SUBMITTAL SUMMARY REPORT
33554

PLAN NAME: DIAMOND A SHOPPING CENTER
LOCATION: 0
APPLICATION DATE: 10/29/2025
PARCEL: 41200-056-04
DESCRIPTION:

CONTACTS	NAME	COMPANY
Applicant	Tillman Associates	Tillman & Associates Engineering, LLC
Applicant	Tillman Associates	Tillman & Associates Engineering, LLC
Developer	Carson Vandeven	
Engineer of Record	Tillman Associates	Tillman & Associates Engineering, LLC
Engineer of Record	Tillman Associates	Tillman & Associates Engineering, LLC

CONDITION	DESCRIPTION	CREATED BY	CREATED ON	COMMENTS	SATISFIED?
Conditional Comment(s)		Alexander Turnipseed	11/20/2025	Please provide a copy of the NPDES permit or NOI as well as a copy of the District permit prior to construction.	No

SUBMITTAL	STARTED	DUE	COMPLETE	STATUS
OCE: Plan Review (DR) v.				Not Received
OCE: Plan Review (DR) v.	10/31/2025	11/14/2025	12/23/2025	Requires Re-submit

SUBMITTAL DETAILS

OCE: Plan Review (DR) v.1

ITEM REVIEW NAME (DEPARTMENT)	ASSIGNED TO	DUE	COMPLETE	STATUS
911 Management (DR) (911 Management)	Jamie Waldron	11/14/2025	11/20/2025	Approved
Environmental Health (Plans) (Environmental Health)	Evan Searcy	11/14/2025	12/23/2025	Approved
Fire Marshal (Plans) (Fire)	Anthony Marino	11/14/2025	11/26/2025	Approved

Comments

YES 6.18.2 - Fire Flow/Fire Hydrant
N/A 6.18.3 - Gated Communities/Properties
N/A 6.18.4 - Wildland Interface Area
INFO 6.18.5 - Access Control Box Any commercial building which contains a fire sprinkler system and or fire alarm system must install an access control box. The access control box must be ordered on a specific form signed by MCFR to ensure the correct box is ordered for the jurisdiction. Please contact our office to obtain the form 352-291-8000.
YES 6.18.2.D - Fire Department Connections
INFO NFPA 1 Chapter 11.10.1 - In Building Minimum Radio Signal Strength All new buildings and buildings which conduct renovations increasing the total floor space by greater than 50 percent of the floor area must comply with NFPA 1 Chapter 11.10.1. NFPA 1 Chapter 11.10.1 provides for the AHJ to establish minimum standards for in building public safety radio communications. Please be aware that your building will be required to conduct a test for the minimum radio signal strength to determine coverage. If the minimum radio signal strength is deemed insufficient then a radio signal enhancement system must be installed and the building retested to ensure it meets the minimum criteria. Please plan for this early in your project and contact Marion County Fire Rescue with any questions 352-291-8000.
YES 6.18.2.G - Painting and Marking of Fire Hydrants
YES NFPA 1 Chapter 18.2.3 - Fire Dept Access Roads
N/A Additional Fire comments

Growth Services Planning & Zoning (DR) (GS Planning and Zoning)	Xinyi Chen	11/14/2025	11/25/2025	Requires Re-submit

Corrections 2.12 - Land Use Designation-adjacent properties (Not Resolved) - 2.12 - Land Use Designation-adjacent properties: Show existing land use designation on the adjacent properties.

Corrections 2.12 - Zoning Classification-adjacent properties (Not Resolved) - 2.12 - Zoning Classification-adjacent properties: Show existing zoning classification on the adjacent properties.

Corrections 2.12.24 - Landscape requirements/6.8.6 - Buffering (Not Resolved) - 2.12.24 - Landscape requirements/6.8.6 - Buffering: Show buffer types, locations, and dimensions of required buffering on plan. Show buffer descriptions and illustrations of each proposed buffer (including longitudinal and transverse cross-sections)

Corrections 2.1.3 - Order of plan approval and consistency (Resolved) - Waiver approved at owner's risk. [2.1.3 - Order of plan approval and consistency: The plans shall be consistent with approved PUD/Master Plan/Final Plat. Plans listed below may be reviewed concurrently, but must be approved in the order listed below, when applicable and when the proper land use and zoning are in place: A.Master Plan. B.Preliminary Plat. C.Improvement Plan. D.Final Plat. E.Major Site Plan. However, a Major Site Plan can be substituted for the Improvement Plan and can be approved before approval of the Final Plat in cases when the infrastructure improvements supporting the plat are proposed as part of the Major Site Plan application.]

SUBMITTAL SUMMARY REPORT (33554)

ITEM REVIEW NAME (DEPARTMENT)	ASSIGNED TO	DUE	COMPLETE	STATUS
Growth Services Planning & Zoning (DR) (GS Planning and Zoning)	Xinyi Chen	11/14/2025	11/25/2025	Requires Re-submit
Corrections	2.12.20 - Phases of development (Not Resolved) - 2.12.20 - Phases of development: Show all phases of development on plan. Improvements must be in place to support each phase of development at time of phase completion.			
Corrections	2.12.22 - Tracts (Not Resolved) - 2.12.22 - Tracts : Show existing and proposed tracts on plan, and provide description of each tract.			
Corrections	2.12.4/6.11.7 - Loading area (Not Resolved) - 2.12.4/6.11.7 - Loading area: Show proposed loading areas on plan, per Sec. 6.11.7. - Loading areas.			
Corrections	2.12.23 - Building lot typicals (Not Resolved) - 2.12.23 - Building lot typicals: Show building lot typicals (primary and accessory structures) in table format and illustration.			
Corrections	2.12.27 - Location & screening of outside storage (Not Resolved) - 2.12.27 - Location & screening of outside storage: Provide a statement indicating any outside storage area is proposed. If applicable, show location of outside storage areas on plan. Check special requirements under zoning code sections.			
Corrections	2.12 - Owner and applicant name (Not Resolved) - 2.12 - Owner and applicant name: Show name, address, phone number, and signature of the owner and applicant on the cover sheet.			
Corrections	2.12.16/6.5 - EALS or Exemption provided (Not Resolved) - 2.12.16/6.5 - EALS or Exemption provided?: Provide Environmental Assessment of Listed Species (EALS) or submit an Exemption (EALS-ER). Copy of the EALS/EALS-ER will be forwarded to review agency for comments. Refer to LDC Sec. 6.5 for submittal requirements and review procedures.			
Corrections	2.12.19 - Dimension & location of site improvement (Not Resolved) - 2.12.19 - Dimension & location of site improvement: Provide dimensions and location of all existing site improvements; dimensions and location for all proposed site improvements.			
Corrections	2.12 - Lot area & lot width (Not Resolved) - 2.12 - Lot area & lot width: Provide required lot area and lot width in the site data table. Show proposed lot area and lot width of all lots in the site data table and on the plan.			
Landscape (Plans) (Parks and Recreation)	Susan Heyen	11/14/2025	11/19/2025	Approved
Comments	No Landscape changes, plan type only			
OCE Design (Plans) (Office of the County Engineer)		11/14/2025	11/26/2025	Approved
Comments	YES 2.21.2.B - Major Site Plan fee of $1,000..00 + ($10.00 x total site acreage) 11/4/25-fee due with resubmittal N/A 2.21.2.B - Plan review fee of $40.00 made payable to Marion County Health Department N/A Traffic study / methodolgy fee of $200.00 made payable to Marion County BCC is required prior to plan approval. Refer to Resolution 10-R-630 for the current fee schedule. N/A 2.1.6.A - $100 Resubmittal fee payable to Marion County BCC N/A 2.1.7.A - $100 Revision fee payable to Marion County BCC N/A 2.1.3 - Order of plan approval YES 2.12.3 - Title block on all sheets denoting type of application; project name, location, county, and state; and date of original and all revisions YES 2.12.4.A - Type of application on front page YES 2.12.4.B - Project name centered at top of front page YES 2.12.4.C - Name, address, phone number, and signature of owner and applicant on front sheet YES 2.12.4.D - Owner's certification on front sheet: I hereby certify that I, my successors, and assigns shall perpetually maintain the improvements as shown on this plan YES 2.12.4.E - The name, address, phone number, signature, date, license number, and seal of the responsible professional shall be shown on each plan sheet YES 6.2.1.A - Name, street address, signature, date, license number, and seal of licensed professional on each sheet YES 2.12.4.F - Licensed professional certification on cover sheet with signature and seal on all sheets after plan approval YES 2.12.4.F(1) - Licensed Design Professional Certification: I hereby certify that these plans and calculations were completed in accordance with all applicable requirements of the Marion County Land Development Code, except as waived. YES 2.12.4.G - A key location or vicinity map, with north arrow, with reference to surrounding properties, streets, municipal boundaries, sections, ranges, and township YES 2.12.4.H - A portrait oriented minimal 3 inches x 5 inches space, located 2.75 inches from the right edge of paper and .75 inches from the top edge of paper, shall remain blank to allow for a County approval stamp YES 2.12.4.I & 6.2.1.D - Index of sheets and numbering INFO 2.12.4.K - List of approved waivers, their conditions, and the date of approval 11/4/25-add waivers if requested in future YES 2.12.4.L(1) - Parcel number YES 2.12.7 - A digital version of the plan in a format pre-approved by the Office of the County Engineer YES 2.21.2.A - Multi-phase Major Site Plans may include a separate sheet showing independent, stand alone phasing and shall not be subject to a separate Master Plan application YES 6.2.1.B - Plans shall be legible and meet typical industry standards YES 6.2.1.C - Standardized sheet size shall be 24" x 36" YES 6.2.1.F - North arrow and graphic drawing and written scale N/A Legal Documents INFO Additional Development Review Comments After approval, plans will be electronically stamped by the County. The applicant will receive an email indicating that approved plans are available for download and are located in the ePlans project Approved folder. For Development Review submittals, with the exception of Final Plats and Minor Site Plans, applicants are required to print, obtain required signatures, and sign and seal two 24”x 36” sets of the electronically stamped approved plan and deliver them to the Office of County Engineer, Development Review Section, located at 412 SE 25th Avenue Ocala, FL 34471. Upon receipt, a development order will be issued. Until such time as that development order is issued, the project does not have final approval and construction, if applicable, shall not commence. For plans requiring As-Builts, As-Builts and associated documentation shall be submitted on paper in accordance with current county requirements.			

SUBMITTAL SUMMARY REPORT (33554)

ITEM REVIEW NAME (DEPARTMENT)	ASSIGNED TO	DUE	COMPLETE	STATUS
OCE Property Management (Plans) (Office of the County Engineer)	Elizabeth Woods	11/14/2025	11/20/2025	Informational

Comments

SunBiz and Map Checked -EMW 11.20.25
IF APPLICABLE:
Sec. 2.18.1.I - Show connections to other phases.
Sec.2.19.2.H – Legal Documents
Legal documents such as Declaration of Covenants and Restrictions, By-Laws, Articles of Incorporation, ordinances, resolutions, etc.
Sec. 6.3.1.B.1 – Required Right of Way Dedication (select as appropriate)
For Public Streets. "[All streets and rights-of-way shown on this plat or name specifically if less than all] are hereby dedicated for the use and benefit of the public."
Sec. 6.3.1.B.2 – Required Right of Way Dedication
For Non-Public Streets. "[All streets and rights-of-way shown on this plat or name specifically if less than all] are hereby dedicated privately to the [entity name]. All public authorities and their personnel providing services to the subdivision are granted an easement for access. The Board of County Commissioners of Marion County, Florida, shall have no responsibility, duty, or liability whatsoever regarding such streets. Marion County is granted an easement for emergency maintenance in the event of a local, state, or federal state of emergency wherein the declaration includes this subdivision or an emergency wherein the health, safety, or welfare of the public is deemed to be at risk."
Sec. 6.3.1.D.3 - Cross Access Easements
For Cross Access Easements. "All parallel access easements shown on this plat are hereby dedicated for the use and benefit of the public, and maintenance of said easements is the responsibility of [entity name]."
Sec. 6.3.1.C.1 - Utility Easements (select as appropriate)
"[All utility easements shown or noted or name specifically if less than all] are dedicated [private or to the public] for the construction, installation, maintenance, and operation of utilities by any utility provider."
Sec. 6.3.1.C.2 – Utility Easements
"[All utility tracts or identify each tract as appropriate] as shown are dedicated [private or to the public] for the construction and maintenance of such facilities."
Sec.6.3.1.D(c)(1)(2)(3) - Stormwater easements and facilities, select as appropriate:
1. "[All stormwater and drainage easements as shown or noted or name specifically if less than all] are dedicated [private or to the public] for the construction and maintenance of such facilities."

2. "[All stormwater management tracts or identify each tract as appropriate] as shown are dedicated [private or to the public] for the construction and maintenance of such facilities."

3. When any stormwater easement and/or management tract is not dedicated to the public or Marion County directly, the following statement shall be added to the dedication language: "Marion County is granted the right to perform emergency maintenance on the [stormwater easement and/or management tract, complete accordingly] in the event of a local, state, or federal state of emergency wherein the declaration includes this subdivision or an emergency wherein the health, safety, or welfare of the public is deemed to be at risk."
Sec.6.3.1.D(f) –
If a Conservation Easement is required the following shall be provided: "A conservation easement [as shown or on tract and identify the tract, complete accordingly] is dedicated to [the Board of County Commissioners of Marion County, Florida or entity name, if not Marion County] for the purpose of preservation of [listed species, habitat, Karst feature and/or native vegetation, complete accordingly]."

OCE Stormwater (Permits & Plans) (Office of the County Engineer)	Alexander Turnipseed	11/14/2025	11/20/2025	Approved
OCE Survey (Plans) (Office of the County Engineer)	Theresa Smail	11/14/2025	11/26/2025	Requires Re-submit

Corrections 2.12.8. - Current boundary and topographic survey (Not Resolved) - 2.12.8. - Current boundary and topographic survey: Current boundary and topographic survey (one foot contour intervals extending 100 feet beyond the project boundary) based upon accepted vertical datum. Surveys will be less than 12 months old and accurately reflect current site conditions, meeting standards set forth in Ch. 5J-17 FAC. Alternate topographic data may be accepted if pre-approved by the Marion County Land Surveyor.

OCE Traffic (Permits & Plans) (Office of the County Engineer)	Chris Zeigler	11/14/2025	11/21/2025	Requires Re-submit

Corrections 6.12.2 - Right-of-way (Not Resolved) - 6.12.2 - Right-of-way: Show the right-of-way width.

Corrections 6.12.11 - Turn lanes (Not Resolved) - 6.12.11 - Turn lanes: Turn lanes shall be required as determined by the Traffic Impact Analysis or for safety purposes as determined by the County. A separate offsite improvement plan is required.

Corrections 6.12.12 - Sidewalks (Not Resolved) - 6.12.12 - Sidewalks: Show sidewalk on the plans as required in section 6.12.12.

Corrections 6.11.4.B - Cross access (Not Resolved) - 6.11.4.B - Cross access: Provide a 24' wide paved cross access easement as specified in 6.11.4.B

Utilities (OCE Plans) (Utilities)	Heather Proctor	11/14/2025	12/18/2025	Requires Re-submit

Corrections 6.15.6.D - Meter Location (Resolved) - 6.15.6.D - Meter Location:

Corrections Parcel numbers match project area (Resolved) - Parcel numbers match project area: The parcels(s) shown on the application and/or site plan must match the project area.

Corrections 6.14.5.A(1) - Existing water & sewer mains shown (Resolved) - 6.14.5.A(1) - Existing water & sewer mains shown: The entire utility system shall be shown on the plan, including existing water systems and all proposed components within the project area.

Corrections 7.1.3 - UT DETAILS - current LDC version (Not Resolved) - 7.1.3 - UT DETAILS - current LDC version: UT details shall be current version based on latest edition of approved LDC

Corrections 6.14.8.A - Completion & Closeout - PLAN NOTE: (Resolved) - 6.14.8.A - Completion & Closeout - PLAN NOTE:

Corrections 6.15.3 - Fire Protection/Fire Flow Capacity (Resolved) - 6.15.3 - Fire Protection/Fire Flow Capacity:

Corrections 6.15.6.G & H - Meters up to 2" and over 2" (Resolved) - 6.15.6.G & H - Meters up to 2" and over 2": Meters up to 2" shall be paid for by the developer and will be installed by MCU through its inventory. Meters over 2" shall be purchased by the developer, and provided to MCU for installation.

SUBMITTAL SUMMARY REPORT (33554)

ITEM REVIEW NAME (DEPARTMENT)	ASSIGNED TO	DUE	COMPLETE	STATUS
Utilities (OCE Plans) (Utilities)	Heather Proctor	11/14/2025	12/18/2025	Requires Re-submit

Corrections	MCU Contact Info on Project Cover Sheet (Resolved) - MCU Contact Info on Project Cover Sheet: Marion County Utilities, 11800 S US Hwy 441, Belleview FL 34420 - Customer Service 24/7/365 352-307-6000
Corrections	6.14.2.C(2) - Industrial Pretreatment/FOG (Resolved) - 6.14.2.C(2) - Industrial Pretreatment/FOG:
Corrections	6.14.2 - Connection Requirements (Resolved) - 6.14.2 - Connection Requirements:
Corrections	6.16.5 - Wastewater Pump Stations (Not Resolved) - 6.16.5 - Wastewater Pump Stations: Private pump stations (6.16.5 A, B); Public Lift Stations (6.16.5 C)
Corrections	6.16.4 - Wastewater Collection Systems (Resolved) - 6.16.4 - Wastewater Collection Systems:
Corrections	6.14.9.B - Transfer of Assets to MCU - PLAN NOTE: (Resolved) - 6.14.9.B - Transfer of Assets to MCU - PLAN NOTE:: Assets shown on this plan require a Bill of Sale before any DEP Clearances will released by MCU. Building permit holds may be affected.
Corrections	6.14.5.C - Hydraulic Analysis (Resolved) - 6.14.5.C - Hydraulic Analysis: The hydraulic analysis is required to analyze the water or wastewater pressures in this area.
Corrections	6.14.5.A(6) - MH locations, rim & invert elevation (Resolved) - 6.14.5.A(6) - MH locations, rim & invert elevation:
Corrections	6.15.7 - Cross Connection Control/Backflow (Resolved) - 6.15.7 - Cross Connection Control/Backflow:
Corrections	6.15.5 - Water Service & Connection (Resolved) - 6.15.5 - Water Service & Connection :
Corrections	6.14.5.A(3) - LS layout, elevations, schedules (Resolved) - 6.14.5.A(3) - LS layout, elevations, schedules: Lift station details shall be included on a separate page showing general location of LS with details, working elevations & schedules.
Corrections	6.15.4 - Water Main Piping Installation (Resolved) - 6.15.4 - Water Main Piping Installation:
Corrections	6.15.6.A - Potable Water Metering - loc/bank/size (Not Resolved) - 6.15.6.A - Potable Water Metering - loc/bank/size:
Corrections	Review Fee as applicable (per Resolution) (Not Resolved) - Review Fee as applicable (per Resolution): MCU review fee for this submittal
Corrections	6.14.4 - Capacity charges - irrigation (Resolved) - 6.14.4 - Capacity charges - irrigation: Projects using MCU irrigation shall must show the irrigation tap, meter placement, size, and backflow. Indicate total SF of irrigated area in anticipation of the irrigation meter request through Customer Service.
Corrections	6.14.5.A(2) - Proposed mains & connections shown (Resolved) - 6.14.5.A(2) - Proposed mains & connections shown: Proposed mains shall be marked as private or public (MCU); points of demarcation shall be called out as necessary to identify changes in ownership. Shall include profile views unless otherwise noted.
Corrections	6.15.6.B - Irrigation Water Metering - size (Resolved) - 6.15.6.B - Irrigation Water Metering - size:
Recommendations	For any questions regarding this review, please contact Heather Proctor, Utilities Development Review Officer, at Heather.Proctor@marionfl.org or by phone at (352) 438-2846.
Recommendations	Irrigation well proposed on site plans. Please note: If after plans are approved by DRC, an irrigation meter and connection to MCU is needed, additional Utility plan will be required. Additional fee(s) will apply.
Recommendations	Informational: All grease traps will be required to undergo a hydrostatic leak test. The test must be witnessed, and the hydrostatic test report must be submitted to Marion County Utilities by the Engineer of Record. Project close-out and utility clearances will not be completed until all required reports have been submitted for review.
Recommendations	Add note to Utility Sheet(s) MCU personnel are to inspect any work performed on or around existing MCU infrastructure. A pre-construction meeting is required to be held a minimum of 48 hours prior to start of any construction. If the pre-construction meeting is not completed, any work may be halted. To schedule, contact MCU's Construction Division, 352) 307-6000, ext. 5 or MCUconstruction@marionfl.org
Recommendations	Informational: Copies of all related permit applications and issued permits must be submitted to the Marion County Utilities Department prior to, or at the time of, the Pre-Construction Meeting.
Recommendations	Plan Page 15.01 – Lift station layout should be flipped so the gravity line enters from the opposite side, preventing conflicts with the force main. As of 11/24/25, MCU Inspector has informed that the manholes for the lift station have already been installed. Please advise on if the station can be reconfigured.
Recommendations	Informational: Capacity charges will be invoiced and collected by MCU Permitting during the building permit review process. A Capacity Fee Worksheet and interior floor plan may be required to complete the calculation.

Marion County
Board of County Commissioners

Office of the County Engineer

412 SE 25th Ave.
Ocala, FL 34471
Phone: 352-671-8686
Fax: 352-671-8687

DEVELOPMENT REVIEW COMMITTEE WAIVER REQUEST FORM

Date:_____ Parcel Number(s): 35300-000-14 & 35300-000-45 Permit Number: MassGrade-000107-2025

A. PROJECT INFORMATION: Fill in below as applicable:

Project Name: Calesa Township - Mass Grading Phase 4 Commercial ☐ Residential ☑
Subdivision Name (if applicable):_____
Unit_____ Block_____ Lot_____ Tract_____

B. PROPERTY OWNER'S AUTHORIZATION: The property owner's signature authorizes the applicant to act on the owner's behalf for this waiver request. The signature may be obtained by email, fax, scan, a letter from the property owner, or original signature below.

Name (print): Colen Built Development. L.L.C.
Signature:_____
Mailing Address: 8445 SW 80th Street City: Ocala
State: FL Zip Code: 34481 Phone # (352) 387-7480
Email address: LD_Permits@colenbuilt.net

C. APPLICANT INFORMATION: The applicant will be the point of contact during this waiver process and will receive all correspondence.

Firm Name (if applicable): Tillman & Associates Engineering, LLC Contact Name: Cameron Hines, P.E.
Mailing Address: 1720 SE 16th Ave., Bldg 100 City: Ocala
State: FL Zip Code: 34471 Phone # (352) 387-4540
Email address: permits@tillmaneng.com

D. WAIVER INFORMATION:
Section & Title of Code (be specific): 6.13.7.B(2)&(3) - Geotechnical Criteria. Number of tests.
Reason/Justification for Request (be specific): Requesting a waiver to reduce the number of borings in DRAs. Each proposed DRA has at least half of the borings required by code. We request to defer the additional borings required until future Improvement Plan submittals. Stormwater staff indicated support of the waiver.

DEVELOPMENT REVIEW USE:
Received By:_____ Date Processed:_____ Project #_____ AR #_____

ZONING USE: Parcel of record: Yes ☐ No ☐ **Eligible to apply for Family Division: Yes ☐ No ☐**
Zoned:_____ ESOZ:_____ P.O.M._____ Land Use:_____ **Plat Vacation Required: Yes ☐ No ☐**
Date Reviewed:_____ Verified by (print & initial):_____

DIAMOND "A" SHOPPING CENTER

MAJOR SITE PLAN

SECTION 9 , TOWNSHIP 17 SOUTH, RANGE 21 EAST
MARION COUNTY, FLORIDA

THIS SITE CONTAINS:
TOTAL PROJECT AREA = 30.50 AC
EXISTING IMPERVIOUS = 0 AC / 0 SF / 0%
PROPOSED IMPERVIOUS = 8.04 AC / 350,134 SF / 26.35%
FUTURE IMPERVIOUS = 13.96 AC / 607,885 SF / 45.75%
TOTAL IMPERVIOUS = 21.99 AC / 958,019 SF / 72.11%
MARION COUNTY PARCEL # 41200-056-04, 41200-056-12, AND A PORTION OF 41200-056-00
LAND USE: EMPLOYMENT CENTER
ZONING: PUD

Call 48 Hours before you dig.
it's the Law!
1-800-432-4770
Sunshine State One Call of Florida, Inc.

Marion County Approval Stamp

PERMITS:
1. MARION COUNTY PUD - FILE #201911077Z (APPROVED 05-11-2021)
2. S.W.F.W.M.D. - MASS GRADING PLAN - E.R.P. #43525.000 (APPROVED 11-23-2021)
3. MARION COUNTY - PRELIMINARY PLAN - APP. #31953
4. MARION COUNTY - IMPROVEMENT PLAN - APP. #31954
5. MARION COUNTY MAJOR SITE PLAN - PENDING #33554
6. S.W.F.W.M.D. - E.R.P. #43041106.010 (APPROVED 04-04-2025)
7. FDEP - POTABLE WATER - PERMIT #0122239-168 DSGP (APPROVED 05-19-2025)
8. FDEP - SANITRY SEWER -
9. FDEP - NPDES (By Others)

WAIVERS:

6.12.4 - PLAN AND PROFILE
APPLICANT REQUEST WAIVER. PER MARION COUNTY LDC, SEC 6.12.4, PLAN AND PROFILES ARE REQUIRED FOR ROADWAYS. THE PROPOSED ACCESS POINTS IN QUESTION ARE DRIVEWAYS, WHICH DO NOT REQUIRE PLAN AND PROFILES. AS DEMONSTRATED ON OUR GRADING PLANS, WE HAVE PROVIDED SUFFICIENT INFORMATION FOR CONSTRUCTION PURPOSES AND HAVE CONFIRMED THERE ARE NO UTILITY CONFLICTS, ETC

2.19.4.C - COMMENCE CONSTRUCTION PRIOR TO IMPROVEMENT PLAN APPROVAL
WAIVER REQUESTED TO COMMENCE WORK PRIOR TO IMPROVEMENT PLAN APPROVAL AT THE DEVELOPER'S RISK. WE WOULD LIKE TO START SITE GRADING AND THE UTILITY ONCE FDEP PERMITS ARE OBTAINED.

1.DC 2.1.3 - ORDER OF PLAN APPROVAL
APPLICANT REQUESTS WAIVER FOR THE APPROVAL OF PUBLIS DIAMOND "A" SHOPPING CENTER PRELIMINARY PLAT AND IMPROVEMENT PLAN APPROVAL PRIOR TO THE MASTER PLAN APPROVAL.

6.12.5A - CROSS SECTIONS
APPLICANT REQUEST ELIMINATION OF THE REQUIREMENT FOR PROVIDING CROSS SECTIONS. AS DEMONSTRATED ON OUR GRADING PLANS, WE HAVE PROVIDED SUFFICIENT INFORMATION FOR CONSTRUCTION PURPOSES AND HAVE CONFIRMED THERE ARE NO UTILITY CONFLICTS, ETC. APPLICANT REQUEST THE APPROVAL OF A DEVIATION LETTER.

6.8.8 - BUILDING LANDSCAPE
APPLICANT REQUEST WAIVER TO NOT PROVIDE BUILDING LANDSCAPE ADJACENT TO THE BUILDINGS. ARCHITECTURAL FEATURE INCLUDING DECORATIVE PARAPETS WITH BREAKS IN ELEVATION AND STORE FRONT CANOPIES TO BE MORE VISUALLY APPEALING AND NOT OBSTRUCT THE VIEWS OF THE RETAIL BUSINESSES. LANDSCAPE SCREENING HAS BEEN PROVIDED ON THE PROJECT BOUNDARIES AND INTERNAL LANDSCAPING IS PROVIDED WITHIN THE PARKING AND OPENED AREA.

6.12.2 RIGHT OF WAY
APPLICANT IS REQUESTING PUBLIC RIGHT OF WAY EASEMENT INSTEAD OF PUBLIC RIGHT OF WAY DEDICATION FOR THE 8' SIDEWALK ADJACENT TO THE PROPOSED TURN LANES. A 6' RIGHT OF WAY DEDICATION IS PROPOSED ALONG THE RIGHT TURN LANES TO KEEP ALL ROADWAY IMPROVEMENTS WITHIN THE RIGHT OF WAY AND THE 8' SIDEWALK WILL RUN ADJACENT TO THE 20' WIDE 475A BUFFER EASEMENT THAT HAS PROVISIONS TO ALLOW THAT REQUIRED WALKWAY WITHIN THE 475A BUFFER EASEMENT.

STATE PLANE COORDINATES:

BEARINGS AND COORDINATES SHOWN HEREON ARE BASED ON THE FLORIDA STATE PLANE COORDINATE SYSTEM, WEST ZONE, NORTH AMERICAN DATUM OF 1983 (NAD 83), WITH 2011 ADJUSTMENT AS DERIVED FROM THE FLORIDA DEPARTMENT OF TRANSPORTATION VIRTUAL REFERENCE STATION NETWORK.

VERTICAL DATUM:

VERTICAL DATUM BASED ON BOUNDARY & TOPOGRAPHIC SURVEY COMPLETED BY R.M. BARRINEAU & ASSOCIATES, JOB NO. 05221, DATED 09/12/2013 AND WAS BASED ON CITY OF OCALA ENGINEERING DEPARTMENT CONTROL POINT 0028, ELEVATION 78.77' (NAVD 88). THERE IS A DIFFERENCE OF 0.46' WHEN COMPARED BETWEEN CITY OF OCALA ENGINEERING CONTROL POINT 0028 AND BENCHMARK "D" AS REFERENCED ON SURVEY PREPARED BY R.M. BARRINEAU & ASSOCIATES.

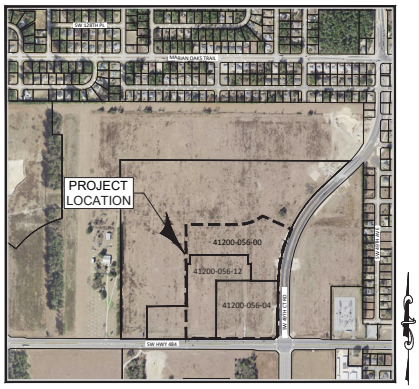
BENCHMARKS:

TEMPORARY BENCHMARK (#108) FOUND 4" x 4" CONCRETE MONUMENT LB (1918)
ELEVATION = 86.48' (NAVD 1988) NORTHING = 1763393.3250 EASTING = 642938.9750

TEMPORARY BENCHMARK (#122) NAIL & DISC (LB 5991)
ELEVATION = 92.92' (NAVD 1988) NORTHING = 1762511.8060 EASTING = 642790.7050

NOTES:

1. *ALL CONSTRUCTION COVERED BY THESE PLANS SHALL COMPLY WITH THE MATERIAL REQUIREMENTS AND QUALITY CONTROL STANDARDS CONTAINED IN THE MARION COUNTY LAND DEVELOPMENT CODE AND THE MARION COUNTY UTILITY MANUAL AS APPLICABLE.*
2. *BASED ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAP (FIRM), COMMUNITY PANEL NO. 12083C0715D, EFFECTIVE DATE OF AUGUST 22th, 2008. THE PROPERTY DESCRIBED HEREON LIES WITHIN FLOOD ZONES "X" AN AREA OF MINIMAL FLOOD HAZARD.*
3. *NO CHANGE TO THE WORK AS SHOWN ON THE APPROVED PLANS SHALL BE MADE WITHOUT NOTIFICATION TO AND APPROVAL BY THE OFFICE OF THE COUNTY ENGINEER.*
4. *DESIGN SPEED = 25 M.P.H. TO BE POSTED AT 20 M.P.H. EXCEPT FOR CURVES WITH RADII LESS THAN 100'.*
5. *SIGHT DISTANCE AT DRIVEWAYS COMPLIES WITH MARION COUNTY REQUIREMENTS.*
6. *THIS PROJECT IS LOCATED IN THE SECONDARY SPRINGS PROTECTION ZONE.*
7. *THIS PROJECT HAS NOT BEEN GRANTED CONCURRENCY APPROVAL AND/OR GRANTED AND/OR RESERVED ANY PUBLIC FACILITY CAPACITIES. FUTURE RIGHTS TO DEVELOP THE PROPERTY ARE SUBJECT TO A DEFERRED CONCURRENCY DETERMINATION AND FINAL APPROVAL TO DEVELOP THE PROPERTY HAS NOT BEEN OBTAINED. THE COMPLETION OF CONCURRENCY REVIEW AND/OR APPROVAL HAS BEEN DEFERRED TO LATER DEVELOPMENT REVIEW STAGES, SUCH AS, BUT NOT LIMITED TO, BUILDING PERMIT REVIEW.*
8. *THERE ARE NO SUBDIVISION SIGNS PROPOSED FOR THIS DEVELOPMENT AT THIS TIME. ANY FUTURE SIGNS WILL REQUIRE SEPARATE PERMIT.*
9. *DRIVEWAY MEETS FDOT SIGHT DISTANCE REQUIREMENTS.*



VICINITY MAP
SCALE: 1" = 500'

OWNER/DEVELOPER:
DIAMOND A, LLC
CONTACT: JOHN ALVAREZ
PO BOX 772169
OCALA, FLORIDA 34477
PHONE: 352-804-4006

CIVIL ENGINEER:
TILLMAN AND ASSOCIATES ENGINEERING, L.L.C.
JEFFREY MCPHERSON, P.E.
1720 SE 16TH AVE. BLDG. 100
OCALA, FLORIDA 34471
PHONE (352) 387-4540

SURVEYOR:
ROGERS ENGINEERING, LLC.
RODNEY K. ROGERS, P.S.M.
1105 S.E. 3RD AVENUE
OCALA, FLORIDA 34471
PHONE (352) 622-9214

GEOTECHNICAL CONSULTANT:
GEO-TECH, INC.
CONTACT: JONNY HEATH
1016 S.E. 3RD AVENUE
OCALA, FLORIDA 34471
PHONE (352) 694-7711

BASIS OF BEARINGS:

BEARINGS AND COORDINATES SHOWN HEREON ARE BASED ON THE FLORIDA STATE PLANE COORDINATE SYSTEM, WEST ZONE, NORTH AMERICAN DATUM OF 1983 (NAD 83), WITH 2011 ADJUSTMENT AS DERIVED FROM THE FLORIDA DEPARTMENT OF TRANSPORTATION VIRTUAL REFERENCE STATION NETWORK.

Utility Companies

WATER / SEWER	*MARION COUNTY UTILITIES CUSTOMER SERVICE*		*352-307-6000*
ELECTRIC	*SUMTER ELECTRIC COOPERATIVE*	*HILLARY BREWER*	*352-351-6620*
CABLE/PHONE/INTERNET	*CHARTER COMM.*	*DISPATCH*	*800-778-9140*
	CENTURYLINK	*DISPATCH*	*877-366-8344x3*
	COMCAST COMMUNICATIONS	*DISPATCH*	*800-778-9140*

INDEX OF SHEETS

01.01	*COVER SHEET*
02.01	*GENERAL NOTES*
03.01	*EXISTING CONDITIONS*
04.01	*TEMPORARY SITE ACCESS AND STAGING PLAN*
05.01	*OVERALL SITE PLAN*
06.01- 06.03	*SITE PLAN*
07.01- 07.03	*PAVING & GRADING*
08.01-08.03	*DRAINAGE PLAN*
09.01-09.03	*UTILITY PLAN*
10.01-10.02	*STORMWATER POLLUTION PREVENTION PLAN*
11.01	*STORMWATER POLLUTION PREVENTION NOTES*
12.01	*STORMWATER POLLUTION PREVENTION*
13.01-13.02	*CONSTRUCTION DETAILS*
14.01	*UTILITY DETAILS*
15.01-15.02	*LIFT STATION & SANITARY DETAILS*
16.01	*TRUCK ROUTE PLAN*
17.01	*ADA ACCESS PLAN*
BL.01-BL.02	*SOIL BORING*
1-1	*BOUNDARY AND TOPOGRAPHIC SURVEY (PREPARED BY ROGER ENGINEERING, LLC)*
L01.01	*LANDSCAPE INDEX*
L02.01	*PLANTING SPECIFICATIONS*
L03.01	*PLANT SCHEDULE & NOTES*
L04.01-L04.05	*PLANTING PLAN*
L05.01	*PLANTING DETAILS*
LIR03.01	*IRRIGATION SCHEDULE & NOTES*
LIR04.01-LIR04.05	*IRRIGATION PLAN*
LIR05.01-LIR05.02	*IRRIGATION DETAILS*
1-6	*PHOTOMETRICS & ELECTRICAL PLAN*

OWNER'S CERTIFICATION

I CERTIFY THAT I, MY SUCCESSORS AND ASSIGNS SHALL PERPETUALLY MAINTAIN THE IMPROVEMENTS AS SHOWN WITHIN THESE PLANS.

JOHN ALVAREZ
DIAMOND A, LLC

ENGINEER CERTIFICATION

I HEREBY CERTIFY THAT THESE PLANS AND CALCULATIONS WERE COMPLETED IN ACCORDANCE WITH ALL APPLICABLE REQUIREMENTS OF THE MARION COUNTY LAND DEVELOPMENT CODE (LDC), EXCEPT AS WAIVED.

JEFFREY McPHERSON, P.E.
Registered Engineer No. 69905
STATE OF FLORIDA

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THE SURVEY REPRESENTED HEREON IS IN ACCORDANCE WITH ALL APPLICABLE REQUIREMENTS OF THE LDC AND MEETS THE STANDARDS OF PRACTICE AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS. THIS DOCUMENT IS BEING ELECTRONICALLY SIGNED AND SEALED AND A MANIFEST PROVIDED

RODNEY K. ROGERS, P.S.M.
ROGERS ENGINEERING, LLC.
Registered Land Surveyor No. 6553
STATE OF FLORIDA

Tillman & Associates
ENGINEERING, LLC
CIVIL ENGINEERING · PLANNING · LANDSCAPE ARCHITECTURE · ENVIRONMENTAL
1720 SE 16th Ave., Bldg 100, Ocala, FL 34471
Office: (352) 387-4540 Fax: (352) 387-4545

REVISIONS

DATE

MAJOR SITE PLAN
DIAMOND "A" SHOPPING CENTER
MARION COUNTY, FLORIDA

COVER SHEET

DATE 10/10/25
DRAWN BY JA
CHKD. BY DMM
JOB NO. 23-8231

SHT. 01.01

NOT VALID UNLESS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER

Marion County
Board of County Commissioners

Office of the County Engineer

412 SE 25th Ave.
Ocala, FL 34471
Phone: 352-671-8686
Fax: 352-671-8687

DEVELOPMENT REVIEW COMMITTEE WAIVER REQUEST FORM

Date: 2/11/26 Parcel Number(s): 446534-002-01 Permit Number: N/A

A. PROJECT INFORMATION: Fill in below as applicable:

Project Name: Alleged "Concepcion" family division Commercial ☐ Residential ☑
Subdivision Name (if applicable): _____
Unit _____ Block _____ Lot _____ Tract _____

B. PROPERTY OWNER'S AUTHORIZATION: The property owner's signature authorizes the applicant to act on the owner's behalf for this waiver request. The signature may be obtained by email, fax, scan, a letter from the property owner, or original signature below.

Name (print): Arturo Paso Fino Horses, LLC / Jose Nieves
Signature: _____
Mailing Address: 5697 SW 49th Road, Unit 101 City: Ocala
State: FL Zip Code: 34474 Phone #352.867.7707
Email address: zfryelofley@ocalalaw.com

C. APPLICANT INFORMATION: The applicant will be the point of contact during this waiver process and will receive all correspondence.

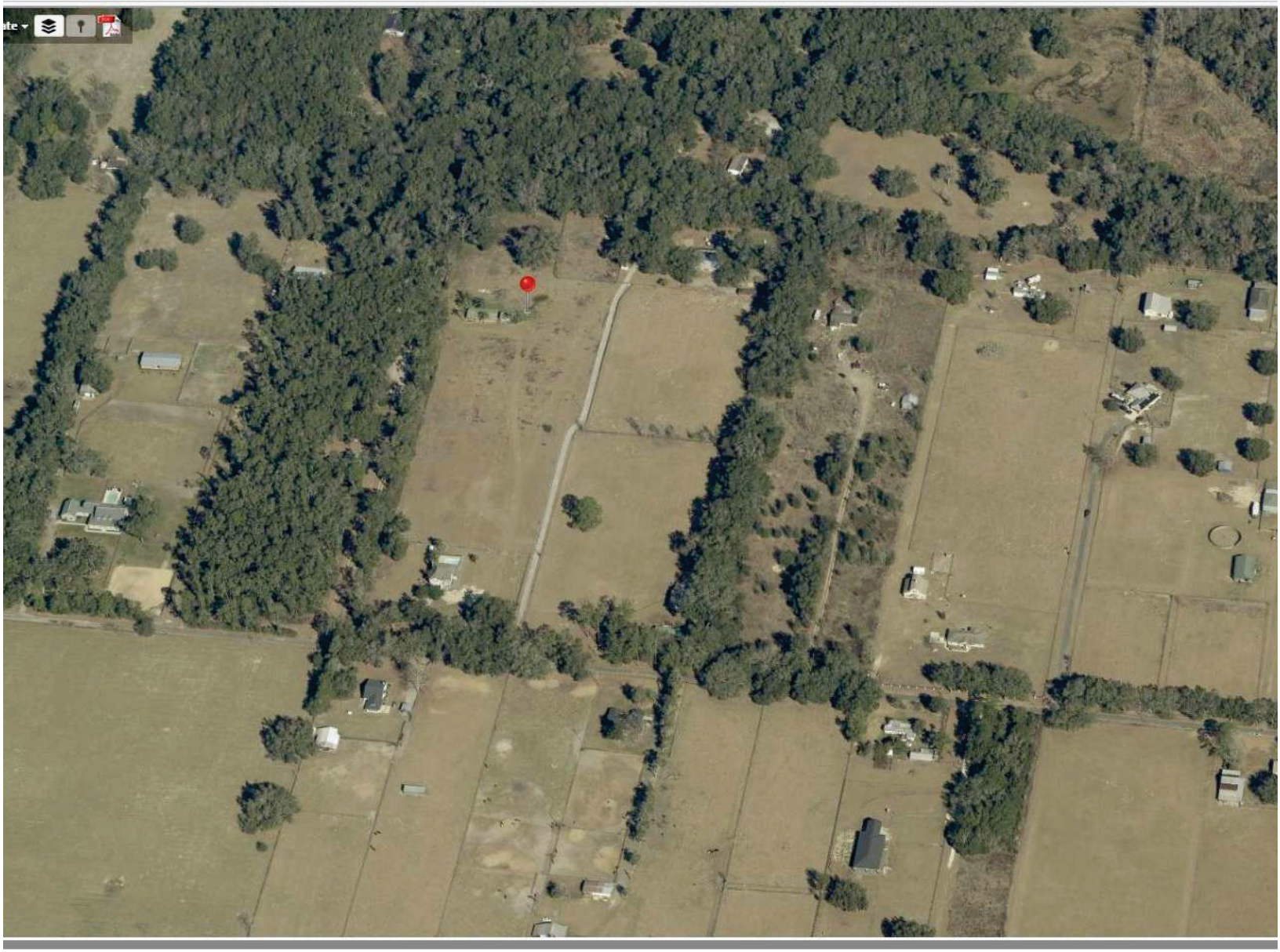
Firm Name (if applicable): Gilligan,Anderson, Williams & Green Contact Name: Zachary Frye-Lofley
Mailing Address: 1531 SE 36th Avenue City: Ocala
State: Fl Zip Code: 34471 Phone #352.867.7707
Email address: zfryelofley@ocalalaw.com

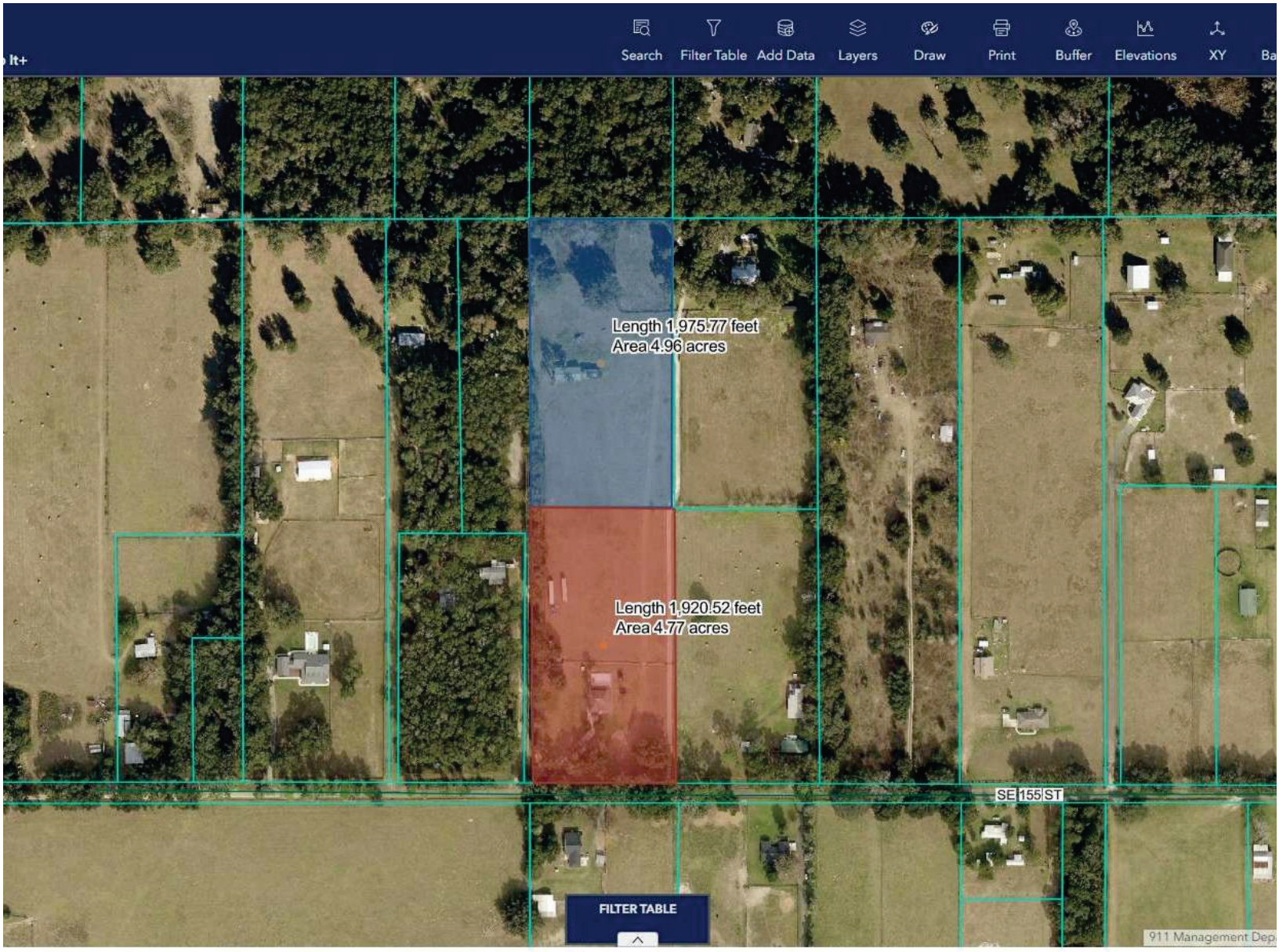
D. WAIVER INFORMATION:
Section & Title of Code (be specific): 2.16.4 Subsection D(4) 10 acres divided into two (2) Five (5) acre lots
Reason/Justification for Request (be specific): Property was sold to Mr. Nieves within the five year limit for transfers unbeknownst to Mr. Nieves. Mr. Nieves is now attemtping to obtain permits for structures on the property andhe is being denied due to an alleged family division of the parent parcel 446534-002-00 which created his parcel. Mr. Nieves is facing unreasonable hardship due to no fault of his own and is requesting a waiver of the 5 year rule.

DEVELOPMENT REVIEW USE:
Received By: _____ Date Processed: _____ Project # _____ AR # _____

ZONING USE: Parcel of record: Yes ☐ No ☐ **Eligible to apply for Family Division: Yes ☐ No ☐**
Zoned: _____ ESOZ: _____ P.O.M. _____ Land Use: _____ **Plat Vacation Required: Yes ☐ No ☐**
Date Reviewed: _____ Verified by (print & initial): _____

ometryViewer/?y=28.999194181371383&x=-82.12970511296759

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XY
Length 1,975.77 feet
Area 4.96 acres
Length 1,920.52 feet
Area 4.77 acres
SE 155 ST
FILTER TABLE
911 Management Dep

Jimmy H. Cowan, Jr., CFA
Marion County Property Appraiser - Map It+
Search
Filter Table
Add Data
Layers
Draw
Print
Buffer
Elevations
XY
Basemap
Bookmarks
Legend
Help
Menu
SE 155 ST
FILTER TABLE
200 ft
911 Management Department | © Bruce Harris & Associates, 2024 Powered by Esri

Jimmy H. Cowan, Jr., CFA
Marion County Property Appraiser

501 SE 25th Avenue, Ocala, FL 34471 Telephone: (352) 368-8300 Fax: (352) 368-8336

2025 Certified Assessment Roll

44654-002-01

Prime Key: 4131728 MAP IT+

Property Information

ARTURO PASO FINO HORSES LLC
5697 SW 49TH RD UNIT 7101
OCALA FL 34474-5676

Taxes / Assessments: $164.57
Map ID: 185
Millage: 9001 - UNINCORPORATED

M.S.T.U.
PC: 62
Acres: 5.00

Current Value

Land Just Value	$94,000
Buildings	$0
Miscellaneous	$8,814
Total Just Value	$102,814
Total Assessed Value	$9,744
Exemptions	$0
Total Taxable	$9,744

Impact	
Land Class Value	($93,070)
Total Class Value	$930
Ex Codes: 08	$9,744

History of Assessed Values

Year	Land Just	Building	Misc Value	Mkt/Just	Assessed Val	Exemptions	Taxable Val
2025	$94,000	$0	$8,814	$102,814	$9,744	$0	$9,744

Property Transfer History

Book/Page	Date	Instrument	Code	Q/U	V/I	Price
8646/1165	06/2025	07 WARRANTY	4 V-APPRAISERS OPINION	Q	V	$240,000
8564/1960	03/2025	05 QUIT CLAIM	0	U	V	$100
8547/1924	02/2025	05 QUIT CLAIM	0	U	V	$100

Property Description

SEC 20 TWP 17 RGE 22
COM AT THE SE COR OF E 1/2 OF SE 1/4 OF NW 1/4 OF SEC 20
TH S 89-44-15 W 330.21 FT TH N 00-00-09 E 661.93 FT TO THE POB
TH S 89-44-09 W 329.21 FT TH N 00-04-22 W 661.97 FT TH N 89-42-10 E
330.08 FT TH S 00-00-09 W 662.16 FT TO THE POB
Parent Parcel: 44654-002-00

Land Data - Warning: Verify Zoning

Use	CUse	Front	Depth	Zoning	Units	Type	Rate	Loc	Shp	Phy	Class Value	Just Value
6202		.0	.0	A1	5.00	AC	18,800.0000	1.00	1.00	1.00	930	94,000
Neighborhood 9468											Total Land - Class	$930

Mkt: 10 70 Total Land - Just $94,000

Miscellaneous Improvements

Type	Nbr Units	Type	Life	Year In	Grade	Length	Width
009 BARN HORSE	544.00	SF	40	2006	1	16.0	34.0
009 BARN HORSE	1,653.00	SF	40	2006	1	29.0	57.0
159 PAV CONCRETE	238.00	SF	20	2006	3	0.0	0.0
114 FENCE BOARD	330.00	LF	10	1993	3	0.0	0.0

Total Value - $8,814

Appraiser Notes

Planning and Building
** Permit Search **

Permit Number	Date Issued	Date Completed	Description

Cost Summary

Buildings R.C.N.	$0	1/1/1900
Total Depreciation	$0	
Bldg - Just Value	$0	
Misc - Just Value	$8,814	5/20/2025
Land - Just Value	$94,000	5/27/2025
Total Just Value	$102,814	.

Bldg Nbr	RCN	Depreciation	Depreciated

Prepared by: Theresa Hall
Affiliated Title of Central Florida, Ltd.
2701 SE Maricamp Road, Suite 101
Ocala, Florida 34471
File Number: 25-1212

General Warranty Deed

Made this June 23, 2025 A.D. By **Karla A. Concepcion, a single woman, Individually and as Trustee of the Karla A. Concepcion Trust dated July 29, 2024** hereinafter called the grantor, to **Arturo Paso Fino Horses, LLC., a Florida Limited Liability Company,** whose address is: 5697 SW 49th Road Suite 7101, Ocala, Florida 34474, hereinafter called the grantee:

(Whenever used herein the term "grantor" and "grantee" include all the parties to this instrument and the heirs, legal representatives and assigns of individuals, and the successors and assigns of corporations)

Witnesseth, that the grantor, for and in consideration of the sum of Ten Dollars, ($10.00) and other valuable considerations, receipt whereof is hereby acknowledged, hereby grants, bargains, sells, aliens, remises, releases, conveys and confirms unto the grantee, all that certain land situate in Marion County, Florida, viz:

THE NORTH ½ OF THE WEST ½ OF THE EAST ½ OF THE SE ¼ OF THE NW ¼ OF SECTION 20, TOWNSHIP 17 SOUTH, RANGE 22 EAST, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
COMMENCE AT THE SE CORNER OF THE EAST ½ OF THE SE ¼ OF THE NW ¼ OF SECTION 20, TOWNSHIP 17 SOUTH, RANGE 22 EAST, MARION COUNTY, FLORIDA; THEN S 89° 46' 10" W, ALONG THE SOUTH LINE OF SAID EAST ½, A DISTANCE OF 330.21 FEET; THEN N 0° 00' 09" E, A DISTANCE OF 661.93 FEET TO THE POINT OF BEGINNING; THEN S 89° 44' 09" W, A DISTANCE OF 329.21 FEET; THEN N 0° 04' 22" W, ALONG THE WEST LINE OF THE EAST ½ OF THE SE ¼ OF SAID NW ¼; A DISTANCE OF 661.97 FEET TO THE NW CORNER OF THE EAST ½ OF THE SE ¼ OF SAID NW ¼; THEN N 89° 42' 10" E, ALONG THE NORTH LINE OF THE SE ¼ OF SAID NW ¼, A DISTANCE OF 330.08 FEET; THEN S 00° 00' 09" W, ALONG THE EAST LINE OF THE WEST ½ OF THE EAST ½ OF THE SE ¼ OF SAID NW ¼, A DISTANCE OF 662.16 FEET TO THE POINT OF BEGINNING.

TOGETHER WITH AN EXCLUSIVE PERPETUAL EASEMENT FOR INGRESS AND EGRESS OVER THE FOLLOWING DESCRIBED PROPERTY: THE EAST 20.00 FEET OF THE WEST ½ OF THE SE ¼ OF THE SE ¼ OF THE NW ¼ OF SAID SECTION 20,
AND
SUBJECT TO AN EXCLUSIVE PERPETUAL EASEMENT FOR INGRESS AND EGRESS OVER THE FOLLOWING DESCRIBED PROPERTY: THE EAST 20.00 FEET OF THE SOUTH 20.00 FEET OF THE WEST ½ OF THE NE ¼ OF THE SE ¼ OF THE NW ¼ OF SAID SECTION 20. SAID LANDS BEING SITUATED IN MARION COUNTY, FLORIDA.

Subject to covenants, restrictions and easements of record (if any) which are not by this reference reimposed.

Said property is not the homestead of the Grantor(s) under the laws and constitution of the State of Florida in that neither Grantor(s) or any members of the household of Grantor(s) reside thereon.

Together with all the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.

To Have and to Hold, the same in fee simple forever.

GREGORY C HARRELL CLERK & COMPTROLLER MARION CO
CFN# 2025085710 BK 8646 Pgs 1165-1166 06/25/2025 03:01:30 PM
REC FEE 18.50 INDEX DEED DOC 1,680.00

Prepared by: Theresa Hall
Affiliated Title of Central Florida, Ltd.
2701 SE Maricamp Road, Suite 101
Ocala, Florida 34471
File Number: 25-1212

And the grantor hereby covenants with said grantee that the grantor is lawfully seized of said land in fee simple; that the grantor has good right and lawful authority to sell and convey said land; that the grantor hereby fully warrants the title to said land and will defend the same against the lawful claims of all persons whomsoever; and that said land is free of all encumbrances except taxes accruing subsequent to December 31, 2024.

In Witness Whereof, the said grantor has signed and sealed these presents the day and year first above written.

Signed, sealed and delivered in our presence:

K. Concepcion
Karla A. Concepcion, Individually and as Trustee of the Karla A. Concepcion Trust dated July 29, 2024

Theresa Hall
Witness (1) Signature:

Theresa Hall
Witness (1) Printed Name:

2701 SE Maricamp Rd, Ste 101, Ocala, Fl 34471
Witness (1) Address line 1:

999 SE 155 St.
Address Line 1

Summerfield, FL 34491
Address Line 2

Candace
Witness (2) Signature:

Candace McCoy
Witness (2) Printed Name:

2701 SE Maricamp Rd, Ste 101, Ocala, Fl 34471
Witness (2) Address line:

State of Florida **County of** Marion

The foregoing instrument was acknowledged before me by means of ☒ physical presence or ☐ online notarization on this 23 day of June, 2025, by **Karla A. Concepcion, Individually and as Trustee of the Karla A. Conception Trust dated July 29, 2024**, who is/are ☐ personally known to me or who ☒ produced **driver's license(s)** as identification and who did take an oath.

Theresa Hall
Notary Signature
Notary Printed Name: Theresa Hall
My Commission Expires: 1-18-29

{Notary Seal}

THERESA HALL
Commission # HH 609777
Expires January 18, 2029

DEED Individual Warranty Deed - Legal on Face
Closers' Choice

GREGORY C HARRELL MARION COUNTY FL
CFN# 2025085710 OR BK 8646 PG 1166 Pgs 1165-1166 06/25/2025 03:01:30 PM

Marion County
Board of County Commissioners

Office of the County Attorney

601 SE 25th Ave.
Ocala, FL 34471
Phone: 352-438-2330
Fax: 352-438-2331

November 3, 2025

By Email: lcaldwell@ocalalaw.com

Edwin A. Green, III, Esquire
Gilligan, Anderson, Phelan, Williams & Green, P.A.
1531 SE 36th Avenue
Ocala, FL 34471

RE: Subpoena Duces Tecum
Arturo Paso Fino Horses, LLC v. Karla A. Concepcion, et al
Marion County Case 2025-CA-1880

Dear Mr. Green:

Accompanying this letter, please find the following records in response to your Subpoena Duces Tecum Without Deposition for the above-referenced case:

- Building lien search
- Code lien search
- Family Division Development Review Committee Waiver Request form

Please feel free to contact me if you require anything further.

Sincerely,

/s/ Valdoston Shealey, Jr.

Valdoston Shealey, Jr., Esq.
Assistant County Attorney

VS/vkr

Marion County
Board of County Commissioners

Growth Services • Code Enforcement

2710 E. Silver Springs Blvd.
Ocala, FL 34470
Phone: 352-671-8900
Fax: 352-671-8903

Marion County Code Enforcement
Advanced Property Search

June 10, 2025

AGENCY # 987042

Owner Name:	CONCEPCION KARLA A TRUST
Parcel ID number:	44654-002-01
Property Address:	VACANT

Per your request and payment received, I certify that as of June 10, 2025, a search of our records has been conducted on the above referenced property address and our records:

* do not indicate any current code enforcement cases.
* do not indicate any unrecorded code enforcement fines.

Lien research should be requested from the Marion County Clerk's Office, (352) 671-5520, P. O. Box 1030, Ocala, FL 34478, also available at www.marioncountyclerk.org and Marion County Building Safety Department at 352-438-2400, 2710 E. Silver Springs Blvd., Ocala, FL 34470, also available at building@marioncountyfl.org.

Sincerely,

Virgina Cordova

Virgina Cordova, Staff Assistant
Marion County Growth Services
Code Enforcement Division

Marion County
Board of County Commissioners

Office of the County Engineer

412 SE 25th Ave.
Ocala, FL 34471
Phone: 352-671-8686
Fax: 352-671-8687

DEVELOPMENT REVIEW COMMITTEE WAIVER REQUEST FORM

Date: 10/04/24 Parcel Number(s): 44654-002-00 Permit Number: _____

A. PROJECT INFORMATION: Fill in below as applicable:

Project Name: _____ Commercial ☐ or Residential ☐
Subdivision Name (if applicable): _____
Unit _____ Block _____ Lot _____ Tract _____

B. PROPERTY OWNER'S AUTHORIZATION: The property owner's signature authorizes the applicant to act on the owner's behalf for this waiver request. The signature may be obtained by email, fax, scan, a letter from the property owner, or original signature below.

Name (print): Karla A. Concepcion
Signature: [signature]
Mailing Address: 999 SE 155 Str. City: Summerfield
State: FL Zip Code: 34491 Phone #: 352-789-0420
Email address: Lilyconcep30@gmail.com

C. APPLICANT INFORMATION: The applicant will be the point of contact during this waiver process and will receive all correspondence.

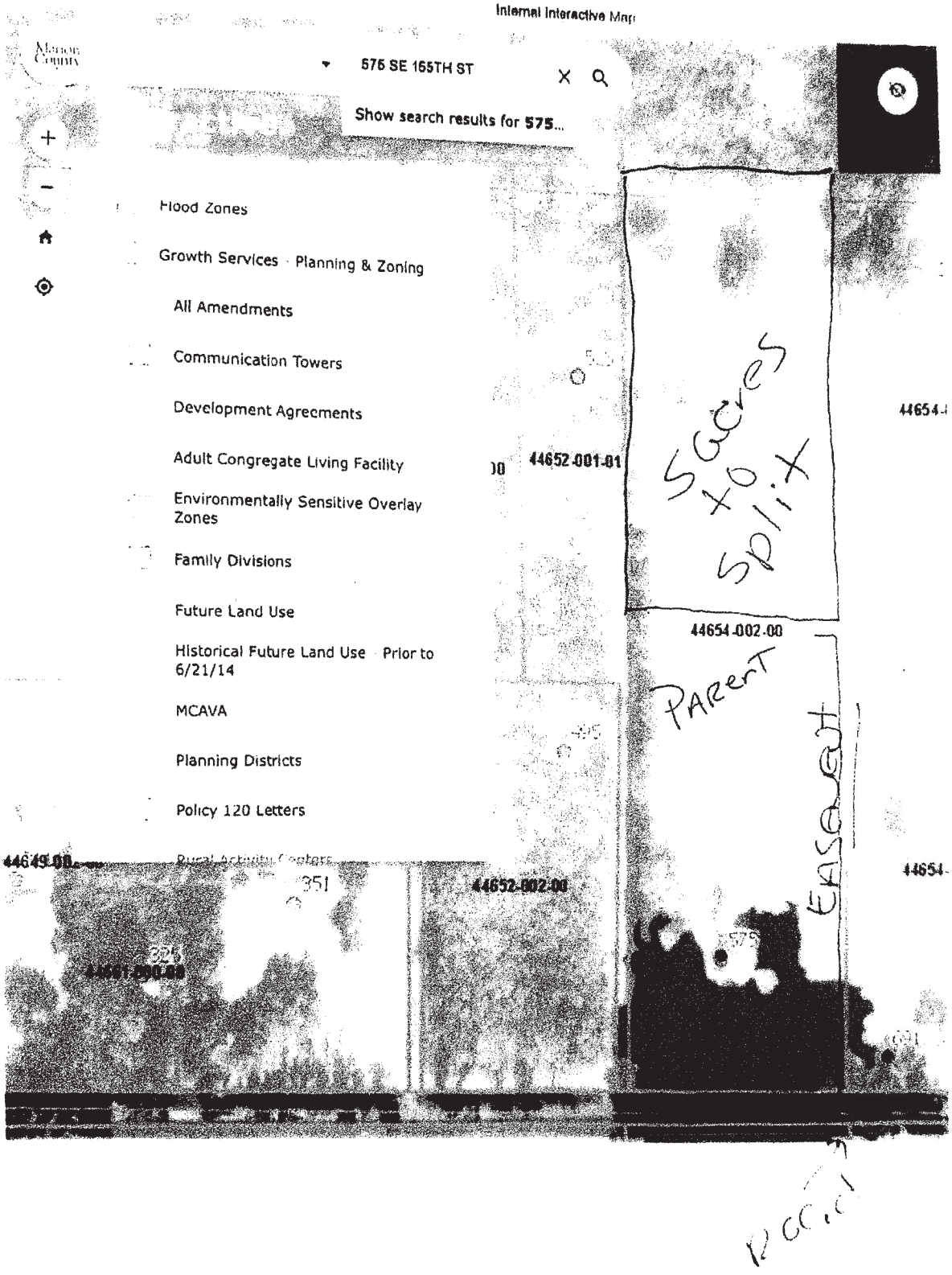
Firm Name (if applicable): _____ Contact Name: Karla Concepcion
Mailing Address: 999 SE 155 Street City: Summerfield
State: FL Zip Code: 34491 Phone #: 352-789-0420
Email address: Lilyconcep30@gmail.com

D. WAIVER INFORMATION:
Section & Title of Code (be specific): 2.16.1.B(10) - Family Division
Reason/Justification for Request (be specific): 5 acres gifted to my maternal grandmother.
name: Josefina B. Rubio

DEVELOPMENT REVIEW USE:
Received By: _____ Date Processed: _____ Project #: 2024100075 AR #: 32167

ZONING USE: Parcel of record: Yes ☑ No ☐ Eligible to apply for Family Division: Yes ☑ No ☐
Zoned: A-1 ESOZ: No P.O.M. 185 Land Use: RL Plat Vacation Required: Yes ☐ No ☑
Date Reviewed: 10/4/24 Verified by (print & initial): Clint Beckley (CB)

Project


575 SE 165TH ST
Show search results for 575...
Flood Zones
Growth Services - Planning & Zoning
All Amendments
Communication Towers
Development Agreements
Adult Congregate Living Facility
Environmentally Sensitive Overlay Zones
Family Divisions
Future Land Use
Historical Future Land Use - Prior to 6/21/14
MCAVA
Planning Districts
Policy 120 Letters
44652-001-01
44654-002-00
5 Acres +/- Split
Parent
Easement
44652-002-00
351
325
575

0 100 200ft

PREPARED BY AND RETURN TO:
Name: Gloria Mora, of
Pinnacle Title Services
Address: 10691 N Kendall Dr.
Suite 106
Miami, FL 33176

Parcel No.: 44654-002-00

GREGORY C HARRELL CLERK & COMPTROLLER MARION CO
DATE: 08/29/2024 10:22:11 AM
FILE #: 2024115078 OR BK 8410 PGS 1482-1483
REC FEES: $18.50 INDEX FEES: $0.00
DDS: $0.70 MDS: $0 INT: $0

(Space Above This Line For Recording Data)

Quit Claim Deed

THIS QUIT-CLAIM DEED is made as of this 10th day of **June, 2024**, by **Roldanys Alberto Gonzalez and Karla Concepcion** ("**Grantor**"), whose post office address is **575 Southeast 155th Street, Summerfield, FL 34491**, given to second party, **Karla Concepcion**, a single woman whose post office address is **575 Southeast 155th Street, Summerfield, FL 34491** ("**Grantee**").

WITNESSETH:

For good and valuable consideration to Grantor, the receipt whereof is hereby acknowledged, Grantor does hereby quit-claim, grant, bargain, sell, alien, remise, release and convey unto Grantee, its successors and assigns all of Grantor's right, title and interest in and to that certain property interest (the "Property") in **Marion** County, Florida, as more particularly described as follows:

THE EAST 1/2 OF THE SE 1/4 OF THE NW 1/4 OF SECTION 20, TOWNSHIP 17 SOUTH, RANGE 22 EAST, EXCEPT THE SOUTH 25 FEET THEREOF FOR ROAD RIGHT-OF-WAY AND EXCEPT COMMENCING AT THE SE CORNER OF THE EAST 1/2 OF THE SE 1/4 OF THE NW 1/4 OF SAID SECTION 20, THENCE SOUTH 89 DEG 44' 15" WEST 330.21 FEET; THENCE NORTH 0 DEG 0' 20" EAST 662.13 FEET, THENCE NORTH 89 DEG 45' 51" EAST 330.10 FEET, THENCE SOUTH 00 DEG 00' 14" EAST 661.97 FEET TO THE POINT OF BEGINNING.

EXCEPT A PORTION OF SECTION 20, TOWNSHIP 17 SOUTH, RANGE 22 EAST, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THE EAST 1/2 OF THE NE 1/4 OF THE SE 1/4 OF THE NW 1/4 OF SAID SECTION 20.

SUBJECT TO AN EXCLUSIVE PERPETUAL EASEMENT FOR INGRESS AND EGRESS OVER THE FOLLOWING DESCRIBED PROPERTY:

THE EAST 20.00 FEET OF THE WEST 1/2 OF THE SE 1/4 OF THE SE 1/4 OF THE NW 1/4 OF SAID SECTION 20 AND THE EAST 20.00 FEET OF THE SOUTH 20.00 FEET OF THE WEST 1/2 OF THE NE 1/4 OF THE SE 1/4 OF THE NEW 1/4 OF SAID SECTION 20. SAID LANDS LYING IN MARION COUNTY, FLORIDA.

ALSO KNOWN AS: 575 Southeast 155th Street. Summerfield, Florida 34491.

SUBJECT to taxes for 2024 and subsequent years, not yet due and payable; covenants, restrictions, easements, reservations and limitations of record, if any, without intention of creation or reimposing same.

IN WITNESS WHEREOF, the Grantor has caused this Quit-Claim Deed to be executed and delivered the day and year first above written.

Signed, sealed and delivered
in the presence of:

Roldanys Alberto Gonzalez

Karla Concepcion

WITNESS 1
PRINT NAME: Gloria Mora

10691 N Kendall Dr. #106
Miami, Florida 33176
WITNESS 1 ADDRESS

WITNESS 2
PRINT NAME: J. Pelley

10691 N. KENDALL DR #106
MIAMI FL 33176
WITNESS 2 ADDRESS

STATE OF FLORIDA
COUNTY OF MIAMI-DADE

The foregoing instrument was acknowledged before me by means of (X) physical presence or ( ) online notarization this 10 day of June, 2024, by Roldanys Alberto Gonzalez and Karla Concepcion.

Signature of Notary Public
Print, Type/Stamp Name of Notary

Personally Known:_____ OR Produced Identification: X
Type of Identification
Produced: Florida Dr. Licence

GLORIA MORA
MY COMMISSION EXPIRES MARCH 27, 2025
#HH 107435
Notary Public Underwriters
Bonded thru
NOTARY PUBLIC, STATE OF FLORIDA

Jimmy H. Cowan, Jr., CFA
Marion County Property Appraiser

501 SE 25th Avenue, Ocala, FL 34471 Telephone: (352) 368-8300 Fax: (352) 368-8336

2024 Property Record Card
Real Estate

44654-002-00

GOOGLE Street View

Prime Key: 2648121

MAP IT+

Current as of 10/4/2024

Property Information

M.S.T.U.
PC: 63
Acres: 10.00

CONCEPCION KARLA
575 SE 155TH ST
SUMMERFIELD FL 34491-3837

Taxes / Assessments:
Map ID: 185
Millage: 9001 - UNINCORPORATED

Situs: Situs: 575 SE 155TH ST SUMMERFIELD

Current Value

Land Just Value	$165,850		
Buildings	$287,468		
Miscellaneous	$28,180	Impact	($223,136)
Total Just Value	$481,498	Land Class Value	$27,943
Total Assessed Value	$258,362	Total Class Value	$343,591
Exemptions	($50,000)	Tax Codes 01 38 08	
Total Taxable	$208,362		
School Taxable	$234,192		

History of Assessed Values

Year	Land Just	Building	Misc Value	Mkt/Just	Assessed Val	Exemptions	Taxable Val
2023	$165,850	$272,297	$26,488	$464,635	$250,176	$50,000	$200,176
2022	$165,850	$242,713	$27,232	$435,795	$243,274	$50,000	$193,274
2021	$133,750	$186,572	$27,739	$348,061	$236,776	$50,000	$186,776

Property Transfer History

Book/Page	Date	Instrument	Code	Q/U	V/I	Price
[illegible]	06/2024	05 QUIT CLAIM	7 PORTIONUND INT	U	I	$100
7404/0829	10/2020	05 QUIT CLAIM	0	U	I	$100
[illegible]	10/2020	07 WARRANTY	2 V-SALES VERIFICATION	U	I	$249,200
1866/0776	09/1992	07 WARRANTY	2 V-SALES VERIFICATION	Q	V	$48,000

Property Description

SEC 20 TWP 17 RGE 22
E 1/2 OF SE 1/4 OF NW 1/4 OF SEC 20

EXCEPT S 25 FT THEREOF FOR RD ROW &

EXCEPT COM AT SE COR OF E 1/2 OF SE 1/4 OF NW 1/4 TH
S 89-44-15 W 330.21 FT TH N 00-20-00 E 662.13 FT TH
N 89-45-51 E 330.10 FT TH S 00-00-14 E 661.97 FT TO POB &

EXCEPT E 1/2 OF NE 1/4 OF SE 1/4 OF NW 1/4
Parent Parcel: 44654-000-00

Land Data - Warning: Verify Zoning

Use	CUse	Front	Depth	Zoning	Units	Type	Rate	Loc	Shp	Phy	Class Value	Just Value
0100		330.0	1,320.0	A1	1.00	AC	15,500.0000	1.00	1.70	1.00	26,350	26,350
6302		.0	.0	A1	9.00	AC	15,500.0000	1.00	1.00	1.00	1,593	139,500

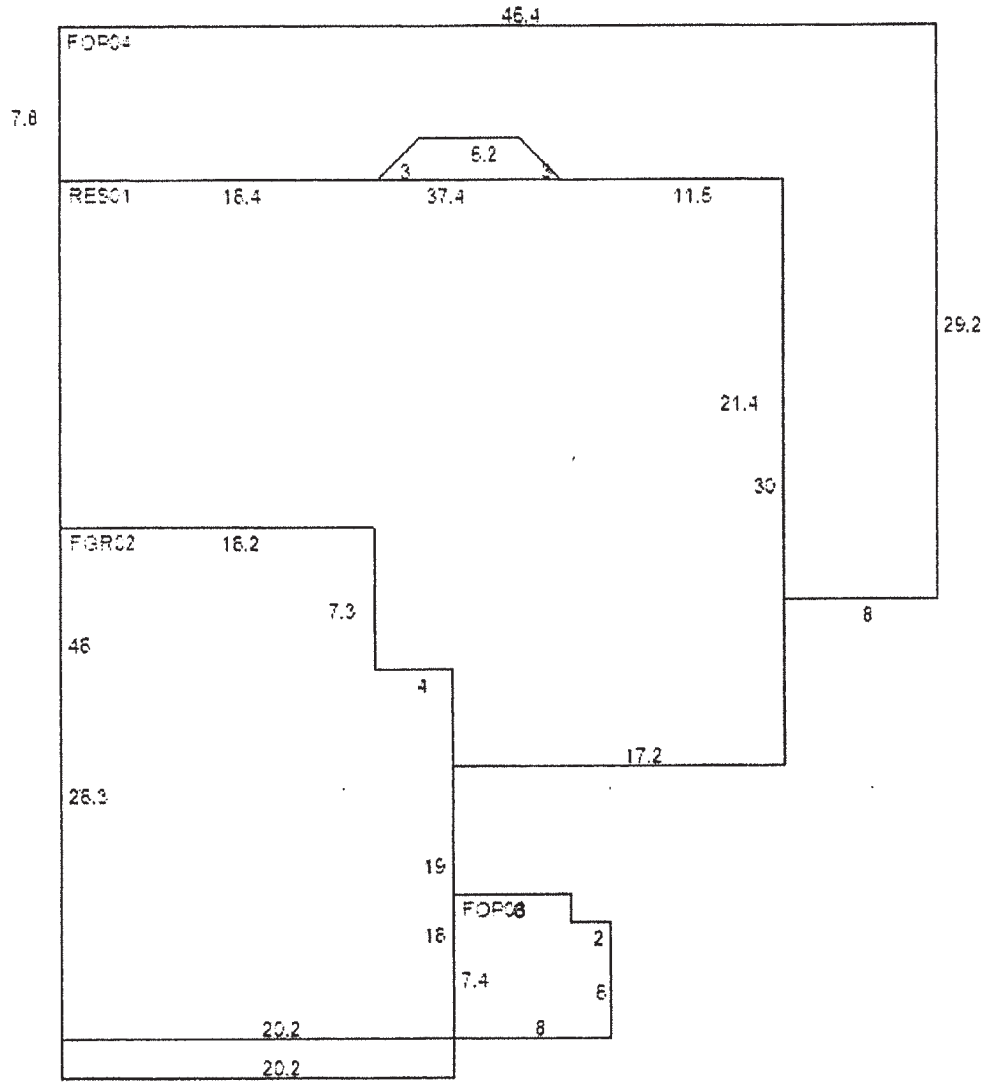
Neighborhood 9468 - N HWY 42 W HWY 475 S 145 E I-7
Mkt: 10 70

Total Land - Class $27,943
Total Land - Just $165,850

Traverse

Building 1 of 1
RES01=R20,2U16R17,2U30L37,4D46.U2
FGR02=U26,3R16,2D7,3R4D19L20,2.R20,2U7,4
FOP03=R6D1,4R2D6L8U7,4.U36,6R17,1

FOP04=L11,5A315|3L5,2A225|3L16,4U7,8R45,4D29,2L8U21,4.



Building Characteristics

Improvement	1F - SFR- 01 FAMILY RESID
Effective Age	4 - 15-19 YRS
Condition	1
Quality Grade	700 - GOOD
Inspected on	11/1/2021 by 228

Year Built 1993
Physical Deterioration 0%
Obsolescence: Functional 0%
Obsolescence: Locational 0%
Architecture 0 - STANDARD SFR
Base Perimeter 167

Type	ID	Exterior Walls	Stories	Year Built	Finished	Attic	Bsmt Area	Bsmt Finish	Ground Floor Area	Total Flr Area
RES	0132	CONC BLK-STUCO	1.72	1993	N		0 %	0 %	1,445	2,485
FGR	0232	CONC BLK-STUCO	1.00	1993	N		0 %	0 %	502	502
FOP	0301	NO EXTERIOR	1.00	1993	N		0 %	0 %	56	56
FOP	0401	NO EXTERIOR	1.00	1993	N		0 %	0 %	510	510

Section: 1

Roof Style: 10 GABLE
Roof Cover: 08 FBRGLASS SHNGL
Heat Meth 1: 20 HEAT PUMP
Heat Meth 2: 00
Foundation: 6 MONOLITC SLAB
A/C: Y

Floor Finish: 24 CARPET
Wall Finish: 16 DRYWALL-PAINT
Heat Fuel 1: 10 ELECTRIC
Heat Fuel 2: 00
Fireplaces: 1

Bedrooms: 3
4 Fixture Baths: 0
3 Fixture Baths: 2
2 Fixture Baths: 1
Extra Fixtures: 2

Blt-In Kitchen: Y
Dishwasher: Y
Garbage Disposal: N
Garbage Compactor: N
Intercom: N
Vacuum: N

Miscellaneous Improvements

Type	Nbr Units	Type	Life	Year In	Grade	Length	Width
190 SEPTIC 1-5 BTH	1.00	UT	99	1993	3	0.0	0.0
259 WELL 04-12IN	1.00	UT	99	1993	3	0.0	0.0
159 PAV CONCRETE	3,132.00	SF	20	1993	2	0.0	0.0
114 FENCE BOARD	1,294.00	LF	10	1993	2	0.0	0.0
226 RES SWIM POOL	450.00	SF	20	2005	5	0.0	0.0
099 DECK	900.00	SF	50	2005	2	0.0	0.0
009 BARN HORSE	1,653.00	SF	40	2006	1	29.0	57.0
009 BARN HORSE	544.00	SF	40	2006	1	16.0	34.0
UDC CARPORT-UNFIN	1,872.00	SF	40	2006	1	39.0	48.0
UDS SCRN PORCH-UNF	160.00	SF	40	2006	1	10.0	16.0
045 LEAN TO	240.00	SF	15	2006	1	15.0	16.0

Total Value - $28,180

Appraiser Notes

Planning and Building
Permit Search

Permit Number	Date Issued	Date Completed	Description
M080974	8/1/2005	11/1/2005	POOL

Cost Summary

Buildings R.C.N.	$344,017	6/1/2021
Total Depreciation	($99,764)	
Bldg - Just Value	$244,253	
Misc - Just Value	$28,180	5/20/2021
Land - Just Value	$165,850	3/21/2022
Total Just Value	$438,283	

Bldg Nbr	RCN	Depreciation	Depreciated
1	$344,017	($99,764)	$244,253

CDPR1007 - Comment Listing Report

REF TYPE	REF KEY	STATUS	ORIGINAL USER	ORIGINAL DATE/TIME
AR	32167	WARN	ZO342CG1	8/19/2025
			LAST UPDATE USER	LAST UPDATE DATE
			ZO342CG1	8/19/2025

COMMENT

This family division has never completed all of the documentation required to finalize the family division. Parent parcel 44654-002-00 & 44654-002-01.

CDPR1007 - Comment Listing Report

REF TYPE	REF KEY	STATUS	ORIGINAL USER	ORIGINAL DATE/TIME
AD	382876	PHOLD	ZO342CG	7/17/2025
			LAST UPDATE USER	LAST UPDATE DATE
			ZO342CG	7/17/2025

COMMENT

No permits can be issued on theses parcel numbers 44654-02-00 & 44654-002-01 until we have the family division affidavit documents for the property.

Also the parcel can not be sold within 5 years per the ordinance 23-38.

This family division was approved on November 25, 2024.

This parcel was sold to ARTURO PASO FINO HORSES LLC on 6/25/25.

CGarr 7-17-25

Marion County
Board of County Commissioners
Building Safety

2710 E. Silver Springs Blvd.
Ocala, FL 34470
Phone: 352-438-2400

Marion County Building Safety Department
Specialized Property Analysis Search Report

June 06, 2025 BUILDING SAFETY CASE # 986822

Owner Name: CONCEPCION KARLA A TRUST
Parcel ID number: 44654-002-01
Property Address: VACANT

Per your request and payment received, this memo certifies that as of June 06, 2025, a database search of Building Department records revealed the following information for the above referenced parcel number and/or property address:

	Yes	No	Permit #	Case #	Fees Owed
Open Permits		x			
Expired Permits		x			
Fees Owed for Permits		x			
Open Building Code Violations		x			
Open Liens (Building Dept. only)		x			

Documents attached: Yes_____ No __x___

Additional County lien searches can be done online at:
Marion County Clerk's Office www.marioncountyclerk.org Official Records Search (L=Lien Search)
Requests for Code Enforcement Violations (violations not building related), should be submitted to:
code@marionfl.org (there is a $35.00 fee for each search request)

Respectfully,

R. Harris

Rebecca Harris , Record Lien Technician
Marion County Building Safety
Email: buildingsafety@marionfl.org

Please remit all Lien Search correspondence to buildingsafety@marionfl.org

GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF SIZE AND LOCATION OF ALL EXISTING UTILITIES AND RELATED CONSTRUCTION PRIOR TO COMMENCEMENT OR WORK.CONTRACTOR SHALL CONTACT SUNSHINE STATE ONE CALL OF FLORIDA, INC. AT 1-800-432-4770, IN ACCORDANCE WITH CHAPTER 556, FLORIDA STATUTES.
2. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH THE LATEST STANDARDS OF ***MARION COUNTY*** AND FDOT.
3. PAVEMENT STRIPING TO BE IN ACCORDANCE WITH ***MARION COUNTY*** SPECIFICATIONS AND WITH THE FLORIDA D.O.T. ROADWAY & TRAFFIC STANDARDS, INDEX 17346.
4. ALL TRAFFIC CONTROL SIGNS SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
5. WHERE MUCK OR OTHER ORGANIC MATERIAL IS FOUND, IT SHALL BE REMOVED AND REPLACED BY GOOD QUALITY BACKFILL MATERIAL OBTAINED FROM THE GRADING OPERATIONS OR OTHER SOURCE APPROVED BY THE ENGINEER. THE ORGANIC MATERIAL SHALL BE THEN USED AS TOP DRESSING WHEN MIXED WITH CLEAN SANDY SOIL.
6. ALL FINISHED GRADES AND ELEVATIONS ARE AS DENOTED BY THE APPLICABLE LEGEND.
7. AS PART OF THE CLEARING AND GRUBBING OPERATION, THE CONTRACTOR IS TO REMOVE EXISTING FACILITIES AND / OR FENCING FROM THE SITE AS SHOWN ON PLANS.
8. THE CONTRACTOR SHALL NOTIFY ***MARION COUNTY*** ENGINEERING DIVISION AND TILLMAN AND ASSOCIATES ENGINEERING, LLC AT LEAST ONE WEEK BEFORE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR SHALL OBTAIN A MARION COUNTY R/W PERMIT PRIOR TO COMMENCING WORK WITHIN MARION COUNTY R/W's.
9. A MINIMUM SEPARATION OF 1.5 FEET BETWEEN THE LIMEROCK BASE AND THE HIGHEST GROUNDWATER ELEVATION SHALL BE MAINTAINED WITHIN THE RIGHT-OF-WAY. CONTRACTOR TO NOTIFY ENGINEER IF 1.5 FEET OF SEPARATION IS NOT ACHIEVED.
10. A PRE-CONSTRUCTION MEETING IS REQUIRED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
11. PER SECTION 82-371, CODE OF ORDINANCES: FOR ANY WORK WITHIN PUBLIC RIGHT OF WAYS, A RIGHT OF WAY UTILIZATION PERMIT MUST BE OBTAINED FROM THE ENGINEERING DEPARTMENT A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION.
12. THE CONTRACTOR SHALL SUBMIT THREE (3) SETS OF STANDARD SHOP DRAWINGS AND MANUFACTURER'S CATALOGS WITH THE MODEL NUMBER OR TYPE OF THE ITEM ENCIRCLED OR OTHERWISE DESIGNATED. THE SUBMITTALS SHALL BEAR THE APPROVAL OF THE UNDERGROUND UTILITY CONTRACTOR. ALL UTILITY SHOP DRAWINGS AND MANUFACTURER'S CATALOGS SHALL BE APPROVED BY THE ENGINEER OF RECORD AND MARION COUNTY PRIOR TO CONSTRUCTION.
13. ALL AS-BUILTS SHALL COMPLY WITH THE CURRENT LDC, SECTION 6.14.8 AND RETURNED IN NAD83 W. FORMAT WITH NORTHING AND EASTING COORDINATES FOR ALL ITEMS UNDER WATER AND WASTEWATER COMPONENTS.
14. MCU PERSONNEL ARE TO INSPECT ANY WORK PERFORMED ON OR AROUND EXISTING MCU INFRASTRUCTURE. A PRE-CONSTRUCTION MEETING IS REQUIRED TO BE HELD A MINIMUM OF 48 HOURS PRIOR TO START OF ANY CONSTRUCTION. IF THE PRE-CONSTRUCTION MEETING IS NOT COMPLETED, ANY WORK MAY BE HALTED. TO SCHEDULE, CONTACT MCU'S CONSTRUCTION OFFICER AT 352-307-6163.

PAVING AND DRAINAGE NOTES

1. PIPE LENGTHS SHOWN REPRESENT SCALED DISTANCE BETWEEN CENTERLINES OF DRAINAGE STRUCTURES.
2. ALL PAVEMENT RETURN RADII SHALL BE 28' AND MEASURED FROM THE INTERFACE OF THE CONCRETE CURB AND PAVEMENT SURFACE UNLESS OTHERWISE NOTED.
3. DITCH BOTTOM AND CONTROL STRUCTURE INLET GRATES SHALL BE SECURED WITH CHAIN AND EYEBOLT.
4. FIVE (5) FEET OF SOD IS REQUIRED AROUND ALL DITCH BOTTOM INLETS, MANHOLES, HEADWALLS AND MITERED END SECTIONS.
5. TOP ELEVATIONS OF MANHOLES IN GRASSED AREAS SHALL BE LOCATED AT FINISHED GRADE ELEVATION.
6. AS AN ALTERNATIVE, CONTRACTOR MAY USE ALTERNATIVE PIPE MATERIALS IN LIEU OF RCP. HOWEVER, CONTRACTOR MUST RECEIVE APPROVAL OF ALTERNATIVE PIPE MATERIALS IN WRITING BY ***MARION COUNTY*** AND TILLMAN & ASSOCIATES ENGINEERING, LLC PRIOR TO CONSTRUCTION.
7. TOP SOIL WHICH HAS BEEN STRIPPED AND STOCK PILED DURING THE COURSE OF CONSTRUCTION SHALL BE REDISTRIBUTED ON ALL REGRADED SURFACES SO AS TO PROVIDE AT LEAST FOUR INCHES OF EVEN COVER TO ALL DISTURBED AREAS OF THE DEVELOPMENT AND SHALL BE STABILIZED BY SEEDING OR PLANTING
8. ALL DISTURBED AREAS WITH SLOPES UP TO 6:1 SHALL BE SEEDED AND MULCHED. SLOPES STEEPER THAN 6:1 SHALL BE SODDED AND SLOPES 3:1 OR STEEPER SHALL HAVE THE SOD PEGGED.
9. SEE TABLE 2.0 FOR REQUIRED STORM PIPE COVER BENEATH AN UNPAVED SECTION.
10. SEE TABLE 3.0 FOR REQUIRED STORM PIPE COVER BENEATH RIGID PAVEMENT.
11. SEE TABLE 4.0 FOR REQUIRED STORM PIPE COVER BENEATH FLEXIBLE PAVEMENT
12. THE TABULATED VALUES ARE RECOMMENDED MINIMUM DIMENSIONS TO WITHSTAND ANTICIPATED HIGHWAY TRAFFIC LOADS. ADDITIONAL COVER MAY BE REQUIRED TO SUPPORT CONSTRUCTION EQUIPMENT LOADS OR HIGHWAY TRAFFIC LOADS BEFORE PAVEMENT IS COMPLETED. SOME SIZE THICKNESS COMBINATIONS MAY REQUIRE MINIMUM COVER GREATER THAN THOSE LISTED ABOVE. SEE FDOT INDEX 205, SHEETS 1-6.
13. ALL RCP STORM WATER PIPE SHALL MEET THE COVER & CLASS CRITERIA AS OUTLINED IN FDOT INDEX 205.
14. ALL STORM PIPE JOINTS SHALL BE WRAPPED AS SPECIFIED IN FDOT INDEX 280.
15. THE LAST FOOT OF STORM WATER POND SHALL NOT BE EXCAVATED UNTIL ALL DISTURBED AREAS ARE STABILIZED.
16. ANY FILL MATERIAL MUST BE APPROVED BY ENGINEER IN WRITING PRIOR TO PLACEMENT.
17. SIGNIFICANT CARE MUST BE TAKEN WHEN GRADING RETENTION PONDS TO ENSURE THAT POND BOTTOMS DO NOT BECOME COMPACTED DURING CONSTRUCTION OR SEALED BY CONSTRUCTION SEDIMENT. IF SEDIMENTATION OR COMPACTION OF A POND BOTTOM OCCURS, IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RESTORE THE DESIGN HYDRAULIC CONDUCTIVITY.

SANITARY SEWER NOTES

1. ALL MATERIALS AND CONSTRUCTION SHALL BE IN COMPLIANCE WITH THE ***MARION COUNTY*** LDC FOR WASTEWATER CONSTRUCTION.
2. ALL SANITARY SEWER CONSTRUCTION AND MATERIALS WITHIN R/W OR EASEMENT TO BE OWNED AND MAINTAINED BY MARION COUNTY UTILITIES.
3. ALL MANHOLES SHALL BE 4 FT. INSIDE DIAMETER.
4. PIPE LENGTHS SHOWN REPRESENT SCALED DISTANCES BETWEEN MANHOLE CENTERLINE.
5. ALL SANITARY SERVICE LATERALS SHALL BE 6 INCH DIAMETER, UNLESS SPECIFIED OTHERWISE ON PLANS.
6. INVERTS OF SANITARY SERVICE LATERALS AT THEIR CONNECTION TO SANITARY MANHOLES SHALL BE NO MORE THAN ONE (1) FOOT ABOVE THE MANHOLE INVERT.
7. MINIMUM AS BUILT 8" PVC SEWER LINE SLOPE WILL BE 0.40% MINIMUM SLOPE OR WILL BE RELAID BY CONTRACTOR TO MEET THE MINIMUM SLOPE REQUIREMENT AT NO ADDITIONAL COST.
8. MARK LATERALS BY ETCHING AN "S" INTO CURBING.
9. PIPE MATERIAL IS ASTM D3034, SDR-26 UNLESS OTHERWISE NOTED.
10. A MINIMUM 1.04% SLOPE SHALL BE MAINTAINED ON THE SANITARY SEWER SERVICE LATERALS. AT NO TIME SHALL A SANITARY SEWER LATERAL HAVE A SLOPE OF 15% OR GREATER.
11. SANITARY SEWER GRAVITY MAINS ARE TO BE UPGRADED IN MATERIAL TO WATER MAIN STANDARDS AND HYDROSTATICALLY PRESSURE TESTED WITH WATER TO ENSURE JOINT TIGHTNESS IF EITHER OF THE HORIZONTAL OR VERTICAL MINIMUM REQUIRED CLEARANCE FROM A WATER MAIN CANNOT BE MAINTAINED OR IF THE SEWER MAIN IS ABOVE THE WATER MAIN. UPGRADE TO MATERIAL CANNOT BE MADE WITHOUT PRIOR APPROVAL FROM FDEP.
12. SANITARY SEWER GRAVITY MAINS ARE TO BE UPGRADED IN MATERIAL TO WATER MAIN STANDARDS AND HYDROSTATICALLY PRESSURE TESTED WITH WATER TO ENSURE JOINT TIGHTNESS IF EITHER OF THE HORIZONTAL OR VERTICAL MINIMUM REQUIRED CLEARANCE FROM A WATER MAIN CANNOT BE MAINTAINED OR IF THE SEWER MAIN IS ABOVE THE WATER MAIN.
13. LEAKAGE TEST ARE SPECIFIED REQUIRING THAT
    - A) THE LEAKAGE EXFILTRATION OR INFILTRATION DOES NOT EXCEED 200 GALLONS PER INCH OF PIPE DIAMETER PER MILE PER DAY FOR ANY SECTION OF THE SYSTEM.
    - B) EXFILTRATION OR INFILTRATION TESTS BE PERFORMED WITH A MINIMUM POSITIVE HEAD OF 2 FEET.
    - C) AIR TESTS, AS MINIMUM, CONFORM TO THE TEST PROCEDURE DESCRIBED IN ASTM C-924 FOR CONCRETE PIPE, ASTM F-1417 FOR PLASTIC PIPE AND FOR OTHER MATERIALS APPROPRIATE TEST PROCEDURES, AIR TESTING, IF SPECIFIED FOR CONCRETE SEWER MANHOLES, CONFORMS TO THE TEST PROCEDURES DESCRIBED IN ASTM C-1244.
14. DEFLECTION TESTS SHALL BE PERFORMED IN ACCORDANCE WITH THE RECOMMENDED STANDARDS FOR WASTEWATER FACILITIES, CHAPTER 33.85, FOR ALL GRAVITY SANITARY SEWER LINES. TESTING IS REQUIRED AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS TO PERMIT STABILIZATION OF THE SOIL-PIPE SYSTEM.TESTING REQUIREMENTS SPECIFY:
    1) NO PIPE SHALL EXCEED A DEFLECTION OF 5%.
    2) USING A RIGID BALL OR MANDREL FOR THE PIPE DEFLECTION TESTS WITH A DIAMETER NOT LESS THAN 95% OF THE BASE INSIDE DIAMETER OR AVERAGE INSIDE DIAMETER OF THE PIPE, DEPENDING ON WHICH IS SPECIFIED IN THE ASTM SPECIFICATION, INCLUDING THE APPENDIX, TO WHICH THE PIPE IS MANUFACTURED.
    3) PERFORMING THE TEST WITHOUT MECHANICAL PULLING DEVICES.
15. TESTING OF THE SEWAGE COLLECTION SYSTEM IS AS FOLLOWS:
    - A. ALL GRAVITY SEWER MAINS REQUIRE LOW PRESSURE AIR TESTING IN ACCORDANCE WITH THE LATEST UNI-BELL STANDARD FOR LOW PRESSURE AIR TESTS. AIR TEST, AS A MINIMUM, SHALL CONFORM TO THE TEST PROCEDURES DESCRIBED IN ASTM SPECIFICATIONS, ASTM F1417 FOR PLASTIC PIPE.
    - B. ALL SEWER MAINS SHALL BE LAMPED BY IN THE PRESENCE OF A ***MARION COUNTY*** REPRESENTATIVE.
    - C. ALL MANHOLES SHALL BE INSPECTED FOR INFILTRATION, ALIGNMENT, FLOW CHANNEL CONSTRUCTION AND COAL TAR EPOXY PAINT THROUGHOUT.
    - D. HYDRO-STATIC TESTS CONSISTING OF A HYDROSTATIC PRESSURE TEST AND HYDROSTATIC LEAKAGE TEST SHALL BE CONDUCTED ON ALL NEWLY INSTALLED SEWER FORCE MAIN SYSTEM PRESSURE PIPES AND APPURTENANCES IN ACCORDANCE WITH AWWA C600 OR M23 AS APPLICABLE. THE PRESSURE SHALL BE 150 PSI FOR TWO (2) HOURS.
    - E. DEFLECTION TEST ARE REQUIRED FOR ALL FLEXIBLE PIPE EXCLUDING FORCE MAINS. TESTS SHALL BE PERFORMED WITHOUT MECHANICAL PULLING DEVICES.D MEASURED FROM THE INTERFACE TO THE CONCRETE CURB AND PAVEMENT SURFACE UNLESS OTHERWISE NOTED.
16. SANITARY SEWER SERVICES SHALL BE INSTALLED 10' FROM BACK OF CURB.
17. THE CONTRACTOR SHALL SUBMIT THREE (3) SETS OF COMPLETE DETAILED SHOP DRAWINGS FOR ALL SANITARY MANHOLES, WET WELLS, OTHER CASTINGS, AND PUMPS. THE SUBMITTALS SHALL BEAR THE APPROVAL OF THE UNDERGROUND UTILITY CONTRACTOR ON EACH SHEET. A COMPLETE SET OF THE LIFT STATION ELECTRICAL SHOP DRAWINGS IS ALSO REQUIRED IF APPLICABLE. ALL UTILITY SHOP DRAWINGS SHALL BE APPROVED BY THE ENGINEER OF RECORD AND ***MARION COUNTY*** PRIOR TO CONSTRUCTION.

WATER MAIN CONSTRUCTION NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN COMPLIANCE WITH AWWA STANDARDS AS WELL AS THE ***MARION COUNTY*** LDC FOR WATER MAIN CONSTRUCTION.
2. ALL WATER MAIN CONSTRUCTION AND MATERIALS WITHIN R/W OR EASEMENT TO BE OWNED AND MAINTAINED BY MARION COUNTY UTILITIES.
3. SEPARATION REQUIREMENTS (SEE TABLE 1.0-UTILITY SEPARATIONS)

3.1. HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATER MAINS, SANITARY OR STORM SEWERS, WASTEWATER OR STORM WATER FORCE MAINS, RECLAIMED WATER PIPELINES AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS:

3.1.1. NEW OR RELOCATED UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST 3' BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORM WATER FORCE MAIN OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.

3.1.2. NEW OR RELOCATED UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST 3' AND PREFERABLY 10' BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER.

3.1.3. NEW OR RELOCATED UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST 6' AND PREFERABLY 10' BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610 F.A.C.. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS SHALL BE REDUCED TO 3' WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST 6" ABOVE THE TOP OF THE SEWER.

3.2. VERTICAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORM WATER FORCE MAINS OR RECLAIMED WATER PIPELINES:

3.2.1. NEW OR RELOCATED UNDERGROUND WATER MAINS CROSSING ANY GRAVITY OR VACUUM-TYPE SANITARY SEWER PIPE SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 6" AND PREFERABLY 12" ABOVE OR AT LEAST 12" BELOW THE OUTSIDE OF THE OTHER PIPE. IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.

3.2.2. NEW OR RELOCATED UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORM WATER FORCE MAIN OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12" ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.

3.2.3. AT THE UTILITY CROSSINGS DESCRIBED IN THE ABOVE PARAGRAPHS, 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. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST 3' FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORM WATER FORCE MAINS OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., AND AT LEAST 6' 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..

3.3. NO WATER MAIN SHALL PASS THROUGH OR COME INTO CONTACT WITH ANY PART OF A SANITARY SEWER MANHOLE OR A STORM SEWER MANHOLE.

3.4. NEW OR RELOCATED FIRE HYDRANTS WITH UNDERGROUND DRAINS SHALL BE LOCATED SO THAT THE DRAINS ARE AT LEAST 3' FROM ANY EXISTING OR PROPOSED STORM SEWER, STORM WATER FORCE MAIN OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., AT LEAST 3' BUT PREFERABLY 10' FROM ANY EXISTING OR PROPOSED GRAVITY OR 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 AT LEAST 10' FROM ANY EXISTING OR PROPOSED ON-SITE SEWAGE TREATMENT OR DISPOSAL SYSTEM AS DEFINED IN SECTION 381.0065(2), F.S. AND RULE 64E-6.002, F.A.C..

3.5. EXCEPTIONS / MITIGATION:
ADHERENCE TO THE ABOVE CONSTRAINTS AND SEPARATIONS IN THE ABOVE ITEMS SHALL BE COMPLIED WITHOUT EXCEPTION. IF FOR SOME REASON WHERE IT IS NOT TECHNICALLY FEASIBLE OR ECONOMICALLY SENSIBLE THAT THE ABOVE ITEMS CANNOT BE COMPLIED WITH, CONTRACTOR IS TO STOP WORK AND NOTIFY THE ENGINEER OF RECORD FOR THE APPROPRIATE SOLUTION. THE SOLUTION WILL BE SUBMITTED TO THE DEPARTMENT OF ENVIRONMENTAL PROTECTION FOR APPROVAL PRIOR TO WORK COMMENCEMENT.

4. PIPE LENGTHS SHOWN REPRESENT SCALED DISTANCES BETWEEN FITTINGS OF BRANCHES AND MAINS.
5. DEFLECTIONS AT PIPE JOINTS SHALL NOT EXCEED THOSE RECOMMENDED BY THE PIPE MANUFACTURER.
6. ALL GATE VALVES SHALL BE EQUIPPED WITH AN ADJUSTABLE CAST IRON VALVE BOX WITH COVER, WITH THREADED EXTENSION WHERE NEEDED.
7. ALL PUBLIC WATER SYSTEMS COMPONENTS, EXCLUDING FIRE HYDRANTS, THAT SHALL BE INSTALLED UNDER THIS PROJECT, AND THAT SHALL COME INTO CONTACT WITH DRINKING WATER SHALL CONFORM TO NSF INTERNATIONAL STANDARD 61 AND SHALL BE MARKED WITH NSF SEAL OF APPROVAL.
8. ALL PIPE AND PIPE FITTINGS INSTALLED UNDER THIS PROJECT SHALL BE COLOR CODED MARKED IN ACCORDANCE WITH SUBPARAGRAPH 62-555.320(21)(b)3, F.A.C., USING BLUE AS A PREDOMINANT COLOR. ALL DUCTILE IRON WATER MAINS SHALL BE MARKED WITH A CONTINUOUS STRIPE LOCATED WITHIN THE TOP 90 DEGREES OF THE PIPE. SAID STRIPE SHALL BE A MINIMUM 2 INCHES IN WIDTH AND SHALL BE BLUE IN COLOR IF PAINT IS USED INSTEAD OF TAPE. BACKFILL SHALL NOT BE PLACED FOR 30 MINUTES FOLLOWING PAINT APPLICATION. FOR PIPE WITH AN INTERNAL DIAMETER OF 24" OR GREATER, TAPE OR PAINT SHALL BE APPLIED IN CONTINUOUS LINES A LONG EACH SIDE OF THE PIPE AS WELL AS A LONG THE TOP OF THE PIPE.
9. ALL NON-METALLIC WATER MAINS SHALL BE INSTALLED WITH A CONTINUOUS, INSULATED 10 SOLID GAUGE COPPER WIRE INSTALLED DIRECTLY ON TOP OF THE PIPE FOR LOCATION PURPOSES. SEE STANDARD DRAWINGS. IN ADDITION, ALL PVC WATER MAINS SHALL BE A SOLID BLUE COLOR.
10. MARK DRINKING WATER SERVICES BY ETCHING A "W" INTO CURBING & AN ETCHED "V" FOR VALVES.
11. PIPE MATERIALS: ALL PIPES, PIPE FITTINGS, PIPE JOINT PACKING AND JOINTING MATERIALS, VALVES, FIRE HYDRANTS, AND METERS INSTALLED UNDER THIS PROJECT SHALL CONFORM TO APPLICABLE AWWA STANDARDS.
    - A. PVC WATER MAINS 4 INCHES TO 12 INCHES SHALL BE IN ACCORDANCE WITH AWWA C900, LATEST EDITION AND SHALL BE DR18. PVC WATER MAINS 14 INCHES TO 36 INCHES SHALL BE IN ACCORDANCE WITH AWWA C905, LATEST EDITION AND SHALL BE DR18. PVC PIPES LESS THAN 4 INCHES ARE NOT ALLOWED IN MARION COUNTY. IN OTHER JURISDICTIONS, THEY SHALL BE IN ACCORDANCE WITH ASTM D1785 (SCHEDULE 40, 80, 120) OR ASTM D2241 SDR 21. ALL PVC SHALL BE 150 PSI. ALL PVC PIPE SHALL HAVE THE SAME O.D. AS DUCTILE IRON PIPE. PVC PIPE JOINTS SHALL BE IN ACCORDANCE WITH ASTM D3139 AND AWWA STANDARDS.
    - B. DUCTILE IRON PIPE SHALL CONFORM TO ANSI A21.51/AWWA C151 AND SHALL BE A MINIMUM OF CLASS 50. DUCTILE IRON JOINTS SHALL BE IN ACCORDANCE WITH ANSI A21.11 AND AWWA C111.
    - C. ALL SERVICES SHALL BE POLYETHYLENE TUBING, CLASS 160 AND SHALL BE IN ACCORDANCE WITH AWWA C901.
12. WATER MAIN CONNECTION SHALL BE MADE UNDER THE SUPERVISION OF THE ***MARION COUNTY***. ALL VALVES SHALL BE OPERATED BY ***MARION COUNTY*** PERSONNEL ONLY. WATER MAINS ARE TO BE DISINFECTED PER ANSIWWA C651-92 AND MARION COUNTY LAND DEVELOPMENT CODE OF STANDARDS AND SPECIFICATIONS FOR WASTEWATER AND WATER MAIN CONSTRUCTION SECTION 51.6 WHICH INCLUDES A FULL FLUSH.
13. ALL VALVES SHALL BE LOCATED IN NON PAVED AREAS, UNLESS SPECIFIED ON PLANS.
14. FIRE HYDRANT LEADS SHALL HAVE A MINIMUM INSIDE DIAMETER OF 6" AND SHALL INCLUDE AN AUXILIARY VALVE.
15. IF AGGRESSIVE SOIL CONDITIONS ARE FOUND DURING CONSTRUCTION, WATER MAINS SHALL BE PROTECTED THROUGH THE USE OF CORROSION RESISTANT MATERIALS, THROUGH ENCASEMENT OF THE WATER MAINS IN POLYETHYLENE, OR THROUGH PROVISION OF CATHODIC PROTECTION.
16. ALL PIPE AND PIPE FITTINGS INSTALLED UNDER THIS PROJECT SHAL BE "LEAD FREE" AS DEFINED IN THE LATEST VERSION OF THE SAFE WATER DRINKING ACT.
17. WHERE NEW OR ALTERED DEAD-END WATER MAINS INCLUDED IN THIS PROJECT CANNOT BE AVOIDED, THEY SHALL BE PROVIDED WITH A FIRE FLUSHING HYDRANT OR BLOW-OFF FOR FLUSHING PURPOSES.
18. ALL FIRE HYDRANTS THAT WILL BE INSTALLED UNDER THIS PROJECT SHALL BE LOCATED AT LEAST THREE FEET FROM ANY EXISTING OR PROPOSED STORM SEWER, STORM WATER FORCE MAIN, PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., OR VACUUM - TYPE SANITARY SEWER; AT LEAST SIX FEET FROM ANY EXISTING OR PROPOSED GRAVITY - OR PRESSURE - TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
19. PROPOSED FIRE HYDRANTS CONNECTED TO THE POTABLE WATER MAIN, FOR THIS PROJECT, SHALL BE PAINTED PER NFPA AND AWWA STANDARDS. FIRE HYDRANTS CONNECTED TO THE DESIGNATED FIRE LINE SHALL BE PAINTED PER JURISDICTION.
20. ALL PIPE AND PIPE FITTINGS INSTALLED UNDER THIS PROJECT WILL BE COLOR CODED OR MARKED IN ACCORDANCE WITH SUBPARAGRAPH 62-555.320(21)(b)3,F.A.C, USING BLUE AS A PREDOMINANT COLOR. (UNDERGROUND PLASTIC PIPE WILL BE SOLID-WALL BLUE PIPE, WILL HAVE A CO-EXTRUDED BLUE EXTERNAL SKIN, OR WILL BE WHITE OR BLACK PIPE WITH BLUE STRIPES INCORPORATED INTO, OR APPLIED TO, THE PIPE WALL; AND UNDERGROUND METAL OR CONCRETE PIPE WILL HAVE BLUE STRIPED APPLIED TO THE PIPE WALL. PIPE STRIPED DURING MANUFACTURING OF THE PIPE WILL HAVE CONTINUOUS STRIPES THAT RUN PARALLEL TO THE AXIS OF THE PIPE, THAT ARE LOCATED AT NO GREATER THAN 90-DEGREE INTERVALS AROUND THE PIPE, AND THAT WILL REMAIN INTACT DURING AND AFTER INSTALLATION OF THE PIPE. IF TAPE OR PAINT IS USED TO STRIPE PIPE DURING INSTALLATION OF THE PIPE, THE TAPE OR PAINT WILL BE APPLIED IN A CONTINUOUS LINE THAT RUNS PARALLEL TO THE AXIS OF THE PIPE AND THAT IS LOCATED ALONG THE TOP OF THE PIPE; FOR PIPE WITH AN INTERNAL DIAMETER OF 24 INCHES OR GREATER, TAPE OR PAINT WILL BE APPLIED IN CONTINUOUS LINES ALONG EACH SIDE OF THE PIPE AS WELL AS ALONG THE TOP OF THE PIPE. ABOVEGROUND PIPE WILL BE PAINTED BLUE OR WILL BE COLOR CODED OR MARKED LIKE UNDERGROUND PIPE.) [FAC 62-555.320(21)(b)3]
21. THE OPEN END OF THE AIR RELIEF PIPE FROM ALL AUTOMATIC AIR RELIEF VALVES WILL BE EXTENDED TO AT LEAST ONE FOOT ABOVE GRADE AND WILL BE PROVIDED WITH A SCREENED, DOWNWARD-FACING ELBOW. [FAC 62-555.320(21)(b)3, AND RSWW 8.4.2]
22. A CONTINUOUS AND UNIFORM BEDDING WILL BE PROVIDED IN TRENCHES FOR UNDERGROUND PIPE; BACKFILL MATERIAL WILL BE TAMPED IN LAYERS AROUND UNDERGROUND PIPE TO ADEQUATELY SUPPORT AND PROTECT THE PIPE; AND UNSUITABLY SIZED STONES (AS DESCRIBED IN APPLICABLE AWWA STANDARDS OR MANUFACTURERS' RECOMMENDED INSTALLATION PROCEDURES) FOUND IN TRENCHES WILL BE REMOVED FOR A DEPTH OF AT LEAST SIX INCHES BELOW THE BOTTOM OF UNDERGROUND PIPE. [FAC 62-555.320(21)(b)3, AND RSWW 8.5.2]
23. ALL WATER MAIN TEES, BENDS, PLUGS, AND HYDRANTS WILL BE PROVIDED WITH THRUST BLOCKS OR RESTRAINED JOINTS TO PREVENT MOVEMENT. [FAC 62-555.320(21)(b)3, AND RSWW 8.5.4]
24. NEW OR ALTERED WATER MAIN INSTALLATION AND PRESSURE AND LEAKAGE TESTING, SHALL BE PROVIDED IN ACCORDANCE WITH APPLICABLE AWWA STANDARDS. PVC WATER MAIN INSTALLATION AND TESTING SHALL CONFORM TO AWWA C605. DUCTILE IRON WATER MAIN INSTALLATION AND TESTING SHALL CONFORM TO AWWA C600. THE PRESSURES SHALL BE 150 PSI FOR 2 HOURS.
25. NEW OR ALTERED WATERMAINS, INCLUDING FIRE HYDRANT LEADS AND SERVICE LINES THAT WILL BE UNDER THE CONTROL OF A PUBLIC WATER SYSTEM AND THAT HAVE AN INSIDE DIAMETER OF THREE INCHES OR GREATER, SHALL BE DISINFECTED AND BACTERIOLOGICALLY TESTED IN ACCORDANCE WITH AWWA C651.
26. THE MINIMUM COVER TO BE PROVIDED OVER POTABLE WATER LINES SHALL BE 3'. RSWW 8.7.3
27. WATER SERVICES SHALL BE INSTALLED 10' FROM BACK OF CURB.

FORCE MAIN NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN COMPLIANCE WITH THE ***MARION COUNTY*** LDC FOR FORCE MAIN CONSTRUCTION.
2. ALL FORCE MAIN CONSTRUCTION AND MATERIALS TO BE OWNED AND MAINTAINED BY ***MARION COUNTY***.
3. PIPE LENGTHS SHOWN IN REPRESENT SCALED DISTANCES BETWEEN FITTINGS OF BRANCHES AND MAINS.
4. DEFLECTIONS AT PIPE JOINTS SHALL NOT EXCEED THOSE RECOMMENDED BY THE PIPE MANUFACTURER.
5. VALVES SHALL BE EQUIPPED WITH AN ADJUSTABLE CAST IRON VALVE BOX WITH COVER, WITH THREADED EXTENSIONS WHERE NEEDED, UNLESS OTHERWISE NOTED.
6. ALL PVC FORCE MAIN SHALL BE AS SPECIFIED IN THE CONTRACT DOCUMENTS, MARKED WITH THE SEAL OF APPROVAL OF THE NATIONAL SANITATION FOUNDATION (NSF).
7. ALL NON-METALLIC FORCE MAINS SHALL BE INSTALLED WITH A CONTINUOUS, INSULATED 10 SOLID GAUGE COPPER WIRE INSTALLED DIRECTLY ON TOP OF THE PIPE FOR LOCATION PURPOSES. SEE STANDARD DRAWINGS. IN ADDITION, ALL PVC FORCE MAINS SHALL BE EITHER A SOLID GREEN COLOR OR WHITE WITH GREEN LETTERING. ALL LETTERING SHALL APPEAR LEGIBLY ON PIPE AND SHALL RUN THE ENTIRE LENGTH OF THE PIPE. LETTERING SHALL READ AS IS ACCEPTABLE FOR THE INTENDED USE.
8. HYDROSTATIC & LEAKAGE TESTING OF THE FORCE MAIN SHALL BE DONE IN ACCORDANCE WITH THE AWWA STANDARDS. HYDROSTATIC TESTING TO BE DONE IN ACCORDANCE WITH AWWA C-600.
9. PIPE MATERIALS:
PVC - SHALL BE MANUFACTURED IN ACCORDANCE WITH AWWA STANDARD C900, LATEST EDITION. THE PVC SHALL HAVE A MINIMUM WORKING PRESSURE OF 100 PSI AND SHALL HAVE A DIMENSION RATIO (DR) OF 25 UNLESS OTHERWISE NOTED. PIPE SHALL BE THE SAME O.D. AS DUCTILE IRON PIPE. PVC JOINT - SHALL BE IN ACCORDANCE WITH ASTM D3139. DUCTILE IRON JOINT - SHALL BE IN ACCORDANCE WITH ANSI A21.11 AND AWWA C111.
10. AIR RELEASE VALVES SHALL BE REQUIRED AT ALL HIGH POINTS IN THE PROPOSED FORCE MAIN, AS SHOWN ON PLANS. HIGH POINTS IN THE FORCE MAIN ARE DEFINED AS A CHANGE IN ELEVATION TWICE THE DIAMETER OF THE PIPE.
11. ALL FORCE MAINS TO BE CONSTRUCTED WITH A MINIMUM OF 4' FEET OF COVER.
12. TESTING OF THE SEWAGE COLLECTION SYSTEM IS AS FOLLOWS:

HYDRO-STATIC TESTS CONSISTING OF A HYDROSTATIC PRESSURE TEST AND HYDROSTATIC LEAKAGE TEST SHALL BE CONDUCTED ON ALL NEWLY INSTALLED SEWER FORCE MAIN SYSTEM PRESSURE PIPES AND APPURTENANCES IN ACCORDANCE WITH AWWA C600 OR M23 AS APPLICABLE. THE PRESSURE SHALL BE 100 PSI FOR TWO (2) HOURS.

FIRE DEPARTMENT

1. THE STRUCTURES BEING CONSTRUCTED ON THE PROPERTY WILL BE CONSTRUCTED UNDER THE 8th EDITION OF FLORIDA FIRE PREVENTION CODE.
2. PER ***MARION COUNTY*** CRITERIA:
FIRE HYDRANTS MUST BE LOCATED SO AS NOT TO REQUIRE THE LAYING OF MORE THAN FIVE-HUNDRED (400) FEET OF HOSE CONNECTED TO SUCH HYDRANT, ALONG THE NEAREST PUBLIC RIGHT-OF-WAY, TO THE CENTER OF ANY BUILDABLE LOT OR PARCEL IN THE DEVELOPMENT.
3. ANY NEW HYDRANTS MUST BE ABLE TO SUPPLY 1000 G.P.M. OF WATER AT 20 P.S.I. AT ANY TIME OF THE DAY. ANY NEW HYDRANTS SHALL BE TESTED BY THE CONTRACTOR IN THE PRESENCE OF THE FIRE DEPARTMENT PRIOR TO APPROVAL OF THE FIRE HYDRANTS BY THE FIRE DEPARTMENT.(8TH EDITION OF FLORIDA FIRE PREVENTION CODE)
4. EACH NEW FIRE HYDRANT SHALL HAVE TOPS AND BONNETS POWDER COATED FROM FACTORY, SAFETY BLUE.
5. WHERE UNDERGROUND WATER MAINS AND HYDRANTS ARE TO BE PROVIDED, THEY SHALL BE INSTALLED, COMPLETED, AND IN SERVICE PRIOR TO CONSTRUCTION WORK. (8TH EDITION OF FLORIDA FIRE PREVENTION CODE)
6. THE ACCESS ROADS SHALL REMAIN CLEAR OF VEHICULAR OBSTRUCTIONS TO ALLOW ACCESS OF FIRE DEPARTMENT UNITS WHILE THE BUILDINGS ARE BEING CONSTRUCTED. (8TH EDITION OF FLORIDA FIRE PREVENTION CODE)
7. IF LAND CLEARING OPERATIONS REQUIRE BURNING, A BURN PERMIT MUST BE OBTAINED FROM THE DEPARTMENT OF FORESTRY PRIOR TO BURNING ANY MATERIAL.
8. ONCE ALL NEW HYDRANTS HAVE BEEN INSTALLED, TESTED, AND PAINTED PER NFPA 291 BY A THIRD PARTY CONTRACTOR. PLEASE PROVIDE THE MARION COUNTY FIRE PREVENTION OFFICE WITH A COPY OF THE HYDRANT FLOW DATA.
9. FIRE HYDRANT LOCATIONS SHALL BE INDICATED BY PLACEMENT OF A BLUE REFLECTOR IN THE MIDDLE OF THE ROADWAY LANE CLOSEST TO THE HYDRANT.

IRRIGATION REUSE NOTES

1. ALL IRRIGATION PIPING TO BE OWNED AND MAINTAINED BY THE HOA SHALL BE A SOLID PURPLE COLOR.
2. IRRIGATION MAINS SHALL BE PVC CONFORMING TO AWWA C-900, DR 18 FOR PIPE SIZES 4"-12". pipes 14" & LARGER SHALL BE AWWA C-905, DR 18. ALL COUPLINGS, CLEANING COMPOUNDS, SOLVENTS, LUBRICANTS, AND PIPE PREPARATION, FOR LAYING SHALL BE IN ACCORDANCE WITH THE PIPE MANUFACTURERS LATEST RECOMMENDATIONS.
3. DEPTH OF IRRIGATION LINES TO BE 36" BELOW FINISHED GRADE.
4. IRRIGATION MAINS TO BE LOCATED 5' FROM BACK OF CURB OR EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
5. ALL IRRIGATION MAINS UNDER PAVEMENT SHALL BE DUCTILE IRON PIPE AND SHALL EXTEND 5' BEYOND THE EDGE OF PAVEMENT OR BACK OF CURB.
6. ALL IRRIGATION SLEEVING UNDER PAVEMENT SHALL EXTEND 5' BEYOND THE EDGE OF PAVEMENT OR BACK OF CURB.

EROSION CONTROL NOTES

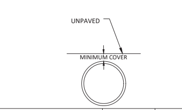
1. DURING CONSTRUCTION, THE CONTRACTORS SHALL TAKE ALL REASONABLE MEASURES TO INSURE AGAINST POLLUTING, SILTING OR DISTURBING TO SUCH AN EXTENT AS TO CAUSE AN INCREASE IN TURBIDITY TO THE EXISTING SURFACE WATERS. SUCH MEASURES SHALL BE APPROVED BY THE PROJECT ENGINEER AND MAY INCLUDE, BUT NOT LIMITED TO, CONSTRUCTION OF TEMPORARY EROSION CONTROL STRUCTURES SUCH AS SEDIMENT BASINS, SEDIMENT CHECKS, OR SILT BARRIERS.
2. CONTRACTOR IS RESPONSIBLE TO COMPLY WITH ALL EROSION CONTROL MEASURES AS SHOWN ON THE EROSION CONTROL PLAN.
3. SODDING OF DETENTION PONDS SHOULD BE ACCOMPLISHED WITHIN 14 DAYS OF POND GRADING TO MINIMIZE EROSION POTENTIAL.
4. AT A MINIMUM, THE RETENTION/DETENTION STORAGE AREA MUST BE EXCAVATED WITHIN ONE FOOT PRIOR TO BUILDING CONSTRUCTION OR PLACEMENT OF IMPERVIOUS SURFACE WITHIN THE AREA TO BE SERVED BY THOSE FACILITIES. TO PREVENT REDUCTION IN STORAGE VOLUME AND PERCOLATION RATES. ALL ACCUMULATED SEDIMENT MUST BE REMOVED FROM THE STORAGE AREA PRIOR TO FINAL GRADING AND STABILIZATION.
5. IF DURING CONSTRUCTION, THE PROPOSED EROSION SYSTEM DOES NOT PERFORM SATISFACTORILY, ALTERNATIVES AND ADDITIONAL METHODS OF PROTECTION SHALL BE IMPLEMENTED BY THE CONTRACTOR IN ORDER TO COMPLY WITH ***S.W.F.W.M.D.*** AND ***MARION COUNTY*** EROSION CONTROL COSTS INCLUDING ANY COSTS ASSOCIATED WITH COMPLIANCE ISSUES AND ENFORCEMENT ACTIONS.
6. A 2' STRIP OF SOD SHALL BE PLACED BEHIND BACK OF CURB.
7. ALL SODDED AND/OR SEEDED AREAS MUST BE WATERED AS NECESSARY DURING CONSTRUCTION AND 2 MONTHS AFTER COMPLETION OF CONSTRUCTION IN ORDER TO ENSURE STABILIZATION AND SURVIVAL.

LOCATION OF PUBLIC WATER SYSTEM MAINS IN ACCORDANCE WITH F.A.C. RULE 62-555.314

OTHER PIPE	HORIZONTAL SEPARATION	CROSSINGS (1)	JOINT SPACING @ CROSSINGS (FULL JOINT CENTERED)
STORM SEWER, STORMWATER FORCE MAIN, RECLAIMED WATER (2)	Water Main 3 ft. minimum	Water Main 12 inches is the minimum, except for storm sewer, then 6 inches is the minimum and 12 inches is preferred	ALTERNATE 3 FT. MINIMUM Water Main
VACUUM SANITARY SEWER	Water Main 10 ft. preferred 3 ft. minimum	Water Main 12 inches is preferred 6 inches minimum	ALTERNATE 3 FT. MINIMUM Water Main
GRAVITY OR PRESSURE SANITARY SEWER, SANITARY SEWER FORCE MAIN, RECLAIMED WATER (2)	Water Main 10 ft. preferred 6 ft. minimum (3)	Water Main 12 inches is the minimum, except for gravity sewer, then 6 inches is the minimum and 12 inches is preferred	ALTERNATE 6 FT. MINIMUM Water Main
ON-SITE SEWAGE TREATMENT & DISPOSAL SYSTEM	10 ft. minimum	—	—

1. WATER MAIN SHOULD CROSS ABOVE OTHER PIPE. WHEN WATER MAIN MUST BE BELOW OTHER PIPE, THE MINIMUM SEPARATION IS 12 INCHES.
2. RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
3. 3 FT. FOR GRAVITY SANITARY SEWER WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST 6 INCHES ABOVE THE TOP OF THE GRAVITY SANITARY SEWER.
4. RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.

TABLE 2.0 - STORM PIPE COVER (UNPAVED)



PIPE TYPE/SIZE & SHAPE	COMMERCIAL	NON-COMMERCIAL
CONCRETE *		
ROUND & ELLIPTICAL	12"	3"
CORRUGATED STEEL		
12" - 30" ROUND	18" [15"]	12" [12"]
36"- 48" ROUND	18" (12") [15"]	12" (12") [12"]
54" - 72" ROUND	18" (12") [15"]	15" (12") [12"]
78" - 96" ROUND	(18") [27"]	(12") [12"]
102" & LARGER ROUND	24" [33"]	18" [21"]
15" - 30" ARCH EQUIVALENT	18" [18"]	12" [12"]
36" - 48" ARCH EQUIVALENT	24" (12") [21"]	18" (12") [15"]
54" - 72" ARCH EQUIVALENT	30" (18") [24"]	24" (12") [18"]
78" - 96" ARCH EQUIVALENT	(24") [27"]	(18") [21"]
102" & LARGER ARCH EQUIVALENT	(30")	(24")
CORRUGATED ALUMINUM		
12" - 24" ROUND	21" [21"]	15" [15"]
30" - 48" ROUND	24" (18") [21"]	18" (12") [15"]
54" - 72" ROUND	30" (24") [27"]	24" (18") [21"]
78" - 102" ROUND	(30") [33"]	(24") [27"]
108" & LARGER ROUND	36"	30"
15" - 24" ARCH EQUIVALENT	27" [24"]	24" [21"]
30" - 48" ARCH EQUIVALENT	33" (21") [27"]	27" (15") [21"]
54" - 72" ARCH EQUIVALENT	36" (24") [30"]	30" (18") [24"]
78" - 90" ARCH EQUIVALENT	(30") [36"]	(24") [30"]
96" - 102" ARCH EQUIVALENT	(36")	(30")
CORRUGATED POLYETHYLENE		
15" - 48" ROUND	21"	15"
POLYVINYL CHLORIDE		
15" - 48" ROUND	21"	15"

VALUES SHOWN IN PARENTHESIS ( ) ARE FOR 3" X 1" CORRUGATIONS WHICH MUST BE SPECIFIED TO UTILIZE THE LESSER COVER.
VALUES SHOWN IN BRACKETS [ ] APPLY TO TYPE 1-R (SPIRAL RIB) PIPE WHICH MUST BE SPECIFIED TO UTILIZE THE LESSER COVER.
*FOR PIPE CLASS "S" WITH DIAMETERS OF 12" TO 30", THE MINIMUM HEIGHT OF FILL IS 3'.

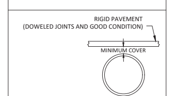
AS-BUILT NOTES

1. THE CONTRACTOR SHALL SUBMIT A CERTIFIED SET OF RECORD DRAWINGS TO THE ENGINEER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECORDING INFORMATION ON THE APPROVED PLANS CONCURRENTLY WITH CONSTRUCTION PROGRESS. RECORD DRAWINGS SUBMITTED TO THE ENGINEER AS PART OF THE PROJECT ACCEPTANCE SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS.
    - A. DRAWINGS SHALL BE LEGIBLY MARKED TO RECORD ACTUAL CONSTRUCTION.
    - B. DRAWINGS SHALL SHOW ACTUAL LOCATION OF ALL UNDERGROUND AND ABOVE GROUND STORM DRAINAGE, WATER, REUSE AND WASTEWATER PIPING AND RELATED APPURTENANCES. ALL PIPING LOCATIONS INCLUDING HORIZONTAL AND VERTICAL LOCATIONS OF UTILITIES AND APPURTENANCES SHALL BE CLEARLY SHOWN AND REFERENCED TO PERMANENT SURFACE IMPROVEMENTS. DRAWINGS SHALL ALSO SHOW ACTUAL INSTALLED PIPE MATERIAL, CLASS, ETC.
    - C. DRAWINGS SHALL CLEARLY SHOW ALL FIELD CHANGES OF DIMENSION AND DETAIL INCLUDING CHANGES MADE BY FIELD ORDER OR BY CHANGE ORDER.
    - D. DRAWINGS SHALL CLEARLY SHOW ALL DETAILS NOT ON ORIGINAL CONTRACT DRAWINGS, BUT CONSTRUCTED IN THE FIELD. ALL EQUIPMENT AND PIPING RELOCATION SHALL BE CLEARLY SHOWN.
    - E. LOCATION OF ALL INLETS AND MANHOLES, HYDRANTS, VALVES AND VALVE BOXES SHALL BE SHOWN. ALL VALVES SHALL BE REFERENCED FROM AT LEAST TWO PREFERABLY THREE PERMANENT POINTS.
    - F. DIMENSIONS BETWEEN ALL INLETS AND MANHOLES SHALL BE VERIFIED AND SHOWN. THE INVERTS AND GRADE ELEVATIONS OF ALL INLETS, CONTROL STRUCTURES AND MANHOLES SHALL BE SHOWN.
    - G. CONTRACTOR SHALL PROVIDE AS-BUILT SURVEY FOR POND GRADING. SPOT ELEVATIONS SHALL BE TAKEN AT TOP OF BANK, POND BOTTOM, AND ALL GRADE BREAKS AT 50' INTERVALS.
    - H. DRAWINGS SHALL CLEARLY INDICATE VERTICAL AND HORIZONTAL SEPARATION BETWEEN WATER MAIN AND STORM DRAINAGE/SANITARY SEWER/RECLAIM WATER MAINS AT POINTS OF CROSSING IN ACCORDANCE WITH FDEP CRITERIA.
    - I. WHERE THE WATER MAIN CROSSES OTHER UTILITIES (STORM, GRAVITY SEWER, FORCE MAIN AND RECLAIMED WATER), THE CERTIFIED AS-BUILT DRAWINGS SHALL CLEARLY INDICATE THE CONSTRUCTED ELEVATIONS IN SUCH A WAY THAT THE VERTICAL SEPARATION BETWEEN THE WATER MAIN AND OTHER UTILITIES MAY BE VERIFIED BY THE ENGINEER. FAILURE TO PROVIDE THIS INFORMATION WILL RESULT IN THE CONTRACTOR EXCAVATING AND SURVEYING THE UTILITIES AT NO ADDITIONAL COST TO THE OWNER.
    - J. WHERE THE WATER MAIN CROSSES OTHER UTILITIES (STORM, GRAVITY SEWER, FORCE MAIN AND RECLAIMED WATER), THE CERTIFIED AS-BUILT DRAWINGS SHALL CLEARLY INDICATED THE LOCATIONS OF PIPE JOINTS IN SUCH A MANNER AS TO DEMONSTRATE THE PIPE IS CENTERED AT ALL THE CROSSING. FAILURE TO PROVIDE THIS INFORMATION WILL RESULT IN THE CONTRACTOR EXCAVATING AND SURVEYING THE UTILITIES AT NO ADDITIONAL COST TO THE OWNER.
2. EACH SHEET OF THE PLANS SHALL BE SIGNED, SEALED AND DATED BY REGISTERED SURVEYOR WITH A NOTE READING "THESE AS-BUILT DRAWINGS ACCURATELY DEPICT THE ACTUAL IMPROVEMENTS AS CONSTRUCTED".

CLEARANCES

1. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING 90 DAYS PRIOR TO THE ANTICIPATED COMPLETION OF CONSTRUCTION AND/OR CERTIFICATION OF COMPLETION APPROVAL DATE.
2. INFO UPON RECEIPT OF AS-BUILTS, PLEASE SEND TO MCU ASAP FOR INITIAL REVIEW SO DELAYS ARE MINIMIZED IN PROCESSING CLEARANCES AND BILL OF SALE. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH SIGNED AND SEALED AS-BUILTS OF ALL UTILITY IMPROVEMENTS, PRESSURE TESTS, BACTERIOLOGICAL TESTS, AND ANY OTHER INFORMATION NECESSARY FOR THE CLEARANCE APPROVALS WITH ***F.D.E.P.*** AND THE LOCAL UTILITY PROVIDER. THIS INFORMATION SHALL BE PROVIDED TO THE ENGINEER 60 DAYS PRIOR TO THE ANTICIPATED COMPLETION OF CONSTRUCTION AND/OR CERTIFICATION OF COMPLETION APPROVAL DATE.
3. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH SIGNED AND SEALED AS-BUILTS OF ALL STORM WATER SYSTEM IMPROVEMENTS AND ANY OTHER INFORMATION NECESSARY FOR THE CLEARANCE APPROVALS WITH ***S.W.F.W.M.D.*** AND THE LOCAL UTILITY PROVIDER. THIS INFORMATION SHALL BE PROVIDED TO THE ENGINEER 60 DAYS PRIOR TO THE ANTICIPATED COMPLETION OF CONSTRUCTION AND/OR CERTIFICATION OF COMPLETION APPROVAL DATE.

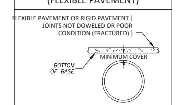
TABLE 3.0 -STORM PIPE COVER (RIGID PAVEMENT)



PIPE TYPE/SIZE & SHAPE	MINIMUM COVER
CONCRETE *	
ROUND & ELLIPTICAL	9"
CORRUGATED STEEL *	
15"-72" ROUND & ARCH EQUIVALENT	9"
78" & LARGER ROUND AND ARCH EQUIVALENT	15"
CORRUGATED ALUMINUM	
15" - 72" ROUND AND ARCH EQUIVALENT	9"
78" - 102" ROUND AND ARCH EQUIVALENT	15"
108" & LARGER ROUND	18"
CORRUGATED POLYETHYLENE	
15" - 48" ROUND	9"
POLYVINYL CHLORIDE	
15" - 48" ROUND	9"

*FOR PIPE CLASS "S" WITH DIAMETERS OF 12" TO 30", THE MINIMUM HEIGHT OF FILL IS 3'.

TABLE 4.0 -STORM PIPE COVER (FLEXIBLE PAVEMENT)



PIPE TYPE/SIZE & SHAPE	MINIMUM COVER
CONCRETE *	
ROUND & ELLIPTICAL	7"
CORRUGATED STEEL *	
12"-30" ROUND	12" [12"]
36"-48" ROUND	18" (12") [15"]
54"-72" ROUND	21" (15") [18"]
78"-96" ROUND	(18") [27"]
102 & LARGER ROUND	(24") [33"]
15"-30" ARCH EQUIVALENT	18" [18"]
36"-48" ARCH EQUIVALENT	24" (12") [18"]
54"-72" ARCH EQUIVALENT	27" (15") [24"]
78"-96" ARCH EQUIVALENT	(18") [30"]
102" & LARGER ARCH EQUIVALENT	(24")
CORRUGATED ALUMINUM	
12"-24" ROUND	15" [12"]
30"-48" ROUND	18" (12") [18"]
54"-72" ROUND	24" (18") [24"]
78"-102" ROUND	(24") [30"]
108" & LARGER	(30")
15"-24" ARCH EQUIVALENT	24" [21"]
30"-48" ARCH EQUIVALENT	27" (15") [24"]
54"-72" ARCH EQUIVALENT	30" (18") [27"]
78"-90" ARCH EQUIVALENT	(24") [30"]
96"-102" ARCH EQUIVALENT	(30")
CORRUGATED POLYETHYLENE	
15" - 30" ROUND	15"
POLYVINYL CHLORIDE	
15" - 30" ROUND	15"

VALUES SHOWN IN PARENTHESIS ( ) ARE FOR 3" X 1" CORRUGATIONS WHICH MUST BE SPECIFIED TO UTILIZE THE LESSER COVER.
VALUES SHOWN IN BRACKETS [ ] APPLY TO TYPE 1-R (SPIRAL RIB) PIPE WHICH MUST BE SPECIFIED TO UTILIZE THE LESSER COVER.
*FOR PIPE CLASS "S" WITH DIAMETERS OF 12" TO 30", THE MINIMUM HEIGHT OF FILL IS 3'.

Marion County Approval Stamp

Tillman & Associates
ENGINEERING, LLC.
CIVIL ENGINEERING - PLANNING - LANDSCAPE ARCHITECTURE - ENVIRONMENTAL
1720 SE 16th Ave. Bldg 100, Ocala, FL 34471
Office: (352) 387-4540 Fax: (352) 387-4545

REVISIONS

DATE

MAJOR SITE PLAN
DIAMOND "A" SHOPPING CENTER
MARION COUNTY, FLORIDA

GENERAL NOTES

DATE 10/28/25
DRAWN BY JA
CHKD. BY JMM
JOB NO. 23-8231

SHT. 02.01

NOT VALID UNLESS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER

MARION COUNTY APPROVAL STAMP

N

0 700' 1400'

SCALE IN FEET
1" = 700'

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CIVIL ENGINEERING - PLANNING - LANDSCAPE ARCHITECTURE - ENVIRONMENTAL
17201 SE 16th Ave, Bldg 100, Ocala, FL 34471
OFFICE: (352) 873-0310 FAX: (352) 873-4545
CERTIFICATE OF AUTHORIZATION #3256

REVISIONS

DATE

MASS GRADING PHASE 4
CALDSA TOWNSHIP
MARION COUNTY, FLORIDA

AERIAL PHOTOGRAPH (2023)

DATE 12/1/2025
DRAWN BY AS
CHKD. BY CMH
JOB NO. 25-0078

SHT. 03.01

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REVISIONS

DATE

MAJOR SITE PLAN
DIAMOND "A" SHOPPING CENTER
MARION COUNTY, FLORIDA

EXISTING CONDITION

DATE 10/28/25
DRAWN BY JA
CHKD. BY DMM
JOB NO. 23-8231

SHT. 03.01

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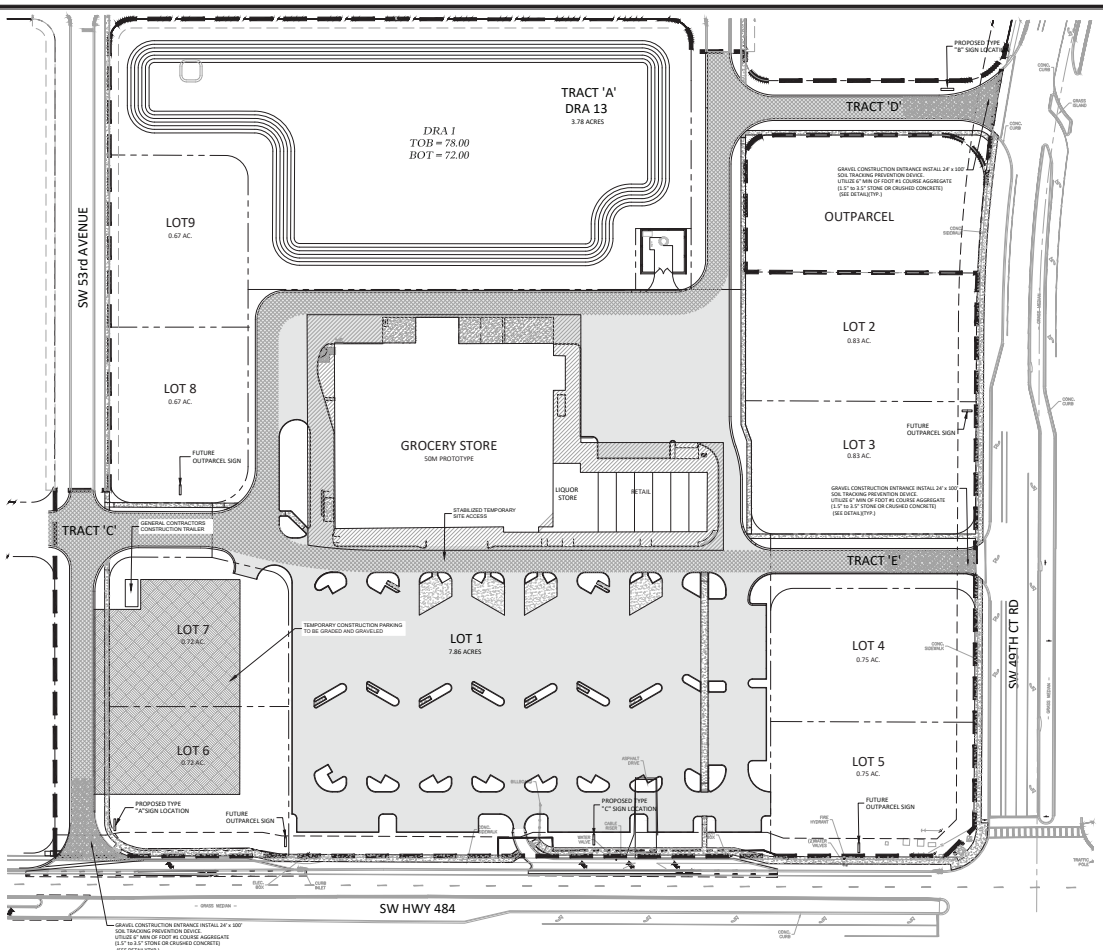

TYPICAL SECTION FOR TEMPORARY SITE ACCESS
N.T.S.

SEE GEO-TECH REPORT.
24-9047.01.1 REV B.

NOTES:
CONTRACTOR IS RESPONSIBLE FOR PROVIDING ADDITIONAL STABILIZATION IN AREAS THEY DEEM NECESSARY.

Marion County Approval Stamp

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REVISIONS

DATE

MAJOR SITE PLAN
DIAMOND "A" SHOPPING CENTER
MARION COUNTY, FLORIDA

TEMPORARY SITE ACCESS & STAGING PLAN

DATE 10/28/25
DRAWN BY JA
CHKD. BY DMM
JOB NO. 23-8231

SHT. 04.01

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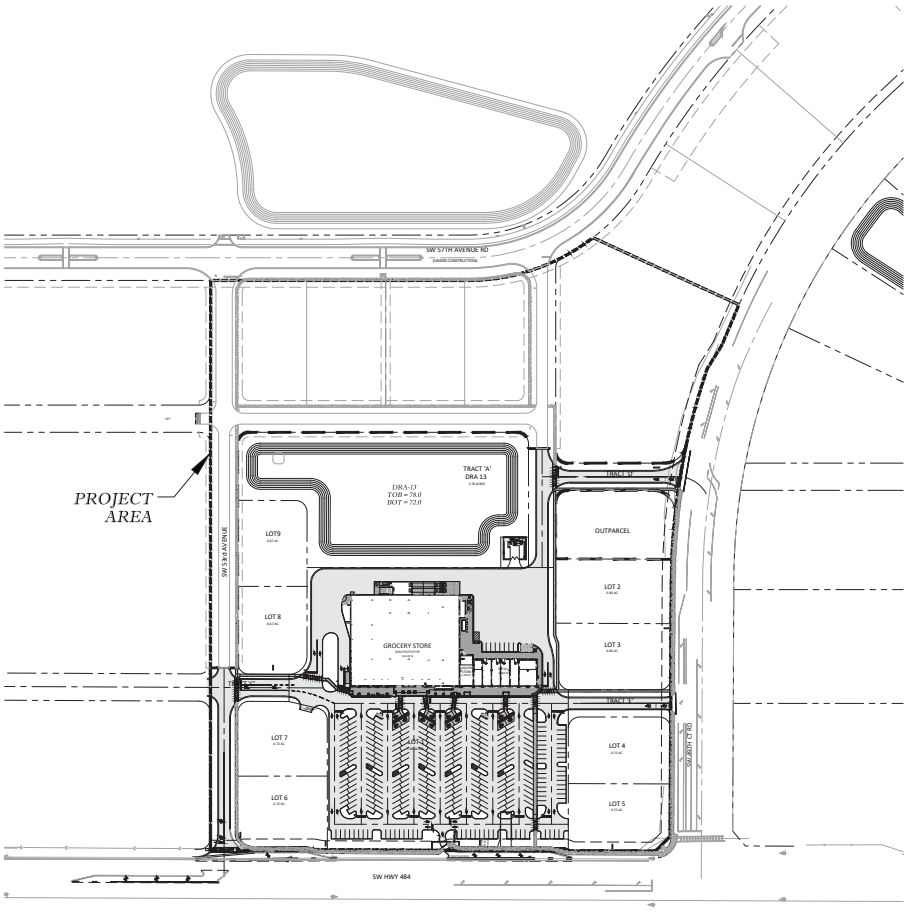

100' 50' 0 100' 200'
SCALE IN FEET
1" = 100'

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MAJOR SITE PLAN
DIAMOND "A" SHOPPING CENTER
MARION COUNTY, FLORIDA

OVERALL SITE PLAN

DATE 10/28/25
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CHKD. BY DMM
JOB NO. 23-8231

SHT. 05.01

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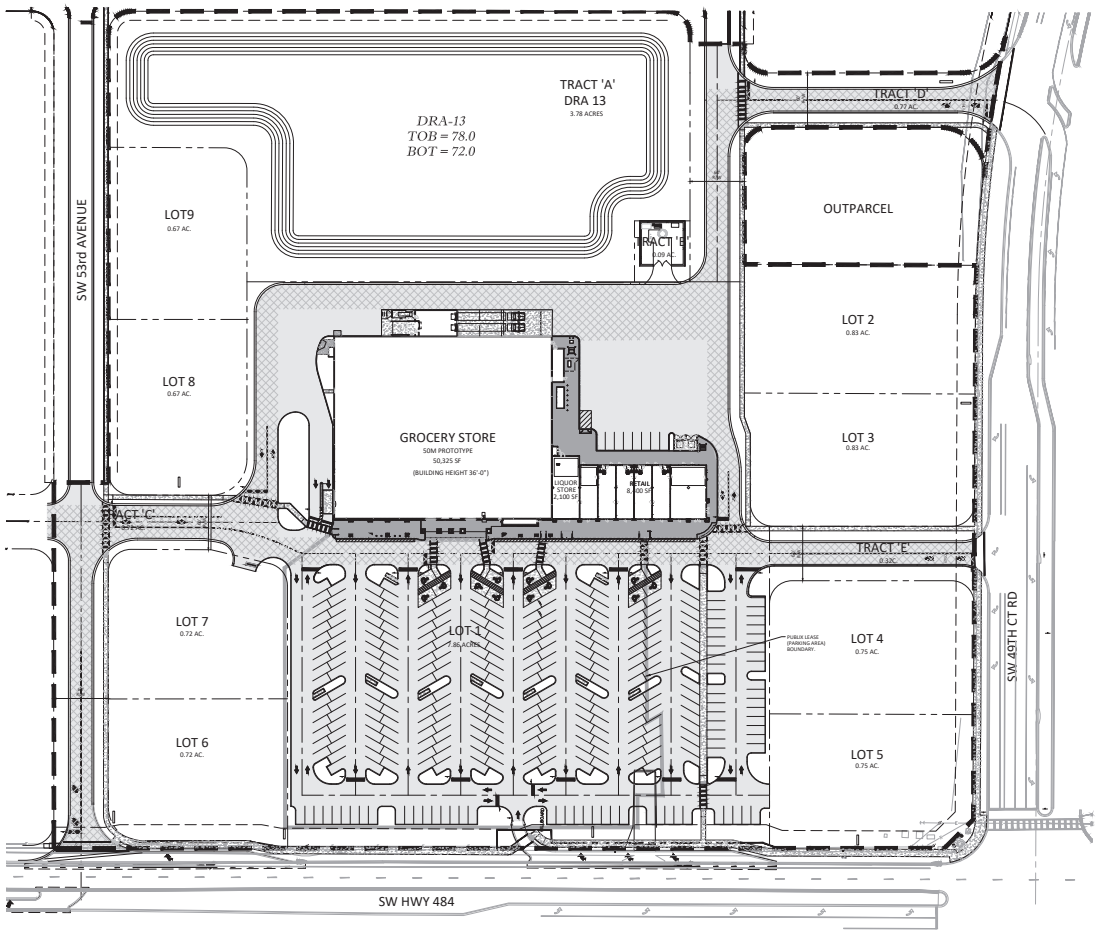

SITE AREA	
LOT 1	7.86
LOT 2	0.83
LOT 3	0.83
LOT 4	0.75
LOT 5	0.75
LOT 6	0.72
LOT 7	0.72
LOT 8	0.67
LOT 9	0.67
TRACT 'A'	3.78
TRACT 'B'	0.09
TRACT 'C'	0.72
TRACT 'D'	0.77
TRACT 'E'	0.32
TOTAL SITE	19.90 AC

BUILDING AREA	
PUBLIX STORE	50,325 SF
LIQUOR STORE	2,100 SF
RETAIL	8,400 SF
TOTAL BUILDING AREA	60,825 SF

PAVEMENT LEGEND

- STANDARD DUTY PAVEMENT (SEE DETAIL SHEET - 13.01)
- HEAVY DUTY PAVEMENT (SEE DETAIL SHEET - 13.01)
- CONCRETE PAVEMENT (SEE DETAIL SHEET - 13.01)
- CONCRETE SIDEWALK (SEE DETAIL SHEET - 13.01)

SITE DATA TABLE	
PARCEL IDENTIFICATION NUMBERS	41200-050-04,41200-056-13
TOTAL SITE BOUNDARY	30.50 A.C.
PROJECT BOUNDARY	30.50 A.C.
FLOOD ZONE	X
FEMA PANEL	12083C0715D
LAND USE:	EMPLOYMENT CENTER
ZONING	PUD
BUILDING SETBACK REQUIREMENT	
MINIMUM FRONT SETBACK	40'
MINIMUM REAR SETBACK	25'
MINIMUM SIDE SETBACK	10'
MAXIMUM BUILDING HEIGHT	50'
PARKING REQUIRED (60,825 SF OF SHOPPING CENTER)	
TOTAL SPACES REQUIRED (5/1,000 SF)	304 spaces
STANDARD SPACES (10' x 20') PROVIDED	311
VAN / ACCESSIBLE SPACES REQUIRED	12
TOTAL PARKING PROVIDED	323

SURFACE DATA TABLE	
TOTAL IMPERVIOUS AREA *	21.99 AC
TOTAL IMPERVIOUS AREA PERCENTAGE*	72.11%
TOTAL OPEN-SPACE *	8.51 AC
TOTAL OPEN-SPACE PERCENTAGE *	27.89%

* INCLUDES 80% IMPERVIOUS AREA COVERAGE ON OUTPARCELS

OPEN SPACE CALCULATIONS:

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REVISIONS

DATE

MAJOR SITE PLAN
DIAMOND "A" SHOPPING CENTER
MARION COUNTY, FLORIDA

SITE PLAN

DATE 10/28/25
DRAWN BY JA
CHKD. BY DMM
JOB NO. 23-8231

SHT. 06.01

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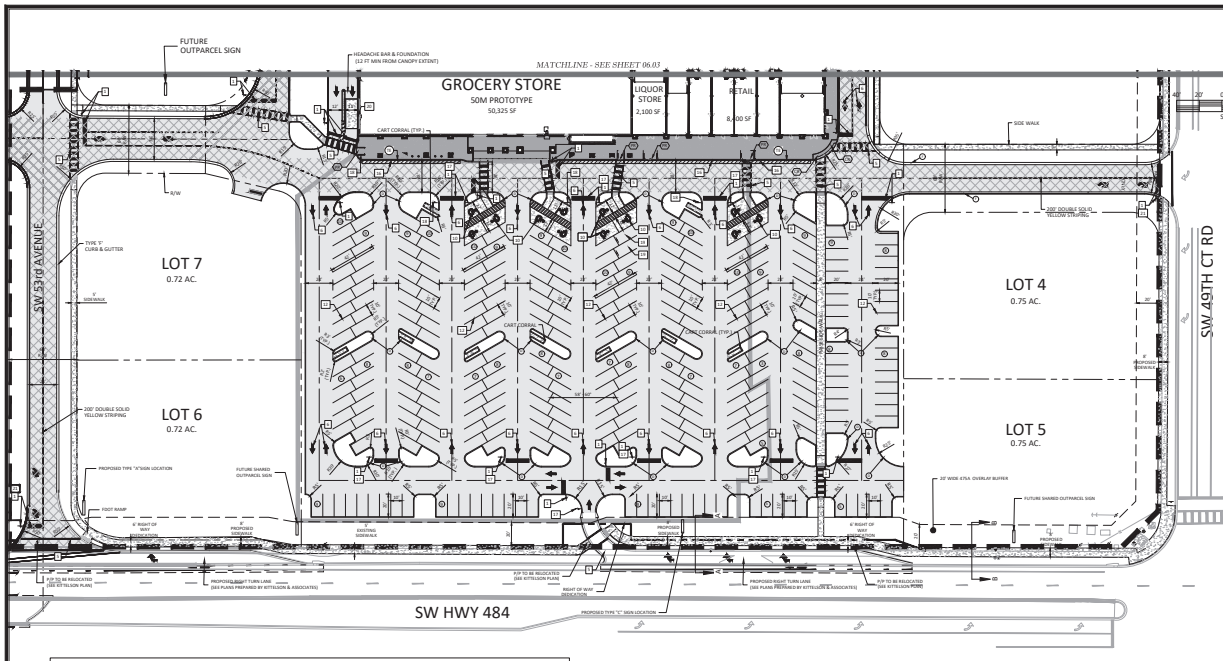
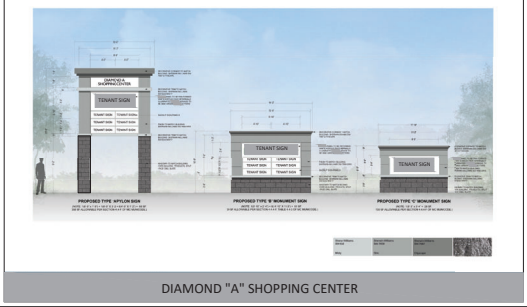
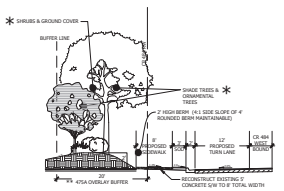




DIAMOND "A" SHOPPING CENTER

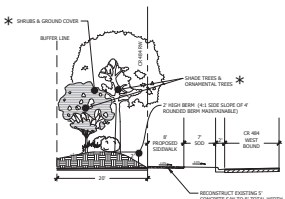


20' WIDE 475A OVERLAY BUFFER
SECTION A-A (PROPOSED TURN LANE)

SCALE: N.T.S.

* PLANTING LOCATIONS SHOWN ARE SCHEMATIC FINAL LANDSCAPE ARRANGEMENT TO BE DETERMINED AT FINAL DESIGN BY LANDSCAPE ARCHITECT.

** BUFFER / EASEMENT - MARION COUNTY RESERVES THE RIGHTS FOR MAINTENANCE OF SIDE WALK & INSTALLATION / MAINTENANCE OF UTILITIES.



20' WIDE 475A OVERLAY BUFFER
SECTION B-B (EXISTING ROAD)

SCALE: N.T.S.

* PLANTING LOCATIONS SHOWN ARE SCHEMATIC FINAL LANDSCAPE ARRANGEMENT TO BE DETERMINED AT FINAL DESIGN BY LANDSCAPE ARCHITECT.

NOTES

1. ALL ON-SITE PAVEMENT MARKINGS ARE TO BE PAINTED USING NON-SLIP PAINT.
2. ALL MARKINGS IN THE COUNTY RIGHT OF WAY SHALL BE THERMOPLASTIC,EXCEPT BICYCLE LANE MARKING WHICH SHALL BE PAINT.
3. ALL WORK AND MATERIALS SHALL COMPLY WITH ALL COUNTY REGULATIONS AND CODES AND D.S.H.A. STANDARDS.
4. PRIOR TO CONSTRUCTION WITHIN ANY EXISTING PUBLIC RIGHT-OF-WAY, THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FROM THE AUTHORITY HAVING JURISDICTION.
5. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF DOORWAYS, SLOPE PAVING, SIDEWALKS, EXIT PORCHES, TRUCK DOCKS, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.

GENERATOR SITING NOTE

PROPOSED LOCATION OF STORAGE TANK(S) AT THE SUBJECT SITE IS NOT WITHIN 500 FEET OF ANY EXISTING COMMUNITY WATER SUPPLY WELL, NOT WITHIN 500 FEET OF ANY NON-TRANSIENT, NON-COMMUNITY WATER SUPPLY WELL, AND NOT WITHIN 300 FEET OF ANY OTHER EXISTING POTABLE WATER SUPPLY WELL.

Thomas & Associates
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Office: (352) 387-4540 Fax: (352) 387-4545

Marion County Approval Stamp

REVISIONS

DATE

SITE PLAN - SOUTH

MAJOR SITE PLAN
DIAMOND "A" SHOPPING CENTER
MARION COUNTY, FLORIDA

DATE 10/28/25
DRAWN BY JA
CHKD. BY DMM
JOB NO. 23-8231

SHT. 06.02

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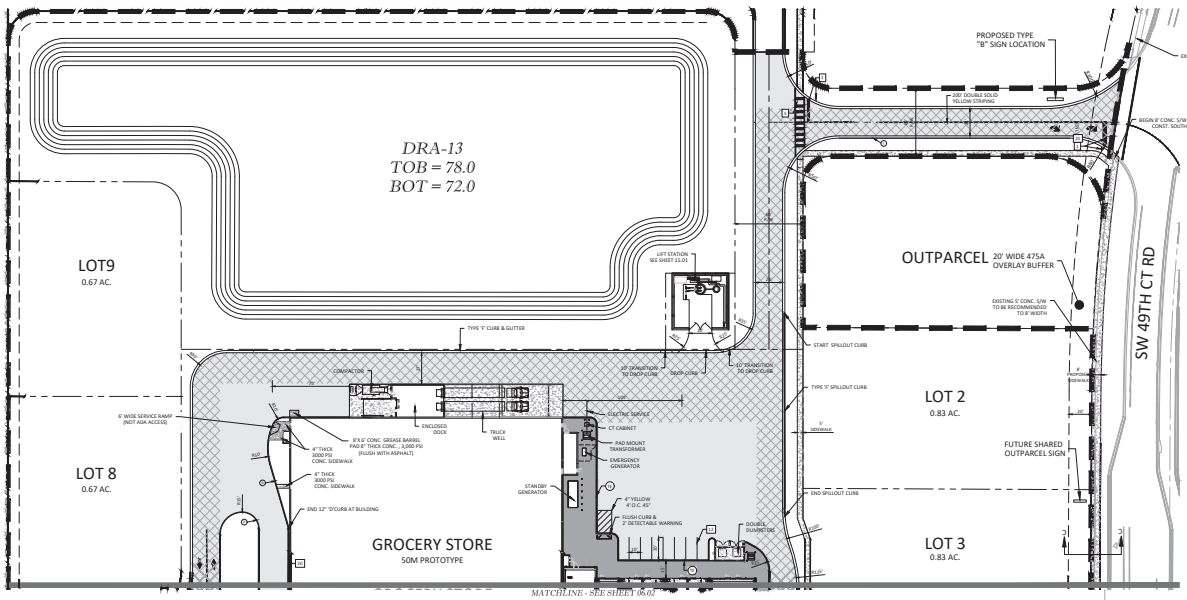

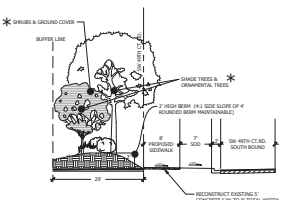

20' WIDE 475A OVERLAY BUFFER
SECTION C-C (EXISTING ROAD)

SCALE: N.T.S.

* PLANTING LOCATIONS SHOWN ARE SCHEMATIC FINAL LANDSCAPE ARRANGEMENT TO BE DETERMINED AT FINAL DESIGN BY LANDSCAPE ARCHITECT.

PAVEMENT LEGEND

- STANDARD DUTY PAVEMENT
- CONCRETE PAVEMENT
- CONCRETE SIDEWALK
- HEAVY DUTY PAVEMENT

CURB LEGEND SEE SHEET 13.01 FOR DETAILS

- TYPE 'A' CURB
- TYPE 'D' CURB
- TYPE 'F' CURB
- REVOLVED TYPE 'F' CURB
- CURB TRANSITION
- THICKENED EDGE SIDEWALK (VERTICAL FACE OF SIDEWALK PAINTED YELLOW)

RAMP LEGEND SEE SHEET 13.02 FOR DETAILS

- CURB RETURN RAMP (SEE EXPOSED AGGREGATE NOTE)
- ACCESSIBLE CURB RAMP (PER FDOT INDEX NO. 522-002)
- GROCER RETURN CURB RAMP (SEE EXPOSED AGGREGATE NOTE)

SIGN AND PAVEMENT MARKING LEGEND

- 24" STOP SIGN (R1-1) WITH 24" WHITE STOP BAR
- 30" STOP SIGN (R1-1) WITH 24" WHITE STOP BAR, 4' MIN. FROM CROSS WALK AND STREET NAME SIGN.
- 12" x 18" 'NO PARKING FIRE LANE" SIGN WITH 'NO PARKING FIRE LANE' MESSAGE STRIPING WHITE
- 'DO NOT ENTER' SIGN
- SPECIAL EMPHASIS CROSSWALK PER FDOT INDEX 711-001
- WHITE DIRECTIONAL ARROW AND MESSAGE PER FDOT INDEX 711-001
- 6" DOUBLE YELLOW STRIPE
- 'DRIVE - THUR' MESSAGE STRIPING WHITE
- 30" STOP SIGN (R1-1) WITH 30" x 36" 'RIGHT TURN ONLY' SIGN (R3-5) AND STREET NAME SIGN
- HANDICAP SPACES PER FLORIDA'S ACCESSIBILITY CODE WITH SIGNS. (SEE SHEET - FOR DETAILS)
- 8" WHITE STRIPE AT 10' OC
- 4" WHITE STRIPE
- 24" x 18" PHARMACY DRIVE-THRU SIGN BLACK ON WHITE
- 24" PEDESTRIAN SIGN (W11-2) WITH 24" x 12" DOWNWARD DIAGONAL ARROW (W16-7P)
- 24" x 18" 'NO PARKING FIRE DEPARTMENT CONNECTION' SIGN (2" LETTERING) WITH 'NO PARKING FIRE LANE' MESSAGE STRIPING WHITE
- 6" YELLOW STRIPE
- ONE WAY SIGN "DO NOT ENTER"
- PHARMACY DRIVE-THRU SIGN
- CURBSIDE PICKUP SPACES (SIGNAGE)
- 1' WIDE CURB (ADJACENT TO BUILDING) (SEE DETAIL SHEET)
- RIGHT TURN ONLY

NOTES

1. ALL ON-SITE PAVEMENT MARKINGS ARE TO BE PAINTED USING NON-SLIP PAINT.
2. ALL MARKINGS IN THE COUNTY RIGHT OF WAY SHALL BE THERMOPLASTIC,EXCEPT BICYCLE LANE MARKING WHICH SHALL BE PAINT.
3. ALL WORK AND MATERIALS SHALL COMPLY WITH ALL COUNTY REGULATIONS AND CODES AND O.S.H.A. STANDARDS.
4. PRIOR TO CONSTRUCTION WITHIN ANY EXISTING PUBLIC RIGHT-OF-WAY, THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FROM THE AUTHORITY HAVING JURISDICTION.
5. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF DOORWAYS, SLOPE PAVING, SIDEWALKS, EXIT PORCHES, TRUCK DOCKS, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.

GENERATOR SITING NOTE

PROPOSED LOCATION OF STORAGE TANK(S) AT THE SUBJECT SITE IS NOT WITHIN 500 FEET OF ANY EXISTING COMMUNITY WATER SUPPLY WELL, NOT WITHIN 500 FEET OF ANY NON-TRANSIENT, NON-COMMUNITY WATER SUPPLY WELL, AND NOT WITHIN 100 FEET OF ANY OTHER EXISTING POTABLE WATER SUPPLY WELL.

Marion County Approval Stamp

REVISIONS

DATE

Thomas & Associates
ENGINEERING, LLC
CIVIL ENGINEERING - PLANNING - LANDSCAPE ARCHITECTURE - ENVIRONMENTAL
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Office: (352) 387-4540 Fax: (352) 387-4545

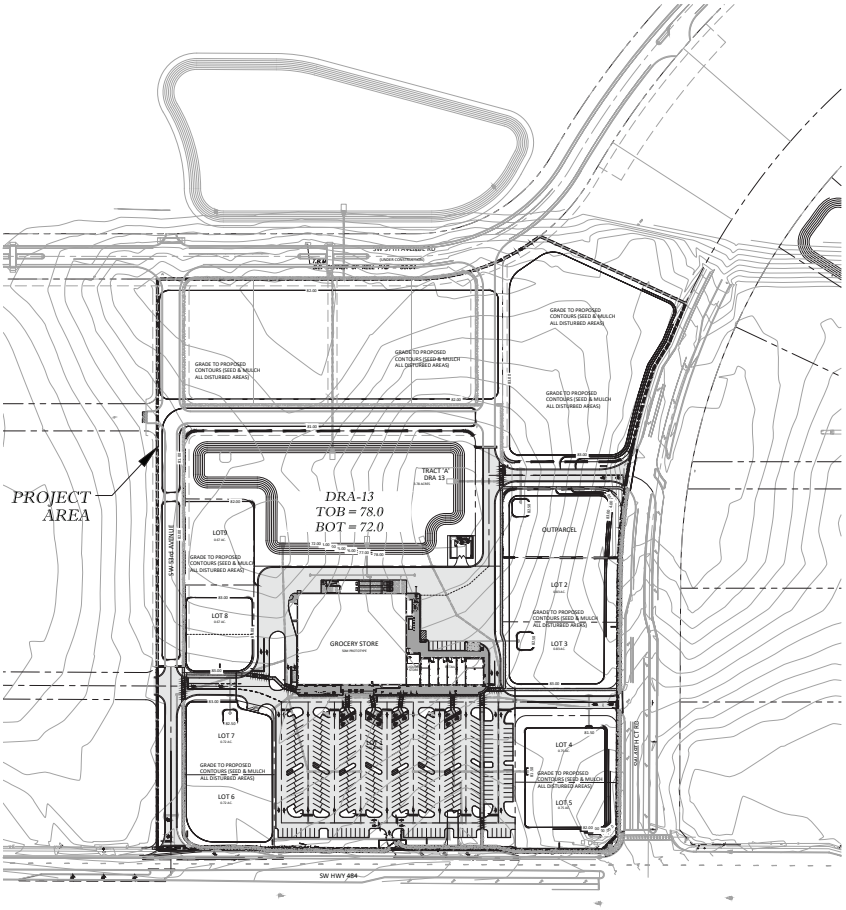
MAJOR SITE PLAN
DIAMOND "A" SHOPPING CENTER
MARION COUNTY, FLORIDA

SITE PLAN - NORTH

DATE 10/28/25
DRAWN BY JA
CHKD. BY DMM
JOB NO. 23-8231

SHT. 06.03

NOT VALID UNLESS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER



100' 50' 0 100' 200'
SCALE IN FEET
1" = 100'

Marion County Approval Stamp

LEGEND

- EXISTING CONTOURS
- PROPOSED/DESIGNED FLOW DIRECTION
- PROPOSED SPOT ELEVATION PAVEMENT ELEV.
- PROPOSED SWALE BOTTOM
- PROPOSED YARD DRAIN
- SOIL BORING LOCATION/ID

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REVISIONS

DATE

MAJOR SITE PLAN
DIAMOND "A" SHOPPING CENTER
MARION COUNTY, FLORIDA

PAVING & GRADING

DATE 10/28/25
DRAWN BY JA
CHKD. BY DMM
JOB NO. 23-8231

SHT. 07.01

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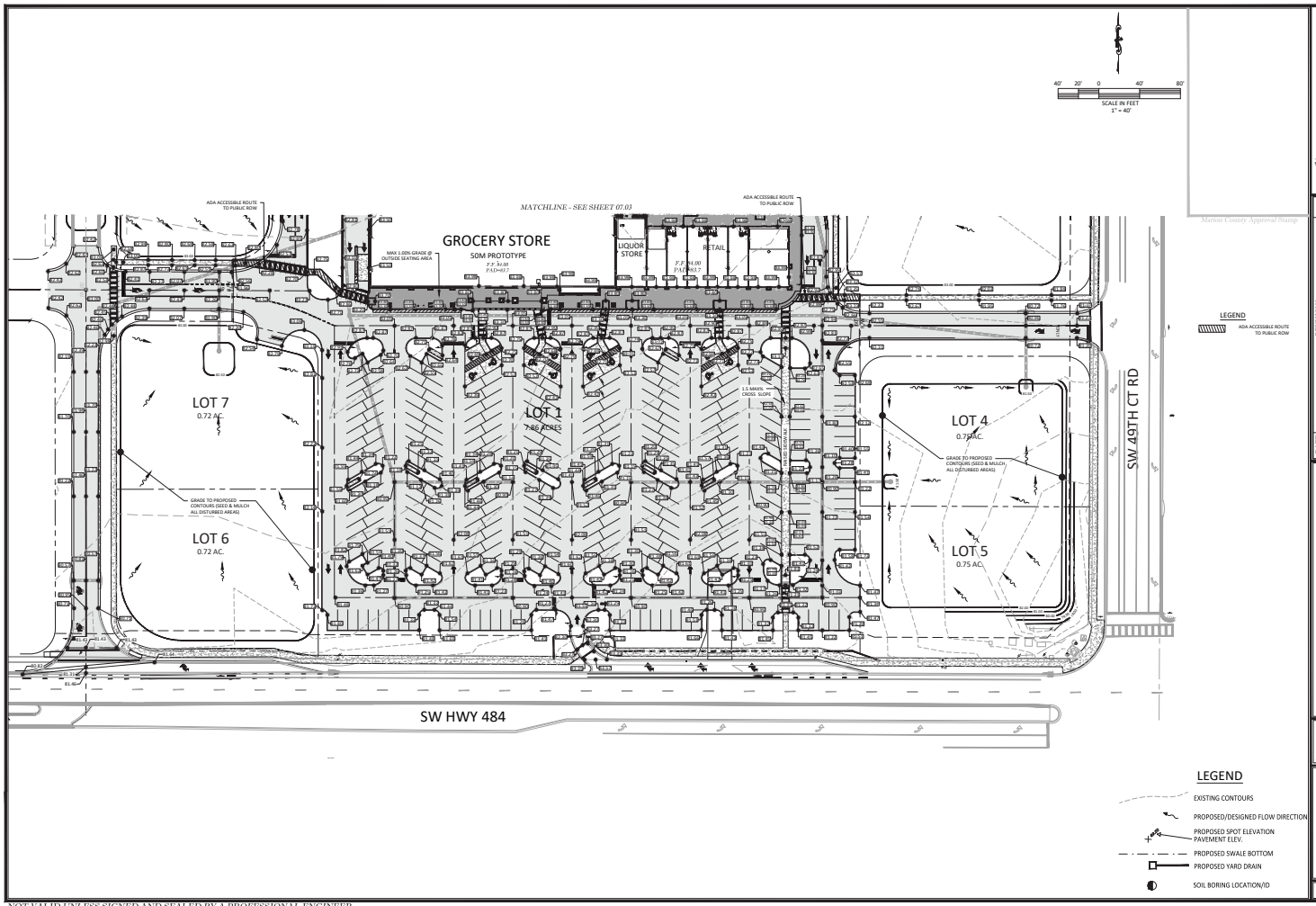

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REVISIONS

DATE

MAJOR SITE PLAN
DIAMOND "A" SHOPPING CENTER
MARION COUNTY, FLORIDA

PAVING & GRADING SOUTH

DATE 10/28/25
DRAWN BY JA
CHKD. BY JMM
JOB NO. 23-8231

SHT. 07.02

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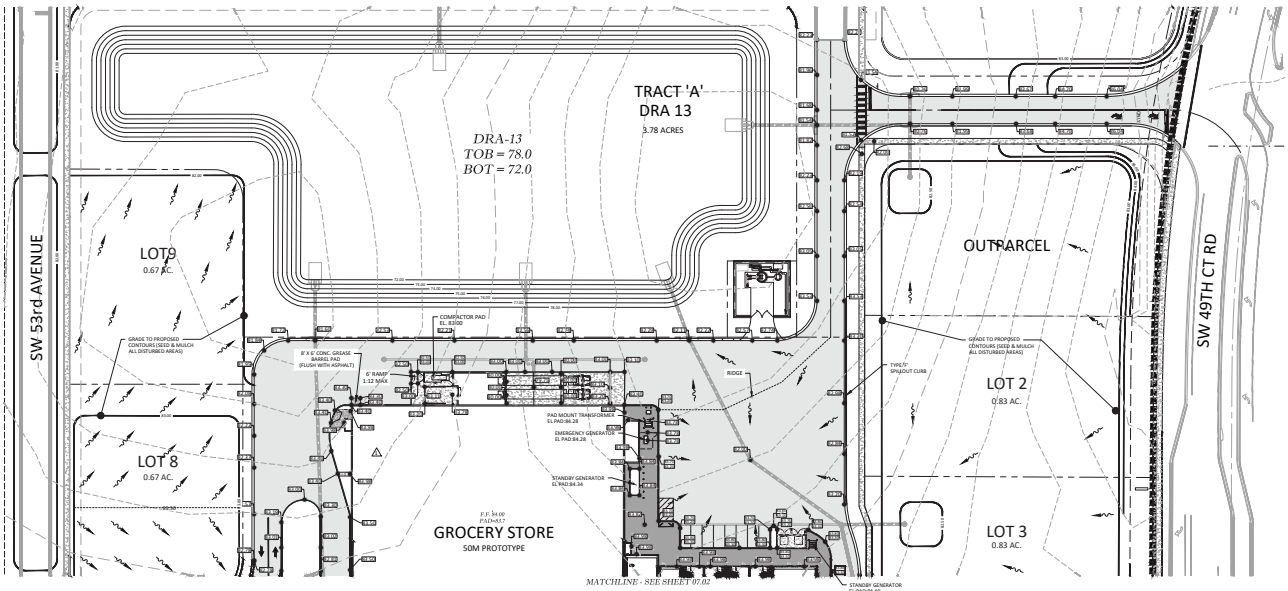

SCALE IN FEET
1" = 40'

Marion County Approval Stamp

LEGEND

- EXISTING CONTOURS
- PROPOSED/DESIGNED FLOW DIRECTION
- PROPOSED SPOT ELEVATION PAVEMENT ELEV.
- PROPOSED SWALE BOTTOM
- PROPOSED YARD DRAIN
- SOIL BORING LOCATION/ID

Tillman & Associates ENGINEERING, LLC
CIVIL ENGINEERING - PLANNING - LANDSCAPE ARCHITECTURE - ENVIRONMENTAL
1720 SE 16th Ave., Bldg 100, Ocala, FL 34471
Office: (352) 387-4540 Fax: (352) 387-4545

REVISIONS

DATE

MAJOR SITE PLAN
DIAMOND "A" SHOPPING CENTER
MARION COUNTY, FLORIDA

PAVING & GRADING NORTH

DATE 10/28/25
DRAWN BY JA
CHKD. BY DMM
JOB NO. 23-8231

SHT. 07.03

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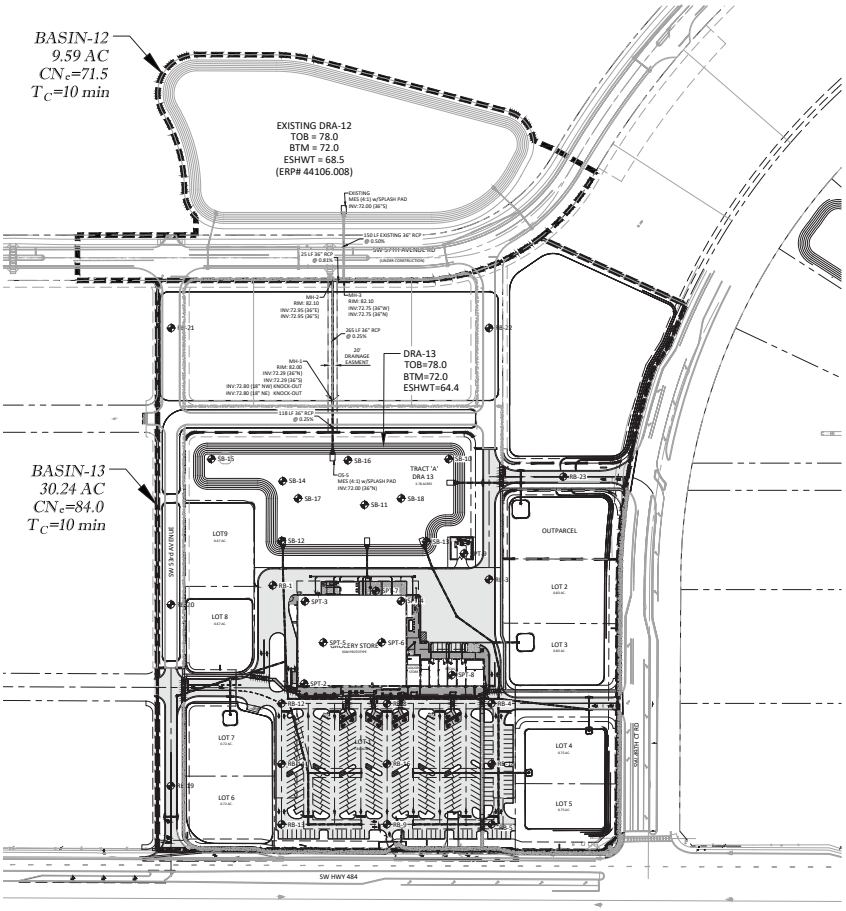

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REVISIONS

DATE

MAJOR SITE PLAN
DIAMOND "A" SHOPPING CENTER
MARION COUNTY, FLORIDA

DRAINAGE PLAN

DATE 10/28/25
DRAWN BY JA
CHKD. BY DMM
JOB NO. 23-8231

SHT. 08.01

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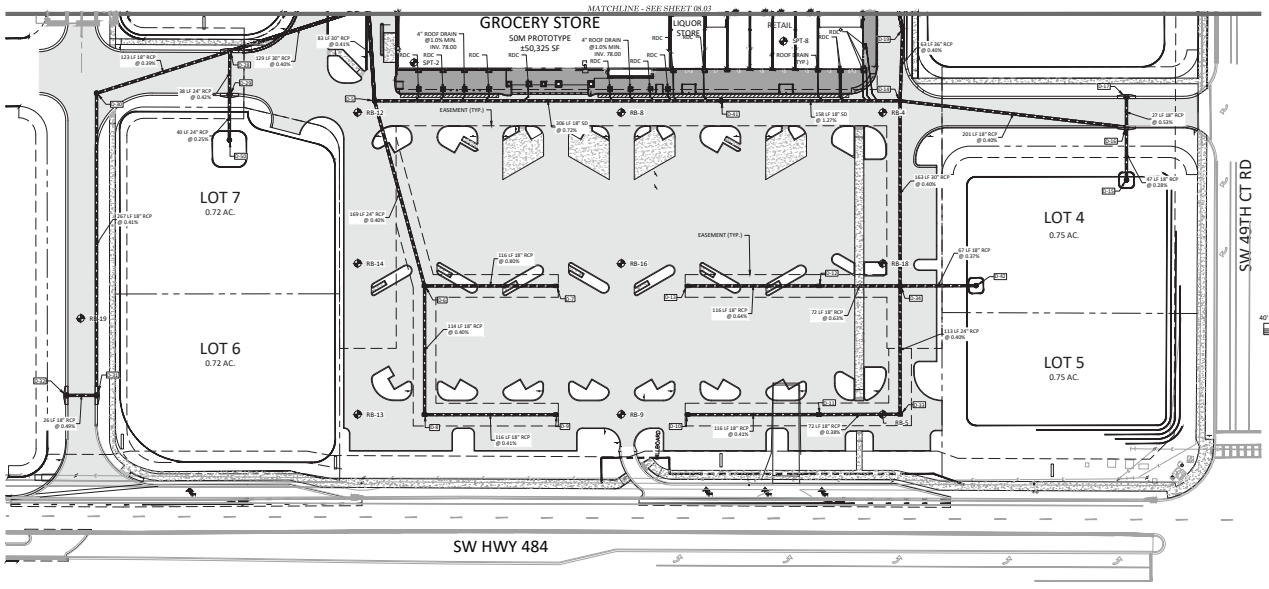

STRUCTURE TABLE	
STRUCTURE NAME	DETAILS
D-4	TYPE "J-3" INLET RIM/EOP/GRATE 82.84 INV:74.45 (30"S) INV:74.45 (36"W) INV:74.45 (30"W)
D-5	STORM MANHOLE RIM/EOP/GRATE 83.08 INV:74.79 (24"S) INV:74.79 (30"N) INV:74.79 (18"E)
D-6	TYPE "E" INLET RIM/EOP/GRATE 80.90 INV:75.97 (18"S) INV:75.97 (18"E) INV:75.47 (24"N)
D-7	TYPE "E" INLET RIM/EOP/GRATE 80.90 INV:76.90 (18"W)
D-8	TYPE "E" INLET RIM/EOP/GRATE 80.90 INV:76.43 (18"E) INV:76.43 (18"N)
D-9	TYPE "E" INLET RIM/EOP/GRATE 80.90 INV:76.90 (18"W)
D-10	TYPE "E" INLET RIM/EOP/GRATE 80.90 INV:76.90 (18"E)
D-11	TYPE "E" INLET RIM/EOP/GRATE 80.90 INV:76.43 (18"E) INV:76.43 (18"W)

STRUCTURE TABLE	
STRUCTURE NAME	DETAILS
D-12	TYPE "E" INLET RIM/EOP/GRATE 80.90 INV:76.16 (18"E) INV:76.16 (18"W)
D-13	TYPE "E" INLET RIM/EOP/GRATE 80.90 INV:76.90 (18"E)
D-14	STORM MANHOLE RIM/EOP/GRATE 82.92 INV:74.55 (30"S) INV:74.55 (36"N) INV:74.55 (18"E) INV:75.00 (18"W)
D-15	STORM MANHOLE/SLOTTED COVER RIM/EOP/GRATE 81.50 INV:75.48 (18"N)
D-16	TYPE "6M" INLET RIM/EOP/GRATE 80.72 INV:75.35 (18"N) INV:75.35 (18"W) INV:75.35 (18"S)
D-17	TYPE "6M" INLET RIM/EOP/GRATE 80.72 INV:75.40 (18"S)
D-19	TYPE "J-9" INLET RIM/EOP/GRATE 82.87 INV:74.30 (36"S) INV:74.30 (36"N)
D-28	TYPE "6M" INLET RIM/EOP/GRATE 81.90 INV:74.97 (18"W) INV:74.97 (30"E) INV:74.97 (24"S)

STRUCTURE TABLE	
STRUCTURE NAME	DETAILS
D-29	TYPE "6M" INLET RIM/EOP/GRATE 81.90 INV:75.13 (24"N) INV:75.13 (24"S)
D-30	STORM MANHOLE RIM/EOP/GRATE 82.71 INV:75.45 (18"S) INV:75.45 (18"E)
D-31	TYPE "6M" INLET RIM/EOP/GRATE 80.57 INV:76.53 (18"W) INV:76.53 (18"N)
D-32	TYPE "6M" INLET RIM/EOP/GRATE 80.57 INV:76.66 (18"E)
D-33	TYPE "E" INLET RIM/EOP/GRATE 80.90 INV:76.16 (18"W) INV:76.16 (24"N)
D-34	TYPE "E" INLET RIM/EOP/GRATE 80.90 INV:75.71 (24"S) INV:75.21 (30"N) INV:75.71 (18"W) INV:75.21 (18"E)
D-41	STORM MANHOLE RIM/EOP/GRATE 83.21 INV:77.00 (18"E) INV:77.00 (18"W)
D-42	STORM MANHOLE/SLOTTED COVER RIM/EOP/GRATE 81.50 INV:75.46 (18"W)
D-50	STORM MANHOLE/SLOTTED COVER RIM/EOP/GRATE 82.50 INV:75.23 (24"N)

DRAINAGE SUMMARY:

THE PROPOSED PUBLIX PROJECT AREA IS IN SECTION 9, TOWNSHIP 17S AND RANGE 21E. MORE SPECIFICALLY, THE PROJECT IS LOCATED JUST NORTH OF SW HWY 484, AT THE NW COMMERCIAL OF INTERSECTION WITH S.W. 49TH CT. RD.

