APOPKA DEVELOPMENT REVIEW COMMITTEE AGENDA

December 3, 2025 9:00 AM

Apopka City Hall Council Chambers

SPECIAL EVENTS

SITE PLAN:

MAJOR DEVELOPMENT PLAN

1. **MDP-24-4 Floridian Town Center Hotel - Major Development Plan (MDP), 2nd Submittal**
   Owner(s): Florence Hotel Company LLC
   Applicant(s): Gray Robinson, P.A. - Jason W. Searl
   Location: West of Hermit Smith Road, north of Southfork Drive and east of Western Beltway 429
   Proposed Use: Hotel
   Project Manager: Bobby Howell

CONSTRUCTION SITE PLAN

1. **CSP-25-42 4203 Hogshead - Construction Site Plan (CSP), 1st Submittal**
   Owner(s): Charles McNulty
   Applicant(s): Ritter Civil, LLC - Garth Ritter
   Location: 4203 Hogshead Road
   Proposed Use: Industrial Warehouse and Storage
   Project Manager: Jun Sohn

2. **CSP-25-26 Adam Retail Plaza - Construction Site Plan (CSP), 2nd Submittal**
   Owner(s): Wawi Investors LLC
   Applicant(s): Tehrani Consulting Engineering - Ali Tehrani
   Location: 429 West Orange Blossom Trail
   Proposed Use: Retail
   Project Manager: Amer Hamza

SUBDIVISION:

MAJOR DEVELOPMENT PLAN

1. **MDP-25-12 Wolf Lake Ranch Phase 2 - Major Development Plan (MDP), 1st Submittal**
   Owner(s): David L. and Mary Lutz, Ponkan Pines Nursery
   Applicant(s): Kimley-Horn and Associates, Inc. - Joshua Enot
   Location: North of Ponkan Road and west of Ponkan Pines Road
   Proposed Use: Residential of 42 single family lots and associated infrastructure
   Project Manager: Jean Sanchez

CONSTRUCTION SITE PLAN

1. **CSP-25-43 Crossroads at Kelly Park Phase 3B - Construction Site Plan (CSP), 1st Submittal**
   Owner(s): Kelly Park Land Investments, LLC
   Applicant(s): Poulos and Bennett, LLC - Marc D. Stehli, PE
   Location: Southwest corner of Ondich Road and Soapberry Avenue

Proposed Use: Residential - 106 single-family lots
Project Manager: Jean Sanchez

DISCUSSION

ADJOURNMENT

Individuals with disabilities needing assistance to participate in any of these proceedings should contact the City Clerk at least two (2) working days in advance of the meeting date and time at (407) 703-1704. F.S. 286.0105 If a person decides to appeal any decision or recommendation made by Council with respect to any matter considered at this meeting, he will need record of the proceedings, and that for such purposes he may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based.

Any opening invocation that is offered before the official start of the Council meeting shall be the voluntary offering of a private person, to and for the benefit of the Council. The views or beliefs expressed by the invocation speaker have not been previously reviewed or approved by the City Council or the city staff, and the City is not allowed by law to endorse the religious or non-religious beliefs or views of such speaker. Persons in attendance at the City Council meeting are invited to stand during the opening ceremony. However, such invitation shall not be construed as a demand, order, or any other type of command. No person in attendance at the meeting shall be required to participate in any opening invocation that is offered or to participate in the Pledge of Allegiance. You may remain seated within the City Council Chambers or exit the City Council Chambers and return upon completion of the opening invocation and/or Pledge of Allegiance if you do not wish to participate in or witness the opening invocation and/or the recitation of the Pledge of Allegiance.

MAJOR DEVELOPMENT PLAN FOR:

MARRIOTT FAIRFIELD TOWNEPLACE SUITES

NWC OF STATE ROAD 429 & CONNECTOR RD, APOPKA, FLORIDA 33712

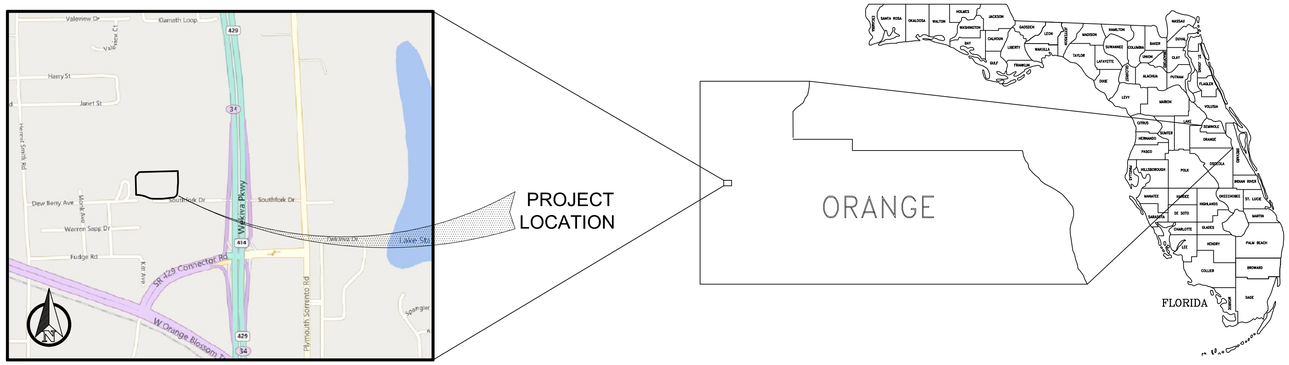
PARCEL ID NUMBER 06-21-28-7172-16-030*, 06-21-28-7172-16-040*, 06-21-28-7172-16-042*
*UPON FINAL PLAN APPROVAL, PARCEL ID IS SUBJECT TO CHANGE

NOT FOR CONSTRUCTION

SECTION 36, TOWNSHIP 20 S, RANGE 27 E,
SECTION 31, TOWNSHIP 20 S, RANGE 28 E

GENERAL STATEMENT:

THIS PROJECT CONSISTS OF THE DEVELOPMENT OF ± 2.91 AC (126,700 SF) OF VACANT LAND. THE PROPOSED DEVELOPMENT INCLUDES THE CONSTRUCTION OF A ±77,081.73 SF; 4-STORY, 46 FEET 6 INCH TALL HOTEL ALONG WITH THE ASSOCIATED PARKING, LANDSCAPING, DRAINAGE AND UTILITIES.



SITE LOCATION MAP

N.T.S.

UTILITY PROVIDERS:

WATER, WASTEWATER, RECLAIM	CITY OF APOPKA 748 EAST CLEVELAND STREET APOPKA, FL 32703 PHONE: (407) 703-1713
ELECTRIC	DUKE ENERGY 452 EAST CROWN POINT ROAD WINTER GARDEN, FL 34787 PHONE: (407) 905-3302 FAX: (407) 905-3365
GAS	LAKE APOPKA NATURAL GAS 1320 WINTER GARDEN VINELAND ROAD WINTER GARDEN, FL 34787 PHONE: (407) 656-2734 FAX: (407) 410-7024
TELEPHONE	CENTURYLINK FLORIDA, INC. 33 NORTH MAIN STREET WINTER GARDEN, FL 34787 PHONE: (407) 814-5351 FAX: (407) 814-5320
CABLE TV	BRIGHT HOUSE NETWORKS 65 SOUTH KELLER ROAD ORLANDO, FL 32810 PHONE: (407) 215-5505 FAX: (407) 215-5758

DIRECTIONS TO PROJECT SITE

FROM SR 429 N: HEAD NORTH ON STATE RTE 429 N, THEN HEAD WEST TOWARD SR 429 CONNECTOR RD, TURN RIGHT ONTO FLORIDIAN TOWN CENTER BLVD, AT THE TRAFFIC CIRCLE, TAKE THE 3RD EXIT ONTO SOUTHFORK RD, THE DESTINATION WILL BE ON THE RIGHT.

OWNER / DEVELOPER

RICHARD DEMARCO
FLORENCE HOTEL COMPANY, LLC.
100 CHURCH ST. SW, SUITE 400
HUNTSVILLE, AL 35801

CIVIL ENGINEER

BOWMAN CONSULTING GROUP, LTD,
ENGINEERING OF RECORD:
KYLE A. SHASTEEN, P.E.
4450 W. EAU GALLIE BLVD.
SUITE 144
MELBOURNE, FL-32934
PHONE: (321) 255-5434

SURVEY NOTE:

THESE PRELIMINARY PLANS WERE PREPARED WITHOUT THE BENEFIT OF A SITE SPECIFIC BOUNDARY SURVEY, THE PROPERTY BOUNDARY IS BASED OFF OF ORANGE COUNTY PROPERTY APPRAISER GIS.

TOPOGRAPHY INFORMATION IS BASED OFF OF THE SURVEY BY DONALD W. MCINTOSH ASSOCIATES, INC. DATED 11/10/2020.

FLOOD NOTE:

BY PERFORMING A SEARCH WITH THE LOCAL GOVERNING MUNICIPALITY OR WWW.FEMA.GOV, THE PROPERTY APPEARS TO BE LOCATED IN ZONE X. THIS PROPERTY WAS FOUND IN ORANGE COUNTY, COMMUNITY NUMBER 120179, FIRM NO. 12095C0125H & 12095C0110H, EFF. 09-24-2021.

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

Bowman

Sheet List Table	
Sheet Number	Sheet Title
C0	COVER SHEET
PD	MASTER PLAN
G1.0	GENERAL NOTES
G1.1	GENERAL NOTES
S1.0	AERIAL, SOILS & FLUCCS
C1.0	DEVELOPMENT PLAN
C2.0	PRELIMINARY PAVING, GRADING & UTILITY PLAN
C3.0	FIRE TRUCK MOVEMENT PLAN
C3.1	GARBAGE TRUCK MOVEMENT PLAN
D1.0	DETAILS - COVER
D1.2	DETAILS - LOBBY LEVEL FLOOR PLAN
D1.3	DETAILS - TYP. LEVEL FLOOR PLAN
D1.4	DETAILS - LEVEL 3 FLOOR PLAN
D1.5	DETAILS - LEVEL 4 FLOOR PLAN
D1.6	DETAILS - ROOF PLAN
D1.7	DETAILS - BUILDING ELEVATIONS
D1.8	DETAILS - BUILDING ELEVATIONS

Bowman
Certificate of Authorization License No. 30462

Bowman Consulting Group Ltd
4450 W Eau Gallie Blvd.
Suite 144
Melbourne, FL 32934
Phone: (321) 255-5434
www.bowman.com

© 2024 Bowman Consulting Group Ltd

COVER SHEET
MARRIOTT FAIRFIELD TOWNEPLACE SUITES
NWC OF STATE ROAD 429 & CONNECTOR RD
APOPKA, FLORIDA 33712
CITY OF APOPKA
ORANGE COUNTY

KYLE A. SHASTEEN LICENSE No. 88744 STATE OF FLORIDA PROFESSIONAL ENGINEER

PLAN STATUS

DATE	DESCRIPTION

JG	JG	KAS
DESIGN	DRAWN	CHKD

SCALE	AS SHOWN
JOB No.	011589-01-001
DATE	9/22/2025

COVER SHEET

SHEET No. C0

THIS DOCUMENT, IN WHOLE OR IN PART, IS NOT TO BE MODIFIED WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY BOWMAN CONSULTING SHALL BE WITHOUT LIABILITY TO BOWMAN CONSULTING.

September 22, 2025
Submitted for 2025
FILE PATH: I:\011589.01\Design\Engineering\Plans\PRELIMINARY DEVELOPMENT PLAN\011589-01PSP-00-21-COVER.dwg

DONALD W. McINTOSH ASSOCIATES, INC. RESERVES THE EXCLUSIVE COPYRIGHT AND PROPERTY RIGHTS TO THIS DRAWING WHICH MAY NOT BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER, NOR CAN IT BE ASSIGNED TO ANY PARTY WITHOUT DONALD W. McINTOSH ASSOCIATES, INC.'S WRITTEN CONSENT.

NOT FOR CONSTRUCTION

GENERAL NOTES:

1. SEE SITE DATA, DEVELOPMENT NOTES, SPECIFICATIONS & LEGEND SHEETS FOR ADDITIONAL INFORMATION.
2. THE SCALE OF THIS DRAWING MAY HAVE CHANGED DUE TO REPRODUCTION.

McINTOSH ASSOCIATES
an LJA company
1950 SUMMIT PARK DRIVE, SUITE 600
ORLANDO, FL 32810 407.644.4068

Seals

DATE: _____

MAJOR DEVELOPMENT PLAN – PHASE 1
FLORIDIAN TOWN CENTER
(aka: 429 WEST)
CITY OF APOPKA, FLORIDA

DOCUMENT CHANGES

Description	Date
REVISED PARCEL 4 PHASE 1 DEVELOPMENT	4/30/24

Issue Description	
Issue Date	2/16/21
Project No	18161
Drawn/ Designed	MAB / MAB
Checked By	JCN

Drawing Title

MASTER PLAN

Sheet Number

PD

GENERAL REQUIREMENTS OF CONTRACTOR

1. CONTRACTOR SHALL MAINTAIN A COMPLETE AND ACCURATE RECORD OF ALL CHANGES OF CONSTRUCTION FROM THAT SHOWN IN THESE PLANS AND SPECIFICATIONS FOR THE PURPOSE OF PROVIDING A BASIS FOR AS-BUILT DRAWINGS. NO CHANGES SHALL BE MADE WITHOUT PRIOR WRITTEN APPROVAL OF THE ENGINEER AND THE AGENCY(S) HAVING JURISDICTION. ALL WORK SHALL BE AS-BUILT BY A FLORIDA LICENSED PROFESSIONAL LAND SURVEYOR INCLUDING ALL FINISH FLOORS, SITE GRADING, WATER SYSTEM, SEWER SYSTEM, DRAINAGE SYSTEM. RECLAIMED WATER SYSTEM AND ALL OTHER FACILITIES ASSOCIATED WITH THE PROJECT.

   UPON COMPLETION OF THE PROJECT, THE LICENSED SURVEYOR SHALL DELIVER SIGNED AND SEALED COPIES OF THIS AS-BUILT RECORD OF THE PROJECT TO THE ENGINEER.

   WARNING: THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THESE PLANS MUST BE APPROVED IN WRITING BY THE ENGINEER OF RECORD.

2. CONTRACTOR SHALL PROMPTLY NOTIFY, BY TELEPHONE AND IN WRITING, THE ENGINEER AND THE AGENCY HAVING JURISDICTION UPON DISCOVERY OF, AND BEFORE DISTURBING, ANY PHYSICAL CONDITIONS DIFFERING FROM THOSE REPRESENTED BY THE APPROVED PLANS AND SPECIFICATIONS.

3. CONTRACTOR AGREES THAT, IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONALS HARMLESS FROM ALL LIABILITY AND CLAIMS, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

4. CONTRACTOR AGREES TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR PROTECTION OF PUBLIC AND PRIVATE PROPERTY ON OR IN THE VICINITY OF THE JOB SITE AND FURTHER AGREES TO, AT CONTRACTOR'S EXPENSE, REPAIR OR REPLACE TO ORIGINAL CONDITION ALL EXISTING IMPROVEMENTS WITHIN OR IN THE VICINITY OF THE JOB SITE WHICH ARE NOT DESIGNATED FOR REMOVAL AND WHICH ARE DAMAGED OR REMOVED AS A RESULT OF CONTRACTOR'S OPERATIONS.

5. EXISTING BURIED CONDUITS AND STRUCTURES KNOWN TO THE ENGINEER ARE SHOWN ON THESE PLANS. HOWEVER, ALL CONDUITS AND STRUCTURES MAY NOT BE SHOWN AND THE LOCATIONS OF THOSE SHOWN ARE APPROXIMATE ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE PREPARER OF THE PLANS.

   CONTRACTOR SHALL INDEPENDENTLY VERIFY THE PRESENCE OF BURIED CONDUITS AND STRUCTURES, BOTH ACTIVE AND ABANDONED-IN-PLACE AND, BEFORE COMMENCING WORK, CONTRACTOR SHALL DETERMINE THE EXACT LOCATION INCLUDING DEPTHS OF ALL EXISTING UNDERGROUND UTILITIES, CONDUITS AND STRUCTURES, INCLUDING SERVICE CONNECTIONS, WHICH MAY AFFECT OR BE AFFECTED BY HIS OPERATIONS. CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES, CONDUITS AND STRUCTURES.

   UPON ENCOUNTERING EXISTING UTILITIES OR STRUCTURES NOT SHOWN OR LOCATED DIFFERENTLY THAN SHOWN ON THE PLANS, CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND THE OWNER OF THE CONDUIT OR STRUCTURE BY TELEPHONE AND IN WRITING. IF SUCH CONDUIT OR STRUCTURE AFFECTS OR IS AFFECTED BY THE WORK, CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION AND DIRECTION BEFORE PROCEEDING WITH THE WORK, EXCEPTING THAT IN AN EMERGENCY AFFECTING SAFETY OF LIFE, WORK OR ADJACENT PROPERTY, CONTRACTOR SHALL ACT AT ONCE WITHOUT INSTRUCTIONS TO PREVENT INJURY OR LOSS.

6. CONTRACTOR SHALL CONTACT SUNSHINE-811 A MINIMUM OF 48 HOURS IN ADVANCE OF STARTING ANY CONSTRUCTION TO HAVE KNOWN UNDERGROUND FACILITIES LOCATED. NO EXCAVATION SHALL COMMENCE UNLESS THE CONTRACTOR HAS OBTAINED THE INQUIRY IDENTIFICATION NUMBER AND EACH UTILITY OR OTHER OWNER OF SUBSURFACE FACILITIES HAS LOCATED AND PHYSICALLY MARKED THEIR SUBSURFACE FACILITIES IN THE AREA OF WORK.

7. BEFORE COMMENCING EXCAVATION, CONTRACTOR SHALL CONTACT THE CITY AND EACH UTILITY COMPANY OR OTHER OWNER OF SUBSURFACE FACILITIES WITHIN THE WORK SITE, SHALL VERIFY WHETHER OR NOT A REPRESENTATIVE WILL BE PRESENT BEFORE AND/OR DURING EXCAVATION, AND SHALL DETERMINE SITE-SPECIFIC REQUIREMENTS FOR EXCAVATION.

8. CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD BEFORE START OF ANY CONSTRUCTION AND SCHEDULE THE TIME AND LOCATION OF PRE-CONSTRUCTION CONFERENCE. A PRE-CONSTRUCTION CONFERENCE WITH THE CITY IS REQUIRED PRIOR TO START OF WORK.

9. CONTRACTOR IS RESPONSIBLE FOR PRESERVATION AND/OR PERPETUATION OF ALL EXISTING MONUMENTS WHICH CONTROL SUBDIVISIONS, TRACTS, BOUNDARIES, EASEMENTS, STREETS, HIGHWAYS OR OTHER RIGHTS-OF-WAY, OR WHICH PROVIDE SURVEY CONTROL WHICH WILL BE DISTURBED OR REMOVED DUE TO CONTRACTOR'S WORK. PRIOR TO DISTURBANCE OR REMOVAL OF EXISTING MONUMENTS, CONTRACTOR SHALL CONTRACT WITH LICENSED LAND SURVEYOR TO RESET MONUMENTS OR PROVIDE PERMANENT WITNESS MONUMENTS AND FILE THE REQUIRED DOCUMENTATION WITH THE COUNTY SURVEYOR.

10. CONTRACTOR SHALL MAKE HIS OWN DEDUCTIONS AND CONCLUSIONS AS TO HOW EXISTING SURFACE AND SUB-SURFACE CONDITIONS WILL AFFECT OR BE AFFECTED BY HIS CONSTRUCTION OPERATIONS, INCLUDING THE NATURE OF MATERIALS TO BE EXCAVATED, THE DEGREE OF DIFFICULTY ASSOCIATED WITH MAKING AND MAINTAINING THE REQUIRED EXCAVATIONS, AND THE DEGREE OF DIFFICULTY WHICH MAY ARISE FROM SUBSURFACE CONDITIONS INCLUDING GROUNDWATER, AND SHALL ACCEPT FULL RESPONSIBILITY THEREFOR.

11. IT IS CONTRACTOR'S RESPONSIBILITY TO PROTECT THE INTEGRITY OF EXISTING PAVEMENT ALONG AND BEHIND SAWCUT LINES DURING CONSTRUCTION; IF PAVEMENT IS BROKEN-OFF OR OTHERWISE DAMAGED BEFORE NEW PAVEMENT IS PLACED, CONTRACTOR SHALL SAWCUT A NEW CONFORM LINE PARALLEL WITH, FULL LENGTH OF, AND SUFFICIENT DISTANCE (1-FOOT MINIMUM) BEHIND ORIGINAL SAWCUT SO AS TO REMOVE DAMAGED PAVEMENT AND / OR IRREGULARITY ALONG THE CONFORM LINE, OR AS REQUIRED BY THE AGENCY HAVING JURISDICTION.

12. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TRAFFIC CONTROL AS REQUIRED FOR THE WORK IN PROGRESS TO SAFELY HANDLE VEHICULAR, BICYCLE AND PEDESTRIAN TRAFFIC THROUGHOUT THE PROJECT, AND THAT THIS REQUIREMENT SHALL APPLY 24 HOURS PER DAY AND SEVEN DAYS A WEEK FOR THE DURATION OF WORK ON THE PROJECT. CONTRACTOR SHALL IMPLEMENT MAINTENANCE OF TRAFFIC (MOT) IN ACCORDANCE WITH THE REQUIREMENTS OF THE FLORIDA STATE DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", SECTION 102 "MAINTENANCE OF TRAFFIC".

13. WORK PERFORMED BY THE CONTRACTOR THAT IS REQUIRED TO BE AS-BUILT SHALL BE SURVEYED BY A SURVEYOR REGISTERED IN THE STATE OF FLORIDA. IMPROVEMENTS SHALL BE SURVEYED WHILE THE WORK IS IN PROGRESS (UNCOVERED) SO THAT THE SURVEYOR CAN VISUALLY OBSERVE THE WORK AND SPECIFIC ELEMENT BEING SURVEYED AND CONFIRM WHAT IS BEING LOCATED, INCLUDING TYPE AND SIZE. IF THE WORK IS BURIED, THE CONTRACTOR IS RESPONSIBLE FOR POTHOLING EACH FITTING AND FEATURE OF THE INSTALLATION SO THE SURVEYORS WORK CAN BE PERFORMED. IT IS NOT ACCEPTABLE TO COVER WORK AND USE PIPE EXTENSIONS FOR THE PURPOSE OF AS-BUILTING INSTALLED WORK.

CONSTRUCTION NOTES (SPECIFICATIONS)

GENERAL NOTES:

1. UNLESS MODIFIED OR OTHERWISE SPECIFIED BY THE CONSTRUCTION NOTES THAT FOLLOW HEREON INCLUDING THOSE UNDER SEPARATE HEADINGS, MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE FDOT SPECIFICATIONS, STANDARDS AND STANDARD PLANS, AND THE CITY OF APOPKA DESIGN STANDARDS AND STANDARD DETAILS. WHERE DISCREPANCIES IN THE STANDARDS OCCUR THE EOR AND CITY ENGINEER SHALL MAKE THE FINAL DETERMINATION.

   ALL REFERENCED SPECIFICATIONS, CODES, DRAWINGS, AND DETAILS SHALL BE INCORPORATED INTO THESE PLANS AND MADE A PART HEREOF AS IF SPELLED OUT OR DELINEATED IN THEIR ENTIRETY HEREIN.

2. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WORK AND INTERFACING IMPROVEMENTS WITH WORK BY OTHER CONTRACTORS AT THIS JOB SITE AND WITH IMPROVEMENTS REQUIRED BY PLANS BY OTHERS.

3. ALL WORK SHALL BE DONE IN CONFORMANCE WITH THE RECOMMENDATIONS CONTAINED IN THE GEOTECHNICAL ENGINEERING AND GEOLOGICAL REPORTS FOR THIS PROJECT INCLUDING THOSE LISTED BELOW:

   NO REPORT, THIS SECTION DOES NOT APPLY.

   THESE REPORTS AND ANY ADDENDA SHALL BE INCORPORATED INTO THESE PLANS AND MADE A PART HEREOF AS IF SPELLED OUT IN THEIR ENTIRETY HEREON. IT IS CONTRACTOR'S RESPONSIBILITY TO REVIEW THE APPLICABLE GEOTECHNICAL AND GEOLOGY REPORTS. CONTRACTOR SHALL CONTACT THE GEOTECHNICAL ENGINEER TO OBTAIN OR REVIEW COPIES OF THESE REPORTS AND ADDENDA.

   PRIOR TO BIDDING, CONTRACTOR SHALL CONTACT THE GEOTECHNICAL ENGINEER TO DETERMINE THE LOCATION AND DEPTH OF ALL TEST BORINGS AND EXPLORATORY PITS AND EXCAVATIONS. CONTRACTOR SHALL DETERMINE FROM THE GEOTECHNICAL ENGINEER WHAT REMEDIAL WORK IS RECOMMENDED TO MAKE THESE DISTURBED LOCATIONS SUITABLE FOR THE PROPOSED IMPROVEMENTS. CONTRACTOR SHALL INCLUDE IN HIS BID ALL COSTS FOR THE RECOMMENDED REMEDIAL WORK AND SHALL ADJUST HIS OPERATIONS TO PROPERLY SEQUENCE THE WORK TO ACCOMMODATE REMEDIAL WORK WITH CONSTRUCTION OF PROPOSED IMPROVEMENTS.

4. ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH APPLICABLE HEALTH AND SAFETY LAWS, ORDINANCES, REGULATIONS, RULES, AND STANDARDS INCLUDING ALL FEDERAL AND STATE REQUIREMENTS.

5. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR VEHICULAR, BICYCLE, AND PEDESTRIAN TRAFFIC CONTROL AND SAFETY AND SHALL FURNISH, INSTALL, AND MAINTAIN SUCH FENCING, SIGNS, LIGHTS, TRENCH PLATES, BARRICADES, AND/OR OTHER PROTECTION AS IS NECESSARY FOR SAID CONTROL AND SAFETY OR AS REQUIRED BY THE APPLICABLE REGULATORY AGENCY.

6. CONTRACTOR SHALL FURNISH, INSTALL, AND MAINTAIN SUCH SHEETING, SHORING, BRACING, AND/OR OTHER PROTECTION AS IS NECESSARY TO PREVENT FAILURE OF TEMPORARY EXCAVATIONS AND EMBANKMENTS AND TO PREVENT DAMAGE TO EXISTING IMPROVEMENTS, TEMPORARY IMPROVEMENTS, AND PARTIALLY COMPLETED PORTIONS OF THE WORK. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE SUFFICIENCY OF SUCH SUPPORTS AND/OR OTHER PROTECTION. ALL WORK SHALL BE IN ACCORDANCE WITH OSHA TRENCH AND EXCAVATION SAFETY AND THE FLORIDA TRENCH SAFETY ACT.

7. BEFORE BEGINNING WORK, CONTRACTOR SHALL CONFIRM WITH AGENCIES HAVING JURISDICTION THAT ALL REQUIRED PERMITS AND LICENSES HAVE BEEN OBTAINED AND ALL REQUIRED NOTICES GIVEN.

8. DURING THE COURSE OF WORK, CONTRACTOR SHALL BE RESPONSIBLE FOR CALLING FOR OBSERVATION AND TESTING AS STIPULATED PURSUANT TO ABOVE DETERMINATIONS. ALL TESTING OF MATERIALS AND MATERIALS PLACED SHALL BE BY THE CONTRACTOR, AT HIS SOLE EXPENSE, USING AN INDEPENDENT LABORATORY.

   WORK NOT OBSERVED BY THE EOR AND TESTED WILL BE SUBJECT TO REJECTION.

9. ALL UNSUITABLE CONSTRUCTION MATERIALS AND RUBBISH AND DEBRIS SHALL BE REMOVED FROM THE JOB SITE, BE TRANSPORTED TO A SUITABLE LOCATION, AND BE DISPOSED OF IN A PROPER AND LEGAL MANNER AT THE EXPENSE OF THE CONTRACTOR.

10. CONTRACTOR SHALL SCHEDULE GRAVITY PIPELINE WORK AHEAD OF OTHER UNDERGROUND CONDUIT CONSTRUCTION.

11. STORM DRAIN WORK SHALL BEGIN AT THE LOWEST POINT OF DISCHARGE AND PROCEED UPSTREAM.

12. ALL WORK INVOLVING EXCAVATION, INCLUDING THAT FOR WATER, SEWER, STORM DRAIN AND UTILITY CONDUITS AND ALL SERVICE CONNECTIONS AND METER BOXES (NOT PERMITTED IN DRIVEWAYS) SHALL BE COMPLETED AND OBSERVED AND APPROVED BY THE AGENCY HAVING JURISDICTION AND THE STRUCTURAL BACKFILL OBSERVED AND TESTED FOR COMPACTION BEFORE AGGREGATE BASE, PAVING AND OTHER PERMANENT SURFACE CONSTRUCTION MAY COMMENCE.

13. BEFORE BEGINNING WORK, CONTRACTOR SHALL DETERMINE OR VERIFY THE LOCATION AND INVERT ELEVATION OF ALL EXISTING WATER, SEWER, AND DRAINAGE STRUCTURES AND/OR CONDUITS TO BE JOINED BY NEW CONSTRUCTION.

    BEFORE BEGINNING WORK, CONTRACTOR SHALL DETERMINE OR VERIFY THE LOCATION AND DEPTH OF ALL EXISTING STRUCTURES AND/OR CONDUITS WHICH CROSS OR OTHERWISE MAY CONFLICT WITH NEW CONSTRUCTION. CONTRACTOR SHALL DETERMINE AND INSTALL FITTINGS, CONNECTORS, AND ADAPTERS REQUIRED TO CONNECT AT NO ADDITIONAL COST.

14. GROUNDWATER MAY BE ENCOUNTERED AT OR NEAR THE GROUND SURFACE. CONTRACTOR SHALL INSTALL DEWATERING SYSTEMS AS REQUIRED TO LOWER THE WATER LEVEL TO A MINIMUM OF 3 FEET BELOW THE BOTTOM OF EXCAVATIONS FOR ALL IMPROVEMENTS CONSTRUCTED FOR THIS PROJECT. CONTRACTOR IS RESPONSIBLE FOR ALL SITE DEWATERING. CONTRACTOR IS RESPONSIBLE FOR PROPER PERMITTING AND DISPOSAL OF DEWATERING WATER. ALL COSTS, IMPACTS OR FINES TO THE PROJECT FROM DEWATERING SHALL BE THE CONTRACTOR'S RESPONSIBILITY.

15. ALL CONSTRUCTION DETAILS ARE CONCEPTUAL AND SUBJECT TO REVIEW AND MODIFICATION DURING FINAL DEVELOPMENT PLANS APPROVAL PROCESS.

16. ALL PROPOSED DEVELOPMENT IMPROVEMENTS SHALL CONFORM TO THE CITY OF APOPKA LAND DEVELOPMENT CODE, ST, JOHNS RIVER WATER MANAGEMENT DISTRICT, FLORIDA DEPARTMENT OF TRANSPORTATION AND CENTRAL FLORIDA EXPRESSWAY AUTHORITY (CFX) REQUIREMENTS

17. ONSITE UTILITIES ARE SHOWN AS CONCEPTUAL ONLY, FINAL PLACEMENT WILL BE DETERMINED DURING THE FINAL DEVELOPMENT PLAN PROCESS.

18. ALL FINAL UTILITIES (ELECTRICAL, CABLE TV, GAS, TELEPHONE, ETC) SHALL BE INSTALLED UNDERGROUND. APPURTENANCES TO THESE SYSTEMS THAT ARE REQUIRED TO BE ABOVE GROUND SHALL BE EFFECTIVELY SCREENED.

19. SANITARY WASTE SERVICES WILL BE PROVIDED BY CITY OF APOPKA.

20. THE SITE IS LOCATED IN ZONE X FLOOD HAZARD ZONE, OUTSIDE OF THE 100 YEAR FLOODPLAN PER FEMA/FIRM MAP. ORANGE COUNTY, FLORIDA, COMMUNITY PANEL NUMBER 12095C 0125E, REVISED SEPTEMBER 25, 2009.

21. NO KNOWN EXISTING HISTORICAL STRUCTURES OR OTHER CULTURALLY SIGNIFICANCE ARTIFACTS WERE OBSERVED ONSITE.

22. PROJECT LANDSCAPING WILL MEET STANDARDS SET FORTH IN SECTION 2.09.9(D)(21) OF THE CITY OF APOPKA LAND DEVELOPMENT CODE, LANDSCAPE AND IRRIGATION SHALL BE IN COMPLIANCE WITH "WATER WISE ORDINANCE 2069". UNLESS OTHERWISE APPROVED BY THE CITY.

23. PROJECT LIGHTNING WILL MEET STANDARDS SET FORTH IN THE CITY OF APOPKA LAND DEVELOPMENT CODE (LDC) AND THE CITY'S DEVELOPMENT DESIGN GUIDELINES, UNLESS OTHERWISE APPROVED BY THE CITY. ALL LIGHT POLES (PARKING AND PEDESTRIAN) SHALL BE DECORATIVE IN THE STYLE WITH BASE FLUSH WITH GROUND (NO BOLLARD MOUNTED LIGHTS). PEDESTRIAN SCALED LIGHTING SHALL BE PROVIDED ALONG ALL SIDEWALK LEADING TO THE BUILDING AND ALONG THE CONCRETE SHARED PATHS.

24. PROJECT SIGNAGE SHALL BE PROVIDED IN ACCORDANCE WITH THE MASTER SIGN PLAN APPROVED BY THE CITY OF APOPKA WITH THE PUD APPROVAL.

25. FIRE RESCUE WILL BE PROVIDED BY THE CITY OF APOPKA FIRE DEPARTMENT, THE FIRE DEPARTMENT STATION 4 IS APPROXIMATELY 1.3 MILES FROM THE DEVELOPMENT, AT 2750 W. ORANGE AVE, APOPKA FL. ONSITE FIRE PROTECTION WILL BE PROVIDED WITH A LOOPED WATER DISTRIBUTION SYSTEM WITH FIRE HYDRANTS, ADDITIONALLY THE BUILDING WILL BE PROTECTED WITH AN APPROVED AUTOMATIC FIRE SPRINKLE SYSTEM, FDC's AND REMOTE MONITORING ALARM SYSTEM. FIRE PROTECTION SERVICES WILL BE IN COMPLIANCE WITH THE ADOPTED CITY OF APOPKA FIRE DEPARTMENT STANDARDS AND REQUIREMENTS.

26. NO OUTSIDE STORAGE OF PARTS, SUPPLIES, MATERIALS, GOOD OR EQUIPMENT SHALL BE ALLOWED, UNLESS SCREENED FROM VIEW.

27. ALL ROOF TOP EQUIPMENT SHALL BE COMPLETELY SCREENED FROM ADJACENT PROPERTY AND PUBLIC RIGHT-OF-WAYS.

28. IF FINAL DEVELOPMENT PLAN ASSOCIATED WITH THIS MAJOR DEVELOPMENT PLAN HAS NOT BEEN APPROVED BY THE CITY WITHIN THREE (3) YEARS AFTER APPROVAL, THEN THE APPROVAL OF THIS MAJOR DEVELOPMENT PLAN WILL EXPIRE.

29. SCHOOL:
    WITHIN THE MULTI-FAMILY PORTION (APARTMENT) (312 UNITS x 0.281 STUDENTS/ UNIT)= 88 STUDENTS.

    WITHIN THE COMMERCIAL DEVELOPMENT NO RESIDENTIAL USES ARE PROPOSED. PUBLIC SCHOOL CAPACITY.

30. FOLLOWING LIST OF PERMITS, BUT NOT LIMITED TO, ARE REQUIRED PRIOR TO COMMENCEMENT OF CONSTRUCTION:
    - CITY OP APOPKA FINAL DEVELOPMENT PLAN APPROVAL
    - FLORIDA DEPARTMENT OF TRANSPIRATION RIGHT-OF-WAY UTILITY PERMIT
    - CENTRAL FLORIDA EXPRESSWAY AUTHORITY (CFX) DRAINAGE CONNECTION PERMIT
    - FDEP POTABLE WATER SYSTEM DISTRIBUTION PERMIT
    - FDEP WASTEWATER COLLECTION SYSTEM PERMIT
    - ST, JOHNS RIVER WATER MANAGEMENT ERP,
    - NPDES PERMITTING (INCLUDING NOI AND NOT)

31. PRIOR TO COMMENCING CLEARING AND GRADING ACTIVITIES, A PERMIT/LETTER FROM THE FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION MUST B RECEIVED, WITH A COPY FORWARDED TO THE CITY OF APOPKA, FOR APPROVAL OF GOPHER TORTOISE SURVEY AND ANY REQUIRED REMEDIAL ACTIVITY,

32. A BI-DIRECTIONAL AMPLIFIER (BDA/DAS) SYSTEM SURVEY WILL BE REQUIRED DURING CONSTRUCTION ACCORDANCE WITH THE CITY OF APOPKA FORE DEPARTMENT REQUIREMENTS.

GRADING NOTES:

1. ALL GRADING SHALL BE IN CONFORMANCE WITH THESE PLANS, CITY OF APOPKA CONSTRUCTION STANDARDS, THERETO AND WITH THE RECOMMENDATIONS AND REFERENCED STANDARD GRADING SPECIFICATIONS CONTAINED IN THE GEOTECHNICAL REPORT(S) REFERENCED IN THE GENERAL NOTES ON THESE PLANS.

2. CONTRACTOR SHALL EMPLOY ALL LABOR, EQUIPMENT AND METHODS REQUIRED TO PREVENT HIS OPERATIONS FROM PRODUCING DUST IN AMOUNTS DAMAGING TO PROPERTY, CULTIVATED VEGETATION AND DOMESTIC ANIMALS OR CAUSING A HAZARD TO VEHICULAR TRAFFIC OR CAUSING A NUISANCE TO PERSONS OCCUPYING BUILDINGS, IN THE VICINITY OF THE JOB SITE. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE CAUSED BY DUST RESULTING FROM HIS OPERATIONS. DUST ABATEMENT MEASURES SHALL BE CONTINUED UNTIL RELIEF IS GRANTED BY THE INSPECTOR.

3. AREAS TO BE GRADED IN ACCORDANCE WITH THE GRADING AND CLEARING PLANS, THE GRADING, PAVING, AND DRAINAGE PLAN, SITE SHALL BE CLEARED OF ALL VEGETATION (EXCEPT TREES INDICATED TO REMAIN), INCLUDING ROOTS AND ROOT STRUCTURES, OTHER ORGANIC MATERIAL, DEBRIS, NON-COMPLYING FILL, AND OTHER MATERIAL UNSUITABLE FOR SUPPORT OF FILL AND/OR PROPOSED IMPROVEMENTS.

4. BEFORE BEGINNING WORK REQUIRING EXPORTING OR IMPORTING OF MATERIALS, THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE CITY AND EOR FOR HAUL ROUTES USED AND METHODS PROVIDED TO MINIMIZE THE DEPOSIT OF SOILS ON PUBLIC ROADS. THE CITY SHALL MONITOR THIS REQUIREMENT WITH THE CONTRACTOR. CONTRACTOR SHALL IMMEDIATELY CLEAN UP ALL SPILLS AND TRACKING.

5. UNSUITABLE SOILS ENCOUNTERED DURING GRADING SHALL BE EXCAVATED AND REPLACED.

   OVERWET AND/OR PUMPING AREAS ENCOUNTERED DURING GRADING SHALL BE REVIEWED FOR CORRECTIVE MEASURES BY THE CITY AND EOR. CONTRACTOR IS RESPONSIBLE FOR DRYING OR WETTING SOIL AS REQUIRED TO OBTAIN OPTIMUM WATER CONTENT FOR COMPACTION. ALL COST FOR MOISTURE CONDITIONING SOIL SHALL BE AT THE SOLE EXPENSE OF THE CONTRACTOR.

6. FILL MATERIAL SHALL BE SPREAD IN LIFTS NOT EXCEEDING 12-INCHES IN LOOSE THICKNESS, BE MOISTENED OR DRIED AS REQUIRED AND BE COMPACTED TO THE MINIMUM RELATIVE COMPACTION. THINNER LIFTS MAY BE NECESSARY TO ACHIEVE THE REQUIRED MINIMUM COMPACTION.

7. FILL AND BACKFILL MATERIAL SHALL BE COMPACTED AT LEAST TO THE SPECIFIED RELATIVE COMPACTION BUT IN NO CASE TO LESS THAN 95% OF MAXIMUM DENSITY, DETERMINED IN CONFORMANCE WITH AASHTO T180 AND T 99, LATEST REVISION. SOME AREAS REQUIRE COMPACTION TO GREATER DENSITY AS CALLED FOR ON THESE PLANS OR THE AGENCY HAVING JURISDCTION.

8. FINISH CUT SLOPES, FILL SLOPES AND COMBINATION CUT AND FILL SLOPES SHALL NOT EXCEED A GRADE OF 4 HORIZONTAL TO 1 VERTICAL UNLESS SPECIFICALLY CALLED FOR ON THESE PLANS. LOWER POND SLOPES AND DRAINAGE DITCHES CAN BE EXCAVATED TO 2 HORIZONTALS TO 1 VERTICAL, WHERE CALLED FOR ON THE PLANS OR APPROVED IN WRITING IN ADVANCE OF CONSTRUCTION.

9. ALL GRADED AREAS SHALL BE PLANTED IN CONFORMANCE WITH THE APPROVED LANDSCAPING PLAN, IF APPLICABLE AND SHALL OTHERWISE BE PLANTED WITH SOD OR PLANTINGS AS APPROVED BY THE CITY AND EOR AND SHALL BE DENSE AND GROWING PRIOR TO FINAL INSPECTION.

10. IF NOT DIMENSIONED, LOCATION OF FINISH GRADE ELEVATIONS AND FEATURES SUCH AS SWALES, RIDGE LINES, ETC. SHALL BE DETERMINED BY SCALE FROM KNOWN POINTS SHOWN ON THE PLANS. UNIFORM GRADIENTS OR VERTICAL CURVES, AS APPROPRIATE, SHALL BE ASSUMED BETWEEN CONTROL ELEVATIONS SHOWN ON THE PLANS.

11. PLAN ELEVATIONS SHOWN ON SOIL AND LANDSCAPED AREAS ARE FINISH GRADE (FINISH SURFACE) ELEVATIONS INTENDED TO ESTABLISH FINAL SURFACE DRAINAGE CONTROL FOR THESE AREAS. DURING GRADING OPERATIONS, THICKNESSES SPECIFIED BY LANDSCAPE ARCHITECT FOR TURF, WOOD CHIPS, MULCH, ETC. SHALL BE SUBTRACTED FROM THESE ELEVATIONS TO ESTABLISH FINISH SOIL GRADE.

12. PLAN ELEVATIONS SHOWN ON WALKWAYS, RAMPS, STEPS AND OTHER HARDSCAPE ARE INTENDED TO ESTABLISH GRADING AND SURFACE DRAINAGE CONTROL FOR THESE IMPROVEMENTS. IT SHALL BE CONTRACTOR'S RESPONSIBILITY TO PERFORM DETAILED LAYOUT FOR AND TO CONSTRUCT WALKWAYS, RAMPS, STEPS, AND OTHER HARDSCAPE IN CONFORMANCE WITH ALL BUILDING CODE AND ACCESSIBILITY REQUIREMENTS INCLUDING THOSE FOR DIMENSIONING, SLOPE, CROSS-SLOPE, SURFACE TEXTURE, WARNING CURBS, AND HAND-RAILS.

13. SITE FINISH GRADING SHALL BE COMPLETED AND CONFIRMED BY SURVEY TO CONFORM TO APPROVED PLANS AND SPECIFICATIONS BEFORE LANDSCAPING AND IRRIGATION CONSTRUCTION CAN BEGIN.

    LANDSCAPE CONTRACTOR SHALL REMOVE FROM THE SITE AND PROPERLY DISPOSE OF ALL EARTH SPOIL FROM PLANT HOLES AND PIPE TRENCHES. EXCESS SOIL AND/OR MULCH SHALL NOT BE PLACED OR SPREAD AT THE SITE, BUT REMOVED AND PROPERLY DISPOSED.

14. PAVEMENT STRUCTURAL SECTIONS SHALL BE AS SHOWN ON THESE PLANS.

15. THE UPPER 12 INCHES OF FILL OR NATIVE SOIL BELOW THE BOTTOM OF BASE OR SUBBASE COURSE (BELOW SUBGRADE) IN PAVEMENT AREAS, AND THE UPPER 6 INCHES OF FILL OR NATIVE SOIL BELOW THE CONCRETE IN WALKWAY AREAS SHALL BE COMPACTED TO A MINIMUM OF 98% OF MAXIMUM DENSITY.

16. BEFORE PLACEMENT OF BASE OR SUBBASE MATERIAL IN PAVEMENT AREAS, THE SUBGRADE SOIL SHALL BE DENSITY TESTED BY THE CONTRACTOR AND REVIEWED BY THE EOR.

17. SURFACE SOILS CONTAINING ORGANIC MATERIAL MAY BE STOCKPILED FOR FUTURE USE BY THE LANDSCAPE CONTRACTOR; HOWEVER, THIS OPERATION SHALL BE COORDINATED SO THAT UPON COMPLETION OF THE PROJECT, ALL EXCESS MATERIAL IS REMOVED FROM THE JOB SITE AND FINISH GRADES ARE AS CALLED FOR ON THE PLANS.

18. QUALITY REVIEW AND REPORTING REQUIREMENTS

    A. CONTRACTOR SHALL CONDUCT STRINGLINE TESTING OF SUBGRADE, BASE, AND FINAL ASPHALT IN CONSTRUCTION WITH THE EOR.

19. BEST MANAGEMENT PRACTICES FOR CONSTRUCTION ACTIVITIES: ERODED SEDIMENTS AND OTHER POLLUTANTS MUST BE RETAINED ONSITE AND MAY NOT BE TRANSPORTED FROM THE SITE VIA SHEET FLOWS, SWALES, AREA DRAINS, NATURAL DRAINAGE COURSE, OR WIND. STOCKPILES OF EARTH AND OTHER CONSTRUCTION RELATED MATERIALS MUST BE PROTECTED FROM BEING TRANSPORTED FROM THE SITE BY THE FORCES OF WIND OR WATER. FUELS, OILS, SOLVENTS, AND OTHER TOXIC MATERIALS MUST BE STORED IN ACCORDANCE WITH THEIR LISTING AND ARE NOT TO CONTAMINATE THE SOIL AND SURFACE WATERS. ALL APPROVED STORAGE CONTAINERS ARE TO BE PROTECTED FROM THE WEATHER. SPILLS MAY NOT BE WASHED INTO THE DRAINAGE SYSTEM. EXCESS OR WASTE CONCRETE MAY NOT BE WASHED INTO PUBLIC WAY OR ANY OTHER DRAINAGE SYSTEM. PROVISIONS MUST BE MADE TO RETAIN CONCRETE WASTES ONSITE UNTIL THEY CAN BE DISPOSED AS A SOLID WASTE. TRASH AND CONSTRUCTION RELATED SOLID WASTE MUST BE DEPOSITED INTO A COVERED WASTE RECEPTACLE TO PREVENT CONTAMINATION OF RAINWATER AND DISPERSAL BY WIND. SEDIMENTS AND OTHER MATERIAL MAY NOT BE TRACKED FROM THE SITE BY VEHICLE TRAFFIC. THE CONSTRUCTION ENTRANCE ROADWAYS MUST BE STABILIZED SO AS TO INHIBIT SEDIMENTS FROM BEING DEPOSITED INTO THE PUBLIC WAY. ACCIDENTAL DEPOSITION MUST BE SWEPT UP IMMEDIATELY AND MAY NOT BE WASHED DOWN BY RAIN OR OTHER MEANS. ANY SLOPES WITH DISTURBED SOILS OR DENUDED OF VEGETATION MUST BE STABILIZED SO AS TO MINIMIZE EROSION BY WIND AND WATER.

20. CONTRACTOR IS REQUIRED TO REVIEW TOPOGRAPHIC MAPPING AND CONFIRM EXISTING TOPOGRAPHIC MAPPING IS CONSISTENT WITH THE CONDITION OF THE SITE ENCOUNTERED BY THE CONTRACTOR, DISCREPANCIES FOUND WITH THE EXISTING TOPOGRAPHIC MAPPING MUST BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO START OF ANY GRADING. ONCE GRADING COMMENCES, THE CONTRACTOR HAS ACCEPTED THE EXISTING TOPOGRAPHIC MAPPING AS ACCURATE AND REPRESENTATIVE OF THE EXISTING CONDITIONS ASSUMED BY THE CONTRACTOR.

STORM DRAIN NOTES:

1. ALL PUBLIC STORM DRA

DEVELOPMENT NOTES

1. ALL CONSTRUCTION DETAILS ARE CONCEPTUAL AND SUBJECT TO REVIEW AND MODIFICATION DURING THE FINAL DEVELOPMENT PLAN APPROVAL PROCESS.
2. ALL PROPOSED DEVELOPMENT IMPROVEMENTS SHALL CONFORM TO THE CITY OF APOPKA LAND DEVELOPMENT CODE AND ST. JOHNS RIVER WATER MANAGEMENT DISTRICT REQUIREMENTS.
3. THE DESIGN AND CONSTRUCTION OF STORMWATER MANAGEMENT SYSTEMS, WATER AND SEWER SYSTEMS, UTILITIES, AND EASEMENTS SHALL BE IN ACCORDANCE WITH THE CITY OF APOPKA CONSTRUCTION DESIGN STANDARDS MANUAL.
4. ONSITE UTILITIES ARE SHOWN AS CONCEPTUAL ONLY. FINAL PLACEMENT WILL BE DETERMINED DURING THE FINAL DEVELOPMENT PLAN PROCESS.
5. ALL PROPOSED UTILITIES (ELECTRICAL, CABLE TV, GAS, TELEPHONE, ETC.) SHALL BE INSTALLED UNDERGROUND. APPURTENANCES TO THESE SYSTEMS THAT ARE REQUIRED TO BE ABOVE GROUND SHALL BE EFFECTIVELY SCREENED.
6. SANITARY WASTE SERVICES WILL BE PROVIDED BY THE CITY OF APOPKA.
7. STORMWATER MANAGEMENT FACILITIES WILL BE PROVIDED FOR ONSITE, AND DESIGN WILL BE DETERMINED WITH THE FINAL DEVELOPMENT PLAN PROCESS.
8. THIS SITE IS LOCATED IN ZONE X (FLOOD HAZARD ZONE), OUTSIDE OF THE 100-YEAR FLOODPLAIN PER FEMA/FIRM MAP, ORANGE COUNTY, FLORIDA, COMMUNITY PANEL NO.12095C0125H, REVISED SEPTEMBER 24, 2021 AND COMMUNITY PANEL NO. 12095C0110H, REVISED SEPTEMBER 24, 2021.
9. PER USDA SOIL CONSERVATION SERVICE CLASSIFICATION SYSTEM, SOIL SURVEY MAPS AND ONSITE SOILS ARE SHOWN ON SHEET S1.0 (AERIAL, SOILS, AND FLUCCS).
10. NO EXISTING JURISDICTIONAL WETLANDS OR OTHER POTENTIAL ENVIRONMENTAL CONDITIONS WERE OBSERVED ONSITE, PER THE ECOLOGICAL ASSESSMENT REPORT PREPARED BY BIO-TECH CONSULTING, INC.
11. NO KNOWN EXISTING HISTORICAL STRUCTURES OR OTHER CULTURALLY SIGNIFICANT ARTIFACTS WERE OBSERVED ONSITE.
12. PROJECT LANDSCAPING WILL MEET STANDARDS SET FORTH IN SECTION 2.09.19(D)(21) OF THE CITY OF APOPKA LAND DEVELOPMENT CODE. LANDSCAPE AND IRRIGATION SHALL BE IN COMPLIANCE WITH "WATER WISE ORDINANCE 2069", UNLESS OTHERWISE APPROVED BY THE CITY.
13. PROJECT LIGHTING WILL MEET STANDARDS SET FORTH IN THE CITY OF APOPKA LAND DEVELOPMENT CODE (LDC) AND THE CITY'S DEVELOPMENT DESIGN GUIDELINES, UNLESS OTHERWISE APPROVED BY THE CITY. ALL LIGHT POLES (PARKING AND PEDESTRIAN) SHALL BE DECORATIVE IN STYLE WITH BASES FLUSH WITH THE GROUND (NO BOLLARD-MOUNTED LIGHTS). PEDESTRIAN-SCALED LIGHTING SHALL BE PROVIDED ALONG ALL SIDEWALKS LEADING TO BUILDINGS AND ALONG THE CONCRETE SHARED PATHS.
14. PROJECT SIGNAGE SHALL BE PROVIDED IN ACCORDANCE WITH THE MASTER SIGN PLAN APPROVED BY THE CITY OF APOPKA WITH THE PUD APPROVAL.
15. FOR PARCEL 5, TRASH COMPACTORS ARE PROVIDED FOR REFUSE COLLECTION. REFUSE WILL BE COLLECTED BY A LOCAL APPROVED FRANCHISE ON A WEEKLY BASIS.
16. FIRE RESCUE WILL BE PROVIDED BY THE CITY OF APOPKA FIRE DEPARTMENT. FIRE STATION 4 IS APPROXIMATELY 1.3 MILES FROM THE DEVELOPMENT AT 2750 W. ORANGE AVE, APOPKA, FL. ONSITE FIRE PROTECTION WILL BE PROVIDED WITH A LOOPED WATER DISTRIBUTION SYSTEM WITH FIRE HYDRANTS. ADDITIONALLY, BUILDINGS WILL BE PROTECTED WITH APPROVED AUTOMATIC FIRE SPRINKLER SYSTEMS, FDC'S, AND REMOTE MONITORING ALARM SYSTEMS. FIRE PROTECTION SERVICES WILL COMPLY WITH THE ADOPTED CITY OF APOPKA FIRE DEPARTMENT STANDARDS AND REQUIREMENTS.
17. NO OUTSIDE STORAGE OF PARTS, SUPPLIES, MATERIALS, GOODS, OR EQUIPMENT SHALL BE ALLOWED UNLESS SCREENED FROM VIEW.
18. ALL ROOFTOP EQUIPMENT SHALL BE COMPLETELY SCREENED FROM ADJACENT PROPERTY AND PUBLIC RIGHTS-OF-WAY.
19. SCHOOLS:
    – WITHIN THE COMMERCIAL DEVELOPMENT, NO RESIDENTIAL USES ARE PROPOSED. PUBLIC SCHOOL CAPACITY IS NOT REQUIRED.
20. THE FOLLOWING LIST OF PERMITS (BUT NOT LIMITED TO) ARE REQUIRED PRIOR TO COMMENCEMENT OF CONSTRUCTION:
    – CITY OF APOPKA FINAL DEVELOPMENT PLAN APPROVAL
    – FDEP POTABLE WATER SYSTEM DISTRIBUTION PERMIT
    – FDEP WASTEWATER COLLECTION SYSTEM PERMIT
    – ST. JOHNS RIVER WATER MANAGEMENT DISTRICT ENVIRONMENTAL RESOURCE PERMIT
    – NPDES PERMITTING (INCLUDING NOI AND NOT)
21. PRIOR TO COMMENCING CLEARING AND GRADING ACTIVITIES, A PERMIT/LETTER FROM THE FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION MUST BE RECEIVED—WITH A COPY FORWARDED TO THE CITY OF APOPKA—FOR APPROVAL OF A GOPHER TORTOISE SURVEY AND ANY REQUIRED REMEDIAL ACTIVITY.
22. A BI-DIRECTIONAL AMPLIFIER (BDA/DAS) SYSTEM SURVEY WILL BE REQUIRED DURING CONSTRUCTION IN ACCORDANCE WITH CITY OF APOPKA FIRE DEPARTMENT REQUIREMENTS.

CUMULATIVE DEVELOPMENT PROGRAM

PARCEL/TRACK	USE	ARE (AC)	IMPERVIOUS (AC)	IMP. %	PERVIOUS (AC)	PER. %	OWN AND MAINTAIN	NOTES
PARCEL 1	COMMERCIAL RETAIL	4.006	0.069	1.72	3.937	98.2	POA	
PARCEL 2	COMMERCIAL RETAIL	6.626	0.052	0.78	6.574	99.2	POA	
PARCEL 3	HOTEL, COMMERCIAL RETAIL	3.119	0.000	0.00	3.119	100.0	POA	
PARCEL 4	MULTI-FAMILY APARTMENTS	30.766	7.840	25.5	22.926	74.5	POA	
PARCEL 5	**FLEX SPACE**	**2.910**	**2.140**	**73.57**	**0.77**	**26.4**	**POA**	
PARCEL 6	YMCA, COMMERCIAL	3.034	0.000	0.0	3.034	100.0	POA	
PARCEL 7	ASSISTED LIVING FACILITIES	5.854	0.000	0.0	5.854	100.0	POA	
TRACT B	OPEN SPACE	0.100	0.000	0.0	0.1	100.0	POA	
TRACT C1	STORMWATER MANAGEMENT / OPEN SPACE	1.844	0.042	2.3	1.8020	97.7	CITY OWNED/ POA MAINTAINED	
TRACT C2	OPEN SPACE	0.326	0.006	1.8	0.32	98.2	CITY OWNED/ POA MAINTAINED	
TRACT D	STORMWATER MANAGEMENT / OPEN SPACE	1.959	0.000	0.0	1.959	100.0	POA	
TRACT E	STORMWATER MANAGEMENT / OPEN SPACE	1.397	0.000	0.0	1.397	100.0	POA	
TRACT F	OPEN SPACE	2.493	0.000	0.0	2.493	100.0	POA	
TRACT G	STORMWATER MANAGEMENT / OPEN SPACE	3.884	0.000	0.0	3.884	100.0	POA	
TRACT H	STORMWATER MANAGEMENT / OPEN SPACE	2.402	0.000	0.0	2.402	100.0	POA	
TRACT LS	SANITARY LIFT STATION	0.078	0.061	78.2	0.017	21.8	CITY	
FLORIDIAN TOWN CENTER R/W-SOUTHERN PORTION	CITY ROAD RIGHT-OF-WAY	1.445	1.206	83.5	0.239	16.5	CITY	
MAIN ENTRANCE OFF 429 CONNECTOR ROAD	CITY ROAD RIGHT-OF-WAY	0.308	0.204	66.2	0.104	33.8	CITY	
FLORIDIAN TOWN CENTER R/W - NORTHERN PORTION, SOUTHFORK AND KIOWA AVE R/W	CITY ROAD RIGHT-OF-WAY	4.031	1.970	48.9	2.061	51.1	CITY	
WILLIAMS FAMILY COURT R/W	CITY ROAD RIGHT-OF-WAY	0.257	0.157	61.1	0.1	38.9	CITY	
EXISTING SOUTHFORK ROAD R/W	CITY ROAD RIGHT-OF-WAY	0.790	0.424	53.7	0.366	46.3	CITY	
TOTALS (1)		77.727	14.171	18.2	63.458	81.8		

1. TOTAL LAND BEING DEVELOPED AS PART OF THIS PROJECT, THIS INCLUDES SOME LAND OWNED BY THE CITY OF APOPKA. TOTALS SHOWN ARE SITE WIDE ACCUMULATIVE NUMBERS
2. PERCENT FOR IMPERVIOUS AND PERVIOUS AREAS SHOWN TRACT BY TRACT

NOT FOR CONSTRUCTION

Bowman

Certificate of Authorization License No. 30462

Bowman Consulting Group Ltd
4450 W Eau Gallie Blvd.
Suite 144
Melbourne, FL 32934
Phone: (321) 255-5434
www.bowman.com

© 2024 Bowman Consulting Group Ltd

SITE DATA & DEVELOPMENT NOTES

MARRIOTT FAIRFIELD TOWNEPLACE SUITES

NWC OF STATE ROAD 429 & CONNECTOR RD

APOPKA, FLORIDA 33712

CITY OF APOPKA

ORANGE COUNTY

KYLE A. SHASTEEN LICENSE No. 88744 STATE OF FLORIDA PROFESSIONAL ENGINEER

PLAN STATUS	
DATE	DESCRIPTION

JG	JG	KAS
DESIGN	DRAWN	CHKD

SCALE	AS SHOWN
JOB No.	011589-01-001
DATE	9/22/2025

GENERAL NOTES

SHEET No. G1.1

RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY BOWMAN CONSULTING SHALL BE WITHOUT LIABILITY TO BOWMAN CONSULTING.
THIS PLAN, AS AN INSTRUMENT OF SERVICE, IS AND SHALL REMAIN THE PROPERTY OF BOWMAN CONSULTING. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION BY BOWMAN CONSULTING SHALL BE AT USER'S SOLE RISK AND WITHOUT LIABILITY TO BOWMAN CONSULTING. THIS PLAN WAS PREPARED, REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY BOWMAN CONSULTING SHALL BE WITHOUT LIABILITY TO BOWMAN CONSULTING.

Submitted: 2025
Submittal #2 - NOTES
FILE PATH: V:\011589-Donahue Farms\pd\1589-01-001 (RNO) - Marriott Fairfield TownePlace Suites\engineering\Planning\Plan\PRELIMINARY DEVELOPMENT PLANS\011589-01-001-PRELIMINARY DEVELOPMENT PLANS.dwg

LEGEND

EXISTING SOILS LIMITS, PER USDA NATURAL RESOURCES CONSERVATION SERVICE MAPS

SOILS LEGEND

46 TRAVARES FINE SAND, 0%-5% SLOPES

47 TRAVARES-MILLHOPPER FINE SAND, 0%-5% SLOPES

N

GRAPHIC SCALE

0 15' 30' 60'

(IN FEET)

SCALE: 1" = 30'

NOT FOR CONSTRUCTION

Bowman

Certificate of Authorization License No. 30462

Bowman Consulting Group Ltd
4450 W Eau Gallie Blvd.
Suite 144
Melbourne, FL 32934
Phone: (321) 255-5434
www.bowman.com

© 2024 Bowman Consulting Group Ltd

AERIAL, SOILS & FLUCCS

MARRIOTT FAIRFIELD TOWNEPLACE SUITES

NWC OF STATE ROAD 429 & CONNECTOR RD

APOPKA, FLORIDA 33712

CITY OF APOPKA

ORANGE COUNTY

KYLE A. SHASTEEN
LICENSE
No. 88744
STATE OF FLORIDA
PROFESSIONAL ENGINEER

PLAN STATUS

DATE	DESCRIPTION

JG	JG	KAS
DESIGN	DRAWN	CHKD

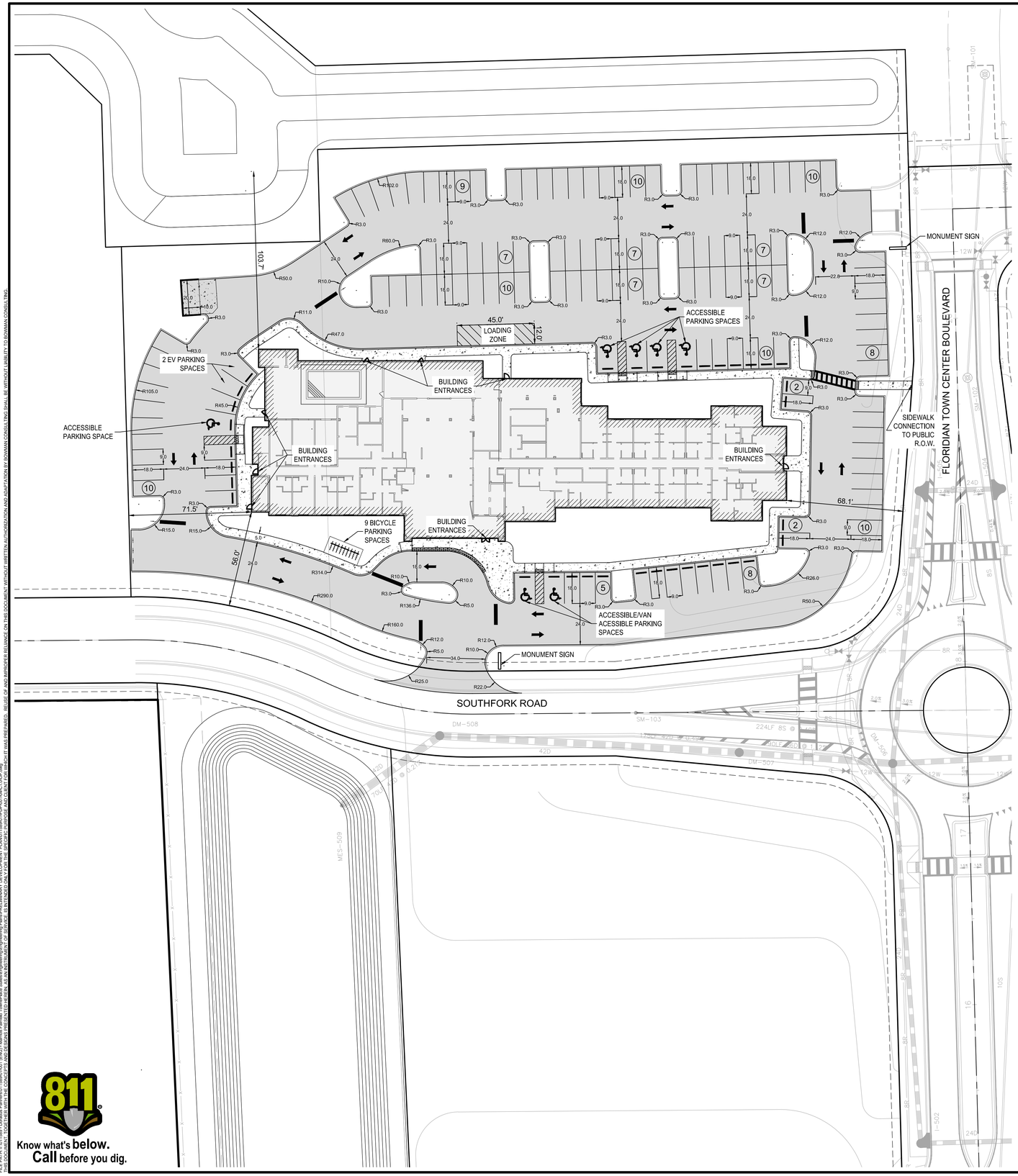
SCALE	AS SHOWN
JOB No.	011589-01-001
DATE	9/22/2025

AERIAL, SOILS & FLUCCS

SHEET No. S1.0

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

Submitted On: 2025
Submitted By: ASHAL SIDDIQUI
FILE PATH: V:\011589 - Dunkin Parmer\011589-01-001 (ENG) - Marriott Fairfield Townplace Suites\Engineering\Planning\Plan\PRELIMINARY DEVELOPMENT PLAN\011589-01-001-DEP-PLAN-01-25-01-21-SOIL.dwg
ACCESS TO AND USE OF THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY BOWMAN CONSULTING SHALL BE WITHOUT LIABILITY TO BOWMAN CONSULTING.



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

SITE DATA

THE PROPOSED PROJECT IS A HOTEL COMMERCIAL DEVELOPMENT OF EXISTING ABANDON AGRICULTURAL NURSERIES AND VACANT PROPERTY. IMPROVEMENTS WILL OCCUR IN ONE PHASE CONSISTING OF CONSTRUCTION OF BUILDING, PAVED PARKING AND DRIVE AISLES, SIDEWALKS, ASSOCIATED UTILITIES, AND LANDSCAPING.

CURRENT LOCAL JURISDICTION:	CITY OF APOPKA
CURRENT LAND USE CLASSIFICATION:	RURAL
CURRENT ZONING CLASSIFICATION:	PLANNED DEVELOPMENT (PD)
PROPOSED ZONING:	PLANNED DEVELOPMENT (PD)
FLOOD ZONE CLASSIFICATION:	ZONE X FIRM PANEL NO. : 12095C0125H & 12095C0110H DATED : 9/24/2024

SURROUDING ZONING:

DIRECTION	PROPERTY USE	LAND USE	ZONING	JURISDICTION
NORTH	RESIDENTIAL	SINGLE FAMILY ESTATE	RSF-1A	CITY OF APOPKA
EAST	SR429	STATE ROAD		FLORIDA DEPARTMENT OF TRANSPORTATION
SOUTH	RESIDENTIAL	MIXED USE-EAST SHORE-GATEWAY	MU-ES-GT	CITY OF APOPKA
WEST	RESIDENTIAL	SINGLE FAMILY	A-1	ORANGE COUNTY

FUTURE LAND USE (FLU) DESIGNATION:	COMM AND HDR
EXISTING LAND USE:	UNDEVELOPED LAND AND ABANDON NURSERY
PROPOSED LAND USE:	COMMERCIAL

BUILDING DATA

BUILDING SETBACKS:

DIRECTION	REQUIRED SETBACK	PROVIDED SETBACK
FRONT (SOUTH)	8' FEET	56.1 FEET
SIDE (WEST)	0' FEET	71.5 FEET
SIDE (EAST)	20 FEET	68.0 FEET
REAR (NORTH)	10' FEET	103.7 FEET

BUILDING HEIGHT (FINISHED FLOOR TO ROOF):	46' 6"
MAXIMUM BY CODE	50', 4 STORIES
EXISTING BUILDING	N/A
NO. OF STORIES	4

BUILDING HEIGHTS HAVE BEEN MEASURED PER FLORIDA BUILDING CODE AS MEAN HEIGHT ABOVE FINISH FLOOR.

PROPOSED PARKING DATA

EXISTING PARKING SPACES	NONE

HANDICAP PARKING SHALL COMPLY WITH THE FLORIDA ACCESSIBILITY CODE (FAC), SECTION 208.2 OUTLINES THE TOTAL REQUIRED HANDICAP PARKING SPACES ON TABLE 208.2. REQUIRING A MINIMUM OF X HC SPACES.

REQUIRED PARKING:
HOTEL OR MOTEL: 1/GUEST ROOM + 1/2 EMPLOYEES + 1/200 SF OF RESTAURANT SPACE OR MEETING OR BANQUET AREA

NUMBER OF GUEST ROOMS =	137 SPACES
NUMBER OF EMPLOYEES / 2 =	25 SPACES
SF OF REST/ MEET/ BANQUET ROOM / 200 SF =	3 SPACES
NUMBER OF ADA SPACES =	6 SPACES
TOTAL PARKING REQUIRED	165 SPACES
PROPOSED STANDARD SPACES 9'X18'	130 SPACES
PROPOSED ACCESSIBLE SPACES 12'X18'	7 SPACE
PROPOSED EV SPACES	0 SPACE
TOTAL PARKING PROVIDED	137 SPACES

ELECTRIC CAR PARKING TO BE EVENLY SPACED THROUGHOUT DEVELOPMENT AND FINAL LOCATIONS MAY BE SHIFTED OR ADJUSTED AT TIME OF FINAL ENGINEERING.

PROPOSED BICYCLE PARKING DATA

REQUIRED BICYCLE PARKING:	
SHORT TERM =	2 SPACES
LONG TERM =	7 SPACES
TOTAL PARKING REQUIRED	9 SPACES
PROPOSED BICYCLE PARKING:	
SHORT TERM =	2 SPACES
LONG TERM =	7 SPACES
TOTAL PARKING PROPOSED =	9 SPACES

PARKING NOTES

PARKING SHOWN CONTAINS 90° PARKING SPACES.
TYPICAL DIMENSIONS: PROPOSED SPACES: 9' X 18'
PROPOSED ONE WAY ENTRANCE DRIVE AISLES: 14'
CITY OF APOPKA ONE WAY REQUIRED DRIVE AISLES: 18'

GENERAL NOTES

1. FIVE FOOT WIDE CONCRETE SIDEWALKS ARE REQUIRED ON ALL STREET FRONTAGES. ANY DAMAGED, CRACKED, OR BROKEN SIDEWALKS OR CURBS SHALL BE REPLACED PRIOR TO FINAL COMPLETION.
2. THE OWNER IS RESPONSIBLE FOR MEETING ALL PROVISIONS OF ADA AND FLORIDA ACCESSIBILITY CODE.
3. FENCING SHALL MEET ALL CITY REQUIREMENTS FOR HEIGHT, TYPE, ETC. CHAIN LINK FENCING SHALL BE VINYL COATED PER CODE.
4. ALL CONSTRUCTION SHALL CONFORM TO CITY OF APOPKA STANDARDS, SPECIFICATIONS, AND ORDINANCES.
5. CITY OF APOPKA WILL INSPECT PRIVATE SITE IMPROVEMENTS ONLY TO THE EXTENT THAT THEY CONNECT TO CITY OWNED/MAINTAINED SYSTEMS (ROADWAYS, DRAINAGE, UTILITIES, ETC.). IT IS THE RESPONSIBILITY OF THE OWNER AND DESIGN ENGINEER TO ENSURE SPECIFICATIONS. THE CITY IS NOT RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF PRIVATELY OWNED SYSTEMS, TO INCLUDE, BUT NOT LIMITED TO, ROADWAYS, PARKING LOTS, DRAINAGE, STORMWATER PONDS, OR ON-SITE UTILITIES.
6. THE CONTRACTOR IS RESPONSIBLE FOR THE NOTIFICATION, LOCATION, AND PROTECTION OF ALL UTILITIES THAT MAY EXIST WITHIN THE PROJECT LIMITS.

TRANSPORTATION IMPACT TABLE

Hotel Trip Generation

Land Use	Land Use Code[1]	Intensity	Units	Time Period	Average Rate[1]	Development Trips[1] In	Out	Total
Proposed: Hotel	310	137	Rooms	AM [2]	0.46	35	28	63
				PM [2]	0.59	41	40	81

(1) Based on the Institute of Transportation Engineers Trip Generation, 11th Edition
(2) Peak Hour of Adjacent Street

SITE AREA CALCULATIONS

AREA	EXISTING	PROPOSED
TOTAL PROPERTY AREA	±126,700 SF (±2.91 AC)	±126,700 SF (±2.91 AC)
BUILDING	0 SF	±23,990 SF (±0.55 AC)
SIDEWALK / PAVEMENT	0 SF	±69,220 SF (±1.59 AC)
TOTAL IMPERVIOUS	0 SF	±93,210 SF (±2.14 AC)
POND	0 SF	0 SF
OPEN SPACE	±126,700 SF (±2.91 AC)	±33,490 SF (±0.77 AC)
TOTAL PERVIOUS	±126,700 SF (±2.91 AC)	±33,490 SF (±0.77 AC)

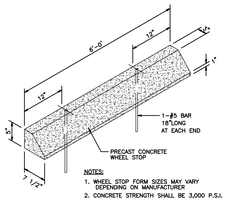
REQUIRED OPEN SPACE PER THE APPROVED PUD MASTER PLAN, A TOTAL OF 30% OPEN SPACE IS REQUIRED CUMULATIVELY OVER THE ENTIRE FLORIDIAN TOWN CENTER LAND DEVELOPMENT AREA. OPEN SPACE PROVIDED WITHIN PARCEL 5 AREA IS 33,490 SF (0.77 ACRES).

IMPERVIOUS AREA: MAXIMUM ALLOWABLE IMPERVIOUS SURFACE RATIO 80% FOR PARCEL 5.

MAXIMUM ALLOWED: (2.91 AC * 80%) = 2.33 ACRES

PROPOSED LEGEND

- PROPERTY LINE
- 6' OPAQUE FENCE
- 4' DECORATIVE FENCE
- KNEE WALL
- HEAVY-DUTY CONCRETE PAVEMENT
- CONCRETE SIDEWALK
- STANDARD-DUTY ASPHALT PAVEMENT



WHEEL STOP DETAIL

N

GRAPHIC SCALE
0 15' 30' 60'
(IN FEET)
SCALE: 1" = 30'

NOT FOR CONSTRUCTION

Bowman
Certificate of Authorization License No. 30462
Bowman Consulting Group Ltd
4450 W Eau Gallie Blvd.
Suite 144
Melbourne, FL 32934
Phone: (321) 255-5434
www.bowman.com
© 2024 Bowman Consulting Group Ltd

DEVELOPMENT PLAN
MARRIOTT FAIRFIELD TOWNEPLACE SUITES
NWC OF STATE ROAD 429 & CONNECTOR RD
APOPKA, FLORIDA 33712
CITY OF APOPKA ORANGE COUNTY

KYLE A. SHASTEEN LICENSE No. 88744 STATE OF FLORIDA PROFESSIONAL ENGINEER

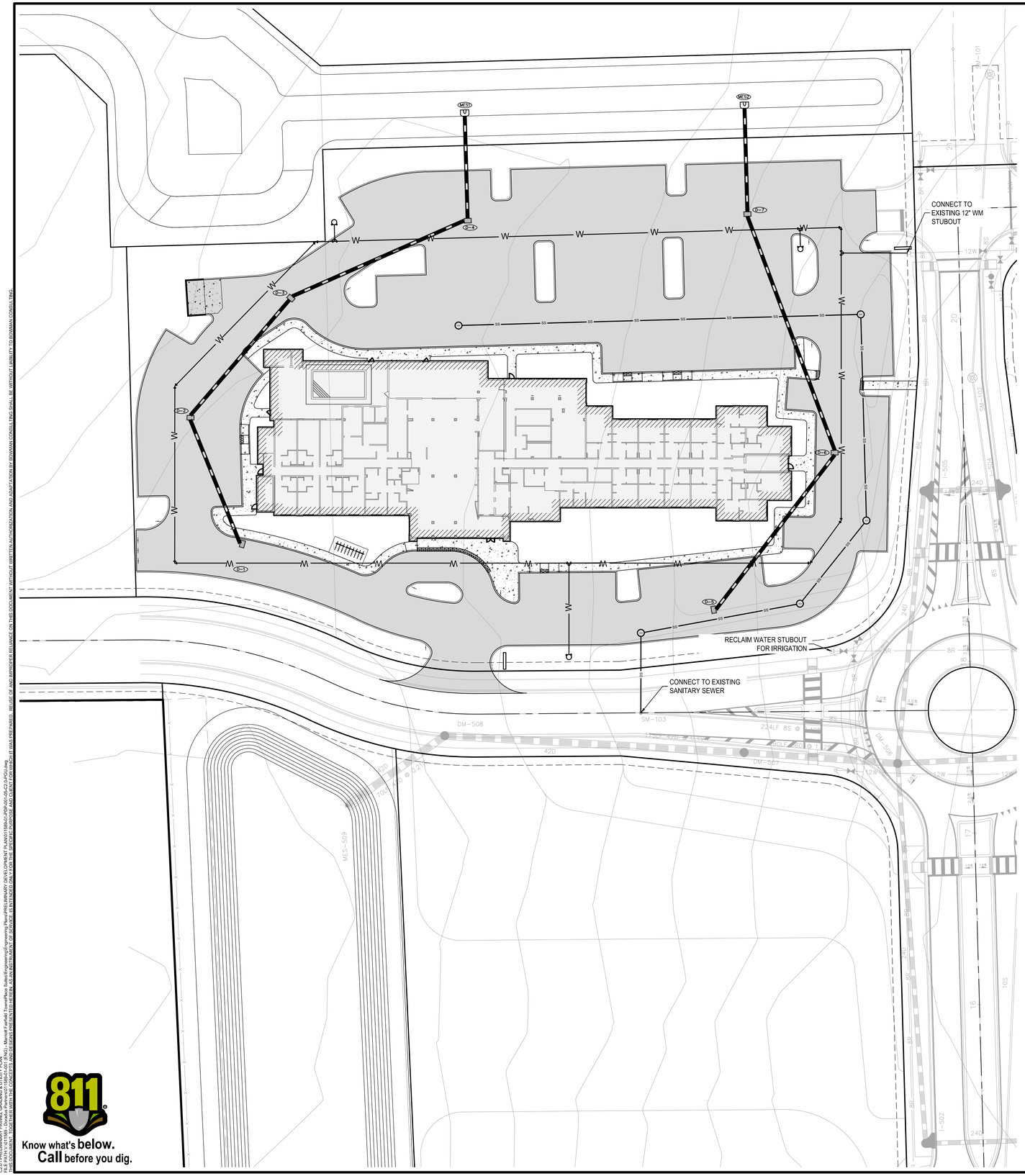
PLAN STATUS

DATE	DESCRIPTION

JG	JG	KAS
DESIGN	DRAWN	CHKD
SCALE	AS SHOWN	
JOB No.	011589-01-001	
DATE	9/22/2025	
DEVELOPMENT PLAN		
SHEET No.	C1.0	

THIS DOCUMENT, AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF BOWMAN CONSULTING GROUP, LTD. AND SHALL NOT BE REPRODUCED OR COPIED, IN WHOLE OR IN PART. IT SHALL NOT BE USED FOR ANY PROJECT OTHER THAN THE SPECIFIC PROJECT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY BOWMAN CONSULTING SHALL BE WITHOUT LIABILITY TO BOWMAN CONSULTING.

September 22, 2025
Civil - SITE CONCEPT PLAN
FILE PATH: I:\011589 - Double Pennant\1 Design\01 Civil\Drawing Files\PRELIMINARY SITE CONCEPT PLAN\11589-01SP-A01-SITE CONCEPT PLAN.dwg
Xrefs: 11589-01SP-A01-SITE CONCEPT PLAN.dwg, 11589-01SP-A01-SITE CONCEPT PLAN.dwg



PROPOSED LEGEND

- PROPERTY LINE
- WATER LINE
- SEWER LINE
- DRAINAGE
- HEAVY-DUTY CONCRETE PAVEMENT
- CONCRETE SIDEWALK
- STANDARD-DUTY ASPHALT PAVEMENT

GRAPHIC SCALE
0 15' 30' 60'
(IN FEET)
SCALE: 1" = 30'

NOT FOR CONSTRUCTION

Bowman

Certificate of Authorization License No. 30462

Bowman Consulting Group Ltd
4450 W Eau Gallie Blvd.
Suite 144
Melbourne, FL 32934
Phone: (321) 255-5434
www.bowman.com

© 2024 Bowman Consulting Group Ltd

PRELIMINARY PAVING, GRADING & UTILITY PLAN

MARRIOTT FAIRFIELD TOWNEPLACE SUITES

NWC OF STATE ROAD 429 & CONNECTOR RD
APOPKA, FLORIDA 33712

CITY OF APOPKA

ORANGE COUNTY

KYLE A. SHASTEEN
LICENSE
No. 88744
STATE OF FLORIDA
PROFESSIONAL ENGINEER

PLAN STATUS

DATE	DESCRIPTION

JG	JG	KAS
DESIGN	DRAWN	CHKD

SCALE	AS SHOWN
JOB No.	011589-01-001
DATE	9/22/2025

PRELIMINARY PAVING, GRADING & UTILITY PLAN

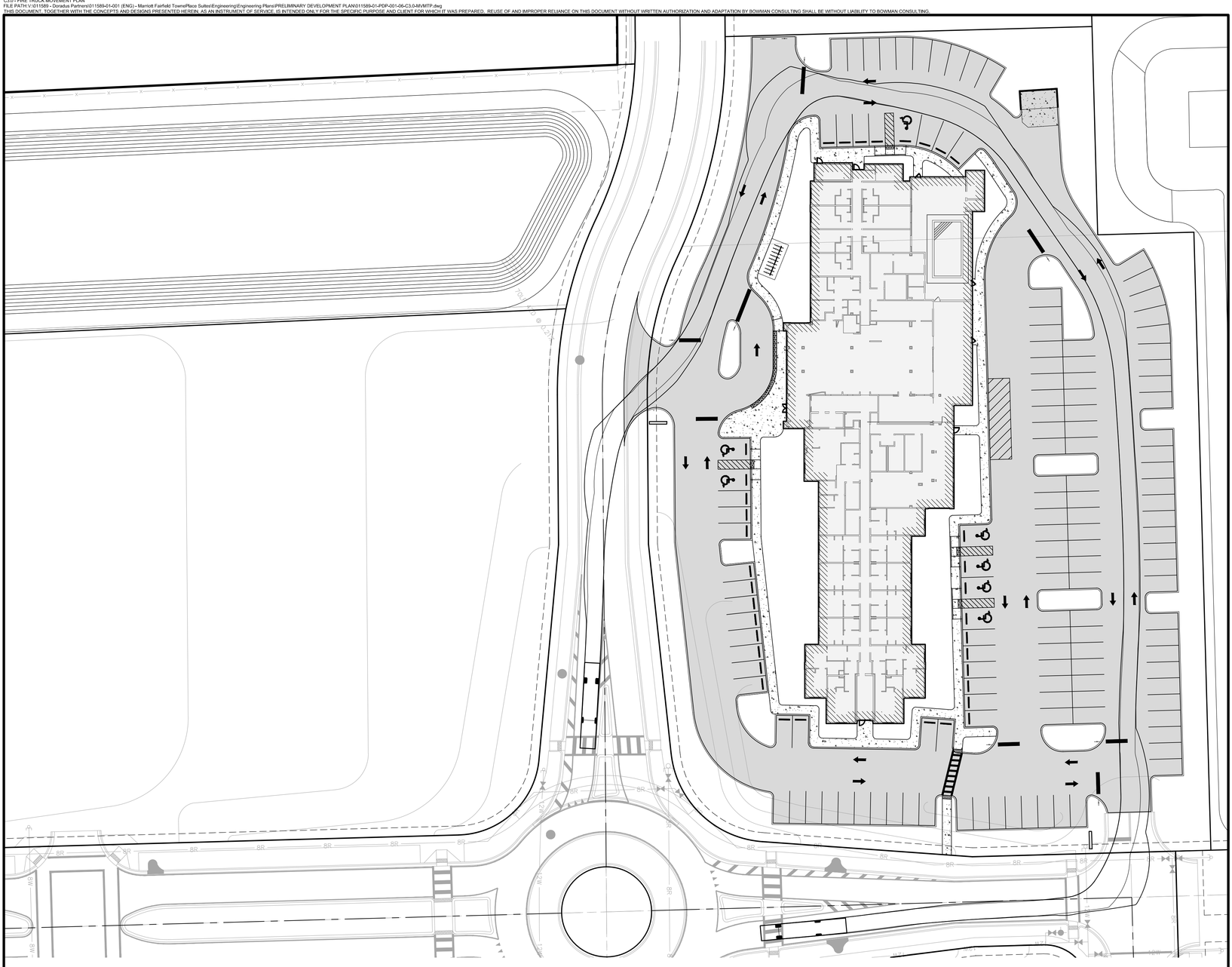
SHEET No. C2.0

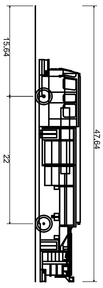
811 Know what's below. Call before you dig.

ANY USE OF OR RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY BOWMAN CONSULTING SHALL BE WITHOUT LIABILITY TO BOWMAN CONSULTING.

Submitted On: 9/22/2025
Drawn By: JG
Checked By: KAS
Plot Date: 9/22/2025 - 2:40:29 PM
File Path: V:\011589-01-001 - Marriott Fairfield Townplace Suites\Engineering\Drawings\Plans\PRELIMINARY DEVELOPMENT PLANS\011589-01-001 - PRELIMINARY PAVING, GRADING & UTILITY PLAN.dwg

THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY BOWMAN CONSULTING SHALL BE WITHOUT LIABILITY TO BOWMAN CONSULTING.





FIRE TRUCK

APOPKA COBRA	
Overall Length	47.640ft
Overall Width	8.410ft
Overall Body Height	7.745ft
Min Body Ground Clearance	0.665ft
Track Width	8.000ft
Lock-to-lock time	5.00s
Max Wheel Angle	46.00°

NOT FOR CONSTRUCTION

GRAPHIC SCALE
(IN FEET)
SCALE: 1" = 30'
0 15' 30' 60'

N

PLAN STATUS

DATE	DESCRIPTION

KYLE A. SHASTEEN
No. 88744
STATE OF FLORIDA
PROFESSIONAL ENGINEER

FIRE TRUCK MOVEMENT PLAN

MARRIOTT FAIRFIELD TOWNEPLACE SUITES

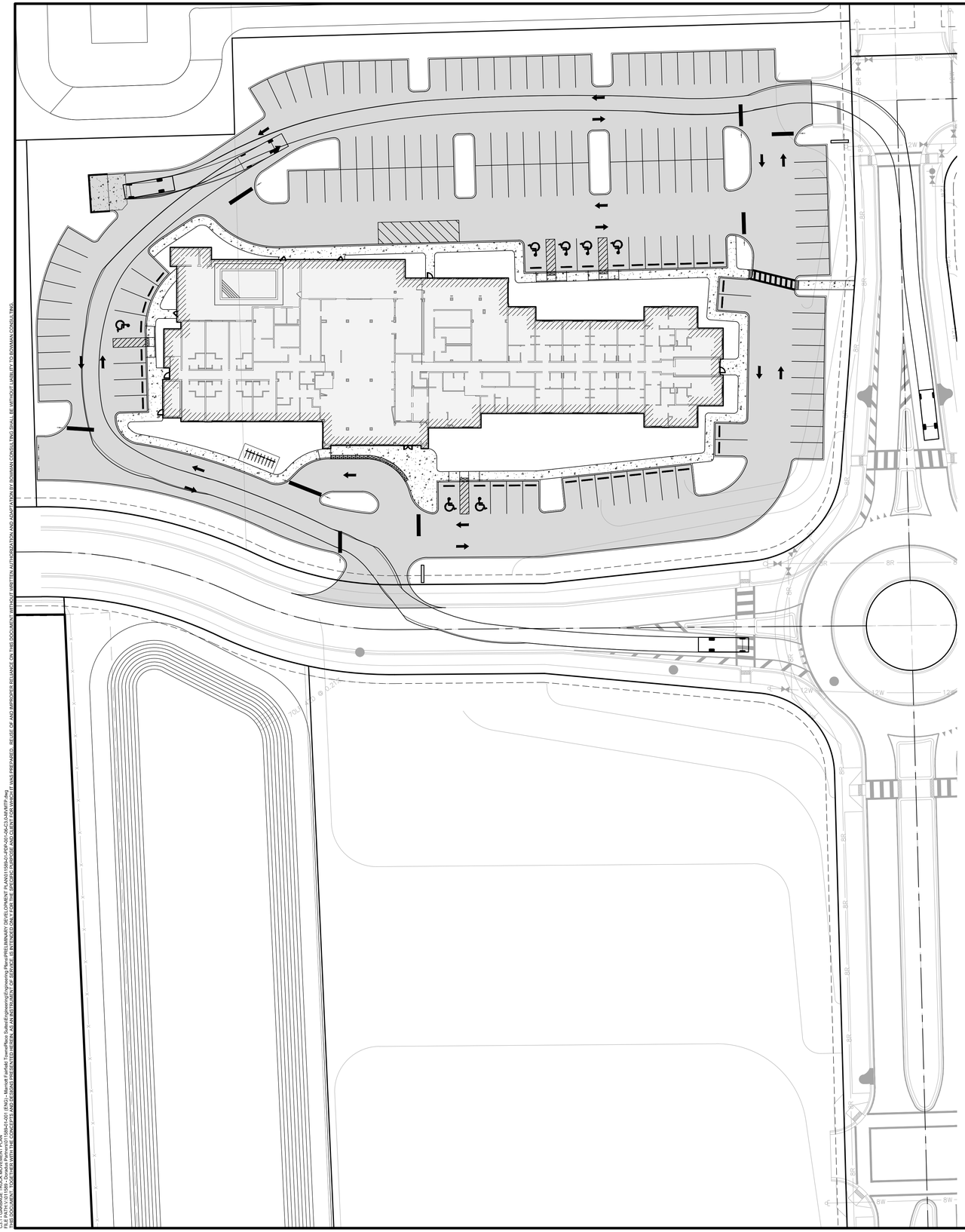
NWC OF STATE ROAD 429 & CONNECTOR RD
APOPKA, FLORIDA 33712

CITY OF APOPKA ORANGE COUNTY

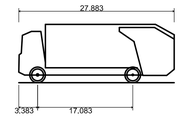
Bowman Consulting Group Ltd
4450 W Eau Gallie Blvd.
Suite 144
Melbourne, FL 32934
Phone: (321) 255-5434
www.bowman.com
© 2024 Bowman Consulting Group Ltd

Bowman
Certificate of Authorization License No. 30462

SHEET No.	C3.0
FIRE TRUCK MOVEMENT PLAN	
DATE	9/22/2025
JOB No.	011589-01-001
SCALE	AS SHOWN
DESIGN	JG
DRAWN	JG
CHKD	KAS



GARBAGE TRUCK



Hino 338 M + Wayne Royal GT14 Refuse Truck

Overall Length	27.883ft
Overall Width	8.042ft
Overall Body Height	10.488ft
Min Body Ground Clearance	1.318ft
Track Width	8.042ft
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	27.400ft

N

GRAPHIC SCALE

0 15' 30' 60'

(IN FEET)

SCALE: 1" = 30'

NOT FOR CONSTRUCTION

Bowman

Certificate of Authorization License No. 30462

Bowman Consulting Group Ltd
4450 W Eau Gallie Blvd.
Suite 144
Melbourne, FL 32934
Phone: (321) 255-5434
www.bowman.com

© 2024 Bowman Consulting Group Ltd

GARBAGE TRUCK MOVEMENT PLAN

MARRIOTT FAIRFIELD TOWNEPLACE SUITES

NWC OF STATE ROAD 429 & CONNECTOR RD

APOPKA, FLORIDA 33712

CITY OF APOPKA

ORANGE COUNTY

KYLE A. SHASTEEN
LICENSE
No. 88744
STATE OF FLORIDA
PROFESSIONAL ENGINEER

PLAN STATUS

DATE	DESCRIPTION

JG	JG	KAS
DESIGN	DRAWN	CHKD

SCALE	AS SHOWN
JOB No.	011589-01-001
DATE	9/22/2025

GARBAGE TRUCK MOVEMENT PLAN

SHEET No. C3.1

September 22, 2025
Civil3D 2025
FILE PATH: P:\011589 - Dakota Partners\01 ENGINEERING\Engineering Plans\PRELIMINARY DEVELOPMENT PLANS\01 DEMO\011589-01-GRGP-01-DEMO.dwg
THIS DOCUMENT, WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY BOWMAN CONSULTING, SHALL BE WITHOUT LIABILITY TO BOWMAN CONSULTING.

THIS DOCUMENT WAS PREPARED BY BOWMAN CONSULTING. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY BOWMAN CONSULTING SHALL BE WITHOUT LIABILITY TO BOWMAN CONSULTING.

