND. ALL DEWATERING MUST BE HELD IN THE SEDIMENT AREA UNTIL THE WATER IS CLEAN SUCH THAT THERE WOULD BE NO TURBID DISCHARGE. AFTER THE WATER IN THE SEDIMENT BASIN IS CLEAN, THE WATER MAY BE RELEASED INTO THE ON-SITE POND PROVIDED THERE IS NO ADVERSE IMPACT TO THE EXISTING WATER QUALITY.

2. UNDER NO CIRCUMSTANCES WILL THE DISCHARGE FROM THE DEWATERING BE DIRECTLY INTO A CANAL.

3. DURING THE EXCAVATION THE CONTRACTOR SHALL NOT PENETRATE AN EXISTING CLAY LAYER. IF THE CONTRACTOR ENCOUNTERS A CLAY LAYER, HE/SHE IS TO PLACE A MINIMUM OF 2 FEET OF SANDY MATERIAL OVER THE CLAY AND TERMINATE THE DEPTH OF THE EXCAVATION.

4. IF CONTRACTOR ENCOUNTERS SILTY/CLAY SAND, WHICH CAUSE THE WATER TO BECOME TURBID, HE/SHE SHALL TREAT THE SEDIMENT BASIN WITH CHEMICAL ADDITIVE SUCH AS ALLUM IN ORDER TO PROMOTE THE COAGULATION OF THE PARTICLES WHICH ALLOW THEM TO SETTLE AND THE WATER TO BECOME LESS TURBID. IF TURBID WATER IS ENCOUNTERED DURING THE EXCAVATION OF THE PONDS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD IMMEDIATELY TO DETERMINE THE COURSE OF ACTION THAT IS APPROPRIATE TO ELIMINATE THE TURBITY AND ALLOW DISCHARGE THAT MEET WATER QUALITY STANDARDS.

5. THE CONTRACTOR SHALL SEQUENCE THE EXCAVATION OF THE STORMWATER POND SUCH THAT A SEDIMENT BASIN WILL BE AVAILABLE AT ALL TIMES. THE SEDIMENT BASIN CAN BE RELOCATED AS NECESSARY SUBJECT TO THE WATER WITHIN THE SEDIMENT BASIN BEING NON-TURBID AND ACCEPTABLE FOR DISCHARGE OFF-SITE.

6. BASED ON THE GEOTECHNICAL SOIL BORINGS THE SEASONAL HIGH WATER TABLE MAY BE CLOSE TO THE EXISTING SURFACE ELEVATIONS IN AREAS OF THE SITE. GROUNDWATER MAY BEENCOUNTERED DURING CLEARING AND GRUBBING AND SITE EXCAVATION. GROUNDWATER WILL LIKELY BE ENCOUNTERED DURING SHEET PILE WALL INSTALLATION.

7. CONTRACTOR SHALL INCLUDE DEWATERING COSTS IN BID SUBMITTAL.

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CONSULTANT:
OM ENGINEERING SERVICES, INC.
Civil • Structural • Inspections
621 E. Washington St., Suite 8
Orlando, Florida 32801
Office: (407) 704-7815
www.omengineer.com

DAVID RETLAW BORYS, P.E.
FL. REG. # 75372

Stormwater Pollution Prevention Plan (3)

SR 419 RV & BOAT STORAGE LOT

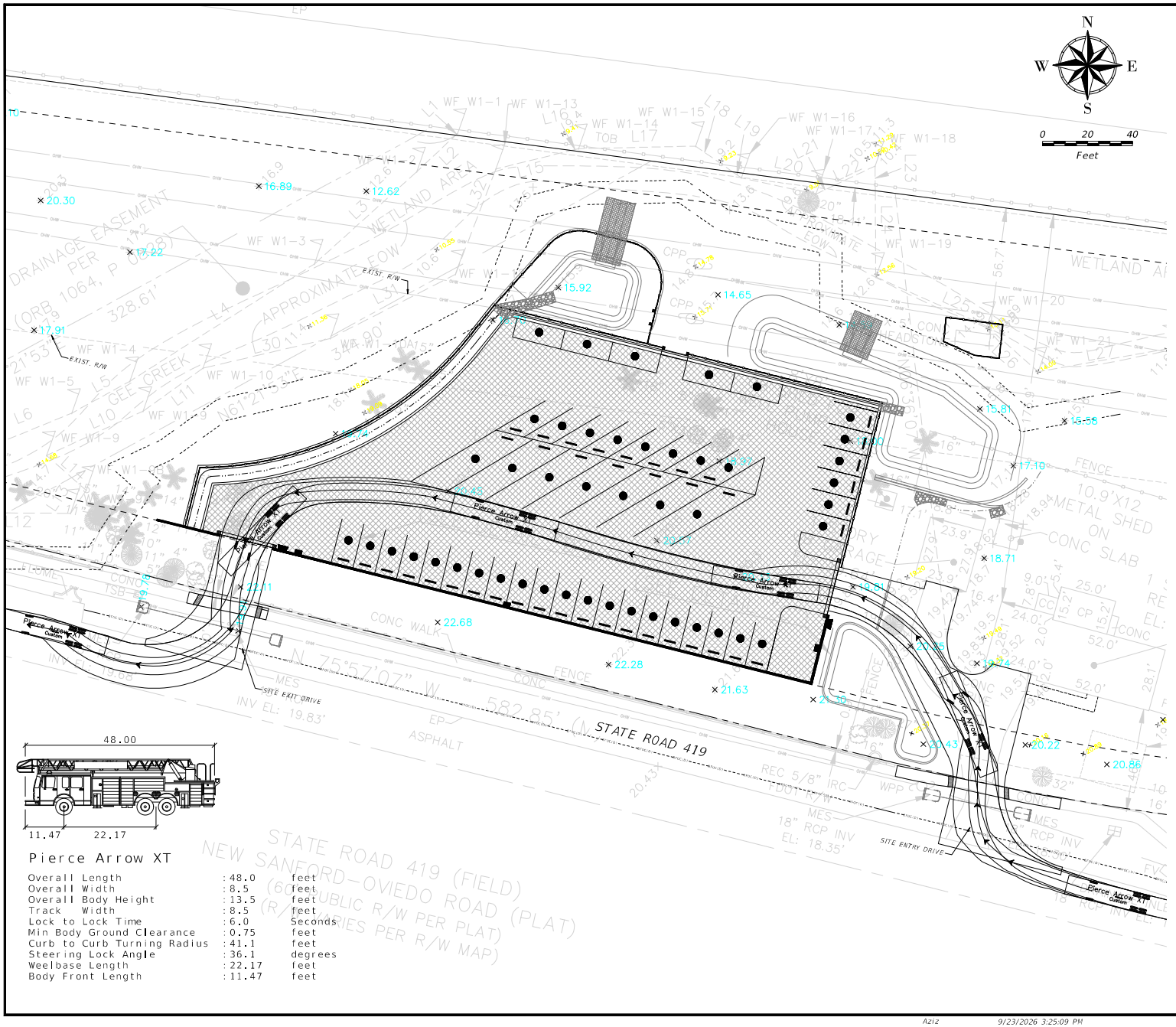
4301 SR 419 WINTER SPRINGS, FL 32708

NO. 1 DATE: 2025-04-04
DESCRIPTION: 1st SUB. CITY OF WINTER SPRINGS
NO. 2 DATE: 2025-11-19
DESCRIPTION: 2nd SUB.CITY OF WINTER SPRINGS
NO. 3 DATE: 2026-03-31
DESCRIPTION: 3rd SUB.CITY OF WINTER SPRINGS
NO. 4 DATE: 2026-09-23
DESCRIPTION: 3rd SUB.WINTER SPRINGS(NO SUB FDOT)
NO. DATE:
DESCRIPTION:

PROJECT NO. 22-0211

C-15

Aziz 9/23/2026 3:24:39 PM Y:\FDOT AutoCAD Projects\22221100000\Drainage\SWPPCN02.dwg



Pierce Arrow XT		
Overall Length	:48.0	feet
Overall Width	:8.5	feet
Overall Body Height	:13.5	feet
Track Width	:8.5	feet
Lock to Lock Time	:6.0	Seconds
Min Body Ground Clearance	:0.75	feet
Curb to Curb Turning Radius	:41.1	feet
Steering Lock Angle	:36.1	degrees
Weelbase Length	:22.17	feet
Body Front Length	:11.47	feet

NOTES:

1. THE PROPOSED EMERGENCY ACCESS ROUTE THROUGH THE SITE AS DEPICTED IN THIS PLAN SET MAINTAINS A MINIMUM UNOBSTRUCTED CLEAR WIDTH OF 20 FEET AS REQUIRED BY REGULATIONS.

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DAVID RETLAW BORYS, P.E.
FL. REG. # 75372

Fire Truck Routing Plan

SR 419 RV & BOAT STORAGE LOT

4301 SR 419 WINTER SPRINGS, FL 32708

NO. 1	DATE: 2025-06-04
DESCRIPTION: 1st SUB, CITY OF WINTER SPRINGS	
NO. 2	DATE: 2025-11-19
DESCRIPTION: 2nd SUB,CITY OF WINTER SPRINGS	
NO. 3	DATE: 2026-03-31
DESCRIPTION: 3rd SUB,CITY OF WINTER SPRINGS	
NO. 4	DATE: 2026-09-23
DESCRIPTION: 3rd SUB,WINTER SPRINGS,SUB FDOT)	
NO.	DATE:
DESCRIPTION:	
PROJECT NO. 22-0211	

C-16

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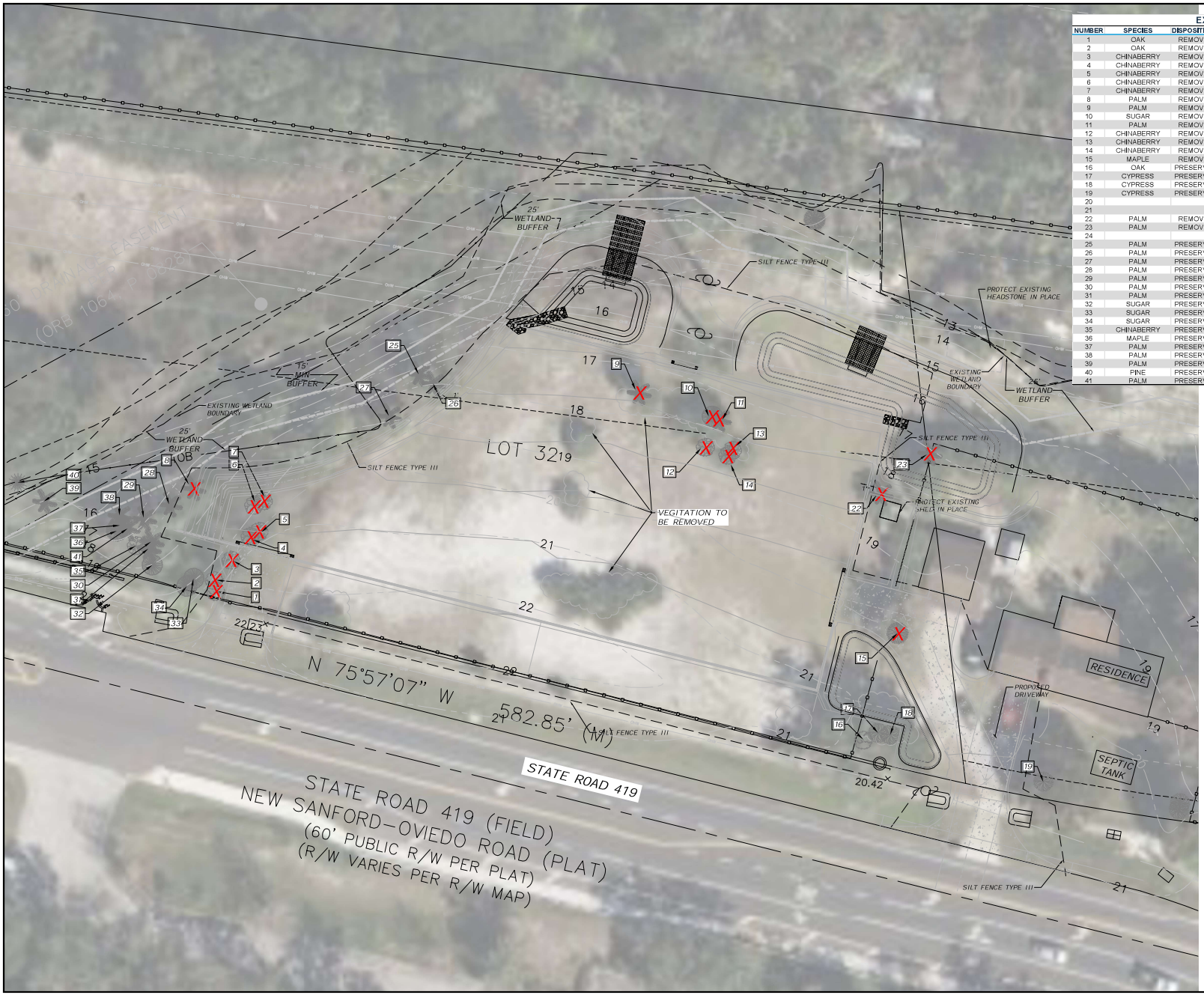

EXISTING TREES

NUMBER	SPECIES	DISPOSITION	SIZE (DBH)	Column1	Column2	MITIGATION	CREDITS
1	OAK	REMOVE	6			YES	1
2	OAK	REMOVE	5			YES	1
3	CHINABERRY	REMOVE	11	11		INVASIVE	2
4	CHINABERRY	REMOVE	9	11		INVASIVE	2
5	CHINABERRY	REMOVE	6			INVASIVE	1
6	CHINABERRY	REMOVE	4			INVASIVE	1
7	CHINABERRY	REMOVE	15			INVASIVE	3
8	PALM	REMOVE	15			YES	3
9	PALM	REMOVE	18			YES	4
10	SUGAR	REMOVE	5			NO	
11	PALM	REMOVE	17			YES	4
12	CHINABERRY	REMOVE	5	5	5	INVASIVE	
13	CHINABERRY	REMOVE	4			INVASIVE	
14	CHINABERRY	REMOVE	5			INVASIVE	
15	MAPLE	REMOVE	19			YES	4
16	OAK	PRESERVE	16			CREDIT	4
17	CYPRESS	PRESERVE	13			CREDIT	3
18	CYPRESS	PRESERVE	27			CREDIT	6
19	CYPRESS	PRESERVE	32			CREDIT	5
20							
21							
22	PALM	REMOVE	16			CREDIT	4
23	PALM	REMOVE	16			CREDIT	4
24							
25	PALM	PRESERVE	15			CREDIT	3
26	PALM	PRESERVE	15			CREDIT	3
27	PALM	PRESERVE	15			CREDIT	3
28	PALM	PRESERVE	14			CREDIT	3
29	PALM	PRESERVE	14			CREDIT	3
30	PALM	PRESERVE	12			CREDIT	3
31	PALM	PRESERVE	10			CREDIT	2
32	SUGAR	PRESERVE	11			NO	
33	SUGAR	PRESERVE	4			NO	
34	SUGAR	PRESERVE	5			NO	
35	CHINABERRY	PRESERVE	11			NO	
36	MAPLE	PRESERVE	11			CREDIT	2
37	PALM	PRESERVE	11			CREDIT	2
38	PALM	PRESERVE	15			CREDIT	3
39	PALM	PRESERVE	20			CREDIT	4
40	PINE	PRESERVE	12			CREDIT	3
41	PALM	PRESERVE	11			CREDIT	2

SUMMARY OF DISPOSITION	Sum of CREDITS
PRESERVE	55
REMOVE	34

SYMBOL LEGEND

PNT NO. — TREE TO BE REMOVED

PNT NO. — TREE TO REMAIN

N W E S

0 20 40 Feet

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Orlando, Florida 32801
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Digitally signed by Michael D Miller
Date: 2025.11.17 15:06:31-05'00'

MICHAEL D. MILLER, PLA
FL. REG. #LA6666826

Tree Disposition Plan

SR 419 RV & BOAT STORAGE LOT

4301 SR 419 WINTER SPRINGS, FL 32708

NO. 1 DATE: 08-04-24
DESCRIPTION: 1st SUB. CITY OF WINTER SPRINGS
NO. DATE:
DESCRIPTION:
NO. DATE:
DESCRIPTION:
NO. DATE:
DESCRIPTION:
NO. DATE:
DESCRIPTION:

PROJECT NO.: 22-2311

L-01

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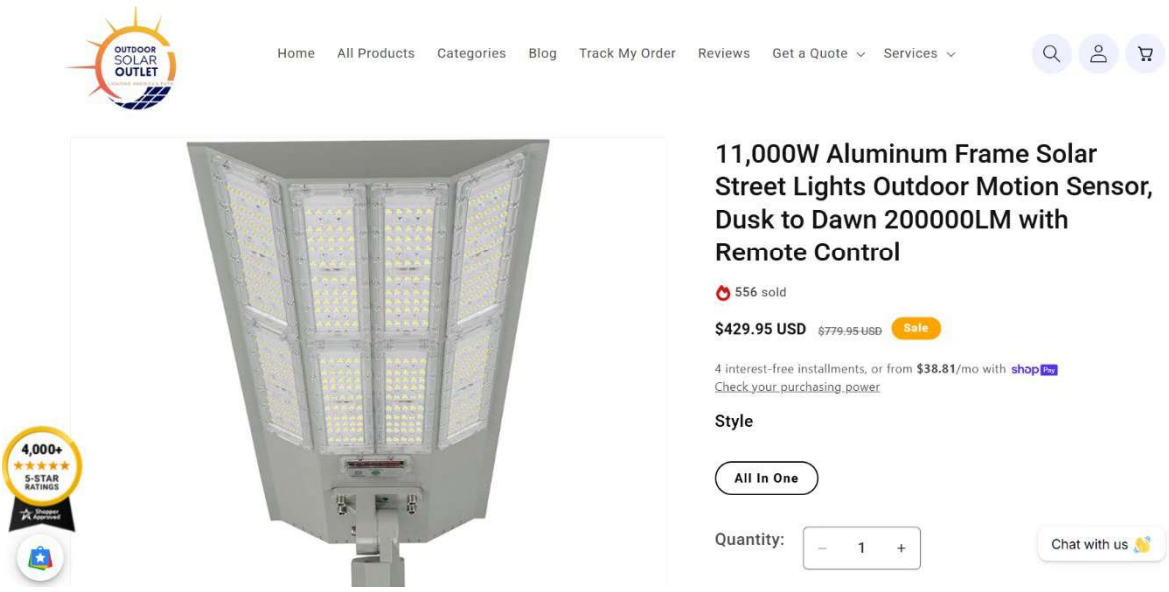
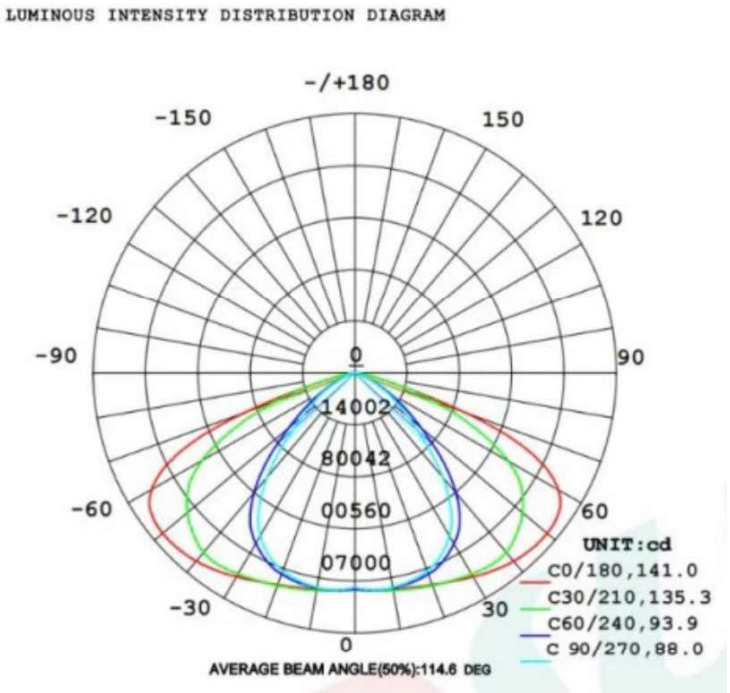
Mike Miller 11/17/2025 3:05:53 PM C:\Users\MillerM\Downloads\Merdian\2025-08-06 Prop Site Files\ACAD\Tree Disposition-PLOT.dwg

OME PROJECT 22-2211 SR 419 WINTER SPRINGS PHOTOMETRICS



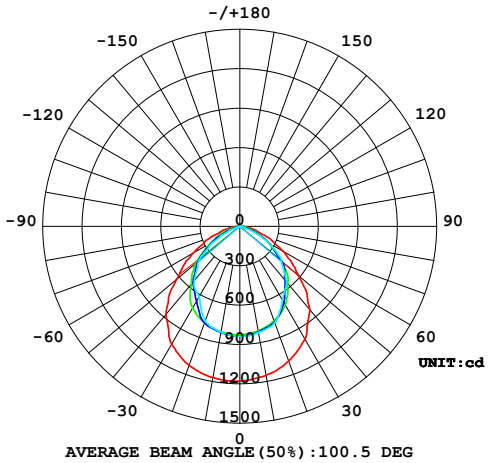


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:0V I:0A P:0W PF:0.0000 Freq:0Hz Lamp Flux:2146.38x1 lm		
NAME: TW030	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL		Imax(cd)	1179	S/MH(C0/180)	1.29
NOMINAL POWER(W)	--	LOR(%)	100.0	S/MH(C90/270)	1.12
RATED VOLTAGE(V)	--	TOTAL FLUX(lm)	2146.4	η UP,DN(C0-180)	0.2,50.6
NOMINAL FLUX(lm)	2146.38	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.3,48.9
LAMPS INSIDE	1	η up(%)	0.5	CIBSE SHR NOM	1.00
TEST VOLTAGE(V)	--	η down(%)	99.5	CIBSE SHR MAX	1.05

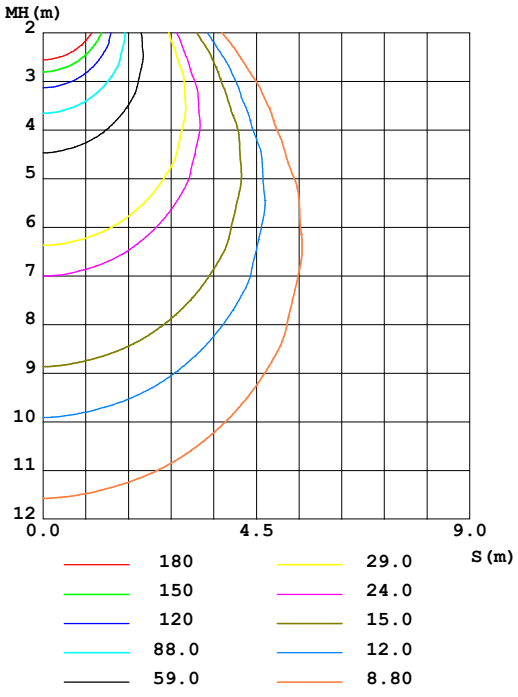
LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



AVERAGE BEAM ANGLE(50%):100.5 DEG

C0/180,101.5 Ic=1179
C30/210,101.5 Ic=825.8
C60/240,100.2 Ic=835.9
C90/270,98.9 Ic=837.4

C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: 10.0deg/s
Temperature:25.3℃
Operators:XIAOXIN
Test Date:2025-10-16

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.463
Humidity:65.0%
Test Distance:9.000m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	1151	814.5	821.9	829.1	1170	821.8	817.6	813.7	0- 10	84.37	84.37	3.93,3.93
20	1091	773.9	781.6	795.5	1126	786.9	766.0	770.6	10- 20	242.5	326.9	15.2,15.2
30	991.6	686.2	651.0	724.9	1035	691.6	621.7	675.1	20- 30	363.2	690.1	32.2,32.2
40	830.1	556.2	553.8	584.2	874.2	570.9	540.2	536.2	30- 40	420.8	1111	51.8,51.8
50	591.4	418.5	416.4	442.5	628.7	413.9	408.4	392.2	40- 50	410.3	1521	70.9,70.9
60	384.7	256.6	261.7	266.7	411.7	257.3	215.6	238.8	50- 60	323.7	1845	86,86
70	201.5	131.0	86.04	138.4	222.9	114.8	52.75	106.9	60- 70	194.1	2039	95,95
80	82.36	36.93	7.575	39.04	84.45	31.04	4.278	27.69	70- 80	77.35	2116	98.6,98.6
90	11.17	2.709	0.3163	2.484	9.875	1.511	0.4227	1.573	80- 90	18.43	2135	99.5,99.5
100	0.8441	0.4917	0.3448	0.3716	1.361	0.8027	0.7961	0.9139	90-100	1.268	2136	99.5,99.5
110	1.263	0.8393	0.6790	0.6657	1.935	1.243	1.255	1.384	100-110	0.9487	2137	99.6,99.6
120	1.871	1.266	1.085	1.023	2.648	1.703	1.760	1.882	110-120	1.336	2138	99.6,99.6
130	2.538	1.719	1.524	1.406	3.358	2.159	2.276	2.349	120-130	1.642	2140	99.7,99.7
140	3.218	2.198	1.987	1.850	3.983	2.612	2.727	2.765	130-140	1.810	2142	99.8,99.8
150	3.881	2.692	2.513	2.315	4.480	2.986	3.119	3.089	140-150	1.780	2144	99.9,99.9
160	4.444	3.109	2.999	2.725	4.847	3.267	3.391	3.316	150-160	1.502	2145	99.9,99.9
170	4.859	3.382	3.363	3.073	5.082	3.447	3.578	3.398	160-170	1.008	2146	100,100
180	5.065	3.471	3.553	3.293	5.088	3.483	3.553	3.300	170-180	0.3555	2146	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 1322.1 lm

%lum = 61.6%
%lamp = 61.6%

Conical surface Flux(120deg): 1844.9 lm

%lum = 86.0%
%lamp = 86.0%

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: 10.0deg/s
Temperature:25.3℃
Operators:XIAOXIN
Test Date:2025-10-16

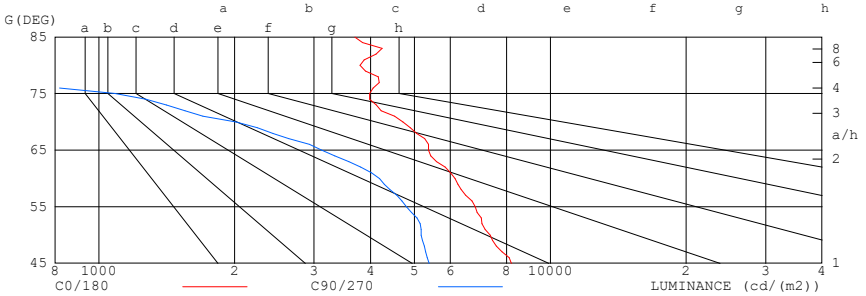
γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.463
Humidity:65.0%
Test Distance:9.000m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:0V I:0A P:0W PF:0.0000 Freq:0Hz **Lamp Flux:2146.38x1 lm**		
NAME: TW030	**TYPE:**	**WEIGHT:**
SPEC.:	**DIM.:**	**SERIAL No.:**
MFR.:	**SUR.:**	**Shielding Angle:**

LUMINANCE LIMITATION CURVES

GLARE	CLASS	ILLUMINANCE (lx)							
1.15	A	2000	1000	500	<=300				
1.50	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.20	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	3697	242
80	3794	349
75	3986	1086
70	4714	2013
65	5373	3116
60	6155	4188
55	6821	4800
50	7361	5182
45	8199	5392

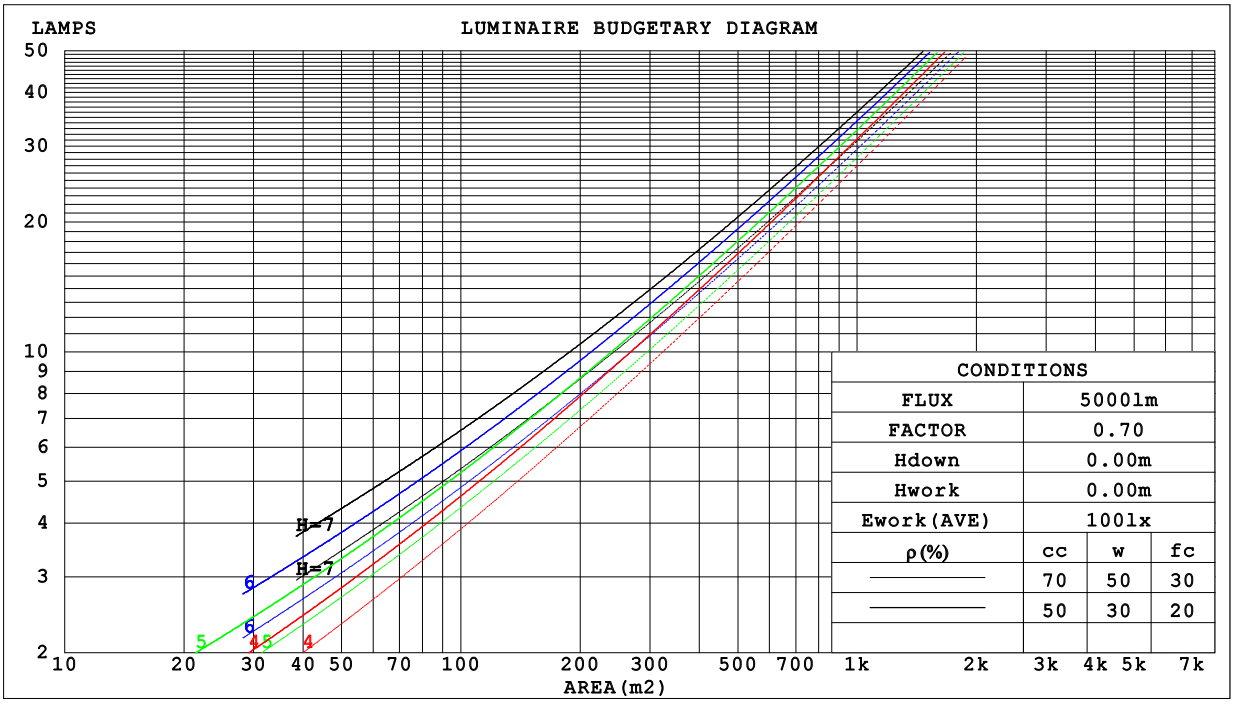
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: 10.0deg/s
Temperature:25.3℃
Operators:XIAOXIN
Test Date:2025-10-16

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.463
Humidity:65.0%
Test Distance:9.000m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:0V I:0A P:0W PF:0.0000 Freq:0Hz Lamp Flux:2146.38x1 lm		
NAME: TW030	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio			Coefficients of Utilization(CU)												
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	.99
1.0	1.06	1.02	.99	1.03	1.00	.97	.99	.96	.94	.95	.93	.91	.92	.90	.88	.86
2.0	.94	.87	.82	.92	.86	.81	.88	.83	.79	.85	.81	.77	.82	.79	.76	.74
3.0	.83	.76	.70	.81	.75	.69	.78	.73	.68	.76	.71	.66	.73	.69	.65	.63
4.0	.74	.66	.60	.73	.65	.59	.70	.64	.58	.68	.62	.58	.66	.61	.57	.55
5.0	.67	.58	.52	.66	.58	.52	.63	.56	.51	.61	.55	.51	.60	.54	.50	.48
6.0	.60	.52	.46	.59	.51	.46	.58	.50	.45	.56	.50	.45	.54	.49	.44	.42
7.0	.55	.47	.41	.54	.46	.41	.53	.45	.40	.51	.45	.40	.50	.44	.40	.38
8.0	.50	.42	.36	.50	.42	.36	.48	.41	.36	.47	.41	.36	.46	.40	.36	.34
9.0	.46	.38	.33	.46	.38	.33	.44	.38	.33	.43	.37	.32	.42	.37	.32	.31
10.0	.43	.35	.30	.42	.35	.30	.41	.34	.30	.40	.34	.30	.39	.34	.29	.28



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: 10.0deg/s
Temperature:25.3℃
Operators:XIAOXIN
Test Date:2025-10-16

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.463
Humidity:65.0%
Test Distance:9.000m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:0V I:0A P:0W PF:0.0000 Freq:0Hz Lamp Flux:2146.38x1 lm		
NAME: TW030	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coeffcients(WEC)									
0.0																
1.0	.271	.154	.049	.264	.150	.048	.250	.144	.046	.238	.137	.044	.227	.131	.042	
2.0	.261	.143	.044	.255	.140	.043	.243	.135	.042	.232	.130	.041	.222	.126	.040	
3.0	.246	.131	.039	.240	.129	.039	.230	.125	.038	.220	.121	.037	.211	.117	.036	
4.0	.230	.119	.035	.225	.118	.035	.216	.114	.034	.207	.111	.034	.199	.108	.033	
5.0	.215	.109	.032	.210	.108	.031	.202	.105	.031	.195	.103	.031	.188	.100	.030	
6.0	.201	.101	.029	.197	.100	.029	.190	.097	.028	.183	.095	.028	.177	.093	.028	
7.0	.188	.093	.026	.185	.092	.026	.178	.090	.026	.172	.088	.026	.167	.087	.025	
8.0	.177	.086	.024	.174	.086	.024	.168	.084	.024	.162	.082	.024	.157	.081	.024	
9.0	.167	.081	.022	.164	.080	.022	.159	.078	.022	.154	.077	.022	.149	.076	.022	
10.0	.157	.075	.021	.155	.075	.021	.150	.073	.021	.146	.072	.021	.141	.071	.020	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.195	.195	.195	.166	.166	.166	.114	.114	.114	.065	.065	.065	.021	.021	.021	
1.0	.182	.161	.142	.156	.138	.122	.106	.095	.084	.061	.055	.049	.020	.018	.016	
2.0	.172	.136	.106	.148	.117	.092	.101	.081	.064	.058	.047	.037	.019	.015	.012	
3.0	.164	.118	.082	.141	.102	.071	.097	.071	.050	.056	.041	.029	.018	.013	.010	
4.0	.156	.105	.065	.134	.091	.057	.092	.063	.040	.053	.037	.024	.017	.012	.008	
5.0	.149	.094	.054	.128	.082	.047	.088	.057	.033	.051	.033	.020	.016	.011	.006	
6.0	.142	.086	.045	.122	.074	.039	.084	.052	.028	.049	.031	.017	.016	.010	.005	
7.0	.136	.079	.039	.117	.068	.034	.081	.048	.024	.047	.028	.014	.015	.009	.005	
8.0	.130	.073	.034	.112	.063	.030	.077	.044	.021	.045	.026	.013	.015	.009	.004	
9.0	.124	.068	.030	.107	.059	.026	.074	.042	.019	.043	.025	.011	.014	.008	.004	
10.0	.118	.064	.027	.102	.055	.024	.071	.039	.017	.041	.023	.010	.013	.008	.003	

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: 10.0deg/s
Temperature:25.3℃
Operators:XIAOXIN
Test Date:2025-10-16

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.463
Humidity:65.0%
Test Distance:9.000m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:0V I:0A P:0W PF:0.0000 Freq:0Hz Lamp Flux:2146.38x1 lm		
NAME: TW030	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
x = 2H y = 2H	19.5	20.9	19.8	21.2	21.4	17.6	19.1	17.9	19.3	19.5
3H	20.8	22.1	21.1	22.3	22.6	18.2	19.5	18.5	19.7	20.0
4H	21.2	22.4	21.5	22.7	22.9	18.2	19.4	18.5	19.7	20.0
6H	21.5	22.7	21.8	22.9	23.2	18.1	19.3	18.5	19.6	19.9
8H	21.7	22.8	22.0	23.1	23.4	18.1	19.2	18.4	19.5	19.8
12H	21.7	22.8	22.1	23.1	23.4	18.0	19.1	18.4	19.4	19.7
4H 2H	19.7	20.9	20.0	21.1	21.4	18.1	19.3	18.4	19.5	19.8
3H	21.0	22.1	21.4	22.4	22.7	18.8	19.8	19.1	20.1	20.4
4H	21.5	22.5	21.9	22.8	23.1	18.8	19.8	19.2	20.1	20.5
6H	22.0	22.8	22.4	23.2	23.6	18.8	19.6	19.2	20.0	20.4
8H	22.2	23.0	22.6	23.4	23.8	18.7	19.5	19.2	19.9	20.3
12H	22.4	23.1	22.8	23.5	23.9	18.7	19.4	19.1	19.8	20.2
8H 4H	21.5	22.3	21.9	22.6	23.0	19.0	19.8	19.4	20.1	20.5
6H	22.0	22.7	22.5	23.1	23.5	19.0	19.6	19.4	20.0	20.5
8H	22.3	22.9	22.8	23.3	23.8	18.9	19.5	19.4	19.9	20.4
12H	22.6	23.1	23.1	23.5	24.0	18.9	19.4	19.4	19.8	20.3
12H 4H	21.4	22.2	21.9	22.6	23.0	19.0	19.7	19.4	20.1	20.5
6H	22.0	22.6	22.5	23.0	23.5	19.0	19.6	19.4	20.0	20.4
8H	22.3	22.8	22.8	23.3	23.8	19.0	19.5	19.4	19.9	20.4
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.3 / - 0.4					+ 0.3 / - 0.5				
1.5H	+ 0.4 / - 0.4					+ 0.3 / - 0.5				
2.0H	+ 0.9 / - 1.2					+ 0.7 / - 0.7				

CIE Pub.117, 2146 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 2.7)
Area: 0.125 m2

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: 10.0deg/s
Temperature:25.3℃
Operators:XIAOXIN
Test Date:2025-10-16

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.463
Humidity:65.0%
Test Distance:9.000m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:0V I:0A P:0W PF:0.0000 Freq:0Hz Lamp Flux:2146.38x1 lm		
NAME: TW030	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

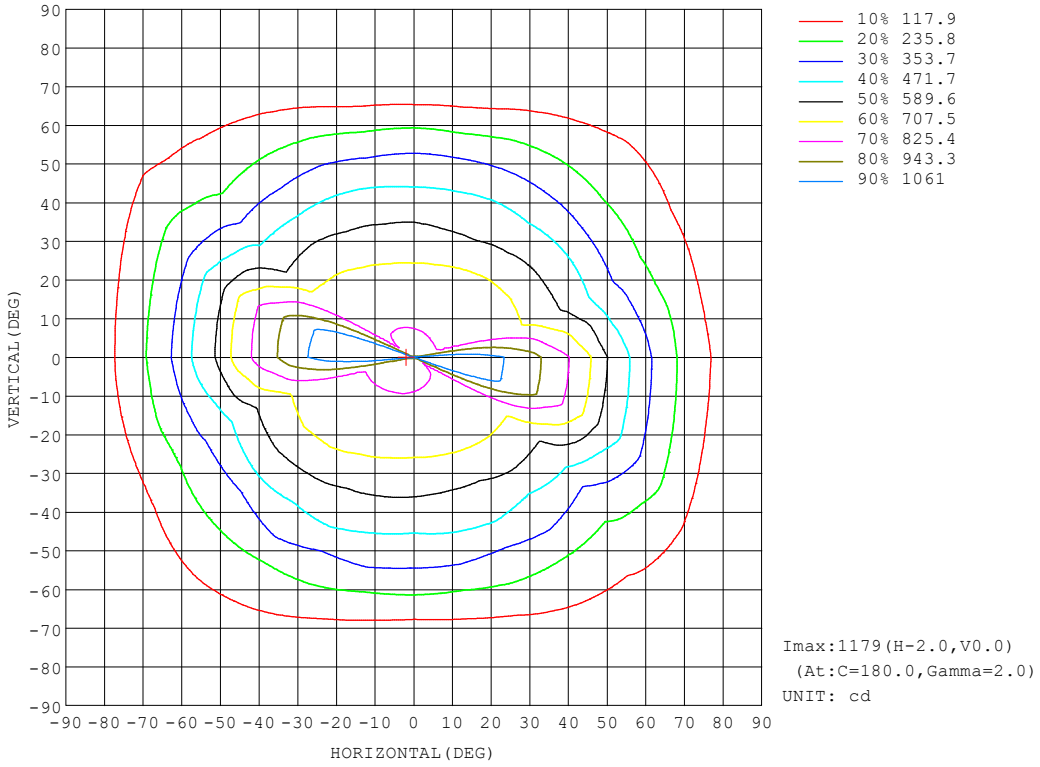
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	61	50	44	61	50	44	59	50	44	37
0.80	72	61	54	71	60	54	69	60	53	47
1.00	80	70	63	79	69	63	77	70	62	56
1.25	87	78	71	86	77	71	83	75	70	63
1.50	92	83	77	90	82	76	87	80	75	68
2.00	98	90	85	96	89	84	93	87	82	75
2.50	101	95	89	99	93	88	96	91	86	79
3.00	104	98	94	102	97	92	98	94	90	82
4.00	108	103	99	106	101	97	101	98	95	86
5.00	110	106	102	108	104	101	103	100	97	88
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004				Suspended					SHRNOM = 1.25	

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: 10.0deg/s
Temperature:25.3℃
Operators:XIAOXIN
Test Date:2025-10-16

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.463
Humidity:65.0%
Test Distance:9.000m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:0V I:0A P:0W PF:0.0000 Freq:0Hz Lamp Flux:2146.38x1 lm		
NAME: TW030	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



Imax:1179(H-2.0,V0.0)
(At:C=180.0,Gamma=2.0)
UNIT: cd

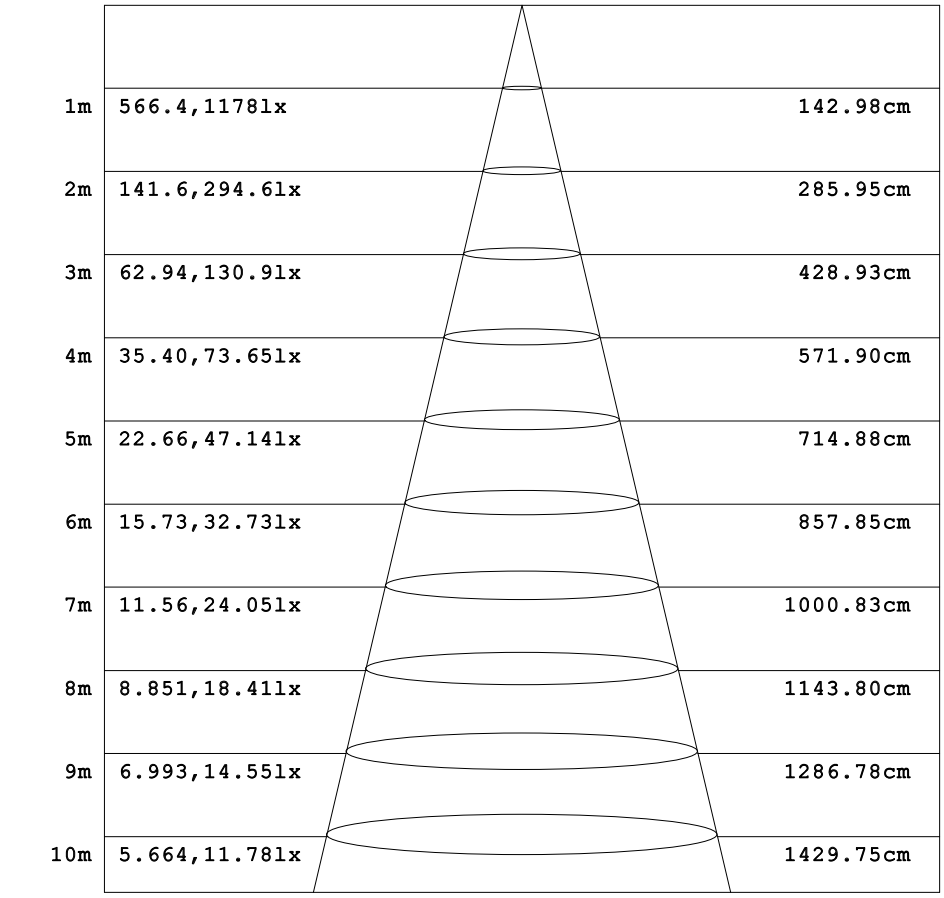
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: 10.0deg/s
Temperature:25.3℃
Operators:XIAOXIN
Test Date:2025-10-16

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.463
Humidity:65.0%
Test Distance:9.000m [K=1.0000]
Remarks:

AAI Figure

Test:U:0V I:0A P:0W PF:0.0000 Freq:0Hz Lamp Flux:2146.38x1 lm		
NAME: TW030	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Flux out:939.4 lm



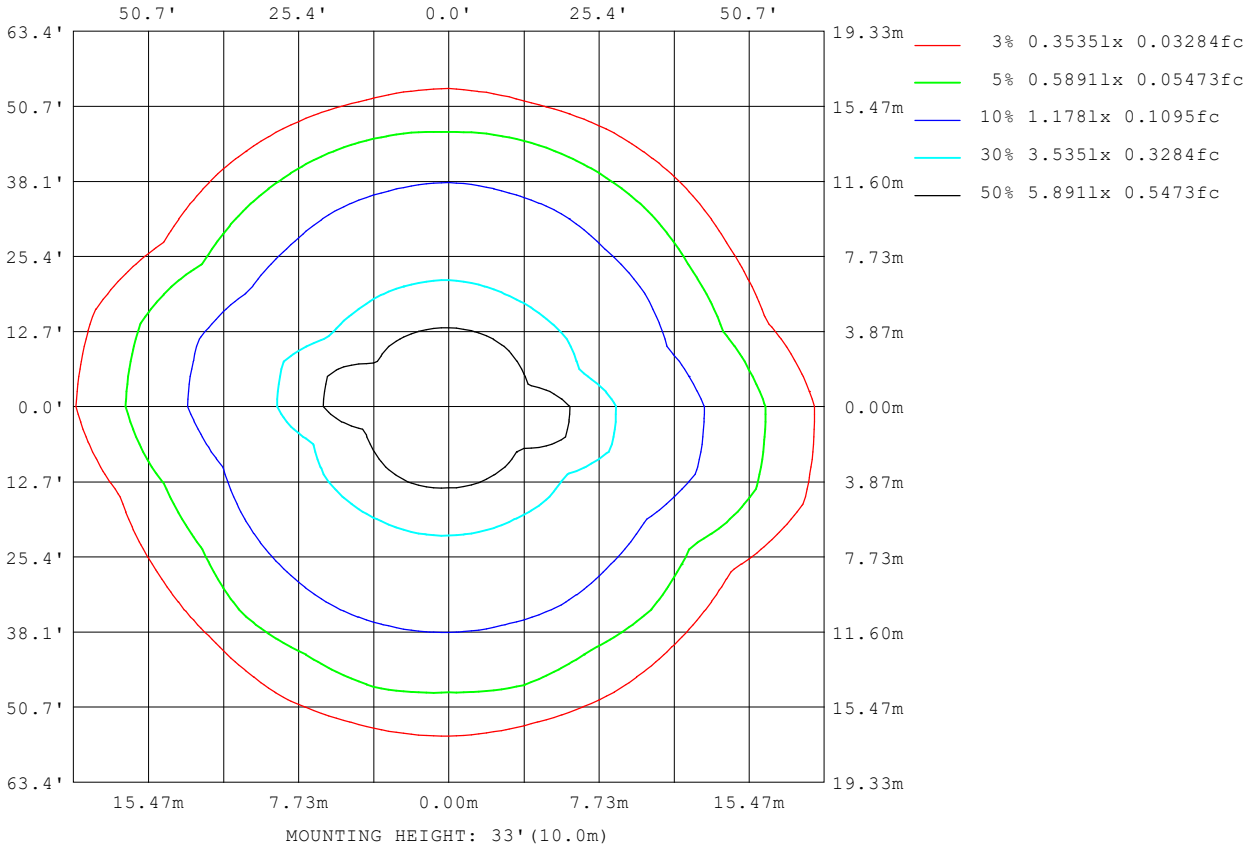
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: 10.0deg/s
Temperature:25.3℃
Operators:XIAOXIN
Test Date:2025-10-16

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.463
Humidity:65.0%
Test Distance:9.000m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:0V I:0A P:0W PF:0.0000 Freq:0Hz Lamp Flux:2146.38x1 lm		
NAME: TW030	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: 10.0deg/s
Temperature:25.3℃
Operators:XIAOXIN
Test Date:2025-10-16

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.463
Humidity:65.0%
Test Distance:9.000m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:0V I:0A P:0W PF:0.0000 Freq:0Hz Lamp Flux:2146.38x1 lm		
NAME: TW030	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

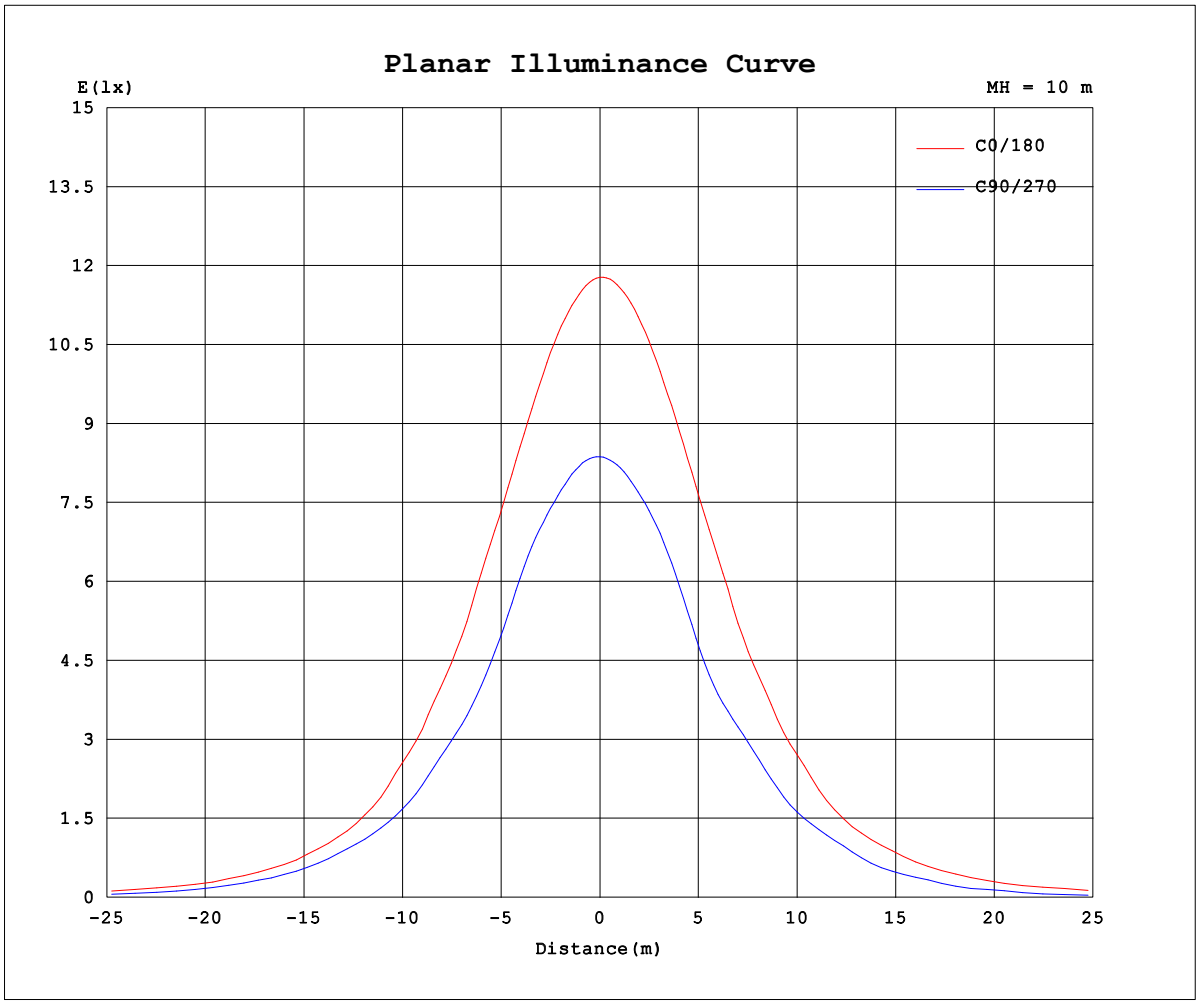
AvgL	cd/m2
L_0~180(65)av	5552
L_0~180(75)av	4132
L_0~180(85)av	3691
L_90~270(65)av	2746
L_90~270(75)av	717
L_90~270(85)av	163
L_45(65)av	3488
L_45(75)av	2114
L_45(85)av	1046

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: 10.0deg/s
Temperature:25.3℃
Operators:XIAOXIN
Test Date:2025-10-16

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.463
Humidity:65.0%
Test Distance:9.000m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: 10.0deg/s
Temperature:25.3℃
Operators:XIAOXIN
Test Date:2025-10-16

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.463
Humidity:65.0%
Test Distance:9.000m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:0V I:0A P:0W PF:0.0000 Freq:0Hz Lamp Flux:2146.38x1 lm		
NAME: TW030	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Table--1 UNIT: cd

γ (DEG) \ C(DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	1178	1174	826	834	836	837	837	837	837	837	837	837	1178	1174	826	834	836	837	837
5	1168	1164	819	828	831	833	835	836	837	838	838	837	1178	1172	824	831	832	832	831
10	1151	1148	807	814	817	819	822	825	827	829	831	832	1170	1162	816	822	821	819	818
15	1127	1124	790	797	799	803	806	809	811	814	818	820	1153	1145	802	807	806	803	800
20	1091	1089	765	774	776	778	782	789	794	795	797	801	1126	1117	781	787	783	773	766
25	1045	1042	733	738	730	722	720	732	756	771	770	772	1085	1076	754	756	729	707	696
30	992	985	691	686	673	656	651	662	685	725	735	735	1035	1024	718	692	659	635	622
35	903	903	638	635	599	594	597	605	619	655	690	677	949	945	662	626	604	591	589
40	830	826	571	556	538	544	554	564	566	584	613	621	874	868	572	571	554	544	540
45	725	719	513	470	485	488	477	488	503	505	545	546	768	755	513	487	480	471	459
50	591	589	418	419	423	410	416	422	438	443	452	455	629	622	440	414	418	403	408
55	489	492	320	346	327	347	344	356	341	369	340	375	525	505	341	335	329	314	300
60	385	387	256	257	264	250	262	258	278	267	280	296	412	390	259	257	245	219	216
65	284	284	189	188	182	177	165	181	188	203	206	219	303	286	189	180	157	134	126
70	202	210	136	131	114	95.0	86.0	99.9	119	138	147	156	223	209	134	115	93.9	59.3	52.8
75	129	121	77.0	74.0	56.2	40.8	35.1	42.3	58.9	78.9	78.1	89.5	138	130	77.6	63.3	41.4	22.3	11.3
80	82.4	75.4	49.2	36.9	22.3	12.5	7.57	12.6	23.6	39.0	50.0	56.0	84.5	73.5	41.2	31.0	14.9	5.23	4.28
85	40.3	37.1	24.1	14.0	6.94	3.02	2.63	3.05	7.39	15.2	24.6	25.3	40.1	34.1	17.5	8.42	2.91	1.61	0.92
90	11.2	9.68	4.93	2.71	1.35	0.76	0.32	0.76	1.25	2.48	4.67	6.18	9.87	8.47	3.23	1.51	0.96	0.52	0.42
95	1.36	1.33	0.85	0.68	0.43	0.26	0.22	0.21	0.38	0.59	0.73	0.80	1.69	1.56	0.93	0.75	0.59	0.58	0.60
100	0.84	0.85	0.55	0.49	0.44	0.39	0.34	0.32	0.33	0.37	0.44	0.51	1.36	1.29	0.84	0.80	0.77	0.77	0.80
105	0.99	1.00	0.69	0.65	0.60	0.55	0.50	0.47	0.47	0.51	0.55	0.60	1.59	1.55	1.04	1.02	0.98	0.99	1.02
110	1.26	1.27	0.88	0.84	0.79	0.73	0.68	0.64	0.64	0.67	0.71	0.76	1.93	1.87	1.26	1.24	1.22	1.22	1.25
115	1.56	1.57	1.09	1.04	0.99	0.93	0.88	0.84	0.83	0.84	0.88	0.94	2.29	2.21	1.48	1.48	1.46	1.47	1.50
120	1.87	1.89	1.31	1.27	1.21	1.14	1.08	1.04	1.01	1.02	1.06	1.13	2.65	2.54	1.70	1.70	1.70	1.72	1.76
125	2.20	2.22	1.53	1.49	1.44	1.37	1.30	1.25	1.21	1.21	1.25	1.33	3.01	2.86	1.93	1.93	1.93	1.97	2.02
130	2.54	2.56	1.77	1.72	1.67	1.60	1.52	1.46	1.41	1.41	1.44	1.54	3.36	3.19	2.15	2.16	2.17	2.22	2.28
135	2.88	2.90	2.01	1.95	1.89	1.83	1.75	1.69	1.63	1.62	1.65	1.75	3.69	3.50	2.89	2.39	2.40	2.46	2.51
140	3.22	3.24	2.25	2.20	2.13	2.07	1.99	1.94	1.88	1.85	1.86	1.97	3.98	3.80	3.67	2.61	2.62	2.69	2.73
145	3.56	3.59	2.50	2.45	2.40	2.33	2.25	2.20	2.14	2.09	2.09	2.20	4.25	4.09	3.94	2.80	2.84	2.90	2.93
150	3.88	3.91	2.73	2.69	2.65	2.58	2.51	2.47	2.39	2.32	2.29	2.40	4.48	4.35	4.19	2.99	3.03	3.09	3.12
155	4.16	4.20	2.94	2.91	2.87	2.81	2.77	2.72	2.63	2.53	2.49	2.60	4.68	4.57	4.42	3.15	3.19	3.25	3.27
160	4.44	4.49	3.15	3.11	3.07	3.02	3.00	2.94	2.83	2.72	2.69	2.78	4.85	4.76	4.63	3.27	3.30	3.36	3.39
165	4.68	4.71	3.30	3.26	3.22	3.19	3.19	3.12	3.01	2.90	2.87	2.95	5.00	4.91	4.77	3.37	3.41	3.47	3.49
170	4.86	4.89	3.41	3.38	3.36	3.35	3.36	3.28	3.17	3.07	3.03	3.11	5.08	5.00	4.88	3.45	3.49	3.55	3.58
175	4.99	5.01	3.48	3.44	3.45	3.46	3.49	3.40	3.29	3.20	3.16	3.22	5.11	5.06	4.95	3.48	3.51	3.56	3.59
180	5.07	5.07	3.51	3.47	3.49	3.52	3.55	3.47	3.39	3.29	3.25	3.30	5.09	5.06	4.97	3.48	3.49	3.52	3.55

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: 10.0deg/s
Temperature:25.3℃
Operators:XIAOXIN
Test Date:2025-10-16

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.463
Humidity:65.0%
Test Distance:9.000m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:0V I:0A P:0W PF:0.0000 Freq:0Hz Lamp Flux:2146.38x1 lm		
NAME: TW030	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Table--2 UNIT: cd

γ (DEG) \ C(DEG)	285	300	315	330	345														
0	837	837	837	837	837														
5	830	829	829	828	829														
10	816	814	814	815	816														
15	797	795	795	797	799														
20	764	770	771	771	773														
25	701	719	735	738	739														
30	621	639	675	698	700														
35	583	578	599	644	639														
40	539	538	536	556	585														
45	456	465	463	491	509														
50	400	402	392	413	417														
55	307	312	319	316	338														
60	212	233	239	239	262														
65	126	143	166	179	193														
70	55.7	87.4	107	127	145														
75	20.5	38.7	57.4	73.5	86.1														
80	4.96	12.8	27.7	41.6	51.4														
85	1.58	2.77	8.01	17.0	24.6														
90	0.57	1.02	1.57	3.79	6.78														
95	0.64	0.68	0.81	1.01	1.19														
100	0.84	0.88	0.91	0.95	0.99														
105	1.06	1.10	1.14	1.17	1.18														
110	1.30	1.34	1.38	1.42	1.42														
115	1.54	1.59	1.63	1.66	1.67														
120	1.80	1.84	1.88	1.91	1.92														
125	2.06	2.09	2.12	2.16	2.16														
130	2.31	2.33	2.35	2.38	2.39														
135	2.56	2.56	2.57	2.59	2.60														
140	2.77	2.76	2.76	2.78	2.79														
145	2.96	2.95	2.93	2.94	2.94														
150	3.13	3.11	3.09	3.09	3.08														
155	3.26	3.24	3.23	3.20	3.18														
160	3.37	3.34	3.32	3.29	3.28														
165	3.46	3.41	3.38	3.33	3.34														
170	3.53	3.47	3.40	3.34	3.35														
175	3.52	3.45	3.36	3.32	3.35														
180	3.47	3.39	3.30	3.26	3.31														

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: 10.0deg/s
Temperature:25.3℃
Operators:XIAOXIN
Test Date:2025-10-16

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.463
Humidity:65.0%
Test Distance:9.000m [K=1.0000]
Remarks:

OME PROJECT 22-2211 SR 419 WINTER SPRINGS



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Specifications

Video & Audio	
Image Sensor	1/2.7" CMOS sensor
Video Resolution	2880 x 1660 (5 megapixels) @15fps
Lens	f=4mm, F1.6
Video Compression	H.265
Field of View	Horizontal: 90° Vertical: 47° Diagonal: 110°
Infrared Night Vision	Up to 10 meters (33ft) ; LED: 2pcs/1.2W/ 850nm (Auto-switching with IR-cut filter)
Color Night Vision	2pcs/2.4W/6500K
Audio	two-way audio
Power	
Battery	6000mAh rechargeable battery (Battery life varies based on settings, usage & temperature)
Solar	Reolink Solar Panel
Interface	

Power Port	USB Type-C port
Reset Button	YES
Audio In/Out	Built-in microphone and speaker
Storage	
microSD Card Slot	Supports Max.128GB microSD card (32GB included)
Pan & Tilt	
PT Angle(Max.)	Pan: 355°; tilt: 140°
Preset Points	Supports 1 guard position & up to 32 preset positions
3G/4G Bandwidth	
Frequency Bands	• Europe Version: LTE FDD: B1/B3/B7/ B8/B20/B28A WCDMA: B1/B8 • U.S. Version: LTE FDD: B2/B4/B5/B12/ B13/B14/B66/B71 • Australia Version: LTE FDD: B1/B3/B5/ B7/B8/B28 WCDMA: B1/B5/B8
Software	
OS Supported	PC: Windows, Mac OS; Smartphone: iOS, Android
Protocols & Standards	SSL, TCP/IP, UDP, UPNP, SMTP, NTP, P2P
User Access	Max. 12 simultaneous streams (2 main & 10 sub streams)
Other Features	
Smart Alarm	PIR detection/person detection/ vehicle detection/animal detection
PIR Detecting Distance	Adjustable up to 10m (33 ft)
PIR Detecting Angle	120° horizontal
Recording Modes	Triggered recording
Time Lapse	YES
Smart Home Compatibility	Google Assistant, Alexa
Cloud Storage	

	Supports Reolink Cloud (available in selected countries)
Working Environment	
Operating Temperature	-10 to 55° C (14° to 131° F)
Weather Resistance	IP64
Mechanical	
Size	Φ98 x 112mm (Φ3.7 x 4.4 in)
Weight Battery Included	485 g (17.1 oz)
Warranty	
Limited Warranty	2-year limited warranty. For support, visit https://support.reolink.com/hc/en-us/

Gallery & Specs



1. Speaker
2. IR LEDs
3. Spotlights
4. Daylight Sensor
5. Lens
6. Status LED
7. PIR Motion Sensor
8. Built-in Microphone



1. Antenna
2. USB Port
3. Power Switch
4. Nano SIM Card Slot
5. microSD Card Slot

City of Winter Springs
Site Plan Review

Project: SR419 RV & Boat Storage Lot
Date: 9/23/2026

Property Owner: Matt Merdian, Youdali International Investments LLC
Kira Woods, Kado Investments LLC

Subject: Site Security Measures & Operations - Narrative

The following narrative outlines the proposed security measures and operations associated with development of the SR419 RV & Boat Storage Lot. Per City Code Section 20-256(13), 24-hour security personnel or security equipment are required to be provided. The existing residence will not be utilized for security operations of the site and no staff or security personnel will be present on a regular basis.

The proposed security measures will include various elements to ensure 24-hour security is maintained on site. The 10-foot-tall masonry wall will provide a physical and visual screening barrier along SR419. Vehicular site access will be limited to the entry and exit drives. Mechanically operated 24-foot-wide locking slide gates will provide 24-hour access controls. Gate access and actuators will be controlled by keypads requiring key codes for authorized users. One-way vehicular access to the site will be directionally controlled with the entry only drive on the east side and exit only drive to the west. The access gate will be provided with approved Knox Box device for emergency access as required by fire regulations.

Each of the gate locations will be fitted with a solar powered wall mounted security camera with night vision capability for 24-hour surveillance. The entry gate camera will face eastward to the entry drive so any persons or vehicles approaching the entry gate will be under surveillance. The exit gate camera will be mounted on the interior of the site wall facing northward into the lot, so all persons or vehicles going through exit gate will also be under surveillance.

In addition to the masonry frontage wall and access gates, a 6-foot chain link fence will be provided around the remainder of the storage lot. A 10-foot-wide chain link maintenance access gate will be provided in the middle of the north edge of lot and will be pad locked. Unauthorized vehicular access to the sides and rear of the site will be prevented due to the topographical features of the surrounding land and vegetative barriers.

Lastly, additional security will be provided by site lighting via solar lights mounted on the frontage wall. Three (3) commercial grade solar lighting fixtures will be mounted to the top of the wall to illuminate the interior of the lot. The location, type, and specifications for the security cameras and lighting fixtures are provided in the civil plan set on the Proposed Site Plan, sheet C-4.

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March 28, 2022

OM Engineering, Inc.
c/o Frank Bianchi
621 East Washington Street, Suite 8
Orlando, Florida 32801

RE: Ecological Constraints Report
SR 419 Winter Springs Property
Seminole County, Florida
Thomson Project No. 22-1150

THIS REPORT IS INTENDED FOR CLIENT USE ONLY AND NOT TO BE USED FOR PERMITTING PURPOSES

Thomson Environmental Consulting, LLC (Thomson) completed an Ecological Constraints Report, including a Jurisdictional Wetland and Surface Water Delineation and Protected Wildlife Species Survey, of the property identified as the SR 419 Winter Springs Property ("the property") in Seminole County, Florida. The field portion of the survey was conducted on March 15, 2022. The purpose of the field visit was to evaluate the subject property for the presence of jurisdictional wetlands and/or surface waters and protected wildlife species and/or their habitat. The following report (and referenced exhibits) describes relevant ecological conditions observed on the site during the field investigation and the results of documented literature resources.

SITE DESCRIPTION AND LOCATION

The property is generally located on the north side of State Road 419 (SR 419). The property is one legal parcel identified by the Seminole County Property Appraiser as Parcel ID No. 34-20-30-5AW-0000-0250. The property totals ±6.99 acres.

Figure 1 is a location map showing the property and surrounding infrastructure. The property is depicted north of the intersection of SR 419 and East SR 434 in Winter Springs, Florida.

Figure 2 is a true-color rectified aerial (circa 2020) of the property and its immediate surroundings. The property is visible as partially cleared, partially forested land with structures in the middle and an overhead power line passing through the property. A small creek is visible passing through a portion of the property. To the north is forested vegetation and to the south is roadway corridors.

Figure 3 is a topographic quadrangle map showing the topographic relief on the property and in the

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local region surrounding the site. The property is depicted at approximate elevation 25 feet above mean sea level on the eastern and western extents, with a topographical low through the central portion of the property. A structure is depicted in the center of the property, and an overhead powerline is depicted passing through the property.

SOILS

Soils were identified using the Natural Resource Conservation Service's *Soil Survey of Seminole County, Florida*. The following soil units and descriptions were mapped by the soil survey on the property:

Myakka and EauGallie Fine Sands (Map Unit 20) – This soil represented ±0.10 acre of the property. The soils in this map unit are nearly level and poorly drained. These soils are on broad plains on the flatwoods. The slopes are dominantly less than 2 percent. During most years, the soils in this map unit have a seasonal high water table within 12 inches of the surface for 1 month to 4 months. The permeability of Myakka soil is rapid in the surface and subsurface layers and substratum and moderate or moderately rapid in the subsoil. The permeability of EauGallie soil is rapid in the surface and subsurface layers, moderate or moderately rapid in the sandy part of the subsoil, and moderately slow in the loamy part of the subsoil.

Nittaw, Okeelanta, and Basinger Soils, Frequently Flooded (Map Unit 23) – This soil represented ±3.26 acres of the property. The soils in this map unit are nearly level and poorly drained and very poorly drained. These soils are on the flood plains and are frequently flooded following prolonged high intensity rains. Nittaw and Okeelanta soils are very poorly drained and Basinger soils are poorly drained and very poorly drained. The slopes are dominantly less than 2 percent. The soils in this map unit have a seasonal high water table within 12 inches of the surface. In most years, these soils are subject to frequent flooding during periods of heavy rains. The duration and extent of flooding are variable and are directly related to the frequency and intensity of rainfall. The permeability of Nittaw soil is rapid in the surface layer and slow in the subsoil. The permeability of Okeelanta and Basinger soils is rapid.

Paola-St. Lucie Sands, 0 to 5% Slopes (Map Unit 24) – This soil represented ±3.80 acres of the property. The soils in this map unit are nearly level to gently sloping and excessively drained. These soils are on upland ridges. The slopes are 0 to 5 percent. The soils in this map unit have a seasonal high water table at a depth of 80 inches or more. The permeability of these soils is very rapid.

Pomello Fine Sand, 0 to 5% Slopes (Map Unit 27) – This soil represented ±1.01 acres of the property. This soil is nearly level to gently sloping and moderately well drained. It is on low ridges and knolls on the flatwoods. The slopes range from 0 to 5 percent. In most years, this soil has a seasonal high water table at a depth of 36 to 60 inches for 1 month to 4 months. The permeability is very rapid in the surface

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and subsurface layers, moderately rapid in the subsoil, and rapid in the substratum.

Figure 4 shows the property and soils as mapped by the soil survey. The soils onsite appeared to generally reflect those as mapped by the soil survey.

JURISDICTIONAL WETLAND AND SURFACE WATER EVALUATION

Documented Literature Search

Prior to the field visit, Geographic Information System (GIS) data from the Florida Fish and Wildlife Conservation Commission (FWC) and the Florida Natural Areas Inventory (FNAI) was used to identify documented vegetative communities and land uses per the Florida Land Cover Classification System (FLCCS, FWC 2018) on the property. Additionally, the US Fish and Wildlife Service (USFWS) has compiled a reference dataset known as the National Wetland Inventory (NWI) which provides information on the abundance, characteristics, and distribution of wetlands, primarily as determined through detailed imagery analysis. In addition to these resources, the previously-discussed topographic map and county soil survey were reviewed to identify indicators of potential jurisdictional wetlands and/or surface waters on the property.

Vegetative Communities and Land Cover Classification (FLCCS)

The existing FWC FLCCS coverage identifies the majority of the property as Low-Density Residential land or High-Intensity Urban land.

Figure 5 shows the property with the FLCCS codes as mapped by the FWC.

National Wetland Inventory (NWI)

The NWI identifies two riverine systems passing through the property. The systems are not identified as excavated, which suggests that they are naturally-occurring channelized conveyances. The systems are visible connecting to a forested wetland system just north of the property that is located within the floodplain of Lake Jesup to the regional northeast.

Figure 6 shows the NWI as mapped by the USFWS.

Topographic Map

The topographic map (Figure 3) depicts the property at approximate elevation 25 feet above mean sea

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level on the eastern and western extents, with a topographical low through the central portion of the property. A structure is depicted in the center of the property, and an overhead powerline is depicted passing through the property.

Hydric Soils

The soils map (Figure 4) indicates that approximately 3.26 acres in the central portion of the property are mapped as frequently flooded, hydric soils, which are indicative of wetlands.

Field Reconnaissance and Observations

A Thomson biologist performed a field visit to the property on March 15, 2022, to assess the property for wetlands.

During the field reconnaissance, the entire property was traversed by pedestrian transects to evaluate the onsite conditions relevant to jurisdictional wetlands and/or surface waters.

Two jurisdictional wetland areas were identified on the property. Both wetlands flagged in the field were adjacent/connected to the channelized streams flowing through the property. Wetland 1, adjacent to the western stream flow was a forested system dominated by red maple (*Acer rubrum*), hackberry (*Celtis laevigata*), cypress (*Taxodium* spp.), cabbage palm (*Sabal palmetto*) and camphor-tree (*Cinnamonum camphora*) in the canopy. Subcanopy and groundcover species included primrose willow (*Ludwigia peruviana*), button bush (*Cephalanthus occidentalis*), lizard tail (*Saururus cernuus*) elephant ear (*Colocasia esculenta*) elderberry (*Sambucus canadensis*), grapevine (*Vitis* spp.) and blackberry (*Rubus spp.)*. Wetland 1 includes the overflow area where the stream flow exceeds the banked system. Rafted debris was observed under the rooted vegetation indicating strong flows through the area in the recent past. A staked floating turbidity barrier was located just downstream from the headwall at SR 419, likely present due to recent roadway construction on SR 419.

Wetland 2 is a forested system predominantly located between the two eastern stream flows. Canopy species present here included cypress (*Taxodium* spp.), elm (*Ulmus americana*), water hickory (*Carya aquatica*), hackberry (*Celtis laevigata*) red maple (*Acer rubrum*) and sweetgum (*Liquidambar styraciflua*). Subcanopy species included saplings of canopy species as well as cabbage palm (*Sabal palmetto*). Groundcover vegetation included royal fern (*Osmunda regalis*), button bush (*Cephalanthus occidentalis*), lizard tail (*Saururus cernuus*), greenbrier (*Smilax* spp.) poison ivy (*Toxicodendron radicans*), wild coffee (*Psychotria nervosa*), and elderberry (*Sambucus canadensis*). Similar to Wetland 1, Wetland 2 is the high-water overflow area inclusive of the channelized stream system. This overflow includes an area under the cleared power line easement where saturated soils, muck, and sapling sweetgum were

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present.

Jurisdictional wetlands identified and flagged in the field are depicted on Figure 7.

PROTECTED WILDLIFE SPECIES SURVEY

Protected wildlife species are defined as those listed as Threatened, Endangered, or Species of Special Concern by the (USFWS) and/or the Florida Fish and Wildlife Conservation Commission (FWC). The survey consisted of both a search of documented literature and a field reconnaissance.

Documented Literature Search

Prior to the field investigation, documented literature resources were consulted regarding known occurrences of protected wildlife species on or in the vicinity of the project site. These included the FWC's Bald Eagle (*Haliaeetus leucocephalus*) Nest Locator (*https://public.myfwc.com/FWRI/EagleNests/nestlocator.aspx*) and Waterbird Colony Locator (*http://atoll.floridamarine.org/waterBirds/*) online locator sites.

The closest documented eagle's nest (Nest ID SE050) is located approximately 2,500 feet north of the property. The closest documented waterbird colony (Atlas No. 612305) is located over 3,350 feet north of the property. All documented nests or colonies are located outside of any applicable buffer protection zones.

The USFWS Information for Planning and Consultation (IPaC) website was utilized, along with the property boundary, to determine potential protected wildlife species that could utilize the property. The property was identified within the USFWS Consultation Area and/or has potential onsite habitat for the following federally-listed wildlife species:

EASTERN BLACK RAIL
Laterallus jamaicensis jamaicensis
Threatened

The black rail is the smallest rail in North America. Adults range from 10-15 centimeters in total length and have a wingspan of 22-28 cm. Eastern black rails weigh 35 grams on average and are larger but have less brightly colored plumage than California black rails. Males and females are similar in size, and adults are generally pale to blackish gray, with a small blackish bill and bright red eyes. The underparts from chin to abdomen are uniformly colored but are lighter on the chin and throat. The nape and upper back are chestnut and the remaining back, uppertail feathers, and remiges (wing flight feathers) are dark gray

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to blackish with small white spots and sometimes washed with chestnut-brown. The lower abdomen, undertail feathers and flanks are blackish streaked with narrow white and dark gray barring, washed with chestnut. Overall, males are darker and have pale to medium gray throats, while females are lighter and have pale gray to white throats. The tarsi (lower legs) and toes are a brownish gray or gray to blackish-brown.

The eastern black rail is a wetland dependent bird primarily associated with herbaceous, persistent, emergent wetland plant cover. The subspecies requires dense overhead cover and soils that are moist to saturated (occasionally dry) and interspersed with or adjacent to very shallow water. The substrate of ideal habitat is generally considered to be moist soil with scattered small pools. Eastern black rails occur across an elevation gradient that lies between the lower and wetter portions of estuarine and palustrine marshes and the higher and drier adjacent uplands. Location of individuals across this gradient varies depending on hydrologic conditions. These habitat gradients have gentle slopes such that wetlands are capable of having large areas of shallow inundation (sheet water). These wetlands are able to shrink and expand based on hydrologic conditions and thus provide dependable foraging habitat across the wetted areas and wetland-upland transition zone for the subspecies. The wetland-upland transition zone is a narrow band of habitat where wetlands and uplands intersect and contains vegetation types from both habitats. These transition areas also provide important refugia during flooding events and minimize the risk of predation to black rails when well vegetated. (Reference: USFWS Species Status Assessment Report for the Eastern Black Rail, August 2019, *https://ecos.fws.gov/servcat/downloadfile/186791*, refer to original for embedded citations)

EVERGLADE SNAIL KITE
Rostrhamus sociabilis plumbeus
Endangered

The snail kite is a medium-sized raptor, with a total body length for adult birds of 36 to 39.5 cm and a wingspan of 109 to 116 cm. In both sexes, the tail is square-tipped with a distinctive white base, and the wings are broad, and paddle-shaped. Adults of both sexes have red eyes, while juveniles have brown eyes. The slender, decurved bill is an adaptation for extracting the kite's primary prey, the apple snail.

Snail kite habitat consists of freshwater marshes and the shallow vegetated edges of lakes (natural and man-made) where apple snails can be found. These habitats occur in humid, tropical ecoregions of peninsular Florida and are characterized as palustrine-emergent, long-hydroperiod wetlands often on an organic peat substrate overlying oolitic limestone or sand or directly on limestone or marl.

Snail kites require foraging areas that are relatively clear and open in order to visually search for apple snails. Therefore, dense growth of herbaceous or woody vegetation is not conducive to efficient

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foraging. The interspersed emergent vegetation enables apple snails to climb near the surface to feed, breathe, and lay eggs. Nearly continuous flooding of wetlands for > 1 year is needed to support apple snail populations that in turn sustain foraging by the snail kite. (Reference: USFWS Everglade Snail Kite Multi-Species Recovery Plan for South Florida, *https://www.fws.gov/verobeach/MSRPPDFs/EvergladeSnailKite.pdf*, refer to original for embedded citations)

FLORIDA SCRUB-JAY
Aphelocoma coerulescens
Threatened

The Florida scrub-jay is a blue and gray bird about the size of a blue jay. Scrub-jays have blue wings, head, and tail, and gray back and underparts, and a whitish forehead and neck. Unlike blue jays, this species does not have black markings or a crest.

The Florida scrub-jay is the only species of bird that is endemic to Florida. Scrub-jays inhabit sand pine and xeric oak scrub, and scrubby flatwoods, which occur in some of the highest and driest areas of Florida – ancient sandy ridges that run down the middle of the state, old sand dunes along the coasts, and sandy deposits along rivers in the interior of the state. Scrub-jays do best in areas that contain large quantities of oak shrubs that average 3.28-6.56 feet (1-2 meters). (Reference: FWC Florida Scrub-Jay Species Page, *https://myfwc.com/wildlifehabitats/profiles/birds/songbirds/florida-scrub-jay/*, refer to original for embedded citations)

WOOD STORK
Mycteria americana
Threatened

Wood storks are large, long-legged wading birds, about 50 inches tall, with a wingspan of 60 to 65 inches. The plumage is white except for black primaries and secondaries and a short black tail. The head and neck are largely unfeathered and dark gray in color. The bill is black, thick at the base, and slightly decurved. Immature birds are dingy gray and have a yellowish bill.

Nesting primarily occurred in the Everglades. The generally accepted explanation for the decline of the wood stork is the reduction in food base (primarily small fish) necessary to support breeding colonies. This reduction is attributed to loss of wetland habitat as well as to changes in water hydroperiods from draining wetlands and changing water regimes by constructing levees, canals, and floodgates to alter water flow in south Florida. Wood storks have a unique feeding technique and require higher prey concentrations than other wading birds. Optimal water regimes for the wood stork involve periods of

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flooding, during which prey (fish) populations increase, alternating with dryer periods, during which receding water levels concentrate fish at higher densities coinciding with the stork's nesting season. Wood storks capture their prey by a specialized technique known as grope-feeding or tacto-location. Feeding often occurs in water 6 to 10 inches deep, where a stork probes with the bill partly open. (Reference: USFWS Arthur R. Marshall Loxahatchee Wood Stork fact page, *https://www.fws.gov/refuge/ARM_Loxahatchee/wah/wood_stork.html*, refer to original for embedded citations)

Utilizing the most recent data provided by FWC, the closest documented nesting colony (Lawne Lake) was located approximately 13 miles southwest of the property. The property was mapped within the 15-mile foraging area of the Lawne Lake colony.

EASTERN INDIGO SNAKE
Drymarchon corais couperi
Threatened

The eastern indigo snake is a large, non-venomous snake with populations occurring in portions of Florida and southeastern Georgia. Historically, the eastern indigo snake occurred throughout Florida and in the coastal plain of Georgia, Alabama and Mississippi. Although the eastern indigo snake is difficult to consistently locate in the field, important life history characteristics and species needs have been learned from numerous studies. The eastern indigo snake is a diurnal species. The species prefers upland habitat types (e.g. longleaf pine sandhills, scrub, pine flatwoods, tropical hardwood hammocks, and coastal dunes), but also uses a variety of lowland and human-altered habitats. They may move seasonally between upland and lowland habitats, especially in northern portions of their range. Throughout their range, eastern indigo snakes use below-ground shelter sites for refuge, breeding, feeding and nesting.

Visual encounter surveys are intended to locate eastern indigo snakes above ground and to identify refugia for subsequent inspection of the impact area. The impact area is defined as the project footprint or that part of the parcel to be built out that will no longer constitute eastern indigo snake habitat after the construction of the project. Underground refugia commonly used by this species include active or inactive burrows excavated by gopher tortoises or other species, ground holes, hollows at the base of trees and other similar formations. Above ground refugia includes thick shrub formations, stumps, the base of thick palmetto, ground litter, brush piles, trash piles, and abandoned structures, and crevices of rock-lined ditch walls and other similar refugia. (Reference: USFWS Eastern Indigo Snake Profile, *https://www.fws.gov/verobeach/MSRPPDFs/EasternIndigoSnake.pdf*, refer to original for embedded citations)

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GOPHER TORTOISE
Gopherus polyphemus
Candidate (State-Threatened)

The gopher tortoise is a moderate-sized, terrestrial turtle, averaging 9–11 inches in length when fully grown, though it can reach lengths of up to 15 inches (Ernst et al. 1994). The species is identifiable by its stumpy, elephantine hind feet and flattened, shovel-like forelimbs covered in thick scales. Hatchling (<1-year-old) and juvenile tortoises tend to be yellow-orange and brown in color, but the bright coloration fades with age. The shell of an adult gopher tortoise is generally tan, brown, or gray in coloration. Adult male and female tortoises can be differentiated by the presence or absence of a concavity on their lower shell (plastron); mature males will exhibit this concavity, whereas females will have a flat lower shell.

Gopher tortoises prefer well-drained, sandy soils found in habitats such as longleaf pine sandhills, xeric oak hammocks, scrub, pine flatwoods, dry prairies, and coastal dunes. They are also found in a variety of disturbed habitats including pastures and urban areas. Suitable gopher tortoise habitat contains well-drained sandy soils for digging burrows and nesting, abundant herbaceous plants for forage, and open, sunny areas with sparse canopy for nesting and basking. Periodic natural fires historically played an important role in many of the habitats where tortoises are found, as fire reduces canopy cover and promotes growth of herbaceous forage plants. When fire is suppressed from these environments, the habitat may become unsuitable for gopher tortoises.

The NRCS Web Soil Survey (*https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx*) was used to identify soils suitable for the burrowing needs of gopher tortoises. The soil criteria that are taken into account in this soil interpretation are those that have been determined to have the most effect on burrow excavation, maintenance, and preservation. These include the soil texture, percent coarse fragments, depth to a restrictive layer or layer with greater than or equal to 35% clay, ponding or flooding frequency, slope, and depth to seasonal high water table. The Pomello and Paola-St. Lucie Sands were rated as “Highly Suited”, while the remainder of the property (primarily hydric soils) was rated as “Less Suited” or “Unsuitable”.

No USFWS-identified Critical Wildlife Habitat was mapped on (or in a relevant proximity) to the property.

Field Reconnaissance and Observations

A protected wildlife species survey and habitat assessment was conducted on the property on March 15, 2022.

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No bald eagles or protected wading birds were observed during the field visit. No nests or juveniles were observed on the property.

No scrub oaks or other scrub habitat was observed on the property that could provide forage for the Florida scrub-jay.

The property contained minimal potential foraging habitat for the wood stork and/or Eastern black rail in the wetland areas identified onsite, but no observations of either species was documented.

A survey of the uplands on the property was performed for the occurrence of gopher tortoise burrows. Two Potentially Occupied gopher tortoise burrows were observed in the northwest corner of the property.

An osprey nest pole with platform was observed on the property.

No other protected wildlife species concerns were observed during the course of the field survey.

Relevant wildlife observations documented by Thomson on March 15, 2022, are depicted on Figure 8.

ECOLOGICAL CONSTRAINTS TO DEVELOPMENT

Jurisdictional Surface Water and/or Wetland Summary

The property contained two jurisdictional wetland areas whose boundaries were identified using the methodology contained in Chapter 62-340, F.A.C. If proposed for impact by commercial development, proposed impacts would require permitting through the appropriate regulatory agencies with jurisdiction, which are identified as the St. Johns River Water Management District (SJRWMD) and the Florida Department of Environmental Protection (FDEP).

It should be noted that the jurisdictional wetland areas on the property contain hydrologic conveyances that pass through the property from south to north, and it is highly likely that this hydrologic connection would need to remain post-development to prevent off-site flooding issues.

SJRWMD – The SJRWMD permits jurisdictional wetland and surface water impacts, as well as site development plans and the associated stormwater management system (SWMS) through the Environmental Resource Permit (ERP) process. An Individual ERP would be required for the proposed development.

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The timeline for an ERP Individual Permit is estimated to be approximately 4-5 months from permit submittal. If direct wetland impacts are avoided, and the wetlands are provided an upland buffer averaging 25 feet (with a minimum of 15 feet), then wetland concerns would be avoided. If either secondary or direct wetland impacts are proposed, environmental considerations including avoidance, minimization, and mitigation criteria would be applicable.

FDEP – The FDEP permits impacts to Waters of the US (WoTUS) through the State 404 permit process, which was assumed by the FDEP from the US Army Corps of Engineers (USACE) in December 2020. Based on mapping through the FDEP's 404 Jurisdictional Determination mapping site (https://fdep.maps.arcgis.com/apps/webappviewer/index.html), the project is located in Assumed Waters. Current FDEP protocol is that any jurisdictional wetland on a property is assumed to be WoTUS unless proven otherwise through a jurisdictional determination.

Based on the apparent hydrologic connection of the onsite jurisdictional wetlands to the floodplain wetlands of Lake Jesup, it is likely that the onsite wetlands would be considered WoTUS and require a State 404 permit for direct impacts.

The timeline for a State 404 General Permit (less than 0.5 acre of impact) is estimated to be approximately 6-8 months and cannot be issued prior to the SJRWMD ERP. The timeline for a State 404 Standard Permit (greater than 0.5 acre of impact) is estimated to be approximately 1 year, and it would require a Public Comment period (among other review criteria).

Compensatory Mitigation Discussion

The property is located within the Lake Jesup Mitigation Basin. There are currently no permitted mitigation banks within the Lake Jesup Mitigation Basin. There is available "permittee responsible" mitigation for $400,000 per Unified Mitigation Assessment Method (UMAM) credit for state-jurisdictional wetland impacts. Permittee responsible mitigation means that some risk would still remain with the Applicant long-term, and the extent of the risk should be discussed with the mitigation provider prior to attempting to permit wetland impacts. For federally-jurisdictional wetland impacts, mitigation credits are available from Colbert Cameron Mitigation Bank (which was permitted and sells mitigation credits utilizing the Wetland Rapid Assessment Procedure [WRAP]) for $20,000 per credit.

The purchase of state UMAM credits would be the limiting factor in evaluating the cost proposal of impacting onsite wetlands. As a planning tool, it is estimated that the onsite wetland areas would be scored under the UMAM functional assessment methodology as a 0.6. Utilizing this estimate, and other opinions presented in this report, this would equate to an estimated mitigation cost per acre of impact of (1 acre) * (0.6 UMAM) * ($400,000/UMAM credit) = $240,000.

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Protected Wildlife Species Summary

The onsite wetlands represent low-quality potential wood stork foraging habitat. It is anticipated that any impacts to jurisdictional wetlands would require compensatory mitigation, which would simultaneously mitigate for the loss of wood stork foraging habitat, if required by the USFWS.

Two Potentially Occupied gopher tortoise burrows were observed. Gopher tortoise burrows may (1) be avoided by 25' and left with access to foraging habitat, (2) be relocated onsite if sufficient foraging habitat remains post-development, or (3) be relocated offsite to a permitted recipient site.

If relocated offsite by an FWC Authorized Agent, a 100% Formal gopher tortoise survey would be required within 90 days of land clearing / development to obtain a permit to relocate the onsite gopher tortoise population. Using the industry-standard 50% occupancy rate of Potentially Occupied burrows, this results in a calculated gopher tortoise population of one individual. Assuming a population of one gopher tortoise and current recipient site fees, it is estimated that the relocation fees associated with the gopher tortoise would be $8,000.

An osprey nest pole with platform was observed on the property, though currently it did not support a nest. While the osprey is no longer a state-listed species, there are still certain protections in place for disturbance of the location of an osprey nest and permitting and potential relocation of the nest may be required if the nest is to be impacted by development.

No other significant protected wildlife species issues were observed or indicated on the property during the literature search and field reconnaissance. It is the opinion of Thomson that the historically disturbed site is not utilized by protected wildlife species for nesting, roosting, or foraging.

LIMITATIONS OF THIS REPORT

It is important to note that the conclusions of this report are necessarily based on the conditions observed on the day of the field reconnaissance. Due to this "snapshot" view of the site, the results presented in this report may not accurately reflect changing site conditions and/or wildlife species' temporal and spatial movements. Additionally, all potentially jurisdictional wetlands and/or surface waters identified on the property (or the lack thereof) have not been reviewed by any regulatory agencies (other than those expressly stated), who have the final word in the delineation of state/federal wetland limits, jurisdictional status, and functional quality.

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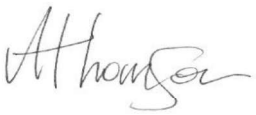
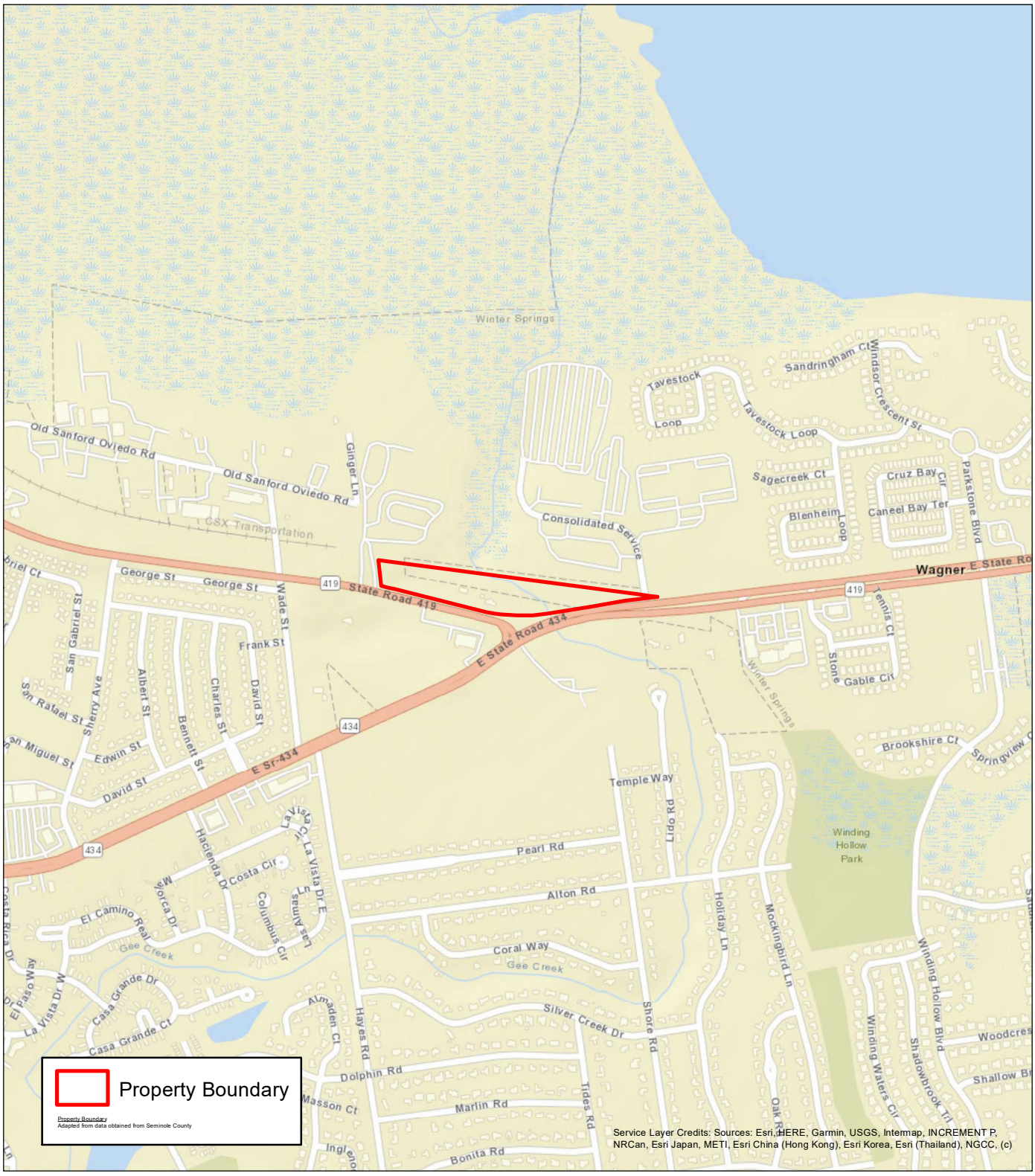
Thomson appreciates the opportunity to provide these services to you. If there are questions regarding this report, or a need for further information, please contact the undersigned at your convenience.

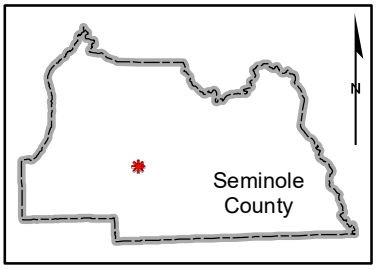
Respectfully,
Thomson Environmental Consulting, LLC



Joel A. Thomson
President

Figures 1 – 8





General Location

0 500 1,000

1" = 1.000'

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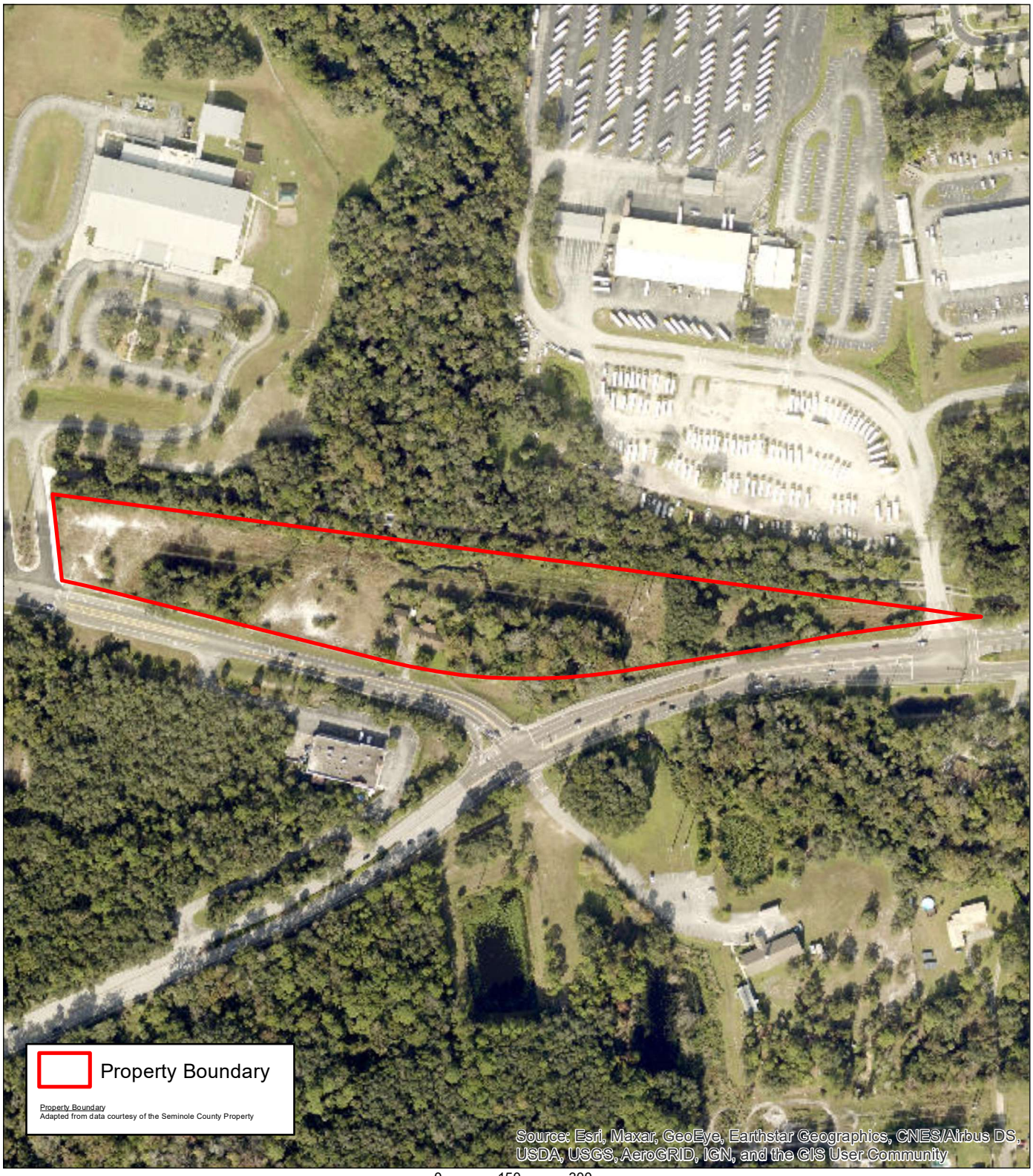
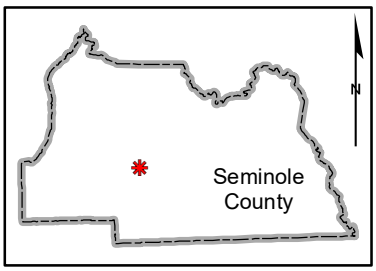
Figure 1
Location Map

SR 419 Winter Springs Property
Seminole County, Florida
Section 35, Township 20 S, Range 30 E

Thomson Project No. 22-1150
March 2022





General Location

0 150 300

1" = 300'

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Figure 2

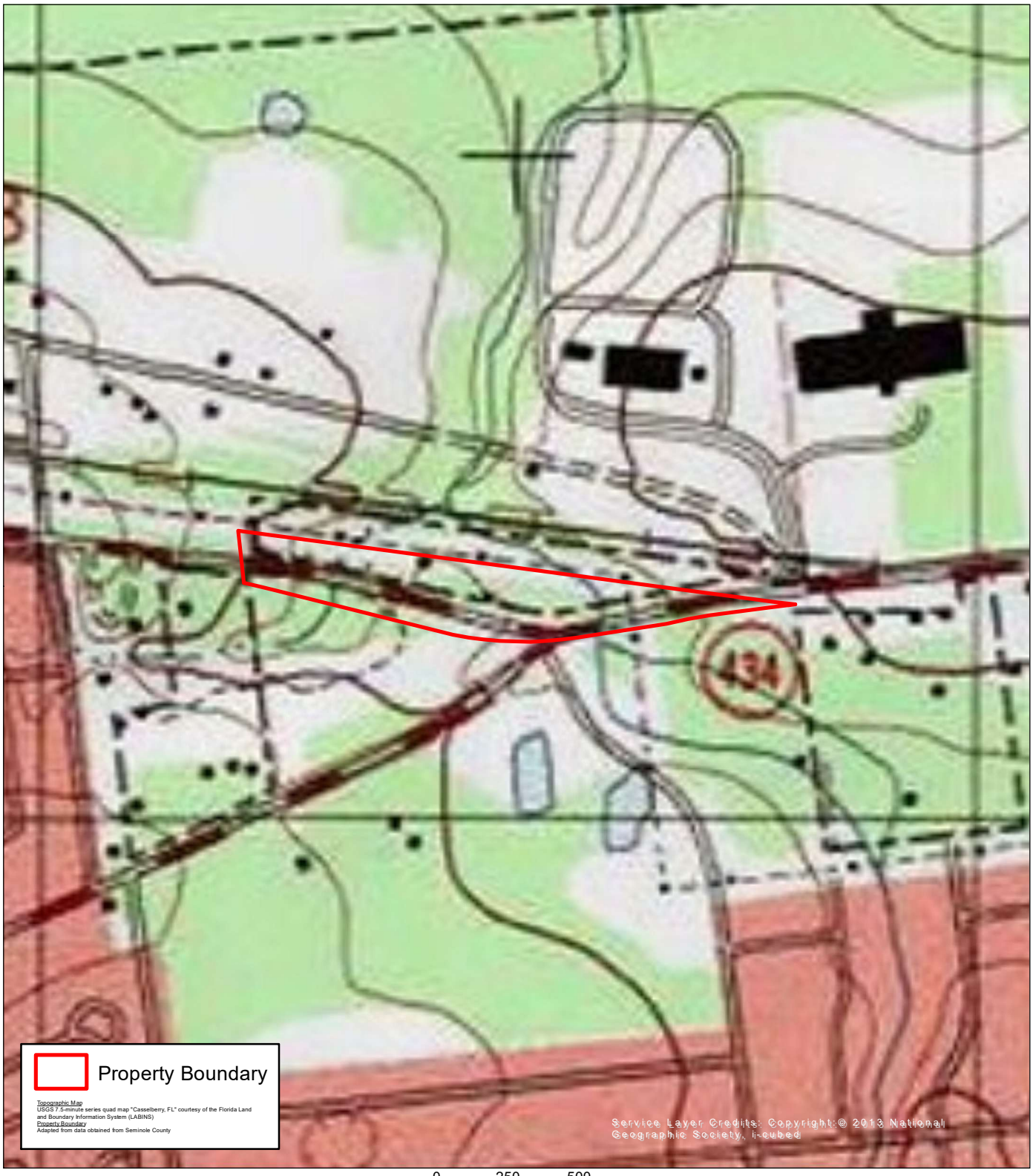
Aerial Photograph

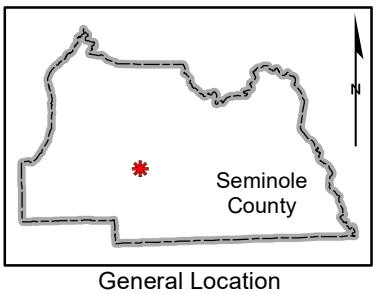
SR 419 Winter Springs Property

Seminole County, Florida

Section 35, Township 20 S, Range 30 E

Thomson Project No. 22-1150
March 2022





General Location

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1" = 500'

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Figure 3

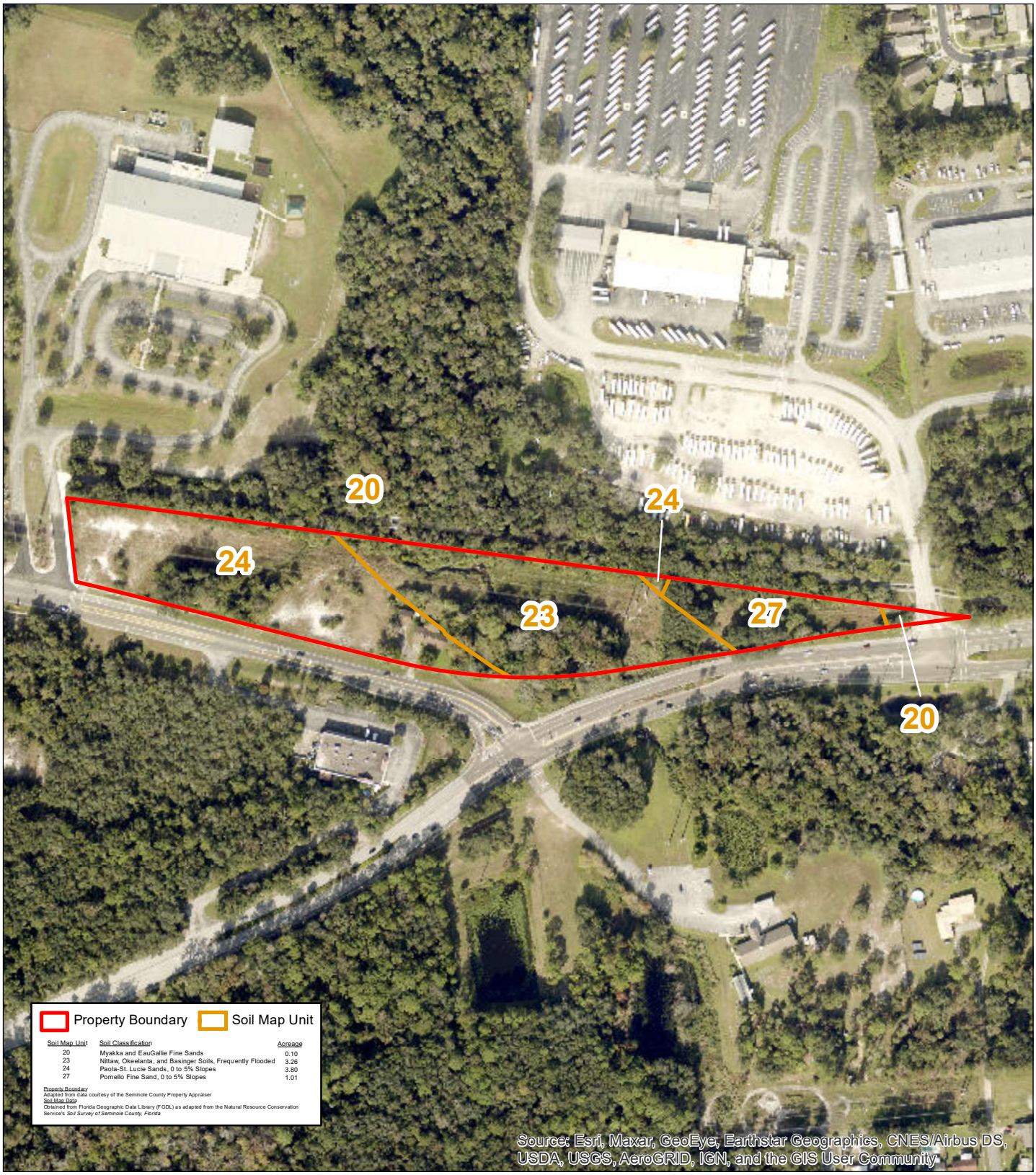
Topographic Map

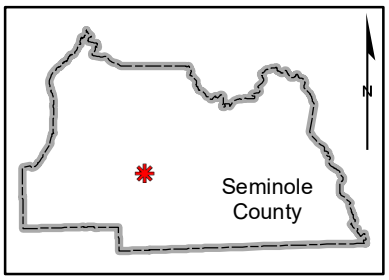
SR 419 Winter Springs Property

Seminole County, Florida

Section 35, Township 20 S, Range 30 E

Thomson Project No. 22-1150
March 2022





General Location

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1" = 300'

Figure 4
Soils Map

SR 419 Winter Springs Property

Seminole County, Florida

Section 35, Township 20 S, Range 30 E

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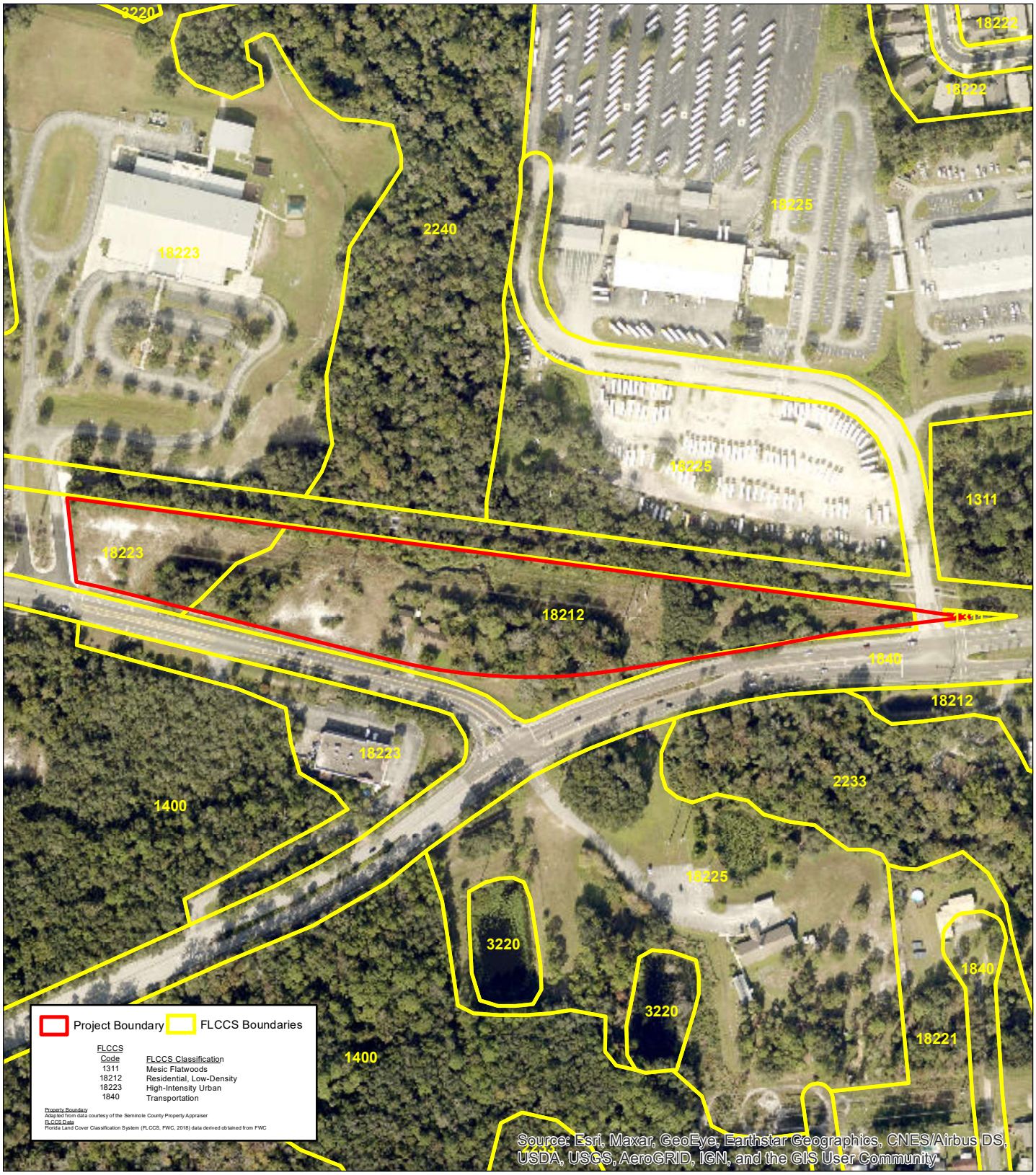

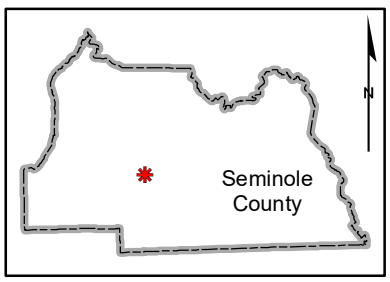

General Location

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1" = 300'

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Figure 5
Land Cover Map

SR 419 Winter Springs Property

Seminole County, Florida

Section 35, Township 20 S, Range 30 E

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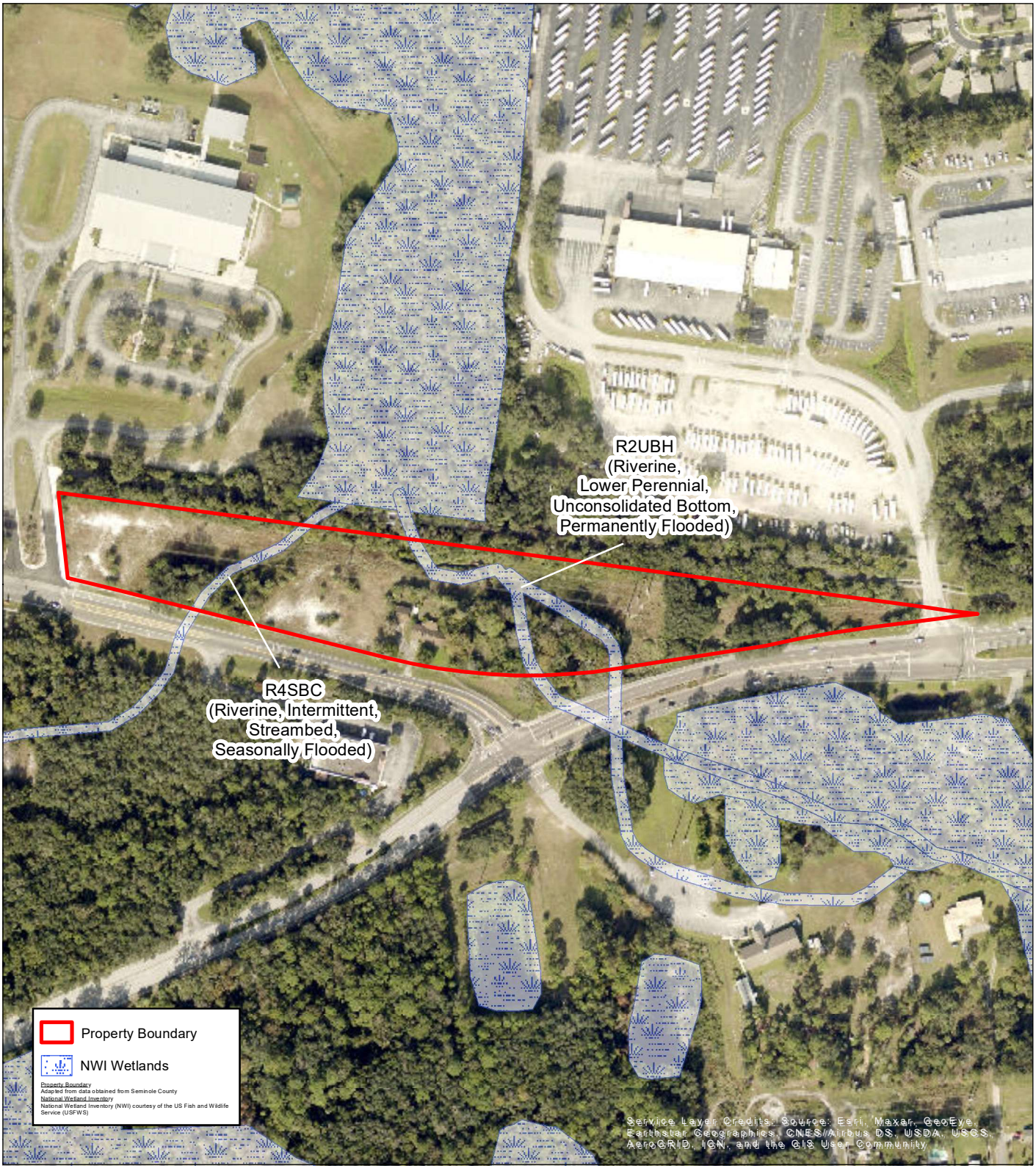
March 2022



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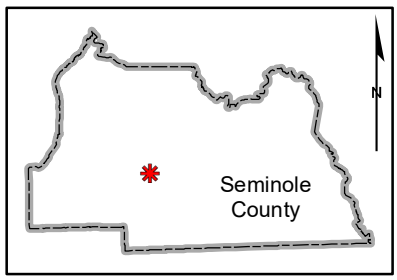

General Location

Figure 6

National Wetland Inventory Map

SR 419 Winter Springs Property

Seminole County, Florida

Section 35, Township 20 S, Range 30 E

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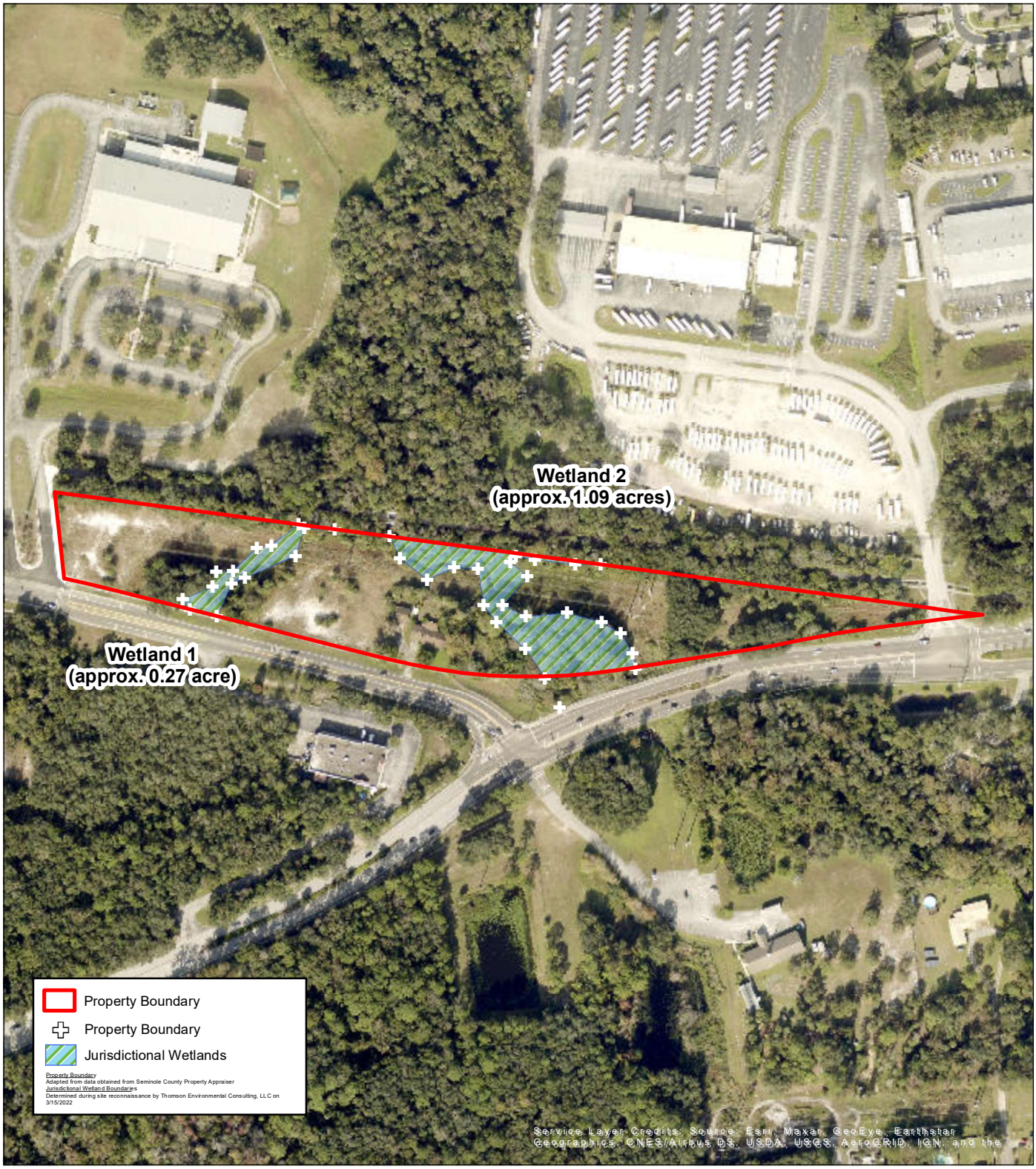

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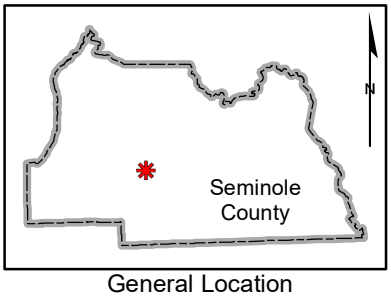

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Figure 7

Jurisdictional Wetland Limits
SR 419 Winter Springs Property
Seminole County, Florida

Section 35, Township 20 S, Range 30 E

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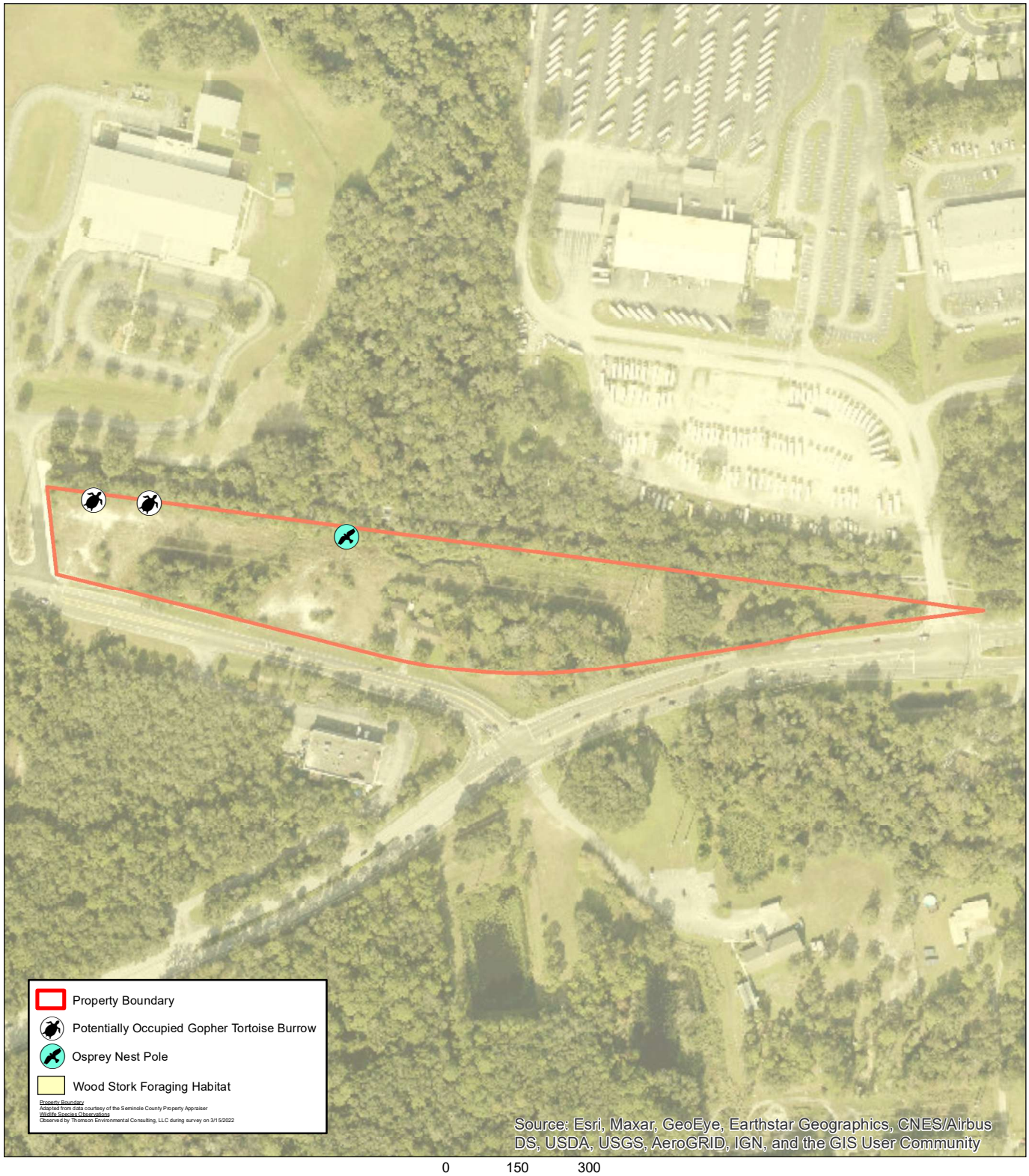
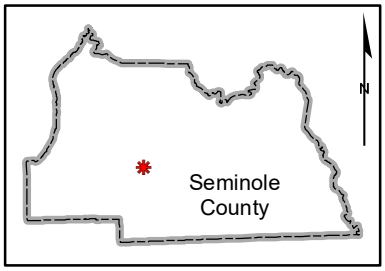
March 2022





General Location

0 150 300

1" = 300'

Figure 8

Wildlife Observations

SR 419 Winter Springs Property

Seminole County, Florida

Section 35, Township 20 S, Range 30 E

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Thomson Project No. 22-1150
March 2022

TIERRA

August 13, 2025
Revised February 24, 2026

Merdian Realty
3601 S Orange Ave
Orlando FL 32806

Attn: Mr. Matt Merdian
info@taxdeedpro.com

RE: Report
Geotechnical Engineering Services
SR 419 RV & Boat Storage Facility
4301 SR 419
Winter Springs, Seminole County, Florida
Tierra Project No.: 5511-25-056

Mr. Merdian:

Tierra, Inc. (Tierra) has completed geotechnical engineering services for the above referenced project. The results of our field exploration program and subsequent geotechnical recommendations are presented in this report.

Project Information

The project is planned to consist of the design and construction of a boat and RV storage facility located at 4301 SR 419 in Winter Springs, Seminole County, Florida. The facility will include two concrete entrance drives and a parking storage area stabilized using geocells. Stormwater management associated with the facility will be provided by three shallow stormwater ponds. A site plan titled “SR 419 RV & Boat Storage Lot”, dated April 4, 2025, prepared by OM Engineering depicting the proposed improvements was provided to us prior to the start of our study.

If any of the project information noted is incorrect or has changed, Tierra should be notified as soon as possible so we can determine if the changes impact our recommendations herein.

Scope of Services

The objective of our study was to obtain information on the general subsurface soil and groundwater conditions at the project site. The subsurface conditions encountered were then evaluated with respect to the available project characteristics to evaluate site suitability and to provide geotechnical recommendations for the planned improvements.

In order to meet the preceding objectives, we completed the following services:

1. Reviewed published geologic and topographic information. This published information was obtained from the “Casselberry, Florida” quadrangle map published by the United States Geological Survey (USGS) and the "Soil Survey of Seminole County, Florida" published by the United States Department of Agriculture (USDA) Soil Conservation Service (SCS).

2. Conducted a visual site reconnaissance of the project site and coordinated utility clearance via Sunshine One Call.

3. Performed a geotechnical field study for the proposed parking area consisting of borings, subsurface sampling, and field testing. We completed the following:

    a. Performed two (2) Standard Penetration Test (SPT) borings to a depth of approximately 10 feet within the limits of the concrete entrance drives (or frontage walls) planned for the facility.

    b. Performed three (3) Standard Penetration Test (SPT) borings to a depth of approximately 16 feet below existing site grades within the stormwater pond locations.

    c. Performed five (5) constant head field permeability tests at depths of approximately 2 to 5 feet below the existing site grades at the pond boring locations.

4. Measured the groundwater levels at the boring locations and estimated normal seasonal high groundwater elevations.

5. Visually classified and stratified the recovered soil samples in the laboratory using the Unified Soil Classification System.

6. Prepared this formal engineering report which summarizes the course of study pursued, the field data generated, the subsurface conditions encountered and our geotechnical recommendations with respect to the proposed site improvements.

REVIEW OF PUBLISHED DATA

USDA Soil Survey

Based on a review of the "Soil Survey of Seminole County, Florida" published by the USDA NRCS, it appears that there are two (2) primary soil-mapping units noted within the limits of the project site. The general soil description is provided below, as described in the Soil Survey.

Nittaw, Okeelanta, and Basinger soils, frequently flooded (Soil Group No. 23) The soils associated with this map unit are nearly level and poorly to very poorly drained. The estimated seasonal high groundwater table is at a depth of 12 inches below the natural ground surface and are subject to frequent flooding during heavy rains.

Paola-St. Lucie sands, 0 to 5 percent slopes (Soil Group No. 24) As per the Soil Survey of Seminole County, the estimated seasonal high groundwater table is at a depth of more than 80 inches below the natural ground surface. The soil is described as nearly level to gently sloping excessively drained sandy soil.

It should be noted that information contained in the USDA/NRCS Soil Survey may not be reflective of current subsurface conditions, particularly if recent development in the project vicinity has modified existing soils or surface/subsurface drainage.

USGS Topographic Map

The topographic survey map published by the (USGS) entitled "Casselberry, Florida" was reviewed for ground surface features in the area of the proposed improvements. Based on this review, the natural ground surface elevations appear to range from approximately +15 to +20 feet National Geodetic Vertical Datum (NGVD) of 1929. Gee Creek is located just to the north of the parcel and drains toward Lake Jessup. The USGS information is generally consistent with site specific topographic data that was provided to us as part of our study.

SUBSURFACE CONDITIONS

The boring locations were established in the field by a representative of Tierra using a handheld Garmin eTrex® Global Positioning System (GPS) device with a reported accuracy of +/- 10 feet. Generally, the borings were performed at the proposed locations. The approximate boring locations are presented on the **Boring Location Plan** on **Sheet 1** in the **Attachments**.

Field Exploration

Tierra performed a total of five (5) Standard Penetration Test (SPT) borings advanced to depths of 10 to 16 feet below the existing ground surface and completed three (3) in-situ constant head field permeability tests.

The soil samples collected from the auger borings were then transported to our Winter Garden office for visual classification. Subsoils were visually classified following the guidelines contained in the Unified Soil Classification System (USCS).

The soil strata encountered in the borings performed is summarized in the following table and are also presented on the attached **Sheet 2**:

Stratum Number	Soil Description	USCS Symbol
1	Gray-Brown to Gray to Pale Brown SAND to SAND with Silt	SP/SP-SM
2	Gray-Brown to Gray Silty SAND	SM

The subsurface soil stratification is of a generalized nature to highlight the major subsurface stratification features and material characteristics. The **Soil Profiles** included on **Sheet 2** should be reviewed for specific information at the individual boring locations. These profiles include soil descriptions and stratifications. The stratifications shown on the boring profiles represent the conditions only at the actual boring location. Variations may occur and should be expected between boring locations. The stratifications represent the approximate boundary between subsurface materials and the actual transition may be gradual. In some cases, small variations in properties that were not considered pertinent to our engineering evaluation may have been abbreviated or omitted for clarity.

Groundwater Information

Groundwater was encountered at depths ranging from approximately 3½ to 4½ feet below existing grades at the time of our field study. Based on the subsurface conditions encountered and a review of the Soil Survey of Seminole County, Florida published by the USDA NRCS, Tierra estimates the normal seasonal high groundwater levels to be approximately 1 to 1½ feet above the encountered groundwater levels. The encountered groundwater table levels and estimated normal seasonal high groundwater levels are presented adjacent to the soil profiles on **Sheet 2** in the **Attachments.**

It should be noted that groundwater levels tend to fluctuate during periods of prolonged drought and extended rainfall and may be affected by man-made influences. In addition, a seasonal effect will also occur in which higher groundwater levels are normally recorded in rainy seasons.

Field Permeability Testing

Tierra performed five (5) constant head field permeability tests within the existing stormwater ponds at a depth of approximately 2 to 5 feet below the existing ground surface. The permeability tests were performed and the results evaluated in general accordance with the methodology presented in the booklet titled "Stormwater Retention Pond Infiltration Analyses in Unconfined Aquifers," Jammal & Associates, Inc., prepared for the Southwest Florida Water Management District (SWFWMD). The boring locations where the tests were performed are shown on the attached **Sheet 1**.

The following table presents the results of the field testing and our interpretation of the results with respect to the hydraulic conductivity of the in-situ soils at each test location:

Test Location	Stratum Tested	Test Depth (feet)	In-situ Vertical Unsaturated Hydraulic Conductivity, (feet/day)
PB-1	1	2	35
PB-1	2	3	18
PB-2	1	2	34
PB-3	1	2	25
PB-3	2	5	10

EVALUATION AND RECOMMENDATIONS

Based on the results of our borings, it is our opinion that subsoil conditions are generally suitable for the planned improvements and associated civil infrastructure from a geotechnical engineering perspective.

The following recommendations have been developed on the basis of the previously described project characteristics and subsurface conditions encountered. If there is any change in the project criteria, a review must be made by Tierra to determine if additional fieldwork and/or any modifications to our recommendations will be required.

Site Preparation

At the outset of construction, unwanted ground cover should be removed from within the limits of construction, including where possible, 5 feet beyond the outside edges of the same. Interfering existing underground utilities within the proposed construction area should also be relocated or removed. Abandoned underground pipes within the proposed parking/storage area should be removed in their entirety or grout filled. If abandoned pipes are not removed or grout filled, then they may act as conduits for subsurface erosion and cause detrimental settlement. Material generated during stripping/clearing operations should be disposed of in a proper manner.

Ground Improvement by Proof Rolling

Following site clearing operations, the subgrade soils should be proof rolled. The limits of proof rolling should encompass the limits of the parking and storage areas, plus a horizontal distance of 5 feet beyond the edges of the same, where practical. The stripped/cleared subgrade should be proof-rolled with a minimum of ten overlapping passes with the compaction equipment operating in a crisscross pattern. Proof rolling/compaction should be accomplished with a vibratory roller capable of imparting a maximum dynamic drum force of at least 36,000 pounds.

Based on past experience, vibratory rollers should be operated in the static mode when within 75 feet of existing structures to reduce transmission of vibrations that could disturb occupants or cause structural distress. In the event that unstable/yielding soils are encountered by the roller/compactor, such materials should be removed and replaced with compacted engineered fill.

Proof rolling/compaction operations should be carried out under the surveillance of a representative of the geotechnical engineer so that observations of the subgrade can be made and in-place density tests can be taken to evaluate if compaction requirements are being achieved. It is recommended the subgrade soils be compacted to obtain a minimum density of 95 percent of the soil's modified Proctor maximum dry density (ASTM D-1557) to a minimum depth of 1 foot below stripped grade.

On Site Soil Suitability

In general, the near surface soils of Stratum 1 (SP/SP-SM materials) consist of relatively clean sands and may be moved and used for grading purposes, site leveling, general engineering fill, structural fill and backfill in other areas, provided the fill is free of organic materials (i.e. topsoil), debris or any other material deemed unsuitable for construction.

The Stratum 2 soils (SM) usually exhibit fines contents in excess of 12 percent and should be evaluated prior to usage. These soils will tend to hold excess moisture and may be more difficult to dry and compact. However, when properly moisture conditioned and compacted, they provide suitable support. We do not recommend these soils be placed within 18 inches of pavement base materials due to poor drainage characteristics.

Pavement Considerations

Actual pavement section thickness and pavement design should be provided by the design civil engineer based on traffic loads, volume, and the owners design life requirements. All pavement materials and construction procedures should conform to the appropriate City or County requirements.

It is our understand that for the main storage yard and parking areas, a Presto Geoweb® geocell system (or equivalent) with interconnected HDPE cells will be used. This type of system utilizes the confinement of the cellular structure to distribute vehicle loads over a wider area, significantly reducing rutting, settlement, and subgrade deformation. When infilled with compacted aggregate, the system creates a stable, permeable pavement layer that supports heavy wheel loads while maintaining stormwater infiltration and reducing runoff. Its resistance to washout and ability to perform without full-depth asphalt or concrete make it especially advantageous for unpaved or partially paved storage yards, offering long-term performance with reduced construction and maintenance costs.

For the rigid pavement planned at the entrance drives to the facility we recommend that the concrete have a minimum compressive strength of 4,000 psi at 28 days when tested in accordance with ASTM C-39. Based on our experience, a minimum thickness of six (6) inches should be utilized for heavy-duty applications. The steel reinforcement within the concrete pavement should be designed by the project civil engineer. The subgrade soils should be compacted to a minimum density of 95% of the Modified Proctor maximum dry density.

Stormwater Design

Based on the results of our borings and field permeability tests performed in each of the pond sites, we are recommending the following parameters be used to model the shallow effective aquifer for the ponds associated with the project.

Pond Name: WQ Pond (1)	**Reference Boring: PB-1 (Approx GSE +16.0)**	
Parameter	**Value**	**Unit**
Coefficient of Vertical Permeability*	28	feet per day
Coefficient of Horizontal Permeability*	28	feet per day
SHGWT Elevation	+12.5	feet NAVD88
Base of Aquifer Elevation**	+0.0	feet NAVD88
Fillable Porosity of Shallow Aquifer	25	percent

* Represents a weighted average of the permeability test results completed within the Strata 1 & 2 soils. These rates are unfactored. The designer should employ an appropriate reduction/safety factor.
** No confining layers were encountered to the boring termination depth (16 ft.).

Pond Name: WQ Pond (2)	**Reference Boring: PB-2 (Approx GSE +15.5)**	
Parameter	**Value**	**Unit**
Coefficient of Vertical Permeability*	34	feet per day
Coefficient of Horizontal Permeability*	34	feet per day
SHGWT Elevation	+13.0	feet NAVD88
Base of Aquifer Elevation**	-0.5	feet NAVD88
Fillable Porosity of Shallow Aquifer	25	percent

* These rates are unfactored. The designer should employ an appropriate reduction/safety factor.
** No confining layers were encountered to the boring termination depth (16 ft.).

Pond Name: WQ Pond (3)	**Reference Boring: PB-3 (Approx GSE +20.5)**	
Parameter	**Value**	**Unit**
Coefficient of Vertical Permeability*	13	feet per day
Coefficient of Horizontal Permeability*	13	feet per day
SHGWT Elevation	+17.5	feet NAVD88
Base of Aquifer Elevation**	+4.5	feet NAVD88
Fillable Porosity of Shallow Aquifer	25	percent

* Represents a weighted average of the permeability test results completed within the Strata 1 & 2 soils. These rates are unfactored. The designer should employ an appropriate reduction/safety factor.
** No confining layers were encountered to the boring termination depth (16 ft.).

The performance of a given stormwater system is dependent on the soil permeability as well as the groundwater table, system bottom elevation, system geometry, confining layer and water level in the system. We recommend a commercially available computer program such as PONDS or MODRET be used by an engineer experienced in groundwater modeling to evaluate the proposed stormwater system. The system should be designed and constructed in accordance with St. Johns River Water Management District and local City/County requirements. **The above coefficients of permeability are unfactored.** The project drainage engineer should apply a factor of safety that is appropriate for the project design.

REPORT LIMITATIONS

The analyses, conclusions and recommendations contained in this report are our professional opinions based on the site conditions and project layout described herein and further assume that the conditions observed in the exploratory borings are representative of the subsurface conditions throughout the limits of the site. If, during construction, subsurface conditions different from those encountered in the exploratory borings are observed or appear to be present during construction, we should be advised at once so that we can review these conditions and reconsider our recommendations where necessary.

If there is a substantial lapse in time between the submittal of this report and the start of work at the site, or if conditions or the project layout are changed due to natural causes or construction operations at or adjacent to the site, we recommend that this report be reviewed to determine the applicability of conclusions and recommendations considering the changed conditions and time lapse.

This report was prepared for the exclusive use of Merdian Realty and their consultants for evaluating the design of the project as it relates to the geotechnical aspects discussed herein. It should be made available to prospective contractors for information on factual data only and not as a warranty of subsurface conditions included in this report. Unanticipated soil conditions may require that additional expense be made to attain a properly constructed project. Therefore, some contingency fund is recommended to accommodate such potential extra costs.

Closure

Should there be any questions regarding the report, please do not hesitate to contact our office at (407) 877-1354. We look forward to working with you and your organization on this and future projects.

Respectfully Submitted,

TIERRA, INC.



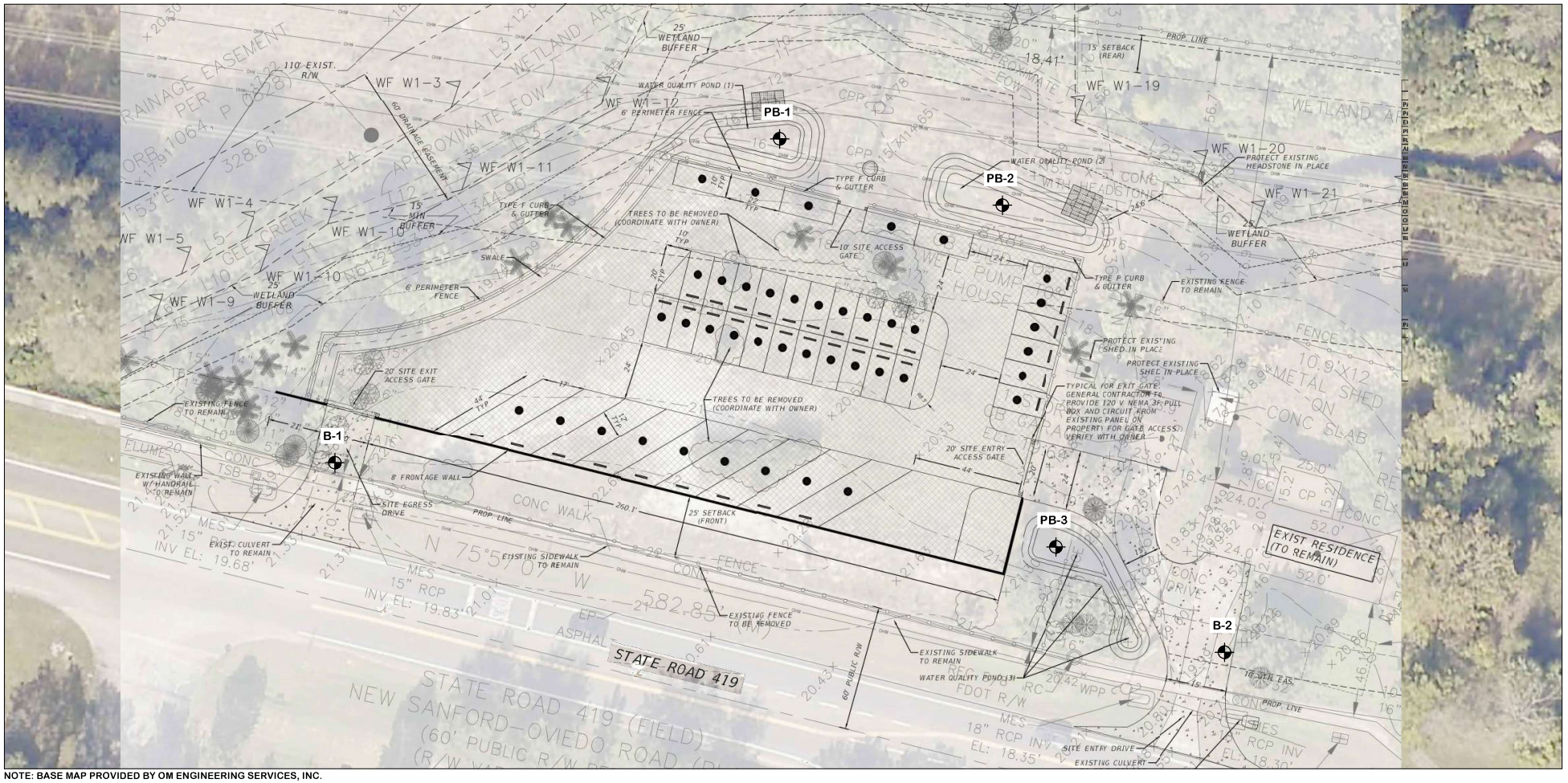
Kenneth L Symonds
2026.02.24 09:46:14-05'00'

Kenneth L. Symonds, Jr.,P.E.
Senior Geotechnical Engineer
Florida License No. 59518

This item has been digitally signed and sealed by Kenneth L. Symonds, Jr., P.E. on the date adjacent to the seal.