LEGEND:

RDC - ROOF DRAINAGE CONNECTION
(SEE ARCHITECTURAL PLAN FOR SIZE)

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REVISIONS

DATE

MAJOR SITE PLAN
DIAMOND "A" SHOPPING CENTER
MARION COUNTY, FLORIDA

DRAINAGE PLAN SOUTH

DATE 10/28/25
DRAWN BY JA
CHKD. BY DMM
JOB NO. 23-8231

SHT. 08.02

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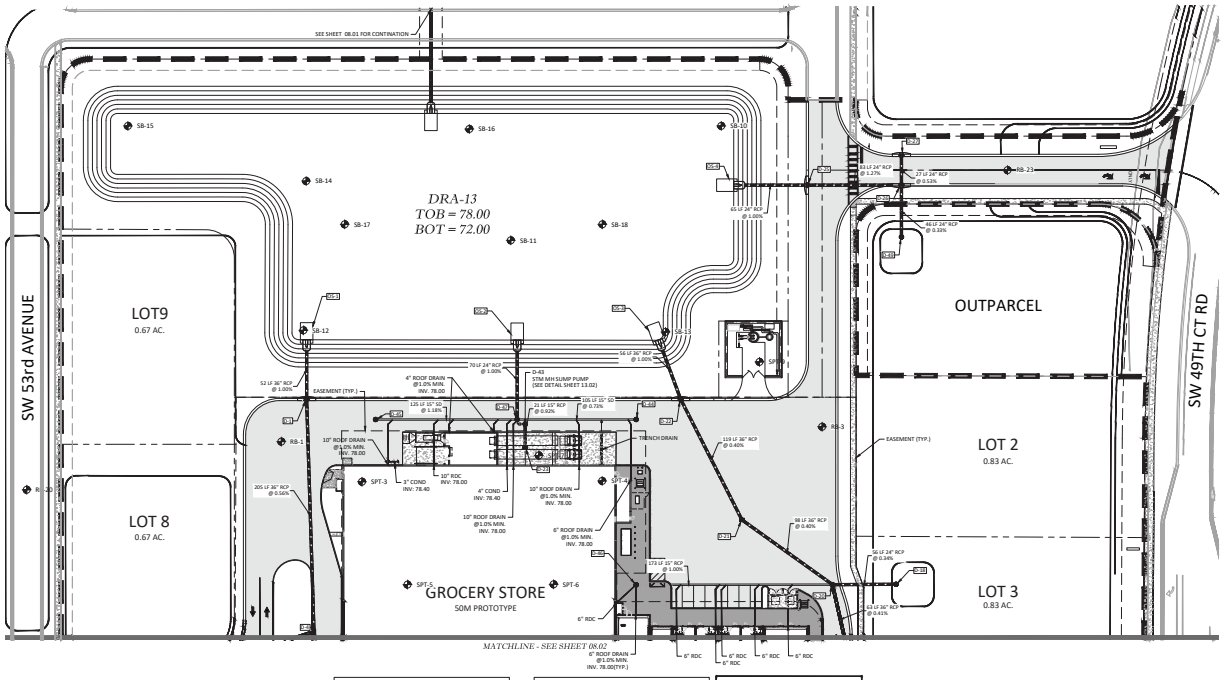

STRUCTURE TABLE	
STRUCTURE NAME	DETAILS
D-1	TYPE "6M" INLET RIM/EOP/GRATE 81.60 INV:73.30 (36"S) INV:72.52 (36"N)
D-18	STORM MANHOLE/SLOTTED COVER RIM/EOP/GRATE 82.50 INV:75.23 (24"W)
D-20	STORM MANHOLE RIM/EOP/GRATE 83.22 INV:77.27 (15"W) INV:74.04 (36"NW) INV:74.04 (36"NW) INV:75.04 (24"E)
D-21	TYPE "I" INLET RIM/EOP/GRATE 82.00 INV:73.65 (36"SE) INV:73.65 (36"NW)
D-22	TYPE "6M" INLET RIM/EOP/GRATE 82.11 INV:73.17 (36"SE) INV:72.56 (36"N)
D-23	TYPE "C" INLET RIM/EOP/GRATE 79.75 INV:74.57 (15"N)
D-25	TYPE "6M" INLET RIM/EOP/GRATE 81.54 INV:74.65 (24"E) INV:72.65 (24"W)

STRUCTURE TABLE	
STRUCTURE NAME	DETAILS
D-26	TYPE "6M" INLET RIM/EOP/GRATE 80.76 INV:75.71 (24"W) INV:76.21 (24"N) INV:75.71 (24"S)
D-27	TYPE "6M" INLET RIM/EOP/GRATE 80.76 INV:76.35 (24"S)
D-43	STM MH SUMP PUMP RIM/EOP/GRATE 82.87 INV:74.38 (15"S)
D-44	STORM MANHOLE RIM/EOP/GRATE 82.68 INV:75.15 (15"W)
D-45	STORM MANHOLE RIM/EOP/GRATE 83.07 INV:75.86 (15"E)
D-46	STORM MANHOLE RIM/EOP/GRATE 83.82 INV:79.00 (15"E)
D-47	STORM MANHOLE RIM/EOP/GRATE 82.80 INV:72.70 (24"N) INV:74.38 (15"E) INV:74.38 (15"W)
D-49	STORM MANHOLE/SLOTTED COVER RIM/EOP/GRATE 82.50 INV:75.86 (24"N)

STRUCTURE TABLE	
STRUCTURE NAME	DETAILS
OS-1	MES (4:1) W/SPLASH PAD INV:72.00 (36"S)
OS-2	MES (4:1) W/SPLASH PAD INV:72.00 (24"S)
OS-3	MES (4:1) W/SPLASH PAD INV:72.00 (36"S)
OS-4	MES (4:1) W/SPLASH PAD INV:72.00 (24"E)

DRAINAGE SUMMARY:

THE PROPOSED PUBLIX PROJECT AREA IS IN SECTION 9, TOWNSHIP 17S AND RANGE 21E. MORE SPECIFICALLY, THE PROJECT IS LOCATED JUST NORTH OF SW HWY 484, AT THE NW COMMERCIAL OF INTERSECTION WITH S.W. 49TH CT. RD.

LEGEND:

RDC - ROOF DRAINAGE CONNECTION (SEE ARCHITECTURAL PLAN FOR SIZE)

Marion County Approval Stamp

40' 20' 0 40' 80'
SCALE IN FEET
1" = 40'

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MAJOR SITE PLAN
DIAMOND "A" SHOPPING CENTER
MARION COUNTY, FLORIDA

DRAINAGE PLAN

DATE 10/28/25
DRAWN BY JA
CHKD. BY DMM
JOB NO. 23-8231

SHT. 08.03

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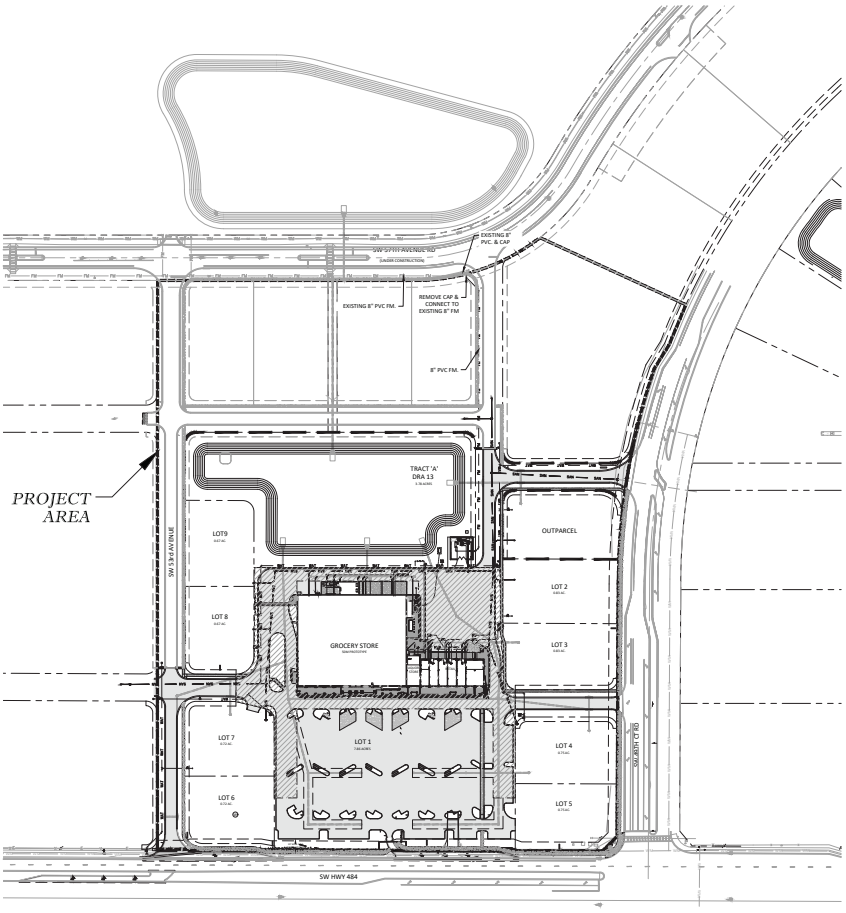

Marion County Approval Stamp

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REVISIONS

DATE

MAJOR SITE PLAN
DIAMOND "A" SHOPPING CENTER
MARION COUNTY, FLORIDA

UTILITY PLAN

DATE 10/28/25
DRAWN BY JA
CHKD. BY DMM
JOB NO. 23-8231

SHT. 09.01

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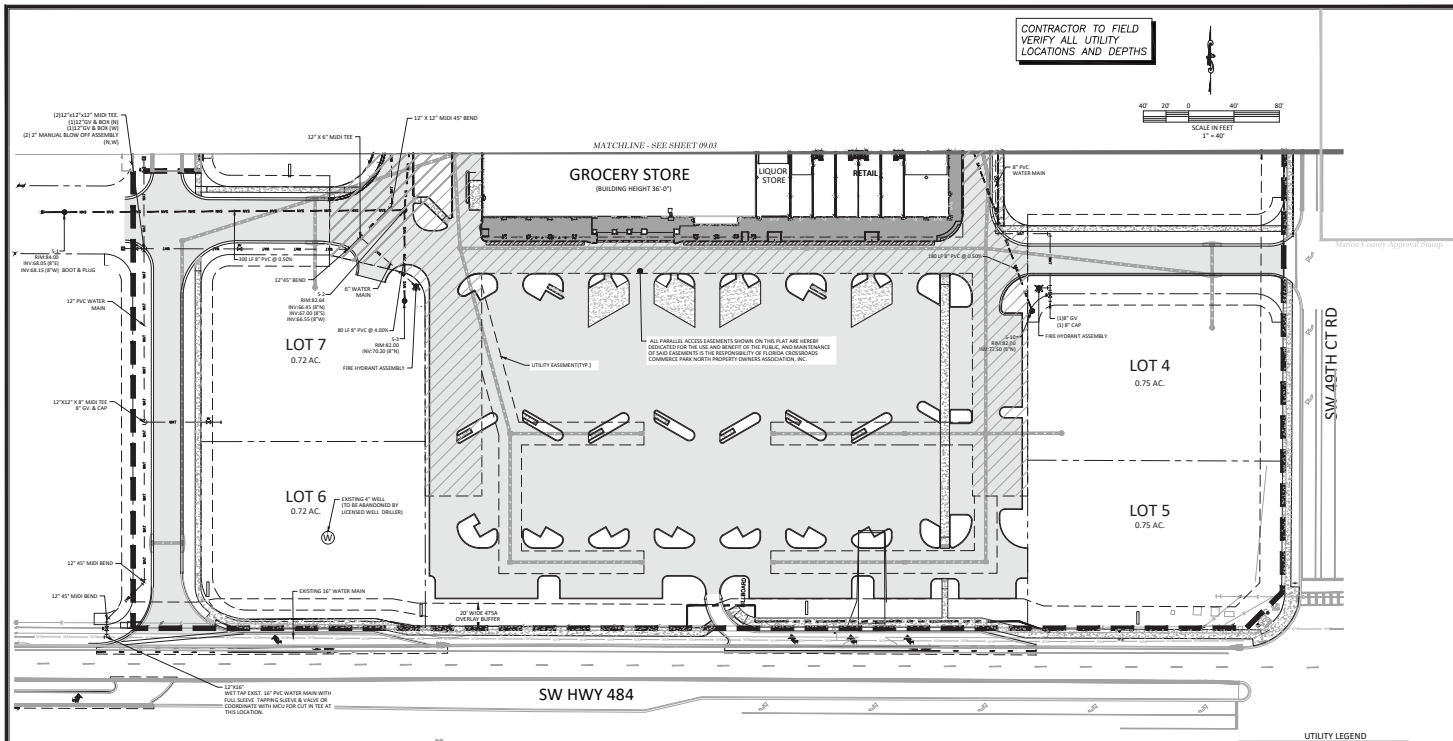

LEGEND

- CROSS ACCESS,DRAINAGE & UTILITY EASEMENT
- PUBLIX DIAMOND SITE AREA
- PRIVATE R/W

NOTE:
1. CONTRACTOR IS RESPONSIBLE FOR PLACEMENT & INSTALLATION OF NECESSARY UNDERGROUND SLEEVING.
2. MARK ALL POINTS WITH A "W" MARK IN CONCRETE WHERE WATER SERVICES CROSSES CURB.
3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY AND COORDINATE UTILITY AND ROOF DRAIN LOCATIONS AND ELEVATIONS WITH ARCHITECT PRIOR TO CONSTRUCTION.
4. THE BUILDING SHALL COMPLY WITH THE IN BUILDING MINIMUM RADIO SIGNAL STRENGTH FOR PUBLIC SAFETY RADIUS. TESTING SHALL BE COMPLETED BY AN INDEPENDENT CONTRACTOR AND A REPORT SUBMITTED TO THE OFFICE OF THE FIRE MARSHAL.
5. AN INDEPENDENT INSPECTOR APPROVED BY THE OFFICE OF THE FIRE MARSHAL MUST BE ATTAINED AS A THIRD PARTY INSPECTOR FOR ALL FIRE WALLS AND INFORMATION SUBMITTED TO THE OFFICE FOR APPROVAL.
6. KNOX BOX TO BE NEAR THE FRONT DOOR 6' FROM FLOOR LEVEL AND 2' LEFT OF THE DOOR.
7. ALL SEWER CLEAN OUTS TO HAVE USF 7621 AND 7622 SLAB TYPE CLEAN OUT RING AND TO OR FF COVER WITH CONCRETE PADS AROUND ALL PROPOSED CLEAN OUTS THAT FALL WITHIN A CONCRETE OR PAVED AREA.
8. PRIVATE FIRE HYDRANTS ARE TO BE PAINTED YELLOW.

UTILITY LEGEND

- EXISTING SANITARY MAIN
- EXISTING WATER MAIN
- PROPOSED SANITARY MAIN
- PROPOSED WATER MAIN
- GATE VALVE
- REDUCER
- WATER METER
- BACKFLOW PREVENTER
- CLEANOUT
- SANITARY MANHOLE
- PROPOSED SITE LIGHTING (SEE SLEEVING PLAN)
- GREASE TRAP
- FIRE HYDRANT ASSEMBLY
- FIRE DEPARTMENT CONNECTION
- BACTERIOLOGICAL SAMPLE POINT

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MAJOR SITE PLAN
DIAMOND "A" SHOPPING CENTER
MARION COUNTY, FLORIDA

UTILITY PLAN SOUTH

DATE 10/28/25
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JOB NO. 23-8231

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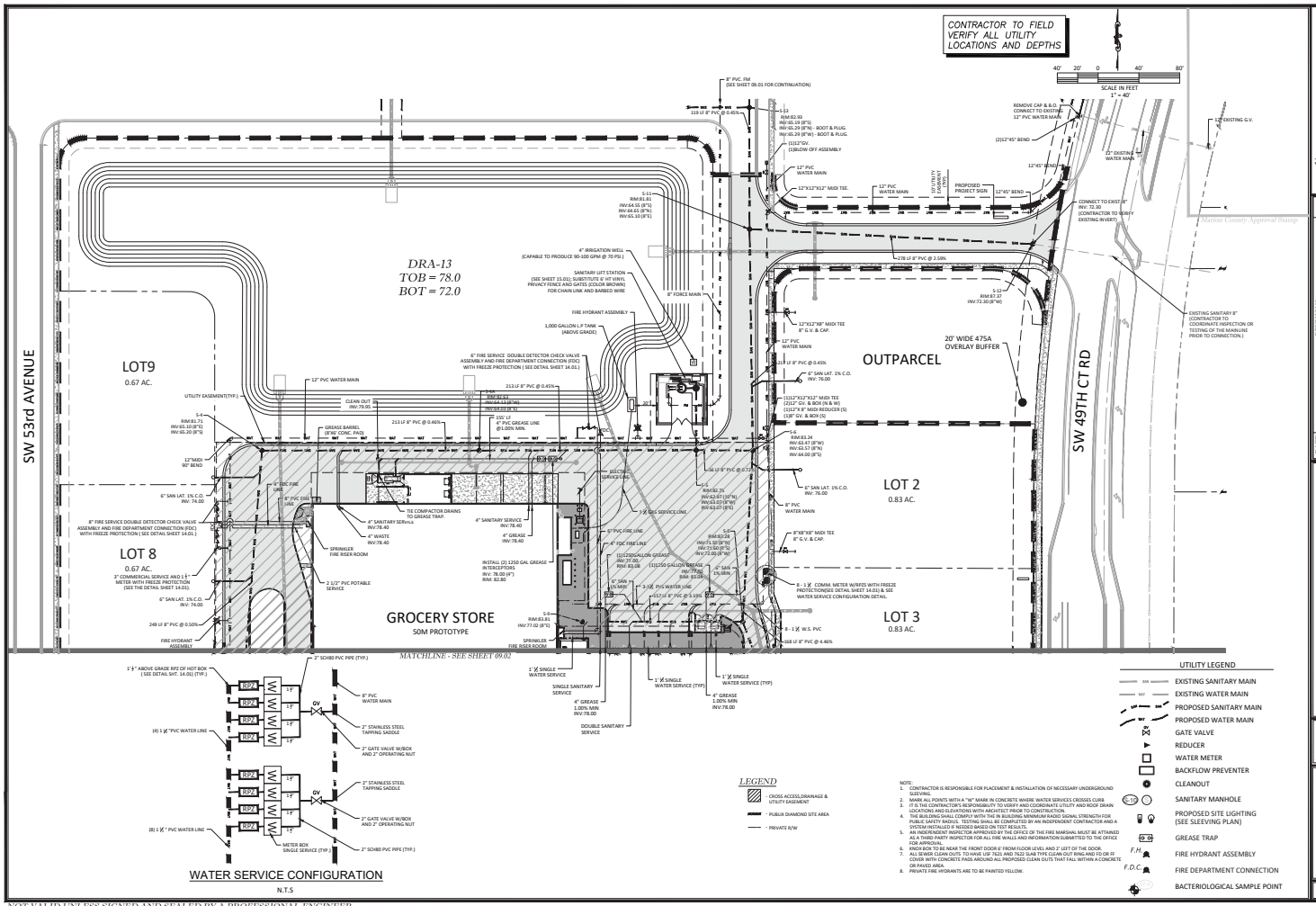

NOTE:
1. CONTRACTOR IS RESPONSIBLE FOR PLACEMENT & INSTALLATION OF NECESSARY UNDERGROUND SLEEVING.
2. MARK ALL POINTS WITH A "W" MARK IN CONCRETE WHERE WATER SERVICES CROSSES CURB
3. IT IS CONTRACTOR'S RESPONSIBILITY TO VERIFY AND COORDINATE UTILITY AND ROOF DRAIN LOCATIONS AND ELEVATIONS WITH ARCHITECT PRIOR TO CONSTRUCTION.
4. THE BUILDING SHALL COMPLY WITH THE IN BUILDING MINIMUM RADIO SIGNAL STRENGTH FOR PUBLIC SAFETY RADIUS. TESTING SHALL BE COMPLETED BY AN INDEPENDENT CONTRACTOR AND A SYSTEM INSTALLED IF NEEDED BASED ON TEST RESULTS.
5. AN INDEPENDENT INSPECTOR APPROVED BY THE OFFICE OF THE FIRE MARSHAL MUST BE ATTAINED FOR A THIRD PARTY INSPECTOR FOR ALL FIRE WALLS AND INFORMATION SUBMITTED TO THE OFFICE FOR REVIEW.
6. KNOX BOX TO BE NEAR THE FRONT DOOR 6' FROM FLOOR LEVEL AND 2' LEFT OF THE DOOR.
7. ALL SEWER CLEAN OUTS TO HAVE USF 7820 AND 7620 SLAB TYPE CLEAN OUT RING AND CO OR FF COVER WITH CONCRETE PADS AROUND ALL PROPOSED CLEAN OUTS THAT FALL WITHIN A CONCRETE OR PAVED AREA.
8. PRIVATE FIRE HYDRANTS ARE TO BE PAINTED YELLOW.

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REVISIONS
DATE

MAJOR SITE PLAN
DIAMOND "A" SHOPPING CENTER
MARION COUNTY, FLORIDA

UTILITY PLAN NORTH

DATE 10/28/25
DRAWN BY JA
CHK'D. BY IMM
JOB NO. 23-8231

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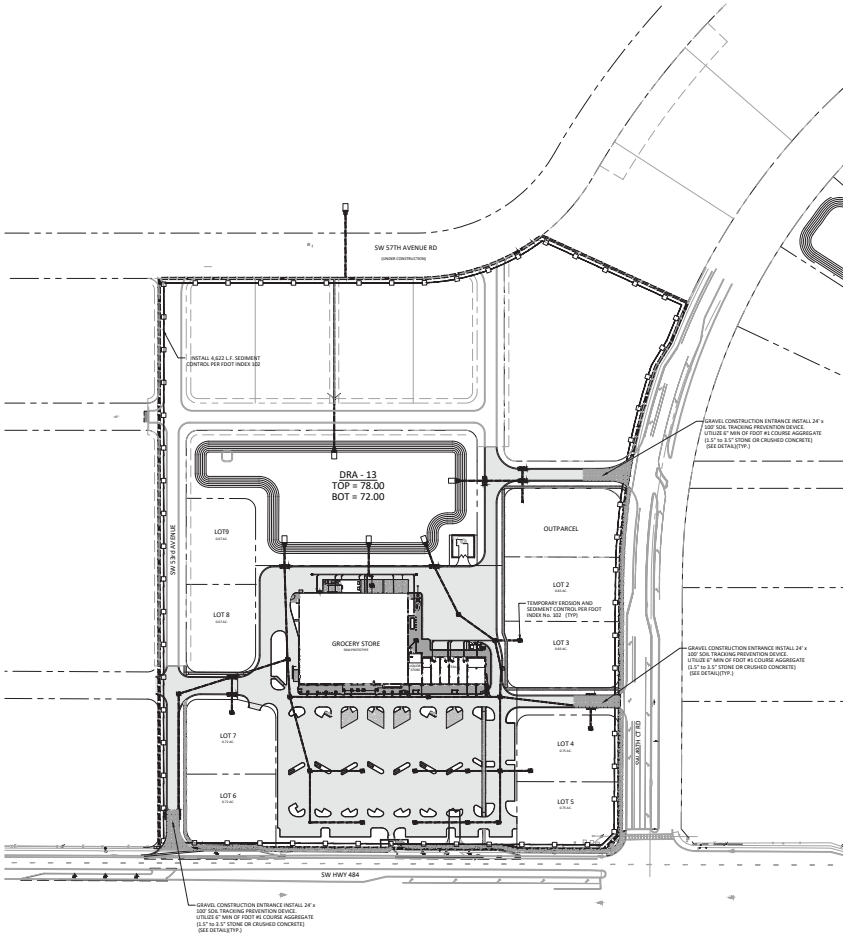

GENERAL NOTES:

1. THE EROSION CONTROL MEASURES SHOWN ON THIS PLAN ARE, IN THE OPINION OF THE ENGINEER, THE MINIMUM THAT MAY BE REQUIRED. ACTUAL FIELD CONDITIONS MAY REQUIRE EITHER ADDITIONAL OR REDUCED EROSION CONTROL MEASURES TO BE IMPLEMENTED. THE CONTRACTOR IS DIRECTED TO FOLLOW STANDARD BEST MANAGEMENT PRACTICES IN IMPLEMENTING A SUCCESSFUL EROSION CONTROL PLAN.
2. TEMPORARY EROSION CONTROL TO BE UTILIZED DURING CONSTRUCTION AT AREAS DESIGNATED BY THE ENGINEER OR AREAS ON SITE WHERE UNESTABLISHED GRASSES MAY CAUSE EROSION PROBLEMS. EROSION CONTROLS MAY BE REMOVED AFTER UPSLOPE AREA HAS BEEN STABILIZED BY SOD, OR COMPACTED AS DETERMINED BY THE OWNER.
3. PERMANENT EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AT THE EARLIEST STAGE OF CONSTRUCTION CONSISTENT WITH GOOD CONSTRUCTION PRACTICES. ONE OF THE FIRST CONSTRUCTION ACTIVITIES SHOULD BE THE PLACEMENT OF PERMANENT AND TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AROUND THE PERIMETER OF THE PROJECT OR THE INITIAL WORK AREA TO PROTECT ADJACENT PROPERTIES AND WATER BODIES FROM SEDIMENT.
4. TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE COORDINATED WITH PERMANENT MEASURES TO ASSURE ECONOMICAL, EFFECTIVE AND CONTINUOUS CONTROL THROUGHOUT THE CONSTRUCTION PHASE. TEMPORARY MEASURES SHALL NOT BE CONSTRUCTED FOR EXPEDIENCY IN LIEU OF PERMANENT MEASURES.
5. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE ADEQUATELY MAINTAINED TO PERFORM THEIR INTENDED FUNCTION DURING CONSTRUCTION OF THE PROJECT.
6. NECESSARY REPAIRS TO BARRIERS OR REPLACEMENT OF BARRIERS SHALL BE ACCOMPLISHED PROMPTLY.
7. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH RAIN. THEY MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
8. MATERIAL FROM SEDIMENT TRAPS SHALL NOT BE STOCKPILED OR DISPOSED OF IN A MANNER WHICH MAKES THEM READILY SUSCEPTIBLE TO BEING WASHED INTO ANY WATERCOURSE BY RUNOFF OR HIGH WATER.
9. SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE BARRIERS ARE NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.
10. SILT FENCE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR ST.RAID SILT FENCE (LF).
11. ALL INLETS TO BE PROTECTED BY DETAILS AS OUTLINED IN F.D.O.T. 2008 INDEX NO. 102
12. ALL DISTURBED AREAS TO BE SODDED OR SEEDED AND MULCHED WITHIN 7 DAYS AFTER FINAL GRADING.

Marion County Approval Stamp

EROSION CONTROL LEGEND

PROJECT BOUNDARY

PROPOSED SILT FENCE

50' 25' 0 50' 100'

SCALE IN FEET
1" = 50'

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REVISIONS

DATE

MAJOR SITE PLAN
DIAMOND "A" SHOPPING CENTER
MARION COUNTY, FLORIDA

STORMWATER POLLUTION PREVENTION PLAN

DATE 10/28/25
DRAWN BY JA
CHKD. BY IMM
JOB NO. 23-8231

SHT. 10.01

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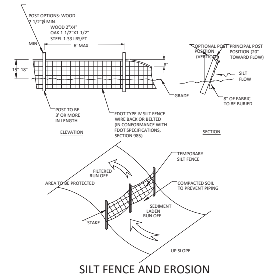
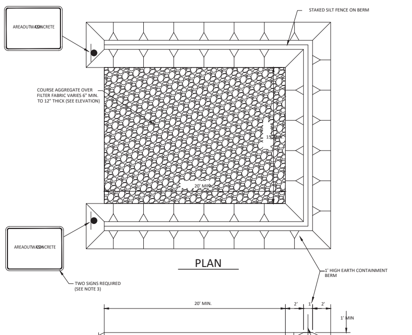


SILT FENCE AND EROSION CONTROL DETAIL

NO SCALE

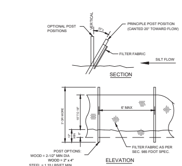


NOTES:

1. ALL MATERIAL SHALL BE REMOVED FROM THE SITE AT THE END OF THE PROJECT.
2. AGGREGATE SHALL BE REPLACED AS DIRECTED BY THE ENGINEER OF RECORD AND/OR THE CITY WHEN EXCESSIVE MATERIALS BUILDUP RENDERS THE WASH OUT AREA NO LONGER FUNCTIONAL.
3. SIGNS SHALL BE 18" X 12" MIN. SIZE WITH 2" BLACK LETTERING ON A WHITE BACKGROUND AND MOUNTED A MINIMUM OF 7 FEET ABOVE GRADE FROM THE LOWEST EDGE OF THE SIGN FACE.

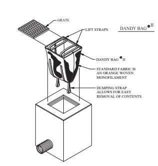
CONCRETE TRUCK WASH OUT AREA

NO SCALE



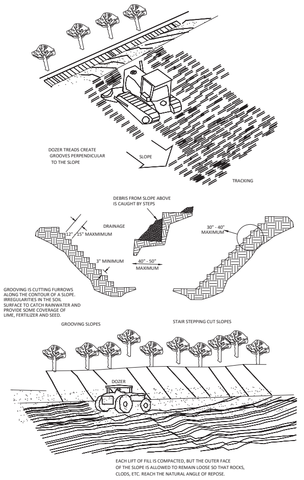
TYPE III SILT FENCE DETAIL

FDOT INDEX #102



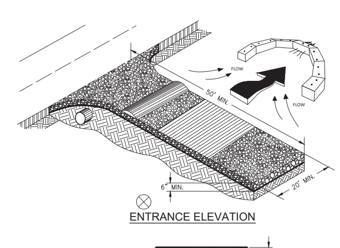
DANDY BAG DETAIL "B"

N.T.S.

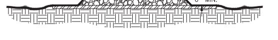


SURFACE ROUGHENING

NO SCALE



ENTRANCE ELEVATION



NOTES:
1. AVOID LOCATING ON STEEP SLOPES OR AT CURVES ON PUBLIC ROADS.
2. REMOVE ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA, GRADE, AND CROWN FOR POSITIVE DRAINAGE.
3. AGGREGATE SIZE SHALL BE IN ACCORDANCE WITH FDOT #1 COURSE AGGREGATE.
4. GRAVEL PAD SHALL HAVE A MINIMUM THICKNESS OF 6" AND BE INSTALLED IN ACCORDANCE WITH FDEP SPECIFICATIONS.
5. PAD WIDTH SHALL BE EQUAL FULL WIDTH AT ALL POINTS OF VEHICULAR EGRESS, BUT NO LESS THAN 12'.
6. A DIVERSION RIDGE SHOULD BE CONSTRUCTED WHEN GRADE TOWARD PAVED AREA IS GREATER THAN 2%.
7. INSTALL PIPE UNDER THE ENTRANCE IF NEEDED TO MAINTAIN DRAINAGE DITCHES.
8. WHEN WASHING IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN (DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE ENTRANCE TO A SEDIMENT CONTROL DEVICE).
9. WASHRACKS AND/OR TIRE WASHERS MAY BE REQUIRED DEPENDING ON SCALE AND CIRCUMSTANCE. IF NECESSARY, WASHRACK DESIGN MAY CONSIST OF ANY MATERIAL SUITABLE FOR TRUCK TRAFFIC THAT REMOVES MUD AND DIRT.
10. MAINTAIN AREA IN A WAY THAT PREVENTS TRACKING AND/OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.

CRUSHED STONE CONSTRUCTION EXIT

EXIT DIAGRAM

EROSION CONTROL NOTES:

1. CONTRACTOR SHALL MAINTAIN EROSION CONTROL FACILITIES DURING THE ENTIRE CONSTRUCTION PERIOD. FACILITIES ARE NOT TO BE REMOVED UNTIL COMPLETION OF THE PROJECT AND THE SITE IS STABILIZED.
2. ADDITIONAL DEVICES MAY BE REQUIRED AS DEEMED NECESSARY BY GOVERNING AUTHORITIES.
3. SILT FENCES SHALL BE CLEANED OR REPLACED WHEN TRAPPED SEDIMENT REACHES 50 PERCENT OF THE ABOVE GROUND FENCE HEIGHT OR A LOWER HEIGHT BASED ON MANUFACTURER'S SPECIFICATIONS.
4. SEDIMENT AND EROSION CONTROL MEASURES WILL BE INSPECTED ON A DAILY BASIS AND REPAIRED, ADJUSTED AND MAINTAINED AS NEEDED OR REQUIRED BY GOVERNING AGENCIES AT NO ADDITIONAL EXPENSE TO THE OWNER TO PROVIDE EROSION AND SEDIMENT CONTROL FOR THE DURATION OF CONSTRUCTION AND UNTIL ALL DISTURBED AREAS ARE STABILIZED.
5. ALL GRADED AREAS SHALL BE STABILIZED WITH A PERMANENT FAST GROWING COVER AND/OR MULCH UPON COMPLETION OF GRADING OPERATIONS. COMPLETION OF GRADING OPERATIONS DOES NOT MEAN AT THE END OF THE PROJECT. AS SOON AS FINAL GRADES ARE ESTABLISHED IN AN UNPAVED AREA, THE CONTRACTOR SHALL STABILIZE WITH A TEMPORARY GRASS OR PERMANENT SOD. IF A TEMPORARY GRASS IS APPLIED, IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO APPLY A PERMANENT SEED OR SOD AT THE PROPER TIME OF YEAR.
6. FILL SLOPES SHOULD BE PLANTED AS SOON AS AN AREA OF THE SITE IS BROUGHT TO FINAL GRADE. SURFACE RUNOFF SHALL BE INTERCEPTED AT THE TOP OF TEMPORARY AND PERMANENT SLOPES DURING CONSTRUCTION SO THAT WATER IS NOT ALLOWED TO FLOW OVER THE SLOPE FACE.
7. THE GENERAL CONTRACTOR AND THE GRADING CONTRACTOR SHALL REVIEW THEIR PROPOSED GRADING SEQUENCE TO INSURE THAT THE LEAST AMOUNT OF LAND POSSIBLE AT ANY ONE TIME IS DISTURBED WITHOUT PERMANENT STABILIZATION.
8. CONTRACTOR SHALL INSTALL TEMPORARY CONSTRUCTION ENTRANCES PRIOR TO ANY EARTHWORK OPERATIONS.
9. CONTRACTOR SHALL MAINTAIN SILT FENCES FOR THE DURATION OF THE PROJECT UNTIL ACCEPTED BY THE OWNER AT NO EXPENSE TO OWNER.
10. LAND DISTURBING ACTIVITIES BE KEPT TO A MINIMUM AND WILL NOT EXTEND BEYOND THE LIMITS SHOWN.
11. THE CONTRACTOR SHALL CONSTRUCT THE SILT FENCING AS SHOWN AT THE PERIMETER OF THE SITE PLAN PRIOR TO LAND CLEARING ACTIVITIES.
12. CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE COMPLIANCE WITH THE NPDES STORMWATER REQUIREMENTS. THIS INCLUDES, BUT IS NOT LIMITED TO, INSPECTION REQUIREMENTS.
13. ALL EROSION CONTROL MEASURES EXCEPT THE REQUIRED RIP RAP ARE TEMPORARY DEVICES. THESE TEMPORARY DEVICES SHALL BE REMOVED PRIOR TO COMPLETION OF CONSTRUCTION ONCE STABILIZATION OF ALL GRASSED AREAS ARE COMPLETE.
14. PRIOR TO CONSTRUCTION, THE EROSION AND SEDIMENT CONTROL MEASURES SHOWN HEREON SHALL BE IN PLACE. CLEARING AND GRUBBING OPERATIONS WILL BE ENGAGED IN ONLY AS NECESSARY TO ALLOW THE PLACEMENT OF EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN HEREON UNTIL ALL SUCH MEASURES ARE IN PLACE.
15. CONTRACTOR IS RESPONSIBLE FOR REPAIRS OR DAMAGE TO ANY EXISTING IMPROVEMENTS DURING CONSTRUCTION, SUCH AS, BUT NOT LIMITED TO, DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURB, ETC., REPAIRS SHALL BE EQUAL TO OR BETTER THAN EXISTING CONDITIONS.
16. FOR SILT FENCE DETAIL SEE TYPE III SILT FENCE IN FDOT INDEX 103. SILT FENCE LOCATION SHOWN FOR AESTHETICS ONLY, ACTUAL FENCE TO BE INSTALLED ON THE PROPERTY LINE.
17. ALL EXISTING STORM WATER DRAINAGE PATTERNS AND CHANNELS OUTSIDE THE CONSTRUCTION AREAS SHOWN ON THESE PLANS ARE TO BE MAINTAINED. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF THE WORK APPEARS TO INTERRUPT AN EXISTING STORM WATER DRAINAGE PATTERN. THE CONTRACTOR SHALL MAINTAIN A CLEAR PATH FOR ALL SURFACE WATER DRAINAGE STRUCTURES AND DITCHES DURING ALL PHASES OF CONSTRUCTION SUCH THAT IMPACT TO CONSTRUCTION AND/OR SURROUNDING FACILITIES IS MINIMIZED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY EROSION, SEDIMENT TRANSPORT, DISTURBED FOUNDATIONS, IMPACT TO STRUCTURES, AND ANY OTHER DAMAGE CAUSED DURING CONSTRUCTION.
18. THE CONTRACTOR SHALL PREVENT THE DISCHARGE OF SEDIMENT DUE TO CONSTRUCTION OPERATIONS. APPROVED EROSION CONTROL DEVICES SHALL BE INSTALLED TO PREVENT DISCHARGE OF SEDIMENT INTO A DRY OR WET WATERCOURSE. EROSION CONTROL SHALL CONSIST OF ANCHORED HAY BALES, SILT FENCE, OR OTHER EROSION CONTROL METHODS APPROVED BY THE PROJECT ENGINEER. ALL NEW AND EXISTING DRAIN PIPES AND STRUCTURES SHALL BE FLUSHED CLEAN AFTER CONSTRUCTION.
19. PROVIDE EROSION CONTROL BLANKET FOR ALL SLOPES 2:1 (HORIZONTAL TO VERTICAL) OR STEEPER.
20. SWALES AND DISTURBED AREAS SHALL BE SODDED OR SEEDED AND MULCHED AS SOON AS PRACTICAL.
21. SEE PLAN SHEETS FOR MORE DETAILED LOCATION OF SILT FENCE.
22. THIS PLAN PROVIDES REASONABLE ASSURANCE THAT THE PROPOSED CONSTRUCTION ACTIVITIES WILL NOT RESULT IN EROSION AND SEDIMENT DEPOSITION IN STORMWATER FACILITIES, WETLANDS OR OFF-SITE AREAS.

GENERAL NOTES:

1. PROPERTY LINE AND RIGHT-OF-WAY MONUMENTS SHALL NOT BE DISTURBED BY CONSTRUCTION. IF DISTURBED, THEY SHALL BE RESET TO THEIR ORIGINAL LOCATIONS AT THE CONTRACTOR'S EXPENSE BY A REGISTERED LAND SURVEYOR.
2. PROOF ROLL BUILDING AND ALL PARKING AREAS. NOTIFY PROJECT ENGINEER OF ANY UNACCEPTABLE AREAS.
3. BUILDING DIMENSIONS SHOWN ON THE CIVIL ENGINEERING PLANS ARE FOR REFERENCE PURPOSES ONLY, CONTRACTOR SHALL USE THE ARCHITECTURAL AND STRUCTURAL PLANS FOR EXACT BUILDING DIMENSIONS.
4. ALL SITE DIMENSIONS ARE REFERENCED TO THE FACE OF CURBS OR EDGE OF PAVING UNLESS OTHERWISE NOTED.
5. ALL SIDEWALKS, CURB AND GUTTER, STREET PAVING, CURB CUTS, DRIVEWAY APPROACHES, HANDICAP RAMPS, ETC. CONSTRUCTED OUTSIDE THE PROPERTY LINE IN THE RIGHT-OF-WAY SHALL CONFORM TO ALL MUNICIPAL AND/OR STATE SPECIFICATIONS AND REQUIREMENTS.
6. ALL DISTURBANCE INCURRED TO ANY ADJOINING PROPERTY DUE TO CONSTRUCTION OR DEMOLITION SHALL BE RESTORED TO THE PREVIOUS CONDITION OR BETTER, AND TO THE SATISFACTION OF THE APPROPRIATE GOVERNMENTAL AGENCIES.

NOTE TO CONTRACTOR:

1. ALL MATERIALS, MACHINERY, AND VEHICLES SHALL BE STORED ON-SITE IN AN ORDERLY ORGANIZED FASHION.
2. CONTRACTOR SHALL PERIODICALLY SWEEP EXISTING ON-SITE PAVED SURFACES AS WELL AS ALL ABUTTING CITY STREETS, COUNTY ROADS AND STATE HIGHWAYS (AS APPROPRIATE FOR THE PARTICULAR PROJECT) TO KEEP THOSE SURFACES IN A SUBSTANTIALLY SEDIMENT-FREE CONDITION. SWEEPING SHALL BE DONE ON A PERIODIC, AS-NEEDED BASIS THROUGHOUT THE WORK WEEK INCLUDING, MOST IMPORTANTLY, AFTER EVERY RAIN EVENT AND EVERY FRIDAY AFTERNOON PRIOR TO CEASING WORK FOR THE WEEK.
3. A PRE-SITE MEETING IS REQUIRED PRIOR TO CONSTRUCTION. NO SITE WORK SHALL BE CONDUCTED PRIOR TO OBTAINING A SITE PERMIT FROM THE CITY. CALL THE CITY GROWTH MANAGEMENT DEPARTMENT @ 352-629-8421 TO SCHEDULE THE PRE-CONSTRUCTION MEETING WHICH MUST BE HELD BEFORE INSTALLING ANY REQUIRED EROSION CONTROLS OR OBTAINING ANY SITE PERMITS.
4. THE CONTRACTOR MUST VERIFY/LOCATE HORIZONTAL AND VERTICAL DISPOSITION OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
5. CONTRACTOR MUST CONTACT ALL UTILITY COMPANIES PRIOR TO COMMENCEMENT OF CONSTRUCTION.
6. ALL PROPOSED UTILITIES TO BE UNDERGROUND.
7. CONTRACTOR MUST VERIFY THE LOCATION OF THE EXISTING SANITARY SEWER SERVICE TO THE SITE AND CONTACT PROJECT ENGINEER PRIOR TO CONSTRUCTION.
8. EXISTING WATER AND SEWER APPURTENANCES AFFECTED BY THIS SITE REDEVELOPMENT ARE TO BE ADJUSTED TO THE PROPOSED FINISHED GRADE, MEETING CITY OF OCALA WATER AND SEWER REQUIREMENTS, PRIOR TO ISSUANCE OF THE C.O.
9. ALL AREAS DISTURBED BY THE CONSTRUCTION OF THIS PROJECT WHICH ARE NOT OTHERWISE PAVED SHALL BE IMMEDIATELY SODDED FOLLOWING FINAL GRADING. ALLOW FOR THICKNESS OF SOD WITH A 2-INCH UNDERCUT. SOD SHALL BE ARGENTINE BAHIA, AND SHALL BE REGULARLY WATERED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION DURATION.
10. ALL STORMWATER MANAGEMENT SYSTEMS SHALL BE COMPLETED PRIOR TO THE CONSTRUCTION OF IMPERVIOUS AREAS.
11. CONTRACTOR SHALL DEVELOP AND IMPLEMENT A PLAN TO ASSURE THAT ALL WASTE, SUCH AS DISCARDED BUILDING MATERIALS, CONCRETE TRUCK WASH-OUT, CHEMICALS, LITTER AND SANITARY WASTE, ARE PROPERLY CONTROLLED WHILE ON-SITE AND TRANSPORTED AND DISPOSED OF (OFF-SITE) IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS. NO WASTE MATERIALS OF ANY KIND ARE PERMITTED TO BE BURIED ON-SITE OR DISCHARGED TO SURFACE WATERS OF THE STATE OR TO THE CITY'S STORMWATER SYSTEM.

FLORIDA DOT TYPE III SILT FENCE AND EROSION CONTROL

1. THE FOLLOWING LIST REPRESENTS A BASIC EROSION AND SEDIMENT CONTROL PROGRAM WHICH IS TO BE IMPLEMENTED TO HELP PREVENT OFF SITE SEDIMENTATION DURING AND AFTER CONSTRUCTION OF THE PROJECT.

2. TEMPORARY EROSION CONTROL TO BE UTILIZED DURING CONSTRUCTION AT AREAS DESIGNATED BY THE ENGINEER OR AREAS ON SITE WHERE UNSTABILIZED GRADES MAY CAUSE EROSION PROBLEMS. EROSION CONTROL MAY BE REMOVED AFTER UPSLOPE AREA HAS BEEN STABILIZED BY SOD, OR COMPACTED AS DETERMINED BY THE OWNER.

3. PERMANENT EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AT THE EARLIEST PRACTICAL TIME CONSISTENT WITH GOOD CONSTRUCTION PRACTICES. ONE OF THE FIRST CONSTRUCTION ACTIVITIES SHOULD BE THE PLACEMENT OF PERMANENT AND TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AROUND THE PERIMETER OF THE PROJECT OR THE INITIAL WORK AREA TO PROTECT THE PROJECT, ADJACENT PROPERTIES AND WATER RESOURCES.

4. TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE COORDINATED WITH PERMANENT MEASURES TO ASSURE ECONOMICAL, EFFECTIVE AND CONTINUOUS CONTROL THROUGHOUT THE CONSTRUCTION PHASE. TEMPORARY MEASURES SHALL NOT BE CONSTRUCTED FOR EXPEDIENCY IN LIEU OF PERMANENT MEASURES.

5. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE ADEQUATELY MAINTAINED TO PERFORM THEIR INTENDED FUNCTION DURING CONSTRUCTION OF THE PROJECT.

6. NECESSARY REPAIRS TO BARRIERS OR REPLACEMENT OF BARRIERS SHALL BE ACCOMPLISHED PROMPTLY.

7. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RAINFALL. THEY MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER.

8. MATERIAL FROM SEDIMENT TRAPS SHALL NOT BE STOCKPILED OR DISPOSED OF IN A MANNER WHICH MAKES THEM READILY SUSCEPTIBLE TO BEING WASHED INTO ANY WATERCOURSE BY RUNOFF OR HIGH WATER.

9. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE BARRIERS ARE NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

10. SILT FENCE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKED SILT FENCE (LF).

11. ALL INLETS TO BE PROTECTED BY DETAILS AS OUTLINED IN F.D.O.T. 2008 INDEX NO. 102

Marion County Approval Stamp

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REVISIONS	DATE

MAJOR SITE PLAN
DIAMOND "A" SHOPPING CENTER
MARION COUNTY, FLORIDA

STORMWATER POLLUTION PREVENTION NOTES

DATE 10/28/25
DRAWN BY JA
CHKD. BY JMM
JOB NO. 23-8231

SHT. 10.02

NOT VALID UNLESS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER

TIMING OF SEDIMENT - CONTROL PRACTICES:

SEDIMENT CONTROL PRACTICES SHALL BE FUNCTIONAL THROUGHOUT EARTH- DISTURBING ACTIVITY.

SETTLING FACILITIES, PERIMETER CONTROLS, AND OTHER PRACTICES INTENDED TO TRAP SEDIMENT SHALL BE IMPLEMENTED AS THE FIRST STEP OF GRADING AND WITHIN SEVEN DAYS FROM THE START OF GRUBBING. THEY SHALL CONTINUE TO FUNCTION UNTIL THE UPSLOPE DEVELOPMENT AREA IS RE-STABILIZED.

STABILIZATION OF NON STRUCTURAL PRACTICES:

CONTROL PRACTICES SHALL PRESERVE EXISTING VEGETATION WHERE ATTAINABLE AND DISTURBED AREAS SHALL BE RE-VEGETATED AS SOON AS PRACTICAL AFTER GRADING OR CONSTRUCTION.

DENUDED AREAS SHALL HAVE SOIL STABILIZATION APPLIED WITHIN FOURTEEN DAYS IF THEY ARE TO REMAIN DORMANT FOR MORE THAN FORTY-FIVE DAYS. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN FOURTEEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE, AND SHALL ALSO BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS WHICH MAY NOT BE AT FINAL GRADE, BUT WILL REMAIN DORMANT (UNDISTURBED) FOR LONGER THAN FORTY-FIVE DAYS.

SEDIMENT BARRIERS:

SHEET FLOW RUNOFF FROM DENUDED AREAS SHALL BE INTERCEPTED BY SEDIMENT BARRIERS.

SEDIMENT BARRIERS SUCH AS SEDIMENT FENCE OR DIVERSIONS TO SETTLING FACILITIES SHALL PROTECT ADJACENT PROPERTIES AND WATER RESOURCES FROM SEDIMENT TRANSPORTED BY SHEET FLOW.

INLET PROTECTION:

ALL STORM SEWER INLETS WHICH ACCEPT WATER RUNOFF FROM THE DEVELOPMENT AREA SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER WILL NOT ENTER THE STORM SYSTEM WITHOUT FIRST BEING PONDED AND FILTERED.

MAINTENANCE:

TEMPORARY EROSION CONTROL FEATURES SHALL BE ACCEPTABLY MAINTAINED AND SHALL BE REMOVED OR REPLACED WHEN DIRECTED BY THE ENGINEER AT NO COST TO THE OWNER. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIFICATIONS.

STOCKPILES:

ALL SOIL STOCKPILES SHALL BE PROTECTED FROM EROSION BY PERIMETER CONTROL DEVICES SUCH AS STRAW BALE DIKES OR FILTER FABRIC FENCES. AND THESE PERIMETER CONTROL DEVICES SHALL BE MAINTAINED THROUGHOUT THE LIFE OF THE PROJECT.

PERMANENT VEGETATION:

PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL GROUND COVER IS ACHIEVED WHICH, IN THE OPINION OF THE ENGINEER, PROVIDES ADEQUATE COVER AND IS MATURE ENOUGH TO CONTROL SOIL EROSION SATISFACTORILY AND TO SURVIVE ADVERSE WEATHER CONDITIONS.

CONSTRUCTION ACCESS ROUTES:

MEASURES SHALL BE TAKEN TO PREVENT SOIL TRANSPORT ONTO SURFACES OR PUBLIC ROADS WHERE RUNOFF IS NOT CHECKED.

INSPECTION SCHEDULE:

1. DIVERSION SWALE AND STRUCTURAL PROTECTION - INSPECT EVERY 7 DAYS OR AFTER EACH RAINSTORM PRODUCING RUNOFF. REPAIR AS REQUIRED.
2. INLET PROTECTION - INSPECT FOR SEDIMENT ACCUMULATION AFTER EACH RAINFALL AND DAILY DURING CONTINUED RAINFALL. REPAIR OR REPLACE WHEN WATER FLOW IS RESTRICTED BY SEDIMENT.
3. VEGETATIVE PLANTING - INSPECT AFTER SPROUTING OCCURS AND REPLANT BARE AREAS. INSPECT ESTABLISHED COVER EVERY 15 DAYS FOR DAMAGE; REPLANT AS REQUIRED. MAINTAIN ESTABLISHED COVER AT MAXIMUM 6" HEIGHT. IRRIGATE AS REQUIRED DURING DRY PERIODS TO MAINTAIN LIVE VEGETATION.

CONSTRUCTION SEQUENCE:

1. INSTALL SEDIMENT CONTROL MEASURES
2. PERFORM DEMOLITION ACTIVITIES.
3. STABILIZE SITE WITH TEMPORARY VEGETATION AS NEEDED.
4. PERFORM IRRIGATION AND UNDERGROUND UTILITY CONSTRUCTION ACTIVITIES.
5. CONSTRUCT NEW TRAILS AND INSTALL LANDSCAPING.
6. PERFORM FINAL GRADING.
7. INSTALL PERMANENT VEGETATION.
8. PERFORM CONTINUING MAINTENANCE THROUGHOUT ALL CONSTRUCTION OPERATIONS.

DITCH BARRIERS:

BALES SHALL BE PLACED IN A SINGLE ROW, LENGTHWISE, ORIENTED PERPENDICULAR TO THE CONTOUR, WITH ENDS OF ADJACENT BALES TIGHTLY ABUTTING ONE ANOTHER.

THE REMAINING STEPS FOR INSTALLING A STRAW BALE BARRIER FOR SHEET FLOW APPLICATIONS APPLY HERE, WITH THE FOLLOWING ADDITION. THE STRAW BALES SHALL BE INSTALLED SUCH THAT UNDERCUTTING BENEATH THE BALES IS MINIMIZED BY THE USE OF ROCK CHECK DAMS PLACED ADJACENT TO THE STRAW BALES.

THE BARRIER SHALL BE EXTENDED TO SUCH A LENGTH THAT THE BOTTOMS OF THE END BALES ARE HIGHER IN ELEVATION THAN THE TOP OF THE LOWEST MIDDLE BALE TO ASSURE THAT SEDIMENT-LADEN RUNOFF WILL FLOW EITHER THROUGH OR OVER THE BARRIER BUT NOT AROUND IT.

MAINTENANCE:

STRAW BALES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.

CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED BALES, END RUNS AND UNDERCUTTING BENEATH BALES.

NECESSARY REPAIRS TO BARRIERS OR REPLACEMENT OF BALES SHALL BE ACCOMPLISHED PROMPTLY.

SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RAINFALL. THEY MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.

ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE STRAW BALE BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

SEDIMENT FENCE:

THIS SEDIMENT BARRIER UTILIZES STANDARD STRENGTH OR EXTRA STRENGTH SYNTHETIC FILTER FABRICS. IT IS DESIGNED FOR SITUATIONS IN WHICH ONLY SHEET OR OVERLAND FLOWS ARE EXPECTED.

1. THE HEIGHT OF A SEDIMENT FENCE SHALL NOT EXCEED 36-INCHES (HIGHER FENCES MAY IMPOUND VOLUMES OF WATER SUFFICIENT TO CAUSE FAILURE OF THE STRUCTURE).
2. THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6-INCH OVERLAP, AND SECURELY SEALED.
3. POSTS SHALL BE SPACED A MAXIMUM OF 10 FEET APART AT THE BARRIER LOCATION AND DRIVEN SECURELY INTO THE GROUND (MINIMUM OF 12 INCHES). WHEN EXTRA STRENGTH FABRIC IS USED WITHOUT THE WIRE SUPPORT FENCE, POST SPACING SHALL NOT EXCEED 6 FEET.
4. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 4 INCHES WIDE AND 4 INCHES DEEP ALONG THE LINE OF POSTS AND UPSLOPE FROM THE BARRIER.
5. WHEN STANDARD STRENGTH FILTER FABRIC IS USED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST 1-INCH LONG, TIE WIRES OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 2 INCHES AND SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
6. THE STANDARD STRENGTH FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, AND 8-INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE. FILTER FABRIC SHALL NOT BE STAPLED TO EXISTING TREES.
7. WHEN EXTRA STRENGTH FILTER FABRIC AND CLOSURE POST SPACING ARE USED, THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED IN SUCH A CASE, THE FILTER FABRIC IS STAPLED OR WIRED DIRECTLY TO THE POSTS WITH ALL OTHER PROVISIONS OF ITEM NO. 6 APPLYING.
8. THE TRENCH SHALL BE BACKFILLED AND SOIL COMPACTED OVER THE FILTER FABRIC.
9. SEDIMENT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.

MAINTENANCE

SEDIMENT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.

SHOULD THE FABRIC ON A SEDIMENT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER IS STILL NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.

SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-THIRD THE HEIGHT OF THE BARRIER.

ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SEDIMENT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED, AND SEEDED.

POLLUTION PREVENTION:

THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PROGRAM IS REGULATED THROUGH THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP). IF YOUR CONSTRUCTION ACTIVITY MEETS THE FOLLOWING CRITERIA:

1. CONTRIBUTES STORM WATER DISCHARGE TO SURFACE WATERS OF THE STATE OR INTO A MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4); AND/OR
2. DISTURBS ONE OR MORE ACRES OF LAND INCLUDING LESS THAN ONE ACRE IF ACTIVITY IS PART OF A LARGE COMMON PLAN OF DEVELOPMENT OR SALE THAT WILL MEET OR EXCEED A ONE ACRE THRESHOLD. DISTURBANCE INCLUDES CLEARING, GRADING AND EXCAVATING. THEN YOU WILL BE REQUIRED TO SUBMIT A NOTICE OF INTENT (NOI) AND PREPARE A STORM WATER POLLUTION PREVENTION PLAN (SWPPP). FOR MORE INFORMATION PLEASE VISIT FDEP'S WEBSITE AT WWW.DEP.STATE.FL.US/WATER/STORMWATER/NPDES.

Marion County Approval Stamp

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MAJOR SITE PLAN
DIAMOND "A" SHOPPING CENTER
MARION COUNTY, FLORIDA

STORMWATER POLLUTION PREVENTION NOTES

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DRAWN BY JA
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JOB NO. 23-8231

SHT. 11.01

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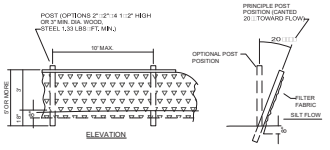
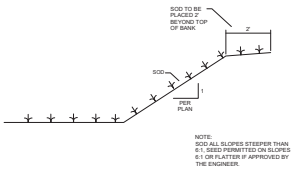


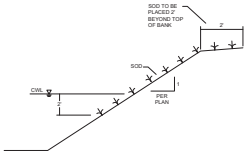
TYPICAL SILT FENCE
N.T.S.

FIGURE 1



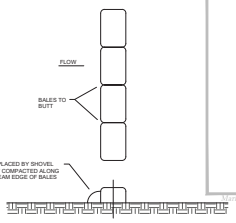
TYPICAL DRY DRAINAGE RETENTION AREA SECTION
N.T.S.

FIGURE 2



TYPICAL RETENTION□DETENTION POND SECTION
N.T.S.

FIGURE 3



TYPICAL DITCH BARRIER
N.T.S.

FIGURE 4

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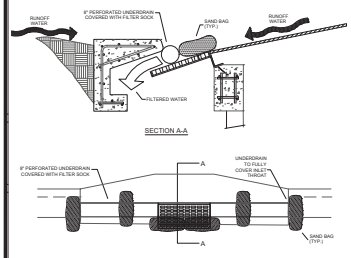
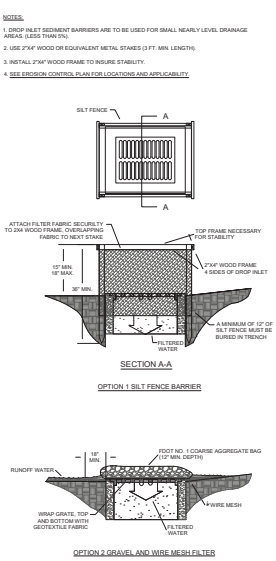


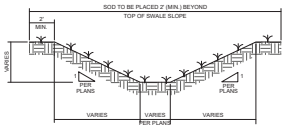
CURB INLET SEDIMENT FILTER DETAIL
N.T.S.

FIGURE 5



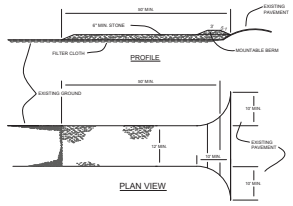
DROP INLET SEDIMENT FILTER DETAIL
N.T.S.

FIGURE 6



TYPICAL SWALE SECTION
N.T.S.

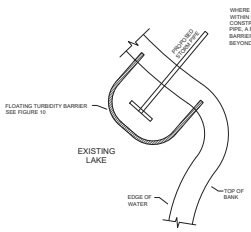
FIGURE □□



STABILI□ED CONSTRUCTION ENTRANCE
1. STONE SI□E - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.

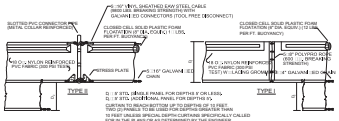
STABILI□ED CONSTRUCTION ENTRANCE
NOT TO SCALE

FIGURE 8



FLOATING TURBIDITY BARRIER AT CONNECTION OF STORM PIPE TO EXISTING LAKE
N.T.S.

FIGURE 9



FLOATING TURBIDITY BARRIERS
N.T.S.

FIGURE 10

Thomas & Associates
ENGINEERING, LLC
CIVIL ENGINEERING - PLANNING - LANDSCAPE ARCHITECTURE - ENVIRONMENTAL
1720 SE 16th Ave., Bldg 100, Ocala, FL 34471
Office: (352) 387-4940 Fax: (352) 387-4945

REVISIONS

DATE

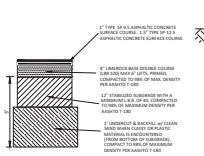
MAJOR SITE PLAN
DIAMOND "A" SHOPPING CENTER
MARION COUNTY, FLORIDA

STORMWATER POLLUTION PREVENTION DETAILS

DATE 10/28/25
DRAWN BY JA
CHK'D. BY DMM
JOB NO. 23-8231

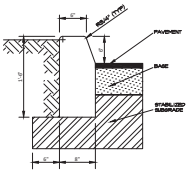
SHT. 12.01

NOT VALID UNLESS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER



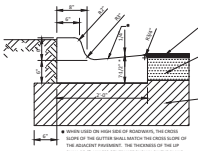
HEAVY PAVEMENT SECTION

N.T.S



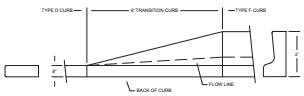
TYPE D CURB

N.T.S



TYPE F CURB

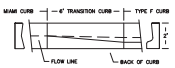
N.T.S



PLAN VIEW

TRANSITION TYPE "D" CURB TO TYPE "F" CURB

N.T.S

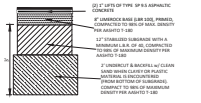


PLAN VIEW

TRANSITION MIAMI CURB TO TYPE "F" CURB CURB

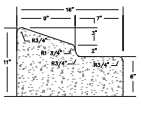
N.T.S

Marion County Approval Stamp



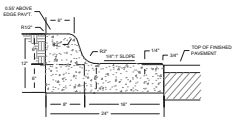
TYPICAL PAVEMENT SECTION

N.T.S



TYPE "A" CURB

N.T.S



TYPE "F" CURB

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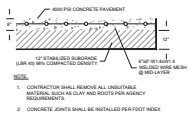
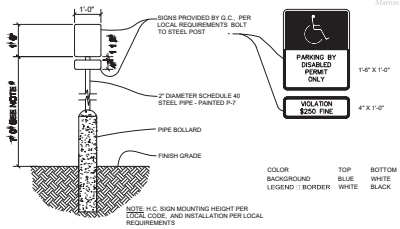


TYPICAL HEAVY DUTY PAVEMENT SECTION

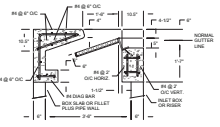
N.T.S



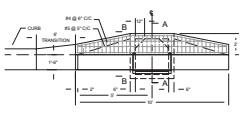
NOTE: H.C. SIGN MOUNTING HEIGHT PER LOCAL CODE, AND INSTALLATION PER LOCAL REQUIREMENTS

HANDICAP SIGN DETAIL

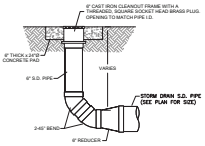
N.T.S.



SECTION A-A



TOP VIEW

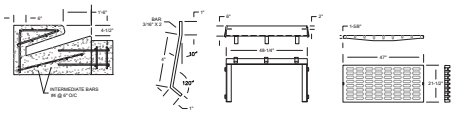


NOTE:
ALL STORM DRAIN MATERIALS SHALL BE APPROVED BY THE ENGINEER OF RECORD AND NOTED ON THE RECORD DRAWINGS.

STORM DRAIN CLEAN-OUT

HANDICAP SYMBOL

N.T.S.



ALL STRUCTURAL SPECIFICATIONS SHALL MEET OR EXCEED F.D.O.T. INDEX NO. 211

GENERAL NOTES

1. THE FINISHED GRADE AND SLOPE OF THE INLET TOPS ARE TO CONFORM WITH THE FINISHED CROSS SLOPE AND GRADE OF THE PROPOSED SIDEWALK AND/OR ROADWAY.

2. WHEN UNITS ARE TO BE CONSTRUCTED ON A CURVE, REFER TO THE PLANS TO DETERMINE THE RADIUS OF THE CURVATURE AND MODIFY THE INLET DETAILS ACCORDINGLY. BEND STEEL WHEN NECESSARY.

3. ALL REINFORCING STEEL SHALL HAVE 1-1/2" MINIMUM COVER UNLESS OTHERWISE SHOWN. INLET TOPS SHALL BE CAST-IN-PLACE OR PRECAST CONCRETE.

4. PRECASTING OF THIS INLET TOP WILL BE PERMITTED. PRECAST UNITS SHALL CONFORM TO THE THE DIMENSIONS SHOWN.

5. CONCRETE MEETING THE REQUIREMENTS OF A.S.T.M. C 478 (4,000 P.S.I.) MAY BE USED IN LIEU OF CLASS I CONCRETE FOR PRECAST UNITS. MANUFACTURED IN PLANTS WHICH ARE UNDER APPROVED OPERATING PROCEDURES FOR THE INSPECTION OF PRECAST CONCRETE PRODUCTS.

6. THE CORNER FILLETS SHOWN FOR RECTANGULAR THROATS ARE NECESSARY ONLY WHEN THROATS ARE TO BE USED IN CONJUNCTION WITH CIRCULAR INLET BOTTOMS OR WHEN USED ON SKEW WITH RECTANGULAR INLET BOXES.

7. FOR INLET BOXES SEE FDOT INDEX NO. 425-010.

8. THESE INLETS TOPS ARE DESIGNED FOR USE WITH STANDARD CURB AND GUTTER TYPE F OR MIAMI. LOCATE OUTSIDE OF PEDESTRIAN CROSSWALK WHERE PRACTICAL.

9. ALL STEEL USED FOR THE GRATING FRAME SHALL MEET THE REQUIREMENTS OF A.S.T.M. A-36.

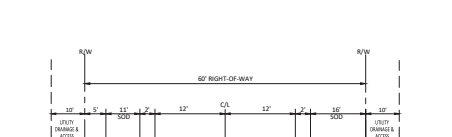
10. CAST IRON COVERS SHALL BE USED. IRON COVERS SHALL BE CLASS NO. 30 CASTINGS IN ACCORDANCE WITH A.S.T.M. A-48.

11. CURB INLET FRAME AND GRATE SHALL BE US FOUNDRY # 5160 OR EQUAL.

12. COVERS ARE TO BE GROUTED IN ACCORDANCE WITH THE GROUTING DETAIL IN LIEU OF TACK WELDING.

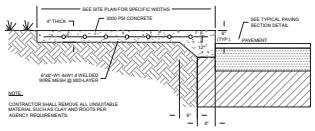
TYPE 6M INLET CURB TOP

N.T.S



NOTE: SEE SITE PLAN FOR SPECIFIC SIDEWALK LOCATIONS
SIDEWALK SHALL BE CONSTRUCTED PER FDOT INDEX NO. 522-001.

TYPICAL SIDEWALK SECTION



RAISED SIDEWALK AND PAVEMENT SECTION

N.T.S.

60' PRIVATE RIGHT-OF-WAY ROADWAY SECTION

N.T.S

NOT VALID UNLESS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER

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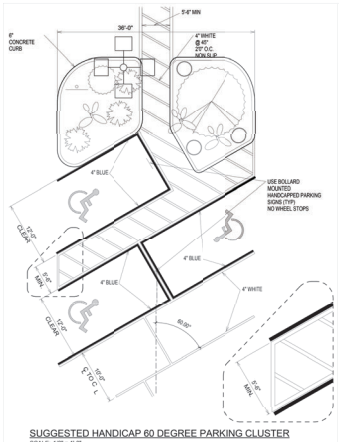
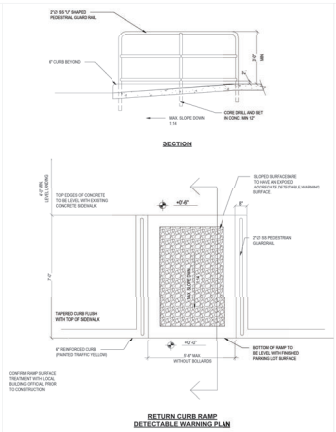


SUGGESTED HANDICAP 60 DEGREE PARKING CLUSTER

SCALE: 1/8" = 1'-0"



RETURN CURB RAMP DETECTABLE WARNING PLAN

USE IN FRONT OF PUBLIX STORE

MCCUE /RASHCORE BOLLARD REQUIRED AT ENTRY/EXIT AND CUSTOMER SEATING AREAS

PLACE @ 5'-6" OC

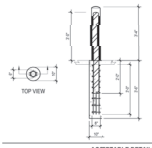
CONTRACTORS NOTE:

BOLLARDS SUPPLIED AND INSTALLED BY MCCUE PRIOR TO SIDEWALK BEING POURED. NO SUBSTITUTIONS. CONTACT MCCUE AND PUBLIX TO RECEIVE PUBLIX MATERIAL ACCOUNT PRICING FOR MATERIALS AND INSTALLATION.

ORDERING INFORMATION AND TIMING:

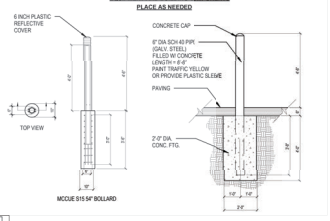
ORDER: 4 WEEKS PRIOR TO SIDEWALK POUR
RECEIVE: 2 WEEKS PRIOR TO SIDEWALK POUR
INSTALLATION: 1 WEEK PRIOR TO SIDEWALK POUR

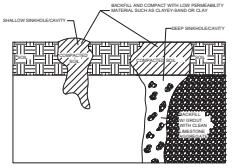
CONTACT INFO:
EMAIL: YDELACRUZ@MCCUE.COM
DIRECT: 978-219-5282
OFFICE ADDRESS: MCCUE, 13 CENTENNIAL DRIVE PEABODY, MA 01960
WEBSITE: MCCUE.COM



ACCEPTABLE DETAILS FOR BOLLARDS PROTECTING EQUIPMENT AND BUILDING COMPONENTS

PLACE AS NEEDED





NOTES

IN THE EVENT THAT ANY KARST FEATURES SUCH AS SINKHOLES, SOLUTION CAVITIES, OR SOFT SOILS ARE DISCOVERED DURING CONSTRUCTION ACTIVITIES OF THE STORMWATER BASINS, THE FOLLOWING REMEDIATION PROCEDURE SHALL BE PROFORMED

SHALLOW REPAIR (SEE DETAIL)
IF THE COLLAPSE IS SHALLOW (<3' DEEP) AND THE VOIDS IN THE LIMESTONE ARE SMALL, THEN THE SINKHOLE CAN BE REPAIRED BY BACKFILLING WITH A LOWER-PERMEABILITY MATERIAL, SUCH AS CLAYEY SAND OR CLAY. THE MATERIAL SHOULD BE COMPACTED AND THE REPAIR SHALL BE SLIGHTLY ABOVE THE ORIGINAL BOTTOM IN ORDER TO CREATE A SMALL MOUND TO ACCOUNT FOR SETTLING

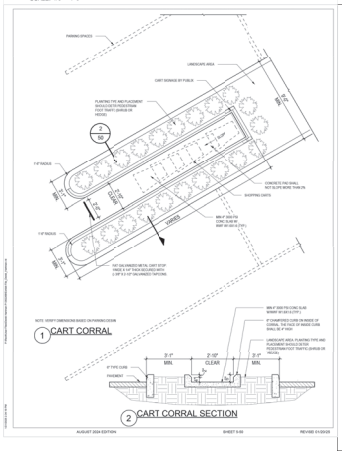
DEEP REPAIR (SEE DETAIL)
IF THE COLLAPSE IS DEEP, THEN THE REPAIR SHALL BE MORE PERMANENT. THE COLLAPSE SHALL BE EXCAVATED TO THE LIMESTONE BEDROCK THE VOID(S) IN THE BEDROCK SHALL BE PLUGGED WITH CLEAN GROUT. A LOW PERMEABILITY MATERIAL SHALL BE PLACED OVER THE CONCRETE PLUG. THE MATERIAL SHALL BE COMPACTED AND BROUGHT TO EXISTING BASIN BOTTOM.

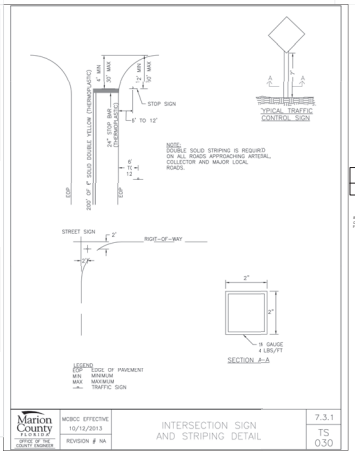
NOTIFICATION
THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT (SJRWMD) SHALL BE NOTIFIED BY THE OWNER OR ENGINEER OF RECORD AT LEAST 48 HOURS PRIOR TO THE PROPOSED METHOD BY WHICH THE SINKHOLE WILL BE REPAIRED SHALL BE SUBMITTED TO THE SJRWMD FOR APPROVAL WITHIN 30 DAYS. THE SJRWMD WILL THEN NOTIFY THE RESPONSIBLE PARTY AS TO THE ACCEPTANCE, DENIAL OR NEED FOR MODIFICATION OF THE REPAIR METHOD.

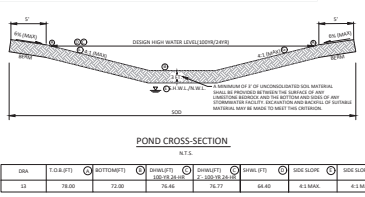
SHALLOW AND DEEP SINKHOLE/CAVITY MAINTENANCE REPAIR DETAIL

N.T.S

Marion County Approval Stamp





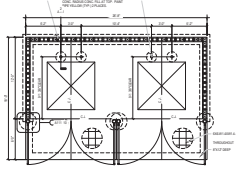


POND CROSS-SECTION

N.T.S.

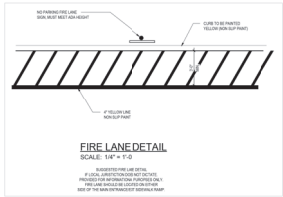
DBA	T.O.B.(FT)	BOTTOM(FT)	DHWL(FT) 100-YR 24 HR	DHWL(FT) 2 - 100-YR 24-HR	MHWL (FT)	SIDE SLOPE	SIDE SLOPE
13	78.00	72.00	76.46	76.77	64.40	4:1 MAX.	4:1 MAX.

SOD ALL SLOPES AND BOTTOM WITH FLORIDA FRIENDLY NON-MUCK GROWN SOD



COMMERCIAL DUMPSTER PAD

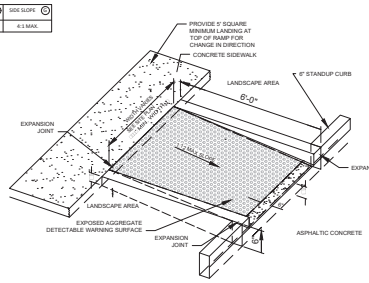
N.T.S



FIRE LANE DETAIL

SCALE: 1/4" = 1'-0

SUGGESTED FIRE LANE DETAIL
IF LOCAL JURISDICTION DOES NOT DICTATE, PROVIDE 24" WIDE PAINTED YELLOW STRIPE AT FIRE LANE INCLUDE LEGEND ON EITHER SIDE OF THE MAIN ENTRANCE/EXIT SIDEWALK RAMP



CURB RETURN RAMP DETAIL

N.T.S

Marion County FLORIDA "OFFICE OF THE COUNTY ENGINEER"	MCBCC EFFECTIVE: 10/13/2013	INTERSECTION SIGN AND STRIPING DETAIL	7.3.1 TS 030
	REVISION # NA		

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SHT. 13.02

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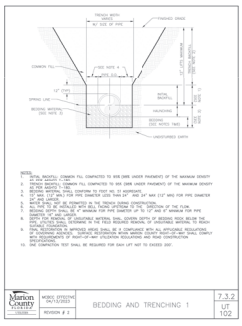
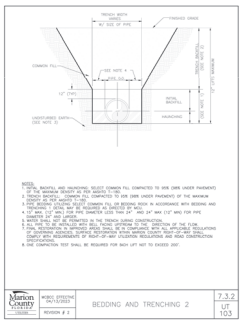
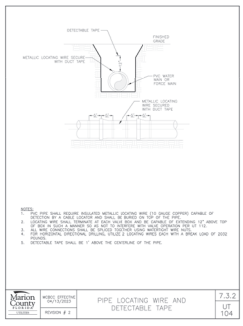


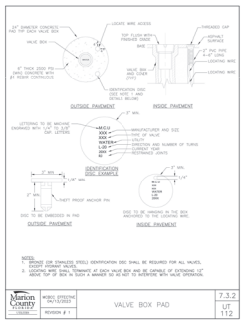
Marion County | MCBCC EFFECTIVE 04/11/2022 | REVISION # 2
BEDDING AND TRENCHING 1 | 7.3.2 | UT 102



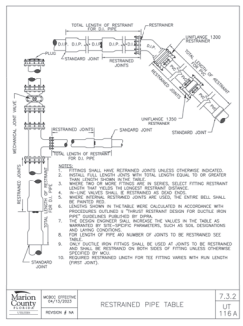
Marion County | MCBCC EFFECTIVE 04/11/2022 | REVISION # 2
BEDDING AND TRENCHING 2 | 7.3.2 | UT 103



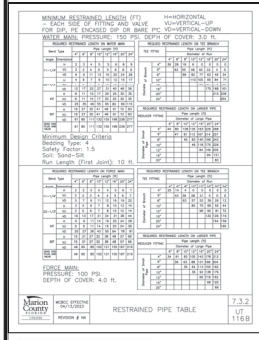
Marion County | MCBCC EFFECTIVE 04/11/2022 | REVISION # 3
PIPE LOCATING WIRE AND DETECTABLE TAPE | 7.3.2 | UT 104



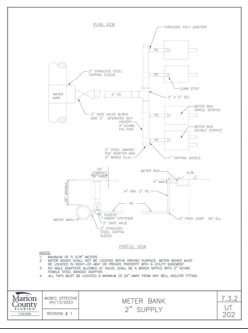
Marion County | MCBCC EFFECTIVE 04/11/2022 | REVISION # 1
VALVE BOX PAD | 7.3.2 | UT 112



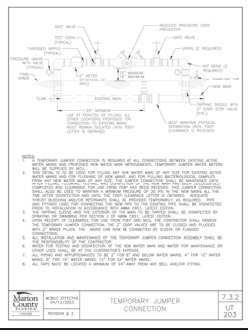
Marion County | MCBCC EFFECTIVE 04/11/2022 | REVISION # 1A
RESTRAINED PIPE TABLE | 7.3.2 | UT 116A



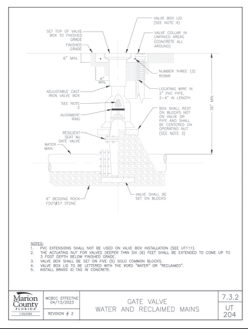
Marion County | MCBCC EFFECTIVE 04/11/2022 | REVISION # 1A
RESTRAINED PIPE TABLE | 7.3.2 | UT 116B



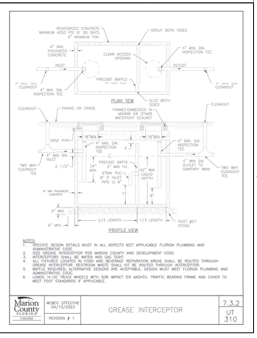
Marion County | MCBCC EFFECTIVE 04/11/2022 | REVISION # 1
METER BANK 2" SUPPLY | 7.3.2 | UT 202



Marion County | MCBCC EFFECTIVE 04/11/2022 | REVISION # 2
TEMPORARY JUMPER CONNECTION | 7.3.2 | UT 203



Marion County | MCBCC EFFECTIVE 04/11/2022 | REVISION # 2
GATE VALVE WATER AND RECLAIMED MAINS | 7.3.2 | UT 204

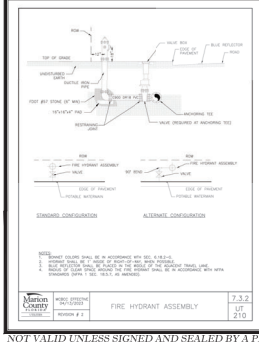


Marion County | MCBCC EFFECTIVE 04/11/2022 | REVISION # 1
GREASE INTERCEPTOR | 7.3.2 | UT 310

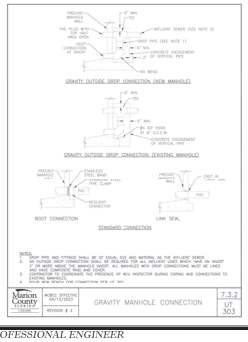
GREASE INTERCEPTOR -1250 GAL (MAX)

GREASE INTERCEPTOR SIZING CALCULATION (PUBLIX SITE)

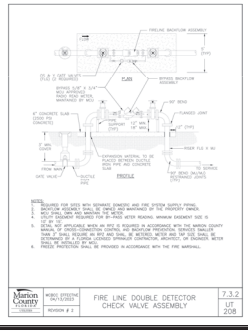
RETENTION TIME



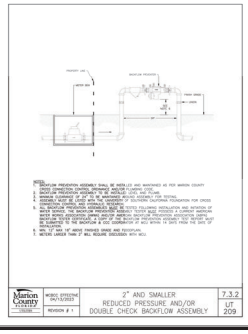
Marion County | MCBCC EFFECTIVE 04/11/2022 | REVISION # 2
FIRE HYDRANT ASSEMBLY | 7.3.2 | UT 210



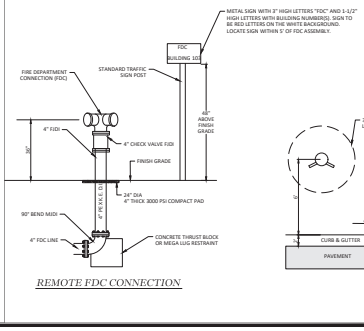
Marion County | MCBCC EFFECTIVE 04/11/2022 | REVISION # 2
GRAVITY MANHOLE CONNECTION | 7.3.2 | UT 303



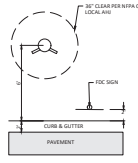
Marion County | MCBCC EFFECTIVE 04/11/2022 | REVISION # 3
FIRE LINE DOUBLE DETECTOR CHECK VALVE ASSEMBLY | 7.3.2 | UT 208



Marion County | MCBCC EFFECTIVE 04/11/2022 | REVISION # 1
2" AND SMALLER REDUCED PRESSURE AND/OR DOUBLE CHECK BACKFLOW ASSEMBLY | 7.3.2 | UT 209



REMOTE FDC CONNECTION



Thomas & Associates
ENGINEERING, LLC
CIVIL ENGINEERING - PLANNING - LANDSCAPE ARCHITECTURE - ENVIRONMENTAL
1720 SE 16th Ave., Bldg 100, Ocala, FL 34471
Office: (352) 369-4540 Fax: (352) 369-4545

Marion County Approval Stamp

REVISIONS | DATE

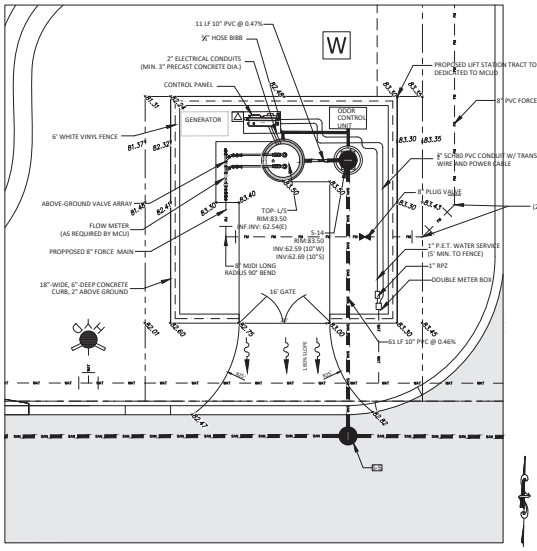
UTILITY DETAILS

MAJOR SITE PLAN
DIAMOND "A" SHOPPING CENTER
MARION COUNTY, FLORIDA

DATE 10/28/25
DRAWN BY JA
CHKD. BY DMM
JOB NO. 23-8210

SHT. 14.01

NOT VALID UNLESS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER



LIFT STATION #1 PLAN
SCALE: 1" = 10'

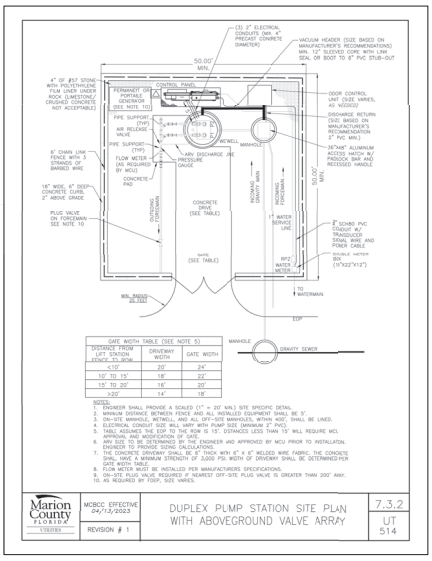
MANUFACTURER: GRUNDFOS
MODEL: SL 3S.450.780.4.62H.5.351.G.EX.D.611
IMP: 13.8"
DIA: N/A
SPEED: 1768 RPM
DISCHARGE SIZE: 5"

VOLTAGE: 480V
PHASE: 3PH HP: 60 HP.
MAX. SOLID SIZE (3 IN MIN): 3.15"

SHUT OFF HEAD: 220.5'
HEAD CONDITION: 497 GPM @ 207.5' TDH

DESCRIPTION	SYMBOL	DIMENSION	ELEVATION
THICKNESS OF WALL	A	8"	N/A
DIAMETER OF WET WELL	B	10'	N/A
WIDTH OF BOTTOM FILLET	C	SEE NOTE 1	N/A
C/L OF WET WELL TO C/L OF PIPES	D	SEE NOTE 1	N/A
LENGTH OF PUMP ACCESS OPENING	E	SEE NOTE 1	N/A
WIDTH OF PUMP ACCESS OPENING	F	SEE NOTE 1	N/A
CENTER OF WET WELL TO EDGE OF HATCH	G	SEE NOTE 1	N/A
LIP WIDTH OF WETWELL BASE	R	18"	N/A
THICKNESS OF WETWELL BASE	S	12"	N/A
TOP OF WET WELL	T	N/A	83.50
FINISHED GRADE	U	N/A	83.00
HIGH LEVEL ALARMS	V	N/A	62.50
LAG PUMP ON	W	N/A	62.00
LEAD PUMP ON	X	N/A	61.50
PUMPS OFF (TOP OF PUMP VOLUTE)	Y	N/A	59.45
BOTTOM OF PUMP TO FLOOR OF WET WELL	P	-	N/A
STEP HEIGHT (IF REQUIRED)	Q	N/A	N/A
FLOOR OF WET WELL	Z	N/A	56.50

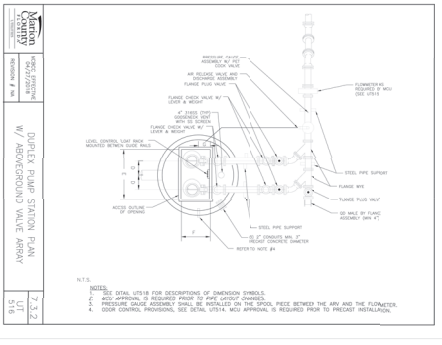
NOTES:
1. PER PUMP MANUFACTURER'S REQUIREMENTS, DIMENSION P AND ELEVATIONS Y AND Z MUST MEET MANUFACTURER'S REQUIREMENTS.
2. TOP ELEVATION OF WET WELL SHALL BE A MINIMUM OF 1' ABOVE THE 100 YEAR FLOOD ELEVATION AND THE ELEVATION OF THE CROWN OF THE ROAD.
3. SYMBOLS SHOWN IN TABLE ARE USED IN DETAILS UT515 AND UT516.



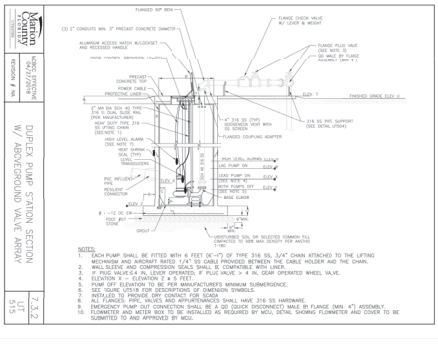
GATE WIDTH TABLE (SEE NOTE 5)		
DISTANCE FROM LIFT STATION FENCE TO ROW	DRIVEWAY WIDTH	GATE WIDTH
<10'	20'	24'
10' TO 15'	18'	22'
15' TO 20'	16'	20'
>20'	14'	18'

NOTES:
1. DRIVEWAY SHALL PROVIDE A SCALED 17' × 70' MIN.) SITE SPECIFIC DESIGN.
2. MINIMUM DISTANCE BETWEEN FENCE AND ALL INSTALLED EQUIPMENT SHALL BE 5'.
3. ON-SITE MANHOLE, WETWELL, AND ALL OFF-SITE MANHOLES, WITHIN 400', SHALL BE LINED.
4. ELECTRICAL CONDUIT SIZE WILL VARY WITH PUMP SIZE (MINIMUM 2" PVC).
5. TABLE ASSUMES THE EOP TO THE ROW IS 15'. DISTANCES LESS THAN 15' WILL REQUIRE MCU APPROVAL AND MODIFICATION OF GATE.
6. ALL GATES SHALL BE DESIGNED BY A PE ENGINEER AND APPROVED BY MCU PRIOR TO INSTALLATION. ENGINEER TO PROVIDE SIZING CALCULATIONS.
7. THE CONCRETE DRIVEWAY SHALL BE 6" THICK WITH 6" X 6" WELDED WIRE FABRIC. THE CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 3,000 PSI. WIDTH OF DRIVEWAY SHALL BE DETERMINED PER GATE WIDTH TABLE
8. ALL GATES SHALL BE INSTALLED PER MANUFACTURERS SPECIFICATIONS.
9. ON-SITE PLUG VALVE REQUIRED IF NEAREST OFF-SITE PLUG VALVE IS GREATER THAN 200' AWAY.
10. AS REQUIRED BY FDEP, SIZE VARIES.

Marion County FLORIDA — MCBCC EFFECTIVE 04/13/2023 — REVISION # 1 — DUPLEX PUMP STATION SITE PLAN WITH ABOVEGROUND VALVE ARRAY — 7.3.2 UT 514



Marion County FLORIDA — MCBCC EFFECTIVE 04/13/2023 — REVISION # 1 — DUPLEX PUMP STATION SECTION W/ ABOVEGROUND VALVE ARRAY — 7.3.2 UT 515



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REVISIONS
DATE

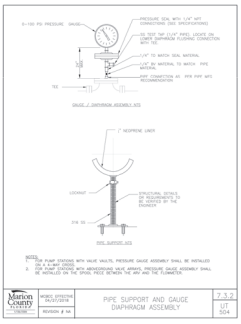
MAJOR SITE PLAN
DIAMOND "A" SHOPPING CENTER
MARION COUNTY, FLORIDA

LIFT STATION & SANITARY DETAILS

DATE 10/28/25
DRAWN BY JA
CHKD. BY DMM
JOB NO. 23-8231

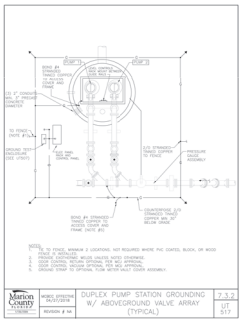
SHT. 15.01

NOT VALID UNLESS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER



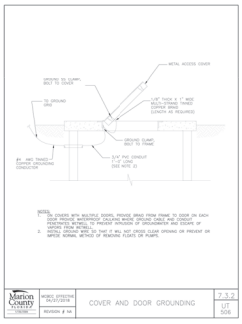
Marion County UTILITIES — MCBCC EFFECTIVE 04/21/2018 — REVISION # NA

PIPE SUPPORT AND GAUGE DIAPHRAGM ASSEMBLY — 7.3.2 — UT 504



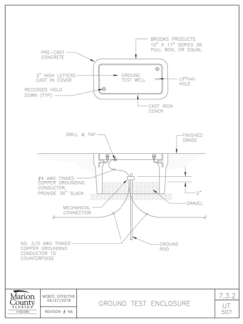
Marion County UTILITIES — MCBCC EFFECTIVE 04/21/2018 — REVISION # NA

DUPLEX PUMP STATION GROUNDING W/ ABOVEGROUND VALVE ARRAY (TYPICAL) — 7.3.2 — UT 517



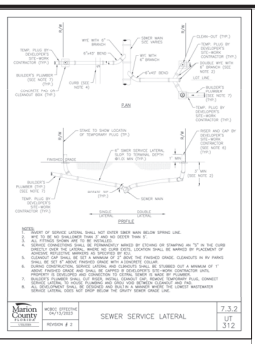
Marion County UTILITIES — MCBCC EFFECTIVE 04/21/2018 — REVISION # NA

COVER AND DOOR GROUNDING — 7.3.2 — UT 506



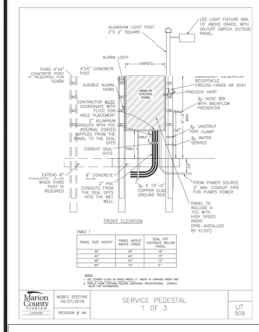
Marion County UTILITIES — MCBCC EFFECTIVE 04/21/2018 — REVISION # NA

GROUND TEST ENCLOSURE — 7.3.2 — UT 507



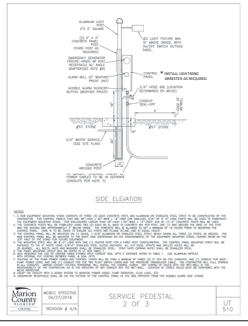
Marion County UTILITIES — MCBCC EFFECTIVE 04/21/2018 — REVISION # 3

SEWER SERVICE LATERAL — 7.3.2 — UT 312



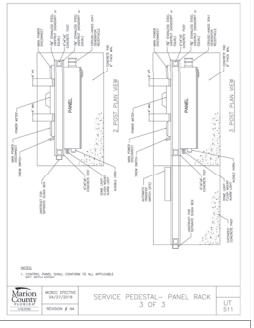
Marion County UTILITIES — MCBCC EFFECTIVE 04/21/2018 — REVISION # NA

SERVICE PEDESTAL 1 OF 3 — UT 509



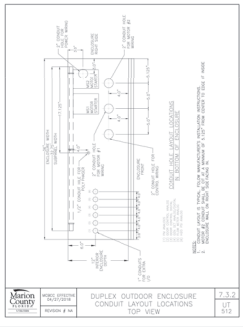
Marion County UTILITIES — MCBCC EFFECTIVE 04/21/2018 — REVISION # N/A

SERVICE PEDESTAL 2 OF 3 — UT 510



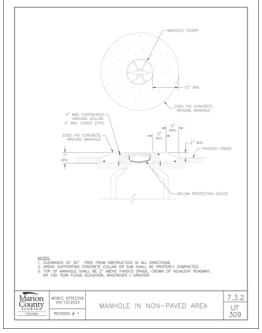
Marion County UTILITIES — MCBCC EFFECTIVE 04/21/2018 — REVISION # NA

SERVICE PEDESTAL– PANEL RACK 3 OF 3 — UT 511



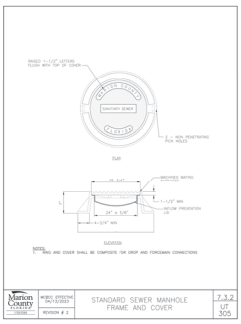
Marion County UTILITIES — MCBCC EFFECTIVE 04/21/2018 — REVISION # NA

DUPLEX OUTDOOR ENCLOSURE CONDUIT LAYOUT LOCATIONS TOP VIEW — 7.3.2 — UT 512



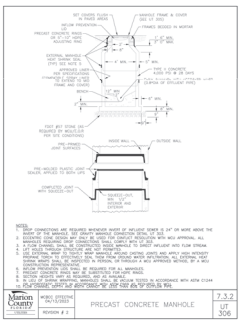
Marion County UTILITIES — MCBCC EFFECTIVE 04/21/2023 — REVISION # 1

MANHOLE IN NON-PAVED AREA — 7.3.2 — UT 309



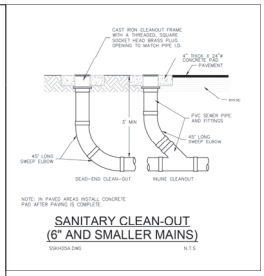
Marion County UTILITIES — MCBCC EFFECTIVE 04/21/2023 — REVISION # 2

STANDARD SEWER MANHOLE FRAME AND COVER — 7.3.2 — UT 305



Marion County UTILITIES — MCBCC EFFECTIVE 04/21/2023 — REVISION # 2

PRECAST CONCRETE MANHOLE — 7.3.2 — UT 306



SANITARY CLEAN-OUT (6" AND SMALLER MAINS)

SSKH05A.DWG — N.T.S

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REVISIONS

DATE

MAJOR SITE PLAN
DIAMOND "A" SHOPPING CENTER
MARION COUNTY, FLORIDA

LIFT STATION & SANITARY DETAILS

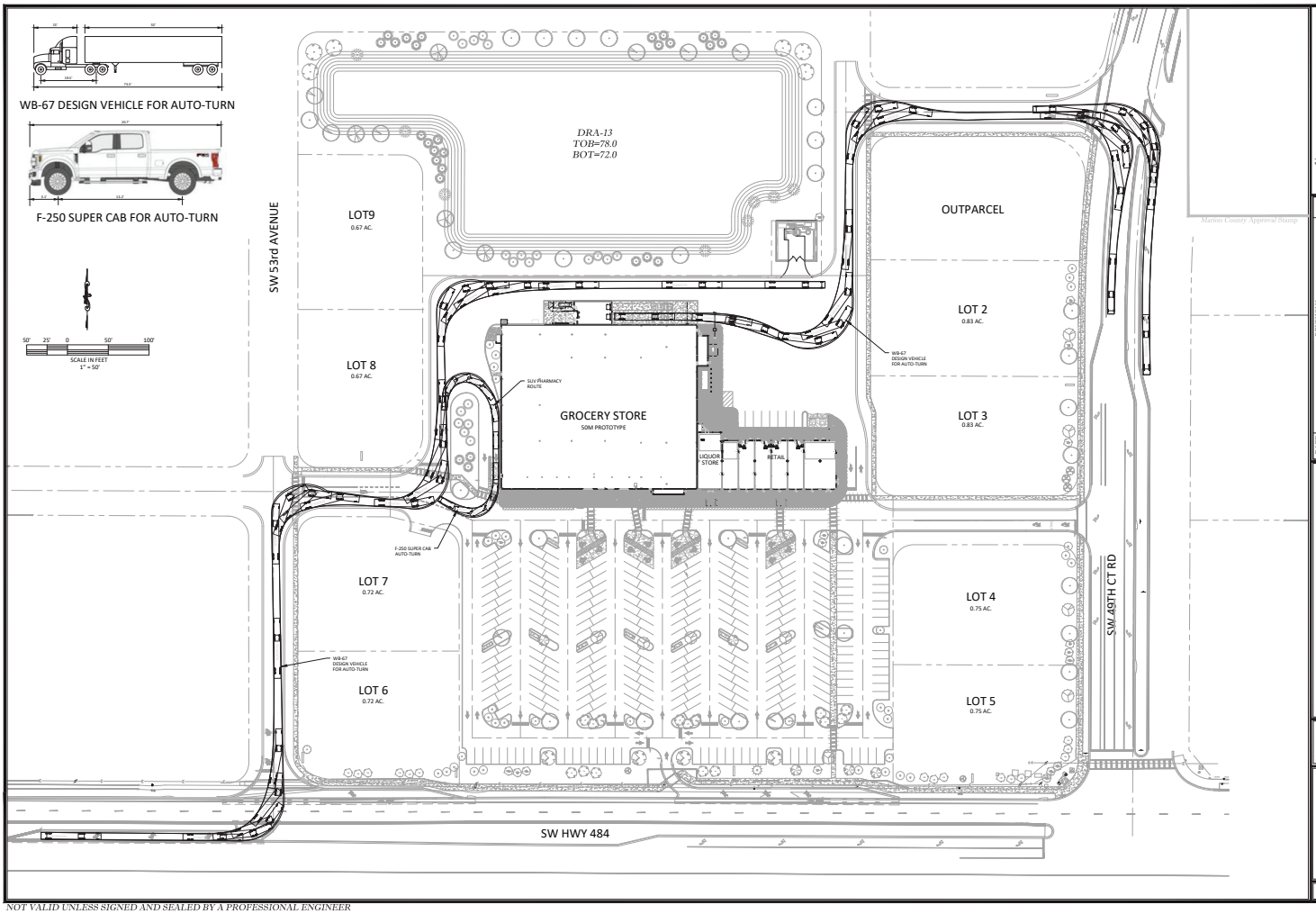
DATE 10/28/25
DRAWN BY JA
CHKD. BY DMM
JOB NO. 23-8231

SHT. 15.02

NOT VALID UNLESS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER

WB-67 DESIGN VEHICLE FOR AUTO-TURN

F-250 SUPER CAB FOR AUTO-TURN



Marion County Approval Stamp

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REVISIONS

DATE

MAJOR SITE PLAN
DIAMOND "A" SHOPPING CENTER
MARION COUNTY, FLORIDA

TRUCK ROUTE PLAN

DATE 10/28/25
DRAWN BY JA
CHKD. BY DMM
JOB NO. 23-8231

SHT. 16.01

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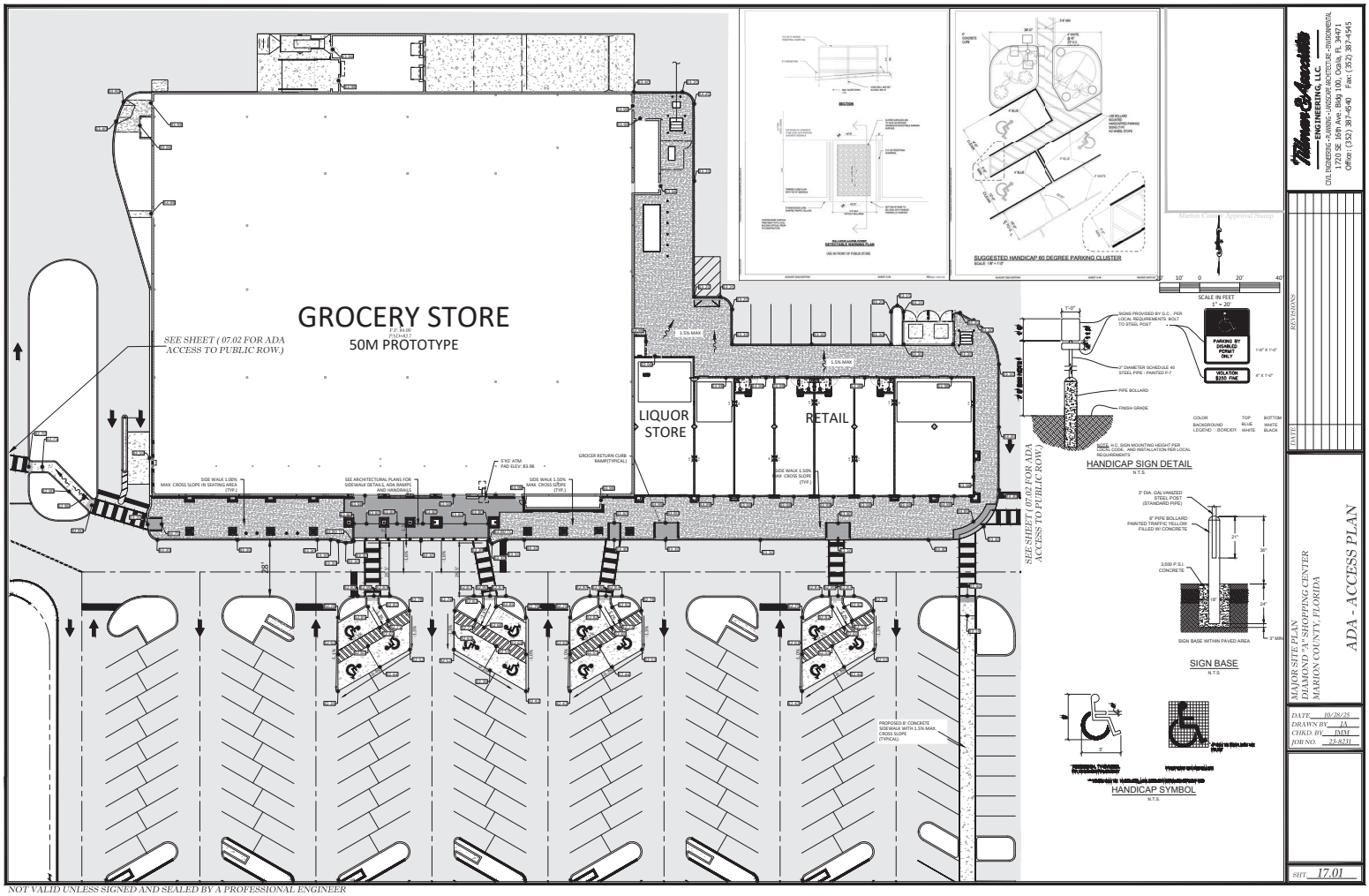

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Marion County Approval Stamp

REVISIONS

DATE

MAJOR SITE PLAN
DIAMOND "A" SHOPPING CENTER
MARION COUNTY, FLORIDA

ADA - ACCESS PLAN

DATE 10/28/25
DRAWN BY JA
CHKD. BY DMM
JOB NO. 23-8231

SHT. 17.01

NOT VALID UNLESS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER

MAJOR SITE PLAN
SUMMER POINTE VILLAGE
PHASE 1A

SECTION 20 & 29, TOWNSHIP 17 SOUTH, RANGE 23 EAST
MARION COUNTY, FLORIDA

THIS SITE CONTAINS:
NUMBER OF UNITS = 252
TOTAL MILES OF ROADWAY: 1.71 MILES
PROJECT AREA = 53.75 ± ACRES
PARCEL #: 47659-001-00
FLU - HIGH DENSITY RESIDENTIAL & MEDIUM DENSITY RESIDENTIAL
ZONING - PUD (ZONING APPLICATION 2201022)
AVERAGE DAILY TRIPS (ITE 220) = 1810 TRIPS
PM PEAK HOUR TRIPS (ITE 220) = 127 TRIPS
ITE TRIP GENERATION MANUAL 10th EDITION MULTIFAMILY HOUSING (LOW RISE)
EXISTING IMPERVIOUS = 0.00 AC. (0.00 S.F.) (0.00%)
PROPOSED IMPERVIOUS = 18.38 AC (800983.89 S.F.) (34.19%)
ORIGINAL DEVELOPMENT AGREEMENT - OR BK 04641, PAGES 0281-0303
DEVELOPMENT AGREEMENT MODIFICATION - OR BK 8250, PAGES 1871-1920

"AS-BUILT SURVEY"
*= AS-BUILT - NO CHANGE
= AS-BUILT
DWG.# 24041 PH1 GRADING ASB DATE: SEPTEMBER 2, 2025
THIS AS-BUILT IS FOR CLEARANCE ON BUILDINGS 1, 3, 5, 7 AND 25

Marion County Approval Stamp

PERMITS:
1. MARION COUNTY - MAJOR SITE PLAN - # (PENDING)
2. FLR.W.M.D. - E.R.P. - AR # (PENDING)
3. FDEP - POTABLE WATER (PENDING)
4. FDEP - SANITARY SEWER (PENDING)
5. FDEP - N.P.D.E.S. (BY OTHERS)

UTILITY COMPANIES

WATER / SEWER	MARION COUNTY UTILITIES	CUSTOMER SERVICE 24/7/365	352-307-6000
ELECTRIC	SUMTER ELECTRIC	JANET COX	352-569-9642
CABLE/PHONE/INTERNET	CHARTER COMM.	DUFFY MCLELLAND	352-527-2389
	CENTURYLINK	BILL MCCLOUD	850-599-1644
	COMCAST CABLE	ANDREW SWEENEY	904-738-6098
	UNITI FIBER LLC	CHARLIE CROFT	251-214-7089

REQUESTED WAIVERS:

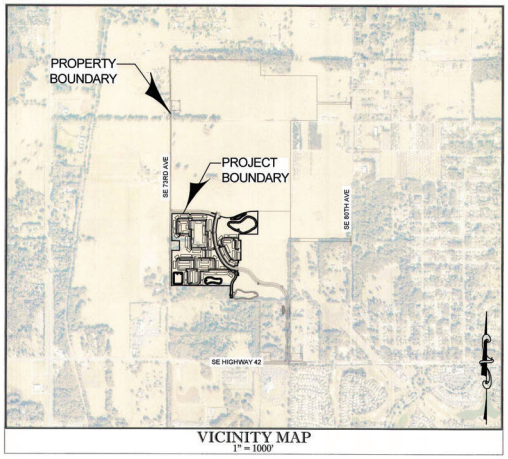
BASIS OF BEARING:
BEARINGS AND COORDINATES SHOWN HEREON ARE BASED ON THE FLORIDA STATE PLANE COORDINATE SYSTEM WEST ZONE, NORTH AMERICAN DATUM OF 1983 (NAD 83) WITH 2011 ADJUSTMENT AS DERIVED FROM THE FLORIDA DEPARTMENT OD TRANSPORTATION VIRTUAL REFERENCE STATION NETWORK.

BENCHMARKS:
TEMPORARY BENCHMARK @950: FOUND NAIL & DISC (LB 6579)
N.1695499.3503 E.645624.3086 ELE.88.95' (NAVD 1988)

TEMPORARY BENCHMARK @952:
FOUND 4"X4" CONCRETE MONUMENT (RLS 3620) N.1695783.4982 E.647845.5978 ELEV.110.48' (NAVD 1988)

DATUM:
VERTICAL DATUM IS BASED ON NATIONAL GEODETIC SURVEY CONTROL POINT U 753, ELEVATION 102.32' (NAVD 1988).

LEGAL DESCRIPTION
(PER OFFICIAL RECORDS BOOK 7810, PAGES 698-702 OF THE PUBLIC RECORDS OF MARION COUNTY, FLORIDA) A PORTION OF SECTIONS 20 AND 29, TOWNSHIP 17 SOUTH, RANGE 23 EAST, MARION COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: BEGIN AT THE NORTHWEST CORNER OF THE WEST 1/2 OF THE SOUTHEAST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 29; THENCE ALONG THE EAST BOUNDARY OF THE WEST 1/2 OF THE NORTHEAST 1/4 OF SAID SECTION 29, S.00°09'27"W., 1,301.19 FEET TO A POINT ON THE NORTHERLY RIGHT OF WAY LINE OF COUNTY ROAD NO. 42; THENCE DEPARTING SAID EAST BOUNDARY, ALONG SAID NORTHERLY RIGHT OF WAY LINE, S.89°55'39"W., 1010.00 FEET; THENCE DEPARTING SAID RIGHT OF WAY LINE, N.00°09'27"E., 1,306.51 FEET, TO A POINT OF CURVATURE OF A CURVE CONCAVE SOUTHWESTERLY, HAVING A RADIUS OF 130.00 FEET, A CENTRAL ANGLE OF 90°25'07", AND A CHORD BEARING AND DISTANCE OF N.35°21'54"W., 184.00 FEET; THENCE NORTHWESTERLY ALONG THE ARC OF SAID CURVE, A DISTANCE OF 205.19 FEET TO THE END OF SAID CURVE; THENCE S.89°50'30"W., 180.00 FEET; THENCE S.00°09'57"W., 277.39 FEET TO THE SOUTH BOUNDARY OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 29; THENCE ALONG SAID SOUTH BOUNDARY, N.89°49'56"W., 666.70 FEET TO THE SOUTHWEST CORNER OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 29; THENCE DEPARTING SAID SOUTH BOUNDARY, ALONG THE WEST BOUNDARY OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF THE SOUTH BOUNDARY OF THE NORTH 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 29, N.00°09'57"E., 330.80 FEET TO SAID SECTION 29; THENCE DEPARTING SAID WEST BOUNDARY, ALONG SAID SOUTH BOUNDARY OF THE NORTHEAST 1/4 OF THE NORTHWEST 1/4 OF SAID SECTION 29, THENCE DEPARTING SAID SOUTH BOUNDARY, ALONG SAID WEST BOUNDARY OF THE NORTHEAST 1/4 OF THE NORTHWEST 1/4 OF SAID SECTION 29, THENCE DEPARTING SAID WEST BOUNDARY, S.22.24 FEET TO THE SOUTH BOUNDARY OF THE NORTH 210 FEET OF THE WEST 210 FEET OF THE NORTHEAST 1/4 OF THE NORTHWEST 1/4 OF SAID SECTION 29; THENCE DEPARTING SAID SOUTH BOUNDARY, ALONG SAID WEST BOUNDARY, N.89°49'56"W., 792.36 FEET TO THE SOUTH BOUNDARY OF THE NORTH 210 FEET OF THE WEST 210 FEET OF THE NORTHEAST 1/4 OF THE NORTHWEST 1/4 OF SAID SECTION 29; THENCE DEPARTING SAID WEST BOUNDARY, ALONG SAID SOUTH BOUNDARY, S.89°49'56"E., 210.00 FEET TO THE EAST BOUNDARY OF THE NORTH 210 FEET OF THE WEST 210 FEET OF THE NORTHEAST 1/4 OF THE NORTHWEST 1/4 OF SAID SECTION 29; THENCE DEPARTING SAID SOUTH BOUNDARY, ALONG SAID EAST BOUNDARY, S.00°09'57"E., 209.66 FEET TO THE NORTH BOUNDARY OF THE NORTH 210 FEET OF THE WEST 210 FEET OF THE NORTHEAST 1/4 OF THE NORTHWEST 1/4 OF SAID SECTION 29; THENCE DEPARTING SAID EAST BOUNDARY, ALONG SAID NORTH BOUNDARY, S.89°39'08"E., 210.00 FEET TO THE NORTHWEST CORNER OF THE NORTHEAST 1/4 OF THE NORTHWEST 1/4 OF SAID SECTION 29; THENCE ALONG THE WEST BOUNDARY OF THE EAST 1/2 OF THE SOUTHWEST 1/4 OF SAID SECTION 29, S.00°09'57"E., 726.29 FEET TO A POINT OF CURVATURE OF A CURVE CONCAVE NORTHEASTERLY, HAVING A RADIUS OF 30.00 FEET, A CENTRAL ANGLE OF 90°09'09", AND A CHORD BEARING AND DISTANCE OF S.44°53'59"E., 70.71 FEET; THENCE SOUTHEASTERLY ALONG THE ARC OF SAID CURVE, A DISTANCE OF 78.74 FEET TO A POINT OF TANGENCY; THENCE S.89°53'09"E., 423.81 FEET TO A POINT OF CURVATURE OF A CURVE CONCAVE SOUTHERLY, HAVING A RADIUS OF 700.00 FEET, A CENTRAL ANGLE OF 10°38'20", AND A CHORD BEARING AND DISTANCE OF S.84°33'59"E., 129.89 FEET; THENCE EASTERLY ALONG THE ARC OF SAID CURVE, A DISTANCE OF 129.86 FEET TO A POINT OF TANGENCY; THENCE S.79°14'49"E., 50.28 FEET TO A POINT OF CURVATURE OF A CURVE CONCAVE NORTHWESTERLY, HAVING A RADIUS OF 30.00 FEET, A CENTRAL ANGLE OF 89°49'47", AND A CHORD BEARING AND DISTANCE OF N.45°47'17"E., 68.07 FEET; THENCE NORTHEASTERLY ALONG THE ARC OF SAID CURVE, A DISTANCE OF 70.97 FEET TO A POINT OF TANGENCY; THENCE N.0°52'23"E., 80.00 FEET TO THE BEGINNING OF A NON-TANGENT CURVE CONCAVE EASTERLY, HAVING A RADIUS OF 1,090.00 FEET, A CENTRAL ANGLE OF 02°06'00", AND A CHORD BEARING AND DISTANCE OF S.20°47'38"W., 39.60 FEET; THENCE SOUTHERLY ALONG THE ARC OF SAID CURVE, A DISTANCE OF 39.60 FEET TO A POINT OF COMPOUND CURVATURE OF A CURVE CONCAVE NORTHEASTERLY, HAVING A RADIUS OF 25.00 FEET, A CENTRAL ANGLE OF 93°09'17", AND A CHORD BEARING AND DISTANCE OF S.23°39'59"E., 36.60 FEET; THENCE SOUTHEASTERLY ALONG THE ARC OF SAID CURVE, A DISTANCE OF 40.29 FEET TO A POINT OF TANGENCY; THENCE S.69°14'37"E., 45.33 FEET TO A POINT OF CURVATURE OF A CURVE CONCAVE NORTHERLY, HAVING A RADIUS OF 400.00 FEET, A CENTRAL ANGLE OF 04°47'07", AND A CHORD BEARING AND DISTANCE OF S.66°51'03"E., 33.46 FEET; THENCE EASTERLY ALONG THE ARC OF SAID CURVE, A DISTANCE OF 33.47 FEET TO A POINT OF REVERSE CURVATURE OF A CURVE CONCAVE SOUTHERLY, HAVING A RADIUS OF 813.00 FEET, A CENTRAL ANGLE OF 3°59'47", AND A CHORD BEARING AND DISTANCE OF N.73°53'23"E., 89.03 FEET; TO THENCE EASTERLY ALONG THE ARC OF SAID CURVE, A DISTANCE OF 89.08 FEET TO A POINT OF TANGENCY; THENCE N.89°09'19"E., 790.30 FEET THE WEST BOUNDARY OF THE SOUTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SAID SECTION 20; THENCE LEAVING SAID WEST BOUNDARY S.00°00'41"E., 396.96 FEET TO THE NORTH BOUNDARY OF THE SOUTH 66.00 FEET OF THE SOUTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SAID SECTION 20; THENCE DEPARTING SAID WEST BOUNDARY, ALONG SAID NORTH BOUNDARY, S.89°53'12"E., 1,330.52 FEET TO THE EAST BOUNDARY OF SAID SECTION 20; THENCE DEPARTING SAID NORTH BOUNDARY, ALONG SAID EAST BOUNDARY, S.00°05'37"E., 66.01 FEET TO THE NORTHEAST CORNER OF SAID SECTION 29; THENCE DEPARTING SAID EAST BOUNDARY, ALONG THE NORTH BOUNDARY OF SAID SECTION 29, S.89°49'56"W., 1,320.31 FEET TO THE EAST BOUNDARY OF THE WEST 1/2 OF THE NORTHEAST 1/4 OF SAID SECTION 29; S.00°09'57"W., 1,320.31 FEET TO THE POINT OF BEGINNING. SAID LANDS CONTAINING 138.22 ACRES, MORE OR LESS.



VICINITY MAP
1" = 1000'

INDEX OF SHEETS

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03.01	AERIAL PHOTOGRAPH
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05.01-05.05	GEOMETRY PLA
06.01-06.05	GRADING PLAN
07.01-07.05	UTILITY PLAN
08.01	SIGNAGE & STRIPING PLAN
09.01-09.02	LIFT STATION PLAN & DETAILS
10.01-10.02	POTABLE WATER DISTRIBUTION DETAILS
11.01	SANITARY SEWER DETAILS
12.01	ROADWAY & PAVEMENT DETAILS
13.01-13.02	DRAINAGE DETAILS
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SL.01	SLEEVING PLAN
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L.02.01	TREE PRESERVATION NOTES & DETAILS
L.03.01	MFLA
L.06.01	PLANTING SPECIFICATIONS
L.07.01	PLANT SCHEDULE & NOTES
L.08.01-L.08.06	PLANTING PLAN
L.09.01	PLANTING DETAILS
1-9	BOUNDARY & TOPOGRAPHIC SURVEY (PREPARED BY JCH CONSULTING GROUP,INC.)

NOTES:
1. BASED ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAP (FIRM), COMMUNITY PANEL NO. 12083C0305D, EFFECTIVE DATE OF AUGUST 8, 2008. THE PROPERTY DESCRIBED HEREON LIES WITHIN FLOOD ZONES "X" AN AREA OF MINIMAL FLOOD HAZARD.
2. THIS PROJECT IS LOCATED IN THE SILVER SPRINGS SECONDARY SPRINGS PROTECTION ZONE.
3. ALL UTILITIES UNDER EXISTING OR PROPOSED PAVEMENT SHALL BE SLEEVED IN ACCORDANCE WITH SECTION 8.26A OF THE MARION COUNTY LAND DEVELOPMENT CODE.
4. SIGHT DISTANCE AT DRIVEWAYS COMPLIES WITH FDOT REQUIREMENTS.
5. THIS PROPOSED PROJECT HAS NOT BEEN GRANTED CONCURRENCY APPROVAL AND/OR GRANTED AND/OR RESERVED ANY PUBLIC FACILITY CAPACITIES. FUTURE RIGHTS TO DEVELOP THE PROPERTY ARE SUBJECT TO A DEFERRED CONCURRENCY DETERMINATION, AND FINAL APPROVAL TO DEVELOP THE PROPERTY HAS NOT BEEN OBTAINED. THE COMPLETION OF CONCURRENCY REVIEW AND/OR APPROVAL HAS BEEN DEFERRED TO LATER DEVELOPMENT REVIEW STAGES, SUCH AS, BUT NOT LIMITED TO IMPROVEMENT PLAN, FINAL PLAT, OR BUILDING PERMIT REVIEW.
6. ALL PROPOSED ROADS ARE TO BE LOCAL SUBDIVISION WITH PRIVATE ROAD STATUS.
7. NO CHANGE TO THE WORK AS SHOWN ON THE APPROVED PLANS SHALL BE MADE WITHOUT NOTIFICATION TO AND APPROVAL BY THE OFFICE OF THE COUNTY ENGINEER.
8. ORIENTATION FOR THE IMPROVEMENTS SHOWN HEREON SHOULD NOT BE USED TO RECONSTRUCT BOUNDARY LINES.
9. ALL CONSTRUCTION TRAFFIC PROHIBITED FROM USING SUNSET HARBOR ROAD AND/OR SE 115TH STREET. ALL TRAFFIC MUST ACCESS SITE VIA CR42 TO SE 73RD AVE.

OWNER'S SIGNATURE
I HEREBY CERTIFY THAT I, MY SUCCESSORS AND ASSIGNS SHALL PERPETUALLY MAINTAIN THE IMPROVEMENTS AS SHOWN WITHIN THESE PLANS.

EZRA STARK
VILLAGES OF MARION COUNTY GP, LLC

ENGINEER CERTIFICATION
I HEREBY CERTIFY THAT THESE PLANS AND CALCULATIONS WERE COMPLETED IN ACCORDANCE WITH ALL APPLICABLE REQUIREMENTS OF THE MARION COUNTY LAND DEVELOPMENT CODE (LDC), EXCEPT AS WAIVED.

TIMOTHY BROOKER JR., P.E. Registered
Engineer No. 79239
STATE OF FLORIDA

DEVELOPER:
VILLAGES OF MARION COUNTY GP, LLC
EZRA STARK
629 EUCLID AVENUE,SUITE 1300
CLEVELAND,OH10 44114
PHONE(216) 292-0429 EXT#429

CIVIL ENGINEER:
TILLMAN AND ASSOCIATES ENGINEERING, L.L.C.
TIMOTHY BROOKER, P.E.
1720 SE 16th AVE. BLDG. 100
OCALA, FLORIDA 34471
PH: (352) 387-4540

SURVEYOR:
JCH CONSULTING GROUP, INC.
CHRISTOPHER J. HOWSON, P.S.M., CFM
426 SW 15th STREET
OCALA, FLORIDA 34471
PHONE (352) 405-1482

GEOTECHNICAL CONSULTANT:
GEO-TECH, INC.
CRAIG HAMPY
1016 S.E. 3RD AVENUE
OCALA, FLORIDA 34471
PHONE (352) 694-7711

811 Know what's below. Call before you dig.

Call 48 Hours before you dig
It's the Law!
1-800-432-4770
Sunshine State One Call of Florida, Inc.

SURVEYOR'S CERTIFICATION:
I HEREBY CERTIFY THAT A RECENT SURVEY WAS MADE UNDER MY RESPONSIBLE DIRECTION AND SUPERVISION FOR THE SPECIFIC PURPOSE OF SHOWING "AS-BUILT CONSTRUCTION". I FURTHER CERTIFY THAT THE SURVEY REPRESENTED HEREON MEETS THE STANDARDS OF PRACTICE AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17.050-.052, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES.

11/7/2026
SIGNATURE DATE
TRAVIS@RMBARRINEAU.COM

TRAVIS P. BARRINEAU, P.S.M. - LS 6897
OF R.M. BARRINEAU & ASSOCIATES, INC.

NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER

PREPARED BY:
R.M. BARRINEAU AND ASSOCIATES
PROFESSIONAL SURVEYORS & MAPPERS
Orchard Professional Park • 1309 S.E. 25th Loop•Suite 103•Ocala, FLORIDA 34471
PHONE (352) 622-3133 • FAX (352) 369-3771 • www.rmbarrineau.com
REGINALD M. BARRINEAU, P.S.M. - FOUNDER • CERTIFICATE OF AUTHORIZATION NO. LB 6590
TRAVIS P. BARRINEAU, P.S.M. - LS 6897

Tillman & Associates ENGINEERING, LLC.
CIVIL ENGINEERING - PLANNING - LANDSCAPE ARCHITECTURE - ENVIRONMENTAL
1720 SE 16th Avenue, Building 100, Ocala, Florida 34471
Office: (352) 387-4540 Fax: (352) 387-4545
CERTIFICATE OF AUTHORIZATION # 29256

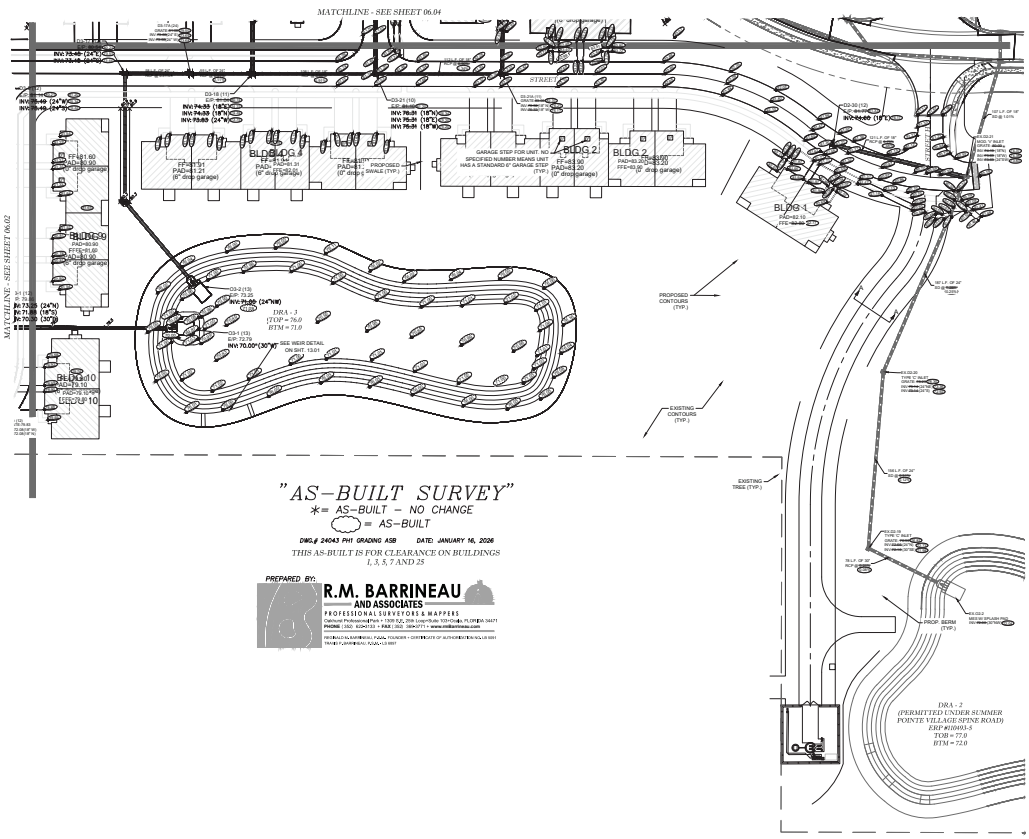
DATE	REVISIONS	BY
09/24/25	1. REVISED SHTS. #05-06,08, 09,10, 11, 12, 13, 14	MB
09/24/25	2. REVISED SHT. #13	MB

MAJOR SITE PLAN - PHASE 1A
SUMMER POINTE VILLAGE
MARION COUNTY, FLORIDA
COVER SHEET

DATE 1/27/2026
DRAWN BY AS
CHKD. BY TB
JOB NO. 22-8030

SHT. 01.01

NOT VALID UNLESS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER



"AS–BUILT SURVEY"

*= AS–BUILT – NO CHANGE

= AS–BUILT

DWG.# 24043 PH1 GRADING ASB DATE: JANUARY 16, 2026

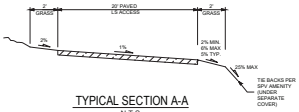
THIS AS-BUILT IS FOR CLEARANCE ON BUILDINGS 1, 3, 5, 7 AND 25

PREPARED BY:

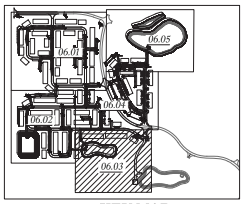
R.M. BARRINEAU AND ASSOCIATES
PROFESSIONAL SURVEYORS & MAPPERS
Ocklawaha Professional Park • 7305 SW 80th Loop•Suite 100•Ocala, FLORIDA 34477
PHONE (352) 629-0122 • FAX (352) 629-0771 • www.rmbarrineau.com
RICHARD M. BARRINEAU, PSM/A, FOUNDER • CERTIFICATE OF AUTHORIZATION LB 6991
TRACEY L.BARRINEAU, PSM/A • LS 6997

GRADING LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- PROPOSED STORM PIPE
- PROPOSED STRUCTURE ID
- GRATE INLET
- PROPOSED SWALE BOTTOM



TYPICAL SECTION A-A
N.T.S



KEY MAP
SCALE: 1" = 500'

Marion County Approval Stamp

Marion Barrineau ENGINEERING, LLC.
CIVIL ENGINEERING - PLANNING - LANDSCAPE ARCHITECTURE - ENVIRONMENTAL
1720 SE 16th Ave., Bldg 100, Ocala, FL 34471
OFFICE: (352) 622-3322 FAX: (352) 307-4545
CERTIFICATE OF AUTHORIZATION #28256

REVISIONS

DATE

MAJOR SITE PLAN - PHASE 1A
SUMMER POINTE VILLAGE
MARION COUNTY, FLORIDA

GRADING PLAN

DATE 1/26/2026
DRAWN BY AS
CHKD. BY TB
JOB NO. 22.8020

SHT. 06.03

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NOT VALID UNLESS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER

"AS–BUILT SURVEY"

✶= AS–BUILT – NO CHANGE

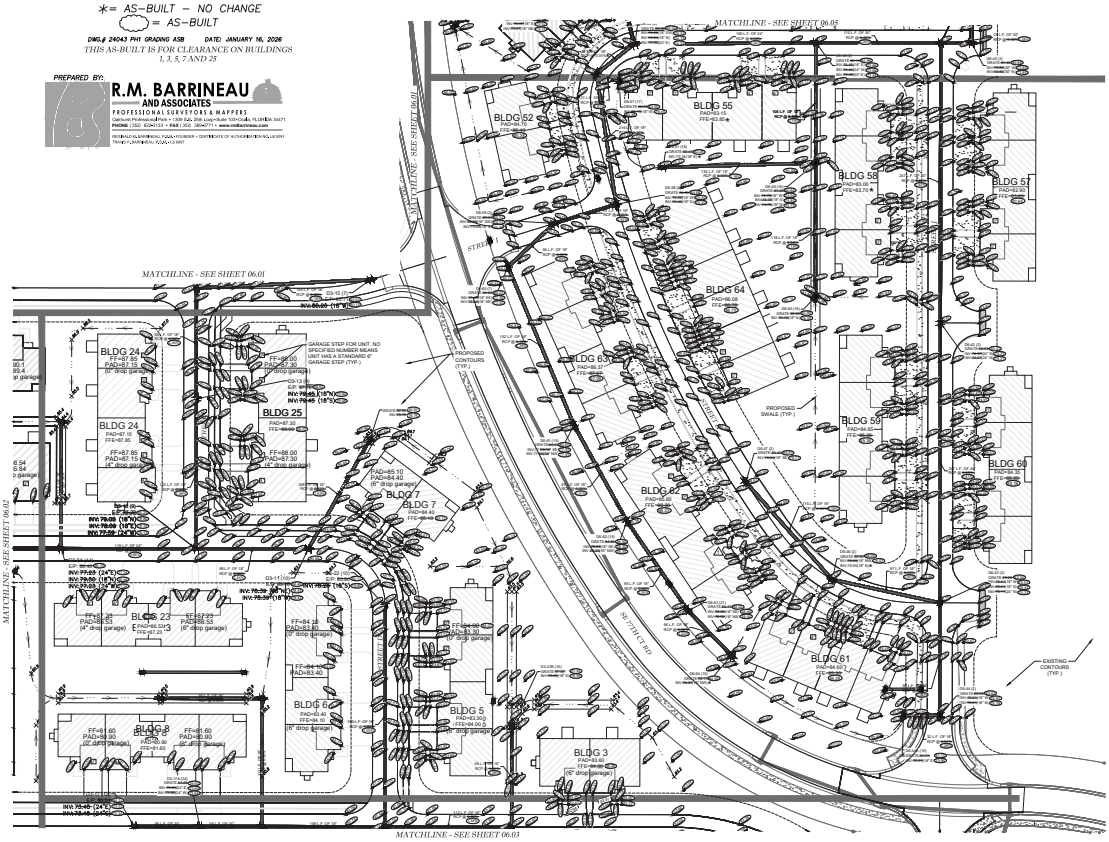
( ) = AS–BUILT

DWG.# 24043 PH1 GRADING ASB DATE: JANUARY 16, 2026

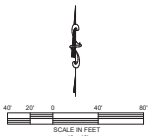
THIS AS-BUILT IS FOR CLEARANCE ON BUILDINGS 1, 3, 5, 7 AND 25

PREPARED BY:

R.M. BARRINEAU AND ASSOCIATES
PROFESSIONAL SURVEYORS & MAPPERS
Oakmont Professional Park • 1500 SW 20th Loop • Suite 103 • Ocala, FL 34471
PHONE (352) 629-0113 • FAX (352) 629-0771 • www.rmbarrineau.com
FLORIDA PLANNING, SURVEYING & MAPPING BUSINESS CERTIFICATE OF AUTHORIZATION NO. LB 6991

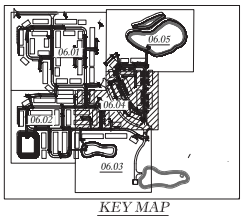


Marion County Approval Stamp



GRADING LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- PROPOSED STORM PIPE
- D-22 PROPOSED STRUCTURE ID
- GRATE INLET
- PROPOSED SWALE BOTTOM



KEY MAP
SCALE: 1" = 500'

Mann & Associates
ENGINEERING, LLC.
CIVIL ENGINEERING - PLANNING - LANDSCAPE ARCHITECTURE - ENVIRONMENTAL
1720 SE 16th Ave., Bldg 100, Ocala, FL 34471
OFFICE (352) 369-0455 FAX (352) 369-0455
CERTIFICATE OF AUTHORIZATION #4756

NO.	DATE	REVISIONS
1	01/26/26	ADDED SIDEWALK CONNECTIVITY PER SHEET 4

MAJOR SITE PLAN - PHASE 1A
SUMMER POINTE VILLAGE
MARION COUNTY, FLORIDA

GRADING PLAN

DATE 1/26/2026
DRAWN BY AS
CHK'D. BY TB
JOB NO. 22-8020

SHT. 06.04

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NOT VALID UNLESS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER

Tillman & Associates
ENGINEERING, LLC.

Via: Electronic

January 29, 2026

Development Review
Marion County Office of the County Engineer
412 SE 25th Ave.
Ocala, FL 34471

RE: As- Built Certification of Satisfactory Completion – PARTIAL
Project Name: **Summer Pointe Village Ph1A**
Application: # 33061

Dear Sir/Madam,

Please accept this as our submittal letter for the above referenced project name: The following items are included with this submittal:

- One (1) Engineer's As Built Certification
- As-Builts in PDF and DWG format
- Surveyor Field Notes

Should you have any further questions please contact the office.

Sincerely,

Robbie Stroub, P.E.

CC: Masterfile w/enclosures

MASS GRADING PLAN

CALESA TOWNSHIP

MASS GRADING PHASE 4

SECTION 31 AND 32, TOWNSHIP 15 SOUTH, RANGE 21 EAST
MARION COUNTY, FLORIDA

RESUBMIT

MARION COUNTY APPROVAL STAMP

PERMITS:

1. MARION COUNTY - MASS GRADING PLAN (PENDING)
2. SWFWMD - ERP -
3. FDEP - NPDES (BY OTHERS)

APPROVED WAIVERS:

PREVIOUSLY APPROVED O.T.O.W. WAIVERS FOR ENTIRE DEVELOPMENT

			DATE APPROVED
MINIMUM GRADIANT (GENERAL)	6.11.02(1)	THE ENTIRE ASPHALT RUNNING WIDTH OF ROAD AND THE CURB AND GUTTER SHALL BE CONSIDERED AS A TOTAL CAP ASPHALT. A FIRST TOTAL WIDTH FOR A CENTER RAISED PAVEMENT SECTION SHALL BE AS NEEDED TO BE LARGER	12.31.2009
UTILITY LOCATION	6.11.02(2)(a)	CONCRETE MAY VARY, BUT ALL UTILITIES MUST REMAIN WITHIN THE UTILITY EASEMENTS	12.31.2009
EXTERIOR LANDSCAPE BUFFERS	6.11.05	TYPE "C" - 30' WIDE, 3 STAGGERED HEDGE ROWS 60" TALL W/ 5 TREES PROVIDING CONTINUOUS VISUAL SCREENING AFTER 2 YRS. GROWTH TO 6' HEDGE PER 3 PENCE TYPE "B" - 20' WIDE, 2 STAGGERED HEDGE ROWS 60" TALL W/ 3 TREES PROVIDING CONTINUOUS VISUAL SCREENING AFTER 2 YRS. GROWTH TYPE "C" - 30' WIDE, 2DOUBLE STAGGERED HEDGE ROWS 60" TALL W/ 5 TREES PROVIDING CONTINUOUS VISUAL SCREENING AFTER 2 YRS. GROWTH	12.31.2009
CORNER RADII AT INTERSECTIONS	6.11.07(1)	PROVIDE 25 FT. FOR EDGE OF PAVEMENT RADII AND 25 FT. FOR R/W RADII AT INTERSECTIONS ON ALL RESIDENTIAL ROADWAYS LARGER RADII ON COLLECTOR ROADS TO COMPLY WITH LDC	12.31.2009
PRIVATE ROAD - MINIMUM RIGHT-OF-WAY WIDTH	6.11.07(2)(d)	PROVIDE A COMBINATION OF RIGHT-OF-WAY AND EASEMENTS TO TOTAL 44 FT FOR ALL RESIDENTIAL ROADWAYS WITHIN THE PROPOSED DEVELOPMENT. RIGHT-OF-WAY TO BE LESS THAN THE PAVEMENT WIDTH PLUS 5 FT ON EITHER SIDE	12.31.2009
RIGHT-OF-WAY DEDICATION	6.11.07(2)(h)	NO R/W DEDICATION REQUIRED ON INTERNAL RESIDENTIAL ROADWAYS. ALL OTHER ROADWAYS MAY NOT PROVIDE R/W DEDUCTION IN ACCORDANCE WITH PREVIOUSLY APPROVED MASTER CORRIDOR MAP. MASTER CORRIDOR ROADWAYS WILL BE PROVIDED AS PUBLIC RIGHT-OF-WAYS AS APPROVED ON THE PRELIMINARY SUBDIVISION PLAN SUBMITTED ON JUNE 1, 2006, WITH ANY ADJUSTMENTS THAT HAVE BEEN MADE SUITABLE PLANS	12.31.2009
SECTION OF ARTERIAL/COLLECTOR ROADS	6.11.02(3)(d)(iii)	SEE ABOVE	12.31.2009
REGULATORY PAVEMENT MARKINGS FOR RIGHT-OF-WAY AND WARNING SIGNS	6.11.02(4)(a) & (b) AND 6.11.04(1) & (2)	ALL DECORATIVE, REGULATORY AND WARNING SIGNS SHALL BE ALUMINUM BACKED SIGNS AS USED BY STEEL "U" CHANNEL POSTS PROVIDING ALL SIGNAGE COMPLIES WITH MUTCD REQUIREMENTS FOR HEIGHT, COLOR AND SIZE AND ALL SIGN SUPPORTS MEET FDOT STANDARDS FOR BREAKAWAY	12.31.2009
PAVEMENT & BASE	6.11.2.(1)	CONCRETE OVERLAY AT PREVIOUSLY PERMITTED - PROVIDE FOR 60 FT CENTERLINE RADII ON ALL RESIDENTIAL ROADWAYS CORRESPONDING TO A DESIGN SPEED OF 30 MPH WITH SPEED LIMIT POSTING THROUGHOUT TO REFINEMENT AND ADJUSTMENT PRIOR AT EACH CURVE AS NECESSARY	12.31.2009
MIN. SIZE OF CBS AND HEAD WALL	6.11.03(2)(a)	PROVIDING CARRIER OF 48 FT OF RADIUS FOR ALL CBS AND ADJOINING CUP OF THE PAVEMENT TO BE LOCATED WITHIN THE EASEMENT ON RESIDENTIAL STREETS. "NO PARKING" SIGNAGE TO BE INSTALLED IN CUL-DE-SAC	01.01.2010
OFF STREET PARKING	6.11.1.(d)	THREE SPACES PER 1,000 SF PROVIDED, 15% OF GSA CALCULATED AT SUCH TOTAL BE DESIGNATED FOR GOLF CART PARKING AT EACH SITE. ALL BUILDINGS IN SITE AL PARKING TO MEET LDC REQUIRED TO ADVANCABLE TO RECREATIONAL AND COMMUNITY FACILITIES WITHIN ON-SITE DEVELOPMENTS ONLY. SHALL NOT APPLY TO COMMERCIAL OFFICE OR RETAIL ARTICLE/PARKS	12.31.2009
CROSS SECTIONS	6.3.1	PROVIDE CROSS SECTION DETAIL AT DRAINAGE STRUCTURES, CROSSINGS AND CONFLICTS IN LIEU OF PROVIDING CROSS SECTIONS EVERY 100'. NOT APPLICABLE TO SR 200 AND IS PUT WITH AGENCY DEVELOPMENT	12.31.2009
PRIVATE ROAD STATUS	6.11.07(2)(a)	PRIVATE ROAD STATUS FOR ALL ROADS NOT DESIGNATED AS PUBLIC RIGHT-OF-WAY ON THE PRELIMINARY SUBDIVISION PLAN SUBMITTED ON JUNE 1, 2006, WITH ANY ADJUSTMENTS THAT HAVE BEEN MADE REFLECTED ON THE CORRIDOR MAP TO BE DEDICATED TO THE PUBLIC EITHER AS RIGHT-OF-WAY DEDICATIONS OR BY HEREON ON SITE PUBLIC ACCESS EASEMENT	12.31.2009
DETENTION BASIN: SEEPAGE	6.11.04(3)	APPROVED AS A WAIVER FOR THE DRAINAGE BASIN FOR THE ON-TOP OF THE WORLD DEVELOPMENT AFFECTING ALL PLANS PREVIOUS A COUNTY BASED AMEND BOARD	12.31.2009

NOTES:

1. BASED ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAP (FIRM), COMMUNITY PANEL NO. 12083C0515E, EFFECTIVE DATE OF APRIL 19, 2017. THE PROPERTY DESCRIBED HEREON LIES WITHIN FLOOD ZONES "X".
2. THIS PROJECT IS LOCATED IN THE SILVER SPRINGS SECONDARY SPRINGS PROTECTION ZONE.
3. VERTICAL DATUM IS BASED ON FOUND 5/8" IRON ROD WITH A PLASTIC CAP STAMPED "WOOLPERT TRAVERSE" APPROXIMATELY 0.35 MILES NORTH STATE ROAD 200 ON THE WEST SIDE OF S.W. 80TH AVENUE. BENCHMARK IS LOCATED IN THE NORTHWEST CORNER OF THE INTERSECTION OF S.W. 80TH AVENUE AND THE CONSTRUCTION ENTRANCE FOR "ON TOP OF THE WORLD, COMMUNITIES, INC.", ELEVATION = 69.272 (DATUM NGVD 1929).
4. THIS PROPOSED PROJECT HAS NOT BEEN GRANTED CONCURRENCY APPROVAL AND/OR GRANTED AND/OR RESERVED ANY PUBLIC FACILITY CAPACITIES. FUTURE RIGHTS TO DEVELOP THE PROPERTY ARE SUBJECT TO A DEFERRED CONCURRENCY DETERMINATION, AND FINAL APPROVAL TO DEVELOP THE PROPERTY HAS NOT BEEN OBTAINED. THE COMPLETION OF CONCURRENCY REVIEW AND/OR APPROVAL HAS BEEN DEFERRED TO LATER DEVELOPMENT REVIEW STAGES, SUCH AS, BUT NOT LIMITED TO IMPROVEMENT PLAN, FINAL PLAT, OR BUILDING PERMIT REVIEW.
5. DEVELOPMENT OF THE PROPERTY AS SHOWN ON THIS PLAN IS SUBJECT TO THE TERMS AND CONDITIONS OF THE CIRCLE SQUARE WOODS SUBDIVISION VESTED DRI PURSUANT TO CHAPTER 380.06, FS, AND ITS CORRESPONDING VESTED RIGHTS DETERMINATIONS, AS MAY BE AMENDED FROM TIME TO TIME, INCLUDING PROVISIONS REGARDING THE CONCURRENCY OF PUBLIC FACILITIES AND ELIGIBLE LAND USES.
6. NO CHANGE TO THE WORK AS SHOWN ON THE APPROVED PLANS SHALL BE MADE WITHOUT NOTIFICATION TO AND APPROVAL BY THE OFFICE OF THE COUNTY ENGINEER.
7. ORIENTATION FOR THE IMPROVEMENTS SHOWN HEREON SHOULD NOT BE USED TO RECONSTRUCT BOUNDARY LINES.

BASIS OF BEARING:

BEARINGS AND COORDINATES SHOWN HEREON ARE BASED ON THE FLORIDA STATE PLANE COORDINATE SYSTEM, WEST ZONE, NORTH AMERICAN DATUM OF 1983 (NAD83), WITH 2011 ADJUSTMENT AS DERIVED FROM THE FLORIDA DEPARTMENT OF TRANSPORTATION VIRTUAL REFERENCE STATION NETWORK.

BENCHMARKS:

- TEMPORARY BENCHMARK ("A") , SET 5/8" IRON ROD & CAP (LB 8071), ELEVATION = 91.08', NORTHING = 1747574.05' , EASTING = 576150.48'
- TEMPORARY BENCHMARK ("B"), SET 5/8" IRON ROD & CAP (LB 8071), ELEVATION = 96.11', NORTHING = 1740495.14', EASTING = 578506.45'

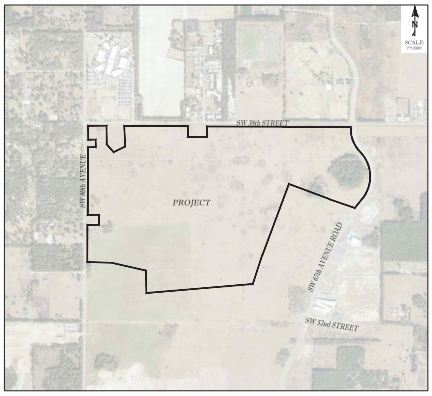
STATE PLANE COORDINATES:

THE FLORIDA STATE PLANE COORDINATES SHOWN HEREON ARE NORTH AMERICAN DATUM OF 1983 (1990 ADJUSTMENT), FLORIDA WEST ZONE AS DERIVED FROM GPS STATIC SURVEY AND TRADITIONAL TRAVERSE METHODS AND ESTABLISHED FROM MARION COUNTY, FLORIDA CONTROL MONUMENTS "AR1852" AND "V086", PURSUANT TO SECTION 177.151, FLORIDA STATUTES.

THE NORTHWEST CORNER OF SECTION 12, TOWNSHIP 16 SOUTH, RANGE 20 EAST, MARION COUNTY, FLORIDA - FOUND 4" X 4" CONCRETE MONUMENT WITH NAIL & DISK, STAMPED 1 2 11 12.
NORTHING: 1740427.4009 FEET — EASTING: 570381.5670 FEET
LATITUDE: 29°07'56.02230" N — LONGITUDE: 82°16'07.23060" W
CONVERGENCE: - 00°07'50.7" — SCALE: 0.99994961

FOUND STAINLESS STEEL ROD STAMPED V086 1990
NORTHING: 1745773.8082 FEET — EASTING: 543817.8667 FEET
LATITUDE: 29°08'08.27974" N — LONGITUDE: 82°23'06.91363" W
CONVERGENCE: - 00°10'16.8" — SCALE: 0.99995564

THIS SITE CONTAINS:
RESIDENTIAL LOTS = 0
TOTAL MILES OF ROADWAY = 0 MILES
PROJECT AREA = 540.45 ± ACRES
PARCEL #35300-000-14 & 35300-000-45
FLU = CSW VDRI - COMMERCIAL AND HIGH RESIDENTIAL
ZONING = PUD
EXISTING IMPERVIOUS = 0.00 AC. (0.0 S.F.) 0.00%
PROPOSED IMPERVIOUS = 0.00 AC. (0.0 S.F.) 0.00%



UTILITY COMPANIES:

WATER/SEWER	BLCCDD	BRYAN SCHMALZ	(352) 414-5454 EXT. 4105
ELECTRIC	SECO	SUSANA JARC	(352) 569-5899
CABLE TV / FIBER/TELEPHONE	DIGITAL COMMUNICATION MEDIA	JORGE SANTIAGO	(352) 873-4817
NATURAL GAS	TECO	BRUCE STOUT	(407) 420-2678

INDEX OF SHEETS

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06.01	DRAINAGE DETAILS
07.01	EROSION CONTROL PLAN
08.01	EROSION CONTROL DETAILS
09.01 - 09.08	TREE PRESERVATION PLAN
9.09	TREE PRESERVATION PLAN NOTES & DETAILS
9.10	TREE PRESERVATION PLAN BOUNDARY & BUFFER PLAN
BL.01 - BL.04	BORING LOGS
1 - 1	BOUNDARY & TOPOGRAPHIC SURVEY (PREPARED BY JCH CONSULTING GROUP, INC.)

OWNER'S SIGNATURE

I HEREBY CERTIFY THAT I, MY SUCCESSORS, AND ASSIGNS SHALL PERPETUALLY MAINTAIN THE IMPROVEMENTS AS SHOWN ON THIS PLAN.

KENNETH D. COLEN, PRESIDENT
COLEN BUILT DEVELOPMENT, L.L.C.

ENGINEER'S CERTIFICATION

I HEREBY CERTIFY THAT THESE PLANS AND CALCULATIONS WERE COMPLETED IN ACCORDANCE WITH ALL APPLICABLE REQUIREMENTS OF THE MARION COUNTY LAND DEVELOPMENT CODE (LDC), EXCEPT AS WAIVED.

CAMERON HINES, P.E.
REGISTERED ENGINEER NO. 97475
STATE OF FLORIDA

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THE SURVEY REPRESENTED HEREON IS IN ACCORDANCE WITH ALL APPLICABLE REQUIREMENTS OF THE LDC AND MEETS THE MINIMUM TECHNICAL STANDARDS AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS.

CHRISTOPHER J. HOWSON
JCH CONSULTING GROUP, INC.
REGISTERED LAND SURVEYOR NO. 6353
STATE OF FLORIDA

OWNER/DEVELOPER:

COLEN BUILT DEVELOPMENT, LLC
KENNETH D. COLEN, PRESIDENT
8445 SW 80TH STREET
OCALA, FLORIDA 34481-9607
PHONE (352) 854-0805

CIVIL ENGINEER:

TILLMAN AND ASSOCIATES ENGINEERING, LLC.
CAMERON HINES, P.E.
1720 SE 16TH AVE. BLDG. 100
OCALA, FLORIDA 34471
PHONE (352) 387-4540

SURVEYOR:

JCH CONSULTING GROUP, INC.
CHRISTOPHER J. HOWSON, P.S.M, CFM
426 S.W. 15TH STREET
OCALA, FLORIDA 34471
PHONE (352) 405-1482

GEOTECHNICAL CONSULTANT:

GEO-TECH, INC
CRAIG HAMPY
1016 E.E. 3RD AVENUE
OCALA, FLORIDA 34471
PHONE (352) 694-7711

ENVIRONMENTAL CONSULTANT:

BREEDLOVE, DENNIS & ASSOCIATES, INC
VIRGINIA SOUMAR, SENIOR SCIENTIST
330 W CANTON AVENUE
WINTER PARK, FLORIDA 32789
OFFICE: 407-677-1882
FAX: 407-677-7008
CELL: 321-277-9590

NOT VALID UNLESS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER

Thomas & Hutton ENGINEERING, LLC
CIVIL ENGINEERING · PLANNING · LANDSCAPE ARCHITECTURE · ENVIRONMENTAL
1720 SE 16th Ave. Bldg 100, Ocala, FL 34471
OFFICE: (352) 387-4540 FAX: (352) 387-4545
CERTIFICATE OF AUTHORIZATION #2256

REVISIONS

DATE

MASS GRADING PHASE 4
CALESA TOWNSHIP
MARION COUNTY, FLORIDA

COVER SHEET

DATE 12/1/2025
DRAWN BY AS
CHKD. BY CMH
JOB NO. 25-0078

SHT. 01.01

GENERAL NOTES

1. ALL NOTES ON THIS SHEET ARE GENERAL IN NATURE. ALL NOTATION AND INFORMATION IN SUBSEQUENT SHEETS SHALL SUPERCEDE THESE NOTES IF CONTRADICTORY.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF SIZE AND LOCATION OF ALL EXISTING UTILITIES AND RELATED CONSTRUCTION PRIOR TO COMMENCEMENT OR WORK.CONTRACTOR SHALL CONTACT SUNSHINE STATE ONE CALL OF FLORIDA, INC. AT 1-800-432-4770, IN ACCORDANCE WITH CHAPTER 556, FLORIDA STATUTES
3. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH THE LATEST STANDARDS OF ***MARION COUNTY*** AND FDOT.
4. PAVEMENT STRIPING TO BE IN ACCORDANCE WITH ***MARION COUNTY*** SPECIFICATIONS AND WITH THE FLORIDA D.O.T. ROADWAY & TRAFFIC STANDARDS, INDEX 17346.
5. ALL TRAFFIC CONTROL SIGNS SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
6. WHERE MUCK OR OTHER ORGANIC MATERIAL IS FOUND, IT SHALL BE REMOVED AND REPLACED BY GOOD QUALITY BACKFILL MATERIAL OBTAINED FROM THE GRADING OPERATIONS OR OTHER SOURCE APPROVED BY THE ENGINEER. THE ORGANIC MATERIAL SHALL BE THEN USED AS TOP DRESSING WHEN MIXED WITH CLEAN SANDY SOIL.
7. ALL FINISHED GRADES AND ELEVATIONS ARE AS DENOTED BY THE APPLICABLE LEGEND.
8. AS PART OF THE CLEARING AND GRUBBING OPERATION, THE CONTRACTOR IS TO REMOVE EXISTING FACILITIES AND / OR FENCING FROM THE SITE AS SHOWN ON PLANS.
9. THE CONTRACTOR SHALL NOTIFY ***B.L.C.C.D.D*** ENGINEERING DIVISION AND TILLMAN AND ASSOCIATES ENGINEERING, LLC AT LEAST ONE WEEK BEFORE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR SHALL OBTAIN A MARION COUNTY R/W PERMIT PRIOR TO COMMENCING WORK WITHIN MARION COUNTY R/W's.
10. A MINIMUM SEPARATION OF 1.5 FEET BETWEEN THE LIMEROCK BASE AND THE HIGHEST GROUNDWATER ELEVATION SHALL BE MAINTAINED WITHIN THE RIGHT-OF-WAY. CONTRACTOR TO NOTIFY ENGINEER IF 1.5 FEET OF SEPARATION IS NOT ACHIEVED.
11. A PRE-CONSTRUCTION MEETING IS REQUIRED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
12. PER SECTION 82-371, CODE OF ORDINANCES: FOR ANY WORK WITHIN PUBLIC RIGHT OF WAYS, A RIGHT OF WAY UTILIZATION PERMIT MUST BE OBTAINED FROM THE ENGINEERING DEPARTMENT A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION.
13. THE CONTRACTOR SHALL SUBMIT THREE (3) SETS OF STANDARD SHOP DRAWINGS AND MANUFACTURER'S CATALOGS WITH THE MODEL NUMBER OR TYPE OF THE ITEM ENCIRCLED OR OTHERWISE DESIGNATED. THE SUBMITTALS SHALL BEAR THE APPROVAL OF THE UNDERGROUND UTILITY CONTRACTOR. ALL UTILITY SHOP DRAWINGS AND MANUFACTURER'S CATALOGS SHALL BE APPROVED BY THE ENGINEER OF RECORD AND ***B.L.C.C.D.D*** PRIOR TO CONSTRUCTION.
14. ALL AS-BUILTS SHALL COMPLY WITH THE CURRENT LDC, SECTION 6.14.8 AND RETURNED IN NAD83 W. FORMAT WITH NORTHING AND EASTING COORDINATES FOR ALL ITEMS UNDER WATER AND WASTEWATER COMPONENTS.
15. ***B.L.C.C.D.D*** PERSONNEL ARE TO INSPECT ANY WORK PERFORMED ON OR AROUND EXISTING MCU INFRASTRUCTURE. A PRE-CONSTRUCTION MEETING IS REQUIRED TO BE HELD A MINIMUM OF 48 HOURS PRIOR TO START OF ANY CONSTRUCTION. IF THE PRE-CONSTRUCTION MEETING IS NOT COMPLETED, ANY WORK MAY BE HALTED. TO SCHEDULE, CONTACT MCU'S CONSTRUCTION OFFICER AT 352-307-6163.
16. ALL UTILITIES UNDER EXISTING OR PROPOSED PAVEMENT SHALL BE SLEEVED IN ACCORDANCE WITH SECTION B.2.6A OF THE ***MARION COUNTY*** LAND DEVELOPMENT CODE.

PAVING AND DRAINAGE NOTES

1. PIPE LENGTHS SHOWN REPRESENT SCALED DISTANCE BETWEEN CENTERLINES OF DRAINAGE STRUCTURES.
2. ALL PAVEMENT RETURN RADII SHALL BE 28' AND MEASURED FROM THE INTERFACE OF THE CONCRETE CURB AND PAVEMENT SURFACE UNLESS OTHERWISE NOTED.
3. DITCH BOTTOM AND CONTROL STRUCTURE INLET GRATES SHALL BE SECURED WITH CHAIN AND EYEBOLT.
4. FIVE (5) FEET OF SOD IS REQUIRED AROUND ALL DITCH BOTTOM INLETS, MANHOLES, HEADWALLS AND MITERED END SECTIONS.
5. TOP ELEVATIONS OF MANHOLES IN GRASSED AREAS SHALL BE LOCATED AT FINISHED GRADE ELEVATION.
6. AS AN ALTERNATIVE, CONTRACTOR MAY USE ALTERNATIVE PIPE MATERIALS IN LIEU OF RCP. HOWEVER CONTRACTOR MUST RECEIVE APPROVAL OF ALTERNATIVE PIPE MATERIALS IN WRITING BY ***MARION COUNTY*** AND TILLMAN & ASSOCIATES PRIOR TO CONSTRUCTION. TO PURSUE USING AN ALTERNATIVE MATERIAL, THE CONTRACTOR SHALL SUBMIT A REQUEST IDENTIFYING THE ALTERNATIVE MATERIAL TYPE REQUESTED, VERIFICATION THAT THE MATERIAL IS INCLUDED ON THE FDOT APPROVED PRODUCTS LIST, AND THE SITE SPECIFIC INSTALLATION MEETS INSTALL CRITERIA SUCH AS DEPTH OF COVER AND UV PROTECTION FOR PIPE ENDS. COUNTY WILL REVIEW THE REQUEST AND PROVIDE FEEDBACK. (IF ALTERNATIVE PIPE IS APPROVED AND USED, THE LAST RUN OF STORM PIPE SHALL BE RCP FOR UV PROTECTION.)
7. ALTERNATIVE PIPE MATERIALS SHALL BE ANCHORED AGAINST FLOTATION IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS.
8. TOP SOIL WHICH HAS BEEN STRIPPED AND STOCK PILED DURING THE COURSE OF CONSTRUCTION SHALL BE REDISTRIBUTED ON ALL REGRADED SURFACES SO AS TO PROVIDE AT LEAST FOUR INCHES OF EVEN COVER TO ALL DISTURBED AREAS OF THE DEVELOPMENT AND SHALL BE STABILIZED BY SEEDING OR PLANTING
9. ALL DISTURBED AREAS WITH SLOPES UP TO 6:1 SHALL BE SEEDED AND MULCHED. SLOPES STEEPER THAN 6:1 SHALL BE SODDED AND SLOPES 3:1 OR STEEPER SHALL HAVE THE SOD PEGGED.
10. SEE TABLE 2.0 FOR REQUIRED STORM PIPE COVER BENEATH AN UNPAVED SECTION.
11. SEE TABLE 3.0 FOR REQUIRED STORM PIPE COVER BENEATH RIGID PAVEMENT.
12. SEE TABLE 4.0 FOR REQUIRED STORM PIPE COVER BENEATH FLEXIBLE PAVEMENT
13. THE TABULATED VALUES ARE RECOMMENDED MINIMUM DIMENSIONS TO WITHSTAND ANTICIPATED HIGHWAY TRAFFIC LOADS. ADDITIONAL COVER MAY BE REQUIRED TO SUPPORT CONSTRUCTION EQUIPMENT LOADS OR HIGHWAY TRAFFIC LOADS BEFORE PAVEMENT IS COMPLETED. SOME SIZE THICKNESS COMBINATIONS MAY REQUIRE MINIMUM COVER GREATER THAN THOSE LISTED ABOVE. SEE FDOT INDEX 205, SHEETS 1-6.
14. ALL RCP STORM WATER PIPE SHALL MEET THE COVER & CLASS CRITERIA AS OUTLINED IN FDOT INDEX 205.
15. ALL STORM PIPE JOINTS SHALL BE WRAPPED AS SPECIFIED IN FDOT INDEX 280.
16. THE LAST FOOT OF STORM WATER POND SHALL NOT BE EXCAVATED UNTIL ALL DISTURBED AREAS ARE STABILIZED.
17. ANY FILL MATERIAL MUST BE APPROVED BY ENGINEER IN WRITING PRIOR TO PLACEMENT.
18. SIGNIFICANT CARE MUST BE TAKEN WHEN GRADING RETENTION PONDS TO ENSURE THAT POND BOTTOMS DO NOT BECOME COMPACTED DURING CONSTRUCTION OR SEALED BY CONSTRUCTION SEDIMENT. IF SEDIMENTATION OR COMPACTION OF A POND BOTTOM OCCURS, IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RESTORE THE DESIGN HYDRAULIC CONDUCTIVITY.

EROSION CONTROL NOTES

1. DURING CONSTRUCTION, THE CONTRACTORS SHALL TAKE ALL REASONABLE MEASURES TO INSURE AGAINST POLLUTING, SILTING OR DISTURBING TO SUCH AN EXTENT AS TO CAUSE AN INCREASE IN TURBIDITY TO THE EXISTING SURFACE WATERS. SUCH MEASURES SHALL BE APPROVED BY THE PROJECT ENGINEER AND MAY INCLUDE, BUT NOT LIMITED TO, CONSTRUCTION OF TEMPORARY EROSION CONTROL STRUCTURES SUCH AS SEDIMENT BASINS, SEDIMENT CHECKS, OR SILT BARRIERS.
2. CONTRACTOR IS RESPONSIBLE TO COMPLY WITH ALL EROSION CONTROL MEASURES AS SHOWN ON THE EROSION CONTROL PLAN.
3. SODDING OF DETENTION PONDS SHOULD BE ACCOMPLISHED WITHIN 14 DAYS OF POND GRADING TO MINIMIZE EROSION POTENTIAL.
4. AT A MINIMUM, THE RETENTION/DETENTION STORAGE AREA MUST BE EXCAVATED WITHIN ONE FOOT PRIOR TO BUILDING CONSTRUCTION OR PLACEMENT OF IMPERVIOUS SURFACE WITHIN THE AREA TO BE SERVED BY THOSE FACILITIES. TO PREVENT REDUCTION IN STORAGE VOLUME AND PERCOLATION RATES, ALL ACCUMULATED SEDIMENT MUST BE REMOVED FROM THE STORAGE AREA PRIOR TO FINAL GRADING AND STABILIZATION.
5. IF DURING CONSTRUCTION, THE PROPOSED EROSION SYSTEM DOES NOT PERFORM SATISFACTORILY, ALTERNATIVES AND ADDITIONAL METHODS OF PROTECTION SHALL BE IMPLEMENTED BY THE CONTRACTOR IN ORDER TO COMPLY WITH ***S.W.F.W.M.D.*** AND ***MARION COUNTY*** EROSION CONTROL COSTS INCLUDING ANY COSTS ASSOCIATED WITH COMPLIANCE ISSUES AND ENFORCEMENT ACTIONS.
6. A 2' STRIP OF SOD SHALL BE PLACED BEHIND BACK OF CURB.
7. ALL SODDED AND/OR SEEDED AREAS MUST BE WATERED AS NECESSARY DURING CONSTRUCTION AND 2 MONTHS AFTER COMPLETION OF CONSTRUCTION IN ORDER TO ENSURE STABILIZATION AND SURVIVAL.

CLEARANCES

1. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING 90 DAYS PRIOR TO THE ANTICIPATED COMPLETION OF CONSTRUCTION AND/OR CERTIFICATION OF COMPLETION APPROVAL DATE.
2. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH SIGNED AND SEALED AS-BUILTS OF ALL UTILITY IMPROVEMENTS, PRESSURE TESTS, BACTERIOLOGICAL TESTS, AND ANY OTHER INFORMATION NECESSARY FOR THE CLEARANCE APPROVALS WITH ***F.D.E.P.*** AND THE LOCAL UTILITY PROVIDER. THIS INFORMATION SHALL BE PROVIDED TO THE ENGINEER 60 DAYS PRIOR TO THE ANTICIPATED COMPLETION OF CONSTRUCTION AND/OR CERTIFICATION OF COMPLETION APPROVAL DATE.
3. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH SIGNED AND SEALED AS-BUILTS OF ALL STORM WATER SYSTEM IMPROVEMENTS AND ANY OTHER INFORMATION NECESSARY FOR THE CLEARANCE APPROVALS WITH S.W.F.W.M.D. AND THE LOCAL UTILITY PROVIDER. THIS INFORMATION SHALL BE PROVIDED TO THE ENGINEER 60 DAYS PRIOR TO THE ANTICIPATED COMPLETION OF CONSTRUCTION AND/OR CERTIFICATION OF COMPLETION APPROVAL DATE.

LOCATION OF PUBLIC WATER SYSTEM MAINS IN ACCORDANCE WITH F.A.C. RULE 62-555.314

OTHER PIPE	HORIZONTAL SEPARATION	CROSSINGS (1)	JOINT SPACING @ CROSSINGS (FULL JOINT CENTERED)
STORM SEWER, STORMWATER FORCE MAIN, RECLAIMED WATER (2)	Water Main; 3 ft. minimum	Water Main; 12 inches is the minimum, except for storm sewer, then 6 inches is the minimum and 12 inches is preferred	ALTERNATE 3 FT. MINIMUM; Water Main
VACUUM SANITARY SEWER	Water Main; 10 ft. preferred 3 ft. minimum	Water Main; 12 inches is preferred 6 inches minimum	ALTERNATE 3 FT. MINIMUM; Water Main
GRAVITY OR PRESSURE SANITARY SEWER, SANITARY SEWER FORCE MAIN, RECLAIMED WATER (2)	Water Main; 10 ft. preferred 6 ft. minimum (3)	Water Main; 12 inches is the minimum, except for gravity sewer, then 6 inches is the minimum and 12 inches is preferred	ALTERNATE 6 FT. MINIMUM; Water Main
ON-SITE SEWAGE TREATMENT & DISPOSAL SYSTEM	10 ft. minimum	—	—

1. WATER MAIN SHOULD CROSS ABOVE OTHER PIPE. WHEN WATER MAIN MUST BE BELOW OTHER PIPE, THE MINIMUM SEPARATION IS 12 INCHES.
2. RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
3. 3 FT. FOR GRAVITY SANITARY SEWER WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST 6 INCHES ABOVE THE TOP OF THE GRAVITY SANITARY SEWER.
4. RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.

Disclaimer - This document is provided for your convenience only. Please refer to F.A.C. Rule 62-555.314 for additional construction requirements.

AS-BUILT NOTES

1. THE CONTRACTOR SHALL SUBMIT A CERTIFIED SET OF RECORD DRAWINGS TO THE ENGINEER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECORDING INFORMATION ON THE APPROVED PLANS CONCURRENTLY WITH CONSTRUCTION PROGRESS. RECORD DRAWINGS SUBMITTED TO THE ENGINEER AS PART OF THE PROJECT ACCEPTANCE SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS.
   A. DRAWINGS SHALL BE LEGIBLY MARKED TO RECORD ACTUAL CONSTRUCTION.
   B. DRAWINGS SHALL SHOW ACTUAL LOCATION OF ALL UNDERGROUND AND ABOVE GROUND STORM DRAINAGE, WATER, REUSE AND WASTEWATER PIPING AND RELATED APPURTENANCES. ALL PIPING LOCATIONS INCLUDING HORIZONTAL AND VERTICAL LOCATIONS OF UTILITIES AND APPURTENANCES SHALL BE CLEARLY SHOWN AND REFERENCED TO PERMANENT SURFACE IMPROVEMENTS. DRAWINGS SHALL ALSO SHOW ACTUAL INSTALLED PIPE MATERIAL, CLASS, ETC.
   C. DRAWINGS SHALL CLEARLY SHOW ALL FIELD CHANGES OF DIMENSION AND DETAIL INCLUDING CHANGES MADE BY FIELD ORDER OR BY CHANGE ORDER.
   D. DRAWINGS SHALL CLEARLY SHOW ALL DETAILS NOT ON ORIGINAL CONTRACT DRAWINGS, BUT CONSTRUCTED IN THE FIELD. ALL EQUIPMENT AND PIPING RELOCATION SHALL BE CLEARLY SHOWN.
   E. LOCATION OF ALL INLETS AND MANHOLES, HYDRANTS, VALVES AND VALVE BOXES SHALL BE SHOWN. ALL VALVES SHALL BE REFERENCED FROM AT LEAST TWO PREFERABLY THREE PERMANENT POINTS.
   F. DIMENSIONS BETWEEN ALL INLETS AND MANHOLES SHALL BE VERIFIED AND SHOWN. THE INVERTS AND GRADE ELEVATIONS OF ALL INLETS, CONTROL STRUCTURES AND MANHOLES SHALL BE SHOWN.
   G. CONTRACTOR SHALL PROVIDE AS-BUILT SURVEY FOR POND GRADING. SPOT ELEVATIONS SHALL BE TAKEN AT TOP OF BANK, POND BOTTOM, AND ALL GRADE BREAKS AT 50' INTERVALS.
   H. DRAWINGS SHALL CLEARLY INDICATE VERTICAL AND HORIZONTAL SEPARATION BETWEEN WATER MAIN AND STORM DRAINAGE/SANITARY SEWER/RECLAIM WATER MAINS AT POINTS OF CROSSING IN ACCORDANCE WITH FDEP CRITERIA.
   I. WHERE THE WATER MAIN CROSSES OTHER UTILITIES (STORM, GRAVITY SEWER, FORCE MAIN AND RECLAIMED WATER), THE CERTIFIED AS-BUILT DRAWINGS SHALL CLEARLY INDICATE THE CONSTRUCTED ELEVATIONS IN SUCH A WAY THAT THE VERTICAL SEPARATION BETWEEN THE WATER MAIN AND OTHER UTILITIES MAY BE VERIFIED BY THE ENGINEER. FAILURE TO PROVIDE THIS INFORMATION WILL RESULT IN THE CONTRACTOR EXCAVATING AND SURVEYING THE UTILITIES AT NO ADDITIONAL COST TO THE OWNER.
   J. WHERE THE WATER MAIN CROSSES OTHER UTILITIES (STORM, GRAVITY SEWER, FORCE MAIN AND RECLAIMED WATER), THE CERTIFIED AS-BUILT DRAWINGS SHALL CLEARLY INDICATED THE LOCATIONS OF PIPE JOINTS IN SUCH A MANNER AS TO DEMONSTRATE THE PIPE IS CENTERED AT ALL THE CROSSING. FAILURE TO PROVIDE THIS INFORMATION WILL RESULT IN THE CONTRACTOR EXCAVATING AND SURVEYING THE UTILITIES AT NO ADDITIONAL COST TO THE OWNER.
2. EACH SHEET OF THE PLANS SHALL BE SIGNED, SEALED AND DATED BY REGISTERED SURVEYOR WITH A NOTE READING "THESE AS-BUILT DRAWINGS ACCURATELY DEPICT THE ACTUAL IMPROVEMENTS AS CONSTRUCTED".
3. AUTOCAD AS-BUILT LAYERS WILL BE REQUIRED TO BE FORMATTED WITH THE FOLLOWING LAYERS (AS-BUILTS SHALL CONFORM TO THE REQUIREMENTS OF THE B.L.C.C.D.D UNIFORM EXTENSION POLICY):

AS-BUILT NOTES (CONT.)

WATER
- SYSTEM VALVES (MAIN VALVES - PLUG, etc...)
- CONTROL VALVES (ARV's, PRV's, etc...)
- FITTINGS
- HYDRANTS
- WATER SERVICE (SIZES: 3/4", 1', 1-1/2", 2', etc.../MATERIAL, etc...)
- WATER MAIN (SIZES: 3/4", 1', 1-1/2", 2", etc.../MATERIAL, etc...)

WASTEWATER
- CLEAN OUTS
- SYSTEM VALVES (MAIN VALVES - PLUG, etc...)
- CONTROL VALVES (ARV's, PRV's, etc...)
- FITTINGS
- MANHOLES (INVERT ELEVATIONS, RIM ELEVATIONS, etc...)
- SEWER LATERALS (SIZES: 3/4", 1', 1-1/2", 2", etc.../MATERIAL, etc...)
- GRAVITY SEWER MAIN (SIZES: 3/4", 1', 1-1/2", 2", etc.../MATERIAL, etc...)
- FORCE MAINS (SIZES: 3/4", 1', 1-1/2", 2", etc.../MATERIAL, etc...)

811. Know what's below. Call before you dig.

Call 48 Hours before you dig. It's the Law! 1-800-432-4770 Sunshine State One Call of Florida, Inc.