NOT FOR CONSTRUCTION

Bowman

Certificate of Authorization License No. 30462

Bowman Consulting Group Ltd
4450 W Eau Gallie Blvd.
Suite 144
Melbourne, FL 32934
Phone: (321) 255-5434
www.bowman.com

© 2024 Bowman Consulting Group Ltd

DETAILS - COVER

MARRIOTT FAIRFIELD TOWNEPLACE SUITES

NWC OF STATE ROAD 429 & CONNECTOR RD
APOPKA, FLORIDA 33712

CITY OF APOPKA ORANGE COUNTY

KYLE A. SHASTEEN
LICENSE
No. 88744
STATE OF FLORIDA
PROFESSIONAL ENGINEER

PLAN STATUS

DATE	DESCRIPTION

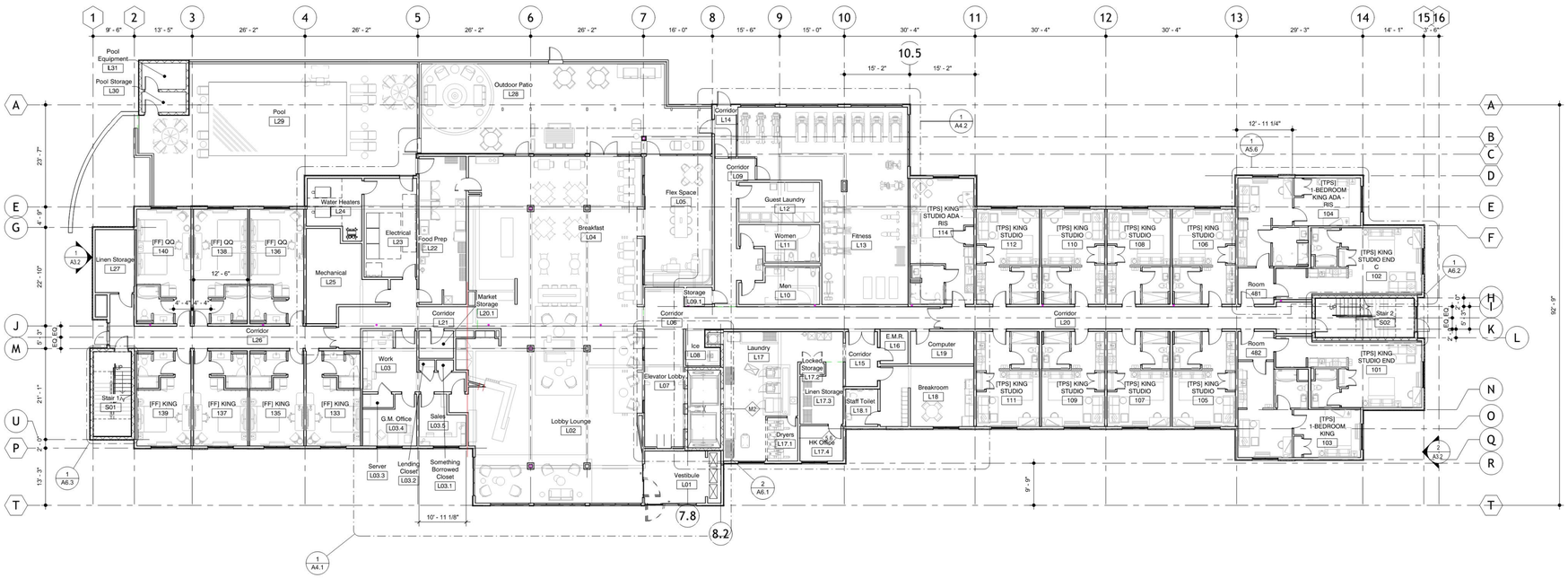
JG	JG	KAS
DESIGN	DRAWN	CHKD

SCALE	AS SHOWN
JOB No.	011589-01-001
DATE	9/22/2025

DETAILS - COVER

SHEET No. D1.0

Submitted at: 2025
Drawn by: JG
Plotted on: 9/22/2025
FILE PATH: I:\2011589.01\Design\Drawings\Plans\PRELIMINARY SITE\COMPLETE PLANS\11589-01-PSP-01-SITE-01.dwg
FILE PATH: I:\2011589.01\Design\Drawings\Plans\PRELIMINARY SITE\COMPLETE PLANS\11589-01-PSP-01-SITE-01.dwg



1 Level 1 Floor Plan
3/32" = 1'-0"

FLOOR PLAN GENERAL NOTES

A. REFER TO ENLARGED PLANS FOR DETAILED INFORMATION ON PARTITION TYPES AND DIMENSIONS.

B. LOBBY LEVEL FINISH DATUM OF 0'-0" IS EQUIVALENT TO ___ ON CIVIL DRAWING SET.

C. ALL FURNITURE & EQUIPMENT SHOWN FOR REFERENCE ONLY.

D. MOUNTING HEIGHT OF FIRE EXTINGUISHER CABINETS SHALL BE THAT NO OPERABLE PART IS HIGHER THAN 48" A.F.F.

E. MAGNETIC DOOR HOLD OPENERS TO BE TIED TO FIRE ALARM SYSTEM. REFER TO DRAWING A7.02.

FLOOR PLAN LEGEND

- GRIDLINE - CENTER OF COLUMN/STUD
- GRIDLINE - FACE OF COLUMN/STUD
- WALL PARTITION; SEE A7.01
- ADA ACCESSIBLE ROOM
- HEARING-IMPAIRED ROOM
- FE-1 FULLY RECESSED FIRE EXTINGUISHER CABINET
- FE-2 SEMI RECESSED FIRE EXTINGUISHER CABINET
- FE-3 BRACKET MOUNTED FIRE EXTINGUISHER
- RFID CARD READER

THIS DRAWING IS THE PROPERTY OF HC ARCHITECTURE, INC. AND IS NOT TO BE REPRODUCED OR COPIED IN WHOLE OR IN PART. IT IS ONLY TO BE USED FOR THE PROJECT SPECIFICALLY IDENTIFIED HEREIN AND IS NOT TO BE USED ON ANY OTHER PROJECT. IT IS TO BE RETURNED UPON REQUEST. SCALES AS STATED HEREIN ARE VALID ON THE ORIGINAL DRAWING. THE DIMENSIONS OF WHICH ARE 30 X 42 INCHES.

© 2023 HC ARCHITECTURE, INC

PROJECT: Apopka Dual Brand
Logo
Address

ARCHITECT: hc architecture
HOGAN CAMPIS ARCHITECTURE
1425 DUTCH VALLEY PL NE
STUDIO B
ATLANTA GA 30324
404.685.8868 v
404.685.8878 f
WWW.HCARCH.NET
Certificate of Authorization: F05000005222
Corporate License No.: AA26001050
Tom Hogan License No.: AR101416

CONSULTANT

ISSUES: TBD DATE

REVISIONS

SHEET INFO: DRAWING TITLE: Lobby Level Floor Plan
JOB NO.: 598
SHEET NO.: A2.1

NOT FOR CONSTRUCTION

Bowman
Certificate of Authorization License No. 30462

Bowman Consulting Group Ltd
4450 W Eau Gallie Blvd.
Suite 144
Melbourne, FL 32934
Phone: (321) 255-5434
www.bowman.com
© 2024 Bowman Consulting Group Ltd

DETAILS - LOBBY LEVEL FLOOR PLAN
MARRIOTT FAIRFIELD TOWNEPLACE SUITES
NWC OF STATE ROAD 429 & CONNECTOR RD
APOPKA, FLORIDA 33712
CITY OF APOPKA

KYLE A. SHASTEEN LICENSE No. 88744 STATE OF FLORIDA PROFESSIONAL ENGINEER

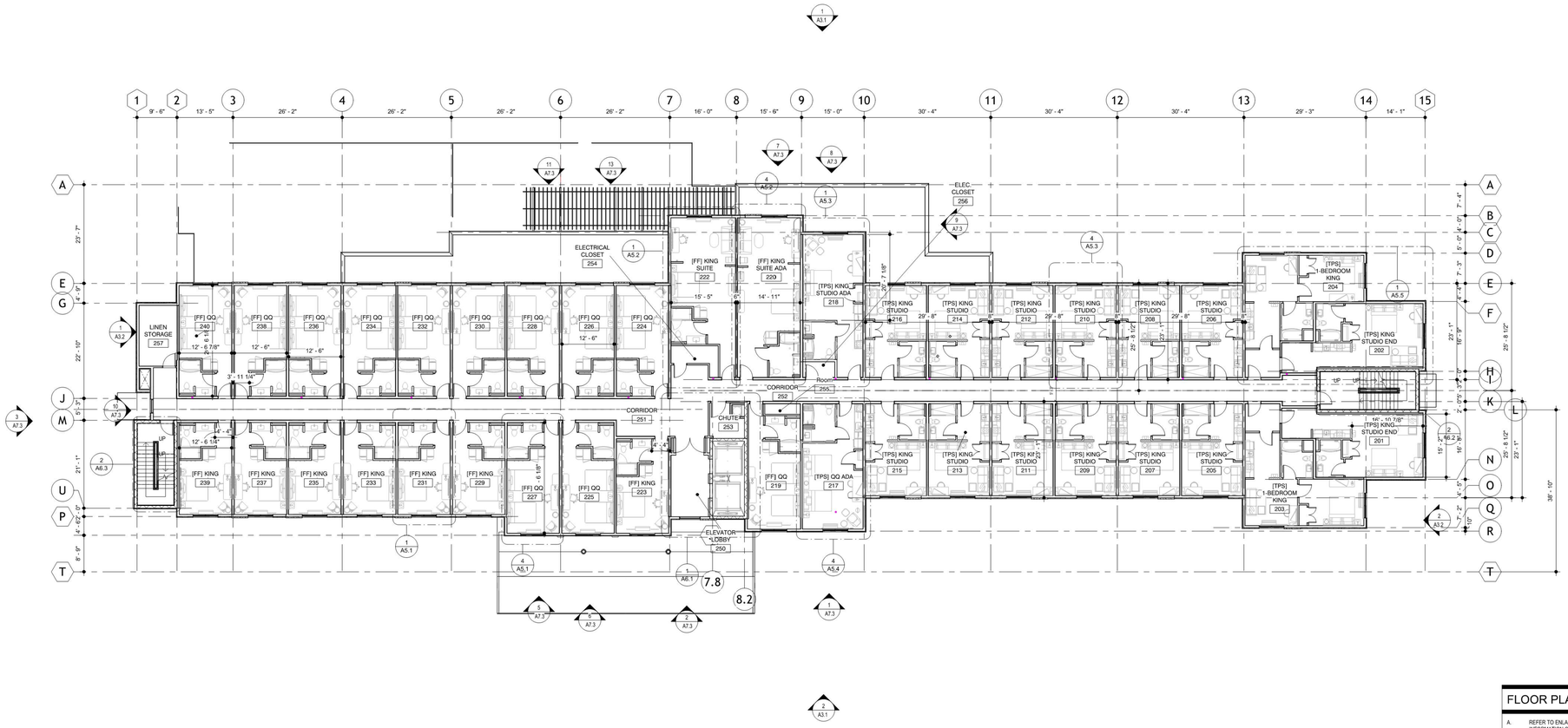
PLAN STATUS

DATE	DESCRIPTION

JG	JG	KAS
DESIGN	DRAWN	CHKD

SCALE: AS SHOWN
JOB No.: 011589-01-001
DATE: 9/22/2025
DETAILS - LOBBY LEVEL FLOOR PLAN
SHEET No.: D1.2

Submitted: 07 2025
Drawn: JHZ, JHZ, KAS
FILE PATH: I:\2011589-01\Design\Drawings\Arch\Sheets\011589-01-001 (ENG) - Marriott Fairfield Townplace Suites.dwg
Plotted: 9/22/2025 10:49 AM by Jonathan Zeller
DO NOT COPY WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY BOWMAN CONSULTING SHALL BE WITHOUT LIABILITY TO BOWMAN CONSULTING.



1 Level 2
3/32" = 1'-0"

FLOOR PLAN GENERAL NOTES

A. REFER TO ENLARGED PLANS FOR DETAILED INFORMATION ON PARTITION TYPES AND DIMENSIONS.

B. LOBBY LEVEL FINISH DATUM OF 0'-0" IS EQUIVALENT TO ___ ON CIVIL DRAWING SET.

C. ALL FURNITURE & EQUIPMENT SHOWN FOR REFERENCE ONLY.

D. MOUNTING HEIGHT OF FIRE EXTINGUISHER CABINETS SHALL BE THAT NO OPERABLE PART IS HIGHER THAN 48" A.F.F.

E. MAGNETIC DOOR HOLD OPENERS TO BE TIED TO FIRE ALARM SYSTEM. REFER TO DRAWING A7.02.

FLOOR PLAN LEGEND

- GRIDLINE - CENTER OF COLUMN/STUD
- GRIDLINE - FACE OF COLUMN/STUD
- WALL PARTITION; SEE A7.01
- ADA ACCESSIBLE ROOM
- HEARING-IMPAIRED ROOM
- FE-1 FULLY RECESSED FIRE EXTINGUISHER CABINET
- FE-2 SEMI RECESSED FIRE EXTINGUISHER CABINET
- FE-3 BRACKET MOUNTED FIRE EXTINGUISHER
- RFID CARD READER

THIS DRAWING IS THE PROPERTY OF HC ARCHITECTURE, INC. AND IS NOT TO BE REPRODUCED OR COPIED IN WHOLE OR IN PART. IT IS ONLY TO BE USED FOR THE PROJECT SPECIFICALLY IDENTIFIED HEREIN AND IS NOT TO BE USED ON ANY OTHER PROJECT. IT IS TO BE RETURNED UPON REQUEST. SCALES AS STATED HEREIN ARE VALID ON THE ORIGINAL DRAWING. THE DIMENSIONS OF WHICH ARE 30 X 42 INCHES.

© 2025 HC ARCHITECTURE, INC.

PROJECT: Apopka Dual Brand
Logo
Address

ARCHITECT: hc architecture
HOGAN CAMPIS ARCHITECTURE
1425 DUTCH VALLEY PL NE
STUDIO B
ATLANTA GA 30324
404.685.8868 v
404.685.8878 f
WWW.HCARCH.NET
Certificate of Authorization: F05000005222
Corporate License No.: AA26001050
Tom Hogan License No.: AR101416

CONSULTANT

ISSUES: TBD DATE

REVISIONS

SHEET INFO: DRAWING TITLE: Typical Level Floor Plan
JOB NO.: 598
SHEET NO.: A2.2

NOT FOR CONSTRUCTION

Bowman
Certificate of Authorization License No. 30462

Bowman Consulting Group Ltd
4450 W Eau Gallie Blvd.
Suite 144
Melbourne, FL 32934
Phone: (321) 255-5434
www.bowman.com
© 2024 Bowman Consulting Group Ltd

DETAILS - TYP. LEVEL FLOOR PLAN
MARRIOTT FAIRFIELD TOWNEPLACE SUITES
NWC OF STATE ROAD 429 & CONNECTOR RD
APOPKA, FLORIDA 33712
CITY OF APOPKA

KYLE A. SHASTEEN
LICENSE
No. 88744
STATE OF FLORIDA
PROFESSIONAL ENGINEER

PLAN STATUS

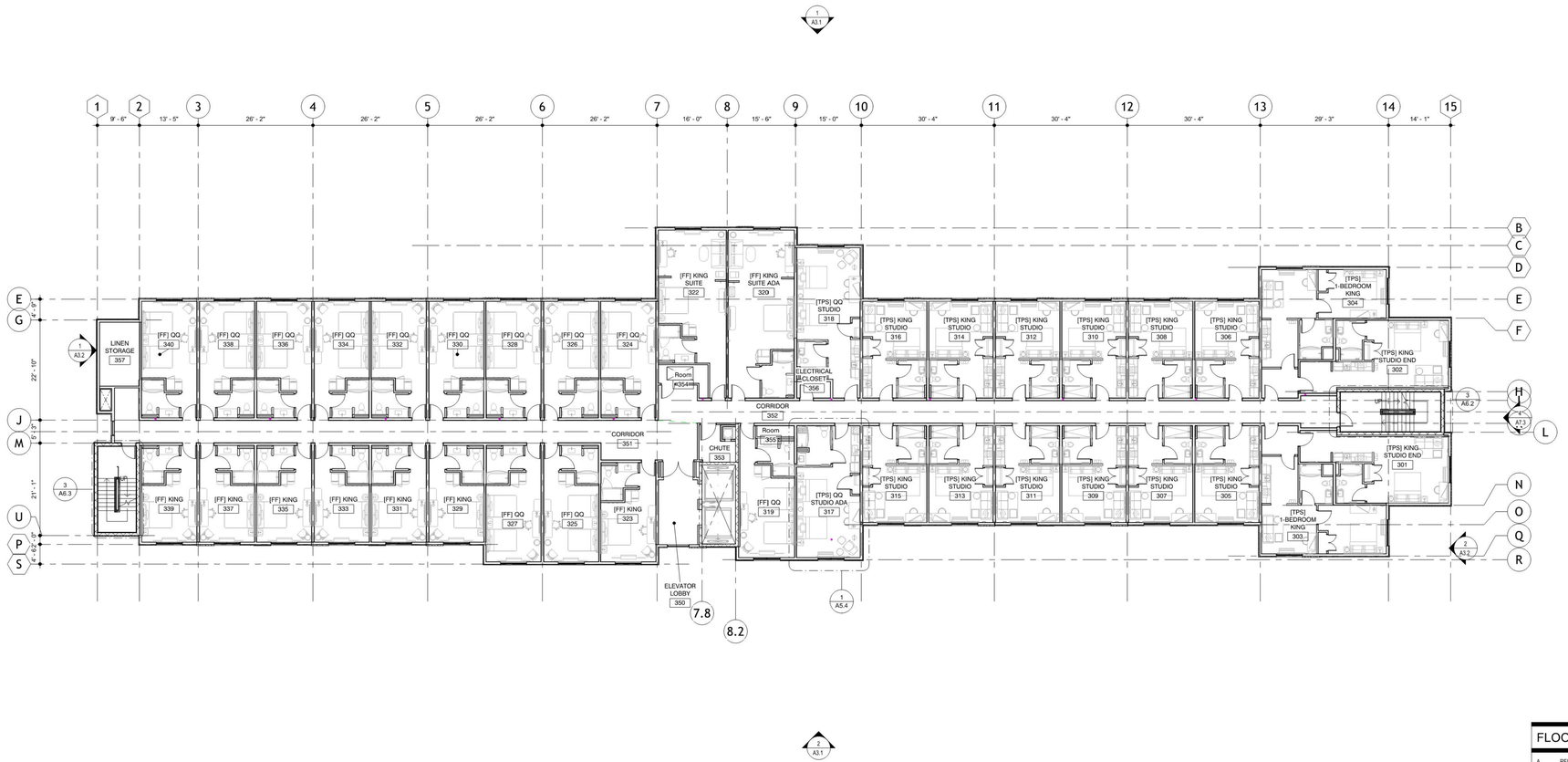
DATE	DESCRIPTION

JG	JG	KAS
DESIGN	DRAWN	CHKD

SCALE: AS SHOWN
JOB No.: 011589-01-001
DATE: 9/22/2025
DETAILS - TYP. LEVEL FLOOR PLAN
SHEET No.: D1.3

ANY USE OF OR RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY BOWMAN CONSULTING SHALL BE WITHOUT LIABILITY TO BOWMAN CONSULTING.

Revision: 25_0925
Drawing: A2.2 - TYP. LEVEL FLOOR PLAN
FILE PATH: V:\011589-Shadow Partners\01 ENG\01 DES - Market Fairfield Town\Plans_Specs\Engineering\Engineering Plans\PRELIMINARY DEVELOPMENT PLANS\11589-01-PSP-A01-01.01_LOTL.dwg



1 Level 3
3/32" = 1'-0"

FLOOR PLAN GENERAL NOTES

A. REFER TO ENLARGED PLANS FOR DETAILED INFORMATION ON PARTITION TYPES AND DIMENSIONS.

B. LOBBY LEVEL FINISH DATUM OF 0'-0" IS EQUIVALENT TO ___ ON CIVIL DRAWING SET.

C. ALL FURNITURE & EQUIPMENT SHOWN FOR REFERENCE ONLY.

D. MOUNTING HEIGHT OF FIRE EXTINGUISHER CABINETS SHALL BE THAT NO OPERABLE PART IS HIGHER THAN 48" A.F.F.

E. MAGNETIC DOOR HOLD OPENERS TO BE TIED TO FIRE ALARM SYSTEM. REFER TO DRAWING A7.02.

FLOOR PLAN LEGEND

- X — GRIDLINE - CENTER OF COLUMN/STUD
- X — GRIDLINE - FACE OF COLUMN/STUD
- X — WALL PARTITION; SEE A7.01
- ADA ACCESSIBLE ROOM
- HEARING-IMPAIRED ROOM
- FE-1 — FULLY RECESSED FIRE EXTINGUISHER CABINET
- FE-2 — SEMI RECESSED FIRE EXTINGUISHER CABINET
- FE-3 — BRACKET MOUNTED FIRE EXTINGUISHER
- RFID CARD READER

THIS DRAWING IS THE PROPERTY OF HC ARCHITECTURE, INC. AND IS NOT TO BE REPRODUCED OR COPIED IN WHOLE OR IN PART. IT IS ONLY TO BE USED FOR THE PROJECT SPECIFICALLY IDENTIFIED HEREIN AND IS NOT TO BE USED ON ANY OTHER PROJECT. IT IS TO BE RETURNED UPON REQUEST. SCALES AS STATED HEREIN ARE VALID ON THE ORIGINAL DRAWING. THE DIMENSIONS OF WHICH ARE 30 X 42 INCHES.

© 2023 HC ARCHITECTURE, INC.

PROJECT
Apopka Dual Brand
Logo
Address

ARCHITECT
hc architecture
HOGAN CAMPIS ARCHITECTURE
1425 DUTCH VALLEY PL NE
STUDIO B
ATLANTA GA 30324
404.685.8868 v
404.685.8878 f
WWW.HCARCH.NET
Certificate of Authorization: F05000005222
Corporate License No.: AA26001050
Tom Hogan License No.: AR101416

CONSULTANT

ISSUES
TBD DATE

REVISIONS

SHEET INFO
DRAWING TITLE: Level 3 Floor Plan
JOB NO.: 598
SHEET NO.: A2.3

NOT FOR CONSTRUCTION

Bowman
Certificate of Authorization License No. 30462

Bowman Consulting Group Ltd
4450 W Eau Gallie Blvd.
Suite 144
Melbourne, FL 32934
Phone: (321) 255-5434
www.bowman.com
© 2024 Bowman Consulting Group Ltd

DETAILS - LEVEL 3 FLOOR PLAN
MARRIOTT FAIRFIELD TOWNEPLACE SUITES
NWC OF STATE ROAD 429 & CONNECTOR RD
APOPKA, FLORIDA 33712
CITY OF APOPKA
ORANGE COUNTY

KYLE A. SHASTEEN
LICENSE
No. 88744
STATE OF FLORIDA
PROFESSIONAL ENGINEER

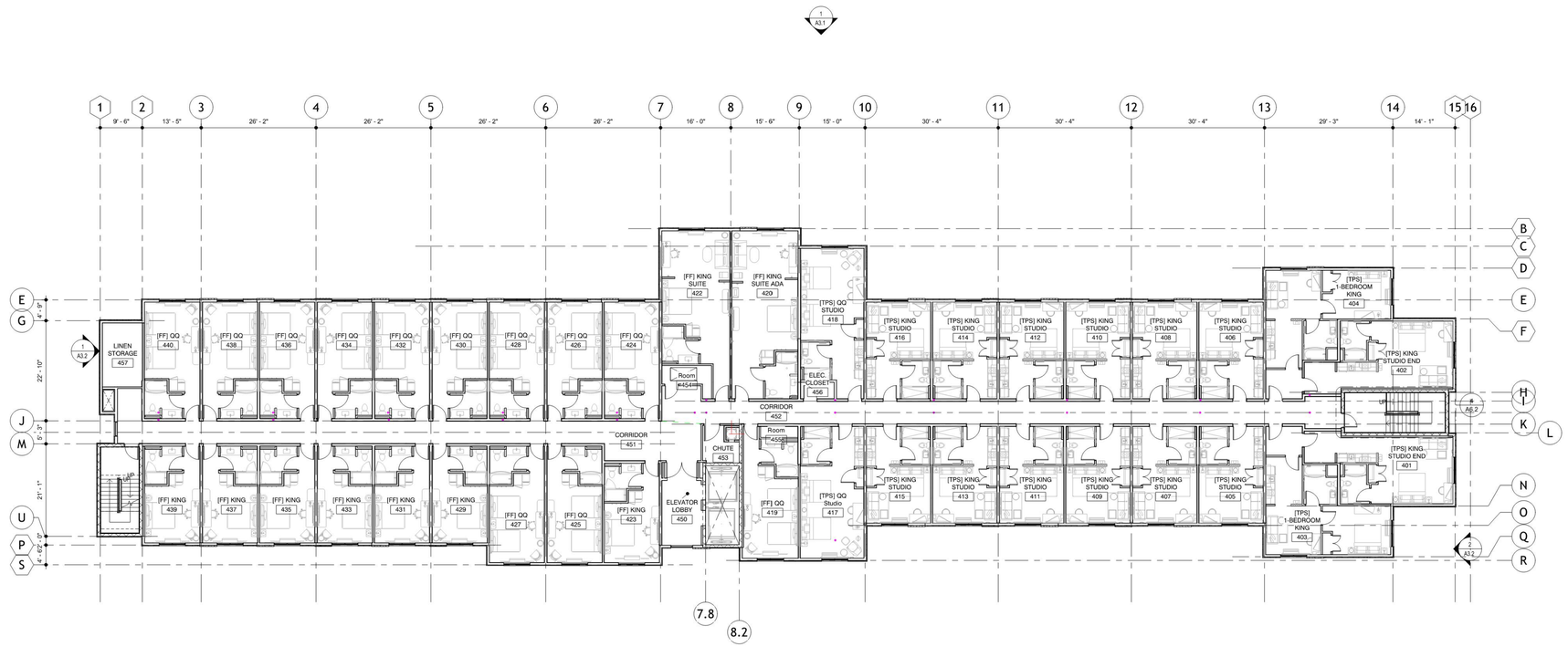
PLAN STATUS

DATE	DESCRIPTION

JG	JG	KAS
DESIGN	DRAWN	CHKD

SCALE: AS SHOWN
JOB No.: 011589-01-001
DATE: 9/22/2025
DETAILS - LEVEL 3 FLOOR PLAN
SHEET No.: D1.4

Plotted: 22 JAN 2026
Drawing: ARCH A2.3 LEVEL 3 FLOOR PLAN
FILE PATH: I:\2015\011589.01\Design\Architect\100-ARCH_ISSUE\Working Plans\PRELIMINARY DEVELOPMENT PLANS\011589-01-ARCH-A2D-01-A2.3-LVL 3.dwg
THESE PLANS AND SPECIFICATIONS ARE COPYRIGHTED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY BOWMAN CONSULTING SHALL BE WITHOUT LIABILITY TO BOWMAN CONSULTING.



1 Level 4
3/32" = 1'-0"

FLOOR PLAN GENERAL NOTES

A. REFER TO ENLARGED PLANS FOR DETAILED INFORMATION ON PARTITION TYPES AND DIMENSIONS.

B. LOBBY LEVEL FINISH DATUM OF 0'-0" IS EQUIVALENT TO ____ ON CIVIL DRAWING SET.

C. ALL FURNITURE & EQUIPMENT SHOWN FOR REFERENCE ONLY.

D. MOUNTING HEIGHT OF FIRE EXTINGUISHER CABINETS SHALL BE THAT NO OPERABLE PART IS HIGHER THAN 48" A.F.F.

E. MAGNETIC DOOR HOLD OPENERS TO BE TIED TO FIRE ALARM SYSTEM. REFER TO DRAWING A7.02.

FLOOR PLAN LEGEND

- GRIDLINE - CENTER OF COLUMN/STUD
- GRIDLINE - FACE OF COLUMN/STUD
- WALL PARTITION: SEE A7.01
- ADA ACCESSIBLE ROOM
- HEARING-IMPAIRED ROOM
- FE-1 FULLY RECESSED FIRE EXTINGUISHER CABINET
- FE-2 SEMI RECESSED FIRE EXTINGUISHER CABINET
- FE-3 BRACKET MOUNTED FIRE EXTINGUISHER
- RFID CARD READER

THIS DRAWING IS THE PROPERTY OF HC ARCHITECTURE, INC. AND IS NOT TO BE REPRODUCED OR COPIED IN WHOLE OR IN PART. IT IS ONLY TO BE USED FOR THE PROJECT SPECIFICALLY IDENTIFIED HEREIN AND IS NOT TO BE USED ON ANY OTHER PROJECT. IT IS TO BE RETURNED UPON REQUEST. SCALES AS STATED HEREIN ARE VALID ON THE ORIGINAL DRAWING. THE DIMENSIONS OF WHICH ARE 30 X 42 INCHES.

© 2023 HC ARCHITECTURE, INC.

PROJECT
Apopka Dual Brand
Logo
Address

ARCHITECT
hc architecture
HOGAN CAMPIS ARCHITECTURE
1425 DUTCH VALLEY PL NE
STUDIO B
ATLANTA GA 30324
404.685.8888 v
404.685.8878 f
WWW.HCARCH.NET
Certificate of Authorization: F05000005222
Corporate License No.: AA26001050
Tom Hogan License No.: AR101416

CONSULTANT

ISSUES
TBD DATE

REVISIONS

SHEET LNFO
DRAWING TITLE
Level 4 Floor Plan
JOB NO.
598
SHEET NO.
A2.4

NOT FOR CONSTRUCTION

Bowman
Certificate of Authorization License No. 30462

Bowman Consulting Group Ltd
4450 W Eau Gallie Blvd.
Suite 144
Melbourne, FL 32934
Phone: (321) 255-5434
www.bowman.com
© 2024 Bowman Consulting Group Ltd

DETAILS - LEVEL 4 FLOOR PLAN
MARRIOTT FAIRFIELD TOWNEPLACE SUITES
NWC OF STATE ROAD 429 & CONNECTOR RD
APOPKA, FLORIDA 33712
CITY OF APOPKA

KYLE A. SHASTEEN
LICENSE
No. 88744
STATE OF FLORIDA
PROFESSIONAL ENGINEER

PLAN STATUS

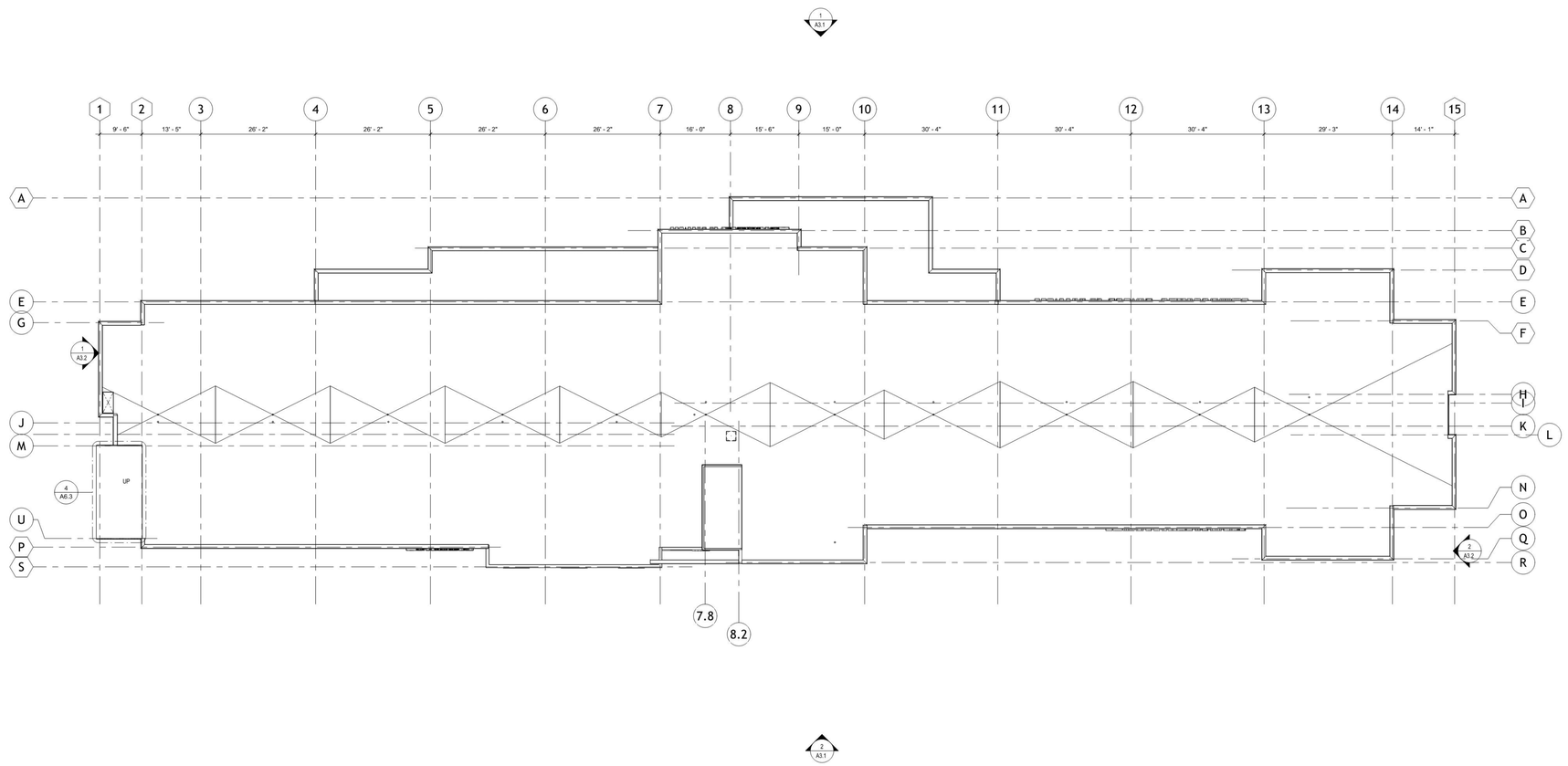
DATE	DESCRIPTION

JG	JG	KAS
DESIGN	DRAWN	CHKD

SCALE AS SHOWN
JOB No. 011589-01-001
DATE 9/22/2025
DETAILS - LEVEL 4 FLOOR PLAN
SHEET No. D1.5

ANY USE OR RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY BOWMAN CONSULTING SHALL BE WITHOUT LIABILITY TO BOWMAN CONSULTING.

Submitted On: 2025
Drawing Name: A2.4 - LEVEL 4 FLOOR PLAN
FILE PATH: C:\Users\jgarcia\Documents\011589-01-001 - Marriott Fairfield Townplace Suites at Highway 429 (Apopka)_jgarcia.rvt



1 Roof
3/32" = 1'-0"

THIS DRAWING IS THE PROPERTY OF HC ARCHITECTURE, INC. AND IS NOT TO BE REPRODUCED OR COPIED IN WHOLE OR IN PART. IT IS ONLY TO BE USED FOR THE PROJECT SPECIFICALLY IDENTIFIED HEREIN AND IS NOT TO BE USED ON ANY OTHER PROJECT. IT IS TO BE RETURNED UPON REQUEST. SCALES AS STATED HEREIN ARE VALID ON THE ORIGINAL DRAWING. THE DIMENSIONS OF WHICH ARE 30 X 42 INCHES.

© 2023 HC ARCHITECTURE, INC.

PROJECT
Apopka Dual Brand
Logo
Address

ARCHITECT
hc architecture
HOGAN CAMPIS ARCHITECTURE
1425 DUTCH VALLEY PL NE
STUDIO B
ATLANTA GA 30324
404.685.8888 v
404.685.8878 f
WWW.HCARCH.NET
Certificate of Authorization: F05000005222
Corporate License No.: AA26001050
Tom Hogan License No.: AR101416

CONSULTANT

ISSUES
TBD DATE

REVISIONS

SHEET INFO
DRAWING TITLE: Roof Plan
JOB NO.: 598
SHEET NO.: A2.5

NOT FOR CONSTRUCTION

Bowman
Certificate of Authorization License No. 30462

Bowman Consulting Group Ltd
4450 W Eau Gallie Blvd.
Suite 144
Melbourne, FL 32934
Phone: (321) 255-5434
www.bowman.com
© 2024 Bowman Consulting Group Ltd

DETAILS - ROOF PLAN
MARRIOTT FAIRFIELD TOWNEPLACE SUITES
NWC OF STATE ROAD 429 & CONNECTOR RD
APOPKA, FLORIDA 33712
CITY OF APOPKA
ORANGE COUNTY

KYLE A. SHASTEEN
LICENSE
No. 88744
STATE OF FLORIDA
PROFESSIONAL ENGINEER

PLAN STATUS

DATE	DESCRIPTION

JG	JG	KAS
DESIGN	DRAWN	CHKD
SCALE	AS SHOWN	
JOB No.	011589-01-001	
DATE	9/22/2025	

DETAILS - ROOF PLAN
SHEET No. D1.6

THIS DRAWING AND THE INFORMATION ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY BOWMAN CONSULTING SHALL BE WITHOUT LIABILITY TO BOWMAN CONSULTING.

Submitted On: 2025
Drawn On: A3.2 ROOF PLAN
FILE PATH: C:\Users\jgarcia\Documents\011589-01-001 (ENG) - Market Fairfield TownePlace Suites\Engineering\Revit\ENGINEERING DEVELOPMENT PLANS\011589-01-001_ROOF PLAN_jgarcia.rvt

1 North Elevation
1/8" = 1'-0"

2 South Elevation
1/8" = 1'-0"

THIS DRAWING IS THE PROPERTY OF HC ARCHITECTURE, INC. AND IS NOT TO BE REPRODUCED OR COPIED IN WHOLE OR IN PART. IT IS ONLY TO BE USED FOR THE PROJECT SPECIFICALLY IDENTIFIED HEREIN AND IS NOT TO BE USED ON ANY OTHER PROJECT. IT IS TO BE RETURNED UPON REQUEST. SCALES AS STATED HEREIN ARE VALID ON THE ORIGINAL DRAWING. THE DIMENSIONS OF WHICH ARE 30 X 42 INCHES.
© 2023 HC ARCHITECTURE, INC.

PROJECT
Apopka Dual Brand
Logo
Address

ARCHITECT
hc architecture
HOGAN CAMPIS ARCHITECTURE
1425 DUTCH VALLEY PL NE
STUDIO B
ATLANTA GA 30324
404.685.8868 v
404.685.8878 f
WWW.HCARCH.NET
Certificate of Authorization: F05000005222
Corporate License No.: AA26001050
Tom Hogan License No.: AR101416

CONSULTANT

ISSUES
TBD DATE

REVISIONS

SHEET INFO
DRAWING TITLE
Building Elevations - North & South
JOB NO.
598
SHEET NO.
A3.1

NOT FOR CONSTRUCTION

Bowman
Certificate of Authorization License No. 30462

Bowman Consulting Group Ltd
4450 W Eau Gallie Blvd.
Suite 144
Melbourne, FL 32934
Phone: (321) 255-5434
www.bowman.com
© 2024 Bowman Consulting Group Ltd

DETAILS - BUILDING ELEVATIONS
MARRIOTT FAIRFIELD TOWNEPLACE SUITES
NWC OF STATE ROAD 429 & CONNECTOR RD
APOPKA, FLORIDA 33712
CITY OF APOPKA

KYLE A. SHASTEEN
LICENSE
No. 88744
STATE OF FLORIDA
PROFESSIONAL ENGINEER

PLAN STATUS

DATE	DESCRIPTION

JG	JG	KAS
DESIGN	DRAWN	CHKD

SCALE	AS SHOWN
JOB No.	011589-01-001
DATE	9/22/2025

DETAILS - BUILDING ELEVATIONS
SHEET No. D1.7

Submitted: 07.2025
DWG: 2024.ai - BUILDING ELEVATIONS
FILE PATH: I:\2011\589-Dowdal Farms\07-1589-01-001 (ENG)-Marriott Fairfield TownePlace Suites at Apopka\02-Engineering Plans\PRELIMINARY DEVELOPMENT PLANS\1589-01-001-PDP-DEV-01-2024.dwg
THIS DOCUMENT, AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF SERVICE, IS AND SHALL REMAIN THE PROPERTY OF BOWMAN CONSULTING. ANY REUSE OF THESE PLANS AND SPECIFICATIONS WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY BOWMAN CONSULTING SHALL BE WITHOUT LIABILITY TO BOWMAN CONSULTING.

ANY USE OF THIS DRAWING WITHOUT THE EXPRESS WRITTEN CONSENT OF BOWMAN CONSULTING IS PROHIBITED. ANY RELIANCE ON THIS DRAWING BY THIRD PARTIES FOR ANY USE WITHOUT BOWMAN CONSULTING'S EXPRESS WRITTEN AUTHORIZATION AND ADAPTATION IS AT THEIR SOLE RISK AND WITHOUT LIABILITY TO BOWMAN CONSULTING. PROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY BOWMAN CONSULTING SHALL BE WITHOUT LIABILITY TO BOWMAN CONSULTING.

Submitted: 07.2025
Drawn by: AZ, JG
File Path: I:\011589-01\Design\Drawings\Engineering Plans\PRELIMINARY DEVELOPMENT PLANS\11589-01-PRP-000-01-D1.8-DETAILS - BUILDING ELEVATIONS.dwg
Plotted: 9/22/2025 10:09 AM By: Donald Hartnett

NOT FOR CONSTRUCTION

2 West Elevation
1/8" = 1'-0"

1 East Elevation
1/8" = 1'-0"

THIS DRAWING IS THE PROPERTY OF HC ARCHITECTURE, INC. AND IS NOT TO BE REPRODUCED OR COPIED IN WHOLE OR IN PART. IT IS ONLY TO BE USED FOR THE PROJECT SPECIFICALLY IDENTIFIED HEREIN AND IS NOT TO BE USED ON ANY OTHER PROJECT. IT IS TO BE RETURNED UPON REQUEST. SCALES AS STATED HEREIN ARE VALID ON THE ORIGINAL DRAWING. THE DIMENSIONS OF WHICH ARE 30 X 42 INCHES.
©2023 HC ARCHITECTURE, INC.

PROJECT
Apopka Dual Brand
Logo
Address

ARCHITECT
hc architecture
HOGAN CAMPIS ARCHITECTURE
1425 DUTCH VALLEY PL NE
STUDIO B
ATLANTA GA 30324
404.685.8868 v
404.685.8878 f
WWW.HCARCH.NET
Certificate of Authorization: F05000005222
Corporate License No.: AA26001050
Tom Hogan License No.: AR101416

CONSULTANT

ISSUES
TBD DATE

REVISIONS

SHEET INFO
DRAWING TITLE: Building Elevations - East & West
JOB NO.: 598
SHEET NO.: A3.2

Bowman Consulting Group Ltd
4450 W Eau Gallie Blvd.
Suite 144
Melbourne, FL 32934
Phone: (321) 255-5434
www.bowman.com
© 2024 Bowman Consulting Group Ltd

Bowman
Certificate of Authorization License No. 30462

DETAILS - BUILDING ELEVATIONS
MARRIOTT FAIRFIELD TOWNEPLACE SUITES
NWC OF STATE ROAD 429 & CONNECTOR RD
APOPKA, FLORIDA 33712
CITY OF APOPKA
ORANGE COUNTY

KYLE A. SHASTEEN
LICENSE
No. 88744
STATE OF FLORIDA
PROFESSIONAL ENGINEER

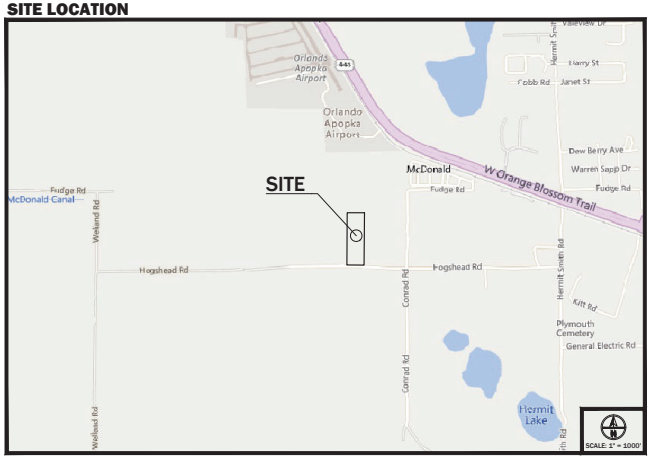
PLAN STATUS

DATE	DESCRIPTION

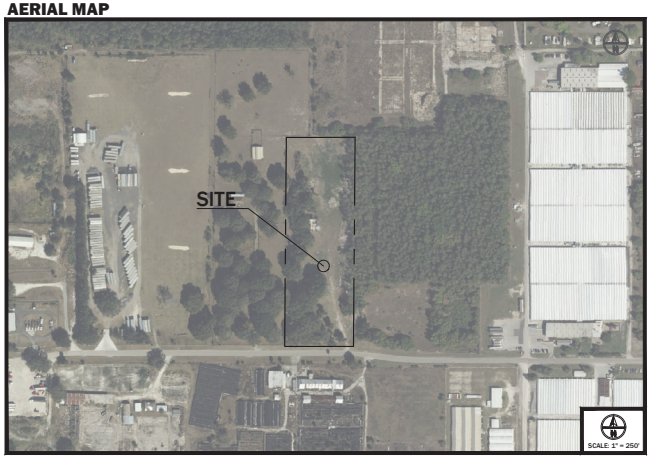
JG	JG	KAS
DESIGN	DRAWN	CHKD

SCALE: AS SHOWN
JOB No.: 011589-01-001
DATE: 9/22/2025
DETAILS - BUILDING ELEVATIONS
SHEET No.: D1.8

SITE LOCATION



AERIAL MAP



LEGAL DESCRIPTION FROM SURVEY PREPARED BY MCMAHON SURVEYING AND MAPPING LLC, DATED 07/17/23:

Commence at the Northeast corner of Section 2, Township 21 South, Range 27 East, Orange County, Florida; thence run South 89 degrees 58 minutes 25 seconds West along the North line of the Northeast Quarter of said Section 2. for 920.66 feet; thence run South 00 degrees 29 minutes 23 seconds East for 363.19 feet to the Point of Beginning of Tract 2; thence run North 89 degrees 19 minutes 13 seconds East for 195.77 feet; thence run South 00 degrees 01 minutes 11 seconds West for 891.54 feet to a point on the Northerly right-of-way line of Hogshead Road; thence run South 89 degrees 35 minutes 22 seconds West along said right-of-way line for 293.15 feet; thence run North 00 degrees 01 minutes 11 seconds East for 890.35 feet: thence run North 89 degrees 19 minutes 13 seconds East for 97.36 feet to the Point of Beginning.

4203 HOGSHEAD ROAD

CITY OF APOPKA, FL

SITE CONSTRUCTION PLANS

PARCEL ID # 02-21-27-0000-00-026

PROJECT TEAM:

DEVELOPER / APPLICANT / OWNER

4203 HOGSHEAD LLC
2315 LYNX LANE SUITE 6
ORLANDO, FL, 32804
EMAIL: CAM0875@EARTHLINK.NET

CIVIL ENGINEER

RITTER CIVIL, LLC
460 PINEY CROFT LANE
MAITLAND, FL 32751
PHONE: (407) 436 - 7276
EMAIL: GARTH@RITTERCIVIL.COM

SURVEYOR

MCMAHON SURVEYING & MAPPING, LLC
1690 TALL OAKS ROAD
DELAND, FL 32720
PHONE: (407) 399 - 2044
EMAIL: THOMASMCMAHONSURVEYOR@OUTLOOK.COM

GEOTECHNICAL ENGINEER

UES PROFESSIONAL SOLUTIONS, LLC
3532 MAGGIE BOULEVARD
ORLANDO, FLORIDA 32811
PHONE: (407) 423 - 0504

UTILITY PROVIDERS:

WATER / WASTEWATER

CITY OF APOPKA
748 E. CLEVELAND STREET
APOPKA, FL, 32703
PHONE: (407) 703 - 1731

ELECTRIC

DUKE ENERGY
2955 E. SEMORAN BLVD
APOPKA, FL, 32703
PHONE: (800) 778-9140

NATURAL GAS

LAKE APOPKA NATURAL GAS DISTRICT
1320 WINTER GARDEN VINELAND RD
WINTER GARDEN, FL 34787
PHONE: (407) 656-2734

COMMUNICATIONS

CENTURY LINK
715 DOUGLAS AVE SUITE #45,
ALTAMONTE SPRINGS, FL 32714
PHONE: (877) 366-8344

DRAWING INDEX

COVER SHEET	C1.0
GENERAL NOTES	C2.0 - C2.1
EXISTING CONDITIONS PLAN	C3.0
SEDIMENTATION & EROSION CONTROL PLAN	C4.0 - C4.1
DEMOLITION PLAN	C5.0
SITE PLAN	C6.0 - C6.1
PAVEMENT SECTIONS & DETAILS	C7.0
GRADING & DRAINAGE PLAN	C8.0 - C8.1
GRADING & DRAINAGE DETAILS	C9.0
UTILITY PLAN	C10.0
UTILITY DETAILS	C11.0 -C11.3
SIGNAGE & STRIPING PLAN	C12.0
FIRE TRUCK ACCESS PLAN	C13.0

PREPARED BY:
RITTER CIVIL
ENGINEERING ■ PLANNING
460 PINEY CROFT LANE MAITLAND, FL 32751
407-436-7276 ■ WWW.RITTERCIVIL.COM

PREPARED FOR:
4203 HOGSHEAD LLC

COVER SHEET
4203 HOGSHEAD ROAD

ISSUE DATE: 10/07/2025

REVISION:
REVISION:
REVISION:
REVISION:
REVISION:
REVISION:
REVISION:

GARTH R. RITTER
LICENSE No. 73999
STATE OF FLORIDA
PROFESSIONAL ENGINEER

This item has been digitally signed and sealed by Garth R. Ritter on the date adjacent to the seal.
Signature must be verified on any electronic copies.

DRAFTED:	GPR
DESIGNED:	GPR
REVIEWED:	GRR
PROJECT NUMBER:	23027

SHEET:
C1.0

ORIGINAL CIVIL DRAWINGS & DESIGNS CONTAINED AND SHOWN HEREON ARE INSTRUMENTS OF SERVICE & REMAIN THE PROPERTY OF RITTER CIVIL, LLC & MAY NOT BE USED ON ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN CONSENT OF RITTER CIVIL, LLC

GENERAL:

1. THE FOLLOWING NOTES CONTAINED IN THE GENERAL NOTES SHEETS APPLY TO ALL WORK DETAILED IN THIS SET OF CONSTRUCTION DRAWINGS. THIS SET OF CONSTRUCTION DRAWINGS, INCLUDING ANY BELOW REFERENCED BOUNDARY AND TOPOGRAPHIC SURVEY(S), GEOTECHNICAL ENGINEERING REPORTS, AND ALL REQUIRED PERMITS ARE HEREBY INCORPORATED AS THE COMPLETE SET OF CIVIL SITE CONSTRUCTION DOCUMENTS, WHICH MAY ALSO BE REFERRED HEREIN AS "CONSTRUCTION DOCUMENTS."

   A. EXISTING TOPOGRAPHIC INFORMATION BASED ON THE FOLLOWING:

   SURVEYOR: MCMAHON SURVEYING & MAPPING, LLC
   DRAWING NUMBER: 4203HOGS
   DRAWING DATE: 7/17/23
   LATEST REVISION: 7/17/23

   B. PROJECT BOUNDARY BASED ON THE FOLLOWING:

   SURVEYOR: MCMAHON SURVEYING & MAPPING, LLC
   DRAWING NUMBER: 4203HOGS
   DRAWING DATE: 7/17/23
   LATEST REVISION: 7/17/23

   C. GEOTECHNICAL ENGINEERING DETAILS TAKEN FROM:

   GEOTECHNICAL ENGINEER: UES PROFESSIONAL SOLUTIONS, LLC
   REPORT NUMBER: 2103366V3
   REPORT DATE: 08/07/2024
   LATEST REVISION: 02/13/2025

2. GEOTECHNICAL SERVICES: GEOTECHNICAL DETAILS AND SPECIFICATIONS IF SHOWN IN THESE PLANS ARE PROVIDED FOR REFERENCE ONLY. GEOTECHNICAL RECOMMENDATIONS ARE NOT THE RESPONSIBILITY OF RITTER CIVIL, LLC. RITTER CIVIL HAS RELIED ON THE GEOTECHNICAL REPORT REFERENCED ABOVE IN PREPARATION OF THESE PLANS. ANY CONFLICT BETWEEN INFORMATION SHOWN WITHIN THE GEOTECHNICAL REPORT AND THES DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND OWNER IMMEDIATELY UPON DISCOVERY. RITTER CIVIL, LLC IS NOT RESPONSIBLE FOR THE COMPLETENESS, CORRECTNESS, OR ACCURACY OF THE GEOTECHNICAL INFORMATION.

3. VERTICAL DATUM: ELEVATIONS SHOWN WITHIN THESE PLANS ARE RELATIVE TO NAVD88 DATUM BASED ON BENCHMARKS SHOWN ON THE TOPOGRAPHIC SURVEY REFERENCED ABOVE. REFER TO TOPOGRAPHIC SURVEY FOR REFERENCED BENCHMARK DETAILS.

4. UNLESS OTHERWISE SPECIFIED, ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT PUBLICATION OF THE FOLLOWING CODES, STANDARDS, AND SPECIFICATIONS IN ADDITION TO THE LATEST EDITIONS OF ALL OTHER APPLICABLE STANDARDS AND SPECIFICATIONS: LOCAL CITY OR COUNTY, WATER MANAGEMENT DISTRICT, FLORIDA BUILDING CODE, FLORIDA FIRE PREVENTION CODE, FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP), FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION, AMERICANS WITH DISABILITIES ACT (ADA) BY U.S. DEPARTMENT OF JUSTICE, MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" (MUTCD) PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION (FHWA), RIGHT-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG) PUBLISHED BY THE U.S. DEPARTMENT OF TRANSPORTATION, AND FAIR HOUSING ACT BY U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT (HUD).

5. ALL CONSTRUCTION ACTIVITY SHALL BE GOVERNED BY ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, ORDINANCES, BUILDING AND SAFETY CODES, AND REQUIRED PERMIT CONDITIONS.

6. ALL STANDARDS AND SPECIFICATIONS SHALL BE OF THE LATEST REVISION. IN THE EVENT THAT ANY STANDARDS OR SPECIFICATIONS AS DESCRIBED HEREIN ARE IN CONFLICT WITH EACH OTHER OR AS SHOWN IN CONFLICT ON THE PLANS, THE MORE STRINGENT CRITERIA SHALL USUALLY APPLY. CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD OF SUCH CONFLICT IN WRITING IMMEDIATELY. SHOULD THE MORE STRINGENT CRITERIA BE UNCLEAR, THE CONTRACTOR SHALL REQUEST IN WRITING THE ENGINEER'S INTERPRETATION OF THE MORE STRINGENT CRITERIA TO BE USED.

7. CONTRACTOR SHALL REVIEW ALL PLANS WITHIN THE CIVIL SITE WORK SCOPE IN THEIR ENTIRETY. ANY ERRORS, OMISSIONS, OR DISCREPANCIES BETWEEN THE FIELD CONDITIONS, THE CONSTRUCTION PLANS, OR APPLICABLE SPECIFICATIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER BEFORE COMMENCEMENT OF ANY SUCH CONSTRUCTION OR FIELD CHANGES FROM THE CONSTRUCTION DRAWINGS SHALL BE MADE WITHOUT PRIOR APPROVAL OF THE OWNER AND ENGINEER.

8. IF ANY ITEMS APPEARING TO BE HISTORICAL OR ARCHEOLOGICAL ARTIFACTS ARE DISCOVERED DURING CONSTRUCTION ACTIVITY WITHIN THE PROJECT LIMITS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER, THE ENGINEER, AND THE BUREAU OF HISTORICAL PRESERVATION, DIVISION OF HISTORICAL RESOURCES R.A. GRAY BUILDING, 500 S. BRONOUGH ST. TALLAHASSEE, FLORIDA, 32399-0250.

9. ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITY, INCLUDING THOSE WHERE NO SPECIFIC IMPROVEMENTS ARE SHOWN, SHALL BE RESTORED TO THEIR ORIGINAL OR BETTER CONDITION UNLESS OTHERWISE SPECIFIED IN THESE PLANS, OR OWNER PROVIDED LANDSCAPE PLANS.

CONTRACTOR RESPONSIBILITIES:

10. EXISTING CONDITIONS:

   A. THE CONTRACTOR SHALL CONDUCT A SITE INVESTIGATION TO THOROUGHLY ANALYZE THE SITE, INCLUDING ALL SURFACE AND SUBSURFACE CONDITIONS, THE WORK DETAILED IN THE CONSTRUCTION DOCUMENTS, AND ALL OTHER CONDITIONS THAT MAY AFFECT THE DESIGN OR SUCCESSFUL COMPLETION OF THE PROJECT PRIOR TO COMMENCEMENT OF WORK.

   B. THE LOCATION OF EXISTING UTILITIES, FACILITIES, STRUCTURES, AND OTHER FEATURES SHOWN ON THE PLANS HAVE BEEN DETERMINED BY THE BEST INFORMATION AVAILABLE AND ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER DOES NOT GUARANTEE THE ACCURACY OR THE COMPLETENESS OF THE LOCATION INFORMATION PROVIDED. ANY INACCURACY OR OMISSION IN SUCH INFORMATION SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO PROTECT EXISTING FEATURES FROM DAMAGE AND AVOID INTERRUPTION OF SERVICE. IF DISCREPANCIES ARISE BETWEEN ACTUAL FIELD CONDITIONS AND THE PLANS THAT WOULD RESULT IN A NECESSARY CHANGE TO THE CONSTRUCTION DESIGN, THE CONTRACTOR SHALL STOP ALL CONSTRUCTION IN THE AFFECTED AREA AND NOTIFY THE OWNER & ENGINEER IMMEDIATELY. FAILURE TO NOTIFY THE OWNER & ENGINEER, AND CONTINUING CONSTRUCTION SHALL MAKE THE CONTRACTOR LIABLE FOR ALL SUBSEQUENT ERRORS AND NECESSARY CORRECTIONS.

   C. THE CONTRACTOR SHALL PROTECT ALL PROPERTIES SURROUNDING THE JOB SITE FROM DAMAGE DUE TO CONSTRUCTION RELATED ACTIVITY OR SEDIMENTATION.

   D. THE CONTRACTOR SHALL PROTECT ALL EXISTING SURVEY MONUMENTATION AND TAKE ALL REASONABLE PRECAUTIONS NECESSARY TO AVOID DAMAGE TO ITEMS INCLUDING, BUT NOT LIMITED TO: PERMANENT REFERENCE MONUMENTS, PERMANENT CONTROL POINTS, PERMANENT BENCHMARKS, PROPERTY CORNERS, POINTS OR MARKERS. ANY DAMAGE OR DISTURBANCE TO EXISTING SURVEY MONUMENTATION DURING CONSTRUCTION SHALL BE RESTORED BY A FLORIDA LICENSED SURVEYOR AT THE CONTRACTOR'S EXPENSE.

11. PERMITS:

   A. THE CONTRACTOR SHALL ENSURE THAT ALL REQUIRED PERMITS ARE OBTAINED, WITH HARD COPIES AVAILABLE AT THE JOB SITE PRIOR TO COMMENCING CONSTRUCTION. CONTRACTOR SHALL ABIDE BY ALL REQUIRED PERMIT CONDITIONS. PERMITS INCLUDED (BUT NOT LIMITED TO) ARE:

   - WATER MANAGEMENT DISTRICT ENVIRONMENTAL RESOURCE PERMIT (E.R.P.) OR M.S.S.W.
   - WATER MANAGEMENT DISTRICT CONSUMPTIVE USE (WATER USE) FOR CONSTRUCTION DEWATERING (C.U.P.)
   - A.C.O.E. NATIONWIDE OR INDIVIDUAL DREDGE AND FILL
   - FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION TORTOISE INCIDENTAL TAKE OR RELOCATION
   - F.D.E.P. WATER DISTRIBUTION
   - F.D.E.P. SANITARY SEWER COLLECTION AND TRANSMISSION
   - LOCAL/STATE RIGHT OF WAY USE
   - LOCAL/STATE UNDERGROUND UTILITIES
   - F.D.E.P. N.P.D.E.S. STORMWATER

   B. THE CONTRACTOR SHALL REVIEW ALL PERMITS PRIOR TO CONSTRUCTION FOR ANY CHANGES TO THE DESIGN INCLUDED THEREIN. CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER OF ANY REQUIRED CHANGES PRIOR TO COMMENCING CONSTRUCTION.

12. PRE-CONSTRUCTION:

   A. THE CONTRACTOR SHALL VERIFY ALL QUANTITIES, TAKE-OFF MEASUREMENTS, NEEDED MATERIALS AND NECESSARY REMOVAL & REPAIR OF IMPROVEMENTS AT POINTS OF CONNECTION TO EXISTING INFRASTRUCTURE DURING THE BID PROCESS. ALL NECESSARY WORK TO COMPLETE THE PROJECT SHALL BE INCLUDED ON THE CONTRACTOR'S BID. ANY EXCLUSIONS FROM THE BID SHALL BE CLEARLY ITEMIZED AND DESCRIBED ON THE BID.

   B. UPON NOTICE OF AWARD, THE CONTRACTOR SHALL ARRANGE AND ATTEND A REQUIRED PRE-CONSTRUCTION MEETING WITH THE AUTHORITY HAVING JURISDICTION'S STAFF, OWNER, ENGINEER OF RECORD, AND ANY OTHER APPLICABLE PARTIES.

   C. THE CONTRACTOR SHALL PROVIDE THE OWNER AND ENGINEER A CONSTRUCTION SCHEDULE FOR ALL INCLUDED SITE WORK ELEMENTS TO FACILITATE COORDINATION OF PERIODIC SITE VISITS TO ENSURE TIMELY ISSUANCE OF CERTIFICATION OF COMPLETION OR CERTIFICATION OF OCCUPANCY.

13. LABOR & MATERIALS:

   A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ALL MATERIALS AND LABOR TO CONSTRUCT THE PROJECT AS SHOWN AND DESCRIBED IN THE CONSTRUCTION DRAWINGS IN ACCORDANCE WITH THE APPROPRIATE GOVERNING AGENCIES SPECIFICATIONS, AND REQUIREMENTS.

   B. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE APPROPRIATE GOVERNING AGENCIES AND ENGINEER FOR REVIEW PRIOR TO MATERIAL PROCUREMENT AND DELIVERY TO JOB SITE. CONTRACTOR SHALL CONFIRM COMPATIBILITY OF MATERIALS, PIPE SLOPES AND INVERTS AND ADVISE ENGINEER OF ANY DISCREPANCIES.

   C. NO EXISTING MATERIALS SHALL BE USED IN NEW CONSTRUCTION UNLESS OTHERWISE APPROVED BY THE ENGINEER. EXISTING ITEMS CALLED OUT TO BE RELOCATED IN THE PLANS SHALL BE EVALUATED IN THE FIELD BY THE CONTRACTOR TO DETERMINE IF RELOCATION IS FEASIBLE OR IF A SUITABLE REPLACEMENT IS REQUIRED.

   D. ALL WORK SHALL BE COMPLETED IN CONFORMANCE WITH THE LINES, GRADES, CROSS SECTIONS, AND DIMENSIONS SPECIFIED IN THE CONSTRUCTION DOCUMENTS. ALL PROVIDED MATERIALS AND THEIR INSTALLATION SHALL MEET THE MOST STRINGENT SPECIFICATIONS AND TESTING REQUIREMENTS OF THE APPROPRIATE GOVERNING AGENCY, FDOT, FDEP, UTILITY PROVIDER, GEOTECHNICAL REPORT, AND/OR OWNER REQUIREMENTS.

   E. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACTIONS OR INACTIONS OF THE CONTRACTOR'S EMPLOYEES, SUBCONTRACTORS, AGENTS OR ANY OTHER PERSONS OR ENTITY PERFORMING WORK ON BEHALF OF THE CONTRACTOR.

   F. ANY HAULING OR MOVEMENT OF MATERIALS OR EQUIPMENT TO AND FROM THE JOB SITE SHALL COMPLY WITH ALL LEGAL LOAD RESTRICTIONS ON PUBLIC ROADS. THE CONTRACTOR SHALL BE HELD LIABLE FOR ANY DAMAGE THAT MAY OCCUR FROM HAULING OR MOVING MATERIALS & EQUIPMENT.

   G. THE CONTRACTOR SHALL ARRANGE FOR DAILY REMOVAL OF TRASH AND DEBRIS FROM THE SITE OR AT MORE FREQUENT INTERVALS AS NEEDED TO REDUCE ACCUMULATION OF POTENTIAL FIRE & SAFETY HAZARDS OR ENVIRONMENTAL CONCERNS. TRASH AND DEBRIS SHALL BE PLACED IN SEALED CONTAINERS, COVERED OR TIED DOWN AS NECESSARY TO PREVENT SPILLAGE DURING CONSTRUCTION SITE BY WIND, STORMWATER DISCHARGE, OR OTHER MEANS. ALL TRASH AND DEBRIS SHALL BE DISPOSED OF BY THE CONTRACTOR IN A LEGAL MANNER.

14. CONSTRUCTION LAYOUT:

   A. THE CONTRACTOR SHALL HAVE THE DESIGN/PLATTING SURVEYOR SET AND/OR VERIFY PROPERTY CORNER AND BENCHMARK LOCATIONS AND ELEVATIONS PRIOR TO CONSTRUCTION.

   B. ANY SUPPLEMENTAL DIGITAL FILES, INCLUDING BUT NOT LIMITED TO COMPUTER AIDED DRAFTING (CAD) FILES, DESIGN FILES, OR SIMILAR FILES ARE PROVIDED AT THE DISCRETION OF RITTER CIVIL, LLC FOR INFORMATIONAL PURPOSES ONLY. RITTER CIVIL, LLC BEARS NO RESPONSIBILITY FOR THE COMPATIBILITY OF SUPPLEMENTAL DIGITAL FILES WITH THE RECIPIENT'S SOFTWARE OR SYSTEM. THE CONTRACTOR SHALL LAYOUT PROPOSED IMPROVEMENTS BASED ON THE SITE BOUNDARY PROVIDED BY SURVEYOR AND THE DIMENSIONS, NOTES AND OTHER APPLICABLE INFORMATION CONTAINED IN THE SIGNED AND SEALED CONSTRUCTION PLANS.

   C. THE CONTRACTOR SHALL COMPLETELY STAKE AND CHECK ALL IMPROVEMENTS SHOWN ON THE CONSTRUCTION PLANS TO ENSURE ADEQUATE HORIZONTAL AND VERTICAL POSITIONING PRIOR TO INSTALLING ANY IMPROVEMENT.

   D. ANY BUILDING FOOTPRINT SHOWN IS PROVIDED FOR CONVENIENCE ONLY. CONTRACTOR TO VERIFY BUILDING GEOMETRY WITH ARCHITECT AND/OR BUILDING CONTRACTOR PRIOR TO STAKING ANY BUILDING CORNERS PER THIS PLAN. THE CONTRACTOR SHALL VERIFY BUILDING LAYOUT MEETS ALL MINIMUM REQUIRED SETBACKS.

15. NOTIFICATIONS & UTILITY COORDINATION:

   A. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE APPROPRIATE GOVERNMENTAL AGENCIES, UTILITY SERVICE PROVIDERS, AND CORPORATIONS OWNING OR CONTROLLING ANY ROADWAY, UTILITY, OR STORMWATER INFRASTRUCTURE AND FACILITIES IN CLOSE PROXIMITY TO THE WORK AREA OR OTHERWISE AFFECTED BY CONSTRUCTION ACTIVITIES AT A MINIMUM OF 3 WORKING DAYS UNLESS OTHERWISE REQUIRED BY SUCH ENTITY. CONTRACTOR TO COORDINATE WITH APPROPRIATE ENTITIES TO PROPERLY LOCATE, SUPPORT, AND PROTECT SUCH FACILITIES FROM ANY UNAUTHORIZED DISTURBANCE, INTERRUPTION OF SERVICE, OR DAMAGE. CONTRACTOR SHALL NOTIFY SUNSHINE STATE ONE CALL OF FLORIDA, INC. (800-432-4770) PRIOR TO PLANNED EXCAVATION OR DEMOLITION ACTIVITIES.

16. JOB SITE SAFETY & SECURITY:

   A. THE CONTRACTOR SHALL ADHERE TO ALL REASONABLE & COMMONLY ACCEPTED SAFETY PRACTICES AND COMPLY WITH ALL FEDERAL, STATE, AND LOCAL LAWS, REGULATIONS, ORDINANCES AND GUIDELINES GOVERNING JOB SAFETY, HEALTH, SAFE USE OF EQUIPMENT AND MATERIAL HANDLING AS PUBLISHED BY THE RESPECTIVE MANUFACTURERS AND THE OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA). INCLUDE BUT ARE NOT LIMITED TO: OSHA SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION, STANDARDS 29 C.F.R., 1926, SUBPART P, EXCAVATIONS, AND ALL REVISIONS, AMENDMENTS OR ADDENDA ADOPTED AS PART OF THE DEPARTMENT OF LABOR AND EMPLOYMENT SECURITY, AND WITH SECTION 553.62, FLORIDA STATUTES.

   B. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL NECESSARY BARRICADES, LIGHTS, WARNING SIGNS, AND PAVEMENT MARKINGS FOR HAZARDS AND TRAFFIC CONTROL THROUGH WORK ZONES IN ACCORDANCE WITH FDOT, LOCAL CITY OR COUNTY OR OTHER GOVERNING AGENCIES HAVING JURISDICTION IN ORDER TO PREVENT ACCIDENT OR INJURY AT ALL LOCATIONS WHERE CONSTRUCTION ACTIVITY CREATES ANY FORM OF HAZARD TO THE PUBLIC OR INTERRUPTS NORMAL TRAFFIC FLOW. WHEN REQUIRED, A MAINTENANCE OF TRAFFIC PLAN SHALL BE PREPARED BY AN FDOT CERTIFIED DESIGNER RETAINED BY THE CONTRACTOR AND SUBMITTED BY THE CONTRACTOR TO THE OWNER/ENGINEER AND AUTHORITY HAVING JURISDICTION FOR APPROVAL.

   C. WHEN COMBUSTIBLE MATERIALS ARE BROUGHT ON SITE, ACCESS ROADS AND A TEMPORARY OR PERMANENT SUPPLY OF WATER SHALL BE PROVIDED AND MAINTAINED AS REQUIRED BY THE GOVERNING FIRE DEPARTMENT.

   D. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOB SITE SECURITY AND SHALL TAKE EVERY PRECAUTION NECESSARY TO ENSURE THE COMPLETED WORK, EQUIPMENT, AND MATERIALS ARE SECURED & STORED ON-SITE IN SUCH A MANNER TO PREVENT UNAUTHORIZED ACCESS, USE, OR THEFT. SIGNAGE, FENCING AND ANY OTHER APPLICABLE SECURITY MEASURES WILL BE PROVIDED AT CONTRACTOR'S EXPENSE.

   E. ANY WORK IN PLACE SUBJECT TO DAMAGE DUE TO ONGOING CONSTRUCTION ACTIVITY SHALL BE COVERED, BOARDED UP OR OTHERWISE SUFFICIENTLY PROTECTED BY THE CONTRACTOR AT THEIR EXPENSE.

17. INSPECTIONS & TESTING:

   A. THE OWNER, OWNER'S REPRESENTATIVES, ENGINEER, & INSPECTORS OF APPLICABLE PERMITTING AGENCIES SHALL HAVE ACCESS TO THE JOB SITE AT ALL TIMES TO MONITOR WORK COMPLETED OR WORK IN PROGRESS.

   B. THE CONTRACTOR SHALL RETAIN A QUALIFIED GEOTECHNICAL ENGINEER FOR INSPECTIONS, TESTING, REPORTS, AND CERTIFICATIONS.

   C. THE CONTRACTOR SHALL BE RESPONSIBLE TO PERFORM ALL TESTING AS REQUIRED BY CITY / AND OR COUNTY, FDOT, UTILITY PROVIDER, FDEP, GEOTECHNICAL ENGINEER, AND AS REQUIRED BY THE OWNER / ENGINEER. TEST RESULTS SHALL BE SUPPLIED BY THE CONTRACTOR IN A TIMELY MANNER TO THE OWNER / ENGINEER FOR REVIEW, ACCEPTANCE AND CERTIFICATIONS.

   D. THE CONTRACTOR SHALL PROVIDE THE ENGINEER A MINIMUM NOTICE OF TWO BUSINESS DAYS FOR THE FOLLOWING CONSTRUCTION AND OBSERVATION ACTIVITIES:

   - SANITARY SEWER VIDEO INSPECTION
   - CONNECTION TO EXISTING STORMWATER OR UTILITY SYSTEMS
   - STORM AND SANITARY LAYING
   - INLET TOP POURS
   - WATER, RECLAIM, AND FORCE MAIN PRESSURE TESTS
   - BACTERIOLOGICAL SAMPLING
   - BASE INSPECTION
   - PLACEMENT OF ASPHALT LIFTS
   - PRE-FINAL SITE INSPECTIONS
   - FINAL SITE INSPECTIONS

   E. IF ANY INSPECTIONS OR TEST RESULTS REVEAL DEFECTIVE WORK, THE CONTRACTOR SHALL NOT BE ELIGIBLE FOR ANY PAYMENT ASSOCIATED WITH THE DEFECTIVE WORK UNTIL IT MEETS THE REQUIRED SPECIFICATIONS AND STANDARDS INDICATED IN THE PLANS. THE CONTRACTOR SHALL COVER ALL REINSTALLATION, ADDITIONAL TESTING AND ASSOCIATED COSTS AS A RESULT OF REMEDYING THE DEFECTIVE WORK.

   F. ALL WORK RESULTING FROM REQUIREMENTS OR RECOMMENDATIONS FROM INSPECTION PERSONNEL MUST BE REPORTED TO THE OWNER / ENGINEER FOR REVIEW AND AUTHORIZATION PRIOR TO COMMENCEMENT. NO COMPENSATION WILL BE GRANTED TO THE CONTRACTOR FOR ADDITIONAL WORK THAT WAS NOT APPROVED BY THE OWNER / ENGINEER.

SEDIMENTATION AND EROSION CONTROL:

18. REFER TO SEDIMENTATION AND EROSION CONTROL PLAN SHEET FOR SEDIMENTATION AND EROSION CONTROL NOTES AND DETAILS.

DEMOLITION AND CLEARING:

19. THE CONTRACTOR SHALL CLEARLY DELINEATE THE LIMITS OF CONSTRUCTION ON SITE PRIOR TO CONSTRUCTION. ALL WORK SHALL REMAIN WITHIN THE LIMITS OF CONSTRUCTION.

20. ALL EXISTING STRUCTURES, SLABS, FENCING, ASPHALT, SIGNS, OR OTHER EXISTING IMPROVEMENTS OR DEBRIS PILES WITHIN THE LIMITS OF PROPOSED IMPROVEMENTS ARE TO BE REMOVED BY THE CONTRACTOR UNLESS OTHERWISE NOTED ON THE PLANS. SOME ITEMS REQUIRING REMOVAL MAY NOT BE SHOWN ON THE PLANS OR SURVEY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW THE EXISTING CONDITIONS OF THE SITE AND PROPOSED IMPROVEMENTS TO DETERMINE THE EXTENT OF ITEMS TO BE REMOVED. THE CONTRACTOR SHALL CONTACT THE OWNER PRIOR TO REMOVAL IF THERE IS ANY QUESTION AS TO WHETHER OR NOT AN ITEM SHOULD BE REMOVED. CONTRACTOR SHALL REMOVE ALL NON-REUSABLE WASTE MATERIAL, AT THE OWNERS DIRECTION, FOR DISPOSAL OFF-SITE. DISPOSAL SHALL CONFORM TO ALL APPLICABLE REGULATIONS.

21. THE CONTRACTOR SHALL APPLY FOR AND OBTAIN ALL NECESSARY PERMITS FOR DEMOLITION, AND COMPLY WITH THE REQUIREMENTS OF SUCH PERMITS IN THEIR ENTIRETY.

22. ANY SIDEWALKS OR CURBING DISTURBED BY THE WORK SHALL BE RESTORED TO THE CONDITION OF THE ORIGINAL STRUCTURE. SIDEWALK PANELS SHALL BE RESTORED TO FULL PANEL WIDTHS AND LENGTHS (DEFINED BY EDGES OF SIDEWALK AND THE NEAREST CONTROL JOINTS OR EXPANSION JOINTS). PARTIAL PATCHING OF SIDEWALKS SHALL NOT BE ACCEPTABLE. PAVEMENT FINISHES, THICKNESSES AND GRADES SHALL MATCH THE EXISTING SIDEWALK.

23. THE CONTRACTOR SHALL COMPLY WITH ALL TREE PROTECTION REQUIREMENTS BY THE AGENCY HAVING JURISDICTION. THE CONTRACTOR SHALL USE EXTRA CARE WHEN WORKING NEAR EXISTING TREES DESIGNATED TO BE SAVED ON THE PLANS OR OTHERWISE NOTED IN THE FIELD. ALL PRACTICAL AND REASONABLE MEASURES SHALL BE TAKEN TO AVOID UNNECESSARY TREE REMOVAL.

24. TREE PROTECTION FENCING SHALL BE PROVIDED IN ACCORDANCE WITH THE LOCAL PERMITTING AGENCY REQUIREMENTS.

25. ANY EXISTING TREE DESIGNATED TO REMAIN THAT IS DAMAGED OR DESTROYED BY CONSTRUCTION ACTIVITIES WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE. REPLACEMENT TREE TO MEET LOCAL PERMITTING AGENCY REQUIREMENTS.

26. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL FIELD STAKE AND ROPE OFF ALL CONSERVATION AREA BOUNDARIES.

27. THE CONTRACTOR SHALL STRIP OR OTHERWISE REMOVE ALL EXISTING VEGETATION, RUBBISH OR DELETERIOUS MATERIAL IN AREAS REQUIRING FILL MATERIAL.

PAVING, GRADING AND DRAINAGE NOTES:

28. GENERAL

   A. ALL EARTHWORK FILL, STORMWATER SYSTEM, AND PAVEMENT MATERIALS AND THEIR INSTALLATION / PLACEMENT SHALL MEET THE MOST STRINGENT REQUIREMENTS OF FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LOCAL PERMITTING AGENCIES, OR GEOTECHNICAL RECOMMENDATIONS. IN THE EVENT OF A CONFLICT BETWEEN REQUIREMENTS, CONTRACTOR TO REQUEST CLARIFICATION FROM THE ENGINEER IN WRITING.

   B. ALL EXISTING TOPOGRAPHY, VERTICAL CONTROL AND BOUNDARY INFORMATION IS SHOWN AS PROVIDED BY SURVEYOR. CONTRACTOR TO VERIFY ALL EXISTING GRADES PRIOR TO BEGINNING WORK & NOTIFY ENGINEER IMMEDIATELY SHOULD ANY DISCREPANCIES OCCUR BETWEEN THE TOPOGRAPHIC SURVEY AND FIELD CONDITIONS.

   C. INFORMATION PROVIDED IN THE GEOTECHNICAL REPORT AND GEOTECHNICAL ENGINEER'S RECOMMENDATIONS WERE RELIED UPON DURING PREPARATION OF THESE CONSTRUCTION DRAWINGS. RITTER CIVIL, LLC ASSUMES NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF THE GEOTECHNICAL REPORT OR OTHER INFORMATION PROVIDED BY THE GEOTECHNICAL ENGINEER.

   D. FOR THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL RESTORE AND RE-GRADE ANY WASHOUTS THAT MAY OCCUR UNTIL ADEQUATE STABILIZATION IS ACHIEVED.

29. GEOTECHNICAL TESTING & INSPECTIONS:

   A. THE CONTRACTOR/OWNER SHALL RETAIN A QUALIFIED FLORIDA-REGISTERED GEOTECHNICAL ENGINEER AND TESTING COMPANY FOR INSPECTION, TESTING, LAB REPORTS, AND CERTIFICATIONS.

   B. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING ALL TESTING REQUIRED BY THE LOCAL CITY OR COUNTY, FDOT, GEOTECHNICAL ENGINEER OR OWNER.

   C. ALL EARTHWORK ACTIVITIES SHALL BE INSPECTED AND TESTED BY THE GEOTECHNICAL ENGINEER OR AGENT UNDER THE GEOTECHNICAL ENGINEER'S RESPONSIBLE CHARGE. THE GEOTECHNICAL ENGINEER SHALL INSPECT AND TEST THE EXCAVATION, PLACEMENT, AND COMPACTION OF FILL AREAS, AND THE BACKFILL AND COMPACTION OF ANY STORM/UTILITY TRENCHES.

   D. ALL TESTING AND LAB REPORTS SHALL BE SUBMITTED BY THE CONTRACTOR TO THE OWNER / ENGINEER AS THEY ARE GENERATED.

   E. THE CONTRACTOR'S GEOTECHNICAL ENGINEER SHALL MONITOR ONGOING CONSTRUCTION CONDITIONS AND PROVIDE RECOMMENDATIONS TO THE OWNER / ENGINEER FOR ROADWAY UNDERDRAINS OR ADDITIONAL ROADWAY UNDERDRAINS AS NECESSARY.

   F. THE CONTRACTOR'S GEOTECHNICAL ENGINEER SHALL PROVIDE THE FOLLOWING CERTIFICATIONS TO OWNER / ENGINEER:

   - OBSERVATIONS AND TESTS WERE CONDUCTED BY THE GEOTECHNICAL ENGINEER OR AGENT UNDER THEIR SUPERVISION, AND IN THE GEOTECHNICAL ENGINEER'S OPINION, ALL EXCAVATIONS AND EMBANKMENTS WERE CONSTRUCTED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE GEOTECHNICAL REPORT AND THAT ALL EXCAVATIONS AND EMBANKMENTS ARE SUITABLE FOR THEIR INTENDED USE.
   - POND BERMS HAVE BEEN CONSTRUCTED BASED ON THE RECOMMENDATIONS OF THE DESIGN GEOTECHNICAL ENGINEER AND CIVIL ENGINEERING PLANS AND SPECIFICATIONS.

   G. ANY ROADWAY IMPROVEMENTS THAT HAVE NOT BEEN TESTED BY A FLORIDA-REGISTERED GEOTECHNICAL ENGINEER AND REPORTED TO CONFORM TO THE PROJECT'S SPECIFICATIONS IS SUBJECT TO WITHHOLDING AUTHORIZATION OF PAYMENT UNTIL SATISFACTORY TEST RESULTS ARE PROVIDED.

30. EARTHWORK

   A. IF PROVIDED, EARTHWORK QUANTITIES DETERMINED BY RITTER CIVIL, LLC ARE FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR SHALL CONFIRM REQUIRED EARTHWORK QUANTITIES WITH INDEPENDENT ANALYSIS, FIELD VERIFICATION AND CALCULATIONS AS NECESSARY DURING THE BID PROCESS. ALL REQUIRED EARTHWORK, INCLUDING ANY IMPORTED OR EXPORTED FILL MATERIAL SHALL BE INCLUDED IN THE CONTRACTOR'S BID. UNLESS OTHERWISE SPECIFIED BY THE OWNER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ADDITIONAL IMPORT OR EXPORTED FILL MATERIAL REQUIRED BUT NOT INCLUDED IN THE INITIAL BID.

   B. ALL AREAS REQUIRING FILL SHALL BE PREPARED IN ACCORDANCE WITH GEOTECHNICAL REPORT'S SPECIFICATIONS. THE CONTRACTOR SHALL REMOVE ANY MUCK, VEGETATIVE OR DELETERIOUS MATERIAL FROM THE SURFACE OF THE AREA REQUIRING PLACEMENT OF FILL. LOOSE FILL AND ALLUVIAL SOILS SHALL BE REMOVED TO SUITABLE, FIRM NATURAL GROUND.

   C. ALL FILL MATERIALS SHALL BE FREE OF UNSUITABLE MATERIALS INCLUDING BUT NOT LIMITED TO MUCK, STUMPS, ROOTS, BRUSH OR VEGETATIVE MATTER.

   D. ALL EXCESS FILL MATERIAL SHALL BE HAULED OFF-SITE UNLESS OTHERWISE SHOWN IN THE PLANS TO BE STOCKPILED ON-SITE.

31. GRADING

   A. THE CONTRACTOR SHALL GRADE THE SITE TO PROVIDE POSITIVE DRAINAGE IN ALL AREAS, AND AVOID DAMAGE TO ADJOINING PROPERTIES OR WORK RELATED TO CONSTRUCTION ACTIVITY BY THE CONTROL OF SURFACE WATER. SMOOTH TRANSITIONS SHALL BE PROVIDED BETWEEN THE SPOT GRADES, CONTOURS, AND FLOW LINES DEPICTED ON THE CONSTRUCTION PLANS.

   B. ALL CUT OR FILL SLOPES SHALL BE MAXIMUM 4:1 (HORIZONTAL:VERTICAL) UNLESS OTHERWISE SHOWN ON THE PLANS.

   C. ALL ELEVATIONS PROVIDED IN GRASSED AREAS ARE SET AT TOP OF SOD OR SEEDED SURFACE.

   D. ALL ELEVATIONS PROVIDED IN PAVED AREAS ARE SET AT EDGE OF PAVEMENT UNLESS OTHERWISE NOTED ON THE PLANS.

   E. GRADING OF ROADWAY CORRIDORS SHALL INCLUDE ANY ADJACENT UTILITY, DRAINAGE, OR ACCESS EASEMENTS WITHIN FUTURE LOTS. SAID EASEMENTS SHALL BE GRADED TO WITHIN 6 INCHES OF FINAL DESIGN GRADE.

32. DEWATERING

   A. THE CONTRACTOR SHALL INCLUDE DEWATERING AS REQUIRED BY THE MORE STRINGENT OF THE GEOTECHNICAL

OR M23 AS APPLICABLE TO PIPE MATERIAL. FDEP, LOCAL AND/OR UTILITY PROVIDER REGULATIONS. WATER AND FIRE MAINS SHALL BE TESTED AT 150 PSI FOR A MINIMUM OF 2 HOURS, AND MEET AWWA STANDARDS FOR THEIR RESPECTIVE MATERIAL.

- DISINFECTION & BACTERIOLOGICAL SAMPLE TESTS: THE CONTRACTOR SHALL FLUSH AND DISINFECT ALL WATER MAINS IN ACCORDANCE WITH AWWA C651, LOCAL JURISDICTION OR UTILITY PROVIDER REQUIREMENTS. ALL WATER SAMPLE LOCATIONS FOR BACTERIOLOGICAL TESTING SHALL BE IN ACCORDANCE WITH FDEP PERMIT REQUIREMENTS.

E. RECLAIM WATER SYSTEM TESTING, AT A MINIMUM, SHALL INCLUDE:

- PRESSURE AND LEAKAGE TEST: THE CONTRACTOR SHALL PERFORM A HYDROSTATIC PRESSURE AND LEAKAGE TEST OF THE WATER SYSTEM IN ACCORDANCE WITH AWWA STANDARDS C600, C605, OR M23 AS APPLICABLE TO PIPE MATERIAL, LOCAL AND/OR UTILITY PROVIDER REGULATIONS. RECLAIM WATER MAINS SHALL BE TESTED AT 200 PSI FOR A MINIMUM OF 2 HOURS, AND MEET AWWA STANDARDS FOR THEIR RESPECTIVE MATERIAL.

F. SANITARY GRAVITY SEWER SYSTEM TESTING AND INSPECTION, AT A MINIMUM, SHALL INCLUDE:

- LAMPING & VIDEO INSPECTION: THE CONTRACTOR SHALL LAMP AND VIDEO INSPECT EACH MAIN IN ACCORDANCE WITH THE UTILITY PROVIDER REQUIREMENTS, FOR ALIGNMENT, GRADE VARIATIONS, JOINT SEPARATION, LEAKS, DEFLECTION, DAMAGE OR OTHER DEFECTS IN THE PIPE MATERIALS OR THEIR INSTALLATION.
- DEFLECTION TESTS: AFTER FINAL BACKFILL IS IN PLACE FOR AT LEAST 30 DAYS, THE CONTRACTOR SHALL CONDUCT A DEFLECTION TEST UTILIZING A RIGID BALL OR MANDREL IN NOT LESS THAN 95% OF THE MAIN'S BASE INSIDE DIAMETER OR AVERAGE INSIDE DIAMETER AS SPECIFIED IN THE ASTM SPECIFICATIONS AND APPENDICES. NO MECHANICAL PULLING DEVICES SHALL BE USED FOR TESTING. ALL PIPES SHALL NOT EXCEED A 5% DEFLECTION.
- VACUUM TESTING: ALL WASTEWATER MANHOLES SHALL BE VACUUM TESTED PER ASTM C1244 FOR CONCRETE MANHOLES.
- LEAKAGE TESTS: THE CONTRACTOR SHALL PERFORM LOW-PRESSURE AIR TESTS ON ALL GRAVITY MAINS AND LATERALS IN ACCORDANCE PROCEDURES DESCRIBED WITH ASTM F1417 FOR PLASTIC PIPE. MAINS SHALL BE TESTED BETWEEN MANHOLES WITH TESTING SECTIONS NOT TO EXCEED 400 FEET IN LENGTH.

G. SANITARY FORCE MAIN TESTING, AT A MINIMUM, SHALL INCLUDE:

- PRESSURE AND LEAKAGE TEST: THE CONTRACTOR SHALL PERFORM A HYDROSTATIC PRESSURE AND LEAKAGE TEST OF THE FORCE MAIN SYSTEM IN ACCORDANCE WITH AWWA STANDARDS C600, C605, OR M23 AS APPLICABLE TO PIPE MATERIAL, FDEP, LOCAL AND/OR UTILITY PROVIDER REGULATIONS. FORCE MAINS SHALL BE TESTED AT 150 PSI FOR A MINIMUM OF 2 HOURS, AND MEET AWWA STANDARDS FOR THEIR RESPECTIVE MATERIAL.

SIGNAGE AND PAVEMENT MARKINGS:

42. ALL SIGNAGE AND PAVEMENT MARKING MATERIALS AND THEIR INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE FDOT STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION, THE FHWA "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", AND LOCAL CODE.
43. ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC UNLESS OTHERWISE NOTED AND APPROVED ON THE PLANS. ALL THERMOPLASTIC AND PAINT MATERIALS SHALL BE CERTIFIED FREE OF LEAD.
44. ALL HANDICAP PARKING SPACES SHALL BE DESIGNATED WITH PAVEMENT MARKINGS AND SIGNAGE IN ACCORDANCE WITH ADA REQUIREMENTS.
45. ALL REGULATORY TRAFFIC SIGNS SHALL BE INSTALLED PRIOR TO FINAL INSPECTION OF ROADWAY IMPROVEMENTS.
46. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ANY EXISTING PAVEMENT MARKINGS IN CONFLICT WITH THE PROPOSED PAVEMENT MARKINGS DEPICTED ON THE CONSTRUCTION PLANS.
47. FIRE HYDRANTS SHALL BE LOCATED WITH BLUE REFLECTIVE PAVEMENT MARKERS, PLACED OPPOSITE FIRE HYDRANTS IN THE CENTER OF THE NEAREST TRAVEL LANE.

AS-BUILTS & CERTIFICATION:

48. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL REQUEST THE MINIMUM AS-BUILT REQUIREMENTS OF THE APPLICABLE PERMITTING AGENCIES AND/OR UTILITY PROVIDER AND BECOME FAMILIAR WITH THESE REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AS-BUILTS OF INSTALLED IMPROVEMENTS SATISFYING THE MINIMUM SUBMITTAL REQUIREMENTS OF THE APPLICABLE PERMITTING AGENCIES AND/OR UTILITY PROVIDER.
49. AS-BUILT DRAWINGS SHALL BE PREPARED AND CERTIFIED AS CORRECT BY A FLORIDA LICENSED LAND SURVEYOR AND PROVIDED TO THE ENGINEER FOR REVIEW.
50. UNLESS OTHERWISE DIRECTED BY RITTER CIVIL, LLC. ALL AS-BUILT INFORMATION AND LINEWORK DEPICTING CONSTRUCTED IMPROVEMENTS SHALL BE OVERLAID IN BOLD OVER A GRAYSCALE VERSION OF THE APPROVED PLAN SHEETS. WHERE DEVIATIONS FROM THE APPROVED PLANS OCCUR, THE AS-BUILT SURVEYOR SHALL STRIKE OUT THE APPLICABLE CALLOUTS ON THE APPROVED PLANS AND PROVIDE THE AS-BUILT INFORMATION.
51. IN ADDITION TO THE MINIMUM AS-BUILT REQUIREMENTS OF THE APPLICABLE PERMITTING AGENCIES AND/OR UTILITY PROVIDER, AS-BUILT DRAWINGS SHALL CONTAIN THE FOLLOWING INFORMATION:

A. SANITARY SEWER SYSTEM

- HORIZONTAL LOCATION & TOP ELEVATIONS OF EACH MANHOLE/STRUCTURE FRAME AND COVER
- PIPE SIZE AND MATERIAL (IF ALTERNATE MATERIAL WAS APPROVED)
- INVERTS OF ALL PIPES ENTERING AND/OR LEAVING EACH MANHOLE/STRUCTURE
- LENGTHS OF EACH RUN OF MAIN BETWEEN MANHOLES/STRUCTURES, MEASURED CENTER TO CENTER
- INVERTS OF PIPE CONNECTIONS TO EXISTING MANHOLES/STRUCTURES
- AS-BUILT SLOPE OF PIPE BETWEEN MANHOLES/STRUCTURES
- LENGTH OF ALL SERVICE WYES, LOCATION AND DEPTH AT LOT LINE OR INVERT AT CLEAN-OUT LOCATION.
- LOCATION & ELEVATION OF ALL FITTINGS AND ACCESSORIES NOT VISIBLE TO THE SURFACE.