Signature must be verified on any electronic copies.

Attachments: Boring Location Plan (Sheet 1)
Soil Profiles (Sheet 2)



NOTE: BASE MAP PROVIDED BY OM ENGINEERING SERVICES, INC.

BORING LOCATION PLAN

0 40'

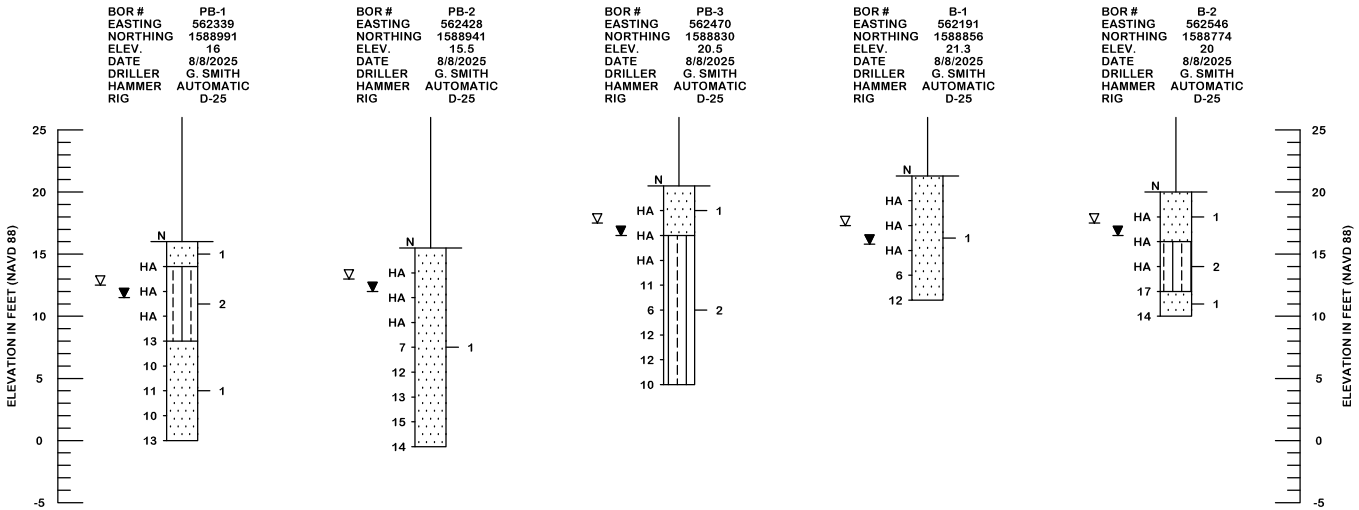
PLAN SCALE

LEGEND

APPROXIMATE LOCATION OF SPT BORING

DRAWN BY: SW CHECKED BY: DP	APPROVED BY: KLS DATE: AUG 2025	ENGINEER OF RECORD: KENNETH L. SYMONDS, JR., P.E. FLORIDA LICENSE NO.: 59518	TIERRA 591 Susan B. Britt Court Winter Garden, Florida 34787 Phone: 407-877-1354 Fax: 407-654-7347	SCALE: NOTED	PROJECT NUMBER: 5511-25-056	GEOTECHNICAL ENGINEERING SERVICES SR 419 RV & BOAT STORAGE FACILITY 4301 SR 419 WINTER SPRINGS, SEMINOLE COUNTY, FLORIDA	SHEET 1

SOIL PROFILES



LEGEND

1 GRAY-BROWN TO GRAY TO PALE BROWN SAND TO SAND WITH SILT (SP/SP-SM)

2 GRAY-BROWN TO GRAY SILTY SAND (SM)

▼ GROUNDWATER LEVEL ENCOUNTERED DURING INVESTIGATION

▽ ESTIMATED SEASONAL HIGH GROUNDWATER TABLE

N SPT N-VALUE IN BLOWS/FOOT FOR 12 INCHES OF PENETRATION (UNLESS OTHERWISE NOTED)

SP UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D 2488) GROUP SYMBOL AS DETERMINED BY VISUAL REVIEW

HA HAND AUGERED TO VERIFY UTILITY CLEARANCES

EASTING EASTING COORDINATE REFERENCED TO THE FLORIDA STATE PLANE COORDINATE SYSTEM, FLORIDA EAST ZONE, N.A.D. 83

NORTHING NORTHING COORDINATE REFERENCED TO THE FLORIDA STATE PLANE COORDINATE SYSTEM, FLORIDA EAST ZONE, N.A.D. 83

NAVD 88 NORTH AMERICAN VERTICAL DATUM OF 1988

NOTE: THE BORING LOCATIONS AND ELEVATIONS WERE DETERMINED USING COORDINATES OBTAINED BY TIERRA, INC. UTILIZING A HANDHELD GARMIN eTREX® GLOBAL POSITIONING SYSTEM (GPS) DEVICE WITH A REPORTED ACCURACY OF ±10 FEET IN CONJUNCTION WITH THE TOPOGRAPHIC SURVEY PROVIDED AND THEREFORE SHOULD BE CONSIDERED APPROXIMATE.

AUTOMATIC HAMMER	
GRANULAR MATERIALS-RELATIVE DENSITY	SPT (BLOWS/FT.)
VERY LOOSE	LESS THAN 3
LOOSE	3 TO 8
MEDIUM	8 TO 24
DENSE	24 TO 40
VERY DENSE	GREATER THAN 40
SILTS AND CLAYS CONSISTENCY	SPT (BLOWS/FT.)
VERY SOFT	LESS THAN 1
SOFT	1 TO 3
FIRM	3 TO 6
STIFF	6 TO 12
VERY STIFF	12 TO 24
HARD	GREATER THAN 24

DRAWN BY: SW
CHECKED BY: DP
APPROVED BY: KLS
DATE: AUG 2025
ENGINEER OF RECORD: KENNETH L. SYMONDS, JR., P.E.
FLORIDA LICENSE NO.: 59518

TIERRA
591 Susan B. Britt Court
Winter Garden, Florida 34787
Phone: 407-877-1354 Fax: 407-654-7347

SCALE: NOTED
PROJECT NUMBER: 5511-25-056

GEOTECHNICAL ENGINEERING SERVICES
SR 419 RV & BOAT STORAGE FACILITY
4301 SR 419
WINTER SPRINGS, SEMINOLE COUNTY, FLORIDA

SHEET 2

DRAINAGE REPORT

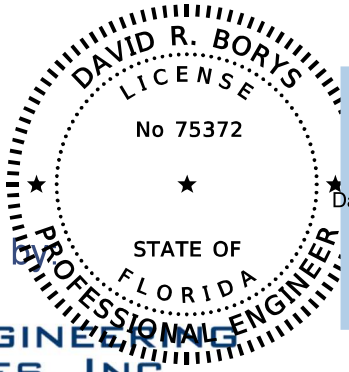
SR419 – RV & Boat Storage Lot

City of Winter Springs, Seminole County, Florida

100% Design

Update for FDOT Permitting

Sept. 2026



David R Borys

Digitally signed by David R Borys
DN: CN=David R Borys, dnQualifier=A01141DD000019F3E12F599002B46D, O=OM ENGINEERING SERVICES INCORPORATED, C=US
Reason: I am approving this document
Date: 2026.09.28 12:17:52-04'00'

Prepared by:

OM Engineering Services, Inc.
Civil • Structural • Inspections

David R. Borys, PE, CFM

Table of Contents

I. Introduction 1
II. General Project Information 1
Project Location and Description 1
Existing Land Use 2
Existing Topography 2
Soils 2
Wetlands 2
100-yr FEMA Floodplain 3
III. Hydrology 3
Design Criteria 3
Methodology 3
Drainage Basins 4
IV. Water Quality Analysis 5
Design Criteria 5
Methodology 6
Proposed Design 6
V. Water Quantity Analysis 7
Design Criteria 7
Methodology 7
Proposed Design 7
VI. FDOT ROW Design 8
Entry Drive (East) 9
Exit Drive (West) 9
Pond 3 Assessment 9
VII. References 11
Appendix 0
Appendix A: Project Reference Data ..... A
NRCS Soil Survey ..... A
NOAA Atlas 14 – Rainfall Data ..... A
FEMA FIRMette ..... A
SJRWMD Pre-App Meeting Minutes ..... A
Appendix B: Hydrologic Parameter Calcs & Pond Sizing ..... B
Drainage Maps – Pre & Post-Development ..... B

Basin Summary – Pre & Post-Development ..... B
CN Calcs – Pre & Post-Development ..... B
Tc Calcs – Pre & Post-Development ..... B
Summary of Required WQ Treatment Volumes ..... B
Pond Stage-Storage Data Tables ..... B
Appendix C: Modeling & Analysis C
WQ Pond Sizing (Nutrient Based) – BMP Trains C
Hydrologic & Hydraulic Analysis Results (M.A./24-hr & 25-yr/24-hr Events) – StormWise (ICPR) C
Pond Recovery (WQ & 25-yr/24-hr Events) – StormWise (ICPR) C
Culvert Hydraulic Analysis (HY-8): Exit Drive Culvert C
Pond 2 Bypass Ditch Calcs (Pond 3 Outfall) C
Average Wetlands Buffer Estimate C
Pond Infiltration Perimeter Ring Exhibit C
Appendix D: Geotechnical Report & Pond Berm Stability Analysis ..... D

I. Introduction

The proposed project is for rezoning and construction of a commercial car, RV, & boat storage lot on an existing parcel of land within the City of Winter Springs in Seminole County, Florida. The site improvements generally consist of construction of a new pervious commercial parking/storage area with two access points, gates, site screening wall, and associated stormwater treatment system.

II. General Project Information

Project Location and Description

The project site is located along SR 419 just north of the intersection with SR 434 within the City of Winter Springs in Seminole County, Florida. It is located within the St. Johns River Water Management District (SJRWMD). The parcel is bisected by Gee Creek and one if its unnamed tributaries with the project area just south of their confluence near the north property boundary. The parcel is partially developed with a single-family residence with detached garage that are to remain. A majority of the parcel is undeveloped and the proposed project is located within a smaller undeveloped area between the existing residence (east) and the unnamed tributary (west). The property is bound on the north by the Florida Scenic Trail and by SR 419 on the south. The general site location is shown in **Figure 1. Location Map**.

The proposed project is for construction of a commercial surface storage/parking lot for automobiles, RVs, & boats and all associated improvements. The improvements consist of the proposed storage lot, frontage screening wall, entry and egress driveways, access control gates, and stormwater ponds. The stormwater system is comprised of swales, curb & gutter, and three (3) water quality ponds.



Figure 1. Location Map

Existing Land Use

The existing property is mostly undeveloped with sparsely vegetated sandy uplands and denser forested areas with an existing single-family residence which is to remain. The surrounding areas include a school bus storage lot to the north, schools to the north and south, industrial metal recycling facility to the west, and forested areas. In the proposed site work area There is little existing vegetation within with the exception of existing palm trees.

Existing Topography

From a localized high point located near the middle of the south property line along SR 419, the existing topography of the project site generally slopes north and west towards Gee Creek and its tributary, respectively. The site has gentle slopes that range from 3.5 to 4.5%. The area of the driveway for the existing residence generally slopes from a high point near the existing driveway culvert to the north towards the creek. The western boundary of the project site is generally defined by the existing top of bank for the unnamed tributary with steeper slopes down into the Creek.

Soils

The soils on the site predominantly consist of Paola-St. Lucie sands, 0 to 5 % slopes (Map Unit 24), Hydrologic Soil Group (HSG) A, and are excessively drained with a negligible Runoff class. Soils near the northeast edge of the project site are defined as Nittaw, Okeelanta, and Basinger soils, frequently flooded (Map Unit 23), Hydrologic Soil Group (A/D), and very poorly drained. Site soils information from the online NRCS web soil survey database is provided in **Appendix A**.

A geotechnical investigation for the site was performed on August 13, 2025 by Tierra, Inc. The investigation included Standard Penetration Test (SPT) borings for the site in addition to permeability tests for the soils within the three (3) proposed dry retention ponds. The geotechnical report is provided **Appendix D.**

Wetlands

An environmental site assessment was conducted by Thomson Environmental Consulting on March 28, 2022. Per the report provided by Thomson, jurisdictional wetlands are located within the stream beds for Gee Creek and the unnamed tributary (intermittent, seasonally flooded). The flagged wetlands boundary identified during their field investigation is shown in the civil plan sheets. A minimum 15-foot uplands buffer has been provided with no impacts within that area and the project maintains an average minimum uplands buffer of 25 feet per guidelines. Therefore, there will be no direct or secondary wetlands impacts with development of this site. A copy of the environmental report has been provided via separate attachment. The average wetlands buffer distance calculations and exhibit are provided in **Appendix C**.

A separate field visit was conducted by SJRWMD staff and Thomson Environmental to validate the locations of the wetland flags. Additional wetlands flags were added and a few of the existing flags were relocated. The new or modified flags were surveyed after this site visit and the final locations are reflected in the site survey and civil construction plans for this project.

100-yr FEMA Floodplain

The project site is located within FEMA FIRM Panel No. 12117C0160F (Eff. 9/28/2007). The FEMA floodplain and floodway for Gee Creek is located within the property just north of the project area and defined as Zone AE, with BFEs between 11.0 and 12.0 ft (NAVD88). However, the project site is located within Zone X and is outside of the floodplain with all proposed grading activities occurring above the 12.0 ft BFE. Therefore, there will be no floodplain or floodway impacts associated with this project. A copy of the FEMA FIRM map and FIRMette are located in **Appendix A**.

The proposed Pond 1 at the northwest corner of the site is in closest proximity to the 100-yr FEMA floodplain but there are no proposed floodplain impacts. The proposed pond tie-in grading terminates before the 100-yr floodplain boundary.

III. Hydrology

Design Criteria

Hydrology analysis was prepared based on SJRWMD and City of Winter Springs criteria. Parameters for each of the Basins were generated with available information and provided as inputs to the models. Project rainfall depths for the modeled Mean Annual (M.A.)/24-hr event and 25-yr/24-hr event is provided in **Table 1.** Rainfall data from the NOAA Rainfall Atlas 14 for the project site is provided for general information. Reference information is provided in **Appendix A**. Based on the SJRWMD criteria and comments the project is required to attenuate the M.A./24hr event below the pre-developed condition.

Table 1. Project Rainfall Data.

Event	Rainfall Depth (in)
M.A./24-hr	4.4
25-yr/24-hr	8.6

Methodology

The SCS Curve Number (CN) method was utilized for analysis of the drainage basins.

Basins were delineated based on the topography and site boundary. The pre-development site was divided into three (3) basins based on the impact area and post-development footprint. The post-development basins were generated to closely match the existing conditions to maintain drainage patterns and minimized impacts and required grading for the site. Parameters for each of the basins were calculated for the pre- and post-development conditions and include: area, CN, time of concentration (Tc), and imperviousness. The calculated basin input parameters are included in **Appendix B**. The hydrology parameters were used as input for both BMP Trains analysis for WQ pond sizing and StormWise (ICPR).

Drainage Basins

Descriptions of the Pre- and Post-Development drainage basins are provided in the following text. A summary of the drainage basin areas is provided in **Table 2.**

Table 2. Summary Table of Pre- and Post-Development Drainage Basins.

Basin	Drainage Area	
	Pre-Dev	Post-Dev
Basin 1	0.49 ac	0.49 ac
Basin 2	0.54 ac	0.54 ac
Basin 3	0.16 ac	0.16 ac
Total Area:	**1.19 ac**	**1.19 ac**

Pre-Development:

Basin 1

Basin 1 is located in the western portion of the project site and is comprised of the western half of the currently undeveloped storage lot area. It is sparsely vegetated and mainly comprised of sandy upland areas. It's bound to the south by the SR419 R/W. The top of bank of the unnamed tributary to Gee Creek is generally the western basin and project boundary. It gently slopes from the highpoint along the southern parcel boundary in the middle of the project site to the north and northwest towards the creek.

Basin 2

Basin 2 is east of Basin 1 and located in the middle portion of the project site. It is comprised of the eastern half of the currently undeveloped storage lot area. It is sparsely vegetated aside from a few palm trees and mainly comprised of sandy upland areas. It's bound to the south by the SR419 R/W. It gently slopes from the highpoint along the southern parcel boundary in the middle of the project site to the north towards Gee Creek and its confluence with its unnamed tributary. An existing 15" side drain culvert is located in this basin for the existing access drive currently not in use.

Basin 3

Basin 3 is the eastern most basin. It is comprised of the residential concrete driveway for the residence and detached garage and is in the location of proposed entry drive for the project. It's bound to the south by the SR419 R/W and to the north by the residential structures. The non-paved areas are grassed with some trees on the west side. It gently slopes from the driveway highpoints at the garages to the south towards SR 419 and the existing roadside ditch and inlet. An existing 18" side drain driveway culvert is located within the roadside ditch.

Post-Development:

Basin 1

Basin 1 in the post-development condition closely matches its pre-developed boundary and drainage patterns. It's comprised of the western half of the project site and developed storage lot. It contains the exit drive for the site onto SR 419. A swale is located at the western edge of the lot close to the existing top of bank and grade break down into the unnamed tributary for Gee Creek. The swale collects runoff from the parking area and exit drive and conveys it north to WQ Pond 1.

Basin 2

Basin 2 in the post-development condition closely matches its pre-developed boundary and drainage patterns. It's comprised of the eastern half of the project site and developed storage lot. Drainage from the parking area sheet flows north to WQ Pond 2.

Basin 3

Basin 3 in the post-development condition closely matches its pre-developed boundary and drainage patterns. It is comprised of the reconstructed entry driveway for the storage lot that also maintains driveway access for the residential structures. Runoff from the outside edges of the basin and driveway is conveyed towards the middle of the basin to WQ Pond 3. The existing driveway culvert within the roadside ditch will remain in place and will not need to be modified to accommodate the proposed driveway improvements.

IV. Water Quality Analysis

Design Criteria

Water Quality (WQ) or Pollution Abatement Volume (PAV) design criteria for the project was established by the newly adopted SJRWMD (June 28, 2024) nutrient-

based criteria outline in the Applicants Handbook Vol. I – Sections 8.3 and 9.0 and is provided in **Table 3.** Per the criteria for retention system design, the required water quality volume (WQV) for each storage area is based on an 80% reduction for Total Phosphorus (TP) and 55% reduction for Total Nitrogen (TN) in the post-development condition. Additionally, due to the impaired status of the downstream water bodies, the proposed nutrient loading must be less than that in the existing condition. The WQV must be fully recovered within 72 hours following a storm event.

Table 3. WQ Criteria Table.

WQ Criteria	
Treatment Type:	Dry Retention Pond
Required WQ Volume:	Volume required for: • "an 80 percent reduction of the average annual loading of total phosphorus (TP) and a 55 percent reduction in the average annual loading of total nitrogen (TN) from the proposed project". • Reduction of the post-development nutrient loading below the pre-development condition.
Recovery Time:	Recover the full WQV within 72 hours following storm event.

Methodology

Water quality requirements were calculated based on the new SJRWMD (June 28, 2024) nutrient load reduction criteria. The BMP Trains software was utilized to model the pre- and post-development conditions and calculate the required WQ storage volume for nutrient reductions. Pond recovery through infiltration of the WQV was calculated using the geotechnical permeability parameters and modeled in StormWise through the use of percolation links.

Proposed Design

The required water quality volumes for each of the ponds was calculated using BMP Trains Analysis. All basins were assigned a land use/cover classification in order to assess the applicable nutrient loading for each of the scenarios. All basins for the pre-development condition were classified as: Low-Density Residential (TN=1.645 TP= 0.27) per the existing land use. For the post-development condition, the Light Industrial (TN=1.200 TP=0.260) land cover was utilized for the proposed parking area (B1 & B2), while Low-Intensity Commercial (TN=1.13 TP=0.188) was utilized for the entry drive (B3) since no vehicles will be parked within the entry drive. The output

report for the BMP Trains analysis is provided in **Appendix C**. A summary of the required WQVs from the BMP Trains analysis and recovery of the required WQVs from the StormWise analysis are provided in **Table 4.** Soil infiltration parameters were established based on the geotechnical investigation analysis/results and reduced by a Safety Factor (S.F.) of 2.0 per SJRWMD criteria.

Table 4. Summary Table of Pond WQV and Recovery Times.

Basin/Pond	Req'd WQV	Prov'd WQV	WQ Elev. (NAVD88)	Recovery Time
Basin 1 – Pond 1	0.049 ac-ft	0.050 ac-ft	16.0	20.0 hr
Basin 2 – Pond 2	0.116 ac-ft	0.116 ac-ft	16.0	28.0 hr
Basin 3 – Pond 3	0.015 ac-ft	0.015 ac-ft	18.55	17.0 hr
Total:	**0.180 ac-ft**	**0.181 ac-ft**		

V. Water Quantity Analysis

Design Criteria

Per SJRWMD regulations, since the developed site is comprised of compacted soils, water quantity attenuation is required for the M.A./24-hr event below the pre-developed conditions. In order to protect the WQ ponds from larger events, analysis was also conducted for the 25-yr/24-hr event for each pond to properly size the spillways for each pond and ensure adequate conveyance for larger events. Per SJRWMD criteria the full design volume must recover within 14-days following the storm event.

Methodology

Calculations for the M.A./24-hr and 25-yr/24-hr event flows through each pond were calculated in StormWise. The modeling utilized the SCS Curve Number method and associated parameters as mentioned in the Hydrology section, as well as the Florida Type II modified (flmod) storm distribution. Sizing of the spillways was calculated using the StormWise results data.

Proposed Design

Each of the three (3) water quality ponds have been designed with an overflow spillway or structure to effectively attenuate the M.A./24-hr event and route the 25-yr/24-hr event flows through the ponds. The sill elevation for each of the spillways has been set at or above the required WQ elevation for each of the ponds. Though not required, the proposed ponds also effectively attenuate the 25-yr/24-hr storm event. The modeled peak outflow from the overall system for the pre- and post-development scenarios is presented in **Table 5.** The peak stage for each of the three

(3) ponds is provided in **Table 6** along with the recovery time for the 25-yr/24-hr event. The StormWise model results with associated flow rates is provided in **Appendix C**.

Tailwaters for each of the WQ pond spillways are insignificant since each of them discharge to the existing ground surface elevations below the spillways with no defined channelization or water surface elevation. For Ponds 1 & 2, the spillway elevations are approximately 4 – 5 ft above the adjacent FEMA floodplain elevation. Pond 3 outfalls to the Pond 2 bypass ditch provided to convey Pond 3 outflows towards Gee Creek. The small ditch terminates near elevation of 17.0 which is also multiple feet above the floodplain elevation. The modeled peak outflow from Pond 3 for the 100-yr/24-hr event is less than 1 cfs. Ditch calcs for the Pond 2 bypass ditch are provided in **Appendix C.**

Table 5. Peak System Outflows (Pre vs. Post) for M.A./24-hr and 25-yr/24-hr Event.

Scenario	Peak Outflow*		Model Node
	M.A./24-hr	25-yr/24-hr	
Pre-Dev	0.36 cfs	2.85 cfs	N-PRE: OUTFALL
Post Dev	0.07 cfs	2.68 cfs	N-POST: OUTFALL
Diff. (Pre vs. Post)	-0.29 cfs	-0.17 cfs	-

*Peak outflow from system based on max total inflow to StormWise model node as named in table. Negative flow value indicates reduction in post-development flows compared to pre-development condition.

Table 6. Peak Pond Stage and Recovery for M.A./24-yr and 25-yr/24-hr Event.

Basin/Pond	Peak Stage (NAVD88)		Recovery Time 25-yr/24-hr
	M.A./24-hr	25-yr/24-hr	
Basin 1 – Pond 1	16.02	16.24	21.0 hr
Basin 2 – Pond 2	15.32	16.08	30.0 hr
Basin 3 – Pond 3	18.72	19.16	31.0 hr

VI. FDOT ROW Design

The frontage of the project site is located along the north side of the FDOT SR419 ROW. There are two existing access points with culverts with that will be modified with the proposed design. The two culverts are independent based on existing swale grades. In the existing swale between the culverts there is a small localized highpoint just east of the 15" RCP which divides flows between the culverts. The existing highpoint and swale between the culverts will not be modified.

Entry Drive (East)

At the east entry drive, the existing driveway for the residence will be demolished for construction of the new entry drive. The existing 18" RCP culvert will remain in-place, it conveys flows eastward to the existing DBI. The new driveway will be raised to allow for minimum pipe cover and new driveway section. Since the driveway needs to be raised, sections of the existing sidewalk within ROW and adjacent to the new driveway will be reconstructed to maintain ADA compliance. The high point/grade break for the new driveway is located above the culvert centerline. Only the area south of the culvert will be directed to FDOT ROW.

Exit Drive (West)

The grassed access drive on the west will provide egress from the proposed storage lot and will be reconstructed for the new paved exit drive. The existing 15" RCP culvert conveys flows west to the tributary of Gee Creek. It will be replaced due to modifications in the driveway alignment and required minimum pipe cover. The existing pipe inverts are a few inches below the upstream and downstream swale inverts and the existing drainage area from the swale is minimal due to the proximity of the localized highpoint. The 15" pipe will be replaced with a 14" x 23" Horiz. Elliptical RCP (18" equivalent). The ERCP inverts were lowered approximately 6 inches below the existing 15" inverts to achieve the minimum required cover. The ERCP pipe was upsized to increase the available flow capacity above the existing condition. The existing and proposed pipe configurations were analyzed in HY-8 and are provided in **Appendix C**. There is an overall reduction in headwater elevation with the proposed ERCP.

Sections of the existing sidewalk will also be modified for ADA compliance with the new driveway elevations. As with the entry drive, the high point/grade break for the new driveway is located above the culvert centerline. Only the area south of the culvert will be directed to FDOT ROW.

Pond 3 Assessment

The proposed Pond 3 is located in close proximity to the FDOT ROW but remains within the private property. Pond 3 has a positive outlet to the north to Gee Creek via ACO trench drain under the entry driveway and away from FDOT ROW. The ICPR model was revised to include the 100-yr/24-hr event to analyze Pond 3 and confirm no adverse impacts to FDOT ROW or infrastructure. **The resulting max WSE for Pond 3 for the 100-yr/24-hr event is 19.29 NAVD88. The lowest adjacent grade along FDOT ROW in the vicinity of Pond 3 is the back of sidewalk elevation of 20.27 NAVD88 near the southern edge of Pond 3. The lowest emergency overflow elevation of 19.50 is located on the north side of the pond and is below the lowest adjacent grade within FDOT ROW in the vicinity of Pond 3 at 20.27.** This means that emergency overflows would breach at this location and flow north to

Gee Creek and away from FDOT ROW. Approximately 1 ft of freeboard is provided between the 100-yr/24-hr max WSE and the lowest adjacent elevation along the FDOT ROW. All other existing and proposed grades along the ROW line in the vicinity of Pond 3 are higher than the minimum elevation of 20.27. So, for the 100-yr/24-hr and larger events, Pond 3 will not overtop the constraining back of sidewalk elevations along FDOT ROW or spill over into FDOT ROW or drainage system, overflows will be directed north at elevation 19.50 towards Gee Creek. Refer to **Table 7** for a comparison of Pond 3 parameters and relevant control elevations.

Pond 3 has been designed for the 25-yr/24-hr event and is compliant with SJRWMD and City of Winter Springs criteria and guidelines. The 100-yr/24-hr analysis has been provided for FDOT review of the system. Flow attenuation is not required for this event.

Table 7. Comparison of Pond 3 Parameters and Control Elevations.

Pond 3 Data & Results		
Parameter	**Value**	
WQ Vol. EL & North Outfall Inv:	18.55	NAVD88
25-yr/24-hr WSE:	19.16	NAVD88
100-yr/24-hr Peak Inflow to Pond 3:	1.11	cfs
100-yr/24-hr WSE:	19.29	NAVD88
Lowest Adj. Grade for Overflows at:		
Emerg. Overflow to North:	19.5	NAVD88
FDOT R/W to South (Back of S/W):	20.27	NAVD88

VII. References

1. Applicants Handbook: Vol. I & II – Florida: FDEP/SJRWMD, June 28, 2024.
2. Part II – Code of Ordinances, Chapter 9 - Land Development, Article IV. – Required Improvements, Division 4. Drainage, City of Winter Springs.

Appendix

Appendix A: Project Reference Data

NRCS Soil Survey

NOAA Atlas 14 – Rainfall Data

FEMA FIRMette

SJRWMD Pre-App Meeting Minutes

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

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

Custom Soil Resource Report for Seminole County, Florida



Custom Soil Resource Report
Soil Map



Map Scale: 1:1,240 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 15 30 60 90

Feet: 0 50 100 200 300

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

MAP LEGEND

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

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

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

Water Features
- Streams and Canals

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

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

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: Seminole County, Florida
Survey Area Data: Version 22, 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: Mar 1, 2023—Sep 1, 2023

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
23	Nittaw, Okeelanta, and Basinger soils, frequently flooded	1.3	34.5%
24	Paola-St. Lucie sands, 0 to 5 percent slopes	2.5	65.5%
Totals for Area of Interest		**3.8**	**100.0%**

Map Unit Descriptions

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

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

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

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the

development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

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

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

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

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

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

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

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

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

Seminole County, Florida

SOIL MAP UNIT 23 DOES NOT REFLECT SITE CONDITIONS FOR LOCATION OF PROPOSED DESIGN AND WAS NOT USED FOR ANALYSIS.

23—Nittaw, Okeelanta, and Basinger soils, frequently flooded

Map Unit Setting

National map unit symbol: 1lmq7
Elevation: 0 to 120 feet
Mean annual precipitation: 46 to 54 inches
Mean annual air temperature: 68 to 75 degrees F
Frost-free period: 332 to 362 days
Farmland classification: Not prime farmland

Map Unit Composition

Nittaw, flooded, and similar soils: 45 percent
Okeelanta, flooded, and similar soils: 34 percent
Basinger, flooded, and similar soils: 19 percent
Minor components: 2 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Nittaw, Flooded

Setting

Landform: Flood plains on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Clayey marine deposits

Typical profile

Oa - 0 to 4 inches: muck
A - 4 to 9 inches: mucky fine sand
Btg - 9 to 80 inches: clay

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 0 to 6 inches
Frequency of flooding: Frequent
Frequency of ponding: None
Calcium carbonate, maximum content: 3 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: High (about 10.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5w
Hydrologic Soil Group: C/D
Ecological site: R155XY050FL - Loamy and Clayey Freshwater Floodplain Marshes and Swamps

Forage suitability group: Organic soils in depressions and on flood plains (G155XB645FL)
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL), Organic soils in depressions and on flood plains (G155XB645FL)
Hydric soil rating: Yes

Description of Okeelanta, Flooded

Setting

Landform: Flood plains on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Herbaceous organic material over sandy marine deposits

Typical profile

Oa - 0 to 42 inches: muck
Cg - 42 to 80 inches: fine sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: About 0 to 6 inches
Frequency of flooding: Frequent
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: Very high (about 15.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7w
Hydrologic Soil Group: A/D
Ecological site: R155XY060FL - Organic Freshwater Floodplain Marshes and Swamps
Forage suitability group: Organic soils in depressions and on flood plains (G155XB645FL)
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL), Organic soils in depressions and on flood plains (G155XB645FL)
Hydric soil rating: Yes

Description of Basinger, Flooded

Setting

Landform: Flood plains on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Concave
Parent material: Sandy marine deposits

Typical profile

A - 0 to 4 inches: fine sand

Eg - 4 to 22 inches: fine sand
B/Ehg - 22 to 38 inches: fine sand
Cg - 38 to 80 inches: fine sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: About 0 to 6 inches
Frequency of flooding: Frequent
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: Low (about 4.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6w
Hydrologic Soil Group: A/D
Ecological site: R155XY030FL - Sandy Freshwater Floodplain Marshes and Swamps
Forage suitability group: Sandy soils on stream terraces, flood plains, or in depressions (G155XB145FL)
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL), Sandy soils on stream terraces, flood plains, or in depressions (G155XB145FL)
Hydric soil rating: Yes

Minor Components

Pompano, flooded

Percent of map unit: 2 percent
Landform: Flood plains on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R155XY030FL - Sandy Freshwater Floodplain Marshes and Swamps
Other vegetative classification: Sandy soils on stream terraces, flood plains, or in depressions (G155XB145FL), Slough (R155XY011FL)
Hydric soil rating: Yes

SOIL MAP UNIT 24 USED FOR SR 419 DESIGN ANALYSIS

24—Paola-St. Lucie sands, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: 1lmq8
Elevation: 20 to 130 feet
Mean annual precipitation: 46 to 54 inches
Mean annual air temperature: 68 to 75 degrees F
Frost-free period: 332 to 362 days
Farmland classification: Not prime farmland

Map Unit Composition

Paola and similar soils: 52 percent
St. lucie and similar soils: 43 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Paola

Setting

Landform: Knolls on marine terraces, ridges on marine terraces
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Sandy marine deposits

Typical profile

A - 0 to 3 inches: sand
E - 3 to 25 inches: sand
C - 25 to 80 inches: sand

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Very high (19.98 to 39.96 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: Very low (about 2.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s

Hydrologic Soil Group: A
Forage suitability group: Sandy soils on ridges and dunes of xeric uplands (G155XB111FL)
Other vegetative classification: Sand Pine Scrub (R155XY001FL), Sandy soils on ridges and dunes of xeric uplands (G155XB111FL)
Hydric soil rating: No

Description of St. Lucie

Setting

Landform: Knolls on marine terraces, ridges on marine terraces
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Eolian or sandy marine deposits

Typical profile

A - 0 to 2 inches: sand
C - 2 to 80 inches: sand

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Very high (19.98 to 39.96 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: Very low (about 1.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: A
Forage suitability group: Sandy soils on ridges and dunes of xeric uplands (G155XB111FL)
Other vegetative classification: Sandy soils on ridges and dunes of xeric uplands (G155XB111FL)
Hydric soil rating: No

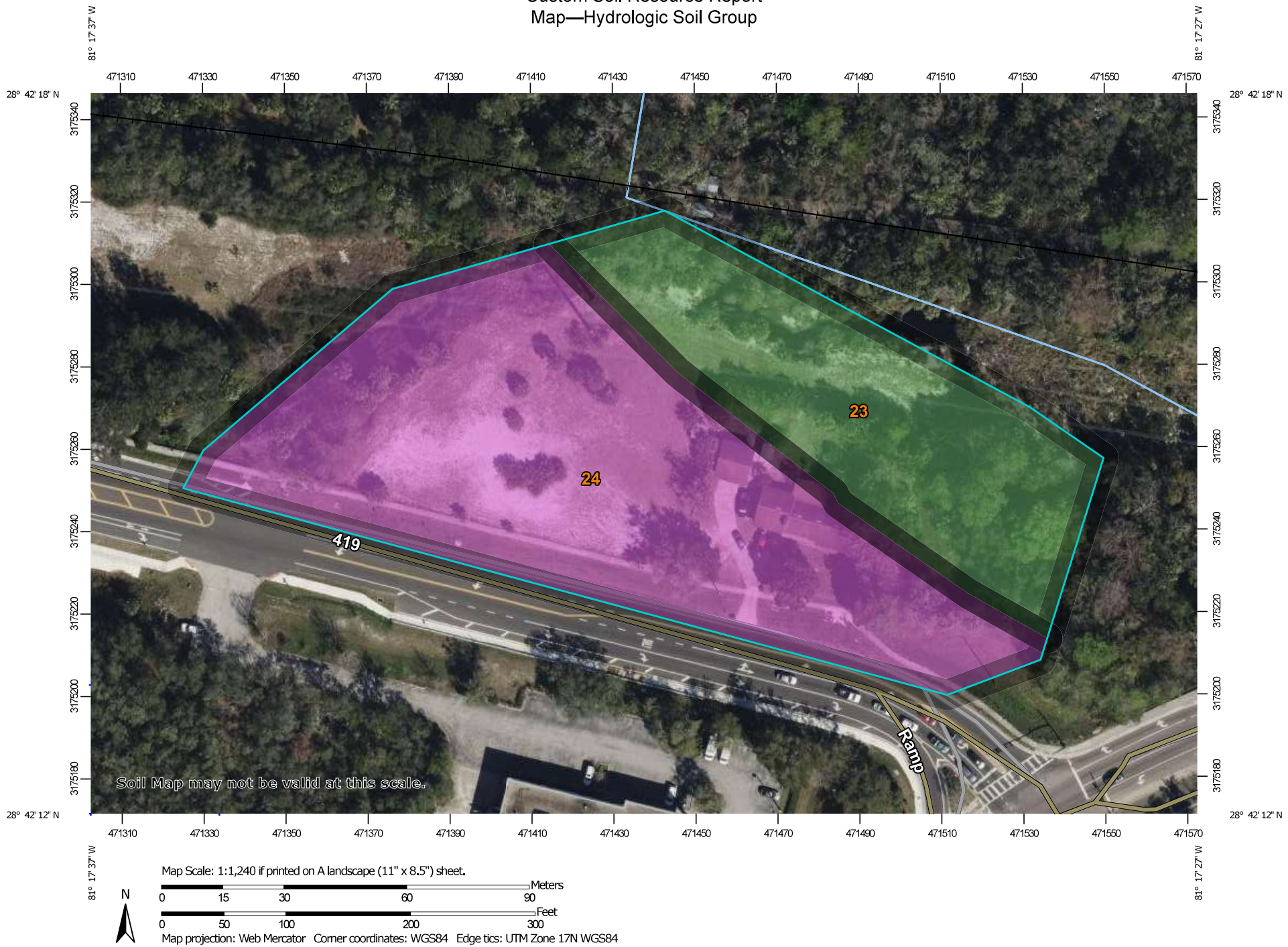
N/A

Minor Components

Tavares

Percent of map unit: 5 percent
Landform: Knolls on marine terraces, ridges on marine terraces
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Longleaf Pine-Turkey Oak Hills (R155XY002FL), Sandy soils on rises, knolls, and ridges of mesic uplands (G155XB121FL)
Hydric soil rating: No

Custom Soil Resource Report
Map—Hydrologic Soil Group



Map Scale: 1:1,240 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 15 30 60 90

Feet: 0 50 100 200 300

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

MAP LEGEND

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

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features
- Streams and Canals

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

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

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: Seminole County, Florida
Survey Area Data: Version 22, 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: Mar 1, 2023—Sep 1, 2023

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

Table—Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
23	Nittaw, Okeelanta, and Basinger soils, frequently flooded	A/D	1.3	34.5%
24	Paola-St. Lucie sands, 0 to 5 percent slopes	A	2.5	65.5%
Totals for Area of Interest			**3.8**	**100.0%**

Rating Options—Hydrologic Soil Group

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

NOAA Atlas 14, Volume 9, Version 2
Location name: Winter Springs, Florida, USA*
Latitude: 28.7042°, Longitude: -81.2926°
Elevation: 22 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Deborah Martin, Sandra Pavlovic, Ishani Roy, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Michael Yekta, Geoffery Bonnin

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.469 (0.387-0.571)	0.537 (0.443-0.655)	0.645 (0.530-0.789)	0.729 (0.595-0.898)	0.839 (0.657-1.06)	0.919 (0.703-1.19)	0.994 (0.733-1.33)	1.06 (0.751-1.48)	1.15 (0.780-1.66)	1.21 (0.802-1.79)
10-min	0.686 (0.566-0.836)	0.787 (0.649-0.959)	0.944 (0.775-1.16)	1.07 (0.872-1.31)	1.23 (0.961-1.56)	1.34 (1.03-1.74)	1.46 (1.07-1.94)	1.56 (1.10-2.16)	1.69 (1.14-2.42)	1.78 (1.17-2.62)
15-min	0.837 (0.691-1.02)	0.959 (0.791-1.17)	1.15 (0.946-1.41)	1.30 (1.06-1.60)	1.50 (1.17-1.90)	1.64 (1.26-2.12)	1.78 (1.31-2.37)	1.90 (1.34-2.63)	2.06 (1.39-2.96)	2.17 (1.43-3.20)
30-min	1.39 (1.14-1.69)	1.58 (1.30-1.93)	1.89 (1.55-2.31)	2.13 (1.74-2.62)	2.45 (1.92-3.10)	2.68 (2.05-3.46)	2.89 (2.13-3.86)	3.10 (2.18-4.29)	3.35 (2.27-4.81)	3.53 (2.33-5.21)
60-min	1.85 (1.52-2.25)	2.12 (1.75-2.58)	2.55 (2.09-3.12)	2.89 (2.36-3.55)	3.33 (2.60-4.22)	3.65 (2.79-4.72)	3.95 (2.91-5.28)	4.24 (2.99-5.87)	4.60 (3.11-6.60)	4.84 (3.20-7.15)
2-hr	2.31 (1.92-2.79)	2.66 (2.20-3.22)	3.21 (2.65-3.90)	3.64 (2.99-4.45)	4.21 (3.32-5.30)	4.62 (3.56-5.94)	5.01 (3.72-6.65)	5.38 (3.82-7.41)	5.84 (3.98-8.34)	6.16 (4.10-9.04)
3-hr	2.51 (2.09-3.02)	2.90 (2.42-3.50)	3.52 (2.92-4.26)	4.02 (3.32-4.89)	4.68 (3.71-5.89)	5.17 (4.00-6.64)	5.64 (4.21-7.48)	6.11 (4.36-8.39)	6.70 (4.58-9.54)	7.12 (4.76-10.4)
6-hr	2.87 (2.41-3.44)	3.30 (2.77-3.96)	4.03 (3.37-4.84)	4.64 (3.86-5.62)	5.51 (4.43-6.96)	6.20 (4.86-7.98)	6.91 (5.21-9.17)	7.64 (5.51-10.5)	8.64 (5.97-12.3)	9.41 (6.32-13.7)
12-hr	3.30 (2.80-3.93)	3.75 (3.17-4.46)	4.56 (3.84-5.45)	5.31 (4.45-6.38)	6.47 (5.28-8.23)	7.45 (5.91-9.63)	8.52 (6.50-11.4)	9.68 (7.06-13.4)	11.4 (7.94-16.2)	12.7 (8.60-18.3)
24-hr	3.79 (3.23-4.48)	4.29 (3.65-5.07)	5.25 (4.46-6.24)	6.20 (5.23-7.40)	7.71 (6.38-9.84)	9.04 (7.25-11.7)	10.5 (8.12-14.0)	12.2 (8.97-16.8)	14.6 (10.3-20.8)	16.6 (11.3-23.8)
2-day	4.35 (3.74-5.11)	4.99 (4.28-5.86)	6.22 (5.32-7.33)	7.41 (6.30-8.79)	9.32 (7.76-11.8)	11.0 (8.87-14.1)	12.8 (9.97-17.0)	14.9 (11.0-20.4)	17.9 (12.7-25.3)	20.4 (14.0-29.0)
3-day	4.82 (4.15-5.63)	5.53 (4.76-6.47)	6.89 (5.91-8.09)	8.20 (6.99-9.68)	10.3 (8.58-13.0)	12.1 (9.78-15.4)	14.1 (11.0-18.5)	16.3 (12.1-22.2)	19.5 (13.9-27.5)	22.2 (15.3-31.4)
4-day	5.23 (4.52-6.09)	5.98 (5.16-6.98)	7.39 (6.37-8.66)	8.75 (7.49-10.3)	10.9 (9.13-13.7)	12.8 (10.4-16.3)	14.8 (11.6-19.4)	17.1 (12.8-23.2)	20.4 (14.6-28.6)	23.1 (15.9-32.7)
7-day	6.29 (5.47-7.29)	7.07 (6.15-8.21)	8.54 (7.39-9.94)	9.92 (8.54-11.6)	12.1 (10.2-15.1)	14.0 (11.4-17.6)	16.0 (12.6-20.9)	18.3 (13.7-24.6)	21.6 (15.5-30.0)	24.3 (16.8-34.1)
10-day	7.23 (6.32-8.36)	8.06 (7.04-9.33)	9.58 (8.34-11.1)	11.0 (9.51-12.8)	13.2 (11.1-16.3)	15.1 (12.3-18.9)	17.1 (13.4-22.1)	19.3 (14.5-25.8)	22.5 (16.2-31.1)	25.1 (17.5-35.2)
20-day	9.99 (8.80-11.5)	11.1 (9.75-12.7)	13.0 (11.4-14.9)	14.6 (12.7-16.9)	17.0 (14.3-20.6)	18.9 (15.5-23.3)	20.9 (16.5-26.7)	23.0 (17.4-30.4)	26.0 (18.8-35.5)	28.3 (19.8-39.4)
30-day	12.4 (11.0-14.2)	13.8 (12.2-15.7)	16.0 (14.1-18.4)	17.9 (15.7-20.7)	20.5 (17.3-24.6)	22.5 (18.5-27.6)	24.6 (19.5-31.0)	26.7 (20.1-34.9)	29.4 (21.3-39.9)	31.5 (22.2-43.7)
45-day	15.5 (13.8-17.7)	17.3 (15.3-19.7)	20.0 (17.7-22.9)	22.3 (19.6-25.6)	25.2 (21.3-29.9)	27.4 (22.6-33.2)	29.5 (23.4-36.9)	31.5 (23.9-40.9)	34.1 (24.8-45.9)	36.0 (25.4-49.7)
60-day	18.3 (16.3-20.7)	20.3 (18.1-23.1)	23.6 (20.9-26.9)	26.1 (23.0-29.9)	29.3 (24.8-34.6)	31.7 (26.1-38.2)	33.8 (26.9-42.1)	35.9 (27.2-46.3)	38.3 (27.9-51.3)	40.0 (28.4-55.1)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

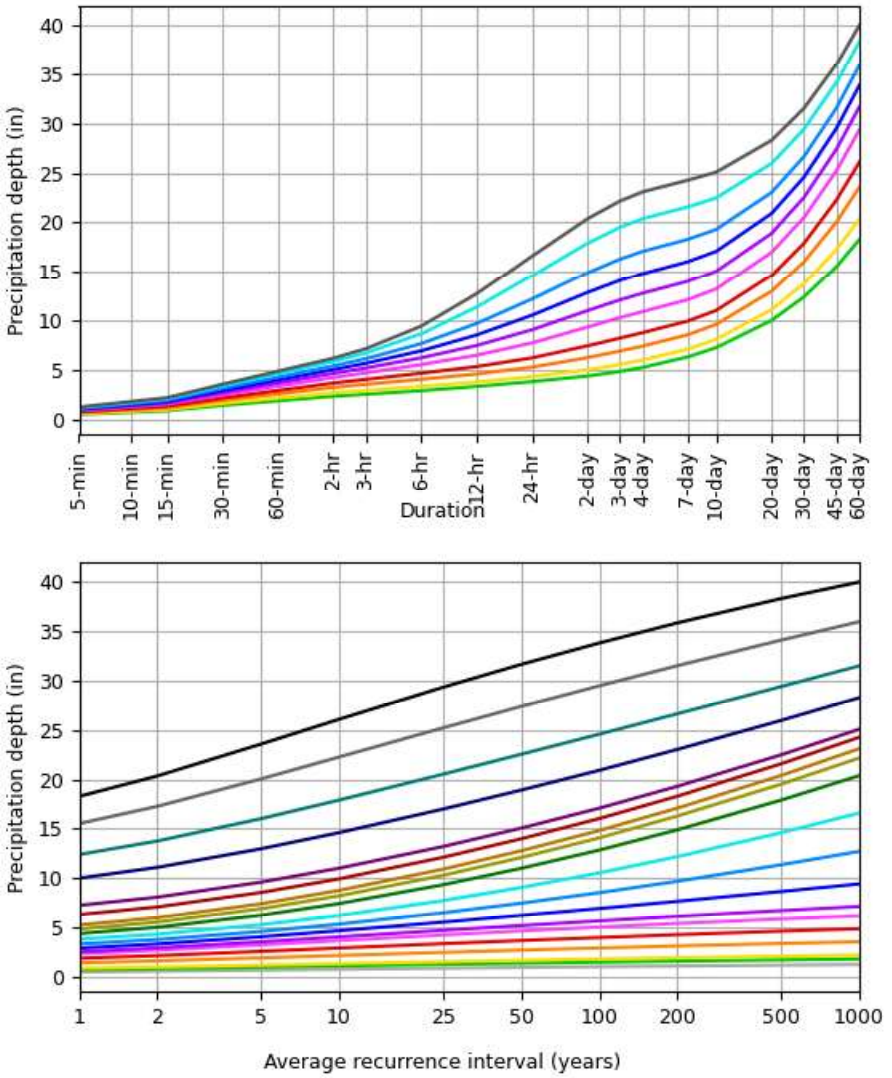
Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

Back to Top

PF graphical

PDS-based depth-duration-frequency (DDF) curves
Latitude: 28.7042°, Longitude: -81.2926°



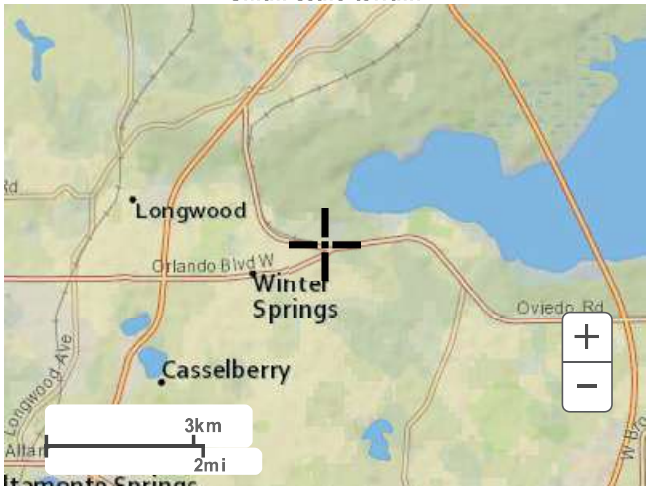
NOAA Atlas 14, Volume 9, Version 2

Created (GMT): Thu Jan 9 18:48:01 2025

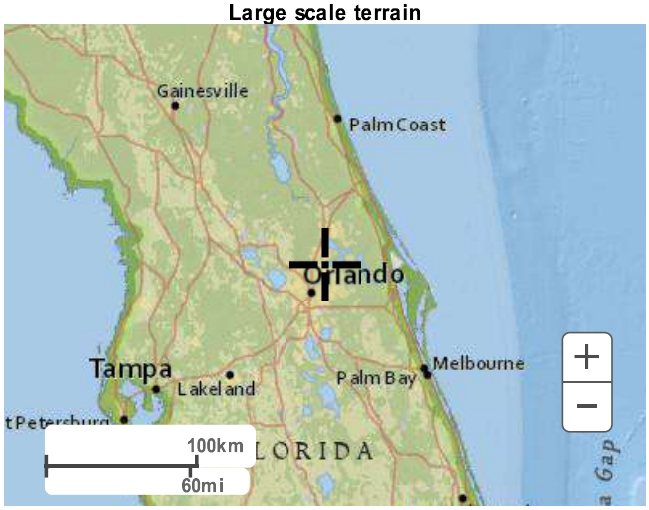
Back to Top

Maps & aerials

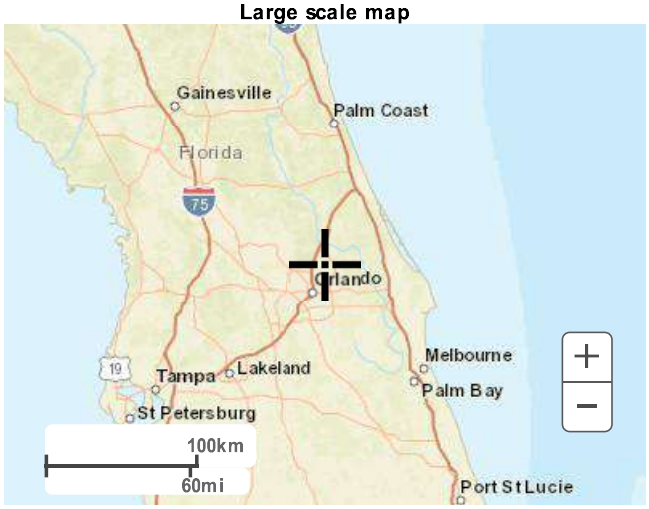
Small scale terrain



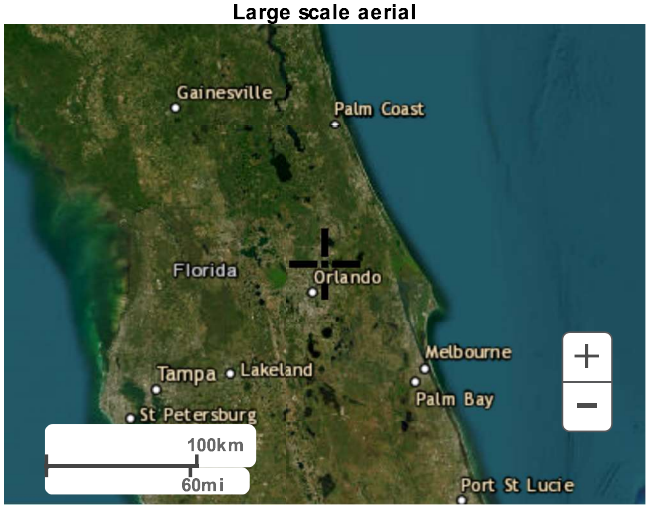
Large scale terrain



Large scale map



Large scale aerial



Back to Top

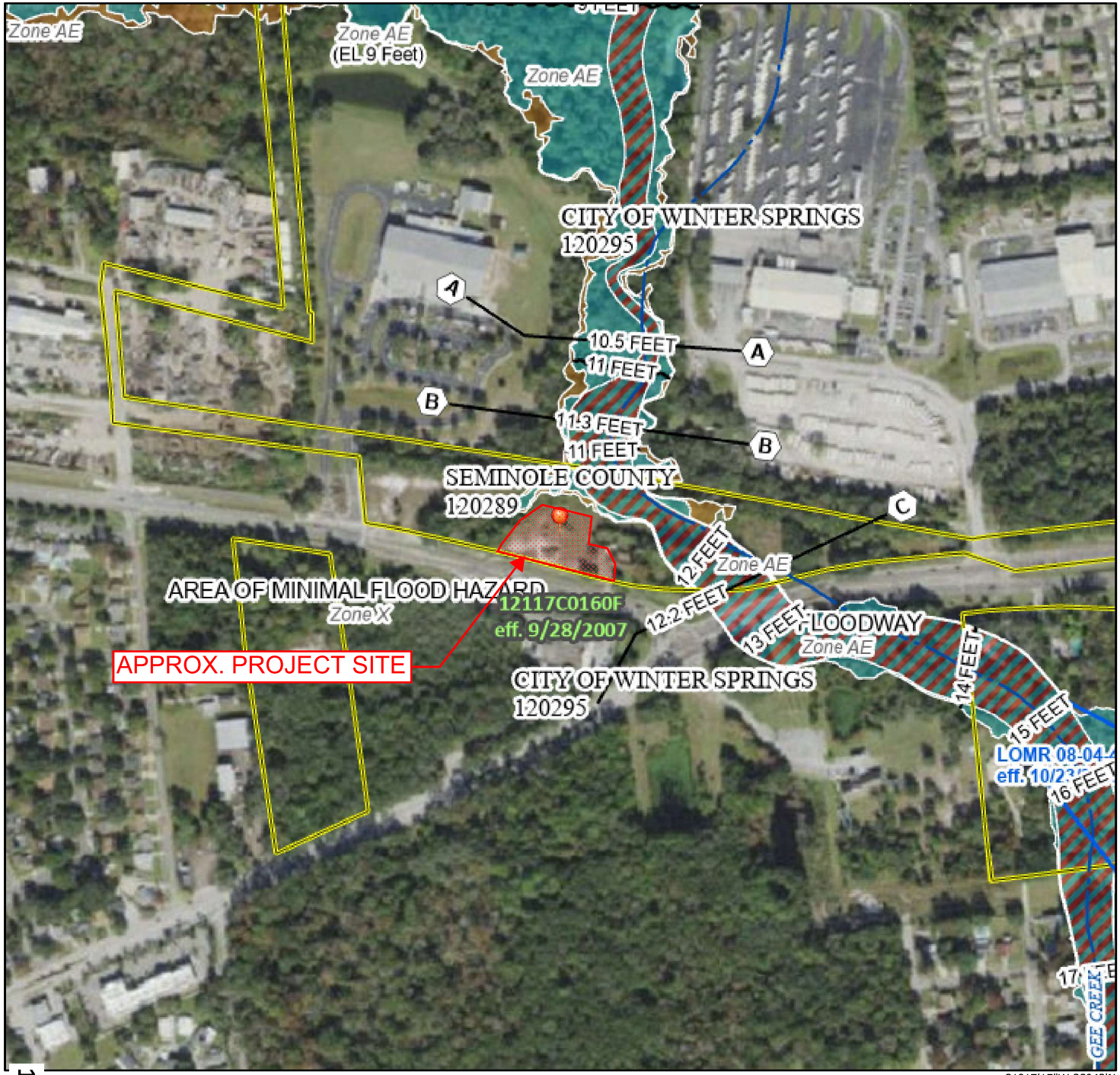
US Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
National Water Center
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

Disclaimer

National Flood Hazard Layer FIRMette

FEMA

81°17'52"W 28°42'31"N



81°17'15"W 28°42'N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

142

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 2/21/2025 at 7:31 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in **areas where Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was State Plane Florida East FIPS Zone 0901. The **horizontal datum** was NAD83, GRS1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov/ or contact the National Geodetic Survey at the following address:

Spatial Reference System Division
National Geodetic Survey, NOAA
Silver Spring Metro Center
1315 East-West Highway
Silver Spring, Maryland 20910
(301) 713-3191

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242** or visit its website at http://www.ngs.noaa.gov/.

Base map information shown on this FIRM was provided in digital format by Seminole County, Florida. This information was photogrammetrically compiled at a scale of 1:12000 from aerial photography dated March 2004.

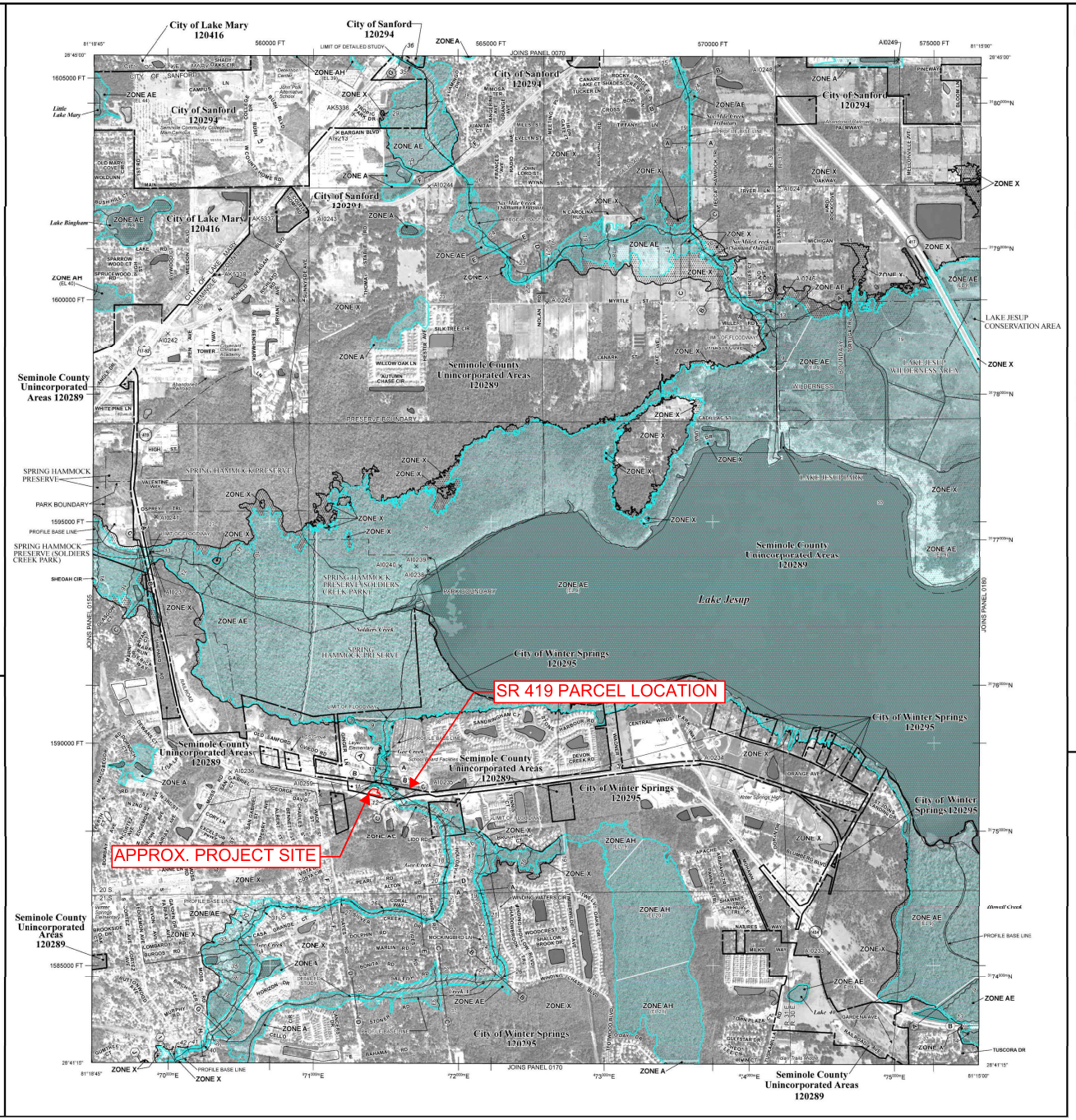
This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance *Study report* (which contains *authoritative hydraulic data*) may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the **FEMA Map Service Center** at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a *Flood Insurance Study report*, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at http://www.msc.fema.gov/.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1-877-FEMA MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov/.



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD EVENT

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A — No Base Flood Elevation determined.
- ZONE AE — Base Flood Elevations determined.
- ZONE AH — Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO — Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas o alluvial fan flooding, velocities also determined.
- ZONE AR — Special Flood Hazard Area formerly protected from the 1% annual chance flood event by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99 — Areas to be protected rom 1% annual chance flood event by a Federal flood protection system underconstruction; no Base Flood Elevations determined.
- ZONE V — Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE — Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

- ZONE X — Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of ess than 1 foot or with drainage areas ess than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

- ZONE X — Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D — Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- 513 (EL 987) — Base Flood Elevation line and value; elevation in feet*
- Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988 (NAVD 88)

- A — A — Cross section line
- 23 — 23 — Transect line
- 97°07'30", 32°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
- 4275000 FT — 1000-meter Universal Transverse Mercator grid ticks, zone 17
- 6000000 FT — 5000-foot grid values: Florida State Plane coordinate system, East Zone (FIPSZONE = 901), Transverse Mercator projection
- DX5510 — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 — River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
APRIL 17, 1995

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL
SEPTEMBER 28, 2007 - to update corporate limits, to change Base Flood Elevations and Special Flood Hazard Areas, to add Base Flood Elevations and Special Flood Hazard Areas, to delete Special Flood Hazard Areas, to change zone designations, to update map format, to update roads and road names, to incorporate previously issued Letters of Map Revision, and to reflect updated topographic information.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 1000'

NFIP — NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0160F

FIRM

FLOOD INSURANCE RATE MAP SEMINOLE COUNTY, FLORIDA AND INCORPORATED AREAS

PANEL 160 OF 330
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
LAKE MARY, CITY OF	120416	0160	F
SANFORD, CITY OF	120294	0160	F
SEMINOLE COUNTY	120289	0160	F
WINTER SPRINGS, CITY OF	120295	0160	F

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
12117C0160F

MAP REVISED
SEPTEMBER 28, 2007

Federal Emergency Management Agency

OM ENGINEERING SERVICES, INC.
Civil • Structural • Inspections

Meeting Minutes

OM Engineering Services, Inc.

Project: SR 419 RV & Boat Storage Lot

Subject: SJRWMD Pre-App Meeting

Date: Friday, January 31, 2025

Time: 1pm – 2pm EST

Attendees: Grace Clements (SJRWMD)
Tracy Miller (SJRWMD)
Matt Merdian (Client)
Talbert Jackson (City of Winter Springs)
Joel Thomson (Thomson Env.)
David Borys (OME)
Richard Bobletz (OME)

Purpose:

Pre-App meeting with SJRWMD and design team to discuss the proposed project, site layout, and permitting needs.

Meeting Minutes:

1. A site visit needs to be coordinated with Joel and SJRWMD for assessment of the on-site wetlands and surface waters. Total wetlands areas to be shown on plans along with buffer widths.
2. A wetlands buffer (upland buffer) width of 15 ft minimum must be maintained to avoid secondary impacts. If design does have secondary impacts, they would have to be offset by use of a nearby wetlands mitigation bank. The design intent is to avoid all secondary impacts. Pond outfall structures and similar are typically exempt from the buffer requirements. Plans labels will be added to identify minimum buffer locations. Silt fence location is typically used for min. buffer locations since it encompasses proposed construction activities. The buffers are to provide reasonable assurance that the upland buffer zones can be maintained and will not disturb the nearby wetlands areas.
3. Current proposed fence line is within the 25 ft buffer. Since pond slopes and depths are minimal, they likely aren't required to be fenced. Fence line around ponds will be shifted to parking lot limits or removed if not needed for security. Maintenance access will need to be maintained if ponds are placed outside of fencing limits.

4. Upland buffer signage will be required near the buffer/conservation areas indicating the nearby areas shall not be disturbed to prevent impacts to those areas. Sign spacing may vary based on project needs, typically based on geometrical limits and 50 ft spacing. SJRWMD provided an image of a signage example. No clearing or soil disturbance is allowed in these areas.
5. Pond design criteria: Since the proposed site is less than 50% impervious, attenuation of the mean annual and 25-yr/24-hr events will not be required. The ponds are required to provide WQ treatment and have been designed as such. The ponds have already been designed using the new nutrient criteria with BMP Trains analysis as suggested by SJRWMD. Stabilized overflows (i.e. – turf reinforcement mat (TRM) spillway) will be needed for controlled conveyance of larger flows.
6. An Individual Permit (ERP) will be required with this site, the site is less than 40 acres so the fee will be approximately $1,190.00.
7. Matt M. (Client) stated the property is owned by three (3) entities for which he is a member or owner. All entities associated with the property need to be listed as co/joint applicants. The property deed will need to be provided during the permitting process.
8. Grace C. and Tracy M. (SJRWMD) may not be the assigned review staff for this project.
9. Richard B. (OME) mentioned the existing Gee Creek and Power Line easements/ROW. No work is proposed within the creek easement limits so it will not be impacted.
10. Existing Power Transmission Lines and Easement: Site work is proposed within the existing power line easement (grading, ponds, fencing). Matt M. indicated this has been discussed with his attorney who indicated the project is permitted to construct the proposed features within the limits. No buildings are allowed, but none are proposed. SJRWMD requested a summary of the easement assessment and allowed use in regards to the project.
11. Talbert Jackson (Winter Springs) asked about the proposed WQ pond at the site entry and that FDOT coordination may be required due to proximity to ROW. There is no proposed connection to an existing pipe network. OME will identify if new flows are being conveyed to ROW and if FDOT involvement is required. FDOT approval may not be needed if design matches existing patterns.

Action Items:

1. (Thomson Env.) Coordinate site visit with SJRWMD for assessment of wetlands, surface waters, and limits.
2. (OME) To coordinate with Joel on wetlands limits and areas to be shown on plans along with buffer widths.
3. (OME) Fence limits around ponds to be coordinated with Matt M. Pond spillways will be added for larger flows.
4. (OME) WQ pond at entry drive to be assess to identify if FDOT coordination is required based on drainage conveyance to ROW.
5. (Client) Matt M. to provide required documentation for property ownership entities and deed for processing of the permit application.
6. (Client) Matt M. to provide summary of powerline easement assessment and allowances as it relates to the site design.

Appendix B: Hydrologic Parameter Calcs & Pond Sizing

Drainage Maps – Pre & Post-Development

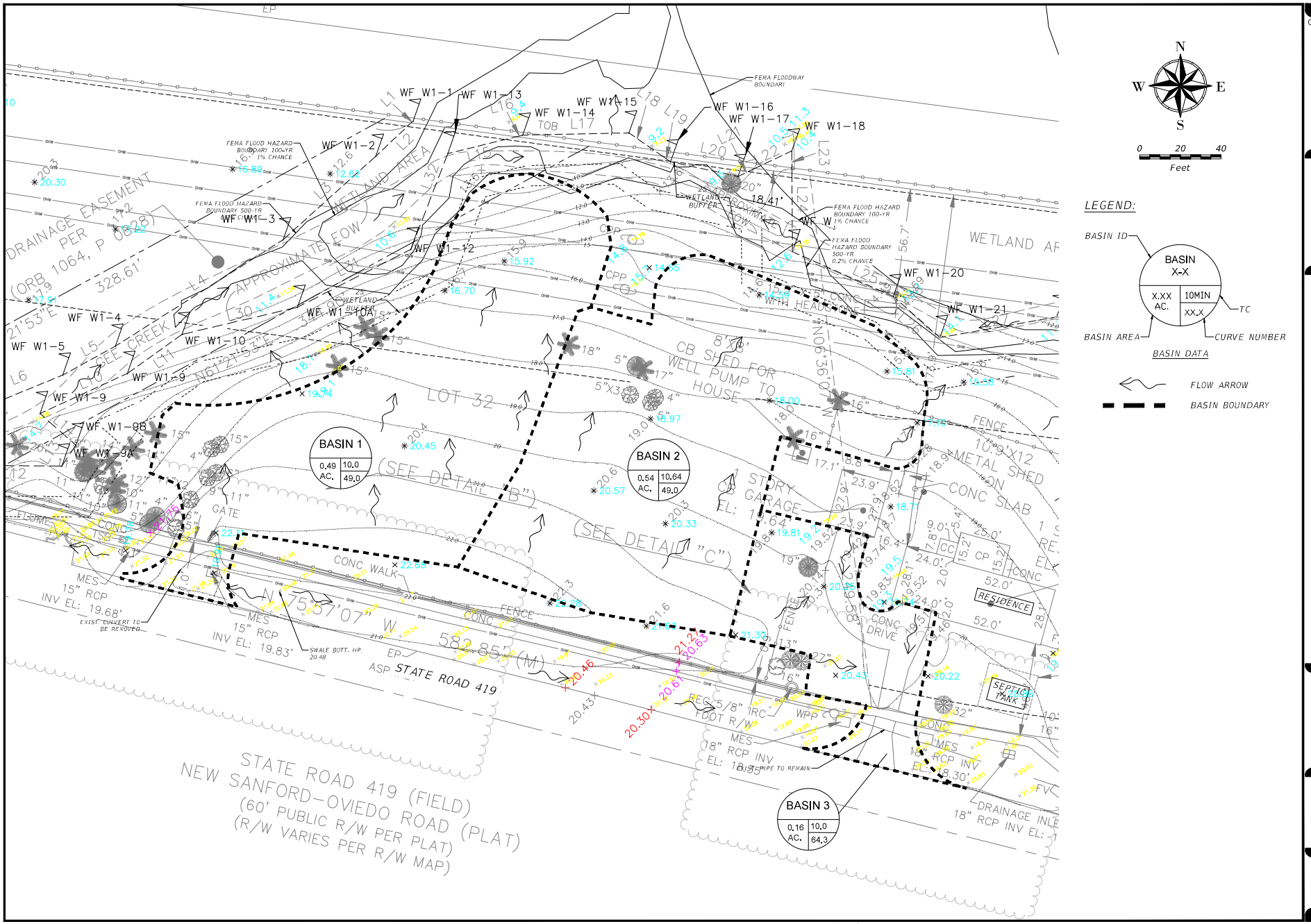
Basin Summary – Pre & Post-Development

CN Calcs – Pre & Post-Development

Tc Calcs – Pre & Post-Development

Summary of Required WQ Treatment Volumes

Pond Stage-Storage Data Tables



N

W E

S

0 20 40

Feet

LEGEND:

BASIN ID

BASIN X-X

X.XX AC. | 10MIN

XX.X

TC

BASIN AREA

CURVE NUMBER

BASIN DATA

FLOW ARROW

BASIN BOUNDARY

CONSULTANT:

OM ENGINEERING SERVICES, INC.
Civil • Structural • Inspections

621 E. Washington St., Suite 8
Orlando, Florida 32801
Office: (407) 704-7815
www.omengineer.com

DAVID RETLAW BORYS, P.E.
FL. REG. # 75372

Drainage Map - Pre-Development

SR 419 RV & BOAT STORAGE LOT

4301 SR 419 WINTER SPRINGS, FL 32708

NO. 1	DATE: 2025-06-06
DESCRIPTION: 1st SUB. CITY OF WINTER SPRINGS	
NO. 2	DATE: 2025-11-19
DESCRIPTION: 2nd SUB-CITY OF WINTER SPRINGS	
NO.	DATE:
DESCRIPTION:	
NO.	DATE:
DESCRIPTION:	
NO.	DATE:
DESCRIPTION:	
PROJECT NO.: 22-0211	

D-1

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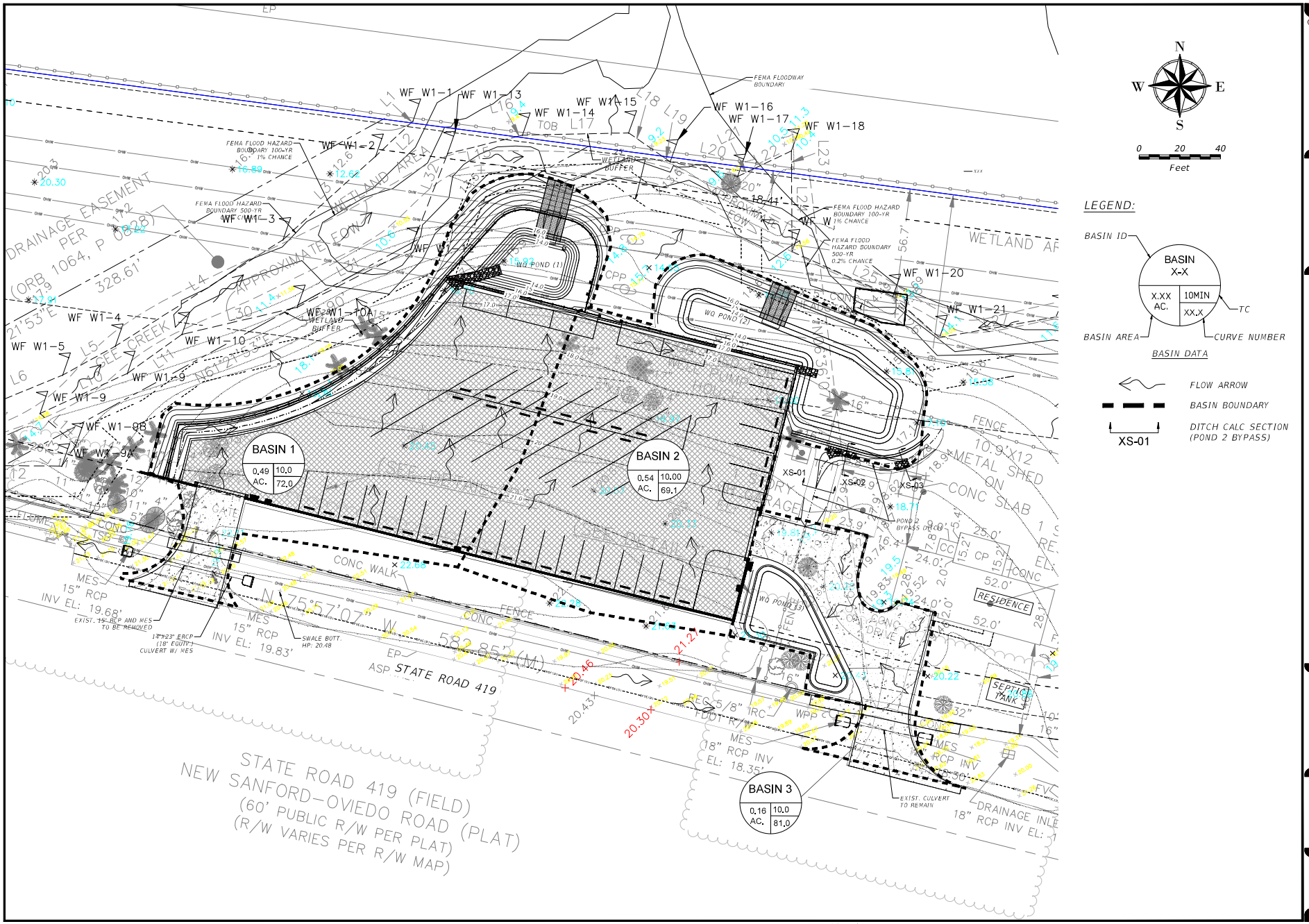

N

W E

S

0 20 40

Feet

LEGEND:

BASIN ID

BASIN X-X

X.XX AC. | 10MIN

XX.X

TC

BASIN AREA

CURVE NUMBER

BASIN DATA

FLOW ARROW

BASIN BOUNDARY

XS-01

DITCH CALC SECTION (POND 2 BYPASS)

CONSULTANT:

OM ENGINEERING SERVICES, INC.
Civil • Structural • Inspections

621 E. Washington St., Suite 8
Orlando, Florida 32801
Office: (407) 704-7815
www.omengineer.com

DAVID RETLAW BORYS, P.E.
FL. REG. # 75372

Drainage Map - Post-Development

SR 419 RV & BOAT STORAGE LOT

4301 SR 419 WINTER SPRINGS, FL 32708

NO. 1	DATE: 2025-06-04
DESCRIPTION: 1st SUB. CITY OF WINTER SPRINGS	
NO. 2	DATE: 2025-11-19
DESCRIPTION: 2nd SUB-CITY OF WINTER SPRINGS	
NO.	DATE:
DESCRIPTION:	
NO.	DATE:
DESCRIPTION:	
NO.	DATE:
DESCRIPTION:	
PROJECT NO.: 22-0211	

D-2

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

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SR419 RV & Boat Storage Lot
Winter Springs, FL

OM Engineering Services, Inc.

Created By: DRB Date: 10/17/2025
Checked By: RDB Date: 10/29/2025

Drainage Basin Summary

PRE-DEVELOPMENT									
BASIN - PRE									
			Area (Ac)				Impervious	Tc	
Location	Basin	Sub-Basin	Sub-Basin	Total	Pervious	Impervious	%	min.	CN
On-Site									
	Basin 1	B1	0.49		0.49	0.00	0.0%	10.00	49.0
	Basin 2	B2	0.54		0.54	0.00	0.0%	10.64	49.0
	Basin 3	B3	0.16		0.11	0.05	31.2%	10.00	64.3
			On-Site Total:	**1.19**	**1.14**	**0.05**	**4.2%**	**10.0**	-

SR419 RV & Boat Storage Lot
Winter Springs, FL

OM Engineering Services, Inc.

Created By: DRB Date: 10/17/2025
Checked By: RDB Date: 10/29/2025

Drainage Basin Summary

POST-DEVELOPMENT									
BASIN - POST									
			Area (Ac)				Impervious	Tc	
Location	Basin	Sub-Basin	Sub-Basin	Total	Pervious	Impervious	%	min.	CN
On-Site									
	Basin 1	B1	0.49		0.15	0.34	68.4%	10.00	72.0
	Basin 2	B2	0.54		0.20	0.34	62.9%	10.00	69.1
	Basin 3	B3	0.16		0.06	0.10	65.2%	10.00	81.0
			On-Site Total:	**1.19**	**0.41**	**0.78**	**65.5%**	**10.0**	-

RUNOFF CURVE NUMBER

		DATE:
MADE BY:	DRB	9/18/2025
CHKED BY:	RDB	10/29/2025

PROJECT: SR419 RV & Boat Storage Lot

LOCATION: Basin 1 / B1

EXISTING **PROPOSED**

Soil Name and Hydrologic group (Appendix A)	Cover Description (Cover type, treatment, and hydrologic condition: percent impervious: unconnected / connected impervious area ratio)	CN Tab. 2-2	CN Fig. 2-3	CN Fig. 2-4	Area acres	Product of CN x Area
-	IMPERVIOUS AREA Pavement	98			0.00	0.00
Paola-St. Lucie sands 0 to 5 % slopes	Open Space (Lawns) Fair Condition	49			0.49	24.01
	Totals =				0.49	24.01

Use CN =	**49.0**
Non-DCIA CN =	**49.0**

REFERENCE: *Urban Hydrology for Small Watersheds*
Technical Release 55, Soil Conservation Service
U.S. Department of Agriculture, June 1986

RUNOFF CURVE NUMBER

		DATE:
MADE BY:	DRB	10/15/2025
CHKED BY:	RDB	10/29/2025

PROJECT: **SR419 RV & Boat Storage Lot**

LOCATION: **Basin 1** / **B1**

EXISTING **PROPOSED**

Soil Name and Hydrologic group (Appendix A)	Cover Description (Cover type, treatment, and hydrologic condition: percent impervious: unconnected / connected impervious area ratio)	CN Tab. 2-2	CN Fig. 2-3	CN Fig. 2-4	Area acres	Product of CN x Area
-	IMPERVIOUS AREA Pavement	98			0.03	3.23
Paola-St. Lucie sands 0 to 5 % slopes	Open Space (Lawns) Fair Condition	49			0.15	7.59
Paola-St. Lucie sands 0 to 5 % slopes	Parking Lot Area (Urban Districts: Industrial - 72% imp.)	81			0.30	24.46
				Totals =	0.49	35.29

Use CN =	**72.0**
Non-DCIA CN =	**49.0**
DCIA % =	**68.4%**

REFERENCE: *Urban Hydrology for Small Watersheds*
Technical Release 55, Soil Conservation Service
U.S. Department of Agriculture, June 1986

RUNOFF CURVE NUMBER

		DATE:
MADE BY:	DRB	9/18/2025
CHKED BY:	RDB	10/29/2025

PROJECT: SR419 RV & Boat Storage Lot

LOCATION: Basin 2 / B2

EXISTING PROPOSED

Soil Name and Hydrologic group (Appendix A)	Cover Description (Cover type, treatment, and hydrologic condition: percent impervious: unconnected / connected impervious area ratio)	CN Tab. 2-2	CN Fig. 2-3	CN Fig. 2-4	Area acres	Product of CN x Area
-	IMPERVIOUS AREA Pavement	98			0.00	0.00
Paola-St. Lucie sands 0 to 5 % slopes	Open Space (Lawns) Fair Condition	49			0.54	26.46
				Totals =	0.54	26.46

Use CN = **49.0**

Non-DCIA CN = **49.0**

REFERENCE: *Urban Hydrology for Small Watersheds*
Technical Release 55, Soil Conservation Service
U.S. Department of Agriculture, June 1986

RUNOFF CURVE NUMBER

		DATE:
MADE BY:	DRB	9/18/2025
CHKED BY:	RDB	10/29/2025

PROJECT: **SR419 RV & Boat Storage Lot**

LOCATION: **Basin 2** / **B2**

EXISTING **PROPOSED**

Soil Name and Hydrologic group (Appendix A)	Cover Description (Cover type, treatment, and hydrologic condition: percent impervious: unconnected / connected impervious area ratio)	CN Tab. 2-2	CN Fig. 2-3	CN Fig. 2-4	Area acres	Product of CN x Area
-	IMPERVIOUS AREA Pavement	98			0.00	0.00
Paola-St. Lucie sands 0 to 5 % slopes	Open Space (Lawns) Fair Condition	49			0.20	9.81
Paola-St. Lucie sands 0 to 5 % slopes	Parking Lot Area (Urban Districts: Industrial - 72% imp.)	81			0.34	27.53
				Totals =	0.54	37.34

Use CN =	**69.1**
Non-DCIA CN =	**49.0**
DCIA % =	**62.9%**

REFERENCE: *Urban Hydrology for Small Watersheds*
Technical Release 55, Soil Conservation Service
U.S. Department of Agriculture, June 1986

RUNOFF CURVE NUMBER

		DATE:
MADE BY:	DRB	9/18/2025
CHKED BY:	RDB	10/29/2025

PROJECT: SR419 RV & Boat Storage Lot

LOCATION: Basin 3 / B3

EXISTING **PROPOSED**

Soil Name and Hydrologic group (Appendix A)	Cover Description (Cover type, treatment, and hydrologic condition: percent impervious: unconnected / connected impervious area ratio)	CN Tab. 2-2	CN Fig. 2-3	CN Fig. 2-4	Area acres	Product of CN x Area
-	IMPERVIOUS AREA Pavement	98			0.05	4.87
Paola-St. Lucie sands 0 to 5 % slopes	Open Space (Lawns) Fair Condition	49			0.11	5.36
	Totals =				0.16	10.24

Use CN =	**64.3**
Non-DCIA CN =	**49.0**

REFERENCE: *Urban Hydrology for Small Watersheds*
Technical Release 55, Soil Conservation Service
U.S. Department of Agriculture, June 1986

RUNOFF CURVE NUMBER

		DATE:
MADE BY:	DRB	9/18/2025
CHKED BY:	RDB	10/29/2025

PROJECT: **SR419 RV & Boat Storage Lot**

LOCATION: **Basin 3**
B3

EXISTING **PROPOSED**

Soil Name and Hydrologic group (Appendix A)	Cover Description (Cover type, treatment, and hydrologic condition: percent impervious: unconnected / connected impervious area ratio)	CN Tab. 2-2	CN Fig. 2-3	CN Fig. 2-4	Area acres	Product of CN x Area
-	IMPERVIOUS AREA Pavement	98			0.10	10.18
Paola-St. Lucie sands 0 to 5 % slopes	Open Space (Lawns) Fair Condition	49			0.06	2.71
	Totals =				0.16	12.89

Use CN =	**81.0**
Non-DCIA CN =	**49.0**
DCIA % =	**65.2%**

REFERENCE: *Urban Hydrology for Small Watersheds*
Technical Release 55, Soil Conservation Service
U.S. Department of Agriculture, June 1986

TIME OF CONCENTRATION CALCULATIONS

		DATE:
MADE BY:	DRB	9-Jan-25
CHECKED BY:	RDB	26-Feb-25

PROJECT: **SR419 RV & Boat Storage Lot**

LOCATION : **Basin 1** / **B1** / **EXISTING** **PROPOSED**

Tc **Tt Through subarea**

SHEET FLOW:

1	SURFACE DESCRIPTION	GRASS				
2	MANNING'S COEFFICIENT, n	0.150				
3	FLOW LENGTH, L, (< 300')	176		FT.		
4	2 YR/ 24 HR RAINFALL, P	4.29		IN.		
5	LAND SLOPE, S	0.0426		FT/FT		
6	Tt = (0.007 (nL)^0.8) / (P^0.5 * S^0.4)	0.1638		HR. OR	9.83	MIN.

SHALLOW CONCENTRATED FLOW:

7	SURFACE DESCRIPTION (PAVED OR UNPAVED)	PAVED	UNPAVED			
8	FLOW LENGTH, L			L.F.		
9	WATERCOURSE SLOPE, S			FT./ FT.		
10	AVERAGE VELOCITY, V			FT./SEC.		
11	Tt = L / (3600 * V)			HR. OR	0.00	MIN.

CHANNEL FLOW:

12	CROSS-SECTIONAL FLOW AREA, A			S.F.		
13	WETTED PERIMETER, Pw			L.F.		
14	HYDRAULIC RADIUS, R = (A / Pw)			L.F.		
15	CHANNEL SLOPE, S			FT./FT.		
16	MANNING'S ROUGHNESS COEFFICIENT, n					
17	VELOCITY, V, = (1.49 * R ^0.667 * S ^0.5) / n			FT./SEC.		
18	FLOW LENGTH, L			L.F.		
19	Tt = L / (3600 V)			HR. OR	0.00	MIN.
20	Watershed or subarea Tc or Tt (add Tt in steps 6, 11, and 19)					

TOTAL Tc = 9.83 MIN.

USE 10 MINS

(IF < 10 MIN. THAN ASSUME 10 MIN.)

Reference: *Urban Hydrology for Small Watersheds*
Technical Release 55, Soil Conservation Service
U.S. Department of Agriculture, June 1986

TIME OF CONCENTRATION CALCULATIONS

		DATE:
MADE BY:	DRB	9-Jan-25
CHECKED BY:	RDB	26-Feb-25

PROJECT: **SR419 RV & Boat Storage Lot**

LOCATION : **Basin 1** / **B1**

EXISTING | **PROPOSED**

Tc **Tt** **Through subarea**

SHEET FLOW:

		SHORT GRASS	SMOOTH SURFACE			
1	SURFACE DESCRIPTION					
2	MANNING'S COEFFICIENT, n		0.011			
3	FLOW LENGTH, L, (< 300')		160	FT.		
4	2 YR/ 24 HR RAINFALL, P		4.29	IN.		
5	LAND SLOPE, S		0.034			
6	Tt = (0.007 (nL)^0.8) / (P^0.5 * S^0.4)		0.0205	HR. OR	1.23	MIN.

SHALLOW CONCENTRATED FLOW:

		PAVED	UNPAVED			
7	SURFACE DESCRIPTION (PAVED OR UNPAVED)					
8	FLOW LENGTH, L			L.F.		
9	WATERCOURSE SLOPE, S			FT./ FT.		
10	AVERAGE VELOCITY, V			FT./SEC.		
11	Tt = L / (3600 * V)			HR. OR	0.00	MIN.

CHANNEL FLOW:

12	CROSS-SECTIONAL FLOW AREA, A			S.F.		
13	WETTED PERIMETER, Pw			L.F.		
14	HYDRAULIC RADIUS, R = (A / Pw)			L.F.		
15	CHANNEL SLOPE, S			FT./FT.		
16	MANNING'S ROUGHNESS COEFFICIENT, n					
17	VELOCITY, V, = (1.49 * R ^0.667 * S ^0.5) / n			FT./SEC.		
18	FLOW LENGTH, L			L.F.		
19	Tt = L / (3600 V)			HR. OR	0.00	MIN.
20	Watershed or subarea Tc or Tt (add Tt in steps 6, 11, and 19)					

TOTAL Tc = 1.23 MIN.

USE 10 MINS

(IF < 10 MIN. THAN ASSUME 10 MIN.)

Reference: *Urban Hydrology for Small Watersheds*
Technical Release 55, Soil Conservation Service
U.S. Department of Agriculture, June 1986

TIME OF CONCENTRATION CALCULATIONS

		DATE:
MADE BY:	DRB	9-Jan-25
CHECKED BY:	RDB	26-Feb-25

PROJECT: **CR 561 Roundabout at Lakeshore Dr.**

LOCATION :

Basin 2	
B2	
EXISTING	**PROPOSED**

Tc	**Tt**	**Through subarea**

SHEET FLOW:

1	SURFACE DESCRIPTION	GRASS				
2	MANNING'S COEFFICIENT, n	0.150				
3	FLOW LENGTH, L, (< 300')	188		FT.		
4	2 YR/ 24 HR RAINFALL, P	4.29		IN.		
5	LAND SLOPE, S	0.0399		FT/FT		
6	Tt = (0.007 (nL)^0.8) / (P^0.5 * S^0.4)	0.1773		HR. OR	10.64	MIN.

SHALLOW CONCENTRATED FLOW:

7	SURFACE DESCRIPTION (PAVED OR UNPAVED)	PAVED	UNPAVED			
8	FLOW LENGTH, L			L.F.		
9	WATERCOURSE SLOPE, S			FT./ FT.		
10	AVERAGE VELOCITY, V			FT./SEC.		
11	Tt = L / (3600 * V)			HR. OR	0.00	MIN.

CHANNEL FLOW:

12	CROSS-SECTIONAL FLOW AREA, A			S.F.		
13	WETTED PERIMETER, Pw			L.F.		
14	HYDRAULIC RADIUS, R = (A / Pw)			L.F.		
15	CHANNEL SLOPE, S			FT./FT.		
16	MANNING'S ROUGHNESS COEFFICIENT, n					
17	VELOCITY, V, = (1.49 * R ^0.667 * S ^0.5) / n			FT./SEC.		
18	FLOW LENGTH, L			L.F.		
19	Tt = L / (3600 V)			HR. OR	0.00	MIN.
20	Watershed or subarea Tc or Tt (add Tt in steps 6, 11, and 19)					

TOTAL Tc = 10.64 MIN.

(IF < 10 MIN. THAN ASSUME 10 MIN.)

Reference: *Urban Hydrology for Small Watersheds*
Technical Release 55, Soil Conservation Service
U.S. Department of Agriculture, June 1986

TIME OF CONCENTRATION CALCULATIONS

		DATE:
MADE BY:	DRB	9-Jan-25
CHECKED BY:	RDB	26-Feb-25

PROJECT: **CR 561 Roundabout at Lakeshore Dr.**

LOCATION :

Basin 2	
B2	
EXISTING	**PROPOSED**

Tc	**Tt**	**Through subarea**

SHEET FLOW:

		SHORT GRASS	SMOOTH SURFACE			
1	SURFACE DESCRIPTION					
2	MANNING'S COEFFICIENT, n		0.011			
3	FLOW LENGTH, L, (< 300')		169	FT.		
4	2 YR/ 24 HR RAINFALL, P		4.29	IN.		
5	LAND SLOPE, S		0.033			
6	Tt = (0.007 (nL)^0.8) / (P^0.5 * S^0.4)		0.0218	HR. OR	1.31	MIN.

SHALLOW CONCENTRATED FLOW:

7	SURFACE DESCRIPTION (PAVED OR UNPAVED)	PAVED	UNPAVED			
8	FLOW LENGTH, L			L.F.		
9	WATERCOURSE SLOPE, S			FT./ FT.		
10	AVERAGE VELOCITY, V			FT./SEC.		
11	Tt = L / (3600 * V)			HR. OR	0.00	MIN.

CHANNEL FLOW:

12	CROSS-SECTIONAL FLOW AREA, A			S.F.		
13	WETTED PERIMETER, Pw			L.F.		
14	HYDRAULIC RADIUS, R = (A / Pw)			L.F.		
15	CHANNEL SLOPE, S			FT./FT.		
16	MANNING'S ROUGHNESS COEFFICIENT, n					
17	VELOCITY, V, = (1.49 * R ^0.667 * S ^0.5) / n			FT./SEC.		
18	FLOW LENGTH, L			L.F.		
19	Tt = L / (3600 V)			HR. OR	0.00	MIN.
20	Watershed or subarea Tc or Tt (add Tt in steps 6, 11, and 19)					

TOTAL Tc = 1.31 MIN.

USE 10 MINS

(IF < 10 MIN. THAN ASSUME 10 MIN.)

Reference: *Urban Hydrology for Small Watersheds*
Technical Release 55, Soil Conservation Service
U.S. Department of Agriculture, June 1986

TIME OF CONCENTRATION CALCULATIONS

		DATE:
MADE BY:	DRB	9-Jan-25
CHECKED BY:	RDB	26-Feb-25

PROJECT: **CR 561 Roundabout at Lakeshore Dr.**

LOCATION : **Basin 3**

B3

EXISTING **PROPOSED**

Tc **Tt Through subarea**

SHEET FLOW:

1	SURFACE DESCRIPTION	SMOOTH SURFACE				
2	MANNING'S COEFFICIENT, n	0.011				
3	FLOW LENGTH, L, (< 300')	93		FT.		
4	2 YR/ 24 HR RAINFALL, P	4.29		IN.		
5	LAND SLOPE, S	0.0224		FT/FT		
6	Tt = (0.007 (nL)^0.8) / (P^0.5 * S^0.4)	0.0157		HR. OR	0.94	MIN.

SHALLOW CONCENTRATED FLOW:

7	SURFACE DESCRIPTION (PAVED OR UNPAVED)	PAVED	UNPAVED			
8	FLOW LENGTH, L			L.F.		
9	WATERCOURSE SLOPE, S			FT./ FT.		
10	AVERAGE VELOCITY, V			FT./SEC.		
11	Tt = L / (3600 * V)			HR. OR	0.00	MIN.

CHANNEL FLOW:

12	CROSS-SECTIONAL FLOW AREA, A			S.F.		
13	WETTED PERIMETER, Pw			L.F.		
14	HYDRAULIC RADIUS, R = (A / Pw)			L.F.		
15	CHANNEL SLOPE, S			FT./FT.		
16	MANNING'S ROUGHNESS COEFFICIENT, n					
17	VELOCITY, V, = (1.49 * R ^0.667 * S ^0.5) / n			FT./SEC.		
18	FLOW LENGTH, L			L.F.		
19	Tt = L / (3600 V)			HR. OR	0.00	MIN.
20	Watershed or subarea Tc or Tt (add Tt in steps 6, 11, and 19)					

TOTAL Tc = 0.94 MIN.

USE 10 MINS

(IF < 10 MIN. THAN ASSUME 10 MIN.)

Reference: *Urban Hydrology for Small Watersheds*
Technical Release 55, Soil Conservation Service
U.S. Department of Agriculture, June 1986

TIME OF CONCENTRATION CALCULATIONS

		DATE:
MADE BY:	DRB	9-Jan-25
CHECKED BY:	RDB	26-Feb-25

PROJECT: **CR 561 Roundabout at Lakeshore Dr.**

LOCATION : **Basin 3**

B3

EXISTING **PROPOSED**

Tc **Tt Through subarea**

SHEET FLOW:

1	SURFACE DESCRIPTION	SMOOTH SURFACE				
2	MANNING'S COEFFICIENT, n	0.011				
3	FLOW LENGTH, L, (< 300')	76		FT.		
4	2 YR/ 24 HR RAINFALL, P	4.29		IN.		
5	LAND SLOPE, S	0.020				
6	Tt = (0.007 (nL)^0.8) / (P^0.5 * S^0.4)	0.0140		HR. OR	0.84	MIN.

SHALLOW CONCENTRATED FLOW:

7	SURFACE DESCRIPTION (PAVED OR UNPAVED)	PAVED	UNPAVED			
8	FLOW LENGTH, L			L.F.		
9	WATERCOURSE SLOPE, S			FT./ FT.		
10	AVERAGE VELOCITY, V			FT./SEC.		
11	Tt = L / (3600 * V)			HR. OR	0.00	MIN.

CHANNEL FLOW:

12	CROSS-SECTIONAL FLOW AREA, A			S.F.		
13	WETTED PERIMETER, Pw			L.F.		
14	HYDRAULIC RADIUS, R = (A / Pw)			L.F.		
15	CHANNEL SLOPE, S			FT./FT.		
16	MANNING'S ROUGHNESS COEFFICIENT, n					
17	VELOCITY, V, = (1.49 * R ^0.667 * S ^0.5) / n			FT./SEC.		
18	FLOW LENGTH, L			L.F.		
19	Tt = L / (3600 V)			HR. OR	0.00	MIN.
20	Watershed or subarea Tc or Tt (add Tt in steps 6, 11, and 19)					

TOTAL Tc = 0.84 MIN.

USE 10 MINS

(IF < 10 MIN. THAN ASSUME 10 MIN.)

Reference: *Urban Hydrology for Small Watersheds*
Technical Release 55, Soil Conservation Service
U.S. Department of Agriculture, June 1986

SR419 RV & Boat Storage Lot

Winter Springs, FL
10/20/2025

Required WQV Based on BMP Trains Analysis
Removal of 80% TN and 80% TP

Basin	Req'd Vol
	ac-ft
B1	0.049
B2	0.116
B3	0.015

Note: Refer to BMP Trains analysis for additional information.

SR419 RV & Boat Storage Lot
Winter Springs, FL

Stage-Storage Table
Name: Pond 1 (Basin 1)

Created by: DRB Date: 10/17/2025
Checked by: RDB Date: 10/29/2025

Stage (Depth)	Elevation	Surface Area		Avg. Surface Area		Incr. Vol.	Cumulative Vol.	Remarks
ft	NAVD88	sq ft	ac	sq ft	ac	ac-ft	ac-ft	
0.0	13.5	520	0.012	520	0.012	-	-	Bottom of Pond
1.0	14.5	778	0.018	649	0.015	0.015	0.015	
2.0	15.5	1,083	0.025	931	0.021	0.021	0.036	
2.50	16.00						0.050	Req'd WQ Vol.
2.50	16.00	1,254	0.029	1,169	0.027	0.013	0.050	Inside Top of Pond Berm
3.0	16.50	2,431	0.056	1,843	0.042	0.021	0.071	Outside Top of Pond Berm

0.049	**Req'd WQ Vol. (ac-ft)**
0.050	**Prov'd WQ Vol. (ac-ft)**

SR419 RV & Boat Storage Lot
Winter Springs, FL

Stage-Storage Table
Name: Pond 2 (Basin 2)

Created by: DRB Date: 10/16/2025
Checked by: RDB Date: 10/29/2025

Stage (Depth)	Elevation	Surface Area		Avg. Surface Area		Incr. Vol.	Cumulative Vol.	Remarks
ft	NAVD88	sq ft	ac	sq ft	ac	ac-ft	ac-ft	
0.0	14.0	1,812	0.042	1,812	0.042	-	-	Bottom of Pond
1.0	15.0	2,511	0.058	2,162	0.050	0.050	0.050	Top of Pond Berm
2.0	16.0						0.116	Req'd WQ Vol.
2.0	16.0	3,250	0.075	2,881	0.066	0.066	0.116	Inside Top of Pond Berm
2.5	16.5	5,405	0.124	4,328	0.099	0.050	0.165	Outside Top of Pond Berm

0.116	**Req'd WQ Vol. (ac-ft)**
0.116	**Prov'd WQ Vol. (ac-ft)**

SR419 RV & Boat Storage Lot
Winter Springs, FL

Stage-Storage Table
Name: Pond 3 (Basin 3)

Created by: DRB Date: 10/20/2025
Checked by: RDB Date: 10/29/2025

Stage (Depth)	Elevation	Surface Area		Avg. Surface Area		Incr. Vol.	Cumulative Vol.	Remarks
ft	NAVD88	sq ft	ac	sq ft	ac	ac-ft	ac-ft	
								Bottom of Pond
0.0	18.0	948	0.022	948	0.022	0.000	0.000	
0.55	18.55						0.015	Req'd WQ Vol.
1.0	19.0	1,378	0.032	1,163	0.027	0.027	0.027	Top of Pond Berm
1.25	19.25	1,492	0.034	1,435	0.033	0.008	0.035	Top of Pond Berm

0.015	**Req'd WQ Vol. (ac-ft)**
0.015	**Prov'd WQ Vol. (ac-ft)**

Appendix C: Modeling & Analysis

WQ Pond Sizing (Nutrient Based) – BMP Trains

Hydrologic & Hydraulic Analysis Results (M.A./24-hr & 25-yr/24-hr Events) – StormWise (ICPR)

Pond Recovery (WQ & 25-yr/24-hr Events) – StormWise (ICPR)

Culvert Hydraulic Analysis (HY-8): Exit Drive Culvert

Pond 2 Bypass Ditch Calcs (Pond 3 Outfall)

Average Wetlands Buffer Estimate

Pond Infiltration Perimeter Ring Exhibit

Complete Report (not including cost) Ver 4.3.5

Project: SR419 RV Storage
Date: 11/7/2025 6:06:20 PM

Site and Catchment Information

Analysis: Net Improvement

Catchment Name	BASIN 1	BASIN 2	BASIN 3
Rainfall Zone	Florida Zone 2	Florida Zone 2	Florida Zone 2
Annual Mean Rainfall	52.00	52.00	52.00

Pre-Condition Landuse Information

Landuse	Low-Density Residential: TN=1.645 TP= 0.27	Low-Density Residential: TN=1.645 TP= 0.27	Low-Density Residential: TN=1.645 TP= 0.27
Area (acres)	0.49	0.54	0.16
Rational Coefficient (0-1)	0.01	0.01	0.26
Non DCIA Curve Number	49.00	49.00	49.00
DCIA Percent (0-100)	0.00	0.00	31.20
Nitrogen EMC (mg/l)	1.645	1.645	1.645
Phosphorus EMC (mg/l)	0.270	0.270	0.270
Runoff Volume (ac-ft/yr)	0.030	0.033	0.182
Groundwater N (kg/yr)	0.000	0.000	0.000
Groundwater P (kg/yr)	0.000	0.000	0.000

Nitrogen Loading (kg/yr)	0.060	0.066	0.369
Phosphorus Loading (kg/yr)	0.010	0.011	0.061

Post-Condition Landuse Information

Landuse	Light Industrial: TN=1.200 TP=0.260	Light Industrial: TN=1.200 TP=0.260	Low-Intensity Commercial: TN=1.13 TP=0.188
Area (acres)	0.49	0.54	0.16
Rational Coefficient (0-1)	0.56	0.51	0.53
Non DCIA Curve Number	49.00	49.00	49.00
DCIA Percent (0-100)	68.40	62.90	65.20
Wet Pond Area (ac)	0.00	0.00	0.00
Nitrogen EMC (mg/l)	1.200	1.200	1.130
Phosphorus EMC (mg/l)	0.260	0.260	0.188
Runoff Volume (ac-ft/yr)	1.185	1.204	0.369
Groundwater N (kg/yr)	0.000	0.000	0.000
Groundwater P (kg/yr)	0.000	0.000	0.000
Nitrogen Loading (kg/yr)	1.753	1.781	0.514
Phosphorus Loading (kg/yr)	0.380	0.386	0.086

Catchment Number: 1 Name: BASIN 1

Project: SR419 RV Storage
Date: 11/7/2025

Retention Design

Retention Depth (in)	1.200
Retention Volume (ac-ft)	0.049

Watershed Characteristics

Catchment Area (acres)	0.49
Contributing Area (acres)	0.490
Non-DCIA Curve Number	49.00
DCIA Percent	68.40
Rainfall Zone	Florida Zone 2
Rainfall (in)	52.00

Surface Water Discharge

Required TN Treatment Efficiency (%)	97
Provided TN Treatment Efficiency (%)	85
Required TP Treatment Efficiency (%)	97
Provided TP Treatment Efficiency (%)	85

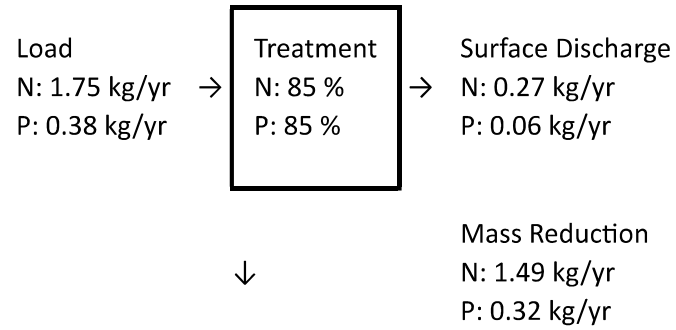
Media Mix Information

Type of Media Mix	Not Specified
Media N Reduction (%)	
Media P Reduction (%)	

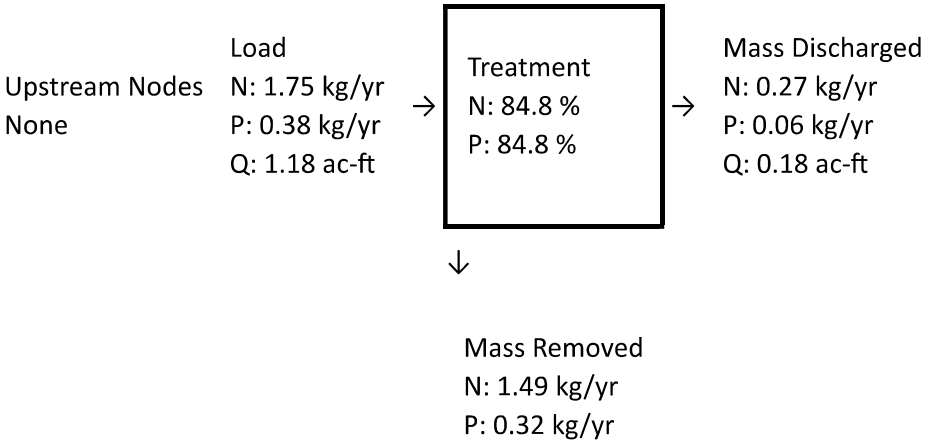
Groundwater Discharge (Stand-Alone)

Treatment Rate (MG/yr)	0.318
TN Mass Load (kg/yr)	1.486
TN Concentration (mg/L)	1.200
TP Mass Load (kg/yr)	0.322
TP Concentration (mg/L)	0.260

Load Diagram for Retention (stand-alone)



Load Diagram for Retention (As Used In Routing)



Catchment Number: 2 Name: BASIN 2

Project: SR419 RV Storage
Date: 11/7/2025

Retention Design

Retention Depth (in)	2.580
Retention Volume (ac-ft)	0.116

Watershed Characteristics

Catchment Area (acres)	0.54
Contributing Area (acres)	0.540
Non-DCIA Curve Number	49.00
DCIA Percent	62.90
Rainfall Zone	Florida Zone 2
Rainfall (in)	52.00

Surface Water Discharge

Required TN Treatment Efficiency (%)	96
Provided TN Treatment Efficiency (%)	97
Required TP Treatment Efficiency (%)	97
Provided TP Treatment Efficiency (%)	97

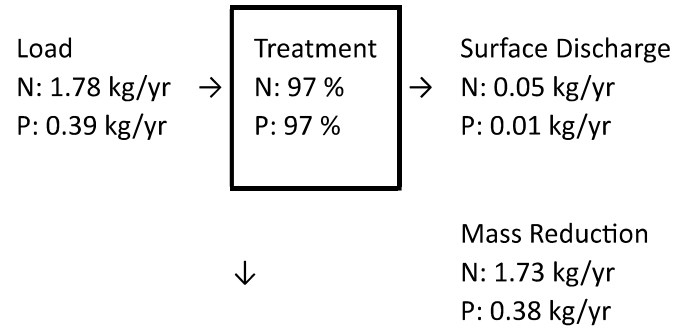
Media Mix Information

Type of Media Mix	Not Specified
Media N Reduction (%)	
Media P Reduction (%)	

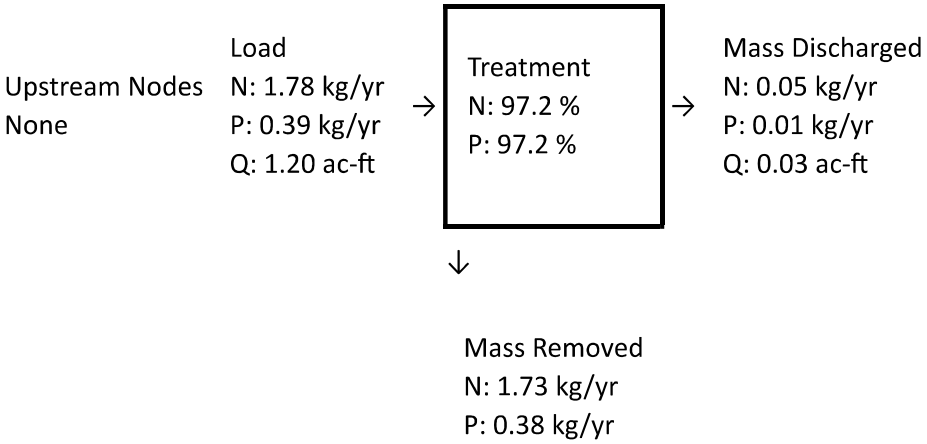
Groundwater Discharge (Stand-Alone)

Treatment Rate (MG/yr)	0.000
TN Mass Load (kg/yr)	1.731
TN Concentration (mg/L)	0.000
TP Mass Load (kg/yr)	0.375
TP Concentration (mg/L)	0.000

Load Diagram for Retention (stand-alone)



Load Diagram for Retention (As Used In Routing)



Catchment Number: 3 Name: BASIN 3

Project: SR419 RV Storage
Date: 11/7/2025

Retention Design

Retention Depth (in)	1.160
Retention Volume (ac-ft)	0.015

Watershed Characteristics

Catchment Area (acres)	0.16
Contributing Area (acres)	0.160
Non-DCIA Curve Number	49.00
DCIA Percent	65.20
Rainfall Zone	Florida Zone 2
Rainfall (in)	52.00

Surface Water Discharge

Required TN Treatment Efficiency (%)	28
Provided TN Treatment Efficiency (%)	85
Required TP Treatment Efficiency (%)	29
Provided TP Treatment Efficiency (%)	85

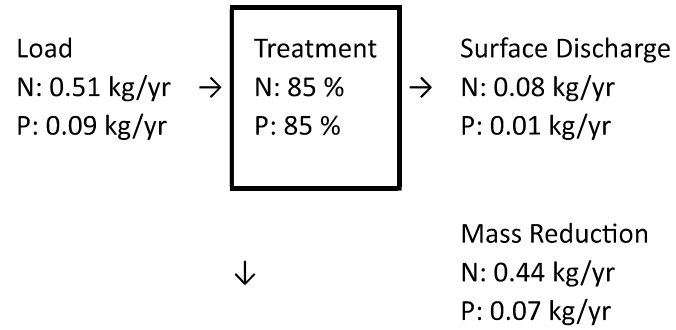
Media Mix Information

Type of Media Mix	Not Specified
Media N Reduction (%)	
Media P Reduction (%)	

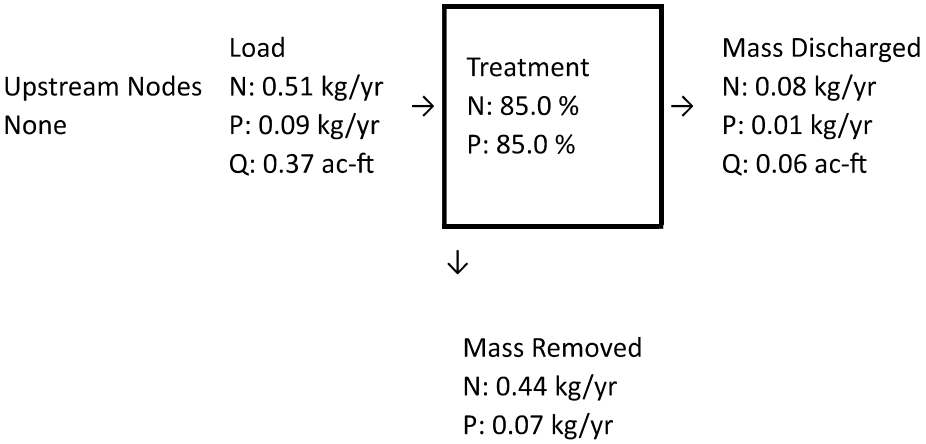
Groundwater Discharge (Stand-Alone)

Treatment Rate (MG/yr)	0.000
TN Mass Load (kg/yr)	0.437
TN Concentration (mg/L)	0.000
TP Mass Load (kg/yr)	0.073
TP Concentration (mg/L)	0.000

Load Diagram for Retention (stand-alone)



Load Diagram for Retention (As Used In Routing)



Summary Treatment Report Version: 4.3.5

Project: SR419 RV Storage

Date:11/7/2025

Analysis Type: Net Improvement

BMP Types:

Catchment 1 - (BASIN 1) Retention
Catchment 2 - (BASIN 2) Retention
Catchment 3 - (BASIN 3) Retention

Based on % removal values to the nearest percent

Routing Summary

Catchment 1 Routed to Outlet
Catchment 2 Routed to Outlet
Catchment 3 Routed to Outlet

Total nitrogen target removal met? **Yes**
Total phosphorus target removal met? **Yes**

Summary Report

Nitrogen

Surface Water Discharge

Total N pre load	.5 kg/yr	
Total N post load	4.05 kg/yr	
Target N load reduction	88 %	
Target N discharge load	.5 kg/yr	
Percent N load reduction	90 %	
Provided N discharge load	.39 kg/yr	.87 lb/yr
Provided N load removed	3.65 kg/yr	8.06 lb/yr

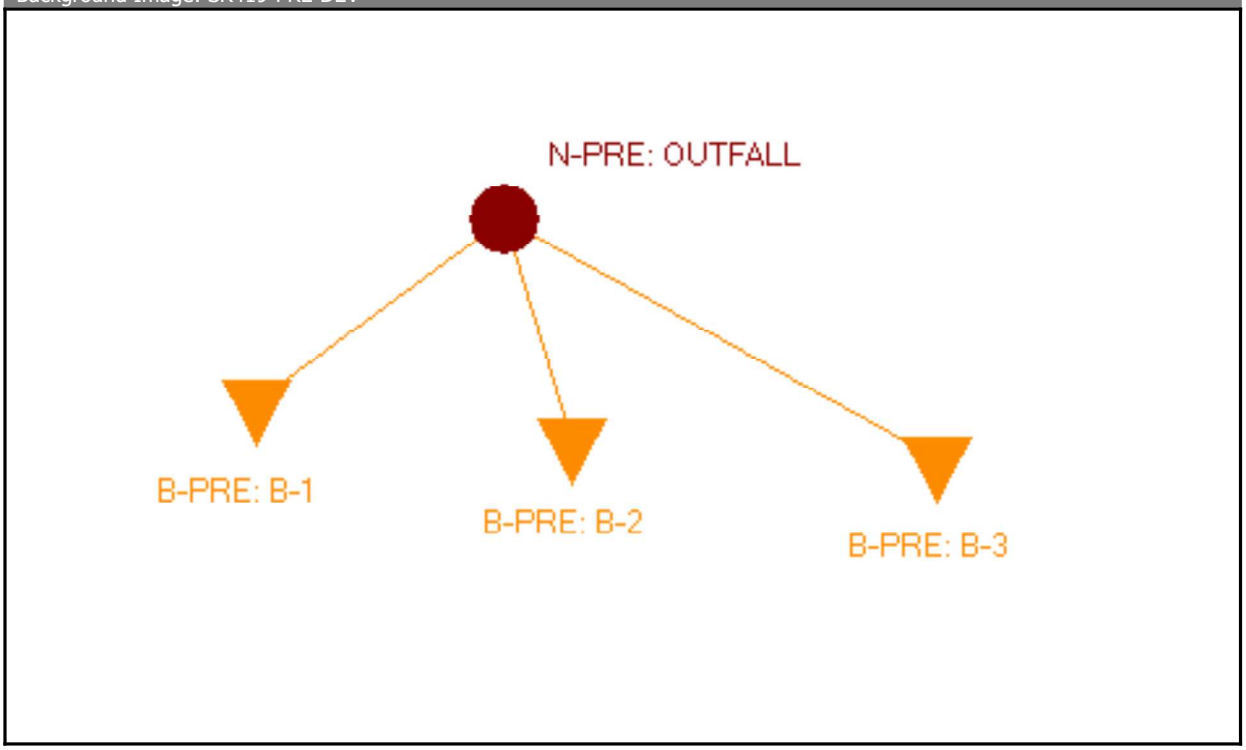
Phosphorus

Surface Water Discharge

Total P pre load	.081 kg/yr
Total P post load	.851 kg/yr
Target P load reduction	90 %

Target P discharge load	.081 kg/yr	
Percent P load reduction	90 %	
Provided P discharge load	.081 kg/yr	.18 lb/yr
Provided P load removed	.77 kg/yr	1.697 lb/yr

Background Image: SR419-PRE-DEV



Simulation: 25YR-24HR

Scenario:	SR419_PRE-DEV
Run Date/Time:	10/24/2025 4:05:57 PM
Program Version:	StormWise 4.08.02

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	36.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	60.0000	0.1000	900.0000
Max Calculation Time:		30.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	60.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:
Reference ET Folder:
Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set:
Green-Ampt Set:
Vertical Layers Set:
Impervious Set:
Roughness Set:
Crop Coef Set:
Fillable Porosity Set:
Conductivity Set:
Leakage Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6	ET for Manual Basins:	False
Over-Relax Weight Fact:	0.5 dec	Ia/S:	0.20 dec
dZ Tolerance:	0.0010 ft		
Max dZ:	1.0000 ft	Smp/Man Basin Rain Opt:	Global
Link Optimizer Tol:	0.0001 ft	OF Region Rain Opt:	Global
		Rainfall Name:	~FLMOD
Edge Length Option:	Automatic	Rainfall Amount:	8.60 in
		Storm Duration:	24.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area (2D):	100 ft2	Min Node Srf Area (1D):	100 ft2
Energy Switch (2D):	Energy	Energy Switch (1D):	Energy

Comment:

Simulation: MA-24HR

Scenario: SR419_PRE-DEV
Run Date/Time: 10/24/2025 4:07:34 PM
Program Version: StormWise 4.08.02

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	36.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	60.0000	0.1000	900.0000
Max Calculation Time:		30.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	60.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:
Reference ET Folder:
Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set:
Green-Ampt Set:

Vertical Layers Set:	
Impervious Set:	
Roughness Set:	
Crop Coef Set:	
Fillable Porosity Set:	
Conductivity Set:	
Leakage Set:	

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6	ET for Manual Basins:	False
Over-Relax Weight Fact:	0.5 dec	Ia/S:	0.20 dec
dZ Tolerance:	0.0010 ft		
Max dZ:	1.0000 ft	Smp/Man Basin Rain Opt:	Global
Link Optimizer Tol:	0.0001 ft	OF Region Rain Opt:	Global
		Rainfall Name:	~FLMOD
Edge Length Option:	Automatic	Rainfall Amount:	4.40 in
		Storm Duration:	24.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area (2D):	100 ft2	Min Node Srf Area (1D):	100 ft2
Energy Switch (2D):	Energy	Energy Switch (1D):	Energy

Comment:

Simple Basin: B-PRE: B-1

Scenario:	SR419_PRE-DEV
Node:	N-PRE: OUTFALL
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	10.0000 min
Max Allowable Q:	0.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	0.4900 ac
Curve Number:	49.0
Ia/S:	0.00
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin Runoff Summary [SR419_PRE-DEV]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]
B-PRE: B-1	25YR-24HR	1.07	12.0500	8.60	2.52	0.4900
B-PRE: B-1	MA-24HR	0.10	12.0833	4.40	0.42	0.4900

Simple Basin: B-PRE: B-2

Scenario:	SR419_PRE-DEV
Node:	N-PRE: OUTFALL
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	10.6400 min
Max Allowable Q:	0.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	0.5400 ac
Curve Number:	49.0
Ia/S:	0.00
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin Runoff Summary [SR419_PRE-DEV]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]
B-PRE: B-2	25YR-24HR	1.16	12.0500	8.60	2.51	0.5400
B-PRE: B-2	MA-24HR	0.10	12.1000	4.40	0.42	0.5400

Simple Basin: B-PRE: B-3

Scenario:	SR419_PRE-DEV
Node:	N-PRE: OUTFALL
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	10.0000 min
Max Allowable Q:	0.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0

Area: 0.1600 ac
Curve Number: 64.3
Ia/S: 0.00
% Impervious: 0.00
% DCIA: 0.00
% Direct: 0.00
Rainfall Name:

Comment:

Simple Basin Runoff Summary [SR419_PRE-DEV]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]
B-PRE: B-3	25YR-24HR	0.62	12.0333	8.60	4.31	0.1600
B-PRE: B-3	MA-24HR	0.17	12.0500	4.40	1.23	0.1600

Node: N-PRE: OUTFALL

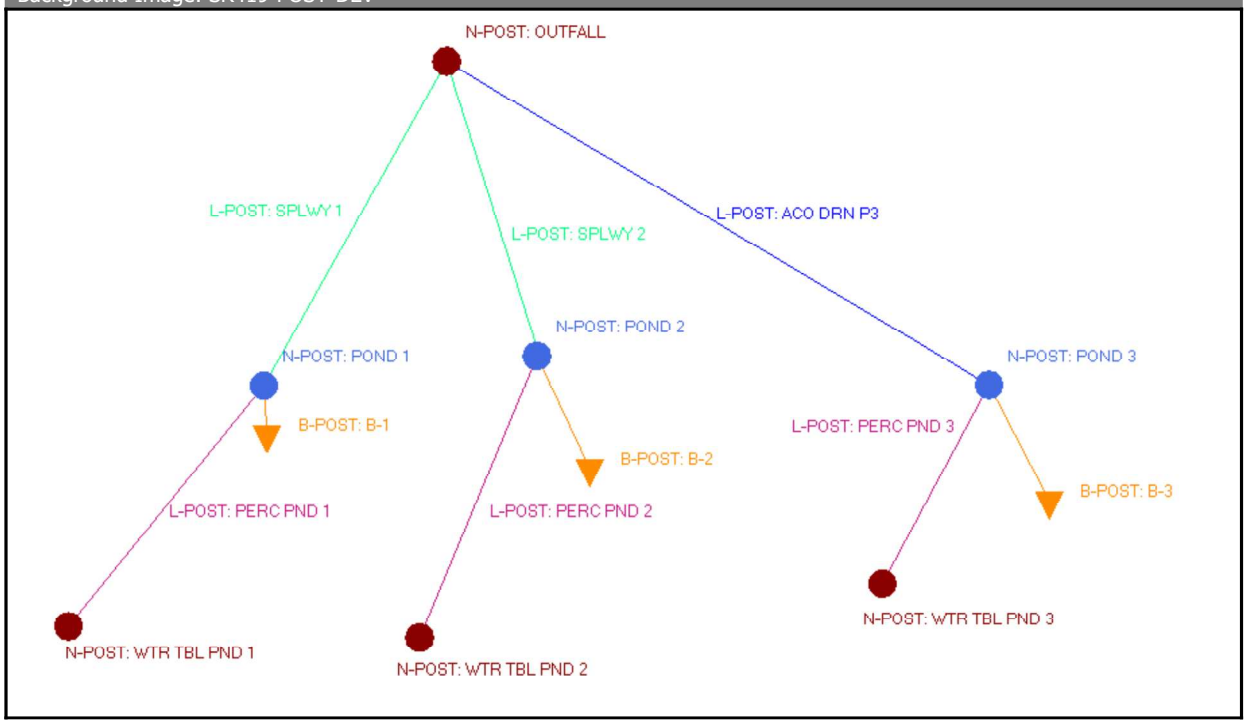
Scenario: SR419_PRE-DEV
Type: Time/Stage
Base Flow: 0.00 cfs
Initial Stage: 13.00 ft
Warning Stage: 0.00 ft
Alert Stage: 0.00 ft
Boundary Stage:

Comment:

Node Max Conditions [SR419_PRE-DEV]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
N-PRE: OUTFALL	25YR-24HR	0.00	0.00	13.00	0.0000	2.85	0.00	0
N-PRE: OUTFALL	MA-24HR	0.00	0.00	13.00	0.0000	0.36	0.00	0

Background Image: SR419-POST-DEV



Simulation: 25YR-24HR

Scenario:	SR419_POST-DEV-NO_INFLTR
Run Date/Time:	6/25/2026 3:02:31 PM
Program Version:	StormWise 4.08.08

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	80.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	24.0000	60.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000
0	0	0	24.0000	60.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:

Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set:
Green-Ampt Set:
Vertical Layers Set:
Impervious Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft
Max dZ: 1.0000 ft
Link Optimizer Tol: 0.0001 ft

IA Recovery Time: 24.0000 hr
Ia/S: 0.20 dec
Smp/Man Basin Rain Opt: Global

Rainfall Name: ~FLMOD
Rainfall Amount: 8.60 in
Storm Duration: 24.0000 hr
Dflt Damping (1D): 0.0050 ft
Min Node Srf Area (1D): 100 ft2
Energy Switch (1D): Energy

Comment:

Simulation: MA-24HR

Scenario: SR419_POST-DEV-NO_INFLTR
Run Date/Time: 6/25/2026 3:05:01 PM
Program Version: StormWise 4.08.08

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	50.0000

	Hydrology [sec]	Surface Hydraulics [sec]
Min Calculation Time:	60.0000	0.1000
Max Calculation Time:		30.0000

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000
0	0	0	24.0000	60.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000
0	0	0	24.0000	60.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:

Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set:

Green-Ampt Set:
Vertical Layers Set:
Impervious Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft
Max dZ: 1.0000 ft

IA Recovery Time: 24.0000 hr
Ia/S: 0.20 dec
Smp/Man Basin Rain Opt: Global

Link Optimizer Tol: 0.0001 ft

Rainfall Name:	~FLMOD
Rainfall Amount:	4.40 in
Storm Duration:	24.0000 hr
Dflt Damping (1D):	0.0050 ft
Min Node Srf Area (1D):	100 ft2
Energy Switch (1D):	Energy

Comment:

Simple Basin: B-POST: B-1

Scenario:	SR419_POST-DEV-NO_INFLTR
Node:	N-POST: POND 1
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	10.0000 min
Max Allowable Q:	0.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	0.4900 ac
Curve Number:	72.0
Ia/S:	0.00
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin Runoff Summary [SR419_POST-DEV-NO_INFLTR]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]
B-POST: B-1	25YR-24HR	2.28	12.0333	8.60	5.24	0.4900
B-POST: B-1	MA-24HR	0.77	12.0333	4.40	1.75	0.4900

Simple Basin: B-POST: B-2

Scenario:	SR419_POST-DEV-NO_INFLTR
Node:	N-POST: POND 2
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number

Time of Concentration:	10.0000 min
Max Allowable Q:	0.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	0.5400 ac
Curve Number:	69.1
Ia/S:	0.00
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin Runoff Summary [SR419_POST-DEV-NO_INFLTR]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]
B-POST: B-2	25YR-24HR	2.36	12.0333	8.60	4.89	0.5400
B-POST: B-2	MA-24HR	0.74	12.0333	4.40	1.54	0.5400

Simple Basin: B-POST: B-3

Scenario:	SR419_POST-DEV-NO_INFLTR
Node:	N-POST: POND 3
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	10.0000 min
Max Allowable Q:	0.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	0.1600 ac
Curve Number:	81.0
Ia/S:	0.00
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin Runoff Summary [SR419_POST-DEV-NO_INFLTR]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]
B-POST: B-3	25YR-24HR	0.87	12.0167	8.60	6.33	0.1600
B-POST: B-3	MA-24HR	0.35	12.0333	4.40	2.47	0.1600

Node: N-POST: OUTFALL

Scenario: SR419_POST-DEV-NO_INFLTR
Type: Time/Stage
Base Flow: 0.00 cfs
Initial Stage: 13.00 ft
Warning Stage: 0.00 ft
Alert Stage: 0.00 ft
Boundary Stage:

Comment:

Node Max Conditions w/ Times [SR419_POST-DEV-NO_INFLTR]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
N-POST: OUTFALL	100YR-24HR	0.00	0.00	13.00	0.0000	4.25	0.00	0	0.0000	0.0000	12.1445	0.0000
N-POST: OUTFALL	25YR-24HR	0.00	0.00	13.00	0.0000	2.68	0.00	0	0.0000	0.0000	12.0671	0.0000
N-POST: OUTFALL	MA-24HR	0.00	0.00	13.00	0.0000	0.07	0.00	0	0.0000	0.0000	15.1571	0.0000

Node: N-POST: POND 1

Scenario: SR419_POST-DEV-NO_INFLTR
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 13.50 ft

Warning Stage: 16.25 ft
Alert Stage: 0.00 ft

Stage [ft]	Area [ac]	Area [ft2]
13.50	0.0120	523
14.50	0.0180	784
15.50	0.0250	1089
16.00	0.0290	1263
16.50	0.0560	2439

Comment:

Node Max Conditions w/ Times [SR419_POST-DEV-NO_INFLTR]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
N-POST: POND 1	100YR-24HR	16.25	0.00	16.29	0.0010	3.00	2.95	1949	12.0494	9.1939	12.0168	12.0496
N-POST: POND 1	25YR-24HR	16.25	0.00	16.24	0.0010	2.28	2.22	1836	12.0562	10.5083	12.0333	12.0562
N-POST: POND 1	MA-24HR	16.25	0.00	16.02	0.0010	0.77	0.04	1308	15.2071	11.9739	12.0333	15.2071

Node: N-POST: POND 2

Scenario: SR419_POST-DEV-NO_INFLTR
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 14.00 ft
Warning Stage: 16.25 ft
Alert Stage: 0.00 ft

Stage [ft]	Area [ac]	Area [ft2]
14.00	0.0420	1830
15.00	0.0580	2526
16.00	0.0750	3267
16.50	0.1240	5401

Comment:

Node Max Conditions w/ Times [SR419_POST-DEV-NO_INFLTR]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
N-POST: POND 2	100YR-24HR	16.25	0.00	16.19	0.0010	3.14	1.54	4093	12.2681	11.8299	12.0333	12.2704
N-POST: POND 2	25YR-24HR	16.25	0.00	16.08	0.0010	2.36	0.41	3621	12.6291	12.0135	12.0333	12.6291
N-POST: POND 2	MA-24 HR	16.25	0.00	15.32	0.0006	0.74	0.00	2764	24.5571	14.8240	12.0333	0.0000

Node: N-POST: POND 3

Scenario: SR419_POST-DEV-NO_INFLTR
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 18.00 ft
Warning Stage: 19.25 ft
Alert Stage: 0.00 ft

Stage [ft]	Area [ac]	Area [ft2]
18.00	0.0220	958
19.00	0.0320	1394
19.25	0.0340	1481

Comment:

Node Max Conditions w/ Times [SR419_POST-DEV-NO_INFLTR]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
N-POST: POND 3	100YR-24HR	19.25	0.00	19.29	-0.0010	1.11	0.79	1493	12.1268	12.2564	12.0166	12.1240
N-POST: POND 3	25YR-24HR	19.25	0.00	19.16	-0.0010	0.87	0.54	1461	12.1596	12.9423	12.0168	12.1540

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
N-POST: POND 3	MA-24HR	19.25	0.00	18.72	0.0005	0.35	0.04	1276	12.8623	10.8527	12.0333	12.9092

Node: N-POST: WTR TBL PND 1

Scenario: SR419_POST-DEV-NO_INFLTR
Type: Time/Stage
Base Flow: 0.00 cfs
Initial Stage: 12.50 ft
Warning Stage: 0.00 ft
Alert Stage: 0.00 ft
Boundary Stage:

Comment:

Node Max Conditions w/ Times [SR419_POST-DEV-NO_INFLTR]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
N-POST: WTR TBL PND 1	100YR-24HR	0.00	0.00	12.50	0.0000	0.00	0.00	0	0.0000	0.0000	0.0000	0.0000
N-POST: WTR TBL PND 1	25YR-24HR	0.00	0.00	12.50	0.0000	0.00	0.00	0	0.0000	0.0000	0.0000	0.0000
N-POST: WTR TBL PND 1	MA-24HR	0.00	0.00	12.50	0.0000	0.00	0.00	0	0.0000	0.0000	0.0000	0.0000

Node: N-POST: WTR TBL PND 2

Scenario: SR419_POST-DEV-NO_INFLTR
Type: Time/Stage
Base Flow: 0.00 cfs
Initial Stage: 13.00 ft
Warning Stage: 0.00 ft
Alert Stage: 0.00 ft
Boundary Stage:

Comment:

Node Max Conditions w/ Times [SR419_POST-DEV-NO_INFLTR]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
N-POST: WTR TBL PND 2	100YR-24HR	0.00	0.00	13.00	0.0000	0.00	0.00	0	0.0000	0.0000	0.0000	0.0000
N-POST: WTR TBL PND 2	25YR-24HR	0.00	0.00	13.00	0.0000	0.00	0.00	0	0.0000	0.0000	0.0000	0.0000
N-POST: WTR TBL PND 2	MA-24HR	0.00	0.00	13.00	0.0000	0.00	0.00	0	0.0000	0.0000	0.0000	0.0000

Node: N-POST: WTR TBL PND 3

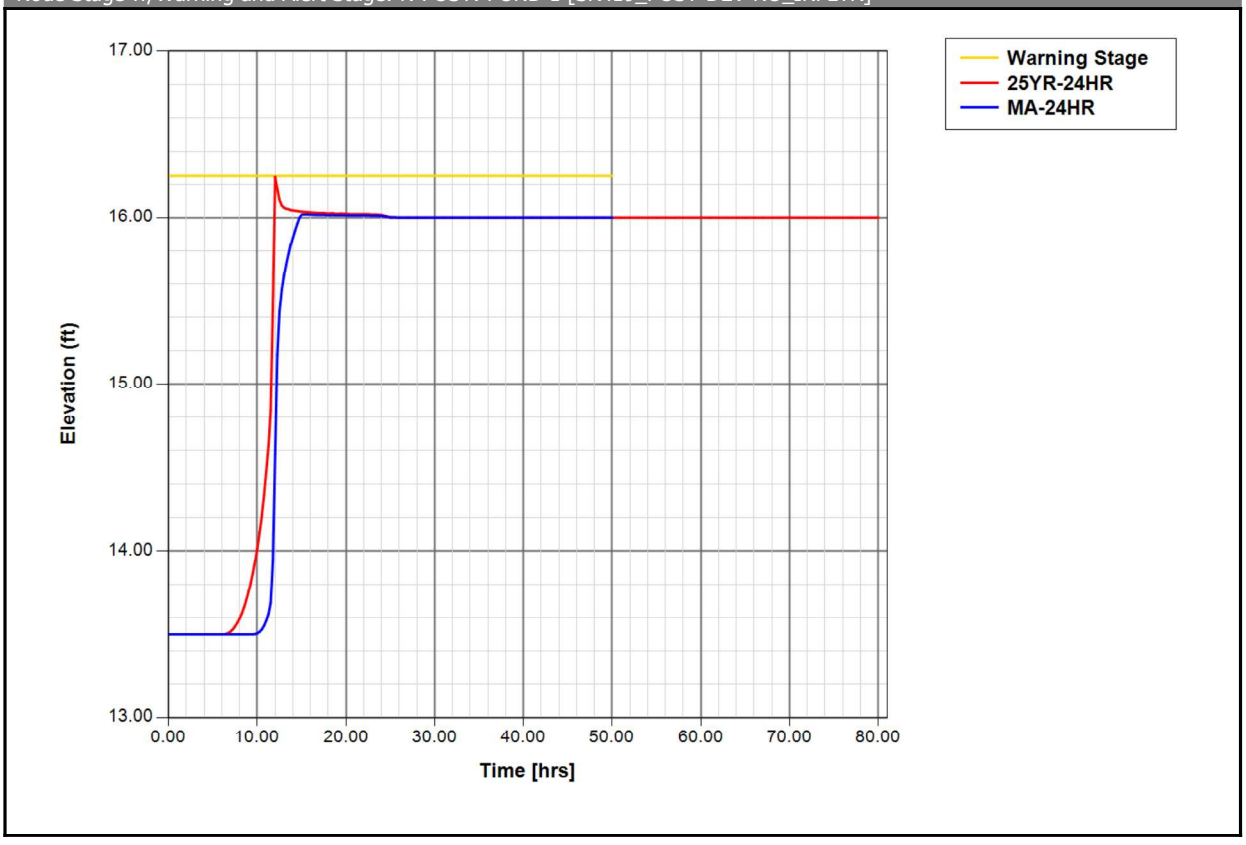
Scenario: SR419_POST-DEV-NO_INFLTR
Type: Time/Stage
Base Flow: 0.00 cfs
Initial Stage: 17.50 ft
Warning Stage: 0.00 ft
Alert Stage: 0.00 ft
Boundary Stage:

Comment:

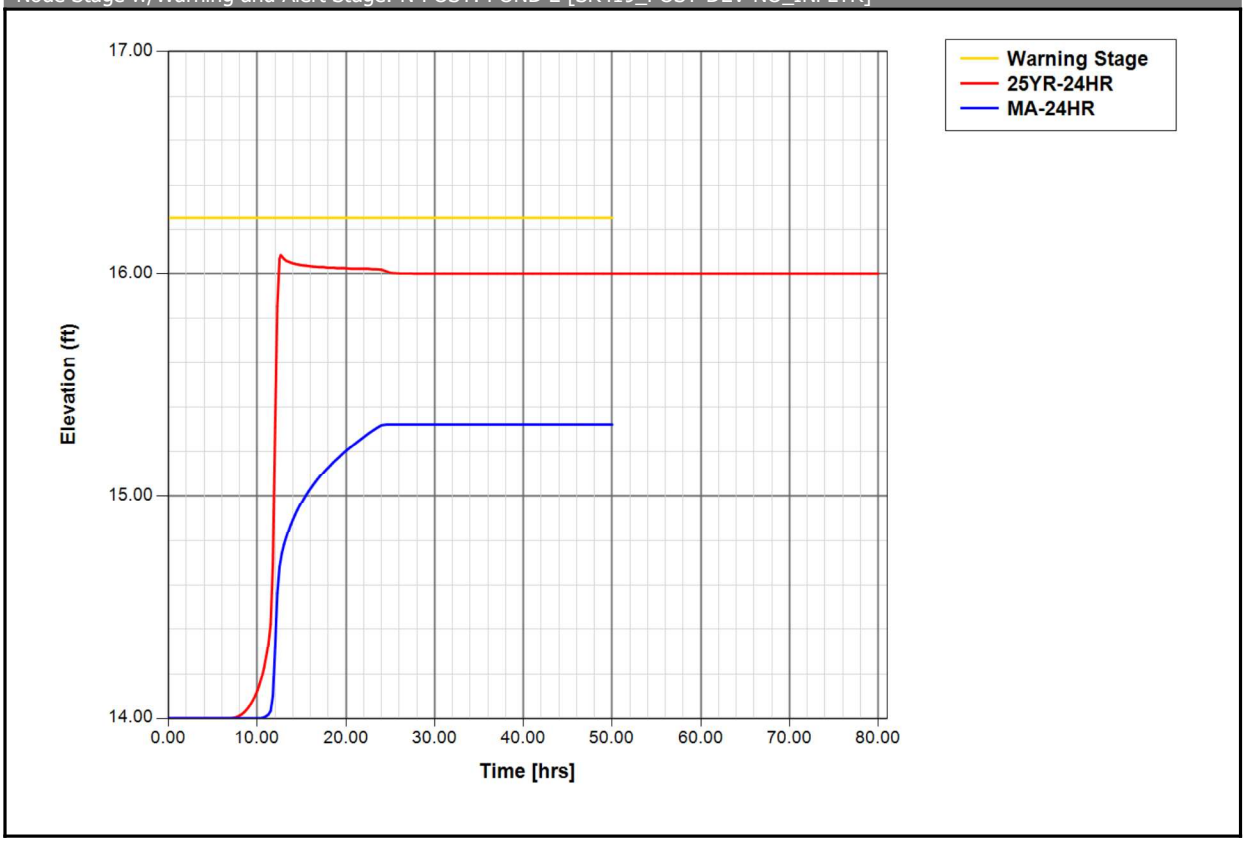
Node Max Conditions w/ Times [SR419_POST-DEV-NO_INFLTR]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
N-POST : WTR TBL PND 3	100YR-24HR	0.00	0.00	17.50	0.0000	0.00	0.00	0	0.0000	0.0000	0.0000	0.0000
N-POST : WTR TBL PND 3	25YR-24HR	0.00	0.00	17.50	0.0000	0.00	0.00	0	0.0000	0.0000	0.0000	0.0000
N-POST : WTR TBL PND 3	MA-24HR	0.00	0.00	17.50	0.0000	0.00	0.00	0	0.0000	0.0000	0.0000	0.0000