TABLE 1.0 - CORRUGATED ALUMINUM PIPE COVER

FLEXIBLE PAVEMENT / BASE COURSE / SUBBASE / MINIMUM COVER — RIGID PAVEMENT / BASE COURSE / MINIMUM COVER

D (IN.)	A (SQ.FT.)	MINIMUM COVER - ROUND PIPE - 2⅔" x ½" CORRUGATION (3" x 1" CORRUGATION) {SPIRAL RIB} — SHEET THICKNESS IN INCHES (GAGE)				
		0.06 (16)	0.075 (14)	0.105 (12)	0.135 (10)	0.164 (8)
12	0.8	12"	12"	NA	NA	NA
15	1.2	12" {12"}	12" {12"}	NA	NA	NA
18	1.8	12" {12"}	12" {12"}	12"	NA	NA
21	2.4	12" {12"}	12" {12"}	12"	NA	NA
24	3.1	12" {12"}	12" {12"}	12"	NA	NA
30	4.9	12" {15"}	12" {15"}	12" {15"}	NA	NA
36	7.1	NS (12") {24"}	12" (12") {18"}	12" (12") {18"}	12"	NA
42	9.6	NS (12")	NS (12") {21"}	12" (12") {21"}	12"	NA
48	12.6	NS (12")	NS (12")	12" (12") {24"}	12" (12") {24"}	12"
54	15.9	NS (12")	NS (12")	NS (12") {24"}	NS (12") {24"}	12"
60	19.6	NS (12")	NS (12")	NS (12") {24"}	NS (12") {24"}	NS
66	23.8	NS (12")	NS (12")	NS (12")	NS (12") {24"}	NS (12")
72	28.3	(NS)	NS (12")	NS (12")	NS (12")	NS (12")
78	33.2	(NS)	(12")	(12")	(12")	(12")
84	38.5	(NS)	(NS)	(12")	(12")	(12")
90	44.2	(NS)	(NS)	(12")	(12")	(12")
96	50.3	(NS)	(NS)	(12")	(12")	(12")
102	56.7	(NS)	(NS)	(NS)	(13")	(13")

- NA = NOT AVAILABLE — - NS = NOT SUITABLE

TABLE 2.0 - CONCRETE PIPE COVER - ROUND & ELLIPTICAL

FLEXIBLE PAVEMENT / BASE COURSE / SUBBASE / MINIMUM COVER — RIGID PAVEMENT / BASE COURSE / MINIMUM COVER

UNPAVED OR FLEXIBLE PAVEMENT:	RIGID PAVEMENT:
12"	9"

TABLE 3.0 - PLASTIC PIPE COVER

FLEXIBLE PAVEMENT / BASE COURSE / SUBBASE / MINIMUM COVER — RIGID PAVEMENT / BASE COURSE / MINIMUM COVER

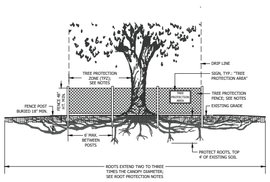
PIPE TYPE & SIZE:	MINIMUM COVER:
CORRUGATED POLYETHYLENE	
12" - 48"	24"
60"	30"
CORRUGATED POLYPROPYLENE	
12" - 48"	24"
60"	30"
CORRUGATED POLYVINYLCHLORIDE	
ALL	24"
STEEL REINFORCED POLYETHYLENE	
30" - 60"	12"
66" - 72"	18"
84" - 96"	24"
108"	30"
120"	36"

TABLE 4.0 - CORRUGATED STEEL ROUND PIPE COVER

FLEXIBLE PAVEMENT / BASE COURSE / SUBBASE / MINIMUM COVER — RIGID PAVEMENT / BASE COURSE / MINIMUM COVER

D (IN.)	A (SQ.FT.)	MINIMUM COVER - ROUND PIPE - 2⅔" x ½" CORRUGATION (3" x 1" CORRUGATION) {SPIRAL RIB} — SHEET THICKNESS IN INCHES (GAGE)				
		0.064 (16)	0.079 (14)	0.109 (12)	0.138 (10)	0.168 (8)
12	0.79	12"	12"	NA	NA	NA
15	1.23	12"	12"	NA	NA	NA
18	1.77	12" {12"}	12" {12"}	12"	NA	NA
21	2.4	12" {12"}	12" {12"}	12" {12"}	NA	NA
24	3.14	12" {12"}	12" {12"}	12" {12"}	NA {12"}	NA
30	4.91	12" {12"}	12" {12"}	12" {12"}	NA {12"}	NA
36	7.1	12" (12") {12"}	12" (12") {12"}	12" (12") {12"}	12" {12"}	NA
42	9.6	12" (12") {12"}	12" (12") {12"}	12" (12") {12"}	12" {12"}	NA
48	12.6	12" (12") {12"}	12" (12") {12"}	12" (12") {12"}	12" (12") {12"}	12"
54	16	12" (12") {14"}	12" (12") {14"}	12" (12") {14"}	12" (12") {14"}	12"
60	19.6	NS (12")	NS (12") {15"}	12" (12") {15"}	12" (12") {15"}	12"
66	23.8	NS (12")	NS (12") {17"}	12" (12") {17"}	12" (12") {17"}	12" (12")
72	28.3	NS (12")	NS (12")	NS (12") {18"}	12" (12") {18"}	12" (12")
78	33.2	NS (12")	NS (12")	NS (12") {20"}	NS (12") {20"}	12" (12")
84	38.5	NS (12")	NS (12")	NS (12") {21"}	NS (12") {21"}	12" (12")
90	44.2	(12")	(12")	(12")	(12") {23"}	(12")
96	50.3	NS	(12")	(12")	(12")	(12")
102	56.7	NS	(13")	(13")	(13")	(13")
108	63.6	NS	NS	(14")	(14")	(14")
114	70.9	NS	NS	(15")	(15")	(15")
120	78.5	NS	NS	(15")	(15")	(15")
132	95	NS	NS	NS	(17")	(17")

- NA = NOT AVAILABLE — - NS = NOT SUITABLE



TREE PROTECTION BARRICADE DETAIL
NOT TO SCALE

TREE PROTECTION BARRICADE NOTES:

1. BARRICADES SHALL BE CONSTRUCTED OF A RIGID AND LASTING MATERIAL THAT SHALL REMAIN WHOLE THROUGHOUT THE DURATION OF CONSTRUCTION.
2. BARRICADE AREAS MAY BE INCREASED IN SIZE OR COMBINED FOR MULTIPLE TREES, SO LONG AS BARRICADES DO NOT ENCROACH INTO THE TREE CANOPY DRIP LINE.
3. DAMAGED OR MISSING BARRICADES OR SIGNS SHALL BE IMMEDIATELY REPAIRED OR REPLACED.
4. BARRICADES SHALL REMAIN INTACT UNTIL LANDSCAPE OPERATIONS BEGIN, OR WHEN CONSTRUCTION HAS BEEN FINALIZED, AND WITH APPROVAL OF LANDSCAPE ARCHITECT.
5. LANDSCAPE PREPARATION OR INSTALLATION SHALL BE PERFORMED BY HAND WITHIN THE TREE PROTECTION ZONE (TPZ), DRIP LINE OF ANY TREE TO REMAIN, OR WITHIN A BARRICADE AREA.
6. TRENCHING IS PROHIBITED WITHIN THE TREE PROTECTION ZONE (TPZ), DRIP LINE OF ANY TREE TO REMAIN, OR WITHIN A BARRICADE AREA. TUNNELING IS REQUIRED IF UTILITIES ARE ROUTED THROUGH THESE AREAS.
7. THE MOVEMENT OR THE STORAGE OF EQUIPMENT, MATERIALS, DEBRIS, OR FILL, WITHIN THE TREE PROTECTION ZONE (TPZ), DRIP LINE OF ANY TREE TO REMAIN, OR WITHIN A BARRICADE AREA IS PROHIBITED.
8. THE CLEANING OF CONSTRUCTION EQUIPMENT, TOOLS, MATERIALS, OR THE DISPOSAL OF WASTE, E.G. PAINT, OIL, SOLVENTS, ASPHALT, CONCRETE, MORTAR, WITHIN THE TREE PROTECTION ZONE (TPZ), DRIP LINE OF ANY TREE TO REMAIN, OR WITHIN A BARRICADE AREA IS PROHIBITED.
9. TREE PROTECTION ZONE: A CIRCULAR ZONE AROUND EACH PROTECTED TREE DEFINED AS FOLLOWS:
   a. IF THE DRIP LINE IS LESS THAN SIX (6) FEET FROM THE TRUNK OF THE TREE, THE ZONE SHALL BE THAT AREA WITHIN A MINIMUM RADIUS OF SIX (6) FEET AROUND THE TREE.
   b. IF THE DRIP LINE IS MORE THAN SIX (6) FEET FROM THE TRUNK OF THE TREE, BUT LESS THAN TWENTY (20) FEET, THE ZONE SHALL BE THAT AREA WITHIN A RADIUS OF THE FULL DRIP LINE AROUND THE TREE.
   c. IF THE DRIP LINE IS TWENTY (20) FEET OR MORE FROM THE TRUNK OF THE TREE, THE ZONE SHALL BE THAT AREA WITHIN A MINIMUM RADIUS OF TWENTY (20) FEET AROUND THE TREE.

ROOT PROTECTION NOTES:

CONTRACTOR SHALL COORDINATE WITH I.S.A. CERTIFIED ARBORIST PRIOR TO SITE CLEARING AND ROOT PRUNING. PROTECT AND CARE FOR EXISTING TREE ROOTS TO REMAIN BY MINIMIZING DAMAGE FROM COMPACTION, EXCAVATION, AND DISEASE. WHEN WORK IS REQUIRED THAT MAY DAMAGE THE ROOTS OF TREE TO REMAIN, CUT ROOTS IN ADVANCE USING SHARP, CLEAN, MECHANICAL AND HAND TOOLS. FOR WORK WITHIN THE TREE PROTECTION ZONES, HAND CLEAR AND EXCAVATE USING NARROW-TINE SPADING FORKS TO COMB SOIL AND EXPOSE ROOTS. SELECTIVELY CUT AND PRUNE ROOTS. IMMEDIATELY FOLLOWING ROOT PRUNING, TREES SHALL BE THOROUGHLY WATERED AND HAVE A FOUR (4) INCH COVER OF CLEAN FILL.

CANOPY PROTECTION:

CONTRACTOR SHALL COORDINATE WITH I.S.A. CERTIFIED ARBORIST PRIOR TO CANOPY PRUNING. LIFT TREE CANOPY OF EXISTING TREES TO REMAIN AS REQUIRED ALONG PROPOSED BUILDINGS, PARKING AND DRIVE AISLES, AND SIDEWALKS, ACCORDING TO INTERNATIONAL SOCIETY OF ARBORICULTURE BEST MANAGEMENT PRACTICES - TREE PRUNING. REFER TO UF IFAS FACT SHEET ENH 851 FOR ADDITIONAL TREE PRUNING CRITERIA.

MARION COUNTY APPROVAL STAMP

Tillman & Associates ENGINEERING, LLC.
CIVIL ENGINEERING - PLANNING - LANDSCAPE ARCHITECTURE - ENVIRONMENTAL
1720 SE 16th Ave. Bldg 100, Ocala, FL 34471
Office: (352) 387-4540 Fax: (352) 387-4545
CERTIFICATE OF AUTHORIZATION #26756

REVISIONS | DATE

MASS GRADING PHASE 4
CALESA TOWNSHIP
MARION COUNTY, FLORIDA

GENERAL NOTES

DATE 12/3/2025
DRAWN BY AS
CHKD. BY CMH
JOB NO. 24-9127

SHT. 02.01

NOT VALID UNLESS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER

MARION COUNTY APPROVAL STAMP

N

0 700' 1400'
SCALE IN FEET
1" = 700'

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CERTIFICATE OF AUTHORIZATION #26756

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MASS GRADING PHASE 4
CALESA TOWNSHIP
MARION COUNTY, FLORIDA

AERIAL PHOTOGRAPH (2023)

DATE 12/3/2025
DRAWN BY AS
CHKD. BY CMH
JOB NO. 25-0078

SHT. 03.01

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CERTIFICATION OF AUTHORIZATION #4696

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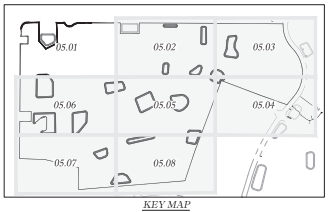
MASS GRADING PHASE 4
CALESA TOWNSHIP
MARION COUNTY, FLORIDA

MASTER DRAINAGE PLAN

DATE 12/1/2025
DRAWN BY AS
CHKD. BY CMH
JOB NO. 25-0078

SHT. 04.01



KEY MAP
1" = 120' SCALE

GRADING LEGEND

EXISTING CONTOURS

PROPOSED CONTOURS

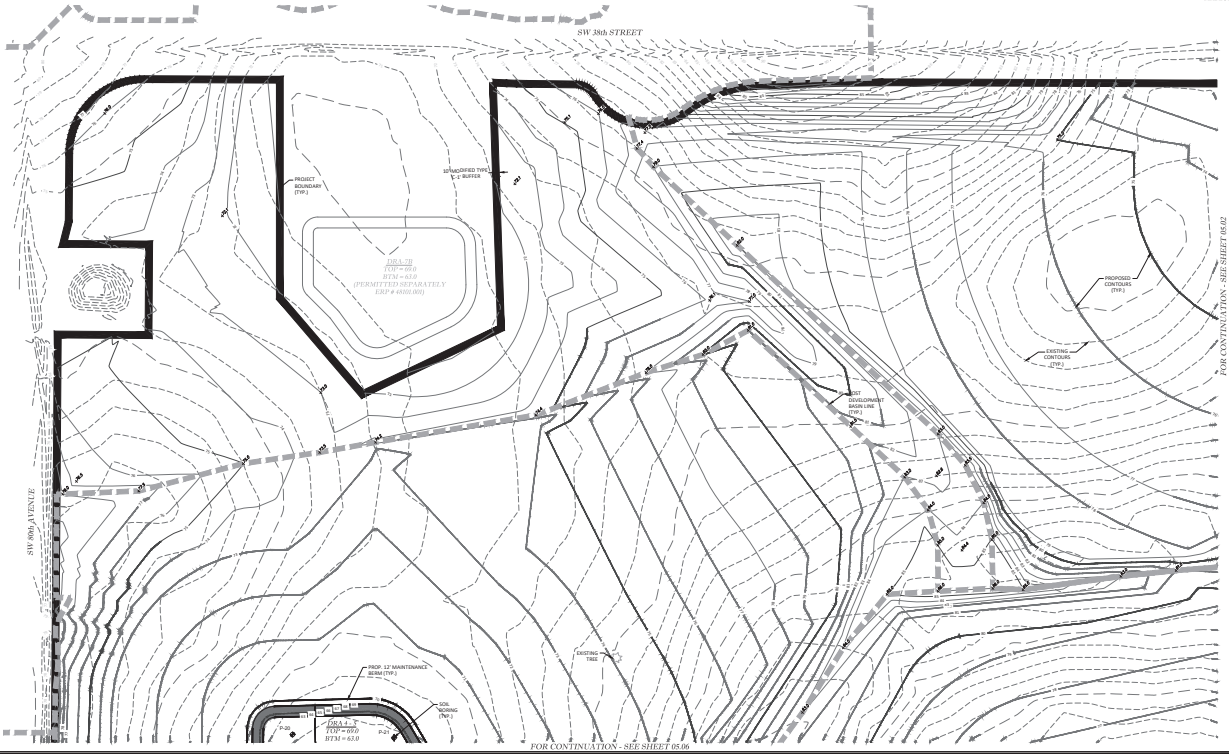
PROPOSED STORM PIPE

NOTE:
EXISTING WELLS WILL BE ABANDONED BY A FLORIDA LICENSED WATER WELL CONTRACTOR IN ACCORDANCE WITH RULE 40D-3.531(2),FA.C.

N

0 100' 200'
SCALE IN FEET
1" = 100'

MARION COUNTY APPROVAL STAMP



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CERTIFICATE OF AUTHORIZATION # 28256

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MASS GRADING PHASE 4
CALESA TOWNSHIP
MARION COUNTY, FLORIDA

GRADING PLAN

DATE 12/1/2025
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CHKD. BY CMH
JOB NO. 25-0078

SHT. 05.01

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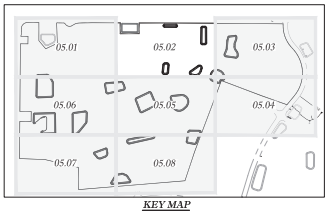
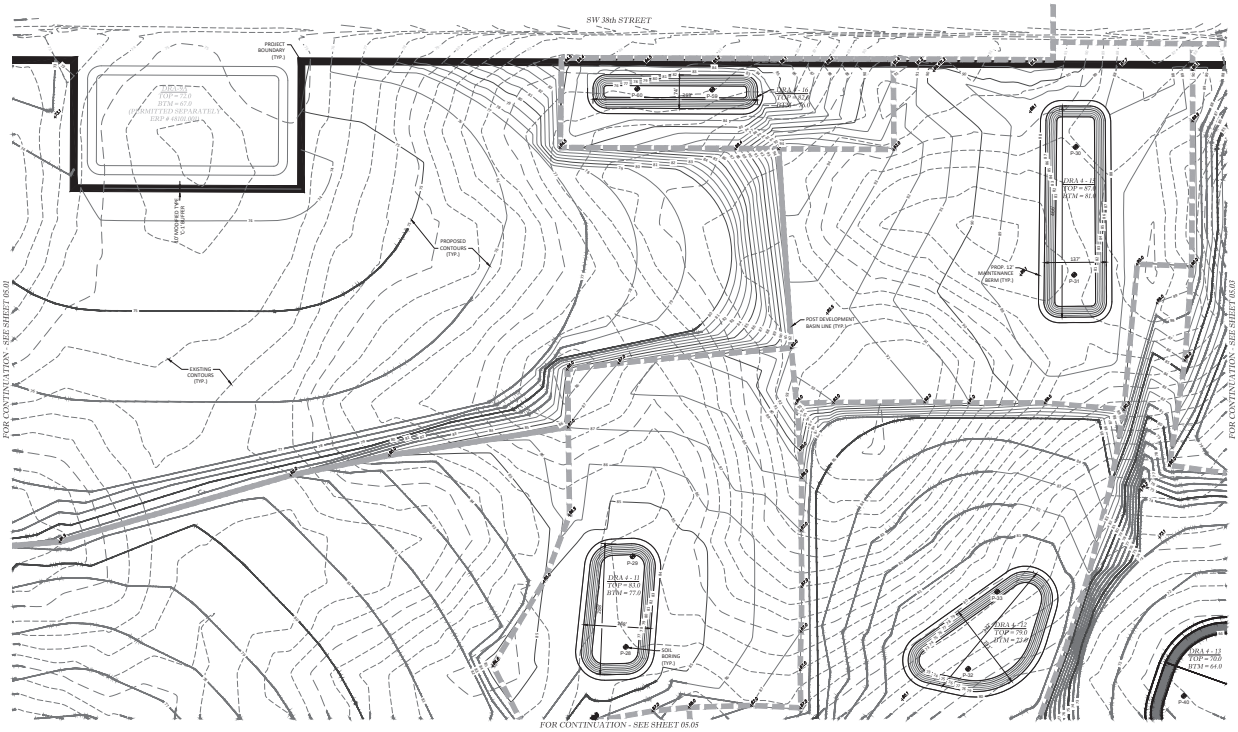


KEY MAP
1" = 120' SCALE

GRADING LEGEND
EXISTING CONTOURS
PROPOSED CONTOURS
PROPOSED STORM PIPE

N
0 100' 200'
SCALE IN FEET
1" = 100'

MARION COUNTY APPROVAL STAMP



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CERTIFICATE OF AUTHORIZATION # 28256

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MASS GRADING PHASE 4
CALESA TOWNSHIP
MARION COUNTY, FLORIDA

GRADING PLAN

DATE 12/1/2025
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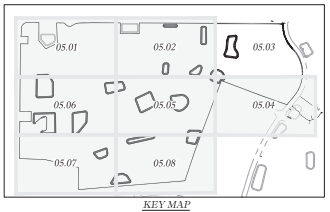


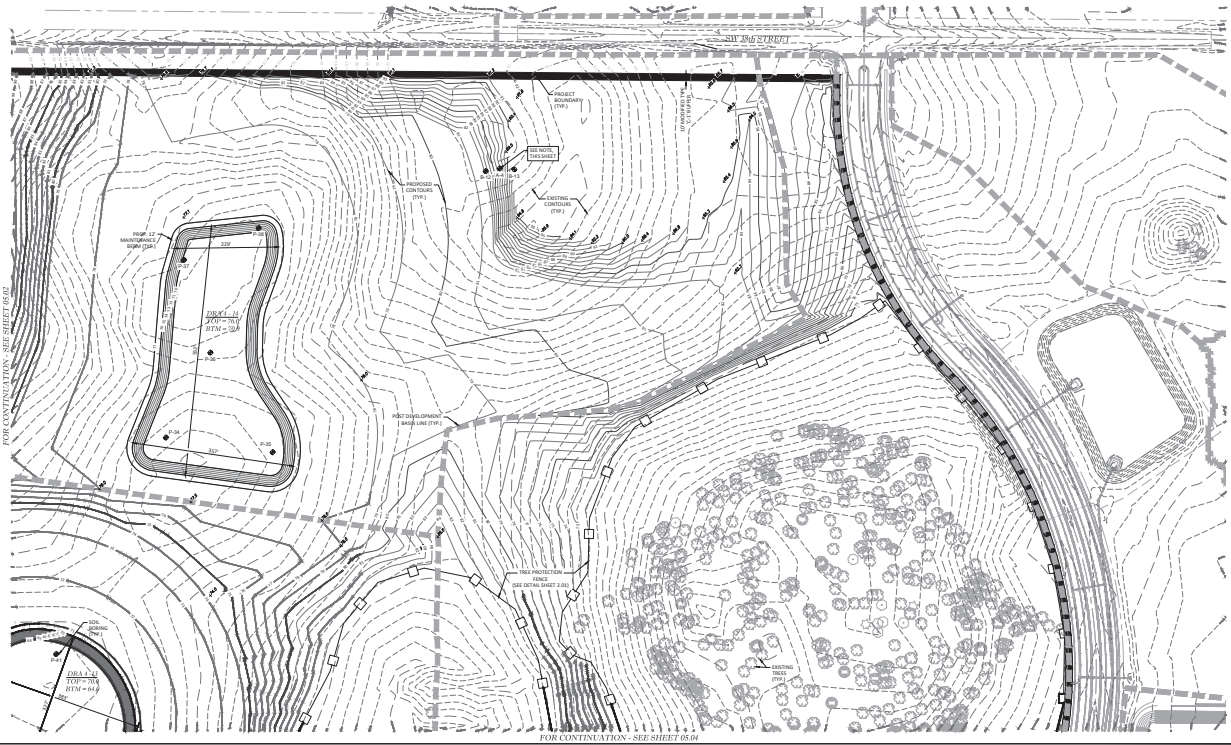
KEY MAP
1" = 120' SCALE

GRADING LEGEND:
EXISTING CONTOURS
PROPOSED CONTOURS
PROPOSED STORM PIPE

NOTES:
1. SEE GEO-TECH, INC. REPORT No. 22-1107.4133.3 FOR EVALUATION AND RECOMMENDATIONS. CONTRACTOR TO OBTAIN TESTING AND RECOMMENDATIONS FOR COMPLIANCE OF CONSTRUCTION WITH AS-BUILTS. A CERTIFIED LETTER FROM THE GEOTECHNICAL ENGINEER MUST BE PROVIDED WITH THE AS-BUILTS.

N
0 100' 200'
SCALE IN FEET
1" = 100'

MARION COUNTY APPROVAL STAMP



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MASS GRADING PHASE 4
CALESA TOWNSHIP
MARION COUNTY, FLORIDA

GRADING PLAN

DATE 12/1/2025
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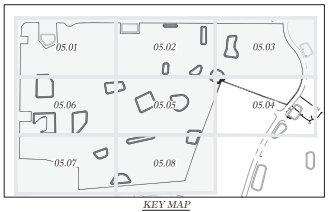

KEY MAP
1" = 120' SCALE

GRADING LEGEND

EXISTING CONTOURS

PROPOSED CONTOURS

PROPOSED STORM PIPE

N

0 100' 200'

SCALE IN FEET
1" = 100'

MARION COUNTY APPROVAL STAMP

FOR CONTINUATION - SEE SHEET 05.03

FOR CONTINUATION - SEE SHEET 05.05

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REVISIONS

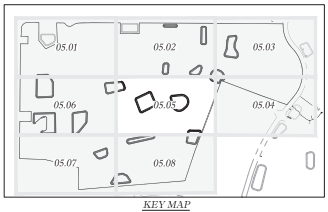
DATE

MASS GRADING PHASE 4
CALESA TOWNSHIP
MARION COUNTY, FLORIDA

GRADING PLAN

DATE 12/1/2025
DRAWN BY AS
CHKD. BY CMH
JOB NO. 25-0078

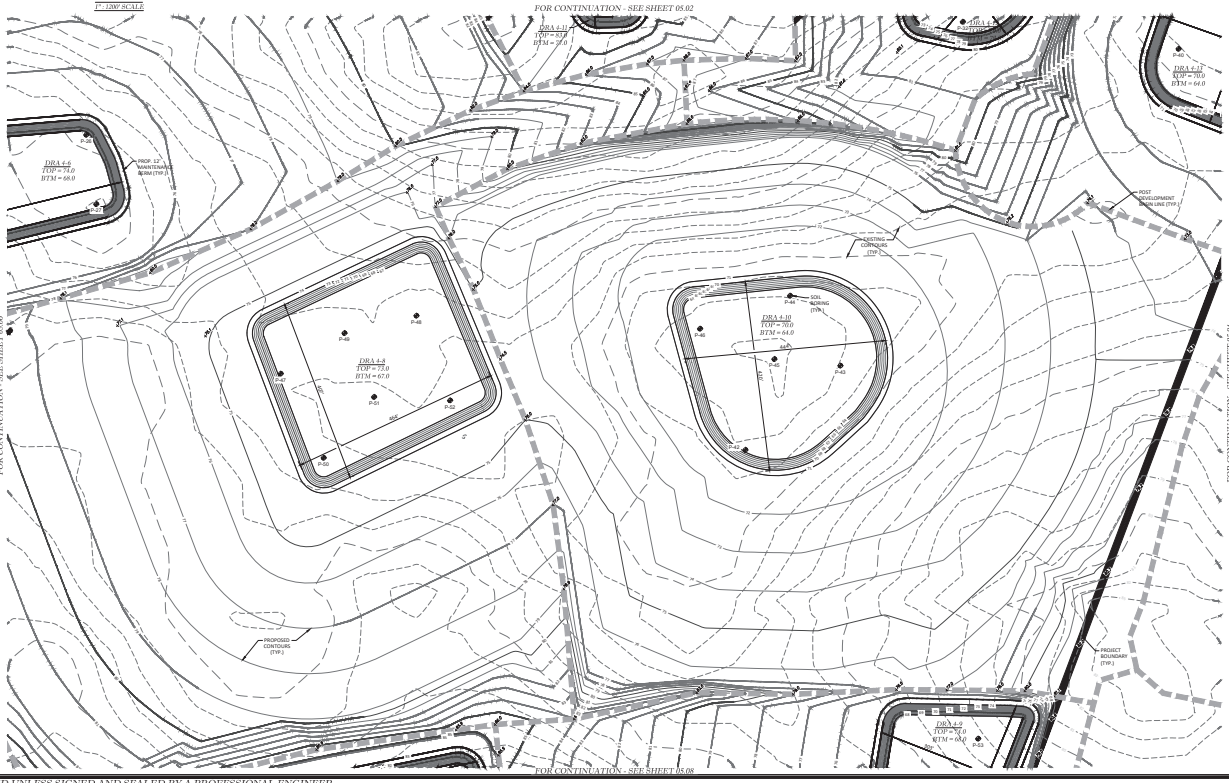
SHT. 05.04



KEY MAP
1" = 120' SCALE

GRADING LEGEND
EXISTING CONTOURS
PROPOSED CONTOURS
PROPOSED STORM PIPE

N
0 100' 200'
SCALE IN FEET
1" = 100'



MARION COUNTY APPROVAL STAMP

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ENGINEERING, LLC
CIVIL ENGINEERING - PLANNING - LANDSCAPE ARCHITECTURE - ENVIRONMENTAL
17201 SE 16th Ave. Bldg 100, Ocala, FL 34471
OFFICE (352) 854-5665 FAX (352) 854-5545
CERTIFICATE OF AUTHORIZATION # 28256

REVISIONS | DATE

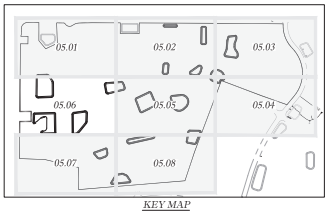
MASS GRADING PHASE 4
CALESA TOWNSHIP
MARION COUNTY, FLORIDA

GRADING PLAN

DATE 12/1/2025
DRAWN BY AS
CHKD. BY CMH
JOB NO. 25-0078

SHT. 05.05

NOT VALID UNLESS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER

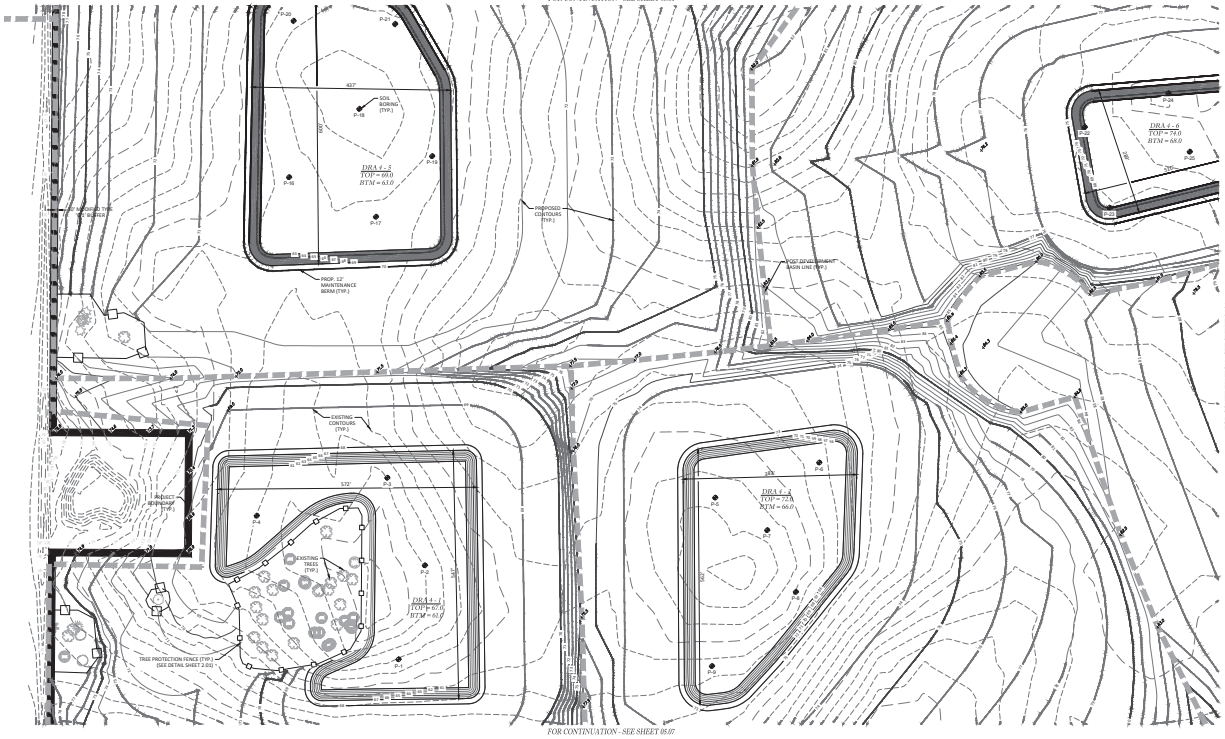


KEY MAP
1" = 120' SCALE

GRADING LEGEND
EXISTING CONTOURS
PROPOSED CONTOURS
PROPOSED STORM PIPE

N
0 100' 200'
SCALE IN FEET
1" = 100'

MARION COUNTY APPROVAL STAMP



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CERTIFICATE OF AUTHORIZATION # 28256

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MASS GRADING PHASE 4
CALESA TOWNSHIP
MARION COUNTY, FLORIDA

GRADING PLAN

DATE 12/1/2025
DRAWN BY AS
CHKD. BY CMH
JOB NO. 25-0078

SHT. 05.06

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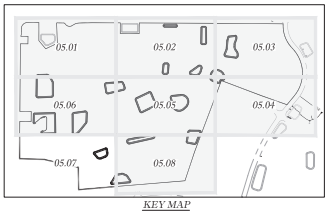


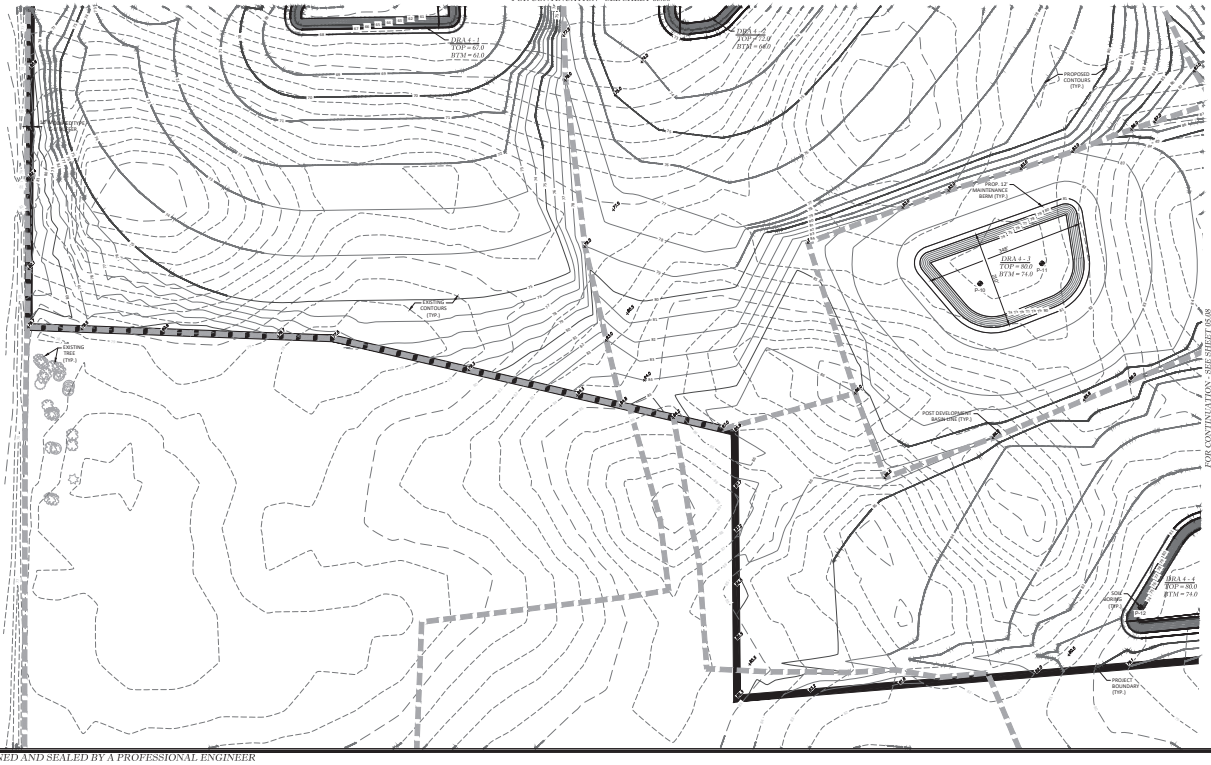
KEY MAP
1" = 120' SCALE

GRADING LEGEND
EXISTING CONTOURS
PROPOSED CONTOURS
PROPOSED STORM PIPE

N
0 100' 200'
SCALE IN FEET
1" = 100'

MARION COUNTY APPROVAL STAMP

FOR CONTINUATION - SEE SHEET 05.06



FOR CONTINUATION - SEE SHEET 05.08

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CIVIL ENGINEERING - PLANNING - LANDSCAPE ARCHITECTURE - ENVIRONMENTAL
1720 SE 16th Ave. Bldg 100, Ocala, FL 34471
OFFICE (352) 387-3556 FAX (352) 387-4545
CERTIFICATE OF AUTHORIZATION # 28256

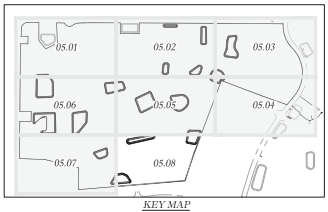
REVISIONS
DATE

MASS GRADING PHASE 4
CALESA TOWNSHIP
MARION COUNTY, FLORIDA

GRADING PLAN

DATE 12/1/2025
DRAWN BY AS
CHKD. BY CMH
JOB NO. 25-0078

SHT. 05.07



KEY MAP
1" = 120' SCALE

GRADING LEGEND
EXISTING CONTOURS
PROPOSED CONTOURS
PROPOSED STORM PIPE

N
0 100' 200'
SCALE IN FEET
1" = 100'

MARION COUNTY APPROVAL STAMP

FOR CONTINUATION - SEE SHEET 05.05

FOR CONTINUATION - SEE SHEET 05.07

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REVISIONS

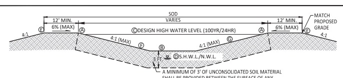
DATE	

MASS GRADING PHASE 4
CALESA TOWNSHIP
MARION COUNTY, FLORIDA

GRADING PLAN

DATE 12/1/2025
DRAWN BY AS
CHKD. BY CMH
JOB NO. 25-0078

SHT. 05.08



A MINIMUM OF 3' OF UNCONSOLIDATED SOIL MATERIAL SHALL BE PROVIDED BETWEEN THE SURFACE OF ANY LIMESTONE BEDROCK AND THE BOTTOM AND SIDES OF ANY STORMWATER FACILITY. EXCAVATION AND BACKFILL OF SUITABLE MATERIAL MAY BE MADE TO MEET THIS CRITERION.

POND	T.O.B.(FT) Ⓐ	BOTTOM(FT) Ⓑ	DHWL(FT) Ⓒ 100-YR 24-HR	SHWL*(FT) Ⓓ	Ⓔ	SIDE SLOPE Ⓕ	SIDE SLOPE Ⓖ
DRA - 4-1	67.0	61.0	64.95	56.90	MATCH PROPOSED GRADE	4:1 MAX	4:1 MAX
DRA - 4-2	72.0	66.0	69.99	60.10	MATCH PROPOSED GRADE	4:1 MAX	4:1 MAX
DRA - 4-3	80.0	74.0	78.35	64.40	MATCH PROPOSED GRADE	4:1 MAX	4:1 MAX
DRA - 4-4	80.0	74.0	78.78	60.70	MATCH PROPOSED GRADE	4:1 MAX	4:1 MAX
DRA - 4-5	69.0	63.0	66.96	56.30	MATCH PROPOSED GRADE	4:1 MAX	4:1 MAX
DRA - 4-6	74.0	68.0	72.74	55.10	MATCH PROPOSED GRADE	4:1 MAX	4:1 MAX
DRA - 4-7	82.0	76.0	80.46	69.40	MATCH PROPOSED GRADE	4:1 MAX	4:1 MAX
DRA - 4-8	73.0	67.0	70.82	60.80	MATCH PROPOSED GRADE	4:1 MAX	4:1 MAX
DRA - 4-9	74.0	68.0	72.71	62.10	MATCH PROPOSED GRADE	4:1 MAX	4:1 MAX
DRA - 4-10	70.0	64.0	68.25	56.30	MATCH PROPOSED GRADE	4:1 MAX	4:1 MAX
DRA - 4-11	83.0	77.0	81.32	65.60	MATCH PROPOSED GRADE	4:1 MAX	4:1 MAX
DRA - 4-12	79.0	73.0	77.67	61.30	MATCH PROPOSED GRADE	4:1 MAX	4:1 MAX
DRA - 4-13	70.0	64.0	67.94	53.90	MATCH PROPOSED GRADE	4:1 MAX	4:1 MAX
DRA - 4-14	76.0	70.0	74.33	62.70	MATCH PROPOSED GRADE	4:1 MAX	4:1 MAX
DRA - 4-15	87.0	81.0	85.48	73.90	MATCH PROPOSED GRADE	4:1 MAX	4:1 MAX
DRA - 4-16	82.0	76.0	80.01	65.90	MATCH PROPOSED GRADE	4:1 MAX	4:1 MAX

SOD ALL SLOPES AND BOTTOM WITH FLORIDA FRIENDLY NON-MUCK GROWN SOD

POND CROSS-SECTIONS

N.T.S

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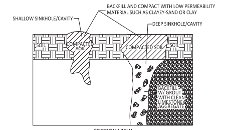
DATE	REVISIONS

POND CROSS SECTION



SECTION VIEW

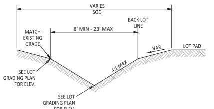
N.T.S

IN THE EVENT THAT ANY KARST FEATURES SUCH AS SINKHOLES, SOLUTION CAVITIES, CHIMNEYS, ETC. ARE DISCOVERED DURING ROUTINE INSPECTIONS OF THE STORMWATER BASINS, THE FOLLOWING REMEDIATION PROCEDURE SHALL BE PROFORMED

1. SHALLOW REPAIR (SEE DETAIL):
   IF THE COLLAPSE IS SHALLOW (<5' DEEP) AND THE VOIDS IN THE LIMESTONE ARE SMALL, THEN THE SINKHOLE CAN BE REPAIRED BY BACKFILLING WITH A LOWER-PERMIEABILITY MATERIAL, SUCH AS CLAYEY-SAND OR CLAY. THE MATERIAL SHOULD BE COMPACTED AND THE REPAIR SHALL BE SLIGHTLY ABOVE THE ORIGINAL BOTTOM IN ORDER TO CREATE A SMALL MOUND TO ACCOUNT FOR SETTLING
2. DEEP REPAIR (SEE DETAIL):
   IF THE COLLAPSE IS DEEP, THEN THE REPAIR SHALL BE MORE PERMANENT. THE COLLAPSE SHALL BE EXCAVATED TO THE LIMESTONE BEDROCK THE VOID(S) IN THE BEDROCK SHALL BE PLUGGED WITH CLEAN GROUT. A LOW PERMEABILITY MATERIAL SHALL BE PLACED OVER THE CONCRETE PLUG. THE MATERIAL SHALL BE COMPACTED AND BROUGHT TO EXISTING BASIN BOTTOM.
3. NOTIFICATION:
   THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD) SHALL BE NOTIFIED OF ANY SINKHOLE DEVELOPMENT WITHIN 48 HOURS OF DISCOVERY AND THE PROPOSED METHOD BY WHICH THE SINKHOLE WILL BE REPAIRED SHALL BE SUBMITTED TO THE SWFWMD FOR APPROVAL WITHIN 30 DAYS. THE SWFWMD WILL THEN NOTIFY THE RESPONSIBLE PARTY AS TO THE ACCEPTANCE, DENIAL OR NEED FOR MODIFICATION OF THE REPAIR METHOD.

DATE	REVISIONS

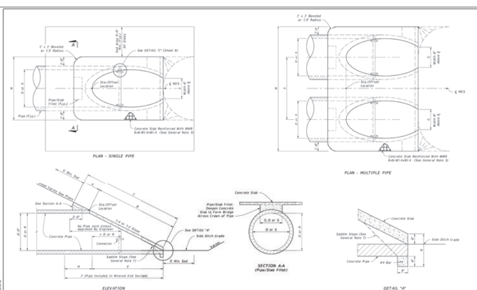
SINKHOLE MAINTENANCE REPAIR



N.T.S

DATE	REVISIONS

TYPICAL DRAINAGE SWALE SECTION

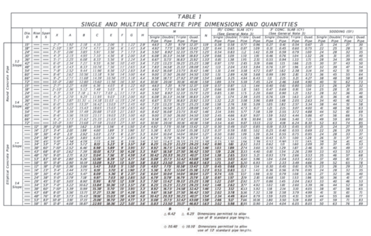


ROUND CONCRETE PIPE (Elliptical Pipe Similar)

NOTE: See Table 1 on Sheet 3 for Dimensions and Quantities.

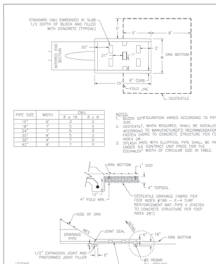
SINGLE AND MULTIPLE CONCRETE PIPE

LAST REVISION 11/01/19	DESCRIPTION:	FDOT FY 2023-24 STANDARD PLANS	CROSS DRAIN MITERED END SECTION	INDEX 430-021	SHEET 2 of 6



CONCRETE PIPE DIMENSIONS AND QUANTITIES

LAST REVISION 11/01/19	DESCRIPTION:	FDOT FY 2023-24 STANDARD PLANS	CROSS DRAIN MITERED END SECTION	INDEX 430-021	SHEET 3 of 6



PIPE SIZE	WIDTH	CMU 8 x 16	CMU 8 x 8
15"	6'	3	2
18"	7'	5	0
24"	7'	5	0
30"	8'	5	2
36"	9'	7	0
42"	9'	7	0

NOTES:
1. BLOCK CONFIGURATION VARIES ACCORDING TO PIPE SIZE.
2. GEOTEXTILE, WHEN REQUIRED, SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. FASTEN FABRIC TO CONCRETE STRUCTURE PER FDOT INDEX 281.
3. SPLASH PADS WITH ELLIPTICAL PIPE SHALL BE PAID UNDER THE CONTRACT UNIT PRICE FOR THE EQUIVALENT WIDTH OF CIRCULAR SIZE IN TABLE.

LEGEND
CMU CONCRETE MASONRY UNIT
DRA DRAINAGE RETENTION AREA
MES MITERED END SECTION
MIN MINIMUM

Marion County FLORIDA OFFICE OF THE COUNTY ENGINEER	MCBCC EFFECTIVE 10/12/2013 REVISION # NA	TYPICAL SPLASH PAD WITH DISSIPATER	7.3.1 TS 035

MARION COUNTY APPROVAL STAMP

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CERTIFICATE OF AUTHORIZATION #26756

DATE	REVISIONS

MASS GRADING PHASE 4
CALESA TOWNSHIP
MARION COUNTY, FLORIDA

DRAINAGE DETAILS

DATE 12/3/2025
DRAWN BY AS
CHKD. BY CMH
JOB NO. 25-0078

SHT. 06.01

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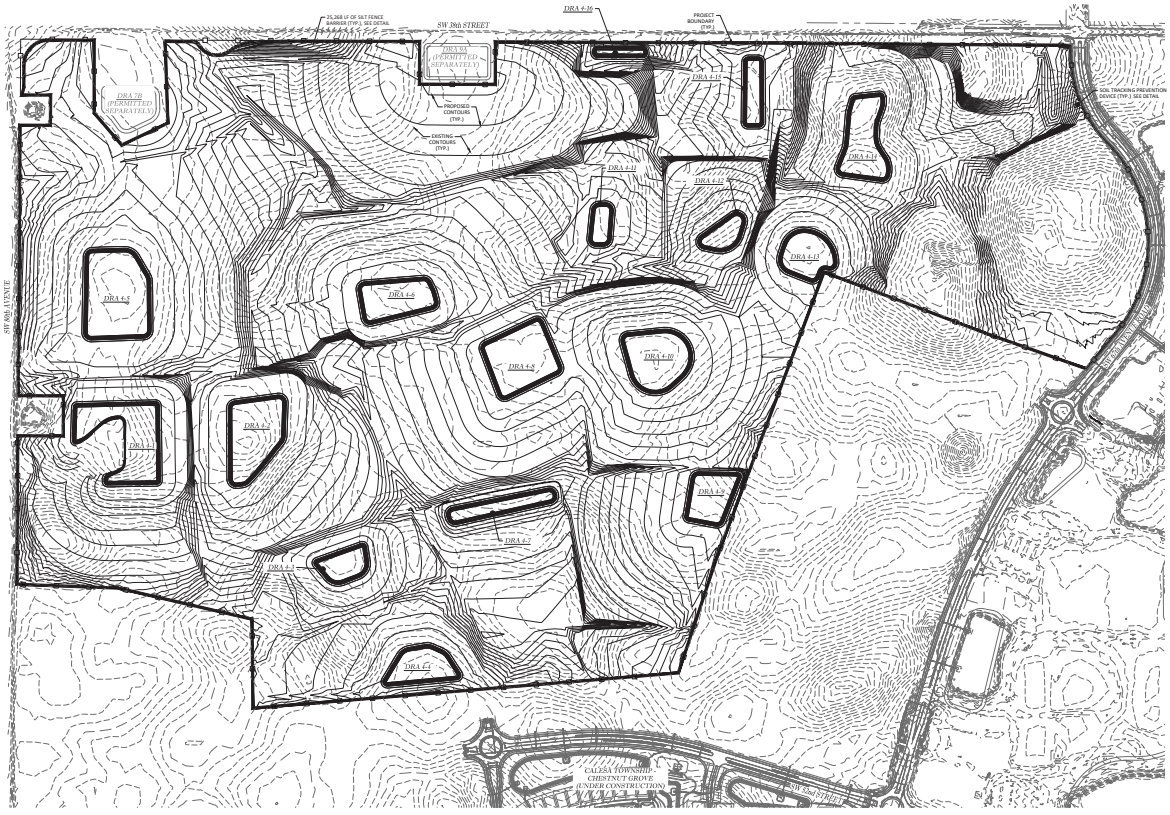

N

0 300' 600'

SCALE IN FEET
1" = 300'

EROSION CONTROL LEGEND

PROPOSED SILT FENCE

MARION COUNTY APPROVAL STAMP

GENERAL NOTES:

1. THE FOLLOWING LIST REPRESENTS A BASIC EROSION AND SEDIMENT CONTROL PROGRAM WHICH IS TO BE IMPLEMENTED TO HELP PREVENT OFF SITE SEDIMENTATION DURING AND AFTER CONSTRUCTION OF THE PROJECT.
2. TEMPORARY EROSION CONTROL TO BE UTILIZED DURING CONSTRUCTION AT AREAS DESIGNATED BY THE ENGINEER OR AREAS ON SITE WHERE UNSTABILIZED GRADES MAY CAUSE EROSION PROBLEMS. EROSION CONTROL MAY BE REMOVED AFTER UPSLOPE AREA HAS BEEN STABILIZED BY SOD, OR COMPACTED AS DETERMINED BY THE OWNER.
3. PERMANENT EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AT THE EARLIEST PRACTICAL TIME CONSISTENT WITH GOOD CONSTRUCTION PRACTICES. ONE OF THE FIRST CONSTRUCTION ACTIVITIES SHOULD BE THE PLACEMENT OF PERMANENT AND TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AROUND THE PERIMETER OF THE PROJECT OR THE INITIAL WORK AREA TO PROTECT THE PROJECT, ADJACENT PROPERTIES AND WATER RESOURCES.
4. TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE COORDINATED WITH PERMANENT MEASURES TO ASSURE ECONOMICAL, EFFECTIVE AND CONTINUOUS CONTROL THROUGHOUT THE CONSTRUCTION PHASE. TEMPORARY MEASURES SHALL NOT BE CONSTRUCTED FOR EXPEDIENCY IN LIEU OF PERMANENT MEASURES.
5. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE ADEQUATELY MAINTAINED TO PERFORM THEIR INTENDED FUNCTION DURING CONSTRUCTION OF THE PROJECT.
6. NECESSARY REPAIRS TO BARRIERS OR REPLACEMENT OF BARRIERS SHALL BE ACCOMPLISHED PROMPTLY.
7. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RAINFALL. THEY MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER.
8. MATERIAL FROM SEDIMENT TRAPS SHALL NOT BE STOCKPILED OR DISPOSED OF IN A MANNER WHICH MAKES THEM READILY SUSCEPTIBLE TO BEING WASHED INTO ANY WATERCOURSE BY RUNOFF OR HIGH WATER.
9. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE BARRIERS ARE NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.
10. SILT FENCE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKED SILT FENCE (LF).
11. ALL INLETS TO BE PROTECTED BY DETAILS AS OUTLINED IN F.D.O.T. EROSION SEDIMENT CONTROL MANUAL (LATEST EDITION).
12. CONTRACTOR MUST MAINTAIN POSITIVE DRAINAGE AT ALL TIMES DURING THE COURSE OF THE CONSTRUCTION WORK.
13. CONTRACTOR MUST COORDINATE WITH ALL OF THE RESPONSIBLE AGENCIES PERTAINING TO EROSION AND SEDIMENT CONTROL WORK AND MAKE NECESSARY CHANGES BASED ON THE AGENCY'S GUIDANCE/DIRECTION AT NO ADDITIONAL COST TO THE OWNER.
14. THE EROSION CONTROL MEASURES SHOWN ON THIS PLAN ARE, IN THE OPINION OF THE ENGINEER, THE MINIMUM THAT MAY BE REQUIRED. ACTUAL FIELD CONDITIONS MAY REQUIRE EITHER ADDITIONAL OR REDUCED EROSION CONTROL MEASURES TO BE IMPLEMENTED. THE CONTRACTOR IS DIRECTED TO FOLLOW STANDARD BEST MANAGEMENT PRACTICES IN IMPLEMENTING A SUCCESSFUL EROSION CONTROL PLAN.
15. ALL DISTURBED AREAS TO BE SODDED OR SEEDED AND MULCHED WITHIN 7 DAYS AFTER FINAL GRADING.

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REVISIONS

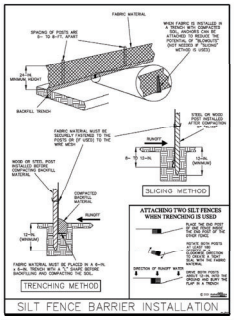
DATE

MASS GRADING PHASE 4
CALESA TOWNSHIP
MARION COUNTY, FLORIDA

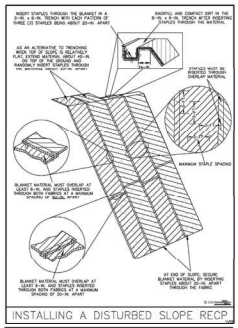
EROSION CONTROL PLAN

DATE 12/3/2025
DRAWN BY AS
CHKD. BY CMH
JOB NO. 25-0078

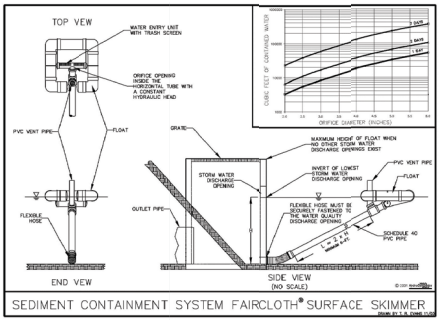
SHT 07.01



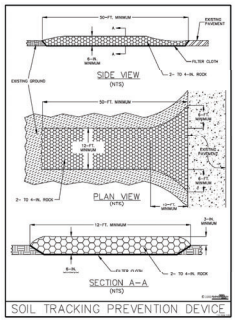
SILT FENCE BARRIER INSTALLATION



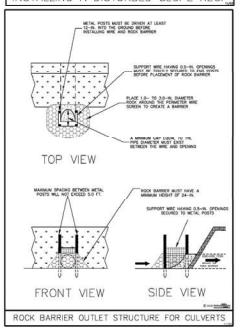
INSTALLING A DISTURBED SLOPE RECP



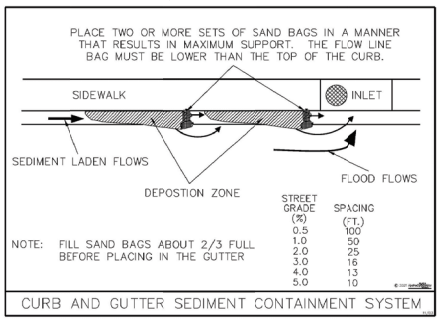
SEDIMENT CONTAINMENT SYSTEM FAIRCLOTH® SURFACE SKIMMER



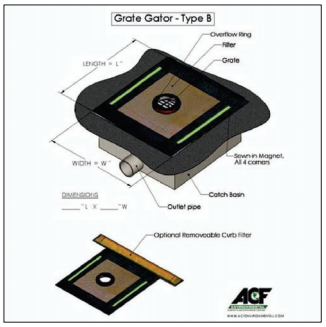
SOIL TRACKING PREVENTION DEVICE



ROCK BARRIER OUTLET STRUCTURE FOR CULVERTS



CURB AND GUTTER SEDIMENT CONTAINMENT SYSTEM



MARION COUNTY APPROVAL STAMP

Thomas & Associates
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CIVIL ENGINEERING - PLANNING - LANDSCAPE ARCHITECTURE - ENVIRONMENTAL
1703 SE 16th Ave, Bldg 100, Ocala, FL 34471
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CERTIFICATE OF AUTHORIZATION #2256

REVISIONS

DATE	DESCRIPTION

MASS GRADING PHASE 4
CALESA TOWNSHIP
MARION COUNTY, FLORIDA

EROSION CONTROL DETAILS

DATE 12/1/2025
DRAWN BY AS
CHKD. BY CMH
JOB NO. 25-0078

SHT. 08.01

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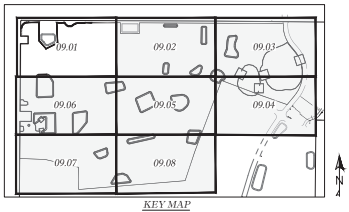
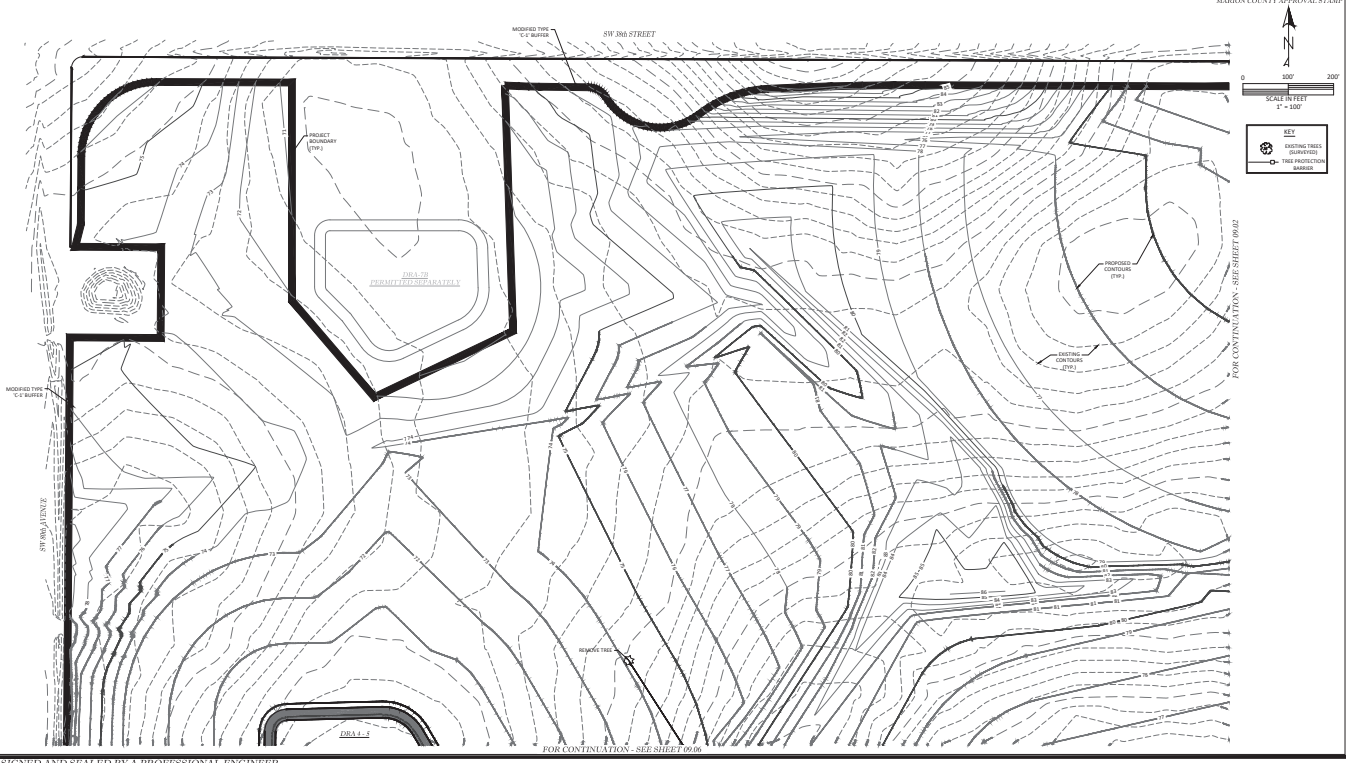


KEY MAP
1" - 120' SCALE

MARION COUNTY APPROVAL STAMP



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CERTIFICATE OF AUTHORIZATION #30797

REVISIONS

DATE

MASS GRADING PHASE 4
CALESA TOWNSHIP
MARION COUNTY, FLORIDA

TREE PRESERVATION PLAN

DATE 12/1/2025
DRAWN BY AS
CHKD. BY CMH
JOB NO. 25-0078

SHT. 09.01

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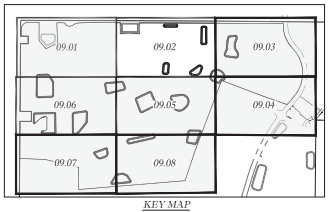
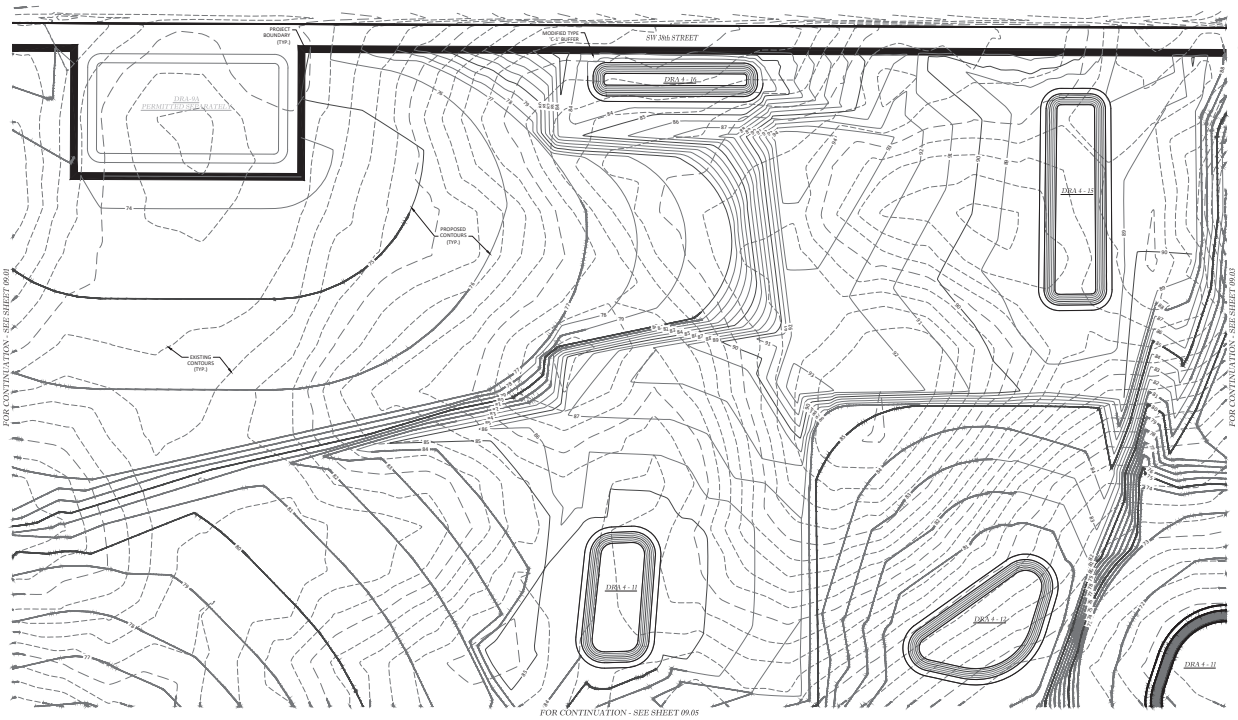
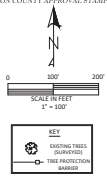


KEY MAP
1" = 1200' SCALE

MARION COUNTY APPROVAL STAMP





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CERTIFICATE OF AUTHORIZATION #28994

REVISIONS

DATE

MASS GRADING PHASE 4
CALESA TOWNSHIP
MARION COUNTY, FLORIDA

TREE PRESERVATION PLAN

DATE 12/1/2025
DRAWN BY AS
CHKD. BY CMH
JOB NO. 25-0078

SHT. 09.02

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KEY MAP
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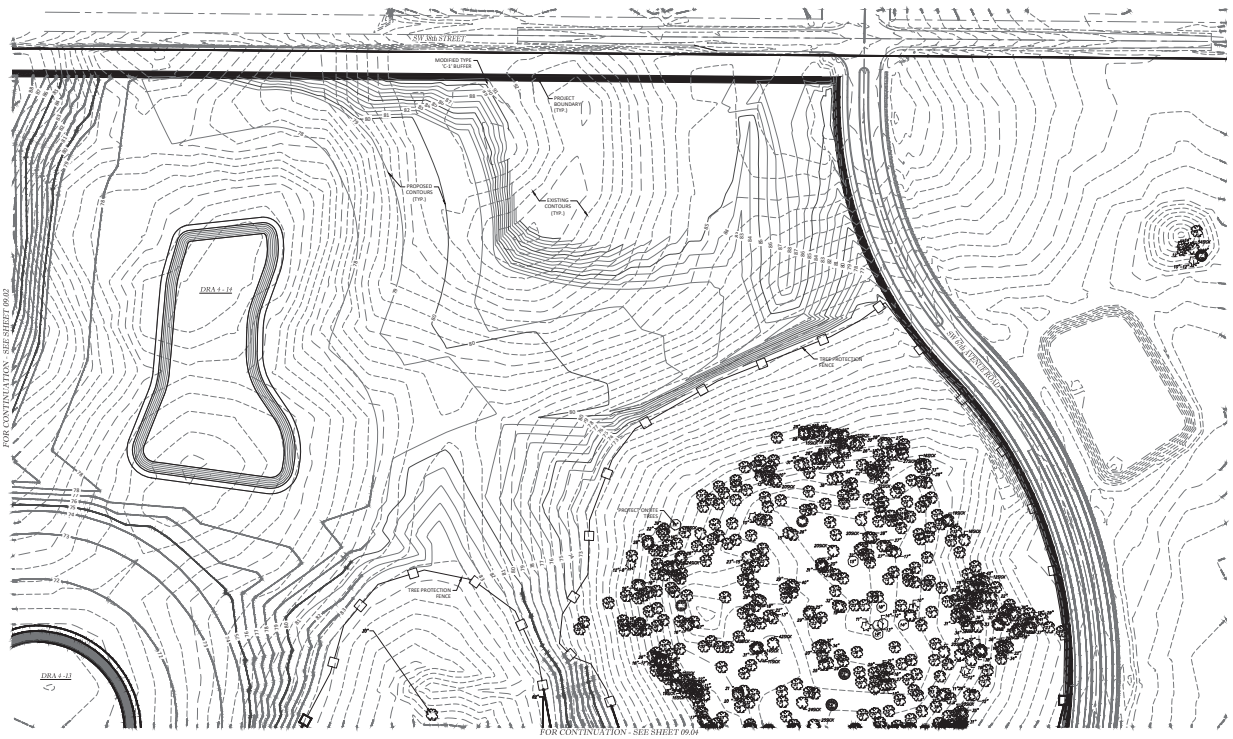
MARION COUNTY APPROVAL STAMP



N

0 100' 200'
SCALE IN FEET
1" = 100'

KEY
EXISTING TREES (SURVEYED)
TREE PROTECTION BARRIER

Tillman & Associates
ENGINEERING, LLC
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CALESA TOWNSHIP
MARION COUNTY, FLORIDA

TREE PRESERVATION PLAN

DATE 12/1/2025
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SHT. 09.03

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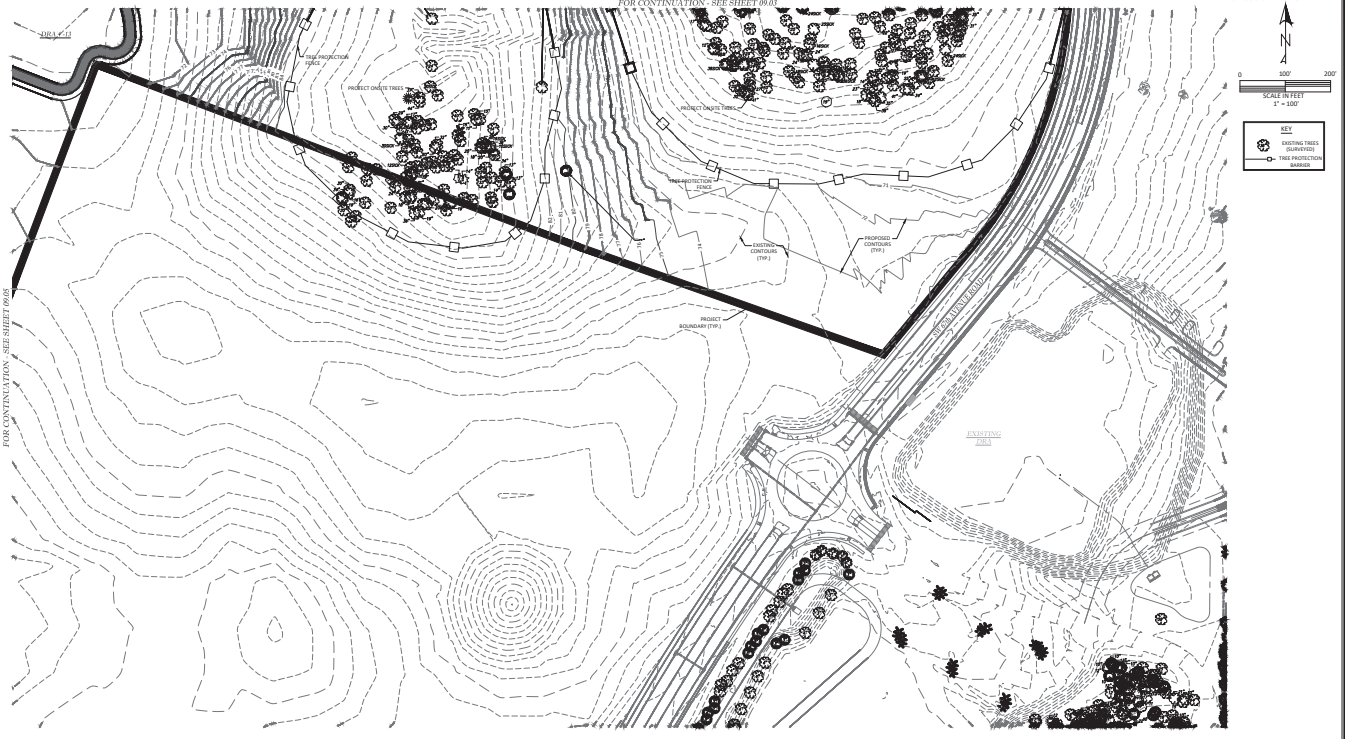
KEY MAP
1" - 1200' SCALE

FOR CONTINUATION - SEE SHEET 09.03

MARION COUNTY APPROVAL STAMP



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Tillman & Associates
ENGINEERING, LLC
CIVIL ENGINEERING - PLANNING - LANDSCAPE ARCHITECTURE - ENVIRONMENTAL
1720 SE 16th Ave. Bldg 100, Ocala, FL 34471
Office: (352) 387-4940 Fax: (352) 387-4945
CERTIFICATE OF AUTHORIZATION #28994

REVISIONS

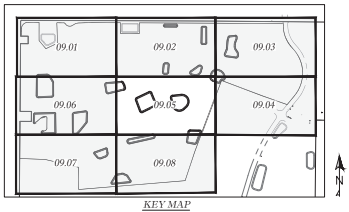
DATE

MASS GRADING PHASE 4
CALEIA TOWNSHIP
MARION COUNTY, FLORIDA

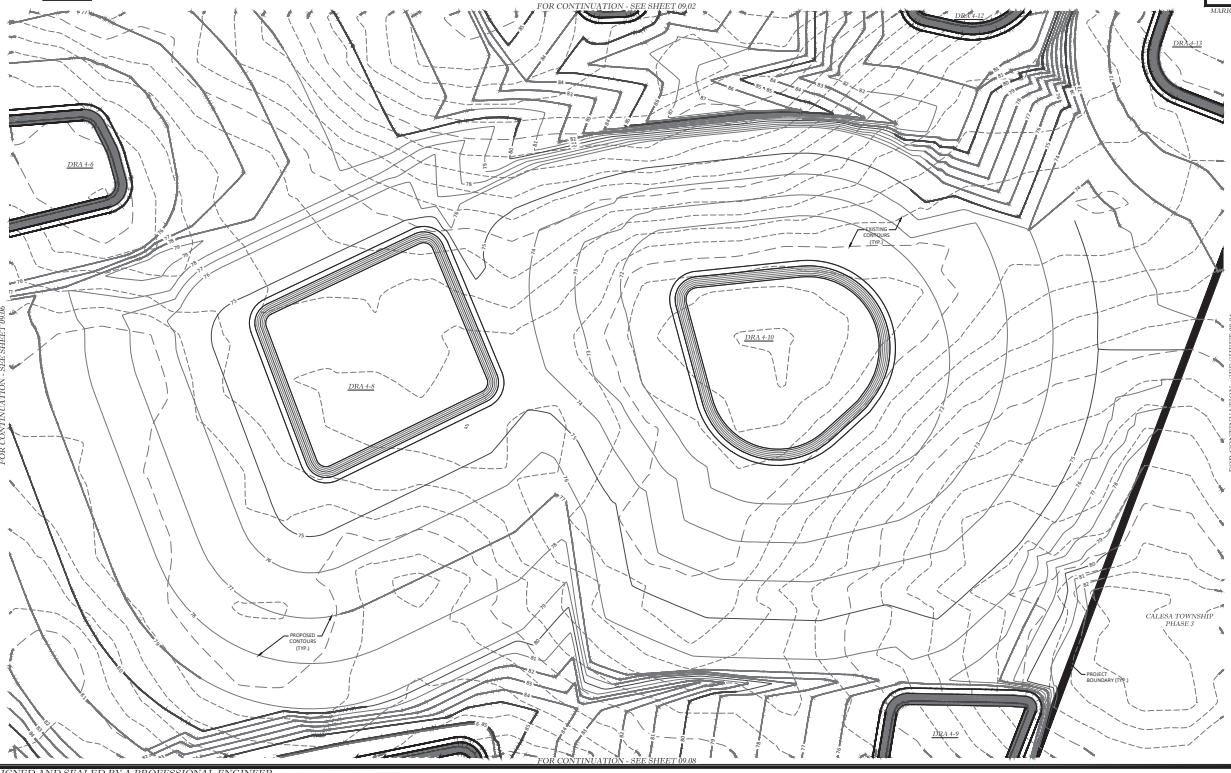
TREE PRESERVATION PLAN

DATE 12/1/2025
DRAWN BY AS
CHKD. BY CMH
JOB NO. 25-0078

SHT. 09.04



KEY MAP
1" = 1200' SCALE



MARION COUNTY APPROVAL STAMP

N

0 100' 200'
SCALE IN FEET
1" = 100'

KEY
EXISTING TREES (SURVEYED)
TREE PROTECTION BARRIER

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MASS GRADING PHASE 4
CALESA TOWNSHIP
MARION COUNTY, FLORIDA

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DATE 12/1/2025
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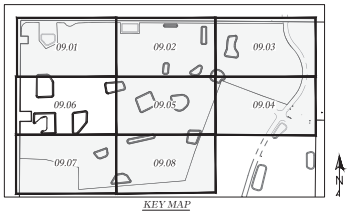

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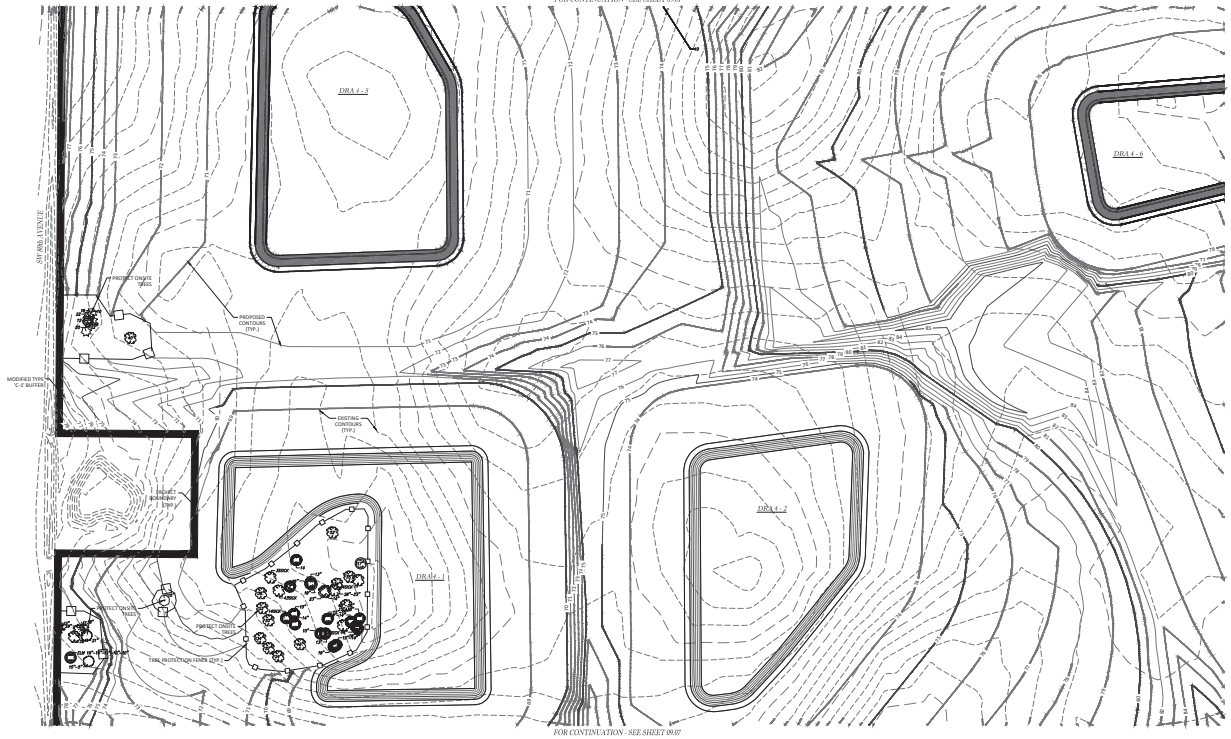

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REVISIONS
DATE

MASS GRADING PHASE 4
CALEIA TOWNSHIP
MARION COUNTY, FLORIDA

TREE PRESERVATION PLAN

DATE 12/1/2025
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SHT. 09.06

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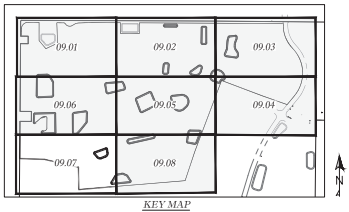

KEY MAP
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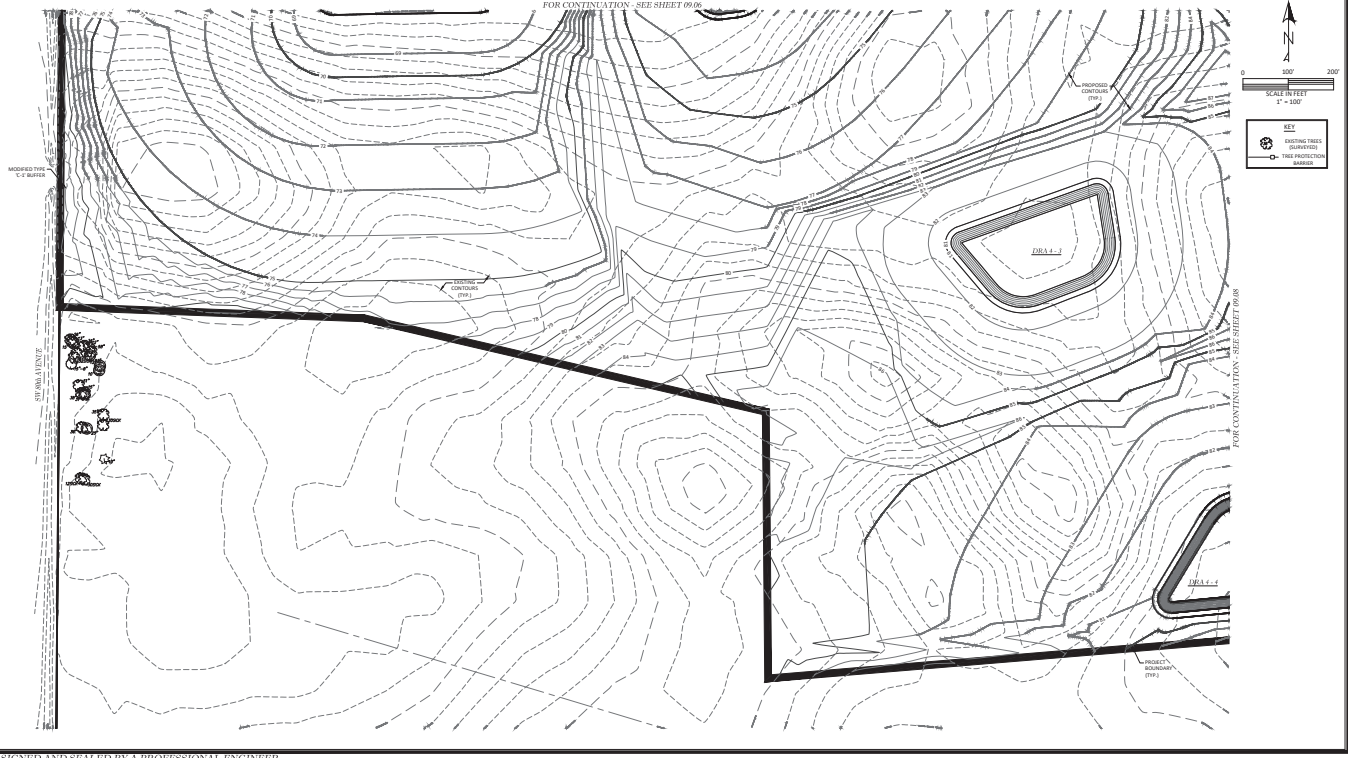

MARION COUNTY APPROVAL STAMP

Tillman & Associates
ENGINEERING, LLC
CIVIL ENGINEERING • PLANNING • LANDSCAPE ARCHITECTURE • SURVEYING/MAPPING
1720 SE 16th Ave. Bldg 100, Ocala, FL 34471
Office: (352) 387-4940 Fax: (352) 387-4945
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REVISIONS

DATE	

MASS GRADING PHASE 4
CALESA TOWNSHIP
MARION COUNTY, FLORIDA

TREE PRESERVATION PLAN

DATE 12/1/2025
DRAWN BY AS
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JOB NO. 25-0078

SHT. 09.07

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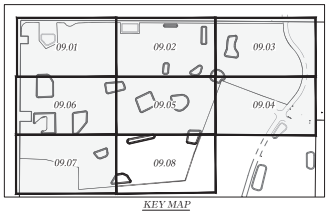
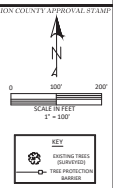


KEY MAP
1" = 1200' SCALE

FOR CONTINUATION - SEE SHEET 09.07

MARION COUNTY APPROVAL STAMP



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REVISIONS

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MASS GRADING PHASE 4
CALESA TOWNSHIP
MARION COUNTY, FLORIDA

TREE PRESERVATION PLAN

DATE 12/1/2025
DRAWN BY AS
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SHT. 09.08

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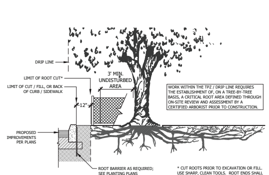
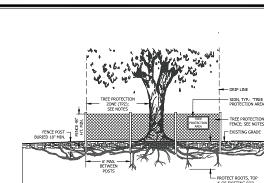


TREE ROOT PRUNING WITHIN DRIP ZONE

NOT TO SCALE



TREE PRESERVATION

TREE PROTECTION BARRICADE DETAIL

NOT TO SCALE

MARION COUNTY CODE REQUIREMENTS

TREE REMOVAL, PRESERVATION, AND/ OR REPLACEMENT INSPECTIONS/ PERMITS ARE PURSUANT TO MARION COUNTY LAND DEVELOPMENT CODE, ARTICLE 6, DIVISION 7, TREE PROTECTION AND REPLACEMENT
https://library.municode.com/fl/marion_county

TREE PRESERVATION & REMOVAL

PROJECT AREA = 540.45 ± AC
TREE PRESERVATION AREA = 33.43 AC

PROTECTED TREES SEC (SEC.6.7.3.)
ALL TREES 10" DIAMETER BREAST HEIGHT (DBH) OR LARGER ARE PROTECTED BY CODE.

EXCEPTIONS (SEC 6.7.2.E)
DOES NOT EXCLUDE PARCELS TO BE USED FOR SINGLE FAMILY DWELLINGS.

TREE AREA
PRE-DEVELOPMENT INCHES PER ACRE = 32.08" (17,339"/540.45)
RETAINED DBH INCHES =16'894"
REMOVED DBH INCHES =455"

ROOT PROTECTION NOTES:

CONTRACTOR SHALL COORDINATE WITH I.S.A. CERTIFIED ARBORIST PRIOR TO SITE CLEARING AND ROOT PRUNING.
PROTECT AND CARE FOR EXISTING TREE ROOTS TO REMAIN BY MINIMIZING DAMAGE FROM COMPACTION, EXCAVATION, AND DISEASE. WHEN WORK IS REQUIRED THAT MAY DAMAGE THE ROOTS OF TREE TO REMAIN, CUT ROOTS IN ADVANCE USING SHARP, CLEAN, MECHANICAL AND HAND TOOLS. FOR WORK WITHIN THE TREE PROTECTION ZONES, HAND CLEAR AND EXCAVATE USING NARROW-TINE SPADING FORKS TO COMB SOIL AND EXPOSE ROOTS. SELECTIVELY CUT AND PRUNE ROOTS. IMMEDIATELY FOLLOWING ROOT PRUNING, TREES SHALL BE THOROUGHLY WATERED AND HAVE A FOUR (4) INCH COVER OF CLEAN FILL.

CANOPY PROTECTION:

CONTRACTOR SHALL COORDINATE WITH I.S.A. CERTIFIED ARBORIST PRIOR TO CANOPY PRUNING.
LIFT TREE CANOPY OF EXISTING TREES TO REMAIN AS REQUIRED ALONG PROPOSED BUILDINGS, PARKING AND DRIVE AISLES, AND SIDEWALKS, ACCORDING TO INTERNATIONAL SOCIETY OF ARBORICULTURE BEST MANAGEMENT PRACTICES - TREE PRUNING. REFER TO UF IFAS FACT SHEET ENH 851 FOR ADDITIONAL TREE PRUNING CRITERIA.

TREE PROTECTION, REMOVAL, PERMITTING, AND INSPECTIONS

THE FOLLOWING REQUIREMENTS SHALL BE CONDITIONS OF TREE PROTECTION AND REMOVAL PERMITS, ALL PERMITS FOR CONSTRUCTION IN PUBLIC RIGHTS-OF-WAY, AND ALL DEVELOPMENT PERMITS ISSUED UNDER AND PURSUANT TO THE MARION COUNTY CODE:

1. TREE PRESERVATION AND/OR REPLACEMENT INSPECTIONS ARE REQUIRED TO ENSURE COMPLIANCE WITH THE MARION COUNTY CODE AND WITH PERMITTING REQUIREMENTS.
2. PRIOR TO ANY CLEARING, GRUBBING, OR ANY CONSTRUCTION, TREE PROTECTION BARRICADES SHALL BE ERECTED AROUND ALL TREES TO BE PRESERVED. PROTECTION BARRICADES SHALL BE APPROVED BY THE COUNTY'S LANDSCAPE ARCHITECT OR DESIGNEE PRIOR TO CONSTRUCTION.
3. PRIOR TO ANY CLEARING, GRUBBING, OR CONSTRUCTION, A PRELIMINARY INSPECTION SHALL BE CONDUCTED BY THE COUNTY'S LANDSCAPE ARCHITECT OR DESIGNEE TO CONFIRM THAT THE PERMITTEE HAS MARKED TREES PERMITTED TO BE REMOVED AND HAS INSTALLED TREE PROTECTION BARRICADES AROUND TREES TO BE PRESERVED. ANY DEFICIENCIES NOTED DURING THIS INSPECTION SHALL BE CAUSE TO WITHHOLD APPROVAL UNTIL THEY ARE CORRECTED BY THE PERMITTEE AND RE-INSPECTED. FOLLOWING THE PRELIMINARY INSPECTION, APPROVAL SHALL BE NOTED BY THE COUNTY'S LANDSCAPE ARCHITECT OR HIS DESIGNEE ON THE PERMIT AND SHALL CONSTITUTE NOTICE TO PROCEED WITH TREE REMOVAL.
4. CONTRACTOR SHALL HAVE ALL AGREEMENTS AND PERMITS SECURED FOR DEMOLITION AND PROTECTION ON PROJECT SITE.
5. OWNER IS RESPONSIBLE FOR INSURING THAT ALL POSSIBLE MEASURES ARE TAKEN TO AVOID DAMAGE TO TREES NOT APPROVED FOR REMOVAL.
6. TREES TO REMAIN SHALL BE PROTECTED PER THE MARION COUNTY, FLORIDA TREE PROTECTION AND REPLACEMENT SPECIFICATIONS, INCLUDING MINIMIZING ALTERATIONS TO THE SITE TOPOGRAPHY AND PROTECTING TREES FROM ANY DAMAGE TO PRESERVE THE LONG TERM VIABILITY OF EXISTING TREES.
7. THE MOVEMENT OR THE STORAGE OF EQUIPMENT, MATERIALS, DEBRIS, OR FILL, WITHIN THE TREE PROTECTION ZONE (TPZ) OR DRIP LINE OF ANY PROTECTED TREE IS PROHIBITED.
8. THE CLEANING OF CONSTRUCTION EQUIPMENT, TOOLS, MATERIALS, OR THE DISPOSAL OF WASTE, E.G. PAINT, OIL, SOLVENTS, ASPHALT, CONCRETE, MORTAR, WITHIN THE TPZ OR DRIP LINE OF ANY PROTECTED TREE IS PROHIBITED.
9. THE CONTRACTOR SHALL INSPECT ALL TREE PROTECTION BARRICADES AND SIGNS EVERY WEEK THROUGHOUT CONSTRUCTION. ANY BARRICADE OR SIGN THAT IS DAMAGED OR MISSING SHALL BE IMMEDIATELY REPLACED.
10. ANY TREE NOT PERMITTED FOR REMOVAL THAT IS DESTROYED OR DAMAGED SO AS TO PLACE ITS LONG TERM SURVIVAL IN QUESTION, SHALL BE REPLACED AT AN INCH-TO-INCH BASIS OF THE TOTAL (COMBINED) DBH OF THE TREE(S) SO DESTROYED OR DAMAGED. THE REPLACEMENT TREES SHALL BE OF COMPARABLE SPECIES TO THE DESTROYED OR DAMAGED TREES WITH A MINIMUM REPLACEMENT SIZE OF 3.5-INCH CALIPER. THE COUNTY RESERVES THE RIGHT TO ESTABLISH A REPLACEMENT VALUE FOR SUCH TREES AND PAYMENT INTO THE TREE MITIGATION FUND MAY BE AUTHORIZED BY THE COUNTY'S LANDSCAPE ARCHITECT.
11. NO CERTIFICATE OF OCCUPANCY OR CERTIFICATE OF COMPLETION, AS APPROPRIATE, MAY BE ISSUED FOR ANY DEVELOPMENT INVOLVING THE REMOVAL OF TREES REQUIRING A PERMIT, UNTIL ALL REQUIRED INSPECTIONS HAVE BEEN COMPLETED AND APPROVED.
12. A FINAL INSPECTION SHALL BE CONDUCTED BY THE COUNTY'S LANDSCAPE ARCHITECT OR DESIGNEE AFTER COMPLETION OF TREE REMOVAL AND REPLACEMENT. FOLLOWING FINAL INSPECTION, AND IF FOUND TO BE IN ACCORDANCE WITH THE APPROVED PLANS AND REQUIREMENTS, APPROVAL SHALL BE NOTED BY THE COUNTY'S LANDSCAPE ARCHITECT OR DESIGNEE ON THE PERMIT AND SHALL CONSTITUTE NOTICE OF COMMENCEMENT OF THE REQUIRED MAINTENANCE PERIOD OF REPLACEMENT TREES IF REPLACEMENT IS REQUIRED.

TREE PROTECTION BARRICADE NOTES:

1. BARRICADES SHALL BE CONSTRUCTED OF A RIGID AND LASTING MATERIAL THAT SHALL REMAIN WHOLE THROUGHOUT THE DURATION OF CONSTRUCTION.
2. BARRICADE AREAS MAY BE INCREASED IN SIZE OR COMBINED FOR MULTIPLE TREES, SO LONG AS BARRICADES DO NOT ENCROACH INTO THE TREE CANOPY DRIP LINE.
3. DAMAGED OR MISSING BARRICADES OR SIGNS SHALL BE IMMEDIATELY REPAIRED OR REPLACED.
4. BARRICADES SHALL REMAIN INTACT UNTIL LANDSCAPE OPERATIONS BEGIN, OR WHEN CONSTRUCTION HAS BEEN FINALIZED, AND WITH APPROVAL OF LANDSCAPE ARCHITECT.
5. LANDSCAPE PREPARATION OR INSTALLATION SHALL BE PERFORMED BY HAND WITHIN THE TREE PROTECTION ZONE (TPZ), DRIP LINE OF ANY TREE TO REMAIN, OR WITHIN A BARRICADE AREA.
6. TRENCHING IS PROHIBITED WITHIN THE TREE PROTECTION ZONE (TPZ), DRIP LINE OF ANY TREE TO REMAIN, OR WITHIN A BARRICADE AREA. TUNNELING IS REQUIRED IF UTILITIES ARE ROUTED THROUGH THESE AREAS.
7. THE MOVEMENT OR THE STORAGE OF EQUIPMENT, MATERIALS, DEBRIS, OR FILL, WITHIN THE TREE PROTECTION ZONE (TPZ), DRIP LINE OF ANY TREE TO REMAIN, OR WITHIN A BARRICADE AREA IS PROHIBITED.
8. THE CLEANING OF CONSTRUCTION EQUIPMENT, TOOLS, MATERIALS, OR THE DISPOSAL OF WASTE, E.G. PAINT, OIL, SOLVENTS, ASPHALT, CONCRETE, MORTAR, WITHIN THE TREE PROTECTION ZONE (TPZ), DRIP LINE OF ANY TREE TO REMAIN, OR WITHIN A BARRICADE AREA IS PROHIBITED.
9. TREE PROTECTION ZONE: A CIRCULAR ZONE AROUND EACH PROTECTED TREE DEFINED AS FOLLOWS:
   a. IF THE DRIP LINE IS LESS THAN SIX (6) FEET FROM THE TRUNK OF THE TREE, THE ZONE SHALL BE THAT AREA WITHIN A MINIMUM RADIUS OF SIX (6) FEET AROUND THE TREE.
   b. IF THE DRIP LINE IS MORE THAN SIX (6) FEET FROM THE TRUNK OF THE TREE, BUT LESS THAN TWENTY (20) FEET, THE ZONE SHALL BE THAT AREA WITHIN A RADIUS OF THE FULL DRIP LINE AROUND THE TREE.
   c. IF THE DRIP LINE IS TWENTY (20) FEET OR MORE FROM THE TRUNK OF THE TREE, THE ZONE SHALL BE THAT AREA WITHIN A MINIMUM RADIUS OF TWENTY (20) FEET AROUND THE TREE.

TREE ID	TYPE	DBH
1824	IRON	10
1825	IRON	16
1826	IRON	20
1827	IRON	22
1828	IRON	12
1829	IRON	22
1830	IRON	16
1831	OA	40
1859	OA	52
1861	CH	14
5003	OA	40
5004	OA	28
5005	OA	18
5006	OA	22
5007	OA	23
5008	OA	16
5009	OA	26
5010	OA	22
5011	OA	24
5012	OA	17
5013	OA	27
5014	OA	23
5015	OA	14
5016	OA	36
5017	OA	18
5018	OA	19
5019	IRON	12–8
5020	OA	16
5021	OA	12
5022	CAMF	CAMF
5024	OA	20
5025	OA	21
5026	OA	25
5027	OA	21
5028	OA	27
5029	OA	16
5030	OA	13
5031	OA	21
5032	OA	20
5033	OA	23
5034	OA	28
5035	OA	29
5037	OA	28
5038	OA	37
5039	OA	23
5040	OA	24
5041	OA	28
5042	OA	28
5043	OA	32
5044	OA	27
5045	OA	33
5046	OA	11
5047	OA	16
5048	OA	39
5049	OA	22
5051	OA	25
5052	OA	28
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5054	OA	34
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5056	OA	19
5057	OA	29
5058	OA	25

5059	OA	23–15
5060	OA	24
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5065	OA	28
5066	OA	26
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5073	OA	44
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5089	OA	33
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5119	OA	32
5120	OA	14
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5125	OA	12
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5134	OA	41
5135	OA	36
5136	OA	27
5137	OA	26
5138	OA	29
5139	MALB	MALB
5140	OA	26
5141	OA	15
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5309	OA	22
5310	OA	22
5311	OA	26
5312	OA	34
5313	OA	15–20
5314	OA	36
5315	OA	16

5316	OA	12
5317	CHE	12
5318	IRON	12
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5377	OA	20
5378	OA	31
5379	OA	24
5380	OA	31
5382	IRON	11
5383	MALB	13

5384	MALB	18
5385	MALB	14
5386	MALB	14–12
5387	OA	38
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12044	CH	13
12045	CH	10
12046	CH	12–10

MARION COUNTY APPROVAL STAMP

Tillman & Associates
ENGINEERING, LLC.
CIVIL ENGINEERING - PLANNING - LANDSCAPE ARCHITECTURE - ENVIRONMENTAL
1720 SE 16th Ave. Bldg 100, Ocala, FL 34471
Office: (352) 387-4540 Fax: (352) 387-4545
CERTIFICATION OF AUTHORIZATION #26756

REVISIONS

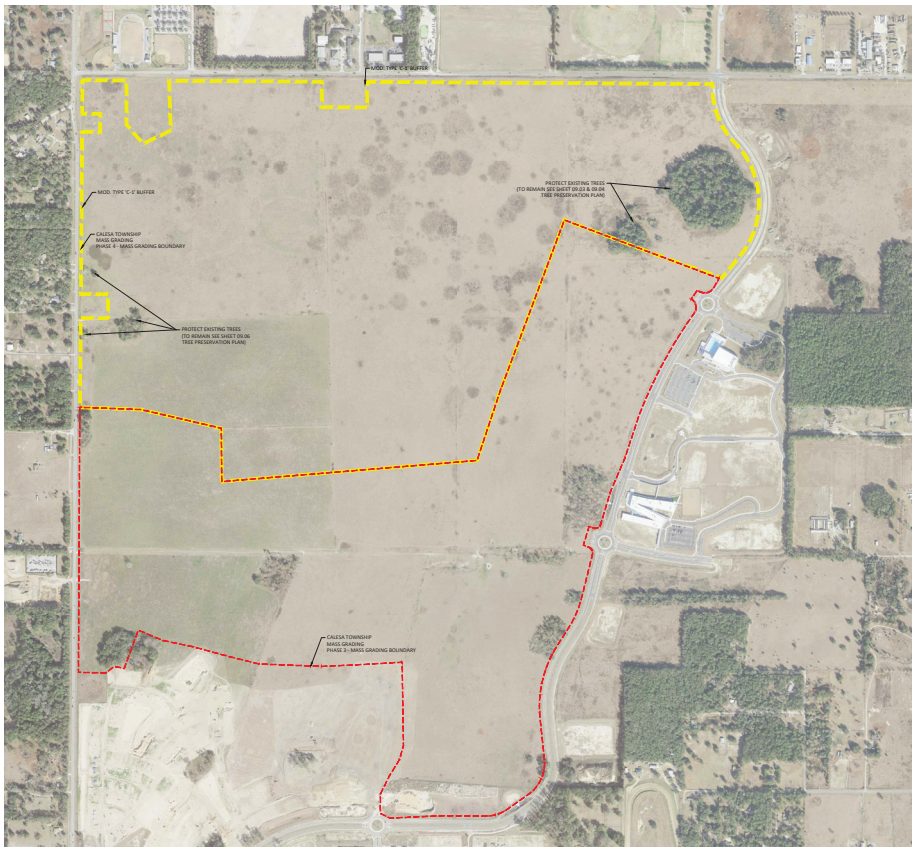
DATE

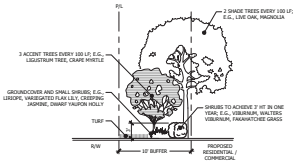
MASS GRADING PHASE 4
CALESA TOWNSHIP
MARION COUNTY, FLORIDA

TREE PRESERVATION NOTES & DETAILS

DATE 12/3/2025
DRAWN BY AS
CHKD. BY CMH
JOB NO. 25-0078

NOT VALID UNLESS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER





MODIFIED TYPE 'C-1' BUFFER DETAIL

NOT TO SCALE

MODIFIED TYPE C-1 BUFFER:
BUFFER SHALL CONSIST OF A 10-FOOT WIDE LANDSCAPE STRIP WITHOUT A BUFFER WALL. THE BUFFER SHALL CONTAIN SHADE AND ORNAMENTAL TREES IN A MANNER COMPARABLE WITH SIMILAR EXISTING TREES IN THE ADJACENT NATURAL AREA. SHRUBS, GROUNDCOVER, AND TURF, EXCLUSIVE OF TURF AREAS EXCLUDING TURFGRASS, SHALL COMPRISE AT LEAST 50 PERCENT OF THE REQUIRED BUFFER AND FROM A LAYERED LANDSCAPE SCREEN WITH A MINIMUM HEIGHT OF THREE FEET ACHIEVED WITHIN ONE YEAR.

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Tillman & Associates ENGINEERING, LLC
CIVIL ENGINEERING • PLANNING • LANDSCAPE ARCHITECTURE • ENVIRONMENTAL
1720 SE 16th Ave. Bldg 100, Ocala, FL 34471
Office: (352) 387-4940 Fax: (352) 387-4945
CERTIFICATE OF AUTHORIZATION #28867

REVISIONS

DATE

MASS GRADING PHASE 4
CALESA TOWNSHIP
MARION COUNTY, FLORIDA

TREE PRESERVATION BOUNDARY & BUFFER PLAN

DATE 12/1/2025
DRAWN BY AS
CHKD. BY CMH
JOB NO. 25-0078

SHT. 09.10

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MARION COUNTY APPROVAL STAMP

Tillman & Associates
ENGINEERING, LLC
CIVIL ENGINEERING • PLANNING • LANDSCAPE ARCHITECTURE • ENVIRONMENTAL
1720 SE 16th Ave. Bldg 100, Ocala, FL 34471
Office: (352) 387-3772 Fax: (352) 387-3945
CERTIFICATION OF AUTHORIZATION # 26796

REVISIONS

DATE

MASS GRADING PHASE 4
CALESA TOWNSHIP
MARION COUNTY, FLORIDA

BORING LOGS

DATE 12/1/2025
DRAWN BY AS
CHKD. BY CMH
JOB NO. 25-0078

SHT. BL.01

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MARION COUNTY APPROVAL STAMP

Tillman & Associates
ENGINEERING, LLC
CIVIL ENGINEERING · PLANNING · LANDSCAPE ARCHITECTURE · ENVIRONMENTAL
1720 SE 16th Ave, Bldg 100, Ocala, FL 34471
Office: (352) 387-3772 Fax: (352) 387-3945
CERTIFICATION OF AUTHORIZATION # 28796

REVISIONS

DATE

MASS GRADING PHASE 4
CALESA TOWNSHIP
MARION COUNTY, FLORIDA

BORING LOGS

DATE 12/1/2025
DRAWN BY AS
CHKD. BY CMH
JOB NO. 25-0078

SHT. BL.02

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MARION COUNTY APPROVAL STAMP

Tillman & Associates
ENGINEERING, LLC
CIVIL ENGINEERING · PLANNING · LANDSCAPE ARCHITECTURE · ENVIRONMENTAL
1720 SE 16th Ave. Bldg 100, Ocala, FL 34471
OFFICE (352) 387-3772 FAX (352) 873-7945
CERTIFICATION OF AUTHORIZATION # 26796

REVISIONS

DATE	

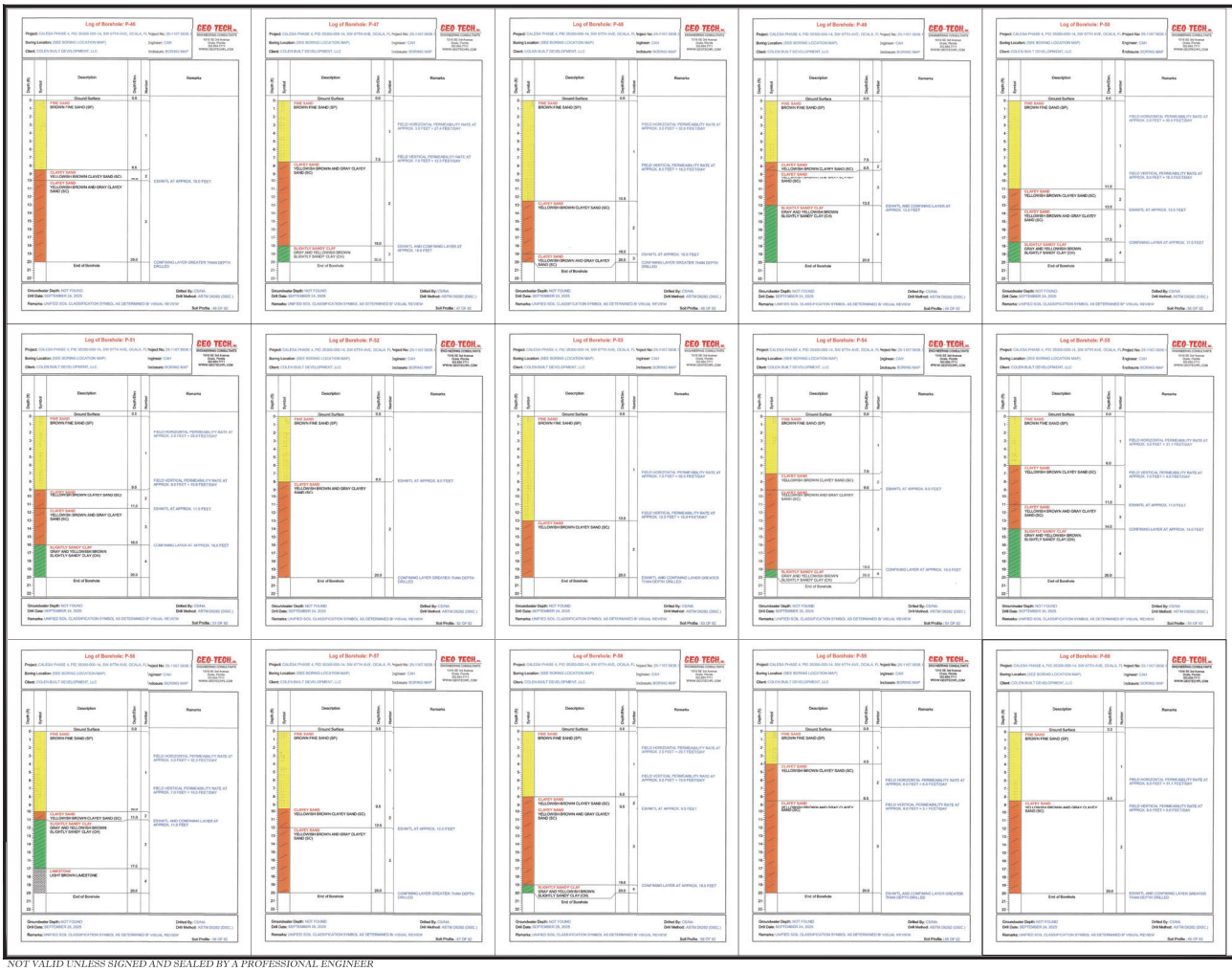
MASS GRADING PHASE 4
CALESA TOWNSHIP
MARION COUNTY, FLORIDA

BORING LOGS

DATE 12/1/2025
DRAWN BY AS
CHKD. BY CMH
JOB NO. 25-0078

SHT. BL.03

NOT VALID UNLESS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER



MARION COUNTY APPROVAL STAMP

Tillman & Associates
ENGINEERING, LLC
CIVIL ENGINEERING · PLANNING · LANDSCAPE ARCHITECTURE · ENVIRONMENTAL
1720 SE 16th Ave. Bldg 100, Ocala, FL 34471
Office: (352) 387-3772 Fax: (352) 387-3945
CERTIFICATION OF AUTHORIZATION # 29796

REVISIONS

DATE	

MASS GRADING PHASE 4
CALESA TOWNSHIP
MARION COUNTY, FLORIDA

BORING LOGS

DATE 12/1/2025
DRAWN BY AS
CHKD. BY CMH
JOB NO. 25-0078

SHT. BL.04

NOT VALID UNLESS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER

February 13, 2026

Marion County Office of the County Engineer
412 SE 25th Ave.
Ocala, FL 34471

Response Letter to Marion County Comments
SW HWY 484 Super Center C-Store
NW Corner of SW Hwy 484 and SW 57th Ave Rd in Ocala, FL 34473.

To Whom It May Concern:

Please see responses to each comment in red below:

2.12.4.L(9)(b) - Data Block (Impervious Area)	Please provide data block on the cover sheet detailing the existing and proposed impervious & pervious area in SF, ac, and %. Please include any offsite drainage to your site in the data block.	NO	ENGDRN	Existing and Proposed Impervious included on Cover Page
2.12.8 - Topographical Contours	Please submit a survey for review.	NO	ENGDRN	Survey has been submitted for review
2.12.9/10 - Existing Drainage Right-of-Way/Easements	Please submit a survey for review.	NO	ENGDRN	Survey has been submitted for review
2.12.9/10 - Proposed Drainage Right-of-Way/Easements	(1) Proposed improvement plan appears to rely on a plat to establish outparcels. Please clarify that a preliminary and final plat will be submitted. (2) Appropriate drainage easements/ROW shall be included on the final plat.	NO	ENGDRN	Final Plat to establish outparcels to be handled by Master Plan AR33171.
2.12.20 - Stormwater Infrastructure Supports Phasing	Stormwater improvements must be in place to support each phase of development at time of phase completion.	INFO	ENGDRN	Acknowledged
2.12.38 - Stormwater Maintenance Entity	AE	NO	ENGDRN	Owner certification line included on Cover. To be signed by Sunbiz verified agent before approval.
6.13.2 A(1)/(2) - Contributing Basins/Tc	See comment under "6.13.2.B(4) - Hydrologic Analysis"	NO	ENGDRN	
6.13.2.B(1)/(2) - Runoff Analysis/ Tc Calculations	See comment under "6.13.2.B(4) - Hydrologic Analysis"	NO	ENGDRN	
6.13.4 - Stormwater Quantity Criteria	See comment under "6.13.2.B(4) - Hydrologic Analysis"	NO	ENGDRN	

6.13.2.B(4) - Hydrologic Analysis	Please submit a signed and sealed drainage memo documenting curve number compliance with the proposed site plan design for AR 33171. Memo also needs to include conveyance system calculations that justify the size of onsite pipes and consider the tailwater condition of the downstream conveyance system being designed with AR 33171. Conveyance system calculations need to utilize the rainfall intensity and tailwater conditions as required by LDC section 6.13.8	NO	ENGDRN	Signed Drainage Memo Included in resubmittal.
6.13.6.C - Best Management Practices	The proposed use requires the installation of an oil/water separator on the stormwater system. Drainage from the pump canopy areas need to be routed through the oil/water separator. These oil/water separators are in addition to any oil/water separators than that may be required by utilities for the retail building. Please indicate the installation locations of the stormwater oil/water separators on the grading/drainage plan. Please also include the details of the units in the plan set. If you need examples of oil/water separators please contact the reviewer.	NO	ENGDRN	Separator included on plans from Canopy drain. Detail to be included on details sheet in next resubmittal.
6.13.2.A(9) - Access Accommodates Stormwater	CPH responsible for coordinating connection point grading with engineering designing AR 33171.	INFO	ENGDRN	Grading connection should be coordinated with latest resubmittal
6.13.8.B(7) - Minimum Pipe Size	LDC requires conveyance pipes to be a minimum of 18" diameter or equivalent. Reduction in pipe size to 15" for conveyance and 12" for yard drains may be supported with corroborating calculations; applicants can request a waiver.	NO	ENGDRN	Roof drain pipe size has no minimum, current 8" proposed. 18” RCP for all conveyance.
6.13.2.A(6) - Existing/Proposed Stormwater Pipes	Please label all proposed pipes with sizes and materials.	NO	ENGDRN	All pipes should now be labeled with size and material.
6.13.9 - Grading Criteria	CPH responsible for coordinating connection point grading with engineering designing AR 33171.	INFO	ENGDRN	Grading connection should be coordinated with latest resubmittal
6.13.2.B(8) - Calculation & Plan Consistency	This criteria to be reviewed with resubmittal.	INFO	ENGDRN	Acknowledged
6.13.10.B - Copy of NPDES Permit or NOI	Please provide a copy of the NPDES permit or NOI prior to construction.	INFO	ENGDRN	Acknowledged
Copy of District Permit (County Interest)	Please provide a copy of the District permit prior to construction.	INFO	ENGDRN	Acknowledged

7.1.3 - Drainage Construction Specifications	(1) LDC requires the use of RCP pipe for stormwater conveyance piping. To pursue using an alternative material, the engineer needs to submit a request letter identifying the alternative material type requested, explanation for why alternative pipe material is being requested, and providing documentation of compliance with the following conditions: 1. Pipe service life shall be equal to or greater than 100 years. 2. Pipe diameter for High Density Polyethylene (HDPE) and Polypropylene shall be 48â€ maximum. 3. Polyvinyl Chloride (PVC), HDPE, and Polypropylene pipe shall not be installed exposed to direct sunlight. 4. Steel pipe shall only be listed as an option after consideration of all other pipe materials and justification is provided. 5. Justification for steel pipe shall include, but not be limited to data and values of water levels, soil conditions, resistivity, pH, chlorides and sulfates. 6. Pipe shall not be installed outside of the allowable maximum and minimum cover heights as specified by the manufacturer. (2) Please add the following note to the cover page: "No change to the work as shown on the approved plans shall be made without notification to and approval by the office of the County Engineer."	NO	ENGDRN	Roof drain pipes not included for RCP requirement. All conveyance pipes are 18” RCP min.
6.13.12 - Operation and Maintenance	Please provide an O&M manual detailing the steps for operating and maintaining the onsite drainage system, including oil/water separator. An owner's certification is required on the O&M manual. Certification to state â€œI hereby certify that I, my successor, and assigns shall perpetually operate and maintain the stormwater management and associated elements in accordance with the specifications shown herein and on the approved plan.â€ The individual signing the certification needs to be an agent or member of the entity that will own and maintain the stormwater system, or an authorized signatory of that entity. If signatory is not an agent or member, a letter authorizing a different individual needs to be submitted with the signed documents. The authorization letter must be signed by and agent/officer of owner. Please have the person signing also print their name for verification.	NO	ENGDRN	O&M Plan awaiting signatures and will be included when received.

	Sunbiz will be used to verify agents and/or officers. Please contact reviewer if you need examples of O&M manuals accepted in the past.			
Please provide a final signed and sealed hard copy signature page with references to the stormwater analysis or final hard copy of the full stormwater analysis.	After all stormwater comments are resolved, please upload a digitally signed and sealed report. A hard copy signed and sealed report can be submitted if desired.	NO	ENGDRN	S&S report to be included when other stormwater comments have been resolved.
Additional Stormwater comments	If you have questions or would like to discuss the stormwater review comments, please contact Kevin Vickers, PE at 352-671-8695 or kevin.vickers@marionfl.org. (2) Approval of this project will not occur until the AR 33171 parent project is approved.	INFO	ENGDRN	Acknowledged
6.11.5 - Driveway access	8/28/25 - Full-access driveway shown east of the C-Store and connecting to the northern drive aisle is too close to the intersection and should be eliminated. Cars essentially making a U-Turn at that location are at risk of conflict with vehicles approaching the exit and entering the drive aisle. Queue stacking is also likely.	NO	ENGTRF	Access driveway has been adjusted via coordination with County Engineer. New layout being submitted with latest set.
6.11.9.B - Traffic signs	8/28/25 - 1) Sheet C1.2: Yield sign south side of C-Store exit-only driveway should be changed to stop sign due to pedestrian crosswalk on that side of the roadway. 2) Sheet C1.2: Add "Do Not Enter" sign on south side of C-Store exit-only driveway.	NO	ENGTRF	Yield sign changed to Stop sign on C1.2.
6.12.11 - Turn lanes	8/28/25 - Per project-related Developer's Agreement(s), the following are required to have been substantially completed prior to Issuance of Certificate of Occupancy: 1) INT 2 - Extend WB right turn lane to 200'. 2) INT 2 - Construct SB left turn lane of 360'. 3) RD 2 - WB right turn lane of 200'.	INFO	ENGTRF	Turn lane done by Master Development AR 33171. This project does not propose any roadway improvements.

Additional Traffic comments	8/28/25 - Per project-related Developer's Agreement(s), the following are required to have been substantially completed prior to Issuance of Certificate of Occupancy: INT 2 - Construct median to allow for dual SB left turn lanes in future and shared thru right.	INFO	ENGTRF	Turn lane done by Master Development AR 33171. This project does not propose any roadway improvements.
2.12.3 - Title block on all sheets denoting type of application; project name, location, county, and state; and date of original and all revisions	8/22/25-Missing Title block on ALL sheets denoting type of application; (Major Site Plan)	NO	ENGIN	"Major Site Plan" included on all sheets title block.
2.12.4.A - Type of application on front page	8/22/25-Missing Application (Major Site Plan)	NO	ENGIN	Cover sheet includes "Major Site Plan".
2.12.4.C - Name, address, phone number, and signature of owner and applicant on front sheet	8/22/25-Missing Name, address, phone number, and signature of owner	NO	ENGIN	Owner Name, address, number and signature line included on C0.1. To be signed before final approval
2.12.4.D - Owner's certification on front sheet: I hereby certify that I, my successors, and assigns shall perpetually maintain the improvements as shown on this plan	8/22/25-Missing Owner's certification	NO	ENGIN	Certification included on C0.1. To be signed before final approval.
2.12.4.F(1) - Licensed Design Professional Certification: I hereby certify that these plans and calculations were completed in accordance with all applicable requirements of the Marion County Land Development Code, except as waived.	8/22/25-Missing Licensed Design Professional Certification:	NO	ENGIN	Engineer's certification included on C0.1. Does Engineer Seal on plans count for signature here?
2.12.4.H - A portrait oriented minimal 3 inches x 5 inches space, located 2.75 inches from the right edge of paper and .75 inches from the top edge of paper, shall remain blank to allow for a County approval stamp	8/22/25-not found and no room alotted	NO	ENGIN	County approval stamp space included on C0.1

2.12.4.K - List of approved waivers, their conditions, and the date of approval	8/22/25-add waivers if requested in future	INFO	ENGIN	Recently requested Landscape Waiver to be included on Cover Sheet in future submittals.
Additional Development Review Comments	After approval, plans will be electronically stamped by the County. The applicant will receive an email indicating that approved plans are available for download and are located in the ePlans project Approved folder. For Development Review submittals, with the exception of Final Plats and Minor Site Plans, applicants are required to print, obtain required signatures, and sign and seal two 24â€ x 36â€ sets of the electronically stamped approved plan and deliver them to the Office of County Engineer, Development Review Section, located at 412 SE 25th Avenue Ocala, FL 34471. Upon receipt, a development order will be issued. Until such time as that development order is issued, the project does not have final approval and construction, if applicable, shall not commence. For plans requiring As-Builts, As-Builts and associated documentation shall be submitted on paper in accordance with current county requirements.	INFO	ENGIN	Acknowledged
Marion County Utilities Contact Information	C1.1 - Sewer and water reads PACE WATER SYSTEMS. Replace all notes with Marion County Utilities and LDC requirements. (2) Remove Carrie Hyde and list Customer Service. (3) The phone number ends with 6000	NO	UTIL	Utility Contacts updated on C0.1
Parcel numbers identified in project match proposed site plan layout	C1.1 Note on cover that this project is for a Portion of ID: 41200-056-	NO	UTIL	Noted on C0.1
6.14.2.A - Water Connection Requirements	C1.4 - Include size of water main at the connection point. L1.0 infrastructure by others, should be grey to delineate what is being constructed on this plan. L1.0 and C1.4 Need to call out Fire Hydrant.	NO	UTIL	Fire Hydrant called out on L1.0 and C1.4. Size at connection included. L1.0 updated to delineate improvements by others.
6.14.2.A - Sewer Connection Requirements	C1.4 - Move sewer clean out, outside of pavement. (2) No connection to manholes.	NO	UTIL	Clean out no longer in pavement. No connections to manholes included. See C1.4
6.14.2.C.2(e) - Grease Trap, FOG Worksheet	C1.4 Does this project need a grease trap? Will there be food prep or food served?	NO	UTIL	No grease trap needed. No food prep in C-store.
6.14.4 - Water (potable) Capital Charges and Flow Rates - proposed	Capital charges and flow rates will be calculated during the permitting stage, before approval.	INFO	UTIL	Acknowledged

use identified to calculate				
6.14.4 - Water (irrigation) Capital Charges and Flow Rates - total irrigated area identified	Capital charges and flow rates will be calculated during the permitting stage, before approval.	INFO	UTIL	Acknowledged
6.14.4 - Sewer Capital Charges and Flow Rates - proposed use identified to calculate	Capital charges and flow rates will be calculated during the permitting stage, before approval.	INFO	UTIL	Acknowledged
6.14.5.A(8) - Submittal Requirements - Connection to existing sanitary system	No connection to manholes	NO	UTIL	Stub connection no longer going to manhole. Updated on C1.4
6.14.5.B - Construction Notes - UT DETAILS - current LDC version	C5.4 What is UT 202 for?	NO	UTIL	UT 202 Unnecessary and will be removed.
6.14.5.C - All issued permits related to this project shall be submitted to MCU (DOT, ROW, misc)	Copies of all related permit applications and issued permits shall be submitted to the Development Reviewer for Marion County Utilities Department at or before the Pre-Construction meeting.	INFO	UTIL	Acknowledged
6.14.5.D - Hydraulic Analysis	The Hydraulic Analysis has not been provided for this site. (LDC 6.14.5.C)	INFO	UTIL	Utility Calculations done by Master Development that include fuel station included with latest resubmitted.
6.14.7 - Construction Inspection - PLAN NOTE:	MCU personnel are to inspect any work performed on or around existing MCU infrastructure. A pre-construction meeting is required to be held a minimum of 48 hours prior to start of any construction. If the pre-construction meeting is not completed, any work may be halted. To schedule, contact MCU's Construction Division, 352) 307-6000, ext. 5 or MCUconstruction@marionfl.org	INFO	UTIL	Included on C1.4 Utility Notes
6.14.8.A - Completion and Closeout - PLAN NOTE: As-builts	For any Utility assets between the water main and the meter, Marion County will require a Bill of Sale and As-builts of the service, prior to meter(s) being installed. A final hold has been placed on permit, if applicable. All as-builts shall comply with the current Marion County LDC, section 6.14.8	INFO	UTIL	Included on C1.4 Utility Notes
6.14.9.B - Bill of Sale	All facilities constructed on the developer's property prior to interconnection with Marion County Utility's existing or proposed facilities, shall convey such component parts to MCU by bill of sale in a form satisfactory to the County Attorney, with the following	INFO	UTIL	Acknowledged

	evidence required by MCU: Refer to LDC 6.14.9 (B).			
6.15.3 - Fire Protection/Fire Flow Capacity	Water service will be provided by Marion County Utilities. Please consult with Marion County Fire Rescue for any additional comments or requirements related to fire protection.	INFO	UTIL	Acknowledged, Marion County Fire will be consulted for further comments.
6.15.5 - Water Service and Connection	C1.4 - Water Legend - Change PACE WATER SYSTEM to Marion County Utilities.	NO	UTIL	Water legend changed to include MCU.
6.15.6.B - Irrigation Water Metering - size	C1.4 How is this parcel irrigating? Need irrigation tap/meter. (2) Need total irrigated square feet.	NO	UTIL	Irrigated Square feet included on C1.4. Provided stub out of master irrigation system shown on C1.4
6.15.6.D - Meter Location	C1.4 - Confirm meters are in ROW and not within property boundary.	NO	UTIL	Meters will be in ROW and not within property boundary
Article 7 - Construction Standards - PLAN NOTE:	All facilities constructed on the developer's property prior to interconnection with Marion County Utility's existing or proposed facilities, shall convey such component parts to MCU by bill of sale in a form satisfactory to the County Attorney, with the following evidence required by MCU: Refer to LDC 6.14.9 (B).	INFO	UTIL	Acknowledged
Utilities Plan Review Fee per Resolution 15-R-583 - payable to Marion County Utilities	Utilities Plan Review Fee: $415.00 Fee(s) can be paid by calling 352-671-8686 or visiting the Development Review Office at 412 SE 25th Ave, Ocala, FL 34471. Reference AR# 33206	INFO	UTIL	Review Fees have been paid.
Additional Utilities comments	C1.4 Delineate End of County Maintenance.	INFO	UTIL	End of county maintenance delineated on C1.4 for Water. Sewer end of maintenance shown in Master Plan AR 33171.
Additional Utilities comments	For any questions regarding this review, please contact Heather Proctor, Utilities Development Review Officer, at Heather.Proctor@marionfl.org or by phone at (352) 438-2846.	INFO	UTIL	Acknowledged
Additional Utilities comments	L1.0 - What is the grey drawing next to the water connection?	INFO	UTIL	Proposed light pole from master development. Potentially moved with new layout.

Additional Health comments	Central Sewer/Central Water	INFO	DOH	Water tapping from county system from the south. For sewer, connections will be provided as stub outs from master system 33171.
6.18.2 - Fire Flow/Fire Hydrant	Please show on the plans fire department water supply within 400 feet of the building. Per NFPA 1 Chapter 18.5.3 the maximum distance to a fire hydrant from the closest point on the building shall not exceed 400 feet. The measurement shall be taken by a fire department access roadway from the fire department water supply to the building.	NO	FRMSH	Fire hydrant shown on C1.4 and distanced to building.
2.12.5/1.8.2.F - Is Concurrency Approval or Deferral Elected?	Revise the plan Cover Sheet to provide the following note: â€œThis proposed project has not been granted concurrency approval and/or granted and/or reserved any public facility capacities. Future rights to develop the property are subject to a deferred concurrency determination, and final approval to develop the property has not been obtained. The completion of concurrency review and/or approval has been deferred to later development review stages, such as, but not limited to, Building Permit review.â€	NO	LUCURR	C0.1 now includes note.
2.12.28 - Correct road names supplied	In W131528 â€“ SW HWY 484 Civil Permit â€“ SS â€“ Sheet C0.1 SW 57th Avenue Rd is listed incorrectly as SW 57th Ave.	NO	911	C0.1 Adjusted to correct name.
6.2.1.F - North arrow and graphic drawing and written scale	In W131528 â€“ SW HWY 484 Civil Permit â€“ SS - Sheet C4.2 is missing North Arrow.	NO	911	North arrow included on C4.2
Additional 911 comments	In W131528 â€“ SW HWY 484 Civil Permit â€“ SS - Sheet C1.2 Under Site Data Information has an incorrect address listed. It should be TBD SW HWY 484. (Sheet C1.2 is loaded 2 times).	NO	911	TBD SW HWY 484 included on C1.2
6.4.7.A(1) - Show a minimum of two bench marks per site	Please provide.	NO	ENGSUR	Survey is provided with latest submittal
6.4.7.A(2 & 3) - Bench mark information shown	Please provide.	NO	ENGSUR	Survey is provided with latest submittal
6.4.7.B(1) - Show a minimum of two intervisible horizontal control points per site	Please provide.	NO	ENGSUR	Survey is provided with latest submittal

6.4.7.B(2) - Horizontal control points shall be monumented and referenced to the Florida State Plane Coordinate System	Please provide.	NO	ENGSUR	Survey is provided with latest submittal
6.4.7.B(4) - Provide a statement or table detailing horizontal datum, adjustment, and coordinate values	Please provide.	NO	ENGSUR	Survey is provided with latest submittal
6.4.7.D - The location of the existing one percent (100-year) flood plain as shown on FEMA FIRM, with zone, elevation, and vertical datum noted	Please provide.	NO	ENGSUR	Survey is provided with latest submittal
6.4.7.D - A note shall appear on the construction plans detailing source and survey field methods used to obtain and delineate the flood plain line shown	Please provide.	NO	ENGSUR	Survey is provided with latest submittal
6.4.7.E - Line and curve table must be shown on the sheet to which they apply	Please provide.	NO	ENGSUR	Survey is provided with latest submittal
2.12.4.F.(2) - Surveyor and Mapper certification	Please provide.	NO	ENGSUR	Survey is provided with latest submittal
2.12.8 - Provide current boundary and topographic survey less than one year old	Please provide boundary and topographic survey showing a minimum of two bench marks per site and showing a minimum of two intervisible horizontal control points per site.	NO	ENGSUR	Survey is provided with latest submittal
2.12.10 - Show any known existing or proposed easement or land reservation	Please provide.	NO	ENGSUR	Survey is provided with latest submittal
2.12.32 - Provide site analysis map depicting the existing (100-year) flood plain	Please provide.	NO	ENGSUR	Survey is provided with latest submittal
6.7.4 - Shade tree requirements	All shade trees shall be 3.5" cal at installation. Crepe myrtle and Dahoon holly will not count toward shade trees. How will deficit of 6 shade trees be addressed?	NO	LSCAPE	Added trees, refer to L1.0 for information
6.8.2 - Landscape plan requirements (details, schedule, calculations, notes)	Provide native status in plant schedule, provide native percentage showing 20% is met	NO	LSCAPE	Added to L1.0. Refer to plant list.

6.8.4 - Landscape area requirements for non-residential development	Provide required and provided landscape area calculations	NO	LSCAPE	Added to L1.0.
6.8.6 - Buffers	1. CR 484 - Show PUD required min. 2 foot berm (5.8.5.B.1) 2. An 8' sidewalk is required per 5.8.5.B.3	NO	LSCAPE	2’ min berm shown on C1.3 and L1.0.
6.8.8 - Building landscaping	Provide landscape plantings on the south side of the building	NO	LSCAPE	Waiver for plantings to be included as part of south buffer has been applied for
6.8.9 - Service and equipment areas	Show screening around dumpster	NO	LSCAPE	Screening around dumpster is shown on C1.4 and L1.0.
6.8.10 - General planting requirements (specifications)	1. Stone mulch along 484 is not advised due to various liability issues Note #22 2. Tree rootballs shall have max 1" of mulch. Mulch shall be pulled away from trunk min 6"	NO	LSCAPE	Proposing Steel edging around bed to keep stone mulch in place.
6.9.2 - Irrigation plan requirements (details, legend, notes)	Provide signed and sealed irrigation plan	NO	LSCAPE	Irrigation plan included in latest submittal
6.19.3 - Outdoor lighting plan requirements	Provide signed and sealed photometric plan	NO	LSCAPE	Photometric Plan included in S&S Civil Plan Set
2.12.4.C - Owner and applicant name	Please explicitly indicate property owner on cover sheet C0.1.	NO	ZONE	Property owner line included on C0.1 and will be signed before final approval
2.12.21/6.3.1.C(10) - Land use and zoning on project and on adjacent properties shown	Please specify PUD case number 191107ZC. B-4 zoning is not necessarily being "proposed" as indicated on sheet C1.2. PUD zoning simply approved commercial development based on B-4 development standards. Sheet C1.2 indicates EC FLU designation and DRI EXISTING land use for residential lots to the west of the current parcel (PID 41200-056-03). Marion Oaks residential lots have been granted Medium Residential (MR) FLU designation and are intended for SFR. Please correct.	NO	ZONE	Zoning and Land use updated on C1.2
2.12.4.L(4) - Zoning requirements: lot width, area , setbacks , coverage (floor area ratios) and parking	Please provide above zoning information on cover sheet. Sheet C1.2 indicates 0' required setbacks for the north, south, and east, and 50' setbacks for the west? Please indicate correct standards based on B-4 zoning classification, as required by approved PUD. 187' setback from the south and 51' from the north in sheet C1.2 table? Please note 45' side setbacks for primary structures with accessory gas pumps. Gas pump canopies may protrude up to 10 feet into required setback. Please correct provided setbacks for convenience	NO	ZONE	Setbacks have been corrected on C1.2

	store/gas pumps on the provided table in sheet C1.2.			
2.12.23/4.2 -Setbacks, dimensions for all improvements, and easements	Please indicate setbacks for gas pumps AND canopy on site plan. Please indicate front setback for convenience store on site plan. Please indicate width/length of convenience store on site plan.	NO	ZONE	Gas pump/canopy and building setback indicated on C1.2 SDP. Building dimensions indicated on C1.2
2.12.24 - Landscape requirements/6.8.6 - Buffering	Staff notes utilities easement in the same place as proposed buffers. Please note that buffers were a condition for PUD approval. In the case that the buffers are cleared, a zoning code violation would exist and the site may be subject to the code enforcement process, at the property owner's risk. Landscaping plan indicates Type B buffer along SW Hwy 484. Sheet C1.2 indicates 15' buffer width on south line. Please update with required CR 475A C-type buffer, as required by PUD approval. Please call out on site plan in sheet C1.2. Please provide typical detail elevation of required buffer type. Please label garbage collection area on sheet C1.2 and landscaping plan. Please provide detail drawing indicating that screening requirements in LDC Sec. 6.8.9.B are met.	NO	ZONE	Tree plantings are all out of 15' SECO easement on L1.0
2.12.6 - Location of water and sewer. Does this need a special use permit?	Within Marion County Utilities service area. Defer to MCU.	INFO	ZONE	Per master development AR# 33171, site does not need a special use permit.

2.12.32 - Modified Environmental Assessment for Listed Species (LDC 6.5.4) - OR- EALS Exemption Application (LDC 6.5.3) submitted (including habitat assessment as necessary per LDC 6.6.4)	Did field reconnaissance include assessment of listed species habitat (gopher tortoises, eastern indigo snakes, scrub jay bird, etc.)? Per LDC Sec. 6.5.4, please provide a more detailed write-up with the following information not clear from the submitted Phase I ESA: - Property owner and acreage of the gross lands held under common ownership including and/or adjoining the project area. - Exact date(s) and time(s) of the field assessment - Name of the individual(s) conducting the field assessment with their qualifications - A summary of the published information used to determine the probability of occurrence of listed species on the proposed development or land clearing site, including identifying the agency or organization providing the data. Please provide copy of data. - A map of land use and land cover classifications on the site, and directly abutting the site, using the Land Use, Cover and Forms Classification System: A Technical Manual, State of Florida Department of Transportation (FLUCCS), January 1999, as amended. - A transect map of the field assessment - An inventory of the wildlife and plant communities as found on the site and observed on adjacent property surrounding the site - Provide the feasibility and viability of on-site protection and management of native habitats and listed species. - Provide the location of the site in relation to any existing or proposed conservation areas and wildlife corridors within the project area and the feasibility of maintaining the corridor or conservation area post-development. - In the event that on-site protection is shown to be ineffective, evaluate other mitigation options, such as relocation of the listed species to an approved location.	NO	ZONE	Natural Resource Assessment included in latest submittal.
2.12.4.L(10) - Parking requirements, service entrances, space size paved parking isle and access to parking area/6.11.8 - Off-street parking requirements/6.11.7 - Loading Areas/ 6.11.6 -	Please provide parking calculations for convenience store.	NO	ZONE	Parking calcs provided on C1.2

Construction access/route				
4.4.4 -Sign (provisions for advertising signage), if it is a multi occupancy complex like shopping centers they must submit a master sign plan.	Site plan indicates NON multi-tenant monument sign that IS consistent with current PUD Master Plan (AR 27373; currently under review). Please note the sign will need a separate permit.	INFO	ZONE	Acknowledged
2.12.19 - Provide dimensions and location of all existing site improvements; dimensions and location for all proposed site improvements with all setbacks	Please indicate setbacks for gas pumps AND canopy on site plan. Please indicate front setback for convenience store on site plan. Please indicate width/length of convenience store on site plan.	NO	ZONE	Store setback, Gas pump/canopy setback, and building dimensions included on C1.2 SDP
2.12.27 - Show location of outside storage areas	Will there be any outdoor storage areas? If so, outdoor storage area shall be indicated on site plan and shall meet screening requirements pursuant to LDC Sec. 4.2.20.F	INFO	ZONE	No outdoor storage areas
5.2 & 5.3 - Verify any overlay zones such as ESOZ, Springs Protection, or Flood Plain	Please indicate on cover sheet: FEMA Flood Zone X No ESOZ Secondary Springs Protection Zone	INFO	ZONE	Flood zone indicated on top left area of cover sheet
Additional Zoning comments	Please note that the creation of commercial outparcels and residential subdivision (to the north) will require approval of Master Plan, Preliminary Plat, Improvement Plan, and Final Plat. Master Plan (AR #27373) must be approved before Preliminary Plat, Improvement Plan and Final Plat, unless the Applicant receives approved waiver to Sec. 2.1.3 Order of Plan.	INFO	ZONE	Acknowledged

Major Site Plan	Need Owner's Certification/Signature Line. Sunbiz shows Richard W. McGinley as signer. -EMW 8.25.25 IF APPLICABLE: Sec. 2.18.1.I - Show connections to other phases. Sec.2.19.2.H â€“ Legal Documents Legal documents such as Declaration of Covenants and Restrictions, By-Laws, Articles of Incorporation, ordinances, resolutions, etc. Sec. 6.3.1.B.1 â€“ Required Right of Way Dedication (select as appropriate) For Public Streets. "[All streets and rights-of-way shown on this plat or name specifically if less than all] are hereby dedicated for the use and benefit of the public." Sec. 6.3.1.B.2 â€“ Required Right of Way Dedication For Non-Public Streets. "[All streets and rights-of-way shown on this plat or name specifically if less than all] are hereby dedicated privately to the [entity name]. All public authorities and their personnel providing services to the subdivision are granted an easement for access. The Board of County Commissioners of Marion County, Florida, shall have no responsibility, duty, or liability whatsoever regarding such streets. Marion County is granted an easement for emergency maintenance in the event of a local, state, or federal state of emergency wherein the declaration includes this subdivision or an emergency wherein the health, safety, or welfare of the public is deemed to be at risk." Sec. 6.3.1.D.3 - Cross Access Easements For Cross Access Easements. "All parallel access easements shown on this plat are hereby dedicated for the use and benefit of the public, and maintenance of said easements is the responsibility of [entity name]." Sec. 6.3.1.C.1 - Utility Easements (select as appropriate) "[All utility easements shown or noted or name specifically if less than all] are dedicated [private or to the public] for the construction, installation, maintenance, and operation of utilities by any utility provider." Sec. 6.3.1.C.2 â€“ Utility Easements "[All utility tracts or identify each tract as appropriate] as shown are dedicated [private or to the public] for the construction and maintenance of such facilities." Sec.6.3.1.D(c)(1)(2)(3) - Stormwater easements and facilities,	NO	ENRAA	Owner’s Certification Line included on C0.1. Will be signed before final approval

	select as appropriate: 1. "[All stormwater and drainage easements as shown or noted or name specifically if less than all] are dedicated [private or to the public] for the construction and maintenance of such facilities." 2. "[All stormwater management tracts or identify each tract as appropriate] as shown are dedicated [private or to the public] for the construction and maintenance of such facilities." 3. When any stormwater easement and/or management tract is not dedicated to the public or Marion County directly, the following statement shall be added to the dedication language: "Marion County is granted the right to perform emergency maintenance on the [stormwater easement and/or management tract, complete accordingly] in the event of a local, state, or federal state of emergency wherein the declaration includes this subdivision or an emergency wherein the health, safety, or welfare of the public is deemed to be at risk." Sec.6.3.1.D(f) â€“ If a Conservation Easement is required the following shall be provided: "A conservation easement [as shown or on tract and identify the tract, complete accordingly] is dedicated to [the Board of County Commissioners of Marion County, Florida or entity name, if not Marion County] for the purpose of preservation of [listed species, habitat, Karst feature and/or native vegetation, complete accordingly]."			

Please contact us should you have any questions or need additional information.

Sincerely,
CPH, LLC

Hunter Johnson, E.I.
hjohnson@cphcorp.com
386-445-6569x4014

Marion County
Board of County Commissioners

Office of the County Engineer
412 SE 25th Ave.
Ocala, FL 34471
Phone: 352-671-8686
Email: DevelopmentReview@marionfl.org

February 19, 2026

N/A

Subject:
Plan Name:
Plan Number:
Parcel Number:
Additional Parcel Numbers:
Adjacent Street:
Intersecting Street From:
Intersecting Street To:

Dear ,

The for the above referenced plan number was approved by the Office of the County Engineer on Not Stated. The following comments, if any, are for your record.

No Comments

Feel free to contact us at (352) 671-8686 or DevelopmentReview@marionfl.org with questions.

Sincerely,

Your Development Review Team
Office of the County Engineer

DRAINAGE REPORT

BASELINE ROAD INDUSTRIAL

MARION COUNTY, FLORIDA

Prepared for:

Suncap Property Group, LLC

Prepared by:

Kimley-Horn and Associates, Inc.

043497002
February 2026
© Kimley-Horn and Associates, Inc.
1700 SE 17th Street, Suite 200
Ocala, Florida 34471
352 438 3000 TEL

Kimley»Horn

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THIS IS TO CERTIFY THAT THE ENCLOSED ENGINEERING CALCULATIONS WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION.

Mohammed N. Murad, P.E.
Florida Registration #91243
Registry #35106

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INTRODUCTION

The proposed Baseline Road Industrial project (the "Project") is located in Marion County, Florida (Section 7, Township 16 South, and Range 23 East) (See ***Map Figures*** in the ***Appendix***). The Project has a total area of ± 57.42 acres and will consist of an industrial building, parking, utility improvements, and on-site drainage retention area (DRA) with an associated stormwater collection system. The drainage system for this project has been designed to meet St. Johns River Water Management District (SJRWMD) and Marion County design criteria.

DESIGN CRITERIA

The Project was prepared compliant with stormwater quantity and quality criteria set forth by the Marion County Land Development Code effective September 15, 2020, and the St. Johns River Water Management District Environmental Resource Permit Applicant's Handbook, Volume II, effective June 1, 2018. The proposed conditions do not change existing runoff flow patterns. Runoff is flowing away from FDOT right-of-way along SR-35 (Baseline Road). FDOT drainage permit is required and obtained.

Marion County Design Requirements

1. Stormwater quantity criteria for closed basins: the discharge rate and discharge volume in the post-development condition shall be less than or equal to the pre-development condition (100-year, 24-hour and 25-year, 24-hour storm events).

2. All retention/detention areas shall recover the total volume required to meet the discharge volume limitations within 14 days following the design rainfall event. For retention/detention areas not able to recover the total required volume within 14 days, the stormwater facility volume shall be increased to retain an additional volume of the post minus pre difference in runoff for the 100-year 24-hour design storm when in a closed basin. The control elevation for retaining this volume shall be no greater than the top of constructed stormwater facility or the easement limits of a natural facility. Credit for the recovered volume through the 14 day duration may be considered to meet this requirement.

3. Conveyance systems shall be sized to accommodate the 25-year 24-hour storm event based on the condition of ultimate development.

4. The tailwater elevation utilized shall be based on the tailwater elevation of the receiving water body plus 6 inches at the peak discharge time of the design storm. Alternatively, the tailwater elevation utilized can be the design high water elevation of the 25-year 24-hour design storm. Note that future connections must be able to demonstrate that conveyance can be achieved at all connections, future and existing, meeting one of the above criteria.

5. Stormwater conveyance pipes and cross culverts shall be a minimum of 18 inches diameter or equivalent. Driveway culverts shall be a minimum of 15 inches diameter or equivalent for residential use and a minimum of 18 inches diameter or equivalent for commercial use. Roof drains, prior to connection to the overall stormwater system, are exempt from minimum diameter requirements.

6. A minimum freeboard of six inches shall be shown on each drainage retention/detention facility between design high water and top of bank.

7. The following systems shall be considered as meeting the County's stormwater quality criteria:
    a. Dry retention systems that have a depth of six feet or less, measured from top of bank to pond bottom, with side slopes that are no steeper than 4:1 and sodded bottoms.
    b. Wet retention/detention systems, including wetlands that meet the governing State standards.

St. Johns River Water Management District Design Requirements

8. Ocklawaha River Hydrologic Basin Criteria: The system shall meet applicable discharge criteria for 10-year and 25-year frequency storms. On-site storage and outlet capacity should be designed for the 25-year storm.

9. The post-development volume of direct runoff must not exceed the pre-development volume of direct runoff for the 25-year frequency, 96-hour duration storm.

10. Where basins are designed for reducing post-development peak rate discharge and volume, the outlet and regulation schedule should be designed to provide necessary design detention and retention storage within 14 days following any storm event.

11. Stormwater Quality Criteria for On-line Treatment Systems:

    An on-line treatment system must demonstrate retention and treatment of the first one-half inch of drainage area runoff or 1.25 inches of runoff from the impervious area, whichever is greater, plus an additional one-half inch of runoff from the drainage area, or percolation of the runoff from the three-year, one-hour storm.

12. Total treatment volume shall again be available within 72 hours.

DESIGN METHODOLOGY

Existing Conditions

In existing conditions, the project area consists of undeveloped, cleared land with elevations that vary from 86 feet at the highest point to 56 feet at the lowest point. An existing on-site low point is located within the center of the project area.

Stormwater runoff from the project area is generally separated into two existing primary basins with runoff being captured by the existing on-site low areas. Pre-Development Basin-01, in the center of the project, drains to an on-site low area and receives off-site flow from the west, east and northeast. Pre-Development Basin-02, in the northern area of the project, drains to a low area. The existing basins can be seen in the **Existing Conditions Basin Exhibit** in the **Appendix**.

Per FEMA FIRM Panel No. 12083C0735D, effective August 28, 2008, the project area lies in Zone X, an area determined to be outside the 0.2% annual chance floodplain as shown in **Figure 05** (see ***Map Figures*** in the **Appendix**). Per the USDA National Resources Conservation Service, the project area contains Candler Sand, 1 to 5 percent slopes, and Arrendo Sand, 0 to 5 percent slopes, (Hydrologic Group A). The project's soil type information is shown in **Figure 04** (see ***Map Figures*** in the **Appendix**).

Proposed Conditions

In proposed conditions, the project's stormwater management system will include a conveyance network designed to capture stormwater flow from the industrial building, parking facilities, roads, landscaped areas, and off-site areas. The project area will have two primary basins, Post-Development Basin-01 and Post-Development Basin-02.

Post-Development Basin-01 (DRA-01)

Post-Development Basin-01, which includes the entire project and off-site areas south and east of the project, drains to the proposed DRA-01. The post-development basin can be seen in the ***Proposed Conditions Basin Exhibit*** in the **Appendix**. The off-site runoff mostly includes flow from the Cox Lumber DRA (COX LUMBER CO. - MARION COUNTY TRUSS PLANT (SJRWMD ERP #76541-1)). The received discharge volume was both modeled in the proposed system and verified to match the previously permitted calculations, which was ± 1.78 ac-ft in the 100-year, 24-hour storm even. The calculations can be seen in the **Cox Lumber Off-Site ERP #76541 - 1 Calculations** in the **Appendix**. The off-site runoff additionally includes flow from the northeastern industrial business park. The off-site area was modeled to flow to DRA-01 and includes an area of ±14.55 ac with an impervious amount of 50%. Post-Development Basin-01 has been designed to fully retain the total stormwater runoff volume generated from the 100-year, 24-hour storm event with no off-site discharge. Additionally, it has been designed to recover the water quality treatment

volume (WQTV) before the 72 hour mark.

Post-Development Basin-02 (DRA-02)

Post-Development Basin-02, which includes a portion of the project parcel and off-site flow from the west, drains to the proposed DRA-02. The post-development basin can be seen in the ***Proposed Conditions Basin Exhibit*** in the **Appendix**. The off-site flow is from WRA4_WRA (SE 92ND LOOP FROM US 441 TO SR 35 & SR 35 FROM SE 92ND PLACE ROAD TO CR 464 (SJRWMD ERP #19700 - 5)). The discharge is received through two pipes that flow across SE 58th Ave and into the southern portion of the project. The received discharge volume was both modeled in the proposed system and verified to match the previously permitted calculations, which was ± 11.70 ac-ft in the 100-year, 24-hour storm event. The calculations can be seen in the **SR 25 Off-Site ERP #19700 – 5 Calculations** in the **Appendix**. DRA-02 has been designed to fully retain the total stormwater runoff volume generated from the 100-year, 24-hour storm event with no off-site discharge. This volume compensation is based on a volume to volume credit for the 100-year, 24-hour event. The DRA receives already treated off-site water; therefore, it has been designed to recover only the water quality treatment volume from on-site runoff before the end of the 72-hour mark.

The storms were evaluated using the StormCAD and StormWise (ICPR) software. The stormwater conveyance system was sized using the 25-year intensity storm frequency (see the ***Proposed Conditions Routing Calculations*** and the ***Secondary Basin Analysis*** in the **Appendix**).

The 25-year, 24-hour rainfall event amount of 8.3 inches, and 100-year, 24-hour rainfall event amount of 11.5 inches were interpolated from the SJRWMD rainfall return period maps, Figures 7 and 8 respectively (SJRWMD ERP Applicant's Handbook II).

CONCLUSION

In conclusion, as shown in **Table 1,** DRA-01 and DRA-02 are designed to fully retain the required stormwater runoff from the proposed project given a 100-year, 24-hour storm event.

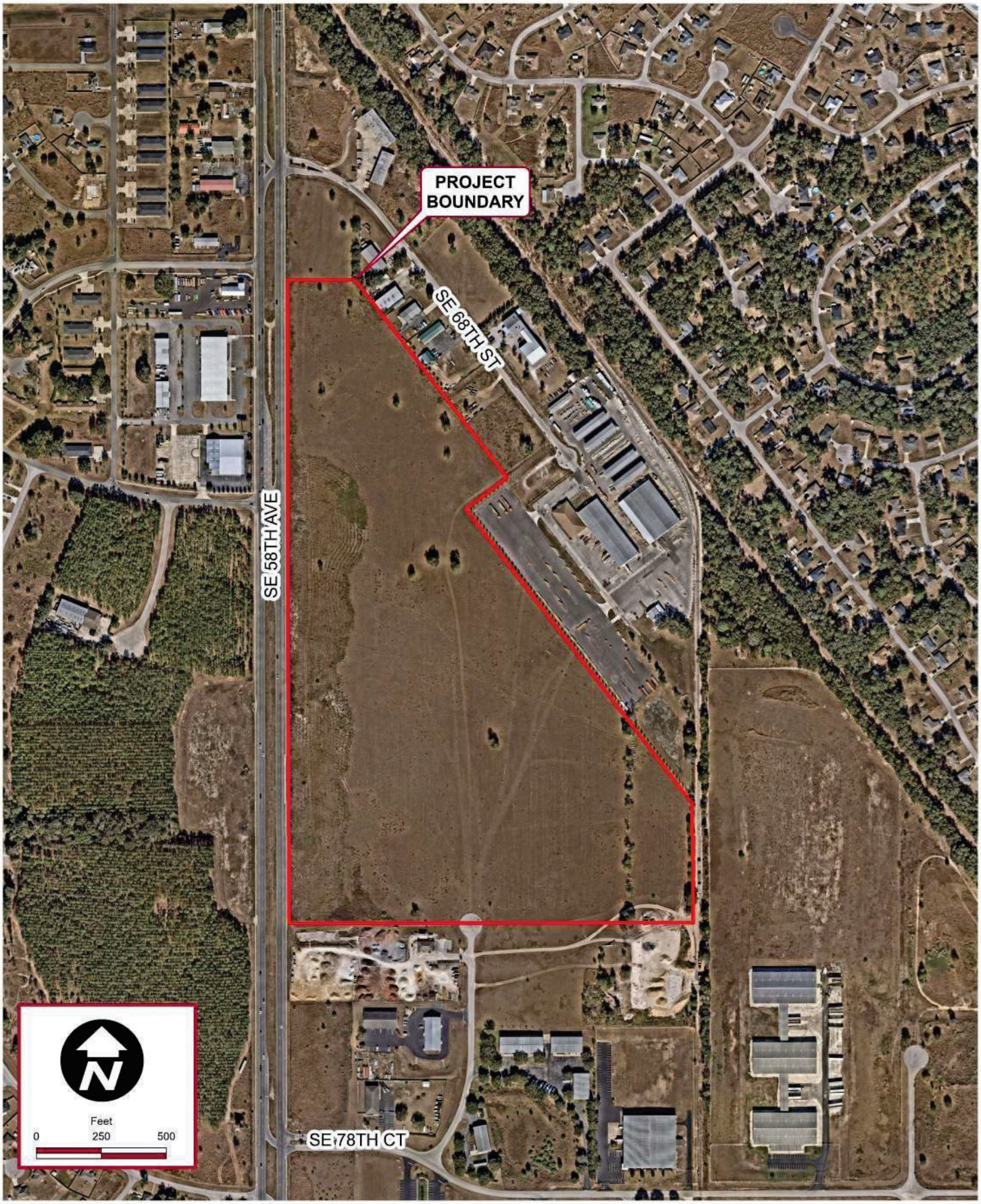
Table 1 – DRA-01 and DRA-02 Summary		
	DRA-01	DRA-02
Top of Bank (TOB) (ft)	63.50	59.00
100-Year, 24-Hour Event Maximum Stage (ft)	62.80	58.30
14 Day Drawdown Elevation (ft)	56.89	54.12
Pond Bottom (ft)	56.00	51.50
Post-Development Minus Pre-Development 100-Year, 24-Hour Runoff Volume (ac-ft)*	12.37	N/A
Available Storage to TOB @ 14 Day Drawdown (ac-ft)	22.69	5.97
**DRA-02 is designed to capture and retain existing off-site flow and is not intended to provide stormwater retention for on-site improvements.*		

Table 2 shows that DRA-01 and DRA-02 can treat the required water quality treatment volume.