B. STORM SEWER SYSTEM

- HORIZONTAL LOCATION & TOP ELEVATIONS OF EACH MANHOLE/STRUCTURE FRAME, COVER OR GRATE
- OUTFALL AND CONTROL STRUCTURE COMPONENTS INCLUDING BUT NOT LIMITED TO WEIR ELEVATIONS, DIMENSIONS, ORIFICE PIPE SIZE AND INVERTS, AND SKIMMER DIMENSIONS
- PIPE SIZE AND MATERIAL (IF ALTERNATE MATERIAL FROM THE PLANS WAS APPROVED)
- INVERTS OF ALL PIPES ENTERING AND/OR LEAVING EACH MANHOLE/STRUCTURE, INCLUDING UNDERDRAINS
- INVERTS OF MITERED END SECTIONS, ENDWALLS, OR INVERT OF PIPE CONNECTIONS TO EXISTING SYSTEMS
- AS-BUILT GRADE OF PIPE BETWEEN MANHOLES/STRUCTURES
- LOCATION AND INVERT ELEVATION OF ALL STORM STUB-OUTS
- UNDERDRAIN LOCATIONS

C. PRESSURE SYSTEMS (WATER/ RECLAIM / FORCE MAIN)

- LOCATION AND TOP ELEVATION OF ALL MAINS, SERVICE LINES AND FIRE APPARATUS
- LOCATION AND TOP ELEVATION OF ALL VALVES AND FITTINGS
- PIPE SIZE AND MATERIAL (IF ALTERNATE MATERIAL FROM THE PLANS WAS APPROVED)
- ALL UTILITY CROSSINGS WITH CLEARANCES MEASURED FROM OUTSIDE OF PIPE. AS-BUILTS SHALL CLEARLY DEMONSTRATE COMPLIANCE WITH MINIMUM SEPARATION DISTANCES.

D. GRADING & STORMWATER FACILITIES

- POND ELEVATIONS INCLUDING TOP OF BANK, GRADE BREAKS, AND POND BOTTOM
- SWALE / DITCH TOP AND BOTTOM ELEVATIONS
- ELEVATIONS FOR ALL SPOT GRADES SHOWN IN PROPOSED PAVEMENT AREAS
- ELEVATIONS ON RESIDENTIAL LOT CORNERS, GRADE BREAKS ON LOT LINES, AND CENTER OF BUILDING PAD
- TOP AND BOTTOM OF RETAINING WALL ELEVATIONS
- ALONG ALL PROPOSED ROADWAYS, SPOT GRADES AT EVERY MAJOR STATION AND PVI SHALL BE PROVIDED AT CROWN, EDGE OF PAVEMENT, TOP OF CURB, AND BACK OF SIDEWALK OR RIGHT OF WAY LINE.

52. AS-BUILTS FOR ALL UNDERGROUND STORMWATER DRAINAGE AND UTILITY IMPROVEMENTS MUST BE SUBMITTED TO THE ENGINEER AND ACCEPTED PRIOR TO CONSTRUCTION OF PAVING IMPROVEMENTS.
53. NO ENGINEER'S CERTIFICATION OF COMPLETION WILL BE ISSUED UNTIL COMPLETE AS-BUILT DRAWINGS HAVE BEEN PROVIDED AND ACCEPTED. PARTIAL AS-BUILTS MAY BE PROVIDED FOR SPECIFIC PURPOSES SUCH AS FDEP CLEARANCES.
54. THE ENGINEER RESERVES THE RIGHT TO REQUIRE THE CONTRACTOR TO UNCOVER, RETEST OR PERFORM ANY NECESSARY ACTION TO CONFIRM THAT ALL IMPROVEMENTS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.

REVISIONS:

55. CLOUDED REVISIONS ARE INTENDED TO AID THE CONTRACTOR, BUT DO NOT RELIEVE THE CONTRACTOR FROM IDENTIFYING ANY ADDITIONAL CHANGES AS A RESULT OF THE CLOUDED REVISIONS. THE CONTRACTOR SHALL REVIEW THE REVISION CHANGES IN RELATION TO THE CONSTRUCTION PLANS IN THEIR ENTIRETY BEFORE PROCEEDING.

MATERIAL SPECIFICATIONS:

1. GENERAL:

A. THE CONTRACTOR SHALL REVIEW THESE MATERIAL SPECIFICATIONS AGAINST THOSE OF THE AUTHORITY HAVING JURISDICTION (AHJ). WHEREVER THE BELOW STANDARDS DIFFER FROM THE REQUIREMENTS OF THE AHJ, THEY SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION. TYPICALLY THE AHJ REQUIREMENT SHALL APPLY.

B. MATERIAL FURNISHED UNDER THESE REQUIREMENTS SHALL BE IN NEW CONDITION, FREE OF DEFECTS, AND HIGH GRADE.

2. PAVING AND DRAINAGE:

A. ALL STORM PIPE SHALL BE CLASS III REINFORCED CONCRETE PIPE PER ASTM C-76, UNLESS OTHERWISE SPECIFIED. LIFTING HOLES ARE NOT ACCEPTABLE. PIPES SHALL BE JOINED USING A BELL AND SPIGOT JOINT, WITH COMPRESSION GASKETS MEETING THE REQUIREMENTS OF ASTM C443 AND WRAPPED PER FDOT INDEX 430-001.

B. HP PIPE ALTERNATIVE: WHERE LOCAL MUNICIPALITIES ALLOW, HIGH DENSITY POLYPROPYLENE (HP) PIPE MAY BE SUBSTITUTED AS AN ALTERNATE TO RCP. HP STORM PIPE, 12 INCH THROUGH 60 INCH, SHALL HAVE A SMOOTH INTERIOR AND ANNULAR EXTERIOR CORRUGATIONS AND SHALL MEET ASTM F2881 OR AASHTO M330. PIPES SHALL BE JOINED USING A BELL AND SPIGOT JOINT. JOINTS SHALL BE WATERTIGHT ACCORDING TO THE REQUIREMENTS OF ASTM D3212. GASKETS SHALL MEET THE REQUIREMENTS OF ASTM F477. GASKETS SHALL BE INSTALLED BY THE PIPE MANUFACTURER AND COVERED WITH A REMOVABLE PLASTIC WRAP TO ENSURE THE GASKET IS FREE FROM DEBRIS. A JOINT LUBRICANT AVAILABLE FROM THE MANUFACTURER SHALL BE USED ON THE GASKET AND BELL DURING ASSEMBLY. EXTERIOR BELL WRAPS SHALL BE INSTALLED BY THE MANUFACTURER.

C. ALL STORM PIPES SHALL BE INSTALLED, LASER PROFILED AND VIDEOED IN ACCORDANCE WITH FDOT STANDARD SPECIFICATIONS.

D. STORM CLEANOUTS LOCATED IN PAVED AREAS SHALL BE TRAFFIC BEARING. STORM STRUCTURES AND MANHOLES SHALL HAVE TRAFFIC BEARING GRATES OR LIDS. ALL GRATES AND LIDS SHALL BE SET FLUSH WITHOUT MOVEMENT WHEN SUBJECTED TO VEHICLE TRAFFIC.

E. ALL YARD DRAINS SHALL BE NDS IN-LINE DRAINS AND DRAIN BASINS WITH WATER TIGHT ADAPTER CONNECTIONS, OR ENGINEER APPROVED EQUAL. CATCH BASIN RISER (NDS#1216) SHALL BE USED IN SHRUB AREAS, 12" SQUARE FLAT GRATES (NDS#1211) SHALL BE USED IN TURF AREAS. REFER TO LANDSCAPE PLANS FOR GRATE TYPE SUITABLE FOR THE LOCATION.

F. YARD DRAIN PIPING UNDER PAVEMENT AREAS SHALL BE ASTM D3034 SDR 35 PVC OR ENGINEER APPROVED EQUAL. YARD DRAIN PIPING OUTSIDE OF PAVEMENT AREAS SHALL BE ASTM D3034 SDR 35 PVC OR HEAVY DUTY CORRUGATED POLYETHYLENE (HDPE). SELECTED MATERIALS SHALL BE CONSISTENT THROUGHOUT THE PROJECT.

G. ALL TYPE "P" STRUCTURE BOTTOMS SHALL BE ROUND UNLESS OTHERWISE NOTED AND SHALL HAVE A 4 FOOT DIAMETER.

H. ALL UNDERDRAIN SHALL BE ADVANCED DRAINAGE SYSTEMS (ADS) HEAVY-DUTY CORRUGATED POLYETHYLENE PIPE WITH FACTORY INSTALLED FILTER FABRIC, OR APPROVED EQUAL.

I. ALL UNDERDRAIN DISCHARGE PIPE SHALL BE NON-PERFORATED ASTM D3034 SDR 35 PVC WITH ELASTOMERIC JOINTS.

J. AGGREGATE USED FOR ANY EXFILTRATION TRENCH SHALL BE NON-LIMESTONE BASED NATURALLY OCCURRING MATERIAL. CRUSHED OR RECYCLED CONCRETE IS NOT PERMITTED FOR USE IN THE EXFILTRATION TRENCH.

K. STORM CLEANOUTS LOCATED IN PAVED AREAS SHALL BE TRAFFIC BEARING. STORM STRUCTURES AND MANHOLES SHALL HAVE TRAFFIC BEARING GRATES OR LIDS. ALL GRATES AND LIDS SHALL BE SET FLUSH WITHOUT MOVEMENT WHEN SUBJECTED TO VEHICLE TRAFFIC.

L. ALL REINFORCED CONCRETE PIPE (RCP) SHALL BE MINIMUM CLASS III UNLESS OTHERWISE NOTED ON THE CONSTRUCTION PLANS.

3. POTABLE WATER AND FIRE MAINS:

A. WATER AND FIRE MAINS, FITTINGS, VALVES, AND APPURTENANCES SHALL MEET ALL APPLICABLE UTILITY PROVIDER MATERIAL SPECIFICATIONS AND BE IDENTIFIED WITHIN THE APPROVED PRODUCT LIST PUBLISHED BY THE PROVIDER. IF UTILITY PROVIDER MATERIAL SPECIFICATIONS ARE NOT DEFINED, MINIMUM MATERIAL SPECIFICATIONS SHALL BE AS FOLLOWS:

B. WATER MAINS 1-1/2" TO 3" AND FITTINGS LESS THAN 4" SHALL BE PVC MEETING ASTM D2241 AND ASTM D1784 CLASS 200, SDR 21, AND INCLUDE INTEGRAL BELLS AND ELASTOMERIC JOINTS PER ASTM D3139 AND GASKETS PER ASTM F477.

C. WATER AND FIRE MAINS 4" TO 12" SHALL BE PVC (UNLESS OTHERWISE CALLED FOR) MEETING THE REQUIREMENTS OF AWWA C900 CLASS 150 DR18 AND ASTM D1784 AND INCLUDE INTEGRAL BELLS AND ELASTOMERIC JOINTS PER ASTM D3139 AND GASKETS PER ASTM F477.

D. WATER AND FIRE MAINS SHALL BE DUCTILE IRON WHEN CALLED FOR. WITH MIN PRESSURE CLASS 350 PER AWWA C150, WITH INTERIOR LINING OF CEMENT MORTAR AND ASPHALTIC MATERIAL SEAL COAT IN ACCORDANCE WITH ANSI/ AWWA C104/A21.4, AND EXTERIOR COATING PER ANSI/ AWWA C151/A21.51 OF 1.0 MIL MIN THICKNESS.

E. FITTINGS 4" AND OVER SHALL BE DUCTILE IRON CONFORMING TO ANSI/AWWA C110/A21.10, 250 PSI, WITH CEMENT MORTAR LINING CONFORMING TO ANSI/ AWWA C104/A21.4, STANDARD THICKNESS, WITH COMPRESSION TYPE JOINTS/MECHANICAL JOINTS AS RESPECTIVELY SPECIFIED IN ASTM D3139 AND ANSI/AWWA C110/A21.11

F. VALVES 2" AND SMALLER SHALL BE BRONZE, WEDGE DISC, NON-RISING STEM TYPE, 150 PSI MIN WORKING PRESSURE, WITH WROUGHT STEEL OR CAST IRON HAND WHEELS AND WITH SUITABLE ENDS FOR JOINTING TO THE SELECTED PIPE.

G. VALVES 3" TO 12" SHALL BE RESILIENT SEAT GATE VALVES AT 250 PSI RATING, CONFORMING TO ANSI/ AWWA C509 OR C515 OPENING COUNTERCLOCKWISE, WITH O-RING STEM SEAL AND OPENING EQUAL TO OR GREATER THAN THE NOMINAL DIAMETER OF THE VALVE.

H. VALVE BOXES SHALL BE ADJUSTABLE, CAST IRON, WITH MINIMUM INTERIOR DIAMETER OF 5 INCHES WITH COVERS LEGIBLY CAST WITH THE INSCRIPTION "WATER" ON THE TOP, AND WITH A HEAVY COATING OF BITUMINOUS PAINT. BOXES SHALL BE SUITABLE FOR THE APPLICABLE SURFACE LOADING AND VALVE SIZE. ALL VALVES SHALL HAVE BOXES.

I. FIRE HYDRANTS SHALL CONFORM TO AWWA C502, PAINTED IN ACCORDANCE WITH AHJ REQUIREMENTS.

J. BACKFLOW PREVENTION DEVICES: SHALL BE REDUCED PRESSURE ZONE TYPE UNLESS OTHERWISE SPECIFIED.

K. DOUBLE DETECTOR CHECK VALVE ASSEMBLY (DDCVA) AND DOUBLE CHECK VALVE ASSEMBLY (DCVA) SHALL CONFORM TO ASSE STANDARD 1048 AND 1015 RESPECTIVELY, AND AWWA C510 FEBCO MASTERSERIES LF856 SERIES OR ENGINEER APPROVED EQUAL. DEVICES TO INCLUDE OS&Y GATE VALVES AT BOTH ENDS AND EPOXY COATED STRAINER. ALL CAST/DUCTILE IRON PARTS TO BE EPOXY COATED. DDCVA TO INCLUDE METER BYPASS WITH DOUBLE CHECK VALVE (ALSO CONFORMING TO THIS SPECIFICATION).

L. REDUCED PRESSURE BACKFLOW PREVENTION DEVICES SHALL CONFORM TO ASSE STANDARD 1015 AND AWWA C511 HERSEY MODEL 6 CM OR ENGINEER APPROVED EQUAL. DEVICES TO INCLUDE OS&Y GATE VALVES AT BOTH ENDS AND EPOXY COATED STRAINER. ALL CAST/DUCTILE IRON PARTS TO BE EPOXY COATED.

M. POTABLE WATER SERVICES 3/4" TO 2" SHALL BE ENDOT INDUSTRIES ENDOPURE, BLUE COLOR SDR-9 250 PSI HDPE TUBING OR ENGINEER APPROVED EQUAL.

N. ALL WATER SYSTEM COMPONENTS INSTALLED THAT WILL COME INTO CONTACT WITH DRINKING WATER WILL CONFORM TO NSF INTERNATIONAL STANDARD 61 AS ADOPTED IN RULE 62-555.335, F.AC. OR OTHER APPLICABLE STANDARDS, REGULATIONS OR REQUIREMENTS REFERENCED IN PARAGRAPH 62-555.320(3)(B), F.A.C.

O. ALL PIPE, FITTINGS, SOLDER OR FLUX USED IN CONSTRUCTION SHALL CONTAIN NO LEAD.

P. 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 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.)

4. RECLAIMED WATER:

A. RECLAIMED WATER MAINS, FITTINGS, VALVES, AND APPURTENANCES SHALL MEET ALL APPLICABLE UTILITY PROVIDER MATERIAL SPECIFICATIONS AND BE IDENTIFIED WITHIN THE APPROVED PRODUCT LIST PUBLISHED BY THE PROVIDER. IF UTILITY PROVIDER MATERIAL SPECIFICATIONS ARE NOT DEFINED, MINIMUM MATERIAL SPECIFICATIONS SHALL BE AS FOLLOWS:

B. RECLAIMED WATER MAINS 1-1/2" TO 3" AND FITTINGS LESS THAN 4" SHALL BE PVC MEETING ASTM D2241 AND ASTM D1784 CLASS 200, SDR 21, AND INCLUDE INTEGRAL BELLS AND ELASTOMERIC JOINTS PER ASTM D3139 AND GASKETS PER ASTM F477.

C. RECLAIMED WATER MAINS 4" TO 12" SHALL BE PVC (UNLESS OTHERWISE CALLED FOR) MEETING THE REQUIREMENTS OF AWWA C900 CLASS 150 DR18 AND ASTM D1784 AND INCLUDE INTEGRAL BELLS AND ELASTOMERIC JOINTS PER ASTM D3139 AND GASKETS PER ASTM F477.

D. RECLAIMED WATER MAINS SHALL BE DUCTILE IRON WHEN CALLED FOR, WITH MIN PRESSURE CLASS 50 PER AWWA C150, WITH INTERIOR LINING OF CEMENT MORTAR AND ASPHALTIC MATERIAL SEAL COAT IN ACCORDANCE WITH ANSI/ AWWA C104/A21.4, AND EXTERIOR COATING PER ANSI/ AWWA C151/A21.51 OF 1.0 MIL MIN THICKNESS.

E. FITTINGS 4" AND OVER SHALL BE DUCTILE IRON CONFORMING TO ANSI/AWWA C110/A21.10, 250 PSI, WITH CEMENT MORTAR LINING CONFORMING TO ANSI/ AWWA C104/A21.4, STANDARD THICKNESS, WITH COMPRESSION TYPE JOINTS/MECHANICAL JOINTS AS RESPECTIVELY SPECIFIED IN ASTM D3139 AND ANSI/AWWA C110/A21.11

F. VALVES 2" AND SMALLER SHALL BE BRONZE, WEDGE DISC, NON-RISING STEM TYPE, 150 PSI MIN WORKING PRESSURE, WITH WROUGHT STEEL OR CAST IRON HAND WHEELS AND WITH SUITABLE ENDS FOR JOINTING TO THE SELECTED PIPE.

G. VALVES 3" TO 12" SHALL BE RESILIENT SEAT GATE VALVES AT 250 PSI RATING, CONFORMING TO ANSI/ AWWA C509 OR C515 OPENING COUNTERCLOCKWISE, WITH O-RING STEM SEAL AND OPENING EQUAL TO OR GREATER THAN THE NOMINAL DIAMETER OF THE VALVE.

H. VALVE BOXES SHALL BE ADJUSTABLE, CAST IRON, WITH MINIMUM INTERIOR DIAMETER OF 5 INCHES WITH COVERS LEGIBLY CAST WITH THE INSCRIPTION "RECLAIMED WATER" ON THE TOP, AND WITH A HEAVY COATING OF BITUMINOUS PAINT. BOXES SHALL BE SUITABLE FOR THE APPLICABLE SURFACE LOADING AND VALVE SIZE. ALL VALVES SHALL HAVE BOXES.

M. RECLAIMED WATER SERVICES 3/4" TO 2" SHALL BE ENDOT INDUSTRIES ENDOCORE RWT, PURPLE COLOR SDR-9 250 PSI HDPE TUBING OR ENGINEER APPROVED EQUAL.

N. ALL PIPING VALVES AND OUTLETS SHALL BE COLOR CODED PANTONE 522C PURPLE AND MARKED PER LOCAL AND STATE CODES TO DIFFERENTIATE RECLAIMED WATER FROM POTABLE WATER OR OTHER WATER SOURCES.

5. WASTEWATER COLLECTION & TRANSMISSION:

A. GRAVITY SEWER LINES, FORCE MAINS, FITTINGS, VALVES, AND APPURTENANCES SHALL MEET ALL APPLICABLE UTILITY PROVIDER MATERIAL SPECIFICATIONS AND BE IDENTIFIED WITHIN THE APPROVED PRODUCT LIST PUBLISHED BY THE PROVIDER. IF UTILITY PROVIDER MATERIAL SPECIFICATIONS ARE NOT DEFINED, MINIMUM MATERIAL SPECIFICATIONS SHALL BE AS FOLLOWS:

B. GRAVITY SEWER LINES AND FITTINGS TO BE PVC SDR 35 PER ASTM D3034 WITH ELASTOMERIC JOINTS PER ASTM D3212.

C. MANHOLES TO MEET ASTM C478 WITH A 5" MINIMUM CONCRETE WALL WITH 4,000 PSI COMPRESSIVE STRENGTH.

D. FORCE MAINS 4" TO 12" SHALL BE PVC DR 18 CLASS 100 PER AWWA C900 WITH ELASTOMERIC PUSH-ON JOINTS PER ASTM D3139.

E. FORCE MAIN FITTINGS AND PIPE 1-1/2" TO 3" AND FITTINGS LESS THAN 4" SHALL BE PVC MEETING ASTM D2241 AND ASTM D1784 CLASS 200, SDR 21, AND INCLUDE INTEGRAL BELLS AND ELASTOMERIC JOINTS PER ASTM D3139 AND GASKETS PER ASTM F477.

F. FORCE MAIN FITTINGS 4" AND OVER SHALL BE DUCTILE IRON CONFORMING TO ANSI/AWWA C110/A21.10, 250 PSI, WITH CEMENT MORTAR LINING CONFORMING TO ANSI/AWWA C104/A21.4, STANDARD THICKNESS, WITH COMPRESSION TYPE JOINTS/MECHANICAL JOINTS AS RESPECTIVELY SPECIFIED IN ASTM D3139 AND ANSI/AWWA C110/A21.11

PREPARED BY:
RITTER CIVIL
ENGINEERING ■ PLANNING
460 PINEY CROFT LANE MAITLAND, FL 32751
407-436-7276 ■ WWW.RITTERCIVIL.COM

PREPARED FOR:
4203 HOGSHEAD LLC

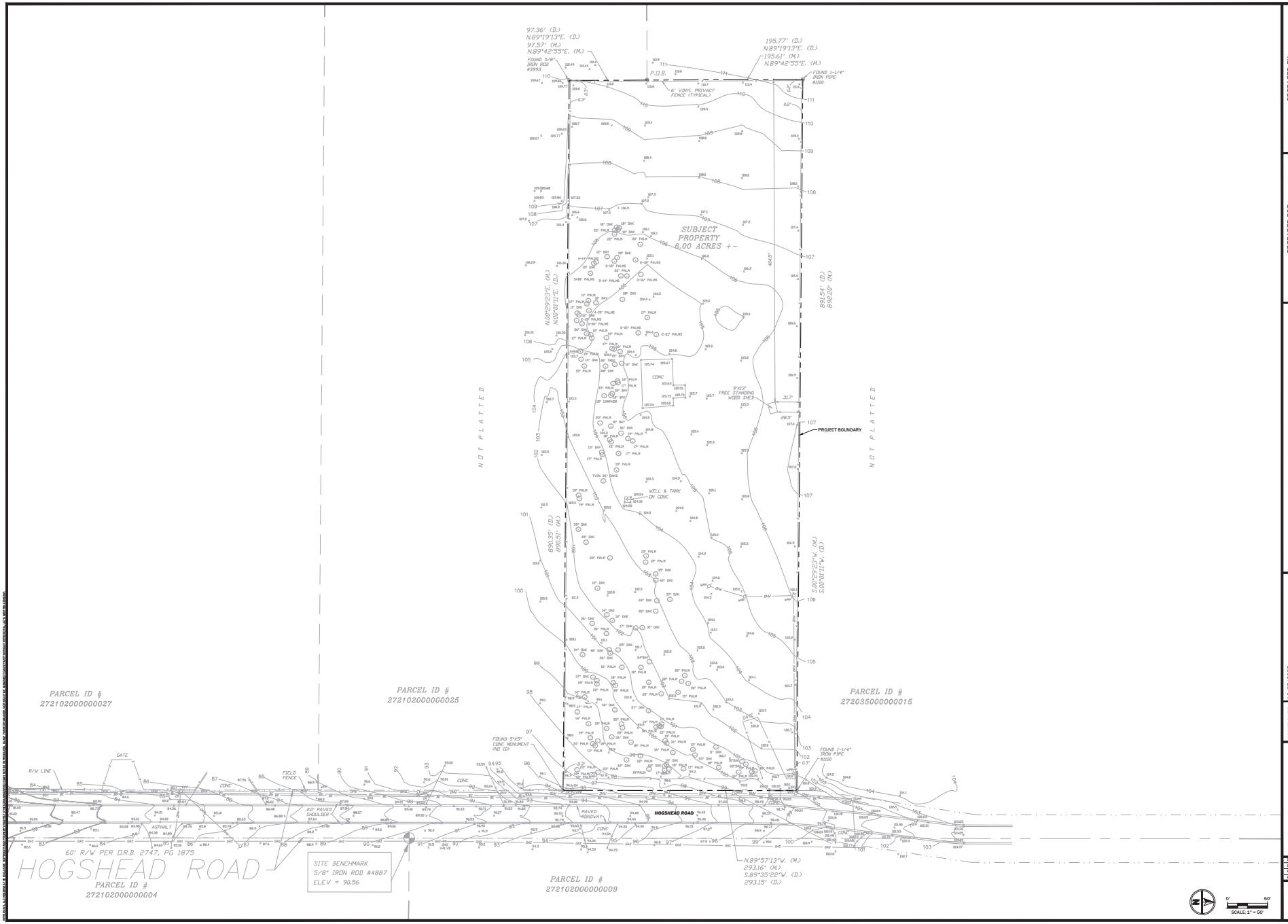
GENERAL NOTES
4203 HOGSHEAD ROAD

ISSUE DATE: 10/07/2025

REVISION:	
REVISION:	
REVISION:	
REVISION:	
REVISION:	
REVISION:	
REVISION:	

DRAFTED:	GPR
DESIGNED:	GPR
REVIEWED:	GRR
PROJECT NUMBER:	23027

SHEET:
C2.1



PREPARED BY:

RITTER CIVIL
ENGINEERING ■ PLANNING
460 PINEY CROFT LANE MAITLAND, FL 32751
407-436-7276 ■ WWW.RITTERCIVIL.COM

PREPARED FOR:

4203 HOGSHEAD LLC

EXISTING CONDITIONS

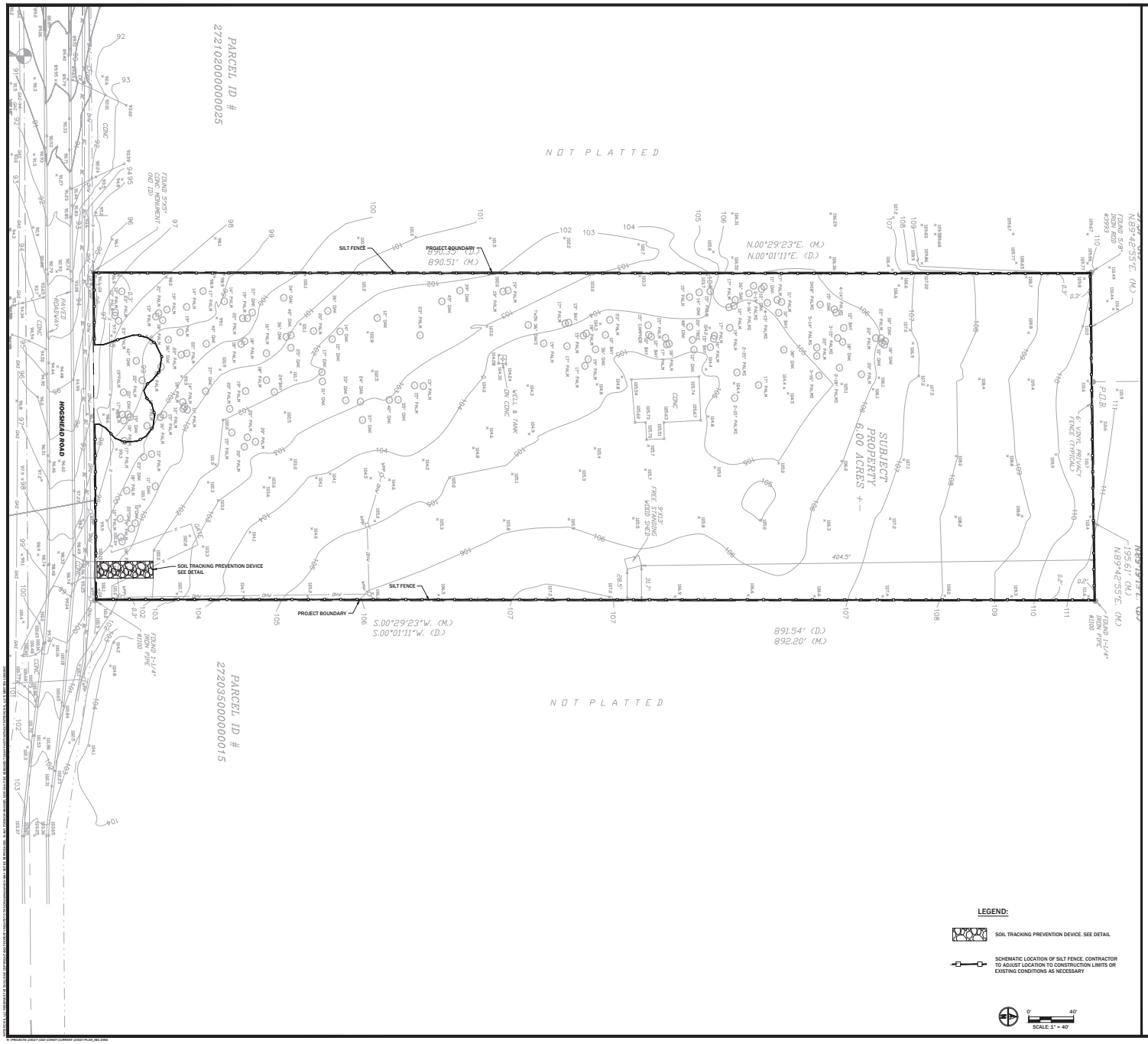
4203 HOGSHEAD ROAD

ISSUE DATE: 10/07/2025

REVISION:	
REVISION:	
REVISION:	
REVISION:	
REVISION:	
REVISION:	
REVISION:	

DRAFTED:	GPR
DESIGNED:	GPR
REVIEWED:	GRR
PROJECT NUMBER:	23027

SHEET:
C3.0



SEDIMENTATION AND EROSION CONTROL NOTES:

1. THIS SEDIMENTATION AND EROSION CONTROL PLAN AND ASSOCIATED DETAILS ARE PROVIDED AS A GUIDE TO THE CONTRACTOR. THE CONTRACTOR SHALL PREPARE AND IMPLEMENT THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) WHICH DEMONSTRATES THE MEANS AND METHODS THAT WILL BE UTILIZED TO PROTECT THE CONSTRUCTION SITE AND SURROUNDING AREAS AND WETLANDS DURING CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT REQUIREMENTS. THE PLAN SHALL INCLUDE AT A MINIMUM, THE LOCATION OF SOIL TRACKING PREVENTION DEVICES, SILT SCREENS AND FENCING, TURBIDITY BARRIERS, TEMPORARY SHEETING, EMERGENCY RESPONSE PRACTICES, AND ALL OTHER NECESSARY MEANS AND METHODS TO PREVENT POLLUTION.
2. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE, LOCAL LAWS, AND ALL REGULATIONS PERTAINING TO POLLUTION OF THE ENVIRONMENT.
3. FOR CONSTRUCTION ACTIVITIES THAT DISTURB 1 ACRE OR MORE OF LAND, OR DISTURB LESS THAN ONE ACRE OF LAND BUT ARE PART OF A COMMON PLAN OF DEVELOPMENT OR SALE, THE CONTRACTOR SHALL SUBMIT TO THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) A "NOTICE OF INTENT TO USE THE GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES" (NOI) A MINIMUM OF 2 CALENDAR DAYS BEFORE COMMENCEMENT OF CONSTRUCTION BY CLEARING, GRADING, EXCAVATING, DEMOLITION, OR OTHER CONSTRUCTION ACTIVITIES DISTURBING SOIL.
4. PRIOR TO SUBMITTING THE NOI, THE CONTRACTOR SHALL PREPARE A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN ACCORDANCE WITH EPA/FDEP NPDES AS WELL AS THE LOCAL AUTHORITY HAVING JURISDICTION'S MINIMUM EROSION CONTROL REQUIREMENTS.
5. ALL CONTRACTORS AND SUBCONTRACTORS INCLUDED ON THE STORMWATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE SWPPP AND THE NPDES PERMIT AND ABIDE BY THE REQUIREMENTS THEREIN.
6. THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES (BMP'S) AS REQUIRED BY THE SWPPP TO LIMIT SEDIMENTATION OUTSIDE OF THE PROJECT LIMITS. SITE CONDITIONS MAY NECESSITATE THE IMPLEMENTATION OF ADDITIONAL BMP'S WHICH SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.
7. ALL BMP'S SHALL BE PROVIDED IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, LOCAL REQUIREMENTS, MANUAL OF PRACTICE, AND/OR AS DIRECTED BY THE AGENCY HAVING JURISDICTION.
8. ALL BMP'S SHALL BE IN PLACE PRIOR TO CONSTRUCTION ACTIVITY AND MONITORED FOR ADEQUATE FUNCTION AND ANY NEEDED MAINTENANCE UNTIL THE PROJECT OR PHASE OF THE PROJECT IS FULLY COMPLETED AND ACCEPTED.
9. THE SITE SHALL BE INSPECTED BY A QUALIFIED INSPECTOR PROVIDED BY THE CONTRACTOR / OWNER AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN TWENTY-FOUR HOURS OF THE END OF A RAINFALL EVENT 6 INCHES OR GREATER.
10. INSPECTIONS OF THE BMPS SHALL COVER THE FOLLOWING:
    - ALL STORMWATER DISCHARGES FROM THE SITE TO ENSURE BMPS ARE NOT CAUSING OR CONTRIBUTING TO VIOLATIONS OF WATER QUALITY STANDARDS OR RESULTING IN OFFSITE SEDIMENTATION
    - THE BMP'S IDENTIFIED IN THE SWPPP ARE INSTALLED, MAINTAINED, AND OPERATING CORRECTLY AND EFFECTIVELY
    - BMP'S ARE BEING USED AND MAINTAINED PROPERLY FOR ALL AREAS USED FOR STORAGE OF MATERIALS EXPOSED TO RAINFALL AND RUNOFF
    - ANY EVIDENCE OF OFFSITE SEDIMENT TRACKING AT ALL LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE, NOTE ANY ACTIONS NEEDED TO REMOVE SEDIMENTS FROM THE ROADWAY AND TO PREVENT IT IN THE FUTURE
    - ANY VISIBLE SIGNS OF EROSION AND SEDIMENTATION IN ALL DISTURBED AREAS AND DISCHARGE POINTS.
11. ANY CORRECTIVE ACTION TO THE BMP'S SHALL BE FULLY DOCUMENTED. A COPY OF THE APPROVED NOI, ACKNOWLEDGEMENT LETTER, SWPPP, INSPECTION REPORTS, RECORDS AND ALL NOTIFICATIONS FROM FDEP SHALL BE KEPT ON SITE AT ALL TIMES FOR REVIEW BY THE NPDES INSPECTOR, OWNER OR OTHER AUTHORIZED PARTIES.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DIRT AND DUST ABATEMENT, AND SHALL WATER THE SITE OR USE OTHER APPROPRIATE MEASURES FOR CONTROL. NO USE OF PETROLEUM BASED OR OTHER TOXIC SUBSTANCES SHALL BE PERMITTED FOR DUST ABATEMENT.
13. THE CONTRACTOR SHALL PROVIDE SOIL TRACKING PREVENTION DEVICES AT DESIGNATED CONSTRUCTION ENTRANCES IN ACCORDANCE WITH THE FDOT EROSION AND SEDIMENT CONTROL DESIGNER AND REVIEWER MANUAL.
14. IF PROVIDED CONSTRUCTION ENTRANCES ARE NOT SUFFICIENT TO REMOVE DIRT AND MUD FROM THE TIRES OF VEHICLES AND EQUIPMENT LEAVING THE CONSTRUCTION SITE, THE TIRES MUST BE WASHED PRIOR TO THE VEHICLES LEAVING THE SITE AND ENTERING A PUBLIC ROAD.
15. ALL WATER USED FOR CLEANING CONCRETE TRUCKS, VEHICLES, EQUIPMENT OR OTHER CLEANING ACTIVITY SHALL BE PROPERLY DETAINED AND TREATED OR DISPOSED OF IN A LEGAL MANNER.
16. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLES ON TO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED AS SOON AS POSSIBLE.
17. SILT FENCING SHOWN ON THE PLANS IS SCHEMATIC AND MAY NEED TO BE ADJUSTED DUE TO SITE CONDITIONS. CONTRACTOR SHALL PLACE SILT FENCING ALONG THE LIMITS OF CONSTRUCTION BASED ON THE CONSTRUCTION PLANS IN THEIR ENTIRETY.
18. EXISTING CURB AND DITCH INLETS SHALL BE PROTECTED FROM SEDIMENTATION DUE TO SURFACE RUNOFF UNTIL ALL CONSTRUCTION ACTIVITY IS COMPLETE. FILTER FABRIC SHALL BE PLACED UNDER THE GRATE OF DITCH INLETS, AND FILTER SOCKS SHALL BE PLACED IN FRONT OF THE THROAT OF CURB INLETS.
19. TURBIDITY BARRIERS SHALL BE INSTALLED IN ALL EXISTING WATER BODIES WHERE CONSTRUCTION ACTIVITIES COULD CAUSE THE TRANSFER OF SEDIMENTS AND SUSPENDED SOLIDS. TURBIDITY BARRIERS SHALL REMAIN IN PLACE UNTIL CONSTRUCTION ACTIVITY IS COMPLETE AND THE GROUND IS STABILIZED WITH A DENSE STAND OF VEGETATION.
20. THE CONTRACTOR SHALL REMOVE SEDIMENT IN STORMWATER PONDS AND ANY SEDIMENT THAT MAY HAVE ACCUMULATED IN THE STORMWATER DRAINAGE SYSTEM.
21. ALL RIGHT OF WAY, POND SLOPES, OR SLOPES 5:1 OR GREATER SHALL BE SODDED. ALL SODDED AREAS SHALL BE WATERED, FERTILIZED OR OTHERWISE MAINTAINED BY THE CONTRACTOR AS NECESSARY UNTIL FINAL ACCEPTANCE OF THE PROJECT.
22. IF CONSTRUCTION ACTIVITY HAS CEASED FOR ANY REASON, ALL DISTURBED AREAS SHALL BE SEEDED & MULCHED OR OTHERWISE STABILIZED NO LATER THAN 7 DAYS FROM THE LAST CONSTRUCTION ACTIVITY.

PREPARED BY:
RITTER CIVIL
ENGINEERING ▪ PLANNING
460 PINEY CROFT LANE MAITLAND, FL 32751
407-436-7276 ▪ WWW.RITTERCIVIL.COM

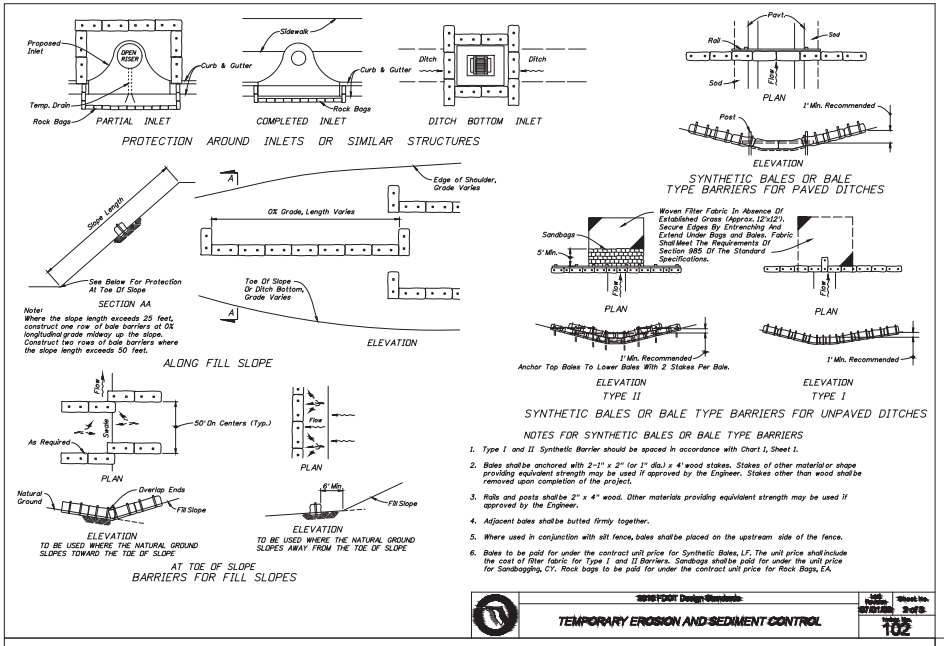
PREPARED FOR:
4203 HOGSHEAD LLC

SEDIMENTATION & EROSION CONTROL PLAN
4203 HOGSHEAD ROAD

ISSUE DATE	10/07/2025
REVISION:	
REVISION:	
REVISION:	
REVISION:	
REVISION:	
REVISION:	
REVISION:	

DRAFTED:	GPR
DESIGNED:	GPR
REVIEWED:	GRR
PROJECT NUMBER:	23027

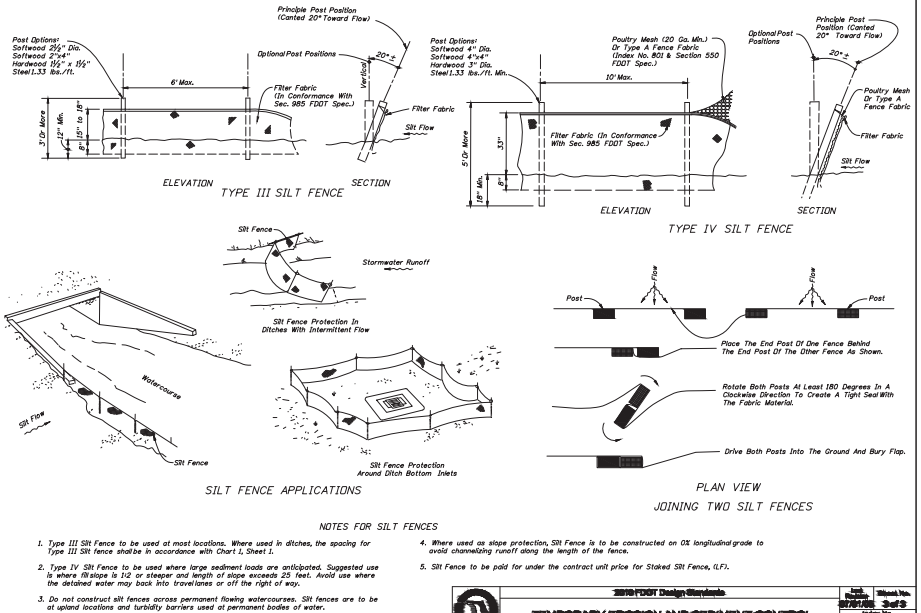
SHEET:
C4.0



NOTES FOR SYNTHETIC BALES OR BALE TYPE BARRIERS

1. Type I and II Synthetic Barrier should be spaced in accordance with Chart 1, Sheet 1.
2. Bales shall be anchored with 2-1" x 2" (or 1" dia.) x 4' wood stakes. Stakes of other material or shape providing equivalent strength may be used if approved by the Engineer. Stakes other than wood shall be removed upon completion of the project.
3. Rails and posts shall be 2" x 4" wood. Other materials providing equivalent strength may be used if approved by the Engineer.
4. Adjacent bales shall be butted firmly together.
5. Where used in conjunction with silt fence, bales shall be placed on the upstream side of the fence.
6. Bales to be paid for under the contract unit price for Synthetic Bales, LF. The unit price shall include the cost of filter fabric for Type I and II Barriers. Sandbags shall be paid for under the unit price for Sandbagging, CY. Rock bags to be paid for under the contract unit price for Rock Bags, EA.

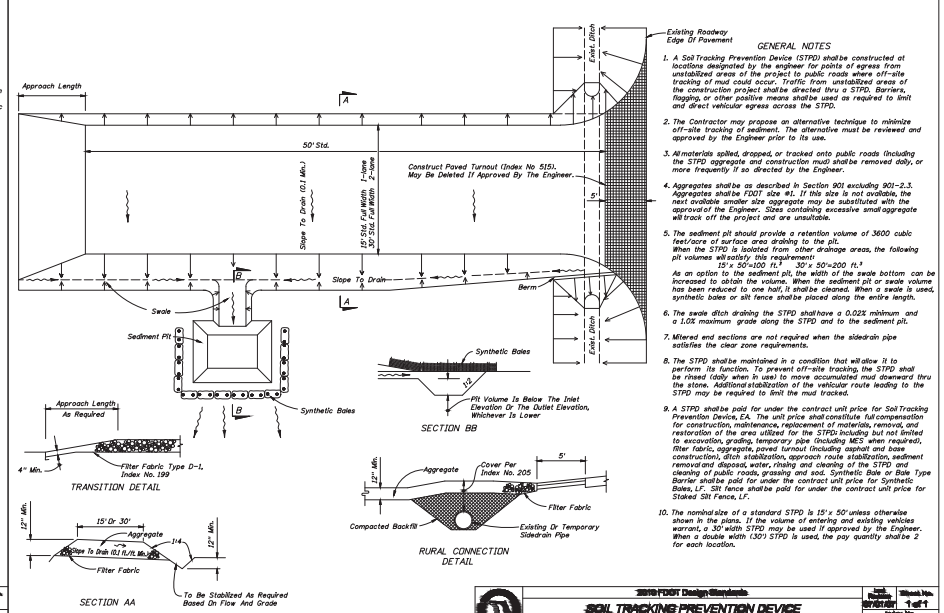
2016 FDOT Design Standards | Index Number 102 | 07/01/15 | Sheet No. 2 of 3 | TEMPORARY EROSION AND SEDIMENT CONTROL



NOTES FOR SILT FENCES

1. Type III Silt Fence to be used at most locations. Where used in ditches, the spacing for Type III Silt fence shall be in accordance with Chart 1, Sheet 1.
2. Type IV Silt Fence to be used where large sediment loads are anticipated. Suggested use is where fill slope is 1:2 or steeper and length of slope exceeds 25 feet. Avoid use where the detained water may back into travelanes or off the right of way.
3. Do not construct silt fences across permanent flowing watercourses. Silt fences are to be at upland locations and turbidity barriers used at permanent bodies of water.
4. Where used as slope protection, Silt Fence is to be constructed on 0% longitudinal grade to avoid channelizing runoff along the length of the fence.
5. Silt Fence to be paid for under the contract unit price for Staked Silt Fence, (LF).

2016 FDOT Design Standards | Index Number 102 | 07/01/15 | Sheet No. 3 of 3 | TEMPORARY EROSION AND SEDIMENT CONTROL



GENERAL NOTES

1. A Soil Tracking Prevention Device (STPD) shall be constructed at locations designated by the engineer for points of egress from unstabilized areas of the project to public roads where off-site tracking of mud could occur. Traffic from unstabilized areas of the construction project shall be directed thru a STPD. Barriers, flagging, or other positive means shall be used as required to limit and direct vehicular egress across the STPD.
2. The Contractor may propose an alternative technique to minimize off-site tracking of sediment. The alternative must be reviewed and approved by the Engineer prior to its use.
3. All materials spilled, dropped, or tracked onto public roads (including the STPD aggregate and construction mud) shall be removed daily, or more frequently if so directed by the Engineer.
4. Aggregates shall be as described in Section 901 excluding 901-2.3. Aggregates shall be FDOT size #1. If this size is not available, the next available smaller size aggregate may be substituted with the approval of the Engineer. Sizes containing excessive small aggregate will track off the project and are unsuitable.
5. The sediment pit should provide a retention volume of 3600 cubic feet/acre of surface area draining to the pit. When the STPD is isolated from other drainage areas, the following pit volumes will satisfy this requirement:
   15' x 50'=100 ft.³ 30' x 50'=200 ft.³
   As an option to the sediment pit, the width of the swale bottom can be increased to obtain the volume. When the sediment pit or swale volume has been reduced to one half, it shall be cleaned. When a swale is used, synthetic bales or silt fence shall be placed along the entire length.
6. The swale ditch draining the STPD shall have a 0.02% minimum and a 1.0% maximum grade along the STPD and to the sediment pit.
7. Mitered end sections are not required when the sidedrain pipe satisfies the clear zone requirements.
8. The STPD shall be maintained in a condition that will allow it to perform its function. To prevent off-site tracking, the STPD shall be rinsed daily when in use to move accumulated mud downward thru the stone. Additional stabilization of the vehicular route leading to the STPD may be required to limit the mud tracked.
9. A STPD shall be paid for under the contract unit price for Soil Tracking Prevention Device, EA. The unit price shall constitute full compensation for construction, maintenance, replacement of materials, removal, and restoration of the area utilized for the STPD including but not limited to excavation, grading, temporary pipe (including MES when required), filter fabric, aggregate, paved turnout (including asphalt and base construction), ditch stabilization, approach route stabilization, sediment removal and disposal, water, rinsing and cleaning of the STPD and cleaning of public roads, grassing and sod. Synthetic Bale or Bale Type Barrier shall be paid for under the contract unit price for Synthetic Bales, LF. Silt fence shall be paid for under the contract unit price for Staked Silt Fence, LF.
10. The nominal size of a standard STPD is 15' x 50' unless otherwise shown in the plans. If the volume of entering and existing vehicles warrant, a 30' width STPD may be used if approved by the Engineer. When a double width (30') STPD is used, the pay quantity shall be 2 for each location.

2016 FDOT Design Standards | Index Number 106 | 07/01/15 | Sheet No. 1 of 1 | SOIL TRACKING PREVENTION DEVICE TYPE A

PREPARED BY:
RITTER CIVIL
ENGINEERING ▪ PLANNING
460 PINEY CROFT LANE MAITLAND, FL 32751
407-436-7276 ▪ WWW.RITTERCIVIL.COM

PREPARED FOR:
4203 HOGSHEAD LLC

SEDIMENTATION & EROSION CONTROL PLAN
4203 HOGSHEAD ROAD

ISSUE DATE	10/07/2025
REVISION:	
REVISION:	
REVISION:	
REVISION:	
REVISION:	
REVISION:	
REVISION:	

DRAFTED:	GPR
DESIGNED:	GPR
REVIEWED:	GRR
PROJECT NUMBER:	23027

SHEET:
C4.1

PREPARED BY:

RITTER CIVIL
ENGINEERING ■ PLANNING
460 PINEY CROFT LANE MAITLAND, FL 32751
407-436-7276 ■ WWW.RITTERCIVIL.COM

PREPARED FOR:

4203 HOGSHEAD LLC

DEMOLITION PLAN

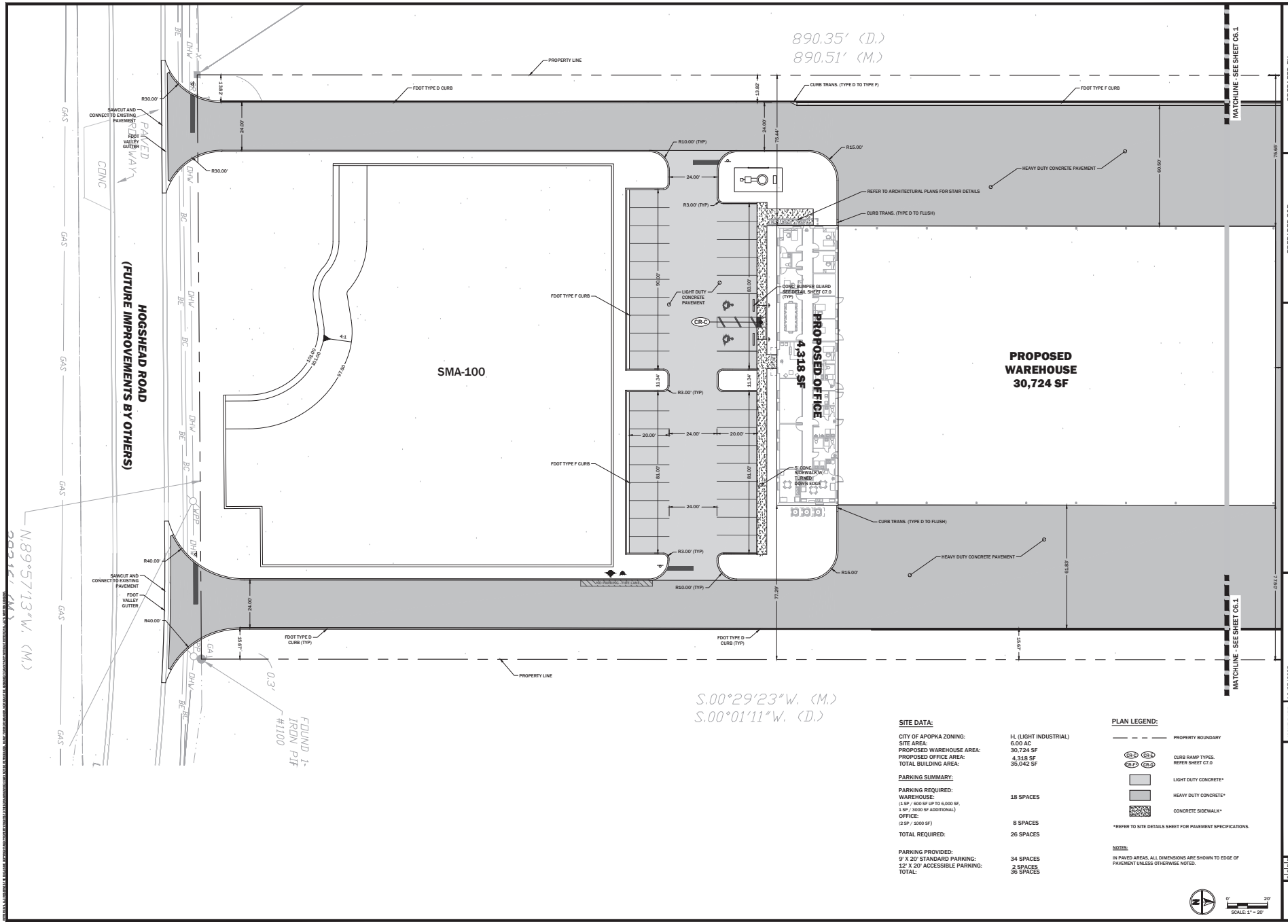
4203 HOGSHEAD ROAD

ISSUE DATE:	10/07/2025
REVISION:	
REVISION:	
REVISION:	
REVISION:	
REVISION:	
REVISION:	
REVISION:	

DRAFTED:	GPR
DESIGNED:	GPR
REVIEWED:	GRR
PROJECT NUMBER:	23027

SHEET:

C5.0



SITE DATA:

CITY OF APOPKA ZONING:	I-L (LIGHT INDUSTRIAL)
SITE AREA:	6.00 AC
PROPOSED WAREHOUSE AREA:	30,724 SF
PROPOSED OFFICE AREA:	4,318 SF
TOTAL BUILDING AREA:	35,042 SF

PARKING SUMMARY:

PARKING REQUIRED:	
WAREHOUSE: (1 SP / 600 SF UP TO 6,000 SF, 1 SP / 3000 SF ADDITIONAL)	18 SPACES
OFFICE: (2 SP / 1000 SF)	8 SPACES
TOTAL REQUIRED:	26 SPACES
PARKING PROVIDED:	
9' X 20' STANDARD PARKING:	34 SPACES
12' X 20' ACCESSIBLE PARKING:	2 SPACES
TOTAL:	36 SPACES

PLAN LEGEND:

- PROPERTY BOUNDARY
- CR-D, CR-E, CR-F, CR-G — CURB RAMP TYPES. REFER SHEET C7.0
- LIGHT DUTY CONCRETE*
- HEAVY DUTY CONCRETE*
- CONCRETE SIDEWALK*

*REFER TO SITE DETAILS SHEET FOR PAVEMENT SPECIFICATIONS.

NOTES:

IN PAVED AREAS, ALL DIMENSIONS ARE SHOWN TO EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.

SCALE: 1" = 20'

PREPARED BY:
RITTER CIVIL
ENGINEERING ■ PLANNING
460 PINEY CROFT LANE MAITLAND, FL 32751
407-436-7276 ■ WWW.RITTERCIVIL.COM

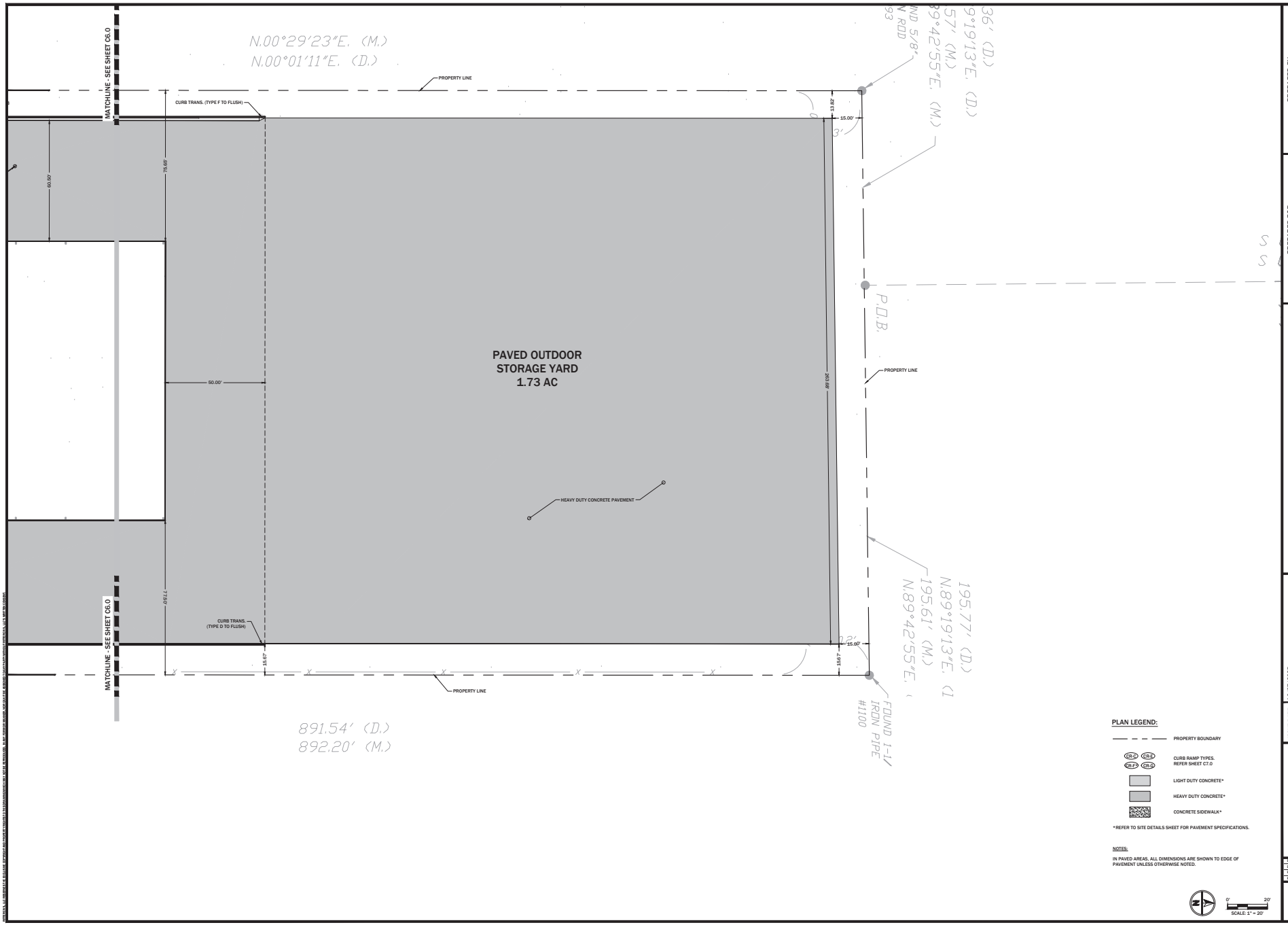
PREPARED FOR:
4203 HOGSHEAD LLC

SITE PLAN
4203 HOGSHEAD ROAD

ISSUE DATE: 10/07/2025

DRAFTED:	GPR
DESIGNED:	GPR
REVIEWED:	GRR
PROJECT NUMBER:	23027

SHEET: C6.0



PREPARED BY:
RITTER CIVIL
ENGINEERING ■ PLANNING
460 PINEY CROFT LANE MAITLAND, FL 32751
407-436-7276 ■ WWW.RITTERCIVIL.COM

PREPARED FOR:
4203 HOGSHEAD LLC

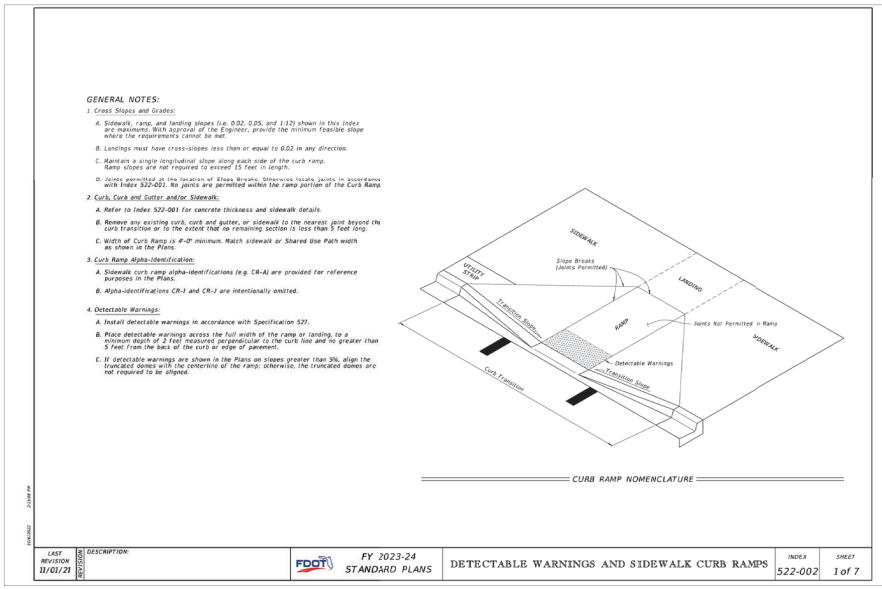
SITE PLAN
4203 HOGSHEAD ROAD

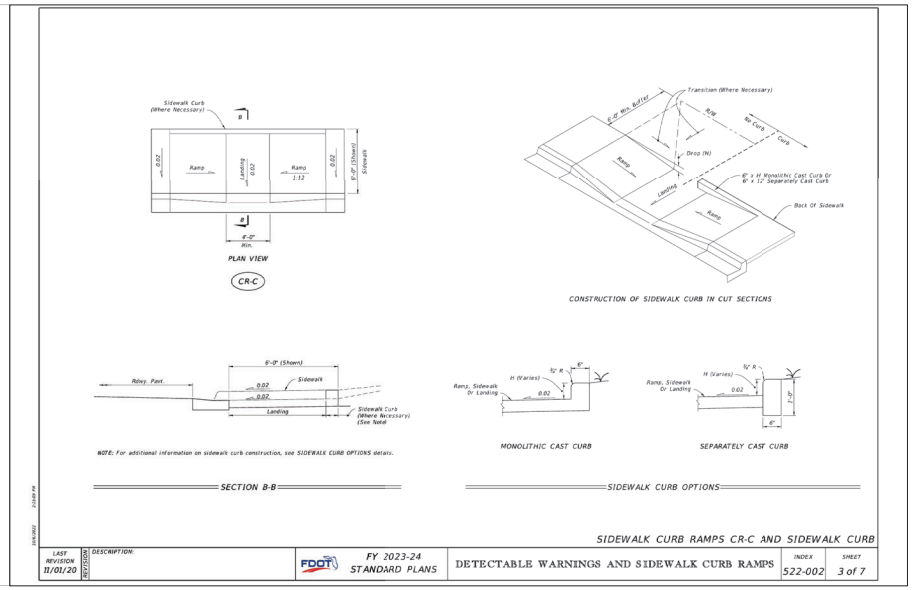
ISSUE DATE: 10/07/2025

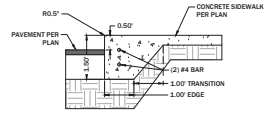
REVISION:	
REVISION:	
REVISION:	
REVISION:	
REVISION:	
REVISION:	
REVISION:	

DRAFTED:	GPR
DESIGNED:	GPR
REVIEWED:	GBR
PROJECT NUMBER:	23027

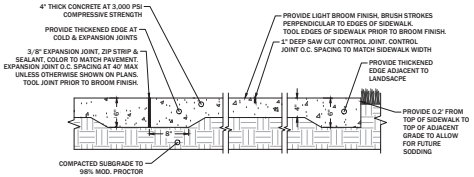
SHEET:
C6.1







CONCRETE SIDEWALK WITH TURNED-DOWN EDGE
SCALE: NTS

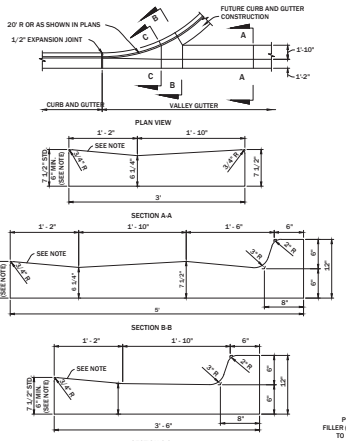


SIDEWALK NOTES:
USE ONE COLOR / SUPPLIER/BATCH FOR ALL CONCRETE SIDEWALKS.

FULL PANEL (JOINT-TO-JOINT) REPLACEMENT REQUIRED FOR REPAIRING CRACKED OR OTHERWISE DAMAGED CONCRETE SIDEWALKS.

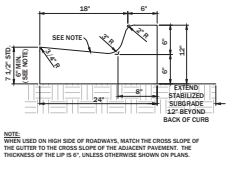
DETAIL PROVIDED FOR STANDARD PEDESTRIAN GRADE SIDEWALKS. REFER TO HARDSCAPE PLANS FOR NON-STANDARD OR VEHICULAR GRADE CONCRETE PAVING CONDITIONS AND DETAILS.

STANDARD CONCRETE SIDEWALK
SCALE: NTS



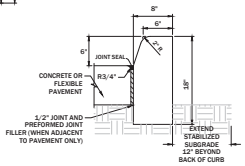
NOTE:
WHEN USED ON HIGH SIDE OF ROADWAYS, MATCH THE CROSS SLOPE OF THE GUTTER TO THE CROSS SLOPE OF THE ADJACENT PAVEMENT. THE THICKNESS OF THE LIP IS 6", UNLESS OTHERWISE SHOWN ON PLANS.

FDOT VALLEY GUTTER
NTS

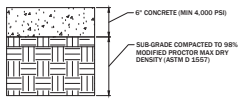


NOTE:
WHEN USED ON HIGH SIDE OF ROADWAYS, MATCH THE CROSS SLOPE OF THE GUTTER TO THE CROSS SLOPE OF THE ADJACENT PAVEMENT. THE THICKNESS OF THE LIP IS 6", UNLESS OTHERWISE SHOWN ON PLANS.

FDOT TYPE F CURB
NTS

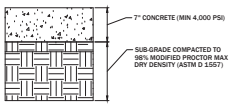


FDOT TYPE D CURB
NTS



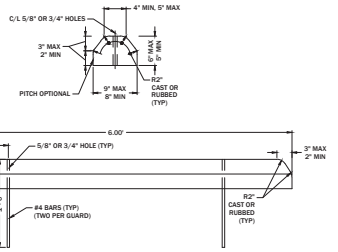
REFER TO GEOTECH REPORT FOR FULL PAVEMENT SPECIFICATIONS

LIGHT DUTY CONCRETE
NTS



REFER TO GEOTECH REPORT FOR FULL PAVEMENT SPECIFICATIONS

HEAVY DUTY CONCRETE
NTS



CONCRETE BUMPER GUARD
NTS

PREPARED BY:
RITTER CIVIL
ENGINEERING ■ PLANNING
460 PINEY CROFT LANE MAITLAND, FL 32751
407-436-7276 ■ WWW.RITTERCIVIL.COM

PREPARED FOR:
4203 HOGSHEAD LLC

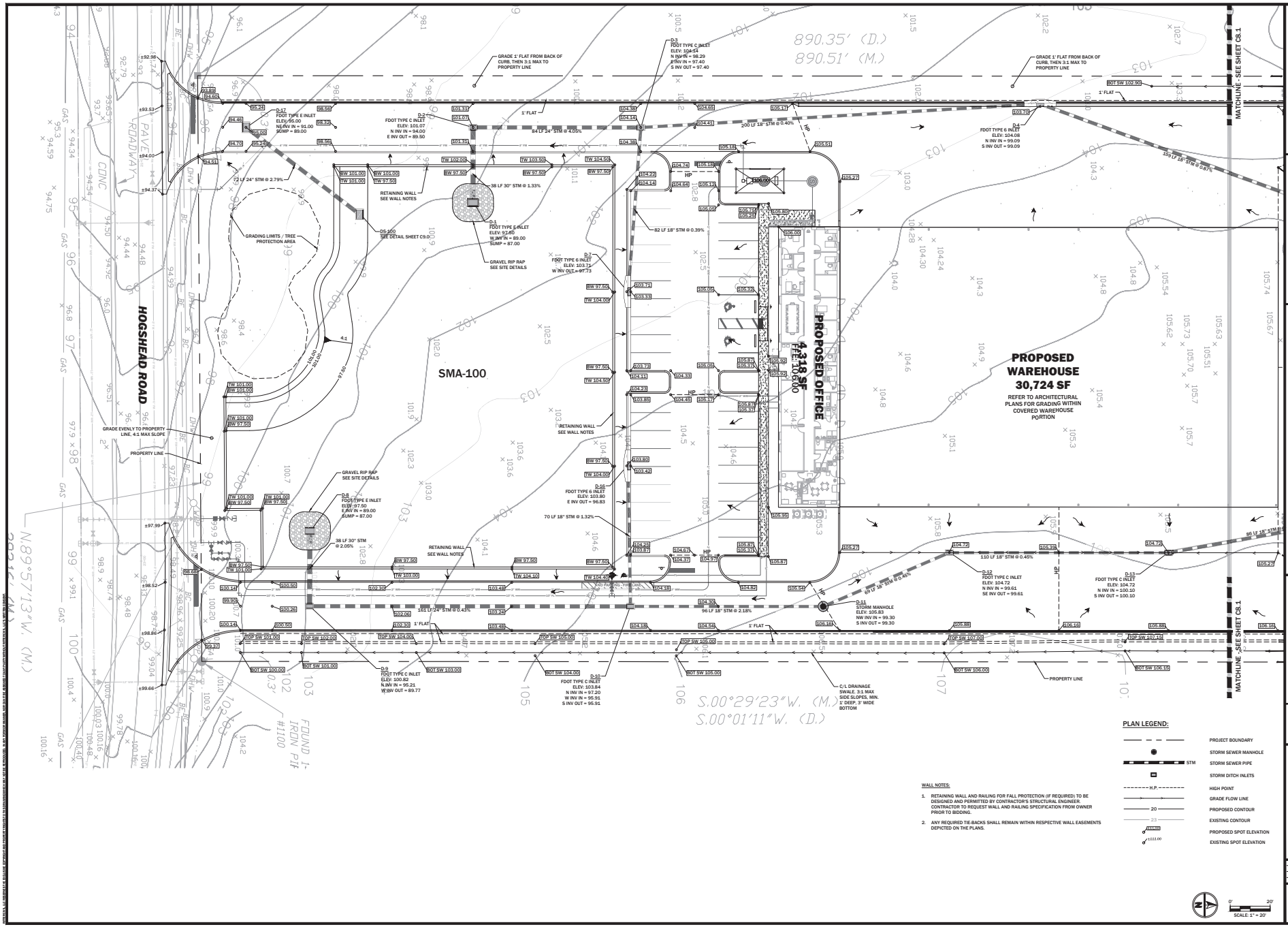
PAVEMENT SECTIONS & DETAILS
4203 HOGSHEAD ROAD

ISSUE DATE: 10/07/2025

REVISION:	REVISION:	REVISION:	REVISION:	REVISION:	REVISION:	REVISION:

DRAFTED:	GPR
DESIGNED:	GPR
REVIEWED:	GRR
PROJECT NUMBER:	23027

SHEET:
C7.0



PREPARED BY:
RITTER CIVIL
ENGINEERING ■ PLANNING
460 PINEY CROFT LANE MAITLAND, FL 32751
407-436-7276 ■ WWW.RITTERCIVIL.COM

PREPARED FOR:
4203 HOGSHEAD LLC

GRADING & DRAINAGE PLAN

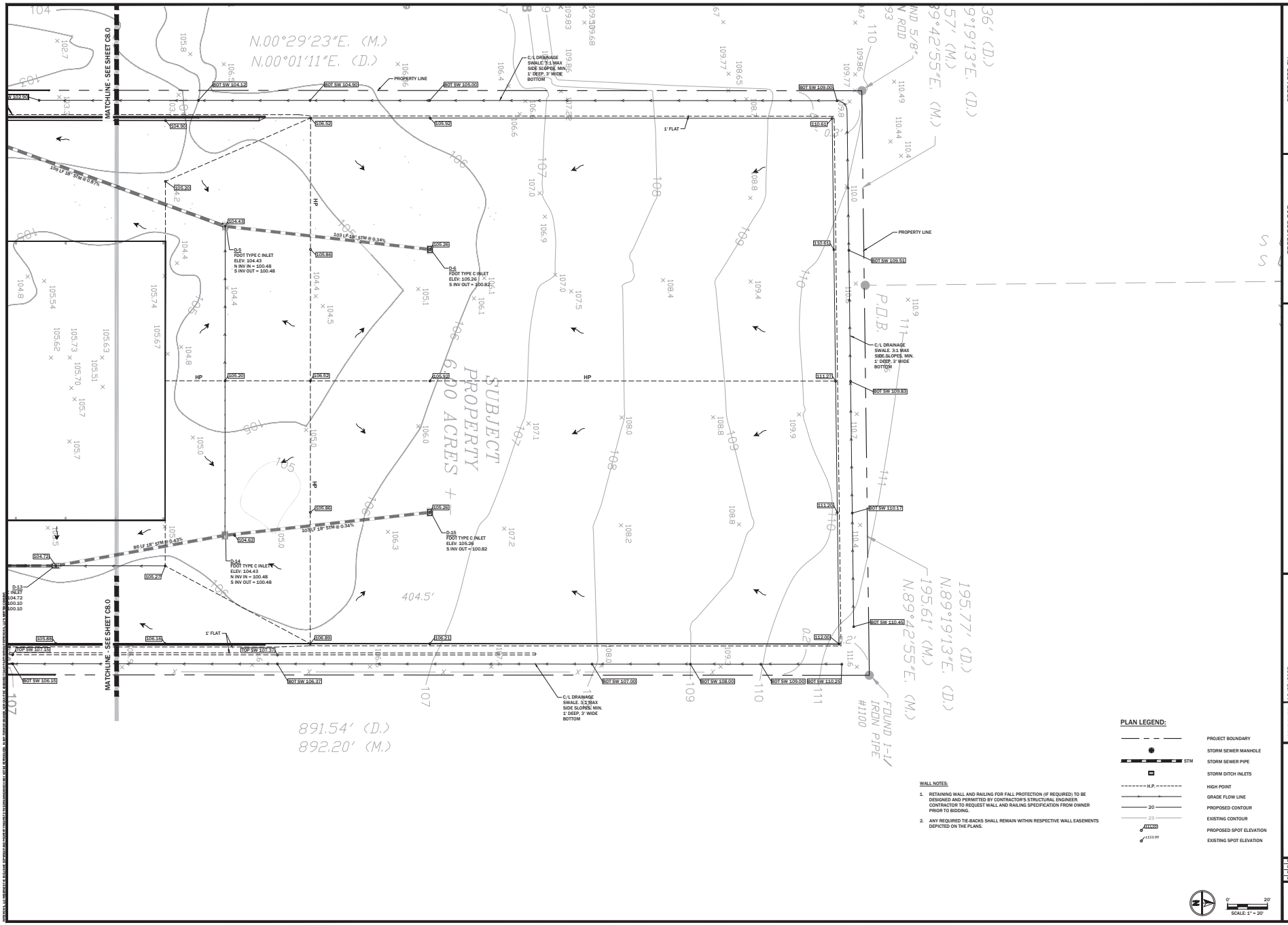
4203 HOGSHEAD ROAD

ISSUE DATE: 10/07/2025

REVISION:	
REVISION:	
REVISION:	
REVISION:	
REVISION:	
REVISION:	
REVISION:	

DRAFTED:	GPK
DESIGNED:	GPK
REVIEWED:	GRR
PROJECT NUMBER:	23027

SHEET:
C8.0



PLAN LEGEND:

- PROJECT BOUNDARY
- STORM SEWER MANHOLE
- STORM SEWER PIPE
- STORM DITCH INLETS
- HIGH POINT
- GRADE FLOW LINE
- PROPOSED CONTOUR
- EXISTING CONTOUR
- PROPOSED SPOT ELEVATION
- EXISTING SPOT ELEVATION

WALL NOTES:

1. RETAINING WALL AND RAILING FOR FALL PROTECTION (IF REQUIRED) TO BE DESIGNED AND PERMITTED BY CONTRACTOR'S STRUCTURAL ENGINEER. CONTRACTOR TO REQUEST WALL AND RAILING SPECIFICATION FROM OWNER PRIOR TO BIDDING.
2. ANY REQUIRED TIE-BACKS SHALL REMAIN WITHIN RESPECTIVE WALL EASEMENTS DEPICTED ON THE PLANS.

SCALE: 1" = 20'

PREPARED BY:
RITTER CIVIL ENGINEERING ■ PLANNING
460 PINEY CROFT LANE MAITLAND, FL 32751
407-436-7276 ■ WWW.RITTERCIVIL.COM

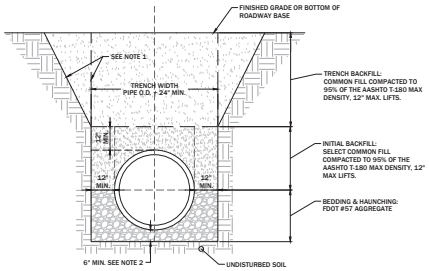
PREPARED FOR:
4203 HOGSHEAD LLC

GRADING & DRAINAGE PLAN
4203 HOGSHEAD ROAD

ISSUE DATE: 10/07/2025

DRAFTED:	GPR
DESIGNED:	GPR
REVIEWED:	GRR
PROJECT NUMBER:	23027

SHEET:
C8.1

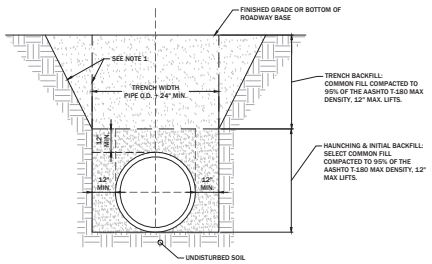


NOTES:

1. TRENCH WALLS PER OSHA SAFETY REQUIREMENTS. SHORE OR BRACE TRENCH WALLS WHERE SAFE SLOPES WOULD EXCEED BEYOND EASEMENT OR RIGHT OF WAY LIMITS, OR CONFLICT WITH EXISTING IMPROVEMENTS.
2. DEPTH VARIES. REMOVE UNSUITABLE MATERIAL AS NECESSARY TO REACH SUITABLE FOUNDATION.

TYPICAL TRENCH - TYPE 'A' BEDDING

NTS

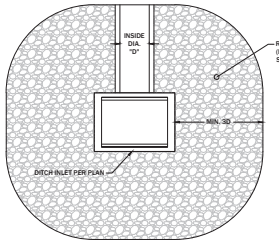


NOTES:

1. TRENCH WALLS PER OSHA SAFETY REQUIREMENTS. SHORE OR BRACE TRENCH WALLS WHERE SAFE SLOPES WOULD EXCEED BEYOND EASEMENT OR RIGHT OF WAY LIMITS, OR CONFLICT WITH EXISTING IMPROVEMENTS.

TYPICAL TRENCH - TYPE 'B' BEDDING

NTS



RIPRAP REQUIREMENTS:

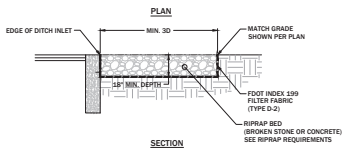
RIPRAP SHALL MEET FDOT STANDARD SPECIFICATIONS SECTION 530 REQUIREMENTS INCLUDING THE FOLLOWING GRADATION:

WEIGHT MAX. 75 POUNDS
WEIGHT 50%: 30 POUNDS
WEIGHT MIN: 4 POUNDS

ENSURE THAT AT LEAST 97% OF THE MATERIAL BY WEIGHT IS SMALLER THAN WEIGHT MAXIMUM POUNDS.

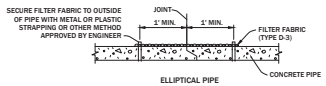
ENSURE THAT AT LEAST 50% OF THE MATERIAL BY WEIGHT IS GREATER THAN WEIGHT 50% POUNDS.

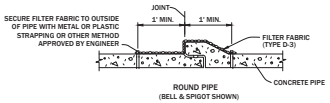
ENSURE THAT AT LEAST 90% OF THE MATERIAL BY WEIGHT IS GREATER THAN WEIGHT MINIMUM POUNDS.

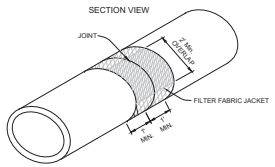


RIPRAP APRON AT DITCH INLET

NTS





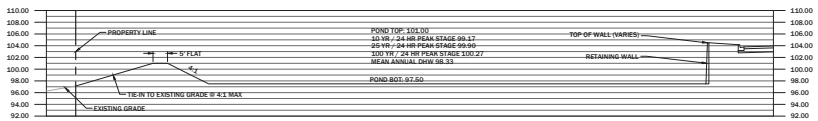


(FOR ALL PIPE TYPES & MATERIALS - CONCRETE ELLIPTICAL PIPE SHOWN)

NOTES:
1. COST OF FILTER FABRIC JACKET TO BE INCLUDED IN COST OF PIPE CULVERTS
2. ALL PIPE JOINTS SHALL BE WRAPPED WITH FILTER FABRIC.

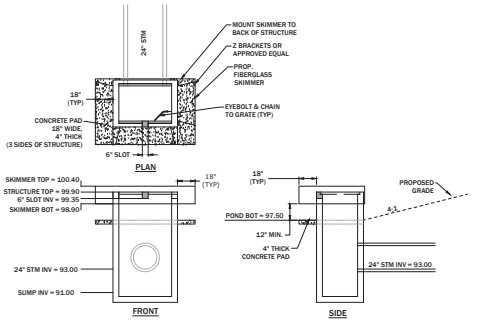
FILTER FABRIC JACKET

NTS



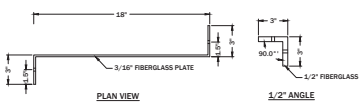
STORMWATER MANAGEMENT AREA SMA-100

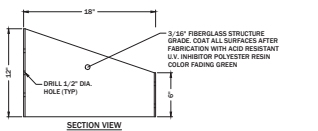
TYPICAL CROSS SECTION — HORIZONTAL SCALE: 1" = 20' VERTICAL SCALE: 1" = 10'



STRUCTURE DS-100 (MOD. FDOT TYPE E INLET)

SMA-100 CONTROL STRUCTURE — SCALE: 1" = 5'





NOTES:

1. MOUNT BRACKETS TO SKIMMERS W/ 1/4" STAINLESS STEEL BOLTS
2. MOUNT BRACKETS TO STRUCTURES W/ 3/8" X 3 1/2" STAINLESS STEEL WEDGE ANCHORS.
3. SKIMMER TO BE MOUNTED TO INLET IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS USING Z-BRACKETS.
4. THE CONTROL STRUCTURES ARE TO BE LOCATED IN THE POND PER THE PLAN.
5. ALL BOX STRUCTURES SHALL INCLUDE GRATES AND CHAINS.

MOUNTING Z-BRACKET DETAIL

NTS

PREPARED BY:
RITTER CIVIL
ENGINEERING ■ PLANNING
460 PINEY CROFT LANE MAITLAND, FL 32751
407-436-7276 ■ WWW.RITTERCIVIL.COM

PREPARED FOR:
4203 HOGSHEAD LLC

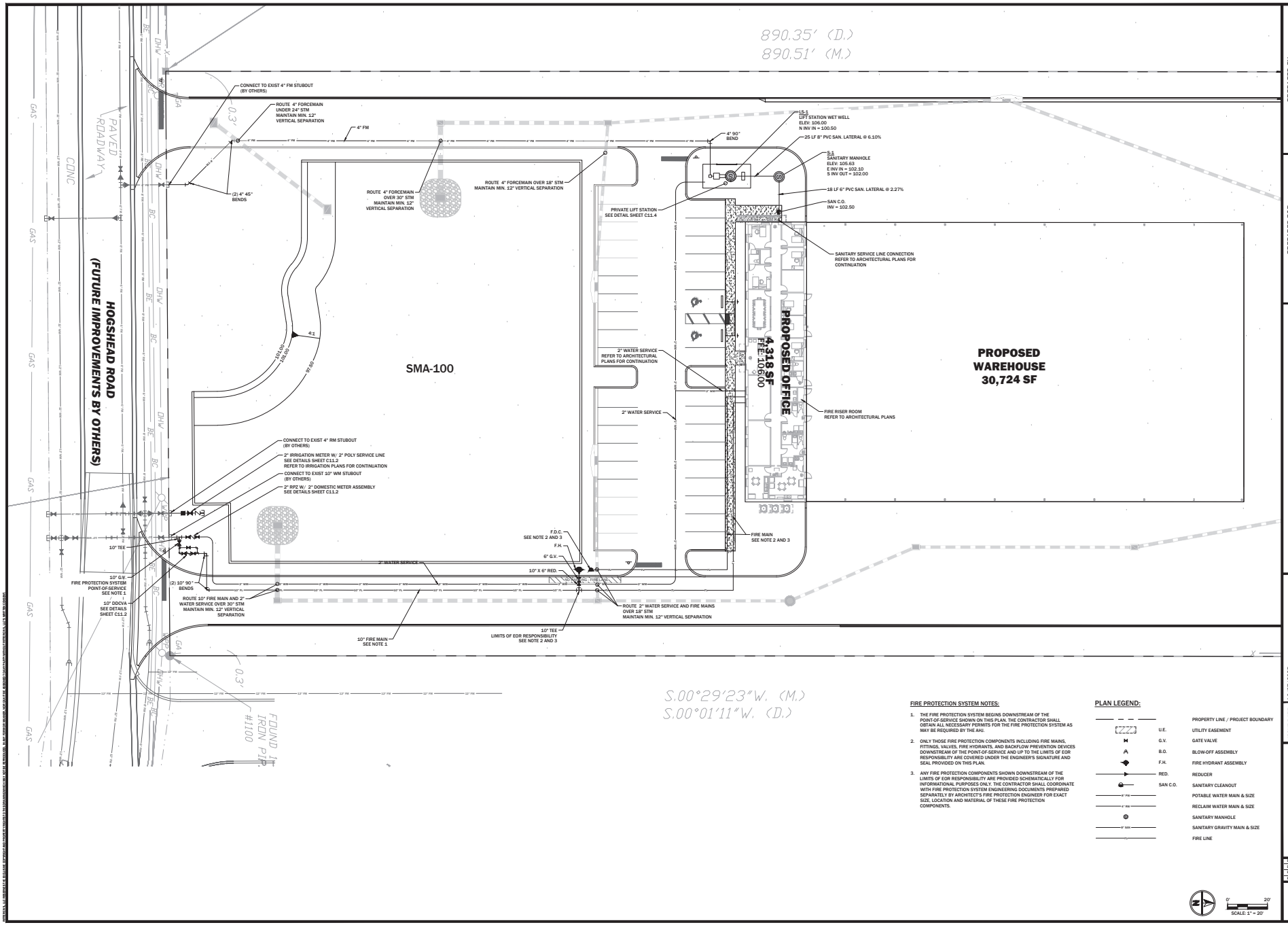
GRADING & DRAINAGE DETAILS
4203 HOGSHEAD ROAD

ISSUE DATE: 10/07/2025

REVISION:	REVISION:	REVISION:	REVISION:	REVISION:	REVISION:	REVISION:

DRAFTED:	GPR
DESIGNED:	GPR
REVIEWED:	GBR
PROJECT NUMBER:	23027

SHEET:
C9.0



FIRE PROTECTION SYSTEM NOTES:

1. THE FIRE PROTECTION SYSTEM BEGINS DOWNSTREAM OF THE POINT-OF-SERVICE SHOWN ON THIS PLAN. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FOR THE FIRE PROTECTION SYSTEM AS MAY BE REQUIRED BY THE AHJ.
2. ONLY THOSE FIRE PROTECTION COMPONENTS INCLUDING FIRE MAINS, FITTINGS, VALVES, FIRE HYDRANTS, AND BACKFLOW PREVENTION DEVICES DOWNSTREAM OF THE POINT-OF-SERVICE AND UP TO THE LIMITS OF EOR RESPONSIBILITY ARE COVERED UNDER THE ENGINEER'S SIGNATURE AND SEAL PROVIDED ON THIS PLAN.
3. ANY FIRE PROTECTION COMPONENTS SHOWN DOWNSTREAM OF THE LIMITS OF EOR RESPONSIBILITY ARE PROVIDED SCHEMATICALLY FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR SHALL COORDINATE WITH FIRE PROTECTION SYSTEM ENGINEERING DOCUMENTS PREPARED SEPARATELY BY ARCHITECT'S FIRE PROTECTION ENGINEER FOR EXACT SIZE, LOCATION AND MATERIAL OF THESE FIRE PROTECTION COMPONENTS.

PLAN LEGEND:

PROPERTY LINE / PROJECT BOUNDARY	
U.E.	UTILITY EASEMENT
G.V.	GATE VALVE
B.O.	BLOW-OFF ASSEMBLY
F.H.	FIRE HYDRANT ASSEMBLY
RED.	REDUCER
SAN C.O.	SANITARY CLEANOUT
	POTABLE WATER MAIN & SIZE
	RECLAIM WATER MAIN & SIZE
	SANITARY MANHOLE
	SANITARY GRAVITY MAIN & SIZE
	FIRE LINE

SCALE: 1" = 20'

PREPARED BY:
RITTER CIVIL
ENGINEERING ■ PLANNING
460 PINEY CROFT LANE MAITLAND, FL 32751
407-436-7276 ■ WWW.RITTERCIVIL.COM

PREPARED FOR:
4203 HOGSHEAD LLC

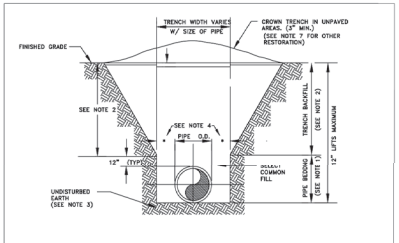
UTILITY PLAN
4203 HOGSHEAD ROAD

ISSUE DATE: 10/07/2025

REVISION:	REVISION:	REVISION:	REVISION:	REVISION:	REVISION:	REVISION:

DRAFTED:	GPR
DESIGNED:	GPR
REVIEWED:	GBR
PROJECT NUMBER:	23027

SHEET:
C10.0

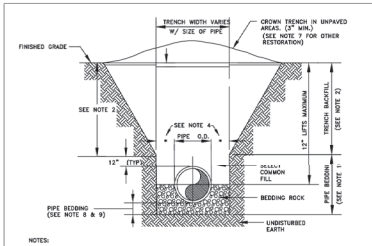


NOTES:

1. PIPE BEDDING: SELECT COMMON FILL COMPACTED TO 98% UNDER PAVEMENT OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 98% UNDER PAVEMENT OF THE MAXIMUM DENSITY AS TO AASHTO T-180.
3. PIPE BEDDING UTILIZING SELECT COMMON FILL OR BEDDING ROCK IN ACCORDANCE WITH TYPE A BEDDING AND TRENCHING DETAIL MAY BE REQUIRED AS DIRECTED BY THE CITY.
4. (*): 15" MAX. FOR PIPE DIAMETERS LESS THAN 24", AND 24" 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.
8. SURFACE RESTORATION WITHIN CITY RIGHT-OF-WAY, SHALL COMPLY WITH REQUIREMENTS OF RIGHT-OF-WAY UTILIZATION REGULATIONS.
9. ALL UNPAVED DISTURBED AREAS SHALL BE SODDED TO MATCH ADJACENT DOMINATE GRASS SPECIES.

TYPE "B" BEDDING AND OPEN-CUT DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 100



NOTES:

1. PIPE BEDDING: SELECT COMMON FILL COMPACTED TO 98% UNDER PAVEMENT OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 98% UNDER PAVEMENT OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
3. USE OF TYPE A BEDDING TO BE DETERMINED IN THE FIELD AS DIRECTED BY THE CITY.
4. (*): 15" MAX. FOR PIPE DIAMETER LESS THAN 24", AND 24" MAX. 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. GRAVITY SEWERS SHALL UTILIZE TYPE A BEDDING IF REQUIRED BY THE CITY. BEDDING DEPTH SHALL BE 4" MINIMUM FOR PIPE DIAMETER LESS THAN 15" AND 6" MINIMUM FOR PIPE DIAMETER 18" AND LARGER.
8. DEPTH FOR REMOVAL OF UNSUITABLE MATERIAL SHALL GOVERN DEPTH OF BEDDING ROCK BELOW THE PIPE. THE CITY SHALL DETERMINE IN THE FIELD IF REMOVAL OF UNSUITABLE MATERIAL IS REQUIRED TO REACH A SUITABLE FOUNDATION.
9. ALL UNPAVED DISTURBED AREAS SHALL BE SODDED TO MATCH ADJACENT DOMINATE GRASS SPECIES.
10. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF THE GOVERNING AGENCIES. SURFACE RESTORATION WITHIN CITY RIGHT-OF-WAY, SHALL COMPLY WITH REQUIREMENTS OF RIGHT-OF-WAY UTILIZATION REGULATIONS.