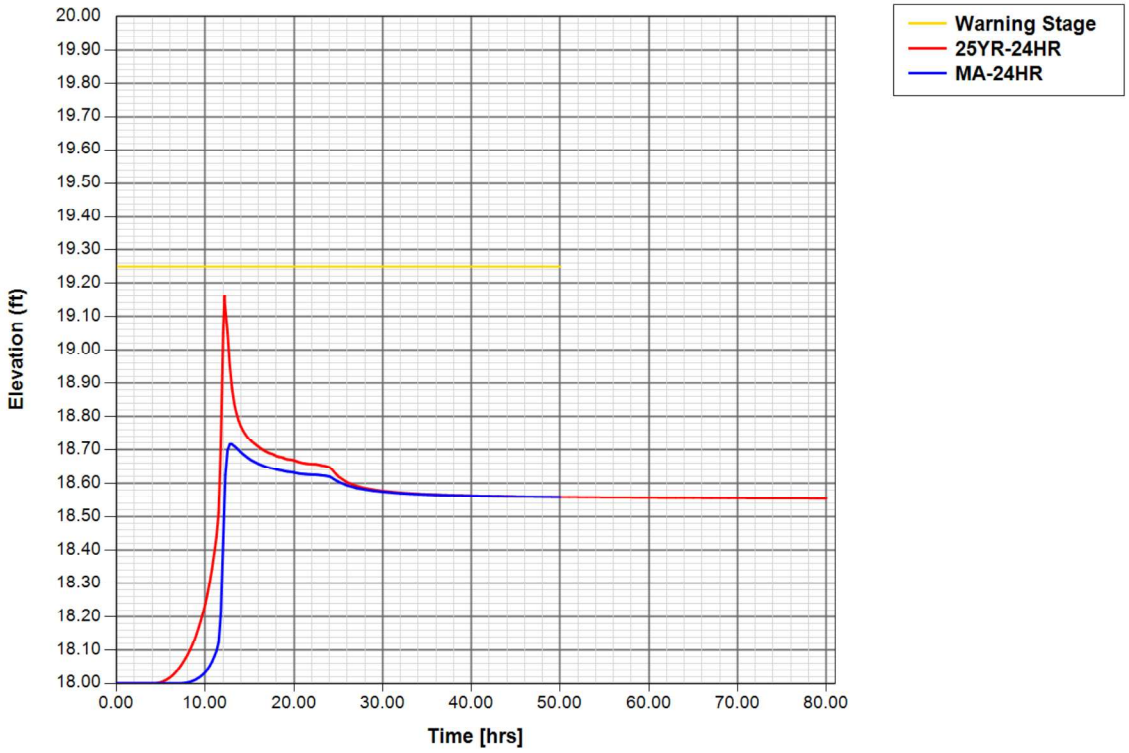
Node Stage w/Warning and Alert Stage: N-POST: POND 1 [SR419_POST-DEV-NO_INFLTR]



Node Stage w/Warning and Alert Stage: N-POST: POND 2 [SR419_POST-DEV-NO_INFLTR]



Node Stage w/Warning and Alert Stage: N-POST: POND 3 [SR419_POST-DEV-NO_INFLTR]



Channel Link: L-POST: ACO DRN P3		Upstream		Downstream	
Scenario:	SR419_POST-DEV-NO_INFLTR	Invert:	18.55 ft	Invert:	18.39 ft
		Manning's N:	0.0120	Manning's N:	0.0120
From Node:	N-POST: POND 3	Geometry: Parabolic		Geometry: Parabolic	
To Node:	N-POST: OUTFALL	Max Depth:	1.15 ft	Max Depth:	1.15 ft
Link Count:	1	Max Width:	0.67 ft	Max Width:	0.67 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft				
Length:	23.00 ft				
Contraction Coef:	0.00	Bottom Clip			
Expansion Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Link Min/Max Conditions with Times [SR419_POST-DEV-NO_INFLTR]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
L-POST: ACO DRN P3	25YR-24 HR	0.54	0.00	0.00	2.70	3.38	12.1540	0.0000	12.4847	12.1721	12.1721
L-POST: ACO DRN P3	MA-24H R	0.04	0.00	0.00	0.00	0.00	12.9092	0.0000	12.5922	0.0000	0.0000

Percolation Link: L-POST: PERC PND 1

Scenario:	SR419_POST-DEV-NO_INFLTR	Surface Area Option:	Vary Based on Stage/Area Table
From Node:	N-POST: POND 1	Vertical Flow Termination:	Horizontal Flow Algorithm
To Node:	N-POST: WTR TBL PND 1	Perimeter 1:	145.00 ft
Link Count:	1	Perimeter 2:	333.00 ft
Flow Direction:	None	Perimeter 3:	510.00 ft
Aquifer Base Elevation:	0.00 ft	Distance P1 to P2:	30.00 ft
Water Table Elevation:	12.50 ft	Distance P2 to P3:	50.00 ft
Annual Recharge Rate:	0 ipy	# of Cells P1 to P2:	6
Horizontal Conductivity:	14.000 fpd	# of Cells P2 to P3:	5
Vertical Conductivity:	14.000 fpd		
Fillable Porosity:	0.250		
Layer Thickness:	0.00 ft		

Comment:

Link Min/Max Conditions with Times [SR419_POST-DEV-NO_INFLTR]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
L-POST: PERC PND 1	25YR-24 HR	0.00	0.00	0.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000
L-POST: PERC	MA-24H R	0.00	0.00	0.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
PND 1											

Percolation Link: L-POST: PERC PND 2

Scenario:	SR419_POST-DEV-NO_INFLTR	Surface Area Option:	Vary Based on Stage/Area Table
From Node:	N-POST: POND 2	Vertical Flow Termination:	Horizontal Flow Algorithm
To Node:	N-POST: WTR TBL PND 2	Perimeter 1:	307.00 ft
Link Count:	1	Perimeter 2:	485.00 ft
Flow Direction:	None	Perimeter 3:	730.00 ft
Aquifer Base Elevation:	-0.50 ft	Distance P1 to P2:	30.00 ft
Water Table Elevation:	13.00 ft	Distance P2 to P3:	50.00 ft
Annual Recharge Rate:	0 ipy	# of Cells P1 to P2:	6
Horizontal Conductivity:	17.000 fpd	# of Cells P2 to P3:	5
Vertical Conductivity:	17.000 fpd		
Fillable Porosity:	0.250		
Layer Thickness:	0.00 ft		

Comment:

Link Min/Max Conditions with Times [SR419_POST-DEV-NO_INFLTR]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
L-POST: PERC PND 2	25YR-24HR	0.00	0.00	0.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000
L-POST: PERC PND 2	MA-24HR	0.00	0.00	0.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000

Percolation Link: L-POST: PERC PND 3

Scenario:	SR419_POST-DEV-NO_INFLTR	Surface Area Option:	Vary Based on Stage/Area Table
From Node:	N-POST: POND 3	Vertical Flow Termination:	Horizontal Flow Algorithm
To Node:	N-POST: WTR TBL PND 3	Perimeter 1:	185.00 ft
Link Count:	1	Perimeter 2:	368.00 ft

Flow Direction:	None
Aquifer Base Elevation:	4.50 ft
Water Table Elevation:	17.50 ft
Annual Recharge Rate:	0 ipy
Horizontal Conductivity:	6.500 fpd
Vertical Conductivity:	6.500 fpd
Fillable Porosity:	0.250
Layer Thickness:	0.00 ft

Perimeter 3:	631.00 ft
Distance P1 to P2:	30.00 ft
Distance P2 to P3:	50.00 ft
# of Cells P1 to P2:	6
# of Cells P2 to P3:	5

Comment:

Link Min/Max Conditions with Times [SR419_POST-DEV-NO_INFLTR]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
L-POST: PERC PND 3	25YR-24 HR	0.00	0.00	0.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000
L-POST: PERC PND 3	MA-24H R	0.00	0.00	0.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000

Weir Link: L-POST: SPLWY 1

Scenario:	SR419_POST-DEV-NO_INFLTR
From Node:	N-POST: POND 1
To Node:	N-POST: OUTFALL
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Trapezoidal
Invert:	16.00 ft
Control Elevation:	16.00 ft
Max Depth:	0.50 ft
Extrapolation Method:	Normal Projection
Bottom Width:	6.00 ft
Left Slope:	3.000 (h:v)
Right Slope:	3.000 (h:v)

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Link Min/Max Conditions with Times [SR419_POST-DEV-NO_INFLTR]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
L-POST: SPLWY 1	25YR-24 HR	2.22	0.00	0.01	1.35	1.35	12.0562	0.0000	11.9102	12.0568	12.0568
L-POST: SPLWY 1	MA-24H R	0.04	0.00	0.00	0.00	0.00	15.2071	0.0000	14.8323	0.0000	0.0000

Weir Link: L-POST: SPLWY 2

Scenario:	SR419_POST-DEV-NO_INFLTR	Bottom Clip	
		Default:	0.00 ft
From Node:	N-POST: POND 2	Op Table:	
To Node:	N-POST: OUTFALL	Ref Node:	
Link Count:	1	Top Clip	
Flow Direction:	Both	Default:	0.00 ft
Damping:	0.0000 ft	Op Table:	
Weir Type:	Broad Crested Vertical	Ref Node:	
Geometry Type:	Trapezoidal	Discharge Coefficients	
Invert:	16.00 ft	Weir Default:	2.800
Control Elevation:	16.00 ft	Weir Table:	
Max Depth:	0.50 ft	Orifice Default:	0.600
Extrapolation Method:	Normal Projection	Orifice Table:	
Bottom Width:	6.00 ft		
Left Slope:	3.000 (h:v)		
Right Slope:	3.000 (h:v)		

Comment:

Link Min/Max Conditions with Times [SR419_POST-DEV-NO_INFLTR]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
L-POST: SPLWY 2	25YR-24 HR	0.41	0.00	0.00	0.80	0.80	12.6291	0.0000	12.4664	12.6315	12.6315
L-POST: SPLWY 2	MA-24H R	0.00	0.00	0.00	0.00	0.00	0.0000	0.0000	0.0000	0.0000	0.0000

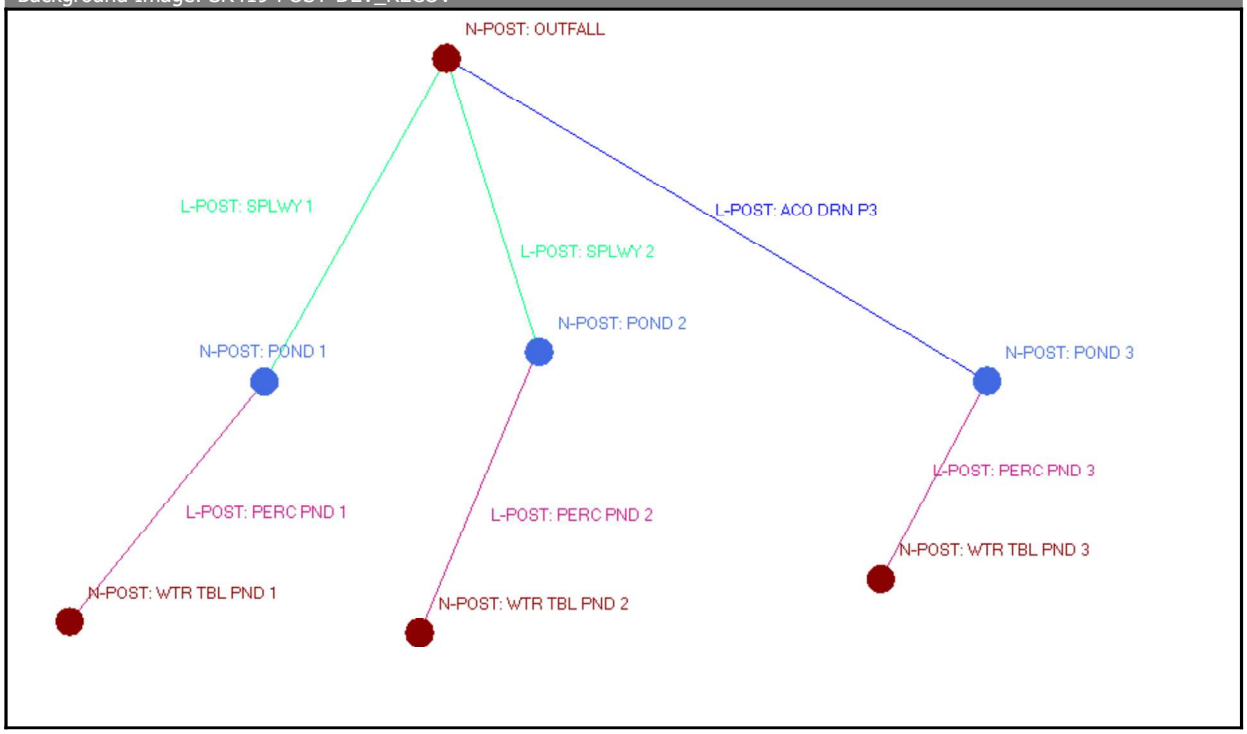
Node Max Conditions w/ Times : Multi Item | (sim, name) [SR419_POST-DEV-NO_INFLTR]

Sim Name	Node Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
100YR-24HR	N-POST : OUTFALL	0.00	0.00	13.00	0.0000	4.25	0.00	0	0.0000	0.0000	12.1445	0.0000
100YR-24HR	N-POST : POND 1	16.25	0.00	16.29	0.0010	3.00	2.95	1949	12.0494	9.1939	12.0168	12.0496
100YR-24HR	N-POST : POND 2	16.25	0.00	16.19	0.0010	3.14	1.54	4093	12.2681	11.8299	12.0333	12.2704
100YR-24HR	N-POST : POND 3	19.25	0.00	19.29	-0.0010	1.11	0.79	1493	12.1268	12.2564	12.0166	12.1240
25YR-24HR	N-POST : OUTFALL	0.00	0.00	13.00	0.0000	2.68	0.00	0	0.0000	0.0000	12.0671	0.0000
25YR-24HR	N-POST : POND 1	16.25	0.00	16.24	0.0010	2.28	2.22	1836	12.0562	10.5083	12.0333	12.0562
25YR-24HR	N-POST : POND 2	16.25	0.00	16.08	0.0010	2.36	0.41	3621	12.6291	12.0135	12.0333	12.6291
25YR-24HR	N-POST : POND 3	19.25	0.00	19.16	-0.0010	0.87	0.54	1461	12.1596	12.9423	12.0168	12.1540
MA-24HR	N-POST : OUTFALL	0.00	0.00	13.00	0.0000	0.07	0.00	0	0.0000	0.0000	15.1571	0.0000
MA-24HR	N-POST : POND 1	16.25	0.00	16.02	0.0010	0.77	0.04	1308	15.2071	11.9739	12.0333	15.2071
MA-24HR	N-POST : POND 2	16.25	0.00	15.32	0.0006	0.74	0.00	2764	24.5571	14.8240	12.0333	0.0000
MA-24HR	N-POST : POND 3	19.25	0.00	18.72	0.0005	0.35	0.04	1276	12.8623	10.8527	12.0333	12.9092

Node Max Conditions w/ Times : Multi Item | (sim, name) [SR419_PRE-DEV]

Sim Name	Node Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
25YR-24HR	N-PRE: OUTFALL	0.00	0.00	13.00	0.0000	2.85	0.00	0	0.0000	0.0000	12.0444	0.0000
MA-24HR	N-PRE: OUTFALL	0.00	0.00	13.00	0.0000	0.36	0.00	0	0.0000	0.0000	12.0694	0.0000

Background Image: SR419-POST-DEV_RECOV



Scenario	Sim	Node Name	Relative Time [hrs]	Stage [ft]
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 1	0.0000	16.00
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 1	1.0012	15.42
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 1	2.0001	15.03
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 1	3.0009	14.80
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 1	4.0006	14.62
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 1	5.0034	14.47
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 1	6.0041	14.35
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 1	7.0041	14.24
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 1	8.0041	14.14
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 1	9.0041	14.05
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 1	10.0041	13.97
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 1	11.0041	13.90
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 1	12.0041	13.84
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 1	13.0041	13.78
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 1	14.0041	13.73
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 1	15.0041	13.68
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 1	16.0041	13.63
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 1	17.0041	13.59
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 1	18.0041	13.55
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 1	19.0041	13.51
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 1	20.0041	13.50
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 1	21.0041	13.50
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 1	22.0041	13.50
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 1	23.0041	13.50
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 1	24.0041	13.50
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 1	25.0041	13.50
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 1	26.0041	13.50
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 1	27.0041	13.50
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 1	28.0041	13.50
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 1	29.0041	13.50
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 1	30.0041	13.50
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 1	31.0041	13.50
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 1	32.0041	13.50
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 1	33.0041	13.50
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 1	34.0041	13.50
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 1	35.0041	13.50
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 1	36.0041	13.50
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 1	37.0041	13.50
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 1	38.0041	13.50
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 1	39.0041	13.50
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 1	40.0041	13.50
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 2	0.0000	16.00

Scenario	Sim	Node Name	Relative Time [hrs]	Stage [ft]
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 2	1.0012	15.46
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 2	2.0001	15.25
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 2	3.0009	15.10
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 2	4.0006	14.98
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 2	5.0034	14.88
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 2	6.0041	14.80
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 2	7.0041	14.73
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 2	8.0041	14.66
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 2	9.0041	14.60
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 2	10.0041	14.54
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 2	11.0041	14.49
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 2	12.0041	14.45
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 2	13.0041	14.40
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 2	14.0041	14.36
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 2	15.0041	14.33
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 2	16.0041	14.29
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 2	17.0041	14.26
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 2	18.0041	14.23
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 2	19.0041	14.20
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 2	20.0041	14.17
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 2	21.0041	14.15
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 2	22.0041	14.12
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 2	23.0041	14.10
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 2	24.0041	14.08
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 2	25.0041	14.06
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 2	26.0041	14.04
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 2	27.0041	14.02
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 2	28.0041	14.00
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 2	29.0041	14.00
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 2	30.0041	14.00
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 2	31.0041	14.00
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 2	32.0041	14.00
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 2	33.0041	14.00
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 2	34.0041	14.00
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 2	35.0041	14.00
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 2	36.0041	14.00
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 2	37.0041	14.00
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 2	38.0041	14.00
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 2	39.0041	14.00
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 2	40.0041	14.00
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 3	0.0000	18.55
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 3	1.0012	18.39

Scenario	Sim	Node Name	Relative Time [hrs]	Stage [ft]
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 3	2.0001	18.32
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 3	3.0009	18.27
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 3	4.0006	18.24
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 3	5.0034	18.20
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 3	6.0041	18.18
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 3	7.0041	18.15
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 3	8.0041	18.13
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 3	9.0041	18.11
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 3	10.0041	18.09
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 3	11.0041	18.08
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 3	12.0041	18.06
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 3	13.0041	18.05
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 3	14.0041	18.03
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 3	15.0041	18.02
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 3	16.0041	18.01
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 3	17.0041	18.00
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 3	18.0041	18.00
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 3	19.0041	18.00
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 3	20.0041	18.00
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 3	21.0041	18.00
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 3	22.0041	18.00
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 3	23.0041	18.00
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 3	24.0041	18.00
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 3	25.0041	18.00
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 3	26.0041	18.00
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 3	27.0041	18.00
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 3	28.0041	18.00
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 3	29.0041	18.00
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 3	30.0041	18.00
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 3	31.0041	18.00
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 3	32.0041	18.00
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 3	33.0041	18.00
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 3	34.0041	18.00
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 3	35.0041	18.00
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 3	36.0041	18.00
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 3	37.0041	18.00
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 3	38.0041	18.00
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 3	39.0041	18.00
SR419_POST-DEV_RECOV-WQ	RECOV-WQ	N-POST: POND 3	40.0041	18.00

Scenario	Sim	Node Name	Relative Time [hrs]	Stage [ft]
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 1	0.0000	16.24
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 1	1.0006	15.50
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 1	2.0024	15.11
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 1	3.0032	14.88
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 1	4.0028	14.70
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 1	5.0058	14.55
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 1	6.0054	14.42
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 1	7.0037	14.30
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 1	8.0037	14.20
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 1	9.0037	14.11
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 1	10.0037	14.03
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 1	11.0037	13.96
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 1	12.0037	13.89
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 1	13.0037	13.83
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 1	14.0037	13.78
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 1	15.0037	13.73
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 1	16.0037	13.68
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 1	17.0037	13.64
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 1	18.0037	13.60
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 1	19.0037	13.56
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 1	20.0037	13.52
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 1	21.0037	13.50
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 1	22.0037	13.50
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 1	23.0037	13.50
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 1	24.0037	13.50
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 1	25.0037	13.50
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 1	26.0037	13.50
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 1	27.0037	13.50
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 1	28.0037	13.50
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 1	29.0037	13.50
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 1	30.0037	13.50
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 1	31.0037	13.50
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 1	32.0037	13.50
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 1	33.0037	13.50
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 1	34.0037	13.50
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 1	35.0037	13.50
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 1	36.0037	13.50
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 1	37.0037	13.50
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 1	38.0037	13.50
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 1	39.0037	13.50
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 1	40.0037	13.50
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 2	0.0000	16.08

Scenario	Sim	Node Name	Relative Time [hrs]	Stage [ft]
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 2	1.0006	15.52
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 2	2.0024	15.31
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 2	3.0032	15.16
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 2	4.0028	15.04
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 2	5.0058	14.94
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 2	6.0054	14.85
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 2	7.0037	14.77
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 2	8.0037	14.71
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 2	9.0037	14.64
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 2	10.0037	14.59
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 2	11.0037	14.54
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 2	12.0037	14.49
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 2	13.0037	14.45
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 2	14.0037	14.40
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 2	15.0037	14.37
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 2	16.0037	14.33
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 2	17.0037	14.30
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 2	18.0037	14.27
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 2	19.0037	14.24
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 2	20.0037	14.21
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 2	21.0037	14.18
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 2	22.0037	14.16
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 2	23.0037	14.13
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 2	24.0037	14.11
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 2	25.0037	14.09
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 2	26.0037	14.07
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 2	27.0037	14.05
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 2	28.0037	14.03
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 2	29.0037	14.01
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 2	30.0037	14.00
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 2	31.0037	14.00
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 2	32.0037	14.00
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 2	33.0037	14.00
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 2	34.0037	14.00
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 2	35.0037	14.00
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 2	36.0037	14.00
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 2	37.0037	14.00
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 2	38.0037	14.00
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 2	39.0037	14.00
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 2	40.0037	14.00
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 3	0.0000	19.16
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 3	1.0006	18.64

Scenario	Sim	Node Name	Relative Time [hrs]	Stage [ft]
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 3	2.0024	18.54
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 3	3.0032	18.49
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 3	4.0028	18.44
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 3	5.0058	18.40
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 3	6.0054	18.37
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 3	7.0037	18.34
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 3	8.0037	18.31
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 3	9.0037	18.29
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 3	10.0037	18.27
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 3	11.0037	18.25
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 3	12.0037	18.23
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 3	13.0037	18.21
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 3	14.0037	18.19
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 3	15.0037	18.18
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 3	16.0037	18.16
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 3	17.0037	18.15
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 3	18.0037	18.13
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 3	19.0037	18.12
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 3	20.0037	18.11
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 3	21.0037	18.10
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 3	22.0037	18.09
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 3	23.0037	18.07
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 3	24.0037	18.06
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 3	25.0037	18.05
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 3	26.0037	18.05
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 3	27.0037	18.04
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 3	28.0037	18.03
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 3	29.0037	18.02
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 3	30.0037	18.01
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 3	31.0037	18.00
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 3	32.0037	18.00
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 3	33.0037	18.00
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 3	34.0037	18.00
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 3	35.0037	18.00
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 3	36.0037	18.00
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 3	37.0037	18.00
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 3	38.0037	18.00
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 3	39.0037	18.00
SR419_POST-DEV_RECOV-25YR	RECOV-25YR	N-POST: POND 3	40.0037	18.00

HY-8 Culvert Analysis Report

Table 1 - Project Headwater Table

Crossing Name	Culvert Name	Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (ft)	Outlet Control Depth (ft)	HW / D (ft)	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Outlet Velocity (ft/s)
EXIT DRIVE - EXIST	CULV-01-EX	4.00	4.00	21.20	1.30	1.375	1.10	1.05	0.81	0.81	4.76

Crossing Discharge Data

Discharge Selection Method: Specify Minimum, Design, and Maximum Flow
Minimum Flow: 0.00 cfs
Design Flow: 4.00 cfs
Maximum Flow: 10.00 cfs

Table 2 - Summary of Culvert Flows at crossing: EXIT DRIVE - EXIST

Headwater Elevation (ft)	Total Discharge (cfs)	CULV-01-EX Discharge (cfs)	Roadway Discharge (cfs)	Iterations
20.00	0.00	0.00	0.00	1
20.45	1.00	1.00	0.00	1
20.73	2.00	2.00	0.00	1
20.98	3.00	3.00	0.00	1
21.20	4.00	4.00	0.00	1
21.32	5.00	4.51	0.47	12
21.35	6.00	4.61	1.37	5
21.37	7.00	4.69	2.30	5
21.39	8.00	4.76	3.23	4
21.40	9.00	4.83	4.17	4
21.42	10.00	4.88	5.12	4
21.30	4.41	4.41	0.00	Overtopping

Rating Curve Plot for crossing: EXIT DRIVE - EXIST

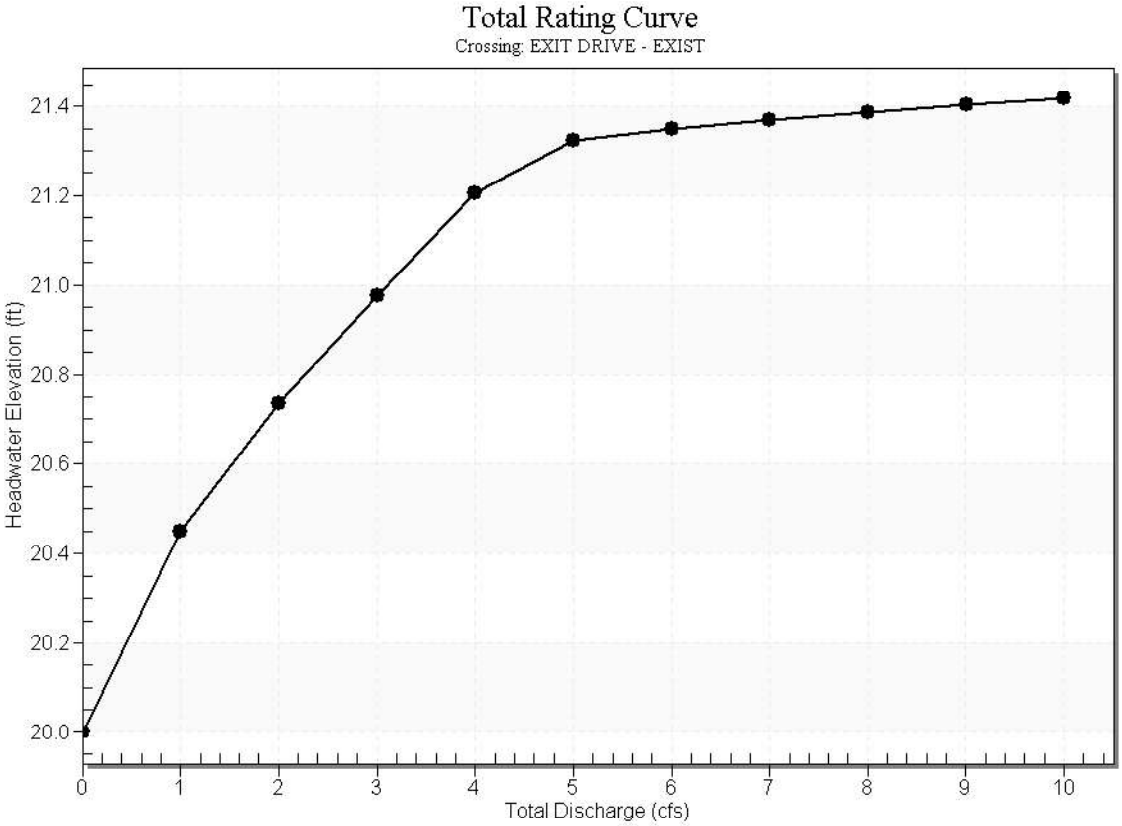


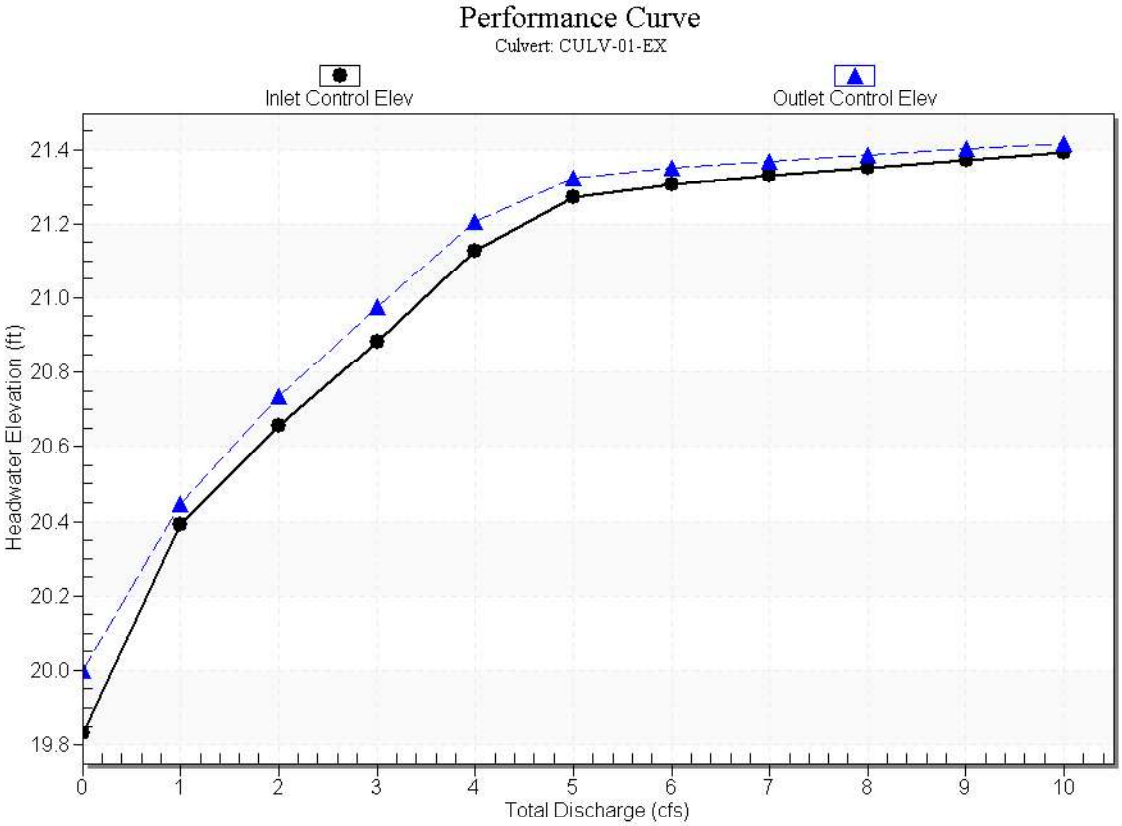
Table 3 - Culvert Summary Table: CULV-01-EX

Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (ft)	Outlet Control Depth (ft)	HW / D (ft)	Flow Type	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Tailwater Depth (ft)	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
0.00	0.00	20.00	0.00	0.170	0.14	0-NF	0.00	0.00	0.32	0.00	0.00	0.00
1.00	1.00	20.45	0.56	0.618	0.49	3-M1t	0.43	0.39	0.58	0.26	1.80	1.51
2.00	2.00	20.73	0.83	0.905	0.72	3-M1t	0.63	0.56	0.65	0.33	3.08	1.80
3.00	3.00	20.98	1.05	1.146	0.92	3-M2t	0.82	0.70	0.71	0.39	4.18	1.99
4.00	4.00	21.20	1.30	1.375	1.10	7-M2c	1.05	0.81	0.81	0.43	4.76	2.14
5.00	4.51	21.32	1.44	1.494	1.20	7-M2c	1.25	0.86	0.86	0.47	5.01	2.26
6.00	4.61	21.35	1.47	1.519	1.22	7-M2c	1.25	0.87	0.87	0.50	5.06	2.36
7.00	4.69	21.37	1.50	1.539	1.23	7-M2c	1.25	0.88	0.88	0.53	5.10	2.46
8.00	4.76	21.39	1.52	1.556	1.25	7-M2c	1.25	0.88	0.88	0.56	5.13	2.54
9.00	4.83	21.40	1.54	1.572	1.26	3-M2t	1.25	0.89	0.91	0.59	5.06	2.62
10.00	4.88	21.42	1.56	1.587	1.27	3-M2t	1.25	0.90	0.93	0.61	4.99	2.69
10.00	4.88	21.42	1.56	1.587	1.27	3-M2t	1.25	0.90	0.93	0.61	4.99	2.69

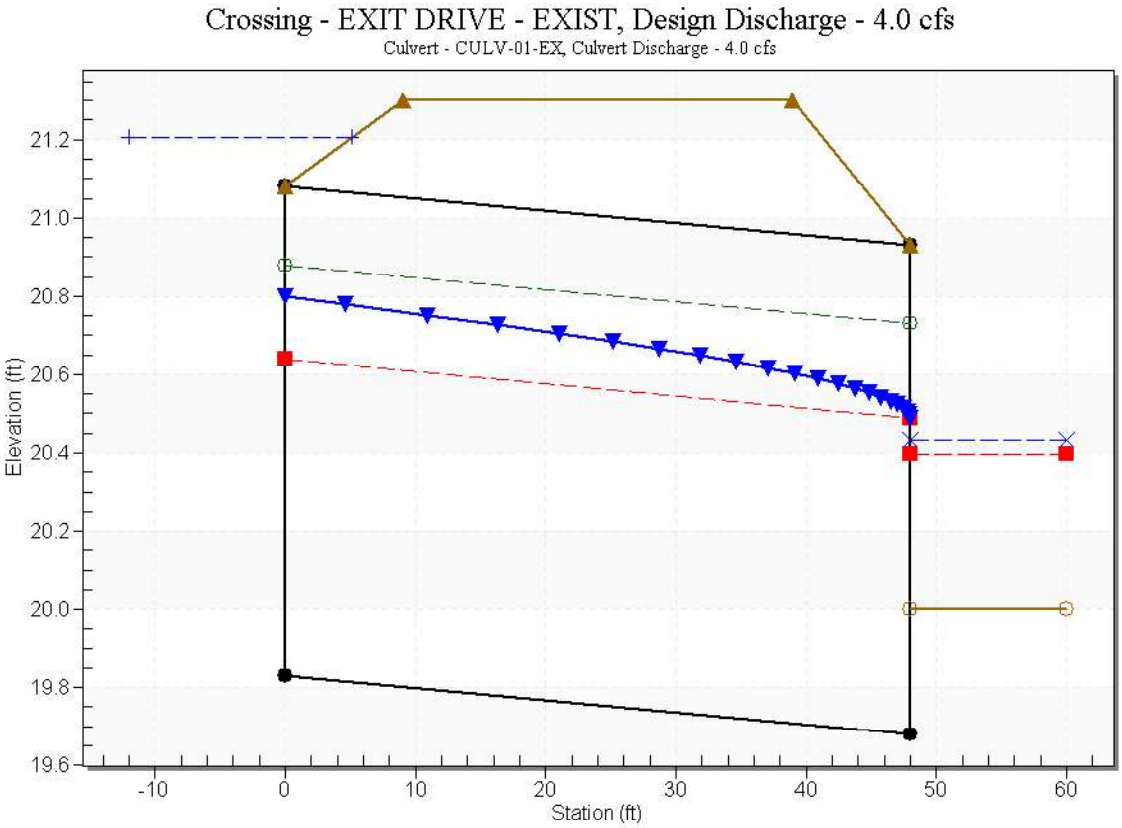
Culvert Barrel Data

Culvert Barrel Type: Straight Culvert
Inlet Elevation(invert): 19.83 ft
Outlet Elevation (invert): 19.68 ft
Culvert Length: 48.00 ft
Culvert Slope: 0.00 ft/ft

Culvert Performance Curve Plot: CULV-01-EX



Water Surface Profile Plot for Culvert: CULV-01-EX



Site Data - CULV-01-EX

Site Data Option: Culvert Invert Data
Inlet Station: 0.00 ft
Inlet Elevation: 19.83 ft
Outlet Station: 48.00 ft
Outlet Elevation: 19.68 ft
Number of Barrels: 1

Culvert Data Summary - CULV-01-EX

Barrel Shape: Circular
Barrel Diameter: 1.25 ft
Barrel Material: Concrete
Embedment: 0.00 in
Barrel Manning's n: 0.0120
Culvert Type: Straight
Inlet Configuration: Mitered to Conform to Slope (Ke=0.7)
Inlet Depression: None

Tailwater Channel Data for Crossing: EXIT DRIVE - EXIST

Tailwater Channel Option: Triangular Channel
a_side Slope (H:V): 10.00 (_:1)
Channel Slope: 0.01 ft/ft
Channel Manning's n: 0.0250

Channel Invert Elevation: 20.00 ft

Table 4 - Downstream Channel Rating Curve (crossing: EXIT DRIVE - EXIST)

Flow (cfs)	Water Surface Elev (ft)	Depth (ft)	Velocity (ft/s)	Shear (psf)	Froude Number
0.00	20.00	0.00	0.00	0.00	0.00
1.00	20.26	0.26	1.51	0.16	0.74
2.00	20.33	0.33	1.80	0.21	0.77
3.00	20.39	0.39	1.99	0.24	0.79
4.00	20.43	0.43	2.14	0.27	0.81
5.00	20.47	0.47	2.26	0.29	0.82
6.00	20.50	0.50	2.36	0.31	0.83
7.00	20.53	0.53	2.46	0.33	0.84
8.00	20.56	0.56	2.54	0.35	0.84
9.00	20.59	0.59	2.62	0.37	0.85
10.00	20.61	0.61	2.69	0.38	0.86

Roadway Data for crossing: EXIT DRIVE - EXIST

Roadway Profile Shape: Constant Roadway Elevation
Crest Length: 50.00 ft
Crest Elevation: 21.30 ft
Roadway Surface: Gravel
Roadway Top Width: 30.00 ft

HY-8 Culvert Analysis Report

Table 1 - Project Headwater Table

Crossing Name	Culvert Name	Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (ft)	Outlet Control Depth (ft)	HW / D (ft)	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Outlet Velocity (ft/s)
EXIT DRIVE - PROP	CULV-01-PR	4.00	4.00	20.70	0.91	1.400	1.20	0.93	0.63	1.17	2.25

Crossing Discharge Data

Discharge Selection Method: Specify Minimum, Design, and Maximum Flow
Minimum Flow: 0.00 cfs
Design Flow: 4.00 cfs
Maximum Flow: 10.00 cfs

Table 2 - Summary of Culvert Flows at crossing: EXIT DRIVE - PROP

Headwater Elevation (ft)	Total Discharge (cfs)	CULV-01-PR Discharge (cfs)	Roadway Discharge (cfs)	Iterations
20.00	0.00	0.00	0.00	1
20.27	1.00	1.00	0.00	1
20.40	2.00	2.00	0.00	1
20.54	3.00	3.00	0.00	1
20.70	4.00	4.00	0.00	1
20.89	5.00	5.00	0.00	1
21.10	6.00	6.00	0.00	1
21.31	7.00	6.82	0.14	22
21.34	8.00	6.84	1.15	6
21.36	9.00	6.82	2.18	5
21.38	10.00	6.79	3.20	4
21.30	6.80	6.80	0.00	Overtopping

Rating Curve Plot for crossing: EXIT DRIVE - PROP

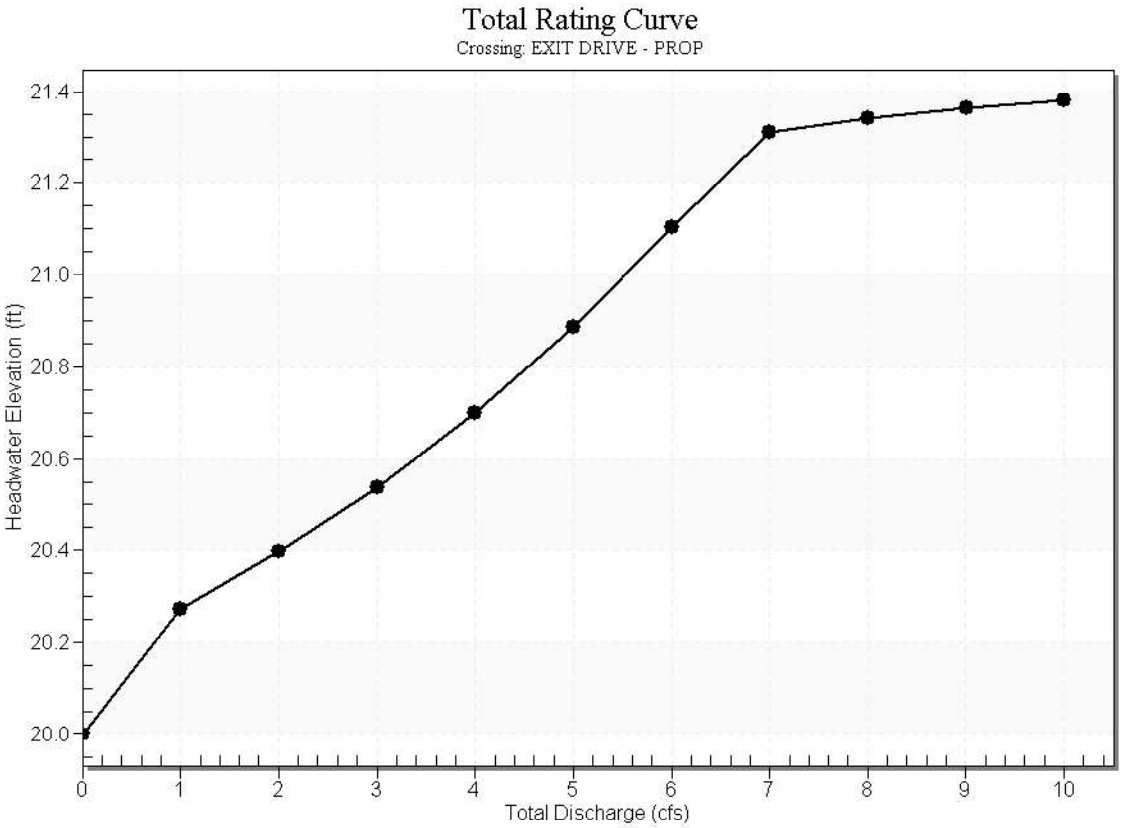


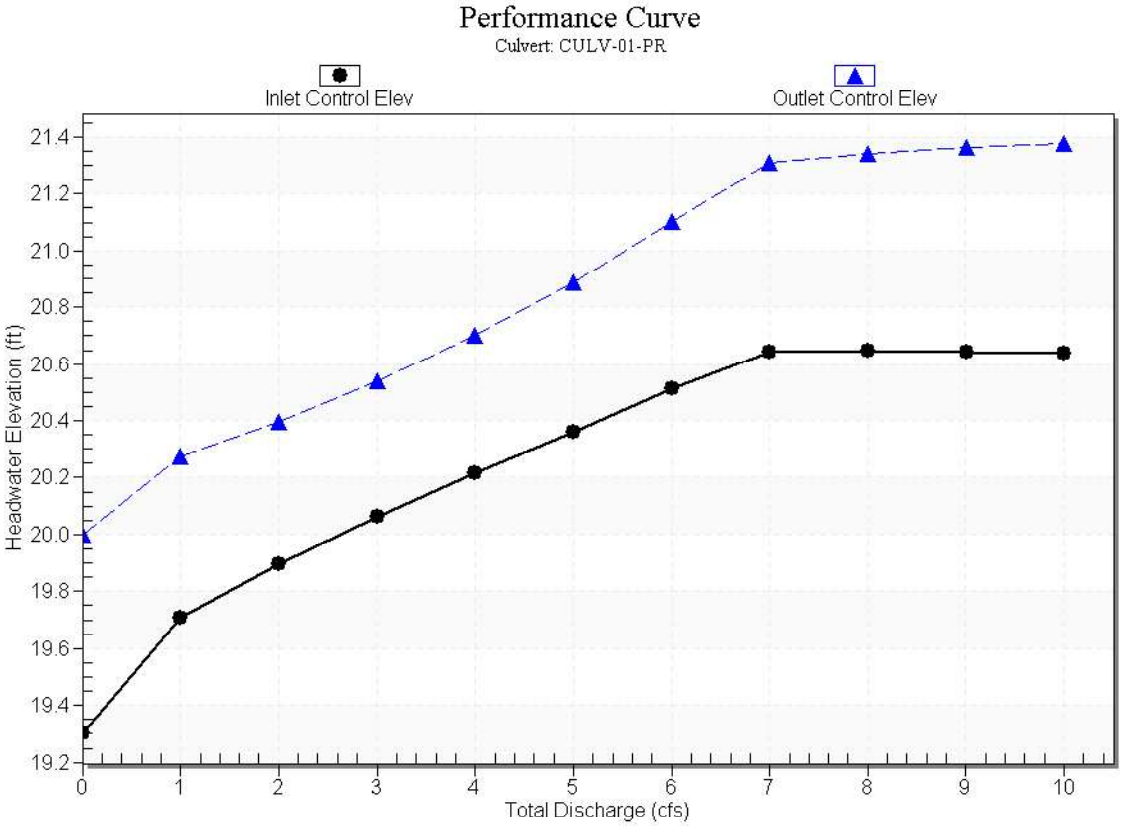
Table 3 - Culvert Summary Table: CULV-01-PR

Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (ft)	Outlet Control Depth (ft)	HW / D (ft)	Flow Type	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Tailwater Depth (ft)	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
0.00	0.00	20.00	0.00	0.700	0.60	0-NF	0.00	0.00	0.85	0.00	0.00	0.00
1.00	1.00	20.27	0.41	0.974	0.83	3-M1t	0.39	0.30	1.11	0.26	0.57	1.51
2.00	2.00	20.40	0.59	1.097	0.94	3-M1f	0.57	0.43	1.17	0.33	1.12	1.80
3.00	3.00	20.54	0.76	1.239	1.06	4-FFf	0.75	0.53	1.17	0.39	1.69	1.99
4.00	4.00	20.70	0.91	1.400	1.20	4-FFf	0.93	0.63	1.17	0.43	2.25	2.14
5.00	5.00	20.89	1.06	1.587	1.36	4-FFf	1.17	0.71	1.17	0.47	2.81	2.26
6.00	6.00	21.10	1.21	1.804	1.55	4-FFf	1.17	0.78	1.17	0.50	3.37	2.36
7.00	6.82	21.31	1.34	2.010	1.72	4-FFf	1.17	0.84	1.17	0.53	3.84	2.46
8.00	6.84	21.34	1.35	2.041	1.75	4-FFf	1.17	0.84	1.17	0.56	3.84	2.54
9.00	6.82	21.36	1.34	2.061	1.77	4-FFf	1.17	0.84	1.17	0.59	3.83	2.62
10.00	6.79	21.38	1.34	2.079	1.78	4-FFf	1.17	0.84	1.17	0.61	3.82	2.69
10.00	6.79	21.38	1.34	2.079	1.78	4-FFf	1.17	0.84	1.17	0.61	3.82	2.69

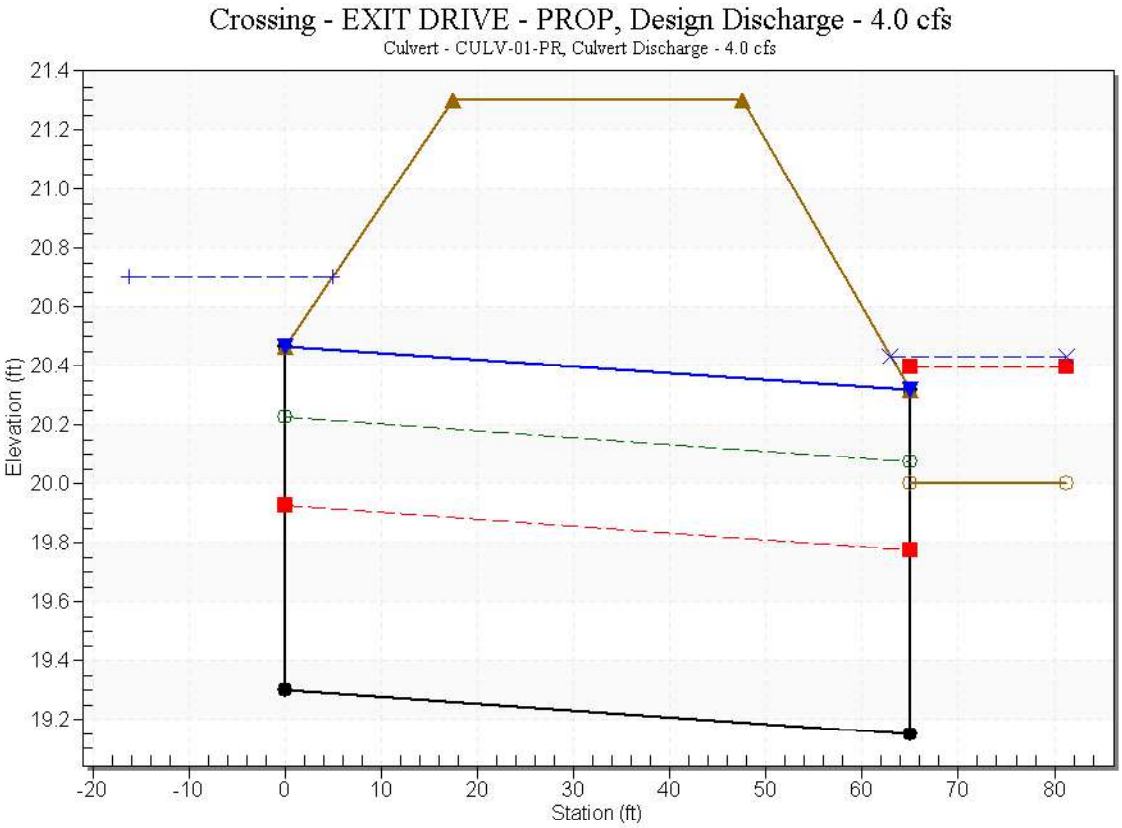
Culvert Barrel Data

Culvert Barrel Type: Straight Culvert
Inlet Elevation(invert): 19.30 ft
Outlet Elevation (invert): 19.15 ft
Culvert Length: 65.00 ft
Culvert Slope: 0.00 ft/ft

Culvert Performance Curve Plot: CULV-01-PR



Water Surface Profile Plot for Culvert: CULV-01-PR



Site Data - CULV-01-PR

Site Data Option: Culvert Invert Data
Inlet Station: 0.00 ft
Inlet Elevation: 19.30 ft
Outlet Station: 65.00 ft
Outlet Elevation: 19.15 ft
Number of Barrels: 1

Culvert Data Summary - CULV-01-PR

Barrel Shape: Elliptical
Barrel Span: 23.00 in
Barrel Rise: 14.00 in
Barrel Material: Concrete
Embedment: 0.00 in
Barrel Manning's n: 0.0160
Culvert Type: Straight
Inlet Configuration: Square Edge with Headwall (Ke=0.5)
Inlet Depression: None

Tailwater Channel Data for Crossing: EXIT DRIVE - PROP

Tailwater Channel Option: Triangular Channel
a_side Slope (H:V): 10.00 (_:1)
Channel Slope: 0.01 ft/ft

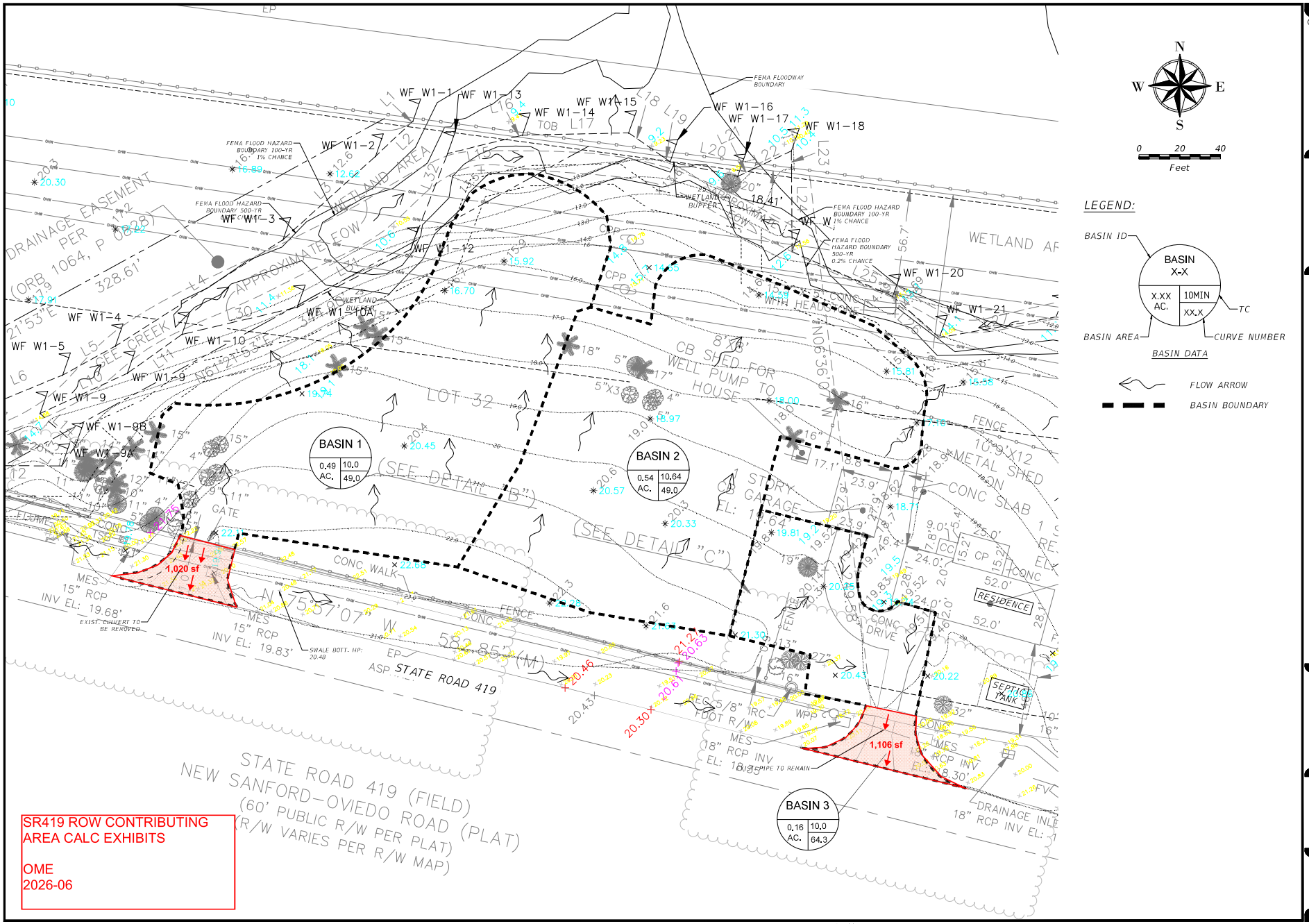
Channel Manning's n: 0.0250
Channel Invert Elevation: 20.00 ft

Table 4 - Downstream Channel Rating Curve (crossing: EXIT DRIVE - PROP)

Flow (cfs)	Water Surface Elev (ft)	Depth (ft)	Velocity (ft/s)	Shear (psf)	Froude Number
0.00	20.00	0.00	0.00	0.00	0.00
1.00	20.26	0.26	1.51	0.16	0.74
2.00	20.33	0.33	1.80	0.21	0.77
3.00	20.39	0.39	1.99	0.24	0.79
4.00	20.43	0.43	2.14	0.27	0.81
5.00	20.47	0.47	2.26	0.29	0.82
6.00	20.50	0.50	2.36	0.31	0.83
7.00	20.53	0.53	2.46	0.33	0.84
8.00	20.56	0.56	2.54	0.35	0.84
9.00	20.59	0.59	2.62	0.37	0.85
10.00	20.61	0.61	2.69	0.38	0.86

Roadway Data for crossing: EXIT DRIVE - PROP

Roadway Profile Shape: Constant Roadway Elevation
Crest Length: 50.00 ft
Crest Elevation: 21.30 ft
Roadway Surface: Paved
Roadway Top Width: 30.00 ft



NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

CONSULTANT:
OM ENGINEERING SERVICES, INC.
Civil • Structural • Inspections
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Orlando, Florida 32801
Office: (407) 704-7815
www.omengineer.com

DAVID RETLAW BORYS, P.E.
FL. REG. # 75372

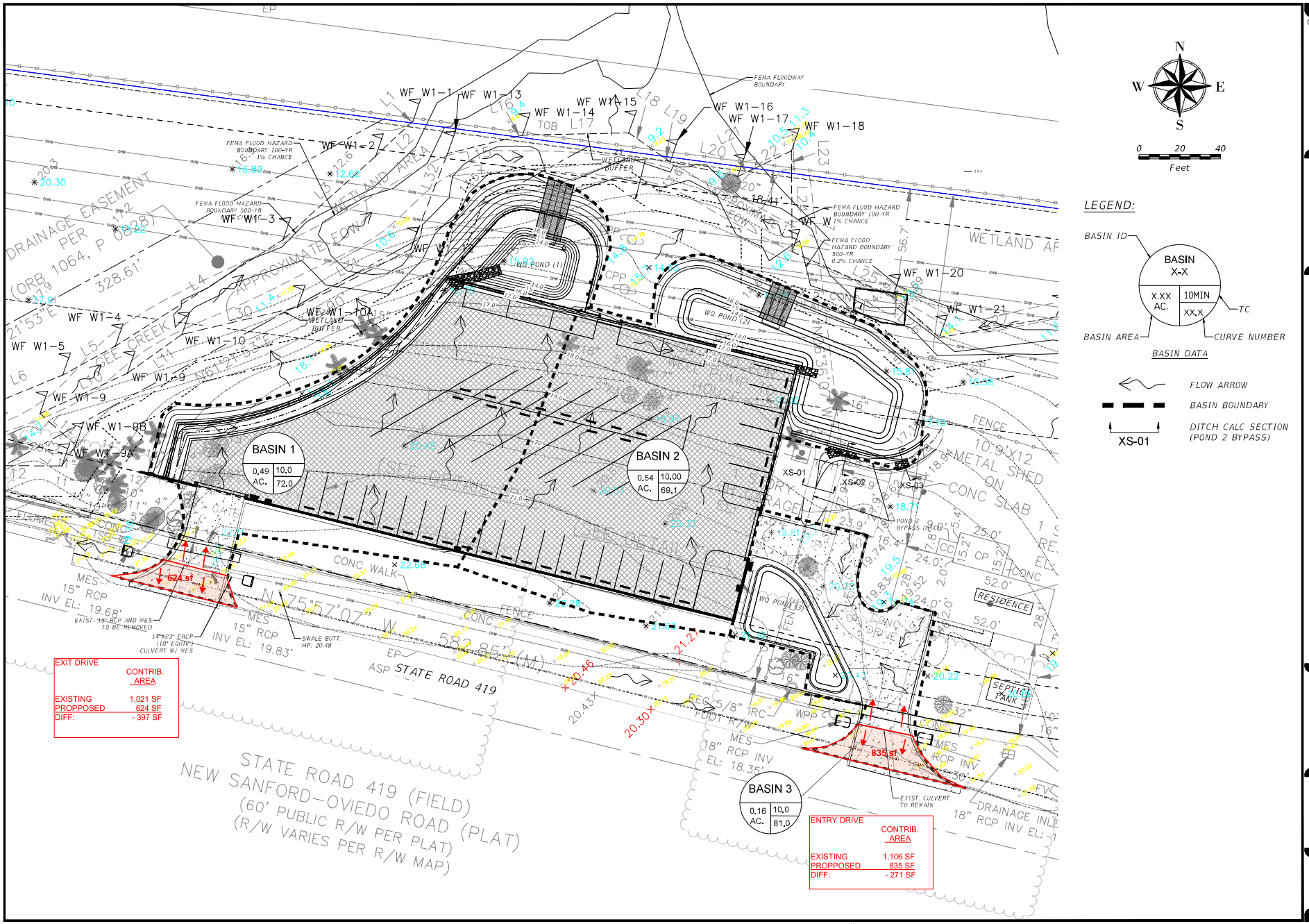
Drainage Map - Pre-Development

SR 419 RV & BOAT STORAGE LOT

4301 SR 419 WINTER SPRINGS, FL 32708

NO. 1	DATE: 2025-06-04
DESCRIPTION: 1st SUB. CITY OF WINTER SPRINGS	
NO. 2	DATE: 2025-11-19
DESCRIPTION: 2nd SUB.CITY OF WINTER SPRINGS	
NO.	DATE:
DESCRIPTION:	
NO.	DATE:
DESCRIPTION:	
NO.	DATE:
DESCRIPTION:	
PROJECT NO. 22-0211	

D-1



N

W E

S

0 20 40

Feet

LEGEND:

BASIN ID

BASIN X-X

X.XX AC. | 10MIN

XX.X

TC

BASIN AREA

CURVE NUMBER

BASIN DATA

FLOW ARROW

BASIN BOUNDARY

XS-01 DITCH CALC SECTION (POND 2 BYPASS)

CONSULTANT:

OM ENGINEERING SERVICES, INC.
Civil • Structural • Inspections

621 E. Washington St., Suite 8
Orlando, Florida 32801
Office: (407) 704-7815
www.omengineer.com

DAVID RETLAW BORYS, P.E.
FL. REG. # 75372

Drainage Map - Post-Development

SR 419 RV & BOAT STORAGE LOT

4301 SR 419 WINTER SPRINGS, FL 32708

NO. 1 DATE: 2025-06-24
DESCRIPTION: 1st SUB. CITY OF WINTER SPRINGS
NO. 2 DATE: 2025-11-19
DESCRIPTION: 2nd SUB.CITY OF WINTER SPRINGS
NO. DATE:
DESCRIPTION:
NO. DATE:
DESCRIPTION:
NO. DATE:
DESCRIPTION:

PROJECT NO. 22-0211

D-2

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

David 6/26/2026 1:11:43 PM Y:\FDOT AutoCAD Projects\22221100000\Drainage\DRMPRD02.dwg

Channel Report

SR419 - POND 2 BYPASS DITCH - XS-01 - SHED-GARAGE - 100-YR

Triangular

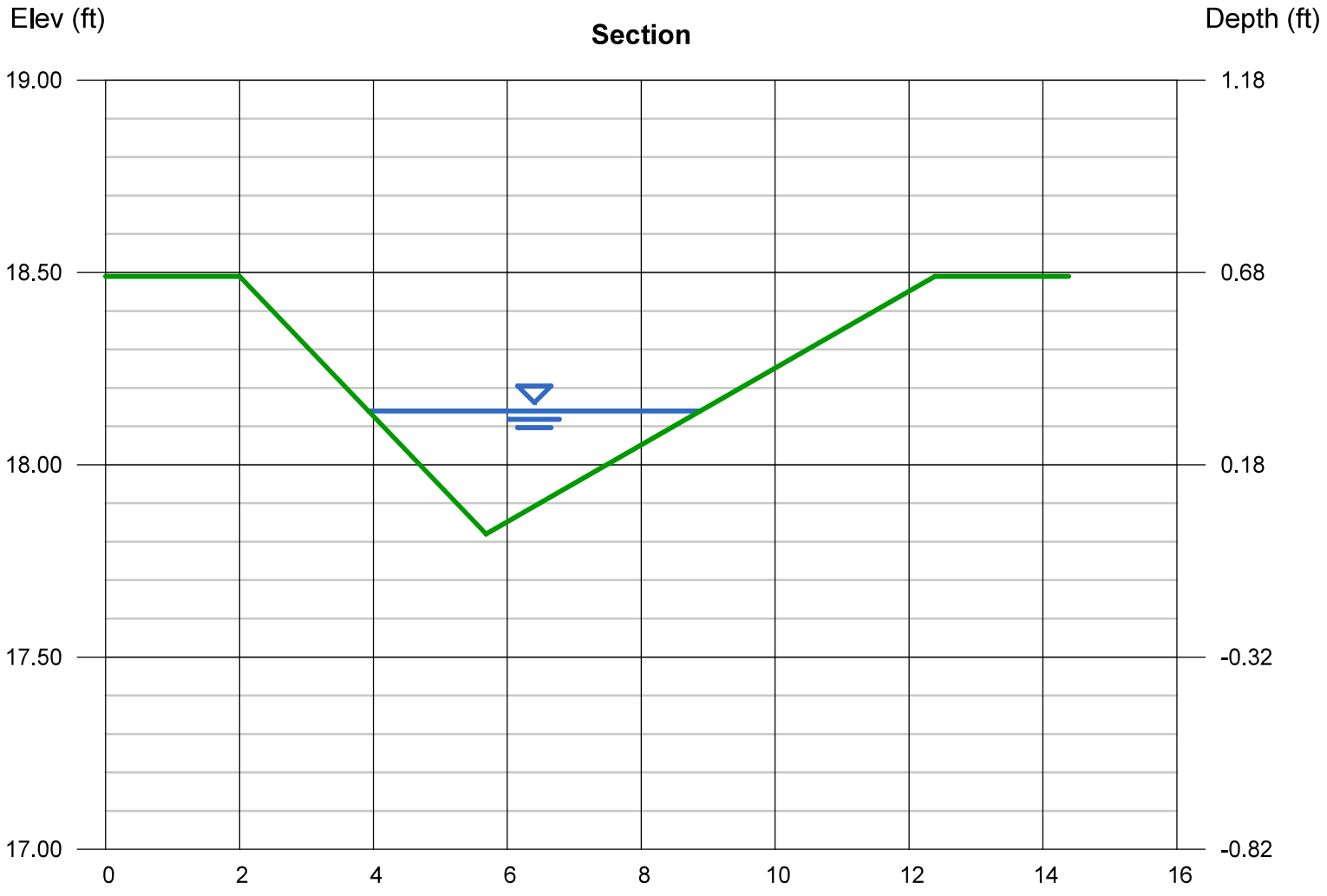
Side Slopes (z:1)	= 5.50, 10.00
Total Depth (ft)	= 0.67
Invert Elev (ft)	= 17.82
Slope (%)	= 2.00
N-Value	= 0.060

Calculations

Compute by:	Known Q
Known Q (cfs)	= 0.79

Highlighted

Depth (ft)	= 0.32
Q (cfs)	= 0.790
Area (sqft)	= 0.79
Velocity (ft/s)	= 1.00
Wetted Perim (ft)	= 5.00
Crit Depth, Yc (ft)	= 0.24
Top Width (ft)	= 4.96
EGL (ft)	= 0.34



Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Friday, Jun 26 2026

SR419 - POND 2 BYPASS DITCH - XS-02 - BERM-GARAGE - 100-YR

Triangular

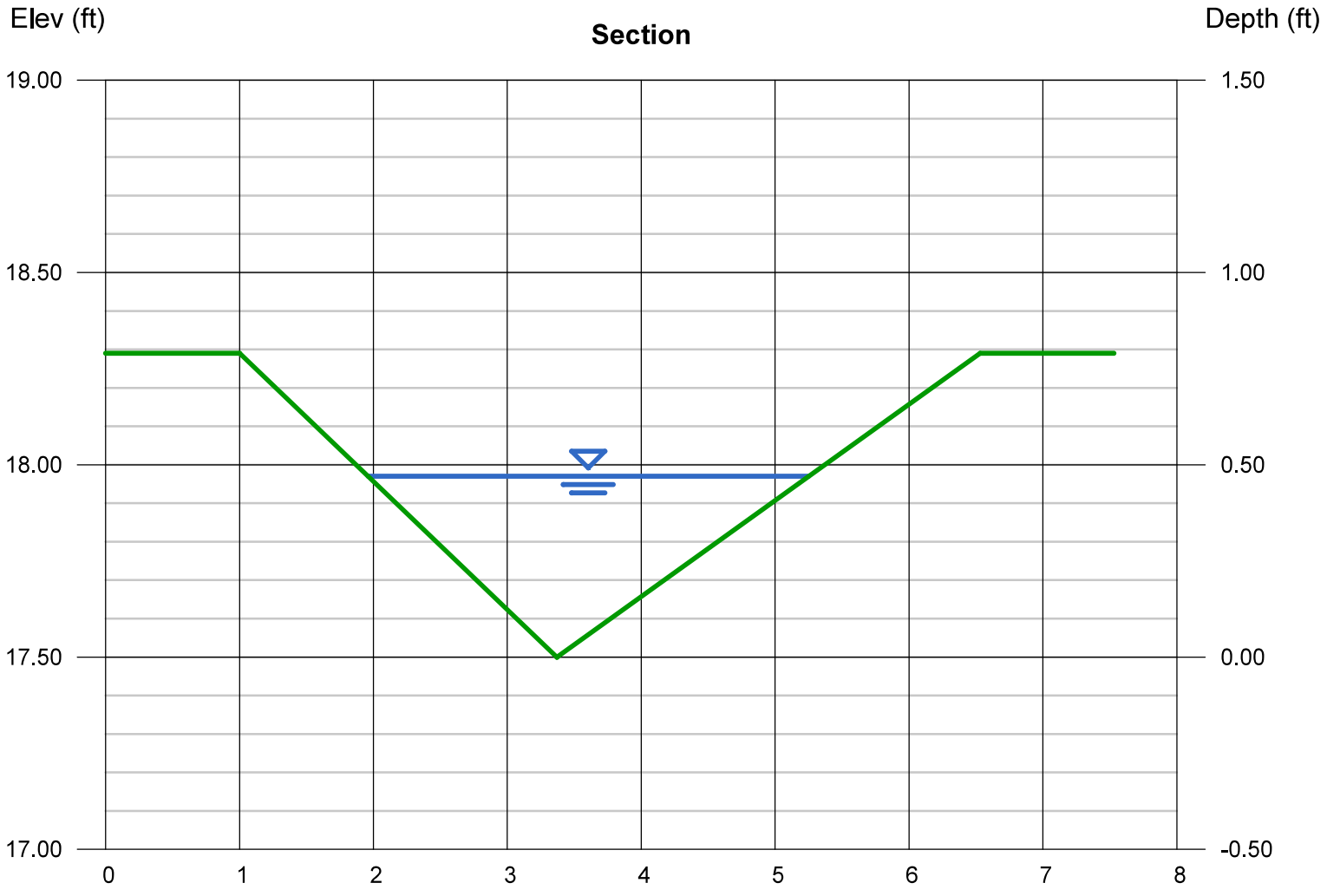
Side Slopes (z:1)	= 3.00, 4.00
Total Depth (ft)	= 0.79
Invert Elev (ft)	= 17.50
Slope (%)	= 1.25
N-Value	= 0.060

Calculations

Compute by:	Known Q
Known Q (cfs)	= 0.79

Highlighted

Depth (ft)	= 0.47
Q (cfs)	= 0.790
Area (sqft)	= 0.77
Velocity (ft/s)	= 1.02
Wetted Perim (ft)	= 3.42
Crit Depth, Yc (ft)	= 0.32
Top Width (ft)	= 3.29
EGL (ft)	= 0.49



Channel Report

SR419 - POND 2 BYPASS DITCH - XS-03 - BERM- SHED - 100-YR

Triangular

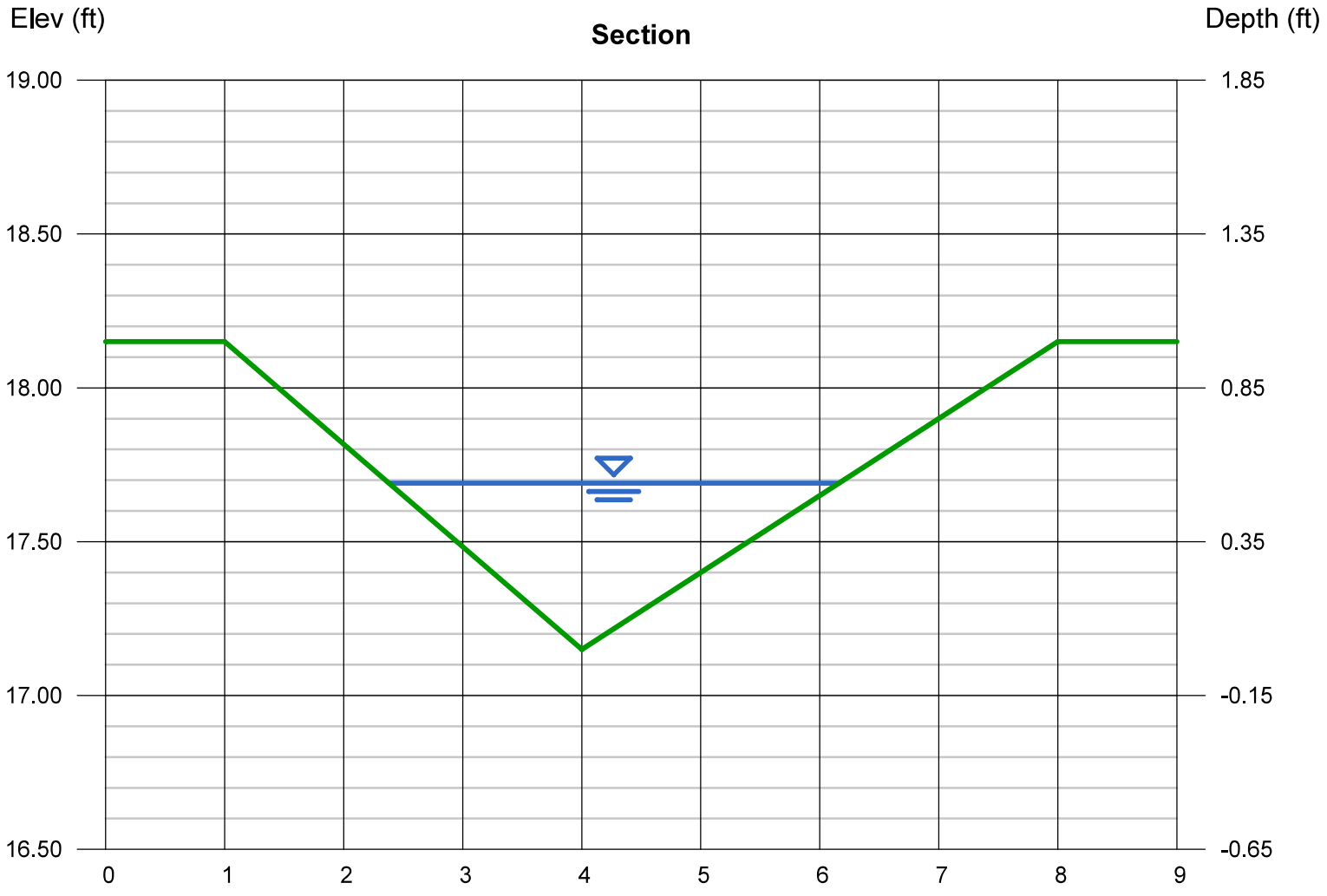
Side Slopes (z:1)	= 3.00, 4.00
Total Depth (ft)	= 1.00
Invert Elev (ft)	= 17.15
Slope (%)	= 0.60
N-Value	= 0.060

Calculations

Compute by:	Known Q
Known Q (cfs)	= 0.79

Highlighted

Depth (ft)	= 0.54
Q (cfs)	= 0.790
Area (sqft)	= 1.02
Velocity (ft/s)	= 0.77
Wetted Perim (ft)	= 3.93
Crit Depth, Yc (ft)	= 0.32
Top Width (ft)	= 3.78
EGL (ft)	= 0.55



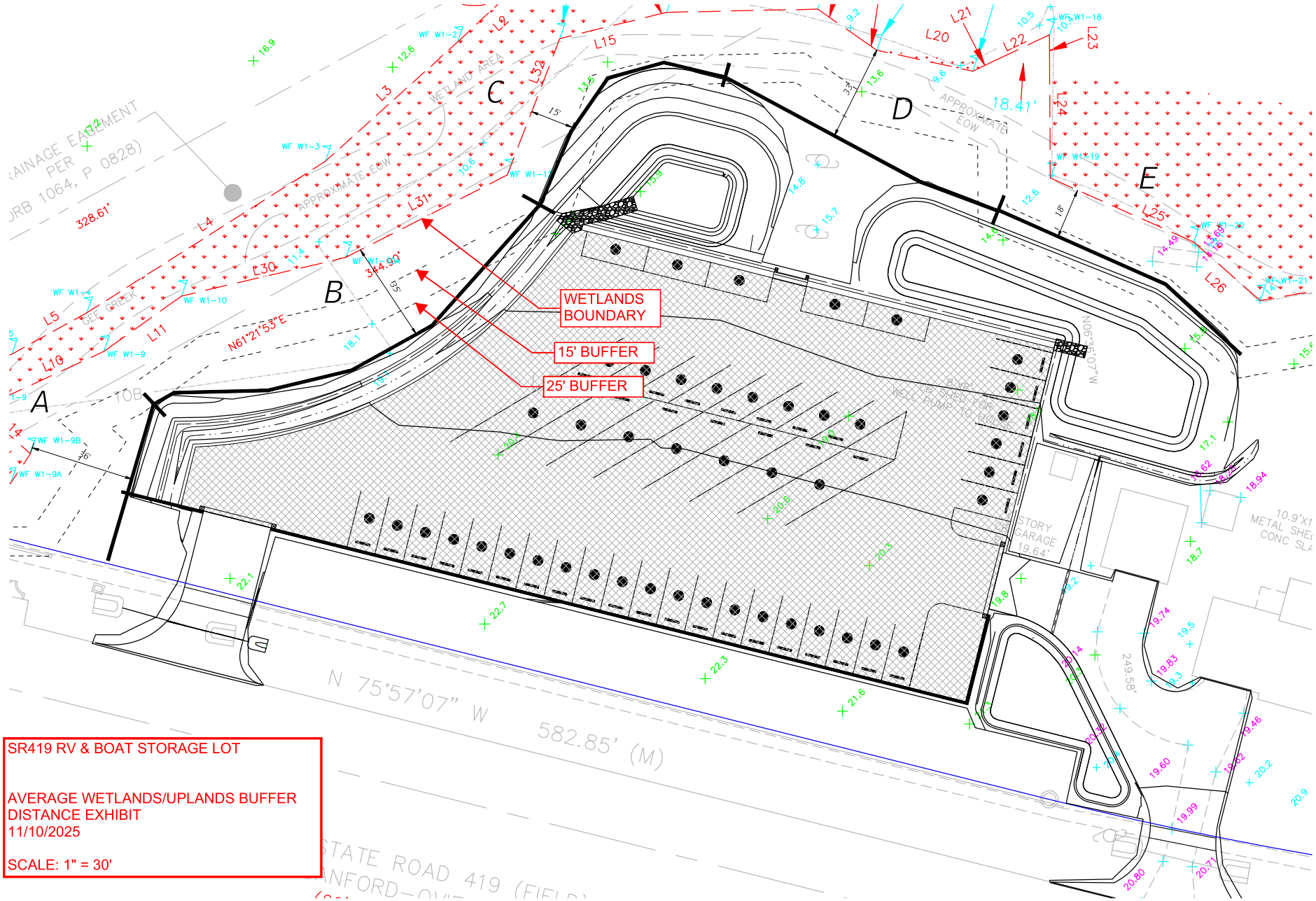
SR419 RV & Boat Storage Lot
11/10/2025

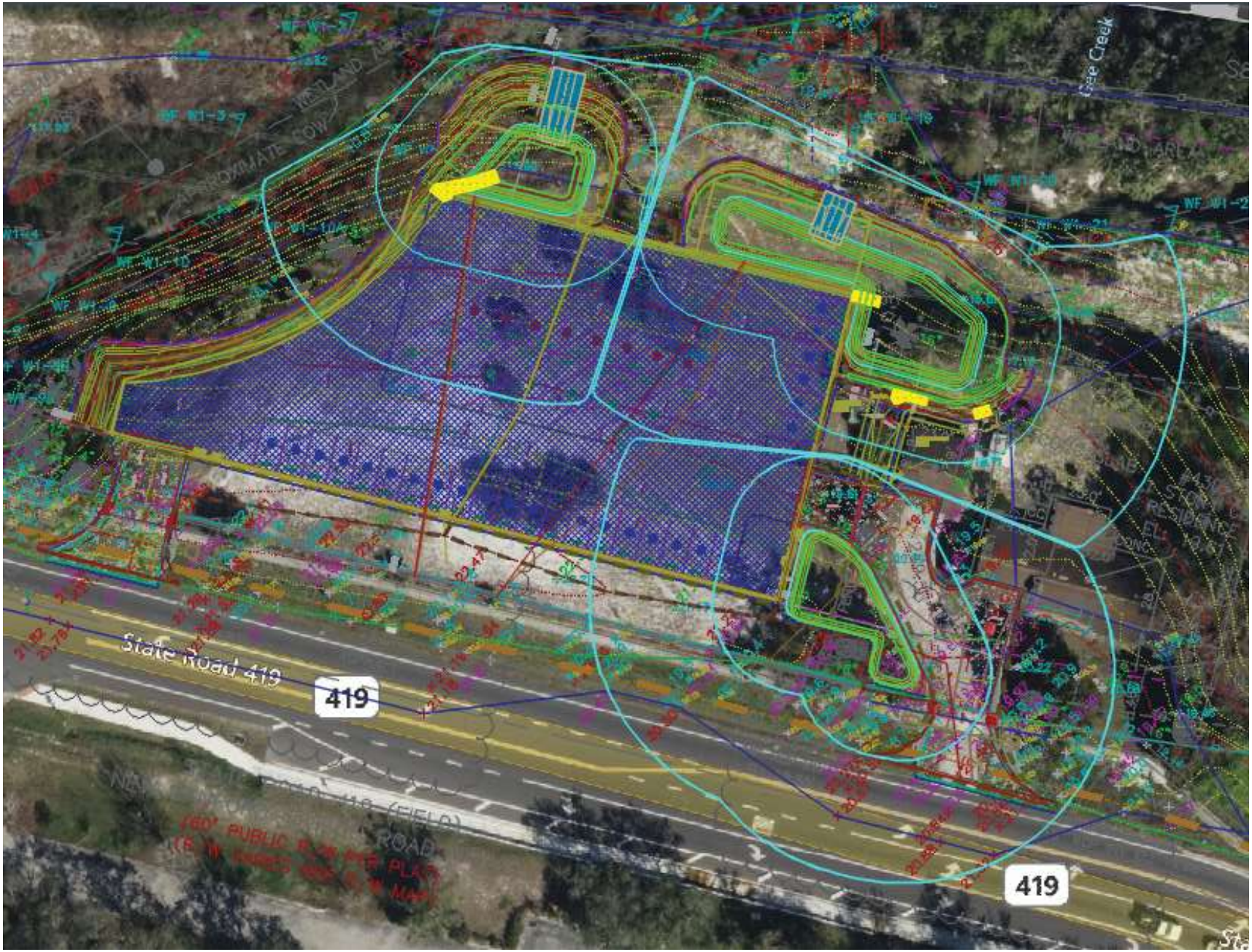
Average Wetland Buffer Calcs

Total Length of Project Along Wetlands Boundary (ft): 507

Segment	Length	Seg. Buffer Dist.	Product (Length x Min. Buffer Dist)
	ft	ft	
A	56	36	2,016
B	158	35	5,530
C	91	15	1,365
D	104	33	3,432
E	98	18	1,764
Total:	**507**		**14,107**
		Project Avg. Weighted Buffer Dist (ft):	**27.8**
		Required Avg. Min. Buffer Distance (ft):	**25**

Result: Average project wetlands buffer is maintained and is greater than average required buffer distance of 25 ft. Therefore, project is in compliance with applicable SJRWMD regulations for wetlands buffers.


WETLANDS BOUNDARY
15' BUFFER
25' BUFFER
A
B
C
D
E
N 75°57'07" W
582.85' (M)
328.61'
344.90'
N61°21'53"E
18.41'
249.58'
SR419 RV & BOAT STORAGE LOT
AVERAGE WETLANDS/UPLANDS BUFFER DISTANCE EXHIBIT
11/10/2025
SCALE: 1" = 30'



SR 419 RV & BOAT STORAGE LOT
POND INFILTRATION PERIMETER RING EXHIBIT
OME 2026-09

Appendix D: Geotechnical Report & Pond Berm Stability Analysis

TIERRA

August 13, 2025
Revised February 24, 2026

Merdian Realty
3601 S Orange Ave
Orlando FL 32806

Attn: Mr. Matt Merdian
info@taxdeedpro.com

RE: Report
Geotechnical Engineering Services
SR 419 RV & Boat Storage Facility
4301 SR 419
Winter Springs, Seminole County, Florida
Tierra Project No.: 5511-25-056

Mr. Merdian:

Tierra, Inc. (Tierra) has completed geotechnical engineering services for the above referenced project. The results of our field exploration program and subsequent geotechnical recommendations are presented in this report.

Project Information

The project is planned to consist of the design and construction of a boat and RV storage facility located at 4301 SR 419 in Winter Springs, Seminole County, Florida. The facility will include two concrete entrance drives and a parking storage area stabilized using geocells. Stormwater management associated with the facility will be provided by three shallow stormwater ponds. A site plan titled “SR 419 RV & Boat Storage Lot”, dated April 4, 2025, prepared by OM Engineering depicting the proposed improvements was provided to us prior to the start of our study.

If any of the project information noted is incorrect or has changed, Tierra should be notified as soon as possible so we can determine if the changes impact our recommendations herein.

Scope of Services

The objective of our study was to obtain information on the general subsurface soil and groundwater conditions at the project site. The subsurface conditions encountered were then evaluated with respect to the available project characteristics to evaluate site suitability and to provide geotechnical recommendations for the planned improvements.

In order to meet the preceding objectives, we completed the following services:

1. Reviewed published geologic and topographic information. This published information was obtained from the “Casselberry, Florida” quadrangle map published by the United States Geological Survey (USGS) and the "Soil Survey of Seminole County, Florida" published by the United States Department of Agriculture (USDA) Soil Conservation Service (SCS).

2. Conducted a visual site reconnaissance of the project site and coordinated utility clearance via Sunshine One Call.

3. Performed a geotechnical field study for the proposed parking area consisting of borings, subsurface sampling, and field testing. We completed the following:

    a. Performed two (2) Standard Penetration Test (SPT) borings to a depth of approximately 10 feet within the limits of the concrete entrance drives (or frontage walls) planned for the facility.

    b. Performed three (3) Standard Penetration Test (SPT) borings to a depth of approximately 16 feet below existing site grades within the stormwater pond locations.

    c. Performed five (5) constant head field permeability tests at depths of approximately 2 to 5 feet below the existing site grades at the pond boring locations.

4. Measured the groundwater levels at the boring locations and estimated normal seasonal high groundwater elevations.

5. Visually classified and stratified the recovered soil samples in the laboratory using the Unified Soil Classification System.

6. Prepared this formal engineering report which summarizes the course of study pursued, the field data generated, the subsurface conditions encountered and our geotechnical recommendations with respect to the proposed site improvements.

REVIEW OF PUBLISHED DATA

USDA Soil Survey

Based on a review of the "Soil Survey of Seminole County, Florida" published by the USDA NRCS, it appears that there are two (2) primary soil-mapping units noted within the limits of the project site. The general soil description is provided below, as described in the Soil Survey.

Nittaw, Okeelanta, and Basinger soils, frequently flooded (Soil Group No. 23) The soils associated with this map unit are nearly level and poorly to very poorly drained. The estimated seasonal high groundwater table is at a depth of 12 inches below the natural ground surface and are subject to frequent flooding during heavy rains.

Paola-St. Lucie sands, 0 to 5 percent slopes (Soil Group No. 24) As per the Soil Survey of Seminole County, the estimated seasonal high groundwater table is at a depth of more than 80 inches below the natural ground surface. The soil is described as nearly level to gently sloping excessively drained sandy soil.

It should be noted that information contained in the USDA/NRCS Soil Survey may not be reflective of current subsurface conditions, particularly if recent development in the project vicinity has modified existing soils or surface/subsurface drainage.

USGS Topographic Map

The topographic survey map published by the (USGS) entitled "Casselberry, Florida" was reviewed for ground surface features in the area of the proposed improvements. Based on this review, the natural ground surface elevations appear to range from approximately +15 to +20 feet National Geodetic Vertical Datum (NGVD) of 1929. Gee Creek is located just to the north of the parcel and drains toward Lake Jessup. The USGS information is generally consistent with site specific topographic data that was provided to us as part of our study.

SUBSURFACE CONDITIONS

The boring locations were established in the field by a representative of Tierra using a handheld Garmin eTrex® Global Positioning System (GPS) device with a reported accuracy of +/- 10 feet. Generally, the borings were performed at the proposed locations. The approximate boring locations are presented on the **Boring Location Plan** on **Sheet 1** in the **Attachments**.

Field Exploration

Tierra performed a total of five (5) Standard Penetration Test (SPT) borings advanced to depths of 10 to 16 feet below the existing ground surface and completed three (3) in-situ constant head field permeability tests.

The soil samples collected from the auger borings were then transported to our Winter Garden office for visual classification. Subsoils were visually classified following the guidelines contained in the Unified Soil Classification System (USCS).

The soil strata encountered in the borings performed is summarized in the following table and are also presented on the attached **Sheet 2**:

Stratum Number	Soil Description	USCS Symbol
1	Gray-Brown to Gray to Pale Brown SAND to SAND with Silt	SP/SP-SM
2	Gray-Brown to Gray Silty SAND	SM

The subsurface soil stratification is of a generalized nature to highlight the major subsurface stratification features and material characteristics. The **Soil Profiles** included on **Sheet 2** should be reviewed for specific information at the individual boring locations. These profiles include soil descriptions and stratifications. The stratifications shown on the boring profiles represent the conditions only at the actual boring location. Variations may occur and should be expected between boring locations. The stratifications represent the approximate boundary between subsurface materials and the actual transition may be gradual. In some cases, small variations in properties that were not considered pertinent to our engineering evaluation may have been abbreviated or omitted for clarity.

Groundwater Information

Groundwater was encountered at depths ranging from approximately 3½ to 4½ feet below existing grades at the time of our field study. Based on the subsurface conditions encountered and a review of the Soil Survey of Seminole County, Florida published by the USDA NRCS, Tierra estimates the normal seasonal high groundwater levels to be approximately 1 to 1½ feet above the encountered groundwater levels. The encountered groundwater table levels and estimated normal seasonal high groundwater levels are presented adjacent to the soil profiles on **Sheet 2** in the **Attachments.**

It should be noted that groundwater levels tend to fluctuate during periods of prolonged drought and extended rainfall and may be affected by man-made influences. In addition, a seasonal effect will also occur in which higher groundwater levels are normally recorded in rainy seasons.

Field Permeability Testing

Tierra performed five (5) constant head field permeability tests within the existing stormwater ponds at a depth of approximately 2 to 5 feet below the existing ground surface. The permeability tests were performed and the results evaluated in general accordance with the methodology presented in the booklet titled "Stormwater Retention Pond Infiltration Analyses in Unconfined Aquifers," Jammal & Associates, Inc., prepared for the Southwest Florida Water Management District (SWFWMD). The boring locations where the tests were performed are shown on the attached **Sheet 1**.

The following table presents the results of the field testing and our interpretation of the results with respect to the hydraulic conductivity of the in-situ soils at each test location:

Test Location	Stratum Tested	Test Depth (feet)	In-situ Vertical Unsaturated Hydraulic Conductivity, (feet/day)
PB-1	1	2	35
PB-1	2	3	18
PB-2	1	2	34
PB-3	1	2	25
PB-3	2	5	10

EVALUATION AND RECOMMENDATIONS

Based on the results of our borings, it is our opinion that subsoil conditions are generally suitable for the planned improvements and associated civil infrastructure from a geotechnical engineering perspective.

The following recommendations have been developed on the basis of the previously described project characteristics and subsurface conditions encountered. If there is any change in the project criteria, a review must be made by Tierra to determine if additional fieldwork and/or any modifications to our recommendations will be required.

Site Preparation

At the outset of construction, unwanted ground cover should be removed from within the limits of construction, including where possible, 5 feet beyond the outside edges of the same. Interfering existing underground utilities within the proposed construction area should also be relocated or removed. Abandoned underground pipes within the proposed parking/storage area should be removed in their entirety or grout filled. If abandoned pipes are not removed or grout filled, then they may act as conduits for subsurface erosion and cause detrimental settlement. Material generated during stripping/clearing operations should be disposed of in a proper manner.

Ground Improvement by Proof Rolling

Following site clearing operations, the subgrade soils should be proof rolled. The limits of proof rolling should encompass the limits of the parking and storage areas, plus a horizontal distance of 5 feet beyond the edges of the same, where practical. The stripped/cleared subgrade should be proof-rolled with a minimum of ten overlapping passes with the compaction equipment operating in a crisscross pattern. Proof rolling/compaction should be accomplished with a vibratory roller capable of imparting a maximum dynamic drum force of at least 36,000 pounds.

Based on past experience, vibratory rollers should be operated in the static mode when within 75 feet of existing structures to reduce transmission of vibrations that could disturb occupants or cause structural distress. In the event that unstable/yielding soils are encountered by the roller/compactor, such materials should be removed and replaced with compacted engineered fill.

Proof rolling/compaction operations should be carried out under the surveillance of a representative of the geotechnical engineer so that observations of the subgrade can be made and in-place density tests can be taken to evaluate if compaction requirements are being achieved. It is recommended the subgrade soils be compacted to obtain a minimum density of 95 percent of the soil's modified Proctor maximum dry density (ASTM D-1557) to a minimum depth of 1 foot below stripped grade.

On Site Soil Suitability

In general, the near surface soils of Stratum 1 (SP/SP-SM materials) consist of relatively clean sands and may be moved and used for grading purposes, site leveling, general engineering fill, structural fill and backfill in other areas, provided the fill is free of organic materials (i.e. topsoil), debris or any other material deemed unsuitable for construction.

The Stratum 2 soils (SM) usually exhibit fines contents in excess of 12 percent and should be evaluated prior to usage. These soils will tend to hold excess moisture and may be more difficult to dry and compact. However, when properly moisture conditioned and compacted, they provide suitable support. We do not recommend these soils be placed within 18 inches of pavement base materials due to poor drainage characteristics.

Pavement Considerations

Actual pavement section thickness and pavement design should be provided by the design civil engineer based on traffic loads, volume, and the owners design life requirements. All pavement materials and construction procedures should conform to the appropriate City or County requirements.

It is our understand that for the main storage yard and parking areas, a Presto Geoweb® geocell system (or equivalent) with interconnected HDPE cells will be used. This type of system utilizes the confinement of the cellular structure to distribute vehicle loads over a wider area, significantly reducing rutting, settlement, and subgrade deformation. When infilled with compacted aggregate, the system creates a stable, permeable pavement layer that supports heavy wheel loads while maintaining stormwater infiltration and reducing runoff. Its resistance to washout and ability to perform without full-depth asphalt or concrete make it especially advantageous for unpaved or partially paved storage yards, offering long-term performance with reduced construction and maintenance costs.

For the rigid pavement planned at the entrance drives to the facility we recommend that the concrete have a minimum compressive strength of 4,000 psi at 28 days when tested in accordance with ASTM C-39. Based on our experience, a minimum thickness of six (6) inches should be utilized for heavy-duty applications. The steel reinforcement within the concrete pavement should be designed by the project civil engineer. The subgrade soils should be compacted to a minimum density of 95% of the Modified Proctor maximum dry density.

Stormwater Design

Based on the results of our borings and field permeability tests performed in each of the pond sites, we are recommending the following parameters be used to model the shallow effective aquifer for the ponds associated with the project.

Pond Name: WQ Pond (1)	**Reference Boring: PB-1 (Approx GSE +16.0)**	
Parameter	**Value**	**Unit**
Coefficient of Vertical Permeability*	28	feet per day
Coefficient of Horizontal Permeability*	28	feet per day
SHGWT Elevation	+12.5	feet NAVD88
Base of Aquifer Elevation**	+0.0	feet NAVD88
Fillable Porosity of Shallow Aquifer	25	percent

* Represents a weighted average of the permeability test results completed within the Strata 1 & 2 soils. These rates are unfactored. The designer should employ an appropriate reduction/safety factor.
** No confining layers were encountered to the boring termination depth (16 ft.).

Pond Name: WQ Pond (2)	**Reference Boring: PB-2 (Approx GSE +15.5)**	
Parameter	**Value**	**Unit**
Coefficient of Vertical Permeability*	34	feet per day
Coefficient of Horizontal Permeability*	34	feet per day
SHGWT Elevation	+13.0	feet NAVD88
Base of Aquifer Elevation**	-0.5	feet NAVD88
Fillable Porosity of Shallow Aquifer	25	percent

* These rates are unfactored. The designer should employ an appropriate reduction/safety factor.
** No confining layers were encountered to the boring termination depth (16 ft.).

Pond Name: WQ Pond (3)	**Reference Boring: PB-3 (Approx GSE +20.5)**	
Parameter	**Value**	**Unit**
Coefficient of Vertical Permeability*	13	feet per day
Coefficient of Horizontal Permeability*	13	feet per day
SHGWT Elevation	+17.5	feet NAVD88
Base of Aquifer Elevation**	+4.5	feet NAVD88
Fillable Porosity of Shallow Aquifer	25	percent

* Represents a weighted average of the permeability test results completed within the Strata 1 & 2 soils. These rates are unfactored. The designer should employ an appropriate reduction/safety factor.
** No confining layers were encountered to the boring termination depth (16 ft.).

The performance of a given stormwater system is dependent on the soil permeability as well as the groundwater table, system bottom elevation, system geometry, confining layer and water level in the system. We recommend a commercially available computer program such as PONDS or MODRET be used by an engineer experienced in groundwater modeling to evaluate the proposed stormwater system. The system should be designed and constructed in accordance with St. Johns River Water Management District and local City/County requirements. **The above coefficients of permeability are unfactored.** The project drainage engineer should apply a factor of safety that is appropriate for the project design.

REPORT LIMITATIONS

The analyses, conclusions and recommendations contained in this report are our professional opinions based on the site conditions and project layout described herein and further assume that the conditions observed in the exploratory borings are representative of the subsurface conditions throughout the limits of the site. If, during construction, subsurface conditions different from those encountered in the exploratory borings are observed or appear to be present during construction, we should be advised at once so that we can review these conditions and reconsider our recommendations where necessary.

If there is a substantial lapse in time between the submittal of this report and the start of work at the site, or if conditions or the project layout are changed due to natural causes or construction operations at or adjacent to the site, we recommend that this report be reviewed to determine the applicability of conclusions and recommendations considering the changed conditions and time lapse.

This report was prepared for the exclusive use of Merdian Realty and their consultants for evaluating the design of the project as it relates to the geotechnical aspects discussed herein. It should be made available to prospective contractors for information on factual data only and not as a warranty of subsurface conditions included in this report. Unanticipated soil conditions may require that additional expense be made to attain a properly constructed project. Therefore, some contingency fund is recommended to accommodate such potential extra costs.

Closure

Should there be any questions regarding the report, please do not hesitate to contact our office at (407) 877-1354. We look forward to working with you and your organization on this and future projects.

Respectfully Submitted,

TIERRA, INC.

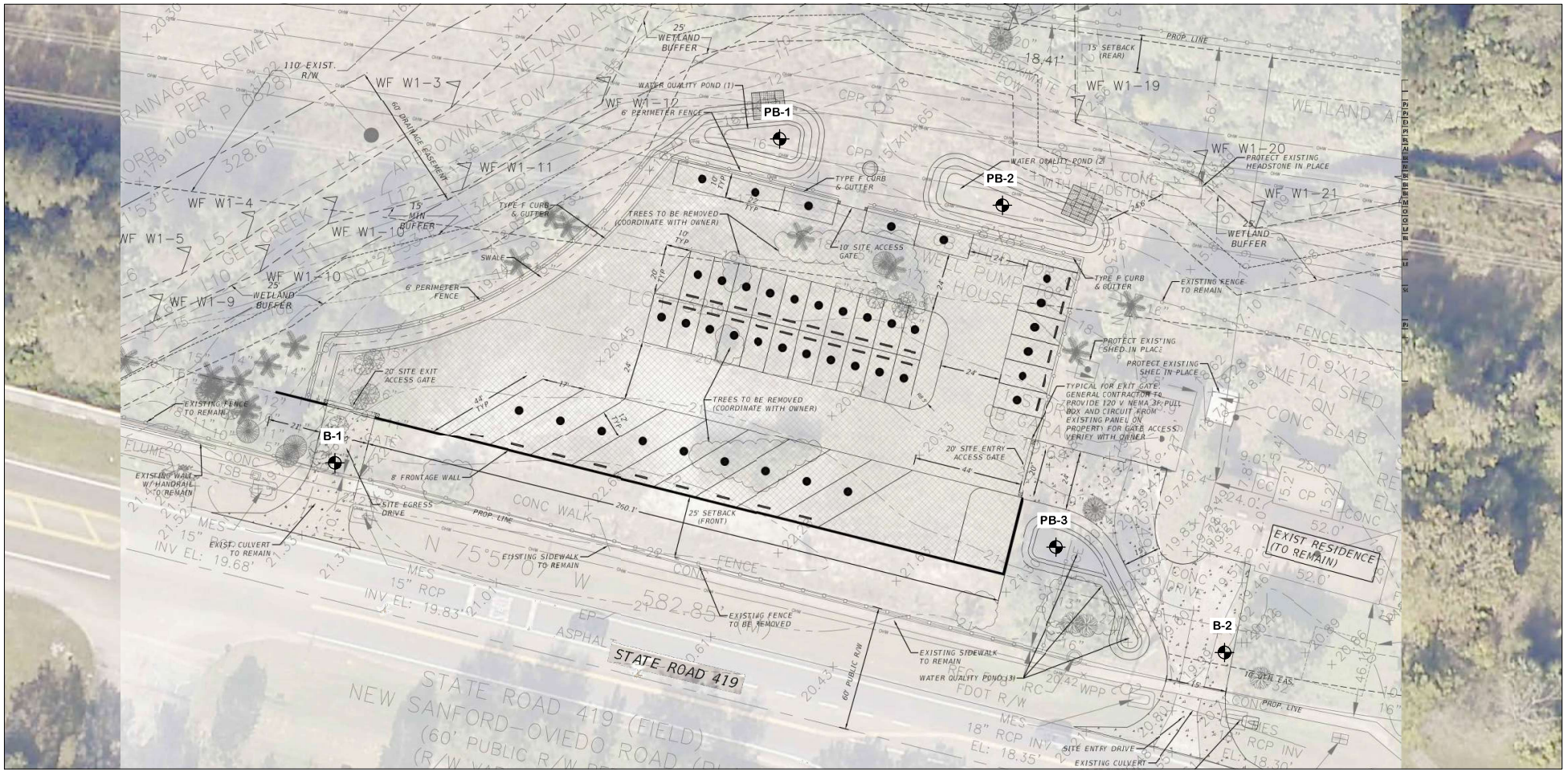


Kenneth L. Symonds, Jr.,P.E.
Senior Geotechnical Engineer
Florida License No. 59518

This item has been digitally signed and sealed by Kenneth L. Symonds, Jr., P.E. on the date adjacent to the seal.

Signature must be verified on any electronic copies.

Attachments: Boring Location Plan (Sheet 1)
Soil Profiles (Sheet 2)



NOTE: BASE MAP PROVIDED BY OM ENGINEERING SERVICES, INC.

BORING LOCATION PLAN

0 40'

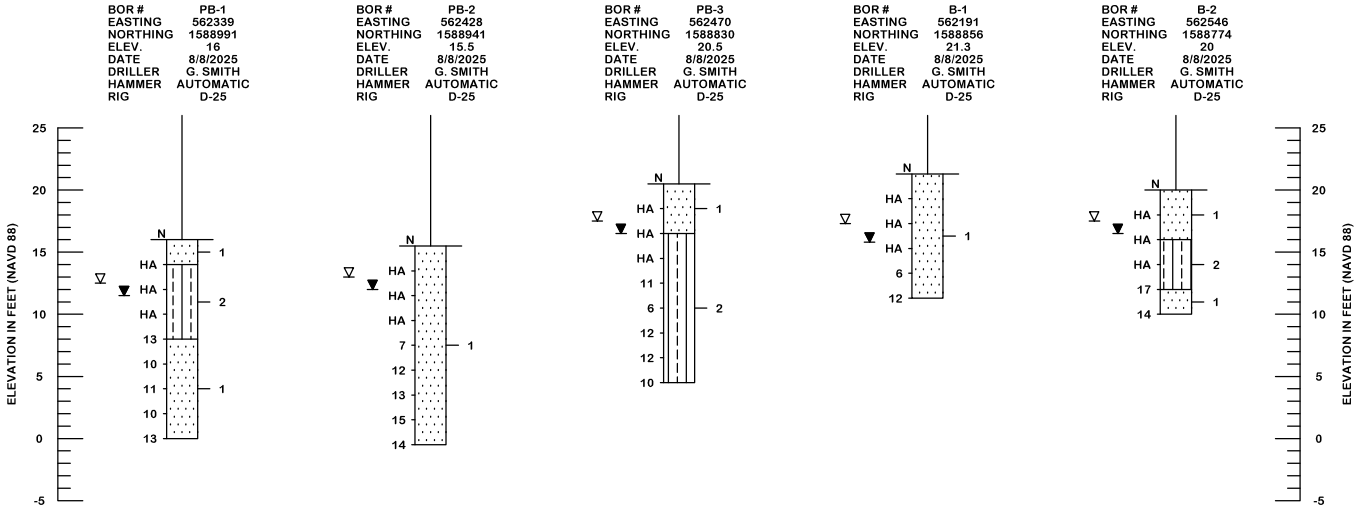
PLAN SCALE

LEGEND

APPROXIMATE LOCATION OF SPT BORING

DRAWN BY: SW CHECKED BY: DP	APPROVED BY: KLS DATE: AUG 2025	ENGINEER OF RECORD: KENNETH L. SYMONDS, JR., P.E. FLORIDA LICENSE NO.: 59518	TIERRA 591 Susan B. Britt Court Winter Garden, Florida 34787 Phone: 407-877-1354 Fax: 407-654-7347	SCALE: NOTED	PROJECT NUMBER: 5511-25-056	GEOTECHNICAL ENGINEERING SERVICES SR 419 RV & BOAT STORAGE FACILITY 4301 SR 419 WINTER SPRINGS, SEMINOLE COUNTY, FLORIDA	SHEET 1

SOIL PROFILES



LEGEND

1 GRAY-BROWN TO GRAY TO PALE BROWN SAND TO SAND WITH SILT (SP/SP-SM)

2 GRAY-BROWN TO GRAY SILTY SAND (SM)

▼ GROUNDWATER LEVEL ENCOUNTERED DURING INVESTIGATION

▽ ESTIMATED SEASONAL HIGH GROUNDWATER TABLE

N SPT N-VALUE IN BLOWS/FOOT FOR 12 INCHES OF PENETRATION (UNLESS OTHERWISE NOTED)

SP UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D 2488) GROUP SYMBOL AS DETERMINED BY VISUAL REVIEW

HA HAND AUGERED TO VERIFY UTILITY CLEARANCES

EASTING EASTING COORDINATE REFERENCED TO THE FLORIDA STATE PLANE COORDINATE SYSTEM, FLORIDA EAST ZONE, N.A.D. 83

NORTHING NORTHING COORDINATE REFERENCED TO THE FLORIDA STATE PLANE COORDINATE SYSTEM, FLORIDA EAST ZONE, N.A.D. 83

NAVD 88 NORTH AMERICAN VERTICAL DATUM OF 1988

NOTE: THE BORING LOCATIONS AND ELEVATIONS WERE DETERMINED USING COORDINATES OBTAINED BY TIERRA, INC. UTILIZING A HANDHELD GARMIN eTREX® GLOBAL POSITIONING SYSTEM (GPS) DEVICE WITH A REPORTED ACCURACY OF ±10 FEET IN CONJUNCTION WITH THE TOPOGRAPHIC SURVEY PROVIDED AND THEREFORE SHOULD BE CONSIDERED APPROXIMATE.

AUTOMATIC HAMMER	
GRANULAR MATERIALS-RELATIVE DENSITY	SPT (BLOWS/FT.)
VERY LOOSE	LESS THAN 3
LOOSE	3 TO 8
MEDIUM	8 TO 24
DENSE	24 TO 40
VERY DENSE	GREATER THAN 40
SILTS AND CLAYS CONSISTENCY	SPT (BLOWS/FT.)
VERY SOFT	LESS THAN 1
SOFT	1 TO 3
FIRM	3 TO 6
STIFF	6 TO 12
VERY STIFF	12 TO 24
HARD	GREATER THAN 24

DRAWN BY: SW
CHECKED BY: DP
APPROVED BY: KLS
DATE: AUG 2025
ENGINEER OF RECORD: KENNETH L. SYMONDS, JR., P.E.
FLORIDA LICENSE NO.: 59518

TIERRA
591 Susan B. Britt Court
Winter Garden, Florida 34787
Phone: 407-877-1354 Fax: 407-654-7347

SCALE: NOTED
PROJECT NUMBER: 5511-25-056

GEOTECHNICAL ENGINEERING SERVICES
SR 419 RV & BOAT STORAGE FACILITY
4301 SR 419
WINTER SPRINGS, SEMINOLE COUNTY, FLORIDA

SHEET 2

TIERRA

February 25, 2026

Merdian Realty
3601 S Orange Ave
Orlando FL 32806

Attn: Mr. Matt Merdian
info@taxdeedpro.com

RE: **Report**
Geotechnical Engineering Services
Pond No. 1 Berm Stability Analysis
SR 419 RV & Boat Storage Facility
Winter Springs, Seminole County, Florida
Tierra Project No. 5511-25-056

Mr. Merdian:

In accordance with our proposal dated February 18, 2026 and your authorization, Tierra, Inc. (Tierra) has carried out a berm stability analysis in connection with the referenced project. This letter presents an overview of our work effort on the assignment.

The slope stability analyses were completed to confirm that the berm of Pond No. 1 will be stable under seepage forces. Slope stability analyses of the proposed pond berm were performed using the computer program "GEO5 – Slope Stability" (developed by Fine Software). The analyses were conducted utilizing pond geometry obtained from typical sections prepared by OM Engineering Services, Inc and soil and groundwater information from the results of our borings completed for the project.

Based on the information provided, the maximum water elevation within the pond is +16.0 feet, with a bottom elevation of +13.5 feet. The berm surrounding the pond is shown to be 10 feet wide at the top with interior and exterior side slopes at 2.5 horizontal to 1 vertical (2.5H:1V). For purposes of this evaluation, it was assumed that the berm will be constructed of properly compacted on-site sandy soils or properly placed and compacted imported granular fill material.

The computer model, a copy of which is attached, indicates the minimum factor of safety against a slope stability failure of 1.3. Based on the noted assumptions and our understanding of the proposed pond and berm construction, it is our professional opinion that the Pond No. 1 berm will provide an adequate factor of safety against a potential slope stability failure. This value meets commonly accepted criteria for long-term slope stability of earthen embankments under steady-state seepage conditions.

591 Susan B. Britt Court • Winter Garden, FL 34787
Phone (407) 877-1354 • Fax (407) 654-7347

Closure

Tierra appreciates the opportunity to be of service to Merdian Realty on this project. If you have any questions or comments regarding our report, please contact our office at your earliest convenience.

Sincerely,

TIERRA, INC.



Kenneth L. Symonds, Jr., P.E.
Senior Geotechnical Engineer
Florida License No. 59518

Daren T. Porter, P.E.
Geotechnical Engineer
Florida License No. 100804

This item has been digitally signed and sealed by Kenneth L. Symonds, P.E. on the date adjacent to the seal.

Signature must be verified on any electronic copies.

Attachments:

GEO5 Computer Output of Slope Stability Analysis

Slope stability analysis

Input data (Construction stage 1)

Project

Project : SR 419 RV & Boat Storage Facility
Description : Pond 1 Berm Slope Stability Analysis
Customer : OM Engineering
Author : Daren Porter, P.E.
Date : 2/19/2026
Project number : 5511-25-056

Settings

(input for current task)

Stability analysis

Verification methodology : Safety factors (ASD)
Earthquake analysis : Standard

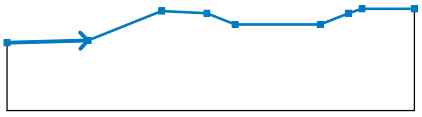
Safety factors			
Permanent design situation			
Safety factor :	SF_s =	1.25	[–]

Anchors

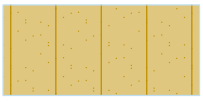
Verification methodology : Safety factors (ASD)

Safety factors			
Safety factor for steel strength :	SF_t =	1.50	[–]
Safety factor for pull out resistance (soil) :	SF_e =	1.50	[–]
Safety factor for pull out resistance (grouting) :	SF_c =	1.50	[–]

Interface

No.	Interface location	Coordinates of interface points [ft]					
		x	z	x	z	x	z
1		0.00	9.50	17.90	10.00	34.15	16.50
		44.15	16.00	50.40	13.50	69.20	13.50
		75.45	16.00	78.45	17.00	90.00	17.00

Soil parameters - effective stress state

No.	Name	Pattern	φ_{ef} [°]	c_{ef} [psf]	γ [pcf]
1	Gray-Brown Sand with Silt to Silty Sand (SP-SM/SM)		31.00	0.0	110.0

[GEO5 - Slope Stability (64 bit) | version 5.2024.120.0 | hardware key 9305 / 1 | Tierra Inc. | Copyright © 2024 Fine spol. s r.o. All Rights Reserved | www.finesoftware.eu]

Soil parameters - uplift

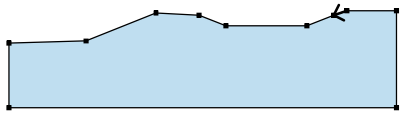
No.	Name	Pattern	γ_{sat} [pcf]	γ_s [pcf]	n [–]
1	Gray-Brown Sand with Silt to Silty Sand (SP-SM/SM)		115.0		

Soil parameters

Gray-Brown Sand with Silt to Silty Sand (SP-SM/SM)

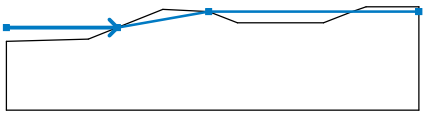
Unit weight : γ = 110.0 pcf
Stress-state : effective
Shear strength : Mohr-Coulomb
Angle of internal friction : φ_{ef} = 31.00 °
Cohesion of soil : c_{ef} = 0.0 psf
Saturated unit weight : γ_{sat} = 115.0 pcf

Assigning and surfaces

No.	Surface position	Coordinates of surface points [ft]				Assigned soil
		x	z	x	z	
1		78.45	17.00	75.45	16.00	Gray-Brown Sand with Silt to Silty Sand
		69.20	13.50	50.40	13.50	
		44.15	16.00	34.15	16.50	
		17.90	10.00	0.00	9.50	
		0.00	-5.50	90.00	-5.50	
		90.00	17.00			

Water

Water type : GWT

No.	GWT location	Coordinates of GWT points [ft]					
		x	z	x	z	x	z
1099981523		0.00	12.50	24.25	12.50	44.15	16.00
		90.00	16.00				

Tensile crack

Tensile crack not input.

Earthquake

Earthquake not included.

Settings of the stage of construction

Design situation : permanent

[GEO5 - Slope Stability (64 bit) | version 5.2024.120.0 | hardware key 9305 / 1 | Tierra Inc. | Copyright © 2024 Fine spol. s r.o. All Rights Reserved | www.finesoftware.eu]

Results (Construction stage 1)

Analysis 1

Circular slip surface

Slip surface parameters							
Center :	x =	20.25	[ft]	Angles :	α_1 =	-7.87	[°]
	z =	31.36	[ft]		α_2 =	46.17	[°]
Radius :	R =	21.58	[ft]				
The slip surface after optimization.							

Total weight of soil above the slip surface: 4003.2 lbf/ft

The restrictions of points of circular slip surface

Keep the right end point of the slip surface

Slope stability verification (Bishop)

Sum of active forces : F_a = 1118.6 lbf/ft

Sum of passive forces : F_p = 1449.6 lbf/ft

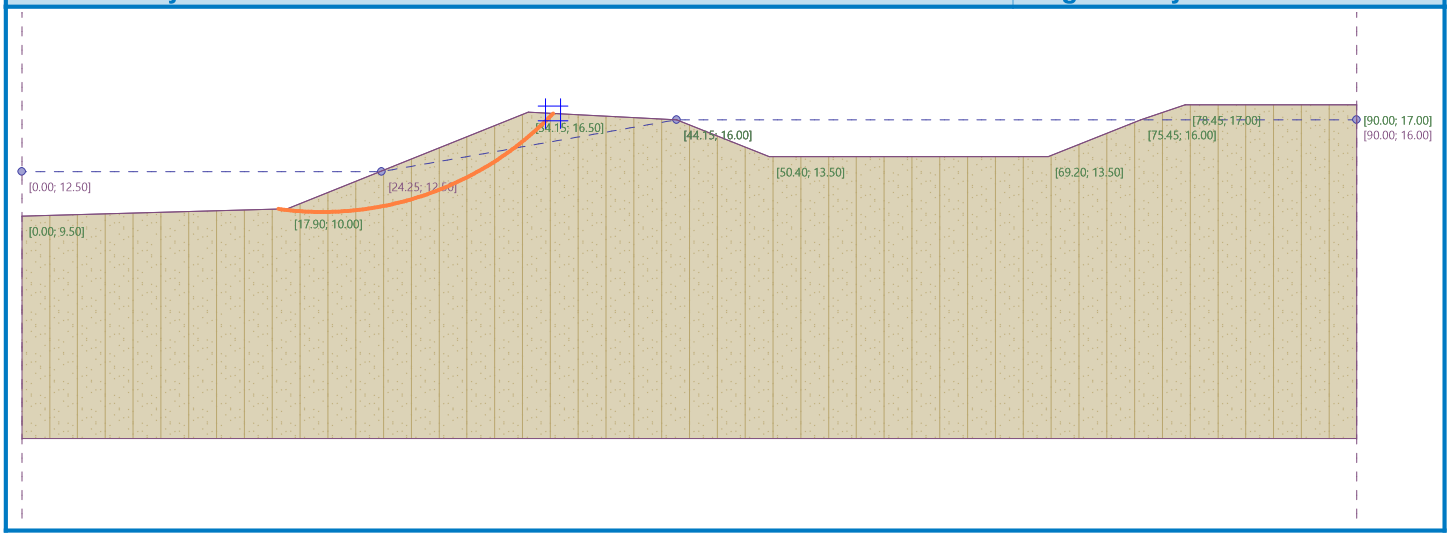
Sliding moment : M_a = 24140.3 lbfft/ft

Resisting moment : M_p = 31281.9 lbfft/ft

Factor of safety = 1.30 > 1.25

Slope stability ACCEPTABLE

Name : Analysis	Stage - analysis : 1 - 1



[GEO5 - Slope Stability (64 bit) | version 5.2024.120.0 | hardware key 9305 / 1 | Tierra Inc. | Copyright © 2024 Fine spol. s r.o. All Rights Reserved | www.finesoftware.eu]

CITY OF WINTER SPRINGS
COMMUNITY DEVELOPMENT DEPARTMENT
1126 East State Road 434
Winter Springs, Florida 32708
customerservice@wintersprings fl.org

Application – Site Plan Review

The Community Development Director reserves the right to determine whether this application is complete and accurate. An incomplete application will not be processed and will be returned to the applicant. The application shall be reviewed per Florida Statue 419.001. Applications shall be reviewed for sufficiency (completeness) within thirty (30) calendar days per FL Statue 166.033. By submitting this application, you hereby grant temporary right of entry for City officials to enter upon the subject property for purposes of evaluating this application.

Site Plan Type

Type of Development: ____ Residential __X__ Non-Residential

___Preliminary Review ___Final Review __X__Combined Preliminary/Final ___Resubmittal ___Recorded Plat

Project Name: SR419 RV & Boat Storage Lot Date: 4/1/2025

Applicant/Agent Information

Applicant(s): David R. Borys, OM Engineering Services, Inc.

Mailing Address: 621 E. Washington Street, Ste 8,Orlando,FL 32801

Email: dborys@omengineer.com

Phone Number: 407-704-7815

Person Who Will Upload Plans: David R. Borys

Email: dborys@omengineer.com Phone#: 407-704-7815

Property Owner(s) Name (If Applicant is not the Property Owner)

Name: Matt Merdian (POA Agent for YOUDALI INTERNATIONAL INVESTMENTS LLC,KIRA WOODs, KADO INVESTMENTS LLC)

Email: info@taxdeedpro.com Phone #: 407-230-8093

Mailing Address: 1889 BERKELEY CT, MAITLAND, FL 32751-3461

Phone Number: 407-230-8093

Site Information

Project Address: 4301 SR 419, WINTER SPRINGS, FL 32708

Parcel ID(s): 34-20-30-5AW-0000-0250

Parcel Size: 6.99 AC

Existing Use: Agriculture/Single Family

Proposed Use: General Commercial District (C-2)

Zoning District:

Future Land Use: Commercial

Is the property located in the Town Center District? _____Yes __X__No

Is the property within the S.R. 434 Corridor Overlay District? __X__Yes _____No

Is the property located in the Greeneway Interchange Zoning District? _____Yes __X__No

The Planning and Zoning Board/Local Planning Agency shall review Site Plan Applications and make a written recommendation to the City Commission. The City Commission shall render all final decisions regarding Preliminary and Final Engineering Plans and may impose reasonable conditions on any approved plans to the extent deemed necessary and relevant to ensure compliance with applicable criteria and other applicable provisions of the City Code and Comprehensive Plan. All formal decisions shall be based upon the applicable criteria as set forth in the City's Code of Ordinances Chapter 9, Land Development and Chapter 20, Zoning.

Applicants are advised, that if they decide to appeal any decisions made at the meetings or hearings, with respect to any matter considered at the meetings or hearings, they will need a record of the proceedings and, for such purposes, they will need to ensure that a verbatim record of the proceedings is made, at their cost, which includes the testimony and evidence upon which the appeal is to be based, per 286.0105, Florida Statutes.

Application Fees

Fees are as reflected on the Fee Schedule plus actual costs incurred for advertising or notification, and reimbursement for technical, and/or professional services which may be required in connection with the review, inspection, or approval of any development (based on accounting submitted by the City Consultant), payable prior to approval of the pertinent stage of development.

CITY OF WINTER SPRINGS
COMMUNITY DEVELOPMENT DEPARTMENT
1126 East State Road 434
Winter Springs, Florida 32708
customerservice@winterspringsfl.org

Application – Site Plan Review

THIS APPLICATION MUST BE SIGNED IN THE PRESENCE OF A NOTARY

This is to certify that I am the owner in simple fee of the subject property as described in this application for Site Plan Review.

Property Owner(s) Name (Print): _____

Property Owner Signature: _____ Date: _____

MATTHEW MERIDIAN POA FOR YONDALI INTERNATIONAL,

Property Owner(s) Name (Print): KIM WOODS, ICADO INVESTMENTS

Property Owner Signature: _____ Date: 04/02/2025

STATE OF FLORIDA COUNTY OF ORANGE

The foregoing instrument was acknowledged before me this 2ND day of APRIL, 2025, by MATTHEW MERIDIAN who is personally known to me or who has produced M635-544-76-106-0 as identification and who did/did not take an oath.

_____ Date: 04/02/2025 (seal):

Notary Public Signature: _____

My Commission Expires: 11/15/25

DAWN M. HORN
MY COMMISSION # HH 198660
EXPIRES: November 15, 2026
Bonded Thru Notary Public Underwriters

Note: If the applicant is not the property owner the Property Owner shall sign and have their signature notarized below, authorizing the applicant and/or agent permission to submit the Site Plan Review application.

Property Owner's Name (Print): _____

Property Owner Signature: _____ Date _____

STATE OF_____COUNTY OF _____

The foregoing instrument was acknowledged before me this_____day of_____, 20____, by _____ who is personally known to me or who has produced _____as identification and who did/did not take an oath.

_____Date: _____ (seal):

Notary Public Signature: _____

My Commission Expires: _____

Grant Maloy, Clerk Of The Circuit Court & Comptroller Seminole County, FL
Inst #2025003396 Book:10756 Page:1375-1388; (14 PAGES) RCD: 1/14/2025 10:52:30 AM
REC FEE $120.50

THIS INSTRUMENT WAS PREPARED BY
AND SHOULD BE RETURNED TO:

Anthony A. Garganese
City Attorney of Winter Springs
Garganese, Weiss, D'Agresta & Salzman, P.A.
111 N. Orange Avenue, Suite 2000
Orlando, FL 32802
(407) 425-9566

FOR RECORDING DEPARTMENT USE ONLY

DEVELOPMENT AGREEMENT

(4301 SR 419 – Future Land Use Amendment and Rezoning)

THIS DEVELOPMENT AGREEMENT ("**Agreement**") is made and executed this 13 day of January, 2025, by and between the **CITY OF WINTER SPRINGS**, a Florida Municipal Corporation with a principal address at 1126 E. S.R. 434, Winter Springs, Florida 32708 ("**City**"), and **KADO INVESTMENTS, LLC**, a Florida Limited Liability Company with a principal address at 1857 Lake Spier Dr., Winter Park, Florida 32789, **YOUDALI INTERNATIONAL INVESTMENTS, LLC**, a Florida Limited Liability Company with a principal address at 1889 Berkeley Ct., Maitland, Florida 32751, and **KIRA WOODS** (collectively, "**Developers**").

WITNESSETH:

WHEREAS, Developers are the owners of approximately 7.84 acres, more or less, of real property generally located along State Road 419, North of the intersection of State Road 419 and State Road 434, Winter Springs, Seminole County, Florida, more particularly described herein (the "Property"); and

WHEREAS, on April 08, 2024, the City Commission adopted Ordinance No. 2024-04, which is recorded in the Official Records of Seminole County, Florida, at Book 10609 Page 752, and which annexed the subject Property into the City of Winter Springs; and

WHEREAS, the Developers desire to amend the Future Land Use designation of the Property from County "Suburban Estates" to City "Commercial" and to amend the official zoning map designation on the Property from County "Agriculture" to City "General Commercial," (C-2) for the purpose of developing the property into the Project (as defined below); and

WHEREAS, the City Commission desires to approve the Developers' request to change the zoning of the Property, subject to the conditions in this Agreement which limit the types of use for which the Property may be developed and the amount of impervious surface area which may be developed thereon, for the protection of Gee Creek and the health and welfare of the City; and

WHEREAS, Section 20-29(c) of the City Code requires that all rezonings shall be binding upon the subject property and, further, that as a condition of approval by the City Commission, all development projects requiring a community workshop pursuant to Section 20-29.1 of the City Code shall be required to be memorialized in a binding development agreement; and

WHEREAS, Section 20-31 of the City Code provides that the speculative rezoning of land is very disfavored by the City and, in conjunction with a rezoning application, the Developers shall be required to fully disclose any proposed new development project that will be pursued if the proposed rezoning request is approved; and

WHEREAS, Section 20-31 of the City Code further provides that the disclosed development project shall be deemed to have been relied on by the City in reaching its decision concerning the proposed change of zoning and any site plan or concept plan shall be deemed to be binding on the property affected by the rezoning, even if said site plan or concept plan imposes greater or stricter standards on the property than does other provisions of the City Code; and

WHEREAS, mitigative techniques and plans required to support any change of zoning may be addressed pursuant to the restricted rezoning provisions in the City Code and a binding development agreement; and

WHEREAS, in compliance with the City Code, the Developers have included a general land use plan, as described further herein, which shall be deemed to be binding on the Property, and the change of zoning shall be deemed to have been granted in reliance on said land use plan; and

WHEREAS, this Development Agreement shall be recorded in the Official Records of Seminole County, Florida, against the Property so that the terms and conditions of approval herein shall run with the land.

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein, the parties mutually agree as follows:

1.0 Recitals. The foregoing recitals are true and correct and are hereby incorporated herein by this reference.

2.0 Authority. This Agreement is entered into pursuant to the Florida Municipal Home Rule Powers Act.

3.0 The Property. The real property subject to this Agreement has a tax parcel identification number of 34-20-30-5AW-0000-0250 and is legally described in **EXHIBIT "A"** which is attached hereto and fully incorporated herein by this reference ("Property").

4.0 Project Description and Requirements. The Developers agree that the Property shall be developed as a commercial enterprise for the outdoor storage of vehicles as provided herein

(the "Project"). The Project shall be subject to the conditions outlined in this Agreement and shall be further subject to all requirements of Section 20-256, *Supplemental Outdoor Storage and Warehousing Requirements*, of the City Code.

5.0 Land Use Plan. The Project shall be substantially developed in accordance with the preliminary/bubble land use plan which is attached hereto as **EXHIBIT "B"** and incorporated herein by this reference ("Land Use Plan"). The Land Use Plan is intended to be the general blueprint which details key aspects of the future physical development of the Property. The Land Use Plan shall also serve as a necessary guide for future permit applications and permitting necessary to complete the construction of the Project. Developers shall have the obligation to further submit and obtain the City's approval of a final site plan and final engineering plans and aesthetic review ("Final Engineering Plans") consistent with the Land Use Plan in all material respects and in compliance with the City Code. Developers acknowledge and agree that the Land Use Plan was not created with specific surveyed dimensions and that during the Final Engineering Plan process such dimensions shall be surveyed, duly engineered, and provided to the City for consideration under applicable City Codes. The Land Use Plan shall be subject to reasonable adjustments at the Final Engineering Plan phase in order to bring the Project into full compliance with the City Code, and as a result, the exact location, layout and dimensions of the building, landscaping, entrances, utilities, parking and other site improvements may vary slightly between Land Use Plan approval and approval of the Final Engineering Plans. These changes shall be allowed as long as the changes are consistent with the development standards noted in this Agreement and preserve the general character of the development shown on the Land Use Plan.

6.0 Permitted Uses. The City Commission herein imposes certain use restrictions greater than those otherwise specified in the C-2 zoning district to ensure any negative impacts of the commercial development are minimized, including minimizing potential negative impacts to nearby Gee Creek, and to ensure the future development is compatible with the surrounding uses. The following uses shall be permitted on the Property:

> Outdoor storage facility specifically designed for the parking and storage of vehicles, boats, and not more than a total of five (5) cargo or shipping containers, subject to the supplemental regulations set forth in Section 20-256 of the City Code. Any cargo or shipping containers stored on the Property shall not be stacked one on top of the other such that they are visible from a public road. Individual cargo or shipping containers shall be stored on the Property for periods of 30 days or more to deter short term use.

The Developer acknowledges and agrees that an amendment to this Agreement shall be required if the Developer desires to implement any other C-2 permitted uses on the Property. The outdoor storage of construction equipment, heavy machinery, and other goods and materials shall be prohibited.

7.0 Future Permitting. Within thirty-six (36) months from the Effective Date of this Agreement, the Developers, at their expense, shall prepare and file all required applications, information, and engineering plans with the City that are necessary to obtain Final Engineering approval for the Project consistent with the Land Use Plan. The Developers shall obtain Final

Engineering approval within forty-eight (48) months of the Effective Date of this Agreement. If the Project fails to obtain such final approval from the City within the aforesaid forty-eight (48) months, the City shall have the right to declare the Developers in default pursuant to Section 25.0 of this Agreement. If the Developers do not cure the default within the cure period, the City shall have the right, but not obligation to, terminate this Agreement without penalty as provided herein.

8.0 Easement over Gee Creek. Consistent with Section 9-159 of the City Code, the Developer acknowledges and agrees that it shall be required to grant to the City a drainage easement of sufficient width to provide adequately for watercourses, specifically Gee Creek, and access to permit maintenance of the same prior to the time of building permit issuance.

9.0 Representations of the Parties. The City and Developers hereby each represent and warrant to the other that they have the power and authority to execute, deliver and perform the terms and provisions of this Agreement and have taken all necessary action to authorize the execution, delivery and performance of this Agreement. This Agreement will, when duly executed and delivered by the City and Developers, constitute a legal, valid and binding obligation enforceable against the parties hereto. Upon the recording of this Agreement in the Public Records of Seminole County, Florida, the Agreement shall be a binding obligation upon the Property in accordance with the terms and conditions of this Agreement. Developers represent that they have voluntarily and willfully executed this Agreement for purposes of binding themselves and the Property to the terms and conditions set forth in this Agreement.

10.0 Successors and Assigns. This Agreement shall automatically be binding upon and shall inure to the benefit of the City and Developers and their respective successors and assigns. The terms and conditions of this Agreement similarly shall be binding upon the Property and shall run with title to the same upon being duly recorded against the Property by the City.

11.0 Applicable Law; Venue. This Agreement shall be governed by and construed in accordance with the laws of the State of Florida. The venue of any litigation arising out of this Agreement shall be in Seminole County, Florida or, for federal court actions, in Orlando, Florida.

12.0 Amendments. This Agreement shall not be modified or amended except by written agreement duly executed by both parties hereto (or their successors or assigns) and approved by the City Commission.

13.0 Entire Agreement; Exhibits. This Agreement and all attached exhibits hereto supersede any other agreement, oral or written, regarding the Property and contain the entire agreement between the City and Developers as to the subject matter hereof. The Exhibits attached hereto and referenced herein are hereby fully incorporated herein by this reference.

14.0 Severability. If any provision of this Agreement shall be held to be invalid or unenforceable to any extent by a court of competent jurisdiction, the same shall not affect in any respect the validity or enforceability of the remainder of this Agreement.

15.0 Effective Date. This Agreement shall become effective upon approval by the City Commission and execution of this Agreement by both parties hereto.

16.0 Recordation. Upon full execution by the Parties, this Agreement shall be recorded in the Public Records of Seminole County, Florida by the City.

17.0 Relationship of the Parties. The relationship of the parties to this Agreement is contractual and Developers are independent contractors and not agents of the City. Nothing herein shall be deemed to create a joint venture or principal-agent relationship between the parties, and neither party is authorized to, nor shall either party act toward third persons or the public in any manner, which would indicate any such relationship with the other.

18.0 Sovereign Immunity. Notwithstanding any other provision set forth in this Agreement, nothing contained in this Agreement shall be construed as a waiver of the City's right to sovereign immunity under section 768.28, Florida Statutes, or other limitations imposed on the City's potential liability under state or federal law. As such, the City shall not be liable under this Agreement for punitive damages or interest for the period before judgment. Further, the City shall not be liable for any claim or judgment, or portion thereof, to any one person for more than two hundred thousand dollars ($200,000.00), or any claim or judgment, or portion thereof, which, when totaled with all other claims or judgments paid by the State or its agencies and subdivisions arising out of the same incident or occurrence, exceeds the sum of three hundred thousand dollars ($300,000.00).

19.0 City's Police Power. Developers agree and acknowledge that the City hereby reserves all police powers granted to the City by law. In no way shall this Agreement be construed as the City bargaining away or surrendering its police powers.

20.0 Interpretation. The parties hereby agree and acknowledge that they have both participated equally in the drafting of this Agreement and no party shall be favored or disfavored regarding the interpretation to this Agreement in the event of a dispute between the parties.

21.0 Third-Party Rights. This Agreement is not a third-party beneficiary contract and shall not in any way whatsoever create any rights on behalf of any third party.

22.0 Specific Performance. Strict compliance shall be required with each and every provision of this Agreement. The parties agree that failure to perform the obligations provided by this Agreement shall result in irreparable damage and that specific performance of these obligations may be obtained by a suit in equity.

23.0 Attorney's Fees. In connection with any arbitration or litigation arising out of this Agreement, each party shall be responsible for their own attorney's fees and costs.

24.0 Development Permits. Nothing herein shall limit the City's authority to grant or deny any development permit applications or requests subsequent to the effective date of this Agreement. The failure of this Agreement to address any particular City, County, State and/or Federal permit,

condition, term or restriction shall not relieve Developers or the City of the necessity of complying with the law governing said permitting requirement, condition, term or restriction. Without imposing any limitation on the City's police powers, the City reserves the right to withhold, suspend or terminate any and all certificates of occupancy for any building, trailer, structure or unit if Developers are in breach of any term or condition of this Agreement.

25.0 Default. Failure by either party to perform each and every one of its obligations hereunder shall constitute a default, entitling the non-defaulting party to pursue whatever remedies are available to it under Florida law or equity including, without limitation, termination of this Agreement or an action for specific performance and/or injunctive relief. In addition, Developers specifically acknowledge and agree that violations of this Agreement will also constitute a violation of the Zoning Ordinances of the City, and this Agreement may be enforced in the manner of zoning code violations pursuant to the City Code. Prior to any party filing any court action as a result of a default under this Agreement, the non-defaulting party shall first provide the defaulting party with written notice of said default. Upon receipt of said notice, the defaulting party shall be provided a thirty (30) day opportunity in which to cure the default to the reasonable satisfaction of the non-defaulting party prior to filing said action.

26.0 Termination. The City shall have the unconditional right, but not obligation, to terminate this Agreement, without notice or penalty, if Developers fail to comply with the Future Permitting requirements of Section 7.0. In addition, the City shall have the right, but not obligation, to terminate the Agreement if Developers permanently abandon construction of the Project, provided, however, the City shall first deliver written notice and an opportunity to cure to the defaulting party as set forth in Section 25.0 above. If the City terminates this Agreement, the City shall record a notice of termination against the Property in the public records of Seminole County, Florida. Upon termination for any reason, the City may elect to initiate a Future Land Use designation amendment and rezoning of the Property, the advertising and noticing costs of which shall be borne by the Developers. In that circumstance, the Developers hereby waive the right to object to, contest, or support others in objecting to or contesting the City's efforts to initiate such Future Land Use designation amendment and rezoning of the Property.

27.0 Indemnification and Hold Harmless. Developers shall be solely responsible for designing, permitting, constructing, operating and maintaining this Project. As such, Developers hereby agree to indemnify, release, and hold harmless the City and its commissioners, employees and attorneys from and against all claims, losses, damages, personal injuries (including, but not limited to, death), or liability (including reasonable attorney's fees and costs through all appellate proceedings), directly or indirectly arising from, out of, or caused by Developers and Developers' contractor's and subcontractor's performance of design, permit and construction activities in furtherance of constructing the Project under this Agreement and the operation and maintenance of the Project thereafter. This indemnification shall survive the termination of this Agreement.

28.0 Force Majeure. The parties agree that in the event that the failure by either party to accomplish any action required hereunder within a specified time period ("Time Period") constitutes a default under the terms of this Agreement and, if any such failure is due to acts of God, acts of government authority (other than the City's own acts), acts of public enemy or war,

riots, civil disturbances, power failure, shortages of labor or materials, injunction or other court proceedings beyond the control of such party, or severe adverse weather conditions ("Force Majeure Event"), then, notwithstanding any provision of this Agreement to the contrary, that failure shall not constitute a default under this Agreement and any Time Period proscribed hereunder shall be extended by the amount of time that such party was unable to perform solely due to the Force Majeure Event. The extended Time Period shall be agreed to in writing by the parties and said agreement shall not be unreasonably withheld by either party. The City Manager shall have the authority to grant an extended Time Period. An extension of any Time Period for reasons of a Force Majeure Event shall be requested solely as provided in this Section. Developer hereby waives and relinquishes the right to notify the City of the intent to exercise the tolling and extension of any permit related to the Project, including Time Periods under this Agreement, development orders, and building permits, available under Section 252.363, Florida Statutes, as the result of a declaration of a state of emergency issued by the Governor for a natural emergency.

29.0 **Notice.** Whenever either party desires to give notice to the other, notice shall be sent by hand delivery or certified mail, return receipt requested, and shall be sent to:

For the City:

Attn: City Manager
City of Winter Springs
1126 East S.R. 434
Winter Springs, Florida 32708

For the Developers:

Kado Investments, LLC
Attn: Kira Woods, Managing Member
Matthew Merdian as her attorney in fact
Address: 1857 Lake Spier Dr
Winter Park FL 32789

Youdali International Investments, LLC
Attn: Steven D. Fieldman, Managing Member
Matthew Merdian as his attorney in fact
Address: 349 Agnes St
Orlando, FL 32801

Kira Woods
Attn: Kira Woods
Matthew Merdian as her attorney in fact

Address: 1857 Lake Spier Dr
Winter Park FL 32789

Either party may freely modify their respective contact person and address contained in this Paragraph by providing written notice of the modification to the other party. Any Notice given as provided herein shall be deemed received as follows: if delivered by personal service, on the date so delivered; and if mailed, on the third business day after mailing.

30.0 Assignment. Prior to completing the construction of the Project and reaching final build-out of the Project, Developers shall not assign this Agreement without the prior written consent of the City. Such assignment shall also require the written approval of the City by amendment to this Agreement, which shall not require a public hearing and shall not be unreasonably withheld. However, Developers shall be entitled to assign their rights and obligations under this Agreement to a parent, subsidiary, or affiliated entity in which Developers or their members are members or interest holders without City consent, provided that the City is given notice of such assignment in accordance with Section 29.0 herein. Any assignment authorized by this subparagraph shall require the assignee to be a formal signatory to this Agreement and fully assume all of Developers' obligations, commitments, representations, and warranties under this Agreement. In any assignment, the rights and obligations contained herein shall be binding on successors in interest to the Property, and the terms and conditions of this Agreement shall bind and inure to the benefit of the parties hereto and any respective successors and assigns.

IN WITNESS WHEREOF, the parties have hereunto set their hands and seal on the date first above written.

CITY OF WINTER SPRINGS

Kevin McCann, Mayor
Date: January 7, 2025

ATTEST:

Christian Gowan, City Clerk

CITY SEAL

Approved as to form and legality for the City of Winter Springs only:

Anthony A. Garganese, City Attorney
Date: 1/6/25

STATE OF FLORIDA
COUNTY OF
SEMINOLE

The foregoing instrument was acknowledged before me by means of (X) physical presence or (___) online notarization, this 7 day of January, 2025, by Kevin McCann, Mayor of THE CITY OF WINTER SPRINGS, FLORIDA, a municipal corporation, on behalf of the corporation. He is personally known to me or has produced _____ as identification.

(NOTARY
SEAL)

Notary Public State of Florida
Tristin M Tarrant
My Commission HH 491305
Expires 2/11/2028

(Notary Public Signature) Tristin M Tarrant
(Print Name)
Notary Public, State of Florida
Commission No.: HH 491305
My Commission Expires: 2/11/2028

Signed, sealed and delivered in the presence of the following witnesses:

Signature of Witness
Jennifer Diaz
Printed Name of Witness
450 S Orange Ave
Orlando FL 32801
Address of Witness

Signature of Witness
Diane M. Schulze
DIANE M. SCHULZE
Printed Name of Witness
450S. ORANGE AVE
ORLANDO, FL 32801
Address of Witness

KADO INVESTMENTS, LLC,
a Florida Limited Liability Company

Kira Woods, Manager By [signature] As her attorney in fact

Print name and title: KIRA WOODS, MANAGER, BY MATT MERDIAN AS HER ATTORNEY IN FACT

Date: 12/4/2024

STATE OF FLORIDA

COUNTY OF ORANGE

The foregoing instrument was acknowledged before me by means of (X) physical presence or (___) online notarization, this 11th day of DECEMBER, 2024, by MATT MERIDIAN, the POWER OF ATTORNEY of Kado Investments, LLC. He/she is personally known to me or produced _____ as identification.

(NOTARY SEAL)

SAMANTHA KLINGLER
Notary Public - State of Florida
Commission # HH 110338
My Comm. Expires Mar 29, 2025

(Notary Public Signature)
Samantha Klingler
(Print Name)
Notary Public, State of Florida
Commission No.: HH 110338
My Commission Expires: May 29, 2025

Signed, sealed and delivered in the presence of the following witnesses:

Signature of Witness
Printed Name of Witness
450 S. Orange Ave
Orlando FL 32801
Address of Witness

Signature of Witness
Jennifer Carr
Printed Name of Witness
450 S. Orange Ave
Orlando FL 32801
Address of Witness

YOUDALI INTERNATIONAL INVESTMENTS, LLC,
a Florida Limited Liability Company

STEVEN D FELDMAN, MANAGER BY _____ AS HIS ATTORNEY IN FACT
Print name and title: STEVEN D FELDMAN BY MATT MERIDIAN AS HIS ATTORNEY IN FACT
Date: 12/11/2024

STATE OF FLORIDA
COUNTY OF ORANGE

The foregoing instrument was acknowledged before me by means of (X) physical presence or (___) online notarization, this 11th day of DECEMBER, 2024, by MATT MERIDIAN, the POWER OF ATTORNEY of Youdali International Investments, LLC. He/she is personally known to me or produced _____ as identification.