Table 2 – Water Quality Treatment Summary		
	DRA-01	DRA-02
Treatment Volume Stage Elevation (ft)	57.79	51.63
72 Hour Recovery Elevation (ft)	56.00	51.50
Time to Full Recovery (hrs)	5.75	0.50

APPENDICES

MAP FIGURES



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AERIAL MAP

BASELINE ROAD INDUSTRIAL
MARION COUNTY, FLORIDA

Scale: As Noted	Project No.: 043497002	February 2025	Figure 1

K:\OCA_Civil\043497002-Baseline Road Industrial\GIS\Baseline Road Industrial\Baseline Road Industrial.aprx - 2/3/2025 1:59 PM - Dan.Horner

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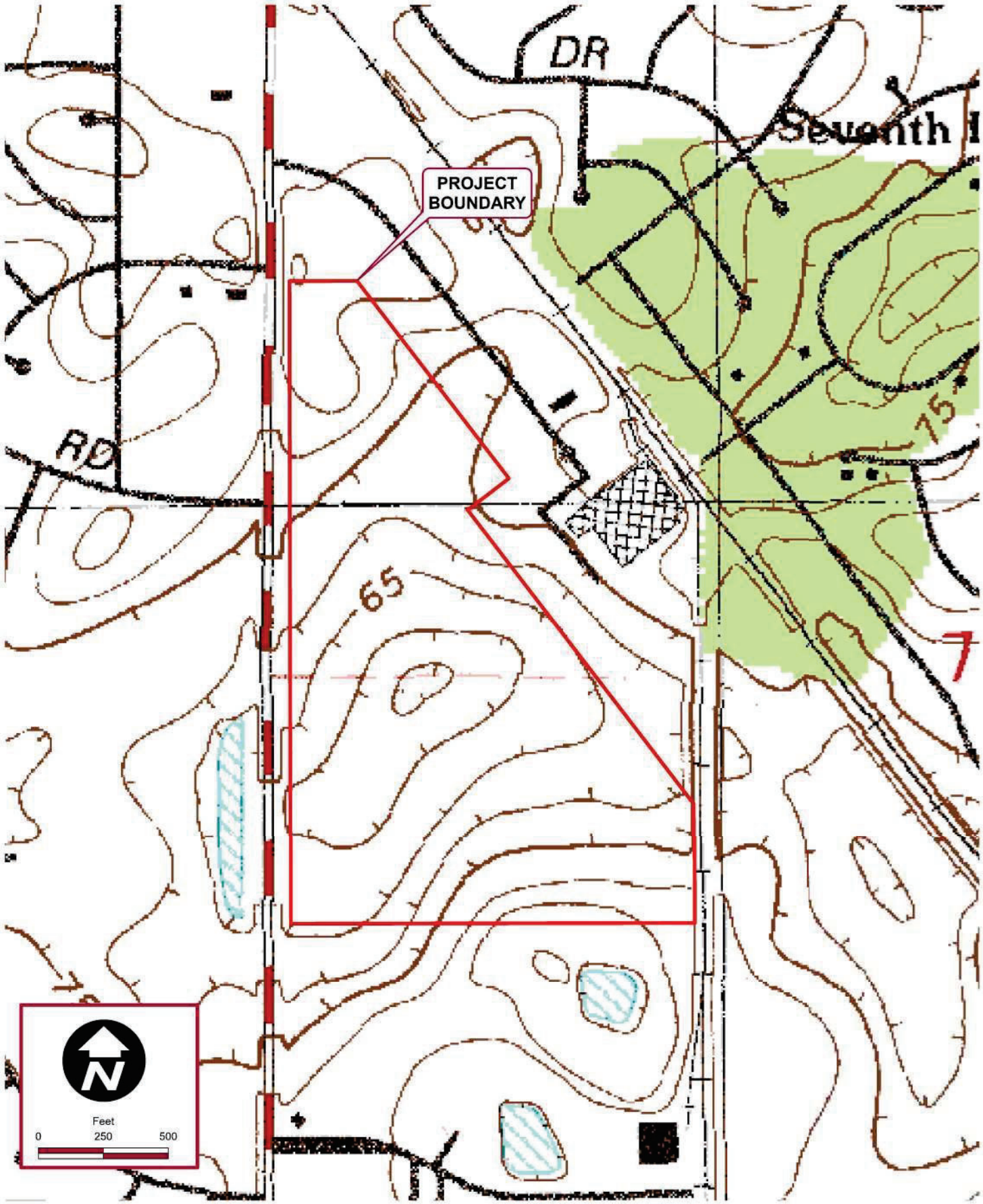
LOCATION MAP

BASELINE ROAD INDUSTRIAL
MARION COUNTY, FLORIDA

Scale: As Noted	Project No.: 043497002	February 2025	Figure 2



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QUAD MAP

BASELINE ROAD INDUSTRIAL
MARION COUNTY, FLORIDA

Scale: As Noted	Project No.: 043497002	February 2025	Figure 3

K:\OCA_Civil\043497002-Baseline Road Industrial\GIS\Baseline Road Industrial\Baseline Road Industrial.aprx - 2/3/2025 2:01 PM - Dan.Horner

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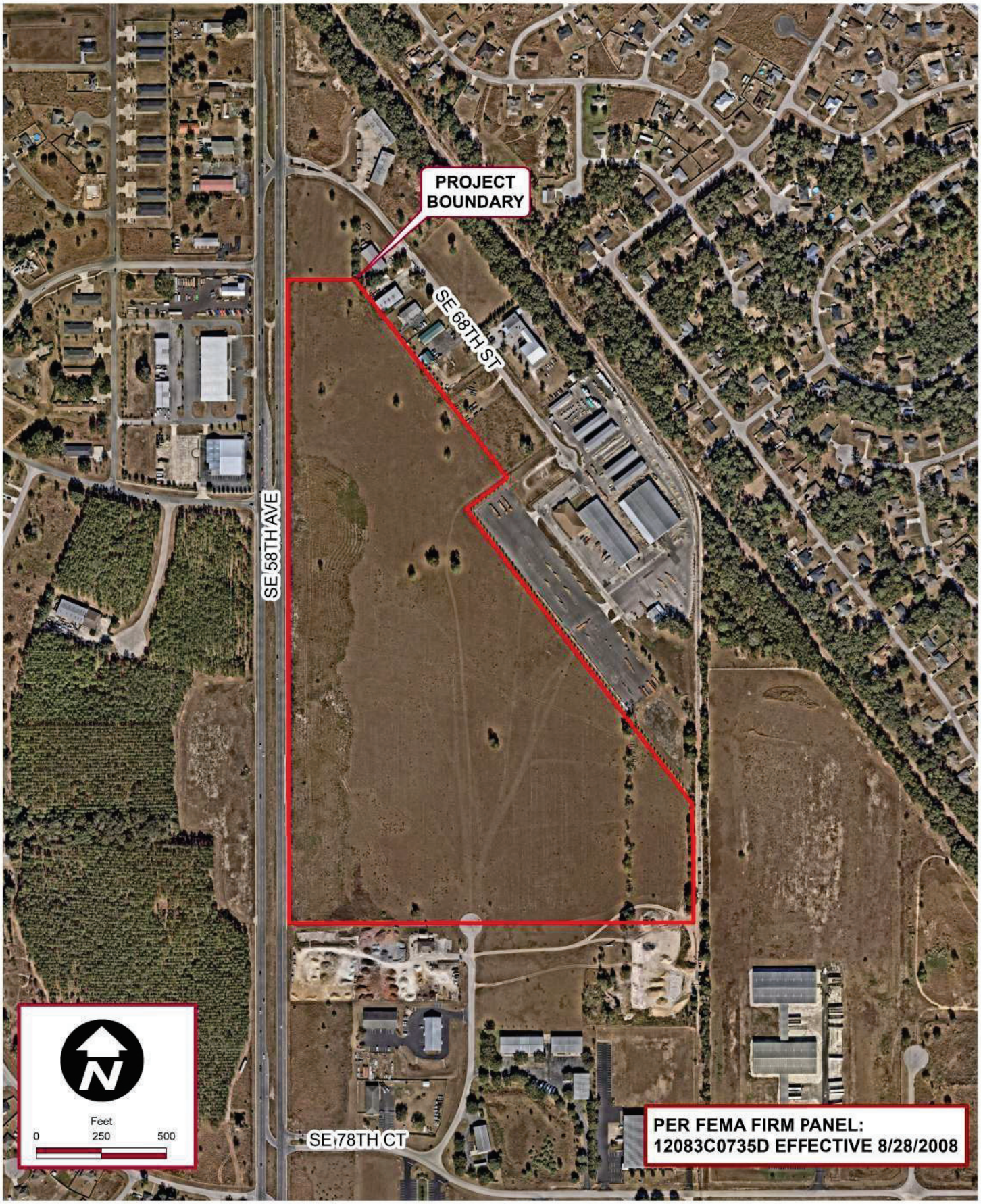
SOIL MAP

BASELINE ROAD INDUSTRIAL
MARION COUNTY, FLORIDA

Scale: As Noted	Project No.: 043497002	February 2025	Figure 4



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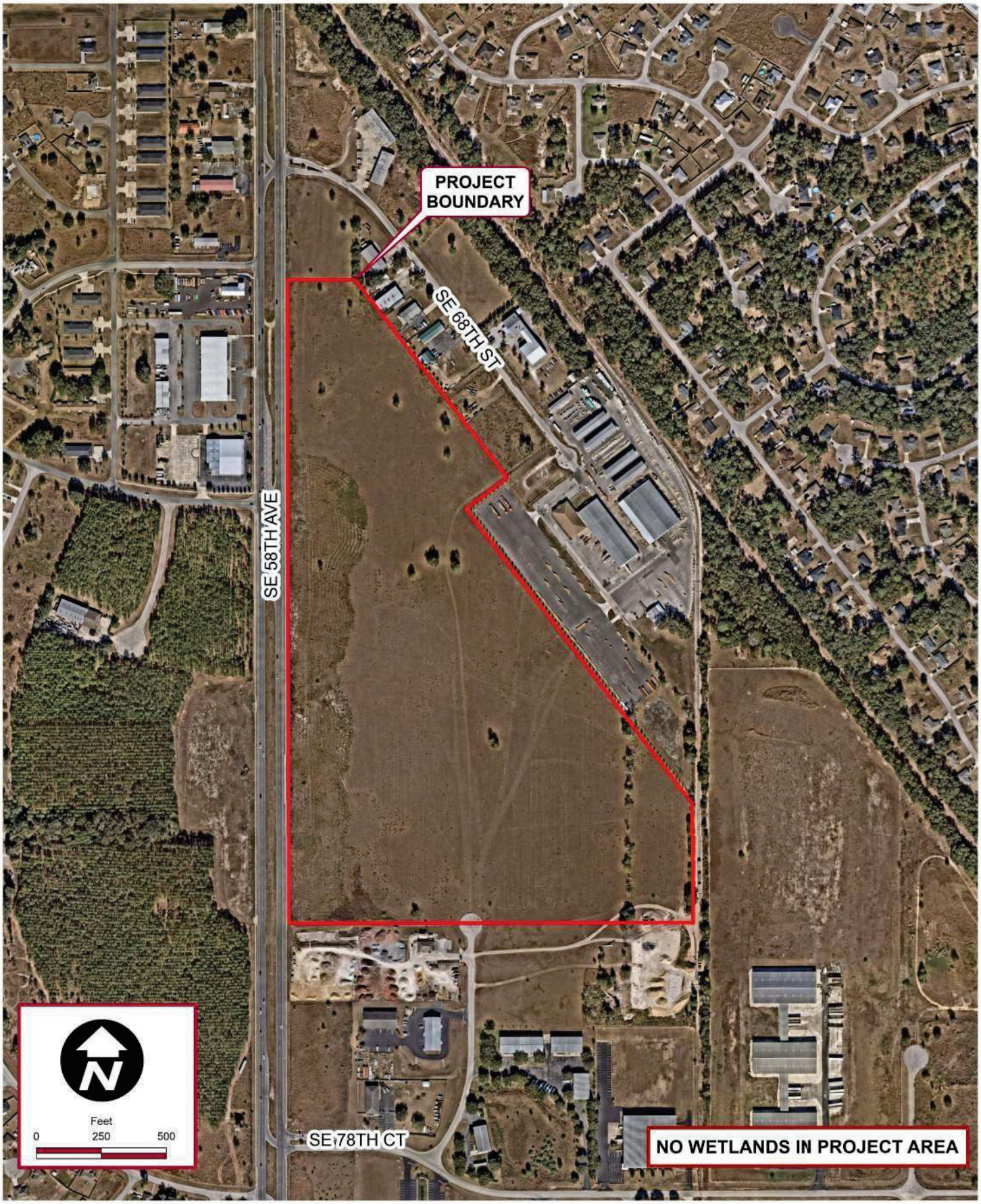
FEMA MAP

BASELINE ROAD INDUSTRIAL
MARION COUNTY, FLORIDA

Scale: As Noted	Project No.: 043497002	February 2025	Figure 5

K:\OCA_Civil\043497002-Baseline Road Industrial\GIS\Baseline Road Industrial\Baseline Road Industrial.aprx - 2/3/2025 2:01 PM - Dan.Horner



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NATIONAL WETLAND INVENTORY MAP

BASELINE ROAD INDUSTRIAL
MARION COUNTY, FLORIDA

Scale: As Noted	Project No.: 043497002	February 2025	Figure 6

K:\OCA_Civil\043497002-Baseline Road Industrial\GIS\Baseline Road Industrial\Baseline Road Industrial.aprx - 2/3/2025 2:02 PM - Dan.Horner

PRIMARY BASIN ANALYSIS

EXISTING CONDITIONS BASIN EXHIBIT

No.	REVISIONS	DATE	BY
1	PERMIT SUBMITTAL	05-17-25	SJS

Kimley»Horn

LICENSED PROFESSIONAL
MOHAMMEN N. NIJRAJ PE
FLORIDA LICENSE NUMBER
91240
DATE:

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7700 SW 117TH STREET, SUITE 300, OCALA, FLORIDA, 34471
PHONE: 352-438-3000
WWW.KIMLEY-HORN.COM PROPERTY NO. 31106

KHA PROJECT 043491002
APRIL 2025
SCALE: AS SHOWN
DESIGNED BY: KHA
DRAWN BY: SJS
CHECKED BY: MNN

EXISTING CONDITIONS BASIN EXHIBIT

BASELINE ROAD INDUSTRIAL

PREPARED FOR
SUNCAP PROPERTY GROUP, LLC

MARION COUNTY FLORIDA

SHEET NUMBER
EX-01

SUNCAP - MAJOR SITE PLAN

PROPOSED CONDITIONS BASIN EXHIBIT

NO	REVISIONS	DATE	BY
1	ISSUED FOR CONSTRUCTION	07-29-25	SJ
2	PERMIT APPROVAL	09-30-25	SJ

Kimley»Horn

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PHONE: 352-438-3000
WWW.KIMLEY-HORN.COM | CERTIFICATE NO. 31806

KHA PROJECT 043491002
DATE JULY 2025
SCALE AS SHOWN
DESIGNED BY KHA
DRAWN BY SJS
CHECKED BY MNM

LICENSED PROFESSIONAL
MOHAMMEN N. MIRAJKAR, P.E.
FLORIDA LICENSE NUMBER 91243
DATE:

PROPOSED CONDITIONS BASIN EXHIBIT

BASELINE ROAD INDUSTRIAL

PREPARED FOR SUNCAP PROPERTY GROUP, LLC

MARION COUNTY FLORIDA

SHEET NUMBER EX-02

SUNCAP - MAJOR SITE PLAN

PRE-DEVELOPMENT
CURVE NUMBER CALCULATIONS

CN and Runoff Volume Calculations - Pre Development

KHA Project:	Baseline Road Industrial	**By:**	AAH	**Date:**	2/3/2026
Location:	Marion County, FL	**Checked:**	MNM	**Date:**	

Basin ID:	Pre-Development Basin-01	**Start STA. :**	--
Basin Area:	58.02 ac	**End STA. :**	--
Curve Number:	39.0		
DCIA Area:	0.00 ac		

I. Runoff Curve Number (CN)

Cover description	Soil Group	CN	Area (ac)	CN x Area
Open Space	A	39	58.02	2262.64
		Total	58.02	2262.64
		Weighted CN = 39.0		

II. Runoff Volume Calculations

Storm Event	**100 Year - 24 Hour**
Rainfall Amount	11.50 in

A. CN/Area Runoff Calculations

Runoff Depth	2.92 in	(SCS Runoff Equation)
CN Area	58.02 ac	
Runoff Volume	14.11 ac-ft	

B. Total Runoff Volume

14.11 ac-ft

POST-DEVELOPMENT CURVE NUMBER CALCULATIONS

CN and Runoff Volume Calculations - Post Development

KHA Project:	Baseline Road Industrial	**By:**	AAH	**Date:**	2/3/2026
Location:	Marion County, FL	**Checked:**	MNM	**Date:**	

Basin ID: INDUSTRIAL BUSINESS OFFSITE
Basin Area: 14.55 ac
Curve Number: 68.5
DCIA Area: 0.00 ac

Start STA. : --
End STA. : --

I. Runoff Curve Number (CN)

Cover description	Soil Group	CN	Area (ac)	CN x Area
Open Space	A	39	7.27	283.63
Impervious (Building, Parking and Road)	N/A	98	7.27	712.71
		Total	14.55	996.34
		Weighted CN = 68.5		

II. Runoff Volume Calculations

Storm Event	**100 Year - 24 Hour**
Rainfall Amount	11.50 in

A. CN/Area Runoff Calculations

Runoff Depth	7.37 in	(SCS Runoff Equation)
CN Area	14.55 ac	
Runoff Volume	8.94 ac-ft	

B. Total Runoff Volume

8.94 ac-ft

III. Water Quality Treatment Volume

A. One Half Inch Runoff from the Watershed Area

Runoff Depth	0.50 in	(TR-55 Table 2.1)
CN Area	14.55 ac	
Runoff Volume	0.61 ac-ft	

B. One and One Fourth Inch Runoff from the Total Impervious Area

Runoff Depth	1.25 in
Area	7.27 ac
Runoff Volume	0.76 ac-ft

C. Total Treatment Volume (A+B)

1.36 ac-ft
59399 ft^3

CN and Runoff Volume Calculations - Post Development

KHA Project:	Baseline Road Industrial	**By:**	AAH	**Date:**	2/3/2026
Location:	Marion County, FL	**Checked:**	MNM	**Date:**	

Basin ID:	Post-Development Basin-01	**Start STA. :**	--
Basin Area:	43.47 ac	**End STA. :**	--
Curve Number:	68.0		
DCIA Area:	0.00 ac		

I. Runoff Curve Number (CN)

Cover description	Soil Group	CN	Area (ac)	CN x Area
Open Space	A	39	22.07	860.85
Impervious (Building, Parking and Road)	N/A	98	18.52	1814.51
Impervious (Off-Site Cul-De-Sac)	N/A	98	0.18	17.28
Pond Bottom	A	98	2.71	265.23
		Total	43.47	2957.87
		Weighted CN = 68.0		

II. Runoff Volume Calculations

Storm Event	**100 Year - 24 Hour**
Rainfall Amount	11.50 in

A. CN/Area Runoff Calculations

Runoff Depth	7.31 in	(SCS Runoff Equation)
CN Area	43.47 ac	
Runoff Volume	26.48 ac-ft	

B. Total Runoff Volume

26.48 ac-ft

III. Water Quality Treatment Volume

A. One Half Inch Runoff from the Watershed Area

Runoff Depth	0.50 in	(TR-55 Table 2.1)
CN Area	43.47 ac	
Runoff Volume	1.81 ac-ft	

B. One and One Fourth Inch Runoff from the Total Impervious Area

Runoff Depth	1.25 in
Area	18.69 ac
Runoff Volume	1.95 ac-ft

C. Total Treatment Volume (A+A)

3.76 ac-ft

163714 ft^3

Stage Area Calculations

KHA Project:	Baseline Road Industrial	**By:**	AAH	**Date:**	2/3/2026
Location:	Marion County, FL	**Checked:**		**Date:**	

Basin ID: Post-Development Basin-01 *DRA-01*

Stage (ft)	Area (sf)	Area (ac)	Inc Volume (ac-ft)	Total Volume (ac-ft)
56.00	117890	2.71	0	0
57.00	125236	2.88	2.79	2.79
58.00	132683	3.05	2.96	5.75
59.00	140230	3.22	3.13	8.88
60.00	147878	3.39	3.31	12.19
61.00	155626	3.57	3.48	15.67
62.00	163475	3.75	3.66	19.34
63.00	171424	3.94	3.84	23.18
63.50	175437	4.03	1.99	25.17

Stage-Storage Volume @ T.O.B.	**63.50**	**=**	**25.17**
Stage-Storage @ 360 Hrs	**56.89**	**=**	**2.48**
Volume Available @ 360 Hrs		**=**	**22.69**
Post-Pre Volume Difference		**=**	**12.37**
Water Quality Treatment Volume		**=**	**5.12**
Water Quality Treatment Volume Stage		**=**	**57.79**

CN and Runoff Volume Calculations - Post Development

KHA Project:	Baseline Road Industrial	**By:**	AAH	**Date:**	2/3/2026
Location:	Marion County, FL	**Checked:**	MNM	**Date:**	

Basin ID: Post-Development Basin-02 (On-Site)
Basin Area: 2.42 ac
Curve Number: 57.6
DCIA Area: 0.00 ac

Start STA. : --
End STA. : --

I. Runoff Curve Number (CN)

Cover description	Soil Group	CN	Area (ac)	CN x Area
Open Space	A	39	1.66	64.68
Pond Bottom	A	98	0.76	74.63
		Total	2.42	139.31
		Weighted CN = 57.6		

II. Runoff Volume Calculations

Storm Event	**100 Year - 24 Hour**
Rainfall Amount	11.50 in

A. CN/Area Runoff Calculations

Runoff Depth	5.78 in	(SCS Runoff Equation)
CN Area	2.42 ac	
Runoff Volume	1.17 ac-ft	

B. Total Runoff Volume

1.17 ac-ft

III. Water Quality Treatment Volume

A. One Half Inch Runoff from the Watershed Area

Runoff Depth	0.50 in	(TR-55 Table 2.1)
CN Area	2.42 ac	
Runoff Volume	0.10 ac-ft	

C. Total Treatment Volume

0.10 ac-ft
4392 ft^3

Stage Area Calculations

KHA Project:	Baseline Road Industrial	**By:**	AAH	**Date:**	2/3/2026
Location:	Marion County, FL	**Checked:**		**Date:**	

Basin ID: DRA-02 *DRA-02*

Stage (ft)	Area (sf)	Area (ac)	Inc Volume (ac-ft)	Total Volume (ac-ft)
51.50	33172	0.76	0	0
52.00	35029	0.80	0.39	0.39
53.00	38828	0.89	0.85	1.24
54.00	42741	0.98	0.94	2.18
55.00	46762	1.07	1.03	3.20
56.00	50883	1.17	1.12	4.32
57.00	55104	1.27	1.22	5.54
58.00	59426	1.36	1.31	6.85
59.00	63849	1.47	1.42	8.27

Stage-Storage Volume @ T.O.B.		**=**	**8.27**
Stage-Storage @ 360 Hrs	**54.12**	**=**	**2.30**
Volume Available @ 360 Hrs		**=**	**5.97**

Water Quality Treatment Volume	**=**	**0.10**
Water Quality Treatment Volume Stage	**=**	**51.63**

Geotechnical Parameters

KHA Project:	Baseline Road Industrial	**By:**	AAH	**Date:**	2/3/2026
Location:	Marion County, FL	**Checked:**		**Date:**	

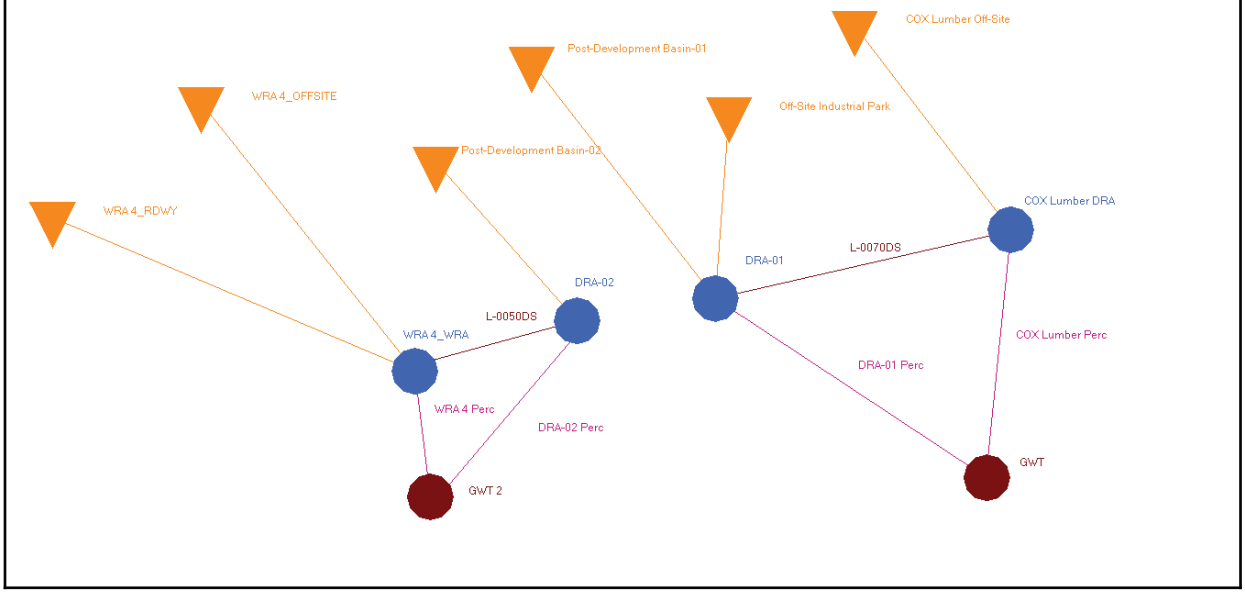
ESHWTL					
DRA-01					
Boring	Ground Elevation	Depth	ESHWTL	Depth	Confining Layer
P-1	60.6	20.0	40.6	25	35.6
P-2	57.9	20.0	37.9	25	32.9
P-3	56.8	20.0	36.8	25	31.8
P-4	61.7	20.0	41.7	25	36.7
P-5	59.8	20.0	39.8	25	34.8
P-6	58.9	20.0	38.9	25	33.9
P-7	63.7	20.0	43.7	25	38.7
P-8	67.8	20.0	47.8	25	42.8
P-9	61.2	20.0	41.2	25	36.2
P-10	62.9	20.0	42.9	25	37.9
P-11	64.3	20.0	44.3	25	39.3
Average			41.4		36.4

Horizontal Permeability	
DRA-01	
Boring	Permeability
P-1	30
P-2	31
P-3	31.2
P-4	30.6
P-5	31.4
P-6	32.3
P-7	32
P-8	31.9
P-9	32.1
P-10	31.3
P-11	32.3
Average	31.46
W/ F.O.S.	15.73

Vertical Permeability	
DRA-01	
Boring	Permeability
P-1	21.7
P-2	23.2
P-3	7.1
P-4	22.9
P-5	23.2
P-6	7.6
P-7	7.4
P-8	6.6
P-9	22.9
P-10	21.8
P-11	6.7
Weighted Average	15.55
W/ F.O.S.	7.78

PROPOSED CONDITIONS ROUTING CALCULATIONS

Background Image: New Layout



Simulation: WQTV

Scenario:	Scenario1 (MC WQTV)
Run Date/Time:	2/3/2026 9:28:44 AM
Program Version:	StormWise 4.08.03

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	72.0000

	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:	0.00 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: 100YR 24HR

Scenario: Scenario1 (MC)
Run Date/Time: 2/3/2026 8:37:32 AM
Program Version: StormWise 4.08.03

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	360.0000

	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:	11.50 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: 25YR-24HR

Scenario:	Scenario1 (MC)
Run Date/Time:	2/3/2026 8:38:26 AM
Program Version:	StormWise 4.08.03

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	336.0000

	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:	8.20 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: COX Lumber Off-Site

Scenario:	Scenario1 (MC WQTV)
Node:	COX Lumber DRA
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	10.0000 min
Max Allowable Q:	9999.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	9.5670 ac
Curve Number:	45.0
Ia/S:	0.00
% Impervious:	62.00
% DCIA:	62.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: Off-Site Industrial Park

Scenario:	Scenario1 (MC WQTV)
Node:	DRA-01
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	10.0000 min
Max Allowable Q:	9999.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	14.5500 ac
Curve Number:	68.5
Ia/S:	0.00
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: Post-Development Basin-01

Scenario:	Scenario1 (MC WQTV)
Node:	DRA-01
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number

Time of Concentration:	10.0000 min
Max Allowable Q:	9999.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	43.4700 ac
Curve Number:	68.0
Ia/S:	0.00
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: Post-Development Basin-02

Scenario:	Scenario1 (MC WQTV)
Node:	DRA-02
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	10.0000 min
Max Allowable Q:	9999.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	10.4700 ac
Curve Number:	45.7
Ia/S:	0.00
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: WRA 4_OFFSITE

Scenario:	Scenario1 (MC WQTV)
Node:	WRA 4_WRA
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	29.6000 min
Max Allowable Q:	0.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH256
Peaking Factor:	256.0

Area:	62.1300 ac
Curve Number:	39.0
Ia/S:	0.00
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: WRA 4_RDWY

Scenario:	Scenario1 (MC WQTV)
Node:	WRA 4_WRA
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	23.2800 min
Max Allowable Q:	0.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH256
Peaking Factor:	256.0
Area:	20.9000 ac
Curve Number:	70.5
Ia/S:	0.00
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: COX Lumber Off-Site

Scenario:	Scenario1 (MC)
Node:	COX Lumber DRA
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	10.0000 min
Max Allowable Q:	9999.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	9.5670 ac
Curve Number:	45.0
Ia/S:	0.00
% Impervious:	62.00
% DCIA:	62.00

% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: Off-Site Industrial Park

Scenario:	Scenario1 (MC)
Node:	DRA-01
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	10.0000 min
Max Allowable Q:	9999.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	14.5500 ac
Curve Number:	68.5
Ia/S:	0.00
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: Post-Development Basin-01

Scenario:	Scenario1 (MC)
Node:	DRA-01
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	10.0000 min
Max Allowable Q:	9999.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	43.4700 ac
Curve Number:	68.0
Ia/S:	0.00
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: Post-Development Basin-02

Scenario:	Scenario1 (MC)
Node:	DRA-02
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	10.0000 min
Max Allowable Q:	9999.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	2.4200 ac
Curve Number:	57.6
Ia/S:	0.00
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: WRA 4_OFFSITE

Scenario:	Scenario1 (MC)
Node:	WRA 4_WRA
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	29.6000 min
Max Allowable Q:	0.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH256
Peaking Factor:	256.0
Area:	62.1300 ac
Curve Number:	39.0
Ia/S:	0.00
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: WRA 4_RDWY

Scenario:	Scenario1 (MC)
Node:	WRA 4_WRA
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number

Time of Concentration:	23.2800 min
Max Allowable Q:	0.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH256
Peaking Factor:	256.0
Area:	20.9000 ac
Curve Number:	70.5
Ia/S:	0.00
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Node: COX Lumber DRA

Scenario:	Scenario1 (MC WQTV)
Type:	Stage/Area
Base Flow:	0.00 cfs
Initial Stage:	64.00 ft
Warning Stage:	69.50 ft
Alert Stage:	0.00 ft

Stage [ft]	Area [ac]	Area [ft2]
64.00	0.3200	13939
65.00	0.3800	16553
66.00	0.4400	19166
67.00	0.5100	22216
68.00	0.5900	25700
69.00	0.6600	28750
70.00	0.7700	33541

Comment:

Node: DRA-01

Scenario:	Scenario1 (MC WQTV)
Type:	Stage/Area
Base Flow:	0.00 cfs
Initial Stage:	57.79 ft
Warning Stage:	63.00 ft
Alert Stage:	0.00 ft

Stage [ft]	Area [ac]	Area [ft2]
56.00	2.9000	126324
57.00	3.0400	132422

Stage [ft]	Area [ac]	Area [ft2]
58.00	3.1700	138085
59.00	3.3100	144184
60.00	3.4500	150282
61.00	3.6000	156816
62.00	3.7400	162914
63.00	3.8900	169448
63.50	3.9700	172933

Comment:

Node: DRA-02

Scenario: Scenario1 (MC WQTV)
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 51.63 ft
Warning Stage: 58.50 ft
Alert Stage: 0.00 ft

Stage [ft]	Area [ac]	Area [ft2]
51.50	1.2000	52272
52.00	1.2400	54014
53.00	1.3200	57499
54.00	1.4100	61420
55.00	1.5100	65776
56.00	1.6000	69696
57.00	1.7000	74052
58.00	1.8000	78408
59.00	1.9000	82764

Comment:

Node: GWT

Scenario: Scenario1 (MC WQTV)
Type: Time/Stage
Base Flow: 0.00 cfs
Initial Stage: 10.00 ft
Warning Stage: 10.00 ft
Alert Stage: 0.00 ft
Boundary Stage:

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	10.00
0	0	0	9999.0000	10.00

Comment:

Node: GWT 2

Scenario: Scenario1 (MC WQTV)
Type: Time/Stage
Base Flow: 0.00 cfs
Initial Stage: 10.00 ft
Warning Stage: 10.00 ft
Alert Stage: 0.00 ft
Boundary Stage:

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	10.00
0	0	0	9999.0000	10.00

Comment:

Node: WRA 4_WRA

Scenario: Scenario1 (MC WQTV)
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 58.00 ft
Warning Stage: 63.00 ft
Alert Stage: 0.00 ft

Stage [ft]	Area [ac]	Area [ft2]
58.00	3.3600	146362
59.00	3.5500	154638
60.00	3.7500	163350
61.00	3.9000	169884
62.00	4.3400	189050
63.00	4.7570	207215

Comment:

Node: COX Lumber DRA

Scenario: Scenario1 (MC)
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 64.00 ft
Warning Stage: 69.50 ft
Alert Stage: 0.00 ft

Stage [ft]	Area [ac]	Area [ft2]
64.00	0.3200	13939
65.00	0.3800	16553
66.00	0.4400	19166
67.00	0.5100	22216
68.00	0.5900	25700
69.00	0.6600	28750
70.00	0.7700	33541

Comment:

Node: DRA-01

Scenario: Scenario1 (MC)
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 56.00 ft
Warning Stage: 63.00 ft
Alert Stage: 0.00 ft

Stage [ft]	Area [ac]	Area [ft2]
56.00	2.7100	118048
57.00	2.8800	125453
58.00	3.0500	132858
59.00	3.2200	140263
60.00	3.3900	147668
61.00	3.5700	155509
62.00	3.7500	163350
63.00	3.9400	171626
63.50	4.0300	175547

Comment:

Node: DRA-02

Scenario: Scenario1 (MC)
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 51.50 ft
Warning Stage: 58.50 ft
Alert Stage: 0.00 ft

Stage [ft]	Area [ac]	Area [ft2]
51.50	0.7600	33106
52.00	0.8000	34848
53.00	0.8900	38768

Stage [ft]	Area [ac]	Area [ft2]
54.00	0.9800	42689
55.00	1.0700	46609
56.00	1.1700	50965
57.00	1.2700	55321
58.00	1.3600	59242
59.00	1.4700	64033

Comment:

Node: GWT

Scenario: Scenario1 (MC)
Type: Time/Stage
Base Flow: 0.00 cfs
Initial Stage: 10.00 ft
Warning Stage: 10.00 ft
Alert Stage: 0.00 ft
Boundary Stage:

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	10.00
0	0	0	9999.0000	10.00

Comment:

Node: GWT 2

Scenario: Scenario1 (MC)
Type: Time/Stage
Base Flow: 0.00 cfs
Initial Stage: 10.00 ft
Warning Stage: 10.00 ft
Alert Stage: 0.00 ft
Boundary Stage:

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	10.00
0	0	0	9999.0000	10.00

Comment:

Node: WRA 4_WRA

Scenario: Scenario1 (MC)

Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 58.00 ft
Warning Stage: 63.00 ft
Alert Stage: 0.00 ft

Stage [ft]	Area [ac]	Area [ft2]
58.00	3.3600	146362
59.00	3.5500	154638
60.00	3.7500	163350
61.00	3.9000	169884
62.00	4.3400	189050
63.00	4.7570	207215

Comment:

Percolation Link: COX Lumber Perc

Scenario:	Scenario1 (MC WQTV)	Surface Area Option:	Vary Based on Stage/Area Table
From Node:	COX Lumber DRA		
To Node:	GWT	Vertical Flow Termination:	Horizontal Flow Algorithm
Link Count:	1	Perimeter 1:	1000.00 ft
Flow Direction:	Both	Perimeter 2:	1500.00 ft
Aquifer Base Elevation:	58.00 ft	Perimeter 3:	3000.00 ft
Water Table Elevation:	58.50 ft	Distance P1 to P2:	50.00 ft
Annual Recharge Rate:	0 ipy	Distance P2 to P3:	450.00 ft
Horizontal Conductivity:	15.000 fpd	# of Cells P1 to P2:	10
Vertical Conductivity:	5.000 fpd	# of Cells P2 to P3:	45
Fillable Porosity:	0.300		
Layer Thickness:	5.50 ft		

Comment:

Percolation Link: DRA-01 Perc

Scenario:	Scenario1 (MC WQTV)	Surface Area Option:	Vary Based on Stage/Area Table
From Node:	DRA-01		
To Node:	GWT	Vertical Flow Termination:	Horizontal Flow Algorithm
Link Count:	1	Perimeter 1:	1580.00 ft
Flow Direction:	Both	Perimeter 2:	1887.00 ft
Aquifer Base Elevation:	36.40 ft	Perimeter 3:	4388.00 ft
Water Table Elevation:	41.40 ft	Distance P1 to P2:	50.00 ft
Annual Recharge Rate:	0 ipy	Distance P2 to P3:	450.00 ft
Horizontal Conductivity:	15.730 fpd	# of Cells P1 to P2:	10
Vertical Conductivity:	7.780 fpd	# of Cells P2 to P3:	45
Fillable Porosity:	0.240		
Layer Thickness:	14.60 ft		

Comment:

Percolation Link: DRA-02 Perc

Scenario:	Scenario1 (MC WQTV)	Surface Area Option:	Vary Based on Stage/Area Table
From Node:	DRA-02		
To Node:	GWT 2	Vertical Flow Termination:	Horizontal Flow Algorithm
Link Count:	1	Perimeter 1:	1119.00 ft
Flow Direction:	Both	Perimeter 2:	1433.00 ft
Aquifer Base Elevation:	36.40 ft	Perimeter 3:	3739.00 ft
Water Table Elevation:	41.40 ft	Distance P1 to P2:	50.00 ft
Annual Recharge Rate:	0 ipy	Distance P2 to P3:	450.00 ft
Horizontal Conductivity:	15.730 fpd	# of Cells P1 to P2:	10
Vertical Conductivity:	7.780 fpd	# of Cells P2 to P3:	45
Fillable Porosity:	0.240		
Layer Thickness:	10.10 ft		

Comment:

Percolation Link: WRA 4 Perc

Scenario:	Scenario1 (MC WQTV)	Surface Area Option:	Vary Based on Stage/Area Table
From Node:	WRA 4_WRA		
To Node:	GWT 2	Vertical Flow Termination:	Horizontal Flow Algorithm
Link Count:	1	Perimeter 1:	2141.00 ft
Flow Direction:	Both	Perimeter 2:	2444.00 ft
Aquifer Base Elevation:	54.90 ft	Perimeter 3:	5204.00 ft
Water Table Elevation:	55.00 ft	Distance P1 to P2:	50.00 ft
Annual Recharge Rate:	0 ipy	Distance P2 to P3:	450.00 ft
Horizontal Conductivity:	15.000 fpd	# of Cells P1 to P2:	10
Vertical Conductivity:	10.000 fpd	# of Cells P2 to P3:	45
Fillable Porosity:	0.250		
Layer Thickness:	4.25 ft		

Comment:

Percolation Link: COX Lumber Perc

Scenario:	Scenario1 (MC)	Surface Area Option:	Vary Based on Stage/Area Table
From Node:	COX Lumber DRA		
To Node:	GWT	Vertical Flow Termination:	Horizontal Flow Algorithm
Link Count:	1	Perimeter 1:	1000.00 ft
Flow Direction:	Both	Perimeter 2:	1500.00 ft
Aquifer Base Elevation:	58.00 ft	Perimeter 3:	3000.00 ft
Water Table Elevation:	58.50 ft	Distance P1 to P2:	50.00 ft
Annual Recharge Rate:	0 ipy	Distance P2 to P3:	450.00 ft
Horizontal Conductivity:	15.000 fpd	# of Cells P1 to P2:	10
Vertical Conductivity:	5.000 fpd	# of Cells P2 to P3:	45
Fillable Porosity:	0.300		
Layer Thickness:	5.50 ft		

Comment:

Percolation Link: DRA-01 Perc

Scenario:	Scenario1 (MC)	Surface Area Option:	Vary Based on Stage/Area Table
From Node:	DRA-01		
To Node:	GWT	Vertical Flow Termination:	Horizontal Flow Algorithm
Link Count:	1	Perimeter 1:	1778.00 ft
Flow Direction:	Both	Perimeter 2:	1778.00 ft
Aquifer Base Elevation:	36.40 ft	Perimeter 3:	4003.00 ft
Water Table Elevation:	41.40 ft	Distance P1 to P2:	50.00 ft
Annual Recharge Rate:	0 ipy	Distance P2 to P3:	450.00 ft
Horizontal Conductivity:	15.730 fpd	# of Cells P1 to P2:	10
Vertical Conductivity:	7.780 fpd	# of Cells P2 to P3:	45
Fillable Porosity:	0.240		
Layer Thickness:	14.60 ft		

Comment:

Percolation Link: DRA-02 Perc

Scenario:	Scenario1 (MC)	Surface Area Option:	Vary Based on Stage/Area Table
From Node:	DRA-02		
To Node:	GWT 2	Vertical Flow Termination:	Horizontal Flow Algorithm
Link Count:	1	Perimeter 1:	724.00 ft
Flow Direction:	Both	Perimeter 2:	724.00 ft
Aquifer Base Elevation:	36.40 ft	Perimeter 3:	1313.00 ft
Water Table Elevation:	41.40 ft	Distance P1 to P2:	50.00 ft
Annual Recharge Rate:	0 ipy	Distance P2 to P3:	450.00 ft
Horizontal Conductivity:	15.730 fpd	# of Cells P1 to P2:	10
Vertical Conductivity:	7.780 fpd	# of Cells P2 to P3:	45
Fillable Porosity:	0.240		
Layer Thickness:	10.10 ft		

Comment:

Percolation Link: WRA 4 Perc

Scenario:	Scenario1 (MC)	Surface Area Option:	Vary Based on Stage/Area Table
From Node:	WRA 4_WRA		
To Node:	GWT 2	Vertical Flow Termination:	Horizontal Flow Algorithm
Link Count:	1	Perimeter 1:	2141.00 ft
Flow Direction:	Both	Perimeter 2:	2444.00 ft
Aquifer Base Elevation:	54.90 ft	Perimeter 3:	5204.00 ft
Water Table Elevation:	55.00 ft	Distance P1 to P2:	50.00 ft
Annual Recharge Rate:	0 ipy	Distance P2 to P3:	450.00 ft
Horizontal Conductivity:	15.000 fpd	# of Cells P1 to P2:	10
Vertical Conductivity:	10.000 fpd	# of Cells P2 to P3:	45
Fillable Porosity:	0.250		
Layer Thickness:	4.25 ft		

Comment:

Drop Structure Link: L-0050DS		Upstream Pipe		Downstream Pipe	
Scenario:	Scenario1 (MC WQTV)	Invert:	59.30 ft	Invert:	53.00 ft
From Node:	WRA 4_WRA	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	DRA-02	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Pipe Flow Direction:	Both	Bottom Clip			
Solution:	Combine	Default:	0.00 ft	Default:	0.00 ft
Increments:	0	Op Table:		Op Table:	
Pipe Count:	2	Ref Node:		Ref Node:	
Damping:	0.0000 ft	Manning's N:	0.0000	Manning's N:	0.0000
Length:	400.00 ft	Top Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	1	Op Table:		Op Table:	
Exit Loss Coef:	1	Ref Node:		Ref Node:	
Bend Loss Coef:	1	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.50 dec				
Energy Switch:	Energy				

Pipe Comment:

Weir Component			
Weir:	1	Bottom Clip	
Weir Count:	1	Default:	0.00 ft
Weir Flow Direction:	Both	Op Table:	
Damping:	0.0000 ft	Ref Node:	
Weir Type:	Sharp Crested Vertical	Top Clip	
Geometry Type:	Rectangular	Default:	0.00 ft
Invert:	61.50 ft	Op Table:	
Control Elevation:	61.50 ft	Ref Node:	
Max Depth:	1.50 ft	Discharge Coefficients	
Max Width:	11.50 ft	Weir Default:	2.861
Fillet:	0.00 ft	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Drop Structure Comment:

Drop Structure Link: L-0070DS		Upstream Pipe		Downstream Pipe	
Scenario:	Scenario1 (MC WQTV)	Invert:	60.00 ft	Invert:	58.00 ft
From Node:	COX Lumber DRA	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	DRA-01	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Pipe Flow Direction:	Both	Bottom Clip			
Solution:	Combine	Default:	0.00 ft	Default:	0.00 ft
Increments:	0	Op Table:		Op Table:	
Pipe Count:	1	Ref Node:		Ref Node:	
Damping:	0.0000 ft	Manning's N:	0.0000	Manning's N:	0.0000

Length:	200.00 ft
FHWA Code:	0
Entr Loss Coef:	1
Exit Loss Coef:	1
Bend Loss Coef:	0
Bend Location:	0.00 dec
Energy Switch:	Energy

Top Clip			
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

Pipe Comment:

Weir Component

Weir:	1
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Horizontal
Geometry Type:	Rectangular
Invert:	69.40 ft
Control Elevation:	69.40 ft
Max Depth:	2.00 ft
Max Width:	20.00 ft
Fillet:	0.00 ft

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients	
Weir Default:	3.000
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Weir Comment:

Drop Structure Comment:

Drop Structure Link: L-0050DS	
Scenario:	Scenario1 (MC)
From Node:	WRA 4_WRA
To Node:	DRA-02
Link Count:	1
Pipe Flow Direction:	Both
Solution:	Combine
Increments:	0
Pipe Count:	2
Damping:	0.0000 ft
Length:	400.00 ft
FHWA Code:	0
Entr Loss Coef:	1
Exit Loss Coef:	1
Bend Loss Coef:	1
Bend Location:	0.50 dec
Energy Switch:	Energy

Upstream Pipe		Downstream Pipe	
Invert:	59.30 ft	Invert:	53.00 ft
Manning's N:	0.0120	Manning's N:	0.0120
Geometry: Circular		Geometry: Circular	
Max Depth:	2.50 ft	Max Depth:	2.50 ft
Bottom Clip			
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
Top Clip			
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

Pipe Comment:

Weir Component

Weir:	1
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	61.50 ft
Control Elevation:	61.50 ft
Max Depth:	1.50 ft
Max Width:	11.50 ft
Fillet:	0.00 ft

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.861
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Weir Comment:

Drop Structure Comment:

Drop Structure Link: L-0070DS		Upstream Pipe		Downstream Pipe	
Scenario:	Scenario1 (MC)	Invert:	60.00 ft	Invert:	58.00 ft
From Node:	COX Lumber DRA	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	DRA-01	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Pipe Flow Direction:	Both	Bottom Clip			
Solution:	Combine	Default:	0.00 ft	Default:	0.00 ft
Increments:	0	Op Table:		Op Table:	
Pipe Count:	1	Ref Node:		Ref Node:	
Damping:	0.0000 ft	Manning's N:	0.0000	Manning's N:	0.0000
Length:	200.00 ft	Top Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	1	Op Table:		Op Table:	
Exit Loss Coef:	1	Ref Node:		Ref Node:	
Bend Loss Coef:	0	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Pipe Comment:

Weir Component	
Weir:	1
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Horizontal
Geometry Type:	Rectangular
Invert:	69.40 ft
Control Elevation:	69.40 ft
Max Depth:	2.00 ft

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	

Max Width:	20.00 ft		
Fillet:	0.00 ft	Weir Default:	3.000
		Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Drop Structure Comment:

Scenario	Sim	Node Name	Relative Time [hrs]	Maximum Stage [ft]
Scenario1 (MC)	100YR 24HR	DRA-01	359.7534	62.80
Scenario1 (MC)	100YR 24HR	DRA-02	359.7534	58.30
Scenario1 (SJRWMD)	25YR-96HR	DRA-01	359.7568	61.85
Scenario1 (SJRWMD)	25YR-96HR	DRA-02	359.7568	57.32

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-01	0.0000	56.00
Scenario1 (MC)	DRA-01	0.2511	56.00
Scenario1 (MC)	DRA-01	0.5050	56.00
Scenario1 (MC)	DRA-01	0.7527	56.00
Scenario1 (MC)	DRA-01	1.0027	56.00
Scenario1 (MC)	DRA-01	1.2527	56.00
Scenario1 (MC)	DRA-01	1.5027	56.00
Scenario1 (MC)	DRA-01	1.7527	56.00
Scenario1 (MC)	DRA-01	2.0027	56.00
Scenario1 (MC)	DRA-01	2.2527	56.00
Scenario1 (MC)	DRA-01	2.5027	56.00
Scenario1 (MC)	DRA-01	2.7527	56.00
Scenario1 (MC)	DRA-01	3.0027	56.00
Scenario1 (MC)	DRA-01	3.2527	56.00
Scenario1 (MC)	DRA-01	3.5027	56.00
Scenario1 (MC)	DRA-01	3.7527	56.00
Scenario1 (MC)	DRA-01	4.0027	56.00
Scenario1 (MC)	DRA-01	4.2527	56.00
Scenario1 (MC)	DRA-01	4.5027	56.00
Scenario1 (MC)	DRA-01	4.7527	56.00
Scenario1 (MC)	DRA-01	5.0027	56.00
Scenario1 (MC)	DRA-01	5.2527	56.00
Scenario1 (MC)	DRA-01	5.5027	56.00
Scenario1 (MC)	DRA-01	5.7527	56.00
Scenario1 (MC)	DRA-01	6.0027	56.00
Scenario1 (MC)	DRA-01	6.2528	56.00
Scenario1 (MC)	DRA-01	6.5042	56.00
Scenario1 (MC)	DRA-01	6.7561	56.00
Scenario1 (MC)	DRA-01	7.0012	56.00
Scenario1 (MC)	DRA-01	7.2507	56.00
Scenario1 (MC)	DRA-01	7.5037	56.00
Scenario1 (MC)	DRA-01	7.7523	56.00
Scenario1 (MC)	DRA-01	8.0020	56.00
Scenario1 (MC)	DRA-01	8.2502	56.00
Scenario1 (MC)	DRA-01	8.5033	56.00
Scenario1 (MC)	DRA-01	8.7522	56.00
Scenario1 (MC)	DRA-01	9.0005	56.00
Scenario1 (MC)	DRA-01	9.2508	56.00
Scenario1 (MC)	DRA-01	9.5017	56.00
Scenario1 (MC)	DRA-01	9.7515	56.00
Scenario1 (MC)	DRA-01	10.0021	56.00
Scenario1 (MC)	DRA-01	10.2515	56.01

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-01	10.5011	56.04
Scenario1 (MC)	DRA-01	10.7507	56.09
Scenario1 (MC)	DRA-01	11.0006	56.17
Scenario1 (MC)	DRA-01	11.2506	56.26
Scenario1 (MC)	DRA-01	11.5000	56.45
Scenario1 (MC)	DRA-01	11.7501	57.22
Scenario1 (MC)	DRA-01	12.0000	59.03
Scenario1 (MC)	DRA-01	12.2502	60.74
Scenario1 (MC)	DRA-01	12.5000	61.53
Scenario1 (MC)	DRA-01	12.7502	61.91
Scenario1 (MC)	DRA-01	13.0000	62.12
Scenario1 (MC)	DRA-01	13.2503	62.26
Scenario1 (MC)	DRA-01	13.5007	62.38
Scenario1 (MC)	DRA-01	13.7504	62.47
Scenario1 (MC)	DRA-01	14.0011	62.54
Scenario1 (MC)	DRA-01	14.2505	62.60
Scenario1 (MC)	DRA-01	14.5007	62.65
Scenario1 (MC)	DRA-01	14.7508	62.69
Scenario1 (MC)	DRA-01	15.0006	62.72
Scenario1 (MC)	DRA-01	15.2501	62.75
Scenario1 (MC)	DRA-01	15.5002	62.77
Scenario1 (MC)	DRA-01	15.7502	62.79
Scenario1 (MC)	DRA-01	16.0005	62.80
Scenario1 (MC)	DRA-01	16.2508	62.80
Scenario1 (MC)	DRA-01	16.5007	62.80
Scenario1 (MC)	DRA-01	16.7509	62.80
Scenario1 (MC)	DRA-01	17.0001	62.80
Scenario1 (MC)	DRA-01	17.2509	62.79
Scenario1 (MC)	DRA-01	17.5002	62.79
Scenario1 (MC)	DRA-01	17.7502	62.77
Scenario1 (MC)	DRA-01	18.0004	62.76
Scenario1 (MC)	DRA-01	18.2508	62.74
Scenario1 (MC)	DRA-01	18.5009	62.73
Scenario1 (MC)	DRA-01	18.7508	62.71
Scenario1 (MC)	DRA-01	19.0001	62.69
Scenario1 (MC)	DRA-01	19.2515	62.66
Scenario1 (MC)	DRA-01	19.5009	62.64
Scenario1 (MC)	DRA-01	19.7511	62.62
Scenario1 (MC)	DRA-01	20.0011	62.60
Scenario1 (MC)	DRA-01	20.2508	62.57
Scenario1 (MC)	DRA-01	20.5009	62.54
Scenario1 (MC)	DRA-01	20.7515	62.51

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-01	21.0020	62.47
Scenario1 (MC)	DRA-01	21.2500	62.44
Scenario1 (MC)	DRA-01	21.5019	62.41
Scenario1 (MC)	DRA-01	21.7505	62.38
Scenario1 (MC)	DRA-01	22.0025	62.35
Scenario1 (MC)	DRA-01	22.2520	62.32
Scenario1 (MC)	DRA-01	22.5033	62.31
Scenario1 (MC)	DRA-01	22.7517	62.30
Scenario1 (MC)	DRA-01	23.0012	62.30
Scenario1 (MC)	DRA-01	23.2511	62.30
Scenario1 (MC)	DRA-01	23.5015	62.30
Scenario1 (MC)	DRA-01	23.7501	62.30
Scenario1 (MC)	DRA-01	24.0006	62.31
Scenario1 (MC)	DRA-01	24.2504	62.29
Scenario1 (MC)	DRA-01	24.5023	62.26
Scenario1 (MC)	DRA-01	24.7519	62.23
Scenario1 (MC)	DRA-01	25.0015	62.20
Scenario1 (MC)	DRA-01	25.2512	62.17
Scenario1 (MC)	DRA-01	25.5010	62.15
Scenario1 (MC)	DRA-01	25.7528	62.12
Scenario1 (MC)	DRA-01	26.0030	62.10
Scenario1 (MC)	DRA-01	26.2534	62.07
Scenario1 (MC)	DRA-01	26.5034	62.05
Scenario1 (MC)	DRA-01	26.7534	62.02
Scenario1 (MC)	DRA-01	27.0034	62.00
Scenario1 (MC)	DRA-01	27.2534	61.98
Scenario1 (MC)	DRA-01	27.5034	61.96
Scenario1 (MC)	DRA-01	27.7534	61.94
Scenario1 (MC)	DRA-01	28.0034	61.92
Scenario1 (MC)	DRA-01	28.2534	61.90
Scenario1 (MC)	DRA-01	28.5034	61.88
Scenario1 (MC)	DRA-01	28.7534	61.86
Scenario1 (MC)	DRA-01	29.0034	61.84
Scenario1 (MC)	DRA-01	29.2534	61.82
Scenario1 (MC)	DRA-01	29.5034	61.80
Scenario1 (MC)	DRA-01	29.7534	61.78
Scenario1 (MC)	DRA-01	30.0034	61.77
Scenario1 (MC)	DRA-01	30.2534	61.75
Scenario1 (MC)	DRA-01	30.5034	61.73
Scenario1 (MC)	DRA-01	30.7534	61.72
Scenario1 (MC)	DRA-01	31.0034	61.70
Scenario1 (MC)	DRA-01	31.2534	61.68

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-01	31.5034	61.67
Scenario1 (MC)	DRA-01	31.7534	61.65
Scenario1 (MC)	DRA-01	32.0034	61.64
Scenario1 (MC)	DRA-01	32.2534	61.62
Scenario1 (MC)	DRA-01	32.5034	61.60
Scenario1 (MC)	DRA-01	32.7534	61.59
Scenario1 (MC)	DRA-01	33.0034	61.57
Scenario1 (MC)	DRA-01	33.2534	61.56
Scenario1 (MC)	DRA-01	33.5034	61.54
Scenario1 (MC)	DRA-01	33.7534	61.53
Scenario1 (MC)	DRA-01	34.0034	61.52
Scenario1 (MC)	DRA-01	34.2534	61.50
Scenario1 (MC)	DRA-01	34.5034	61.49
Scenario1 (MC)	DRA-01	34.7534	61.47
Scenario1 (MC)	DRA-01	35.0034	61.46
Scenario1 (MC)	DRA-01	35.2534	61.45
Scenario1 (MC)	DRA-01	35.5034	61.43
Scenario1 (MC)	DRA-01	35.7534	61.42
Scenario1 (MC)	DRA-01	36.0034	61.41
Scenario1 (MC)	DRA-01	36.2534	61.39
Scenario1 (MC)	DRA-01	36.5034	61.38
Scenario1 (MC)	DRA-01	36.7534	61.37
Scenario1 (MC)	DRA-01	37.0034	61.36
Scenario1 (MC)	DRA-01	37.2534	61.34
Scenario1 (MC)	DRA-01	37.5034	61.33
Scenario1 (MC)	DRA-01	37.7534	61.32
Scenario1 (MC)	DRA-01	38.0034	61.31
Scenario1 (MC)	DRA-01	38.2534	61.29
Scenario1 (MC)	DRA-01	38.5034	61.28
Scenario1 (MC)	DRA-01	38.7534	61.27
Scenario1 (MC)	DRA-01	39.0034	61.26
Scenario1 (MC)	DRA-01	39.2534	61.25
Scenario1 (MC)	DRA-01	39.5034	61.24
Scenario1 (MC)	DRA-01	39.7534	61.22
Scenario1 (MC)	DRA-01	40.0034	61.21
Scenario1 (MC)	DRA-01	40.2534	61.20
Scenario1 (MC)	DRA-01	40.5034	61.19
Scenario1 (MC)	DRA-01	40.7534	61.18
Scenario1 (MC)	DRA-01	41.0034	61.17
Scenario1 (MC)	DRA-01	41.2534	61.16
Scenario1 (MC)	DRA-01	41.5034	61.15
Scenario1 (MC)	DRA-01	41.7534	61.13

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-01	42.0034	61.12
Scenario1 (MC)	DRA-01	42.2534	61.11
Scenario1 (MC)	DRA-01	42.5034	61.10
Scenario1 (MC)	DRA-01	42.7534	61.09
Scenario1 (MC)	DRA-01	43.0034	61.08
Scenario1 (MC)	DRA-01	43.2534	61.07
Scenario1 (MC)	DRA-01	43.5034	61.06
Scenario1 (MC)	DRA-01	43.7534	61.05
Scenario1 (MC)	DRA-01	44.0034	61.04
Scenario1 (MC)	DRA-01	44.2534	61.03
Scenario1 (MC)	DRA-01	44.5034	61.02
Scenario1 (MC)	DRA-01	44.7534	61.01
Scenario1 (MC)	DRA-01	45.0034	61.00
Scenario1 (MC)	DRA-01	45.2534	60.99
Scenario1 (MC)	DRA-01	45.5034	60.98
Scenario1 (MC)	DRA-01	45.7534	60.97
Scenario1 (MC)	DRA-01	46.0034	60.96
Scenario1 (MC)	DRA-01	46.2534	60.95
Scenario1 (MC)	DRA-01	46.5034	60.94
Scenario1 (MC)	DRA-01	46.7534	60.93
Scenario1 (MC)	DRA-01	47.0034	60.92
Scenario1 (MC)	DRA-01	47.2534	60.91
Scenario1 (MC)	DRA-01	47.5034	60.90
Scenario1 (MC)	DRA-01	47.7534	60.89
Scenario1 (MC)	DRA-01	48.0034	60.88
Scenario1 (MC)	DRA-01	48.2534	60.87
Scenario1 (MC)	DRA-01	48.5034	60.87
Scenario1 (MC)	DRA-01	48.7534	60.86
Scenario1 (MC)	DRA-01	49.0034	60.85
Scenario1 (MC)	DRA-01	49.2534	60.84
Scenario1 (MC)	DRA-01	49.5034	60.83
Scenario1 (MC)	DRA-01	49.7534	60.82
Scenario1 (MC)	DRA-01	50.0034	60.81
Scenario1 (MC)	DRA-01	50.2534	60.80
Scenario1 (MC)	DRA-01	50.5034	60.79
Scenario1 (MC)	DRA-01	50.7534	60.78
Scenario1 (MC)	DRA-01	51.0034	60.78
Scenario1 (MC)	DRA-01	51.2534	60.77
Scenario1 (MC)	DRA-01	51.5034	60.76
Scenario1 (MC)	DRA-01	51.7534	60.75
Scenario1 (MC)	DRA-01	52.0034	60.74
Scenario1 (MC)	DRA-01	52.2534	60.73

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-01	52.5034	60.72
Scenario1 (MC)	DRA-01	52.7534	60.72
Scenario1 (MC)	DRA-01	53.0034	60.71
Scenario1 (MC)	DRA-01	53.2534	60.70
Scenario1 (MC)	DRA-01	53.5034	60.69
Scenario1 (MC)	DRA-01	53.7534	60.68
Scenario1 (MC)	DRA-01	54.0034	60.67
Scenario1 (MC)	DRA-01	54.2534	60.67
Scenario1 (MC)	DRA-01	54.5034	60.66
Scenario1 (MC)	DRA-01	54.7534	60.65
Scenario1 (MC)	DRA-01	55.0034	60.64
Scenario1 (MC)	DRA-01	55.2534	60.63
Scenario1 (MC)	DRA-01	55.5034	60.63
Scenario1 (MC)	DRA-01	55.7534	60.62
Scenario1 (MC)	DRA-01	56.0034	60.61
Scenario1 (MC)	DRA-01	56.2534	60.60
Scenario1 (MC)	DRA-01	56.5034	60.59
Scenario1 (MC)	DRA-01	56.7534	60.59
Scenario1 (MC)	DRA-01	57.0034	60.58
Scenario1 (MC)	DRA-01	57.2534	60.57
Scenario1 (MC)	DRA-01	57.5034	60.56
Scenario1 (MC)	DRA-01	57.7534	60.56
Scenario1 (MC)	DRA-01	58.0034	60.55
Scenario1 (MC)	DRA-01	58.2534	60.54
Scenario1 (MC)	DRA-01	58.5034	60.53
Scenario1 (MC)	DRA-01	58.7534	60.52
Scenario1 (MC)	DRA-01	59.0034	60.52
Scenario1 (MC)	DRA-01	59.2534	60.51
Scenario1 (MC)	DRA-01	59.5034	60.50
Scenario1 (MC)	DRA-01	59.7534	60.50
Scenario1 (MC)	DRA-01	60.0034	60.49
Scenario1 (MC)	DRA-01	60.2534	60.48
Scenario1 (MC)	DRA-01	60.5034	60.47
Scenario1 (MC)	DRA-01	60.7534	60.47
Scenario1 (MC)	DRA-01	61.0034	60.46
Scenario1 (MC)	DRA-01	61.2534	60.45
Scenario1 (MC)	DRA-01	61.5034	60.44
Scenario1 (MC)	DRA-01	61.7534	60.44
Scenario1 (MC)	DRA-01	62.0034	60.43
Scenario1 (MC)	DRA-01	62.2534	60.42
Scenario1 (MC)	DRA-01	62.5034	60.42
Scenario1 (MC)	DRA-01	62.7534	60.41

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-01	63.0034	60.40
Scenario1 (MC)	DRA-01	63.2534	60.39
Scenario1 (MC)	DRA-01	63.5034	60.39
Scenario1 (MC)	DRA-01	63.7534	60.38
Scenario1 (MC)	DRA-01	64.0034	60.37
Scenario1 (MC)	DRA-01	64.2534	60.37
Scenario1 (MC)	DRA-01	64.5034	60.36
Scenario1 (MC)	DRA-01	64.7534	60.35
Scenario1 (MC)	DRA-01	65.0034	60.35
Scenario1 (MC)	DRA-01	65.2534	60.34
Scenario1 (MC)	DRA-01	65.5034	60.33
Scenario1 (MC)	DRA-01	65.7534	60.33
Scenario1 (MC)	DRA-01	66.0034	60.32
Scenario1 (MC)	DRA-01	66.2534	60.31
Scenario1 (MC)	DRA-01	66.5034	60.31
Scenario1 (MC)	DRA-01	66.7534	60.30
Scenario1 (MC)	DRA-01	67.0034	60.29
Scenario1 (MC)	DRA-01	67.2534	60.29
Scenario1 (MC)	DRA-01	67.5034	60.28
Scenario1 (MC)	DRA-01	67.7534	60.27
Scenario1 (MC)	DRA-01	68.0034	60.27
Scenario1 (MC)	DRA-01	68.2534	60.26
Scenario1 (MC)	DRA-01	68.5034	60.25
Scenario1 (MC)	DRA-01	68.7534	60.25
Scenario1 (MC)	DRA-01	69.0034	60.24
Scenario1 (MC)	DRA-01	69.2534	60.23
Scenario1 (MC)	DRA-01	69.5034	60.23
Scenario1 (MC)	DRA-01	69.7534	60.22
Scenario1 (MC)	DRA-01	70.0034	60.22
Scenario1 (MC)	DRA-01	70.2534	60.21
Scenario1 (MC)	DRA-01	70.5034	60.20
Scenario1 (MC)	DRA-01	70.7534	60.20
Scenario1 (MC)	DRA-01	71.0034	60.19
Scenario1 (MC)	DRA-01	71.2534	60.18
Scenario1 (MC)	DRA-01	71.5034	60.18
Scenario1 (MC)	DRA-01	71.7534	60.17
Scenario1 (MC)	DRA-01	72.0034	60.17
Scenario1 (MC)	DRA-01	72.2534	60.16
Scenario1 (MC)	DRA-01	72.5034	60.15
Scenario1 (MC)	DRA-01	72.7534	60.15
Scenario1 (MC)	DRA-01	73.0034	60.14
Scenario1 (MC)	DRA-01	73.2534	60.14

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-01	73.5034	60.13
Scenario1 (MC)	DRA-01	73.7534	60.12
Scenario1 (MC)	DRA-01	74.0034	60.12
Scenario1 (MC)	DRA-01	74.2534	60.11
Scenario1 (MC)	DRA-01	74.5034	60.11
Scenario1 (MC)	DRA-01	74.7534	60.10
Scenario1 (MC)	DRA-01	75.0034	60.09
Scenario1 (MC)	DRA-01	75.2534	60.09
Scenario1 (MC)	DRA-01	75.5034	60.08
Scenario1 (MC)	DRA-01	75.7534	60.08
Scenario1 (MC)	DRA-01	76.0034	60.07
Scenario1 (MC)	DRA-01	76.2534	60.06
Scenario1 (MC)	DRA-01	76.5034	60.06
Scenario1 (MC)	DRA-01	76.7534	60.05
Scenario1 (MC)	DRA-01	77.0034	60.05
Scenario1 (MC)	DRA-01	77.2534	60.04
Scenario1 (MC)	DRA-01	77.5034	60.04
Scenario1 (MC)	DRA-01	77.7534	60.03
Scenario1 (MC)	DRA-01	78.0034	60.02
Scenario1 (MC)	DRA-01	78.2534	60.02
Scenario1 (MC)	DRA-01	78.5034	60.01
Scenario1 (MC)	DRA-01	78.7534	60.01
Scenario1 (MC)	DRA-01	79.0034	60.00
Scenario1 (MC)	DRA-01	79.2534	60.00
Scenario1 (MC)	DRA-01	79.5034	59.99
Scenario1 (MC)	DRA-01	79.7534	59.99
Scenario1 (MC)	DRA-01	80.0034	59.98
Scenario1 (MC)	DRA-01	80.2534	59.97
Scenario1 (MC)	DRA-01	80.5034	59.97
Scenario1 (MC)	DRA-01	80.7534	59.96
Scenario1 (MC)	DRA-01	81.0034	59.96
Scenario1 (MC)	DRA-01	81.2534	59.95
Scenario1 (MC)	DRA-01	81.5034	59.95
Scenario1 (MC)	DRA-01	81.7534	59.94
Scenario1 (MC)	DRA-01	82.0034	59.94
Scenario1 (MC)	DRA-01	82.2534	59.93
Scenario1 (MC)	DRA-01	82.5034	59.93
Scenario1 (MC)	DRA-01	82.7534	59.92
Scenario1 (MC)	DRA-01	83.0034	59.91
Scenario1 (MC)	DRA-01	83.2534	59.91
Scenario1 (MC)	DRA-01	83.5034	59.90
Scenario1 (MC)	DRA-01	83.7534	59.90

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-01	84.0034	59.89
Scenario1 (MC)	DRA-01	84.2534	59.89
Scenario1 (MC)	DRA-01	84.5034	59.88
Scenario1 (MC)	DRA-01	84.7534	59.88
Scenario1 (MC)	DRA-01	85.0034	59.87
Scenario1 (MC)	DRA-01	85.2534	59.87
Scenario1 (MC)	DRA-01	85.5034	59.86
Scenario1 (MC)	DRA-01	85.7534	59.86
Scenario1 (MC)	DRA-01	86.0034	59.85
Scenario1 (MC)	DRA-01	86.2534	59.85
Scenario1 (MC)	DRA-01	86.5034	59.84
Scenario1 (MC)	DRA-01	86.7534	59.84
Scenario1 (MC)	DRA-01	87.0034	59.83
Scenario1 (MC)	DRA-01	87.2534	59.83
Scenario1 (MC)	DRA-01	87.5034	59.82
Scenario1 (MC)	DRA-01	87.7534	59.82
Scenario1 (MC)	DRA-01	88.0034	59.81
Scenario1 (MC)	DRA-01	88.2534	59.81
Scenario1 (MC)	DRA-01	88.5034	59.80
Scenario1 (MC)	DRA-01	88.7534	59.80
Scenario1 (MC)	DRA-01	89.0034	59.79
Scenario1 (MC)	DRA-01	89.2534	59.79
Scenario1 (MC)	DRA-01	89.5034	59.78
Scenario1 (MC)	DRA-01	89.7534	59.78
Scenario1 (MC)	DRA-01	90.0034	59.77
Scenario1 (MC)	DRA-01	90.2534	59.77
Scenario1 (MC)	DRA-01	90.5034	59.76
Scenario1 (MC)	DRA-01	90.7534	59.76
Scenario1 (MC)	DRA-01	91.0034	59.75
Scenario1 (MC)	DRA-01	91.2534	59.75
Scenario1 (MC)	DRA-01	91.5034	59.74
Scenario1 (MC)	DRA-01	91.7534	59.74
Scenario1 (MC)	DRA-01	92.0034	59.73
Scenario1 (MC)	DRA-01	92.2534	59.73
Scenario1 (MC)	DRA-01	92.5034	59.72
Scenario1 (MC)	DRA-01	92.7534	59.72
Scenario1 (MC)	DRA-01	93.0034	59.71
Scenario1 (MC)	DRA-01	93.2534	59.71
Scenario1 (MC)	DRA-01	93.5034	59.70
Scenario1 (MC)	DRA-01	93.7534	59.70
Scenario1 (MC)	DRA-01	94.0034	59.69
Scenario1 (MC)	DRA-01	94.2534	59.69

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-01	94.5034	59.68
Scenario1 (MC)	DRA-01	94.7534	59.68
Scenario1 (MC)	DRA-01	95.0034	59.67
Scenario1 (MC)	DRA-01	95.2534	59.67
Scenario1 (MC)	DRA-01	95.5034	59.67
Scenario1 (MC)	DRA-01	95.7534	59.66
Scenario1 (MC)	DRA-01	96.0034	59.66
Scenario1 (MC)	DRA-01	96.2534	59.65
Scenario1 (MC)	DRA-01	96.5034	59.65
Scenario1 (MC)	DRA-01	96.7534	59.64
Scenario1 (MC)	DRA-01	97.0034	59.64
Scenario1 (MC)	DRA-01	97.2534	59.63
Scenario1 (MC)	DRA-01	97.5034	59.63
Scenario1 (MC)	DRA-01	97.7534	59.62
Scenario1 (MC)	DRA-01	98.0034	59.62
Scenario1 (MC)	DRA-01	98.2534	59.61
Scenario1 (MC)	DRA-01	98.5034	59.61
Scenario1 (MC)	DRA-01	98.7534	59.61
Scenario1 (MC)	DRA-01	99.0034	59.60
Scenario1 (MC)	DRA-01	99.2534	59.60
Scenario1 (MC)	DRA-01	99.5034	59.59
Scenario1 (MC)	DRA-01	99.7534	59.59
Scenario1 (MC)	DRA-01	100.0034	59.58
Scenario1 (MC)	DRA-01	100.2534	59.58
Scenario1 (MC)	DRA-01	100.5034	59.57
Scenario1 (MC)	DRA-01	100.7534	59.57
Scenario1 (MC)	DRA-01	101.0034	59.56
Scenario1 (MC)	DRA-01	101.2534	59.56
Scenario1 (MC)	DRA-01	101.5034	59.56
Scenario1 (MC)	DRA-01	101.7534	59.55
Scenario1 (MC)	DRA-01	102.0034	59.55
Scenario1 (MC)	DRA-01	102.2534	59.54
Scenario1 (MC)	DRA-01	102.5034	59.54
Scenario1 (MC)	DRA-01	102.7534	59.53
Scenario1 (MC)	DRA-01	103.0034	59.53
Scenario1 (MC)	DRA-01	103.2534	59.52
Scenario1 (MC)	DRA-01	103.5034	59.52
Scenario1 (MC)	DRA-01	103.7534	59.52
Scenario1 (MC)	DRA-01	104.0034	59.51
Scenario1 (MC)	DRA-01	104.2534	59.51
Scenario1 (MC)	DRA-01	104.5034	59.50
Scenario1 (MC)	DRA-01	104.7534	59.50

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-01	105.0034	59.49
Scenario1 (MC)	DRA-01	105.2534	59.49
Scenario1 (MC)	DRA-01	105.5034	59.49
Scenario1 (MC)	DRA-01	105.7534	59.48
Scenario1 (MC)	DRA-01	106.0034	59.48
Scenario1 (MC)	DRA-01	106.2534	59.47
Scenario1 (MC)	DRA-01	106.5034	59.47
Scenario1 (MC)	DRA-01	106.7534	59.46
Scenario1 (MC)	DRA-01	107.0034	59.46
Scenario1 (MC)	DRA-01	107.2534	59.46
Scenario1 (MC)	DRA-01	107.5034	59.45
Scenario1 (MC)	DRA-01	107.7534	59.45
Scenario1 (MC)	DRA-01	108.0034	59.44
Scenario1 (MC)	DRA-01	108.2534	59.44
Scenario1 (MC)	DRA-01	108.5034	59.43
Scenario1 (MC)	DRA-01	108.7534	59.43
Scenario1 (MC)	DRA-01	109.0034	59.43
Scenario1 (MC)	DRA-01	109.2534	59.42
Scenario1 (MC)	DRA-01	109.5034	59.42
Scenario1 (MC)	DRA-01	109.7534	59.41
Scenario1 (MC)	DRA-01	110.0034	59.41
Scenario1 (MC)	DRA-01	110.2534	59.41
Scenario1 (MC)	DRA-01	110.5034	59.40
Scenario1 (MC)	DRA-01	110.7534	59.40
Scenario1 (MC)	DRA-01	111.0034	59.39
Scenario1 (MC)	DRA-01	111.2534	59.39
Scenario1 (MC)	DRA-01	111.5034	59.39
Scenario1 (MC)	DRA-01	111.7534	59.38
Scenario1 (MC)	DRA-01	112.0034	59.38
Scenario1 (MC)	DRA-01	112.2534	59.37
Scenario1 (MC)	DRA-01	112.5034	59.37
Scenario1 (MC)	DRA-01	112.7534	59.36
Scenario1 (MC)	DRA-01	113.0034	59.36
Scenario1 (MC)	DRA-01	113.2534	59.36
Scenario1 (MC)	DRA-01	113.5034	59.35
Scenario1 (MC)	DRA-01	113.7534	59.35
Scenario1 (MC)	DRA-01	114.0034	59.34
Scenario1 (MC)	DRA-01	114.2534	59.34
Scenario1 (MC)	DRA-01	114.5034	59.34
Scenario1 (MC)	DRA-01	114.7534	59.33
Scenario1 (MC)	DRA-01	115.0034	59.33
Scenario1 (MC)	DRA-01	115.2534	59.32

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-01	115.5034	59.32
Scenario1 (MC)	DRA-01	115.7534	59.32
Scenario1 (MC)	DRA-01	116.0034	59.31
Scenario1 (MC)	DRA-01	116.2534	59.31
Scenario1 (MC)	DRA-01	116.5034	59.30
Scenario1 (MC)	DRA-01	116.7534	59.30
Scenario1 (MC)	DRA-01	117.0034	59.30
Scenario1 (MC)	DRA-01	117.2534	59.29
Scenario1 (MC)	DRA-01	117.5034	59.29
Scenario1 (MC)	DRA-01	117.7534	59.29
Scenario1 (MC)	DRA-01	118.0034	59.28
Scenario1 (MC)	DRA-01	118.2534	59.28
Scenario1 (MC)	DRA-01	118.5034	59.27
Scenario1 (MC)	DRA-01	118.7534	59.27
Scenario1 (MC)	DRA-01	119.0034	59.27
Scenario1 (MC)	DRA-01	119.2534	59.26
Scenario1 (MC)	DRA-01	119.5034	59.26
Scenario1 (MC)	DRA-01	119.7534	59.25
Scenario1 (MC)	DRA-01	120.0034	59.25
Scenario1 (MC)	DRA-01	120.2534	59.25
Scenario1 (MC)	DRA-01	120.5034	59.24
Scenario1 (MC)	DRA-01	120.7534	59.24
Scenario1 (MC)	DRA-01	121.0034	59.23
Scenario1 (MC)	DRA-01	121.2534	59.23
Scenario1 (MC)	DRA-01	121.5034	59.23
Scenario1 (MC)	DRA-01	121.7534	59.22
Scenario1 (MC)	DRA-01	122.0034	59.22
Scenario1 (MC)	DRA-01	122.2534	59.22
Scenario1 (MC)	DRA-01	122.5034	59.21
Scenario1 (MC)	DRA-01	122.7534	59.21
Scenario1 (MC)	DRA-01	123.0034	59.20
Scenario1 (MC)	DRA-01	123.2534	59.20
Scenario1 (MC)	DRA-01	123.5034	59.20
Scenario1 (MC)	DRA-01	123.7534	59.19
Scenario1 (MC)	DRA-01	124.0034	59.19
Scenario1 (MC)	DRA-01	124.2534	59.19
Scenario1 (MC)	DRA-01	124.5034	59.18
Scenario1 (MC)	DRA-01	124.7534	59.18
Scenario1 (MC)	DRA-01	125.0034	59.17
Scenario1 (MC)	DRA-01	125.2534	59.17
Scenario1 (MC)	DRA-01	125.5034	59.17
Scenario1 (MC)	DRA-01	125.7534	59.16

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-01	126.0034	59.16
Scenario1 (MC)	DRA-01	126.2534	59.16
Scenario1 (MC)	DRA-01	126.5034	59.15
Scenario1 (MC)	DRA-01	126.7534	59.15
Scenario1 (MC)	DRA-01	127.0034	59.14
Scenario1 (MC)	DRA-01	127.2534	59.14
Scenario1 (MC)	DRA-01	127.5034	59.14
Scenario1 (MC)	DRA-01	127.7534	59.13
Scenario1 (MC)	DRA-01	128.0034	59.13
Scenario1 (MC)	DRA-01	128.2534	59.13
Scenario1 (MC)	DRA-01	128.5034	59.12
Scenario1 (MC)	DRA-01	128.7534	59.12
Scenario1 (MC)	DRA-01	129.0034	59.12
Scenario1 (MC)	DRA-01	129.2534	59.11
Scenario1 (MC)	DRA-01	129.5034	59.11
Scenario1 (MC)	DRA-01	129.7534	59.10
Scenario1 (MC)	DRA-01	130.0034	59.10
Scenario1 (MC)	DRA-01	130.2534	59.10
Scenario1 (MC)	DRA-01	130.5034	59.09
Scenario1 (MC)	DRA-01	130.7534	59.09
Scenario1 (MC)	DRA-01	131.0034	59.09
Scenario1 (MC)	DRA-01	131.2534	59.08
Scenario1 (MC)	DRA-01	131.5034	59.08
Scenario1 (MC)	DRA-01	131.7534	59.08
Scenario1 (MC)	DRA-01	132.0034	59.07
Scenario1 (MC)	DRA-01	132.2534	59.07
Scenario1 (MC)	DRA-01	132.5034	59.07
Scenario1 (MC)	DRA-01	132.7534	59.06
Scenario1 (MC)	DRA-01	133.0034	59.06
Scenario1 (MC)	DRA-01	133.2534	59.05
Scenario1 (MC)	DRA-01	133.5034	59.05
Scenario1 (MC)	DRA-01	133.7534	59.05
Scenario1 (MC)	DRA-01	134.0034	59.04
Scenario1 (MC)	DRA-01	134.2534	59.04
Scenario1 (MC)	DRA-01	134.5034	59.04
Scenario1 (MC)	DRA-01	134.7534	59.03
Scenario1 (MC)	DRA-01	135.0034	59.03
Scenario1 (MC)	DRA-01	135.2534	59.03
Scenario1 (MC)	DRA-01	135.5034	59.02
Scenario1 (MC)	DRA-01	135.7534	59.02
Scenario1 (MC)	DRA-01	136.0034	59.02
Scenario1 (MC)	DRA-01	136.2534	59.01

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-01	136.5034	59.01
Scenario1 (MC)	DRA-01	136.7534	59.01
Scenario1 (MC)	DRA-01	137.0034	59.00
Scenario1 (MC)	DRA-01	137.2534	59.00
Scenario1 (MC)	DRA-01	137.5034	59.00
Scenario1 (MC)	DRA-01	137.7534	58.99
Scenario1 (MC)	DRA-01	138.0034	58.99
Scenario1 (MC)	DRA-01	138.2534	58.98
Scenario1 (MC)	DRA-01	138.5034	58.98
Scenario1 (MC)	DRA-01	138.7534	58.98
Scenario1 (MC)	DRA-01	139.0034	58.97
Scenario1 (MC)	DRA-01	139.2534	58.97
Scenario1 (MC)	DRA-01	139.5034	58.97
Scenario1 (MC)	DRA-01	139.7534	58.96
Scenario1 (MC)	DRA-01	140.0034	58.96
Scenario1 (MC)	DRA-01	140.2534	58.96
Scenario1 (MC)	DRA-01	140.5034	58.95
Scenario1 (MC)	DRA-01	140.7534	58.95
Scenario1 (MC)	DRA-01	141.0034	58.95
Scenario1 (MC)	DRA-01	141.2534	58.94
Scenario1 (MC)	DRA-01	141.5034	58.94
Scenario1 (MC)	DRA-01	141.7534	58.94
Scenario1 (MC)	DRA-01	142.0034	58.93
Scenario1 (MC)	DRA-01	142.2534	58.93
Scenario1 (MC)	DRA-01	142.5034	58.93
Scenario1 (MC)	DRA-01	142.7534	58.92
Scenario1 (MC)	DRA-01	143.0034	58.92
Scenario1 (MC)	DRA-01	143.2534	58.92
Scenario1 (MC)	DRA-01	143.5034	58.91
Scenario1 (MC)	DRA-01	143.7534	58.91
Scenario1 (MC)	DRA-01	144.0034	58.91
Scenario1 (MC)	DRA-01	144.2534	58.90
Scenario1 (MC)	DRA-01	144.5034	58.90
Scenario1 (MC)	DRA-01	144.7534	58.90
Scenario1 (MC)	DRA-01	145.0034	58.89
Scenario1 (MC)	DRA-01	145.2534	58.89
Scenario1 (MC)	DRA-01	145.5034	58.89
Scenario1 (MC)	DRA-01	145.7534	58.88
Scenario1 (MC)	DRA-01	146.0034	58.88
Scenario1 (MC)	DRA-01	146.2534	58.88
Scenario1 (MC)	DRA-01	146.5034	58.87
Scenario1 (MC)	DRA-01	146.7534	58.87

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-01	147.0034	58.87
Scenario1 (MC)	DRA-01	147.2534	58.86
Scenario1 (MC)	DRA-01	147.5034	58.86
Scenario1 (MC)	DRA-01	147.7534	58.86
Scenario1 (MC)	DRA-01	148.0034	58.85
Scenario1 (MC)	DRA-01	148.2534	58.85
Scenario1 (MC)	DRA-01	148.5034	58.85
Scenario1 (MC)	DRA-01	148.7534	58.84
Scenario1 (MC)	DRA-01	149.0034	58.84
Scenario1 (MC)	DRA-01	149.2534	58.84
Scenario1 (MC)	DRA-01	149.5034	58.83
Scenario1 (MC)	DRA-01	149.7534	58.83
Scenario1 (MC)	DRA-01	150.0034	58.83
Scenario1 (MC)	DRA-01	150.2534	58.83
Scenario1 (MC)	DRA-01	150.5034	58.82
Scenario1 (MC)	DRA-01	150.7534	58.82
Scenario1 (MC)	DRA-01	151.0034	58.82
Scenario1 (MC)	DRA-01	151.2534	58.81
Scenario1 (MC)	DRA-01	151.5034	58.81
Scenario1 (MC)	DRA-01	151.7534	58.81
Scenario1 (MC)	DRA-01	152.0034	58.80
Scenario1 (MC)	DRA-01	152.2534	58.80
Scenario1 (MC)	DRA-01	152.5034	58.80
Scenario1 (MC)	DRA-01	152.7534	58.79
Scenario1 (MC)	DRA-01	153.0034	58.79
Scenario1 (MC)	DRA-01	153.2534	58.79
Scenario1 (MC)	DRA-01	153.5034	58.78
Scenario1 (MC)	DRA-01	153.7534	58.78
Scenario1 (MC)	DRA-01	154.0034	58.78
Scenario1 (MC)	DRA-01	154.2534	58.77
Scenario1 (MC)	DRA-01	154.5034	58.77
Scenario1 (MC)	DRA-01	154.7534	58.77
Scenario1 (MC)	DRA-01	155.0034	58.76
Scenario1 (MC)	DRA-01	155.2534	58.76
Scenario1 (MC)	DRA-01	155.5034	58.76
Scenario1 (MC)	DRA-01	155.7534	58.76
Scenario1 (MC)	DRA-01	156.0034	58.75
Scenario1 (MC)	DRA-01	156.2534	58.75
Scenario1 (MC)	DRA-01	156.5034	58.75
Scenario1 (MC)	DRA-01	156.7534	58.74
Scenario1 (MC)	DRA-01	157.0034	58.74
Scenario1 (MC)	DRA-01	157.2534	58.74

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-01	157.5034	58.73
Scenario1 (MC)	DRA-01	157.7534	58.73
Scenario1 (MC)	DRA-01	158.0034	58.73
Scenario1 (MC)	DRA-01	158.2534	58.72
Scenario1 (MC)	DRA-01	158.5034	58.72
Scenario1 (MC)	DRA-01	158.7534	58.72
Scenario1 (MC)	DRA-01	159.0034	58.71
Scenario1 (MC)	DRA-01	159.2534	58.71
Scenario1 (MC)	DRA-01	159.5034	58.71
Scenario1 (MC)	DRA-01	159.7534	58.71
Scenario1 (MC)	DRA-01	160.0034	58.70
Scenario1 (MC)	DRA-01	160.2534	58.70
Scenario1 (MC)	DRA-01	160.5034	58.70
Scenario1 (MC)	DRA-01	160.7534	58.69
Scenario1 (MC)	DRA-01	161.0034	58.69
Scenario1 (MC)	DRA-01	161.2534	58.69
Scenario1 (MC)	DRA-01	161.5034	58.68
Scenario1 (MC)	DRA-01	161.7534	58.68
Scenario1 (MC)	DRA-01	162.0034	58.68
Scenario1 (MC)	DRA-01	162.2534	58.67
Scenario1 (MC)	DRA-01	162.5034	58.67
Scenario1 (MC)	DRA-01	162.7534	58.67
Scenario1 (MC)	DRA-01	163.0034	58.67
Scenario1 (MC)	DRA-01	163.2534	58.66
Scenario1 (MC)	DRA-01	163.5034	58.66
Scenario1 (MC)	DRA-01	163.7534	58.66
Scenario1 (MC)	DRA-01	164.0034	58.65
Scenario1 (MC)	DRA-01	164.2534	58.65
Scenario1 (MC)	DRA-01	164.5034	58.65
Scenario1 (MC)	DRA-01	164.7534	58.64
Scenario1 (MC)	DRA-01	165.0034	58.64
Scenario1 (MC)	DRA-01	165.2534	58.64
Scenario1 (MC)	DRA-01	165.5034	58.64
Scenario1 (MC)	DRA-01	165.7534	58.63
Scenario1 (MC)	DRA-01	166.0034	58.63
Scenario1 (MC)	DRA-01	166.2534	58.63
Scenario1 (MC)	DRA-01	166.5034	58.62
Scenario1 (MC)	DRA-01	166.7534	58.62
Scenario1 (MC)	DRA-01	167.0034	58.62
Scenario1 (MC)	DRA-01	167.2534	58.61
Scenario1 (MC)	DRA-01	167.5034	58.61
Scenario1 (MC)	DRA-01	167.7534	58.61

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-01	168.0034	58.61
Scenario1 (MC)	DRA-01	168.2534	58.60
Scenario1 (MC)	DRA-01	168.5034	58.60
Scenario1 (MC)	DRA-01	168.7534	58.60
Scenario1 (MC)	DRA-01	169.0034	58.59
Scenario1 (MC)	DRA-01	169.2534	58.59
Scenario1 (MC)	DRA-01	169.5034	58.59
Scenario1 (MC)	DRA-01	169.7534	58.59
Scenario1 (MC)	DRA-01	170.0034	58.58
Scenario1 (MC)	DRA-01	170.2534	58.58
Scenario1 (MC)	DRA-01	170.5034	58.58
Scenario1 (MC)	DRA-01	170.7534	58.57
Scenario1 (MC)	DRA-01	171.0034	58.57
Scenario1 (MC)	DRA-01	171.2534	58.57
Scenario1 (MC)	DRA-01	171.5034	58.56
Scenario1 (MC)	DRA-01	171.7534	58.56
Scenario1 (MC)	DRA-01	172.0034	58.56
Scenario1 (MC)	DRA-01	172.2534	58.56
Scenario1 (MC)	DRA-01	172.5034	58.55
Scenario1 (MC)	DRA-01	172.7534	58.55
Scenario1 (MC)	DRA-01	173.0034	58.55
Scenario1 (MC)	DRA-01	173.2534	58.54
Scenario1 (MC)	DRA-01	173.5034	58.54
Scenario1 (MC)	DRA-01	173.7534	58.54
Scenario1 (MC)	DRA-01	174.0034	58.54
Scenario1 (MC)	DRA-01	174.2534	58.53
Scenario1 (MC)	DRA-01	174.5034	58.53
Scenario1 (MC)	DRA-01	174.7534	58.53
Scenario1 (MC)	DRA-01	175.0034	58.52
Scenario1 (MC)	DRA-01	175.2534	58.52
Scenario1 (MC)	DRA-01	175.5034	58.52
Scenario1 (MC)	DRA-01	175.7534	58.52
Scenario1 (MC)	DRA-01	176.0034	58.51
Scenario1 (MC)	DRA-01	176.2534	58.51
Scenario1 (MC)	DRA-01	176.5034	58.51
Scenario1 (MC)	DRA-01	176.7534	58.50
Scenario1 (MC)	DRA-01	177.0034	58.50
Scenario1 (MC)	DRA-01	177.2534	58.50
Scenario1 (MC)	DRA-01	177.5034	58.50
Scenario1 (MC)	DRA-01	177.7534	58.49
Scenario1 (MC)	DRA-01	178.0034	58.49
Scenario1 (MC)	DRA-01	178.2534	58.49

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-01	178.5034	58.48
Scenario1 (MC)	DRA-01	178.7534	58.48
Scenario1 (MC)	DRA-01	179.0034	58.48
Scenario1 (MC)	DRA-01	179.2534	58.48
Scenario1 (MC)	DRA-01	179.5034	58.47
Scenario1 (MC)	DRA-01	179.7534	58.47
Scenario1 (MC)	DRA-01	180.0034	58.47
Scenario1 (MC)	DRA-01	180.2534	58.46
Scenario1 (MC)	DRA-01	180.5034	58.46
Scenario1 (MC)	DRA-01	180.7534	58.46
Scenario1 (MC)	DRA-01	181.0034	58.46
Scenario1 (MC)	DRA-01	181.2534	58.45
Scenario1 (MC)	DRA-01	181.5034	58.45
Scenario1 (MC)	DRA-01	181.7534	58.45
Scenario1 (MC)	DRA-01	182.0034	58.44
Scenario1 (MC)	DRA-01	182.2534	58.44
Scenario1 (MC)	DRA-01	182.5034	58.44
Scenario1 (MC)	DRA-01	182.7534	58.44
Scenario1 (MC)	DRA-01	183.0034	58.43
Scenario1 (MC)	DRA-01	183.2534	58.43
Scenario1 (MC)	DRA-01	183.5034	58.43
Scenario1 (MC)	DRA-01	183.7534	58.43
Scenario1 (MC)	DRA-01	184.0034	58.42
Scenario1 (MC)	DRA-01	184.2534	58.42
Scenario1 (MC)	DRA-01	184.5034	58.42
Scenario1 (MC)	DRA-01	184.7534	58.41
Scenario1 (MC)	DRA-01	185.0034	58.41
Scenario1 (MC)	DRA-01	185.2534	58.41
Scenario1 (MC)	DRA-01	185.5034	58.41
Scenario1 (MC)	DRA-01	185.7534	58.40
Scenario1 (MC)	DRA-01	186.0034	58.40
Scenario1 (MC)	DRA-01	186.2534	58.40
Scenario1 (MC)	DRA-01	186.5034	58.39
Scenario1 (MC)	DRA-01	186.7534	58.39
Scenario1 (MC)	DRA-01	187.0034	58.39
Scenario1 (MC)	DRA-01	187.2534	58.39
Scenario1 (MC)	DRA-01	187.5034	58.38
Scenario1 (MC)	DRA-01	187.7534	58.38
Scenario1 (MC)	DRA-01	188.0034	58.38
Scenario1 (MC)	DRA-01	188.2534	58.38
Scenario1 (MC)	DRA-01	188.5034	58.37
Scenario1 (MC)	DRA-01	188.7534	58.37

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-01	189.0034	58.37
Scenario1 (MC)	DRA-01	189.2534	58.36
Scenario1 (MC)	DRA-01	189.5034	58.36
Scenario1 (MC)	DRA-01	189.7534	58.36
Scenario1 (MC)	DRA-01	190.0034	58.36
Scenario1 (MC)	DRA-01	190.2534	58.35
Scenario1 (MC)	DRA-01	190.5034	58.35
Scenario1 (MC)	DRA-01	190.7534	58.35
Scenario1 (MC)	DRA-01	191.0034	58.35
Scenario1 (MC)	DRA-01	191.2534	58.34
Scenario1 (MC)	DRA-01	191.5034	58.34
Scenario1 (MC)	DRA-01	191.7534	58.34
Scenario1 (MC)	DRA-01	192.0034	58.33
Scenario1 (MC)	DRA-01	192.2534	58.33
Scenario1 (MC)	DRA-01	192.5034	58.33
Scenario1 (MC)	DRA-01	192.7534	58.33
Scenario1 (MC)	DRA-01	193.0034	58.32
Scenario1 (MC)	DRA-01	193.2534	58.32
Scenario1 (MC)	DRA-01	193.5034	58.32
Scenario1 (MC)	DRA-01	193.7534	58.32
Scenario1 (MC)	DRA-01	194.0034	58.31
Scenario1 (MC)	DRA-01	194.2534	58.31
Scenario1 (MC)	DRA-01	194.5034	58.31
Scenario1 (MC)	DRA-01	194.7534	58.31
Scenario1 (MC)	DRA-01	195.0034	58.30
Scenario1 (MC)	DRA-01	195.2534	58.30
Scenario1 (MC)	DRA-01	195.5034	58.30
Scenario1 (MC)	DRA-01	195.7534	58.29
Scenario1 (MC)	DRA-01	196.0034	58.29
Scenario1 (MC)	DRA-01	196.2534	58.29
Scenario1 (MC)	DRA-01	196.5034	58.29
Scenario1 (MC)	DRA-01	196.7534	58.28
Scenario1 (MC)	DRA-01	197.0034	58.28
Scenario1 (MC)	DRA-01	197.2534	58.28
Scenario1 (MC)	DRA-01	197.5034	58.28
Scenario1 (MC)	DRA-01	197.7534	58.27
Scenario1 (MC)	DRA-01	198.0034	58.27
Scenario1 (MC)	DRA-01	198.2534	58.27
Scenario1 (MC)	DRA-01	198.5034	58.27
Scenario1 (MC)	DRA-01	198.7534	58.26
Scenario1 (MC)	DRA-01	199.0034	58.26
Scenario1 (MC)	DRA-01	199.2534	58.26

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-01	199.5034	58.25
Scenario1 (MC)	DRA-01	199.7534	58.25
Scenario1 (MC)	DRA-01	200.0034	58.25
Scenario1 (MC)	DRA-01	200.2534	58.25
Scenario1 (MC)	DRA-01	200.5034	58.24
Scenario1 (MC)	DRA-01	200.7534	58.24
Scenario1 (MC)	DRA-01	201.0034	58.24
Scenario1 (MC)	DRA-01	201.2534	58.24
Scenario1 (MC)	DRA-01	201.5034	58.23
Scenario1 (MC)	DRA-01	201.7534	58.23
Scenario1 (MC)	DRA-01	202.0034	58.23
Scenario1 (MC)	DRA-01	202.2534	58.23
Scenario1 (MC)	DRA-01	202.5034	58.22
Scenario1 (MC)	DRA-01	202.7534	58.22
Scenario1 (MC)	DRA-01	203.0034	58.22
Scenario1 (MC)	DRA-01	203.2534	58.22
Scenario1 (MC)	DRA-01	203.5034	58.21
Scenario1 (MC)	DRA-01	203.7534	58.21
Scenario1 (MC)	DRA-01	204.0034	58.21
Scenario1 (MC)	DRA-01	204.2534	58.21
Scenario1 (MC)	DRA-01	204.5034	58.20
Scenario1 (MC)	DRA-01	204.7534	58.20
Scenario1 (MC)	DRA-01	205.0034	58.20
Scenario1 (MC)	DRA-01	205.2534	58.20
Scenario1 (MC)	DRA-01	205.5034	58.19
Scenario1 (MC)	DRA-01	205.7534	58.19
Scenario1 (MC)	DRA-01	206.0034	58.19
Scenario1 (MC)	DRA-01	206.2534	58.18
Scenario1 (MC)	DRA-01	206.5034	58.18
Scenario1 (MC)	DRA-01	206.7534	58.18
Scenario1 (MC)	DRA-01	207.0034	58.18
Scenario1 (MC)	DRA-01	207.2534	58.17
Scenario1 (MC)	DRA-01	207.5034	58.17
Scenario1 (MC)	DRA-01	207.7534	58.17
Scenario1 (MC)	DRA-01	208.0034	58.17
Scenario1 (MC)	DRA-01	208.2534	58.16
Scenario1 (MC)	DRA-01	208.5034	58.16
Scenario1 (MC)	DRA-01	208.7534	58.16
Scenario1 (MC)	DRA-01	209.0034	58.16
Scenario1 (MC)	DRA-01	209.2534	58.15
Scenario1 (MC)	DRA-01	209.5034	58.15
Scenario1 (MC)	DRA-01	209.7534	58.15

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-01	210.0034	58.15
Scenario1 (MC)	DRA-01	210.2534	58.14
Scenario1 (MC)	DRA-01	210.5034	58.14
Scenario1 (MC)	DRA-01	210.7534	58.14
Scenario1 (MC)	DRA-01	211.0034	58.14
Scenario1 (MC)	DRA-01	211.2534	58.13
Scenario1 (MC)	DRA-01	211.5034	58.13
Scenario1 (MC)	DRA-01	211.7534	58.13
Scenario1 (MC)	DRA-01	212.0034	58.13
Scenario1 (MC)	DRA-01	212.2534	58.12
Scenario1 (MC)	DRA-01	212.5034	58.12
Scenario1 (MC)	DRA-01	212.7534	58.12
Scenario1 (MC)	DRA-01	213.0034	58.12
Scenario1 (MC)	DRA-01	213.2534	58.11
Scenario1 (MC)	DRA-01	213.5034	58.11
Scenario1 (MC)	DRA-01	213.7534	58.11
Scenario1 (MC)	DRA-01	214.0034	58.11
Scenario1 (MC)	DRA-01	214.2534	58.10
Scenario1 (MC)	DRA-01	214.5034	58.10
Scenario1 (MC)	DRA-01	214.7534	58.10
Scenario1 (MC)	DRA-01	215.0034	58.10
Scenario1 (MC)	DRA-01	215.2534	58.09
Scenario1 (MC)	DRA-01	215.5034	58.09
Scenario1 (MC)	DRA-01	215.7534	58.09
Scenario1 (MC)	DRA-01	216.0034	58.09
Scenario1 (MC)	DRA-01	216.2534	58.08
Scenario1 (MC)	DRA-01	216.5034	58.08
Scenario1 (MC)	DRA-01	216.7534	58.08
Scenario1 (MC)	DRA-01	217.0034	58.08
Scenario1 (MC)	DRA-01	217.2534	58.07
Scenario1 (MC)	DRA-01	217.5034	58.07
Scenario1 (MC)	DRA-01	217.7534	58.07
Scenario1 (MC)	DRA-01	218.0034	58.07
Scenario1 (MC)	DRA-01	218.2534	58.06
Scenario1 (MC)	DRA-01	218.5034	58.06
Scenario1 (MC)	DRA-01	218.7534	58.06
Scenario1 (MC)	DRA-01	219.0034	58.06
Scenario1 (MC)	DRA-01	219.2534	58.05
Scenario1 (MC)	DRA-01	219.5034	58.05
Scenario1 (MC)	DRA-01	219.7534	58.05
Scenario1 (MC)	DRA-01	220.0034	58.05
Scenario1 (MC)	DRA-01	220.2534	58.04

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-01	220.5034	58.04
Scenario1 (MC)	DRA-01	220.7534	58.04
Scenario1 (MC)	DRA-01	221.0034	58.04
Scenario1 (MC)	DRA-01	221.2534	58.03
Scenario1 (MC)	DRA-01	221.5034	58.03
Scenario1 (MC)	DRA-01	221.7534	58.03
Scenario1 (MC)	DRA-01	222.0034	58.03
Scenario1 (MC)	DRA-01	222.2534	58.03
Scenario1 (MC)	DRA-01	222.5034	58.02
Scenario1 (MC)	DRA-01	222.7534	58.02
Scenario1 (MC)	DRA-01	223.0034	58.02
Scenario1 (MC)	DRA-01	223.2534	58.02
Scenario1 (MC)	DRA-01	223.5034	58.01
Scenario1 (MC)	DRA-01	223.7534	58.01
Scenario1 (MC)	DRA-01	224.0034	58.01
Scenario1 (MC)	DRA-01	224.2534	58.01
Scenario1 (MC)	DRA-01	224.5034	58.00
Scenario1 (MC)	DRA-01	224.7534	58.00
Scenario1 (MC)	DRA-01	225.0034	58.00
Scenario1 (MC)	DRA-01	225.2534	58.00
Scenario1 (MC)	DRA-01	225.5034	57.99
Scenario1 (MC)	DRA-01	225.7534	57.99
Scenario1 (MC)	DRA-01	226.0034	57.99
Scenario1 (MC)	DRA-01	226.2534	57.99
Scenario1 (MC)	DRA-01	226.5034	57.98
Scenario1 (MC)	DRA-01	226.7534	57.98
Scenario1 (MC)	DRA-01	227.0034	57.98
Scenario1 (MC)	DRA-01	227.2534	57.98
Scenario1 (MC)	DRA-01	227.5034	57.97
Scenario1 (MC)	DRA-01	227.7534	57.97
Scenario1 (MC)	DRA-01	228.0034	57.97
Scenario1 (MC)	DRA-01	228.2534	57.97
Scenario1 (MC)	DRA-01	228.5034	57.96
Scenario1 (MC)	DRA-01	228.7534	57.96
Scenario1 (MC)	DRA-01	229.0034	57.96
Scenario1 (MC)	DRA-01	229.2534	57.96
Scenario1 (MC)	DRA-01	229.5034	57.96
Scenario1 (MC)	DRA-01	229.7534	57.95
Scenario1 (MC)	DRA-01	230.0034	57.95
Scenario1 (MC)	DRA-01	230.2534	57.95
Scenario1 (MC)	DRA-01	230.5034	57.95
Scenario1 (MC)	DRA-01	230.7534	57.94

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-01	231.0034	57.94
Scenario1 (MC)	DRA-01	231.2534	57.94
Scenario1 (MC)	DRA-01	231.5034	57.94
Scenario1 (MC)	DRA-01	231.7534	57.93
Scenario1 (MC)	DRA-01	232.0034	57.93
Scenario1 (MC)	DRA-01	232.2534	57.93
Scenario1 (MC)	DRA-01	232.5034	57.93
Scenario1 (MC)	DRA-01	232.7534	57.92
Scenario1 (MC)	DRA-01	233.0034	57.92
Scenario1 (MC)	DRA-01	233.2534	57.92
Scenario1 (MC)	DRA-01	233.5034	57.92
Scenario1 (MC)	DRA-01	233.7534	57.92
Scenario1 (MC)	DRA-01	234.0034	57.91
Scenario1 (MC)	DRA-01	234.2534	57.91
Scenario1 (MC)	DRA-01	234.5034	57.91
Scenario1 (MC)	DRA-01	234.7534	57.91
Scenario1 (MC)	DRA-01	235.0034	57.90
Scenario1 (MC)	DRA-01	235.2534	57.90
Scenario1 (MC)	DRA-01	235.5034	57.90
Scenario1 (MC)	DRA-01	235.7534	57.90
Scenario1 (MC)	DRA-01	236.0034	57.89
Scenario1 (MC)	DRA-01	236.2534	57.89
Scenario1 (MC)	DRA-01	236.5034	57.89
Scenario1 (MC)	DRA-01	236.7534	57.89
Scenario1 (MC)	DRA-01	237.0034	57.88
Scenario1 (MC)	DRA-01	237.2534	57.88
Scenario1 (MC)	DRA-01	237.5034	57.88
Scenario1 (MC)	DRA-01	237.7534	57.88
Scenario1 (MC)	DRA-01	238.0034	57.88
Scenario1 (MC)	DRA-01	238.2534	57.87
Scenario1 (MC)	DRA-01	238.5034	57.87
Scenario1 (MC)	DRA-01	238.7534	57.87
Scenario1 (MC)	DRA-01	239.0034	57.87
Scenario1 (MC)	DRA-01	239.2534	57.86
Scenario1 (MC)	DRA-01	239.5034	57.86
Scenario1 (MC)	DRA-01	239.7534	57.86
Scenario1 (MC)	DRA-01	240.0034	57.86
Scenario1 (MC)	DRA-01	240.2534	57.85
Scenario1 (MC)	DRA-01	240.5034	57.85
Scenario1 (MC)	DRA-01	240.7534	57.85
Scenario1 (MC)	DRA-01	241.0034	57.85
Scenario1 (MC)	DRA-01	241.2534	57.85

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-01	241.5034	57.84
Scenario1 (MC)	DRA-01	241.7534	57.84
Scenario1 (MC)	DRA-01	242.0034	57.84
Scenario1 (MC)	DRA-01	242.2534	57.84
Scenario1 (MC)	DRA-01	242.5034	57.83
Scenario1 (MC)	DRA-01	242.7534	57.83
Scenario1 (MC)	DRA-01	243.0034	57.83
Scenario1 (MC)	DRA-01	243.2534	57.83
Scenario1 (MC)	DRA-01	243.5034	57.82
Scenario1 (MC)	DRA-01	243.7534	57.82
Scenario1 (MC)	DRA-01	244.0034	57.82
Scenario1 (MC)	DRA-01	244.2534	57.82
Scenario1 (MC)	DRA-01	244.5034	57.82
Scenario1 (MC)	DRA-01	244.7534	57.81
Scenario1 (MC)	DRA-01	245.0034	57.81
Scenario1 (MC)	DRA-01	245.2534	57.81
Scenario1 (MC)	DRA-01	245.5034	57.81
Scenario1 (MC)	DRA-01	245.7534	57.80
Scenario1 (MC)	DRA-01	246.0034	57.80
Scenario1 (MC)	DRA-01	246.2534	57.80
Scenario1 (MC)	DRA-01	246.5034	57.80
Scenario1 (MC)	DRA-01	246.7534	57.80
Scenario1 (MC)	DRA-01	247.0034	57.79
Scenario1 (MC)	DRA-01	247.2534	57.79
Scenario1 (MC)	DRA-01	247.5034	57.79
Scenario1 (MC)	DRA-01	247.7534	57.79
Scenario1 (MC)	DRA-01	248.0034	57.78
Scenario1 (MC)	DRA-01	248.2534	57.78
Scenario1 (MC)	DRA-01	248.5034	57.78
Scenario1 (MC)	DRA-01	248.7534	57.78
Scenario1 (MC)	DRA-01	249.0034	57.77
Scenario1 (MC)	DRA-01	249.2534	57.77
Scenario1 (MC)	DRA-01	249.5034	57.77
Scenario1 (MC)	DRA-01	249.7534	57.77
Scenario1 (MC)	DRA-01	250.0034	57.77
Scenario1 (MC)	DRA-01	250.2534	57.76
Scenario1 (MC)	DRA-01	250.5034	57.76
Scenario1 (MC)	DRA-01	250.7534	57.76
Scenario1 (MC)	DRA-01	251.0034	57.76
Scenario1 (MC)	DRA-01	251.2534	57.75
Scenario1 (MC)	DRA-01	251.5034	57.75
Scenario1 (MC)	DRA-01	251.7534	57.75

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-01	252.0034	57.75
Scenario1 (MC)	DRA-01	252.2534	57.75
Scenario1 (MC)	DRA-01	252.5034	57.74
Scenario1 (MC)	DRA-01	252.7534	57.74
Scenario1 (MC)	DRA-01	253.0034	57.74
Scenario1 (MC)	DRA-01	253.2534	57.74
Scenario1 (MC)	DRA-01	253.5034	57.73
Scenario1 (MC)	DRA-01	253.7534	57.73
Scenario1 (MC)	DRA-01	254.0034	57.73
Scenario1 (MC)	DRA-01	254.2534	57.73
Scenario1 (MC)	DRA-01	254.5034	57.73
Scenario1 (MC)	DRA-01	254.7534	57.72
Scenario1 (MC)	DRA-01	255.0034	57.72
Scenario1 (MC)	DRA-01	255.2534	57.72
Scenario1 (MC)	DRA-01	255.5034	57.72
Scenario1 (MC)	DRA-01	255.7534	57.71
Scenario1 (MC)	DRA-01	256.0034	57.71
Scenario1 (MC)	DRA-01	256.2534	57.71
Scenario1 (MC)	DRA-01	256.5034	57.71
Scenario1 (MC)	DRA-01	256.7534	57.71
Scenario1 (MC)	DRA-01	257.0034	57.70
Scenario1 (MC)	DRA-01	257.2534	57.70
Scenario1 (MC)	DRA-01	257.5034	57.70
Scenario1 (MC)	DRA-01	257.7534	57.70
Scenario1 (MC)	DRA-01	258.0034	57.69
Scenario1 (MC)	DRA-01	258.2534	57.69
Scenario1 (MC)	DRA-01	258.5034	57.69
Scenario1 (MC)	DRA-01	258.7534	57.69
Scenario1 (MC)	DRA-01	259.0034	57.69
Scenario1 (MC)	DRA-01	259.2534	57.68
Scenario1 (MC)	DRA-01	259.5034	57.68
Scenario1 (MC)	DRA-01	259.7534	57.68
Scenario1 (MC)	DRA-01	260.0034	57.68
Scenario1 (MC)	DRA-01	260.2534	57.67
Scenario1 (MC)	DRA-01	260.5034	57.67
Scenario1 (MC)	DRA-01	260.7534	57.67
Scenario1 (MC)	DRA-01	261.0034	57.67
Scenario1 (MC)	DRA-01	261.2534	57.67
Scenario1 (MC)	DRA-01	261.5034	57.66
Scenario1 (MC)	DRA-01	261.7534	57.66
Scenario1 (MC)	DRA-01	262.0034	57.66
Scenario1 (MC)	DRA-01	262.2534	57.66

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-01	262.5034	57.66
Scenario1 (MC)	DRA-01	262.7534	57.65
Scenario1 (MC)	DRA-01	263.0034	57.65
Scenario1 (MC)	DRA-01	263.2534	57.65
Scenario1 (MC)	DRA-01	263.5034	57.65
Scenario1 (MC)	DRA-01	263.7534	57.64
Scenario1 (MC)	DRA-01	264.0034	57.64
Scenario1 (MC)	DRA-01	264.2534	57.64
Scenario1 (MC)	DRA-01	264.5034	57.64
Scenario1 (MC)	DRA-01	264.7534	57.64
Scenario1 (MC)	DRA-01	265.0034	57.63
Scenario1 (MC)	DRA-01	265.2534	57.63
Scenario1 (MC)	DRA-01	265.5034	57.63
Scenario1 (MC)	DRA-01	265.7534	57.63
Scenario1 (MC)	DRA-01	266.0034	57.62
Scenario1 (MC)	DRA-01	266.2534	57.62
Scenario1 (MC)	DRA-01	266.5034	57.62
Scenario1 (MC)	DRA-01	266.7534	57.62
Scenario1 (MC)	DRA-01	267.0034	57.62
Scenario1 (MC)	DRA-01	267.2534	57.61
Scenario1 (MC)	DRA-01	267.5034	57.61
Scenario1 (MC)	DRA-01	267.7534	57.61
Scenario1 (MC)	DRA-01	268.0034	57.61
Scenario1 (MC)	DRA-01	268.2534	57.61
Scenario1 (MC)	DRA-01	268.5034	57.60
Scenario1 (MC)	DRA-01	268.7534	57.60
Scenario1 (MC)	DRA-01	269.0034	57.60
Scenario1 (MC)	DRA-01	269.2534	57.60
Scenario1 (MC)	DRA-01	269.5034	57.59
Scenario1 (MC)	DRA-01	269.7534	57.59
Scenario1 (MC)	DRA-01	270.0034	57.59
Scenario1 (MC)	DRA-01	270.2534	57.59
Scenario1 (MC)	DRA-01	270.5034	57.59
Scenario1 (MC)	DRA-01	270.7534	57.58
Scenario1 (MC)	DRA-01	271.0034	57.58
Scenario1 (MC)	DRA-01	271.2534	57.58
Scenario1 (MC)	DRA-01	271.5034	57.58
Scenario1 (MC)	DRA-01	271.7534	57.58
Scenario1 (MC)	DRA-01	272.0034	57.57
Scenario1 (MC)	DRA-01	272.2534	57.57
Scenario1 (MC)	DRA-01	272.5034	57.57
Scenario1 (MC)	DRA-01	272.7534	57.57

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-01	273.0034	57.56
Scenario1 (MC)	DRA-01	273.2534	57.56
Scenario1 (MC)	DRA-01	273.5034	57.56
Scenario1 (MC)	DRA-01	273.7534	57.56
Scenario1 (MC)	DRA-01	274.0034	57.56
Scenario1 (MC)	DRA-01	274.2534	57.55
Scenario1 (MC)	DRA-01	274.5034	57.55
Scenario1 (MC)	DRA-01	274.7534	57.55
Scenario1 (MC)	DRA-01	275.0034	57.55
Scenario1 (MC)	DRA-01	275.2534	57.55
Scenario1 (MC)	DRA-01	275.5034	57.54
Scenario1 (MC)	DRA-01	275.7534	57.54
Scenario1 (MC)	DRA-01	276.0034	57.54
Scenario1 (MC)	DRA-01	276.2534	57.54
Scenario1 (MC)	DRA-01	276.5034	57.54
Scenario1 (MC)	DRA-01	276.7534	57.53
Scenario1 (MC)	DRA-01	277.0034	57.53
Scenario1 (MC)	DRA-01	277.2534	57.53
Scenario1 (MC)	DRA-01	277.5034	57.53
Scenario1 (MC)	DRA-01	277.7534	57.52
Scenario1 (MC)	DRA-01	278.0034	57.52
Scenario1 (MC)	DRA-01	278.2534	57.52
Scenario1 (MC)	DRA-01	278.5034	57.52
Scenario1 (MC)	DRA-01	278.7534	57.52
Scenario1 (MC)	DRA-01	279.0034	57.51
Scenario1 (MC)	DRA-01	279.2534	57.51
Scenario1 (MC)	DRA-01	279.5034	57.51
Scenario1 (MC)	DRA-01	279.7534	57.51
Scenario1 (MC)	DRA-01	280.0034	57.51
Scenario1 (MC)	DRA-01	280.2534	57.50
Scenario1 (MC)	DRA-01	280.5034	57.50
Scenario1 (MC)	DRA-01	280.7534	57.50
Scenario1 (MC)	DRA-01	281.0034	57.50
Scenario1 (MC)	DRA-01	281.2534	57.50
Scenario1 (MC)	DRA-01	281.5034	57.49
Scenario1 (MC)	DRA-01	281.7534	57.49
Scenario1 (MC)	DRA-01	282.0034	57.49
Scenario1 (MC)	DRA-01	282.2534	57.49
Scenario1 (MC)	DRA-01	282.5034	57.49
Scenario1 (MC)	DRA-01	282.7534	57.48
Scenario1 (MC)	DRA-01	283.0034	57.48
Scenario1 (MC)	DRA-01	283.2534	57.48

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-01	283.5034	57.48
Scenario1 (MC)	DRA-01	283.7534	57.47
Scenario1 (MC)	DRA-01	284.0034	57.47
Scenario1 (MC)	DRA-01	284.2534	57.47
Scenario1 (MC)	DRA-01	284.5034	57.47
Scenario1 (MC)	DRA-01	284.7534	57.47
Scenario1 (MC)	DRA-01	285.0034	57.46
Scenario1 (MC)	DRA-01	285.2534	57.46
Scenario1 (MC)	DRA-01	285.5034	57.46
Scenario1 (MC)	DRA-01	285.7534	57.46
Scenario1 (MC)	DRA-01	286.0034	57.46
Scenario1 (MC)	DRA-01	286.2534	57.45
Scenario1 (MC)	DRA-01	286.5034	57.45
Scenario1 (MC)	DRA-01	286.7534	57.45
Scenario1 (MC)	DRA-01	287.0034	57.45
Scenario1 (MC)	DRA-01	287.2534	57.45
Scenario1 (MC)	DRA-01	287.5034	57.44
Scenario1 (MC)	DRA-01	287.7534	57.44
Scenario1 (MC)	DRA-01	288.0034	57.44
Scenario1 (MC)	DRA-01	288.2534	57.44
Scenario1 (MC)	DRA-01	288.5034	57.44
Scenario1 (MC)	DRA-01	288.7534	57.43
Scenario1 (MC)	DRA-01	289.0034	57.43
Scenario1 (MC)	DRA-01	289.2534	57.43
Scenario1 (MC)	DRA-01	289.5034	57.43
Scenario1 (MC)	DRA-01	289.7534	57.43
Scenario1 (MC)	DRA-01	290.0034	57.42
Scenario1 (MC)	DRA-01	290.2534	57.42
Scenario1 (MC)	DRA-01	290.5034	57.42
Scenario1 (MC)	DRA-01	290.7534	57.42
Scenario1 (MC)	DRA-01	291.0034	57.42
Scenario1 (MC)	DRA-01	291.2534	57.41
Scenario1 (MC)	DRA-01	291.5034	57.41
Scenario1 (MC)	DRA-01	291.7534	57.41
Scenario1 (MC)	DRA-01	292.0034	57.41
Scenario1 (MC)	DRA-01	292.2534	57.41
Scenario1 (MC)	DRA-01	292.5034	57.40
Scenario1 (MC)	DRA-01	292.7534	57.40
Scenario1 (MC)	DRA-01	293.0034	57.40
Scenario1 (MC)	DRA-01	293.2534	57.40
Scenario1 (MC)	DRA-01	293.5034	57.40
Scenario1 (MC)	DRA-01	293.7534	57.39

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-01	294.0034	57.39
Scenario1 (MC)	DRA-01	294.2534	57.39
Scenario1 (MC)	DRA-01	294.5034	57.39
Scenario1 (MC)	DRA-01	294.7534	57.39
Scenario1 (MC)	DRA-01	295.0034	57.38
Scenario1 (MC)	DRA-01	295.2534	57.38
Scenario1 (MC)	DRA-01	295.5034	57.38
Scenario1 (MC)	DRA-01	295.7534	57.38
Scenario1 (MC)	DRA-01	296.0034	57.37
Scenario1 (MC)	DRA-01	296.2534	57.37
Scenario1 (MC)	DRA-01	296.5034	57.37
Scenario1 (MC)	DRA-01	296.7534	57.37
Scenario1 (MC)	DRA-01	297.0034	57.37
Scenario1 (MC)	DRA-01	297.2534	57.36
Scenario1 (MC)	DRA-01	297.5034	57.36
Scenario1 (MC)	DRA-01	297.7534	57.36
Scenario1 (MC)	DRA-01	298.0034	57.36
Scenario1 (MC)	DRA-01	298.2534	57.36
Scenario1 (MC)	DRA-01	298.5034	57.35
Scenario1 (MC)	DRA-01	298.7534	57.35
Scenario1 (MC)	DRA-01	299.0034	57.35
Scenario1 (MC)	DRA-01	299.2534	57.35
Scenario1 (MC)	DRA-01	299.5034	57.35
Scenario1 (MC)	DRA-01	299.7534	57.34
Scenario1 (MC)	DRA-01	300.0034	57.34
Scenario1 (MC)	DRA-01	300.2534	57.34
Scenario1 (MC)	DRA-01	300.5034	57.34
Scenario1 (MC)	DRA-01	300.7534	57.34
Scenario1 (MC)	DRA-01	301.0034	57.33
Scenario1 (MC)	DRA-01	301.2534	57.33
Scenario1 (MC)	DRA-01	301.5034	57.33
Scenario1 (MC)	DRA-01	301.7534	57.33
Scenario1 (MC)	DRA-01	302.0034	57.33
Scenario1 (MC)	DRA-01	302.2534	57.33
Scenario1 (MC)	DRA-01	302.5034	57.32
Scenario1 (MC)	DRA-01	302.7534	57.32
Scenario1 (MC)	DRA-01	303.0034	57.32
Scenario1 (MC)	DRA-01	303.2534	57.32
Scenario1 (MC)	DRA-01	303.5034	57.32
Scenario1 (MC)	DRA-01	303.7534	57.31
Scenario1 (MC)	DRA-01	304.0034	57.31
Scenario1 (MC)	DRA-01	304.2534	57.31

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-01	304.5034	57.31
Scenario1 (MC)	DRA-01	304.7534	57.31
Scenario1 (MC)	DRA-01	305.0034	57.30
Scenario1 (MC)	DRA-01	305.2534	57.30
Scenario1 (MC)	DRA-01	305.5034	57.30
Scenario1 (MC)	DRA-01	305.7534	57.30
Scenario1 (MC)	DRA-01	306.0034	57.30
Scenario1 (MC)	DRA-01	306.2534	57.29
Scenario1 (MC)	DRA-01	306.5034	57.29
Scenario1 (MC)	DRA-01	306.7534	57.29
Scenario1 (MC)	DRA-01	307.0034	57.29
Scenario1 (MC)	DRA-01	307.2534	57.29
Scenario1 (MC)	DRA-01	307.5034	57.28
Scenario1 (MC)	DRA-01	307.7534	57.28
Scenario1 (MC)	DRA-01	308.0034	57.28
Scenario1 (MC)	DRA-01	308.2534	57.28
Scenario1 (MC)	DRA-01	308.5034	57.28
Scenario1 (MC)	DRA-01	308.7534	57.27
Scenario1 (MC)	DRA-01	309.0034	57.27
Scenario1 (MC)	DRA-01	309.2534	57.27
Scenario1 (MC)	DRA-01	309.5034	57.27
Scenario1 (MC)	DRA-01	309.7534	57.27
Scenario1 (MC)	DRA-01	310.0034	57.26
Scenario1 (MC)	DRA-01	310.2534	57.26
Scenario1 (MC)	DRA-01	310.5034	57.26
Scenario1 (MC)	DRA-01	310.7534	57.26
Scenario1 (MC)	DRA-01	311.0034	57.26
Scenario1 (MC)	DRA-01	311.2534	57.25
Scenario1 (MC)	DRA-01	311.5034	57.25
Scenario1 (MC)	DRA-01	311.7534	57.25
Scenario1 (MC)	DRA-01	312.0034	57.25
Scenario1 (MC)	DRA-01	312.2534	57.25
Scenario1 (MC)	DRA-01	312.5034	57.24
Scenario1 (MC)	DRA-01	312.7534	57.24
Scenario1 (MC)	DRA-01	313.0034	57.24
Scenario1 (MC)	DRA-01	313.2534	57.24
Scenario1 (MC)	DRA-01	313.5034	57.24
Scenario1 (MC)	DRA-01	313.7534	57.23
Scenario1 (MC)	DRA-01	314.0034	57.23
Scenario1 (MC)	DRA-01	314.2534	57.23
Scenario1 (MC)	DRA-01	314.5034	57.23
Scenario1 (MC)	DRA-01	314.7534	57.23

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-01	315.0034	57.23
Scenario1 (MC)	DRA-01	315.2534	57.22
Scenario1 (MC)	DRA-01	315.5034	57.22
Scenario1 (MC)	DRA-01	315.7534	57.22
Scenario1 (MC)	DRA-01	316.0034	57.22
Scenario1 (MC)	DRA-01	316.2534	57.22
Scenario1 (MC)	DRA-01	316.5034	57.21
Scenario1 (MC)	DRA-01	316.7534	57.21
Scenario1 (MC)	DRA-01	317.0034	57.21
Scenario1 (MC)	DRA-01	317.2534	57.21
Scenario1 (MC)	DRA-01	317.5034	57.21
Scenario1 (MC)	DRA-01	317.7534	57.20
Scenario1 (MC)	DRA-01	318.0034	57.20
Scenario1 (MC)	DRA-01	318.2534	57.20
Scenario1 (MC)	DRA-01	318.5034	57.20
Scenario1 (MC)	DRA-01	318.7534	57.20
Scenario1 (MC)	DRA-01	319.0034	57.19
Scenario1 (MC)	DRA-01	319.2534	57.19
Scenario1 (MC)	DRA-01	319.5034	57.19
Scenario1 (MC)	DRA-01	319.7534	57.19
Scenario1 (MC)	DRA-01	320.0034	57.19
Scenario1 (MC)	DRA-01	320.2534	57.18
Scenario1 (MC)	DRA-01	320.5034	57.18
Scenario1 (MC)	DRA-01	320.7534	57.18
Scenario1 (MC)	DRA-01	321.0034	57.18
Scenario1 (MC)	DRA-01	321.2534	57.18
Scenario1 (MC)	DRA-01	321.5034	57.18
Scenario1 (MC)	DRA-01	321.7534	57.17
Scenario1 (MC)	DRA-01	322.0034	57.17
Scenario1 (MC)	DRA-01	322.2534	57.17
Scenario1 (MC)	DRA-01	322.5034	57.17
Scenario1 (MC)	DRA-01	322.7534	57.17
Scenario1 (MC)	DRA-01	323.0034	57.16
Scenario1 (MC)	DRA-01	323.2534	57.16
Scenario1 (MC)	DRA-01	323.5034	57.16
Scenario1 (MC)	DRA-01	323.7534	57.16
Scenario1 (MC)	DRA-01	324.0034	57.16
Scenario1 (MC)	DRA-01	324.2534	57.15
Scenario1 (MC)	DRA-01	324.5034	57.15
Scenario1 (MC)	DRA-01	324.7534	57.15
Scenario1 (MC)	DRA-01	325.0034	57.15
Scenario1 (MC)	DRA-01	325.2534	57.15

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-01	325.5034	57.15
Scenario1 (MC)	DRA-01	325.7534	57.14
Scenario1 (MC)	DRA-01	326.0034	57.14
Scenario1 (MC)	DRA-01	326.2534	57.14
Scenario1 (MC)	DRA-01	326.5034	57.14
Scenario1 (MC)	DRA-01	326.7534	57.14
Scenario1 (MC)	DRA-01	327.0034	57.13
Scenario1 (MC)	DRA-01	327.2534	57.13
Scenario1 (MC)	DRA-01	327.5034	57.13
Scenario1 (MC)	DRA-01	327.7534	57.13
Scenario1 (MC)	DRA-01	328.0034	57.13
Scenario1 (MC)	DRA-01	328.2534	57.12
Scenario1 (MC)	DRA-01	328.5034	57.12
Scenario1 (MC)	DRA-01	328.7534	57.12
Scenario1 (MC)	DRA-01	329.0034	57.12
Scenario1 (MC)	DRA-01	329.2534	57.12
Scenario1 (MC)	DRA-01	329.5034	57.11
Scenario1 (MC)	DRA-01	329.7534	57.11
Scenario1 (MC)	DRA-01	330.0034	57.11
Scenario1 (MC)	DRA-01	330.2534	57.11
Scenario1 (MC)	DRA-01	330.5034	57.11
Scenario1 (MC)	DRA-01	330.7534	57.11
Scenario1 (MC)	DRA-01	331.0034	57.10
Scenario1 (MC)	DRA-01	331.2534	57.10
Scenario1 (MC)	DRA-01	331.5034	57.10
Scenario1 (MC)	DRA-01	331.7534	57.10
Scenario1 (MC)	DRA-01	332.0034	57.10
Scenario1 (MC)	DRA-01	332.2534	57.09
Scenario1 (MC)	DRA-01	332.5034	57.09
Scenario1 (MC)	DRA-01	332.7534	57.09
Scenario1 (MC)	DRA-01	333.0034	57.09
Scenario1 (MC)	DRA-01	333.2534	57.09
Scenario1 (MC)	DRA-01	333.5034	57.09
Scenario1 (MC)	DRA-01	333.7534	57.08
Scenario1 (MC)	DRA-01	334.0034	57.08
Scenario1 (MC)	DRA-01	334.2534	57.08
Scenario1 (MC)	DRA-01	334.5034	57.08
Scenario1 (MC)	DRA-01	334.7534	57.08
Scenario1 (MC)	DRA-01	335.0034	57.07
Scenario1 (MC)	DRA-01	335.2534	57.07
Scenario1 (MC)	DRA-01	335.5034	57.07
Scenario1 (MC)	DRA-01	335.7534	57.07

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-01	336.0034	57.07
Scenario1 (MC)	DRA-01	336.2534	57.06
Scenario1 (MC)	DRA-01	336.5034	57.06
Scenario1 (MC)	DRA-01	336.7534	57.06
Scenario1 (MC)	DRA-01	337.0034	57.06
Scenario1 (MC)	DRA-01	337.2534	57.06
Scenario1 (MC)	DRA-01	337.5034	57.06
Scenario1 (MC)	DRA-01	337.7534	57.05
Scenario1 (MC)	DRA-01	338.0034	57.05
Scenario1 (MC)	DRA-01	338.2534	57.05
Scenario1 (MC)	DRA-01	338.5034	57.05
Scenario1 (MC)	DRA-01	338.7534	57.05
Scenario1 (MC)	DRA-01	339.0034	57.04
Scenario1 (MC)	DRA-01	339.2534	57.04
Scenario1 (MC)	DRA-01	339.5034	57.04
Scenario1 (MC)	DRA-01	339.7534	57.04
Scenario1 (MC)	DRA-01	340.0034	57.04
Scenario1 (MC)	DRA-01	340.2534	57.04
Scenario1 (MC)	DRA-01	340.5034	57.03
Scenario1 (MC)	DRA-01	340.7534	57.03
Scenario1 (MC)	DRA-01	341.0034	57.03
Scenario1 (MC)	DRA-01	341.2534	57.03
Scenario1 (MC)	DRA-01	341.5034	57.03
Scenario1 (MC)	DRA-01	341.7534	57.02
Scenario1 (MC)	DRA-01	342.0034	57.02
Scenario1 (MC)	DRA-01	342.2534	57.02
Scenario1 (MC)	DRA-01	342.5034	57.02
Scenario1 (MC)	DRA-01	342.7534	57.02
Scenario1 (MC)	DRA-01	343.0034	57.01
Scenario1 (MC)	DRA-01	343.2534	57.01
Scenario1 (MC)	DRA-01	343.5034	57.01
Scenario1 (MC)	DRA-01	343.7534	57.01
Scenario1 (MC)	DRA-01	344.0034	57.01
Scenario1 (MC)	DRA-01	344.2534	57.01
Scenario1 (MC)	DRA-01	344.5034	57.00
Scenario1 (MC)	DRA-01	344.7534	57.00
Scenario1 (MC)	DRA-01	345.0034	57.00
Scenario1 (MC)	DRA-01	345.2534	57.00
Scenario1 (MC)	DRA-01	345.5034	57.00
Scenario1 (MC)	DRA-01	345.7534	56.99
Scenario1 (MC)	DRA-01	346.0034	56.99
Scenario1 (MC)	DRA-01	346.2534	56.99

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-01	346.5034	56.99
Scenario1 (MC)	DRA-01	346.7534	56.99
Scenario1 (MC)	DRA-01	347.0034	56.99
Scenario1 (MC)	DRA-01	347.2534	56.98
Scenario1 (MC)	DRA-01	347.5034	56.98
Scenario1 (MC)	DRA-01	347.7534	56.98
Scenario1 (MC)	DRA-01	348.0034	56.98
Scenario1 (MC)	DRA-01	348.2534	56.98
Scenario1 (MC)	DRA-01	348.5034	56.97
Scenario1 (MC)	DRA-01	348.7534	56.97
Scenario1 (MC)	DRA-01	349.0034	56.97
Scenario1 (MC)	DRA-01	349.2534	56.97
Scenario1 (MC)	DRA-01	349.5034	56.97
Scenario1 (MC)	DRA-01	349.7534	56.97
Scenario1 (MC)	DRA-01	350.0034	56.96
Scenario1 (MC)	DRA-01	350.2534	56.96
Scenario1 (MC)	DRA-01	350.5034	56.96
Scenario1 (MC)	DRA-01	350.7534	56.96
Scenario1 (MC)	DRA-01	351.0034	56.96
Scenario1 (MC)	DRA-01	351.2534	56.96
Scenario1 (MC)	DRA-01	351.5034	56.95
Scenario1 (MC)	DRA-01	351.7534	56.95
Scenario1 (MC)	DRA-01	352.0034	56.95
Scenario1 (MC)	DRA-01	352.2534	56.95
Scenario1 (MC)	DRA-01	352.5034	56.95
Scenario1 (MC)	DRA-01	352.7534	56.94
Scenario1 (MC)	DRA-01	353.0034	56.94
Scenario1 (MC)	DRA-01	353.2534	56.94
Scenario1 (MC)	DRA-01	353.5034	56.94
Scenario1 (MC)	DRA-01	353.7534	56.94
Scenario1 (MC)	DRA-01	354.0034	56.94
Scenario1 (MC)	DRA-01	354.2534	56.93
Scenario1 (MC)	DRA-01	354.5034	56.93
Scenario1 (MC)	DRA-01	354.7534	56.93
Scenario1 (MC)	DRA-01	355.0034	56.93
Scenario1 (MC)	DRA-01	355.2534	56.93
Scenario1 (MC)	DRA-01	355.5034	56.92
Scenario1 (MC)	DRA-01	355.7534	56.92
Scenario1 (MC)	DRA-01	356.0034	56.92
Scenario1 (MC)	DRA-01	356.2534	56.92
Scenario1 (MC)	DRA-01	356.5034	56.92
Scenario1 (MC)	DRA-01	356.7534	56.92

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-01	357.0034	56.91
Scenario1 (MC)	DRA-01	357.2534	56.91
Scenario1 (MC)	DRA-01	357.5034	56.91
Scenario1 (MC)	DRA-01	357.7534	56.91
Scenario1 (MC)	DRA-01	358.0034	56.91
Scenario1 (MC)	DRA-01	358.2534	56.91
Scenario1 (MC)	DRA-01	358.5034	56.90
Scenario1 (MC)	DRA-01	358.7534	56.90
Scenario1 (MC)	DRA-01	359.0034	56.90
Scenario1 (MC)	DRA-01	359.2534	56.90
Scenario1 (MC)	DRA-01	359.5034	56.90
Scenario1 (MC)	DRA-01	359.7534	56.89
Scenario1 (MC)	DRA-02	0.0000	51.50
Scenario1 (MC)	DRA-02	0.2511	51.50
Scenario1 (MC)	DRA-02	0.5050	51.50
Scenario1 (MC)	DRA-02	0.7527	51.50
Scenario1 (MC)	DRA-02	1.0027	51.50
Scenario1 (MC)	DRA-02	1.2527	51.50
Scenario1 (MC)	DRA-02	1.5027	51.50
Scenario1 (MC)	DRA-02	1.7527	51.50
Scenario1 (MC)	DRA-02	2.0027	51.50
Scenario1 (MC)	DRA-02	2.2527	51.50
Scenario1 (MC)	DRA-02	2.5027	51.50
Scenario1 (MC)	DRA-02	2.7527	51.50
Scenario1 (MC)	DRA-02	3.0027	51.50
Scenario1 (MC)	DRA-02	3.2527	51.50
Scenario1 (MC)	DRA-02	3.5027	51.50
Scenario1 (MC)	DRA-02	3.7527	51.50
Scenario1 (MC)	DRA-02	4.0027	51.50
Scenario1 (MC)	DRA-02	4.2527	51.50
Scenario1 (MC)	DRA-02	4.5027	51.50
Scenario1 (MC)	DRA-02	4.7527	51.50
Scenario1 (MC)	DRA-02	5.0027	51.50
Scenario1 (MC)	DRA-02	5.2527	51.50
Scenario1 (MC)	DRA-02	5.5027	51.50
Scenario1 (MC)	DRA-02	5.7527	51.50
Scenario1 (MC)	DRA-02	6.0027	51.50
Scenario1 (MC)	DRA-02	6.2528	51.50
Scenario1 (MC)	DRA-02	6.5042	51.50
Scenario1 (MC)	DRA-02	6.7561	51.50
Scenario1 (MC)	DRA-02	7.0012	51.50
Scenario1 (MC)	DRA-02	7.2507	51.50

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-02	7.5037	51.50
Scenario1 (MC)	DRA-02	7.7523	51.50
Scenario1 (MC)	DRA-02	8.0020	51.50
Scenario1 (MC)	DRA-02	8.2502	51.50
Scenario1 (MC)	DRA-02	8.5033	51.50
Scenario1 (MC)	DRA-02	8.7522	51.50
Scenario1 (MC)	DRA-02	9.0005	51.50
Scenario1 (MC)	DRA-02	9.2508	51.50
Scenario1 (MC)	DRA-02	9.5017	51.50
Scenario1 (MC)	DRA-02	9.7515	51.50
Scenario1 (MC)	DRA-02	10.0021	51.50
Scenario1 (MC)	DRA-02	10.2515	51.50
Scenario1 (MC)	DRA-02	10.5011	51.50
Scenario1 (MC)	DRA-02	10.7507	51.50
Scenario1 (MC)	DRA-02	11.0006	51.50
Scenario1 (MC)	DRA-02	11.2506	51.50
Scenario1 (MC)	DRA-02	11.5000	51.50
Scenario1 (MC)	DRA-02	11.7501	51.52
Scenario1 (MC)	DRA-02	12.0000	51.68
Scenario1 (MC)	DRA-02	12.2502	51.86
Scenario1 (MC)	DRA-02	12.5000	51.90
Scenario1 (MC)	DRA-02	12.7502	51.88
Scenario1 (MC)	DRA-02	13.0000	51.84
Scenario1 (MC)	DRA-02	13.2503	51.79
Scenario1 (MC)	DRA-02	13.5007	51.74
Scenario1 (MC)	DRA-02	13.7504	51.69
Scenario1 (MC)	DRA-02	14.0011	51.65
Scenario1 (MC)	DRA-02	14.2505	51.69
Scenario1 (MC)	DRA-02	14.5007	51.81
Scenario1 (MC)	DRA-02	14.7508	52.00
Scenario1 (MC)	DRA-02	15.0006	52.24
Scenario1 (MC)	DRA-02	15.2501	52.50
Scenario1 (MC)	DRA-02	15.5002	52.77
Scenario1 (MC)	DRA-02	15.7502	53.04
Scenario1 (MC)	DRA-02	16.0005	53.32
Scenario1 (MC)	DRA-02	16.2508	53.59
Scenario1 (MC)	DRA-02	16.5007	53.84
Scenario1 (MC)	DRA-02	16.7509	54.09
Scenario1 (MC)	DRA-02	17.0001	54.33
Scenario1 (MC)	DRA-02	17.2509	54.55
Scenario1 (MC)	DRA-02	17.5002	54.76
Scenario1 (MC)	DRA-02	17.7502	54.96

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-02	18.0004	55.15
Scenario1 (MC)	DRA-02	18.2508	55.33
Scenario1 (MC)	DRA-02	18.5009	55.50
Scenario1 (MC)	DRA-02	18.7508	55.66
Scenario1 (MC)	DRA-02	19.0001	55.81
Scenario1 (MC)	DRA-02	19.2515	55.95
Scenario1 (MC)	DRA-02	19.5009	56.08
Scenario1 (MC)	DRA-02	19.7511	56.21
Scenario1 (MC)	DRA-02	20.0011	56.33
Scenario1 (MC)	DRA-02	20.2508	56.44
Scenario1 (MC)	DRA-02	20.5009	56.55
Scenario1 (MC)	DRA-02	20.7515	56.65
Scenario1 (MC)	DRA-02	21.0020	56.74
Scenario1 (MC)	DRA-02	21.2500	56.83
Scenario1 (MC)	DRA-02	21.5019	56.92
Scenario1 (MC)	DRA-02	21.7505	56.99
Scenario1 (MC)	DRA-02	22.0025	57.07
Scenario1 (MC)	DRA-02	22.2520	57.14
Scenario1 (MC)	DRA-02	22.5033	57.21
Scenario1 (MC)	DRA-02	22.7517	57.28
Scenario1 (MC)	DRA-02	23.0012	57.34
Scenario1 (MC)	DRA-02	23.2511	57.43
Scenario1 (MC)	DRA-02	23.5015	57.52
Scenario1 (MC)	DRA-02	23.7501	57.61
Scenario1 (MC)	DRA-02	24.0006	57.70
Scenario1 (MC)	DRA-02	24.2504	57.78
Scenario1 (MC)	DRA-02	24.5023	57.87
Scenario1 (MC)	DRA-02	24.7519	57.94
Scenario1 (MC)	DRA-02	25.0015	58.01
Scenario1 (MC)	DRA-02	25.2512	58.06
Scenario1 (MC)	DRA-02	25.5010	58.11
Scenario1 (MC)	DRA-02	25.7528	58.15
Scenario1 (MC)	DRA-02	26.0030	58.19
Scenario1 (MC)	DRA-02	26.2534	58.22
Scenario1 (MC)	DRA-02	26.5034	58.24
Scenario1 (MC)	DRA-02	26.7534	58.26
Scenario1 (MC)	DRA-02	27.0034	58.27
Scenario1 (MC)	DRA-02	27.2534	58.28
Scenario1 (MC)	DRA-02	27.5034	58.29
Scenario1 (MC)	DRA-02	27.7534	58.29
Scenario1 (MC)	DRA-02	28.0034	58.30
Scenario1 (MC)	DRA-02	28.2534	58.30

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-02	28.5034	58.30
Scenario1 (MC)	DRA-02	28.7534	58.29
Scenario1 (MC)	DRA-02	29.0034	58.29
Scenario1 (MC)	DRA-02	29.2534	58.29
Scenario1 (MC)	DRA-02	29.5034	58.28
Scenario1 (MC)	DRA-02	29.7534	58.27
Scenario1 (MC)	DRA-02	30.0034	58.27
Scenario1 (MC)	DRA-02	30.2534	58.26
Scenario1 (MC)	DRA-02	30.5034	58.25
Scenario1 (MC)	DRA-02	30.7534	58.24
Scenario1 (MC)	DRA-02	31.0034	58.23
Scenario1 (MC)	DRA-02	31.2534	58.22
Scenario1 (MC)	DRA-02	31.5034	58.21
Scenario1 (MC)	DRA-02	31.7534	58.20
Scenario1 (MC)	DRA-02	32.0034	58.19
Scenario1 (MC)	DRA-02	32.2534	58.18
Scenario1 (MC)	DRA-02	32.5034	58.17
Scenario1 (MC)	DRA-02	32.7534	58.16
Scenario1 (MC)	DRA-02	33.0034	58.15
Scenario1 (MC)	DRA-02	33.2534	58.14
Scenario1 (MC)	DRA-02	33.5034	58.12
Scenario1 (MC)	DRA-02	33.7534	58.11
Scenario1 (MC)	DRA-02	34.0034	58.10
Scenario1 (MC)	DRA-02	34.2534	58.09
Scenario1 (MC)	DRA-02	34.5034	58.08
Scenario1 (MC)	DRA-02	34.7534	58.06
Scenario1 (MC)	DRA-02	35.0034	58.05
Scenario1 (MC)	DRA-02	35.2534	58.04
Scenario1 (MC)	DRA-02	35.5034	58.03
Scenario1 (MC)	DRA-02	35.7534	58.02
Scenario1 (MC)	DRA-02	36.0034	58.00
Scenario1 (MC)	DRA-02	36.2534	57.99
Scenario1 (MC)	DRA-02	36.5034	57.98
Scenario1 (MC)	DRA-02	36.7534	57.97
Scenario1 (MC)	DRA-02	37.0034	57.96
Scenario1 (MC)	DRA-02	37.2534	57.95
Scenario1 (MC)	DRA-02	37.5034	57.94
Scenario1 (MC)	DRA-02	37.7534	57.93
Scenario1 (MC)	DRA-02	38.0034	57.91
Scenario1 (MC)	DRA-02	38.2534	57.90
Scenario1 (MC)	DRA-02	38.5034	57.89
Scenario1 (MC)	DRA-02	38.7534	57.88

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-02	39.0034	57.87
Scenario1 (MC)	DRA-02	39.2534	57.86
Scenario1 (MC)	DRA-02	39.5034	57.85
Scenario1 (MC)	DRA-02	39.7534	57.84
Scenario1 (MC)	DRA-02	40.0034	57.83
Scenario1 (MC)	DRA-02	40.2534	57.82
Scenario1 (MC)	DRA-02	40.5034	57.81
Scenario1 (MC)	DRA-02	40.7534	57.80
Scenario1 (MC)	DRA-02	41.0034	57.79
Scenario1 (MC)	DRA-02	41.2534	57.78
Scenario1 (MC)	DRA-02	41.5034	57.77
Scenario1 (MC)	DRA-02	41.7534	57.76
Scenario1 (MC)	DRA-02	42.0034	57.75
Scenario1 (MC)	DRA-02	42.2534	57.74
Scenario1 (MC)	DRA-02	42.5034	57.73
Scenario1 (MC)	DRA-02	42.7534	57.72
Scenario1 (MC)	DRA-02	43.0034	57.71
Scenario1 (MC)	DRA-02	43.2534	57.71
Scenario1 (MC)	DRA-02	43.5034	57.70
Scenario1 (MC)	DRA-02	43.7534	57.69
Scenario1 (MC)	DRA-02	44.0034	57.68
Scenario1 (MC)	DRA-02	44.2534	57.67
Scenario1 (MC)	DRA-02	44.5034	57.66
Scenario1 (MC)	DRA-02	44.7534	57.65
Scenario1 (MC)	DRA-02	45.0034	57.64
Scenario1 (MC)	DRA-02	45.2534	57.63
Scenario1 (MC)	DRA-02	45.5034	57.63
Scenario1 (MC)	DRA-02	45.7534	57.62
Scenario1 (MC)	DRA-02	46.0034	57.61
Scenario1 (MC)	DRA-02	46.2534	57.60
Scenario1 (MC)	DRA-02	46.5034	57.59
Scenario1 (MC)	DRA-02	46.7534	57.58
Scenario1 (MC)	DRA-02	47.0034	57.57
Scenario1 (MC)	DRA-02	47.2534	57.57
Scenario1 (MC)	DRA-02	47.5034	57.56
Scenario1 (MC)	DRA-02	47.7534	57.55
Scenario1 (MC)	DRA-02	48.0034	57.54
Scenario1 (MC)	DRA-02	48.2534	57.53
Scenario1 (MC)	DRA-02	48.5034	57.52
Scenario1 (MC)	DRA-02	48.7534	57.52
Scenario1 (MC)	DRA-02	49.0034	57.51
Scenario1 (MC)	DRA-02	49.2534	57.50

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-02	49.5034	57.49
Scenario1 (MC)	DRA-02	49.7534	57.48
Scenario1 (MC)	DRA-02	50.0034	57.48
Scenario1 (MC)	DRA-02	50.2534	57.47
Scenario1 (MC)	DRA-02	50.5034	57.46
Scenario1 (MC)	DRA-02	50.7534	57.45
Scenario1 (MC)	DRA-02	51.0034	57.45
Scenario1 (MC)	DRA-02	51.2534	57.44
Scenario1 (MC)	DRA-02	51.5034	57.43
Scenario1 (MC)	DRA-02	51.7534	57.42
Scenario1 (MC)	DRA-02	52.0034	57.42
Scenario1 (MC)	DRA-02	52.2534	57.41
Scenario1 (MC)	DRA-02	52.5034	57.40
Scenario1 (MC)	DRA-02	52.7534	57.39
Scenario1 (MC)	DRA-02	53.0034	57.39
Scenario1 (MC)	DRA-02	53.2534	57.38
Scenario1 (MC)	DRA-02	53.5034	57.37
Scenario1 (MC)	DRA-02	53.7534	57.36
Scenario1 (MC)	DRA-02	54.0034	57.36
Scenario1 (MC)	DRA-02	54.2534	57.35
Scenario1 (MC)	DRA-02	54.5034	57.34
Scenario1 (MC)	DRA-02	54.7534	57.34
Scenario1 (MC)	DRA-02	55.0034	57.33
Scenario1 (MC)	DRA-02	55.2534	57.32
Scenario1 (MC)	DRA-02	55.5034	57.31
Scenario1 (MC)	DRA-02	55.7534	57.31
Scenario1 (MC)	DRA-02	56.0034	57.30
Scenario1 (MC)	DRA-02	56.2534	57.29
Scenario1 (MC)	DRA-02	56.5034	57.29
Scenario1 (MC)	DRA-02	56.7534	57.28
Scenario1 (MC)	DRA-02	57.0034	57.27
Scenario1 (MC)	DRA-02	57.2534	57.27
Scenario1 (MC)	DRA-02	57.5034	57.26
Scenario1 (MC)	DRA-02	57.7534	57.25
Scenario1 (MC)	DRA-02	58.0034	57.25
Scenario1 (MC)	DRA-02	58.2534	57.24
Scenario1 (MC)	DRA-02	58.5034	57.23
Scenario1 (MC)	DRA-02	58.7534	57.23
Scenario1 (MC)	DRA-02	59.0034	57.22
Scenario1 (MC)	DRA-02	59.2534	57.21
Scenario1 (MC)	DRA-02	59.5034	57.21
Scenario1 (MC)	DRA-02	59.7534	57.20

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-02	60.0034	57.19
Scenario1 (MC)	DRA-02	60.2534	57.19
Scenario1 (MC)	DRA-02	60.5034	57.18
Scenario1 (MC)	DRA-02	60.7534	57.17
Scenario1 (MC)	DRA-02	61.0034	57.17
Scenario1 (MC)	DRA-02	61.2534	57.16
Scenario1 (MC)	DRA-02	61.5034	57.16
Scenario1 (MC)	DRA-02	61.7534	57.15
Scenario1 (MC)	DRA-02	62.0034	57.14
Scenario1 (MC)	DRA-02	62.2534	57.14
Scenario1 (MC)	DRA-02	62.5034	57.13
Scenario1 (MC)	DRA-02	62.7534	57.12
Scenario1 (MC)	DRA-02	63.0034	57.12
Scenario1 (MC)	DRA-02	63.2534	57.11
Scenario1 (MC)	DRA-02	63.5034	57.11
Scenario1 (MC)	DRA-02	63.7534	57.10
Scenario1 (MC)	DRA-02	64.0034	57.09
Scenario1 (MC)	DRA-02	64.2534	57.09
Scenario1 (MC)	DRA-02	64.5034	57.08
Scenario1 (MC)	DRA-02	64.7534	57.08
Scenario1 (MC)	DRA-02	65.0034	57.07
Scenario1 (MC)	DRA-02	65.2534	57.06
Scenario1 (MC)	DRA-02	65.5034	57.06
Scenario1 (MC)	DRA-02	65.7534	57.05
Scenario1 (MC)	DRA-02	66.0034	57.05
Scenario1 (MC)	DRA-02	66.2534	57.04
Scenario1 (MC)	DRA-02	66.5034	57.03
Scenario1 (MC)	DRA-02	66.7534	57.03
Scenario1 (MC)	DRA-02	67.0034	57.02
Scenario1 (MC)	DRA-02	67.2534	57.02
Scenario1 (MC)	DRA-02	67.5034	57.01
Scenario1 (MC)	DRA-02	67.7534	57.01
Scenario1 (MC)	DRA-02	68.0034	57.00
Scenario1 (MC)	DRA-02	68.2534	56.99
Scenario1 (MC)	DRA-02	68.5034	56.99
Scenario1 (MC)	DRA-02	68.7534	56.98
Scenario1 (MC)	DRA-02	69.0034	56.98
Scenario1 (MC)	DRA-02	69.2534	56.97
Scenario1 (MC)	DRA-02	69.5034	56.97
Scenario1 (MC)	DRA-02	69.7534	56.96
Scenario1 (MC)	DRA-02	70.0034	56.95
Scenario1 (MC)	DRA-02	70.2534	56.95

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-02	70.5034	56.94
Scenario1 (MC)	DRA-02	70.7534	56.94
Scenario1 (MC)	DRA-02	71.0034	56.93
Scenario1 (MC)	DRA-02	71.2534	56.93
Scenario1 (MC)	DRA-02	71.5034	56.92
Scenario1 (MC)	DRA-02	71.7534	56.92
Scenario1 (MC)	DRA-02	72.0034	56.91
Scenario1 (MC)	DRA-02	72.2534	56.91
Scenario1 (MC)	DRA-02	72.5034	56.90
Scenario1 (MC)	DRA-02	72.7534	56.90
Scenario1 (MC)	DRA-02	73.0034	56.89
Scenario1 (MC)	DRA-02	73.2534	56.88
Scenario1 (MC)	DRA-02	73.5034	56.88
Scenario1 (MC)	DRA-02	73.7534	56.87
Scenario1 (MC)	DRA-02	74.0034	56.87
Scenario1 (MC)	DRA-02	74.2534	56.86
Scenario1 (MC)	DRA-02	74.5034	56.86
Scenario1 (MC)	DRA-02	74.7534	56.85
Scenario1 (MC)	DRA-02	75.0034	56.85
Scenario1 (MC)	DRA-02	75.2534	56.84
Scenario1 (MC)	DRA-02	75.5034	56.84
Scenario1 (MC)	DRA-02	75.7534	56.83
Scenario1 (MC)	DRA-02	76.0034	56.83
Scenario1 (MC)	DRA-02	76.2534	56.82
Scenario1 (MC)	DRA-02	76.5034	56.82
Scenario1 (MC)	DRA-02	76.7534	56.81
Scenario1 (MC)	DRA-02	77.0034	56.81
Scenario1 (MC)	DRA-02	77.2534	56.80
Scenario1 (MC)	DRA-02	77.5034	56.80
Scenario1 (MC)	DRA-02	77.7534	56.79
Scenario1 (MC)	DRA-02	78.0034	56.79
Scenario1 (MC)	DRA-02	78.2534	56.78
Scenario1 (MC)	DRA-02	78.5034	56.78
Scenario1 (MC)	DRA-02	78.7534	56.77
Scenario1 (MC)	DRA-02	79.0034	56.77
Scenario1 (MC)	DRA-02	79.2534	56.76
Scenario1 (MC)	DRA-02	79.5034	56.76
Scenario1 (MC)	DRA-02	79.7534	56.75
Scenario1 (MC)	DRA-02	80.0034	56.75
Scenario1 (MC)	DRA-02	80.2534	56.74
Scenario1 (MC)	DRA-02	80.5034	56.74
Scenario1 (MC)	DRA-02	80.7534	56.73

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-02	81.0034	56.73
Scenario1 (MC)	DRA-02	81.2534	56.72
Scenario1 (MC)	DRA-02	81.5034	56.72
Scenario1 (MC)	DRA-02	81.7534	56.71
Scenario1 (MC)	DRA-02	82.0034	56.71
Scenario1 (MC)	DRA-02	82.2534	56.70
Scenario1 (MC)	DRA-02	82.5034	56.70
Scenario1 (MC)	DRA-02	82.7534	56.70
Scenario1 (MC)	DRA-02	83.0034	56.69
Scenario1 (MC)	DRA-02	83.2534	56.69
Scenario1 (MC)	DRA-02	83.5034	56.68
Scenario1 (MC)	DRA-02	83.7534	56.68
Scenario1 (MC)	DRA-02	84.0034	56.67
Scenario1 (MC)	DRA-02	84.2534	56.67
Scenario1 (MC)	DRA-02	84.5034	56.66
Scenario1 (MC)	DRA-02	84.7534	56.66
Scenario1 (MC)	DRA-02	85.0034	56.65
Scenario1 (MC)	DRA-02	85.2534	56.65
Scenario1 (MC)	DRA-02	85.5034	56.64
Scenario1 (MC)	DRA-02	85.7534	56.64
Scenario1 (MC)	DRA-02	86.0034	56.64
Scenario1 (MC)	DRA-02	86.2534	56.63
Scenario1 (MC)	DRA-02	86.5034	56.63
Scenario1 (MC)	DRA-02	86.7534	56.62
Scenario1 (MC)	DRA-02	87.0034	56.62
Scenario1 (MC)	DRA-02	87.2534	56.61
Scenario1 (MC)	DRA-02	87.5034	56.61
Scenario1 (MC)	DRA-02	87.7534	56.60
Scenario1 (MC)	DRA-02	88.0034	56.60
Scenario1 (MC)	DRA-02	88.2534	56.60
Scenario1 (MC)	DRA-02	88.5034	56.59
Scenario1 (MC)	DRA-02	88.7534	56.59
Scenario1 (MC)	DRA-02	89.0034	56.58
Scenario1 (MC)	DRA-02	89.2534	56.58
Scenario1 (MC)	DRA-02	89.5034	56.57
Scenario1 (MC)	DRA-02	89.7534	56.57
Scenario1 (MC)	DRA-02	90.0034	56.56
Scenario1 (MC)	DRA-02	90.2534	56.56
Scenario1 (MC)	DRA-02	90.5034	56.56
Scenario1 (MC)	DRA-02	90.7534	56.55
Scenario1 (MC)	DRA-02	91.0034	56.55
Scenario1 (MC)	DRA-02	91.2534	56.54

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-02	91.5034	56.54
Scenario1 (MC)	DRA-02	91.7534	56.53
Scenario1 (MC)	DRA-02	92.0034	56.53
Scenario1 (MC)	DRA-02	92.2534	56.53
Scenario1 (MC)	DRA-02	92.5034	56.52
Scenario1 (MC)	DRA-02	92.7534	56.52
Scenario1 (MC)	DRA-02	93.0034	56.51
Scenario1 (MC)	DRA-02	93.2534	56.51
Scenario1 (MC)	DRA-02	93.5034	56.51
Scenario1 (MC)	DRA-02	93.7534	56.50
Scenario1 (MC)	DRA-02	94.0034	56.50
Scenario1 (MC)	DRA-02	94.2534	56.49
Scenario1 (MC)	DRA-02	94.5034	56.49
Scenario1 (MC)	DRA-02	94.7534	56.48
Scenario1 (MC)	DRA-02	95.0034	56.48
Scenario1 (MC)	DRA-02	95.2534	56.48
Scenario1 (MC)	DRA-02	95.5034	56.47
Scenario1 (MC)	DRA-02	95.7534	56.47
Scenario1 (MC)	DRA-02	96.0034	56.46
Scenario1 (MC)	DRA-02	96.2534	56.46
Scenario1 (MC)	DRA-02	96.5034	56.46
Scenario1 (MC)	DRA-02	96.7534	56.45
Scenario1 (MC)	DRA-02	97.0034	56.45
Scenario1 (MC)	DRA-02	97.2534	56.44
Scenario1 (MC)	DRA-02	97.5034	56.44
Scenario1 (MC)	DRA-02	97.7534	56.44
Scenario1 (MC)	DRA-02	98.0034	56.43
Scenario1 (MC)	DRA-02	98.2534	56.43
Scenario1 (MC)	DRA-02	98.5034	56.42
Scenario1 (MC)	DRA-02	98.7534	56.42
Scenario1 (MC)	DRA-02	99.0034	56.42
Scenario1 (MC)	DRA-02	99.2534	56.41
Scenario1 (MC)	DRA-02	99.5034	56.41
Scenario1 (MC)	DRA-02	99.7534	56.40
Scenario1 (MC)	DRA-02	100.0034	56.40
Scenario1 (MC)	DRA-02	100.2534	56.40
Scenario1 (MC)	DRA-02	100.5034	56.39
Scenario1 (MC)	DRA-02	100.7534	56.39
Scenario1 (MC)	DRA-02	101.0034	56.38
Scenario1 (MC)	DRA-02	101.2534	56.38
Scenario1 (MC)	DRA-02	101.5034	56.38
Scenario1 (MC)	DRA-02	101.7534	56.37

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-02	102.0034	56.37
Scenario1 (MC)	DRA-02	102.2534	56.37
Scenario1 (MC)	DRA-02	102.5034	56.36
Scenario1 (MC)	DRA-02	102.7534	56.36
Scenario1 (MC)	DRA-02	103.0034	56.35
Scenario1 (MC)	DRA-02	103.2534	56.35
Scenario1 (MC)	DRA-02	103.5034	56.35
Scenario1 (MC)	DRA-02	103.7534	56.34
Scenario1 (MC)	DRA-02	104.0034	56.34
Scenario1 (MC)	DRA-02	104.2534	56.33
Scenario1 (MC)	DRA-02	104.5034	56.33
Scenario1 (MC)	DRA-02	104.7534	56.33
Scenario1 (MC)	DRA-02	105.0034	56.32
Scenario1 (MC)	DRA-02	105.2534	56.32
Scenario1 (MC)	DRA-02	105.5034	56.32
Scenario1 (MC)	DRA-02	105.7534	56.31
Scenario1 (MC)	DRA-02	106.0034	56.31
Scenario1 (MC)	DRA-02	106.2534	56.30
Scenario1 (MC)	DRA-02	106.5034	56.30
Scenario1 (MC)	DRA-02	106.7534	56.30
Scenario1 (MC)	DRA-02	107.0034	56.29
Scenario1 (MC)	DRA-02	107.2534	56.29
Scenario1 (MC)	DRA-02	107.5034	56.29
Scenario1 (MC)	DRA-02	107.7534	56.28
Scenario1 (MC)	DRA-02	108.0034	56.28
Scenario1 (MC)	DRA-02	108.2534	56.28
Scenario1 (MC)	DRA-02	108.5034	56.27
Scenario1 (MC)	DRA-02	108.7534	56.27
Scenario1 (MC)	DRA-02	109.0034	56.26
Scenario1 (MC)	DRA-02	109.2534	56.26
Scenario1 (MC)	DRA-02	109.5034	56.26
Scenario1 (MC)	DRA-02	109.7534	56.25
Scenario1 (MC)	DRA-02	110.0034	56.25
Scenario1 (MC)	DRA-02	110.2534	56.25
Scenario1 (MC)	DRA-02	110.5034	56.24
Scenario1 (MC)	DRA-02	110.7534	56.24
Scenario1 (MC)	DRA-02	111.0034	56.24
Scenario1 (MC)	DRA-02	111.2534	56.23
Scenario1 (MC)	DRA-02	111.5034	56.23
Scenario1 (MC)	DRA-02	111.7534	56.22
Scenario1 (MC)	DRA-02	112.0034	56.22
Scenario1 (MC)	DRA-02	112.2534	56.22

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-02	112.5034	56.21
Scenario1 (MC)	DRA-02	112.7534	56.21
Scenario1 (MC)	DRA-02	113.0034	56.21
Scenario1 (MC)	DRA-02	113.2534	56.20
Scenario1 (MC)	DRA-02	113.5034	56.20
Scenario1 (MC)	DRA-02	113.7534	56.20
Scenario1 (MC)	DRA-02	114.0034	56.19
Scenario1 (MC)	DRA-02	114.2534	56.19
Scenario1 (MC)	DRA-02	114.5034	56.19
Scenario1 (MC)	DRA-02	114.7534	56.18
Scenario1 (MC)	DRA-02	115.0034	56.18
Scenario1 (MC)	DRA-02	115.2534	56.18
Scenario1 (MC)	DRA-02	115.5034	56.17
Scenario1 (MC)	DRA-02	115.7534	56.17
Scenario1 (MC)	DRA-02	116.0034	56.17
Scenario1 (MC)	DRA-02	116.2534	56.16
Scenario1 (MC)	DRA-02	116.5034	56.16
Scenario1 (MC)	DRA-02	116.7534	56.16
Scenario1 (MC)	DRA-02	117.0034	56.15
Scenario1 (MC)	DRA-02	117.2534	56.15
Scenario1 (MC)	DRA-02	117.5034	56.14
Scenario1 (MC)	DRA-02	117.7534	56.14
Scenario1 (MC)	DRA-02	118.0034	56.14
Scenario1 (MC)	DRA-02	118.2534	56.13
Scenario1 (MC)	DRA-02	118.5034	56.13
Scenario1 (MC)	DRA-02	118.7534	56.13
Scenario1 (MC)	DRA-02	119.0034	56.12
Scenario1 (MC)	DRA-02	119.2534	56.12
Scenario1 (MC)	DRA-02	119.5034	56.12
Scenario1 (MC)	DRA-02	119.7534	56.11
Scenario1 (MC)	DRA-02	120.0034	56.11
Scenario1 (MC)	DRA-02	120.2534	56.11
Scenario1 (MC)	DRA-02	120.5034	56.10
Scenario1 (MC)	DRA-02	120.7534	56.10
Scenario1 (MC)	DRA-02	121.0034	56.10
Scenario1 (MC)	DRA-02	121.2534	56.09
Scenario1 (MC)	DRA-02	121.5034	56.09
Scenario1 (MC)	DRA-02	121.7534	56.09
Scenario1 (MC)	DRA-02	122.0034	56.08
Scenario1 (MC)	DRA-02	122.2534	56.08
Scenario1 (MC)	DRA-02	122.5034	56.08
Scenario1 (MC)	DRA-02	122.7534	56.07

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-02	123.0034	56.07
Scenario1 (MC)	DRA-02	123.2534	56.07
Scenario1 (MC)	DRA-02	123.5034	56.07
Scenario1 (MC)	DRA-02	123.7534	56.06
Scenario1 (MC)	DRA-02	124.0034	56.06
Scenario1 (MC)	DRA-02	124.2534	56.06
Scenario1 (MC)	DRA-02	124.5034	56.05
Scenario1 (MC)	DRA-02	124.7534	56.05
Scenario1 (MC)	DRA-02	125.0034	56.05
Scenario1 (MC)	DRA-02	125.2534	56.04
Scenario1 (MC)	DRA-02	125.5034	56.04
Scenario1 (MC)	DRA-02	125.7534	56.04
Scenario1 (MC)	DRA-02	126.0034	56.03
Scenario1 (MC)	DRA-02	126.2534	56.03
Scenario1 (MC)	DRA-02	126.5034	56.03
Scenario1 (MC)	DRA-02	126.7534	56.02
Scenario1 (MC)	DRA-02	127.0034	56.02
Scenario1 (MC)	DRA-02	127.2534	56.02
Scenario1 (MC)	DRA-02	127.5034	56.01
Scenario1 (MC)	DRA-02	127.7534	56.01
Scenario1 (MC)	DRA-02	128.0034	56.01
Scenario1 (MC)	DRA-02	128.2534	56.00
Scenario1 (MC)	DRA-02	128.5034	56.00
Scenario1 (MC)	DRA-02	128.7534	56.00
Scenario1 (MC)	DRA-02	129.0034	55.99
Scenario1 (MC)	DRA-02	129.2534	55.99
Scenario1 (MC)	DRA-02	129.5034	55.99
Scenario1 (MC)	DRA-02	129.7534	55.99
Scenario1 (MC)	DRA-02	130.0034	55.98
Scenario1 (MC)	DRA-02	130.2534	55.98
Scenario1 (MC)	DRA-02	130.5034	55.98
Scenario1 (MC)	DRA-02	130.7534	55.97
Scenario1 (MC)	DRA-02	131.0034	55.97
Scenario1 (MC)	DRA-02	131.2534	55.97
Scenario1 (MC)	DRA-02	131.5034	55.96
Scenario1 (MC)	DRA-02	131.7534	55.96
Scenario1 (MC)	DRA-02	132.0034	55.96
Scenario1 (MC)	DRA-02	132.2534	55.95
Scenario1 (MC)	DRA-02	132.5034	55.95
Scenario1 (MC)	DRA-02	132.7534	55.95
Scenario1 (MC)	DRA-02	133.0034	55.95
Scenario1 (MC)	DRA-02	133.2534	55.94

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-02	133.5034	55.94
Scenario1 (MC)	DRA-02	133.7534	55.94
Scenario1 (MC)	DRA-02	134.0034	55.93
Scenario1 (MC)	DRA-02	134.2534	55.93
Scenario1 (MC)	DRA-02	134.5034	55.93
Scenario1 (MC)	DRA-02	134.7534	55.92
Scenario1 (MC)	DRA-02	135.0034	55.92
Scenario1 (MC)	DRA-02	135.2534	55.92
Scenario1 (MC)	DRA-02	135.5034	55.91
Scenario1 (MC)	DRA-02	135.7534	55.91
Scenario1 (MC)	DRA-02	136.0034	55.91
Scenario1 (MC)	DRA-02	136.2534	55.91
Scenario1 (MC)	DRA-02	136.5034	55.90
Scenario1 (MC)	DRA-02	136.7534	55.90
Scenario1 (MC)	DRA-02	137.0034	55.90
Scenario1 (MC)	DRA-02	137.2534	55.89
Scenario1 (MC)	DRA-02	137.5034	55.89
Scenario1 (MC)	DRA-02	137.7534	55.89
Scenario1 (MC)	DRA-02	138.0034	55.88
Scenario1 (MC)	DRA-02	138.2534	55.88
Scenario1 (MC)	DRA-02	138.5034	55.88
Scenario1 (MC)	DRA-02	138.7534	55.88
Scenario1 (MC)	DRA-02	139.0034	55.87
Scenario1 (MC)	DRA-02	139.2534	55.87
Scenario1 (MC)	DRA-02	139.5034	55.87
Scenario1 (MC)	DRA-02	139.7534	55.86
Scenario1 (MC)	DRA-02	140.0034	55.86
Scenario1 (MC)	DRA-02	140.2534	55.86
Scenario1 (MC)	DRA-02	140.5034	55.86
Scenario1 (MC)	DRA-02	140.7534	55.85
Scenario1 (MC)	DRA-02	141.0034	55.85
Scenario1 (MC)	DRA-02	141.2534	55.85
Scenario1 (MC)	DRA-02	141.5034	55.84
Scenario1 (MC)	DRA-02	141.7534	55.84
Scenario1 (MC)	DRA-02	142.0034	55.84
Scenario1 (MC)	DRA-02	142.2534	55.84
Scenario1 (MC)	DRA-02	142.5034	55.83
Scenario1 (MC)	DRA-02	142.7534	55.83
Scenario1 (MC)	DRA-02	143.0034	55.83
Scenario1 (MC)	DRA-02	143.2534	55.82
Scenario1 (MC)	DRA-02	143.5034	55.82
Scenario1 (MC)	DRA-02	143.7534	55.82

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-02	144.0034	55.82
Scenario1 (MC)	DRA-02	144.2534	55.81
Scenario1 (MC)	DRA-02	144.5034	55.81
Scenario1 (MC)	DRA-02	144.7534	55.81
Scenario1 (MC)	DRA-02	145.0034	55.80
Scenario1 (MC)	DRA-02	145.2534	55.80
Scenario1 (MC)	DRA-02	145.5034	55.80
Scenario1 (MC)	DRA-02	145.7534	55.80
Scenario1 (MC)	DRA-02	146.0034	55.79
Scenario1 (MC)	DRA-02	146.2534	55.79
Scenario1 (MC)	DRA-02	146.5034	55.79
Scenario1 (MC)	DRA-02	146.7534	55.78
Scenario1 (MC)	DRA-02	147.0034	55.78
Scenario1 (MC)	DRA-02	147.2534	55.78
Scenario1 (MC)	DRA-02	147.5034	55.78
Scenario1 (MC)	DRA-02	147.7534	55.77
Scenario1 (MC)	DRA-02	148.0034	55.77
Scenario1 (MC)	DRA-02	148.2534	55.77
Scenario1 (MC)	DRA-02	148.5034	55.76
Scenario1 (MC)	DRA-02	148.7534	55.76
Scenario1 (MC)	DRA-02	149.0034	55.76
Scenario1 (MC)	DRA-02	149.2534	55.76
Scenario1 (MC)	DRA-02	149.5034	55.75
Scenario1 (MC)	DRA-02	149.7534	55.75
Scenario1 (MC)	DRA-02	150.0034	55.75
Scenario1 (MC)	DRA-02	150.2534	55.74
Scenario1 (MC)	DRA-02	150.5034	55.74
Scenario1 (MC)	DRA-02	150.7534	55.74
Scenario1 (MC)	DRA-02	151.0034	55.74
Scenario1 (MC)	DRA-02	151.2534	55.73
Scenario1 (MC)	DRA-02	151.5034	55.73
Scenario1 (MC)	DRA-02	151.7534	55.73
Scenario1 (MC)	DRA-02	152.0034	55.73
Scenario1 (MC)	DRA-02	152.2534	55.72
Scenario1 (MC)	DRA-02	152.5034	55.72
Scenario1 (MC)	DRA-02	152.7534	55.72
Scenario1 (MC)	DRA-02	153.0034	55.71
Scenario1 (MC)	DRA-02	153.2534	55.71
Scenario1 (MC)	DRA-02	153.5034	55.71
Scenario1 (MC)	DRA-02	153.7534	55.71
Scenario1 (MC)	DRA-02	154.0034	55.70
Scenario1 (MC)	DRA-02	154.2534	55.70

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-02	154.5034	55.70
Scenario1 (MC)	DRA-02	154.7534	55.70
Scenario1 (MC)	DRA-02	155.0034	55.69
Scenario1 (MC)	DRA-02	155.2534	55.69
Scenario1 (MC)	DRA-02	155.5034	55.69
Scenario1 (MC)	DRA-02	155.7534	55.68
Scenario1 (MC)	DRA-02	156.0034	55.68
Scenario1 (MC)	DRA-02	156.2534	55.68
Scenario1 (MC)	DRA-02	156.5034	55.68
Scenario1 (MC)	DRA-02	156.7534	55.67
Scenario1 (MC)	DRA-02	157.0034	55.67
Scenario1 (MC)	DRA-02	157.2534	55.67
Scenario1 (MC)	DRA-02	157.5034	55.67
Scenario1 (MC)	DRA-02	157.7534	55.66
Scenario1 (MC)	DRA-02	158.0034	55.66
Scenario1 (MC)	DRA-02	158.2534	55.66
Scenario1 (MC)	DRA-02	158.5034	55.66
Scenario1 (MC)	DRA-02	158.7534	55.65
Scenario1 (MC)	DRA-02	159.0034	55.65
Scenario1 (MC)	DRA-02	159.2534	55.65
Scenario1 (MC)	DRA-02	159.5034	55.64
Scenario1 (MC)	DRA-02	159.7534	55.64
Scenario1 (MC)	DRA-02	160.0034	55.64
Scenario1 (MC)	DRA-02	160.2534	55.64
Scenario1 (MC)	DRA-02	160.5034	55.63
Scenario1 (MC)	DRA-02	160.7534	55.63
Scenario1 (MC)	DRA-02	161.0034	55.63
Scenario1 (MC)	DRA-02	161.2534	55.63
Scenario1 (MC)	DRA-02	161.5034	55.62
Scenario1 (MC)	DRA-02	161.7534	55.62
Scenario1 (MC)	DRA-02	162.0034	55.62
Scenario1 (MC)	DRA-02	162.2534	55.62
Scenario1 (MC)	DRA-02	162.5034	55.61
Scenario1 (MC)	DRA-02	162.7534	55.61
Scenario1 (MC)	DRA-02	163.0034	55.61
Scenario1 (MC)	DRA-02	163.2534	55.61
Scenario1 (MC)	DRA-02	163.5034	55.60
Scenario1 (MC)	DRA-02	163.7534	55.60
Scenario1 (MC)	DRA-02	164.0034	55.60
Scenario1 (MC)	DRA-02	164.2534	55.60
Scenario1 (MC)	DRA-02	164.5034	55.59
Scenario1 (MC)	DRA-02	164.7534	55.59

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-02	165.0034	55.59
Scenario1 (MC)	DRA-02	165.2534	55.58
Scenario1 (MC)	DRA-02	165.5034	55.58
Scenario1 (MC)	DRA-02	165.7534	55.58
Scenario1 (MC)	DRA-02	166.0034	55.58
Scenario1 (MC)	DRA-02	166.2534	55.57
Scenario1 (MC)	DRA-02	166.5034	55.57
Scenario1 (MC)	DRA-02	166.7534	55.57
Scenario1 (MC)	DRA-02	167.0034	55.57
Scenario1 (MC)	DRA-02	167.2534	55.56
Scenario1 (MC)	DRA-02	167.5034	55.56
Scenario1 (MC)	DRA-02	167.7534	55.56
Scenario1 (MC)	DRA-02	168.0034	55.56
Scenario1 (MC)	DRA-02	168.2534	55.55
Scenario1 (MC)	DRA-02	168.5034	55.55
Scenario1 (MC)	DRA-02	168.7534	55.55
Scenario1 (MC)	DRA-02	169.0034	55.55
Scenario1 (MC)	DRA-02	169.2534	55.54
Scenario1 (MC)	DRA-02	169.5034	55.54
Scenario1 (MC)	DRA-02	169.7534	55.54
Scenario1 (MC)	DRA-02	170.0034	55.54
Scenario1 (MC)	DRA-02	170.2534	55.53
Scenario1 (MC)	DRA-02	170.5034	55.53
Scenario1 (MC)	DRA-02	170.7534	55.53
Scenario1 (MC)	DRA-02	171.0034	55.53
Scenario1 (MC)	DRA-02	171.2534	55.52
Scenario1 (MC)	DRA-02	171.5034	55.52
Scenario1 (MC)	DRA-02	171.7534	55.52
Scenario1 (MC)	DRA-02	172.0034	55.52
Scenario1 (MC)	DRA-02	172.2534	55.51
Scenario1 (MC)	DRA-02	172.5034	55.51
Scenario1 (MC)	DRA-02	172.7534	55.51
Scenario1 (MC)	DRA-02	173.0034	55.51
Scenario1 (MC)	DRA-02	173.2534	55.50
Scenario1 (MC)	DRA-02	173.5034	55.50
Scenario1 (MC)	DRA-02	173.7534	55.50
Scenario1 (MC)	DRA-02	174.0034	55.50
Scenario1 (MC)	DRA-02	174.2534	55.49
Scenario1 (MC)	DRA-02	174.5034	55.49
Scenario1 (MC)	DRA-02	174.7534	55.49
Scenario1 (MC)	DRA-02	175.0034	55.49
Scenario1 (MC)	DRA-02	175.2534	55.48

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-02	175.5034	55.48
Scenario1 (MC)	DRA-02	175.7534	55.48
Scenario1 (MC)	DRA-02	176.0034	55.48
Scenario1 (MC)	DRA-02	176.2534	55.47
Scenario1 (MC)	DRA-02	176.5034	55.47
Scenario1 (MC)	DRA-02	176.7534	55.47
Scenario1 (MC)	DRA-02	177.0034	55.47
Scenario1 (MC)	DRA-02	177.2534	55.46
Scenario1 (MC)	DRA-02	177.5034	55.46
Scenario1 (MC)	DRA-02	177.7534	55.46
Scenario1 (MC)	DRA-02	178.0034	55.46
Scenario1 (MC)	DRA-02	178.2534	55.46
Scenario1 (MC)	DRA-02	178.5034	55.45
Scenario1 (MC)	DRA-02	178.7534	55.45
Scenario1 (MC)	DRA-02	179.0034	55.45
Scenario1 (MC)	DRA-02	179.2534	55.45
Scenario1 (MC)	DRA-02	179.5034	55.44
Scenario1 (MC)	DRA-02	179.7534	55.44
Scenario1 (MC)	DRA-02	180.0034	55.44
Scenario1 (MC)	DRA-02	180.2534	55.44
Scenario1 (MC)	DRA-02	180.5034	55.43
Scenario1 (MC)	DRA-02	180.7534	55.43
Scenario1 (MC)	DRA-02	181.0034	55.43
Scenario1 (MC)	DRA-02	181.2534	55.43
Scenario1 (MC)	DRA-02	181.5034	55.42
Scenario1 (MC)	DRA-02	181.7534	55.42
Scenario1 (MC)	DRA-02	182.0034	55.42
Scenario1 (MC)	DRA-02	182.2534	55.42
Scenario1 (MC)	DRA-02	182.5034	55.41
Scenario1 (MC)	DRA-02	182.7534	55.41
Scenario1 (MC)	DRA-02	183.0034	55.41
Scenario1 (MC)	DRA-02	183.2534	55.41
Scenario1 (MC)	DRA-02	183.5034	55.40
Scenario1 (MC)	DRA-02	183.7534	55.40
Scenario1 (MC)	DRA-02	184.0034	55.40
Scenario1 (MC)	DRA-02	184.2534	55.40
Scenario1 (MC)	DRA-02	184.5034	55.40
Scenario1 (MC)	DRA-02	184.7534	55.39
Scenario1 (MC)	DRA-02	185.0034	55.39
Scenario1 (MC)	DRA-02	185.2534	55.39
Scenario1 (MC)	DRA-02	185.5034	55.39
Scenario1 (MC)	DRA-02	185.7534	55.38

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-02	186.0034	55.38
Scenario1 (MC)	DRA-02	186.2534	55.38
Scenario1 (MC)	DRA-02	186.5034	55.38
Scenario1 (MC)	DRA-02	186.7534	55.37
Scenario1 (MC)	DRA-02	187.0034	55.37
Scenario1 (MC)	DRA-02	187.2534	55.37
Scenario1 (MC)	DRA-02	187.5034	55.37
Scenario1 (MC)	DRA-02	187.7534	55.36
Scenario1 (MC)	DRA-02	188.0034	55.36
Scenario1 (MC)	DRA-02	188.2534	55.36
Scenario1 (MC)	DRA-02	188.5034	55.36
Scenario1 (MC)	DRA-02	188.7534	55.36
Scenario1 (MC)	DRA-02	189.0034	55.35
Scenario1 (MC)	DRA-02	189.2534	55.35
Scenario1 (MC)	DRA-02	189.5034	55.35
Scenario1 (MC)	DRA-02	189.7534	55.35
Scenario1 (MC)	DRA-02	190.0034	55.34
Scenario1 (MC)	DRA-02	190.2534	55.34
Scenario1 (MC)	DRA-02	190.5034	55.34
Scenario1 (MC)	DRA-02	190.7534	55.34
Scenario1 (MC)	DRA-02	191.0034	55.33
Scenario1 (MC)	DRA-02	191.2534	55.33
Scenario1 (MC)	DRA-02	191.5034	55.33
Scenario1 (MC)	DRA-02	191.7534	55.33
Scenario1 (MC)	DRA-02	192.0034	55.33
Scenario1 (MC)	DRA-02	192.2534	55.32
Scenario1 (MC)	DRA-02	192.5034	55.32
Scenario1 (MC)	DRA-02	192.7534	55.32
Scenario1 (MC)	DRA-02	193.0034	55.32
Scenario1 (MC)	DRA-02	193.2534	55.31
Scenario1 (MC)	DRA-02	193.5034	55.31
Scenario1 (MC)	DRA-02	193.7534	55.31
Scenario1 (MC)	DRA-02	194.0034	55.31
Scenario1 (MC)	DRA-02	194.2534	55.31
Scenario1 (MC)	DRA-02	194.5034	55.30
Scenario1 (MC)	DRA-02	194.7534	55.30
Scenario1 (MC)	DRA-02	195.0034	55.30
Scenario1 (MC)	DRA-02	195.2534	55.30
Scenario1 (MC)	DRA-02	195.5034	55.29
Scenario1 (MC)	DRA-02	195.7534	55.29
Scenario1 (MC)	DRA-02	196.0034	55.29
Scenario1 (MC)	DRA-02	196.2534	55.29

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-02	196.5034	55.28
Scenario1 (MC)	DRA-02	196.7534	55.28
Scenario1 (MC)	DRA-02	197.0034	55.28
Scenario1 (MC)	DRA-02	197.2534	55.28
Scenario1 (MC)	DRA-02	197.5034	55.28
Scenario1 (MC)	DRA-02	197.7534	55.27
Scenario1 (MC)	DRA-02	198.0034	55.27
Scenario1 (MC)	DRA-02	198.2534	55.27
Scenario1 (MC)	DRA-02	198.5034	55.27
Scenario1 (MC)	DRA-02	198.7534	55.26
Scenario1 (MC)	DRA-02	199.0034	55.26
Scenario1 (MC)	DRA-02	199.2534	55.26
Scenario1 (MC)	DRA-02	199.5034	55.26
Scenario1 (MC)	DRA-02	199.7534	55.26
Scenario1 (MC)	DRA-02	200.0034	55.25
Scenario1 (MC)	DRA-02	200.2534	55.25
Scenario1 (MC)	DRA-02	200.5034	55.25
Scenario1 (MC)	DRA-02	200.7534	55.25
Scenario1 (MC)	DRA-02	201.0034	55.24
Scenario1 (MC)	DRA-02	201.2534	55.24
Scenario1 (MC)	DRA-02	201.5034	55.24
Scenario1 (MC)	DRA-02	201.7534	55.24
Scenario1 (MC)	DRA-02	202.0034	55.24
Scenario1 (MC)	DRA-02	202.2534	55.23
Scenario1 (MC)	DRA-02	202.5034	55.23
Scenario1 (MC)	DRA-02	202.7534	55.23
Scenario1 (MC)	DRA-02	203.0034	55.23
Scenario1 (MC)	DRA-02	203.2534	55.22
Scenario1 (MC)	DRA-02	203.5034	55.22
Scenario1 (MC)	DRA-02	203.7534	55.22
Scenario1 (MC)	DRA-02	204.0034	55.22
Scenario1 (MC)	DRA-02	204.2534	55.22
Scenario1 (MC)	DRA-02	204.5034	55.21
Scenario1 (MC)	DRA-02	204.7534	55.21
Scenario1 (MC)	DRA-02	205.0034	55.21
Scenario1 (MC)	DRA-02	205.2534	55.21
Scenario1 (MC)	DRA-02	205.5034	55.21
Scenario1 (MC)	DRA-02	205.7534	55.20
Scenario1 (MC)	DRA-02	206.0034	55.20
Scenario1 (MC)	DRA-02	206.2534	55.20
Scenario1 (MC)	DRA-02	206.5034	55.20
Scenario1 (MC)	DRA-02	206.7534	55.19

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-02	207.0034	55.19
Scenario1 (MC)	DRA-02	207.2534	55.19
Scenario1 (MC)	DRA-02	207.5034	55.19
Scenario1 (MC)	DRA-02	207.7534	55.19
Scenario1 (MC)	DRA-02	208.0034	55.18
Scenario1 (MC)	DRA-02	208.2534	55.18
Scenario1 (MC)	DRA-02	208.5034	55.18
Scenario1 (MC)	DRA-02	208.7534	55.18
Scenario1 (MC)	DRA-02	209.0034	55.17
Scenario1 (MC)	DRA-02	209.2534	55.17
Scenario1 (MC)	DRA-02	209.5034	55.17
Scenario1 (MC)	DRA-02	209.7534	55.17
Scenario1 (MC)	DRA-02	210.0034	55.17
Scenario1 (MC)	DRA-02	210.2534	55.16
Scenario1 (MC)	DRA-02	210.5034	55.16
Scenario1 (MC)	DRA-02	210.7534	55.16
Scenario1 (MC)	DRA-02	211.0034	55.16
Scenario1 (MC)	DRA-02	211.2534	55.16
Scenario1 (MC)	DRA-02	211.5034	55.15
Scenario1 (MC)	DRA-02	211.7534	55.15
Scenario1 (MC)	DRA-02	212.0034	55.15
Scenario1 (MC)	DRA-02	212.2534	55.15
Scenario1 (MC)	DRA-02	212.5034	55.14
Scenario1 (MC)	DRA-02	212.7534	55.14
Scenario1 (MC)	DRA-02	213.0034	55.14
Scenario1 (MC)	DRA-02	213.2534	55.14
Scenario1 (MC)	DRA-02	213.5034	55.14
Scenario1 (MC)	DRA-02	213.7534	55.13
Scenario1 (MC)	DRA-02	214.0034	55.13
Scenario1 (MC)	DRA-02	214.2534	55.13
Scenario1 (MC)	DRA-02	214.5034	55.13
Scenario1 (MC)	DRA-02	214.7534	55.13
Scenario1 (MC)	DRA-02	215.0034	55.12
Scenario1 (MC)	DRA-02	215.2534	55.12
Scenario1 (MC)	DRA-02	215.5034	55.12
Scenario1 (MC)	DRA-02	215.7534	55.12
Scenario1 (MC)	DRA-02	216.0034	55.12
Scenario1 (MC)	DRA-02	216.2534	55.11
Scenario1 (MC)	DRA-02	216.5034	55.11
Scenario1 (MC)	DRA-02	216.7534	55.11
Scenario1 (MC)	DRA-02	217.0034	55.11
Scenario1 (MC)	DRA-02	217.2534	55.10

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-02	217.5034	55.10
Scenario1 (MC)	DRA-02	217.7534	55.10
Scenario1 (MC)	DRA-02	218.0034	55.10
Scenario1 (MC)	DRA-02	218.2534	55.10
Scenario1 (MC)	DRA-02	218.5034	55.09
Scenario1 (MC)	DRA-02	218.7534	55.09
Scenario1 (MC)	DRA-02	219.0034	55.09
Scenario1 (MC)	DRA-02	219.2534	55.09
Scenario1 (MC)	DRA-02	219.5034	55.09
Scenario1 (MC)	DRA-02	219.7534	55.08
Scenario1 (MC)	DRA-02	220.0034	55.08
Scenario1 (MC)	DRA-02	220.2534	55.08
Scenario1 (MC)	DRA-02	220.5034	55.08
Scenario1 (MC)	DRA-02	220.7534	55.08
Scenario1 (MC)	DRA-02	221.0034	55.07
Scenario1 (MC)	DRA-02	221.2534	55.07
Scenario1 (MC)	DRA-02	221.5034	55.07
Scenario1 (MC)	DRA-02	221.7534	55.07
Scenario1 (MC)	DRA-02	222.0034	55.07
Scenario1 (MC)	DRA-02	222.2534	55.06
Scenario1 (MC)	DRA-02	222.5034	55.06
Scenario1 (MC)	DRA-02	222.7534	55.06
Scenario1 (MC)	DRA-02	223.0034	55.06
Scenario1 (MC)	DRA-02	223.2534	55.05
Scenario1 (MC)	DRA-02	223.5034	55.05
Scenario1 (MC)	DRA-02	223.7534	55.05
Scenario1 (MC)	DRA-02	224.0034	55.05
Scenario1 (MC)	DRA-02	224.2534	55.05
Scenario1 (MC)	DRA-02	224.5034	55.04
Scenario1 (MC)	DRA-02	224.7534	55.04
Scenario1 (MC)	DRA-02	225.0034	55.04
Scenario1 (MC)	DRA-02	225.2534	55.04
Scenario1 (MC)	DRA-02	225.5034	55.04
Scenario1 (MC)	DRA-02	225.7534	55.03
Scenario1 (MC)	DRA-02	226.0034	55.03
Scenario1 (MC)	DRA-02	226.2534	55.03
Scenario1 (MC)	DRA-02	226.5034	55.03
Scenario1 (MC)	DRA-02	226.7534	55.03
Scenario1 (MC)	DRA-02	227.0034	55.02
Scenario1 (MC)	DRA-02	227.2534	55.02
Scenario1 (MC)	DRA-02	227.5034	55.02
Scenario1 (MC)	DRA-02	227.7534	55.02

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-02	228.0034	55.02
Scenario1 (MC)	DRA-02	228.2534	55.01
Scenario1 (MC)	DRA-02	228.5034	55.01
Scenario1 (MC)	DRA-02	228.7534	55.01
Scenario1 (MC)	DRA-02	229.0034	55.01
Scenario1 (MC)	DRA-02	229.2534	55.01
Scenario1 (MC)	DRA-02	229.5034	55.00
Scenario1 (MC)	DRA-02	229.7534	55.00
Scenario1 (MC)	DRA-02	230.0034	55.00
Scenario1 (MC)	DRA-02	230.2534	55.00
Scenario1 (MC)	DRA-02	230.5034	55.00
Scenario1 (MC)	DRA-02	230.7534	54.99
Scenario1 (MC)	DRA-02	231.0034	54.99
Scenario1 (MC)	DRA-02	231.2534	54.99
Scenario1 (MC)	DRA-02	231.5034	54.99
Scenario1 (MC)	DRA-02	231.7534	54.99
Scenario1 (MC)	DRA-02	232.0034	54.98
Scenario1 (MC)	DRA-02	232.2534	54.98
Scenario1 (MC)	DRA-02	232.5034	54.98
Scenario1 (MC)	DRA-02	232.7534	54.98
Scenario1 (MC)	DRA-02	233.0034	54.98
Scenario1 (MC)	DRA-02	233.2534	54.97
Scenario1 (MC)	DRA-02	233.5034	54.97
Scenario1 (MC)	DRA-02	233.7534	54.97
Scenario1 (MC)	DRA-02	234.0034	54.97
Scenario1 (MC)	DRA-02	234.2534	54.97
Scenario1 (MC)	DRA-02	234.5034	54.96
Scenario1 (MC)	DRA-02	234.7534	54.96
Scenario1 (MC)	DRA-02	235.0034	54.96
Scenario1 (MC)	DRA-02	235.2534	54.96
Scenario1 (MC)	DRA-02	235.5034	54.96
Scenario1 (MC)	DRA-02	235.7534	54.95
Scenario1 (MC)	DRA-02	236.0034	54.95
Scenario1 (MC)	DRA-02	236.2534	54.95
Scenario1 (MC)	DRA-02	236.5034	54.95
Scenario1 (MC)	DRA-02	236.7534	54.95
Scenario1 (MC)	DRA-02	237.0034	54.94
Scenario1 (MC)	DRA-02	237.2534	54.94
Scenario1 (MC)	DRA-02	237.5034	54.94
Scenario1 (MC)	DRA-02	237.7534	54.94
Scenario1 (MC)	DRA-02	238.0034	54.94
Scenario1 (MC)	DRA-02	238.2534	54.93

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-02	238.5034	54.93
Scenario1 (MC)	DRA-02	238.7534	54.93
Scenario1 (MC)	DRA-02	239.0034	54.93
Scenario1 (MC)	DRA-02	239.2534	54.93
Scenario1 (MC)	DRA-02	239.5034	54.92
Scenario1 (MC)	DRA-02	239.7534	54.92
Scenario1 (MC)	DRA-02	240.0034	54.92
Scenario1 (MC)	DRA-02	240.2534	54.92
Scenario1 (MC)	DRA-02	240.5034	54.92
Scenario1 (MC)	DRA-02	240.7534	54.91
Scenario1 (MC)	DRA-02	241.0034	54.91
Scenario1 (MC)	DRA-02	241.2534	54.91
Scenario1 (MC)	DRA-02	241.5034	54.91
Scenario1 (MC)	DRA-02	241.7534	54.91
Scenario1 (MC)	DRA-02	242.0034	54.91
Scenario1 (MC)	DRA-02	242.2534	54.90
Scenario1 (MC)	DRA-02	242.5034	54.90
Scenario1 (MC)	DRA-02	242.7534	54.90
Scenario1 (MC)	DRA-02	243.0034	54.90
Scenario1 (MC)	DRA-02	243.2534	54.90
Scenario1 (MC)	DRA-02	243.5034	54.89
Scenario1 (MC)	DRA-02	243.7534	54.89
Scenario1 (MC)	DRA-02	244.0034	54.89
Scenario1 (MC)	DRA-02	244.2534	54.89
Scenario1 (MC)	DRA-02	244.5034	54.89
Scenario1 (MC)	DRA-02	244.7534	54.88
Scenario1 (MC)	DRA-02	245.0034	54.88
Scenario1 (MC)	DRA-02	245.2534	54.88
Scenario1 (MC)	DRA-02	245.5034	54.88
Scenario1 (MC)	DRA-02	245.7534	54.88
Scenario1 (MC)	DRA-02	246.0034	54.87
Scenario1 (MC)	DRA-02	246.2534	54.87
Scenario1 (MC)	DRA-02	246.5034	54.87
Scenario1 (MC)	DRA-02	246.7534	54.87
Scenario1 (MC)	DRA-02	247.0034	54.87
Scenario1 (MC)	DRA-02	247.2534	54.86
Scenario1 (MC)	DRA-02	247.5034	54.86
Scenario1 (MC)	DRA-02	247.7534	54.86
Scenario1 (MC)	DRA-02	248.0034	54.86
Scenario1 (MC)	DRA-02	248.2534	54.86
Scenario1 (MC)	DRA-02	248.5034	54.86
Scenario1 (MC)	DRA-02	248.7534	54.85

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-02	249.0034	54.85
Scenario1 (MC)	DRA-02	249.2534	54.85
Scenario1 (MC)	DRA-02	249.5034	54.85
Scenario1 (MC)	DRA-02	249.7534	54.85
Scenario1 (MC)	DRA-02	250.0034	54.84
Scenario1 (MC)	DRA-02	250.2534	54.84
Scenario1 (MC)	DRA-02	250.5034	54.84
Scenario1 (MC)	DRA-02	250.7534	54.84
Scenario1 (MC)	DRA-02	251.0034	54.84
Scenario1 (MC)	DRA-02	251.2534	54.83
Scenario1 (MC)	DRA-02	251.5034	54.83
Scenario1 (MC)	DRA-02	251.7534	54.83
Scenario1 (MC)	DRA-02	252.0034	54.83
Scenario1 (MC)	DRA-02	252.2534	54.83
Scenario1 (MC)	DRA-02	252.5034	54.83
Scenario1 (MC)	DRA-02	252.7534	54.82
Scenario1 (MC)	DRA-02	253.0034	54.82
Scenario1 (MC)	DRA-02	253.2534	54.82
Scenario1 (MC)	DRA-02	253.5034	54.82
Scenario1 (MC)	DRA-02	253.7534	54.82
Scenario1 (MC)	DRA-02	254.0034	54.81
Scenario1 (MC)	DRA-02	254.2534	54.81
Scenario1 (MC)	DRA-02	254.5034	54.81
Scenario1 (MC)	DRA-02	254.7534	54.81
Scenario1 (MC)	DRA-02	255.0034	54.81
Scenario1 (MC)	DRA-02	255.2534	54.80
Scenario1 (MC)	DRA-02	255.5034	54.80
Scenario1 (MC)	DRA-02	255.7534	54.80
Scenario1 (MC)	DRA-02	256.0034	54.80
Scenario1 (MC)	DRA-02	256.2534	54.80
Scenario1 (MC)	DRA-02	256.5034	54.80
Scenario1 (MC)	DRA-02	256.7534	54.79
Scenario1 (MC)	DRA-02	257.0034	54.79
Scenario1 (MC)	DRA-02	257.2534	54.79
Scenario1 (MC)	DRA-02	257.5034	54.79
Scenario1 (MC)	DRA-02	257.7534	54.79
Scenario1 (MC)	DRA-02	258.0034	54.78
Scenario1 (MC)	DRA-02	258.2534	54.78
Scenario1 (MC)	DRA-02	258.5034	54.78
Scenario1 (MC)	DRA-02	258.7534	54.78
Scenario1 (MC)	DRA-02	259.0034	54.78
Scenario1 (MC)	DRA-02	259.2534	54.77

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-02	259.5034	54.77
Scenario1 (MC)	DRA-02	259.7534	54.77
Scenario1 (MC)	DRA-02	260.0034	54.77
Scenario1 (MC)	DRA-02	260.2534	54.77
Scenario1 (MC)	DRA-02	260.5034	54.77
Scenario1 (MC)	DRA-02	260.7534	54.76
Scenario1 (MC)	DRA-02	261.0034	54.76
Scenario1 (MC)	DRA-02	261.2534	54.76
Scenario1 (MC)	DRA-02	261.5034	54.76
Scenario1 (MC)	DRA-02	261.7534	54.76
Scenario1 (MC)	DRA-02	262.0034	54.75
Scenario1 (MC)	DRA-02	262.2534	54.75
Scenario1 (MC)	DRA-02	262.5034	54.75
Scenario1 (MC)	DRA-02	262.7534	54.75
Scenario1 (MC)	DRA-02	263.0034	54.75
Scenario1 (MC)	DRA-02	263.2534	54.75
Scenario1 (MC)	DRA-02	263.5034	54.74
Scenario1 (MC)	DRA-02	263.7534	54.74
Scenario1 (MC)	DRA-02	264.0034	54.74
Scenario1 (MC)	DRA-02	264.2534	54.74
Scenario1 (MC)	DRA-02	264.5034	54.74
Scenario1 (MC)	DRA-02	264.7534	54.73
Scenario1 (MC)	DRA-02	265.0034	54.73
Scenario1 (MC)	DRA-02	265.2534	54.73
Scenario1 (MC)	DRA-02	265.5034	54.73
Scenario1 (MC)	DRA-02	265.7534	54.73
Scenario1 (MC)	DRA-02	266.0034	54.73
Scenario1 (MC)	DRA-02	266.2534	54.72
Scenario1 (MC)	DRA-02	266.5034	54.72
Scenario1 (MC)	DRA-02	266.7534	54.72
Scenario1 (MC)	DRA-02	267.0034	54.72
Scenario1 (MC)	DRA-02	267.2534	54.72
Scenario1 (MC)	DRA-02	267.5034	54.71
Scenario1 (MC)	DRA-02	267.7534	54.71
Scenario1 (MC)	DRA-02	268.0034	54.71
Scenario1 (MC)	DRA-02	268.2534	54.71
Scenario1 (MC)	DRA-02	268.5034	54.71
Scenario1 (MC)	DRA-02	268.7534	54.71
Scenario1 (MC)	DRA-02	269.0034	54.70
Scenario1 (MC)	DRA-02	269.2534	54.70
Scenario1 (MC)	DRA-02	269.5034	54.70
Scenario1 (MC)	DRA-02	269.7534	54.70

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-02	270.0034	54.70
Scenario1 (MC)	DRA-02	270.2534	54.69
Scenario1 (MC)	DRA-02	270.5034	54.69
Scenario1 (MC)	DRA-02	270.7534	54.69
Scenario1 (MC)	DRA-02	271.0034	54.69
Scenario1 (MC)	DRA-02	271.2534	54.69
Scenario1 (MC)	DRA-02	271.5034	54.69
Scenario1 (MC)	DRA-02	271.7534	54.68
Scenario1 (MC)	DRA-02	272.0034	54.68
Scenario1 (MC)	DRA-02	272.2534	54.68
Scenario1 (MC)	DRA-02	272.5034	54.68
Scenario1 (MC)	DRA-02	272.7534	54.68
Scenario1 (MC)	DRA-02	273.0034	54.68
Scenario1 (MC)	DRA-02	273.2534	54.67
Scenario1 (MC)	DRA-02	273.5034	54.67
Scenario1 (MC)	DRA-02	273.7534	54.67
Scenario1 (MC)	DRA-02	274.0034	54.67
Scenario1 (MC)	DRA-02	274.2534	54.67
Scenario1 (MC)	DRA-02	274.5034	54.66
Scenario1 (MC)	DRA-02	274.7534	54.66
Scenario1 (MC)	DRA-02	275.0034	54.66
Scenario1 (MC)	DRA-02	275.2534	54.66
Scenario1 (MC)	DRA-02	275.5034	54.66
Scenario1 (MC)	DRA-02	275.7534	54.66
Scenario1 (MC)	DRA-02	276.0034	54.65
Scenario1 (MC)	DRA-02	276.2534	54.65
Scenario1 (MC)	DRA-02	276.5034	54.65
Scenario1 (MC)	DRA-02	276.7534	54.65
Scenario1 (MC)	DRA-02	277.0034	54.65
Scenario1 (MC)	DRA-02	277.2534	54.65
Scenario1 (MC)	DRA-02	277.5034	54.64
Scenario1 (MC)	DRA-02	277.7534	54.64
Scenario1 (MC)	DRA-02	278.0034	54.64
Scenario1 (MC)	DRA-02	278.2534	54.64
Scenario1 (MC)	DRA-02	278.5034	54.64
Scenario1 (MC)	DRA-02	278.7534	54.63
Scenario1 (MC)	DRA-02	279.0034	54.63
Scenario1 (MC)	DRA-02	279.2534	54.63
Scenario1 (MC)	DRA-02	279.5034	54.63
Scenario1 (MC)	DRA-02	279.7534	54.63
Scenario1 (MC)	DRA-02	280.0034	54.63
Scenario1 (MC)	DRA-02	280.2534	54.62