TYPE "A" BEDDING AND OPEN-CUT DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 101

PROPOSED UTILITY	HORIZONTAL & VERTICAL SEPARATION REQUIREMENTS									
	POTABLE WATER		RECLAIMED WATER		SANITARY SEWER FORCE MAIN		SANITARY SEWER GRAVITY MAIN		STORM SEWER	
	HORIZ.	VERT.	HORIZ.	VERT.	HORIZ.	VERT.	HORIZ.	VERT.	HORIZ.	VERT.
POTABLE WATER	–	–	3'	12"	6'	12"	6'	6"ABOVE 12"BELOW	3'	6"
RECLAIMED* WATER	3'	12"	–	–	3'	12"	3'	12"	–	–
SANITARY SEWER FORCE MAIN	6'	12"	3'	12"	–	–	–	–	–	–
SANITARY SEWER GRAVITY MAIN	6'	6"ABOVE 12"BELOW	3'	12"	–	–	–	–	–	–

GENERAL NOTES:

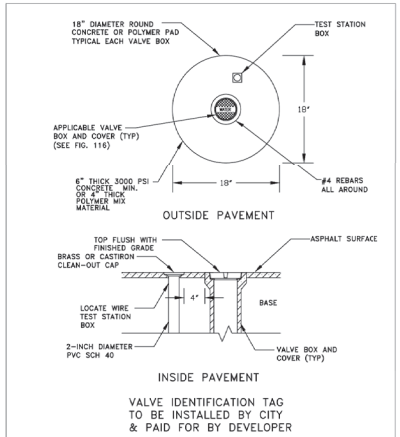
1. THE TABLE REPRESENTS THE MINIMUM SEPARATION REQUIREMENTS AS DESCRIBED IN F.D.E.P. RULES OF THE FLORIDA ADMINISTRATION CODE (F.A.C.). THESE SEPARATION REQUIREMENTS SHALL APPLY BETWEEN NEWLY PROPOSED UTILITY LINES AND EXISTING OR PROPOSED UTILITY LINES.
2. FOR THE PURPOSE OF THIS TABLE, RECLAIMED WATER SHALL MEAN UNRESTRICTED PUBLIC ACCESS REUSE WATER AS DEFINED BY F.A.C. 17-610. OTHER TYPES OF RECLAIMED WATER ARE CONSIDERED RAW SEWAGE AND SEPARATIONS LISTED FOR SANITARY SEWER SHALL APPLY.
3. ALL SEPARATION DISTANCES ARE FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE UNLESS OTHERWISE SPECIFIED. CRITERION PRODUCING GREATER CLEARANCE SHALL BE USED.

   C/C – DENOTES CENTER OF PIPE TO CENTER OF PIPE.

   O/O – DENOTES OUTSIDE OF PIPE TO OUTSIDE OF PIPE.
4. ACCEPTABLE VARIANCES:
   A. WHERE HORIZONTAL SEPARATION IS NOT ATTAINABLE, PVC-C-900 SDR-14 OR CONCRETE ENCASEMENT MUST BE USED FOR THE SANITARY SEWER LINE FOR AT LEAST 10 FEET. PVC-C-900 SDR 14 OR CONCRETE ENCASEMENT MUST BE USED UNTIL MINIMUM CLEARANCE IS REGAINED.
   B. WHERE 18 INCH VERTICAL SEPARATION IS NOT ATTAINABLE AT CROSSINGS, USE ONE FULL LENGTH OF PVC-C-900 SDR-14 FOR SANITARY SEWER. FULL ENCASED PIPE CENTERED AT THE POINT OF CROSSING SPECIAL SUPPORT MAY BE REQUIRED.
5. NO WATER PIPE SHALL PASS THROUGH OR COME IN CONTACT WITH ANY PART OF A SANITARY OR STORM WATER MANHOLE OR STRUCTURE.
6. CONCRETE ENCASEMENT SHALL NOT BE USED UNLESS APPROVED BY PUBLIC SERVICES DIRECTOR OR HIS DESIGNEE.

HORIZONTAL & VERTICAL SEPARATION REQUIREMENTS

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 104



VALVE IDENTIFICATION TAG TO BE INSTALLED BY CITY & PAID FOR BY DEVELOPER

VALVE BOX

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 109

MINIMUM LENGTH (FT) TO BE RESTRAINED ON EACH SIDE OF FITTING(S). *											
	PIPE SIZE										
	6"	8"	10"	12"	16"	18"	20"	24"	30"	36"	48"
90° BEND	33	43	51	60							
45° BEND	14	18	22	25							
22-1/2° BEND	7	9	11	12							
11-1/4° BEND	4	5	6	6							
TEE**	1	7	24	44							
REDUCER (ONE SIZE SMALLER)		41	39	40							
DEAD END	74	96	115	136							

* ONLY RESTRAIN BRANCH PIPE FOR TEES, ONLY RESTRAIN LARGER PIPE FOR REDUCERS
** LENGTH ALONG RUN ASSUMED TO BE 18'

NOTES:

1. FITTINGS SHALL BE DUCTILE IRON RESTRAINED JOINT TYPE. FM FITTINGS TO BE LINED WITH PROTECTO 401.
2. INSTALL FULL LENGTHS OF PIPE WITH TOTAL LENGTH CONTAINING ONLY RESTRAINED JOINTS EQUAL TO OR GREATER THAN LENGTH SHOWN IN TABLE.
3. WHERE TWO OR MORE FITTINGS ARE TOGETHER, USE FITTING WHICH YIELDS GREATEST LENGTH OF RESTRAINED PIPE.
4. IN LINE VALVES AND THROUGH RUN OF TEES OUTSIDE LIMITS OF RESTRAINED JOINTS FROM OTHER FITTINGS NEED NOT BE RESTRAINED UNLESS OTHERWISE INDICATED.
5. LENGTHS SHOWN IN THE TABLE HAVE BEEN CALCULATED IN ACCORDANCE WITH THE PROCEDURE OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" AS PUBLISHED BY DIPRA, FOR PVC WITH THE FOLLOWING ASSUMPTIONS:

   TYPE OF PIPE: PVC
   WORKING PRESSURE: 150 P.S.I.**
   SOIL DESIGNATION: SM(SAND SILT)
   LAYING CONDITIONS: B

   ** FM = 100 P.S.I. / WM OR RWM = 150 P.S.I.
6. FOR PIPE ENCASED IN POLYETHYLENE INCREASE THE GIVEN VALUE BY A FACTOR OF 1.5.
7. VALUES NOT LISTED IN THE TABLE TO BE COMPLETED BY THE ENGINEER.

RESTRAINED PIPE TABLE (PVC)

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 105

MINIMUM LENGTH (FT) TO BE RESTRAINED ON EACH SIDE OF FITTING(S). *											
	PIPE SIZE										
	6"	8"	10"	12"	16"	18"	20"	24"	30"	36"	48"
90° BEND					61	67	73	84	100	114	
45° BEND					26	28	31	35	42	48	
22-1/2° BEND					13	14	15	17	20	23	
11-1/4° BEND					6	7	8	9	10	12	
TEE**					52	62	74	95	124	152	
REDUCER (ONE SIZE SMALLER)					48	25	25	47	66	66	
DEAD END					111	123	135	157	188	218	

* ONLY RESTRAIN BRANCH PIPE FOR TEES, ONLY RESTRAIN LARGER PIPE FOR REDUCERS
** LENGTH ALONG RUN ASSUMED TO BE 18'

NOTES:

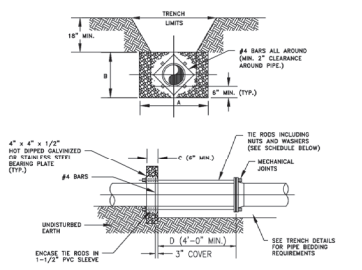
1. FITTINGS SHALL BE RESTRAINED JOINT TYPE. FM FITTINGS TO BE LINED WITH PROTECTO 401.
2. INSTALL FULL LENGTHS OF PIPE WITH TOTAL LENGTH CONTAINING ONLY RESTRAINED JOINTS EQUAL TO OR GREATER THAN LENGTH SHOWN IN TABLE.
3. WHERE TWO OR MORE FITTINGS ARE TOGETHER, USE FITTING WHICH YIELDS GREATEST LENGTH OF RESTRAINED PIPE.
4. IN LINE VALVES AND THROUGH RUN OF TEES OUTSIDE LIMITS OF RESTRAINED JOINTS FROM OTHER FITTINGS NEED NOT BE RESTRAINED UNLESS OTHERWISE INDICATED.
5. LENGTHS SHOWN IN THE TABLE HAVE BEEN CALCULATED IN ACCORDANCE WITH THE PROCEDURE OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" AS PUBLISHED BY DIPRA, WITH THE FOLLOWING ASSUMPTIONS:

   TYPE OF PIPE: DI
   WORKING PRESSURE: 150 P.S.I.**
   SOIL DESIGNATION: SM(SAND SILT)
   LAYING CONDITIONS: B

   ** FM = 100 P.S.I. / WM OR RWM = 150 P.S.I.
6. VALUES NOT LISTED IN THE TABLE TO BE COMPLETED BY THE ENGINEER.

RESTRAINED PIPE TABLE (DI)

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JAUARY 2014	FIG. 106



NOTES:

1. ADDITIONAL REINFORCEMENTS SHALL BE AS SPECIFIED BY THE ENGINEER.
2. MINIMUM COMPRESSIVE STRENGTH FOR CONCRETE SHALL BE 2500 P.S.I.
3. BEDDING, BACKFILL, AND COMPACTION SHALL BE AS SPECIFIED ELSEWHERE IN THE STANDARD DRAWINGS.
4. ALL FORM BOARDS SHALL BE REMOVED PRIOR TO BACKFILL.
5. NO ALLOWANCE SHALL BE MADE FOR FRICTION BETWEEN THE PIPE WALL AND THE THRUST COLLAR.
6. DESIGN PRESSURE: 150 P.S.I.

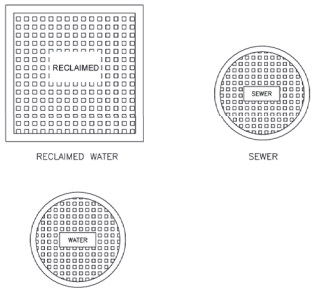
SCHEDULE OF DIMENSIONS AND MATERIALS *

PIPE SIZE (INCHES)	DIMENSIONS (FT.)				TIE RODS REQ'D	
	A	B	C	D	DIA.	NO.
6	2.0	2.0	1.0		3/4	2
8	2.5	2.5	1.0		3/4	2
10	2.5	2.0	1.0		3/4	4
12	3.0	3.0	1.0		3/4	4
16	4.0	4.0	1.5		3/4	4
20	5.0	5.0	1.5		3/4	6
24	6.0	6.0	1.5		3/4	8

NOTE: THRUST BLOCK AREAS TO BE COMPUTED ON BASIS OF ____ 2,000 LBS. PER SQ. FT. SOIL RESTRAINT (1,500 MIN) SEE NOTE 5
* TO BE COMPLETED BY ENGINEER.

WATER MAIN THRUST COLLAR DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 107



TYPICAL VALVE BOX COVER DETAILS

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 116

NOTE: THIS SHEET CONTAINS STANDARD DRAWINGS AND NOTES OF THE UTILITY SERVICE PROVIDER. IT MAY CONTAIN INFORMATION THAT DIFFERS FROM THAT CONTAINED IN PROJECT NOTES, SPECIFICATIONS, AND DETAILS SHOWN ELSEWHERE IN THE PLANS. TYPICALLY, THE MORE STRINGENT REQUIREMENTS SHALL APPLY, SUBJECT TO DETERMINATION BY THE ENGINEER. ELECTRICAL, STRUCTURAL, GEOTECHNICAL AND MECHANICAL ENGINEERING DETAILS AND ELEMENTS SHOWN, IF ANY, ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY, ARE NOT THE RESPONSIBILITY OF THE CIVIL / SITE ENGINEER, AND ARE NOT COVERED UNDER THEIR SIGNATURE AND SEAL PROVIDED ON THIS SHEET.

PREPARED BY:
RITTER CIVIL ENGINEERING ■ PLANNING
460 PINEY CROFT LANE MAITLAND, FL 32751
407-436-7276 ■ WWW.RITTERCIVIL.COM

PREPARED FOR:
4203 HOGSHEAD LLC

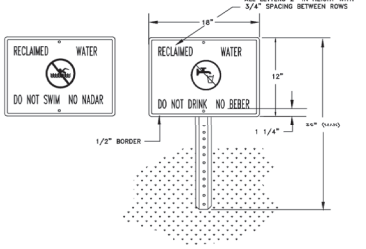
UTILITY DETAILS
4203 HOGSHEAD ROAD

ISSUE DATE: 10/07/2025

REVISION:	REVISION:	REVISION:	REVISION:	REVISION:	REVISION:

DRAFTED:	GPR
DESIGNED:	GPR
REVIEWED:	GRR
PROJECT NUMBER:	25027

SHEET:
C11.0

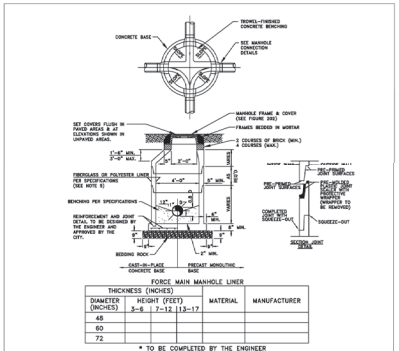


NOTES:

1. HEIGHT OF SIGN WILL DEPEND ON LOCATION AND SURROUNDING LANDSCAPE PLANT TYPES. IN ALL CASES, THE SIGN SHALL BE VISIBLE TO THE PUBLIC.
2. BACKGROUND SHALL BE WHITE, LETTERS AND FIGURES SHALL BE BLACK. PROHIBITIVE SYMBOL SHALL BE RED.
3. ENGINEERING GRADE REFLECTIVE MATERIALS SHALL BE USED.
4. POST SHALL BE U CHANNEL, 12 FT., 2 LB. HOT ROLLED HIGH TENSILE RAIL OR BILLET STEEL, HOT DIP GALVANIZED PER ASTM A-123.
5. MOUNTING HARDWARE SHALL BE STAINLESS STEEL.
6. SIGNS SHALL BE PLACED BY THE CONTRACTOR IN ACCORDANCE WITH THE CITY APPROVED ENGINEERING PLANS AND/OR AS APPROVED BY PUBLIC SERVICES DEPARTMENT.

RECLAIMED WATER ADVISORY SIGN

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 115

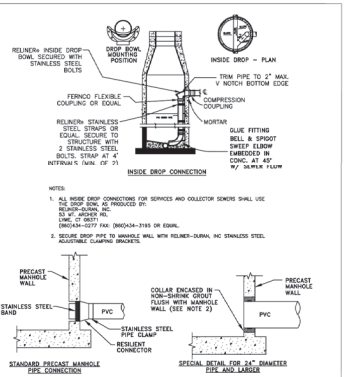


NOTES:

1. MANHOLE SHOWN IS FOR SEWER SIZE 8" THRU 24". SEE SECTION 20.4 OF THE MANUAL FOR MANHOLE DIAMETER FOR SEWERS LARGER THAN 24".
2. DROP CONNECTIONS ARE REQUIRED WHENEVER INVERT OF INFLUENT SEWER IS 24" OR MORE ABOVE THE INVERT OF THE MANHOLE. SEE MANHOLE CONNECTION DETAILS.
3. THE THICKNESS OF THE LINER SHALL BE 3/8" MINIMUM
4. EACH BENCH WALL SHALL BE A MINIMUM OF 18 INCHES LONG FROM THE WALL OF THE MANHOLE TOWARD THE CENTER.
5. SANITARY SEWER MANHOLES MAY BE REQUIRED TO BE LINED WITH HDPE OR FIBERGLASS AS DIRECTED BY THE CITY.

TYPICAL MANHOLE

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 200

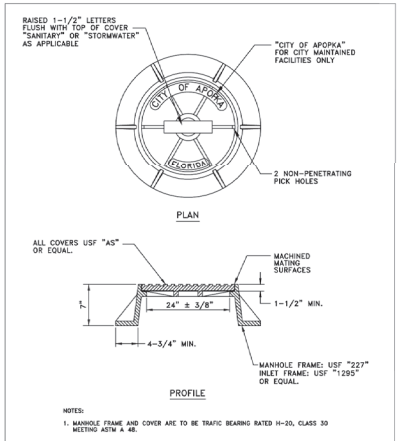


NOTES:

1. DROP PIPE AND FITTINGS SHALL BE OF EQUAL SIZE AND MATERIAL AS THE INFLUENT SEWER.
2. THE CITY MAY APPROVE ALTERNATE WATERTIGHT CONNECTION DETAILS FOR CONNECTION OF 24" DIAMETER PIPES AND LARGER.
3. AN INSIDE DROP CONNECTION SHALL BE REQUIRED FOR ALL INFLUENT WHICH HAVE AN INVERT 24" OR MORE ABOVE THE OUTFLOW PIPE INVERT.
4. CONCRETE TO BE MINIMUM OF 3000 PSI.

MANHOLE CONNECTION DETAILS

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 201

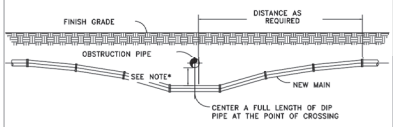


NOTES:

1. MANHOLE FRAME AND COVER ARE TO BE TRAFIC BEARING RATED H-20, CLASS 30 MEETING ASTM A 48.

STANDARD MANHOLE FRAME AND COVER

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 202



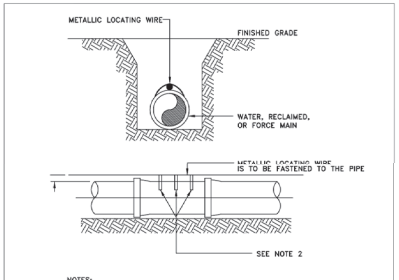
NOTES:

1. 18" MINIMUM CLEARANCE FOR WATER, SEWER AND RECLAIMED WATER MAIN CROSSINGS
2. 12" MINIMUM CLEARANCE REQUIRED FOR OTHER TYPE UTILITY CROSSINGS.
3. SEE ENCASEMENT DETAIL IF MINIMUM CLEARANCE CANNOT BE OBTAINED.

* CONSTRUCT UNIFORM PIPE DEFLECTION NOT TO EXCEED 75% OF MANUFACTURER RECOMMENDED MAXIMUM DEFLECTION PER PIPE JOINT

UTILITY CROSSING PIPE DEFLECTION DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 117

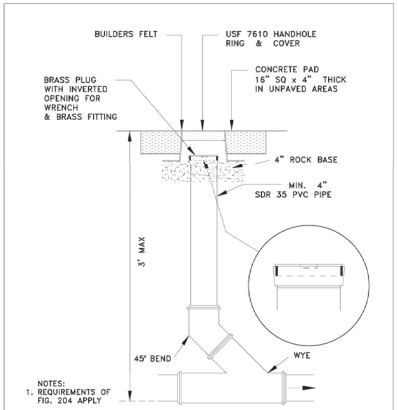


NOTES:

1. ALL PIPE SHALL REQUIRE INSULATED METALLIC LOCATING WIRE (10 AWG-SOLID CCS REINFORCED TRACER WIRE-INSULATED 30 MIL HDPE – 30 VOLT MFG. BY COPPERHEAD INDUSTRIES, LLC OR EQUAL) CAPABLE OF DETECTION BY A CABLE LOCATOR.
2. SHALL BE BURIED DIRECTLY ABOVE THE CENTERLINE OF THE PIPE AND ATTACHED WITH DUCT TAPE OR NYLON STRAPS AT 3 LOCATIONS PER JOINT. LOCATING WIRE SHALL TERMINATE AT THE TEST STATION BOX AS SHOWN IN FIG. 109.
3. BE CAPABLE OF EXTENDING 12" ABOVE TOP OF TEST STATION BOX IN SUCH A MANNER SO AS NOT TO INTERFERE WITH VALVE OPERATION.
4. SPLICES SHOULD BE MADE USING STANDARDS AND PRODUCTS DESIGNED FOR DIRECT BURIAL CONDUCTORS.
5. WIRE INSULATION SHALL BE COLOR CODED FOR THE TYPE OF PIPE BEING INSTALLED.

PIPE LOCATING WIRE DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 118

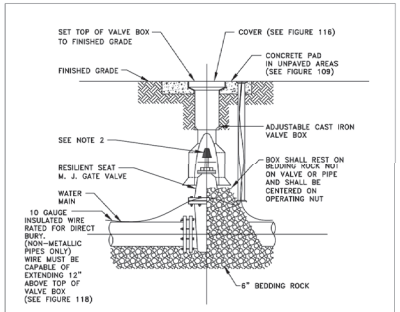


NOTES:
1. REQUIREMENTS OF FIG. 204 APPLY

SANITARY SEWER SERVICE TRAFFIC RATED CLEAN-OUT DETAIL

NTS

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 205



NOTES:

1. PVC EXTENSIONS MAY BE USED ON VALVE BOX INSTALLATION.
2. THE ACTUATING NUT FOR DEEPER VALVES SHALL BE EXTENDED TO WITHIN A 3 FEET BELOW FINISHED GRADE.

GATE VALVE AND BOX DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 400

NOTE: THIS SHEET CONTAINS STANDARD DRAWINGS AND NOTES OF THE UTILITY SERVICE PROVIDER. IT MAY CONTAIN INFORMATION THAT DIFFERS FROM THAT CONTAINED IN PROJECT NOTES, SPECIFICATIONS, AND DETAILS SHOWN ELSEWHERE IN THE PLANS. TYPICALLY, THE MORE STRINGENT REQUIREMENTS SHALL APPLY, SUBJECT TO DETERMINATION BY THE ENGINEER. ELECTRICAL, STRUCTURAL, GEOTECHNICAL AND MECHANICAL ENGINEERING DETAILS AND ELEMENTS SHOWN, IF ANY, ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY, ARE NOT THE RESPONSIBILITY OF THE CIVIL / SITE ENGINEER, AND ARE NOT COVERED UNDER THEIR SIGNATURE AND SEAL PROVIDED ON THIS SHEET.

PREPARED BY:
RITTER CIVIL
ENGINEERING ■ PLANNING
460 PINEY CROFT LANE MAITLAND, FL 32751
407-436-7276 ■ WWW.RITTERCIVIL.COM

PREPARED FOR:
4203 HOGSHEAD LLC

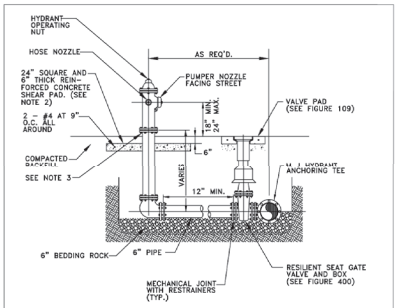
UTILITY DETAILS
4203 HOGSHEAD ROAD

ISSUE DATE: 10/07/2025

REVISION:	REVISION:	REVISION:	REVISION:	REVISION:	REVISION:

DRAFTED:	GPR
DESIGNED:	GPR
REVIEWED:	GRR
PROJECT NUMBER:	25027

SHEET:
C11.1

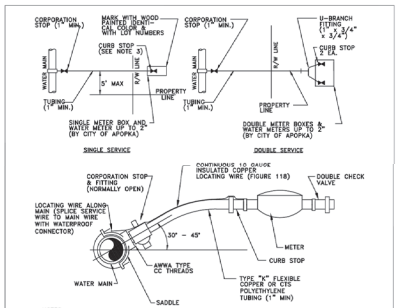


NOTES:

1. FIRE HYDRANT SHALL BE SUPPLIED WITHOUT A WEEP HOLE, OR WITH A PERMANENTLY PLUGGED WEEP HOLE.
2. THE SHEAR PAD SHALL BE RECESSED SIX (6) INCHES BELOW THE FINISHED GRADE AND THE RECESSED SECTION SODDED.
3. CLEARANCE BETWEEN BOTTOM OF BOLTS AND TOP OF SHEAR PAD SHALL BE A TWELVE (12) INCH MINIMUM.
4. FIRE HYDRANTS SHALL BE IDENTIFIED IN ACCORDANCE WITH THE CITY OF APOPKA CONSTRUCTION DESIGN STANDARDS MANUAL.

FIRE HYDRANT ASSEMBLY DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 402

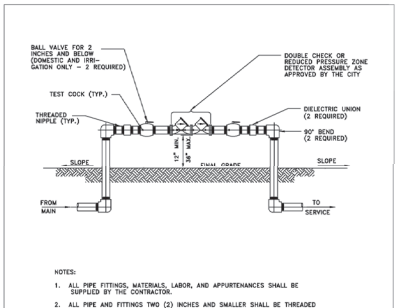


NOTES:

1. ALL FITTINGS SHALL BE BRASS WITH COMPRESSION/PACK JOINT TYPE CONNECTIONS.
2. NO SERVICE LINE SHALL TERMINATE UNDER A DRIVEWAY.
3. EACH SERVICE SHALL TERMINATE AT A CURB STOP(S) WHICH SHALL BE BURIED APPROXIMATELY 3" BELOW FINAL GRADE AND SHALL BE CLEARLY MARKED WITH A 2" x 2" x 18" STAKE WITH THE TOP PAINTED BLUE FOR POTABLE WATER AND PURPLE FOR RECLAIMED WATER, AND MARKED WITH THE NUMBER OF THE LOT(S) TO BE SERVED.
4. RECLAIMED WATER SERVICES SHALL USE PURPLE COLORED CTS POLYETHYLENE TUBING.
5. POTABLE WATER SERVICES SHALL USE BLUE COLORED CTS POLYETHYLENE TUBING.
6. ALL SERVICE UNDER EXISTING OR PROPOSED PAVEMENT SHALL BE INSTALLED IN A MINIMUM 2" PVC SLEEVE.

WATER SERVICE CONNECTION DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 405



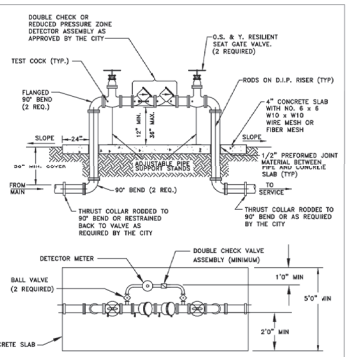
NOTES:

1. ALL PIPE FITTINGS, MATERIALS, LABOR, AND APPURTENANCES SHALL BE SUPPLIED BY THE CONTRACTOR.
2. ALL PIPE AND FITTINGS TWO (2) INCHES AND SMALLER SHALL BE THREADED SCHEDULE 40 GALVANIZED STEEL.

DOUBLE CHECK OR REDUCED PRESSURE ZONE DETECTOR ASSEMBLY

2 INCH AND BELOW ASSEMBLY

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 500 A

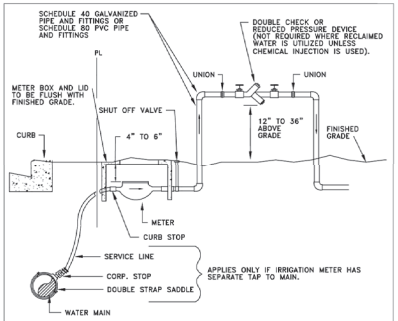


NOTES: 1. BYPASS METER MUST MEET AWWA STANDARD C700 OR C701.
2. METER MUST MEET AWWA STANDARD C707 AND TRANSMITTER MUST BE COMPATIBLE WITH THE CITY'S AMR SYSTEM.
3. ALL PIPE FITTINGS, MATERIALS, LABOR, AND APPURTENANCES SHALL BE SUPPLIED BY THE CONTRACTOR.
4. ALL PIPE AND FITTINGS TWO (2) INCHES AND SMALLER SHALL BE THREADED SCHEDULE 40 GALVANIZED STEEL, OR BRASS.

ABOVE GROUND DEVICE WITH DETECTOR BY-PASS

2 INCH AND ABOVE ASSEMBLY

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 500 B



NOTES:

1. A POSITIVE DIELECTRIC CONNECTION SHALL BE MADE BETWEEN ALL GALVANIZED AND BRASS COMPONENTS.
2. METER SHALL BE INSTALLED JUST INSIDE THE ROW LINE OR PROPERTY LINE AND IN NO CASE SHALL IT BE INSTALLED IN THE SIDEWALK OR OTHER PAVED AREAS.
3. DOUBLE CHECK VALVES MAY BE USED AS LONG AS THEIR ARE NO CHEMICALS OR A WELL ON SITE.
4. A PVB DEVICE SHALL BE 12-INCHES MINIMUM ABOVE HIGHEST OUTLET OR SPRAYHEAD
5. ALL BACKFLOW PREVENTION DEVICES ARE TO BE AWWA APPROVED.

IRRIGATION METER AND DOUBLE CHECK VALVE OR REDUCED PRESSURE BACKFLOW PREVENTER

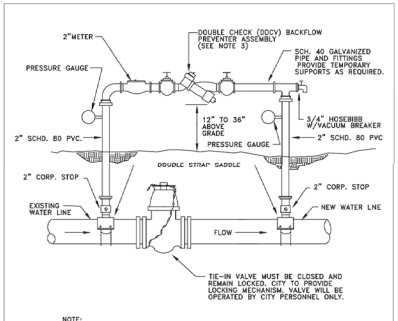
CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 502

TEMPORARY JUMPER CONNECTION NOTES:

1. A temporary jumper connection is required at all connections between existing active water mains and proposed new water main improvements.
2. Figures 504 A and 504 B to be used for filling any new water main of any size from existing active water mains and for flushing of new mains up to 8 inches in diameter (2.5 FPS minimum velocity) and for pulling bacteriological samples from any new water main of any size. The jumper connection shall be maintained until after filling, flushing testing and disinfection of the new main has been successfully completed and cleared for use by the FDEP and all other pertinent agencies. Also until all "punch list" items and comments have been resolved. The jumper connection shall also be used to maintain adequate pressure of 20 psi in the new mains after disinfection and until the FDEP clearance letter is obtained. Thrust blocking and/or restraints shall be provided temporarily, as required. Pipe and fittings used for connecting the new pipe to the existing pipe shall be disinfected prior to installation in accordance with AWWA C651, 2005 edition. The tapping sleeve and the exterior of the main to be tapped shall be disinfected by spraying or swabbing per section II of AWWA C651-05.
3. Flushing of 10 inches in diameter and larger water mains may be done through the tie-in valve under very controlled conditions. The following procedures shall be followed:
   A. The tie-in valves shall be operated and pressure tested in the presence of the City engineer to verify water tightness prior to tie-in. Valves which are not water tight shall be replaced with a new valve installed immediately adjacent to the leaking valve.
   B. The temporary jumper connection shall be constructed as detailed. The jumper connection shall be used to fill the new water main and for providing water for bacteriological sampling of the new main as required by the FDEP permit.
   * Flushing shall not be attempted during peak demand hours of the existing water mains.
   * All downstream valves in the system must be open prior to opening the tie-in valve.
   * Provide for and monitor the pressure in the tie-in point. The pressure in the existing main must not drop below 35 psi.
   * The tie-in valve shall be opened a few turns only, ensuring a pressure drop across the valve is greater than 10 psi.
   C. The tie-in valve shall be locked closed by the City personal until flushing begins.
   D. The tie-in valve shall be opened only for flushing of the new main. The procedure shall be directed by the City and observed by the engineer.
   E. After flushing, the tie-in valve shall be closed and locked in the closed position by the City personel.
4. The contractor shall provide documentation demonstrating that the double check backflow prevention device has been tested and is in good working order at the time of installation.
5. Except as required to flush lines of greater than 8 inches in diameter, the tie-in valve shall remain closed and shall be locked in the closed position by the City. The tie-in valve shall remain locked closed until the new system has been cleared for use by FDEP and all other pertinent agencies.
6. Upon receipt of clearance for use from FDEP and all other pertinent agencies, the contractor shall remove the temporary jumper connection. The corporation stops are to be closed and plugged with 2 inch brass plugs.
7. All installation and maintenance of the temporary jumper connection and associated backflow prevention device, fittings, valve, etc. shall be the responsibility of the contractor.

PROCEDURES FOR TEMPORARY JUMPER CONNECTION

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 504 C



NOTE:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MATERIALS, ASSEMBLY, AND THE INSTALLATION OF THE DEVICE.
2. SEE FIGURE 504C FOR PROCEDURES.
3. DDCV IS MINIMUM PROTECTION REQUIRED. A RPZ DEVICE MAY BE REQUIRED DEPENDING ON PROJECT. PROVIDE COPY OF LATEST CERTIFICATION TEST RESULTS.

TEMPORARY JUMPER CONNECTION

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 504 A

GENERAL NOTES

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. GN

NOTE: THIS SHEET CONTAINS STANDARD DRAWINGS AND NOTES OF THE UTILITY SERVICE PROVIDER. IT MAY CONTAIN INFORMATION THAT DIFFERS FROM THAT CONTAINED IN PROJECT NOTES, SPECIFICATIONS, AND DETAILS SHOWN ELSEWHERE IN THE PLANS. TYPICALLY, THE MORE STRINGENT REQUIREMENTS SHALL APPLY, SUBJECT TO DETERMINATION BY THE ENGINEER. ELECTRICAL, STRUCTURAL, GEOTECHNICAL AND MECHANICAL ENGINEERING DETAILS AND ELEMENTS SHOWN, IF ANY, ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY, ARE NOT THE RESPONSIBILITY OF THE CIVIL / SITE ENGINEER, AND ARE NOT COVERED UNDER THEIR SIGNATURE AND SEAL PROVIDED ON THIS SHEET.

PREPARED BY:
RITTER CIVIL
ENGINEERING ■ PLANNING
460 PINECROFT LANE MAITLAND, FL 32751
407-436-7276 ■ WWW.RITTERCIVIL.COM

PREPARED FOR:
4203 HOGSHEAD LLC

UTILITY DETAILS
4203 HOGSHEAD ROAD

ISSUE DATE	10/07/2025
REVISION:	
REVISION:	
REVISION:	
REVISION:	
REVISION:	
REVISION:	
REVISION:	

DRAFTED:	GPR
DESIGNED:	GPR
REVIEWED:	GRR
PROJECT NUMBER:	23027

SHEET:
C11.2

RILEY & Company, Inc. (H-20 GP)©

w/ BATTERY BACK-UP FOR TELEMETRY AND VISUAL ALARMS

PUMPS: SPECIFICATION

Submersible grinder pumps shall be installed in the H-20 FRP wet well utilizing a dual slide rail system.

The pumps shall be capable of pumping materials normally found in domestic and commercial wastewater.

Stator winding shall be open type with Class H insulation and shall be heat -shrink fitted into the stator housing. The use of pins, bolts and other fastening devices is not acceptable.

A heat sensor thermostat shall be attached to the top end of the motor winding and shall be connected in series with a magnectic contactor coil in the control panel. If the winding temperature exceeeds 140° C, the motor shall shut off but shall automtically reset when the temperature drops below the threshhold. Two heat sensors shall be used on 3 phase motors. Upper & lower mechanical seals shall have Silicon Carbide vs Silicon Carbide.

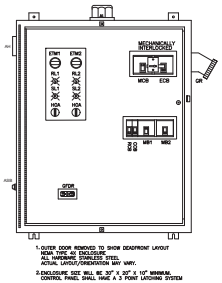
The Enclosure shall be NEMA 4X, minimum 30" high x 20" wide x 10" deep with 3 point latching system.

CONTROL PANEL: SPECIFICATION

The enclosure shall have external mounting feet to allow for wall mounting.
The following components shall be mounted through the enclosure:
1- ea. Red Alarm Beacon (Light) LED 360 Degree viewable range, NEMA 4X
1- ea. Alarm Horn (minimum 95 DCB), ROHS 3 Compliant, NEMA 4X
1- ea. Generator Receptacle w/ weatherproof cover 60A Minimum. Shall meet UL 1682, UL 1640 and CSA/NE Compliance

The back panel shall be fabricated from .125 5052-H32 marine alloy aluminum. All components shall be mounted by machined stainless steel screws.
The following components shall be mounted to back panel:
2- ea. IEC style Motor Contactors
1- ea. Volt Monitor (1 Ph) Phase Monitor (3 Ph) w/2 N/O & 1 N/C Contacts
1- ea. Alternator w/ Pump Lead Switch
1- ea. Control Transformer (480 Volt Only) (Min. 500VA)
1- ea. Model RCBB5AH Battery Back-Up w/ Smart Charger (UPS) - 24 Hr Min.
20- ea. Terminals For Field Connections
6- ea. Terminals For Motor Connections (Single Phase Only)
7- ea. Grounding Lugs
1-ea. Lightning and Surge Protection shall meet the UL 1449 2nd Edition

The inner door shall have a continuous aluminum piano hinge.
The following components shall be mounted through the inner door:
1- ea. Main Circuit Breaker - UL489
1- ea. Emergency Circuit Breaker - UL 489
1- ea. Mechanical Interlock For Emergency And Main Breakers (UL Listed)
2- ea. Short Circuit Protectors w/ Auxiliary Contacts
1- ea. Control Circuit Breaker & GFCI Circuit Breaker - UL 489
1- ea. GFI Duplex Convenience Outlet - NEMA 5-15R
2- ea. Elapsed Time Meter, Non-Resettable



1. OUTER DOOR REMOVED TO SHOW DEADFRONT LAYOUT NEMA TYPE 4X ENCLOSURE. ENCLOSURE SIZE SHOWN IS APPROX. ACTUAL LAYOUT/DIMENSION MAY VARY.
2. ENCLOSURE SIZE WILL BE 30" X 20" X 10" MINIMUM. CONTROL PANEL SHALL HAVE A 3 POINT LATCHING SYSTEM

MISCELLANEOUS: All wiring on the back panel shall be contained within the wiring duct. All wiring between the inner door and the back panel shall be contained with in a plastic spiral wrap. Each wire shall have a wire number at each end to correspond to the as built drawing for field troubleshooting. The control panel must be manufactured in-house by the lift station supplier and be a TUV (UL508A Certified) shop.

WET WELL: SPECIFICATION

Wet Well FRP Wall Laminate must be designed to withstand wall collapse or buckling based on third party specifications and the assumptions below.

*Hydrostatic Pressure: 62.4 lbs. Per SQ Ft.
*Saturated Soil Weight: 120 lbs. Per Cubic Ft.
*Soil Modulus: 700 lbs Per SQ Ft.
*Pipe Stiffness as Specified in ASTM D 3753

The wet well FRP laminate must be constructed to withstand or exceed two times the assumed loading for the complete depth of the structure.

The cover shall be constructed of ¼ inch thick finished aluminum, diamond plate pattern with 300 series stainless steel hardware. The hatch shall have a positive means of locking the door open in the vertical position via a hold open arm and shall be made of a non-corrosive material. The cover shall be mounted with minimum of six 300 series stainless steel fasteners. The access hatch cover shall have a lift handle and a means of locking.

The prefabricated FRP lift station manufacturer shall guarantee the prefabricated lift station per approved drawings for a period of one year from the date of delivery.

INSPECTION & TESTING:

A factory representative shall be provided for a one (1) time start-up and shall have complete knowledge of the proper operation and maintenance of the complete system. The pump motors shall be megged out prior to the start-up to ensure that the insulation of the motor and cable is intact. The pumps and the controls shall be checked for mechanical reliability and proper operation.

Installation shall be in strict accordance with the manufacturer's recommendations in the locations shown on the engineered drawings.

01/01/25 SR

STATION DESIGN CONDITIONS	
PRIMARY PUMP CAPACITY	84 GPM
PRIMARY TDH	66.71 TDH
RUN-OUT CAPACITY	88 GPM
RUN-OUT TDH	17.50 TDH
PUMP MODEL #	HOMA GRP44/3/C
R.P.M.	3450
HORSEPOWER	5.5
ELECTRICAL VOLTS / PHASE	230V/3Φ
PUMP DISCHARGE SIZE	2"

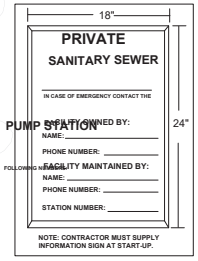
STATION ELEVATIONS AND DIMENSIONS		
100 YEAR FLOOD ELEVATION		100.27'
WET WELL DIAMETER	(A)	48"
INVERT DIAMETER	(B)	8"
TOP OF WET WELL	(C)	106.00'
INLET / INVERT	(D)	100.50'
HIGH LEVEL ALARM (HLA)	(E)	100.50'
2nd PUMP ON (LAG)	(F)	99.65'
1st PUMP ON (LEAD)	(G)	99.15'
PUMPS OFF (OFF)	(H)	98.25'
BOTTOM OF WET WELL	(I)	95.75'
DISCHARGE PIPE DIAMETER	(J)	2"
GUIDE RAIL PIPE DIAMETER	(K)	1"
F.M.	(L)	4"
RECIRCULATION LINE	(M)	4"X2"

STATION MANUFACTURING MATERIALS	
DISCHARGE/RISER PIPE	HDPE EOR
INLET PIPE	304 SS
GUIDE RAIL	FRP ASTM D-3753
WET WELL	300 LBS PSF ALUM
WET WELL HATCH COVER	304 SS
CABLE BRACKET	304 SS
LIFTING CHAIN	CAST IRON
PLUG VALVE	CAST IRON
SWING CHECK VALVE	
VALVE BOX	300 LBS PSF ALUM
VALVE BOX HATCH COVER	FRP

STATION VALVE BOX SIZES	
(36" x 36" x 36" DEEP)	FOR 2" DISCHARGE
(48" x 48" x 36" DEEP)	FOR 3" DISCHARGE
	FOR 4" DISCHARGE

STATION HATCH OPENINGS				
WET WELL DIA.	36"	48"	60"	36" x 30"

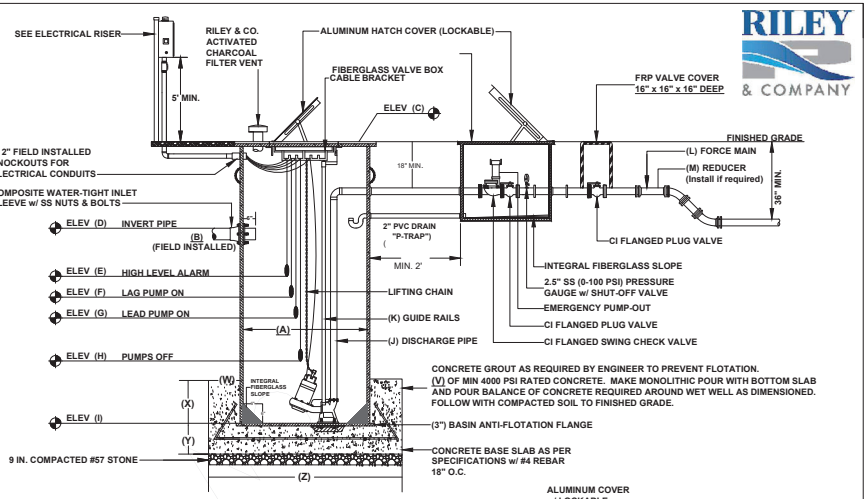
CONCRETE BALLAST REQUIREMENTS		
CUBIC YARDS OF CONCRETE REQUIRED	(V)	2.0 yds³
CIRCUMFERENCE DIMENSION - WIDTH	(W)	12.0"
CIRCUMFERENCE DIMENSION - HEIGHT	(X)	8.0"
BASE SLAB DIMENSION - HEIGHT	(Y)	8.0"
BASE SLAB DIMENSION - LENGTH & WIDTH	(Z)	72.0"

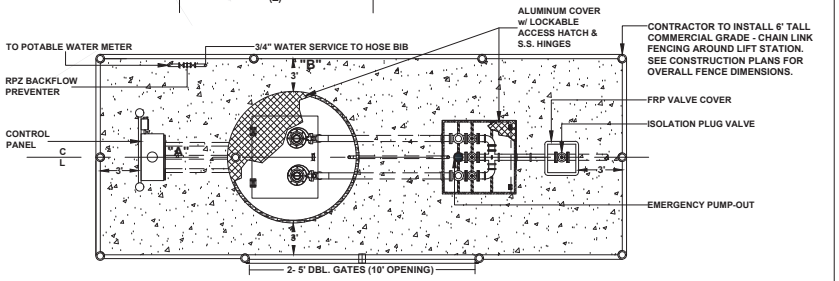


LIFT STATION WILL BE PRIVATELY OWNED AND MAINTAINED.

NOTE: PRIOR TO START-UP OWNER MUST HAVE A MINIMUM 1 YR. PREVENTIVE MAINTENANCE CONTRACT WITH A REPUTABLE LIFT STATION MAINTENANCE COMPANY.

NO SUBSTITUTIONS - NO ALTERNATES

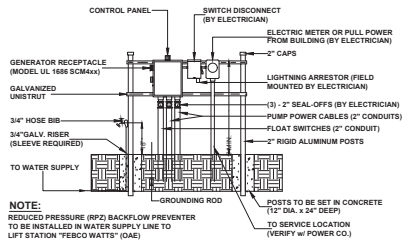




NOTE: PUMP CONTROL PANEL SHALL BE LOCATED A MIN. OF 3 FEET FROM WET WELL PERIMETER AT POINT "A" OR "B"

ELECTRICIAN NOTES:

1. DRAWING NOT TO SCALE
2. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES
3. ELECTRICIAN TO INSTALL SWITCH DISCONNECT & LIGHTNING ARRESTOR
4. CONTRACTOR SHALL VERIFY POWER SUPPLY PRIOR TO ORDERING EQUIPMENT
5. NEUTRAL TO BE SUPPLIED FOR 3Φ/208-230V OR 1Φ/208-230V



NOTE:
REDUCED PRESSURE (RPZ) BACKFLOW PREVENTER TO BE INSTALLED IN WATER SUPPLY LINE TO LIFT STATION "FEBCO WATTS" (OAE)

ILLUSTRATION PURPOSES ONLY
ELECTRICAL RISER FOR

THIS IS A COPYRIGHTED DRAWING. ANY CHANGES OR MODIFICATIONS WITHOUT WRITTEN APPROVAL FROM RILEY & COMPANY IS STRICTLY PROHIBITED. ©

NOTE: LIFT STATION DETAIL SHEET PROVIDED BY OTHERS FOR INFORMATION ONLY. IT MAY CONTAIN INFORMATION THAT DIFFERS FROM THAT CONTAINED IN PROJECT NOTES, SPECIFICATIONS, AND DETAILS SHOWN ELSEWHERE IN THE PLANS. TYPICALLY, THE MORE STRINGENT REQUIREMENTS SHALL APPLY, SUBJECT TO DETERMINATION BY THE ENGINEER. ELECTRICAL, STRUCTURAL, GEOTECHNICAL AND MECHANICAL ENGINEERING DETAILS AND ELEMENTS SHOWN, IF ANY, ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY, ARE NOT THE RESPONSIBILITY OF THE CIVIL / SITE ENGINEER, AND ARE NOT COVERED UNDER THEIR SIGNATURE AND SEAL PROVIDED ON THIS SHEET.

PREPARED BY:
RITTER CIVIL ENGINEERING ■ PLANNING
460 PINEY CROFT LANE MAITLAND, FL 32751
407-436-7276 ■ WWW.RITTERCIVIL.COM

PREPARED FOR:
4203 HOGSHEAD LLC

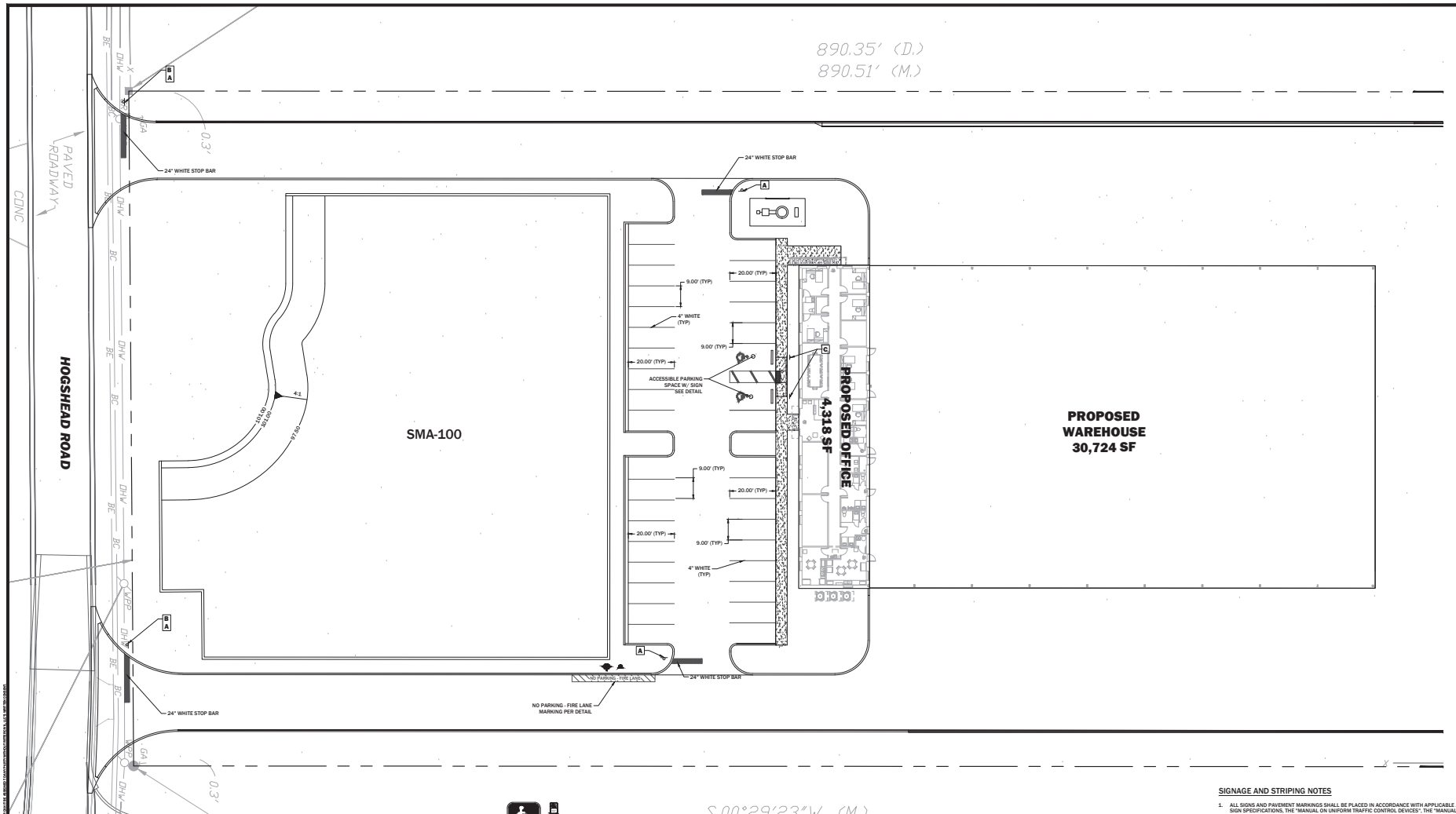
UTILITY DETAILS
4203 HOGSHEAD ROAD

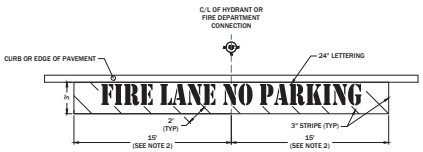
ISSUE DATE: 10/07/2025

REVISION:	REVISION:	REVISION:	REVISION:	REVISION:	REVISION:	REVISION:

DRAFTED:	GPK
DESIGNED:	GPK
REVIEWED:	GRR
PROJECT NUMBER:	23027

SHEET:
C11.3



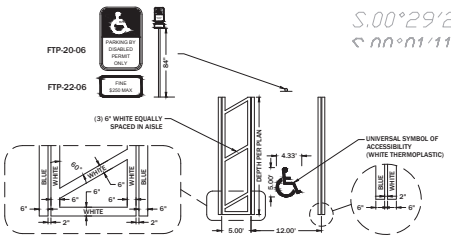


NOTES:

1. COLOR: DOT SAFETY YELLOW, WHITE OR RED
2. TERMINATE FIRE LANE AT INTERSECTIONS, SIDEWALK RAMP CROSSINGS, OR WHEN FRONTING DESIGNATED PARKING SPACES

FIRE LANE PAVEMENT MARKING

NTS

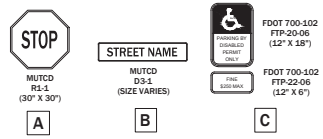


NOTE:

DETAIL PROVIDED FOR LAYOUT REFERENCE ONLY. STRIPING, SIGNAGE, AND DIMENSIONS TO COMPLY WITH THE MOST STRINGENT OF FLORIDA ACCESSIBILITY CODE, FLORIDA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS, AND ADA REQUIREMENTS.

ACCESSIBLE PARKING DETAIL

FDOT INDEX 711-001 NTS



SIGNAGE LEGEND

REFER TO MUTCD, APPLICABLE AHJ'S SIGN SPECIFICATIONS & FDOT STANDARD PLANS INDEX 700-102 NTS

SIGNAGE AND STRIPING NOTES

1. ALL SIGNS AND PAVEMENT MARKINGS SHALL BE PLACED IN ACCORDANCE WITH APPLICABLE AHJ'S SIGN SPECIFICATIONS, THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", THE "MANUAL ON STANDARD HIGHWAY SIGNS", AND "THE DESIGN STANDARDS".
2. SIGN INSTALLATION SPECIFICATIONS - 2" SQUARE GALVANIZED POLES, QUICK PUNCH (NOT PRE-PUNCHED) BOLTS, NUTS AND WASHERS ARE TO BE STAINLESS STEEL (5/16TH INCH) STOP SIGNS AT INTERSECTIONS SHALL BE 3" ALUMINUM ROUND POLES WITH Z-BARS AND U-BOLT ATTACHMENTS (DRILLING THROUGH THE POLE TO ATTACH THE SIGN IS NOT ALLOWED). ALL SIGNS ARE TO BE INSTALLED PER FDOT DESIGN SPECIFICATION WITH ANCHORS AND CONCRETE. SIGNS WITHIN SIDEWALKS ARE TO BE CORE BORED THROUGH THE SIDEWALK, NOT SURFACE MOUNTED. SIGN BLADE SHEETING SHALL BE DIAMOND GRADE WITH EC FILM.
3. RETRO-REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH THE PLANS AND STANDARD INDEX 706-001.
4. PAVEMENT MARKING DIMENSIONS SHALL BE IN ACCORDANCE WITH FDOT INDEX 711-001
5. ALL PAVEMENT DIMENSIONS ARE TO EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
6. ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC.
7. AT ALL PROJECT ENTRANCES, CLEAR SIGHT DISTANCES FOR DRIVERS AND PEDESTRIANS SHALL NOT BE BLOCKED BY SIGNS, BUILDINGS, BUILDING COLUMNS, LANDSCAPING OR OTHER VISUAL IMPEDIMENTS. NO STRUCTURE, FENCE, WALL OR OTHER VISUAL IMPEDIMENT SHALL OBSTRUCT VISION BETWEEN 3 FEET AND 8 FEET IN HEIGHT ABOVE STREET LEVEL. THE APPLICANT SHALL DESIGN THE SITE PLAN AS NECESSARY TO COMPLY WITH THE FLORIDA GREENBOOK REQUIREMENTS FOR SIGHT DISTANCES AT INTERSECTIONS. LANDSCAPING LOCATED WITHIN INTERSECTION TRIANGLES AS DEFINED BY THE FLORIDA GREENBOOK SHALL BE TRIMMED OR SPACED ACCORDING TO FDOT DESIGN INDEX 546.

PLAN LEGEND:

PROPERTY / ROW BOUNDARY

A PROPOSED SIGN(S) SEE SIGN LEGEND

SCALE: 1" = 40'

PREPARED BY:
RITTER CIVIL
ENGINEERING ■ PLANNING
460 PINEY CROFT LANE MAITLAND, FL 32751
407-436-7276 ■ WWW.RITTERCIVIL.COM

PREPARED FOR:
4203 HOGSHEAD LLC

SIGNAGE & STRIPING PLAN
4203 HOGSHEAD ROAD

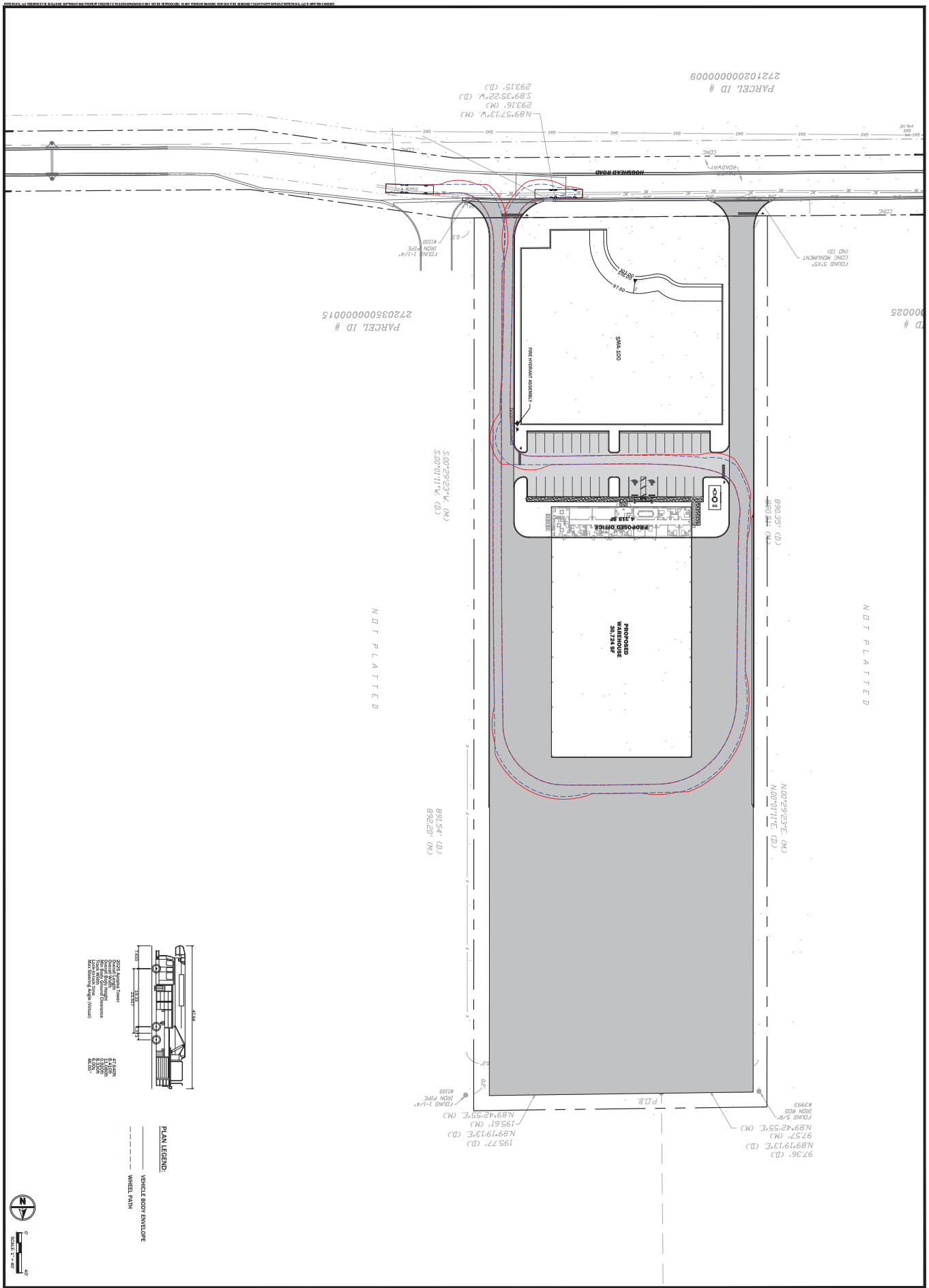
ISSUE DATE: 10/07/2025

REVISION:	REVISION:	REVISION:	REVISION:	REVISION:	REVISION:	REVISION:

DRAFTED:	GPR
DESIGNED:	GPR
REVIEWED:	GRR
PROJECT NUMBER:	23027

SHEET:
C12.0

RITTER CIVIL, LLC RESPECTS THE IDEAS AND INTELLECTUAL PROPERTY OF OTHERS. ALL RIGHTS RESERVED. THIS DRAWING/DESIGN MAY NOT BE REPRODUCED, IN ANY FORMAT OR MANNER, NOR CAN IT BE USED FOR ANY PURPOSE WITHOUT RITTER CIVIL, LLC'S WRITTEN CONSENT.



ISSUE DATE:	10/07/2025
REVISION:	
REVISION:	
REVISION:	
REVISION:	
REVISION:	
REVISION:	
REVISION:	

FIRE TRUCK ACCESS PLAN

4203 HOGSHEAD ROAD

PREPARED FOR:

4203 HOGSHEAD LLC

PREPARED BY:

RITTER CIVIL ENGINEERING ▪ PLANNING
460 PINEY CROFT LANE MAITLAND, FL 32751
407-436-7276 ▪ WWW.RITTERCIVIL.COM

SHEET: C13.0

CONSTRUCTION SITE PLANS
ADAM'S PLAZA = APOPKA
429 W ORANGE BLOSSOM TRAIL

PARCEL IDENTIFICATION
09-21-28-7544-01-031

SURVEYOR
IRELAND & ASSOCIATES SURVEYING, INC
800 CURRENCY CIRCLE SUITE 1020
LAKE MARY, FLORIDA 32746
WWW.IRELANDSURVEYING.COM
Office: 407.678.3366
Fax: 407.320.8165

ENGINEER:
AL TEHRANI, PE
622 PEACHWOOD DR.
ALTAMONTE SPRINGS, FL 32714
STATE REGISTRATION #0048325
(407) 948-0811
EMAIL: tehraniconsultingengineering@gmail.com

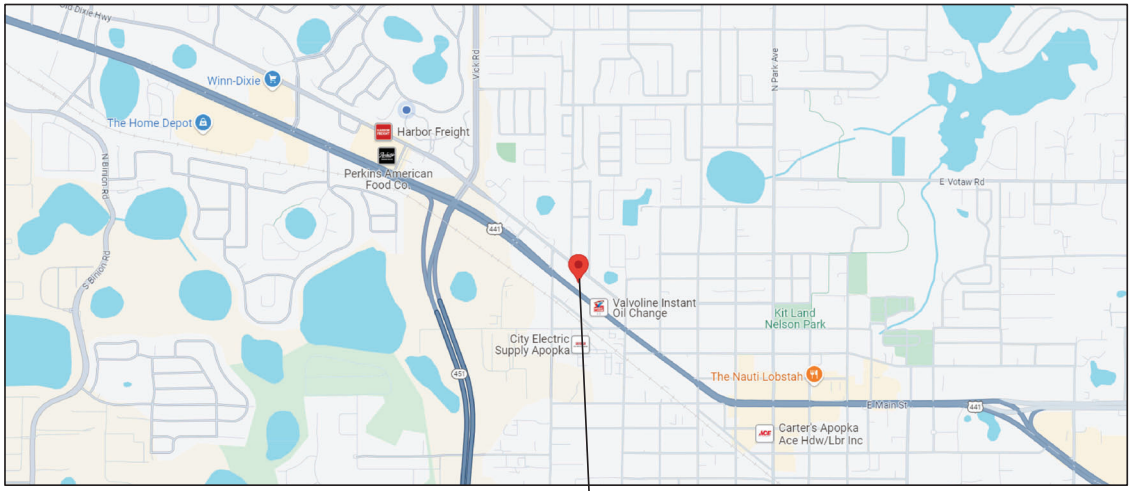
OWNER
Wawi Investors LLC
429 W Orange Blossome Trl
Apopka, FL 32712
646-387-9762
EMAIL: easyautofinance2014@gmail.com

GEPTECHNICAL
Mike Tannous Engineering
955 Sunshine Lane
Altamonte Springs , FL 32714
407-383-3404
EMAIL: Mike@MikeTannousEngineering.com

PERMITTING AGENCY
CITY OF APOPKA SITE DEVELOPMENT PERMIT
S.J.R.W.M.D.: ERP
FDEP: NPDES, WATER, SEWER
FDOT: DRIVEWAY PERMIT
ORANGE COUNTY : RIGHT OF WAY PERMIT

UTILITY COMPANIES

WATER	CITY OF APOPKA	407-703-1731
SEWER	CITY OF APOPKA	407-703-1731
PHONE FIBER	AT&T	561-683-2729
PHONE FIBER	CENTERYLINK	850-599-1444
PHONE FIBER	CHARTER COMMUNICATIONS	407-532-8509
PHONE FIBER	MCI	407-629-1010
ELECTRIC	DUKE ENERGY	407-656-2734
GAS	LAKE APOPKA NATURAL GAS DISTRICT	972-729-6322



VICINITY

LEGAL DESCRIPTION:
Lots 23, 24, 25, 26, 27 and 28, the West 37.5 feet Lot 3, and all of Lots 4 and 5, Block A, ROBINSON & SAMUELS ADDITION, according to the map or plat thereof, as recorded in Plat Book J, Page(s) 80, of the Public Records of Orange County, Florida.

NOTE:
ALL CONSTRUCTION IN THE FDOT ROW SHALL CONFIRM TO THE LATEST EDITION OF THE FDOT STANDARD DESIGNS PLANS (INDEXES), THE FDOT STANDARD SPECIFICATIONS FORTHE ROAS AND BRIDGE CONSTRUCTION, AND THE FDOT UTILITY ACCOMIDATION MANUAL.

INDEX OF DRAWINGS

DRAWING NO.	DRAWING DESCRIPTION
C-1	COVER
C-2	SURVEY
C-3	NOTES AND SPECIFICATIONS
C-4	PRE DEVELOPEMENT
C-5	POST DEVELOPMENT
C-6	EROSION PLAN
C-6.5	EROSION ENTRANCE PLAN
C-7	SITE PLAN
C-8	GEOMETRY PLAN
C-9	GRADING PLAN
C-10	STORMWATER PLAN
C-11	UTILITY PLAN
C-12	TURN ANALYSIS FIRE SAFETY
C-12.5	TURN ANALYSIS SOLID WASTE
C-13	DETAILS AND SECTIONS
C-14	DETAILS
C-15	DETAILS
C-15A	OVERFLOW STRUCTURE DETAIL
C-16	UTILITY DETAILS
L1	LANDSCAPE PLAN
L2	TREE PLAN
L3	IRRIGATION

Hossein G Tehrani
Digitally signed by Hossein G Tehrani
DN: c=US, o=Unaffiliated, dnQualifier=A01410C00 00018E38A5CEBC00040 F12, cn=Hossein G Tehrani
Date: 2025.11.02 21:20:55 -05'00'

ENGINEER OF RECORD

TEHRANI CONSULTANT ENGINEERING LLC
622 Peachwood Drive
Altamonte Springs, FL 32714
Ph. (407) 948-0811
EMAIL:
tehraniconsultingengineering@gmail.com

THESE DOCUMENTS AND THEIR CONTENTS ARE THE PROPERTY OF TEHRANI CONSULTANT ENGINEERING LLC AND ANY REPRODUCTIONS, REVISIONS, MODIFICATIONS OR USE OF THESE DOCUMENTS WITHOUT THE EXPRESSED WRITTEN CONSENT OF TEHRANI CONSULTANT ENGINEERING LLC, INC IS PROHIBITED BY LAW.

HOSSEIN G. TEHRANI LICENSE No. 48235 STATE OF FLORIDA PROFESSIONAL ENGINEER

State of Florida Seal

1. THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY, HOSSEIN G. TEHRANI, PE, ON THE DATE AND /OR TIME STAMP SHOWN USING A DIGITAL SIGNATURE.
2. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPY.

Revisions/Comments:
1. COVER PAGE

Cadd File Information
Cadd File:
Scale: AS NOTED

Drawing Information
Drawn by: STJ
Checked by: ALT
Approved by: ALT
Date: 9-12-24

Job Number#
0926-2023

Project Name and Location:
A NEW SITE PLAN FOR:
429 WEST ORANGE BLOSSOM TRAIL APOPKA, FL

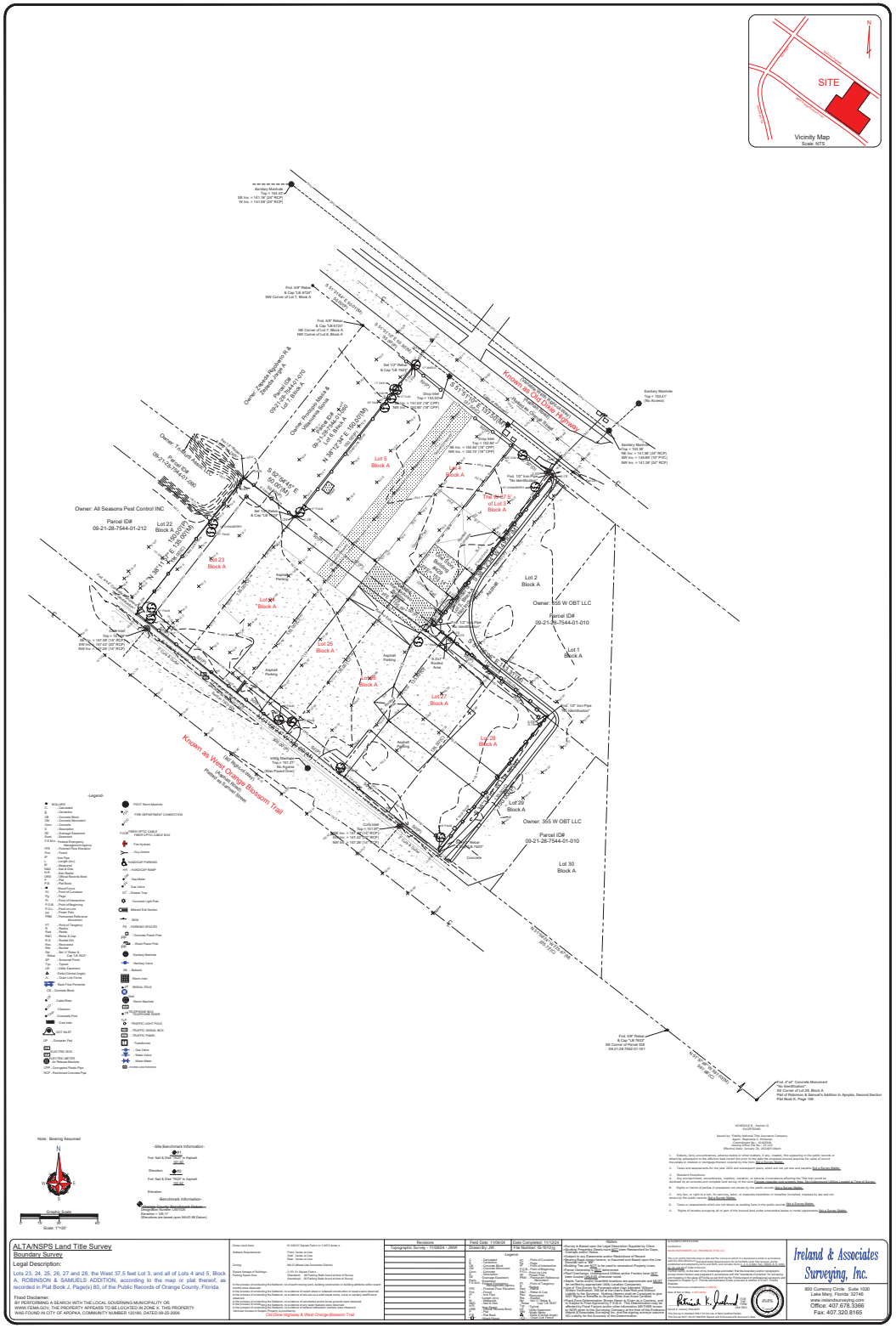
Sheet Title
COVER

APPROVED BY

ALI TEHRANI, P.E.
FLORIDA P.E. LICENSE NO.48235
State of Florida Seal

Drawing Number
C1

Sheet:1 Of: 19


SITE
Vicinity Map
Scale: NTS
Known as West Orange Blossom Trail
Known as Old Dixie Highway
Owner: All Seasons Pest Control INC
Parcel ID# 09-21-28-7544-01-212
Lot 22 Block A
Lot 23 Block A
Lot 24 Block A
Lot 25 Block A
Lot 26 Block A
Lot 27 Block A
Lot 28 Block A
Lot 29 Block A
Lot 30 Block A
Lot 1 Block A
Lot 2 Block A
Lot 3 Block A
Lot 4 Block A
Lot 5 Block A
The West 3' of Lot 1 Block A
Owner: 355 W OBT LLC
Parcel ID# 09-21-28-7544-01-010
Owner: Trevor Nguyen
Parcel ID# 09-21-28-7544-01-1000
Owner: Trevor Nguyen and Ni B Zavala
Parcel ID# 09-21-28-7544-01-070
Lot 7 Block A
Owner: Dominic Bonnano Maria A
Parcel ID# 09-21-28-7544-01-060
Lot 6 Block A
Prod. 5/8" Rebar & Cap "LB 6727" NW Corner of Lot 7, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NE Corner of Lot 7, Block A NW Corner of Lot 6, Block A
Prod. 1/2" Rebar & Cap "LB 7930"
Drop Inlet Top = 103.63' 12" CIPP 12" CIPP
Sanitary Manhole Top = 103.67' NE Inv. = 101.96' (24" RCP) SW Inv. = 101.86' (24" RCP) NW Inv. = 101.96' (24" RCP)
Sanitary Manhole Top = 103.67' NE Inv. = 101.96' (24" RCP) SW Inv. = 100.85' (15" PVC) NW Inv. = 101.96' (24" RCP)
Prod. 1/2" Iron Rod "No Identification"
Drop Inlet Top = 104.04' SE Inv. = 100.90' (18" CIPP) NW Inv. = 100.70' (18" CIPP)
Sanitary Manhole Top = 103.67' NE Inv. = 101.96' (24" RCP) SW Inv. = 101.86' (24" RCP) NW Inv. = 101.96' (24" RCP)
Prod. 1/2" Iron Rod "No Identification"
Prod. 1/2" Iron Pipe "No Identification"
Utility Manhole Top = 104.10' Rim Agrees (Was Paved Over)
Curb Inlet Top = 101.57' (12" RCP) NW Inv. = 101.27' (12" RCP) SW Inv. = 101.26' (12" RCP)
Prod. 5/8" Rebar & Cap "LB 7930" SE Corner of Parcel ID# 09-21-28-7930-05-161
Prod. 4"x4" Concrete Monument "No Identification" SW Corner of Lot 29, Block A Plat of Robinson & Samuel's Addition to Apopka, Second Section Plat Book K, Page 106
Prod. 5/8" Rebar & Cap "LB 7930" NW Corner of Lot 30, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NE Corner of Lot 22, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SE Corner of Lot 22, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NE Corner of Lot 23, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NW Corner of Lot 23, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SW Corner of Lot 23, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SE Corner of Lot 23, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NE Corner of Lot 24, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NW Corner of Lot 24, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SW Corner of Lot 24, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SE Corner of Lot 24, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NE Corner of Lot 25, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NW Corner of Lot 25, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SW Corner of Lot 25, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SE Corner of Lot 25, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NE Corner of Lot 26, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NW Corner of Lot 26, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SW Corner of Lot 26, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SE Corner of Lot 26, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NE Corner of Lot 27, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NW Corner of Lot 27, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SW Corner of Lot 27, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SE Corner of Lot 27, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NE Corner of Lot 28, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NW Corner of Lot 28, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SW Corner of Lot 28, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SE Corner of Lot 28, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NE Corner of Lot 29, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NW Corner of Lot 29, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SW Corner of Lot 29, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SE Corner of Lot 29, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NE Corner of Lot 30, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NW Corner of Lot 30, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SW Corner of Lot 30, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SE Corner of Lot 30, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NE Corner of Lot 1, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NW Corner of Lot 1, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SW Corner of Lot 1, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SE Corner of Lot 1, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NE Corner of Lot 2, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NW Corner of Lot 2, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SW Corner of Lot 2, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SE Corner of Lot 2, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NE Corner of Lot 3, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NW Corner of Lot 3, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SW Corner of Lot 3, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SE Corner of Lot 3, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NE Corner of Lot 4, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NW Corner of Lot 4, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SW Corner of Lot 4, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SE Corner of Lot 4, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NE Corner of Lot 5, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NW Corner of Lot 5, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SW Corner of Lot 5, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SE Corner of Lot 5, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NE Corner of Lot 6, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NW Corner of Lot 6, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SW Corner of Lot 6, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SE Corner of Lot 6, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NE Corner of Lot 7, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NW Corner of Lot 7, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SW Corner of Lot 7, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SE Corner of Lot 7, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NE Corner of Lot 8, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NW Corner of Lot 8, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SW Corner of Lot 8, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SE Corner of Lot 8, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NE Corner of Lot 9, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NW Corner of Lot 9, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SW Corner of Lot 9, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SE Corner of Lot 9, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NE Corner of Lot 10, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NW Corner of Lot 10, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SW Corner of Lot 10, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SE Corner of Lot 10, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NE Corner of Lot 11, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NW Corner of Lot 11, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SW Corner of Lot 11, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SE Corner of Lot 11, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NE Corner of Lot 12, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NW Corner of Lot 12, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SW Corner of Lot 12, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SE Corner of Lot 12, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NE Corner of Lot 13, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NW Corner of Lot 13, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SW Corner of Lot 13, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SE Corner of Lot 13, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NE Corner of Lot 14, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NW Corner of Lot 14, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SW Corner of Lot 14, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SE Corner of Lot 14, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NE Corner of Lot 15, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NW Corner of Lot 15, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SW Corner of Lot 15, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SE Corner of Lot 15, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NE Corner of Lot 16, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NW Corner of Lot 16, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SW Corner of Lot 16, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SE Corner of Lot 16, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NE Corner of Lot 17, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NW Corner of Lot 17, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SW Corner of Lot 17, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SE Corner of Lot 17, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NE Corner of Lot 18, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NW Corner of Lot 18, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SW Corner of Lot 18, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SE Corner of Lot 18, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NE Corner of Lot 19, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NW Corner of Lot 19, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SW Corner of Lot 19, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SE Corner of Lot 19, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NE Corner of Lot 20, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NW Corner of Lot 20, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SW Corner of Lot 20, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SE Corner of Lot 20, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NE Corner of Lot 21, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NW Corner of Lot 21, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SW Corner of Lot 21, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SE Corner of Lot 21, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NE Corner of Lot 22, Block A
Prod. 5/8" Rebar & Cap "LB 6727" NW Corner of Lot 22, Block A
Prod. 5/8" Rebar & Cap "LB 6727" SW

GENERAL NOTES:

1. THESE GENERAL NOTES APPLY TO ALL WORK IN THIS SET OF DRAWINGS.
2. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR(S) TO ENSURE THAT ALL REQUIRED PERMITS ARE OBTAINED AND ARE IN HAND AT THE JOB SITE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. CONTRACTOR SHALL ABIDE BY ALL CONDITIONS CONTAINED THEREIN.
3. THE SPECIFICATIONS, NOTES, AND PLANS CALL ATTENTION TO CERTAIN REQUIRED FEATURES OF THE CONSTRUCTION BUT DO NOT PURPORT TO COVER ALL DETAILS OF DESIGN AND CONSTRUCTION. HOWEVER, THE CONTRACTOR SHALL FURNISH & INSTALL THE WORK IN ALL DETAILS AND READY FOR OPERATION.
4. ALL EQUIPMENT SHALL BE HANDLED, STORED, INSTALLED, TESTED, AND OPERATED IN STRICT ACCORDANCE WITH THE APPLICABLE MANUFACTURER'S WRITTEN INSTRUCTIONS.
5. ALL WORK SHALL BE ACCOMPLISHED TO THE HIGHEST QUALITY CRAFTSMANSHIP STANDARDS AS APPROVED BY THE ENGINEER.
6. ALL WORK SHALL BE ACCOMPLISHED IN STRICT ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES, ORDINANCES AND REGULATIONS.
7. APPARENT ERRORS, DISCREPANCIES, OR OMISSIONS ON THE DRAWINGS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION BEFORE BIDDING.
8. AFTER COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL PERFORM SITE CLEAN-UP OPERATIONS FOR REMOVAL OF ALL TRASH, DEBRIS, EXCESS MATERIAL, AND EQUIPMENT. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PRESENT THE PROJECT SITE CLEAN AND IN GOOD ORDER AT THE TIME OF FINAL ACCEPTANCE.
9. THE CONTRACTOR SHALL COMPLY WITH ALL RULES, REGULATIONS, AND SPECIFICATIONS OF CITY OF APOPKA FOR SITE IMPROVEMENT IN THE ABSENCE OF A PARTICULAR REQUIREMENT.
10. FLORIDA LAW (F.S. 553.851) PROTECTION OF UNDERGROUND PIPELINES MANDATES THAT "NO EXCAVATOR SHALL COMMENCE OR PERFORM ANY EXCAVATION IN ANY PUBLIC OR PRIVATE STREET, ALLEY, OR RIGHT-OF-WAY DEDICATED TO THE PUBLIC USE, OR GAS UTILITY EASEMENT WITHOUT FIRST OBTAINING INFORMATION CONCERNING THE POSSIBLE LOCATION OF GAS PIPELINES IN THE AREA OF THE PROPOSED EXCAVATION." THIS INCLUDES ANY OPERATION UTILIZING HAND TOOLS OR POWER TOOLS WHICH MOVES OR REMOVES ANY STRUCTURE, EARTH, ROCK, OR OTHER MASS OF MATERIAL BY SUCH METHODS AS DIGGING, BACKFILLING, DEMOLITION, GRADING, DITCHING, DRILLING, BORING, AND CABLE PLOWING. THE EXCAVATOR MUST NOTIFY THE GAS UTILITY A MINIMUM OF 48 HOURS AND A MAXIMUM OF 5 DAYS PRIOR TO EXCAVATING (EXCLUDING SATURDAYS, SUNDAYS, AND LEGAL HOLIDAYS).
11. CONTRACTOR SHALL NOTIFY ALL APPROPRIATE UTILITY COMPANIES OF PROPOSED START OF WORK IN ACCORDANCE WITH THEIR STANDARD REQUIREMENTS; INCLUDING BUT NOT LIMITED TO WATER, SEWER, POWER, TELEPHONE, GAS, AND CABLE TV COMPANIES.
12. ANY DIFFERING SITE CONDITIONS FROM THAT WHICH IS REPRESENTED HEREON, WHETHER ABOVE, ON, OR BELOW THE SURFACE OF THE GROUND, SHOULD BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER AND OWNER IN WRITING. NO CLAIM FOR EXPENSES INCURRED BY THE CONTRACTOR DUE TO DIFFERING SITE CONDITIONS WILL BE ALLOWED IF CONTRACTOR FAILS TO PROVIDE THE REQUIRED WRITTEN NOTIFICATION OF SUCH CONDITIONS FOR REVIEW BY THE ENGINEER AND OWNER.
13. THE CONTRACTOR SHALL FURNISH OWNER WITH ACCURATE RECORD DRAWINGS PREPARED BY A LICENSED PROFESSIONAL SURVEYOR SHOWING AS-CONSTRUCTED HORIZONTAL AND VERTICAL DIMENSIONING OF THE WORK IN ACCORDANCE WITH CITY OF APOPKA REQUIREMENTS. THE SUBMITTAL COPY OF THE RECORD DRAWINGS WILL NOT BE RETURNED. THE RECORD DRAWING OR A REPRODUCIBLE COPY PREPARED BY THE ENGINEER SHALL BE CERTIFIED BY THE CONTRACTOR AS CORRECT. ALL INFORMATION WHICH IS UNCHANGED AND CURRENT SHALL BE NOTED BY CHECKING OFF OR CIRCLING. ALL REVISED INFORMATION SHALL BE CROSSED THROUGH AND NEW INFORMATION ADDED. ADDITIONAL REQUIREMENTS ARE NOTED IN PAVING, GRADING, DRAINAGE, WATER, AND SEWER NOTES.
14. ALL PRIVATE AND PUBLIC PROPERTIES AFFECTED BY THIS WORK SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN EXISTED UNLESS SPECIFICALLY EXEMPTED BY THE PLANS. THE COST FOR SUCH RESTORATION SHALL BE INCIDENTAL TO OTHER CONSTRUCTION AND NO EXTRA COMPENSATION WILL BE ALLOWED.
15. THE CONTRACTOR SHALL FOLLOW THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS IN PREPARING THE SITE FOR CONSTRUCTION; THIS INCLUDES REMOVAL OF ANY EXISTING ORGANIC SOILS, DELETERIOUS MATERIAL, VEGETATION, AND/OR DEBRIS FROM WITHIN THE LIMITS OF CONSTRUCTION AS IDENTIFIED BY THE GEOTECHNICAL ENGINEER; PROOFROLLING OF THE NATURAL SOILS WHERE REQUIRED; AND OTHER GENERAL SITE PREPARATION REQUIREMENTS. SPECIFIC PROOFROLLING COMPACTION REQUIREMENTS SHOULD BE CONSISTENT WITH THE APPLICABLE DESIGN REQUIREMENTS AND GEOTECHNICAL ENGINEER'S RECOMMENDATIONS. IF THERE IS A CONFLICT BETWEEN THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS AND THE DESIGN DOCUMENTS, THE MORE STRINGENT REQUIREMENT SHALL APPLY.

GEOMETRY NOTES:

1. THESE PLANS ARE BASED ON A SURVEY PREPARED FOR THE OWNER BY ALTAMAX SURVEYING AND DATED 06/21/2021.
2. REFER TO SHEET C-2 FOR REFERENCED BENCHMARK.
3. CONTRACTOR SHALL STAKE ALL IMPROVEMENTS USING THE GEOMETRIC DATA PROVIDED. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO COMPLETELY STAKE & CHECK ALL IMPROVEMENTS TO ENSURE ADEQUATE POSITIONING, BOTH HORIZONTAL & VERTICAL, PRIOR TO THE INSTALLATION OF ANY IMPROVEMENTS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF ANY APPARENT DISCREPANCIES ARE FOUND.
4. ALL DIMENSIONS ARE TO THE FACE OF CURB OR EDGE OF PAVEMENT, UNLESS OTHERWISE NOTED.
5. CONTRACTOR SHALL VERIFY THE ACCURACY OF THE BUILDING GEOMETRY SHOWN WITH THAT IN THE FINAL ARCHITECTURAL DRAWINGS, PRIOR TO STAKE-OUT, & SHALL NOTIFY OWNER & ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.

MARKING, STRIPING, & SIGNAGE NOTES:

1. ALL MARKINGS MUST COMPLY WITH THE F.D.O.T. ROADWAY & TRAFFIC DESIGN STANDARDS, MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AND THE CITY OF APOPKA LAND DEVELOPMENT CODE. PARKING SPACES SHALL BE F.D.O.T. RATED PAINT. ALL OTHER MARKINGS MUST BE THERMOPLASTIC.
2. HANDICAP PARKING SPACES SHALL BE PROPERLY SIGNED AND STRIPED IN ACCORDANCE WITH FLORIDA STATUTE 316, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND OTHER APPLICABLE STANDARDS. REFER TO F.D.O.T. ROADWAY & TRAFFIC DESIGN STANDARDS INDEX 17355 FOR HANDICAP SYMBOL.
3. HANDICAP SIGN SHALL BE F.D.O.T. SPECIFICATIONS.

PAVING, GRADING, & DRAINAGE NOTES:

1. ALL CONSTRUCTION, INCLUDING SIDEWALKS, SHALL BE IN ACCORDANCE WITH CITY OF APOPKA CONSTRUCTION SPECIFICATIONS AND OTHER GENERAL AND SPECIAL SPECIFICATIONS, AND THE LATEST EDITION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION, UNLESS STATED OTHERWISE IN THE SPECIFICATIONS OR THE PLANS.
2. SUBSURFACE INFORMATION PROVIDED WITH THESE DRAWINGS WAS OBTAINED FOR USE IN ESTABLISHING DESIGN CRITERIA FOR THE PROJECT. THE ACCURACY OF THIS INFORMATION IS NOT GUARANTEED AND IS NOT TO BE CONSTRUED AS PART OF THE PLANS GOVERNING CONSTRUCTION OF THE PROJECT.
3. THE LOCATIONS OF EXISTING UTILITIES AND STORM DRAINAGE SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. ENGINEER ASSUMES NO RESPONSIBILITY FOR INACCURACY. PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAKE ARRANGEMENTS FOR FIELD LOCATIONS AND FOR ANY RELOCATIONS OF THE VARIOUS EXISTING UTILITIES WITH THE UTILITY OWNERS, WHICH SHALL BE DONE IN A TIMELY FASHION TO MINIMIZE IMPACT ON THE CONSTRUCTION SCHEDULE. ANY DELAY OR INCONVENIENCE CAUSED THE CONTRACTOR BY THE RELOCATION OF THE VARIOUS UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED.
4. ALL FILL MATERIAL IN GENERAL IMPROVEMENT AREAS SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE SOIL'S MODIFIED PROCTOR MAXIMUM DRY DENSITY AS DETERMINED BY AASHTO T-180. SPECIFIC SITE PREPARATION METHODS, TYPE OF FILL TO BE USED FOR PARKING AND BUILDING AREAS, AND COMPACTION SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS (SEE GEOTECHNICAL REPORT PREPARED BY UNIVERSAL ENGINEERING SCIENCES; PROJECT NO. 1725135) REFER TO STRUCTURAL, ARCHITECTURAL, AND GEOTECHNICAL DOCUMENTS FOR ANY WORK RELATIVE TO FOUNDATIONS AND OTHER VERTICAL ELEMENTS FOR SPECIFIC SITE IMPROVEMENT AND FILL REQUIREMENTS. THIS PLAN ONLY COVERS SITE RELATED IMPROVEMENTS AND INFRASTRUCTURE. REFER TO PAVEMENT SECTION DETAILS FOR MATERIAL AND COMPACTION REQUIREMENTS OF PAVEMENT SUBGRADE.
5. ALL UNDERGROUND UTILITIES INCLUDING CONDUIT FOR ELECTRICAL, CABLE TV, AND TELEPHONE SHALL BE INSTALLED PRIOR TO PAVEMENT CONSTRUCTION.
6. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY PROBLEMS REQUIRING DEVIATION FROM THESE PLANS AND SPECIFICATIONS.
7. THE CONTRACTOR SHALL SUBMIT DETAILED SHOP DRAWINGS OF ALL MAJOR ITEMS PROPOSED FOR THIS PROJECT TO THE ENGINEER PRIOR TO ORDERING ANY OF THE EQUIPMENT. UPON THE CONTRACTOR'S RECEIPT OF APPROVED SHOP DRAWINGS FROM THE ENGINEER, THE CONTRACTOR MAY PROCEED WITH THE WORK.
8. ALL DISTURBED AREAS MUST BE SODDED, UNLESS OTHERWISE NOTED ON THE PLANS. ALL SODDING MUST BE DONE IN ACCORDANCE WITH SECTION 570 OF THE FLORIDA DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION, LATEST EDITION.
9. PROVIDE HANDICAP ACCESS WHERE SIDEWALKS MEET CURBS.

EROSION CONTROL NOTES:

1. ALL EROSION AND SEDIMENT CONTROL WORK SHALL CONFORM WITH CITY OF APOPKA SPECIFICATIONS, SUBJECT TO AUTHORIZED AND APPROVED VARIANCES, WAIVERS AND/OR CONDITIONAL CHANGES.
2. EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CONSTRUCTION. SEDIMENT CONTROL PRACTICES WILL BE APPLIED AS A PERIMETER DEFENSE AGAINST ANY TRANSPORTATION OF SILT OFF THE SITE.
3. CONTRACTOR SHALL SUBMIT AN EROSION CONTROL PLAN AT THE PRE-CONSTRUCTION MEETING. THE CONTRACTOR SHALL USE BEST MANAGEMENT PRACTICES IN CONTROLLING EROSION AND SEDIMENTATION DURING CONSTRUCTION.
4. ALL CLEARED AREAS FOR IMPROVEMENT AND/OR CONSTRUCTION SHALL BE WATERED TO PREVENT WIND EROSION.
5. PRIOR TO LAND CLEARING THE CONTRACTOR SHALL PROVIDE TREE PROTECTION BARRIERS TO MEET THE REQUIREMENTS OF CITY OF APOPKA.
6. THE CONTRACTOR SHALL SELECTIVELY CLEAR ONLY THE AREAS REQUIRED FOR CONSTRUCTION AND STABILIZE ANY POTENTIAL EROSION AREAS IMMEDIATELY FOLLOWING COMPLETION OF CONSTRUCTION.

WATER & SEWER UTILITY NOTES:

1. CONTRACTOR SHALL COORDINATE WITH CITY OF APOPKA FOR CONSTRUCTION OF THE WATER AND SEWER SYSTEMS. ALL MATERIAL AND WORKMANSHIP SHALL CONFORM TO THEIR SPECIFICATIONS AND REQUIREMENTS, AS APPLICABLE AND WILL BE SUBJECT TO THEIR INSPECTION AND ACCEPTANCE.
2. CONTRACTOR SHALL COORDINATE ALL WATER AND SEWER SYSTEM TEST SCHEDULING TO ALLOW ENGINEER'S ATTENDANCE AND PROVIDE FIVE (5) WORKING DAYS NOTICE OF WATER AND SEWER TESTS. CONTRACTOR'S FAILURE TO PROPERLY NOTIFY ENGINEER MAY RESULT IN RETESTING AT ENGINEER'S OPTION AND AT CONTRACTOR'S EXPENSE.
3. ENGINEER RESERVES THE RIGHT TO WITHHOLD APPROVAL FOR ANY PORTION OF THE WATER OR SEWER PIPE WORK WHICH HAS NOT BEEN TESTED (OBSERVED BY ENGINEER) AND REPORTED TO CONFORM TO PROJECT SPECIFICATIONS.
4. SITE CONTRACTOR SHALL COORDINATE AND VERIFY ALL UTILITY SERVICES WITH FINAL ARCHITECTURAL DRAWINGS AND BUILDING CONTRACTOR.
5. CONTRACTOR SHALL VERIFY SIZE AND TYPE OF EXISTING MAIN PRIOR TO ORDERING TAPPING MATERIALS FOR TIE-INS.
6. CONTRACTOR SHALL MAINTAIN A SET OF RECORD DRAWINGS MARKED UP WITH HORIZONTAL AND VERTICAL AS-BUILT INFORMATION ON LOCATION OF WATER MAINS, FITTINGS, AND WATER SERVICES LOCATED FROM CENTERLINE OF NEAREST FIRE HYDRANT OR NEAREST MANHOLE.
7. SITE UTILITY WORK SHALL TERMINATE 5 FEET FROM BUILDINGS UNLESS OTHERWISE STATED.
8. CONTRACTOR SHALL NOT ACTIVATE WATER SERVICE UNTIL THE FDEP HAS CLEARED THE SYSTEM FOR USE AND THE CLEARANCE LETTER HAS BEEN RECEIVED BY THE OWNER.