(NOTARY SEAL)

SAMANTHA KLINGLER
Notary Public - State of Florida
Commission # HH 110338
My Comm. Expires Mar 29, 2025

(Notary Public Signature)
Samantha Klingler
(Print Name)
Notary Public, State of Florida
Commission No.: HH 110338
My Commission Expires: MAY 29, 2025

Signed, sealed and delivered in the presence of the following witnesses:

Signature of Witness
Sherry Kassin
Printed Name of Witness
450 S. Orange Ave Ofc 11 32801
Address of Witness

Signature of Witness
Jennifer Cain
Printed Name of Witness
450 S Orange Ave Orlando FL 32801
Address of Witness

KIRA WOODS

Kira Woods, by [signature] AS HER ATTORNEY IN FACT
Print name and title: KIRA WOODS BY MATT MERIDIAN AS HER ATTORNEY IN FACT
Date: 12/11/2024

STATE OF FLORIDA
COUNTY OF ORANGE

The foregoing instrument was acknowledged before me by means of (X) physical presence or (___) online notarization, this 11TH day of DECEMBER, 2024, by MATT MERIDIAN the POWER OF ATTORNEY of KIRA WOODS. He/she is personally known to me or produced _____ as identification.

(NOTARY SEAL)

SAMANTHA KLINGLER
Notary Public - State of Florida
Commission # HH 110338
My Comm. Expires Mar 29, 2025

(Notary Public Signature)
Samantha Klingler
(Print Name)
Notary Public, State of Florida
Commission No.: HH 110338
My Commission Expires: May 29, 2025

DEVELOPERS ARE HEREBY ADVISED THAT SHOULD DEVELOPERS FAIL TO FULLY EXECUTE, AND DELIVER TO THE CITY, THIS AGREEMENT WITHIN THIRTY (30) DAYS FROM THE DATE THAT THE CITY COMMISSION APPROVES THIS AGREEMENT, THIS AGREEMENT, AND THE DEVELOPMENT PERMIT APPROVALS REFERENCED HEREUNDER, SHALL AUTOMATICALLY BE DEEMED NULL AND VOID.

EXHIBIT A

Legal Description of the Property

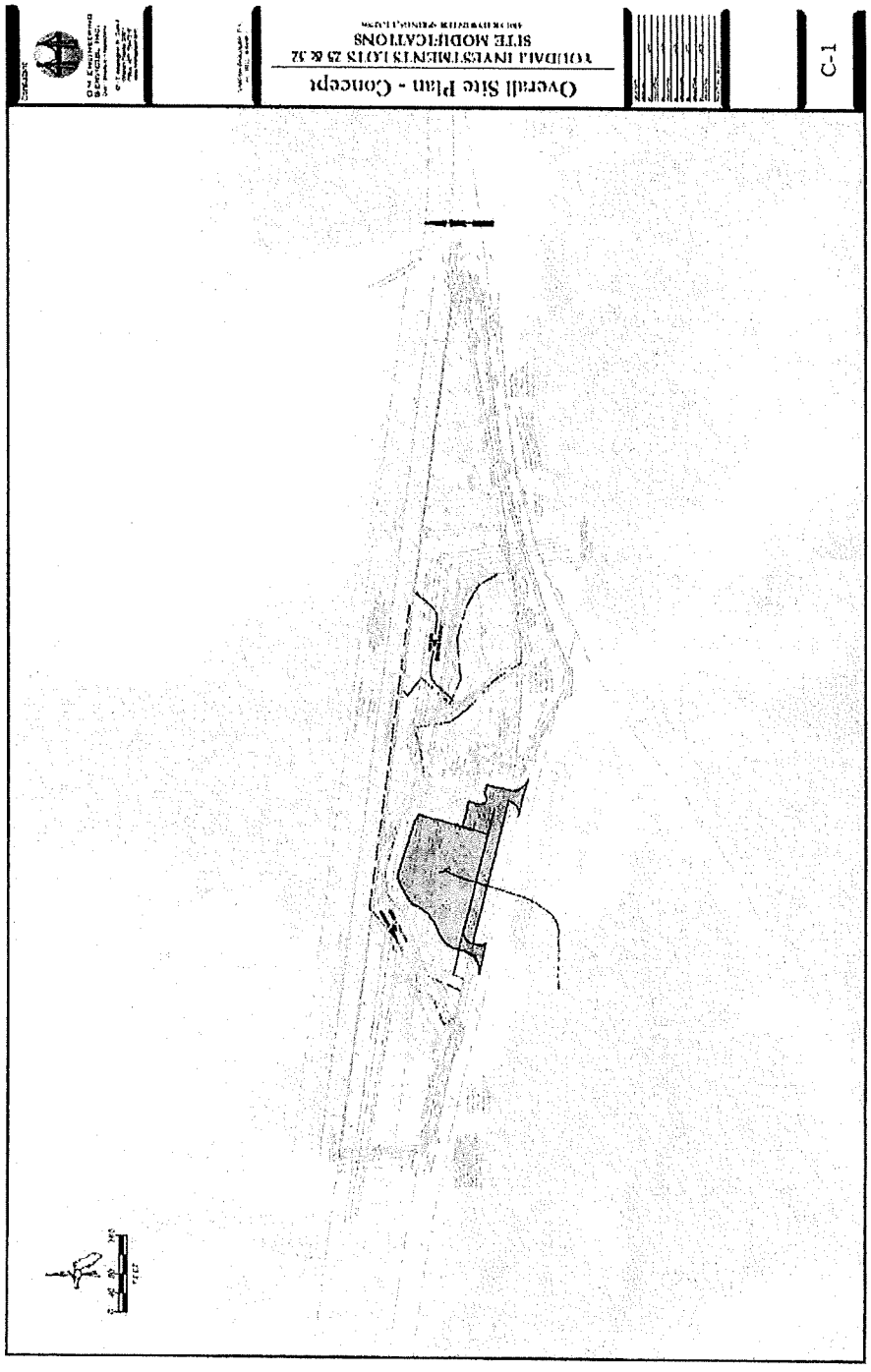
LOTS 25 AND 32, ENTZMINGER FARMS ADDITION NO. 2, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 5, PAGE 9, PUBLIC RECORDS OF SEMINOLE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE POINT OF INTERSECTION OF THE NORTHERLY RIGHT-OF-WAY LINE OF STATE ROAD 419, (NEW SANFORD-OVIEDO ROAD, PER REFERENCED PLAT OF ENTZMINGER FARMS ADDITION NO. 2) AND THE WESTERLY LINE OF LOT 32 OF THE AFORESAID ENTZMINGER FARMS ADDITION NO. 2; THENCE N06°48'50"W, ALONG SAID WESTERLY LINE, A DISTANCE OF 178.55 FEET TO THE NORTHWEST CORNER OF THE AFORESAID LOT 32; SAID POINT ALSO BEING A POINT ON THE SOUTHERLY RIGHT-OF-WAY LINE OF THE ATLANTIC COAST LINE RAILROAD; THENCE S82°26'56"E, ALONG SAID SOUTHERLY RIGHT-OF-WAY LINE AND NORTHERLY LINE OF LOTS 32 AND 25, A DISTANCE OF 1,838.88 FEET TO THE NORTHEAST CORNER OF LOT 25; THENCE S07°12'27"W, ALONG THE EASTERLY LINE OF LOT 25, A DISTANCE OF 26.03 FEET TO A POINT ON THE NORTHERLY RIGHT-OF-WAY LINE OF STATE ROAD 434 (LONGWOOD- OVIEDO ROAD, PER REFERENCED PLAT OF ENTZMINGER FARMS ADDITION NO. 2); THENCE, ALONG SAID NORTHERLY RIGHT-OF-WAY LINE OF STATE ROAD 434 AND AFORESAID STATE ROAD 419, THE FOLLOWING FOUR (4) COURSES: S82°43'16"W, A DISTANCE OF 86.85 FEET TO A POINT ON A CURVE CONCAVE SOUTHERLY, HAVING A RADIUS OF 2737.83 FEET, A CHORD BEARING OF S79°57'47"W, A CHORD DISTANCE OF 231.49 FEET, AND A CENTRAL ANGLE OF 04°50'45"; THENCE, ALONG THE ARC OF SAID CURVE, A DISTANCE OF 231.55 FEET TO A POINT; THENCE S81°06'41"W, A DISTANCE OF 317.18 FEET TO A POINT ON A CURVE CONCAVE NORTHERLY, HAVING A RADIUS OF 1235.24 FEET, A CHORD BEARING OF N87°25'00"W, A CHORD DISTANCE OF 491.04 FEET, AND A CENTRAL ANGLE OF 22°55' 45"; THENCE, ALONG THE ARC OF SAID CURVE, A DISTANCE OF 494.33 FEET TO A POINT; THENCE N75°57'07"W, A DISTANCE OF 582.85 FEET TO A POINT ON A CURVE CONCAVE SOUTHWESTERLY, HAVING A RADIUS OF 3869.72 FEET, A CHORD BEARING O N76°49'37"W, A CHORD DISTANCE OF 118.16 FEET; AND A CENTRAL ANGLE OF 01°44'59"; THENCE, ALONG THE ARC OF

SAID CURVE, A DISTANCE OF 118.17 FEET TO THE POINT OF BEGINNING. SAID LANDS CONTAINING APPROXIMATELY 7.84 ACRES, OR 341,667 SQUARE FEET, MORE OR LESS.

EXHIBIT B

Land Use Plan



THIS INSTRUMENT WAS PREPARED BY
AND SHOULD BE RETURNED TO:
Anthony A. Garganese
City Attorney of Winter Springs
Garganese, Weiss, D'Agresta & Salzman, P.A.
111 N. Orange Avenue, Suite 2000
Orlando, FL 32802
(407) 425-9566

FOR RECORDING DEPARTMENT USE ONLY

FIRST MODIFICATION TO DEVELOPMENT AGREEMENT

[4301 SR 419 – RV and Boat Storage Project]

THIS FIRST MODIFICATION TO DEVELOPMENT AGREEMENT ("**Agreement**") is made ") is made and executed this _____ day of _____, 2026, by and between the **CITY OF WINTER SPRINGS**, a Florida municipal corporation located at 1126 E. State Road 434, Winter Springs, Florida 32708 (the "**City**"), and **KADO INVESTMENTS, LLC**, a Florida limited liability company with a principal address at 1857 Lake Spier Dr., Winter Park, Florida 32789, **YOUDALI INTERNATIONAL INVESTMENTS, LLC**, a Florida limited liability company with its principal address at 1889 Berkeley Ct., Maitland, Florida 32751, and **KIRA WOODS** (collectively, the "**Developers**") (City and Developers collectively the "**Parties**").

WITNESSETH:

WHEREAS, Developers are the owners of approximately 7.84 acres, more or less, of real property generally located along State Road 419, north of the intersection of State Road 419 and State Road 434, in Winter Springs, Seminole County, Florida, more particularly described herein (the "**Property**"); and

WHEREAS, the Property was annexed into the City of Winter Springs via Ordinance No. 2024-04, which is recorded in the Official Records of Seminole County, Florida, at Book 10609 Page 752; and

WHEREAS, the Property is subject to that certain Development Agreement dated January 13, 2024, and recorded in the Official Records of Seminole County, Florida, at Book 10756 Pages 1375-1388 (the "**Original Development Agreement**"), wherein the City Commission approved

of the Developers' request to change the zoning of the Property subject to limitations on the types of use for which the Property may be developed and the amount of impervious surface area which may be developed thereon, considering the protection of Gee Creek, which runs through the Property, and the health and welfare of the City; and

WHEREAS, the Developers desire to construct a commercial outdoor storage facility/parking lot for the storage of automobiles, recreational vehicles (RVs), and boats, along with associated improvements and stormwater facilities (the "**Project**"), which Project will be constructed over approximately 1.1 acres of the total 7.84 acres of the Property (the "**Project Area**"); and

WHEREAS, Developer has applied for or authorized application for a Final Engineering Plan/Site Plan Approval to construct the Project; and

WHEREAS, pursuant to Chapter 20, *Zoning*, Article II, Division 1, Section 20-29.1 of the Winter Springs City Code ("**City Code**"), public hearing notices were mailed to all owners of real property adjacent to and within approximately five hundred (500) feet of the subject property and to all Homeowners Associations on file with the City of Winter Springs on October 12, 2026; and

WHEREAS, Section 20-29(c) of the City Code requires that all site plans and waivers shall be binding on the use of the subject property, further an amendment to the Original Development Agreement recorded for the Property is required to ensure all conditions of the Original Development Agreement are followed and to impose new conditions to ensure the continued protection of Gee Creek and other historical resources on the Property, including the historical gravesite located thereupon; and

WHEREAS, this Development Agreement shall be recorded against the Property so that the terms and conditions of approval related to the Project shall run with the land; and

NOW THEREFORE, in consideration of the mutual promises and covenants contained herein, the Parties mutually agree as follows:

1.0 **Recitals.** The foregoing recitals are true and correct and are hereby incorporated herein by this reference.

2.0 **Authority.** This Agreement is entered into pursuant to the Florida Municipal Home Rule Powers Act.

3.0 **Property.** The real property subject to this Agreement has a tax parcel identification number of 34-20-30-5AW-0000-0250 and is legally described in **Exhibit "A"** which is attached hereto and fully incorporated herein by this reference.

4.0 **Project Description and Requirements.** Developer shall, at its own cost and expense, design, permit, and construct a commercial outdoor storage facility/parking lot for the storage of automobiles, recreational vehicles (RVs), and boats on the Property. In conjunction with the

construction of the outdoor vehicle storage facility, Developer shall further construct, at its own cost and expense, associated improvements including but not limited to stormwater ponds and infrastructure, lighting, signage, and related improvements.

The Developer shall construct the Project in a manner consistent with the approved Final Engineering/Site Plan which is on file with the City with the following file number and consistent with the requirements contained in this Agreement:

File No.: FEDP-2025-00013

For convenience, a copy of the Site Plan is attached hereto as **Exhibit "B"** and is fully incorporated herein by this reference. **Exhibit "B"** is provided for reference purposes only. The official and controlling copy of the Final Engineering/Site Plan is maintained in File No. FEDP-2025-00013, which shall govern in in all respects, including the resolution of any inconsistencies or conflicts with **Exhibit "B."** The official copy should be reviewed for the complete and authoritative specifications, requirements, and other content of the Final Engineering/Site Plan.

Specific conditions of approval for the above-referenced Site/Final Engineering Plan include the following, which are also addressed in the City's Staff Report for the Final Engineering/Site Plan:

1. All grass areas on the Property, including at the Project Area, shall use Bahia grass. No St. Augustine grass or grass types with low drought tolerance shall be permitted.

2. The outdoor storage of construction equipment, heavy machinery, and other similar goods and materials shall be prohibited.

3. The gravesite present upon the Property shall not be disturbed during construction of the Project. Current and future Property owners shall take appropriate measures to ensure the gravesite is not disturbed following development and shall ensure the gravesite is maintained in a neat condition free of trash, junk, debris, and vegetative overgrowth.

4. No more than five (5) cargo or shipping containers may be stored on the Property at one time. Any cargo or shipping containers stored on the Property shall not be stacked one on top of the other such that they are visible from the public road. Individual cargo or shipping containers shall be stored on the Property for periods of thirty (30) days or more to deter short term use.

5.0 **Future Permitting.** Developers shall be required to receive all required building permits and substantially commence construction of the Project within two (2) years of the Effective Date of this Agreement, which at a minimum shall include clearing and grading the Property and completing any necessary foundation work. The Project shall be completed as one (1) phase.

6.0 Other Terms and Conditions. All other provisions of the Original Development Agreement not otherwise modified by this First Modification shall remain in full force and effect with respect to the Property and Project Area.

7.0 Representations of the Parties. City and Developers hereby each represent and warrant to the other that it has the power and authority to execute, deliver and perform the terms and provisions of this Agreement and has taken all necessary action to authorize the execution, delivery and performance of this Agreement. This Agreement will, when duly executed and delivered by the City and Developers, constitute a legal, valid and binding obligation enforceable against the Parties hereto. Upon recording of this Agreement in the Public Records of Seminole County, Florida, the Agreement shall be a binding obligation upon the Property in accordance with the terms and conditions of this Agreement. Developers represent that they have voluntarily and willfully executed this Agreement for purposes of binding themselves and the Property to the terms and conditions set forth in this Agreement.

8.0 Successors and Assigns. This Agreement shall automatically be binding upon and shall inure to the benefit of the City and Developers and their respective successors and assigns. The terms and conditions of this Agreement similarly shall be binding upon the Property and shall run with title to the same upon being duly recorded against the Property by the City.

9.0 Applicable Law; Venue. This Agreement shall be governed by and construed in accordance with the laws of the State of Florida. The venue of any litigation arising out of this Agreement shall be in Seminole County, Florida, or, for federal court actions, in the Middle District of Florida, Orlando Division.

10.0 Entire Agreement; Exhibits. This Agreement and all attached exhibits hereto supersede any other agreement, oral or written, regarding the Property and contain the entire agreement between the City and Developers as to the subject matter hereof. The Exhibits attached hereto and referenced herein are hereby fully incorporated herein by this reference.

11.0 Amendments. This Agreement shall not be modified or amended except by written agreement duly executed by both Parties hereto (or their successors or assigns) and approved by the City Commission.

12.0 Severability. If any provision of this Agreement shall be held to be invalid or unenforceable to any extent by a court of competent jurisdiction, the same shall not affect in any respect the validity or enforceability of the remainder of this Agreement.

13.0 Effective Date. This Agreement shall become effective upon approval by the City Commission and execution of this Agreement by both Parties hereto.

14.0 Recordation. Upon full execution by the Parties, this Agreement shall be recorded in the Public Records of Seminole County, Florida by the City. The Developers shall be responsible for all recording fees associated with this Agreement.

15.0 Relationship of the Parties. The relationship of the Parties to this Agreement is contractual and Developers are independent contractors and not agents of the City. Nothing herein shall be deemed to create a joint venture or principal-agent relationship between the Parties, and neither Party is authorized to, nor shall either Party act toward third persons or the public in any manner, which would indicate any such relationship with the other.

16.0 Sovereign Immunity. The City intends to avail itself of sovereign immunity and other applicable limitations on City liability whenever deemed applicable by the City. Therefore, notwithstanding any other provision set forth in this Agreement, nothing contained in this Agreement shall be construed as a waiver of the City's right to sovereign immunity under section 768.28, Florida Statutes, or other limitations imposed on the City's potential liability under state or federal law. As such, the City shall not be liable under this Agreement for punitive damages or interest for the period before judgment. Further, the City shall not be liable for any claim or judgment, or portion thereof, to any one person for more than two hundred thousand dollars ($200,000.00), or any claim or judgment, or portion thereof, which, when totaled with all other claims or judgments paid by the State or its agencies and subdivisions arising out of the same incident or occurrence, exceeds the sum of three hundred thousand dollars ($300,000.00).

17.0 City's Police Power. Developers agree and acknowledge that the City hereby reserves all police powers granted to the City by law. In no way shall this Agreement be construed as the City bargaining away or surrendering its police powers.

18.0 Interpretation. The Parties hereby agree and acknowledge that they have both participated equally in the drafting of this Agreement and no Party shall be favored or disfavored regarding the interpretation to this Agreement in the event of a dispute between the Parties.

19.0 Third-Party Rights. This Agreement is not a third-Party beneficiary contract and shall not in any way whatsoever create any rights on behalf of any third Party.

20.0 Specific Performance and Enforcement. Strict compliance shall be required with each and every provision of this Agreement. The Parties agree that failure to perform the obligations provided by this Agreement shall result in irreparable damage and that specific performance of these obligations may be obtained by a suit in equity. The failure to timely comply with any mandatory condition of this Agreement shall further constitute a violation of the City's Code of Ordinances and shall be subject to enforcement action as described therein including, but not limited to, enforcement before the City's Code Enforcement Board under City Code Chapter 2, Article III, Division 2. – *Code Enforcement*.

21.0 Attorney's Fees. In connection with any arbitration or litigation arising out of this Agreement, each Party shall be responsible for their own attorney's fees and costs.

22.0 Development Permits. Nothing herein shall limit the City's authority to grant or deny any development permit applications or requests subsequent to the effective date of this Agreement in accordance with the criteria of the City Code and the requirements of this Agreement. The failure of this Agreement to address any particular City, County, State and/or

Federal permit, condition, term or restriction shall not relieve Developers or the City of the necessity of complying with the law governing said permitting requirement, condition, term or restriction. Without imposing any limitation on the City's police powers, the City reserves the right to withhold, suspend or terminate any and all certificates of occupancy for any building, trailer, structure or unit if Developers are in breach of any term or condition of this Agreement.

23.0 Default. Failure by either Party to perform each and every one of its obligations hereunder shall constitute a default, entitling the non-defaulting Party to pursue whatever remedies are available to it under Florida law or equity including, without limitation, termination of this Agreement, an action for specific performance, and/or injunctive relief. Prior to any Party filing any action as a result of a default under this Agreement, the non-defaulting Party shall first provide the defaulting Party with written notice of said default. Upon receipt of said notice, the defaulting Party shall be provided a thirty (30) day opportunity in which to cure the default to the reasonable satisfaction of the non-defaulting Party prior to filing said action.

24.0 Termination. The City shall have the unconditional right, but not obligation, to terminate this Agreement, without notice or penalty, if Developers fail to receive building permits and substantially commence the Project within two (2) years of the Effective Date of this Agreement. The Developers may apply to the City Commission for an extension of this Agreement, which may be granted upon good cause shown. In addition, the City shall have the right, but not obligation, to terminate the Agreement if Developers permanently abandon construction of the Project, provided, however, the City shall first deliver written notice and an opportunity to cure to the defaulting Party as set forth herein. If the City terminates this Agreement, the City shall record a notice of termination against the Property in the public records of Seminole County, Florida.

25.0 Indemnification and Hold Harmless. Developers shall be solely responsible for designing, permitting, constructing, operating and maintaining this Project. As such, Developers hereby agree to indemnify, release, and hold harmless the City and its commissioners, employees and attorneys from and against all claims, losses, damages, personal injuries (including, but not limited to, death), or liability (including reasonable attorney's fees and costs through all appellate proceedings), directly or indirectly arising from, out of, or caused by Developers and Developers' contractor's and subcontractor's performance of design, permit and construction, and maintenance activities in furtherance of constructing the Project and maintaining the improvements of this Project. This indemnification shall survive the termination of this Agreement.

26.0 Force Majeure. The Parties agree that in the event that the failure by either Party to accomplish any action required hereunder within a specified time period ("**Time Period**") constitutes a default under the terms of this Agreement and, if any such failure is due to acts of God, acts of government authority (other than the City's own reasonable acts), acts of public enemy or war, riots, civil disturbances, power failure, shortages of labor or materials, injunction or other court proceedings beyond the control of such Party, or severe adverse weather conditions ("**Force Majeure Event**"), then, notwithstanding any provision of this Agreement to the contrary, that failure shall not constitute a default under this Agreement and any Time Period proscribed hereunder shall be extended by the amount of time that such Party was unable to perform solely due to the Force Majeure Event. The extended Time Period shall be agreed to in writing by the

Parties and said agreement shall not be unreasonably withheld by either Party. The City Manager shall have the authority to grant an extended Time Period. An extension of any Time Period for reasons of a Force Majeure Event shall be requested solely as provided in this Section. Developers hereby waive and relinquish the right to notify the City of the intent to exercise the tolling and extension of any permit related to the Project, including Time Periods under this Agreement, development orders, and building permits, available under Section 252.363, Florida Statutes, as the result of a declaration of a state of emergency issued by the Governor for a natural emergency.

27.0 Notice. Whenever either Party desires to give notice to the other, notice shall be sent by hand delivery or certified mail, return receipt requested, and shall be sent to:

For the City:

City of Winter Springs
Attn: City Manager
1126 East S.R. 434
Winter Springs, Florida 32708

With additional notice to:

Anthony A. Garganese, City Attorney
Garganese, Weiss, D'Agresta & Salzman, P.A.
111 N. Orange Avenue, Suite 2000
Orlando, FL 32802

For Developers:

Kado Investments, LLC
Attn: Kira Woods and Matthew Merdian
1857 Lake Spier Drive
Winter Park, FL 32789

Youdali International Investments, LLC
Attn: Steven D. Fieldman and Matthew Merdian
349 Agnes St
Orlando, FL 32801

Kira Woods
Attn: Kira Woods and Matthew Merdian
1857 Lake Spier Drive
Winter Park, FL 32789

Either party may freely modify their respective contact person and address contained in this Paragraph by providing written notice of the modification to the other party. Any Notice given as

provided herein shall be deemed received as follows: if delivered by personal service, on the date so delivered; and if mailed, on the third business day after mailing.

28.0 Assignment. Prior to completing the construction of the Project and reaching final build-out of the Project, Developers shall not assign this Agreement without the prior written consent of the City which consent shall not be unreasonably withheld, conditioned or delayed. Such assignment shall require the written approval of the City by amendment to this Agreement, which shall not require a public hearing and shall not be unreasonably withheld. However, Developers shall be entitled to assign their rights and obligations under this Agreement to a parent, subsidiary, or affiliated entity in which Developers or their members are members or interest holders without City consent, provided that the City is given notice of such assignment in accordance with Section 26.0 herein. Any assignment authorized by this subparagraph shall require the assignee to be a formal signatory to this Agreement and fully assume all of Developers' obligations, commitments, representations, and warranties under this Agreement. In any assignment, the rights and obligations contained herein shall be binding on successors in interest to the Property, and the terms and conditions of this Agreement shall bind and inure to the benefit of the parties hereto and any respective successors and assigns.

29.0 Trafficking. As a condition of this contract, Developers shall attest under penalty of perjury, that Developers do not use coercion for labor or services as defined in Section 787.06(2), Florida Statutes. Attestations shall be documented using a Human Trafficking Affidavit as provided by the City.

IN WITNESS WHEREOF, the parties have hereunto set their hands and seal on the date first above written.

[SIGNATURES TO FOLLOW]

CITY OF WINTER SPRINGS

By:_____

Print: _____
Mayor

Date: _____

ATTEST:

CITY SEAL

_____
Erin O'Donnell, City Clerk

Approved as to form and legality for
the City of Winter Springs only:

_____
Anthony A. Garganese, City Attorney
Date: _____

STATE OF FLORIDA
COUNTY OF
SEMINOLE

The foregoing instrument was acknowledged before me by means of (___) physical presence or (___) online notarization, this ___ day of _____, 20_____, by _____, Mayor of THE CITY OF WINTER SPRINGS, FLORIDA, a municipal corporation, on behalf of the corporation. He is personally known to me or has produced _____ as identification.

(NOTARY SEAL)

_____
(Notary Public Signature)

_____
(Print Name)
Notary Public, State of _____
Commission No.: _____
My Commission Expires: _____

Signed, sealed and delivered in the presence of the following witnesses:

KADO INVESTMENTS, LLC,
a Florida Limited Liability Company

_____
Signature of Witness

_____
Printed Name of Witness

_____
Address of Witness

_____
Signature of Witness

_____
Printed Name of Witness

_____
Address of Witness

_____
Print name and title: _____

Date: _____

STATE OF _____
COUNTY OF _____

The foregoing instrument was acknowledged before me by means of (___) physical presence or (___) online notarization, this _____ day of _____, 20___, by_____, the _____ of KADO INVESTMENTS, LLC. He/she is personally known to me or produced _____ as identification.

(NOTARY SEAL)

_____
(Notary Public Signature)

_____
(Print Name)
Notary Public, State of _____
Commission No.: _____
My Commission Expires: _____

Signed, sealed and delivered in the presence of the following witnesses:

YOUDALI INTERNATIONAL INVESTMENTS, LLC,
a Florida Limited Liability Company

_____
Signature of Witness

_____
Printed Name of Witness

_____
Address of Witness

_____
Signature of Witness

_____
Printed Name of Witness

_____
Address of Witness

_____
Print name and title: _____

Date: _____

STATE OF _____
COUNTY OF _____

The foregoing instrument was acknowledged before me by means of (___) physical presence or (___) online notarization, this _____ day of _____, 20____, by_____, the _____ of YOUDALI INTERNATIONAL INVESTMENTS, LLC. He/she is personally known to me or produced _____ as identification.

(NOTARY SEAL)

_____
(Notary Public Signature)

_____
(Print Name)
Notary Public, State of _____
Commission No.: _____
My Commission Expires: _____

Signed, sealed and delivered in the presence of the following witnesses:

KIRA WOODS

_____
Print name and title: _____

Date: _____

_____
Signature of Witness

_____
Printed Name of Witness

_____
Address of Witness

_____
Signature of Witness

_____
Printed Name of Witness

_____
Address of Witness

STATE OF _____
COUNTY OF _____

The foregoing instrument was acknowledged before me by means of (___) physical presence or (___) online notarization, this _____ day of _____, 20_____, by KIRA WOODS the _____ of _____. He/she is personally known to me or produced _____ as identification.

(NOTARY SEAL)

_____
(Notary Public Signature)

_____
(Print Name)
Notary Public, State of _____
Commission No.: _____
My Commission Expires: _____

DEVELOPERS ARE HEREBY ADVISED THAT SHOULD DEVELOPERS FAIL TO FULLY EXECUTE, AND DELIVER TO THE CITY, THIS AGREEMENT WITHIN THIRTY (30) DAYS FROM THE DATE THAT THE CITY COMMISSION APPROVES THIS AGREEMENT, THIS AGREEMENT, AND THE DEVELOPMENT PERMIT APPROVALS REFERENCED HEREUNDER, SHALL AUTOMATICALLY BE DEEMED NULL AND VOID.

EXHIBIT A

LEGAL DESCRIPTION OF THE SUBJECT PROPERTY

DESCRIPTION:

LOTS 25 AND 32, ENTZMINGER FARMS ADDITION NO. 2, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 5, PAGE 9, PUBLIC RECORDS OF SEMINOLE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE POINT OF INTERSECTION OF THE NORTHERLY RIGHT-OF-WAY LINE OF STATE ROAD 419, (NEW SANFORD-OVIEDO ROAD, PER REFERENCED PLAT OF ENTZMINGER FARMS ADDITION NO. 2) AND THE WESTERLY LINE OF LOT 32 OF THE AFORESAID ENTZMINGER FARMS ADDITION NO. 2; THENCE N06°48'50"W, ALONG SAID WESTERLY LINE, A DISTANCE OF 178.55 FEET TO THE NORTHWEST CORNER OF THE AFORESAID LOT 32; SAID POINT ALSO BEING A POINT ON THE SOUTHERLY RIGHT-OF-WAY LINE OF THE ATLANTIC COAST LINE RAILROAD; THENCE S82°26'56"E, ALONG SAID SOUTHERLY RIGHT-OF-WAY LINE AND NORTHERLY LINE OF LOTS 32 AND 25, A DISTANCE OF 1,838.88 FEET TO THE NORTHEAST CORNER OF LOT 25; THENCE S07°12'27"W, ALONG THE EASTERLY LINE OF LOT 25, A DISTANCE OF 26.03 FEET TO A POINT ON THE NORTHERLY RIGHT-OF-WAY LINE OF STATE ROAD 434 (LONGWOOD-OVIEDO ROAD, PER REFERENCED PLAT OF ENTZMINGER FARMS ADDITION NO. 2); THENCE, ALONG SAID NORTHERLY RIGHT-OF-WAY LINE OF STATE ROAD 434 AND AFORESAID STATE ROAD 419, THE FOLLOWING FOUR (4) COURSES: S82°43'16"W, A DISTANCE OF 86.85 FEET TO A POINT ON A CURVE CONCAVE SOUTHERLY, HAVING A RADIUS OF 2737.83 FEET, A CHORD BEARING OF S79°57'47"W, A CHORD DISTANCE OF 231.49 FEET, AND A CENTRAL ANGLE OF 04°50'45"; THENCE, ALONG THE ARC OF SAID CURVE, A DISTANCE OF 231.55 FEET TO A POINT; THENCE S81°06'41"W, A DISTANCE OF 317.18 FEET TO A POINT ON A CURVE CONCAVE NORTHERLY, HAVING A RADIUS OF 1235.24 FEET, A CHORD BEARING OF N87°25'00"W, A CHORD DISTANCE OF 491.04 FEET, AND A CENTRAL ANGLE OF 22°55'45"; THENCE, ALONG THE ARC OF SAID CURVE, A DISTANCE OF 494.33 FEET TO A POINT; THENCE N75°57'07"W, A DISTANCE OF 582.85 FEET TO A POINT ON A CURVE CONCAVE SOUTHWESTERLY, HAVING A RADIUS OF 3869.72 FEET, A CHORD BEARING OF N76°49'37"W, A CHORD DISTANCE OF 118.16 FEET; AND A CENTRAL ANGLE OF 01°44'59"; THENCE, ALONG THE ARC OF SAID CURVE, A DISTANCE OF 118.17 FEET TO THE POINT OF BEGINNING.

SAID LANDS CONTAINING APPROXIMATELY 7.84 ACRES, OR 341,667 SQUARE FEET, MORE OR LESS.

EXHIBIT B

SITE PLAN

PUBLIC HEARINGS AGENDA ITEM 401

PLANNING AND ZONING BOARD/LOCAL PLANNING AGENCY AGENDA | DECEMBER 3, 2026 REGULAR MEETING

TITLE

Parcel | Small-Scale Future Land Use Map Amendment from “Recreation” to “Medium Density Residential.”

SUMMARY

The Community Development Department requests that the Planning and Zoning Board hold a Public Hearing to consider Ordinance 2026-10 for the Small-Scale Future Land Use Map Amendment of one parcel totaling ±1.98 acres located at 156 Cory Lane from “Recreation” to “Medium Density Residential”

FUNDING SOURCE

RECOMMENDATION

Staff recommends that the Planning & Zoning Board recommend adoption of Ordinance 2026-10 to the City Commission to change the Future Land Use Map designation from “Recreation” to “Medium Density Residential” for parcel 34-20-30-526-0P00-0000, subject to the following condition(s):

1. The Parcel, being designated as a “Park” on the plat of Doug’s Unit #1, recorded in the Plat Book of Seminole County, Book 31, Page 53, shall be restricted in perpetuity to open space, recreation and stormwater management uses. No dwelling unit or habitable structure may be constructed upon the Parcel. The Owner shall maintain the stormwater facility on the Parcel in accordance with the requirements of the St. John’s River Water Management District and the City, shall commission an annual inspection of that facility by a Florida-registered professional engineer, and shall file the result report with the City, all at the Owner’s expense. The City shall have no maintenance obligation with respect to the Parcel or the stormwater facilities thereon. Nothing in this condition shall prevent the Owner from entering into cost-sharing or contribution arrangements with other property owners benefitting from the facility, provided that the Owner remains solely responsible to the City for performance. In addition, concurrently with recordation of a replat of the Excelsior Business Park plat or, if no replat is recorded, prior to issuance of a certificate of occupancy for a multifamily project on Lots 1 through 5 of the Excelsior Business Park plat, the Owner shall ensure that a public drainage easement is granted to the City of Winter Springs for surface water drainage from public facilities located in Doug’s Unit #1 plat over the Parcel and through the private drainage facilities thereon. The acreage of the Parcel may be counted once toward the permitted density of the development upon Lots P U B L I C H E A R I N G S A G E N D A | T H U R S D A Y D E C E M B E R 3 , 2 0 2 6 | P A G E 8 OF 8 1 through 5 of the

Excelsior Business Park plat, recorded in the Plat Book of Seminole County, Book 43, Page 12, and shall not be available to support density for any other development. The restrictions and the obligations herein shall be
incorporated into the Development Agreement for the development upon Lots 1 through 5 of the Excelsior Business Park plat and shall run with the land, shall be recorded, and shall be enforceable by the City. Should the proposed development on Lots 1 through 5 of the Excelsior Business Park plat be abandoned prior to entering into a Development Agreement containing the conditions herein, the City Commission of the City of Winter Springs may amend the future land use map to revert the Parcel to Recreation.

COMP-2026-0008 (Future Land Use Amendment): Ordinance 2026-10

Planning & Zoning Board

John Rabon, JD, MPA

Senior Planner

Background

Future Land Use Amendment:
Ordinance 2026-10

Property Address: 156 Cory Lane,
Winter Springs, FL 32708 (± 1.98 acres)

Parcel ID: 34-20-30-526-0P00-0000

February 11, 2026:
Comprehensive Plan Amendment Application (COMP-2026-0008)

November 18, 2026: Public Notice Letters & Signage

November 23, 2026: Newspaper Advertisement

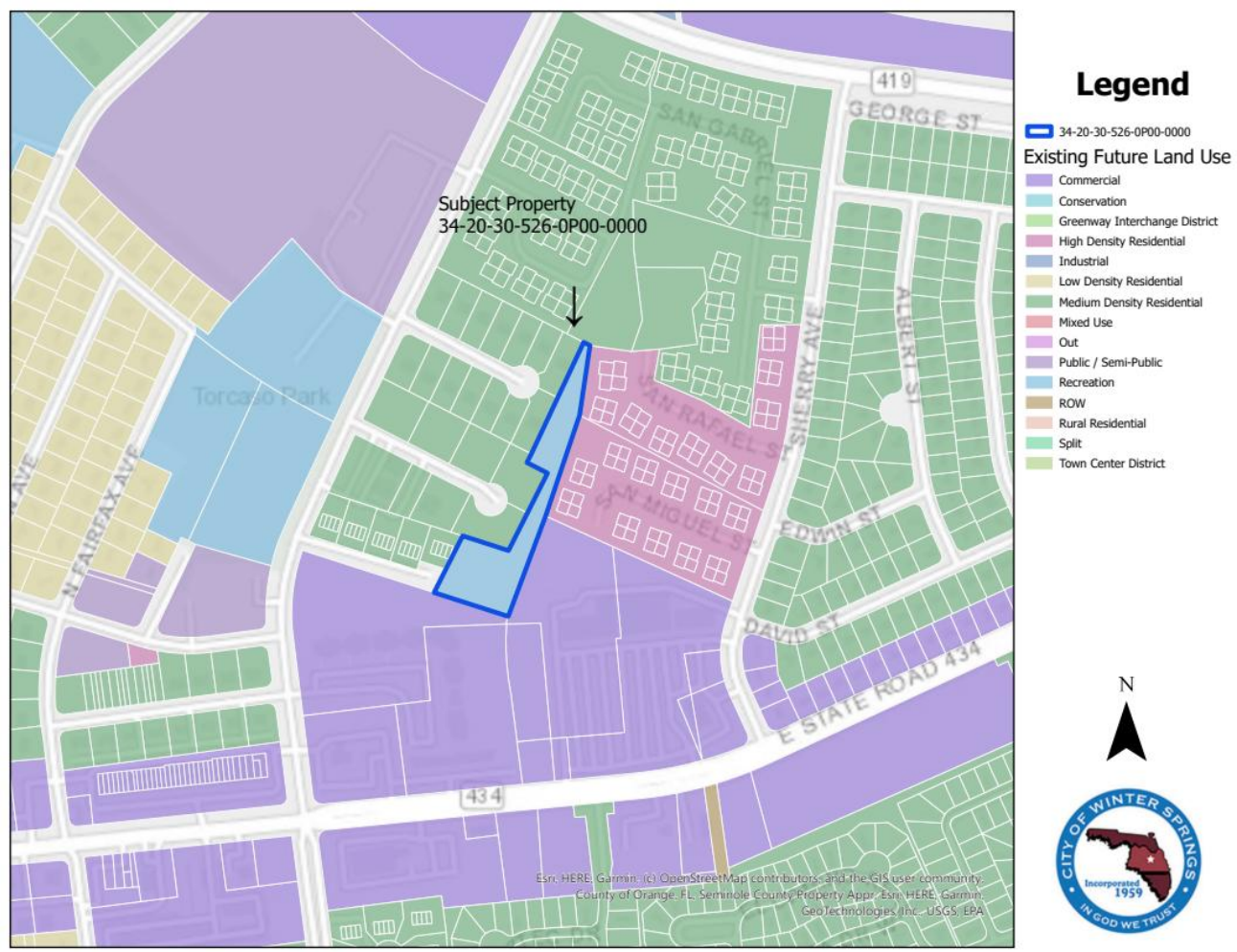
Applicant: Ryan Sheehan, Christopher Ryan Homes



Planning &
Zoning Board

December 3, 2026

Existing Future Land Use - Recreation



Existing Location:
156 Cory Ln

Existing FLU:
Recreation

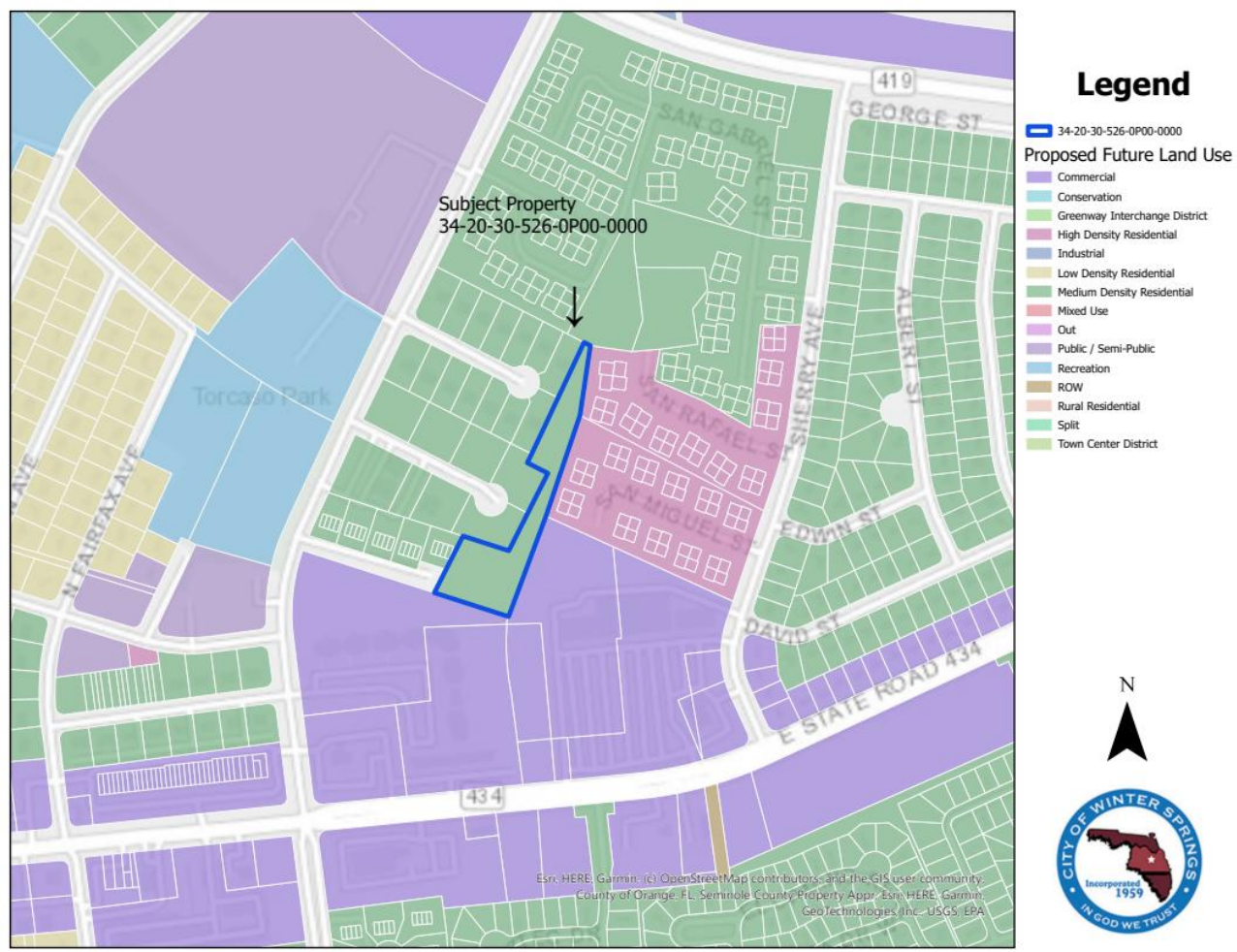
Existing Zoning District:
R-3 Multiple-Family Dwelling District

Future Land Use Amendment:
Ordinance 2026-10

Planning &
Zoning Board

December 3, 2026

Proposed Future Land Use - Medium Density Residential



Future Land Use Amendment: Ordinance 2026-10

Planning & Zoning Board

December 3, 2026

Staff Recommendation

Staff recommends that the Planning & Zoning Board recommend adoption of Ordinance 2026-10 to the City Commission to change the Future Land Use Map designation from “Recreation” to “Medium Density Residential” for parcel 34-20-30-526-0P00-0000, subject to the following condition(s):

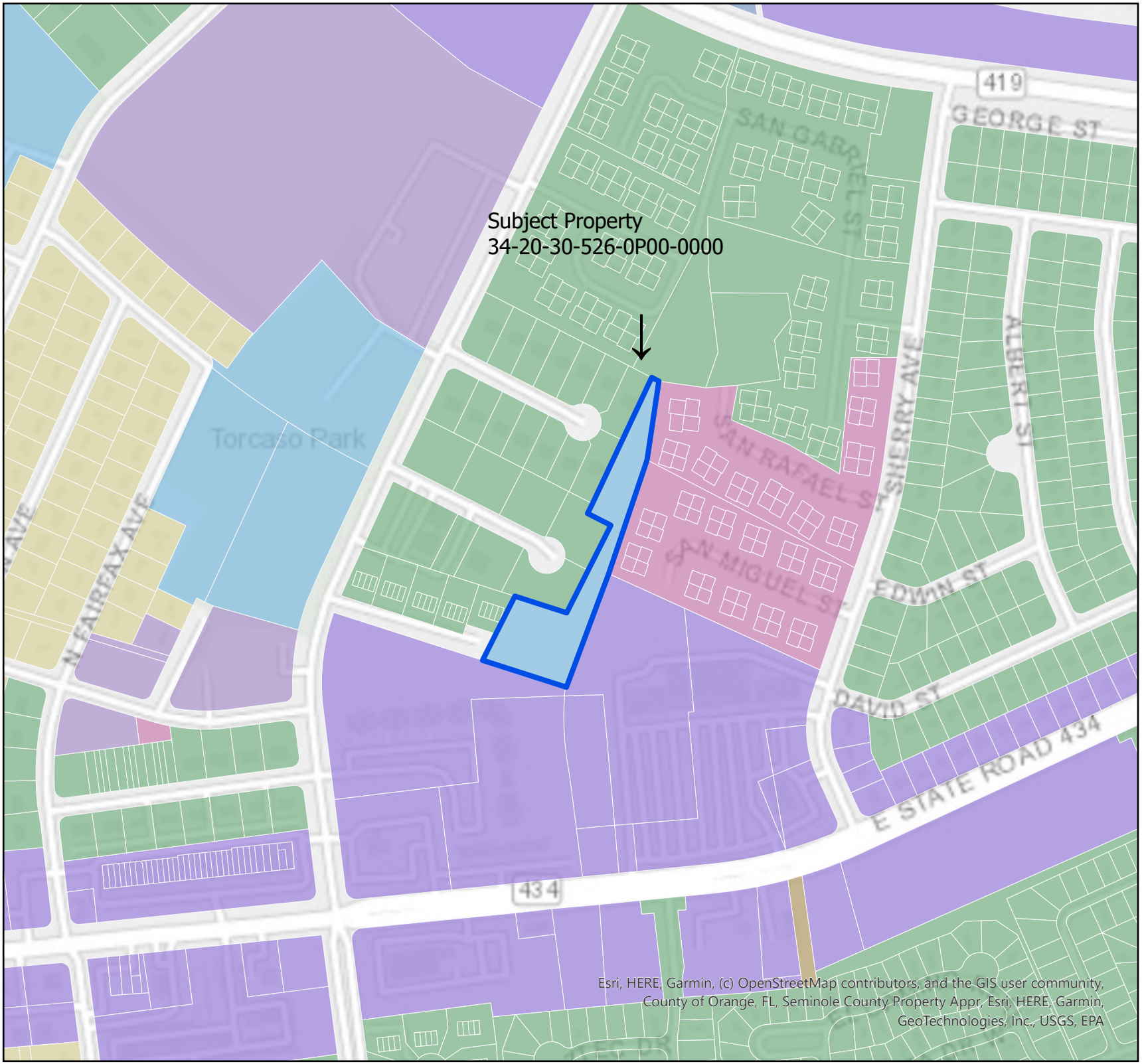
1. The Parcel, being designated as a “Park” on the plat of Doug’s Unit #1, recorded in the Plat Book of Seminole County, Book 31, Page 53, shall be restricted in perpetuity to open space, recreation and stormwater management uses. No dwelling unit or habitable structure may be constructed upon the Parcel. The Owner shall maintain the stormwater facility on the Parcel in accordance with the requirements of the St. John’s River Water Management District and the City, shall commission an annual inspection of that facility by a Florida-registered professional engineer, and shall file the result report with the City, all at the Owner’s expense. The City shall have no maintenance obligation with respect to the Parcel or the stormwater facilities thereon. Nothing in this condition shall prevent the Owner from entering into cost-sharing or contribution arrangements with other property owners benefitting from the facility, provided that the Owner remains solely responsible to the City for performance. In addition, concurrently with recordation of a replat of the Excelsior Business Park plat or, if no replat is recorded, prior to issuance of a certificate of occupancy for a multifamily project on Lots 1 through 5 of the Excelsior Business Park plat, the Owner shall ensure that a public drainage easement is granted to the City of Winter Springs for surface water drainage from public facilities located in Doug’s Unit #1 plat over the Parcel and through the private drainage facilities thereon. The acreage of the Parcel may be counted once toward the permitted density of the development upon Lots 1 through 5 of the Excelsior Business Park plat, recorded in the Plat Book of Seminole County, Book 43, Page 12, and shall not be available to support density for any other development. The restrictions and the obligations herein shall be incorporated into the Development Agreement for the development upon Lots 1 through 5 of the Excelsior Business Park plat and shall run with the land, shall be recorded, and shall be enforceable by the City. Should the proposed development on Lots 1 through 5 of the Excelsior Business Park plat be abandoned prior to entering into a Development Agreement containing the conditions herein, the City Commission of the City of Winter Springs may amend the future land use map to revert the Parcel to Recreation

Future Land Use Amendment:
Ordinance 2026-10

ANY QUESTIONS?

Planning &
Zoning Board

December 3, 2026



Legend

34-20-30-526-0P00-0000

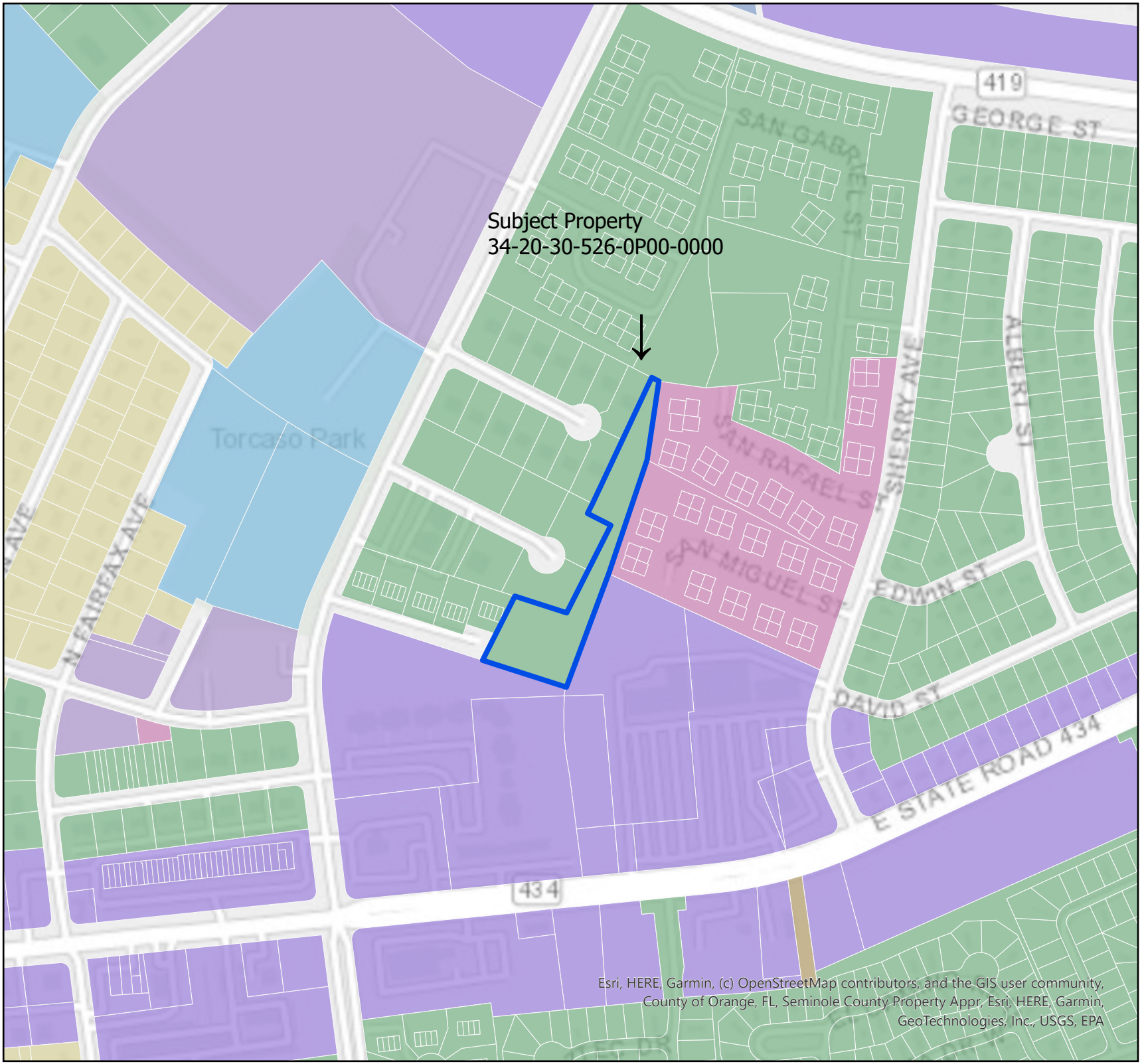
Existing Future Land Use

- Commercial
- Conservation
- Greenway Interchange District
- High Density Residential
- Industrial
- Low Density Residential
- Medium Density Residential
- Mixed Use
- Out
- Public / Semi-Public
- Recreation
- ROW
- Rural Residential
- Split
- Town Center District

N

CITY OF WINTER SPRINGS
Incorporated 1959
IN GOD WE TRUST

300



Legend

34-20-30-526-0P00-0000

Proposed Future Land Use

- Commercial
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- Rural Residential
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- Town Center District

N

CITY OF WINTER SPRINGS
Incorporated 1959
IN GOD WE TRUST

ORDINANCE NO. 2026-10

AN ORDINANCE OF THE CITY COMMISSION OF THE CITY OF WINTER SPRINGS, FLORIDA, RELATING TO COMPREHENSIVE PLANNING; AMENDING THE FUTURE LAND USE MAP WITH CONDITIONS FOR ONE (1) PARCEL OF REAL PROPERTY WITHIN THE CITY OF WINTER SPRINGS TOTALING APPROXIMATELY 1.98 ACRES, MORE OR LESS, LOCATED AT 156 CORY LANE, SAID PARCEL BEING MORE PARTICULARLY DEPICTED AND LEGALLY DESCRIBED ON EXHIBIT A, ATTACHED HERETO; CHANGING THE FUTURE LAND USE MAP DESIGNATION OF THE PARCEL, WITH CONDITIONS, FROM CITY OF WINTER SPRINGS "RECREATION" TO CITY OF WINTER SPRINGS "MEDIUM DENSITY RESIDENTIAL;" PROVIDING FOR THE REPEAL OF PRIOR INCONSISTENT ORDINANCES AND RESOLUTIONS, SEVERABILITY, INCORPORATION INTO THE COMPREHENSIVE PLAN, AND AN EFFECTIVE DATE AND LEGAL STATUS OF THE PLAN AMENDMENT.

WHEREAS, the City is granted the authority, under § 2(b), Art. VIII of the State Constitution, to exercise any power for municipal purposes except when expressly prohibited by law; and

WHEREAS, the future land use map amendment embodied in this Ordinance is a small-scale amendment to the City of Winter Springs Comprehensive Plan in accordance with Section 163.3187(1), Florida Statutes; and

WHEREAS, the Local Planning Agency of the City of Winter Springs held a duly noticed public hearing on December 03, 2026, in accordance with the procedures established in Chapter 163, Part II, Florida Statutes, on the proposed Comprehensive Plan amendment; and

WHEREAS, the City Commission of the City of Winter Springs held two duly noticed public hearings on the proposed amendment set forth hereunder and considered findings and advice of staff, citizens, and all interested parties submitting written and oral comments and supporting data and analysis, and after complete deliberation, hereby approves and adopts the Comprehensive Plan Amendment set forth hereunder, subject to the conditions set forth herein; and

WHEREAS, the City Commission hereby finds that this Ordinance serves a legitimate government purpose and is in the best interests of the public health, safety, and welfare of the citizens of the City of Winter Springs, Florida.

NOW, THEREFORE, THE CITY COMMISSION OF THE CITY OF WINTER SPRINGS HEREBY ORDAINS, AS FOLLOWS:

Section 1. **Recitals.** The foregoing recitals are true and correct and are fully incorporated herein by this reference.

Section 2. **Authority.** This Ordinance is adopted in compliance with, and pursuant to, the Community Planning Act, Sections 163.3161, et. seq., Florida Statutes.

Section 3. **Purpose and Intent.** It is hereby declared to be the purpose and intent of this Ordinance to adopt a Comprehensive Plan amendment incorporating the revisions stated herein as part of the City of Winter Springs Comprehensive Plan.

Section 4. **Adoption of Amendment to the Future Land Use Map.** The City of Winter Springs Comprehensive Plan, Future Land Use Map, is hereby amended by changing the designation of the real property legally described and depicted on **Exhibit "A"** (the "**Parcel**") from City of Winter Springs "Recreation" future land use to City of Winter Springs "Medium Density Residential" future land use. **Exhibit "A"** is attached hereto and fully incorporated herein by this reference.

Section 5. **Condition of Future Land Use Amendment.** The Parcel, being designated as a "Park" on the plat of Doug's Unit #1, recorded in the Plat Book of Seminole County, Book 31, Page 53, shall be restricted in perpetuity to open space, recreation and stormwater management uses. No dwelling unit or habitable structure may be constructed upon the Parcel. The Owner shall maintain the stormwater facility on the Parcel in accordance with the requirements of the St. John's River Water Management District and the City, shall commission an annual inspection of that facility by a Florida-registered professional engineer, and shall file the result report with the City, all at the Owner's expense. The City shall have no maintenance obligation with respect to the Parcel or the stormwater facilities thereon. Nothing in this condition shall prevent the Owner from entering into cost-sharing or contribution arrangements with other property owners benefitting from the facility, provided that the Owner remains solely responsible to the City for performance. In addition, concurrently with recordation of a replat of the Excelsior Business Park plat or, if no replat is recorded, prior to issuance of a certificate of occupancy for a multifamily project on Lots 1 through 5 of the Excelsior Business Park plat, the Owner shall ensure that a public drainage easement is granted to the City of Winter Springs for surface water drainage from public facilities located in Doug's Unit #1 plat over the Parcel and through the private drainage facilities thereon. The acreage of the Parcel may be counted once toward the permitted density of the development upon Lots 1 through 5 of the Excelsior Business Park plat, recorded in the Plat Book of Seminole County, Book 43, Page 12, and shall not be available to support density for any other development. The restrictions and the obligations herein shall be incorporated into the Development Agreement for the development upon Lots 1 through 5 of the Excelsior Business Park plat and shall run with the land, shall be recorded, and shall be enforceable by the City. Should the proposed development on Lots 1 through 5 of the Excelsior Business Park plat be abandoned prior to entering into a Development Agreement containing the conditions herein, the City Commission of the City of Winter Springs may amend the future land use map to revert the Parcel to Recreation.

Section 6. Repeal of Prior Inconsistent Ordinances and Resolutions. All prior inconsistent ordinances and resolutions adopted by the City Commission, or parts of prior ordinances and resolutions in conflict herewith, are hereby repealed to the extent of the conflict.

Section 7. Severability. If any section, subsection, sentence, clause, phrase, word or provision of this Ordinance is for any reason held invalid or unconstitutional by any court of competent jurisdiction, whether for substantive, procedural, or any other reason, such portion shall be deemed a separate, distinct and independent provision, and such holding shall not affect the validity of the remaining portions of this Ordinance.

Section 8. Incorporation into Comprehensive Plan. Upon the Effective Date of the Comprehensive Plan Amendment adopted by this Ordinance, said Amendment shall be incorporated into the City of Winter Springs Comprehensive Plan and any section or paragraph number or letter and any heading may be changed or modified as necessary to effectuate the foregoing.

Section 9. Effective Date and Legal Status of the Plan Amendment. The Effective Date of this Ordinance shall be thirty-one (31) days after the date of its adoption, as written below, in accordance with Section 163.3187(5)(c), Florida Statutes, unless challenged within thirty (30) days after adoption of this Ordinance, in which case this Ordinance shall become effective at such time as the state land planning agency or the Administrative Commission issues a final order determining that the adopted small scale development amendment is in compliance. No development orders, development permits, or land use dependent on this Amendment may be issued or commenced before the Amendment has become effective. After and from the Effective Date of this Amendment, the Comprehensive Plan Amendment set forth herein shall amend the City of Winter Springs Comprehensive Plan and become a part of that plan and the Amendments shall have the legal status of the City of Winter Springs Comprehensive Plan, as amended. Failure to record the Restriction required by Section 5, above, prior to the Effective Date shall render this Ordinance and the Future Land Use Amendment granted hereunder null and void.

ADOPTED by the City Commission of the City of Winter Springs, Florida, in a regular meeting assembled on the _____ day of _____, 20_____.

_____
Kevin McCann
Mayor

ATTEST:

_____
Erin O'Donnell
City Clerk

Approved as to legal form and sufficiency for
the City of Winter Springs only:

_____

Anthony A. Garganese
City Attorney

Legal Ad: _____
First Reading: _____
Legal Ad: _____
Second Reading: _____
Effective Date: Thirty-one (31) days after the date of adoption so written above, unless this Ordinance is challenged.

EXHIBIT A

GENERAL DEPICTION OF SUBJECT PARCEL AND SURROUNDING AREA

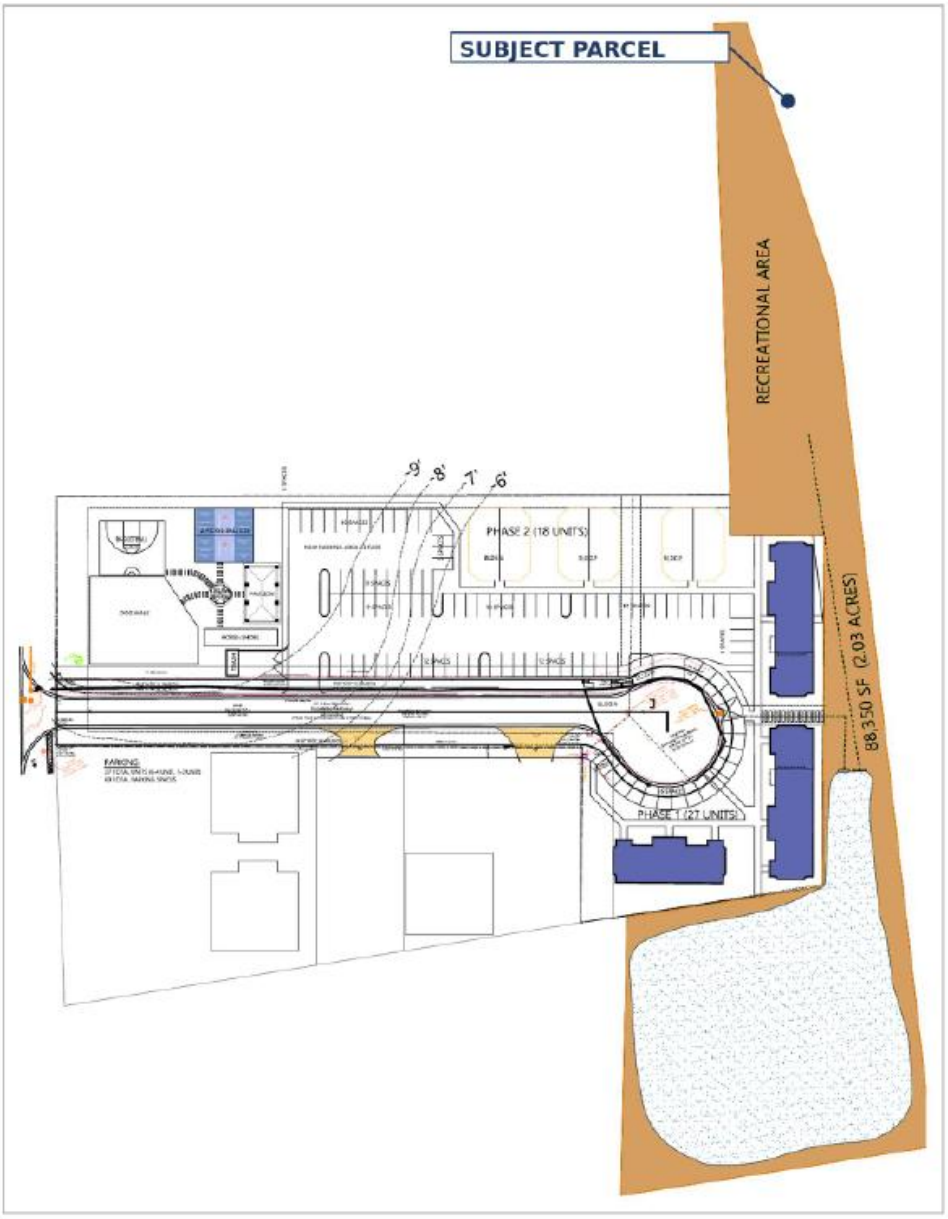

EXHIBIT A

LEGAL DESCRIPTION OF PARCEL

A VACANT PARCEL ON CORY LANE IN WINTER SPRINGS, FLORIDA, MORE PARTICULARLY DESCRIBED AS PARK, DOUG'S UNIT #1, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 31, PAGE 53, OF THE PUBLIC RECORDS OF SEMINOLE COUNTY, FLORIDA

CITY OF WINTER SPRINGS
COMMUNITY DEVELOPMENT DEPARTMENT
1126 East State Road 434
Winter Springs, Florida 32708
customerservice@winterspringsfl.org

Application – Comprehensive Plan (CP) Amendment

This submission is made on the City's Application – Comprehensive Plan (CP) Amendment, form version 01/2024. The applicant has set out the required information below and, as staff have confirmed is acceptable, submits the attached Justification Narrative in place of writing the answers to the questions at pages 2 and 3 in the spaces on the form.

APPLICATION TYPE

___ Text Amendment _X_ **Small-Scale Amendment (50 acres or less)** ___ Large-Scale Amendment (Over 50 acres)

REQUIRED INFORMATION

Applicant(s):	**Boltons Place Development, LLC, a Florida limited liability company**
Date:	**September 24, 2026**
Mailing address:	**2885 Sanford Ave. SW #29916, Grandville, MI 49418**
Email:	**jcbretas@culebrabay.com**
Phone Number:	**(407) 797-3650**

If applying for a Future Land Use Amendment, please answer provide the following information:

Property Owner(s):	**Boltons Place Development, LLC**
Mailing Address:	**Same as applicant, above**
Email:	**jcbretas@culebrabay.com**
Phone Number:	**Same as applicant, above**
Property Address:	**156 Cory Lane, Winter Springs, Florida 32708**
Parcel ID(s):	**34-20-30-526-0P00-0000**
Parcel Size:	**1.98 acres (Seminole County Property Appraiser)**
Existing Use:	**Vacant and unimproved**
Existing Future Land Use:	**Recreation and Open Space**
Proposed Future Land Use:	**Medium Density Residential**

The subject parcel contains an existing stormwater retention pond serving the Doug's Unit #1 subdivision and adjoining properties, together with drainage and utility easements dedicated by the plat of Doug's Unit #1. No development is proposed upon the parcel. Legal description: that tract designated "PARK" on the plat of Doug's Unit #1, as recorded in Plat Book 31, Page 53, of the Public Records of Seminole County, Florida.

ALL APPLICANTS MUST ANSWER THE FOLLOWING QUESTIONS

Each question is answered in the attached Justification Narrative at the section identified. A short statement of the answer is given here for convenience.

If the applicant is proposing a Text Amendment to the Goals, Objectives, and Policies of the City's Comprehensive Plan, set forth the proposed Text Amendment in detail providing supporting documentation.

Not applicable.

This application is a Future Land Use Map amendment affecting one parcel. No amendment to the text of the Goals, Objectives and Policies of the Comprehensive Plan is proposed or required.

What effect will the proposed amendment have on the City's budget or the economy of the region?

See attached Justification Narrative, Section 7.1.

Favourable. The amendment converts a parcel presently generating minimal ad valorem revenue into acreage supporting taxable residential development, imposes no maintenance obligation upon the City, and relieves the City of a neglected stormwater facility by placing its restoration and perpetual maintenance upon private ownership at private expense.

Describe how the City might provide adequate services from public facilities to the affected property. Will the amendment promote the cost effective use of or will it unduly burden public facilities?

See attached Justification Narrative, Section 7.5.

No public service is required to the subject parcel, on which nothing will be built. The amendment promotes cost-effective use of public facilities by accommodating additional dwelling units on land already served, within an existing platted subdivision, with no extension of infrastructure.

Describe the impact that the proposed amendment will have on the Level of Service (LOS) of public facilities including sanitary sewer, solid waste, drainage, potable water, traffic circulation, and recreation.

See attached Justification Narrative, Section 7.2.

Sanitary sewer, solid waste, potable water and traffic circulation are unaffected by the redesignation of this parcel, on which no development is proposed; the demand of the associated residential development will be demonstrated against adopted standards at site plan. Drainage is improved, the amendment being the means by which an existing facility is restored and maintained. The adopted recreation standards measure public park land and City-owned open space; the subject parcel is neither, so attainment of neither standard is reduced.

What impact will the proposed amendment have on the environment, natural resources, and historical resources of the City or the region?

See attached Justification Narrative, Section 7.3.

The parcel will be restricted in perpetuity against development and retained as open space, recreation and stormwater management. Wetland and Conservation Overlay boundaries will be delineated by qualified professionals at the applicant's expense and addressed through the Environmental Report at site plan, in accordance with Future Land Use Element Policies 1.1.8 and 1.2.12. No historical resource is known upon the parcel.

Identify surrounding neighborhoods and land use. Is the amendment compatible with these surrounding uses and land use designations?

See attached Justification Narrative, Section 7.6.

The parcel adjoins Medium Density Residential land to the north and west, including Lots 1 through 5 of Excelsior Business Park and the Excelsior Parkway tract, and the residential lots of Doug's Unit #1, in which the applicant also holds property. The amendment removes an isolated designation at odds with every parcel around it and brings the parcel into conformity with its surroundings.

Will the proposed amendment promote or adversely affect the public health, safety, welfare, economic order, or aesthetics of the City or region?

See attached Justification Narrative, Section 7.8.

It promotes them. An unmaintained stormwater facility is restored, inspected annually by a Florida-registered professional engineer at the applicant's expense with the report filed with the City, and permanently protected against

development by recorded restriction. Nearly two acres are retained as open space and neighbourhood recreation against a code minimum of one-half acre.

Identify how the request is consistent with the Goals, Objectives and Policies of the Comprehensive Plan. Will approval of the amendment cause the Comprehensive Plan to be internally inconsistent?

See attached Justification Narrative, Section 7.7 and Section 8.

The request is consistent with the Future Land Use, Conservation, Recreation and Open Space, Housing and Infrastructure Elements, which are addressed policy by policy at Section 8. It does not cause internal inconsistency: the resulting density of 8.89 dwelling units per acre sits within the 3.6 to 9.0 range adopted for Medium Density Residential by Policy 1.1.1, and the parcel is retained as open space by condition.

Identify how the request is consistent and not in conflict, with the legislative policy directives established by the City Commission including, but not limited to, those set forth in the City's Comprehensive Plan and city code, adopted master plans, economic development goals and objectives, community redevelopment plans, and brownfield areas.

See attached Justification Narrative, Section 7.11.

The request is consistent with the Comprehensive Plan and City Code as addressed throughout. So far as the applicant is aware no adopted master plan, community redevelopment plan or brownfield designation applies to the subject parcel, and the applicant will address any that staff identify.

Describe how the proposed amendment is consistent with the Goals, Objectives, and Policies of the State Comprehensive Plan set forth in Chapter 187, Florida Statutes, and the East Central Florida Regional Policy Plan, adopted by Rule 29 F-19.001, Florida Administrative Code.

See attached Justification Narrative, Section 7.4.

The amendment accords with the state policies favouring infill development on land already served by public facilities, the provision of a range of housing types, and the protection of water resources through the restoration and perpetual maintenance of an existing stormwater facility.

REQUIRED DOCUMENTATION

- ☑ A complete Application and Fee. — This application, executed and notarised, with the application fee of $750.00 paid by Boltons Place Development, LLC as applicant.
- ☑ A brief narrative, with applicable supporting competent substantial evidence and documents, as to why the application satisfies the relevant criteria set forth in Comprehensive Plan. — Attached: Justification Narrative and Analysis of Review Criteria. Section 1 states the request in summary; Part II answers the questions above and the eleven factors of City Code Section 15-36 in turn; Parts I, III and IV set out the supporting evidence and the documents relied upon.
- ☑ A Legal Description accompanied by a certified survey or the portion of the map maintained by the Seminole County Property Appraiser reflecting the boundaries of the subject property (if applicable). — Attached: the portion of the Seminole County Property Appraiser map reflecting the boundaries of Parcel 34-20-30-526-0P00-0000, together with the legal description given at page 1. A boundary and topographic survey of the parcel is in preparation and will be furnished when complete.

CITY LIMITED RIGHT OF ENTRY: By submitting this Application you hereby grant temporary right of entry for City Officials to enter upon the subject property for purposes of evaluating this Application and posting on the subject property.

APPLICANT'S AUTHORIZATION: I desire to make Application for a Comprehensive Plan Amendment for the aforementioned project and have read and agree to the terms contained herein. In addition, if the Applicant is a corporate entity, the undersigned hereby represents and warrants that he/she is authorized to act on behalf of, and bind, the corporate entity.

Applicant Name (Print): **Jose Carlos Bretas, Manager**

Applicant Signature: JCBretas

Date: **September 24, 2026**

Business Name: **Boltons Place Development, LLC**

Address: **2885 Sanford Ave. SW #29916, Grandville, MI 49418**

Parcel ID: **34-20-30-526-0P00-0000**

STATE OF Florida COUNTY OF Seminole

The foregoing instrument was acknowledged before me this 25 day of September, 2026, by Jose Carlos Bretas who is personally known to me or who has produced FLDL as identification and who did/did not take an oath.

Date: 9-25-2026 (seal)

Notary Public State of Florida
Michael Wibrew
My Commission HH 745103
Expires 12/1/2029

Notary Public Signature: Michael Wibrew

My Commission expires: 12-1-2029

Note: The Property Owner shall sign and have their signature notarized below if the Applicant is not the owner of the subject property.

Not applicable. The Applicant is the owner of the subject property. Boltons Place Development, LLC is both the Applicant and the record owner of Parcel 34-20-30-526-0P00-0000, title having been conveyed to it by the instrument recorded at Official Records Book 10680, Page 13977, Public Records of Seminole County, Florida. The applicant's signature and notarial acknowledgment above are given in both capacities.

JUSTIFICATION NARRATIVE AND ANALYSIS OF REVIEW CRITERIA

Small-Scale Future Land Use Map Amendment — 156 Cory Lane, Winter Springs, Florida

Prepared for submission to the City of Winter Springs Community Development Department

Applicant and Owner: Boltons Place Development, LLC

Developer: Burlington Development Group, LLC

Contact: J.C. Bretas · jcbretas@culebrabay.com

Subject parcel: 156 Cory Lane, Winter Springs, Florida 32708 · Parcel 34-20-30-526-0P00-0000

Area: 1.98 acres per the Seminole County Property Appraiser; boundary and topographic survey in preparation

Existing Future Land Use: Recreation and Open Space

Proposed Future Land Use: Medium Density Residential

Existing Zoning: R-3, Multiple-Family Dwelling District — no change in zoning is sought by this application

Legal description: The tract designated "PARK" on the plat of Doug's Unit #1, Plat Book 31, Page 53, Public Records of Seminole County, Florida

Related development: Homes At Excelsior — formerly known as Excelsior Parkway Townhomes — comprising Lots 1 through 5 of Excelsior Business Park and the Excelsior Parkway roadway tract, in common ownership with the subject parcel

Revision: Revised 30 October 2026 — supersedes the narrative filed 25 September 2026

PART I — THE REQUEST AND ITS FACTUAL BASIS

1. Summary of the request

The applicant requests a Future Land Use Map amendment redesignating one parcel of approximately 1.98 acres at 156 Cory Lane from Recreation and Open Space to Medium Density Residential. The parcel is the platted "Park" tract of Doug's Unit #1 and is presently occupied by an existing stormwater pond and its control structures.

No development is proposed on this parcel. Nothing will be built upon it. The existing pond and control structures will continue to serve their present function. The applicant proposes, and asks the City to impose, a condition restricting the parcel in perpetuity to open space, recreation and stormwater management. The purpose of the amendment is to allow the parcel's acreage to be counted, once, toward the permitted density of the adjoining Homes At Excelsior project, which the applicant also owns.

The amendment and that condition are two halves of one proposal. A perpetual maintenance obligation is only as durable as the revenue standing behind it, and the obligation the City created for this subdivision in 1984 failed for want of exactly that. The acreage recognized by this amendment is what places the obligation upon a development of sufficient scale to fund it indefinitely, and to retain a continuing interest in doing so.

The practical effect is that the same number of dwelling units is accommodated on less ground, with the balance of the site retained as usable open space, stormwater treatment and neighborhood recreation. The parcel also ceases to be an isolated Recreation designation surrounded by Medium Density Residential land, and is brought into conformity with the designation that applies on every side of it.

The amendment concerns a single parcel of less than fifty acres and is understood to proceed as a small-scale amendment under Section 163.3187, Florida Statutes. The applicant seeks no text amendment, no variance, no density bonus and no deviation from any adopted standard.

2. The property, and how it came to be acquired

156 Cory Lane is a vacant parcel containing a stormwater pond which serves the surrounding Doug's Unit #1 subdivision and adjacent businesses. At the time of acquisition the pond was not being maintained, and had not been maintained for many years.

The applicant acquired the parcel by quit claim deed in July 2024, at the City's encouragement, specifically so that the pond would pass into responsible private ownership and be maintained as part of the Homes At Excelsior project. The City Attorney's Office assisted in identifying and locating the holder of the residual private interest, whom the applicant's own counsel had been unable to find. The applicant records this history because it explains both why the parcel is in private hands and why the applicant is content to commit permanently to its continued open-space and drainage function.

The applicant is also an owner within Doug's Unit #1, holding several of the quadplex properties on Cory Lane, including 109 Cory Lane, which is Lot 13 of the same plat. The applicant therefore approaches this amendment as a neighbor on that street, and not only as an applicant.

3. What the 1984 plat did, and what it did not do

The plat of Doug's Unit #1 was approved by the Mayor and Clerk of the City of Winter Springs on 14 December 1984 and recorded on 20 December 1984 at Plat Book 31, Page 53. Two features of it bear directly on this application.

3.1 What the dedication on the face of the plat names

The dedication on the face of the plat states that the owner in fee simple does "hereby dedicate said lands and plat for the uses and purposes therein expressed and dedicates the streets and easements shown or noted hereon to the perpetual use of the public."

The dedication names the streets and it names the easements. It does not name the Park tract. The fee in that tract remained in private ownership, which is why it passed by private conveyance and came ultimately to the applicant in 2024. The City considered the same question in November 2023 and reached the same view, as Section 5 sets out. On that footing no public parkland is affected by this amendment, because none was created.

3.2 The easements across it were dedicated, and are not disturbed

The southern portion of the tract is annotated on the plat as "PARK — UTILITIES & DRAINAGE ESMT," and the plat shows a thirty-foot drainage and ingress-egress easement together with fifteen-foot drainage easements between the lots. Those easements were dedicated to the perpetual use of the public and remain in force. The applicant proposes nothing inconsistent with any of them. The existing pond lies within a dedicated drainage easement and is proposed to continue in precisely that function.

4. The maintenance obligation, and why it failed

Note 5 on the face of the plat provides: "DRAINAGE RETENTION AREAS TO BE MAINTAINED BY DOUG'S UNIT #1 & #2 HOMEOWNERS ASSOC."

Three months later, on 5 March 1985, the City of Winter Springs paid the recording fee from its General Fund to place on record the Declaration of Maintenance Covenants for Doug Units I & II at Official Records Book 1620, Page 1742. That Declaration was to create and fund the association the plat had named, and its assessments were to be applied, in its own words, to "keeping drainage areas and ponds maintained."

The intent across the two instruments is plain: the drainage facilities of this subdivision, including the pond on the subject parcel, were to be maintained privately and at private expense rather than by the City.

No association was ever incorporated and no assessment has ever been levied. The Articles of Incorporation annexed to the Declaration are incomplete on their face — the subscribers are unnamed, the minimum size of the board is left blank, and two of the four officer positions are unfilled. The Declaration nowhere conveys any land to the association; the article headed "Title to Common Area" contains no conveyance at all. The three instruments name the body three different ways. The applicant, as the owner of several quadplex properties within the same subdivision, has never received or paid an assessment. By 2024 nobody was maintaining the pond, which is why the City went looking for its last private owner. The City's own conclusion on the point, that no such association was ever created, is set out at Section 5.

The reason the mechanism failed is worth stating plainly, because it bears directly upon this application. The obligation itself was sound. What it never had was funding. It was assigned to an association with no members, no assessments and no revenue, and an obligation with no revenue behind it is not in practice an obligation at all. The difference between what the plat created and what this amendment creates lies not in the words of the restriction, which were adequate, but in whether anything stands behind them.

The applicant offers this history because it explains precisely what the amendment accomplishes. In 1984 and 1985 a maintenance obligation was created and assigned to an association that was never formed, and it has gone unperformed for forty years. This amendment, together with the condition offered at Section 10, assigns that obligation instead to an identified private owner, under a recorded and perpetual restriction running with the land, held by a party with a continuing economic interest in the development the pond serves. That is a materially more durable answer to the same problem, and it secures the parcel's open-space function more firmly than the plat ever did.

5. The City's own findings of 2 November 2023

The applicant does not ask the City to accept a novel account of this parcel. The City investigated the matter itself and reached the same conclusions. On 2 November 2023 the City's Senior City Planner wrote to the applicant's engineer, copying the applicant:

> *"There is an interesting history there, as an HOA was supposed to be created back during the Doug's Unit 1 platting to be responsible for maintenance of the pond, but no such HOA was ever created. The City does not have any maintenance liability or responsibility for the pond, as confirmed on March 2, 1989 with a letter from the then City Manager: the City of Winter Springs would accept 'no liability in the maintenance and utilization of this facility with regard to bodily injury or property damage.' Although there is a public drainage easement, this fact alone does not indicate that the City is responsible for maintenance of the pond in light of the other explicit references in the plat notes and declaration stating that an HOA was required to maintain the pond."*

The same communication set the applicant three requirements: to determine how a property owners' association would be created to perpetually maintain the pond; to address the outstanding comments of the

City's stormwater engineer on the pond inspection; and to provide an analysis showing that the applicant had property rights to drain into a pond then owned by a private individual.

The third requirement was satisfied by the acquisition itself, of which the applicant notified the City in writing on 1 August 2024, attaching the recorded deed. The second was addressed by the applicant's engineer in August 2024. The first — a perpetual maintenance mechanism — is what the condition offered at Section 10 provides, and it provides something better than the association the City asked for, because an association is precisely what failed here.

6. The proposed density calculation

Future Land Use Element Policy 1.1.2 provides that maximum densities are based on gross acreage, and defines gross acreage as "the total acreage within a parcel of land." Policy 1.1.1 establishes Medium Density Residential at 3.6 to 9.0 dwelling units per gross acre.

On adoption of this amendment, and on the subject parcel being incorporated into the Homes At Excelsior replat so that it forms part of a single parcel of land, the calculation is as follows.

Component	Acres	Units at 9.0 du/ac
Lots 1 through 5, Excelsior Business Park, together with the Excelsior Parkway roadway tract — existing Medium Density Residential	3.08	27
156 Cory Lane — subject parcel, proposed Medium Density Residential	1.98	17
Total unified parcel	**5.06**	**45**
Resulting gross density		**8.89 du/ac**

The 3.08-acre figure is taken from the signed boundary and topographic survey of Lots 1 through 5 prepared by Ireland Surveying under file IS-53224, which states on its face a total area, including the private road, of 134,352.12 square feet or 3.08 acres. The 1.98-acre figure for the subject parcel is taken from the Seminole County Property Appraiser, the source on which the City itself relied in its Zoning Verification Letter of 21 June 2021; a boundary and topographic survey of the subject parcel is in preparation and will be provided. The application form permits the legal description to be accompanied either by a certified survey or by the portion of the map maintained by the Seminole County Property Appraiser reflecting the boundaries of the subject property; the latter accompanies this application, with the survey to follow.

The resulting gross density of 8.89 dwelling units per acre falls within the 3.6 to 9.0 range that Policy 1.1.1 establishes for Medium Density Residential, and below the 9.1 unit threshold at which the High Density Residential category begins. No variance, bonus or deviation is sought.

The eighteen additional dwelling units are accommodated by adding a third storey to the seven residential buildings already contemplated on Lots 1 through 5 — a ground-floor flat beneath a two-storey townhome — and not by increasing building footprint or extending development onto the subject parcel.

PART II — ANALYSIS AGAINST THE REVIEW CRITERIA, CITY CODE SECTION 15-36

Section 15-36 of the City Code provides that the recommendation of staff shall be based on eleven minimum factors, if applicable. The applicant addresses each in turn, in the order the Code sets them out.

The Comprehensive Plan Amendment application form poses the same matters as questions. This narrative is submitted in place of answering them on the form, as staff have confirmed is acceptable. The table below shows where each question on the form is answered.

Question on the application form	Code criterion	Answered at
Effect on the City's budget or the economy of the region	15-36(1)	§ 7.1
How the City might provide adequate services from public facilities; cost-effective use or undue burden	15-36(5)	§ 7.5
Impact on the Level of Service of public facilities — sanitary sewer, solid waste, drainage, potable water, traffic circulation and recreation	15-36(2)	§ 7.2
Impact on the environment, natural resources and historical resources	15-36(3)	§ 7.3
Surrounding neighborhoods and land use, and compatibility with them	15-36(6)	§ 7.6
Public health, safety, welfare, economic order or aesthetics	15-36(8)	§ 7.8
Consistency with the Goals, Objectives and Policies of the Comprehensive Plan, and internal consistency	15-36(7)	§ 7.7 and § 8
Consistency with the legislative policy directives of the City Commission	15-36(11)	§ 7.11
Consistency with the State Comprehensive Plan, Chapter 187, and the East Central Florida Regional Policy Plan, Rule 29F-19.001	15-36(4)	§ 7.4
Proposed text amendment — not applicable; no text amendment is sought	—	—
Addressed although not asked on the form: Evaluation and Appraisal Report	*15-36(9)*	*§ 7.9*
Addressed although not asked on the form: consistency and compliance with law	*15-36(10)*	*§ 7.10*

7.1 Effect on the City's budget, or the economy of the City or the region

> *"Whether the proposed amendment will have a favorable or unfavorable effect on the city's budget, or the economy of the city or the region."*

The effect is favorable, in three respects.

- **Revenue.** The subject parcel is presently vacant land in a Recreation and Open Space designation and contributes minimal ad valorem revenue. The amendment enables eighteen additional dwelling units on the adjoining land, adding to the tax roll and generating impact fee receipts, without the City extending any facility to serve them.

- **No new obligation on the City.** The City takes on no maintenance responsibility for the pond, and none is asked of it. The City expressly disclaimed such responsibility by letter of its City Manager on 2 March 1989 and confirmed that position on 2 November 2023. The condition offered at Section 10 places a funded, perpetual, private obligation where at present the City has an unmaintained facility within a dedicated public easement and no responsible party. The applicant estimates that obligation at approximately ten thousand dollars per annum in perpetuity, together with a one-off restoration, and is obtaining quotations. An obligation of that duration requires a revenue source of matching duration, which is what the density recognized by this amendment provides.
- **Efficient use of existing investment.** This is infill. The site lies within the City's existing service area and is served by existing water, sewer, roadway and drainage infrastructure. Additional housing accommodated here does not require the City to extend or duplicate facilities, which is the most cost-effective form of growth available to a built-out municipality.

At the regional scale the amendment adds to the supply of rental housing within an existing urban area, which the State Comprehensive Plan and the regional policy plan both encourage.

7.2 Effect on the level of service of public facilities

> *"Whether the proposed amendment will diminish or negatively impact the level of service (LOS) of public facilities."*

No structure is proposed on the subject parcel, so the parcel itself generates no demand. The relevant question is the incremental demand of eighteen additional dwelling units on the adjoining land.

Recreation and open space — the standard most obviously engaged. The City's adopted recreation Level of Service standards are expressed in terms of public provision: eight acres of total public park and recreation land per one thousand residents, and four acres of City-owned open space per one thousand residents. The subject parcel is privately owned and is not a public park. It is not counted within either inventory. Redesignating it therefore cannot reduce the City's attainment of either standard. Recreation and Open Space Element Policy 1.1.12, which requires land to be held perpetually in public ownership for recreation, applies by its terms to "those lands owned by the City" and does not reach this parcel.

Further, the development will provide 1.98 acres of privately owned and privately maintained neighborhood recreation against a code minimum of one-half acre, which increases rather than diminishes the recreation available to residents of this part of the City.

The remaining adopted standards are addressed as follows.

- **Stormwater and drainage.** The existing pond and control structures are retained. Any modification will be permitted through the St. Johns River Water Management District under Environmental Resource Permit 48908-5. On-site treatment and attenuation will be demonstrated at final engineering.
- **Potable water and sanitary sewer.** The site is within the City's existing service area. Capacity will be confirmed through the Concurrency Management System.
- **Traffic circulation.** Access is via the existing Excelsior Parkway, which is retained in its current alignment and is not proposed to be vacated or realigned. Eighteen additional dwelling units generate a modest number of additional daily trips on an existing private access which already serves an existing commercial park. A parking and traffic study will be provided with the site plan application.

- **Solid waste.** Incremental demand consistent with eighteen additional dwelling units, collected under existing City arrangements.
- **Schools.** School concurrency will be addressed with the Seminole County School Board in the ordinary course.

7.3 Impact on the environment and on natural and historical resources

> *"Whether there will be a favorable or unfavorable impact on the environment or the natural or historical resources of the city or the region as a result of the proposed amendment."*

The impact is favorable, and it is the clearest environmental benefit the applicant can offer.

The pond. An existing stormwater facility which has gone unmaintained for approximately forty years, and which discharges toward Lake Jesup — a Class III Fresh water body listed as impaired — passes into the hands of an owner with both the obligation and the means to maintain it. The applicant offers, as part of the condition at Section 10, to fund its restoration and its perpetual maintenance, and to commission an annual inspection by a licensed engineer and file the report with the City at the applicant's own cost. The amendment is the mechanism that makes that obligation fundable. Without it the pond remains as it is.

Wetlands and flood plain. A wetland delineation has been performed by Universal Engineering Sciences, with flags located on 14 August 2023, surveyed and coordinated by Ireland Surveying under file IS-53224 and submitted with St. Johns River Water Management District application 48908-5. It identifies a single wetland of approximately 0.24 acres within a total surveyed area of 3.08 acres, with approximately 2.84 acres of upland, that surveyed area being the adjoining Excelsior Parkway parcel. The survey's flood disclaimer places the property in Zone X, outside the one-hundred-year flood plain. The applicant will comply with the wetland delineation, buffer and mitigation requirements of the Conservation Element and of the reviewing agencies, and with any requirement of the St. Johns River Water Management District. Nothing is proposed on the subject parcel itself.

Soils and clustering. The applicant's geotechnical investigation, prepared by Universal Engineering Sciences on 28 February 2022 from twenty-three borings, records organic soils up to approximately thirteen feet in depth at the western end of the adjoining parcel, with a seasonal high groundwater table at or near the surface. The layout has been arranged to keep structures off the least suitable ground. That is cluster development in response to site conditions, which Policy 1.1.4 expressly encourages, and it is only achievable if the density permitted on the whole may be concentrated on the part of the site able to carry it.

The applicant is not aware of any historical or archaeological resource on or adjoining the subject parcel. The parcel was platted in 1984 and has since contained only a stormwater facility.

7.4 Consistency with the State Comprehensive Plan and the regional policy plan

> *"Whether the proposed amendment is consistent with the goals, objectives, and policies of the state comprehensive plan set forth in Chapter 187, Florida Statutes, and the East Central Florida Strategic Regional Policy Plan, as amended from time to time."*

The amendment is consistent with both, in the following respects.

- **Housing.** It increases the supply and the variety of housing, including rental housing, within an existing urban area served by existing infrastructure.

- **Urban form and efficient land use.** It accommodates additional housing through infill and clustering on land already inside the City's service area, rather than by extending development outward, and so uses existing public facilities more efficiently.
- **Water resources.** It places an existing and unmaintained stormwater facility discharging toward an impaired water body into private ownership under a funded and perpetual maintenance obligation, and preserves that facility permanently.
- **Natural systems and recreation.** It preserves approximately 1.98 acres of open space in perpetuity by condition, and provides neighborhood recreation facilities at private cost.

7.5 Adequacy of public facilities and burden upon them

> *"Whether the city is able to provide adequate service from public facilities to the affected property, if the proposed amendment is granted, and whether the proposed amendment will promote the cost/effective use of or unduly burden public facilities."*

The subject parcel requires no public facility service, because nothing is built on it. The adjoining development lies wholly within the City's existing service area, on an existing roadway, with existing water, sewer and drainage connections, and its concurrency will be established through the City's Concurrency Management System at final engineering.

The amendment promotes the cost-effective use of public facilities rather than burdening them. It adds housing without extending the service network, and it resolves — at private expense and permanently — the maintenance of a drainage facility that sits within a dedicated public easement and presently has no responsible party. The alternative to this amendment is not that the parcel is developed differently; it is that an orphaned stormwater pond continues to deteriorate inside a public easement, with the question of who ultimately repairs it left open.

7.6 Compatibility with surrounding neighborhoods and land use

> *"Whether the proposed amendment is compatible with surrounding neighborhoods and land use."*

The amendment is compatible, and it improves the coherence of the Future Land Use Map in this location.

The subject parcel adjoins the applicant's Lots 4 and 5 to the south and west, both designated Medium Density Residential, and the Doug's Unit #1 residential subdivision to the north and east, which was itself redesignated Medium Density Residential and rezoned R-3 by Ordinances 2001-24 and 2001-25. The Excelsior Business Park lies to the south. The subject parcel is therefore an isolated Recreation and Open Space designation bounded on every side by Medium Density Residential land under the same designation it is proposed to receive.

Because nothing is built on the subject parcel, there is no change to its appearance, its function or its relationship to any neighboring property. The pond remains a pond. What changes is that it will be maintained, and that a planted littoral edge, a walking loop, an enlarged dog run, a pavilion with picnic facilities and open lawn will be added for the use of residents and, if the City wishes, of the surrounding neighborhood.

The residential development that the amendment enables sits on the applicant's own adjoining land at a gross density of 8.89 dwelling units per acre — a lower density than that at which both Doug's Unit #1 and the Moss Place subdivision immediately adjoining were in fact developed. The buildings are three storeys, within the forty-five foot height permitted in the R-3 district, and are separated from the Doug's Unit #1 lots by the subject parcel itself, which functions as an open-space buffer between the new development and the existing

subdivision. The project will be subject to community appearance and aesthetic review under Chapter 9, Article XII of the City Code.

7.7 Internal consistency of the Comprehensive Plan

> *"Whether approval of the proposed amendment will cause the comprehensive plan to be internally inconsistent."*

It will not. The applicant's element-by-element analysis is at Section 8 below. In summary:

- No public parkland is affected. The plat dedication at Book 31, Page 53 names the streets and the easements, not the Park tract, the fee in that tract remained private throughout, and the City's Senior City Planner concluded in November 2023 that no property owners' association was ever created and that the City has no maintenance responsibility for the pond. The amendment therefore removes no public parkland and reduces no public inventory.
- The parcel is not identified as land held by the City for recreation and open space purposes, is not within a Conservation land use designation, and does not form part of the City's adopted recreation Level of Service inventory, which measures public and City-owned land.
- The Recreation and Open Space Element expressly relies upon private development to provide and maintain neighborhood parks, and expressly encourages the preservation and use of private lands for park, recreation and open space purposes. The amendment, with the condition offered at Section 10, advances both directions rather than working against them.
- The resulting density is within the adopted range for the proposed category, and no other policy, objective or goal of any element is displaced.

7.8 Public health, safety, welfare, economic order and aesthetics

> *"Whether the proposed amendment will promote or adversely affect the public health, safety, welfare, economic order, or aesthetics of the city or region."*

Health and safety. An engineered stormwater facility that is inspected annually by a licensed engineer, funded in perpetuity and maintained by an identified owner is safer than one that has been unmaintained for forty years. The amendment is what makes the former possible. It also improves water quality entering an impaired receiving water.

Welfare. The amendment enables eighteen additional dwelling units, in a mix of unit types, within the City's existing urban footprint, and delivers nearly two acres of neighborhood recreation at private cost and at no expense to the City.

Aesthetics. The subject parcel is presently an unmaintained pond with overgrown vegetation, a condition which has itself drawn code enforcement attention. Under the proposal it becomes a planted pond with a littoral edge, a walking loop, a dog run, a pavilion and open lawn. The adjoining buildings will be subject to the City's community appearance and aesthetic review standards.

Economic order. The condition offered at Section 10 provides that the acreage may be counted once, toward this development only, and may not be used to support density for any other development. The amendment is not a speculative redesignation and confers no transferable benefit.

7.9 Evaluation and Appraisal Report

> *"The contents of any Evaluation and Appraisal Report (EAR) prepared pursuant to 163.3191, Florida Statutes."*

The applicant is not aware of any finding of the City's evaluation and appraisal process bearing upon the subject parcel, or upon the Recreation and Open Space designation of privately owned land generally. The City adopted its 2045 Comprehensive Plan on 26 August 2024 following that process, and the applicant's analysis throughout this narrative is directed to the policies of the Plan as adopted on that date. The applicant will address any specific finding that staff identify.

7.10 Consistency and compliance with law

> *"Whether the proposed amendment is consistent and in compliance with law."*

The amendment concerns a single parcel of approximately 1.98 acres and is accordingly understood to qualify as a small-scale development amendment under Section 163.3187, Florida Statutes. It is a map amendment only; no text amendment is sought. The applicant will comply with the notice, hearing and adoption requirements of Chapter 163 and Chapter 166, Florida Statutes, and with Article III of Chapter 15 of the City Code.

The applicant will comply with the notice and hearing requirements applicable to the amendment, and understands, per the advisory on the application form and Section 286.0105, Florida Statutes, that a verbatim record of any hearing is the applicant's own responsibility should it wish to preserve a right of appeal.

The amendment does not affect the easements dedicated to the public across the subject parcel by the plat of Doug's Unit #1, which remain in force, nor does it affect any recorded right of any other party to drain into the existing pond.

7.11 Consistency with the legislative policy directives of the City Commission

> *"Whether the proposed amendment is consistent, and not in conflict, with the legislative policy directives established by the city commission including, but not limited to, those set forth in the city's comprehensive plan and city code, adopted master plans, economic development goals and objectives, community redevelopment plans, and brownfield areas."*

The amendment is consistent with the directives the applicant is able to identify.

- **The Comprehensive Plan and City Code.** Addressed at Section 8 below and at Section 7.7 above.
- **Economic development.** The amendment delivers private investment in housing on an infill site within the existing service area, increases the tax base, and requires no public expenditure. It also relieves the City of an open-ended question about an orphaned drainage facility.
- **Housing policy.** The Housing Element adopted in 2024 directs the City to integrate diverse choices of housing. The proposal broadens both unit type and tenure by introducing ground-floor flats beneath two-storey townhomes within the same buildings.

So far as the applicant is aware, no adopted master plan, community redevelopment plan or brownfield area designation applies to the subject parcel. The applicant will address any that staff identify.

PART III — SUPPORTING ANALYSIS

8. Consistency with the Comprehensive Plan, element by element

8.1 Future Land Use Element

Policies 1.1.1 and 1.1.2 (Land Use Categories; Density and Intensity). The proposed designation and the resulting gross density of 8.89 dwelling units per acre conform to the adopted table. Gross acreage is applied exactly as Policy 1.1.2 defines it — the total acreage within a parcel of land — and the parcels will be combined into a single parcel through the replat.

Policy 1.1.4 (Innovative Design). The Policy encourages cluster development and low impact development. This proposal is cluster development in its plainest form: development is concentrated on the portion of the site suited to carry it, and the remainder is preserved undeveloped. As set out at Section 7.3, the clustering is a response to recorded subsurface conditions rather than a design preference.

Policy 1.1.5 (Housing Diversity). The Policy calls for locations accommodating a mix of housing unit types. The programme delivers ground-floor flats beneath two-storey townhomes within the same buildings, broadening the range of unit types and price points within a single development.

Policy 1.1.7 (Recreation and Open Space). This Policy restricts impervious area on lands designated Recreation and Open Space to twenty-five per cent, to ensure their protection and proper development. The applicant's proposal is more protective than the Policy requires: under the condition offered at Section 10, impervious coverage on the subject parcel would remain at or near its present level, and the parcel would be restricted against development permanently rather than merely capped.

8.2 Recreation and Open Space Element

Policy 1.1.1 (Level of Service Standards). Addressed at Section 7.2. The adopted standards measure public park and recreation land and City-owned open space. The subject parcel is neither, so the amendment cannot reduce attainment of either standard.

Policy 1.1.6 and Objective 1.6 (Private provision of neighborhood parks). Policy 1.1.6 provides that the City rely upon private development to provide and maintain neighborhood parks in areas of new development, with a minimum size of one-half acre. Objective 1.6 states that the City shall encourage the preservation and use of private lands for park and recreation facilities and open space. The proposal does both: the subject parcel, at approximately four times the minimum size, will be retained, improved and maintained as the neighborhood recreation area for the development, in private ownership, at no cost to the City.

Policy 1.6.1 (Developments over twenty units). This Policy requires residential developments outside the Town Center with more than twenty units to provide and maintain neighborhood recreational facilities. At forty-five units the requirement applies, and the subject parcel is how the applicant proposes to satisfy it. The amendment and the recreation requirement are complementary rather than in tension: the parcel remains recreation in use and in fact, while its acreage is recognized for density purposes on the unified parcel. The facilities proposed — a picnic area, a walking and fitness loop and open free play area — are among those Policy 1.1.6 itself identifies as typical of a neighborhood park.

Policy 1.1.12 (Perpetual public ownership). The obligation to hold land perpetually in public ownership for recreation applies to those lands owned by the City. The subject parcel is not City-owned and is not affected by that Policy.

8.3 Housing Element

The amendment increases the supply of land available for housing within the City's existing urban footprint, on a site already served by infrastructure, and delivers a mix of unit types consistent with the Element's direction

to integrate diverse choices of housing. The additional units broaden tenure choice in an area otherwise dominated by ownership product. At 8.89 dwelling units per acre the proposal is well below the eighteen dwelling units per acre that Housing Element Policy 1.1.8 reserves to the Town Center.

8.4 Conservation and Infrastructure Elements

No work is proposed on the subject parcel, so no wetland, conservation area or specimen vegetation upon it is proposed to be disturbed. The existing pond and its control structures are retained. To the extent the project's stormwater management system is modified, that modification will be permitted through the St. Johns River Water Management District under Environmental Resource Permit 48908-5, which is itself a modification of Permit 48908-1 and remains in effect. The receiving water is Lake Jesup, and the applicant will meet the treatment standards applicable to a discharge to an impaired water body as determined by the District and the City. The applicant will comply with the wetland buffer requirements of Conservation Element Policies 1.4.3 to 1.4.7.

8.5 Capital Improvements Element

Policy 1.2.2 requires the City to evaluate proposed land use amendments for compatibility with adopted Level of Service standards. That analysis is at Section 7.2. In summary, the incremental demand generated by eighteen additional dwelling units on an infill site within the existing service area is modest, and the recreation standard — the one most obviously engaged by a change away from a Recreation designation — is unaffected, because the adopted standards measure public and City-owned land.

9. This amendment is not a spot land use change

The applicant anticipates the question, and addresses it directly. Staff have previously observed, in relation to earlier and different proposals concerning the adjoining lots, that a request to increase the density category of this land would appear as a spot Future Land Use change and would be unlikely to receive a favorable recommendation. This application is different in kind, for four reasons.

- **It increases no density category.** The applicant does not ask for High Density Residential, for Mixed Use, or for any designation other than the one that already applies to the land on every side of the subject parcel. The density that results, 8.89 dwelling units per acre, is within the Medium Density Residential range and below its maximum.
- **It removes an anomaly rather than creating one.** The subject parcel is a 1.98-acre island of Recreation and Open Space designation set within and bounded by Medium Density Residential land — the applicant's Lots 4 and 5 on two sides, and the Doug's Unit #1 subdivision, redesignated Medium Density Residential by Ordinance in 2001, on the others. The amendment brings the island into conformity with its surroundings. The Future Land Use Map becomes simpler and more coherent, not less.
- **The use on the ground does not change.** A spot land use change is objectionable because it introduces a use out of keeping with its surroundings. Here nothing is built, nothing is demolished and nothing changes in appearance or function. The pond remains a pond and the open space remains open space, secured by a permanent recorded restriction that does not presently exist.
- **The parcel will not stand alone.** The subject parcel is in common ownership with the adjoining Medium Density Residential land and will be platted together with it into a single parcel. It is not a separate holding receiving a separate benefit.

10. Proposed condition of approval

The applicant recognizes the legitimate concern that the Recreation and Open Space designation is itself the protection, and that its removal would in principle permit a future owner to build on the parcel. The applicant does not seek that outcome and is willing to foreclose it.

The applicant therefore offers, and requests that the City impose, the following condition:

> *Parcel 34-20-30-526-0P00-0000, being the tract designated "PARK" on the plat of Doug's Unit #1 at Plat Book 31, Page 53, shall be restricted in perpetuity to open space, recreation and stormwater management uses. No dwelling unit or habitable structure shall be constructed upon it. The owner shall maintain the stormwater facility upon it in accordance with the requirements of the St. Johns River Water Management District and the City, shall commission an annual inspection of that facility by a Florida-registered professional engineer and shall file the resulting report with the City, all at the owner's expense. The City shall have no maintenance obligation in respect of the parcel or the facility. Nothing in this condition shall prevent the owner from entering into cost-sharing or contribution arrangements with other properties benefiting from the facility, provided that the owner remains solely responsible to the City for performance. The acreage of the parcel may be counted once toward the permitted density of the development upon Lots 1 through 5 of Excelsior Business Park and the Excelsior Parkway roadway tract, known as Homes At Excelsior, and shall not be available to support density for any other development. The restriction and the obligations shall run with the land, shall be recorded, and shall be enforceable by the City.*

The applicant has no objection to the condition being framed in whichever instrument the City Attorney's Office considers most durable — a recorded covenant, a restrictive note upon the replat, or a term of the Development Agreement. The applicant asks only that the maintenance obligation be drafted so as to travel with the townhome development rather than to sit alone upon the subject parcel, so that the parcel cannot in future be separated from the development whose stormwater it serves. The applicant is also willing to discuss a funded reserve if the City would prefer one.

The applicant asks the City to consider the amendment and the condition together rather than separately. Maintaining this facility carries a real and recurring cost, presently estimated at approximately ten thousand dollars a year in perpetuity together with a one-off restoration to bring the pond back into condition. An obligation of that kind endures only so long as the enterprise carrying it can fund it. The acreage recognized by this amendment is what places the obligation upon a development able to fund it indefinitely, and gives that development a continuing reason to perform it, because the facility serves the development's own stormwater. That is the respect in which this proposal differs from the arrangement of 1984 and 1985 — not in the language of the restriction, but in whether there is anything behind it.

With that condition in place, the amendment produces a permanent open-space and stormwater tract, maintained and inspected at private expense, where at present there is an unmaintained pond whose protection depends only upon a map designation. It is worth observing that the plat of 1984 did not restrict this tract against development at all: it labelled it, dedicated easements across it, and assigned its maintenance to a body that was never formed. The condition offered here secures considerably more than the plat ever did.

PART IV — EVIDENCE AND CONCLUSION

11. Documents relied upon and evidence to be presented

The applicant relies upon the following, and will provide each in advance of any public hearing:

- The plat of Doug's Unit #1, Plat Book 31, Page 53, recorded 20 December 1984.
- The Declaration of Maintenance Covenants for Doug Units I & II, Official Records Book 1620, Page 1742, recorded 5 March 1985, with the annexed Articles of Incorporation and the City's recording-fee payment record, together with the amendment at Official Records Book 1639, Page 369.
- The recorded conveyance of the subject parcel to Boltons Place Development, LLC, Official Records Book 10680, Page 13977.
- The title opinion on the subject parcel prepared by Hennen Law, PLLC, dated 18 September 2024, previously furnished to the City.
- The City's Zoning Verification Letter of 21 June 2021 in respect of Lots 1 through 5.
- The communication of the City's Senior City Planner dated 2 November 2023, quoted at Section 5.
- The boundary and topographic survey of Lots 1 through 5 prepared by Ireland Surveying, file IS-53224, including the wetland lines located by Universal Engineering Sciences on 14 August 2023.
- The boundary and topographic survey of the subject parcel, with legal description, presently in preparation.
- The geotechnical exploration report prepared by Universal Engineering Sciences, dated 28 February 2022.
- St. Johns River Water Management District Environmental Resource Permit 48908-5, issued 19 October 2023.
- The conceptual site layout prepared by Zona & Associates, showing all proposed buildings, parking, stormwater and recreation areas, and demonstrating that no structure is proposed on the subject parcel.
- Level of service documentation, an Environmental Impact Study, and such parking, traffic and other analysis as the City requires.

The applicant reserves the ability to present testimony from its architect, its geotechnical engineer and its civil engineer of record should the City or the Commission find it helpful.

12. Conclusion

The amendment asks the City to recognize, for density purposes, the acreage of a parcel the applicant already owns and which the City itself encouraged the applicant to acquire. In exchange the applicant offers a permanent recorded restriction against development of that parcel, the restoration and perpetual maintenance of a stormwater facility that had been neglected for forty years, an annual engineer's inspection filed with the City at the applicant's cost, and nearly two acres of neighborhood recreation at private expense against a code minimum of one-half acre.

The request should also be understood as the completion of something the City itself began. In 1985 the City paid to record a Declaration of Maintenance Covenants intended to secure the private maintenance of this subdivision's drainage areas and ponds. That mechanism failed, and the pond went unmaintained. In 2023 the City identified the same problem again and asked the applicant to solve it. This amendment, with the condition offered at Section 10, replaces the failed mechanism with a durable one: an identified owner, a recorded perpetual restriction, an annual inspection obligation, and — the element the 1985 arrangement lacked — a development of sufficient scale to fund the obligation indefinitely and a continuing reason to perform it.

The City's adopted recreation Level of Service standards are unaffected. The resulting residential density sits within the adopted range and below its maximum. The parcel ceases to be an isolated designation at odds with every parcel around it. The Comprehensive Plan's own direction — to rely upon private development for neighborhood parks, to encourage the preservation of private land as open space, to cluster development, and to diversify housing types — is served rather than strained.

The applicant respectfully requests that staff recommend, and that the Commission adopt, the requested Future Land Use Map amendment, subject to the condition offered at Section 10.

BOLTONS PLACE DEVELOPMENT, LLC

By: _____
Jose Carlos Bretas, Manager
Date: 10/30/2026

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State Of Florida
County Of Orange

Before the undersigned authority personally appeared Rose Williams, who on oath says that he or she is a duly authorized representative of the ORLANDO SENTINEL, a DAILY newspaper published in Orange/Seminole-Lake-Osceola-Volusia County, Florida; that the attached copy of advertisement, being a Legal Notice in:

The matter of Ordinance 2026-10 [First reading] Was published in said newspaper by print in the issues of, or by publication on the newspaper's website, if authorized on 23 Nov 2026.

Affiant further says that the newspaper complies with all legal requirements for publication in Chapter 50, Florida Statutes.



Signature of Affiant

Rose Williams

Name of Affiant

Sworn to and subscribed before me on 23 Nov 2026,
by above Affiant, who is personally known to me (X) or who has produced identification ( ).



Signature of Notary Public



Name of Notary, Typed, Printed, or Stamped

194008

NOTICE OF PUBLIC HEARINGS
CITY OF WINTER SPRINGS

NOTICE IS HEREBY GIVEN THAT THE CITY COMMISSION PROPOSE TO CONSIDER THE FOLLOWING:

ORDINANCE NO. 2026-10

AN ORDINANCE OF THE CITY COMMISSION OF THE CITY OF WINTER SPRINGS, SEMINOLE COUNTY, FLORIDA, RELATING TO COMPREHENSIVE PLANNING; AMENDING THE FUTURE LAND USE MAP FOR ONE (1) PARCEL OF REAL PROPERTY WITHIN THE CITY OF WINTER SPRINGS TOTALING APPROXIMATELY 1.98 ACRES, MORE OR LESS, LOCATED AT 156 CORY LANE, SAID PARCEL BEING MORE PARTICULARLY DEPICTED AND LEGALLY DESCRIBED ON EXHIBIT "A" ATTACHED HERETO; CHANGING THE FUTURE LAND USE MAP DESIGNATION ON THE PARCEL FROM "RECREATION" TO "MEDIUM DENSITY RESIDENTIAL" PROVIDING FOR THE REPEAL OF PRIOR INCONSISTENT ORDINANCES AND RESOLUTIONS, SEVERABILITY, INCORPORATION INTO THE COMPREHENSIVE PLAN, AND AN EFFECTIVE DATE AND LEGAL STATUS OF THE PLAN AMENDMENT.

THE PLANNING AND ZONING BOARD PUBLIC HEARING WILL BE HELD ON THURSDAY, THURSDAY, DECEMBER 3, 2026, AT 5:30 P.M. OR SOON THEREAFTER IN THE COMMISSION CHAMBERS LOCATED AT
WINTER SPRINGS CITY HALL
1126 EAST STATE ROAD 434
WINTER SPRINGS, FL 32708

THE CITY COMMISSION FIRST READING PUBLIC HEARING WILL BE HELD ON MONDAY, DECEMBER 14, 2026
AT 6:30 P.M. OR SOON THEREAFTER IN THE COMMISSION CHAMBERS LOCATED AT
WINTER SPRINGS CITY HALL
1126 EAST STATE ROAD 434
WINTER SPRINGS, FLORIDA

THE CITY COMMISSION RESERVE THE RIGHT TO POSTPONE OR CONTINUE THE PUBLIC HEARING(S) ON THESE ORDINANCES AT THE ABOVE-LISTED MEETINGS WITHOUT FURTHER NOTICE.

The proposed ordinance may be obtained by interested parties between 8 a.m. and 5 p.m., Monday through Friday, from the office of the City Clerk, located at 1126 E. SR 434, Winter Springs, Florida. For more information, call (407) 327-5999. Persons with disabilities needing assistance to participate in any of these proceedings should contact the Employee Relations Department Coordinator, 48 hours in advance of the meeting at (407) 327-5999. This is a public hearing. Interested parties are advised that they may appear at the meeting and be heard with respect to the proposed ordinance. If you decide to appeal any recommendation or decision made by the City Commission with respect to any matter considered at this meeting, you will need a record of the proceedings, and for such purposes, you may need to ensure that a verbatim record of the proceedings is made upon which the appeal is based.

194008 November 23, 2026

194008

LegalNotices

Additional Public Notices can be found online at classifieds.orlandosentinel.com and floridapublicnotices.com

Closing of Medical Practice

ROOTED IN CARE INC IS CLOSING

Rooted in Care has announced that it will officially close its doors on December 31, 2026.

The decision comes with heartfelt gratitude for the clients, families, employees, and community partners who have been part of its journey.

Thank you for allowing Rooted in Care to be part of your story.

Dissolution of Marriage

NOTICE OF ACTION

IN THE CIRCUIT COURT OF THE NINTH JUDICIAL CIRCUIT IN AND FOR ORANGE COUNTY, FLORIDA
FAMILY DIVISION
CASE NO.: 48-2026-DR-006298-O
IN RE: THE MARRIAGE OF
LIANNA S. PAGAN HERNANDEZ-MENDEZ PETITIONER / Wife
And
ROBERTO PAGAN RESPONDENT / Husband,
To Last Known Address of:
ROBERTO PAGAN 5898 Sagunto Street Orlando, Florida 32807
YOU ARE HEREBY NOTIFIED that an action for the PETITIONER / Wife's Verified Petition for Dissolution of Marriage Without Children has been filed against you. If you choose to file a written response yourself, at the same time you file your written response to the Court, you must also mail or take a copy of your written response to the attorney / person named below and file your response to the Court, located at: Orange County Courthouse, Clerk of Courts 425 North Orange Avenue, Suite 320, Orlando, Florida 32801
YOU are also required to serve written defenses and / or response to the above in this action to PETITIONER'S attorney to wit:
Segarra & Associates, P.A. 121 South Orange Avenue, Suite 1500, Orlando, Florida 32801 Telephone (407) 745-1002 / Facsimile (305) 397 -0292 irech@segarralawfirm.com, manny@segarralawfirm.com and service@segarralawfirm.com
YOUR RESPONSE IS DUE ON OR BEFORE: 12/17/26
FAILURE TO DO SO MAYRESULT IN A DEFAULT ENTERED AGAINST YOU FOR THE RELIEF DEMANDED IN THE VERIFIED PETITION FOR DISSOLUTION OF MARRIAGE WITHOUT CHILDREN.
Copies of all court documents in this case, including orders, are available at the Clerk of the Circuit Court's office. You may review these documents upon request.
You must keep the Clerk of the Circuit Court's office notified of your current address. (You may file Designation of Current Mailing and E-Mail Address, Florida Supreme Court Approved Family Law Form 12.915.) Future papers in this lawsuit will be mailed or e-mailed to the addresses on record at the clerk's office.
WARNING: Rule 12.285, Florida Family Law Rules of Procedure, requires certain automatic disclosure of documents and information. Failure to comply can result in sanctions, including dismissal or striking of pleadings.
WITNESS my hand and the seal of said Court on Oct 26th 2026
Tiffany Moore Russell, Esq.
As Clerk and Comptroller of said Court
By: /S/ Robert Hingston
As Deputy Clerk
425 N Orange Ave Suite 320
Orlando, FL 32801
180890 11/9, 11/16, 11/23, 11/30/2026

Fictitious Name

NOTICE UNDER FICTITIOUS NAME

TO WHOM IT MAY CONCERN:
Notice is hereby given that the under-signed pursuant to the "Fictitious Name Statute", Chapter 865.09, Florida Statutes, will register with the Division of Corporations, Department of State, State of Florida upon receipt of this notice, the fictitious name, to-wit:

Byrds Nest Estate Management

under which (I am) (we are) engaged in business at PO Box 400 Ocoee FL 34761. That the (party) (parties) interested in said business enterprise is as follows:

Nicole MacDoald
9953 White Rd. Ocoee FL 34761

Dated at Ocoee, Orange County, Florida, 11/20/2026

Fictitious Name

NOTICE UNDER FICTITIOUS NAME

TO WHOM IT MAY CONCERN:
Notice is hereby given that the under-signed pursuant to the "Fictitious Name Statute", Chapter 865.09, Florida Statutes, will register with the Division of Corporations, Department of State, State of Florida upon receipt of this notice, the fictitious name, to-wit:

Congregation of Saint Augustine, Kindling Resilience Ministries

under which (I am) (we are) engaged in business at 11954 Narcoossee Road, Suite 2, PMB 234, Orlando, FL 32832. That the (party) (parties) interested in said business enterprise is as follows:

THE BLACK MADONNA OF PERPETUAL HELP MINISTRIES, INC.
11954 Narcoossee Road, Suite 2, PMB 234, Orlando, FL 32832

Dated at Orlando, Orange County, Florida, 11/19/2026

NOTICE UNDER FICTITIOUS NAME

TO WHOM IT MAY CONCERN:
Notice is hereby given that the under-signed pursuant to the "Fictitious Name Statute", Chapter 865.09, Florida Statutes, will register with the Division of Corporations, Department of State, State of Florida upon receipt of this notice, the fictitious name, to-wit:

LJA SERVICES, INC.,

under which (I am) (we are) engaged in business at 101 Southhall Lane, Suite 100, Maitland, Florida 32751. That the (party) (parties) interested in said business enterprise is as follows:

LJA, Inc.
101 Southhall Lane, Suite 100, Maitland, Florida 32751

Dated at Maitland, Orange County, Florida, 11/20/2026

NOTICE UNDER FICTITIOUS NAME

TO WHOM IT MAY CONCERN:
Notice is hereby given that the under-signed pursuant to the "Fictitious Name Statute", Chapter 865.09, Florida Statutes, will register with the Division of Corporations, Department of State, State of Florida upon receipt of this notice, the fictitious name, to-wit:

Osprey Recovery Group

under which (I am) (we are) engaged in business at 4409 Hoffner Ave. PMB#108, Orlando, FL 32812. That the (party) (parties) interested in said business enterprise is as follows:

Orlando Venture 1 LLC
7901 4TH ST N STE 300, ST PETERSBURG, FL 33702

Dated at Orlando, Orange County, Florida, 11/19/2026

NOTICE UNDER FICTITIOUS NAME

TO WHOM IT MAY CONCERN:
Notice is hereby given that the under-signed pursuant to the "Fictitious Name Statute", Chapter 865.09, Florida Statutes, will register with the Division of Corporations, Department of State, State of Florida upon receipt of this notice, the fictitious name, to-wit:

TruBlue of Winter Park

under which (I am) (we are) engaged in business at 1625 FL-436, Winter Park, Florida 32792. That the (party) (parties) interested in said business enterprise is as follows:

LJH Enterprises LLC
1625 FL-436, Winter Park, Florida 32792,

Dated at Winter Park, Orange County, Florida, 11/20/2026

GARAGE SALES

Advertise your garage sale in the Orlando Sentinel at advertise.orlandosentinel.com

Notice of Public Meeting

NOTICE OF INTENT TO USE UNIFORM METHOD OF COLLECTING NON-AD VALOREM ASSESSMENTS

The City Commission (the "City Commission") of the City of Longwood (the "City") hereby provides notice, pursuant to Section 197.3632(3)(a), Florida Statutes, of its intent to use the uniform method of collecting non-ad valorem special assessments to be levied over a number of years within certain areas of the incorporated area of the City. The potential special assessment areas could include areas created to fund the cost of providing: (i) road paving improvements and ancillary drainage facilities; (ii) certain neighborhood improvements (e.g. walls, signage, irrigation, landscaping, etc.); (iii) residential and non-residential improvements near a potential light rail station for the purpose of promoting economic redevelopment; (iv) certain qualifying renewable energy, energy efficiency and conservation and wind resistance improvements; (v) water and/or wastewater services and facilities improvements; (vi) fire station improvements and/or operational and maintenance cost of providing fire services; and (vii) residential solid waste collection services. Each assessment area is to be located in a separate, to be established, assessment area which may be located within the incorporated area of the City for the Fiscal Year beginning on October 1, 2027 and thereafter. The City will consider the adoption of a resolution electing to use the uniform method of collecting such assessments authorized by Section 197.3632, Florida Statutes, at a public hearing to be held on Monday, December 21, 2026 at 6:00 P.M., or as soon thereafter as the matter may be heard, at City Hall, 175 West Warren Avenue, Longwood, Florida. Such resolution will state the need for the levy and will contain a legal description of the boundaries of the real property subject to the levy. Copies of the proposed form of resolution, which contains the legal description of the real property subject to the levy, may be obtained from City's assessment coordinator at (407) 260-3475.
All affected real property owners have a right to appear at the hearing and to file written objections with the City Clerk any time prior to the public hearing. If a person decides to appeal any decision made by the City Commission with respect to any matter considered at the hearing, such person will need a record of the proceedings and may need to ensure that a verbatim record is made, including the testimony and evidence upon which the appeal is to be made. In accordance with the Americans with Disabilities Act, persons needing a special accommodation or an interpreter to participate in this proceeding should contact the ADA Coordinator at (407) 260-3466 at least seven days prior to the date of the hearing. If you have any questions, please contact the City's assessment coordinator at (407) 260-3475.

Liane Cartagena, City Clerk
CITY OF LONGWOOD, FLORIDA
11/23/2026, 11/30/2026, 12/7/2026, 12/14/2026

24/7

For your convenience new classified ad placement is available 24 hours a day, 7 days a week, 365 days a year at advertise.orlandosentinel.com

Notice of Public Meeting

NOTICE OF PUBLIC HEARINGS
CITY OF WINTER SPRINGS

NOTICE IS HEREBY GIVEN THAT THE CITY COMMISSION PROPOSE TO CONSIDER THE FOLLOWING:

ORDINANCE NO. 2026-10

AN ORDINANCE OF THE CITY COMMISSION OF THE CITY OF WINTER SPRINGS, SEMINOLE COUNTY, FLORIDA, RELATING TO COMPREHENSIVE PLANNING; AMENDING THE FUTURE LAND USE MAP FOR ONE (1) PARCEL OF REAL PROPERTY WITHIN THE CITY OF WINTER SPRINGS TOTALING APPROXIMATELY 1.98 ACRES, MORE OR LESS, LOCATED AT 156 CORY LANE, SAID PARCEL BEING MORE PARTICULARLY DEPICTED AND LEGALLY DESCRIBED ON EXHIBIT "A" ATTACHED HERETO; CHANGING THE FUTURE LAND USE MAP DESIGNATION ON THE PARCEL FROM "RECREATION" TO "MEDIUM DENSITY RESIDENTIAL" PROVIDING FOR THE REPEAL OF PRIOR INCONSISTENT ORDINANCES AND RESOLUTIONS, SEVERABILITY, INCORPORATION INTO THE COMPREHENSIVE PLAN, AND AN EFFECTIVE DATE AND LEGAL STATUS OF THE PLAN AMENDMENT.

THE PLANNING AND ZONING BOARD PUBLIC HEARING WILL BE HELD ON THURSDAY, THURSDAY, DECEMBER 3, 2026, AT 5:30 P.M. OR SOON THEREAFTER IN THE COMMISSION CHAMBERS LOCATED AT WINTER SPRINGS CITY HALL 1126 EAST STATE ROAD 434 WINTER SPRINGS, FL 32708

THE CITY COMMISSION FIRST READING PUBLIC HEARING WILL BE HELD ON MONDAY, DECEMBER 14, 2026 AT 6:30 P.M. OR SOON THEREAFTER IN THE COMMISSION CHAMBERS LOCATED AT WINTER SPRINGS CITY HALL 1126 EAST STATE ROAD 434 WINTER SPRINGS, FLORIDA

THE CITY COMMISSION RESERVE THE RIGHT TO POSTPONE OR CONTINUE THE PUBLIC HEARING(S) ON THESE ORDINANCES AT THE ABOVE-LISTED MEETINGS WITHOUT FURTHER NOTICE.

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194008 November 23, 2026

HOME DELIVERY

Call 407-420-5353 to start your Orlando Sentinel home delivery subscription

Notice of Sale

NOTICE OF JUDICIAL SALE
IN THE COUNTY COURT OF THE NINTH JUDICIAL CIRCUIT , IN AND FOR ORANGE COUNTY, FLORIDA
CASE NO.: 2023-CC-020740-O
CHANNAN PERSAUD, PLAINTIFF V,
CLARKSON MADURO, ET AL., DEFENDANT

PLEASE TAKE NOTICE that, pursuant to that certain Order Rescheduling Judicial Sale rendered by the above-referenced Court on November 9, 2026, a judicial sale of the following described real property shall take place at 11:00 a.m., December 16, 2026, virtually through the Orange County Clerk of Court web portal Https://myorangeclerk.realforeclose.com, in accordance with Section 45.031, Florida Statutes:
Lot 39, HORSESHOE BEND, Section 1, According to the map or Plat thereof as recorded in Plat Book 13, Page 142 through 143 inclusive, of the Public Records of Orange County, Florida.
Parcel ID: 01-22-28-3722-00-390
Address: 4502 Pacer Court, Orlando, FL 32818
Any person claiming an interest in the surplus from the sale, if any, other than the property owner as of the date of the lis pendens must file a claim within 60 days of the sale.
DATED on November 11, 2026.
Tiffany Moore Russell
CLERK OF THE CIRCUIT/COUNTY COURT
By: /s/ Peter R. McGrath
Peter R. McGrath, Esq.
Counsel for Plaintiff
Peter R. McGrath, P.A.
801 N. Magnolia Avenue, Ste. 317
Orlando, Florida 32803
(By Appointment Only)
Phone: (407) 872-7010
Email: marie@prmlawoffice.com
Website: www.PeterRMcGrath.com

188412 11/16/2026, 11/23/2026

NOTICE OF PUBLIC SALE

Notice is hereby given that the following vehicles may be sale at public sale auction at 1800 S Orange Blossom Trail Orlando Fl 32805 for the amount owed on each vehicle to satisfy Labors, Parts, General Repairs, Storage and Admin fees allowed pursuant to Florida Statute 713.585.
Auction date: 12/06/2026 at 2:30pm for 5 vehicles as follows:
2013 Honda Civic Vin 19XFB2F5XDE074896. Price of $3,665.00
2019 Dodge Ram Vin 3C6UR5DL6KG563620. Price of $18,455.00
2019 Dodge Challenger Vin 2C3CDZAG5KH708328. Price of $10,315.00
2020 Toyota Corolla Vin JTDEBRBE4LJ016973. Price of $5,365.00
2018 Volkswagen Tiguan Vin 3VV2B7AX2JM066587. Price of $7,915.00
Location, Shop name and Phone Number
Tropical Land Group LLC (License Nr MV117289)
1800 S Orange Blossom Trail Orlando Fl 32805 Tel 407-800-8064
The customer or any person claiming an interest in one of the vehicles may redeem the vehicle by paying the amount due in cash or money order on or before the respective sale date and time.
Any person claiming an interest in one of the vehicles may file a demand for a hearing with the Clerk of Court in Orange County where the vehicles are held.
At any time before the sale date, any person claiming an interest in one of the vehicles may post a cash money order or surety bond in the amount stated on the invoice with the Clerck of Circuit Court where disputed transaction occurred.

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Other Legal Notices

SUMMONS - PUBLICATION
(IN PERSON)

F.C.A. §§ 617; CPLR 315, 316
FAMILY COURT OF THE STATE OF NEW YORK
COUNTY OF SUFFOLK
File #: 194492
Docket #: G-05526-26, G-05527-26
In the Matter of an Article 6 Guardianship Proceeding
Addie Vivona (Petitioner)
Quincy Hughes (Respondent)
Nicole Thomsen (Respondent)
Quincy Hughes (DOB: 09/05/2010)
Melonie Hughes (DOB: 01/25/2015)

To: Nicole Thomsen
Address is Unknown

A petition under Article 6 of the Family Court Act has been filed with this Court requesting the following reliefs: Order to Show Cause and GuardianshipOrder to Show Cause and Guardianship.

YOU ARE HEREBY SUMMONED to appear IN PERSON before this Court on:

Date/Time/Part: January 7, 2027 at 09:30 AM in Part 2 Central Islip
Purpose: Return of Process
Presiding: Hon. Stuart P. Besen
Location: Suffolk County Family Court, 400 Carleton Avenue, Central Islip, NY 11722-9076
Floor: 3
Room: F32

to answer the attached petition and to be dealt with in accordance with the Family Court Act.

Please bring this notice with you and check in with the Court Officer in the Part.

If you fail to appear as directed, a warrant may be issued for your arrest.

Dated: November 10, 2026

Dawn Kettle, Chief Clerk

TO THE ABOVE-NAMED RESPONDENT:
The foregoing summons is served upon you by publication pursuant to an Order of the Hon. Stuart P. Besen of the Family Court, Suffolk County, dated and filed with the petition and other papers in the Office of the Clerk of the Family Court, Suffolk County.
192070 11/23/2026, 11/30/2026, 12/7/2026, 12/14/2026



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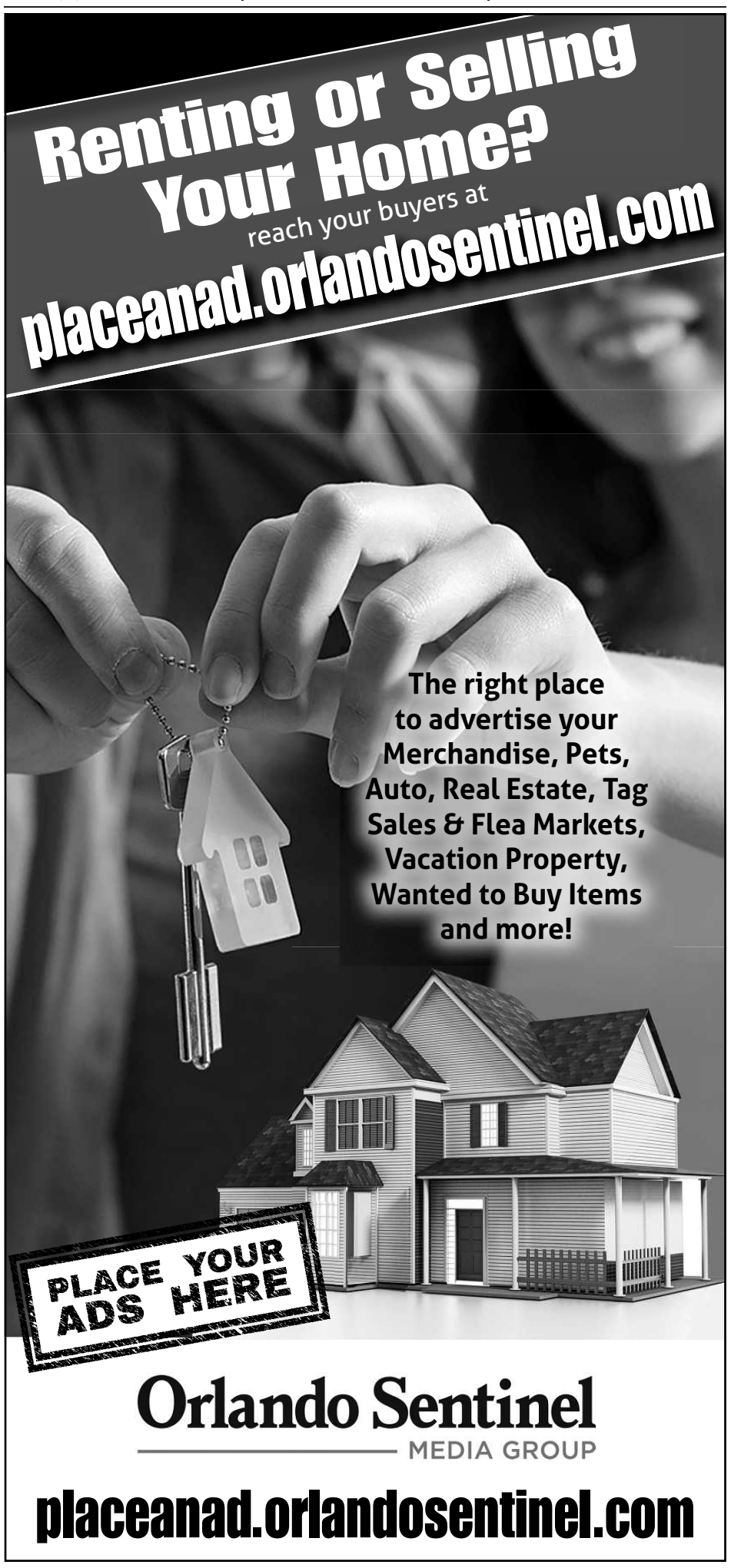




PUBLIC HEARINGS AGENDA

PLANNING & ZONING BOARD
DECEMBER 3, 2026 | REGULAR MEETING

TITLE

Parcel | Small-Scale Future Land Use Map Amendment from “Recreation” to “Medium Density Residential.”

SUMMARY

The Community Development Department requests that the Planning and Zoning Board hold a Public Hearing to consider Ordinance 2026-10 for the Small-Scale Future Land Use Map Amendment of one parcel totaling ±1.98 acres located at 156 Cory Lane from “Recreation” to “Medium Density Residential”.

General Information		
Applicant	Boltons Place Development, LLC via JC Bretas	
Property Owner(s)	Boltons Place Development, LLC	
Location	156 Cory Lane	
Tract Size	± 1.98 acres	
Parcel ID Number	34-20-30-526-0P00-0000	
Zoning Designation	R-3 Multiple-Family Dwelling Districts	
FLUM Designation	Recreation	
Adjacent Land Use	North: Undeveloped Residential East: Multifamily Residential	South: Commercial West: Multifamily Residential
Development Permits	None	
Development Agreement	Pending	
Code Enforcement	None	

City Liens	None

Request:
The applicant has initiated a Small-Scale Future Land Use Map Amendment for the subject parcel located at 156 Cory Lane, Winter Springs, Florida 32708. Ordinance 2026-10 proposes to change the Future Land Use Map designation for the subject parcel from "Recreation" to "Medium Density Residential."

Background Data:
The subject parcel is comprised of one (1) parcel of record (PID # 34-20-30-526-0P00-0000), totaling ± 1.98 acres (the "Parcel"). The Parcel is the site of a stormwater management system servicing adjacent multifamily and commercial parcels on Cory Lane and Excelsior Parkway. All adjacent parcels to the north, east, and west are zoned R-3, Multiple Family Dwelling District, while the parcels to the south are zoned C-1, Neighborhood Commercial. Adjacent parcels to the north and west have a Future Land Use of Medium Density Residential. Adjacent parcels to the east have a Future Land Use of High Density Residential. Adjacent parcels to the south have a Future Land Use of Commercial.

The Parcel is one of multiple parcels located along Excelsior Parkway owned by applicant Boltons Place Development, LLC. Applicant proposes to develop a multifamily residential rental housing project on several parcels, which are Lots 1 through 5 of the Excelsior Business Park plat. The subject Parcel is adjacent to Lots 1 through 5 but will not be developed for multifamily residential housing. Rather the subject parcel shall continue to be used for recreation, open space, and stormwater infrastructure, and the applicant does not intend to construct any units on the subject parcel. The applicant proposes, however, to amend the Future Land Use designation for the Parcel to Medium Density Residential so that, when the subject Parcel is included in the project area, the available land area which the applicant can utilize for residential density calculations increases. Currently, the subject parcel has a future land use designation of Recreation, which has no available density. The future land use of Medium Density Residential allows a maximum density of 9.0 dwelling units per acre. This would yield a possible additional 18 units for the Excelsior multifamily project when added to Lots 1 through 5. Without the future land use amendment, the maximum number of units that can be constructed on Lots 1 through 5 of the Excelsior Business Park plat would be 21 units (2.42 acres x 9.0 units). The new total maximum combined units permissible in the Excelsior project if the proposed future land use amendment is adopted will be 39 units.
The subject Parcel and adjacent multifamily properties on Cory Lane were platted as Doug's Unit 1, as recorded on December 20, 1984, at Plat Book 31 Page 53. The applicant acquired the Parcel by quitclaim deed in 2024 in order to maintain the private stormwater management system located thereupon which had been neglected by the Parcel's previous owner. The stormwater management system was to be maintained originally by Doug's Unit #1 and #2 Homeowner's Association. However, no association ever formed and the private stormwater system was not maintained. The subject Parcel and the existing stormwater system was previously owned by multiple private parties after no HOA was ever formed. The applicant

acquired the Parcel in part to assume maintenance over the stormwater management system which will serve the proposed multifamily development on lots 1 through 5 of Excelsior Parkway.

It should be understood that, irrespective of the future land use change, the subject Parcel may only be used for "Park" purposes based upon the plat. The subject Parcel is platted in Doug's Unit 1 plat as a "Park" tract. The subject Parcel was not dedicated to the public as a park. It is usable by the lot owners of Doug's Unit 1 as a private Park tract. This legal restriction shall remain in place and will be undisturbed by the future land use amendment. Again, the purpose of the future land use amendment is to allow the acreage of the subject Parcel to be included in the overall gross density calculation for the Excelsior multifamily project - not to allow construction on the subject Parcel. The plat restriction for the use of a Park will continue to prohibit construction of homes on the subject Parcel.

Public Notices:

Public Hearing Notices were mailed to all owners of real property adjacent to and within approximately five hundred (500) feet of the subject property and to all Homeowner's Associations on file with the City Winter Springs and located within one-half (1/2) mile of the subject property (173 notices) on November 18, 2026. The 10-day newspaper advertisement required by Florida Statute was published in the Orlando Sentinel on November 23, 2026

Comprehensive Plan Amendment Analysis:

The following summarizes the data and issues which staff analyzed in reviewing this application:

Through Ordinance 2026-10, the applicant is requesting to change the Future Land Use designation of the Parcel from "Recreation" to "Medium Density Residential." The requested Future Land Use Map amendment is intended to create consistency between the Parcel's proposed Medium Density Residential Future Land Use designation and existing R-3 Residential zoning designation. The City determined that the requested Future Land Use Map designation is appropriate for the Parcel by evaluating the prevailing character of the immediate surrounding properties, as well as the intended use of the Parcel, and future goals and objectives of the City.