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-02	280.5034	54.62
Scenario1 (MC)	DRA-02	280.7534	54.62
Scenario1 (MC)	DRA-02	281.0034	54.62
Scenario1 (MC)	DRA-02	281.2534	54.62
Scenario1 (MC)	DRA-02	281.5034	54.62
Scenario1 (MC)	DRA-02	281.7534	54.61
Scenario1 (MC)	DRA-02	282.0034	54.61
Scenario1 (MC)	DRA-02	282.2534	54.61
Scenario1 (MC)	DRA-02	282.5034	54.61
Scenario1 (MC)	DRA-02	282.7534	54.61
Scenario1 (MC)	DRA-02	283.0034	54.60
Scenario1 (MC)	DRA-02	283.2534	54.60
Scenario1 (MC)	DRA-02	283.5034	54.60
Scenario1 (MC)	DRA-02	283.7534	54.60
Scenario1 (MC)	DRA-02	284.0034	54.60
Scenario1 (MC)	DRA-02	284.2534	54.60
Scenario1 (MC)	DRA-02	284.5034	54.59
Scenario1 (MC)	DRA-02	284.7534	54.59
Scenario1 (MC)	DRA-02	285.0034	54.59
Scenario1 (MC)	DRA-02	285.2534	54.59
Scenario1 (MC)	DRA-02	285.5034	54.59
Scenario1 (MC)	DRA-02	285.7534	54.59
Scenario1 (MC)	DRA-02	286.0034	54.58
Scenario1 (MC)	DRA-02	286.2534	54.58
Scenario1 (MC)	DRA-02	286.5034	54.58
Scenario1 (MC)	DRA-02	286.7534	54.58
Scenario1 (MC)	DRA-02	287.0034	54.58
Scenario1 (MC)	DRA-02	287.2534	54.58
Scenario1 (MC)	DRA-02	287.5034	54.57
Scenario1 (MC)	DRA-02	287.7534	54.57
Scenario1 (MC)	DRA-02	288.0034	54.57
Scenario1 (MC)	DRA-02	288.2534	54.57
Scenario1 (MC)	DRA-02	288.5034	54.57
Scenario1 (MC)	DRA-02	288.7534	54.57
Scenario1 (MC)	DRA-02	289.0034	54.56
Scenario1 (MC)	DRA-02	289.2534	54.56
Scenario1 (MC)	DRA-02	289.5034	54.56
Scenario1 (MC)	DRA-02	289.7534	54.56
Scenario1 (MC)	DRA-02	290.0034	54.56
Scenario1 (MC)	DRA-02	290.2534	54.56
Scenario1 (MC)	DRA-02	290.5034	54.55
Scenario1 (MC)	DRA-02	290.7534	54.55

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-02	291.0034	54.55
Scenario1 (MC)	DRA-02	291.2534	54.55
Scenario1 (MC)	DRA-02	291.5034	54.55
Scenario1 (MC)	DRA-02	291.7534	54.54
Scenario1 (MC)	DRA-02	292.0034	54.54
Scenario1 (MC)	DRA-02	292.2534	54.54
Scenario1 (MC)	DRA-02	292.5034	54.54
Scenario1 (MC)	DRA-02	292.7534	54.54
Scenario1 (MC)	DRA-02	293.0034	54.54
Scenario1 (MC)	DRA-02	293.2534	54.53
Scenario1 (MC)	DRA-02	293.5034	54.53
Scenario1 (MC)	DRA-02	293.7534	54.53
Scenario1 (MC)	DRA-02	294.0034	54.53
Scenario1 (MC)	DRA-02	294.2534	54.53
Scenario1 (MC)	DRA-02	294.5034	54.53
Scenario1 (MC)	DRA-02	294.7534	54.52
Scenario1 (MC)	DRA-02	295.0034	54.52
Scenario1 (MC)	DRA-02	295.2534	54.52
Scenario1 (MC)	DRA-02	295.5034	54.52
Scenario1 (MC)	DRA-02	295.7534	54.52
Scenario1 (MC)	DRA-02	296.0034	54.52
Scenario1 (MC)	DRA-02	296.2534	54.51
Scenario1 (MC)	DRA-02	296.5034	54.51
Scenario1 (MC)	DRA-02	296.7534	54.51
Scenario1 (MC)	DRA-02	297.0034	54.51
Scenario1 (MC)	DRA-02	297.2534	54.51
Scenario1 (MC)	DRA-02	297.5034	54.51
Scenario1 (MC)	DRA-02	297.7534	54.50
Scenario1 (MC)	DRA-02	298.0034	54.50
Scenario1 (MC)	DRA-02	298.2534	54.50
Scenario1 (MC)	DRA-02	298.5034	54.50
Scenario1 (MC)	DRA-02	298.7534	54.50
Scenario1 (MC)	DRA-02	299.0034	54.50
Scenario1 (MC)	DRA-02	299.2534	54.49
Scenario1 (MC)	DRA-02	299.5034	54.49
Scenario1 (MC)	DRA-02	299.7534	54.49
Scenario1 (MC)	DRA-02	300.0034	54.49
Scenario1 (MC)	DRA-02	300.2534	54.49
Scenario1 (MC)	DRA-02	300.5034	54.49
Scenario1 (MC)	DRA-02	300.7534	54.48
Scenario1 (MC)	DRA-02	301.0034	54.48
Scenario1 (MC)	DRA-02	301.2534	54.48

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-02	301.5034	54.48
Scenario1 (MC)	DRA-02	301.7534	54.48
Scenario1 (MC)	DRA-02	302.0034	54.48
Scenario1 (MC)	DRA-02	302.2534	54.47
Scenario1 (MC)	DRA-02	302.5034	54.47
Scenario1 (MC)	DRA-02	302.7534	54.47
Scenario1 (MC)	DRA-02	303.0034	54.47
Scenario1 (MC)	DRA-02	303.2534	54.47
Scenario1 (MC)	DRA-02	303.5034	54.47
Scenario1 (MC)	DRA-02	303.7534	54.46
Scenario1 (MC)	DRA-02	304.0034	54.46
Scenario1 (MC)	DRA-02	304.2534	54.46
Scenario1 (MC)	DRA-02	304.5034	54.46
Scenario1 (MC)	DRA-02	304.7534	54.46
Scenario1 (MC)	DRA-02	305.0034	54.46
Scenario1 (MC)	DRA-02	305.2534	54.45
Scenario1 (MC)	DRA-02	305.5034	54.45
Scenario1 (MC)	DRA-02	305.7534	54.45
Scenario1 (MC)	DRA-02	306.0034	54.45
Scenario1 (MC)	DRA-02	306.2534	54.45
Scenario1 (MC)	DRA-02	306.5034	54.45
Scenario1 (MC)	DRA-02	306.7534	54.44
Scenario1 (MC)	DRA-02	307.0034	54.44
Scenario1 (MC)	DRA-02	307.2534	54.44
Scenario1 (MC)	DRA-02	307.5034	54.44
Scenario1 (MC)	DRA-02	307.7534	54.44
Scenario1 (MC)	DRA-02	308.0034	54.44
Scenario1 (MC)	DRA-02	308.2534	54.43
Scenario1 (MC)	DRA-02	308.5034	54.43
Scenario1 (MC)	DRA-02	308.7534	54.43
Scenario1 (MC)	DRA-02	309.0034	54.43
Scenario1 (MC)	DRA-02	309.2534	54.43
Scenario1 (MC)	DRA-02	309.5034	54.43
Scenario1 (MC)	DRA-02	309.7534	54.43
Scenario1 (MC)	DRA-02	310.0034	54.42
Scenario1 (MC)	DRA-02	310.2534	54.42
Scenario1 (MC)	DRA-02	310.5034	54.42
Scenario1 (MC)	DRA-02	310.7534	54.42
Scenario1 (MC)	DRA-02	311.0034	54.42
Scenario1 (MC)	DRA-02	311.2534	54.42
Scenario1 (MC)	DRA-02	311.5034	54.41
Scenario1 (MC)	DRA-02	311.7534	54.41

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-02	312.0034	54.41
Scenario1 (MC)	DRA-02	312.2534	54.41
Scenario1 (MC)	DRA-02	312.5034	54.41
Scenario1 (MC)	DRA-02	312.7534	54.41
Scenario1 (MC)	DRA-02	313.0034	54.40
Scenario1 (MC)	DRA-02	313.2534	54.40
Scenario1 (MC)	DRA-02	313.5034	54.40
Scenario1 (MC)	DRA-02	313.7534	54.40
Scenario1 (MC)	DRA-02	314.0034	54.40
Scenario1 (MC)	DRA-02	314.2534	54.40
Scenario1 (MC)	DRA-02	314.5034	54.39
Scenario1 (MC)	DRA-02	314.7534	54.39
Scenario1 (MC)	DRA-02	315.0034	54.39
Scenario1 (MC)	DRA-02	315.2534	54.39
Scenario1 (MC)	DRA-02	315.5034	54.39
Scenario1 (MC)	DRA-02	315.7534	54.39
Scenario1 (MC)	DRA-02	316.0034	54.38
Scenario1 (MC)	DRA-02	316.2534	54.38
Scenario1 (MC)	DRA-02	316.5034	54.38
Scenario1 (MC)	DRA-02	316.7534	54.38
Scenario1 (MC)	DRA-02	317.0034	54.38
Scenario1 (MC)	DRA-02	317.2534	54.38
Scenario1 (MC)	DRA-02	317.5034	54.37
Scenario1 (MC)	DRA-02	317.7534	54.37
Scenario1 (MC)	DRA-02	318.0034	54.37
Scenario1 (MC)	DRA-02	318.2534	54.37
Scenario1 (MC)	DRA-02	318.5034	54.37
Scenario1 (MC)	DRA-02	318.7534	54.37
Scenario1 (MC)	DRA-02	319.0034	54.37
Scenario1 (MC)	DRA-02	319.2534	54.36
Scenario1 (MC)	DRA-02	319.5034	54.36
Scenario1 (MC)	DRA-02	319.7534	54.36
Scenario1 (MC)	DRA-02	320.0034	54.36
Scenario1 (MC)	DRA-02	320.2534	54.36
Scenario1 (MC)	DRA-02	320.5034	54.36
Scenario1 (MC)	DRA-02	320.7534	54.35
Scenario1 (MC)	DRA-02	321.0034	54.35
Scenario1 (MC)	DRA-02	321.2534	54.35
Scenario1 (MC)	DRA-02	321.5034	54.35
Scenario1 (MC)	DRA-02	321.7534	54.35
Scenario1 (MC)	DRA-02	322.0034	54.35
Scenario1 (MC)	DRA-02	322.2534	54.34

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-02	322.5034	54.34
Scenario1 (MC)	DRA-02	322.7534	54.34
Scenario1 (MC)	DRA-02	323.0034	54.34
Scenario1 (MC)	DRA-02	323.2534	54.34
Scenario1 (MC)	DRA-02	323.5034	54.34
Scenario1 (MC)	DRA-02	323.7534	54.34
Scenario1 (MC)	DRA-02	324.0034	54.33
Scenario1 (MC)	DRA-02	324.2534	54.33
Scenario1 (MC)	DRA-02	324.5034	54.33
Scenario1 (MC)	DRA-02	324.7534	54.33
Scenario1 (MC)	DRA-02	325.0034	54.33
Scenario1 (MC)	DRA-02	325.2534	54.33
Scenario1 (MC)	DRA-02	325.5034	54.32
Scenario1 (MC)	DRA-02	325.7534	54.32
Scenario1 (MC)	DRA-02	326.0034	54.32
Scenario1 (MC)	DRA-02	326.2534	54.32
Scenario1 (MC)	DRA-02	326.5034	54.32
Scenario1 (MC)	DRA-02	326.7534	54.32
Scenario1 (MC)	DRA-02	327.0034	54.31
Scenario1 (MC)	DRA-02	327.2534	54.31
Scenario1 (MC)	DRA-02	327.5034	54.31
Scenario1 (MC)	DRA-02	327.7534	54.31
Scenario1 (MC)	DRA-02	328.0034	54.31
Scenario1 (MC)	DRA-02	328.2534	54.31
Scenario1 (MC)	DRA-02	328.5034	54.31
Scenario1 (MC)	DRA-02	328.7534	54.30
Scenario1 (MC)	DRA-02	329.0034	54.30
Scenario1 (MC)	DRA-02	329.2534	54.30
Scenario1 (MC)	DRA-02	329.5034	54.30
Scenario1 (MC)	DRA-02	329.7534	54.30
Scenario1 (MC)	DRA-02	330.0034	54.30
Scenario1 (MC)	DRA-02	330.2534	54.29
Scenario1 (MC)	DRA-02	330.5034	54.29
Scenario1 (MC)	DRA-02	330.7534	54.29
Scenario1 (MC)	DRA-02	331.0034	54.29
Scenario1 (MC)	DRA-02	331.2534	54.29
Scenario1 (MC)	DRA-02	331.5034	54.29
Scenario1 (MC)	DRA-02	331.7534	54.28
Scenario1 (MC)	DRA-02	332.0034	54.28
Scenario1 (MC)	DRA-02	332.2534	54.28
Scenario1 (MC)	DRA-02	332.5034	54.28
Scenario1 (MC)	DRA-02	332.7534	54.28

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-02	333.0034	54.28
Scenario1 (MC)	DRA-02	333.2534	54.28
Scenario1 (MC)	DRA-02	333.5034	54.27
Scenario1 (MC)	DRA-02	333.7534	54.27
Scenario1 (MC)	DRA-02	334.0034	54.27
Scenario1 (MC)	DRA-02	334.2534	54.27
Scenario1 (MC)	DRA-02	334.5034	54.27
Scenario1 (MC)	DRA-02	334.7534	54.27
Scenario1 (MC)	DRA-02	335.0034	54.26
Scenario1 (MC)	DRA-02	335.2534	54.26
Scenario1 (MC)	DRA-02	335.5034	54.26
Scenario1 (MC)	DRA-02	335.7534	54.26
Scenario1 (MC)	DRA-02	336.0034	54.26
Scenario1 (MC)	DRA-02	336.2534	54.26
Scenario1 (MC)	DRA-02	336.5034	54.26
Scenario1 (MC)	DRA-02	336.7534	54.25
Scenario1 (MC)	DRA-02	337.0034	54.25
Scenario1 (MC)	DRA-02	337.2534	54.25
Scenario1 (MC)	DRA-02	337.5034	54.25
Scenario1 (MC)	DRA-02	337.7534	54.25
Scenario1 (MC)	DRA-02	338.0034	54.25
Scenario1 (MC)	DRA-02	338.2534	54.24
Scenario1 (MC)	DRA-02	338.5034	54.24
Scenario1 (MC)	DRA-02	338.7534	54.24
Scenario1 (MC)	DRA-02	339.0034	54.24
Scenario1 (MC)	DRA-02	339.2534	54.24
Scenario1 (MC)	DRA-02	339.5034	54.24
Scenario1 (MC)	DRA-02	339.7534	54.24
Scenario1 (MC)	DRA-02	340.0034	54.23
Scenario1 (MC)	DRA-02	340.2534	54.23
Scenario1 (MC)	DRA-02	340.5034	54.23
Scenario1 (MC)	DRA-02	340.7534	54.23
Scenario1 (MC)	DRA-02	341.0034	54.23
Scenario1 (MC)	DRA-02	341.2534	54.23
Scenario1 (MC)	DRA-02	341.5034	54.22
Scenario1 (MC)	DRA-02	341.7534	54.22
Scenario1 (MC)	DRA-02	342.0034	54.22
Scenario1 (MC)	DRA-02	342.2534	54.22
Scenario1 (MC)	DRA-02	342.5034	54.22
Scenario1 (MC)	DRA-02	342.7534	54.22
Scenario1 (MC)	DRA-02	343.0034	54.22
Scenario1 (MC)	DRA-02	343.2534	54.21

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-02	343.5034	54.21
Scenario1 (MC)	DRA-02	343.7534	54.21
Scenario1 (MC)	DRA-02	344.0034	54.21
Scenario1 (MC)	DRA-02	344.2534	54.21
Scenario1 (MC)	DRA-02	344.5034	54.21
Scenario1 (MC)	DRA-02	344.7534	54.21
Scenario1 (MC)	DRA-02	345.0034	54.20
Scenario1 (MC)	DRA-02	345.2534	54.20
Scenario1 (MC)	DRA-02	345.5034	54.20
Scenario1 (MC)	DRA-02	345.7534	54.20
Scenario1 (MC)	DRA-02	346.0034	54.20
Scenario1 (MC)	DRA-02	346.2534	54.20
Scenario1 (MC)	DRA-02	346.5034	54.19
Scenario1 (MC)	DRA-02	346.7534	54.19
Scenario1 (MC)	DRA-02	347.0034	54.19
Scenario1 (MC)	DRA-02	347.2534	54.19
Scenario1 (MC)	DRA-02	347.5034	54.19
Scenario1 (MC)	DRA-02	347.7534	54.19
Scenario1 (MC)	DRA-02	348.0034	54.19
Scenario1 (MC)	DRA-02	348.2534	54.18
Scenario1 (MC)	DRA-02	348.5034	54.18
Scenario1 (MC)	DRA-02	348.7534	54.18
Scenario1 (MC)	DRA-02	349.0034	54.18
Scenario1 (MC)	DRA-02	349.2534	54.18
Scenario1 (MC)	DRA-02	349.5034	54.18
Scenario1 (MC)	DRA-02	349.7534	54.17
Scenario1 (MC)	DRA-02	350.0034	54.17
Scenario1 (MC)	DRA-02	350.2534	54.17
Scenario1 (MC)	DRA-02	350.5034	54.17
Scenario1 (MC)	DRA-02	350.7534	54.17
Scenario1 (MC)	DRA-02	351.0034	54.17
Scenario1 (MC)	DRA-02	351.2534	54.17
Scenario1 (MC)	DRA-02	351.5034	54.16
Scenario1 (MC)	DRA-02	351.7534	54.16
Scenario1 (MC)	DRA-02	352.0034	54.16
Scenario1 (MC)	DRA-02	352.2534	54.16
Scenario1 (MC)	DRA-02	352.5034	54.16
Scenario1 (MC)	DRA-02	352.7534	54.16
Scenario1 (MC)	DRA-02	353.0034	54.16
Scenario1 (MC)	DRA-02	353.2534	54.15
Scenario1 (MC)	DRA-02	353.5034	54.15
Scenario1 (MC)	DRA-02	353.7534	54.15

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC)	DRA-02	354.0034	54.15
Scenario1 (MC)	DRA-02	354.2534	54.15
Scenario1 (MC)	DRA-02	354.5034	54.15
Scenario1 (MC)	DRA-02	354.7534	54.15
Scenario1 (MC)	DRA-02	355.0034	54.14
Scenario1 (MC)	DRA-02	355.2534	54.14
Scenario1 (MC)	DRA-02	355.5034	54.14
Scenario1 (MC)	DRA-02	355.7534	54.14
Scenario1 (MC)	DRA-02	356.0034	54.14
Scenario1 (MC)	DRA-02	356.2534	54.14
Scenario1 (MC)	DRA-02	356.5034	54.13
Scenario1 (MC)	DRA-02	356.7534	54.13
Scenario1 (MC)	DRA-02	357.0034	54.13
Scenario1 (MC)	DRA-02	357.2534	54.13
Scenario1 (MC)	DRA-02	357.5034	54.13
Scenario1 (MC)	DRA-02	357.7534	54.13
Scenario1 (MC)	DRA-02	358.0034	54.13
Scenario1 (MC)	DRA-02	358.2534	54.12
Scenario1 (MC)	DRA-02	358.5034	54.12
Scenario1 (MC)	DRA-02	358.7534	54.12
Scenario1 (MC)	DRA-02	359.0034	54.12
Scenario1 (MC)	DRA-02	359.2534	54.12
Scenario1 (MC)	DRA-02	359.5034	54.12
Scenario1 (MC)	DRA-02	359.7534	54.12

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC WQTV)	DRA-01	0.0000	57.79
Scenario1 (MC WQTV)	DRA-01	0.2523	57.71
Scenario1 (MC WQTV)	DRA-01	0.5024	57.63
Scenario1 (MC WQTV)	DRA-01	0.7501	57.55
Scenario1 (MC WQTV)	DRA-01	1.0005	57.47
Scenario1 (MC WQTV)	DRA-01	1.2510	57.38
Scenario1 (MC WQTV)	DRA-01	1.5022	57.30
Scenario1 (MC WQTV)	DRA-01	1.7524	57.22
Scenario1 (MC WQTV)	DRA-01	2.0025	57.14
Scenario1 (MC WQTV)	DRA-01	2.2503	57.06
Scenario1 (MC WQTV)	DRA-01	2.5024	56.98
Scenario1 (MC WQTV)	DRA-01	2.7525	56.90
Scenario1 (MC WQTV)	DRA-01	3.0027	56.82
Scenario1 (MC WQTV)	DRA-01	3.2524	56.74
Scenario1 (MC WQTV)	DRA-01	3.5025	56.65
Scenario1 (MC WQTV)	DRA-01	3.7502	56.57
Scenario1 (MC WQTV)	DRA-01	4.0007	56.49
Scenario1 (MC WQTV)	DRA-01	4.2504	56.41
Scenario1 (MC WQTV)	DRA-01	4.5004	56.33
Scenario1 (MC WQTV)	DRA-01	4.7509	56.25
Scenario1 (MC WQTV)	DRA-01	5.0021	56.17
Scenario1 (MC WQTV)	DRA-01	5.2516	56.09
Scenario1 (MC WQTV)	DRA-01	5.5015	56.01
Scenario1 (MC WQTV)	DRA-01	5.7530	56.00
Scenario1 (MC WQTV)	DRA-01	6.0038	56.00
Scenario1 (MC WQTV)	DRA-01	6.2538	56.00
Scenario1 (MC WQTV)	DRA-01	6.5038	56.00
Scenario1 (MC WQTV)	DRA-01	6.7538	56.00
Scenario1 (MC WQTV)	DRA-01	7.0038	56.00
Scenario1 (MC WQTV)	DRA-01	7.2538	56.00
Scenario1 (MC WQTV)	DRA-01	7.5038	56.00
Scenario1 (MC WQTV)	DRA-01	7.7538	56.00
Scenario1 (MC WQTV)	DRA-01	8.0038	56.00
Scenario1 (MC WQTV)	DRA-01	8.2538	56.00
Scenario1 (MC WQTV)	DRA-01	8.5038	56.00
Scenario1 (MC WQTV)	DRA-01	8.7538	56.00
Scenario1 (MC WQTV)	DRA-01	9.0038	56.00
Scenario1 (MC WQTV)	DRA-01	9.2538	56.00
Scenario1 (MC WQTV)	DRA-01	9.5038	56.00
Scenario1 (MC WQTV)	DRA-01	9.7538	56.00
Scenario1 (MC WQTV)	DRA-01	10.0038	56.00
Scenario1 (MC WQTV)	DRA-01	10.2538	56.00

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC WQTV)	DRA-01	10.5038	56.00
Scenario1 (MC WQTV)	DRA-01	10.7538	56.00
Scenario1 (MC WQTV)	DRA-01	11.0038	56.00
Scenario1 (MC WQTV)	DRA-01	11.2538	56.00
Scenario1 (MC WQTV)	DRA-01	11.5038	56.00
Scenario1 (MC WQTV)	DRA-01	11.7538	56.00
Scenario1 (MC WQTV)	DRA-01	12.0038	56.00
Scenario1 (MC WQTV)	DRA-01	12.2538	56.00
Scenario1 (MC WQTV)	DRA-01	12.5038	56.00
Scenario1 (MC WQTV)	DRA-01	12.7538	56.00
Scenario1 (MC WQTV)	DRA-01	13.0038	56.00
Scenario1 (MC WQTV)	DRA-01	13.2538	56.00
Scenario1 (MC WQTV)	DRA-01	13.5038	56.00
Scenario1 (MC WQTV)	DRA-01	13.7538	56.00
Scenario1 (MC WQTV)	DRA-01	14.0038	56.00
Scenario1 (MC WQTV)	DRA-01	14.2538	56.00
Scenario1 (MC WQTV)	DRA-01	14.5038	56.00
Scenario1 (MC WQTV)	DRA-01	14.7538	56.00
Scenario1 (MC WQTV)	DRA-01	15.0038	56.00
Scenario1 (MC WQTV)	DRA-01	15.2538	56.00
Scenario1 (MC WQTV)	DRA-01	15.5038	56.00
Scenario1 (MC WQTV)	DRA-01	15.7538	56.00
Scenario1 (MC WQTV)	DRA-01	16.0038	56.00
Scenario1 (MC WQTV)	DRA-01	16.2538	56.00
Scenario1 (MC WQTV)	DRA-01	16.5038	56.00
Scenario1 (MC WQTV)	DRA-01	16.7538	56.00
Scenario1 (MC WQTV)	DRA-01	17.0038	56.00
Scenario1 (MC WQTV)	DRA-01	17.2538	56.00
Scenario1 (MC WQTV)	DRA-01	17.5038	56.00
Scenario1 (MC WQTV)	DRA-01	17.7538	56.00
Scenario1 (MC WQTV)	DRA-01	18.0038	56.00
Scenario1 (MC WQTV)	DRA-01	18.2538	56.00
Scenario1 (MC WQTV)	DRA-01	18.5038	56.00
Scenario1 (MC WQTV)	DRA-01	18.7538	56.00
Scenario1 (MC WQTV)	DRA-01	19.0038	56.00
Scenario1 (MC WQTV)	DRA-01	19.2538	56.00
Scenario1 (MC WQTV)	DRA-01	19.5038	56.00
Scenario1 (MC WQTV)	DRA-01	19.7538	56.00
Scenario1 (MC WQTV)	DRA-01	20.0038	56.00
Scenario1 (MC WQTV)	DRA-01	20.2538	56.00
Scenario1 (MC WQTV)	DRA-01	20.5038	56.00
Scenario1 (MC WQTV)	DRA-01	20.7538	56.00

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC WQTV)	DRA-01	21.0038	56.00
Scenario1 (MC WQTV)	DRA-01	21.2538	56.00
Scenario1 (MC WQTV)	DRA-01	21.5038	56.00
Scenario1 (MC WQTV)	DRA-01	21.7538	56.00
Scenario1 (MC WQTV)	DRA-01	22.0038	56.00
Scenario1 (MC WQTV)	DRA-01	22.2538	56.00
Scenario1 (MC WQTV)	DRA-01	22.5038	56.00
Scenario1 (MC WQTV)	DRA-01	22.7538	56.00
Scenario1 (MC WQTV)	DRA-01	23.0038	56.00
Scenario1 (MC WQTV)	DRA-01	23.2538	56.00
Scenario1 (MC WQTV)	DRA-01	23.5038	56.00
Scenario1 (MC WQTV)	DRA-01	23.7538	56.00
Scenario1 (MC WQTV)	DRA-01	24.0038	56.00
Scenario1 (MC WQTV)	DRA-01	24.2538	56.00
Scenario1 (MC WQTV)	DRA-01	24.5038	56.00
Scenario1 (MC WQTV)	DRA-01	24.7538	56.00
Scenario1 (MC WQTV)	DRA-01	25.0038	56.00
Scenario1 (MC WQTV)	DRA-01	25.2538	56.00
Scenario1 (MC WQTV)	DRA-01	25.5038	56.00
Scenario1 (MC WQTV)	DRA-01	25.7538	56.00
Scenario1 (MC WQTV)	DRA-01	26.0038	56.00
Scenario1 (MC WQTV)	DRA-01	26.2538	56.00
Scenario1 (MC WQTV)	DRA-01	26.5038	56.00
Scenario1 (MC WQTV)	DRA-01	26.7538	56.00
Scenario1 (MC WQTV)	DRA-01	27.0038	56.00
Scenario1 (MC WQTV)	DRA-01	27.2538	56.00
Scenario1 (MC WQTV)	DRA-01	27.5038	56.00
Scenario1 (MC WQTV)	DRA-01	27.7538	56.00
Scenario1 (MC WQTV)	DRA-01	28.0038	56.00
Scenario1 (MC WQTV)	DRA-01	28.2538	56.00
Scenario1 (MC WQTV)	DRA-01	28.5038	56.00
Scenario1 (MC WQTV)	DRA-01	28.7538	56.00
Scenario1 (MC WQTV)	DRA-01	29.0038	56.00
Scenario1 (MC WQTV)	DRA-01	29.2538	56.00
Scenario1 (MC WQTV)	DRA-01	29.5038	56.00
Scenario1 (MC WQTV)	DRA-01	29.7538	56.00
Scenario1 (MC WQTV)	DRA-01	30.0038	56.00
Scenario1 (MC WQTV)	DRA-01	30.2538	56.00
Scenario1 (MC WQTV)	DRA-01	30.5038	56.00
Scenario1 (MC WQTV)	DRA-01	30.7538	56.00
Scenario1 (MC WQTV)	DRA-01	31.0038	56.00
Scenario1 (MC WQTV)	DRA-01	31.2538	56.00

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC WQTV)	DRA-01	31.5038	56.00
Scenario1 (MC WQTV)	DRA-01	31.7538	56.00
Scenario1 (MC WQTV)	DRA-01	32.0038	56.00
Scenario1 (MC WQTV)	DRA-01	32.2538	56.00
Scenario1 (MC WQTV)	DRA-01	32.5038	56.00
Scenario1 (MC WQTV)	DRA-01	32.7538	56.00
Scenario1 (MC WQTV)	DRA-01	33.0038	56.00
Scenario1 (MC WQTV)	DRA-01	33.2538	56.00
Scenario1 (MC WQTV)	DRA-01	33.5038	56.00
Scenario1 (MC WQTV)	DRA-01	33.7538	56.00
Scenario1 (MC WQTV)	DRA-01	34.0038	56.00
Scenario1 (MC WQTV)	DRA-01	34.2538	56.00
Scenario1 (MC WQTV)	DRA-01	34.5038	56.00
Scenario1 (MC WQTV)	DRA-01	34.7538	56.00
Scenario1 (MC WQTV)	DRA-01	35.0038	56.00
Scenario1 (MC WQTV)	DRA-01	35.2538	56.00
Scenario1 (MC WQTV)	DRA-01	35.5038	56.00
Scenario1 (MC WQTV)	DRA-01	35.7538	56.00
Scenario1 (MC WQTV)	DRA-01	36.0038	56.00
Scenario1 (MC WQTV)	DRA-01	36.2538	56.00
Scenario1 (MC WQTV)	DRA-01	36.5038	56.00
Scenario1 (MC WQTV)	DRA-01	36.7538	56.00
Scenario1 (MC WQTV)	DRA-01	37.0038	56.00
Scenario1 (MC WQTV)	DRA-01	37.2538	56.00
Scenario1 (MC WQTV)	DRA-01	37.5038	56.00
Scenario1 (MC WQTV)	DRA-01	37.7538	56.00
Scenario1 (MC WQTV)	DRA-01	38.0038	56.00
Scenario1 (MC WQTV)	DRA-01	38.2538	56.00
Scenario1 (MC WQTV)	DRA-01	38.5038	56.00
Scenario1 (MC WQTV)	DRA-01	38.7538	56.00
Scenario1 (MC WQTV)	DRA-01	39.0038	56.00
Scenario1 (MC WQTV)	DRA-01	39.2538	56.00
Scenario1 (MC WQTV)	DRA-01	39.5038	56.00
Scenario1 (MC WQTV)	DRA-01	39.7538	56.00
Scenario1 (MC WQTV)	DRA-01	40.0038	56.00
Scenario1 (MC WQTV)	DRA-01	40.2538	56.00
Scenario1 (MC WQTV)	DRA-01	40.5038	56.00
Scenario1 (MC WQTV)	DRA-01	40.7538	56.00
Scenario1 (MC WQTV)	DRA-01	41.0038	56.00
Scenario1 (MC WQTV)	DRA-01	41.2538	56.00
Scenario1 (MC WQTV)	DRA-01	41.5038	56.00
Scenario1 (MC WQTV)	DRA-01	41.7538	56.00

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC WQTV)	DRA-01	42.0038	56.00
Scenario1 (MC WQTV)	DRA-01	42.2538	56.00
Scenario1 (MC WQTV)	DRA-01	42.5038	56.00
Scenario1 (MC WQTV)	DRA-01	42.7538	56.00
Scenario1 (MC WQTV)	DRA-01	43.0038	56.00
Scenario1 (MC WQTV)	DRA-01	43.2538	56.00
Scenario1 (MC WQTV)	DRA-01	43.5038	56.00
Scenario1 (MC WQTV)	DRA-01	43.7538	56.00
Scenario1 (MC WQTV)	DRA-01	44.0038	56.00
Scenario1 (MC WQTV)	DRA-01	44.2538	56.00
Scenario1 (MC WQTV)	DRA-01	44.5038	56.00
Scenario1 (MC WQTV)	DRA-01	44.7538	56.00
Scenario1 (MC WQTV)	DRA-01	45.0038	56.00
Scenario1 (MC WQTV)	DRA-01	45.2538	56.00
Scenario1 (MC WQTV)	DRA-01	45.5038	56.00
Scenario1 (MC WQTV)	DRA-01	45.7538	56.00
Scenario1 (MC WQTV)	DRA-01	46.0038	56.00
Scenario1 (MC WQTV)	DRA-01	46.2538	56.00
Scenario1 (MC WQTV)	DRA-01	46.5038	56.00
Scenario1 (MC WQTV)	DRA-01	46.7538	56.00
Scenario1 (MC WQTV)	DRA-01	47.0038	56.00
Scenario1 (MC WQTV)	DRA-01	47.2538	56.00
Scenario1 (MC WQTV)	DRA-01	47.5038	56.00
Scenario1 (MC WQTV)	DRA-01	47.7538	56.00
Scenario1 (MC WQTV)	DRA-01	48.0038	56.00
Scenario1 (MC WQTV)	DRA-01	48.2538	56.00
Scenario1 (MC WQTV)	DRA-01	48.5038	56.00
Scenario1 (MC WQTV)	DRA-01	48.7538	56.00
Scenario1 (MC WQTV)	DRA-01	49.0038	56.00
Scenario1 (MC WQTV)	DRA-01	49.2538	56.00
Scenario1 (MC WQTV)	DRA-01	49.5038	56.00
Scenario1 (MC WQTV)	DRA-01	49.7538	56.00
Scenario1 (MC WQTV)	DRA-01	50.0038	56.00
Scenario1 (MC WQTV)	DRA-01	50.2538	56.00
Scenario1 (MC WQTV)	DRA-01	50.5038	56.00
Scenario1 (MC WQTV)	DRA-01	50.7538	56.00
Scenario1 (MC WQTV)	DRA-01	51.0038	56.00
Scenario1 (MC WQTV)	DRA-01	51.2538	56.00
Scenario1 (MC WQTV)	DRA-01	51.5038	56.00
Scenario1 (MC WQTV)	DRA-01	51.7538	56.00
Scenario1 (MC WQTV)	DRA-01	52.0038	56.00
Scenario1 (MC WQTV)	DRA-01	52.2538	56.00

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC WQTV)	DRA-01	52.5038	56.00
Scenario1 (MC WQTV)	DRA-01	52.7538	56.00
Scenario1 (MC WQTV)	DRA-01	53.0038	56.00
Scenario1 (MC WQTV)	DRA-01	53.2538	56.00
Scenario1 (MC WQTV)	DRA-01	53.5038	56.00
Scenario1 (MC WQTV)	DRA-01	53.7538	56.00
Scenario1 (MC WQTV)	DRA-01	54.0038	56.00
Scenario1 (MC WQTV)	DRA-01	54.2538	56.00
Scenario1 (MC WQTV)	DRA-01	54.5038	56.00
Scenario1 (MC WQTV)	DRA-01	54.7538	56.00
Scenario1 (MC WQTV)	DRA-01	55.0038	56.00
Scenario1 (MC WQTV)	DRA-01	55.2538	56.00
Scenario1 (MC WQTV)	DRA-01	55.5038	56.00
Scenario1 (MC WQTV)	DRA-01	55.7538	56.00
Scenario1 (MC WQTV)	DRA-01	56.0038	56.00
Scenario1 (MC WQTV)	DRA-01	56.2538	56.00
Scenario1 (MC WQTV)	DRA-01	56.5038	56.00
Scenario1 (MC WQTV)	DRA-01	56.7538	56.00
Scenario1 (MC WQTV)	DRA-01	57.0038	56.00
Scenario1 (MC WQTV)	DRA-01	57.2538	56.00
Scenario1 (MC WQTV)	DRA-01	57.5038	56.00
Scenario1 (MC WQTV)	DRA-01	57.7538	56.00
Scenario1 (MC WQTV)	DRA-01	58.0038	56.00
Scenario1 (MC WQTV)	DRA-01	58.2538	56.00
Scenario1 (MC WQTV)	DRA-01	58.5038	56.00
Scenario1 (MC WQTV)	DRA-01	58.7538	56.00
Scenario1 (MC WQTV)	DRA-01	59.0038	56.00
Scenario1 (MC WQTV)	DRA-01	59.2538	56.00
Scenario1 (MC WQTV)	DRA-01	59.5038	56.00
Scenario1 (MC WQTV)	DRA-01	59.7538	56.00
Scenario1 (MC WQTV)	DRA-01	60.0038	56.00
Scenario1 (MC WQTV)	DRA-01	60.2538	56.00
Scenario1 (MC WQTV)	DRA-01	60.5038	56.00
Scenario1 (MC WQTV)	DRA-01	60.7538	56.00
Scenario1 (MC WQTV)	DRA-01	61.0038	56.00
Scenario1 (MC WQTV)	DRA-01	61.2538	56.00
Scenario1 (MC WQTV)	DRA-01	61.5038	56.00
Scenario1 (MC WQTV)	DRA-01	61.7538	56.00
Scenario1 (MC WQTV)	DRA-01	62.0038	56.00
Scenario1 (MC WQTV)	DRA-01	62.2538	56.00
Scenario1 (MC WQTV)	DRA-01	62.5038	56.00
Scenario1 (MC WQTV)	DRA-01	62.7538	56.00

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC WQTV)	DRA-01	63.0038	56.00
Scenario1 (MC WQTV)	DRA-01	63.2538	56.00
Scenario1 (MC WQTV)	DRA-01	63.5038	56.00
Scenario1 (MC WQTV)	DRA-01	63.7538	56.00
Scenario1 (MC WQTV)	DRA-01	64.0038	56.00
Scenario1 (MC WQTV)	DRA-01	64.2538	56.00
Scenario1 (MC WQTV)	DRA-01	64.5038	56.00
Scenario1 (MC WQTV)	DRA-01	64.7538	56.00
Scenario1 (MC WQTV)	DRA-01	65.0038	56.00
Scenario1 (MC WQTV)	DRA-01	65.2538	56.00
Scenario1 (MC WQTV)	DRA-01	65.5038	56.00
Scenario1 (MC WQTV)	DRA-01	65.7538	56.00
Scenario1 (MC WQTV)	DRA-01	66.0038	56.00
Scenario1 (MC WQTV)	DRA-01	66.2538	56.00
Scenario1 (MC WQTV)	DRA-01	66.5038	56.00
Scenario1 (MC WQTV)	DRA-01	66.7538	56.00
Scenario1 (MC WQTV)	DRA-01	67.0038	56.00
Scenario1 (MC WQTV)	DRA-01	67.2538	56.00
Scenario1 (MC WQTV)	DRA-01	67.5038	56.00
Scenario1 (MC WQTV)	DRA-01	67.7538	56.00
Scenario1 (MC WQTV)	DRA-01	68.0038	56.00
Scenario1 (MC WQTV)	DRA-01	68.2538	56.00
Scenario1 (MC WQTV)	DRA-01	68.5038	56.00
Scenario1 (MC WQTV)	DRA-01	68.7538	56.00
Scenario1 (MC WQTV)	DRA-01	69.0038	56.00
Scenario1 (MC WQTV)	DRA-01	69.2538	56.00
Scenario1 (MC WQTV)	DRA-01	69.5038	56.00
Scenario1 (MC WQTV)	DRA-01	69.7538	56.00
Scenario1 (MC WQTV)	DRA-01	70.0038	56.00
Scenario1 (MC WQTV)	DRA-01	70.2538	56.00
Scenario1 (MC WQTV)	DRA-01	70.5038	56.00
Scenario1 (MC WQTV)	DRA-01	70.7538	56.00
Scenario1 (MC WQTV)	DRA-01	71.0038	56.00
Scenario1 (MC WQTV)	DRA-01	71.2538	56.00
Scenario1 (MC WQTV)	DRA-01	71.5038	56.00
Scenario1 (MC WQTV)	DRA-01	71.7538	56.00
Scenario1 (MC WQTV)	DRA-02	0.0000	51.63
Scenario1 (MC WQTV)	DRA-02	0.2523	51.55
Scenario1 (MC WQTV)	DRA-02	0.5024	51.50
Scenario1 (MC WQTV)	DRA-02	0.7501	51.50
Scenario1 (MC WQTV)	DRA-02	1.0005	51.50
Scenario1 (MC WQTV)	DRA-02	1.2510	51.50

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC WQTV)	DRA-02	1.5022	51.50
Scenario1 (MC WQTV)	DRA-02	1.7524	51.50
Scenario1 (MC WQTV)	DRA-02	2.0025	51.50
Scenario1 (MC WQTV)	DRA-02	2.2503	51.50
Scenario1 (MC WQTV)	DRA-02	2.5024	51.50
Scenario1 (MC WQTV)	DRA-02	2.7525	51.50
Scenario1 (MC WQTV)	DRA-02	3.0027	51.50
Scenario1 (MC WQTV)	DRA-02	3.2524	51.50
Scenario1 (MC WQTV)	DRA-02	3.5025	51.50
Scenario1 (MC WQTV)	DRA-02	3.7502	51.50
Scenario1 (MC WQTV)	DRA-02	4.0007	51.50
Scenario1 (MC WQTV)	DRA-02	4.2504	51.50
Scenario1 (MC WQTV)	DRA-02	4.5004	51.50
Scenario1 (MC WQTV)	DRA-02	4.7509	51.50
Scenario1 (MC WQTV)	DRA-02	5.0021	51.50
Scenario1 (MC WQTV)	DRA-02	5.2516	51.50
Scenario1 (MC WQTV)	DRA-02	5.5015	51.50
Scenario1 (MC WQTV)	DRA-02	5.7530	51.50
Scenario1 (MC WQTV)	DRA-02	6.0038	51.50
Scenario1 (MC WQTV)	DRA-02	6.2538	51.50
Scenario1 (MC WQTV)	DRA-02	6.5038	51.50
Scenario1 (MC WQTV)	DRA-02	6.7538	51.50
Scenario1 (MC WQTV)	DRA-02	7.0038	51.50
Scenario1 (MC WQTV)	DRA-02	7.2538	51.50
Scenario1 (MC WQTV)	DRA-02	7.5038	51.50
Scenario1 (MC WQTV)	DRA-02	7.7538	51.50
Scenario1 (MC WQTV)	DRA-02	8.0038	51.50
Scenario1 (MC WQTV)	DRA-02	8.2538	51.50
Scenario1 (MC WQTV)	DRA-02	8.5038	51.50
Scenario1 (MC WQTV)	DRA-02	8.7538	51.50
Scenario1 (MC WQTV)	DRA-02	9.0038	51.50
Scenario1 (MC WQTV)	DRA-02	9.2538	51.50
Scenario1 (MC WQTV)	DRA-02	9.5038	51.50
Scenario1 (MC WQTV)	DRA-02	9.7538	51.50
Scenario1 (MC WQTV)	DRA-02	10.0038	51.50
Scenario1 (MC WQTV)	DRA-02	10.2538	51.50
Scenario1 (MC WQTV)	DRA-02	10.5038	51.50
Scenario1 (MC WQTV)	DRA-02	10.7538	51.50
Scenario1 (MC WQTV)	DRA-02	11.0038	51.50
Scenario1 (MC WQTV)	DRA-02	11.2538	51.50
Scenario1 (MC WQTV)	DRA-02	11.5038	51.50
Scenario1 (MC WQTV)	DRA-02	11.7538	51.50

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC WQTV)	DRA-02	12.0038	51.50
Scenario1 (MC WQTV)	DRA-02	12.2538	51.50
Scenario1 (MC WQTV)	DRA-02	12.5038	51.50
Scenario1 (MC WQTV)	DRA-02	12.7538	51.50
Scenario1 (MC WQTV)	DRA-02	13.0038	51.50
Scenario1 (MC WQTV)	DRA-02	13.2538	51.50
Scenario1 (MC WQTV)	DRA-02	13.5038	51.50
Scenario1 (MC WQTV)	DRA-02	13.7538	51.50
Scenario1 (MC WQTV)	DRA-02	14.0038	51.50
Scenario1 (MC WQTV)	DRA-02	14.2538	51.50
Scenario1 (MC WQTV)	DRA-02	14.5038	51.50
Scenario1 (MC WQTV)	DRA-02	14.7538	51.50
Scenario1 (MC WQTV)	DRA-02	15.0038	51.50
Scenario1 (MC WQTV)	DRA-02	15.2538	51.50
Scenario1 (MC WQTV)	DRA-02	15.5038	51.50
Scenario1 (MC WQTV)	DRA-02	15.7538	51.50
Scenario1 (MC WQTV)	DRA-02	16.0038	51.50
Scenario1 (MC WQTV)	DRA-02	16.2538	51.50
Scenario1 (MC WQTV)	DRA-02	16.5038	51.50
Scenario1 (MC WQTV)	DRA-02	16.7538	51.50
Scenario1 (MC WQTV)	DRA-02	17.0038	51.50
Scenario1 (MC WQTV)	DRA-02	17.2538	51.50
Scenario1 (MC WQTV)	DRA-02	17.5038	51.50
Scenario1 (MC WQTV)	DRA-02	17.7538	51.50
Scenario1 (MC WQTV)	DRA-02	18.0038	51.50
Scenario1 (MC WQTV)	DRA-02	18.2538	51.50
Scenario1 (MC WQTV)	DRA-02	18.5038	51.50
Scenario1 (MC WQTV)	DRA-02	18.7538	51.50
Scenario1 (MC WQTV)	DRA-02	19.0038	51.50
Scenario1 (MC WQTV)	DRA-02	19.2538	51.50
Scenario1 (MC WQTV)	DRA-02	19.5038	51.50
Scenario1 (MC WQTV)	DRA-02	19.7538	51.50
Scenario1 (MC WQTV)	DRA-02	20.0038	51.50
Scenario1 (MC WQTV)	DRA-02	20.2538	51.50
Scenario1 (MC WQTV)	DRA-02	20.5038	51.50
Scenario1 (MC WQTV)	DRA-02	20.7538	51.50
Scenario1 (MC WQTV)	DRA-02	21.0038	51.50
Scenario1 (MC WQTV)	DRA-02	21.2538	51.50
Scenario1 (MC WQTV)	DRA-02	21.5038	51.50
Scenario1 (MC WQTV)	DRA-02	21.7538	51.50
Scenario1 (MC WQTV)	DRA-02	22.0038	51.50
Scenario1 (MC WQTV)	DRA-02	22.2538	51.50

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC WQTV)	DRA-02	22.5038	51.50
Scenario1 (MC WQTV)	DRA-02	22.7538	51.50
Scenario1 (MC WQTV)	DRA-02	23.0038	51.50
Scenario1 (MC WQTV)	DRA-02	23.2538	51.50
Scenario1 (MC WQTV)	DRA-02	23.5038	51.50
Scenario1 (MC WQTV)	DRA-02	23.7538	51.50
Scenario1 (MC WQTV)	DRA-02	24.0038	51.50
Scenario1 (MC WQTV)	DRA-02	24.2538	51.50
Scenario1 (MC WQTV)	DRA-02	24.5038	51.50
Scenario1 (MC WQTV)	DRA-02	24.7538	51.50
Scenario1 (MC WQTV)	DRA-02	25.0038	51.50
Scenario1 (MC WQTV)	DRA-02	25.2538	51.50
Scenario1 (MC WQTV)	DRA-02	25.5038	51.50
Scenario1 (MC WQTV)	DRA-02	25.7538	51.50
Scenario1 (MC WQTV)	DRA-02	26.0038	51.50
Scenario1 (MC WQTV)	DRA-02	26.2538	51.50
Scenario1 (MC WQTV)	DRA-02	26.5038	51.50
Scenario1 (MC WQTV)	DRA-02	26.7538	51.50
Scenario1 (MC WQTV)	DRA-02	27.0038	51.50
Scenario1 (MC WQTV)	DRA-02	27.2538	51.50
Scenario1 (MC WQTV)	DRA-02	27.5038	51.50
Scenario1 (MC WQTV)	DRA-02	27.7538	51.50
Scenario1 (MC WQTV)	DRA-02	28.0038	51.50
Scenario1 (MC WQTV)	DRA-02	28.2538	51.50
Scenario1 (MC WQTV)	DRA-02	28.5038	51.50
Scenario1 (MC WQTV)	DRA-02	28.7538	51.50
Scenario1 (MC WQTV)	DRA-02	29.0038	51.50
Scenario1 (MC WQTV)	DRA-02	29.2538	51.50
Scenario1 (MC WQTV)	DRA-02	29.5038	51.50
Scenario1 (MC WQTV)	DRA-02	29.7538	51.50
Scenario1 (MC WQTV)	DRA-02	30.0038	51.50
Scenario1 (MC WQTV)	DRA-02	30.2538	51.50
Scenario1 (MC WQTV)	DRA-02	30.5038	51.50
Scenario1 (MC WQTV)	DRA-02	30.7538	51.50
Scenario1 (MC WQTV)	DRA-02	31.0038	51.50
Scenario1 (MC WQTV)	DRA-02	31.2538	51.50
Scenario1 (MC WQTV)	DRA-02	31.5038	51.50
Scenario1 (MC WQTV)	DRA-02	31.7538	51.50
Scenario1 (MC WQTV)	DRA-02	32.0038	51.50
Scenario1 (MC WQTV)	DRA-02	32.2538	51.50
Scenario1 (MC WQTV)	DRA-02	32.5038	51.50
Scenario1 (MC WQTV)	DRA-02	32.7538	51.50

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC WQTV)	DRA-02	33.0038	51.50
Scenario1 (MC WQTV)	DRA-02	33.2538	51.50
Scenario1 (MC WQTV)	DRA-02	33.5038	51.50
Scenario1 (MC WQTV)	DRA-02	33.7538	51.50
Scenario1 (MC WQTV)	DRA-02	34.0038	51.50
Scenario1 (MC WQTV)	DRA-02	34.2538	51.50
Scenario1 (MC WQTV)	DRA-02	34.5038	51.50
Scenario1 (MC WQTV)	DRA-02	34.7538	51.50
Scenario1 (MC WQTV)	DRA-02	35.0038	51.50
Scenario1 (MC WQTV)	DRA-02	35.2538	51.50
Scenario1 (MC WQTV)	DRA-02	35.5038	51.50
Scenario1 (MC WQTV)	DRA-02	35.7538	51.50
Scenario1 (MC WQTV)	DRA-02	36.0038	51.50
Scenario1 (MC WQTV)	DRA-02	36.2538	51.50
Scenario1 (MC WQTV)	DRA-02	36.5038	51.50
Scenario1 (MC WQTV)	DRA-02	36.7538	51.50
Scenario1 (MC WQTV)	DRA-02	37.0038	51.50
Scenario1 (MC WQTV)	DRA-02	37.2538	51.50
Scenario1 (MC WQTV)	DRA-02	37.5038	51.50
Scenario1 (MC WQTV)	DRA-02	37.7538	51.50
Scenario1 (MC WQTV)	DRA-02	38.0038	51.50
Scenario1 (MC WQTV)	DRA-02	38.2538	51.50
Scenario1 (MC WQTV)	DRA-02	38.5038	51.50
Scenario1 (MC WQTV)	DRA-02	38.7538	51.50
Scenario1 (MC WQTV)	DRA-02	39.0038	51.50
Scenario1 (MC WQTV)	DRA-02	39.2538	51.50
Scenario1 (MC WQTV)	DRA-02	39.5038	51.50
Scenario1 (MC WQTV)	DRA-02	39.7538	51.50
Scenario1 (MC WQTV)	DRA-02	40.0038	51.50
Scenario1 (MC WQTV)	DRA-02	40.2538	51.50
Scenario1 (MC WQTV)	DRA-02	40.5038	51.50
Scenario1 (MC WQTV)	DRA-02	40.7538	51.50
Scenario1 (MC WQTV)	DRA-02	41.0038	51.50
Scenario1 (MC WQTV)	DRA-02	41.2538	51.50
Scenario1 (MC WQTV)	DRA-02	41.5038	51.50
Scenario1 (MC WQTV)	DRA-02	41.7538	51.50
Scenario1 (MC WQTV)	DRA-02	42.0038	51.50
Scenario1 (MC WQTV)	DRA-02	42.2538	51.50
Scenario1 (MC WQTV)	DRA-02	42.5038	51.50
Scenario1 (MC WQTV)	DRA-02	42.7538	51.50
Scenario1 (MC WQTV)	DRA-02	43.0038	51.50
Scenario1 (MC WQTV)	DRA-02	43.2538	51.50

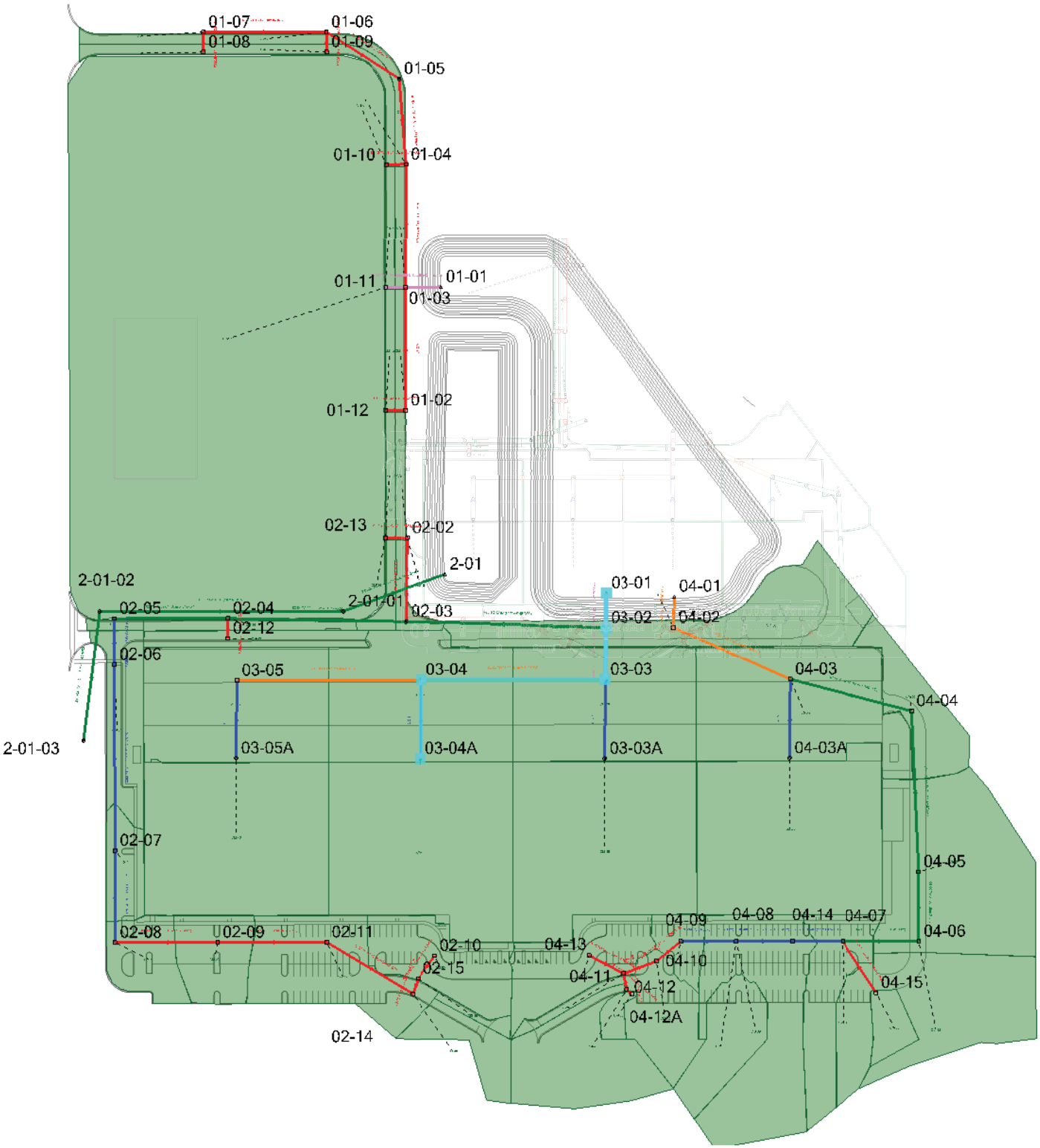
Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC WQTV)	DRA-02	43.5038	51.50
Scenario1 (MC WQTV)	DRA-02	43.7538	51.50
Scenario1 (MC WQTV)	DRA-02	44.0038	51.50
Scenario1 (MC WQTV)	DRA-02	44.2538	51.50
Scenario1 (MC WQTV)	DRA-02	44.5038	51.50
Scenario1 (MC WQTV)	DRA-02	44.7538	51.50
Scenario1 (MC WQTV)	DRA-02	45.0038	51.50
Scenario1 (MC WQTV)	DRA-02	45.2538	51.50
Scenario1 (MC WQTV)	DRA-02	45.5038	51.50
Scenario1 (MC WQTV)	DRA-02	45.7538	51.50
Scenario1 (MC WQTV)	DRA-02	46.0038	51.50
Scenario1 (MC WQTV)	DRA-02	46.2538	51.50
Scenario1 (MC WQTV)	DRA-02	46.5038	51.50
Scenario1 (MC WQTV)	DRA-02	46.7538	51.50
Scenario1 (MC WQTV)	DRA-02	47.0038	51.50
Scenario1 (MC WQTV)	DRA-02	47.2538	51.50
Scenario1 (MC WQTV)	DRA-02	47.5038	51.50
Scenario1 (MC WQTV)	DRA-02	47.7538	51.50
Scenario1 (MC WQTV)	DRA-02	48.0038	51.50
Scenario1 (MC WQTV)	DRA-02	48.2538	51.50
Scenario1 (MC WQTV)	DRA-02	48.5038	51.50
Scenario1 (MC WQTV)	DRA-02	48.7538	51.50
Scenario1 (MC WQTV)	DRA-02	49.0038	51.50
Scenario1 (MC WQTV)	DRA-02	49.2538	51.50
Scenario1 (MC WQTV)	DRA-02	49.5038	51.50
Scenario1 (MC WQTV)	DRA-02	49.7538	51.50
Scenario1 (MC WQTV)	DRA-02	50.0038	51.50
Scenario1 (MC WQTV)	DRA-02	50.2538	51.50
Scenario1 (MC WQTV)	DRA-02	50.5038	51.50
Scenario1 (MC WQTV)	DRA-02	50.7538	51.50
Scenario1 (MC WQTV)	DRA-02	51.0038	51.50
Scenario1 (MC WQTV)	DRA-02	51.2538	51.50
Scenario1 (MC WQTV)	DRA-02	51.5038	51.50
Scenario1 (MC WQTV)	DRA-02	51.7538	51.50
Scenario1 (MC WQTV)	DRA-02	52.0038	51.50
Scenario1 (MC WQTV)	DRA-02	52.2538	51.50
Scenario1 (MC WQTV)	DRA-02	52.5038	51.50
Scenario1 (MC WQTV)	DRA-02	52.7538	51.50
Scenario1 (MC WQTV)	DRA-02	53.0038	51.50
Scenario1 (MC WQTV)	DRA-02	53.2538	51.50
Scenario1 (MC WQTV)	DRA-02	53.5038	51.50
Scenario1 (MC WQTV)	DRA-02	53.7538	51.50

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC WQTV)	DRA-02	54.0038	51.50
Scenario1 (MC WQTV)	DRA-02	54.2538	51.50
Scenario1 (MC WQTV)	DRA-02	54.5038	51.50
Scenario1 (MC WQTV)	DRA-02	54.7538	51.50
Scenario1 (MC WQTV)	DRA-02	55.0038	51.50
Scenario1 (MC WQTV)	DRA-02	55.2538	51.50
Scenario1 (MC WQTV)	DRA-02	55.5038	51.50
Scenario1 (MC WQTV)	DRA-02	55.7538	51.50
Scenario1 (MC WQTV)	DRA-02	56.0038	51.50
Scenario1 (MC WQTV)	DRA-02	56.2538	51.50
Scenario1 (MC WQTV)	DRA-02	56.5038	51.50
Scenario1 (MC WQTV)	DRA-02	56.7538	51.50
Scenario1 (MC WQTV)	DRA-02	57.0038	51.50
Scenario1 (MC WQTV)	DRA-02	57.2538	51.50
Scenario1 (MC WQTV)	DRA-02	57.5038	51.50
Scenario1 (MC WQTV)	DRA-02	57.7538	51.50
Scenario1 (MC WQTV)	DRA-02	58.0038	51.50
Scenario1 (MC WQTV)	DRA-02	58.2538	51.50
Scenario1 (MC WQTV)	DRA-02	58.5038	51.50
Scenario1 (MC WQTV)	DRA-02	58.7538	51.50
Scenario1 (MC WQTV)	DRA-02	59.0038	51.50
Scenario1 (MC WQTV)	DRA-02	59.2538	51.50
Scenario1 (MC WQTV)	DRA-02	59.5038	51.50
Scenario1 (MC WQTV)	DRA-02	59.7538	51.50
Scenario1 (MC WQTV)	DRA-02	60.0038	51.50
Scenario1 (MC WQTV)	DRA-02	60.2538	51.50
Scenario1 (MC WQTV)	DRA-02	60.5038	51.50
Scenario1 (MC WQTV)	DRA-02	60.7538	51.50
Scenario1 (MC WQTV)	DRA-02	61.0038	51.50
Scenario1 (MC WQTV)	DRA-02	61.2538	51.50
Scenario1 (MC WQTV)	DRA-02	61.5038	51.50
Scenario1 (MC WQTV)	DRA-02	61.7538	51.50
Scenario1 (MC WQTV)	DRA-02	62.0038	51.50
Scenario1 (MC WQTV)	DRA-02	62.2538	51.50
Scenario1 (MC WQTV)	DRA-02	62.5038	51.50
Scenario1 (MC WQTV)	DRA-02	62.7538	51.50
Scenario1 (MC WQTV)	DRA-02	63.0038	51.50
Scenario1 (MC WQTV)	DRA-02	63.2538	51.50
Scenario1 (MC WQTV)	DRA-02	63.5038	51.50
Scenario1 (MC WQTV)	DRA-02	63.7538	51.50
Scenario1 (MC WQTV)	DRA-02	64.0038	51.50
Scenario1 (MC WQTV)	DRA-02	64.2538	51.50

Scenario	Node Name	Relative Time [hrs]	Stage [ft]
Scenario1 (MC WQTV)	DRA-02	64.5038	51.50
Scenario1 (MC WQTV)	DRA-02	64.7538	51.50
Scenario1 (MC WQTV)	DRA-02	65.0038	51.50
Scenario1 (MC WQTV)	DRA-02	65.2538	51.50
Scenario1 (MC WQTV)	DRA-02	65.5038	51.50
Scenario1 (MC WQTV)	DRA-02	65.7538	51.50
Scenario1 (MC WQTV)	DRA-02	66.0038	51.50
Scenario1 (MC WQTV)	DRA-02	66.2538	51.50
Scenario1 (MC WQTV)	DRA-02	66.5038	51.50
Scenario1 (MC WQTV)	DRA-02	66.7538	51.50
Scenario1 (MC WQTV)	DRA-02	67.0038	51.50
Scenario1 (MC WQTV)	DRA-02	67.2538	51.50
Scenario1 (MC WQTV)	DRA-02	67.5038	51.50
Scenario1 (MC WQTV)	DRA-02	67.7538	51.50
Scenario1 (MC WQTV)	DRA-02	68.0038	51.50
Scenario1 (MC WQTV)	DRA-02	68.2538	51.50
Scenario1 (MC WQTV)	DRA-02	68.5038	51.50
Scenario1 (MC WQTV)	DRA-02	68.7538	51.50
Scenario1 (MC WQTV)	DRA-02	69.0038	51.50
Scenario1 (MC WQTV)	DRA-02	69.2538	51.50
Scenario1 (MC WQTV)	DRA-02	69.5038	51.50
Scenario1 (MC WQTV)	DRA-02	69.7538	51.50
Scenario1 (MC WQTV)	DRA-02	70.0038	51.50
Scenario1 (MC WQTV)	DRA-02	70.2538	51.50
Scenario1 (MC WQTV)	DRA-02	70.5038	51.50
Scenario1 (MC WQTV)	DRA-02	70.7538	51.50
Scenario1 (MC WQTV)	DRA-02	71.0038	51.50
Scenario1 (MC WQTV)	DRA-02	71.2538	51.50
Scenario1 (MC WQTV)	DRA-02	71.5038	51.50
Scenario1 (MC WQTV)	DRA-02	71.7538	51.50

SECONDARY BASIN ANALYSIS

Scenario: Base



Storm Data Detailed Report: IDF Polynomial Log Equation - 1

Element Details		
ID	151	Notes
Label	IDF Polynomial Log Equation - 1	

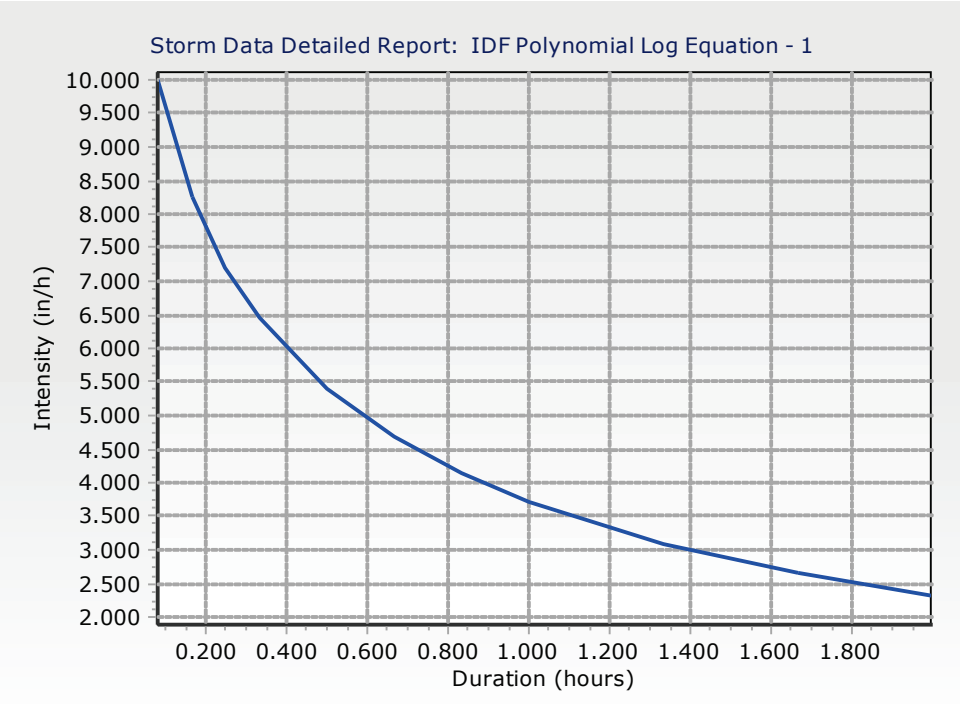
Return Period (Year)	a (Log)	b (Log)	c (Log)	d (Log)
25	12.922	-1.111	-0.550	0.067

Duration (hours)	25 Year (in/h)
0.083	9.987
0.167	8.261
0.250	7.203
0.333	6.449
0.500	5.402
0.667	4.684
0.833	4.147
1.000	3.726
1.333	3.099
1.667	2.649
2.000	2.308

Library Status Summary

	Synchronization Details
ID	151
Label	IDF Polynomial Log Equation - 1
Modified Date	6/2/2025 11:46:25 AM
Library Source	Orphan (local)
Library Modified Date	Orphan (local)
Synchronization Status	Orphan (local)
Engineering Reference Guid	Orphan (local)

Storm Data Detailed Report: IDF Polynomial Log Equation - 1



FlexTable: Catch Basin Table

Label	Elevation (Rim) (ft)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Flow (Captured) (cfs)	Headloss Coefficient (Standard)	Headloss Method	Inlet Location
01-02	66.46	64.20	64.08	0.61	0.800	Standard	In Sag
01-03	68.33	60.53	59.64	0.62	1.000	Standard	In Sag
01-04	70.62	66.60	66.42	0.89	0.600	Standard	In Sag
01-06	73.00	68.81	68.68	0.62	0.600	Standard	In Sag
01-07	74.59	70.38	70.26	0.64	0.800	Standard	In Sag
01-08	74.69	70.38	70.38	0.64	0.000	Standard	In Sag
01-09	72.69	69.71	69.71	0.62	0.000	Standard	In Sag
01-10	70.12	66.60	66.60	0.80	0.000	Standard	In Sag
01-11	68.35	60.67	60.67	72.55	0.000	Standard	In Sag
01-12	66.51	64.19	64.19	0.62	0.000	Standard	In Sag
02-02	64.48	61.40	61.37	1.38	0.800	Standard	In Sag
02-04	64.86	61.93	61.79	1.13	0.600	Standard	In Sag
02-05	65.52	62.32	62.18	0.30	0.800	Standard	In Sag
02-06	65.81	62.85	62.64	2.72	0.500	Standard	In Sag
02-07	68.66	64.03	63.87	1.70	0.500	Standard	In Sag
02-08	69.59	64.65	64.44	2.25	0.800	Standard	In Sag
02-09	69.38	66.49	66.19	2.58	0.500	Standard	In Sag
02-10	68.77	68.14	68.14	3.13	0.000	Standard	In Sag
02-11	68.89	67.74	67.52	4.81	0.600	Standard	In Sag
02-12	65.09	61.93	61.93	1.81	0.000	Standard	In Sag
02-13	64.99	61.40	61.40	1.37	0.000	Standard	In Sag
02-14	72.79	68.04	67.97	0.89	0.800	Standard	In Sag
02-15	72.84	68.10	68.07	0.32	0.600	Standard	In Sag
03-03	65.42	61.43	60.81	10.13	0.800	Standard	In Sag
03-04	65.45	63.14	62.67	10.94	0.700	Standard	In Sag
03-05	65.45	63.59	63.46	10.19	0.800	Standard	In Sag
04-02	63.40	60.33	59.74	7.30	0.600	Standard	In Sag
04-03	65.52	62.15	61.46	9.72	0.600	Standard	In Sag
04-04	67.09	63.42	63.00	1.43	0.800	Standard	In Sag
04-05	68.53	64.70	64.45	6.34	0.500	Standard	In Sag
04-06	67.41	65.23	64.97	3.73	0.800	Standard	In Sag
04-07	69.26	65.63	65.45	2.59	0.800	Standard	In Sag
04-08	69.24	66.80	66.59	7.42	0.500	Standard	In Sag
04-09	69.26	67.01	66.93	1.28	0.600	Standard	In Sag
04-10	69.34	67.46	67.26	1.94	0.600	Standard	In Sag
04-11	71.15	67.74	67.62	0.51	0.600	Standard	In Sag
04-12	70.92	67.77	67.75	2.36	0.600	Standard	In Sag
04-12A	70.00	67.77	67.77	0.11	0.000	Standard	In Sag
04-13	68.77	67.79	67.79	3.31	0.000	Standard	In Sag
04-14	69.20	66.19	65.98	0.00	0.500	Standard	In Sag
04-15	69.47	65.63	65.63	0.24	0.000	Standard	In Sag

FlexTable: Catchment Table

Label	Scaled Area (acres)	Use Scaled Area?	Runoff Coefficient (Rational)	Time of Concentration (hours)	Flow (Total Out) (cfs)
CM-2	0.081	True	0.950	0.167	0.64
CM-3	0.081	True	0.950	0.167	0.64
CM-4	0.078	True	0.950	0.167	0.62
CM-5	0.079	True	0.950	0.167	0.62
CM-6	0.101	True	0.950	0.167	0.80
CM-7	0.113	True	0.950	0.167	0.89
CM-8	0.078	True	0.950	0.167	0.62
CM-9	0.078	True	0.950	0.167	0.62
CM-10	0.078	True	0.950	0.167	0.62
CM-11	0.078	True	0.950	0.167	0.61
CM-12	0.084	True	0.950	0.167	0.66
CM-13	0.081	True	0.950	0.167	0.64
CM-14	0.090	True	0.950	0.167	0.71
CM-15	0.094	True	0.950	0.167	0.74
CM-16	0.142	True	0.950	0.167	1.13
CM-17	0.229	True	0.950	0.167	1.81
CM-18	0.037	True	0.950	0.167	0.30
CM-21	0.436	True	0.750	0.167	2.72
CM-22	0.240	True	0.850	0.167	1.70
CM-23	0.388	True	0.800	0.167	2.58
CM-26	1.289	True	0.950	0.167	10.19
CM-27	1.384	True	0.950	0.167	10.94
CM-28	1.282	True	0.950	0.167	10.13
CM-29	1.374	True	0.850	0.167	9.72
CM-30	1.032	True	0.850	0.167	7.30
CM-31	1.524	True	0.500	0.167	6.34
CM-32	1.120	True	0.400	0.167	3.73
CM-33	0.145	True	0.200	0.167	0.24
CM-34	0.518	True	0.600	0.167	2.59
CM-35	1.097	True	0.700	0.167	6.39
CM-36	0.411	True	0.300	0.167	1.03
CM-37	0.170	True	0.900	0.167	1.28
CM-38	0.569	True	0.700	0.167	3.31
CM-39	0.066	True	0.200	0.167	0.11
CM-40	0.065	True	0.950	0.167	0.51
CM-41	0.708	True	0.400	0.167	2.36
CM-42	0.424	True	0.550	0.167	1.94
CM-43	1.717	True	0.950	0.167	13.58
CM-44	1.841	True	0.950	0.167	14.56
CM-45	1.817	True	0.950	0.167	14.36
CM-46	1.778	True	0.950	0.167	14.06
CM-47	0.825	True	0.700	0.167	4.81
CM-48	0.267	True	0.400	0.167	0.89
CM-49	0.048	True	0.800	0.167	0.32
CM-52	0.579	True	0.650	0.167	3.13
CM-53	0.338	True	0.800	0.167	2.25
CM-54	10.804	True	0.800	0.167	71.93
CM-55	0.429	True	0.400	0.167	1.43

FlexTable: Conduit Table

Start Node	Stop Node	Length (Scaled) (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Manning's n	Flow (cfs)	Capacity (Full Flow) (cfs)	Velocity (ft/s)
01-04	01-03	200.0	0.005	18.0	0.012	3.92	8.05	4.52
01-05	01-04	140.0	0.012	18.0	0.012	2.37	12.62	5.48
01-06	01-05	140.6	0.005	18.0	0.012	2.41	8.05	3.98
01-07	01-06	200.0	0.009	18.0	0.012	1.28	10.64	4.06
01-08	01-07	32.5	0.005	18.0	0.012	0.64	8.05	2.73
01-09	01-06	32.5	-0.005	18.0	0.012	0.62	8.05	0.35
01-10	01-04	32.5	0.005	18.0	0.012	0.80	8.05	2.91
01-11	01-03	32.5	0.005	42.0	0.012	72.55	79.39	7.54
01-12	01-02	32.5	0.005	18.0	0.012	0.62	8.08	2.71
2-01-01	2-01	177.3	0.003	30.0	0.012	35.15	24.34	7.16
2-01-02	2-01-01	395.6	0.003	30.0	0.012	35.15	24.36	7.16
2-01-03	2-01-02	211.9	0.003	30.0	0.012	35.15	24.34	7.16
02-03	03-02	325.2	0.005	30.0	0.012	20.28	31.42	4.13
02-04	02-03	290.8	0.005	30.0	0.012	18.53	31.42	3.77
02-05	02-04	184.5	0.005	30.0	0.012	16.37	31.42	3.34
02-06	02-05	75.0	0.005	24.0	0.012	16.21	17.33	5.16
02-07	02-06	303.2	0.005	24.0	0.012	14.21	17.33	4.52
02-08	02-07	150.1	0.005	24.0	0.012	12.88	17.33	4.10
02-09	02-08	167.0	0.005	18.0	0.012	10.93	8.05	6.19
02-10	02-15	46.2	0.005	18.0	0.012	3.13	8.05	1.77
02-11	02-09	177.5	0.005	18.0	0.012	8.67	8.05	4.90
02-12	02-04	32.5	0.005	18.0	0.012	1.81	8.05	3.67
02-13	02-02	36.5	0.005	18.0	0.012	1.37	8.05	3.40
02-14	02-11	163.3	0.005	18.0	0.012	4.25	8.05	2.40
02-15	02-14	26.5	0.005	18.0	0.012	3.40	8.05	1.93
03-02	03-01	56.3	0.005	42.0	0.012	79.33	77.07	8.25
03-03	03-02	85.0	0.005	42.0	0.012	68.10	77.07	7.08
03-04	03-03	300.3	0.005	36.0	0.012	46.44	51.09	6.57
03-05	03-04	300.5	0.005	36.0	0.012	23.41	51.09	3.31
04-02	04-01	50.8	0.005	36.0	0.012	51.09	51.09	7.23
04-03	04-02	207.9	0.014	36.0	0.012	45.39	83.98	12.11
04-04	04-03	205.1	0.005	30.0	0.012	26.15	31.42	5.33
04-05	04-04	262.1	0.005	30.0	0.012	25.45	31.42	5.18
04-06	04-05	113.4	0.005	30.0	0.012	20.26	31.42	4.13
04-07	04-06	124.4	0.005	30.0	0.012	17.28	31.42	3.52
04-08	04-14	91.3	0.005	24.0	0.012	15.03	17.33	4.78
04-09	04-08	90.2	0.005	24.0	0.012	8.56	17.33	2.73
04-10	04-09	51.0	0.005	18.0	0.012	7.45	8.05	4.22
04-11	04-10	56.8	0.005	18.0	0.012	5.74	8.05	3.25
04-12	04-11	26.5	0.005	18.0	0.012	2.27	8.05	1.28
04-12A	04-12	10.7	0.010	18.0	0.012	0.11	11.38	0.06
04-13	04-11	63.6	0.005	18.0	0.012	3.31	8.05	1.88
04-14	04-07	82.5	0.005	24.0	0.012	14.91	17.33	4.75
04-15	04-07	100.4	0.005	18.0	0.012	0.24	8.05	2.04
03-05A	03-05	126.8	0.009	24.0	0.012	13.58	23.44	4.32
03-04A	03-04	128.3	0.010	24.0	0.012	14.56	23.92	4.63
03-03A	03-03	128.8	0.010	24.0	0.012	14.36	23.89	4.57
04-03A	04-03	128.4	0.010	24.0	0.013	14.06	22.07	4.47

FlexTable: Conduit Table

Start Node	Stop Node	Length (Scaled) (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Manning's n	Flow (cfs)	Capacity (Full Flow) (cfs)	Velocity (ft/s)
01-02	01-03	200.0	0.005	18.0	0.012	1.23	8.06	3.29
02-02	02-03	136.6	0.005	18.0	0.012	2.74	8.05	1.55
01-03	01-01	57.5	0.005	42.0	0.012	71.57	77.07	9.10

FlexTable: Manhole Table

Label	Elevation (Ground) (ft)	Flow (Total Out) (cfs)	Hydraulic Grade Line (Out) (ft)
01-05	71.54	2.37	67.97
2-01-01	64.29	35.15	54.85
2-01-02	63.65	35.15	57.32
2-01-03	59.14	35.15	58.65
02-03	65.49	20.28	61.16
03-02	63.94	79.33	59.74
03-03A	66.00	14.36	61.88
03-04A	66.00	14.56	63.60
03-05A	69.00	13.58	63.98
04-03A	66.00	14.06	62.64

FlexTable: Outfall Table

Label	Elevation (Ground) (ft)	Elevation (Invert) (ft)	Elevation (User Defined Tailwater) (ft)	Flow (Total Out) (cfs)
04-01	59.42	56.00	59.44	50.96
03-01	58.96	55.00	59.44	79.14
01-01	57.65	56.00	59.44	71.37
2-01	54.38	51.50	51.77	35.15

SUPPORTING DOCUMENTS

COX LUMBER OFF-SITE ERP #76541 - 1 CALCULATIONS

76541-1

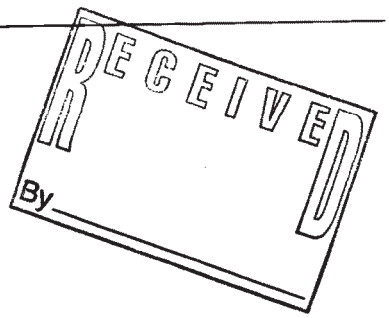
Bound Reports
1720

Project No. 241-01

Cox Lumber Company
Marion County Truss Plant

Site Improvements

Stormwater Design Report
and Drainage Calculations



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Prepared By:

JOHN P. DANIELS ENGINEERING, INC.

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OCALA, FLORIDA 34471

PHONE (352) 369-4000 FAX (352) 369-4002
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Cox Lumber Company – Marion Truss Plant

Site Improvements

Stormwater Design Report and Drainage Calculations

Introduction

General Information

This project is a proposed truss and door manufacturing facility in Marion County. The project is to be constructed on the former site of Florida Feed and Seed, which was destroyed by fire a few years ago. The existing paving and slab remain and will be reused; additional paving will be added.

Pertinent site and location parameters are:

Parameter	Value
Project Area	8.906 Acres
Section - Township - Range	7, T16S - R23E
Local Jurisdiction	Marion County
Water Management District	St. Johns River WMD
USGS Quad Sheet	Ocala East

Proposed improvements as part of this project include the construction of buildings on the existing slab, expansion of paved areas, and a new railroad siding. Also included is a drainage retention area for stormwater retention and treatment.

Property Location

The project is located in the Industrial 35 subdivision on the eastern side of SE 58th Avenue (SR 35 or Baseline Road), about 2 miles south of SR 464 (Maricamp Road), southeast of Ocala. Refer to Plan Sheet 1 for the location map.

Report Scope

This report addresses the design of the stormwater system to provide flood attenuation and water quality treatment of storm runoff. The design is subject to the design requirements of Marion County and the St. Johns River Water Management District. These agencies have separate, differing design criteria, but all have a common goal; this report contains design calculations which address all criteria.

Miscellaneous Site Properties

Location in Flood plain

The site is not located in a flood hazard area as confirmed by the Flood Hazard Boundary Map for Ocala, Community-Panel Number 120160 0700 B, dated January 19, 1983. See this report for copy.

Benchmarks

Two benchmarks are provided for construction. See Plan Sheet 2.

Wetlands

The site contains no known wetland areas.

Responsible Authority

Overall responsibility for the development of the project is held by:

Cox Lumber Company

Initial contact should be made with Mr. Arlen Tillis, Executive Vice President, who can be reached at:

Cox Lumber Company
940 W. Jefferson Street
Brooksville, FL 34601
Phone (352) 796-7232
Fax: (352) 754-9862

The developer will hold ownership and maintenance responsibility for the stormwater system.

DRAINAGE REVIEW CRITERIA

St. Johns River Water Management District

This project is located in a development that provides for stormwater retention for sites in the project. This development was permitted in 1985 under a Chapter 17-25 permit. However, as our proposed site coverage exceeds the 50% allowable coverage under that permit, the project is subject to a Stormwater Environmental Resource Permit under Chapter 40C-42, F.A.C. This requires water quality treatment of runoff from the site according to certain criteria, as well as flood attenuation in the average annual, 24-hour storm. This storm is well below the design basis for the project, and can be seen by inspection to be met.

Water quality treatment is obtained by retention and percolation in the drainage retention area, which is designed to hold and percolate site runoff exceeding the required retention volume.

Where stormwater treatment invclves retention, the District also requires recovery of the treatment volume within 72 hours following the design storm. Recovery calculations are included in the drainage calculations.

Water quantity control is provided by retention in the drainage retention area. The drainage calculations show that the available DRA volume greatly exceeds the annual storm criterion.

Marion County

As the project is proposed in an existing subdivision with an approved drainage system, project design has been designed to meet the requirements of the subdivision. The design for Industrial 35 (aka Ocala Business Center) includes centralized retention for site impervious coverage up to 50 % in the 25-year, 24-hour storm event. The project is thus design to provide on-site retention so that postdevelopment rate and discharge volume in the 100-year, 24-hour storm event do not exceed the allowable subdivision design amounts from the 25-year, 24-hour storm event. This greatly exceeds the levels of retention required by the subdivision design.

GENERAL DRAINAGE SYSTEM DESCRIPTION

Note: the stormwater design calculations for this site are performed using PONDS version 3.1. Watershed identifiers used in this report appear on the plans, adjacent to the physical entities that they describe. Where used in this report, these identifiers appear in **BOLDFACE**.

Predevelopment Conditions

The predevelopment project site is a developed, but unused, industrial facility. While a fire destroyed the former buildings, the paving and building slabs (and a small building which escaped the fire) remain. Site runoff is to the southwest, to a small DRA which provided retention to meet the subdivision requirements; this remains.

A portion of the site (at the north end, near the cul-de-sac) drains to SE 68th Street. From there, road swales convey runoff to the subdivision DRA.

Allowable predevelopment discharge is based on 50% impervious coverage in the 25-year, 24-hour design storm. This storm is modeled on the watershed and, the design allowable predevelopment discharge rate and volume are determined.

Predevelopment modeling generally proceeds as follows:

1) The predevelopment watershed is delineated and area is measured. The predevelopment watershed is the site, in accordance with the subdivision design.

2) Soil Group and cover areas are measured, and DCIA percentage and a weighted Curve Number are calculated. This is based on 50% impervious cover, in accordance with the subdivision design.

3) These data are input to PONDS, which uses the 25-year, 24-hour storm to output a hydrograph and total volume for the design storm runoff.

Postdevelopment Conditions

Design Basis

Stormwater design for the project is based on meeting the discharge allowance of the subdivision design. This has been done conservatively, by using the 100-year, 24-hour storm as the postdevelopment storm. Thus, system design provides for a large safety factor.

Design proceeds as follows:

1) The postdevelopment watershed is delineated (see Plan Sheet 4, Drainage Plan) and area is measured. Soil Group and cover areas are measured, and DCIA percentage and a weighted Curve Number are calculated.

2) These data are input to PONDS, which outputs a hydrograph and total volume for the design storm runoff.

3) Proposed DRA geometric and soil properties are input to PONDS. The program then models the inflow, percolation, stage, and discharge conditions over the design storm.

4) Postdevelopment peak stage, and overflow volume and peak rate are output from PONDS. These are compared to predevelopment results. Should design criteria not be met, the geometry is adjusted and the process repeated until the design meets the design criteria.

5) Water quality treatment volume and recovery by percolation are determined by reference to the PONDS results.

Drainage Calculations and Supporting Data

Maps

The following maps appear in Appendix A:

1) Project location on USGS Quadrangle

2) FIRM Flood Insurance Rate Map

Drainage Calculations

Drainage calculations appear as Appendix B. These consist of the following:

1) For each watershed: general runoff calculation sheet, including:

   a) Predevelopment site coverage and runoff calculations for 25-year, 24-hour storm

b) Postdevelopment site coverage and runoff calculations for 100-year, 24-hour storm

c) Postdevelopment retention geometry

d) Required water quality volume, and respective levels in DRA

2) Postdevelopment runoff and DRA recovery: 100-year, 24-hour storm (PONDS 3.10)

3) Overflow spreader weir design calculations

4) Storm sewer calculations

Geotechnical Investigation

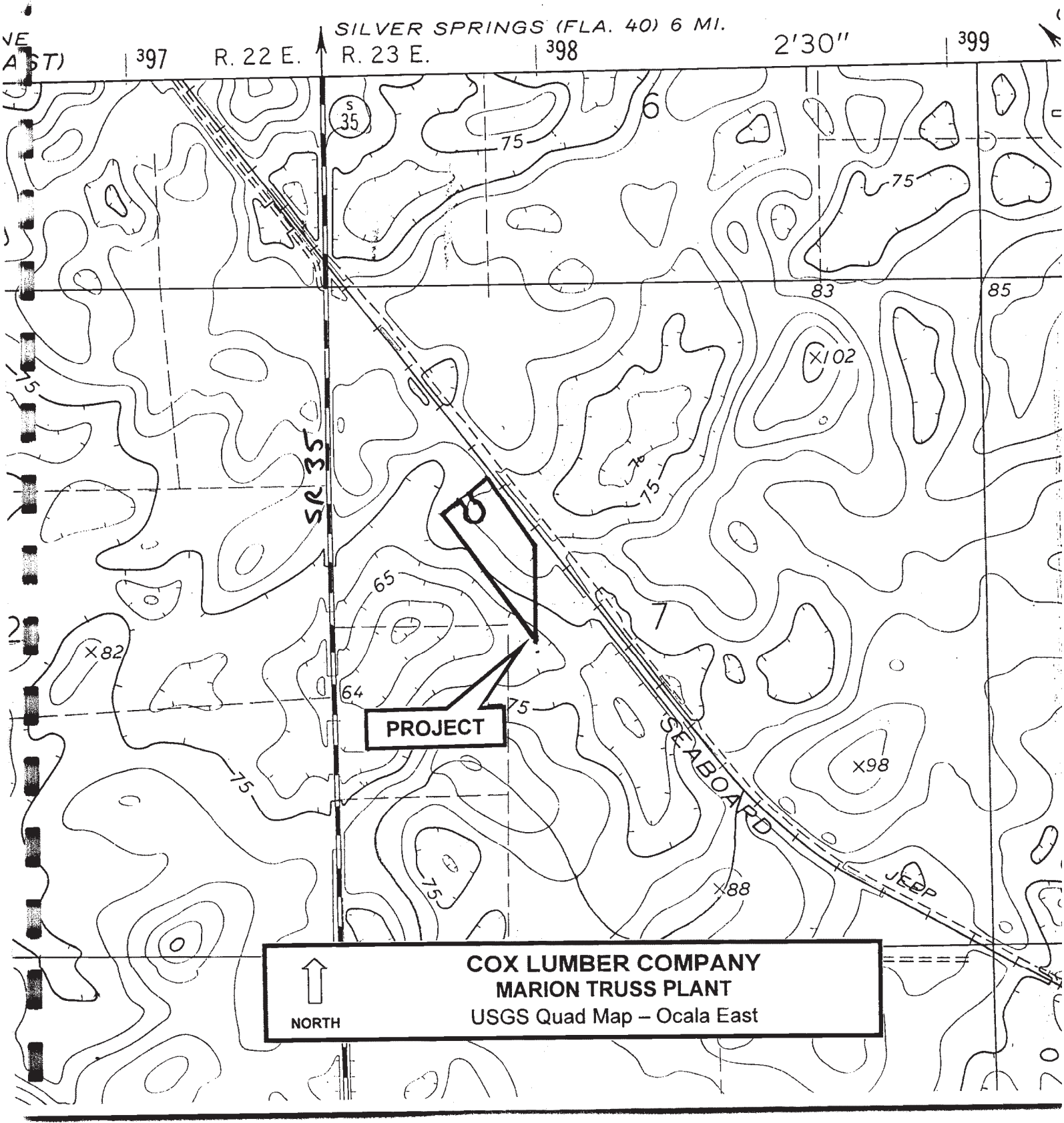
Site soil information is included as Appendix C.

Appendix A

Location map(USGS Quad)

FIRM Flood Insurance Rate Map

FLORIDA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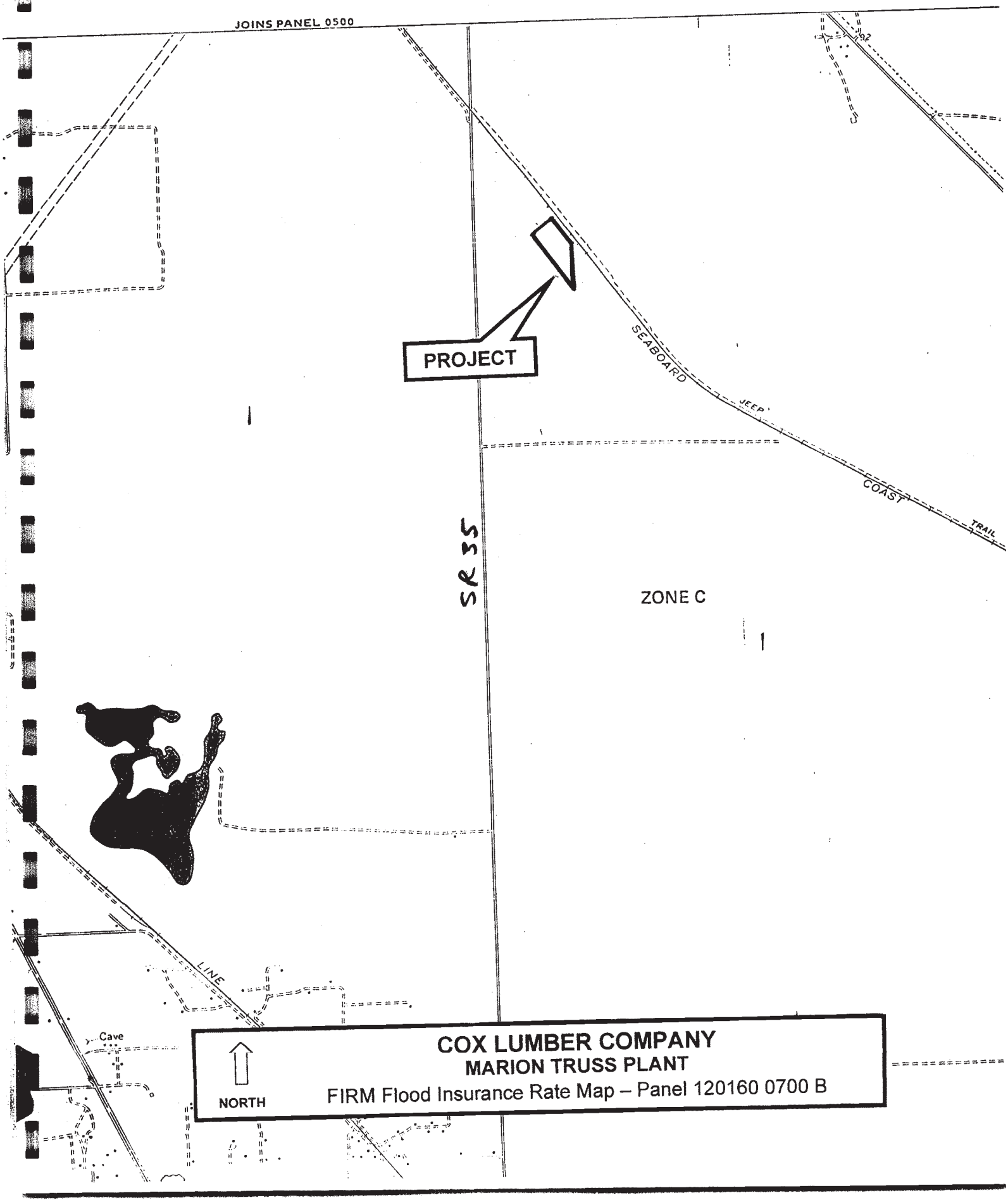
S 35
SR 35
PROJECT
SEABOARD
JEEP
NORTH
COX LUMBER COMPANY
MARION TRUSS PLANT
USGS Quad Map – Ocala East


JOINS PANEL 0500
PROJECT
SEABOARD
JEEP
COAST
TRAIL
SR 35
ZONE C
LINE
Cave
NORTH
COX LUMBER COMPANY
MARION TRUSS PLANT
FIRM Flood Insurance Rate Map – Panel 120160 0700 B

Appendix B

Drainage Calculations

Watershed Area Takeoff

Predevelopment

Plan Scale: 1 in. = 40 ft.
Planimeter factor: 1 sq. in. = 67.68 units

Watershed No.	Subcategory Description	Planimeter Reading	Plan Area (sq. in.)	Actual Area (sq. ft.)	Actual Area (acres)
	existing paving	n/a	n/a	103,530	2.38
	existing building	n/a	n/a	2,406	0.06
	existing building slabs	n/a	n/a	91,778	2.11
	open space	n/a	n/a	190,224	4.37
1A	total watershed		0.00	387,938	8.91

Postdevelopment

Plan Scale: 1 in. = 40 ft.
Planimeter factor: 1 sq. in. = 67.68 units

Watershed No.	Subcategory Description	Planimeter Reading	Plan Area (sq. in.)	Actual Area (sq. ft.)	Actual Area (acres)
	existing paving	n/a	n/a	103,530	2.38
	existing building	n/a	n/a	2,406	0.06
	truss plant	n/a	n/a	25,000	0.57
	door shop	n/a	n/a	14,880	0.34
	warehouse	n/a	n/a	4,960	0.11
	office	n/a	n/a	4,212	0.10
	tree sheds	(included under paving)		0	
	balance existing slabs	n/a	n/a	42,726	0.98
	new paving on site	1414	20.89	33,430	0.77
	new limerock on site	1058	15.63	25,010	0.57
	new paving RR lease	1091	16.12	25,790	0.59
	new limerock RR lease	128	1.89	3,030	0.07
	open space	n/a	n/a	131,784	3.03
1P	total watershed			416,758	9.57

Stormwater Retention Design - TR55, SJRWMD Treatment Criteria, PONDS Input

Ground Cover Types		
Type No.	CN	Description
1	39	Open space, pasture, Group A soil
2	35	Wooded, fair cover, Group A soil
3	72	Limerock surface
4	54	Residential, 1/2 acre, Group A Soil

Watershed Base No: 1

Predevelopment Land Cover (all areas in sf)					Ground Cover Type (see above) 1	2	3	4	CN Development					
Sub-Watershed ID	Buildings (DCIA)	Buildings (Non-DCIA)	Slabs & Paving (DCIA)	Slabs & Paving (Non-DCIA)	CN = 39	CN = 35	CN = 72	CN = 54	DCIA A*CN (CN=98)	Non-DCIA A*CN (CN=98)	Cover Type 1	Cover Type 2	Cover Type 3	Cover Type 4
1FA	0	0	0	0	0	0	0	0	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
1NA	193,969	0	0	0	193,969	0	0	0	1.9E+07	0.0E+00	7.6E+06	0.0E+00	0.0E+00	0.0E+00
Totals	193,969	0	0	0	193,969	0	0	0	1.9E+07	0.0E+00	7.6E+06	0.0E+00	0.0E+00	0.0E+00

Total watershed area	387,938	sf, =	8.906 acres
S A*CN	2.7E+07		
Weighted CN	68.5		
DCIA	193,969 sf	=	50%
Non-DCIA	193,969		
S A*CN (on non-dcia)	7.6E+06		
Non-DCIA weighted CN	39	*(CN on non-DCIA balance only)*	

Stormwater Runoff by TR-55: Predev	
Design storm	25-year, 24-hour
Rainfall depth	8.30 in.
S	4.60 in.
Runoff depth	4.55 in.
Runoff volume	146,999 cf

Exist. Stage vs Storage		
Elev. (ft)	Area (sf)	Vol.(cf)
N/A		

Postdevelopment Land Cover (all areas in sf)					Ground Cover Type (see above) 1	2	3	4	CN Development					
Sub-Watershed ID	Buildings (DCIA)	Buildings (Non-DCIA)	Slabs & Paving (DCIA)	Slabs & Paving (Non-DCIA)	CN = 39	CN = 35	CN = 72	CN = 54	DCIA A*CN (CN=98)	Non-DCIA A*CN (CN=98)	Cover Type 1	Cover Type 2	Cover Type 3	Cover Type 4
1FP	0	0	25,790	0	0	0	3,030	0	2.5E+06	0.0E+00	0.0E+00	0.0E+00	2.2E+05	0.0E+00
1NP	51,458	0	179,686	0	131,784	0	25,010	0	2.3E+07	0.0E+00	5.1E+06	0.0E+00	1.8E+06	0.0E+00
Totals	51,458	0	205,476	0	131,784	0	28,040	0	2.5E+07	0.0E+00	5.1E+06	0.0E+00	2.0E+06	0.0E+00
Rational C	0.95	0.95	0.95	0.95	0.15	0.10	0.00	0.00						
C x Area	48,885	0	195,202	0	19,768	0	0	0	S (AC)=	263,855	Weighted C=		0.63	

Total watershed area	416,758	sf, =	9.567 acres
S A*CN	3.2E+07		
Weighted CN	77.6		
DCIA	256,934 sf	=	62%
Non-DCIA	159,824		
S A*CN (on non-dcia)	7.2E+06		
Non-DCIA weighted CN	44.79	(CN on non-DCIA balance only)	

Stormwater Runoff by TR-55: Postdev	
Design storm	100-year, 24-hour
Rainfall depth	11.50 in.
S	2.89 in.
Runoff depth	8.64 in.
Runoff volume	300,020 cf

Pre vs Post Difference	
Pre runoff (cf)	146,999
Post runoff (cf)	300,020
Difference (cf)	153,021

Water Quality Volume - Retention		
SJRWMD Criterion 11.2		
11.2(a) Off-line ret., 1st 1/2" runoff		
Runoff depth	0.04 ft	
Watershed area, sf	416,758	
Runoff volume	17,365 cf	
1.25" of Runoff From Impervious Area		
Runoff depth	0.10 ft	max
Wshed imperv. Area, sf	256,934	
Runoff volume =Aimp (sf	26,764	
11.2(b) On-line retention of off-line + 1/2"		
Required off-line volume	26,764 cf	
Additional 1/2" over site	17,365 cf	
Required on-line volume	44,129 cf	
11.2(c) On-line runoff in 3-year, 1-hour storm		
Average rainfall intensity	1.15 in/hr	fdot Z7
Total rainfall, P	0.29 ft	
Runoff coefficient, C	0.63	
Runoff =A (sf) x P (ft) xC	75,858 cf	
11.2(d) On-line runoff from 1" of Rainfall		
check <40% imperv.?	61.65%	ng>40%
1" of rainfall, P	0.08 ft	
Runoff =A(sf) x P(ft) x C	21,988 cf	min

DRA Stage vs Storage		
Elev. (ft)	Area (sf)	Vol.(cf)
64.0	13928	0
65.0	16516	15,222
66.0	19325	33,143
67.0	22345	53,978
68.0	25545	77,923
69.0	28941	105,166
70.0	33698	136,485

Req'd Treatment Volume	
Off-line ret. (cf)	26,764
On-line ret. (cf)	44,129

Equivalent DRA Length and Width		
(Ref. §4.3 PONDS 2.26 User Manual)	Predev	Postdev
DRA equivalent perimeter (ft)		651
Top of berm elevation (ft)		70.0
DRA volume at top of berm elev. (cf)		136,485
DRA bottom elevation (ft)		64.0
DRA depth (ft)		6.0
Equivalent Length (ft)		223.67
Equivalent Width (ft)		101.70
Volume Check (h*L*W=V)		136,485

Water Quality Elevation (Postdev)	
Design WQ volume (cf)	44,129
DRA overflow elevation (ft)	69.40
DRA surface area at overflow (sf)	30,844
DRA volume at overflow (cf)	117,693
Pond elev.at base of w.q. volume (ft)	67.82
DRA volume below WQ volume (cf)	73,564

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Retention Pond Recovery - Refined Method
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Project Data

Project Name:	Cox Lumber - Marion County Truss Plant
Simulation Description:	Predevelopment 25-year, 24-hour
Project Number:	241-01
Engineer :	John P. Daniels Engineering, Inc.
Supervising Engineer:	John P. Daniels, P.E.
Date:	11-07-1998

Scenario Input Data

Scenario 1 :: Predevelopment 25-24

Hydrograph Type: Inline SCS
Repetitions: 1

Basin Area (acres)	8.906
Time Of Concentration (minutes)	30.0
DCIA (%)	50.0
Curve Number	39
Design Rainfall Depth (inches)	8.3
Design Rainfall Duration (hours)	24.0
Shape Factor	UHG 484
Rainfall Distribution	SCS Type II Florida Modified

Initial ground water level (ft datum) default, 58.50

Time After Storm Event (days)
0.250
0.500
0.750
1.000

Summary of Results :: *Scenario 1 :: Predevelopment 25-24*

	Time (hours)	Stage (ft datum)	Rate (ft^3/s)	Volume (ft^3)
Stage:				
Minimum	Not Available	Not Available		
Maximum	Not Available	Not Available		
Inflow:				
Rate - Maximum - Positive	12.133		20.7274	
Rate - Maximum - Negative	None		None	
Cumulative Volume - Maximum Positive	25.600			151129.9
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	49.733			151129.9
Infiltration:				
Rate - Maximum - Positive	Not Available		Not Available	
Rate - Maximum - Negative	Not Available		Not Available	
Cumulative Volume - Maximum Positive	Not Available			Not Available
Cumulative Volume - Maximum Negative	Not Available			Not Available
Cumulative Volume - End of Simulation	Not Available			Not Available
Discharge:				
Rate - Maximum - Positive	Not Available		Not Available	
Rate - Maximum - Negative	Not Available		Not Available	
Cumulative Volume - Maximum Positive	Not Available			Not Available
Cumulative Volume - Maximum Negative	Not Available			Not Available
Cumulative Volume - End of Simulation	Not Available			Not Available
Pollution Abatement:				
36 Hour Stage and Infiltration Volume	N.A.	N.A.		N.A.
72 Hour Stage and Infiltration Volume	N.A.	N.A.		N.A.

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Retention Pond Recovery - Refined Method
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Project Data

Project Name:	Cox Lumber - Marion County Truss Plant
Simulation Description:	Postdevelopment 100-year, 24-hour
Project Number:	241-01
Engineer :	John P. Daniels Engineering, Inc.
Supervising Engineer:	John P. Daniels, P.E.
Date:	11-07-1998

Aquifer Data

Base Of Aquifer Elevation, [B] (ft datum):	58.00
Water Table Elevation, [WT] (ft datum):	58.50
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day):	15.00
Fillable Porosity, [n] (%):	30.00
Unsaturated Vertical Infiltration Rate, [Iv] (ft/day):	5.0
Maximum Area For Unsaturated Infiltration, [Av] (ft^2):	33698.0

Geometry Data

Equivalent Pond Length, [L] (ft):	223.7
Equivalent Pond Width, [W] (ft):	101.7

Ground water mound is expected to intersect the pond bottom

Stage vs Area Data

Stage (ft datum)	Area (ft^2)
64.00	13928.0
65.00	16516.0
66.00	19325.0
67.00	22345.0
68.00	25545.0
69.00	28941.0
70.00	33698.0

Discharge Structures

Discharge Structure #1 is active as a weir

Discharge elevation, [D] (ft datum):	69.40
Discharge coefficient, [C]:	3.0000
Length, [L] (ft):	40.000
Exponent, [n]:	1.5000

Discharge Structure #2 is inactive

Discharge Structure #3 is inactive

Scenario Input Data

Scenario 1 :: Postdevelopment 100-24

Hydrograph Type: Inline SCS
Repetitions: 1

BASIN INFORMATION

Basin Area (acres)	9.567
Time Of Concentration (minutes)	30.0
DCIA (%)	62.0
Curve Number	45
Design Rainfall Depth (inches)	11.5
Design Rainfall Duration (hours)	24.0
Shape Factor	UHG 484
Rainfall Distribution	SCS Type II Florida Modified

Initial ground water level (ft datum) default, 58.50

Time After Storm Event (days)
0.250
0.500
0.750
1.000

Summary of Results :: *Scenario 1* :: *Postdevelopment 100-24*

	Time (hours)	Stage (ft datum)	Rate (ft^3/s)	Volume (ft^3)
Stage:				
Minimum	0.000	58.50		
Maximum	12.667	69.71		
Inflow:				
Rate - Maximum - Positive	12.133		42.3278	
Rate - Maximum - Negative	None		None	
Cumulative Volume - Maximum Positive	25.600			293413.1
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	49.733			293413.1
Infiltration:				
Rate - Maximum - Positive	18.600		3.5090	
Rate - Maximum - Negative	None		None	
Cumulative Volume - Maximum Positive	49.733			125140.8
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	49.733			125140.8
Discharge:				
Rate - Maximum - Positive	12.667		20.1426	
Rate - Maximum - Negative	None		None	
Cumulative Volume - Maximum Positive	24.933			77733.5
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	49.733			77733.5
Pollution Abatement:				
36 Hour Stage and Infiltration Volume	N.A.	N.A.		N.A.
72 Hour Stage and Infiltration Volume	N.A.	N.A.		N.A.

DISCHARGE VOLUME

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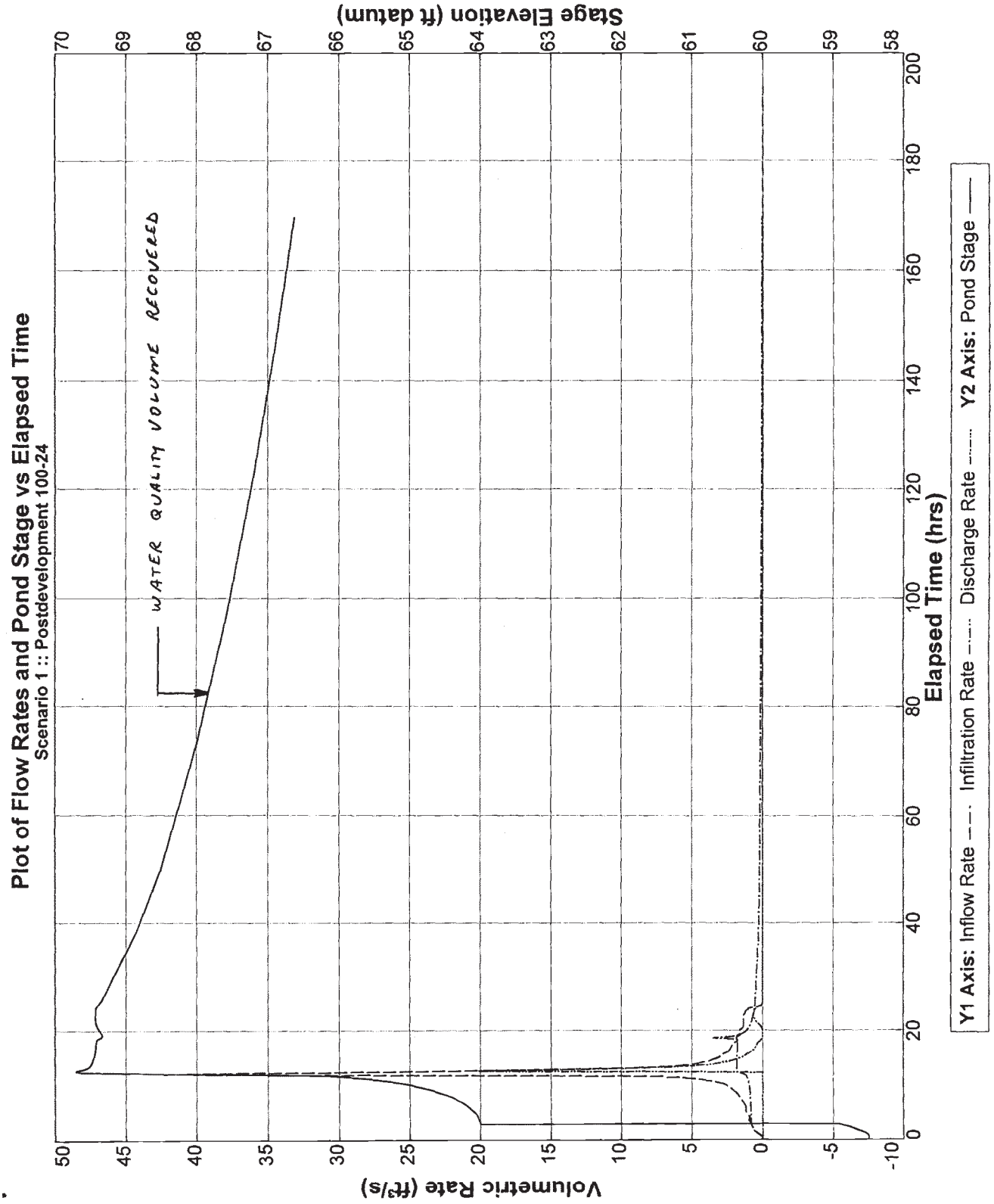
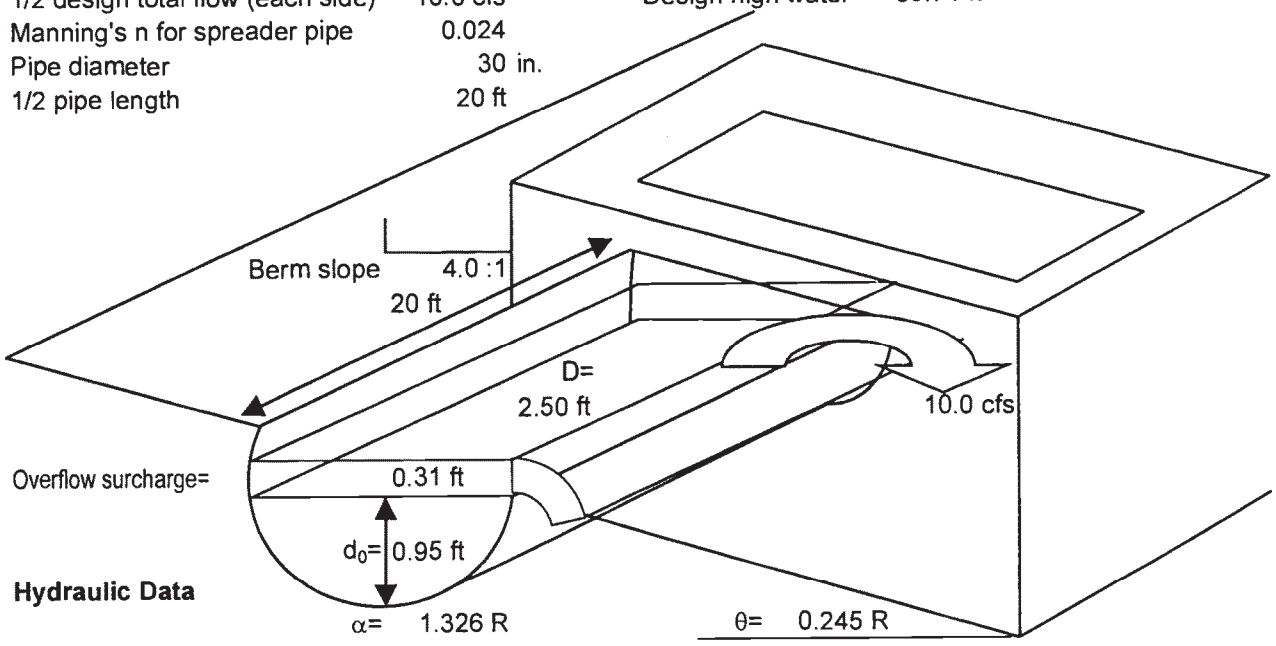


Overflow Spreader Pipe Wier Design

Input Data

Design total flow	20.0 cfs	O/F wier elevation =	69.40 ft
1/2 design total flow (each side)	10.0 cfs	Design high water =	69.71 ft
Manning's n for spreader pipe	0.024		
Pipe diameter	30 in.		
1/2 pipe length	20 ft		



Hydraulic Data

α=	1.326 R
Base flow area A_0=	1.70 sf
Base flow perimeter P_0=	3.31 ft
Surface width=	2.43 ft
Surcharged flow area A_s=	2.46 sf
Surcharged flow perimeter P_s=	3.62 ft
Hydraulic radius R_s=	0.68 ft

Friction

Average velocity @ midpoint =	2.04 ft/s	*Assumes 1/4 Q, or 1/2 of the flow to this side*
Friction slope @ midpoint =	0.001817	*Assumes constant friction slope = average*
Head losss through pipe =	0.04 ft	or 12% of surcharge

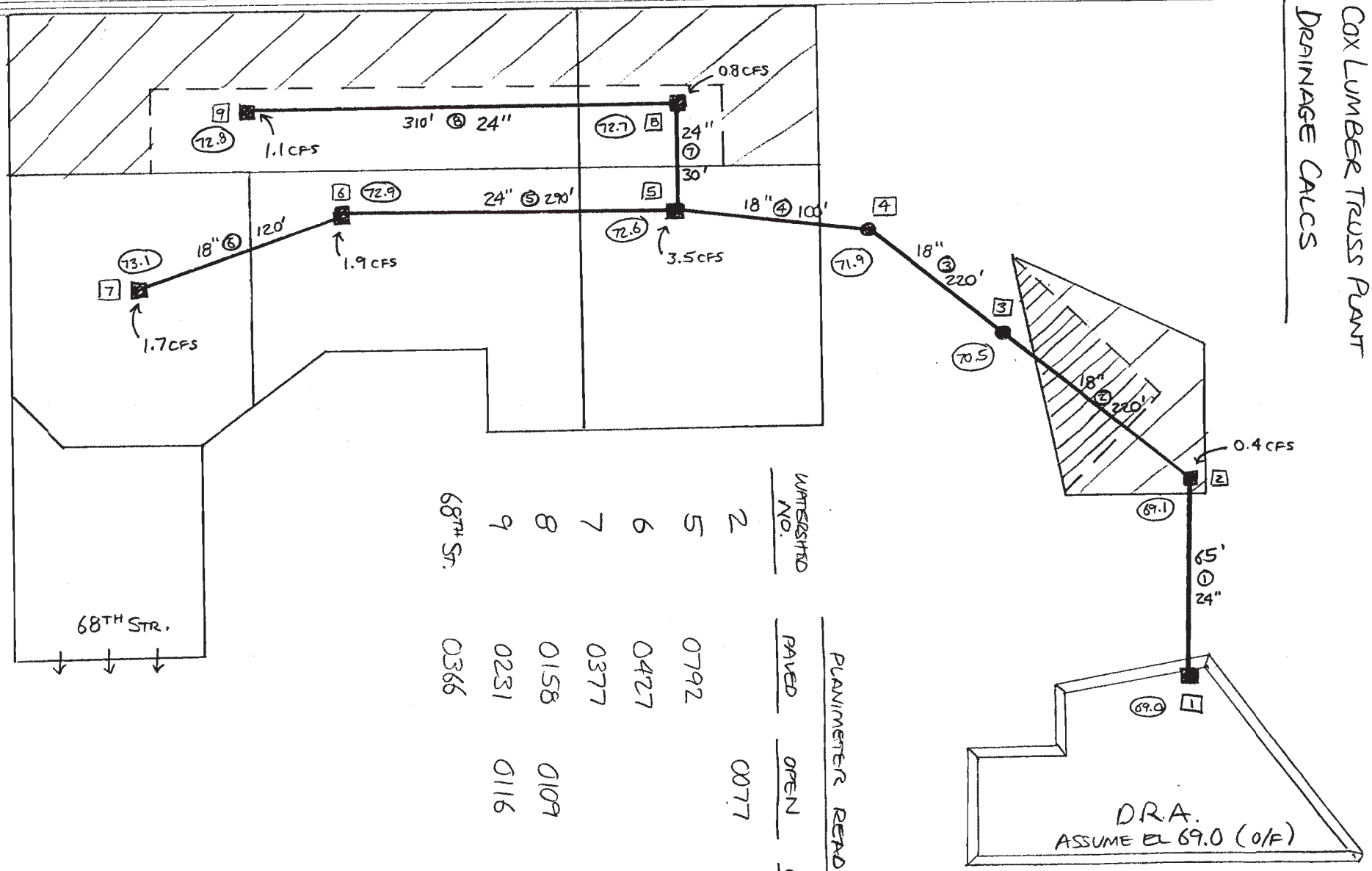
Geometry

Top of berm elevation	70.00 ft
Overflow wier elevation	69.40 ft
Horizontal distance: top of berm to wier	2.40 ft
Horizontal distance: top of berm to pipe centerline	1.19 ft
Horizontal distance: top of berm to back edge of pipe	-0.03 ft
Elevation at back edge of pipe	70.01 ft
Pipe invert elevation at inlet	68.45 ft
Pipe invert elevation at far end	68.49 ft
Inlet grate elevation (pipe high edge + 0.5 feet)	70.51 ft
Pipe slope	0.182%

Drainage Calculations – Storm Sewers

LEGEND

- PAVEMENT/CURB
- OPEN/BALLAST
- LIMEROCK
- [N] STRUCTURE/WATERSHED NO.
- (N) PIPE SEGMENT NO.
- (70.5) ΔEGL



PLANIMETER READING

WATERSHED NO.	PAVED	OPEN	LIMEROCK
2		0077	0086
5	0792		
6	0427		
7	0377		
8	0158	0109	
9	0231	0116	
68TH ST.	0366		

COX LUMBER TRUSS PLANT
DRAINAGE CALCS

11/10/98

11/11/98

"IDF CURVES"

DOT ZONE 7 CHART (INTENSITY-DURATION CURVE), DESIGN FOR A 25-YR EVENT, DURATION = 30 MIN. ⟶ $I = 5.5$ IN/HR (PEAK DISCHARGE)

WATER-SHED NO.	TOTAL AREA (AC)	WEIGHTED* "C" VALUE	Q (CFS)	CUMULATIVE** Q CFS)
2	0.14	0.49	0.38	9.23 ✓
5	0.67	0.95	3.50	8.85 ✓
6	0.36	0.95	1.88	3.55 ✓
7	0.32	0.95	1.67	1.67 ✓
8	0.23	0.59	0.75	1.80 ✓
9	0.29	0.66	1.05	1.05 ✓
68TH	0.31	0.95	1.62	1.62

* BASED ON SJRWMD HANDBOOK, TABLE 24-1, FOR AVG. SANDY SOILS AND FLAT TERRAIN.

AREA 2: $\dfrac{(0.85)(.07\,AC) + (.08)(.06\,AC)}{(.07 + .06)\,AC} = .49 = C$

AREA 8: $\dfrac{(.95)(.13\,AC) + (.08)(.09\,AC)}{(.13 + .09)\,AC} = .59 = C$

AREA 9: $\dfrac{(.95)(.20) + (.08)(.10)}{(.20 + .10)\,AC} = .66 = C$

** ASSUME $t_c = 0$ (INSTANTANEOUS FLOW BETWEEN WATERSHEDS)

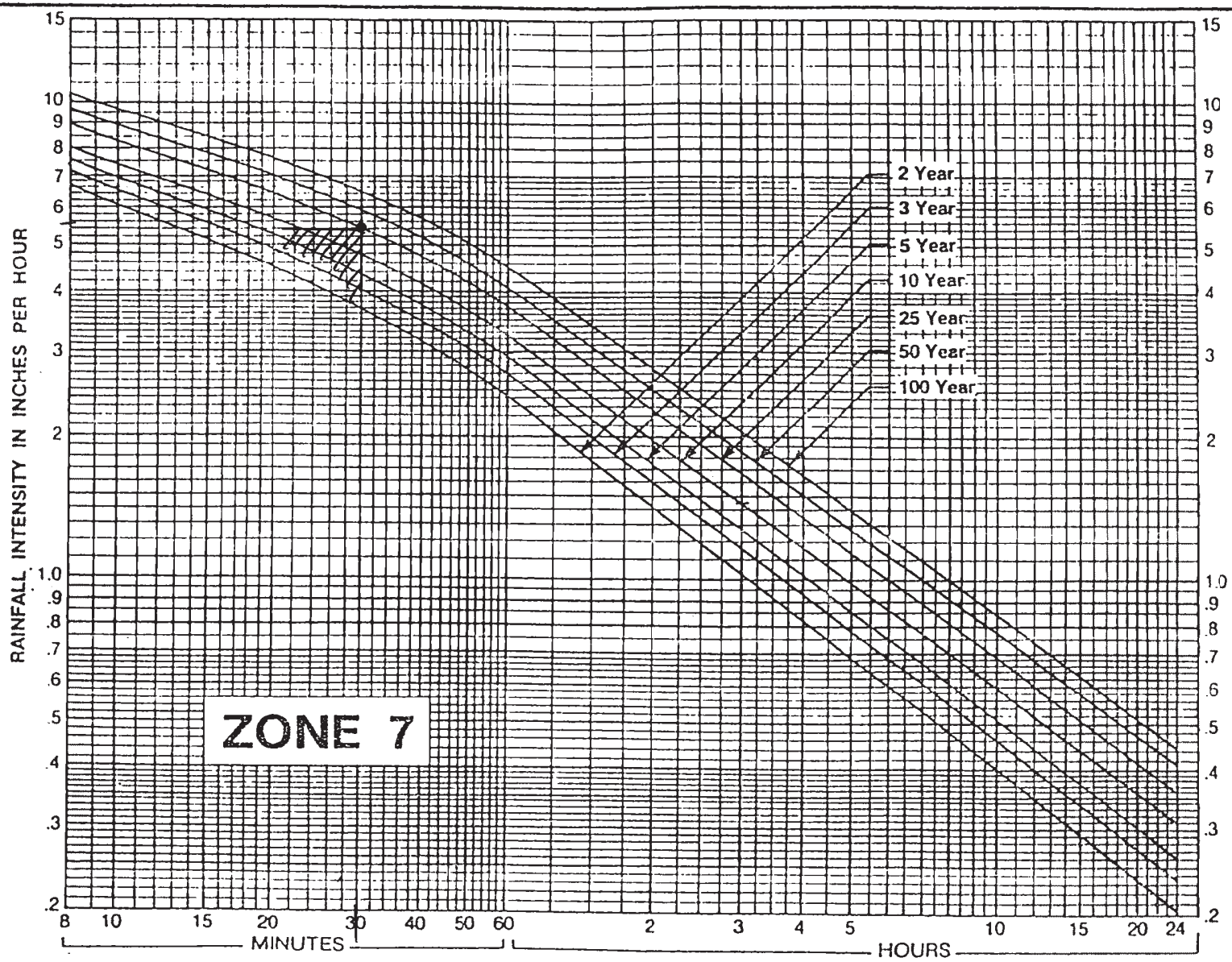


FIGURE 5-8
Rainfall Intensity-Duration-Frequency Curves for Zone 7

Table 24-1. Runoff Coefficients (*C*) for a Design Storm Return Period of Ten Years or Less[1]

Slope	Land Use	Sandy Soils Min.	Sandy Soils Max.	Clay Soils Min.	Clay Soils Max.
Flat (0-2%)	Lawns (BALLAST)	0.06 .08	0.10	0.13	0.17
	Rooftops and pavement (PAVED/CONC)	0.95 .95	0.95	0.95	0.95
	Pervious pavements[2] (LIMEROCK)	0.75 .85	0.95	0.90	0.95
	Woodlands	0.10	0.15	0.15	0.20
	Pasture, grass, and farmland[3]	0.15	0.20	0.20	0.25
	Residential				
	SFR: 1/2 acre lots and larger	0.30	0.35	0.35	0.45
	SFR: smaller lots and duplexes	0.35	0.45	0.40	0.50
	MFR: apartments, condominiums	0.45	0.60	0.50	0.70
	Commercial and Industrial	0.50	0.95	0.50	0.95
Rolling (2-7%)	Lawns	0.10	0.15	0.18	0.22
	Rooftops and pavements	0.95	0.95	0.95	0.95
	Pervious pavements[2]	0.80	0.95	0.90	0.95
	Woodlands	0.15	0.20	0.20	0.25
	Pasture, grass, and farmland[3]	0.20	0.25	0.25	0.30
	Residential				
	SFR: 1/2 acre lots and larger	0.35	0.50	0.40	0.55
	SFR: smaller lots and duplexes	0.40	0.55	0.45	0.60
	MFR: apartments, condominiums	0.50	0.70	0.60	0.80
	Commercial and Industrial	0.50	0.95	0.60	0.95
Steep (>7%)	Lawns	0.15	0.20	0.25	0.35
	Rooftops and pavements	0.95	0.95	0.95	0.95
	Pervious pavements[2]	0.85	0.95	0.90	0.95
	Woodlands	0.20	0.25	0.25	0.30
	Pasture, grass, and farmland[3]	0.25	0.35	0.30	0.40
	Residential				
	SFR: 1/2 acre lots and larger	0.40	0.55	0.50	0.65
	SFR: smaller lots and duplexes	0.45	0.60	0.55	0.70
	MFR: apartments, condominiums	0.60	0.75	0.65	0.85
	Commercial and Industrial	0.60	0.95	0.65	0.95

Sources: *Florida Department of Transportation, 1987; Wanielista, 1990*

[1] For 25- to 100-yr recurrence intervals, multiply coefficient by 1.1 and 1.25, respectively, and the product cannot exceed 1.0.

[2] Coefficients assume good ground cover and conservation treatment.

[3] Depends on depth and degree of permeability of underlying strata.

Note: SFR = Single Family Residential; MFR = Multi-Family Residential

CHEZY-MANNING EQUATION FOR OPEN CHANNEL FLOW (ALL CROSS SECTIONS):

$$Q = \left(\frac{1.49}{n}\right) A R_h^{2/3} S_o^{1/2}$$

WHERE Q = FLOWRATE (CFS)

n = MANNING'S # (.013 FOR RCP, .024 FOR CMP)

A = AREA OF FLOW (FT^2)

R_h = HYDRAULIC RADIUS = A/P (FT) = $d/4$ FOR ½-FULL PIPES

S_o = SLOPE (FT/FT)

SO, ASSUMING ALL PIPES ½ FULL, EST Q TO SEE IF Ø & S_o ARE GREAT ENOUGH FOR EACH PIPE SEGMENT.

PIPE	n	A	Rh	S_o →	(CFS) Q	PIPE SIZE
1	.013	1.57	0.5	.037	21.8 ✓	24"
2	.013	0.88	0.375	.021	7.6 ✓	18"
3	.013	0.88	0.375	.011	5.5 ✓	18"
4	.013	0.88	0.375	.017	6.8 ✓	18"
5	.024	0.88	0.375	0	~~@ 3.6~~	24"
6	.013	0.61	0.313	0	~~@ 1.7~~	18"
7	.013	0.88	0.375	0	~~@ 2.8~~	~~18"~~ → 24"
8	.024	0.88	0.375	0	~~@ 1.4~~	24"

→ REWORK, CHECKING PIPE SIZES BY DETERMINING Δ EGL FOR EACH SEGMENT, BEGINNING AT DRA. SEE PG 4/4. (ASSUME POND @ O/F EL = 69.0 & PIPES FLOWING ½ FULL OR FULL... SAME h_L).

11/12/98

PIPE #	LNGTH	DIA	AVG FLOW (CFS)	FRICTION LOSS	ΔEGL	CUM.** ΔEGL
1	65'	24"	9.2	.0015	0.1'	0.1'
2	220'	18"	8.9	.006	1.3'	1.5'
3	220'	18"	8.9	.006	1.3'	2.9'
4	100'	18"	8.9	.006	0.6'	3.6'
5*	290'	24"	3.6	.0008	0.2'	3.9'
6	120'	18"	1.7	.0008	0.1'	(4.1')
7*	30'	24"	1.8	.0002	0.0'	3.7'
8*	310'	24"	1.1	.0001	0.0'	(3.8')

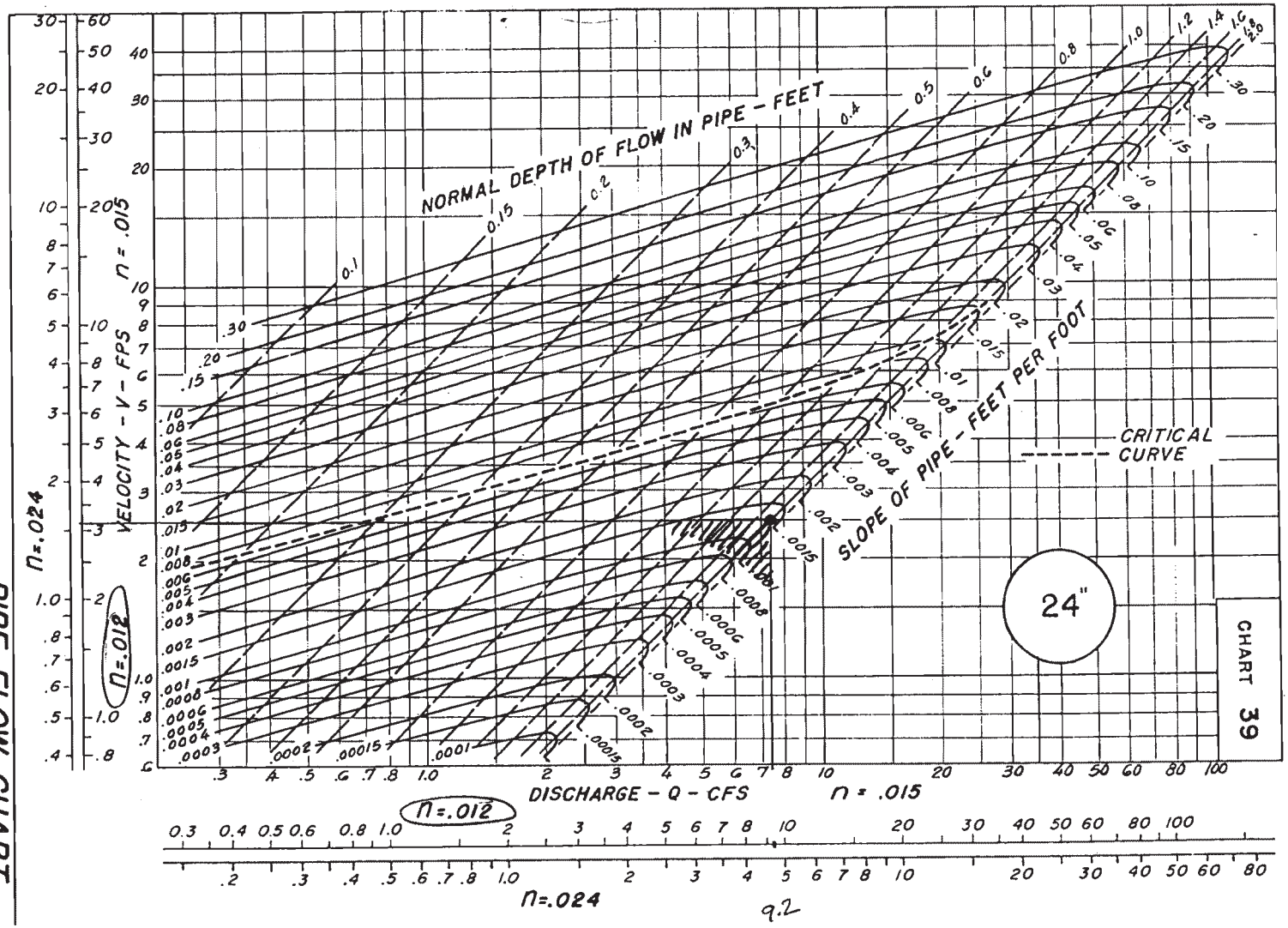
* DENOTES SLOTTED DRAIN, CORRUGATED PIPE

** ALLOW 0.1' DROP AT EACH STORM STRUCTURE (INC. MHs)

∴ MIN REQ'D WSE = 69.0 + 4.1 = 73.1' (PIPES 5 & 6)

MIN REQ'D WSE = 69.0 + 3.8 = 72.8' (PIPES 7 & 8)

OK! (APPROX INV. ELEV'S 74 - 78 IN UPPER REACHES OF STORM SYSTEM. WSE'S EVEN HIGHER...)



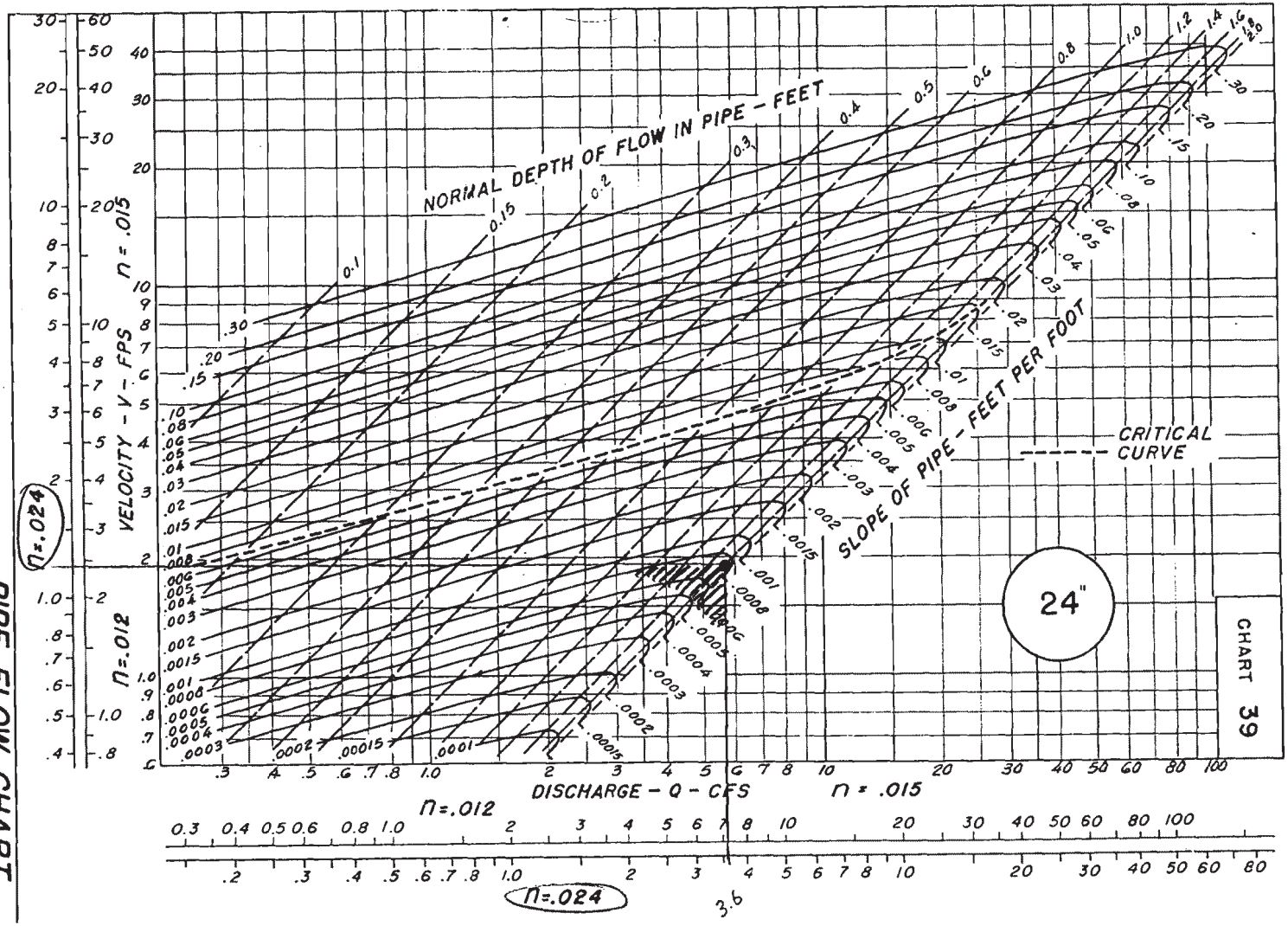
PIPE FLOW CHART
24-INCH DIAMETER

q.2

PIPE SEGMENT NO. 1

PIPE FLOW CHART
18-INCH DIAMETER

PIPE SEGMENTS NO. 2-4

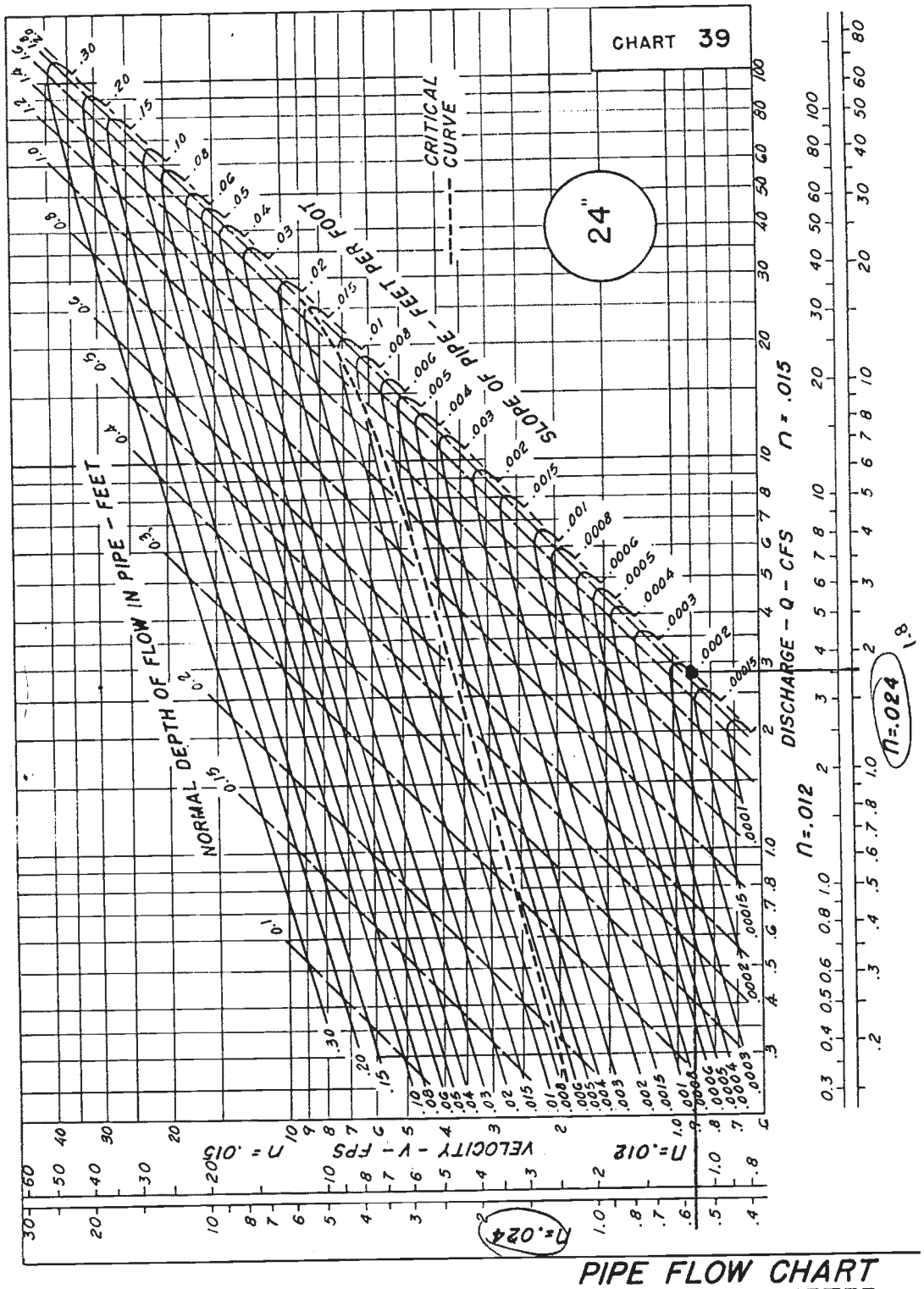


PIPE FLOW CHART
24-INCH DIAMETER

3.6

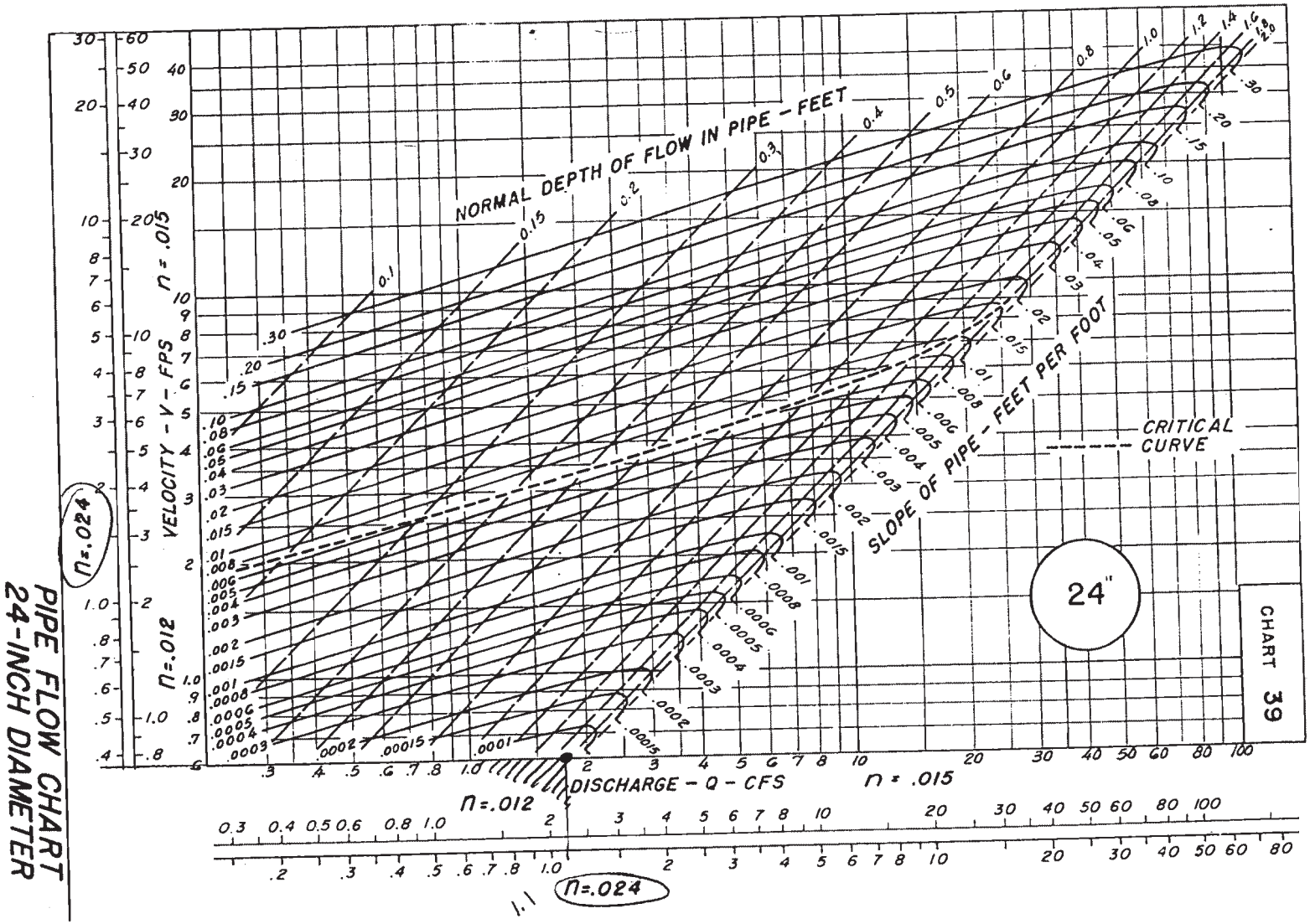
PIPE SEGMENT NO. 5

PIPE SEGMENT NO. 6



PIPE FLOW CHART
24-INCH DIAMETER

PIPE SEGMENT NO. 7



PIPE FLOW CHART
24-INCH DIAMETER

PIPE SEGMENT NO. 8

Appendix C

Soils Investigation Report

GEOTECHNICAL ENGINEERING REPORT

prepared by:
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ORLANDO, FL 32810
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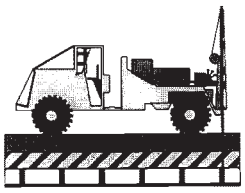
Date: August 24, 1998 (10:20AM)
Devo's Project No. 98-127.34



prepared for: John P. Daniels, P.E.
John P. Daniels Engineering, Inc.
Jenteco Plaza
821 N.E. 36th Terrace, Suite #6
Ocala, FL 34470
phone: 352-694-4147 fax: 352-694-3337

GEOTECHNICAL REPORT FOR STORMWATER POND - COX LUMBER - OCALA

PROJECT

Geotechnical Investigation for Proposed Stormwater Management Pond

Cox Lumber Facility
South East 68th Street (off Baseline Road), north of Belleview, Marion County, Florida
Section 7, Township 16 South, Range 23 East

SITE & DEVELOPMENT DATA

Figure 1 (attached) shows the approximate location of the site on the USGS Belleview 7.5 minute series quadrangle map.

Figure 2 (attached) shows the proposed layout of the warehouse based on the plan provided by John P. Daniels Engineering, Inc.

Predevelopment ground surface topographic contours are also shown in Figure 2. As noted, there is an existing pond in the southern corner of the site and ground surface elevations in this area range from +71 to +63 ft.

As shown in Figure 2, the proposed stormwater management system includes one (1) closed stormwater management area in the southern portion of the site.

OBJECTIVES

The objective of this geotechnical investigation is to estimate aquifer parameters within the proposed stormwater retention areas for modeling using the PONDS Version 3 computer program. These aquifer parameters include:

① Thickness of effective water table aquifer (or base elevation of mobilized aquifer)

② Weighted horizontal saturated hydraulic conductivity of aquifer

③ Fillable porosity of aquifer

④ Unsaturated vertical infiltration rate

⑤ Seasonal high water table

In this hydrogeologic setting with a deep water table, the unsaturated vertical infiltration rate will likely control the peak staging, although lateral saturated flow may become important during the latter part of the design storms for the larger basins.

FIELD & LABORATORY TEST PROGRAM

① FIELD SERVICES

- Three (3) hand auger borings were drilled at the locations labeled PB-1 through PB-3 in Figure 2. These borings were drilled to depths of 7 to 12 ft below ground surface within the proposed stormwater management area.
- Horizontal locations of the borings were staked in the field by a senior technician
- The depth to the stabilized water table was measured in each borehole, where encountered.
- Two (2) undisturbed Shelby tube samples were extracted for laboratory hydraulic conductivity testing. These 7-inch long samples were extracted at a depth of 2.0 to 2.5 ft at PB-2 and PB-3. These tube samples were oriented vertically during sampling.

② LABORATORY TESTING SERVICES

- Visual & tactile examination of soil samples
- Two (2) falling head permeameter tests were performed on the undisturbed Shelby tube samples to measure the saturated vertical hydraulic conductivity (k_v).

NRCS SOIL MAP UNITS	The USDA Natural Resources Conservation Service (NRCS) has mapped and published descriptions of the shallow soils (i.e., within 80 inches of land surface) in Marion County, Florida. In undeveloped areas, the NRCS soil mapping is usually fairly reliable and it is good practice to compare the site-specific soil and water table conditions with the published characterization data. As shown on Figure 3 (attached), there is one (1) NRCS soil map unit within the site boundary proposed stormwater management area: ✦ Candler sand, 0 to 5% slopes (CaB) Key characteristics of this NRCS soil map unit is summarized in Table 1.
SOIL STRATIGRAPHY	Boring locations PB-1 through PB-3 are shown in Figure 2. Graphic plots of the interpreted soil profiles for these borings are presented in Figure 4 (attached). Water table measurements and laboratory test results are annotated adjacent to these soil profiles. Borings PB-1 and PB-2 disclosed a surficial mantle of grayish brown fine sand approximately 5.0 to 6.0 feet thick. Underlying the surficial mantle is a layer of light orange brown silty fine sand 1.0 foot thick. A layer of light orange brown fine sand underlies the silty fine sand and it is approximately 1.5 feet thick. Light orange brown sandy clay was encountered to the depth of exploration of 8.0 ft. The surficial layer at PB-3 consisted of light orange brown slightly silty fine sand approximately 2 feet thick. The surficial layer is underlain by light brown fine sand approximately 5 feet thick. A layer of silty and slightly silty fine sands is encountered below the fine sand and it is about 2 feet thick. Light orange brown slightly clayey fine sand extends to the depth of exploration of 12.0 feet below existing grade.
HYDRAULIC CONDUCTIVITY	Laboratory hydraulic conductivity test results are annotated adjacent to the soil profiles in Figure 4. The measured vertical hydraulic conductivity of the grayish brown fine sand at PB-2 is approximately 12.7 ft/day, while that of the light brown fine sand at PB-3 is 25.3 ft/day. Note that the horizontal hydraulic conductivity (k_h) is typically 1½ to 2 times the k_v value in these depositional environments.

WATER TABLE

On August 5, 1998 the water table was encountered at a depth of 4.0 ft at PB-1 and PB-2. At PB-3 the water table was not encountered within the 12 ft depth of exploration. The water table in PB-1 and PB-2 reflects a perched mounding of ground water in the existing pond following significant rainfall in the area.

Figure 2 shows the location of an existing monitor well in the pond area. The ground surface elevation at the monitor well is +66.98 ft based on the topographic information provided by John P. Daniels Engineering. The depth to the water table in the well was +20.3 ft (from the top of casing) on August 5, 1998. This means that the true water table altitude in the area of the pond was approximately +47 ft on August 5, 1998.

The clayey sands which comprise the lower part of the limestone overburden in this portion of Marion County are relatively leaky and the water table level generally corresponds to the potentiometric surface of the Floridan aquifer. While the clayey sands can be relatively impermeable on a small scale, the unit as a whole is leaky due to micro-cracks and fissures which are vertically interconnected and extend into the limestone aquifer.

The position of the water table fluctuates seasonally based on differences in month to month rainfall and evapotranspiration. The contemporaneous shallow water table altitude also reflects long-term surpluses or deficits in rainfall (say within the previous 6-12 months). High water levels generally occur toward the end of the local wet season (September) and low levels toward the end of the dry season (May).

In this locality, the wet season altitude of the potentiometric surface of the Floridan aquifer is approximately +47.4 ft NGVD (see Figure 5). It can therefore be expected that the wet season water table will be at least +47.4 ft NGVD.

RECOMMENDED AQUIFER PARAMETERS

In such a hydro-stratigraphic setting where a very permeable sand unit overlies a relatively leaky clayey sand unit, there are two options for assessing aquifer parameters for stormwater modeling:

① Option 1: Conservatively assume that the sand and slightly clayey sand layers are the only effective portion of the mobilized aquifer (i.e., assume the clayey sand and sandy clay are impermeable and do not permit vertical flow).

② Option 2: Use the weighted horizontal hydraulic conductivity of the sand and clayey sand unit assuming the clayey sand has zero lateral permeability but is vertically permeable and the water table is somewhat above the high water level of the potentiometric surface of the Floridan aquifer.

Table 2 present the recommended aquifer parameters for both these options. For the stormwater retention pond, the more conservative Option ① should be used first before trying Option ②.

The following key points should be noted with respect to these parameters:

❶ These parameters were interpreted from the site-specific geotechnical data following the procedures outlined in SJRWMD Technical Publication SJ93-SP10.

❷ The vertical unsaturated infiltration rate includes a safety factor of 2.

❸ The horizontal hydraulic conductivity (k_h) is assumed to be approximately 1.5 times the vertical hydraulic conductivity (k_v).

The values recommended for the aquifer parameters are contingent on the grading guidelines (presented in the subsequent section) being followed.

CONSTRUCTION CONSIDERATIONS

Ideally, the bottom of the stormwater retention areas should not be excavated below the top of the clayey sand unit. The soil profiles in Figure 4 provide an indication of the maximum depths of the stormwater retention areas.

Vertical leakage through the clayey semi-confining unit will account for a significant portion of volume recovery. Vertical leakage through the semi-confining clayey sand layers to the underlying Floridan aquifer can be relatively high due to the presence of sand seams, the texture of the clayey sand, sand-filled paleokarst features, microfractures or channels in the clay, and other discontinuities. In such a hydrostratigraphic setting, it is important to preserve the natural leakiness of the semi-confining unit. The soil borings indicate that the bottom elevations of the ponds will be close to or below the top of the first clayey sand unit.

The following grading guidelines are recommended to preserve the leakiness of the clayey sand unit:

> *Where exposed by the pond excavation, the clayey sand unit should be overexcavated by 1 ft, the overexcavated surface heavily scarified, and then backfilled with clean sand excavated from the upper soil profile. Prior to backfilling with sand, the surface should be inspected by the engineer to ensure heavy equipment track & wheel loads have not sealed the naturally occurring fractures and channels. As an added safety measure, the engineer should reserve the option to perform at least one (1) double ring infiltrometer test after grading to ensure the vertical infiltration rate has not been reduced below an acceptable level.*

The surficial mantle of permeable sand plays an important role in preventing localized wetness and ponding. This blanket of sand provides storage and allows relatively rapid lateral movement of ground water (which may perch above the clayey soil). Horizontal movement of water is important to allow the water to access locally occurring pathways of vertical flow.

REPORT CERTIFICATION

Devo Seereeram

DEVO SEEREERAM, Ph.D., P.E.
Florida Registration No. 48303
Date: August 24, 1998 (10:41AM)

TABLES

LIST OF TABLES

Table 1: Key SCS Characterization Data for Candler Sand, 0 to 5% slopes (CaB) T-1
Table 2: Recommended Aquifer Parameters T-1

Table 1: Key SCS Characterization Data for Candler Sand, 0 to 5% slopes (CaB)

This is a nearly level to gently sloping, excessively drained sandy soil that has thin lamellae of loamy sand within a depth of 60 to 80 inches. The seasonal high water table is at a depth of more than 72 inches.		
Hydrologic Soil Group		A
Typical Soil Profile		
Depth	Soil Color & Texture	Permeability
0 to 5 inches	dark gray sand; few fine and medium roots	> 40 ft/day
5 to 67 inches	yellow sand	
67 to 95 inches	very pale brown sand; few fine and medium distinct white mottles	12 to 40 ft/day
95 to 109 inches	very pale brown sand with yellowish brown loamy sand lamellae	not published
109 to 115 inches	brownish yellow sandy loam	not published

Table 2: Recommended Aquifer Parameters

PARAMETER	Unit	Magnitude	
		Option ①	Option ②
Altitude of base of aquifer	ft NGVD	58	45
Altitude of seasonal high water table	ft NGVD	58.5	48
Horizontal hydraulic conductivity	ft NGVD	15	2
Unsaturated vertical infiltration rate	ft/day	5	1
Fillable porosity	%	30	20

FIGURES

LIST OF FIGURES

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Figure 2. Boring Location Plan
Figure 3. NRCS soils map
Figure 4. Soil Profiles for PB-1 to PB-3
Figure 5. Potentiometric Surface map of Floridan Aquifer in High-Water Period

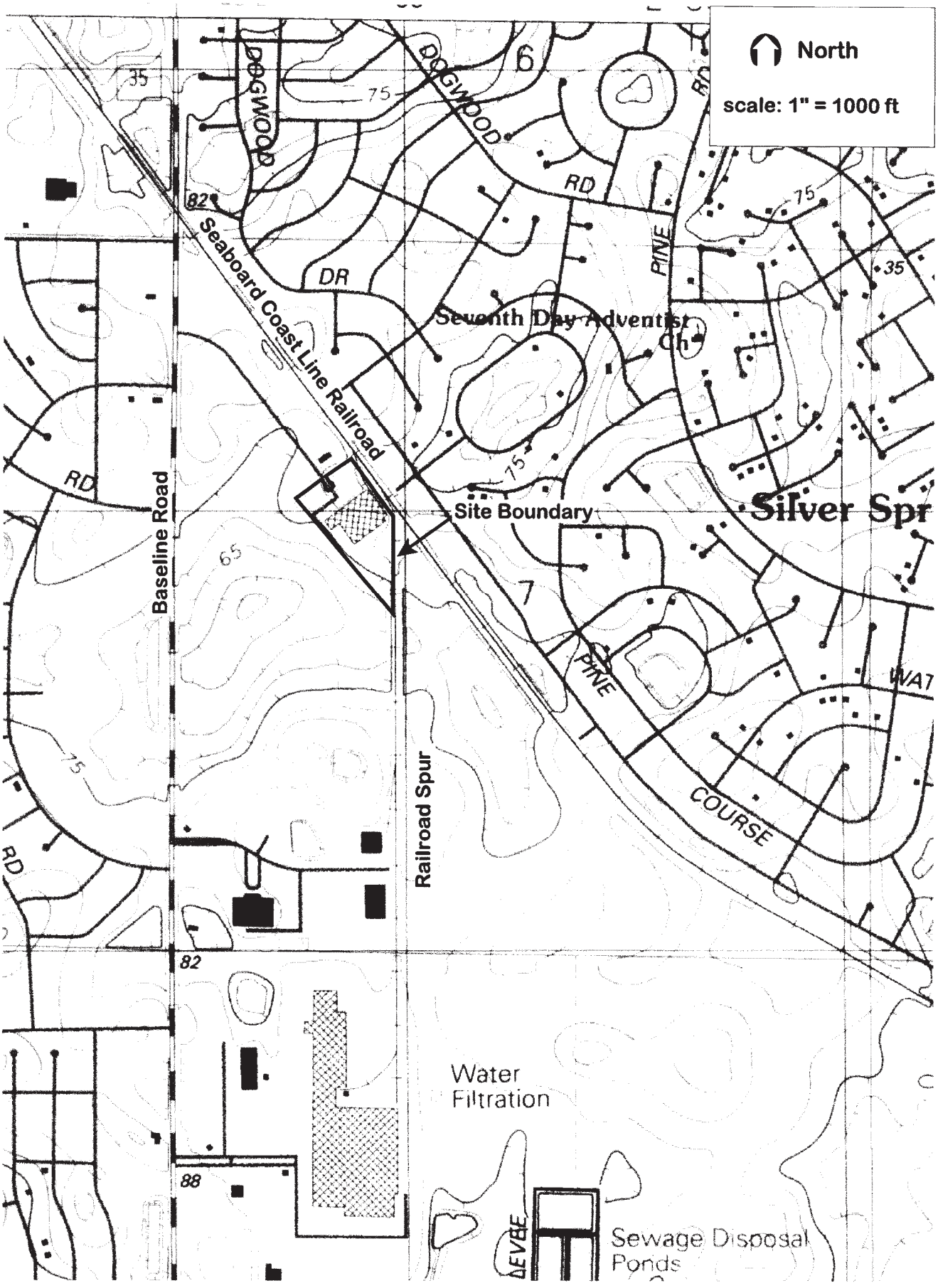
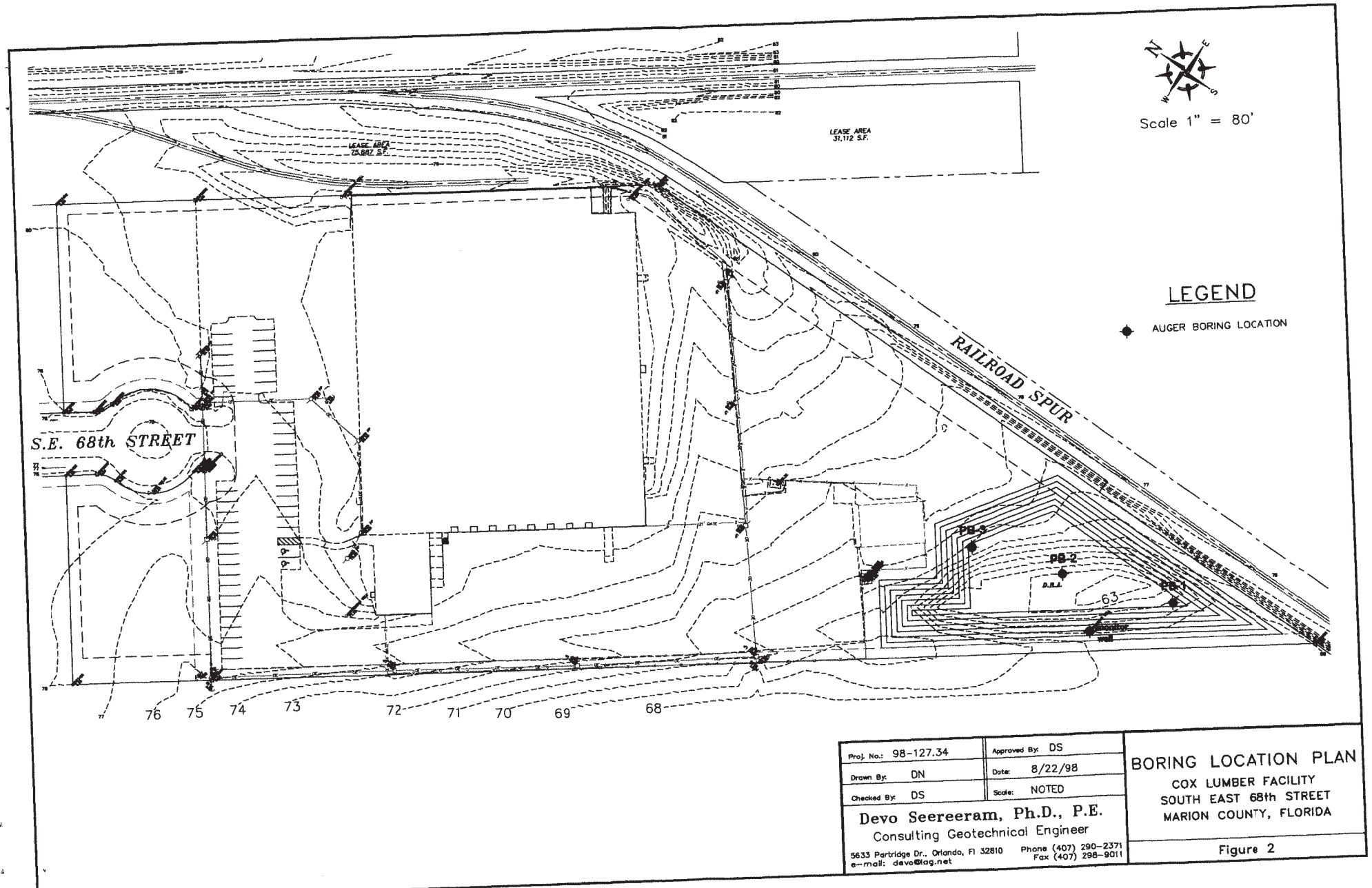


Figure 1. Site Vicinity Map

Project: Cox Lumber Facility



Proj. No.: 98-127.34	Approved By: DS
Drawn By: DN	Date: 8/22/98
Checked By: DS	Scale: NOTED

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BORING LOCATION PLAN

COX LUMBER FACILITY
SOUTH EAST 68th STREET
MARION COUNTY, FLORIDA

Figure 2

Figure 2. Boring Location Plan

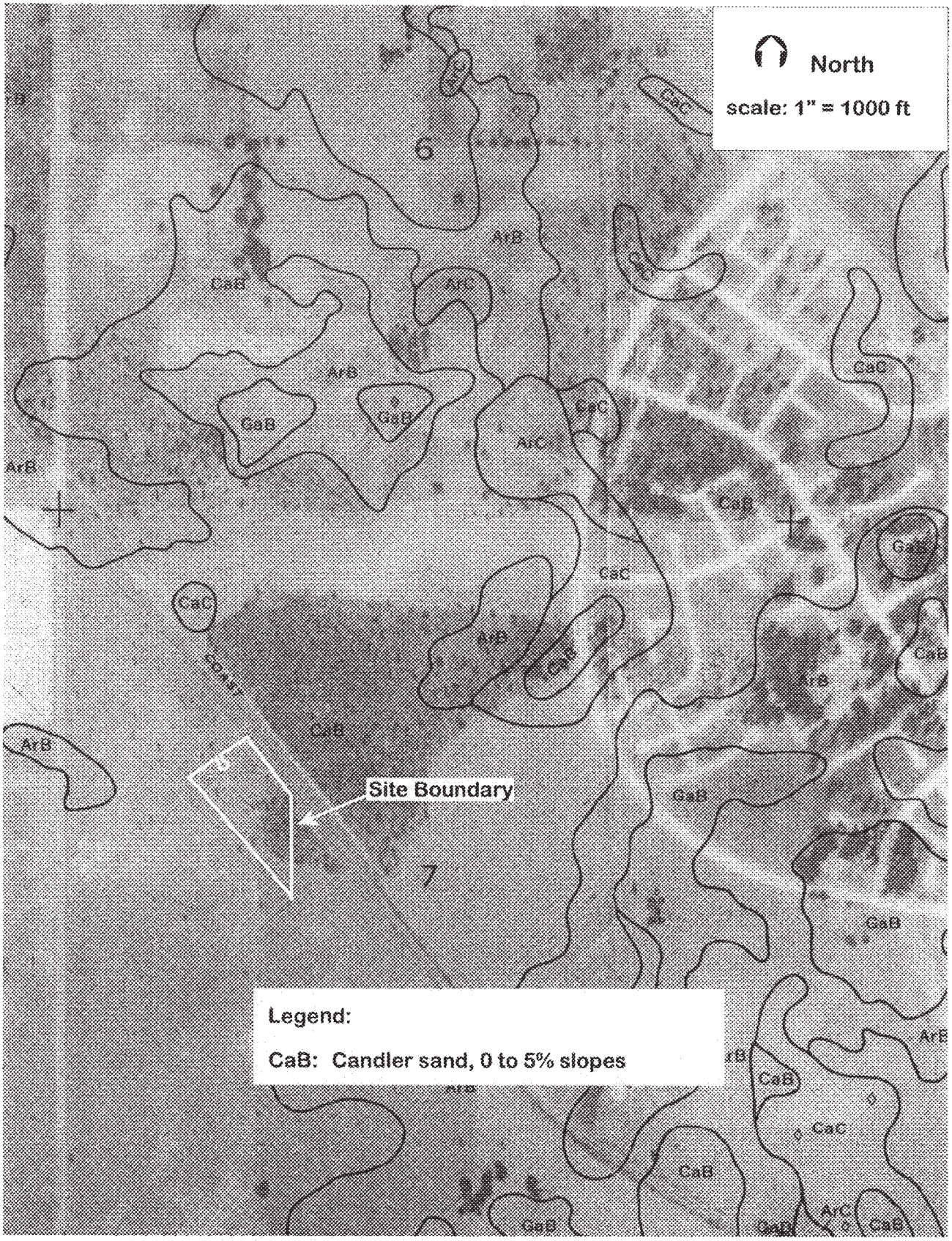

Figure 3. NRCS Soils Map

Project: Cox Lumber Facility

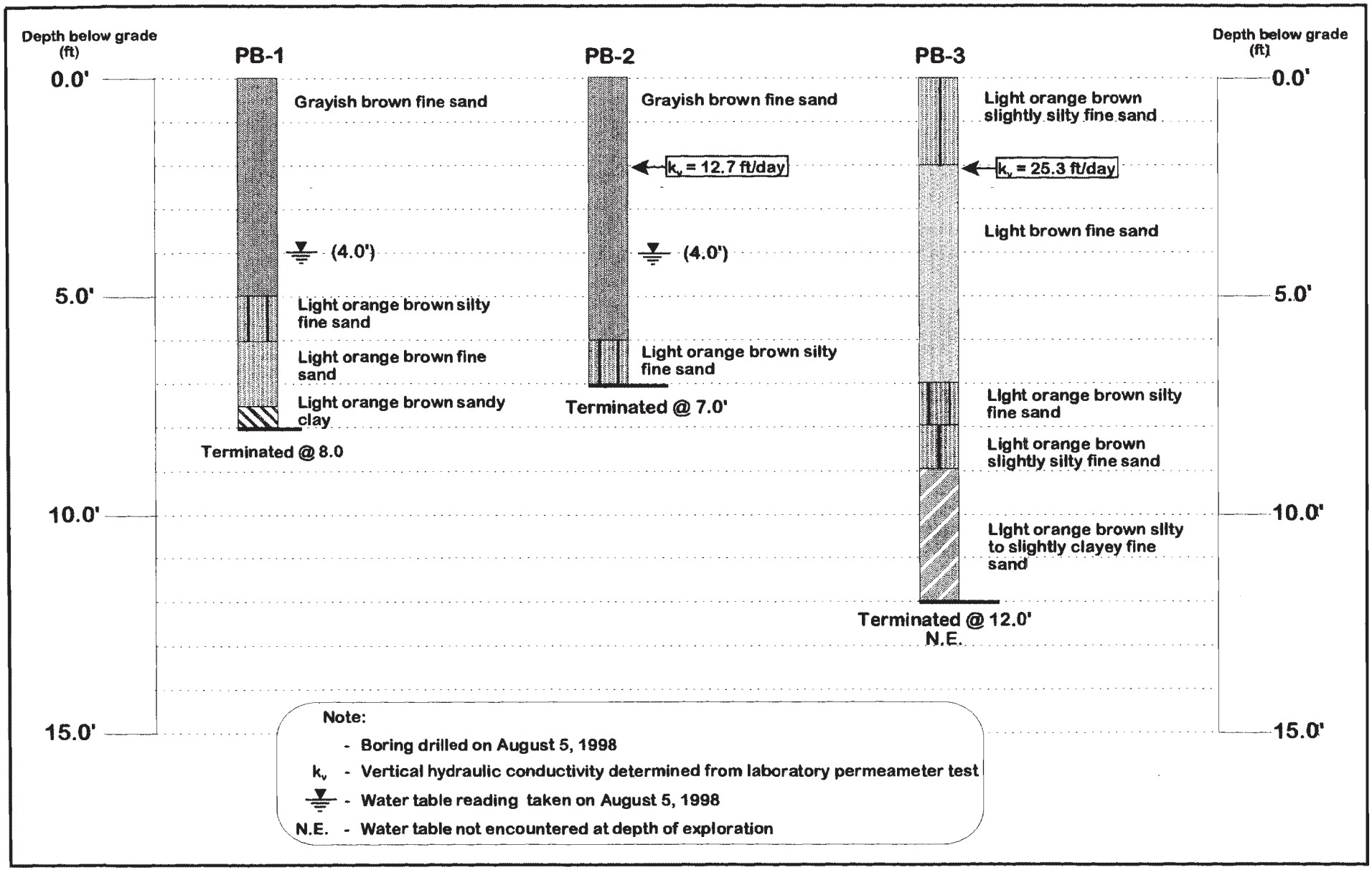

Figure 4. Soil Profiles for PB-1 to PB-3

Project: Cox Lumber Facility

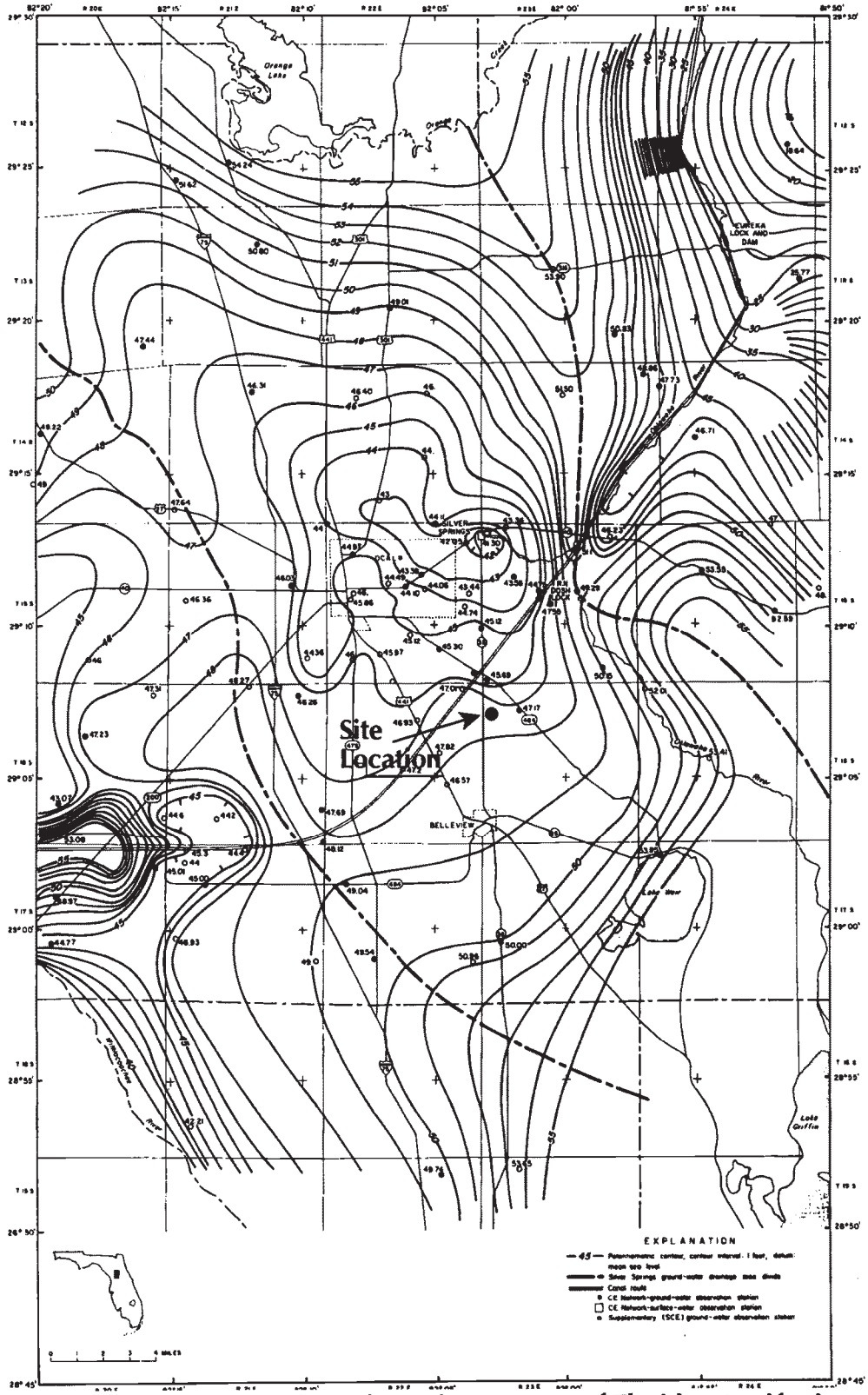

Figure 5. Potentiometric surface of upper part of Floridan Aquifer in September 1968 (high-water period), Ocala vicinity

SR 25 OFF-SITE ERP #19700 – 5 CALCULATIONS

SR 35
SJRWMD Applications No. 4-083-19700-5

Revised Basin 4 Calculations

Inwood consulting engineers

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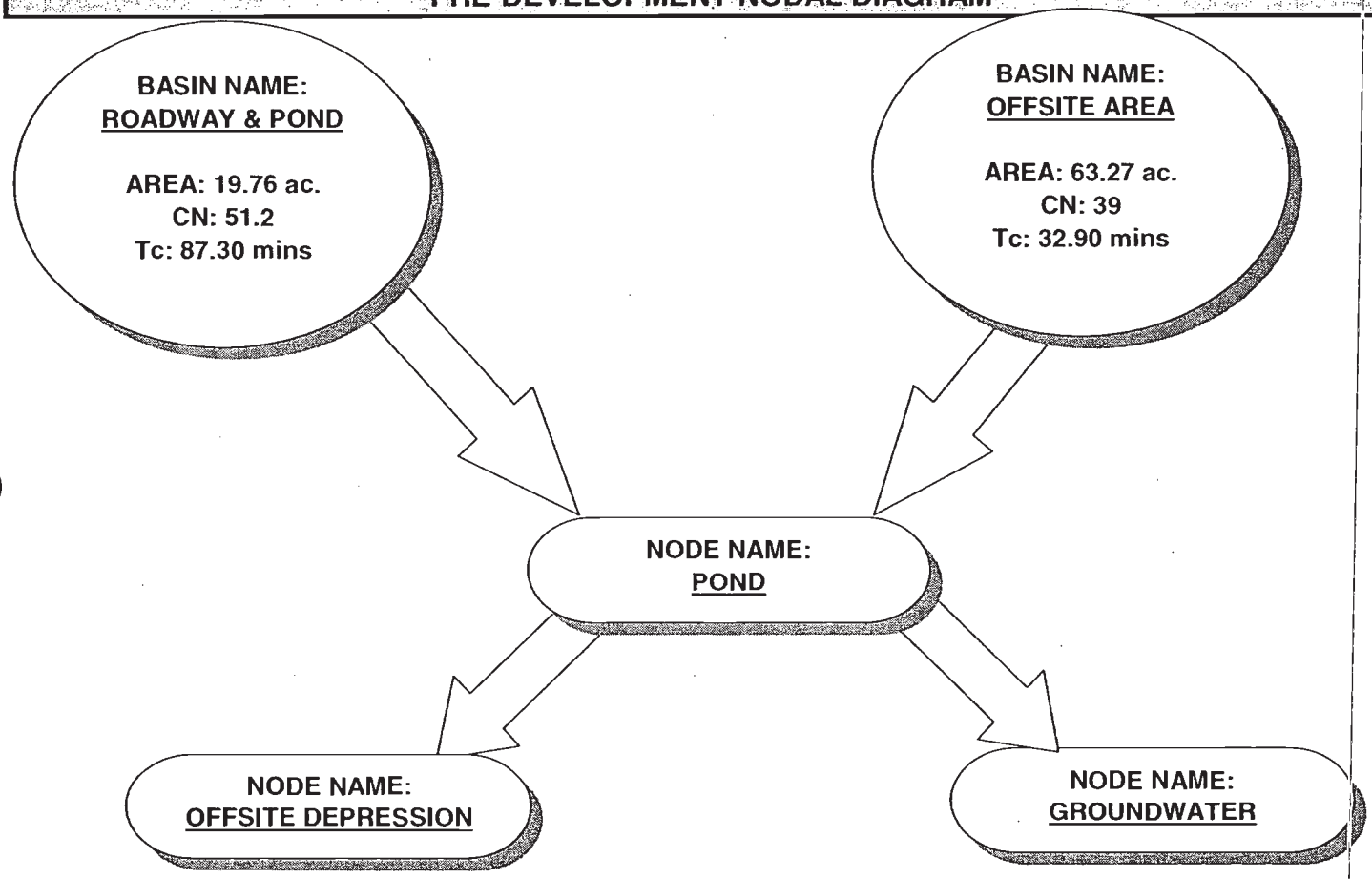
Checked by: _____ TIME: 5:17 PM
Inwood Project Number: MAR-002-01

PROJECT: **SR 35 (BASELINE RD)**
BASIN NAME: **BASIN 4**
Pond 4

PRE-DEVELOPMENT NODAL DIAGRAM



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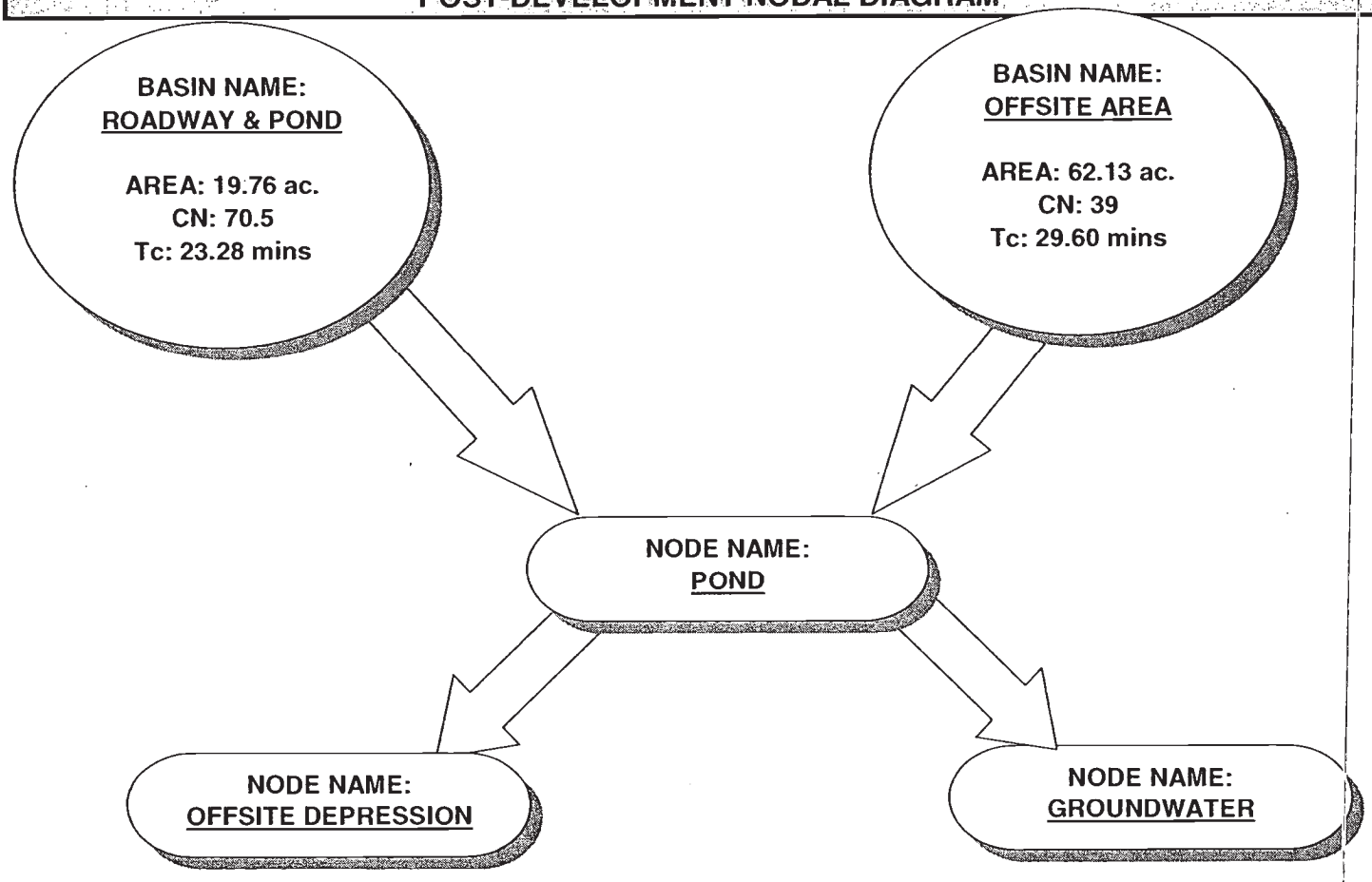
PROJECT: **SR 35 (BASELINE RD)**
BASIN NAME: **BASIN 4 From Sta. 599+70.00 to Sta. 645+86.52**
Pond 4

POST-DEVELOPMENT NODAL DIAGRAM



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Inwood Project Number: MAR-002-01

PROJECT: SR 35 (BASELINE RD)
BASIN NAME: BASIN 4 From Sta. 599+70.00 to Sta. 645+86.52
NODE NAME: Pond 4

PRE - DEVELOPED CONDITION

AREA	BASIN DESCRIPTION	BASIN FLOWS TO...
19.76 ac.	EXISTING ROADWAY AREA	POND
63.27 ac.	OFFSITE	POND
83.03 ac.	TOTAL BASIN AREAS	

EXISTING ROADWAY AREA

STATION LIMITS		ROADWAY LENGTH
599+70.00	645+86.52	4,616.52 ft.
AREA impervious =	3.19 ac.	
AREA pervious =	11.81 ac.	
AREA POND =	1.86 ac.	
AREA Total =	16.86 ac.	