F.D.E.P. CONSTRUCTION NOTES:

UTILITY SEPARATION - VERTICAL CLEARANCE:

1. NEW OR RELOCATED, UNDERGROUND WATER MAINS THAT ARE INCLUDED IN THIS PROJECT AND THAT WILL CROSS ANY EXISTING OR PROPOSED GRAVITY -OR VACUUM- TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES ABOVE THE OTHER PIPELINE OR AT LEAST 12" BELOW THE OTHER PIPELINE; AND NEW OR RELOCATED, UNDERGROUND WATER MAINS THAT ARE INCLUDED IN THIS PROJECT AND THAT WILL CROSS ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OTHER PIPELINE.
2. AT THE UTILITY CROSSINGS DESCRIBED ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE OR THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY- OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.

UTILITY SEPARATION HORIZONTAL SEPARATION:

1. NEW OR RELOCATED, UNDERGROUND WATER MAINS INCLUDED IN THIS PROJECT SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER, STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III CHAPTER 62-610, F.A.C.; A HORIZONTAL DISTANCE OF AT LEAST SIX FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.; AND A HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM."
2. THE CONTRACTOR SHALL PERFORM HYDROSTATIC TESTING OF ALL NEWLY-INSTALLED WATER DISTRIBUTION SYSTEM IN ACCORDANCE WITH THE CITY OF APOPKA & IN ACCORDANCE WITH AWWA STANDARD C600 FOR DUCTILE-IRON PIPE. TESTING SHALL BE IN ACCORDANCE WITH AWWA MANUAL M23 FOR PVC PIPE.
3. THE CONTRACTOR SHALL DISINFECT ALL SECTIONS OF THE WATER DISTRIBUTION SYSTEM IN ACCORDANCE WITH THE F.D.E.P. WATER PERMIT, & RECEIVE APPROVAL THEREOF FROM THE LOCAL WATER UTILITY, ENGINEER OF RECORD, & F.D.E.P., PRIOR TO PLACING IN SERVICE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN COPIES OF THE F.D.E.P. WATER & SEWER PERMITS FROM THE PERMITS FROM THE OWNER & MAINTAIN THEM ON THE JOB SITE AT ALL TIMES. DISINFECTION OF THE WATER DISTRIBUTION SYSTEM SHALL SYSTEM SHALL BE PERFORMED IN ACCORDANCE WITH AWWA 651 "DISINFECTING WATER MAINS". SHALL BE PERFORMED IN ACCORDANCE WITH AWWA 651 "DISINFECTING WATER MAINS".

CONSTRUCTION NOTES:

1. THE PERMITTEE SHALL BE SEPARATELY RESPONSIBLE FOR APPROPRIATE CONSTRUCTION, DISINFECTION & TESTING BEYOND THE METER TO ASSURE POTABILITY AT THE POINT OF USE.
2. POTABLE WATER PIPES WILL BE DISINFECTED IN ACCORDANCE WITH AWWA SPECIFICATIONS C651.
3. POTABLE PIPES WILL BE HYDROSTATICALLY TESTED IN ACCORDANCE WITH SPECIFICATION NUMBERS C600 & C605/M23 FOR DUCTILE IRON & PVC PIPES, RESPECTIVELY.
   A. POTABLE WATER PIPES MUST BE MANUFACTURED IN ACCORDANCE WITH THE FOLLOWING AWWA SPECIFICATIONS:
   B. DUCTILE IRON PIPE (3" TO 64") - AWWA C150/AWWA C151; LINING PER AWWA C104, COATING PER AWWA C116, ENCASEMENT PER AWWA C105, FLANGED PIPE PER AWWA C115, GASKET JOINTS PER AWWA C111 AND FITTINGS PER AWWA C110 OR AWWA C153.
   C. PVC (WITH NATIONAL SANITATION FOUNDATION SEAL)
      1. AWWA C900/ASTM 1784 (4" TO 12") WITH DR25 MINIMUM;
      2. AWWA C905 (14" TO 48")
      3. PRESSURE RATED PIPE (SDR SERIES) SHALL BE ASTM D2241, SCHEDULE 40, 80, & 120 PVC PIPES PER ASTM D1785. THE COMPOUNDS USED FOR EITHER OF THESE TYPES SHALL BE PER ASTM D1784.
   D. POLYETHYLENE PIPE (1/2" - 3") - AWWA C901 WITH VALVES & FITTINGS (AWWA C800);
   E. POLYETHYLENE PIPE (4" - 63") - AWWA C906.
   F. FIRE HYDRANTS & VALVES PER AWWA SERIES C500 THROUGH C560.
   G. METERS PER AWWA SERIES C700 THROUGH C710.
   E. NON-AWWA PVC PIPES (ALLOWED ONLY FOR SIZES LESS THAN 4 INCHES) MUST HAVE A MINIMUM PRESSURE CLASS OF 200 PSI AND MUST BEAR THE NSF MARK ON EACH INSTALLED LENGTH.

CONNECTION TO EXISTING WATER MAINS:

1. IF CONNECTION OF THE PROPOSED ACTIVITY TO THE WATER MAIN WILL RESULT IN DEPRESSURIZATION OF THE EXISTING SYSTEM BELOW 20 POUNDS PER SQUARE INCH, ONE OF THE FOLLOWING MUST OCCUR:
   A. PRECAUTIONARY BOIL WATER NOTICES MUST BE ISSUED IN CASES OF PLANNED DISTRIBUTION INTERRUPTIONS, WHICH DEEMED AN IMMINENT PUBLIC HEALTH THREAT BY THE DEP. CENTRAL DISTRICT OR WILL AFFECT BACTERIOLOGICAL QUALITY OF THE DRINKING WATER UNLESS THE PUBLIC WATER SYSTEM CAN DEMONSTRATE, BY SOUND ENGINEERING JUDGMENT, THAT THE INTEGRITY OF THE WATER QUALITY ARE EXPECTED TO OCCUR & NOT DEEMED AN IMMINENT PUBLIC HEALTH RISK.
   B. IN CASES OF BRIEF INTERRUPTION IN SERVICE, ADVISORIES (NOT BOIL WATER NOTICES) SHOULD BE ISSUED IF TEMPORARY CHANGES IN WATER QUALITY ARE EXPECTED TO OCCUR & NOT DEEMED AN IMMINENT PUBLIC HEALTH RISK.

FILLING OF WATERMAINS:

1. FILLING OF PROPOSED WATER MAINS FROM EXISTING WATER MAINS WILL BE DONE IN ACCORDANCE WITH AWWA SPECIFICATIONS C651.

MATERIAL SPECIFICATIONS:

PAVING, GRADING, & DRAINAGE:

1. PAVING MATERIALS SHALL CONFORM WITH F.D.O.T. STANDARDS & SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION, LATEST EDITION.
2. STORM DRAINS SHALL BE REINFORCED CONCRETE PIPE, PER ASTM C-76 CLASS III, UNLESS OTHERWISE SPECIFIED. LIFTING HOLES ARE PROHIBITED.
3. ALL STORM STRUCTURES SHALL CONFORM WITH F.D.O.T. STANDARD INDEX DRAWINGS & SPECIFICATIONS EXCEPT THAT DITCH BOTTOM INLETS IN PAVED AREAS SHALL HAVE TRAVERSABLE, TRAFFIC BEARING, GRATES SUPPORTED BY STEEL ANGLE SEATS OR SUPPORTED ON FOUR SIDES. GRATES SHALL BE CAST IRON UNLESS BICYCLE TRAFFIC IS ANTICIPATED.
4. ALL TYPE "P" STRUCTURE BOTTOMS SHALL BE ROUND UNLESS OTHERWISE SPECIFIED & SHALL HAVE 4 FEET MINIMUM DIAMETER.

WATER MATERIAL:

GENERAL MATERIAL SPECIFICATIONS

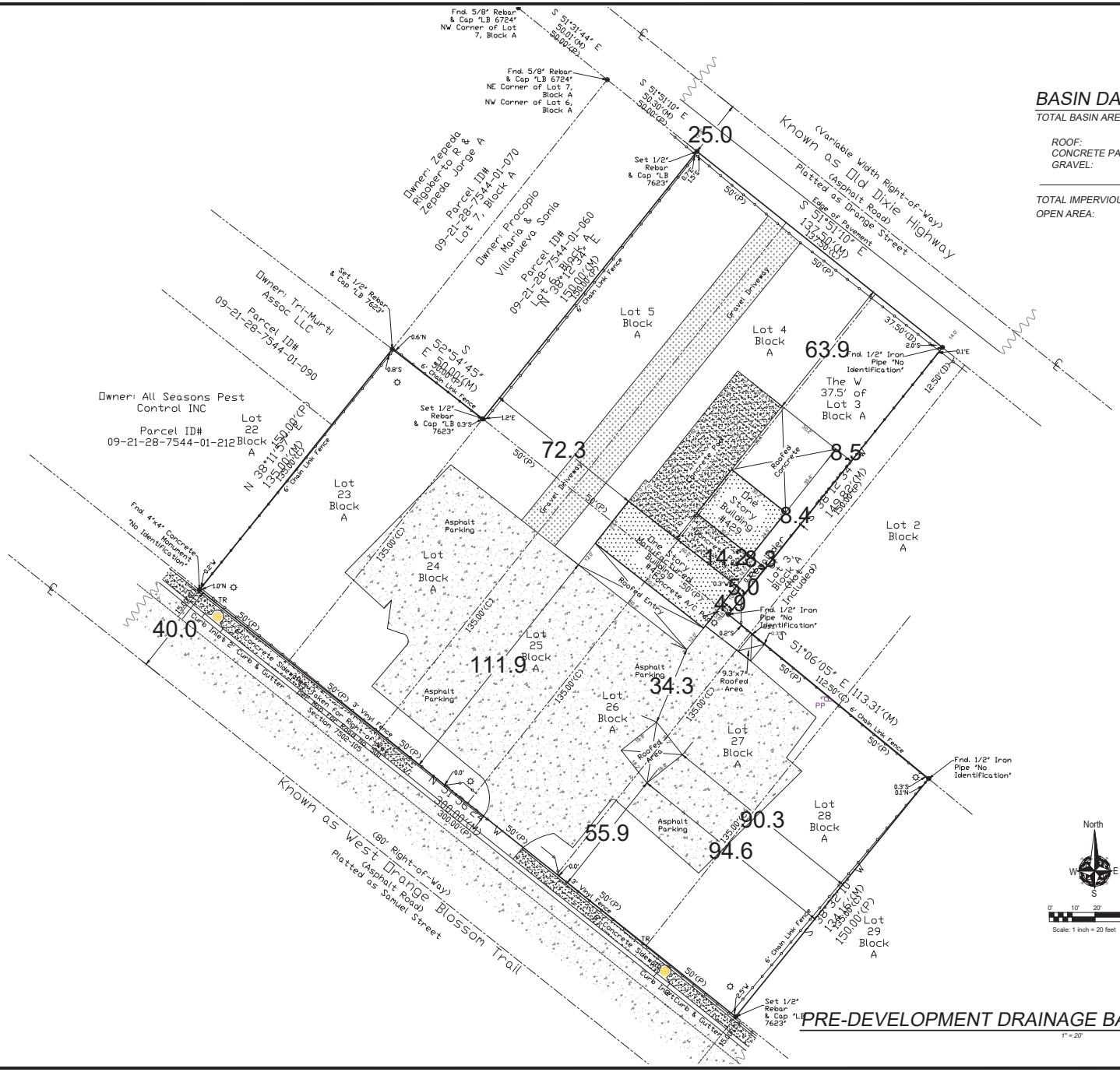
MATERIAL USED IN THE CONSTRUCTION OF THE WATER DISTRIBUTION SYSTEM SHALL ADHERE TO THE REQUIREMENTS OUTLINED IN THE CITY OF APOPKA WATER DISTRIBUTION'S SPECIFICATION STANDARDS MANUAL. THE FOLLOWING INFORMATION IS TO PROVIDE GENERAL GUIDANCE IN THE PREPARATION OF CONSTRUCTION PLANS AND SPECIFICATIONS, AND IN NO WAY LIMITS CITY OF APOPKA'S RIGHTS TO APPROVE OR DISAPPROVE PLANS, SPECIFICATIONS OF INSTALLATIONS. MOST CENTRAL FLORIDA UTILITY SUPPLY COMPANIES HAVE A COPY OF CITY OF APOPKA'S SPECIFICATION STANDARDS MANUAL.

SPECIAL NOTICE:
CITY OF APOPKA SPECIFICATIONS OFTEN ADD TO THE MANUFACTURER'S SPECIFICATIONS. IF YOU HAVE ANY QUESTIONS, PLEASE CONTACT: CITY OF APOPKA WATER DISTRIBUTION STANDARDS AND SPECIFICATIONS 407-703-1731.

SEE CITY OF APOPKA WATER AND WASTEWATER DETAILS ON SHEET C-15.

CONCRETE CONSTRUCTION NOTES:

1. CONCRETE PRE-CONSTRUCTION MEETING
   A. THE CONCRETE CONTRACTOR ALONG WITH THE CONCRETE PRODUCER MAY REQUEST THROUGH THE GENERAL CONTRACTOR FOR A PRE-CONSTRUCTION MEETING PRIOR TO CONCRETE PLACEMENT.
   B. ATTENDEE: CONCRETE CONTRACTOR, CONCRETE PRODUCER, GENERAL CONTRACTOR, OWNER OR OWNER'S REPRESENTATIVE(S), ENGINEER OF RECORD, ARCHITECT, SITE CONTRACTOR, GEOTECHNICAL REPRESENTATIVE(S), ETC.
   C. AGENDA: INCLUDE BUT NOT LIMITED TO THE FOLLOWINGS; (CONTRACTOR MAY CONTACT THE FLORIDA CONCRETE & PRODUCTS ASSOCIATION FOR PRE-CONSTRUCTION MEETING CHECK LISTS)
      i. MIXTURE(S) APPROVAL
      ii. CONCRETE TESTING: TYPE, LOCATION OF SAMPLINGS, ETC.
      iii. CONCRETE DELIVERY: QUANTITY/HR, PUMP, CONVEYOR, ETC.
      iv. PLACEMENT: METHOD, QUANTITY/DAY, STAGING & CLEAN OUT LOCATION, ETC.
      v. FINISHING: CURING, JOINTING, ETC.
2. JOINTS FOR CONCRETE SLABS
   A. GENERAL - A JOINTING PLAN FOR THE ENTIRE PAVING AREA SHALL BE PREPARED BY THE CONCRETE CONTRACTOR & SUBMITTED TO THE ENGINEER OF RECORD (EOR) 2 WEEKS PRIOR TO PLACEMENT OF CONCRETE FOR THE EOR APPROVAL. THE CONTRACTOR MAY ALSO CONTACT THE FLORIDA CONCRETE & PRODUCTS ASSOCIATION (FC&PA) FOR TECHNICAL RESOURCES AND ASSISTANT.
      i. A SQUARE JOINTING PATERN IS REQURED WHERE POSSIBLE. IF NECESSARY, RECTANGULAR PANELS CAN BE USED IF THE LONG DIMENSION IS NO MORE THAN 1.5 TIMES THE SHORT (e.g. 8' x 12'). JOINT SPACING SHALL NOT EXCEED THE FOLLOWING: 10 FEET IN A 4- THICK SLAB, 12 FEET IN A 5- THICK SLAB OR 15 FEET IN SLAB WITH THICKNESS OF 6- OR GREATER.
      ii. BOX OUT AREA AROUND MANHOLES, CATCH BASINS, DRAINAGE STRUCTURES & OTHER BUILT-IN STRUCTURES WITHIN THE PAVING AREA SHALL BE CIRCULAR WHERE POSSIBLE. A MINIMUM OFFSET OF 12- FROM ANY EDGE OF THE STRUCTURE. OBTAIN A COPY OF THE FC&PA STANDARD DETAILS FOR REFERENCE. CONSTRUCTION & CONTROL JOINTS SHALL BE CONTINUOUS THROUGH ADJACENT LANES & EXTEND THROUGH INTEGRAL CURB. JOINTS CAN BE TERMINATED & OFFSET AT ISOLATION JOINTS, WHERE JOINTS INTERFACE ANY RADIUS OR CURVATURE, OFFSET A MINIMUM OF 12- FROM EDGE OF PAVEMENT AND FORM JOINT TO DEGREE TO EDGE OF PAVEMENT TO AVOID ACUTE ANGLE OR SMALL WEDGES OF CONCRETE AT CURVATURES. OBTAIN A COPY OF THE FC&PA STANDARD DETAILS FOR REFERENCE.
   B. CONSTRUCTION JOINTS - A CONSTRUCTION JOINT SEPARATES ONE DAY PLACEMENT TO THE NEXT DAY PLACEMENT. A CONSTRUCTION JOINT SHALL BE A MINIMUM OF 5 FEET FROM ANY ADJACENT CONTROL JOINT. NEXT DAY PLACEMENT SHALL BUTT UP TO THE EXISTING PAVEMENT IN THE COLD CONDITION. THE CONSTRUCTION JOINT MAY BE HAND-TOOLED WITH MAXIMUM 0.25- RADIUS AT THE EDGE OF THE JOINT.CONTROL JOINTS FROM BOTH PLACEMENT AREAS SHALL MATCH AND BE CONTINUOUS ACROSS THE CONSTRUCTION JOINT.
   C. CONTROL/CONTRACTION JOINTS - CONTROL JOINTS ARE JOINTS WITHIN THE PAVING AREA FORMED THROUGH TOOLING OR SAW CUTTING. CONTROL JOINTS ESTABLISH WEAK PLANES TO RELIEVE STRESSES DUE TO SHRINKAGE OR TEMPERATURE CHANGE. INSTALL CONTROL JOINTS WITHIN 12 HRS FROM THE TIME THE CONCRETE HITS THE GROUND OR OBTAIN IN WRITING APPROVAL FROM THE EOR BEYOND THE 12-HR TIME LIMIT.
      i. EARLY-ENTRY SAW CUTTING METHOD: CUT JOINT TO A MINIMUM OF 1- DEEP FOR PAVEMENT THICKNESS UP TO 8-. CUTTING OF JOINT SHALL NOT CAUSE RAVELING TO THE EDGES OR DEFORMATION OF THE SURFACE DUE TO EQUIPMENT OR WORKER.
      ii. OTHER METHODS: INSTALL JOINT TO A MINIMUM OF 1/3 OF PAVEMENT DEPTH. FINISH EDGES WITH 0.25- RADIUS. OPERATION SHALL NOT CAUSE ANY DEFORMATION OF THE SURFACE.
   D. ISOLATION JOINTS - THESE JOINTS USE ISOLATION MATERIALS TO PREVENT FRESH CONCRETE FROM BONDING TO HARDENED CONCRETE SUCH AS, BUT NOT LIMITED TO, BUILDING FOUNDATIONS, SIDEWALKS, DRAINAGE STRUCTURES, LIGHTING & SIGNAGE BASES, RETAINING WALLS, CURBS, ETC. THE ISOLATION MATERIAL SHALL EXTEND THE FULL-DEPTH OF THE FRESH CONCRETE THICKNESS. FROM ONE DAY PLACEMENT TO THE NEXT, WHERE JOINTS ARE MATCHED, ISOLATION MATERIAL IS NOT NECESSARY. (E.G. ONE LANE PAVING TO THE NEXT, INTEGRAL CURBS) F
   E. ISOLATION JOINTS BETWEEN SLABS AT SOME GRADE SHALL BE FORMED WITH 0.25 INCH THICK NEOPRENE OR 0.50 INCH THICK ASPHALT IMPREGNATED FIBER FILLER WITH HYDORCARBON RESISTANT ELASTOMERIC FILL MATERIAL AS SEALER. ALL EDGES TO BE HAND TOOLED WITH MAXIMUM 0.50 INCH RADIUS.
   F. A SATISFACTORY ISOLATION JOINT CAN BE FORMED AT METAL BUILDING CURBS BY PLACING A STRIP OF CURING PAPER AGAINST THE METAL FORM & THEN PLACING THE FRESH CONCRETE AGAINST THE PAPER. THE EDGES OF THE SLAB SHALL BE HAND TOOLED WITH MAXIMUM 0.50 INCH RADIUS.
3. JOINTS SEALANT - A JOINT SEALING PLAN FOR THE AFFECTED AREA SHALL BE PREPARED BY THE CONCRETE CONTRACTOR & SUBMITTED TO THE EOR, ALONG WITH THE JOINTING PLAN, 2 WEEKS PRIOR TO PLACEMENT OF CONCRETE FOR THE EOR APPROVAL. NOT ALL JOINT WILL BE REQUIRED SEALING. THE CONCRETE CONTRACTOR IS TO RECOMMEND THE NECESSARY LOCATION AND TO PROVIDE SUPPORTING DOCUMENTATION FOR NON-SEALING AREAS. USE A POLYURETHANE SEALANT (TREMCO THC-900/THC-901 MULTI-COMPOUND)COMPOUND OR EQUIVALENT. THE CONCRETE CONTRACTOR IS TO SUBMIT SEALANT TYPE AND MANUFACTURER INFORMATION TO THE EOR FOR APPROVAL WHEN EQUIVALENT- IS US



BASIN DATA:

TOTAL BASIN AREA: 1.41 AC (61300 SF) (100%)

ROOF:	3,943 SF / 0.090 AC
CONCRETE PAVEMENT	17,851 SF / 0.410 AC
GRAVEL:	3,115 SF / 0.072 AC

TOTAL IMPERVIOUS AREA: 24,909 SF / 0527 AC (40.6%)
OPEN AREA: 36,391 SF / 0.835 AC (59.4%)

Hossein G Tehrani
Digitally signed by Hossein G Tehrani
DN: c=US, o=Unaffiliated, dnQualifier=A01410C00000 1E38ASCEBC00040F1, cn=Hossein G Tehrani
Date: 2025.11.02 21:22:20 -05'00'

PRE-DEVELOPMENT DRAINAGE BASIN PLAN

1" = 20'

EXHIBIT - 1

ENGINEER OF RECORD

TEHRANI CONSULTANT ENGINEERING LLC
622 Peachwood Drive
Altamonte Springs, FL 32714
Ph. (407) 948-0811
EMAIL: tehraniconsultingengineering@gmail.com

THESE DOCUMENTS AND THEIR CONTENTS ARE THE PROPERTY OF TEHRANI CONSULTANT ENGINEERING, LLC INC AND ANY REPRODUCTIONS, REVISIONS, MODIFICATIONS OR USE OF THESE DOCUMENTS WITHOUT THE EXPRESSED, WRITTEN CONSENT OF TEHRANI CONSULTANT ENGINEERING LLC, INC IS PROHIBITED BY LAW.

HOSSEIN G. TEHRANI LICENSE No. 48235 STATE OF FLORIDA PROFESSIONAL ENGINEER

State of Florida Seal

1. THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY, HOSSEIN G. TEHRANI, PE, ON THE DATE AND /OR TIME STAMP SHOWN USING A DIGITAL SIGNATURE.

2. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPY.

Revisions/Comments:

Cadd File Information
Cadd File:
Scale: AS NOTED

Drawing Information
Drawn by: STJ
Checked by: ALT
Approved by: ALT
Date: 9-12-24

Job Number#
0926-2023

Project Name and Location:
A NEW SITE PLAN FOR:
429 WEST ORANGE BLOSSOM TRAIL APOPKA, FL

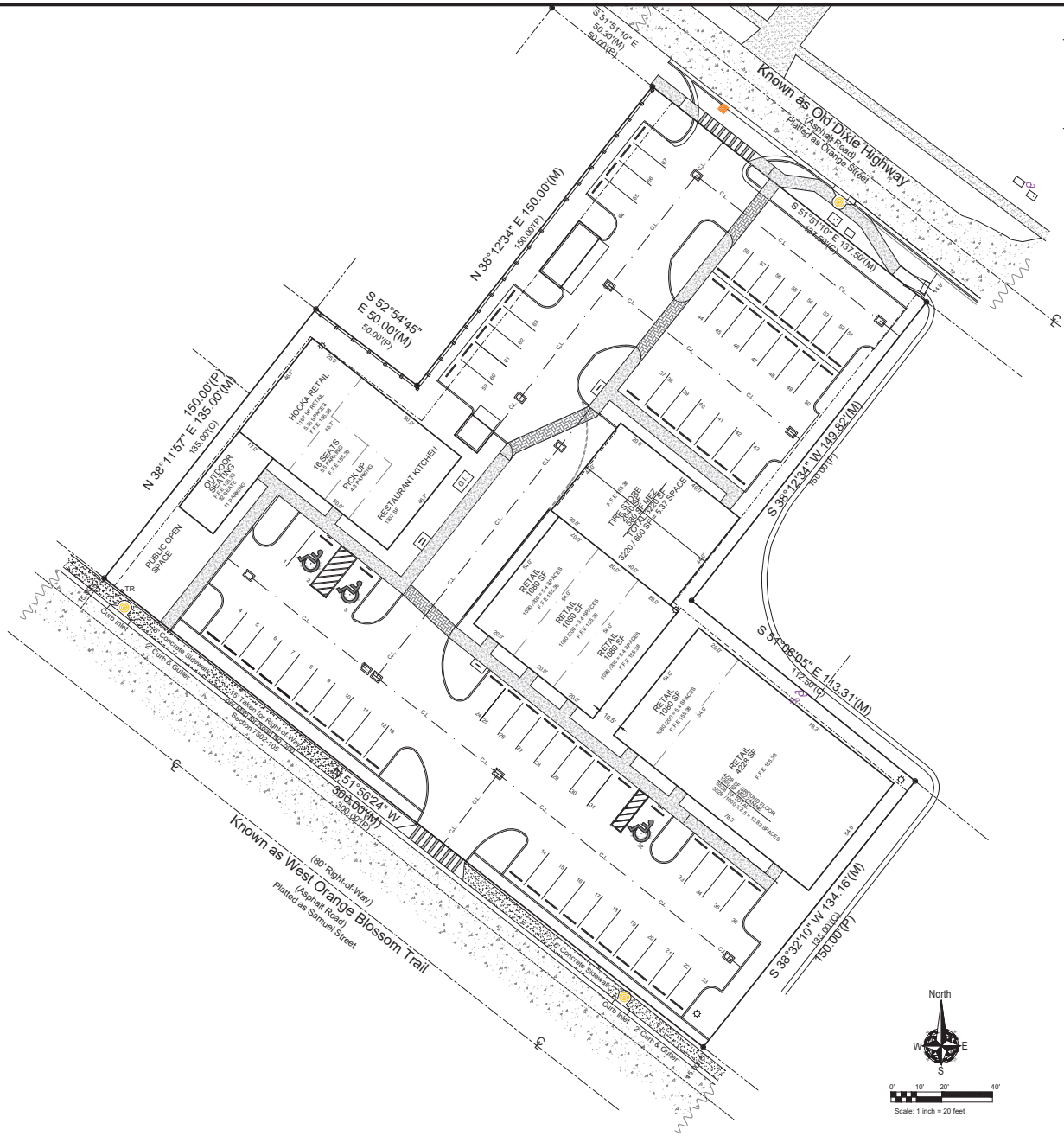
Sheet Title
PRE-DEVELOPMENT

APPROVED BY

ALI TEHRANI, P.E.
FLORIDA P.E. LICENSE NO.48235
State of Florida Seal

Drawing Number
C-4

Sheet: 4 Of:



POST-DEVELOPMENT DRAINAGE BASIN PLAN

1" = 20'

BASIN DATA:

TOTAL AREA: 1.41 AC (61300 SF)(100%)

NEW IMPERVIOUS AREA	61,300 SF, 1.407 AC (100%)
ROOF	14,685 SF, 0.337 AC
CONCRETE PAVEMENT	3,304 SF, 0.076 AC
ASPHALT	28,772 SF, 0.660 AC
TOTAL IMPERVIOUS AREA	46,761 SF, 1.073 AC (76.3%)
OPEN AREA	14,539 SF, 0.334 AC (23.7%)

Hossein G Tehrani

Digitally signed by Hossein G Tehrani
DN: c=US, o=Unaffiliated, dnQualifier=A01410C0000018E38A5CEBC00040F12, cn=Hossein G Tehrani
Date: 2025.11.02 21:22:48 -05'00'

EXHIBIT - 2

ENGINEER OF RECORD

TEHRANI CONSULTANT ENGINEERING LLC
622 Peachwood Drive
Altamonte Springs, FL 32714
Ph. (407) 948-0811
EMAIL: tehraniconsultingengineering@gmail.com

THESE DOCUMENTS AND THEIR CONTENTS ARE THE PROPERTY OF TEHRANI CONSULTANT ENGINEERING LLC, INC AND ANY REPRODUCTIONS, RE-WORKS, MODIFICATIONS OF THESE DOCUMENTS WITHOUT THE EXPRESS PRIOR WRITTEN CONSENT OF TEHRANI CONSULTANT ENGINEERING LLC, INC IS PROHIBITED BY LAW.

HOSSEIN G. TEHRANI LICENSE No. 48235 STATE OF FLORIDA PROFESSIONAL ENGINEER

State of Florida Seal

1. THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY HOSSEIN G. TEHRANI, PE ON THE DATE ADJACENT TO THE SEAL/STAMP SHOWN. USING A DIGITAL SIGNATURE.
2. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPY.

Revisions/Comments:
1. BUILDING /PARKING ADJUST

Cadd File Information
Cadd File:
Scale: AS NOTED

Drawing Information
Drawn by: STJ
Checked by: ALT
Approved by: ALT
Date: 9-12-24

Job Number#
0926-2023

Project Name and Location:
A NEW SITE PLAN FOR:
429 WEST ORANGE BLOSSOM TRAIL
APOPKA, FL

Sheet Title
POST-DEVELOPMENT

APPROVED BY

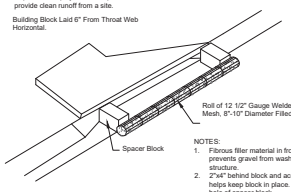
ALI TEHRANI, P.E.
FLORIDA P.E. LICENSE NO.48235
State of Florida Seal

Drawing Number
C5

Sheet: 5 Of:

CONTRACTOR'S RESPONSIBILITY
Erosion and Sedimentation controls are performance based criteria. If the BMPs provided do not prevent soils from leaving a construction site, then the Contractor is required to employ additional procedures to provide clean runoff from a site.

Building Block Laid 6" From Throat Web Horizontal.

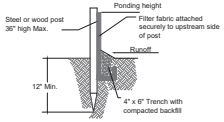


NOTES:
1. Fibrous filter material in front of block prevents gravel from washing into structure.
2. 2"x4" behind block and across throat helps keep block in place. Place in outer hole of spacer block.

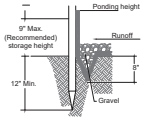
PROTECTION AROUND INLETS OR SIMILAR STRUCTURES

N.T.S.

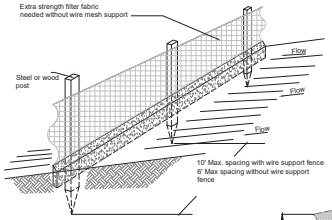
CONTRACTOR'S RESPONSIBILITY
Erosion and Sedimentation controls are performance based criteria. If the BMPs provided do not prevent soils from leaving a construction site, then the Contractor is required to employ additional procedures to provide clean runoff from a site.



STANDARD DETAIL TRENCH WITH NATIVE BACKFILL

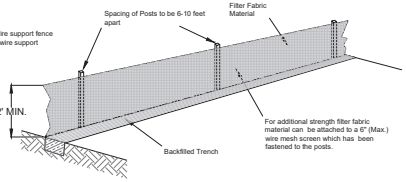


ALTERNATE DETAIL TRENCH WITH GRAVEL



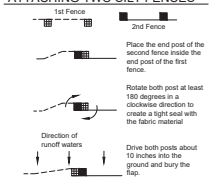
N.T.S.

CONTRACTOR'S RESPONSIBILITY
Erosion and Sedimentation controls are performance based criteria. If the BMPs provided do not prevent soils from leaving a construction site, then the Contractor is required to employ additional procedures to provide clean runoff from a site.

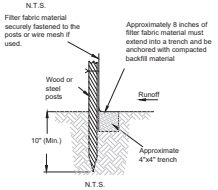


NOTES:
1. Inspect and repair fence after each storm event and remove sediment when necessary.
2. Removed sediment shall be deposited to an area that will not contribute sediment off-site and can be permanently stabilized.
3. Silt fence shall be placed on slope contours to maximize ponding efficiency.

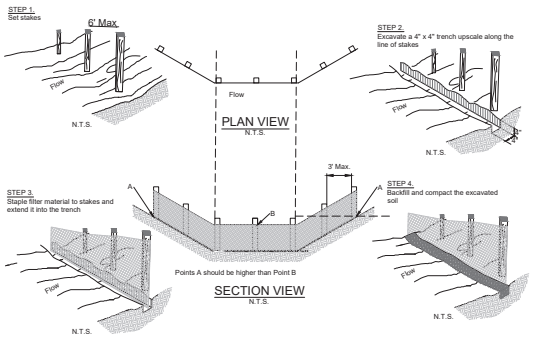
ATTACHING TWO SILT FENCES



N.T.S.



N.T.S.

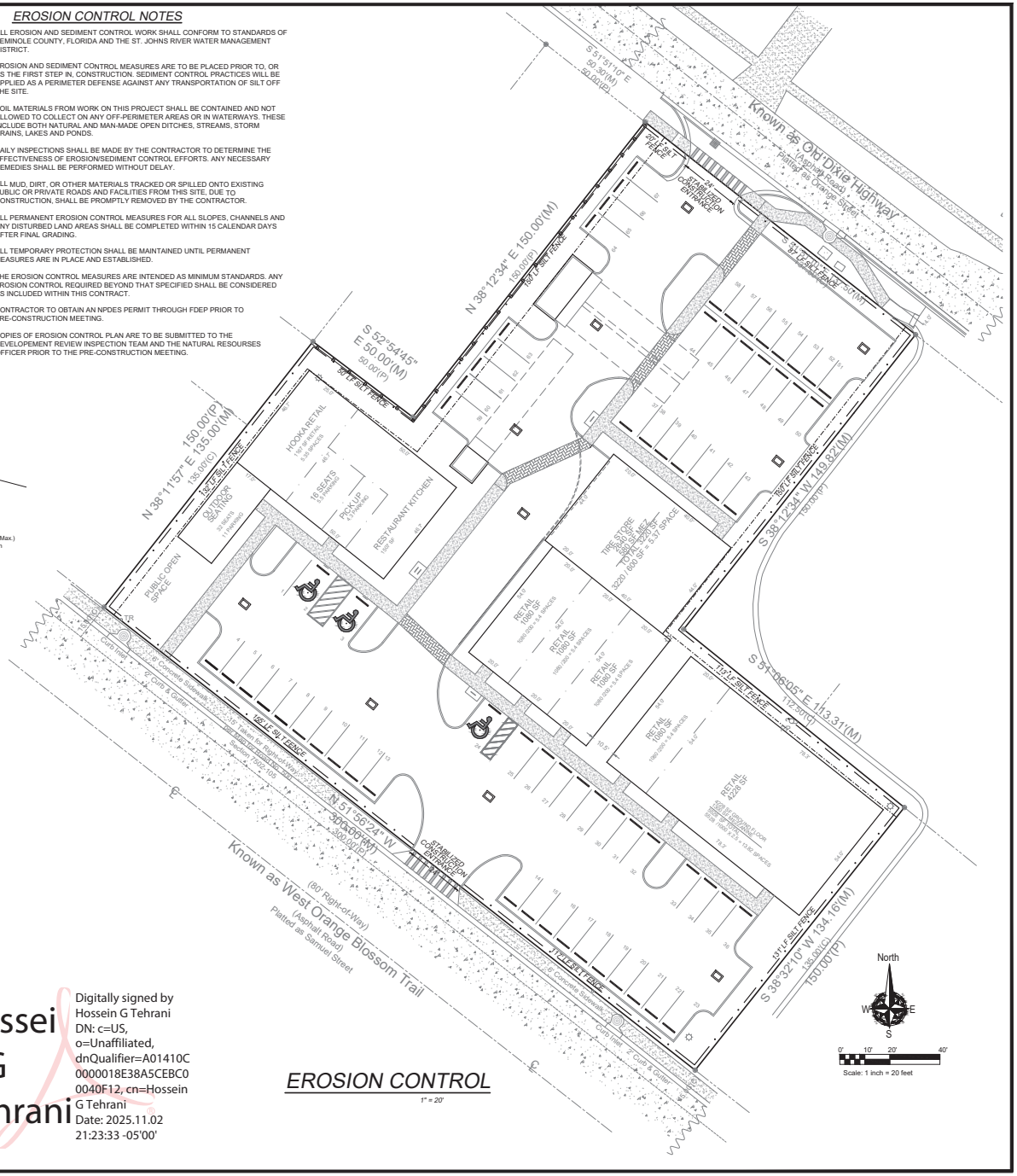


INSTALLING A FILTER SILT FENCE

CONTRACTOR'S RESPONSIBILITY
Erosion and Sedimentation controls are performance based criteria. If the BMPs provided do not prevent soils from leaving a construction site, then the Contractor is required to employ additional procedures to provide clean runoff from a site.

EROSION CONTROL NOTES

1. ALL EROSION AND SEDIMENT CONTROL WORK SHALL CONFORM TO STANDARDS OF SEMINOLE COUNTY, FLORIDA AND THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT.
2. EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO, OR AS THE FIRST STEP IN, CONSTRUCTION. SEDIMENT CONTROL PRACTICES WILL BE APPLIED AS A PERIMETER DEFENSE AGAINST ANY TRANSPORTATION OF SILT OFF THE SITE.
3. SOIL MATERIALS FROM WORK ON THIS PROJECT SHALL BE CONTAINED AND NOT ALLOWED TO COLLECT ON ANY OFF-PERIMETER AREAS OR IN WATERWAYS. THESE INCLUDE BOTH NATURAL AND MAN-MADE OPEN DITCHES, STREAMS, STORM DRAINS, LAKES AND PONDS.
4. DAILY INSPECTIONS SHALL BE MADE BY THE CONTRACTOR TO DETERMINE THE EFFECTIVENESS OF EROSION/SEDIMENT CONTROL EFFORTS. ANY NECESSARY REMEDIES SHALL BE PERFORMED WITHOUT DELAY.
5. ALL MUD, DIRT, OR OTHER MATERIALS TRACKED OR SPILLED ONTO EXISTING PUBLIC OR PRIVATE ROADS AND FACILITIES FROM THIS SITE, DUE TO CONSTRUCTION, SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR.
6. ALL PERMANENT EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS AND ANY DISTURBED LAND AREAS SHALL BE COMPLETED WITHIN 15 CALENDAR DAYS AFTER FINAL GRADING.
7. ALL TEMPORARY PROTECTION SHALL BE MAINTAINED UNTIL PERMANENT MEASURES ARE IN PLACE AND ESTABLISHED.
8. THE EROSION CONTROL MEASURES ARE INTENDED AS MINIMUM STANDARDS. ANY EROSION CONTROL REQUIRED BEYOND THAT SPECIFIED SHALL BE CONSIDERED AS INCLUDED WITHIN THIS CONTRACT.
9. CONTRACTOR TO OBTAIN AN NPDES PERMIT THROUGH FDEP PRIOR TO PRE-CONSTRUCTION MEETING.
10. COPIES OF EROSION CONTROL PLAN ARE TO BE SUBMITTED TO THE DEVELOPEMENT REVIEW INSPECTION TEAM AND THE NATURAL RESOURSES OFFICER PRIOR TO THE PRE-CONSTRUCTION MEETING.



EROSION CONTROL

1" = 20'

Hossein G Tehrani

Digitally signed by Hossein G Tehrani
DN: c=US, o=Unaffiliated, dnQualifier=A01410C0000018E38A5CEBC00040F12, cn=Hossein G Tehrani
Date: 2025.11.02 21:23:33 -05'00'

ENGINEER OF RECORD

TEHRANI CONSULTANT ENGINEERING LLC
622 Peachwood Drive
Altamonte Springs, FL 32714
Ph. (407) 948-0811
EMAIL:
tehraniconsultingengineering@gmail.com

THESE DOCUMENTS AND THEIR CONTENTS ARE THE PROPERTY OF TEHRANI CONSULTANT ENGINEERING LLC, INC AND ARE NOT TO BE USED IN WHOLE OR IN PART WITHOUT WRITTEN CONSENT. ANY UNAUTHORIZED REUSE WITHOUT WRITTEN CONSENT OF TEHRANI CONSULTANT ENGINEERING LLC, INC IS PROHIBITED BY LAW.

HOSSEIN G. TEHRANI LICENSE No. 48235 STATE OF FLORIDA PROFESSIONAL ENGINEER

State of Florida Seal

1. THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY ALI TEHRANI, P.E. ON THE DATE AND FOR THE STAMP SHOWN. USING A DIGITAL SIGNATURE.
2. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPY.

Revisions/Comments:
1. BUILDING /PARKING ADJUST

Cadd File Information
Cadd File:
Scale: AS NOTED

Drawing Information
Drawn by: STJ
Checked by: ALT
Approved by: ALT
Date: 9-12-24

Job Number#
0926-2023

Project Name and Location:
A NEW SITE PLAN FOR:
429 WEST ORANGE BLOSSOM TRAIL APOPKA, FL

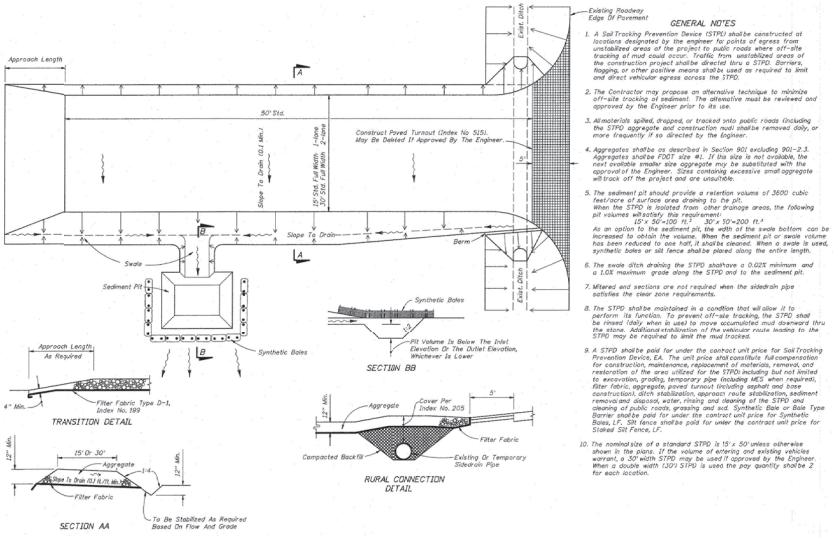
Sheet Title
EROSION CONTROL

APPROVED BY

ALI TEHRANI, P.E.
FLORIDA P.E. LICENSE NO.48235
State of Florida Seal

Drawing Number
C6

Sheet: 6 Of:



GENERAL NOTES

1. A Soil Tracking Prevention Device (STPD) shall be constructed at locations designated by the engineer for points of egress from unstabilized areas of the project to public roads where off-site tracking of mud could occur. Traffic from unstabilized areas of the construction project shall be directed thru a STPD. Barriers, flagging, or other positive means shall be used as required to limit and direct vehicular egress across the STPD.
2. The Contractor may propose an alternative technique to minimize off-site tracking of sediment. The alternative must be reviewed and approved by the Engineer prior to its use.
3. All materials spilled, dropped, or tracked into public roads (including the STPD aggregate and construction mud) shall be removed daily, or more frequently if so directed by the Engineer.
4. Aggregates shall be as described in Section 901 excluding 901-2.3. Aggregates shall be FDOT size #1. If this size is not available, the next available smaller size aggregate may be substituted with the approval of the Engineer. Sizes containing excessive small aggregate will track off the project and are unsuitable.
5. The sediment pit should provide a retention volume of 3600 cubic feet/acre of surface area draining to the pit. When the STPD is located from other drainage areas, the following pit volumes will satisfy this requirement:
   15' x 50'=200 ft.² 30' x 50'=200 ft.²
   As an option to the sediment pit, the width of the swale bottom can be increased to obtain the volume. When the sediment pit or swale volume has been reduced to one half, it shall be cleaned. When a swale is used, synthetic bales or silt fence shall be placed along the entire length.
6. The swale ditch draining the STPD shall have a 0.02% minimum and a 1.0% maximum grade along the STPD and to the sediment pit.
7. Mitered end sections are not required when the sidedrain pipe satisfies the clear zone requirements.
8. The STPD shall be maintained in a condition that will allow it to perform its function. To prevent off-site tracking, the STPD shall be rinsed daily when in use to move accumulated mud downward thru the stone. Additional stabilization of the vehicular route leading to the STPD may be required to limit the mud tracked.
9. A STPD shall be paid for under the contract unit price for Soil Tracking Prevention Device, EA. The unit price shall constitute full compensation for construction, maintenance, replacement of materials, removal, and restoration of the area utilized for the STPD, including but not limited to excavation, grading, temporary pipe (including MES when required), filter fabric, aggregate, paved turnout (including asphalt and base construction), ditch stabilization, approach route stabilization, sediment removal and disposal, water, rinsing and cleaning of the STPD and cleaning of public roads, greasing and soil. Synthetic Bale or Bale Type Barrier shall be paid for under the contract unit price for Synthetic Bales, LF. Silt fence shall be paid for under the contract unit price for Staked Silt Fence, LF.
10. The nominal size of a standard STPD is 15' x 50' unless otherwise shown in the plans. If the volume of entering and existing vehicles warrant, a 30' width STPD may be used if approved by the Engineer. When a double width (30') STPD is used the pay quantity shall be 2 for each location.

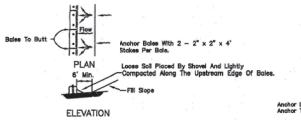
SOIL TRACKING DEVICE DETAIL

Hossein G Tehrani

Digitally signed by Hossein G Tehrani
DN: c=US, o=Unaffiliated, dnQualifier=A01410C0000018E38A5CEBC00040F12, cn=Hossein G Tehrani
Date: 2025.11.02 21:24:06 -05'00'

EROSION AND SEDIMENT CONTROL NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING SILT FROM SITE IF NOT REUSABLE ON-SITE AND ASSURING PLAN ALIGNMENT AND GRADE IN ALL DITCHES AND SWALES AT COMPLETION OF CONSTRUCTION.
2. THE SITE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER COMPLETION OF CONSTRUCTION AND ONLY WHEN AREAS HAVE BEEN STABILIZED.
3. ADDITIONAL PROTECTION – ON-SITE PROTECTION IN ADDITION TO THE ABOVE MUST BE PROVIDED THAT WILL NOT PERMIT SILT TO LEAVE THE PROJECT CONFINES DUE TO UNSEEN CONDITIONS OR ACCIDENTS.
4. CONTRACTOR SHALL INSURE THAT ALL DRAINAGE STRUCTURES, PIPES, ETC. ARE CLEANED OUT AND WORKING PROPERLY AT TIME OF ACCEPTANCE.
5. BALES SHALL BE EITHER WIRE-BOUND OR STRING-TIED WITH THE BINDINGS ORIENTED AROUND THE SIDES RATHER THAN OVER AND UNDER THE BALES.
6. BALES SHALL BE PLACED LENGTHWISE IN A SINGLE ROW SURROUNDING THE INLET, WITH THE ENDS OF ADJACENT BALES PRESSED TOGETHER.
7. THE FILTER BARRIER SHALL BE ENTRENCHED AND BACKFILLED. A TRENCH SHALL BE EXCAVATED TO A MINIMUM DEPTH OF 8 INCHES. AFTER THE BALES ARE STAKED, THE EXCAVATED SOIL SHALL BE BACKFILLED AND COMPACTED AGAINST THE FILTER BARRIER.
8. EACH BALE SHALL BE SECURELY ANCHORED AND HELD IN PLACE BY AT LEAST TWO STAKES OR REBARS DRIVEN THROUGH THE BALE.
9. LOOSE SYNTHETIC MATERIAL SHOULD BE WEDGED BETWEEN BALES TO PREVENT WATER FROM ENTERING BETWEEN BALES.
10. SYNTHETIC BALE BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.
11. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED BALES, END RUNS AND UNDERCUTTING BENEATH BALES.
12. NECESSARY REPAIRS TO BARRIERS OR REPLACEMENT OF BALES SHALL BE ACCOMPLISHED PROMPTLY.
13. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SYNTHETIC BALE BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.
14. SILT 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.
15. SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
16. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-THIRD THE HEIGHT OF THE BARRIER.
17. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEEDED.
18. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
19. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/3 THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
20. THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING THE BEST EROSION AND SEDIMENT CONTROL PRACTICES AS OUTLINED IN THE PLANS, SPECIFICATIONS AND ST. JOHNS RIVER WATER MANAGEMENT DISTRICT SPECIFICATIONS AND CRITERIA.
21. FOR ADDITIONAL INFORMATION ON SEDIMENT AND EROSION CONTROL REFER TO "THE FLORIDA DEVELOPMENT MANUAL – A GUIDE TO SOUND LAND AND WATER MANAGEMENT" FROM THE STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION (F.D.E.R.) CHAPTER 6.
22. EROSION AND SEDIMENT CONTROL BARRIERS SHALL BE PLACED ADJACENT TO ALL WETLAND AREAS WHERE THERE IS POTENTIAL FOR DOWNSTREAM WATER QUALITY DEGRADATION. SEE DETAIL SHEET FOR TYPICAL CONSTRUCTION.
23. ALL DISTURBED AREAS SHALL BE GRASSED, FERTILIZED, MULCHED AND MAINTAINED UNTIL A PERMANENT VEGETATIVE COVER IS ESTABLISHED.
24. SOD SHALL BE PLACED IN AREAS WHICH MAY REQUIRE IMMEDIATE EROSION PROTECTION TO ENSURE WATER QUALITY STANDARDS ARE MAINTAINED.
25. ALL DEWATERING, EROSION, AND SEDIMENT CONTROL TO REMAIN IN PLACE AFTER COMPLETION OF CONSTRUCTION AND REMOVED ONLY WHEN AREAS HAVE STABILIZED.
26. THIS PLAN INDICATES THE MINIMUM EROSION AND SEDIMENT MEASURES REQUIRED FOR THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR MEETING ALL APPLICABLE RULES, REGULATIONS AND WATER QUALITY GUIDELINES AND MAY NEED TO INSTALL ADDITIONAL CONTROLS.
27. THE CONTRACTOR SHALL BE REQUIRED TO RESPOND TO ALL WATER MANAGEMENT DISTRICT INQUIRIES, RELATIVE TO COMPLIANCE OF SURFACE WATER FOR EROSION AND SEDIMENTATION CONTROL. THE COST OF THIS COMPLIANCE SHALL BE PART OF THE CONTRACT.

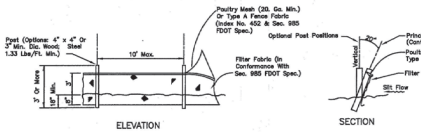


TO BE USED AT SELECTED SITES WHERE THE NATURAL GROUND SLOPES AWAY FROM THE TOE OF SLOPE

BARRIERS FOR FILL SLOPES

SYNTHETIC BALE LOCATION

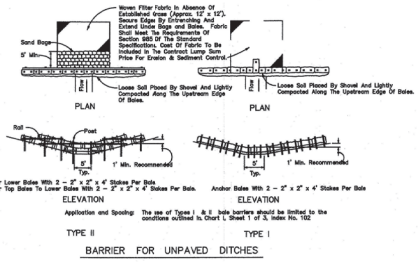
(D-901)
N.T.S.



Note: Silt Fence to be paid for unver the contract lump sum price for Erosion and Sediment Control.

SILT FENCE TYPE IV

(D-908)
N.T.S.

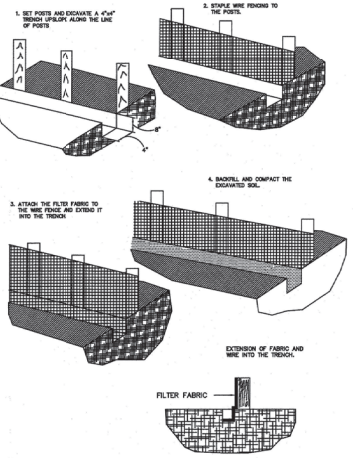


Application and Spacing: The use of Types I & II bale barriers should be limited to the conditions outlined in Chart 1, Sheet 1 of 3, Index No. 102

BARRIER FOR UNPAVED DITCHES

SYNTHETIC BALE BARRIERS TYPE I & II

(D-912)
N.T.S.



CONSTRUCTION DETAILS FOR SILT FENCES

(D-909)
N.T.S.

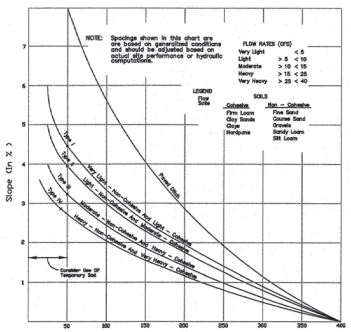


CHART 1

RECOMMENDED SPACING FOR TYPE I AND TYPE II HAY BALE BARRIERS, AND TYPE III AND TYPE IV SILT FENCES AND PAVED DITCH HAY BALE BARRIERS

SPACING RECOMMENDATION FOR SILT FENCES & SYNTHETIC BALES

(D-906)
N.T.S.

ENGINEER OF RECORD

TEHRANI CONSULTANT ENGINEERING LLC
622 Peachwood Drive
Altamonte Springs, FL 32714
Ph. (407) 948-0811
EMAIL:
tehraniconsultingengineering@gmail.com

THESE DOCUMENTS AND THEIR CONTENTS ARE THE PROPERTY OF TEHRANI CONSULTANT ENGINEERING LLC, INC AND ANY REPRODUCTIONS, REVISIONS, MODIFICATIONS OR USE OF THESE DOCUMENTS WITHOUT THE EXPRESSED WRITTEN CONSENT OF TEHRANI CONSULTANT ENGINEERING LLC, INC IS PROHIBITED BY LAW.

HOSSEIN G. TEHRANI LICENSE No. 48235 STATE OF FLORIDA PROFESSIONAL ENGINEER

State of Florida Seal

1. THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY HOSSEIN G. TEHRANI, PE ON THE DATE ADJACENT TO THE SEAL. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPY.

Revisions/Comments:
1. BUILDING /PARKING ADJUST

Cadd File Information
Cadd File:
Scale: AS NOTED

Drawing Information
Drawn by: STJ
Checked by: ALT
Approved by: ALT
Date: 9-12-24

Job Number#
0926-2023

Project Name and Location:
A NEW SITE PLAN FOR:
429 WEST ORANGE BLOSSOM TRAIL
APOPKA, FL

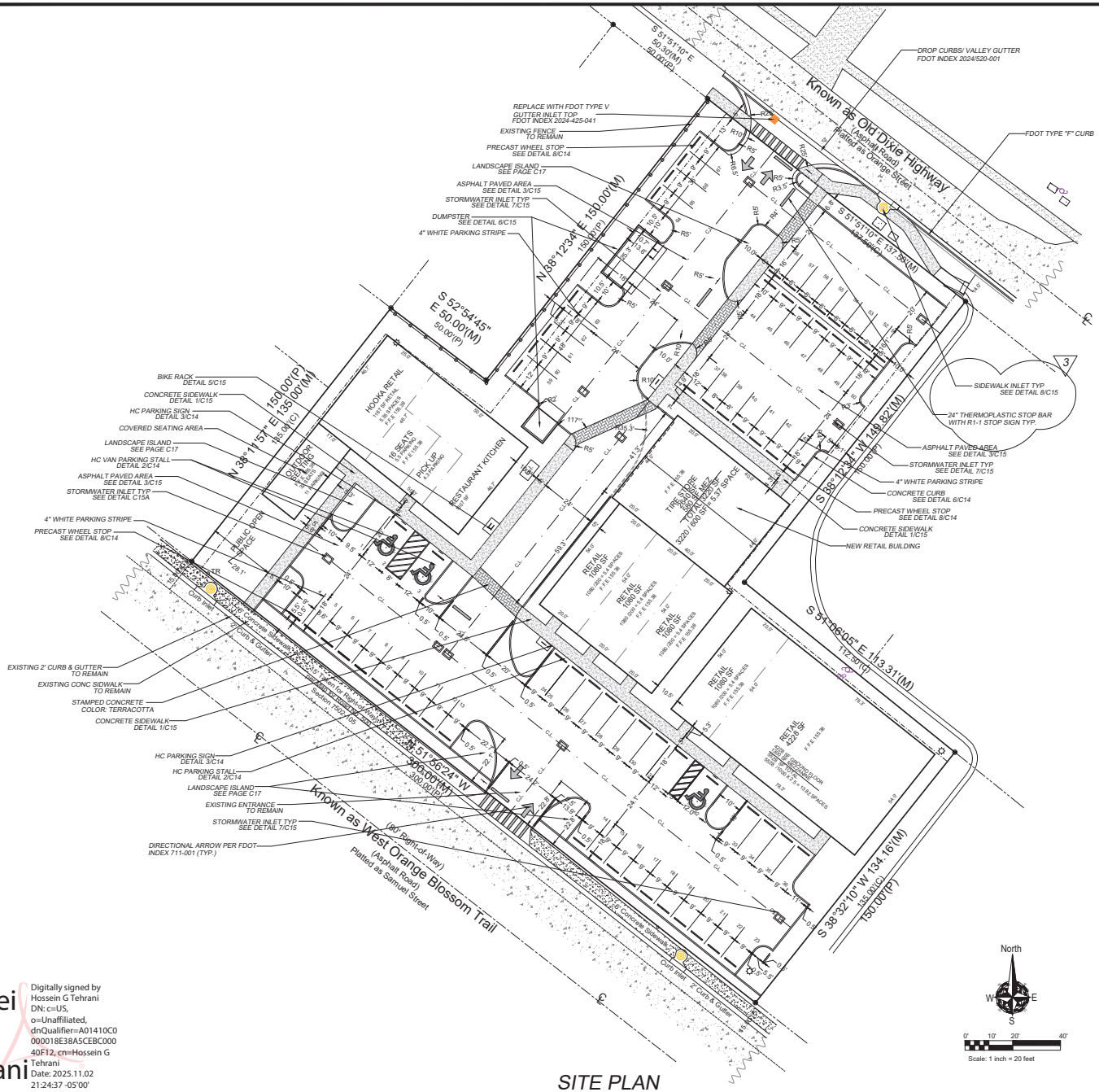
Sheet Title
EROSION CONTROL

APPROVED BY

ALI TEHRANI, P.E.
FLORIDA P.E. LICENSE NO.48235
State of Florida Seal

Drawing Number
C6.5

Sheet: 7 Of:



SITE PLAN

1" = 20'

Hossein G Tehrani

Digitally signed by Hossein G Tehrani
DN: c=US, o=Unaffiliated, dnQualifier=A01410C000018E38A5CEBC00040F12, cn=Hossein G Tehrani
Date: 2025.11.02 21:24:37 -05'00'

2

SITE DATA

ZONING MU-D MIXED USE DOWNTOWN
FUTURE LAND USE: (COMM) COMMERCIAL
CURRENT USE: COMMERCIAL
PROPOSED USE: MIXED USE
- SMALL GROCERY
- CAFE
- OFFICES
- TIRE SALES

BUILDING SETBACKS

SETBACKS:

FRONT YARD :	VARIES
SIDE YARD :	VARIES
REAR YARD :	VARIES
BUILDING WIDTH @ LINE:	60%
BUILDING HT:	VARIES
FLOOR AREA RATION:	2.0
DENISTY MAX	VARIES

LOT AREA:

TOTAL LAND AREA: 1.41 AC (61300 SF)

PROPOSED IMPERVIOUS AREA	46761 SF
EXISTING IMPERVIOUS AREA	-24909 SF
IMPERVIOUS AREA TO BE REMOVED	24909 SF
EXISTING MANUF BUILDING W/ COVERED AREA	2132 SF
EXISTING BUILDING W/ COVERED AREA	1811 SF
CONCRETE AREA TO BE REMOVED	20966 SF
NEW IMPERVIOUS AREA	46761 SF
NEW BUILDING #1	3500 SF
NEW BUILDING #2	5880 SF
NEW BUILDING #3	5305 SF
NEW CONCRETE DUMPSTER 1	268 SF
NEW CONCRETE DUMPSTER 2	121 SF
NEW CONCRETE SIDEWALK	2419 SF
NEW CONCRETE CURBING	496 SF
NEW ASPHALT PAVING	28772 SF

OPEN SPACE: 24%

PARKING DATA

PARKING REQUIRED:	54.41 SPACES
PARKING PROVIDED:	68.00 SPACES
ACCESSIBLE PARKING PROVIDED: (2 VAN ACCESSIBLE AND 1 STANDARD ACCESSIBLE)	3 SPACES
DELIVERY SPACES	2 SPACES
COMPACT SPACE	9 SPACES
STANDARD SPACE	54 SPACES
BICYCLE PARKING PROVIDED:	8 SPACES

BUILDING 1:	
UNIT 1	
1167 SF RETAIL / 200 =	5.84 SPACES
32 COVERED OUTDOOR SEATING	8 SPACES
1 SPACE PER 4 SEATS	
UNIT 2	
RESTAURANT / FASTFOOD	
INDOOR SEATING 16 SEATS	4 SPACES
1 SPACE PER 4 SEATS	
PATRON PICK UP AREA 324 SF	4.32 SPACES
1 SPACE PER 75 SF	
BUILDING 2:	
UNIT 1	
RETAIL	
1080 SF / 200 SF PER SPACE	5.4 SPACES
UNIT 2	
RETAIL	
1080 SF / 200 SF PER SPACE	5.4 SPACES
UNIT 3	
RETAIL	
1080 SF / 200 SF PER SPACE	5.4 SPACES
UNIT 4	
TIRE STORE - CONSIDERED CAR SERV	
2340 SF / 600 SF PER SPACE	5.37 SPACES
(INCLUDES MEZZANINE)	
BUILDING 2:	
UNIT 1	
RETAIL	
1080 SF / 200 SF PER SPACE	5.4 SPACES
UNIT 2	
GROCERY	
5528 SF / 1000 SF PER SPACE	5.28 SPACES
(INCLUDES MEZZANINE)	

GREEN BUILDING POINT SYSTEM

MIN REQUIRED POINTS FOR 7500-25000 SF DEVELOPEMENT	3 POINTS
POINTS PROVIDED	3 POINTS
LOCATION	
DEVELOPMENT IN THE MU-D	1.0
ENERGY CONSERVATION	
SKYLIGHTS FOR NATURAL LIGHTING	0.5
ENERGY STAR QUALIFIED HVAC	0.5
VEGETATION SHADED HVAC EQUIP	0.25
VEGETATION	
LIMIT TURF GRASS TO 40% LANDSC	0.5
RESILIENCY TO NATURAL HAZARDS	
OPERABLE WINDOWS EMERG VENTIL	0.25

ENGINEER OF RECORD

TEHRANI CONSULTANT ENGINEERING LLC
622 Peachwood Drive
Altamonte Springs, FL 32714
Ph. (407) 948-0811
EMAIL: tehranconsultingengineering@gmail.com

THESE DOCUMENTS AND THEIR CONTENTS ARE THE PROPERTY OF TEHRANI CONSULTANT ENGINEERING LLC, INC AND ARE NOT TO BE USED, IN WHOLE, MODIFICATIONS OF IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN CONSENT OF TEHRANI CONSULTANT ENGINEERING LLC, INC IS PROHIBITED BY LAW.

HOSSEIN G. TEHRANI LICENSE No. 48235 STATE OF FLORIDA PROFESSIONAL ENGINEER

State of Florida Seal

1. THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY HOSSEIN G. TEHRANI, P.E. ON THE DATE ADJACENT TO THE SEAL/STAMP SHOWN. USING A DIGITAL SIGNATURE.
2. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPY.

Revisions/Comments:
1. BUILDING /PARKING ADJUST
2. DATA TABLE

Cadd File Information
Cadd File:
Scale: AS NOTED

Drawing Information

Drawn by:	ST3
Checked by:	ALT
Approved by:	ALT
Date:	9-12-24

Job Number#
0926-2023

Project Name and Location:
A NEW SITE PLAN FOR:
429 WEST ORANGE BLOSSOM TRAIL
APOPKA, FL

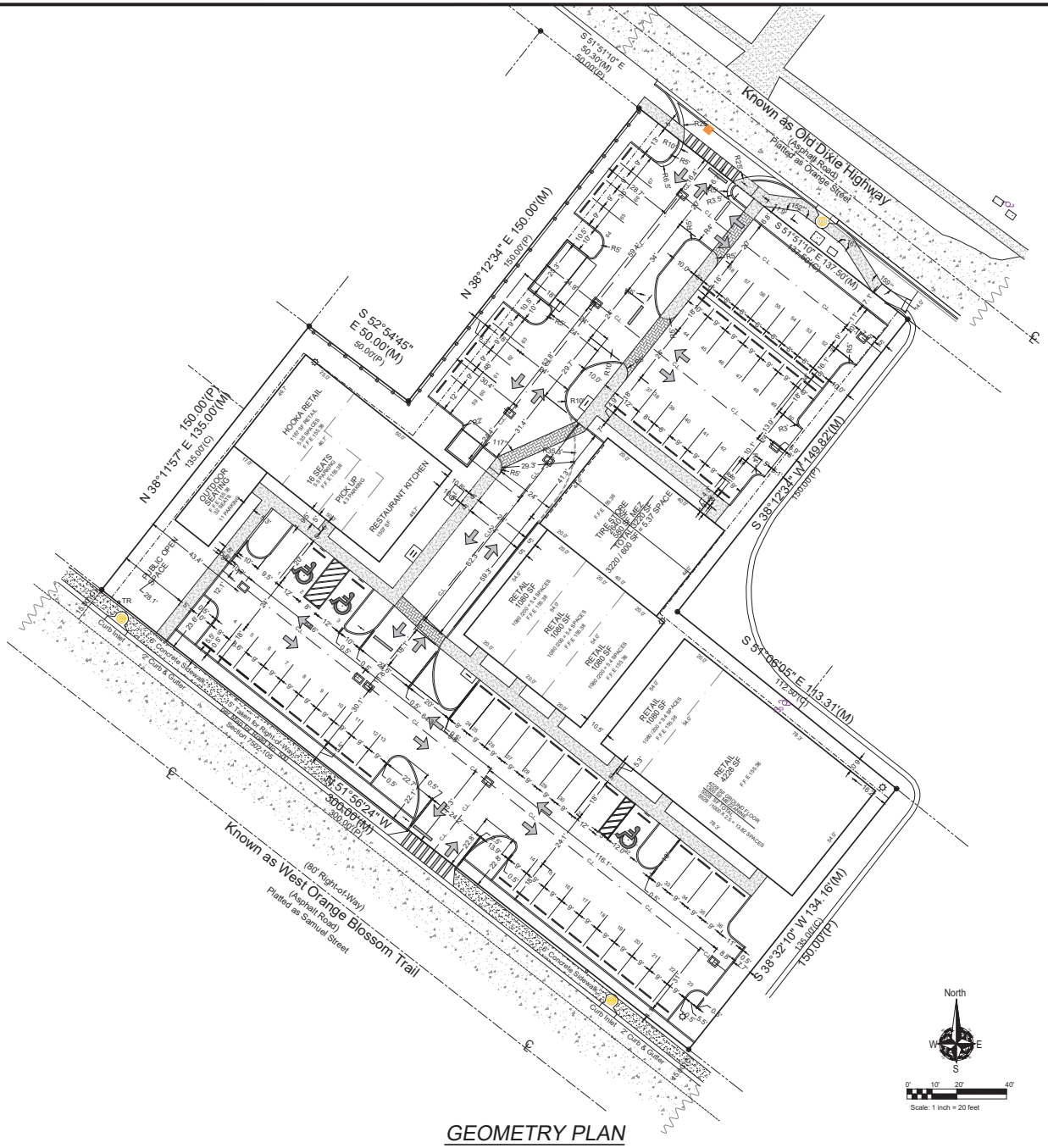
Sheet Title
SITE PLAN

APPROVED BY

ALI TEHRANI, P.E.
FLORIDA P.E. LICENSE NO.48235
State of Florida Seal

Drawing Number
C7

Sheet: 8 Of:



GEOMETRY PLAN

1" = 20'

GENERAL NOTES

1. LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THIS PLAN. THE CONTRACTOR SHALL VERIFY THE LOCATIONS, ELEVATIONS, AND DIMENSIONS OF ALL EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES AFFECTING THIS WORK PRIOR TO CONSTRUCTION.
2. THE CONTRACTOR SHALL CHECK PLANS FOR CONFLICTS AND DISCREPANCIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE OWNER'S ENGINEER OF ANY CONFLICT BEFORE PERFORMING ANY WORK IN THE AFFECTED AREA.
3. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN AREAS OF BURIED UTILITIES AND SHALL PROVIDE AT LEAST 48 HOURS NOTICE TO THE UTILITY COMPANIES PRIOR TO CONSTRUCTION TO OBTAIN FIELD LOCATIONS OF EXISTING UNDERGROUND UTILITIES.
4. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO EXISTING FACILITIES, ABOVE OR BELOW GROUND, THAT MAY OCCUR AS A RESULT OF THE WORK PERFORMED BY THE CONTRACTOR CALLED FOR IN THIS CONTRACT.
5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BECOME FAMILIAR WITH THE PERMIT AND INSPECTION REQUIREMENTS SPECIFIED BY THE VARIOUS GOVERNMENTAL AGENCIES AND THE ENGINEER. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION, AND SCHEDULE INSPECTIONS AND TESTING ACCORDING TO AGENCY INSTRUCTIONS.
6. ALL WORK PERFORMED SHALL COMPLY WITH THE REGULATIONS AND ORDINANCES OF THE VARIOUS GOVERNMENTAL AGENCIES HAVING JURISDICTION OVER THE WORK.
7. WORK PERFORMED UNDER THIS CONTRACT SHALL INTERFACE SMOOTHLY WITH OTHER WORK BEING PERFORMED ON SITE BY OTHER CONTRACTORS AND UTILITY COMPANIES. IT WILL BE NECESSARY FOR THE CONTRACTOR TO COORDINATE AND SCHEDULE HIS ACTIVITIES, WHERE NECESSARY, WITH OTHER CONTRACTORS AND UTILITY COMPANIES.
8. SAFETY:
   A. DURING THE CONSTRUCTION AND/OR MAINTENANCE OF THIS PROJECT, ALL SAFETY REGULATIONS ARE TO BE ENFORCED. THE CONTRACTOR OR HIS REPRESENTATIVE SHALL BE RESPONSIBLE FOR THE CONTROL AND SAFETY OF THE TRAVELING PUBLIC AND THE SAFETY OF HIS PERSONNEL.
   B. LABOR SAFETY REGULATIONS SHALL CONFORM TO THE PROVISIONS SET FORTH BY OSHA IN THE FEDERAL REGISTER OF THE DEPARTMENT OF
9. SIGNING AND SEALING OF PLAN BY ENGINEER IS FOR LIMITED SITE IMPROVEMENTS OF NEW ELEMENTS REFLECTED HEREIN, AND IS ONLY VALID IF IT BEARS THE SIGNATURE, DATE AND RAISED EMBOSSED SEAL OF THE ENGINEER.
10. THE CONTACTOR SHALL BE RESPONSIBLE FOR THE RESTORATION OF ANY TRAFFIC SIGNAL EQUIPEMNT INCLUDING BUT NOT LIMITED TO FIBER, LOOP SENSORS, PULL BOXES, CONDUIT, TRAFFIC SIGNALS, AND CABINETS. ANY ITEMS DAMAGED BY THE CONTRACTOR WILL BE RESTORED TO THIER ORIGINAL CONDITIONS UNLESS OTHERWISE AGREED UPON BY THE COUNTY TRAFFIC ENGINEER.
11. POST ADDRESS ON BUILDING MIN. 6" IN HEIGHT.

Hossein G Tehrani

Digitally signed by Hossein G Tehrani
DN: c=US, o=Unaffiliated, dnQualifier=A01410C0000018E38A5CEBC00040F12, cn=Hossein G Tehrani
Date: 2025.11.02 21:25:10 -05'00'

ENGINEER OF RECORD

TEHRANI CONSULTANT ENGINEERING LLC
622 Peachwood Drive
Altamonte Springs, FL 32714
Ph. (407) 948-0811
EMAIL: tehraniconsultingengineering@gmail.com

THESE DOCUMENTS AND THEIR CONTENTS ARE THE PROPERTY OF TEHRANI CONSULTANT ENGINEERING LLC, INC. AND ARE NOT TO BE USED IN WHOLE, MODIFICATIONS OF PART, OR ON ANY PROJECT OTHER THAN THE SPECIFIC PROJECT WITHOUT THE WRITTEN CONSENT OF TEHRANI CONSULTANT ENGINEERING LLC, INC IS PROHIBITED BY LAW.

HOSSEIN G. TEHRANI
LICENSE
No. 48235
STATE OF FLORIDA
PROFESSIONAL ENGINEER

State of Florida Seal

1. THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY ALI TEHRANI, P.E. ON THE DATE ADJACENT AND FOR THE STAMP SHOWN. USING A DIGITAL SIGNATURE
2. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPY.

Revisions/Comments:
1. BUILDING /PARKING ADJUST

Cadd File Information
Cadd File:
Scale: AS NOTED

Drawing Information
Drawn by: STJ
Checked by: ALT
Approved by: ALT
Date: 9-12-24

Job Number#
0926-2023

Project Name and Location:
A NEW SITE PLAN FOR:
429 WEST ORANGE BLOSSOM TRAIL
APOPKA, FL

Sheet Title
GEOMETRY PLAN

APPROVED BY

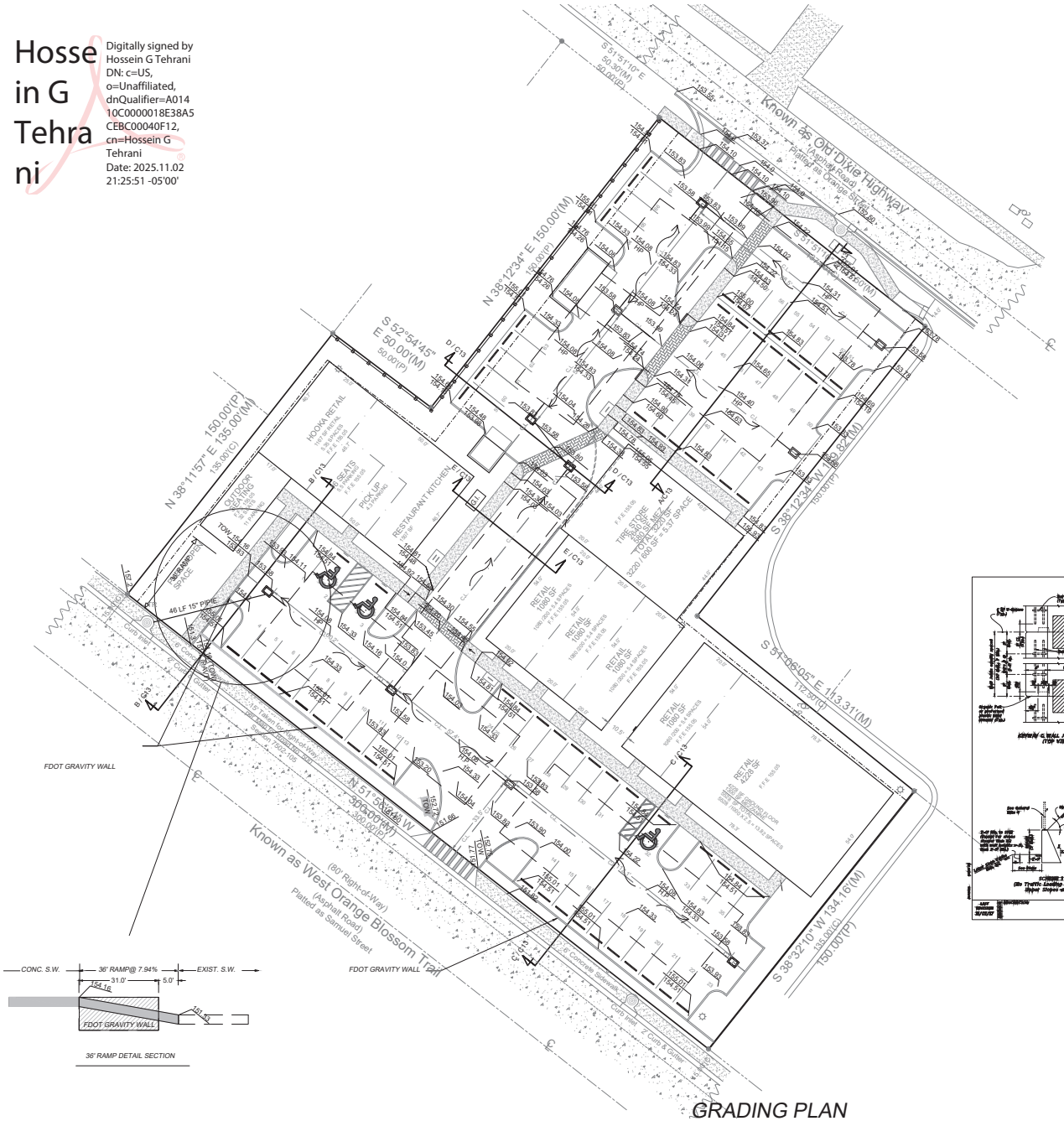
ALI TEHRANI, P.E.
FLORIDA P.E. LICENSE NO.48235
State of Florida Seal

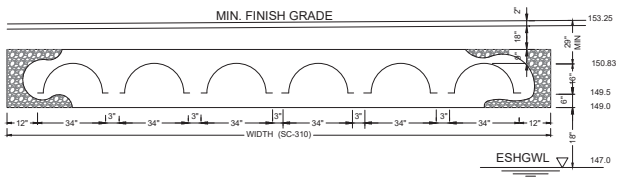
Drawing Number
C8

Sheet: 9 Of:

Hossein G Tehrani

Digitally signed by Hossein G Tehrani
DN: c=US, o=Unaffiliated, dnQualifier=A01410C0000018E38A5CEBC00040F12, cn=Hossein G Tehrani
Date: 2025.11.02 21:25:51 -05'00'





UNDERGROUND CHAMBER DETAIL (ADC STORMTECH SC-310)

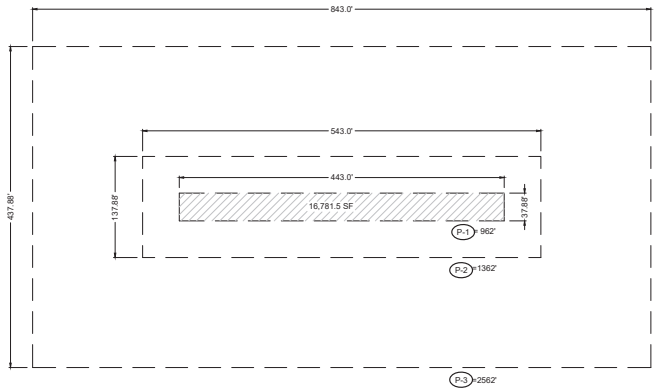
DRAINAGE INLET DATA INDEX

S-1	TYPE C INLET GRATE EL. 153.58 15" INV 149.5
S-2	TYPE C INLET GRATE EL. 153.58 15" INV 149.5
S-3	TYPE C INLET GRATE EL. 153.58 15" INV 149.5
S-4	TYPE C INLET GRATE EL. 153.58 15" INV 149.5
S-5	TYPE C INLET GRATE EL. 153.58 15" INV 149.5
S-6	TYPE C INLET GRATE EL. 153.58 15" INV 149.5
S-7	TYPE C INLET GRATE EL. 153.58 15" INV 149.5
S-8	TYPE C INLET GRATE EL. 153.58 15" INV 149.5
S-9	TYPE C INLET GRATE EL. 153.58 15" INV 149.5
S-10	TYPE C INLET GRATE EL. 153.58 15" INV 149.5

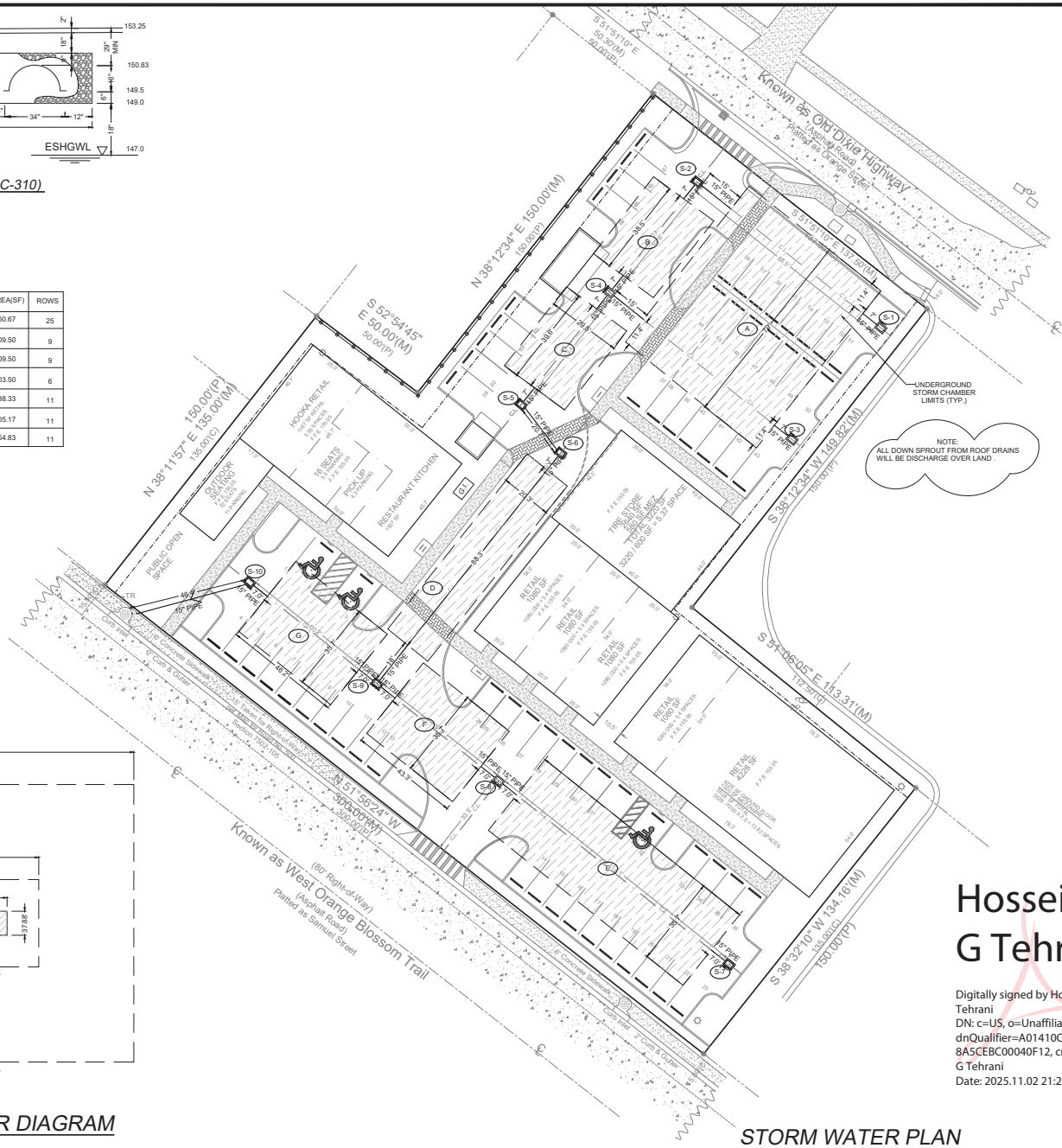
LENGTH AVAILABLE: 575 FT
WIDTH AVAILABLE: 24' FT
AVAILABLE AREA: 24' FT²

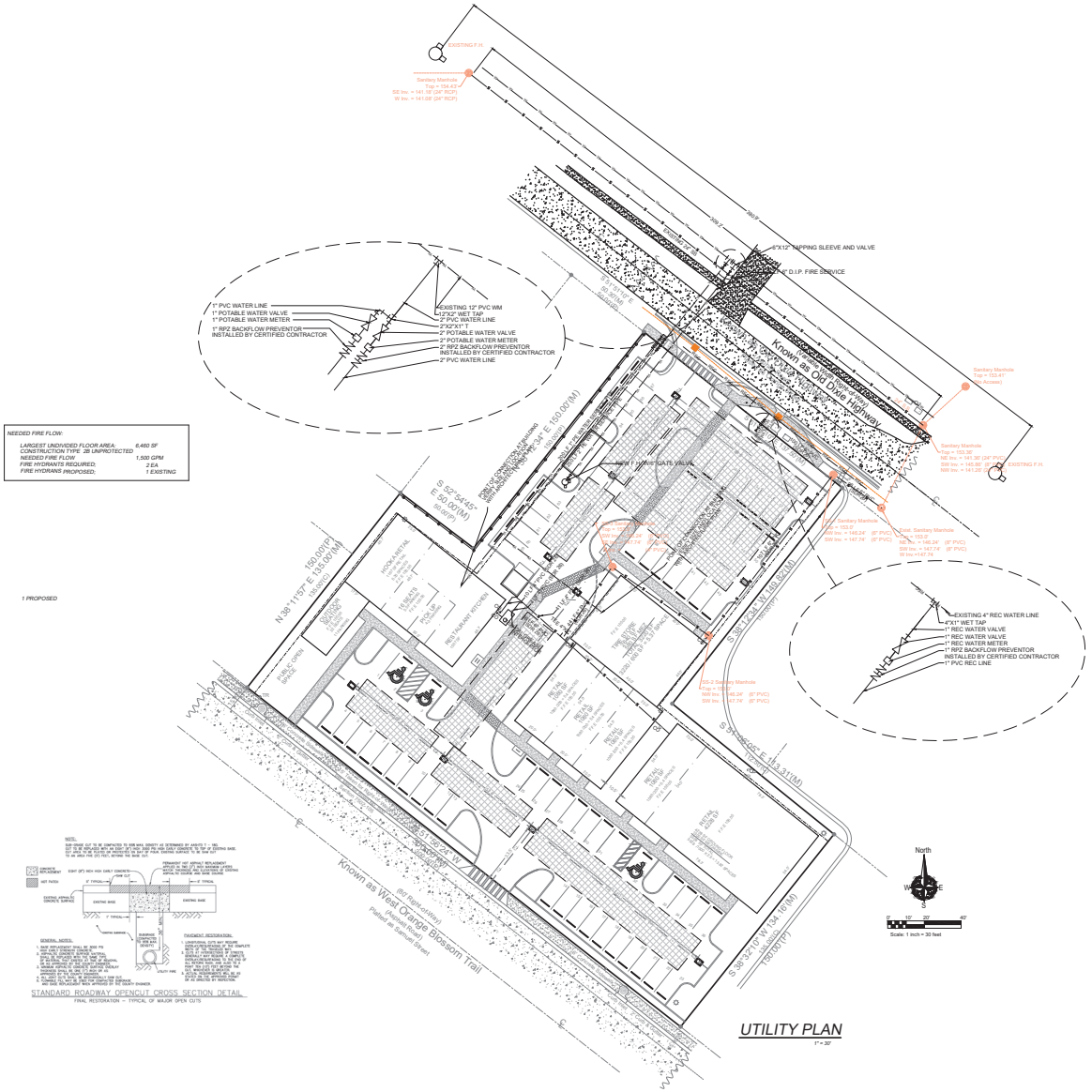
REQUIRED RETENTION
VOLUME = 11 500 FT³

ID	WIDTH (FT)	LENGTH (FT)	AREA(SF)	ROWS
A	78.83	68.0	5,360.67	25
B	29.50	41.0	1,209.50	9
C	29.50	41.0	1,209.50	9
D	20.25	94.0	1,903.50	6
E	35.67	102.0	3,638.33	11
F	35.67	45.0	1,605.17	11
G	35.67	52.0	1,854.83	11



UNDERGROUND CHAMBER-PERIMETER DIAGRAM
N.T.S.


S 51°51'10" E
50.30'(M)
29.00'(P)
Known as Old Dixie Highway
(Highway Road)
Platted as Orange Street
N 38°12'34" E 150.00'(M)
150.00'(P)
S 52°54'45" E 50.00'(M)
50.00'(P)
N 38°11'57" E 135.00'(M)
150.00'(P)
135.00'(C)
S 51°51'10" E 137.50'(M)
S 38°12'34" W 149.62'(M)
150.00'(P)
S 51°06'05" E 113.31'(M)
112.50'(P)
S 38°32'10" W 134.16'(M)
135.00'(C)
150.00'(P)
N 51°56'24" W
300.00'(M)
300.00'(P)
Known as West Orange Blossom Trail
(80' Right-of-Way)
(Asphalt Road)
Platted as Samuel Street
UNDERGROUND STORM CHAMBER LIMITS (TYP.)
NOTE:
ALL DOWN SPROUT FROM ROOF DRAINS WILL BE DISCHARGE OVER LAND .
HOOKA RETAIL
OUTDOOR SEATING
16 SEATS
PICKUP
RESTAURANT KITCHEN
PUBLIC OPEN SPACE
TIRE STORE
RETAIL
RETAIL
RETAIL



Hossein G Tehrani

Digitally signed by Hossein G Tehrani
DN: c=US, o=Unaffiliated, dnQualifier=A01410C0000018E38A5CEBC00040F12, cn=Hossein G Tehrani
Date: 2025.11.02 21:27:15 -05'00'

ENGINEER OF RECORD

TEHRANI CONSULTANT ENGINEERING LLC
622 Peachwood Drive
Altamonte Springs, FL 32714
Ph. (407) 948-0811
EMAIL: tehraniconsultingengineering@gmail.com

THESE DOCUMENTS AND THEIR CONTENTS ARE THE PROPERTY OF TEHRANI CONSULTANT ENGINEERING LLC. ANY REUSE OF THESE DOCUMENTS WITHOUT THE EXPRESSED WRITTEN CONSENT OF TEHRANI CONSULTANT ENGINEERING LLC, INC IS PROHIBITED BY LAW.

HOSSEIN G. TEHRANI LICENSE No. 48235 STATE OF FLORIDA PROFESSIONAL ENGINEER

State of Florida Seal

1. THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY HOSSEIN G. TEHRANI, PE, ON THE DATE AND /OR TIME STAMP SHOWN USING A DIGITAL SIGNATURE.
2. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPY.

Revisions/Comments:

Cadd File Information
Cadd File:
Scale: AS NOTED

Drawing Information
Drawn by: STJ
Checked by: ALT
Approved by: ALT
Date: 9-12-24

Job Number#
0926-2023

Project Name and Location:
A NEW SITE PLAN FOR:
429 WEST ORANGE BLOSSOM TRAIL
APOPKA, FL

Sheet Title
UTILITY PLAN

APPROVED BY

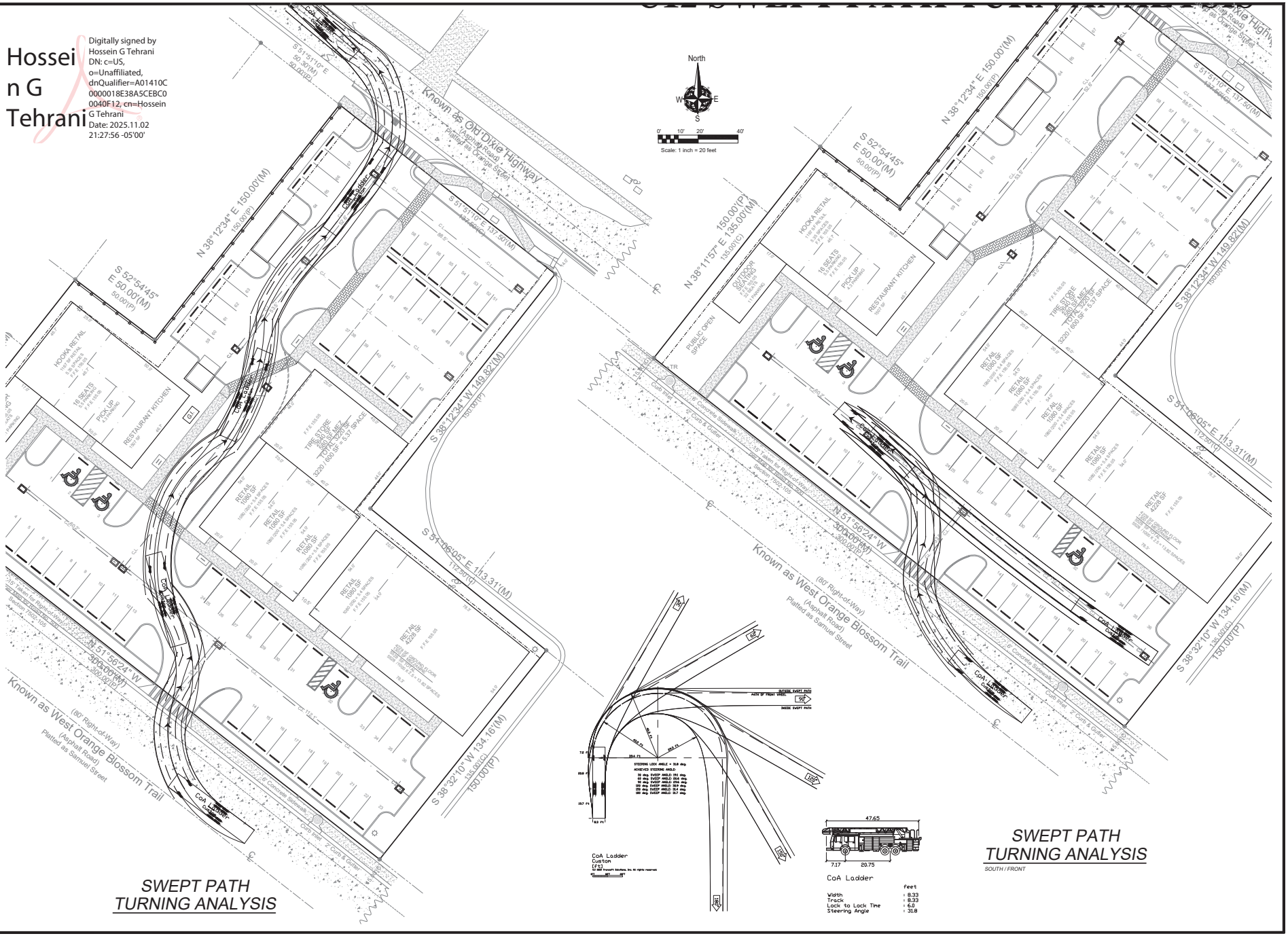
ALI TEHRANI, P.E.
FLORIDA P.E. LICENSE NO.48235
State of Florida Seal

Drawing Number
C11

Sheet: 12 Of:

Hossein G Tehrani

Digitally signed by Hossein G Tehrani
DN: c=US, o=Unaffiliated, dnQualifier=A01410C0000018E38A5CEBC00040F12, cn=Hossein G Tehrani
Date: 2025.11.02 21:27:56 -05'00'



SWEPT PATH TURNING ANALYSIS

SWEPT PATH TURNING ANALYSIS

SOUTH / FRONT

ENGINEER OF RECORD

TEHRANI CONSULTANT ENGINEERING LLC
622 Peachwood Drive
Altamonte Springs, FL 32714
Ph. (407) 948-0811
EMAIL:
tehraniconsultingengineering@gmail.com

THESE DOCUMENTS AND THEIR CONTENTS ARE THE PROPERTY OF TEHRANI CONSULTANT ENGINEERING LLC. ANY AND ANY REPRODUCTIONS, REVISIONS, MODIFICATIONS OR USE OF THESE DOCUMENTS WITHOUT THE EXPRESSED WRITTEN CONSENT OF TEHRANI CONSULTANT ENGINEERING LLC, ARE PROHIBITED BY LAW.