Future Land Use Map (FLUM) Amendment Analysis:

The following criteria are set forth by City of Winter Springs Code of Ordinances Section 15-36 which has been analyzed by staff to form a recommendation:

Future Land Use Amendment Criteria & Analysis	
1.	Whether the proposed amendment will have a favorable or unfavorable effect on the city's budget, or the economy of the city or the region;

	Analysis: The Parcel is privately owned and is the site of a stormwater management system for the residential and commercial properties adjacent to Cory Lane and Excelsior Parkway. The stormwater management system is currently not being maintained by any party, and the applicant's purchase of the Parcel and willingness to take over the stormwater system will have a favorable effect on the city's budget by reducing environmental issues that may result from the current lack of maintenance and saving the City cost of emergency maintenance which may be required if the Parcel remains un-maintained. Additionally, the amendment will change the Future Land Use to Medium Density Residential, which is consistent with adjacent parcels' Future Land Use, and will allow the applicant to construct more multifamily homes on the adjacent undeveloped parcels, increasing housing opportunities for Winter Springs residents and providing economic benefit to the City.
2.	Whether the proposed amendment will diminish or negatively impact the Level of Service (LOS) of public facilities; **Analysis:** The proposed amendment is not anticipated to diminish or negatively impact the Level of Service (LOS) of public facilities. The Parcel will keep its present condition as a stormwater maintenance system and will not be developed for residential purposes. The additional units that can be constructed in the Excelsior multifamily project will be no more than 18 additional units, which will not have a significant impact on available public facilities. As such, amending the Future Land Use designation of the Parcel will have no effect on the Level of Service of public facilities.
3.	Whether there will be a favorable or unfavorable impact on the environment or the natural or historical resources of the city or the region as a result of the proposed amendment; **Analysis:** There are no foreseen negative impacts on environmental, natural resources, or historical resources of the City or the region. Many surrounding parcels are also residential multifamily, and the applicant maintaining and improving the private stormwater management system on the Parcel will have a positive impact on the natural resources of the neighborhood by ensuring the stormwater management system remains effective and does not cause flooding or other environmental damage to adjacent properties.
4.	Whether the proposed amendment is consistent with the goals, objectives, and policies of the state comprehensive plan set forth in Chapter 187, Florida Statutes, and the East Central Florida Regional Planning Council, as amended from time to time;

	Analysis: The proposed amendment is consistent with the goals, objectives, and policies of the State Comprehensive Plan, most notably Future Land Use Element, Objective 1.5 which promotes land use compatibility. The proposed amendment seeks to change the Future Land Use of the Parcel to Medium Density Residential, which is consistent with adjacent parcels to the north, east, and west, including the other parcels which make up the applicant's greater property. Allowing the proposed amendment will increase the supply and variety of housing in the immediate neighborhood.
5.	Whether the City is able to provide adequate service from public facilities to the affected property, if the proposed amendment is granted, and whether the proposed amendment will promote the cost/effective use of or unduly burden public facilities; **Analysis:** The proposed amendment does not alter the population density pattern and is not anticipated to negatively contribute to public facilities and services as the property itself will not be further developed except to improve the existing stormwater maintenance system, resulting in no additional service impacts. Further, the maximum additional 18 units that will be available for the Excelsior project are not significant in number to unduly burden available public facilities. Private maintenance of the stormwater system will help to alleviate impacts upon surrounding public facilities.
6.	Whether the proposed amendment is compatible with surrounding neighborhoods and land use; **Analysis:** The proposed amendment from "Recreation" to "Medium Density Residential" is appropriate and compatible with the surrounding neighborhoods and land use for the parcels adjoining to the north, east, and west. The parcels on these three sides also have a Future Land Use of Medium Density Residential, so the amendment is consistent.
7.	Whether approval of the proposed amendment will cause the Comprehensive Plan to be internally inconsistent; **Analysis:** The proposed amendment is consistent with the goals, objectives, and policies of the City of Winter Springs Comprehensive Plan. The proposed amendment would promote consistency with the Comprehensive Plan by ensuring that the subject property receives an appropriate City Future Land Use Designation which is compatible with the Future Land Use designations of surrounding properties. The future land use amendment is also consistent with the current zoning designation of the Parcel, which is R-3.

8.	Whether the proposed amendment will promote or adversely affect the public health, safety, welfare, economic order, or aesthetics of the city or region; **Analysis:** There are no foreseen adverse impacts of this project on the public health, safety, welfare, economic order, or aesthetics of the city or region.
9.	The contents of any Evaluation and Appraisal Report (EAR) prepared pursuant to 163.3191, Florida Statutes; **Analysis:** Not applicable.
10.	Whether the proposed amendment is consistent and in compliance with law; **Analysis:** The proposed amendment is consistent and in compliance with law.
11.	Whether the proposed amendment is consistent, and not in conflict, with the legislative policy directives established by the City Commission including, but not limited to, those set forth in the City's Comprehensive Plan and City Code, adopted master plans, economic development goals and objectives, community redevelopment plans, and brownfield areas. **Analysis:** The proposed amendment is consistent, and without conflict, with the legislative policy directives in the Comprehensive Plan and City Code, adopted master plans, economic development goals and objectives, community redevelopment plans, and brownfield areas. The proposed FLU amendment will permit the applicant to utilize an increased density for the remaining undeveloped parcels along Excelsior Parkway, consistent with Future Land Use Element Policy 1.1.1.

Applicable Law, Public Policy, and Events:

- State of Florida Statues
    - Sections 163.2511-163.3246: Growth Policy; County and Municipal Planning; Land Development Regulation (Provides that development regulations for municipal planning must be consistent with the Comprehensive Plan).
    - Section 166.041: Procedures for adoption of ordinances and resolutions.
- Code of Ordinances of the City of Winter Springs
    - Chapter 15, Article 3 – Comprehensive Plan Amendments
- Comprehensive Plan of the City of Winter Springs
    - Future Land Use Element Objective 15

Procedural History:

Procedural History:	
November 18, 2026	Legal Advertisement | Future Land Use Amendment Ord. 2026-10
December 3, 2026	Planning & Zoning Board | Recommendation of Approval on Future Land Use Amendment (Ord. 2026-10).
December 14, 2026	City Commission | Hearing on Future Land Use Amendment (Ord. 2026-10) | First Reading of Ordinance
January 11, 2027	City Commission | Hearing on Future Land Use Amendment (Ord. 2026-10) | Second Reading of Ordinance

Recommendation:
Staff recommends that the Planning & Zoning Board recommend adoption of Ordinance 2026-10 to the City Commission to change the Future Land Use Map designation from "Recreation" to "Medium Density Residential" for parcel 34-20-30-526-0P00-0000, subject to the following condition(s):

1. The Parcel, being designated as a "Park" on the plat of Doug's Unit #1, recorded in the Plat Book of Seminole County, Book 31, Page 53, shall be restricted in perpetuity to open space, recreation and stormwater management uses. No dwelling unit or habitable structure may be constructed upon the Parcel. The Owner shall maintain the stormwater facility on the Parcel in accordance with the requirements of the St. John's River Water Management District and the City, shall commission an annual inspection of that facility by a Florida-registered professional engineer, and shall file the result report with the City, all at the Owner's expense. The City shall have no maintenance obligation with respect to the Parcel or the stormwater facilities thereon. Nothing in this condition shall prevent the Owner from entering into cost-sharing or contribution arrangements with other property owners benefitting from the facility, provided that the Owner remains solely responsible to the City for performance. In addition, concurrently with recordation of a replat of the Excelsior Business Park plat or, if no replat is recorded, prior to issuance of a certificate of occupancy for a multifamily project on Lots 1 through 5 of the Excelsior Business Park plat, the Owner shall ensure that a public drainage easement is granted to the City of Winter Springs for surface water drainage from public facilities located in Doug's Unit #1 plat over the Parcel and through the private drainage facilities thereon. The acreage of the Parcel may be counted once toward the permitted density of the development upon Lots

1 through 5 of the Excelsior Business Park plat, recorded in the Plat Book of Seminole County, Book 43, Page 12, and shall not be available to support density for any other development. The restrictions and the obligations herein shall be incorporated into the Development Agreement for the development upon Lots 1 through 5 of the Excelsior Business Park plat and shall run with the land, shall be recorded, and shall be enforceable by the City. Should the proposed development on Lots 1 through 5 of the Excelsior Business Park plat be abandoned prior to entering into a Development Agreement containing the conditions herein, the City Commission of the City of Winter Springs may amend the future land use map to revert the Parcel to Recreation.

Attachments:

1. Current Future Land Use Map
2. Proposed Future Land Use Map
3. Ordinance No. 2026-10
4. Legal Advertisement
5. Comprehensive Plan Amendment Application
6. Justification Narrative

PUBLIC HEARINGS AGENDA ITEM 402

PLANNING AND ZONING BOARD/LOCAL PLANNING AGENCY AGENDA | DECEMBER 3, 2026 REGULAR MEETING

TITLE

Chau Winter Springs Office Phase 2 – SR 434 – Site/Final Engineering Plans, Aesthetic Review, and Development Agreement.

SUMMARY

The Community Development Department requests that the Planning & Zoning Board hold a Public Hearing to consider applications for Site/Final Engineering Plans, Aesthetic Review, and Development Agreement regarding the applicant's request to establish a medical office and retail in C-1, Neighborhood Commercial.

FUNDING SOURCE

RECOMMENDATION

Staff recommends that the Planning & Zoning Board recommend approval of the Site/Final Engineering, Aesthetic Review, Waivers, and Development Agreement, subject to the following conditions of approval:

1. Execution of the Development Agreement shall occur before any construction takes place at the subject property.
2. All grass on the Property shall be Bahia grass. No St. Augustine grass or grass types with low drought tolerance shall be permitted.
3. Prior to the City Commission public hearing, the Applicant must provide a clean copy of the site plan that removes any language granting the applicant tree mitigation credits.
4. A Cross Access Easement, Shared Parking Agreement, and Utilities and Drainage Easements shall be approved and provided to the City prior to the approval of any future lot split or subdivision of the Property. Shared parking between Development Area 1 (Medical Office) and Development Area 3 (Medical Office/Retail) shall be required in the event the applicant splits or subdivides the Property. Should the parties ever mutually desire to terminate said Easements and Shared Parking Agreement, prior to executing such termination, the Parties shall seek and receive consent from the City of Winter Springs and obtain an amendment to the site plan.

5. Developer was required to plant in Phase One at least 639 credits of new replacement trees, with the remaining 150 credits to be placed in Phases Two and Three. The Developer proposes to plant 95 credits of trees in Phase 2, which means that the remaining 55 credits shall be required to be planted in Phase 3. Further, the Developer proposes to remove 12 credits of previously planted replacement trees in Phase 2, which must be replaced. Accordingly, a total of 67 credits of trees shall be replaced in Phase 3. Should the Developer not be able to replace the 67 credits of trees in Phase 3, the Developer shall be responsible for additional tree bank mitigation payments for those trees that remain unreplaced. All required tree replacements in each Development Area shall be planted prior to the issuance of any final certificate of occupancy for any building in such Development Area. Tree replacements and landscaping shall be subject to the obligation of ongoing maintenance and replacement for the first two years following planting, at the Developer's expense, if the City determines, after reasonable inspection, that any tree or landscaping has become severely diseased or damaged to the point that the viability of the tree or landscaping has been significantly compromised. In the event that Developer fails to perform the necessary maintenance, repairs or replacements of any of the trees or landscaping, the City shall have the right, but not obligation, to conduct said maintenance, repairs or replacements and recover the actual cost thereof from the Developer. Prior to exercising that right, the City shall provide the Developer written notice and an explanation of the specific default and at least thirty (30) days in which to cure the default. If Developer fails to cure the default by the end of the cure period, the City may exercise its rights to maintain and replace at any time thereafter. Prior tree bank mitigation payments required during Phase 1 will need to be paid. The Developer shall additionally submit a letter of credit in a form acceptable to the City Attorney ensuring planting and installation of all required trees and landscaping for Phases 2 and 3 (162 credits) in an amount of forty-eight thousand and six hundred dollars ($48,600.00), should either Phase Two and/or Three be abandoned after the Property has been cleared and proper maintenance of the trees for two (2) years after planting. Given the phased nature and lengthy duration of the Project, the letter of credit must have a duration that is automatically extended, without notice to the surety, for successive periods until all landscaping requirements have been completed or be provided in a similar form acceptable to the City Attorney.

6.All Specific Conditions of Approval established in the Development Agreement and First Modification not herein amended shall continue to apply.

Chau Medical Building Phase 2

Planning and Zoning Board

John Rabon, JD, MPA

Senior Planner

Background

Property Address: 411 E State Rd 434 (± 5.12 acres)

April 30, 2025: Preapplication Meeting

August 15, 2025: Site Plan Application (FEDP-2025-0019)

July 14, 2026: Development Agreement Application (DVAG-2026-0016)

August 10, 2026: Aesthetic Review Application (AERV-2026-0017)

November 18, 2026: Public Notice Letters & Signage

December 3, 2026: Planning & Zoning Board Public Hearing

January 11, 2027: City Commission Public Hearing

Background

Chau Medical Building Phase 2
FEDP-2025-0019

Applicant: Sam Sebaali, Thomas and Hutton Engineering

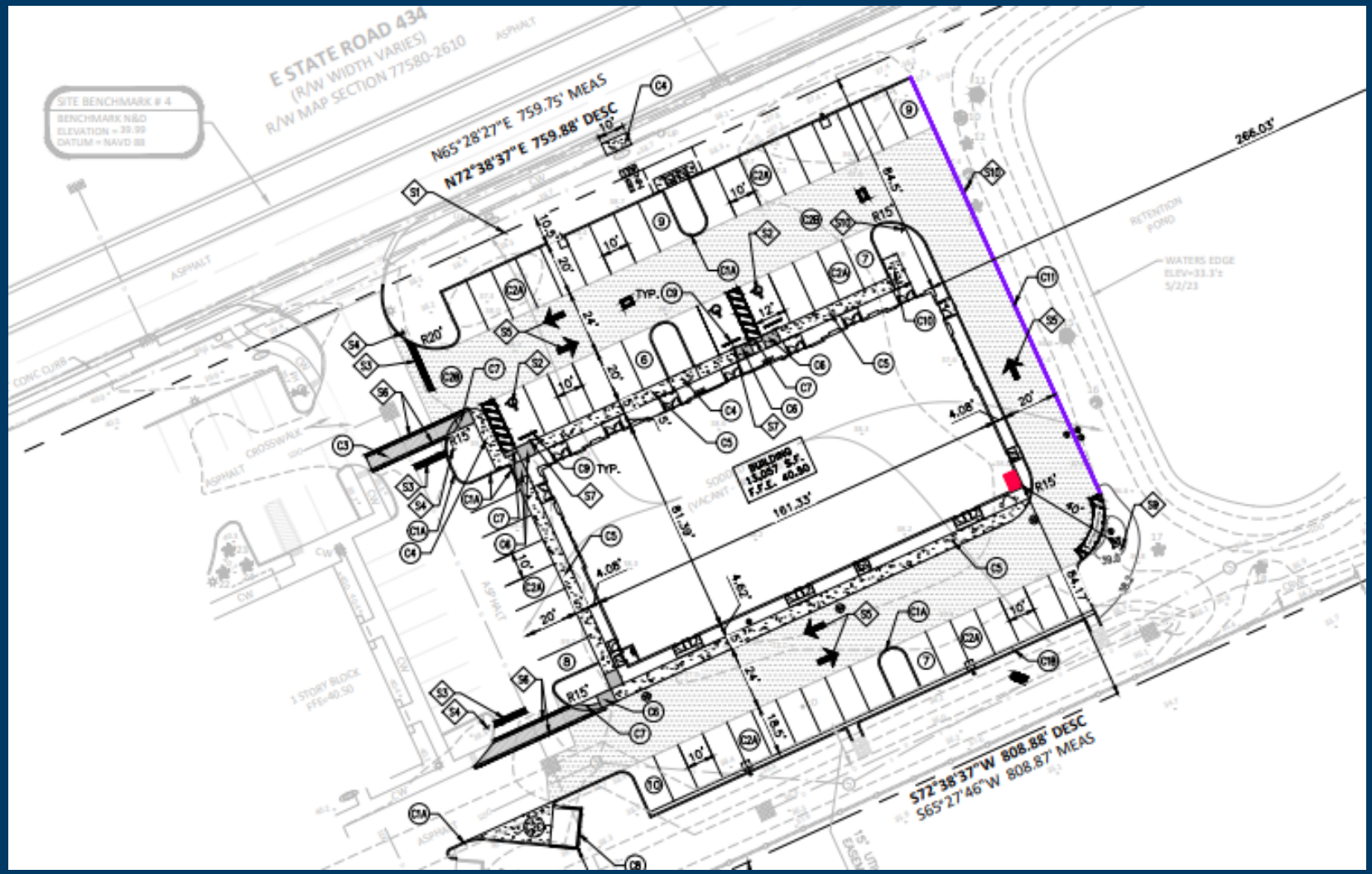
- Proposal is to establish a mixed-use commercial retail and medical office building.
- Property is zoned C-1, Neighborhood Commercial.
- Applicant has submitted a Final Engineering/Site Plan, Aesthetic Review, and Development Agreement.



Planning and Zoning Board

December 3, 2026

Site Plan

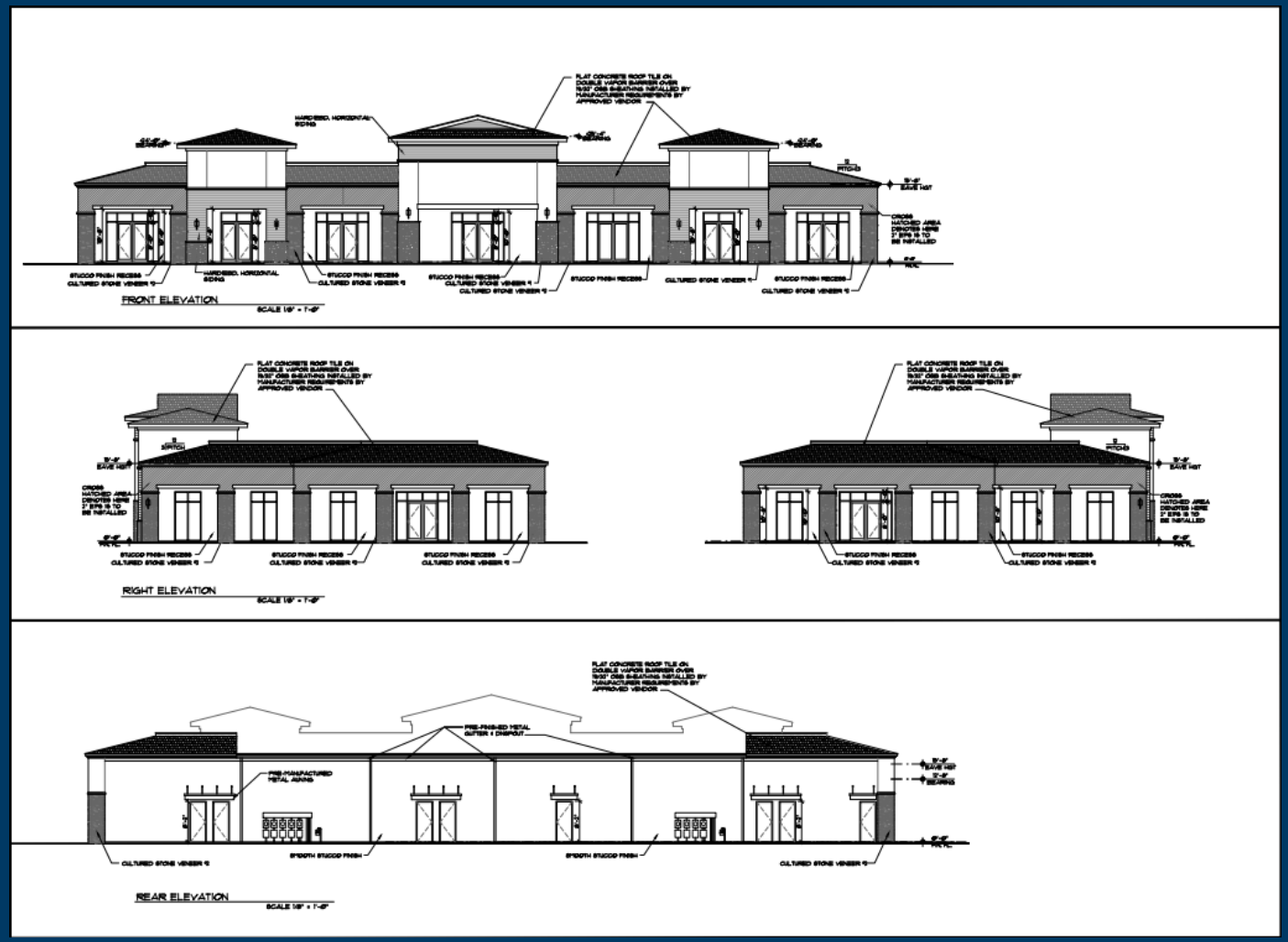


Chau Medical Building Phase 2
FEDP-2025-0019

Planning and
Zoning Board

December 3, 2026

Elevations



Chau Medical Building Phase 2
FEDP-2025-0019

Planning and Zoning Board

December 3, 2026

Renderings



Chau Medical Building Phase 2
FEDP-2025-0019

Planning and Zoning Board

December 3, 2026

Proposed Conditions

Staff recommends that the Planning & Zoning Board recommend approval of the Site/Final Engineering, Aesthetic Review, Development Agreement, Waivers for the streetscape and awnings, ,subject to the following conditions of approval:

1. Execution of the Development Agreement shall occur before any construction takes place at the subject property.
2. All grass on the Property shall be Bahia grass. No St. Augustine grass or grass types with low drought tolerance shall be permitted.
3. Prior to the City Commission public hearing, the Applicant must provide a clean copy of the site plan that removes any language granting the applicant tree mitigation credits.
4. A Cross Access Easement, Shared Parking Agreement, and Utilities and Drainage Easements shall be approved and provided to the City prior to the approval of any future lot split or subdivision of the Property. Shared parking between Development Area 1 (Medical Office) and Development Area 3 (Medical Office/Retail) shall be required in the event the applicant splits or subdivides the Property. Should the parties ever mutually desire to terminate said Easements and Shared Parking Agreement, prior to executing such termination, the Parties shall seek and receive consent from the City of Winter Springs and obtain an amendment to the site plan.

Proposed Conditions (Continued)

5. Developer was required to plant in Phase One at least 639 credits of new replacement trees, with the remaining 150 credits to be placed in Phases Two and Three. The Developer proposes to plant 95 credits of trees in Phase 2, which means that the remaining 55 credits shall be required to be planted in Phase 3. Further, the Developer proposes to remove 12 credits of previously planted replacement trees in Phase 2, which must be replaced. Accordingly, a total of 67 credits of trees shall be replaced in Phase 3. Should the Developer not be able to replace the 67 credits of trees in Phase 3, the Developer shall be responsible for additional tree bank mitigation payments for those trees that remain unreplaced. All required tree replacements in each Development Area shall be planted prior to the issuance of any final certificate of occupancy for any building in such Development Area. Tree replacements and landscaping shall be subject to the obligation of ongoing maintenance and replacement for the first two years following planting, at the Developer's expense, if the City determines, after reasonable inspection, that any tree or landscaping has become severely diseased or damaged to the point that the viability of the tree or landscaping has been significantly compromised. In the event that Developer fails to perform the necessary maintenance, repairs or replacements of any of the trees or landscaping, the City shall have the right, but not obligation, to conduct said maintenance, repairs or replacements and recover the actual cost thereof from the Developer. Prior to exercising that right, the City shall provide the Developer written notice and an explanation of the specific default and at least thirty (30) days in which to cure the default. If Developer fails to cure the default by the end of the cure period, the City may exercise its rights to maintain and replace at any time thereafter.

Because tree removal occurred during Phase One, the prior tree bank mitigation payment of $65,70.000 was required to be paid prior to obtaining a building permit for Phase One. However, the tree bank mitigation payment was not collected by the City. Accordingly, such tree bank mitigation payment of $65,700.00 shall be due prior to obtaining a site work or building permit for Phase Two.

Proposed Conditions (Continued)

The Developer shall additionally submit a letter of credit in a form acceptable to the City Attorney ensuring planting, installation, and maintenance of all required trees and landscaping for Phases 2 and 3 (162 credits) in an amount of forty-eight thousand and six hundred dollars ($48,600.00). The letter of credit may be drawn upon by the City should either Phase Two and/or Three be abandoned after the Property has been cleared or proper maintenance of the trees for two (2) years after planting has not been performed. Given the phased nature and lengthy duration of the Project, the letter of credit must have a duration that is automatically extended, without notice to the surety, for successive periods until all landscaping requirements have been completed or be provided in a similar form acceptable to the City Attorney.

6. All Specific Conditions of Approval established in the Development Agreement and First Modification not herein amended shall continue to apply.

Chau Medical Building Phase 2
FEDP-2025-0019

ANY QUESTIONS?

Planning and Zoning Board

December 3, 2026

PUBLIC HEARINGS AGENDA ITEM

PLANNING & ZONING BOARD
THURSDAY, DECEMBER 3, 2026
REGULAR MEETING

TITLE

Chau Winter Springs Office Phase 2 – SR 434 – Site/Final Engineering Plans, Aesthetic Review, and Development Agreement.

SUMMARY

The Community Development Department requests that the Planning & Zoning Board hold a Public Hearing to consider applications for Site/Final Engineering Plans, Aesthetic Review, and Development Agreement regarding the applicant's request to establish a medical office and retail in C-1, Neighborhood Commercial.

General Information			
Applicant	Sam J. Sebaali, Thomas and Hutton Engineering Co.		
Property Owner(s)	Chau Family Holdings III, LLC		
Location	411 E State Road 434		
Tract Size	± 5.12 Acres		
Parcel ID Number	34-20-30-5AW-0000-048A		
Zoning Designation	C-1, Neighborhood Commercial		
FLUM Designation	Commercial		
Adjacent Land Use	North: Commercial East: Medium Density Residential		South: Medium Density Residential West: Commercial
Height	29', 8" [one-story]		
Setbacks	Front: 25'	Rear: 15'	Side: 15'
Development Standards	Lot Coverage: 75%		
Development Permits	Not applicable		
Development Agreement	Original Development Agreement ORB 9768, Page 982 First Modification ORB 10573, Page 1323 Second Modification ORB 10585, Page 1848 Third Modification Pending		
Code Enforcement	Not applicable		

City Liens	Not applicable

Background Information:

The subject property consists of one lot, totaling 5.12 acres, more or less, which is part of Entzminger Farms Addition No. 2 subdivision as recorded on the plat thereof at Plat Book 5 Page 9, Official Records of Seminole County, Florida. The site within the subject property being developed as Phase 2 is approximately 1.34 acres. The proposed development is a 13,057 square-foot commercial building with medical office and retail space for the Chau Medical complex, with associated parking facilities. The proposed development is located within the C-1, Neighborhood Commercial, zoning district. Offices, including medical offices, and retail commercial uses are permitted in the C-1 Neighborhood Commercial zoning district. This project is Phase 2 out of 3 planned phases for the Chau Medical site. The City Commission previously approved the three phases of the Chau Development on November 16, 2020, in which the City Commission approved a total of 65,970 square feet of building space spread over the three development sites. The current medical office and retail space that is sought to be approved would be constructed on Development Area 3 as identified in the original final engineering plans. It should be noted that Development Area 3 was originally approved to include a 114-bed, 49,380 square-foot assisted living facility (ALF), with supporting parking.

The City Commission entered into a First Modification to the Chau Development Agreement on January 31, 2024, which approved additional uses that could be developed on the property, including drug and sundry stores, health spas, hair and beauty salons (including nail salons), and alcoholic beverage on-premises consumption, limited to beer and wine only.

The City Commission entered into a Second Modification to the Chau Development Agreement on February 16, 2024, which approved a replacement of the final engineering plan approved for Development Area 3 with a 47-unit, 44, 559 square-foot independent living facility instead of the ALF, including supporting parking and landscaping. The Second Modification thus approved the modification of the Overall Site Plan for Phase Two/Development Three.

The City Commission is requested to again approve a different plan for Phase Two/Development Area 3, replacing the Overall Site Plan to provide for the 13,057 square-foot commercial building with medical office and retail space on Development Area Three.

The Original Development Agreement established permitting deadlines for Phase Two and Three. Namely, the Developer was required to complete Aesthetic Review, obtain building permits, and substantially commence vertical construction of all buildings in Phases Two and Three within five (5) years of receiving certificates of occupancy for Phase One. Phase One received its Certificate of Occupancy on March 23, 2022. Consequently, the deadline for commencement of vertical

construction for Phases Two and Three is March 23, 2027, which will not be met. The Third Modification proposes a two-year extension of permitting deadlines.

Public Notices:

Notices were mailed to all owners of real property adjacent to and within approximately five hundred (500) feet of the subject property and all Homeowner's Associations on file with the City of Winter Springs on November 18, 2026.

A Community Workshop was held on July 1, 2026, at 6:00 PM at 411 East State Road 434. There were no objections raised at the Community Workshop regarding the proposed development. Please see (Exhibit "1") Community Workshop Flyer and (Exhibit "2") Community Workshop Attendance.

Analysis of Final Engineering Plans (Sec. 20-33.1) Criteria:

The criteria for Final Engineering Plans are provided and analyzed below:

(a) Site and final engineering plans and the subdivision of land shall also be subject to the technical requirements set forth in Chapter 9 of the City Code. It is the intent of this section to apply to applications for site and final engineering plans and to any subdivision of land requiring a plat, if applicable, and does not include review and approval of a lot split application.

Please see the discussion below regarding technical requirements of Chapter 9. The Final Engineering Plans have been reviewed by the City's contract engineer, who concluded that the Plans satisfy the technical requirements. provided the conditions of approval set forth below are met.

(b) Except in situations involving one (1) single-family home, the Planning and Zoning Board shall be required to review all site and final engineering plan and subdivision of land applications and make a written recommendation to the City Commission. Such recommendation shall include the reasons for the board's recommendation and show the board has considered the applicable criteria set forth in this section.

(c) Upon receipt of the planning and zoning board's recommendation, the City Commission shall make a final decision on the application. If the City Commission determines that the planning and zoning board has not made a recommendation on an application within a reasonable period of time, the City Commission may, at its discretion, consider an application without the planning and zoning board's recommendation.

Except in situations involving one (1) single-family home, all site and final engineering plan and subdivision recommendations and final decisions shall be based on whether the site and final engineering plan and subdivision of land comply with all the technical requirements set forth in chapter 9 of the City Code and the following criteria to the extent applicable:

(1) Whether the applicant has demonstrated the site and final engineering plan and subdivision of land, including its proposed density, height, scale and intensity, hours of operation, building and lighting design, setbacks, buffers, noise, refuse, odor, particulates, smoke, fumes and other emissions, parking and traffic-generating characteristics, number of persons anticipated using, residing or working under the plan, and other off-site impacts, is compatible and harmonious with adjacent land uses, and will not adversely impact land use activities in the immediate vicinity.

Analysis: Subject to the Conditions of Approval, Staff finds that the proposed Development is compatible and harmonious with adjacent land uses and will not adversely impact land use activities in the immediate vicinity. The height of the proposed structure is within the limits of the C-1, Neighborhood Commercial zoning district. Additionally, parking requirements for the medical office and retail uses are reflected in the Parking Analysis and meet the requirements of Code Section 9-277. The subject parcel was part of a three-phase development with Phase 1 being completed in 2022. This project is the proposed Phase 2 and replaces a significantly more intense development program. The City Commission previously approved a 47-unit, 44, 559 square-foot independent living facility for Phase Two, which will now be a 13,057 square-foot commercial building with medical office and retail space. In addition, the orientation of the building has changed such that the proposed medical office and retail building will face SR 434, providing ample buffers, setbacks and parking for the building. The Traffic Impact Analysis (Exhibit 6) reflects the change to a less-intensive development that will generate a significant reduction in daily trips. The original Traffic Impact Analysis estimated that the proposed 6,400 commercial retail building for Phase 3 would generate 927 daily trips. The applicant estimates the new Phase 2 mixed-use building will produce 597, a reduction of 330 daily trips, which will be more compatible and harmonious with adjacent uses and be less impactful on surrounding properties.

(2) Whether the applicant has demonstrated the size and shape of the site, the proposed access and internal circulation, and the design enhancements to be adequate to accommodate the proposed density, scale and intensity of the site and final engineering plan requested. The site shall be of sufficient size to accommodate design amenities such as screening, buffers, landscaping, open space, off-street parking, safe and convenient automobile, bicycle, and pedestrian mobility at the site, and other similar site plan improvements needed to mitigate against potential adverse impacts of the proposed use.

Analysis: Staff finds that the Applicant has demonstrated that the size and shape of the site, the proposed access and internal circulation, and the design enhancements to be adequate to accommodate the proposed density, scale, and intensity of the site and final engineering plan requested. The site provides an additional fifty-six (56) parking spaces, which is adequate to meet the needs of both the office and retail uses per Code Section 9-277. As identified in the Traffic Study (Exhibit 6), the building has a total of 13,057 sf, of which 5,596 sf is office space and 7,461 sf is retail. Code Section 9-277 requires a total of thirty-nine (39) parking

spaces for the project. With 56 spaces being provided, the project exceeds the minimum parking requirements set forth in the Code.

The Traffic Study also identifies a total of 597 additional daily trips which are anticipated to be generated from this project. This is a reduction in daily trips from the 2017 Traffic Impact Analysis which calculated 927 daily trips for a 6,400 sf building in Phase 3 that was solely retail commercial. The new building proposed for Phase 2, though larger than the original Phase 3 building at 13,057 sf, is a mix of retail and medical office uses that will produce fewer daily trips.

The project will also provide adequate landscape and buffering. With Phase 1 having been constructed in 2022, there are pre-existing landscape buffers on the site. Further, the applicant is proposing to add additional landscaping for this Phase 2 project, as provided in the Landscaping Sheet in the Site Plan (Exhibit 3).

(3) Whether the proposed site and final engineering plan and subdivision of land will have an adverse impact on the local economy, including governmental fiscal impact, employment, and property values.

Analysis: Staff finds that the proposed site and final engineering plan and subdivision of land will not have an adverse impact on the local economy, including governmental fiscal impact, employment, and property values. Conversely, the project will likely have a positive impact on the local economy, as an additional medical office and retail building on State Road 434 will provide additional healthcare and commercial services and goods to Winter Springs residents and visitors, and associated healthcare and commercial job opportunities.

(4) Whether the proposed site and final engineering plan and subdivision of land will have an adverse impact on the natural environment, including air, water, and noise pollution, vegetation and wildlife, open space, noxious and desirable vegetation, and flood hazards.

Analysis: Staff finds that the proposed site and final engineering plan will not have an adverse impact on the natural environment, including air, water, and noise pollution, vegetation and wildlife, open space, noxious and desirable vegetation, and flood hazards. The project is located outside of the special flood hazard area and is not anticipated to have any adverse environmental impacts. The project site has already been cleared of trees and has been sodded per the original Development Agreement. The original Development Agreement required a certain number of tree credits to be planted during this phase to avoid further mitigation payments, which were made at the time the original final engineering plans were approved in 2020.

(5) Whether the proposed site and final engineering plan and subdivision of land will have an adverse impact on historic, scenic, and cultural resources, including views and vistas, and loss or degradation of cultural and historic resources.

Analysis: The proposed site and final engineering plan will have no impact on historical resources. No additional scenic or cultural resources. Including scenic views or vistas, will be impacted by this site and final engineering plan.

(6) Whether the proposed site and final engineering plan and subdivision of land will have an adverse impact on public services, including water, sewer, stormwater and surface water management, police, fire, parks and recreation, streets, public transportation, marina and waterways, and bicycle and pedestrian facilities. The development will be served by the mater stormwater management system located at the subject property.

Analysis: City Staff have reviewed this project from a planning and engineering perspective. Staff did not find any adverse impact on any of the public services listed above. The City Public Works and Utilities Department has confirmed available water and sewer capacity. It should be noted that the previously approved 47-unit, 44, 559 square-foot independent living facility for Phase Two would have had a much greater impact on public facilities than the medical office and retail space currently proposed.

(7) Whether the site and final engineering plan and subdivision of land, and related traffic report and plan provided by the applicant, details safe and efficient means of ingress and egress into and out of the neighborhood and adequately addresses the impact of projected traffic on the immediate neighborhood, traffic circulation pattern for the neighborhood, and traffic flow through immediate intersections and arterials.

Analysis: Staff has reviewed the TIA, (Exhibit 6) and finds that the site and final engineering plan depicts safe and efficient means of ingress and egress into and out of the neighborhood and adequately addresses the impact of projected traffic on the immediate neighborhood, traffic circulation patterns for the neighborhood, and traffic flow through immediate intersections and arterials.

(8) Whether the proposed site and final engineering plan and subdivision of land will have an adverse impact on housing and social conditions, including variety of housing unit types and prices, and neighborhood quality.

Analysis: Staff finds that, as a commercial project, the proposed site and final engineering plan will not have an adverse impact on the variety of housing unit types and prices. As for neighborhood quality, subject to the Conditions of Approval, the proposed site and final engineering plan development will not have an adverse impact on neighborhood quality.

(9) Whether the proposed site and final engineering plan and subdivision of land avoids significant adverse odor, emission, noise, glare, and vibration impacts on adjacent and surrounding lands regarding refuse collection, service delivery, parking and loading, signs, lighting, and other site elements.

Analysis: Staff finds that proposed site and final engineering plan avoids significant adverse odor, emissions, noise, glare and vibration impacts on adjacent and surrounding lands regarding refuse collection, service delivery, parking and loading, signs, lighting, and other site elements.

(10) Whether the applicant has provided an acceptable security plan for the proposed establishment to be located on the site and final engineering plan and subdivision of land that addresses the safety and security needs of the establishment and its users and employees and minimizes impacts on the neighborhood, if applicable.

Analysis: The safety and security of the site is addressed with the site lighting for the parking lot and hours of operation. Staff does not anticipate any safety or security concerns.

(11) Whether the applicant has provided on the site and final engineering plan and subdivision of land an acceptable plan for the mass delivery of merchandise for new large footprint buildings (greater than twenty thousand (20,000) square feet) including the hours of operation for delivery trucks to come into and exit the property and surrounding neighborhood, if applicable.

Analysis: Not applicable as the structure being constructed less than 20,000 square feet (with a proposed expansion of 13,057 square feet), and will not receive mass deliveries of merchandise.

(12) Whether the applicant has demonstrated that the site and final engineering plan and subdivision of land have been designed to incorporate mitigative techniques and plans needed to prevent adverse impacts addressed in the criteria stated herein or to adjacent and surrounding uses and properties.

Analysis: Staff finds that subject to the Conditions of Approval, the site and final engineering plans have been designed to incorporate mitigative techniques and plans needed to prevent the adverse impacts mentioned in the criteria on adjacent and surrounding uses and properties.

(13) If the proposed conditional use is a residential use, whether the elementary, middle and high schools (K—12) that will be initially assigned to the residential project by the school district at the time the City Commission considers final approval of the conditional use have both sufficient capacity, are in close proximity to the project so as to make each of the assigned schools accessible and convenient (e.g., walking distance, travel time, private and public transportation, and quality of route environment) to the majority of the school population that will be drawn from the project, and promote and support the integration of future residents of the project into the existing city of Winter Springs community in a sustainable manner.

Analysis: Not applicable as this is not a residential development.

(14) Whether the applicant has agreed to execute a binding development agreement required by city to incorporate the terms and conditions of approval deemed necessary by the City Commission including, but not limited to, any mitigative techniques and plans required by City Code.

Analysis: The applicant has agreed to and is working on a binding development agreement with the City addressing terms and conditions deemed necessary by the City Commission.

Water and Sewer:
Public Works & Utilities Department Staff have confirmed that sufficient water and sewer capacity exists for this project.

Stormwater:
The infrastructure included for the development will tie into the existing stormwater management system that was constructed during Phase 1 in 2000 to serve all three phases of the project.

Transportation:
The applicant has provided a Traffic Impact Analysis (Exhibit 6), which has been reviewed by City staff. It was Staff's finding that sufficient roadway capacity exists for this project. The project will not cause the impacted roadway segments to exceed their adopted level of service (LOS) under the Comprehensive Plan.

Parking:
Phase 2 of the Chau Medical Complex proposes fifty-six (56) parking spaces, including three handicapped spaces. As noted previously, the combined medical office and retail uses would necessitate thirty-nine (39) parking spaces and the applicant has provided an additional seventeen (17) parking spaces, an excess of the City's requirements per Code Section 9-277.

Aesthetic Review:

Pursuant to Section 9-603, which sets forth guidelines and minimum standards for Aesthetic Review packages, staff have utilized the criteria below in Section 9-603 to determine the following. The attached Aesthetic Review package (Exhibits 12, 13, and 20) includes all of the submittal requirements for aesthetic review as set forth in Section 9-600 through 9-607 and include the following: (a) a site plan; (b) elevations illustration all sides of structures facing public streets or spaces; (c) illustrations of all walls, fences, and other accessory structures and the indication of height and their associated materials; (d) elevation of proposed exterior permanent signs or other constructed elements other than habitable space, if any; (e) illustrations of materials, texture, and colors to be used on all buildings, accessory structures, exterior signs; and (f) other architectural and engineering data as may be required. The procedures for review and approval are set forth in Section 9-603.

Aesthetic Review

1.	The plans and specifications of the proposed project indicate that the setting, landscaping, proportions, materials, colors, texture, scale, unity, balance, rhythm, contrast, and simplicity are coordinated in a harmonious manner relevant to the project, surrounding area and cultural character of the community. **Analysis:** Staff finds that the Phase 2 office and retail building will be complementary to, if not mirror, the design of the Phase 1 office and retail building. The color scheme and design will be harmonious with the surrounding area and nearby retail establishments, including existing establishments within the Chau complex.
2.	The plans for the proposed project are in harmony with any future development which has been formally approved by the city within the surrounding area. **Analysis:** Staff finds that the Phase 2 medical office and retail building will be in harmony with future development as intended by the original site plan, SP2018-0015, which proposed three structures as part of the overall development of the site. This Phase 2 project is the second of three proposed structures on the property.
3.	The plans for the proposed project are not excessively similar or dissimilar to any other building, structure or sign which is either fully constructed, permitted but not fully constructed, or included on the same permit application, and facing upon the same or intersecting street within five hundred (500) feet of the proposed site, with respect to one or more of the following features of exterior design and appearance: a. Front or side elevations; b. Size and arrangement of elevation facing the street, including reverse arrangement; or c. Other significant features of design such as, but not limited to materials, roof line, hardscape improvements, and height or design elements. **Analysis:** Staff finds that the plans for the proposed Phase 2 building maintains complementary elevations and design features to the Phase 1 building that the City Commission approved in 2018. While similar, it is not excessively so, maintaining a unique appeal while being in keeping with the overall design elements for the site.
4.	The plans for the proposed project are in harmony with, or significantly enhance, the established character of other buildings, structures or signs in the surrounding area with respect to architectural specifications and design features deemed significant based upon commonly accepted architectural principles of the local community. **Analysis:** The proposed Phase 2 medical office and retail building will be in harmony with the existing Phase 1 development and will further enhance its

	character as well as that of surrounding buildings in the area. The building's design is similar to its Phase 1 counterpart and is complementary to other commercial structures in the area.
5.	The proposed project has incorporated significant architectural enhancements such as concrete masonry units with stucco, wrought iron, columns and piers, porches, arches, planting areas, display windows, and other distinctive design features detailing and promoting the character of the community. **Analysis:** Staff finds that the proposed Phase 2 medical office and retail building incorporates significant architectural enhancements that are in keeping with the building and design elements of the Phase 1 office building. It features the same combination of stucco, large windows, straight lines, stone veneer columns, and neutral colors as the Phase 1 building.

Reports:

The Final Engineering submittal is required to include the following reports or updates of previously prepared reports for the same property.

Reports	
June 20, 2018	Stormwater Report (Exhibit 4)
March 16, 2018	Geotechnical Report (Exhibit 5)
October 13, 2026	Transportation Impact Analysis (Exhibit 6)
November 18, 2026	Economic Impact Analysis (Exhibit 7)

Procedural History:	
April 30, 2025	Pre-Application Meeting
July 1, 2026	Community Workshop
December 3, 2026	Planning & Zoning Board | Recommendation on Site/Final Engineering, Aesthetic Review, Waivers, Conditional Use Application, and Development Agreement.
January 11, 2027	City Commission | Hearing on Final Engineering Site/Final Engineering, Aesthetic Review, Waivers, Conditional Use Application, and Development Agreement.

Applicable Law, Public Policy, and Events:

Florida Statutes 163.2511-163.3246: Growth Policy; County and Municipal Planning; Land Development Regulation (Provides that land development regulations for municipal planning be consistent with the Comprehensive Plan).

Home Rule Powers

Code of Ordinances City of Winter Springs.

- Section 20-1. Definitions.
- Section 20-601.
- Section 20-324.
- Section 20-465.
- Section 20-326(a).

Fiscal Impact:

The Fiscal Impact Report has been reviewed and approved prior to the project being heard before the City Commission.

Development Agreement:

The Applicant is currently working with the City Attorney on the Development Agreement for the project. The Development Agreement shall be executed prior to any work on the project covered within this document.

STAFF RECOMMENDATION

Staff recommends that the Planning & Zoning Board recommend approval of the Site/Final Engineering, Aesthetic Review, Waivers, and Development Agreement, subject to the following conditions of approval:

1. Execution of the Development Agreement shall occur before any construction takes place at the subject property.
2. All grass on the Property shall be Bahia grass. No St. Augustine grass or grass types with low drought tolerance shall be permitted.
3. Prior to the City Commission public hearing, the Applicant must provide a clean copy of the site plan that removes any language granting the applicant tree mitigation credits.
4. A Cross Access Easement, Shared Parking Agreement, and Utilities and Drainage Easements shall be approved and provided to the City prior to the approval of any future lot split or subdivision of the Property. Shared parking between Development Area 1 (Medical Office) and Development Area 3 (Medical Office/Retail) shall be required in the event the applicant splits or subdivides the Property. Should the parties ever mutually desire to terminate said Easements and Shared Parking Agreement, prior to executing such termination, the Parties shall seek and receive consent from the City of Winter Springs and obtain an amendment to the site plan.
5. Developer was required to plant in Phase One at least 639 credits of new replacement trees, with the remaining 150 credits to be placed in Phases Two and Three. The Developer proposes to plant 95 credits of trees in Phase 2, which means that the remaining 55 credits shall be required to be planted

in Phase 3. Further, the Developer proposes to remove 12 credits of previously planted replacement trees in Phase 2, which must be replaced. Accordingly, a total of 67 credits of trees shall be replaced in Phase 3. Should the Developer not be able to replace the 67 credits of trees in Phase 3, the Developer shall be responsible for additional tree bank mitigation payments for those trees that remain unreplaced. All required tree replacements in each Development Area shall be planted prior to the issuance of any final certificate of occupancy for any building in such Development Area. Tree replacements and landscaping shall be subject to the obligation of ongoing maintenance and replacement for the first two years following planting, at the Developer's expense, if the City determines, after reasonable inspection, that any tree or landscaping has become severely diseased or damaged to the point that the viability of the tree or landscaping has been significantly compromised. In the event that Developer fails to perform the necessary maintenance, repairs or replacements of any of the trees or landscaping, the City shall have the right, but not obligation, to conduct said maintenance, repairs or replacements and recover the actual cost thereof from the Developer. Prior to exercising that right, the City shall provide the Developer written notice and an explanation of the specific default and at least thirty (30) days in which to cure the default. If Developer fails to cure the default by the end of the cure period, the City may exercise its rights to maintain and replace at any time thereafter.

Because tree removal occurred during Phase One, the prior tree bank mitigation payment of $65,70.000 was required to be paid prior to obtaining a building permit for Phase One. However, the tree bank mitigation payment was not collected by the City. Accordingly, such tree bank mitigation payment of $65,700.00 shall be due prior to obtaining a site work or building permit for Phase Two.

The Developer shall additionally submit a letter of credit in a form acceptable to the City Attorney ensuring planting, installation, and maintenance of all required trees and landscaping for Phases 2 and 3 (162 credits) in an amount of forty-eight thousand and six hundred dollars ($48,600.00). The letter of credit may be drawn upon by the City should either Phase Two and/or Three be abandoned after the Property has been cleared or proper maintenance of the trees for two (2) years after planting has not been performed. Given the phased nature and lengthy duration of the Project, the letter of credit must have a duration that is automatically extended, without notice to the surety, for successive periods until all landscaping requirements have been completed or be provided in a similar form acceptable to the City Attorney.

6. All Specific Conditions of Approval established in the Development Agreement and First Modification not herein amended shall continue to apply.

Attachments:

Exhibit “1” – Community Workshop Flyer
Exhibit “2” – Community Workshop Attendance Sheet
Exhibit “3” – Chau Medical Building Phase 2 Site Plan
Exhibit “4 “ – Stormwater Report
Exhibit “5“ – Geotechnical Report
Exhibit “6” – Traffic Impact Analysis
Exhibit “7” – Economic Impact Analysis
Exhibit “8” – Architectural Elevations
Exhibit “9” – Architectural Renderings
Exhibit “10” – Development Agreement
Exhibit “11” – Site Plan Application
Exhibit “12” – Architectural Review Application
Exhibit “13” – Development Agreement Application

COMMUNITY WORKSHOP

Date: July 1, 2026 @ 6:00 P.M.

Location: Chau Medical Group
411 E State Road 434, Winter Springs, FL 32708

Community Workshop to consider Final Engineering Site Plans in order to construct a 15,980 sf metal office and retail building within the C-1 Neighborhood Commercial zone on the subject site.



Project: Chau Medical Office and Retail Building

Location: 411 E State Road 434, Winter Springs, FL 32708.
Parcel ID: 34-20-30-5AW-0000-048A
Acreage: ± 5.12-acre project
Zoning: C-1 Neighborhood Commercial
Future Land Use: Commercial
Applicant/Presenter: Bill Hockensmith, Thomas & Hutton

COMMUNITY WORKSHOP SIGN-IN SHEET

PROJECT NAME: Chan Medical

MEETING LOCATION & DATE: 411 E SR 434

NAME	MAILING ADDRESS (STREET, CITY, ZIP)	E-MAIL ADDRESS
1. John Rabon		
2. GON CHAN		
3. Bill Heckensmith	THOMAS & HUTTON ENGINEERING	
4. Don Layton	Hacienda #78 Majorca	
5. Sam Sebaali	5127 S. ORANGE AVE, STE 200 APPLICANT ENGINEER	SEBAALI.SeTANOH.COM
6. AMINE HARB	3700 34th St. ORLANDO FL 32805	amineharb@harbco.com
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		
18.		
19.		
20.		

FINAL DEVELOPMENT PLAN
CHAU COMMERCIAL BUILDING
EAST STATE ROAD 434
WINTER SPRING, FLORIDA

PARCEL I.D. No. 34-20-30-5AW-0000-048A

ALL DESIGN AND CONSTRUCTION MUST CONFORM TO THE MINIMUM STANDARDS SET FORTH IN THE CITY OF WINTER SPRINGS LAND DEVELOPMENT CODE AND/OR ZONING REGULATIONS.

OWNER/APPLICANT: CHAU FAMILY HOLDINGS III, LLC
1287 N SEMORAN BLVD., SUITE 200
ORLANDO, FL 32807-3530
PHONE: (407) 948-8328
E-MAIL: DRCHAU54@YAHOO.COM

GEOTECHNICAL: TERRACON CONSULTANTS, INC.
1675 LEE ROAD
WINTER PARK, FL 32789
PHONE: (407) 740-6110
FAX: (407) 740-6112

ENVIRONMENTAL BIO-TECH CONSULTING, INC.
3025 E. SOUTH STREET
ORLANDO, FL 32803
PHONE: (407) 894-5969
FAX: (407) 894-5970

SURVEYOR: ACCURIGHT SURVEYS OF ORLANDO, INC.
2012 E. ROBINSON STREET
ORLANDO, FL 32803
PHONE: (407) 894-6314

SITE VICINITY MAP



NOT TO SCALE

PLAN INDEX

C-1 COVER SHEET
C-2A BOUNDARY & TOPOGRAPHIC SURVEY (1 OF 2)
C-2B BOUNDARY & TOPOGRAPHIC SURVEY (2 OF 2)
C-3 LEGEND, NOTES, AND SPECIFICATIONS
C-4A SITE DEMOLITION AND STORMWATER POLLUTION PREVENTION PLAN
C-4B SITE DEMOLITION AND STORMWATER POLLUTION PREVENTION NOTES
C-5A OVERALL MASTER SITE PLAN
C-5B OVERALL MASTER SITE NOTES
C-5C SITE GEOMETRY PLAN
C-5D SITE GEOMETRY NOTES
C-6 SITE PAVING, GRADING, AND DRAINAGE PLAN
C-7 SITE UTILITY PLAN
C-8 SITE CONSTRUCTION DETAILS
C-9 SITE CROSS SECTIONS
C-10 CITY DETAILS
C-11 SITE FIRE TRUCK AUTO TURN PLAN
L-1 SITE LANDSCAPE PLAN
L-2 SITE IRRIGATION PLAN

UTILITY COMPANIES

WATER:	(407) 327-7588	CITY OF WINTER SPRINGS
SEWER:	(407) 327-7588	CITY OF WINTER SPRINGS
ELECTRIC:	(407) 629-1010	DUKE ENERGY
TELEPHONE:	(561) 997-0240	AT&T
CABLE:	(407) 532-8092	CHARTER COMMUNICATIONS
GAS:	(386) 624-8833	FLORIDA PUBLIC UTILITIES
FIBER OPTIC:	(407) 665-5642	SEMINOLE COUNTY TRAFFIC ENGINEERING

FEG FLORIDA ENGINEERING GROUP
now part of
THOMAS & HUTTON

5127 S. Orange Avenue, Suite 200
Orlando, FL 32809
Phone: 407-895-0324
Fax: 407-895-0325

www.thomasandhutton.com

FLORIDA ENGINEERING GROUP, INC.
CERTIFICATE No. EB 0006595
SAM J. SEBAALI
No 42075
STATE OF FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:
SAM J. SEBAALI, P.E.
ON THE DATE ADJACENT TO THE SEAL.

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

SAM J. SEBAALI, P.E.
LICENSE NO. 42075

25-053_COVER.DWG

MAP OF SURVEY

NOTES

1. BEARING STRUCTURE IS BASED ON NAD 83 FLORIDA EAST ZONE RELATIVE TO SOUTHEAST RIGHT-OF-WAY LINE OF STATE ROAD 434 BEING: N65°28'27"E, DERIVED BY RTK SURVEY METHOD UTILIZING L-NET REFERENCE STATIONS.

2. THIS SURVEY REFLECTS ONLY MATTERS OF RECORD AS PROVIDED BY THE CLIENT OR CLIENTS REPRESENTATIVE.

3. THIS SURVEY WAS MADE ON THE GROUND. THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AS LOCATED BY SUNSHINE UTILITIES LOCATING SERVICE TICKET NO. 299704267, 293702797 AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

4. SUBJECT PROPERTY LIES IN ZONE "X", BASED ON FLOOD INSURANCE RATE MAP NO. 12117C0160F, COMMUNITY NO. 120295, CITY OF WINTER SPRINGS, ORANGE COUNTY, FLORIDA, EFFECTIVE SEPTEMBER 28, 2007.

5. THIS SURVEY WAS MADE WITHOUT BENEFIT OF TITLE.

6. THIS SURVEY IS VALID ONLY FOR THE PARTIES TO WHOM IT IS CERTIFIED.

7. THIS SURVEY EXCEEDS THE ACCURACY REQUIREMENTS SET FORTH IN FLORIDA STATUTES.

8. ELEVATIONS BASED ON NAVD 1988 DATUM PER GPS, LNET REFERENCE FRAME PROVIDED BY LENGEMANN OF FLORIDA.

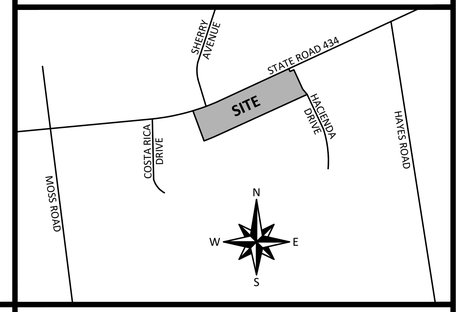
9. MEASURED BEARING SHOWN HEREON ARE RELATIVE TO NAD 83, FLORIDA STATE PLANE, EAST ZONE AND DO NOT MODIFY THE RECORD DESCRIPTION, HOWEVER IT DOES GRAPHICALLY DEPICT DIRECTIONS WITH RESPECT TO NORTH.

DESCRIPTION

THAT PART OF LOTS 48 AND 49, ENTZMINGER FARMS ADDITION NO. 2, AS RECORDED IN PLAT BOOK 5, PAGE 9, PUBLIC RECORDS OF SEMINOLE COUNTY, FLORIDA, DESCRIBED AS FOLLOWS: FROM THE INTERSECTION OF THE SOUTHERLY RIGHT OF WAY LINE OF STATE ROAD NO. 434 AND THE EASTERLY RIGHT OF WAY LINE OF MOSS ROAD; RUN SOUTH 88°23'42" EAST ALONG SAID SOUTHERLY RIGHT OF WAY LINE OF STATE ROAD NO. 434 A DISTANCE OF 999.34 FEET TO THE POINT OF CURVATURE OF A CURVE CONCAVE NORTHERLY AND HAVING A RADIUS OF 1330.00 FEET; THENCE RUN EASTERLY ALONG THE ARC OF SAID CURVE 343.80 FEET THROUGH A CENTRAL ANGLE OF 14°48'38" FOR THE POINT OF BEGINNING; THENCE CONTINUE EASTERLY ALONG THE ARC OF SAID CURVE 96.35 FEET THROUGH A CENTRAL ANGLE OF 04°09'03" TO THE POINT OF TANGENCY; THENCE RUN NORTH 72°38'37" EAST 759.88 FEET; THENCE LEAVING SAID SOUTHERLY RIGHT OF WAY LINE OF STATE ROAD NO. 434, RUN SOUTH 17°21'23" EAST, 21.40 FEET; THENCE NORTH 72°38'37" EAST, 34.00 FEET; THENCE SOUTH 17°21'23" EAST, 173.60 FEET; THENCE SOUTH 32°36'44" EAST, 57.01 FEET; THENCE SOUTH 72°38'37" WEST 808.88 FEET TO THE POINT OF CURVATURE OF A CURVE CONCAVE NORTHERLY AND HAVING A RADIUS OF 1580.00 FEET; THENCE RUN WESTERLY ALONG THE ARC OF SAID CURVE 114.46 FEET THROUGH A CENTRAL ANGLE OF 04°09'03" TO A POINT; THENCE LEAVING SAID CURVE RUN NORTH 13°12'20" WEST 250.00 FEET TO THE POINT OF BEGINNING.

UTILITY CONTACTS:			
SERVICE NAME	CONTACT	PHONE NUMBER	UTILITY TYPE
CHARTER COMMUNICATIONS	HELENE HERNANDEZ	407-532-8092	INTERNET, CABLE T.V., PHONE, FIBER
CITY OF WINTER SPRINGS	CLIFTON MULLIS	407-327-7588	WATER/SEWER/STORMWATER/RECLAIM WATER
DUKE ENERGY	USIC DISPATCH	800-778-9140	ELECTRIC
FL PUBLIC UTILITIES	DAWN DECOSTA	386-624-8883	GAS
AT&T DISTRIBUTION	DINO FARRUGGIO	561-997-0240	TELEPHONE
SEMINOLE COUNTY TRAFFIC ENGINEERING	ROBERT LOYER	407-665-5642	FIBER OPTIC
SEMINOLE COUNTY	JESUS GONZALEZ	407-539-0644	WATER/SEWER/RECLAIMED WATER

VICINITY MAP (NOT TO SCALE)



F.E.G. PROJECT NO. 25-053

SHEET NO. C-2A

SHEET 2 OF 18

ACCURIGHT

ACCURIGHT SURVEYS OF ORLANDO INC., LB 4475
2012 E. Robinson Street, Orlando, Florida 32803
www.AccurightSurveys.net
ACCU@AccurightSurveys.net
PHONE: (407) 894-6314

THIS SURVEY MEETS THE "STANDARDS OF PRACTICE" AS REQUIRED BY CHAPTER 5J-17 FLORIDA BOARD OF LAND SURVEYORS, PURSUANT TO SECTION 472.027 OF THE FLORIDA STATUTES.

RONALD K. SMITH, PSM 5797

"THE DATE OF SIGNATURE DOES NOT REVISE OR SUPERSEDE THE BOUNDARY SURVEY DATE OR REVISION DATE."

"NOT VALID WITHOUT THE ORIGINAL SIGNATURE AND SEAL OF THIS FLORIDA LICENSED SURVEYOR AND MAPPER." -OR- THE DIGITAL SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY RONALD K. SMITH, PSM 5797.

LEGEND

BB - BOTTOM OF BANK
BC - BACK OF CURB
BFP - BACK FLOW PREVENTER
BM - BENCHMARK
-E- - BURIED ELECTRIC
BWF - BARBED WIRE FENCE
CATV - CABLE TV RISER
-C- - BURIED CABLE TV
CALC - CALCULATED
C&M - CALCULATED & MEASURED
Δ - CENTRAL ANGLE
CBW - CONCRETE BLOCK WALL
CC - COVERED CONCRETE
CF - CONCRETE FLUME
CHW - CONCRETE HEAD WALL
CLF - CHAIN LINK FENCE

℄ - CENTERLINE
CM - CONCRETE MONUMENT
CMP - CORRUGATED METAL PIPE
•CO - CLEAN OUT
CONC - CONCRETE
COVD - COVERED
CP - CONCRETE PAD
CW - CONCRETE WALKWAY
D&M - DEED/DESC & MEASURED
DE - DRAINAGE EASEMENT
DESC - DESCRIPTION
DI - DOT INLET
DP - DUMPSTER PAD
DW - DRIVEWAY
(99) - EASEMENT NUMBER

ELEC - ELECTRIC METER
EB - ELECTRICAL BOX
EL - ELEVATION
ESMT - EASEMENT
EP - EDGE OF PAVEMENT
FIRM - FLOOD INSURANCE RATE MAP
FFE - FINISHED FLOOR ELEVATION
FH - FIRE HYDRANT
-FM- - FORCE MAIN
FND - FOUND
FO - FIBER OPTIC CABLE BOX
-F- - FIBER OPTIC CABLE LINE
-G- - GAS LINE
GM - GAS METER
GW - GUY WIRE ANCHOR

HDPE - HANDICAP PARKING - HIGH DENSITY POLYETHYLENE
INV - INVERT ELEVATION
IP - IRON PIPE
IR - IRON ROD
L - ARC LENGTH
LB - LICENSED BUSINESS
LS - LIGHT POLE
LS - LICENSE SURVEYOR
LSA - LANDSCAPED AREA
MEAS - MEASURED
MF - METAL FENCE
ML - METAL LID
MS - METAL SHED
MES - MITERED END SECTION

MW - MONITORING WELL
N&D - NAIL & DISK
NAVD - NORTH AMERICAN VERTICAL DATUM
NGVD - NATIONAL GEODETIC VERTICAL DATUM
NTS - NOT TO SCALE
OHE - OVERHEAD ELECTRIC
ORB - OFFICIAL RECORDS BOOK
-OW- - OVERHEAD WIRE
PB - PLAT BOOK
PC - POINT OF CURVATURE
PEP - PER ENGINEERING PLANS
PG - PAGE
PI - POINT OF INTERSECTION
P&M - PLAT & MEASURED

POB - POINT OF BEGINNING
POC - POINT OF COMMENCEMENT
PRC - POINT OF REVERSE CURVATURE
PS - PARKING SPACES
PSM - PROFESSIONAL SURVEYOR AND MAPPER
POT - POINT OF TANGENCY
PVC - PLASTIC PIPE
R - CURVE RADIUS
RCP - REINFORCED CONCRETE PIPE
R/W - RIGHT OF WAY
SAN - SANITARY MANHOLE
-S- - SANITARY LINE
SDO - SHOWN FOR DIRECTION ONLY

SN - SIGN
SWF - STOCK WIRE FENCE
x00.00 - SPOT ELEVATION
-D- - STORM/DRAIN LINE
SEW - SEWER VALVE
STORM - STORM MANHOLE
-T- - UNDERGROUND TELEPHONE
SI - STORM INLET
TB - TOP OF BANK
TP - TRAFFIC POLE
TS - TRAFFIC SIGN
TR - TRANSFORMER/JUNCTION BOX
TH - TELEPHONE RISER
TSB - TRAFFIC SIGNAL BOX
TSW - TRAFFIC SIGNAL WIRE

TYP - TYPICAL
UE - UTILITY EASEMENT
UP - UTILITY POLE
-W- - WATER LINE
WF - WOOD FENCE
WS - WOOD SHED
WV - WATER VALVE
WM - WATER METER

SURVEY DATE: 12/07/17

DATE:	JOB #	REVISION	BY:
05/02/23	56908	TOPOGRAPHIC SURVEY IN AREA SPECIFIED BY CLIENT	SNH
05/26/22	55727	TOPOGRAPHIC SURVEY IN CLIENT SPECIFIED AREA	SNH
02/07/20	48868	REVISED PER CLIENT COMMENTS	SNH
08/01/18	48868	ADDED WETLAND FLAG 1779A	TWR
05/09/18	48868	ADD WATERMAIN	TWR

BOUNDARY & TOPOGRAPHIC SURVEY

SCALE: 1" = 40'

CF# 25-053_Survey

JOB #47881

DRAWN BY: TWR

CERTIFIED TO:
CHAU CORPORATION; DR.CHAU; FLORIDA ENGINEERING GROUP, INC.

SHEET 1 OF 2

LOCATION: EAST STATE ROAD 434 WINTER SPRINGS, FL 32708

SUBDIVISION NAME: ENTZMINGER FARMS ADDITION NO. 2

P:\2025\25-053_ChauWinterSpringsOffice\DRAWINGS\CONSTRUCTION\CITY\CURRENT\PLANS\25-053_Survey.dwg - Sep 30, 2026

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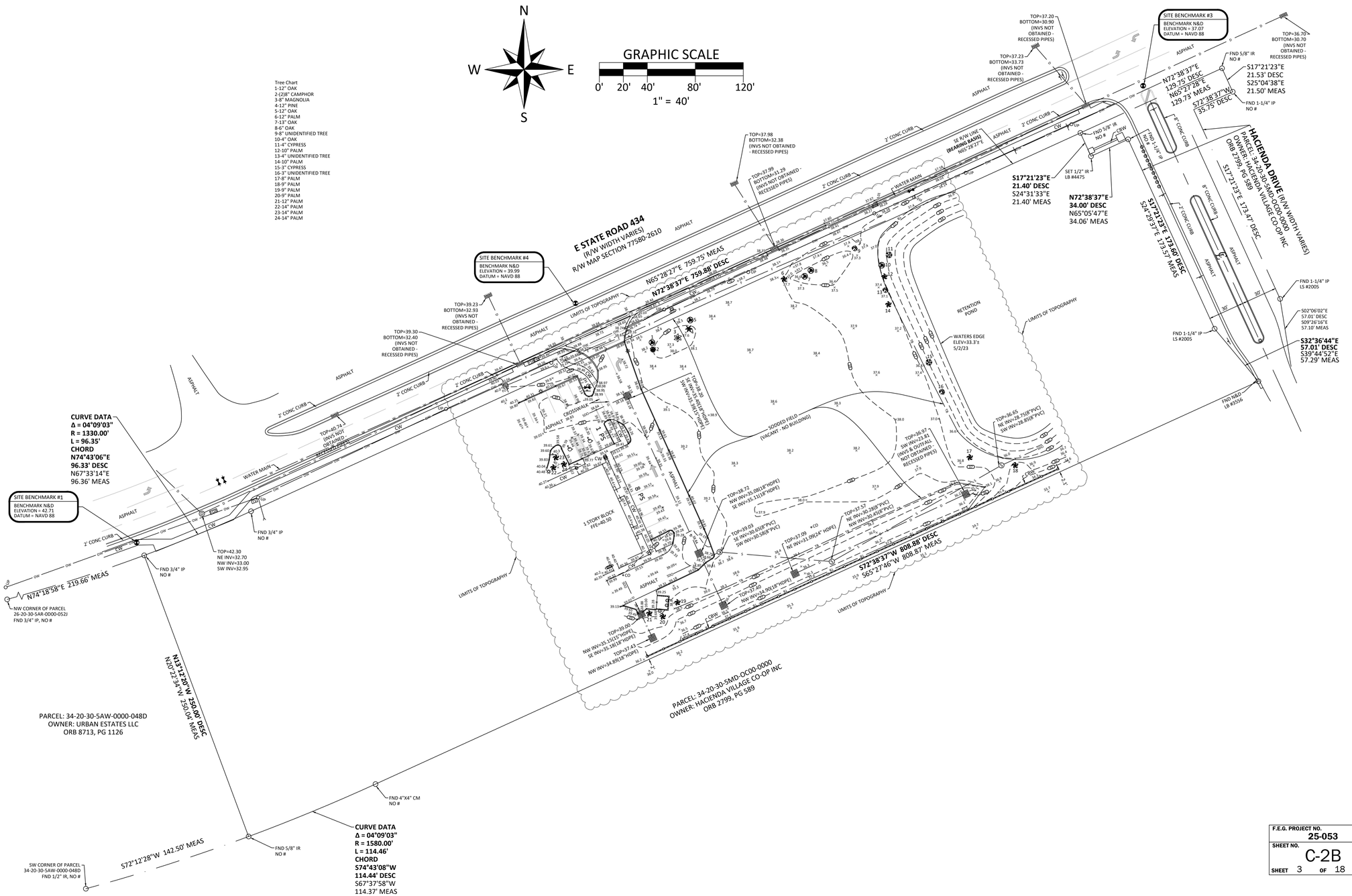
MAP OF SURVEY



LEGEND

BB	- BOTTOM OF BANK	℄	- CENTERLINE	ⓔ	- ELECTRIC METER	♿	- HANDICAP PARKING	◉	- MONITORING WELL	POB	- POINT OF BEGINNING
BC	- BACK OF CURB	CM	- CONCRETE MONUMENT	EB	- ELECTRICAL BOX	HDPE	- HIGH DENSITY POLYETHYLENE	N&D	- NAIL & DISK	POC	- POINT OF COMMENCEMENT
BFH	- BACK FLOW PREVENTER	CMP	- CORRUGATED METAL PIPE	EL	- ELEVATION	INV	- INVERT ELEVATION	NAVD	- NORTH AMERICAN VERTICAL DATUM	PRC	- POINT OF REVERSE CURVATURE
BM	- BENCHMARK	⋆CO	- CLEAN OUT	ESMT	- EASEMENT	IP	- IRON PIPE	NGVD	- NATIONAL GEODETIC VERTICAL DATUM	# PS	- PARKING SPACES
BT	- BURIED ELECTRIC	CONC	- CONCRETE	EP	- EDGE OF PAVEMENT	IR	- IRON ROD	NTS	- NOT TO SCALE	PSM	- PROFESSIONAL SURVEYOR AND MAPPER
BWF	- BARBED WIRE FENCE	COVD	- COVERED	FIRM	- FLOOD INSURANCE RATE MAP	L	- ARC LENGTH	OHE	- OVERHEAD ELECTRIC	POT	- POINT OF TANGENCY
CATV	- CABLE TV RISER	CP	- CONCRETE PAD	FFE	- FINISHED FLOOR ELEVATION	LB	- LICENSED BUSINESS	ORB	- OFFICIAL RECORDS BOOK	PVC	- PLASTIC PIPE
-C-	- BURIED CABLE TV	CW	- CONCRETE WALKWAY	FH	- FIRE HYDRANT	LS	- LIGHT POLE	-OW-	- OVERHEAD WIRE	R	- CURVE RADIUS
CALC	- CALCULATED	D&M	- DEED/DESC & MEASURED	-FM-	- FORCE MAIN	LSA	- LICENSE SURVEYOR	PB	- PLAT BOOK	RCP	- REINFORCED CONCRETE PIPE
C&M	- CALCULATED & MEASURED	DE	- DRAINAGE EASEMENT	FND	- FOUND	MEAS	- LANDSCAPED AREA	PC	- POINT OF CURVATURE	R/W	- RIGHT OF WAY
Δ	- CENTRAL ANGLE	DESC	- DESCRIPTION	FO	- FIBER OPTIC CABLE BOX	MF	- MEASURED	PEP	- PER ENGINEERING PLANS	SAN	- SANITARY MANHOLE
CBW	- CONCRETE BLOCK WALL	◉	- DOT INLET	-F-	- FIBER OPTIC CABLE LINE	ML	- METAL FENCE	PG	- PAGE	-S-	- SANITARY LINE
CC	- COVERED CONCRETE	DW	- DUMPSTER PAD	-G-	- GAS LINE	MS	- METAL LID	PI	- POINT OF INTERSECTION	SDO	- SHOWN FOR DIRECTION ONLY
CF	- CONCRETE FLUME	DW	- DRIVEWAY	GM	- GAS METER	⊟	- METAL SHED	P&M	- PLAT & MEASURED	SN	- SIGN
CHW	- CONCRETE HEAD WALL	(##)	- EASEMENT NUMBER	-G-	- GUY WIRE ANCHOR		- MITERED END SECTION			SWF	- STOCK WIRE FENCE
CLF	- CHAIN LINK FENCE									x00.00	- SPOT ELEVATION
										-D-	- STORM/DRAIN LINE
										SSV	- SEWER VALVE
											- STORM MANHOLE
										-T-	- UNDERGROUND TELEPHONE
											- STORM INLET
										TB	- TOP OF BANK
										TP	- TRAFFIC POLE
											- TRAFFIC SIGN
											- TRANSFORMER/JUNCTION BOX
										TEL	- TELEPHONE RISER
										TSG	- TRAFFIC SIGNAL BOX
										TSW	- TRAFFIC SIGNAL WIRE
										TYP	- TYPICAL
										UE	- UTILITY EASEMENT
										UP	- UTILITY POLE
										-W-	- WATER LINE
										WF	- WOOD FENCE
										WS	- WOOD SHED
											- WATER VALVE
											- WATER METER

ACCURIGHT

ACCURIGHT SURVEYS OF ORLANDO INC., LB 4475
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THIS SURVEY MEETS THE "STANDARDS OF PRACTICE" AS REQUIRED BY CHAPTER 5J-17 FLORIDA BOARD OF LAND SURVEYORS, PURSUANT TO SECTION 472.027 OF THE FLORIDA STATUTES.

RONALD K. SMITH, PSM 5797

"THE DATE OF SIGNATURE DOES NOT REVISE OR SUPERSEDE THE BOUNDARY SURVEY DATE OR REVISION DATE."

"NOT VALID WITHOUT THE ORIGINAL SIGNATURE AND SEAL OF THIS FLORIDA LICENSED SURVEYOR AND MAPPER." -OR-
THE DIGITAL SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY RONALD K. SMITH, PSM 5797.

SURVEY DATE: 12/07/17

DATE:	JOB #	REVISION	BY:
05/02/23	56908	TOPOGRAPHIC SURVEY IN AREA SPECIFIED BY CLIENT	SNH
05/26/22	55727	TOPOGRAPHIC SURVEY IN CLIENT SPECIFIED AREA	SNH
02/07/20	48868	REVISED PER CLIENT COMMENTS	SNH
08/01/18	48868	ADDED WETLAND FLAG 1779A	TWR
05/09/18	48868	ADD WATERMAIN	TWR

BOUNDARY & TOPOGRAPHIC SURVEY

SCALE: 1" = 40' | CF# 25-053_Survey | JOB #47881 | DRAWN BY: TWR

CERTIFIED TO:
CHAU CORPORATION; DR.CHAU;
FLORIDA ENGINEERING GROUP, INC.

SHEET 2 OF 2

LOCATION: EAST STATE ROAD 434
WINTER SPRINGS, FL 32708

SUBDIVISION NAME: ENTZMINGER FARMS ADDITION NO. 2

F.E.G. PROJECT NO. 25-053
SHEET NO. C-2B
SHEET 3 OF 18

P:\2025\25-053_ChauWinterSpringsOffice\DRAWINGS\CONSTRUCTION\CITY\CURRENT\PLANS\25-053_Survey.dwg - Sep 30, 2026

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GENERAL NOTES:

1. THESE GENERAL NOTES APPLY TO ALL WORK IN THIS SET OF DRAWINGS.
2. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR(S) TO ENSURE THAT ALL REQUIRED PERMITS ARE OBTAINED AND ARE IN HAND AT THE JOB SITE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. CONTRACTOR SHALL ABIDE BY ALL CONDITIONS CONTAINED THEREIN.
3. THE SPECIFICATIONS, NOTES, AND PLANS CALL ATTENTION TO CERTAIN REQUIRED FEATURES OF THE CONSTRUCTION BUT DO NOT PURPORT TO COVER ALL DETAILS OF DESIGN AND CONSTRUCTION. HOWEVER, THE CONTRACTOR SHALL FURNISH & INSTALL THE WORK IN ALL DETAILS AND READY FOR OPERATION.
4. ALL EQUIPMENT SHALL BE HANDLED, STORED, INSTALLED, TESTED, AND OPERATED IN STRICT ACCORDANCE WITH THE APPLICABLE MANUFACTURER'S WRITTEN INSTRUCTIONS.
5. ALL WORK SHALL BE ACCOMPLISHED TO THE HIGHEST QUALITY CRAFTSMANSHIP STANDARDS AS APPROVED BY THE ENGINEER.
6. ALL WORK SHALL BE ACCOMPLISHED IN STRICT ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES, ORDINANCES AND REGULATIONS.
7. APPARENT ERRORS, DISCREPANCIES, OR OMISSIONS ON THE DRAWINGS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION BEFORE BIDDING.
8. AFTER COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL PERFORM SITE CLEAN-UP OPERATIONS FOR REMOVAL OF ALL TRASH, DEBRIS, EXCESS MATERIAL, AND EQUIPMENT. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PRESENT THE PROJECT SITE CLEAN AND IN GOOD ORDER AT THE TIME OF FINAL ACCEPTANCE.
9. THE CONTRACTOR SHALL COMPLY WITH ALL RULES, REGULATIONS, AND SPECIFICATIONS OF CITY OF WINTER SPRINGS FOR SITE IMPROVEMENT IN THE ABSENCE OF A PARTICULAR REQUIREMENT.
10. FLORIDA LAW (F.S. 556) UNDERGROUND FACILITY DAMAGE PREVENTION AND SAFETY ACT MANDATES THAT EXCAVATORS/ CONTRACTORS SHALL CONTACT SUNSHINE 811 (FKA: SUNSHINE STATE ONE-CALL OF FLORIDA) BY CALLING 800-432-4470 OR 811 AT LEAST 2 FULL BUSINESS DAYS PRIOR TO BEGINNING ANY EXCAVATION OR DEMOLITION TO ALLOW MEMBER OPERATORS AN OPPORTUNITY TO IDENTIFY AND MARK THEIR UNDERGROUND FACILITIES AND APPROPRIATELY RESPOND TO THE POSITIVE RESPONSE SYSTEM.
11. CONTRACTOR SHALL NOTIFY ALL APPROPRIATE UTILITY COMPANIES OF PROPOSED START OF WORK IN ACCORDANCE WITH THEIR STANDARD REQUIREMENTS; INCLUDING BUT NOT LIMITED TO WATER, SEWER, POWER, TELEPHONE, GAS, AND CABLE TV COMPANIES.
12. ANY DIFFERING SITE CONDITIONS FROM THAT WHICH IS REPRESENTED HEREON, WHETHER ABOVE, ON, OR BELOW THE SURFACE OF THE GROUND, SHOULD BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER AND OWNER IN WRITING. NO CLAIM FOR EXPENSES INCURRED BY THE CONTRACTOR DUE TO DIFFERING SITE CONDITIONS WILL BE ALLOWED IF CONTRACTOR FAILS TO PROVIDE THE REQUIRED WRITTEN NOTIFICATION OF SUCH CONDITIONS FOR REVIEW BY THE ENGINEER AND OWNER.
13. THE CONTRACTOR SHALL FURNISH OWNER AND CITY OF WINTER SPRINGS WITH ACCURATE RECORD DRAWINGS PREPARED BY A LICENSED PROFESSIONAL SURVEYOR SHOWING AS-CONSTRUCTED HORIZONTAL AND VERTICAL DIMENSIONING OF THE WORK PER THE CITY OF WINTER SPRINGS REQUIREMENTS. THE SUBMITTAL COPY OF THE RECORD DRAWINGS WILL NOT BE RETURNED. THE RECORD DRAWING OR A REPRODUCIBLE COPY PREPARED BY THE ENGINEER SHALL BE CERTIFIED BY THE CONTRACTOR AS CORRECT. ALL INFORMATION WHICH IS UNCHANGED AND CURRENT SHALL BE NOTED BY CHECKING OFF OR CIRCLING. ALL REVISED INFORMATION SHALL BE CROSSED THROUGH AND NEW DATA ADDED. ADDITIONAL REQUIREMENTS ARE NOTED IN 'PAVING, GRADING, DRAINAGE, WATER, AND SEWER NOTES.
14. ALL PRIVATE AND PUBLIC PROPERTIES AFFECTED BY THIS WORK SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN EXISTED UNLESS SPECIFICALLY EXEMPTED BY THE PLANS. THE COST FOR SUCH RESTORATION SHALL BE INCIDENTAL TO OTHER CONSTRUCTION AND NO EXTRA COMPENSATION WILL BE ALLOWED.
15. THE CONTRACTOR SHALL FOLLOW THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS IN PREPARING THE SITE FOR CONSTRUCTION; THIS INCLUDES REMOVAL OF ANY EXISTING ORGANIC SOILS, DELETERIOUS MATERIAL, VEGETATION, AND/OR DEBRIS FROM WITHIN THE LIMITS OF CONSTRUCTION AS IDENTIFIED BY THE GEOTECHNICAL ENGINEER; PROOFROLLING OF THE NATURAL SOILS WHERE REQUIRED; AND OTHER GENERAL SITE PREPARATION REQUIREMENTS. SPECIFIC PROOFROLLING COMPACTION REQUIREMENTS SHOULD BE CONSISTENT WITH THE APPLICABLE DESIGN DOCUMENTS AND GEOTECHNICAL ENGINEER'S RECOMENDATIONS. IF THERE IS A CONFLICT BETWEEN THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS AND THE DESIGN DOCUMENTS, THE MORE STRINGENT REQUIREMENT SHALL APPLY.

GEOMETRY NOTES:

1. THESE PLANS ARE BASED ON A SURVEY PREPARED FOR THE OWNER BY ACCURIGHT OF ORLANDO, INC. AND DATED DECEMBER 7, 2017 WITH LATEST REVISION DATE OF APRIL 18, 2018.
2. REFER TO SHEET C-2 FOR REFERENCED BENCHMARK.
3. CONTRACTOR SHALL STAKE ALL IMPROVEMENTS USING THE GEOMETRIC DATA PROVIDED. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO COMPLETELY STAKE & CHECK ALL IMPROVEMENTS TO ENSURE ADEQUATE POSITIONING, BOTH HORIZONTAL & VERTICAL, PRIOR TO THE INSTALLATION OF ANY IMPROVEMENTS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF ANY APPARENT DISCREPANCIES ARE FOUND.
4. ALL DIMENSIONS ARE TO THE FACE OF CURB OR EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
5. CONTRACTOR SHALL VERIFY THE ACCURACY OF THE BUILDING GEOMETRY SHOWN WITH THAT IN THE FINAL ARCHITECTURAL DRAWINGS, PRIOR TO STAKE-OUT, & SHALL NOTIFY OWNER & ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.

MARKING, STRIPING, & SIGNAGE NOTES:

1. ALL MARKINGS MUST COMPLY WITH THE F.D.O.T. ROADWAY & TRAFFIC DESIGN STANDARDS, MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AND THE CITY OF WINTER SPRINGS LAND DEVELOPMENT CODE. PARKING SPACES MAY BE F.D.O.T. RATED PAINT. ALL OTHER MARKINGS MUST BE THERMOPLASTIC.
2. HANDICAP PARKING SPACES SHALL BE PROPERLY SIGNED AND STRIPED IN ACCORDANCE WITH FLORIDA STATUTE 316, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND OTHER APPLICABLE STANDARDS. REFER TO LATEST F.D.O.T. ROAD AND BRIDGE CONSTRUCTION STANDARD PLANS INDEX 700-102 FOR HANDICAP SYMBOL.
3. HANDICAP SIGN SHALL BE F.D.O.T. SPECIFICATION FTP 20-06.

PAVING, GRADING, & DRAINAGE NOTES:

1. ALL CONSTRUCTION, INCLUDING SIDEWALKS, SHALL BE IN ACCORDANCE WITH CITY OF WINTER SPRINGS CONSTRUCTION SPECIFICATIONS AND OTHER GENERAL AND SPECIAL SPECIFICATIONS, AND THE LATEST EDITION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION, UNLESS STATED OTHERWISE IN THE SPECIFICATIONS OR ON THE PLANS.
2. SUBSURFACE INFORMATION PROVIDED WITH THESE DRAWINGS WAS OBTAINED FOR USE IN ESTABLISHING DESIGN CRITERIA FOR THE PROJECT. THE ACCURACY OF THIS INFORMATION IS NOT GUARANTEED AND IS NOT TO BE CONSTRUED AS PART OF THE PLANS GOVERNING CONSTRUCTION OF THE PROJECT.
3. THE LOCATIONS OF EXISTING UTILITIES AND STORM DRAINAGE SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. ENGINEER ASSUMES NO RESPONSIBILITY FOR INACCURACY. PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAKE ARRANGEMENTS FOR FIELD LOCATIONS AND FOR ANY RELOCATIONS OF THE VARIOUS EXISTING UTILITIES WITH THE UTILITY OWNERS, WHICH SHALL BE DONE IN A TIMELY FASHION TO MINIMIZE IMPACT ON THE CONSTRUCTION SCHEDULE. ANY DELAY OR INCONVENIENCE CAUSED THE CONTRACTOR BY THE RELOCATION OF THE VARIOUS UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED.
4. ALL FILL MATERIAL IN GENERAL IMPROVEMENT AREAS SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE SOIL'S MODIFIED PROCTOR MAXIMUM DRY DENSITY AS DETERMINED BY AASHTO T-180. SPECIFIC SITE PREPARATION METHODS, TYPE OF FILL TO BE USED FOR PARKING AND BUILDING AREAS, AND COMPACTION SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS (SEE GEOTECHNICAL REPORT PREPARED BY TERRACON CONSULTANTS, INC; PROJECT NO. H1185038). REFER TO STRUCTURAL, ARCHITECTURAL, AND GEOTECHNICAL DOCUMENTS FOR ANY WORK RELATED TO BUILDINGS AND OTHER VERTICAL ELEMENTS FOR SPECIFIC SITE IMPROVEMENT AND FILL REQUIREMENTS. THIS PLAN ONLY COVERS SITE RELATED IMPROVEMENTS AND INFRASTRUCTURE. REFER TO PAVEMENT SECTION DETAILS FOR MATERIAL AND COMPACTION REQUIREMENTS OF PAVEMENT SUBGRADE.
5. ALL UNDERGROUND UTILITIES INCLUDING CONDUIT FOR ELECTRICAL, CABLE TV, AND TELEPHONE SHALL BE INSTALLED PRIOR TO PAVEMENT CONSTRUCTION.
6. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY PROBLEMS REQUIRING DEVIATION FROM THESE PLANS AND SPECIFICATIONS.
7. THE CONTRACTOR SHALL SUBMIT DETAILED SHOP DRAWINGS OF ALL MAJOR ITEMS PROPOSED FOR THIS PROJECT TO THE ENGINEER PRIOR TO ORDERING ANY OF THE EQUIPMENT. UPON THE CONTRACTOR'S RECEIPT OF APPROVED SHOP DRAWINGS FROM THE ENGINEER, THE CONTRACTOR MAY PROCEED WITH THE WORK.
8. ALL DISTURBED AREAS MUST BE SODDED UNLESS OTHERWISE NOTED ON THE PLANS. ALL SODDING MUST BE DONE IN ACCORDANCE WITH SECTION 570 OF THE FLORIDA DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION, LATEST EDITION.
9. PROVIDE HANDICAP ACCESS WHERE SIDEWALKS MEET CURBS.

EROSION CONTROL NOTES:

1. ALL EROSION AND SEDIMENT CONTROL WORK SHALL CONFORM WITH CITY OF WINTER SPRINGS SPECIFICATIONS, SUBJECT TO AUTHORIZED AND APPROVED VARIANCES, WAIVERS AND/OR CONDITIONAL CHANGES.
2. EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CONSTRUCTION. SEDIMENT CONTROL PRACTICES WILL BE APPLIED AS A PERIMETER DEFENSE AGAINST ANY TRANSPORTATION OF SILT OFF THE SITE.
3. CONTRACTOR SHALL SUBMIT AN EROSION CONTROL PLAN AT THE PRE-CONSTRUCTION MEETING. THE CONTRACTOR SHALL USE BEST MANAGEMENT PRACTICES IN CONTROLLING EROSION AND SEDIMENTATION DURING CONSTRUCTION.
4. ALL CLEARED AREAS FOR IMPROVEMENT AND/OR CONSTRUCTION SHALL BE WATERED TO PREVENT WIND EROSION.
5. PRIOR TO LAND CLEARING THE CONTRACTOR SHALL PROVIDE TREE PROTECTION BARRIERS TO MEET THE REQUIREMENTS OF CITY OF WINTER SPRINGS.
6. THE CONTRACTOR SHALL SELECTIVELY CLEAR ONLY THE AREAS REQUIRED FOR CONSTRUCTION AND STABILIZE ANY POTENTIAL EROSION AREAS IMMEDIATELY FOLLOWING COMPLETION OF CONSTRUCTION.

WATER & SEWER UTILITY NOTES:

1. CONTRACTOR SHALL COORDINATE WITH CITY OF WINTER SPRINGS FOR CONSTRUCTION OF THE WATER AND SEWER SYSTEMS. ALL MATERIAL AND WORKMANSHIP SHALL CONFORM TO THEIR SPECIFICATIONS AND REQUIREMENTS, AS APPLICABLE AND WILL BE SUBJECT TO THEIR INSPECTION AND ACCEPTANCE.
2. CONTRACTOR SHALL COORDINATE ALL WATER AND SEWER SYSTEM TEST SCHEDULING TO ALLOW ENGINEER'S ATTENDANCE AND PROVIDE FIVE (5) WORKING DAYS NOTICE OF WATER AND SEWER TESTS. CONTRACTOR'S FAILURE TO PROPERLY NOTIFY ENGINEER MAY RESULT IN RETESTING AT ENGINEER'S OPTION AND AT CONTRACTOR'S EXPENSE.
3. ENGINEER RESERVES THE RIGHT TO WITHHOLD APPROVAL FOR ANY PORTION OF THE WATER OR SEWER PIPE WORK WHICH HAS NOT BEEN TESTED (OBSERVED BY ENGINEER) AND REPORTED TO CONFORM TO PROJECT SPECIFICATIONS.
4. SITE CONTRACTOR SHALL COORDINATE AND VERIFY ALL UTILITY SERVICES WITH FINAL ARCHITECTURAL DRAWINGS AND BUILDING CONTRACTOR.
5. CONTRACTOR SHALL VERIFY SIZE AND TYPE OF EXISTING MAIN PRIOR TO ORDERING TAPPING MATERIALS FOR TIE-INS.
6. CONTRACTOR SHALL MAINTAIN A SET OF RECORD DRAWINGS MARKED UP WITH HORIZONTAL AND VERTICAL AS-BUILT INFORMATION ON LOCATION OF WATER MAINS, FITTINGS, AND WATER SERVICES LOCATED FROM CENTERLINE OF NEAREST FIRE HYDRANT OR NEAREST MANHOLE.
7. SITE UTILITY WORK SHALL TERMINATE 5 FEET FROM BUILDINGS UNLESS OTHERWISE STATED.
8. CONTRACTOR SHALL NOT ACTIVATE WATER SERVICE UNTIL THE CITY OF WINTER SPRINGS AND FDEP HAS CLEARED THE SYSTEM FOR USE AND THE CLEARANCE LETTER HAS BEEN RECEIVED BY THE OWNER.

F.D.E.P. CONSTRUCTION NOTES:

UTILITY SEPARATION – VERTICAL CLEARANCE:

1. NEW OR RELOCATED, UNDERGROUND WATER MAINS THAT ARE INCLUDED IN THIS PROJECT AND THAT WILL CROSS ANY EXISTING OR PROPOSED GRAVITY -OR VACUUM- TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES ABOVE THE OTHER PIPELINE OR AT LEAST 12" BELOW THE OTHER PIPELINE; AND NEW OR RELOCATED, UNDERGROUND WATER MAINS THAT ARE INCLUDED IN THIS PROJECT AND THAT WILL CROSS ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OTHER PIPELINE.
2. AT THE UTILITY CROSSINGS DESCRIBED ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE OR THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.; AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY- OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.

UTILITY SEPARATION HORIZONTAL SEPARATION:

1. NEW OR RELOCATED, UNDERGROUND WATER MAINS INCLUDED IN THIS PROJECT SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER, STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III CHAPTER 62-610, F.A.C.; A HORIZONTAL DISTANCE OF AT LEAST SIX FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY-TYPE SANITARY SEWER (OR A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY-TYPE SANITARY SEWER IF THE BOTTOM OF THE WATER MAIN WILL BE LAID AT LEAST (6") SIX INCHES ABOVE THE TOP OF THE SEWER); A HORIZONTAL DISTANCE OF AT LEAST SIX FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.; AND A HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM."
2. THE CONTRACTOR SHALL PERFORM HYDROSTATIC TESTING OF ALL NEWLY-INSTALLED WATER DISTRIBUTION SYSTEM IN ACCORDANCE WITH THE CITY OF WINTER SPRINGS & IN ACCORDANCE WITH AWWA STANDARD C600 FOR DUCTILE-IRON PIPE. TESTING SHALL BE IN ACCORDANCE WITH AWWA MANUAL M23 FOR PVC PIPE.
3. THE CONTRACTOR SHALL DISINFECT ALL SECTIONS OF THE WATER DISTRIBUTION SYSTEM IN ACCORDANCE WITH THE F.D.E.P. WATER PERMIT, & RECEIVE APPROVAL THEREOF FROM THE LOCAL WATER UTILITY, ENGINEER OF RECORD, & F.D.E.P., PRIOR TO PLACING IN SERVICE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN COPIES OF THE F.D.E.P. WATER & SEWER PERMITS FROM THE PERMITS FROM THE OWNER & MAINTAIN THEM ON THE JOB SITE AT ALL TIMES. DISINFECTION OF THE WATER DISTRIBUTION SYSTEM SHALL SYSTEM SHALL BE PERFORMED IN ACCORDANCE WITH AWWA 651 "DISINFECTING WATER MAINS". SHALL BE PERFORMED IN ACCORDANCE WITH AWWA 651 "DISINFECTING WATER MAINS".

CONNECTION TO EXISTING WATER MAINS:

1. IF CONNECTION OF THE PROPOSED ACTIVITY TO THE WATER MAIN WILL RESULT IN DEPRESSURIZATION OF THE EXISTING SYSTEM BELOW 20 POUNDS PER SQUARE INCH, ONE OF THE FOLLOWING MUST OCCUR:
   A. PRECAUTIONARY BOIL WATER NOTICES MUST BE ISSUED IN CASES OF PLANNED DISTRIBUTION INTERRUPTIONS, WHICH DEEMED AN IMMINENT PUBLIC HEALTH THREAT BY THE D.E.P., CENTRAL DISTRICT OR WILL AFFECT BACTERIOLOGICAL QUALITY OF THE DRINKING WATER UNLESS THE PUBLIC WATER SYSTEM CAN DEMONSTRATE, BY SOUND ENGINEERING JUDGMENT, THAT THE INTEGRITY OF THE WATER QUALITY ARE EXPECTED TO OCCUR & NOT DEEMED AN IMMINENT PUBLIC HEALTH RISK.
   B. IN CASES OF BRIEF INTERRUPTION IN SERVICE, ADVISORIES (NOT BOIL WATER NOTICES) SHOULD BE ISSUED IF TEMPORARY CHANGES IN WATER QUALITY ARE EXPECTED TO OCCUR & NOT DEEMED AN IMMINENT PUBLIC HEALTH RISK.

FILLING OF WATERMAINS:

1. FILLING OF PROPOSED WATER MAINS FROM EXISTING WATER MAINS WILL BE DONE IN ACCORDANCE WITH AWWA SPECIFICATIONS C651.

SPECIAL NOTICE:
THE CITY OF WINTER SPRINGS REQUIRES A GREATER HORIZONTAL AND VERTICAL SEPARATION THAN WHAT IS SHOWN ABOVE FOR F.D.E.P. CITY OF WINTER SPRINGS WATER AND SEWER DESIGN AND CONSTRUCTION SPECIFICATIONS STATES THE HORIZONTAL SEPARATION BETWEEN SANITARY SEWER AND EXISTING OR PROPOSED WATER MAINS SHALL NOT BE LESS THAN 10 FEET. THE VERTICAL SEPARATION BETWEEN SEWER PIPES AND EXISTING PROPOSED WATER MAINS SHALL NOT BE LESS THAN 18 INCHES. SPECIAL CONSIDERATIONS WILL BE GIVEN FOR EACH CASE WHERE THIS IS NOT POSSIBLE. CONTACT THE CITY OF WINTER SPRINGS UTILITY DEPARTMENT FOR SPECIAL REQUIREMENTS.

MATERIAL SPECIFICATIONS:

PAVING, GRADING, & DRAINAGE:

1. PAVING MATERIALS SHALL CONFORM WITH LATEST F.D.O.T. ROAD AND BRIDGE CONSTRUCTION STANDARD PLANS, LATEST EDITION.
2. STORM DRAINS SHALL BE REINFORCED CONCRETE PIPE, PER ASTM C-76 CLASS III, UNLESS OTHERWISE SPECIFIED. LIFTING HOLES ARE PROHIBITED.
3. ALL STORM STRUCTURES SHALL CONFORM WITH LATEST F.D.O.T. ROAD AND BRIDGE CONSTRUCTION STANDARD PLANS EXCEPT THAT DITCH BOTTOM INLETS IN PAVED AREAS SHALL HAVE TRAVERSABLE, TRAFFIC BEARING, GRATES SUPPORTED BY STEEL ANGLE SEATS OR SUPPORTED ON FOUR SIDES. GRATES SHALL BE CAST IRON UNLESS BICYCLE TRAFFIC IS ANTICIPATED.
4. ALL TYPE "P" STRUCTURE BOTTOMS SHALL BE ROUND UNLESS OTHERWISE SPECIFIED & SHALL HAVE 4 FEET MINIMUM DIAMETER.

WATER AND SEWER SPECIFICATIONS:

1. THE CONTRACTOR SHALL PROVIDE WATER AND SEWER MATERIAL AND INSTALL THEM IN ACCORDANCE WITH THE CITY OF WINTER SPRINGS WATER & SEWER DESIGN & CONSTRUCTION SPECIFICATIONS.

LEGEND

SITE

- POLE SIGN
- SMALL PYLON SIGN
- LARGE PYLON SIGN
- RIGHT TURN DIRECTIONAL ARROW
- STRAIGHT DIRECTIONAL ARROW
- LEFT TURN DIRECTIONAL ARROW
- STRAIGHT AND LEFT TURN DIRECTIONAL ARROW
- STRAIGHT AND RIGHT TURN DIRECTIONAL ARROW
- HANDICAP PARKING SYMBOL
- F.D.O.T. TYPE "D" CURB
- F.D.O.T. TYPE "F" CURB AND GUTTER
- GATE VALVE BOX, WV= WATER, FV=FIRE, IV=IRRIGATION, & SSV=SANITARY SEWER
- CHAINLINK FENCE
- DECORATIVE WOOD OR ALUMINUM FENCE
- BARB WIRE FENCE
- HANDRAIL
- SCREEN/RETAINING WALL, AS NOTED.
- BIKE RACK
- PARKING COUNT SYMBOL PER ROW
- ROAD CENTERLINE SYMBOL

GRADING & DRAINAGE

- F.D.O.T. TYPE "C" DRAINAGE INLET
- F.D.O.T. TYPE "D" DRAINAGE INLET
- F.D.O.T. TYPE "E" DRAINAGE INLET
- F.D.O.T. TYPE "1" DRAINAGE INLET
- F.D.O.T. TYPE "2" DRAINAGE INLET
- F.D.O.T. TYPE "3" DRAINAGE INLET
- F.D.O.T. TYPE "4" DRAINAGE INLET
- F.D.O.T. TYPE "5" DRAINAGE INLET
- F.D.O.T. TYPE "6" DRAINAGE INLET
- STORM DRAINAGE MANHOLE
- MITERED END SECTION
- STORM DRAINAGE PIPE
- DRAINAGE FLOW DIRECTIONAL ARROW
- DRAINAGE STRUCTURE BUBBLE (S-1)
- GRADE ELEVATION (ELEV. IS / ELEV. TO)
- CONTOUR ELEVATION (90)
- EROSION CONTROL SILT FENCE

UTILITY

- DCDA – DOUBLE CHECK DETECTOR ASSEMBLY
- DCVA – DOUBLE CHECK VALVE ASSEMBLY
- RPZ – REDUCED PRESSURE ZONE DEVICE
- DOMESTIC METER
- IRRIGATION METER
- GATE VALVE
- BLOW-OFF GATE VALVE
- REDUCER
- WET WELL
- 11.25° PIPE BEND
- 22.5° PIPE BEND
- 30° PIPE BEND
- 45° PIPE BEND
- 60° PIPE BEND
- 90° PIPE BEND
- TEE
- CROSS
- FIRE HYDRANT ASSEMBLY W/ UNOBSTRUCTED AREA CLEARANCES AS REQUIRED BY FIRE MARSHALL
- FIRE DEPARTMENT CONNECTION
- CLEAN OUT
- LIFT STATION
- GREASE TRAP
- SITE LIGHTING
- DECORATIVE SITE LIGHTING
- UTILITY POLE

DATE	REVISIONS	BY	CHECKED
10/16/2025	1 PER SJRWMD COMMENTS DATED ON 10/03/2025	ET	SJS
11/12/2025	2 PER SJRWMD COMMENTS DATED ON 11/6/2025	WRH	WRH
03/04/2026	3 PER CITY COMMENTS DATED ON 9/6/2025	JT	SJS
03/04/2026	4 PER CLIENT REQUEST	JT	SJS

FINAL DEVELOPMENT PLAN
CHAU COMMERCIAL BUILDING
EAST STATE ROAD 434
WINTER SPRINGS, FLORIDA

FEG FLORIDA ENGINEERING GROUP
now part of THOMAS & HUTTON
5127 S. Orange Avenue, Suite 200
Orlando, FL 32809
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www.thomasandhutton.com

LEGEND, NOTES, AND SPECIFICATIONS

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
SJS	JT	SJS	SJS

PROJECT NO. 25-053
SCALE NOTED
DATE AUGUST, 2025
SHEET NO. C-3
SHEET 4 OF 18

FLORIDA ENGINEERING GROUP, INC.
CERTIFICATE No. EB-0000595
SAMIR J. SEBAALI
No 42075
STATE OF FLORIDA
PROFESSIONAL ENGINEER
NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:
SAM J. SEBAALI, P.E.
ON THE DATE ADJACENT TO THE SEAL.

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

25-053_GeneralNotes.dwg

DEMOLITION KEYNOTES

(1, C-4B) D1. TYPE "III" SILT FENCE EROSION CONTROL BARRIER, TYPICAL.

(1, C-4B) D2A. SYNTHETIC EROSION CONTROL BARRIER, TYPICAL.

D2B. INLET PROTECTION BARRIER TO CONSIST OF PERMEABLE FILTER FABRIC BELOW GRATE, TYPICAL.

D3. 25'x50' GRAVEL CONSTRUCTION ENTRANCE.

D4. REMOVE EXISTING CURB.

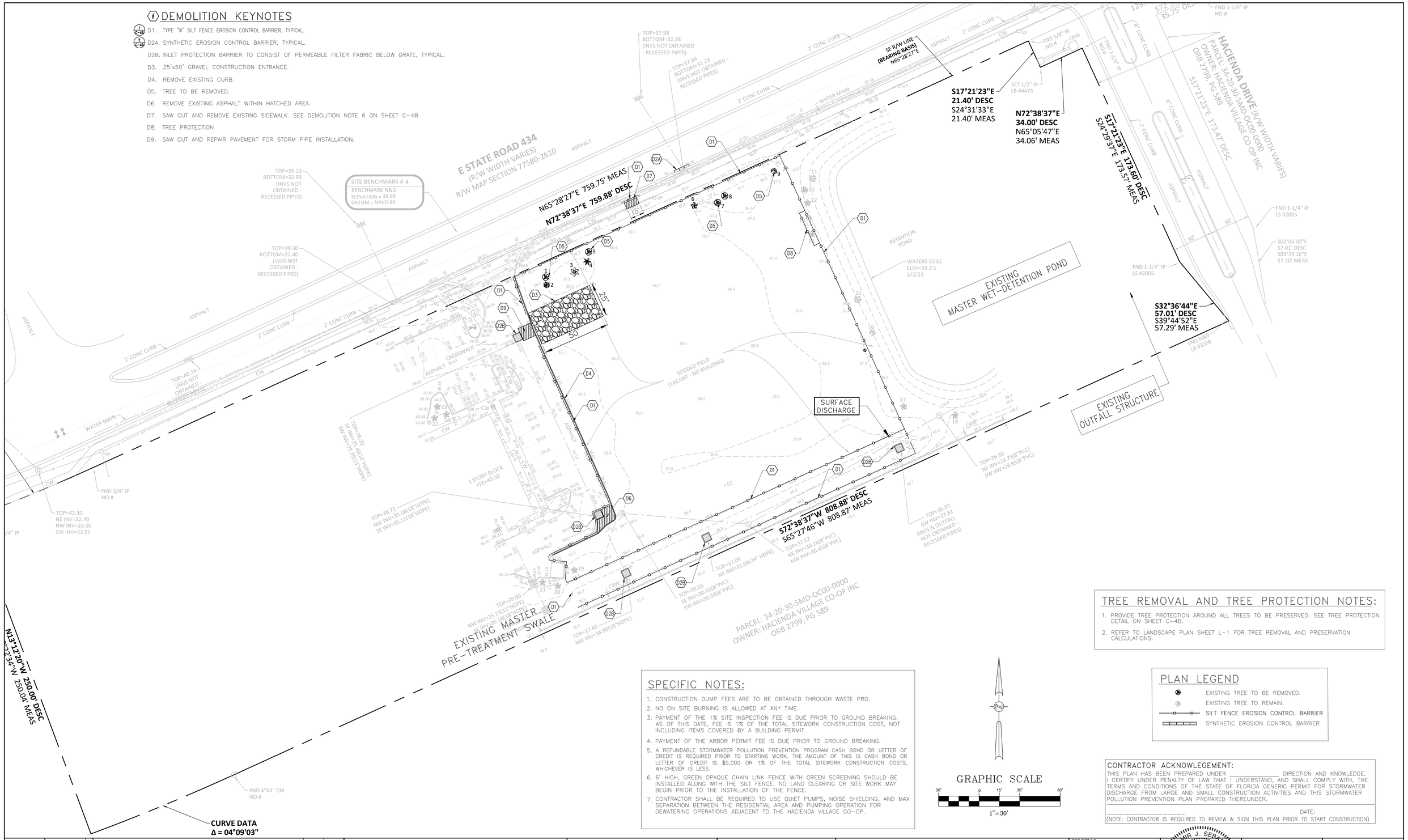
D5. TREE TO BE REMOVED.

D6. REMOVE EXISTING ASPHALT WITHIN HATCHED AREA.

D7. SAW CUT AND REMOVE EXISTING SIDEWALK. SEE DEMOLITION NOTE 6 ON SHEET C-4B.

D8. TREE PROTECTION

D9. SAW CUT AND REPAIR PAVEMENT FOR STORM PIPE INSTALLATION.



SPECIFIC NOTES:

1. CONSTRUCTION DUMP FEES ARE TO BE OBTAINED THROUGH WASTE PRO.
2. NO ON SITE BURNING IS ALLOWED AT ANY TIME.
3. PAYMENT OF THE 1% SITE INSPECTION FEE IS DUE PRIOR TO GROUND BREAKING. AS OF THIS DATE, FEE IS 1% OF THE TOTAL SITEWORK CONSTRUCTION COST, NOT INCLUDING ITEMS COVERED BY A BUILDING PERMIT.
4. PAYMENT OF THE ARBOR PERMIT FEE IS DUE PRIOR TO GROUND BREAKING.
5. A REFUNDABLE STORMWATER POLLUTION PREVENTION PROGRAM CASH BOND OR LETTER OF CREDIT IS REQUIRED PRIOR TO STARTING WORK. THE AMOUNT OF THIS IS CASH BOND OR LETTER OF CREDIT IS $5,000 OR 1% OF THE TOTAL SITEWORK CONSTRUCTION COSTS, WHICHEVER IS LESS.
6. 6' HIGH, GREEN OPAQUE CHAIN LINK FENCE WITH GREEN SCREENING SHOULD BE INSTALLED ALONG WITH THE SILT FENCE. NO LAND CLEARING OR SITE WORK MAY BEGIN PRIOR TO THE INSTALLATION OF THE FENCE.
7. CONTRACTOR SHALL BE REQUIRED TO USE QUIET PUMPS, NOISE SHIELDING, AND MAX SEPARATION BETWEEN THE RESIDENTIAL AREA AND PUMPING OPERATION FOR DEWATERING OPERATIONS ADJACENT TO THE HACIENDA VILLAGE CO-OP.

GRAPHIC SCALE

30' 0 15' 30' 60'

1"=30'

TREE REMOVAL AND TREE PROTECTION NOTES:

1. PROVIDE TREE PROTECTION AROUND ALL TREES TO BE PRESERVED. SEE TREE PROTECTION DETAIL ON SHEET C-4B.
2. REFER TO LANDSCAPE PLAN SHEET L-1 FOR TREE REMOVAL AND PRESERVATION CALCULATIONS.

PLAN LEGEND

- EXISTING TREE TO BE REMOVED.
- EXISTING TREE TO REMAIN.
- SILT FENCE EROSION CONTROL BARRIER
- SYNTHETIC EROSION CONTROL BARRIER

CONTRACTOR ACKNOWLEGEMENT:

THIS PLAN HAS BEEN PREPARED UNDER _____ DIRECTION AND KNOWLEDGE. I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND, AND SHALL COMPLY WITH, THE TERMS AND CONDITIONS OF THE STATE OF FLORIDA GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES AND THIS STORMWATER POLLUTION PREVENTION PLAN PREPARED THEREUNDER.

_____ DATE:

(NOTE: CONTRACTOR IS REQUIRED TO REVIEW & SIGN THIS PLAN PRIOR TO START CONSTRUCTION)

DATE	REVISIONS	BY	CHECKED
10/16/2025	1 PER SJRWMD COMMENTS DATED ON 10/03/2025	ET	SJS
11/12/2025	2 PER SJRWMD COMMENTS DATED ON 11/6/2025	WRH	WRH
03/04/2026	3 PER CITY COMMENTS DATED ON 9/6/2025	JT	SJS
03/04/2026	4 PER CLIENT REQUEST	JT	SJS

FINAL DEVELOPMENT PLAN
CHAU COMMERCIAL BUILDING
EAST STATE ROAD 434
WINTER SPRINGS, FLORIDA

FEG FLORIDA ENGINEERING GROUP
now part of
THOMAS & HUTTON

5127 S. Orange Avenue, Suite 200
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SITE DEMOLITION & STORMWATER POLLUTION PREVENTION PLAN

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
SJS	JT	SJS	SJS

PROJECT NO. 25-053
SCALE 1"=30'
DATE AUGUST, 2025
SHEET NO. C-4A
SHEET 5 OF 18

FLORIDA ENGINEERING GROUP, INC.
CERTIFICATE No. EB 0006595
SAM J. SEBAALI
No 42075
STATE OF FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:
SAM J. SEBAALI, P.E.
ON THE DATE ADJACENT TO THE SEAL.

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25-053_Demo.dwg

EROSION CONTROL SITE DESCRIPTION NOTES:

1. THE PROPOSED CONSTRUCTION ACTIVITY WILL ENTAIL THE CLEARING & GRUBBING OF A 1.3± ACRE SITE LOCATED AT EAST ESTATE ROAD 434 AND HACIENDA DRIVE FOR CONSTRUCTION OF A COMMERCIAL BUILDING WITH ITS ASSOCIATED PARKING, DRAINAGE & UTILITIES.

2. THE SEQUENCE OF SOILS DISTURBANCE ACTIVITY IS AS FOLLOWS:

   A. ALL EROSION AND SEDIMENT CONTROL BMP'S SHOWN ON THE PLANS SHALL BE INSTALLED AND IMPLEMENTED PRIOR TO ANY SOIL DISTURBANCE. THIS INCLUDES INSTALLATION OF ALL SILT FENCES, INLET PROTECTION, TREE PROTECTION, STABILIZED CONSTRUCTION ENTRANCE, AND OTHER MEASURES AS SHOWN ON THE PLANS OR REQUIRED TO PREVENT SEDIMENT TRANSPORT TO OFFSITE AREAS.

   B. ROUGH GRADE TEMPORARY SEDIMENTATION BASIN(S).

   C. CLEAR & GRUB THE AREA TO BE DISTURBED. ENSURE THAT DRAINAGE FROM SITE DURING CONSTRUCTION IS CONVEYED TO THE POND(S) OR TEMPORARY SEDIMENTATION BASIN(S). ALL DRY RETENTION PONDS SHALL BE CLEANED OF SEDIMENTS AND THEIR BOTTOMS SCARIFIED ONCE THE SITE IS VEGETATED AND EARTH DISTURBANCE ACTIVITIES HAVE CEASED.

   D. PLACE FILL ON-SITE TO BRING THE SITE UP TO THE PROPOSED GRADES.

   E. BEGIN COMPACTION / STABILIZATION PROCESS.

3. THE TOTAL SITE AREA IS 5.2 ACRES & THE AREA TO BE DISTURBED IS APPROXIMATELY 1.3 ACRES.

4. THE EXISTING SOILS ARE 10-BASINGER, SAMSULA, HONTOON SOILS - HSG - A/D AND 20-MYARKA AND EAUGALLIE - HSG - A/D . THE QUALITY OF THE STORMWATER DISCHARGE IS CONSISTENT WITH THE RUNOFF GENERATED BY A COMMERCIAL SITE.

5. THE TOTAL DRAINAGE AREA FOR THE PROJECT IS APPROXIMATELY 5.2 ACRES.

6. THE LATITUDE & LONGITUDE FOR THE DISCHARGE POINTS IS LAT: 28°41'57.40"N LONG: 81°17'56.70"W. THE RECEIVING WATER BODY IS AN EXISTING WET-DETENTION POND DESIGNED TO RECEIVE DRAINAGE FROM THE SITE. THE POND DISCHARGES TO THE HACIENDA DRAINAGE SYSTEM WHICH DISCHARGES TO GEE CREEK, WHICH EVENTUALLY DISCHARGES TO LAKE JESUP.

7. WASTE DISPOSAL SHALL BE IMPLEMENTED IN ACCORDANCE WITH LOCAL, STATE & FEDERAL REGULATIONS. ALL TRUCKS EXITING THE SITE WILL BE HOSED, ITS LOAD COVERED and THE COVER PROPERLY SECURED. THE STORAGE, APPLICATION, GENERATION & MIGRATION OF ALL FERTILIZERS, HERBICIDES, PESTICIDES & TOXIC MATERIAL SHALL BE IN ACCORDANCE W/ LOCAL, STATE & FEDERAL REGULATIONS.

8. CONTRACTOR SHALL IDENTIFY THE INDIVIDUAL(S) RESPONSIBLE FOR THE WEEKLY & REQUIRED INSPECTIONS. A REPORTING SYSTEM ENTAILING THE ITEMS TO BE INSPECTED & THEIR CONDITION SHOULD BE DOCUMENTED & PLACED IN A DEDICATED FILING SYSTEM THAT WILL REMAIN ON THE PROJECT SITE, ACCESSIBLE TO THE CONSTRUCTION TEAM & TO THE F.D.E.P. INSPECTORS. 9. INSPECTIONS: CONSTRUCTION SITE WILL BE INSPECTED FOR EROSION PROBLEMS DAILY AND AFTER AFTER EACH RAINFALL GREATER THAN 0.5 INCH. A RAIN GAUGE WILL BE ON SITE TO MEASURE THE RAINFALL AMOUNT.

9. INSPECTIONS: CONSTRUCTION SITE WILL BE INSPECTED FOR EROSION PROBLEMS DAILY AND AFTER AFTER EACH RAINFALL GAUGE WILL BE ON SITE TO MEASURE THE RAINFALL AMOUNT. THE CONTRACTOR SHALL DETERMINE THE EFFECTIVENESS OF EROSION AND SEDIMENT CONTROL EFFORTS. ANY NECESSARY REMEDIES SHALL BE PERFORMED IMMEDIATELY.

EROSION CONTROL NOTES:

1. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE, & LOCAL CODES, ORDINANCES, & REGULATIONS GOVERNING POLLUTION OF THE ENVIRONMENT & SHALL IMPLEMENT ALL MEASURES NEEDED TO ENSURE ADEQUATE EROSION & SEDIMENT CONTROL DURING THE ENTIRE DURATION OF CONSTRUCTION. EROSION & SEDIMENT CONTROL MEASURES SHALL CONFORM TO CITY OF WINTER SPRINGS, ST. JOHNS RIVER WATER MANAGEMENT DISTRICT, FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, & FLORIDA DEPARTMENT OF TRANSPORTATION REQUIREMENTS. INSTALLATION OF SILT FENCES & TURBIDITY BARRIERS SHALL BE IN ACCORDANCE WITH F.D.O.T. ROADWAY & TRAFFIC DESIGN STANDARDS & STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION, LATEST EDITION.

2. EROSION & SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CONSTRUCTION. EROSION & SEDIMENT CONTROL MEASURES ARE TO BE APPLIED AS A PERIMETER DEFENSE AGAINST THE TRANSPORTATION OF SILT & SEDIMENTS OFF THE PROJECT SITE OR INTO ADJACENT WATER BODIES OR WETLANDS.

3. THE CONTRACTOR SHALL PREPARE & IMPLEMENT AN EROSION CONTROL PLAN AS PART OF THE SCOPE OF WORK COVERED BY THESE PLANS. THE CONTRACTOR SHALL USE BEST MANAGEMENT PRACTICES IN CONTROLLING EROSION & SEDIMENT TRANSPORT DURING CONSTRUCTION. THE FLORIDA DEVELOPMENT MANUAL "A GUIDE TO SOUND LAND & WATER MANAGEMENT" MAY BE USED AS REFERENCE FOR RECOMMENDED BEST MANAGEMENT PRACTICES RELATED TO EROSION & SEDIMENT CONTROL.

4. THE CONTRACTOR SHALL SUBMIT THE EROSION CONTROL PLAN TO THE OWNER AND CITY OF WINTER SPRINGS FOR REVIEW AND APPROVAL PRIOR TO THE PRE-CONSTRUCTION MEETING.

5. ALL EROSION & SEDIMENT CONTROL MEASURES WHICH ARE NECESSARY TO LIMIT THE TRANSPORT OF SILTS & SEDIMENTS TO OUTSIDE THE LIMITS OF THE WORK AREA OR TO WATER BODIES OR WETLANDS ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL PROVIDE BEST MANAGEMENT PRACTICES & IMPLEMENT STRUCTURAL MEASURES AS NEEDED TO PREVENT EROSION & SEDIMENT TRANSPORT FROM THE WORK AREAS. THE FOLLOWING ARE MINIMUM RECOMMENDED GUIDELINES TO BE IMPLEMENTED DURING CONSTRUCTION AS PART OF THE EROSION & SEDIMENT CONTROL PLAN:

   A. STOCKPILING OF MATERIAL

      NO EXCAVATED MATERIAL SHALL BE STOCKPILED IN SUCH A MANNER AS TO DIRECT RUNOFF DIRECTLY OFF THE PROJECT SITE OR INTO ANY ADJACENT WATER BODY OR STORMWATER COLLECTION FACILITY. SILT FENCES AND/ OR OTHER APPROPRIATE SEDIMENTATION CONTROL MEASUREMENTS AS NEEDED TO PREVENT SEDIMENTATION TRANSPORT FROM STOCKPILES SHALL BE IMPLEMENTED BY THE CONTRACTOR.

   B. EXPOSED AREA LIMITATION & PROTECTION

      THE SURFACE AREA OF OPEN, RAW ERODIBLE SOIL EXPOSED BY CLEARING & GRUBBING OPERATIONS OR EXCAVATION & FILLING OPERATIONS SHALL BE LIMITED AS NEEDED TO MINIMIZE THE POTENTIAL OF OFF-SITE SEDIMENT TRANSPORT. ALL EXPOSED AREAS SHALL BE PROTECTED BY INSTALLING EFFECTIVE EROSION & SEDIMENT CONTROL MEASURES SUCH AS SILT SCREENS, SYNTHETIC BALES, TURBIDITY BARRIERS, SWALES, OR A COMBINATION OF THESE & OTHER MEASURES AS WARRANTED.

   C. INLET PROTECTION

      INLETS & CATCH BASINS SHALL BE PROTECTED DURING CONSTRUCTION FROM SEDIMENT LADEN STORMWATER RUNOFF BY PROVIDING A COMBINATION OF SILT SCREENS, SYNTHETIC BALES, FILTER FABRIC COVERS OR OTHER MEASURES AS NECESSARY TO CONTROL THE TRANSPORT OF SEDIMENT.

   D. TEMPORARY GRASSING

      AREAS OPENED BY CONSTRUCTION OPERATIONS THAT ARE NOT ANTICIPATED TO BE DRESSED OR RECEIVE FINAL GRASSING TREATMENT WITHIN THIRTY DAYS SHALL BE SEEDED WITH A QUICK GROWING GRASS SPECIES WHICH WILL PROVIDE AN EARLY COVER DURING THE SEASON IN WHICH IT IS PLANTED. TEMPORARY SEEDING SHALL BE CONTROLLED AS TO NOT ALTER OR COMPETE WITH PERMANENT GRASSING. SLOPES STEEPER THAN 6:1 SHALL ADDITIONALLY RECEIVE MULCHING OF APPROXIMATELY 2 INCHES OF LOOSE MEASURE OF MULCH MATERIAL CUT INTO THE SOIL OF THE SEEDED AREA TO A DEPTH OF 4 INCHES. THE SEEDED OR SEEDED & MULCHED AREAS SHALL BE ROLLED & WATERED AS NEEDED TO ENSURE OPTIMUM GROWING CONDITIONS FOR THE ESTABLISHMENT OF A GOOD GRASS COVER. IF AFTER 14 DAYS, THE TEMPORARY GRASSED AREAS HAVE NOT ATTAINED A MINIMUM OF 75% OF GOOD GRASS COVER, THE AREAS WILL BE REWORKED & ADDITIONAL SEED APPLIED TO ESTABLISH THE DESIRED VEGETATION COVER. REWORKED & ADDITIONAL SEED APPLIED

   E. MAINTENANCE

      EROSION & SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED DURING THE ENTIRE DURATION OF CONSTRUCTION. THE CONTRACTOR SHALL INSPECT THE EROSION & CONTROL MEASURES ON A WEEKLY BASIS & 24 HOURS FOLLOWING RAINFALL EVENTS (0.5" OR GREATER) & IMMEDIATELY REPAIR ANY OBSERVED DAMAGED CONTROLS. ALL EROSION & SEDIMENT CONTROLS SHALL BE MAINTAINED AS TO FUNCTION PROPERLY WITHOUT THE TRANSPORT OF SEDIMENTS OUTSIDE THE LIMITS OF THE PROJECT.

6. AREAS OF SOILS DISTURBANCE IS LIMITED TO THE AREA WITHIN THE SILT FENCE LIMITS AS SHOWN ON THIS PLAN.

7. ALL DISTURBED PERVIOUS AREAS WILL BE SODDED, UNLESS OTHERWISE NOTED.

DUST CONTROL & PREVENTION:

THE SURFACE AREA OF OPEN, RAW ERODIBLE SOILS EXPOSED BY CLEARING & GRUBBING OPERATIONS OR EXCAVATION & FILLING OPERATIONS SHALL BE LIMITED AS NEEDED TO MINIMIZE THE POTENTIAL OF DUST PRODUCTION. IN ADDITION,

1. ALL EXPOSED AREAS SHALL BE PROTECTED BY INSTALLING DUST CONTROL CONTROL MEASURES SUCH AS STABLIZING EXPOSED SOILS USING VEGETATION, MULCHING, SPRAY-ON ADHESIVES, CALCIUM CHLORIDE, WET SUPRESSION (WATERING) AND STONE/GRAVEL LAYERING AS APPLICABLE FOR THE PROJECT AND DEEMED NEECESSARY BY THE CONTRACTOR TO CONTROL DUST.

2. ONSITE VEHICLE TRAFFIC SHOULD BE LIMITED TO A MAXIMUM 15 MPH SPEED, AND THE NUMBER AND ACTIVITY OF VEHICLES SHOULD BE CONROLLED AT ANY GIVEN TIME.

3. A MOBLE UNIT SHOULD BE AVAILABLE TO APPLY WATER TO CONTROL DUST WHEN NEEDED.

4. COVERS SHALL BE PROVIDED FOR ALL HAUL TRUCKS TRASPORTING MATERIALS THAT CONTRIBUTE TO DUST.

5. IF CHEMICAL STABILIZATION METHOD IS USED, THE CHEMICALS SHOULD BE APPROVED FOR USE BY THE APPROPRIATE REGULATORY AGENCIES AND SHALL NOT CREATE ANY ADVERSE IMPACTS TO STORMWATER, PLANT LIFE, WATER BODIES, GROUNDWATER, OR FISH AND WILDLIFE.

DEMOLITION NOTES

1. THE LOCATIONS, ELEVATIONS, & DIMENSIONS OF EXISTING UTILITIES & OTHER FEATURES ARE SHOWN ON THE PLANS ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PLAN PREPARATION. THE CONTRACTOR SHALL VERIFY THE LOCATIONS, ELEVATIONS, & DIMENSIONS OF ALL EXISTING UTILITIES & OTHER FEATURES AFFECTING THE WORK PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY FEG OF ANY DISCREPANCIES WHICH MAY AFFECT THE PROPOSED WORK.

2. THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES BEFORE EXCAVATION.

3. THE CONTRACTOR SHALL, PRIOR TO INITIATION OF ANY SITE CLEARING OR OTHER CONSTRUCTION ACTIVITIES, INSTALL SILT SCREENS DOWNSTREAM OF ALL AREAS WHICH HAVE POTENTIAL OF EROSION OR SEDIMENT TRANSPORT OFFSITE OR TO WATER BODIES. THE CONTRACTOR SHALL IMPLEMENT OTHER STRUCTURAL EROSION CONTROL MEASURES IF REQUIRED TO PREVENT SEDIMENT TRANSPORT TO OFF-SITE AREAS & WATER BODIES.

4. ALL TRASH, DEBRIS, & OTHER MATERIAL REMOVED FROM THE SITE SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH ALL LOCAL, STATE, & FEDERAL REGULATIONS.

5. ANY EXCAVATED TRENCHES ARE TO BE BACKFILLED WITH CLEAN SAND COMPACTED TO AT LEAST 95% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY VALUE (AASHTO T-180). REFER TO GEOTECHNICAL REPORT FOR SPECIFIC COMPACTION REQUIREMENTS UNDER BUILDING & OTHER STRUCTURES.

6. ALL EXISTING CONCRETE TO BE REMOVED SHALL BE SAWCUT & REMOVED @ THE FIRST AVAILABLE GOOD JOINT & REPLACED TO MATCH EXISTING.

7. THE CONTRACTOR SHALL CONTACT THE GAS UTILITY FOR LOCATION BEFORE EXCAVATION. CHAPTER 17-153 F.S. REQUIRES THAT AN EXCAVATOR NOTIFIES ALL GAS UTILITIES AT LEAST TWO DAYS PRIOR TO EXCAVATING. ALSO CALL 1-800-432-4770 FOR SUNSHINE LOCATES. F.S. 556.101 THROUGH 111.

8. THE CONTRACTOR SHALL TAKE EXTREME CARE AND CAUTION WHEN WORKING NEAR GAS UTILITIES AND SHALL FOLLOW ALL SAFETY REQUIREMENTS. ANY DAMAGE TO GAS INFRASTRUCTURE SHALL BE IMMEDIATELY REPORTED TO THE GAS UTILITY.

9. CONTRACTOR TO PROVIDE TREE PROTECTION AROUND TREES TO REMAIN AS REQUIRED BY THE LOCAL JURISDICTION.

10. NO EXCAVATING MATERIAL SHALL BE STOCKPILED IN A MANNER AS TO DIRECT RUNOFF DIRECTLY OFF THE PROJECT SITE OR INTO ANY ADJACENT WATER BODY OR STORMWATER COLLECTION FACILITY.

11. PRIOR TO ANY DEMOLITION ACTIVITIES, THE CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH THE SITE AND ALL EXISTING UTILITY SERVICES. ALL UTILITY SERVICES, WHICH ARE TO BE ABANDONED SHALL BE COORDINATED WITH THE APPLICABLE UTILITY COMPANY AND PROPERLY CAPPED. UTILITIES, WHICH ARE TO REMAIN SHALL BE COORDINATED WITH THE UTILITY SERVICES FOR THE PROJECT.

STATE OF FLORIDA E&SC DESIGNER & REVIEWER MANUAL; LATEST EDITION: JULY 2013

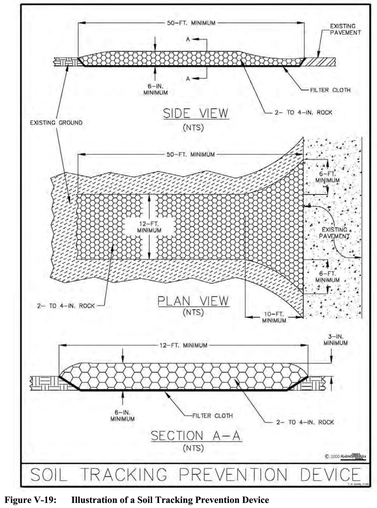

Figure V-19: Illustration of a Soil Tracking Prevention Device

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SOIL TRACKING PREVENTION

1. A SOIL TRACKING PREVENTION DEVICE (STPD) SHALL BE CONSTRUCTED AT THE LOCATION SHOWN ON THE PLANS. TRAFFIC FROM UNSTABILIZED AREAS OF CONSTRUCTION SHALL BE DIRECTED THRU THE STPD BARRIER. FLAGGING OR OTHER POSITIVE MEANS SHALL BE USED AS REQUIRED TO LIMIT & DIRECT VEHICULAR EGRESS ACROSS THE STPD.

2. THE CONTRACTOR MAY PROPOSE AN ALTERNATIVE TECHNIQUE TO MINIMIZE OFFSITE TRACKING OF SEDIMENT. THE ALTERNATIVE MUST BE REVIEWED & APPROVED BY THE ENGINEER &/OR CITY OF WINTER SPRING PRIOR TO ITS USE.

3. ALL MATERIALS SPILLED, DROPPED, OR TRACKED ONTO PUBLIC ROADS (INCLUDING THE STPD AGGREGATE & CONSTRUCTION MUD) SHALL BE REMOVED DAILY, OR MORE FREQUENTLY IF SO DIRECTED BY THE ENGINEER &/OR CITY OF WINTER SPRING.

4. AGGREGATES SHALL BE AS DESCRIBED IN SECTION 901 EXCLUDING 901-2.3. AGGREGATES SHALL BE FDOT SIZE #1. IF THIS SIZE IS NOT AVAILABLE, THE NEXT AVAILABLE SMALLER SIZE AGGREGATE MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER. SIZES CONTAINING EXCESSIVE SMALL AGGREGATE WILL TRACK OFF THE PROJECT & ARE UNSUITABLE.

5. THE STPD SHALL BE MAINTAINED IN A CONDITION THAT WILL ALLOW IT TO PERFORM ITS FUNCTION. TO PREVENT OFFSITE TRACKING, THE STPD SHALL BE RINSED (DAILY WHEN IN USE) TO MOVE ACCUMULATED MUD DOWNWARD THRU THE STONE. ADDITIONAL STABILIZATION OF THE VEHICULAR ROUTE LEADING TO THE STPD MAY BE REQUIRED TO LIMIT THE MUD TRACKED.

EROSION CONTROLS FOR NON STORMWATER DISCHARGES:

A) WASTE DISPOSAL:

WASTE MATERIAL:

ALL WASTE MATERIAL WILL BE COLLECTED AND STORED IN A METAL DUMPSTER WHICH WILL BE MAINTAINED BY A LICENSED SOLID WASTE MANAGEMENT COMPANY IN CITY OF WINTER SPRING. THE DUMPSTER WILL MEET ALL LOCAL, STATE AND FEDERAL REGULATIONS. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE WILL BE DEPOSITED IN THE DUMPSTER. THE DUMPSTER WILL BE EMPTIED AS OFTEN AS NECESSARY TO NOT CAUSE ON-SITE DISPOSAL OF WASTE. THE TRASH WILL BE HAULED TO AN APPROVED CITY OF WINTER SPRING LANDFILL. NO CONSTRUCTION WASTE WILL BE BURIED ONSITE. ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL. NOTICES STATING THESE PRACTICES WILL BE POSTED AT THE SUPERINTENDENT CONSTRUCTION TRAILER. THE INDIVIDUAL RESPONSIBLE FOR MANAGING THIS TASK WILL BE IDENTIFIED BY THE CONTRACTOR.

HAZARDOUS WASTE:

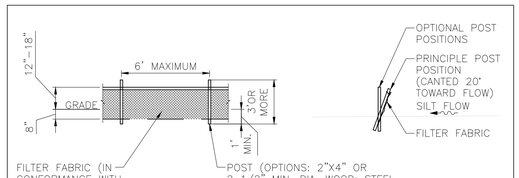
ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN ACCORDANCE WITH THE APPLICABLE LOCAL, STATE & FEDERAL REGULATIONS. ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR HAZARDOUS WASTE DISPOSAL. NOTICES STATING THESE PRACTICES WILL BE POSTED AT THE SUPERINTENDENT CONSTRUCTION TRAILER. THE INDIVIDUAL RESPONSIBLE FOR MANAGING THIS TASK WILL BE IDENTIFIED BY THE CONTRACTOR.

SANITARY WASTE:

ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF THREE TIMES PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR AS REQUIRED BY LOCAL REGULATION.

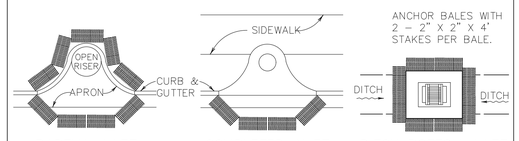
B) OFFSITE VEHICLE TRACKING:

A GRAVEL CONSTRUCTION ENTRANCE HAS BEEN PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS. THE PAVED STREET ADJACENT TO THE SITE ENTRANCE WILL BE SWEPT DAILY TO REMOVE ANY EXCESS MUD, DIRT OR ROCK TRACKED FROM THE SITE. DUMP TRUCKS HAULING MATERIAL FROM THE CONSTRUCTION SITE WILL BE COVERED WITH A TARPAULIN.



1 C-4B — TYPE III SILT FENCE
SCALE 1" = 5'

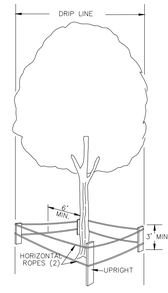
EROSION-CONTROL-SILT-DET-ERO-5.dwg



PROTECTION AROUND INLETS OR SIMILAR STRUCTURES

2 C-4B — SYNTHETIC EROSION CONTROL BARRIERS
NOT TO SCALE

EROSION-CONTROL-SYNTHETIC-DET-ERO.dwg



NOTE:
BARRIER MUST BE ERECTED PRIOR TO CONSTRUCTION

WHY A BARRIER?

1. TO PROTECT ALL ABOVE GROUND PORTIONS
2. TO PROTECT SOIL NEAR TREE FROM COMPACTION
3. PROVIDES PHYSICAL AND MENTAL AWARENESS OF TREES' PRESENCE TO EQUIPMENT OPERATORS

WHY IT WORKS

1. NO HEAVY EQUIPMENT ALLOWED INSIDE BARRIER, ONLY HAND LABOR
2. NO CONSTRUCTION MATERIALS OR TEMPORARY SOIL DEPOSITS ALLOWED INSIDE THIS AREA

BY OBSERVING THESE TWO SIMPLE PRINCIPLES, A TREES' CHANCE FOR SURVIVAL IS GREATLY ENHANCED

SPECIFICATIONS FOR WOOD BARRIER

1. MINIMUM RADIUS TO BE PROTECTED IS ENTIRE DRIPLINE
2. MINIMUM 3' IN HEIGHT
3. UPRIGHTS- THE EQUIVALENT OF 2"x4" LUMBER ON 6' MINIMUM CENTERS
4. HORIZONTAL- THE EQUIVALENT OF TWO COURSES OF 1/2" ROPING WITH YELLOW PLASTIC TAPE FLAGGING
5. BARRIERS TO BE ERECTED AROUND TREES TO REMAIN BEFORE CONSTRUCTION OR NEARBY TREES ARE REMOVED
6. BARRIERS TO REMAIN IN PLACE UNTIL ALL PAVING, CONSTRUCTION AND HEAVY EQUIPMENT IS OUT OF AREA
7. NO SOIL DISTURBANCE OR COMPACTION, STOCK PILING OF SOIL OR CONSTRUCTION MATERIALS, VEHICULAR TRAFFIC, STORAGE OF HEAVY EQUIPMENT ARE ALLOWED IN THE ROOT PROTECTION AREA.

3 C-4B — TREE PROTECTION MEASURES
NOT TO SCALE

TREE-PROTECTION-DET.dwg

CONTRACTOR ACKNOWLEGEMENT:

THIS PLAN HAS BEEN PREPARED UNDER _____ DIRECTION AND KNOWLEDGE. I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND, AND SHALL COMPLY WITH, THE TERMS AND CONDITIONS OF THE STATE OF FLORIDA GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES AND THIS STORMWATER POLLUTION PREVENTION PLAN PREPARED THEREUNDER.

_____ DATE:

(NOTE: CONTRACTOR IS REQUIRED TO REVIEW & SIGN THIS PLAN PRIOR TO START CONSTRUCTION)

DATE	REVISIONS	BY	CHECKED
10/16/2025	1 PER SJRWMD COMMENTS DATED ON 10/03/2025	ET	SJS
11/12/2025	2 PER SJRWMD COMMENTS DATED ON 11/6/2025	WRH	WRH
03/04/2026	3 PER CITY COMMENTS DATED ON 9/6/2025	JT	SJS
03/04/2026	4 PER CLIENT REQUEST	JT	SJS

FINAL DEVELOPMENT PLAN
CHAU COMMERCIAL BUILDING
EAST STATE ROAD 434
WINTER SPRINGS, FLORIDA

FEG FLORIDA ENGINEERING GROUP
now part of THOMAS & HUTTON

5127 S. Orange Avenue, Suite 200
Orlando, FL 32809
Phone: 407-895-0324
Fax: 407-895-0325

www.thomasandhutton.com

SITE DEMOLITION & STORMWATER POLLUTION PREVENTION NOTES

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
SJS	JT	SJS	SJS

PROJECT NO. 25-053
SCALE NOTED
DATE AUGUST, 2025
SHEET NO. C-4B
SHEET 6 OF 18

FLORIDA ENGINEERING GROUP, INC.
CERTIFICATE No. EB-0005595
SAM J. SEBAALI, P.E.
No 42075
STATE OF FLORIDA
PROFESSIONAL ENGINEER
DATE: 03/04/2026

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY: SAM J. SEBAALI, P.E. ON THE DATE ADJACENT TO THE SEAL.

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

25-053_Demo.dwg

GRAPHIC SCALE

40' 0 20' 40' 80'

1" = 40'

FUTURE LAND USE COMMERCIAL

ZONING C-1

FUTURE LAND USE MEDIUM-DENSITY RESIDENTIAL

ZONING R-T

E STATE ROAD 434 (NON-MEDIA VARIES) R/W MAP SECTION 77580-2610

HACIENDA DRIVE (R/W WIDTH VARIES) PARCEL: 34-20-30-5MD-0C00-0000 OWNER: HACIENDA VILLAGE CO-OP INC ORB 2799, PG 589

SITE BENCHMARK # 1
BENCHMARK N&D
ELEVATION = 42.71
DATUM = NAVD 88

SITE BENCHMARK # 3
BENCHMARK N&O
ELEVATION = 37.07
DATUM = NAVD 88

SITE BENCHMARK # 4
BENCHMARK N&O
ELEVATION = 39.99
DATUM = NAVD 88

SE R/W LINE (BEARING BASIS) N65°28'27"E

N65°28'27"E 759.75' MEAS
N65°28'27"E 759.88' DESC

S17°21'23"E 21.40' DESC
S24°31'33"E 21.40' MEAS

N72°38'37"E 34.00' DESC
N65°05'47"E 34.06' MEAS

S17°21'23"E 173.60' DESC
S24°29'37"E 173.57' MEAS

N72°38'37"E 129.75 DESC
N65°27'28"E 129.73 MEAS

S17°21'23"E 21.53' DESC
S25°04'38"E 21.50' MEAS

S72°38'37"W 35.75' DESC

S17°21'23"E 173.47' DESC

S02°06'02"E 57.01' DESC
S00°26'16"E 57.10' MEAS

S32°36'44"E 57.01' DESC
S39°44'52"E 57.29' MEAS

EXISTING COMMON STORMWATER MANAGEMENT POND (DRAINAGE EASEMENT) 1.34 AC. 266.03'

DECORATIVE FOUNTAIN

BERM / TRAIL LANDSCAPE

EXISTING MASTER WET-DETENTION POND

EXISTING OUTFALL STRUCTURE

PROPOSED BUILDING 3 13,067 S.F. DEVELOPMENT AREA 3 1.34 AC.

EXISTING BUILDING 1 DEVELOPMENT AREA 1 1.22 AC.

FUTURE BUILDING 2 DEVELOPMENT AREA 2 1.25 AC.

BICYCLE RACK 3 RACKS, 6 SPACES

BICYCLE RACK 1 RACKS, 6 SPACES

BICYCLE RACK 3 RACKS, 6 SPACES

15' UTILITY EASEMENT

25' DRAINAGE EASEMENT

EXISTING MASTER PRE-TREATMENT SWALE

EXISTING RETAINING/PRIVACY WALL

DUMPSTER

CURVE DATA
Δ = 04°09'03"
R = 1330.00'
L = 96.35'
CHORD
N74°43'06"E
96.33' DESC
N67°33'14"E
96.36' MEAS

N74°18'58"E 219.66' MEAS

NW CORNER OF PARCEL 26-20-30-5AW-0000-052J FND 3/4" IP, NO #

N13°12'20"W 250.00' DESC
N12°22'34"W 250.04' MEAS

FUTURE LAND USE COMMERCIAL

PARCEL: 34-20-30-5AW-0000-048D OWNER: SHOAM ESTATES LLC ORB 8713, PG 1126

ZONING C-1

SW CORNER OF PARCEL 34-20-30-5AW-0000-048D FND 1/2" IR, NO #

S72°12'28"W 142.50' MEAS

CURVE DATA
Δ = 04°09'03"
R = 1580.00'
L = 114.46'
CHORD
S74°43'08"W
114.44' DESC
S67°37'58"W
114.37' MEAS

S72°38'37"W 808.88' DESC
S65°27'46"W 808.87' MEAS

PARCEL: 34-20-30-5MD-0C00-0000 OWNER: HACIENDA VILLAGE CO-OP INC ORB 2799, PG 589

FUTURE LAND USE MEDIUM-DENSITY RESIDENTIAL

ZONING R-T

LEGEND

- FUTURE COMMON CROSS ACCESS EASEMENT
- PHASE I IMPROVEMENT LIMITS
- DEVELOPMENT AREA BOUNDARY

NOTES:

1. IF THE PROPERTY IS TO BE SPLIT INTO LOTS IN THE FUTURE, CROSS-ACCESS, UTILITIES AND DRAINAGE EASEMENTS ARE TO BE COORDINATED AND RECORDED TO THE BENEFITS OF THE LOT OWNERS AS MAY BE APPROPRIATE.
2. THE PRE-TREATMENT SWALE AND MASTER WET-DETENTION POND ARE DESIGNED FOR FULL DEVELOPMENT OF THE SITE BASED ON A TOTAL 3.05 ACRES OF IMPERVIOUS COVER.
3. ANY VARIATIONS FROM CITY CODE MINIMUM STANDARD REPRESENTED ON THIS PLAN THAT HAVE NOT BEEN EXPRESSLY APPROVED BY THE COMMISSION ARE INVALID.

DATE	REVISIONS	BY	CHECKED
10/16/2025	1 PER SJRWMD COMMENTS DATED ON 10/03/2025	ET	SJS
11/12/2025	2 PER SJRWMD COMMENTS DATED ON 11/6/2025	WRH	WRH
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Fax: 407-895-0325

www.thomasandhutton.com

OVERALL MASTER SITE PLAN

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
SJS	JT	SJS	SJS

PROJECT NO. 25-053
SCALE 1"=40'
DATE AUGUST, 2025
SHEET NO. C-5A
SHEET 7 OF 18

FLORIDA ENGINEERING GROUP, INC. CERTIFICATE No. EB-0006595
SAMIR J. SEBAALI No 42075 STATE OF FLORIDA PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY: SAM J. SEBAALI, P.E. ON THE DATE ADJACENT TO THE SEAL.