R/W Width	Width(s)	No. of Units	Impervious Width(s)
80 ft. (minimum)			
Average Travel Lane	N/A	-	N/A
Inside Curb & Gutter	N/A	-	N/A
Outside Curb & Gutter	N/A	-	N/A
Bike Lane	N/A	-	N/A
Sidewalk(s)	N/A	-	N/A
		Total Width	-
		Add'l Pav't.	N/A

BASIN NAME: EXRDWY
NODE NAME: POND

		LAND USE DESCRIPTION	% Impervious	SOILS TYPE	Percent of Area
AREAimpervious	3.19 ac.	Impervious areas (Streets & roads)	100.00%	----	16.14%
AREApervious	11.81 ac.	Open Space (Grass cover > 75%)		A	59.77%
POND AREA	4.76 ac.	Open Space (Grass cover > 75%)		A	5.73%
TOTAL AREA =	19.76 ac.				81.64%
CN =	50.7		Tc = 87.30	minutes.	

OFFSITE

BASIN NAME: OFFSITE
NODE NAME: POND

		LAND USE DESCRIPTION	% Impervious	SOILS TYPE	Percent of Area
AREApervious	63.27 ac.	Open Space (Grass cover > 75%)		A	100.00%
TOTAL AREA* =	63.27 ac.				100.00%
CN =	39.00 ac.		Tc = 32.90	minutes.	

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Inwood Project Number: MAR-002-01

PROJECT: SR 35 (BASELINE RD)
BASIN NAME: BASIN 4 From Sta. 599+70.00 to Sta. 645+86.52
NODE NAME: Pond 4

POST - DEVELOPED CONDITION

PROPOSED AREA	BASIN BREAKDOWN	BASIN FLOWS TO...
20.90 ac.	PROPOSED ROADWAY, SHOULDER AND MEDIAN, POND	POND 4
62.13 ac.	OFFSITE	POND 4
83.03 ac.	BASIN 4 From Sta. 599+70.00 to Sta. 645+86.52	

BASIN NAME: BASIN 4 From Sta. 599+70.00 to Sta. 645+86.52
NODE NAME: POND 4

STATION LIMITS		ROADWAY LENGTH	R/W Width	Width(s)	No. of Units	Impervious Width(s)
599+70.00	645+86.52	4,616.52 ft.	126.00 ft.			
TOTAL impervious area =	11.17 ac.	SR 35	Travel Lane	12.00 ft.	6	72.00 ft.
TOTAL pervious area =	4.92 ac.	SR 35	Travel Lane	11.00 ft.	0	0.00 ft.
POND AREA =	4.81 ac.		Inside Curb & Gutter	2.25 ft.	2	4.50 ft.
Area Totals Within ROW Limits			Outside Curb & Gutter	2.00 ft.	2	4.00 ft.
			Bike Lane	4.00 ft.	2	8.00 ft.
			Sidewalk	5.00 ft.	2	10.00 ft.
					Total Width	98.50 ft.
					Add'l Pav't.	0.24 ac.

PROPOSED CONDITION

BASIN NAME: ROADWAY and POND

NODE NAME:	POND 4	LAND USE	% Impervious	SOILS TYPE	Percent of Area
AREAimpervious	11.17 ac.	Impervious areas (Streets & roads) (From SR 35)*	100.00%	—	53.44%
AREApervious	4.92 ac.	Open Space (Grass cover > 75%) (From SR 35)*		A	23.54%
POND AREA	4.81 ac.	Open Space (Grass cover > 75%) (From POND 4)		A	23.01%
TOTAL AREA =	20.90 ac.				100.00%

Tc = 23.28 minutes.

* Please reference the ASAD calculations for the contributing areas.

OFFSITE AREA

BASIN NAME: OFFSITE

NODE NAME:	POND 4	LAND USE DESCRIPTION	% Impervious	SOILS TYPE	Percent of Area
AREApervious	62.13 ac.	Open Space (Grass cover > 75%) (Offsite sheet flowing to Pond 4)**		A	100.00%
TOTAL AREA =	62.13 ac.				100.00%

Tc = 29.60 minutes.

** Please reference Drainage Maps for Offsite Area values.

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PROJECT: **SR 35 (BASELINE RD)**
BASIN NAME: **BASIN 4 From Sta. 599+70.00 to Sta. 645+86.52**

SUB-BASIN ANALYSIS & CURVE NUMBER DETERMINATION

BASIN DESCRIPTION: **EXRDWY**
BASIN NAME: **EXRDWY**
NODE NAME: **POND**
BASIN SIZE: 19.76 acres
TYPE of EVALUATION: **PRE - DEVELOPMENT**
(PRE- or POST-)
RAINFALL DEPTH: **11.50** inches, (**24YR-96HR** EVENT).

Determine Basin Runoff Curve Number: CN

Land Use Description	SUB BASIN	Soil Name	Soil Group	CN	Percent of AREA	PRODUCT
Impervious areas (Streets & roads)	EXRDWY	-----	----	98.00	16.14%	15.82
Open Space (Grass cover > 75%)	EXRDWY	-----	A	39.00	59.77%	23.31
					81.64%	41.37

WEIGHTED CN = (PRODUCT SUM) 41.37 / (AREA or 100%) 81.64% = 50.67

USE CN = 50.70

ESTIMATED RUNOFF VOLUME:

Determine Soil Storage: S

$$S = \frac{1000}{CN} - 10 = 9.72 \text{ inches}$$

Determine Runoff: R
24YR-96HR

$$R = \frac{(P - 0.2 \times S)^2}{(P + 0.8 \times S)} = 4.74 \text{ inches}$$

Determine Runoff Volume: Vr
24YR-96HR

$$Vr = R * AREA/12 = 7.80 \text{ acre-feet}$$

TIME of CONCENTRATION CALCULATION

EXRDWY

OVERLAND FLOW(SHEET FLOW):

$$To = \frac{0.93 * (L^{0.6}) * (n^{0.6})}{(i(10\text{-yr})^{0.4}) * (S^{0.3})} = To(hr.'s)$$

OVERLAND TERRAIN: **PAVEMENT**

"n"	LAND USE
0.015	PAVEMENT
0.05	BARE SOIL
0.20	POOR GRASS
0.40	AVE. GRASS or LAWNS
0.60	DENSE GRASS or WOODLANDS
0.80	THICK FOREST

SHALLOW CONCENTRATED FLOW

$$Tsh = \frac{Lsh}{60 \times V} = Tsh(minutes) \text{ where:}$$

VELOCITY = Vunpaved, Vpaved, Vpipe and/or Vditch

Vunpaved = 16.1345 x (S)^0.5; where S = Slope in ft/ft.
Vpaved = 20.3282 x (S)^0.5; where S = Slope in ft/ft.
Vpipe = 2.5 fps (Established)
Vditch = 0.5 fps (Established)

FLOW TYPE	LENGTH	MANNING'S 'n'	SLOPE	RAINFALL (iterative)	INTENSITY(in) (calculated)	VELOCITY	TIME (min)
OVERLAND	16 ft.	0.015	0.0600 ft./ft.	8.30 in./hr.	8.30 in./hr.	----	0.39
UNPAVED	2 ft.	0.400	0.0600 ft./ft.			3.95 fps	0.01
DITCH FLOW	2,595 ft.	0.400	0.5000 ft./ft.			0.50 fps	86.50
PIPE FLOW	54 ft.		0.0100 ft./ft.			2.50 fps	0.36
					TOTAL TIME of CONCENTRATION =		87.26
					USE TOTAL TIME of CONCENTRATION =		87.30

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PROJECT: **SR 35 (BASELINE RD)**
BASIN NAME: **BASIN 4 From Sta. 599+70.00 to Sta. 645+86.52**

SUB-BASIN ANALYSIS & CURVE NUMBER DETERMINATION

BASIN DESCRIPTION: **OFFSITE**
BASIN NAME: **OFFSITE**
NODE NAME: **POND**
BASIN SIZE: 63.27 acres
TYPE of EVALUATION: **PRE -** **DEVELOPMENT**
(PRE- or POST-)
RAINFALL DEPTH: **11.50** inches, (**24YR-96HR** EVENT).

Determine Basin Runoff Curve Number: CN

	Land Use Description	SUB BASIN	Soil Name	Soil Group	CN	Percent of AREA	PRODUCT
#	Open Space (Grass cover > 75%)	OFFSITE	-----	A	39.00	100.00%	39.00
						100.00%	39.00

(PRODUCT SUM) 39.00
WEIGHTED CN = ---------- = ---------- = 39.00 **USE CN = 39.00**
(AREA or 100%) 100.00%

ESTIMATED RUNOFF VOLUME:

Determine Soil Storage: S

$$S = \frac{1000}{CN} - 10 = 15.64 \text{ inches}$$

Determine Runoff: R
24YR-96HR

$$R = \frac{(P - 0.2 \times S)^2}{(P + 0.8 \times S)} = 2.92 \text{ inches}$$

Determine Runoff Volume: Vr
24YR-96HR Vr = R * AREA/12 = 15.39 acre-feet

TIME of CONCENTRATION CALCULATION

OVERLAND FLOW(SHEET FLOW):

$$To = \frac{0.93 * (L^{0.6}) * (n^{0.6})}{(i^{0.4}) * (S^{0.3})} = To(hr.'s)$$

OVERLAND TERRAIN: AVE. GRASS

"n"	LAND USE
0.015	PAVEMENT
0.05	BARE SOIL
0.20	POOR GRASS
0.40	AVE. GRASS or LAWNS
0.60	DENSE GRASS or WOODLANDS
0.80	THICK FOREST

SHALLOW CONCENTRATED FLOW

$$Tsh = \frac{Lsh}{60 \times V} = Tsh(minutes)$$ where:

VELOCITY = Vunpaved. Vpaved, Vpipe and/or Vditch

Vunpaved = 16.1345 x (S)^0.5; where S = Slope in ft/ft.
Vpaved = 20.3282 x (S)^0.5; where S = Slope in ft/ft.
Vpipe = 2.5 fps (Established)
Vditch = 0.5 fps (Established)

FLOW TYPE	LENGTH	MANNING'S 'n'	SLOPE	RAINFALL (iterative)	INTENSITY(in) (calculated)	VELOCITY	TIME (min)
OVERLAND	300 ft.	0.400	0.0200 ft./ft.	8.30 in./hr.	8.30 in./hr.	----	22.81
PAVED	0 ft.	0.015	0.0200 ft./ft.	8.30 in./hr.	8.30 in./hr.	2.87	0.00
UNPAVED	1,381 ft.		0.0200 ft./ft.			2.28 fps	10.10
					TOTAL TIME of CONCENTRATION =		32.90
					USE TOTAL TIME of CONCENTRATION =		32.90

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Inwood Project Number: MAR-002-01

PROJECT: **SR 35 (BASELINE RD)**
BASIN NAME: **BASIN 4 From Sta. 599+70.00 to Sta. 645+86.52**

SUB-BASIN ANALYSIS & CURVE NUMBER DETERMINATION

BASIN DESCRIPTION: **PROPOSED CONDITION**
BASIN NAME: **ROADWAY and POND**
NODE NAME: **POND 4**
BASIN SIZE: 20.90 acres
TYPE of EVALUATION: **POST - DEVELOPMENT**
(PRE- or POST-)
RAINFALL DEPTH: **11.50** inches,(**24YR-96HR** EVENT).

Determine Basin Runoff Curve Number: CN

Land Use Description	SUB BASIN	Soil Name	Soil Group	CN	Percent of AREA	PRODUCT
Impervious areas (Streets & roads) (From SR 35)	ROADWAY	-----	----	98.00	53.44%	52.38
Open Space (Grass cover > 75%) (From SR 35)	ROADWAY	-----	A	39.00	23.54%	9.18
Open Space (Grass cover > 75%) (From POND 4)	POND	-----	A	39.00	23.01%	8.98
					100.00%	70.53

(PRODUCT SUM) 70.53
WEIGHTED CN = ---------- = ---------- = 70.53 **USE CN = 70.50**
(AREA or 100%) 100.00%

ESTIMATED RUNOFF VOLUME:

Determine Soil Storage: S

$$S = \frac{1000}{CN} - 10 = 4.18 \text{ inches}$$

Determine Runoff: R
24YR-96HR

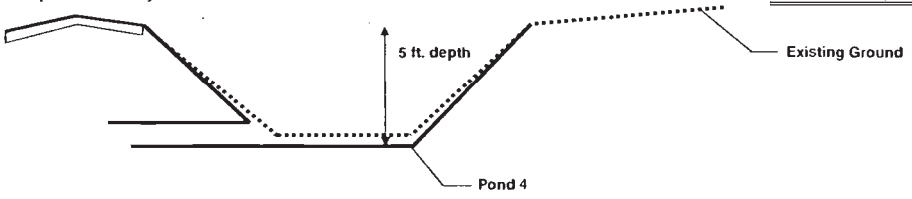
$$R = \frac{(P - 0.2 \times S)^2}{(P + 0.8 \times S)} = 7.66 \text{ inches}$$

Determine Runoff Volume; Vr
24YR-96HR Vr = R * AREA/12 = 13.34 acre-feet

POND AREAS:

Area at Top of Pond = 189050.4 sq. ft.
Area at Bottom of Pond (5 ft down) = 131551.2 sq. ft.
Avg. Area = 160300.8 sq. ft.

Avg. End Volume = 160300.8 sq. ft. x5 ft depth
801,504.0 cu.-ft.



TIME of CONCENTRATION CALCULATION

ROADWAY and POND

OVERLAND FLOW(SHEET FLOW):

$$To = \frac{0.93 * (L^{0.6}) * (n^{0.6})}{(i^{0.4}) * (S^{0.3})} = To(hr's)$$

OVERLAND TERRAIN: **PAVEMENT**

"n"	LAND USE
0.015	PAVEMENT
0.05	BARE SOIL
0.20	POOR GRASS
0.40	AVE. GRASS or LAWNS
0.60	DENSE GRASS or WOODLANDS
0.80	THICK FOREST

SHALLOW CONCENTRATED FLOW

$$Tsh = \frac{Lsh}{60 \times V} = Tsh(minutes)$$ where:

VELOCITY = Vunpaved, Vpaved, Vpipe and/or Vditch
Vunpaved = 16.1345 x (S)^0.5; where S = Slope in ft/ft.
Vpaved = 20.3282 x (S)^0.5; where S = Slope in ft/ft.
Vpipe = 2.5 fps (Established)
Vditch = 0.5 fps (Established)

FLOW TYPE	LENGTH	MANNING'S 'n'	SLOPE	RAINFALL (iterative)	INTENSITY(in) (calculated)	VELOCITY	TIME (min)

tc as determined by ASAD.

TOTAL TIME of CONCENTRATION =
USE TOTAL TIME of CONCENTRATION = 23.28

Inwood consulting engineers
870 Clark Street, Oviedo Fl 32765
(407)971-8850 · (407) 971-8955 (fax)

Made by: SKH Ch'd by: _____
DATE: November 6 2008 TIME: 5:17 PM
Inwood Project Number: MAR-002-01

PROJECT: **SR 35 (BASELINE RD)**
BASIN NAME: **BASIN 4 From Sta. 599+70.00 to Sta. 645+86.52**

SUB-BASIN ANALYSIS & CURVE NUMBER DETERMINATION

BASIN DESCRIPTION: **OFFSITE AREA**
BASIN NAME: **OFFSITE**
NODE NAME: **POND 4**
BASIN SIZE: 62.13 acres
TYPE of EVALUATION: **POST - DEVELOPMENT**
(PRE- or POST-)
RAINFALL DEPTH: **11.50** inches,(**24YR-96HR** EVENT).

Determine Basin Runoff Curve Number: CN

Land Use Description	PERCENT of IMPERVIOUS	Soil Name	Soil Group	CN	Percent of AREA	PRODUCT
Open Space (Grass cover > 75%) (Offsite sheet flowing to Pond 6)		-----	A	39.00	100.00%	39.00
					100.00%	39.00

(PRODUCT SUM) 39.00
WEIGHTED CN = ---------- = ---------- = 39.00 **USE CN = 39.00**
(AREA or 100%) 100.00%

ESTIMATED RUNOFF VOLUME:

Determine Soil Storage: S

$$S = \frac{1000}{CN} - 10 = 15.64 \text{ inches}$$

Determine Runoff: R
24YR-96HR

$$R = \frac{(P - 0.2 \times S)^2}{(P + 0.8 \times S)} = 2.92 \text{ inches}$$

Determine Runoff Volume: Vr
24YR-96HR Vr = R * AREA/12 = 15.11 acre-feet

TIME of CONCENTRATION CALCULATION

OFFSITE

OVERLAND FLOW(SHEET FLOW):

$$To = \frac{0.93 * (L^{0.6}) * (n^{0.6})}{(i^{0.4}) * (S^{0.3})} = To(hr.'s)$$

OVERLAND TERRAIN: AVE. GRASS

"n"	LAND USE
0.015	PAVEMENT
0.05	BARE SOIL
0.20	POOR GRASS
0.40	AVE. GRASS or LAWNS
0.60	DENSE GRASS or WOODLANDS
0.80	THICK FOREST

SHALLOW CONCENTRATED FLOW

$$Tsh = \frac{Lsh}{60 \times V} = Tsh(minutes) \text{ where:}$$

VELOCITY = Vunpaved, Vpaved, Vpipe and/or Vditch
Vunpaved = 16.1345 x (S)^0.5; where S = Slope in ft/ft. Vpipe = 2.5 fps (Established)
Vpaved = 20.3282 x (S)^0.5; where S = Slope in ft/ft. Vditch = 0.5 fps (Established)

FLOW TYPE	LENGTH	MANNING'S 'n'	SLOPE	RAINFALL (iterative)	INTENSITY(in) (calculated)	VELOCITY	TIME (min)
OVERLAND	300 ft.	0.400	0.0200 ft./ft.	8.30 in./hr.	8.30 in./hr.	----	22.81
UNPAVED	935 ft.		0.0200 ft./ft.			2.28 fps	6.83
					TOTAL TIME of CONCENTRATION =		29.64
					USE TOTAL TIME of CONCENTRATION =		29.60

Inwood consulting engineers
E/I Clark Street, Orlando FL 32765
(407)671 8850 - (407) 671-8855 (fax)

Made by: SKH Checked by: _____
DATE: November 10 2008 TIME: 8:22 AM
Inwood Project Number: MAR-002-01

PROJECT: **SR 35 (BASELINE RD)**

POND DESIGN CALCULATIONS

BASIN NAME: **BASIN 4 From Sta. 599+70.00 to Sta. 645+86.52**
NODE NAME: **Pond 4**

WATER QUALITY CALCULATIONS

AREA CALCULATIONS:

Basin Designation	AREA TOTAL	AREA imperv.	AREA perv.	AREA ws
ROADWAY and POND	20.90 ac.	11.17 ac.	9.73 ac.	0.00 ac.
OFFSITE	62.13 ac.	0.00 ac.	62.13 ac.	0.00 ac.
TOTALS =	83.03 ac.	11.17 ac.	71.86 ac.	0.00 ac.
	% Impervious =	13.45%	% Pond R/W Area =	5.79%

DRY-RETENTION TREATMENT VOLUME: 1.25" x AREAimpervious or 1" x AREAtotal

1.25 inch VOLUME = 1.16 ac.-ft.
1 inch VOLUME= 6.92 ac.-ft.

USE Vtreatment = 6.92 ac.-ft.

USE A DRY-BOTTOM DETENTION POND FOR **Pond 4**

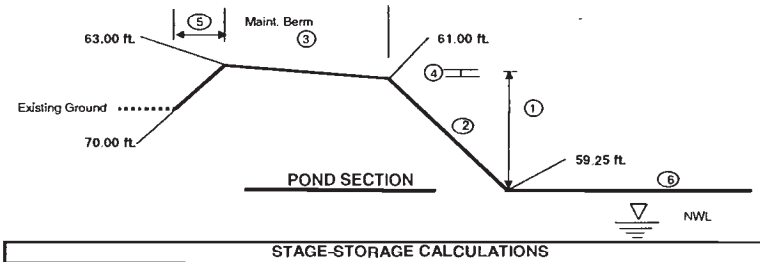
POND DESIGN

USE A DRY-BOTTOM DETENTION POND FOR **Pond 4**

RAINFALL DEPTH: **11.50 in.** for the **24YR-96HR** DESIGN STORM EVENT
Water Management District: **SJRWMD** (SJRWMD, SFWMD, SWFWMD)
Zone: **7**

1	MAXIMUM STORAGE DEPTH =	4.00 ft.	
2	POND SIDE-SLOPE RATIO =	4 : 1	
3	MAINTENANCE AREA WIDTH =	16.00 ft.	@ 8: 1
4	MINIMUM FREEBOARD =	1.00 ft.	
5	POND TIE-IN WIDTH =	VARIES	@ 2: 1
6	INITIAL STAGE ELEVATION =	58.00 ft.	
7	EXISTING GROUND ELEVATION =	70.00 ft.	
	PROPOSED POND SHAPE =	1	RECTANGULAR POND SHAPE

STAGE	DESCRIPTION	AREA	STORAGE
63.00 ft.	Back of Maint. Berm =	4.81 ac.	15.49 ac.-ft.
61.00 ft.	Front of Maint. Berm =	4.00 ac.	6.68 ac.-ft.
60.00 ft.		3.80 ac.	2.78 ac.-ft.
59.25 ft.		3.61 ac.	0.00 ac.-ft.
59.25 ft.	Pond Bottom =	3.61 ac.	0.00 ac.-ft.
59.24 ft.	Sump Top El. =	0.012 ac.	0.021 ac.-ft.
57.50 ft.	Slope Change =	0.008 ac.	0.003 ac.-ft.
57.00 ft.	Sump Bottom =	0.005 ac.	0.000 ac.-ft.



STAGE-STORAGE CALCULATIONS

	STAGE (ft. NGVD)	AREA (ac.)	AVERAGE AREA (ac.)	INCRE DEPTH (ft.)	INCRE STORAGE (ac.-ft.)	TOTAL STORAGE (ac.-ft.)
POND BOT.	59.25	3.61		0.00	0.00	0.01
	60.00	3.80		0.75	2.78	2.79
	61.00	4.00		1.00	3.90	6.69
TOP OF BANK	63.00	4.81		2.00	8.81	15.50

REQUIRED TREATMENT VOLUME = 6.92 ac.-ft.
REQUIRED WEIR STAGE = 61.12 ft.
PROVIDED WEIR STAGE = 61.50 ft.
PROVIDED TREATMENT VOLUME = 8.34 ac.-ft.

Project Data

Project Name:	SR 35 (BASELINE RD)
Simulation Description:	WRA 4 Pre Development- Dry Retention System BASIN 4
Project Number:	MAR-002-01
Engineer :	SVC
Supervising Engineer:	REC
Date:	11-06-2008

Aquifer Data

Base Of Aquifer Elevation, [B] (ft datum):	54.00
Water Table Elevation, [WT] (ft datum):	54.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day):	15.00
Fillable Porosity, [n] (%):	25.00
Unsaturated Vertical Infiltration Rate, [Iv] (ft/day):	10.0
Maximum Area For Unsaturated Infiltration, [Av] (ft^2):	29382.4

Geometry Data

Equivalent Pond Length, [L] (ft):	751.0
Equivalent Pond Width, [W] (ft):	88.0

Ground water mound is expected to intersect the pond bottom

Stage vs Area Data

Stage (ft datum)	Area (ft^2)
58.00	181.1
59.00	19038.3
60.00	32299.9
61.00	43737.7
62.00	52763.6
63.00	65263.5

Discharge Structures

Discharge Structure #1 is active as orifice

Structure Parameters

Description: 36" Pipe

Orifice elevation, (ft datum):	58.73
Orifice coefficient:	7.9
Orifice area, (ft^2):	7.07
Orifice exponent:	.5

Tailwater - disabled, free discharge

Discharge Structure #2 is inactive

Discharge Structure #3 is inactive

Scenario Input Data

Scenario 1 ::

Hydrograph Type: Multi-basin SCS Hydrograph

Modflow Options

Modflow Routing:	Routed with infiltration
Initial Groundwater Table:	default
Initial Pond Stage:	default
Boundary Condition:	default (constant head)
Repetitions:	1

Simulation Parameters

Minimum time of concentration for all contributing basins in chain (minutes):	32.9
Computational time step (minutes):	3
Duration of simulation (hours):	432

Contributing Basins

Number of contributing basins: 2

Basin 1

Basin Name	
Basin Area (acres)	19.76
Time Of Concentration (minutes)	87.3
DCIA (%)	0
Curve Number	50.7
Design Rainfall Depth (inches)	11.5
Design Rainfall Duration (hours)	96
Shape Factor	UHG 256
Rainfall Distribution	Saint Johns River WMD 96 Hour

Basin 2

Basin Name	
Basin Area (acres)	63.27
Time Of Concentration (minutes)	32.9
DCIA (%)	0
Curve Number	39
Design Rainfall Depth (inches)	11.5
Design Rainfall Duration (hours)	96
Shape Factor	UHG 256
Rainfall Distribution	Saint Johns River WMD 96 Hour

Ugradient Inflows

Number of upgradient inflow nodes: 0

Summary of Results :: *Scenario 1* ::

	Time (hours)	Stage (ft datum)	Rate (ft^3/s)	Volume (ft^3)
Stage				
Minimum	0.000	54.10		
Maximum	60.600	59.77		
Inflow				
Rate - Maximum - Positive	60.300		65.8011	
Rate - Maximum - Negative	None		None	
Cumulative Volume - Maximum Positive	104.550			1009296.0
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	432.000			1009296.0
Infiltration				
Rate - Maximum - Positive	60.900		16.0540	
Rate - Maximum - Negative	None		None	
Cumulative Volume - Maximum Positive	120.000			77800.4
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	432.000			0.0
Combined Discharge				
Rate - Maximum - Positive	60.600		57.0486	
Rate - Maximum - Negative	None		None	
Cumulative Volume - Maximum Positive	99.900			931494.4
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	432.000			0.0
Discharge Structure 1 - simple orifice				
Rate - Maximum - Positive	60.600		57.0486	
Rate - Maximum - Negative	None		None	
Cumulative Volume - Maximum Positive	99.900			931494.4
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	432.000			0.0
Discharge Structure 2 - inactive				
Rate - Maximum - Positive	disabled		disabled	
Rate - Maximum - Negative	disabled		disabled	
Cumulative Volume - Maximum Positive	disabled			disabled
Cumulative Volume - Maximum Negative	disabled			disabled
Cumulative Volume - End of Simulation	disabled			disabled
Discharge Structure 3 - inactive				
Rate - Maximum - Positive	disabled		disabled	
Rate - Maximum - Negative	disabled		disabled	
Cumulative Volume - Maximum Positive	disabled			disabled
Cumulative Volume - Maximum Negative	disabled			disabled
Cumulative Volume - End of Simulation	disabled			disabled
Pollution Abatement:				
36 Hour Stage and Infiltration Volume	N.A.	N.A.		N.A.
72 Hour Stage and Infiltration Volume	N.A.	N.A.		N.A.

PONDS Version 3.3.0226
Retention Pond Recovery - Refined Method
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Devo Seereeram, Ph.D., P.E.

Project Data

Project Name:	SR 35 (BASELINE RD)
Simulation Description:	WRA 4 - Dry Retention System BASIN 4
Project Number:	MAR-002-01
Engineer :	SVC
Supervising Engineer:	REC
Date:	11-06-2008

Aquifer Data

Base Of Aquifer Elevation, [B] (ft datum):	54.00
Water Table Elevation, [WT] (ft datum):	54.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day):	15.00
Fillable Porosity, [n] (%):	25.00
Unsaturated Vertical Infiltration Rate, [Iv] (ft/day):	10.0
Maximum Area For Unsaturated Infiltration, [Av] (ft^2):	183430.3

Geometry Data

Equivalent Pond Length, [L] (ft):	930.0
Equivalent Pond Width, [W] (ft):	215.0

Ground water mound is expected to intersect the pond bottom

Stage vs Area Data

Stage (ft datum)	Area (ft^2)
59.25	150647.5
60.00	156945.2
61.00	165416.2
62.00	182723.8
63.00	200385.1

Discharge Structures

Discharge Structure #1 is active as weir

Structure Parameters

Description: Modified DBI Type H

Weir elevation, (ft datum):	61.5
Weir coefficient:	3.13
Weir length, (ft):	8.5
Weir exponent:	1.5

Tailwater - disabled, free discharge

Discharge Structure #2 is inactive

Discharge Structure #3 is inactive

Scenario Input Data

Scenario 1 ::

Hydrograph Type: Multi-basin SCS Hydrograph

Modflow Options

Modflow Routing:	Routed with infiltration
Initial Groundwater Table:	default
Initial Pond Stage:	default
Boundary Condition:	default (constant head)
Repetitions:	1

Simulation Parameters

Minimum time of concentration for all contributing basins in chain (minutes):	23.28
Computational time step (minutes):	2
Duration of simulation (hours):	432

Contributing Basins

Number of contributing basins: 2

Basin 1

Basin Name	
Basin Area (acres)	20.9
Time Of Concentration (minutes)	23.28
DCIA (%)	0
Curve Number	70.5
Design Rainfall Depth (inches)	11.5
Design Rainfall Duration (hours)	96
Shape Factor	UHG 256
Rainfall Distribution	Saint Johns River WMD 96 Hour

BASIN INFORMATION

Basin 2

Basin Name	
Basin Area (acres)	62.13
Time Of Concentration (minutes)	29.6
DCIA (%)	0
Curve Number	39
Design Rainfall Depth (inches)	11.5
Design Rainfall Duration (hours)	96
Shape Factor	UHG 256
Rainfall Distribution	Saint Johns River WMD 96 Hour

Ugradient Inflows

Number of upgradient inflow nodes: 0

Scenario 2 :: Pre-Post Volume (241322.4 ft³ slug load)

Hydrograph Type: Slug Load
Modflow Routing: Routed with infiltration

Treatment Volume (ft³) 241322.4

Initial ground water level (ft datum) default, 54.10

Scenario Input Data (cont'd.)

Scenario 2 (cont'd.) :: Slug Load :: Pre-Post Volume (241322.4 ft³ slug load)

Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)
0.100	2.000	5.000	10.000
0.250	2.500	6.000	11.000
0.500	3.000	7.000	12.000
1.000	3.500	8.000	13.000
1.500	4.000	9.000	14.000

Scenario 3 :: Treatment Volume (301398.9 ft³ slug load)

Hydrograph Type: Slug Load
Modflow Routing: Routed with infiltration

Treatment Volume (ft³) 301398.9

Initial ground water level (ft datum) default, 54.10

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

Summary of Results :: *Scenario 1* ::

	Time (hours)	Stage (ft datum)	Rate (ft^3/s)	Volume (ft^3)
Stage				
Minimum	0.000	54.10		
Maximum	64.167	62.02		
Inflow				
Rate - Maximum - Positive	60.167		121.8823	
Rate - Maximum - Negative	None		None	
Cumulative Volume - Maximum Positive	98.900			1238446.0
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	432.000			1238446.0
Infiltration				
Rate - Maximum - Positive	61.333		20.1260	
Rate - Maximum - Negative	None		None	
Cumulative Volume - Maximum Positive	432.000			536474.3
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	432.000			536474.3
Combined Discharge				
Rate - Maximum - Positive	64.167		9.8832	
Rate - Maximum - Negative	None		None	
Cumulative Volume - Maximum Positive	107.867			512020.2
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	432.000			512020.2
Discharge Structure 1 - simple weir				
Rate - Maximum - Positive	64.167		9.8832	
Rate - Maximum - Negative	None		None	
Cumulative Volume - Maximum Positive	107.867			512020.2
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	432.000			512020.2
Discharge Structure 2 - inactive				
Rate - Maximum - Positive	disabled		disabled	
Rate - Maximum - Negative	disabled		disabled	
Cumulative Volume - Maximum Positive	disabled			disabled
Cumulative Volume - Maximum Negative	disabled			disabled
Cumulative Volume - End of Simulation	disabled			disabled
Discharge Structure 3 - inactive				
Rate - Maximum - Positive	disabled		disabled	
Rate - Maximum - Negative	disabled		disabled	
Cumulative Volume - Maximum Positive	disabled			disabled
Cumulative Volume - Maximum Negative	disabled			disabled
Cumulative Volume - End of Simulation	disabled			disabled
Pollution Abatement:				
36 Hour Stage and Infiltration Volume	N.A.	N.A.		N.A.
72 Hour Stage and Infiltration Volume	N.A.	N.A.		N.A.

DISCHARGE VOLUME

Summary of Results :: *Scenario 2 :: Pre-Post Volume (241322.4 ft³ slug load)*

	Time (hours)	Stage (ft datum)	Rate (ft³/s)	Volume (ft³)
Stage				
Minimum	0.000	54.10		
Maximum	0.002	60.79		
Inflow				
Rate - Maximum - Positive	0.002		40220.4000	
Rate - Maximum - Negative	None		None	
Cumulative Volume - Maximum Positive	0.002			241322.4
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	336.000			241322.4
Infiltration				
Rate - Maximum - Positive	0.002		18.9353	
Rate - Maximum - Negative	None		None	
Cumulative Volume - Maximum Positive	2.400			159541.0
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	336.000			241322.4
Combined Discharge				
Rate - Maximum - Positive	None		None	
Rate - Maximum - Negative	None		None	
Cumulative Volume - Maximum Positive	None			None
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	336.000			0.0
Discharge Structure 1 - simple weir				
Rate - Maximum - Positive	None		None	
Rate - Maximum - Negative	None		None	
Cumulative Volume - Maximum Positive	None			None
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	336.000			0.0
Discharge Structure 2 - inactive				
Rate - Maximum - Positive	disabled		disabled	
Rate - Maximum - Negative	disabled		disabled	
Cumulative Volume - Maximum Positive	disabled			disabled
Cumulative Volume - Maximum Negative	disabled			disabled
Cumulative Volume - End of Simulation	disabled			disabled
Discharge Structure 3 - inactive				
Rate - Maximum - Positive	disabled		disabled	
Rate - Maximum - Negative	disabled		disabled	
Cumulative Volume - Maximum Positive	disabled			disabled
Cumulative Volume - Maximum Negative	disabled			disabled
Cumulative Volume - End of Simulation	disabled			disabled
Pollution Abatement:				
36 Hour Stage and Infiltration Volume	36.000	Dry		241322.4
72 Hour Stage and Infiltration Volume	72.000	Dry		241322.4

Summary of Results :: *Scenario 3 :: Treatment Volume (301398.9 ft³ slug load)*

	Time (hours)	Stage (ft datum)	Rate (ft³/s)	Volume (ft³)
Stage				
Minimum	0.000	54.10		
Maximum	0.002	61.15		
Inflow				
Rate - Maximum - Positive	0.002		50233.1500	
Rate - Maximum - Negative	None		None	
Cumulative Volume - Maximum Positive	0.002			301398.9
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	96.000			301398.9
Infiltration				
Rate - Maximum - Positive	0.002		19.4438	
Rate - Maximum - Negative	None		None	
Cumulative Volume - Maximum Positive	36.000			301398.9
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	96.000			301398.9
Combined Discharge				
Rate - Maximum - Positive	None		None	
Rate - Maximum - Negative	None		None	
Cumulative Volume - Maximum Positive	None			None
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	96.000			0.0
Discharge Structure 1 - simple weir				
Rate - Maximum - Positive	None		None	
Rate - Maximum - Negative	None		None	
Cumulative Volume - Maximum Positive	None			None
Cumulative Volume - Maximum Negative	None			None
Cumulative Volume - End of Simulation	96.000			0.0
Discharge Structure 2 - inactive				
Rate - Maximum - Positive	disabled		disabled	
Rate - Maximum - Negative	disabled		disabled	
Cumulative Volume - Maximum Positive	disabled			disabled
Cumulative Volume - Maximum Negative	disabled			disabled
Cumulative Volume - End of Simulation	disabled			disabled
Discharge Structure 3 - inactive				
Rate - Maximum - Positive	disabled		disabled	
Rate - Maximum - Negative	disabled		disabled	
Cumulative Volume - Maximum Positive	disabled			disabled
Cumulative Volume - Maximum Negative	disabled			disabled
Cumulative Volume - End of Simulation	disabled			disabled
Pollution Abatement:				
36 Hour Stage and Infiltration Volume	36.000	59.19		301398.9
72 Hour Stage and Infiltration Volume	72.000	58.79		301398.9

Detailed Results :: *Scenario 2 :: Pre-Post Volume (241322.4 ft³ slug load)*

Elapsed Time (hours)	Inflow Rate (ft³/s)	Outside Recharge (ft/day)	Stage Elevation (ft datum)	Infiltration Rate (ft³/s)	Overflow Discharge (ft³/s)	Cumulative Inflow Volume (ft³)	Cumulative Infiltration Volume (ft³)	Cumulative Discharge Volume (ft³)	Flow Type
0.000	40220.4000	0.0000	54.100	0.00000	0.00000	0.0	0.0	0.0	N.A.
0.002	40220.4000	0.0000	60.785	18.93525	0.00000	241322.4	113.6	0.0	U/P
2.400	0.0000	0.0000	59.785	11.08212	0.00000	241322.4	159541.0	0.0	U/P
6.000	0.0000	0.0000	----	----	----	241322.4	241322.4	0.0	dry
12.000	0.0000	0.0000	----	----	----	241322.4	241322.4	0.0	dry
24.000	0.0000	0.0000	----	----	----	241322.4	241322.4	0.0	dry
36.000	0.0000	0.0000	----	----	----	241322.4	241322.4	0.0	dry
48.000	0.0000	0.0000	----	----	----	241322.4	241322.4	0.0	dry
60.000	0.0000	0.0000	----	----	----	241322.4	241322.4	0.0	dry
72.000	0.0000	0.0000	----	----	----	241322.4	241322.4	0.0	dry
84.000	0.0000	0.0000	----	----	----	241322.4	241322.4	0.0	dry
96.000	0.0000	0.0000	----	----	----	241322.4	241322.4	0.0	dry
120.000	0.0000	0.0000	----	----	----	241322.4	241322.4	0.0	dry
144.000	0.0000	0.0000	----	----	----	241322.4	241322.4	0.0	dry
168.000	0.0000	0.0000	----	----	----	241322.4	241322.4	0.0	dry
192.000	0.0000	0.0000	----	----	----	241322.4	241322.4	0.0	dry
216.000	0.0000	0.0000	----	----	----	241322.4	241322.4	0.0	dry
240.000	0.0000	0.0000	----	----	----	241322.4	241322.4	0.0	dry
264.000	0.0000	0.0000	----	----	----	241322.4	241322.4	0.0	dry
288.000	0.0000	0.0000	----	----	----	241322.4	241322.4	0.0	dry
312.000	0.0000	0.0000	----	----	----	241322.4	241322.4	0.0	dry
336.000	0.0000	0.0000	----	----	----	241322.4	241322.4	0.0	dry

Detailed Results :: *Scenario 3 :: Treatment Volume (301398.9 ft³ slug load)*

Elapsed Time (hours)	Inflow Rate (ft³/s)	Outside Recharge (ft/day)	Stage Elevation (ft datum)	Infiltration Rate (ft³/s)	Overflow Discharge (ft³/s)	Cumulative Inflow Volume (ft³)	Cumulative Infiltration Volume (ft³)	Cumulative Discharge Volume (ft³)	Flow Type
0.000	50233.1500	0.0000	54.100	0.00000	0.00000	0.0	0.0	0.0	N.A.
0.002	50233.1500	0.0000	61.148	19.44382	0.00000	301398.9	116.7	0.0	U/P
2.400	0.0000	0.0000	60.148	14.51604	0.00000	301398.9	162742.3	0.0	U/P
6.000	0.0000	0.0000	59.478	5.23317	0.00000	301398.9	266841.8	0.0	U/S
12.000	0.0000	0.0000	59.397	0.49153	0.00000	301398.9	279107.5	0.0	S
24.000	0.0000	0.0000	59.301	0.25800	0.00000	301398.9	293747.2	0.0	S
36.000	0.0000	0.0000	59.191	0.08856	0.00000	301398.9	301398.9	0.0	S
48.000	0.0000	0.0000	59.033	0.00000	0.00000	301398.9	301398.9	0.0	S
60.000	0.0000	0.0000	58.903	0.00000	0.00000	301398.9	301398.9	0.0	S
72.000	0.0000	0.0000	58.794	0.00000	0.00000	301398.9	301398.9	0.0	S
84.000	0.0000	0.0000	58.698	0.00000	0.00000	301398.9	301398.9	0.0	S
96.000	0.0000	0.0000	58.613	----	----	301398.9	301398.9	0.0	N.A.

SJRWMD RETURN PERIOD RAINFALL MAPS

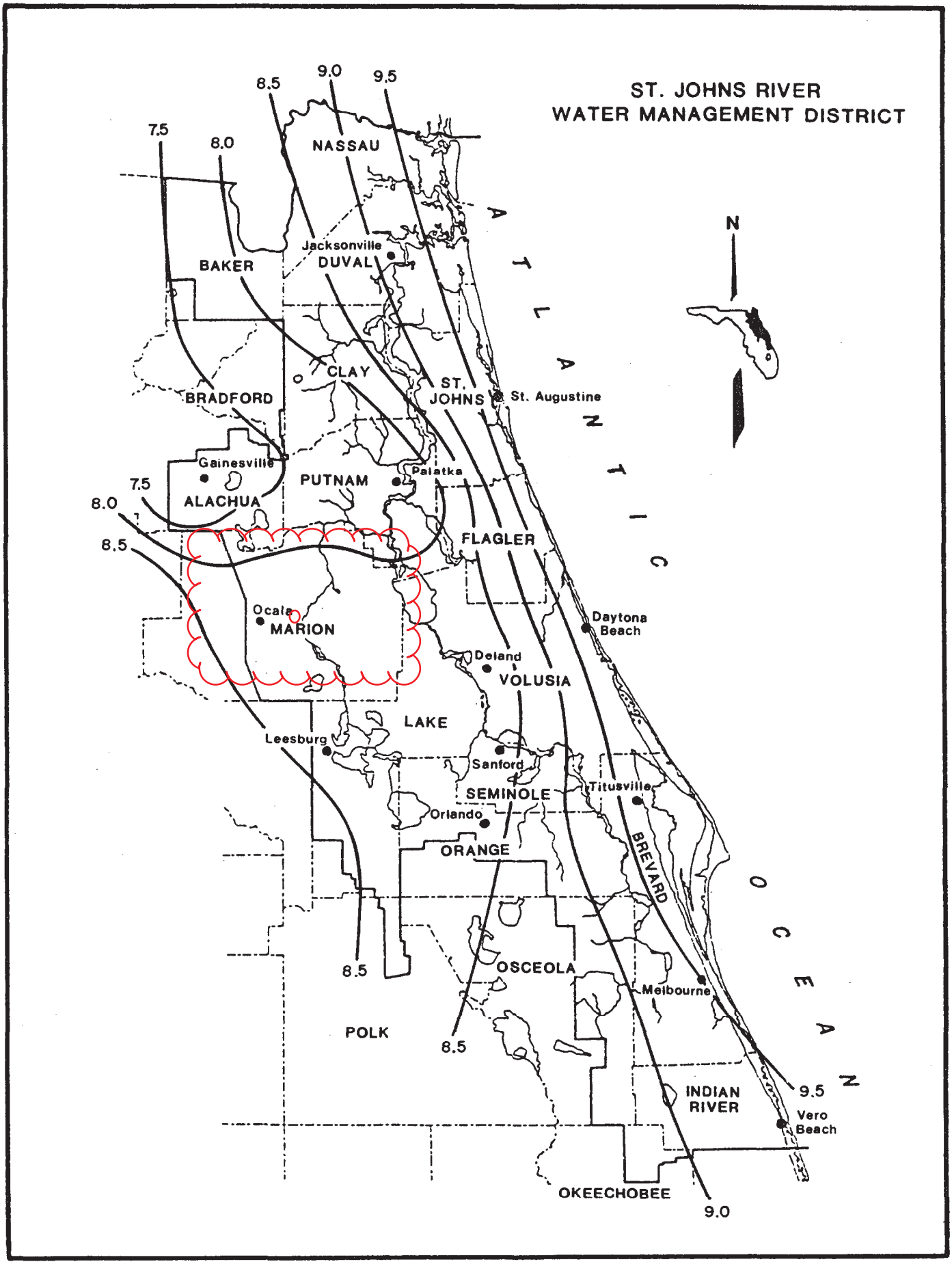


Figure 7. 25-Year 24-Hour Maximum Rainfall for Northeast Florida, Inches.

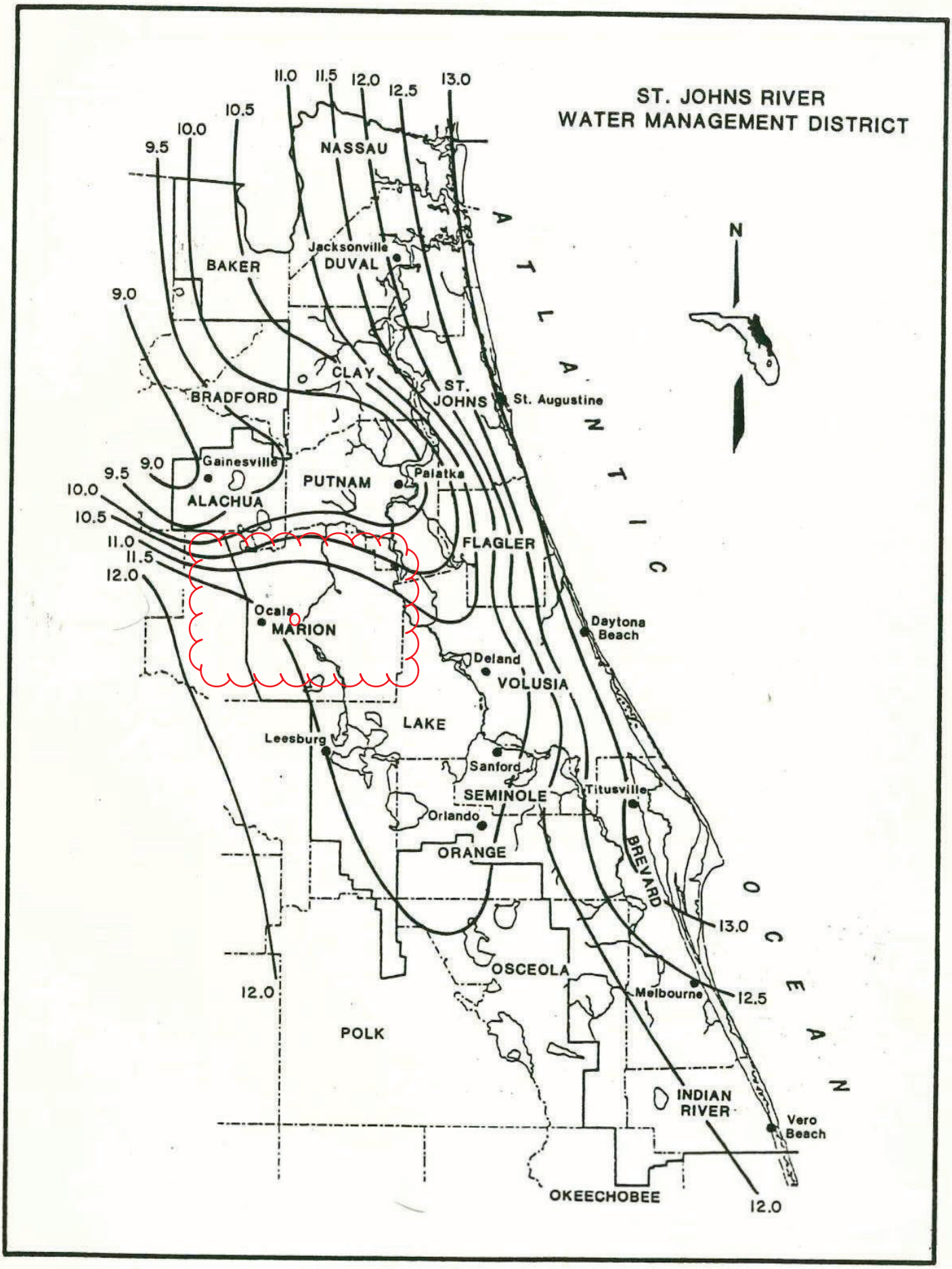


Figure 8. 100-Year 24-Hour Maximum Rainfall for Northeast Florida, Inches.

FRYE - NOTES/I
12/29/25

JOB# 24043

STAKE BLDG.

BASE SET @ PT# 507 HI: 5.74'
STAFF HI: 6.562'

↑ @ 7738 HI: 5.15' BS - 7737 HI: 5.50'

STAKE PTS: 7735 - 7746
STORE PTS: 20561 - 20571

BASE @ 507 HI = 5.66

STAKE PTS 7749 - 7783 BC
STORE PTS 6424 - 6436

2ND 20572

↑ @ 7786 HI = 5.06 BS 7785 HI: 5.50
HDE: -0.0006/0.000 VDE: -0.141/0.001
STAKE PTS 7783 - 7794 BLDG. 30
STORE PTS 20572 - 20582

2ND 20583

↑ @ 7773 HI: 4.91 BS 7774 HI: 5.50
HDE: -0.007/0.002 VDE: -0.590/0.000
STAKE PTS 7771 - 7782 BLDG. 29
STORE PTS 20583 - 20593

2ND 20594

↑ @ 7762 HI = 5.15 BS 7761 HI: 5.50
HDE: 0.0006/-0.002 VDE: -0.005/0.002
STAKE PTS 7759 - 7770 BLDG. 27
STORE PTS 20594 - 20604

74° CLOUDY/MISTY
4MPH / SW°

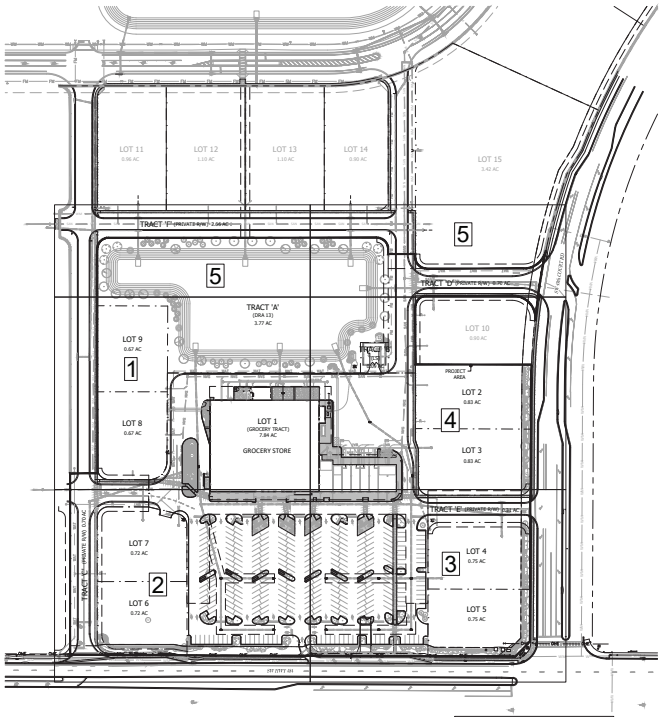
67/41

BASE @ 507 HI = 5.75

AS-BUILT PTS 19978 - 20344 STORM & ROAD

2ND 20605

↑ @ 7749 HI = 5.03 BS 7750 HI = 5.50
HDE: 0.001/-0.004 VDE: -0.099/-0.001
STAKE PTS 7747 - 7758 BLDG. 28
STORE PTS 20605 - 20616



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LANDSCAPE ARCHITECT:
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JON R. PHILLIPS, PLA, ASLA
1720 SE 16TH AVE. BLDG. 100
OCALA, FLORIDA 34471
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NORTH
0 100' 200'
SCALE: 1" = 100'

APPROVED FOR CONSTRUCTION

Tillman & Associates ENGINEERING, LLC.
CIVIL ENGINEERING · PLANNING · LANDSCAPE ARCHITECTURE · ENVIRONMENTAL
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REVISIONS

DATE

MAJOR SITE PLAN
DIAMOND A SHOPPING CENTER
MARION COUNTY, FLORIDA

LANDSCAPE INDEX

DATE 8/13/2024
DRAWN BY
CHKD. BY TRP
JOB NO. 24-9040

L1.01

NOT VALID UNLESS SIGNED AND SEALED BY AUTHORIZED PROFESSIONAL

PLANTING SPECIFICATIONS

PART 1.00 GENERAL

1.01 WORK INCLUDED

A. LANDSCAPING: Provide all labor, materials, plant materials, soil additives, soil preparation, aesthetic and fine grading, fertilizing, mulching, planting, staking, sodding, cleanup, equipment, services, and maintaining plantings until Substantial Completion to all landscaping work indicated on the Drawings and as specified, and as required by the Warranty through Final Acceptance.

1.02 RELATED WORK SPECIFIED ELSEWHERE

A. Refer to irrigation drawings and requirements.

1.03 WARRANTY

A. The Contractor shall guarantee all tree and shrub / groundcover plantings for a period of twelve (12) months, and all sod / seed for six (6) months after the date of Substantial Completion. During this period, the Contractor shall continue the observation of plants and guarantee work. The Contractor shall submit monthly observation reports to the Owner with a copy to the Landscape Architect during the guarantee period. The purpose of these reports is to state any maintenance deficiencies observed. It is the Contractor's responsibility to report these to protect this guarantee. Failure to submit reports eliminates any claims that the guarantee is not valid due to improper maintenance by the Owner.

B. Any dead plants, or plants showing indication of probable non-survival or lack of health and vigor, or which do not exhibit the characteristics that meet Specifications, shall be replaced within two (2) weeks. All replacement plants shall be furnished and installed at no additional cost to the Owner. All replacements shall meet the original Specifications and shall be guaranteed for an additional period equal to the original.

C. The Contractor shall notify the Owner in writing ten (10) days prior to the end of the guarantee period. The guarantee period shall extend until notification is received.

1.04 PROTECTIONS

A. The Contractor shall provide and maintain the necessary safeguards to protect the work, adjacent property, and the public, and shall be responsible for any damage or injury due to the Contractor's negligence.

1.05 VERIFICATION OF PLANS, DIMENSIONS, AND QUANTITIES

A. The Contractor shall be responsible for obtaining the current and latest approved plan set.

B. Before proceeding with any work, carefully check and verify all dimensions and quantities. All scaled dimensions are approximate.

C. Immediately notify the Landscape Architect of any inaccuracies or conflicts.

1.06 SUBMITTALS

A. Submit documentation to Owner's Representative within fourteen (14) days after award of Contract, indicating quantities of plant material, availability, and source of plant material.

B. The Contractor shall be responsible for all material listed on the Plant List unless noted otherwise.

C. All material shall be subject to inspection and approval by Owner's Representative.

D. The Contractor shall coordinate a material tagging trip with the Landscape Architect for all tree, specimen, and accent materials as indicated during the pre-construction meeting.

E. Any and all substitutions due to unavailability must be requested in writing prior to confirmation of ordering. In the event plant material is not available as specified in the Plant List, provide documented requests proving unavailability from three (3) registered nurseries.

F. The Contractor shall submit "As-Built" drawings as indicated on the drawings and specifications prior to Substantial Completion.

1.07 QUALITY ASSURANCE

A. REFERENCE SPECIFICATIONS AND STANDARDS

1. Standards as established by the Florida Nursery Growers Association (FNGA).

B. TESTS AND INSPECTIONS

1. Plants shall be subject to inspection and approval of the Owner's Representative at place of growth and/or upon delivery for conformity to specifications. Such approval shall not impair the right of inspection and rejection during progress of work. Inspection and tagging of plant material by Owner's Representative is not approval of the plant material with regard to its health and vigor. The health and vigor of the plant material is the sole responsibility of the Contractor.

2. The Contractor shall be responsible for proper plant growth in existing on-site soils. Prior to commitment of plant shipments, the Contractor shall examine the soils in all areas of work by conducting soil tests and filling test holes with water to determine if soil chemistry and drainage is satisfactory. Any unsatisfactory conditions shall be brought to the immediate attention of the Owner's Representative for possible remedial action or plant material substitutions. The Owner's Representative reserves the right to make changes or substitutions in plant type or quantities for the purposes of ensuring proper plant growth.

3. Owner's Representative reserves the right to take and analyze samples of materials for conformity to specifications at any time. The Contractor shall furnish samples upon request of the Owner's Representative. Rejected materials shall be immediately removed from the site at the Contractor's expense. The Contractor shall pay cost of testing of materials not meeting specifications.

C. CHANGES IN WORK

1. The Owner's Representative may order changes in the work, and the corresponding adjustments to the sums should be made to the Contract. All such orders and adjustments, plus claims by the Contractor for extra compensation, must be made and approved in writing prior to executing the work involved. All changes in the work, notifications, and Contractor's request for information shall conform to the conditions of the Contract.

D. CORRECTION OF WORK

1. The Contractor, at their own cost, shall re-execute any work that fails to conform to the requirements of the Contract and shall remedy defects due to faulty materials or workmanship.

E. PERFORMANCE

1. All planting shall be performed by personnel familiar with planting procedures and under the supervision of a qualified planting foreman.

2. All work shall comply with applicable codes and regulations.

3. The work shall be coordinated with other trades to prevent conflicts.

1.08 PROJECT CONDITIONS

A. Sequencing: Do not commence planting until site grading, soil import, and preparation has been completed.

B. Inspect and approve all sprinkler work and finish grading prior to the start of shrub and groundcover planting as specified. Trees may be planted in advance of irrigation system installation provided adequate provision is made for interim watering at the Contractor's expense.

C. The Contractor shall inform the Landscape Architect of any discrepancy between the Drawings, Specifications, and actual field conditions. Immediately inform the Owner's Representative and do not do work in any area where there is a significant discrepancy until approval to proceed has been received from the Owner's Representative.

1.09 SITE CONDITIONS

A. Existing Conditions:

1. Exercise care in digging and other work so as not to damage existing work including, but not limited to, plant material, irrigation materials, underground pipes and cables, and the pipes and hydrants of watering systems. Should such overhead or underground obstructions be encountered which interfere with planting, the Landscape Architect shall be consulted and will adjust the location of plants to clear such obstruction. The Contractor shall be responsible for the immediate repair of any damage caused by their work at their own expense.

2. Should any objectionable materials such as old concrete, bricks or other debris be encountered during planting operations, the Contractor shall bring this to the attention of the Owner's Representative to coordinate removal of the material from the site.

3. Unsatisfactory conditions shall be brought to the immediate attention of the Owner's Representative for possible remedial action.

1.10 PRODUCT HANDLING

A. Delivery:

1. Plant transportation shall comply with all Federal and State regulations.

2. Deliver fertilizer to site in original unopened containers bearing manufacturer's guaranteed chemical analysis, name, trademark and conformance to State Law.

3. The Contractor shall furnish Owner's Representative receipts for all amendments.

4. Deliver all plants with legible identification labels.

a. Label trees, evergreens, bundles of containers of like shrubs or groundcover plants.

b. State correct plant name and size indicated on plant list.

c. Use durable waterproof labels with water-resistant ink, which will remain legible for at least 60 days.

5. Protect plant material during delivery to prevent damage to root ball or desiccation of leaves.

6. The Contractor shall notify the Owner's Representative three (3) days in advance of delivery of all plant materials and shall submit an itemized list of the plants in each delivery.

B. Storage: Store plant material in shade and protect from weather.

C. Handling: The Contractor is cautioned to exercise care in handling, loading, unloading, and storing of plant materials. Plant materials that have been damaged in any way shall be discarded. If they have been installed, they shall be replaced with undamaged materials at the Contractor's expense.

D. Tagged Materials: The Contractor shall leave all tags on materials previously tagged by the Owner's Representative until Substantial Completion.

PART 2.00 PRODUCTS

2.01 MATERIALS

A. GENERAL

1. Nomenclature: All trees, shrubs and plants shall be true to name as established by the American Joint Committee on Horticultural Nomenclature publication "Standard Plant Names". The designated authority for the identification of all material shall be the two publications of L.H. Bailey, "Hortus III" and "Manual of Cultivated Plants", and all specimens shall be true to type, name, etc., as described therein.

2. Grade Standards and Quality: All plants shall be nursery grown and shall comply with all required inspection, grading standards and plant regulations as set forth in all sections of the Florida Department of Agriculture "Florida Grades and Standards for Nursery Plants" latest edition.

3. The minimum grade for all trees and shrubs shall be Florida No. 1 unless otherwise indicated. All plants shall be sound, healthy and vigorous, well branched and densely foliated when in leaf. They shall have healthy, well-developed root systems free of defects, and shall be free of disease and insect pests, eggs or larvae.

4. Measurements:

a. The minimum acceptable size of all plants, measured after pruning, with branches in normal positions, shall conform to the specified sizes as shown on the plans. Sizes specified are minimum standards. Plants shall be equal to or larger than all categories (height, spread, caliper, container) of size specification. Substantial deviations from these measurements must on the plans. Sizes specified are minimum standards. Plants shall be approved by Landscape Architect. Caliper of tree trunks shall be measured one (1) foot above root ball for trees under six (6) inches in caliper.

b. Clear trunk of all types of palms shall be measured from the finished grade to the beginning of the fronds. The booted portion of the head of the palm shall be in proportion to the overall height of the palm.

5. Plant Protection: Plants shall be protected upon arrival at the site, by being thoroughly watered, kept moist, and properly maintained until planted.

B. PLANT MATERIALS: In reference to method of cultivation, root system status, etc., plants for landscaping shall be classified under the following designations:

1. Container Grown Plants:

a. Container grown plants shall have been grown in a container large enough and for sufficient time for the root system to have developed well to hold its soil together firm and whole; no plant shall be loose in the container. Plants shall have been root pruned at each step in the plant production process to remove girdling or kinked roots.

b. All containers shall be cut and opened fully in a manner such as will not damage the root system. Container grown plants shall not be removed from the container until immediately before planting, when all due care shall be taken to prevent damage to the root system.

c. Plants which have become root bound, girdling, or have poor root distribution, will not be acceptable. Also not acceptable are plants with roots or root collars that lack healthy structural and radial characteristics. The Contractor shall replace rejectable material, or provide corrective measures prior to planting according to best industry practices.

2. Balled and Burlapped (B & B) Trees:

a. Plants so classified shall be dug with firm natural root balls of earth coming from similar climatic and soil conditions as those on the project site and of sufficient diameter and depth to include most of the fibrous roots. The root ball of these plants shall be properly wrapped with burlap sack material and remain protected and wet until they are planted. The plant shall be handled only by the earth ball and not by the plant itself. All B & B trees which cannot be planted immediately upon delivery shall be set on the ground and well protected with wet soil, wet moss, or other acceptable material. The plants shall be set with the burlap cover intact and with the burlap showing, until inspection.

b. Burlap: Shall be pure burlap, 100% organic material with the ability to decompose.

c. B & B trees shall have been routinely pruned during field production and dug at least four (4) weeks prior to planting.

d. Roots Plus: All trees classified as B & B shall be tagged as a Roots Plus product and the tag shall remain until Substantial Completion has been awarded. Any material previously tagged at a nursery by the shall have the nursery's locking tag visible on the tree until inspection.

3. Bare Root Plants: No bare root plants shall be used unless otherwise specified.

4. Grow Bag/Fabric Container Plants: No grow bag plants shall be used.

5. Sod: Sod shall be established, well-rooted Argentine Bahia, St. Augustine, or other as specified. Muck-grown sod shall not be used. Sod shall be free of weeds and undesirable native grasses.

6. Seed:

a. All seed shall have 95% pure seed content with a verified 85% minimum germination rate.
b. Unless specified otherwise, grass seed shall consist of a 80/20 mixture of Argentine Bahia and annual rye (or Argentine Bahia and browntop millet as applicable for the season; see Installation).

C. OTHER MATERIALS:

1. Soil:

a. Topsoil shall be a friable loam, typical of cultivated topsoils locally, containing at least 5 percent of decayed organic matter (humus). It shall be taken from a well-drained, arable site. It shall be reasonably free of weeds, subsoil, stones, clods, sticks, roots or other objectionable extraneous matter or debris. It shall not contain toxic materials and shall have an acidity range of pH 6.0 to 7.0 Topsoil from nut grass infested areas will not be acceptable.

b. Soil testing shall be performed and analyzed by a laboratory registered by the state. Testing shall include fertility and suitability analysis with written recommendations for fertilizer or amendments, which shall take precedence over rates or analysis specified in this section. Soil testing shall be the Contractor's responsibility. Submit test results to the Landscape Architect for review.

c. Soil Preparation: Prior to placing mix and backfill, or commencing with planting, rototill any or all areas that have been previously compacted over 90 percent for other construction purposes.

2. Fertilizer:

a. Fertilizer, part of which the elements shall be derived from organic sources, shall be a complete blend formula, balanced as suitable for plant type. It shall contain nitrogen, phosphorus, and potassium, as well as recommended micronutrients such as magnesium, iron, copper, zinc, boron, and manganese in sulfate form. Fertilizer shall be applied over all turf, shrub, and tree areas corresponding to plant size, at the lowest necessary rate. Total nitrogen shall not exceed a rate of 1 pound per 1,000 square feet.

b. Agriform 20-10-5 Tablets Plus Minors, or approved equal, shall be provided in each planting hole as per quantities and application of the manufacturer's specifications.

c. A complete fertilizer analysis shall be approved by the Landscape Architect.

3. Weed Control: All planting beds shall be treated with the pre-emergent Snapshot 2.5 TG prior to mulching per manufacturer's instructions.

4. Mulch: All mulch shall be grade #1, clean, bright, and free of weeds, moss, sticks and other debris. Pine straw shall be used unless specified otherwise. Cypress mulch shall not be used.

5. Water: Suitable water for the irrigation plants during the progress of construction shall be provided and provided and paid for the by the Contractor, who shall also furnish adequate watering equipment.

6. Tree Stakes and Ties: Stakes and tree ties shall be provided in accordance with the plan details and the Staking and Guying requirements. Substitutions require written approval by the Owner.

7. Antibiotics: Date palms (Phoenix canariensis, Phoenix dactylifera, and Phoenix sylvestris) shall test negative for lethal bronzing disease and be inoculated with oxytetracycline (OTC-HCl) antibiotics three (3) months prior to installation, and thereafter every three (3) months ad infinitum. The Contractor shall provide treatments until completion of the Warranty, and document all treatments which shall be in accordance with Florida industry standards (UF IFAS Extension Publication ENY998).

8. Root Barriers / Geomembrane: Protection of adjacent infrastructure shall be provided in accordance with the drawings and details. Substitutions require written approval by the Owner.

PART 3.00 EXECUTION

3.01 INSPECTION

A. Ensure that final grades to three (3) inches have been established prior to commencing planting operations. Provide for inclusion of all amendments, settling, etc. The Contractor shall be responsible for the finish grading of all planting areas, to elevations as indicated on Civil Engineer's plans and as directed by the Owner's Representative.

B. Inspect trees, shrubs and liner stock plant material for injury, insect infestation and trees and shrubs for improper pruning.

C. Do not begin planting of trees until deficiencies are corrected or plants replaced.

3.02 PREPARATION

A. The Soil Preparation:

1. All planted areas to be planted shall be loosened to 12" except 2:1 or steeper slopes.

2. Soil to be used for planting shall be free of rocks over 1/2" in diameter, and free of foreign debris, refuse, plants or roots, clods, weeds, sticks, solvents, petroleum products, concrete, base rock, or other deleterious or extraneous material. Soil shall be free of soil-borne diseases and capable of sustaining healthy plant life. Materials not meeting these specifications shall be removed.

B. Aesthetic Grading:

1. The Contractor shall be responsible for re-grading of ponds and berm grading as indicated as aesthetic grading on the plans and details.
2. Fill dirt, if required, shall be locally obtained material from naturally drained sources, free from dry, organic debris, stones larger than 1-inch diameter and other materials harmful to successful drainage and plant growth. Soil shall be well mixed and contain no more than 25 percent muck.

3. Berms shall be gently rolling and parabolic with uniform levels or slopes with no more than 4:1 maximum slope.

4. The Contractor shall contact the Landscape Architect for approval of all aesthetic grading prior to any planting.

C. Final Grades:

1. Minor grading modifications may be required to establish the final grades.

2. Finish grading shall insure proper drainage of site as determined by the Civil Engineer's grading plans and the Owner's Representative.

3. All areas shall be graded such that final grades will be 2" below adjacent paved areas, sidewalks, valve boxes, headers, clean-outs, drains, manholes, etc. or as indicated on Drawings.

4. Surface drainage shall be away from all structure foundations at a minimum of 1/4" per foot to aid in water runoff.

5. Remove or redistribute excess soil before application of fertilizer. Make allowances when establishing finish grades for earth excavation from planting pits and mulch.

6. Weeding: Before and during preliminary and finish grading, dig out all weeds and grasses by the roots and dispose-of off the site. Grasses not of the perennial type less than 2-1/2" high and not bearing seeds, may be turned under. Perennial weeds and grasses to be removed include, but are not limited to the following: Nut Grass, St. Augustine, Puncture Vine, Morning Glory, and Johnson Grass. Whenever encountered on the site within the planting areas, thoroughly remove other noxious or invasive weeds as required by municipalities and according to the drawings.

7. Trenches: If sprinkler system has been installed after grading and fertilizing has been completed, re-till the trench, backfill, and fertilize to the depth specified for the area to conform to specified requirements.

8. Eliminate all erosion scars prior to commencing maintenance period.

D. Disposal of excess soil: Dispose of any unacceptable or excess soil at an off-site location approved by Owner's Representative.

3.03 MATERIALS INSTALLATION

A. All plant materials shall be approved by the Owner's Representative as they are delivered to the job site or other site inspections, and in all cases:

1. Conditions: Plants shall be symmetrical as typical for the variety and species: in a condition of healthy and vigorous growth, free from plant disease, insect pests, or their eggs, and with healthy normal root systems well filling their containers, but not to the point of being root bound. Plants shall not be pruned prior to delivery, except as authorized by the Owner's Representative. Spray all trees to eliminate insects and fungus and apply foliar anti-transpirant prior to delivery.

2. Dimensions: The height and spread of all plants shall be measured with branches in their normal position. Where dimensions of any plant materials are omitted from the Plant List, plants shall be normal stock for type listed.

3. Actual planting shall be performed during those periods when weather and soil conditions are suitable and in accord with locally accepted practice.

4. Only as many plants as can be planted and watered on that same day shall be distributed in a planting area.

5. Containers shall be opened and plants shall be removed in such a manner that the ball of earth surrounding the roots is not broken and they shall be planted and watered as herein specified immediately after removal from the containers. Containers shall not be opened prior to placing the plants in the planting area.

6. Do not do any planting, other than specimen trees, until all operations involved with the installation of the sprinkler system have been completed, final grades have been established, the planting areas have been properly graded and prepared as herein specified, and the work approved by the Owner's Representative.

7. The relative position of each tree and plant is subject to approval by the Owner's Representative, and shall, if necessary to achieve project design objectives, be relocated as directed.

8. Remove each plant from its container and plant in such manner that when settled, it will bear the same relation to the constructed finished grade as it bore to the grade in the container before being transplanted. Place each plant in the center of the pit and backfill, unless otherwise specified, with the prepared soil. Filling will not be permitted around trunks or stems. Properly cut off all broken or frayed roots.

B. Layout of major plantings: Locations for plants and outlines of areas to be planted shall be marked on the ground before any planting pits are dug. All such locations shall be approved by the Owner's Representative.

1. Layout shall be accomplished with flagged grade stakes indicating plant names and specified container size on each stake or alternate approved method.

2. If underground construction or utility line is encountered in the excavation of planting areas, other locations for planting may be selected by the Owner's Representative or Landscape Architect.

3. It shall be the Contractor's responsibility to confirm with the Owner and governing agencies the location and depth of all underground utilities and obstructions.

C. Planting of trees, shrubs and groundcovers:

1. Excavation for planting shall include the stripping and stacking of all acceptable topsoil encountered within the areas to be excavated for trenches, tree holes, plant pits and planting beds.

2. Excess soil generated from the planting holes and not used as backfill or in establishing the final grades, shall be removed from the site.

3. Protect all areas from excessive compaction when trucking plants or other material to the planting site. Compacted areas shall be cross-ripped to 12" and tilled.

4. Center plants in pit or trench.

5. Face plants with fullest growth toward the best public views.

6. Set plant plumb and hold rigidly in position until soil has been tamped firmly around ball or roots.

7. All excavated holes shall have vertical sides with roughened surfaces and shall be of a size that is twice the diameter and one-half times the depth of the settled, it will bear the same relation to the constructed finished grade as it root ball for all shrubs. Trees 15 gallon and smaller to be planted as above, trees 24" box or larger to be excavated to the depth of the root ball (allow 1-2" for settling) and as space allows, 24" clear of the root ball on all sides.

8. Layout areas and set stakes/flags for trees at locations indicated on Drawings. Secure approval from Owner's Representative before excavating pits. Make necessary adjustments as directed.

a. Specimen trees to be planted prior to construction of finish grades shall be located by surveyor for position and finish-grade relationship to top of root ball.

9. When hardpan or muck is encountered, break through to clean soil and backfill with prepared backfill as directed. Loosen compacted soil at sides and bottoms by scarifying or other approved method. Set tree to finish grade and fill the pit with prepared soil, progressively settling the soil about the root ball by water jetting and flooding to remove voids.

10. Set tree in center of pit in a vertical position so that crown of ball will be level with finish grade after allowing for watering and settling.

11. Prepare watering basin same width as tree plant ball. Water thoroughly immediately following planting. Backfill all voids which develop with additional prepared planting soil to bring to finish grade. Remove all basins in lawn areas, and smooth to finish grade prior to laying sod.

12. Monitor tree and shrub root balls for adequate moisture content. Deep water and/or provide soaker hoses to maintain moisture supply.

13. All plants which settle deeper than the surrounding grade shall be raised to the correct level. After the plant has been placed, additional backfill shall be added to the hole to cover approximately one-half of the height of the root ball. At this stage, water shall be added to the top of the partly filled hole to thoroughly saturate the root ball and adjacent soil.

14. Can removal:

a. Cut cans on two sides with an acceptable can cutter.

b. Do not injure root ball.

c. Do not cut cans with spade or axe.

15. Burlap and Wire Removal:

a. After the root ball is positioned and backfilled, remove all twine and cut away the top of the burlap; do not fold down into the soil.

b. Remove the top 6 - 8 inches of the basket wires prior to final backfilling. Fold back sharp wire ends.

16. Box removal:

a. Remove bottom of plant boxes before planting. Remove sides of box without damage to root ball after positioning plant and partially backfilling.

17. Plant tablets:

a. During installation, Agriform 20-10-5 Tablets Plus Minors, or approved equal, shall be provided in each planting hole as per quantities and application of the manufacturer's specifications.

b. Planting tablets shall be set with each plant on the top of the root ball while the plants are still in their containers so the required number of tablets to be used in each hole can be easily verified by the Owner's Representative.

c. Tablets shall be located in the upper 1/2 to 1/3 of the plant pit, 1"-2" from roots.

18. Backfill:

a. The remainder of the hole shall then be backfilled and tamped firm.

b. Next, an earthen basin shall be constructed around each plant. Each basin shall be of a depth sufficient to hold at least three (3) inches of water. The basins shall be constructed of amended backfill materials. Remove basin in all turf areas after initial watering.

19. Pruning: Pruning of new plantings shall be limited to the minimum necessary to remove injured twigs and branches. Pruning may not be done prior to delivery of plants.

20. Staking and Guying:

a. The Contractor shall be responsible to maintain trees in a straight and plumb position throughout the guarantee period.

b. The Contractor shall be responsible for the installation, maintenance, and complete removal of all staking and guying materials.

c. Tree staking shall coincide with tree planting. All stakes shall be installed plumb and as indicated in the details. Guys shall be tied and maintained to prevent girdling, and stakes shall be driven to hold the tree rigid. Stakes and guys shall not create tripping or other hazardous conditions.

d. The Contractor shall remove all staking and guying materials once each tree is established, typically within one (1) year of installation. Should any tree require additional time for establishment, the Contractor shall provide to the Owner a written report identifying each tree, the reason for the extension, and the required course of action to ensure full removal of all materials.

D. Planting of flowering annuals:

1. Flowering annuals shall be grown in 4" pots as indicated on the plans. Annuals shall remain in their flats until transplanting. The flat's soil shall contain sufficient moisture so that it will not fall apart when lifting the plants.

2. The annuals shall be planted in straight rows and evenly spaced, unless otherwise noted, and at intervals called out in the drawings. Triangular spacing shall be used unless otherwise noted on the drawings.

3. Each rooted plant shall be planted with its proportionate amount of flat soil. Plantings shall be immediately sprinkled after planting until the entire area is soaked to the full depth of each hole.

4. The annuals planting area shall be mulched with appropriate fine bedding mulch. Each annual bed shall be mulched so that the ground is thoroughly covered, and the annuals are not buried.

5. Care shall be exercised at all times to protect the plants after planting. Any damage to plants by trampling or other operations of this Contract shall be repaired immediately.

E. Sod planting:

1. Preparing soil: Remove rocks, weeds, and debris from area to be sodded. If dirt is compacted, work up soil to a depth of 6 inches and break up all clods. Test soil and prep all areas as noted elsewhere in specifications.

2. Grading and rolling: Carefully smooth all surfaces to be sodded. Roll areas to expose soil depressions or surface irregularities. Regrade as required.

3. Laying sod: Lay first strip of sod slabs along a straight line (use a string in irregular areas). Butt joints tightly, do not overlap edges. On second strip, stagger joints much as in laying bricks. On slopes, begin at the bottom and run sod strips along the bottom of the slope. The second sod strip row will be at a higher elevation. Use a sharp knife to cut sod to fit curves, edges and sprinkler heads. Sod shall be laid within 72 hours of harvesting and 12 hours from time of delivery.

4. Anchoring: On slopes steeper than 4:1, sod shall be anchored with one-inch wide by six-inch long U-shaped #11 non-galvanized steel wire staples. Use a minimum of four (4) staples along the uphill side of the sod strip in every other row. Along waterways, two (2) additional staples shall be placed in the upper end of each sod strip at the end facing the flow. Staples shall be driven flush with the top of the sod. Provide additional staples as necessary to secure sod in place.

5. Watering: Do not lay whole lawn before watering. When a conveniently large area has been sodded, water lightly preventing drying. Continue to lay sod, and to water until installation is complete.

6. Rolling sod: After laying all sod, roll lightly to eliminate irregularities and to form good contact between the sod and soil. Avoid a very heavy roller or excessive initial watering which may cause roller marks.

7. Irrigation: Water thoroughly the complete lawn surface. Soil should be moistened at least 8 inches deep. Repeat sprinkling at regular intervals to keep sod moist at all times until rooted. After sod is established, decrease frequency and increase amount of water per application as necessary.

8. Replacement: Replace all dead or dying sod with equal material prior to inspection and as directed by the Owner's Representative.

F. Mulching:

1. Mulch shall be 3" thick minimum following application, and 3" away from plant trunk.

2. On berms and slopes steeper than 4:1, install plants through coconut fiber erosion control blanket Rollmax C125BN or approved equal. Along planted swales and waterways, provide Enkamat J or approved equal. Install and anchor blankets/mats per manufacturer's specifications.

G. Seeding:

1. Prepare soil: Remove rocks, weeds, and debris from area to be seeded. If dirt is compacted, work up soil to a depth of six (6) inches and break up all clods. Test soil and prep all areas as noted elsewhere in the Specifications.

2. Time seeding as appropriate for the type of plant, generally as: bahia with browntop millet in mid-February through mid-August; bahia with rye in mid-October through early January.

3. Apply seed according to the application rates and instructions specified by the seed company.

4. Uniformly spread seed over the seeding area and incorporate into the soil at a depth of 1/4 to 1/2 inch.

5. Cover the seed with a solid layer of straw mulch that is dry, and free of weed and insects.

6. Roll and disc the seeded area so the mulch is fully anchored to the soil.

7. Do not apply water to newly seeded areas to force seed germination. Supplemental irrigation may be necessary during dry periods to sustain growth. When irrigation is provided, the seed bed shall be moist, not overly wet.

8. Provide fertilizer, weed and pest control, and mowing to promote a contiguous stand of groundcover.

3.04 CLEAN-UP

A. At the last working day of each week, and after all planting operations have been completed, remove all trash, excess soil, plant containers, and rubbish from the property. All trash shall be removed completely from the site and disposed of according to regulations. All scars, ruts, or other marks in the ground caused by this work shall be repaired.

B. The Contractor shall leave the site area broom-clean and shall wash down all paved areas within the Contract area, leaving the premises in a clean condition. All walks shall be left in a clean and safe condition.

3.05 FIELD QUALITY CONTROL

A. All inspections herein specified shall be made by the Owner's Representative or their designee as the work progresses.

B. Protect work completed by other trades from damage.

C. Continuously protect all lawn areas, plant materials, and tree supports until Substantial Completion of the work.

3.06 OBSERVATION SCHEDULE

A. The Contractor shall be responsible for notifying the Owner's Representative in advance for the following site visits.
1. Time indicated as follows:
a. Pre-job conference - 7 days
b. Tree tagging - 7 days
c. Final grade review - 48 hours
d. Plant material review - 48 hours
e. Plant layout review - 48 hours
f. Final acceptance walk-through - 7 days
g. Verification of Warranty walk-through - 7 days

B. When observations are conducted by someone other than the Owner's Representative, the Contractor shall show evidence in writing of when and by whom these observations were made.

3.07 SUBSTANTIAL COMPLETION OF INSTALLATION

A. Maintain all planted areas free of weeds, debris and insects. Mow, cultivate, weed, and water all areas until the work is approved as substantially complete by the Owner.

B. Prior to inspections do the following:

1. Reseed, resod or replant areas where necessary for full and even coverage.

2. Remove all debris resulting from landscape work.

3. Regrade, lightly compact and replant around sprinkler heads where necessary to maintain proper vertical positioning in relation to general grade.

4. Fill all depressions and eroded channels with sufficient soil mix to adjust grade to assure proper drainage. Compact lightly and replant the filled areas in accord with plan requirements.

5. Address any items noted in the punch list from prior inspections.

6. Provide "As-Built" drawings plotted to scale and as digital PDF.

C. The approved date of Substantial Completion shall be the date when the Owner's Representative accepts in writing that all Planting and Irrigation work is substantially satisfactory and complete.

3.08 FINAL ACCEPTANCE OF INSTALLATION

A. At the end of the guarantee period, if the Owner is satisfied with the Planting and Irrigation work, and all conditions of the Warranty are complete, the Owner shall provide Final Acceptance.

B. If the work fails to pass verification of Warranty, any subsequent observations must be rescheduled as per the above schedule. The cost to the Owner for additional observations will be charged to the Contractor at the prevailing hourly rate of the Owners Representative.

END PLANTING SPECIFICATIONS *Tillman & Associates Engineering, LLC May 2025*

Tillman & Associates
ENGINEERING, LLC.
CIVIL ENGINEERING · PLANNING · LANDSCAPE ARCHITECTURE · ENVIRONMENTAL
1720 SE 16th Ave. Bldg. 100, Ocala, FL 34471
Office: (352) 387-4540 Fax: (352) 387-4545

REVISIONS

DATE

MAJOR SITE PLAN
DIAMOND A SHOPPING CENTER
MARION COUNTY, FLORIDA

PLANTING SPECIFICATIONS

DATE 8/13/2025
DRAWN BY
CHKD. BY JRP
JOB NO. 24-9040

APPROVED FOR CONSTRUCTION

L2.01

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NOT VALID UNLESS SIGNED AND SEALED BY AUTHORIZED PROFESSIONAL

LANDSCAPE NOTES: (SEE PLANTING SPECIFICATIONS FOR COMPLETE REQUIREMENTS)

1. ALL PLANT MATERIAL SHALL BE FLORIDA GRADE NO. 1 OR BETTER AS SPECIFIED IN GRADES AND STANDARDS FOR NURSERY PLANTS, DIVISION OF PLANT INDUSTRY, FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES, AND SHALL CONFORM TO AMERICAN STANDARDS FOR NURSERY STOCK, AMERICAN NURSERY AND LANDSCAPE ASSOCIATION, LATEST EDITION.
2. THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF QUANTITIES IN THE PLANT LIST. IN THE EVENT OF A CONFLICT BETWEEN QUANTITIES IN THE LIST AND THE PLANS, THE PLANS SHALL CONTROL AND THE DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO BID. ANY DEVIATION FROM THESE PLANS MUST BE APPROVED BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE.
3. THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE BUILDING CODES, ORDINANCES AND LOCAL REGULATIONS, AND IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR THE WORK.
4. ALL LANDSCAPE INSTALLATION/ MAINTENANCE PROFESSIONALS SHALL BE LICENSED AND CERTIFIED IN ACCORDANCE WITH STATE AND LOCAL REQUIREMENTS.
5. THE CONTRACTOR SHALL EXAMINE EXISTING SITE CONDITIONS AND PROMPTLY REPORT ALL DISCREPANCIES AND UNSUITABLE CONDITIONS (WETNESS, MUCK, DEBRIS, OBSTRUCTIONS, ETC.) TO THE LANDSCAPE ARCHITECT PRIOR TO BIDDING. THE CONTRACTOR IS RESPONSIBLE FOR SOIL ANALYSIS PRIOR TO INSTALLATION OF PLANTINGS, AND SHALL ENSURE ALL SOIL AMENDMENTS CONFORM TO SPECIFICATIONS.
6. THE CONTRACTOR SHALL ACQUAINT HIMSELF WITH THE SITE AND ALL UTILITIES, (INCLUDING WATER, SEWER AND ELECTRICAL SUPPLY). THE CONTRACTOR SHALL CALL FLORIDA SUNSHINE 811 AND AREA UTILITIES NOT LISTED ON THE LOCATE TICKET. THE EXACT LOCATION OF ALL EXISTING ABOVE GROUND AND UNDERGROUND STRUCTURES, UTILITIES, SPRINKLERS AND PIPE MAY NOT BE INDICATED ON DRAWINGS. THE CONTRACTOR SHALL CONDUCT HIS WORK IN A MANNER TO PROTECT AND PREVENT INTERRUPTION OR DAMAGE TO EXISTING SYSTEMS AND UTILITY SERVICES WHICH MUST REMAIN OPERATIONAL. THE CONTRACTOR IS RESPONSIBLE FOR THEIR REPLACEMENT IF DAMAGED BY HIM AT NO ADDITIONAL COST TO THE OWNER.
7. CONTRACTOR SHALL PROTECT EXISTING TREES TO REMAIN, AND IS RESPONSIBLE FOR THEIR COMPARABLE REPLACEMENT IF DAMAGED BY HIM AT NO ADDITIONAL COST TO THE OWNER; SEE TREE PRESERVATION PLANS.
8. CONTRACTOR SHALL PROVIDE TREE ROOT BARRIERS AND / OR GEOMEMBRANE ALONG IMPROVEMENTS AND UTILITIES WHEN ROOT BARRIERS ARE SHOWN ON THE PLANS AND / OR DETAILS.
9. ALL TREE MATERIAL SHALL BE CONTAINER GROWN UNLESS OTHERWISE SPECIFIED.
10. SOIL PROVIDED SHALL BE FREE OF LIMEROCK, PEBBLES OR OTHER CONSTRUCTION DEBRIS.
11. ALL PLANTING BEDS SHALL RECEIVE A 3" LAYER OF MULCH (1" OVER ROOTBALL), MEASURED AFTER MULCH HAS SETTLED.
12. ALL PLANT BEDS SHALL BE FREE OF WEEDS, ROCKS, AND CONSTRUCTION DEBRIS, ETC., AT TIME OF INSPECTION BY LANDSCAPE ARCHITECT/ OWNER/ INSPECTOR.
13. ALL LANDSCAPE MAINTENANCE SHALL COMPLY WITH MARION COUNTY LDC SEC. 6.8.13.
14. FERTILIZER AND LANDSCAPE CHEMICAL USE SHALL COMPLY WITH MARION COUNTY LDC SEC. 6.8.14.
15. ALL CERTIFICATION AND LICENSING OF LANDSCAPE PROFESSIONALS AND IRRIGATION INSTALLATION/MAINTENANCE PROFESSIONALS SHALL COMPLY WITH MARION COUNTY LDC SEC. 6.8.15 AND SEC. 6.9.10.

MAINTENANCE

LANDSCAPE AND IRRIGATION MAINTENANCE SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF BEST MANAGEMENT PRACTICES FOR PROTECTION OF WATER RESOURCES BY THE GREEN INDUSTRIES http://ffl.ifas.ufl.edu

TREE CARE AND MAINTENANCE SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF ANSI A300 TREE CARE STANDARDS AND ITS BEST MANAGEMENT PRACTICES COMPANION PUBLICATIONS. ADDITIONAL RESOURCES INCLUDE A GUIDE FOR TREE AND PALM MAINTENANCE ALONG FLORIDA ROADSIDES FDOT/IFAS; AND IFAS TREE FACT SHEETS https://hort.ifas.ufl.edu/woody

LANDSCAPE COMPLETION INSPECTION REQUIREMENTS

1. PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY, CERTIFICATION THAT THE INSTALLATION MEETS REQUIREMENTS SHALL BE SIGNED AND SEALED BY THE LANDSCAPE ARCHITECT AND SUBMITTED TO MARION COUNTY IN ACCORDANCE WITH LDC SEC 6.8.12. AND 6.9.6
2. UPON COMPLETION OF THE INSTALLATION, AND AT A MINIMUM OF SEVEN (7) DAYS PRIOR TO FINAL INSPECTION, THE CONTRACTOR SHALL PROVIDE THE AS-BUILT PLAN AND REQUEST AN ON-SITE INSPECTION BY THE LANDSCAPE ARCHITECT.
3. WHEN ACCEPTABLE TO THE LANDSCAPE ARCHITECT, THE AS-BUILT PLANS WILL BE APPROVED AND A FINAL INSPECTION AND LANDSCAPE RELEASE GRANTED.
4. THE CONTRACTOR SHALL DOCUMENT THE ACTUAL FIELD INSTALLATION OF THE LANDSCAPE AS OUTLINED BELOW:

DURING CONSTRUCTION, THE CONTRACTOR SHALL MARK-UP A COPY OF THE APPROVED DESIGN PLAN AND PROVIDE TO THE LANDSCAPE ARCHITECT A CLEAR AND LEGIBLE DIAGRAM WITH THE FOLLOWING AS-BUILT INFORMATION:

- CHANGES TO LAYOUT OR MATERIALS
- INSTALLED PLANT SPECIES AND SIZES
- INSTALLED PLANT QUANTITIES
- OTHER INSTALLED MATERIALS DOCUMENTATION
- IRRIGATION "AS-BUILT" INFORMATION (SEE IRRIGATION)
- WRITTEN MAINTENANCE, PRUNING, AND FERTILIZER INSTRUCTIONS AND SCHEDULE

(NOTE: PRE-APPROVAL BY THE LANDSCAPE ARCHITECT IS REQUIRED FOR ANY DESIGN CHANGE, INCLUDING PLANT SUBSTITUTIONS, LAYOUT, QUANTITIES, OR MATERIALS - SEE SPECIFICATIONS)

OWNER RESPONSIBILITY

THE OWNER IS RESPONSIBLE FOR CONTINUED MAINTENANCE AND SURVIVAL OF THE PLANTS

LDC SECTION 6.8.11 - LANDSCAPE INSTALLATION SHALL MEAN SURVIVAL IN PERPETUITY, AND REPLACEMENT IF NECESSARY, OF ALL MATERIALS. DEAD AND/ OR DYING PLANT MATERIAL SHALL BE REPLACED BY THE OWNER WITHIN 30 DAYS OF NOTIFICATION BY THE COUNTY.

PLANT LIST

Diamond A Shopping Center

Key	Qty	Botanical Name	Common Name	Size and Spacing	Native
Trees					
ARF	4	Acer rubrum 'Florida Flame'	Flame Red Maple	Cont/B&B, 13'+ ht x 5'+ sprd; 3 1/2" cal min	Yes
BBS	15	Callistemon 'Red Cluster'	Bottlebrush, standard	#30; 7' ht x 4' sprd; 3' CT; 1 1/2" cal min	
BC	1	Butia capitata	Pindo Palm	BR; 14' CT; full head; heavy trunk; specimen	
ILE	9	Ilex x attenuata 'Eagleston'	Eagleston Holly	Cont/B&B; 10-12' ht x 4'+ sprd; 3 1/2" cal min; straight leader	
ILN	3	Ilex x 'Nellie R. Stevens'	Nellie Stevens Holly	#30; 5-6' ht x 3 1/2 - 4' sprd	
IVP	2	Ilex vomitoria 'Pendula'	Weeping Yaupon Holly	#30; 8' ht x 4' sprd; MT	Yes
LIM	9	Lagerstroemia indica 'Muskogee'	Crape Myrtle, lavender	#30 Cont/B&B; 9' ht x 5' sprd; MT	
LIMS	4	Lagerstroemia indica 'Muskogee'	Crape Myrtle, lavender standard	#30; 9-10' ht x 4-5' sprd; min 5' CT standard	
LIN	6	Lagerstroemia indica 'Natchez'	Crape Myrtle, white	#30 Cont/B&B; 9' ht x 5' sprd; MT	
LINS	5	Lagerstroemia indica 'Natchez'	Crape Myrtle, white standard	#30; 9-10' ht x 4-5' sprd; min 5' CT standard	
LJT	17	Ligustrum japonicum	Ligustrum, tree-form	B&B; 6' ht x 5' sprd; MT; 2' min open below	
MGB	4	Magnolia grandiflora 'Bracken's Brown Beauty'	Bracken's Brown Beauty Magnolia	Cont/B&B; 13-15' ht x 6-8' sprd; 3 1/2" cal min	Yes
MGD	6	Magnolia grandiflora 'D.D. Blanchard'	D.D. Blanchard Magnolia	Cont/B&B; 13-15' ht x 6-8' sprd; 3 1/2" cal min	Yes
PE	20	Pinus elliottii	Slash Pine	Cont/B&B; 14-16' ht x 6' sprd; 3 1/2" cal min	Yes
PP	28	Pinus palustris	Longleaf Pine	Cont/B&B; 14-16' ht x 6' sprd; 3 1/2" cal min	Yes
QS	9	Quercus shumardii	Shumard Oak	Cont/B&B; 13-15' ht x 6-8' sprd; 3 1/2" cal min	Yes
QV	27	Quercus virginiana	Live Oak	Cont/B&B; 13-15' ht x 6-8' sprd; 3 1/2" cal min	Yes
SP	29	Sabal palmetto	Sabal Palm	BR; hurricane cut; see plan for CT heights	Yes
TD	8	Taxodium distichum	Bald Cypress	Cont/B&B; 12' ht x 5' sprd; 3 1/2" cal min	Yes
UAW	9	Ulmus alata 'Winged'	Winged Elm	Cont/B&B; 12-14' ht x 6-8' sprd; 3 1/2" cal; straight trunk	Yes
Shrubs, Grasses & Groundcovers					
AA	71	Agapanthus africanus	Lily-of-the-Nile	#1; full; 3-4 ppp min; 18" oc	
BBD	30	Callistemon 'Little John'	Dwarf Bottlebrush	#3; 18" ht x 18" sprd; full; 30" oc	
CH	3	Chamaerops humilis	European Fan Palm	#7; 2'-3' OA; MT	
CLR	6	Crinum augustum 'Queen Emma'	Crinum Lily, red	#7; 3' OA; specimen	
DTV	323	Dianella tasmanica 'Variegata'	Variegated Flax Lily	#3; full; 30" oc	
DV	317	Dietes vegeta	African Iris, white	#3; full; 5-6 ppp min; 3' oc	
GG	6	Galphimia gracilis	Thryallis	#3; full; 3' oc	
HPD	2	Hamelia patens 'Compacta'	Dwarf Firebush	#3; full; 18" ht x 18" sprd; 3' oc	
ICB	157	Ilex cornuta 'Burfordii Nana'	Dwarf Burford Holly	#7; 24-30" ht x 18-22" sprd; 30" oc	
ILC	3	Ilex x 'Conaf'	Oak Leaf Holly	#7; 3' ht x 18" sprd	
JCP	40	Juniperus chinensis 'Parsonii'	Parson's Juniper	#3; 8-10" ht x 18" sprd; 3' oc	
LAG	155	Lantana camara 'New Gold'	Lantana, dwarf yellow	#1; full; 12" sprd; 2' oc	
LCD	81	Loropetalum chinensis 'PIILC-III'	Purple Daydream Dwarf	#3; 10-12" ht x 12-15" sprd; 3' oc	
LM	539	Liriope muscari 'Emerald Goddess'	Emerald Goddess Liriope	#1; full; 5-7 ppp min; 18" oc	
LSS	18	Ligustrum sinense 'Sunshine'	Sunshine Ligustrum	#3; 12-15" ht x 15-18" sprd	
MC	165	Muhlenbergia capillaris	Muhly Grass	#3; full; 3' oc	Yes
NDS	40	Nandina domestica 'Seika'	Obsession Nandina	#3; full; 18" sprd; 2' oc	
PC	141	Plumbago auriculata	Cape Plumbago 'Imperial Blue'	#3; 18" x 18"; 3' oc	
PM	57	Podocarpus macrophyllus	Japanese Yew	#7; 3' ht x 2' sprd; full; 2' oc	
PMP	82	Podocarpus macrophyllus 'Pringlei'	Pringles Dwarf Japanese Yew	#3; 10-12" ht x 12-18" sprd; 2' oc	
PTV	88	Pittosporum tobira 'Variegata'	Variegated Pittosporum	#3; 15" ht x 15" sprd; 3' oc	
SB	135	Spartina bakeri	Cordgrass	#3; full; 3' oc	Yes
SRG	5	Serenoa repens	Saw Palmetto, green	#7; 24" ht x 24" sprd; 5' oc	Yes
TAM	888	Trachelospermum asiaticum 'Minima'	Dwarf Confederate Jasmine	#1; full; 5-7 ppp min; 15" runners; 18" oc	
TV	83	Tulbaghia violacea	Society Garlic	#1; full; 6-8 ppp min; 2' oc	
VO	125	Viburnum odoratissimum	Sweet Viburnum	#3; 18-24" ht x 18-24" sprd; 3' oc	
VS	29	Viburnum suspensum	Sandankwa Viburnum	#3; 18-24" ht x 18-24" sprd; 3' oc	
VWS	244	Viburnum obovatum 'Mrs. Shillers Delight'	Dwarf Walters Viburnum	#3; 16-18" ht x 16-18" sprd; 3' oc	Yes
ZF	156	Zamia floridana	Coontie	#3; full; 18" sprd; 30" oc	Yes
Sod & Miscellaneous Items					
SOD		Paspalum notatum 'Argentine'	Argentine Bahia		
SOD 'A'		Stenotaphrum secundatum 'Floratam'	St. Augustine 'Floratam'		
MULCH		Pine Straw	Pine Straw	3" depth	

OWNER RESERVES THE RIGHT TO CHANGE, ADD OR REMOVE NON-REQUIRED PLANT MATERIAL THAT IS NOT SUBJECT TO CODE REQUIREMENTS.

FUTURE SHADE TREES: 67 FUTURE SHADE TREES SHALL BE PROVIDED ALONG WITH THE IMPROVEMENT OF EACH LOT; SEE PLANTING PLAN AND SHADE TREE NOTES.

SOD / SEED NOTES:

1. PROVIDE SOD IN ALL AREAS AS NOTED ON THE PLANS.
2. PROVIDE A 3' MINIMUM SOD STRIP ALONG ALL BEDS, PAVEMENT, FENCE, AND WALLS.
3. SOD SWALES AND DRA SIDE SLOPES PER GRADING AND DRAINAGE PLANS.
4. SEED AND MULCH DISTURBED AREAS IN OPEN SPACE AND AS CALLED FOR IN THE GRADING AND DRAINAGE PLANS.
5. SOD DISTURBED OFF-SITE AREAS OUTSIDE OF THE PROJECT BOUNDARY.
6. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

CONSTRUCTION NOTES:

THESE PLANS ADDRESS PHASE 1 (LOTS 1 TO 9 AND TRACTS 'A' TO 'F'). BUFFERS SHALL BE INSTALLED SEPARATELY ALONG WITH THE IMPROVEMENT OF EACH LOT, AND CONTRACTOR SHALL BID PLANTING AND IRRIGATION ACCORDINGLY.

CONTRACTOR MAY REQUEST ADDITIONAL PLANS AS NEEDED TO ACCOMODATE PHASED CONSTRUCTION.

LOT 1 (GROCERY) AND TRACT 'A' (DRA) SHALL BE INSTALLED CONCURRENTLY.

ADDITIONAL LANDSCAPE

- 3 types of canopy trees
- 3- 5 types of understory trees
- 3-5 types of shrubs (minimum of 18" in height and 15" in spread at time of installation, to be noted as such on plans).
- 2-3 types of groundcovers (including sod).
- Select a tree that has a thinner profile to avoid blocking signage or visibility of store.
- Sites in Hardiness zone 9 shall have 50% evergreen material.
- Plant size at maturity shall be considered in plant selection. Maximum anticipated height and diameter are to be noted on landscape plan.
- "Landscape Material Preferences", listed in the Exhibits shall be considered when planning landscape design.
- Drought tolerant and/or native plants shall be used whenever possible.
- Avoid the use of exotic or invasive species

- Foundation and/or store front planters are prohibited unless required by Code or ordinance. A copy of ordinance must be provided with the submittal for review.
- If foundation plantings or landscape areas adjacent to building are required by code, a 24" strip of ¼" (or #7 size) pea gravel shall be maintained between the building exterior and foundation plantings.
- Trees shall be at least 4' away from the building at maturity.

- Each landscape island shall contain 3 different plant materials with a variety of height, color and texture.
- Each island should alternate in pattern and plant material to keep the layout varied in the parking field.
- It is the intent that the landscape islands be full of plant material. Look at plant density versus island size and provide maximum plant coverage.
- Canopy trees shall only be placed in islands/beds that are large enough to accommodate the tree's needs at maturity.
- Canopy trees shall not obscure views of the grocery storefront.
- Landscaping shall not obstruct the path of pedestrian travel. Vertical clearance to be a minimum of 80".
- Shrubs and ground cover shall not exceed 30" in height at maturity and must maintain the pedestrian sight triangle.
- Maintain a 12" to 18" plant material set back from the curb line adjacent to all vehicular and pedestrian areas.
- When raised parking islands separate parking aisles, curb cuts must be provided at intervals of 100' or less.

- Trees placed as main road buffer shall be grouped/clustered to allow sight lines.
- Landscaping shall not obscure visibility of building, monument or pylon signs. Consider pylon or monument sign height in material selection.

- Landscaping shall not obstruct the truck delivery path. Truck height may be up to 13'-6" and the sweep of the trailer when turning may damage landscaping.
- Landscape plan shall superimpose the truck routing.

- The Developer shall provide an automatic irrigation system with 100%coverage for all landscaped areas.
- Use the lowest quality water feasible for irrigation. Use reclaim or well water whenever possible. If potable water is the only available source, a separate irrigation meter shall be installed for water usage tracking.
- Rain sensors or other devices such as soil moisture sensors shall be used with automatic controls.
- Irrigation shall be designed after landscaping design and plant material have been chosen. Consider mature height of plant material to optimize irrigation coverage and reduce cost of upgrades during plant growth.
- Spray heads and rotor heads shall not exist on the same zone.
- Use of drip-irrigation or micro-sprinklers is allowed. If micro-irrigation is used it must be pinned down correctly and completely covered by mulch.

- Plant materials with nuts, seeds, full season flowers or fruits should be avoided near the buildings or along pedestrian paths.
- Plants, shrubbery and trees that are known to attract certain insect species should be avoided. See Landscape Material Preferences in Exhibits for more information.
- Landscaping should be planted in such a way that it grows away from the building to avoid pests/rodents gaining access to the building.

- Mulch must be specified to be 2" - 3" in landscape beds.
- Small pebbles, rocks, pine straw or gravel mulch is not permitted.
- Use mulch as cover in the 12" - 18" plant material set back areas in all islands and at pedestrian sidewalks.
- Mulch color and texture shall be consistent in all planter beds.

- Landscaping located in islands with site lighting shall be of varieties that will not obstruct light distribution at maturity.
- Parking lot lights parallel to the main drive aisle shall be contained in landscape islands. Parking lot lights in other locations are not required to be in landscape islands, although it is preferred.

PLEASE SEE TRUCK ROUTE PLAN WITH TREE OVERLAY

MARION COUNTY REQUIREMENTS

ALL LANDSCAPE INSTALLATION AND MAINTENANCE SHALL BE IN ACCORDANCE WITH MARION COUNTY LAND DEVELOPMENT CODE, ARTICLE 6, DIVISION 8, LANDSCAPING
https://library.municode.com/fl/marion_county

PROJECT AREA = 19.50± AC
COMMERCIAL TRACTS = 13.78 AC

REFER TO APPROVED P.U.D.
SEE CIVIL PLANS FOR PROJECT DATA
OUTSIDE SPRINGS PROTECTION ZONES
OUTSIDE URBAN GROWTH AREA

SHADE TREES (SEC 6.7.4)
REQUIRED SHADE TREES = 1 SHADE TREE PER 3,000 SF
COMMERCIAL TRACTS = 13.78 AC
(R/W, L/S, DRA TRACTS, AND LOT 10 (OUTPARCEL) EXCLUDED FROM ASSESSMENT):
LOT 1 (GROCERY TRACT) = 114
LOT 2 = 12 LOT 6 = 11
LOT 3 = 12 LOT 7 = 11
LOT 4 = 11 LOT 8 = 10
LOT 5 = 11 LOT 9 = 10

REQUIRED = 202 (TOTAL)
PROVIDED = 202 TREES (INCLUDES ACCENT TREES SUBSTITUTED FOR SHADE TREES DUE TO UTILITIES IN BUFFER)
PROVIDED AS FOLLOWS:
40 = IN LOT 1 (GROCERY) (37 + 3 BUFFER SUBSTITUTIONS)
74 = IN TRACT 'A' (DRA) (TO ACCOMMODATE TREES REQUIRED IN GROCERY)
88 = IN LOTS 2 TO 9 (14 + 7 BUFFER SUBSTITUTIONS + 67 FUTURE)

PROTECTED TREE REPLACEMENT (SEC 6.7.8)
(SEE SURVEY)
N/A; NO EXISTING TREES IN PROJECT AREA

BUFFERS (SEC 6.8.6, AND PUD MASTER PLAN)
COMPLY WITH CURRENT CR 475A OVERLAY BUFFER PER LDC SUB-SECTION 6.8.6K(3)
C-TYPE BUFFER:
20 WIDE BUFFER WITH 2' HT BERM (OPTIONAL 3-BOARD WOOD FENCE) AND SIDEWALK
TWO (2) SHADE TREES AND THREE (3) ORNAMENTAL TREES PER 100 LF
SHRUBS AND GROUNDCOVER SHALL COMPRISE 50% OF THE REQUIRED BUFFER

REQUIRED = 30 SHADE & 45 ACCENT (1,493 LF)
PROVIDED = 31 SHADE & 46 ACCENT (SEE PLAN NOTES; INCLUDES ACCENT TREES SUBSTITUTED FOR SHADE TREES DUE TO UTILITIES IN BUFFER)

GENERAL PLANTING REQUIREMENTS (SEC 6.8.10)

NATIVE PLANTS
OUTSIDE THE URBAN GROWTH BOUNDARY, 35% MINIMUM
OF ALL PROPOSED REQUIRED PLANTS SHALL BE NATIVE

REQUIRED = 866 (2,474 X 0.35) (EXCLUDES SHRUBS IN PARKING PER 6.7.6.C)
PROVIDED = 866

SHADE TREE LIMITS
PROPOSED SHADE TREES ARE LIMITED TO 50% MAX OF ANY ONE SPECIES
MAX = 62 (124 x 0.50)
PROVIDED = 28 PP

PALM TREE LIMITS
NOT MORE THAN 25% OF ALL REQUIRED TREES SHALL BE PALMS
MAX = 46 PALMS (215 x 0.25)
PROVIDED = 30 PALMS

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Office: (352) 387-4540 Fax: (352) 387-4545

REVISIONS

DATE

MAJOR SITE PLAN
DIAMOND A SHOPPING CENTER
MARION COUNTY, FLORIDA

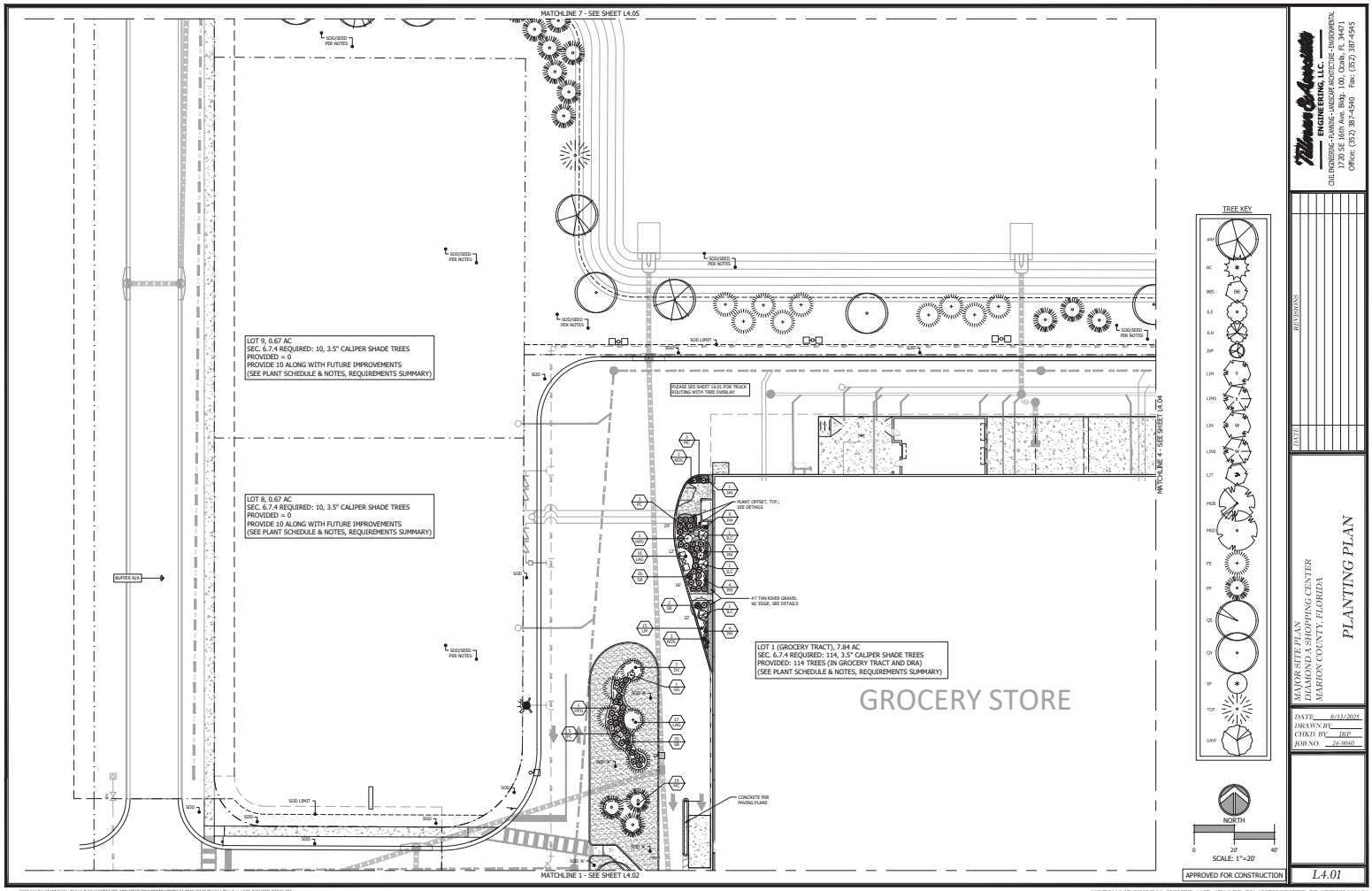
PLANT SCHEDULE & NOTES

DATE 8/13/2025
DRAWN BY
CHKD. BY JRP
JOB NO. 24-9040

APPROVED FOR CONSTRUCTION

S:\Marion County\McGinley Alvarez Publix\LANDSCAPE_ARCHITECTURE\CONSTRUCTION\24-9040 L03.01 Plant Schedule & Notes.dwg, L3.01, 8/13/2025 8:57:00 AM

NOT VALID UNLESS SIGNED AND SEALED BY AUTHORIZED PROFESSIONAL



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17200 SE 109th Ave. • Suite 110 • Ocklawaha, FL 32179-4471
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REVISIONS

DATE

MAJOR SITE PLAN
DIAMOND A SHOPPING CENTER
MARION COUNTY, FLORIDA

PLANTING PLAN

DATE 8/13/2024
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JOB NO. 24-9040

L4.01

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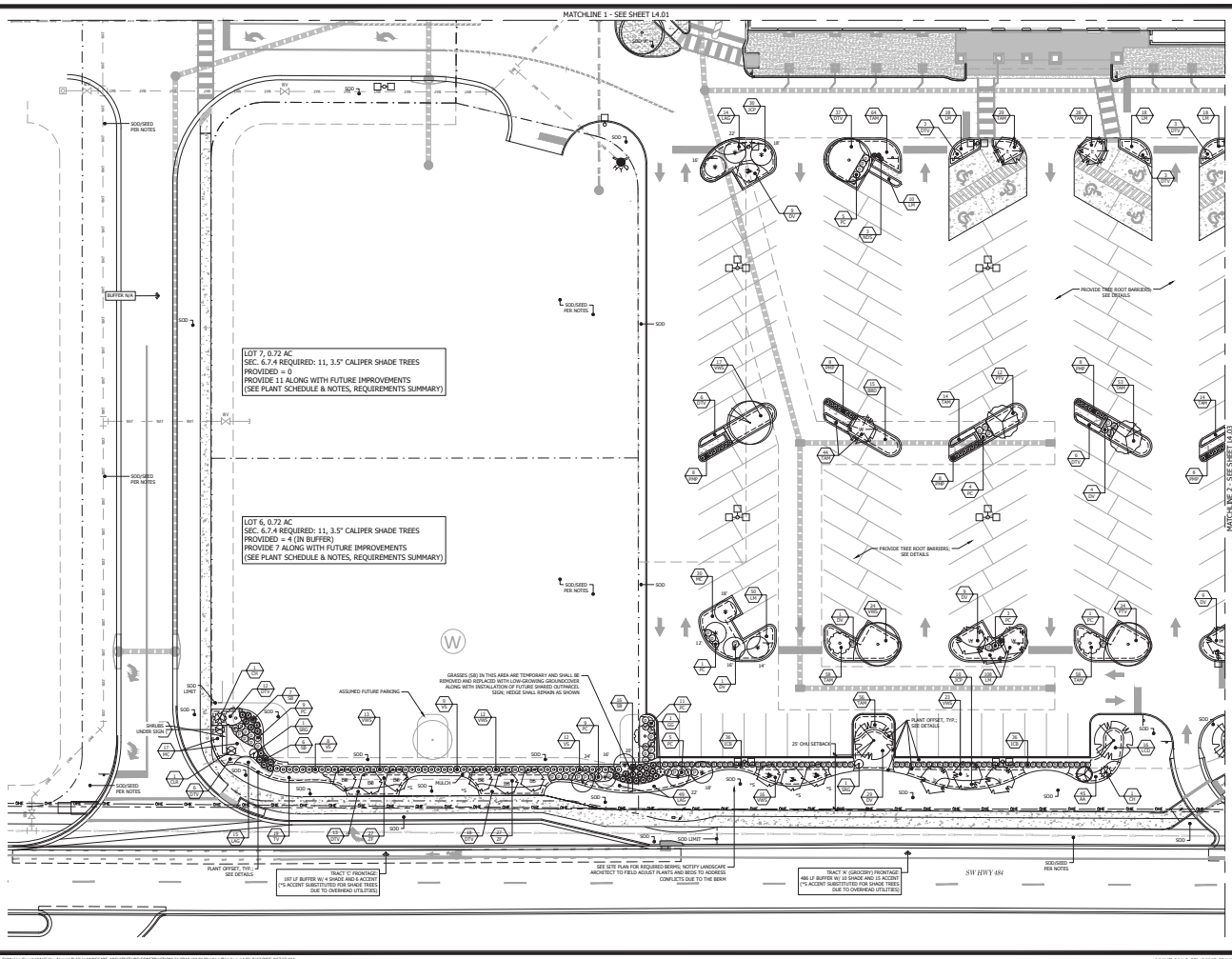

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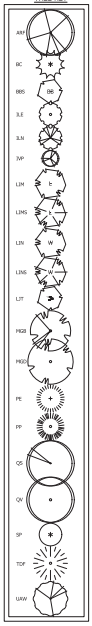

NORTH

0 20' 40'

SCALE: 1"=20'

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DIAMOND A SHOPPING CENTER
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L4.02

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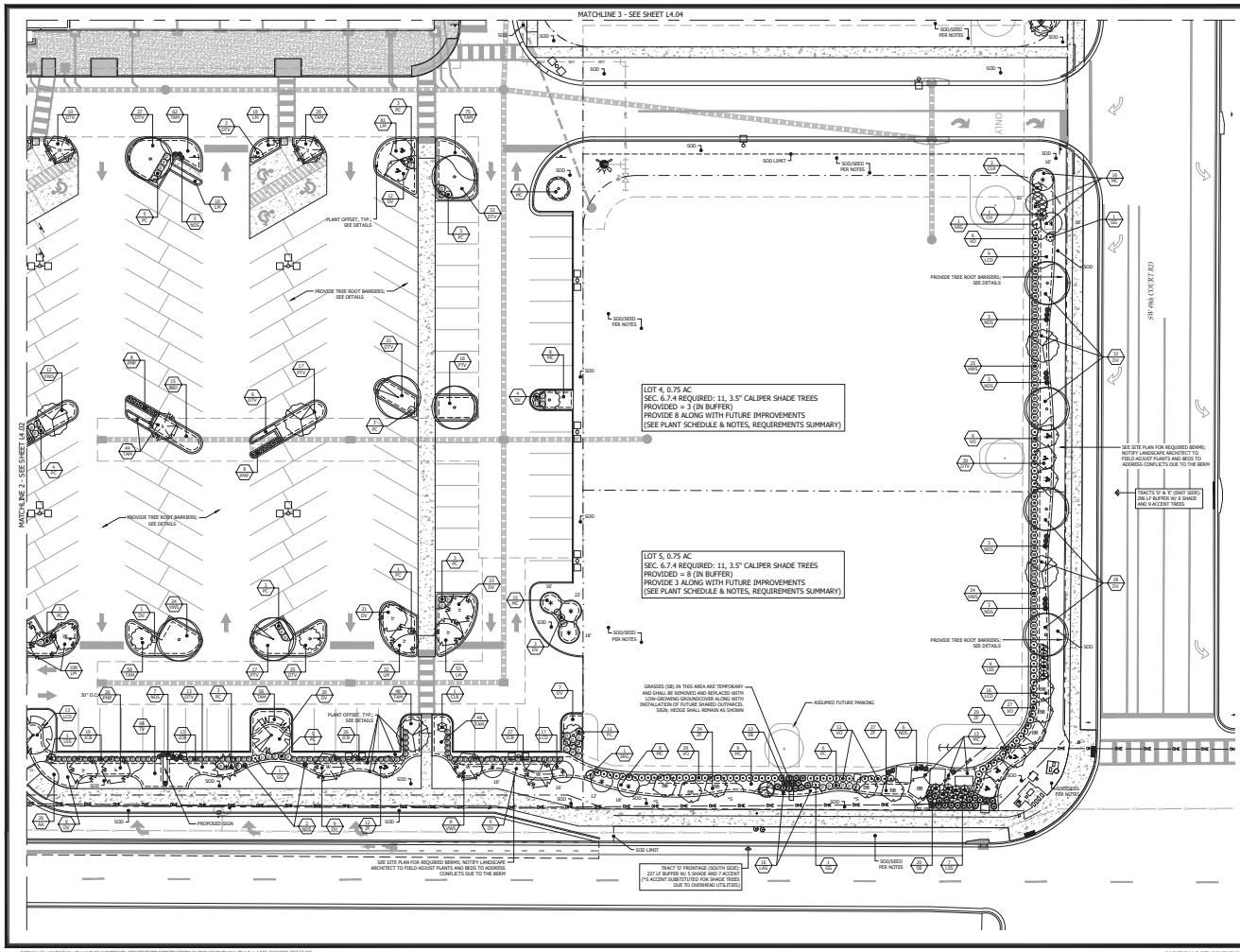
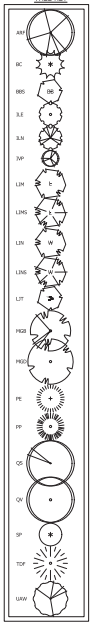
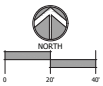


TREE KEY





SCALE: 1"=20'

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Wilson & Associates
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MAJOR SITE PLAN
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L4.03

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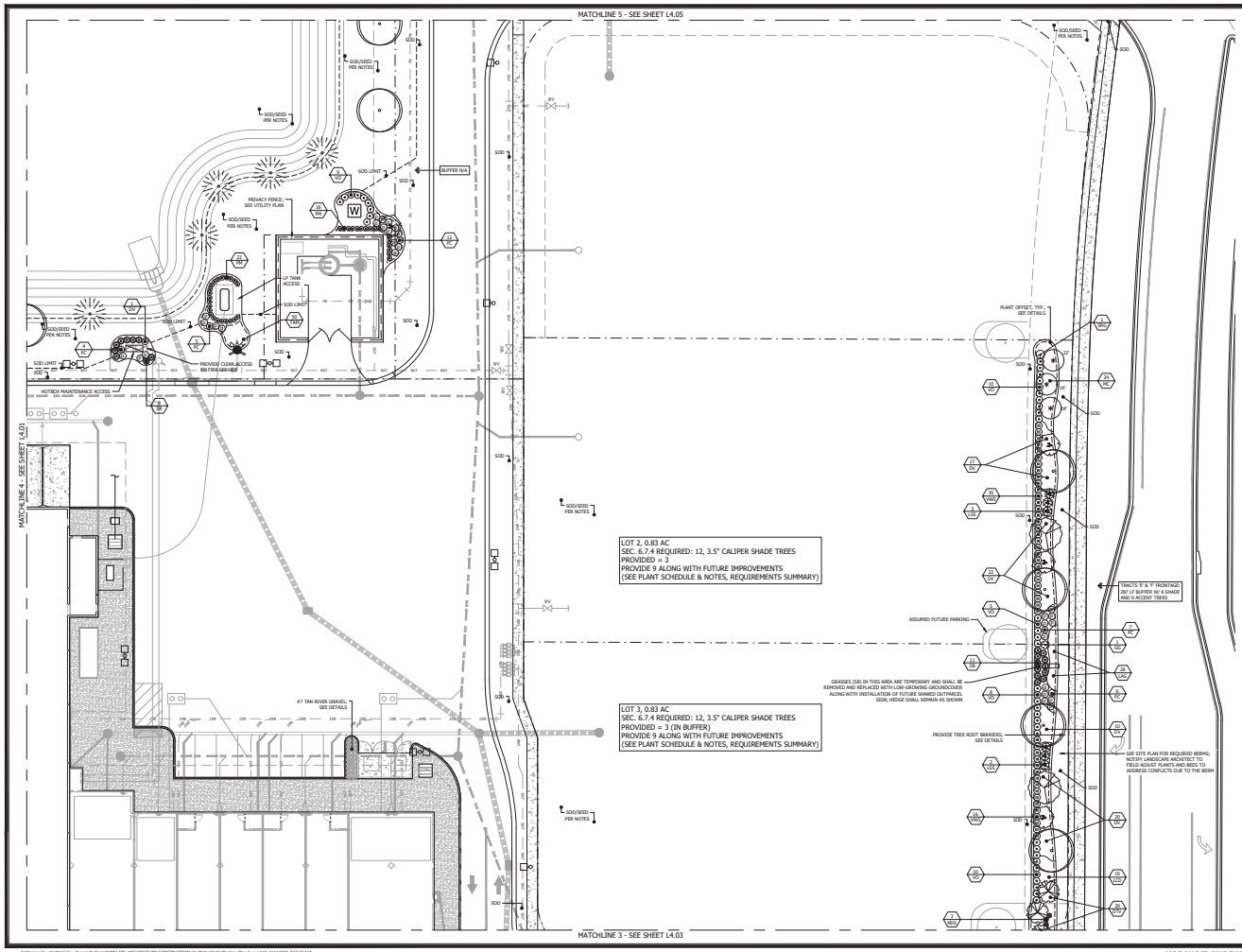

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L4.04

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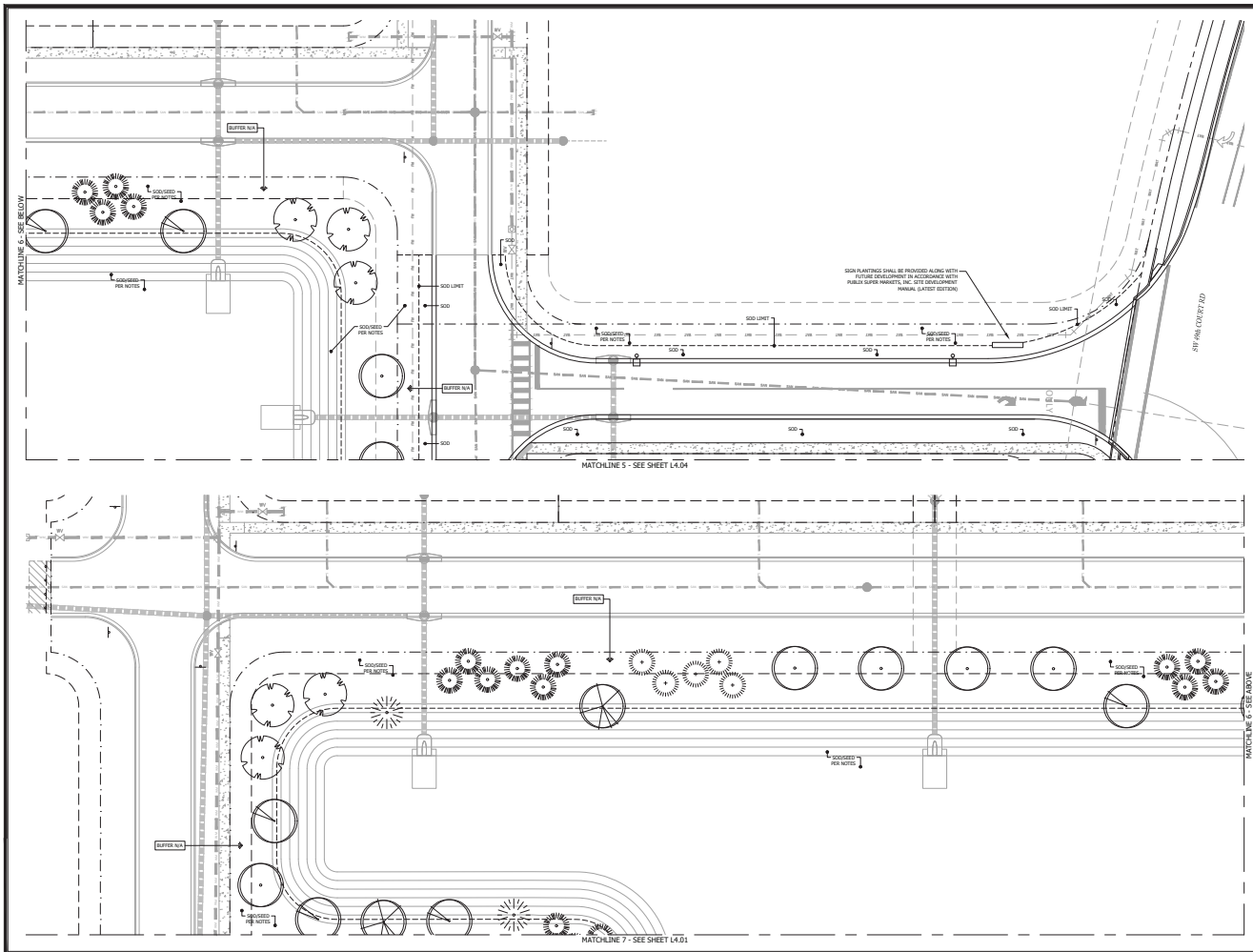

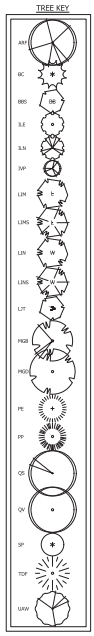

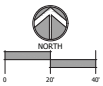

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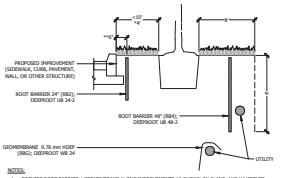
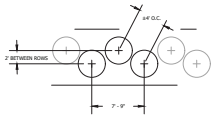


NOTES:

1. PROVIDE ROOT BARRIER / GEOMEMBRANE ALONG IMPROVEMENTS AS SHOWN ON PLANS, AND WHEREVER TREES ARE LESS THAN TEN (10) FEET FROM IMPROVEMENTS
2. * WHERE TREES ARE LESS THAN 4 FEET, CONSULT MANFR'S SPECIFICATIONS TO INCREASE BARRIER SIZE.
3. UNLESS NOTED OTHERWISE, PROVIDE A MINIMUM BARRIER OF 10 LINEAR FEET CENTERED ON EACH TREE.
4. INSTALL ROOT BARRIER / GEOMEMBRANE PER MANFR'S SPECIFICATIONS; INSTALLATION SHALL COINCIDE WITH OTHER SITE WORK AS NECESSARY.
5. ** CONSULT WITH PROJECT ENGINEER FOR OPTIONAL ROOT BARRIER INTEGRATION WITH CURB.
6. EQUAL PRODUCT SUBSTITUTIONS ARE ALLOWABLE WITH WRITTEN APPROVAL.

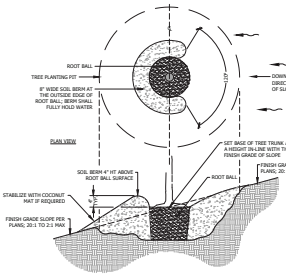
ROOT BARRIER SCENARIOS

NOT TO SCALE



DOUBLE-STAGGERED HEDGE SPACING

NOT TO SCALE



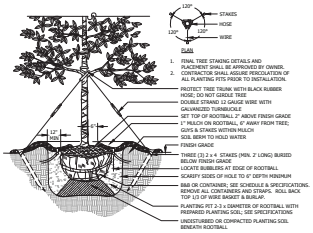
ADDITIONAL REQUIREMENTS FOR TREE PLANTING ON SLOPES

NOT TO SCALE

STAKING NOTES:

CONTRACTOR SHALL PROVIDE TO THE LANDSCAPE ARCHITECT AND INCLUDE IN BID PROPOSAL AN ALTERNATE STAKING SYSTEM OPTION FOR LARGE TREES:

TREE FROG (www.TREEFROGEP.com) PRO SERIES ABOVE-GROUND ANCHORING KIT (OR APPROVED EQUAL), SIZED FOR INSTALLED TREE CALIPER SIZE. INSTALL PER MANFR'S SPECIFICATIONS. OBTAIN OWNER APPROVAL PRIOR TO INSTALLATION.

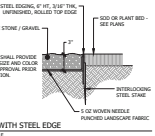


1. FINAL TREE STAKING DETAILS AND PLACEMENT SHALL BE APPROVED BY OWNER.
2. CONTRACTOR SHALL ASSURE PERCOLATION OF ALL PLANTING PITS PRIOR TO INSTALLATION.

PROTECT TREE TRUNK WITH BLACK RUBBER HOSE; DO NOT GIRDLE TREE
DOUBLE STRAND 12 GAUGE WIRE WITH GALVANIZED TURNBUCKLE
SET TOP OF ROOTBALL 3" ABOVE FINISH GRADE
1" MULCH ON ROOTBALL, 6" AWAY FROM TREE; GUYS & STAKES WITHIN MULCH
SOIL BERM TO HOLD WATER
FINISH GRADE
THREE (3) 2 x 4 STAKES (MIN. 2' LONG) BURIED BELOW FINISH GRADE
LOCATE BUBBLERS AT EDGE OF ROOTBALL
SCARIFY SIDES OF HOLE TO 6" DEPTH MINIMUM
B&B OR CONTAINER; SEE SCHEDULE & SPECIFICATIONS. REMOVE ALL CONTAINERS AND STRAPS. ROLL BACK TOP 1/3 OF WIRE BASKET & BURLAP.
PLANTING PIT 2-3 x DIAMETER OF ROOTBALL WITH PREPARED PLANTING SOIL; SEE SPECIFICATIONS
UNDISTURBED OR COMPACTED PLANTING SOIL BENEATH ROOTBALL

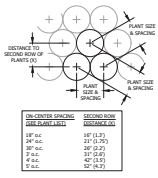
TREE PLANTING (2" TO 4" CALIPER)

NOT TO SCALE



GRAVEL WITH STEEL EDGE

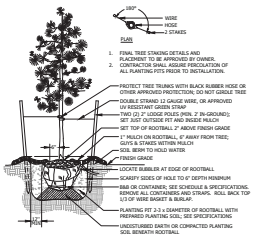
NOT TO SCALE



NOTE: BEDS SHALL HAVE A MINIMUM OF TWO ROWS OF ANY ONE TYPE OF PLANT MATERIAL, UNLESS SHOWN OTHERWISE (E.G. AS A SINGLE ROW HEDGE).

TRIANGULAR PLANT SPACING

NOT TO SCALE

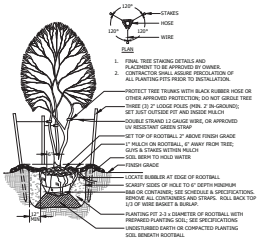


1. FINAL TREE STAKING DETAILS AND PLACEMENT TO BE APPROVED BY OWNER.
2. CONTRACTOR SHALL ASSURE PERCOLATION OF ALL PLANTING PITS PRIOR TO INSTALLATION.

PROTECT TREE TRUNKS WITH BLACK RUBBER HOSE OR OTHER APPROVED PROTECTION; DO NOT GIRDLE TREE
DOUBLE STRAND 12 GAUGE WIRE, OR APPROVED UV RESISTANT GREEN STRAP
TWO (2) 2" LODGE POLES (MIN. 2' IN-GROUND); SET JUST OUTSIDE PIT AND INSIDE MULCH
SET TOP OF ROOTBALL 2" ABOVE FINISH GRADE
1" MULCH ON ROOTBALL, 6" AWAY FROM TREE; GUYS & STAKES WITHIN MULCH
SOIL BERM TO HOLD WATER
FINISH GRADE
LOCATE BUBBLER AT EDGE OF ROOTBALL
SCARIFY SIDES OF HOLE TO 6" DEPTH MINIMUM
B&B OR CONTAINER; SEE SCHEDULE & SPECIFICATIONS. REMOVE ALL CONTAINERS AND STRAPS. ROLL BACK TOP 1/3 OF WIRE BASKET & BURLAP.
PLANTING PIT 2-3 x DIAMETER OF ROOTBALL WITH PREPARED PLANTING SOIL; SEE SPECIFICATIONS
UNDISTURBED EARTH OR COMPACTED PLANTING SOIL BENEATH ROOTBALL

SINGLE-TRUNK TREE PLANTING (UP TO 8' HEIGHT)

NOT TO SCALE

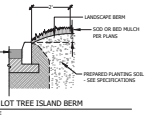


1. FINAL TREE STAKING DETAILS AND PLACEMENT TO BE APPROVED BY OWNER.
2. CONTRACTOR SHALL ASSURE PERCOLATION OF ALL PLANTING PITS PRIOR TO INSTALLATION.

PROTECT TREE TRUNKS WITH BLACK RUBBER HOSE OR OTHER APPROVED PROTECTION; DO NOT GIRDLE TREE
THREE (3) 2" LODGE POLES (MIN. 2' IN-GROUND); SET JUST OUTSIDE PIT AND INSIDE MULCH
DOUBLE STRAND 12 GAUGE WIRE, OR APPROVED UV RESISTANT GREEN STRAP
SET TOP OF ROOTBALL 2" ABOVE FINISH GRADE
1" MULCH ON ROOTBALL, 6" AWAY FROM TREE; GUYS & STAKES WITHIN MULCH
SOIL BERM TO HOLD WATER
FINISH GRADE
LOCATE BUBBLER AT EDGE OF ROOTBALL
SCARIFY SIDES OF HOLE TO 6" DEPTH MINIMUM
B&B OR CONTAINER; SEE SCHEDULE & SPECIFICATIONS. REMOVE ALL CONTAINERS AND STRAPS. ROLL BACK TOP 1/3 OF WIRE BASKET & BURLAP.
PLANTING PIT 2-3 x DIAMETER OF ROOTBALL WITH PREPARED PLANTING SOIL; SEE SPECIFICATIONS
UNDISTURBED EARTH OR COMPACTED PLANTING SOIL BENEATH ROOTBALL

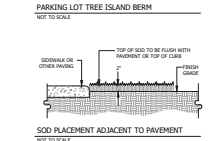
MULTI-STEM TREE PLANTING

NOT TO SCALE



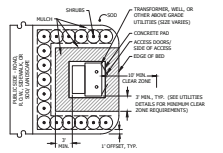
SOD PLACEMENT ADJACENT TO PAVEMENT

NOT TO SCALE



PARKING LOT TREE ISLAND BERM

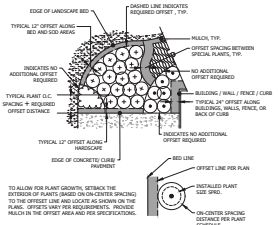
NOT TO SCALE



WHEN NOT SHOWN ON PLANS, TRANSFORMERS/ WELLS/ ABOVE GRADE UTILITIES SHALL BE LOCATED WITHIN BEDS AND SHALL BE SCREENED FROM PUBLIC VIEW ON THREE SIDES WITH A HEDGE AT 36 IN HEIGHT. USE VIBURNUM (3' O.C.), OR PODOCARPUS (3' O.C.), OR AS DIRECTED BY LANDSCAPE ARCHITECT.

SCREEN DETAIL: TRANSFORMERS/ WELLS/ UTILITIES

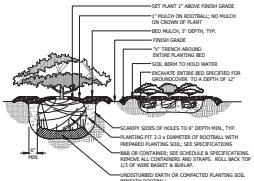
NOT TO SCALE



TO ALLOW FOR PLANT GROWTH, SETBACK THE EXTERIOR OF PLANTS (BASE) ON ON-CENTER SPACING) TO THE OFFSET LINE AND LOCATE AS SHOWN ON THE PLANS. OFFSETS VARY PER REQUIREMENTS. PROVIDE MULCH IN THE OFFSET AREA AND PER SPECIFICATIONS.

PLANT OFFSET SCENARIOS

NOT TO SCALE

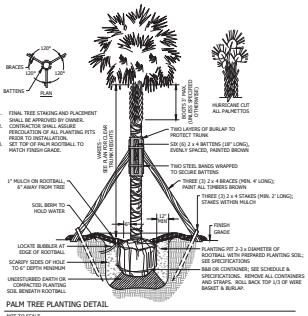


NOTES:

1. CONTRACTOR SHALL ASSURE PERCOLATION OF ALL PLANTING PITS PRIOR TO INSTALLATION. SEE SPECIFICATIONS.
2. IN SEMI-IMPERVIOUS SOIL CONDITIONS, ROOTBALL ELEVATION SHALL BE 2" ABOVE FINISH GRADE. COORDINATE WITH LANDSCAPE ARCHITECT PRIOR TO PLANTING. SEE SPECIFICATIONS.
3. SOAK EACH PLANT BALL AND PIT IMMEDIATELY AFTER INSTALLATION.
4. SEASONAL ANNUAL BEDS SHALL BE EXCAVATED TO A DEPTH OF 8", AND SHALL NOT HAVE MULCH.

SHRUBS AND GROUNDCOVER PLANTING

NOT TO SCALE



1. FINAL TREE STAKING AND PLACEMENT SHALL BE APPROVED BY OWNER.
2. CONTRACTOR SHALL ASSURE PERCOLATION OF ALL PLANTING PITS PRIOR TO INSTALLATION.
3. SET TOP OF PALM ROOTBALL TO MATCH FINISH GRADE.

PALM TREE PLANTING DETAIL

NOT TO SCALE

APPROVED FOR CONSTRUCTION

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CIVIL ENVIRONMENTAL PLANNING - LANDSCAPE ARCHITECTURE - ENVIRONMENTAL
2700 SE 14th PLACE, OCALA, FL 34471
Office: (352) 387-4540 Fax: (352) 387-4545

REVISIONS

DATE	

MAJOR SITE PLAN
DIAMOND A SHOPPING CENTER
MARION COUNTY, FLORIDA

PLANTING DETAILS

DATE 8/13/2024
DRAWN BY
CHKD BY TRP
JOB NO. 24-9040

L5.01

NOT VALID UNLESS SIGNED AND SEALED BY AUTHORIZED PROFESSIONAL

MARION COUNTY CODE REQUIREMENTS

ALL IRRIGATION INSTALLATION AND MAINTENANCE SHALL BE IN ACCORDANCE WITH MARION COUNTY LAND DEVELOPMENT CODE, ARTICLE 6, DIVISION 9, IRRIGATION https://library.www.municode.com/fl/marion_county

IRRIGATION REQUIREMENTS

1. ALL NEW PLANT MATERIAL SHALL BE IRRIGATED THROUGHOUT AN ESTABLISHMENT PERIOD SUITABLE FOR VIGOROUS GROWTH OF SPECIFIED PLANT MATERIAL TYPE AND SIZE, AND THEREAFTER TO ENSURE THE HEALTHY SURVIVAL OF THE PLANTS. SEE OWNER RESPONSIBILITY.
2. AN IRRIGATION PLAN SHALL BE PROVIDED PRIOR TO ISSUANCE OF A DEVELOPMENT ORDER OR BUILDING PERMIT, IF REQUIRED.
3. THE CONTRACTOR SHALL COORDINATE WITH OWNER FOR APPROVAL OF THE IRRIGATION SYSTEM DESIGN, WHICH SHALL BE A "DESIGN-BUILD" AUTOMATIC SYSTEM TO PROVIDE 100% COVERAGE OF ALL LANDSCAPED AREAS. CONSULT THE LANDSCAPE ARCHITECT WITH ANY QUESTIONS OR CLARIFICATIONS REGARDING IRRIGATION REQUIREMENTS.
4. THE IRRIGATION SYSTEM DESIGN SHALL MEET THE FOLLOWING REQUIREMENTS, AND AS DETAILED IN THE SPECIFICATIONS:
   - IRRIGATION SHALL BE A LOW-VOLUME WATER SYSTEM, TO CONSIST OF TREE BUBBLERS, ROTATING STREAM NOZZLES, AND / OR MICRO IRRIGATION WITH POINT-SOURCE EMITTERS AND / OR DRIPLINE.
   - NOTIFY THE LANDSCAPE ARCHITECT FOR APPROVAL OF HIGH-VOLUME OR GOLF COURSE IRRIGATION.
   - COORDINATE WITH OWNER FOR WATER SOURCE AND LOCATION, WITH MUNICIPALITY APPROVED BACKFLOW PREVENTION.
   - TREES, BEDS, AND SOD AREAS SHALL EACH BE IN A SEPARATE ZONE(S), WITH APPROPRIATELY SIZED EMITTERS, VALVES, AND PIPE.
   - SOD IS NOT IRRIGATED UNLESS OTHERWISE NOTED ON THE PLANS; CONFIRM IRRIGATED SOD WITH OWNER.
   - USE HEADS / EMITTERS WITH MATCHED PRECIPITATION RATES WITHIN EACH ZONE.
   - WHERE APPLICABLE, SPRAY HEADS SHALL BE LOCATED AND ADJUSTED FOR HEAD-TO-HEAD SPACING.
   - USE PRESSURE REGULATING DEVICES AT CONTROL VALVES OR AT EACH EMITTER.
   - USE IN-LINE CHECK VALVES TO PREVENT LOW-HEAD RUNOFF.
   - THE AUTOMATIC CONTROLLER SHALL CONNECT TO A RAIN SENSOR OR OTHER MOISTURE SENSING DEVICE, AND HAVE PRESETS FOR SEASONAL ADJUSTMENTS.
5. ALL PRODUCTS SHALL BE INSTALLED TO MANUFACTURER'S SPECIFICATIONS; OBTAIN ADVANCE WRITTEN APPROVAL FROM THE OWNER FOR DEVIATIONS THAT MAY BE NECESSARY FOR SPECIFIC CONDITIONS.
6. UPON COMPLETION OF THE IRRIGATION SYSTEM INSTALLATION AND THE ACCEPTANCE OF THE "AS-BUILT" DRAWINGS AND OPERATIONAL INFORMATION, A FINAL INSPECTION AND LANDSCAPE / IRRIGATION RELEASE SHALL BE SIGNED, SEALED AND SUBMITTED, IF REQUIRED.

IRRIGATION SPECIFICATIONS

1. THE IRRIGATION SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH ALL DRAWINGS, SPECIFICATIONS, AND CONTRACT DOCUMENTS.
2. CONTRACTOR SHALL SECURE ANY AND ALL NECESSARY PERMITS FOR WORK PRIOR TO COMMENCEMENT OF ON-SITE OPERATIONS. COPIES OF THE PERMITS SHALL BE SENT TO THE OWNER.
3. CONTRACTOR SHALL INSTALL IRRIGATION AS SHOWN ON ANY LAYOUT DRAWINGS PROVIDED, AND SHALL PROVIDE SUPPLEMENTAL "DESIGN-BUILD" AS NECESSARY FOR A WHOLE AND COMPLETE INSTALLATION.
4. DOCUMENT IRRIGATION INSTALLATION THROUGHOUT CONSTRUCTION; SEE IRRIGATION COMPLETION REQUIREMENTS.
5. EXECUTE WORK TO AVOID CONFLICTS WITH UTILITIES OR OTHER ELEMENTS OF CONSTRUCTION, INCLUDING LANDSCAPE MATERIALS.
6. COMPLY WITH ALL PREVAILING LOCAL CODES, ORDINANCES, AND REGULATIONS.
7. WORK, INCLUDING TEMPORARY, SHALL COMPLY WITH THE CURRENT EDITION OF THE FLORIDA BUILDING CODE, AND MEET INDUSTRY STANDARDS AS OUTLINED IN THE LATEST PUBLICATION OF LANDSCAPE IRRIGATION BEST MANAGEMENT PRACTICES SET BY THE IRRIGATION ASSOCIATION / AMERICAN SOCIETY OF IRRIGATION CONSULTANTS https://www.irrigation.org.
8. WORK IN THE RIGHT-OF-WAY SHALL CONFORM TO THE STANDARDS OF LOCAL AND STATE HIGHWAY JURISDICTIONS.
9. DRAWINGS PROVIDED ARE DIAGRAMMATIC OF THE WORK TO BE PERFORMED. SOME COMPONENTS MAY BE SHOWN OUTSIDE THE WORK AREA FOR CLARITY. ALL DEVIATIONS FROM THE DRAWINGS SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION. THE CONTRACTOR SHALL NOT WILLFULLY INSTALL ANY ASPECT OF THE IRRIGATION SYSTEM AS SHOWN ON THE DRAWINGS, WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS, GRADE DIFFERENCES, OR DISCREPANCIES EXIST THAT MIGHT NOT HAVE BEEN KNOWN DURING THE DESIGN OF THE IRRIGATION SYSTEM. IN THE EVENT THAT NOTIFICATION OF THE CONFLICT IS NOT APPROVED BY THE OWNER, THE CONTRACTOR WILL ASSUME FULL RESPONSIBILITY FOR ALL REVISIONS.
10. CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS, INCLUDING UTILITY LOCATIONS, BEFORE INSTALLATION OF THE IRRIGATION. ALL UTILITIES AND STRUCTURES MAY NOT BE SHOWN ON THE DRAWINGS - CONTRACTOR TO VERIFY. COORDINATE ALL IRRIGATION CONSTRUCTION WITH EXISTING AND NEW PLANTINGS, AND TO AVOID CONFLICT WITH PIPING, SLEEVING, CABLES, AND UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING INSTALLATION WITH ALL OTHER CONSTRUCTION ON SITE, ESPECIALLY LANDSCAPE INSTALLATION. RELOCATE IRRIGATION AT NO ADDITIONAL COST TO THE OWNER TO REMEDY ANY CONFLICTS. ALL COMPONENTS THAT ARE NOT CONTAINED WITHIN THE SPECIFIC AREAS SHOWN OR CALLED OUT ON THE DRAWINGS WILL NOT BE ACCEPTED. ALL PIPING AND OTHER COMPONENTS ARE TO REMAIN WITHIN THE PROPERTY OF THE OWNER.
11. CONTRACTOR SHALL CONSULT AND COORDINATE WITH A LOCAL REGISTERED LICENSED ELECTRICIAN PRIOR TO WORK, AND THROUGHOUT CONSTRUCTION, TO VERIFY THAT ELECTRICAL WORK AND WIRING SYSTEMS MEET IRRIGATION EQUIPMENT MANUFACTURERS' SPECIFICATIONS. IT IS THE SOLE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR THAT THE INSTALLATION SHALL SATISFY EQUIPMENT WARRANTY REQUIREMENTS.
12. INSTALLATION OF WORK SHALL BE COORDINATED WITH OTHER TRADES IN SUCH A MANNER AS TO ALLOW FOR A SPEEDY AND ORDERLY FLOW OF VEHICULAR TRAFFIC AND COMPLETION OF ALL WORK ON THE SITE.
13. CONTRACTOR SHALL VERIFY IRRIGATION SOURCE, AND DOCUMENT GPM SUPPLY AND STATIC PRESSURE PRIOR TO INSTALLATION.
14. CONTRACTOR SHALL PROVIDE REQUIRED BACKFLOW PREVENTION, OR TEST AND REPAIR AS NECESSARY EXISTING DEVICES PRIOR TO THE OPERATION OF THE IRRIGATION SYSTEM.
15. IRRIGATION INSTALLATION SHALL NOT DAMAGE EXISTING TREES OR TREE ROOTS WITHIN THE CRITICAL ROOT ZONE OF ANY TREE; ROOT PRUNING SHALL BE IN ACCORDANCE WITH PLAN REQUIREMENTS AND MUST BE COMPLETE PRIOR TO IRRIGATION INSTALLATION.
16. ALL MATERIALS AND EQUIPMENT SHALL BE NEW.
17. CONTRACTOR SHALL PROVIDE MATERIALS AS SHOWN ON THE DRAWINGS, AND ALL NECESSARY "DESIGN-BUILD" SUPPLEMENTAL MATERIALS. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINATION OF THE ACTUAL QUANTITIES OF NECESSARY MATERIALS. PRIOR TO ORDERING MATERIALS OR STARTING INSTALLATION, CONTRACTOR SHALL PROVIDE INSTALLATION SHOP DRAWINGS AND MANUFACTURER PRODUCT INFORMATION OF ALL IRRIGATION COMPONENTS FOR REVIEW AND APPROVAL.
18. ALL COMPONENTS INSTALLED BY THE CONTRACTOR SHALL BE NOTED ON "AS-BUILT" DRAWINGS. THE EXACT LOCATION AND DEPTH BELOW FINISH GRADE OF CONTROL VALVES, ISOLATION VALVES, AND SLEEVES SHALL BE IDENTIFIED WITH TWO REFERENCE POINTS.
19. UNLESS NOTED OTHERWISE, FOLLOW THE INSTALLATION METHODS AND INSTRUCTIONS RECOMMENDED BY THEIR MANUFACTURER. NOTIFY THE LANDSCAPE ARCHITECT OF ANY CONFLICTS, OR WITH OPTIONS FOR IMPROVED EFFICIENCIES OR COST SAVINGS.
20. CONTRACTOR SHALL PROVIDE 100% UNIFORM IRRIGATION COVERAGE OF PLANTED AREAS. UNLESS SHOWN OTHERWISE, PROVIDE HEAD-TO-HEAD COMPONENT SPACING. SPACING MAY BE ADJUSTED TO ACCOMMODATE CHANGES IN TERRAIN AND PLANTING LAYOUT AS LONG AS THE MODIFIED SPACING DOES NOT EXCEED THE SPACING SHOWN IN THE PLANS.
21. WHERE EXISTING OR NEW TREES, LIGHTS, SIGNS, ELECTRONIC CONTROLLERS AND / OR OTHER OBJECTS ARE AN OBSTRUCTION TO AN IRRIGATION SPRINKLER'S PATTERN, THE COMPONENT AND PIPING SHALL BE RELOCATED AS NECESSARY TO OBTAIN PROPER COVERAGE WITHOUT DAMAGING THE OBSTRUCTION.
22. CONTRACTOR SHALL ADJUST SPRINKLERS AND OTHER DEVICES TO MAXIMIZE SYSTEM EFFICIENCIES AND TO MINIMIZE IRRIGATION OF IMPERVIOUS AREAS.
23. IDENTIFY AND MARK THE IRRIGATION MAINLINE LOCATION IN THE FIELD AND OBTAIN OWNER APPROVAL PRIOR TO INSTALLATION.
24. ALL TRENCHES SHALL BE BACKFILLED WITH CLEAN, DEBRIS-FREE MATERIALS. CLEAN SAND SHALL BE USED FOR BEDDING MATERIAL IF PARENT SOIL CANNOT BE ADEQUATELY RID OF ROCK AND OTHER EXTRANEOUS DEBRIS. PULLING PIPE IS PROHIBITED.
25. ALL SOLVENT WELDING SHALL BE PRECEDED BY PRIMING OF THE FITTINGS AND PIPE AS RECOMMENDED BY THE MANUFACTURER.
26. ALL CHANGES OF DIRECTION MAINLINE FITTINGS SHALL BE ACCOMPLISHED VIA THE USE OF DUCTILE IRON GASKET BELL ELBOWS AND TEES WITH PROPER JOINT RESTRAINTS. INSTALL PVC GASKET BELL SERVICE TEES AT VALVE LOCATIONS.
27. FOR GASKETED PIPE, CONTRACTOR SHALL INSTALL A SERRATED RESTRAINT AT EACH BELL JOINT. INSTALL PER FITTING MNFR'S SPECIFICATIONS.
28. FOR MAINLINE ISOLATION VALVES, INSTALL LEEMCO RESTRAINTS, OR APPROVED EQUAL. INSTALL PER FITTING MNFR'S SPECIFICATIONS.
29. MINIMUM LATERAL PIPE SIZE SHALL BE 3/4".
30. OWNER WILL DETERMINE CONTROLLER LOCATION AND PROVIDE ELECTRIC SERVICE WITHIN FIVE (5) FEET OF LOCATION. CONTRACTOR SHALL PROVIDE ELECTRICAL PERMITS AND LICENSED ELECTRICIAN TO CONNECT THE IRRIGATION CONTROLLER EQUIPMENT TO THE POWER SUPPLY.
31. MULTIPLE ZONES OPERATING AT ONE TIME SHALL NOT HAVE A TOTAL FLOW EXCEEDING 90% OF AVAILABLE GPM.
32. INSTALL A NIBCO T113 ISOLATION VALVE,OR APPROVED EQUAL, IN A 19" x 12" STANDARD VALVE BOX PRIOR TO EACH REMOTE CONTROL VALVE OR GROUP OF VALVES.
33. CONTRACTOR SHALL INSTALL CHRISTY ZONE TAGS WITH THE CORRESPONDING CONTROLLER NUMBER ON EACH CONTROL VALVE.
34. TREE BUBBLERS SHALL BE LOCATED WITHIN THE SOIL BERM AT OUTER EDGE OF ROOT BALL, NOT THE OUTER EDGE OF THE PLANTING HOLE.
35. CONTRACTOR SHALL LOCATE ALL VALVES SO THAT VALVE BOXES DO NOT STRADDLE THE EDGE BETWEEN SOD / BED AREAS; LOCATE ALL VALVES SO THAT THERE IS A MINIMUM OFFSET OF THREE (3) FEET FROM BACK OF CURB, EDGE OF PAVEMENT, OR EDGE OF SOD.
36. ALL VALVES (SOLENOID, GATE, ISOLATION, AIR RELIEF, AND FLUSH), SURGE PROTECTORS, FILTERS, AND ID-WIRE SPLICES SHALL BE LOCATED WITHIN APPROPRIATELY SIZED VALVE BOXES.
37. ALL 2-WIRE PATH AND VALVE CONNECTORS SHALL BE WATERPROOF 3M DBR/Y-6.
38. ALL IRRIGATION LINES UNDER PAVEMENT SHALL BE INSTALLED WITHIN SCH 40 PVC SLEEVES. PROVIDE CASING SPACERS FOR ALL 4"+ PIPE IN SLEEVES. IRRIGATION COMMUNICATION CABLE SHALL HAVE ITS OWN SEPARATE SLEEVE UNLESS NOTED OTHERWISE.
39. THE CONTRACTOR SHALL BE DIRECTLY RESPONSIBLE FOR ALL SLEEVING, UNLESS NOTED OTHERWISE.
40. THE TOP OF IRRIGATION LATERAL LINES TO BE BURIED AT A DEPTH OF 12" BELOW FINISHED GRADE, UNLESS NOTED OTHERWISE.
41. THE TOP OF IRRIGATION MAINLINES TO BE BURIED AT A DEPTH OF 18" BELOW FINISHED GRADE, UNLESS NOTED OTHERWISE.
42. MAINLINE PIPE 3"+ SHALL BE TESTED AT A PRESSURE OF 150 PSI FOR A PERIOD OF TWO (2) HOURS ACCORDING TO THE PROVISIONS OF AWWA C600.
43. THE IRRIGATION SYSTEM GROUNDING GRID(S) SHALL BE TESTED IN ACCORDANCE WITH NFPA 780. THE GRID SHALL BE AMENDED OR EXPANDED AS NECESSARY TO ACHIEVE RESISTANCE READINGS OF LESS THAN 10 OHMS. AFTER FINAL INSTALLATION, MEASUREMENTS SHALL BE PERFORMED AND PROVIDED TO THE OWNER EVERY 3 MONTHS THROUGHOUT THE WARRANTY PERIOD.

IRRIGATION COMPLETION REQUIREMENTS

DURING CONSTRUCTION, THE CONTRACTOR SHALL DOCUMENT THE ACTUAL FIELD INSTALLATION OF THE IRRIGATION SYSTEM. THE CONTRACTOR SHALL MARK-UP A COPY OF THE APPROVED DESIGN PLAN AND PROVIDE TO THE LANDSCAPE ARCHITECT FOR APPROVAL A CLEAR AND LEGIBLE DIAGRAM WITH THE FOLLOWING "AS-BUILT" INFORMATION:

- LOCATIONS OF IRR METERS / WELLS, MAINLINES AND VALVES
- LOCATIONS OF REMOTE CONTROL VALVES AND CORRESPONDING ZONE I.D. NUMBER
- DELINEATION OF ZONE AREAS
- LOCATIONS WHERE IRRIGATION CROSSES UNDER PAVEMENT, WITH THE NUMBER AND SIZE OF SLEEVES
- TOTAL WATER DEMAND PER OPERATING CYCLE FOR EACH ZONE
- CONTROLLER AND SENSOR LOCATIONS
- INITIAL SCHEDULING, SETTINGS, WITH POST-INSTALLATION AND SEASONAL PRESETS

THE CONTRACTOR SHALL PROVIDE TO THE OWNER AND CONFIRM THAT THE OWNER HAS RECEIVED:

- IRRIGATION CONTROLLER OWNER'S MANUAL
- WRITTEN INSTRUCTIONS COVERING PERIODIC MAINTENANCE OF THE IRRIGATION SYSTEM
- WRITTEN INSTRUCTIONS COVERING HOW AND WHEN TO CHECK FOR LEAKS
- WRITTEN INSTRUCTIONS FOR CONTROLLER ADJUSTMENTS SO THAT SETTINGS ARE IN ACCORDANCE WITH WATERING RESTRICTIONS 60 DAYS FOLLOWING INSTALLATION

IRRIGATION WATERING RESTRICTIONS, NON-RESIDENTIAL

1. IRRIGATION IS NOT ALLOWED BETWEEN 10:00 A.M. AND 4:00 P.M.
2. WHEN DAYLIGHT SAVINGS TIME IS IN EFFECT, NON-RESIDENTIAL LANDSCAPE IRRIGATION MAY OCCUR ONLY ON TUESDAY AND/ OR FRIDAY.
3. WHEN EASTERN STANDARD TIME IS IN EFFECT, NON-RESIDENTIAL LANDSCAPE IRRIGATION MAY OCCUR ONLY ON TUESDAY.
4. FOR EACH DAY THAT IRRIGATION OCCURS, NO MORE THAN THREE-QUARTER INCH (3/4") OF WATER MAY BE APPLIED PER IRRIGATION ZONE, AND IN NO EVENT SHALL AN IRRIGATION ZONE OPERATE FOR MORE THAN ONE HOUR.
5. ALL LANDSCAPE IRRIGATION SHALL BE LIMITED IN AMOUNT TO ONLY THAT WHICH IS NECESSARY TO MEET LANDSCAPE ESTABLISHMENT AND NEEDS.

NOTE: IRRIGATION OF A NEW LANDSCAPE IS ALLOWED AT ANY TIME OF DAY FOR THE INITIAL THIRTY (30) DAYS, AND EVERY OTHER DAY FOR THE NEXT THIRTY (30) DAYS, FOR A TOTAL OF ONE SIXTY (60) DAY PERIOD.

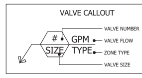
LATERAL ZONE LINE PIPE SIZING DOWNSTREAM OF EACH ZONE VALVE (UNLESS OTHERWISE NOTED ON THE PLANS)

THE BELOW GUIDE GIVES A GENERAL OUTLINE FOR LATERAL ZONE LINE PIPE SIZING. SIZING SHOULD BE STARTED FROM THE FURTHEST MOST EXTREMITIES OF EACH ZONE AND WORKED BACK TO THE ZONE VALVE. CARE SHOULD BE TAKEN TO TOTAL EACH INTERSECTION OF LATERAL ZONE LINE TO KEEP AN ACCURATE ACCOUNT OF GPM ALL THE WAY BACK TO THE VALVE. THE GPM FOR EACH ZONE IS GIVEN AT EACH VALVE CALL-OUT ON THE PLANS.

GALLONS PER MINUTE (GPM)	APPROPRIATE PIPE SIZE
0-9 GPM	3/4" PVC
10-15 GPM	1" PVC
16-24 GPM	1 1/4" PVC
25-34 GPM	1 1/2" PVC
35-54 GPM	2" PVC

CONTRACTOR SHALL PROVIDE THE FOLLOWING VALVE NOTE FOR EACH ZONE:

VALVE CALLOUT



VALVE SIZING
(SAMPLE; CONSULT MNFR'S SPECS FOR SPECIFIC PRODUCT DATA)

PRESSURE LOSS NOT TO EXCEED 5 PSI:

PRESSURE LOSS IN PSI

Flow GPM	1" Globe	1½" Globe	2" Globe
1	1.1		
5	1.9		
10	1.9		
15	1.6		
20	3.3	3	1
30	9.1	3	1
35	16	3	2
40	20	3	2
50		4	1
60		5	2
80		5.5	3
100		9	5
120		11.5	6
135			8
150			10

IRRIGATION SLEEVE (PROPOSED)

- (L1) (1) 6" SCH 40 SLEEVE, (1) 2" SCH 40 SLEEVE
- (L2) (2) 4" SCH 40 SLEEVE
- (L3) (2) 2" SCH 40 SLEEVE
- (L4) (1) 2" SCH 40 SLEEVE

IRRIGATION SCHEDULE

(NOTE: MP-ROTATOR GPM* is estimated based on approximate arc and typical radius)

SYMBOL	MANUFACTURER / MODEL	TYPE	ARC	PSI	GPM*	RADIUS
Ⓢ	Hunter MP1000 8'-15' & 6" Pop-up PROS-06-PRS40-CV	TURF	90°±	40	0.21	14'±
Ⓜ	Hunter MP1000 8'-15' & 6" Pop-up PROS-06-PRS40-CV	TURF	180°±	40	0.42	14'±
Ⓛ	Hunter MP1000 8'-15' & 6" Pop-up PROS-06-PRS40-CV	TURF	270°±	40	0.63	14'±
●	Hunter MP1000 8'-15' & 6" Pop-up PROS-06-PRS40-CV	TURF	360°	40	0.84	14'±
	Hunter MP STRIP Side & 6" Pop-up PROS-06-PRS40-CV	TURF	Rectangle	40	0.44	5' x 30'
	Hunter MP CORNER & 6" Pop-up PROS-06-PRS40-CV	TURF	45°±	40	0.19	14'±
	Hunter PCB-50 (2 bubblers per tree, one each side)	TREE	Trickle	15-70 psi	2 @ 0.50 gpm	
	Hunter PCB-50 (1 bubbler per tree)	TREE	Trickle	15-70 psi	1 @ 0.50 gpm	

- Area to Receive Dripline. Hunter HDL-06-12 Emitter Dripline (Contractor to verify per plans) with 0.6 GPH emitters, non-draining, pressure compensating, at 12" O.C., and row spacing at 12" O.C.; Off-set emitters for triangular spacing.
- POC — Point of Connection w/ Backflow Preventer
- W — Irrigation Well: See Utility Plan
- BF — RP Backflow Preventer Assembly, approved per local code
- Hunter ICZ-101 Drip Controller (FLOW 2-20 GPM) w/ Filter System. Jumbo Valve Box required.
- Hunter ICZ-151-XL Drip Controller (FLOW 20-60 GPM) w/ Filter System. Super Jumbo Valve box required.
- Hunter ICV-101 - 1" Electric Globe Valve w/ Flow Control
- Hunter ICV-151 - 1 1/2" Electric Globe Valve w/ Flow Control
- F — Future Point of Connection - Cap mainline; Coil five feet of Hunter ID2 control wire and mark with a 12" valve box.
- Hunter A2C Station Controller Model: A2C-75D-PP (Plastic Pedestal) with ROAMXL-KIT Handheld long range programmer
- Hunter Solar Sync Sensor w/ Wind Mount in location with open view to sky.
- ZF — Manual Drip Flush Valve w/ Zone Indicator; Hunter PROS-12-CV with GPH Irrigation Products #GDFN-R
- VR — Air Release Valve w/ Box (see details)
- AF — Automatic Flush Valve w/ Box (see details)
- Isolation Valve in 19" x 14" box, sized to mainline
- Irrigation Mainline: Gasketed 3" PVC Class 200 SDR 21; JM Eagle "IPS Pressure" or equal; Install per mnfr's specifications
- Irrigation Lateral Line: PVC Class 200 SDR 21 (Size per chart)
- Irrigation Sleeve: PVC Schedule 40 (Size per chart) Extend sleeves 18" past edge of paving or construction.

HUNTER MP ROTATOR, ROTATING STREAM SPRAY HEADS:

Contractor shall provide model suitable for plan design per mnfr's. specifications:

Hunter MP-1000-90: adjustable arc 90° to 210°; adjustable radius 8' to 15'
Hunter MP-1000-210: adjustable arc 210° to 270°; adjustable radius 8' to 15'
Hunter MP-1000-360: arc 360°; adjustable radius 8' to 15'
Hunter MP-CORNER: adjustable arc 45° to 105°; adjustable radius 8' to 15'
Hunter MP-SS-530: center strip; 5' x 30'

NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR THEIR OWN TAKE-OFFS.
2. VERIFY IRRIGATION SOURCE GPM SUPPLY AND STATIC PRESSURE PRIOR TO IRRIGATION INSTALLATION.
3. PER FL. BLDG. CODE, ALL IRRIGATION LINES AND HEADS SHALL BE A MINIMUM OF 1 FT AWAY FROM ALL STRUCTURES.
4. LOCATE IRRIGATION LINES AND APPURTENANCES FULLY WITHIN PROPERTY BOUNDARY.
5. LOCATE ALL SHRUB HEADS AND DRIPLINE FULLY WITHIN MULCH BED AREAS AS SHOWN ON THE PLANTING PLANS.
6. THE IRRIGATION PLAN IS DIAGRAMMATIC IN NATURE. LOCATIONS OF PIPING AND OTHER APPURTENANCES ARE SHOWN FOR CLARITY. FIELD CHANGES MAY BE REQUIRED TO ACHIEVE PROPER IRRIGATION COVERAGE.