HOSSEIN G. TEHRANI
LICENSE
No. 48235
STATE OF FLORIDA
PROFESSIONAL ENGINEER

State of Florida Seal

1. THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY, HOSSEIN G. TEHRANI, PE, ON THE DATE AND FOR THE STAMP SHOWN USING A DIGITAL SIGNATURE.
2. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPY.

Revisions/Comments:
1. BUILDING /PARKING ADJUST

Cadd File Information
Cadd File:
Scale: AS NOTED

Drawing Information
Drawn by: ST3
Checked by: ALT
Approved by: ALT
Date: 9-12-24

Job Number#
0926-2023

Project Name and Location:
A NEW SITE PLAN FOR:
429 WEST ORANGE BLOSSOM TRAIL
APOPKA, FL

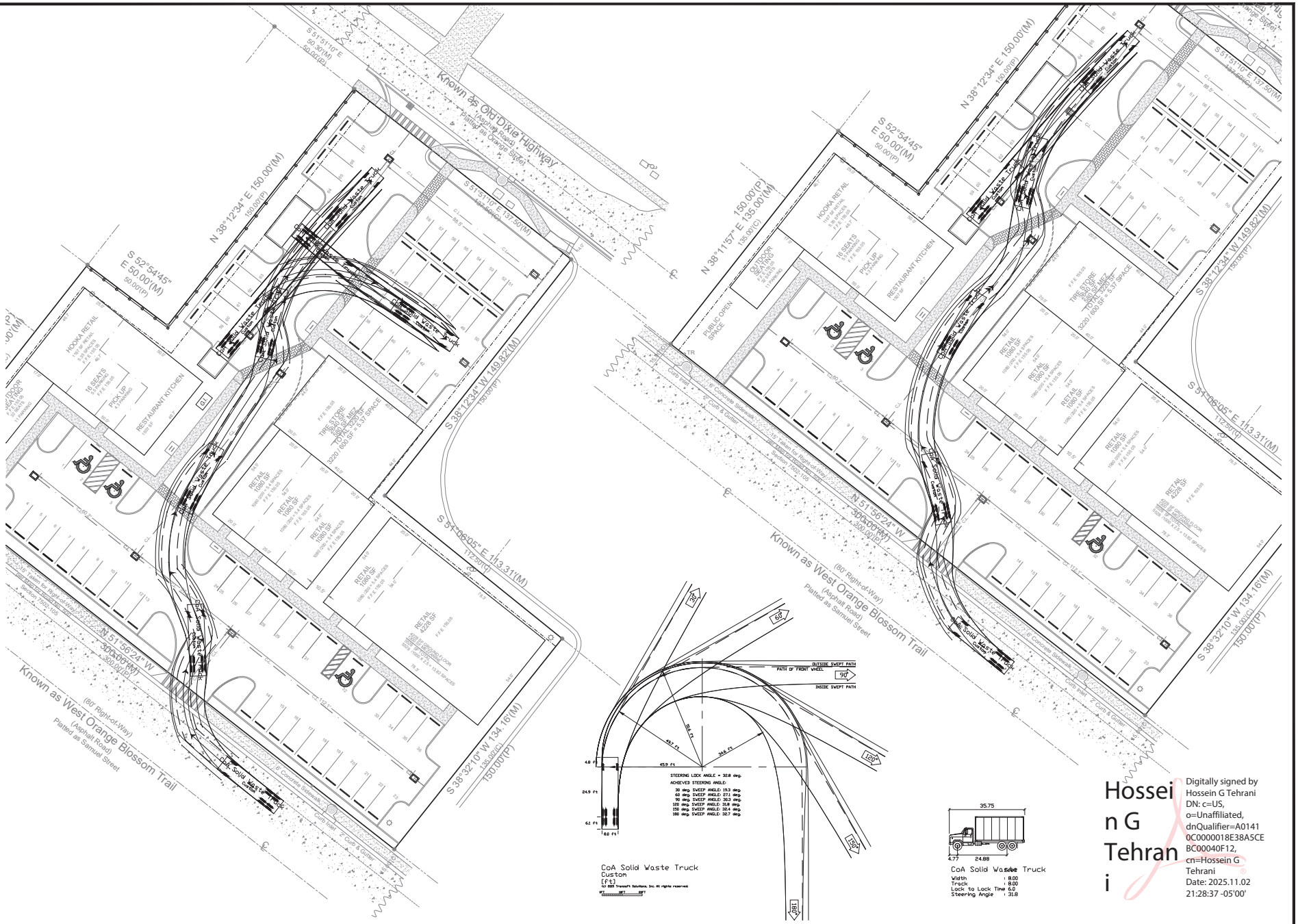
Sheet Title
TURN ANALYSIS

APPROVED BY

ALI TEHRANI, P.E.
FLORIDA P.E. LICENSE NO.48235
State of Florida Seal

Drawing Number
C12

Sheet: 13 Of:



Hossein G Tehrani

Digitally signed by Hossein G Tehrani
DN: c=US, o=Unaffiliated, dnQualifier=A01410C0000018E38A5CEBC00040F12, cn=Hossein G Tehrani
Date: 2025.11.02 21:28:37 -05'00'

ENGINEER OF RECORD

TEHRANI CONSULTANT ENGINEERING LLC
622 Peachwood Drive
Altamonte Springs, FL 32714
Ph. (407) 948-0811
EMAIL:
tehranicons ultingengineering@gmail.com

THESE DRAWINGS AND THEIR CONTENTS ARE THE PROPERTY OF TEHRANI CONSULTANT ENGINEERING LLC. ANY AND ANY REPRODUCTIONS, REVISIONS, MODIFICATIONS OR USE OF THESE DOCUMENTS WITHOUT THE EXPRESSED WRITTEN CONSENT OF TEHRANI CONSULTANT ENGINEERING LLC, NOT IT PROHIBITED BY LAW.

HOSSEIN G. TEHRANI LICENSE No. 48235 STATE OF FLORIDA PROFESSIONAL ENGINEER

State of Florida Seal

1. THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY, HOSSEIN G. TEHRANI, PE, ON THE DATE AND FOR THE STAMP SHOWN USING A DIGITAL SIGNATURE.
2. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPY.

Revisions/Comments:
1. BUILDING /PARKING ADJUST

Cadd File Information
Cadd File:
Scale: AS NOTED

Drawing Information
Drawn by: ST3
Checked by: ALT
Approved by: ALT
Date: 9-12-24

Job Number#
0926-2023

Project Name and Location:
A NEW SITE PLAN FOR:
429 WEST ORANGE BLOSSOM TRAIL APOPKA, FL

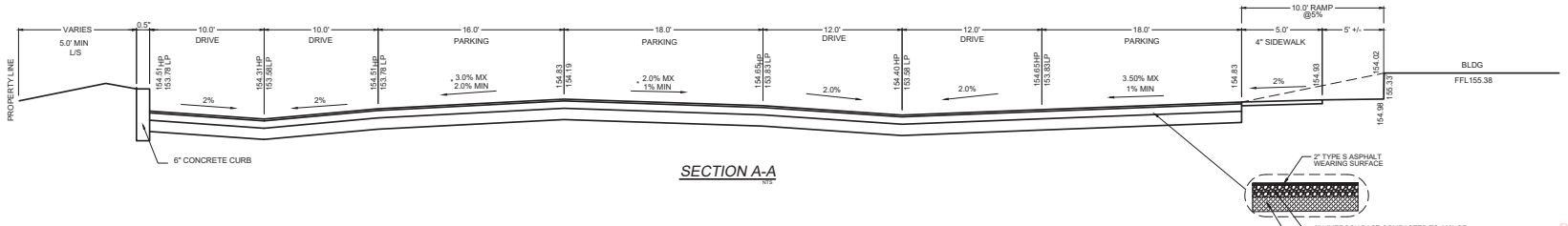
Sheet Title
TURN ANALYSIS

APPROVED BY

ALI TEHRANI, P.E.
FLORIDA P.E. LICENSE NO.48235
State of Florida Seal

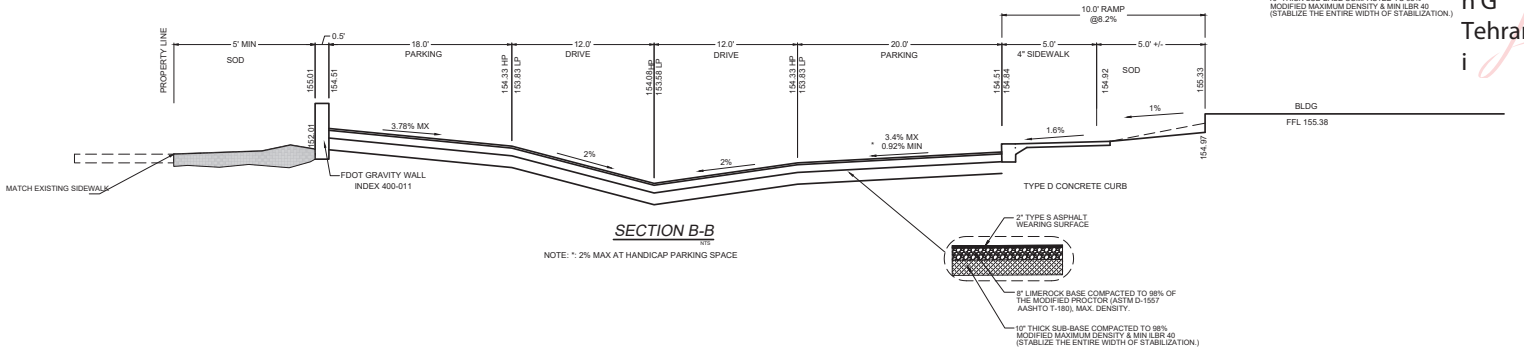
Drawing Number
C12.5

Sheet: 14 Of:



SECTION A-A

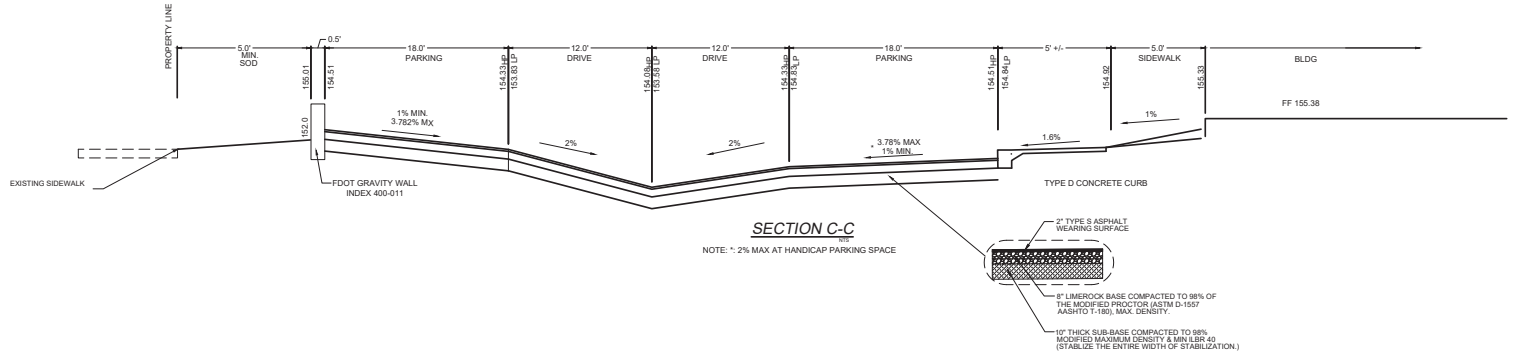
NTS



SECTION B-B

NTS

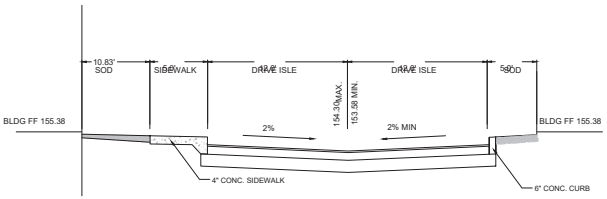
NOTE: *: 2% MAX AT HANDICAP PARKING SPACE



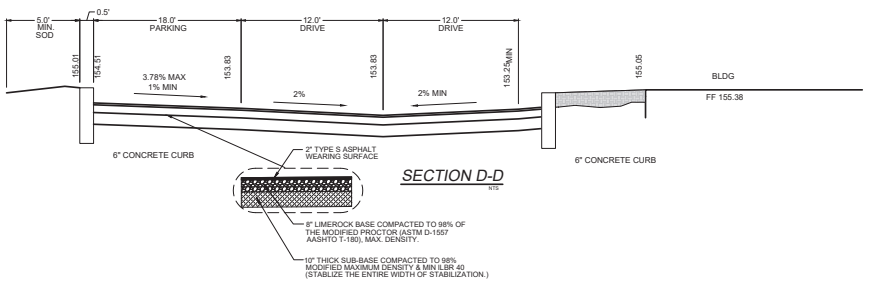
SECTION C-C

NTS

NOTE: *: 2% MAX AT HANDICAP PARKING SPACE



SECTION E-E



SECTION D-D

NTS

Hossein G Tehrani

Digitally signed by Hossein G Tehrani
DN: c=US, o=Unaffiliated, dnQualifier=A01410C0000018E38A5CEBC00040F12, cn=Hossein G Tehrani
Date: 2025.11.02 21:29:18 -05'00'

ENGINEER OF RECORD

TEHRANI CONSULTANT ENGINEERING LLC
622 Peachwood Drive
Altamonte Springs, FL 32714
Ph. (407) 948-0811
EMAIL:
tehranconsultingengineering@gmail.com

THESE DOCUMENTS AND THEIR CONTENTS ARE THE PROPERTY OF TEHRANI CONSULTANT ENGINEERING LLC. ANY REPRODUCTION, REVISION, DISSEMINATION OR USE OF THESE DOCUMENTS WITHOUT THE EXPRESSED WRITTEN CONSENT OF TEHRANI CONSULTANT ENGINEERING LLC, INC IS PROHIBITED BY LAW.

HOSSEIN G. TEHRANI
LICENSE
No. 48235
STATE OF FLORIDA
PROFESSIONAL ENGINEER

State of Florida Seal

1. THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY, HOSSEIN G. TEHRANI, PE, ON THE DATE AND FOR THE STAMP SHOWN USING A DIGITAL SIGNATURE.

2. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPY.

Revisions/Comments:

Cadd File Information
Cadd File:
Scale: AS NOTED

Drawing Information
Drawn by: STJ
Checked by: ALT
Approved by: ALT
Date: 9-12-26

Job Number#
0926-2023

Project Name and Location:
A NEW SITE PLAN FOR:
429 WEST ORANGE BLOSSOM TRAIL
APOPKA, FL

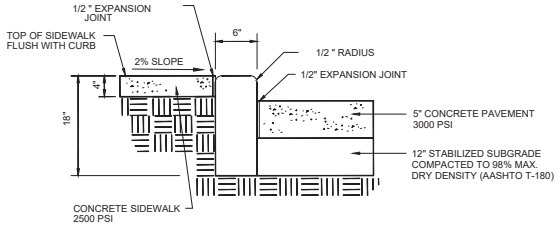
Sheet Title
SECTIONS

APPROVED BY

ALI TEHRANI, P.E.
FLORIDA P.E. LICENSE NO.48235
State of Florida Seal

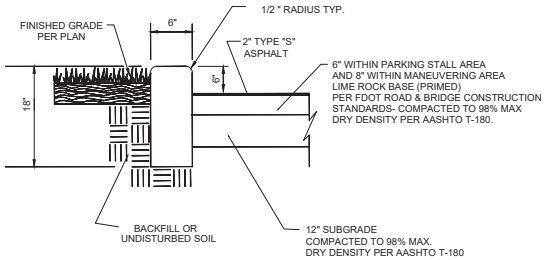
Drawing Number
C13

Sheet:15 Of:



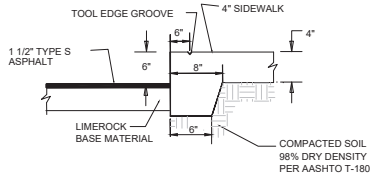
5 CURB & CONCRETE PAVEMENT DETAIL

NTS



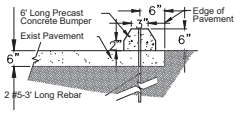
6 CURB & PAVEMENT DETAIL "A"

NTS



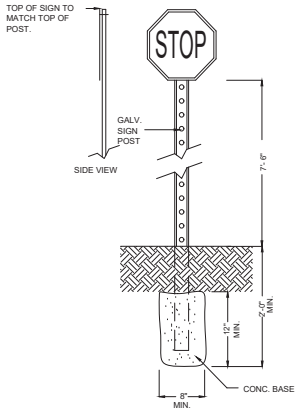
7 SIDEWALK & PAVEMENT DETAIL

NTS



8 PRECAST BUMPER DETAIL

NTS

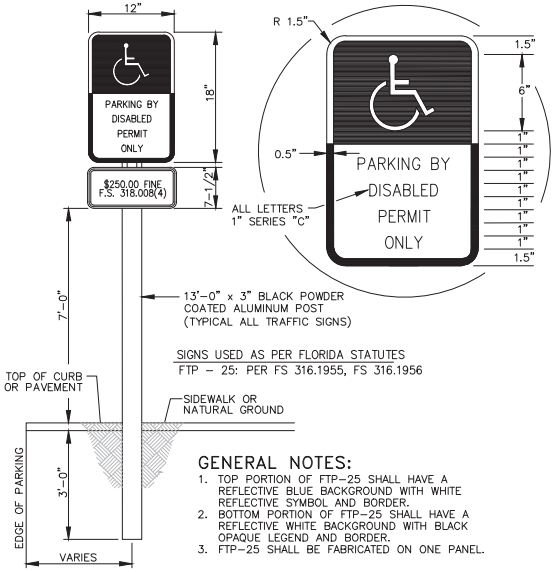


SEE PLANS FOR SIGNAGE TYPES AND LOCATIONS

SIGNAGE TO CONFORM TO FLORIDA DEPARTMENT OF TRANSPORTATION AND MUTCD SPECIFICATIONS.

4 TYPICAL SIGN

N.T.S.

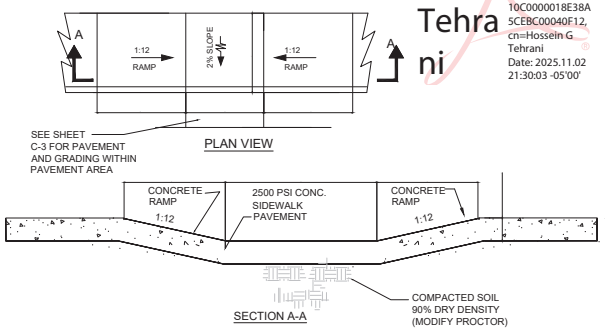


GENERAL NOTES:

1. TOP PORTION OF FTP–25 SHALL HAVE A REFLECTIVE BLUE BACKGROUND WITH WHITE REFLECTIVE SYMBOL AND BORDER.
2. BOTTOM PORTION OF FTP–25 SHALL HAVE A REFLECTIVE WHITE BACKGROUND WITH BLACK OPAQUE LEGEND AND BORDER.
3. FTP–25 SHALL BE FABRICATED ON ONE PANEL.

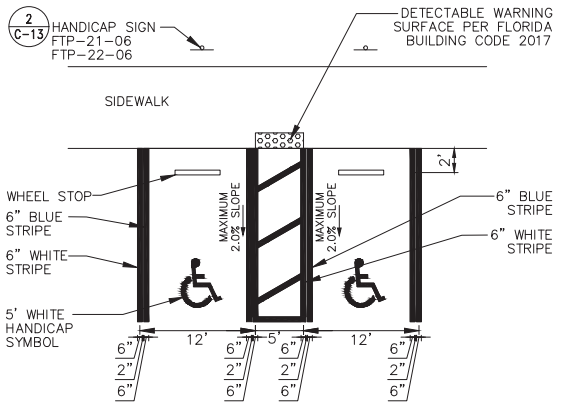
3 HANDICAP SIGN DETAIL

NTS



1 WHEELCHAIR RAMP

NTS



2 HC SIGN AND PARKING STALL DETAIL

NTS

ADA PARKING STRIPING SHALL MEET F.D.O.T. 711–001 (2018–2019) STANDARD.

ENGINEER OF RECORD

TEHRANI CONSULTANT ENGINEERING LLC
622 Peachwood Drive
Altamonte Springs, FL 32714
Ph. (407) 948-0811
EMAIL: tehranisoutlingengineering@gmail.com

THESE DOCUMENTS AND THEIR CONTENTS ARE THE PROPERTY OF TEHRANI CONSULTANT ENGINEERING LLC. INC AND ANY REPRODUCTION, MODIFICATION OR ALTERATION WITHOUT WRITTEN PERMISSION OR WRITTEN CONSENT OF TEHRANI CONSULTANT ENGINEERING LLC, INC IS PROHIBITED BY LAW.

Hossein G Tehrani

Digitally signed by Hossein G Tehrani
DN: c=US, o=Unaffiliated, dnQualifier=A01410C0000018E38A5CEBC00040F12, cn=Hossein G Tehrani
Date: 2025.11.02 21:30:03 -05'00'

HOSSEIN G. TEHRANI LICENSE No. 48235 STATE OF FLORIDA PROFESSIONAL ENGINEER

State of Florida Seal

1. THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY, HOSSEIN G. TEHRANI, PE, ON THE DATE AND FOR THE STAMP SHOWN USING A DIGITAL SIGNATURE.
2. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPY.

Revisions/Comments:

Cadd File Information
Cadd File:
Scale: AS NOTED

Drawing Information
Drawn by: STJ
Checked by: ALT
Approved by: ALT
Date: 9-12-24

Job Number#
0926-2023

Project Name and Location:
A NEW SITE PLAN FOR:
429 WEST ORANGE BLOSSOM TRAIL
APOPKA, FL

Sheet Title
DETAIL

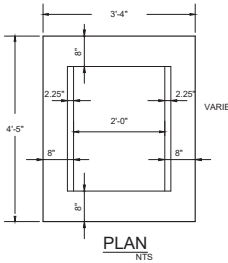
INFORMATION CONTAINED ON THIS PLAN IS COPYRIGHTED AND IS THE PROPERTY OF TEHRANI CONSULTANT ENGINEERING LLC

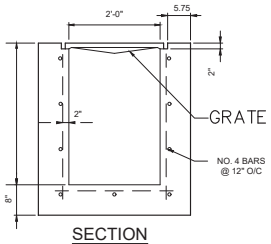
APPROVED BY

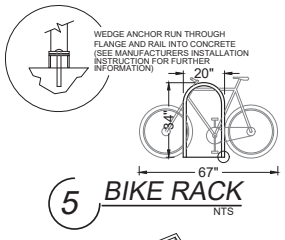
ALI TEHRANI, P.E.
FLORIDA P.E. LICENSE NO.48235
State of Florida Seal

Drawing Number
C14

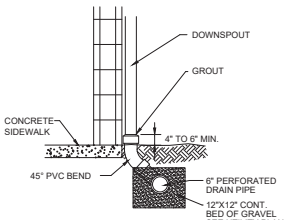
Sheet: 16 Of:



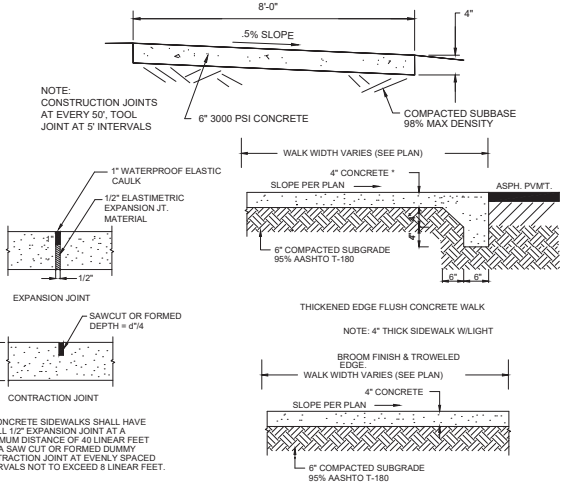




5 BIKE RACK
NTS

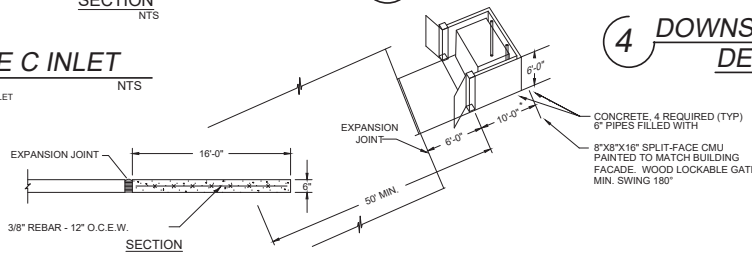


4 DOWNSPOUT CONNECTION DETAIL IN GRASS



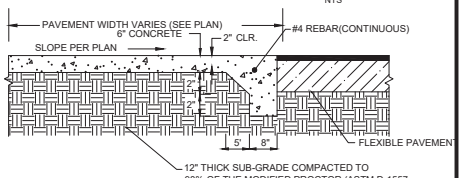
7 TYPE C INLET
NTS

SEE UTILITY PLAN FOR DEPTH OF INLET & SIZE OF HDPE



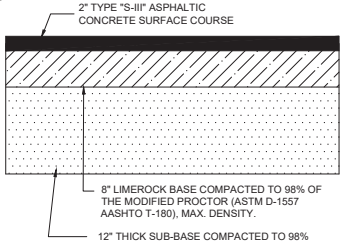
6 DUMPSTER DETAIL
INSIDE DIMENSION OF ENCLOSURE
NTS

1 CONCRETE WALK DETAILS
NTS

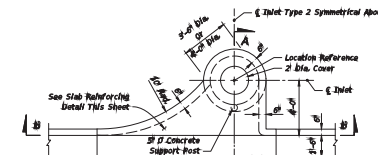


NOTES:
1. ALL CONCRETE PAVEMENT SHALL HAVE A FULL, ½" ISOLATION JOINT WHERE IT ABUTS EXISTING CONCRETE PAVEMENT AND OTHER RIGID STRUCTURES. PROVIDE 2" SAW CUT OR DUMMY CONTRACTION JOINT AT EVENLY SPACED INTERVALS NOT TO EXCEED 12 FEET.
2. PORTLAND CEMENT CONCRETE PAVEMENT TO BE 4,000-PSI COMPRESSIVE STRENGTH, MIN.

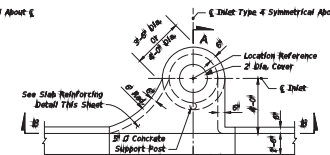
2 CONCRETE PAVEMENT DETAIL
NTS



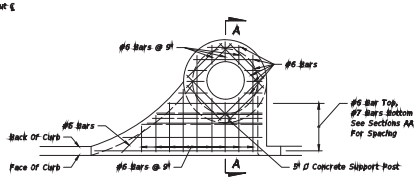
3 TYPICAL PAVEMENT SECTION
NTS



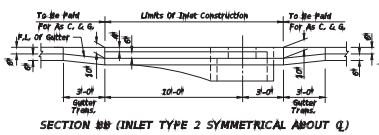
PLAN (INLET TYPE 2 SYMMETRICAL ABOUT ℄)



PLAN (INLET TYPE 4 SYMMETRICAL ABOUT ℄)

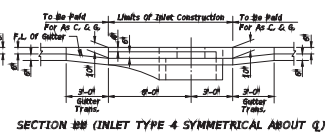


INLETS TYPES 1 AND 3



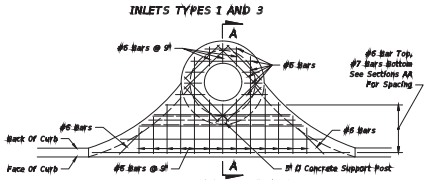
SECTION ## (INLET TYPE 2 SYMMETRICAL ABOUT ℄)

INLETS TYPES 1 AND 2



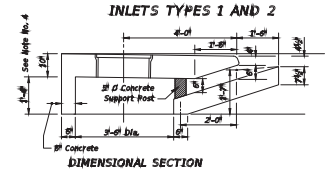
SECTION ## (INLET TYPE 4 SYMMETRICAL ABOUT ℄)

INLETS TYPES 3 AND 4

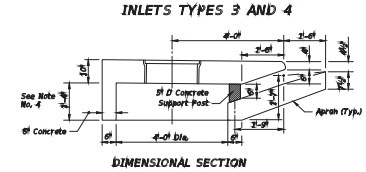


INLETS TYPES 2 AND 4

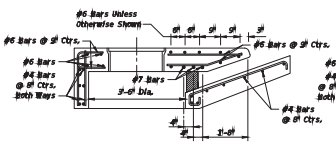
SLAB REINFORCING



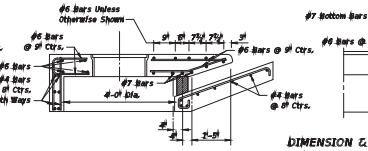
DIMENSIONAL SECTION



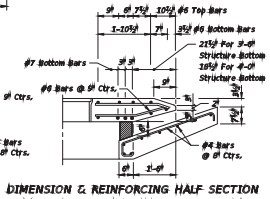
DIMENSIONAL SECTION



REINFORCING SECTION
3'-6" DIA. STRUCTURE BOTTOM (SECTION AA)



REINFORCING SECTION
4'-0" DIA. STRUCTURE BOTTOM (SECTION AA)



DIMENSION & REINFORCING HALF SECTION TYPES A & E CURB (HALF SECTION AA) (TYPE E GUTTER SHOWN)

TRANSVERSE SECTIONS FOR INLETS TYPES 1, 2, 3 & 4

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 border.
2. When inlets are to be constructed on a curve, refer to the plans to determine the radius and, where necessary, modify the inlet details accordingly. Bend steel when necessary.
3. All steel in inlet top shall have 2½" minimum cover unless otherwise shown. Inlet tops shall be either cast-in-place or precast concrete.
4. For precast units the rear wall and apron may be precast as a separate piece from the top slab. Provide a minimum of 7 – #4 dowels in accordance with Index No. 201 "OPTIONAL CONSTRUCTION JOINTS".
5. For supplemental details see Index No. 201.
6. Only round concrete support post will be acceptable.
7. These inlets are designed for use with standard curb and gutter Types E and Type F. Locate inlet outside of pedestrian crosswalks.
8. For structure bottoms see Index No. 200.
9. Inlet to be paid for under the contract unit price for Inlets (Curb) (Type_), Each.

8 CURB INLET TOPS TYPE 2
NTS

Hossein G Tehrani

Digitally signed by Hossein G Tehrani
DN: c=US, o=Unaffiliated, dnQualifier=A01410C0000018E38A5CEBC00040F12, cn=Hossein G Tehrani
Date: 2025.11.02 21:30:50 -05'00'

ENGINEER OF RECORD

TEHRANI CONSULTANT ENGINEERING LLC
622 Peachwood Drive
Altamonte Springs, FL 32714
Ph. (407) 948-0811
EMAIL: tehraniconsultingengineering@gmail.com

THESE DOCUMENTS AND THEIR CONTENTS ARE THE PROPERTY OF TEHRANI CONSULTANT ENGINEERING LLC AND MAY NOT BE REPRODUCED, REVISED, NEGOTIATING OR USE OF THESE DOCUMENTS WITHOUT THE EXPRESSED WRITTEN CONSENT OF TEHRANI CONSULTANT ENGINEERING LLC, INC IS PROHIBITED BY LAW.

HOSSEIN G. TEHRANI LICENSE No. 48235 STATE OF FLORIDA PROFESSIONAL ENGINEER

State of Florida Seal

1. THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY, HOSSEIN G. TEHRANI, PE, ON THE DATE AND FOR THE STAMP SHOWN USING A DIGITAL SIGNATURE.
2. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPY.

Revisions/Comments:
1. TYPE D-7 SIDEWALK INLET DETAILS

Cadd File Information
Cadd File:
Scale: AS NOTED

Drawing Information
Drawn by: STJ
Checked by: ALT
Approved by: ALT
Date: 9-12-24

Job Number#
0926-2023

Project Name and Location:
A NEW SITE PLAN FOR:
429 WEST ORANGE BLOSSOM TRAIL APOPKA, FL

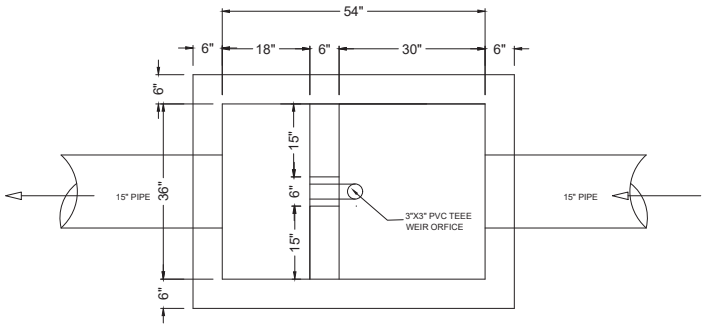
Sheet Title
DETAILS

APPROVED BY

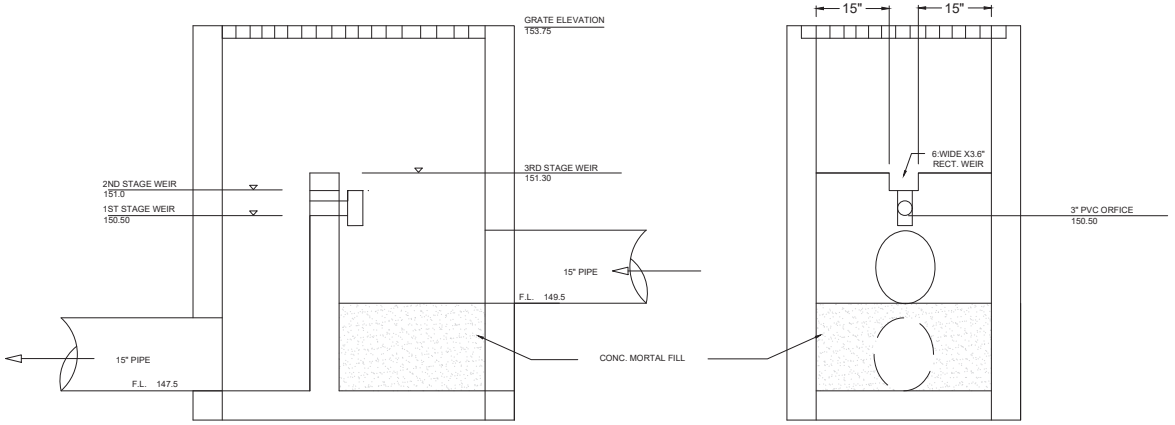
ALI TEHRANI, P.E.
FLORIDA P.E. LICENSE NO.48235
State of Florida Seal

Drawing Number
C15

Sheet: 17 Of:



PLAN



SECTION ELEVATION

S-10 MODIFIED TYPE E INLET (FDOT INDEX 425-052)

NTS

Hossein G Tehrani

Digitally signed by Hossein G Tehrani
DN: c=US, o=Unaffiliated, dnQualifier=A01410C0000018E38A5CEBC00040F12, cn=Hossein G Tehrani
Date: 2025.11.02 21:31:38 -05'00'

ENGINEER OF RECORD

TEHRANI CONSULTANT ENGINEERING LLC
622 Peachwood Drive
Altamonte Springs, FL 32714
Ph. (407) 948-0811
EMAIL :
tehraniconsultingengineering@gmail.com

THESE DOCUMENTS AND THEIR CONTENTS ARE THE PROPERTY OF TEHRANI CONSULTANT ENGINEERING, INC AND ANY REPRODUCTIONS, REVISIONS, MODIFICATIONS OR USE OF THESE DOCUMENTS WITHOUT THE EXPRESSED WRITTEN CONSENT OF TEHRANI CONSULTANT ENGINEERING LLC, INC IS PROHIBITED BY LAW.

HOSSEIN G. TEHRANI LICENSE No. 48235 STATE OF FLORIDA PROFESSIONAL ENGINEER

State of Florida Seal

1. THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY, HOSSEIN G. TEHRANI, PE, ON THE DATE AND /OR TIME STAMP SHOWN USING A DIGITAL SIGNATURE.
2. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPY.

Revisions/Comments:
1. TYPE D-7 SIDEWALK INLET DETAILS

Cadd File Information
Cadd File:
Scale: AS NOTED

Drawing Information
Drawn by: STJ
Checked by: ALT
Approved by: ALT
Date: 9-12-24

Job Number#
0926-2023

Project Name and Location:
A NEW SITE PLAN FOR:
429 WEST ORANGE BLOSSOM TRAIL
APOPKA, FL

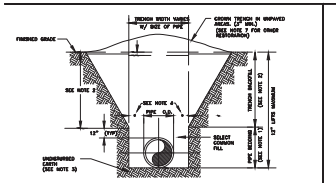
Sheet Title
S-10 DETAILS

APPROVED BY

ALI TEHRANI, P.E.
FLORIDA P.E. LICENSE NO.48235
State of Florida Seal

Drawing Number
C15A

Sheet: 17 Of:



NOTES:
1. PIPE BEDDING: SELECT COMMON FILL COMPACTED TO 98% UNDER PAVEMENT OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 95% UNDER PAVEMENT OF THE MAXIMUM DENSITY AS TO AASHTO T-180.
3. PIPE BEDDING UTILIZING SELECT COMMON FILL OR BEDDING ROCK IN ACCORDANCE WITH TYPE A BEDDING AND TRENCHING DETAIL MAY BE REQUIRED AS DIRECTED BY THE CITY.
4. 6" TO 15" MAX. FOR PIPE DIAMETERS LESS THAN 24", AND 24" 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 SURFACED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES.
8. SURFACE RESTORATION WITHIN CITY RIGHT-OF-WAY, SHALL COMPLY WITH RECOMMENDATIONS OF RIGHT-OF-WAY UTILIZATION REGULATIONS.
9. ALL DISTURBED UNSURFACED AREAS SHALL BE DOSSED TO MATCH ADJACENT DOMINATE GRADE SURFACE.

TYPE "B" BEDDING AND OPEN-CUT DETAIL

CITY OF APOPKA | DESIGN ENGINEERING DIVISION | JANUARY 2014 | FIG. 100

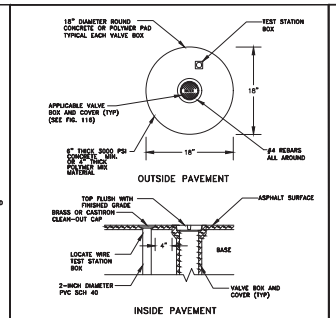
MINIMUM LENGTH (FT) TO BE RESTRAINED ON EACH SIDE OF FITTING(S). *										
	PIPE SIZE									
	6"	8"	10"	12"	16"	18"	20"	24"	30"	48"
90° BEND	33	43	51	60						
45° BEND	14	18	22	25						
22-1/2° BEND	7	9	11	12						
11-1/4° BEND	4	5	6	6						
TEE**	1	7	24	44						
REDUCER (ONE SIZE SMALLER)		41	39	40						
DEAD END	74	96	115	136						

* ONLY RESTRAIN BRANCH PIPE FOR TEES. ONLY RESTRAIN LARGER PIPE FOR REDUCERS
** LENGTH ALONG RUN ASSUMED TO BE 18'

NOTES:
1. FITTINGS SHALL BE DUCTILE IRON RESTRAINED JOINT TYPE. FM FITTINGS TO BE LINED WITH PROTECTO 401.
2. INSTALL FULL LENGTHS OF PIPE WITH TOTAL LENGTH CONTAINING ONLY RESTRAINED JOINTS EQUAL TO OR GREATER THAN LENGTH SHOWN IN TABLE.
3. WHERE TWO OR MORE FITTINGS ARE TOGETHER, USE FITTING WHICH YIELDS GREATEST LENGTH OF RESTRAINED PIPE.
4. IN LINE VALVES AND THROUGH RUN OF TEES CONSTITUTE LIMITS OF RESTRAINED JOINTS. FROM OTHER FITTINGS NEED NOT BE RESTRAINED UNLESS OTHERWISE INDICATED.
5. LENGTHS SHOWN IN THE TABLE HAVE BEEN CALCULATED IN ACCORDANCE WITH THE PROCEDURE OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" AS PUBLISHED BY DIPRA, FOR PVC WITH THE FOLLOWING ASSUMPTIONS:
TYPE OF PIPE: PVC
WORKING PRESSURE: 150 P.S.I.*** FM = 100 P.S.I. / WM OR RWM = 150 P.S.I.
SOIL DESIGNATION: SANDS AND GRAVELS
LAYING CONDITION: 3
6. FOR PIPE ENCASED IN POLYETHYLENE INCREASE THE GIVEN VALUE BY A FACTOR OF 1.5.
7. VALUES NOT LISTED IN THE TABLE TO BE COMPLETED BY THE ENGINEER.

RESTRAINED PIPE TABLE (PVC)

CITY OF APOPKA | DESIGN ENGINEERING DIVISION | JANUARY 2014 | FIG. 105



VALVE IDENTIFICATION TAG TO BE INSTALLED BY CITY & PAID FOR BY DEVELOPER

VALVE BOX

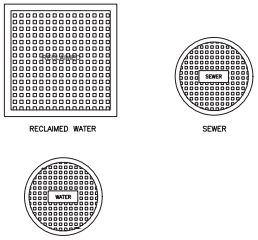
CITY OF APOPKA | DESIGN ENGINEERING DIVISION | JANUARY 2014 | FIG. 109

MINIMUM PRESSURE RATING									
PSI	DI FITTINGS		PIPE MATERIAL*			GATE VALVE**		FORCEMAIN**	
	≤24"	>24"	PVC	DI	HDPE	≤12"	>12"	PVC	HDPE
100								●	●
150			●		●		●		
200						●			
250		●		●					
350	●								

* PVC SHALL HAVE A MAXIMUM DIMENSION RATIO (DR) OF 18 AND HDPE SHALL BE MAX DR11. PURCHASING PVC SHALL BE MAX DR18 UNLESS DESIGN REQUIRES OTHERWISE AND HDPE SHALL BE MAX DR17.
** BUTTERFLY VALVES SHALL BE CLASS 150B

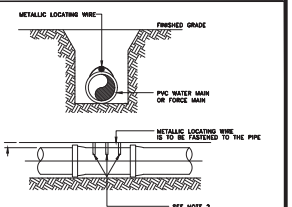
PIPE AND APPURTENANCES PRESSURE RATING

CITY OF APOPKA | DESIGN ENGINEERING DIVISION | JAUARY 2014 | FIG. 110



TYPICAL VALVE BOX COVER DETAILS

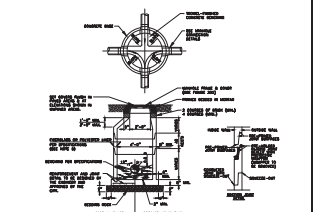
CITY OF APOPKA | DESIGN ENGINEERING DIVISION | JANUARY 2014 | FIG. 116



NOTES:
1. PVC PIPE SHALL REQUIRE INSULATED METALLIC LOCATING WIRE (10 AWG-SOLID CCS REINFORCED TRACER WIRE-INSULATED 30 MIL HDPE – 30 VOLT MFG. BY COPPERHEAD INDUSTRIES, LLC OR EQUAL) CAPABLE OF DETECTION BY A CABLE LOCATOR.
2. SHALL BE BURIED DIRECTLY ABOVE THE CENTERLINE OF THE PIPE AND ATTACHED WITH DUCT TAPE OR NYLON STRAPS AT 3 LOCATIONS PER JOINT. LOCATING WIRE SHALL TERMINATE AT THE TEST STATION BOX AS SHOWN IN FIG. 109.
3. BE CAPABLE OF EXTENDING 12" ABOVE TOP OF TEST STATION BOX IN SUCH A MANNER SO AS NOT TO INTERFERE WITH VALVE OPERATION.
4. SPLICES SHOULD BE MADE USING STANDARDS AND PRODUCTS DESIGNED FOR DIRECT BURIAL CONDUCTORS.
5. WIRE INSULATION SHALL BE COLOR CODED FOR THE TYPE OF PIPE BEING INSTALLED.

PVC PIPE LOCATING WIRE DETAIL

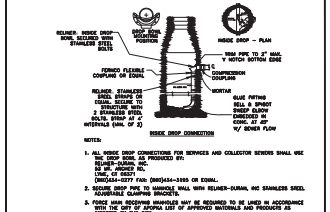
CITY OF APOPKA | DESIGN ENGINEERING DIVISION | JANUARY 2014 | FIG. 118



NOTES:
1. MANHOLE SHOWN IS FOR SEWER SIZE 8" THRU 24". SEE SECTION 20.4 OF THE MEMPHIS SEWER MANHOLE DIMENSION FOR SEWERS LARGER THAN 24".
2. DROP CONNECTIONS ARE REQUIRED WHENEVER SPRIGET OF INFLUENT SEWER IS 24" OR MORE ABOVE THE INVERT OF THE MANHOLE. SEE MANHOLE CONNECTION DETAILS.
3. THE THICKNESS OF THE LINER SHALL BE 3/8" MINIMUM.
4. EACH BENCH WALL SHALL BE A MINIMUM OF 18 INCHES LONG FROM THE WALL OF THE MANHOLE TOWARD THE CENTER.
5. SANITARY SEWER MANHOLES MAY BE REQUIRED TO BE LINED IN ACCORDANCE WITH THE CITY OF APOPKA LIST OF APPROVED MATERIALS AND PRODUCTS AS DIRECTED BY THE CITY.

TYPICAL MANHOLE

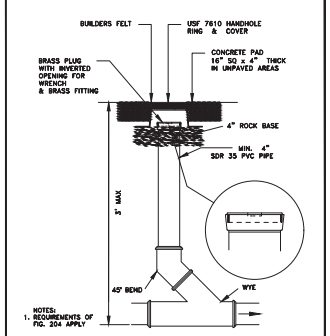
CITY OF APOPKA | DESIGN ENGINEERING DIVISION | JANUARY 2015 | FIG. 200



NOTES:
1. ALL RONDE DROP CONNECTIONS FOR SERVICES AND COLLECTOR SEWERS SHALL USE RING DROP BOWL AS PRODUCED BY: SELMER-DURAN, INC. P.O. BOX 1000 LYNN, NC 28650 (800)543-0277 FAX: (800)543-3935 OR EQUAL.
2. SECURE DROP PIPE TO MANHOLE WALL WITH SELMER-DURAN, INC STAINLESS STEEL ADJUSTABLE CLAMPING BRACKETS.
3. FORCE MAIN SWEEPING ELBOWS MAY BE REQUIRED TO BE LINED IN ACCORDANCE WITH THE CITY OF APOPKA LIST OF APPROVED MATERIALS AND PRODUCTS AS DIRECTED BY THE CITY.

MANHOLE CONNECTION DETAILS

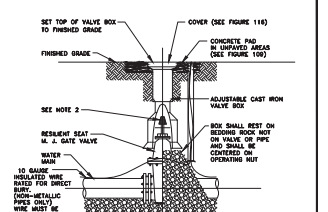
CITY OF APOPKA | DESIGN ENGINEERING DIVISION | JANUARY 2015 | FIG. 201



NOTES:
1. REQUIREMENTS OF FIG. 204 APPLY

SANITARY SEWER SERVICE TRAFFIC RATED CLEAN-OUT DETAIL
NTS

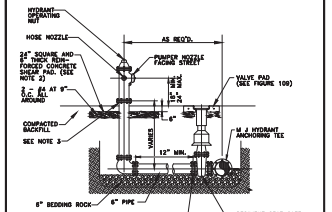
CITY OF APOPKA | DESIGN ENGINEERING DIVISION | JANUARY 2014 | FIG. 205



NOTES:
1. PVC EXTENSIONS MAY BE USED ON VALVE BOX INSTALLATION.
2. THE ACTUATING NUT FOR DEEPER VALVES SHALL BE EXTENDED TO WITHIN A 3 FEET BELOW FINISHED GRADE.

GATE VALVE AND BOX DETAIL

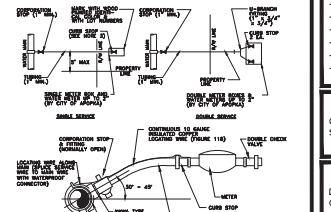
CITY OF APOPKA | DESIGN ENGINEERING DIVISION | JANUARY 2014 | FIG. 400



NOTES:
1. FIRE HYDRANT SHALL BE SUPPLIED WITHOUT A WEEP HOLE, OR WITH A PERMANENTLY PLUGGED WEEP HOLE.
2. THE SHEAR PAD SHALL BE RECESSED 6IN (6) INCHES BELOW THE FINISHED GRADE AND THE RECESSED SECTION SOILED.
3. CLEARANCE BETWEEN BOTTOM OF BOLTS AND TOP OF SHEAR PAD SHALL BE A TWELVE (12) INCH MINIMUM.
4. FIRE HYDRANTS SHALL BE IDENTIFIED IN ACCORDANCE WITH THE CITY OF APOPKA UTILITIES DESIGN CONSTRUCTION STANDARDS MANUAL.

FIRE HYDRANT ASSEMBLY DETAIL

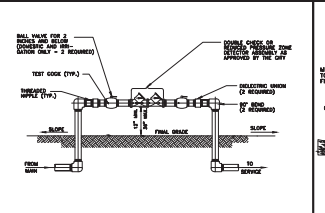
CITY OF APOPKA | DESIGN ENGINEERING DIVISION | JANUARY 2014 | FIG. 402



NOTES:
1. ALL FITTINGS SHALL BE BRASS WITH COMPRESSION/FLARE JOINT TYPE CONNECTIONS.
2. NO SERVICE LINE SHALL TERMINATE UNDER A DRIVEWAY.
3. EACH SERVICE SHALL TERMINATE AT A CURB STOP(CS) WHICH SHALL BE BURIED APPROXIMATELY 5' FROM THE R/W OR EASEMENT LINE AND MARKED WITH A 2"x4"x3' P.T. POST WITH BIB TOP PAINTED BLUE FOR POTABLE WATER AND PURPLE FOR RECLAIMED WATER, AND MARKED WITH THE NUMBER OF THE LOT(S) TO BE SERVED.
4. RECLAIMED WATER SERVICES SHALL USE PURPLE COLORED CTS POLYETHYLENE TUBING.
5. POTABLE WATER SERVICES SHALL USE BLUE COLORED CTS POLYETHYLENE TUBING.
6. ALL SERVICE LINES UNDER EXISTING OR PROPOSED PAVEMENT SHALL BE INSTALLED IN A MINIMUM 4" PVC SLEEVE.

WATER SERVICE CONNECTION DETAIL

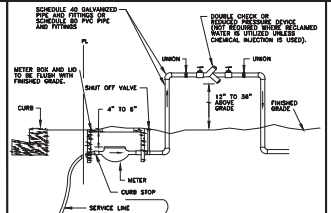
CITY OF APOPKA | DESIGN ENGINEERING DIVISION | JANUARY 2014 | FIG. 405



NOTES:
1. ALL PIPE, FITTINGS, MATERIALS, LABOR, AND APPURTENANCES SHALL BE SUPPLIED BY THE CONTRACTOR.
2. ALL PIPE AND FITTINGS TWO (2) INCHES AND SMALLER SHALL BE THREADED SCHEDULE 40 GALVANIZED STEEL.

DOUBLE CHECK OR REDUCED PRESSURE ZONE DETECTOR ASSEMBLY
2 INCH AND BELOW ASSEMBLY

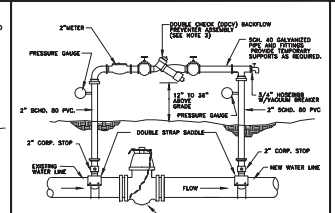
CITY OF APOPKA | DESIGN ENGINEERING DIVISION | JANUARY 2014 | FIG. 500 A



NOTES:
1. A POSITIVE DIELECTRIC CONNECTION SHALL BE MADE BETWEEN ALL GALVANIZED AND BRASS COMPONENTS.
2. METER SHALL BE INSTALLED JUST INSIDE THE ROW LINE OR PROPERTY LINE. METER IN NO CASE SHALL IT BE INSTALLED IN THE SIDEWALK OR OTHER PAVED AREAS.
3. DOUBLE CHECK VALVES MAY BE USED AS LONG AS THEIR ARE NO CHEMICALS ON A WELL SITE.
4. A PVB DEVICE SHALL BE 12" INCHES MINIMUM ABOVE HIGHEST OUTLET OR SPRAYHEAD
5. ALL BACKFLOW PREVENTION DEVICES ARE TO BE AWWA APPROVED.

IRRIGATION METER AND DOUBLE CHECK VALVE OR REDUCED PRESSURE BACKFLOW PREVENTER

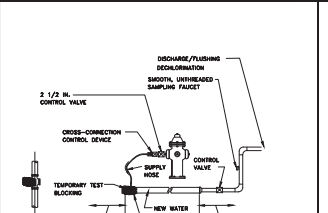
CITY OF APOPKA | DESIGN ENGINEERING DIVISION | JANUARY 2014 | FIG. 502



NOTE:
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MATERIALS, ASSEMBLY, AND THE INSTALLATION OF THE DEVICE.
2. SEE FIGURE 504C FOR PROCEDURES.
3. DCDV IS MINIMUM PROTECTION REQUIRED. A RPZ DEVICE MAY BE REQUIRED DEPENDING ON PROJECT. PROVIDE COPY OF LATEST CERTIFICATION TEST RESULTS.

TEMPORARY JUMPER CONNECTION

CITY OF APOPKA | DESIGN ENGINEERING DIVISION | JANUARY 2014 | FIG. 504 A



NOTE:
1. SEE FIGURE 504C FOR PROCEDURES.

TEMPORARY JUMPER CONNECTION FROM FIRE HYDRANT

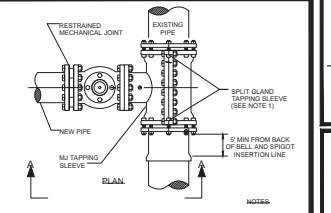
CITY OF APOPKA | DESIGN ENGINEERING DIVISION | JANUARY 2014 | FIG. 504 B

TEMPORARY JUMPER CONNECTION NOTES:

1. A temporary jumper connection is required at all connections between existing active water mains and proposed new water main improvements.
2. Pipes 6IN & and 8IN # to be used for filling and testing new water mains up to 8 inches in diameter. Pipes exceeding water testing and for flushing of new water mains up to 8 inches in diameter (12 IN effluent), valving and for public health protection from contamination of new mains and existing mains. The jumper connection shall also be used to maintain a minimum residual chlorine level in the new water main during the time the new water main is disinfected. Small tapping and/or manhole shall be provided where new mains are to be connected. Pipe and fittings used for constructing the new pipe to the existing pipe shall be disinfected prior to installation in accordance with AWWA C651, 2005 edition. The tapping and subsequent sampling of the new main as required by the FDEP permit.
   - Flushing shall not be attempted during peak demand hours of the existing water system.
   - All downstream valves in the system must be open prior to opening the fire-in valve.
   - Provide for and monitor the pressure in the fire-in point. The pressure in the existing mains must not drop below 20 psi.
   - The fire-in valve shall be opened a few turns only, ensuring a pressure drop across the valve is greater than 20 psi.
C. The fire-in valve shall be locked closed by the City personnel until flushing begins.
D. The fire-in valve shall be closed only for flushing of the new mains. The procedure shall be directed by the City and observed by the engineer.
E. After flushing, the fire-in valve shall be closed and locked in the closed position by the City personnel.
4. The contractor shall provide documentation demonstrating that the double check backflow prevention device has been tested and is in good working order at the time of installation.
5. Except as required in Item 3one of greater than 8 inches in diameter, the fire-in valve shall remain closed and locked in the closed position by the City. The jumper connection shall remain locked closed with the new system test been cleared for use by FDEP and all other pertinent agencies.
6. Upon receipt of clearance for use from FDEP and all other pertinent agencies, the contractor shall remove the jumper connection and the fire-in valve shall be opened and placed in service with a hose bibb gauge.
7. All backflow and maintenance of the temporary jumper assemblies and associated backflow prevention device, fittings, valve, etc. shall be the responsibility of the contractor.

PROCEDURES FOR TEMPORARY JUMPER CONNECTION

CITY OF APOPKA | DESIGN ENGINEERING DIVISION | JANUARY 2014 | FIG. 504 C



1. SIZE ON SIZE WET TAPS WILL CALL FOR FULL ENCIRCLEMENT STAINLESS STEEL MJ TAPPING SLEEVE; MUELLER H-304, OR EQUAL.
2. ALL NEWLY INSTALLED TAPPING SLEEVES & TAPPING VALVES SHALL BE PNEUMATICALLY TESTED AT A TEST PRESSURE OF 150PSI FOR A PERIOD OF THIRTY MINUTES.

WATER AND RECLAIMED WATER MAINS WET TAP TIE-IN DETAIL

CITY OF APOPKA | DESIGN ENGINEERING DIVISION | JANUARY 2014 | FIG. 406

Hossein G Tehrani
Digitally signed by Hossein G Tehrani
DN: c=US, o=Unaffiliated, ou=Qualifier=A01410C0000018E38ASCEBC00040F12, cn=Hossein G Tehrani
Date: 2025.11.02 21:32:24 -05'00'

ENGINEER OF RECORD

TEHRANI CONSULTANT ENGINEERING LLC
622 Peachwood Drive
Altamonte Springs, FL 32714
Ph. (407) 948-0811
EMAIL:
tehraniconsultingengineering@gmail.com

THESE DOCUMENTS AND THEIR CONTENTS ARE THE PROPERTY OF TEHRANI CONSULTANT ENGINEERING LLC AND ANY REPRODUCTIONS, REVISIONS, MODIFICATIONS OR USE OF THESE DOCUMENTS WITHOUT THE EXPRESSED WRITTEN CONSENT OF TEHRANI CONSULTANT ENGINEERING LLC, INC IS PROHIBITED BY LAW.

HOSSEIN G. TEHRANI LICENSE No. 48235 STATE OF FLORIDA PROFESSIONAL ENGINEER

State of Florida Seal

1. THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY, HOSSEIN G. TEHRANI, PE, ON THE DATE AND /OR THE STAMP SHOWN USING A DIGITAL SIGNATURE.
2. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPY.

Revisions/Comments:

Cadd File Information
Cadd File:
Scale: AS NOTED

Drawing Information
Drawn by: STJ
Checked by: ALT
Approved by: ALT
Date: 9-12-24

Job Number#
0926-2023

Project Name and Location:
A NEW SITE PLAN FOR:
429 WEST ORANGE BLOSSOM TRAIL APOPKA, FL

Sheet Title
UTILITY DETAILS

APPROVED BY

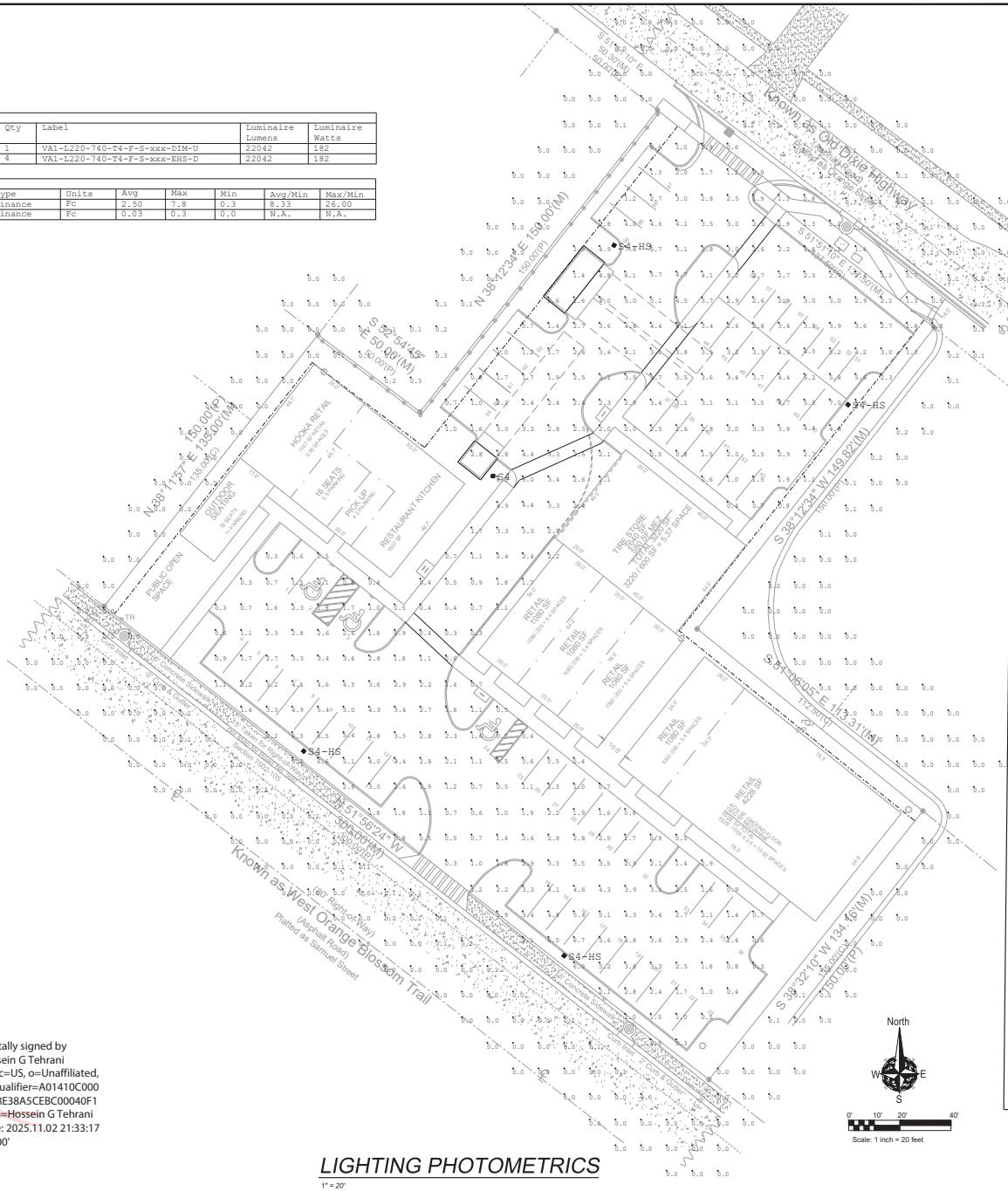
ALI TEHRANI, P.E.
FLORIDA P.E. LICENSE NO.48235
State of Florida Seal

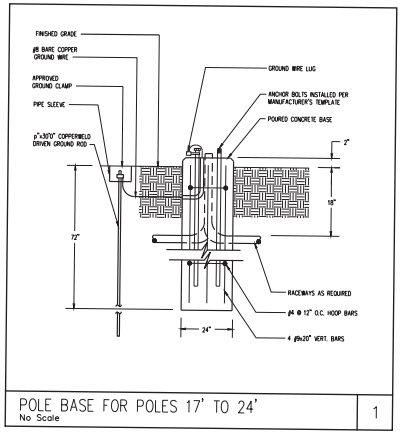
Drawing Number
C16

Sheet:18 Of:

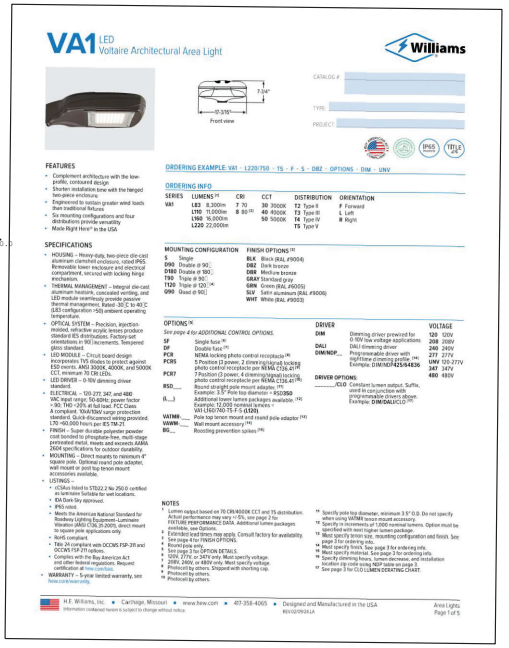
Luminaire Schedule					
Symbol	Tag	Qty	Label	Luminaire Lumens	Luminaire Watts
	S4	1	VA1-L220-740-T4-F-S-xxx-DIM-U	22042	182
	S4-HS	4	VA1-L220-740-T4-F-S-xxx-EHS-D	22042	182

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
PARKING	Illuminance	Fc	2.50	7.8	0.3	8.33	26.00
PERIMETER	Illuminance	Fc	0.03	0.3	0.0	N.A.	N.A.





POLE BASE FOR POLES 17' TO 24'
No Scale
1



LIGHTING PHOTOMETRICS
1" = 20'

Hossein G Tehrani
Digitally signed by Hossein G Tehrani
DN: c=US, o=Unaffiliated, dnQualifier=A01410C0000018E38A5CEBC00040F12, cn=Hossein G Tehrani
Date: 2025.11.02 21:33:17 -05'00'

ENGINEER OF RECORD

TEHRANI CONSULTANT ENGINEERING LLC
622 Peachwood Drive
Altamonte Springs, FL 32714
Ph. (407) 948-0811
EMAIL: tehraniconsultingengineering@gmail.com

THESE DOCUMENTS AND THEIR CONTENTS ARE THE PROPERTY OF TEHRANI CONSULTANT ENGINEERING LLC. INC AND SHALL NOT BE USED IN WHOLE OR IN PART. ANY USE OF THESE DOCUMENTS WITHOUT THE EXPRESSED WRITTEN CONSENT OF TEHRANI CONSULTANT ENGINEERING LLC, INC IS PROHIBITED BY LAW.

HOSSEIN G. TEHRANI LICENSE No. 48235 STATE OF FLORIDA PROFESSIONAL ENGINEER

State of Florida Seal

1. THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY HOSSEIN G. TEHRANI, P.E. ON THE DATE ADJACENT TO THE STAMP SHOWN USING A DIGITAL SIGNATURE.
2. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPY.

Revisions/Comments:
1. BUILDING PARKING ADJUST

Cadd File Information
Cadd File:
Scale: AS NOTED

Drawing Information
Drawn by: STJ
Checked by: ALT
Approved by: ALT
Date: 9-12-24

Job Number
0926-2023

Project Name and Location:
A NEW SITE PLAN FOR:
429 WEST ORANGE BLOSSOM TRAIL
APOPKA, FL

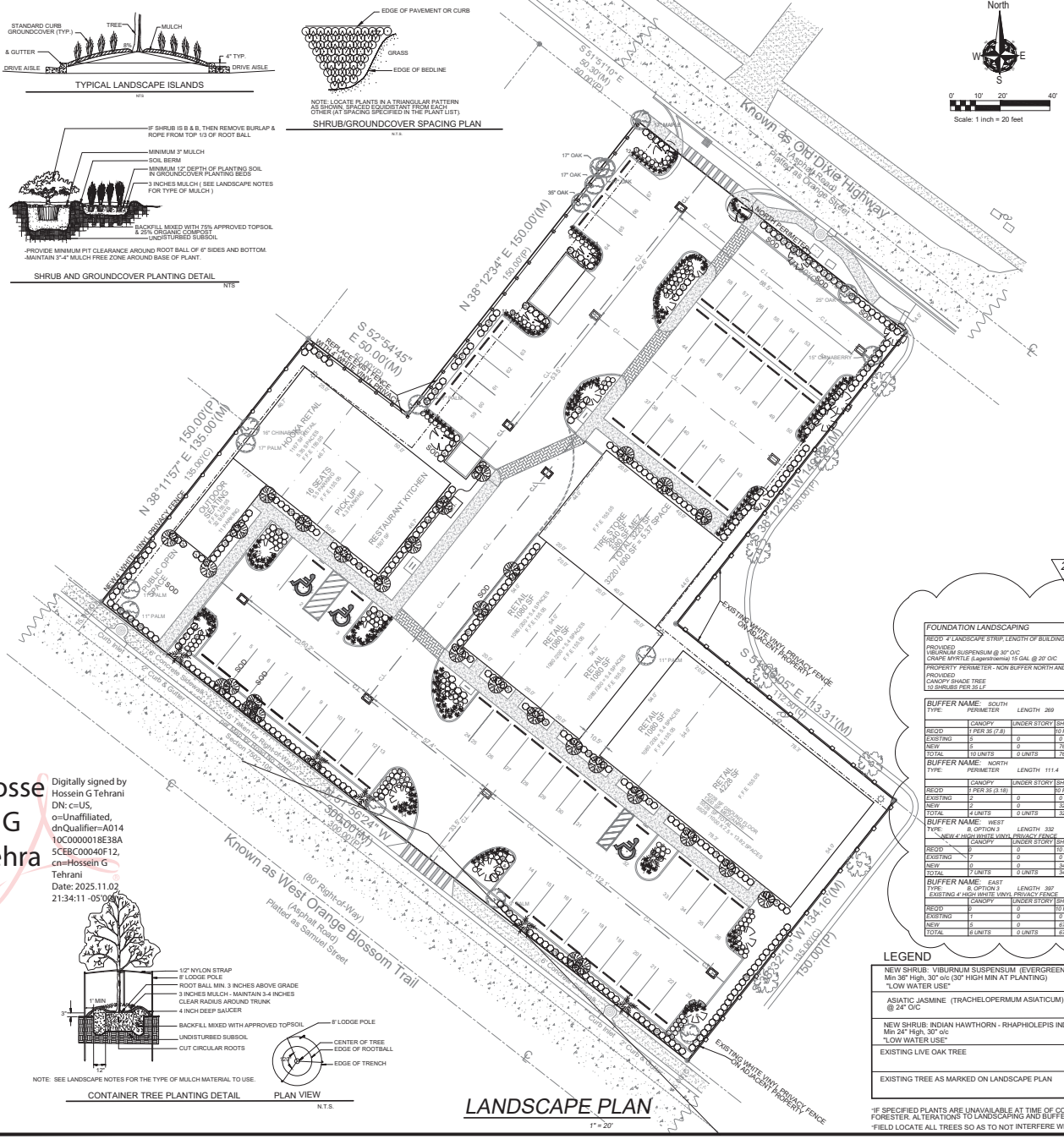
Sheet Title
LIGHTING PHOTOMETRICS

APPROVED BY

ALI TEHRANI, P.E.
FLORIDA P.E. LICENSE NO.48235
State of Florida Seal

Drawing Number
E1

Sheet: 9 Of:



LANDSCAPE NOTES:

1. THE LANDSCAPE CONTRACTOR SHALL REVIEW ARCHITECTURAL/ENGINEERING PLANS AND BECOME THOROUGHLY FAMILIAR WITH SURFACE AND SUBSURFACE UTILITIES.
2. THE WORK SHALL BE COORDINATED WITH OTHER TRADES TO PREVENT CONFLICTS. COORDINATE THE PLANTING WITH THE IRRIGATION WORK TO ASSURE AVAILABILITY AND PROPER LOCATION OF IRRIGATION ITEMS AND PLANTS.
3. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MATERIALS AND ALL WORK AS CALLED FOR ON THE LANDSCAPE PLANS AND IN THE LANDSCAPE SPECIFICATIONS. IN THE EVENT OF VARIATION BETWEEN QUANTITIES SHOWN ON PLANT LIST AND THE PLANS, THE PLANS SHALL CONTROL. THE LANDSCAPE CONTRACTOR SHALL VERIFY ALL QUANTITIES AND REPORT ANY DISCREPANCIES AT THE TIME OF BIDDING.
4. EXCEPT AS OTHERWISE SPECIFIED, THE LANDSCAPE CONTRACTOR'S WORK SHALL CONFORM TO ACCEPTED HORTICULTURAL PRACTICES AS USED IN THE TRADE.
5. EVERY POSSIBLE SAFEGUARD SHALL BE TAKEN TO PROTECT BUILDING SURFACES, EQUIPMENT AND FURNISHINGS. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE OR INJURY TO PERSON OR PROPERTY WHICH MAY OCCUR AS A RESULT OF NEGLIGENCE IN THE EXECUTION OF THE WORK.
6. ALL PLANTING SHALL BE PERFORMED BY PERSONNEL FAMILIAR WITH PLANTING PROCEDURE AND UNDER THE SUPERVISION OF A QUALIFIED PLANTING FOREMAN.
7. ALL PLANT MATERIAL SHALL BE GRADED FLORIDA NO. 1 OR BETTER AS OUTLINED UNDER GRADES AND STANDARDS FOR NURSERY PLANTS, PART I AND II, PUBLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES OR TO THE STANDARDS AS GIVEN IN THE LATEST "AMERICAN STANDARD FOR NURSERY STOCK," AMERICAN NATIONAL STANDARDS INSTITUTE.
8. THE MINIMUM ACCEPTABLE SIZE OF ALL PLANTS, MEASURED AFTER PRUNING, WITH BRANCHES IN NORMAL POSITIONS, SHALL CONFORM TO THE MEASUREMENTS SPECIFIED ON THE PLANT LIST OR AS INDICATED ON THE LANDSCAPE DRAWING. HEIGHT AND SPREAD DIMENSIONS REFER TO MAIN BODY OF THE PLANT AND NOT EXTREME BRANCH TIP TO TIP. THE CALIPER OF TREE TRUNKS IS TO BE TAKEN 6" INCHES ABOVE THE ROOT BALL.
9. THE LANDSCAPE ARCHITECT OR OWNER SHALL HAVE THE RIGHT, AT ANY STAGE OF THE OPERATIONS, TO REJECT ANY AND ALL WORK AND MATERIALS WHICH, IN HIS OPINION, DO NOT MEET WITH THE REQUIREMENTS OF THESE SPECIFICATIONS.
10. PLANTS SHALL BE PROTECTED UPON ARRIVAL AT THE SITE, BY BEING THOROUGHLY WATERED AND PROPERLY MAINTAINED UNTIL PLANTED.
11. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER WATERING OF ALL PLANTS. ALL PLANTS SHALL BE THOROUGHLY WATERED AT TIME OF PLANTING AND KEPT ADEQUIATELY WATERED UNTIL TIME OF ACCEPTANCE. IT SHALL BE THE LANDSCAPE CONTRACTOR'S RESPONSIBILITY TO ASSURE THAT PLANTS ARE NOT OVER WATERED.
12. IT SHALL BE THE LANDSCAPE CONTRACTOR'S RESPONSIBILITY TO PREVENT PLANTS FROM FALLING OR BEING BLOWN OVER, TO RESTRAIGHTEN AND REPLANT ALL PLANTS WHICH LEAN OR FALL AND TO REPLACE ALL PLANTS WHICH ARE DAMAGED DUE TO LACK OF PROPER GUYING OR STAKING. THE LANDSCAPE CONTRACTOR SHALL BE LEGALLY LIABLE FOR ANY DAMAGE CAUSED BY INSTABILITY OF ANY PLANT MATERIAL.
13. ALL TREES AND ALL PALMS SHALL BE GUYED OR STAKED OR BRACED. THE LANDSCAPE CONTRACTOR SHALL DETERMINE WHICH SMALL OR MULTI-TRUNK TREES NEED TO BE GUYED AND STAKED TO MAINTAIN PLUMB. STAKING OF TREES AND SHRUBS, IF REQUIRED, SHALL BE DONE AS PER STAKING AND GUYING DETAIL PREPARED BY THE LANDSCAPE ARCHITECT. IT SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR TO REMOVE GUYS AND STAKES FROM THE TREES & JOB SITE AFTER A PERIOD OF 1 YEAR.
14. PLANTS BLOWN OVER BY HIGH WINDS, WITHIN THE GUARANTEED PERIOD, SHALL NOT BE CAUSE FOR ADDITIONAL EXPENSE TO THE OWNER, BUT SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR. DAMAGED PLANTS SHALL BE REPLACED BY THE LANDSCAPE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
15. THE LANDSCAPE CONTRACTOR SHALL PRUNE, SHAPE AND REMOVE DEAD FOLIAGE/LIMBS FROM EXISTING PLANT MATERIAL TO REMAIN. CONFIRM WITH THE LANDSCAPE ARCHITECT OR OWNER THE EXTENT OF WORK REQUIRED AT TIME OF BIDDING.
16. SOD SHALL BE CERTIFIED TO BE FREE OF THE IMPORTED FIRE ANT. SOD SHALL HAVE A CLEAN GROWTH OF ACCEPTABLE GRASS, REASONABLY FREE OF WEEDS WITH NOT LESS THAN 1 1/2" OF SOIL FIRMLY ADHERING TO ROOTS. IT SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR TO MEASURE AND DETERMINE THE EXACT AMOUNT REQUIRED. THIS AMOUNT SHALL BE VERIFIED WITH THE OWNER OR LANDSCAPE ARCHITECT BEFORE INSTALLATION.
17. ALL PLANT BEDS SHALL BE TOP DRESSED WITH A MINIMUM OF 2" SHREDDED ORGANIC MULCH (OR APPROVED EQUAL). INSTALL A THREE IN DEEP LAYER OF MULCH TO AT LEAST AN EIGHT FOOT DIAMETER AROUND EACH PLANTED TREE. A THREE INCH LAYER OF MULCH SHOULD BE MAINTAINED AT LEAST ONE FOOT OF DIAMETER OR EACH INCH OF DIAMETER FOR EXISTING TREES. MULCH SHOULD NOT BE PLACED DIRECTLY ON THE ROOT BALL FOR PLANTED TREES OR WITHIN12" OF THE TRUNK FOR EXISTING TREES. MULCH LESS THAN 1" THICK MAY BE PLACED AROUND THE TRUNKS OF EXISTING TREES FOR AESTHETICS, IF REQUIRED.
18. THE LANDSCAPE CONTRACTOR SHALL INSURE THAT HIS WORK DOES NOT INTERRUPT ESTABLISHED OR PROJECTED DRAINAGE PATTERNS.
19. THE LANDSCAPE CONTRACTOR SHALL INSURE ADEQUATE VERTICAL DRAINAGE IN ALL PLANT BEDS, PLANTERS, AND SOD AREAS. VERTICAL DRILLING THROUGH ANY COMPACTED FILL TO NATIVE SOIL SHALL BE ACCOMPLISHED TO INSURE DRAINAGE.
IF WELL DRAINED FILL IS NECESSARY TO ASSURE POSITIVE DRAINAGE, THIS ISSUE SHALL BE BROUGHT UP BY THE LANDSCAPE CONTRACTOR AT TIME OF BIDDING.
20. ALL TREE PITS SHALL BE EXCAVATED TO SIZE AND DEPTH IN ACCORDANCE WITH THE USDA STANDARD FOR NURSERY STOCK 260.1, UNLESS SHOWN OTHERWISE ON THE DRAWINGS, AND BACKFILLED WITH THE SPECIFIED PLANTING SOIL. THE LANDSCAPE CONTRACTOR SHALL TEST FILL ALL TREE PITS WITH WATER BEFORE PLANTING TO ASSURE PROPER DRAINAGE PERCOLATION IS AVAILABLE.
21. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING AND EVALUATING WHICH PLANT MATERIALS ARE SUITABLE FOR TRANSPLANTING AND SHALL VERIFY THIS WITH THE LANDSCAPE ARCHITECT OR OWNER. THE LANDSCAPE CONTRACTOR SHALL TAKE ALL REASONABLE, HORTICULTURALLY ACCEPTABLE MEASURES TO ASSURE THE SUCCESSFUL TRANSPLANTING OF DETERMINISTIC PLANT MATERIALS. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ANY RELOCATED PLANT MATERIALS WHICH DIE IF SUCH MEASURES ARE NOT TAKEN, AS DETERMINED BY THE LANDSCAPE ARCHITECT OR OWNER. REPLACEMENT PLANTS SHALL BE IDENTICAL SPECIES AND SIZE IF REQUIRED.
22. A MAINTENANCE SHALL COMMENCE AFTER EACH PLANT IS PLANTED AND THE MAINTENANCE PERIOD SHALL CONTINUE UNTIL THE JOB OR SPECIFIC PHASE OF THE JOB IS ACCEPTED BY THE LANDSCAPE ARCHITECT OR OWNER. EXTREME CARE SHALL BE TAKEN TO INSTRUCT THE OWNER OR HIS REPRESENTATIVES IN GENERAL MAINTENANCE PROCEDURES.
23. PLANT MAINTENANCE SHALL INCLUDE WATERING, PRUNING, WEEDING, CULTIVATING, MULCHING, TIGHTENING, AND REPAIRING OF GUYS, REPLACEMENT OF SICK OR DEAD PLANTS, RESETTING PLANTS TO PROPER GRADES OR UPRIGHT POSITIONS AND RESTORATION OF THE PLANTING SAUCER AND ALL OTHER CARE NEEDED FOR PROPER GROWTH OF THE PLANTS.
24. DURING THE MAINTENANCE PERIOD AND UP TO THE DATE OF FINAL ACCEPTANCE, THE LANDSCAPE CONTRACTOR SHALL DO ALL SEASONAL SPRAYING AND/OR DUSTING OF TREES AND SHRUBS. UPON COMPLETION OF ALL PLANTING AN INSPECTION FOR ACCEPTANCE OF WORK WILL BE HELD. THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT OR OWNER FOR SCHEDULING OF THE INSPECTION 10 DAYS PRIOR TO THE ANTICIPATED DATE. AT THE TIME OF THE INSPECTION, IF ALL OF THE MATERIALS ARE ACCEPTABLE, A WRITTEN NOTICE WILL BE GIVEN BY THE LANDSCAPE ARCHITECT OR OWNER TO THE LANDSCAPE CONTRACTOR STATING THE DATE WHEN THE MAINTENANCE PERIOD ENDS.
25. AT THE END OF THE GUARANTEE PERIOD, ANY PLANT REQUIRED UNDER THIS CONTRACT THAT IS DEAD OR NOT IN SATISFACTORY GROWTH, AS DETERMINED BY THE OWNER OR THE LANDSCAPE ARCHITECT, SHALL BE REMOVED AND REPLACED. REPLACEMENT PLANTS SHALL HAVE AN EXTENDED GUARANTEE, AS NOTED ABOVE, FROM TIME OF REPLACEMENT. ALL REPLACEMENTS SHALL BE PLANTED OF THE SAME KIND AND SIZE AS SPECIFIED ON THE PLANT LIST. THEY SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR.
26. ALL PLANT MATERIALS SHALL BE GUARANTEED FOR ONE (1) YEAR FROM THE TIME OF FINAL INSPECTION AND INTERIM ACCEPTANCE SHALL BE ALIVE AND IN SATISFACTORY GROWTH FOR EACH SPECIFIC KIND OF PLANT AT THE END OF THE GUARANTEED PERIOD.
27. TOPSOIL SHALL BE ASTM D 5268, NATURAL, FRIABLE, FERTILE, FINE LOAMY SOIL POSSESSING CHARACTERISTICS OF REPRESENTATIVE TOPSOIL IN THE VICINITY THAT PRODUCES HEAVY GROWTH. TOPSOIL SHALL HAVE A PH RANGE OF 5.5 TO 7.4 PERCENT, FREE FROM SUBSOIL, OBJECTIONABLE WEEDS, UTTER, SODS, STIFF CLAY, STONES LARGER THAN 1-INCH IN DIAMETER, STUMPS, ROOTS, TRASH, TOXIC SUBSTANCES, OR ANY OTHER MATERIAL WHICH MAY BE HARMFUL TO PLANT GROWTH OR HINDER PLANTING OPERATIONS. TOP SOIL SHALL CONTAIN A MINIMUM OF THREE PERCENT ORGANIC MATERIAL.

FOUNDATION LANDSCAPING

REQ'D: 4' LANDSCAPE STRIP, LENGTH OF BUILDING
PROVIDED
VIBURNUM SUSPENSUM @ 30" O/C
CRAPE MYRTLE (Lagerstroemia) 15 GAL @ 20' O/C

PROPERTY PERIMETER - NON BUFFER NORTH AND SOUTH
PROVIDED
CANOPY SHADE TREE
10 SHRUBS PER 35 LF

BUFFER NAME: SOUTH	TYPE: PERIMETER	LENGTH 269	
	CANOPY	UNDER STORY	SHRUBS
REQ'D	1 PER 35 (7.6)		10 PER 35' (77)
EXISTING	5	0	0
NEW	5	0	76
TOTAL	10 UNITS	0 UNITS	76 UNITS

BUFFER NAME: NORTH	TYPE: PERIMETER	LENGTH 111.4	
	CANOPY	UNDER STORY	SHRUBS
REQ'D	1 PER 35 (3.18)		10 PER 35' (31.83)
EXISTING	2	0	0
NEW	2	0	32
TOTAL	4 UNITS	0 UNITS	32 UNITS

BUFFER NAME: WEST	TYPE: B, OPTION 3	LENGTH 332	
NEW 4' HIGH WHITE VINYL PRIVACY FENCE			
	CANOPY	UNDER STORY	SHRUBS
REQ'D	7	0	10 PER 100' (34)
EXISTING	7	0	0
NEW	0	0	34
TOTAL	7 UNITS	0 UNITS	34 UNITS

BUFFER NAME: EAST	TYPE: B, OPTION 3	LENGTH 397	
EXISTING 4' HIGH WHITE VINYL PRIVACY FENCE			
	CANOPY	UNDER STORY	SHRUBS
REQ'D	9	0	10 PER 100' (34)
EXISTING	1	0	0
NEW	5	0	67
TOTAL	6 UNITS	0 UNITS	67 UNITS

LEGEND

NEW SHRUB: VIBURNUM SUSPENSUM (EVERGREEN) Min 36" High, 30" o/c (30" HIGH MIN AT PLANTING) "LOW WATER USE"	QUANTITY: 407		CRAPE MYRTLE (Lagerstroemia) Min 3" in Caliper, 12' High (min 15 gallon container) "MODERATE WATER USE"	QUANTITY: 29	
ASIATIC JASMINE (TRACHELOPERMUM ASIATICUM) @ 24" O/C	QUANTITY: 158		PALM, WASHINGTON (WASHINGTONIA ROBUSTA) 9'-16" TRUNK LOW WATER USE	QUANTITY: 6	
NEW SHRUB: INDIAN HAWTHORN - RHAPHIOLEPIS INDICA Min 24" High, 30" o/c "LOW WATER USE"	QUANTITY: 212		SOUTHERN MAGNOLIA (MAGNOLIA GRANDIFLORA) 3" CALIPER, 8' HIGH "LOW WATER USE"	QUANTITY: 16	
EXISTING LIVE OAK TREE			BOTTLE BRUSH (CALLISTEMON CITRINUS) 3" CALIPER, 8' HIGH	QUANTITY: 5	
EXISTING TREE AS MARKED ON LANDSCAPE PLAN			SPARE		

*IF SPECIFIED PLANTS ARE UNAVAILABLE AT TIME OF CONSTRUCTION, CONTRACTOR MAY REPLACE SPECIFIED PLANTS WITH PLANTS APPROVED BY LANDSCAPE ARCHITECT AND CITY FORESTER. ALTERATIONS TO LANDSCAPING AND BUFFERS REQUIRE THE WRITTEN PERMISSION OF CITY OF APOPKA
*FIELD LOCATE ALL TREES SO AS TO NOT INTERFERE WITH ANY EXISTING AND/OR PROPOSED UTILITIES.

Hossein G Tehrani

Digitally signed by Hossein G Tehrani
DN: c=US, o=Unaffiliated, dnQualifier=A01410C0000018E38A5CEBC00040F12, cn=Hossein G Tehrani
Date: 2025.11.02 21:34:11 -05'00'

ENGINEER OF RECORD

TEHRANI CONSULTANT ENGINEERING LLC
622 Peachwood Drive
Altamonte Springs, FL 32714
Ph. (407) 948-0811
EMAIL:
tehraniconsultingengineering@gmail.com

THESE DOCUMENTS AND THEIR CONTENTS ARE THE PROPERTY OF TEHRANI CONSULTANT ENGINEERING LLC. ANY UNAUTHORIZED REUSE, REDISTRIBUTION OR USE OF THESE DOCUMENTS WITHOUT THE EXPRESSED WRITTEN CONSENT OF TEHRANI CONSULTANT ENGINEERING LLC, INC IS PROHIBITED BY LAW.

HOSSEIN G. TEHRANI LICENSE No. 48235 STATE OF FLORIDA PROFESSIONAL ENGINEER

State of Florida Seal

1. THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY HOSSEIN G. TEHRANI, PE ON THE DATE AND FOR THE STAMP SHOWN USING A DIGITAL SIGNATURE.
2. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPY.

Revisions/Comments:
1. BUILDING /PARKING ADJUST
2. LANDSCAPE REQUIREMENT TABLES

Cadd File Information
Cadd File:
Scale: AS NOTED

Drawing Information
Drawn by: STJ
Checked by: ALT
Approved by: ALT
Date: 9-12-24

Job Number#
0926-2023

Project Name and Location:
A NEW SITE PLAN FOR:
429 WEST ORANGE BLOSSOM TRAIL APOPKA, FL

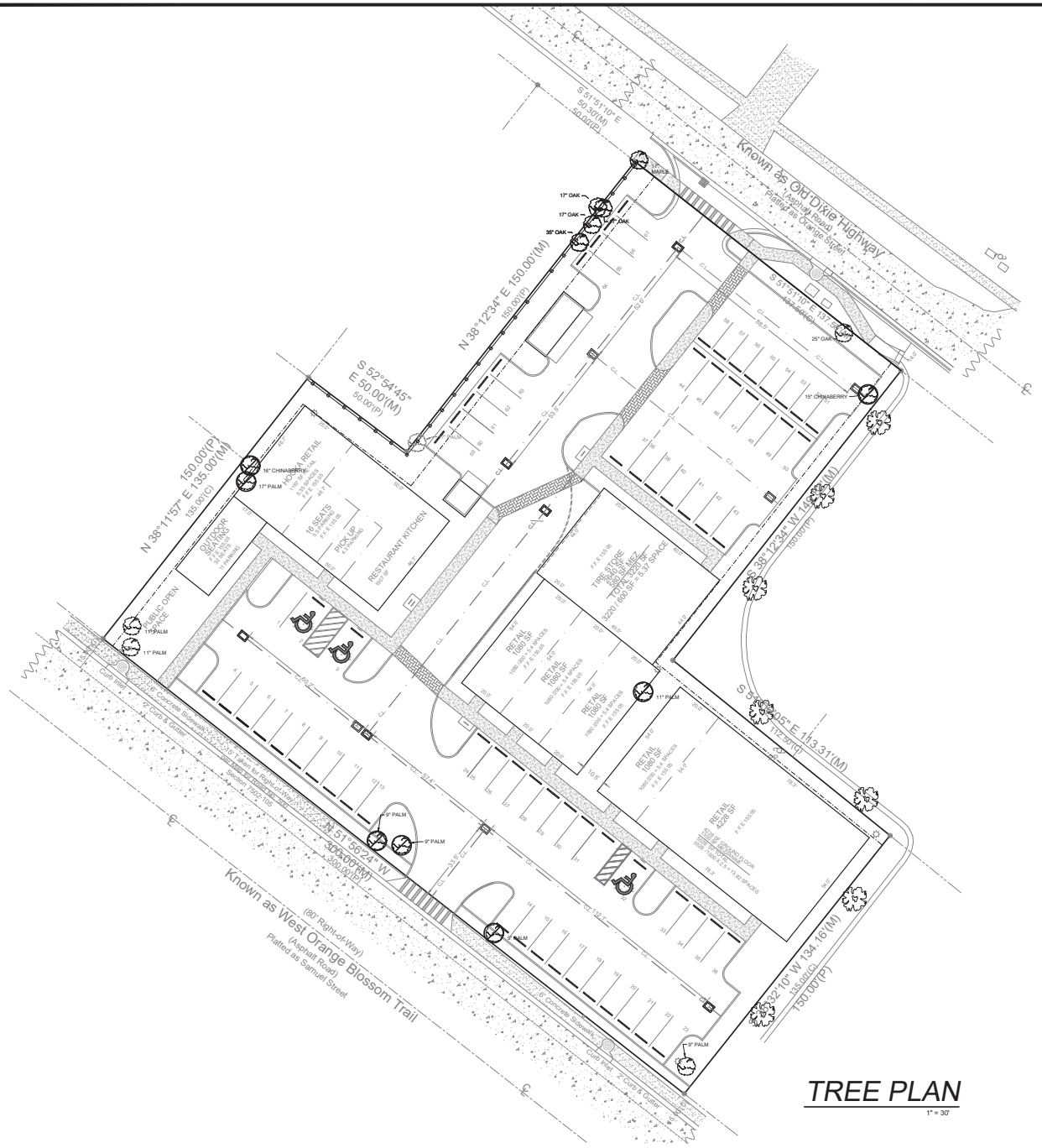
Sheet Title
LANDSCAPE PLAN

APPROVED BY

ALI TEHRANI, P.E.
FLORIDA P.E. LICENSE NO.48235
State of Florida Seal

Drawing Number
L1

Sheet: 19 Of:

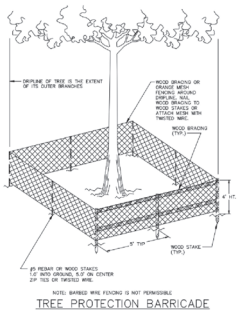


TREE PLAN

1" = 30'

Hossein G Tehrani

Digitally signed by Hossein G Tehrani
DN: c=US, o=Unaffiliated, dnQualifier=A01410C0000018E38A5CEBC00040F12, cn=Hossein G Tehrani
Date: 2025.11.02 21:35:18 -05'00'



TREE PROTECTION BARRICADE

TREES TO REMAIN

	TREE TO BE REMOVED		TL
1	OAK	35" DBH	35" DBH
1	OAK	25" DBH	25" DBH
2	OAK	17" DBH	34" DBH
1	CHINABERRY	15" DBH	15" DBH
2	PALM	11" DBH	22" DBH
1	PALM	9" DBH	9" DBH
		CUMULATIVE	140" DBH

TREES TO BE REMOVED

	TREE TO BE REMOVED		TL
1	CHINABERRY	16" DBH	16" DBH
1	PALM	17" DBH	17" DBH
1	PALM	11" DBH	11" DBH
3	PALM	9" DBH	27" DBH
		CUMULATIVE	71" DBH

PROPOSED/ADDED TREES

	TREE TO BE REMOVED		TL
11	CRAPE MYRTLE	3" DBH	33" DBH
6	PALM, WASHINGTON	9" DBH	54" DBH
9	SOUTHERN MAGNOLIA	4" DBH	36" DBH
6	BOTTLE BRUSH	4" DBH	24" DBH
		CUMULATIVE	147" DBH

ENGINEER OF RECORD

TEHRANI CONSULTANT ENGINEERING LLC
622 Peachwood Drive
Altamonte Springs, FL 32714
Ph. (407) 948-0811
EMAIL: tehraniconsultingengineering@gmail.com

THESE DOCUMENTS AND THEIR CONTENTS ARE THE PROPERTY OF TEHRANI CONSULTANT ENGINEERING LLC AND ANY REPRODUCTIONS, REVISIONS, MODIFICATIONS OR USE OF THESE DOCUMENTS WITHOUT THE EXPRESSED WRITTEN CONSENT OF TEHRANI CONSULTANT ENGINEERING LLC, INC IS PROHIBITED BY LAW

HOSSEIN G. TEHRANI LICENSE No. 48235 STATE OF FLORIDA PROFESSIONAL ENGINEER

State of Florida Seal

1. THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY: HOSSEIN G. TEHRANI, PE, ON THE DATE AND /OR TIME STAMP SHOWN USING A DIGITAL SIGNATURE.
2. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPY.