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25-053_MasterPlan.dwg

SITE DATA

DEVELOPMENT AREA 1: 1.22 AC. (DEVELOPED)

PROPERTY FUTURE LAND USE DESIGNATION:	COMMERCIAL
PROPERTY ZONING:	C-1
EXISTING USE:	VACANT
PROPOSED USE:	MEDICAL OFFICE
PROJECT AREA:	1.22 ACRES
PROPOSED GROSS FLOOR AREA:	10,190 S.F.

BUILDING SETBACKS (REQUIRED)		BUILDING SETBACKS (PROPOSED)	
FRONT (NORTH)	25'	FRONT (NORTH)	85'
SIDE (EAST)	15'	SIDE (EAST)	42'
SIDE (WEST)	15'	SIDE (WEST)	42'
REAR (SOUTH)	15'	REAR (SOUTH)	83'

MAXIMUM ALLOWABLE BUILDING HEIGHT	BUILDING HEIGHT PROPOSED
50'	30'

PARKING

PROPOSED USE: 10,190 S.F. MEDICAL OFFICE

PARKING REQUIRED

MEDICAL OFFICE OCCUPANCY

ASSUMING 20 EMPLOYEES

REQUIRED PARKING: (3 SPACES FOR DOCTORS) X 4 DOCTORS	12 SPACES
(1 SPACE PER 2 EMPLOYEES) X 20 EMPLOYEES	10 SPACES
TOTAL PARKING REQUIRED	22 SPACES
SPACES REQUIRED TO BE RESERVED FOR HANDICAP	1 SPACES

PARKING PROVIDED

STANDARD PARKING SPACES	47 SPACES
HANDICAP PARKING	3 SPACES
TOTAL PARKING PROVIDED	*50 SPACES

*EXCESS PARKING AVAILABLE: 28 SPACES TO BE USED FOR CROSS PARKING EASEMENT WITH ALF ON DEVELOPMENT AREA 3.

SITE AREA CALCULATIONS

BUILDING FOOTPRINT	10,190 S.F.		
PAVING	25,889 S.F.		
SIDEWALK	3,604 S.F.		
IMPERVIOUS AREA	39,683 S.F.	0.91 AC.	74.52 %
PERVIOUS AREA	13,567 S.F.	0.31 AC.	25.48 %
TOTAL SITE AREA	53,250 S.F.	1.22 AC.	100.00 %

MAXIMUM IMPERVIOUS COVER ALLOWED	75 %
IMPERVIOUS COVER PROPOSED	74.52 %

SITE DATA

DEVELOPMENT AREA 2: 1.25 AC. (FUTURE DEVELOPMENT)

PROPERTY FUTURE LAND USE DESIGNATION:	COMMERCIAL
PROPERTY ZONING:	C-1
EXISTING USE:	VACANT
ANTICIPATED USE:	RETAIL
PROJECT AREA:	1.25 ACRES
PROPOSED GROSS FLOOR AREA:	6,400 S.F.

BUILDING SETBACKS (REQUIRED)		BUILDING SETBACKS (PROPOSED)	
FRONT (NORTH)	25'	FRONT (NORTH)	86'
SIDE (EAST)	15'	SIDE (EAST)	42'
SIDE (WEST)	15'	SIDE (WEST)	92'
REAR (SOUTH)	15'	REAR (SOUTH)	83'

MAXIMUM ALLOWABLE BUILDING HEIGHT	BUILDING HEIGHT PROPOSED
50'	<50'

PARKING

ANTICIPATED USE: 6,400 S.F. RETAIL

PARKING REQUIRED

RETAIL COMMERCIAL: 6,400 S.F. @ 1 SPACE PER 300 S.F.	22 SPACES
TOTAL PARKING REQUIRED	22 SPACES
SPACES REQUIRED TO BE RESERVED FOR HANDICAP	1 SPACES

PARKING PROVIDED

STANDARD PARKING SPACES	49 SPACES
HANDICAP PARKING	1 SPACES
TOTAL PARKING PROVIDED	50 SPACES

SITE AREA CALCULATIONS

BUILDING FOOTPRINT	6,400 S.F.		
PAVING	25,180 S.F.		
SIDEWALK	2,459 S.F.		
IMPERVIOUS AREA	34,039 S.F.	0.78 AC.	62.87 %
PERVIOUS AREA	20,101 S.F.	0.47 AC.	37.13 %
TOTAL SITE AREA	54,140 S.F.	1.25 AC.	100.00 %

MAXIMUM IMPERVIOUS COVER ALLOWED	75 %
IMPERVIOUS COVER PROPOSED	62.87 %

SITE DATA

DEVELOPMENT AREA 3: 1.34 AC. (SUBJECT SITE)

PROPERTY FUTURE LAND USE DESIGNATION:	COMMERCIAL
PROPERTY ZONING:	C-1
EXISTING USE:	VACANT
PROPOSED USE:	OFFICE AND RETAIL BUILDING
PROJECT AREA:	1.34 ACRES
PROPOSED GROSS FLOOR AREA:	13,057 S.F.

BUILDING SETBACKS (REQUIRED)		BUILDING SETBACKS (PROPOSED)	
FRONT (NORTH)	25'	FRONT (NORTH)	84'
SIDE (EAST)	15'	SIDE (EAST)	266'
SIDE (WEST)	15'	SIDE (WEST)	>15'
REAR (SOUTH)	15'	REAR (SOUTH)	84'

MAXIMUM ALLOWABLE BUILDING HEIGHT	BUILDING HEIGHT PROPOSED
50'	1 STORY, <50'

PARKING

PARKING REQUIRED

MEDICAL OFFICE OCCUPANCY

ASSUMING 20 EMPLOYEES

REQUIRED PARKING: (3 SPACES FOR DOCTORS) X 3 DOCTORS	9 SPACES
(1 SPACE PER 2 EMPLOYEES) X 20 EMPLOYEES	10 SPACES

RETAIL

RETAIL COMMERCIAL: 7,461 S.F. @ 1 SPACE PER 300 S.F.	25 SPACES
TOTAL PARKING REQUIRED	44 SPACES
SPACES REQUIRED TO BE RESERVED FOR HANDICAP	2 SPACES

PARKING PROVIDED

STANDARD PARKING SPACES	53 SPACES
HANDICAP PARKING	3 SPACES
TOTAL PARKING PROVIDED	56 SPACES

* 56 PARKING SPACES ARE PROVIDED IN DEVELOPMENT AREA 3, WITH AN ADDITIONAL 28 PARKING SPACES AVAILABLE IN DEVELOPMENT AREA 2 FOR A TOTAL OF 84 PARKING SPACES PROVIDED.

SITE AREA CALCULATIONS

BUILDING FOOTPRINT	13,057 S.F.		
PAVING	27,586 S.F.		
SIDEWALK	3,025 S.F.		
IMPERVIOUS AREA	43,668 S.F.	1.00 AC.	74.97 %
PERVIOUS AREA	14,582 S.F.	0.34 AC.	25.03 %
TOTAL SITE AREA	58,250 S.F.	1.34 AC.	100.00 %

MAXIMUM IMPERVIOUS COVER ALLOWED	75 %
IMPERVIOUS COVER PROPOSED	74.97 %

ALLOWABLE USES:

USES TO BE ALLOWED ON THE PROPERTY SHALL BE CONSISTENT WITH C-1 USES AS DESCRIBED AND MODIFIED BELOW:

1. ANIMAL HOSPITALS AND VETERINARY CLINICS (WITH NO OUTSIDE KENNELS)
2. ART SUPPLIES AND PICTURE FRAMING SHOPS
3. ARTISTS(SUCH AS PAINTERS, SCULPTURES, AND CRAFT MAKERS) STUDIOS
4. CLEANERS, ALTERATIONS, TAILORING AND SHOE REPAIR
5. CONFECTIONARY AND ICE CREAM STORES (INCLUDING OUTSIDE DINING)
6. DANCE AND MUSIC STUDIOS
7. HEALTH AND EXERCISE CLUBS AND ATHLETIC TRAINING FACILITIES
8. INTERIOR DECORATING AND DRAPERIES
9. OFFICE
   a. ADVERTISING AGENCIES
   b. ATTORNEY
   c. BOOKKEEPER
   d. DENTAL
   e. INSURANCE
   f. MEDICAL
   g. PROFESSIONAL AND BUSINESS
   h. TITLE COMPANIES
   i. TRAVEL AGENCY
10. PET SHOPS AND GROOMING
11. PHOTOGRAPHIC STUDIOS
12. RETAIL USES AS FOLLOWS:
    a. BAKERY
    b. BICYCLE
    c. BOOKSTORE
    d. HARDWARE
    e. HEALTH FOOD
    f. FLORIST
    g. OFFICE AND STATIONARY SUPPLIES
13. RETIREMENT HOMES, INCLUDING NURSING HOMES, ASSISTED LIVING FACILITIES, AND INDEPENDENT LIVING FACILITIES
14. RESTAURANTS AND OUTDOOR DINING; CAFES
15. SWIMMING POOL SALES, SERVICE AND SUPPLIES

SPECIFIC DEVELOPMENT NOTES:

1. THE DEVELOPMENTS SHOWN ON THE MASTER PLAN SHALL ENTER INTO ALL REQUIRED CROSS-ACCESS; CROSS PARKING AND UTILITY EASEMENTS AT THE TIME OF LOT SUBDIVISION AS REQUIRED BY THE CITY OF WINTER SPRINGS. THIS SUBMITTAL IS PROVIDED FOR PLANNING PURPOSES TO ILLUSTRATE FUTURE POTENTIAL DEVELOPMENT OF THE SITE AND NO SUBDIVISION IS APPROVED AS PART OF THIS SUBMITTAL.

2. PARKING REQUIRED FOR THE ENTIRE SITE BASED ON THE CURRENT PLANNED DEVELOPMENT IS 98 PARKING SPACES. PARKING PROVIDED FOR THE ENTIRE SITE IS 139 PARKING SPACES. A CROSS PARKING EASEMENT IS TO BE PROVIDED AT THE TIME OF LOT SUBDIVISION. DEVELOPMENT AREA PROVIDES 41 MORE PARKING SPACES THAN REQUIRED.

3. PHASE 1 WAS PREVIOUSLY CONSTRUCTED AND PHASE 3 IS PROPOSED BY THIS PROJECT. THIS DOES NOT AUTHORIZE DEVELOPMENT ON PHASE 2. ADDITIONAL REVIEW AND PERMITTING BY THE CITY OF WINTER SPRINGS WILL BE REQUIRED FOR FUTURE DEVELOPMENT ON THESE LOTS. SHOULD THE USES CHANGE, THE PROPOSED USES SHALL COMPLY WITH THE ALLOWABLE USES LISTED ON THIS SHEET. PARKING AND OTHER REQUIREMENTS SHALL BE ADJUSTED BASED ON THE FUTURE USES TO ENSURE COMPLIANCE WITH CITY OF WINTER SPRINGS REQUIREMENTS.

OVERALL DEVELOPMENT:

PARKING

PARKING REQUIRED	98 SPACES
PARKING PROVIDED	156 SPACES

SITE AREA CALCULATIONS

BUILDING FOOTPRINT	29,647 S.F.		
PAVING	78,655 S.F.		
SIDEWALK	9,088 S.F.		
IMPERVIOUS AREA	117,390 S.F.	2.69 AC.	52.28 %
PERVIOUS AREA	107,116 S.F.	2.46 AC.	47.72 %
TOTAL SITE AREA	224,506 S.F.	5.15 AC.	100.00 %

MAXIMUM IMPERVIOUS COVER ALLOWED	75 %
IMPERVIOUS COVER PROPOSED	52.28 %
TOTAL FLOOR GROSS AREA:	29,647
TOTAL F.A.R.:	0.13 < MAX. 0.50 ALLOWED FOR THE SITE

DATE	REVISIONS	BY	CHECKED
10/16/2025	1 PER SJRWMD COMMENTS DATED ON 10/03/2025	ET	SJS
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FINAL DEVELOPMENT PLAN
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EAST STATE ROAD 434
WINTER SPRINGS, FLORIDA

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Phone: 407-895-0324
Fax: 407-895-0325

www.thomasandhutton.com

OVERALL MASTER SITE NOTES

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
SJS	JT	SJS	SJS

PROJECT NO. 25-053
SCALE NOTED
DATE AUGUST, 2025
SHEET NO. C-5B
SHEET 8 OF 18

FLORIDA ENGINEERING GROUP, INC.
CERTIFICATE No. EB-0000595
SAM J. SEBAALI
No 42075
STATE OF FLORIDA
PROFESSIONAL ENGINEER
ELECTRONICALLY SIGNED
Date: 03/04/2026

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:
SAM J. SEBAALI, P.E.
ON THE DATE ADJACENT TO THE SEAL.

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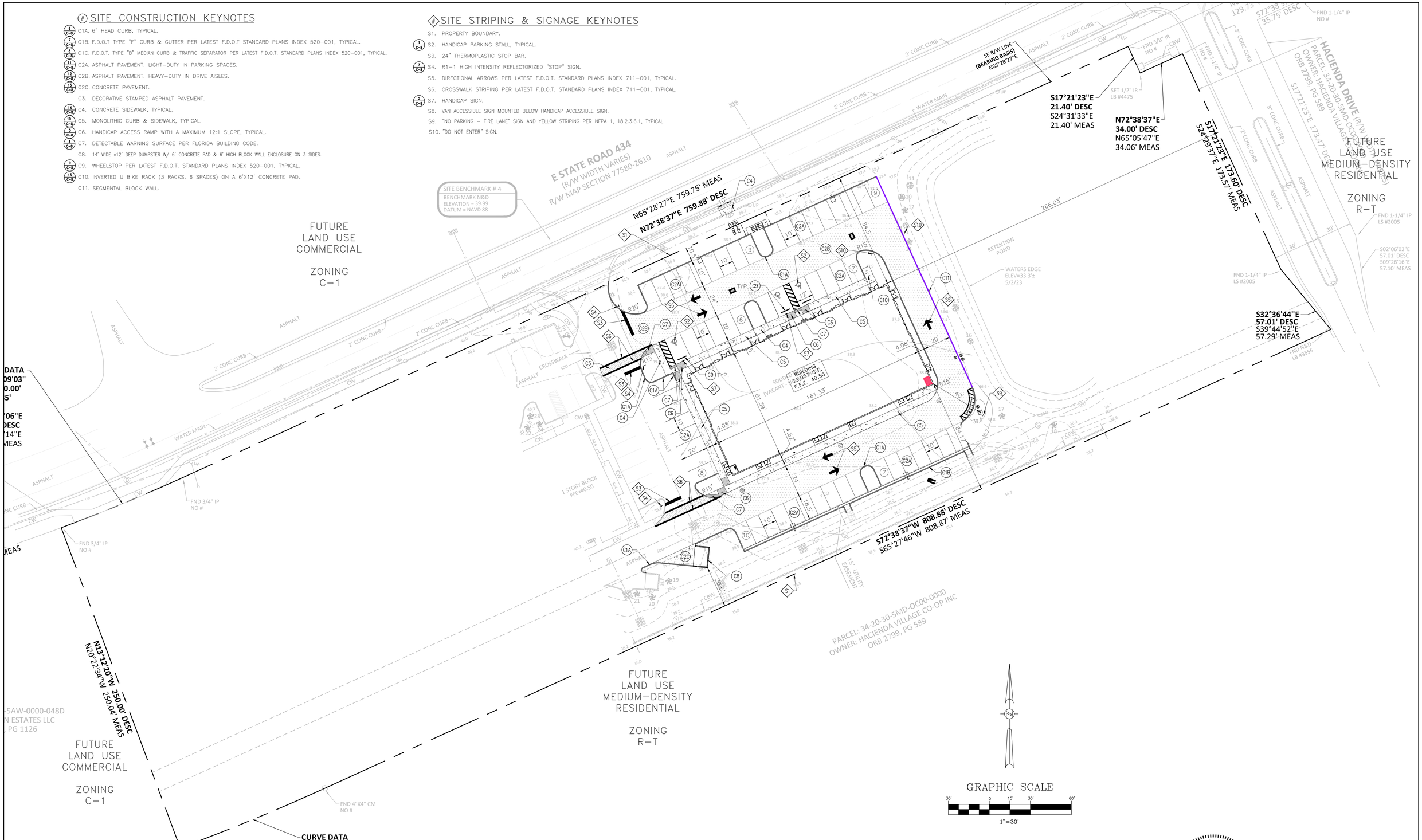
25-053_MasterPlan.dwg

SITE CONSTRUCTION KEYNOTES

- 6 C-5 C1A. 6" HEAD CURB, TYPICAL.
- 7 C-5 C1B. F.D.O.T TYPE "F" CURB & GUTTER PER LATEST F.D.O.T STANDARD PLANS INDEX 520-001, TYPICAL.
- 8 C-5 C1C. F.D.O.T. TYPE "B" MEDIAN CURB & TRAFFIC SEPARATOR PER LATEST F.D.O.T. STANDARD PLANS INDEX 520-001, TYPICAL.
- 11 C-5 C2A. ASPHALT PAVEMENT. LIGHT-DUTY IN PARKING SPACES.
- 12 C-5 C2B. ASPHALT PAVEMENT. HEAVY-DUTY IN DRIVE AISLES.
- 13 C-5 C2C. CONCRETE PAVEMENT.
- C3. DECORATIVE STAMPED ASPHALT PAVEMENT.
- 14 C-5 C4. CONCRETE SIDEWALK, TYPICAL.
- 15 C-5 C5. MONOLITHIC CURB & SIDEWALK, TYPICAL.
- 5 C-5 C6. HANDICAP ACCESS RAMP WITH A MAXIMUM 12:1 SLOPE, TYPICAL.
- 4 C-5 C7. DETECTABLE WARNING SURFACE PER FLORIDA BUILDING CODE.
- C8. 14' WIDE x12' DEEP DUMPSTER W/ 6' CONCRETE PAD & 6' HIGH BLOCK WALL ENCLOSURE ON 3 SIDES.
- 2 C-5 C9. WHEELSTOP PER LATEST F.D.O.T. STANDARD PLANS INDEX 520-001, TYPICAL.
- 15 C-5 C10. INVERTED U BIKE RACK (3 RACKS, 6 SPACES) ON A 6'X12' CONCRETE PAD.
- C11. SEGMENTAL BLOCK WALL.

SITE STRIPING & SIGNAGE KEYNOTES

- S1. PROPERTY BOUNDARY.
- 1 C-5 S2. HANDICAP PARKING STALL, TYPICAL.
- S3. 24" THERMOPLASTIC STOP BAR.
- 3 C-5 S4. R1-1 HIGH INTENSITY REFLECTORIZED "STOP" SIGN.
- S5. DIRECTIONAL ARROWS PER LATEST F.D.O.T. STANDARD PLANS INDEX 711-001, TYPICAL.
- S6. CROSSWALK STRIPING PER LATEST F.D.O.T. STANDARD PLANS INDEX 711-001, TYPICAL.
- 2 C-5 S7. HANDICAP SIGN.
- S8. VAN ACCESSIBLE SIGN MOUNTED BELOW HANDICAP ACCESSIBLE SIGN.
- S9. "NO PARKING – FIRE LANE" SIGN AND YELLOW STRIPING PER NFPA 1, 18.2.3.6.1, TYPICAL.
- S10. "DO NOT ENTER" SIGN.



GRAPHIC SCALE
30' 0 15' 30' 60'
1" = 30'

DATE	REVISIONS	BY	CHECKED
10/16/2025	1 PER SJRWMD COMMENTS DATED ON 10/03/2025	ET	SJS
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Phone: 407-895-0324
Fax: 407-895-0325
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SITE GEOMETRY PLAN

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
SJS	JT	SJS	SJS

PROJECT NO. 25-053
SCALE 1"=30'
DATE AUGUST, 2025
SHEET NO. C-5C
SHEET 9 OF 18

SAM J. SEBAALI
FLORIDA ENGINEERING GROUP, INC.
CERTIFICATE No. EB-0006595
No 42075
STATE OF FLORIDA
PROFESSIONAL ENGINEER
LICENSED 2015

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:
SAM J. SEBAALI, P.E.
ON THE DATE ADJACENT TO THE SEAL.

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25-053_Geometry.dwg

SITE DATA

DEVELOPMENT AREA 3: 1.34 AC.

PROPERTY LOCATION: E. S.R. 434 WINTER SPRINGS, FL 32708

PROPERTY FUTURE LAND USE DESIGNATION: COMMERCIAL
PROPERTY ZONING: C-1

EXISTING USE: VACANT
PROPOSED USE: 5,596 S.F. MEDICAL OFFICE & 7,461 S.F. RETAIL
PROJECT AREA: 1.34 ACRES

PROPOSED GROSS FLOOR AREA: 13,057 S.F.

BUILDING SETBACKS (REQUIRED)

FRONT (NORTH)	25'
SIDE (EAST)	15'
SIDE (WEST)	15'
REAR (SOUTH)	15'

BUILDING SETBACKS (PROPOSED)

FRONT (NORTH)	84'
SIDE (EAST)	266'
SIDE (WEST)	>15'
REAR (SOUTH)	84'

MAXIMUM ALLOWABLE BUILDING HEIGHT
50'

BUILDING HEIGHT PROPOSED
1 STORY, <50'

BUILDING CONSTRUCTION TYPE
TYPE II (000), SPRINKLERED

PARKING

PROPOSED USE: 5,596 S.F. MEDICAL OFFICE & 7,461 S.F RETAIL

PARKING REQUIRED

MEDICAL OFFICE OCCUPANCY
ASSUMING 20 EMPLOYEES

REQUIRED PARKING: (3 SPACES FOR DOCTORS) X 3 DOCTORS	9 SPACES
(1 SPACE PER 2 EMPLOYEES) X 20 EMPLOYEES	10 SPACES

RETAIL

RETAIL COMMERCIAL: 7,461 S.F. @ 1 SPACE PER 300 S.F.	25 SPACES
TOTAL PARKING REQUIRED	44 SPACES
SPACES REQUIRED TO BE RESERVED FOR HANDICAP	2 SPACES

PARKING PROVIDED

STANDARD PARKING SPACES	53 SPACES
HANDICAP PARKING	3 SPACES
TOTAL PARKING PROVIDED	56 SPACES

SITE AREA CALCULATIONS

BUILDING FOOTPRINT	13,057 S.F.		
PAVING	27,586 S.F.		
SIDEWALK	3,025 S.F.		
IMPERVIOUS AREA	43,668 S.F.	1.00 AC.	74.97 %
PERVIOUS AREA	14,582 S.F.	0.34 AC.	25.03 %
TOTAL SITE AREA	58,250 S.F.	1.34 AC.	100.00 %

MAXIMUM IMPERVIOUS COVER ALLOWED	75 %
IMPERVIOUS COVER PROPOSED	74.97 %

FLOOD ZONE

FLOOD ZONE "X" PER FEMA F.I.R.M. PANEL 12117C0160F DATED: 09/28/2007.

SOILS

10-BASINGER, SAMSULA, HONTOON SOILS - HSG - A/D
20-MYARKA AND EAUGALLIE - HSG - A/D

HAZARDOUS MATERIALS STATEMENT

DURING CONSTRUCTION, WHEN COMBUSTIBLES ARE BROUGHT ONTO THE SITE IN SUCH QUANTITIES AS DEEMED HAZARDOUS BY THE FIRE OFFICIAL, ACCESS ROADS & A SUITABLE TEMPORARY SUPPLY OF WATER ACCEPTABLE TO THE FIRE DEPARTMENT SHALL BE PROVIDED & MAINTAINED.

LIGHTING NOTE

LIGHTING SHALL COMPLY WITH THE CITY OF WINTER SPRINGS LAND DEVELOPMENT CODE. LIGHTING ADJACENT TO HACIENDA SHALL HAVE EXTERNAL GLARE SHIELD AS SHOWN ON SITE LIGHTING PLAN.

SITE NOTES

1. ALL CURB RADII ARE TO BE 5.0', TYPICAL, UNLESS NOTED OTHERWISE. EXCEPTION: RADII @ ISLANDS ARE TO FIT ISLAND WIDTHS, UNLESS NOTED OTHERWISE.
2. LANDSCAPE ISLAND NOSE NOT TO EXCEED THE PARKING STALL DEPTH &/OR PROTRUDE INTO DRIVE ISLES, TYPICAL.
3. ALL DIMENSIONS ARE PARALLEL & PERPENDICULAR TO A BEARING OF N65°28'27"E (SR 434 RW LINE). UNLESS OTHERWISE INDICATED WITH A "*" OR BEARING.
4. LOWER CASE TEXT DENOTES SURVEY &/OR EXISTING CONDITION INFORMATION.
5. ANY VARIATIONS FROM CITY CODE MINIMUM STANDARD REPRESENTED ON THIS PLAN THAT HAVE NOT BEEN EXPRESSLY APPROVED BY THE COMMISSION ARE INVALID.

DATE	REVISIONS	BY	CHECKED
10/16/2025	1 PER SJRWMD COMMENTS DATED ON 10/03/2025	ET	SJS
11/12/2025	2 PER SJRWMD COMMENTS DATED ON 11/6/2025	WRH	WRH
03/04/2026	3 PER CITY COMMENTS DATED ON 9/6/2025	JT	SJS
03/04/2026	4 PER CLIENT REQUEST	JT	SJS

FINAL DEVELOPMENT PLAN
CHAU COMMERCIAL BUILDING
EAST STATE ROAD 434
WINTER SPRINGS, FLORIDA

FEG FLORIDA ENGINEERING GROUP
now part of
THOMAS & HUTTON

5127 S. Orange Avenue, Suite 200
Orlando, FL 32809
Phone: 407-895-0324
Fax: 407-895-0325

www.thomasandhutton.com

SITE GEOMETRY NOTES

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
SJS	JT	SJS	SJS

PROJECT NO. 25-053
SCALE NOTED
DATE AUGUST, 2025
SHEET NO. C-5D
SHEET 10 OF 18

FLORIDA ENGINEERING GROUP, INC.
CERTIFICATE No. EB 0005955
SAM J. SEBAALI
No 42075
STATE OF
FLORIDA
PROFESSIONAL ENGINEER
NOT VALID WITHOUT SIGNATURE AND ORIGINAL RAISED SEAL

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:
SAM J. SEBAALI, P.E.
ON THE DATE ADJACENT TO THE SEAL.

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

25-053_Geometry.dwg

CONCRETE CONSTRUCTION NOTES

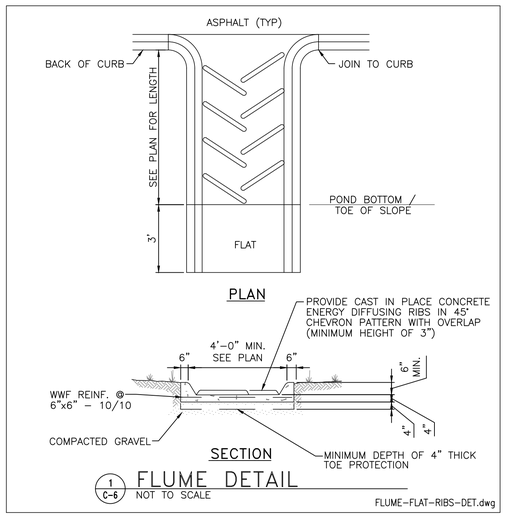
1. CONCRETE PRE-CONSTRUCTION MEETING
   - A. THE CONCRETE CONTRACTOR ALONG WITH THE CONCRETE PRODUCER MAY REQUEST THROUGH THE GENERAL CONTRACTOR FOR A PRE-CONSTRUCTION MEETING PRIOR TO CONCRETE PLACEMENT.
   - B. ATTENDEE: CONCRETE CONTRACTOR, CONCRETE PRODUCER, GENERAL CONTRACTOR, OWNER OR OWNER'S REPRESENTATIVE(S), ENGINEER OF RECORD, ARCHITECT, SITE CONTRACTOR, GEOTECHNICAL REPRESENTATIVE(S), ETC.
   - C. AGENDA: INCLUDE BUT NOT LIMITED TO THE FOLLOWINGS; (CONTRACTOR MAY CONTACT THE FLORIDA CONCRETE & PRODUCTS ASSOCIATION FOR PRE-CONSTRUCTION MEETING CHECK LISTS)
     - i. MIXTURE(S) APPROVAL
     - ii. CONCRETE TESTING: TYPE, LOCATION OF SAMPLINGS, ETC.
     - iii. CONCRETE DELIVERY: QUANTITY/HR, PUMP, CONVEYOR, ETC.
     - iv. PLACEMENT: METHOD, QUANTITY/DAY, STAGING & CLEAN OUT LOCATION, ETC.
     - v. FINISHING: CURING, JOINTING, ETC.
2. JOINTS FOR CONCRETE SLABS
   - A. GENERAL – A JOINTING PLAN FOR THE ENTIRE PAVING AREA SHALL BE PREPARED BY THE CONCRETE CONTRACTOR & SUBMITTED TO THE ENGINEER OF RECORD (EOR) 2 WEEKS PRIOR TO PLACEMENT OF CONCRETE FOR THE EOR APPROVAL. THE CONTRACTOR MAY ALSO CONTACT THE FLORIDA CONCRETE & PRODUCTS ASSOCIATION (FC&PA) FOR TECHNICAL RESOURCES AND ASSISTANT.
     - i. A SQUARE JOINTING PATERN IS REQURED WHERE POSSIBLE. IF NECESSARY, RECTANGULAR PANELS CAN BE USED IF THE LONG DIMENSION IS NO MORE THAN 1.5 TIMES THE SHORT (e.g. 8' x 12'). JOINT SPACING SHALL NOT EXCEED THE FOLLOWING: 10 FEET IN A 4" THICK SLAB, 12 FEET IN A 5" THICK SLAB OR 15 FEET IN SLAB WITH THICKNESS OF 6" OR GREATER.
     - ii. BOX OUT AREA AROUND MANHOLES, CATCH BASINS, DRAINAGE STRUCTURES & OTHER BUILT-IN STRUCTURES WITHIN THE PAVING AREA SHALL BE CIRCULAR WHERE POSSIBLE. A MINIMUM OFFSET OF 12" FROM ANY EDGE OF THE STRUCTURE. OBTAIN A COPY OF THE FC&PA STANDARD DETAILS FOR REFERENCE. CONSTRUCTION & CONTROL JOINTS SHALL BE CONTINUOUS THROUGH ADJACENT LANES & EXTEND THROUGH INTEGRAL CURB. JOINTS CAN BE TERMINATED & OFFSET AT ISOLATION JOINTS. WHERE JOINTS INTERFACE ANY RADIUS OR CURVATURE, OFFSET A MINIMUM OF 12" FROM EDGE OF PAVEMENT AND FORM JOINT 90 DEGREE TO EDGE OF PAVEMENT TO AVOID ACUTE ANGLE OR SMALL WEDGES OF CONCRETE AT CURVATURES. OBTAIN A COPY OF THE FC&PA STANDARD DETAILS FOR REFERENCE.
   - B. CONSTRUCTION JOINTS – A CONSTRUCTION JOINT SEPARATES ONE DAY PLACEMENT TO THE NEXT DAY PLACEMENT. A CONSTRUCTION JOINT SHALL BE A MINIMUM OF 5 FEET FROM ANY ADJACENT CONTROL JOINT. NEXT DAY PLACEMENT SHALL BUTT UP TO THE EXISTING PAVEMENT AS A COLD JOINT. THE CONSTRUCTION JOINT MAY BE HAND-TOOLED WITH MAXIMUM 0.25" RADIUS AT THE EDGE OF THE JOINT.CONTROL JOINTS FROM BOTH PLACEMENT AREAS SHALL MATCH AND BE CONTINUOUS ACROSS THE CONSTRUCTION JOINT.
   - C. CONTROL/CONTRACTION JOINTS – CONTROL JOINTS ARE JOINTS WITHIN THE PAVING AREA FORMED THROUGH TOOLING OR SAW CUTTING. CONTROL JOINTS ESTABLISH WEAK PLANES TO RELIEVE STRESSES DUE TO SHRINKAGE OR TEMPERATURE CHANGE. INSTALL CONTROL JOINTS WITHIN 12 HRS FROM THE TIME THE CONCRETE HITS THE GROUND OR OBTAIN IN WRITING APPROVAL FROM THE EOR BEYOND THE 12-HR TIME LIMIT.
     - i. EARLY-ENTRY SAW CUTTING METHOD: CUT JOINT TO A MINIMUM OF 1" DEEP FOR PAVEMENT THICKNESS UP TO 8". CUTTING OF JOINT SHALL NOT CAUSE RAVELING TO THE EDGES OR DEFORMATION OF THE SURFACE DUE TO EQUIPMENT OR WORKER.
     - ii. OTHER METHODS: INSTALL JOINT TO A MINIMUM OF 1/3 OF PAVEMENT DEPTH. FINISH EDGES WITH 0.25" RADIUS. OPERATION SHALL NOT CAUSE ANY DEFORMATION OF THE SURFACE.
   - D. ISOLATION JOINTS – THESE JOINTS USE ISOLATION MATERIALS TO PREVENT FRESH CONCRETE FROM BONDING TO HARDENED CONCRETE SUCH AS, BUT NOT LIMITED TO, BUILDING FOUNDATIONS, SIDEWALKS, DRAINAGE STRUCTURES, LIGHTING & SIGNAGE BASES, RETAINING WALLS, CURBS, ETC. THE ISOLATION MATERIAL SHALL EXTEND THE FULL-DEPTH OF THE FRESH CONCRETE THICKNESS, FROM ONE DAY PLACEMENT TO THE NEXT, WHERE JOINTS ARE MATCHED, ISOLATION MATERIAL IS NOT NECESSARY. (E.G. ONE LANE PAVING TO THE NEXT, INTEGRAL CURBS)
   - E. ISOLATION JOINTS BETWEEN SLABS AT SOME GRADE SHALL BE FORMED WITH 0.25 INCH THICK NEOPRENE OR 0.50 INCH THICK ASPHALT IMPREGNATED FIBER FILLER WITH HYDORCARBON RESISTANT ELASTOMERIC FILL MATERIAL AS SEALER. ALL EDGES TO BE HAND TOOLED WITH MAXIMUM 0.50 INCH RADIUS.
   - F. A SATISFACTORY ISOLATION JOINT CAN BE FORMED AT METAL BUILDING CURBS BY PLACING A STRIP OF CURING PAPER AGAINST THE METAL FORM & THEN PLACING THE FRESH CONCRETE AGAINST THE PAPER. THE EDGES OF THE SLAB SHALL BE HAND TOOLED WITH MAXIMUM 0.50 INCH RADIUS.
3. JOINTS SEALANT – A JOINT SEALING PLAN FOR THE AFFECTED AREA SHALL BE PREPARED BY THE CONCRETE CONTRACTOR & SUBMITTED TO THE EOR, ALONG WITH THE JOINTING PLAN, 2 WEEKS PRIOR TO PLACEMENT OF CONCRETE FOR THE EOR APPROVAL. NOT ALL JOINT WILL BE REQUIRED SEALING, THE CONCRETE CONTRACTOR IS TO RECOMMEND THE NECESSARY LOCATION AND TO PROVIDE SUPPORTING DOCUMENTATION FOR NON-SEALING AREAS. USE A POLYURETHANE SEALANT (TREMCO THC-900/THC-901 MULTI-COMPOUND)COMPOUND OR EQUIVALENT. THE CONCRETE CONTRACTOR IS TO SUBMIT SEALANT TYPE AND MANUFACTURER INFORMATION TO THE EOR FOR APPROVAL WHEN "EQUIVALENT" IS USE. JOINTS SHALL BE PREPARED BY FOLLOWING MANUFACTURER'S RECOMMENDATIONS PRIOR TO SEALING.

PLAN LEGEND

- SYNTHETIC EROSION CONTROL BARRIER
- SILT FENCE EROSION CONTROL BARRIER

EROSION CONTROL NOTE:

PROVIDE AND MAINTAIN SYNTHETIC SEDIMENT BARRIERS AT ALL INLETS DURING CONSTRUCTION. THIS IS REQUIRED IN ADDITION TO THE REQUIREMENTS SHOWN ON THE SWPPP.



SITE DRAINAGE KEYNOTES

17 C-6 D1. F.D.O.T. TYPE "C" DITCH BOTTOM INLET PER F.D.O.T. STANDARD PLANS INDEX 425-052, TYPICAL.

D2. 6" HDPE @ 1.0% SLOPE FROM DOWNSPOUT. SEE PLAN FOR LENGTH.

D3. EXISTING INLET.

1 C-6 D4. 4' WIDE FLUME.

D5. MITERED END SECTION.

D6. HDPE STORM CLEAN OUT.

GRADING KEYNOTES

1 C-6 G1. TYPE "III" SILT FENCE EROSION CONTROL BARRIER, TYPICAL.

2 C-6 G2A. SYNTHETIC EROSION CONTROL BARRIER

G2B. INLET PROTECTION BARRIER TO CONSIST OF PERMEABLE FILTER FABRIC BELOW GRATE, TYPICAL

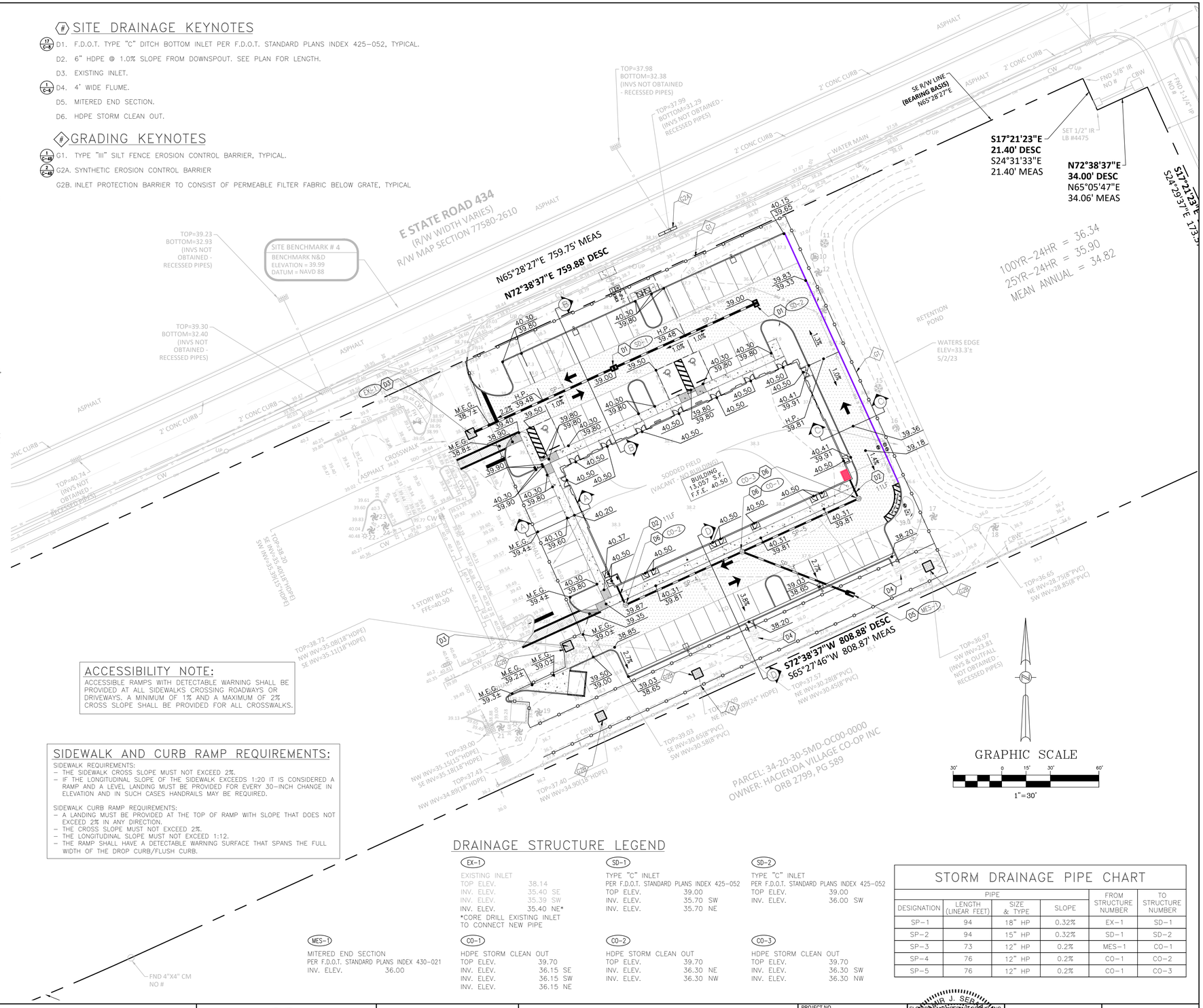
ACCESSIBILITY NOTE:

ACCESSIBLE RAMPS WITH DETECTABLE WARNING SHALL BE PROVIDED AT ALL SIDEWALKS CROSSING ROADWAYS OR DRIVEWAYS. A MINIMUM OF 1% AND A MAXIMUM OF 2% CROSS SLOPE SHALL BE PROVIDED FOR ALL CROSSWALKS.

SIDEWALK AND CURB RAMP REQUIREMENTS:

SIDEWALK REQUIREMENTS:
- THE SIDEWALK CROSS SLOPE MUST NOT EXCEED 2%.
- IF THE LONGITUDINAL SLOPE OF THE SIDEWALK EXCEEDS 1:20 IT IS CONSIDERED A RAMP AND A LEVEL LANDING MUST BE PROVIDED FOR EVERY 30-INCH CHANGE IN ELEVATION AND IN SUCH CASES HANDRAILS MAY BE REQUIRED.

SIDEWALK CURB RAMP REQUIREMENTS:
- A LANDING MUST BE PROVIDED AT THE TOP OF RAMP WITH SLOPE THAT DOES NOT EXCEED 2% IN ANY DIRECTION.
- THE CROSS SLOPE MUST NOT EXCEED 2%.
- THE LONGITUDINAL SLOPE MUST NOT EXCEED 1:12.
- THE RAMP SHALL HAVE A DETECTABLE WARNING SURFACE THAT SPANS THE FULL WIDTH OF THE DROP CURB/FLUSH CURB.



DRAINAGE STRUCTURE LEGEND

EX-1 EXISTING INLET
TOP ELEV. 38.14
INV. ELEV. 35.40 SE
INV. ELEV. 35.39 SW
INV. ELEV. 35.40 NE*
*CORE DRILL EXISTING INLET TO CONNECT NEW PIPE

SD-1 TYPE "C" INLET PER F.D.O.T. STANDARD PLANS INDEX 425-052
TOP ELEV. 39.00
INV. ELEV. 35.70 SW
INV. ELEV. 35.70 NE

SD-2 TYPE "C" INLET PER F.D.O.T. STANDARD PLANS INDEX 425-052
TOP ELEV. 39.00
INV. ELEV. 36.00 SW

MES-1 MITERED END SECTION PER F.D.O.T. STANDARD PLANS INDEX 430-021
INV. ELEV. 36.00

CO-1 HDPE STORM CLEAN OUT
TOP ELEV. 39.70
INV. ELEV. 36.15 SE
INV. ELEV. 36.15 SW
INV. ELEV. 36.15 NE

CO-2 HDPE STORM CLEAN OUT
TOP ELEV. 39.70
INV. ELEV. 36.30 NE
INV. ELEV. 36.30 NW

CO-3 HDPE STORM CLEAN OUT
TOP ELEV. 39.70
INV. ELEV. 36.30 SW
INV. ELEV. 36.30 NW

STORM DRAINAGE PIPE CHART

DESIGNATION	PIPE LENGTH (LINEAR FEET)	PIPE SIZE & TYPE	PIPE SLOPE	FROM STRUCTURE NUMBER	TO STRUCTURE NUMBER
SP-1	94	18" HP	0.32%	EX-1	SD-1
SP-2	94	15" HP	0.32%	SD-1	SD-2
SP-3	73	12" HP	0.2%	MES-1	CO-1
SP-4	76	12" HP	0.2%	CO-1	CO-2
SP-5	76	12" HP	0.2%	CO-1	CO-3

DATE	REVISIONS	BY	CHECKED
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FINAL DEVELOPMENT PLAN
CHAU COMMERCIAL BUILDING
EAST STATE ROAD 434
WINTER SPRINGS, FLORIDA

FEG FLORIDA ENGINEERING GROUP
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5127 S. Orange Avenue, Suite 200
Orlando, FL 32809
Phone: 407-895-0324
Fax: 407-895-0325
www.thomasandhutton.com

SITE PAVING, GRADING, AND DRAINAGE PLAN

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
SJS	JT	SJS	SJS

PROJECT NO. 25-053
SCALE 1"=30'
DATE AUGUST, 2025
SHEET NO. C-6
SHEET 11 OF 18

FLORIDA ENGINEERING GROUP, INC. CERTIFICATE No. EB 0006595
SAMUEL J. SEBAALI, P.E. No 42075 STATE OF FLORIDA PROFESSIONAL ENGINEER
THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY: SAM J. SEBAALI, P.E. ON THE DATE ADJACENT TO THE SEAL.
PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

25-053_Grading.dwg

WATER UTILITY KEYNOTES

W1. CONNECT TO EXISTING 8" DI WATER MAIN WITH 8"X8" TAPPING VALVE & SLEEVE. CONTRACTOR SHALL VERIFY SIZE & LOCATION OF EXISTING WATER MAIN. THE CONTRACTOR SHALL NOTIFY FEG OF ANY DISCREPANCY PRIOR TO START OF ANY CONSTRUCTION.

W2. 8" (DDCA) DOUBLE DETECTOR CHECK VALVE ASSEMBLY W/TAMPER SWITCHES TO BE INSTALLED BY DEVELOPER'S UTILITY COMPANY. THE DDCA SHALL BE MONITORED IN ACCORDANCE W/ NFPA 72.

W3. 1-1/2" WATER METER TO BE INSTALLED BY CITY OF WINTER SPRINGS.

W4. 1-1/2" REDUCED PRESSURE ZONE DEVICE (RPZ) BACKFLOW ASSEMBLY TO BE INSTALLED BY DEVELOPER'S UTILITY CONTRACTOR. THE DCVA SHALL BE MONITORED IN ACCORDANCE W/ NFPA 72, SEE PLAN FOR SIZE.

W5A. 8" PVC C-900 DR-18 WATER MAIN, SEE PLAN FOR LENGTH.

W5B. 8" PVC C-900 DR-14 WATER MAIN, SEE PLAN FOR LENGTH.

W5C. 6" PVC C-900 DR-14 FIRE LINE, SEE PLAN FOR LENGTH.

W5D. 2" POLYETHYLENE TUBING AWWA C901, UV PROTECTED (SDR-9) WATER SERVICE LINE, SEE PLAN FOR LENGTH.

W6. BEND WITH RESTRAINED JOINTS TYPICAL, SEE PLAN FOR ANGLE.

W7. TEE, TYPICAL, SEE PLAN FOR SIZE.

W8A. REDUCER, SEE PLAN FOR SIZE.

W8B. INCREASER, SEE PLAN FOR SIZE.

W9. GATE VALVE, SEE PLAN FOR SIZE.

W10. 1-1/2" RECLAIMED IRRIGATION WATER METER, TO BE INSTALLED BY CITY OF WINTER SPRINGS.

W11. 1-1/2" IRRIGATION SERVICE REDUCED PRESSURE ZONE DEVICE (RPZ) BACKFLOW ASSEMBLY TO BE INSTALLED BY DEVELOPER'S UTILITY CONTRACTOR.

W12. FIRE HYDRANT ASSEMBLY, TYPICAL.

W13. FIRE DEPARTMENT CONNECTION (FDC).

W14. PROPOSED 10'X20' UTILITY EASEMENT.

W15. POST INDICATOR VALVE ASSEMBLY / P.O.C.

SANITARY SEWER UTILITY KEYNOTES

S1. CONNECT TO EXISTING CLEAN-OUT AT INVERT ELEVATION 30.3±. CONTRACTOR SHALL FIELD VERIFY CLEAN-OUT INVERT ELEVATION PRIOR TO START OF ANY CONSTRUCTION OR SHOP DRAWING APPROVAL AND NOTIFY FEG OF ANY DISCREPANCY.

S2. 6" P.V.C. ASTM D3034 SDR 26 SANITARY SEWER LINE. SEE PLAN FOR LENGTH AND SLOPE.

S3. SANITARY CLEAN-OUT. SEE PLAN FOR INVERT. TOP TO MATCH GRADE OF NEW PAVEMENT. PROVIDE TRAFFIC BEARING BRASS RING AND PLUG TOP.

UTILITY KEYNOTES

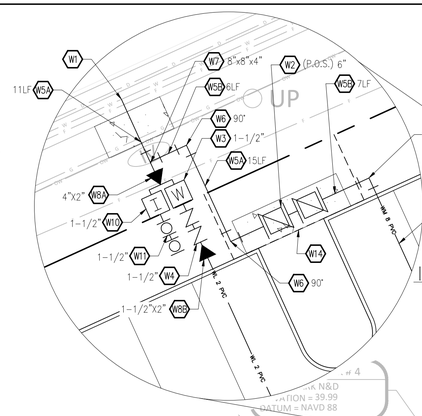
U1. UTILITY CROSSING TO BE DENOTED BY LETTER AND SHOWN DETAILS ON SHEET C-7.

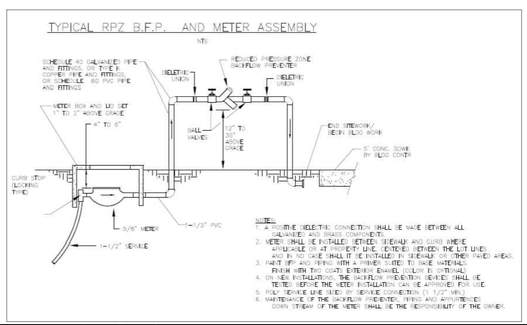
FIRE NOTES:

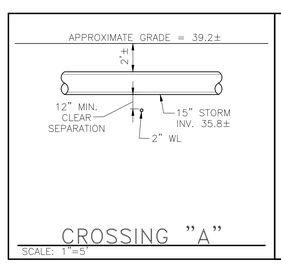
1. FIRE DEPARTMENT ACCESS ROADS PROVIDED AT THE START OF A PROJECT AND SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION. (NFPA 1, 16.1.4)
2. A WATER SUPPLY FOR FIRE PROTECTION, EITHER TEMPORARY OR PERMANENT, SHALL BE MADE AVAILABLE AS SOON AS COMBUSTIBLE MATERIAL ACCUMULATES. THIS APPLIES TO BOTH COMMERCIAL AND RESIDENTIAL DEVELOPMENTS. (NFPA 1, 16.4.3.1.3).
3. WHERE UNDERGROUND WATER MAINS AND HYDRANTS ARE TO BE PROVIDED, THEY SHALL BE INSTALLED, COMPLETED, AND IN SERVICE PRIOR TO CONSTRUCTION WORK. (NFPA 1, 16.4.3.1.3).
4. A 36 IN. CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF FIRE HYDRANTS AND A CLEAR SPACE OF NOT LESS THAN 60 IN. (1524 MM) SHALL BE PROVIDED IN FRONT OF EACH HYDRANT CONNECTION HAVING A DIAMETER GRATER THAN 2-1/2 IN. (NFPA 1,18.5.7).

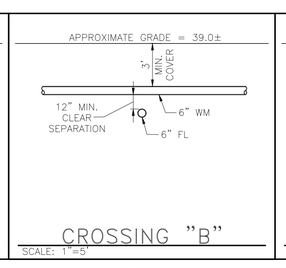
SITE NOTES:

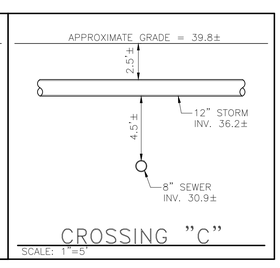
1. BACKFLOW PREVENTER, POST INDICATOR VALVE AND DOUBLE CHECK DETECTOR VALVES ARE TO BE PAINTED PER DEVELOPERS COLOR CHOICE.
2. CONTRACTOR SHALL VERIFY ALL WATER UTILITY CONNECTIONS FOR SIZE & LOCATION PRIOR TO TIE-IN. CONNECTION POINT MAY BE ADJUSTED, PROVIDED CONNECTION IS TO THE WATER MAIN INDICATED ON THE PLANS.
3. FITTINGS REQUIRED AT CROSSINGS TO PROVIDE VERTICAL SEPARATION ARE TO BE FIELD DETERMINED AND ARE NOT SHOWN ON THE DRAWINGS. ALL FITTINGS NEEDED FOR COMPLETE CONSTRUCTION MUST BE INCLUDED IN THE CONTRACTOR'S ESTIMATE.
4. ANY REQUIRED RESTRAINED JOINTS ARE TO BE PROVIDED PER CITY OF WINTER SPRING STANDARDS AND MUST BE INCLUDED IN THE CONTRACTOR'S ESTIMATE.
5. A VIDEO INSPECTION OF ALL SANITARY SEWER MAINS, SANITARY SEWER LATERAL, AND ALL STORMWATER PIPES SHALL BE PREPARED BY THE CONTRACTOR AND PROVIDED TO THE ENGINEER OF RECORD WITH A DVD COPY OF ALL VIDEO INSPECTIONS AND REPORTS FOR REVIEW AND APPROVAL PRIOR TO TRANSMITTAL TO THE CITY OF WINTER SPRINGS FOR THEIR REVIEW AND FINAL ACCEPTANCE.











SEMINOLE COUNTY FIRE NOTES:

1. AT MINIMUM, A CLASS FIVE CONTRACTOR IS REQUIRED TO INSTALL FIRE LINES. FIRE LINES SHALL BEGIN AT THE POINT IN WHICH THE PIPING IS USED EXCLUSIVELY FOR FIRE PROTECTION AND END AT A POINT 1-FOOT ABOVE THE FINISHED FLOOR.
2. THE FIRE LINE FOR SPRINKLED BUILDINGS STARTS AT THE DOUBLE DETECTOR CHECK VALVE.
3. NO OTHER WATER CONNECTION SHALL BE OFF OF THE FIRE LINE.
4. THE FIRE DEPARTMENT CONNECTION SHALL BE WITHIN 100 FEET OF THE FIRE HYDRANT IF STANDPIPE SYSTEM IS PROVIDED.
5. ANY FIRE LINE CHARGED BY THE FDC SHALL BE DR-14 PIPE.
6. THE ONLY VALVE ALLOWED IN THE FDC LINE IS A CHECK VALVE.
7. ALL FIRE LINES SHALL BE INSPECTED BY THE FIRE INSPECTION DEPT. BEFORE BEING COVERED.

NEEDED FIRE FLOW

FIRE AREA CONSIDERED:	**MEDICAL OFFICE BUILDING**
TYPE OF CONSTRUCTION:	**TYPE II (000)**
OCCUPANCY HAZARD CLASSIFICATION:	**UNPROTECTED WOOD FRAME**
AUTOMATIC SPRINKLERS BUILDING:	**Yes**
TOTAL LARGEST UNDIVIDED FLOOR AREA:	**13,057 SF (GFA per Architectural Plan)**
NUMBER OF STORIES:	1

FIRE FLOW: 2,750 GPM Fire Flow is based on Florida Fire Prevention Code (Chapter 18 NFPA 1 - 2018 Edition) - Table 18.4.5.2.1 (Minimum Required Fire Flow Duration for Building).

CREDIT FOR SPRINKLERS: 2,750 GPM X 75% DEDUCTION CREDIT = 2,062.5 GPM (FIRE FLOW CREDIT - SPRINKLERED BUILDING)

NEEDED FIRE FLOW:
2,750 GPM - 2,062.5 GPM = 687.5 GPM (MIN.) (ROUND UP TO 1,000 GPM)

FIRE HYDRANT CREDIT:
Fire Hydrant(s) Required: One (1) Within 250 Ft. of Building Per Chapter 18 NFPA 1 - 2021 Edition - Table 18.5.4.3
Fire Hydrant(s) Provided: One (1) Fire Hydrant is Proposed and One (1) Existing Fire Hydrant within 250-Ft. Travel Distance from the Building.

FIRE HYDRANT CREDIT MEETS FIRE FLOW REQUIRED - O.K.

DATE	REVISIONS	BY	CHECKED
10/16/2025	1 PER SJRWMD COMMENTS DATED ON 10/03/2025	ET	SJS
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FINAL DEVELOPMENT PLAN
CHAU COMMERCIAL BUILDING
EAST STATE ROAD 434
WINTER SPRINGS, FLORIDA

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5127 S. Orange Avenue, Suite 200
Orlando, FL 32809
Phone: 407-895-0324
Fax: 407-895-0325
www.thomasandhutton.com

SITE UTILITY PLAN

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
SJS	JT	SJS	SJS

PROJECT NO. 25-053
SCALE 1"=30'
DATE AUGUST, 2025
SHEET NO. C-7
SHEET 12 OF 18

SAMIR J. SEBAALI, P.E. — FLORIDA ENGINEERING GROUP, INC. — CERTIFICATE No. EB 0000595 — No 42075 — STATE OF FLORIDA — PROFESSIONAL ENGINEER — DIGITALLY SIGNED 03/04/2026

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY SAMI J. SEBAALI, P.E. ON THE DATE ADJACENT TO THE SEAL.

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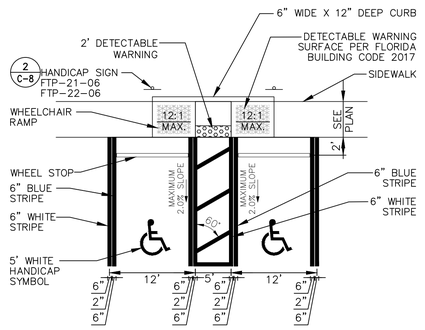
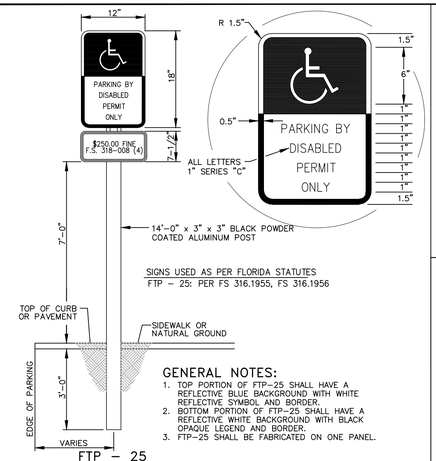
25-053_Utility.dwg



MAX. 2.0% SLOPE IN ANY DIRECTION

1 C-8 HANDICAP PARKING DETAIL
SCALE 1" = 10'



GENERAL NOTES:
1. TOP PORTION OF FTP-25 SHALL HAVE A REFLECTIVE BLUE BACKGROUND WITH WHITE REFLECTIVE SYMBOL AND BORDER.
2. BOTTOM PORTION OF FTP-25 SHALL HAVE A REFLECTIVE WHITE BACKGROUND WITH BLACK OPAQUE LEGEND AND BORDER.
3. FTP-25 SHALL BE FABRICATED ON ONE PANEL.

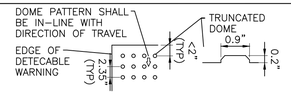
2 C-8 HANDICAP SIGN DETAIL
SCALE 1" = 1'



30" HIGH INTENSITY REFLECTORIZED MATERIAL REFER TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION

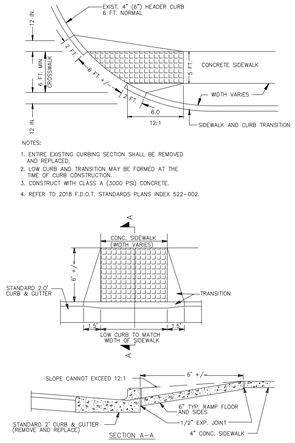
3 C-8 R1-1 STOP SIGN DETAIL
NOT TO SCALE

SIGN-STOP-DET.dwg



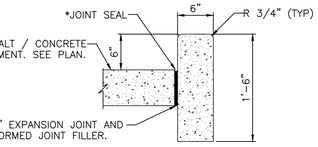
NOTES:
1. ALL SIDEWALK CURB RAMPS SHALL HAVE DETECTABLE WARNING SURFACES THAT EXTEND THE FULL WIDTH OF THE RAMP AND IN THE DIRECTION OF TRAVEL 24 INCHES (610 MM) FROM THE BACK OF CURB. COLOR RED.
2. CURB RAMP DETECTABLE WARNING SURFACES SHALL EXTEND THE FULL WIDTH OF THE RAMP & IN THE DIRECTION OF TRAVEL 24" FROM THE BACK OF CURB. DETECTABLE WARNING SURFACES SHALL BE CONSTRUCTED BY TEXTURING A TRUNCATED DOME PATTERN IN CONFORMANCE W/ U.S. DEPARTMENT OF JUSTICE A.D.A. STANDARDS FOR ACCESSIBILITY DESIGN, A.D.A. ACCESSIBILITY GUIDELINES, SECTION 4.29.2. TRANSITION SLOPES ARE NOT TO HAVE DETECTABLE WARNINGS.

4 C-8 CURB RAMP DETECTABLE WARNING DETAIL
NOT TO SCALE



5 C-8 WHEELCHAIR RAMP-STRAIGHT
N.T.S.

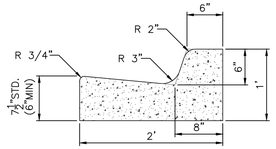
SW-HC-RAMP-FDOT-DET.dwg



1. PROVIDE 1/8" CONTROL JOINTS @ 10' O.C.
2. * PROVIDE EXPANSION JOINT WHERE CONCRETE CURB ABUTS CONCRETE PAVEMENT, CURB AND ANY FIXED STRUCTURE.

6 C-8 HEAD CURB
SCALE 1" = 1'

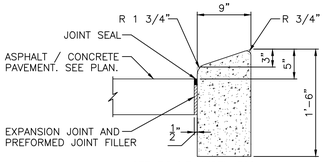
CURB-HEAD-DET.dwg



SEE TO 2018 F.D.O.T. STANDARDS PLANS INDEX 520-001.

7 C-8 F.D.O.T. TYPE "F" CURB
SCALE 1" = 1'

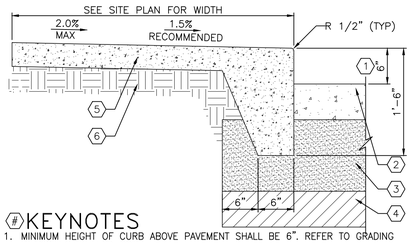
CURB-TYPE-F-DET.dwg



SEE F.D.O.T. INDEX 300.

8 C-8 F.D.O.T. TYPE "B" CURB
SCALE 1" = 1'

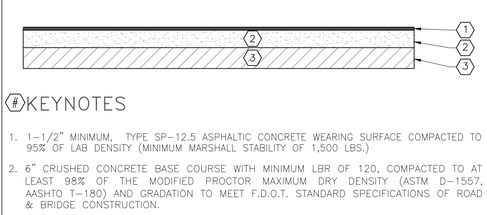
CURB-TYPE-B-DET.dwg



#KEYNOTES
1. MINIMUM HEIGHT OF CURB ABOVE PAVEMENT SHALL BE 6". REFER TO GRADING PLANS FOR ELEVATIONS.
2. PAVEMENT WEARING SURFACE. SEE PAVEMENT SECTION FOR DESIGN CRITERIA.
3. PAVEMENT BASE. SEE PAVEMENT SECTION FOR DESIGN CRITERIA.
4. PAVEMENT SUBBASE. SEE PAVEMENT SECTION FOR DESIGN CRITERIA.
5. 3000 PSI CONCRETE WITH FIBER MESH, TYPICAL.
6. 6" COMPACTED SUB-GRADE TO @ LEAST 95% OF THE MODIFIED PROTOR MAXIMUM DRY DENSITY VALUE (ASTM D-1557, AASHTO T-180).

10 C-8 SIDEWALK WITH MONOLITHIC CURB
SCALE 1" = 1'

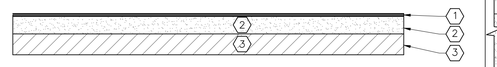
SW-MONO-CURB-CONC-PG.dwg



#KEYNOTES
1. 1-1/2" MINIMUM, TYPE SP-12.5 ASPHALTIC CONCRETE WEARING SURFACE COMPACTED TO 95% OF LAB DENSITY (MINIMUM MARSHALL STABILITY OF 1,500 LBS.)
2. 6" CRUSHED CONCRETE BASE COURSE WITH MINIMUM LBR OF 120, COMPACTED TO AT LEAST 98% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D-1557, AASHTO T-180) AND GRADATION TO MEET F.D.O.T. STANDARD SPECIFICATIONS OF ROAD & BRIDGE CONSTRUCTION.
3. 12" SUBGRADE TO A MINIMUM FBV OF 75 PSI, ENTIRE 12" DEPTH TO BE COMPACTED TO AT LEAST 98% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY VALUE (ASTM D-1557, AASHTO T-180).

NOTE:
THE ASPHALTIC CONCRETE SHALL BE PLACED WITHIN THE ALLAWABLE LIFT THICKNESS FOR LIME TYPE SP MIXES PER THE LATEST EDITION OF F.D.O.T. STANDARDS SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

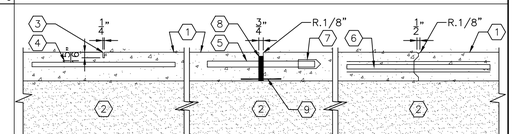
11 C-8 ASPHALT PAVING LIGHT DUTY SECTION
NOT TO SCALE



#KEYNOTES
1. 2.5" PER GEOTECH REPORT & 17-107 PLANS, TYPE SP-12.5 ASPHALTIC CONCRETE WEARING SURFACE COMPACTED TO 95% OF LAB DENSITY (MINIMUM MARSHALL STABILITY OF 1,500 LBS.)
2. 8" CRUSHED CONCRETE BASE COURSE WITH MINIMUM LBR OF 120, COMPACTED TO AT LEAST 98% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D-1557, AASHTO T-180) AND GRADATION TO MEET F.D.O.T. STANDARD SPECIFICATIONS OF ROAD & BRIDGE CONSTRUCTION.
3. 12" SUBGRADE TO A MINIMUM FBV OF 75 PSI, ENTIRE 12" DEPTH TO BE COMPACTED TO AT LEAST 98% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY VALUE (ASTM D-1557, AASHTO T-180).

NOTE:
THE ASPHALTIC CONCRETE SHALL BE PLACED WITHIN THE ALLAWABLE LIFT THICKNESS FOR LIME TYPE SP MIXES PER THE LATEST EDITION OF F.D.O.T. STANDARDS SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

12 C-8 ASPHALT PAVING HEAVY DUTY SECTION
NOT TO SCALE



#KEYNOTES:
1. 7" PORTLAND CEMENT CONCRETE, MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4000 P.S.I. AIR ENTRAINED CONCRETE WITH FIBER MESH. (TYP.), 4" SLUMP MAXIMUM.
2. 12" COMPACTED SUBGRADE TO 98% MAXIMUM DENSITY (AASHTO T-180) AND STABILIZED TO MIN. FBV 75 PSI.
3. SAW CUT JOINT
4. #5 X 2'-0" LONG @ 24" O.C.
5. 1" X 1'-6" LONG SMOOTH DOWEL @ 18" O.C.
6. #5 X 2'-0" LONG @ 18" O.C.
7. METAL EXPANSION CAP. LUBRICATE AND CAP AT THIS END OF DOWEL
8. JOINT FILLER HOLD DOWN 1 1/4" FROM SURFACE
9. GEOTEXTILE FILTER FABRIC 18" WIDE MINIMUM.

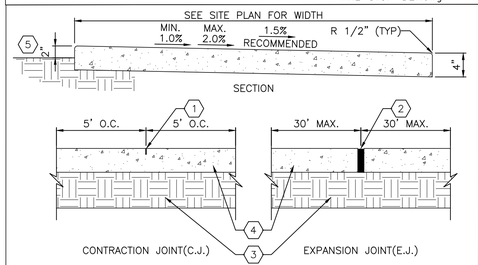
NOTES:
1. PROVIDE 1/2" RADIUS ON ALL EXPOSED EDGES.
2. PROVIDE 1/2" PREMOLDED EXPANSION JOINT WHERE CONCRETE PAVEMENT ABUTS OTHER CONCRETE PAVEMENT STRUCTURES, LIGHT POLES, ETC.

13 C-8 CONCRETE PAVEMENT DETAIL
SCALE 1" = 1'



9 C-8 WHEEL STOP DETAIL
SCALE 1" = 1'

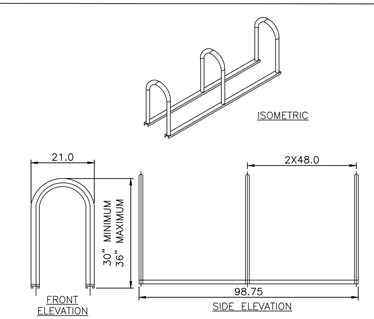
WHL-STOP-DET.dwg



#KEYNOTES
1. 1" DEEP 1/8"R TOOLED JOINT.
2. PREMOLDED EXPANSION JOINT FILLER STRIP & JOINT SEALER W/1/8"R TOOLED EDGES.
3. 6" COMPACTED SUBGRADE
4. 3000 P.S.I. CONC. W/FIBER MESH(TYP)
5. FINISHED GRADE (TYP.)

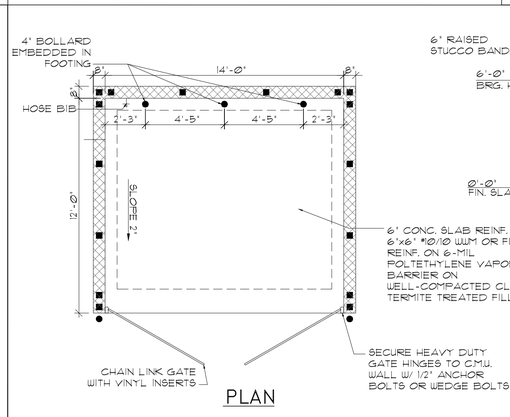
14 C-8 CONCRETE SIDEWALK
SCALE 1" = 1'

SW-CONC-PS-PLAN.DWG

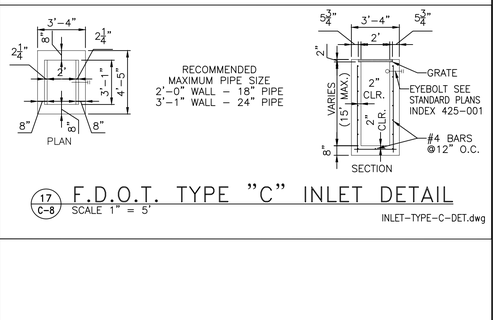


NOTES:
1. BICYCLE RACKS SHALL HAVE A MINIMUM TUBE DIAMETER OF 1.9 INCHES AND BE POWDER COATED OR COATED WITH ANOTHER WEATHER PROOF SURFACE AS MAY BE APPROVED BY THE ZONING MANAGER.
2. BICYCLE RACKS SHALL BE A MAXIMUM HEIGHT OF 36 INCHES, A MINIMUM OF 30 INCHES AN CENTER BETWEEN HORIZONTAL ROWS, AND A MINIMUM OF 24 INCHES FROM ANY BUILDING WALL.

15 C-8 INVERTED U BIKE RACK



16 C-8 DUMPSTER DETAIL
NOT TO SCALE



17 C-8 F.D.O.T. TYPE "C" INLET DETAIL
SCALE 1" = 5'

INLET-TYPE-C-DET.dwg

DATE	REVISIONS	BY	CHECKED
10/16/2025	1 PER SJRWMD COMMENTS DATED ON 10/03/2025	ET	SJS
11/12/2025	2 PER SJRWMD COMMENTS DATED ON 11/6/2025	WRH	WRH
03/04/2026	3 PER CITY COMMENTS DATED ON 9/6/2025	JT	SJS
03/04/2026	4 PER CLIENT REQUEST	JT	SJS

FINAL DEVELOPMENT PLAN
CHAU COMMERCIAL BUILDING
EAST STATE ROAD 434
WINTER SPRINGS, FLORIDA

FEG FLORIDA ENGINEERING GROUP
now part of
THOMAS & HUTTON
5127 S. Orange Avenue, Suite 200
Orlando, FL 32809
Phone: 407-895-0324
Fax: 407-895-0325
www.thomasandhutton.com

SITE CONSTRUCTION DETAILS

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
SJS	JT	SJS	SJS

PROJECT NO. 25-053
SCALE NOTED
DATE AUGUST, 2025
SHEET NO. C-8
SHEET 13 OF 18

FLORIDA ENGINEERING GROUP, INC.
CERTIFICATE No. EB 0006595

SAM J. SEBAALI
No 42075
STATE OF FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:
SAM J. SEBAALI, P.E.
ON THE DATE ADJACENT TO THE SEAL.

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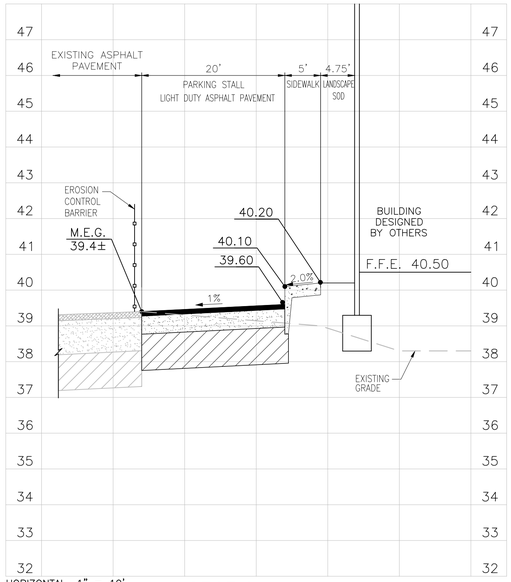
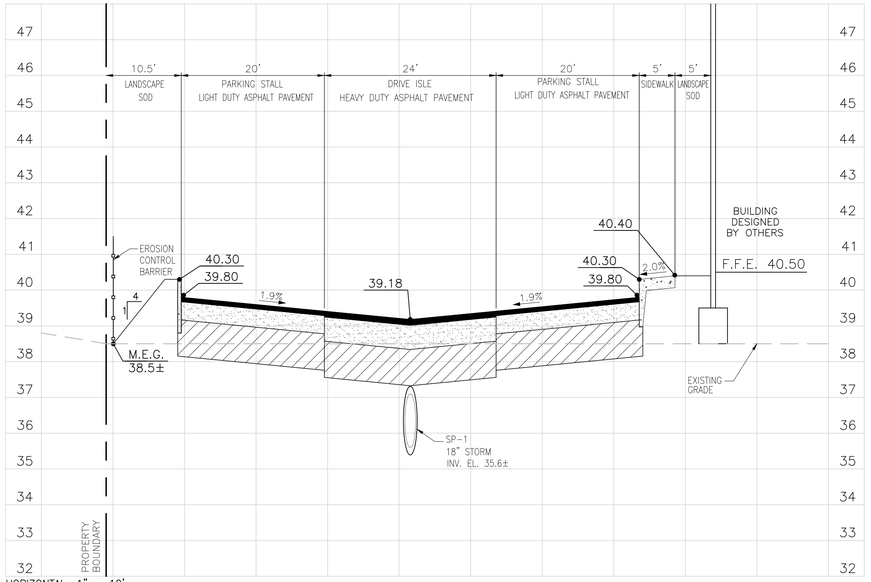
25-053_Details.dwg



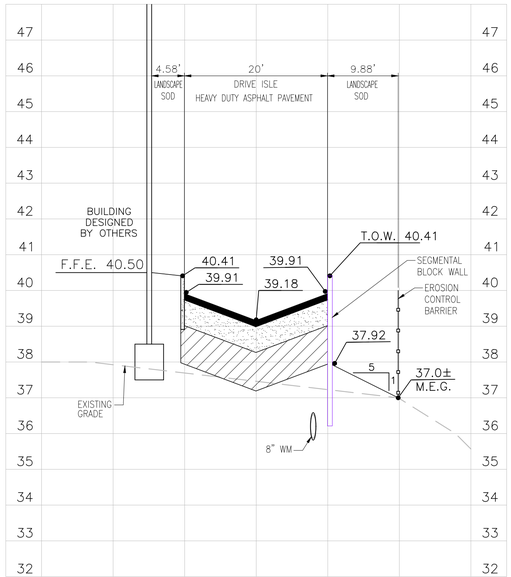
HORIZONTAL 1" = 10'
VERTICAL 1" = 2'

SECTION A–A

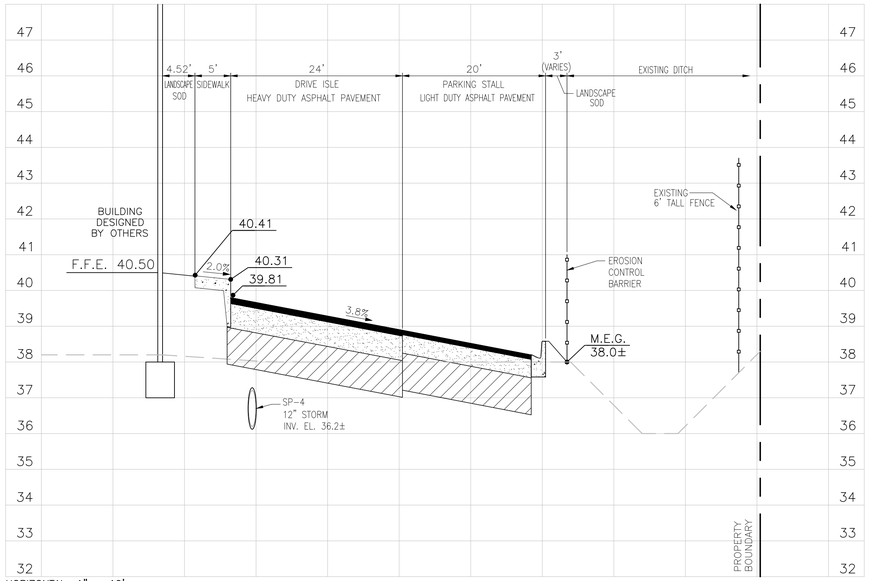


HORIZONTAL 1" = 10'
VERTICAL 1" = 2'

SECTION B–B



SECTION C–C



HORIZONTAL 1" = 10'
VERTICAL 1" = 2'

SECTION D–D

DATE	REVISIONS	BY	CHECKED
10/16/2025	1 PER SJRWMD COMMENTS DATED ON 10/03/2025	ET	SJS
11/12/2025	2 PER SJRWMD COMMENTS DATED ON 11/6/2025	WRH	WRH
03/04/2026	3 PER CITY COMMENTS DATED ON 9/6/2025	JT	SJS
03/04/2026	4 PER CLIENT REQUEST	JT	SJS

FINAL DEVELOPMENT PLAN
CHAU COMMERCIAL BUILDING
EAST STATE ROAD 434
WINTER SPRINGS, FLORIDA

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now part of THOMAS & HUTTON

5127 S. Orange Avenue, Suite 200
Orlando, FL 32809
Phone: 407-895-0324
Fax: 407-895-0325

www.thomasandhutton.com

SITE CROSS SECTIONS

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
SJS	JT	SJS	SJS

PROJECT NO. 25-053
SCALE NOTED
DATE AUGUST, 2025
SHEET NO. C-9
SHEET 14 OF 18

FLORIDA ENGINEERING GROUP, INC.
CERTIFICATE No. EB-0006595
SAM J. SEBAALI
No 42075
STATE OF FLORIDA
PROFESSIONAL ENGINEER
LICENSE NUMBER 42075

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SAM J. SEBAALI, P.E.
ON THE DATE ADJACENT TO THE SEAL.

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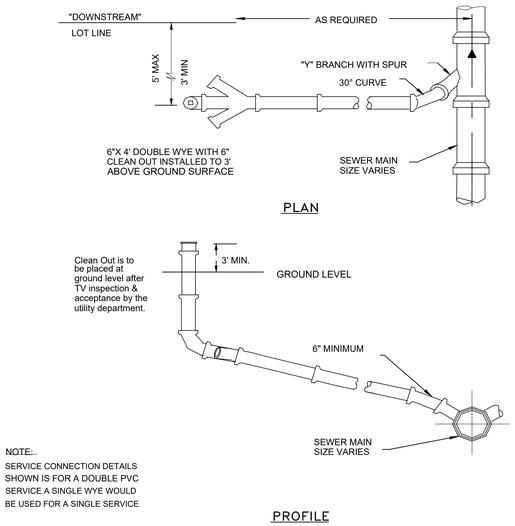
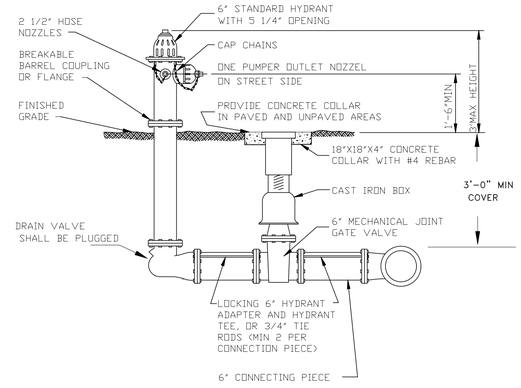
25-053_CrossSections.dwg



NOTE:..
SERVICE CONNECTION DETAILS SHOWN IS FOR A DOUBLE PVC SERVICE A SINGLE WYE WOULD BE USED FOR A SINGLE SERVICE

SEWER LATERAL DETAIL

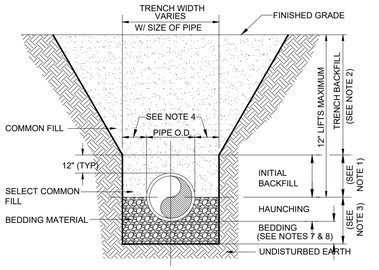
CITY OF WINTER SPRINGS
TYPICAL SEWER CONNECTION



NOTES:

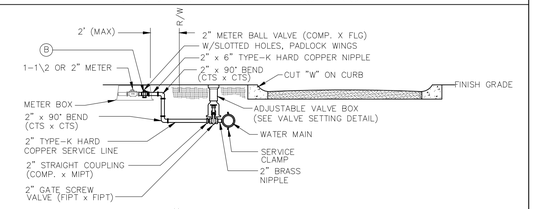
1. THE HYDRANTS ACCEPTABLE TO THE CITY OF WINTER SPRINGS SHALL BE EITHER THE CLOW # 42 MEDALION AMERICAN DARLING B84B, OR THE MUELLER A-423.
2. THE BARREL SHALL BE PAINTED YELLOW AND TOP WHITE
3. GRIP RING OR MEGA LUG RESTRAINTS MAY USED IN PLACE OF ALL THREAD RODS

FIRE HYDRANT ASSEMBLY



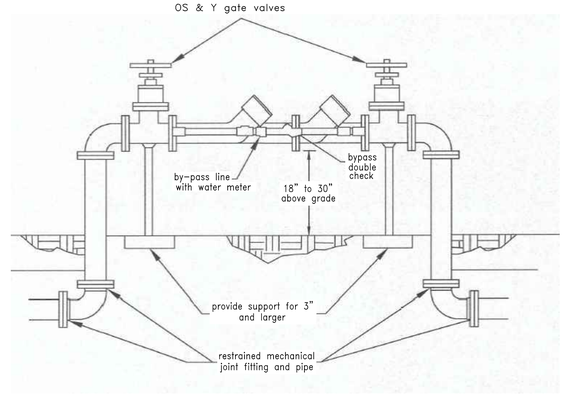
NOTES:
1. INITIAL BACKFILL: SELECT COMMON FILL COMPACTED TO 95% OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 95% OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
3. TYPE A BEDDING MATERIAL SHALL CONFORM TO FDOT NO. 57 AGGREGATE.
4. 15" MAX. (12" MIN.) FOR PIPE DIAMETER LESS THAN 24" AND 24" MAX (12" MIN) FOR PIPE DIAMETER 24" AND LARGER.
5. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.
6. ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW.
7. BEDDING DEPTH SHALL BE 4" MINIMUM FOR PIPE DIAMETER UP TO 12" AND 6" MINIMUM FOR PIPE DIAMETER 16" AND LARGER.
8. DEPTH FOR REMOVAL OF UNSUITABLE MATERIAL SHALL GOVERN DEPTH OF BEDDING ROCK BELOW THE PIPE. UTILITIES SHALL DETERMINE IN THE FIELD REQUIRED REMOVAL OF UNSUITABLE MATERIAL TO REACH SUITABLE FOUNDATION.
9. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES. SURFACE RESTORATION WITHIN CITY OF WINTER SPRINGS RIGHT-OF-WAY SHALL COMPLY WITH REQUIREMENTS OF R/W UTILIZATION REGULATIONS AND ROAD CONSTRUCTION SPECIFICATIONS.

BEDDING AND TRENCHING



TYPICAL 2" NEW SHORT SERVICE

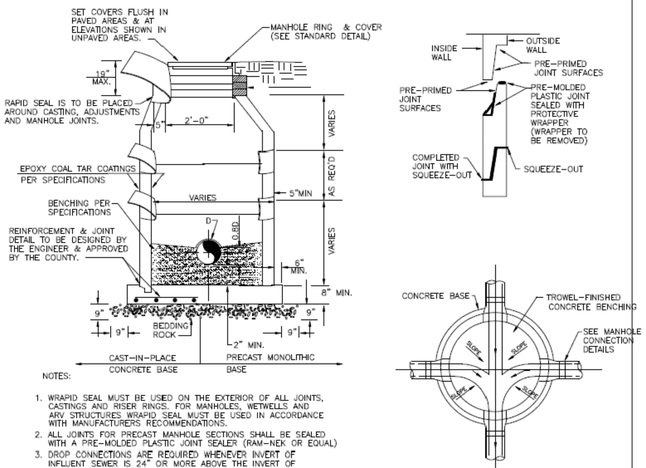
OS & Y gate valves



NOTES:

1. All pipe and fittings above grade shall have flanged ends.
2. By-Pass meter assembly shall be required on monitored fire sprinkler protection systems.
3. The check valve assembly, valves and piping and the bypass meter and double check shall be painted with a primer suited to the base materials and finished with two coats of exterior enamel 9color is black).
4. Bypass meter and backflow preventer shall be assembled with appropiate fittings to allow removal and re-installation.
5. The double detector check valve is required to be tamper resistant.

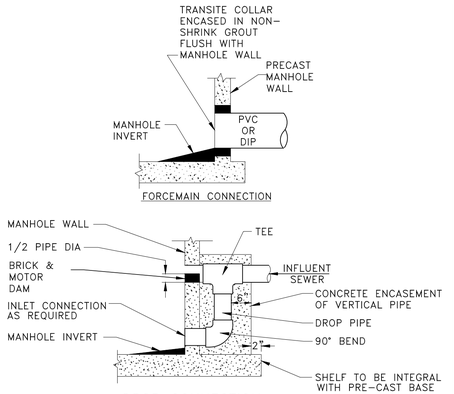
CITY OF WINTER SPRINGS
DOUBLE CHECK VALVE ASSEMBLY FOR FIRE SERVICE



NOTES:

1. WRAPID SEAL MUST BE USED ON THE EXTERIOR OF ALL JOINTS, CASTINGS AND RISER RINGS. FOR MANHOLES, WETWELLS AND ARY STRUCTURES WRAPID SEAL MUST BE USED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
2. ALL JOINTS FOR PRECAST MANHOLE SECTIONS SHALL BE SEALED WITH A PRE-MOLDED PLASTIC JOINT SEALER (RAM-NEK OR EQUAL)
3. DROP CONNECTIONS ARE REQUIRED WHENEVER INVERT OF INFLUENT SEWER IS 24" OR MORE ABOVE THE INVERT OF THE MANHOLE. SEE MANHOLE CONNECTION DETAILS.
4. A FLAT PRECAST TOP WITH A MIN. 6" SLAB THICKNESS MAY BE USED IN LIEU OF A PRECAST CONE SECTION.
5. FRAME WEIGHT TO BE 220 LBS.
6. COVER WEIGHT TO BE 170 LBS.
7. COVER TO BE MARKED: SANITARY SEWER
8. WEIGHTS TO BE STAMPED ON FRAME AND COVER.
9. FRAME AND COVER TO HAVE MACHINED SURFACES AND WATERTIGHT.
10. NEW MANHOLES RECEIVING FORCEMAIN FLOWS SHALL BE POLY LINED EXISTING MANHOLES RECEIVING FORCEMAIN FLOWS SHALL BE FIBERGLASSED LINED.

SANITARY MANHOLE DETAIL

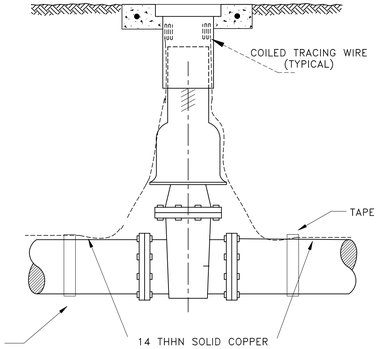


NOTES:

1. PENETRATION TO EXISTING MANHOLES SHALL BE CORE BORED
2. OUTSIDE DROP CONNECTION SHALL BE REQUIRED WHENEVER AN INFLUENT SEWER IS LOCATED TWO FEET OR MORE ABOVE THE MAIN INVERT CHANNEL

W.S. Detail 6-9-00

TYPICAL MANHOLE CONNECTIONS



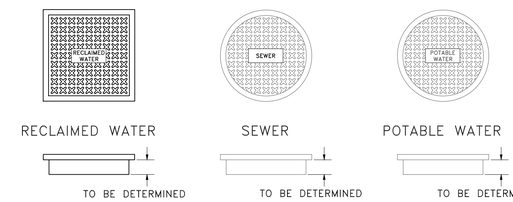
TRACING WIRE GENERAL NOTES:

1. PIPE LINE TRACING WIRE IS TO BE INSTALLED ON ALL POTABLE WATER RECLAIMED WATER AND SEWER FORCE MAINS.
2. SYSTEMS-TRACING WIRE SHALL ALLOW TRACABILITY OF ALL PIPE BRANCHES INCLUDING THOSE FOR HYDRANTS. TRACING WIRE SHALL BE INSTALLED OVER THE ENTIRE LENGTH OF THE MAIN AND SECURED TO THE MAIN EVERY 5 FEET WITH ADHESIVE TAPE. WIRE SHALL EXTEND A MINIMUM OF 12" ABOVE GRADE AT EACH INTERVAL AND SHALL BE COILED AND PLACED IN A VALVE BOX FOR EASY ACCESSIBILITY.
3. ON DEAD END MAINS THE TRACING WIRE SHALL BE PLACED IN A PROPERLY IDENTIFIED PVC VALVE BOX AT THE END OF THE RUN.

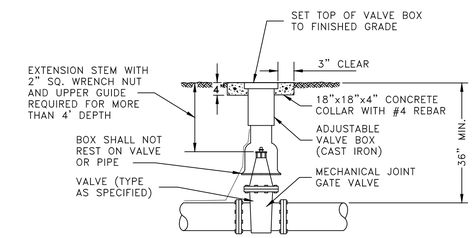
NOTE:

ALL PIPE AND FITTINGS MUST BE GALVANIZED IRON PIPE OR SCHEDULE 80 P.V.C.

CITY OF WINTER SPRINGS
TRACING WIRE CONNECTION



TYPICAL VALVE BOX COVER DETAILS



TYPICAL VALVE AND VALVE BOX DETAIL

WSW001 12-07-93

CITY OF WINTER SPRINGS
VALVE, VALVE BOX AND COVER

DATE	REVISIONS	BY	CHECKED
10/16/2025	1 PER SJRWMD COMMENTS DATED ON 10/03/2025	ET	SJS
11/12/2025	2 PER SJRWMD COMMENTS DATED ON 11/6/2025	WRH	SJS
03/04/2026	3 PER CITY COMMENTS DATED ON 9/6/2025	JT	SJS
03/04/2026	4 PER CLIENT REQUEST	JT	SJS

FINAL DEVELOPMENT PLAN
CHAU COMMERCIAL BUILDING
EAST STATE ROAD 434
WINTER SPRINGS, FLORIDA

FEG FLORIDA ENGINEERING GROUP
now part of THOMAS & HUTTON
5127 S. Orange Avenue, Suite 200
Orlando, FL 32809
Phone: 407-895-0324
Fax: 407-895-0325
www.thomasandhutton.com

CITY DETAILS

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
SJS	JT	SJS	SJS

PROJECT NO. 25-053
SCALE NOTED
DATE AUGUST, 2025
SHEET NO. C-10
SHEET 15 OF 18

SAM J. SEBAALI, P.E. FLORIDA ENGINEERING GROUP, INC. CERTIFICATE No. EB-0006595 No 42075 STATE OF FLORIDA PROFESSIONAL ENGINEER LICENSE NO. 42075

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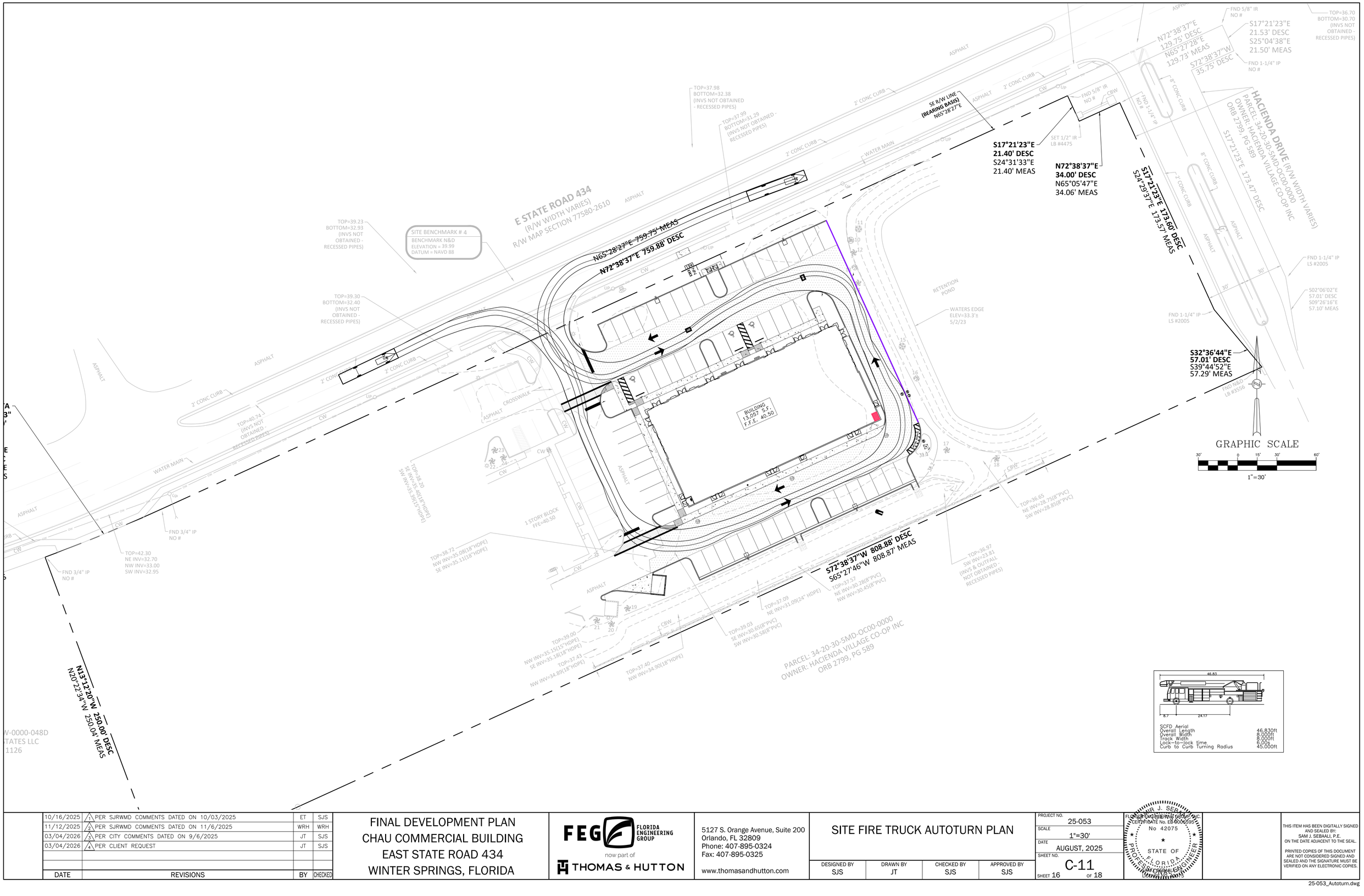
25-053_CityDetails.dwg



DATE	REVISIONS	BY	CHECKED
10/16/2025	1 PER SJRWMD COMMENTS DATED ON 10/03/2025	ET	SJS
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5127 S. Orange Avenue, Suite 200
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Phone: 407-895-0324
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www.thomasandhutton.com

SITE FIRE TRUCK AUTOTURN PLAN

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
SJS	JT	SJS	SJS

PROJECT NO. 25-053
SCALE 1"=30'
DATE AUGUST, 2025
SHEET NO. C-11
SHEET 16 OF 18

SAM J. SEBAALI
FLORIDA ENGINEERING GROUP, INC.
CERTIFICATE No. EB 0006595
No 42075
STATE OF FLORIDA
PROFESSIONAL ENGINEER
LICENSED
10/16/2025

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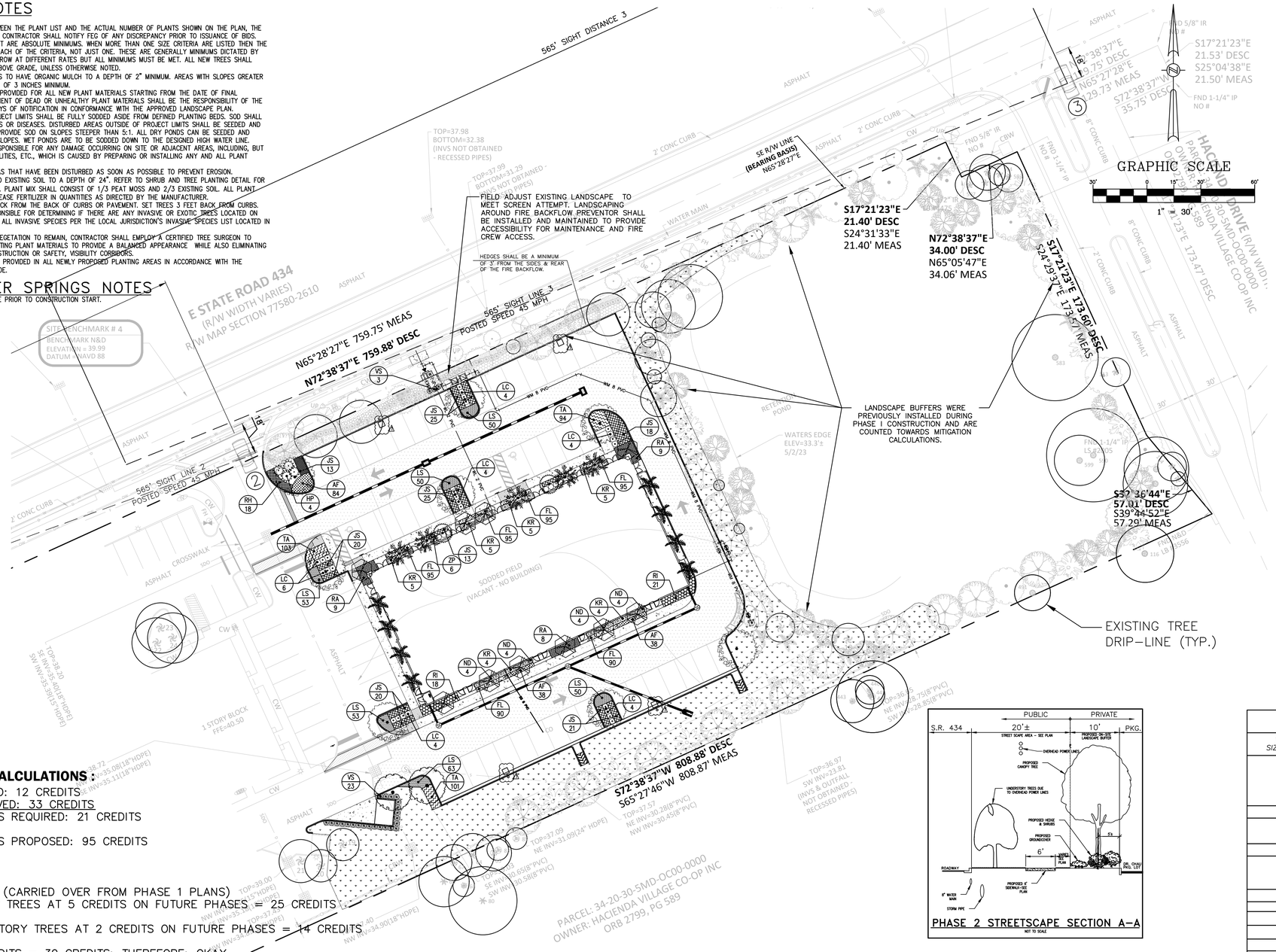
25-053_Autoturn.dwg

LANDSCAPE NOTES

1. IN THE EVENT OF A DISCREPANCY BETWEEN THE PLANT LIST AND THE ACTUAL NUMBER OF PLANTS SHOWN ON THE PLAN, THE PLAN SHALL CONTROL. THE LANDSCAPE CONTRACTOR SHALL NOTIFY FEG OF ANY DISCREPANCY PRIOR TO ISSUANCE OF BIDS.
2. PLANT SIZES SHOWN ON THE PLANT LIST ARE ABSOLUTE MINIMUMS. WHEN MORE THAN ONE SIZE CRITERIA ARE LISTED THEN THE PLANT MATERIAL SHALL COMPLY WITH EACH OF THE CRITERIA, NOT JUST ONE. THESE ARE GENERALLY MINIMUMS DICTATED BY THE JURISDICTION, DIFFERENT PLANTS GROW AT DIFFERENT RATES BUT ALL MINIMUMS MUST BE MET. ALL NEW TREES SHALL HAVE THE CALIPER MEASURED AT 6" ABOVE GRADE, UNLESS OTHERWISE NOTED.
3. ALL PLANTING BEDS AND TREE SAUCERS TO HAVE ORGANIC MULCH TO A DEPTH OF 2" MINIMUM. AREAS WITH SLOPES GREATER THAN 4:1 SHALL HAVE A MULCH DEPTH OF 3 INCHES MINIMUM.
4. A TWELVE MONTH WARRANTY IS TO BE PROVIDED FOR ALL NEW PLANT MATERIALS STARTING FROM THE DATE OF FINAL ACCEPTANCE BY THE OWNER. REPLACEMENT OF DEAD OR UNHEALTHY PLANT MATERIALS SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR WITHIN 30 DAYS OF NOTIFICATION IN CONFORMANCE WITH THE APPROVED LANDSCAPE PLAN.
5. ALL DISTURBED AREAS WITHIN THE PROJECT LIMITS SHALL BE FULLY SODDED ASIDE FROM DEFINED PLANTING BEDS. SOD SHALL BE FREE OF WEEDS AND NOXIOUS PESTS OR DISEASES. DISTURBED AREAS OUTSIDE OF PROJECT LIMITS SHALL BE SEEDED AND MULCHED UNLESS STEEPER THAN 5:1. PROVIDE SOD ON SLOPES STEEPER THAN 5:1. ALL DRY PONDS CAN BE SEEDED AND MULCHED ON THE BOTTOMS AND SIDE SLOPES. WET PONDS ARE TO BE SODDED DOWN TO THE DESIGNED HIGH WATER LINE.
6. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE OCCURRING ON SITE OR ADJACENT AREAS, INCLUDING, BUT NOT LIMITED TO BUILDINGS, PAVING, UTILITIES, ETC., WHICH IS CAUSED BY PREPARING OR INSTALLING ANY AND ALL PLANT MATERIAL.
7. GRADE, DRESS AND SOD OR SEED AREAS THAT HAVE BEEN DISTURBED AS SOON AS POSSIBLE TO PREVENT EROSION.
8. PLANT MIX OF 8" SHALL BE TILLED INTO EXISTING SOIL TO A DEPTH OF 24". REFER TO SHRUB AND TREE PLANTING DETAIL FOR EXTENT OF PLANT MIX TO BE PROVIDED. PLANT MIX SHALL CONSIST OF 1/3 PEAT MOSS AND 2/3 EXISTING SOIL. ALL PLANT MATERIALS SHALL RECEIVE A SLOW RELEASE FERTILIZER IN QUANTITIES AS DIRECTED BY THE MANUFACTURER.
9. ALL PLANT MATERIAL SHALL BE SET BACK FROM THE BACK OF CURBS OR PAVEMENT. SET TREES 3 FEET BACK FROM CURBS.
10. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING IF THERE ARE ANY INVASIVE OR EXOTIC TREES LOCATED ON THE SITE AND IS REQUIRED TO REMOVE ALL INVASIVE SPECIES PER THE LOCAL JURISDICTION'S INVASIVE SPECIES LIST LOCATED IN THEIR CODE OF ORDINANCES.
11. WHEN THERE ARE EXISTING TREES OR VEGETATION TO REMAIN, CONTRACTOR SHALL EMPLOY A CERTIFIED TREE SURGEON TO SELECTIVELY PRUNE AND TRIM ALL EXISTING PLANT MATERIALS TO PROVIDE A BALANCED APPEARANCE WHILE ALSO ELIMINATING ANY INTERFERENCE WITH THE NEW CONSTRUCTION OR SAFETY, VISIBILITY CORRIDORS.
12. IRRIGATION (100% COVERAGE) SHALL BE PROVIDED IN ALL NEWLY PROPOSED PLANTING AREAS IN ACCORDANCE WITH THE JURISDICTIONAL LAND DEVELOPMENT CODE.

CITY OF WINTER SPRINGS NOTES

1. PAYMENT OF THE ARBOR PERMIT IS DUE PRIOR TO CONSTRUCTION START.



TREE MITIGATION CALCULATIONS :

TREES TO BE REMOVED: 12 CREDITS
TREES TO BE PRESERVED: 33 CREDITS
ADDITIONAL NEW TREES REQUIRED: 21 CREDITS

ADDITIONAL NEW TREES PROPOSED: 95 CREDITS

FUTURE PHASES

39 REQUIRED CREDITS (CARRIED OVER FROM PHASE 1 PLANS)
PROPOSED; 5 CANOPY TREES AT 5 CREDITS ON FUTURE PHASES = 25 CREDITS

PROPOSED; 7 UNDERSTORY TREES AT 2 CREDITS ON FUTURE PHASES = 14 CREDITS

TOTAL PROPOSED CREDITS = 39 CREDITS; THEREFORE; OKAY

TREE PRESERVATION LIST - PHASE ii

6-12" PALM
7-13" OAK
8-6" OAK
9-12" PINE
10-4" OAK
11-4" CYPRESS
12-10" PALM
13-4" UNIDENTIFIED TREE
14-10" PALM
15-3" CYPRESS
16-3" UNIDENTIFIED TREE
17-8" PALM
18-9" PALM
19-9" PALM
20-9" PALM
21-12" PALM
22-14" PALM
23-14" PALM
24-14" PALM

TREE REMOVAL LIST - PHASE ii

1-12" OAK
2-(2)8" CAMPHOR
3-8" MAGNOLIA
4-12" PINE
5-12" OAK

'FLORIDA FRIENDLY' PLANT LIST

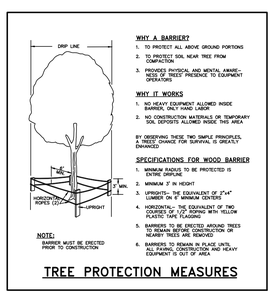
TREES

SYMBOL	ABR.	BOTANICAL NAME	COMMON NAME	MIN. SIZE	QTY.	CREDIT	TOTAL	REMARKS
	QV	QUERCUS VIRIGINIA 'HIGH RISE'	HIGH RISE LIVE OAK	12' HT. MIN 4.5" CAL. 65 GAL. F.G.	8	5	40	SINGLE STRAIGHT TRUNK
	LI	LAGERSTROEMIA INDICA 'NATCHEZ'	NATCHEZ CRAPE MYRTLE	3" CALIPER 8'-15" HT. 5' SPREAD 45 GAL	10	1	10	MULTI TRUNK 3-5 TRUNKS MIN.
	IO	ILEX X' OAKLEAF	OAKLEAF HOLLY	8' HT. 30 GAL	2	1	2	SINGLE STRAIGHT TRUNK
	WR	WASHINGTONIA ROBUSTA	WASHINGTONIAN PALM	10' MIN. 65 GAL.	5	1	5	STRAIGHT TRUNK, HURRICANE CUTS TO BE DONE PRIOR TO MOVE IF LEAVE FROND
	SP	SABAL PALMETTO	CABBAGE PALM	18' HT. C.T.	8	3	24	SPECIMEN
				TOTAL	33		81	
	VS	VIBURNUM SUSPENSUM	SANDANKWA VIBURNUM	7 GAL. 30" HT. 36" O.C.		26		FULL
	LC	LOROPETALUM CHINENSE	LOROPETALUM	5 GAL. 24" HT. 36" O.C.		26		FULL
	HP	HAMELIA PATENS	FIREBUSH	5 GAL. 24"-30" 36" O.C.		4		FULL
	KR	ROSA 'KNOCKOUT'	KNOCKOUT ROSE	3 GAL. 18"x18" FULL, RED/ DK. PINK		28		30" O.C.
	ND	NANDINA DOMESTICA	HEAVENLY BAMBOO	3 GAL. 18"-24" 36" O.C.		16		FULL
	ZP	ZAMIA PUMILA	COONTIE	3 GAL. 18" O.C.		12		FULL
	AF	DIETES IRIDIOIDES	AFRICAN IRIS	1 GAL. 12" O.C.		160		
	LS	LIRIOPE MUSCARI EVERGREEN GIANT	E.G. LIRIOPE	1 GAL. 12" O.C.		319		
	RI	RAPHIOLEPIS INDICA ALBA	INDIAN HAWTHORN	3 GAL. 12"x15" 30" O.C.		39		
	JS	JUNIPERUS CHINENSIS	PARSONS JUNIPER	3 GAL. 24" O.C.		155		FULL
	TA	TRACHELOSPERMUM ASIATICUM	DWARF ASIATIC JASMINE	1 GAL. 12" O.C.		298		
	FL	ANNUALS	FLOWERS IN SEASON	4" POTS 8" O.C.		560		
	RA	RHODODENDRON AUSTRINUM	FLORIDA FLAME AZALEA	3 GAL. 24"-30" 36" O.C.		26		FULL
	RH	BLACK-EYED SUSAN	RUDBECKIA HIRTA	3 GAL. 24" O.C.		18		
		SOD/MISC.						
	SOD	BAHIA HYBRID	QTY. BY CONTRACTOR					

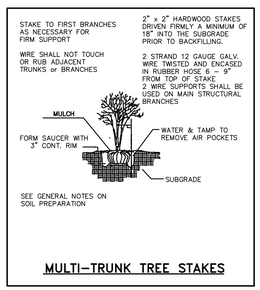
TREE PRESERVATION CHART

TREE ZONE & SIZE REQUIREMENT	SIZE CAL.	*TREE SPECIES	# OF TREES TOTAL ON-SITE	CREDIT	TOTAL X CREDIT
(4" – 8")	4"	OAK	1	1	1
	4"	CYPRESS	1	1	1
	4"	UNIDENTIFIED	1	1	1
	6"	OAK	1	1	1
	8"	PALM	1	1	1
TOTAL			5		5
(9" – 11")	9"	PALM	3	2	6
	10"	PALM	2	2	4
TOTAL			5		10
(12" – 15")	12"	PINE	1	3	3
	12"	PALM	1	3	3
	13"	OAK	1	3	3
	14"	PALM	3	3	9
TOTAL			6		18
(32" – 39")	NO TREES OF THIS SIZE ON SITE TO BE SAVED				
(40" +)	NO TREES OF THIS SIZE ON SITE TO BE SAVED				
TOTAL			0		0
TOTAL CREDITS			16	21	33

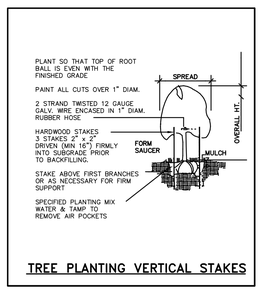
PHASE 2 STREETSCAPE SECTION A–A
NOT TO SCALE



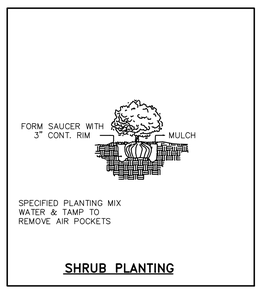
TREE PROTECTION MEASURES



MULTI-TRUNK TREE STAKES



TREE PLANTING VERTICAL STAKES



SHRUB PLANTING

CONSTRUCTION PLANS
CHAU COMMERCIAL BUILDING
EAST STATE ROAD 434
WINTER SPRINGS, FLORIDA

HORIZON CIVILSCAPE SOLUTIONS
LANDSCAPE ARCHITECTURE AND LAND PLANNING
3295 STANDING PEACHTREE TRAIL, KENNESAW, GA (404)-916-1709

NO:	DATE:	REVISION:	BY:
1	05/13/26	PER COUNTY COMMENTS DATED 5/11/26	RTA

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RICK ABT
FLORIDA RLA #1321
REGISTERED LANDSCAPE ARCHITECT RICHARD T. ABT, JR. LA 1321 STATE OF FLORIDA

PROJECT # HC25-053

SITE LANDSCAPE PLAN

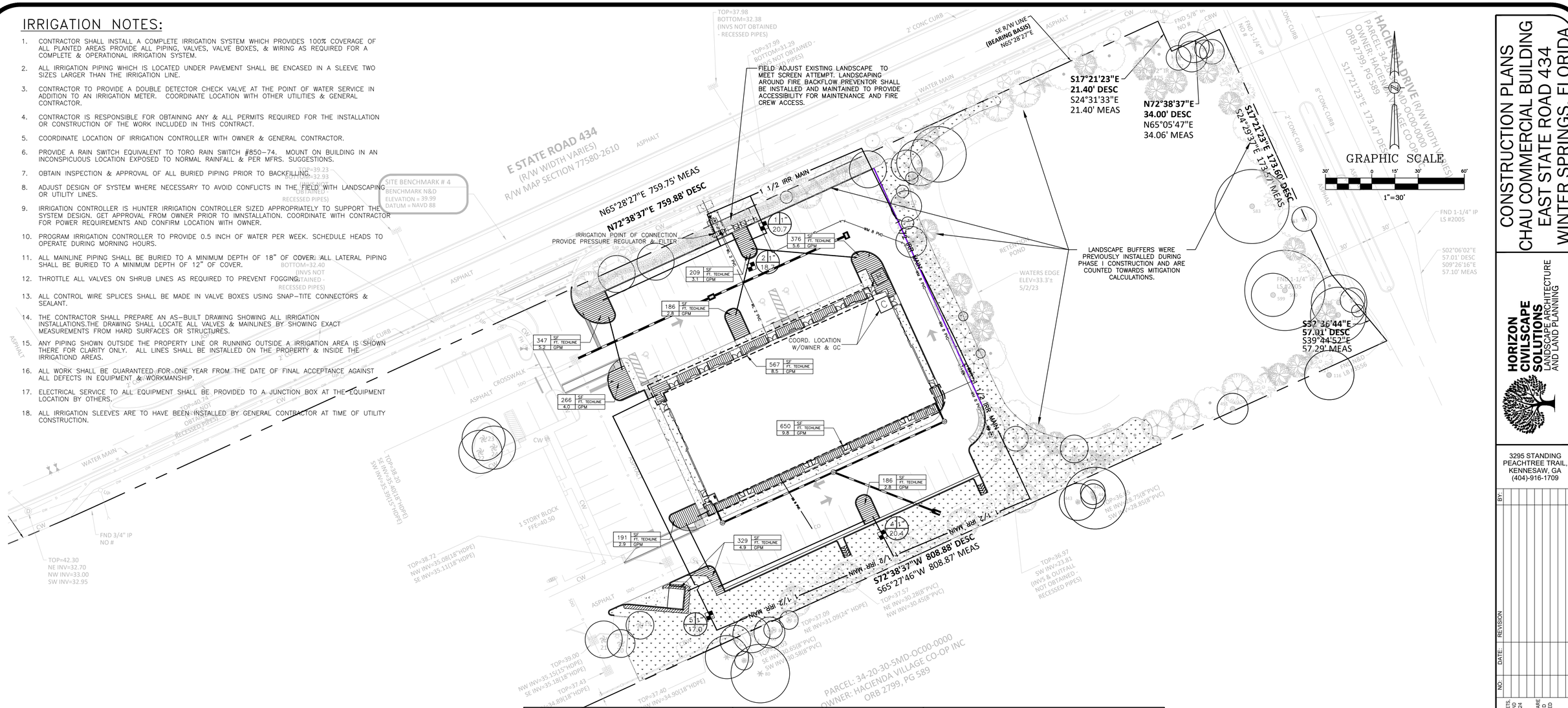
DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
RTA	SMH	RTA/SMH	RTA

DATE 02/30/2026
SCALE 1"=30'
SHEET L-1
OF

25-053_Landscape Irrigation.dwg

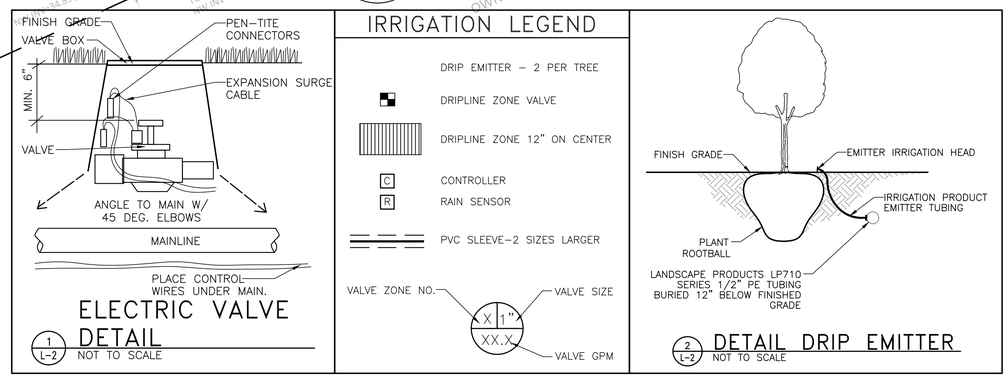
IRRIGATION NOTES:

1. CONTRACTOR SHALL INSTALL A COMPLETE IRRIGATION SYSTEM WHICH PROVIDES 100% COVERAGE OF ALL PLANTED AREAS PROVIDE ALL PIPING, VALVES, VALVE BOXES, & WIRING AS REQUIRED FOR A COMPLETE & OPERATIONAL IRRIGATION SYSTEM.
2. ALL IRRIGATION PIPING WHICH IS LOCATED UNDER PAVEMENT SHALL BE ENCASED IN A SLEEVE TWO SIZES LARGER THAN THE IRRIGATION LINE.
3. CONTRACTOR TO PROVIDE A DOUBLE DETECTOR CHECK VALVE AT THE POINT OF WATER SERVICE IN ADDITION TO AN IRRIGATION METER. COORDINATE LOCATION WITH OTHER UTILITIES & GENERAL CONTRACTOR.
4. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY & ALL PERMITS REQUIRED FOR THE INSTALLATION OR CONSTRUCTION OF THE WORK INCLUDED IN THIS CONTRACT.
5. COORDINATE LOCATION OF IRRIGATION CONTROLLER WITH OWNER & GENERAL CONTRACTOR.
6. PROVIDE A RAIN SWITCH EQUIVALENT TO TORO RAIN SWITCH #850–74. MOUNT ON BUILDING IN AN INCONSPICUOUS LOCATION EXPOSED TO NORMAL RAINFALL & PER MFRS. SUGGESTIONS.
7. OBTAIN INSPECTION & APPROVAL OF ALL BURIED PIPING PRIOR TO BACKFILLING.
8. ADJUST DESIGN OF SYSTEM WHERE NECESSARY TO AVOID CONFLICTS IN THE FIELD WITH LANDSCAPING OR UTILITY LINES.
9. IRRIGATION CONTROLLER IS HUNTER IRRIGATION CONTROLLER SIZED APPROPRIATELY TO SUPPORT THE SYSTEM DESIGN. GET APPROVAL FROM OWNER PRIOR TO IMNSTALLATION. COORDINATE WITH CONTRACTOR FOR POWER REQUIREMENTS AND CONFIRM LOCATION WITH OWNER.
10. PROGRAM IRRIGATION CONTROLLER TO PROVIDE 0.5 INCH OF WATER PER WEEK. SCHEDULE HEADS TO OPERATE DURING MORNING HOURS.
11. ALL MAINLINE PIPING SHALL BE BURIED TO A MINIMUM DEPTH OF 18" OF COVER. ALL LATERAL PIPING SHALL BE BURIED TO A MINIMUM DEPTH OF 12" OF COVER.
12. THROTTLE ALL VALVES ON SHRUB LINES AS REQUIRED TO PREVENT FOGGING.
13. ALL CONTROL WIRE SPLICES SHALL BE MADE IN VALVE BOXES USING SNAP–TITE CONNECTORS & SEALANT.
14. THE CONTRACTOR SHALL PREPARE AN AS–BUILT DRAWING SHOWING ALL IRRIGATION INSTALLATIONS.THE DRAWING SHALL LOCATE ALL VALVES & MAINLINES BY SHOWING EXACT MEASUREMENTS FROM HARD SURFACES OR STRUCTURES.
15. ANY PIPING SHOWN OUTSIDE THE PROPERTY LINE OR RUNNING OUTSIDE A IRRIGATION AREA IS SHOWN THERE FOR CLARITY ONLY. ALL LINES SHALL BE INSTALLED ON THE PROPERTY & INSIDE THE IRRIGATIOND AREAS.
16. ALL WORK SHALL BE GUARANTEED FOR ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE AGAINST ALL DEFECTS IN EQUIPMENT & WORKMANSHIP.
17. ELECTRICAL SERVICE TO ALL EQUIPMENT SHALL BE PROVIDED TO A JUNCTION BOX AT THE EQUIPMENT LOCATION BY OTHERS.
18. ALL IRRIGATION SLEEVES ARE TO HAVE BEEN INSTALLED BY GENERAL CONTRACTOR AT TIME OF UTILITY CONSTRUCTION.



1	20.7	
2	19.2	
3	20.4	
4	17.0	
5	19.1	

209	SF FT. TECHLINE	3.1 GPM
376	SF FT. TECHLINE	5.6 GPM
186	SF FT. TECHLINE	2.8 GPM
347	SF FT. TECHLINE	5.2 GPM
567	SF FT. TECHLINE	8.5 GPM
266	SF FT. TECHLINE	4.0 GPM
650	SF FT. TECHLINE	9.8 GPM
186	SF FT. TECHLINE	2.8 GPM
191	SF FT. TECHLINE	2.9 GPM
329	SF FT. TECHLINE	4.9 GPM



TOTAL IRRIGATED AREA = 2,960 SF
REQUIRED IRRIGATION = 0.5"/WEEK
TOTAL IRRIGATION DEMAND = 922 GAL/WEEK = 132 GPD
IRRIGATION TO BE PROVIDED THRU 1" IRRIGATION METER

CONSTRUCTION PLANS
CHAU COMMERCIAL BUILDING
EAST STATE ROAD 434
WINTER SPRINGS, FLORIDA

HORIZON CIVILSCAPE SOLUTIONS
LANDSCAPE ARCHITECTURE AND LAND PLANNING
3295 STANDING PEACHTREE TRAIL,
KENNESAW, GA
(404)-916-1709

NO:	DATE:	REVISION

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RICK ABT
FLORIDA RLA #1321

REGISTERED LANDSCAPE ARCHITECT RICHARD T. ABT LA 1321 STATE OF FLORIDA

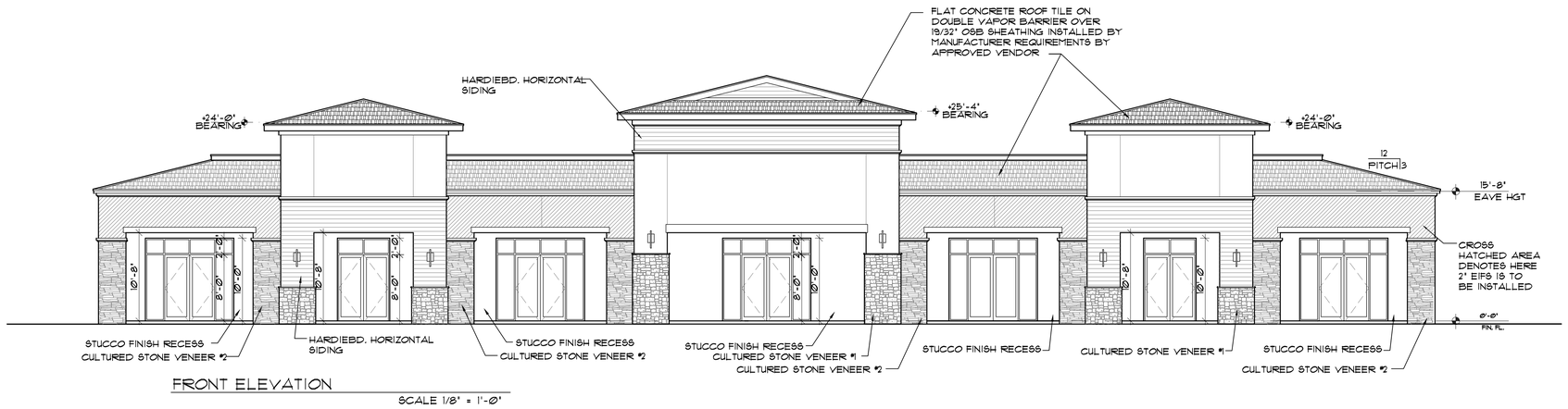
PROJECT # HC25-053
DATE 02/30/2026
SCALE 1"=30'
SHEET L-2

SITE IRRIGATION PLAN

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
RTA	SMH	RTA/SMH	RTA

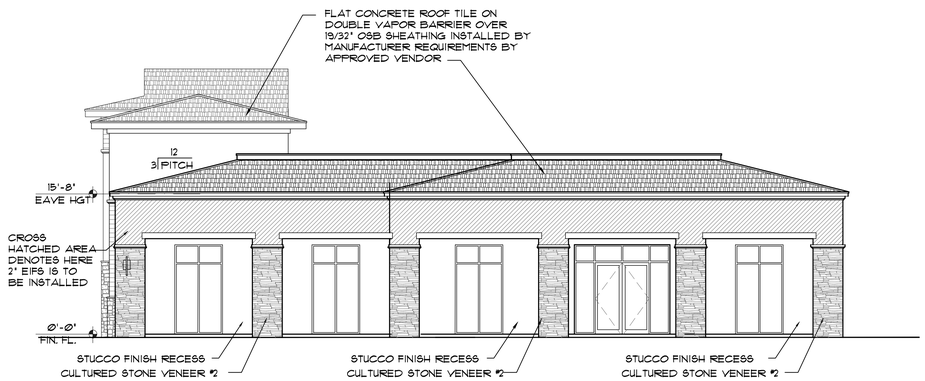
OF

25-053_Landscape Irrigation.dwg



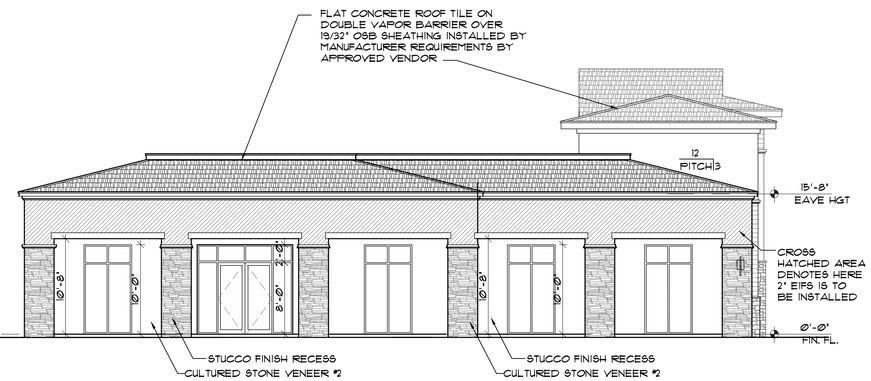
FRONT ELEVATION

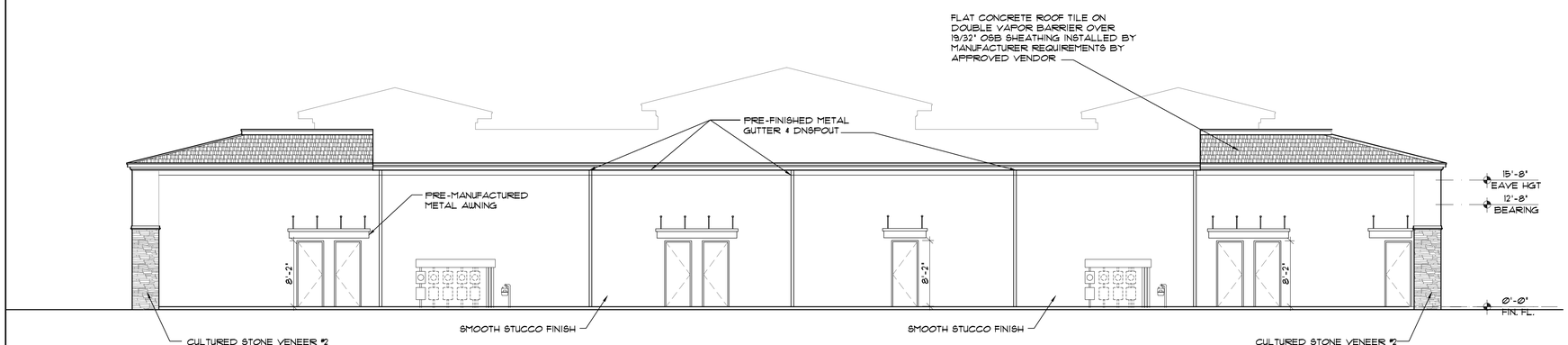
SCALE 1/8" = 1'-0"



RIGHT ELEVATION

SCALE 1/8" = 1'-0"





REAR ELEVATION

SCALE 1/8" = 1'-0"

REVISIONS

1	
2	
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PROJECT NO.
156CR

DATE
12-11-2025

ELEVATIONS

NEW COMMERCIAL BUILDING AT
THE CHAU CORPORATION
E. STATE ROAD 434
WINTER SPRINGS, FLORIDA

AA26002490
RABITS & ROMANO ARCHITECTURE
PLANNING AND DESIGN
5205 S. ORANGE AVE.
SUITE 200 ORLANDO FL 32809
TEL - 407-496-0350
FAX - 407-232-6000
info@rabitsromano.com
www.rabitsromano.com

SIGN/SEAL

DATE

SHEET
A201
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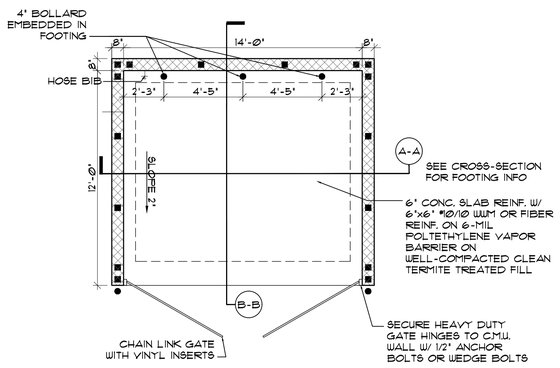
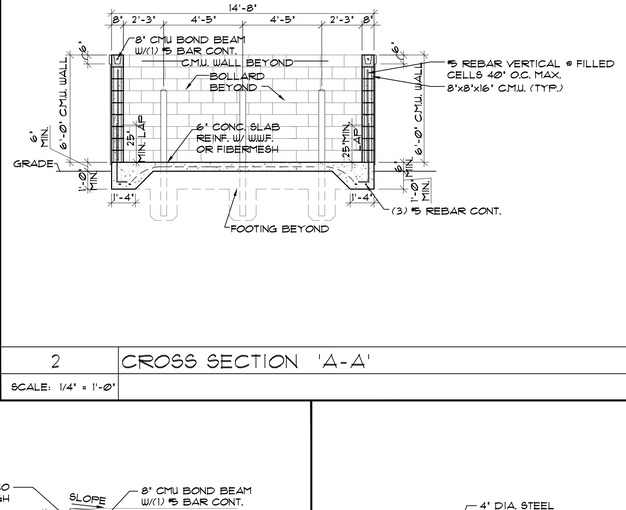


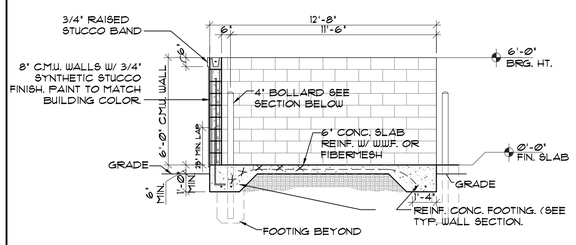
1 DUMPSTER ENCLOSURE

SCALE: 1/4" = 1'-0"



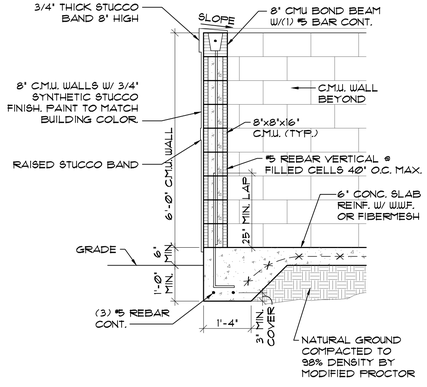
2 CROSS SECTION 'A-A'

SCALE: 1/4" = 1'-0"



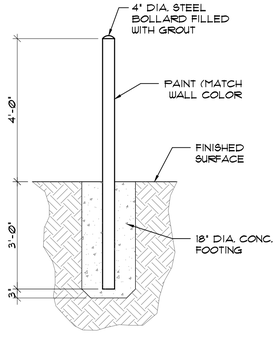
3 CROSS SECTION 'B-B'

SCALE: 1/4" = 1'-0"



4 TYP. WALL SECTION

SCALE: 1/2" = 1'-0"



5 BOLLARD DETAIL

SCALE: 1/2" = 1'-0"

GN GENERAL NOTES

SCALE:

I. GENERAL

A. STRUCTURAL WORK SHALL BE IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, AS ADOPTED AND SUPPLEMENTED BY LOCAL REGULATIONS.

B. THE CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS AT THE SITE AND SHALL NOTIFY THE ARCHITECT OF DISCREPANCIES BETWEEN THE ACTUAL CONDITIONS AND INFORMATION SHOWN ON THE DRAWINGS BEFORE PROCEEDING WITH THE WORK.

C. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE COMPLETE DESIGN OF THE STRUCTURE. THEY DO NOT INDICATE THE METHODS OF CONSTRUCTION UNLESS SO STATED OR NOTED. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE WORKMEN, OR OTHER PERSONS DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE BUT NOT BE LIMITED TO BRACING, SHORING FOR EARTH BANKS, FORMS, SCAFFOLDING, PLANKING, SAFETY NETS, SUPPORT AND BRACING FOR CRANES AND GIN POLES.

D. THE CONTRACTOR SHALL PROVIDE TEMPORARY ERECTION BRACING AND SHORING OF ALL STRUCTURAL MEMBERS AS REQUIRED FOR STRUCTURAL STABILITY OF THE STRUCTURE DURING ALL PHASES OF CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT OF ANY CONDITION WHICH, IN HIS OPINION, MIGHT ENDANGER THE STABILITY OF THE STRUCTURE OR CAUSE DISTRESS IN THE STRUCTURE.

E. CONSTRUCTION MATERIALS SHALL NOT BE STACKED ON FLOORS OR ROOFS IN EXCESS OF THE DESIGN LIVE LOADS WHICH ARE INDICATED IN THE GENERAL NOTES. IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO INSURE THAT THE SUBCONTRACTORS ARE INFORMED AND DO NOT VIOLATE THIS IMPORTANT REQUIREMENT. IMPACT SHALL BE AVOIDED WHEN PLACING MATERIALS ON FLOORS OR ROOFS.

F. PLANS, SECTIONS AND DETAILS ARE NOT TO BE SCALED FOR DETERMINATION OF QUANTITIES, LENGTHS, OR FIT OF MATERIALS.

G. THE CONTRACTOR SHALL SUBMIT CONSTRUCTION JOINT LOCATIONS TO THE STRUCTURAL ENGINEER FOR APPROVAL. CONSTRUCTION JOINTS EXPOSED TO EARTH OR WEATHER SHALL BE WATERPROOFED PER THE SPECIFICATIONS.

H. SEE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR MISCELLANEOUS STEEL ITEMS NOT SHOWN HEREON.

I. COORDINATE SIZES AND LOCATIONS OF OPENINGS IN FLOORS AND ROOF WITH ARCHITECTURAL, MECHANICAL AND ELECTRICAL REQUIREMENTS.

J. FOR ACTUAL ELEVATION OF FIRST FLOOR EL. Ø'-Ø", SEE SITE PLAN.

K. SUBMIT WRITTEN REQUEST TO THE ARCHITECT FOR APPROVAL OF ANY PROPOSED CHANGE TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. SPLICING, CUTTING, NOTCHING OR OTHER ALTERATIONS TO STRUCTURAL MEMBERS ARE NOT PERMITTED WITHOUT WRITTEN AUTHORIZATION OF THE STRUCTURAL ENGINEER. ANY UNAUTHORIZED DEVIATION FROM THE CONTRACT DOCUMENTS, AND CORRECTION THEREOF, IS THE RESPONSIBILITY OF THE CONTRACTOR.

L. THE MOST STRINGENT REQUIREMENTS APPLY IN CASE OF CONFLICT BETWEEN SPECIFICATIONS, STANDARDS, CODES AND DRAWINGS.

M. DESIGN DATA

1.	FLOOR LIVE LOAD	100 PSF
2.	ROOF LIVE LOAD	20 PSF
3.	FLOOR DEAD LOAD	30 PSF
4.	ROOF DEAD LOAD	15 PSF
5.	WALL DEAD LOAD	10 PSF
6.	WIND VELOCITY	140 MPH, EXPOSURE 'C'
7.	ALLOWABLE SOIL PRESSURE	3000 PSF (VERIFY GEOTECH REPORT)
8.	GROUND SNOW LOAD	0 PSF
9.	COLLATERAL LOAD	5 PSF
10.	SEISMIC COEFFICIENTS, S_s=6.6% AND S_1=3.58%, SITE CLASS D	
11.	STANDARD DEFLECTIONS LIMITS HAVE UTILIZED OTHER THAN AS LISTED.	

- PURLIN AND RAFTER VERTICAL LIMIT=L/240
- FRAME LATERAL DRIFT =H/100
- GIRT AND ENDWALL COLUMN HORIZONTAL LIMIT=L/240

II. FOUNDATIONS

A. ANY FILL REQUIRED TO BACKFILL EXCAVATED AREA OR ACHIEVE FINISHED GRADE IN STRUCTURAL AREAS SHALL BE INORGANIC, NON-PLASTIC GRANULAR SOIL (CLEAN SANDS). THE FILL SHALL BE PLACED IN LEVEL LIFTS NOT TO EXCEED 12 INCHES LOOSE THICKNESS AND COMPACTED TO A MINIMUM OF 95% OF THE SOIL'S MODIFIED PROCTOR MAXIMUM DRY DENSITY AS DETERMINED BY: ASTM SPECIFICATION D-1557. IN-PLACE DENSITY TESTS SHALL BE PERFORMED ON EACH LIFT BY AN EXPERIENCED ENGINEERING TECHNICIAN TO VERIFY THAT THE REQUIRED DEGREE OF COMPACTION HAS BEEN ACHIEVED. A SOIL COMPACTION TEST SHALL BE PERFORMED IN EVERY SPREAD FOOTING PAD SUB-GRADE.

B. SOIL PRESSURES IMPOSED ON FINAL PREPARED FOUNDATION STRATA SHALL NOT EXCEED SPECIFIED ALLOWABLE INCLUDING ALL SPECIFIED DEAD AND LIVE LOADS.

C. REMOVE FREE WATER FROM EXCAVATIONS BEFORE PLACING CONCRETE.

III. CONCRETE MASONRY UNITS (CMU)

A. ALL CMU WORK SHALL CONFORM TO ACI SPECIFICATIONS FOR MASONRY STRUCTURES (ACI 530.1).

B. CONCRETE BLOCK SHALL CONFORM TO ASTM C90, TYPE II, WITH A MINIMUM NET COMPRESSIVE STRENGTH AT 28-DAYS OF 1800 PSI ON THE NET AREA. NORMAL WEIGHT UNITS UNLESS NOTED.

C. MORTAR SHALL BE TYPE M OR S.

D. REINFORCE WALLS WITH TRUSS-TYPE REINFORCEMENT EQUAL TO STANDARD DUR-O-WAL IN BED JOINTS AT 16" O.C. MEASURED VERTICALLY U.O.N. PLACE PER MANUFACTURER'S RECOMMENDATIONS. EXTEND INTO COLUMNS, OR PROVIDE DOVETAIL ANCHORS TO SECURE MASONRY TO COLUMNS.

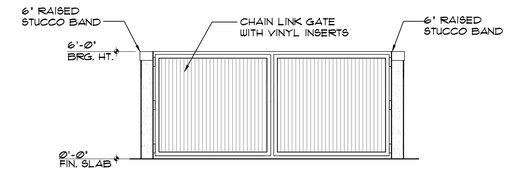
E. WHERE CONCRETE BEAMS ARE INSTALLED IN CONCRETE BLOCK WALL, SUPPORT CONCRETE WITH 6" WIDE CONTINUOUS STRIPS OF FOUR STOP MATERIAL (DUR-O-STOP OR EQUIV.) USE OF ROOFING FELT STRIPS OR ALUMINUM WILL NOT BE PERMITTED.

F. OPENINGS SHALL HAVE BLOCK CELL AT EACH JAMB FILLED WITH GROUT AND REINFORCED.

G. GROUT FOR FILLED CELLS SHALL CONFORM TO ASTM C476, LATEST REVISION, AND SHALL HAVE A SLUMP OF BETWEEN 8" AND 11".

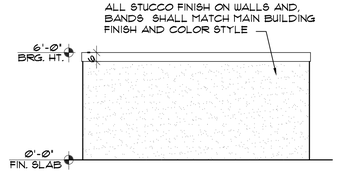
H. AT FILLED CELLS, LAY UNITS WITH FULL BED JOINTS AROUND CELLS.