ZONE SCHEDULE

ZONE	TYPE	VALVE SIZE	GPM	RUNTIME (MINUTES)	DAYS PER WEEK	GPW
1	TURF	1.5	26.2	60	2	3,144
2	BED	1	12.9	30	2	774
3	TREE	1	12.0	12	2	288
4	TREE	1.5	27.0	12	2	648
5	BED	1	8.2	30	2	492
6	TREE	1.5	23.5	12	2	564
7	TREE	1.5	24.0	12	2	576
8	TREE	1	9.0	12	2	216
9	BED	1.5	24.8	30	2	1,488
10	TREE	1	9.0	12	2	216
11	BED	1	19.6	30	2	1,176
12	TREE	1	16.5	12	2	396
13	BED	1.5	32.1	30	2	1,926
14	TREE	1	13.0	12	2	312
15	BED	1.5	42.3	30	2	2,538
16	TREE	1	8.5	12	2	204
17	BED	1.5	27.6	30	2	1,656
18	TREE	1	16.5	12	2	396
19	BED	1.5	43.1	30	2	2,586
20	BED	1.5	28.5	30	2	1,710
21	TREE	1	10.5	12	2	252
					TOTAL	21,558

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APPROVED FOR CONSTRUCTION

Tillman & Associates
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DIAMOND A SHOPPING CENTER
MARION COUNTY, FLORIDA

IRRIGATION
SCHEDULE & NOTES

DATE 8/13/2025
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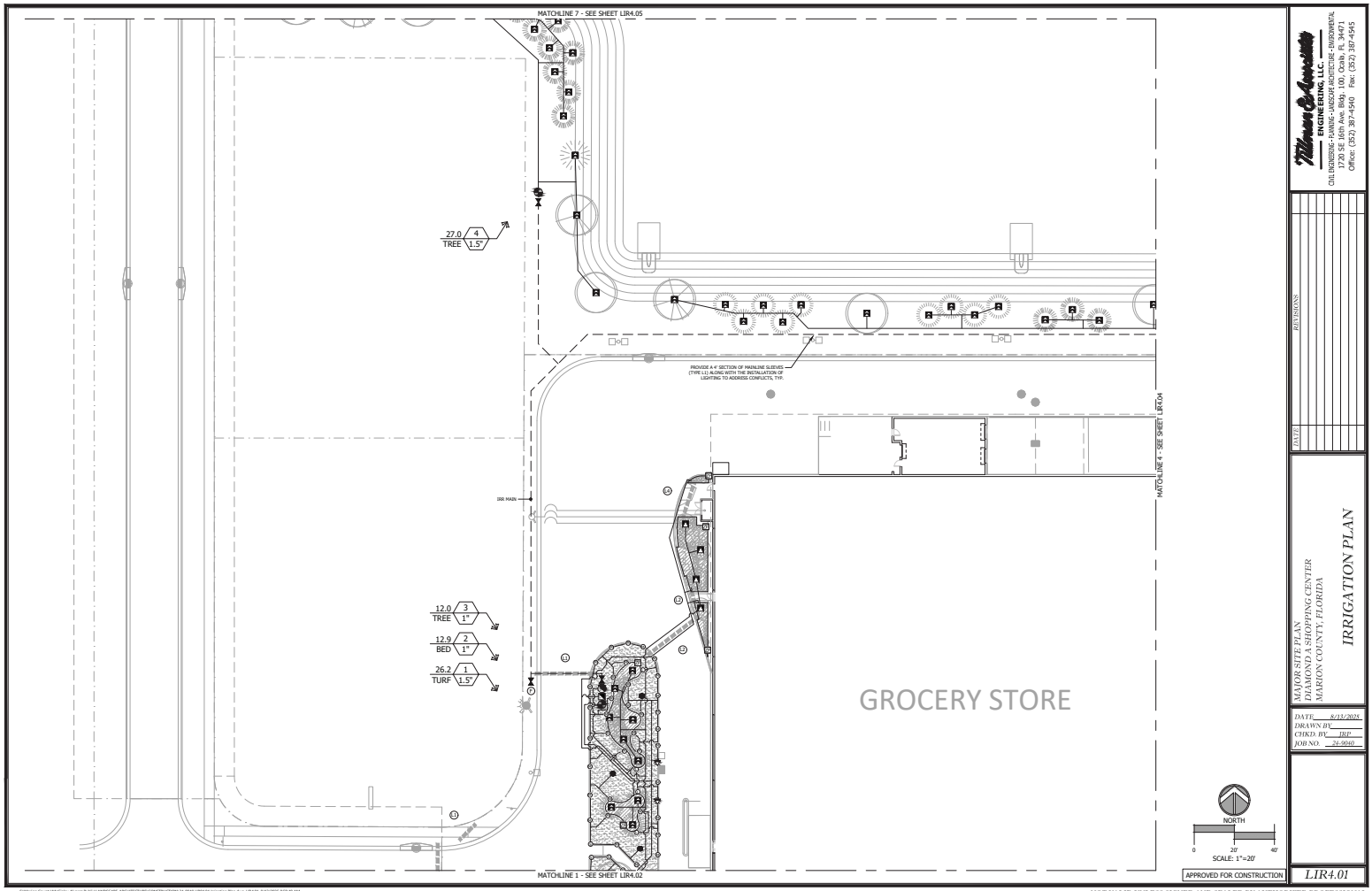
LIR3.01



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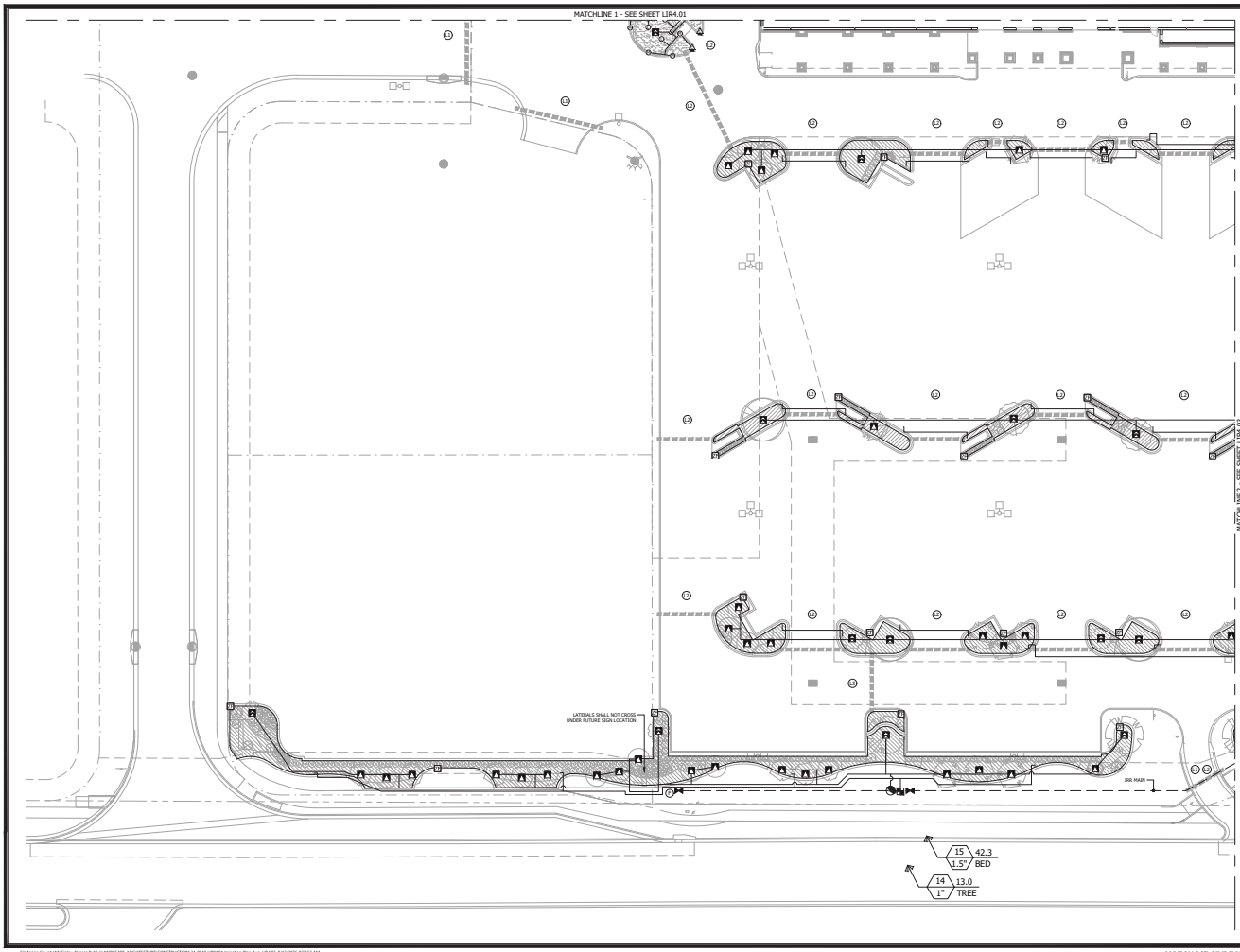

APPROVED FOR CONSTRUCTION

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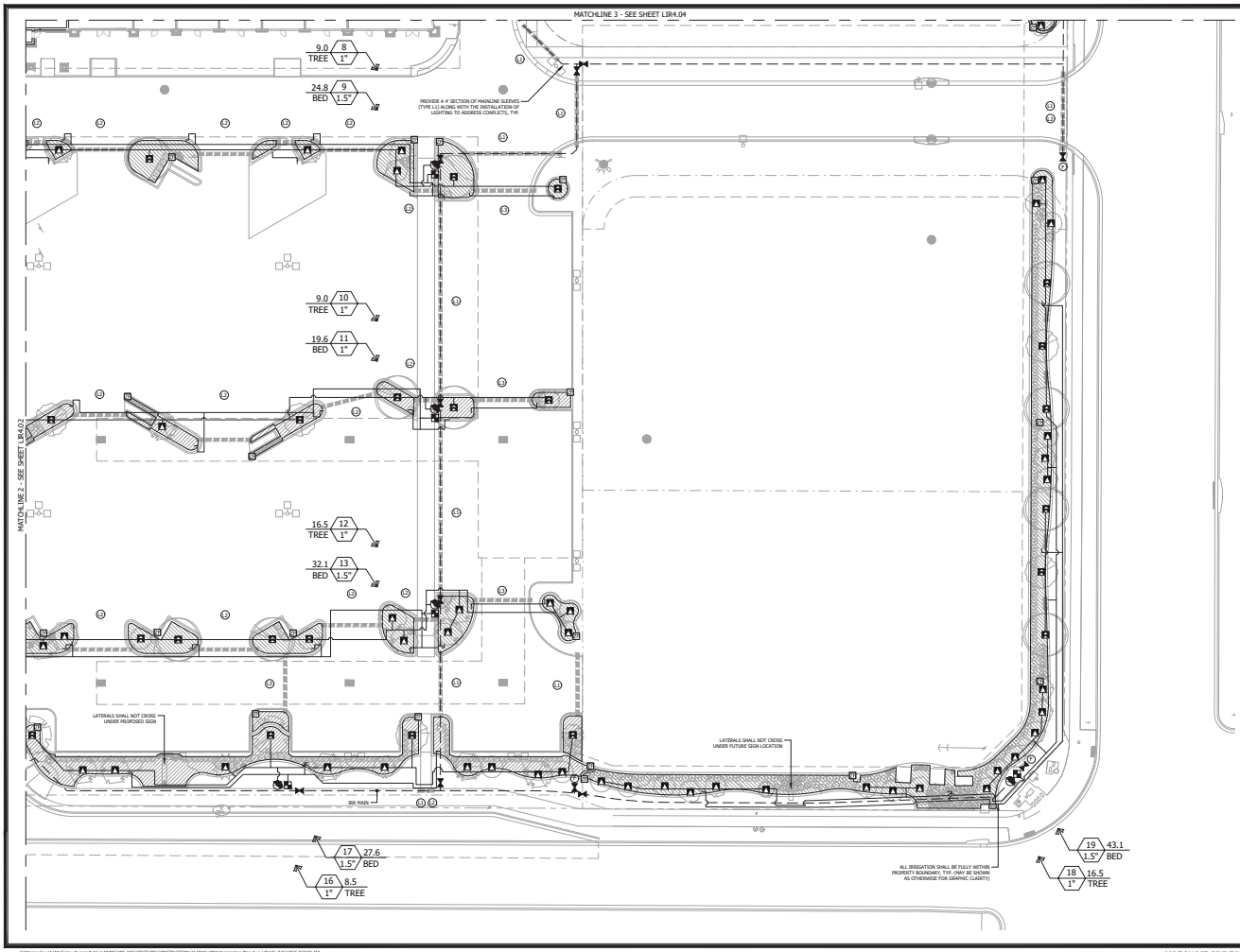

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CIVIL ENVIRONMENTAL • PLANNING • LANDSCAPE ARCHITECTURE • SURVEYING
17200 SE 109th Place Road, Ocala, FL 34472
Office: (352) 387-4540 Fax: (352) 387-4545

REVISIONS

DATE	

MAJOR SITE PLAN
DIAMOND A SHOPPING CENTER
MARION COUNTY, FLORIDA

IRRIGATION PLAN

DATE 8/13/2024
DRAWN BY
CHKD BY IRP
JOB NO. 24-9040

LIR4.03

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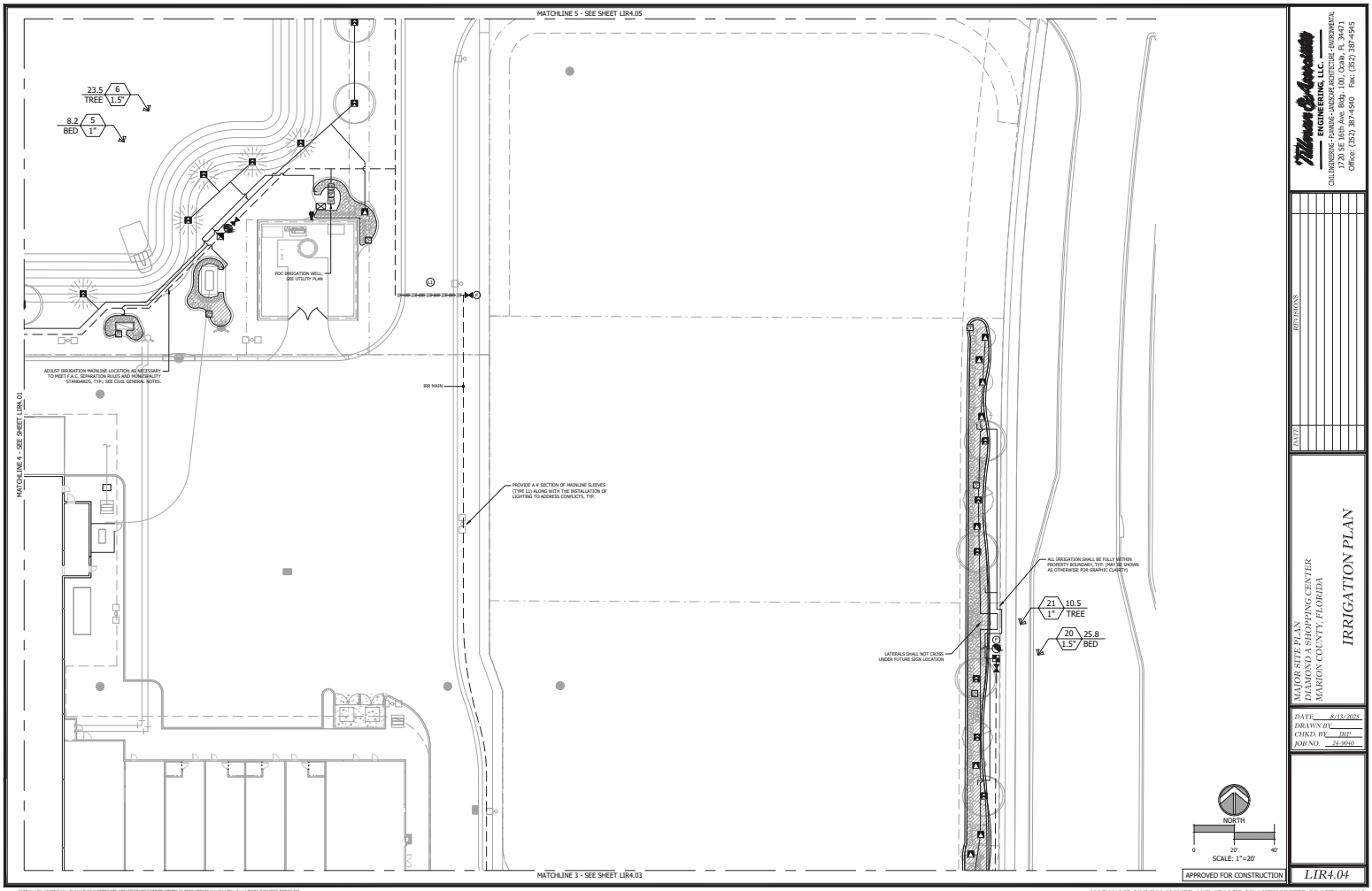

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Office: (352) 387-4540 Fax: (352) 387-4545

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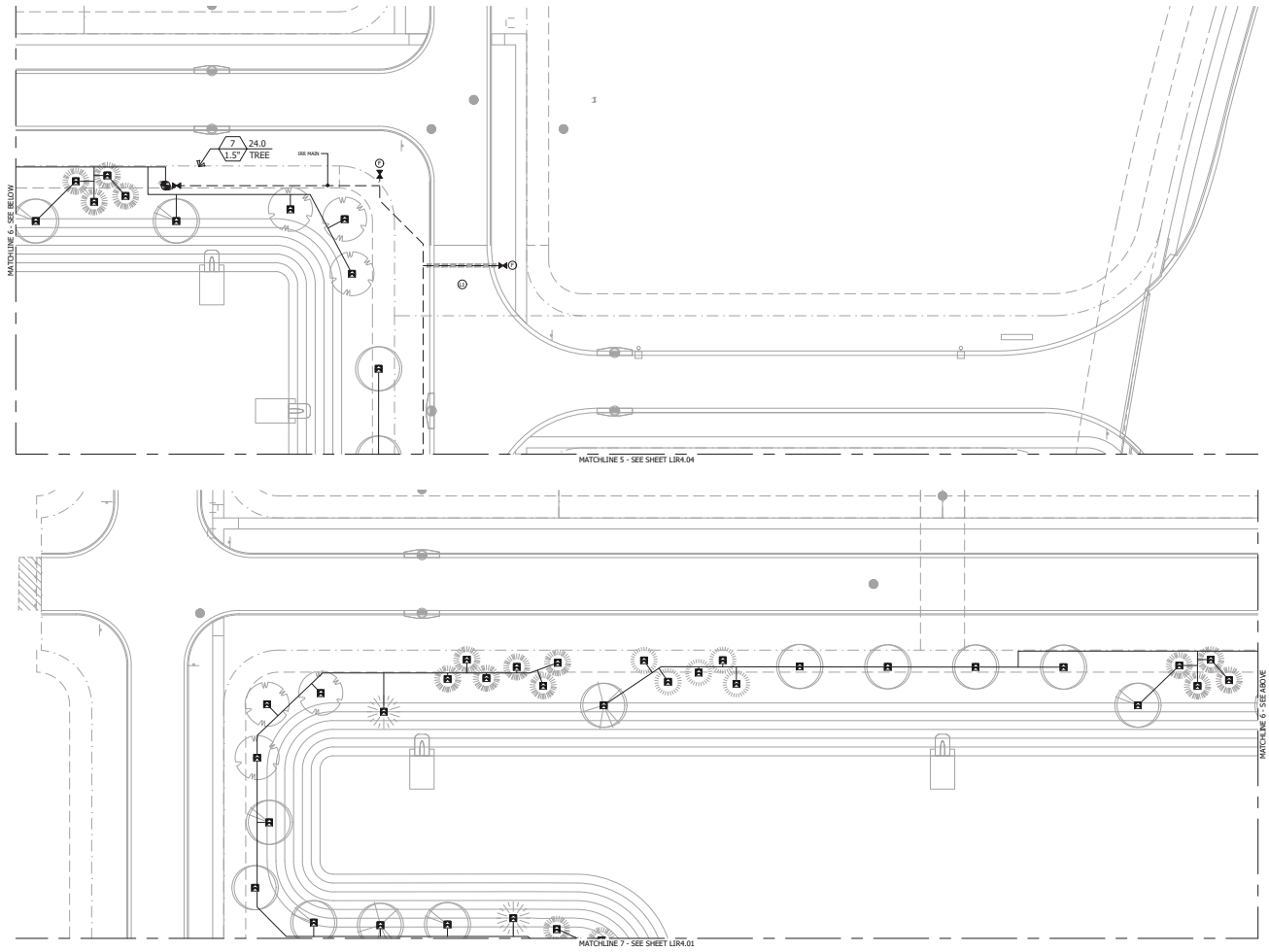

NORTH

0 20' 40'

SCALE: 1"=20'

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17220 SE 109th Place · Suite 101 · Ocala, FL 34472
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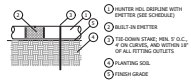
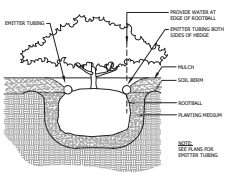


EMITTER TUBING ON GRADE

NOT TO SCALE



EMITTER TUBING ALONG HEDGE

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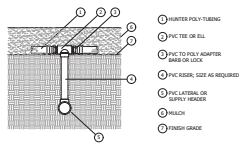
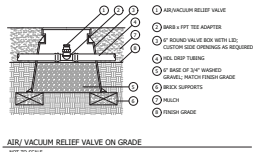


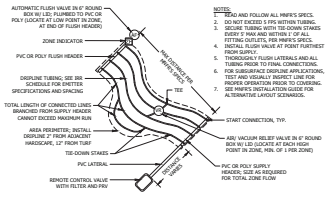
AT-GRADE START CONNECTION

NOT TO SCALE



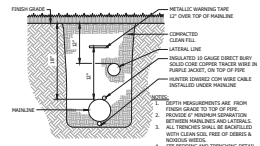
AIR/ VACUUM RELIEF VALVE ON GRADE

NOT TO SCALE



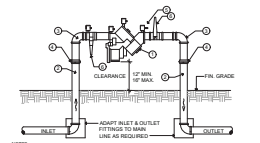
DRIPLINE LAYOUT

NOT TO SCALE



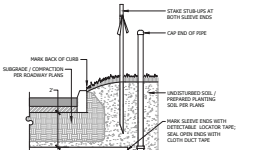
IRRIGATION TRENCH

NOT TO SCALE



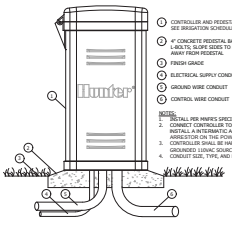
REDUCED PRESSURE BACKFLOW PREVENTER

NOT TO SCALE



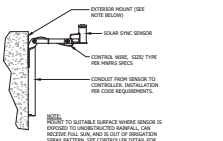
IRRIGATION SLEEVEING DETAIL

NOT TO SCALE



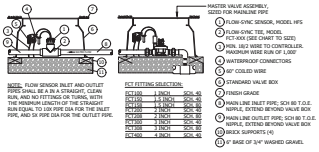
HUNTER ACC2 DECODER CONTROLLER ON PLASTIC PEDESTAL

NOT TO SCALE



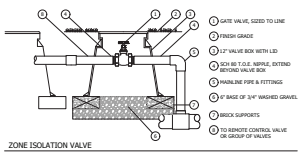
HUNTER SOLAR SYNC SENSOR (ET, FREEZE, RAIN)

NOT TO SCALE



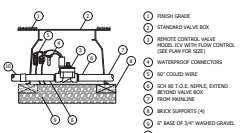
HUNTER FLOW-SYNC FLOW SENSOR AND MASTER VALVE ASSEMBLY

NOT TO SCALE



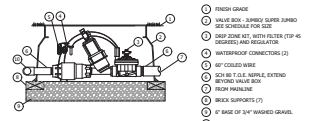
ZONE ISOLATION VALVE

NOT TO SCALE



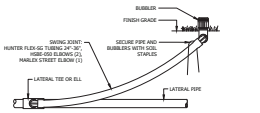
HUNTER ICV ELECTRIC GLOBE VALVE
COMMERCIAL / MUNICIPAL

NOT TO SCALE



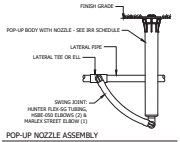
DRIP CONTROL KIT

NOT TO SCALE



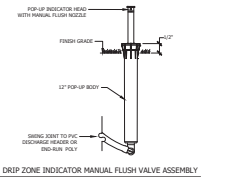
BUBBLER ASSEMBLY

NOT TO SCALE



POP-UP NOZZLE ASSEMBLY

NOT TO SCALE



DRIP ZONE INDICATOR MANUAL FLUSH VALVE ASSEMBLY

NOT TO SCALE

APPROVED FOR CONSTRUCTION

Wilson Miller
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2200 SE 17th Street, Ocala, FL 34471
Office: (352) 387-4545 Fax: (352) 387-4545

REVISIONS

DATE

MAJOR SITE PLAN
DIAMOND A SHOPPING CENTER
MARION COUNTY, FLORIDA

IRRIGATION DETAILS

DATE 8/13/2024
DRAWN BY
CHKD BY IRP
JOB NO. 24-9040

LIR5.01

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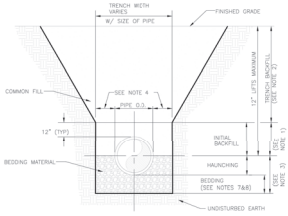
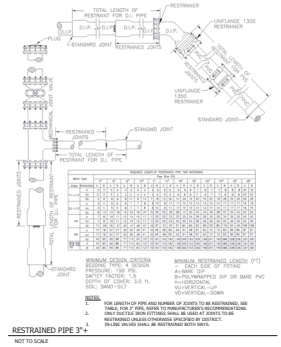


1. INITIAL BACKFILL: COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180
2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180
3. TYPE A BEDDING MATERIAL SHALL CONFORM TO FDOT NO. 57 AGGREGATE
4. 15" MAX. (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 RIGHT-OF-WAY SHALL COMPLY WITH REQUIREMENTS OF RIGHT-OF-WAY UTILIZATION REGULATIONS AND ROAD CONSTRUCTION SPECIFICATIONS

BEDDING AND TRENCHING

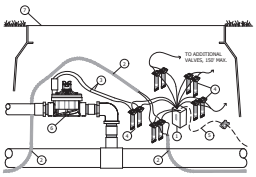
NOT TO SCALE



NOTES:
1. FOR LENGTH OF PIPE AND NUMBER OF JOINTS TO BE RESTRAINED, SEE TABLE ABOVE. CONSULT ENGINEER FOR ADDITIONAL INFORMATION.
2. ONLY DUCTILE IRON FITTINGS SHALL BE USED AT JOINTS TO BE RESTRAINED UNLESS OTHERWISE SPECIFIED BY DISTRICT.
3. IN-LINE VALVES SHALL BE RESTRAINED BOTH WAYS.

RESTRAINED PIPE 3"+

NOT TO SCALE

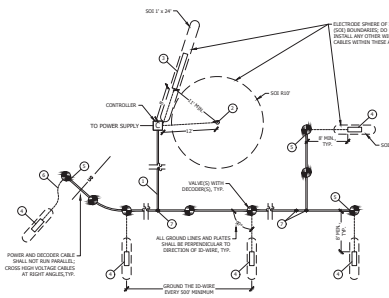


1. DECODER IN VALVE BOX: DECODERS SHALL BE IN BOX WITH ITS VALVE, OR SEPARATE VALVE BOX IN CLOSE PROXIMITY TO THE VALVE.
2. JACKETED DECODER COMMUNICATION ID-WIRE: ROUTE WIRE FROM CONTROLLER UNDERNEATH MAINLINE TO VALVE LOCATIONS.
3. WIRES TO VALVE SOLENOID: ADDITIONAL LENGTH AS NEEDED; WIRE TYPE AND COLOR DEPENDENT ON LENGTH. SEE MANIFS SPECS.
4. STATION OUTPUT
5. DECODER BARE GROUND WIRE: CONNECT TO GROUND SYSTEM PER PLANS WITH APPROPRIATELY SIZED COPPER SPLIT BOLT DEVICE; WRAP FOR FUTURE INTERFACING UNUSED WIRES.
6. VALVE (SEE DETAILS)
7. VALVE BOX W/ SUMP & SUPPORTS, TYP. (SEE DETAILS)

NOTES:
1. INSTALL DECODER TYPE TO MATCH THE EXACT NUMBER OF ZONES CONTROLLED BY THAT DECODER. NO SPARE ZONES TO BE LEFT ON DECODER.
2. ALL WIRE SPLICES TO BE MADE WITH 3M DBR/Y-6, ONE FOR EACH CONNECTION.
3. PROVIDE WIRE SLACK ADEQUATE TO SERVICE DECODER MINIMUM OF 3' OUTSIDE THE VALVE BOX.

DECODER INSTALLATION DETAIL

NOT TO SCALE

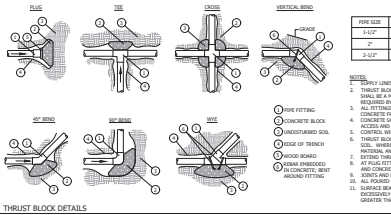


1. 2-WIRE OUTPUT PATH WITH JACKETED, TWISTED ID WIRE: HUNTER DUBLI 12 AWG WITH RED AND BLUE WIRE IN BLUE JACKET; OTHER JACKET COLORS FOR DIAGNOSTICS; 15,000' MAX DISTANCE FROM CONTROLLER TO ANY RUN END; DO NOT LOOP PATH BACK TO CONTROLLER
2. GROUND ROD IN VALVE BOX W/ BOLT DOWN COVER: 8, LISTED 5/8" COPPER CLAD 10' LENGTH; EMBED VERTICALLY IN GROUND TO 12" BELOW FINISH GRADE; CADWELD TO TOP OF ROD 6AWG BARE SOLID COPPER WIRE FROM GROUND LUG IN DECODER
3. GROUND PLATE IN ENHANCED EARTH TRENCH: 3" x 96" x 0.0625" COPPER PLATE SET 3' BELOW GRADE, FULLY ENCASED WITH APPROVED GROUNDING BACKFILL (e.g. LORESCO, ERICO); CADWELD TO PLATE 6AWG BARE SOLID COPPER WIRE FROM GROUND LUG IN DECODER; MARK PLATE LOCATION WITH ID IN VALVE BOX
4. SMALL GROUND PLATE IN ENHANCED EARTH TRENCH: 4" x 3' x 0.0625" COPPER PLATE SET 3' BELOW GRADE, FULLY ENCASED WITH APPROVED GROUNDING BACKFILL (e.g. LORESCO, ERICO); CADWELD TO PLATE 6AWG BARE SOLID COPPER WIRE; CONNECT TO ID-WIRE VIA DECODER GROUND WIRE; MARK PLATE LOCATION WITH ID IN VALVE BOX
5. THE FINAL DECODER AT EACH END RUN SHALL BE CONNECTED TO A SMALL PLATE GROUND - SEE #4
6. ALL GROUND WIRES ARE TO BE INSTALLED IN AS STRAIGHT A LINE AS POSSIBLE. NECESSARY TURNS OR BENDS SHALL BE DONE IN A SWEEPING CURVE WITH A MINIMUM INCLUDED ANGLE OF 90°, AND A MINIMUM RADIUS OF 8"; USE A STANDARD 1.5" PVC SWEEP ELL AT VALVE BOXES AND ELSEWHERE AS NEEDED.
7. Y-SPLICES, CONNECTIONS, AND OTHER SPLICES INTO THE ID-WIRE (e.g. DIAGNOSTICS, SURGE SUPPRESSION, SENSORS) SHALL BE MADE WITH DBR/Y-6 WATERPROOF CONNECTORS, AND LOCATED IN A VALVE BOX W/ SUMP, SUPPORTS; PROVIDE ADEQUATE SLACK IN THE WIRE FOR ABOVE GROUND INSPECTION AND SERVICE.

NOTE: THE TWO-WIRE DECODER, WIRING, AND GROUNDING SYSTEM SHALL BE INSTALLED ACCORDING TO HUNTER MANUFACTURER SPECIFICATIONS, UNLESS NOTED OTHERWISE IN THESE PLANS.

DECODER, WIRING, AND GROUNDING LAYOUT

NOT TO SCALE



1. PIPE FITTING
2. CONCRETE BLOCK
3. UNDISTURBED SOIL
4. EDGE OF TRENCH
5. WOOD BOARD
6. REBAR EMBEDDED IN CONCRETE; BENT AROUND FITTING

MINIMUM BEARING SURFACE AREA

PIPE SIZE	TEE AND PLUG	90° BEND	45° BEND
1-1/2"	0.5 SF	0.7 SF	0.4 SF
2"	0.7 SF	1.0 SF	0.6 SF
2-1/2"	1.0 SF	1.5 SF	0.8 SF

NOTES:
1. SIMPLY LINES 1 1/2"+ SHALL BE INSTALLED WITH CONCRETE THRUST BLOCKS.
2. THRUST BLOCKS SHALL BE SIZED AS SPECIFIED IN THE TABLE ABOVE, AND SHALL BE A MINIMUM OF 12" THICK, (9" THICK FOR 2" PIPE OR LESS), OR AS REQUIRED BY CODE.
3. ALL FITTINGS SHALL BE WRAPPED WITH POLYETHYLENE TO PREVENT CONCRETE FROM COMING IN CONTACT WITH METAL.
4. CONCRETE SHALL NOT ENCAPSULATE PIPE OR FITTING TO ALLOW FOR FUTURE ACCESS AND MAINTENANCE.
5. CONTROL WIRES SHALL NOT BE ENCAGED IN CONCRETE.
6. THRUST BLOCK BEARING AREAS SHALL BE POURED AGAINST UNDISTURBED SOIL. WHERE TRENCH WALL HAS BEEN DISTURBED, EXCAVATE ALL LOOSE MATERIAL AND EXTEND CONCRETE TO UNDISTURBED SOIL.
7. EXTEND THRUST BLOCK AS REQUIRED TO MEET THE FULL LENGTH OF FITTINGS.
8. AT PLUG FITTINGS, PROVIDE PRESSURE TREATED WOOD BOARD BETWEEN PLUG AND CONCRETE.
9. JOINTS AND BOLTS SHALL BE ACCESSIBLE FOR REPAIRS.
10. ALL POURED IN PLACE CONCRETE SHALL BE 3000 PSI.
11. SURFACE BEARING AREAS ARE MINIMUMS, AND SHALL BE RECALCULATED FOR EXCESSIVELY SOFT, WET, OR LOOSE SOILS, OR IF WORKING LINE PRESSURE IS GREATER THAN 100 PSI.

THRUST BLOCK DETAILS

NOT TO SCALE

Wilson & Associates
ENGINEERING, LLC.
CIVIL ENVIRONMENTAL • LAND DEVELOPMENT • TRANSPORTATION
1200 SE 1st Street, Suite 101, Ocala, FL 34471
Office: (352) 387-4540 Fax: (352) 387-4545

REVISIONS

DATE

MAJOR SITE PLAN
DIAMOND A SHOPPING CENTER
MARION COUNTY, FLORIDA

IRRIGATION DETAILS

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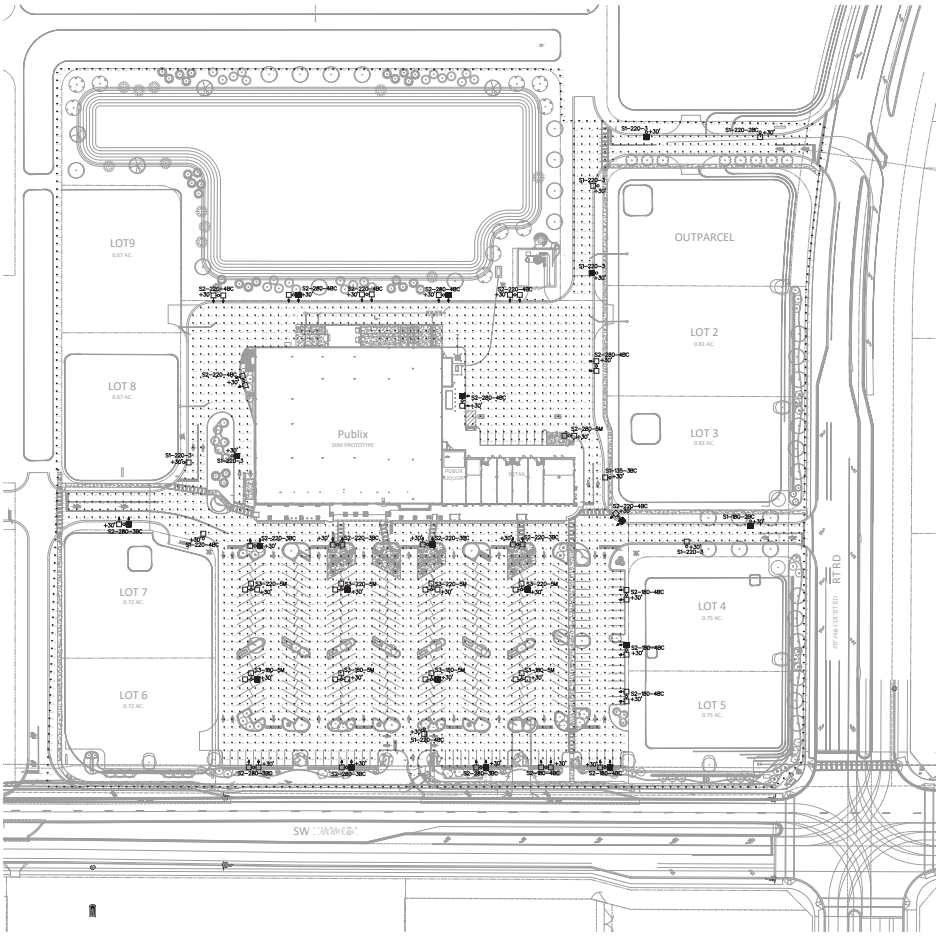

PHOTOMETRIC SITE PLAN
SCALE: 1"=50'-0"

Luminaire Schedule			
Symbol	Tag	Description	LLF
	S1-135-3BC	VP-L-64L-135-4K7-3-BC	0.900
	S1-180-2BC	VP-L-80L-180-4K7-2-BC	0.900
	S1-220-2BC	VP-L-96L-220-4K7-2-BC	0.900
	S1-220-3	VP-L-96L-220-4K7-3	0.900
	S1-220-4BC	VP-L-96L-220-4K7-4-BC	0.900
	S2-180-4BC	VP-L-80L-180-4K7-4-BC	0.900
	S2-220-3BC	VP-L-96L-220-4K7-3-BC	0.900
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	S2-280-3BC	VP-L-96L-280-4K7-3-BC	0.900
	S2-280-4BC	VP-L-96L-280-4K7-4-BC	0.900
	S2-280-5M	VP-L-96L-280-4K7-5QM	0.900
	S3-180-5M	VP-L-80L-180-4K7-5QM	0.900
	S3-220-5M	VP-L-96L-220-4K7-5QM	0.900

Calculation Summary						
Label	Units	Avg	Max	Min	Avg/Min	Max/Min
Drives	Fc	3.27	8.9	0.6	5.45	14.83
Property Line	Fc	0.09	1.0	0.0	N.A.	N.A.
Publix Parking Area	Fc	5.01	8.9	2.1	2.39	4.24
Security Area	Fc	4.65	8.6	2.0	2.33	4.30

CUHACI PETERSON

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Maitland, FL 32751

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ARCHITECT/ENGINEER SEAL

I HEREBY CERTIFY THAT THE ENGINEERING FEATURES OF THIS PLAN WERE DESIGNED OR REVIEWED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA. IT IS ALSO CERTIFIED THAT THE PLAN CONFORMS TO ALL APPLICABLE RULES AND REGULATIONS KNOWN TO BE IN EFFECT AT THE TIME AND PLACE OF SUBMITTAL.

ANTHONY D. SUBSAK
LICENSE
No. 74042
STATE OF FLORIDA
PROFESSIONAL ENGINEER
Digitally signed by Anthony Subsak
P.E. No.74042

COLWILL ENGINEERS
A NUVEET COMPANY

Consulting Engineers, Inc.
Engineering Business No. 9021

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Job Number: 51253

REVISION / ISSUE HISTORY

SEQ #	DATE	REVISION / ISSUE / CASE
A	05-23-2026	65% Public Submittal

PROJECT NO 2024-60-16
DRAWN BY AS
PERMIT SUB DATE
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PROJECT
Ocala - Publix Canopy

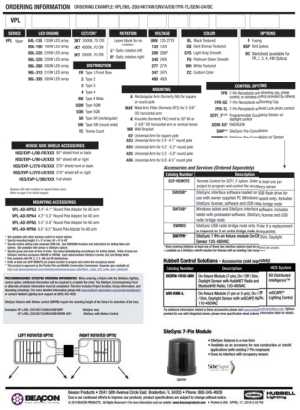
SW Hwy 484 & SW 49th CT RD
Ocala, Florida

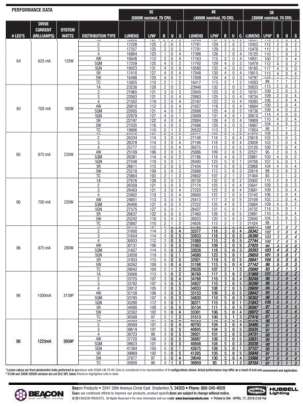
CLIENT
Publix Super Markets, Inc

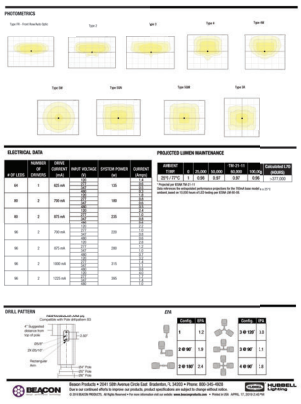
3300 Publix Corporate Pkwy
Lakeland, FL

SHEET TITLE
PHOTOMETRIC SITE PLAN

SHEET NO. EP1.0
REV. A







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PROJECT
Ocala - Publix Canopy

SW Hwy 484 & SW 49th CT RD
Ocala, Florida

CLIENT
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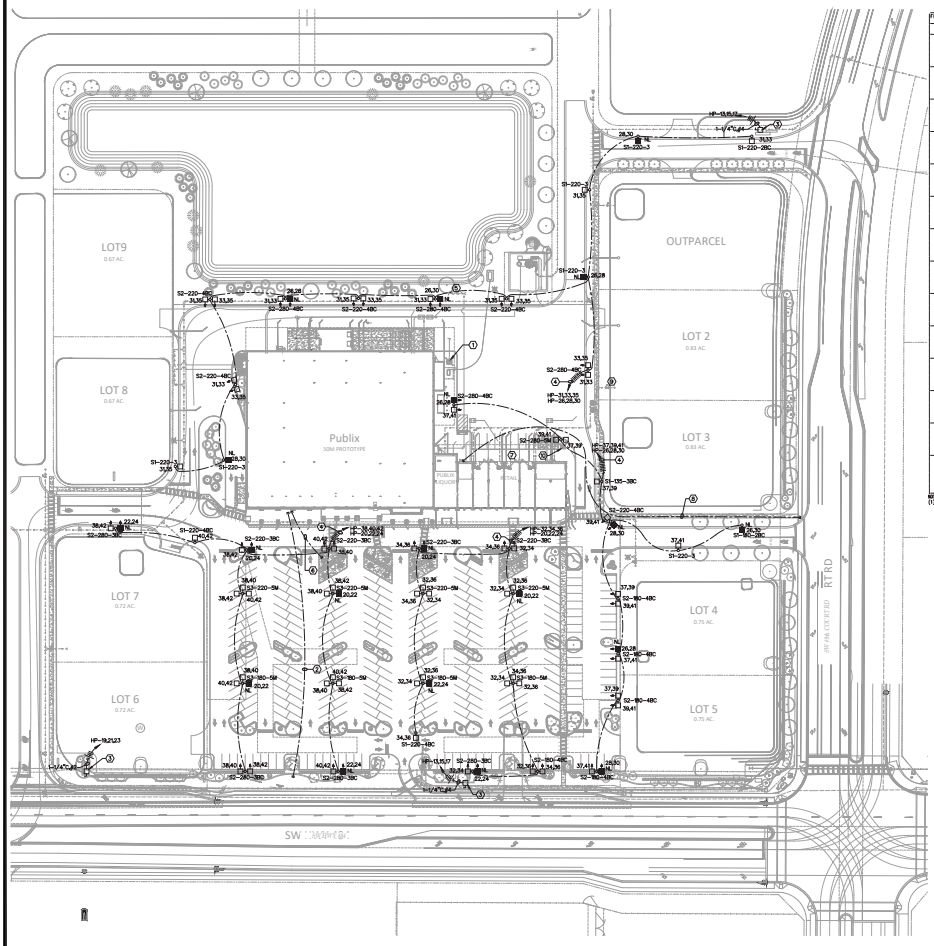
Lakeland, FL

SHEET TITLE
PHOMETRIC DETAILS

SHEET NO
EP2.0

REV.
A



ELECTRICAL SITE PLAN
SCALE: 1"=30'-0"

FIXTURE SCHEDULE						
SYM.	MANUFACTURER	CATALOG NUMBER	LAMPS	MTG.	REMARKS	WATTAGE
S1-135-39C	BEACON	(1) WP-L-44L-135-MV7-3-WC	LED BY MFR.	POLE MOUNTED AT 39'	LED SITE LIGHTING FIXTURE, TYPE 3 DISTRIBUTION WITH BACK SHIELD. VERIFY COLOR WITH ARCHITECT.	135
S1-180-39C	BEACON	(1) WP-L-65L-180-MV7-3-WC	LED BY MFR.	POLE MOUNTED AT 39'	LED SITE LIGHTING FIXTURE, TYPE 3 DISTRIBUTION WITH BACK SHIELD. VERIFY COLOR WITH ARCHITECT.	180
S1-220-39C	BEACON	(1) WP-L-86L-220-MV7-3-WC	LED BY MFR.	POLE MOUNTED AT 39'	LED SITE LIGHTING FIXTURE, TYPE 3 DISTRIBUTION WITH BACK SHIELD. VERIFY COLOR WITH ARCHITECT.	220
S1-220-3	BEACON	(1) WP-L-86L-220-MV7-3	LED BY MFR.	POLE MOUNTED AT 30'	LED SITE LIGHTING FIXTURE, TYPE 3 DISTRIBUTION VERIFY COLOR WITH ARCHITECT.	220
S1-220-4BC	BEACON	(1) WP-L-86L-220-MV7-4-WC	LED BY MFR.	POLE MOUNTED AT 39'	LED SITE LIGHTING FIXTURE, TYPE 4 DISTRIBUTION WITH BACK SHIELD. VERIFY COLOR WITH ARCHITECT.	220
S2-180-39C	BEACON	(2) WP-L-65L-180-MV7-3-WC	LED BY MFR.	POLE MOUNTED AT 39'	LED SITE LIGHTING FIXTURE, TYPE 3 DISTRIBUTION WITH BACK SHIELD. VERIFY COLOR WITH ARCHITECT.	180 EACH HEAD
S2-220-39C	BEACON	(2) WP-L-86L-220-MV7-3-WC	LED BY MFR.	POLE MOUNTED AT 39'	LED SITE LIGHTING FIXTURE, TYPE 3 DISTRIBUTION WITH BACK SHIELD. VERIFY COLOR WITH ARCHITECT.	220 EACH HEAD
S2-220-4BC	BEACON	(2) WP-L-86L-220-MV7-4-WC	LED BY MFR.	POLE MOUNTED AT 39'	LED SITE LIGHTING FIXTURE, TYPE 4 DISTRIBUTION WITH BACK SHIELD. VERIFY COLOR WITH ARCHITECT.	220 EACH HEAD
S2-280-39C	BEACON	(2) WP-L-86L-280-MV7-3-WC	LED BY MFR.	POLE MOUNTED AT 39'	LED SITE LIGHTING FIXTURE, TYPE 3 DISTRIBUTION WITH BACK SHIELD. VERIFY COLOR WITH ARCHITECT.	280 EACH HEAD
S2-280-4BC	BEACON	(2) WP-L-86L-280-MV7-4-WC	LED BY MFR.	POLE MOUNTED AT 39'	LED SITE LIGHTING FIXTURE, TYPE 4 DISTRIBUTION WITH BACK SHIELD. VERIFY COLOR WITH ARCHITECT.	280 EACH HEAD
S2-280-5M	BEACON	(2) WP-L-86L-280-MV7-5SM	LED BY MFR.	POLE MOUNTED AT 30'	LED SITE LIGHTING FIXTURE, TYPE 5SM DISTRIBUTION VERIFY COLOR WITH ARCHITECT.	280 EACH HEAD
S2-180-5M	BEACON	(2) WP-L-65L-180-MV7-5SM	LED BY MFR.	POLE MOUNTED AT 30'	LED SITE LIGHTING FIXTURE, TYPE 5SM DISTRIBUTION VERIFY COLOR WITH ARCHITECT.	180 EACH HEAD
S3-220-5M	BEACON	(3) WP-L-86L-220-MV7-5SM	LED BY MFR.	POLE MOUNTED AT 30'	LED SITE LIGHTING FIXTURE, TYPE 5SM DISTRIBUTION VERIFY COLOR WITH ARCHITECT.	220 EACH HEAD
POLE	ACUITY BRANDS/GE PRECAST SPECIALTIES		———	DIRECT BURIAL	30'-0" LONG SQUARE TAPERED CONCRETE POLE WITH 2-5/8" DIA. TENON, MIN 5.0" EMBED PER 10' LENGTH ABOVE GRADE TO BE 6'-0". BELOW FINISHED GRADE.	

NOTE:
(1) CONTRACTOR SHALL BE REQUIRED TO SUBMIT CALCULATIONS FROM THE POLE MANUFACTURER, SEALED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF FLORIDA, TO CERTIFY WIND LOAD CONFORMANCE OF EACH ENTIRE POLE AND FIXTURE ASSEMBLY.

NOTES

1. APPROXIMATE LOCATION OF PUBLIX UTILITY COMPANY PAD MOUNTED TRANSFORMER WITH 120/208 VOLT SECONDARY. EC SHALL COORDINATE CONCRETE PAD INSTALLATION WITH UTILITY COMPANY AND PUBLIX INTERIOR CONTRACTOR.
2. APPROXIMATE LOCATION OF PVC FOR PUBLIX TELEPHONE. EC SHALL PROVIDE (3) 3" PVC CONDUITS WITH PULL STRINGS AND EXTEND TO EDGE OF PROPERTY AS SHOWN FOR TELEPHONE CONDUCTORS. EC SHALL EXTEND CONDUITS TO WITHIN 5' OF BUILDING IN LOCATION SHOWN AND COORDINATE CONNECTION TO TELEPHONE CONDUITS EXTENDED FROM PUBLIX WITH INTERIOR CONTRACTOR. EC SHALL ALSO PROVIDE (1) 4"C WITH PULL-STRING IN A SEPARATE TRENCH FROM FOR DATA.
3. APPROXIMATE LOCATION OF PYLON SIGN. PROVIDE 30/3/NF/NEMA 3R DISCONNECT AT SIGN FOR CIRCUITS SHOWN. ROUTE CONDUCTORS THRU LIGHTING CONTACTOR. EC SHALL PROVIDE WP/GFI RECEPTACLE AT BASE OF POLE AND CIRCUIT AS SHOWN. COORDINATE EXACT LOCATION WITH SIGN CONTRACTOR PRIOR TO ROUGH-IN.
4. ROUTE CIRCUITS VIA LIGHTING CONTACTOR.
5. APPROXIMATE LOCATION OF PUBLIX DOUBLE DETECTOR CHECK VALVE. PROVIDE TAMPER SWITCH AND FIRE ALARM CONDUCTORS IN 3/4 C TO PUBLIX FIRE ALARM PANEL.
6. EXTEND (2)2 C WITH PULL-STRING FROM WITHIN 5' OF BUILDING TO LANDSCAPING ISLAND SHOWN, FOR FUTURE USE.
7. APPROXIMATE LOCATION OF PANEL 'HP'.
8. APPROXIMATE LOCATION OF PVC FOR RETAIL TELEPHONE. EC SHALL PROVIDE (2) 4 PVC CONDUITS WITH PULL STRINGS AND EXTEND TO EDGE OF PROPERTY AS SHOWN FOR TELEPHONE CONDUCTORS.
9. APPROXIMATE LOCATION OF RETAIL DOUBLE DETECTOR CHECK VALVE. PROVIDE TAMPER SWITCH AND FIRE ALARM CONDUCTORS IN 3/4 C TO RETAIL SPRINKLER MONITORING PANEL.
10. APPROXIMATE LOCATION OF RETAIL UTILITY COMPANY PAD MOUNTED TRANSFORMER WITH 120/208 VOLT SECONDARY. EC SHALL COORDINATE CONCRETE PAD INSTALLATION WITH UTILITY COMPANY.

GENERAL NOTE

1. ALL SITE LIGHTING CONDUCTORS SHALL BE #10 AWG IN 3/4"C, U.O.N.

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SHEET TITLE
ELECTRICAL SITE PLAN

SHEET NO: ES1.0
REV: A

PANEL 'HP'
120/208 VOLT, 3 PHASE, 4 WIRE
100A MCB

SURFACE MOUNTED, NEMA 3R
REFER TO FAULT CURRENT STUDY (BUS AFC) FOR MIN. AIC REQUIREMENT
PROVIDE WITH GROUND BAR

CKT	DESCRIPTION	BREAKER TRIP	POLE	VOLT	KVA	LOAD CODE	CKT	DESCRIPTION	BREAKER TRIP	POLE	VOLT	KVA	LOAD CODE
1	SPRINKLER MONITOR PANEL (1)	20	1	120	0.7	3	2	LIGHTING	20	1	120	0.1	1
3	CONTACTOR/STOPC	20	1	120	0.7	4		CU-VAHU1	15	2	208	3.5	7
5	EXTERIOR LIGHTING	20	1	120	0.3	1	6	----------					
7	EXTERIOR LIGHTING	20	1	120	0.3	1	8	SPARE	20	1	120		
9	SPRINKLER RISER ROOM	20	1	120	0.4	2	10	SPARE	20	1	120		
11	IRRIGATION CONTROLLER (2)	20	1	120	0.5	7	12	SPARE	20	1	120		
13	SIGN	20	1	120	1.2	1	14	SPARE	20	1	120		
15	SIGN	20	1	120	1.2	1	16	SPACE		1			
17	RECEPTACLE	20	1	120	0.2	5	18	SPACE		1			
19	SIGN	20	1	120	1.2	1	20	SITE NL LIGHTING	30	3	208	2.1	1
21	SIGN	20	1	120	1.2	1	22	----------					
23	RECEPTACLE	20	1	120	0.2	5	24	----------					
25	SPACE		1				26	SITE NL LIGHTING	30	3	208	2.3	1
27	SPACE		1				28	----------					
29	SPACE		1				30	----------					
31	SITE LIGHTING	30	3	208	3.5	1	32	SITE LIGHTING	30	3	208	3.5	1
33	----------						34	----------					
35	----------						36	----------					
37	SITE LIGHTING	30	3	208	2.5	1	38	SITE LIGHTING	30	3	208	4.0	1
39	----------						40	----------					
41	----------						42	----------					

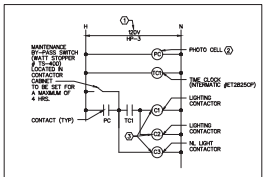
LOAD CODES	CONNECTED LOAD (KVA)	DEMAND FACTOR	DEMAND LOAD
1 LIGHTING	29	1.25	29.5
2 HEAT	0	1.00	0.0
3 AIR CONDITIONING	0		0.0
4 MOTORS	0	25% OF LARGEST MOTO	0.0
5 RECEPTACLES	0	NEC 220.44	0.0
6 MISC. CONTINUOUS LOADS	0	1.25	0.0
7 MISC. NON-CONTINUOUS LOADS	4	1.00	4.0
8 KITCHEN EQUIPMENT (6 PIECES)	0	0.65	0.0
9 HOTEL ROOM LOADS	0	NEC 220.42	0.0
	------	------	----
	29		34.0
			0.0 LESS SMALLEST OF HEAT/AC

			34.5 TOTAL DEMAND LOAD
		VOLTAGE	208

		PHASE	3
			------
			95 AMPS

NOTES:
(1) PROVIDE LOCK-ON DEVICE
(2) PROVIDE GFI RECEPTACLE ADJACENT TO PANEL WITH WP WHILE IN USE COVER SUFFICIENT FOR IRRIGATION CONTROLLER USE.

GENERAL NOTES
(1) PROVIDE A BREAKER TIE FOR ALL BRANCH CIRCUITS THAT ARE PART OF A MULTIWIRE BRANCH CIRCUIT HOMERUN.



LIGHTING CONTROL DIAGRAM
SCALE: NONE

CONTACTOR SCHEDULE

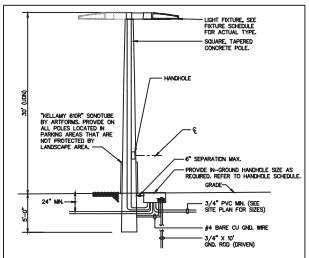
CONTACTOR CABINET	DESIGNATION	# OF POLES	CIRCUITS CONTROLLED	CONTROLLED BY
LCC	C1	12	HP-31,33,35,12,14,16,37,39,41	PC ON / TC OFF
			HP-36,40,42	
	C2	12	HP-5,7	PC ON / TC OFF
	C3	12	HP-20,22,24,26,28,30	PC ON / PC OFF

GENERAL NOTE:
1. BOTH 15 WIRINGS FOR UNCONTROLLED CIRCUIT REQUIREMENTS, SOME CIRCUITS MAY BE INITIALLY CONTROLLED.

NOTES ○
1. 120V TO BE DERIVED FROM LOCAL 120/208V PANEL. REFER TO CONTACTOR SCHEDULE THIS SHEET.
2. PHOTOCELL IS INTERMATIC #EK4236S. LOCATED ABOVE ROOF LINE FACING NORTH.
3. C's TO BE SQUARE D CLASS 8903 MULTIPOLE, ELECTRICALLY HELD LIGHTING CONTACTORS WITH 30A CONTACTS. OPEN TYPE. REFER TO CONTACTOR SCHEDULE THIS SHEET FOR CONTACTOR DESIGNATIONS.

GENERAL NOTES
1. LOCATE CONTACTORS AND BYPASS SWITCH IN N-1 LIGHTING CONTROL CABINET (LCC). LCC TO BE LOCKABLE WITH HINGED DOOR, MINIMUM DIMENSIONS 24" W X 24" H X 8" D. CC TO PROVIDE SKETCH INDICATING LAYOUT OF COMPONENTS WITH SUBMITTALS.
2. REFER TO CONTACTOR SCHEDULE THIS SHEET AND PLAN VIEWS FOR LCC LOCATIONS.

NOTES ○
1. EXISTING UTILITY COMPANY PAD MOUNTED TRANSFORMER WITH 120/208 VOLT SECONDARY.
2. EXISTING SERVICE LATERAL CONSISTING OF (3) PARALLEL RUNS OF 4/C WITH 4 #400 KCMIL COPPER EACH.
3. EXISTING 1200 AMP HEAVY-DUTY, 3 POLE, NEMA 3R, 250 VOLT, SERVICE ENTRANCE RATED, DISCONNECT WITH SOLID NEUTRAL, FUSED AT 1000 AMPS WITH CLASS L CURRENT LIMITING FUSES.
4. EXISTING 1200 AMP HEAVY-DUTY, 3 POLE, NEMA 3R, 250 VOLT, SERVICE ENTRANCE RATED, DISCONNECT WITH SOLID NEUTRAL, FUSED AT 1000 AMPS WITH CLASS L CURRENT LIMITING FUSES.
5. EXISTING GROUNDING ELECTRODE CONDUCTOR TO CONSIST OF #3/0 FROM N-G BOND IN 'MAIN'.
6. EXISTING #6 COPPER CONDUCTOR TO TELEPHONE BOARD AND PROVIDE 6' OF SLACK CONDUCTOR IN TELEPHONE CABINET.
7. EXISTING 3 PARALLEL 4"C WITH 4 #400 KCMIL, 1 #2/0 EG EACH.
8. EXISTING 16 X16 X12" NEMA 3R WIREWAY WITH LOCKABLE COVER. BOND WIREWAY TO EG.
9. EXISTING 200AMP SELF-CONTAINED METER SOCKET.
10. EXISTING 200 AMP HEAVY-DUTY, NEMA 3R, 3 POLE, 250 VOLT, DISCONNECT, FUSED AT 200 AMPS WITH CLASS RK1 CURRENT LIMITING FUSES.
11. EXISTING (1) 2-1/2" EMPTY CONDUIT FROM DISCONNECT TO PUBLIX ELECTRICAL ROOM.
12. EXISTING 24 X24 X6" DEEP, NEMA 3R, HINGED COVER BOX WITH CONTACTORS IN ACCORDANCE WITH SCHEDULE AND 24-HR, 7-DAY, TIME CLOCK.
13. EXISTING 120 VOLT PHOTO CELL MOUNTED ON WEATHERPROOF BOX ON ROOF FACING NORTH.
14. EXISTING TYPE 1 SURGE PROTECTIVE DEVICE (SPD).
15. EXISTING (1) 4"C WITH 4 #3/0, 1 #6 EG.
16. EXISTING (1) 4" CONDUIT TO TENANT SPACE FOR SERVICE.
17. EXISTING 2"C WITH 4 #3/0, 1 #2/0 EG.
18. EXISTING 4"C WITH 4 #3/0, 1 #6 EG, EXTENDED TO DISCONNECT.
19. EXISTING 1" EMPTY CONDUIT WITH PULL-STRING TO BELOW EMS BOARD IN PUBLIX ELECTRICAL ROOM.
20. EXISTING 200/3/NF/NEMA 3R DOUBLE THROW DISCONNECT.
21. EXISTING 16 X16 X10" NEMA 3R WIREWAY WITH LOCKABLE COVER. BOND WIREWAY TO EG.
22. EXISTING 1-1/2"C WITH 4 #, 1 #1 EG.
23. EXISTING 100AMP SELF-CONTAINED METER SOCKET.



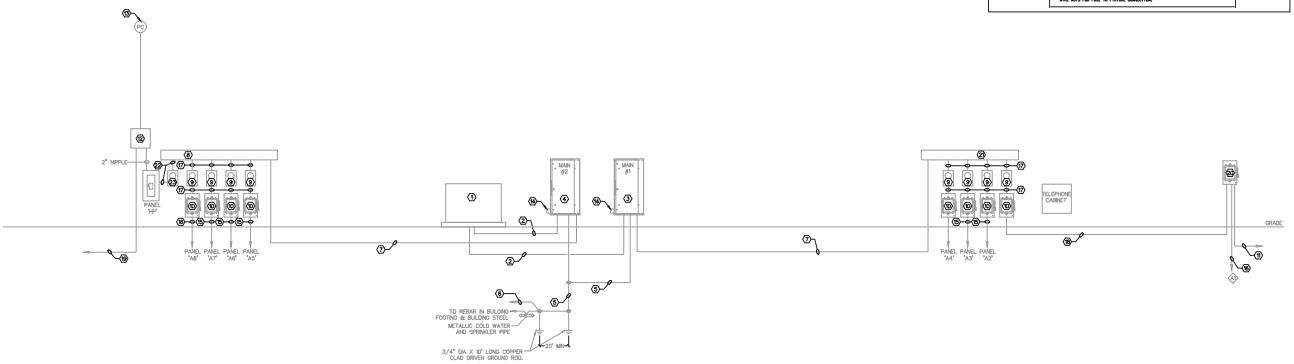
PARKING LOT CONCRETE POLE DETAIL
SCALE: NONE

GENERAL NOTES
1. AT EACH POLE LOCATION, THE CONTRACTOR SHALL PROVIDE A 3/4"X10' COPPER CLAD GROUND ROD CONNECTED TO A #4 BARE COPPER CONDUCTOR, EXTENDED TO TENON SLIP FITTER. EQUIPMENT GROUNDING CONDUCTORS SHALL ALSO BE BONDED TO THE GROUND ROD. ALL CONNECTIONS TO THE GROUND ROD SHALL BE BY EXOTHERMIC WELD CONNECTION.
2. ALL POLES ARE TO BE PROVIDED WITH HAND HOLES (MINIMUM 3"X5").
3. PROVIDE ALL HARDWARE NECESSARY TO COMPLETE THE INTENDED INSTALLATION.
4. CONTRACTOR SHALL BE REQUIRED TO SUBMIT CALCULATIONS FROM THE POLE MANUFACTURER, SEALED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF FLORIDA, TO CERTIFY CONFORMANCE OF EACH ENTIRE POLE AND FIXTURE ASSEMBLY TO THE FOLLOWING STANDARDS:
   A. 90 MPH IN ACCORDANCE WITH AASHTO SPECIFICATIONS.
   B. 150 MPH IN ACCORDANCE WITH CALCULATIONS DICTATED IN THE FLORIDA BUILDING CODE.
5. CONTRACTOR IS TO FURNISH AND INSTALL IN-LINE BALLAST FUSES IN BUSSMANN "TRON" WEATHERPROOF FUSE HOLDERS #HEB-SERIES WITH KTK FUSES (SIZE AS REQUIRED). FUSE EACH LUMINAIRE SEPARATELY. LOCATE FUSES IN HANDHOLE OF POLE.
6. AN IN-GROUND HANDHOLE SHALL BE INSTALLED AT EVERY POLE LOCATION WHETHER OR NOT INDICATED ON THE DRAWINGS. THE HANDHOLE SHALL BE SIZED TO CONTAIN ALL CONNECTOR KITS, AND GROUND RODS. ALL CONNECTIONS IN HANDHOLE SHALL BE MADE WITH WATERPROOF, NEI POLARIS BLUE (SUBMERSIBLE) OR EQUIVALENT AND KING "DRY-CONN" WIRE NUTS FOR FUSE TO FIXTURE CONNECTION.

IN-GROUND HANDHOLE SCHEDULE

MARK	DESCRIPTION
HH SMALL	POLYMER CONCRETE, UL LISTED, HANDHOLE WITH BOLT DOWN COVER AND OPEN BOTTOM. COVER TO BE LIFT OUT, LOCKING TYPE WITH (2) HEX HEAD BOLTS. COVER TO INDICATE "ELECTRIC". NOMINAL BOX SIZE 13"W X 24"L X 18"D. QUAZITE (PG1318BA12/PG1318KA00-17, LANDSCAPED AREAS - UL TIER 5 QUAZITE (PG1318BA12/PG1318KA00-17, PAVED PARKING AREAS - UL TIER 15
HH MEDIUM	POLYMER CONCRETE, UL LISTED, HANDHOLE WITH BOLT DOWN COVER AND OPEN BOTTOM. COVER TO BE LIFT OUT, LOCKING TYPE WITH (2) HEX HEAD BOLTS. COVER TO INDICATE "ELECTRIC". NOMINAL BOX SIZE 17"W X 24"L X 18"D. QUAZITE (PG1730BA24/PG1730KA00-17, LANDSCAPED AREAS - UL TIER 5 QUAZITE (PG1730BA24/PG1730KA00-17, PAVED PARKING AREAS - UL TIER 15
HH3 LARGE	POLYMER CONCRETE, UL LISTED, HANDHOLE WITH BOLT DOWN COVER AND OPEN BOTTOM. COVER TO BE LIFT OUT, LOCKING TYPE WITH (2) HEX HEAD BOLTS. COVER TO INDICATE "ELECTRIC". NOMINAL BOX SIZE 17"W X 30"L X 18"D. QUAZITE (PG1730BA30/PG1730KA00-17, LANDSCAPE AREAS - UL TIER 5 QUAZITE (PG1730BA30/PG1730KA00-17, PAVED PARKING AREAS - UL TIER 15

NOTES:
1. CONDUITS TO BE STUBBED A MINIMUM OF 4" ABOVE GRADE.
2. FURNISH AND INSTALL SMALL 1/4 INCH OF GRAVEL FOR DRAINAGE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
3. ALL SPLICES SHALL BE MADE WITH WATERPROOF, SNAP-LOCK (EL FILLER CONNECTOR KITS EQUAL TO NEI POLARIS BLUE (SUBMERSIBLE) CONNECTORS OR EQUIVALENT AND KING "DRY-CONN" WIRE NUTS FOR FUSE TO FIXTURE CONNECTION.



EXISTING POWER RISER DIAGRAM
SCALE: NONE

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Job Number: 51253

REVISION / ISSUE HISTORY

ISSUE #	DATE	REVISION / ISSUE CASE
A	05-23-2024	65% Public Submittal

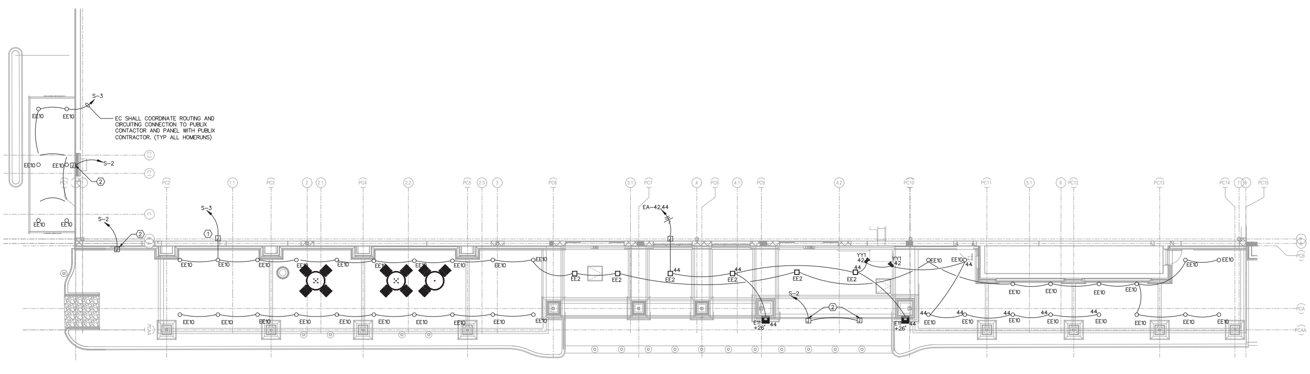
PROJECT NO: 2024051E
DRAWN BY: AS
PERMIT SUB DATE:
CHECKED BY: DAS

PROJECT
Ocala - Publix Canopy
SW Hwy 484 & SW 49th CT RD
Ocala, Florida

CLIENT
Publix Super Markets, Inc
3300 Publix Corporate Pkwy
Lakeland, FL

SHEET TITLE
ELECTRICAL SITE DETAILS

SHEET NO: EP2.0
REV: A



CANOPY ELECTRICAL PLAN
SCALE: 1/8"=1'-0"

FIXTURE SCHEDULE

	MARK	LUMINAIRE WATTAGE	MANUF.	CATALOG NUMBER	DESCRIPTION	MOUNTING	POWER SUPPLY	
							QTY.	TYPE
	EE2	55	BEACON	CLO/24L-55/4K/T5QM/UNV/SQ/WHT	55W LED RECESSED CLG. MED DISTRIBUTION	RECESSED	1	LED DRIVER
	EE10	24	INDY	LRM4 23LM 35K MVOLT G4 80CRI ZT WPR CD	2300LUMENS LED RECESSED DOWN LIGHT	RECESSED	1	LED DRIVER
*	E11	136	BEACON	TRV-D/60L-136/4K/T3/UNV/WHT	TYPE III DN DISTRIBUTION LED WALLPACK WHITE COLOR	WALL MTD.	1	LED DRIVER
	YY1	27	HUBBELL	FML-52	ATM WALL WASH LED - WHITE	CEILING MOUNT	NA	LED DRIVER

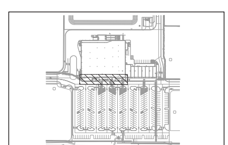
* INDICATES UL LISTED FIXTURE SUITABLE FOR WET/DAMP LOCATION TO COMPLY WITH N.E.C. 410-4.

NOTES

1. APPROXIMATE LOCATION OF PANELS 'S' AND 'EA'.
2. PROVIDE JUNCTION BOX AND 3/4" EMPTY CONDUIT EXTEND INTO PUBLIX SPACE FOR FUTURE SIGN CIRCUITING. COORDINATE JUNCTION BOX LOCATIONS WITH SIGN INSTALLER PRIOR TO ROUGH-IN.

GENERAL NOTES

1. ALL CONDUCTORS SHALL BE #10 AWG IN 3/4"C, UON.
2. EC SHALL VERIFY ALL LIGHT FIXTURE LOCATIONS WITH ARCHITECT PRIOR TO ROUGH-IN.
3. ALL FIXTURES TO BE SUPPLIED AND INSTALLED BY EC.
4. NO SUBSTITUTIONS ALLOWED.



KEY PLAN
SCALE: NONE

CUHACI PETERSON

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Maitland, FL 32751

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Florida Corporate Certificate #AA C000526

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ARCHITECT/ENGINEER SEAL

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Consulting Engineers, Inc.
Engineering Business No. 9021

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Tampa, Florida 33605
Tel: 813-241-2525
www.colwillengineering.com
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Job Number: 51253

REVISION / ISSUE HISTORY

REV	DATE	REVISION / ISSUE NAME
A	05-23-2024	50% Publix Submittal

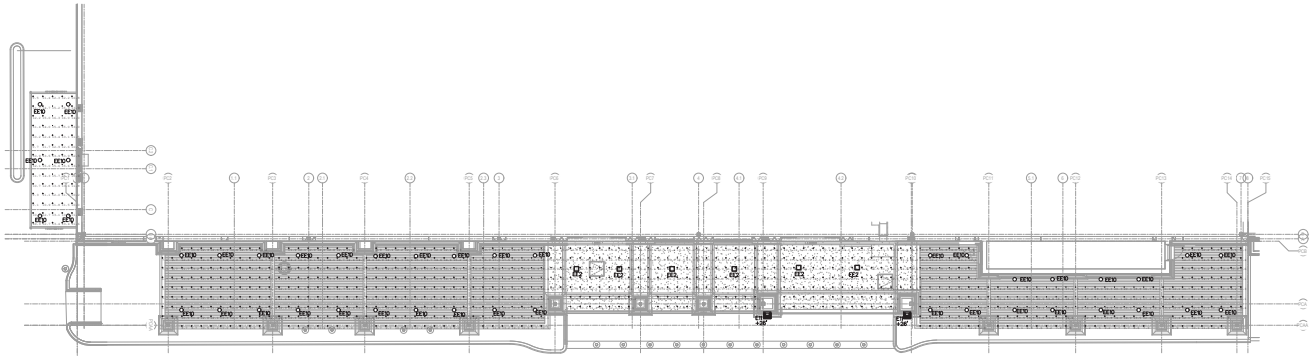
PROJECT NO 20240016
DRAWN BY AS
PERMIT SUB DATE
CHECKED BY DAS

PROJECT
Ocala - Publix Canopy
SW Hwy 484 & SW 49th CT RD
Ocala, Florida

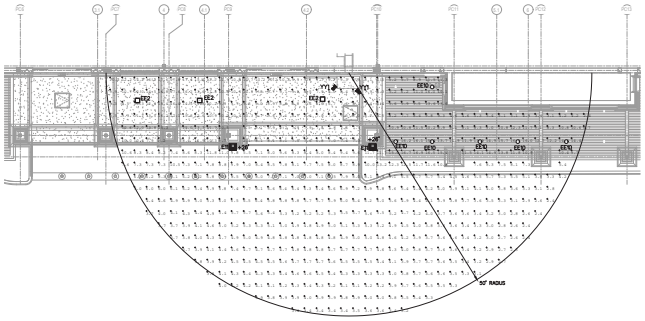
CLIENT
Publix Super Markets, Inc
3300 Publix Corporate Pkwy
Lakeland, FL.

SHEET TITLE
CANOPY ELECTRICAL PLAN

SHEET NO FE1.0
REV A



CANOPY PHOTOMETRIC PLAN
SCALE: 1/8"=1'-0"



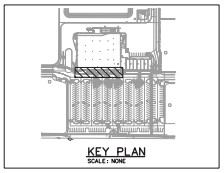
ATM PHOTOMETRIC PLAN
SCALE: 1/8"=1'-0"

Luminaire Schedule

Scene: ATM				
Symbol	Tag	LLF	Description
	SB1	0.900	RSX-24L-53-48K-70CRI-SBV
	SA1	0.900	RSX-24L-53-48-SA1
	AE10	0.900	14MM 1TLM 35K 120 G4 80CRI ST MS CSS
	VX1	0.900	RSX-25E-52-48K-MOD-R-XH

Calculation Summary

Scene: ATM						
Label	Units	Avg	Max	Min	Avg/Min	Max/Min
Drive-Thru	fc	12.87	16.3	8.1	1.59	1.79
Public Canopy	fc	13.83	21.1	5.1	2.71	3.70
ATM	fc	7.05	11.8	2.1	3.36	5.62



KEY PLAN
SCALE: NONE

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Job Number: 51253

REVISION / ISSUE HISTORY

NO.	DATE	REVISION / ISSUE NAME
A	08-23-2024	65% Publix Submittal

PROJECT NO
20240516

DRAWN BY
AG

PERMIT SUB DATE

CHECKED BY
DAS

PROJECT
Ocala - Publix Canopy

SW Hwy 484 & SW 49th CT RD
Ocala, Florida

CLIENT
Publix Super Markets, Inc

3300 Publix Corporate Pkwy
Lakeland, FL

SHEET TITLE
CANOPY ELECTRICAL PLAN

SHEET NO.
FE2.0

REV.
A

SUBMITTAL SUMMARY REPORT
MassGrade-000107-2025

PLAN NAME:	Calesa Township- Mass Grading Phase 4	**LOCATION:**	5575 SW 67TH AVENUE RD OCALA,
APPLICATION DATE:	12/04/2025	**PARCEL:**	35300-000-14
DESCRIPTION:	Mass grading of approximately 540 acres and includes construction of 16 DRA's.		

CONTACTS	NAME	COMPANY
Applicant	Tillman Associates	Tillman & Associates Engineering, LLC
Applicant	Tillman Associates	Tillman & Associates Engineering, LLC
Engineer of Record	Cameron Hines	Tillman and Associates

CONDITION	DESCRIPTION	CREATED BY	CREATED ON	COMMENTS	SATISFIED?
Conditional Comment(s)	Utility Provider Review	Heather Proctor	01/13/2026	The project is located within the Bay Laurel Center Community Development District. The utility provider must confirm that they have reviewed the mass grading plans and have no concerns regarding potential utility conflicts.	No

SUBMITTAL	STARTED	DUE	COMPLETE	STATUS
OCE: Plan Review (DR) v.				Not Received
OCE: Plan Review (DR) v.	12/30/2025	01/14/2026	01/29/2026	Requires Re-submit

SUBMITTAL DETAILS

OCE: Plan Review (DR) v.1

ITEM REVIEW NAME (DEPARTMENT)	ASSIGNED TO	DUE	COMPLETE	STATUS
911 Management (DR) (911 Management)	Kristie Wright	01/14/2026	12/30/2025	Not Required
Environmental Health (Plans) (Environmental Health)	Evan Searcy	01/14/2026	01/13/2026	Approved
Fire Marshal (Plans) (Fire)	Roxanna Coleman	01/14/2026	12/30/2025	Approved
Growth Services Planning & Zoning (DR) (GS Planning and Zoning)	Kenneth Odom	01/14/2026	01/15/2026	Approved
Landscape (Plans) (Parks and Recreation)	Susan Heyen	01/14/2026	01/05/2026	Requires Re-submit
Comments	1. Tree ID in table on sheet 09.09 does not correlate to trees on plan, please show tree id on individual trees. 2. Modified C buffer requires waiver to approve. Please submit waiver request			
OCE Design (Plans) (Office of the County Engineer)	Jack Dingman	01/14/2026	01/29/2026	Approved
Corrections	Additional Design Comments (Resolved) - Additional Comments:			
Corrections	2.12.4 - Front page of the plan (Resolved) - 2.12.4 - Front page of the plan: Front page of the plan shall minimally include A through L of this section of the LDC.			
Corrections	2.12.4.E & 6.2.1.A - Licensed Professional (Resolved) - 2.12.4.E & 6.2.1.A - Licensed Professional: 2.12.4.E & 6.2.1.A - The name, address, phone number, signature, date, license number, and seal of the responsible professional shall be shown on each plan sheet			
Corrections	2.12.3 - Title block (Resolved) - 2.12.3 - Title block: Title block on all sheets denoting type of application; project name, location, county, and state; and date of original and all revisions			
Corrections	6.2.1.B.-F. - Requirements (Resolved) - 6.2.1.B.-F. - Requirements: Technical standards and requirements as listed in Section 6.2.1.B. through F. of the LDC			
OCE Property Management (Plans) (Office of the County Engineer)		01/14/2026	01/15/2026	Not Required
Comments	ROW is not a reviewer for this type of plan.			
OCE Stormwater (Permits & Plans) (Office of the County Engineer)	Alexander Turnipseed	01/14/2026	01/02/2026	Requires Re-submit
Corrections	6.13.4.D - Recovery Analysis (Not Resolved) - 6.13.4.D - Recovery Analysis: All retention/detention areas shall recover the total volume required to meet the discharge volume limitations within 14 days following the design rainfall event. For retention/detention areas not able to recover the total required volume within 14 days, the stormwater facility volume shall be increased to retain an additional volume from a second design storm.			

SUBMITTAL SUMMARY REPORT (MassGrade-000107-2025)

ITEM REVIEW NAME (DEPARTMENT)	ASSIGNED TO	DUE	COMPLETE	STATUS
OCE Stormwater (Permits & Plans) (Office of the County Engineer)	Alexander Turnipseed	01/14/2026	01/02/2026	Requires Re-submit
Corrections	6.13.7 - Geotechnical Criteria (Not Resolved) - 6.13.7 - Geotechnical Criteria: Soil test borings shall be performed to a minimum depth of 10 feet below the proposed finished grade of the bottom of all retention/detention areas or the permanent pool elevation and once the data has been obtained the hole shall be backfilled and compacted. At least two tests shall be performed within the boundary of each proposed retention/detention area. For each half acre of pond bottom area and for each lineal retention/detention area of 250 feet, an additional test shall be conducted. For retention/detention areas utilizing percolation or infiltration in the design model, there shall be a minimum of two infiltration rate tests for each retention/detention area. Data used for soil permeability testing or infiltration analyses for the retention/detention areas shall be signed and sealed by a professional engineer or professional geologist for both data and procedural accuracy. The estimated seasonal high ground water elevation and confining layer shall be clearly identified. The estimated seasonal high water elevation and the confining layer shall be set no lower than the bottom of the boring for the purposes of stormwater system modeling. The pond bottom elevation of a stormwater facility shall be designed a minimum of 1 foot above the estimated seasonal high water elevation. When the pond bottom is within 1 foot of the estimated seasonal high water elevation, a 50 percent reduction factor shall be used for percolation or ground water mounding analysis shall be included.			
Corrections	6.13.4.C - Discharge Conditions (Not Resolved) - 6.13.4.C - Discharge Conditions: All stormwater facilities shall be designed to limit discharges considering open or closed basins per Table 6.13-1. A discharge structure shall be required for all retention/detention areas not designed to retain the entire 100-year 24-hour post-development design storm. Discharge structures shall include a skimmer at a minimum.			
Corrections	6.13.2.B(4) - Hydrologic Analysis (Not Resolved) - 6.13.2.B(4) - Hydrologic Analysis: Hydrologic stormwater model analysis including all input parameters, supporting calculations, assumptions, documentation for design and results.			
Corrections	Additional Stormwater comments (Not Resolved) - Additional Stormwater comments			
Corrections	Final signed and sealed hard copy signature page (Not Resolved) - After all stormwater comments are resolved, please upload a scanned copy of the digitally signed and sealed certification page of the stormwater report. Alternatively, a hard copy can be submitted. If you choose to submit a hard copy, you only need to submit the certification page of the report. A full report is not necessary. However, full reports are accepted if desired.			
Corrections	6.13.4 - Stormwater Quantity Criteria (Not Resolved) - 6.13.4 - Stormwater Quantity Criteria: Methodologies, rainfall distribution and intensities shall be consistent with those approved by the governing water management district. Assumed parameters must be supported by conventional methods. Design storms shall consider open or closed basins as provided in Table 6.13-1.			
Corrections	6.13.2.B(8) - Calculation & Plan Consistency (Not Resolved) - 6.13.2.B(8) - Calculation & Plan Consistency: Calculations must be consistent with the plan sheets and other supporting details. Calculations shall use standard methodology recognized in the State of Florida, including hand and/or computerized calculations.			
Corrections	6.13.6 - Stormwater Quality Criteria (Not Resolved) - 6.13.6 - Stormwater Quality Criteria: The following systems shall be considered as meeting the County's stormwater quality criteria: a) Systems that demonstrate numerically the post-development stormwater quality is equal to or better than the pre-development stormwater quality using methodology approved by the County Engineer or his designee. b) Dry retention systems that have a depth of four feet or less, measured from top of bank to pond bottom, shall have an appropriate vegetative cover. c) Dry retention systems that have a depth of six feet or less, measured from top of bank to pond bottom, with side slopes that are no steeper than 4:1, shall have sodded bottoms. d) Wet retention/detention systems, including wetlands, shall meet the governing State standards. e) Systems demonstrating distributed volume.			
Corrections	6.13.2.B(6) - Freeboard (Not Resolved) - 6.13.2.B(6) - Freeboard: A minimum freeboard of six inches shall be provided for all retention/detention areas.			
Corrections	6.13.12 - Operation and Maintenance (Not Resolved) - 6.13.12 - Operation and Maintenance: Provide an O&M manual detailing the steps for operating and maintaining the proposed private system of DRAs, pipes, inlets, swales, etc. Manual shall be signed by Owner and owner's certification statement shall be on the manual. Owner's certification statement: "I hereby certify that I, my successors, and assigns shall perpetually operate and maintain the stormwater management and associated elements in accordance with the specifications shown herein and on the approved plan".			
OCE Survey (Plans) (Office of the County Engineer)	Theresa Smail	01/14/2026	01/06/2026	Approved
OCE Traffic (Permits & Plans) (Office of the County Engineer)	Chris Zeigler	01/14/2026	12/30/2025	Requires Re-submit
Corrections	2.12.30 - Construction entrance (Not Resolved) - 2.12.30 - Construction entrance: Show the construction entrance and provide a route plan.			
Utilities (OCE Plans) (Utilities)	Heather Proctor	01/14/2026	01/13/2026	Informational
Comments	Please see Conditions. Project is within the Bay Laurel Center Community Development District.			

SUBMITTAL SUMMARY REPORT
33554

PLAN NAME: DIAMOND A SHOPPING CENTER
LOCATION: 0
APPLICATION DATE: 10/29/2025
PARCEL: 41200-056-04
DESCRIPTION:

CONTACTS	NAME	COMPANY
Applicant	Tillman Associates	Tillman & Associates Engineering, LLC
Applicant	Tillman Associates	Tillman & Associates Engineering, LLC
Developer	Carson Vandeven	
Engineer of Record	Tillman Associates	Tillman & Associates Engineering, LLC
Engineer of Record	Tillman Associates	Tillman & Associates Engineering, LLC

CONDITION	DESCRIPTION	CREATED BY	CREATED ON	COMMENTS	SATISFIED?
Conditional Comment(s)		Alexander Turnipseed	11/20/2025	Please provide a copy of the NPDES permit or NOI as well as a copy of the District permit prior to construction.	No

SUBMITTAL	STARTED	DUE	COMPLETE	STATUS
OCE: Plan Review (DR) v.				Not Received
OCE: Plan Review (DR) v.	10/31/2025	11/14/2025	12/23/2025	Requires Re-submit

SUBMITTAL DETAILS

OCE: Plan Review (DR) v.1

ITEM REVIEW NAME (DEPARTMENT)	ASSIGNED TO	DUE	COMPLETE	STATUS
911 Management (DR) (911 Management)	Jamie Waldron	11/14/2025	11/20/2025	Approved
Environmental Health (Plans) (Environmental Health)	Evan Searcy	11/14/2025	12/23/2025	Approved
Fire Marshal (Plans) (Fire)	Anthony Marino	11/14/2025	11/26/2025	Approved

Comments

YES 6.18.2 - Fire Flow/Fire Hydrant
N/A 6.18.3 - Gated Communities/Properties
N/A 6.18.4 - Wildland Interface Area
INFO 6.18.5 - Access Control Box Any commercial building which contains a fire sprinkler system and or fire alarm system must install an access control box. The access control box must be ordered on a specific form signed by MCFR to ensure the correct box is ordered for the jurisdiction. Please contact our office to obtain the form 352-291-8000.
YES 6.18.2.D - Fire Department Connections
INFO NFPA 1 Chapter 11.10.1 - In Building Minimum Radio Signal Strength All new buildings and buildings which conduct renovations increasing the total floor space by greater than 50 percent of the floor area must comply with NFPA 1 Chapter 11.10.1. NFPA 1 Chapter 11.10.1 provides for the AHJ to establish minimum standards for in building public safety radio communications. Please be aware that your building will be required to conduct a test for the minimum radio signal strength to determine coverage. If the minimum radio signal strength is deemed insufficient then a radio signal enhancement system must be installed and the building retested to ensure it meets the minimum criteria. Please plan for this early in your project and contact Marion County Fire Rescue with any questions 352-291-8000.
YES 6.18.2.G - Painting and Marking of Fire Hydrants
YES NFPA 1 Chapter 18.2.3 - Fire Dept Access Roads
N/A Additional Fire comments

Growth Services Planning & Zoning (DR) (GS Planning and Zoning)	Xinyi Chen	11/14/2025	11/25/2025	Requires Re-submit

Corrections 2.12 - Land Use Designation-adjacent properties (Not Resolved) - 2.12 - Land Use Designation-adjacent properties: Show existing land use designation on the adjacent properties.

Corrections 2.12 - Zoning Classification-adjacent properties (Not Resolved) - 2.12 - Zoning Classification-adjacent properties: Show existing zoning classification on the adjacent properties.

Corrections 2.12.24 - Landscape requirements/6.8.6 - Buffering (Not Resolved) - 2.12.24 - Landscape requirements/6.8.6 - Buffering: Show buffer types, locations, and dimensions of required buffering on plan. Show buffer descriptions and illustrations of each proposed buffer (including longitudinal and transverse cross-sections)

Corrections 2.1.3 - Order of plan approval and consistency (Resolved) - Waiver approved at owner's risk. [2.1.3 - Order of plan approval and consistency: The plans shall be consistent with approved PUD/Master Plan/Final Plat. Plans listed below may be reviewed concurrently, but must be approved in the order listed below, when applicable and when the proper land use and zoning are in place: A.Master Plan. B.Preliminary Plat. C.Improvement Plan. D.Final Plat. E.Major Site Plan. However, a Major Site Plan can be substituted for the Improvement Plan and can be approved before approval of the Final Plat in cases when the infrastructure improvements supporting the plat are proposed as part of the Major Site Plan application.]

SUBMITTAL SUMMARY REPORT (33554)

ITEM REVIEW NAME (DEPARTMENT)	ASSIGNED TO	DUE	COMPLETE	STATUS
Growth Services Planning & Zoning (DR) (GS Planning and Zoning)	Xinyi Chen	11/14/2025	11/25/2025	Requires Re-submit
Corrections	2.12.20 - Phases of development (Not Resolved) - 2.12.20 - Phases of development: Show all phases of development on plan. Improvements must be in place to support each phase of development at time of phase completion.			
Corrections	2.12.22 - Tracts (Not Resolved) - 2.12.22 - Tracts : Show existing and proposed tracts on plan, and provide description of each tract.			
Corrections	2.12.4/6.11.7 - Loading area (Not Resolved) - 2.12.4/6.11.7 - Loading area: Show proposed loading areas on plan, per Sec. 6.11.7. - Loading areas.			
Corrections	2.12.23 - Building lot typicals (Not Resolved) - 2.12.23 - Building lot typicals: Show building lot typicals (primary and accessory structures) in table format and illustration.			
Corrections	2.12.27 - Location & screening of outside storage (Not Resolved) - 2.12.27 - Location & screening of outside storage: Provide a statement indicating any outside storage area is proposed. If applicable, show location of outside storage areas on plan. Check special requirements under zoning code sections.			
Corrections	2.12 - Owner and applicant name (Not Resolved) - 2.12 - Owner and applicant name: Show name, address, phone number, and signature of the owner and applicant on the cover sheet.			
Corrections	2.12.16/6.5 - EALS or Exemption provided (Not Resolved) - 2.12.16/6.5 - EALS or Exemption provided?: Provide Environmental Assessment of Listed Species (EALS) or submit an Exemption (EALS-ER). Copy of the EALS/EALS-ER will be forwarded to review agency for comments. Refer to LDC Sec. 6.5 for submittal requirements and review procedures.			
Corrections	2.12.19 - Dimension & location of site improvement (Not Resolved) - 2.12.19 - Dimension & location of site improvement: Provide dimensions and location of all existing site improvements; dimensions and location for all proposed site improvements.			
Corrections	2.12 - Lot area & lot width (Not Resolved) - 2.12 - Lot area & lot width: Provide required lot area and lot width in the site data table. Show proposed lot area and lot width of all lots in the site data table and on the plan.			
Landscape (Plans) (Parks and Recreation)	Susan Heyen	11/14/2025	11/19/2025	Approved
Comments	No Landscape changes, plan type only			
OCE Design (Plans) (Office of the County Engineer)		11/14/2025	11/26/2025	Approved
Comments	YES 2.21.2.B - Major Site Plan fee of $1,000..00 + ($10.00 x total site acreage) 11/4/25-fee due with resubmittal N/A 2.21.2.B - Plan review fee of $40.00 made payable to Marion County Health Department N/A Traffic study / methodolgy fee of $200.00 made payable to Marion County BCC is required prior to plan approval. Refer to Resolution 10-R-630 for the current fee schedule. N/A 2.1.6.A - $100 Resubmittal fee payable to Marion County BCC N/A 2.1.7.A - $100 Revision fee payable to Marion County BCC N/A 2.1.3 - Order of plan approval YES 2.12.3 - Title block on all sheets denoting type of application; project name, location, county, and state; and date of original and all revisions YES 2.12.4.A - Type of application on front page YES 2.12.4.B - Project name centered at top of front page YES 2.12.4.C - Name, address, phone number, and signature of owner and applicant on front sheet YES 2.12.4.D - Owner's certification on front sheet: I hereby certify that I, my successors, and assigns shall perpetually maintain the improvements as shown on this plan YES 2.12.4.E - The name, address, phone number, signature, date, license number, and seal of the responsible professional shall be shown on each plan sheet YES 6.2.1.A - Name, street address, signature, date, license number, and seal of licensed professional on each sheet YES 2.12.4.F - Licensed professional certification on cover sheet with signature and seal on all sheets after plan approval YES 2.12.4.F(1) - Licensed Design Professional Certification: I hereby certify that these plans and calculations were completed in accordance with all applicable requirements of the Marion County Land Development Code, except as waived. YES 2.12.4.G - A key location or vicinity map, with north arrow, with reference to surrounding properties, streets, municipal boundaries, sections, ranges, and township YES 2.12.4.H - A portrait oriented minimal 3 inches x 5 inches space, located 2.75 inches from the right edge of paper and .75 inches from the top edge of paper, shall remain blank to allow for a County approval stamp YES 2.12.4.I & 6.2.1.D - Index of sheets and numbering INFO 2.12.4.K - List of approved waivers, their conditions, and the date of approval 11/4/25-add waivers if requested in future YES 2.12.4.L(1) - Parcel number YES 2.12.7 - A digital version of the plan in a format pre-approved by the Office of the County Engineer YES 2.21.2.A - Multi-phase Major Site Plans may include a separate sheet showing independent, stand alone phasing and shall not be subject to a separate Master Plan application YES 6.2.1.B - Plans shall be legible and meet typical industry standards YES 6.2.1.C - Standardized sheet size shall be 24" x 36" YES 6.2.1.F - North arrow and graphic drawing and written scale N/A Legal Documents INFO Additional Development Review Comments After approval, plans will be electronically stamped by the County. The applicant will receive an email indicating that approved plans are available for download and are located in the ePlans project Approved folder. For Development Review submittals, with the exception of Final Plats and Minor Site Plans, applicants are required to print, obtain required signatures, and sign and seal two 24”x 36” sets of the electronically stamped approved plan and deliver them to the Office of County Engineer, Development Review Section, located at 412 SE 25th Avenue Ocala, FL 34471. Upon receipt, a development order will be issued. Until such time as that development order is issued, the project does not have final approval and construction, if applicable, shall not commence. For plans requiring As-Builts, As-Builts and associated documentation shall be submitted on paper in accordance with current county requirements.			

SUBMITTAL SUMMARY REPORT (33554)

ITEM REVIEW NAME (DEPARTMENT)	ASSIGNED TO	DUE	COMPLETE	STATUS
OCE Property Management (Plans) (Office of the County Engineer)	Elizabeth Woods	11/14/2025	11/20/2025	Informational

Comments

SunBiz and Map Checked -EMW 11.20.25
IF APPLICABLE:
Sec. 2.18.1.I - Show connections to other phases.
Sec.2.19.2.H – Legal Documents
Legal documents such as Declaration of Covenants and Restrictions, By-Laws, Articles of Incorporation, ordinances, resolutions, etc.
Sec. 6.3.1.B.1 – Required Right of Way Dedication (select as appropriate)
For Public Streets. "[All streets and rights-of-way shown on this plat or name specifically if less than all] are hereby dedicated for the use and benefit of the public."
Sec. 6.3.1.B.2 – Required Right of Way Dedication
For Non-Public Streets. "[All streets and rights-of-way shown on this plat or name specifically if less than all] are hereby dedicated privately to the [entity name]. All public authorities and their personnel providing services to the subdivision are granted an easement for access. The Board of County Commissioners of Marion County, Florida, shall have no responsibility, duty, or liability whatsoever regarding such streets. Marion County is granted an easement for emergency maintenance in the event of a local, state, or federal state of emergency wherein the declaration includes this subdivision or an emergency wherein the health, safety, or welfare of the public is deemed to be at risk."
Sec. 6.3.1.D.3 - Cross Access Easements
For Cross Access Easements. "All parallel access easements shown on this plat are hereby dedicated for the use and benefit of the public, and maintenance of said easements is the responsibility of [entity name]."
Sec. 6.3.1.C.1 - Utility Easements (select as appropriate)
"[All utility easements shown or noted or name specifically if less than all] are dedicated [private or to the public] for the construction, installation, maintenance, and operation of utilities by any utility provider."
Sec. 6.3.1.C.2 – Utility Easements
"[All utility tracts or identify each tract as appropriate] as shown are dedicated [private or to the public] for the construction and maintenance of such facilities."
Sec.6.3.1.D(c)(1)(2)(3) - Stormwater easements and facilities, select as appropriate:
1. "[All stormwater and drainage easements as shown or noted or name specifically if less than all] are dedicated [private or to the public] for the construction and maintenance of such facilities."

2. "[All stormwater management tracts or identify each tract as appropriate] as shown are dedicated [private or to the public] for the construction and maintenance of such facilities."

3. When any stormwater easement and/or management tract is not dedicated to the public or Marion County directly, the following statement shall be added to the dedication language: "Marion County is granted the right to perform emergency maintenance on the [stormwater easement and/or management tract, complete accordingly] in the event of a local, state, or federal state of emergency wherein the declaration includes this subdivision or an emergency wherein the health, safety, or welfare of the public is deemed to be at risk."
Sec.6.3.1.D(f) –
If a Conservation Easement is required the following shall be provided: "A conservation easement [as shown or on tract and identify the tract, complete accordingly] is dedicated to [the Board of County Commissioners of Marion County, Florida or entity name, if not Marion County] for the purpose of preservation of [listed species, habitat, Karst feature and/or native vegetation, complete accordingly]."

OCE Stormwater (Permits & Plans) (Office of the County Engineer)	Alexander Turnipseed	11/14/2025	11/20/2025	Approved
OCE Survey (Plans) (Office of the County Engineer)	Theresa Smail	11/14/2025	11/26/2025	Requires Re-submit

Corrections 2.12.8. - Current boundary and topographic survey (Not Resolved) - 2.12.8. - Current boundary and topographic survey: Current boundary and topographic survey (one foot contour intervals extending 100 feet beyond the project boundary) based upon accepted vertical datum. Surveys will be less than 12 months old and accurately reflect current site conditions, meeting standards set forth in Ch. 5J-17 FAC. Alternate topographic data may be accepted if pre-approved by the Marion County Land Surveyor.

OCE Traffic (Permits & Plans) (Office of the County Engineer)	Chris Zeigler	11/14/2025	11/21/2025	Requires Re-submit

Corrections 6.12.2 - Right-of-way (Not Resolved) - 6.12.2 - Right-of-way: Show the right-of-way width.

Corrections 6.12.11 - Turn lanes (Not Resolved) - 6.12.11 - Turn lanes: Turn lanes shall be required as determined by the Traffic Impact Analysis or for safety purposes as determined by the County. A separate offsite improvement plan is required.

Corrections 6.12.12 - Sidewalks (Not Resolved) - 6.12.12 - Sidewalks: Show sidewalk on the plans as required in section 6.12.12.

Corrections 6.11.4.B - Cross access (Not Resolved) - 6.11.4.B - Cross access: Provide a 24' wide paved cross access easement as specified in 6.11.4.B

Utilities (OCE Plans) (Utilities)	Heather Proctor	11/14/2025	12/18/2025	Requires Re-submit

Corrections 6.15.6.D - Meter Location (Resolved) - 6.15.6.D - Meter Location:

Corrections Parcel numbers match project area (Resolved) - Parcel numbers match project area: The parcels(s) shown on the application and/or site plan must match the project area.

Corrections 6.14.5.A(1) - Existing water & sewer mains shown (Resolved) - 6.14.5.A(1) - Existing water & sewer mains shown: The entire utility system shall be shown on the plan, including existing water systems and all proposed components within the project area.

Corrections 7.1.3 - UT DETAILS - current LDC version (Not Resolved) - 7.1.3 - UT DETAILS - current LDC version: UT details shall be current version based on latest edition of approved LDC

Corrections 6.14.8.A - Completion & Closeout - PLAN NOTE: (Resolved) - 6.14.8.A - Completion & Closeout - PLAN NOTE:

Corrections 6.15.3 - Fire Protection/Fire Flow Capacity (Resolved) - 6.15.3 - Fire Protection/Fire Flow Capacity:

Corrections 6.15.6.G & H - Meters up to 2" and over 2" (Resolved) - 6.15.6.G & H - Meters up to 2" and over 2": Meters up to 2" shall be paid for by the developer and will be installed by MCU through its inventory. Meters over 2" shall be purchased by the developer, and provided to MCU for installation.

SUBMITTAL SUMMARY REPORT (33554)

ITEM REVIEW NAME (DEPARTMENT)	ASSIGNED TO	DUE	COMPLETE	STATUS
Utilities (OCE Plans) (Utilities)	Heather Proctor	11/14/2025	12/18/2025	Requires Re-submit

Corrections	MCU Contact Info on Project Cover Sheet (Resolved) - MCU Contact Info on Project Cover Sheet: Marion County Utilities, 11800 S US Hwy 441, Belleview FL 34420 - Customer Service 24/7/365 352-307-6000
Corrections	6.14.2.C(2) - Industrial Pretreatment/FOG (Resolved) - 6.14.2.C(2) - Industrial Pretreatment/FOG:
Corrections	6.14.2 - Connection Requirements (Resolved) - 6.14.2 - Connection Requirements:
Corrections	6.16.5 - Wastewater Pump Stations (Not Resolved) - 6.16.5 - Wastewater Pump Stations: Private pump stations (6.16.5 A, B); Public Lift Stations (6.16.5 C)
Corrections	6.16.4 - Wastewater Collection Systems (Resolved) - 6.16.4 - Wastewater Collection Systems:
Corrections	6.14.9.B - Transfer of Assets to MCU - PLAN NOTE: (Resolved) - 6.14.9.B - Transfer of Assets to MCU - PLAN NOTE:: Assets shown on this plan require a Bill of Sale before any DEP Clearances will released by MCU. Building permit holds may be affected.
Corrections	6.14.5.C - Hydraulic Analysis (Resolved) - 6.14.5.C - Hydraulic Analysis: The hydraulic analysis is required to analyze the water or wastewater pressures in this area.
Corrections	6.14.5.A(6) - MH locations, rim & invert elevation (Resolved) - 6.14.5.A(6) - MH locations, rim & invert elevation:
Corrections	6.15.7 - Cross Connection Control/Backflow (Resolved) - 6.15.7 - Cross Connection Control/Backflow:
Corrections	6.15.5 - Water Service & Connection (Resolved) - 6.15.5 - Water Service & Connection :
Corrections	6.14.5.A(3) - LS layout, elevations, schedules (Resolved) - 6.14.5.A(3) - LS layout, elevations, schedules: Lift station details shall be included on a separate page showing general location of LS with details, working elevations & schedules.
Corrections	6.15.4 - Water Main Piping Installation (Resolved) - 6.15.4 - Water Main Piping Installation:
Corrections	6.15.6.A - Potable Water Metering - loc/bank/size (Not Resolved) - 6.15.6.A - Potable Water Metering - loc/bank/size:
Corrections	Review Fee as applicable (per Resolution) (Not Resolved) - Review Fee as applicable (per Resolution): MCU review fee for this submittal
Corrections	6.14.4 - Capacity charges - irrigation (Resolved) - 6.14.4 - Capacity charges - irrigation: Projects using MCU irrigation shall must show the irrigation tap, meter placement, size, and backflow. Indicate total SF of irrigated area in anticipation of the irrigation meter request through Customer Service.
Corrections	6.14.5.A(2) - Proposed mains & connections shown (Resolved) - 6.14.5.A(2) - Proposed mains & connections shown: Proposed mains shall be marked as private or public (MCU); points of demarcation shall be called out as necessary to identify changes in ownership. Shall include profile views unless otherwise noted.
Corrections	6.15.6.B - Irrigation Water Metering - size (Resolved) - 6.15.6.B - Irrigation Water Metering - size:
Recommendations	For any questions regarding this review, please contact Heather Proctor, Utilities Development Review Officer, at Heather.Proctor@marionfl.org or by phone at (352) 438-2846.
Recommendations	Irrigation well proposed on site plans. Please note: If after plans are approved by DRC, an irrigation meter and connection to MCU is needed, additional Utility plan will be required. Additional fee(s) will apply.
Recommendations	Informational: All grease traps will be required to undergo a hydrostatic leak test. The test must be witnessed, and the hydrostatic test report must be submitted to Marion County Utilities by the Engineer of Record. Project close-out and utility clearances will not be completed until all required reports have been submitted for review.
Recommendations	Add note to Utility Sheet(s) MCU personnel are to inspect any work performed on or around existing MCU infrastructure. A pre-construction meeting is required to be held a minimum of 48 hours prior to start of any construction. If the pre-construction meeting is not completed, any work may be halted. To schedule, contact MCU's Construction Division, 352) 307-6000, ext. 5 or MCUconstruction@marionfl.org
Recommendations	Informational: Copies of all related permit applications and issued permits must be submitted to the Marion County Utilities Department prior to, or at the time of, the Pre-Construction Meeting.
Recommendations	Plan Page 15.01 – Lift station layout should be flipped so the gravity line enters from the opposite side, preventing conflicts with the force main. As of 11/24/25, MCU Inspector has informed that the manholes for the lift station have already been installed. Please advise on if the station can be reconfigured.
Recommendations	Informational: Capacity charges will be invoiced and collected by MCU Permitting during the building permit review process. A Capacity Fee Worksheet and interior floor plan may be required to complete the calculation.

SUBMITTAL SUMMARY REPORT
WaiverPIR-000346-2026

PLAN NAME:	Calesa Township- Mass Grading Phase 4	**LOCATION:**	5575 SW 67TH AVENUE RD OCALA,
APPLICATION DATE:	02/11/2026	**PARCEL:**	35300-000-14
DESCRIPTION:	Section & Title of Code: 6.13.7.B(2)&(3) - Geotechnical Criteria. Number of tests. Reason/Justification for Request: Requesting a waiver to reduce the number of borings in DRAs. Each proposed DRA has at least half of the borings required by code. We request to defer the additional borings required until future Improvement Plan submittals. Stormwater staff indicated support of the waiver.		

CONTACTS	NAME	COMPANY
Applicant	Tillman Associates	Tillman & Associates Engineering, LLC
Applicant	Tillman Associates	Tillman & Associates Engineering, LLC
Engineer of Record	Cameron Hines	Tillman & Associates Engineering, LLC

SUBMITTAL	STARTED	DUE	COMPLETE	STATUS
v.				

SUBMITTAL DETAILS

v.

Kimley»Horn

February 18, 2026

Development Review
Marion County Office of the County Engineer
412 SE 25th Avenue
Ocala, FL 34471

RE: ***Baseline Road Industrial Major Site Plan (AR 32452); Response to Comments***
Kimley-Horn Project No. 043497002

Dear Development Review Team:

Kimley-Horn and Associates, Inc. received comments dated May 5, 2025, for the above referenced project. Below are the comments and associated responses:

1. **Corrective Action:** Impervious area was added between the previous submittal and this one. Update data block to reflect changes.

   Comment: 2.12.4.L(9)(b) - Data Block (Impervious Area): Provide existing and proposed gross impervious area in SF, ac, and percentage in the data block on the cover sheet. Include any offsite drainage to your site in the data block.

   Response: See the revised civil plans with the updated impervious area on the cover sheet. The off-site drainage impervious area is included in the drainage report as part of the CN calculations.

2. **Corrective Action**: (1) Impervious area was added and conveyance system was modified between the previous submittal and this one. Update pond and conveyance system calculations to reflect changes. (2) A ground storage tank and building were added to the site. These appear to drain offsite to an existing DRA on an adjacent parcel to the south. Please provide calculations demonstrating that the post development rate and volume to the adjacent site meets the requirements of the LDC. It appears that the grading in this area was previously intended to route runoff from the south property out to the Baseline Road ROW. However, now it appears as though it will be impounded and forced into the DRA on the South parcel. Please clarify. (3) A well defined conveyance swale was added to convey runoff from the property to the north into DRA-01. Please provide calculations for this swale and assurance that erosion on the north slope of DRA-01 will not be an issue. (4) Please submit signed and sealed updated stormwater report that includes updated calculations.

   Comment: 6.13.2.B(4) - Hydrologic Analysis: Hydrologic stormwater model analysis including all input parameters, supporting calculations, assumptions, documentation for design and results.

   Response: 1) See the revised drainage report reflecting the additional impervious area. The stormwater calculations were re-routed, and the results indicate that no modifications to the ponds or conveyance system are required. 2) A swale has been added along the rear portion of the ground storage tank. Flow generated from this area will be routed to the on-site DRAs. 3) Refer to the Swale Calculations, which demonstrate that the conveyance swale can accommodate the flow rate from the off-site basin. Riprap is now proposed at the downstream end of the swale. 4) See the revised and signed and sealed drainage report.

3. **Corrective Action:** See comment under "6.13.2.B(4) - Hydrologic Analysis"

Comment: 6.13.2.B(6) - Freeboard: A minimum freeboard of six inches shall be provided for all retention/detention areas.

Response: See the revised drainage report. The DRAs meet the minimum freeboard requirement.

4. **Corrective Action**: See comment under "6.13.2.B(4) - Hydrologic Analysis"

Comment: 6.13.2.B(5) - Hydraulic Analysis: Hydraulic stormwater model analysis including all input parameters, supporting calculations, assumptions, documentation for design and results. Provide a sub-basin map for each sub-basin; label each sub-basin and provide total area as well as area of impervious coverage within each sub-basin.

Response: See the added conveyance calculations in the revised drainage report. Please note that the underground conveyance system is already installed, and no changes to the system are required.

5. **Corrective Action**: See comment under "6.13.2.B(4) - Hydrologic Analysis"

Comment: 6.13.9 - Grading Criteria: Sufficient grading shall be designed to allow surface water runoff and controlled discharge to be drained to the retention/detention areas without causing adverse effects on adjacent property. Grading can be demonstrated by the use of flow arrows, spot grades, etc. Buildings: All buildings shall have a minimum finished floor elevation 8 inches above finish grade and graded away from the building for stormwater runoff. Exceptions are listed in LDC 6.13.9.B. In no case shall finished floor elevations be below the one percent (100-year) flood plain plus one foot. Driveways: In the case where roadside swales are the drainage conveyance system, driveway design information shall be included on the plans minimally addressing culvert size, invert elevation, and direction of slope of culvert or the placement of ditch block for each at every specific lot. Affidavit: At time of building application, applicant shall provide an affidavit that the impervious area, lot grading plan, minimum finished floor elevation, and stormwater system complies with the development plan on file with the County. If no development plan is on file, applicant shall provide an affidavit that all drainage is held on-site or directly tied to a recognized drainage system. The applicant shall provide a sketch with the building application indicating the drainage intent. Construction: All stormwater runoff increase during construction and following must be kept on-site or directed to swales, ditches, or piping to approved drainage areas.

Response: See the revised drainage report and civil plans.

6. 2.12.9/10 - Proposed Drainage Right-of-Way/Easements - If the current parcel is platted drainage easements and/or tracts may be required at that time.

2.12.20 - Stormwater Infrastructure Supports Phasing - Stormwater improvements must be in place to support each phase of development at time of phase completion.

2.12.22 - Stormwater Tract/Right-of-Way - If the current parcel is platted drainage easements and/or tracts may be required at that time.

6.13.10.B - Copy of NPDES Permit or NOI - Please provide a copy of the NPDES permit or NOI prior to construction.

Copy of District Permit (County Interest) - Please provide a copy of the District permit prior to construction.

Additional Stormwater comments - (1) If you have questions or would like to discuss the stormwater review comments, please contact Kevin Vickers, PE at 352-671-8695 or kevin.vickers@marionfl.org. (2) Proposed grading and drainage modifications that impact the FDOT ROW drainage systems need to be coordinated directly with FDOT.

Response: Acknowledged. Required documents were provided.

We trust these responses will provide the additional information as requested. Please contact our office if you have any questions.

Sincerely,
KIMLEY-HORN

Mohammed N. Murad, PE

MNM/AAH/slb

Attachments: Civil Plans
Drainage Report
Swale Calculations

cc: File

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Kimley»Horn

February 18, 2026

Development Review
Marion County Office of the County Engineer
412 SE 25th Avenue
Ocala, FL 34471

RE: ***Baseline Road Industrial Major Site Plan (AR 32452); Response to Comments***
Kimley-Horn Project No. 043497002

Dear Development Review Team:

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1. **Corrective Action:** Impervious area was added between the previous submittal and this one. Update data block to reflect changes.

   Comment: 2.12.4.L(9)(b) - Data Block (Impervious Area): Provide existing and proposed gross impervious area in SF, ac, and percentage in the data block on the cover sheet. Include any offsite drainage to your site in the data block.

   Response: See the revised civil plans with the updated impervious area on the cover sheet. The off-site drainage impervious area is included in the drainage report as part of the CN calculations.

2. **Corrective Action**: (1) Impervious area was added and conveyance system was modified between the previous submittal and this one. Update pond and conveyance system calculations to reflect changes. (2) A ground storage tank and building were added to the site. These appear to drain offsite to an existing DRA on an adjacent parcel to the south. Please provide calculations demonstrating that the post development rate and volume to the adjacent site meets the requirements of the LDC. It appears that the grading in this area was previously intended to route runoff from the south property out to the Baseline Road ROW. However, now it appears as though it will be impounded and forced into the DRA on the South parcel. Please clarify. (3) A well defined conveyance swale was added to convey runoff from the property to the north into DRA-01. Please provide calculations for this swale and assurance that erosion on the north slope of DRA-01 will not be an issue. (4) Please submit signed and sealed updated stormwater report that includes updated calculations.

   Comment: 6.13.2.B(4) - Hydrologic Analysis: Hydrologic stormwater model analysis including all input parameters, supporting calculations, assumptions, documentation for design and results.

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Comment: 6.13.2.B(6) - Freeboard: A minimum freeboard of six inches shall be provided for all retention/detention areas.

Response: See the revised drainage report. The DRAs meet the minimum freeboard requirement.

4. **Corrective Action**: See comment under "6.13.2.B(4) - Hydrologic Analysis"

Comment: 6.13.2.B(5) - Hydraulic Analysis: Hydraulic stormwater model analysis including all input parameters, supporting calculations, assumptions, documentation for design and results. Provide a sub-basin map for each sub-basin; label each sub-basin and provide total area as well as area of impervious coverage within each sub-basin.

Response: See the added conveyance calculations in the revised drainage report. Please note that the underground conveyance system is already installed, and no changes to the system are required.

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Response: See the revised drainage report and civil plans.

6. 2.12.9/10 - Proposed Drainage Right-of-Way/Easements - If the current parcel is platted drainage easements and/or tracts may be required at that time.

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Response: Acknowledged. Required documents were provided.

We trust these responses will provide the additional information as requested. Please contact our office if you have any questions.

Sincerely,
KIMLEY-HORN

Mohammed N. Murad, PE

MNM/AAH/slb

Attachments: Civil Plans
Drainage Report
Swale Calculations

cc: File

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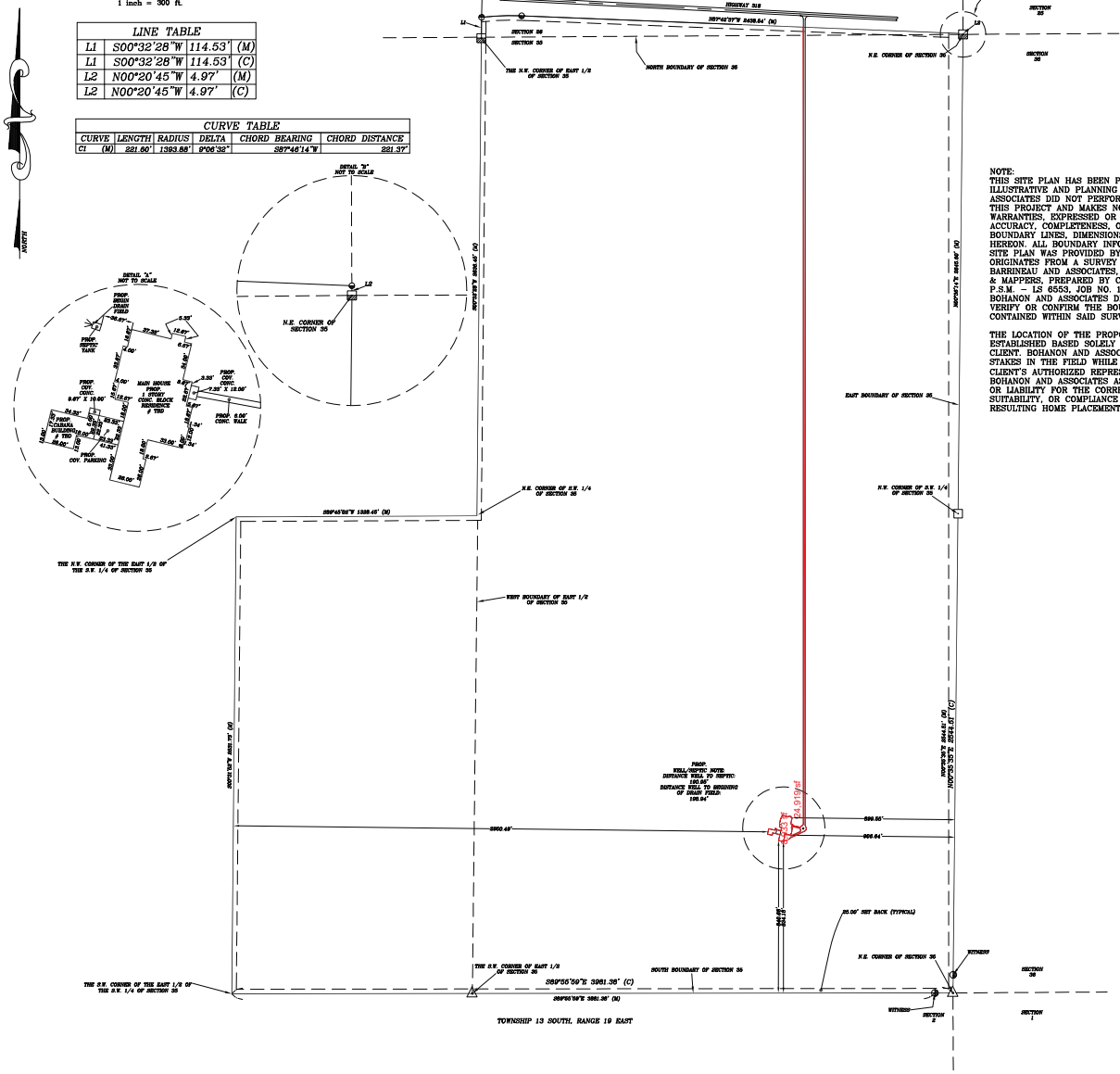
GRAPHIC SCALE

300 0 150 300 600 1200

(IN FEET)
1 inch = 300 ft.

LINE TABLE			
L1	S00°32'28"W	114.53'	(M)
L1	S00°32'28"W	114.53'	(C)
L2	N00°20'45"W	4.97'	(M)
L2	N00°20'45"W	4.97'	(C)

CURVE TABLE					
CURVE	LENGTH	RADIUS	DELTA	CHORD BEARING	CHORD DISTANCE
C1 (M)	221.50'	1393.58'	9°06'32"	S87°46'14"W	221.37'



NOTE:
THIS SITE PLAN HAS BEEN PREPARED EXCLUSIVELY FOR ILLUSTRATIVE AND PLANNING PURPOSES. BOHANON AND ASSOCIATES DID NOT PERFORM A BOUNDARY SURVEY FOR THIS PROJECT AND MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESSED OR IMPLIED, REGARDING THE ACCURACY, COMPLETENESS, OR RELIABILITY OF ANY BOUNDARY LINES, DIMENSIONS, OR MONUMENTS SHOWN HEREON. ALL BOUNDARY INFORMATION DEPICTED ON THIS SITE PLAN WAS PROVIDED BY THE CLIENT AND ORIGINATES FROM A SURVEY PERFORMED BY R.M. BARRINEAU AND ASSOCIATES, PROFESSIONAL SURVEYORS & MAPPERS, PREPARED BY CHRISTOPHER J. HOWSON, P.S.M. – LS 6553, JOB NO. 14094, DRAWING NO. 14094. BOHANON AND ASSOCIATES DID NOT INDEPENDENTLY VERIFY OR CONFIRM THE BOUNDARY EVIDENCE CONTAINED WITHIN SAID SURVEY.

THE LOCATION OF THE PROPOSED HOME WAS ESTABLISHED BASED SOLELY ON STAKES SET BY THE CLIENT. BOHANON AND ASSOCIATES LOCATED THESE STAKES IN THE FIELD WHILE THE CLIENT OR THE CLIENT'S AUTHORIZED REPRESENTATIVE WAS PRESENT. BOHANON AND ASSOCIATES ASSUMES NO RESPONSIBILITY OR LIABILITY FOR THE CORRECTNESS, PLACEMENT, SUITABILITY, OR COMPLIANCE OF THE STAKES OR THE RESULTING HOME PLACEMENT AS SHOWN.

DESCRIPTION:
PER CORPORATE WARRANTY DEED RECORDED IN OFFICIAL RECORDS BOOK 5467, PAGE 1076 OF THE PUBLIC RECORDS OF MARION COUNTY, FLORIDA.

THE EAST 1/2 AND THE EAST 1/2 OF THE SW 1/4 OF SECTION 35, TOWNSHIP 12 SOUTH, RANGE 19 EAST, MARION COUNTY, FLORIDA.

AND

THAT PART OF THE SE 1/4 OF SECTION 26, TOWNSHIP 12 SOUTH, RANGE 19 EAST, LYING SOUTH OF COUNTY ROAD 318.

NOTES:
1) *SURVEY BASED ON EXISTING SURVEY PROVIDED BY CLIENT*
2) *DESCRIPTION FURNISHED BY CLIENT.*
3) *SITE PLAN FOR STENTIFORD CONSTRUCTION.*
4) *LANDS SHOWN HEREON HAVE NOT BEEN ABSTRACTED FOR RIGHT-OF-WAY, EASEMENTS, AND/OR OTHER INSTRUMENTS OF RECORD BY THIS SURVEYOR.*
5) *REPRODUCTIONS OF THIS SKETCH ARE NOT VALID UNLESS SIGNED & SEALED WITH AN EMBOSSED SURVEYORS SEAL.*
6) *SUBSURFACE AND ENVIRONMENTAL CONDITIONS WERE NOT EXAMINED OR CONSIDERED AS A PART OF THIS SURVEY. NO STATEMENT IS MADE CONCERNING THE EXISTENCE OF UNDERGROUND OR OVERHEAD CONTAINERS OR FACILITIES THAT MAY AFFECT THE USE OR DEVELOPMENT OF THIS TRACT.*
7) *NO EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES/STRUCTURES, INCLUDING BUT NOT LIMITED TO SEPTIC TANKS, SEWER FORCE MAINS, POTABLE WATER FORCE MAINS, TELEPHONE AND/OR FIBEROPTIC CABLES, ETC. BEFORE EXCAVATIONS ARE BEGUN, THE APPROPRIATE AGENCY SHOULD BE CONTACTED FOR VERIFICATION OF UTILITY TYPE AND FIELD LOCATION.*
8) *LANDS SHOWN HEREON ARE CONSIDERED TO BE IN ZONE "X&A" AREAS DETERMINED TO BE INSIDE THE 100-YEAR FLOOD PLAIN, AS ESTABLISHED BY THE NATIONAL FLOOD INSURANCE PROGRAM, COMMUNITY PANEL #12083C-0115 D, DATED AUGUST 28, 2008.*
9) *THE DETERMINATION OF A PROPERTY FLOODING OR NOT FLOODING IS BEYOND THE SCOPE OF THIS SURVEYOR.*
10) *THIS SURVEY HAS BEEN PREPARED FOR THE EXCLUSIVE BENEFIT OF THE PARTY(IES) NAMED HEREON, AND SHALL NOT BE DUPLICATED OR RELIED UPON BY ANY OTHER INDIVIDUAL OR ENTITY WITHOUT AUTHORIZATION FROM BOHANON & ASSOCIATES LAND SURVEYING, LLC.*
11) *THE SYMBOLS REFLECTED IN THE LEGEND AND ON THIS SURVEY MAY HAVE BEEN ENLARGED OR REDUCED FOR CLARITY. THE SYMBOLS HAVE BEEN PLOTTED AT THE APPROXIMATE CENTER OF THE FIELD LOCATION AND MAY NOT REPRESENT THE ACTUAL SHAPE OR SIZE OF THE FEATURE.*

LEGEND:
N=NORTH, E=EAST, S=SOUTH, W=WEST (OR ANY COMBINATION)
° =DEGREES WHEN USED IN A BEARING AND/OR ANGLE
' =MINUTES WHEN USED IN A BEARING AND/OR ANGLE
" =SECONDS WHEN USED IN A BEARING AND/OR ANGLE
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CERTIFY TO: STENTIFORD CONSTRUCTION

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JIMMY L. BOHANON, PSM # 6172
OF/BOHANON & ASSOCIATES LAND SURVEYING, LLC
5520 S.E. 113th STREET
BELLEVIEW, FL 34420

12/15/2025
DATE

NO.	DATE	BY	REVISION:
1			
2			
3			

SITE PLAN FOR: STENTIFORD CONSTRUCTION

BOHANON & ASSOCIATES LAND SURVEYING, LLC
"COMPLETE SURVEYING & MAPPING SERVICE"
P.O. BOX 8777
BELLEVIEW, FLORIDA 34421
OFFICE: (352) 236-2212 LB # 8181

JOB NO. 25-765
SURVEY DATE: 12/09/2025
DRAWN: TMT
BOOK: DWG
REVIEWED: JLB
SHEET: 1 OF 1

GRAPHIC SCALE

300 0 150 300 600 1200

(IN FEET)
1 inch = 300 ft.

LINE TABLE			
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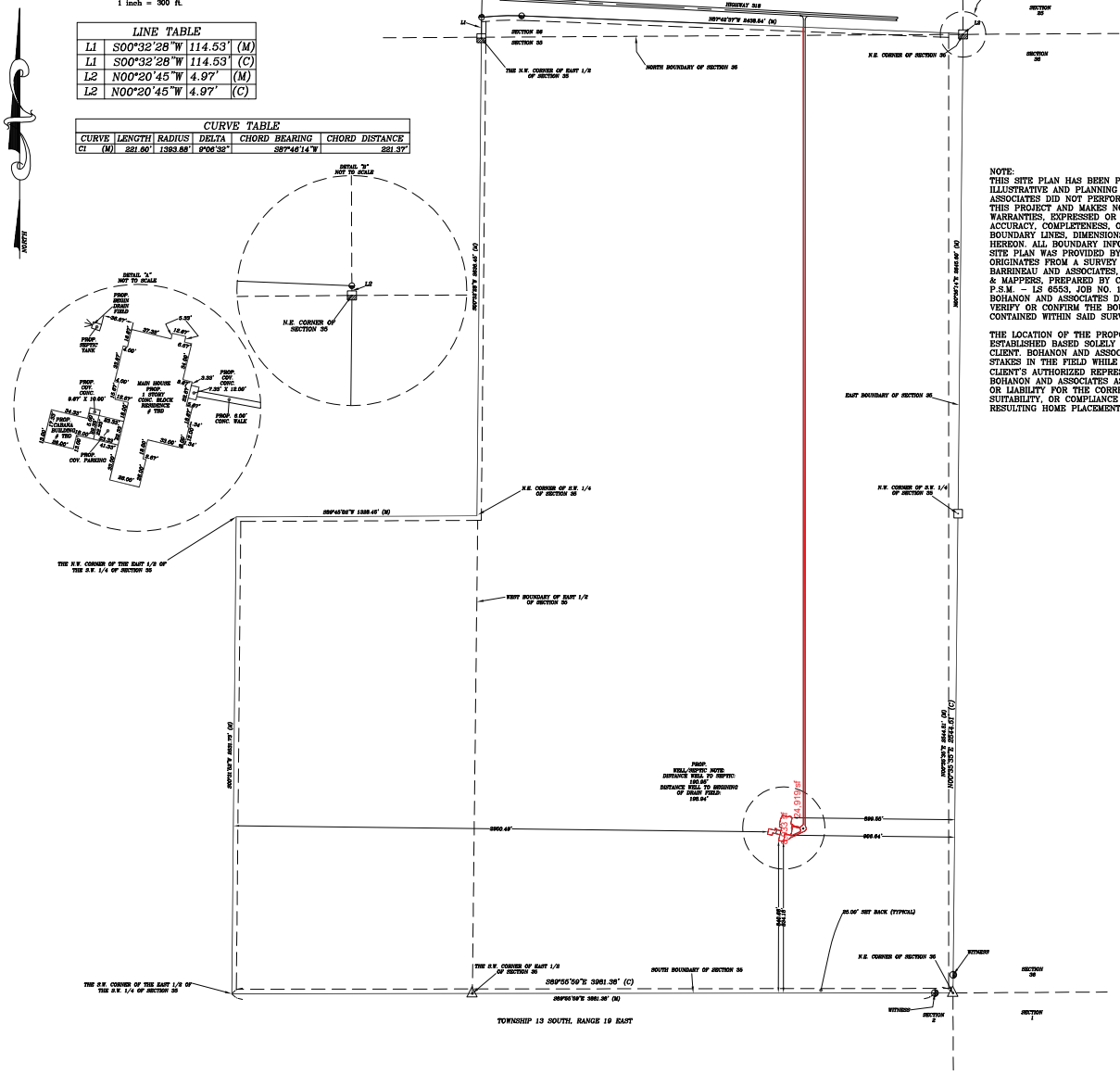

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DESCRIPTION:
PER CORPORATE WARRANTY DEED RECORDED IN OFFICIAL RECORDS BOOK 5467, PAGE 1076 OF THE PUBLIC RECORDS OF MARION COUNTY, FLORIDA.

THE EAST 1/2 AND THE EAST 1/2 OF THE SW 1/4 OF SECTION 35, TOWNSHIP 12 SOUTH, RANGE 19 EAST, MARION COUNTY, FLORIDA.

AND

THAT PART OF THE SE 1/4 OF SECTION 26, TOWNSHIP 12 SOUTH, RANGE 19 EAST, LYING SOUTH OF COUNTY ROAD 318.

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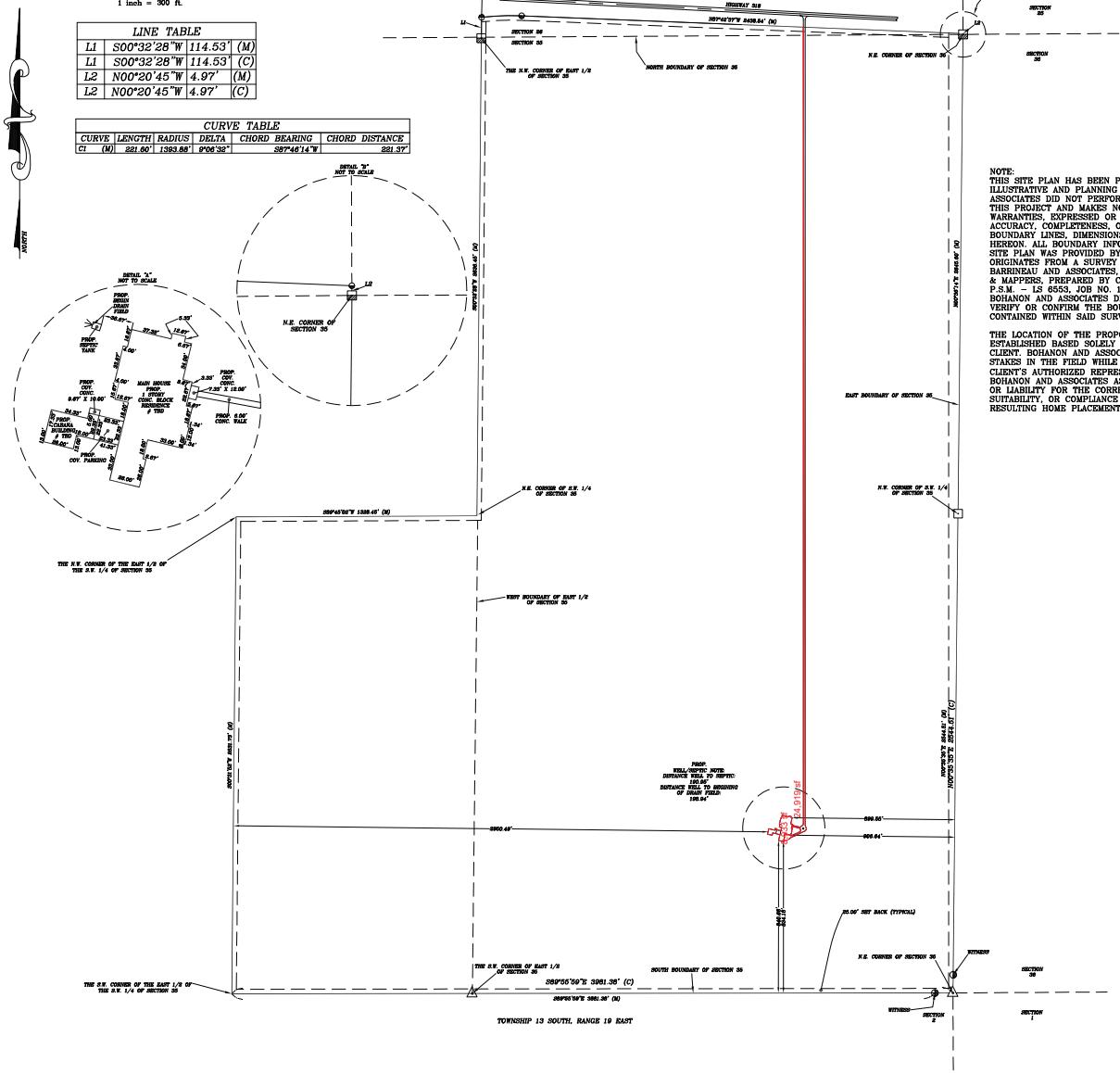

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MERIDIAN STORAGE GROUP

MAJOR SITE PLAN

MARION COUNTY, FLORIDA

GENERAL NOTES:

1. ALL CONSTRUCTION COVERED BY THESE PLANS SHALL COMPLY WITH THE MATERIAL REQUIREMENTS AND QUALITY CONTROL STANDARDS CONTAINED IN THE MARION COUNTY "LAND DEVELOPMENT CODE" AND "UTILITY MANUAL" AS APPLICABLE. ANY WORK WITHIN THE FDOT RIGHT OF WAY SHALL CONFORM TO THE FDOT STANDARD PLANS INDEX (CURRENT EDITION).
2. NO CHANGE TO THE WORK AS SHOWN ON THE APPROVED PLANS SHALL BE MADE WITHOUT PRIOR APPROVAL BY BOTH THE PROJECT ENGINEER AND THE OFFICE OF THE COUNTY ENGINEER.
3. BUILDING SHALL BE HANDICAP ACCESSIBLE PER AMERICANS WITH DISABILITIES ACT (ADA) STANDARDS FOR ACCESSIBLE DESIGN (LATEST EDITION).
4. **THE CONTRACTOR SHALL VERIFY THE LOCATION AND COVER OF ALL EXISTING UTILITIES AND REPORT ANY DISCREPANCY TO THE PROJECT ENGINEER. THERE MAY BE ADDITIONAL UTILITIES NOT SHOWN ON THESE PLANS. CAUTION IS ADVISED PRIOR TO DIGGING.**
5. TYPE III SILT FENCE SHALL BE INSTALLED AS SHOWN ON THESE PLANS PRIOR TO ANY CONSTRUCTION, MAINTAINED DURING THE LIFE OF THE PROJECT, AND REMOVED FOLLOWING COMPLETION OF CONSTRUCTION.
6. THE SITE SHALL REMAIN FREE OF EXCESS DUST AND DEBRIS AT ALL TIMES. ANY INCIDENCE OF EROSION, SEDIMENTATION, DUST OR DEBRIS CAUSED BY THE CONTRACTOR'S CONSTRUCTION ACTIVITIES ON THIS DEVELOPMENT SHALL BE CORRECTED BY THE CONTRACTOR WITHIN 48 HOURS OF EACH OCCURRENCE.
7. ALL DRAINAGE FACILITIES AND STORM STRUCTURES MUST BE BUILT PRIOR TO CONSTRUCTION OF ANY IMPERVIOUS SURFACES.
8. IF UNSUITABLE MATERIAL IS ENCOUNTERED WITHIN THE PROPOSED PARKING LOT, TWO (2) FEET OF UNDERCUT BELOW THE PROPOSED STABILIZED SUBGRADE, TOGETHER WITH SUITABLE BACKFILL MATERIAL (OR GEOTECHNICAL ENGINEER'S RECOMMENDATION) IS RECOMMENDED. THE CONTRACTOR SHOULD PROVIDE A UNIT PRICE IN HIS INITIAL BID, AND HE SHALL NOTIFY THE PROJECT ENGINEER WHEN UNSUITABLE MATERIAL IS ENCOUNTERED. BEFORE PROCEEDING WITH ANY WORK RELATED TO UNSUITABLE MATERIAL, THE CONTRACTOR IS ADVISED TO CONTACT A LICENSED GEOTECHNICAL ENGINEER TO DETERMINE THE SUITABILITY OF THE INSITU SOIL AND THE AREA OF UNDERCUT THAT IS REASONABLY REQUIRED.
9. ON-SITE STANDARD ASPHALT PAVEMENT SHALL BE 1 1/2"-THICK F.D.O.T. SP-12.5 ON 6"-LIMEROCK BASE WITH PRIME COAT (BASE MAX DENSITY, 100 LBR), ON 8" (F.D.O.T. TYPE B) STABILIZED SUBGRADE (SBR MAX DENSITY, 40 LBR).

   ON-SITE HEAVY DUTY ASPHALT PAVEMENT SHALL BE 3"-THICK F.D.O.T. SP-12.5 (TWO LIFTS REQUIRED) ON 9" LIMEROCK BASE WITH PRIME COAT (BASE MAX DENSITY, 100 LBR), ON 12" (F.D.O.T. TYPE B) STABILIZED SUBGRADE (SBR MAX DENSITY, 40 LBR).

   CONSTRUCTION REQUIREMENTS OF THE F.D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION) SHALL GOVERN. SEE REPORT BY GEOTECH, INC. FOR ADDITIONAL INFORMATION.
10. MINIMUM STRENGTH FOR ANY CONCRETE ON SITE SHALL BE 3000 P.S.I. AT 28 DAYS UNLESS INDICATED OTHERWISE ON THESE PLANS.
11. ANY DISTURBED ON-SITE AREAS LEFT UNPAVED SHALL BE RESTORED AND SODDED, SEEDED AND MULCHED, OR LANDSCAPED (AS APPLICABLE). ALL SODDED AREA SHALL BE UNDERCUT 2" PRIOR TO INSTALLATION.
12. IF A SINKHOLE SHOULD FORM ON THIS SITE, ALL APPLICABLE REPAIR PROCEDURES SHALL BE FOLLOWED AS OUTLINED IN TYPICAL SINK CHIMNEY REPAIR DETAIL SHOWN HEREON. ALSO, MARION COUNTY AND S.J.R.W.M.D. SHALL BE NOTIFIED IMMEDIATELY.
13. DAVIS DINKINS ENGINEERING, P.A. AND ITS EMPLOYEES ARE NOT RESPONSIBLE FOR ON-SITE SAFETY DURING CONSTRUCTION.
14. THE ELECTRICIAN SHALL COORDINATE WITH ELECTRIC SERVICE PROVIDER ANY MODIFICATIONS TO ELECTRIC SERVICE. ANY SLEEVING REQUIREMENTS SHALL BE COORDINATED WITH THE SITE CONTRACTOR.
15. THERE ARE NO WETLANDS ON THIS SITE.
16. AN AS-BUILT SURVEY SHALL BE PERFORMED BY A REGISTERED LAND SURVEYOR AND PROVIDED TO THE PROJECT ENGINEER FOR HIS USE IN CERTIFYING TO THE COMPLETION OF THE PROJECT PRIOR TO C.O. ALL AS-BUILTS SHALL COMPLY WITH CURRENT LDC, SECTION 6.14.8.
17. SITE CONTRACTOR MUST OBTAIN A PERMIT FROM THE COUNTY RIGHT-OF-WAY DIVISION PRIOR TO COMMENCEMENT OF WORK WITHIN THE COUNTY RIGHT-OF-WAY.
18. A PERMIT MUST BE OBTAINED FROM THE MARION COUNTY PERMITTING DIVISION PRIOR TO COMMENCEMENT OF ANY WORK WITHIN THE COUNTY RIGHT-OF-WAY.
19. MARION COUNTY UTILITIES PERSONNEL ARE TO INSPECT ANY WORK PERFORMED ON OR AROUND EXISTING MARION COUNTY UTILITIES INFRASTRUCTURE. A PRE-CONSTRUCTION MEETING IS REQUIRED TO BE HELD A MINIMUM OF 48 HOURS PRIOR TO START OF ANY CONSTRUCTION. IF THE PRE-CONSTRUCTION MEETING IS NOT COMPLETED, ANY WORK MAY BE HALTED. TO SCHEDULE, CONTACT MARK RUSSWURM AT (352)854-2470.
20. COPIES OF ALL RELATED PERMIT APPLICATIONS AND ISSUED PERMITS SHALL BE SUBMITTED TO THE DEVELOPMENT REVIEWER FOR THE MARION COUNTY UTILITIES DEPARTMENT.
21. THIS PROJECT IS LOCATED WITHIN THE SILVER SPRINGS SECONDARY PROTECTION ZONE.
22. THIS SITE IS NOT LOCATED IN AN ENVIRONMENTALLY SENSITIVE OVERLAY ZONE (ESOZ).
23. FEMA HAS NOT DESIGNATED A 100-YEAR, 24-HOUR FLOOD ZONE ON THIS SITE. THE SITE IS IN FLOOD ZONE X.
24. SIGNAGE AND STRIPING NOTES:
   A. PAVED PARKING SPACES AND ISLANDS SHALL BE PAINTED WITH 6" WHITE STRIPES.
   B. ANY STRIPING WITHIN THE RIGHT OF WAY SHALL BE THERMOPLASTIC. ALL WORK IS TO BE IN ACCORDANCE WITH F.D.O.T. STANDARDS.
   C. ALL PROPOSED STOP, STREET, ADVISORY, AND OTHER SIGNAGE TO BE NEW UNLESS INDICATED OTHERWISE ON THESE PLANS.
   D. SIGNS AT PROPERTY EXITS AND SIGNS IN RIGHT OF WAY TO BE CONSTRUCTED WITH DIAMOND GRADE REFLECTIVE SHEETING. OTHER PRIVATE SIGNS TO BE CONSTRUCTED WITH HIGH INTENSITY REFLECTIVE SHEETING.
   E. PRIVATE STOP SIGNS AND SIGNS WITHIN COUNTY RIGHT OF WAY ARE TO BE INSTALLED ON SQUARE POSTS (14 FEET LONG, 14 GAUGE, 4 lbs/ft). SIGN POSTS WITHIN F.D.O.T. RIGHT OF WAY TO BE IN ACCORDANCE TO FDOT STANDARD PLANS INDEX #700.
   F. ALL PRIVATE SIGN POSTS (OTHER THAN STOP SIGN POSTS) TO BE U-CHANNEL GALVANIZED STEEL 2lbs/L.F. BREAKAWAY POSTS (UNLESS INDICATED OTHERWISE ON THESE PLANS).
   G. ALL SIGNS SHALL HAVE 7' OF CLEARANCE FROM BOTTOM OF SIGN TO FINISH GRADE.
   H. PAINT ALL AREAS OF CURB AND/OR SIDEWALK TRANSITIONS FROM FLUSH TO 6"-HIGH WITH "SAFETY YELLOW" ALONG TRANSITION.
   I. ALL TRAFFIC CONTROL SIGNS SHALL BE PER THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.), LATEST EDITION.
25. ANY AND ALL SIGNAGE WILL REQUIRE ADDITIONAL PERMITTING (BY OTHERS).
26. ANY FIRE APPARATUS MUST COMPLY WITH THE FLORIDA FIRE PROTECTION CODE, AND SHALL BE FLOW TESTED AND COLOR CODED AS REQUIRED. HYDRANTS ON PUBLIC WATER MAINS TO BE FACTORY PAINTED RED. PRIVATE HYDRANTS TO BE FACTORY PAINTED YELLOW. ALL PUBLIC AND PRIVATE HYDRANTS SHALL HAVE THE CAPS PAINTED PER NFPA 291. ALL FLOW TESTS SHALL BE TESTED AND WITNESSED BY THE LOCAL FIRE MARSHAL OR HIS DESIGNEE. ALL HYDRANTS SHALL BE INSPECTED BY THE FIRE MARSHAL OR HIS DESIGNEE. PRIVATE HYDRANTS SHALL BE MAINTAINED BY THE BUILDING OWNER AND SHALL BE PERIODICALLY TESTED ANNUALLY BY A CERTIFIED THIRD PARTY COMPANY WITH THE ANNUAL TESTING REPORTS PROVIDED TO MARION COUNTY FIRE RESCUE.
27. CONTRACTOR TO COORDINATE LOCATION OF KNOX BOX(S) WITH FIRE MARSHAL PRIOR TO C.O.
28. BUILDING SHALL COMPLY WITH THE IN BUILDING PUBLIC SAFETY MINIMUM RADIO SIGNAL STRENGTH REQUIREMENTS. THE LOCATION WILL NEED TO HAVE AN INDEPENDENT FIRM TO TEST THE STRENGTH OF THE SIGNAL AND IF DEEMED NECESSARY ADD EQUIPMENT WHICH ALLOWS THE BUILDING TO MEET THE MINIMUM POLICIES. THE BUILDING MUST HAVE A PASSING RADIO TEST PRIOR TO FINAL FIRE INSPECTION OF THE BUILDING. ANY INSTALLATION OF EQUIPMENT MUST BE DONE UNDER A PERMIT AND BE APPROVED BY THE OFFICE OF THE FIRE MARSHAL.
29. IF THIS LOCATION WILL BE ACCEPTING USED OIL OR OTHER INDUSTRIAL PRODUCTS, DEVELOPER SHALL COORDINATE TREATMENT AND/OR DISPOSAL WITH MCU'S INDUSTRIAL PRETREATMENT COORDINATOR. DISPOSAL SHALL NOT BE PERMITTED THROUGH THE PUBLIC SEWER SYSTEM. CALL 352-307-5600 FOR ADDITIONAL SUPPORT.

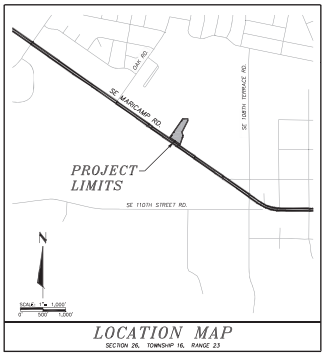
CONCURRENCY DEFERRAL NOTE:

THIS PROJECT HAS NOT BEEN GRANTED CONCURRENCY APPROVAL AND/OR GRANTED AND/OR RESERVED ANY PUBLIC FACILITY CAPACITIES. FUTURE MODIFICATIONS TO DEVELOP THE PROPERTY MAY REQUIRE TESTING FOR CONCURRENCY. ANY REPRESENTATIONS MADE BY THE DEVELOPER TO PROSPECTIVE PURCHASERS HAS NOT BEEN OBTAINED. THE COMPLETION OF CONCURRENCY REVIEW AND/OR APPROVAL HAS BEEN DEFERRED TO LATER DEVELOPMENT REVIEW STAGES, SUCH AS, BUT NOT LIMITED TO, BUILDING PERMIT REVIEW.

OWNER'S CERTIFICATION:

I HEREBY CERTIFY THAT I, MY SUCCESSORS, AND ASSIGNS SHALL PERPETUALLY MAINTAIN THE IMPROVEMENTS AS SHOWN ON THIS PLAN.

PATRICK HODDER, MANAGING MEMBER — DATE
MERIDIAN STORAGE GROUP LLC
2400 GRANADA DR E
ST. PETERSBURG, FL 33712
(727) 219-9557



LOCATION MAP
SECTION 26, TOWNSHIP 16, RANGE 23

PERMITS REQUIRED:

AGENCY	PERMIT	ISSUANCE DATE	NO.
F.D.E.P./N.P.D.E.S.	NOTICE OF INTENT	09-16-25	FLR10XY27-001
MARION COUNTY	MAJOR SITE PLAN	09-16-25	APP32405
S.J.R.W.M.D.	ENVIRONMENTAL RESOURCE PERMIT MODIFICATION	09-16-25	82354051-1

WAIVERS REQUESTED:

CODE SECTION	WAIVERS REQUESTED	APPROVAL/CONDITIONS	DATE
6.13.8.B(7)	MINIMUM STORM PIPE SIZE	APPROVED WAIVER WITH THE CONDITION OF PROVIDING SUPPORTING HYDRAULIC CALCULATIONS.	08-18-25
-	-	-	-

UTILITY CONTACT INFORMATION:

NOTE: CONTACT INFORMATION WAS OBTAINED FROM WWW.SUNSHINE811.COM. IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY PROVIDERS PRIOR TO CONSTRUCTION.

PHONE & FIBER OPTIC	CENTURYLINK BILL MCCLOUD (866) 811-3144
GAS	TECO PEOPLES GAS- OCALA CHEYENNE THOMPSON (813) 745-7164
WATER & SEWER	MARION COUNTY UTILITIES CUSTOMER SERVICE (352) 307-6000
CATV	COMCAST CABLE ANDREW SWEENEY (904) 738-6888
ELECTRIC	DUKE ENERGY DUKE'S CUSTOMER SERVICE CEN (407) 629-1010

INDEX OF SHEETS:

SHEET	DESCRIPTION
C1	MAJOR SITE PLAN – COVER
C2	MAJOR SITE PLAN – LAYOUT/UTILITY
C3	DELETED
C4	MAJOR SITE PLAN – GRADING
C5	MAJOR SITE PLAN – DRAINAGE
C6	MAJOR SITE PLAN – S.W.P.P.P.
C7	MAJOR SITE PLAN – UTILITY DETAILS

INCORPORATED FOR REFERENCE – CERTIFIED BY OTHERS:

L1	LANDSCAPE PLAN (BY MICHAEL PAPE AND ASSOCIATES, P.A.)
IR-1	IRRIGATION PLAN (BY MICHAEL PAPE AND ASSOCIATES, P.A.)
S1 – S3	BOUNDARY & TOPOGRAPHIC SURVEY (BY ROGERS ENGINEERING, LLC)

48 HOURS BEFORE YOU DIG
CALL SUNSHINE
1-800-432-4770
IT'S THE LAW IN FLORIDA

IMPORTANT!!
PRIOR TO CONSTRUCTION, CONTRACTOR IS TO LOCATE ALL UTILITIES, INCLUDING SERVICES, AND TO VERIFY LOCATION AND DEPTH OF ALL UTILITIES BY PROJECT ENGINEER WITH LOCATION INFORMATION. IT MAY BE NECESSARY TO REMOVE, MODIFY AND/OR RELOCATE EXISTING UTILITY SYSTEMS TO CONTINUE PROVIDING SERVICE TO EXISTING BUILDING AND FACILITIES. COORDINATION OF ANY TEMPORARY SERVICE INTERRUPTIONS TO BE THE RESPONSIBILITY OF THE CONTRACTOR.

IMPERATIVE:
IT IS THE SURVEYOR'S AND CONTRACTOR'S RESPONSIBILITY TO HAVE THE MOST CURRENT PLAN PRIOR TO AND DURING CONSTRUCTION.

NO.	REVISION	DATE
3	PER COUNTY REVIEW	11-14-25
2	PER JURISDICTIONAL REVIEW	08-11-25
1	PRELIMINARY ISSUE	04-30-25

DESIGN: D.D./J.S. | DRAW: T.N./S.U. | CHECK: D.L.D.

DAVIS DINKINS ENGINEERING, P.A.
CERTIFICATE OF AUTHORIZATION #28150
125 NE 1st AVENUE
SUITE 2
OCALA, FL 34470
PHONE: (352) 854-5961

DESCRIPTION:

PARCEL NO. 3761-003-000
AND
LOT, DEAL'S SUBDIVISION, ACCORDING TO THE MAP OR PLAT THEREOF AS RECORDED IN PLAT BOOK S, PAGE 20, PUBLIC RECORDS OF MARION COUNTY, FLORIDA.

SURVEY NOTICE:

SEE SEPARATE SURVEY BY ROGERS ENGINEERING, LLC. FOR BEARINGS & DISTANCES, MONUMENTATION, AND STATE PLANE COORDINATES.

GENERAL STATEMENT:

THE CHARACTER AND INTENDED USE OF THESE PLANS IS FOR THE CONSTRUCTION OF A ADDITIONAL STORAGE BUILDINGS, TOGETHER WITH ALL REQUIRED IMPROVEMENTS SHOWN HEREON.

SITE DATA:

PARCEL ID#:	3761-003-000
ZONING:	B-5
FUTURE LAND USE:	COMMERCIAL
PROPOSED USE:	STORAGE FACILITY
LAND OWNER:	SOUTHSHORE GROUP LLC PATRICK HODDER, MANAGER 2400 GRANADA DR E ST. PETERSBURG, FL 33712 (727) 219-9557
SITE LOCATION:	10579 S.E. MARICAMP ROAD, OCALA, FL 34472
SETBACKS:	FRONT= 40' SIDE= 10' REAR= 20'
SITE AREA:	±57,990 S.F. (±1.3 AC)
PROJECT AREA: (ALL AREAS BELOW BASED ON PROJECT AREA)	±82,000 S.F. (±1.9 AC)
EXISTING IMPERVIOUS AREA:	±9,700 S.F. (11.8%)
PROPOSED BUILDING AREA:	±21,600 S.F. (±26.3%)
PROPOSED TOTAL IMPERVIOUS AREA:	±45,600 S.F. (±56.8%)
PROPOSED OPEN AREA: (INCLUDING D.R.A.)	±48,400 S.F. (±60.2%)

PARKING CALCULATIONS:

PARKING REQUIRED:
±1,200 S.F. OFFICE @ 2.5 SPACE / 1,000 S.F. = 3 SPACES

PARKING PROVIDED:
PROPOSED STANDARD PARKING SPACES = 2 SPACES
PROPOSED CONCRETE HANDICAP SPACES = 1 SPACES
TOTAL = 3 SPACES

TRAFFIC IMPACT STATEMENT:

BASED ON ITE 10TH GENERATION MANUAL, 11TH EDITION

ESTIMATED PROPOSED TRAFFIC:
BASED ON ±21,600 S.F. OF MINI-WAREHOUSE (CODE 151)

TRIPS PER DAY		PM PEAK HOUR	
ENTER	EXIT	ENTERING	EXITING
101	101	8	8
TOTAL		TOTAL	
202		16	

ENGINEER'S CERTIFICATION:

I HEREBY CERTIFY THAT THESE PLANS AND CALCULATIONS WERE COMPLETED IN ACCORDANCE WITH ALL APPLICABLE REQUIREMENTS OF THE MARION COUNTY LAND DEVELOPMENT CODE (LDC), EXCEPT AS WAIVED, AND FURTHERMORE THAT THESE PLANS MEET THE APPLICABLE REQUIREMENTS OF THE S.J.R.W.M.D. TO THE BEST OF MY KNOWLEDGE AND BELIEF.

DAVID L. DINKINS, P.E.
FL LICENSE NO. 60058

DATE

IF DIGITALLY SIGNED AND SEALED:
IT IS UNLAWFUL FOR ANY PERSON, IN THE STATE OF FLORIDA, PROFESSIONAL ENGINEER, LICENSE NO. 60058, THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY DAVID L. DINKINS ON THE DATE INDICATED HERE.

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES

CONSTRUCTION NOTES:

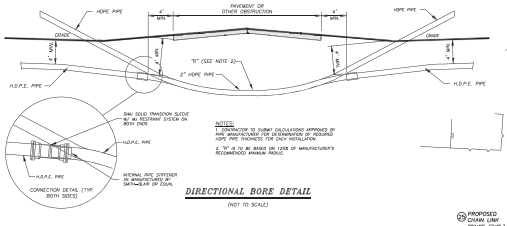
A. ALL NOTES LISTED BELOW ARE THE RESPONSIBILITY OF THE SITE CONTRACTOR UNLESS STATED OTHERWISE.

B. THIS PLAN AND THESE NOTES ARE INTENDED TO INDICATE THE GENERAL SCOPE OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL REQUIRED IMPROVEMENTS TO COMPLETE THE PROJECT WHETHER OR NOT SPECIFICALLY LISTED OR ITEMIZED HEREON.

C. THE CONTRACTOR IS RESPONSIBLE TO FAMILIARIZE THEMSELVES WITH EXISTING SITE CONDITIONS.

D. THE CONTRACTOR IS RESPONSIBLE FOR ANY NECESSARY TRENCH WIDTH PAVEMENT REPLACEMENTS, DIRECTIONAL BORES, AND/OR TREE CLEARING AND GRUBBING REQUIRED FOR UTILITY INSTALLATIONS.

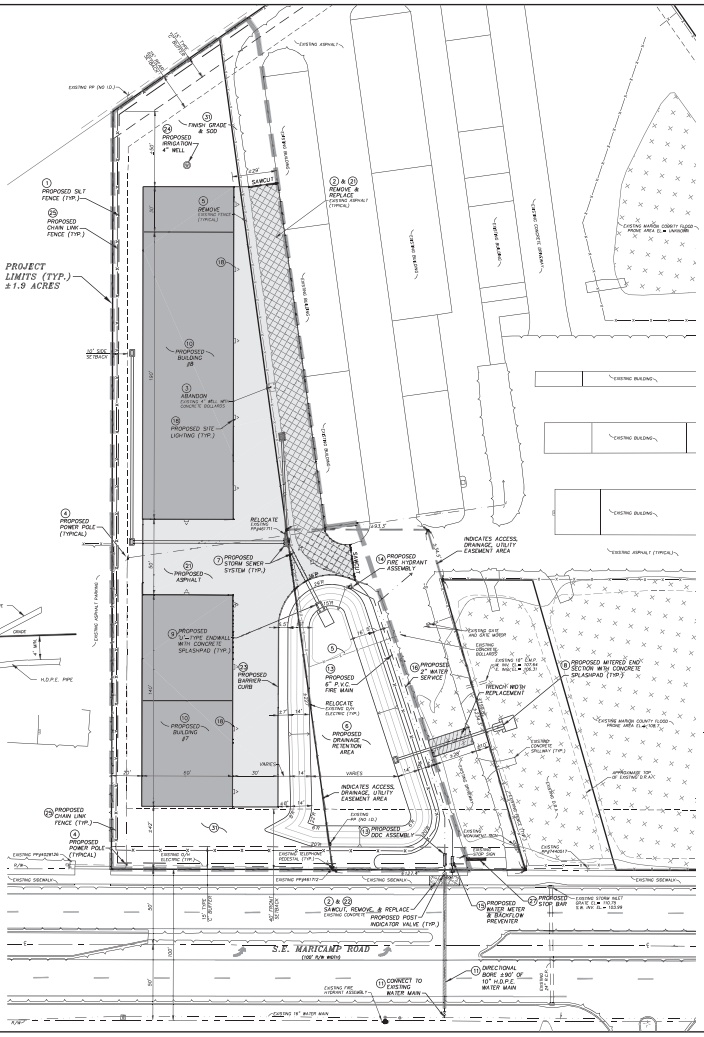
1. INSTALL TYPE III SILT FENCE ALONG PROPERTY LINES AND OTHER EROSION CONTROL SHOWN ON S.W.P.P.P. SHEET C6.
2. SAWCUT AND REMOVE EXISTING ASPHALT, CONCRETE, CURB, UNDERDRAIN, ETC. CONSTRUCT TRENCH WIDTH PAVEMENT REPLACEMENTS AS NECESSARY FOR STORM SEWER AND UTILITY CONNECTIONS.
3. PROPERLY ABANDON EXISTING WELL. ALL REQUIRED PERMITTING BY SITE CONTRACTOR.
4. RELOCATE EXISTING ELECTRIC SERVICES AS REQUIRED. COORDINATE REQUIRED LOCATIONS WITH ELECTRIC COMPANY AND ELECTRICIAN PRIOR TO CONSTRUCTION. IMPORTANTLY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE FINAL ROUTING AND VERIFY CONDUIT REQUIREMENTS WITH ELECTRIC COMPANY PRIOR TO CONSTRUCTION.
5. REMOVE EXISTING FENCING, GATES, POSTS, ETC.
6. CONSTRUCT DRAINAGE RETENTION AREAS WITH SODDED SIDE SLOPES AS APPLICABLE. SEE CROSS SECTIONS AND DETAILS ON SHEET C5.
7. INSTALL STORM INLETS AND STORM PIPING. CONSTRUCT TRENCH WIDTH PAVEMENT REPLACEMENT AS REQUIRED. SEE STORM DATA CHART ON SHEET C4 FOR SIZES AND INVERT INFORMATION.
8. INSTALL MITERED END SECTION WITH CONCRETE SPLASHPAD. SEE DETAIL ON THIS SHEET.
9. INSTALL 'U'-TYPE CONCRETE ENDWALL WITH CONCRETE SPLASHPAD. SEE DETAIL ON THIS SHEET.
10. CONSTRUCT ONE-STORY METAL BUILDINGS. SEE GENERAL NOTE 3. (BY BUILDING CONTRACTOR).
11. CONNECT TO EXISTING WATER MAIN WITH TAPPING SLEEVE AND VALVE AND DIRECTIONAL BORE 4.992' OF 10" H.D.P.E. (D906, DIPS, DR=9, PE 3408) WATER MAIN. SEE DIRECTIONAL BORE DETAIL ON THIS SHEET AND SEE F.D.E.P. NOTES ON SHEET C7 FOR CLEARANCE REQUIREMENTS.
12. INSTALL 8" & 6" P.V.C. (C900, SDR18, BLUE) WATER MAIN AND SERVICES WITH VALVES & FITTINGS SHOWN AT 36" (MIN.) DEPTH. CONSTRUCT TRENCH WIDTH PAVEMENT REPLACEMENTS AS REQUIRED. SEE F.D.E.P. NOTES ON SHEET C7 FOR CLEARANCE REQUIREMENTS.
13. INSTALL 8" DOUBLE DETECTOR CHECK ASSEMBLY AND INSTALL 8" P.V.C. (C900, SDR18, BLUE) FIRE MAIN WITH VALVES & FITTINGS SHOWN AT 36" (MIN.) DEPTH. SEE F.D.E.P. NOTES ON SHEET C7 FOR CLEARANCE REQUIREMENTS. FINAL ROUTING AND CONNECTIONS TO EXISTING SYSTEM TO BE DETERMINED.
14. INSTALL FIRE HYDRANT AND VALVE ASSEMBLIES. ANY NEWLY INSTALLED PRIVATE FIRE HYDRANT ON-SITE IS TO BE FACTORY PAINTED YELLOW. APPROPRIATELY COLORED CAPS AND BONNET WILL BE REQUIRED PRIOR TO C.O.
15. CONNECT TO PROPOSED WATER MAIN WITH TAPPING SLEEVE & VALVE (TYP. TO BE MADE BY CONTRACTOR). INSTALL 2" POLYETHYLENE PIPE (PE3408, DR-9, CTS, BLUE) FROM WATER METER (BY SUNSHINE WATER) TO CONTRACTOR INSTALLED METER BOX, AND 2" REDUCED PRESSURE BACKFLOW PREVENTER (TYPICAL OF ANY/ALL LOT CONNECTIONS AT 12" MINIMUM ABOVE GROUND AND ISOLATE EXPOSED PIPES. CONSTRUCT TRENCH WIDTH PAVEMENT REPLACEMENTS AS REQUIRED.
16. INSTALL 2" P.V.C. (C900, SDR18, BLUE) WATER SERVICE TO BUILDING WITH GATE VALVES WHERE SHOWN AND VALVE BOXES. ADHERE TO COVER AND CLEARANCE REQUIREMENTS SHOWN IN THE F.D.E.P. NOTES. CONSTRUCT TRENCH WIDTH PAVEMENT REPLACEMENTS AS REQUIRED. SEE F.D.E.P. NOTES ON SHEET C6 FOR CLEARANCE REQUIREMENTS. FINAL ROUTING AND CONNECTIONS TO EXISTING SYSTEM TO BE DETERMINED.
17. INSTALL IRRIGATION SLEEVING PER PLANS BY MICHAEL PAPE & ASSOCIATES, P.A. CONTRACTOR TO VERIFY SIZES AND LOCATIONS WITH MICHAEL PAPE AND ASSOCIATES, P.A. AND COORDINATE CONDUIT SLEEVING PRIOR TO INSTALLATION OF PAVEMENT BASE.
18. INSTALL SITE LIGHTING AT LOCATIONS SHOWN PER PLANS BY MICHAEL PAPE AND ASSOCIATES, P.A. COORDINATE CONDUIT INSTALLATION WITH ELECTRICIAN PRIOR TO INSTALLATION OF PAVEMENT BASE.
19. DELETED
20. DELETED
21. CONSTRUCT ASPHALT PAVEMENT. SEE GENERAL NOTES 9 & 10 ON SHEET C1. IMPORTANTLY PRIOR TO INSTALLATION OF BASE, CONTRACTOR TO COORDINATE ALL REQUIRED SLEEVING REQUIREMENTS.
22. DELETED
23. INSTALL CONCRETE BARRIER CURB WHERE SHOWN (SEE DETAIL ON THIS SHEET). CONSTRUCT 2' CURB TRANSITION 6"-HIGH TO FLUSH AT ALL CURB ENDS.
24. INSTALL 4" IRRIGATION WELL AND COUNTY APPROVED BACKFLOW PREVENTER. PRIOR TO ACCEPTANCE BY OWNER, THE CONTRACTOR SHALL HAVE THE WATER TESTED TO DETERMINE THE NEED FOR A FILTER SYSTEM ON IRRIGATION WELL. CONTRACTOR SHALL PROVIDE AN ALTERNATE PRICE IN THEIR INITIAL BID FOR INSTALLATION OF A FILTER SYSTEM IF NEEDED. SEE IRRIGATION PLAN BY MICHAEL PAPE AND ASSOCIATES, P.A. FOR REQUIREMENTS. COORDINATE ELECTRIC CONDUIT ROUTING PRIOR TO CONSTRUCTION.
25. INSTALL 6'-HIGH FENCING AS SHOWN ON LANDSCAPE PLAN BY MICHAEL PAPE AND ASSOCIATES, PA.
26. DELETED
27. PAINT 2'-WIDE WHITE STOP BAR WHERE INDICATED. SEE SIGNAGE AND STRIPING NOTES ON SHEET C1.
28. DELETED
29. DELETED
30. DELETED
31. FINISH GRADE AND SOD OR LANDSCAPE (AS APPLICABLE) ALL DISTURBED AREAS ON-SITE AND OFF-SITE. SEE LANDSCAPE PLAN BY MICHAEL PAPE AND ASSOCIATES, PA.



NOTES:
1. CONTRACTOR TO SUBMIT CALCULATIONS APPROVED BY ENGINEER OF RECORD FOR ALL PIPE BENDS AND ALIGNED HDPE PIPE RADIUSES FOR EACH INSTALLATION.
2. "D" IS TO BE BASED ON 1/2RB OF MANUFACTURER'S RECOMMENDED MINIMUM RADIUS.

DIRECTIONAL BORE DETAIL
(NOT TO SCALE)

MARION COUNTY UTILITIES NOTE:
MARION COUNTY UTILITIES PERSONNEL ARE TO INSPECT ANY WORK PERFORMED ON OR AROUND EXISTING MARION COUNTY UTILITIES INFRASTRUCTURE. A MINIMUM OF 48 HOURS PRIOR TO START OF ANY CONSTRUCTION. A MINIMUM OF 48 HOURS PRIOR TO START OF ANY CONSTRUCTION. IF THE PRE-CONSTRUCTION MEETING IS NOT COMPLETED, ANY WORK MAY BE HALTED. TO SCHEDULE, CONTACT MARION COUNTY UTILITIES CONSTRUCTION OFFICER AT (352) 307-6163.



IMPORTANT!!!
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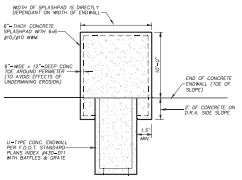
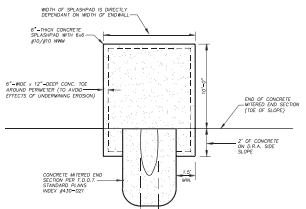
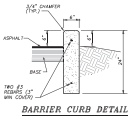


U-TYPE ENDWALL & SPLASHPAD DETAIL
NOT TO SCALE



MITERED END SECTION & SPLASHPAD DETAIL
NOT TO SCALE



BARRIER CURB DETAIL
(NOT TO SCALE)

DAVIS DUNKINS ENGINEERING, P.A.
CERTIFICATE OF AUTHORIZATION #28150
125 NE 1st AVENUE SUITE 2 OCALA, FL 34470
PHONE: (352) 854-5801

NO	REVISION	DESIGN: DJD/JES	DRAWN: JN/JDJ	CHECK: JLD
3	PDP COUNTY REVIEW			11-14-25
2	PER JURISDICTIONAL REVIEW			09-11-25
1	PRELIMINARY ISSUE			04-30-25

MAJOR SITE PLAN - LAYOUT/UTILITY
MERIDIAN STORAGE GROUP
MARION COUNTY, FLORIDA

NOT VALID UNLESS SIGNED DIGITALLY SEALED AND DATED WITH DIGITAL SEAL AND SEALED WITH PROFESSIONAL ENGINEER'S SEAL BELOW

DAVID L. DUNKINS, P.E.
FL LICENSE NO. 60058

Date

IN DIGITALLY SIGNED AND SEALED DAVID L. DUNKINS STATE OF FLORIDA, PROFESSIONAL ENGINEER, LICENSE NO. 60058, THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY DAVID L. DUNKINS ON THE DATE INDICATED HERE.

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

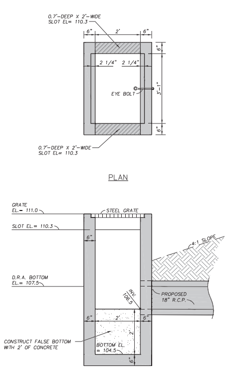
SHEET C2 OF 7

PROPOSED STORM SEWER DATA CHART

STRUCTURE				STORM PIPE			
NUMBER	STRUCTURE	GRATE EL.	INV. EL.	NUMBER	LIN. FT.	SIZE (INCHES)	% SLOPE
A	TYPE 'F' INLET	111.1	N.E. INV.= 108.1 N.W. INV.= 108.1 S. INV.= 108.0	A – D.R.A.	45.7	14x23 RCP	1.09
B	TYPE 'C' INLET	112.0	S.E. INV.= 108.5 N.E. INV.= 108.6	B – A	102.6	14x23 RCP	0.39
C	TYPE 'C' INLET	111.8	S.W. INV.= 109.0	C – B	125.0	12X18 RCP	0.32
D	TYPE 'D' INLET	111.5	S.W. INV.= 108.8	D – A	69.8	15 RCP	1.00
E	TYPE 'C' INLET	111.5	E. INV.= 106.5	E – D.R.A.	75.2	18 RCP	0.66

STORM SEWER NOTES:

1. STORM SEWER IS DESIGNED FOR A 25yr STORM EVENT.
2. ALL INLETS SHALL BE PROTECTED WITH SILT CONTROL PRODUCTS FROM "DANDY PRODUCTS" (SEE SHEET C5) UNTIL PAVING OPERATIONS ARE COMPLETED.
3. IT IS THE RESPONSIBILITY OF THE MANUFACTURER TO PROVIDE ALTERNATE B STRUCTURE BOTTOMS AS NEEDED.
4. INVERTS AND CONNECTIONS TO BE PER F.D.O.T. STANDARD PLANS INDEX #425–001.
5. ALL STORM INLETS TO BE CONSTRUCTED PER F.D.O.T. STANDARD PLANS INDEX #425–024, #425–052, AND #425–053 AS APPLICABLE.



DITCH BOTTOM INLET TYPE 'C'

REFER TO F.D.O.T. INDEX #425–052 FOR STEEL REINFORCEMENT AND ADDITIONAL NOTES.
NOT TO SCALE

SCALE: 1"= 30'
0' 15' 30' 60'

GRADING LEGEND:

- PROPOSED RIDGE
- PROPOSED SWALE
- EXISTING ELEVATIONS (SPOT SHOTS)
- TOP OF CURB/CONCRETE (AS APPLICABLE) / PROPOSED ASPHALT — PROPOSED ELEVATIONS (UNLESS OTHERWISE NOTED)
- POST CONDITION FLOW ARROW
- EXISTING CONTOURS (AS LABELED)
- PROPOSED CONTOURS (AS LABELED)
- SLOPE LABEL

IMPORTANT!!

PRIOR TO CONSTRUCTION, CONTRACTOR IS TO LOCATE ALL UTILITIES, INCLUDING SOFT–DIGS TO VERIFY LOCATION AND INVERTS AND CONTACT PROJECT ENGINEER WITH LOCATION INFORMATION!! IT MAY BE NECESSARY TO REMOVE, MODIFY, AND/OR RELOCATE EXISTING UTILITY SYSTEMS TO CONTINUE PROVIDING SERVICE TO EXISTING BUILDING AND FACILITIES. COORDINATION OF ANY TEMPORARY SERVICE INTERRUPTIONS TO BE THE RESPONSIBILITY OF THE CONTRACTOR.

NOTES TO PAVING/SITE CONTRACTOR:

1. ADHERE TO GRADES SHOWN FOR HANDICAP SPACE(S), WHICH SHOULD NOT EXCEED 1:50 OR 2.0% SLOPE IN ANY DIRECTION. SEE GRADES FOR ELEVATIONS.
2. ADHERE TO GRADES SHOWN FOR CONCRETE SIDEWALKS WHICH SHOULD NOT EXCEED OR 2.0% (1:50) CROSS SLOPE, OR 5.0% (1:20) RUNNING SLOPE.
3. ADHERE TO GRADES SHOWN FOR CONCRETE RAMPS WHICH SHOULD NOT EXCEED OR 2.0% (1:50) CROSS SLOPE, OR 8.33% (1:12) RUNNING SLOPE.
4. ADHERE TO GRADES SHOWN FOR CONCRETE LANDINGS WHICH SHOULD NOT EXCEED OR 2.0% (1:50) SLOPE IN ANY DIRECTION.

DAVIS DINKINS ENGINEERING, P.A.
CERTIFICATE OF AUTHORIZATION #28150
125 NE 1st AVENUE
SUITE 2
OCALA, FL 34470
PHONE: (352) 854–5961

NO	REVISION	DATE
3	PER COUNTY REVIEW	11–14–25
2	PER JURISDICTIONAL REVIEW	08–11–25
1	PRELIMINARY ISSUE	04–30–25

DESIGN: D.D./J.S. DRAW: T.N./S.U. CHECK: D.L.D.

MAJOR SITE PLAN – GRADING

MERIDIAN STORAGE GROUP

MARION COUNTY, FLORIDA

NOT VALID UNLESS EITHER DIGITALLY SIGNED AND SEALED, OR ORIGINALLY SIGNED, DATED AND SEALED WITH PROFESSIONAL ENGINEER'S SEAL BELOW:

DAVIS L. DINKINS, P.E.
FL LICENSE NO. 60058

DATE

IF DIGITALLY SIGNED AND SEALED: DAVIS L. DINKINS, STATE OF FLORIDA, PROFESSIONAL ENGINEER, LICENSE NO. 60058. THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY DAVIS L. DINKINS ON THE DATE INDICATED HERE.

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES

DRAINAGE CALCULATIONS:

RAINFALL (100-YEAR, 24-HOUR): ..... 11.0"
HYDROLOGIC SOIL-TYPE: ..... TYPE 'A'

WATERSHED CALCULATIONS:

	PRE-DEV.	POST-DEV.	CN
WATERSHED AREA:	89,800	89,800	
IMPERVIOUS AREA:	15,055	51,459	98.0
D.R.A. IMPERVIOUS:	0	2,722	98.0
PERVIOUS AREA TYPE 'A':	74,800	35,619	39.0
WATERSHED CN:	49	77	
VOLUME (cf):	33,374	64,015	
POST MINUS PRE (cf):		30,701	

WATER QUALITY REQUIRED:

(ON-LINE WATER QUALITY TREATMENT)

	WATERSHED #1
0.5" OF RUNOFF FROM WATERSHED:	3,742 C.F.
PLUS THE GREATER OF: 0.5" OF RUNOFF FROM WATERSHED:	3,742 C.F.
OR 1.25" OF RUNOFF FROM IMPERVIOUS:	5,396 C.F.
WATER QUALITY TREATMENT VOLUME REQUIRED:	9,138 C.F.
WATER QUALITY TREATMENT VOLUME PROVIDED:	9,138 C.F.

RETENTION AREA DESIGN:

D.R.A. STORAGE

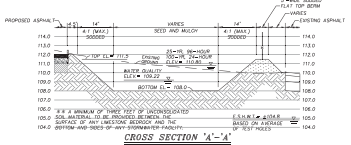
ELEV.	AREA (SF)		VOLUME (CF)
111.0	12,563	>	6,040
111.0	17,804	>	10,682
108.0	8,795	>	8,629
108.0	8,536	>	7,324
D.R.A. VOLUME (c.f.) =			32,695 # #

DRAINAGE NOTES:

1. METHOD OF CALCULATION FOR THE POST DEVELOPMENT STORM AREA IS BY TR-55 "URBAN HYDROLOGY FOR SMALL WATERSHEDS".
2. THE TOTAL ON-SITE AREA WAS USED AS THE WATERSHED LIMITS TO FIND THE WEIGHTED CN.
3. SEE SEPARATE DRAINAGE CALCULATIONS FOR ADDITIONAL DRAW DOWN ANALYSIS.
4. # INDICATES PHYSICAL VOLUME ONLY. PERCOLATION IS NOT INCLUDED. SEE NOTE 3 ABOVE.

DRAINAGE NARRATIVE:

MERIDIAN STORAGE GROUP IS A +/- 2.2 ACRE SITE LOCATED IN MARION COUNTY, FLORIDA. THE EXISTING SITE HAS BEEN DEVELOPED AND GENERALLY SLOPES TOWARDS THE EXISTING DRAINAGE RETENTION AREA BY THE R/W AND THE D.R.A. ON THE EASTERN PORTION OF THE PROPERTY. THE PROPOSED DEVELOPMENT WILL CONSIST OF (3) MINI-WAREHOUSE BUILDINGS AND ASSOCIATED PAVED DRIVES AND PARKING AREAS. THE RUNOFF AND STORMWATER FROM THE PROPOSED DEVELOPMENT WILL BE DIRECTED TO AN ON-SITE DRAINAGE RETENTION AREA (D.R.A.) BY A SERIES OF SWALES, SPILLWAYS, INLETS, AND STORM PIPING. THE STORMWATER FACILITY IS SIZED TO ACCOMMODATE THE POST LESS THE PRE-CONDITION RUNOFF FROM THE 100-YEAR, 24-HOUR STORM EVENT. THE POST-CONDITION RUNOFF RATE AND VOLUME IS LESS THAN THE PRE-CONDITION RATE AND VOLUME. STORMWATER QUALITY IS PROVIDED IN THE PROPOSED D.R.A.



CROSS SECTION 'A'-'A'

NOT TO SCALE

D.R.A. CONSTRUCTION NOTES:

THE FOLLOWING CONSTRUCTION PROCEDURES ARE ADVISABLE TO AVOID POTENTIAL IMPACTS() TO THE RETENTION AREA RECOVERY DUE TO CONSTRUCTION PRACTICES. CONTRACTOR TO REFER TO APPLICABLE WATER MANAGEMENT DISTRICT PERMIT INFORMATION MANUAL FOR ADDITIONAL INFORMATION.

1. INITIALLY EXCAVATE AND ROUGH GRADE THE RETENTION BASIN WITHIN 12 INCHES OF THE BASIN BOTTOM AND SIDE SLOPES. IMPORTANT: DO NOT OVER-EXCAVATE ANY PORTION OF THE RETENTION BASIN BOTTOM OR SIDE SLOPES!
2. AFTER THE AREA CONTRIBUTING TO THE BASIN HAS BEEN STABILIZED, THE INTERIOR SIDE SLOPES AND BASIN BOTTOM SHOULD BE EXCAVATED TO FINAL DESIGN SPECIFICATIONS. THE EXISTING SOIL AND UNDESIRABLE MATERIAL SHOULD BE CAREFULLY EXCAVATED AND REMOVED FROM THE POND SO THAT ANY ACCUMULATED SILTS, CLAYS, ORGANICS, AND OTHER FINE SEDIMENT MATERIAL ARE REMOVED. THE EXCAVATED MATERIAL SHOULD BE UTILIZED OR DISPOSED OF.
3. THE ENTIRE BASIN BOTTOM SHOULD BE DEEP RAKED AND LOOSENED FOR OPTIMAL INFILTRATION.
4. THE FINAL STABILIZATION OF THE BASIN SHOULD BE DONE PER THE CONSTRUCTION PLANS.

SOIL TEST RESULTS:

TESTED BY: GEOTECH, INC.
TEST DATE: FEBRUARY 26, 2025

TEST HOLE P-1 (GROUND EL= ±111.3)

0' - 72" BROWN FINE SAND (SP)
72" - 240" YELLOWISH BROWN AND GRAY CLAYEY SAND (SC)

FIELD HORIZONTAL PERMEABILITY @ APPROX. 3.0' = 31.8 FEET/DAY
FIELD VERTICAL PERMEABILITY @ APPROX. 3.0' = 3.7 FEET/DAY
FIELD HORIZONTAL PERMEABILITY @ APPROX. 5.0' = 26.5 FEET/DAY
FIELD VERTICAL PERMEABILITY @ APPROX. 5.0' = 2.4 FEET/DAY
ESTIMATED SEASONAL HIGH WATER TABLE @ APPROX. 6.0 FEET
CONFINING LAYER GREATER THAN DEPTH DRILLED

TEST HOLE P-2 (GROUND EL= ±110.4)

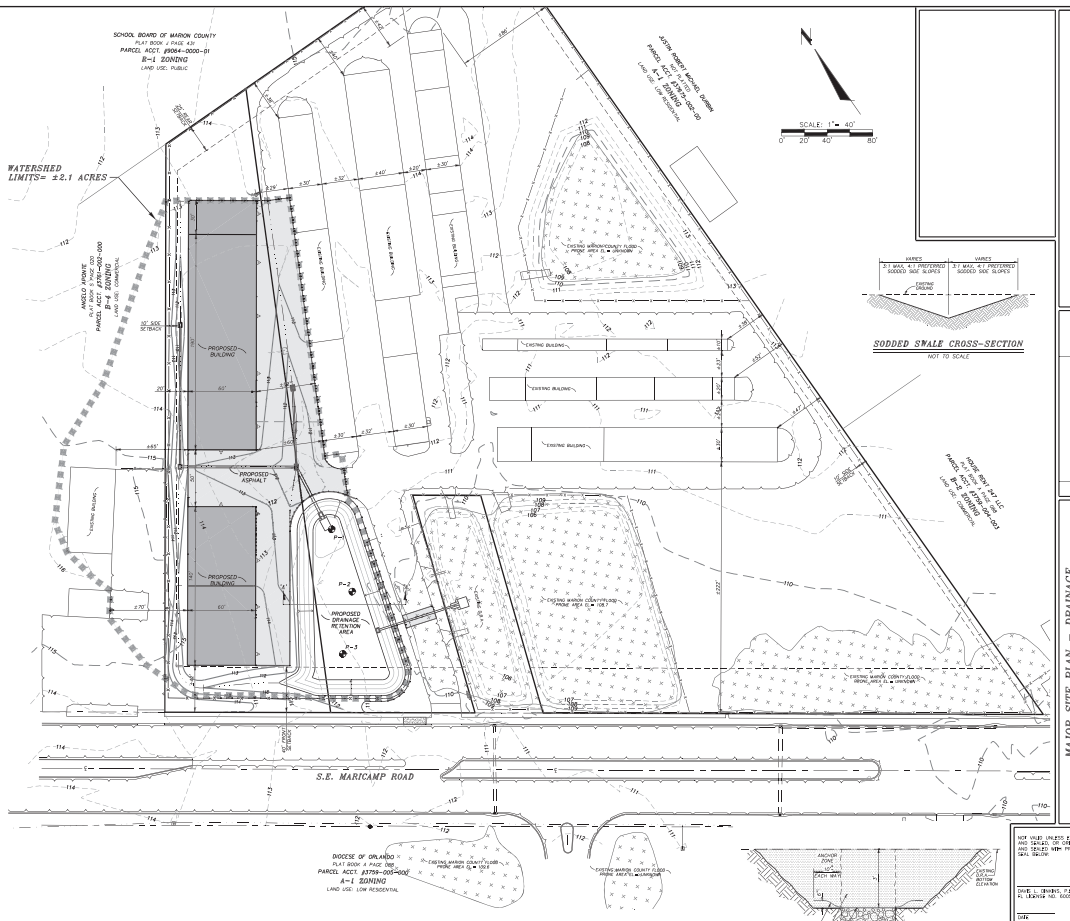
0' - 72" BROWN FINE SAND (SP)
72" - 240" YELLOWISH BROWN AND GRAY CLAYEY SAND (SC)

ESTIMATED SEASONAL HIGH WATER TABLE @ APPROX. 6.0 FEET
CONFINING LAYER GREATER THAN DEPTH DRILLED

TEST HOLE P-3 (GROUND EL= ±111.2)

0' - 78" BROWN FINE SAND (SP)
78" - 240" YELLOWISH BROWN AND GRAY CLAYEY SAND (SC)

FIELD HORIZONTAL PERMEABILITY @ APPROX. 3.0' = 31.5 FEET/DAY
FIELD HORIZONTAL PERMEABILITY @ APPROX. 5.0' = 26.2 FEET/DAY
FIELD VERTICAL PERMEABILITY @ APPROX. 3.0' = 20.6 FEET/DAY
FIELD VERTICAL PERMEABILITY @ APPROX. 5.0' = 2.6 FEET/DAY
ESTIMATED SEASONAL HIGH WATER TABLE @ APPROX. 6.5 FEET
CONFINING LAYER GREATER THAN DEPTH DRILLED

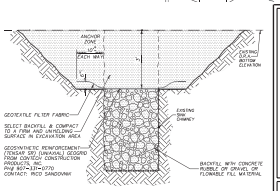


SODDED SWALE CROSS-SECTION

NOT TO SCALE

IMPORTANT!!