Revisions/Comments:
1. BUILDING /PARKING ADJUST

Cadd File Information
Cadd File:
Scale: AS NOTED

Drawing Information
Drawn by: STJ
Checked by: ALT
Approved by: ALT
Date: 9-12-24

Job Number#
0926-2023

Project Name and Location:
A NEW SITE PLAN FOR:
429 WEST ORANGE BLOSSOM TRAIL APOPKA, FL

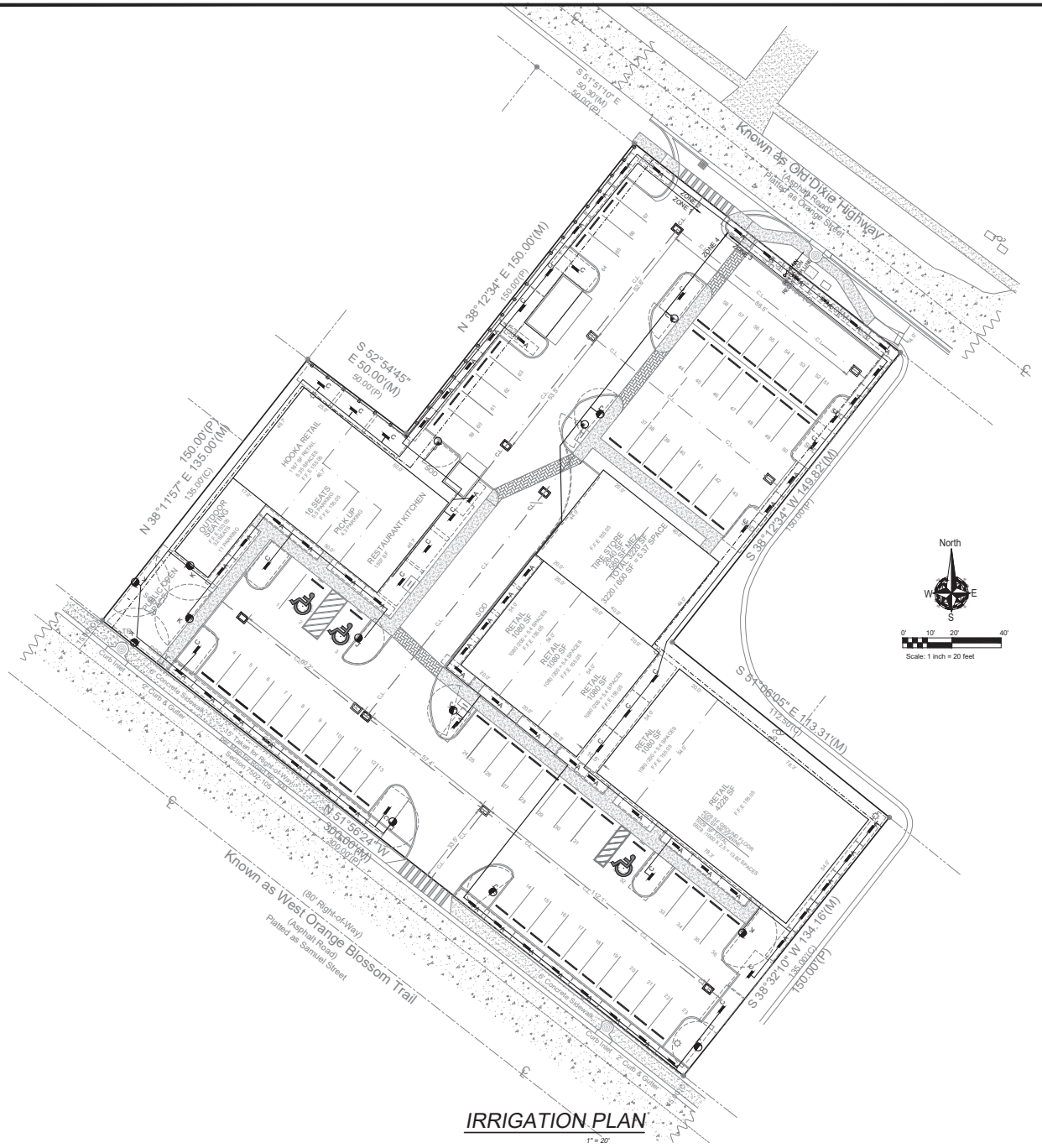
Sheet Title
TREE PLAN

APPROVED BY

ALI TEHRANI, P.E.
FLORIDA P.E. LICENSE NO.48235
State of Florida Seal

Drawing Number
L2

Sheet:20 Of:



IRRIGATION PLAN

1" = 20'

GENERAL IRRIGATION NOTES

1. THE LANDSCAPE AND IRRIGATION PLAN IS FOR CITY REVIEW PURPOSES ONLY.
2. IRRIGATION TRENCHING SHALL NOT BE ALLOWED WITHIN 10' OF EXISTING TREES. TUNNELING SHALL BE USED IF IT IS NECESSARY TO RUN LINE TO AN EXISTING TREE. RADIAL LINES SHALL BE UTILIZED WHEN HEAD MUST BE PLACED WITHIN DRIP LINE OF A TREE. REFER TO LANDSCAPE PLAN WHEN TRENCHING TO LAY PIPE TO AVOID TREES.
3. ALL IRRIGATION CONTROL WIRES SHALL BE UF-14/1 DIRECT BURIAL CABLE. ALL WIRE SPLICES SHALL BE MADE IN VALVE BOXES USING RAIN-BIRD SNAP-TITE CONNECTORS AND SEALANT.
4. ALL PVC MAIN LINE PIPING SHALL BE BURIED TO A MINIMUM DEPTH OF 18". ALL LATERAL PIPING SHALL BE BURIED TO A MINIMUM DEPTH OF 14"
5. PIPING TO A SINGLE SPRAY SHALL BE 1/2" PVC CL-315 PIPING.
6. PIPING UNDER PAVED AREAS OVER 5' SHALL BE SLEEVED WITH A 2 SIZE LARGER PIPE.
7. PROVIDE NEW 115 VOLT-SINGLE PHASE ELECTRICAL POWER FOR THE IRRIGATION CONTROLLER
8. THE FLOW CONTROL ON THE ELECTRIC VALVE CONTROLLING THE SPRAY HEAD ZONE SHALL BE ADJUSTED TO MAINTAIN A DOWNSTREAM PRESSURE FROM THE VALVE TO 50 PSI.
9. A NOTARIZED AND SIGNED LETTER MUST STATE THAT LANDSCAPING IS INSTALLED PER PLAN & FUNCTIONING AS INTENDED.

SPRINKLER HEADS

SYM.	MODEL NO.	GPM	RADIUS
A	570-4EST	.45	4'X15'
B	570-4SST	.90	4'X30'
C	570-9SST	1.43	9'X18'
D	570-5F	.4	5'
E	570-8F	1.00	8'
F	570-10F	1.50	10'
G	570-12F	2.20	12'
H	570-15F	3.60	15'
J	316-00-02	2.90	21'
K	316-00-63	2.72	28'
L	S600-FC-2.5	2.60	40'
	254-06-04	1" VALVES	

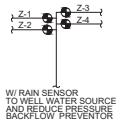
NOTE: MODEL NUMBERS REFLECT TORO SPRINKLER HEADS. ANY HEADS OF EQUAL QUALITY MAY BE USED WITH THE APPROVAL OF THE OWNER

ZONE 1:
(13) NOZZLE "A" @ 0.45 GPM = 5.85 GPM
(5) NOZZLE "C" @ 1.43 GPM = 7.15 GPM
(2) NOZZLE "J" @ 1.45 GPM = 2.50 GPM
(4) NOZZLE "K" @ 1.36 GPM = 5.44 GPM
TOTAL = 20.94 GPM

ZONE 2:
(16) NOZZLE "A" @ 0.45 GPM = 7.2 GPM
(6) NOZZLE "C" @ 1.43 GPM = 8.58 GPM
(1) NOZZLE "J" @ 1.45 GPM = 1.45 GPM
TOTAL = 17.23 GPM

ZONE 3:
(13) NOZZLE "A" @ 0.45 GPM = 5.85 GPM
(9) NOZZLE "C" @ 1.43 GPM = 12.87 GPM
(1) NOZZLE "K" @ 1.36 GPM = 1.36 GPM
TOTAL = 20.08 GPM

ZONE 4:
(19) NOZZLE "A" @ 0.45 GPM = 8.55 GPM
(1) NOZZLE "C" @ 1.43 GPM = 1.43 GPM
(6) NOZZLE "J" @ 1.45 GPM = 8.70 GPM
TOTAL = 18.68 GPM



W/ RAIN SENSOR
TO WELL WATER SOURCE
AND REDUCE PRESSURE
BACKFLOW PREVENTOR

Hossein G Tehrani

Digitally signed by Hossein G Tehrani
DN: c=US, o=Unaffiliated, dnQualifier=A01410C0000018E38A5CEBC00040F12, cn=Hossein G Tehrani
Date: 2025.11.02 21:36:11 -05'00'

ENGINEER OF RECORD

TEHRANI CONSULTANT ENGINEERING LLC
622 Peachwood Drive
Altamonte Springs, FL 32714
Ph. (407) 948-0811
EMAIL:
tehraniconsultingengineering@gmail.com

THESE DOCUMENTS AND THEIR CONTENTS ARE THE PROPERTY OF TEHRANI CONSULTANT ENGINEERING, LLC AND ANY REPRODUCTION, REUSING, MODIFICATIONS OR USE OF THESE DOCUMENTS WITHOUT THE EXPRESSED WRITTEN CONSENT OF TEHRANI CONSULTANT ENGINEERING LLC, INC IS PROHIBITED BY LAW.

HOSSEIN G. TEHRANI
LICENSE
No. 48235
STATE OF FLORIDA
PROFESSIONAL ENGINEER

State of Florida Seal

1. THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY, HOSSEIN G. TEHRANI, PE. ON THE DATE AND /OR TIME STAMP SHOWN USING A DIGITAL SIGNATURE.
2. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPY.

Revisions/Comments:
1. BUILDING /PARKING ADJUST

Cadd File Information
Cadd File:
Scale: AS NOTED

Drawing Information
Drawn by: STJ
Checked by: ALT
Approved by: ALT
Date: 9-12-24

Job Number#
0926-2023

Project Name and Location:
A NEW SITE PLAN FOR:
429 WEST ORANGE BLOSSOM TRAIL
APOPKA, FL

Sheet Title
IRRIGATION PLAN

APPROVED BY

ALI TEHRANI, P.E.
FLORIDA P.E. LICENSE NO.48235
State of Florida Seal

Drawing Number
L3

Sheet:21 Of:

MAJOR DEVELOPMENT PLANS

FOR

WOLF LAKE RANCH (PHASE 3)

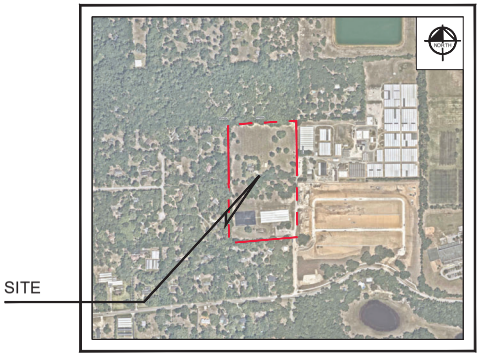
PARCEL #:
19-20-28-0000-00-019;
19-20-28-0000-00-035

CITY OF APOPKA, FLORIDA

October 16, 2025

SOILS MAP
N.T.S.

4 - CANDLER FINE SAND, 0 TO 5 PERCENT SLOPE
5 - CANDLER FINE SAND, 5 TO 25 PERCENT SLOPE



AERIAL PHOTOGRAPH
N.T.S.

LEGAL DESCRIPTION:

LEGAL DESCRIPTION: COMMITMENT NO. 110543764

THE SOUTHEAST ¼ OF THE NORTHEAST ¼ OF THE SOUTHWEST ¼ AND THE EAST 30 FEET OF THE NORTHEAST ¼ OF THE SOUTHEAST ¼ OF THE SOUTHWEST ¼ OF SECTION 19, TOWNSHIP 20 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA. SUBJECT TO AN NON-EXCLUSIVE ACCESS AND UTILITY EASEMENT OVER THE EAST 30 FEET THEREOF.

TOGETHER WITH COMMITMENT NO. 110543847

THE NORTHEAST ¼ OF THE SOUTHEAST ¼ OF THE SOUTHWEST ¼ OF SECTION 19, TOWNSHIP 20 SOUTH, RANGE 28 EAST, LESS THE EAST 30 FEET THEREOF, LYING AND BEING IN ORANGE COUNTY, FLORIDA.

CONTAINING 21.43 ACRES MORE OR LESS

LEGAL DESCRIPTION:
WE HAVE EXAMINED THE FURNISHED COMMITMENT TO INSURE TITLE. THOSE INSTRUMENTS INCLUDED IN "SCHEDULE B, PART II", OF THE COMMITMENT HAVE BEEN EXAMINED AND ARE REFLECTED HEREON TO THE EXTENT THEY AFFECT THE LANDS SURVEYED.

COMMITMENT NUMBER: 110543764

9. NON-EXCLUSIVE EASEMENT FOR ACCESS AND UTILITIES OVER THE EAST 30 FEET GRANTED IN WARRANTY DEED FILED NOVEMBER 9, 1981 IN BOOK 3237, PAGE 1841. (SEE ALSO AFFIDAVIT FILED NOVEMBER 13, 1981 IN BOOK 3238, PAGE 2257). AFFECTS THE SUBJECT PROPERTY AND IS SHOWN HEREON.

10. NON-EXCLUSIVE EASEMENT FOR ACCESS AND UTILITIES OVER THE EAST 60 FEET AND SOUTH 60 FEET GRANTED IN EASEMENT FILED MAY 14, 1985 IN BOOK 3641, PAGE 1309, SUBSEQUENTLY CONVEYED IN QUIT DEED FILED MAY 14, 1985 IN BOOK 3641, PAGE 1308, AFFECTS THE SUBJECT PROPERTY AND IS SHOWN HEREON.

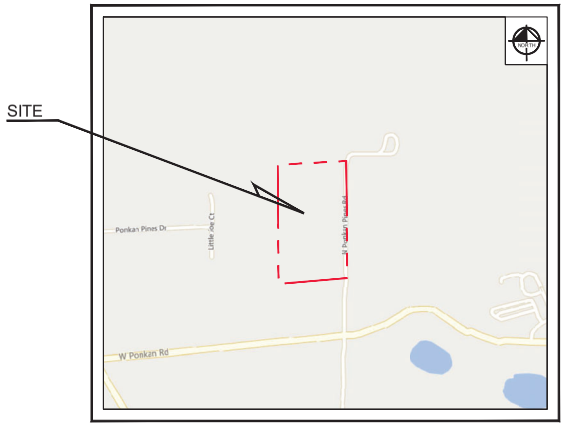
11. EASEMENT RECORDED IN BOOK 4614, PAGE 737. AFFECTS THE SUBJECT PROPERTY AND IS SHOWN HEREON.

12. ROAD MAINTENANCE AGREEMENT RECORDED IN BOOK 4482, PAGE 638. AFFECTS THE SUBJECT PROPERTY AS TO MAINTENANCE FROM THE MORTGAGED PROPERTY TO PONKIN ROAD.

13. EASEMENT(S) SET FORTH IN WARRANTY DEED RECORDED IN BOOK 3547, PAGE 235. AFFECTS THE SUBJECT PROPERTY AND IS SHOWN HEREON.

COMMITMENT NUMBER: 110543847

9. 60 FOOT WIDE EASEMENT FOR JOINT DRIVEWAY AND UTILITIES RECORDED MAY 14, 1985 IN BOOK 3641, PAGE 1308, AND BOOK 3641, PAGE 1309. AFFECTS THE SUBJECT PROPERTY AND IS SHOWN HEREON.



SECTION 19, TOWNSHIP 20, RANGE 28E
LOCATION MAP
N.T.S.

SHEET LIST TABLE	
SHEET #	SHEET TITLE
MDP0.0	COVER SHEET
MDP1.0	GENERAL NOTES
MDP1.1	GENERAL NOTES
MDP2.0	STORMWATER POLLUTION PREVENTION PLAN
MDP2.1	EROSION CONTROL DETAILS
MDP3.0	EXISTING CONDITIONS AND DEMOLITION PLAN
MDP4.0	SITE PLAN
MDP5.0	OVERALL PAVING AND GRADING PLAN
MDP5.1	DETAILED PAVING AND GRADING PLAN
MDP5.2	DETAILED PAVING AND GRADING PLAN
MDP5.3	DETAILED PAVING AND GRADING PLAN
MDP5.4	DETAILED PAVING AND GRADING PLAN
MDP5.5	DRAINAGE PLAN
MDP5.6	TYPICAL SECTIONS
MDP6.0	UTILITY PLAN
MDP6.1	FIRE TRUCK TURN
MDP7.0	CONSTRUCTION DETAILS
MDP7.1	CONSTRUCTION DETAILS
A-001	ARBOR SCHEDULE & DETAILS
A-101	ARBOR PLAN
K-200	KEY SHEET
L-001	LANDSCAPE SCHEDULE & DETAILS
K-201	STREET TREES
K-202	STREET TREES
K-203	STREET TREES
L-201	LANDSCAPE BUFFER PLAN
L-202	LANDSCAPE BUFFER PLAN
L-203	LANDSCAPE BUFFER PLAN

PROJECT TEAM

DEVELOPER:
M/I HOMES OF ORLANDO LLC
400 INTERNATIONAL PARKWAY SUITE 470
LAKE MARY, FL 32746
CONTACT: ROBERT REYNOLDS
PHONE: (321) 436-2373
EMAIL: RREYNOLDS@MIHOMES.COM

CIVIL ENGINEER
KIMLEY-HORN AND ASSOCIATES, INC.
200 S. ORANGE AVE., SUITE 600
ORLANDO, FL 32801
CONTACT: JOSHUA ENOT, P.E.
PHONE: (321) 754 - 0413
EMAIL: JOSHUA.ENOT@KIMLEY-HORN.COM

SURVEYOR:
ALLEN & COMPANY
16 EAST PLANT STREET
WINTER GARDEN, FLORIDA 34787
CONTACT: JAMES U RICKMAN, P.S.M.
PHONE: (407) 654 - 5355

LANDSCAPE ARCHITECT:
DALY DESIGN GROUP
913 N. PENNSYLVANIA AVE.
WINTER PARK, FL 32789
CONTACT: BILL MAKI, RLA
PHONE: (407) 740-7373
EMAIL: BMAKI@DALYDESIGN.COM

UTILITY PROVIDERS

WATER, SEWER, AND RECLAIMED WATER :
CITY OF APOPKA
748 E. CLEVELAND STREET
APOPKA, FL 32703
CONTACT: BRIAN BISHOP
PHONE: (407) 703-1731, EXT. 685

TELEPHONE:
CENTURY LINK
1325 BLAIRSTONE RD RM 113
WITALLAHASSEE, FL 32301
CONTACT: TY LESLIE
PHONE: (407) 814-5293

ELECTRIC :
DUKE ENERGY
1150 GREENWOOD BLVD.
LAKE MARY, FL 32746
CONTACT: DUKE'S CUSTOMER SERVICE
PHONE: (407) 629-1010

PREPARED BY
Kimley»Horn

© 2025 KIMLEY-HORN AND ASSOCIATES, INC.
200 S Orange Ave, Suite 600, Orlando, FL 32801
Phone: (407) 898-1511
WWW.KIMLEY-HORN.COM Registry No. 35106

10/16/2025
JOSHUA M. ENOT, P.E.
93160

Joshua Enot

No.	REVISIONS	DATE	BY

SHEET NUMBER
MDP0.0

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

Drawing name: K:\orl_civil\149561003-wolf lake ranch-lutz\CADD\CONST\plansheets\C0.0-COVR.dwg MDP0.0 COVER SHEET Oct 16, 2025 3:56pm by Jeremiah.Martinez

GENERAL

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BECOME FAMILIAR WITH THE PERMIT AND INSPECTION REQUIREMENTS SPECIFIED BY THE VARIOUS GOVERNMENTAL AGENCIES AND THE ENGINEER. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, SUCH AS DEWATERING PERMITS, RIGHT OF WAY PERMIT(S), EXCAVATION/FILL PERMIT(S), FIRE PROTECTION PERMIT(S), OR UNDERGROUND UTILITY PERMIT(S), PRIOR TO START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING ALL INSPECTION CRITERIA OF APPLICABLE AGENCIES, SCHEDULING OF INSPECTIONS, AND OBTAINING REQUIRED INSPECTIONS FROM AGENCY.

2. LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS. THE EXISTING UTILITY INFORMATION SHOWN IS BASED ON THE TOPOGRAPHIC SURVEY PROVIDED BY ALLEN & COMPANY. THE CONTRACTOR SHALL VERIFY THE LOCATIONS, ELEVATIONS, AND DIMENSIONS OF ALL EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES, AFFECTING THIS AREA PRIOR TO CONSTRUCTION WORK. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY OF THE SURVEY. SHOULD A DISCREPANCY ARISE BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS, WHICH WOULD APPRECIABLY AFFECT THE EXECUTION OF THESE PLANS, THE CONTRACTOR SHALL HALT CONSTRUCTION AND NOTIFY THE OWNER, ENGINEER, AND APPLICABLE GOVERNING AGENCY IMMEDIATELY.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND VERIFYING (HORIZONTALLY AND VERTICALLY) ALL EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION AND FOR NOTIFYING THE VARIOUS UTILITY COMPANIES (DURING STANDARD BUSINESS HOURS) TO MAKE THE NECESSARY ARRANGEMENTS FOR ANY RELOCATION, TEMPORARY DISTRIBUTION SERVICE, OR CLARIFICATION OF ACTIVITY REGARDING SAID UTILITY. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN CROSSING AN UNDERGROUND UTILITY, WHETHER SHOWN ON THESE PLANS OR FIELD LOCATED. THE CONTRACTOR SHALL COOPERATE WITH UTILITY COMPANY (DURING STANDARD BUSINESS HOURS) DURING RELOCATION OPERATIONS. ANY DELAY OR INCONVENIENCE OF THE VARIOUS UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED. CONTRACTOR SHALL CALL "SUNSHINE ONE" AT 811 TO HAVE EXISTING UTILITIES LOCATED AT LEAST 48 HOURS PRIOR TO CONSTRUCTION.

4. ALL DISTURBED AREAS (ON-SITE AND/OR OFF-SITE) NOT DESIGNED OR NOTED TO BE LANDSCAPED OR SODDED, SHALL BE SODDED.

5. THE CONTRACTOR SHALL NOT EXCAVATE, REMOVE, OR OTHERWISE DISTURB ANY MATERIAL, STRUCTURE, OR PART OF A STRUCTURE WHICH IS LOCATED OUTSIDE THE LINES, GRADES, OR GRADING SECTIONS ESTABLISHED FOR THIS PROJECT, EXCEPT WHERE SUCH EXCAVATION OR REMOVAL IS PROVIDED FOR IN THE CONTRACT, PLANS, OR SPECIFICATIONS. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO EXISTING FACILITIES, ABOVE OR BELOW GROUND, THAT MAY OCCUR AS A RESULT OF THE WORK PERFORMED, BY THE CONTRACTOR OR SUB-CONTRACTORS, AS CALLED FOR IN THESE CONTRACT DOCUMENTS.

6. ALL WORK AND MATERIALS FURNISHED SHALL BE IN CONFORMITY WITH THE LINES, GRADES, GRADING SECTIONS, CROSS SECTIONS, DIMENSIONS, MATERIAL REQUIREMENTS, AND TESTING REQUIREMENTS THAT ARE SPECIFIED IN THE CONTRACT PLANS OR SPECIFICATIONS.

7. ALL SPECIFICATIONS AND DOCUMENTS REFERENCED HEREIN SHALL BE OF THE LATEST REVISION, AS APPLICABLE AT THE TIME ALL PERMITS HAVE BEEN OBTAINED.

8. ALL UNDERGROUND UTILITIES MUST BE IN-PLACE, TESTED AND INSPECTED PRIOR TO BASE AND SURFACE CONSTRUCTION.

9. THE GRAPHIC INFORMATION DEPICTED ON THESE PLANS HAS BEEN COMPILED TO PROPORTION BY SCALE AS ACCURATELY AS POSSIBLE. HOWEVER, DUE TO REPRODUCTIVE DISTORTION, REDUCTION, AND/OR REVISIONS, INFORMATION CONTAINED HEREIN IS NOT INTENDED TO BE SCALED FOR CONSTRUCTION PURPOSES.

10. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS ON ALL PRECAST AND MANUFACTURED ITEMS TO THE OWNER'S ENGINEER FOR REVIEW.

    SHOP DRAWINGS OF ALL DRAINAGE STRUCTURES, MATERIALS, AND COMPONENTS TO BE INSTALLED WITHIN COUNTY PUBLIC RIGHTS-OF-WAY, SHALL BE SUBMITTED TO THE CITY OF APOPKA FOR REVIEW AND APPROVAL. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS TO THE CITY OF APOPKA FOLLOWING ENGINEER'S REVIEW OF SHOP DRAWINGS. ENGINEER IS NOT RESPONSIBLE FOR COORDINATION AND/OR APPROVAL OF SHOP DRAWINGS WITH THE CITY OF APOPKA.

11. CONTRACTOR TO COORDINATE WITH THE APPLICABLE ELECTRIC UTILITY SUPPLIER REGARDING ANY NECESSARY RELOCATION(S) OF UNDERGROUND AND/OR OVERHEAD ELECTRIC FACILITIES, AND FOR THE LOCATION AND INSTALLATION OF TRANSFORMER PAD(S) AND ASSOCIATED ELECTRIC FACILITIES.

12. THE CONTRACTOR SHALL RESTORE OFF-SITE CONSTRUCTION AREAS TO EQUAL AND/OR BETTER CONDITION THAN EXISTING PRIOR TO START OF CONSTRUCTION.

13. THE CONTRACTOR SHALL COMPLY WITH THE LEGAL LOAD RESTRICTIONS IN HAULING OF MATERIALS IN PUBLIC ROADS BEYOND THE LIMITS OF WORK. A SPECIAL PERMIT WILL NOT RELIEVE THE CONTRACTOR OF LIABILITY FOR THE DAMAGE WHICH MAY RESULT FROM THE MOVING OF MATERIAL AND EQUIPMENT.

14. SURVEY MONUMENTS OR BENCHMARKS, WHICH HAVE TO BE DISTURBED BY THIS WORK, SHALL BE REPLACED UPON COMPLETION OF WORK BY A LICENSED LAND SURVEYOR CURRENTLY REGISTERED IN THE STATE OF FLORIDA.

15. CONTRACTOR SHALL TRIM, TACK AND MATCH EXISTING PAVEMENT AT LOCATIONS WHERE NEW PAVEMENT MEETS EXISTING PAVEMENT.

16. CURBING SHALL BE PLACED AT THE EDGES OF ALL PAVEMENT, UNLESS OTHERWISE NOTED. REFER TO THE THE LATEST EDITION OF F.D.O.T. "DESIGN STANDARDS FOR DESIGN, CONSTRUCTION, MAINTENANCE, AND UTILITY OPERATIONS ON THE STATE HIGHWAY SYSTEM" (ED. 2014) FOR DETAILS AND SPECIFICATIONS OF ALL CURB AND GUTTERS CALLED FOR IN THESE PLANS WITHIN PUBLIC RIGHTS OF WAY.

17. WHERE ASPHALT PAVING MEETS CONCRETE PAVING SUCH AS AT CONCRETE CURBING, THE ASPHALT SHOULD BE FINISHED ¼" TO ½" ABOVE THE CONCRETE SURFACE TO ALLOW FOR FURTHER TRAFFIC COMPACTION OF THE ASPHALT.

18. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING APPLICABLE SOIL AND/OR PAVEMENT TESTING WITH THE GEOTECHNICAL ENGINEER. TESTS WILL BE REQUIRED PURSUANT WITH THE GEOTECHNICAL SOILS REPORT. UPON COMPLETION OF WORK, THE GEOTECHNICAL ENGINEER WILL SUBMIT CERTIFICATIONS TO THE OWNER AND OWNER'S ENGINEER STATING THAT ALL REQUIREMENTS HAVE BEEN MET.

19. CONTRACTOR IS TO ADJUST ANY UTILITY ELEMENT MEANT TO BE FLUSH WITH GRADE (CLEAN OUT MANHOLES, CATCH BASINS, INLETS, ETC.) THAT IS AFFECTED BY SITE WORK OR GRADE CHANGES, WHETHER SPECIFICALLY NOTED ON PLANS OR NOT.

20. ALL CONCRETE SIDEWALKS SHALL BE CONSTRUCTED PER FDOT STANDARD PLANS (ED. 2025-26) INDEX 522-001 & 522-002.

21. SITE WORK SHALL COMPLY WITH FLORIDA BUILDING CODE (LATEST ED.) AND FLORIDA ACCESSIBILITY CODE (LATEST ED.).

22. ANY EXISTING WELLS (I.E. ARTESIAN, IRRIGATION, DRINKING, ETC.) DISCOVERED ON-SITE MUST BE PLUGGED BY A LICENSED WELL DRILLING CONTRACTOR IN A MANNER APPROVED BY ALL APPLICABLE JURISDICTIONAL AGENCIES. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY WELL ABANDONMENT PERMITS REQUIRED. ANY WELL DISCOVERED DURING EARTHWORK OR EXCAVATION SHALL BE REPORTED TO THE APPROPRIATE JURISDICTIONAL AGENCIES, OWNER, AND OWNER'S ENGINEER WITHIN 24 HOURS AFTER DISCOVERY IS MADE.

23. ALL ROADWAY SIGNAGE AND/OR SIGNAGE COLUMNS/POSTS LOCATED WITHIN RIGHT-OF-WAY IMPACTED BY PROPOSED IMPROVEMENTS SHALL BE ADJUSTED AND/OR FULLY RE-INSTALLED IN ACCORDANCE WITH FDOT STANDARD PLANS INDEX (ED. 2025-26) AND FDOT "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, ED. 2025".

TREES AND VEGETATION

1. THE CONTRACTOR IS TO MINIMIZE THE REMOVAL OF VEGETATION TO THE GREATEST EXTENT PRACTICAL. NO TREES SHALL BE REMOVED OR DAMAGED WITHOUT OWNER'S APPROVAL. TREES IN CLOSE PROXIMITY TO CONSTRUCTION SHALL BE PROTECTED BY ORANGE FENCING.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL LANDSCAPE BUFFERS AND RETENTION AND DETENTION FACILITIES UNTIL THE WORK HAS BEEN ACCEPTED BY THE OWNER. ALL DISTURBED AREAS SHALL BE RETURNED TO THEIR ORIGINAL CONDITION.

3. REFER TO LANDSCAPE PLANS FOR DETAILS REGARDING TREE REMOVAL AND TREE PRESERVATION.

PAVING/GRADING TESTING AND INSPECTION

1. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING APPLICABLE TESTING WITH THE SOILS ENGINEER. TESTS WILL BE REQUIRED PURSUANT WITH THE SOILS REPORT. UPON COMPLETION OF WORK THE SOILS ENGINEER WILL SUBMIT CERTIFICATIONS TO THE OWNER AND OWNER'S ENGINEER STATING THAT ALL REQUIREMENTS HAVE BEEN MET.

2. A QUALIFIED TESTING LABORATORY SHALL PERFORM ALL TESTING NECESSARY TO ASSURE COMPLIANCE OF THE IN-PLACE MATERIALS AS REQUIRED BY THESE PLANS AND GEOTECHNICAL REPORT, THE VARIOUS AGENCIES AND PERMIT CONDITIONS. SHOULD ANY RETESTING BE REQUIRED DUE TO THE FAILURE OF ANY TESTS TO MEET THESE REQUIREMENTS, THE CONTRACTOR WILL BEAR ALL COSTS OF SAID RETESTING.

PAVEMENT MARKING AND SIGNAGE

1. THE INSTALLATION, SHAPE, AND SIZE OF ALL SIGNS AND THEIR LETTERING SHALL COMPLY WITH THE LATEST EDITIONS OF THE U.S. DEPARTMENT OF TRANSPORTATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, ED. 2009/2012" (MUTCD), AND THE F.D.O.T. "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, ED. 2025", AND THE F.D.O.T. "STANDARD PLANS FOR ROAD CONSTRUCTION (ED. 2025-26)". WHERE CONFLICTS EXIST BETWEEN THE PLANS AND THE ABOVE MENTIONED SPECIFICATIONS, THE MORE STRINGENT CRITERIA SHALL PREVAIL.

2. STOP BARS AND STOP SIGNS ARE TO BE PROVIDED AT ALL INTERNAL, ONSITE INTERSECTIONS, WITH THE EXCEPTION OF SIGNALIZED INTERSECTIONS (UNLESS OTHERWISE NOTED).

3. ALL PAVEMENT MARKINGS SHALL COMPLY WITH FDOT STANDARD PLANS (ED. 2025-26) INDEX 711-001 AND THE CITY OF APOPKA, FL.

4. ALL COMMERCIAL GROUND SIGNAGE IS TO BE PERMITTED SEPARATELY.

STORM DRAINAGE SYSTEM

1. THE LATEST EDITION OF F.D.O.T. "STANDARD PLANS INDEX" (ED. 2025-26) IS REFERRED TO FOR THE STRUCTURAL DESIGN OF DRAINAGE STRUCTURES SPECIFIED IN THESE PLANS, AS REFERENCED BY STANDARD INDEX. ALL SPECIALTY DRAINAGE STRUCTURES REQUIRE SEPARATE STRUCTURAL DESIGN, WHICH IS NOT INCLUDED IN THESE PLANS. STATION OFFSETS ARE TO THE CENTERLINE OF THE STRUCTURE TOP (I.E. DITCH BOTTOM INLET OR CURB INLET TOP), AS OPPOSED TO THE STRUCTURE BASE.

2. ALL STORM SEWER PIPE SHALL BE REINFORCED CONCRETE CLASS III (ASTM C-76) UNLESS OTHERWISE NOTED ON PLANS. ALL DRAINAGE STRUCTURES SHALL BE IN ACCORDANCE WITH F.D.O.T. ROADWAY AND TRAFFIC DESIGN STANDARDS UNLESS OTHERWISE NOTED ON PLANS.

3. PIPE LENGTHS SHOWN ARE APPROXIMATE AND TO CENTER OF DRAINAGE STRUCTURES, WITH THE EXCEPTION OF MITERED END AND FLARED END SECTIONS. LENGTHS OF PIPE SHOWN WHICH TERMINATE WITH MITERED END OR FLARED END SECTIONS ARE MEASURED TO THE DOWNSTREAM INVERT OF THE MITERED END OR FLARED END SECTION.

4. ALL DRAINAGE STRUCTURE GRATES AND COVERS, EITHER EXISTING OR PROPOSED SHALL BE TRAFFIC RATED FOR H-20 LOADINGS.

5. CONSTRUCTION OF THE STORM WATER MANAGEMENT SYSTEM MUST BE COMPLETE AND ALL DISTURBED AREAS STABILIZED IN ACCORDANCE WITH THE PERMITTED PLANS AND CONDITIONS PRIOR TO ANY OF THE FOLLOWING: ISSUANCE OF THE FIRST CERTIFICATE OF OCCUPANCY; INITIATION OF INTENDED USE OF THE INFRASTRUCTURE; OR TRANSFER OF RESPONSIBILITY FOR MAINTENANCE OF THE SYSTEM TO A LOCAL GOVERNMENT OR OTHER RESPONSIBLE ENTITY.

6. STORM WATER PIPES, STRUCTURES, MINIMUM COVER, AND INSTALLATION PROCEDURES TO BE IN ACCORDANCE WITH F.D.O.T. STANDARD PLANS INDEX (ED. 2025-26) AND THE CITY OF APOPKA SPECIFICATIONS.

7. DURING CONSTRUCTION, NO DIRECT DISCHARGE OF WATER TO DOWNSTREAM RECEIVING WATERS WILL BE ALLOWED. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING WATER QUALITY AND SHALL ROUTE DISCHARGE WATER IN SUCH A MANNER AS TO ADEQUATELY REMOVE SILT PRIOR TO RUNOFF FROM THE SITE.

8. ALL DRAINAGE PIPES SHALL BE FILTER FABRIC WRAPPED PER FDOT STANDARD PLANS (ED. 2025-26) INDEX 430-001.

9. THE CONTRACTOR SHALL MAINTAIN AND PROTECT THE STORMWATER COLLECTION SYSTEM (INLETS, PIPES) FROM EXCESSIVE MUD, SILT, DIRT, DEBRIS, TRASH, ETC. UNTIL FINAL ACCEPTANCE OF THE PROJECT. THE STORM SYSTEM WILL BE INSPECTED BY THE OWNER'S ENGINEER PRIOR TO APPROVAL FOR CERTIFICATE OF OCCUPANCY PURPOSES. PRIOR TO FINAL ACCEPTANCE, THE CONTRACTOR SHALL CLEAN AND FLUSH STORM PIPES AND INLETS OF ALL EXCESSIVE SILT, DEBRIS, ETC.

SAFETY

1. ALL SUBSURFACE CONSTRUCTION SHALL COMPLY WITH THE "TRENCH SAFETY ACT". THE CONTRACTOR SHALL INSURE THAT THE METHOD OF TRENCH PROTECTION AND CONSTRUCTION IS IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY AND ENFORCE ALL APPLICABLE SAFETY REGULATIONS. THE ABOVE INFORMATION HAS BEEN PROVIDED FOR THE CONTRACTOR'S INFORMATION ONLY AND DOES NOT IMPLY THAT THE OWNER OR ENGINEER WILL INSPECT AND/OR ENFORCE SAFETY REGULATIONS.

2. DURING THE CONSTRUCTION AND/OR MAINTENANCE OF THIS PROJECT, ALL SAFETY REGULATIONS ARE TO BE ENFORCED. THE CONTRACTOR OR HIS REPRESENTATIVE SHALL BE RESPONSIBLE FOR THE CONTROL AND SAFETY OF THE TRAVELING PUBLIC AND THE SAFETY OF HIS/HER PERSONNEL. LABOR SAFETY REGULATIONS SHALL CONFORM TO THE PROVISIONS SET FORTH BY OSHA IN THE FEDERAL REGISTER OF THE DEPARTMENT OF TRANSPORTATION. THE MINIMUM STANDARDS AS SET FORTH IN THE CURRENT EDITION OF "THE STATE OF FLORIDA, MANUAL ON TRAFFIC CONTROL AND SAFE PRACTICES FOR STREET AND HIGHWAY CONSTRUCTION, MAINTENANCE AND UTILITY OPERATIONS" SHALL BE FOLLOWED IN THE DESIGN, APPLICATION, INSTALLATION, MAINTENANCE AND REMOVAL OF ALL TRAFFIC CONTROL DEVICES, WARNING DEVICES AND BARRIERS NECESSARY TO PROTECT THE PUBLIC AND CONSTRUCTION PERSONNEL FROM HAZARDS WITHIN THE PROJECT LIMITS. CONTRACTOR SHALL PROVIDE FOR THE SAFETY AND CONTROL OF LOCAL TRAFFIC DURING CONSTRUCTION. ADDITIONAL INFORMATION MAY BE REQUIRED IF LANE CLOSURE DURATIONS ARE LONGER THAN DAYTIME OPERATIONS.

PAVING, GRADING AND DRAINAGE

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

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

3. ALL NECESSARY FILL AND EMBANKMENT THAT IS PLACED DURING CONSTRUCTION SHALL CONSIST OF MATERIAL SPECIFIED BY THE OWNER'S SOILS TESTING COMPANY OR ENGINEER AND BE PLACED AND COMPACTED ACCORDING TO THESE PLANS.

4. PROPOSED SPOT ELEVATIONS REPRESENT FINISHED PAVEMENT OR GROUND SURFACE GRADES, UNLESS OTHERWISE NOTED.

5. IT MAY BE NECESSARY TO FIELD ADJUST PAVEMENT ELEVATIONS TO PRESERVE THE ROOT SYSTEMS OF TREES SHOWN TO BE SAVED. CONTRACTOR TO COORDINATE WITH OWNER'S ENGINEER PRIOR TO ANY ELEVATION CHANGES.

6. CONTRACTOR SHALL TRIM, TACK AND MATCH EXISTING PAVEMENT AT LOCATIONS WHERE NEW PAVEMENT MEETS EXISTING PAVEMENT.

7. CURBING SHALL BE PLACED AT THE EDGES OF ALL PAVEMENT, UNLESS OTHERWISE NOTED. REFER TO THE FDOT STANDARD PLANS (ED. 2025-26) INDEX 520-001 FOR DETAILS AND SPECIFICATIONS OF ALL CURB TYPES CALLED FOR IN THESE PLANS.

8. PRIOR TO CONSTRUCTING CONCRETE PAVEMENT, THE CONTRACTOR IS TO SUBMIT A PROPOSED JOINTING PATTERN TO THE SOILS ENGINEER FOR APPROVAL.

9. CONTRACTOR TO PROVIDE A 1/2" TO 1" BITUMINOUS EXPANSION JOINT MATERIAL WITH SEALER AT ABUTMENT OF CONCRETE AND OTHER MATERIALS (STRUCTURES, OTHER POURED)

10. ALL PAVEMENT MARKINGS SHALL BE MADE IN ACCORDANCE WITH F.D.O.T. STANDARD PLANS (ED. 2025-26) INDEX 711-001 AND THE CITY OF APOPKA, FL.

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

12. THE CONTRACTOR SHALL RESTORE OFF-SITE CONSTRUCTION AREAS TO EQUAL AND/OR BETTER CONDITION THAN EXISTING PRIOR TO START OF CONSTRUCTION.

13. UNLESS OTHERWISE NOTED, GRADE TO MEET EXISTING ELEVATION AT PROPERTY LINES.

14. SURVEY MONUMENTS OR BENCHMARKS, WHICH HAVE TO BE DISTURBED BY THIS WORK, SHALL BE REPLACED UPON COMPLETION OF WORK BY A REGISTERED LAND SURVEYOR AT CONTRACTORS EXPENSE.

15. FINAL GRADES SHOWN INCLUDE SOD HEIGHT. ALL AREAS SHALL BE GRADED TO DRAIN AWAY FROM THE BUILDINGS.

16. ALL WORK TO BE PERFORMED IN ACCORDANCE WITH ALL LOCAL, STATE AND JURISDICTIONAL PERMITTING AGENCIES.

17. CONTRACTOR IS TO ADJUST ANY UTILITY ELEMENT MEANT TO BE FLUSH WITH GRADE (CLEAN-OUTS, MANHOLES, CATCH BASINS, INLETS, ETC.) THAT IS AFFECTED BY SITE WORK OR GRADE CHANGES, WHETHER SPECIFICALLY NOTED ON PLANS OR NOT.

DEMOLITION

1. CONTRACTOR TO OBTAIN DEMOLITION PERMIT FOR THE DEMOLITION OF ANY STRUCTURES ON SITE.
2. CONTRACTOR SHALL SUBMIT DEMOLITION SCHEDULE TO OWNER PRIOR TO PROCEEDING WITH DEMOLITION ACTIVITIES.
3. EXTENT OF SITE CLEARING IS SHOWN ON DRAWINGS.
4. CONTRACTOR SHALL CONDUCT SITE DEMOLITION OPERATIONS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS, AND OTHER ADJACENT OCCUPIED OR USED FACILITIES. DO NOT CLOSE OR OBSTRUCT STREETS, WALKS OR OTHER OCCUPIED OR USED FACILITIES WITHOUT PERMISSION FROM AUTHORITIES HAVING JURISDICTION.
5. CONTRACTOR SHALL PROVIDE PROTECTION NECESSARY TO PREVENT DAMAGE TO EXISTING IMPROVEMENTS INDICATED ON PLAN "EXISTING TO REMAIN".
6. CONTRACTOR SHALL RESTORE DAMAGED IMPROVEMENTS TO THEIR ORIGINAL CONDITION, AS ACCEPTABLE TO PARTIES HAVING JURISDICTION.
7. CONTRACTOR SHALL REMOVE WASTE MATERIALS AND UNSUITABLE AND EXCESS TOPSOIL FROM PROPERTY AND DISPOSE OF OFF-SITE IN A LEGAL MANNER.
8. CONTRACTOR SHALL DEMOLISH AND COMPLETELY REMOVE FROM SITE MATERIAL INDICATED ON PLAN OR NOTES "TO BE REMOVED".
9. CONTRACTOR SHALL PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, AND OTHER FACILITIES FROM DAMAGE CAUSED BY SETTLEMENT, LATERAL MOVEMENT, UNDERMINING, WASHOUT AND OTHER HAZARDS CREATED BY THE DEMOLITION OPERATION.

DEWATERING NOTES

1. DURING THE EXCAVATION OF THE STORMWATER FACILITIES, AND IF GROUNDWATER IS ENCOUNTERED, THE CONTRACTOR SHALL CONSTRUCT A SEDIMENT BASIN TO PROVIDE A DISCHARGE POINT FOR DEWATERING. THE SEDIMENT BASIN CAN BE CELL IN THE PROPOSED EXCAVATION AREA OF A POND OR IT CAN BE A BERMED AREA ABOVE GROUND. ALL DEWATERING MUST BE HELD IN THE SEDIMENT AREA UNTIL THE WATER IS CLEAN SUCH THAT THERE WOULD BE NO TURBID DISCHARGE. AFTER THE WATER IN THE SEDIMENT BASIN IS CLEAN, THE WATER MAY BE RELEASED INTO THE ON-SITE POND PROVIDED THERE IS NO ADVERSE IMPACT TO THE EXISTING WATER QUALITY.
2. UNDER NO CIRCUMSTANCES WILL THE DISCHARGE FROM THE ON-SITE DEWATERING BE DIRECTLY DISCHARGED OFFSITE.
3. IF CONTRACTOR ENCOUNTERS SILTY/CLAY SAND, WHICH CAUSES THE WATER TO BECOME TURBID, HE/SHE SHALL TREAT THE SEDIMENT BASIN WITH CHEMICAL ADDITIVE SUCH AS ALUM IN ORDER TO PROMOTE THE COAGULATION OF THE PARTICLES WHICH ALLOW THE TO SETTLE AND THE WATER TO BECOME LESS TURBID. IF TURBID WATER ENCOUNTERED DURING EXCAVATION OF THE PONDS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD IMMEDIATELY TO DETERMINE THE COURSE OF ACTION THAT IS APPROPRIATE TO ELIMINATE THE TURBIDITY AND ALLOW DISCHARGE THAT MEETS WATER QUALITY STANDARDS.
4. THE CONTRACTOR SHALL SEQUENCE THE EXCAVATION OF THE STORMWATER PONDS SUCH THAT A SEDIMENT BASIN WILL BE AVAILABLE AT ALL TIMES. THE SEDIMENT BASIN CAN BE RELOCATED AS NECESSARY SUBJECT TO THE WATER WITHIN THE SEDIMENT BASIN BEING NON-TURBID AND ACCEPTABLE FOR DISCHARGE OFF-SITE.

EARTHWORK / GRADING / DEMUCKING PROCEDURES

1. A GEOTECHNICAL ENGINEERING INVESTIGATION REPORT HAS BEEN PREPARED, OF WHICH COPIES ARE AVAILABLE THROUGH THE OWNER OR THEIR SOIL TESTING COMPANY. A GEOTECHNICAL ENGINEER SHALL BE RETAINED BY THE CONTRACTOR TO PROVIDE ON-SITE INSPECTIONS DURING EXCAVATION/FILL OPERATIONS AND TESTING OF THE COMPACTED FILL SO THAT PROPER DOCUMENTATION OF THE REQUIRED COMPACTING CRITERIA CAN BE PROVIDED.
2. CONTRACTOR TO FOLLOW THE GUIDANCE OF THE REFERENCED GEOTECHNICAL ENGINEERING INVESTIGATION REPORT OR INDICATE WHETHER ON-SITE GEOTECHNICAL ENGINEER SHALL DETERMINE DEPTH OF DEMUCKING AND/OR REMOVAL OF UNSUITABLE FILL.
3. ALL EXISTING DEBRIS (ABOVE OR BELOW GROUND), CONSTRUCTION DEBRIS AND OTHER WASTE MATERIAL SHALL BE DISPOSED OF OFF-SITE BY THE CONTRACTOR, IN ACCORDANCE WITH APPLICABLE REGULATORY AGENCY REQUIREMENTS IN A LEGAL MANNER.
4. UNLESS OTHERWISE NOTED, GRADE TO MEET EXISTING ELEVATION AT PROPERTY LINES. FINAL GRADES SHOWN INCLUDE SOD HEIGHT. PROPOSED SPOT ELEVATIONS REPRESENT FINISHED PAVEMENT OR GROUND SURFACE GRADES, UNLESS OTHERWISE NOTED. IT MAY BE NECESSARY TO FIELD ADJUST PAVEMENT ELEVATIONS TO PRESERVE THE ROOT SYSTEMS OF TREES SHOWN TO BE SAVED. CONTRACTOR TO COORDINATE WITH OWNER'S ENGINEER PRIOR TO ANY ELEVATION CHANGES. ALL AREAS SHALL BE GRADED TO DRAIN AWAY FROM THE BUILDINGS.
5. ALL DELETERIOUS SUBSURFACE MATERIAL (I.E. MUCK, PEAT, BURIED DEBRIS) IS TO BE EXCAVATED AND REPLACED WITH SUITABLE/COMPACTED SOILS, AS DIRECTED BY THE OWNER OR THEIR SOILS TESTING COMPANY. DELETERIOUS MATERIAL IS TO BE STOCKPILED OR REMOVED FROM THE SITE AS DIRECTED BY THE OWNER. EXCAVATED AREAS ARE TO BE BACKFILLED WITH APPROVED MATERIALS AND COMPACTED AS SHOWN ON THESE PLANS. CONTRACTOR IS RESPONSIBLE FOR ACQUIRING ANY PERMITS THAT ARE NECESSARY FOR REMOVING DELETERIOUS MATERIAL FROM THE SITE.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXCAVATIONS AGAINST COLLAPSE AND WILL PROVIDE BRACING, SHEETING OR SHORING AS NECESSARY. DEWATERING METHODS SHALL BE USED AS REQUIRED TO KEEP TRENCHES DRY WHILE PIPE AND APPURTENANCES ARE BEING PLACED.
7. ALL NECESSARY FILL AND EMBANKMENT THAT IS PLACED DURING CONSTRUCTION SHALL CONSIST OF MATERIAL SPECIFIED BY THE OWNER'S SOILS TESTING COMPANY OR ENGINEER AND BE PLACED AND COMPACTED ACCORDING TO THESE PLANS.
8. THE CONTRACTOR SHALL INSURE THAT PROPER SOIL DENSITIES ARE ACHIEVED FOR PLACEMENT OF ALL HEADWALL/ENDWALL FOOTINGS, RETAINING WALL FOOTINGS, AND IN GENERAL, ANY FOOTING SUPPORT DESCRIBED ON THESE PLANS. IT WILL ALSO BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE THAT SUFFICIENT SOILS TESTING HAS BEEN PERFORMED PRIOR TO FINAL INSTALLATION OF IMPROVEMENTS.
9. ANY UNSUITABLE ORGANIC SOIL SHALL BE EXCAVATED TO A MINIMUM MARGIN OF 6 FEET BEYOND ITS PERIPHERY EXCAVATED TO EXPOSE THE UNDERLYING NON-ORGANIC FINE SAND.
10. IF DETERMINED NECESSARY, DEWATERING DURING EXCAVATING/BACKFILLING OPERATIONS MAY BE ACCOMPLISHED BY DITCHING AND THE USE OF SUMP PUMPS AND/OR OTHER METHODS (WELL POINTS), AS NECESSARY. CONTRACTOR TO OBTAIN ALL REQUIRED PERMITS FOR DEWATERING ACTIVITIES THAT MAY BE REQUIRED.
11. UPON APPROVAL OF THE GEOTECHNICAL ENGINEER, THE EXCAVATED AREAS MAY BE BACKFILLED WITH CLEAN FINE SAND FREE OF UNSUITABLE OR DELETERIOUS MATERIAL. HOWEVER, THE FILL SHOULD NOT BE PLACED IN MORE THAN 6 INCHES OF STANDING WATER. ONCE THE FILL IS AT LEAST 2 FEET ABOVE THE DEWATERED LEVEL, BACKFILLING MAY PROCEED AS DIRECTED BY THE GEOTECHNICAL ENGINEER.
12. SEDIMENT CONTROL MEASURES SHOULD BE EMPLOYED DURING THE CONSTRUCTION PROCESS TO KEEP THE POND FROM RECEIVING SIGNIFICANT AMOUNTS OF STORMWATER RUNOFF FROM THE SURROUNDING CONSTRUCTION SITE. THIS RUNOFF IS LIKELY TO CONTAIN SUSPENDED FINE-GRAINED SOIL PARTICLES THAT CAN IMPEDE THE INFILTRATION CAPACITY OF THE PONDS IF ALLOWED TO SETTLE OUT ON THE POND BOTTOMS. IF DEWATERING EFFLUENT OR STORMWATER RUNOFF FROM THE ACTIVE CONSTRUCTION SITE IS DISCHARGED TO THE POND, CONTRACTOR SHALL SCRAPE AND REMOVE FINE-GRAINED SEDIMENTS THAT HAVE ACCUMULATED ON THE POND BOTTOM, AND REPLACE WITH SUITABLE SOIL TO THE PLAN SPECIFIED GRADE ELEVATIONS. REQUIRED DEPTH OF SCRAPE AND REMOVAL SHALL BE DETERMINED BY GEOTECHNICAL ENGINEER.

Always call 811 two full business days before you dig to have underground utilities located and marked.
Sunshine811.com

No.	REVISIONS	DATE	BY

Kimley»Horn
© 2024 KIMLEY-HORN AND ASSOC

F.D.O.T. RIGHT-OF-WAY WORK GENERAL NOTES

1. EXISTING DRAINAGE STRUCTURES WITHIN CONSTRUCTION LIMITS SHALL REMAIN UNLESS OTHERWISE NOTED.
2. SPECIAL ATTENTION IS DIRECTED TO THE FACT THAT PORTIONS OF SOME DRAINAGE STRUCTURES EXTEND INTO THE STABILIZED PORTION OF THE ROADBED AND EXTREME CAUTION WILL BE NECESSARY IN STABILIZATION OPERATIONS AT THESE LOCATIONS.
3. ALL DRAINAGE PIPES SHALL BE STEEL REINFORCED CONCRETE PIPE, CLASS III, UNLESS OTHERWISE NOTED.
4. ANY PUBLIC LAND CORNER WITHIN THE LIMITS OF CONSTRUCTION IS TO BE PROTECTED. IF A CORNER MONUMENT IS IN DANGER OF BEING DESTROYED AND HAS NOT BEEN PROPERLY REFERENCED, THE ENGINEER SHOULD NOTIFY THE DISTRICT LOCATION SURVEYOR, WITHOUT DELAY, BY TELEPHONE.
5. EXISTING DRIVEWAYS WITHIN THE LIMITS OF THIS PROJECT ARE TO BE REPLACED AT THE SAME LOCATION AND WIDTH, UNLESS OTHERWISE SHOWN ON PLANS.
6. THE CONTRACTOR SHALL REMOVE ANY ORGANIC AND PLASTIC MATERIAL ENCOUNTERED IN THE FIELD IN ACCORDANCE WITH FDOT STANDARD PLANS (ED. 2025-26) INDEX 120-002. COST OF REMOVAL OF ORGANIC AND PLASTIC MATERIAL AND BACKFILL OF SUITABLE MATERIAL IN ACCORDANCE WITH FDOT STANDARD PLANS (ED. 2025-26) INDEX 120-001 SHALL BE INCLUDED IN THE COST OF REGULAR EXCAVATION.
7. THE LOCATION(S) OF THE UTILITIES SHOWN IN THE PLANS ARE BASED ON LIMITED INVESTIGATION TECHNIQUES AND SHOULD BE CONSIDERED APPROXIMATE ONLY. THE VERIFIED LOCATIONS/ELEVATIONS APPLY ONLY AT THE POINTS SHOWN. INTERPOLATIONS BETWEEN THESE POINTS HAVE NOT BEEN VERIFIED.
8. EXISTING UTILITIES ARE TO REMAIN IN PLACE UNLESS OTHERWISE NOTED.
9. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES, DURING STANDARD 'BUSINESS HOURS', A MINIMUM OF TWO WORKING DAYS PRIOR TO EXCAVATION AS REQUIRED BY CHAPTER 77-153 OF THE FLORIDA STATUES.
10. THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES IS BASED ON AVAILABLE RECORDS AND SURVEYS BUT IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR SHALL MAKE HIS OWN DETERMINATION AS TO THE TYPE AND LOCATIONS OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO AND PROTECT EXISTING UTILITY FACILITIES DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING UTILITY RELOCATION WITH UTILITY OWNERS.
11. ALL MAINTENANCE OF TRAFFIC (MOT) ITEMS REQUIRED IN ACCORDANCE WITH FDOT STANDARD PLANS (ED. 2025-26) INDEX '102-' SERIES INDICES SHALL BE FURNISHED, INSTALLED, AND MAINTAINED TO PROPERLY MAINTAIN TRAFFIC AND ADDRESS DROP OFF CRITERIA IN THE WORK ZONE.
12. NO LANES CLOSED BETWEEN THE HOURS OF 7:00 AM TO 8:00 PM.
13. THE EXISTING POSTED SPEED LIMIT ON SR-441 WILL REMAIN DURING ALL PHASES OF CONSTRUCTION.
14. ANY EXISTING OR PROPOSED SIGNS THAT CONFLICT WITH THE TRAFFIC CONTROL PLANS SHALL BE REMOVED OR COVERED BY THE CONTRACTOR PER FDOT STANDARD PLANS (ED. 2025-26) INDEXES AND WHEN THE CONFLICT NO LONGER EXISTS THE SIGNS SHALL BE RESTORED TO THEIR ORIGINAL POSITION. COST SHALL BE INCLUDED IN MAINTENANCE OF TRAFFIC.
15. IF ONLY FDOT STANDARD PLANS (ED. 2025-26) INDEX (SUCH AS #'S. 102-600, 102-611, 102-612, 102-613, 102-616, 102-660, ETC.) WILL BE USED, THEN THE CONTRACTOR WILL NOT BE REQUIRED TO PROVIDE SIGNED AND SEALED MAINTENANCE OF TRAFFIC (M.O.T.) PLANS. IF THE CONTRACTOR REQUIRES M.O.T. PLANS OTHER THAN THE FDOT STANDARD PLANS (ED. 2025-26) INDICES, THEN THE CONTRACTOR WILL HAVE TO SUBMIT SIGNED AND SEALED PLANS TO FDOT FOR REVIEW AND APPROVAL.
16. MAINTENANCE OF TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH FDOT STANDARD PLANS INDEX (ED. 2025-26), FDOT DESIGN MANUAL (FDM) ED. 2025, THE STANDARDS SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION (ED. 2025), AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) (ED. 2009 AND 2012 SUPPLEMENT) AS A MINIMUM.
17. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF TRANSPORTATION A MINIMUM OF TWO (2) BUSINESS DAYS PRIOR TO CLOSING ANY LANES OR BEGINNING ANY CONSTRUCTION WITHIN THE FDOT RIGHT-OF-WAY.
18. TEST RESULTS OF ANY TESTS TAKEN FOR OR DURING CONSTRUCTION OF THE PERMITTED WORK SHALL BE PROVIDED TO THE FDOT UPON REQUEST.
19. IF THE DEPARTMENT DETERMINES THAT AS-BUILT CONDITIONS VARY SIGNIFICANTLY FROM APPROVED PLANS, THE PERMITTEE OR THE PERMITTEE'S CONTRACTOR SHALL PROVIDE AS-BUILT PLANS, ALONG WITH A RECORD DRAWINGS REPORT BY PERMITTEE'S PROFESSIONAL ENGINEER, FORM 850-040-19, WITHIN 30 DAYS OF COMPLETING CONSTRUCTION.
20. ALL DISTURBED AREAS WITHIN FDOT RIGHT-OF-WAY MUST BE SODDED ONLY WITH COMMON BERMUDA SOD.
21. CONTRACTORS CERTIFICATE OF LIABILITY INSURANCE MUST BE ISSUED PRIOR TO STARTING CONSTRUCTION IN FDOT RIGHT-OF-WAY.
22. MAINTENANCE OF TRAFFIC:
    a. FOR WORK WITHIN FDOT RIGHT-OF-WAY, THE CONTRACTOR SHALL PROVIDE A TEMPORARY TRAFFIC CONTROL PLAN PREPARED UNDER THE DIRECTION OF, AND SIGNED AND SEALED BY, A LICENSED FLORIDA PROFESSIONAL ENGINEER WHO IS EXPERIENCED IN PREPARING TRAFFIC CONTROL PLANS AND WHO IS CERTIFIED PER FDOT PROCEDURE, TOPIC NO. 625-010-010.
    b. FOR WORK WITHIN FDOT RIGHT-OF-WAY, THE FDOT REQUIRES DOCUMENTATION FOR SUCCESSFUL COMPLETION OF AN APPROVED WORK ZONE TRAFFIC CONTROL TRAINING COURSE FOR THE AGENCY, UTILITY, OR CONTRACTOR EMPLOYEE(S) DESIGNING, INSTALLING, AND/OR MAINTAINING THE APPROVED MAINTENANCE OF TRAFFIC PLAN IN ACCORDANCE WITH DEPARTMENT PROCEDURE, TOPIC NO. 625-010-010.
    c. ALL TEMPORARY TRAFFIC CONTROL DEVICES FOR THE FOLLOWING FACILITIES SHALL BE DESIGNED AND INSTALLED TO MEET THE EXISTING POSTED SPEEDS AS STATED FOR ALL TRAFFIC CONTROL PHASES: SR 441-45 MPH
23. ALL CONSTRUCTION IN THE FDOT RIGHT-OF-WAY SHALL CONFORM TO THE LATEST EDITIONS OF THE FDOT DESIGN STANDARDS (INDEXES).
24. IT WILL BE THE RESPONSIBILITY OF THE PERMITTEE TO REPAIR ANY DAMAGE TO FDOT FACILITIES CAUSED BY CONSTRUCTION OF THE PROJECT.
25. ALL SIDEWALK CLOSURES SHALL ABIDE TO THE STANDARD PROCEDURES PER FDOT STANDARD PLANS (ED. 2025-26) INDEX 102-660.
26. ALL CONCRETE SIDEWALKS SHALL BE CONSTRUCTED PER FDOT STANDARD PLANS (ED. 2025-26) INDEX 522-001 & 522-002.
27. ALL ROADWAY SIGNAGE AND/OR SIGNAGE COLUMS/POSTS LOCATED WITHIN RIGHT-OF-WAY IMPACTED BY PROPOSED IMPROVEMENTS SHALL BE ADJUSTED AND/OR RE-INSTALLED IN ACCORDANCE WITH STANDARD PLANS (ED. 2025-26) INDEX AND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (ED. 2025).

POTABLE WATER SYSTEM

1. POTABLE WATER SERVICE SHALL BE PROVIDED BY THE CITY OF APOPKA. THE WATER DISTRIBUTION SYSTEM SHOWN ON THESE PLANS SHALL BE INSTALLED AND CONSTRUCTED PER THE CITY OF APOPKA STANDARDS & SPECIFICATIONS. ONSITE WATER DISTRIBUTION SYSTEM SHALL BE PRIVATELY OWNED AND MAINTAINED AFTER COMPLETION OF CONSTRUCTION, CERTIFICATION, AND CLEARANCE BY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP).

POTABLE WATER TESTING AND INSPECTION

1. ALL COMPONENTS OF THE WATER SYSTEM, INCLUDING FITTINGS, HYDRANTS, CONNECTIONS, AND VALVES SHALL REMAIN UNCOVERED UNTIL PROPERLY PRESSURE TESTED AND ACCEPTED BY THE OWNER'S ENGINEER OR UTILITY INSPECTOR. PRESSURE TESTS TO BE IN ACCORDANCE WITH F.D.E.P. SPECIFICATIONS AND THE CITY OF APOPKA CONTRACTOR TO NOTIFY THE OWNER'S ENGINEER AND APPLICABLE AGENCY INSPECTORS TWO (2) FULL BUSINESS DAYS IN ADVANCE OF PERFORMING TESTS.
2. CONTRACTOR TO PERFORM CHLORINATION AND BACTERIOLOGICAL SAMPLING, AND OBTAIN CLEARANCE OF DOMESTIC AND FIRE LINE WATER SYSTEM(S). COPIES OF ALL BACTERIOLOGICAL TEST RESULTS ARE TO BE SUBMITTED TO THE OWNER'S ENGINEER FOR CERTIFICATION PURPOSES.
3. ALL WATER MAINS SHALL BE PRESSURE TESTED IN ACCORDANCE WITH AWWA MANUAL M23, CONCERNING HYDROSTATIC TESTING OF PVC PIPING. ALL PUBLIC UTILITIES HYDROSTATIC TESTING TO BE WITNESSED BY THE CITY OF APOKA

SANITARY SYSTEM

1. SANITARY WASTEWATER SERVICE SHALL BE PROVIDED BY THE CITY OF APOPKA. THE WASTEWATER COLLECTION SYSTEM SHOWN ON THESE PLANS SHALL BE INSTALLED BY THE CONTRACTOR, AND CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE CITY OF APOPKA STANDARDS AND SPECIFICATIONS. ONSITE WASTEWATER COLLECTION SYSTEM SHALL BE PRIVATELY OWNED AND MAINTAINED AFTER COMPLETION OF CONSTRUCTION, CERTIFICATION, AND CLEARANCE BY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP).

SANITARY TESTING AND INSPECTION

1. ALL GRAVITY SEWER PIPING SHALL BE SUBJECT TO A VISUAL INSPECTION BY THE OWNER'S ENGINEER AND APPLICABLE MUNICIPALITY/AGENCY INSPECTOR. THE CONTRACTOR SHALL NOTIFY THE ENGINEER 48 HOURS IN ADVANCE TO SCHEDULE INSPECTION(S). THE CONTRACTOR SHALL BE RESPONSIBLE FOR COSTS ASSOCIATED WITH A CLOSED CIRCUIT TELEVISED INSPECTION (CCTV) OF THE PROPOSED GRAVITY SEWER LINE CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE COPIES OF THE CCTV INSPECTION TAPE TO THE ENGINEER, THE OWNER, AND THE APPLICABLE MUNICIPALITY/AGENCY.
2. THE CONTRACTOR SHALL PERFORM AN INFILTRATION/EXFILTRATON TEST ON ALL GRAVITY SEWERS IN ACCORDANCE WITH THE REGULATORY AGENCY HAVING JURISDICTION. SAID TESTS ARE TO BE CERTIFIED BY THE ENGINEER OF RECORD AND SUBMITTED TO THE REGULATORY AGENCY FOR APPROVAL. THE SCHEDULING, COORDINATION AND NOTIFICATION OF ALL PARTIES IS THE CONTRACTOR'S RESPONSIBILITY.
3. LEAKAGE TESTS 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 A MINIMUM, CONFORM TO THE TEST PROCEDURE DESCRIBED IN ASTM C-828 FOR CLAY PIPE, ASTM C 924 FOR CONCRETE PIPE, ASTM F-1417 FOR PLASTIC PIPE, AND FOR OTHER MATERIALS APPROPRIATE TEST PROCEDURES.
4. CONTRACTOR TO PERFORM APPROPRIATE DEFLECTION TESTS FOR ALL FLEXIBLE PIPE. 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:
    A. NO PIPE SHALL EXCEED A DEFLECTION OF 5%
    B. USING A RIGID BALL OR MANDREL FOR THE DEFLECTION TEST 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.
    C. PERFORMING THE TEST WITHOUT MECHANICAL PULLING DEVICES.
5. CONTRACTOR TO INSPECT & TEST MANHOLE FOR WATERTIGHTNESS OR DAMAGE PRIOR TO PLACING INTO SERVICE. AIR TESTING, IF SPECIFIED FOR CONCRETE SEWER MANHOLES, SHALL CONFORM TO THE TEST PROCEDURES DESCRIBED IN ASTM C-1244.

CONTRACTOR'S SURVEYOR AS-BUILT

1. UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL FURNISH THE OWNER'S ENGINEER WITH COMPLETE "AS-BUILT" INFORMATION, CERTIFIED BY A LICENSED LAND SURVEYOR CURRENTLY REGISTERED IN THE STATE OF FLORIDA. AT A MINIMUM, THIS "AS-BUILT" INFORMATION SHALL INCLUDE:
    1.1. TOP OF PIPE/INVERT ELEVATIONS AND HORIZONTAL LOCATIONS OF ALL WATER, SANITARY SEWER, AND RECLAIM WATER UTILITIES INSTALLED (AS APPLICABLE);
    1.2. PAVEMENT GRADE BREAK LOCATIONS AND SUFFICIENT ELEVATIONS OF FINISHED GRADE SURFACES WHICH ALLOW THE ENGINEER TO DETERMINE COMPLIANCE WITH THE PROPOSED DESIGN;
    1.3. TOP, GRATE, & INVERT ELEVATIONS OF THE STORMWATER COLLECTION SYSTEM, INCLUDING THE POND GRADES (TOP, BANK, BOTTOM),
    1.4. POND CONTROL STRUCTURE, & SWALES;
    1.5. ANY IMPROVEMENTS WITHIN FDOT OR COUNTY RIGHT-OF-WAYS.
    1.6. SITE LIGHTING POLE LOCATIONS
2. THE DIGITAL "AS-BUILT" FILE, PROVIDED IN AUTOCAD FORMAT, SHALL ALSO BE PROVIDED IN THE FLORIDA STATE PLANE COORDINATE SYSTEM. NO ENGINEER'S CERTIFICATIONS OF COMPLETION OR REQUESTS FOR FINAL ACCEPTANCE WILL BE SUBMITTED UNTIL THIS INFORMATION HAS BEEN RECEIVED AND APPROVED BY THE OWNER'S ENGINEER.
3. SURVEYOR AS-BUILT SHALL CONTAIN COMPLETED ASSET TABLE IN ACCORDANCE WITH CITY OF APOPKA UTILITY STANDARDS AND SPECIFICATIONS.

THE APPLICANT SHALL SUBMIT TWO SETS HARD COPY (24" X 36" PRINTS) OF THE RECORD DRAWINGS NOT LESS THAN 72 HOURS PRIOR TO THE FINAL INSPECTION BY THE CITY. FOLLOWING THE FINAL SITE INSPECTION AND CORRECTION OF ANY SITE DEFICIENCIES, THE APPLICANT SHALL SUBMIT TO PUBLIC WORKS ONE ELECTRONIC PDF SIGNED AND SEALED RECORD DRAWING (WITH MINIMUM 300 DPI RESOLUTION) AND ONE ELECTRONIC CAD COPY FORMATTED FULLY COMPATIBLE WITH THE SOFTWARE BEING USED BY THE CITY OF APOPKA ENGINEERING DIVISION, REVISED AS NECESSARY AFTER THE FINAL INSPECTION, PRIOR TO THE ISSUANCE OF THE CERTIFICATE OF COMPLETION FOR THE IMPROVEMENTS.

THE APPLICANT SHALL BE RESPONSIBLE FOR RECORDING DEVIATION INFORMATION ON THE APPROVED PLANS AS CONSTRUCTION PROGRESSES. TO HELP ENSURE COMPLIANCE WITH RECORD DRAWING REQUIREMENTS, THE CITY STRONGLY RECOMMENDS THAT THE CONTRACTOR'S FIELD RECORD PLANS BE PHOTOCOPIED IN THE ENTIRETY AS RECORD DRAWINGS. RECORD DRAWINGS SUBMITTED TO THE CITY AS PART OF THE PROJECT ACCEPTANCE SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS:

1. DRAWINGS SHALL BE LEGIBLY MARKED TO RECORD ACTUAL CONSTRUCTION, WHEN APPLICABLE, SHOULD INCLUDE BUT NOT LIMITED TO GRADING FOR PARKING LOT, TRAIL, POND, AND FINISH FLOOR ELEVATION FOR THE BUILDING ETC.
2. DRAWINGS SHALL SHOW ACTUAL LOCATION OF ALL UNDERGROUND AND ABOVE GROUND STORMWATER, POTABLE WATER, RECLAIMED WATER AND WASTEWATER PIPING AND RELATED APPURTENANCES. ALL CHANGES TO PIPING LOCATION INCLUDING HORIZONTAL AND VERTICAL LOCATIONS OF UTILITIES AND APPURTENANCES SHALL BE CLEARLY SHOWN AND REFERENCED TO PERMANENT SURFACE IMPROVEMENTS. DRAWINGS SHALL SHOW ACTUAL INSTALLED PIPE MATERIAL, PIPE SIZE, CLASS, ETC.
3. DRAWINGS SHALL CLEARLY SHOW LOCATION, DESCRIPTION, AND DEPTH OF ALL ABANDONED PIPE THAT LEFT IN PLACE.
4. DRAWINGS SHALL CLEARLY LABEL WHAT IS INTENDED TO BE PRIVATE OR PUBLIC. IN ADDITION, CLEARLY LABEL THE CITY POINT OF CONNECTION ON PRIVATE MAINS.
5. DRAWINGS SHALL CLEARLY LABEL FIRE LINES AND IRRIGATION LINES ACCORDINGLY.
6. LOCATION OF ALL INLETS, MANHOLES, HYDRANTS, VALVES, AND VALVE BOXES SHALL BE SHOWN. ALL VALVES SHALL BE REFERENCED FROM AT LEAST TWO AND PREFERABLY THREE PERMANENT POINTS.
7. DIMENSIONS BETWEEN ALL MANHOLES AND/OR INLETS SHALL BE FIELD VERIFIED AND SHOWN. THE INVERTS AND GRADE ELEVATIONS OF ALL MANHOLES/INLETS SHALL BE SHOWN.
8. THE DEPTH FROM FINISH GRADE OF POTABLE WATER, RECLAIMED WATER, AND SEWER FORCE MAINS SHALL BE INDICATED AT ALL VALVE LOCATIONS.
9. WHEN APPLICABLE, DRAWINGS SHALL INCLUDE A PHOTOMETRIC STUDY SHOWING ALL SITE LIGHTING MEETING CITY CODE PART III, SECTION 3-10.2(6).
10. DRAWINGS SHALL CLEARLY SHOW ALL FIELD CHANGES OF DIMENSION AND DETAIL.
11. DRAWINGS SHALL CLEARLY SHOW ALL DETAILS NOT ON THE ORIGINAL CONTRACT DRAWINGS BUT CONSTRUCTED IN THE FIELD. ALL EQUIPMENT AND PIPING RELOCATION SHALL BE SHOWN.
12. DRAWINGS SHALL SHOW LOCATIONS AND DESCRIPTIONS OF ALL CONNECTIONS THAT WERE MADE TO ANY MAINS DURING THE PROJECT, WHETHER PERMANENT OR TEMPORARY, INCLUDING ABANDONED TAPS, LINE STOPS, VALVES, ETC.
13. CAD FILES SHOULD BE IN STATE PLANE COORDINATES (SPC) FEET, EAST ZONE – FLORIDA, NORTH AMERICAN DATUM (NAD) 1983.
14. OBJECTS SHOULD BE ASSIGNED BY LAYER WITH COLOR BY LAYER. NO CRYPTIC LAYER NAMES. IF CRYPTIC LAYER NAMES ARE USED (I.E., DXF FILES FROM MICROSTATION) THEN A LIST DEFINING LAYER NAMES MUST BE PROVIDED. IF ENTITIES ARE NOT CORRECTLY ASSIGNED BY LAYER IT MAKES IT DIFFICULT TO EXTRACT THE DATA (I.E., IF WATER LINES ARE INADVERTENTLY DRAWN ON THE SEWER LAYER THEY WILL DISAPPEAR WHEN THE WATER LAYER IS ISOLATED).
15. ELECTRONIC DRAWINGS THAT DO NOT FOLLOW THESE SPECIFICATIONS WILL BE RETURN FOR CORRECTION AND THE APPLICANT MAY HAVE THEIR PUBLIC WORKS CERTIFICATE OF COMPLETION OR SUBSEQUENT BUILDING DIVISION CERTIFICATE OF OCCUPANCY WITHHELD UNTIL THE CORRECTIONS HAVE BEEN ADEQUATELY ADDRESSED.

Always call 811 two full business days before you dig to have underground utilities located and marked.
Sunshine811.com

No.	REVISIONS	DATE	BY

Kimley»Horn
© 2026 KIMLEY-HORN AND ASSOCIATES, INC.
200 S. ORANGE AVENUE, SUITE 600, ORLANDO, FL 32801
PHONE: (407) 898-1511
WWW.KIMLEY-HORN.COM REGISTRY No. 35106

LICENSED PROFESSIONAL JOSHUA M. HAAS No.93165 STATE OF FLORIDA REGISTERED PROFESSIONAL ENGINEER
DATE: 10/16/25

KHA PROJECT 149051003
SCALE: AS SHOWN
DESIGNED BY: CF
DRAWN BY: MMT
CHECKED BY: BAS

WOLF LAKE RANCH
CITY OF APOPKA FLORIDA

GENERAL NOTES

SHEET NUMBER
MDP1.1

Plotted By:Martinez, Jeremiah Sheet Set:149051003-Wolf Lake Ranch.dst Layout:MDP1.1 GENERAL NOTES October 16, 2025 03:57:09pm K:\Orl_Local\149051003-wolf lake ranch-Lec\CADD\CONST\jhaashee\Civil_DWG\TOES.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley»Horn and Associates, Inc. shall be without liability to Kimley»Horn and Associates, Inc.

STORMWATER POLLUTION PREVENTION PLAN

SITE DESCRIPTION

PROJECT NAME AND LOCATION
WOLF LAKE RANCH
PARCEL NO: 19-20-28-0000-00-019; 19-20-28-0000-00-035

APOPKA, FL 32712

*SEE COVER SHEET FOR LOCATION MAP

DEVELOPER NAME AND ADDRESS

M/I HOMES OF ORLANDO LLC
400 INTERNATIONAL PARKWAY SUITE 470
LAKE MARY, FL 32746

PROJECT DESCRIPTION

THE PROPOSED DEVELOPMENT FOR THE ±21.12 ACRE SITE ENTAILS THE CONSTRUCTION OF A SINGLE-FAMILY RESIDENTIAL AREA WITH APPROXIMATELY 40 LOTS.

PROJECT AREA: ±21.12 ACRES
CONTRIBUTING DRAINAGE AREA: ±21.12 ACRES
TOTAL CONSTRUCTION AREA: ±21.12 ACRES

LATITUDE: 28° 43' 55" N LONGITUDE : 85° 33' 05" W

ULTIMATE RECEIVING WATERS: SOUTHERN OCKLAWAHA RIVER

ACTIVITIES THAT REQUIRE EROSION CONTROL

SITE CLEARING AND GRUBBING; PROVIDING A STABILIZED CONSTRUCTION ENTRANCE, PERIMETER, AND OTHER EROSION AND SEDIMENT CONTROLS; EXCAVATION FOR THE RETENTION POND; SITE GRADING; INSTALLATION OF STORM WATER, SANITARY SEWER, AND WATER STRUCTURES; CURB, ROADWAYS, AND PARKING FACILITIES.

*SEE PLANS FOR THE LOCATION OF TEMPORARY SEDIMENT BARRIERS AND OTHER EROSION CONTROL METHODS.

SOIL PARAMETERS

SOIL TYPES:

SERIES NAME	HYDROLOGIC GROUP
CANDLER FINE SAND	A

DEWATERING

DISCHARGE OF GROUNDWATER FROM DEWATERING OPERATIONS REQUIRES APPROVAL FROM FDEP AND THE APPLICABLE WATER MANAGEMENT DISTRICT. DISCHARGES DIRECTED TO THE COUNTY'S MS4 REQUIRES A RIGHT-OF-WAY UTILIZATION PERMIT FOR DEWATERING PRIOR TO THE START OF DISCHARGES. TO OBTAIN RIGHT-OF-WAY APPROVAL, COPIES OF THE FDEP PERMIT NOI, DOCUMENTATION SHOWING DEWATERING AT THE SITE IS NOT WITHIN 500 FT OF KNOWN CONTAMINATION, AND A DEWATERING PLAN SHALL BE SUBMITTED TO ALEXIS CLARK, ORANGE COUNTY ENVIRONMENTAL PROTECTION DIVISION (407-836-1433) AND ORANGE COUNTY PUBLIC WORKS DEVELOPMENT ENGINEERING PERMITTING SECTION. ANALYTICAL SAMPLING OF GROUNDWATER MAY BE REQUESTED BY ORANGE COUNTY ON A CASE-BY-CASE BASIS TO CONFIRM SITE CONTAMINATION STATUS.

SEQUENCE OF MAJOR ACTIVITIES

THE ORDER OF CONSTRUCTION IS AS FOLLOWS:

1. PROVIDE STABILIZED CONSTRUCTION ENTRANCE
2. INSTALL SILT FENCES AND OTHER EROSION CONTROL METHODS
3. CLEAR AND GRUB FOR SEDIMENT BASIN AND EARTH DIKE
4. CONSTRUCT EARTH DIKE AND SEDIMENT BASIN
5. FINISH CLEARING AND GRUBBING
6. REMOVE AND STORE TOPSOIL
7. PROVIDE INITIAL GRADING AS REQUIRED
8. STABILIZE ALL DISTURBED AREAS AS SOON AS POSSIBLE
9. INSTALL UTILITIES, STORM SEWER, CURB AND GUTTER
10. INSTALL BASE TO ROAD AND PARKING AREA
11. FINISH GRADING ENTIRE SITE
12. CONSTRUCT FINAL PAVING
13. REMOVE ACCUMULATED SEDIMENT
14. REMOVE ANY ITEMS THAT ARE NOT REQUIRED

TIMING OF CONTROL MEASURES

THE INSTALLATION OF SILT FENCE (AND OTHER EROSION CONTROL MEASURES), A STABILIZED ENTRANCE AND SEDIMENT BASIN SHALL OCCUR PRIOR TO CLEARING AND GRUBBING ACTIVITY. AFTER CONSTRUCTION IS COMPLETE, THE ACCUMULATED SEDIMENT SHALL BE REMOVED AND THE AREAS SHALL BE REGRADED AND PERMANENTLY STABILIZED AS SHOWN ON THE PLANS.

EROSION AND SEDIMENT CONTROLS

BEST MANAGEMENT PRACTICES SHALL BE USED FOR THIS PROJECT TO CONTROL EROSION AND TURBIDITY CAUSED BY STORM WATER RUN-OFF. THE LOCATION AND DETAILS OF EROSION CONTROL METHODS ARE SHOWN ON THE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR PLACING AND MAINTAINING THESE CONTROL METHODS AS SHOWN ON THE PLANS OR AS REQUIRED. HE/SHE SHALL ALSO PROVIDE THE REQUIRED EROSION PROTECTION AS REQUIRED BY LOCAL, STATE AND FEDERAL LAW.

STORM WATER MANAGEMENT

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT (SJRWMD)

STABILIZATION PRACTICES:

TEMPORARY STABILIZATION - TOPSOIL STOCK PILES AND DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASE, SHALL BE STABILIZED WITH TEMPORARY SEED AND MULCH WITHIN 7 DAYS OF THE LAST CONSTRUCTION ACTIVITY IN THAT AREA. THE TEMPORARY SEED REQUIRED CAN BE FOUND IN TABLE 1.65 A OF THE FLORIDA DEVELOPMENT MANUAL. PRIOR TO SEEDING, WHERE SOILS ARE ACIDIC 2 TONS OF PULVERIZED AGRICULTURAL LIMESTONE SHOULD BE ADDED PER ACRE AND 450 POUNDS OF 10-20-20 FERTILIZER SHALL BE APPLIED TO EACH ACRE. AFTER SEEDING, EACH AREA SHALL BE IMMEDIATELY MULCHED WITH STRAW OR EQUIVALENT EQUAL. AREAS OF THE SITE WHICH ARE TO BE PAVED SHALL BE TEMPORARILY STABILIZED BY APPLYING GEOTEXTILE AND STONE SUB-BASE UNTIL BITUMINOUS PAVEMENT CAN BE APPLIED.

PERMANENT STABILIZATION - DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES PERMANENTLY CEASE SHALL BE STABILIZED WITH PERMANENT SEED NO LATER THAN 7 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY. THE APPROPRIATE PERMANENT SEED MIX CAN BE FOUND IN TABLES 1.66A, 1.66B AND 1.66C OF THE FLORIDA DEVELOPMENT MANUAL. PRIOR TO SEEDING, 2 TONS/ACRE OF FINELY GROUND AGRICULTURAL LIMESTONE AND THE PROPER FERTILIZER BASED ON THE TYPE OF SEEDING SHALL BE APPLIED TO EACH ACRE TO PROVIDE PLANT NUTRIENTS. AFTER SEEDING, EACH AREA SHALL BE MULCHED IMMEDIATELY.

STRUCTURAL PRACTICES:

EARTH DIKE - IF REQUIRED, AN EARTH DIKE SHALL BE CONSTRUCTED ALONG THE SITE PERIMETER. A PORTION OF THE DIKE SHALL DIVERT RUN-ON AROUND THE CONSTRUCTION SITE. THE REMAINING PORTION OF THE DIKE SHALL COLLECT RUNOFF FROM THE DISTURBED AREA AND DIRECT THE RUNOFF TO THE SEDIMENT BASIN.

SEDIMENT BASIN - A SEDIMENT BASIN SHALL BE CONSTRUCTED IN THE COMMON DRAINAGE AREA FOR THE SITE. ALL SEDIMENT COLLECTED IN THE BASIN MUST BE REMOVED FROM THE BASIN UPON COMPLETION OF CONSTRUCTION. SEDIMENT FROM THE BASIN MAY BE USED AS FILL ON THE SITE IF IT IS SUITABLE SOIL.

WASTE DISPOSAL

WASTE MATERIALS - ALL WASTE MATERIALS SHALL BE COLLECTED AND STORED IN A METAL DUMPSTER WITH A SECURE LID IN ACCORDANCE WITH ALL LOCAL AND STATE LAWS. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE SHALL BE DEPOSITED IN THE DUMPSTER. THE SUPERINTENDENT SHALL COORDINATE WITH THE LOCAL UTILITIES TO HAVE THE DUMPSTER EMPTIED AT LEAST TWICE A WEEK AND THE WASTE TAKEN TO AN APPROPRIATE LANDFILL. NO CONSTRUCTION WASTE MATERIALS SHALL BE BURIED ON SITE. THE SUPERINTENDENT SHALL ORGANIZE TRAINING FOR THE EMPLOYEES IN THE PROPER PRACTICES WHEN DEALING WITH WASTE MATERIALS. THE SUPERINTENDENT SHALL BE RESPONSIBLE FOR POSTING AND ENFORCING WASTE MATERIAL PROCEDURES.

HAZARDOUS WASTE - HAZARDOUS WASTE MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL AND STATE LAWS OR AS DIRECTED BY THE MANUFACTURER. THE SUPERINTENDENT SHALL ORGANIZE THE PROPER TRAINING FOR EMPLOYEES IN THE PROPER PRACTICES WHEN DEALING WITH HAZARDOUS WASTE MATERIALS. THESE PROCEDURES SHALL BE POSTED ON THE SITE. THE PERSON WHO MANAGES THE SITE SHALL BE RESPONSIBLE FOR ENFORCING THE PROCEDURES.

SANITARY WASTE - SANITARY WASTE SHALL BE COLLECTED AND DISPOSED OF IN ACCORDANCE WITH ALL LOCAL AND STATE LAWS. THE SUPERINTENDENT SHALL COORDINATE WITH THE LOCAL UTILITY FOR COLLECTION OF THE SANITARY WASTE AT LEAST THREE TIMES A WEEK TO PREVENT SPILLAGE ONTO THE SITE.

OFF-SITE TRACKING

A STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROVIDED TO REDUCE SEDIMENT TRACKING OFFSITE. THE MAJOR ROAD CONNECTED TO THE PROJECT SHALL BE CLEANED ONCE A DAY TO REMOVE ANY EXCESS MUD, DIRT OR ROCK RESULTING FROM CONSTRUCTION TRAFFIC. ALL TRUCKS HAULING MATERIALS OFFSITE SHALL BE COVERED WITH A TARPAULIN.

DUST & DEBRIS CONTROL
THE CONTRACTOR SHALL BE RESPONSIBLE FOR DUST CONTROL WITHIN THE CONSTRUCTION LIMITS AS WELL AS ALONG HAUL ROUTES AND ROADWAYS USED BY THE EQUIPMENT AND VEHICLES. THE CONTRACTOR SHALL ENSURE THAT EXCESSIVE DUST IS NOT TRANSPORTED BEYOND THE LIMITS OF CONSTRUCTION IN POPULATED AREAS. THE CONTRACTOR MAY CONTROL DUST FOR EMBANKMENTS OR OTHER CLEARED OR UNSURFACED AREAS BY APPLYING WATER. INSTALL MULCH, SEED, SOD, OR TEMPORARY PAVING AS EARLY AS PRACTICAL. CONTROL DUST DURING STORAGE AND HANDLING OF DUSTY MATERIALS BY WETTING, COVERING, OR OTHER MEANS AS APPROVED BY THE ENGINEER. CONTRACTOR SHALL ENFORCE REDUCED VEHICLE SPEEDS ON UNPAVED ROADS AND IF NECESSARY PROHIBIT CONSTRUCTION GRADING WHEN WIND GUSTS EXCEED 25 MPH, OR OTHERWISE DIRECTED BY E.O.R. OR COUNTY INSPECTOR.

DEBRIS AND TRASH SHALL NOT BE ALLOWED TO ACCUMULATE ON THE PROJECT SITE. CONTRACTOR SHALL COLLECT LOOSE DEBRIS & TRASH DAILY, AND DISPOSE OF IT INTO APPROPRIATE CONSTRUCTION TRASH RECEPTACLES OR CONTAINERS.

ITEMS REQUIRING POLLUTION PREVENTION

THE FOLLOWING ITEMS ARE EXPECTED TO BE PRESENT ON THE PROJECT SITE:

-ASPHALT
-CONCRETE
-FERTILIZERS
-METAL PIECES
-PETROLEUM BASED PRODUCTS
-TAR
-CLEANING SUPPLIES
-DETERGENTS
-MASONARY BLOCK/BRICKS
-PAINT
-WOOD

THE FOLLOWING ARE NON-STORM WATER SOURCES THAT WILL BE ENCOUNTERED AT THE SITE AND SHOULD BE DIRECTED TO THE SEDIMENT BASIN PRIOR TO DISCHARGE:

-UNCONTAMINATED GROUNDWATER EXPOSED DURING EXCAVATION
-WATER FROM WATER LINE FLUSHING
-PAVEMENT WASH WATERS (WHERE NO SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE OCCURRED).

SPILL PREVENTION AND CONTROL

THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT WILL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORM WATER RUNOFF.

GOOD HOUSEKEEPING

-SUPERINTENDENT SHALL INSPECT PROJECT AREA DAILY FOR PROPER STORAGE, USE, AND DISPOSAL OF CONSTRUCTION MATERIALS.

-STORE ONLY ENOUGH MATERIAL ON SITE FOR PROJECT COMPLETION.

-ALL SUBSTANCES SHOULD BE USED BEFORE DISPOSAL OF CONTAINER.

-ALL CONSTRUCTION MATERIALS STORED SHALL BE ORGANIZED AND IN THE PROPER CONTAINER AND IF POSSIBLE, STORED UNDER A ROOF OR PROTECTIVE COVER.

-PRODUCTS SHALL NOT BE MIXED UNLESS DIRECTED BY THE MANUFACTURER.

-ALL PRODUCTS SHALL BE USED AND DISPOSED OF ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

HAZARDOUS PRODUCTS

-MATERIALS SHOULD BE KEPT IN ORIGINAL CONTAINER WITH LABELS UNLESS THE ORIGINAL CONTAINERS CANNOT BE RESEALED. IF ORIGINAL CONTAINERS CANNOT BE USED, LABELS AND PRODUCT INFORMATION SHALL BE SAVED.