I. COMPRESSIVE DESIGN STRENGTH OF MASONRY (f'm) SHALL BE AT LEAST 1500 PSI.



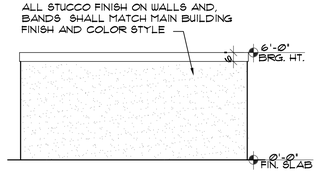
6 FRONT ELEVATION

SCALE: 1/4" = 1'-0"



7 LEFT SIDE ELEVATION

SCALE: 1/4" = 1'-0"



8 RIGHT SIDE ELEVATION

SCALE: 1/4" = 1'-0"



9 REAR ELEVATION

SCALE: 1/4" = 1'-0"

REVISIONS

1	2	3	4	5	6	7	8

384

PROJECT NO. 15CR

DATE 12-11-2025

DUMPSTER ENCLOSURE / PLANS / SECTIONS / NOTES / DETAILS

NEW COMMERCIAL BUILDING AT

THE CHAU CORPORATION

E. STATE ROAD 434

WINTER SPRINGS, FLORIDA

AA26002490

RABITS & ROMANO ARCHITECTURE

PLANNING AND DESIGN

info@rabitsromano.com

www.rabitsromano.com

TEL - 407-696-0350

FAX - 407-232-6000

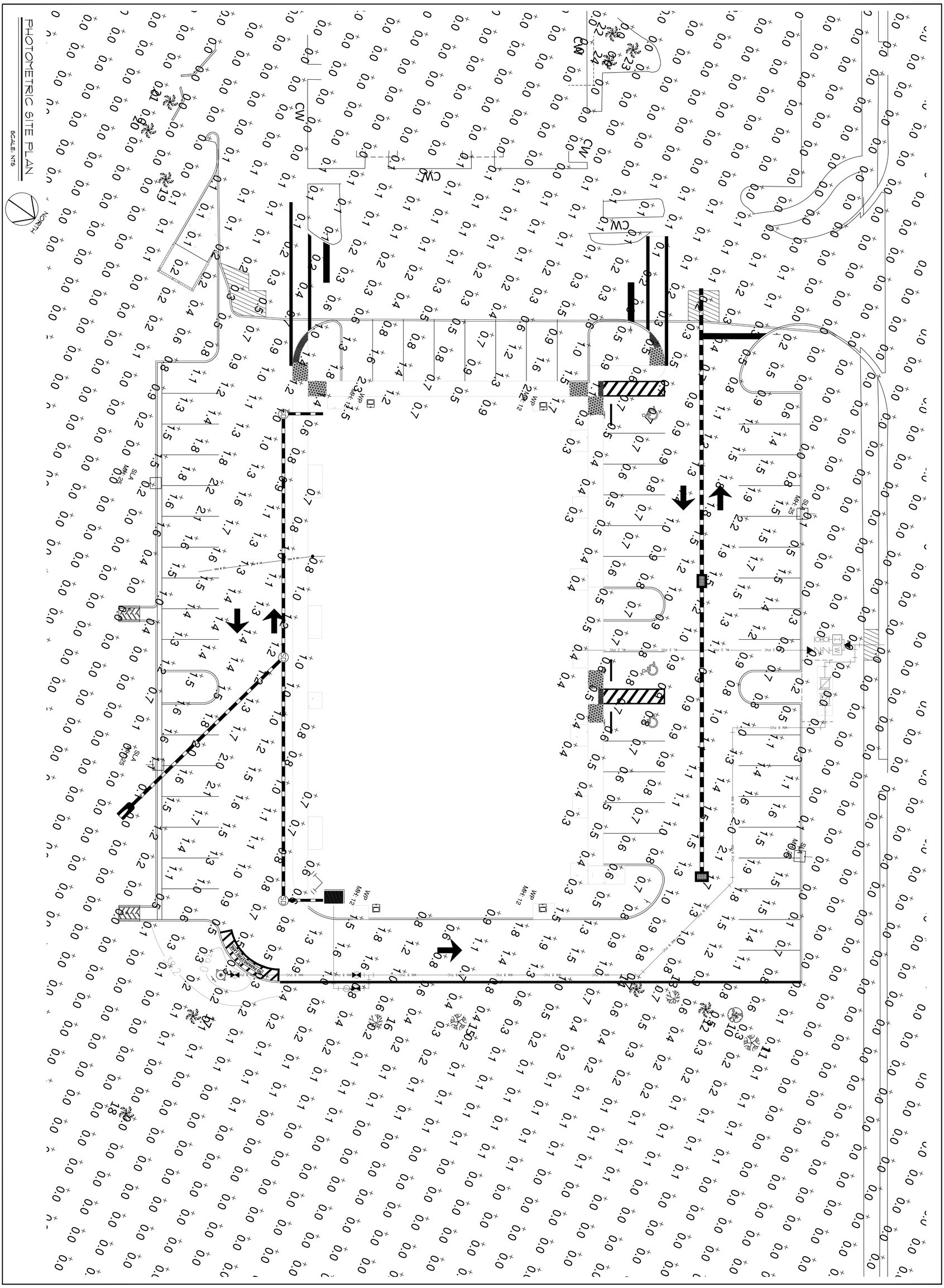
5205 S. ORANGE AVE.

SUITE 200 ORLANDO FL 32809

SIGN/SEAL

DATE

SHEET PS101



SHEET AS101	DATE	SIGN/SEAL	RABITS & ROMANO ARCHITECTURE PLANNING AND DESIGN AA26002490 5205 S. ORANGE AVE. SUITE 200 ORLANDO FL 32809 TEL - 407-490-0350 FAX - 407-232-6000 info@rabitsromano.com www.rabitsromano.com	NEW COMMERCIAL BUILDING AT THE CHAU CORPORATION E. STATE ROAD 434 WINTER SPRINGS, FLORIDA	PHOTOMETRIC SITE PLAN	PROJECT NO. 156CR DATE 12-11-2025	REVISIONS 1 2 3 4 5 6 7 8

Landreth Lighting Calculation Summary							
Label	**CalcType**	**Units**	**Avg**	**Max**	**Min**	**Avg/Min**	**Max/Min**
Property Line	Illuminance	Fc	0.03	0.3	0.0	N.A.	N.A.
Parking Lot Summary	Illuminance	Fc	1.50	4.3	0.5	3.00	8.60

Landreth Lighting Luminaire Schedule								
Symbol	**[MANUFAC]**	**Qty**	**Label**	**Arrangement**	**Description**	**LLF**	**Lum. Watts**	**Lum. Lumens**	**BUG Rating**
	U.S. ARCHITECTURAL LIGHTING	2	SLA	Single	VLL-PLED--VSQ-W-40LED-875mA-40K 1 XX(Finish) To be mounted on a 16' RTA direct burial pole.	1.000	110.8	15559	B4-U0-G3
	Lithonia Lighting	2	WP	Single	WDGE3 LED P3 40K 70CRI RFT MVOLT SRM E10WH NLTAIREM2 PIRH XX(Finish)	1.000	71.6952	10145	B2-U0-G2
	Lithonia Lighting	7	WP1	Single	WDGE2 LED P3 40K 70CRI T2M MVOLT SRM NLTAIR2 PIR XX(Finish)	1.000	32.1375	3628	B1-U0-G1

U.S. ARCHITECTURAL LIGHTING

AREA & ROADWAY LIGHTING

VLL SERIES - LED

PROJECT NAME:

PROJECT TYPE:



Luminaire
Diecast aluminum assembly with minimum wall thickness of 0.150". Integral cooling fins surround the electrical compartment. LED Module mounting area is cast to within a 0.003" surface flatness variance for maximum surface contact and thermal conductivity from the LED modules to the radiating fins. Passive radiating fins above the LED Optics provide superior thermal management and long LED life. The optical and electrical compartments are integrated with the support arm to create one assembly. Hinged driver compartment cover provides access to the drivers and wiring.

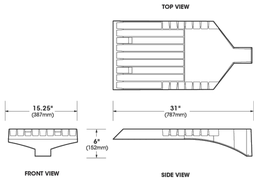
PLED™ Optics
Emitters (LED's) are arrayed on a metal core PCB panel with each emitter located on a copper thermal transfer pad and enclosed by an LED refractor. LED optics completely seal each individual emitter to meet an IP66 rating. In asymmetric distributions, a micro-reflector inside the refractor re-directs the house side emitter output towards the street side and functions as a house side shielding element. Refractors are injection molded optical acrylic. Each LED refractor is sealed to the PCB over an emitter and all refractors are retained by an aluminum frame. Any one Panel, or group of Panels in a luminaire, have the same optical pattern. LED refractors produce standard and specialized street, site, and area distributions. All distributions are Zero Uplight (U0). Full-Cutoff and meet Dark Sky requirements. Panels are field replaceable and field rotatable in 90° increments.

LED Emitters
High Power White LED's are driven between 350mA and 1400mA for a maximum output of 4 Watts nominal per LED. LED's are available standard in CCT's of Warm White (2700K & 3000K), Neutral White (4000K), or Cool White (5000K). All Standard LED's have a minimum of 70 CRI. Consult Factory for other LED options. LED Lumen Maintenance of L93 at 100,000 hours up to 1050mA drive current and 60,000 hours at 1225mA and 1400mA drive current (TM-21 calculated at 6x Test Time).

True Amber LED's
TRA-True Amber LED's emit light in a narrow amber spectral bandwidth centered on 585-590nm. True Amber has negligible blue light and is suitable for wildlife.

LED Driver(s)
Constant current electronic with a power factor of >.90 and a minimum operating temperature of -40°F/-40°C. Driver(s) is/are UL and cUL recognized and mounted directly against the Electrical Housing to facilitate thermal transfer, held down by universal clamps to facilitate easy removal. In-line terminal blocks facilitate wiring between the driver and optical arrays. Drivers accept an input of 120-277V, 50/60Hz (UNV) or 347V-480V, 50,60Hz. 0 - 10V dimmable driver is standard. Driver has a minimum of 3KV internal surge protection. Luminaire supplied with 20KV surge protector for field accessible installation.)

Finish
Electrostatically applied TGIC Polyester Powder Coat on substrate prepared with 20 PSI power wash at 140°F. Four step media blast and iron phosphate pretreatment for protection and paint adhesion. 400°F bake for maximum hardness and durability.



BABA compliant | U.L. Listed for Wet Location | 2024348

U.S. Pole Company Inc
An Employee Owned Company
660 West Avenue O, Palmdale, CA 93551
Phone (661) 233-2000 www.usatg.com

MADE IN THE USA

REVISIONS: 1 2 3 4 5 6 7 8

PROJECT NO: 15ECR

DATE: 03-04-2025

PHOTOMETRIC SPECIFICATIONS AND SCHEDULE

NEW COMMERCIAL BUILDING AT
THE CHAU CORPORATION
E. STATE ROAD 434
WINTER SPRINGS, FLORIDA



WDGE2 LED
Architectural Wall Sconce
Precision Refractive Optic

DLC LISTED PREMIUM | DLC LISTED | ETL LISTED | TITLE 20

ds | BAA | BABA

Catalog Number

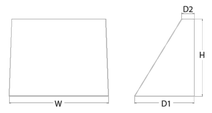
Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

Depth (D1): 7"
Depth (D2): 1.5"
Height: 9"
Width: 11.5"
Weight: (without options) 13.5 lbs



Introduction

The WDGE LED family is designed to meet specifier's every wall-mounted lighting need in a widely accepted shape that blends with any architecture. The clean rectilinear design comes in four sizes with lumen packages ranging from 1,200 to 25,000 lumens, providing a true site-wide solution. Embedded with nLight® AIR wireless controls, the WDGE family provides additional energy savings and code compliance.

WDGE2 with industry leading precision refractive optics provides great uniform distribution and optical control. When combined with multiple integrated emergency battery backup options, including an 18W cold temperature option, the WDGE2 becomes the ideal wall-mounted lighting solution for pedestrian scale applications in any environment.

ds design select — Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect. *See ordering tree for details.

WDGE LED Family Overview

Luminaire	Optics	Standard EM, 0°C	Cold EM, -20°C	Sensor	Approximate Lumens (4000K, 80CRI)						
					P0	P1	P2	P3	P4	P5	P6
WDGE1 LED	Visual Comfort	4W		--	750	1,200	2,000	--	--	--	--
WDGE2 LED	Visual Comfort	10W	18W	Standalone / nLight	--	1,200	2,000	3,000	4,500	6,000	--
WDGE2 LED	Precision Refractive	10W	18W	Standalone / nLight	700	1,200	2,000	3,200	4,200	--	--
WDGE3 LED	Precision Refractive	15W	18W	Standalone / nLight	--	7,500	8,500	10,000	12,000	--	--
WDGE4 LED	Precision Refractive			Standalone / nLight	--	12,000	16,000	18,000	20,000	22,000	25,000

Ordering Information

EXAMPLE: WDGE2 LED P3 40K 80CRI T3M MVOLT SRM DDBXD

Series	Package	Color Temperature			CRI	Distribution		Voltage	Mounting		
WDGE2 LED	P0[1]	27K	2700K	40K	4000K	70CRI[4]	T1S Type I Short	MVOLT	**Shipped included**		**Shipped separately**
	P1[1]	30K	3000K	50K	5000K	80CRI	T2M Type II Medium	347[5]	SRM Surface mounting bracket		AWS 3/8inch Architectural wall spacer[6]
	P2[1]	35K	3500K	AMB[2]	Amber	LW[3] Limited Wavelength	T3M Type III Medium	480[5]	ICW Indirect Canopy/Ceiling Washer bracket (dry/damp locations only)[7]		PBBW Surface-mounted back box (top, left, right conduit entry). Use when there is no junction box available[2]
	P3[1]						T4M Type IV Medium				
	P4[1]						TFTM Forward Throw Medium				

Options		Finish	
E10WH	Emergency battery backup, Certified in CA Title 20 MAEDBS (10W, 5°C min)	DDBXD	Dark bronze
E20WC	Emergency battery backup, Certified in CA Title 20 MAEDBS (18W, -20°C min)	DBLXD	Black
PE	Photocell, Button Type[8]	DNAXD	Natural aluminum
DMG	0-10V dimming wires pulled outside fixture (for use with an external control, ordered separately)[9]	DWHXD	White
BCE	Bottom conduit entry for back box (PBBW). Total of 4 entry points.	DSSXD	Sandstone
CCE	Coastal Construction[3]	DDBTXD	Textured dark bronze
		DBLBXD	Textured black
		DNATXD	Textured natural aluminum
		DWHGXD	Textured white
		DSSTXD	Textured sandstone

Standalone Sensors/Controls

PIR	Bi-level (100/35%) motion sensor for 8-15' mounting heights. Intended for use on switched circuits with external dusk to dawn switching.
PIRH	Bi-level (100/35%) motion sensor for 15-30' mounting heights. Intended for use on switched circuits with external dusk to dawn switching
PIR1FC3V	Bi-level (100/35%) motion sensor for 8-15' mounting heights with photocell pre-programmed for dusk to dawn operation.
PIRH1FC3V	Bi-level (100/35%) motion sensor for 15-30' mounting heights with photocell pre-programmed for dusk to dawn operation.
SPD10KV	10kV Surge pack[4]
CCE	Coastal Construction[3]

Networked Sensors/Controls

NLTAIR2 PIR	Embedded wireless controls by nLight with Passive Infrared Occ sensor and on/off photocell for 8-15' mounting heights.
NLTAIR2 PIRH	Embedded wireless controls by nLight with Passive Infrared Occ sensor and on/off photocell for 15-30' mounting heights.
NLTAIREM2 PIR	Embedded wireless controls by nLight with UL924 listed emergency operation, Passive Infrared Occ sensor and on/off photocell for 8-15' mounting heights
NLTAIREM2 PIRH	Embedded wireless controls by nLight with UL924 listed emergency operation, Passive Infrared Occ sensor and on/off photocell for 15-30' mounting heights

See page 4 for out of box functionality

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WDGE3 LED
Architectural Wall Sconce

DLC LISTED PREMIUM | DLC LISTED | ETL LISTED | TITLE 20

ds | BAA | BABA

Catalog Number

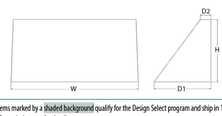
Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

Depth (D1): 8"
Depth (D2): 1.5"
Height: 9"
Width: 18"
Weight: (without options) 19.5 lbs



Introduction

The WDGE LED family is designed to meet specifier's every wall-mounted lighting need in a widely accepted shape that blends with any architecture. The clean rectilinear design comes in four sizes with lumen packages ranging from 1,200 to 25,000 lumens, providing a true site-wide solution. Embedded with nLight® AIR wireless controls, the WDGE family provides additional energy savings and code compliance.

WDGE3 has been designed to deliver up to 12,000 lumens through a precision refractive lens with wide distribution, perfect for augmenting the lighting from pole mounted luminaires.

ds design select — Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect. *See ordering tree for details

WDGE LED Family Overview

Luminaire	Optics	Standard EM, 0°C	Cold EM, -20°C	Sensor	Approximate Lumens (4000K, 80CRI)						
					P0	P1	P2	P3	P4	P5	P6
WDGE1 LED	Visual Comfort	4W		--	750	1,200	2,000	--	--	--	--
WDGE2 LED	Visual Comfort	10W	18W	Standalone / nLight	--	1,200	2,000	3,000	4,500	6,000	--
WDGE2 LED	Precision Refractive	10W	18W	Standalone / nLight	700	1,200	2,000	3,200	4,200	--	--
WDGE3 LED	Precision Refractive	15W	18W	Standalone / nLight	6,000	7,500	8,500	10,000	12,000	--	--
WDGE4 LED	Precision Refractive			Standalone / nLight	--	12,000	16,000	18,000	20,000	22,000	25,000

Ordering Information

EXAMPLE: WDGE3 LED P3 40K 70CRI R3 MVOLT SRM DDBXD

Series	Package	Color Temperature			CRI	Distribution		Voltage	Mounting		
WDGE3 LED	P0	30K	3000K		70CRI	R2	Type 2	MVOLT	**Shipped included**		**Shipped separately**
	P1	40K	4000K		80CRI	R3	Type 3	347[1]	SRM Surface mounting bracket		AWS 3/8 inch Architectural wall spacer[2]
	P2	50K	5000K			R4	Type 4	480[1]	ICW Indirect Canopy/Ceiling Washer bracket (dry/damp locations only)[3]		PBBW Surface-mounted back box (top, left, right conduit entry). Use when there is no junction box available.[2]
	P3					RFT	Forward Throw				
	P4										

Options		Finish	
E10WH	Emergency battery backup, Certified in CA Title 20 MAEDBS (10W, 5°C min)	DDBXD	Dark bronze
E20WC	Emergency battery backup, Certified in CA Title 20 MAEDBS (18W, -20°C min)	DBLXD	Black
PE	Photocell, Button Type[4]	DNAXD	Natural aluminum
DMG	0-10V dimming wires pulled outside fixture (for use with an external control, ordered separately)[5]	DWHXD	White
BCE	Bottom conduit entry for back box (PBBW). Total of 4 entry points.	DSSXD	Sandstone
SPD10KV	10kV Surge pack[6]	DDBTXD	Textured dark bronze
CCE	Coastal Construction[7]	DBLBXD	Textured black
		DNATXD	Textured natural aluminum
		DWHGXD	Textured white
		DSSTXD	Textured sandstone

Standalone Sensors/Controls

PIR	Bi-level (100/35%) motion sensor for 8-15' mounting heights. Intended for use on switched circuits with external dusk to dawn switching.
PIRH	Bi-level (100/35%) motion sensor for 15-30' mounting heights. Intended for use on switched circuits with external dusk to dawn switching
PIR1FC3V	Bi-level (100/35%) motion sensor for 8-15'mounting heights with photocell pre-programmed for dusk to dawn operation.
PIRH1FC3V	Bi-level (100/35%) motion sensor for 15-30'mounting heights with photocell pre-programmed for dusk to dawn operation.

Networked Sensors/Controls

NLTAIR2 PIR	Embedded wireless controls by nLight with Passive Infrared Occ sensor and on/off photocell for 8-15' mounting heights.
NLTAIR2 PIRH	Embedded wireless controls by nLight with Passive Infrared Occ sensor and on/off photocell for 15'-30' mounting heights.
NLTAIREM2 PIR	Embedded wireless controls by nLight with UL924 listed emergency operation, Passive Infrared Occ sensor and on/off photocell for 8-15' mounting heights[1]
NLTAIREM2 PIRH	Embedded wireless controls by nLight with UL924 listed emergency operation, Passive Infrared Occ sensor and on/off photocell for 15'-30' mounting heights

See page 4 for out of box functionality

Accessories
Ordered and shipped separately.

WDGEAWS DDBXD — WDGE 3.81inch Architectural Wall Spacer (specify finish)
WDGEPBBW DDBXD U — WDGE3 surface-mounted back box (specify finish)

NOTES
1 347V and 480V not available with E15WH and E20WC.
2 Not qualified for DLC. Not available with emergency battery backup or sensors/controls.
3 For PBBW and AWS with CCE option, require an RFA.
4 PE not available in 480V and with sensors/controls.
5 DMG option not available with sensors/controls.
6 Not available with E20WC option.
7 Available with MVOLT only and only rated to 25C ambient.

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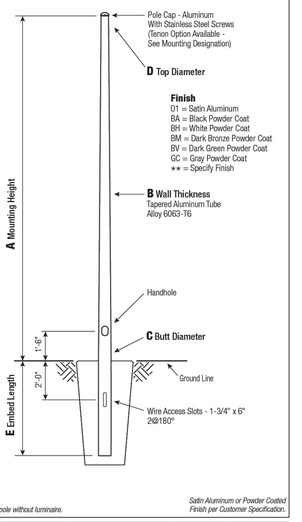
RTA
Round Tapered Aluminum Pole
No Arm — Direct Buried



WARNING: *Do not install light pole without luminaire.*

Satin Aluminum or Powder Coated Finish per Customer Specification.

A Mtg. Ht.	B Wall Thickness	C Butt Diameter	Total Lbs. Weight	Maximum EPA 90	100	110	120	130	Old Cat. Number	Catalog Number
16	0.125"	5	60	8.0	6.0	5.4	4.2	3.2	87907-0316X	RTA16B5AE-**

C Butt Dia.	D Top Dia.	E Embed
5	3	3'

C and D Dimensions in Inches

RTA16B5AE - FINISH
CATALOG NUMBER

Pole
The pole shaft will be constructed of seamless extruded tube of 6063 Aluminum Alloy per the requirements of ASTM B221. The shaft assembly shall be full-length heat treated to produce a T6 temper.

Handhole
2-1/2" x 5" Handhole with curved Lap Style Aluminum Door and two (2) SS Self-Tapping Attaching Screws. A Grounding Provision is provided as part of the handhole.

Embed Detail
Wire access will be provided 24" below ground line. Soil conditions vary by site. Foundation requirements should be determined by a qualified Structural Engineer with knowledge of jobsite soil conditions.



Vibration Damper
When determined necessary by Hapco, a Vibration Damper will be factory-installed inside the pole shaft. Customer specification of the damper is available.

Mounting Designation
***Side Drill Mount** – For Side Drill Mount applications specify luminaire type, quantity and orientation. A luminaire drilling template must be supplied at time of order.*

***Tenon Mount - Welded or Spun** For Tenon Mount applications specify both Tenon diameter (2.375", 2.875", 3.5", etc.) and length (7", 4", etc.). Tenon style is factory option. Welded Tenon can be specified.*



EPA Notes: *Effective Projected Area (EPA) in square feet. EPA's calculated using wind velocity (mph) indicated in accordance with 2009 AASHTO LTS-5 using a 25 year design life. Maximum EPA is based on the luminaire weight shown. Increased luminaire weight may reduce the maximum EPA. If weight is exceeded, or if other design life or code is required, please consult the factory.*

hapco — 26252 Hillman Highway, Abingdon, VA 24210, 800.368.7171, www.hapco.com

Customer Name:

Project: | Location:

Notes: | Quantity:

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SIGN/SEAL

DATE

SHEET AS102

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Engineering the Future

Surface Water Management System Report

Winter Springs Medical Office

City of Winter Springs, Florida.

Prepared for Chau Family Holding II, LLC
June 20, 2018

SIMON H. PHAM LICENSE No 63841 STATE OF FLORIDA PROFESSIONAL ENGINEER
6/20/18

Simon H. Pham, P.E. 63841
Florida Engineering Group, Inc.
Certificate No. EB-0006595

Contents

Winter Springs Medical Office 1

Contents 2

A. Project Location 3

B. Project Site Description 3

C. Project Description 3

II. Surface Water Management System 4

A. General Description and Regulatory Requirements 4

B. Environmental Issues 5

C. Water Quality 5

1. Water Quality Volume Required: 5

2. Pond Stage Storage: 6

3. Control Elevation and Water Quality Volume Recovery: 7

D. Water Quantity 8

1. Regulatory Agency Requirements 8

2. Pre-Development Condition 8

3. Post-Development Condition 9

4. Water Quantity Results Summary and Discussion 10

E. Nutrient Loading Analyses 11

F. Storm Sewer Hydraulic Analysis 12

Appendix A – Site Location Map 13

Appendix B – Aerial Photography Map 14

Appendix C – USGS Quadrangle Map 15

Appendix D – SCS Soil Survey Map 16

Appendix E – FEMA Flood Map 17

Appendix F –Pre and Post Development Basin Maps 18

Appendix G - Water Quality Volume Recovery Analysis and Water Quantity Analyses 19

- Mean Depth & Permanent Pool Volume Calculations – 20
- Pre-Development Hydrographs & Post-Development Routings: Mean Annual, 24-hour; 10-year, 24-hour; 25-year, 24-hour; and 100-year, 24-hour Storm Events 20

Appendix H – Nutrient Loading and Pre-Treatment Volume Recovery Analyses 21

Appendix I – Storm Sewer Hydraulic Analysis 22

A. Project Location

The subject project site is located on the south side of E. State Road 434, directly southwest from its intersection with Hacienda Drive in the City of Winter Springs, Seminole County, Florida. The site is in Section 34, Township 20S, and Range 30E. A Site Location Map is provided in **Appendix A** of this report.

B. Project Site Description

The total land area owned by the applicant is approximately 5.15 acres and consists of one land parcel. The site Parcel I.D. Number is 34-20-30-5AW-0000-048A.

The subject site is currently undeveloped vacant land. It is bordered by an existing residential subdivision to the south; E. State Road 434 to the north; Hacienda Drive to the east; and undeveloped land to the west. Under existing conditions, storm water runoff from the project site drains to the south and to the southeast to an existing on-site wetland, which overflows and discharges to the Hacienda Drive drainage system. Discharge from the site is to the storm water conveyance system of the Entzminger Farms Addition No. 2 Subdivision, which discharges to Gee Creek, and ultimately to Lake Jesup. The existing site grades range from approximately Elevation 41 Ft. NAVD 88 at the Northwest side of the site to Elevation 33 Ft. NAVD 88 at the Southeast side of the site.

The predominant soils within the project site are Basinger, Samsula, and Hontoon Fine Sand, and Myakka and EauGallie Fine Sand, which are classified as HGS "A/D". The project lies within Flood Zone "X" and "AE" per FEMA FIRM Panel No. 12117C0160F dated 09/28/2007. Flood zone "X" is defined as areas outside the 500-year flood plain. Flood zone "AE" is defined as areas determined to be within the 100-year flood plain with established 100-Year Flood Elevations.

Copies of an Aerial Photography map, a USGS Quadrangle map, an SCS Soil Survey Map, and a FEMA Flood Insurance Rate Map for the project site showing the approximate site boundary are presented in **Appendices B, C, D, and E** of this report. Pre and Post-Development Basin Maps are provided in **Appendix F** of this report.

C. Project Description

The proposed project consists of construction of Phase I improvements, which include a 10,190 S.F. medical building with associated parking, drainage, utilities, and other infrastructure. The storm water management system is designed for the overall build-out condition of the 5.15-acre site, which will include future development on the remaining undeveloped area.

Runoff from the project site will be directed to the interconnected proposed on-site master dry pre-treatment swale and a master wet-detention pond for water quality treatment and water discharges attenuation prior to discharge into proposed on site spreader swale, then overflow to the existing storm water conveyance system (i.e.; Node TW) same as in existing condition.

The following is a breakdown of the existing and proposed impervious cover within the affected Project Drainage Area (4.96 Ac.).

Table 1 – Existing Condition

Project Drainage Area	4.96 Ac.	100.0%
Impervious Area	0.00 Ac.	0.0%
Pervious Area	4.96 Ac.	100.0%
Project Drainage Area	4.96 Ac.	100.0%

Table 2 – Proposed Condition

Project Drainage Area	4.96 Ac.	100.0%
Impervious Area (Phase I)	1.11 Ac.	22.4 %
Impervious Area (Future Phases)	1.94 Ac.	39.1%
Total Impervious Area (Assumed Impervious cover for Build-out Condition)	**3.05 Ac.**	**61.5%**
Pervious Area	1.91 Ac.	38.5%
Minimum Proposed Parking Lot Elevation (Phase I)		38.2 Ft. NAVD 88
Minimum Proposed Floor Elevation (Phase I)		40.5 Ft. NAVD 88

The Post-Development Basin Map showing the proposed improvements in **Appendix F** of this report provides a detailed breakdown and graphical depiction of the proposed site improvements.

The Pre and Post-Development Basin Maps provided in **Appendix F** of this report provide a detailed breakdown and graphical depiction of the existing condition and proposed site improvements. The affected drainage basin area is approximately 4.96 acres and includes all proposed development areas. The drainage basin area excludes pond backslopes and minor landscape areas, which are not affected by the proposed development and do not contribute runoff to the drainage system.

II. Surface Water Management System

A. General Description and Regulatory Requirements

The storm water management system for the project consists of storm sewer conveyances, a master dry pre-treatment swale and a master wet-detention pond with an outfall drainage structure and pipe and spreader swale.

The master dry pre-treatment swale and wet-detention pond system is designed to meet the water quality and quantity requirements of the City of Winter Springs and the St. Johns River Water Management

District (SJRWMD). Water quality will be provided pursuant to the requirements of the SJRWMD outlined in Chapter 40C-42.026(4) (a) (b) F.A.C. Since discharge from the project is discharged to Lake Jesup, which is an impaired water body, a nutrient loading analysis is required for the site to show compliance with nutrient discharge standards. The master dry pre-treatment swale is proposed to provide the required pre-treatment volume prior to discharge to the proposed master wet-detention pond in order for the proposed system to meet the nutrient discharge standards.

Water quantity will also be provided by the proposed dry pre-treatment pond and master wet-detention pond, which will attenuate the post-development peak rates of discharge to significantly less than the allowable pre-development peak rates of discharge for all of the required storm events. Specifically, the pond is designed to significantly exceed the requirements of the SJRWMD as stated in Chapter 40C-42.025(8) (a) and City of Winter Springs. Specifically, the proposed interconnected ponds are designed to attenuate the post-development peak rates of discharge to significantly less than the pre-development peak rates of discharge for the Mean-Annual, 24-hour storm event of 4.30 inches, the 10-year, 24-hour storm event of 7.5 inches, and the 25-year, 24-hour storm event of 8.64 inches. In addition, the 100-year, 24-hour storm event of 11.5 inches is analyzed to ensure that the drainage system is capable of discharging this storm without overtopping the pre-treatment swale or pond berms.

The following sections of this report provide detailed water quality and water quantity related design calculations and methodology.

B. Environmental Issues

The project site contains two small isolated wetlands totaling approximately 1.6 acres. The wetland limits were delineated by Bio-Tech Consulting, Inc. staff and surveyed by Accuright Surveys of Orlando, Inc. The entire wetland area will be impacted by the proposed development. An Environmental Assessment/Site Plan Analysis by Bio-Tech Consulting Inc. provides a detailed description of the wetlands and other environmental issues relative to the project site including wetland impact and mitigation and is included under separate cover as part of this drainage report submittal.

C. Water Quality

1. Water Quality Volume Required:

In the post-developed condition, storm water runoff from the site will be conveyed via sheet flow and storm sewer conveyances to the proposed master dry pre-treatment pond and master wet-detention pond located along the south and east sides of the site, respectively. The water quality volume is calculated pursuant to SJRWMD requirements as follows:

Wet-detention pond volume shall be provided for the first inch of runoff from the developed project, or the total runoff of 2.5 inches times the percentage of imperviousness, whichever is greater.

Table 3 – SJRWMD Required Water Quality Volume

Drainage Basin Area contributing to the pond:	4.96 Ac.
Percentage of imperviousness:	64.6%
1.0 Inch of Runoff from the Project Area	
(1.0 inch * 4.96 Acres) *(1 Foot/12 inches) =	0.41 Ac-Ft.
2.5 Inches Times the Percentage of Imperviousness	
(2.5 inches) *(64.6% * 4.96 Acres) *(1 Foot/12 inches) =	0.64 Ac.-Ft.
Total Required Wet-detention pond Water Quality Volume =	**0.64 Ac-Ft.**

2. Pond Stage Storage:

Table 4 - Volume between Pond Control Elevation and Top of Bank of the Wet-Detention Pond

Stage (Ft.)	Area (Ac.)	Incremental Volume (Ac.-Ft.)	Cumulative Volume (Ac.-Ft.)
33.50	0.75	0.00	0.00
34.00	0.79	0.39	0.39
35.00	0.87	0.83	1.22
36.00	0.96	0.92	2.14
37.00	1.15	1.05	3.19

The total volume provided in the proposed wet-detention pond between the pond control elevation and the top of bank is 3.19 Ac.-Ft. The required water quality volume of 0.64 Ac.-Ft. is available between the pond control elevation of 33.5 Ft. NAVD 88 and elevation 34.3 Ft. NAVD 88.

Water Quality Volume Provided:

A modified type "C" inlet outfall structure is proposed with a 4" wide weir slot at elevation 34.4 Ft. NAVD 88 and a top of structure at elevation 35.85 Ft. NAVD 88.

The volume provided between the control elevation and the weir slot invert is 0.72 Ac.-Ft. or 0.08 Ac.-Ft. more than the required water quality volume of 0.64 Ac.-Ft.

3. Control Elevation and Water Quality Volume Recovery:

The wet-season high water table elevation in the wet-detention pond area is estimated at elevation 33.5 Ft. NAVD 88 based on the for the wetlands overflow elevation and hydrologic condition. The control elevation for the wet-detention pond is set at elevation 33.5 Ft. NAVD 88, which provides a positive outfall to the receiving system, which consists of sheet flow along Hacienda Drive to the existing storm water conveyance system along the Hacienda Drive, which discharges to Gee Creek and ultimately discharges to Lake Jesup. Water quality volume recovery will occur through a 3" orifice, which is proposed at the control elevation of 33.5 Ft. NAVD 88 to accommodate recovery of the required water quality volume for the project area.

The recovery analysis shows that ½ of the required water quality volume for the proposed master wet-detention pond recovers via the 3" orifice in about 23 hours, which is about the 24 to 30-hour duration required by SJRWMD Chapter 40C-42.025(4)(b). A copy of the water quality volume recovery analysis is provided in **Appendix G**.

Mean Depth and Permanent Pool Volume:

The master wet-detention pond is designed to meet the requirements of SJRWMD as stated in Chapter 40C-42.026(4) (c) & (e). Calculations of mean depth & permanent pool volume are included in **Appendix I**, and are summarized in the follow table:

Table 5 - Wet-detention pond Pond-A: Mean Depth and Permanent Pool Volume Calculations Summary

Pond ID	Mean Depth Allowed (Ft.)	Mean Depth Provided (Ft.)	Permanent Pool Volume Required (Ft.)	Permanent Pool Volume Provided (Ft.)
Pond	8.0	4.4	1.1	3.28

As can be seen above, the proposed mean depth and the permanent pool volume meets the SJRWMD requirements with the permanent pool significantly exceeding the required 21-day residence permanent pool volume.

D. Water Quantity

1. Regulatory Agency Requirements

City of Winter Springs and SJRWMD:

The master storm water management system provides attenuation of the post-development peak runoff rates to significantly less than those of the pre-development condition based on the Mean-Annual, 24-hour storm event of 4.30 inches, the 10-year, 24-hour storm event of 7.5 inches, and the 25-year, 24-hour storm event of 8.64 inches. In addition, the 100-year, 24-hour storm event of 11.5 inches is analyzed for the post-development condition to ensure that the drainage system is capable of discharging this storm without overtopping the pond berm.

2. Pre-Development Condition

General Description

The development area currently is a vacant land. Ground cover within the development area surrounding the existing site consists of a combination of woods and brush.

Drainage Patterns:

The storm water runoff from the site drains to the south and to the southeast to an existing on-site wetland, which overflows and discharges to the Hacienda Drive drainage system. Discharge from the site is to the storm water conveyance system of the Entzminger Farms Addition No. 2 Subdivision, which discharges to Gee Creek, and ultimately to Lake Jesup. The existing site grades range from approximately Elevation 41 Ft. NAVD 88 at the Northwest side of the site to Elevation 33 Ft. NAVD 88 at the Southeast side of the site.

Curve Numbers:

The Pre-Development Basin Map included in **Appendix F** provides a breakdown of the curve numbers for each ground cover and provides a weighted curve number for the basin.

The development site contains Basinger, Samsula, and Hontoon Fine Sand, and Myakka and EauGallie Fine Sand. A curve number of 79 is used for the pre-development condition for the Smyrna fine sands based on an HSG "B/D" with wood/grass combination ground cover in good condition. A curve number of 100 is used for the existing depressional area at Elevation 33.5. A weighted curve number of 83.6 is calculated in the pre-development condition of basin PRE-DEV as shown on the Pre-Development Drainage Basin Map in **Appendix F**.

Time of Concentration Values:

The time of concentration value is calculated for the pre-development condition using sheet flow and shallow concentrated flow conditions.

Manning's Kinematic solution $Tt = \{0.007(nl)^{0.8}\}/\{(P2)^{0.5} S^{0.4}\}$ is used to calculate the travel time for sheet flow. The following is a list of the constant parameters used in calculating the time of concentration for sheet flow for the pre-development condition:

BASIN PRE

A time of concentration value of 52.7 minutes is used for the pre-development hydrograph for Basin PRE- based on the above calculations provided below:

Sheet Flow Condition:

n = 0.40 (Woods); P_2 = 4.30 inches

Travel Distance = 300 Ft. Slope = 0.015 Ft. /Ft.

Travel Time for Sheet Flow = 49.8 minutes.

Shallow Concentration Flow:

Travel Distance = 298 feet Velocity = 1.8 Ft. /Sec.

Travel Time for Shallow Concentration Flow = 2.7 minutes. Therefore, use Tc = 52.7 minutes

Receiving Water Body and Tailwater Condition:

Drainage from Basin PRE discharges to the receiving wetland area, which discharges to Hacienda Drive via overland flow at approximate elevation 33.5 Ft. NAVD 88. Discharge from Hacienda Drive is to the existing storm water conveyance system of the Entzminger Farms Addition No. 2 Subdivision, which discharges to Gee Creek, and ultimately to Lake Jesup.

In the pre-development condition routing analysis was made through the existing wetland to account for any on-site depressional storage.

3. Post-Development Condition

General Description

In the post-development condition, it is assumed that the entire project site will be developed with 3.05 acres of impervious cover. Runoff from the project site will be conveyed to a master dry pre-treatment swale, which provides pre-treatment prior to discharge the proposed master wet-detention pond, which provides additional water quality and water quantity for the overall development area.

Drainage Pattern:

Runoff from the post-development basin will discharge to the proposed on-site master dry pre-treatment swale and a master wet-detention pond. This proposed storm water management system is designed to attenuate the post-development peak discharge rates to significantly less than those of the pre-development conditions based on the Mean-Annual, 24-hour; 10-year, 24-hour, and 25-year, 24-hour storm events of 4.3 inches, 7.5 inches and 8.64 inches, respectively.

The Post-Development Basin Map provided in **Appendix F** shows the limits of the post-development condition drainage basins; provides a breakdown of the pervious cover and impervious cover; provides tabulations of curve numbers for each ground cover; and provide a weighted curve number for the basin.

A CN of 93.7 is used for impervious cover areas, and a CN of 74 is used for the pervious areas based on HSG "C" soils for and grass ground cover in good condition. A Hydrologic soil group of C is used for the post-development pervious areas; since an average of over 1.0 feet of fill is proposed in the areas which are currently are classified as HSG "C". A curve number of 100 is used for the pond water area at the control elevation of the proposed wet-detention pond.

A weighted curve number of 92.7 is calculated for the post-development condition of Basin POST as shown on the Post-Development Drainage Basin Map in **Appendix F**.

Time of Concentration:

A time of concentration value of 8.9 minutes is used for the post-development hydrograph for Basin POST based on the above calculations provided below:

Sheet Flow Condition:

n = 0.24 (Grass); P_2 = 4.30 inches

Travel Distance = 26 Ft. Slope = 0.019 Ft. /Ft.

Travel Time for Sheet Flow = 4.3 minutes.

Shallow Concentration over Paved area:

Travel Distance = 40 feet Velocity = 2.0 Ft. /Sec.

Travel time for shallow concentration flow = 0.3 minutes

Channel Flow:

Travel Distance = 772 feet Velocity = 3.0 Ft. /Sec.

Travel Time for Channel Flow = 4.3 minutes. Therefore, use Tc = 10.0 minutes

Receiving Water Body and Tailwater Condition:

Discharge from the site in the post-development condition will be made to the same receiving system as the pre-development condition. Specifically, discharge from the project will be made via an outfall structure with skimmer through a 3" orifice at elevation 33.5 Ft. NAVD 88 and a 4" wide weir slot at elevation of 34.4 Ft. NAVD 88.

For the mean-annual, 24-hour and 25-year, 24-hour storm events a tailwater elevation for the spreader swale (Node TW) is set at elevation 33.5 Ft. NAVD 88, which corresponds to the approximate grade for the sheet flow to the Hacienda Drive curb system.

4. Water Quantity Results Summary and Discussion

Water quantity analyses were performed for the pre-development and post-development conditions for the Mean-Annual, 24-hour; 10-year, 24-hour, and 25-year, 24-hour storm events of 4.3 inches, 7.5 inches and 8.64 inches, respectively. In addition, a 100-year, 24-hour storm event of 11.5 inches is analyzed to

determine 100-year flood stage for the site and to ensure that the drainage system is capable of discharging this storm without overtopping the pond berm.

The pre-development and post-development conditions were analyzed using the ICPR3 computer software. The following table provides a summary of the peak stages and flows for each of the required storm events:

Table 6 – Peak Stages and Flows Summary

Storm Event	Pre-Development Peak Discharge Rate – Basin PRE (CFS)	Post-Development Peak Discharge Rate –Basin POST (CFS)	Dry Pre-Treatment Swale Peak Stage (Ft.)	Wet Pond Peak Stage (Ft.)	Free Board (Ft.)
Mean Annual, 24-hour	4.66	0.45	36.98	34.72	2.28
10-Year, 24-Hour	3.74	1.53	37.10	35.52	1.48
25-Year, 24-Hour	10.63	2.05	37.14	35.82	1.18
100-Year, 24-Hour	N/A	N/A	37.52	36.27	0.73

Water quantity analyses including all input and output parameters are included in **Appendix G** of this report.

As can be seen above, the post-development peak discharge rates are significantly less than those in the pre-development peak discharge rates for all design storm events. Furthermore, the peak discharge rates for the 25-year, 24-hour storm event is only 2.05 cfs and is being discharged to a spreader swale, which will spread the flow and discharge it at very minimal velocity to the street drainage system.

E. Nutrient Loading Analyses

A nutrient loading analysis was performed for the project using the PONDS 3.3 software "Refined Method".

The proposed dry pre-treatment swale follows with a wet-detention pond pond is utilized to provide a 0.16 Ac-Ft. additional pre-treatment required for the system as a result of the proposed development. As can be seen from the analyses, the total phosphorus (TP) of 0.28 kg/yr. and total nitrogen (TN) of 3.32 kg/yr. for the post-development nutrient loading level based on the proposed land use is less than the total phosphorus (TP) of 1.00 kg/yr. and total nitrogen (TN) of 3.32 kg/yr. for the pre-development nutrient loading level based on the existing land use. The total pre-treatment volume provided within the dry pre-treatment swale below the top of inlet at 36.7 Ft. NAVD 88 is 0.168 Ac.-Ft. (approximately 0.57 inches of runoff from 3.52-acre basin less pond tract area) will cause a further reduction in the post-development nutrient discharge beyond what is required.

Pre-treatment water quality volume recovery will occur through natural infiltration. Water quality volume recovery is analyzed using the PONDS 3.2 software "Refined Method".

1. The recovery analysis shows that the required water quality volume recovers in 2.4 hours, which meets the requirement of 72 hours recovery as stated in Chapter 40C-42.025(4)(c).

2. A copy of the Nutrient Loading Analyses and water quality volume recovery analyses is provided in **Appendix H**.

Seasonal high-water elevation, horizontal saturated hydraulic (K_h), unsaturated vertical hydraulic conductivity (K_v), and aquifer parameters are used in the recovery analysis based on recommendations made by the geotechnical engineer, Terracon. A copy of the geotechnical report is submitted under separate cover with this report. The parameters used in the swale recovery analysis are summarized in the table below:

Table 7 – Dry Pre-Treatment Recovery Parameters Summary

	Dry Retention Pond	Comment
SHWT (Ft.)	34.0 NAVD 88	Recommended by Geotechnical Engineer
Assumed Base of Aquifer (Ft.) based on Borings B-6, B-11, and B-12	30.5	Weighted Average
Average Horizontal Saturated Hydraulic Conductivity (Kh) (Ft./day)	4.23	F.S = 2 and Surrounding Walls
Vertical Saturated Hydraulic Conductivity (Kv) (Ft./day)	3.0	F.S. = 2.0
Fillable Porosity (n) (%)	25.0	Recommended by Geotechnical Engineer

An average horizontal saturated hydraulic conductivity of K_h of 4.23 Ft./day is used in the recovery analysis to take into account the retaining walls surrounding the proposed dry-pretreatment swale. Calculations for the average horizontal saturated hydraulic conductivity are included in **Appendix H** of this report

F. Storm Sewer Hydraulic Analysis

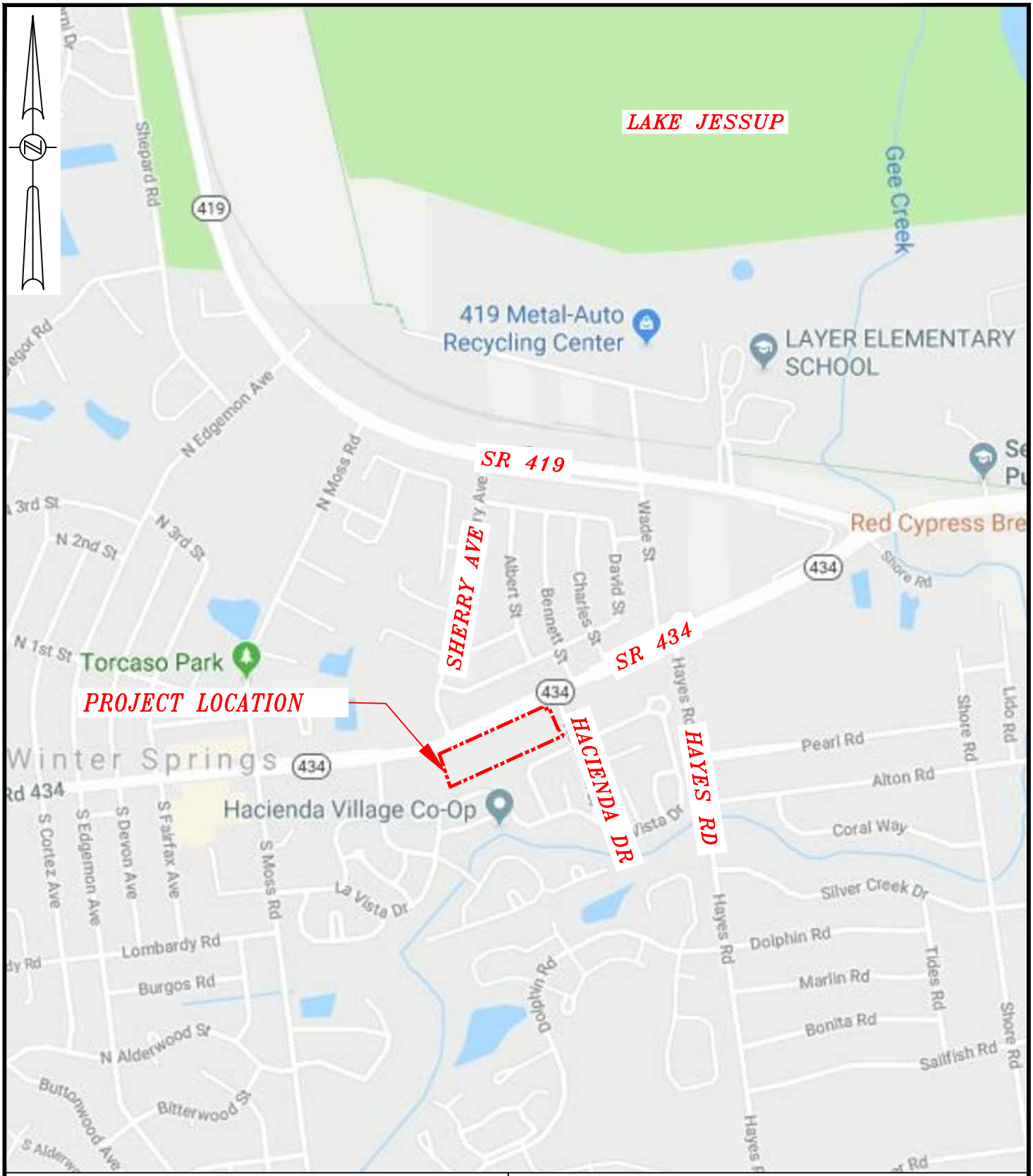
A storm sewer hydraulic analysis was performed for the project using City of Winter Springs requirements for storm sewer design. Specifically, the 10-year, 24-hour storm was analyzed for the on-site secondary storm sewer system.

A tailwater elevation of 34.67 Ft. NAVD 88 (average of pond control elevation of 33.5 Ft. NAVD 88 and 25-year, 24-hour storm peak stage of 35.82 Ft. NAVD 88) was used for the analysis.

A copy of the Storm Sewer Hydraulic Analysis is included in **Appendix I** of this report.

As can be seen from the analysis, the proposed secondary system provides adequate conveyance and maintains more than 0.5 Ft. freeboard between the hydraulic grade line and inlet grate elevation at all the inlets and drainage structures.

Appendix A – Site Location Map



PROJECT NAME: WINTER SPRINGS MEDICAL OFFICE	**SITE LOCATION MAP**
CLIENT: CHAU FAMILY HOLDINGS II, LLC	
S, T, R: S 34, T 20S., R 30E. / **F.E.G. PROJECT NO.:** 17-107	
DATE: JUNE 15, 2018 / **SCALE:** 1" = 1000'	

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Orlando, FL 32809
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Fax: 407-895-0325
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Appendix B – Aerial Photography Map



PROJECT NAME: WINTER SPRINGS MEDICAL OFFICE	2013 AERIAL PHOTOGRAPHY MAP
CLIENT: CHAU FAMILY HOLDINGS II, LLC	
S, T, R: S 34, T 20S., R 30E. / F.E.G. PROJECT NO.: 17-107	
DATE: JUNE 15, 2018 / SCALE: 1" = 200'	

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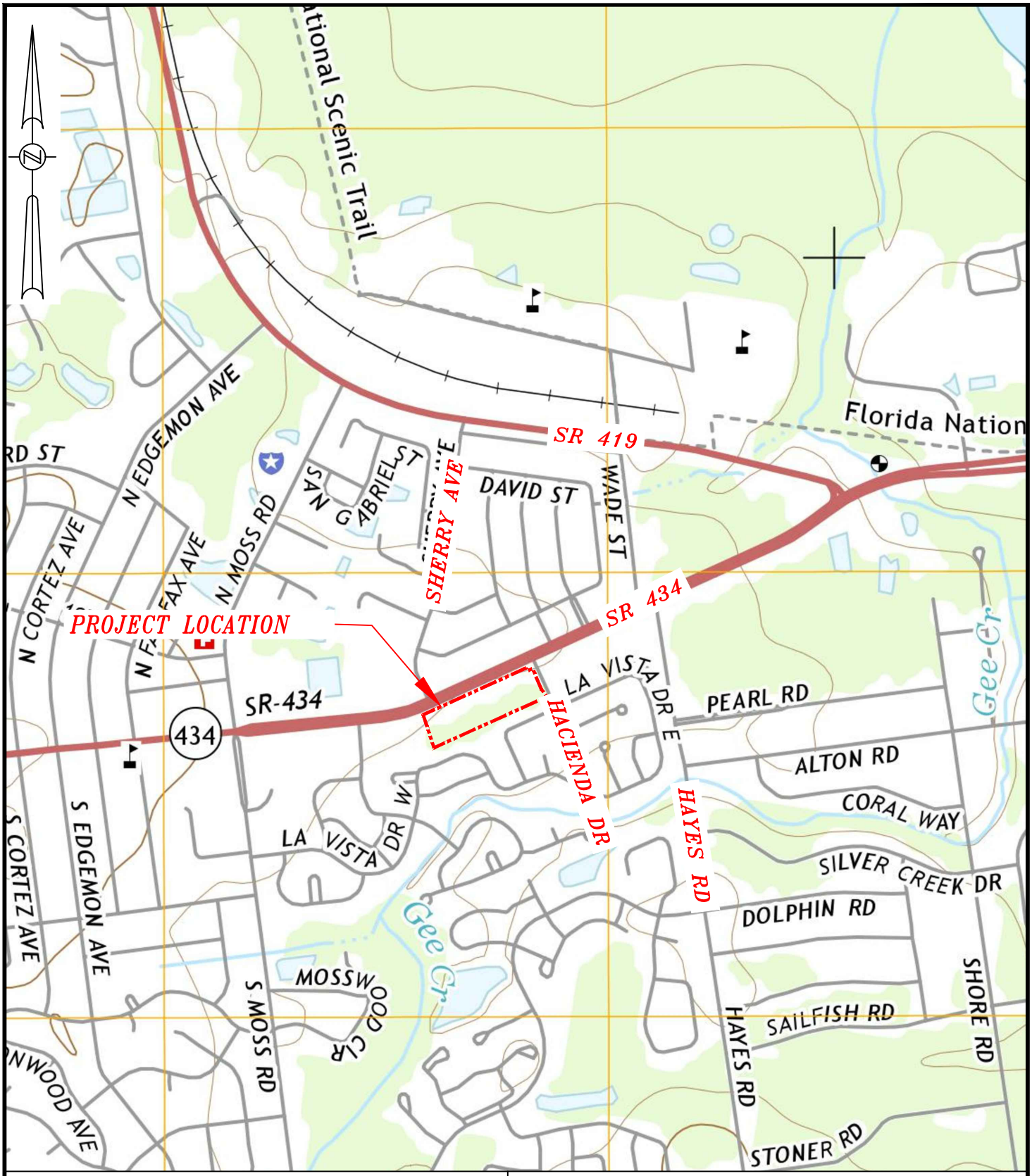
Appendix C – USGS Quadrangle Map



PROJECT NAME: WINTER SPRINGS MEDICAL OFFICE	U.S.G.S QUADRANGLE MAP
CLIENT: CHAU FAMILY HOLDINGS II, LLC	
S, T, R: S 34, T 20S., R 30E.	F.E.G. PROJECT NO.: 17-107
DATE: JUNE 15, 2018	SCALE: 1" = 1000"

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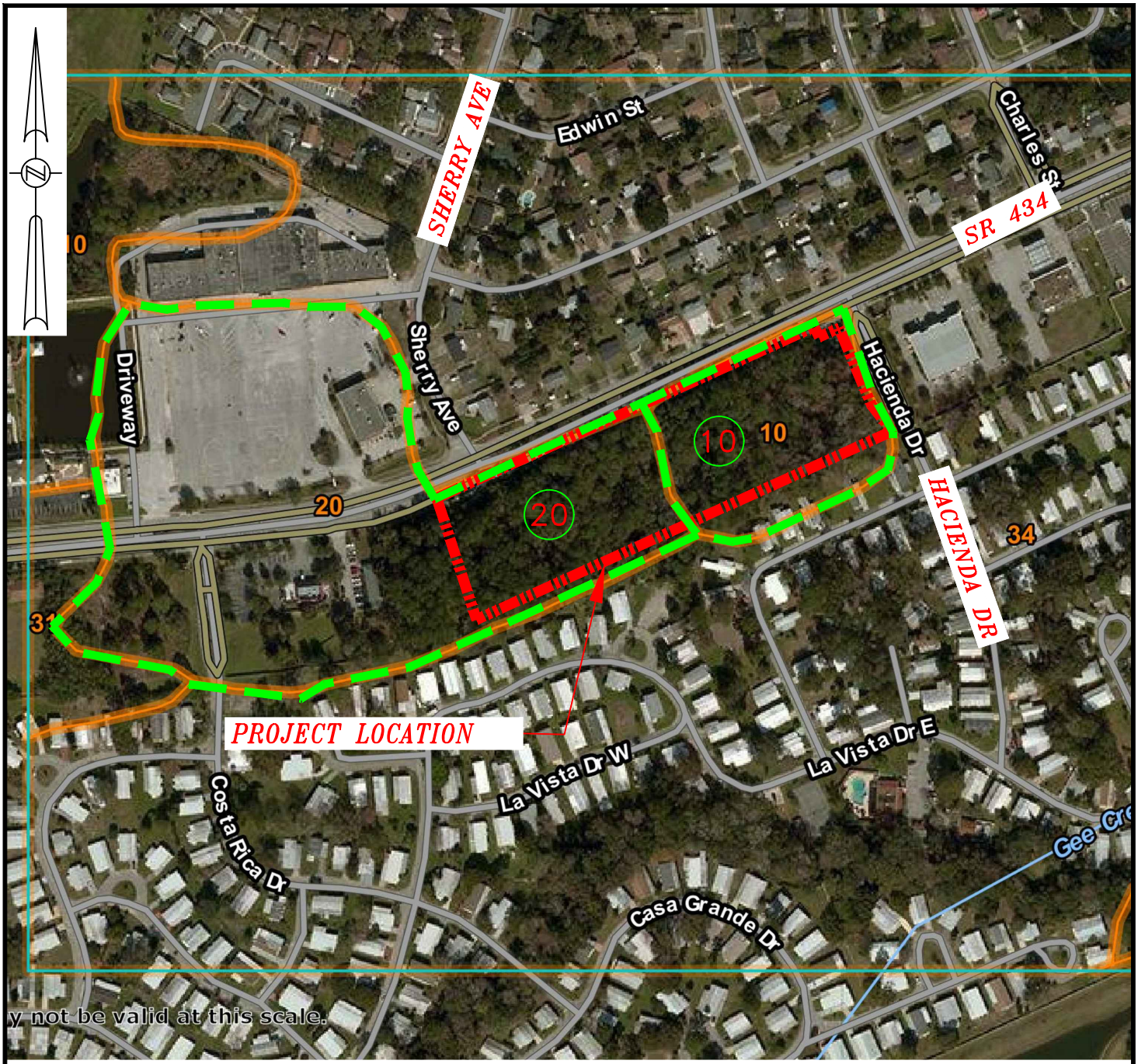
Appendix D – SCS Soil Survey Map



ON–SITE SOILS & LEGEND

10 BASINGER, SAMSULA, AND HONTOON SOILS – DEPRESSIONAL – TYPE A/D

20 MYAKKA AND EAUGALLIE FINE SANDS – TYPE A/D

SOIL TYPE BOUNDARY

PROJECT NAME: WINTER SPRINGS MEDICAL OFFICE	SOILS MAP
CLIENT: CHAU FAMILY HOLDINGS II, LLC	
S, T, R: S 34, T 20S., R 30E.	F.E.G. PROJECT NO.: 17-107
DATE: JUNE 15, 2018	SCALE: 1" = 500'

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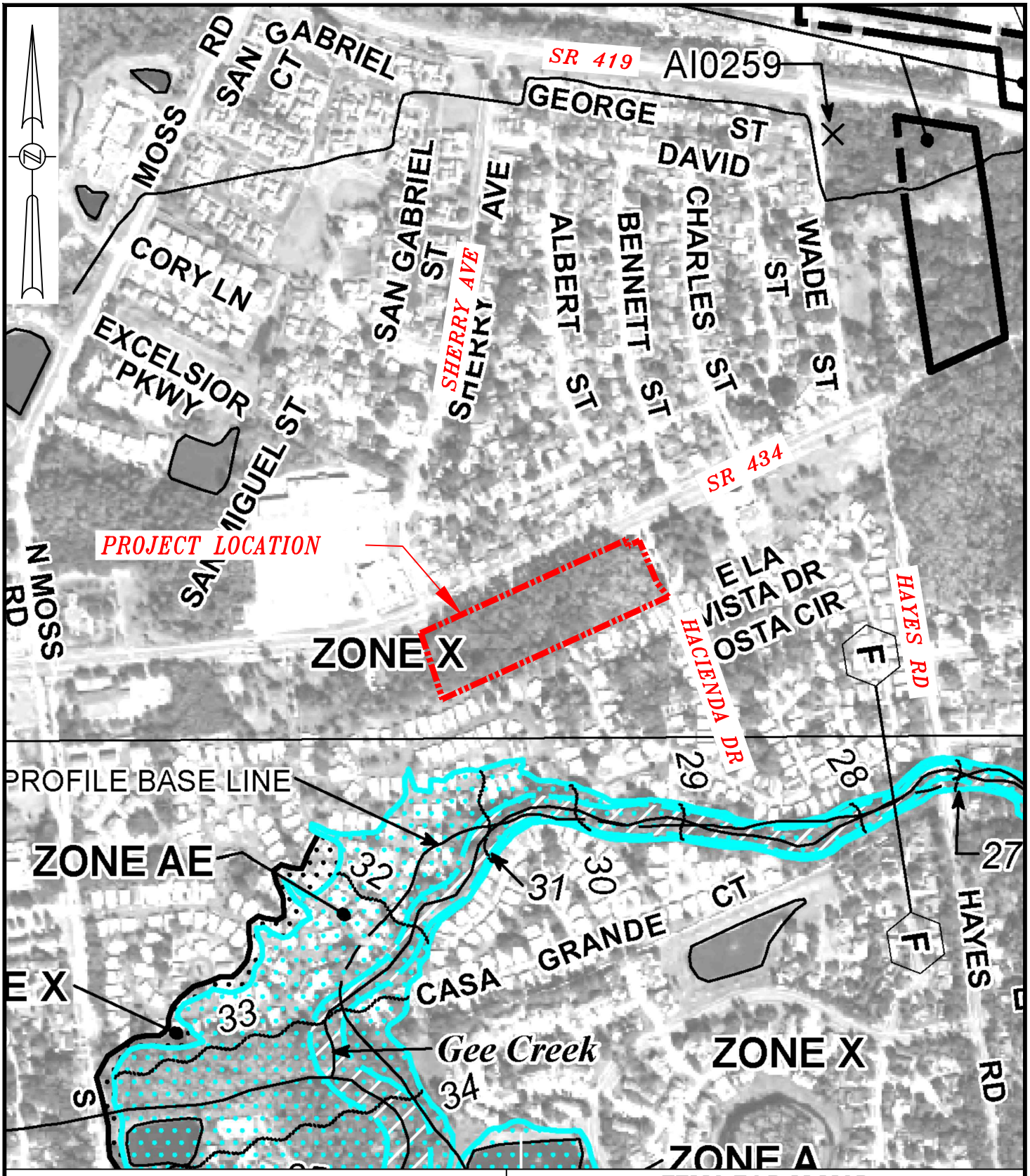
Appendix E – FEMA Flood Map



PROJECT NAME: WINTER SPRINGS MEDICAL OFFICE	**FEMA F.I.R.M MAP** PANEL # 12117C0160F DATED 09/28/2007
CLIENT: CHAU FAMILY HOLDINGS II, LLC	
S, T, R: S 34, T 20S., R 30E.	**F.E.G. PROJECT NO.:** 17-107
DATE: JUNE 15, 2018	**SCALE:** 1" =500'

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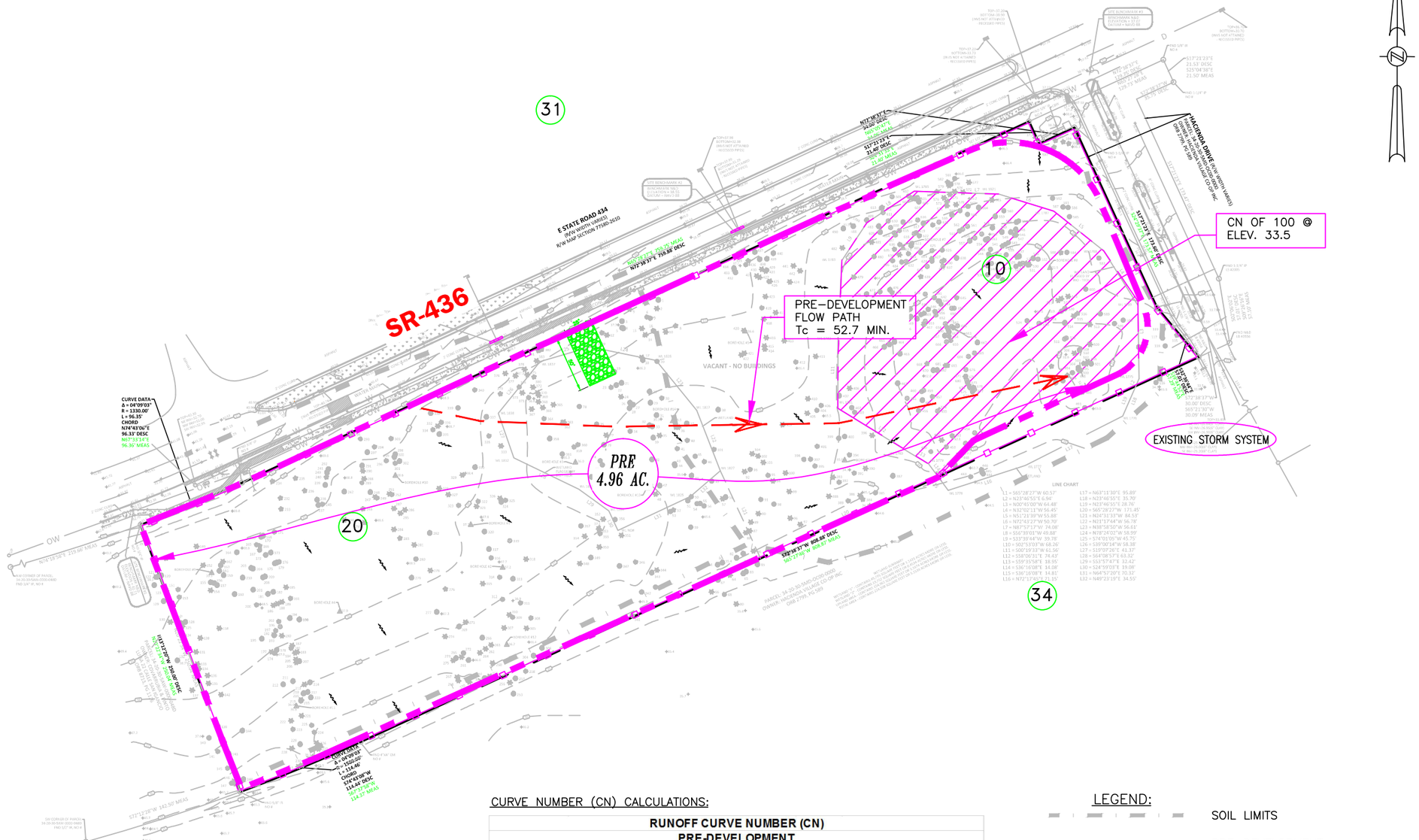
Appendix F –Pre and Post Development Basin Maps

PRE-DEVELOPMENT DRAINAGE BASIN MAP



CURVE NUMBER (CN) CALCULATIONS:

RUNOFF CURVE NUMBER (CN)
PRE-DEVELOPMENT

HYDROLOGIC SOIL GROUP	LAND USE DESCRIPTION - INCLUDE PRACTICE AND CONDITION	CN	% OR AREA (ACRES)	PRODUCT
D	WOOD/GRASS COMB.-GOOD CONDITION	79.0	3.88	306.33
	IMPERVIOUS (BUILDING AND DRIVEWAY)	98.0	0.00	0.00
	DEPRESSIONAL WETLAND AREA @ EL. 33.50	100.0	1.08	108.00
		TOTALS	4.96	414.33
			CN (WEIGHTED)	83.6

TIME OF CONCENTRATION (Tc) CALCULATIONS:

CALCULATED Tc = 52.7 MIN.
THEREFORE: USE Tc = 52.7 MIN. FOR BASIN PRE.

LEGEND:

- SOIL LIMITS
- PRE-DEVELOPMENT BASIN BOUNDARY
- PRE — BASIN I.D.
- EXISTING STORM SYSTEM — RECEIVING NODE

ON-SITE SOILS & LEGEND

- 10 — BASINGER, SAMSULA, AND HONTOON SOILS DEPRESSIONAL – TYPE A/D
- 20 — MYAKKA AND EAUGALLIE FINE SANDS – TYPE A/D

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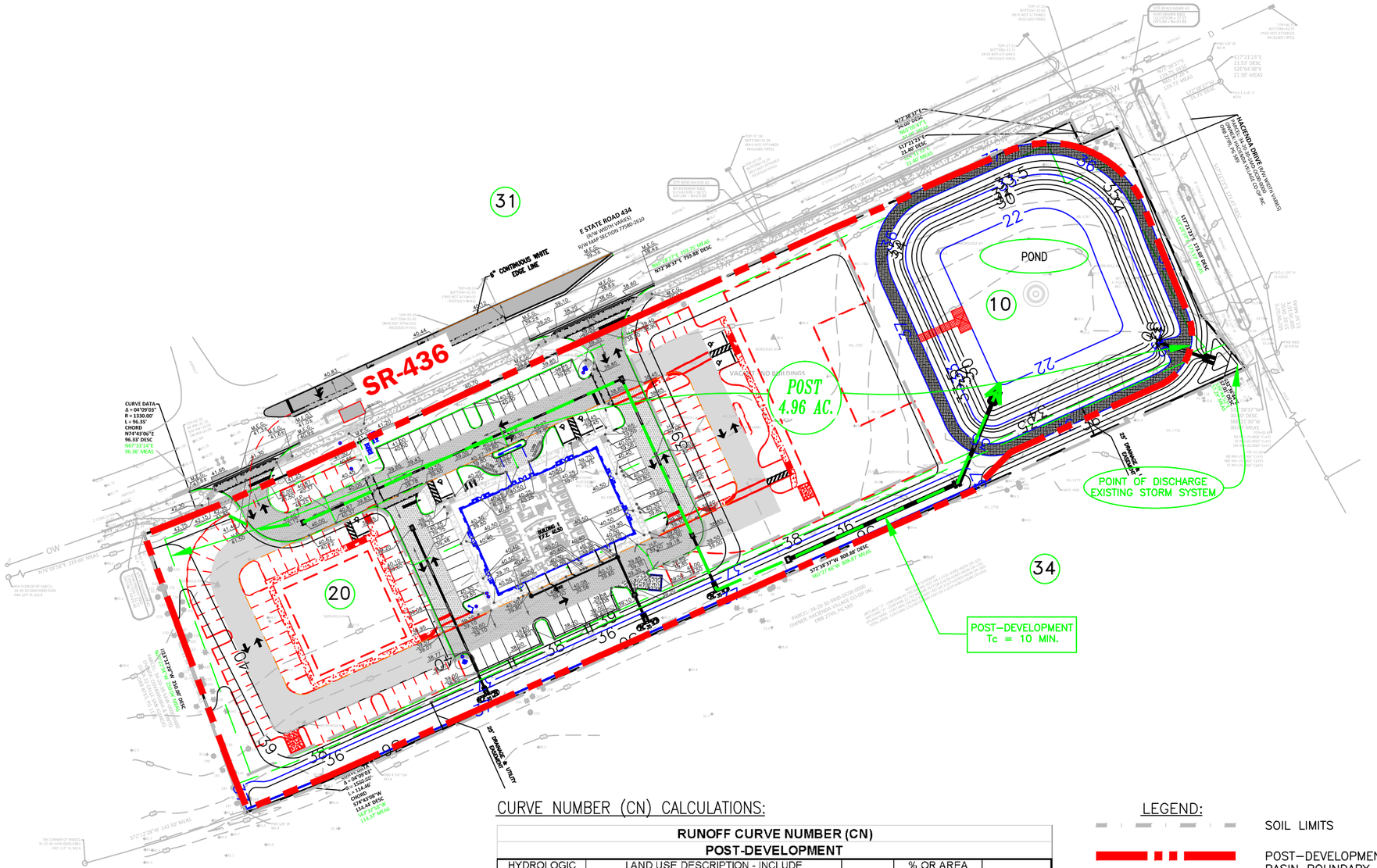
PROJECT NAME: **WINTER SPRINGS MEDICAL OFFICE**
CLIENT: **CHAU FAMILY HOLDINGS II, LLC**
FEG PROJECT NO.: **17-107**
SCALE: **1" = 100'**
S, T, R: **S 34, T 20S, R 30E**
DATE: **JUNE 15, 2018**



CURVE NUMBER (CN) CALCULATIONS:

RUNOFF CURVE NUMBER (CN)
POST-DEVELOPMENT

HYDROLOGIC SOIL GROUP	LAND USE DESCRIPTION - INCLUDE PRACTICE AND CONDITION	CN	% OR AREA (ACRES)	PRODUCT
C	(*) GRASS GOOD CONDITION	74.0	1.15	85.33
	IMPERVIOUS (BUILDING AND DRIVEWAY)	98.0	3.05	298.89
	POND WATER SURFACE @ CONTROL EL. 33.50	100.0	0.75	75.45
		TOTALS	4.96	459.67
(*) APPROXIMATELY 2.5' OF FILL USING TYPE "C" SOIL.				
			CN (WEIGHTED)	92.7

TIME OF CONCENTRATION (Tc) CALCULATIONS:

CALCULATED Tc = 8.9 MIN.
THEREFORE: USE Tc = 10.0 MIN. FOR BASIN POST.

LEGEND:

- SOIL LIMITS
- POST–DEVELOPMENT BASIN BOUNDARY
- POST — BASIN I.D.
- POND — RECEIVING NODE

ON–SITE SOILS & LEGEND

10 BASINGER, SAMSULA, AND HONTOON SOILS DEPRESSIONAL – TYPE A/D

20 MYAKKA AND EAUGALLIE FINE SANDS – TYPE A/D

POST-DEVELOPMENT DRAINAGE BASIN MAP

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PROJECT NAME: **WINTER SPRINGS MEDICAL OFFICE**

CLIENT: **CHAU FAMILY HOLDINGS II, LLC**

FEG PROJECT NO.: **17-107**

SCALE: **1" = 100'**

S, T, R: **S 34, T 20S, R 30E**

DATE: **JUNE 15, 2018**

Appendix G - Water Quality Volume Recovery Analysis and Water Quantity Analyses

Orifice Weir Calculations
WINTER SPINGS MEDICAL OFFICE
Winter Springs, Florida

Wet Detention Pond

	Elev.	Area	Detention Volume	Remark
N.W.L.	33.50	0.755	0.00	1/2 Volume
Ele. @1/2 Treatment Volume	33.90	0.780	0.32	0.318
* Top Weir Elev.	34.40	0.805	0.64	

Dia. Of Orifice Weir = **3.00** inch
Avg. Weir Depth (h) = Avg. Water Elev. For 1/2 Detention Volume - Center of Weir Line
= (34.40 + 33.90) /2 - (33.50 + 3.0 /24)
= 0.525 ft

Weir Flow Area (A) = 0.049 sf
Background Seepage Rate = 0.0000 cfs
Avg. Weir Discharge Rate = 0.6 * A * (2* g * h)^0.5
= 0.1712 cfs
Less Background Seepage = 0.1712 cfs

Recovery Time = 1/2 Detention Volume *43560 / (Avg. Weir Discharge Rate-Background Seepage)
= (0.318 * 43560) / (0.171 * 3600)
= 22.5 hr Meet Req.

Note: * Treatment Volume met @ 34.3. Hwever, the overflow weir is set @ 34.4, which provides more TV

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ORLANDO, FL. 32806

COMP: BY SHP
CHK'D BY: SJS
DATE: 06/12/18
JOB # 17-107

PROJECT: **WINTER SPINGS MEDICAL OFFICE**
STAGE STORAGE - WET DETENTION POND

PROPOSED POND STAGE STORAGE CALCULATIONS

STAGE ELEVATION	AREA Ft.^{2}	AREA Ac.	INC. VOLUME Ft.^{3}	INC. VOLUME Ac.-Ft.	CUM. VOLUME Ft.^{3}	CUM. VOLUME Ac.-Ft.
33.5	32867	0.75	0.0	0.0	0.0	0.0
34.0	34571	0.79	16,860	0.39	16,860	0.39
35.0	38099	0.87	36,335	0.83	53,195	1.22
36.0	41787	0.96	39,943	0.92	93,138	2.14
37.0	49893	1.15	45,840	1.05	138,978	3.19

Required Treatment Volume = 0.64 Ac-Ft. or 27,678 Ft.^{3}

The required treatment volume (0.68 Ac.-Ft.) is available at elevation 34.3 Ft. However, the weir is set at elevation 34.4 Ft., which provides 0.72 Ac.-Ft. (0.08 Ac.-Ft. more than the required treatment volume of 0.64 Ac.-Ft.).

PROPOSED PRE-TREATMENT SWALE STAGE STORAGE CALCULATIONS

STAGE ELEVATION	AREA Ft.^{2}	AREA Ac.	INC. VOLUME Ft.^{3}	INC. VOLUME Ac.-Ft.	CUM. VOLUME Ft.^{3}	CUM. VOLUME Ac.-Ft.
36.0	8883	0.20	0.0	0.0	0.0	0.0
37.0	12165	0.28	10,524	0.24	10,524	0.24

Required Pre-Treatment Volume = 0.16 Ac-Ft. or 6,970 Ft.^{3}

The required pre-treatment volume (0.16 Ac.-Ft.) is available at elevation 36.67 Ft. However, the top of inlet is set at elevation 36.7 Ft., which provides 0.168 Ac.-Ft., which is 0.008 Ac.-Ft. more than required pre-treatment volume of 0.16 Ac.-Ft.

EXISTING DEPRESSIONAL AREA STAGE STORAGE CALCULATIONS

STAGE ELEVATION	AREA Ft.^{2}	AREA Ac.	INC. VOLUME Ft.^{3}	INC. VOLUME Ac.-Ft.	CUM. VOLUME Ft.^{3}	CUM. VOLUME Ac.-Ft.
33.0	21007	0.48	0.0	0.0	0.0	0.0
34.0	43423	1.00	32,215	0.74	32,215	0.74

- **Mean Depth & Permanent Pool Volume Calculations –**

- **Pre-Development Hydrographs & Post-Development Routings: Mean Annual, 24-hour; 10-year, 24-hour; 25-year, 24-hour; and 100-year, 24-hour Storm Events**

Mean Depth Calculations
WINTER SPINGS MEDICAL OFFICE
Winter Springs, Florida

Wet Detention Pond

Elevation (Ft)	Area (Ac)	Storage Between (Ac-Ft)	Accum. Storage (Ac-Ft)	Remark
22.00	0.34	0.00	0.00	Btm of Pond
23.00	0.36	0.35	0.35	
24.00	0.38	0.37	0.72	
25.00	0.40	0.39	1.11	
26.00	0.43	0.42	1.53	
27.00	0.45	0.44	1.97	
28.00	0.48	0.46	2.43	
29.00	0.50	0.49	2.92	
30.00	0.53	0.52	3.43	
31.00	0.59	0.56	2.08	
32.00	0.64	0.61	2.58	
33.00	0.71	0.68	3.11	
33.50	**0.75**	**0.37**	**3.28**	NWL

Mean Depth = Storage @ N.W.L. / Area @ N.W.L.

= **4.4** ft < or = 8 ft, OK

Permanent Pool Calculations

WINTER SPINGS MEDICAL OFFICE
Winter Springs, Florida

Length of Wet season (WS) =	153	days
Wet Season Rainfall Amount (R) =	31	inches
Min. Residence Time (RT) (non-littoral zone) =	**21**	**days**
Min. Residence Time (RT) (littoral zone) =	14	days

Wet Detention Pond

	Impv. Area +	Water+	Perv. Area	Total Area
	2.30	0.75	1.91	4.96
"C" value	0.90	1.0	0.20	

Weighted "C" = 0.65

Required Permanent Pool Volume = Area * C * R *RT / (WS*12)

1.1 ac.-ft.

Permanent Pool Volume Provided = **3.28** ac.-ft. = or > 1.1 OK

Therefore: Met requirements

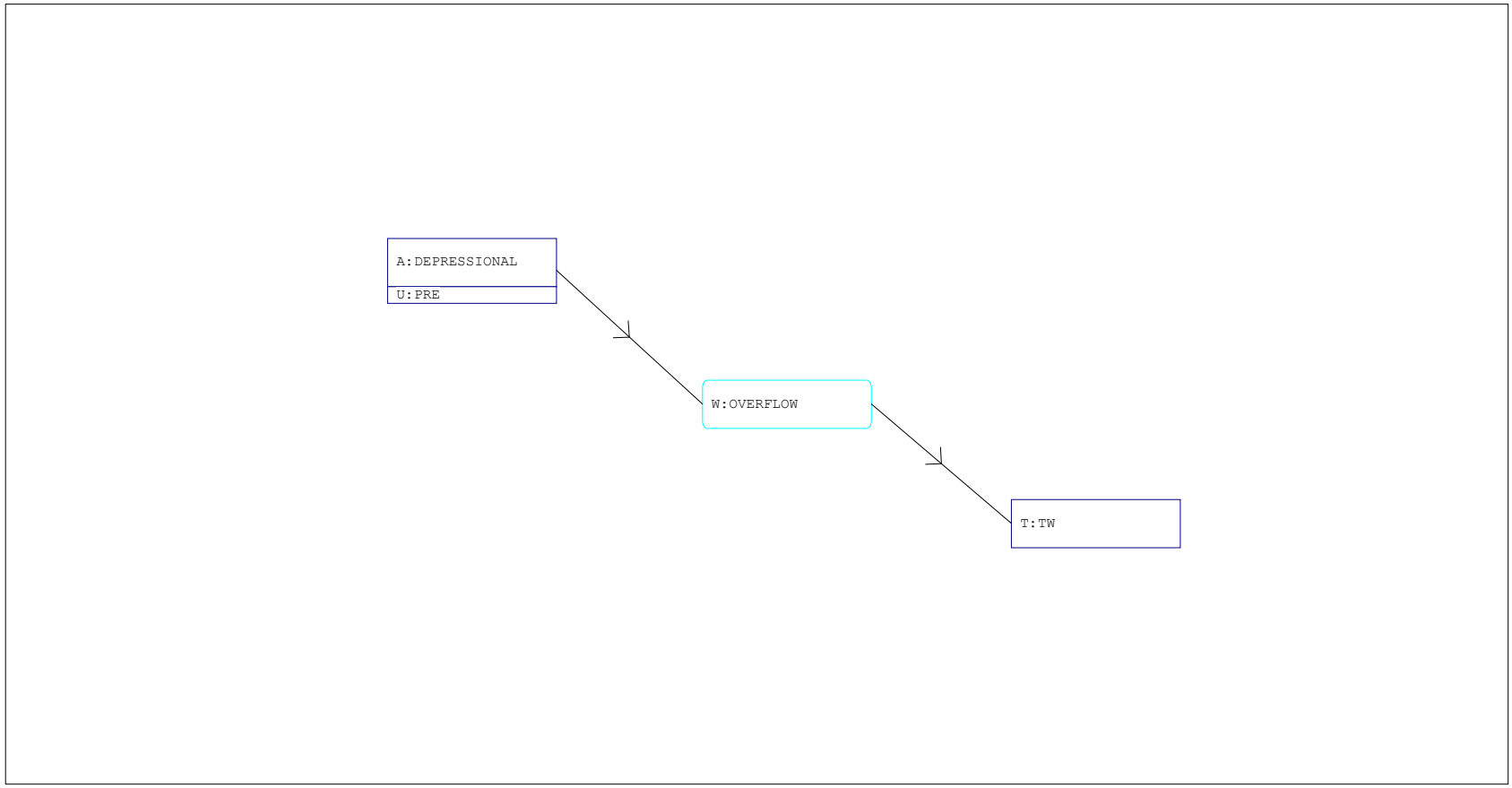
Elevation	Pond Area	Storage Between	Accum. Storage	Remark
(Ft)	(Ac)	(Ac-Ft)	(af)	
22.00	0.34	0.00	0.00	Btm of Pond
23.00	0.36	0.35	0.35	
24.00	0.38	0.37	0.72	
25.00	0.40	0.39	1.11	
26.00	0.43	0.42	1.53	
27.00	0.45	0.44	1.97	
28.00	0.48	0.46	2.43	
29.00	0.50	0.49	2.92	
30.00	0.53	0.52	3.43	
31.00	0.59	0.56	2.08	
32.00	0.64	0.61	2.58	
33.00	0.71	0.68	3.11	
33.50	**0.75**	**0.37**	**3.28**	**NWL**

WINTER SPRINGS MEDICAL OFFICE
E. SR 434, WINTER SPRINGS, FL
PRE-DEVELOPMENT CONDITION
FEG No. 17-107
06/19/2018

Nodes
A Stage/Area
V Stage/Volume
T Time/Stage
M Manhole

Basins
O Overland Flow
U SCS Unit CN
S SBUH CN
Y SCS Unit GA
Z SBUH GA

Links
P Pipe
W Weir
C Channel
D Drop Structure
B Bridge
R Rating Curve
H Breach
E Percolation
F Filter
X Exfil Trench



Name:	PRE	PRE	PRE	PRE
Group:	BASE	BASE	BASE	BASE
Simulation:	100YR-24HR	10YR-24HR	25YR-24HR	MEAN-24HR
Node:	DEPRESSIONAL	DEPRESSIONAL	DEPRESSIONAL	DEPRESSIONAL
Type:	SCS	SCS	SCS	SCS
Unit Hydrograph:	Uh323	Uh323	Uh323	Uh323
Peaking Factor:	323.0	323.0	323.0	323.0
Spec Time Inc(min):	7.03	7.03	7.03	7.03
Comp Time Inc(min):	5.00	5.00	5.00	5.00
Rain File:	Flmod	Flmod	Flmod	Flmod
Rain Amount(in):	11.500	7.500	8.640	4.500
Duration(hrs):	24.00	24.00	24.00	24.00
Status:	Onsite	Onsite	Onsite	Onsite
TC(min):	52.70	52.70	52.70	52.70
Time Shift(hrs):	0.00	0.00	0.00	0.00
Area(ac):	4.960	4.960	4.960	4.960
Vol of Unit Hyd(in):	1.001	1.001	1.001	1.001
Curve Num:	83.600	83.600	83.600	83.600
DCIA(%):	0.000	0.000	0.000	0.000
Time Max(hrs):	12.50	12.50	12.50	12.50
Flow Max(cfs):	16.412	9.852	11.727	4.947
Runoff Volume(in):	9.435	5.567	6.659	2.779
Runoff Volume(ft3):	169883.430	100238.919	119901.020	50027.060

==========
==== Basins ====
==========

Name: PRE Node: DEPRESSIONAL Status: Onsite
Group: BASE Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh323 Peaking Factor: 323.0
Rainfall File: Flmod Storm Duration(hrs): 24.00
Rainfall Amount(in): 0.000 Time of Conc(min): 52.70
Area(ac): 4.960 Time Shift(hrs): 0.00
Curve Number: 83.60 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

BASIN PRE DISCHARGES TO GEE CREEK

==========
==== Nodes ====
==========

Name: DEPRESSIONAL Base Flow(cfs): 0.000 Init Stage(ft): 33.500
Group: BASE Warn Stage(ft): 34.000
Type: Stage/Area

EXISTING DEPRESSIONAL AREA

Stage(ft)	Area(ac)
33.000	0.4800
34.000	1.0000

Name: TW Base Flow(cfs): 0.000 Init Stage(ft): 33.500
Group: BASE Warn Stage(ft): 33.500
Type: Time/Stage

POINT OF DISCHARGE: EXISTING STORM SEWER CONVEYANCE SYSTEM ALONG HACIENDA DRIVE & ULTIMATELY REACH TO GEE CREEK

Time(hrs)	Stage(ft)
0.00	33.500
12.00	33.500
30.00	33.500

==========
==== Weirs ====
==========

Name: OVERFLOW From Node: DEPRESSIONAL
Group: BASE To Node: TW
Flow: Both Count: 1
Type: Vertical: Gravel Geometry: Rectangular

Span(in): 200.00
Rise(in): 999.00
Invert(ft): 33.330
Control Elevation(ft): 33.330
TABLE
Bottom Clip(in): 0.000
Top Clip(in): 0.000
Weir Discharge Coef: 3.200
Orifice Discharge Coef: 0.600

==========
==== Hydrology Simulations ====
==========

Name: 100YR-24HR
Filename: P:\2017\17-107_MedicalOfficeBuilding_SR434WinterSprings\ENGINEERING\DRAINAGE\ICPR\PRE-DEV\100YR24

```
      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Flmod
    Rainfall Amount(in): 11.50

Time(hrs)       Print Inc(min)
--------------- ---------------
24.000          15.00

-------------------------------------------------------------------------------------------------
         Name: 10YR-24HR
     Filename: P:\2017\17-107_MedicalOfficeBuilding_SR434WinterSprings\ENGINEERING\DRAINAGE\ICPR\PRE-DEV\10YR24H

      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Flmod
    Rainfall Amount(in): 7.50

Time(hrs)       Print Inc(min)
--------------- ---------------
24.000          15.00

-------------------------------------------------------------------------------------------------
         Name: 25YR-24HR
     Filename: P:\2017\17-107_MedicalOfficeBuilding_SR434WinterSprings\ENGINEERING\DRAINAGE\ICPR\PRE-DEV\25YR24H

      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Flmod
    Rainfall Amount(in): 8.64

Time(hrs)       Print Inc(min)
--------------- ---------------
24.000          15.00

-------------------------------------------------------------------------------------------------
         Name: MEAN-24HR
     Filename: P:\2017\17-107_MedicalOfficeBuilding_SR434WinterSprings\ENGINEERING\DRAINAGE\ICPR\PRE-DEV\MEAN-24

      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Flmod
    Rainfall Amount(in): 4.50

Time(hrs)       Print Inc(min)
--------------- ---------------
24.000          15.00

===============================================================================================
==== Routing Simulations ======================================================================
===============================================================================================

         Name: 100YR-24HR          Hydrology Sim: 100YR-24HR
     Filename: P:\2017\17-107_MedicalOfficeBuilding_SR434WinterSprings\ENGINEERING\DRAINAGE\ICPR\PRE-DEV\100YR24

      Execute: Yes         Restart: No            Patch: No
  Alternative: No

        Max Delta Z(ft): 1.00                    Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                    End Time(hrs): 24.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 60.0000
        Boundary Stages:                         Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
24.000          15.000

Group           Run
--------------- -----
BASE            Yes
```

```
--------------------------------------------------------------------------------------------------
         Name: 10YR-24HR           Hydrology Sim: 10YR-24HR
     Filename: P:\2017\17-107_MedicalOfficeBuilding_SR434WinterSprings\ENGINEERING\DRAINAGE\ICPR\PRE-DEV\10YR24H

      Execute: Yes         Restart: No            Patch: No
  Alternative: No

        Max Delta Z(ft): 1.00                    Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                    End Time(hrs): 24.00
     Min Calc Time(sec): 0.5000              Max Calc Time(sec): 60.0000
        Boundary Stages:                         Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
24.000          15.000

Group           Run
--------------- -----
BASE            Yes


--------------------------------------------------------------------------------------------------
         Name: 25YR-24HR           Hydrology Sim: 25YR-24HR
     Filename: P:\2017\17-107_MedicalOfficeBuilding_SR434WinterSprings\ENGINEERING\DRAINAGE\ICPR\PRE-DEV\25YR24H

      Execute: Yes         Restart: No            Patch: No
  Alternative: No

        Max Delta Z(ft): 1.00                    Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                    End Time(hrs): 24.00
     Min Calc Time(sec): 0.5000              Max Calc Time(sec): 60.0000
        Boundary Stages:                         Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
24.000          15.000

Group           Run
--------------- -----
BASE            Yes


--------------------------------------------------------------------------------------------------
         Name: MEAN-24HR           Hydrology Sim: MEAN-24HR
     Filename: P:\2017\17-107_MedicalOfficeBuilding_SR434WinterSprings\ENGINEERING\DRAINAGE\ICPR\PRE-DEV\MEAN24H

      Execute: Yes         Restart: No            Patch: No
  Alternative: No

        Max Delta Z(ft): 1.00                    Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                    End Time(hrs): 24.00
     Min Calc Time(sec): 0.5000              Max Calc Time(sec): 60.0000
        Boundary Stages:                         Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
24.000          15.000

Group           Run
--------------- -----
BASE            Yes
```

==========
==== Boundary Conditions ====
==========

Name: MEAN ANNUAL Node: TW Type: Stage

Time(hrs)	Stage(ft)
0.000	33.500
12.000	33.500
30.000	33.500

Name: 10YR-24HR Node: TW Type: Stage

Time(hrs)	Stage(ft)
0.000	33.500
12.000	33.500
30.000	33.500

Name: 25YR-24HR Node: TW Type: Stage

Time(hrs)	Stage(ft)
0.000	33.500
12.000	33.500
30.000	33.500

Name: 100YR-24HR Node: TW Type: Stage

Time(hrs)	Stage(ft)
0.000	33.500
12.000	33.500
30.000	33.500

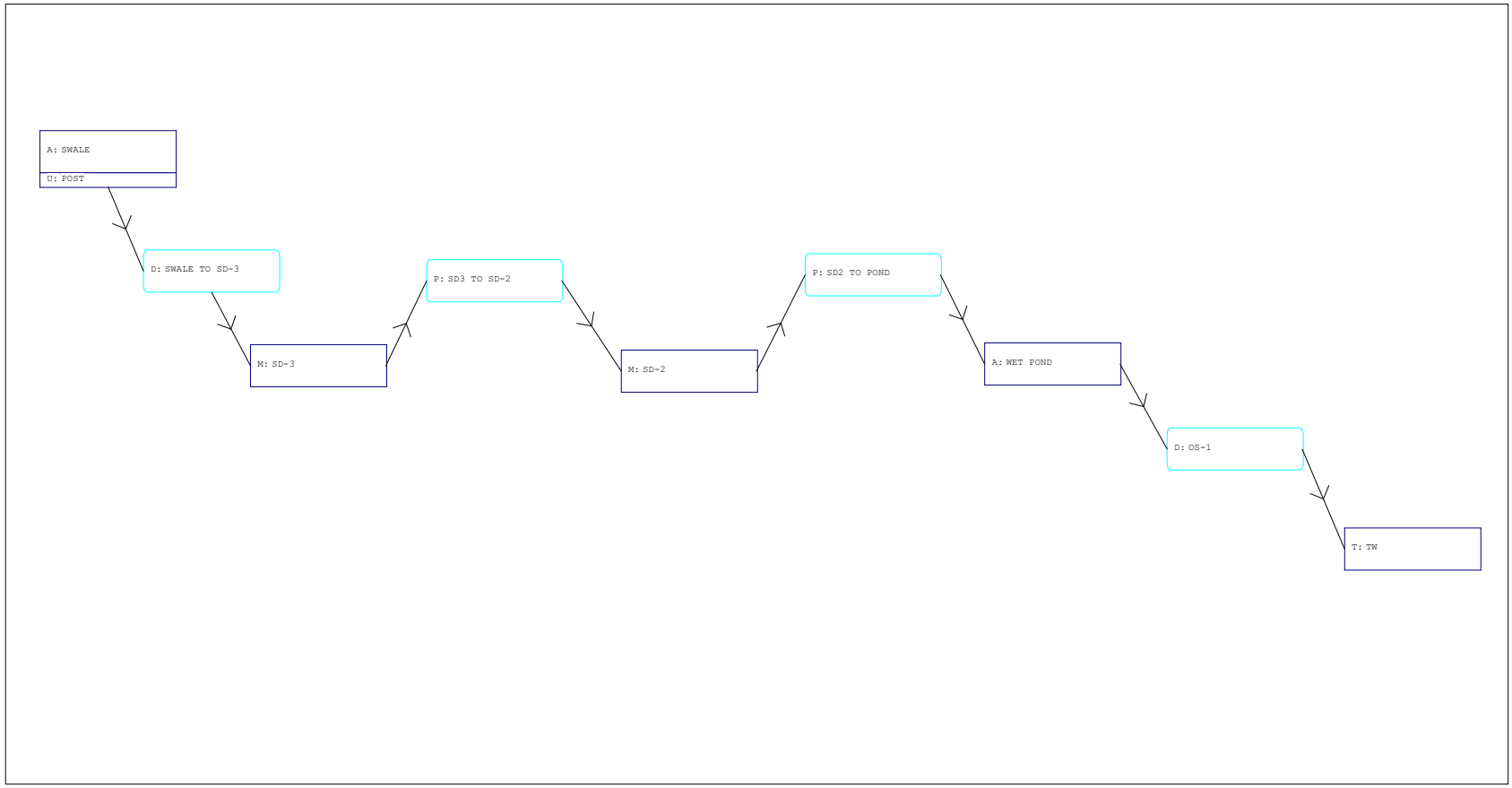
Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
DEPRESSIONAL	BASE	100YR-24HR	12.72	33.758	34.000	0.0050	38084	12.50	16.377	12.72	14.947
DEPRESSIONAL	BASE	10YR-24HR	0.00	33.500	34.000	0.0041	32234	0.00	0.000	0.00	3.738
DEPRESSIONAL	BASE	25YR-24HR	12.74	33.671	34.000	0.0049	36114	12.50	11.696	12.74	10.633
DEPRESSIONAL	BASE	MEAN-24HR	12.68	33.528	34.000	-0.0035	32869	12.51	4.933	12.71	4.664
TW	BASE	100YR-24HR	12.01	33.500	33.500	0.0021	0	12.72	14.947	0.00	0.000
TW	BASE	10YR-24HR	12.01	33.500	33.500	0.0021	0	0.00	3.738	0.00	0.000
TW	BASE	25YR-24HR	12.01	33.500	33.500	0.0021	0	12.74	10.633	0.00	0.000
TW	BASE	MEAN-24HR	12.01	33.500	33.500	0.0021	0	12.71	4.664	0.00	0.000

WINTER SPRINGS MEDICAL OFFICE
E. SR 434, WINTER SPRINGS, FLORIDA
POST-DEVELOPMENT CONDITION
FEG No. 17-107
06/19/2018

Nodes
A Stage/Area
V Stage/Volume
T Time/Stage
M Manhole

Basins
O Overland Flow
U SCS Unit CN
S SBUH CN
Y SCS Unit GA
Z SBUH GA

Links
P Pipe
W Weir
C Channel
D Drop Structure
B Bridge
R Rating Curve
H Breach
E Percolation
F Filter
X Exfil Trench



Name:	POST	POST	POST	POST
Group:	BASE	BASE	BASE	BASE
Simulation:	100YR-24HR	10YR-24HR	25YR-24HR	MEAN-24HR
Node:	SWALE	SWALE	SWALE	SWALE
Type:	SCS	SCS	SCS	SCS
Unit Hydrograph:	Uh323	Uh323	Uh323	Uh323
Peaking Factor:	323.0	323.0	323.0	323.0
Spec Time Inc(min):	1.33	1.33	1.33	1.33
Comp Time Inc(min):	1.33	1.33	1.33	1.33
Rain File:	Flmod	Flmod	Flmod	Flmod
Rain Amount(in):	11.500	7.500	8.640	4.500
Duration(hrs):	24.00	24.00	24.00	24.00
Status:	Onsite	Onsite	Onsite	Onsite
TC(min):	10.00	10.00	10.00	10.00
Time Shift(hrs):	0.00	0.00	0.00	0.00
Area(ac):	4.960	4.960	4.960	4.960
Vol of Unit Hyd(in):	1.001	1.001	1.001	1.001
Curve Num:	92.700	92.700	92.700	92.700
DCIA(%):	0.000	0.000	0.000	0.000
Time Max(hrs):	12.02	12.02	12.02	12.02
Flow Max(cfs):	36.849	23.592	27.386	13.509
Runoff Volume(in):	10.611	6.634	7.765	3.677
Runoff Volume(ft3):	191042.801	119445.960	139811.221	66212.007

==========
==== Basins ====
==========

Name: POST Node: SWALE Status: Onsite
Group: BASE Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh323 Peaking Factor: 323.0
Rainfall File: Orange Storm Duration(hrs): 24.00
Rainfall Amount(in): 0.000 Time of Conc(min): 10.00
Area(ac): 4.960 Time Shift(hrs): 0.00
Curve Number: 92.70 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

BASIN POST ROUTES TO WET DETENTION POND

==========
==== Nodes ====
==========

Name: SD-2 Base Flow(cfs): 0.000 Init Stage(ft): 36.000
Group: BASE Plunge Factor: 1.00 Warn Stage(ft): 37.000
Type: Manhole, Flat Floor

Stage(ft)	Area(ac)
32.200	0.0008
36.600	0.0008

Name: SD-3 Base Flow(cfs): 0.000 Init Stage(ft): 36.000
Group: BASE Plunge Factor: 1.00 Warn Stage(ft): 37.000
Type: Manhole, Flat Floor

Stage(ft)	Area(ac)
22.410	0.0008
36.600	0.0008

Name: SWALE Base Flow(cfs): 0.000 Init Stage(ft): 36.000
Group: BASE Warn Stage(ft): 37.000
Type: Stage/Area

PRE-TREATMENT SWALE

Stage(ft)	Area(ac)
36.000	0.2000
37.000	0.2800

Name: TW Base Flow(cfs): 0.000 Init Stage(ft): 33.500
Group: BASE Warn Stage(ft): 33.500
Type: Time/Stage

POINT OF DISCHARGE: EXISTING STORM SEWER CONVEYANCE SYSTEM & ULTIMATELY REACHES TO GEE CREEK SOUTH OF PROJECT.

Time(hrs)	Stage(ft)
0.00	33.500
12.00	33.500
30.00	33.500

Name: WET POND Base Flow(cfs): 0.000 Init Stage(ft): 33.500
Group: BASE Warn Stage(ft): 37.000
Type: Stage/Area

WET DETENTION POND

Stage(ft)	Area(ac)
33.500	0.7500
34.000	0.7900
35.000	0.8700
36.000	0.9600
37.000	1.1500

Pipes

Name:	SD2 TO POND	From Node:	SD-2	Length(ft):	81.00
Group:	BASE	To Node:	WET POND	Count:	1
				Friction Equation:	Automatic
	UPSTREAM	DOWNSTREAM		Solution Algorithm:	Most Restrictive
Geometry:	Circular	Circular		Flow:	Both
Span(in):	36.00	36.00		Entrance Loss Coef:	0.00
Rise(in):	36.00	36.00		Exit Loss Coef:	1.00
Invert(ft):	22.410	22.000		Bend Loss Coef:	0.00
Manning's N:	0.013000	0.013000		Outlet Ctrl Spec:	Use dc or tw
Top Clip(in):	0.000	0.000		Inlet Ctrl Spec:	Use dc
Bot Clip(in):	0.000	0.000		Stabilizer Option:	None

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular CMP: Mitered to slope

Name:	SD3 TO SD-2	From Node:	SD-3	Length(ft):	152.00
Group:	BASE	To Node:	SD-2	Count:	1
				Friction Equation:	Automatic
	UPSTREAM	DOWNSTREAM		Solution Algorithm:	Most Restrictive
Geometry:	Circular	Circular		Flow:	Both
Span(in):	36.00	36.00		Entrance Loss Coef:	0.00
Rise(in):	36.00	36.00		Exit Loss Coef:	1.00
Invert(ft):	32.200	31.440		Bend Loss Coef:	0.00
Manning's N:	0.013000	0.013000		Outlet Ctrl Spec:	Use dc or tw
Top Clip(in):	0.000	0.000		Inlet Ctrl Spec:	Use dc
Bot Clip(in):	0.000	0.000		Stabilizer Option:	None

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Drop Structures

Name:	OS-1	From Node:	WET POND	Length(ft):	43.00
Group:	BASE	To Node:	TW	Count:	1
	UPSTREAM	DOWNSTREAM		Friction Equation:	Average Conveyance
Geometry:	Circular	Circular		Solution Algorithm:	Automatic
Span(in):	18.00	18.00		Flow:	Both
Rise(in):	18.00	18.00		Entrance Loss Coef:	0.500
Invert(ft):	32.200	32.000		Exit Loss Coef:	1.000
Manning's N:	0.013000	0.013000		Outlet Ctrl Spec:	Use dc or tw

Top Clip(in):	0.000	0.000	Inlet Ctrl Spec: Use dn
Bot Clip(in):	0.000	0.000	Solution Incs: 10

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular: Beveled ring, 45° bevels

*** Weir 1 of 3 for Drop Structure OS-1 ***

TABLE

Count:	1	Bottom Clip(in):	0.000
Type:	Vertical: Mavis	Top Clip(in):	0.000
Flow:	Both	Weir Disc Coef:	3.100
Geometry:	Circular	Orifice Disc Coef:	0.600
Span(in):	3.00	Invert(ft):	33.000
Rise(in):	3.00	Control Elev(ft):	33.500

*** Weir 2 of 3 for Drop Structure OS-1 ***

TABLE

Count:	1	Bottom Clip(in):	0.000
Type:	Horizontal	Top Clip(in):	0.000
Flow:	Both	Weir Disc Coef:	3.100
Geometry:	Rectangular	Orifice Disc Coef:	0.600
Span(in):	37.00	Invert(ft):	35.850
Rise(in):	24.00	Control Elev(ft):	35.850

*** Weir 3 of 3 for Drop Structure OS-1 ***

TABLE

Count:	1	Bottom Clip(in):	0.000
Type:	Vertical: Mavis	Top Clip(in):	0.000
Flow:	Both	Weir Disc Coef:	3.000
Geometry:	Rectangular	Orifice Disc Coef:	0.600
Span(in):	4.00	Invert(ft):	34.400
Rise(in):	999.00	Control Elev(ft):	34.400

Name:	SWALE TO SD-3	From Node: SWALE	Length(ft): 152.00
Group:	BASE	To Node: SD-3	Count: 1

	UPSTREAM	DOWNSTREAM		
			Friction Equation:	Average Conveyance
Geometry:	Circular	Circular	Solution Algorithm:	Automatic
Span(in):	36.00	36.00	Flow:	Both
Rise(in):	36.00	36.00	Entrance Loss Coef:	0.500
Invert(ft):	32.220	31.440	Exit Loss Coef:	1.000
Manning's N:	0.013000	0.013000	Outlet Ctrl Spec:	Use dc or tw
Top Clip(in):	0.000	0.000	Inlet Ctrl Spec:	Use dn
Bot Clip(in):	0.000	0.000	Solution Incs:	10

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

*** Weir 1 of 1 for Drop Structure SWALE TO SD-3 ***

TABLE

Count:	2	Bottom Clip(in):	0.000
Type:	Horizontal	Top Clip(in):	0.000
Flow:	Both	Weir Disc Coef:	3.100
Geometry:	Rectangular	Orifice Disc Coef:	0.600
Span(in):	49.00	Invert(ft):	36.700
Rise(in):	37.00	Control Elev(ft):	36.700

```
================================================================================
==== Hydrology Simulations ====================================================
================================================================================

         Name: 100YR-24HR
     Filename: P:\2017\17-107_MedicalOfficeBuilding_SR434WinterSprings\ENGINEERING\DRAINAGE\ICPR\POST-DEV\100YR2

      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Flmod
    Rainfall Amount(in): 11.50

Time(hrs)       Print Inc(min)
--------------- ---------------
30.000          5.00

--------------------------------------------------------------------------------------------------------
         Name: 10YR-24HR
     Filename: P:\2017\17-107_MedicalOfficeBuilding_SR434WinterSprings\ENGINEERING\DRAINAGE\ICPR\POST-DEV\10YR24

      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Flmod
    Rainfall Amount(in): 7.50

Time(hrs)       Print Inc(min)
--------------- ---------------
30.000          5.00

--------------------------------------------------------------------------------------------------------
         Name: 25YR-24HR
     Filename: P:\2017\17-107_MedicalOfficeBuilding_SR434WinterSprings\ENGINEERING\DRAINAGE\ICPR\POST-DEV\25YR24

      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Flmod
    Rainfall Amount(in): 8.64

Time(hrs)       Print Inc(min)
--------------- ---------------
30.000          5.00

--------------------------------------------------------------------------------------------------------
         Name: MEAN-24HR
     Filename: P:\2017\17-107_MedicalOfficeBuilding_SR434WinterSprings\ENGINEERING\DRAINAGE\ICPR\POST-DEV\MEAN-2

      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Flmod
    Rainfall Amount(in): 4.50

Time(hrs)       Print Inc(min)
--------------- ---------------
30.000          5.00

================================================================================
==== Routing Simulations ======================================================
================================================================================

         Name: 100YR-24HR          Hydrology Sim: 100YR-24HR
     Filename: P:\2013\13-027_7905BatesRoadRezone\ENGINEERING\DRAINAGE\ICPR\POST-DEV\100YR-24HR.I32

      Execute: Yes         Restart: No            Patch: No
  Alternative: No

        Max Delta Z(ft): 1.00                    Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                    End Time(hrs): 24.00
     Min Calc Time(sec): 0.5000              Max Calc Time(sec): 60.0000
        Boundary Stages:                         Boundary Flows:

100YR-24HR STORM EVENT
```

Time(hrs)	Print Inc(min)
24.000	15.000

Group	Run
BASE	Yes

Name: 10YR-24HR Hydrology Sim: 10YR-24HR
Filename: P:\2013\13-027_7905BatesRoadRezone\ENGINEERING\DRAINAGE\ICPR\POST-DEV\10YR-24HR.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 24.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

10YR-24HR STORM EVENT

Time(hrs)	Print Inc(min)
24.000	15.000

Group	Run
BASE	Yes

Name: 25YR-24HR Hydrology Sim: 25YR-24HR
Filename: P:\2013\13-027_7905BatesRoadRezone\ENGINEERING\DRAINAGE\ICPR\POST-DEV\25YR-24HR.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 30.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

25YR-24HR STORM EVENT

Time(hrs)	Print Inc(min)
30.000	15.000

Group	Run
BASE	Yes

Name: MEAN-24HR Hydrology Sim: MEAN-24HR
Filename: P:\2013\13-027_7905BatesRoadRezone\ENGINEERING\DRAINAGE\ICPR\POST-DEV\MEAN-24HR.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 24.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

MEAN-24HR EVENT

Time(hrs)	Print Inc(min)
24.000	15.000

Group	Run
BASE	Yes

==========
==== Boundary Conditions ====
==========

Name: MEAN ANNUAL Node: TW Type: Stage

Time(hrs)	Stage(ft)
0.000	33.500
12.000	33.500
24.000	33.500

Name: 25YR-24HR Node: TW Type: Stage

Time(hrs)	Stage(ft)
0.000	33.500
12.000	33.500
24.000	33.500

Name: 100YR-24HR Node: TW Type: Stage

Time(hrs)	Stage(ft)
0.000	33.500
12.000	33.500
24.000	33.500

Name: 10YR-24HR Node: TW Type: Stage

Time(hrs)	Stage(ft)
0.000	33.500
12.000	33.500
24.000	33.500

Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
SD-2	BASE	100YR-24HR	12.48	36.454	37.000	-0.2236	130	15.61	32.072	0.00	66.099
SD-2	BASE	10YR-24HR	0.00	36.000	37.000	-0.2236	130	13.24	38.580	0.00	66.099
SD-2	BASE	25YR-24HR	0.00	36.000	37.000	-0.2236	130	13.10	33.300	0.00	66.099
SD-2	BASE	MEAN-24HR	0.00	36.000	37.000	-0.2236	130	0.00	24.704	0.00	66.099
SD-3	BASE	100YR-24HR	12.31	36.874	37.000	-0.0992	124	12.03	28.763	15.61	32.072
SD-3	BASE	10YR-24HR	0.00	36.000	37.000	-0.0992	124	12.05	22.500	13.24	38.580
SD-3	BASE	25YR-24HR	0.00	36.000	37.000	-0.0992	124	12.05	26.159	13.10	33.300
SD-3	BASE	MEAN-24HR	0.00	36.000	37.000	-0.0992	124	12.07	12.792	0.00	24.704
SWALE	BASE	100YR-24HR	12.17	37.522	37.000	-0.0030	14014	12.00	36.336	12.03	28.763
SWALE	BASE	10YR-24HR	12.05	37.100	37.000	0.0010	12546	12.00	23.252	12.05	22.500
SWALE	BASE	25YR-24HR	12.05	37.143	37.000	0.0010	12693	12.00	26.997	12.05	26.159
SWALE	BASE	MEAN-24HR	12.07	36.975	37.000	0.0008	12109	12.00	13.284	12.07	12.792
TW	BASE	100YR-24HR	0.00	33.500	33.500	0.0000	0	12.64	11.107	0.00	0.000
TW	BASE	10YR-24HR	0.00	33.500	33.500	0.0000	0	14.25	1.529	0.00	0.000
TW	BASE	25YR-24HR	0.00	33.500	33.500	0.0000	0	13.81	2.047	0.00	0.000
TW	BASE	MEAN-24HR	0.00	33.500	33.500	0.0000	0	17.77	0.444	0.00	0.000
WET POND	BASE	100YR-24HR	12.64	36.266	37.000	0.0031	44023	0.00	66.099	12.64	11.107
WET POND	BASE	10YR-24HR	14.25	35.528	37.000	0.0030	39974	0.00	66.099	14.25	1.529
WET POND	BASE	25YR-24HR	13.81	35.822	37.000	0.0031	41126	0.00	66.099	13.81	2.047
WET POND	BASE	MEAN-24HR	17.77	34.724	37.000	0.0026	36941	0.00	66.099	17.77	0.444

Appendix H – Nutrient Loading and Pre-Treatment Volume Recovery Analyses

Average Horizontal Saturated Hydraulic Conductivity Calculations

The equivalent horizontal hydraulic conductivity (Kh) is calculated to take into account the retaining walls surrounding portions of the retention ponds as follow:

$K_{avg.} = \{(L_{unwalled} / L_{total}) \times k_h\} + \{(L_{walled} / L_{total}) \times (h_2/h_1) \times k_h\}$

$= \{(730/670) \times 6\} + \{(670/1400) \times (2.5/6.5) \times 6\}$

$K_{avg.}$ =	4.23 Ft. /day

where:

Base of Aquifer = 30.5 assumed per Geotechnical Report (Borings B-6, B-11 and B-12)

$L_{unwalled}$ is the length of perimeter with no wall =	730	Ft.
L_{walled} is the length of perimeter with wall/clay core =	670	Ft.
L_{total} is the total perimeter length =	1400	Ft.
h_1 is the average water level in the pond = (*) 37-30.5=	6.5	Ft.
h_2 is the depth for the bottom of wall to the base of aquifer = (**) 33-30.5 =	2.5	Ft.
k_h is the horizontal hydraulic conductivity =	6.0	Ft. /day

Note: (*) Based on weir elevation.

(**) Based on 3 Ft below the bottom of pond, which consists of 2 Ft embedment and 1 Ft foundation thickness of the wall.

PONDS 3.3
Nitrogen and Phosphorus Loading Calculator
Version 3.3.114
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Devo Seereeram, Ph.D., P.E.

Data Section 1: Project Data

Node Text: Nutrient Removal Analysis

Project Name: Winter Springs Medical Office

Project Description: Nuturient Removal Analysis -
Dry pond follow by wet detention pond - Pre vs. Post development

Project Number: 17-107

Engineer: Simon H. Pham, P.E.

Supervising Engineer: Sam J. Sebaali, P.E.

Date: 06-12-2018

End Data Section 1

Data Section 2: Single Basin or Multibasin Pond

Node: Dry Pond followed with wet detention pond- Pre vs Post

Description: Winter Springs Medical Office
Pre vs Postdevelopment Loading, using Predevelopment Event Mean Concentrations

Analysis Type: Predevelopment vs. Postdevelopment
Pond Type: Wet Pond With Pretreatment
Analyze For: Nitrogen and Phosphorus

Climate Data:

Climate zone = 2 - Central Florida
Average annual rainfall depth (inches) = 50

Predevelopment Loading Method: Event Mean Concencentration (EMC)

Predevelopment Basins:

Predevelopment Basin Input Parameters					
Basin	Basin ID	Basin Area (acres)	Curve Number	DCIA (%)	Land Use
1	PRE	4.96	83.6	0	Undeveloped - Upland Hardwood
Total		4.96	83.6	0	

Predevelopment Basin Intermediate Parameters						
Basin	Nitrogen Conc. (mg/l)	Phosphorus Conc. (mg/l)	Runoff Coef.	Annual Runoff Volume (ac-ft/yr)	Annual Nitrogen Load (kg/yr)	Annual Phosphorus Load (kg/yr)
1	0.891	0.269	0.14628	3.02312	3.322507	1.003091
Total	0.891	0.269	0.14628	3.02312	3.322507	1.003091

Predevelopment Non-Runoff Contributing Area (acres): 0
Predevelopment Total Area (acres): 4.96

Postdevelopment Basins:

Postdevelopment Basin Input Parameters					
Basin	Basin ID	Basin Area (acres)	Curve Number	DCIA (%)	Land Use
1	POST	3.53	92.7	0	Low-Intensity Commercial
Total		3.53	92.7	0	

Postdevelopment Basin Intermediate Parameters						
Basin	Nitrogen Conc. (mg/l)	Phosphorus Conc. (mg/l)	Runoff Coef.	Annual Runoff Volume (ac-ft/yr)	Annual Nitrogen Load (kg/yr)	Annual Phosphorus Load (kg/yr)
1	1.18	0.179	0.3294799	4.8461	7.05354	1.069986
Total	1.18	0.179	0.3294799	4.8461	7.05354	1.069986

Postdevelopment Non-Runoff Contributing Area (acres): 0
Postdevelopment Total Area (acres): 3.53

Wet Pond Input Data:

Residence Time (days) = 21.0
Anoxic Depth Reduction Factor = 0.75
Maximum Allowable Phosphorous Removal Efficiency (%) = 64.5

Note to users in St. Johns River Water Management District:

In SJRWMD, the current removal efficiency limit is 64.5% for a permanent pool volume that provides for a WET SEASON residence time of 21 days. If the WET SEASON residence time is 14 days, then the removal efficiency would be 61.5%.

Also note that the Residence Time entered in the Wet Pond input data in this module is the ANNUAL residence time, not the WET SEASON residence time.

Treatment Train Summary Results:

Required Treatment Train Removal Efficiencies			
Parameter	Req. Total Removal Efficiency (%)	Available Wet Pond Efficiency (%)	Required Pretreatment Efficiency (%)
Nitrogen	52.8959	36.19976	26.1694
Phosphorus	6.251952	64.5	0

Required Permanent Pool Volume of Wet Pond (ac-ft) = 0.2058521
Estimated Anoxic Depth of Wet Pond (ft) = 7.773986

Required Design Efficiency of Dry Pond (%) = 26.1694
Required Retention Depth of Dry Pond (inches) = 0.1648026
Required Retention Volume of Dry Pond (ac-ft) = 4.847943E-02

Wet Pond Properties:

Annual Runoff Reaching Wet Pond (ac-ft) = 3.577905
Required Permanent Pool Volume (ac-ft) = 0.2058521
Yearly Phosphorus Load (kg/yr) = 0.7899773
Wet Pond Phorphorus Removal Efficiency (%) = 64.5
Annual Mass of Unremoved Phosphorus (kg/yr) = 0.2804419
Mean Phosphorus Concentration in Pond (µg/l) = 60.08788
Estimated Chlorophyll-a Concentration (mg/m³) = 29.94508
Estimated Sechi Disk Depth (ft) = 3.03817
Estimated Anoxic Depth (ft) = 7.773986

Discharge Summary:

	Predevelopment	Postdevelopment
Annual Runoff Volume (ac-ft)	3.02312	4.8461
Annual Discharge Volume (ac-ft)	3.02312	3.577904
Annual Mass of Discharged Nitrogen (kg/yr)	3.322507	3.322507
Annual Mass of Discharged Phosphorus (kg/yr)	1.003091	0.2804419
Nitrogen Concentration in Discharge (mg/l)	0.891	0.7528431
Phosphorus Concentration in Discharge (mg/l)	0.269	6.354501E-02

Achieved Efficiencies:

Achieved Nitrogen Removal Efficiency (%) = 52.8959
Achieved Phosphorus Removal Efficiency (%) = 73.79014

End Data Section 2

PONDS Version 3.3.0276
Retention Pond Recovery - Refined Method
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Devo Seereeram, Ph.D., P.E.

Project Data

Project Name:	WINTER SPINGS MEDICAL OFFICE
Simulation Description:	Pre-Treatment Swale Recovery Analysis
Project Number:	17-107
Engineer :	Simon H. Pham, P.E.
Supervising Engineer:	Sam J. Sebaali, P.E.
Date:	06-12-2018

Aquifer Data

Base Of Aquifer Elevation, [B] (ft datum):	30.50
Water Table Elevation, [WT] (ft datum):	34.00
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day):	4.23
Fillable Porosity, [n] (%):	25.00
Unsaturated Vertical Infiltration Rate, [Iv] (ft/day):	3.0
Maximum Area For Unsaturated Infiltration, [Av] (ft²):	11300.0

Geometry Data

Equivalent Pond Length, [L] (ft):	670.0
Equivalent Pond Width, [W] (ft):	16.8

Ground water mound is expected to intersect the pond bottom

Stage vs Area Data

Stage (ft datum)	Area (ft²)
36.00	8883.0
37.00	12165.0

Ditch Data

Ditch (or interceptor trench) parallel to length axis is inactive

Ditch (or interceptor trench) parallel to width axis is inactive

Discharge Structures

Discharge Structure #1 is active as weir

Structure Parameters

Description: Drainage Inlet

Weir elevation, (ft datum):	36.6
Weir coefficient:	3.13
Weir length, (ft):	14.33
Weir exponent:	1.5

Tailwater - disabled, free discharge

Discharge Structure #2 is inactive

Discharge Structure #3 is inactive

Scenario Input Data

Scenario 1 :: Pre-Treatment Analysis Volume of 0.16 Ac-Ft

Hydrograph Type: Slug Load
Modflow Routing: Routed with infiltration

Treatment Volume (ft^3) 6970

Initial ground water level (ft datum) 34.00 (default)

Time After Storm Event (days)	Time After Storm Event (days)
0.100	2.000
0.250	2.500
0.500	3.000
1.000	3.500
1.500	4.000

Worst Case Scenarios

Selection Criteria: <default - All scenarios with valid results>

Maximum Stage = 36.69477 ft datum

For scenario 1 at Time = 1.666667E-03 hours
Scenario Description: Pre-Treatment Analysis Volume of 0.16 Ac-Ft

Scenarios considered: 1 to 1

Maximum Positive Discharge Rate = 1.308545 ft^3/s

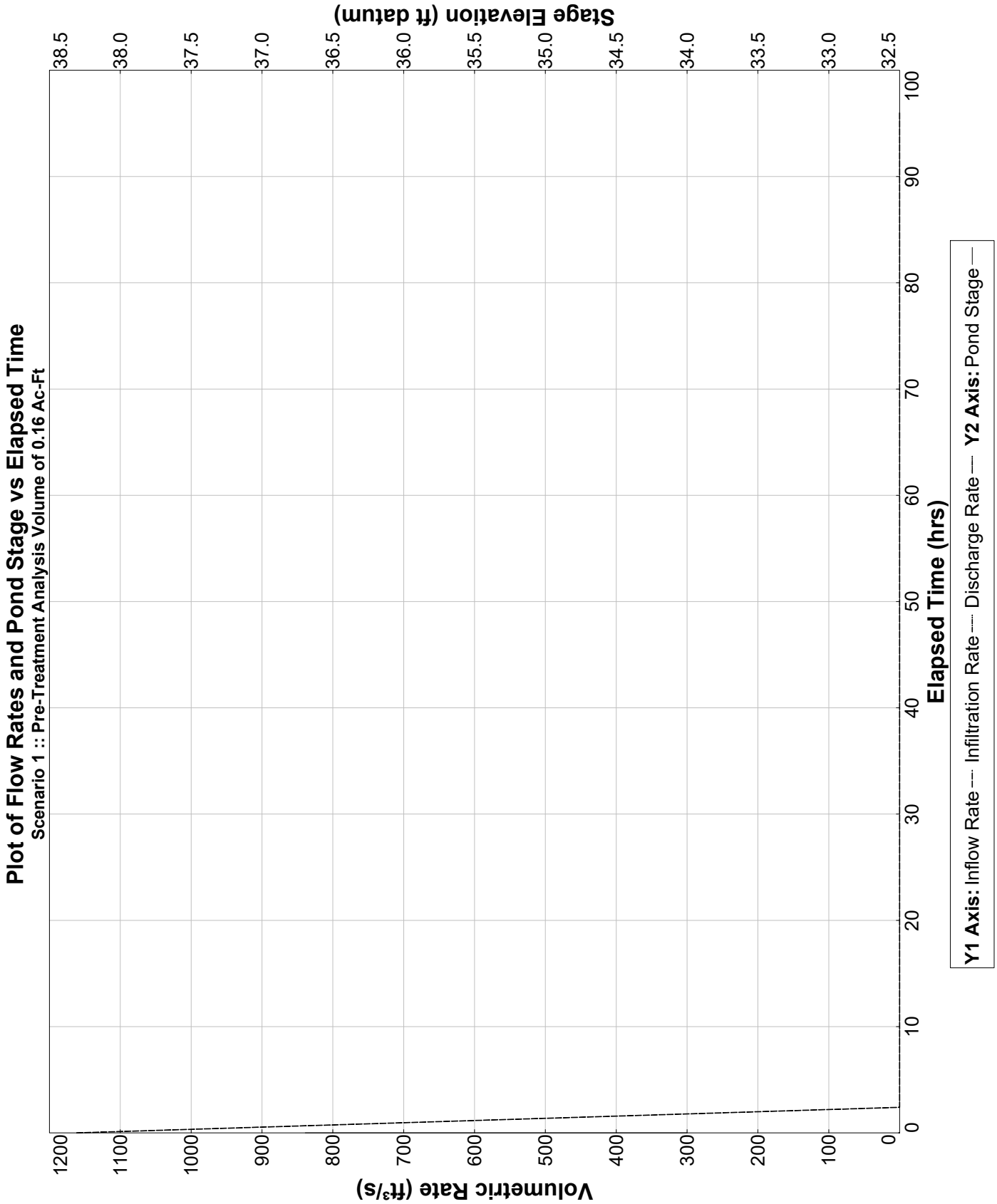
For scenario 1 at Time = 1.666667E-03 hours
Scenario Description: Pre-Treatment Analysis Volume of 0.16 Ac-Ft

Scenarios considered: 1 to 1

Detailed Results *:: Scenario 1 :: Pre-Treatment Analysis Volume of 0.16 Ac-Ft*

Elapsed Time	Instantaneous Inflow Rate	Outside Recharge	Stage Elevation	Infiltration Rate	Combined Instantaneous Discharge	Cumulative Inflow	Cumulative Infiltration	Combined Cumulative	
0.000	1161.6670	0.00000	34.00000	0.00000	0	0.000	0.00000	0	N.A.
0.002	1161.6670	0.00000	36.69477	0.38741	1.308545	6970.000	2.32606	3.925636	U/P
2.400	0.0000	0.00000	----	----	----	6970.000	6966.07400	3.925636	dry
6.000	0.0000	0.00000	----	----	----	6970.000	6966.07400	3.925636	dry
12.000	0.0000	0.00000	----	----	----	6970.000	6966.07400	3.925636	dry
24.000	0.0000	0.00000	----	----	----	6970.000	6966.07400	3.925636	dry
36.000	0.0000	0.00000	----	----	----	6970.000	6966.07400	3.925636	dry
48.000	0.0000	0.00000	----	----	----	6970.000	6966.07400	3.925636	dry
60.000	0.0000	0.00000	----	----	----	6970.000	6966.07400	3.925636	dry
72.000	0.0000	0.00000	----	----	----	6970.000	6966.07400	3.925636	dry
84.000	0.0000	0.00000	----	----	----	6970.000	6966.07400	3.925636	dry
96.000	0.0000	0.00000	----	----	----	6970.000	6966.07400	3.925636	dry

Time to recover water pre-treatment volume of 0.16 Ac.-Ft.


Plot of Flow Rates and Pond Stage vs Elapsed Time
Scenario 1 :: Pre-Treatment Analysis Volume of 0.16 Ac-Ft
Volumetric Rate (ft³/s)
Stage Elevation (ft datum)
Elapsed Time (hrs)
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
32.5
33.0
33.5
34.0
34.5
35.0
35.5
36.0
36.5
37.0
37.5
38.0
38.5
0
10
20
30
40
50
60
70
80
90
100
Y1 Axis: Inflow Rate Infiltration Rate Discharge Rate Y2 Axis: Pond Stage

Appendix I – Storm Sewer Hydraulic Analysis

WINTER SPRINGS MEDICAL OFFICE
E. STATE ROAD 434
WINTER SPRINGS, FLORIDA

HYDRAULIC ANALYSIS FOR STORM SEWER CONVEYANCE SYSTEM

BASIN #	BASIN AREA - (SF.)	BASIN AREA - (AC.)	IMPERVIOUS AREA - (SF.)	IMPERVIOUS AREA - (AC.)	IMPERVIOUS 'C' VALUE	PERVIOUS AREA - (SF.)	PERVIOUS AREA - (AC.)	PERVIOUS 'C' VALUE	WEIGHTED 'C' VALUE	TC (MIN.)	INTENSITY (IN./HR.)*	BASIN FLOW Q - (CFS)
BASIN SD-2	35,719.0	**0.820**	28,575.20	**0.656**	0.95	7143.8	**0.164**	0.2	**0.80**	10	7.4	**4.85**
BASIN SD-3	72,229.9	**1.658**	57,783.95	**1.327**	0.95	14446.0	**0.332**	0.2	**0.80**	10	7.4	**9.82**
BASIN SD-4	4,573.8	**0.105**	4,116.42	**0.095**	0.95	457.4	**0.011**	0.2	**0.88**	10	7.4	**0.68**
BASIN SD-5	13,939.2	**0.320**	10,454.40	**0.240**	0.95	3484.8	**0.080**	0.2	**0.76**	10	7.4	**1.81**
BASIN SD-6	14,853.9	**0.341**	11,140.43	**0.256**	0.95	3713.5	**0.085**	0.2	**0.76**	10	7.4	**1.92**
BASIN SD-7	3,310.6	**0.076**	2,979.54	**0.068**	0.95	331.1	**0.008**	0.2	**0.88**	10	7.4	**0.49**
BASIN SD-8	1,693.2	**0.039**	1,693.18	**0.039**	0.95	0.0	**0.000**	0.2	**0.95**	10	7.4	**0.27**
BASIN SD-9	5,662.8	**0.130**	5,662.80	**0.130**	0.95	0.0	**0.000**	0.2	**0.95**	10	7.4	**0.91**
BASIN SD-10	1,960.2	**0.045**	1,960.20	**0.045**	0.95	0.0	**0.000**	0.2	**0.95**	10	7.4	**0.32**
BASIN SD-11	2,395.8	**0.055**	2,395.80	**0.055**	0.95	0.0	**0.000**	0.2	**0.95**	10	7.4	**0.39**
BASIN SD-12	2,787.8	**0.064**	2,509.02	**0.058**	0.95	278.8	**0.006**	0.2	**0.88**	10	7.4	**0.41**
TOTAL AREA		**3.653**		**2.968**			**0.685**					**21.88**

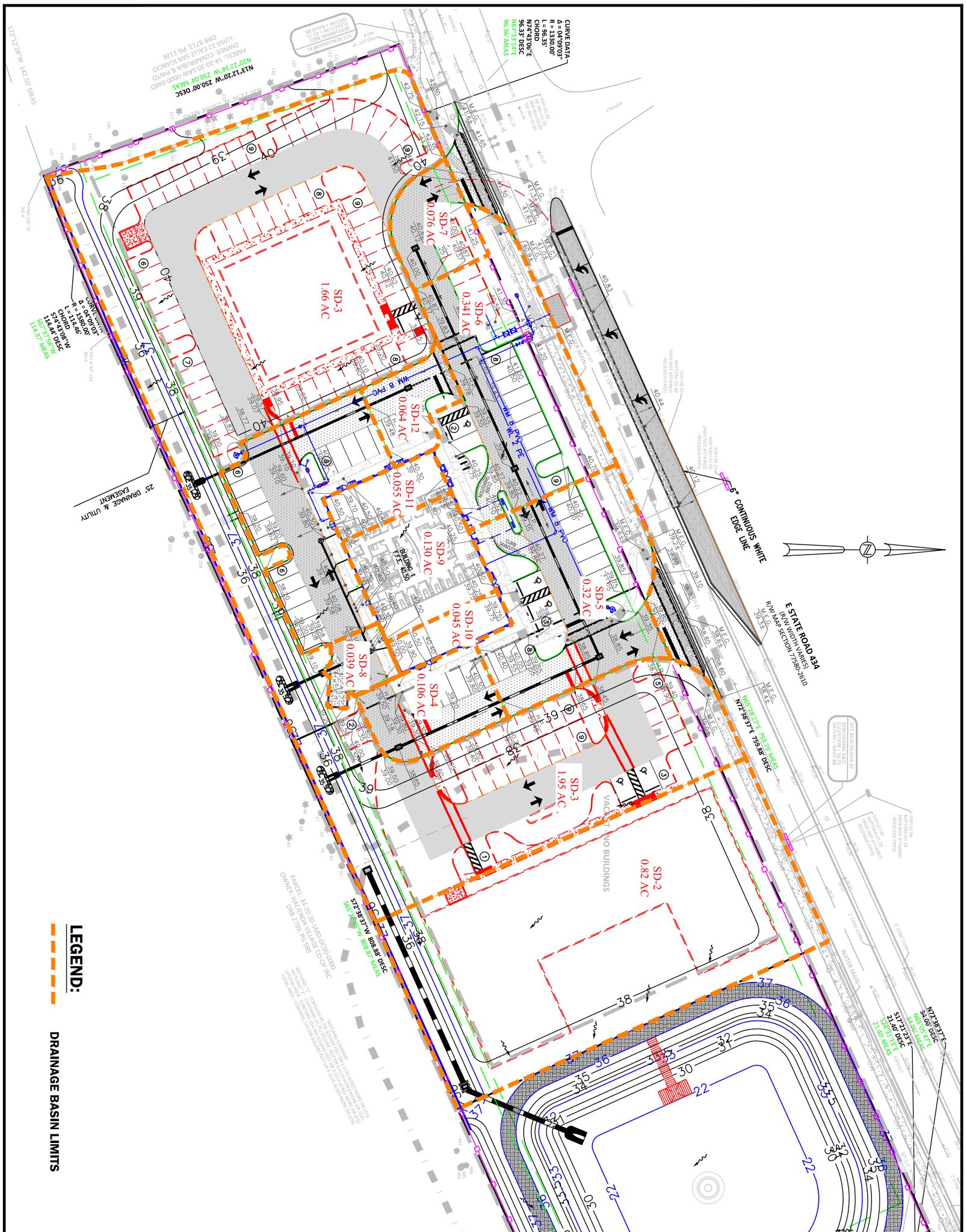
TAIL WATER ASSUMPTION FOR SYSTEM

A TAILWATER ELEVATION FOR STORM SEWER OF 36.66 FT. NAVD 88 IS USED, BASED ON THE AVERAGE OF BOTTOM SWALE ELEVATION (36.00 FT NAVD 88) AND 25-YR, 24-HR PEAK STAGE (37.31 FT NAVD 88).

A TAILWATER ELEVATION FOR STORM SEWER OF 34.67 FT. NAVD 88 IS USED, BASED ON THE AVERAGE OF CONTROL ELEVATION (33.50 FT NAVD 88) AND 25-YR, 24-HR PEAK STAGE (35.83 FT NAVD 88).

NOTE

* BASED ON IDF CURVE ZONE 7, TC = 10 MIN., 10 YR-24 HR



LEGEND:

DRAINAGE BASIN LIMITS

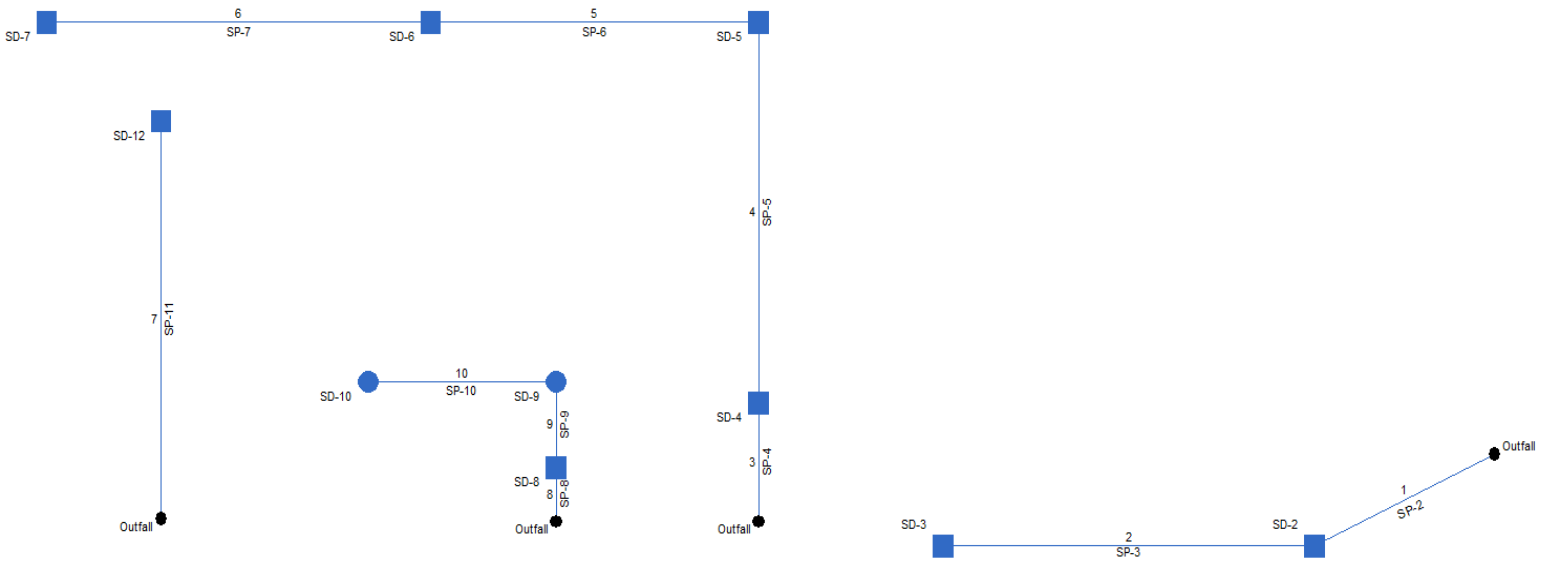
PROJECT NAME: WINTER SPRINGS MEDICAL OFFICE	**POST-DEVELOPMENT DRAINAGE BASIN MAP ON-SITE CONVEYANCE SYSTEM**
CLIENT: CHAU FAMILY HOLDINGS II, LLC	
S, T, R: S 34, T 20S, R 30E	**FEG PROJECT NO.:** 17-107
DATE: JUNE 15, 2018	**SCALE:** 1" = 60'

FEG FLORIDA ENGINEERING GROUP
Engineering the Future

5127 S. Orange Avenue, Suite 200
Orlando, FL 32809
Phone: 407-895-0324
Fax: 407-895-0325

www.feg-inc.us

Hydraflow Plan View



Winter Springs Medical Office	No. Lines: 10	06-15-2018

FL-DOT Report

Line No	To Line	Type of struc	n - value	Len	Drainage Area			Time of conc	Time of flow in sect	Inten (I)	Total CA	Add Q	Inlet elev	Elev of HGL			Rise	HGL	Actual		Date: 06-19-2018
					C1 = 0.2 C2 = 0.5 C3 = 0.9							Total flow		Elev of Crown			Span	Pipe	Full Flow		Frequency: 10 yrs
														Elev of Invert							Proj: 2018-06-19_WinterSpr
					Incre-ment (ac)	Sub-total (ac)	Sum CA					Q		Up	Down	Fall	Size	Slope	Vel	Cap	
				(ft)				(min)	(min)	(in/hr)		(cfs)	(ft)	(ft)	(ft)	(ft)	(in)	(%)	(ft/s)	(cfs)	Line description
1	End	DrGrt	0.013	81.0	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00	11.94	0.71	6.67	1.98	0.00 13.19	36.60	34.70 27.41 24.41	34.67 27.00 24.00	0.03 0.41	36 36 Cir	0.04 0.51	1.87 6.71	13.19 47.45	SP-2
2	1	DrGrt	0.013	152.0	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00	10.00	1.94	6.99	1.32	0.00 9.23	36.60	34.80 34.17 31.17	34.77 33.41 30.41	0.03 0.76	36 36 Cir	0.02 0.50	1.31 6.67	9.23 47.16	SP-3
3	End	DrGrt	0.010	44.0	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00	18.86	0.30	5.78	0.67	0.00 3.86	38.85	36.70 36.63 35.13	36.66 36.50 35.00	0.04 0.13	18 18 Cir	0.08 0.30	2.19 4.20	3.86 7.42	SP-4
4	3	DrGrt	0.010	142.0	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00	17.76	1.11	5.90	0.57	0.00 3.38	38.45	36.82 37.06 35.56	36.75 36.63 35.13	0.07 0.43	18 18 Cir	0.05 0.30	2.02 4.25	3.38 7.51	SP-5
5	4	DrGrt	0.010	134.0	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00	16.52	1.23	6.05	0.33	0.00 1.99	39.00	37.01 37.48 36.23	36.96 36.81 35.56	0.06 0.67	15 15 Cir	0.04 0.50	2.04 4.84	1.99 5.94	SP-6
6	5	DrGrt	0.010	157.0	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00	10.00	6.52	6.99	0.07	0.00 0.49	40.00	37.30 38.27 37.02	37.15 37.48 36.23	0.15 0.79	15 15 Cir	0.10 0.50	1.43 4.85	0.49 5.95	SP-7
7	End	DrGrt	0.010	148.0	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00	10.00	11.81	6.99	0.05	0.00 0.37	39.20	36.66 37.24 35.74	36.66 36.50 35.00	0.00 0.74	18 18 Cir	0.00 0.50	0.27 5.46	0.37 9.65	SP-11
8	End	DrGrt	0.010	20.0	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00	15.30	0.41	6.20	0.21	0.00 1.30	39.10	36.66 36.70 35.20	36.66 36.50 35.00	0.00 0.20	18 18 Cir	0.01 1.00	0.74 7.73	1.30 13.65	SP-8
9	8	MH	0.010	32.0	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00	14.74	0.56	6.27	0.17	0.00 1.07	39.75	36.67 36.77 35.52	36.67 36.45 35.20	0.00 0.32	15 15 Cir	0.01 1.00	0.89 6.84	1.07 8.39	SP-9
10	9	MH	0.010	77.0	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00	10.00	4.74	6.99	0.05	0.00 0.33	39.35	36.68 37.54 36.29	36.68 36.77 35.52	0.00 0.77	15 15 Cir	0.00 1.00	0.64 6.84	0.33 8.39	SP-10

NOTES: Intensity = 83.16 / (Inlet time + 19.70) ^ 0.73 (in/hr) ; Time of flow in section is based on full flow.