PRIOR TO CONSTRUCTION, CONTRACTOR IS TO LOCATE ALL UTILITIES, INCLUDING SOFT-DIGS TO VERIFY LOCATION AND INVERTS AND CONTACT PROJECT ENGINEER WITH LOCATION INFORMATION! IT MAY BE NECESSARY TO REMOVE, MODIFY AND/OR RELOCATE EXISTING UTILITY SYSTEMS TO CONTINUE PROVIDING SERVICE TO EXISTING BUILDING AND FACILITIES. COORDINATION OF ANY TEMPORARY SERVICE INTERRUPTIONS TO BE THE RESPONSIBILITY OF THE CONTRACTOR.



TYPICAL SINK CHIMNEY REPAIR DETAIL

PER DEVO SEVERDIA, PhD., P.E.

DAVIS DONKING ENGINEERING, P.A.
CERTIFICATE OF AUTHORIZATION #28150
172 NE 1st AVENUE SUITE-2 OCALA, FL 34470
PHONE: (352) 854-5861

NO.	REVISION	DRAWN: JN/JGW	CHECK: JLD
1	PRELIMINARY ISSUE	04-30-25	
2	PER JURISDICTIONAL REVIEW	09-17-25	
3	PER COUNTY REVIEW	11-14-25	

DESIGN: DJS/JLD | DATE

MAJOR SITE PLAN - DRAINAGE
MERIDIAN STORAGE GROUP
MARION COUNTY, FLORIDA

NOT VALID UNLESS SIGNED DIGITALLY SEALED AND VERIFIED WITH AUTHENTICATION CODE AND SEALED WITH PROFESSIONAL ENGINEER'S SEAL BELOW

DANIEL L. DENKING, P.E.
FL. LICENSE NO. 60058

Date

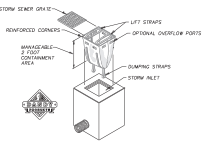
IT IS DIGITALLY SIGNED AND SEALED DANIEL L. DENKING STATE OF FLORIDA, PROFESSIONAL ENGINEER, LICENSE NO. 60058, THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY DANIEL L. DENKING ON THE DATE INDICATED HERE.

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

SHEET C5 OF 7

EROSION CONTROL NOTES:

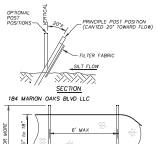
1. DISCHARGE CONTROL AND EROSION PROTECTION MEASURES SHALL BE EMPLOYED AND OPERATED AT ALL TIMES DURING CONSTRUCTION TO AVOID ADVERSE IMPACTS TO RECEIVING WATERS OR ADJACENT PROPERTY. DETENTION/RETENTION STORAGE STRUCTURES, SEDIMENT BARRIERS, FLOW CONVEYANCES, REVETMENT, DISCHARGE CONTROL STRUCTURES, AND OTHER STORMWATER MANAGEMENT STRUCTURES SHOULD BE BUILT AND MADE OPERATIONAL AS EARLY AS POSSIBLE DURING THE PROJECT. WHERE FEASIBLE AND CONVENIENT POSSIBLE, THE STRUCTURES ARE INCORPORATED INTO AND BECOME PART OF THE PERMANENT SURFACE WATER MANAGEMENT SYSTEM.
2. THE OWNER/PERMITTEE SHALL ENSURE THAT THE SURFACE WATER AND STORMWATER MANAGEMENT MEASURES PROPOSED IN THE PLAN ARE EFFECTIVELY IMPLEMENTED UNTIL COMPLETION OF THE PROJECT OR UNTIL THE PERMANENT SURFACE WATER MANAGEMENT SYSTEM IS OPERATIONAL.
3. THE SITE SHALL REMAIN FREE OF EXCESS DUST AND DEBRIS AT ALL TIMES. ANY INCIDENCE OF EROSION, SEDIMENTATION, DUST OR DEBRIS (OCCURRING OFF-SITE AS A RESULT OF CONSTRUCTION ACTIVITIES ON THIS DEVELOPMENT SHALL BE CORRECTED BY THE CONTRACTOR IMMEDIATELY (FOR EACH OCCURRENCE).
4. ALL STORM WATER MANAGEMENT SYSTEMS SHALL BE COMPLETED PRIOR TO CONSTRUCTION OF IMPERVIOUS AREAS.
5. SILT FENCE, STRAW BALE INLET FILTERS, AND ANY OTHER EROSION/SEDIMENTATION PROTECTION SHOWN ON THESE PLANS SHALL BE INSTALLED BEFORE THE LIMITS OF CONSTRUCTION ARE DISTURBED AND SHALL BE MAINTAINED DURING THE LIFE OF THE CONSTRUCTION PROJECT AND REMOVED AFTER COMPLETION.
6. CONSTRUCTION WASTE – WASTE SHALL BE COLLECTED AT A DESIGNATED AREA ONSITE. ADEQUATE NUMBER OF CONTAINERS SHALL BE PROVIDED (WHEN POSSIBLE COVER CONTAINERS OR PROVIDE LIDS ON CONTAINERS). ARRANGE FOR WASTE COLLECTION BEFORE CONTAINERS OVERFLOW. PROVIDE CLEAN UP IMMEDIATELY IF SPILLAGE OCCURS.
7. CONCRETE TRUCKS – EMPTYING OR WASH OUT OF EXCESS CONCRETE MAY BE ALLOWED ONSITE. EXCESS CONCRETE AND WASH WATER SHOULD BE DISPOSED OF IN A MANNER THAT PREVENTS CONTACT BETWEEN THESE MATERIALS AND STORMWATER WHICH WILL BE DISCHARGED FROM THE SITE. FOR EXAMPLE, OAKS COULD BE CONSTRUCTED AROUND THE AREA TO CONTAIN THESE MATERIALS UNTIL THEY HARDEN, AT WHICH TIME THEY MAY BE PROPERLY DISPOSED OF.
8. OFFSITE VEHICLE TRACKING OF SEDIMENT – ADJACENT PAVED STREETS SHALL BE SWEPT DAILY (AS NECESSARY) TO REMOVE ANY EXCESS MUD, DIRT, OR ROCK TRACKED FROM SITE.
9. SANITARY/SEPTIC DISPOSAL – DOMESTIC WASTE HAULERS SHOULD BE CONTRACTED TO REGULARLY REMOVE THE SANITARY AND SEPTIC WASTES AND TO MAINTAIN THE FACILITIES IN GOOD WORKING ORDER.
10. PETROLEUM PRODUCTS – OIL, GASOLINE, LUBRICANTS, AND ASPHALTIC SUBSTANCES SUCH AS PAVING MATERIALS SHOULD BE HANDLED CAREFULLY TO MINIMIZE THEIR EXPOSURE TO STORM WATER. EQUIPMENT SHOULD BE ON SITE TO CONTAIN AND CLEAN UP PETROLEUM SPILL IN FUEL STORAGE AREAS OR ON BOARD MAINTENANCE AND FUELING VEHICLES. CONTAIN AND CLEAN UP PETROLEUM SPILLS IMMEDIATELY.
11. HAZARDOUS PRODUCTS – THESE PRODUCTS SHALL BE USED IN A SAFE MANNER TO AVOID POLLUTION OF STORM WATER. EQUIPMENT SHOULD BE ONSITE TO CONTAIN AND CLEAN UP SPILLS OF HAZARDOUS MATERIALS IN THE AREAS WHERE THESE MATERIALS ARE STORED OR USED. CONTAIN AND CLEAN UP SPILLS IMMEDIATELY AFTER THEY OCCUR.
12. NON-STORM WATER DISCHARGES – THESE DISCHARGES INCLUDE BUT NOT LIMITED TO: FIRE HYDRANT FLUSHINGS, POTABLE WATER SOURCES (FLUSHING), IRRIGATION, BUILDING WASHDOWN, AND AIR CONDITIONING CONDENSATION. PRIOR TO ANY DISCHARGE, ALL DOWNSLOPE SITE SEDIMENTATION AND EROSION CONTROLS SHOULD BE IN PLACE. DISCHARGE SHOULD ONLY BE DIRECTED TO AREAS THAT ARE STABILIZED TO MINIMIZE EROSION (E.G., BUFFER ZONE, VEGETATED FILTER STRIPS, INLET AND OUTLET PROTECTION, LEVEL SPREADERS, ETC.) DO NOT DISCHARGE NON-STORM WATER FLOWS ONTO DISTURBED AREAS.
13. A STORMWATER POLLUTION PREVENTION PLAN INSPECTION REPORT IS REQUIRED AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM EVENT THAT IS 0.5 INCHES OR GREATER. THE REPORTS ARE TO BE FILED AT THE PROJECT SITE WITH THE STORM WATER POLLUTION PREVENTION PLAN.
14. IN ADDITION TO PROVIDING A TEMPORARY CONSTRUCTION GRAVEL ENTRANCE TO CONTROL THE DEPOSITION OF SEDIMENTS ON PAVEMENTS ADJACENT TO THE PROJECT SITE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PERIODIC SWEEPING OF EXISTING ON-SITE PAVED SURFACES AND ALL PUBLIC TRAVEL WAYS CONTIGUOUS TO THE PROJECT SITE. SWEEPING SHALL BE DONE BY MECHANICAL MEANS ON A REGULAR BASIS SEVERAL TIMES A WEEK INCLUDING MOST PARTICULARLY, AFTER EVERY RAIN EVENT AND EVERY FRIDAY AFTERNOON PRIOR TO CLOSING WORK FOR THE WEEK.
15. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE A LETTER FROM OWNER OF PERMANENT DISPOSAL SITE FOR EXCAVATED MATERIAL THAT ACCEPTS MATERIAL AND ACKNOWLEDGES THE PERMANENT DISPOSAL SITE IS NOT IN A FLOOD PLAIN.



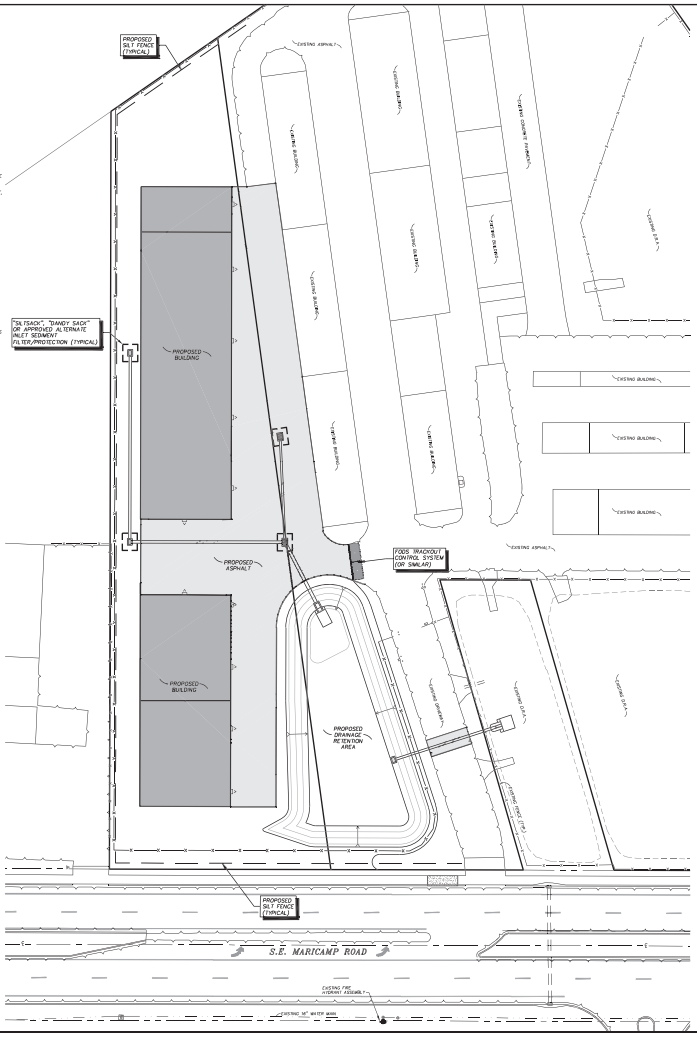
INSTALLATION:
1. REMOVE THE GRATE FROM THE CATCH BASIN.
2. FOR OIL AND SEDIMENT MODEL: TO INSTALL OR REPLACE ABSORBENTS, PLACE ABSORBENT ROLL ON TOP OF THE DANDY SACK™ (PELOW-SPADE SIZE) OF THE UNIT.
3. STAND THE GRATE ON END, NEAR THE TOP LIFTING STRAPS OUT OF THE WAY AND PLACE THE GRATE INTO THE DANDY SACK™ UNIT SO THAT THE GRATE IS BELOW THE TOP OF THE FRAME AND THE LOWER LIFTING STRAPS ARE ENFOLDED BETWEEN THE GRATE AND THE SUPPORTS.
4. HOLDING THE LIFTING DEVICES, INSERT THE GRATE INTO THE INLET, BEING CAREFUL THAT THE GRATE REMAINS IN PLACE AND BEING CAREFUL NOT TO DAMAGE THE DANDY SACK™ UNIT.

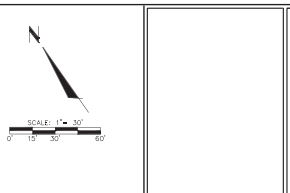
MAINTENANCE:
1. REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM VICINITY OF UNIT AFTER EACH STORM EVENT.
2. AFTER EACH STORM EVENT AND AT REGULAR INTERVALS, LOOK INTO THE DANDY SACK™ UNIT. IN THE EVENT IS MORE THAN 1/3 FULL OF ACCUMULATED SEDIMENT, THE UNIT MUST BE EMPTIED.
3. TO EMPTY THE UNIT, USING THE LIFTING STRAPS LIFT THE UNIT OUT OF THE INLET AND PLACE IT ON A PAVED SURFACE WHERE IT CAN BE CONVENIENTLY EMPTIED. FOR REMOVAL OF THE CONTENTS, HOLDING THE DUMPING STRAPS ON THE OUTSIDE OF THE BOTTOM OF THE UNIT, TURN THE UNIT UPSIDE DOWN, EMPTYING THE CONTENTS. REINSTALL UNIT AS ABOVE.
4. FOR OIL AND SEDIMENT MODEL: REMOVE AND REPLACE ABSORBENT WHEN NEAR SATURATION.
5. DISPOSE OF UNIT AND/OR ABSORBENT IN ACCORD WITH APPLICABLE FEDERAL, STATE AND LOCAL ENVIRONMENTAL LAWS AND REGULATIONS.

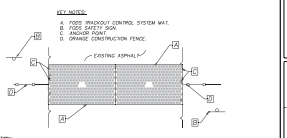
DANDY SACK™ DETAIL



TYPE III SILT FENCE DETAIL
FDOT INDEX #102







INSTALLATION:
1. THE SITE PLAN SHOWS THE FODS TRACKOUT CONTROL SYSTEM IS TO BE PLACED WHERE CONSTRUCTION TRAFFIC EXITS AS MUCH AS POSSIBLE. IF SITE WHERE FODS TRACKOUT CONTROL SYSTEM IS PLACED SHOULD ALSO MEET OR EXCEED THE LOCAL JURISDICTION OR STORM WATER POLLUTION PREVENTION PLAN CONTROL REQUIREMENTS.
2. ONLY FOR MULTI-LAYER APPLICATIONS OF FODS TRACKOUT CONTROL SYSTEM: INSTALLATION FOR THE FIRST MAT UNDERNEATH ANOTHER MAT IS ANYWHERE ALONG THE LENGTH OF THE SITE.
3. ONCE THE SITE IS ESTABLISHED WHERE FODS TRACKOUT CONTROL SYSTEM IS TO BE PLACED, ANY EXISTING UNEVEN SURFACE SHOULD BE LEVELED OUT OR REMOVED SUCH AS LARGE ROCKS, LANDSCAPING MATERIALS, OR SUDDEN IMPORTANT CHANGES IN ELEVATION.
4. THE INDIVIDUAL MATS CAN START TO BE PLACED INTO POSITION. THE FIRST MAT SHOULD BE PLACED NEXT TO THE CLOSEST POINT OF EGRESS. THIS WILL ENSURE THAT THE VEHICLE WILL EXIT STRAIGHT FROM THE SITE ONTO THE PAVED SURFACE.
5. AFTER THE FIRST MAT IS PLACED DOWN IN THE PROPER LOCATION, MATS SHOULD BE ANCHORED TO PREVENT THE POTENTIAL MOVEMENT WHILE THE ADJOINING MATS ARE INSTALLED. ANCHORS SHOULD BE PLACED AT EVERY ANCHOR POINT OF FEASIBLE TO HELP MAINTAIN THE MAT IN ITS CORRECT POSITION.
6. AFTER THE FIRST MAT IS ANCHORED IN ITS PROPER PLACE, AN X-BRACKET SHOULD BE PLACED AT THE END OF THE FIRST MAT BEFORE ANOTHER MAT IS PLACED ADJACENT TO THE FIRST MAT.
7. ONCE THE SECOND MAT IS PLACED ADJACENT TO THE FIRST MAT, MAKE SURE THE X-BRACKET IS CORRECTLY SITUATED BETWEEN THE TWO MATS, AND SLIDE MATS TOGETHER.
8. NEXT THE CONNECTOR STRAPS SHOULD BE INSTALLED TO CONNECT THE TWO MATS TOGETHER.
9. UPON PLACEMENT OF EACH NEW MAT IN THE SYSTEM, THAT MAT SHOULD BE ANCHORED AT EVERY ANCHOR POINT TO HELP STABILIZE THE MAT AND ENSURE THE SYSTEM IS CONTINUOUS WITH NO GAPS IN BETWEEN THE MATS.
10. SUCCESSIVE MATS CAN THEN BE PLACED TO CREATE THE FODS TRACKOUT CONTROL SYSTEM REPEATING THE ABOVE STEPS.

USE AND MAINTENANCE:
1. VEHICLES SHOULD SLOWLY DRIVE THE LENGTH OF THE TRACKOUT CONTROL SYSTEM AND NOT CUT ACROSS THE MATS.
2. DRIVERS SHOULD TURN THE WHEELS OF THEIR VEHICLES SUCH THAT THE VEHICLE WILL MAKE A SHALLOW S-TURN ROUTE DOWN THE LENGTH OF THE FODS TRACKOUT CONTROL SYSTEM.
3. MATS SHOULD BE CLEANED ONCE THE VOIDS BETWEEN THE PYRAMIDS BECOME FULL OF SEDIMENT. TYPICALLY THIS WILL NEED TO BE PERFORMED WITHIN TWO WEEKS AFTER A STORM EVENT. BRUSHING IS THE PREFERRED METHOD OF CLEANING, EITHER MANUALLY OR MECHANICALLY.
4. THE USE OF ICE MELT, ROCK SALT, SNOW MELT, DE-ICER, ETC. SHOULD BE UTILIZED AS NECESSARY DURING THE WINTER MONTHS AND AFTER A SNOW EVENT TO PREVENT ICE BUILDUP.

REMOVAL:
1. REMOVAL OF FODS TRACKOUT CONTROL SYSTEM IS REVERSE ORDER OF INSTALLATION.
2. STARTING WITH THE LAST MAT, THE MAT THAT IS PLACED AT THE FARTHEST POINT OF THE SITE OR THE MAT FURTHEST FROM THE EXIT OFF PAVED SURFACE SHOULD BE REMOVED FIRST.
3. THE ANCHORS SHOULD BE REMOVED.
4. THE CONNECTOR STRAPS SHOULD BE UNBUCKLED AT ALL LOCATIONS IN THE FODS TRACKOUT CONTROL SYSTEM.
5. STARTING WITH THE LAST MAT IN THE SYSTEM, EACH SUCCESSIVE MAT SHOULD THEN BE MOVED AND STACKED FOR LOADING BY FORKLIFT OR EXCAVATOR UNTIL A PALLET FOR REMOVAL FROM THE SITE.

FODS TRACKOUT DETAIL
NOT TO SCALE

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 DISCHARGES FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES AND THIS STORMWATER POLLUTION PREVENTION PLAN PREPARED THEREUNDER.

NAME/CONSTRUCTION COMPANY NAME — DATE:

THE STORMWATER MANAGEMENT MEASURES PROPOSED ON THIS PLAN SHALL BE EFFECTIVELY IMPLEMENTED AND MAINTAINED. THE OWNER/AGENT IS AWARE OF AND MUST ASSURE MAINTENANCE OF THE EROSION PROTECTION THAT IS ASSOCIATED WITH THE PROJECT DURING CONSTRUCTION.

PATRICK HOEDER, MANAGER
SHOU/SHOARE GROUP LLC — DATE:

DAVIS DINKINS ENGINEERING, P.A.
CERTIFICATE OF AUTHORIZATION #28150
125 NE 1st AVENUE
SUITE 2
OCALA, FL 34470
PHONE: (352) 854-5861

NO	REVISION	DATE	CHECK
3	PER COUNTY REVIEW	11-14-25	
2	PER JURISDICTIONAL REVIEW	09-17-25	
1	PRELIMINARY ISSUE	04-30-25	

DESIGN: DJS/JS DRAWN: JN/JS/JJ CHECK: JJ/LD

MAJOR SITE PLAN – S.W.P.P.P.

MERIDIAN STORAGE GROUP

MARION COUNTY, FLORIDA

NOT VALID UNLESS SIGNED DIGITALLY SEALED AND DATED. PRINTED COPIES MUST BE SIGNED AND SEALED WITH PROFESSIONAL ENGINEER'S SEAL BELOW.

DAVID L. DINKINS, P.E.
FL LICENSE NO. 60058

DATE

IN DIGITALLY SIGNED AND SEALED DAVID L. DINKINS, STATE OF FLORIDA, PROFESSIONAL ENGINEER, LICENSE NO. 60058, THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY DAVID L. DINKINS ON THE DATE INDICATED HERE.

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

SHEET C6 OF 7

D.E.P. NOTES:

1. NOTE TO THE UTILITY: PURSUANT TO RULE 403.859(6), FLORIDA STATUTES, DO NOT PROVIDE WATER SERVICE TO THIS PROJECT (OTHER THAN FLUSHING/TESTING) UNTIL THE DEPARTMENT OF ENVIRONMENTAL PROTECTION HAS ISSUED A LETTER OF CLEARANCE OR THE UTILITY, SHALL BE SUBJECT TO ENFORCEMENT ACTION.

PERMIT TRANSFER

2. THE PERMITTEE WILL PROMPTLY NOTIFY THE DEPARTMENT UPON SALE OR LEGAL TRANSFER OF THE PERMITTED FACILITY OF THIS PERMIT, THIS PERMIT IS TRANSFERABLE ONLY UPON DEPARTMENT APPROVAL. THE NEW OWNER MUST APPLY, BY LETTER, FOR A TRANSFER OF PERMIT WITHIN 30 DAYS.

UTILITY SEPARATION – VERTICAL CLEARANCE

3. VERTICAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, AND RECLAIMED WATER PIPELINES.
   a. NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING 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, AND PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
   b. NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING 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 OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
   c. AT THE UTILITY CROSSINGS DESCRIBED IN PARAGRAPHS (a) AND (b), 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. ALTERNATIVELY, AT SUCH CROSSINGS, 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

4. HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS.
   a. NEW OR RELOCATED, UNDERGROUND WATER MAINS 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 STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62–610, F.A.C.
   b. NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM–TYPE SANITARY SEWER.
   c. NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY– OR PRESSURE–TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62–610, F.A.C. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY–TYPE SANITARY SEWERS SHALL BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER.
   d. NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED "ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381.0065(2), F.S., AND RULE 64E–6.002, F.A.C.

CONSTRUCTION NOTES

5. CONTRACTOR IS RESPONSIBLE FOR ADHERING TO CONSTRUCTION REQUIREMENTS OF THE D.E.P. GENERAL PERMIT FOR CONSTRUCTION OF WATER MAIN EXTENSIONS FOR PUBLIC WATER SYSTEMS.
   a. ALL PIPE, PIPE FITTINGS, PIPE JOINT PACKING AND JOINTING MATERIALS, VALVES, FIRE HYDRANTS, AND METERS INSTALLED UNDER THIS PROJECT WILL CONFORM TO APPLICABLE AMERICAN WATER WORKS ASSOCIATION (AWWA) STANDARDS. [FAC 62–555.320(21)(B), RSWW 8.0, AND AWWA STANDARDS AS INCORPORATED INTO FAC 62–555.330; EXCEPTIONS ALLOWED UNDER FAC 62–555.320(21)(C)]
   b. ALL PUBLIC WATER SYSTEM COMPONENTS, EXCLUDING FIRE HYDRANTS, THAT WILL BE INSTALLED UNDER THIS PROJECT AND THAT WILL COME INTO CONTACT WITH DRINKING WATER WILL CONFORM TO NSF INTERNATIONAL STANDARD 61 AS ADOPTED IN RULE 62–555.335, F.A.C., OR OTHER APPLICABLE STANDARDS, REGULATIONS, OR REQUIREMENTS REFERENCED IN PARAGRAPH 62–555.320(3)(B), F.A.C. [FAC 62–555.320(3)(B); EXCEPTIONS ALLOWED UNDER FAC 62–555.320(3)(D)]
   c. ALL PIPE AND PIPE FITTINGS INSTALLED UNDER THIS PROJECT WILL CONTAIN NO MORE THAN 8.0% LEAD, AND ANY SOLDER OR FLUX USED IN THIS PROJECT WILL CONTAIN NO MORE THAN 0.2% LEAD. [FAC 62–555.322]
   d. ALL PIPE AND PIPE FITTINGS INSTALLED UNDER THIS PROJECT WILL BE COLOR CODED OR MARKED IN ACCORDANCE WITH SUBPARAGRAPH 62–555.320(21)(B)3, F.A.C., USING BLUE AS A PREDOMINANT COLOR. (UNDERGROUND PLASTIC PIPE WILLBE SOLID–WALL BLUE PIPE, WILL HAVE A CO–EXTRUDED BLUE EXTERNAL SKIN, OR WILL BE WHITE OR BLACK PIPE WITH BLUE STRIPES INCORPORATED INTO, OR APPLIED TO, THE PIPE WALL; AND UNDERGROUND METAL OR CONCRETE PIPE WILL HAVE BLUE STRIPES APPLIED TO THE PIPE WALL. PIPE STRIPED DURING MANUFACTURING OF THE PIPE WILL HAVE CONTINUOUS STRIPES THAT RUN PARALLEL TO THE AXIS OF THE PIPE, THAT ARE LOCATED AT NO GREATER THAN 90–DEGREE INTERVALS AROUND THE PIPE, AND THAT WILL REMAIN INTACT DURING AND AFTER INSTALLATION OF THE PIPE. IF TAPE OR PAINT IS USED TO STRIPE PIPE DURING INSTALLATION OF THE PIPE, THE TAPE OR PAINT WILL BE APPLIED IN A CONTINUOUS LINE THAT RUNS PARALLEL TO THE AXIS OF THE PIPE AND THAT IS LOCATED ALONG THE TOP OF THE PIPE; FOR PIPE WITH AN INTERNAL DIAMETER OF 24 INCHES OR GREATER, TAPE OR PAINT WILL BE APPLIED IN CONTINUOUS LINES ALONG EACH SIDE OF THE PIPE AS WELL AS ALONG THE TOP OF THE PIPE. ABOVEGROUND PIPE WILL BE PAINTED BLUE OR WILL BE COLOR CODED OR MARKED LIKE UNDERGROUND PIPE.) [FAC 62–555.320(21)(B)3]
   e. AT HIGH POINTS WHERE AIR CAN ACCUMULATE IN NEW OR ALTERED WATER MAINS INCLUDED IN THIS PROJECT, PROVISIONS WILL BE MADE TO REMOVE THE AIR BY MEANS OF AIR RELIEF VALVES, AND AUTOMATIC AIR RELIEF VALVES WILL NOT BE USED IN SITUATIONS WHERE FLOODING OF THE VALVE MANHOLE OR CHAMBER MAY OCCUR. [FAC 62–555.320(21)(B) AND RSWW 8.4.1]
   f. THE OPEN END OF THE AIR RELIEF PIPE FROM ALL AUTOMATIC AIR RELIEF VALVES INSTALLED UNDER THIS PROJECT WILL BE EXTENDED TO AT LEAST ONE FOOT ABOVE GRADE AND WILL BE PROVIDED WITH A SCREENED, DOWNWARD–FACING ELBOW. [FAC 62–555.320(21)(B) AND RSWW 8.4.2]
   g. NEW OR ALTERED CHAMBERS, PITS, OR MANHOLES THAT CONTAIN VALVES, BLOW–OFFS, METERS, OR OTHER SUCH WATER DISTRIBUTION SYSTEM APPURTENANCES AND THAT ARE INCLUDED IN THIS PROJECT WILL NOT BE CONNECTED DIRECTLY TO ANY SANITARY OR STORM SEWER, AND BLOW–OFFS OR AIR RELIEF VALVES INSTALLED UNDER THIS PROJECT WILL NOT BE CONNECTED DIRECTLY TO ANY SANITARY OR STORM SEWER. [FAC 62–555.320(21)(B) AND RSWW 8.4.3]
   h. NEW OR ALTERED WATER MAINS INCLUDED IN THIS PROJECT WILL BE INSTALLED IN ACCORDANCE WITH APPLICABLE AWWA STANDARDS OR IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDED PROCEDURES. [FAC 62–555.320(21)(B), RSWW 8.5.1, AND AWWA STANDARDS AS INCORPORATED INTO FAC 62–555.330]
   i. A CONTINUOUS AND UNIFORM BEDDING WILL BE PROVIDED IN TRENCHES FOR UNDERGROUND PIPE INSTALLED UNDER THIS PROJECT; BACKFILL MATERIAL WILL BE TAMPED IN LAYERS AROUND UNDERGROUND PIPE INSTALLED UNDER THIS PROJECT AND TO A SUFFICIENT HEIGHT ABOVE THE PIPE TO ADEQUATELY SUPPORT AND PROTECT THE PIPE; AND UNSUITABLY SIZED STONES (AS DESCRIBED IN APPLICABLE AWWA STANDARDS OR MANUFACTURERS' RECOMMENDED INSTALLATION PROCEDURES) FOUND IN TRENCHES WILL BE REMOVED FOR A DEPTH OF AT LEAST SIX INCHES BELOW THE BOTTOM OF UNDERGROUND PIPE INSTALLED UNDER THIS PROJECT. [FAC 62–555.320(21)(B), RSWW 8.5.2]
   j. ALL WATER MAIN TEES, BENDS, PLUGS, AND HYDRANTS INSTALLED UNDER THIS PROJECT WILL BE PROVIDED WITH THRUST BLOCKS OR RESTRAINED JOINTS TO PREVENT MOVEMENT. [FAC 62–555.320(21)(B) AND RSWW 8.5.4]

TESTING

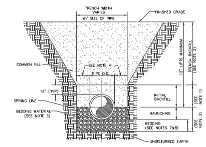
5. CONTRACTOR IS RESPONSIBLE FOR ADHERING TO TESTING REQUIREMENTS OF THE D.E.P. GENERAL PERMIT FOR CONSTRUCTION OF WATER MAIN EXTENSIONS FOR PUBLIC WATER SYSTEMS.
   a. NEW OR ALTERED WATER MAINS THAT ARE INCLUDED IN THIS PROJECT AND THAT WILL BE CONSTRUCTED OF ASBESTOS–CEMENT OR POLYVINYL CHLORIDE PIPE WILL BE PRESSURE AND LEAKAGE TESTED IN ACCORDANCE WITH AWWA STANDARD C603 OR C605, RESPECTIVELY, AS INCORPORATED INTO RULE 62–555.330, F.A.C., AND ALL OTHER NEW OR ALTERED WATER MAINS INCLUDED IN THIS PROJECT WILL BE PRESSURE AND LEAKAGE TESTED IN ACCORDANCE WITH AWWA STANDARD C600 AS INCORPORATED INTO RULE 62–555.330. [FAC 62–555.320(21)(B)1 AND AWWA STANDARDS AS INCORPORATED INTO FAC 62–555.330]
   b. NEW OR ALTERED WATER MAINS, INCLUDING FIRE HYDRANT LEADS AND INCLUDING SERVICE LINES THAT WILL BE UNDER THE CONTROL OF A PUBLIC WATER SYSTEM AND THAT HAVE AN INSIDE DIAMETER OF THREE INCHES OR GREATER, WILL BE DISINFECTED AND BACTERIOLOGICALLY EVALUATED IN ACCORDANCE WITH RULE 62–555.340, F.A.C. [FAC 62–555.320(21)(B)2 AND FAC 62 555.340]
   c. THE PERMITTEE SHALL BE SEPARATELY RESPONSIBLE FOR APPROPRIATE CONSTRUCTION, DISINFECTION AND TESTING BEYOND THE METER TO ASSURE POTABILITY AT THE POINT OF USE.

FILLING OF WATER MAINS

7. FILLING OF PROPOSED WATER MAINS FROM EXISTING WATER MAINS WILL BE DONE IN ACCORDANCE WITH AWWA SPECIFICATION C651.

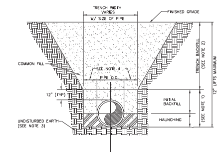
CONNECTION TO EXISTING WATER MAINS

8. IF CONNECTION OF THE PROPOSED ACTIVITY TO THE WATER MAIN WILL RESULT IN A 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 ARE DEEMED AN IMMINENT PUBLIC HEALTH THREAT BY THE DEP CENTRAL DISTRICT OR WILL AFFECT THE BACTERIOLOGICAL QUALITY OF THE DRINKING WATER UNLESS THE PUBLIC WATER SYSTEM CAN DEMONSTRATE, BY SOUND ENGINEERING JUDGMENT, THAT THE INTEGRITY OF THE WATER SYSTEM HAS BEEN MAINTAINED; OR
   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 AND NOT DEEMED AN IMMINENT PUBLIC HEALTH RISK.



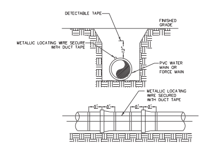
NOTES:
1. INITIAL BACKFILL: COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T–180.
2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T–180.
3. BEDDING MATERIAL SHALL CONFORM TO FDOT NO. 57 AGGREGATE.
4. 15" 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 MARION COUNTY RIGHT–OF–WAY SHALL COMPLY WITH REQUIREMENTS OF RIGHT–OF–WAY UTILIZATION REGULATIONS AND ROAD CONSTRUCTION SPECIFICATIONS.
10. ONE COMPACTION TEST SHALL BE REQUIRED FOR EACH LIFT NOT TO EXCEED 200'.

MARION COUNTY FLORIDA UTILITIES | MCBCC EFFECTIVE 04/13/2023 | REVISION # 2 | BEDDING AND TRENCHING 1 | 7.3.2 UT 102



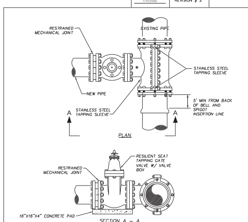
NOTES:
1. INITIAL BACKFILL AND HAUNCHING: SELECT COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T–180.
2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T–180.
3. PIPE BEDDING UTILIZING SELECT COMMON FILL OR BEDDING ROCK IN ACCORDANCE WITH BEDDING AND TRENCHING 1 DETAIL MAY BE REQUIRED AS DIRECTED BY MCU.
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. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES. SURFACE RESTORATION WITHIN MARION COUNTY RIGHT–OF–WAY SHALL COMPLY WITH REQUIREMENTS OF RIGHT–OF–WAY UTILIZATION REGULATIONS AND ROAD CONSTRUCTION SPECIFICATIONS.
8. ONE COMPACTION TEST SHALL BE REQUIRED FOR EACH LIFT NOT TO EXCEED 200'.

MARION COUNTY FLORIDA UTILITIES | MCBCC EFFECTIVE 04/13/2023 | REVISION # 2 | BEDDING AND TRENCHING 2 | 7.3.2 UT 103



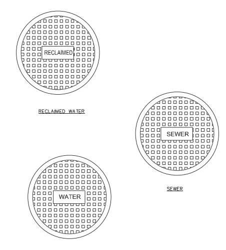
NOTES:
1. PVC PIPE SHALL REQUIRE INSULATED METALLIC LOCATING WIRE (10 GAUGE COPPER) CAPABLE OF DETECTION BY A CABLE LOCATOR AND SHALL BE BURIED ON TOP OF THE PIPE.
2. LOCATING WIRE SHALL TERMINATE AT EACH VALVE BOX AND BE CAPABLE OF EXTENDING 12" ABOVE TOP OF BOX IN SUCH A MANNER SO AS NOT TO INTERFERE WITH VALVE OPERATION PER UT 112.
3. ALL WIRE CONNECTIONS SHALL BE SPLICED TOGETHER USING WATERTIGHT WIRE NUTS.
4. FOR HORIZONTAL DIRECTIONAL DRILLING, UTILIZE 2 LOCATING WIRES EACH WITH A BREAK LOAD OF 2032 POUNDS.
5. DETECTABLE TAPE SHALL BE 1' ABOVE THE CENTERLINE OF THE PIPE.

MARION COUNTY FLORIDA UTILITIES | MCBCC EFFECTIVE 04/13/2023 | REVISION # 2 | PIPE LOCATING WIRE AND DETECTABLE TAPE | 7.3.2 UT 104

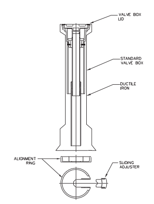


NOTES:
1. PRIOR TO BEGINNING THE TAPPING OPERATION, THE SLEEVE AND VALVE SHALL BE PRESSURE TESTED AT 150 PSI FOR A MINIMUM OF 30 MINUTES TO ENSURE THAT NO LEAKAGE WILL OCCUR.
2. CONTRACTOR SHALL PROVIDE MCU PROOF OF PRESSURE TEST IN THE FORM OF A TAPPING TEST LOG WITH THE CONTRACTOR'S SIGNATURE.
3. CONTRACTOR MUST CONFIRM RESTRAINTS IN ALL DIRECTIONS AND INSTALL ADDITIONAL RESTRAINTS AS NECESSARY TO COMPLY WITH LAND DEVELOPMENT CODE.
4. ALL TAPS MUST BE LOCATED A MINIMUM OF 5' AWAY FROM ANY BELL AND/OR FITTING.
5. STAINLESS STEEL TAPPING SLEEVE SHALL BE MADE OF 316SS.

MARION COUNTY FLORIDA UTILITIES | MCBCC EFFECTIVE 04/13/2023 | REVISION # 1 | TAPPING SLEEVE AND GATE VALVE ASSEMBLY | 7.3.2 UT 108

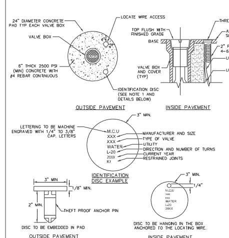


MARION COUNTY FLORIDA UTILITIES | MCBCC EFFECTIVE 04/13/2023 | REVISION # NA | TYPICAL VALVE BOX COVER | 7.3.2 UT 110



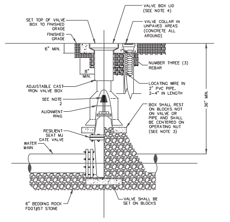
NOTES:
1. FOR ALL MAINS 6.0' DEEP OR GREATER, PVC PIPE EXTENSIONS SHALL BE USED ON VALVE BOX INSTALLATION.

MARION COUNTY FLORIDA UTILITIES | MCBCC EFFECTIVE 04/13/2023 | REVISION # 1 | SEALED VALVE BOX, ADJUSTABLE | 7.3.2 UT 111



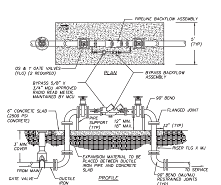
NOTES:
1. BRONZE (OR STAINLESS STEEL) IDENTIFICATION DISC SHALL BE REQUIRED FOR ALL VALVES, EXCEPT HYDRANT VALVES.
2. LOCATING WIRE SHALL TERMINATE AT EACH VALVE BOX AND BE CAPABLE OF EXTENDING 12" ABOVE TOP OF BOX IN SUCH A MANNER SO AS NOT TO INTERFERE WITH VALVE OPERATION.

MARION COUNTY FLORIDA UTILITIES | MCBCC EFFECTIVE 04/13/2023 | REVISION # 1 | VALVE BOX PAD | 7.3.2 UT 112



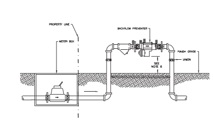
NOTES:
1. PVC EXTENSIONS SHALL NOT BE USED ON VALVE BOX INSTALLATION (SEE UT111).
2. THE ACTUATING NUT FOR VALVES DEEPER THAN SIX (6) FEET SHALL BE EXTENDED TO COME UP TO 3 FOOT DEPTH BELOW FINISHED GRADE.
3. VALVE BOX SHALL BE SET ON FIVE (5) SOLID COMMON BLOCKS.
4. VALVE BOX LID TO BE LETTERED WITH THE WORD "WATER" OR "RECLAIMED".
5. INSTALL BRASS ID TAG IN CONCRETE.

MARION COUNTY FLORIDA UTILITIES | MCBCC EFFECTIVE 04/13/2023 | REVISION # 2 | GATE VALVE WATER AND RECLAIMED MAINS | 7.3.2 UT 204



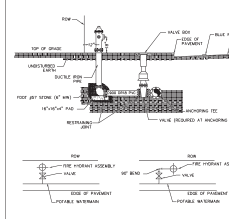
NOTES:
1. REQUIRED FOR SITES WITH SEPARATE DOMESTIC AND FIRE SYSTEM SUPPLY PIPING.
2. BACKFLOW ASSEMBLY SHALL BE OWNED AND MAINTAINED BY THE PROPERTY OWNER.
3. MCU SHALL OWN AND MAINTAIN THE METER.
4. UTILITY EASEMENT REQUIRED FOR BY–PASS METER READING. MINIMUM EASEMENT SIZE IS 10' BY 15'.
5. DETAIL NOT APPLICABLE WHEN AN RPZ IS REQUIRED IN ACCORDANCE WITH THE MARION COUNTY MANUAL OF CROSS–CONNECTION CONTROL AND BACKFLOW PREVENTION. SERVICES SMALLER THAN 3" SHALL REQUIRE AN RPZ AND SHALL BE METERED. METER AND TAP SIZE SHALL BE DETERMINED BY A FLORIDA LICENSED SPRINKLER CONTRACTOR, ARCHITECT, OR ENGINEER. METER SHALL BE INSTALLED BY MCU.
6. FREEZE PROTECTION SHALL BE PROVIDED IN ACCORDANCE WITH THE FIRE MARSHALL.

MARION COUNTY FLORIDA UTILITIES | MCBCC EFFECTIVE 04/13/2023 | REVISION # 2 | FIRE LINE DOUBLE DETECTOR CHECK VALVE ASSEMBLY | 7.3.2 UT 208



NOTES:
1. BACKFLOW PREVENTION ASSEMBLY SHALL BE INSTALLED AND MAINTAINED AS PER MARION COUNTY CROSS CONNECTION CONTROL ORDINANCE AND/OR PLUMBING CODE.
2. BACKFLOW PREVENTION ASSEMBLY TO BE INSTALLED LEVEL AND PLUMB.
3. MINIMUM CLEARANCE OF 24" TO BE MAINTAINED AROUND ASSEMBLY FOR TESTING.
4. ASSEMBLY MUST BE LISTED WITH THE UNIVERSITY OF SOUTHERN CALIFORNIA FOUNDATION FOR CROSS CONNECTION CONTROL AND HYDRAULIC RESEARCH.
5. ALL BACKFLOW PREVENTION ASSEMBLIES MUST BE TESTED FOLLOWING INSTALLATION AND INITIATION OF WATER SERVICE. THE BACKFLOW PREVENTION ASSEMBLY TESTER MUST POSSESS A CURRENT AMERICAN WATER WORKS ASSOCIATION (AWWA) AND/OR AMERICAN BACKFLOW PREVENTION ASSOCIATION (ABPA) BACKFLOW TESTER CERTIFICATE. A COPY OF THE BACKFLOW PREVENTION ASSEMBLY TEST REPORT MUST BE SUBMITTED TO THE BACKFLOW & CCC COORDINATOR AT MCU WITHIN 14 DAYS FROM THE DATE OF INSTALLATION.
6. MIN. 12" MAX 18" ABOVE FINISHED GRADE AND FLOODPLAIN.
7. METERS LARGER THAN 2" WILL REQUIRE DISCUSSION WITH MCU.

MARION COUNTY FLORIDA UTILITIES | MCBCC EFFECTIVE 04/13/2023 | REVISION # 1 | 2" AND SMALLER REDUCED PRESSURE AND/OR DOUBLE CHECK BACKFLOW ASSEMBLY | 7.3.2 UT 209



NOTES:
1. BONNET COLORS SHALL BE IN ACCORDANCE WITH SEC. 6.18.2–G.
2. HYDRANT SHALL BE 1' INSIDE OF RIGHT–OF–WAY, WHEN POSSIBLE.
3. BLUE REFLECTOR SHALL BE PLACED IN THE MIDDLE OF THE ADJACENT TRAVEL LANE.
4. RADIUS OF CLEAR SPACE AROUND THE FIRE HYDRANT SHALL BE IN ACCORDANCE WITH NFPA STANDARDS (NFPA 1 SEC. 18.5.7, AS AMENDED).

MARION COUNTY FLORIDA UTILITIES | MCBCC EFFECTIVE 04/13/2023 | REVISION # 2 | FIRE HYDRANT ASSEMBLY | 7.3.2 UT 210

DAVIS DINKINS ENGINEERING, P.A.
125 NE 1st AVENUE
SUITE 2
OCALA, FL 34470
PHONE: (352) 854–5961
CERTIFICATE OF AUTHORIZATION #28150

NO	REVISION	DATE
3	PER COUNTY REVIEW	11–14–25
2	PER JURISDICTIONAL REVIEW	08–11–25
1	PRELIMINARY ISSUE	04–30–25

DESIGN: D.D./J.S. | DRAW: T.N./S.U. | CHECK: D.L.D.

MAJOR SITE PLAN – UTILITY DETAILS

MERIDIAN STORAGE GROUP

MARION COUNTY, FLORIDA

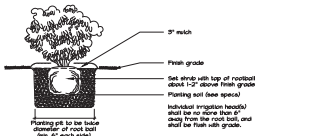
NOT VALID UNLESS EITHER DIGITALLY SIGNED AND SEALED, OR ORIGINALLY SIGNED, DATED AND SEALED WITH PROFESSIONAL ENGINEER'S SEAL BELOW:

DAVIS L. DINKINS, P.E.
FL LICENSE NO. 60058

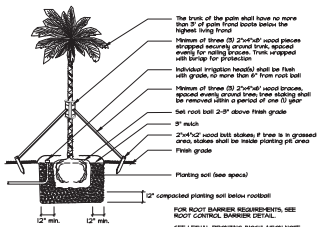
DATE

IF DIGITALLY SIGNED AND SEALED: DAVIS L. DINKINS, STATE OF FLORIDA, PROFESSIONAL ENGINEER, LICENSE NO. 60058. THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY DAVIS L. DINKINS ON THE DATE INDICATED HERE.

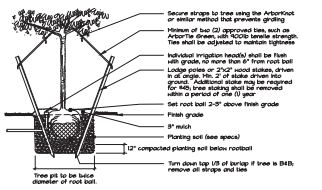
PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES



SHRUB INSTALLATION DETAIL

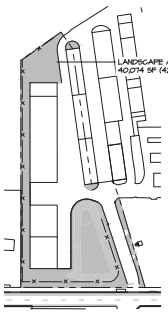


PALM INSTALLATION DETAIL



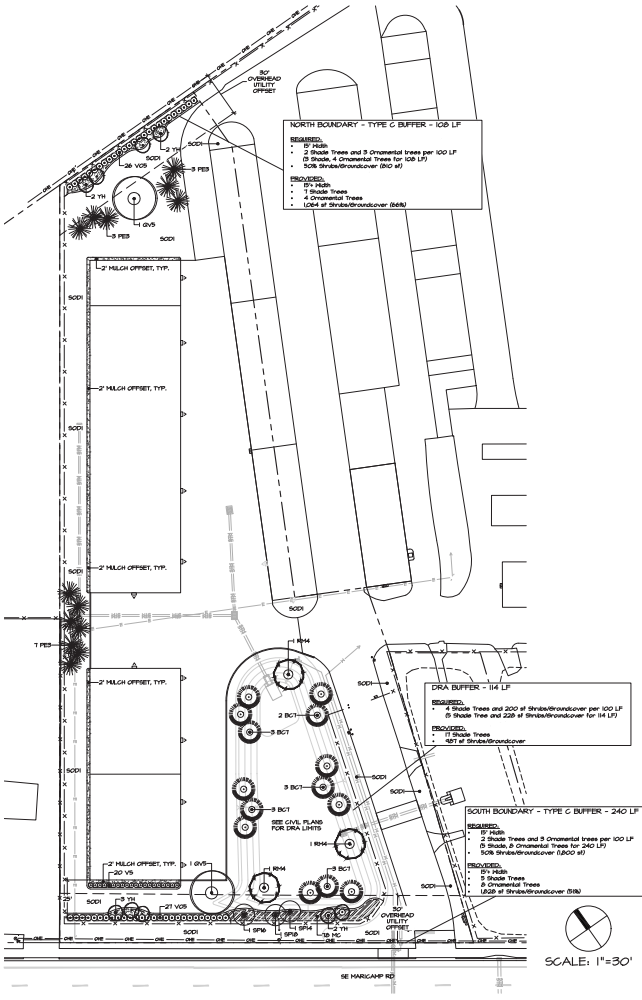
TREE INSTALLATION DETAIL

FOR MULTI-TRUNK TREES, TREES LESS THAN 3" CAL., OR CONTAINER TREES UP TO 45 GAL.



LANDSCAPE AREA DIAGRAM

NOT TO SCALE



SCALE: 1"=30'

LANDSCAPE CALCULATIONS

LAND USE: COMMERCIAL

SITE/PROJECT AREA - REFER TO CIVIL PLANS: 2.2 AC± (96,300 SF)

LANDSCAPE AREA: .092 AC (40,074 SF) (42%) SEE DIAGRAM SHEET L-1

THIS SITE IS NOT LOCATED WITHIN THE URBAN GROWTH BOUNDARY.
THIS SITE IS LOCATED WITHIN THE SECONDARY SILVER SPRINGS PROTECTION ZONE.

TREE REMOVAL/PRESERVATION

NO EXISTING VIABLE TREES ON THIS SITE.
NO TREE MITIGATION IS REQUIRED.

SHADE TREE REQUIREMENT

SHADE TREES REQUIRED: 2.2 AC (96,300 SF) / 3,000 SF = 32

EXISTING SHADE TREES TO REMAIN: 0
PROPOSED SHADE TREES: 32 (100% NATIVE)

TOTAL SHADE TREES PROVIDED: 32

OTHER CALCULATIONS

PROPOSED UNDERSTORY/ORNAMENTAL TREES: 12

SHRUBS, GRASSES AND GROUNDCOVER PROPOSED: 151
NATIVE = 118 (80%)
FL FRIENDLY = 151 (100%)

TOTAL NATIVE PERCENTAGE (ALL TREES AND PLANTS): 122 (70%)

BUILDING LANDSCAPING
REQUIRED: 60% OF 80' PUBLIC FACADE (SOUTH SIDE) 36 LF
PROVIDED: 100% (60 LF)

LANDSCAPE BUFFER REQUIREMENTS

NORTH BOUNDARY - 15' TYPE C BUFFER - ADJACENT PUBLIC USE

EAST BOUNDARY - NO BUFFER REQUIRED

WEST BOUNDARY - NO BUFFER REQUIRED

SOUTH BOUNDARY - 15' TYPE C BUFFER - ADJACENT TO SE MARICAMP RD ROW

SEE PLAN FOR BUFFER DETAILS

MARION COUNTY LANDSCAPE REQUIREMENTS:

1. Upon completion of the installation, the contractor shall request an inspection by the design professional. A Landscape and Irrigation As-Built Certification shall be signed and sealed by the design professional and submitted to the County Landscape Architect prior to the issuance of a Certificate of Occupancy, per Section 6.8.13 of LDR.

2. Landscape maintenance shall be in accordance with Section 6.8.15 of LDRs:
   A. All landscape areas shall be maintained in accordance with the Florida-Friendly Best Management Practices for Protection of Water Resources by the three Districts, FWRMD and FDEP.
   B. Trees and shrubs shall be pruned in accordance with the standard growth habit of a tree or palm shall be considered during the design phase to avoid maintenance conflicts.
   C. Trees or palms which are staked or braced shall have such staking or bracing removed once sufficient root growth has enabled the tree or palm to support itself. Damaging trees with staking devices shall be considered a violation of this Code. Damaged trees shall be replaced at the expense of the owner.
   D. The alteration of any required and approved landscape area without obtaining prior written approval from the County is prohibited. The expansion of drought tolerant landscaping, excluding the replacement of planted areas with turfgrass, or replacing dying or diseased plants with similar plant material is excluded.
   E. Buffers and screening plantings shall provide healthy appearance year round and be maintained at the required minimum heights.

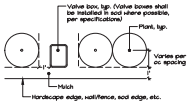
3. Landscape installation and maintenance shall be in accordance with Section 6.8.15 of the LDR.
   A. Landscape installation professionals performing work for hire within the unincorporated areas of Marion County shall be landscape contractors licensed by the Marion County Building Department, unless otherwise licensed by the State of Florida.
   B. Landscape maintenance professionals performing work for hire within the unincorporated areas of Marion County shall possess current FDACS/MP Certificate of Completion.
   C. Any person providing services for hire regarding any aspect of landscape maintenance that includes the application of fertilizer or pesticide shall meet the applicable state and County licensing and certification requirements included herein.

4. An irrigation plan shall be provided prior to issuance of a development order or building permit. All irrigation systems, including temporary, shall comply with the design standards of the Marion County Land Development Code Division 9, Sec 6.9.5, and all other state and local statutes that apply. Irrigation design and plans by others.

PLANT SCHEDULE

Note: Plant quantities are provided as a guide only. The contractor shall confirm total quantities as reflected by the plan. All sizes given are minimums unless otherwise noted. Every component of spec shall be met.

	Key	Qty	Plant Name	Size and Spacing	Maintenance
NATIVE	BC7	14	Bald Cypress Taxodium distichum - (BC7)	Cont/B&B, 12'+ ht. x 5'+ spr; 3"-1/2" cal min	Allow natural growth, prune only dead wood
NATIVE	MC	78	Hoity Grass Muhlenbergia capillaris - (MC)	4ft, full, 3' oc	Allow natural growth, remove weeds; cut back after last frost annually
NATIVE	PE3	13	Slash Pine Pinus elliotii - (PE3)	Cont/B&B, 12'-14'+ ht. x 6'+ spr; 3-1/2" cal min	Allow natural growth, prune dead wood
NATIVE	QV5	2	Live Oak Quercus virginiana - (QV5)	B&B, 15-15' ht. x 6-8' spr; 3-1/2" cal min	Allow natural growth, prune only for form or dead wood
NATIVE	RM4	3	Red Maple Acer rubrum - (RM4)	Cont/B&B, 14'-16' ht. x 8'+ spr; 3-1/2" cal min	Allow natural growth, prune only for form or dead wood
NATIVE	SP14	1	Sabal Palm Sabal palmetto - (SP14)	B&B, hurricane cut; 14' CT ht.	Allow natural growth, prune only dead fronds to keep full round head
NATIVE	SP16	1	Sabal Palm Sabal palmetto - (SP16)	B&B, hurricane cut; 16' CT ht.	Allow natural growth, prune only dead fronds to keep full round head
NATIVE	SP18	1	Sabal Palm Sabal palmetto - (SP18)	B&B, hurricane cut; 18' CT ht.	Allow natural growth, prune only dead fronds to keep full round head
	VS	20	Sandankwa Viburnum Viburnum suspensum - (VS)	Container size to be determined; 18"+ ht. x 18"+ spr; 3' oc.	3' ht. x 3', full hedge
	VO5	59	Sweet Viburnum Viburnum odoratissimum - (VO5)	Container size to be determined; 18"+ ht. x 18"+ spr; 4' oc.	8' ht. x 4', full hedge
NATIVE	YH	9	Yaupon Holly, tree type Ilex vomitoria - (YH)	#30, 6-7' ht. x 4-5' spr; multi-trunk	Allow natural growth, do not shear; prune only for form or dead wood
MULCH			Pine Straw - (MULCH)	3" depth	Refresh annually, or as needed
SOD1			Argentine Bahia Paspalum notatum 'Argentine' - (SOD1)	Pallet	



As shown on plan, all shrubs and groundcovers adjacent to curb/pavement, rec trail, wall/fence, building foundation, valve box/utility vault, sod, etc., shall be installed with the plant center spaced an additional 1' from the edge, unless otherwise noted

OFFSET DETAIL

N.T.S.

IT SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR TO PROVIDE TEMPORARY IRRIGATION TO UNIRRIGATED BAHIA INSTALLED AS PART OF THIS CONTRACT, UNTIL ESTABLISHMENT OR TURNOVER, WHICHEVER OCCURS EARLIER.

REVISIONS

DATE	BY

MPA Michael Pape & Associates, PA
LAND PLANNING • SITE DESIGN • LANDSCAPE ARCHITECTURE
2351 SE 17th Street, Ocala, FL • 352.351.3000 • www.MPAA-L.com

MERIDIAN STORAGE GROUP
MARION COUNTY, FLORIDA

LANDSCAPE PLAN

DATE: 07-28-25
DWN. BY: JRT
CHKD. BY: SMS

SHEET 1 OF 1

L-1

P:\MERIDIAN STORAGE\MERIDIAN_MARICAMP\MERIDIAN_STORAGE - L-2.DWG

SCALE: 1"=30'

LIGHTING LEGEND

D- WALL PACK: RAB WD2 ADJUSTABLE THROW WALL PACK, WD2-L-150H-BODGX-740V, LARGE ISO MATTABLE, BODGX BRONZE ADJUSTABLE. (OR APPROVED EQUAL)

Notes:

1. This light location plan meets the recommendations for safe lighting levels established by the Illuminating Engineering Society of North America in the general areas where lights have been provided to the greatest extent possible. Architectural lighting will be required for areas around the building to maintain adequate lighting for safety and security, and such lighting is not addressed or shown on this plan.
2. Any changes or substitutions made to this plan shall be evaluated to ensure adequate light levels are provided.
3. Changes to the plan or specifications may cause light levels to drop below acceptable levels.
4. Fixtures and Arms shall be oriented as shown on plan.
5. Lighting shall be installed in accordance with the lighting plan by a licensed electrical contractor. The contractor is responsible to design and install the electrical connections necessary to supply power to the proposed lights. All connections shall be underground and in conduit. Lighting shall be bid as lump sum and includes all work necessary to complete the project.

Statistics
Site Average: 2.99 fc
Min: 0.60 fc (paved surfaces)
Max: 11.05 fc (paved surfaces)
Light Loss Factor: 0.70

REVISIONS	BY	DATE

MPA Michael Pape & Associates, PA
LAND PLANNING • SITE DESIGN • LANDSCAPE ARCHITECTURE
2351 SE 17th Street, Ocala, FL • 352.351.3500 • www.MPA-A.com

MERIDIAN STORAGE GROUP
MARION COUNTY, FLORIDA

PHOTOMETRIC PLAN

DATE: 07-28-25
DWN. BY: RAZ
CHKD. BY: SHS

SHEET 1 OF 1

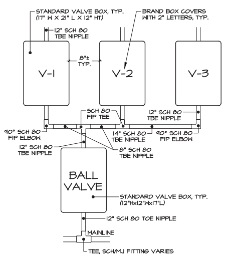
LTG-1

P:\MERIDIAN STORAGE\DESIGN_MARION\MERIDIAN STORAGE - LTG 1.DWG

NOTES:

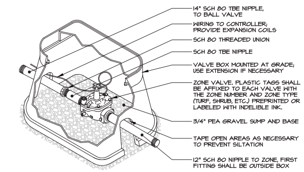
VALVE GROUPINGS SHALL NOT HAVE MORE THAN 3 VALVE BOXES AND 1 BALL VALVE BOX. IF SPACE LIMITATIONS OCCUR, SEE LANDSCAPE ARCHITECT FOR ALTERNATIVE GROUPINGS.

PLASTIC TAGS SHALL BE AFFIXED TO EACH VALVE WITH THE ZONE NUMBER AND ZONE TYPE (TURF, SHRUB, ETC.) PREPRINTED OR LABELED WITH INDELIBLE INK.



VALVE BOX LAYOUT - PLAN VIEW

SCALE: N.T.S.



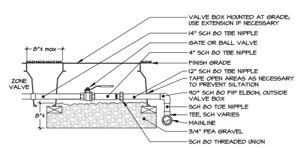
INSTALL TOP OF VALVE A MAXIMUM OF 15" FROM FINISHED GRADE.

INSTALL REDUCERS AND ALL-THREAD AS NECESSARY AT EACH VALVE LOCATION.

INSTALL EACH VALVE TAP IN A VERTICAL ORIENTATION TO ASSURE THE PROPER VALVE DEPTH.

ZONE VALVE

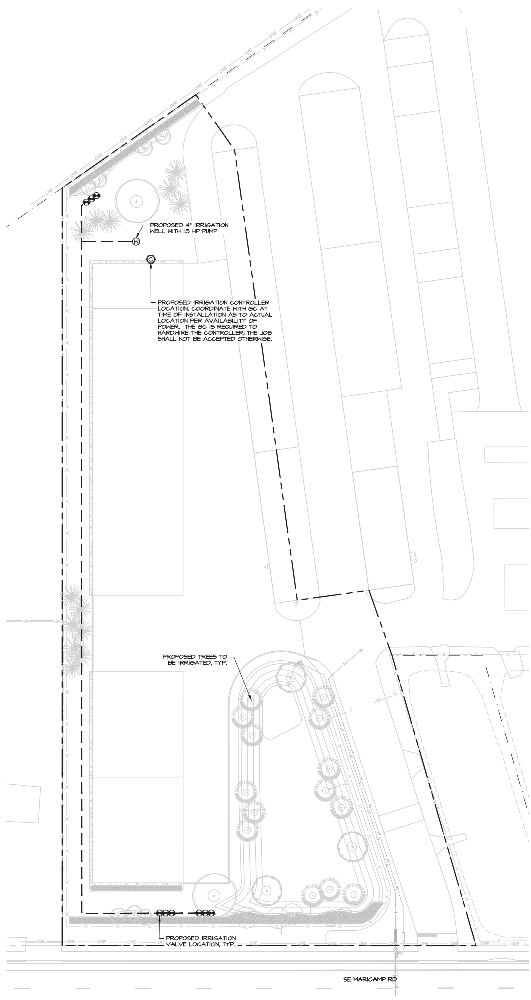
SCALE N.T.S.



VALVE INSTALLATION

SCALE N.T.S.

F:\MERIDIAN STORAGE\BIDPLANS\MERIDIAN STORAGE - LTG & IRR.DWG



NOTE:

All trees & hatch indicates irrigated area 1,509 sf; The anticipated irrigation demand for this site shall be 2,109 gallons per week or 1,055 GPD, based on a 2-day watering schedule. This demand is based on an average of 0.75" of water per week for all irrigated areas, per UF/IFAS and Water Management District general recommendations.

MARION COUNTY IRRIGATION REQUIREMENTS

Sec. 6.9.5. - Irrigation system installation.

A. Irrigation systems shall only be installed by installation professionals meeting the licensing requirements under Section 6.9.10, except those being installed by property owners on their own single-family residence or owner/occupied duplex.
B. Irrigation systems shall be constructed in accordance with the Florida Irrigation Society's (FIS) Standards and Specifications for Turf and Landscape Irrigation Systems as updated.

Sec. 6.9.6. - Completion inspection requirements.

A. Irrigation installation professionals shall be accountable for the proper installation and compliance with the conditions of the irrigation permit and approved plans.
B. Upon completion of the installation, the contractor or owner shall request an inspection by the irrigation design professional. Prior to the inspection, the irrigation installation professional shall produce a clear and legible as-built diagram which accurately represents the irrigation system was installed. The diagram shall be presented and reviewed during the final inspection. The diagram may be a marked-up copy of the approved irrigation plan and shall include at a minimum:
   (1) Locations of all mainlines and mainline valves;
   (2) Locations of all remote control valves;
   (3) Water demand per zone in GPM, and
   (4) Total water demand per operating cycle.
C. The irrigation installation professional shall also provide to the owner:
   (1) Irrigation system scheduling information;
   (2) A copy of the irrigation controller owner's manual;
   (3) Irrigation system maintenance schedule, which includes:
      (a) Instructions for seasonal adjustments of controller and sensors.
      (b) Instructions covering how and when to check for leaks.
      (c) A schedule for checking for proper irrigation distribution coverage.
D. Within 60 days after installation the irrigation controller shall be adjusted to be set in accordance with the applicable irrigation schedule set forth in this Code.
E. Upon completion of the irrigation system installation and the acceptance of the as-built diagram and operational information, a Final Inspection and Landscape/Irrigation Release shall be signed and sealed by the irrigation design professional and submitted to the County's Landscape Architect.

Sec. 6.9.8. - Irrigation system operation and maintenance.

A. An irrigation installation professional who installs or performs work on an automatic landscape irrigation system must test for the correct operation of each inhibiting or interrupting device or switch on that system. If such devices or switches are not installed in the system or are not in proper operating condition, the contractor must install new ones or repair the existing ones and confirm that each device or switch is in proper operating condition before completing other work on the system (§373.62 FS Water conservation).
B. All irrigation systems should be operated and maintained in accordance with the Florida-Friendly Best Management Practices for Protection of Water Resources by the Green Industries or the Florida Yards and Neighborhood program.
C. To maintain the original performance and design integrity of the irrigation system, repair of the equipment shall minimally be done with the originally specified materials or their equivalents.
D. Irrigation systems, including automatic rain sensor shutoff device, shall be certified by an irrigation system installation professional to be operating properly and in good repair at such time as the property may be resold.

Sec. 6.9.9. - Landscape irrigation schedule.

A. When Daylight Savings Time is in effect, landscape irrigation shall occur only in accordance with the following irrigation schedule:
   (1) Nonresidential landscape irrigation may occur only on Tuesday and Friday and shall not occur between 10:00 a.m. and 4:00 p.m.; and
   (2) No more than 0.75 inches of water may be applied per irrigation zone on each day that irrigation occurs, and in no event shall irrigation occur for more than one hour per irrigation zone on each day that irrigation occurs.
B. When Eastern Standard Time is in effect, landscape irrigation shall occur only in accordance with the following irrigation schedule:
   (1) Nonresidential landscape irrigation may occur only on Tuesday and shall not occur between 10:00 a.m. and 4:00 p.m.; and
   (2) No more than 0.75 inches of water may be applied per irrigation zone on each day that irrigation occurs, and in no event shall irrigation occur for more than one hour per irrigation zone on each day that irrigation occurs.
C. Exceptions to landscape irrigation schedules listed in Section 6.9.9A. above include:
   (1) Irrigation using a micro-spray, micro-jet, drip or bubbler irrigation system is allowed anytime.
   (2) Irrigation of new landscape is allowed at any time of day on any day for the initial 30 days and every other day for the next 30 days for a total of one 60-day period, provided that the irrigation is limited to the minimum amount necessary for such landscape establishment.
   (3) Watering in of chemicals, including insecticides, pesticides, fertilizers, fungicides, and herbicides when required by law, the manufacturer, or best management practices is allowed anytime within 24 hours of application. Watering in of chemicals shall not exceed ¼ inch of water per application except as otherwise required by law, the manufacturer, or best management practices.
   (4) Irrigation systems may be operated anytime for maintenance and repair purposes not to exceed 20 minutes per hour per zone.
   (5) Irrigation using a hand-held hose equipped with an automatic shut-off nozzle is allowed anytime. The use of a hose-end sprinkler is not considered hand watering.
   (6) Discharge of water from a water-to-air air-conditioning unit or other water-dependent cooling system is not limited.
   (7) The use of water from a reclaimed water system is allowed anytime. For the purpose of this paragraph, a reclaimed water system includes systems in which the primary source is reclaimed water, which may or may not be supplemented from another source during peak demand periods.
   (8) The use of recycled water from wet detention treatment ponds for irrigation is allowed anytime provided the ponds are not augmented from any ground or off-site surface water, or public supply sources.

Sec. 6.9.10. - Licensing and certification.

A. Irrigation Professionals.
   (1) Irrigation Design Professionals shall be design professional as licensed by the State of Florida to provide such professional services.
   (2) Irrigation Installation and Maintenance Professionals shall include Plumbing Contractors and Irrigation Contractors licensed by Marion County or the State of Florida.
   (3) Irrigation Installation and Maintenance Professionals, as defined by this section, shall be exempt from the separate licensing requirements for Irrigation Design Professionals when designing irrigation systems, or portions of irrigation systems, as part of a "design/build" contract to install or maintain the same system, if that system complies with all applicable requirements of this ordinance and is permitted by Marion County.
B. Training.
   (1) Unless otherwise subject by Florida Statutes to certain continuing education requirements, contractors licensed to perform work under this section shall annually complete a minimum of four professional development hours (PDH) in Florida-Friendly Landscaping and irrigation practices from a continuing education organization designated by the Marion County Licensing Board.
   (2) Marion County shall confirm compliance with these PDH requirements at the time of license renewal, or by an approved audit procedure.

SCALE: 1"=30'

SPRAY HEAD INSTALLATION

SCALE: N.T.S.

DATE	BY	REVISIONS

MPA Michael Pape & Associates, PA

LAND PLANNING • SITE DESIGN • LANDSCAPE ARCHITECTURE

2351 SE 17th Street, Ocala, FL • 352.351.3500 • www.MPA-LA.com

MERIDIAN STORAGE GROUP

MARION COUNTY, FLORIDA

IRRIGATION PLAN

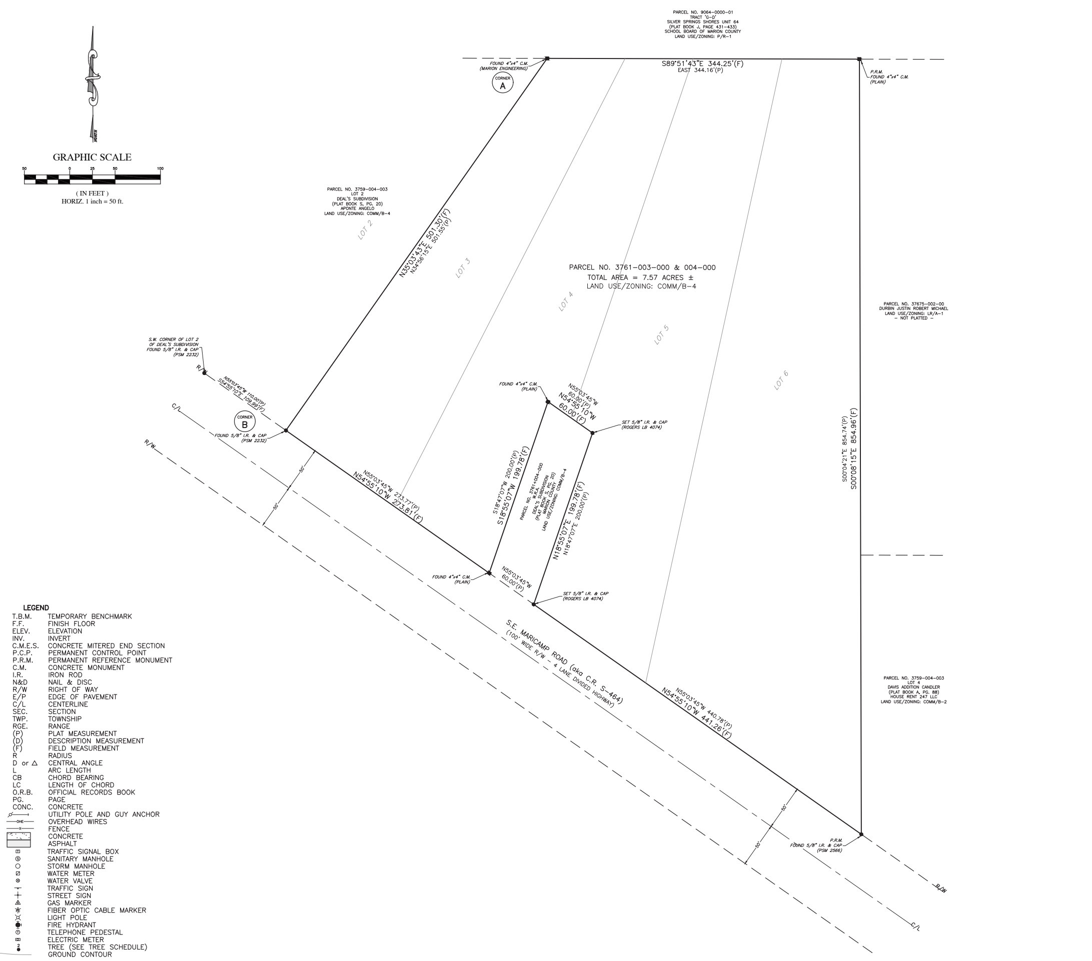
DATE 07-28-25

DWN. BY RAZ

CHKD. BY SMS

SHEET 1 OF 1

IR-1



LEGEND

T.B.M.	TEMPORARY BENCHMARK
F.F.	FINISH FLOOR
ELEV.	ELEVATION
INV.	INVERT
C.M.E.S.	CONCRETE MITERED END SECTION
P.C.P.	PERMANENT CONTROL POINT
P.R.M.	PERMANENT REFERENCE MONUMENT
C.M.	CONCRETE MONUMENT
I.R.	IRON ROD
N&D	NAIL & DISC
R/W	RIGHT OF WAY
E/P	EDGE OF PAVEMENT
C/L	CENTERLINE
SEC.	SECTION
TWP.	TOWNSHIP
RGE.	RANGE
(P)	PLAT MEASUREMENT
(D)	DESCRIPTION MEASUREMENT
(F)	FIELD MEASUREMENT
R	RADIUS
D or Δ	CENTRAL ANGLE
L	ARC LENGTH
CB	CHORD BEARING
LC	LENGTH OF CHORD
O.R.B.	OFFICIAL RECORDS BOOK
PG.	PAGE
CONC.	CONCRETE
	UTILITY POLE AND GUY ANCHOR
	OVERHEAD WIRES
	FENCE
	CONCRETE
	ASPHALT
	TRAFFIC SIGNAL BOX
	SANITARY MANHOLE
	STORM MANHOLE
	WATER METER
	WATER VALVE
	TRAFFIC SIGN
	STREET SIGN
	GAS MARKER
	FIBER OPTIC CABLE MARKER
	LIGHT POLE
	FIRE HYDRANT
	TELEPHONE PEDESTAL
	ELECTRIC METER
	TREE (SEE TREE SCHEDULE)
75	GROUND CONTOUR

STATE PLANE COORDINATES

CORNER A
FOUND 4"X4" C.M.
(MARION ENG. & ASSOC.)
NORTHING Y = 1724245.34
EASTING X = 663456.06

CORNER B
FOUND 4"X4" C.M.
(MARION ENG. & ASSOC.)
NORTHING Y = 1723835.01
EASTING X = 663168.09

LEGAL DESCRIPTION:

LOTS 3, 4, 5, AND 6, DEAL'S SUBDIVISION, ACCORDING TO THE MAP OR PLAT THEREOF AS RECORDED IN PLAT BOOK S, PAGE 20, PUBLIC RECORDS OF MARION COUNTY, FLORIDA.

SURVEY REPORT:

1. FIELD MEASURED BEARINGS SHOWN HEREON ARE BASED ON THE FLORIDA STATE PLANE COORDINATE SYSTEM, FLORIDA WEST ZONE, NAD-83, AND DERIVED FROM THE L-NET NETWORK.

2. VERTICAL DATA IS BASED ON MARION COUNTY VERTICAL CONTROL POINT "D 509", PUBLISHED ELEVATION = 79.88, NAVD-88.

3. FIELD SURVEY DATE: 2-27-2025.

4. NO TITLE INFORMATION REFLECTING RIGHTS-OF-WAY, OR EASEMENTS OF RECORD, WAS FURNISHED TO THE SURVEYOR UNLESS SHOWN OR NOTED HEREON.

5. THE LEGAL DESCRIPTION SHOWN HEREON WAS FURNISHED BY THE SPECIAL WARRANTY DEED RECORDED IN O.R. BOOK 8351, PAGE 1956, OF THE PUBLIC RECORDS OF MARION COUNTY, FLORIDA.

6. UNDERGROUND IMPROVEMENTS OR UTILITIES WERE NOT LOCATED.

7. THIS PROPERTY APPEARS TO BE IN A ZONE "X" (AREA OF MINIMAL FLOOD HAZARD) ACCORDING TO THE FEMA FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY NUMBER 120160, PANEL 0755, SUFFIX D, WITH AN EFFECTIVE DATE OF 8/27/2008.

8. THIS SURVEY MEETS THE STANDARDS OF PRACTICE CONTAINED IN CHAPTER 5J-17.050 THROUGH .052, FLORIDA ADMINISTRATIVE CODE AND THE ACCURACY OBTAINED BY MEASUREMENT AND CALCULATION OF A CLOSED GEOMETRIC FIGURE WAS FOUND TO EXCEED THE MINIMUM RELATIVE DISTANCE ACCURACY FOR COMMERCIAL/HIGH RISK LAND USE.

9. UNLESS IT BEARS THE DIGITAL SIGNATURE AND CERTIFICATION OR THE PHYSICAL SIGNATURE AND SEAL OF THE LICENSED SURVEYOR AND MAPPER, THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY AND IS NOT VALID.

SHEET INDEX:

1. BOUNDARY SURVEY MAP
2. TOPOGRAPHIC SURVEY MAP SHEET 1
3. TOPOGRAPHIC SURVEY MAP SHEET 2

SURVEYORS CERTIFICATION:

I HEREBY CERTIFY THAT THE SURVEY REPRESENTED HEREON IS IN ACCORDANCE WITH ALL APPLICABLE REQUIREMENTS OF THE MARION COUNTY L.D.C. AND MEETS THE STANDARDS OF PRACTICE PER CHAPTER 2014-147 SECTION 1. SECTION 472.027, FLORIDA STATUTES.

RODNEY K. ROGERS DATE
PROFESSIONAL SURVEYOR & MAPPER
REGISTRATION No. 5274
STATE OF FLORIDA

DATE | REVISION

Robert L. Rogers, PE
Fl. Reg. No. 10027
rlrogers@rogerseng.com

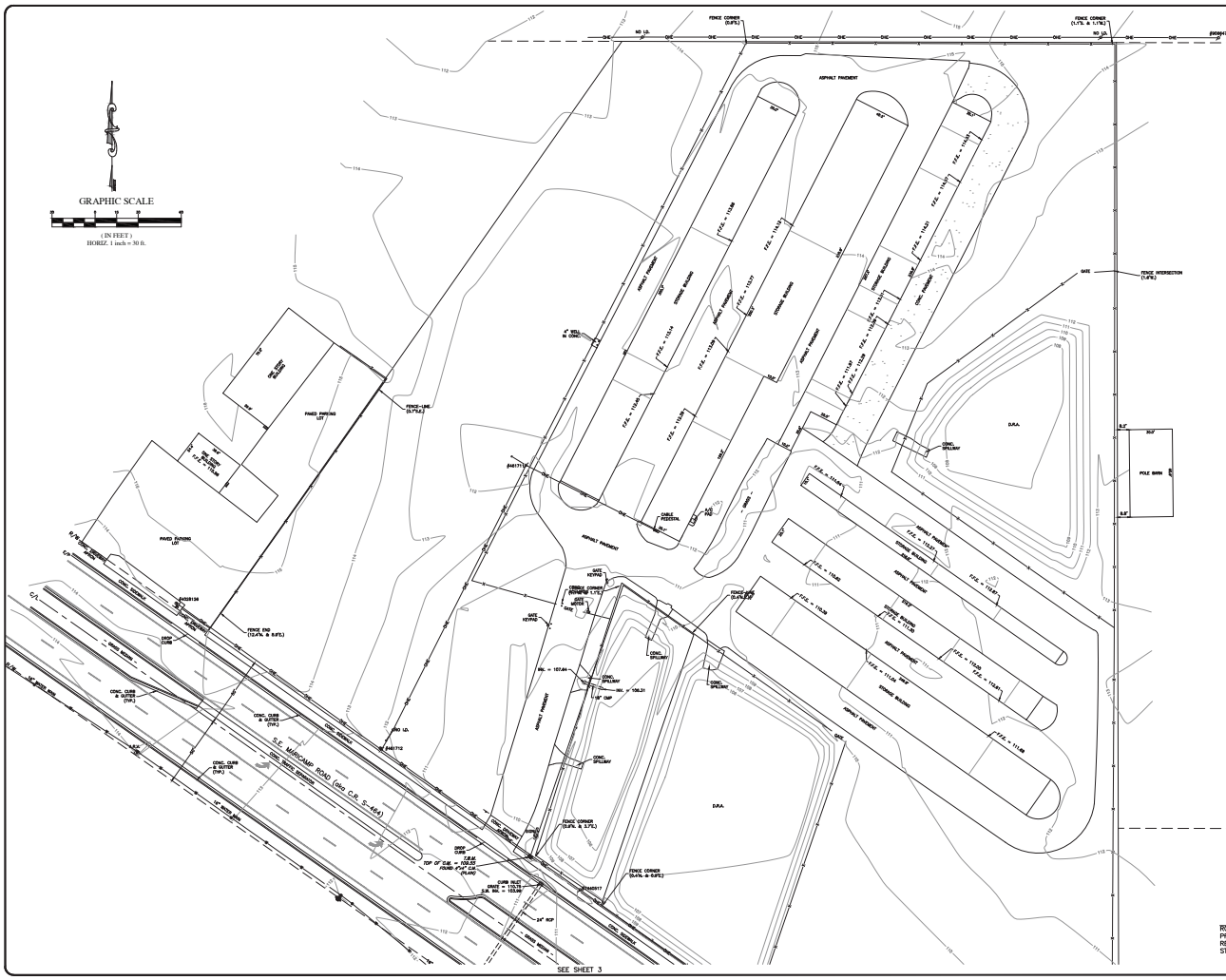
Rodney K. Rogers, PSM
Fl. Reg. No. 5274
rkrogers@rogerseng.com

Mekelle M. Boyer, PSM
Fl. Reg. No. 7398
kboyer@rogerseng.com

ROGERS ENGINEERING, LLC
Civil Engineering & Land Surveying
1105 S.E. 3rd Avenue • Ocala, Florida 34471 • Ph. (352) 622-9214 • Lic. Bus. #4074

A BOUNDARY & TOPOGRAPHIC SURVEY
FOR
SOUTHSHORE GROUP, LLC.

JOB No. RB_3761-003-000
DATE 3-6-2025
SCALE 1" = 50'
SHEET 1 OF 3



RODNEY K. ROGERS DATE
PROFESSIONAL SURVEYOR & MAPPER
REGISTRATION No. 5274
STATE OF FLORIDA

REVISION | DATE

Robert L. Rogers, PE
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Mark E. Nix, PSM
Ph. (352) 622-9214
lidar@rogereng.com

ROGERS ENGINEERING, LLC
Civil Engineering & Land Surveying
1105 S.E. 3rd Avenue ● Ocala, Florida 34471 ● Ph. (352) 622-9214 ● Lic. Bus. #4074

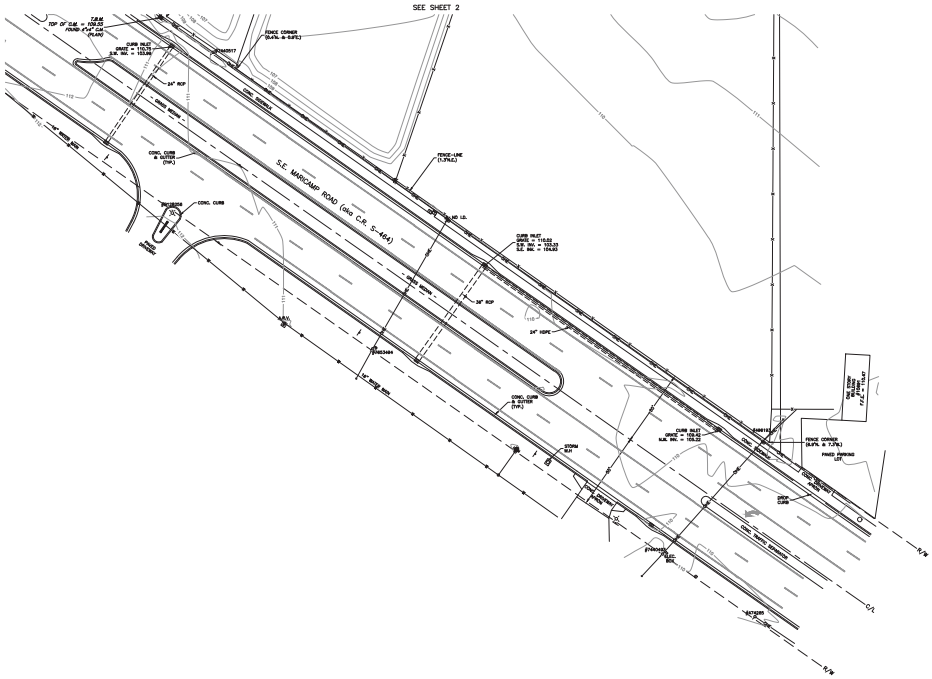
A BOUNDARY & TOPOGRAPHIC SURVEY
FOR
SOUTHSHORE GROUP, LLC.

JOB No.
RR-3761-003-000
DATE
3-6-2025
SCALE
1" = 30'
SHEET
2 OF 3

GRAPHIC SCALE

(IN FEET)

HORIZ. 1 inch = 30 ft.



RODNEY K. ROGERS DATE
PROFESSIONAL SURVEYOR & MAPPER
REGISTRATION No. 5274
STATE OF FLORIDA

REVISION	DATE

Robert L. Rogers, PE
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Rodney K. Rogers, PSM
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krogers@rogerseng.com

ROGERS ENGINEERING, LLC
Civil Engineering & Land Surveying
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A BOUNDARY & TOPOGRAPHIC SURVEY
FOR
SOUTHSHORE GROUP, LLC.

JOB No.
RR-3761-003-000

DATE
3-6-2025

SCALE
1" = 30'

SHEET
1 OF 3

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MARION COUNTY, FLORIDA
ENGINEER'S AS-BUILT CERTIFICATION OF SATISFACTORY COMPLETION FOR NON-SUBDIVISIONS

(PARTIAL CLEARANCE #03)

Marion County Office of the County Engineer
Development Review
412 SE 25th Avenue
Ocala, Florida 34471-2687

Project Name: SUMMER POINTE VILLAGE PHASE 1A (Revision to 31680)
Application #: #33061

I hereby certify to the Board of County Commissioners of Marion County, Florida that the site construction for buildings 1, 3, 5, 7, and 25 of the above referenced project has been completed. This is a partial and not a full clearance. All necessary infrastructure necessary to the function of buildings 1, 3, 5, 7, and 25 is installed in substantial compliance with the approved plans and the provisions of the Land Development Code including stormwater facilities, utilities, grading, sidewalks, and driveways.

I am forwarding herewith two (2) prints of the As-Built Plan which shows the improvements as constructed including dimensions and elevations AND one (1) CD in .dwg Autocad 2000 (or newer format) and in .pdf format. The As-Built Plan has been certified as correctly indicating actual conditions of construction.

By: Timothy C. Brooker, P.E.
(Printed)

By: _____
(Signature)

Registered Engineer Number: 79259
State of Florida

Date: _____

SEAL REQUIRED

A BOUNDARY & TOPOGRAPHIC SURVEY

FOR

JOHN ALVAREZ INVESTMENT GROUP, LLC.

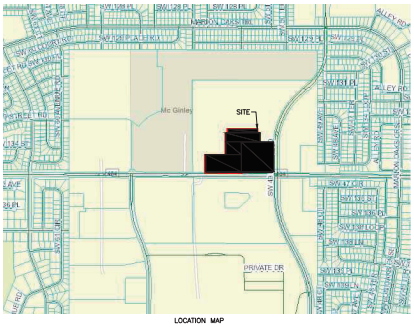
GRAPHIC SCALE

(IN FEET)
HORIZ. 1 inch = 100 ft.

LEGAL DESCRIPTION FOR PARCEL NO. 41200-056-04:

A PORTION OF THE N.E. 1/4 OF SECTION 9, TOWNSHIP 17 SOUTH, RANGE 21 EAST, MARION COUNTY, FLORIDA, LYING WEST OF S.W. 49th COURT ROAD RIGHT-OF-WAY (WIDTH VARIES) AND NORTH OF S.W. HIGHWAY No. 484 RIGHT-OF-WAY (WIDTH VARIES); ALL BEING DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHWEST CORNER OF THE N.E. 1/4 OF SAID SECTION 9; THENCE N00°11'23"E ALONG THE WEST LINE OF SAID N.E. 1/4, A DISTANCE OF 60.00 FEET TO THE INTERSECTION WITH THE NORTH RIGHT-OF-WAY LINE OF AFOREMENTIONED S.W. HIGHWAY No. 484; THENCE DEPARTING SAID WEST LINE, PROCEED S89°44'31"E ALONG SAID NORTH RIGHT-OF-WAY LINE, A DISTANCE OF 1046.65 FEET; THENCE DEPARTING SAID NORTH RIGHT-OF-WAY LINE, PROCEED N00°15'29"E, 2.66 FEETTO THE POINT OF BEGINNING; THENCE N00°15'29"E, 644.34 FEET; THENCE S89°44'31"E, 669.38 FEET TO A POINT ON THE WESTERLY RIGHT-OF-WAY LINE OF AFOREMENTIONED S.W. 49th COURT ROAD, SAID POINT BEING ON A CURVE CONCAVE EASTERLY, HAVING A RADIUS OF 1505.00 FEET AND A CENTRAL ANGLE OF 02°10'02"; THENCE SOUTHERLY ALONG THE ARC OF SAID CURVE AND SAID WESTERLY RIGHT-OF-WAY LINE 56.93 FEET (CHORD BEARING AND DISTANCE OF S01°20'43"W, 56.93 FEET) TO THE POINT OF TANGENCY; THENCE CONTINUE ALONG SAID WESTERLY RIGHT-OF-WAY LINE S00°15'42"W, 557.07 FEET; THENCE CONTINUE ALONG SAID WESTERLY RIGHT-OF-WAY LINE S45°15'42"W, 46.70 FEET TO THE INTERSECTION WITH THE NORTH RIGHT-OF-WAY LINE OF AFOREMENTIONED S.W. HIGHWAY No. 484; THENCE DEPARTING SAID WESTERLY RIGHT-OF-WAY LINE OF S.W. 49th COURT ROAD, PROCEED N89°44'31"W ALONG SAID NORTH RIGHT-OF-WAY LINE OF S.W. HIGHWAY No. 484, A DISTANCE OF 635.25 FEET; THENCE N75°42'15"W, 10.95 FEET TO THE POINT OF BEGINNING.



LOCATION MAP

SHEET INDEX:
SHEET 1 - COVER SHEET
SHEET 2 - BOUNDARY SURVEY
SHEET 3 - TOPOGRAPHIC SURVEY

LEGAL DESCRIPTION FOR PARCEL NO. 41200-056-12:

A PORTION OF THE N.E. 1/4 OF SECTION 9, TOWNSHIP 17 SOUTH, RANGE 21 EAST, MARION COUNTY, FLORIDA, LYING NORTH OF S.W. HIGHWAY No. 484 RIGHT-OF-WAY LINE (WIDTH VARIES); BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHWEST CORNER OF THE N.E. 1/4 OF SAID SECTION 9; THENCE N00°11'23"E ALONG THE WEST LINE OF SAID N.E. 1/4, A DISTANCE OF 60.00 FEET TO THE INTERSECTION WITH THE NORTH RIGHT-OF-WAY LINE OF AFOREMENTIONED S.W. HIGHWAY No. 484; THENCE DEPARTING SAID WEST LINE, PROCEED ALONG SAID NORTH RIGHT-OF-WAY LINE, A DISTANCE OF 285.17 FEET TO THE POINT OF BEGINNING; THENCE DEPARTING SAID NORTH RIGHT-OF-WAY LINE, PROCEED N00°15'42"E, 356.80 FEET; THENCE S89°44'18"E, 443.96 FEET; THENCE NORTH, 468.25 FEET; THENCE EAST, 30.00 FEET; THENCE NORTH 95.00 FEET; THENCE EAST, 641.78 FEET; THENCE SOUTH, 95.00 FEET; THENCE EAST, 30.00 FEET; THENCE SOUTH, 181.18 FEET; THENCE N89°44'31"W, 382.98 FEET; THENCE S00°15'29"W, 644.34 FEET TO THE INTERSECTION WITH THE NORTH RIGHT-OF-WAY LINE OF AFOREMENTIONED S.W. HIGHWAY No. 484; THENCE N75°42'15"W, ALONG SAID NORTH RIGHT-OF-WAY LINE, A DISTANCE OF 52.04 FEET; THENCE S89°41'07"W, ALONG SAID NORTH RIGHT-OF-WAY LINE, 305.87 FEET; THENCE S44°41'07"W, ALONG SAID NORTH RIGHT-OF-WAY LINE, 17.11 FEET; THENCE N89°44'31"W, ALONG SAID NORTH RIGHT-OF-WAY LINE, 393.16 FEET TO THE POINT OF BEGINNING.

LEGEND

T.B.M.	TEMPORARY BENCHMARK
F.F.	FINISH FLOOR
ELEV.	ELEVATION
INV.	INVERT
C.M.E.S.	CONCRETE MITERED END SECTION
P.O.B.	POINT OF BEGINNING
P.O.C.	POINT OF COMMENCEMENT
D.E.	DRAINAGE EASEMENT
P.C.P.	PERMANENT CONTROL POINT
P.R.M.	PERMANENT REFERENCE MONUMENT
C.M.	CONCRETE MONUMENT
I.R.	IRON ROD
N&D	NAIL & DISC
R/W	RIGHT OF WAY
E/P	EDGE OF PAVEMENT
C/L	CENTERLINE
SEC.	SECTION
TWP.	TOWNSHIP
RGE.	RANGE
(P)	PLAT MEASUREMENT
(D)	DESCRIPTION MEASUREMENT
(F)	FIELD MEASUREMENT
R	RADIUS
D or Δ	CENTRAL ANGLE
L	ARC LENGTH
CB	CHORD BEARING
LC	LENGTH OF CHORD
O.R.B.	OFFICIAL RECORDS BOOK
PG.	PAGE
CONC.	CONCRETE
	UTILITY POLE AND GUY ANCHOR
	OVERHEAD WIRES
	FENCE
	CONCRETE
	ASPHALT
	TRAFFIC SIGNAL BOX
	SANITARY MANHOLE
	STORM MANHOLE
	WATER METER
	WATER VALVE
	TRAFFIC SIGN
	STREET SIGN
	GAS MARKER
	FIBER OPTIC CABLE MARKER
	LIGHT POLE
	FIRE HYDRANT
	TELEPHONE PEDESTAL
	ELECTRIC METER
	TREE (SEE TREE SCHEDULE)
79	GROUND CONTOUR

SURVEY REPORT:

1. FIELD MEASURED BEARINGS SHOWN HEREON ARE BASED ON THE FLORIDA STATE PLANE COORDINATE SYSTEM, FLORIDA WEST ZONE, NAD-83, AND DERIVED FROM THE L-NET NETWORK.

2. VERTICAL DATA IS BASED ON MARION COUNTY VERTICAL CONTROL POINT "CR-484-19", PUBLISHED ELEVATION = 81.105, NAVD-88.

3. FIELD SURVEY DATE: 3-18-2024.

4. NO TITLE INFORMATION REFLECTING RIGHTS-OF-WAY, OR EASEMENTS OF RECORD, WAS FURNISHED TO THE SURVEYOR UNLESS SHOWN OR NOTED HEREON.

5. THE LEGAL DESCRIPTIONS SHOWN HEREON WERE WRITTEN BY THE SURVEYOR FROM THE DEEDS OF RECORD AND INSTRUCTIONS FROM THE CLIENT.

6. ALL RIGHTS-OF-WAY SHOWN HEREON ARE PHYSICALLY OPEN UNLESS OTHERWISE STATED.

7. UNDERGROUND IMPROVEMENTS OR UTILITIES WERE NOT LOCATED.

8. THIS PROPERTY APPEARS TO BE IN A ZONE "X" (AREA OF MINIMAL FLOOD HAZARD) ACCORDING TO THE FEMA FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY NUMBER 120160, PANEL 0715, SUFFIX D, WITH AN EFFECTIVE DATE OF 8/28/2008.

9. THIS SURVEY MEETS THE STANDARDS OF PRACTICE CONTAINED IN CHAPTER 5J-17.050 THROUGH .052, FLORIDA ADMINISTRATIVE CODE AND THE ACCURACY OBTAINED BY MEASUREMENT AND CALCULATION OF A CLOSED GEOMETRIC FIGURE WAS FOUND TO EXCEED THE MINIMUM RELATIVE DISTANCE ACCURACY FOR COMMERCIAL/HIGH RISK LAND USE.

10. UNLESS IT BEARS THE DIGITAL SIGNATURE AND CERTIFICATION OR THE PHYSICAL SIGNATURE AND SEAL OF THE LICENSED SURVEYOR AND MAPPER, THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY AND IS NOT VALID.

SURVEYORS CERTIFICATION:

I HEREBY CERTIFY THAT THE SURVEY REPRESENTED HEREON IS IN ACCORDANCE WITH ALL APPLICABLE REQUIREMENTS OF THE MARION COUNTY L.D.C. AND MEETS THE STANDARDS OF PRACTICE PER CHAPTER 2014-147 SECTION 1, SECTION 472.027, FLORIDA STATUES.

RODNEY K. ROGERS DATE
PROFESSIONAL SURVEYOR & MAPPER
REGISTRATION NO. 5274
STATE OF FLORIDA

DATE	REVISION

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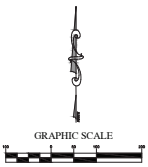
A BOUNDARY & TOPOGRAPHIC SURVEY
FOR
JOHN ALVAREZ INVESTMENT GROUP, LLC.

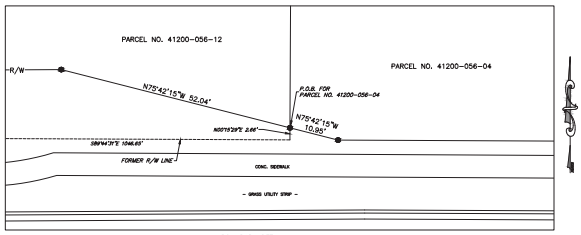
JOB No.
24_41200-056-04

DATE
3-19-2024

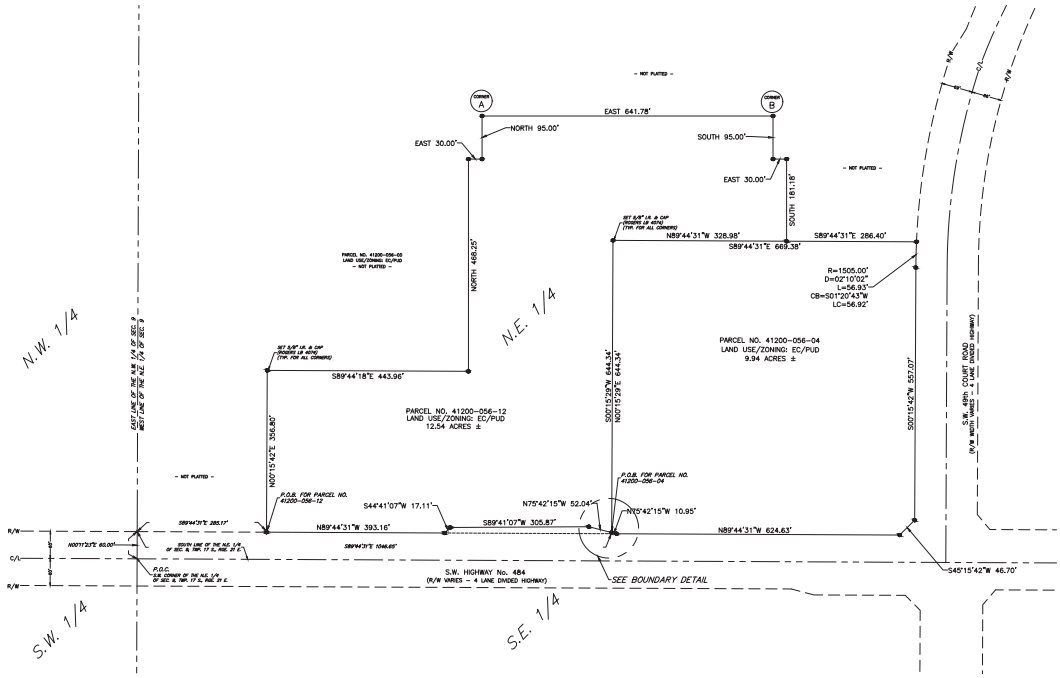
SCALE
1" = 100'

SHEET
1 OF 3





BOUNDARY DETAIL
SCALE: 1" = 10'



STATE PLANE COORDINATES

CORNER A
SET 5/8" I.R. & CAP
(ROGERS LB 4074)
NORTHING Y = 1706822.07
EASTING X = 589513.33

CORNER B
SET 5/8" I.R. & CAP
(ROGERS LB 4074)
NORTHING Y = 1706822.07
EASTING X = 590155.11

RODNEY K. ROGERS DATE
PROFESSIONAL SURVEYOR & MAPPER
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REVISION	DATE

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A BOUNDARY & TOPOGRAPHIC SURVEY
FOR
JOHN ALVAREZ INVESTMENT GROUP, LLC.

JOB No.
24_41200-056-04

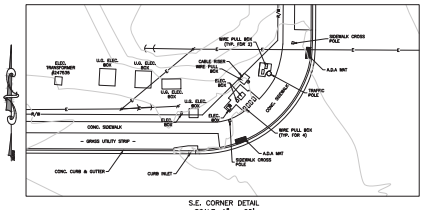
DATE
3-19-2024

SCALE
1" = 100'

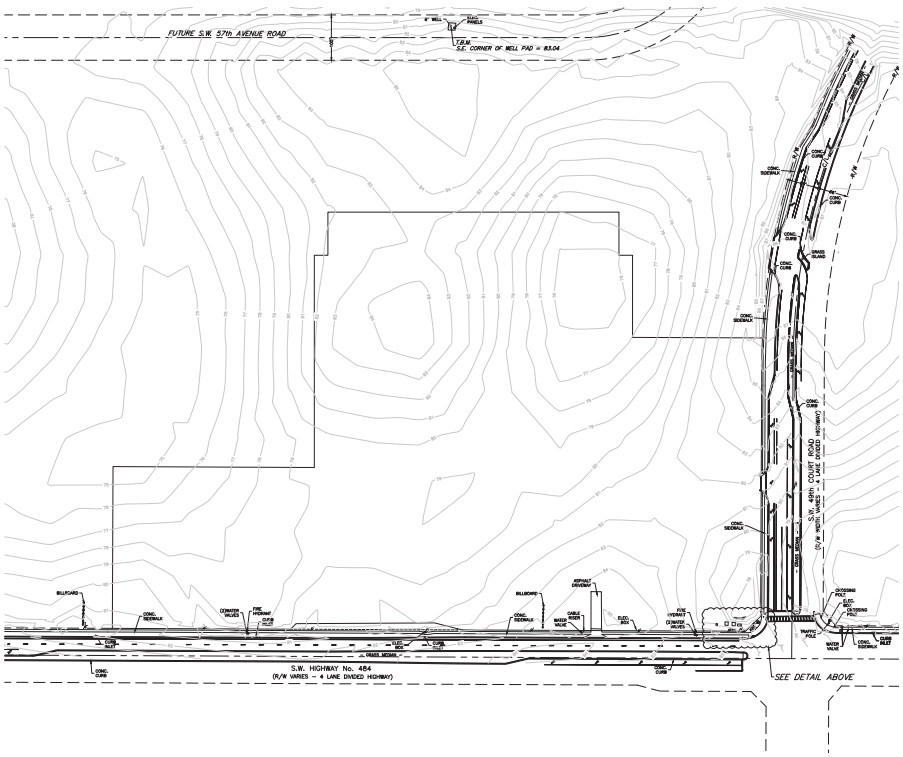
SHEET
2 OF 3

GRAPHIC SCALE

(IN FEET)
HORIZ. 1 inch = 100 ft.



S.E. CORNER DETAIL
SCALE: 1" = 20'



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A BOUNDARY & TOPOGRAPHIC SURVEY
FOR
JOHN ALVAREZ INVESTMENT GROUP, LLC.

JOB No.
24_41200-056-04

DATE
3-19-2024

SCALE
1" = 100'

SHEET
3 OF 3

NATURAL RESOURCE ASSESSMENT

SW HWY 484
Commercial Development

Marion County, Florida

OCTOBER 2024

Prepared for:

The Phillips Edison Group LLC
11501 Northlake Drive
Cincinnati, OH 45249

Kimley»Horn

© KIMLEY-HORN & ASSOCIATES, INC.

201 North Franklin Street, Suite 1400
Tampa, Florida 33602

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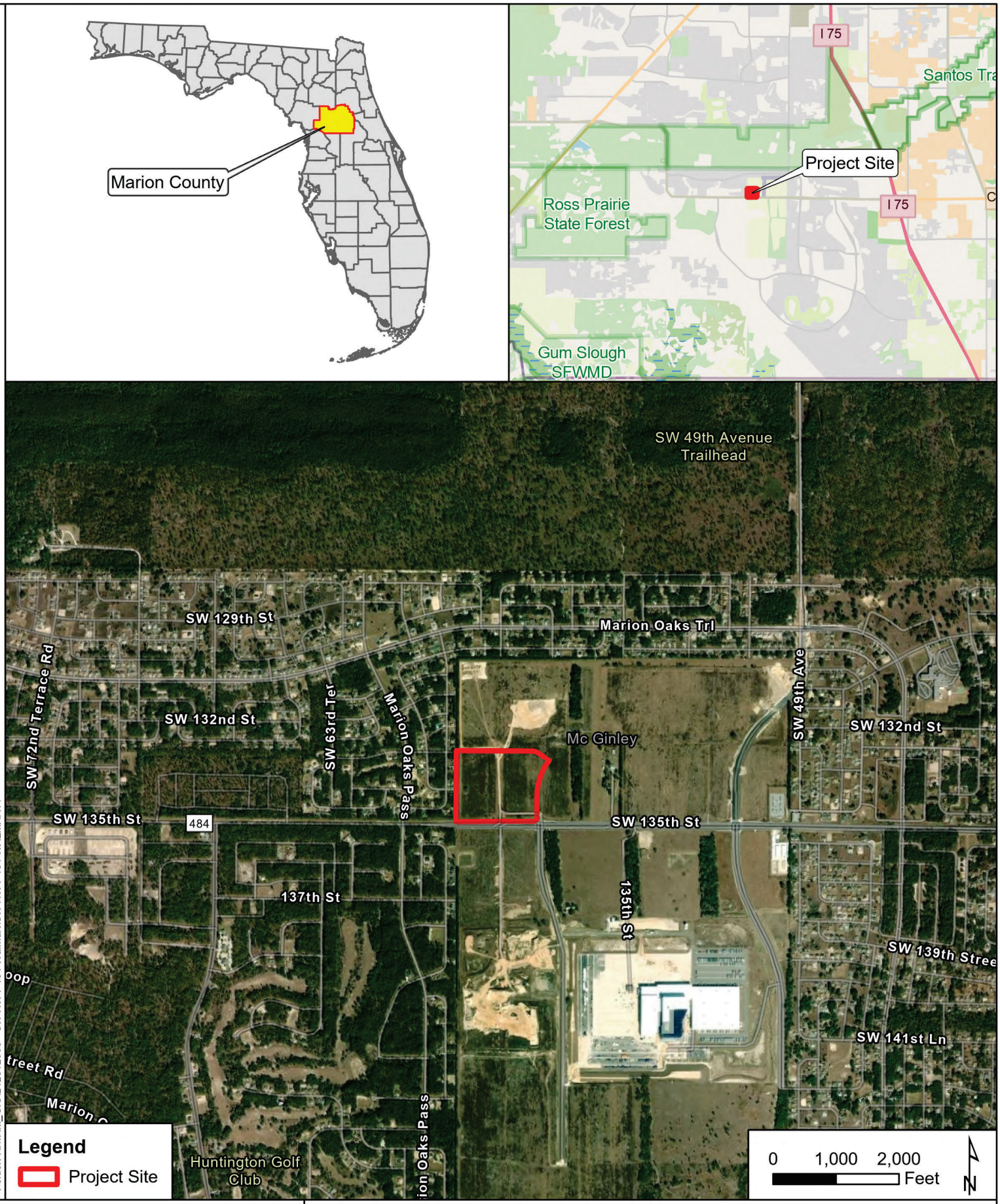
APPENDIX B USFWS STANDARD PROTECTION MEASURES FOR THE EASTERN INDIGO SNAKE
APPENDIX C SHPO FLORIDA MASTER SITE FILE REPORT

1.0 INTRODUCTION

The following technical memorandum summarizes a review of readily available documentation and the results of field reconnaissance conducted at the project site. The purpose of this Natural Resource Assessment (NRA) is to characterize the existing conditions of the project site relative to threatened and endangered species and their habitat, ecological communities, land cover and vegetation, wetlands, soils, and cultural resources.

The scope of this assessment includes reviewing readily available natural resource documentation, existing permits, listed species information, historic aerials, and existing GIS databases regarding known occurrences of listed species on and near the project site; site reconnaissance; and mapping and assessment of habitat types.

The project site consists of approximately 34.5 acres located northeast of the intersection of Southwest Highway 484 and Marion Oaks Pass in Section 9 of Township 17 South and Range 21 East in unincorporated Marion County, Florida. The project site is located within Marion County Parcel Nos. 41200-056-02 and 41200-056-03. A project location map is attached as ***Figure 1***. A portion of the U.S. Geological Survey (USGS) Shady, Florida quadrangle map depicting the location of the project site is attached as ***Figure 2***.



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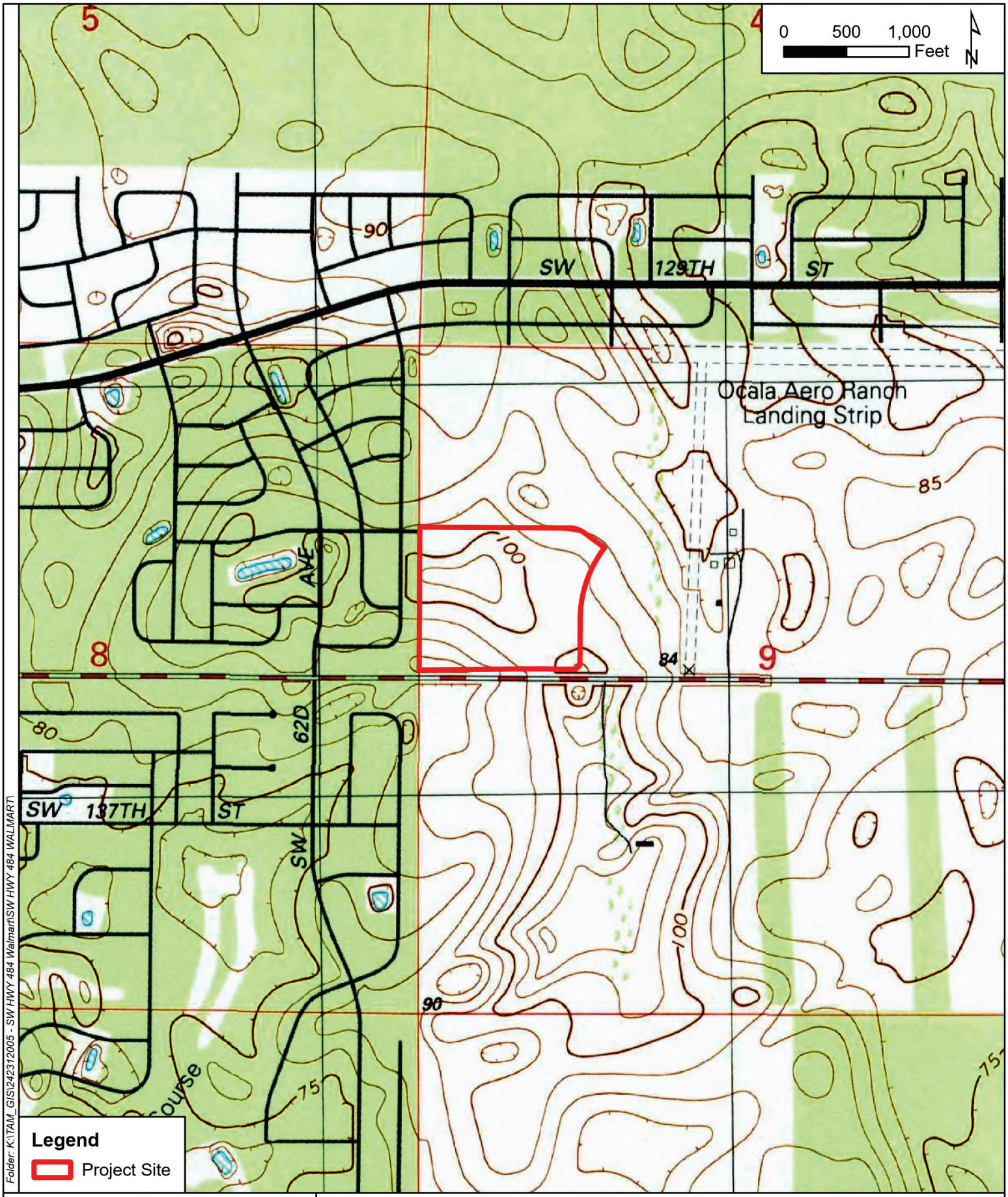
Phone (813) 620-1460
www.kimley-horn.com

Project Location Map

SW Hwy 484 Commercial Development
Marion County, Florida

1 IN = 2,000 FT	PROJECT NUMBER: 242312005	OCTOBER 2024	FIGURE 1



Folder: K:\TAM_GIS\242312005 - SW HWY 484 Walmart\SW HWY 484 WALMART\

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USGS 7.5 Minute Quadrangle Topographic Map - Shady, FL

SW Hwy 484 Commercial Development
Marion County, Florida

1 IN = 1,000 FT	PROJECT NUMBER: 242312005	OCTOBER 2024	FIGURE 2

2.0 METHODOLOGY

The methodology for this assessment included a review of the following resources:

- Florida Natural Areas Inventory (FNAI) Biodiversity Matrix (https://www.fnai.org/biodiversity-matrix-intro)
- Various Geographic Information System (GIS) data from the U.S. Fish and Wildlife Service (USFWS), U.S. Geological Survey (USGS), and Florida Fish and Wildlife Conservation Commission (FWC)
- USFWS IPaC data (https://ecos.fws.gov/ipac/)
- U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey (http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx)
- USFWS National Wetlands Inventory (NWI) Maps (http://www.fws.gov/wetlands/Data/mapper.html)
- USGS Quadrangle Maps, Land Boundary Information System (LABINS) (http://www.labins.org)
- Audubon Florida EagleWatch Nest Map (https://eaglewatch-audubon.hub.arcgis.com/)
- Southwest Florida Water Management District (SWFWMD) E-Permitting (https://www.swfwmd.state.fl.us/business/epermitting)
- Florida Department of Environmental Protection (FDEP) MapDirect GIS (https://ca.dep.state.fl.us/mapdirect/)
- Chapter 62-340, Florida Administrative Code (FAC) and the U.S. Army Corps of Engineers (USACE) 1987 Wetland Delineation Manual
- State Historic Preservation Office (SHPO), Florida Master Site File (FMSF) (http://www.flheritage.com)
- Federal Emergency Management Agency (FEMA) Digital Flood Insurance Rate Maps (FIRM) (http://msc.fema.gov/)
- University of Florida (UF) Digital Collections. Aerial Photography: Florida (https://ufdc.ufl.edu/aerials/map)
- Marion County Code of Ordinances and Land Development Code

3.0 EXISTING CONDITIONS

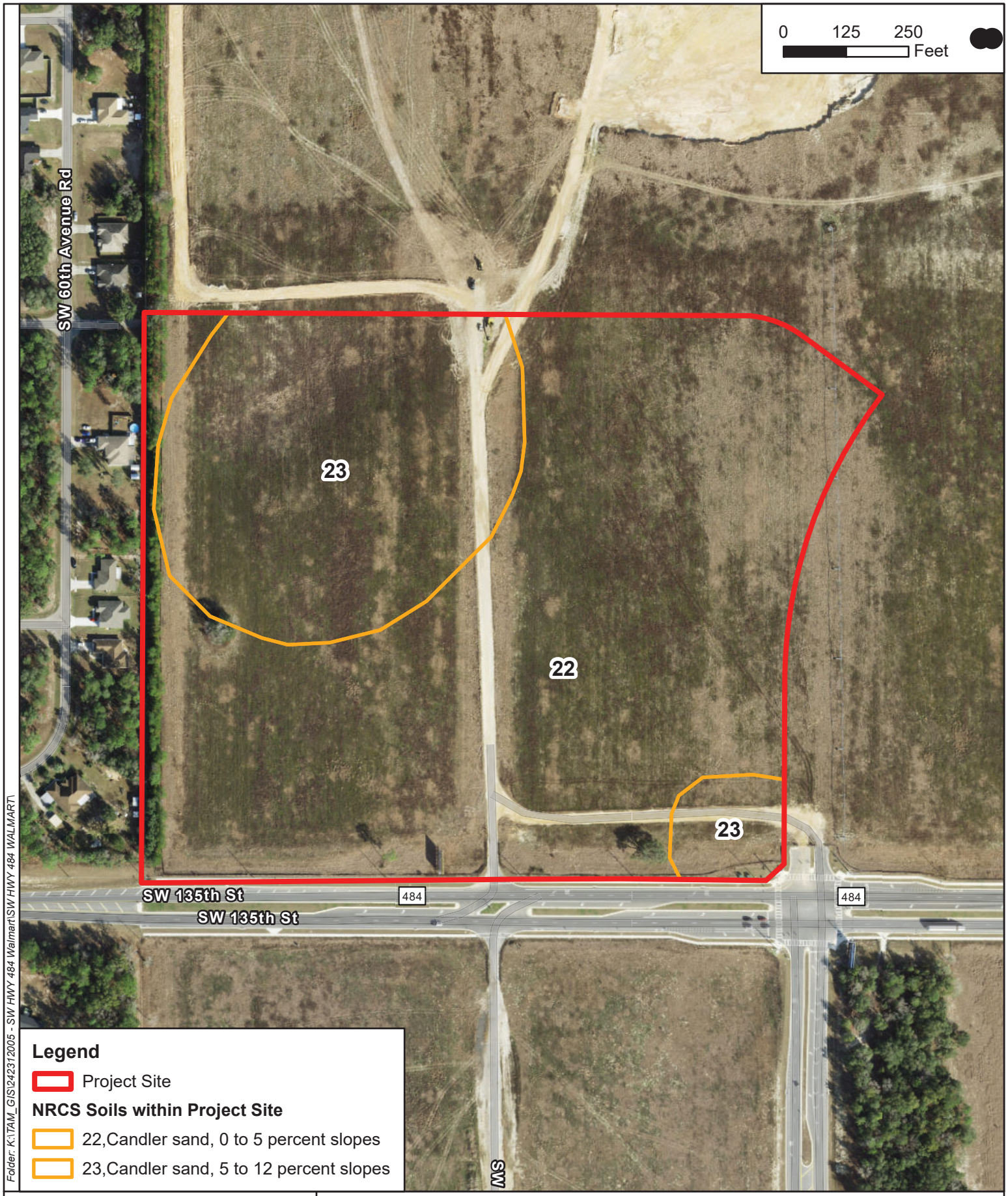
3.1 HISTORIC REVIEW

Historic aerials from 1964 show the project site as undeveloped shrubland. In the 1970s, the subject property, along with adjacent areas to the east and south were cleared and utilized for agriculture. Surrounding areas to the north and west were partially cleared for construction of the Marion Oaks subdivision in the 1970s and 80s, with the footprint of the subdivision expanding with time until the present day. The southern and eastern vicinity of the project site continued to be used largely as agricultural lands until 2022. In 2022, a large distribution facility as well as several roadways were constructed in the southeastern vicinity of the site. Current aerials show construction activity adjacent to the north, with an access road to this construction area bisecting the project site.

3.2 SOILS

The USDA / NRCS *Soil Survey of Marion County Area, Florida*, documents the following soils within the project site: (22) Candler sand, 0 to 5 percent slopes and (23) Candler sand, 5 to 10 percent slopes. ***Figure 3*** shows the mapped soils within the project site and **Table 1** provides details of each soil type.

Table 1 - NRCS Soils Within the Project Site						
Soil ID Number[1]	**Soil Name**	**Occurrence**	**Characteristics**	**Drainage Class**	**Groundwater Depth**	**Hydric, Hydric inclusions, or Non-hydric[2]**
22	Candler sand, 0 to 5 percent slopes	Ridges and knolls on marine terraces	Low water capacity, High to very high permeability	Excessively drained	More than 80 inches	Non-hydric
23	Candler sand, 5 to 12 percent slopes	Ridges and knolls on marine terraces	Low water capacity, High to very high permeability	Excessively drained	More than 80 inches	Non-hydric
1: Reference: Soil Survey of Marion County Area Web Soil Survey (https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx) *2: Reference: Hydric Soils of Florida Handbook, 4th Edition, March 2007*						



Folder: K:\TAM_GIS\242312005 - SW HWY 484 Walmart\SW HWY 484 WALMART\

Kimley»Horn

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Phone (813) 620-1460
www.kimley-horn.com

NRCS Soils Map

SW Hwy 484 Commercial Development
Marion County, Florida

1 IN = 250 FT	PROJECT NUMBER: 242312005	OCTOBER 2024	FIGURE 3

3.3 LAND COVER AND NATURAL COMMUNITIES

Field reconnaissance was conducted by Kimley-Horn environmental scientists on October 17, 2024. Vegetative communities within the project site were identified through pedestrian transects and aerial photograph interpretation. Vegetative communities were classified using the *Florida Land Use, Cover, and Forms Classification System* (FLUCFCS, Florida Department of Transportation, 1999). A FLUCFCS map of the project site is attached as ***Figure 4***. A description of the land cover types included below characterizes the dominant vegetation observed along random pedestrian transects and does not represent an all-inclusive vegetative inventory. The acreage provided for each land cover is approximate, based on aerial mapping.

FLUCFCS 149 – COMMERCIAL AND SERVICES UNDER CONSTRUCTION (± 34.5 ACRES)

This classification encompasses the entire project site. Large areas of the site are open sand and in the process of being excavated and graded at the time of field reconnaissance. Vegetation was present outside of these construction zones, consisting of remnant and ruderal vegetation such as bahiagrass (*Paspalum notatum*), natalgrass (*Melinis repens*), beggarticks (*Bidens spp*.), ragweed (*Ambrosia artemisiifolia*), and bermudagrass (*Cynodon dactylon*).

The presence of wetlands and surface waters was evaluated based on the Florida unified wetland delineation methodologies in accordance with Chapter 62-340, Florida Administrative Code (FAC) and the U.S. Army Corps of Engineers (USACE) 1987 Wetland Delineation Manual. These methods consider prevalence of wetland vegetation, hydric soil indicators, and wetland hydrology. Surface waters include both natural and manmade bodies of water, such as streams, lakes, ponds, canals, and ditches. No wetlands or other surface waters were identified within the project site.

Legend

Project Site

FLUCFCS Codes within Project Site

149: Commercial and Services Under Construction

Folder: K:\TAM_GIS\242312005 - SW HWY 484 Walmart\SW HWY 484 WALMART\

Kimley»Horn

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Florida Land Use, Cover, and Forms Classification System Map

SW Hwy 484 Commercial Development
Marion County, Florida

1 IN = 250 FT	*PROJECT NUMBER: 242312005*	*OCTOBER 2024*	*FIGURE 4*

3.4 WILDLIFE UTILIZATION

Wildlife, or signs of wildlife, observed during field reconnaissance consisted of pocket gophers (*Geomys pinetis*) and blue jay (*Cyanocitta cristata*).

3.5 THREATENED AND ENDANGERED SPECIES

A database review of potential species occurring within the vicinity of the project site was conducted. Results of the database reviews are summarized below.

- FNAI – FNAI did not report documented occurrences of any state or federally listed species within one (1) mile of the project site (***Appendix A***).
- FWC – No active wading bird rookeries are documented within one (1) mile of the project site. No bald eagle (*Haliaeetus leucocephalus*) nests were located within one (1) mile of the project site. Eleven (11) occurrences of the Florida black bear (*Ursus americanus floridanus*) were documented by FWC within 1 mile of the project site. No other state-listed species were documented to occur within one (1) mile of the project site.
- USFWS Consultation Areas – The project site is located within the USFWS Consultation Area for the Florida scrub-jay (*Aphelocoma coerulescens*). However, suitable habitat for this species is not present on-site, and no individuals were observed during site reconnaissance. Therefore, the Florida scrub-jay is excluded from further evaluation.
- USFWS Wood Stork (*Mycteria americana*) Colonies – The project site is not located within the core foraging areas (CFAs) of any wood stork colonies. Additionally, suitable nesting or foraging habitat does not exist within the project site; therefore, this species is excluded from further evaluation.
- USFWS IPaC Data – The IPaC Report (***Appendix A***) includes historical data for species which can result in some species findings that do not reflect current on-site conditions. The project site contains potential suitable habitat for the eastern indigo snake (*Drymarchon couperi*).
- The project site is not located within any USFWS-designated critical habitat.

Based on field reconnaissance and database reviews, a list of the state and federally listed species potentially occurring within the immediate vicinity of the project site has been compiled. **Table 2** lists species that may occur and their likelihood of occurrence. Likelihood of occurrence is based on actual observation of the species, signs of the species (burrows, tracks, scat, etc.), observance of suitable habitat, or documented occurrences of the species within various databases.

Table 2 – Listed Species with the Potential to Occur Within the Project Site

Common Name	Scientific Name	Status	Documented (<1 mile)	Habitat Present	Likelihood of Occurrence
Mammalian					
Florida black bear	*Ursus americanus floridanus*	NL*	Yes	Yes (traversal)	Medium
Reptilian					
Eastern indigo snake	*Drymarchon couperi*	FT	No	Marginal	Low
Gopher tortoise	*Gopherus polyphemus*	ST	No	Yes	Medium

Legend:
FE - Federally Endangered; FT - Federally Threatened; FT(S/A) – Threatened due to Similarity of Appearance; C - Candidate for Listing
SE - State Endangered; ST - State Threatened
NL - Not Listed, but have other regulatory protections
*Protected by the Florida Black Bear Management Plan
Note: Coordination is not required with FWC for federally listed species

Based on the database review and field reconnaissance, the following species could occur on-site or require additional consideration, survey, or permitting:

FLORIDA BLACK BEAR

The Florida black bear was removed from the FWC list of state-threatened species in August 2012; however, it remains protected under other laws, primarily the Florida Black Bear Conservation Rule, Chapter 68A-4.009 F.A.C., and the 2019 FWC Florida Black Bear Management Plan.

Black bears are adaptable and inhabit a variety of forested habitats. According to the FWC Florida Black Bear Management Plan, the four (4) characteristics of potential bear habitat include 1) land cover type, 2) habitat patch size, 3) distance from high-quality habitats, and 4) connectivity and size of large habitats across the landscape. Four (4) habitat groupings were identified using the characteristics above and cross-referencing with the Florida Cooperative Land Cover Map. These groupings include 1) primary habitat, 2) secondary habitat, 3) traversable matrix, and 4) mangrove. The project site contains suitable traversal habitat.

The project site is located within the Central Bear Management Unit; however, no evidence of bear activity was found on-site. Therefore, consistent with the FWC Black Bear Management Plan, garbage and food debris must be properly removed from the construction site daily to eliminate possible sources of food that could encourage and attract bears. Nuisance black bears are to be reported to the FWC at the Wildlife Alert Hotline at 1-888-404-3922. With implementation of these measures, no further action is anticipated regarding this species.

EASTERN INDIGO SNAKE

The eastern indigo snake is listed as threatened by both USFWS and FWC. This species occurs in a range of habitats, including pine flatwoods, scrubby flatwoods, high pine, dry prairie, tropical hardwood hammocks, edges of freshwater marshes, agricultural fields, coastal dunes, and human-altered habitats. The snake requires large tracts of land to survive and often winters in burrows of gopher tortoises, armadillos, cotton rats, and land crabs (in coastal areas) and forages in hydric habitats. No individuals were observed during site reconnaissance, and no eastern indigo snakes have been documented by the USFWS within two (2) miles of the project site. Additionally, suitable habitat within the project site is marginal due to the ongoing mass grading activities.

The implementation of the USFWS *Standard Protection Measures for the Eastern Indigo Snake* (***Appendix B***) is recommended during construction, which consists of placement of signage and educational material provided to site personnel. With implementation of these measures, no further action is anticipated regarding this species.

GOPHER TORTOISE

The gopher tortoise is listed as threatened by the FWC. This species prefers dry upland habitats such as pine flatwoods, xeric oak hammocks, open sandy pastures, and disturbed areas. A 15% gopher tortoise survey was included as a part of the October 2024 field review. Suitable gopher tortoise habitat is available within the project site, however, no gopher tortoise burrows were observed during field reconnaissance and portions of the project site were observed to be under active construction. Depending on the timeframe of future site construction activities, updated surveys for gopher tortoise burrows may be warranted and are recommended to be completed no more than 90 days prior to the start of construction activities. If any potentially occupied gopher tortoise burrows are identified within 25 feet of project construction, an FWC gopher

tortoise relocation permit will be required to excavate and relocate the gopher tortoises prior to the start of construction.

LISTED PLANT SPECIES

The Florida Department of Agriculture and Consumer Service's *Notes on Florida's Threatened and Endangered Plants* and Richard Wunderlin's *Guide to Vascular Plants of Florida* were consulted to assess habitat requirements for listed plant species. Although 12 state and/or federal-listed plants were noted by FNAI and USFWS as possibly occurring in the area, none were observed during field reconnaissance. No further action is anticipated regarding listed plant species.

3.6 HISTORIC AND ARCHAEOLOGICAL RESOURCES

Kimley-Horn requested an inquiry from the Department of State, State Historic Preservation Office (SHPO), Division of Historical Resources, Florida Master Site File (FMSF) regarding the presence of known historical or archaeological findings on the proposed project site or within a 0.25-mile radius of the project site to determine if additional studies may be required. Based on the FMSF, no historic resources are documented within the project site. Two historic structures and one archaeological site were identified by SHPO within 0.25 mile of the project site (see ***Appendix C***). Due to the site having already been issued an Environmental Resource Permit (ERP) from SWFWMD for the ongoing mass grading activities, further action with respect to cultural resources is not anticipated to be required. However, as part of the SWFWMD permit process, SHPO is a reviewing agency for ERP applications and additional coordination may be warranted to determine if a cultural resource assessment survey (CRAS) would be required.

3.7 FEMA

The FEMA FIRM panel (12083C0715D) dated August 28, 2008, indicates that the entire project site is located within Zone X (unshaded) – Area of Minimal Flood Hazard. Flood zone definition and spatial coverage are depicted in ***Figure 5***.

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FEMA Flood Map (12083C0715D, Effective 8/28/2008)

SW Hwy 484 Commercial Development
Marion County, Florida

1 IN = 207 FT	PROJECT NUMBER: 242312005	OCTOBER 2024	FIGURE 5

4.0 REGULATORY REQUIREMENTS

4.1 LOCAL ENVIRONMENTAL ORDINANCES

Based on a review of the Marion County Land Development Code and Code of Ordinances, if listed species occurrence is documented on-site, any development application shall identify listed species documented on-site and designate on-site or off-site habitat protection for the identified species as a condition of development application approval. A pre-application meeting with Marion County is recommended.

4.2 STATE REGULATORY REQUIREMENTS

ENVIRONMENTAL RESOURCE PERMIT (ERP)

A review of the SWFWMD e-permitting system found the project site is located entirely within the permitted boundary of ERP 43045525.000 (issued November 23, 2021). This permit authorized mass grading and construction of a stormwater management system to serve 142.9 acres of future residential and commercial development. Active construction activities observed on-site during field reconnaissance appear to be consistent with this authorization.

An ERP or ERP modification will be required if stormwater improvements are proposed as part of this project. Drainage design and stormwater management are not discussed further in this report as the scope of this report is limited to natural resources. No wetlands or other surface waters were identified on-site during field reconnaissance. A pre-application meeting with SWFWMD is recommended.

STATE LISTED SPECIES

The following state listed species or species managed by FWC were observed or could potentially occur within the project site and require additional action, coordination, and/or permitting:

- Florida black bear
- Gopher tortoise

Florida black bear – This project site is located within the Central Bear Management Unit and eleven (11) black bear sightings have been documented by FWC within one mile of the site. Per the 2019 FWC Black Bear Management Plan, garbage and food debris must be properly removed from the construction site daily to eliminate possible sources of food that could encourage and

attract bears. Nuisance black bears are to be reported to the FWC at the Wildlife Alert Hotline at 1-888-404-3922.

Gopher tortoise – A 15% gopher tortoise survey was conducted as a part of this investigation. Suitable habitat exists on-site for the gopher tortoise, however, no gopher tortoise burrows were observed on-site during the survey and portions of the project site were observed to be under active construction. Depending on the timeframe of future site construction activities, updated surveys for gopher tortoise burrows may be warranted and are recommended to be completed no more than 90 days prior to the start of construction activities to identify any potentially occupied burrows within the project site. If any potentially occupied gopher tortoise burrows are within 25 feet of project construction, an FWC gopher tortoise relocation permit will be required to excavate and relocate the gopher tortoises prior to the start of construction.

4.3 FEDERAL REGULATORY REQUIREMENTS

SECTION 404 (CLEAN WATER ACT) PERMITTING

There were no wetlands or surface waters identified within the project site that would be considered Waters of the US (WOTUS) subject to FDEP or USACE jurisdiction under Section 404 of the Clean Water Act. As such, no further action is required regarding Section 404 permitting.

FEDERALLY LISTED SPECIES

The following federally listed species may potentially occur within the project site and require additional actions, coordination, and/or permitting:

- Eastern indigo snake

Eastern indigo snake – No individuals were observed during site reconnaissance, and no eastern indigo snakes have been documented by the USFWS within two (2) miles of the project site. Additionally, suitable habitat within the project site is marginal due to the ongoing mass grading activities. The implementation of the USFWS *Standard Protection Measures for the Eastern Indigo Snake* (***Appendix B***) is recommended during construction, which consists of placement of signage and educational material provided to site personnel. With implementation of these measures, no further action is anticipated regarding this species.

5.0 SUMMARY AND RECOMMENDATIONS

PERMITTING

If documented on-site, listed species occurrences must be identified within a Marion County development application and on-site or off-site habitat protection must be designated for the identified species as a condition of application approval. A pre-application meeting with Marion County is recommended. The project site is under an active ERP (ERP No. 43045525.000) for mass grading activities, which appeared to be ongoing. An ERP or ERP modification will be required from SWFWMD if any stormwater improvements are proposed as part of this project. A pre-application meeting with SWFWMD is recommended.

LISTED SPECIES

State Species

- This project site is located within the Central Bear Management Unit and eleven (11) Florida black bear sightings have been documented within one mile of the project site. Per the 2019 FWC Black Bear Management Plan, garbage and food debris must be properly removed from the construction site daily to eliminate possible sources of food that could encourage and attract bears. Nuisance black bears are to be reported to the FWC at the Wildlife Alert Hotline at 1-888-404-3922.
- A 15% gopher tortoise survey was included as a part of this investigation. No gopher tortoise burrows were observed on-site during the survey. Depending on the timeframe of future site construction activities, updated surveys for gopher tortoise burrows may be warranted and are recommended to be completed no more than 90 days prior to the start of construction activities. If any potentially occupied gopher tortoise burrows are identified within 25 feet of project construction, an FWC gopher tortoise relocation permit will be required to excavate and relocate the gopher tortoises prior to the start of construction.

Federal Species

- Implementation of the USFWS *Standard Protection Measures for the Eastern Indigo Snake* is recommended during construction activities. With implementation of these measures, no further action regarding this species is anticipated to be required.

HISTORIC & CULTURAL RESOURCES

Further action with respect to cultural resources is not anticipated to be required. However, as part of the SWFWMD permit process, SHPO is a reviewing agency for ERP applications and additional coordination may be warranted to determine if a cultural resource assessment survey (CRAS) would be required.

APPENDIX A

FNAI BIODIVERSITY MATRIX & USFWS IPAC

1018 Thomasville Road
Suite 200-C
Tallahassee, FL 32303
850-224-8207
850-681-9364 fax
www.fnai.org

Florida Natural Areas Inventory

Biodiversity Matrix Query Results

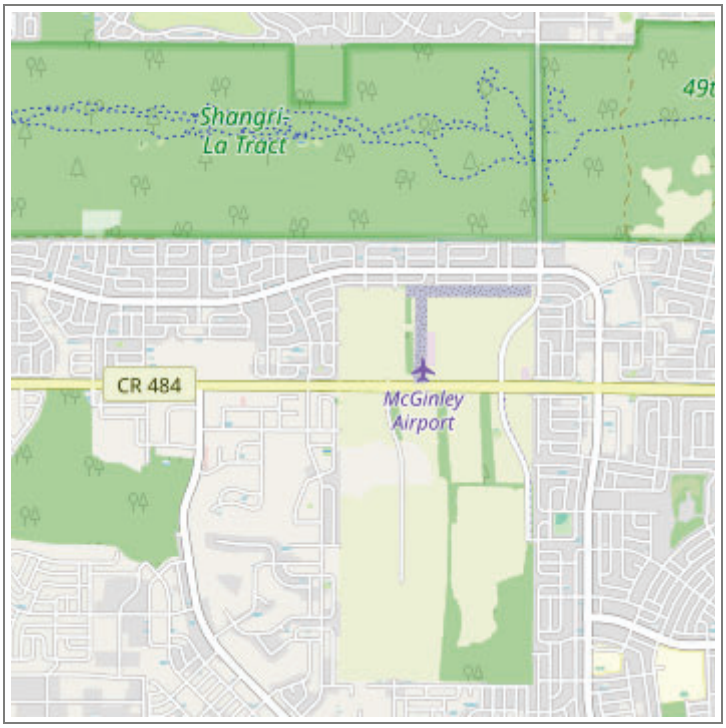
UNOFFICIAL REPORT

Created 10/4/2024

(Contact the FNAI Data Services Coordinator at 850.224.8207 or kbrinegar@fnai.fsu.edu for information on an official Standard Data Report)

NOTE: The Biodiversity Matrix includes only rare species and natural communities tracked by FNAI.

Report for 1 Matrix Unit: 29528



Descriptions

DOCUMENTED - There is a documented occurrence in the FNAI database of the species or community within this Matrix Unit.

DOCUMENTED-HISTORIC - There is a documented occurrence in the FNAI database of the species or community within this Matrix Unit; however the occurrence has not been observed/reported within the last twenty years.

LIKELY - The species or community is *known* to occur in this vicinity, and is considered likely within this Matrix Unit because:

1. documented occurrence overlaps this and adjacent Matrix Units, but the documentation isn't precise enough to indicate which of those Units the species or community is actually located in; *or*
2. there is a documented occurrence in the vicinity and there is suitable habitat for that species or community within this Matrix Unit.

POTENTIAL - This Matrix Unit lies within the known or predicted range of the species or community based on expert knowledge and environmental variables such as climate, soils, topography, and landcover.

Matrix Unit ID: 29528

1 **Documented** Element Found

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
Gopherus polyphemus Gopher Tortoise	G3	S3	C	ST

0 **Documented-Historic** Elements Found

4 **Likely** Elements Found

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
Dicerandra cornutissima longspurred mint	G2	S2	E	E
Drymarchon couperi Eastern Indigo Snake	G3	S2?	T	FT

Mycteria americana Wood Stork	G4	S2	T	FT
Sandhill	G3	S2	N	N

Matrix Unit ID: 29528

28 **Potential** Elements for Matrix Unit 29528

Scientific and Common Names	Global Rank	State Rank	Federal Status	State Listing
Agrimonia incisa incised groove-bur	G3	S2	N	T
Asplenium x heteroresiliens Morzenti's spleenwort	G2	S1	N	N
Asplenium x plenum ruffled spleenwort	G1Q	S1	N	N
Athene cunicularia floridana Florida Burrowing Owl	G4T3	S3	N	ST
Centrosema arenicola sand butterfly pea	G2Q	S2	N	E
Digitaria floridana Florida fingergrass	G1	S1	N	N
Heterodon simus Southern Hognose Snake	G2	S2S3	N	N
Lampropeltis extenuata Short-tailed Snake	G3	S3	N	ST
Lithobates capito Gopher Frog	G2G3	S3	N	N
Litsea aestivalis pondspice	G3?	S2	N	E
Matelea floridana Florida spiny-pod	G2	S2	N	E
Monotropsis reynoldsiae pygmy pipes	G2	S2	N	E
Mustela frenata peninsulae Florida Long-tailed Weasel	G5T3?	S3?	N	N
Myotis austroriparius Southeastern Myotis	G4	S3	N	N
Nemastylis floridana celestial lily	G2	S2	N	E
Neofiber alleni Round-tailed Muskrat	G2	S2	N	N
Notophthalmus perstriatus Striped Newt	G2G3	S2	N	C
Peucaea aestivalis Bachman's Sparrow	G3	S3	N	N
Phyllophaga elongata Elongate June Beetle	G3	S3	N	N
Pituophis melanoleucus Pine Snake	G4	S3	N	ST
Podomys floridanus Florida Mouse	G3	S3	N	N
Pteroglossaspis ecristata giant orchid	G2G3	S2	N	T
Salix floridana Florida willow	G2G3	S2S3	N	E
Sceloporus woodi Florida Scrub Lizard	G2G3	S2S3	N	N
Sciurus niger niger Southeastern Fox Squirrel	G5T5	S3	N	N
Selonodon floridensis Florida Cebrionid Beetle	G2G4	S2S4	N	N
Sideroxylon alachuense silver buckthorn	G1	S1	N	E

Spigelia loganioides pinkroot	G2Q	S2	N	E

Disclaimer

The data maintained by the Florida Natural Areas Inventory represent the single most comprehensive source of information available on the locations of rare species and other significant ecological resources statewide. However, the data are not always based on comprehensive or site-specific field surveys. Therefore, this information should not be regarded as a final statement on the biological resources of the site being considered, nor should it be substituted for on-site surveys. FNAI shall not be held liable for the accuracy and completeness of these data, or opinions or conclusions drawn from these data. FNAI is not inviting reliance on these data. Inventory data are designed for the purposes of conservation planning and scientific research and are not intended for use as the primary criteria for regulatory decisions.

Unofficial Report

These results are considered unofficial. FNAI offers a Standard Data Request option for those needing certifiable data.

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

NOT FOR CONSULTATION

Location

Marion County, Florida

Local office

Florida Ecological Services Field Office

(352) 448-9151
(772) 562-4288
fw4flesregs@fws.gov

777 37th St
Suite D-101
Vero Beach, FL 32960-3559

https://www.fws.gov/office/florida-ecological-services

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

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1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

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2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Birds

NAME	STATUS
Eastern Black Rail Laterallus jamaicensis ssp. jamaicensis Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/10477	Threatened
Red-cockaded Woodpecker Picoides borealis Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/7614	Endangered
Whooping Crane Grus americana No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/758	EXPN

Reptiles

NAME	STATUS
Eastern Indigo Snake Drymarchon couperi Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/646	Threatened

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Flowering Plants

NAME	STATUS

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Lewton's Polygala Polygala lewtonii — Endangered
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/6688

Longspurred Mint Dicerandra cornutissima — Endangered
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/1660

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

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Bald & Golden Eagles

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act[1] and the Migratory Bird Treaty Act[2].

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-

golden-eagles-may-occur-project-action

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to Bald Eagle Nesting and Sensitivity to Human Activity

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence

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in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

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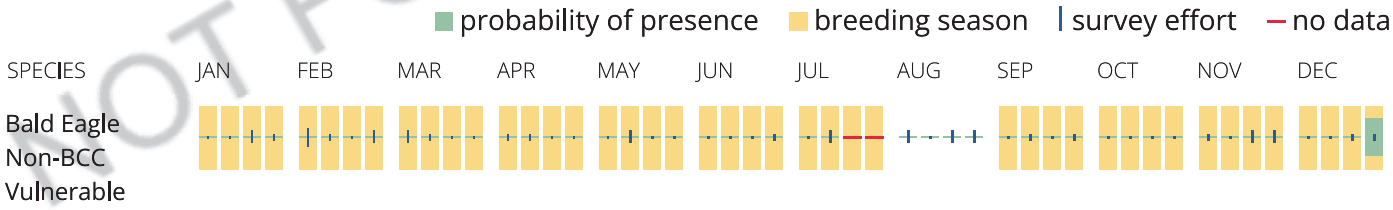

What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply). To see a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

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Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Kestrel Falco sparverius paulus This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9587	Breeds Apr 1 to Aug 31
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31
Chimney Swift Chaetura pelagica This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Great Blue Heron Ardea herodias occidentalis This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Jan 1 to Dec 31
Prairie Warbler Setophaga discolor This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31

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Red-headed Woodpecker Melanerpes erythrocephalus — Breeds May 10 to Sep 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Swallow-tailed Kite Elanoides forficatus — Breeds Mar 10 to Jun 30
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/8938

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

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Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

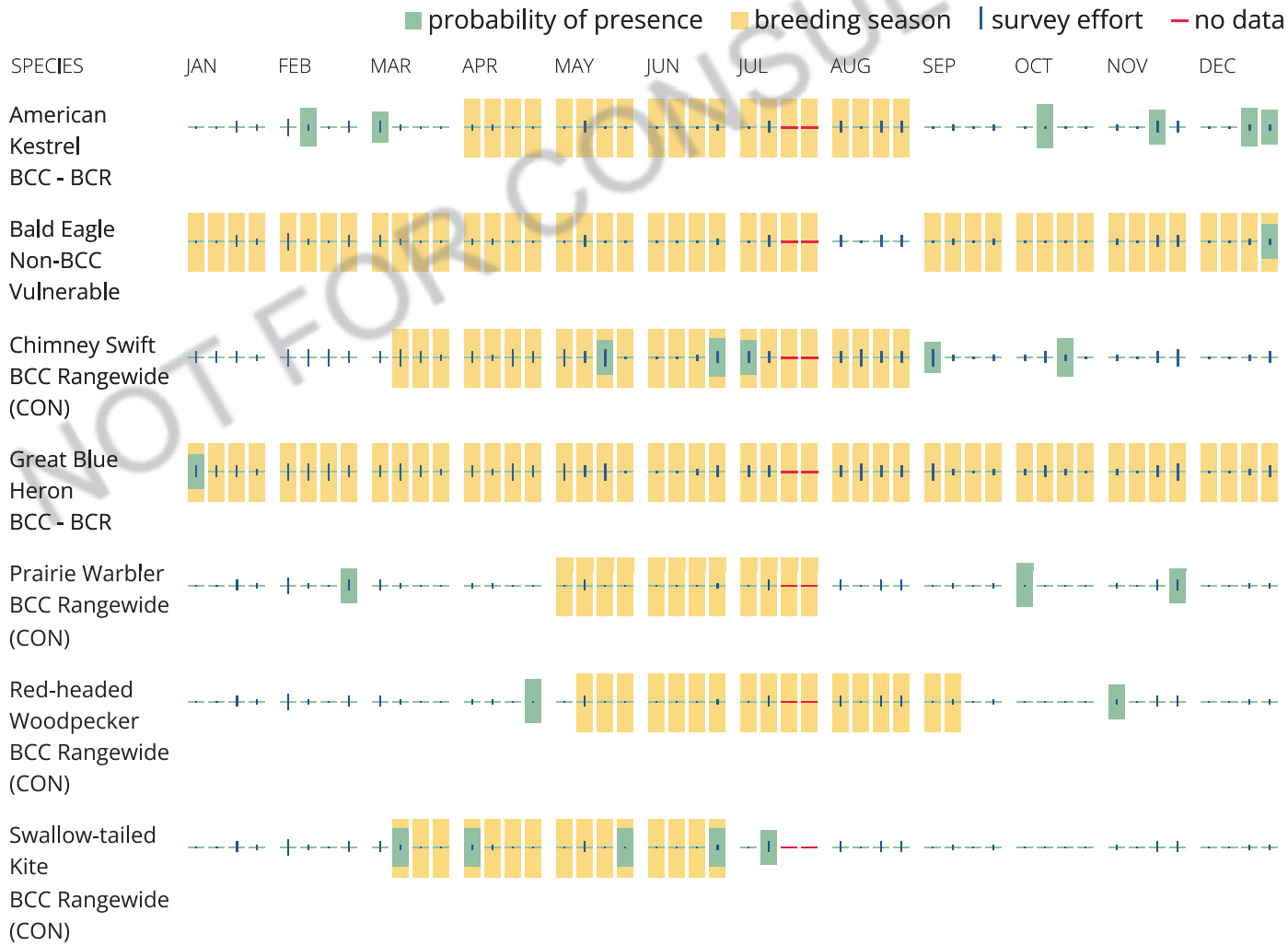
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



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Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

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1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or

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minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

This location did not intersect any wetlands mapped by NWI.

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

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The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

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APPENDIX B

USFWS STANDARD PROTECTION MEASURES FOR THE EASTERN INDIGO SNAKE

STANDARD PROTECTION MEASURES FOR THE EASTERN INDIGO SNAKE

U.S. Fish and Wildlife Service

May 2024

The Standard Protection Measures for the Eastern Indigo Snake (Plan) below has been developed by the U.S. Fish and Wildlife Service (USFWS) in Florida and Georgia for use by project proponents and their construction personnel help minimize adverse impacts to eastern indigo snakes. However, implementation of this Plan does not replace any state of federal consultation or regulatory requirements. At least 30 days prior to any land disturbance activities, the project proponent shall notify the appropriate USFWS Field Office (see Field Office contact information) via e-mail that the Plan will be implemented as described below.

As long as the signatory of the e-mail certifies compliance with the below Plan (including use of the approved poster and pamphlet (USFWS Eastern Indigo Snake Conservation webpage), no further written confirmation or approval from the USFWS is needed regarding use of this Plan as a component of the project.

If the project proponent decides to use an eastern indigo snake protection/education plan other than the approved Plan below, written confirmation or approval from the USFWS that the plan is adequate must be obtained. The project proponent shall submit their unique plan for review and approval. The USFWS will respond via e-mail, typically within 30 days of receiving the plan, either concurring that the plan is adequate or requesting additional information. A concurrence e-mail from the appropriate USFWS Field Office will fulfill approval requirements.

STANDARD PROTECTION MEASURES

BEFORE AND DURING CONSTRUCTION ACTIVITIES:

- All Project personnel shall be notified about the potential presence and appearance of the federally protected eastern indigo snake (*Drymarchon couperi*).
- All personnel shall be advised that there are civil and criminal penalties for harassing, harming, pursuing, hunting, shooting, wounding, killing, capturing, or collecting the species, in knowing violation of the Endangered Species Act of 1973.
- The project proponent or designated agent will post educational posters in the construction office and throughout the construction site. The posters must be clearly visible to all construction staff and shall be posted in a conspicuous location in the

Project field office until such time that Project construction has been completed and time charges have stopped.

- Prior to the onset of construction activities, the project proponent or designated agent will conduct a meeting with all construction staff (annually for multi-year projects) to discuss identification of the snake, its protected status, what to do if a snake is observed within the project area, and applicable penalties that may be imposed if state and/or federal regulations are violated. An educational pamphlet including color photographs of the snake will be given to each staff member in attendance and additional copies will be provided to the construction superintendent to make available in the onsite construction office. Photos of eastern indigo snakes may be accessed on USFWS, Florida Fish and Wildlife Conservation Commission and/or Georgia Department of Natural Resources websites.
- Each day, prior to the commencement of maintenance or construction activities, the Contractor shall perform a thorough inspection for the species of all worksite equipment.
- If an eastern indigo snake (alive, dead or skin shed) is observed on the project site during construction activities, all such activities are to cease until the established procedures are implemented according to the Plan, which includes notification of the appropriate USFWS Office. The contact information for the USFWS is provided below and on the referenced posters and pamphlets.
- During initial site clearing activities, an onsite observer is recommended to determine whether habitat conditions suggest a reasonable probability of an eastern indigo snake sighting (example: discovery of snake sheds, tracks, lots of refugia and cavities present in the area of clearing activities, and presence of gopher tortoises and burrows).
- Periodically during construction activities, the project area should be visited to observe the condition of the posters and Plan materials and replace them as needed. Construction personnel should be reminded of the instructions (above) as to what is expected if any eastern indigo snakes are seen.
- For erosion control use biodegradable, 100% natural fiber, net-free rolled erosion control blankets to avoid wildlife entanglement.

POST CONSTRUCTION ACTIVITIES:

Whether or not eastern indigo snakes are observed during construction activities, a monitoring report should be submitted to the appropriate USFWS Field Office within 60 days of project completion (See USFWS Field Office Contact Information).

USFWS FIELD OFFICE CONTACT INFORMATION

Georgia Field Office: Phone: (706) 613-9493, email: gaes_assistance@fws.gov
Florida Field Office: Phone: (352) 448-9151, email: fw4flesregs@fws.gov

POSTER & PAMPHLET INFORMATION

Posters with the following information shall be placed at strategic locations on the construction site and along any proposed access roads (final posters for Plan compliance are available on our website in English and Spanish and should be printed on 11 x 17in or larger paper and laminated (USFWS Eastern Indigo Snake Conservation webpage). Pamphlets are also available on our webpage and should be printed on 8.5 x 11in paper and folded, and available and distributed to staff working on the site.

POSTER CONTENT (ENGLISH):

ATTENTION

Federally-Threatened Eastern Indigo Snakes may be present on this site!

Killing, harming, or harassing eastern indigo snakes is strictly prohibited and punishable under State and Federal Law.

IF YOU SEE A LIVE EASTERN INDIGO SNAKE ON THE SITE:

• Stop land disturbing activities and allow the snake time to move away from the site without interference. Do NOT attempt to touch or handle the snake.

• Take photographs of the snake, if possible, for identification and documentation purposes.

• Immediately notify supervisor/agent, and a U.S. Fish and Wildlife Service (USFWS) Ecological Services Field Office, with the location information and condition of the snake.

• If the snake is located near clearing or construction activities that will cause harm to the snake, the activities must pause until a representative of the USFWS returns the call (within one day) with further guidance.

IF YOU SEE A DEAD EASTERN INDIGO SNAKE ON THE SITE:

• Stop land disturbing activities and immediately notify supervisor/applicant, and a USFWS Ecological Services Field Office, with the location information and condition of the snake.

• Take photographs of the snake, if possible, for identification and documentation purposes.

• Thoroughly soak the dead snake in water and then freeze the specimen. The appropriate wildlife agency will retrieve the dead snake.

DESCRIPTION: The eastern indigo snake is one of the largest non-venomous snakes in North America, reaching up to 8 ft long. Named for the glossy, blue-black scales above and slate blue below, they often have orange to reddish color (cream color in some cases)

in the throat area. They are not typically aggressive.

SIMILAR SPECIES: The black racer resembles the eastern indigo snake. However, black racers have a white or cream chin, and thinner bodies.

LIFE HISTORY: Eastern indigo snakes live in a variety of terrestrial habitat types. Although they prefer uplands, they also use wetlands and agricultural areas. They will shelter inside gopher tortoise burrows, other animal burrows, stumps, roots, and debris piles. Females may lay from 4 to 12 white eggs as early as April through June, with young hatching in late July through October.

PROTECTED STATUS: The eastern indigo snake is protected by the USFWS, Florida Fish and Wildlife Conservation Commission, and Georgia Department of Natural Resources. Any attempt to kill, harm, harass, pursue, hunt, shoot, wound, trap, capture, collect, or engage eastern indigo snakes is prohibited by the U.S. Endangered Species Act. Penalties include a maximum fine of $25,000 for civil violations and up to $50,000 and/or imprisonment for criminal offenses. Only authorized individuals with a permit (or an Incidental Take Statement associated with a USFWS Biological Opinion) may handle an eastern indigo snake.

Please contact your nearest USFWS Ecological Services Field Office if a live or dead eastern indigo snake is encountered:

Florida Office: (352) 448-9151

Georgia Office: (706) 613-9493

POSTER CONTENT (SPANISH):

ATENCIÓN

¡Especie amenazada, la culebra Índigo del Este, puede ocupar el área!

Matar, herir o hostigar culebras Índigo del Este es estrictamente prohibido bajo la Ley Federal.

SI VES UNA CULEBRA ÍNDIGO DEL ESTE O UNA CULEBRA NEGRA VIVA EN EL ÁREA:

• Pare excavación y permite el movimiento de la culebra fuera del área sin interferir. NO atentes tocar o recoger la culebra.

• Fotografié la culebra si es posible para identificación y documentación.

• Notifique supervisor/agente, y la Oficina de Campo de Servicios Ecológicos del Servicio Federal de Pesca y Vida Silvestre (USFWS) apropiada con información acerca del sitio y condición de la culebra.

• Si la culebra está cerca de un área de construcción que le pueda causar daño, las actividades deben parar hasta un representante del USFWS regrese la llamada (dentro de un día) con más orientación.

SI VES UNA CULEBRA ÍNDIGO DEL ESTE MUERTA EN EL ÁREA:

• Pare excavación. Notifique supervisor/aplicante, y la Oficina de Campo de Servicios Ecológicos apropiada con información acerca del sitio y condición de la culebra.

• Fotografié la culebra si es posible para identificación y documentación.

• Emerge completamente la culebra en agua y congele la especie hasta que personal apropiado de la agencia de vida silvestre la recoja.

DESCRIPCIÓN. La culebra Índigo del Este es una de las serpientes sin veneno más grande en Norte América, alcanzando hasta 8 pies de largo. Su nombre proviene del color azul-negro brilloso de sus escamas, pero pueden tener un color anaranjado-rojizo (color crema en algunos casos) en su mandíbula inferior. No tienden a ser agresivas.

SERPIENTES PARECIDAS. La corredora negra, que es de color negro sólido, es la única otra serpiente que se asemeja a la Índigo del Este. La corredora negra se diferencia por una mandíbula inferior color blanca o crema y un cuerpo más delgado.

HÁBITATS Y ECOLOGÍA. La culebra Índigo del Este vive en una variedad de hábitats, incluyendo tierras secas, humedales, y áreas de agricultura. Ellas buscan refugio en agujeros o huecos de tierra, en especial madrigueras de tortugas de tierra. Las hembras ponen 4 hasta 12 huevos blancos entre abril y junio, y la cría emergen entre julio y octubre.

PROTECCIÓN LEGAL. La culebra Índigo del Este es clasificada como especie amenazada por el USFWS, la Comisión de Conservación de Pesca y Vida Silvestre de Florida y el Departamento de Recursos Naturales de Georgia. Intento de matar, hostigar, herir, lastimar, perseguir, cazar, disparar, capturar, colectar o conducta parecida hacia las culebras Índigo del Este es prohibido por la Ley Federal de Especies en Peligro de Extinción. Penalidades incluyen un máximo de $25,000 por violaciones civiles y $50,000 y/o encarcelamiento por actos criminales. Solos individuales autorizados con un permiso o Determinación de toma incidental (Incidental Take Statement) asociado con una Opinión Biológico del USFWS pueden recoger una Índigo del Este.

Por favor de contactar tu Oficina de Campo de Servicios Ecológicos más cercana si encuentras una culebra Índigo del Este viva o muerta:

Oficina de Florida: (352) 448-9151

Oficina de Georgia: (706) 613-9493

Credit: Dirk Stevenson

ATTENTION

Federally-Threatened Eastern Indigo Snakes may be present on this site!

Killing, harming, or harassing eastern indigo snakes is strictly prohibited and punishable under State and Federal Law.

If you see a LIVE eastern indigo snake on the site:

- Stop land disturbing activities and allow the snake time to move away from the site without interference. Do NOT attempt to touch or handle the snake.
- Take photographs of the snake, if possible, for identification and documentation purposes.
- Immediately notify supervisor/agent, and a U.S. Fish and Wildlife Service (USFWS) Ecological Services Field Office, with the location information and condition of the snake.
- If the snake is located near clearing or construction activities that will cause harm to the snake, the activities must pause until a representative of the USFWS returns the call (within one day) with further guidance.

If you see a DEAD eastern indigo snake on the site:

- Stop land disturbing activities and immediately notify supervisor/applicant, and a USFWS Ecological Services Field Office, with the location information and condition of the snake.
- Take photographs of the snake, if possible, for identification and documentation purposes.
- Thoroughly soak the dead snake in water and then freeze the specimen. The appropriate wildlife agency will retrieve the dead snake.

Eastern indigo snake. Credit: Dirk Stevenson

DESCRIPTION. The eastern indigo snake is one of the largest non-venomous snakes in North America, reaching up to 8 ft long. Named for the glossy, blue-black scales above and slate blue below, they often have orange to reddish color (cream color in some cases) in the throat area. They are not typically aggressive.

SIMILAR SPECIES. The black racer resembles the eastern indigo snake. However, black racers have a white or cream chin, and thinner bodies.

Gopher tortoise and burrow. Credit: James Hunt

LIFE HISTORY. Eastern indigo snakes live in a variety of terrestrial habitat types. Although they prefer uplands, they also use wetlands and agricultural areas. They will shelter inside gopher tortoise burrows, other animal burrows, stumps, roots, and debris piles. Females may lay from 4 to 12 white eggs as early as April through June, with young hatching in late July through October.

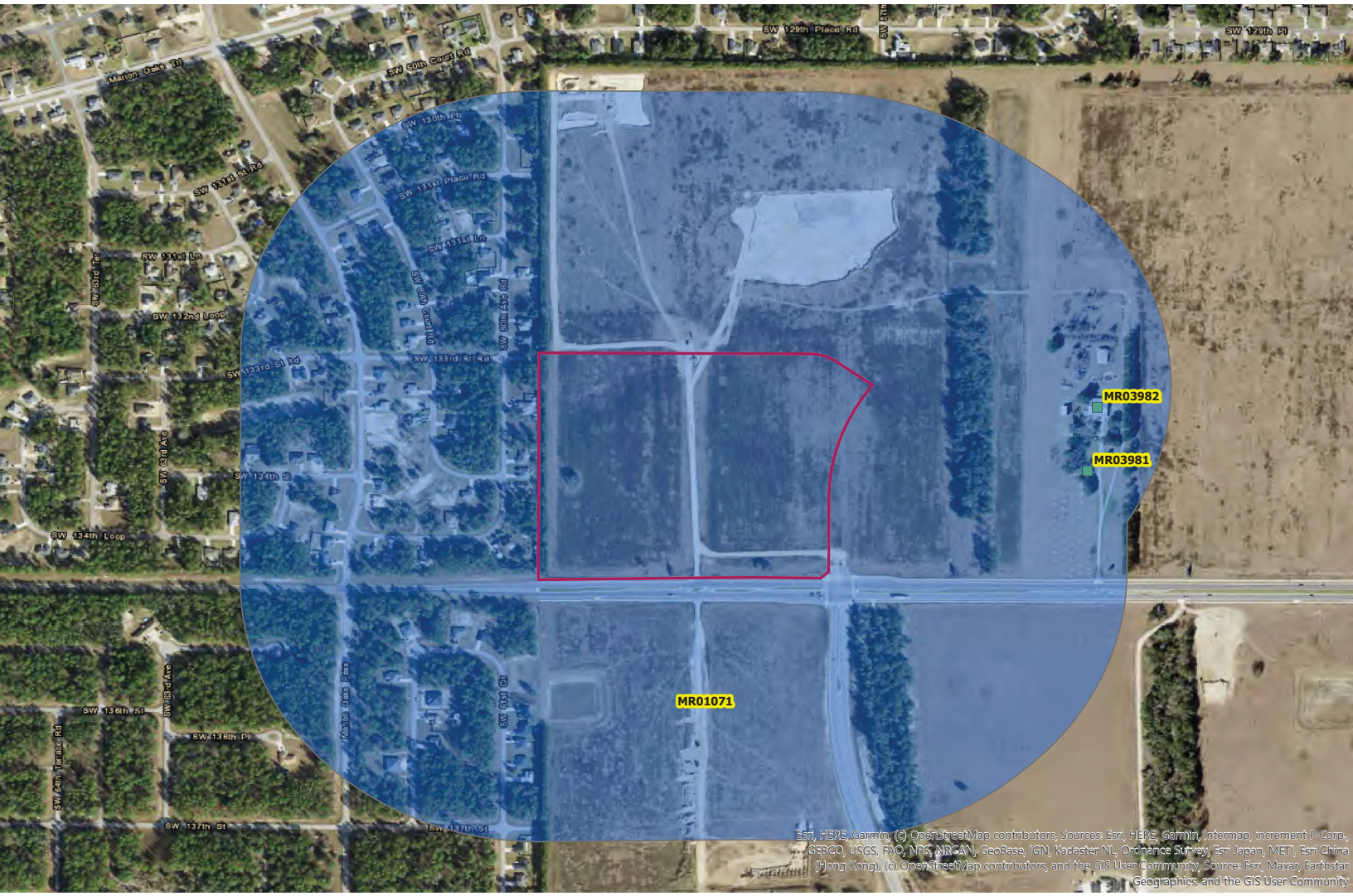
PROTECTED STATUS. The eastern indigo snake is protected by the USFWS, Florida Fish and Wildlife Conservation Commission, and Georgia Department of Natural Resources. Any attempt to kill, harm, harass, pursue, hunt, shoot, wound, trap, capture, collect, or engage eastern indigo snakes is prohibited by the U.S. Endangered Species Act. Penalties include a maximum fine of $25,000 for civil violations and up to $50,000 and/or imprisonment for criminal offenses. Only authorized individuals with a permit (or an Incidental Take Statement associated with a USFWS Biological Opinion) may handle an eastern indigo snake.

Please contact your nearest USFWS Ecological Services Field Office if a live or dead eastern indigo snake is encountered:

Florida Office: (352) 448-9151
Georgia Office: (706) 613-9493

APPENDIX C

FMSF SEARCH RESULTS


SW 129th Place Rd
SW 129th Pl
SW 130th Pl
SW 131st Place Rd
SW 131st Ln
SW 132nd Loop
SW 133rd St Rd
SW 134th St
SW 134th Loop
SW 136th St
SW 136th Pl
SW 137th St
SW 137th St
SW 3rd Ave
SW 83rd Ave
SW 4th Terrace Rd
Marion Oaks Pass
SW 61st Ct
SW 60th Ave Rd
MR03982
MR03981
MR01071
Esri, HERE, Garmin, (c) OpenStreetMap contributors, Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Florida Master Site File

Created: 10/15/2024

AR=1
SS=2
CM=0
RG=0
BR=0
Total=3

Cultural Resource Roster

SiteID	Type	Site Name	Address	Additional Info	SHPO Eval	NR Status
MR01071	AR	FRANKLIN 98	Marion Oaks			
MR03981	SS	5475 SW County Hwy 484 A	5475 SW 484 HWY, Ocala	c1965 Masonry Vernacular		
MR03982	SS	5475 SW County Hwy 484 B	5475 SW 484 HWY, Ocala	c1965 No style		

Kimley»Horn
Kimley-Horn and Associates, Inc.
1700 SE 17th Street, Suite 200
Ocala, FL 34471

Job No.	043497002	Sheet	1	of	1
Job	Baseline Road Industrial (AR# 32452)	Design by	AAH	Date	01/30/2026
Subject	Marion County Resubmittal	Checked by	MNM	Date	01/30/2026

FLOW RATE FROM OFF-SITE BASIN (Qin)

Q = C x I x A			
C (unitless)	I (in/hr)	A (ac)	Q_1 (cfs)
0.80	9	14.55	104.76

SWALE CAPACITY

DITCH INFORMATION

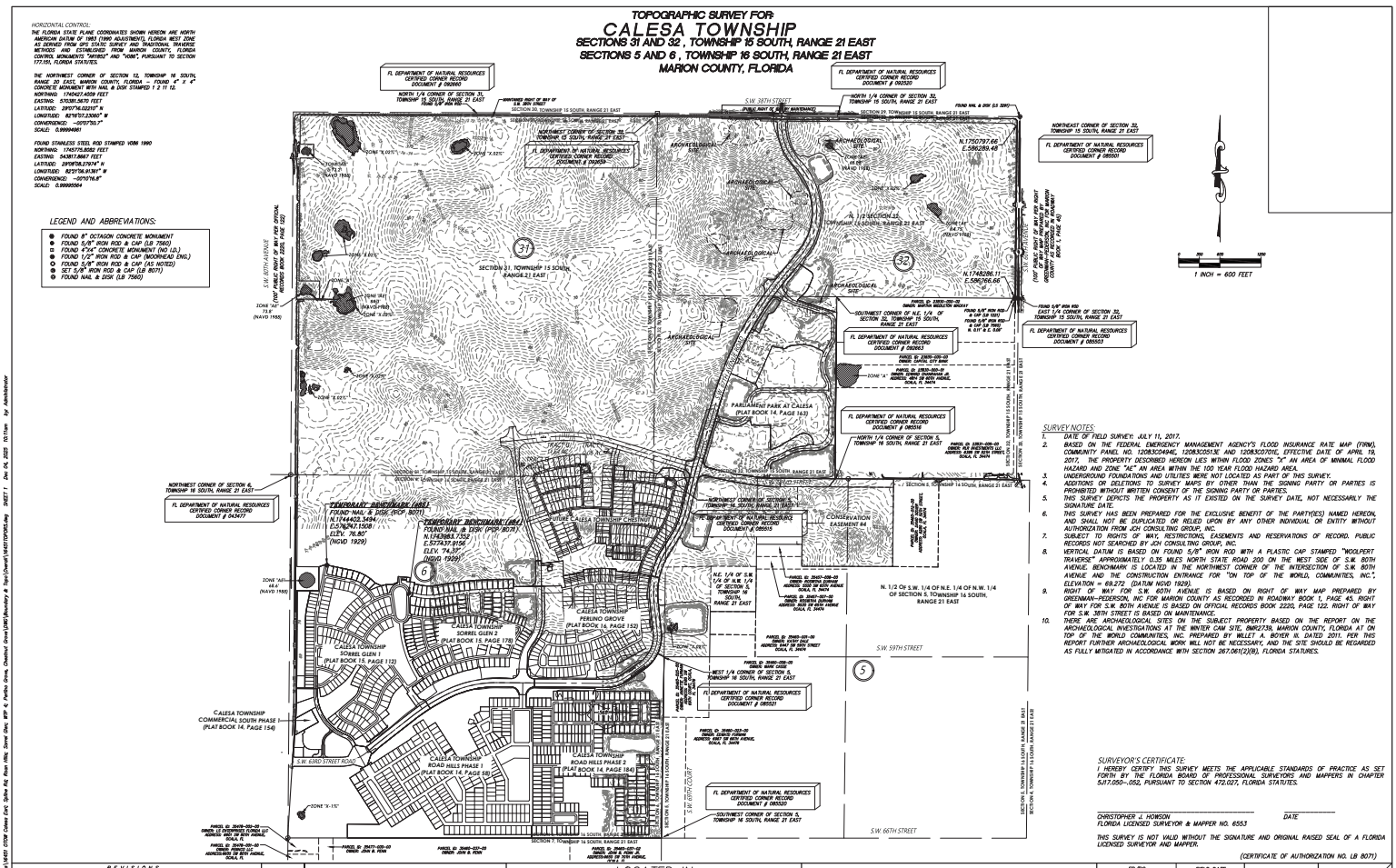
Long. Slope S_L	Flow Q	Ditch Section FS	Ditch Section BW	Ditch Section BS	Manning's Value* n	Ditch Depth d	Ditch Section Area	Ditch Wetted Perim	Hydraulic Radius r	Velocity v	Flow Capacity Q	Ditch TW	Ditch Lining
ft/ft	(cfs)	(x:1)	(ft)	(x:1)		(ft)	(ft^2)	(ft)	(ft)	(ft/s)	(cfs)	(ft)	
0.01	87.91	11.0	10	11.0	0.03	4.00	216.00	98.36	2.20	8.39	1812.45	120.00	Grass

* FDOT Drainage manual

Qin of 104.76 cfs is less than swale capacity of 1812.45 cfs

To accommodate the velocity of 8.39 ft/s in the swale, riprap will be placed at the end of the swale before entering DRA-01.

TOPOGRAPHIC SURVEY FOR:
CALESA TOWNSHIP
SECTIONS 31 AND 32 , TOWNSHIP 15 SOUTH, RANGE 21 EAST
SECTIONS 5 AND 6 , TOWNSHIP 16 SOUTH, RANGE 21 EAST
MARION COUNTY, FLORIDA



HORIZONTAL CONTROL:
THE FLORIDA STATE PLANE COORDINATES SHOWN HEREON ARE NORTH AMERICAN DATUM OF 1983 (1990 ADJUSTMENT), FLORIDA WEST ZONE AS DERIVED FROM GPS STATIC SURVEY AND TRADITIONAL TRAVERSE METHODS AND ESTABLISHED FROM MARION COUNTY, FLORIDA CONTROL MONUMENTS "MYRICK" AND "YORK", PURSUANT TO SECTION 177.151, FLORIDA STATUTES.

THE NORTHWEST CORNER OF SECTION 12, TOWNSHIP 16 SOUTH, RANGE 20 EAST, MARION COUNTY, FLORIDA – FOUND 4" X 4" CONCRETE MONUMENT WITH NAIL & DISK STAMPED 1 2 11 12.
NORTHING: 1740427.4359 FEET
EASTING: 570381.5870 FEET
LATITUDE: 29°07'56.02376" N
LONGITUDE: 82°16'07.23060" W
CONVERGENCE: –00°07'50.7"
SCALE: 0.99994961

FOUND STAINLESS STEEL ROD STAMPED VOB6 1990
NORTHING: 1745775.8083 FEET
EASTING: 543817.8667 FEET
LATITUDE: 29°08'38.2974" N
LONGITUDE: 82°21'36.4136" W
CONVERGENCE: –00°10'16.8"
SCALE: 0.99995064

LEGEND AND ABBREVIATIONS:

- FOUND 8" OCTAGON CONCRETE MONUMENT
- FOUND 5/8" IRON ROD & CAP (LB 7580)
- FOUND 4"x4" CONCRETE MONUMENT (NO I.D.)
- FOUND 1/2" IRON ROD & CAP (MOORHEAD ENG.)
- FOUND 5/8" IRON ROD & CAP (AS NOTED)
- SET 5/8" IRON ROD & CAP (LB 8071)
- FOUND NAIL & DISK (LB 7580)

SURVEY NOTES:
1. DATE OF FIELD SURVEY: JULY 11, 2017.
2. BASED ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAP (FIRM), COMMUNITY PANEL NO. 12083C0494E, 12083C0513E AND 12083C0701E, EFFECTIVE DATE OF APRIL 19, 2017, THE PROPERTY DESCRIBED HEREON LIES WITHIN FLOOD ZONES "X" AN AREA OF MINIMAL FLOOD HAZARD AND ZONE "AE" AN AREA WITHIN THE 100 YEAR FLOOD HAZARD AREA.
3. UNDERGROUND FOUNDATIONS AND UTILITIES WERE NOT LOCATED AS PART OF THIS SURVEY.
4. ADDITIONS OR DELETIONS TO SURVEY MAPS BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHIBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES.
5. THIS SURVEY DEPICTS THE PROPERTY AS IT EXISTED ON THE SURVEY DATE, NOT NECESSARILY THE SIGNATURE DATE.
6. THIS SURVEY HAS BEEN PREPARED FOR THE EXCLUSIVE BENEFIT OF THE PARTY(IES) NAMED HEREON, AND SHALL NOT BE DUPLICATED OR RELIED UPON BY ANY OTHER INDIVIDUAL OR ENTITY WITHOUT AUTHORIZATION FROM JCH CONSULTING GROUP, INC.
7. SUBJECT TO RIGHTS OF WAY, RESTRICTIONS, EASEMENTS AND RESERVATIONS OF RECORD. PUBLIC RECORDS NOT SEARCHED BY JCH CONSULTING GROUP, INC.
8. VERTICAL DATUM IS BASED ON FOUND 5/8" IRON ROD WITH A PLASTIC CAP STAMPED "WOOLPERT TRAVERSE" APPROXIMATELY 0.35 MILES NORTH STATE ROAD 200 ON THE WEST SIDE OF S.W. 80TH AVENUE. BENCHMARK IS LOCATED IN THE NORTHWEST CORNER OF THE INTERSECTION OF S.W. 80TH AVENUE AND THE CONSTRUCTION ENTRANCE FOR "ON TOP OF THE WORLD, COMMUNITIES, INC.", ELEVATION = 69.272 (DATUM NGVD 1929).
9. RIGHT OF WAY FOR S.W. 60TH AVENUE IS BASED ON RIGHT OF WAY MAP PREPARED BY GREENMAN–PEDERSON, INC FOR MARION COUNTY AS RECORDED IN ROADWAY BOOK 1, PAGE 45. RIGHT OF WAY FOR S.W. 80TH AVENUE IS BASED ON OFFICIAL RECORDS BOOK 2220, PAGE 122. RIGHT OF WAY FOR S.W. 38TH STREET IS BASED ON MAINTENANCE.
10. THERE ARE ARCHAEOLOGICAL SITES ON THE SUBJECT PROPERTY BASED ON THE REPORT ON THE ARCHAEOLOGICAL INVESTIGATIONS AT THE WINTER CAMP SITE, 8MR2739, MARION COUNTY, FLORIDA AT ON TOP OF THE WORLD COMMUNITIES, INC. PREPARED BY WILLET A. BOYER III, DATED 2011. PER THIS REPORT FURTHER ARCHAEOLOGICAL WORK WILL NOT BE NECESSARY, AND THE SITE SHOULD BE REGARDED AS FULLY MITIGATED IN ACCORDANCE WITH SECTION 267.061(2)(B), FLORIDA STATURES.

SURVEYOR'S CERTIFICATE:
I HEREBY CERTIFY THIS SURVEY MEETS THE APPLICABLE STANDARDS OF PRACTICE AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17.050–.052, PURSUANT TO SECTION 472.027, FLORIDA STATUTES.

CHRISTOPHER J. HOWSON — DATE
FLORIDA LICENSED SURVEYOR & MAPPER NO. 6553

THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

(CERTIFICATE OF AUTHORIZATION NO. LB 8071)

REVISIONS				
FB/PG	DATE	DRAWN	REVISION	CKD
---	01/10/2025	M.A.	UPDATE TOPOGRAPHIC SURVEY	C.J.H.

JCH
CONSULTING GROUP, INC.
LAND DEVELOPMENT - SURVEYING & MAPPING
PLANNING - ENVIRONMENTAL - G.I.S.
436 S.W. 35TH STREET, OCALA, FLORIDA 34471
PHONE (352) 401-1402 FAX (888) 223-4335 www.JCHcg.com
CERTIFICATE OF AUTHORIZATION – LB 8071

LOCATED IN
SECTION 31, TOWNSHIP 15 SOUTH, RANGE 21 EAST
SECTION 32, TOWNSHIP 15 SOUTH, RANGE 21 EAST
SECTION 5, TOWNSHIP 16 SOUTH, RANGE 21 EAST
SECTION 6, TOWNSHIP 16 SOUTH, RANGE 21 EAST
MARION COUNTY, FLORIDA

PLAT OF TOPOGRAPHIC
–FOR–
ON TOP OF THE WORLD COMMUNITIES, LLC.

FB/PG	FIELD DATE	JOB NO.
17–4/32	7–11–17	16451TOPOR5
DRAWING DATE	BY / APPROVED	SCALE
11/20/17	MA / CJH	1" = 600'

1 OF 1

Drawing name: Z:\Projects\16451 OTW Calesa Exp. Spine Rd, Rock Mtn, Sorrel Glen, MTP & Pavilion Grove, Chestnut Grove\DWG\Boundary & Topo\Overall\16451TOPOR5.dwg SHEET 1 Dec 04, 2025 10:11am by Administrator