Winter Springs Medical Office

Storm Sewer Tabulation

Station		Len	Drng Area		Rnoff coeff	Area x C		Tc		Rain (I)	Total flow	Cap full	Vel	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line	(ft)	Incr (ac)	Total (ac)	(C)	Incr	Total	Inlet (min)	Syst (min)	(in/hr)	(cfs)	(cfs)	(ft/s)	Size (in)	Slope (%)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	
1	End	81.0	0.82	2.47	0.80	0.66	1.98	10.0	11.9	6.7	13.19	47.45	1.87	36	0.51	24.41	24.00	34.70	34.67	36.60	71.00	SP-2
2	1	152.0	1.65	1.65	0.80	1.32	1.32	10.0	10.0	7.0	9.23	47.16	1.31	36	0.50	31.17	30.41	34.80	34.77	36.60	36.60	SP-3
3	End	44.0	0.11	0.85	0.88	0.10	0.67	10.0	18.9	5.8	3.86	7.42	2.19	18	0.30	35.13	35.00	36.70	36.66	38.85	0.00	SP-4
4	3	142.0	0.32	0.74	0.76	0.24	0.57	10.0	17.8	5.9	3.38	7.51	2.02	18	0.30	35.56	35.13	36.82	36.75	38.45	38.85	SP-5
5	4	134.0	0.34	0.42	0.76	0.26	0.33	10.0	16.5	6.0	1.99	5.94	2.04	15	0.50	36.23	35.56	37.01	36.96	39.00	38.45	SP-6
6	5	157.0	0.08	0.08	0.88	0.07	0.07	10.0	10.0	7.0	0.49	5.95	1.43	15	0.50	37.02	36.23	37.30	37.15	40.00	39.00	SP-7
7	End	148.0	0.06	0.06	0.88	0.05	0.05	10.0	10.0	7.0	0.37	9.65	0.27	18	0.50	35.74	35.00	36.66	36.66	39.20	0.00	SP-11
8	End	20.0	0.04	0.22	0.95	0.04	0.21	10.0	15.3	6.2	1.30	13.65	0.74	18	1.00	35.20	35.00	36.66	36.66	39.10	0.00	SP-8
9	8	32.0	0.13	0.18	0.95	0.12	0.17	10.0	14.7	6.3	1.07	8.39	0.89	15	1.00	35.52	35.20	36.67	36.67	39.75	39.10	SP-9
10	9	77.0	0.05	0.05	0.95	0.05	0.05	10.0	10.0	7.0	0.33	8.39	0.64	15	1.00	36.29	35.52	36.68	36.68	39.35	39.75	SP-10

Winter Springs Medical Office | Number of lines: 10 | Run Date: 06-19-2018

NOTES: Intensity = 83.16 / (Inlet time + 19.70) ^ 0.73; Return period = 10 Yrs.

Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf		Invert elev	HGL elev	Depth	Area	Vel	Vel head	EGL elev	Sf	Ave Sf	Enrgy loss		
	(in)	(cfs)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(ft)	(K)	(ft)
1	36	13.19	24.00	34.67	3.00	7.07	1.87	0.05	34.72	0.039	81.0	24.41	34.70	3.00	7.07	1.87	0.05	34.76	0.039	0.039	0.032	0.72	0.04
2	36	9.23	30.41	34.77	3.00	7.07	1.31	0.03	34.79	0.019	152	31.17	34.80	3.00	7.07	1.31	0.03	34.82	0.019	0.019	0.029	1.00	0.03
3	18	3.86	35.00	36.66	1.50	1.77	2.19	0.07	36.73	0.080	44.0	35.13	36.70	1.50	1.77	2.19	0.07	36.77	0.080	0.080	0.035	0.50	0.04
4	18	3.38	35.13	36.75	1.50	1.77	1.91	0.06	36.81	0.061	142	35.56	36.82	1.26	1.59	2.13	0.07	36.89	0.059	0.060	0.085	1.50	0.11
5	15	1.99	35.56	36.96	1.25	1.23	1.62	0.04	37.00	0.056	134	36.23	37.01	0.78	0.81	2.45	0.09	37.11	0.109	0.082	0.110	0.50	0.05
6	15	0.49	36.23	37.15	0.92	0.97	0.51	0.00	37.16	n/a	157	37.02	37.30 j	0.28**	0.21	2.36	0.09	37.39i	n/a	n/a	0.147	1.00	n/a
7	18	0.37	35.00	36.66	1.50	1.77	0.21	0.00	36.66	0.001	148	35.74	36.66	0.92	1.14	0.33	0.00	36.66	0.002	0.001	0.002	1.00	0.00
8	18	1.30	35.00	36.66	1.50	1.77	0.73	0.01	36.67	0.009	20.0	35.20	36.66	1.46	1.76	0.74	0.01	36.67	0.008	0.009	0.002	0.50	0.00
9	15	1.07	35.20	36.67	1.25	1.23	0.87	0.01	36.68	0.016	32.0	35.52	36.67	1.15	1.18	0.91	0.01	36.68	0.014	0.015	0.005	1.00	0.01
10	15	0.33	35.52	36.68	1.16	1.19	0.28	0.00	36.68	0.001	77.0	36.29	36.68	0.39	0.33	1.01	0.02	36.70	0.035	0.018	0.014	1.00	0.02

Winter Springs Medical Office | Number of lines: 10 | Run Date: 06-19-2018

Notes: ; ** Critical depth.; j-Line contains hyd. jump.

Inlet Report

Line No	Inlet ID	Q = CIA (cfs)	Q carry (cfs)	Q capt (cfs)	Q byp (cfs)	Junc type	Curb Inlet		Grate Inlet			Gutter							Inlet			Byp line No
							Ht (in)	L (ft)	area (sqft)	L (ft)	W (ft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
1	SD-2	4.59	0.00	4.59	0.00	DrGrt	0.0	0.00	22.79	5.58	4.08	Sag	4.08	0.050	0.050	0.013	0.18	11.45	0.18	11.45	0.00	Off
2	SD-3	9.23	0.00	9.23	0.00	DrGrt	0.0	0.00	22.79	5.58	4.08	Sag	4.08	0.050	0.050	0.000	0.29	15.82	0.29	15.82	0.00	Off
3	SD-4	0.68	0.00	0.68	0.00	DrGrt	0.0	0.00	6.17	3.08	2.00	Sag	2.00	0.080	0.050	0.013	0.08	5.16	0.08	5.16	0.00	Off
4	SD-5	1.70	0.00	1.70	0.00	DrGrt	0.0	0.00	6.17	3.08	2.00	Sag	2.00	0.080	0.050	0.013	0.15	7.83	0.15	7.83	0.00	Off
5	SD-6	1.81	0.00	1.81	0.00	DrGrt	0.0	0.00	6.17	3.08	2.00	Sag	2.00	0.080	0.050	0.013	0.15	8.07	0.15	8.07	0.00	Off
6	SD-7	0.49	0.00	0.49	0.00	DrGrt	0.0	0.00	6.17	3.08	2.00	Sag	2.00	0.080	0.050	0.013	0.06	4.55	0.06	4.55	0.00	Off
7	SD-12	0.37	0.00	0.37	0.00	DrGrt	0.0	0.00	6.17	3.08	2.00	Sag	2.00	0.080	0.050	0.013	0.05	4.11	0.05	4.11	0.00	Off
8	SD-8	0.27	0.86	1.13	0.00	DrGrt	0.0	0.00	6.17	3.08	2.00	Sag	2.00	0.080	0.050	0.013	0.11	6.44	0.11	6.44	0.00	Off
9	SD-9	0.86	0.00	0.00	0.86	MH	0.0	0.00	0.00	0.00	0.00	Sag	0.00	0.000	0.000	0.013	0.00	0.00	0.00	0.00	0.00	8
10	SD-10	0.33	0.00	0.00	0.33	MH	0.0	0.00	0.00	0.00	0.00	Sag	0.00	0.000	0.000	0.013	0.00	0.00	0.00	0.00	0.00	Off

Winter Springs Medical Office | Number of lines: 10 | Run Date: 06-19-2018

NOTES: Inlet N-Values = 0.012 ; Intensity = 83.16 / (Inlet time + 19.70) ^ 0.73; Return period = 10 Yrs. ; * Indicates Known Q added

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr line No.	Line length (ft)	Defl angle (deg)	Junc type	Known Q (cfs)	Drng area (ac)	Runoff coeff (C)	Inlet time (min)	Invert El Dn (ft)	Line slope (%)	Invert El Up (ft)	Line size (in)	Line type	N value (n)	J-loss coeff (K)	Inlet/ Rim El (ft)	
1	End	81.0	155.0	DrGrt	0.00	0.82	0.80	10.0	24.00	0.51	24.41	36	Cir	0.013	0.72	36.60	SP-2
2	1	152.0	25.0	DrGrt	0.00	1.65	0.80	10.0	30.41	0.50	31.17	36	Cir	0.013	1.00	36.60	SP-3
3	End	44.0	-90.0	DrGrt	0.00	0.11	0.88	10.0	35.00	0.30	35.13	18	Cir	0.010	0.50	38.85	SP-4
4	3	142.0	0.0	DrGrt	0.00	0.32	0.76	10.0	35.13	0.30	35.56	18	Cir	0.010	1.50	38.45	SP-5
5	4	134.0	-90.0	DrGrt	0.00	0.34	0.76	10.0	35.56	0.50	36.23	15	Cir	0.010	0.50	39.00	SP-6
6	5	157.0	0.0	DrGrt	0.00	0.08	0.88	10.0	36.23	0.50	37.02	15	Cir	0.010	1.00	40.00	SP-7
7	End	148.0	-90.0	DrGrt	0.00	0.06	0.88	10.0	35.00	0.50	35.74	18	Cir	0.010	1.00	39.20	SP-11
8	End	20.0	-90.0	DrGrt	0.00	0.04	0.95	10.0	35.00	1.00	35.20	18	Cir	0.010	0.50	39.10	SP-8
9	8	32.0	0.0	MH	0.00	0.13	0.95	10.0	35.20	1.00	35.52	15	Cir	0.010	1.00	39.75	SP-9
10	9	77.0	-90.0	MH	0.00	0.05	0.95	10.0	35.52	1.00	36.29	15	Cir	0.010	1.00	39.35	SP-10

Winter Springs Medical Office | Number of lines: 10 | Date: 06-19-2018

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line size (in)	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line slope (%)	HGL down (ft)	HGL up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns line No.
1	SP-2	13.19	36 c	81.0	24.00	24.41	0.506	34.67*	34.70*	0.04	34.74	End
2	SP-3	9.23	36 c	152.0	30.41	31.17	0.500	34.77*	34.80*	0.03	34.82	1
3	SP-4	3.86	18 c	44.0	35.00	35.13	0.295	36.66*	36.70*	0.04	36.73	End
4	SP-5	3.38	18 c	142.0	35.13	35.56	0.303	36.75	36.82	0.11	36.93	3
5	SP-6	1.99	15 c	134.0	35.56	36.23	0.500	36.96	37.01	0.05	37.06	4
6	SP-7	0.49	15 c	157.0	36.23	37.02	0.503	37.15	37.30	n/a	37.39 i	5
7	SP-11	0.37	18 c	148.0	35.00	35.74	0.500	36.66	36.66	0.00	36.66	End
8	SP-8	1.30	18 c	20.0	35.00	35.20	1.000	36.66	36.66	0.00	36.67	End
9	SP-9	1.07	15 c	32.0	35.20	35.52	1.000	36.67	36.67	0.01	36.68	8
10	SP-10	0.33	15 c	77.0	35.52	36.29	1.000	36.68	36.68	0.02	36.70	9

Winter Springs Medical Office | Number of lines: 10 | Run Date: 06-19-2018

NOTES: c = cir; e = ellip; b = box; Return period = 10 Yrs. ; *Surcharged (HGL above crown). ; i - Inlet control.

Geotechnical Engineering Report

Winter Springs Medical Office and ALF Site
Winter Springs, Florida

March 16, 2018
Terracon Project No. H1185038

Prepared for:
Chau Corporation c/o Florida Engineering Group
Orlando, Florida

Prepared by:
Terracon Consultants, Inc.
Winter Park, Florida

March 16, 2018

Chau Corporation c/o Florida Engineering Group
5127 S. Orange Avenue, Suite 200
Orlando, Florida 32709

Attn: Mr. Sam Sebaali, P.E., President
P: (407) 895 0324
E: SSebaali@feg-inc.com
Drchau54@yahoo.com

Re: Geotechnical Engineering Report
Winter Springs Medical Office and ALF Site
Hacienda Drive and SR 434
Winter Springs, Florida
Terracon Project No. H1185038

Dear Mr. Sebaali and Dr. Chau:

We have completed the Geotechnical Engineering services for the above referenced project. This study was performed in general accordance with Terracon Proposal No. PH1185038 dated January 31, 2018. This report presents the findings of the subsurface exploration and provides geotechnical recommendations concerning earthwork and the design and construction of foundations and floor slabs, stormwater management systems, and pavements for the proposed project.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning this report, or if we may be of further service, please contact us.

Sincerely,
Terracon Consultants, Inc.
Certificate of Authorization No. 8680

SHENNA LUU McMASTER LICENSE No 57537 STATE OF FLORIDA PROFESSIONAL ENGINEER 5/17/18

Shenna McMaster, P.E.
Senior Geotechnical Engineer
FL Registration No. 57537

5/17/18

Amr Sallam, Ph.D., P.E.
Senior Principal

This report has been electronically signed and sealed by Shenna McMaster, P.E. on 3/16/18 using a Digital Signature.
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

REPORT TOPICS

REPORT SUMMARY i
INTRODUCTION 1
PROJECT DESCRIPTION 1
SITE CONDITIONS 2
GEOTECHNICAL CHARACTERIZATION 5
GEOTECHNICAL OVERVIEW 7
EARTHWORK 8
SHALLOW FOUNDATIONS 11
FLOOR SLABS 13
PAVEMENTS 15
STORMWATER MANAGEMENT 19
GENERAL COMMENTS 21

Note: This report was originally delivered in a web-based format. **Orange Bold** text in the report indicates a referenced section heading. The PDF version also includes hyperlinks which direct the reader to that section and clicking on the Terracon GeoReport logo will bring you back to this page. For more interactive features, please view your project online at client.terracon.com.

ATTACHMENTS

EXPLORATION AND TESTING PROCEDURES
SITE LOCATION AND EXPLORATION PLANS
EXPLORATION RESULTS (Boring Logs)
SUPPORTING INFORMATION (General Notes and Unified Soil Classification System)

REPORT SUMMARY

Geotechnical exploration has been performed for the proposed medical office, retail, and assisted living facility (ALF) development planned to be constructed at the southwest quadrant of Hacienda Drive and SR 434 in Winter Springs, Seminole County, Florida. Fourteen test borings, designated as B-1 through B-14, have been performed to depths of approximately 7 to 30 feet below the ground surface in the proposed building, stormwater pond, and pavement areas. In addition, probing was performed in wetland areas in which development will encroach.

Based on the information obtained from our geotechnical exploration, it appears that the site can be developed for the proposed project. The following geotechnical considerations were identified:

- Soil conditions observed consisted of mostly loose to medium dense sands with varying amounts of silts and clays. Surficial organic soils were observed at some locations in the upper foot. Deeper organic soils (to depths of about 5 to 6 feet) were found in the proposed stormwater pond location.

- Groundwater was observed during our field program at depths that ranged from less than 1 foot to 5-1/2 feet below existing grade during the field exploration (March of 2018). Seasonal high groundwater levels are expected to range from approximately above existing grade to about 1 foot below existing grade.

- The proposed structures can be supported on a shallow foundation system following adequate site preparation, including removal of surficial organic soils.

- Careful attention to relatively high groundwater conditions on site is recommended in site grading and pavement design. Due to relatively high groundwater conditions at the site, a wet stormwater pond is anticipated. Underground stormwater management facilities will need to be constructed in fill to adequately achieve recovery requirements.

This summary should be used in conjunction with the entire report for design purposes. It should be recognized that details were not included or fully developed in this section, and the report must be read in its entirety for a comprehensive understanding of the items contained herein. The section titled **General Comments** should be read for an understanding of the report limitations.

Geotechnical Engineering Report

Winter Springs Medical Office and ALF Site
Hacienda Drive and SR 434
Winter Springs, Florida

Terracon Project No. H1185038
March 16, 2018

INTRODUCTION

This report presents the results of our subsurface exploration and geotechnical engineering services performed for the proposed medical office, retail, and assisted living facility development to be located at Hacienda Drive and SR 434 in Winter Springs, Florida. The purpose of these services is to provide information and geotechnical engineering recommendations relative to:

- Subsurface soil conditions
- Groundwater conditions
- Site preparation and earthwork
- Foundation design and construction
- Floor slab design and construction
- Pavement design and construction
- Stormwater design considerations

The geotechnical engineering scope of services for this project included the advancement of fourteen test borings to depths ranging from approximately 7 to 30 feet below existing site grades.

Maps showing the site and boring locations are shown in the **Site Location** and **Exploration Plan** sections, respectively. The results of the laboratory testing performed on soil samples obtained from the site during the field exploration are included on the boring logs in the **Exploration Results** section of this report.

PROJECT DESCRIPTION

Our understanding of the project conditions is as follows:

Item	Description
Information Provided	A preliminary site plan and topographic survey was provided.
Project Description	The project involves a medical office building with surrounding paved surface parking area in the center of the site. Future development on the site may include a retail structure and an assisted living facility.
Proposed Structures	The medical office and future retail buildings are anticipated to be single story. The assisted living facility may be three stories. The buildings will be slab-on-grade (non-basement).

Item	Description
Maximum Loads (assumed)	■ Columns: 150 kips (single story), 300 kips (3-story ALF) ■ Walls: 5 kips per linear foot (klf) (single story), 10 klf (ALF) ■ Slabs: 150 pounds per square foot (psf)
Grading/Slopes	Final grades are anticipated to be up to a few feet higher than current grades. With the exception of the stormwater pond area, cuts are not anticipated.
Free-Standing Retaining Walls	Retaining walls are not expected to constructed as part of site development to achieve final grades.
Pavements	We assume both rigid (concrete) and flexible (asphalt) pavement sections should be considered. Please confirm this assumption. Anticipated traffic is as follows: ■ Autos/light trucks: 1,000 vehicles per day ■ Light delivery and trash collection vehicles: 10 vehicles per week ■ Tractor-trailer trucks: <1 vehicle per week The pavement design period is 20 years.
Stormwater Management	A wet bottom stormwater pond to serve the entire development (current and future planned) is anticipated in the eastern portion of the site. An exfiltration system may also be constructed to the east of the proposed medical office building.

SITE CONDITIONS

The following description of site conditions is derived from our site visit in association with the field exploration and our review of publicly available geologic and topographic maps.

Item	Description
Parcel Information	The project is located at the southwest quadrant of Hacienda Drive and SR 434 in Winter Springs, Florida. Approximately 4.5 acres Latitude/Longitude (approximate): 28.699350° N 81.299844° W See **Site Location**
Current Ground Cover	Heavily vegetated with trees and underbrush. Wetland areas are noted in the eastern and central portion of the site.
Existing Topography	Site specific topographic information provided indicates that existing site grades vary from elevation +32 feet (southeast corner) to about +42 feet (northwest corner).
Surface Water	The USGS topographic quadrangle map “Casselberry, Florida” indicates that the area containing the site slopes to the south towards Gee Creek.

Soil Survey

The Soil Survey of Seminole County, Florida as prepared by the United States Department of Agriculture (USDA), Soil Conservation Service (SCS; later renamed the Natural Resource Conservation Service - NRCS), identifies the soil types at the subject site as *Basinger, Samsula, and Hontoon soils, depressional (10)* and *Myakka and Eau Gallie fine sands (20)*. A Soils Map is included with this ***GeoReport***, depicting the applicable Soil Survey map portion for the subject site.

10 – Basinger, Samsula, and Hontoon soils, depressional. This soil type is mapped in the eastern half of the site. It is nearly level and very poorly drained. It is typically found in swamps and depressions. In its natural state, groundwater is ponded atop this soil type for 6 to 9 months of years with normal rainfall. A surficial organic layer is normally associated with this soil type, ranging in thickness from 6 inches (0.5 feet; Basinger soils) to 30 inches (2.5 feet; Samsula soils) to the entire defined profile of 80 inches (6.7 feet; Hontoon soils). Typical organic contents of the organic layer range from 8 to 20 percent (Basinger soils) to greater than 20 percent (Samsula soils) to 75 to 85 percent (Hontoon soils). Beneath the surficial organic layer, Basinger and Samsula soils are predominantly sandy to the maximum defined depth of 80 inches (6.7 feet).

The Soil Survey defines typical permeability rates generally between 6 and 20 inches per hour (12 and 40 feet per day) for this soil map unit.

20 – Myakka and EauGallie fine sands. This soil type is mapped in the western half of the site. It is nearly level and poorly drained. It is typically found in broad plains on the flatwoods areas. During years of normal precipitation, this soil type has a seasonal high water table within 12 inches (1.0 foot) of the surface for 1 to 4 months. Myakka soils are generally predominantly sandy throughout the defined profile of 80 inches (6.7 feet). EauGallie soils are generally predominantly sandy except for between depths of 41 to 60 inches (3.4 to 5.0 feet), where they exist as silty sand to clayey sand (USCS Classification symbol SM to SC).

Typical permeability rates for Myakka fine sand generally range from 6 to 20 inches per hour (12 to 40 feet per day), except between typical depths of 28 and 45 inches (2.3 and 3.8 feet) where permeability rates generally range from 0.6 to 6 inches per hour (1.2 to 12 feet per day).

Permeability rates for EauGallie fine sand vary throughout, from as great as 20 inches per hour (40 feet per day) to as little as 0.06 inches per hour (0.12 feet per day).

EXPLORATION AND TESTING PROCEDURES

Field Exploration

Borings	Boring Depth (feet) [1]	Location
B-1 to B-3	15	Medical Office Building
B-4	15	Future Retail Building
B-5 and B-6	30	Future assisted living facility
B-7 and B-8	20	Stormwater Pond
B-9 to B-12	7	Pavement
B-13 and B-14	10	Exfiltration Trench

1. Below ground surface.

Boring Layout and Elevations: Some site clearing was required for access of the drill rig to boring locations. Terracon personnel provided the boring layout. Coordinates are obtained with a handheld GPS unit (estimated horizontal accuracy of about ±20 feet, under ideal conditions). Boring locations may have been shifted in the field to minimize clearing efforts and facilitate drill rig access.

Subsurface Exploration Procedures: We advanced the borings with an ATV-mounted rotary drill rig. Five samples were obtained in the upper 10 feet of each boring and at intervals of 5 feet thereafter. The number of blows required to advance the sampling spoon the last 12 inches of a normal 18-inch penetration was recorded as the Standard Penetration Test (SPT) resistance value. The SPT resistance values, also referred to as N-values, are indicated on the boring logs at the test depths. For safety purposes, all borings are backfilled with auger cuttings after their completion.

Auger borings were performed in the proposed exfiltration trench location using a drill rig. The machine auger borings were performed by hydraulically turning a 4 inch diameter continuous flight auger into the ground in 5 foot increments. Additional flights are added until the desired termination depth was achieved. The auger is then extracted without further rotation and representative soil samples are retrieved from the auger.

The hand auger boring procedure consisted of manually turning a 3 inch diameter, 6 inch long sampler into the soil until it is full. The sampler was then retrieved and the soils in the sampler were visually examined and classified. The procedure was repeated until the desired termination depth was achieved.

The sampling depths, penetration distances, and other sampling information are recorded on the field boring logs. The samples are placed in appropriate containers and taken to our soil laboratory for testing and classification by a geotechnical engineer. Our exploration team prepares field boring

logs as part of the drilling operations. These field logs include visual classifications of the materials encountered during drilling and our interpretation of the subsurface conditions between samples. Final boring logs are prepared from the field logs. The final boring logs represent the geotechnical engineer's interpretation of the field logs and include modifications based on observations and tests of the samples in our laboratory.

Laboratory Testing

The project engineer reviewed the field data and assigned various laboratory tests to better understand the engineering properties of the various soil strata as necessary for this project. Procedural standards noted below are for reference to methodology in general. In some cases, variations to methods are applied because of local practice or professional judgment. Standards noted below include reference to other, related standards. Such references are not necessarily applicable to describe the specific test performed.

- ASTM D2216 Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil by Mass
- ASTM D4318 Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils
- ASTM D1140-17 Standard Test Method for Amount of Material in Soils Finer than No. 200 (75-µm) Sieve
- ASTM D2974-14 Standard Test Methods for Moisture, Ash, and Organic Matter of Peat and Other Organic Soils
- ASTM D5084-10 Standard Test Method for Measurement of Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter

The laboratory testing program often includes examination of soil samples by an engineer. Based on the material's texture and plasticity, we describe and classify the soil samples in accordance with the Unified Soil Classification System.

GEOTECHNICAL CHARACTERIZATION

Subsurface Profile

We have developed a general characterization of the subsurface soil and groundwater conditions based upon our review of the data and our understanding of the geologic setting and planned construction. The following table provides our geotechnical characterization.

The geotechnical characterization forms the basis of our geotechnical calculations and evaluation of site preparation, foundation options and pavement options. As noted in **General Comments**, the characterization is based upon widely spaced exploration points across the site, and variations are likely.

Approximate Depth to Bottom of Stratum (feet)	Material Description	Consistency/Density
4 to 8	Mostly sand (SP) and sand with silt (SP-SM). Trace organics (topsoil) was observed at many locations in the upper ½ to 1 foot [1]	Loose to Medium Dense [2]
Boring termination depths of 7 to 30 feet	Mostly silty sand (SM) and clayey sand (SC) [3]	Loose to Medium Dense [2]

1. Buried silty sand with trace organics (organic content = 4%) was observed in Boring B-5 at a depth of 7 to 8 feet below existing grade. Heavy organic soils (organic content = 41%) was observed in Boring B-7, performed in the northwest portion of the pond, within the upper foot or so. Surficial organic soils (organic content ranged from 4 to 11%) extended to a depth of 5-1/2 feet in Boring B-8, performed in the southeast corner of the proposed pond location.
2. Generally, looser sands were observed on the eastern portion of the site, in the proposed assisted living facility location.
3. Medium stiff clay (CH) was found in Boring B-6 at a depth of about 23 to 28 feet below existing grade.

Conditions encountered at each boring location are indicated on the individual boring logs shown in the **Exploration Results** section and are attached to this report. Stratification boundaries on the boring logs represent the approximate location of changes in native soil types. The in-situ transition between materials may be gradual.

Manual probing was performed within the wetland area near the central portion of the site and along the southeastern portion of the ALF, which may encroach into the eastern wetland area. Probing indicates surficial organic sands to a depth of about ½ foot at these locations.

Groundwater Conditions

The borings were observed during drilling for the presence and level of groundwater. Groundwater levels were estimated to be at depths of less than 1 foot to 5-1/2 feet in most of the borings. Groundwater was not observed in Boring B-11 within the 7 foot explored depth.

It should be recognized that fluctuations of the groundwater table will occur due to seasonal variations in the amount of rainfall, runoff and other factors not evident at the time the boring was performed. In addition, perched water can develop within higher permeability soils overlying less permeable soils. Therefore, groundwater levels during construction or at other times in the future may be higher or lower than the levels indicated on the boring logs.

We estimate that during the normal wet season with rainfall and recharge at a maximum, groundwater levels will be above existing grades to about 1 foot below existing grades. Our estimates of the seasonal groundwater conditions are based on the USDA Soil Survey, the encountered soil types, and the interpreted water levels. The water levels observed in the boreholes can be found on the boring logs in **Exploration Results**, and are summarized below.

Boring Number	Approximate Depth to Groundwater while Drilling (feet) [1]	Approximate Ground Surface Elevation (ft.) [2]	Elevation of Observed Groundwater Table (ft.)	Estimated Normal Seasonal High Groundwater Elevation (ft.)
B-1	2.7	+38	+35.3	+37
B-2	4.7	+37	+32.3	+36.5
B-3	2.2	+36.5	+34.3	Ponded[3]
B-4	4.8	+38	+33.2	+37
B-5	1.1	+37	+35.9	+35.5
B-6	5.1	+35	+29.9	+34.5
B-7	0.7	+34	+33.3	Ponded[3]
B-8	0.3	+33	+32.7	Ponded[3]
B-9	5.0	+39	+34	+38
B-10	4.5	+39	+34.5	+38
B-11	>7	+36.5	< +29.5	+36
B-12	5.5	+36	+30.5	+35.5
B-13	3.2	+36	+32.8	Ponded[3]
B-14	2.3	+36	+33.7	Ponded[3]

1. Below ground surface
2. Estimated from site specific topographic information provided
3. Standing water is anticipated during the rainy season. Seasonal high groundwater levels should be based on seasonal high groundwater levels determined by the wetland specialist.

These seasonal water table estimates do not represent the temporary rise in water table that occurs immediately following a storm event, including adjacent to other stormwater management facilities. This is different from static groundwater levels in wet ponds and/or drainage canals which can affect the design water levels of new, nearby ponds. The seasonal high water table may vary from normal when affected by extreme weather changes, localized or regional flooding, karst activity, future grading, drainage improvements, or other construction that may occur on or around the site following the date of this report.

GEOTECHNICAL OVERVIEW

Generally, borings encountered a surface layer of organic soils underlain by mostly sands with varying amounts of silt and clay. These materials are generally suitable for construction of the proposed foundations, floor slabs, pavements, and stormwater systems following site preparation according to the recommendations provided in the **Site Preparation** section. Removal of up to 1 foot of surface organic soils is anticipated in the proposed building and pavement areas.

Seasonal high groundwater levels should be considered in the civil engineering design for site grading, utility construction, and pavements.

The **Shallow Foundations** section addresses support of the buildings bearing on native sands or engineered fill. The **Floor Slabs** section addresses slab-on-grade support of the building.

The **General Comments** section provides an understanding of the report limitations.

EARTHWORK

Earthwork will include clearing and grubbing, excavations and fill placement. The following sections provide recommendations for use in the preparation of specifications for the work. Recommendations include critical quality criteria as necessary to render the site in the state considered in our geotechnical engineering evaluation for foundations, floor slabs, and pavements.

Site Preparation

Prior to placing fill, existing vegetation, root mat, and surficial organic soils should be removed from the proposed building and pavement areas. Removal of up to 1 foot of surficial organic soils is anticipated in the proposed building and pavement areas.

The subgrade should be proof-rolled with an adequately loaded vehicle such as a 20-ton roller or fully loaded tandem axle dump truck to obtain a minimum compaction as defined below. The proof-rolling should be performed under the direction of the Geotechnical Engineer. Areas excessively deflecting under the proof-roll should be delineated and subsequently addressed by the Geotechnical Engineer. Excessively wet or dry material should either be removed or moisture conditioned and recompacted.

Where fill is placed on existing slopes, we recommend that fill slopes be over filled and then cut back to develop an adequately compacted slope face. Slopes should be provided with appropriate erosion protection.

Fill Material Types

Earthen materials used for structural and general fill should meet the following material property requirements:

Soil Type [1]	USCS Classification	Acceptable Location for Placement	Maximum Lift Thickness (in.)
General [1]	SP (fines content < 5%)	All locations and elevations	12 [3]
	SP-SM (fines content between 5 and 12%) [2]	All locations (except where dry stormwater facilities are constructed) and elevations except strict moisture control will be required during placement, particularly during the rainy season.	8 to 12 [3]
Limited	SM, SC (fines content >12%)	Limited to mass fill greater than 2 feet below final grade; strict moisture control will be required during placement.	6 to 8 [4]

1. Controlled, compacted fill should consist of approved materials that are free of organic matter and debris.
2. If fines contents are greater than 12 percent, special design and construction procedures may be necessary.
3. Loose thickness when heavy compaction equipment is used in vibratory mode. Lift thickness should be decreased if static compaction is being used, typically to no more than 8 inches, and the required compaction must still be achieved. Use 4 to 6 inches in loose thickness when hand-guided equipment (i.e. jumping jack or plate compactor) is required.
4. Static equipment should be used.

Compaction Requirements

Proofrolled areas in proposed structure and pavement areas as well as structural and general fill should meet the following compaction requirements.

Item	Structural Fill
Minimum Compaction Requirements [1]	95 percent of the material's maximum modified Proctor dry density (ASTM D 1557).
Moisture Content [2]	Within ±2 percent of optimum moisture content as determined by the Modified Proctor test, at the time of placement and compaction.
Minimum Testing Frequency	One field density test per 20,000 square feet or fraction thereof per 1-foot lift. Minimum of two tests per 1-foot lift.

1. We recommend that engineered fill be tested for moisture content and compaction during placement. Should the results of the in-place density tests indicate the specified moisture or compaction limits have not been met, the area represented by the test should be reworked and retested as required until the specified moisture and compaction requirements are achieved.
2. Specifically, moisture levels should be maintained low enough to allow for satisfactory compaction to be achieved without the cohesionless fill material pumping when proofrolled.

Utility Trench Backfill

All trench excavations should be made with sufficient working space to permit construction including backfill placement and compaction. Utility trenches are a common source of water infiltration and

migration. All utility trenches that penetrate beneath the building should be backfilled with native soils to avoid creating a preferred flow path through the trenches.

Grading and Drainage

All grades must provide effective drainage away from the building during and after construction Final surrounding grades should be sloped away from the structure on all sides to prevent ponding of water. Gutters, downspouts, or other appropriate methods that direct water a minimum of 10 feet beyond the footprint of the proposed structures are recommended. Site grades should be set considering the estimated seasonal high groundwater presented in **Geotechnical Characterization**.

Exposed ground should be sloped and maintained at a minimum 5 percent away from the building for at least 10 feet beyond the perimeter of the building. Locally, flatter grades may be necessary to transition ADA access requirements for flatwork. After building construction and landscaping, final grades should be verified to document effective drainage has been achieved. Grades around the structure should also be periodically inspected and adjusted as necessary as part of the structure's maintenance program. Where paving or flatwork abuts the structure a maintenance program should be established to effectively seal and maintain joints and prevent surface water infiltration.

Earthwork Construction Considerations

After initial proofrolling and compaction, unstable subgrade conditions could develop during general construction operations, particularly if the soils are wetted and/or subjected to repetitive construction traffic. Upon completion of filling and grading, care should be taken to maintain the subgrade moisture content prior to construction of floor slabs and pavements. Construction traffic over the completed subgrade should be avoided to the extent practical. The site should also be graded to prevent ponding of surface water on the prepared subgrades or in excavations. If the subgrade should become desiccated, saturated, or disturbed, the affected material should be removed or these materials should be scarified, moisture conditioned, and re-compacted prior to floor slab and pavement construction.

Trees or other vegetation whose root systems have the ability to remove excessive moisture from the subgrade and foundation soils should not be planted next to the structure.

As a minimum, all temporary excavations should be sloped or braced as required by Occupational Health and Safety Administration (OSHA) regulations to provide stability and safe working conditions. Temporary excavations will probably be required during grading operations. The grading contractor, by his contract, is usually responsible for designing and constructing stable, temporary excavations and should shore, slope or bench the sides of the excavations as required, to maintain stability of both the excavation sides and bottom. All excavations should comply with

applicable local, state and federal safety regulations, including the current OSHA Excavation and Trench Safety Standards.

Construction site safety is the sole responsibility of the contractor who controls the means, methods, and sequencing of construction operations. Under no circumstances shall the information provided herein be interpreted to mean Terracon is assuming responsibility for construction site safety, or the contractor's activities; such responsibility shall neither be implied nor inferred.

Construction Observation and Testing

The earthwork efforts should be monitored under the direction of the Geotechnical Engineer. Monitoring should include documentation of adequate removal of vegetation and top soil, proof-rolling and mitigation of areas delineated by the proof-roll to require mitigation.

Each lift of compacted fill should be tested, evaluated, and reworked as necessary until approved by the Geotechnical Engineer prior to placement of additional lifts. Each lift of fill should be tested for density and water content at a frequency stated in **Earthwork**.

In areas of foundation excavations, the bearing subgrade should be evaluated under the direction of the Geotechnical Engineer. In the event unanticipated conditions are encountered, the Geotechnical Engineer should prescribe mitigation options.

In addition to the documentation of the essential parameters necessary for construction, the continuation of the Geotechnical Engineer into the construction phase of the project provides the continuity to maintain the Geotechnical Engineer's evaluation of subsurface conditions, including assessing variations and associated design changes.

SHALLOW FOUNDATIONS

If the site has been prepared in accordance with the requirements noted in **Earthwork**, the following design parameters are applicable for shallow foundations.

Design Parameters – Compressive Loads

For the single story medical office retail structures, the following shallow foundation design parameters are offered:

Description	Column Footing	Wall Footing	Monolithic Slab Foundation [4]
Net allowable bearing pressure [1]	3,000 psf	2,500 psf	2,000 psf

Description	Column Footing	Wall Footing	Monolithic Slab Foundation [4]
Minimum width	30 inches	18 inches	12 inches
Minimum embedment below finished grade [2]	18 inches	18 inches	12 inches
Minimum Compaction requirements	95 percent of the materials maximum Modified Proctor dry density for a depth of 12 inches below footing.		
Minimum Testing Frequency	One field density test per footing for a minimum depth of 1 foot below the footing subgrade.	One field density test per 50 linear feet for a minimum depth of 1 foot below the footing subgrade.	One field density test per 50 linear feet for a minimum depth of 1 foot below the footing subgrade.
Approximate total settlement [3]	<1 inch	<1 inch	<1 inch
Estimated differential settlement [3]	<¾ inch between columns	<¾ inch over 40 feet	<¾ inch over 40 feet

1. The recommended net allowable bearing pressure is the pressure in excess of the minimum surrounding overburden pressure at the footing base elevation. Assumes any unsuitable fill or soft soils, if encountered, will be undercut and replaced with engineered fill.
2. For erosion protection and to reduce effects of seasonal moisture variations in subgrade soils.
3. The foundation settlement will depend upon the variations within the subsurface soil profile, the structural loading conditions, the embedment depth of the footings, the thickness of compacted fill, and the quality of the earthwork operations. The above settlement estimates have assumed that the maximum footing width is 7 feet for column footings and 2 feet for continuous footings.
4. Turned-down portion of slab. For slab requirements see **Floor Slabs**

For the proposed future assisted living facility location, due to looser soils extending to depths of 25 to 30 feet in the proposed, we recommend that shallow foundation elements be designed based on a bearing capacity of 2,000 psf. In addition, we recommend that subgrade soils below the foundations in the ALF be compacted to a minimum of 95% of the soil's modified Proctor dry density to a depth of at least 24 inches. Stiffened foundation members may also be appropriate to limit differential settlement.

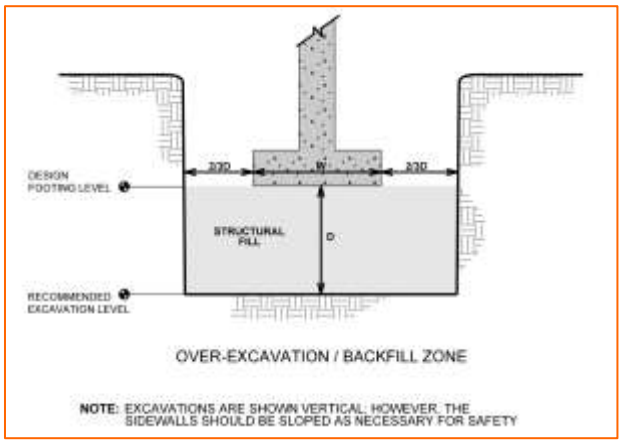
The geotechnical exploration performed for the retail structure and ALF are intended to be preliminary in nature. As plans for these structures become better defined, additional borings are recommended to develop design recommendations for these structures. The exploration for the medical office building is sufficient for design purposes.

Foundation Construction Considerations

As noted in **Earthwork**, the footing excavations should be evaluated under the direction of the Geotechnical Engineer. The base of all foundation excavations should be free of water and loose soil, prior to placing concrete. Concrete should be placed soon after excavating to reduce bearing

soil disturbance. Care should be taken to prevent wetting or drying of the bearing materials during construction. Excessively wet or dry material or any loose/disturbed material in the bottom of the footing excavations should be removed/reconditioned before foundation concrete is placed.

If unsuitable bearing soils are encountered at the base of the planned footing excavation, the excavation should be extended deeper to suitable soils, and the footings could bear directly on these soils at the lower level or on compacted backfill placed in the excavations. Over-excavation for structural fill placement below footings should be conducted as shown below. The over-excavation should be backfilled up to the footing base elevation, with General Fill, as recommended in the **Earthwork** section.



FLOOR SLABS

Design parameters for floor slabs assume the requirements for **Earthwork** have been followed. Specific attention should be given to positive drainage away from the structure.

Floor Slab Design Parameters

Item	Description
Floor Slab Support [1]	Free draining granular material meeting the general fill specification [1]
Modulus of Subgrade Reaction [2]	100 pounds per square inch per inch (psi/in) for point loads
Compaction requirements	95 percent of the materials maximum Modified Proctor dry density
Minimum Testing Frequency	One field density test per 2,500 square feet or fraction thereof for a depth of 12 inches. [3]

Item	Description
1.	We recommend subgrades be maintained in a relatively moist condition until floor slabs are constructed. If the subgrade should become desiccated prior to construction of floor slabs, the affected material should be removed or the materials scarified, moistened, and recompacted. Upon completion of grading operations in the building areas, care should be taken to maintain the recommended subgrade moisture content and density prior to construction of the building floor slabs.
2.	Modulus of subgrade reaction is an estimated value based upon our experience with the subgrade condition, the requirements noted in **Earthwork**, and the floor slab support as noted in this table. It is provided for point loads. For large area loads the modulus of subgrade reaction would be lower.
3.	Density should be re-checked after utility construction.

The use of a vapor retarder should be considered beneath concrete slabs on grade covered with wood, tile, carpet, or other moisture sensitive or impervious coverings, or when the slab will support equipment sensitive to moisture. When conditions warrant the use of a vapor retarder, the slab designer should refer to ACI 302 and/or ACI 360 for procedures and cautions regarding the use and placement of a vapor retarder.

Saw-cut control joints should be placed in the slab to help control the location and extent of cracking. For additional recommendations refer to the ACI Design Manual. Joints or cracks should be sealed with a water-proof, non-extruding compressible compound specifically recommended for heavy duty concrete pavement and wet environments.

Where floor slabs are tied to perimeter walls or turn-down slabs to meet structural or other construction objectives, our experience indicates differential movement between the walls and slabs will likely be observed in adjacent slab expansion joints or floor slab cracks beyond the length of the structural dowels. The Structural Engineer should account for potential differential settlement through use of sufficient control joints, appropriate reinforcing or other means.

Floor Slab Construction Considerations

On most project sites, the site grading is generally accomplished early in the construction phase. We recommend the area underlying the floor slab be rough graded and then thoroughly proofrolled prior to final grading. However as construction proceeds, the subgrade may be disturbed due to utility excavations, construction traffic, desiccation, rainfall, etc. As a result, the floor slab subgrade may not be suitable for placement of concrete and corrective action will be required.

PAVEMENTS

General Pavement Comments

Pavement designs are provided for the traffic conditions and pavement life conditions as noted in **Project Description** and in the following sections of this report. A critical aspect of pavement performance is site preparation. Pavement designs, noted in this section, must be applied to the site, which has been prepared as recommended in the **Earthwork** section.

Pavement Subgrade Preparation

Site grading is typically accomplished relatively early in the construction phase. Fills are placed and compacted in a uniform manner. However, as construction proceeds, excavations are made into these areas, rainfall and surface water saturates some areas, heavy traffic from concrete trucks and other delivery vehicles disturbs the subgrade and many surface irregularities are filled in with loose soils to temporarily improve ride comfort. As a result, the pavement subgrades, initially prepared early in the project, should be carefully evaluated as the time for pavement construction approaches.

We recommend the moisture content and density of the top 12 inches of the subgrade be evaluated and the pavement subgrades be proofrolled and tested within two days prior to commencement of actual paving operations. Compaction tests should be performed at a frequency of 1 test per 10,000 square feet or fraction thereof. Areas not in compliance with the required ranges of moisture or density should be moisture conditioned and recompacted. Particular attention should be paid to high traffic areas that were rutted and disturbed earlier and to areas where backfilled trenches are located. Areas where unsuitable conditions are found should be repaired by removing and replacing the materials with properly compacted fills.

After proofrolling and repairing deep subgrade deficiencies, the entire subgrade should be scarified and prepared as recommended in the **Earthwork** section this report to provide a uniform subgrade for pavement construction. Areas that appear severely desiccated following site stripping may require further undercutting and moisture conditioning. If a significant precipitation event occurs after the evaluation or if the surface becomes disturbed, the subgrade should be reviewed by qualified personnel immediately prior to paving. The subgrade should be in its finished form at the time of the final review.

Pavement Section Thicknesses

Pavement thickness can be determined using AASHTO, Asphalt Institute, PCA, and/or other methods if specific wheel loads, axle configurations, frequencies, and desired pavement life are provided. Terracon can provide thickness recommendations for pavements subjected to loads

other than personal vehicle and occasional delivery and trash removal truck traffic if this information is provided. However, absent that data, we recommend the following minimum typical sections.

Typical Pavement Section (inches)						
Traffic Area	**Alternative**	**Asphalt Concrete Surface Course**	**Limerock, Soil-Cement or Crushed Concrete Base Course**	**Stabilized Subbase Course[2,3,4]**	**Portland Cement Concrete**	**Free Draining Subgrade**
Car Parking	PCC	--	--		5.0	18.0
	AC	1.5	6.0	12.0	--	--
Truck and Drive Areas	PCC	--	--		6.0	18.0
	AC	2.5	8.0	12.0	--	--
Trash Container Pad [1]	PCC	--	--		6.0	18.0

1. The trash container pad should be large enough to support the container and the tipping axle of the collection truck.
2. Often referred to as Stabilized Subgrade.
3. Use coarse granular materials such as recycled crushed concrete, shell, or gravel when seasonal high groundwater is within 4 feet of the profile grade. Clay stabilization is acceptable with deeper seasonal high groundwater.
4. Some municipalities do not require stabilized subbase beneath soil-cement base.

Asphalt Concrete Design Recommendations

Pavement The following items are applicable to asphalt concrete pavement sections.

- Terracon recommends a minimum separation of 12 inches between the bottom of the base course and the seasonal high water table.
- Natural or fill subgrade soils to a depth of 18 inches below the base should be clean, free draining sands with a fines content passing a No. 200 sieve of 7 percent or less.
- Stabilized subgrade soils (also identified as stabilized subbase) should be stabilized to a minimum Limerock Bearing Ratio (LBR; Florida Method of Test Designation FM 5-515) value of 40 if they do not already meet this criterion, or modified/replaced with new compacted fill that meets the minimum LBR value. Although LBR testing has not been performed, our experience with similar soils indicates that the near surficial sands encountered in the soil borings are unlikely to meet this requirement.
- The stabilized subgrade course should be compacted to at least 98 percent of the Modified Proctor maximum dry density (AASHTO T-180 or ASTM D-1557). Any underlying, newly-placed subgrade fill need only be compacted to a minimum of 95 percent of the Modified

Proctor maximum dry density. Compaction tests should be performed at a frequency of 1 test per 10,000 square feet or fraction thereof.

- Limerock base courses from an approved FDOT source should have a minimum LBR value of 100, and be compacted to a minimum of 98 percent of the maximum dry density as determined by the Modified Proctor test. Limerock should be placed in uniform lifts not to exceed 6 inches loose thickness. Recycled limerock is not a suitable substitute for virgin limerock for base courses but may be used as a granular stabilizing admixture.
- Soil cement base courses typically experience shrinkage cracking due to hydration curing of the cement. This shrinkage cracking typically propagates through the overlying asphalt course and reflects in the pavement surface. This reflective cracking is not necessarily indicative of a pavement structural failure, though it is sometimes considered to be aesthetically undesirable.
- Soil cement bases should have 7-day design strength of 300 psi. Soil cement base should be compacted to a minimum of 98 percent of the material's maximum dry density as determined by the Standard Proctor Test for Soil Cement (AASHTO T-134). Higher design strengths may result in increased cracking.
- Crushed (recycled) concrete base should meet the current FDOT specification 911 for recycled materials.
- Asphalt should be compacted to a minimum of 95 percent of the design mix density. Asphalt surface courses should be Type SP, Type S, or other suitable mix design according to FDOT and local requirements.
- To verify thicknesses, after placement and compaction of the pavement courses, core the wearing surface to evaluate material thickness and composition at a minimum frequency of 5,000 square feet or two locations per day's production.
- Underdrains or strip drains should be considered along all landscaped areas in, or adjacent to pavements to reduce moisture migration to subgrade soils. Underdrains will also be required below pavement if the separation between the bottom of the base course and the seasonal high groundwater table is less than 1 foot

All curbing should be full depth. Use of extruded curb sections which lie on top of asphalt surface courses can allow migration of water between the surface and base courses, leading to rippling and pavement deterioration.

Portland Cement Concrete Design Recommendations

The following items are applicable to rigid concrete pavement sections.

- At least 18 inches of free-draining material should be included directly beneath rigid concrete pavement. Fill meeting the requirements presented in Earthwork Section of this report may be considered free-draining for this purpose. Limerock should not be considered free draining for this purpose.

- The PCC should be a minimum of 4,000 psi at 28 days. PCC pavements are recommended for trash container pads and in any other areas subjected to heavy wheel loads and/or turning traffic.
- The upper 1 foot of rigid pavement subgrade soils should be compacted to at least 98 percent of the Modified Proctor maximum dry density (AASHTO T-180 or ASTM D-1557). Compaction tests should be performed at a frequency of 1 test per 10,000 square feet or fraction thereof.
- Rigid PCC pavements will perform better than ACC in areas where short-radii turning and braking are expected (i.e. entrance/exit aprons) due to better resistance to rutting and shoving. In addition, PCC pavement will perform better in areas subject to large or sustained loads. An adequate number of longitudinal and transverse control joints should be placed in the rigid pavement in accordance with ACI and/or AASHTO requirements. Expansion (isolation) joints must be full depth and should only be used to isolate fixed objects abutting or within the paved area.
- Adequate separation should be provided between the bottom of the concrete and the seasonal high water table. Terracon recommends that in no case should less than 1 foot of separation be provided.
- Sawcut patterns should generally be square or rectangular but nearly square, and extend to a depth equal to a quarter of the slab thickness. If the bottom of the concrete pavement is separated from the seasonal high water table by at least 1 foot, filter fabric will not be necessary beneath the expansion joints.

Pavement Drainage

Pavements should be sloped to provide rapid drainage of surface water. Water allowed to pond on or adjacent to the pavements could saturate the subgrade and contribute to premature pavement deterioration. In addition, the pavement subgrade should be graded to provide positive drainage within the granular base section. The subgrade and the pavement surface should have a minimum ¼ inch per foot slope to promote drainage. Appropriate sub-drainage or connection to a suitable daylight outlet should be provided to remove water from the base layer.

Pavement Maintenance

The pavement sections represent minimum recommended thicknesses and, as such, periodic maintenance should be anticipated. Therefore, preventive maintenance should be planned and provided for through an on-going pavement management program. Maintenance activities are intended to slow the rate of pavement deterioration and to preserve the pavement investment. Maintenance consists of both localized maintenance (e.g. crack and joint sealing and patching) and global maintenance (e.g. surface sealing). Preventive maintenance is usually the priority when implementing a pavement maintenance program. Additional engineering observation is recommended to determine the type and extent of a cost-effective program. Even with periodic maintenance, some movements and related cracking may still occur and repairs may be required.

STORMWATER MANAGEMENT

Design of the stormwater management system has not been completed yet, though we understand a wet bottom retention system is planned on the eastern portion of the site. An underground exfiltration system may also be constructed to the east of the medical office building. Dry retention ponds generally need to be at least 1 foot and sometimes as much as 3 feet (or more for large ponds) above the seasonal high water table to recover within the time required.

Stormwater Pond

Borings B-7 and B-8 were performed in the proposed stormwater pond location. Soil conditions observed consisted of sand with varying amounts of silt and clayey sand. Heavily organic soils (organic content = 41%) were found in the upper 1 foot of Boring B-7. Silty sand with trace to some organics (organic content = 4 to 11%) was found in Boring B-8 in the upper 5.5 feet. Groundwater was found during the field exploration at a depth of 0.3 to 0.7 feet below existing grade. Observed groundwater levels are anticipated to be near seasonal low groundwater levels. Average wet season and normal seasonal high groundwater levels are anticipated to be above existing grade. We recommend that the normal seasonal high groundwater level determination for the wetland be used for design of the stormwater pond.

Exfiltration System

Soil conditions observed in the Borings B-13 and B-14, performed in the proposed exfiltration trench location, consisted of sand (SP) in the upper 6.5 to 7.5 feet underlain by sand with silt (SP-SM), silty sand (SM), and/or clayey sand (SC) to the boring termination depths of 10 feet. Groundwater was found at depths of 2.3 to 3.2 feet below existing grade. Seasonal high groundwater levels are anticipated to be above existing grades in the proposed exfiltration trench location.

Bulk soil samples of anticipated underground exfiltration system subgrade soils (Boring Locations B-13 and B-14, 2 to 3 feet below existing grade) had a measured permeability rate of 16 to 19 feet/day. We consider this permeability rate to be indicative of a saturated mean permeability rate. Experience with the observed soil types has shown that horizontal permeability may be on the order of 1.5 to 2 times the saturated vertical permeability in undisturbed materials. Use of an appropriate factor of safety, generally reducing measured permeability rates or recovery time by a factor of safety of 2 for design of artificial recovery systems such and exfiltration trenches or underdrains, is typically required. Therefore, we recommend using an unsaturated vertical infiltration rate, k_V, of 6 feet/day and a horizontal saturated hydraulic conductivity rate, k_H, of 12 feet/day for the purpose of designing the proposed underground exfiltration system, considering a factor of safety of 2 applied to the permeability rates.

We recommend the top of silty sand observed at depths of 7 to 8 feet below grade be considered the top of surficial aquifer for recovery analyses. Based upon our visual review of the sands, and

our local project experience, we recommend that you consider the surficial aquifer (the site sands) to have a fillable porosity (η) of 25 percent. The table below summarizes our recommended stormwater management system design parameters for the exfiltration system.

Parameter	Boring Locations B-13 and B-14
Estimated Confining Layer Elevation	+28.5 feet
Estimated Seasonal High Water Table Elevation	+36 feet[1]
Unsaturated Vertical Infiltration Rate, k_V[2]	6 feet/day
Horizontal Saturated Hydraulic Conductivity, k_H[2]	12 feet/day
Fillable Porosity, η	25 percent

1. The seasonal high groundwater table should consider the normal seasonal high groundwater table of the existing wetland in the proposed exfiltration trench location.
2. Due to relatively high groundwater levels, the exfiltration trench is anticipated to be constructed in fill. Fill soils placed below the exfiltration trench should be well-draining sands. The in-place permeability rate of the fill materials should be considered in exfiltration trench design and recovery analyses.

GENERAL COMMENTS

The geotechnical engineering exploration was intended to be design level for the proposed medical office building, surrounding pavement areas, and stormwater pond. The exploration is considered preliminary for design of the retail building and the 3-story assisted living facility. It is anticipated that additional exploration will be performed for the retail and assisted living facility as design on those structures proceeds.

Our analysis and opinions are based upon our understanding of the project, the geotechnical conditions in the area, and the data obtained from our site exploration. Natural variations will occur between exploration point locations or due to the modifying effects of construction or weather. The nature and extent of such variations may not become evident until during or after construction. Terracon should be retained as the Geotechnical Engineer to provide observation and testing services during pertinent construction phases. If variations appear, we can provide further evaluation and supplemental recommendations. If variations are noted in the absence of our observation and testing services on-site, we should be immediately notified so that we can provide evaluation and supplemental recommendations.

Our scope of services does not include either specifically or by implication any environmental or biological (e.g., mold, fungi, bacteria) assessment of the site or identification or prevention of pollutants, hazardous materials or conditions. If the owner is concerned about the potential for such contamination or pollution, other studies should be undertaken.

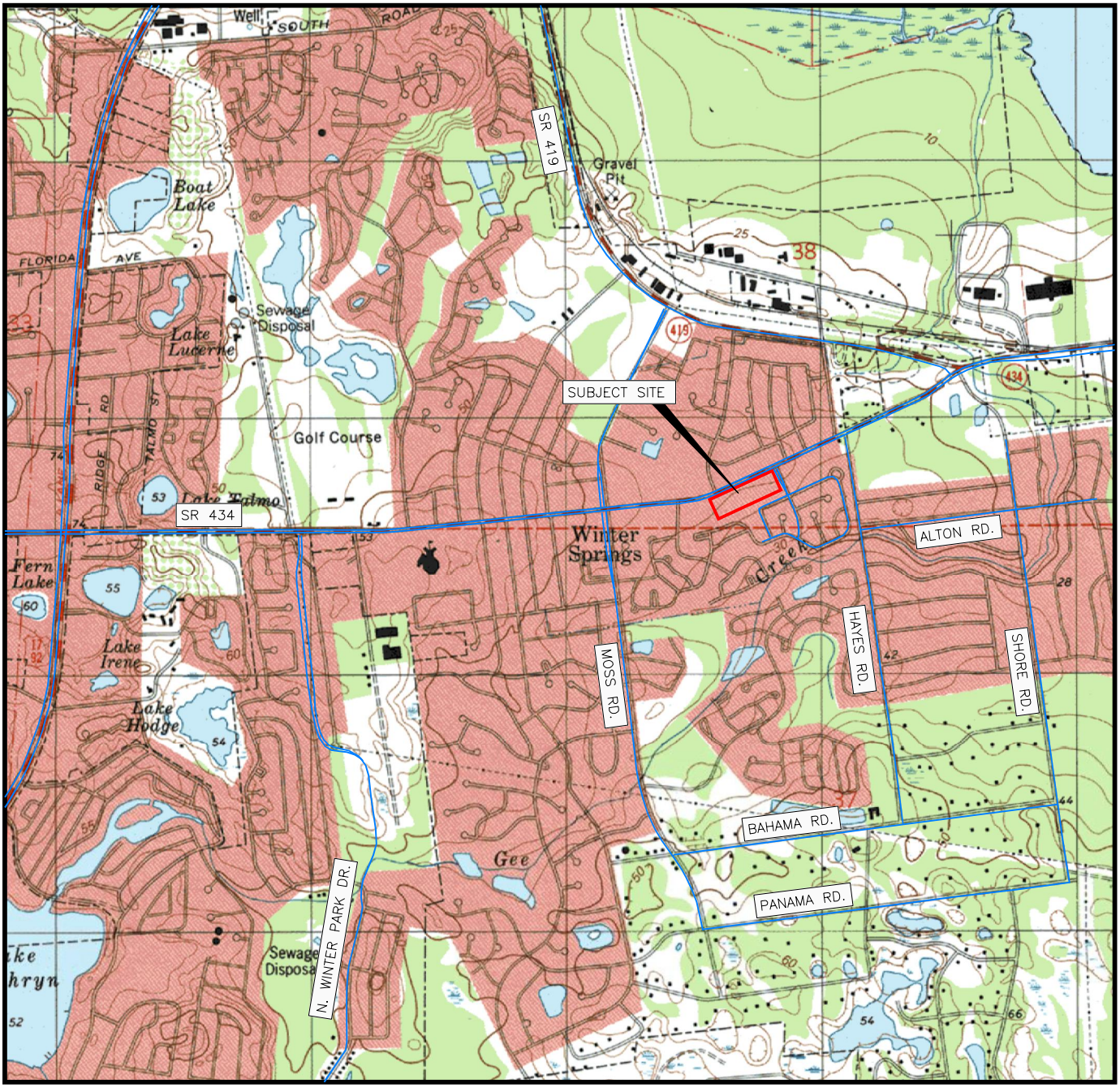
Our services and any correspondence or collaboration through this system are intended for the sole benefit and exclusive use of our client for specific application to the project discussed and are accomplished in accordance with generally accepted geotechnical engineering practices with no third party beneficiaries intended. Any third party access to services or correspondence is solely for information purposes to support the services provided by Terracon to our client. Reliance upon the services and any work product is limited to our client, and is not intended for third parties. Any use or reliance of the provided information by third parties is done solely at their own risk. No warranties, either express or implied, are intended or made.

Site characteristics as provided are for design purposes and not to estimate excavation cost. Any use of our report in that regard is done at the sole risk of the excavating cost estimator as there may be variations on the site that are not apparent in the data that could significantly impact excavation cost. Any parties charged with estimating excavation costs should seek their own site characterization for specific purposes to obtain the specific level of detail necessary for costing. Site safety, and cost estimating including, excavation support, and dewatering requirements/design are the responsibility of others. If changes in the nature, design, or location of the project are planned, our conclusions and recommendations shall not be considered valid unless we review the changes and either verify or modify our conclusions in writing.

ATTACHMENTS

SITE LOCATION AND EXPLORATION PLANS

UNITED STATES – DEPARTMENT OF THE INTERIOR – GEOLOGICAL SURVEY



SCALE 1:24 000

KILOMETERS 1 .5 0 1 2
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MILES 1 .5 0 1

FEET 1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000

CONTOUR INTERVAL 5 FEET

NATIONAL GEODETIC VERTICAL DATUM OF 1929

N

CASSELBERRY, FLORIDA
ISSUED: 1994
7.5 MINUTE SERIES (QUADRANGLE)

SECTION: 35
TOWNSHIP: 20 SOUTH
RANGE: 30 EAST

Project Mngr:	SM
Drawn By:	SW
Checked By:	SM
Approved By:	AMR S.

Project No.	H1185038
Scale:	AS SHOWN
File No.	H1185038-4
Date:	2-16-18

Terracon
Consulting Engineers and Scientists
1675 LEE ROAD WINTER PARK, FLORIDA 32789
PH. (407) 740-6110 FAX. (407) 740-6112

TOPOGRAPHIC VICINITY MAP
GEOTECHNICAL ENGINEERING EVALUATION
WINTER SPRINGS MEDICAL BUILDING AND ASSISTED LIVING FACILITY
EAST SR 434 AND HACIENDA DRIVE
WINTER SPRINGS, SEMINOLE COUNTY, FLORIDA

EXHIBIT

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Feb 16, 2018–3:55pm



SCALE 1" = 1000'

500 0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000

U.S.D.A. WEB SOIL SURVEY FOR SEMINOLE COUNTY, FLORIDA

N

SEMINOLE COUNTY SOILS MAP INDEX	
10	BASINGER, SAMSULA, AND HONTOON SOILS, DEPRESSIONAL
20	MYAKKA AND EAUGALLIE FINE SANDS
34	URBAN LAND, 0 TO 12 PERCENT SLOPES

SECTION: 10, 11
TOWNSHIP: 20 SOUTH
RANGE: 30 EAST

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Feb 16, 2018 - 3:55pm

Project Mngr:	SM
Drawn By:	SW
Checked By:	SM
Approved By:	AMR S.

Project No.	H1185038
Scale:	AS SHOWN
File No.	H1185038-4
Date:	2-16-18

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U.S.D.A. SOILS MAP
GEOTECHNICAL ENGINEERING EVALUATION
WINTER SPRINGS MEDICAL BUILDING AND ASSISTED LIVING FACILITY
EAST SR 434 AND HACIENDA DRIVE
WINTER SPRINGS, SEMINOLE COUNTY, FLORIDA

EXHIBIT

N

APPROX. SCALE IN FEET

0 50 100

SHERRY AVE.

STATE ROAD 434

HACIENDA DR.

B-1 B-2 B-3 B-4 B-5 B-6 B-7 B-8 B-9 B-10 B-11 B-12 B-13 B-14

COMMON STORMWATER MANAGEMENT POND (DRAINAGE EASEMENT)

BOARDWALK

DECORATIVE FOUNTAIN

BERM / TRAIL LANDSCAPE

LOT 2 3.90 AC.

BUILDING 2 1-STORY MEDICAL OFFICE 10,000 S.F.

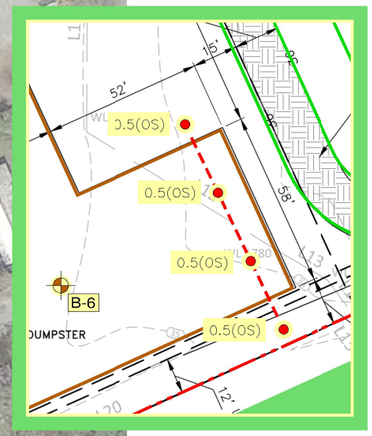
LOT 1 1.25 AC.

DRAINAGE EASEMENT

S72°30'37"W 808.88' DESC
S65°22'40"W 808.88' MEAS

S17°21'23"E 179.60' DESC
S17°21'23"E 179.60' MEAS

S32°39'44"E
52.01' DESC
S39°44'42"E
52.29' MEAS



APPROX. SCALE IN FEET

0 25 50



APPROXIMATE LOCATION OF STANDARD PENETRATION TEST BORING

APPROXIMATE LOCATION OF AUGER BORING (PERM SAMPLE AT B-13 AND B-14)

APPROXIMATE LOCATION OF HAND AUGER BORING

APPROXIMATE LOCATION OF MUCK PROBE

0.5(OS) APPROXIMATE SURFACE DEPTH OF ORGANIC SOIL (feet)

Project Mngr:	SM
Drawn By:	SW
Checked By:	SM
Approved By:	AMR S.
Project No.	H1185C38
Scale:	AS SHOWN
File No.	H1185038-4
Date:	3-13-18

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BORING LOCATION PLAN
GEOTECHNICAL ENGINEERING EVALUATION
WINTER SPRINGS MEDICAL BUILDING AND ASSISTED LIVING FACILITY
EAST SR 434 AND HACIENDA DRIVE
WINTER SPRINGS, SEMINOLE COUNTY, FLORIDA

EXHIBIT

Mar13, 2018 - 10:55am N:\Projects\2018\H1185038\PROJECT DOCUMENTS (Reports-Letters-Drafts to Clients)\Cad\5038-boring plan 4.dwg

EXPLORATION RESULTS

BORING LOG NO. B-1

PROJECT: Winter Springs Medical Office and Assisted Living Facility

CLIENT: Chau Corporation
Orlando, FL

SITE: Hacienda Drive and SR 434
Winter Springs, FL

LOCATION See Exploration Plan

Latitude: 28.6991° Longitude: -81.3003°

GRAPHIC LOG	DEPTH	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	PERM (ft/day)	ORGANIC CONTENT (%)	WATER CONTENT (%)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
	SAND WITH SILT (SP-SM), trace organics at surface (TOPSOIL), gray to light brown				2-1-1-1 N=2					
			▽		6-7-9-9 N=16					
	5.0	5			8-8-7-9 N=15					
	CLAYEY SAND (SC), light gray to light brown				6-5-5-5 N=10					
	9.0				6-7-5-8 N=12					
	SILTY SAND (SM), light brown	10								
	13.5									
	SILTY SAND (SM), trace clay, gray-brown				5-6-4 N=10					
	15.0	15								
	Boring Terminated at 15 Feet									

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
Mud Rotary

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

▽ *Water observed at 2.7 ft.*

Terracon
1675 Lee Rd
Winter Park, FL

Boring Started: 03-02-2018 | Boring Completed: 03-02-2018

Drill Rig: DR 898 | Driller: M. Cornele

Project No.: H1185038

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL H1185038 WINTER SPRINGS ME.GPJ TERRACON_DATATEMPLATE.GDT 3/15/18

BORING LOG NO. B-2

PROJECT: Winter Springs Medical Office and Assisted Living Facility

CLIENT: Chau Corporation Orlando, FL

SITE: Hacienda Drive and SR 434 Winter Springs, FL

LOCATION See Exploration Plan

Latitude: 28.699° Longitude: -81.3001°

GRAPHIC LOG	DEPTH	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	PERM (ft/day)	ORGANIC CONTENT (%)	WATER CONTENT (%)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
	SILTY SAND (SM), trace organics at surface (TOPSOIL), dark brown				5-4-4-6 N=8					
	2.5 **SAND (SP)**, light brown to gray-brown				7-8-8-8 N=16					
		5	▽		5-5-5-8 N=10					
					6-7-7-7 N=14					
					6-8-6-6 N=14					
		10								
	13.5 **SILTY SAND (SM)**, gray-brown				4-5-5 N=10					
	15.0 ***Boring Terminated at 15 Feet***	15								

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
Mud Rotary

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

▽ *Water observed at 4.7 ft.*

Terracon
1675 Lee Rd
Winter Park, FL

Boring Started: 03-02-2018 | Boring Completed: 03-02-2018

Drill Rig: DR 898 | Driller: M. Cornele

Project No.: H1185038

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL H1185038 WINTER SPRINGS ME.GPJ TERRACON_DATATEMPLATE.GDT 3/15/18

BORING LOG NO. B-3

PROJECT: Winter Springs Medical Office and Assisted Living Facility

CLIENT: Chau Corporation
Orlando, FL

SITE: Hacienda Drive and SR 434
Winter Springs, FL

LOCATION See Exploration Plan

Latitude: 28.6992° Longitude: -81.3°

DEPTH	GRAPHIC LOG	DESCRIPTION	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	PERM (ft/day)	ORGANIC CONTENT (%)	WATER CONTENT (%)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
		SAND (SP), trace organics at surface (TOPSOIL), gray-brown		▽		3-3-4-3 N=7					
2.0		**SAND WITH SILT (SP-SM)**, light brown				3-2-3-5 N=5					
			5			6-5-8-6 N=13					
7.0		**CLAYEY SAND (SC)**, light brown				7-7-8-7 N=15					
9.5		**SILTY SAND (SM)**, trace clay, light gray				6-8-9-9 N=17					
			10								
13.5		**CLAYEY SAND (SC)**, light gray				7-6-6 N=12					
15.0		***Boring Terminated at 15 Feet***	15								

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
Mud Rotary

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

▽ *Water observed at 2.2 ft.*

Terracon
1675 Lee Rd
Winter Park, FL

Boring Started: 03-02-2018 | Boring Completed: 03-02-2018

Drill Rig: DR 898 | Driller: M. Cornele

Project No.: H1185038

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL H1185038 WINTER SPRINGS ME.GPJ TERRACON_DATATEMPLATE.GDT 3/15/18

BORING LOG NO. B-4

PROJECT: Winter Springs Medical Office and Assisted Living Facility

CLIENT: Chau Corporation Orlando, FL

SITE: Hacienda Drive and SR 434 Winter Springs, FL

LOCATION See Exploration Plan

Latitude: 28.6989° Longitude: -81.3006°

DEPTH	GRAPHIC LOG	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	PERM (ft/day)	ORGANIC CONTENT (%)	WATER CONTENT (%)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
0									
	SAND WITH SILT (SP-SM), trace organics at surface (TOPSOIL), brown			3-5-4-4 N=9					
3.0									
	SAND (SP), brown to dark brown			4-4-6-6 N=10					
		▽		4-3-3-3 N=6					
5									
7.0				5-4-4-4 N=8					
	SILTY SAND (SM), trace clay, light gray								
				7-8-6-8 N=14					
10									
15.0				3-4-4 N=8					
15	***Boring Terminated at 15 Feet***								

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
Mud Rotary

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

▽ *Water observed at 4.8 ft.*

Terracon
1675 Lee Rd
Winter Park, FL

Boring Started: 03-02-2018 | Boring Completed: 03-02-2018

Drill Rig: DR 898 | Driller: M. Cornele

Project No.: H1185038

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL H1185038 WINTER SPRINGS ME.GPJ TERRACON_DATATEMPLATE.GDT 3/15/18

BORING LOG NO. B-5

PROJECT: Winter Springs Medical Office and Assisted Living Facility

CLIENT: Chau Corporation Orlando, FL

SITE: Hacienda Drive and SR 434 Winter Springs, FL

LOCATION See Exploration Plan

Latitude: 28.6996° Longitude: -81.2995°

DEPTH	GRAPHIC LOG		DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	PERM (ft/day)	ORGANIC CONTENT (%)	WATER CONTENT (%)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
		SAND (SP), dark brown		▽		2-1-3-1 N=4					
						2-3-3-3 N=6			25		5
			5			4-3-2-2 N=5					
7.0						2-1-3-1 N=4		4	38		
8.0		**SILTY SAND (SM)**, trace organics, dark brown									
		CLAYEY SAND (SC), light brown				2-2-3-3 N=5					
			10								
13.5											
		SILTY SAND (SM), light brown				2-2-1 N=3					
			15								
						3-2-4 N=6					
			20								
23.5											
		SILTY SAND (SM), trace clay, light brown				2-2-2 N=4					
			25								
						3-2-4 N=6					
30.0			30								
		Boring Terminated at 30 Feet									

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
Mud Rotary

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

▽ *Water observed at 1.1 ft.*

Terracon
1675 Lee Rd
Winter Park, FL

Boring Started: 03-02-2018 | Boring Completed: 03-02-2018

Drill Rig: DR 898 | Driller: M. Cornele

Project No.: H1185038

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL H1185038 WINTER SPRINGS ME.GPJ TERRACON_DATATEMPLATE.GDT 3/15/18

BORING LOG NO. B-6

PROJECT: Winter Springs Medical Office and Assisted Living Facility

CLIENT: Chau Corporation
Orlando, FL

SITE: Hacienda Drive and SR 434
Winter Springs, FL

LOCATION See Exploration Plan

Latitude: 28.6992° Longitude: -81.2993°

DEPTH	GRAPHIC LOG	DESCRIPTION	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	PERM (ft/day)	ORGANIC CONTENT (%)	WATER CONTENT (%)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
		SAND WITH SILT (SP-SM), dark brown				2-2-2-5 N=4					
3.0		**SAND (SP)**, light brown				5-7-9-9 N=16					
5.5		**SAND WITH SILT (SP-SM)**, light brown	5	▽		8-7-3-3 N=10					
7.0		**CLAYEY SAND (SC)**, light gray to light brown				3-3-3-3 N=6			20	29-18-11	26
						3-2-2-4 N=4					
13.5		**SILTY SAND (SM)**, trace clay, light gray	10			3-3-4 N=7					
18.5		**SILTY SAND (SM)**, light gray	15			2-2-3 N=5					
23.5		**CLAY (CH)**, trace sand, light brown	20			2-2-3 N=5			60	136-39-97	95
28.5		**SAND (SP)**, light gray	25			3-5-5 N=10					
30.0		***Boring Terminated at 30 Feet***	30								

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
Mud Rotary

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

▽ *Water observed at 5.1 ft.*

Terracon
1675 Lee Rd
Winter Park, FL

Boring Started: 03-02-2018 | Boring Completed: 03-02-2018

Drill Rig: DR 898 | Driller: M. Cornele

Project No.: H1185038

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL H1185038 WINTER SPRINGS ME.GPJ TERRACON_DATATEMPLATE.GDT 3/15/18

BORING LOG NO. B-7

PROJECT: Winter Springs Medical Office and Assisted Living Facility

CLIENT: Chau Corporation Orlando, FL

SITE: Hacienda Drive and SR 434 Winter Springs, FL

LOCATION See Exploration Plan

Latitude: 28.6997° Longitude: -81.2991°

DEPTH	GRAPHIC LOG		DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	PERM (ft/day)	ORGANIC CONTENT (%)	WATER CONTENT (%)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
1.0		**SANDY PEAT/MUCK (PT)**, dark brown		▽				41	69		
						0-0-1-4 N=1					
2.5		**SAND WITH SILT (SP-SM)**, gray-brown									
						1-1-2-1 N=3					
5.0		**SILTY SAND (SM)**, dark brown	5			2-2-1-6 N=3					
7.5		**SAND WITH SILT (SP-SM)**, dark brown				4-5-7-9 N=12					
9.0		**SAND (SP)**, gray-brown				8-8-6-7 N=14					
18.5		**SAND WITH SILT (SP-SM)**, dark brown to light brown	10								
			15			3-3-4 N=7					
20.0		**SAND (SP)**, brown				5-5-7 N=12					
		Boring Terminated at 20 Feet	20								

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
Mud Rotary

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

▽ *Water observed at 0.7 ft.*

Terracon
1675 Lee Rd
Winter Park, FL

Boring Started: 03-02-2018 | Boring Completed: 03-02-2018

Drill Rig: DR 898 | Driller: M. Cornele

Project No.: H1185038

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL H1185038 WINTER SPRINGS ME.GPJ TERRACON_DATATEMPLATE.GDT 3/15/18

BORING LOG NO. B-8

PROJECT: Winter Springs Medical Office and Assisted Living Facility

CLIENT: Chau Corporation
Orlando, FL

SITE: Hacienda Drive and SR 434
Winter Springs, FL

LOCATION See Exploration Plan

Latitude: 28.6996° Longitude: -81.2987°

DEPTH	GRAPHIC LOG	DESCRIPTION	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	PERM (ft/day)	ORGANIC CONTENT (%)	WATER CONTENT (%)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
0		**SILTY SAND (SM)**, trace to some organics, dark brown	▽		1-1-1-1 N=2		4	52		
					1-2-1-1 N=3		11	47		
5					3-2-3-3 N=5					
					3-4-4-4 N=8					
5.5		**SAND WITH SILT (SP-SM)**, gray-brown								
8.5		**CLAYEY SAND (SC)**, light gray-brown						19	25-19-6	25
10					2-3-2-2 N=5					
13.5		**SILTY SAND (SM)**, light brown			1-1-3 N=4					
15										
20.0					1-2-2 N=4					
20		***Boring Terminated at 20 Feet***								

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
Mud Rotary

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

▽ *Water observed at 0.3 ft.*

Terracon
1675 Lee Rd
Winter Park, FL

Boring Started: 03-02-2018 | Boring Completed: 03-02-2018

Drill Rig: DR 898 | Driller: M. Cornele

Project No.: H1185038

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL H1185038 WINTER SPRINGS ME.GPJ TERRACON_DATATEMPLATE.GDT 3/15/18

BORING LOG NO. B-9

PROJECT: Winter Springs Medical Office and Assisted Living Facility

CLIENT: Chau Corporation
Orlando, FL

SITE: Hacienda Drive and SR 434
Winter Springs, FL

LOCATION See Exploration Plan

Latitude: 28.699° Longitude: -81.301°

GRAPHIC LOG	DEPTH	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	PERM (ft/day)	ORGANIC CONTENT (%)	WATER CONTENT (%)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
	SILTY SAND (SM), trace organics at surface (TOPSOIL), dark gray									
	2.0 **SILTY SAND (SM)**, cemented, dark brown									
	3.5 **SAND WITH SILT (SP-SM)**, dark brown									
	5.0 **SAND (SP)**, dark brown	5	▽							
	7.0 ***Boring Terminated at 7 Feet***									

Stratification lines are approximate. In-situ, the transition may be gradual.

Advancement Method:
Hand Auger

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

▽ *Water observed at 5.0 ft.*

Terracon
1675 Lee Rd
Winter Park, FL

Boring Started: 02-23-2018 | Boring Completed: 02-23-2018

Drill Rig: | Driller: D. Rapp

Project No.: H1185038

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL H1185038 WINTER SPRINGS ME.GPJ TERRACON_DATATEMPLATE.GDT 3/15/18

BORING LOG NO. B-10

PROJECT: Winter Springs Medical Office and Assisted Living Facility

CLIENT: Chau Corporation
Orlando, FL

SITE: Hacienda Drive and SR 434
Winter Springs, FL

LOCATION See Exploration Plan

Latitude: 28.6992° Longitude: -81.3004°

GRAPHIC LOG	DEPTH	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	PERM (ft/day)	ORGANIC CONTENT (%)	WATER CONTENT (%)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
	SAND (SP), gray									
	1.5 **SILTY SAND (SM)**, dark brown									
	3.5 **SAND (SP)**, light brown		▽							
	5.0 **SILTY SAND (SM)**, dark brown	5								
	7.0 ***Boring Terminated at 7 Feet***									

Stratification lines are approximate. In-situ, the transition may be gradual.

Advancement Method:
Hand Auger

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

▽ *Water observed at 4.5 ft.*

Terracon
1675 Lee Rd
Winter Park, FL

Boring Started: 02-23-2018 | Boring Completed: 02-23-2018

Drill Rig: | Driller: D. Rapp

Project No.: H1185038

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL H1185038 WINTER SPRINGS ME.GPJ TERRACON_DATATEMPLATE.GDT 3/15/18

BORING LOG NO. B-11

PROJECT: Winter Springs Medical Office and Assisted Living Facility

CLIENT: Chau Corporation Orlando, FL

SITE: Hacienda Drive and SR 434 Winter Springs, FL

LOCATION See Exploration Plan

Latitude: 28.6986° Longitude: -81.3008°

GRAPHIC LOG	DEPTH	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	PERM (ft/day)	ORGANIC CONTENT (%)	WATER CONTENT (%)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
	SAND WITH SILT (SP-SM), gray to brown									
	4.0									
	SILTY SAND (SM), trace clay, gray									
	5.0	5								
	CLAYEY SAND (SC), light gray							21	35-18-17	28
	7.0									
	Boring Terminated at 7 Feet									

Stratification lines are approximate. In-situ, the transition may be gradual.

Advancement Method:
Hand Auger

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

Water not observed within 7 ft.

Terracon
1675 Lee Rd
Winter Park, FL

Boring Started: 02-23-2018 | Boring Completed: 02-23-2018

Drill Rig: | Driller: D. Rapp

Project No.: H1185038

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL H1185038 WINTER SPRINGS ME.GPJ TERRACON_DATATEMPLATE.GDT 3/15/18

BORING LOG NO. B-12

PROJECT: Winter Springs Medical Office and Assisted Living Facility

CLIENT: Chau Corporation
Orlando, FL

SITE: Hacienda Drive and SR 434
Winter Springs, FL

LOCATION See Exploration Plan

Latitude: 28.6988° Longitude: -81.3001°

GRAPHIC LOG	DEPTH	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	PERM (ft/day)	ORGANIC CONTENT (%)	WATER CONTENT (%)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
	SAND WITH SILT (SP-SM), gray-brown to dark brown to brown	5	▽					19		10
	7.0									
	Boring Terminated at 7 Feet									

Stratification lines are approximate. In-situ, the transition may be gradual.

Advancement Method:
Hand Auger

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

▽ *Water observed at 5.5 ft.*

Terracon
1675 Lee Rd
Winter Park, FL

Boring Started: 02-23-2018 | Boring Completed: 02-23-2018

Drill Rig: | Driller: D. Rapp

Project No.: H1185038

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL H1185038 WINTER SPRINGS ME.GPJ TERRACON_DATATEMPLATE.GDT 3/15/18

BORING LOG NO. B-13

PROJECT: Winter Springs Medical Office and Assisted Living Facility

CLIENT: Chau Corporation
Orlando, FL

SITE: Hacienda Drive and SR 434
Winter Springs, FL

LOCATION See Exploration Plan

Latitude: 28.6991° Longitude: -81.2998°

GRAPHIC LOG	DEPTH	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	PERM (ft/day)	ORGANIC CONTENT (%)	WATER CONTENT (%)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
	SAND (SP), light gray-brown to gray-brown									
			▽							
						16		6		5
		5								
	6.5 **SAND WITH SILT (SP-SM)**, gray-brown to light brown									
	8.5 **SILTY SAND (SM)**, trace clay, light gray							17		22
	10.0 ***Boring Terminated at 10 Feet***	10								

Stratification lines are approximate. In-situ, the transition may be gradual.

Advancement Method:
Power Auger

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

▽ *Water observed at 3.2 ft.*

Terracon
1675 Lee Rd
Winter Park, FL

Boring Started: 03-02-2018 | Boring Completed: 03-02-2018

Drill Rig: DR 898 | Driller: M. Cornele

Project No.: H1185038

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL H1185038 WINTER SPRINGS ME.GPJ TERRACON_DATATEMPLATE.GDT 3/15/18

BORING LOG NO. B-14

PROJECT: Winter Springs Medical Office and Assisted Living Facility

CLIENT: Chau Corporation Orlando, FL

SITE: Hacienda Drive and SR 434 Winter Springs, FL

LOCATION See Exploration Plan

Latitude: 28.6993° Longitude: -81.2997°

GRAPHIC LOG	DEPTH	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	PERM (ft/day)	ORGANIC CONTENT (%)	WATER CONTENT (%)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
	SAND (SP), gray-brown to light brown		▽			19		9		6
		5								
	7.5 **SILTY SAND (SM)**, gray-brown							17		18
	8.5 **CLAYEY SAND (SC)**, light gray									
	10.0 ***Boring Terminated at 10 Feet***	10								

Stratification lines are approximate. In-situ, the transition may be gradual.

Advancement Method:
Power Auger

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

▽ *Water observed at 2.3 ft.*

Terracon
1675 Lee Rd
Winter Park, FL

Boring Started: 03-02-2018 | Boring Completed: 03-02-2018

Drill Rig: DR 898 | Driller: M. Cornele

Project No.: H1185038

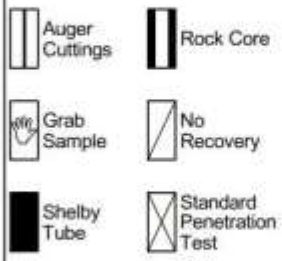
THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL H1185038 WINTER SPRINGS ME.GPJ TERRACON_DATATEMPLATE.GDT 3/15/18

SUPPORTING INFORMATION

GENERAL NOTES

DESCRIPTION OF SYMBOLS AND ABBREVIATIONS

SAMPLING



WATER LEVEL



Water levels indicated on the soil boring logs are the levels measured in the borehole at the times indicated. Groundwater level variations will occur over time. In low permeability soils, accurate determination of groundwater levels is not possible with short term water level observations.

FIELD TESTS

(HP)	Hand Penetrometer
(T)	Torvane
(DCP)	Dynamic Cone Penetrometer
(PID)	Photo-Ionization Detector
(OVA)	Organic Vapor Analyzer

DESCRIPTIVE SOIL CLASSIFICATION

Soil classification is based on the Unified Soil Classification System. Coarse Grained Soils have more than 50% of their dry weight retained on a #200 sieve; their principal descriptors are: boulders, cobbles, gravel or sand. Fine Grained Soils have less than 50% of their dry weight retained on a #200 sieve; they are principally described as clays if they are plastic, and silts if they are slightly plastic or non-plastic. Major constituents may be added as modifiers and minor constituents may be added according to the relative proportions based on grain size. In addition to gradation, coarse-grained soils are defined on the basis of their in-place relative density and fine-grained soils on the basis of their consistency.

LOCATION AND ELEVATION NOTES

Unless otherwise noted, Latitude and Longitude are approximately determined using a hand-held GPS device. The accuracy of such devices is variable. Surface elevation data annotated with +/- indicates that no actual topographical survey was conducted to confirm the surface elevation. Instead, the surface elevation was approximately determined from topographic maps of the area.

STRENGTH TERMS

RELATIVE DENSITY OF COARSE-GRAINED SOILS (More than 50% retained on No. 200 sieve.) Density determined by Standard Penetration Resistance		CONSISTENCY OF FINE-GRAINED SOILS (50% or more passing the No. 200 sieve.) Consistency determined by laboratory shear strength testing, field visual-manual procedures or standard penetration resistance		
Descriptive Term (Density)	**Automatic Hammer SPT N-Value (Blows/Ft.)**	**Descriptive Term (Consistency)**	**Unconfined Compressive Strength Qu, (psf)**	**Automatic Hammer SPT N-Value (Blows/Ft.)**
Very Loose	< 3	Very Soft	less than 500	< 1
Loose	3 - 8	Soft	500 to 1,000	1 - 3
Medium Dense	8 - 24	Medium Stiff	1,000 to 2,000	3 - 6
Dense	24 - 40	Stiff	2,000 to 4,000	6 - 12
Very Dense	> 40	Very Stiff	4,000 to 8,000	12 - 24
		Hard	> 8,000	> 24

RELATIVE PROPORTIONS OF SAND AND GRAVEL

Descriptive Term(s) of other constituents	Percent of Dry Weight
Trace	< 15
With	15 - 29
Modifier	> 30

GRAIN SIZE TERMINOLOGY

Major Component of Sample	Particle Size
Boulders	Over 12 in. (300 mm)
Cobbles	12 in. to 3 in. (300mm to 75mm)
Gravel	3 in. to #4 sieve (75mm to 4.75 mm)
Sand	#4 to #200 sieve (4.75mm to 0.075mm
Silt or Clay	Passing #200 sieve (0.075mm)

RELATIVE PROPORTIONS OF FINES

Descriptive Term(s) of other constituents	Percent of Dry Weight
Trace	< 5
With	5 - 12
Modifier	> 12

PLASTICITY DESCRIPTION

Term	Plasticity Index
Non-plastic	0
Low	1 - 10
Medium	11 - 30
High	> 30

Terracon

UNIFIED SOIL CLASSIFICATION SYSTEM

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests [A]					Soil Classification	
					Group Symbol	Group Name [B]
Coarse Grained Soils: More than 50% retained on No. 200 sieve	**Gravels:** More than 50% of coarse fraction retained on No. 4 sieve	**Clean Gravels:** Less than 5% fines [C]	$Cu \geq 4$ and $1 \leq Cc \leq 3$ [E]		GW	Well-graded gravel [F]
			$Cu < 4$ and/or $1 > Cc > 3$ [E]		GP	Poorly graded gravel [F]
		Gravels with Fines: More than 12% fines [C]	Fines classify as ML or MH		GM	Silty gravel [F,G,H]
			Fines classify as CL or CH		GC	Clayey gravel [F,G,H]
	Sands: 50% or more of coarse fraction passes No. 4 sieve	**Clean Sands:** Less than 5% fines [D]	$Cu \geq 6$ and $1 \leq Cc \leq 3$ [E]		SW	Well-graded sand [I]
			$Cu < 6$ and/or $1 > Cc > 3$ [E]		SP	Poorly graded sand [I]
		Sands with Fines: More than 12% fines [D]	Fines classify as ML or MH		SM	Silty sand [G,H,I]
			Fines classify as CL or CH		SC	Clayey sand [G,H,I]
Fine-Grained Soils: 50% or more passes the No. 200 sieve	**Silts and Clays:** Liquid limit less than 50	**Inorganic:**	PI > 7 and plots on or above "A" line [J]		CL	Lean clay [K,L,M]
			PI < 4 or plots below "A" line [J]		ML	Silt [K,L,M]
		Organic:	Liquid limit - oven dried	< 0.75	OL	Organic clay [K,L,M,N]
			Liquid limit - not dried			Organic silt [K,L,M,O]
	Silts and Clays: Liquid limit 50 or more	**Inorganic:**	PI plots on or above "A" line		CH	Fat clay [K,L,M]
			PI plots below "A" line		MH	Elastic Silt [K,L,M]
		Organic:	Liquid limit - oven dried	< 0.75	OH	Organic clay [K,L,M,P]
			Liquid limit - not dried			Organic silt [K,L,M,Q]
Highly organic soils:	Primarily organic matter, dark in color, and organic odor				PT	Peat

[A] Based on the material passing the 3-inch (75-mm) sieve

[B] If field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.

[C] Gravels with 5 to 12% fines require dual symbols: GW-GM well-graded gravel with silt, GW-GC well-graded gravel with clay, GP-GM poorly graded gravel with silt, GP-GC poorly graded gravel with clay.

[D] Sands with 5 to 12% fines require dual symbols: SW-SM well-graded sand with silt, SW-SC well-graded sand with clay, SP-SM poorly graded sand with silt, SP-SC poorly graded sand with clay

[E] $Cu = D_{60}/D_{10}$ $\quad Cc = \dfrac{(D_{30})^2}{D_{10} \times D_{60}}$

[F] If soil contains ≥ 15% sand, add "with sand" to group name.

[G] If fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.

[H] If fines are organic, add "with organic fines" to group name.

[I] If soil contains ≥ 15% gravel, add "with gravel" to group name.

[J] If Atterberg limits plot in shaded area, soil is a CL-ML, silty clay.

[K] If soil contains 15 to 29% plus No. 200, add "with sand" or "with gravel," whichever is predominant.

[L] If soil contains ≥ 30% plus No. 200 predominantly sand, add "sandy" to group name.

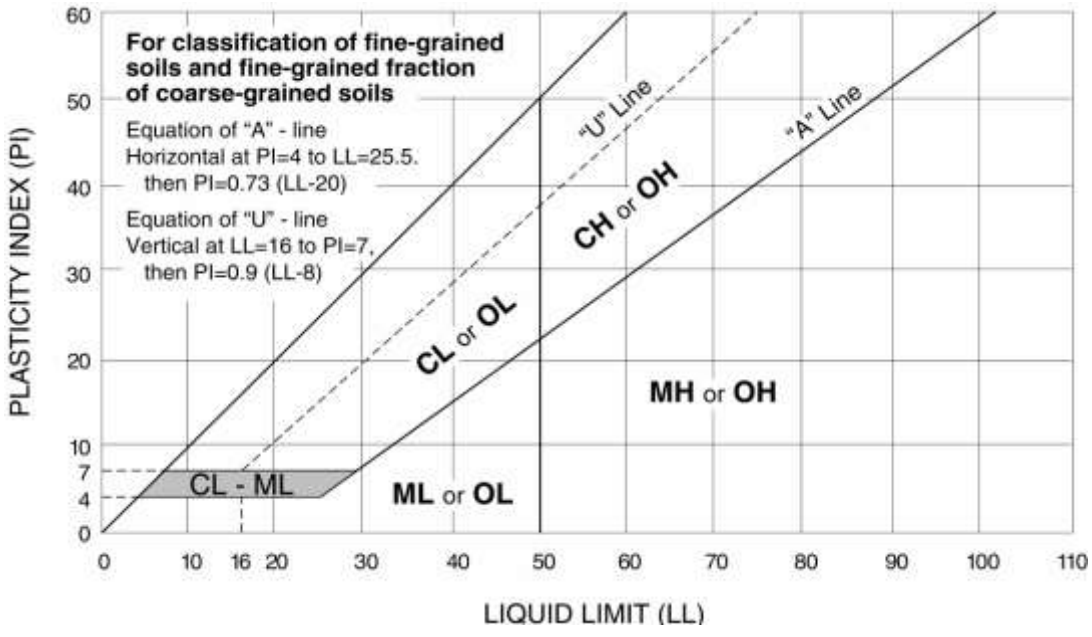
[M] If soil contains ≥ 30% plus No. 200, predominantly gravel, add "gravelly" to group name.

[N] PI ≥ 4 and plots on or above "A" line.

[O] PI < 4 or plots below "A" line.

[P] PI plots on or above "A" line.

[Q] PI plots below "A" line.



FEG FLORIDA ENGINEERING GROUP
now part of
THOMAS & HUTTON

TRAFFIC STATEMENT
CHAU COMMERCIAL

A 13,057 SF medical office/retail building is proposed on this site as the third phase of development. The initial phase of development consisted of a 10,190 SF medical building for Dr. Chau and the second phase an assisted living facility. The new building is proposed as 5,596 SF of medical and 7,461 SF of retail.

The original 2017 traffic impact assessment included 6,500 SF of retail for this phase.

Table 4
Trip Generation Summary

ITE Code	Land Use	Size	Daily		P.M. Peak Hour			
			Rate*	Trips	Rate	Enter	Exit	Total
720	Medical Office	10.190 KSF**	29.82/E	304	3.59/E	10	27	37
820	Retail Commercial	6.400 KSF**	144.84/E	927	11.09/E	34	37	71
254	Assisted Living	124 Beds	2.60/R	322	0.26/R	12	20	32
		Total Traffic		**1,553**	**---**	**56**	**84**	**140**
		Retail Pass-by (34%)		315	---	12	12	24
		Net New Project Trips		**1,238**	**---**	**44**	**72**	**116**

The following table estimates the total Daily and PM Peak Hour Trips for this 13,057 SF building.

USE	ITE	AREA	DAILY RATE	DAILY TRIPS	PM PEAK RATE	PM TRIPS
MEDICAL OFFICE	720	5,596	34.03	190	3.42	19
STRIP RETAIL CENTER , < 40K	822	7,461	54.45	406	6.29	47
TOTAL		13,057		597		66

ITE 12th Edition

The original Retail trips less pass-by trips were compared with the proposed medical/retail development. The following table shows the Daily Traffic will decrease by 15 trips and the PM Peak Hour will increase by 19 PM Trips from the originally approved traffic analysis. No pass-by trip rate was assigned to the new project's retail space.

ORIGINAL TRAFFIC ANALYSIS (2017)				DAILY		PM PEAK
RETAIL		6,500		927		71
PASS-BY				-315		-24
NEW 2017 RETAIL TRIPS				612		47
PROPOSED MEDICAL/OFFICE				597		66
INCREASED NUMBER OF TRIPS				-15		19

THOMAS & HUTTON ENGINEERING CO.

Bill Hockensmith

William R. Hockensmith, P.E.
Project Manager

WILLIAM R. HOCKENSMITH LICENSE No. 35540 STATE OF FLORIDA PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY WILLIAM R. HOCKENSMITH, P.E. ON THE DATE ADJACENT TO THE SEAL.

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

WILLIAM R. HOCKENSMITH, P.E. 35540
THOMAS & HUTTON ENGINEERING CO.
5127 S. ORANGE AVENUE, SUITE 200
ORLANDO, FL 32809
LICENSE NUMBER: 30622

Digitally signed by William R Hockensmith
Date: 2026.10.13 16:19:06-04'00'

WINTER SPRINGS – CHAU COMMERCIAL RETAIL
Economic Fiscal Impact

This economic fiscal impact is prepared for the Phase 2 development of the Winter Springs Medical Office development consisting of a 13,057 S.F. retail building and for the overall development based on the current anticipated development program.

The existing Phase 1 development consists of Dr. Chau's 10,190 S.F. Medical Office Building. At Build-out, the overall development is anticipated to have 13,057 S.F. of Retail and 114 Unit Assisted Living Facility in addition the current 10,190 S.F. Medical Office.

Revenue to the City of Winter Springs based on the proposed development will consist of the Ad Valorem Tax and State Shared Revenues (Half-Cent Sales Tax).

AD VALOREM TAX:

The assessed value of the existing Phase I development (Dr. Chau Medical office) based on Seminole County Property Appraiser records is $2,398,809 which equates to approximately $235 per square foot. The assessed value of the future retail is anticipated to be on the order of $3,068,395 based on an estimated value of $235 per S.F. of building area. The assessed value of the future Assisted Living Facility is anticipated to be on the order of $11,400,000 based on an estimated value of $100,000 per unit.

The following is a Summary of the various estimated values:

Existing – 10,190 S.F. Medical Office	Current Assessed Value: $ 2,398,809
Proposed Retail – 13,057 S.F.	Estimated Assessed Value: $ 3,068,395
Future Assisted Living Facility – 114 Units	Estimated Assessed Value: $11,400,000

The following table provides the 2027 Millage Rate breakdown for properties located within the of Winter Springs:

Based on the 2027 Millage rate, the following are estimated tax revenues to the City of Winter Springs from the proposed development:

County	School	Winter Springs	Fire	Water Management	Total
5.3751	5.2310	2.5160	2.7649	0.1793	16.0663

Development	Estimated Assessed Value	Millage Rate	Estimated City Revenue
Ex. Medical Office	$ 2,398,809	2.516	$ 6,035
Proposed Retail	$ 3,068,398	2.516	$ 7,720
Future Assisted Living	$11,400,000	2.516	$28,682
Estimated Total			$42,537

As can be seen above, the Ad Valorem revenue to the City of Winter Springs would be approximately $7,720 per year for proposed retail development and $42,537 per year for the overall development at build-out.

STATE SHARED REVENUES (REVENUE SHARING AND HALF-CENT SALES TAX):

The City's State shared revenue is estimated based on one-half cent retail sales tax generated by the proposed 13,057 S.F. Retail. It is estimated that the proposed retail will generate a yearly sales volume on the order of $3,264,250 based on estimated sales of $250 per S.F. of retail.

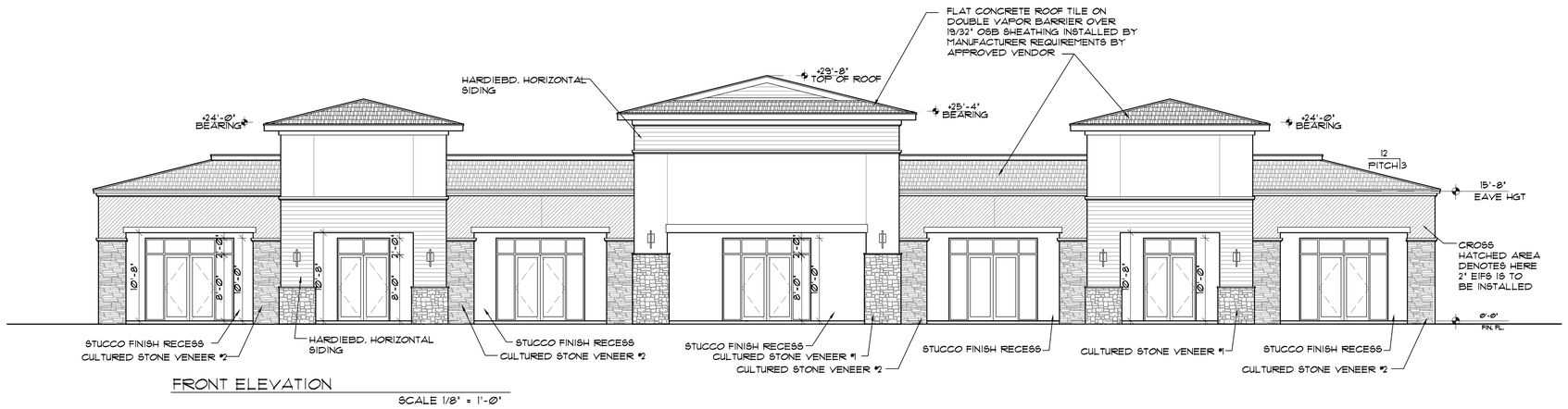
As such, the State Shared Revenue half-cent sales tax to the City of Winter Springs would be approximately $16,321 per year from the retail building.

TOTAL REVENUE:

Estimated Ph.2 property tax	$ 7,720
Estimated Ph. 2 half-cent sales tax	$16,321
Estimate Ph. 2 total revenue	$24,041

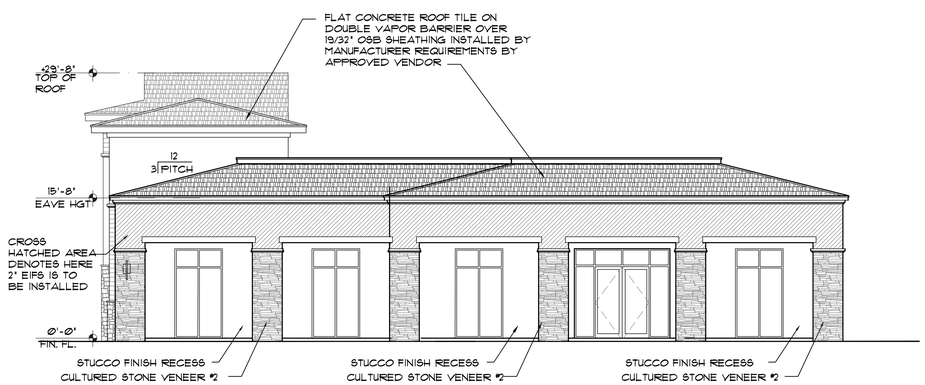
Based on the above, the estimated property tax and sales tax total revenue to the City of Winter Springs would be approximately $24,041 per year for proposed Phase 2 development and property tax of $42,537 per year for the overall development.

This excludes any state shared revenues or utility (electric and water) taxes.



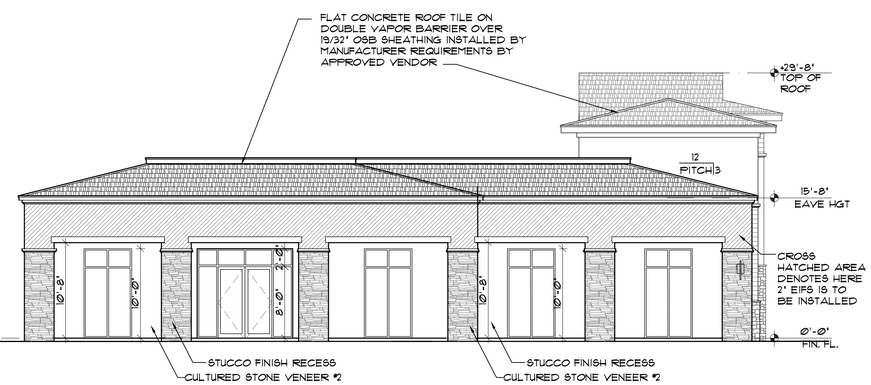
FRONT ELEVATION

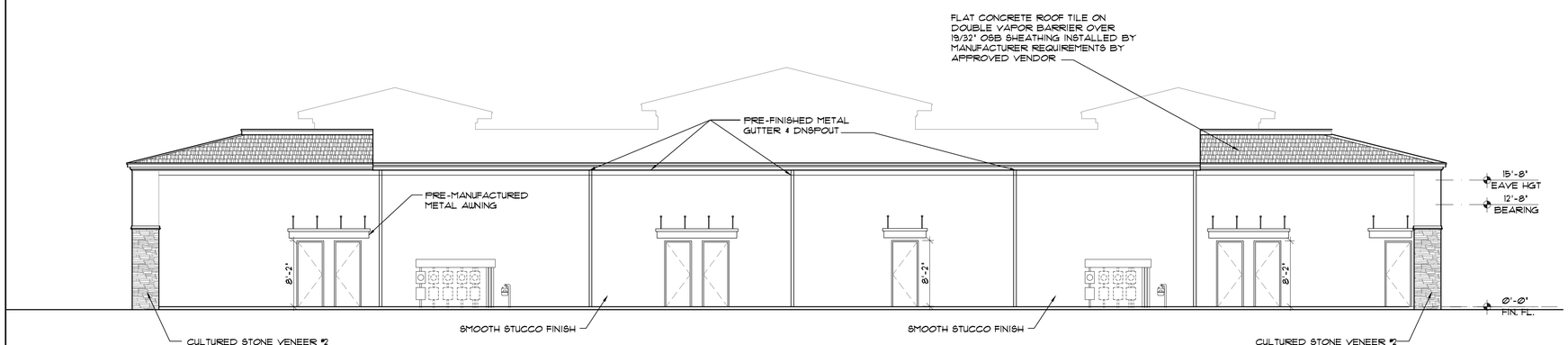
SCALE 1/8" = 1'-0"



RIGHT ELEVATION

SCALE 1/8" = 1'-0"





REAR ELEVATION

SCALE 1/8" = 1'-0"

REVISIONS

	1	2	3	4	5	6	7	8

PROJECT NO.
156CR

DATE
12-11-2025

ELEVATIONS

NEW COMMERCIAL BUILDING AT
THE CHAU CORPORATION
E. STATE ROAD 434
WINTER SPRINGS, FLORIDA

RABITS & ROMANO
ARCHITECTURE
PLANNING AND DESIGN
AA26002490
5205 S. ORANGE AVE.
SUITE 200 ORLANDO FL 32809
TEL - 407-496-0350
FAX - 407-232-6000
info@rabitsromano.com
www.rabitsromano.com

SIGN/SEAL
Digitally signed by Fulvio Romano
Date: 2026.10.07 12:55:50 -04'00'
DATE

STATE OF FLORIDA
FULVIO ROMANO
AR 99646
REGISTERED ARCHITECT

SHEET
A201







CITY OF WINTER SPRINGS
COMMUNITY DEVELOPMENT DEPARTMENT
1126 East State Road 434
Winter Springs, Florida 32708
customerservice@winterspringsfl.org

Application – Site Plan Review

The Community Development Director reserves the right to determine whether this application is complete and accurate. An incomplete application will not be processed and will be returned to the applicant. The application shall be reviewed per Florida Statue 419.001. Applications shall be reviewed for sufficiency (completeness) within thirty (30) calendar days per FL Statue 166.033. By submitting this application, you hereby grant temporary right of entry for City officials to enter upon the subject property for purposes of evaluating this application.

Site Plan Type

Type of Development: ____ Residential __X__ Non-Residential

____Preliminary Review __X__Final Review ____Combined Preliminary/Final ____Resubmittal ____ Recorded Plat

Project Name: Chau Winter Springs Office Date:

Applicant/Agent Information

Applicant(s): Sam J. Sebaali, P.E., Regional Director of Thomas and Hutton Engineering Co.

Mailing Address: 5127 South Orange Avenue; Suite 200, Orlando, FL 32809

Email: hockensmith.w@tandh.com

Phone Number: 407-895-0324

Person Who Will Upload Plans: Sam J. Sebaali, P.E., Regional Director of Thomas and Hutton Engineering Co.

Email: hockensmith.w@tandh.com Phone#: 407-895-0324

Property Owner(s) Name (If Applicant is not the Property Owner)

Name: CHAU FAMILY HOLDINGS III LLC

Email: DRCHAU54@YAHOO.COM Phone #: 407-948-8328

Mailing Address: 1287 N SEMORAN BLVD., SUITE 200, ORLANDO, FL 32807-3530

Phone Number: 407-948-8328

Site Information

Project Address: E SR 434 WINTER SPRINGS, FL 32708

Parcel ID(s): 34-20-30-5AW-0000-048A

Parcel Size: 222,500 S.F. ; ±5.11 AC.

Existing Use: VACANT

Proposed Use: MEDICAL OFFICE, OFFICE AND RETAIL

Zoning District: C-1

Future Land Use: COMMERCIAL

Is the property located in the Town Center District? _____Yes __X__No

Is the property within the S.R. 434 Corridor Overlay District? __X__Yes _____No

Is the property located in the Greeneway Interchange Zoning District? _____Yes __X__No

The Planning and Zoning Board/Local Planning Agency shall review Site Plan Applications and make a written recommendation to the City Commission. The City Commission shall render all final decisions regarding Preliminary and Final Engineering Plans and may impose reasonable conditions on any approved plans to the extent deemed necessary and relevant to ensure compliance with applicable criteria and other applicable provisions of the City Code and Comprehensive Plan. All formal decisions shall be based upon the applicable criteria as set forth in the City's Code of Ordinances Chapter 9, Land Development and Chapter 20, Zoning.

Applicants are advised, that if they decide to appeal any decisions made at the meetings or hearings, with respect to any matter considered at the meetings or hearings, they will need a record of the proceedings and, for such purposes, they will need to ensure that a verbatim record of the proceedings is made, at their cost, which includes the testimony and evidence upon which the appeal is to be based, per 286.0105, Florida Statutes.

Application Fees

Fees are as reflected on the Fee Schedule plus actual costs incurred for advertising or notification, and reimbursement for technical, and/or professional services which may be required in connection with the review, inspection, or approval of any development (based on accounting submitted by the City Consultant), payable prior to approval of the pertinent stage of development.

CITY OF WINTER SPRINGS
COMMUNITY DEVELOPMENT DEPARTMENT
1126 East State Road 434
Winter Springs, Florida 32708
customerservice@winterspringsfl.org

Application – Site Plan Review

THIS APPLICATION MUST BE SIGNED IN THE PRESENCE OF A NOTARY

This is to certify that I am the owner in simple fee of the subject property as described in this application for Site Plan Review.

Property Owner(s) Name (Print): Sam Sebaali, Authorized Agent

Property Owner Signature: _____ Date: 8/15/2025

Property Owner(s) Name (Print): _____

Property Owner Signature: _____ Date: _____

STATE OF Florida COUNTY OF Orange

The foregoing instrument was acknowledged before me this 15 day of August, 2025, by SAM SEBAALI who is personally known to me or who has produced N/A as identification and who did/did not take an oath.

_____ Date: 8/15/2025 (seal):

Notary Public Signature: _____

My Commission Expires: _____

NOTARY PUBLIC STATE OF FLORIDA
WILLIAM R HOCKENSMITH
Commission # HH 655913
Expires July 24, 2029

Note: If the applicant is not the property owner the Property Owner shall sign and have their signature notarized below, authorizing the applicant and/or agent permission to submit the Site Plan Review application.

Property Owner's Name (Print): Sam Sebaali, Authorized Agent

Property Owner Signature: _____ Date 8/15/2025

STATE OF Florida COUNTY OF Orange

The foregoing instrument was acknowledged before me this 8 day of August, 2025, by SAM SEBAALI who is personally known to me or who has produced N/A as identification and who did/did not take an oath.

_____ Date: 8/15/2025 (seal):

Notary Public Signature: _____

My Commission Expires: _____

NOTARY PUBLIC STATE OF FLORIDA
WILLIAM R HOCKENSMITH
Commission # HH 655913
Expires July 24, 2029

CITY OF WINTER SPRINGS
COMMUNITY DEVELOPMENT DEPARTMENT
1126 East State Road 434
Winter Springs, Florida 32708
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Application – Aesthetic Review

The Community Development Director reserves the right to determine whether this application is complete and accurate. An incomplete application will not be processed and will be returned to the applicant. The application shall be reviewed per Chapter 9–Aesthetic Review Sec.9-605. All applications shall be reviewed for sufficiency (completeness) within thirty (30) calendar days per FL Statue 166.033. Once the application is deemed sufficient, the applicant shall move forward with the Community Workshop, required per Chapter 20–Zoning Sec.20-29.1.

All applicants shall be afforded minimal due process as required by law, including the right to receive notice, be heard, present evidence, cross-examine witnesses, and be represented by a duly authorized representative. Applicants are further advised that a Conditional Use is quasi-judicial in nature. Therefore, APPLICANT ACKNOWLEDGES and AGREES, by signing below, that he or she:

- May be sworn-in as a witness in order to provide testimony to the City Commission;
- Shall be subject to cross-examination by party intervenors (if requested); and
- Shall be required to qualify expert witnesses, as appropriate.

Applicants are encouraged to familiarize themselves with Chapter 2 – Administration Sec. 2-30 of the Winter Springs City Code relating to Quasi-Judicial Rules and Procedures of the City Commission. All Aesthetic Review recommendations shall be based from the required information/documentation provided, the Winter Springs Code of Ordinances, and the Winter Springs Comprehensive Plan (to the extent applicable).

The City Commission (CC) shall render all final decisions regarding Aesthetic Review and may impose reasonable conditions on any approved Aesthetic Review to the extent deemed necessary and relevant to ensure compliance with applicable criteria and other applicable provisions of the Winter Springs Code of Ordinances and the Winter Springs Comprehensive Plan. All formal decisions shall be based on competent substantial evidence and the applicable criteria as set forth in Chapter 9, Aesthetic Review Standards. Applicants are advised that if, they decide to appeal any decisions made at the meetings or hearings with respect to any matter considered at the meetings or hearings, they will need a record of the proceedings and, for such purposes, they will need to insure that a verbatim record of the proceedings is made, at their cost, which includes the testimony and evidence upon which the appeal is to be based, per Florida Statute 286.0105.

An Aesthetic Review Approval by the City Commission under this article shall be valid for a maximum of eighteen (18) months from the date the city commission renders its approval at a public meeting. If the applicant fails to obtain a building permit within the eighteen (18) month period, the city commission's approval shall expire at the end of the period. However, once a building permit is issued, the approval shall be valid for a time period equal to the permit and shall expire only if the building permit expires. Reasonable extensions may be granted by the city commission upon good cause shown by the applicant, provided substantial changes have not occurred in the surrounding area that would make the prior approval inconsistent with the criteria set forth in Chapter 9-Aesthetic Review Sec.9-9603

CITY OF WINTER SPRINGS
COMMUNITY DEVELOPMENT DEPARTMENT
1126 East State Road 434
Winter Springs, Florida 32708
customerservice@winterspringsfl.org

Application – Aesthetic Review

REQUIRED INFORMATION

Applicant(s): Thomas & Hutton Engineering Date: Aug. 10, 2026
Mailing address: 5127 S. Orange Avenue, Orlando, FL 32809
Email: hockensmith.w@tandh.com
Phone Number: 407 895-0324

Property Owner(s): Chau Family Holdings III, LLC
Mailing Address: 1287 N. Semoran Blvd, Suite 200, Orlando, FL 32809
Email:
Phone Number:

Project Name: Chau Commercial Building
Property Address: 403 E. SR 434
Parcel ID(s): 34-20-30-5AW-0000-048A
Parcel Size: 5.11 acres
Existing Use: Existing Chau medical office and vacant outparcels.

List all witnesses that the applicant intends to present to the City Commission to provide testimony:
Sam Sebaali, Wm. Hockensmith, Dr. Chau

Describe with specificity any evidence which the applicant intends to present to the City Commission, including oral factual testimony, maps, photographs, records or reports and/or expert testimony:
Site plans, Building elevations, renderings & photographs.

Attach all documentary evidence which the applicant intends to present to the city commission to the back of this application. The Applicant has a continuing duty to update the list of witnesses, description of evidence, and documentary evidence throughout the application process. Additional witnesses or evidence will not be admitted at the city commission hearing if not submitted at least seven (7) days prior to such hearing.

DrChau54@yahoo.com
407 948-8328

Criteria for Review

1. The plans and specifications of the proposed project indicate that the setting, landscaping, proportions, materials, colors, texture, scale, unity, balance, rhythm, contrast, and simplicity are coordinated in a harmonious manner relevant to the particular proposal, surrounding area and cultural character of the community.
2. The plans for the proposed project are in harmony with any future development which has been formally approved by the City within the surrounding area.
3. The plans for the proposed project are not excessively similar or dissimilar to any other building, structure or sign which is either fully constructed, permitted but not fully constructed, or included on the same permit application, and facing upon the same or intersecting street within five hundred (500) feet of the proposed site, with respect to one or more of the following features of exterior design and appearance:
    a. Front or side elevations;
    b. Size and arrangement of elevation facing the street, including reverse arrangement; or
    c. Other significant features of design such as, but not limited to: materials, roof line, hardscape improvements, and height or design elements.
4. The plans for the proposed project are in harmony with, or significantly enhance, the established character of other buildings, structures or signs in the surrounding area with respect to architectural specifications and design features deemed significant based upon commonly accepted architectural principles of the local community.
5. The proposed project is consistent and compatible with the intent and purpose of this article, the Comprehensive Plan for Winter Springs, design criteria adopted by the City (e.g. Town Center guidelines, SR 434 design specifications) and other applicable federal, state or local laws.
6. The proposed project has incorporated significant architectural enhancements such as concrete masonry units with stucco, marble, termite-resistant wood, wrought iron, brick, columns and piers, porches, arches, fountains, planting areas, display windows, and other distinctive design detailing and promoting the character of the community.

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Application – Aesthetic Review

REQUIRED DOCUMENTATION

_X_ A complete Application and applicable fee

___ Minor (Site less than 2 acres)

_X_ Major (Site greater than 2 acres)

___ Modification of previously approved Aesthetic Review

_X_ A Legal Description accompanied by a certified survey or the portion of the map maintained by the Seminole County Property Appraiser reflecting the boundaries of the subject property (To scale).

_X_ Site Plan

_X_ Building Elevations (color) illustrating all sides of structures

_X_ Color rendering illustrating street view with landscaping at time of planting;

_X_ Illustrations of all walls, fences, and other accessory structures and indication of their height and the materials proposed for their construction;

_X_ Signage elevations of proposed exterior permanent signs, outdoor advertising or other constructed elements other than habitable space, if any;

_X_ Identification of materials, textures, and colors to be used on all buildings, accessory structures, exterior signs, and other constructed elements;

_N/A_ Other architectural and engineering data as may be requested to clarify the application.

_N/A_ For all new commercial development and new residential subdivisions of ten (10) or more lots or existing commercial buildings being altered by 50 percent or greater of the original floor plan or seating capacity and requiring a modified site plan, or development agreements process under section 20-28.1 of the City Code, or as otherwise deemed applicable by the city to relevantly and competently examine an application for compliance with the city code and the affect and impact the proposed use will have on neighborhood and surrounding properties, applicants shall be required to submit with the following additional information referenced in Chapter 20 – Zoning Sec.20.29 Applications (7) – (11).

CITY OF WINTER SPRINGS
COMMUNITY DEVELOPMENT DEPARTMENT
1126 East State Road 434
Winter Springs, Florida 32708
customerservice@winterspringsfl.org

CITY LIMITED RIGHT OF ENTRY: By submitting this Application you hereby grant temporary right of entry for City Officials to enter upon the subject property for purposes of evaluating this Application and posting on the subject property.

APPLICANT'S AUTHORIZATION: I desire to make Application for a Development Agreement for the aforementioned project and have read and agree to the terms contained herein. In addition, if the Applicant is a corporate entity, the undersigned hereby represents and warrants that he/she is authorized to act on behalf of, and bind, the corporate entity.

Applicant Name (Print): Sam Sebaali

Applicant Signature: _____ Date: 07/14/2026

Business Name: Thomas and Hutton Engineering Co.

Address: 5127 South Orange Avenue; Suite 200, Orlando Parcel ID: 29-23-13-3364-00-202

STATE OF Florida COUNTY OF Orange

The foregoing instrument was acknowledged before me this 14 day of July, 2026, by Sam Sebaali who is personally known to me or who has produced N/A as identification and who did/did not take an oath.

Date: July 14, 2026 (seal):

Notary Public Signature: _____

My Commission expires: _____

WILLIAM R HOCKENSMITH
Commission # HH 655913
Expires July 24, 2029

Note: The Property Owner shall sign and have their signature notarized below if the Applicant is not the owner of the subject property.

Property Owner's Name (Print): Chau Family Holdings III LLC

Property Owner Signature: _____ Date 07/14/2026

STATE OF Florida COUNTY OF ~~Seminole~~ ORANGE

The foregoing instrument was acknowledged before me this 14 day of July, 2026, by DR. SON CHAU who is personally known to me or who has produced N/A as identification and who did/did not take an oath.

Date: July 14 2026 (seal):

Notary Public Signature: _____

My Commission expires: _____

WILLIAM R HOCKENSMITH
Commission # HH 655913
Expires July 24, 2029

CITY OF WINTER SPRINGS
COMMUNITY DEVELOPMENT DEPARTMENT
1126 East State Road 434
Winter Springs, Florida 32708
customerservice@winterspringsfl.org

Application – Development Agreement

The Community Development Director reserves the right to determine whether this application is complete and accurate. An incomplete application will not be processed and will be returned to the applicant. The application shall be reviewed per all applicable City Codes and the City Comprehensive Plan. Applications shall be reviewed for sufficiency (completeness) within thirty (30) calendar days per FL Statue 166.033. Once the application is deemed sufficient, the applicant shall move forward with the Community Workshop, required per Chapter 20–Zoning Sec.20-29.1.

All applicants shall be afforded minimal due process as required by law, including the right to receive notice, be heard, present evidence, cross-examine witnesses, and be represented by a duly authorized representative. Applicants are further advised that a Development Agreement is quasi-judicial in nature. Therefore, APPLICANT ACKNOWLEDGES and AGREES, by signing below, that he or she:

- May be sworn-in as a witness in order to provide testimony to the City Commission;
- Shall be subject to cross-examination by party intervenors (if requested); and
- Shall be required to qualify expert witnesses, as appropriate.

Applicants are encouraged to familiarize themselves with Chapter 2 – Administration Sec. 2-30 of the Winter Springs City Code relating to Quasi-Judicial Rules and Procedures of the City Commission. All Development Agreement recommendations shall be based from the required information/documentation provided, the Winter Springs Code of Ordinances, and the Winter Springs Comprehensive Plan (to the extent applicable).

The City Commission (CC) shall render all final decisions regarding Development Agreements and may impose reasonable conditions on any approved Development Agreement to the extent deemed necessary and relevant to ensure compliance with applicable criteria and other applicable provisions of the Winter Springs Code of Ordinances and the Winter Springs Comprehensive Plan.

REQUIRED INFORMATION

Applicant(s): Sam Sebaali P.E., Project Manager, Thomas and Hutton Engineering

Applicant Signature: _____ Date: 07/14/2026

Mailing address: 5127 South Orange Avenue; Suite 200, Orlando, FL 32809

Email: hockensmith.w@tandh.com

Phone Number: 407-895-0324

Property Owner(s): Chau Family Holdings III LLC

Mailing Address: 1287 N Semoran Blvd., Suite 200, Orlando, FL 32807-3530

Email: drchau54@yahoo.com

Phone Number: 407-948-8328

CITY OF WINTER SPRINGS
COMMUNITY DEVELOPMENT DEPARTMENT
1126 East State Road 434
Winter Springs, Florida 32708
customerservice@winterspringsfl.org

Application – Development Agreement

Property Address: 403 E SR 434 Winter Springs, FL 32708

Parcel ID(s): 34-20-30-5AW-0000-048A

Parcel Size: ±5.11 AC. - 222,500 S.F.

Project Name: Chau Commercial Building

A general description of the relief sought under this division.
None

A brief explanation, with applicable supporting competent substantial evidence and documents, as to why the application satisfies the relevant criteria set forth in the City Zoning Code and City Comprehensive Plan.
The land development standards, including setbacks, buffers, parking requirements etc. align with the site's zoning and FLU designations, and division 7 under Article III of the City of Winter Springs Land Development Code. Kindly see sheet C-5B of the Final Development Plans.

List all witnesses that the applicant intends to present to the City Commission to provide testimony:
Sam Sebaali or Wm. Hockensmith, Thomas & Hutton Engineering

Describe with specificity any evidence which the applicant intends to present to the City Commission, including oral factual testimony, maps, photographs, records or reports and/or expert testimony:
Site plan and architectural building elevations.

Attach all documentary evidence which the applicant intends to present to the city commission to the back of this application. The Applicant has a continuing duty to update the list of witnesses, description of evidence, and documentary evidence throughout the application process. Additional witnesses or evidence will not be admitted at the city commission hearing if not submitted at least seven (7) days prior to such hearing.

CITY OF WINTER SPRINGS
COMMUNITY DEVELOPMENT DEPARTMENT
1126 East State Road 434
Winter Springs, Florida 32708
customerservice@winterspringsfl.org

Application – Development Agreement

REQUIRED DOCUMENTATION

X A complete Application and Fee

X An Electronic copy of the most recent survey of the subject property.

X An Electronic copy of the Legal Description of the subject property.

X Documentation and Data supporting the request.

CITY OF WINTER SPRINGS
COMMUNITY DEVELOPMENT DEPARTMENT
1126 East State Road 434
Winter Springs, Florida 32708
customerservice@winterspringsfl.org

Application – Development Agreement

CITY LIMITED RIGHT OF ENTRY: By submitting this Application you hereby grant temporary right of entry for City Officials to enter upon the subject property for purposes of evaluating this Application and posting on the subject property.

APPLICANT'S AUTHORIZATION: I desire to make Application for a Development Agreement for the aforementioned project and have read and agree to the terms contained herein. In addition, if the Applicant is a corporate entity, the undersigned hereby represents and warrants that he/she is authorized to act on behalf of, and bind, the corporate entity.

Applicant Name (Print): Sam Sebaali

Applicant Signature: _____ Date: 07/14/2026

Business Name: Thomas and Hutton Engineering Co.

Address: 5127 South Orange Avenue; Suite 200, Orlando Parcel ID: 29-23-13-3364-00-202

STATE OF Florida COUNTY OF Orange

The foregoing instrument was acknowledged before me this 14 day of July, 2026, by Sam Sebaali who is personally known to me or who has produced N/A as identification and who did/did not take an oath.

_____ Date: July 14, 2026 (seal):

Notary Public Signature: _____

My Commission expires: _____

WILLIAM R HOCKENSMITH
Commission # HH 655913
Expires July 24, 2029

Note: The Property Owner shall sign and have their signature notarized below if the Applicant is not the owner of the subject property.

Property Owner's Name (Print): Chau Family Holdings III LLC

Property Owner Signature: _____ Date 07/14/2026

STATE OF Florida COUNTY OF ~~Seminole~~ ORANGE

The foregoing instrument was acknowledged before me this 14 day of July, 2026, by DR. SAM CHAU who is personally known to me or who has produced N/A as identification and who did/did not take an oath.

_____ Date: July 14, 2026 (seal):

Notary Public Signature: _____

My Commission expires: _____

WILLIAM R HOCKENSMITH
Commission # HH 655913
Expires July 24, 2029

THIS INSTRUMENT WAS PREPARED BY
AND SHOULD BE RETURNED TO:

Anthony A. Garganese
City Attorney of Winter Springs
Garganese, Weiss, D'Agresta & Salzman, P.A.
111 N. Orange Avenue, Suite 2000
Orlando, FL 32802

FOR RECORDING DEPARTMENT USE ONLY

THIRD MODIFICATION TO DEVELOPMENT AGREEMENT

[Chau Winter Springs Phase 2]

THIS THIRD MODIFICATION TO DEVELOPMENT AGREEMENT ("**Third Modification**" or this "**Agreement**") is made and executed this _____ day of _____, 20___, by and between the **CITY OF WINTER SPRINGS**, a Florida Municipal Corporation whose address is 1126 East S.R. 434, Winter Springs, Florida 32708 ("**City**"), and **CHAU FAMILY HOLDINGS III, LLC,** a Florida Limited Liability Company, whose address is 1287 Semoran Boulevard, Suite 200, Orlando, FL 32807 ("**Developer**").

WITNESSETH:

WHEREAS, Developer is the owner of approximately 5.12 acres, more or less, of real property located west of the intersection of Hacienda Drive and State Road 434, in Winter Springs, Seminole County, Florida, which is zoned C-1 (Neighborhood Commercial) and is more particularly described herein; and

WHEREAS, Developer previously entered into that certain Development Agreement dated November 9, 2020, recorded in the Official Records of Seminole County at Book 9768 Page 982 (the "**Development Agreement**"); that certain First Modification to Development Agreement dated January 31, 2024, recorded in the Official Records of Seminole County at Book 10573 Page 1323 ("**First Modification**"); and that certain Second Modification to Development Agreement dated February 16, 2024, recorded in the Official Records of Seminole County at Book 10585 Page 1848 ("**Second Modification**"); and

WHEREAS, Developer originally intended to develop the Property in three phases with Phase 1 being developed as a medial office and supporting infrastructure for all phases, including a master stormwater pond, Development Area 2 developed as a commercial retail building, and Development Area 3 bring developed as an assisted living facility (the "**Development**"); and

DRAFT

WHEREAS, on November 16, 2020, the City Commission previously approved a Final Engineering/Site Plan for the entire Property, and Aesthetic Review for the Phase 1 medical office, Specimen Tree Removal, and certain Waivers from the City Code for Phase 1 of the Development, in order to construct the Phase 1 medical office and all associated common infrastructure for the entire development (Phases 1, 2, and 3); and

WHEREAS, Phase 1 of the Development, has already been constructed and received its Certificate of Occupancy on March 23, 2022; and

WHEREAS, on February 12, 2024, the City Commission previously approved a modification to the final engineering/site plan approval for Phase 2 of the Development (which would be constructed on Development Area 3 as identified on the final engineering plans) to construct a 47-unit independent living facility rather than a 114-bed assisted living facility; and

WHEREAS, the independent living facility on Development Area 3 was not constructed, and the Developer now proposes to instead move forward with construction of one building housing medical offices and commercial retail space, with associated parking facilities, as Phase 2 of the Development, to be constructed on the portion of the Property identified as Development Area 3; and

WHEREAS, pursuant to Chapter 20 Zoning, Article II, Division 1, Section 20-29.1 of the Winter Springs City Code ("**City Code**"), a community workshop for the Phase 2 medical office and commercial retail project was held on July 01, 2026; and

WHEREAS, Section 20-29(c) of the City Code requires that all site plans and waivers shall be binding on the use of the subject property and, further, that as a condition of approval by the City Commission, all development projects requiring a community workshop pursuant to Section 20-29.1 of the City Code shall be required to be memorialized in a binding development agreement; and

WHEREAS, this Third Modification shall be recorded against the property so that the terms and conditions of approval related to the Phase 2 Project shall run with the land; and

NOW THEREFORE, in consideration of the mutual promises and covenants contained herein, the parties mutually agree as follows:

1.0 **Recitals.** The foregoing recitals are true and correct and are hereby incorporated herein by this reference.

2.0 **Authority.** This Agreement is entered into pursuant to the Florida Municipal Home Rule Powers Act.

DRAFT

3.0 **The Property.** The real property subject to this Agreement has a Seminole County tax parcel identification number of 34-20-30-5AW-0000-048A and is legally described in **EXHIBIT "A,"** which is attached hereto and fully incorporated herein by this reference (the "**Property**").

4.0 **Updated Project Description and Requirements.** Developer shall, at its sole cost and expense, design, permit and construct a commercial building containing medical office and retail space, which shall be approximately 13,057 square feet in size, along with associated parking facilities and landscaping on Development Area 3.

(Hereinafter the project description and requirements are referred to as the **"Phase 2 Project"**).

The provisions of the Development Agreement shall remain intact and binding except to the extent that they are modified in this Agreement. The "**Overall Master Site Plan**" attached to the Development Agreement shall be modified as provided herein and shall be superseded by and replaced with the "**Overall Master Site Plan**" attached hereto as **EXHIBIT "D,"** and incorporated herein by this reference.

The new Overall Master Site Plan, **Exhibit "D,"** depicts the three "Development Areas:" (1) Development Area 1 (medical office, previously constructed); (2) Development Area 2 (Future Building 2); and (3) Development Area 3 (Future Building 3, to be developed as the Phase 2 Project medical office and commercial retail space).

The Developer shall construct the Phase 2 Project in a manner consistent with the approved Final Engineering/Site Plans and Aesthetic Plans which are on file with the City with the following file numbers and consistent with the requirements contained in this Agreement:

File No: FEDP-2025-0019, Final Engineering/Site Plans;

File No: AERV-2026-0017, Aesthetic Review.

Waivers previously approved by the City Commission in File No. WA2020-0020 for the Overall Master Site Plan shall continue to apply to the Property and all projects constructed thereupon.

The overall Final Engineering/Site Plan for the Phase 2 Project attached hereto as Exhibit "D" is provided for reference purposes only. The official and controlling copy of the Final Engineering/Site Plan is maintained in File No.: FEDP-2025-0019, which shall govern in all respects, including the resolution of any inconsistencies or conflicts with Exhibit "D." The official copy should be reviewed for the complete and authoritative specifications, requirements, and other content of the Final Engineering/Site Plan.

5.0 **Future Permitting.** The Developer shall be required to obtain Aesthetic Review approval for Phase 3, as well as building permits, and substantially commence vertical construction, which shall at minimum include building foundations, of the buildings in Phase

Two and Phase Three within two years of the Effective Date of this Third Modification. The future permitting requirements of Section 4.1 of the Development Agreement herein extended.

6.0 **Updated Specific Conditions of Approval.** The following Specific Conditions of Approval, as established in Section 4.2 of the Development Agreement, are hereby amended and superseded and replaced as provided in this Section:

A. A Cross Access Easement, Shared Parking Agreement, and Utilities and Drainage Easements shall be approved and provided to the City prior to the approval of any future lot split or subdivision of the Property. Shared parking between Development Area 1 (Medical Office) and Development Area 3 (Medical Office/Retail) shall be required in the event the applicant splits or subdivides the Property. Should the parties ever mutually desire to terminate said Easements and Shared Parking Agreement, prior to executing such termination, the Parties shall seek and receive consent from the City of Winter Springs and obtain an amendment to the site plan.

. . .

D. Developer was required to plant in Phase One at least 639 credits of new replacement trees, with the remaining 150 credits to be placed in Phases Two and Three. The Developer proposes to plant 95 credits of trees in Phase 2, which means that the remaining 55 credits shall be required to be planted in Phase 3. Further, the Developer proposes to remove 12 credits of previously planted replacement trees in Phase 2, which must be replaced. Accordingly, a total of 67 credits of trees shall be replaced in Phase 3. Should the Developer not be able to replace the 67 credits of trees in Phase 3, the Developer shall be responsible for additional tree bank mitigation payments for those trees that remain unreplaced. All required tree replacements in each Development Area shall be planted prior to the issuance of any final certificate of occupancy for any building in such Development Area. Tree replacements and landscaping shall be subject to the obligation of ongoing maintenance and replacement for the first two years following planting, at the Developer's expense, if the City determines, after reasonable inspection, that any tree or landscaping has become severely diseased or damaged to the point that the viability of the tree or landscaping has been significantly compromised. In the event that Developer fails to perform the necessary maintenance, repairs or replacements of any of the trees or landscaping, the City shall have the right, but not obligation, to conduct said maintenance, repairs or replacements and recover the actual cost thereof from the Developer. Prior to exercising that right, the City shall provide the Developer written notice and an explanation of the specific default and at least thirty (30) days in which to cure the default. If Developer fails to cure the default by the end of the cure period, the City may exercise its rights to maintain and replace at any time thereafter.

Because tree removal occurred during Phase One, the prior tree bank mitigation payment of $65,70.000 was required to be paid prior to obtaining a building permit for Phase One. However, the tree bank mitigation payment was not collected by the City. Accordingly, such

tree bank mitigation payment of $65,700.00 shall be due prior to obtaining a site work or building permit for Phase Two.

The Developer shall additionally submit a letter of credit in a form acceptable to the City Attorney ensuring planting, installation, and maintenance of all required trees and landscaping for Phases 2 and 3 (162 credits) in an amount of forty-eight thousand and six hundred dollars ($48,600.00). The letter of credit may be drawn upon by the City should either Phase Two and/or Three be abandoned after the Property has been cleared or proper maintenance of the trees for two (2) years after planting has not been performed. Given the phased nature and lengthy duration of the Project, the letter of credit must have a duration that is automatically extended, without notice to the surety, for successive periods until all landscaping requirements have been completed or be provided in a similar form acceptable to the City Attorney.

All Specific Conditions of Approval established in the Development Agreement and First Modification not herein amended shall continue to apply.

7.0 **Force Majeure**. The "Force Majeure" provisions of the Development Agreement are stricken and replaced as follows:

The parties agree that in the event that the failure by either party to accomplish any action required hereunder within a specified time period ("Time Period") constitutes a default under the terms of this Agreement and, if any such failure is due to acts of God, acts of government authority (other than the City's own acts), acts of public enemy or war, riots, civil disturbances, power failure, shortages of labor or materials, injunction or other court proceedings beyond the control of such party, or severe adverse weather conditions ("Force Majeure Event"), then, notwithstanding any provision of this Agreement to the contrary, that failure shall not constitute a default under this Agreement and any Time Period proscribed hereunder shall be extended by the amount of time that such party was unable to perform solely due to the Force Majeure Event. The extended Time Period shall be agreed to in writing by the parties and said agreement shall not be unreasonably withheld by either party. The City Manager shall have the authority to grant an extended Time Period. An extension of any Time Period for reasons of a Force Majeure Event shall be requested solely as provided in this Section. Developer hereby waives and relinquishes the right to notify the City of the intent to exercise the tolling and extension of any permit related to the Project, including Time Periods under this Agreement, development orders, and building permits, available under Section 252.363, Florida Statutes, as the result of a declaration of a state of emergency issued by the Governor for a natural emergency.

8.0 **Other Terms and Conditions.** All other provisions of the Development Agreement and First Modification not otherwise modified by this Third Modification shall remain in full force and effect with respect to the Property.

9.0 **Effective Date.** This Third Modification shall become effective upon approval by the City Commission and execution of this Third Modification by both parties hereto.

10.0 **Recordation.** Upon full execution by the parties, this Third Modification shall be recorded in the Public Records of Seminole County, Florida, by the City. The Developer shall be responsible for all recording fees associated with this Agreement.

11.0 **Trafficking.** As a condition of this Agreement, the Developer shall attest under penalty of perjury that the Developer does not use coercion for labor or services as defined in Section 787.06(2), Florida Statutes. Attestations shall be documented using a Human Trafficking Affidavit as provided by the City.

IN WITNESS WHEREOF, the parties have hereunto set their hands and seal on the date first above written.

CITY OF WINTER SPRINGS

By: _____
Kevin McCann
Mayor

Date: _____

ATTEST:

By: _____
Erin O'Donnell
City Clerk

APPROVED AS TO FORM AND LEGALITY for the use and reliance of the City of Winter Springs, Florida only.

CITY SEAL

Date: _____
By: _____
Anthony A. Garganese
City Attorney

STATE OF FLORIDA
COUNTY OF SEMINOLE

The foregoing instrument was acknowledged before me by means of (___) physical presence or (___) online notarization, this _____ day of _____, 20____, by Kevin McCann, Mayor of the City of Winter Springs, Florida**,** a Florida municipal corporation, on

behalf of the corporation, who is personally known to me or produced _____ _____ as identification.

(NOTARY SEAL)

_____
(Notary Public Signature)

_____
(Print Name)
Notary Public, State of _____
Commission No.: _____
My Commission Expires: _____

Signed, sealed and delivered in the presence of the following witnesses:

CHAU FAMILY HOLDINGS III, LLC

By: _____

Print: _____

Title: _____

Date: _____

_____
Signature of Witness

_____
Printed Name of Witness

_____
Address of Witness

_____
Signature of Witness

_____
Printed Name of Witness

_____
Address of Witness

STATE OF _____
COUNTY OF _____

The foregoing instrument was acknowledged before me by means of (___) physical presence or (___) online notarization, this _____ day of _____, 20____,

DRAFT

by_____, the _____of Chau Family Holdings III, LLC ("Developer"), a limited liability company, on behalf of the company, who is personally known to me or produced _____ as identification.

(NOTARY SEAL)

_____
(Notary Public Signature)

_____
(Print Name)
Notary Public, State of _____
Commission No.: _____
My Commission Expires: _____

DEVELOPER IS HEREBY ADVISED THAT SHOULD DEVELOPER FAIL TO FULLY EXECUTE, AND DELIVER TO THE CITY, THIS AGREEMENT WITHIN THIRTY (30) DAYS FROM THE DATE THAT THE CITY COMMISSION APPROVES THIS AGREEMENT, THIS AGREEMENT, AND THE DEVELOPMENT PERMIT APPROVALS REFERENCED HEREUNDER, SHALL AUTOMATICALLY BE DEEMED NULL AND VOID.

DRAFT

EXHIBIT A

PROPERTY LEGAL DESCRIPTION

THAT PART OF LOTS 48 AND 49, ENTZMINGER FARMS ADDITION NO. 2, AS RECORDED IN PLAT BOOK 5, PAGE 9, PUBLIC RECORDS OF SEMINOLE COUNTY, FLORIDA, DESCRIBED AS FOLLOWS: FROM THE INTERSECTION OF THE SOUTHERLY RIGHT OF WAY LINE OF STATE ROAD NO. 434 AND THE EASTERLY RIGHT OF WAY LINE OF MOSS ROAD; RUN SOUTH 88°23'42" EAST ALONG SAID SOUTHERLY RIGHT OF WAY LINE OF STATE ROAD NO. 434 A DISTANCE OF 999.34 FEET TO THE POINT OF CURVATURE OF A CURVE CONCAVE NORTHERLY AND HAVING A RADIUS OF 1330.00 FEET; THENCE RUN EASTERLY ALONG THE ARC OF SAID CURVE 343.80 FEET THROUGH A CENTRAL ANGLE OF 14°48'38" FOR THE POINT OF BEGINNING; THENCE CONTINUE EASTERLY ALONG THE ARC OF SAID CURVE 96.35 FEET THROUGH A CENTRAL ANGLE OF 04°09'03" TO THE POINT OF TANGENCY; THENCE RUN NORTH 72°38'37" EAST 759.88 FEET; THENCE LEAVING SAID SOUTHERLY RIGHT OF WAY LINE OF STATE ROAD NO. 434, RUN SOUTH 17°21'23" EAST, 21.40 FEET; THENCE NORTH 72°38'37" EAST, 34.00 FEET; THENCE SOUTH 17°21'23" EAST, 173.60 FEET; THENCE SOUTH 32°36'44" EAST, 57.01 FEET; THENCE SOUTH 72°38'37" WEST 808.88 FEET TO THE POINT OF CURVATURE OF A CURVE CONCAVE NORTHERLY AND HAVING A RADIUS OF 1580.00 FEET; THENCE RUN WESTERLY ALONG THE ARC OF SAID CURVE 114.46 FEET THROUGH A CENTRAL ANGLE OF 04°09'03" TO A POINT; THENCE LEAVING SAID CURVE RUN NORTH 13°12'20" WEST 250.00 FEET TO THE POINT OF BEGINNING.

EXHIBIT D

UPDATED OVERALL MASTER SITE PLAN

DRAFT

REGULAR AGENDA ITEM 500

PLANNING AND ZONING BOARD/LOCAL PLANNING AGENCY AGENDA | DECEMBER 3, 2026 REGULAR MEETING

TITLE

Review of the Meeting Schedule for Calendar Year 2027

SUMMARY

The tentative 2027 dates are as follows (all starting at 5:30 PM):

- January 7, 2027
- February 4, 2027
- March 4, 2027
- April 1, 2027
- May 6, 2027
- June 3, 2027
- July 1, 2027
- August 5, 2027
- September 2, 2027
- October 7, 2027
- November 4, 2027
- December 2, 2027

The scheduling of Planning and Zoning/Local Planning Agency falls on the first Thursday of every month.

FUNDING SOURCE

RECOMMENDATION

Review and confirm the Planning and Zoning/Local Planning Agency calendar year 2027 tentative meeting dates.