-PROPER DISPOSAL PRACTICES SHALL ALWAYS BE FOLLOWED IN ACCORDANCE WITH MANUFACTURER AND LOCAL/STATE REGULATIONS.

PRODUCT SPECIFIC PRACTICES

-PETROLEUM PRODUCTS MUST BE STORED IN PROPER CONTAINERS AND CLEARLY LABELED. VEHICLES CONTAINING PETROLEUM PRODUCTS SHALL BE PERIODICALLY INSPECTED FOR LEAKS. PRECAUTIONS SHALL BE TAKEN TO AVOID LEAKAGE OF PETROLEUM PRODUCTS ON SITE.

-THE MINIMUM AMOUNT OF FERTILIZER SHALL BE USED AND MIXED INTO THE SOIL IN ORDER TO LIMIT EXPOSURE TO STORM WATER. FERTILIZERS SHALL BE STORED IN A COVERED SHED. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER SHALL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.

-PAINT CONTAINERS SHALL BE SEALED AND STORED WHEN NOT IN USE. EXCESS PAINT MUST BE DISPOSED OF IN AN APPROVED MANNER.

-CONCRETE TRUCKS SHALL NOT BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ON THE SITE.

SPILL CONTROL PRACTICES

IN ADDITION TO THE GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTIONS OF THIS PLAN, THE FOLLOWING PRACTICES SHALL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:

-SPILL CLEANUP INFORMATION SHALL BE POSTED ON SITE TO INFORM EMPLOYEES ABOUT CLEANUP PROCEDURES AND RESOURCES.

-THE FOLLOWING CLEAN-UP EQUIPMENT MUST BE KEPT ON-SITE NEAR THE MATERIAL STORAGE AREA: GLOVES, MOPS, RAGS, BROOMS, DUST PANS, SAND, SAWDUST, LIQUID ABSORBER, GOGGLES, AND TRASH CONTAINERS.

-ALL SPILLS SHALL BE CLEANED UP AS SOON AS POSSIBLE.

-WHEN CLEANING A SPILL, THE AREA SHOULD BE WELL VENTILATED AND THE EMPLOYEE SHALL WEAR PROPER PROTECTIVE COVERING TO PREVENT INJURY.

-TOXIC SPILLS MUST BE REPORTED TO THE PROPER AUTHORITY REGARDLESS OF THE SIZE OF THE SPILL.

-AFTER A SPILL, THE PREVENTION PLAN SHALL BE REVIEWED AND CHANGED TO PREVENT FURTHER SIMILAR SPILLS FROM OCCURRING. THE CAUSE OF THE SPILL, MEASURES TO PREVENT IT, AND HOW TO CLEAN THE SPILL UP SHALL BE RECORDED.

-THE SUPERINTENDENT SHALL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR AND IS RESPONSIBLE FOR THE DAY TO DAY SITE OPERATIONS. THE SUPERINTENDENT ALSO OVERSEES THE SPILL PREVENTION PLAN AND SHALL BE RESPONSIBLE FOR EDUCATING THE EMPLOYEES ABOUT SPILL PREVENTION AND CLEANUP PROCEDURES.

MAINTENANCE AND INSPECTION PRACTICES

THE FOLLOWING ARE MAINTENANCE AND INSPECTION PRACTICES THAT SHALL BE COMPLETED BY THE CONTRACTOR:

-ALL SEDIMENT AND EROSION CONTROL METHODS SHALL BE CHECKED AT A MINIMUM OF EVERY 7 DAYS AND WITHIN 24 HOURS OF EACH 0.5 INCH OR GREATER RAINFALL BY THE SUPERINTENDENT OR SOMEONE UNDER HIS/HER DIRECT SUPERVISION.

-ALL SEDIMENT AND EROSION CONTROL METHODS SHALL BE KEPT IN GOOD CONDITION. REPAIRS MUST BE MADE WITHIN 24 HOURS OF REPORT.

-THE SILT FENCE SHALL BE INSPECTED AT A MINIMUM OF EVERY 7 DAYS AND WITHIN 24 HOURS OF A 0.5" OR GREATER RAIN EVENT FOR HEIGHT OF SEDIMENT AND CONDITION OF FENCE.

-THE SILT FENCE SHALL BE CLEARED OF SEDIMENT WHEN SEDIMENT MEASURES ONE-THIRD THE HEIGHT OF THE FENCE.

-THE SEDIMENT BASINS/DITCHES SHALL BE CHECKED AT A MINIMUM OF EVERY 7 DAYS AND WITHIN 24 HOURS OF A 0.5" OR GREATER RAIN EVENT FOR DEPTH OF SEDIMENT. THEY SHALL BE CLEANED WHEN SEDIMENT REACHES 10% OF TOTAL CAPACITY AND AFTER CONSTRUCTION IS COMPLETE.

-DIVERSION DIKES SHALL BE INSPECTED AT A MINIMUM OF EVERY 7 DAYS AND WITHIN 24 HOURS OF A 0.5" OR GREATER RAIN EVENT. ANY BREACHES SHALL BE PROMPTLY REPAIRED.

-ALL SEEDING SHALL BE CHECKED FOR PROPER GROWTH AND UNIFORMITY. UNSTABALIZED AREAS SHALL BE RE-SODDED.

-A MAINTENANCE REPORT SHALL BE COMPLETED DAILY AFTER EACH INSPECTION OF THE SEDIMENT AND EROSION CONTROL METHODS. THE REPORTS SHALL BE FILED IN AN ORGANIZED MANNER AND RETAINED ON-SITE DURING CONSTRUCTION. AFTER CONSTRUCTION IS COMPLETED, THE REPORTS SHALL BE SAVED FOR AT LEAST THREE YEARS. THE REPORTS SHALL BE AVAILABLE FOR ANY AGENCY THAT HAS JURISDICTION OVER EROSION CONTROL.

-THE SUPERINTENDENT SHALL ORGANIZE THE TRAINING FOR INSPECTION PROCEDURES AND PROPER EROSION CONTROL METHODS FOR EMPLOYEES THAT COMPLETE INSPECTIONS AND REPORTS.

POLLUTION PREVENTION PLAN CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

SIGNED: _____ DATE:_____

FLORIDA REGISTRATION NUMBER: 93160
PROFESSIONAL ENGINEER

CONTRACTOR'S CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND, SHALL COMPLY WITH, THE TERMS AND CONDITIONS OF THE STATE OF FLORIDA GENERIC PERMIT FOR STORMWATER DISCHARGE FORM LARGE AND SMALL CONSTRUCTION ACTIVITIES AND THE STORMWATER POLLUTION PREVENTION PLAN PREPARED THEREUNDER.

SIGNATURE AND DATE	NAME AND TITLE, COMPANY / ADDRESS AND TELEPHONE NUMBER	RESPONSIBILITY

Plotted By: Martinez, Jeremiah Sheet Set: 149051003-Wolf Lake Ranch-Lan Layout: MDP2.0 STORMWATER POLLUTION PREVENTION PLAN October 16, 2020, 03:57:18pm K:\Orl_Civil\149051003-Wolf lake ranch\Lan\CADD\CONSET\plansheets\C2.0-SWPPP.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley»Horn and Associates, Inc. shall be without liability to Kimley»Horn and Associates, Inc.

Kimley»Horn
© 2004 KIMLEY-HORN AND ASSOCIATES, INC.
200 S. ORANGE AVENUE, SUITE 600, ORLANDO, FL 32801
PHONE: (407) 898-1511
WWW.KIMLEY-HORN.COM REGISTRY No. 35106

REVISIONS | No. | DATE | BY

LICENSED PROFESSIONAL — JOSHUA M. MARTINEZ — No. 93160 — STATE OF FLORIDA — FUNCTIONAL KNOWLEDGE — DATE

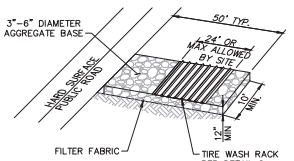
KHA PROJECT 149051003
DATE 10/16/2020
SCALE AS SHOWN
DESIGNED BAS
DRAWN MAM
CHECKED JM

STORMWATER POLLUTION PREVENTION PLAN

WOLF LAKE RANCH

CITY OF APOPKA FLORIDA

SHEET NUMBER
MDP2.0



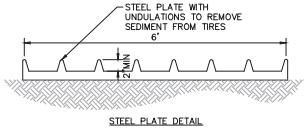
NOTES:

1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.

2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.

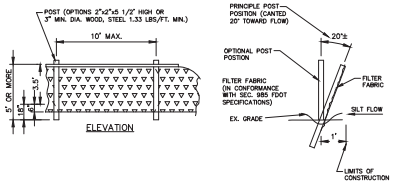
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

STABILIZED CONSTRUCTION ENTRANCE 1

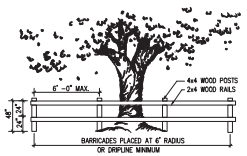


STEEL PLATE DETAIL

TIRE WASH RACK 2
N.T.S.



TYPICAL SILT FENCE 3
N.T.S.



TREE PROTECTION DETAIL
NTS

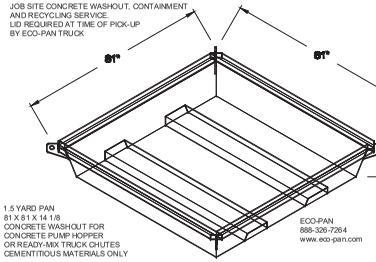
TREE PROTECTION DETAIL 4
N.T.S

Type III Silt Fence Protection Around Ditch Bottom Inlets.

Do not deploy in a manner that silt fences will act as a dam across permanent flowing watercourses. Silt fences are to be used at upland locations and turbidity barriers used at permanent bodies of water.

SILT FENCE APPLICATIONS
NOT TO SCALE

SILT FENCE APPLICATIONS 5
N.T.S



NOTE:

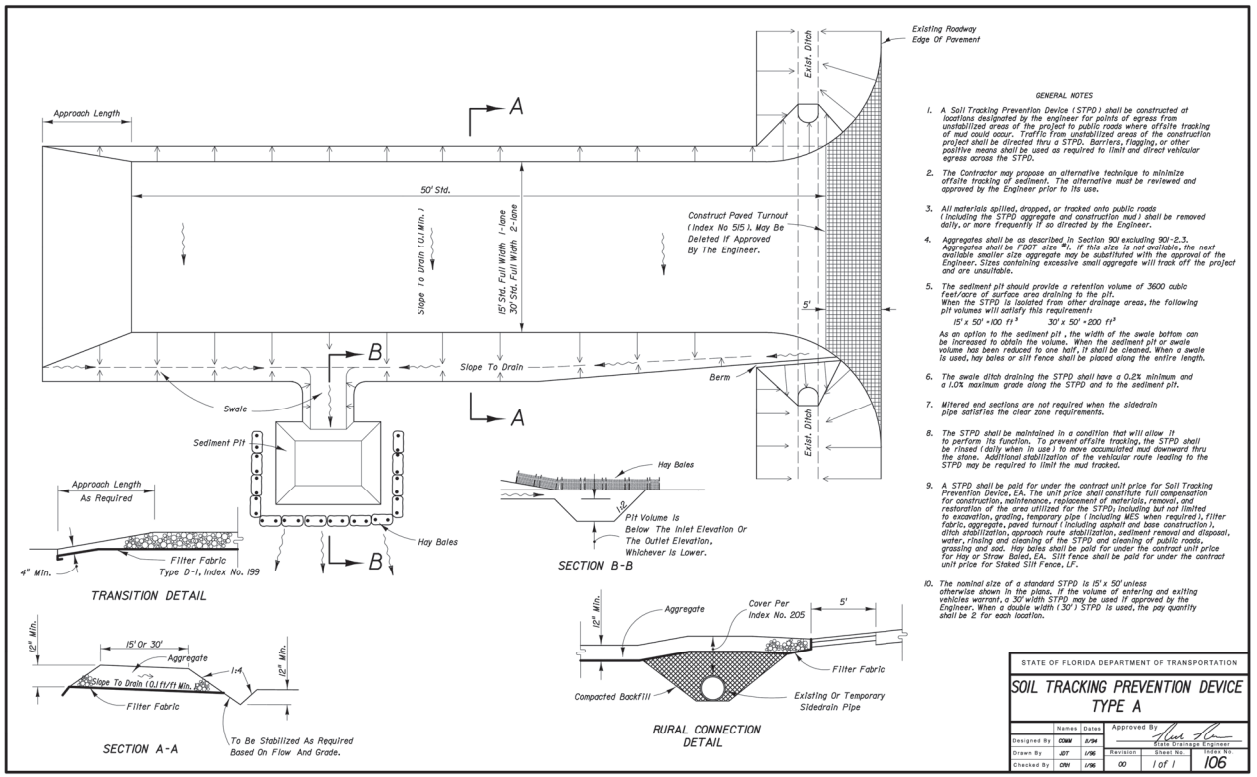
1. WASHOUT AREA TO CONTAIN A MINIMUM OF 3 CY (IE 9' BY 9' BY 1' DEEP).

2. REMOVE AND LEGALLY DISPOSE OF WASTE MATERIAL WHEN IT ACCUMULATES TO 2/3 OF WET STORAGE CAPACITY.

3. CONCRETE WASHOUT AREA TO BE REPAIRED AND/OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY.

4. UPON COMPLETION OF CONSTRUCTION ACTIVITIES REQUIRING CONCRETE WASHOUT, REMOVE WASHOUT AND RESTORE THE AREA TO FINISH GRADE.

CONCRETE TRUCK WASHOUT 6
N.T.S



GENERAL NOTES

1. A Soil Tracking Prevention Device (STPD) shall be constructed at locations designated by the engineer for points of egress from unstabilized areas of the project to public roads where offsite tracking of mud could occur. Traffic from unstabilized areas of the construction project shall be directed thru a STPD. Barriers, flagging, or other positive means shall be used as required to limit and direct vehicular egress across the STPD.

2. The Contractor may propose an alternative technique to minimize offsite tracking of sediment. The alternative must be reviewed and approved by the Engineer prior to its use.

3. All materials spilled, dropped, or tracked onto public roads (including the STPD aggregate and construction mud) shall be removed daily, or more frequently if so directed by the Engineer.

4. Aggregates shall be as described in Section 901 excluding 901-2.3. Aggregates shall be FDOT size #1. If this size is not available, the next available smaller size aggregate may be substituted with the approval of the Engineer. Sizes containing excessive small aggregate will track off the project and are unsuitable.

5. The sediment pit should provide a retention volume of 3600 cubic feet/acre of surface area draining to the pit. When the STPD is located from other drainage areas, the following pit volumes will satisfy this requirement:
   15' x 50' = 100 ft³ 30' x 50' = 200 ft³
   As an option to the sediment pit, the width of the swale bottom can be increased to obtain the volume. When the sediment pit or swale volume has been reduced to one half, it shall be cleaned. When a swale is used, hay bales or silt fence shall be placed along the entire length.

6. The swale ditch draining the STPD shall have a 0.2% minimum and a 10% maximum grade along the STPD and to the sediment pit.

7. Mitered end sections are not required when the sidedrain pipe satisfies the clear zone requirements.

8. The STPD shall be maintained in a condition that will allow it to perform its function. To prevent offsite tracking, the STPD shall be rinsed (daily when in use) to move accumulated mud downward thru the stone. Additional stabilization of the vehicular route leading to the STPD may be required to limit the mud tracked.

9. A STPD shall be paid for under the contract unit price for Soil Tracking Prevention Device, EA. The unit price shall constitute full compensation for construction, maintenance, replacement of materials, removal, and restoration of the area utilized for the STPD; including but not limited to excavation, grading, temporary pipe (including MES when required), filter fabric, aggregate, paved turnout (including asphalt and base construction), ditch stabilization, approach route stabilization, sediment removal and disposal, water, rinsing and cleaning of the STPD and cleaning of public roads, grassing and sod. Hay bales shall be paid for under the contract unit price for Hay or Straw Bales, EA. Silt fence shall be paid for under the contract unit price for Staked Silt Fence, LF.

10. The nominal size of a standard STPD is 15' x 50' unless otherwise shown in the plans. If the volume of entering and exiting vehicles warrant, a 30' width STPD may be used if approved by the Engineer. When a double width (30') STPD is used, the pay quantity shall be 2 for each location.

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

SOIL TRACKING PREVENTION DEVICE TYPE A

	Names	Dates
Designed By	CDM	5/14
Drawn By	JST	5/16
Checked By	CRH	5/16

Approved By: State Drainage Engineer

Revision	Sheet No.	Index No.
00	1 of 1	106

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

Kimley»Horn
© 2024 KIMLEY-HORN AND ASSOCIATES, INC.
200 S. ORANGE AVENUE, SUITE 600, ORLANDO, FL 32801
PHONE: (407) 898-1511
WWW.KIMLEY-HORN.COM REGISTRY No. 35106

No.	REVISIONS	DATE	BY

LICENSED PROFESSIONAL JOSHUA M. PAUL No. 53160 STATE OF FLORIDA FUNCTIONAL KNOWLEDGE

KHA PROJECT 149951003
DATE
SCALE AS SHOWN
DESIGNED BY CF
DRAWN BY MMT
CHECKED BY BAS

EROSION CONTROL DETAILS

WOLF LAKE RANCH
CITY OF APOPKA FLORIDA

SHEET NUMBER
MDP2.1

No.	REVISIONS	DATE	BY

Kimley»Horn
© 2024 KIMLEY-HORN AND ASSOCIATES, INC.
200 S. ORANGE AVENUE, SUITE 600, ORLANDO, FL
PHONE: (407) 898-1511
WWW.KIMLEY-HORN.COM REGISTRY No. 35106

LICENSED PROFESSIONAL ENGINEER — STATE OF FLORIDA — DATE

KHA PROJECT	149561003
DATE	AS SHOWN
SCALE	
DESIGNED BY	CF
DRAWN BY	MMH
CHECKED BY	BAS

EXISTING CONDITIONS AND DEMOLITION PLAN

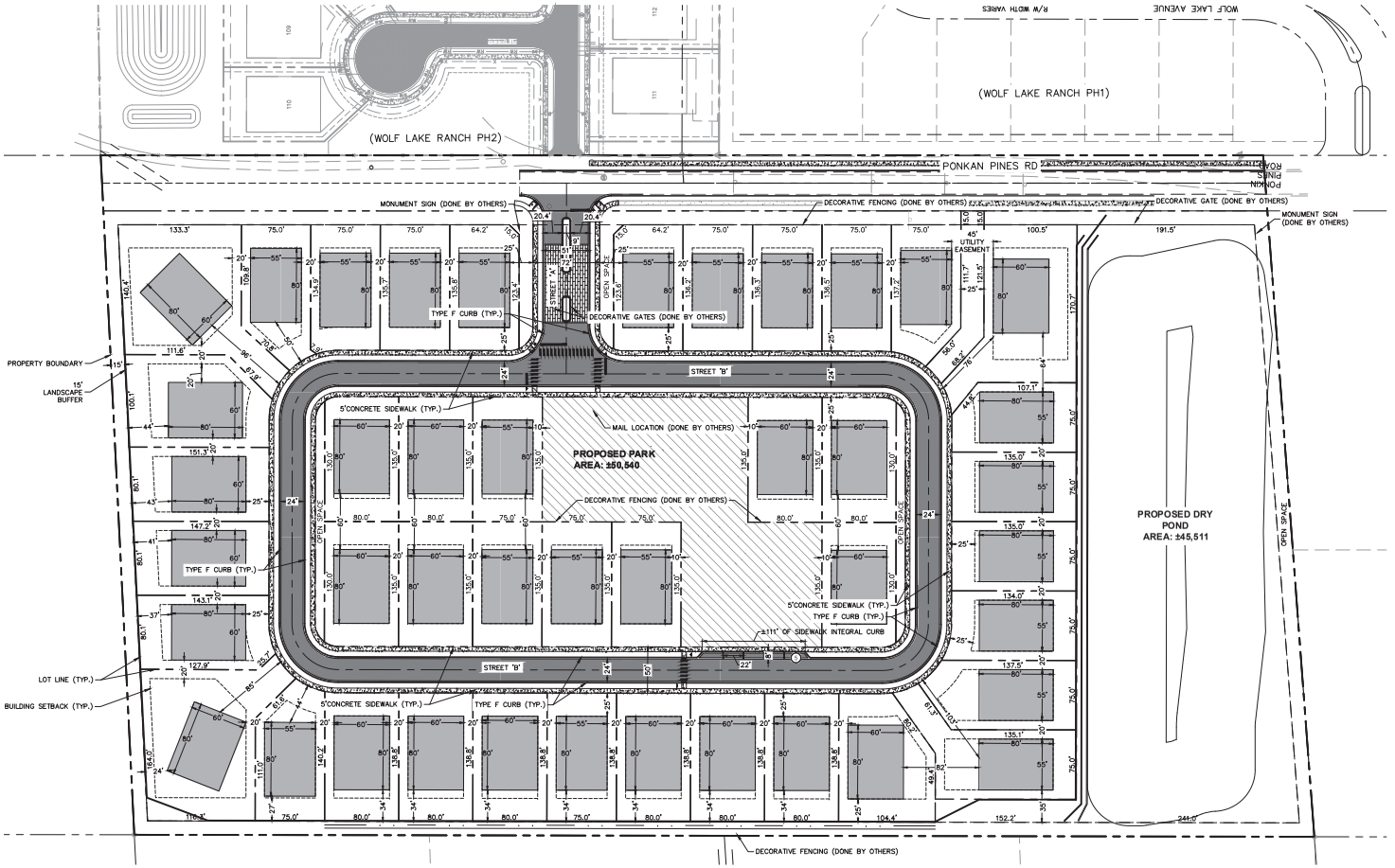
WOLF LAKE RANCH

CITY OF APOPKA FLORIDA

SHEET NUMBER MDP3.0

These documents, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

Plotted by: Matthew.Jernigan Plotted: Sat, 16 Mar 2024 - 4:42pm Layout: MDP3.0 EXISTING CONDITIONS AND DEMOLITION PLAN Created: Thu, 16 Nov 2023 - 10:16am Xref: c-xcl_149561003-WLR_Base.dwg Xref: c-xcl_149561003-WLR_Demo.dwg Xref: c-xcl_149561003-WLR_Topo.dwg Xref: c-xcl_149561003-WLR_Utility.dwg Xref: c-xcl_149561003-WLR_Boundary.dwg Xref: c-xcl_149561003-WLR_Site.dwg Xref: c-xcl_149561003-WLR_Grading.dwg Xref: c-xcl_149561003-WLR_Landscape.dwg Xref: c-xcl_149561003-WLR_Hardscape.dwg Xref: c-xcl_149561003-WLR_Signage.dwg Xref: c-xcl_149561003-WLR_Lighting.dwg Xref: c-xcl_149561003-WLR_Irrigation.dwg Xref: c-xcl_149561003-WLR_Fire.dwg Xref: c-xcl_149561003-WLR_Details.dwg Xref: c-xcl_149561003-WLR_Details2.dwg Xref: c-xcl_149561003-WLR_Details3.dwg Xref: c-xcl_149561003-WLR_Details4.dwg Xref: c-xcl_149561003-WLR_Details5.dwg Xref: c-xcl_149561003-WLR_Details6.dwg Xref: c-xcl_149561003-WLR_Details7.dwg Xref: c-xcl_149561003-WLR_Details8.dwg Xref: c-xcl_149561003-WLR_Details9.dwg Xref: c-xcl_149561003-WLR_Details10.dwg Xref: c-xcl_149561003-WLR_Details11.dwg Xref: c-xcl_149561003-WLR_Details12.dwg Xref: c-xcl_149561003-WLR_Details13.dwg Xref: c-xcl_149561003-WLR_Details14.dwg Xref: c-xcl_149561003-WLR_Details15.dwg Xref: c-xcl_149561003-WLR_Details16.dwg Xref: c-xcl_149561003-WLR_Details17.dwg Xref: c-xcl_149561003-WLR_Details18.dwg Xref: c-xcl_149561003-WLR_Details19.dwg Xref: c-xcl_149561003-WLR_Details20.dwg Xref: c-xcl_149561003-WLR_Details21.dwg Xref:



GRAPHIC SCALE IN FEET
0 30 60 120

NORTH

LEGEND

- PROPOSED SIDEWALK
- PROPOSED ASPHALT PAVEMENT
- PROPOSED BUILDING PAD
- PROPOSED PAVERS
- PROJECT BOUNDARY
- LANDSCAPE SETBACK
- BUILDING SETBACK
- LOT LINE

SITE DATA

PROJECT LOCATION:	CITY OF APOPKA, ORANGE COUNTY FLORIDA SECTION 19, TOWNSHIP 20 SOUTH, RANGE 28 EAST
TOTAL SITE AREA:	±21.34 AC. (929,750 SF)
R.O.W. DEDICATION:	±1.73 AC. (75,369 SF)
DEVELOPABLE AREA:	±21.34 (929,750 SF)
EXISTING ZONING:	'MU-ES-GT' MIXED USE EAST SHORE
ADJACENT ZONING:	AR' AGRICULTURAL RESIDENTIAL; 'MU-ES-GT' MIXED USE EAST SHORE
FUTURE LAND USE:	MIXED USE
EXISTING USE:	RESIDENTIAL
PROPOSED USE:	RESIDENTIAL
PARCEL I.D.'S:	19-20-28-0000-00-019; 19-20-28-0000-00-035

BUILDING SETBACKS:

FRONT:	15 FT
REAR:	20 FT
SIDE:	5 FT
SIDE CORNER:	15 FT

BUILDING SUMMARY

PROPOSED LOTS:	42 DUs
MIN. PROPOSED LOT SIZE:	10,125 SF
MINIMUM LOT WIDTH:	75 FT
MIN. PROPOSED LOT DEPTH:	135 FT
MAXIMUM ALLOW. DENSITY:	2 DU/AC
PROPOSED DENSITY:	42 DUs / 21.34 AC = 1.97

OVERALL OPEN SPACE SUMMARY

MINIMUM OPEN SPACE CALCULATION: 19.61 AC x 20% = 3.92 AC

PROVIDED OPEN SPACE:

OPEN SPACE TRACTS:	0.64 AC
LANDSCAPE BUFFER TRACTS:	1.31 AC
RECREATION TRACT:	1.63 AC
STORMWATER TRACTS:	1.84 AC OF 2.45 AC TOTAL (75% MAX)
TOTAL PROVIDED:	5.42 AC (27.64%)

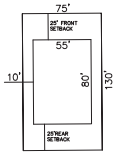
GENERAL:
PROJECT SHALL COMPLY WITH CITY OF APOPKA DESIGN STANDARDS. SEE DRAINAGE SHEETS FOR ALL POND TYPICAL SECTIONS.

LANDSCAPING:
ALL LANDSCAPING SHALL MEET OR EXCEED THE REQUIREMENTS OF SECTION 5.2 OF CITY OF APOPKA LAND DEVELOPMENT CODE.

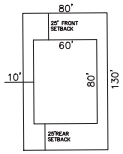
EASEMENTS:
ANY EASEMENT SHOWN AS PROPOSED WILL BE RECORDED PRIOR TO ISSUING THE CERTIFICATE OF OCCUPANCY.

STORM WATER MANAGEMENT:
OWNERSHIP AND MAINTENANCE OF STORM WATER POND SHALL BE THE RESPONSIBILITY OF THE HOME OWNER'S ASSOCIATION. THE STORMWATER MANAGEMENT SYSTEM SHALL BE DESIGNED TO MEET CITY OF APOPKA CODE AND ST. JOHNS RIVER WATER MANAGEMENT DISTRICT REQUIREMENTS. BASED ON THE NATIONAL FLOOD INSURANCE PROGRAM FIRM MAPS NO. 12095C0005H & 12095C0110H EFFECTIVE SEPTEMBER 24, 2021 THE SUBJECT PROPERTY IS WITHIN ZONE "X"

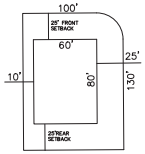
75' LOTS SIZE/PROPOSED BUILDING PAD



80' LOTS SIZE/PROPOSED BUILDING PAD



100' CORNER LOTS SIZE/PROPOSED BUILDING PAD



GREEN BUILDING STANDARDS

MINIMUM GREEN BUILDING POINTS:
MORE THAN 30 DUs = 4.0 PT

PROPOSED GREEN BUILDING STANDARDS:

LOCATION:	
–DEVELOPMENT ON PREVIOUSLY USED OR DEVELOPED LAND THAT IS NOT CONTAMINATED (SITE RE-USE)	0.50 PT
ENERGY CONSERVATION:	
–USE CENTRAL AIR CONDITIONERS THAT ARE ENERGY STAR QUALIFIED	0.50 PT
PASSIVE SOLAR:	
–ORIENT A MINIMUM OF 25 PERCENT OF RESIDENTIAL DWELLINGS OR LOTS IN THE DEVELOPMENT WITHIN 20 PERCENT OF EAST–WEST AXIS FOR MAXIMUM PASSIVE SOLAR EXPOSURE	1.00 PT
VEGETATION:	
–PRESERVE 1–5 LARGE, NON–EXOTIC TREES ON SITE (LARGE TREE DEFINED AS 20 FEET OR GREATER IN HEIGHT AND 24 INCHES OR GREATER DBH)	0.50 PT

TRANSPORTATION:

–PROVIDE MORE BICYCLE PARKING THAN REQUIRED BY SEC.5.1.11, BICYCLE PARKING STANDARDS, WHILE ENSURING THAT ALL OTHER BICYCLE PARKING STANDARDS IN SECTION 5.1, OFF–STREET PARKING, BICYCLE PARKING, AND LOADING STANDARDS ARE MET PROPOSED BICYCLE PARKING = 6	1.50 PT
RESILIENCE TO NATURAL HAZARDS	
– ELEVATE NEW AND/OR STRUCTURES MORE THAN 3 FT ABOVE BASE FLOOD ELEVATION	0.50 PT
– INSTALL OPERABLE WINDOWS TO ALLOW FOR NATURAL VENTILATION IN THE EVENT OF POWER FAILURES	0.25 PT
TOTAL PROVIDED:	4.75 PT

SITE LIGHTING:
SITE LIGHTING SHALL COMPLY WITH SECTION 5.6 OF CITY OF APOPKA LAND DEVELOPMENT CODE.
(LIGHTING PLAN, SPECIFICATIONS AND PHOTOMETRIC CALCULATIONS SHALL
BE DESIGNED AT TIME OF FINAL ENGINEERING)

UTILITY NOTES:

1. THE DEVELOPER SHALL OBTAIN WATER, REUSE WATER AND WASTEWATER SERVICE FROM CITY OF APOPKA.
2. DURING CONSTRUCTION, WHEN COMBUSTIBLES ARE BROUGHT ON TO THE SITE, ACCESS ROADS AND A SUITABLE TEMPORARY OR PERMANENT SUPPLY OF WATER ACCEPTABLE TO THE FIRE DEPARTMENT SHALL BE PROVIDED AND MAINTAINED PER NFPA 1 AND 101 (2018 EDITION), FFPC 7TH EDITION.

FIRE PROTECTION:
FIRE DEPARTMENT ACCESS AND WATER SUPPLY SHALL COMPLY WITH NFPA 1 AND 101 (2018 EDITION) AND FLORIDA FIRE PROTECTION CODE (FFPC) 7TH EDITION.

No.	REVISIONS	DATE	BY

Kimley»Horn

© 2024 KIMLEY-HORN AND ASSOCIATES, INC.
200 S. ORANGE AVENUE, SUITE 600, ORLANDO, FL 32801
PHONE: (407) 898-1511
WWW.KIMLEY-HORN.COM REGISTRY No. 35106

LICENSED PROFESSIONAL JOSHUA M. MARTINEZ No. 93160 STATE OF FLORIDA

KHA PROJECT 149051003
DATE 10/6/2025
SCALE AS SHOWN
DESIGNED BY CF
DRAWN BY MAM
CHECKED BY BAS

SITE PLAN

WOLF LAKE RANCH

CITY OF APOPKA FLORIDA

SHEET NUMBER
MDP4.0

Plotted By: Martinez, Joshua M. Sheet Set: 149051003-Wolf Lake Ranch.dst Layout: MDP4.0 SITE PLAN October 06, 2025 03:57:43pm K:\Orl_Civil\149051003\wolf lake ranch\Active\CAD\DCONST\testsheet\C4.0-SITE.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley»Horn and Associates, Inc. shall be without liability to Kimley»Horn and Associates, Inc.

WOLF LAKE RANCH
CITY OF APOPKA FLORIDA

OVERALL PAVING AND GRADING PLAN

KHA PROJECT 149551003
DATE
SCALE AS SHOWN
DESIGNED BY
DRAWN BY
CHECKED BY

SHEET NUMBER
MDP5.0

LICENSED PROFESSIONAL ENGINEER STATE OF FLORIDA
DATE

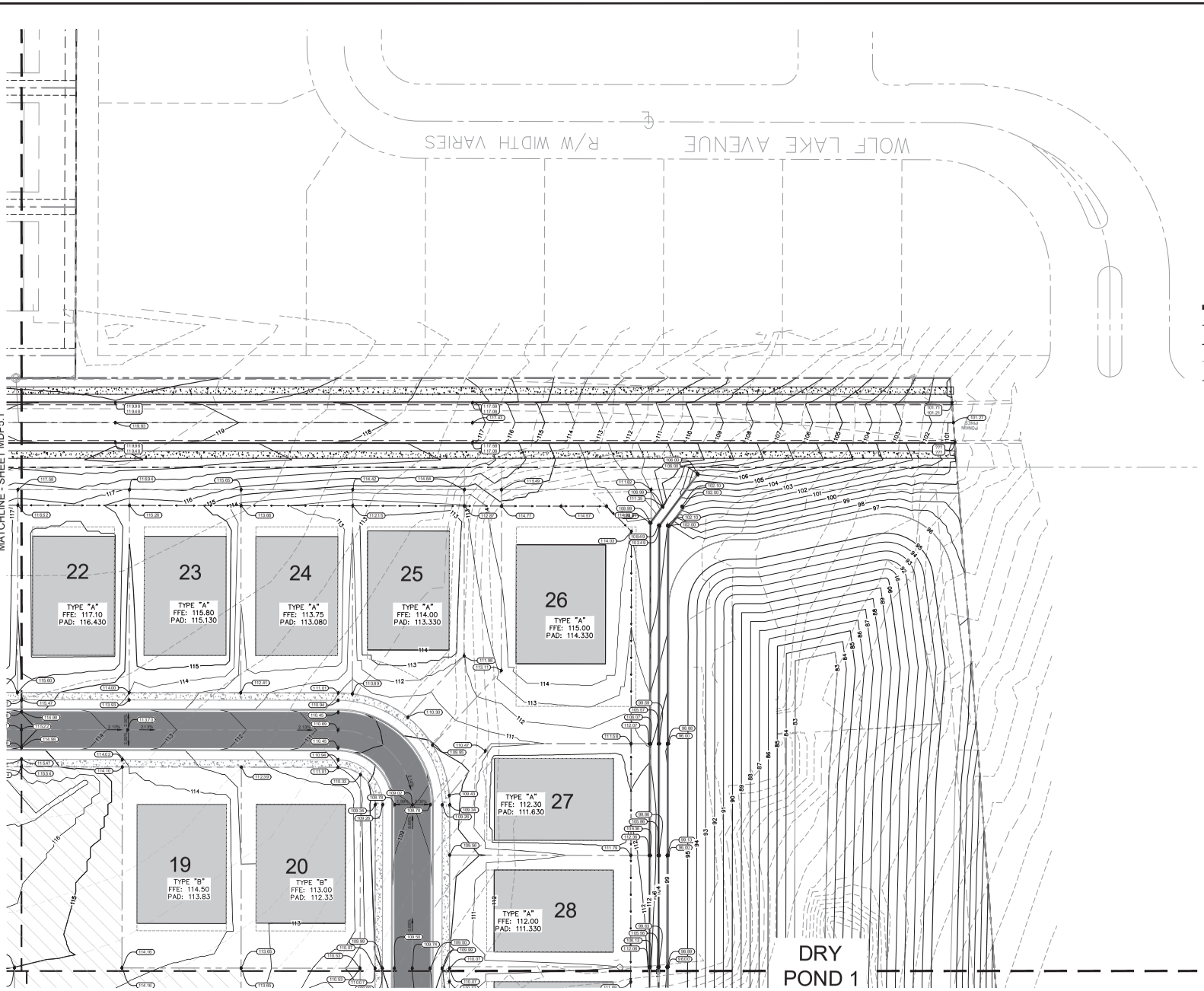
Kimley»Horn
© 2024 KIMLEY-HORN AND ASSOCIATES, INC.
200 S. ORANGE AVENUE, SUITE 600, ORLANDO, FL
PHONE: (407) 898-1511
WWW.KIMLEY-HORN.COM REGISTRY No. 35106

No.	REVISIONS	DATE	BY

These documents, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

Plotted by: Matthew Stinnett Date Set: 1/16/2026 Time: 10:29:57 AM User Name: K:\Orl_civil\149551003-Wolf Lake Ranch-Lake Lindo\Engineering\CAD\CONST\Wolf Lake Ranch-Overall-CADCONST.dwg

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



Kimley»Horn

© 2024 KIMLEY-HORN AND ASSOCIATES, INC.
200 S. ORANGE AVENUE, SUITE 600, ORLANDO, FL
PHONE: (407) 898-1511
WWW.KIMLEY-HORN.COM REGISTRY No. 35106

No.	REVISIONS	DATE	BY

LICENSED PROFESSIONAL
JOSHUA M. MAY
No. 93160
STATE OF FLORIDA
NATIONAL ENGINEER
DATE

KHA PROJECT 149651003
SCALE: AS SHOWN
DESIGNED BY: CF
DRAWN BY: MAM
CHECKED BY: BAS

DETAILED PAVING AND GRADING PLAN

WOLF LAKE RANCH

CITY OF APOPKA FLORIDA

SHEET NUMBER
MDP5.2

Plotted By:Martinez, Jeremiah Sheet Set:149651003-Wolf Lake Ranch.dst Layout:MDP5.2 DETAILED PAVING AND GRADING PLAN October 16, 2025 03:56:19pm K:\orl_civil\149651003-wolf lake ranch\civil\CADD\CONST\dwg\sheets\MDP5.2-DETAILED PG.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley»Horn and Associates, Inc. shall be without liability to Kimley»Horn and Associates, Inc.

No.	REVISIONS	DATE	BY

Kimley»Horn
© 2024 KIMLEY-HORN AND ASSOCIATES, INC.
200 S. ORANGE AVENUE, SUITE 600, ORLANDO, FL
PHONE: (407) 898-1511
WWW.KIMLEY-HORN.COM REGISTRY No. 35106

LICENSED PROFESSIONAL ENGINEER — STATE OF FLORIDA — JOSHUA M. [illegible] — No. [illegible] — DATE

KHA PROJECT	149530103
DATE	
SCALE	AS SHOWN
DESIGNED BY	CF
DRAWN BY	MMH
CHECKED BY	BAS

DETAILED PAVING AND GRADING PLAN

WOLF LAKE RANCH

CITY OF APOPKA FLORIDA

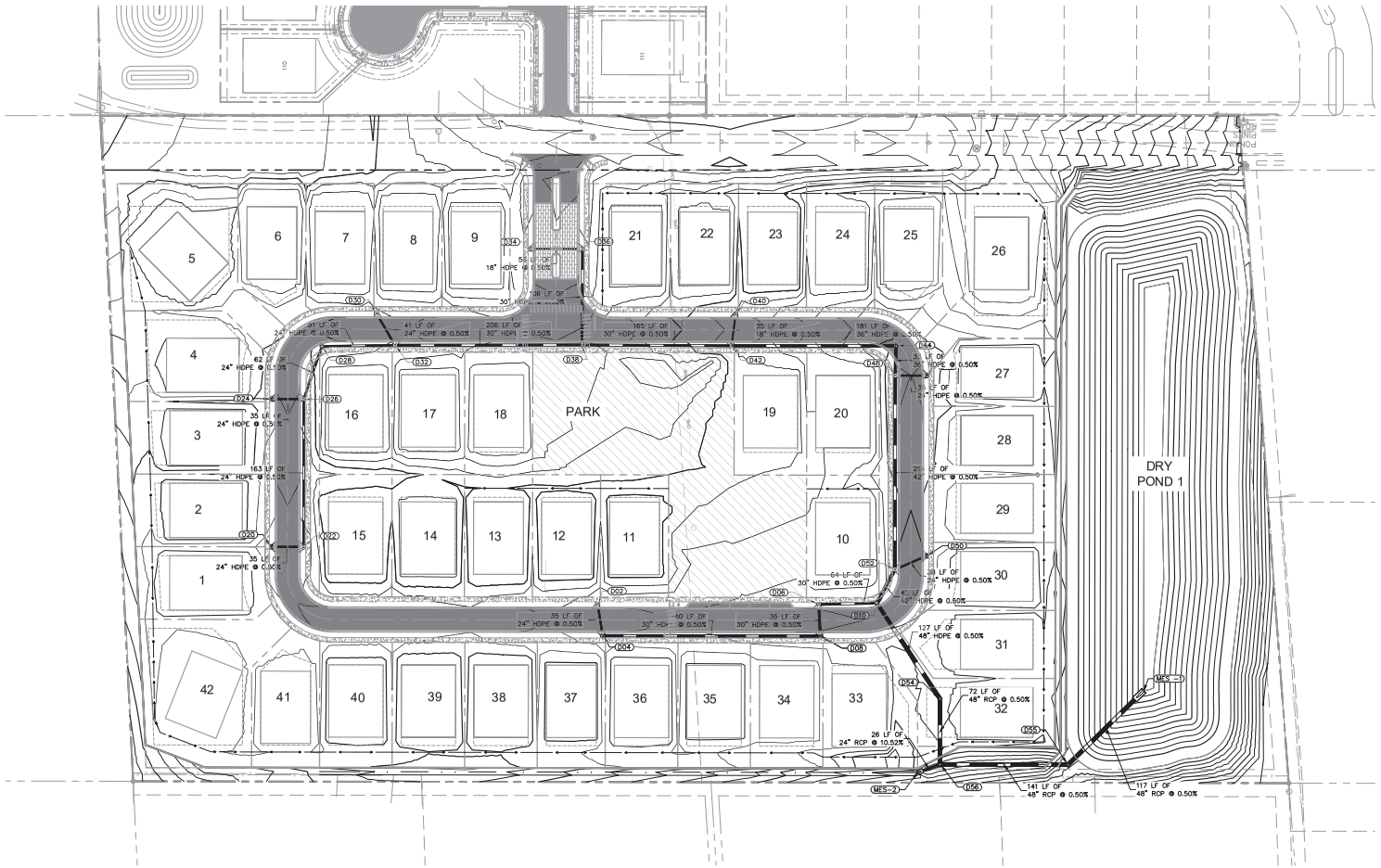
SHEET NUMBER MDP5.3

These documents, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

Plotted by: Matthew Jamison Sheet Set: I:\149530103-Wolf Lake Ranch\4-Lake Ranch\4.2-CAD\CONSTRUCTION\Detailed\MDP5.3 DETAILED PAVING AND GRADING PLAN October 16, 2023 - 03:59:20pm K:\orl_civil\149530103-wolf lake ranch\4-lake ranch\4.2-cad\construction\detailed\mdp5.3 detailed pg.dwg

These documents, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

Plotted By: Matthew Bennett Sheet Set: 149551003-WolfLake Sheet-Set Layout: MDP5.4 DETAILED PAVING AND GRADING PLAN Created: 10/6/2023 10:52:26 AM K:\Orl_Civil\149551003-Wolf Lake Ranch\2-Design\CADD\CONSTRUCTION\Sheets\MDP5.4 DETAILED PAVING AND GRADING PLAN.dwg



LEGEND

- PROPOSED SIDEWALK
- PROPOSED BUILDING FOOTPRINT
- PROPOSED ASPHALT
- PROPOSED PAVERS
- PROJECT BOUNDARY
- BUILDING SETBACK
- LOT LINE
- 100 EXISTING GRADES
- 100 PROPOSED GRADES
- PROPOSED STORM PIPE
- PROPOSED STORM STRUCTURES
- PROPOSED DIRECTION OF STORM WATER RUNOFF

STORM STRUCTURE TABLE	
STRUCTURE NAME:	DETAILS:
D02	TYPE "3" CURB INLET PER FDOT INDEX #425-020 TOP: 112.67 W. INV IN: 97.51
D04	TYPE "3" CURB INLET PER FDOT INDEX #425-020 TOP: 112.63 E. INV IN: 97.33 S. INV OUT: 97.33
D06	TYPE "3" CURB INLET PER FDOT INDEX #425-020 TOP: 111.44 W. INV IN: 95.95 S. INV OUT: 95.95
D08	TYPE "3" CURB INLET PER FDOT INDEX #425-020 TOP: 111.44 N. INV IN: 96.13 E. INV OUT: 96.13
D10	TYPE "P7" MANHOLE PER FDOT INDEX #425-010 TOP: 111.04 N. INV IN: 95.63 SE. INV IN: 95.63 SW. INV OUT: 95.63

STORM STRUCTURE TABLE	
STRUCTURE NAME:	DETAILS:
D20	TYPE "4" CURB INLET PER FDOT INDEX #425-020 TOP: 112.74 S. INV OUT: 101.54 (24" HDPE)
D22	TYPE "3" CURB INLET PER FDOT INDEX #425-020 TOP: 112.74 N. INV IN: 101.36 (24" HDPE) E. INV OUT: 101.36 (24" HDPE)
D24	TYPE "3" CURB INLET PER FDOT INDEX #425-020 TOP: 114.37 S. INV OUT: 104.17 (24" HDPE)
D26	TYPE "3" CURB INLET PER FDOT INDEX #425-020 TOP: 114.37 N. INV IN: 104.00 (24" HDPE) W. INV IN: 100.55 (24" HDPE) E. INV OUT: 100.55 (24" HDPE)
D28	TYPE "P7" MANHOLE PER FDOT INDEX #425-010 TOP: 115.22 W. INV IN: 100.24 (24" HDPE) S. INV OUT: 100.24 (24" HDPE)

STORM STRUCTURE TABLE	
STRUCTURE NAME:	DETAILS:
D30	TYPE "3" CURB INLET PER FDOT INDEX #425-020 TOP: 115.91 SW. INV OUT: 104.20 (24" HDPE)
D32	TYPE "3" CURB INLET PER FDOT INDEX #425-020 TOP: 116.11 NE. INV IN: 104.00 (24" HDPE) N. INV IN: 99.84 (24" HDPE) S. INV OUT: 99.84 (30" HDPE)
D34	TYPE "3" CURB INLET PER FDOT INDEX #425-020 TOP: 118.76 S. INV OUT: 103.82 (18" HDPE)
D36	TYPE "3" CURB INLET PER FDOT INDEX #425-020 TOP: 118.84 N. INV IN: 103.53 (18" HDPE) W. INV OUT: 103.53 (30" HDPE)
D38	TYPE "P7" MANHOLE PER FDOT INDEX #425-010 TOP: 117.14 E. INV IN: 103.00 (30" HDPE) N. INV IN: 98.81 (30" HDPE) S. INV OUT: 98.81 (30" HDPE)

STORM STRUCTURE TABLE	
STRUCTURE NAME:	DETAILS:
D40	TYPE "3" CURB INLET PER FDOT INDEX #425-020 TOP: 113.94 W. INV OUT: 102.18
D42	TYPE "3" CURB INLET PER FDOT INDEX #425-020 TOP: 114.04 E. INV IN: 102.00 N. INV IN: 97.98 S. INV OUT: 97.98
D44	TYPE "P7" MANHOLE PER FDOT INDEX #425-010 TOP: 109.78 N. INV IN: 97.08 W. INV OUT: 97.08
D46	TYPE "4" CURB INLET PER FDOT INDEX #425-020 TOP: 109.21 N. INV OUT: 102.18
D48	TYPE "4" CURB INLET PER FDOT INDEX #425-020 TOP: 109.21 S. INV IN: 102.00 E. INV IN: 96.91 W. INV OUT: 96.91
D50	TYPE "4" CURB INLET PER FDOT INDEX #425-020 TOP: 110.53 NW. INV OUT: 101.19
D52	TYPE "4" CURB INLET PER FDOT INDEX #425-020 TOP: 110.63 SE. INV IN: 101.00 E. INV IN: 95.84 NW. INV OUT: 95.84
D55	MH TOP: 96.31 N. INV IN: 83.58 SE. INV OUT: 83.58
D56	MH TOP: 103.55 E. INV IN: 90.00 N. INV IN: 98.55 S. INV OUT: 84.29
MES-2	MITERED END SECTION PER FDOT INDEX #430-021 TOP: 103.58 S. INV OUT: 101.32
MES -1	MITERED END SECTION PER FDOT INDEX #430-021 TOP: 85.79 NW. INV IN: 83.00

Kimley»Horn

© 2024 KIMLEY-HORN AND ASSOCIATES, INC.

200 S. ORANGE AVENUE, SUITE 600, ORLANDO, FL
PHONE: (407) 898-1511
WWW.KIMLEY-HORN.COM REGISTRY No. 35106

No.	REVISIONS	DATE	BY

LICENSED PROFESSIONAL — JOSHUA M. MAY — No. 93160 — STATE OF FLORIDA — FUNCTIONAL KNOWLEDGE — DATE

KHA PROJECT 149651003
DATE: AS SHOWN
SCALE: AS SHOWN
DESIGNED BY: JCF
DRAWN BY: MAM
CHECKED BY: BAS

DRAINAGE PLAN

WOLF LAKE RANCH

CITY OF APOPKA FLORIDA

SHEET NUMBER
MDP5.5

Plotted By: Martinez, Jeremiah Sheet Set: 149651003<Shelf Lake Ranch>.dst Layout: MDP5.5 DRAWAGE PLAN October 16, 2023, 03:36:39pm K:\Orl_civil\149651003\engineering\MDP5.5 DRAWAGE PLAN.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley»Horn and Associates, Inc. shall be without liability to Kimley»Horn and Associates, Inc.

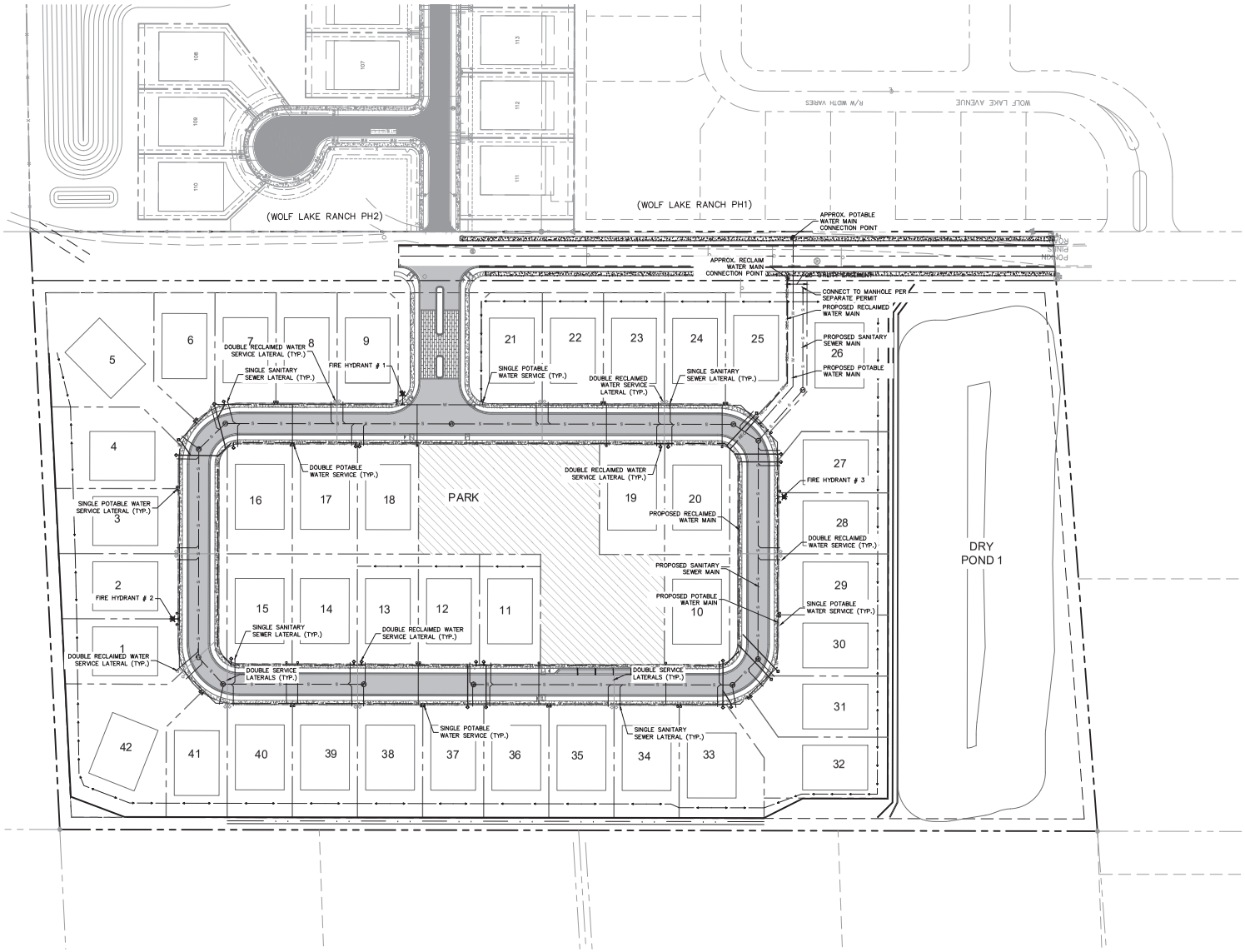
TYPICAL POND SECTION
N.T.S.

TYPICAL 50 FT RIGHT-OF-WAY SECTION
N.T.S.

TYPICAL 55 FT RIGHT-OF-WAY SECTION
N.T.S.

SHEET NUMBER	CITY OF APOPKA FLORIDA	TYPICAL SECTIONS	KHA PROJECT 149551003	BAS	CHECKED BY	DRAWN BY MMH	DESIGNED BY CF	SCALE AS SHOWN	DATE	LICENSED PROFESSIONAL ENGINEER JOHN M. CHRISTIANSEN No. 73169 STATE OF FLORIDA	DATE	Kimley»Horn	© 2024 KIMLEY-HORN AND ASSOCIATES, INC. 200 S. ORANGE AVENUE, SUITE 600, ORLANDO, FL PHONE: (407) 898-1511 WWW.KIMLEY-HORN.COM REGISTRY No. 35106	No.	REVISIONS	DATE	BY
MDP5.6	WOLF LAKE RANCH															

Plotted by Nathan Stetter, Jennifer Strait Set: 149551003-MDP Law Report-Law Layout: MDP5.6 TYPICAL SECTIONS Created: 10/28/2025 03:58:45pm X:\Civil\149551003-Wolf Lake Report-Law\CADD\CONSTRUCTION\Engineering\MDP5.6 TYPICAL SECTIONS.dwg
These documents, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



NORTH

GRAPHIC SCALE IN FEET
0 30 60 120

LEGEND

- PROPERTY BOUNDARY
- PROPOSED WATER LINE
- PROPOSED SANITARY LINE
- PROPOSED RECLAIM MAIN
- PROPOSED FIRE HYDRANT
- PROPOSED SANITARY MANHOLE

PRELIMINARY
FOR REVIEW ONLY
NOT FOR CONSTRUCTION

No.	REVISIONS	DATE	BY

Kimley»Horn
© 2024 KIMLEY-HORN AND ASSOCIATES, INC.
200 S. ORANGE AVENUE, SUITE 800, ORLANDO, FL
PHONE: (407) 898-1511
WWW.KIMLEY-HORN.COM REGISTRY No. 35106

LICENSED PROFESSIONAL
JOSHUA M. MARTINEZ
No. 93160
STATE OF FLORIDA
FUNCTIONAL KNOWLEDGE
DATE

KHA PROJECT 149051003
DATE 10/16/2025
SCALE AS SHOWN
DESIGNED BY CF
DRAWN BY MAM
CHECKED BY BAS

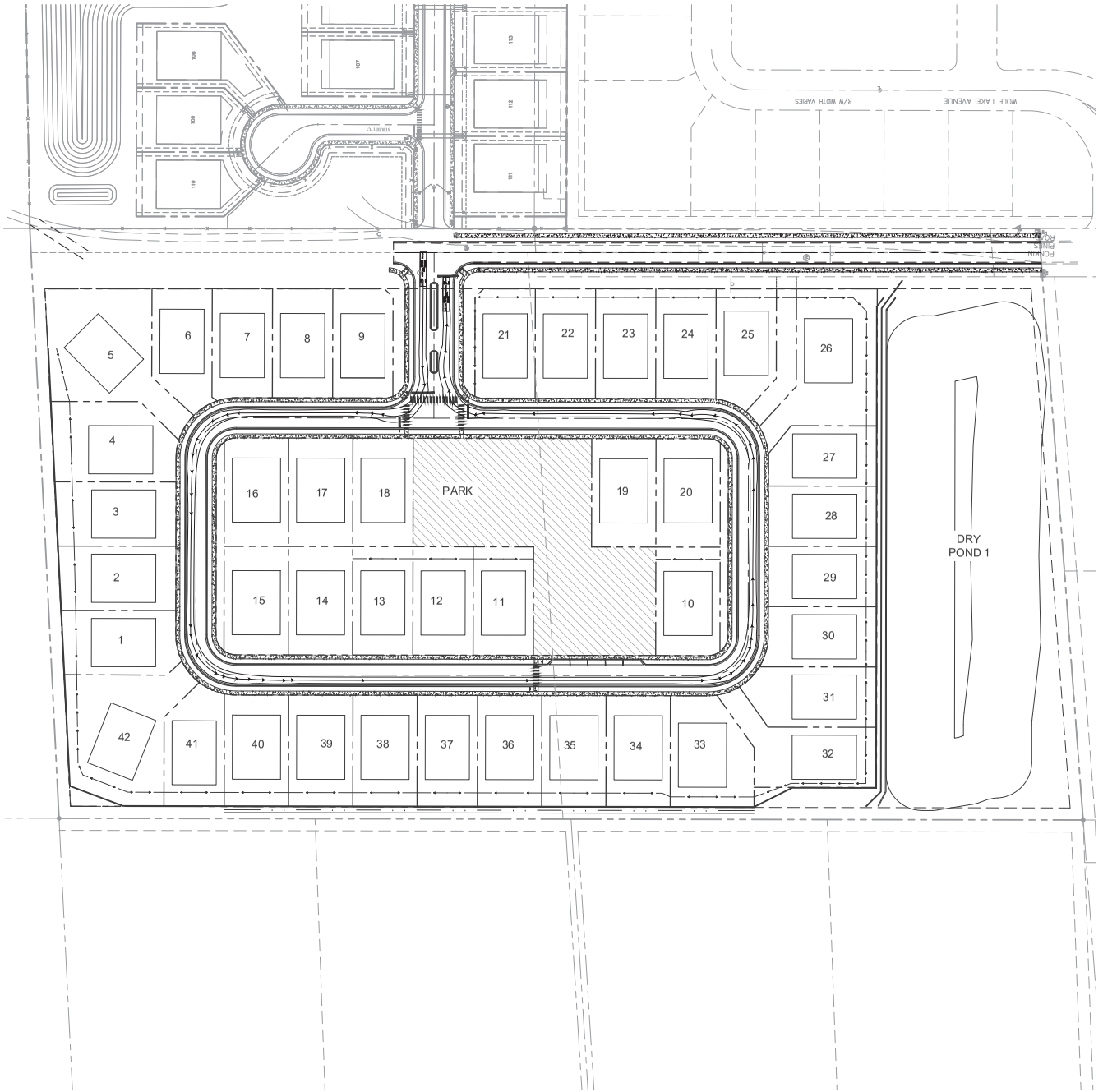
UTILITY PLAN

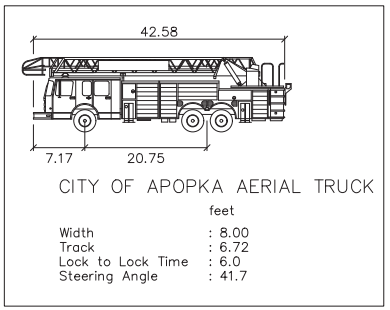
WOLF LAKE RANCH

CITY OF APOPKA FLORIDA

SHEET NUMBER
MDP6.0

Plotted By:Martinez, Jeremiah Sheet Set:149051003<Shelf Lake Ranch>.dst Layout:MDP6.0 UTILITY PLAN Xrefs:<None> Saved:10/16/2025 03:59:03 pm. K:\Orl_Local\149051003\engineering\CAD\CONSTplansheets\C6.0UTIL.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley»Horn and Associates, Inc. shall be without liability to Kimley»Horn and Associates, Inc.





Plotted By:Martinez, Jeremiah Sheet Set:140951003-Wolf Lake Ranch.dst Layout:MDP6.1 October 16, 2020 - 03:56:09pm K:\Orl_Land\140951003-wolf lake ranch\civil\CAD\CONST-dan\dwg\MDP6.1 Apopka Truck Turn.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley»Horn and Associates, Inc. shall be without liability to Kimley»Horn and Associates, Inc.

Kimley»Horn
© 2024 KIMLEY-HORN AND ASSOCIATES, INC.
200 S. ORANGE AVENUE, SUITE 600, ORLANDO, FL
PHONE: (407) 898-1511
WWW.KIMLEY-HORN.COM REGISTRY No. 35106

No.	REVISIONS	DATE	BY

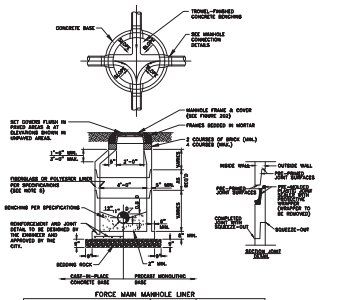
LICENSED PROFESSIONAL JOSHUA M. MARTINEZ No. 93160 STATE OF FLORIDA — DATE

KHA PROJECT 140951003
DATE
SCALE AS SHOWN
DESIGNED BY CF
DRAWN BY MAM
CHECKED BY BAS

FIRE TRUCK TURN

WOLF LAKE RANCH
CITY OF APOPKA FLORIDA

SHEET NUMBER
MDP6.1



FORCE MAIN MANHOLE LINER

THICKNESS (INCHES)			
DIAMETER (INCHES)	HEIGHT (FEET) 3–6 | 7–12 | 13–17	MATERIAL	MANUFACTURER
48			
60			
72			

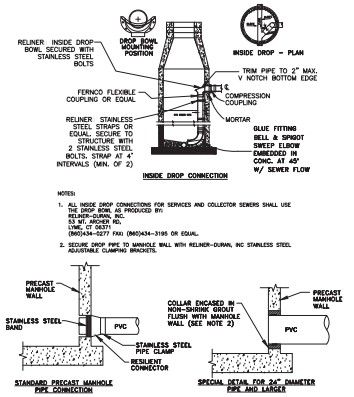
* TO BE COMPLETED BY THE ENGINEER

NOTES:

1. MANHOLE SHOWN IS FOR SEWER SIZE 8" THRU 24". SEE SECTION 20.4 OF THE MANUAL FOR MANHOLE DIAMETER FOR SEWERS LARGER THAN 24".
2. DROP CONNECTIONS ARE REQUIRED WHENEVER INVERT OF INFLUENT SEWER IS 24" OR MORE ABOVE THE INVERT OF THE MANHOLE. SEE MANHOLE CONNECTION DETAILS.
3. THE THICKNESS OF THE LINER SHALL BE 3/8" MINIMUM
4. EACH BENCH WALL SHALL BE A MINIMUM OF 18 INCHES LONG FROM THE WALL OF THE MANHOLE TOWARD THE CENTER.
5. SANITARY SEWER MANHOLES MAY BE REQUIRED TO BE LINED WITH HOPE OR FIBERGLASS AS DIRECTED BY THE CITY.

TYPICAL MANHOLE

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 200

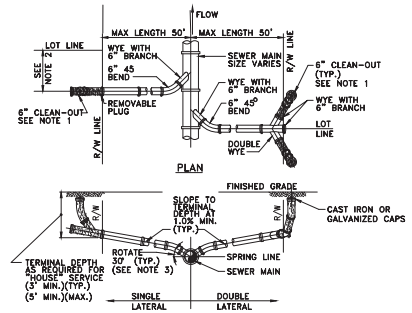


NOTES:

1. DROP PIPE AND FITTINGS SHALL BE OF EQUAL SIZE AND MATERIAL AS THE INFLUENT SEWER.
2. THE CITY MAY APPROVE ALTERNATE WATERTIGHT CONNECTION DETAILS FOR CONNECTION OF 24" DIAMETER PIPES AND LARGER.
3. AN INSIDE DROP CONNECTION SHALL BE REQUIRED FOR ALL INFLUENT WHICH HAVE AN INVERT 24" OR MORE ABOVE THE OUTFLOW PIPE INVERT.
4. CONCRETE TO BE MINIMUM OF 3000 PSI.

MANHOLE CONNECTION DETAILS

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 201

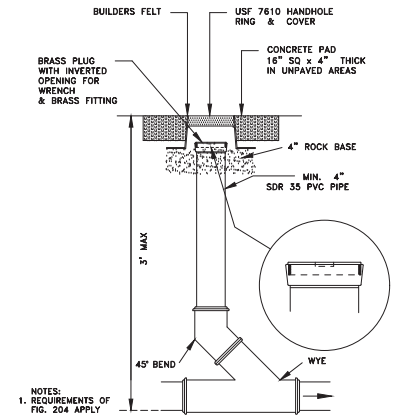


NOTES:

1. CLEAN-OUT (SHOWN SHADED) SHALL BE INSTALLED BY THE BUILDER IN ACCORDANCE WITH STANDARD PLUMBING CODE.
2. LOCATE SINGLE LATERAL AS CLOSE TO LOT LINE AS POSSIBLE.
3. INVERT OF SERVICE LATERAL SHALL NOT ENTER SEWER MAIN BELOW SPRING LINE.
4. RESIDENTIAL SERVICES SHALL BE 4 INCHES & NON-RESIDENTIAL SERVICES SHALL BE 6 INCHES IN DIAMETER AS A MINIMUM.
5. GALVANIZED, OR CAST IRON CLEAN-OUT CAP SHALL BE USED ON THE STUBOUT FOR EACH SERVICE.
6. LATERAL SHALL BE MARKED WITH AN "S" STAMPED OR CUT IN THE CURB.

SERVICE LATERAL DETAIL

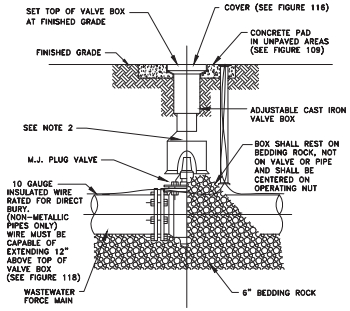
CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 204



SANITARY SEWER SERVICE TRAFFIC RATED CLEAN-OUT DETAIL

NTS

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 205

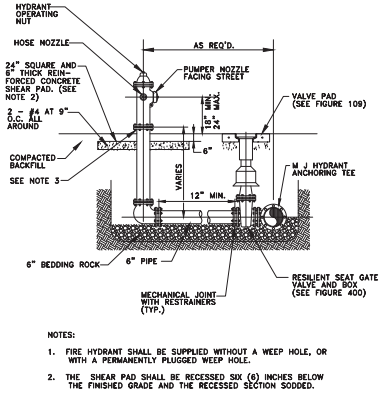


NOTES:

1. PVC EXTENSIONS MAY BE USED ON VALVE BOX INSTALLATION.
2. THE ACTUATING NUT FOR DEEPER VALVES SHALL BE EXTENDED TO WITHIN 3 FEET BELOW FINISHED GRADE.

PLUG VALVE AND BOX DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 400 A

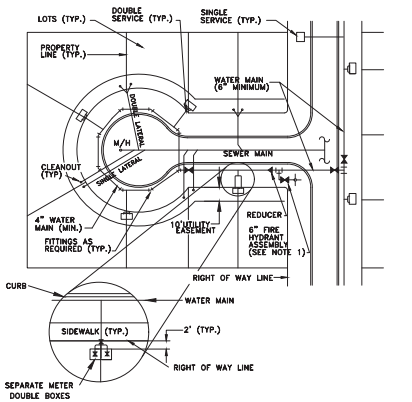


NOTES:

1. FIRE HYDRANT SHALL BE SUPPLIED WITHOUT A WEEP HOLE, OR WITH A PERMANENTLY PLUGGED WEEP HOLE.
2. THE SHEAR PAD SHALL BE RECESSED SIX (6) INCHES BELOW THE FINISHED GRADE AND THE RECESSED SECTION SODDED.
3. CLEARANCE BETWEEN BOTTOM OF BOLTS AND TOP OF SHEAR PAD SHALL BE A TWELVE (12) INCH MINIMUM.
4. FIRE HYDRANTS SHALL BE IDENTIFIED IN ACCORDANCE WITH THE CITY OF APOPKA CONSTRUCTION DESIGN STANDARDS MANUAL.

FIRE HYDRANT ASSEMBLY DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 402

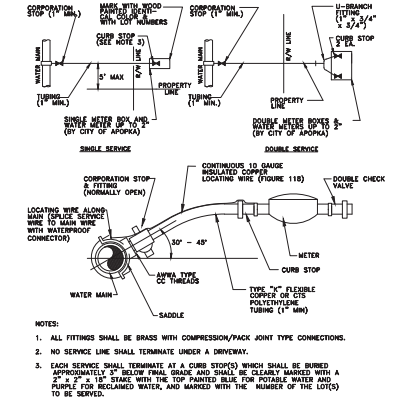


NOTES:

1. ANCHORING TYPE 90° BEND SHALL ONLY BE USED WHERE RIGHT-OF-WAY CONSTRUCTION WILL NOT ALLOW INSTALLATION OF A STRAIGHT ASSEMBLY.
2. POTABLE WATER AND RECLAIMED WATER MAINS SHALL BE LOOPED THROUGHOUT CUL-DE SAC.

TYPICAL SERVICE LOCATION DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 404



NOTES:

1. ALL FITTINGS SHALL BE BRASS WITH COMPRESSION/PACK JOINT TYPE CONNECTIONS.
2. NO SERVICE LINE SHALL TERMINATE UNDER A DRIVEWAY.
3. EACH SERVICE SHALL TERMINATE AT A CURB STOP(S) WHICH SHALL BE BURIED APPROXIMATELY 3" BELOW FINAL GRADE AND SHALL BE CLEARLY MARKED WITH A 2" x 2" x 18" STAKE WITH THE TOP PAINTED BLUE FOR POTABLE WATER AND PURPLE FOR RECLAIMED WATER, AND MARKED WITH THE NUMBER OF THE LOT(S) TO BE SERVED.
4. RECLAIMED WATER SERVICES SHALL USE PURPLE COLORED CTS POLYETHYLENE TUBING.
5. POTABLE WATER SERVICES SHALL USE BLUE COLORED CTS POLYETHYLENE TUBING.
6. ALL SERVICE UNDER EXISTING OR PROPOSED PAVEMENT SHALL BE INSTALLED IN A MINIMUM 2" PVC SLEEVE.

WATER SERVICE CONNECTION DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 405

No.	REVISIONS	DATE	BY

Kimley»Horn
© 2004 KIMLEY-HORN AND ASSOCIATES, INC.
200 S. ORANGE AVENUE, SUITE 600, ORLANDO, FL
PHONE: (407) 898-1511
WWW.KIMLEY-HORN.COM REGISTRY No. 35106

LICENSED PROFESSIONAL JOSHUA M. HAAS No. 70193 STATE OF FLORIDA

KHA PROJECT 149951003
DATE
SCALE AS SHOWN
DESIGNED JMH
DRAWN JMH
CHECKED JMH
BAS

CONSTRUCTION DETAILS

WOLF LAKE RANCH

CITY OF APOPKA FLORIDA

SHEET NUMBER
MDP7.0

Plotted By: Martinez, Jeremiah Sheet Set: 149951003-Wolf Lake Ranch.dst Layout: MDP7.0_CONSTRUCTION DETAILS October 19, 2023, 03:59:18pm K:\orl_civil\149951003-wolf lake ranch\dwg\CAD\CIVIL\CONST\Wolf Lake Ranch.dst
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

LOCAL ROAD TYPICAL PAVEMENT SECTION
NOT TO SCALE

MIAMI CURB AND GUTTER
NOT TO SCALE

BY	DATE	REVISIONS	No.

Kimley»Horn
© 2024 KIMLEY-HORN AND ASSOCIATES, INC.
200 S. ORANGE AVENUE, SUITE 600, ORLANDO, FL
PHONE: (407) 898-1511
WWW.KIMLEY-HORN.COM REGISTRY No. 35106

LICENSED PROFESSIONAL ENGINEER
STATE OF FLORIDA
JOHN M. ELLIS
No. 91169
DATE

KHA PROJECT
149851003
DATE
SCALE AS SHOWN
DESIGNED BY JME
DRAWN BY CAL
CHECKED BY JME

CONSTRUCTION DETAILS

WOLF LAKE RANCH

CITY OF APOPKA FLORIDA

SHEET NUMBER
MDP7.1

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

Plotted by: Matthew Jernigan Sheet Set: 149851003-Wolf Lake Ranch-Land\MDP7.1 Chapter 16 2025 02:59:19pm K:\Orl_Civil\149851003-Wolf Lake Ranch-Land\CONSTRUCTION\Engineering\CAD\ETAN 3.dwg

Construction Site Plans
for
Crossroads at Kelly Park Phase 3B
City of Apopka, FL

Utilities Summary:

POTABLE WATER:	RECLAIMED WATER:	SANITARY SEWER:
8" PVC = 2,054 LF	6" PVC = 2,232 LF	8" PVC = 2,850 LF
6" PVC = 1,098 LF	4" PVC = 820 LF	MANHOLE = 14
8" GV = 1	6" GV = 2	
6" GV = 6	4" GV = 5	

PROJECT NARRATIVE:
LOCATED IN THE KELLY PARK INTERCHANGE DISTRICT MIXED-USE AND VILLAGE CENTER DISTRICT, THE CROSSROADS AT KELLY PARK PROJECT PROVIDES A MIXTURE OF USES INCLUDING DETACHED SINGLE-FAMILY RESIDENTIAL AND MULTI-FAMILY RESIDENTIAL. THIS CONSTRUCTION SITE PLAN SUBMITTAL PROPOSES CONSTRUCTION OF THE PROJECT'S PHASE 3B RESIDENTIAL DEVELOPMENT CONSISTING OF 106 UNITS AND THE ASSOCIATED UTILITIES AND DRAINAGE FACILITIES NECESSARY TO SUPPORT THE PROJECT DEVELOPMENT.

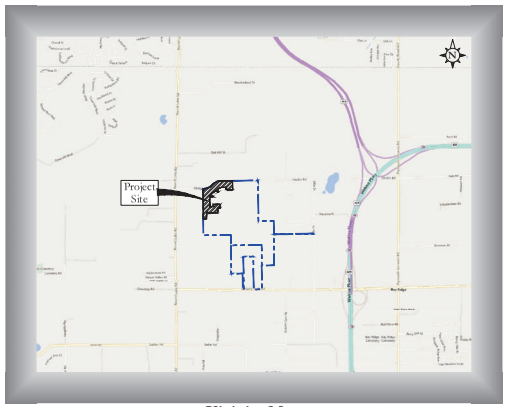
Phase 3B Legal Description:

A PARCEL OF LAND LYING IN SECTION 11, TOWNSHIP 20 SOUTH, RANGE 27 EAST, CITY OF APOPKA, ORANGE COUNTY, FLORIDA; BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: COMMENCE AT THE NORTH 1/4 CORNER OF SECTION 11, TOWNSHIP 20 SOUTH, RANGE 27 EAST, THENCE S00°17'05"E, 30.00 FEET TO THE SOUTHERLY RIGHT OF WAY LINE OF ONDICH ROAD AND POINT OF BEGINNING; THENCE N 89°08'52" E, 69.29 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE SOUTHWESTERLY HAVING A RADIUS OF 25.00 FEET, A CHORD BEARING OF S 45°36'51" E, A CHORD LENGTH OF 35.50 FEET; THENCE RUN ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 90°38'44", AN ARC LENGTH OF 39.48 FEET; THENCE S 00°22'34" E, 385.68 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE NORTHWESTERLY HAVING A RADIUS OF 25.00 FEET, A CHORD BEARING OF S 44°37'26" W, A CHORD LENGTH OF 35.36 FEET; THENCE RUN ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 90°00'00", AN ARC LENGTH OF 39.27 FEET; THENCE S 89°37'26" W, 225.00 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE NORTHEASTERLY HAVING A RADIUS OF 25.00 FEET, A CHORD BEARING OF N 45°22'34" W, A CHORD LENGTH OF 35.36 FEET; THENCE RUN ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 90°00'00", AN ARC LENGTH OF 39.27 FEET; THENCE S 89°37'26" W, 173.38 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE SOUTHERLY HAVING A RADIUS OF 310.00 FEET, A CHORD BEARING OF S 68°35'40" W, A CHORD LENGTH OF 222.49 FEET; THENCE RUN ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 42°03'32", AN ARC LENGTH OF 227.56 FEET TO THE BEGINNING OF A REVERSE CURVE CONCAVE NORTHWESTERLY HAVING A RADIUS OF 1290.00 FEET, A CHORD BEARING OF S 48°49'04" W, A CHORD LENGTH OF 56.41 FEET; THENCE RUN ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 02°30'21", AN ARC LENGTH OF 56.42 FEET; THENCE S 41°13'33" E, 120.03 FEET TO THE BEGINNING OF A NON-TANGENT CURVE CONCAVE NORTHWESTERLY HAVING A RADIUS OF 1410.00 FEET, A CHORD BEARING OF S 50°55'59" W, A CHORD LENGTH OF 47.86 FEET; THENCE RUN ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 01°56'42", AN ARC LENGTH OF 47.86 FEET; THENCE N 41°13'33" W, 120.20 FEET TO THE BEGINNING OF A NON-TANGENT CURVE CONCAVE NORTHWESTERLY HAVING A RADIUS OF 1290.00 FEET, A CHORD BEARING OF S 55°50'28" W, A CHORD LENGTH OF 163.98 FEET; THENCE RUN ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 07°17'17", AN ARC LENGTH OF 164.09 FEET TO THE BEGINNING OF A REVERSE CURVE CONCAVE SOUTHEASTERLY HAVING A RADIUS OF 395.00 FEET, A CHORD BEARING OF S 42°57'31" W, A CHORD LENGTH OF 224.72 FEET; THENCE RUN ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 33°03'11", AN ARC LENGTH OF 227.87 FEET; THENCE N 89°52'19" E, 20.53 FEET; THENCE S 81°58'19" E, 111.10 FEET TO THE BEGINNING OF A NON-TANGENT CURVE CONCAVE SOUTHEASTERLY HAVING A RADIUS OF 275.00 FEET, A CHORD BEARING OF S 29°44'17" W, A CHORD LENGTH OF 53.85 FEET; THENCE RUN ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 11°14'15", AN ARC LENGTH OF 53.94 FEET; THENCE N 69°07'09" W, 36.54 FEET; THENCE S 89°52'19" W, 96.41 FEET; THENCE S 02°23'15" W, 156.15 FEET; THENCE S 02°43'36" E, 322.33 FEET; THENCE N 89°52'19" E, 93.84 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE NORTHWESTERLY HAVING A RADIUS OF 25.00 FEET, A CHORD BEARING OF N 43°02'16" E, A CHORD LENGTH OF 36.47 FEET; THENCE RUN ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 93°40'05", AN ARC LENGTH OF 40.87 FEET; THENCE N 86°12'14" E, 50.00 FEET; THENCE N 03°47'46" W, 85.38 FEET; THENCE N 89°52'19" E, 194.29 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE SOUTHERLY HAVING A RADIUS OF 1145.00 FEET, A CHORD BEARING OF S 86°41'40" E, A CHORD LENGTH OF 137.15 FEET; THENCE RUN ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 06°52'02", AN ARC LENGTH OF 137.23 FEET TO THE BEGINNING OF A REVERSE CURVE CONCAVE SOUTHEASTERLY HAVING A RADIUS OF 947.50 FEET, A CHORD BEARING OF S 26°09'22" W, A CHORD LENGTH OF 122.79 FEET; THENCE RUN ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 07°25'50", AN ARC LENGTH OF 122.88 FEET TO THE BEGINNING OF A REVERSE CURVE CONCAVE SOUTHERLY HAVING A RADIUS OF 1030.00 FEET, A CHORD BEARING OF S 83°15'52" E, A CHORD LENGTH OF 81.51 FEET; THENCE RUN ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 04°32'08", AN ARC LENGTH OF 81.54 FEET; THENCE S 09°15'42" W, 55.00 FEET TO THE BEGINNING OF A NON-TANGENT CURVE CONCAVE SOUTHERLY HAVING A RADIUS OF 975.00 FEET, A CHORD BEARING OF N 84°58'03" W, A CHORD LENGTH OF 134.55 FEET; THENCE RUN ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 07°54'48", AN ARC LENGTH OF 134.66 FEET; THENCE S 00°07'41" E, 119.78 FEET; THENCE S 89°52'19" W, 7.77 FEET; THENCE S 00°07'41" E, 120.00 FEET; THENCE S 89°52'19" W, 455.81 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE NORTHEASTERLY HAVING A RADIUS OF 25.00 FEET, A CHORD BEARING OF N 45°28'55" W, A CHORD LENGTH OF 35.14 FEET; THENCE RUN ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 89°37'34", AN ARC LENGTH OF 38.96 FEET; THENCE S 89°09'52" W, 50.00 FEET TO THE BEGINNING OF A NON-TANGENT CURVE CONCAVE WESTERLY HAVING A RADIUS OF 6000.00 FEET, A CHORD BEARING OF S 00°40'10" W, A CHORD LENGTH OF 315.20 FEET; THENCE RUN ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 03°00'37", AN ARC LENGTH OF 315.24 FEET; THENCE S 89°52'19" W, 159.99 FEET; THENCE N 00°07'41" W, 1449.88 FEET TO THE BEGINNING OF A NON-TANGENT CURVE CONCAVE NORTHWESTERLY HAVING A RADIUS OF 603.70 FEET, A CHORD BEARING OF N 67°23'06" E, A CHORD LENGTH OF 462.05 FEET; THENCE RUN ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 44°59'58", AN ARC LENGTH OF 474.14 FEET; THENCE N 44°53'07" E, 69.20 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE SOUTHEASTERLY HAVING A RADIUS OF 543.70 FEET, A CHORD BEARING OF N 67°23'07" E, A CHORD LENGTH OF 416.13 FEET; THENCE RUN ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 45°00'00", AN ARC LENGTH OF 427.02 FEET; THENCE N 89°53'07" E, 462.90 FEET TO THE POINT OF BEGINNING.

CONTAINING 23.427 ACRES MORE OR LESS.

Parcel Id. No.:
11-20-27-1566-06-032

Owner/Applicant:
Kelly Park Land Investments, LLC
121 Snell Isle Blvd NE
St. Petersburg, FL 33704



Vicinity Map
Scale: 1" = 3,000'

Utility Providers

Electric:	Telephone:	Water, Sewer and Reuse:
Duke Energy	**AT&T**	**City of Apopka**
452 E. Crown Point Rd.	1227 S. Division Ave	748 E. Cleveland St
Winter Garden FL 34787	Orlando, FL 34805	Apopka, FL 3270
407.629.1010	407.351.7100	407.703.1731
CATV:	**Gas:**	**Solid Waste, Fire and Police Protection:**
Spectrum Network	**Lake Apopka Natural Gas**	**City of Apopka**
100 Gordon St.	38 N. Park Avenue	748 E. Cleveland St
Sanford, FL 3277	Apopka, FL 32703	Apopka, FL 3270
321.805.3081	407.656.2734	407.703.1731

Consultants

Civil Engineer:	Surveyor:	Environmental:
Poulos & Bennett, LLC	**PEC Surveying and Mapping, LLC**	**Bio-Tech Consulting Inc.**
2602 E. Livingston St.	2100 Alafaya Trail	3025 East South Street
Orlando, FL 32803	Oviedo, FL 32765	Orlando, FL 32803
407.487.2594	407.542.4967	407.894.5969
Geotechnical Engineer:	**Landscape Architect:**	**Transportation:**
Universal Engineering Sciences	**Bonnett Design Group, LLC**	**TMC Traffic & Mobility Consultants**
3532 Maggie Boulevard	400 S Orlando Ave Suite 201	3101 Maguire Boulevard, Suite 265
Orlando, FL 32811	Maitland, FL 32751	Orlando, FL 32803
407.423.0504	407.622.1588	407.531.5332

Sheet Index

Sheet Id.	Sheet Title	Subm./Rev. - 1 2 3 4 5 6 7
C0.00	Cover Sheet	■
C0.01 - C0.02	Construction Notes	■
C0.03	Existing Conditions Plan	■
C1.00	Overall Master Plan	■
C1.01	Site Data Tables	■
C1.02	Overall Phasing Plan	■
C1.10	Erosion Control Plan	■
C1.11	Erosion Control Details	■
C2.00	Site Plan	■
C2.01 - C2.03	Signage, Striping & Geometry Plan	■
C3.00 - C3.01	Typical Road Sections	■
C3.10	Boring Location Map	■
C3.11	Soil Borings	■
C3.20	Clay Contour Map	■
C3.21	Over Excavation Plan	■
C4.00	Master Drainage Plan	■
C4.01 - C4.03	Grading & Drainage Plan	■
C4.10	Grading Sections & Details	■
C5.00	Master Utility Plan	■
C5.10 - C5.12	Wastewater Collection Plan	■
C5.20 - C5.22	Water Distribution Plan	■
C5.30 - C5.32	Reclaimed Water Distribution Plan	■
C6.00 - C6.04	Plan & Profile	■
C7.00	Fire Protection Plan	■
C9.10 - C9.13	Apopka Construction Details	■
	Survey Drawings	
1 - 2	Map Of Boundary And Topographic Survey	■
3 - 6	Map Of Tree Survey	■
	Landscape Reference Dawings	
L000	Cover Sheet	■
L400	Overall Landscape Plan	■
L401 - L404	Landscape Plan	■
L410	Planting Schedule	■
L411 - L412	Landscape Details & Notes	■
L500	Overall Irrigation Plan	■
L501 - L504	Irrigation Plan	■
L510	Irrigation Details & Notes	■
	Lighting Reference Drawings	
E100	Overall Lighting Plan	■
E101 - E104	Lighting Plan	■
E301	Lighting Cutsheet	■

Date	Description
- 10/27/2025	SUBMIT TO CITY OF APOPKA & SJRWMD

NOTES:
1. CONSTRUCTION PLANS WERE PREPARED IN ACCORDANCE WITH THE LATEST MANUAL OF UNIFORM STANDARDS FOR DESIGN, CONSTRUCTION, AND MAINTENANCE FOR STREETS AND HIGHWAYS, FDOT GREEN BOOK, AND LOCAL REGULATIONS AND SPECIFICATIONS.
2. IF YOU REQUIRE FURTHER CLARIFICATION OF WHAT THIS DOCUMENT REPRESENTS, PLEASE CONTACT THE ADA COORDINATOR OF CITY OF APOPKA AT 407-703-1700.

DANIEL STEHLI LICENSE 5... STATE OF FLORIDA PROFESSIONAL ENGINEER
DocuSigned by: DANIEL STEHLI
dnQualifier=A01410D0000018AFE033DC00027AEA4, O=Florida, C=US
Date: 2025.10.27 17:05:09 -04'00'
DATE: 10/27/2025

This item has been electronically signed and sealed using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

POULOS & BENNETT
a Pape-Dawson company
2602 E. Livingston St., Orlando, FL 32803
Tel. 407.487.2594 www.poulosandbennett.com
Eng. Bus. No. 28567
P&B Job No.: 21-027

Construction Site Plans for Crossroads at Kelly Park Phase 3B

C:\Users\...\DOCS\PAPE-DAWSON\KELLY PARK CROSSROADS PHASE 3B\PROJECT FILES\CAD\FINAL\CIT\PHASE 1-3B\21-027-PHASE 1-3B-CS

GENERAL NOTES:

1. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR(S) TO ENSURE THAT ALL REQUIRED PERMITS ARE OBTAINED AND ARE IN HAND AT THE JOB SITE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. CONTRACTOR SHALL ABIDE BY ALL CONDITIONS CONTAINED THEREIN. PERMITS INCLUDED (BUT NOT NECESSARILY LIMITED TO) ARE:

- WATER MANAGEMENT DISTRICT CONSUMPTIVE USE (WATER USE) FOR CONSTRUCTION DEWATERING (CUP)
- WATER MANAGEMENT DISTRICT ENVIRONMENTAL RESOURCE PERMIT (ERP) OR MSSW
- WATER MANAGEMENT DISTRICT WETLAND RESOURCE PERMIT
- FDEP WATER DISTRIBUTION
- FDEP SANITARY SEWER COLLECTION AND TRANSMISSION
- FDEP REUSE
- LOCAL RIGHT OF WAY USE
- LOCAL UNDERGROUND UTILITIES
- FDEP & EPA NPDES STORMWATER
- FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION TORTOISE INCIDENTAL TAKE

2. CONTRACTOR IS ADVISED THAT THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REQUIRES THAT OPERATORS FILE A NOTICE OF INTENT (NOI) FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER THE NPDES GENERAL PERMIT PRIOR TO BEGINNING WORK. IN THE STATE OF FLORIDA THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION IS THE PERMITTING AGENCY. IT IS CONTRACTOR'S SOLE RESPONSIBILITY TO OBTAIN SAME. A COPY SHALL BE SENT TO OWNER.

3. FLORIDA LAW (F.S. 556 - THE UNDERGROUND FACILITY DAMAGE PREVENTION AND SAFETY ACT) PROTECTION OF UNDERGROUND PIPELINES MANDATES THAT "NO EXCAVATOR SHALL COMMENCE OR PERFORM ANY EXCAVATION IN ANY PUBLIC OR PRIVATE STREET, ALLEY, RIGHT-OF-WAY DEDICATED TO THE PUBLIC USE, OR GAS UTILITY EASEMENT WITHOUT FIRST OBTAINING INFORMATION CONCERNING THE POSSIBLE LOCATION OF GAS PIPELINES IN THE AREA OF THE PROPOSED EXCAVATION." THIS INCLUDES ANY OPERATION UTILIZING HAND TOOLS OR POWER TOOLS WHICH MOVES OR REMOVES ANY STRUCTURE, EARTH, ROCK, OR OTHER MASS OF MATERIAL BY SUCH METHODS AS DIGGING, BACKFILLING, DEMOLITION, GRADING, DITCHING, DRILLING, BORING AND CABLE PLOWING. THE EXCAVATOR MUST NOTIFY THE GAS UTILITY A MINIMUM OF 48 HOURS AND A MAXIMUM OF 5 DAYS PRIOR TO EXCAVATING (EXCLUDING SATURDAYS, SUNDAYS, AND LEGAL HOLIDAYS).

4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SECURE THE PROJECT SITE DURING CONSTRUCTION, TO PREVENT TRESPASSING OF UNAUTHORIZED PEDESTRIANS AND/OR VEHICLES IN ALL WORK AREAS. THE CONTRACTOR SHALL POST SIGNS, CONSTRUCT BARRIERS OR IMPLEMENT OTHER METHODS NECESSARY TO CONTROL ACCESS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR TRESPASSING ON THE CONSTRUCTION SITE OR DAMAGES TO ANY WORK RELATED THERETO.

5. CONTRACTOR SHALL CONTACT SUNSHINE STATE ONE-CALL OF FLORIDA, INC. PRIOR TO COMMENCEMENT OF WORK IN ACCORDANCE WITH THEIR STANDARD REQUIREMENTS; INCLUDING BUT NOT LIMITED TO WATER, RECLAIMED WATER, SEWER, POWER, TELEPHONE, GAS AND CABLE TV COMPANIES.

6. PRIOR TO COMMENCEMENT, CONTRACTOR SHALL PROVIDE POULOS & BENNETT WITH CONSTRUCTION SCHEDULE FOR VARIOUS SITE WORK ELEMENTS SO THAT PERIODIC SITE VISITS MAY BE COORDINATED TO ENSURE TIMELY CERTIFICATION OF COMPLETION TO AGENCIES AND AVOID DELAYS IN ISSUANCE OF CERTIFICATES OF OCCUPANCY/COMPLETION.

7. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH THE LATEST STANDARDS OF ALL APPLICABLE AGENCIES.

8. THE LOCATIONS OF EXISTING UTILITIES AND STORM DRAINAGE SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. ENGINEER ASSUMES NO RESPONSIBILITY FOR INACCURACY. PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAKE ARRANGEMENTS FOR FIELD LOCATIONS AND FOR ANY RELOCATIONS OF THE VARIOUS EXISTING UTILITIES WITH THE UTILITY OWNERS, WHICH SHALL BE DONE IN A TIMELY FASHION TO MINIMIZE IMPACT ON THE CONSTRUCTION SCHEDULE. ANY DELAY OR INCONVENIENCE CAUSED THE CONTRACTOR BY THE RELOCATION OF THE VARIOUS UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED.

ANY DIFFERING SITE CONDITIONS FROM THAT WHICH IS REPRESENTED HEREON, WHETHER ABOVE, ON OR BELOW THE SURFACE OF THE GROUND, SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER AND OWNER IN WRITING. NO CLAIM FOR EXPENSES INCURRED BY THE CONTRACTOR DUE TO DIFFERING SITE CONDITIONS WILL BE ALLOWED IF CONTRACTOR FAILS TO PROVIDE THE REQUIRED WRITTEN NOTIFICATION OF SUCH CONDITIONS FOR REVIEW BY THE ENGINEER AND OWNER.

9. AS PART OF THE CLEARING AND GRUBBING OPERATION, THE CONTRACTOR IS TO REMOVE ALL FENCING AND/OR EXISTING FACILITIES FROM THE SITE. CONTRACTOR IS RESPONSIBLE FOR CONDUCTING SITE VISIT TO UNDERSTAND THE EXISTING CONDITIONS OF THE SITE. IF REMOVAL OF EXISTING FACILITIES IS NOT INCLUDED IN THE BASE BID, THEN IT SHALL BE SPECIFICALLY IDENTIFIED.

10. CONTRACTOR SHALL PROTECT ALL ADJACENT PROPERTIES FROM DAMAGE BY SEDIMENTATION OR OTHER POTENTIAL CONSTRUCTION RELATED CAUSES.

11. IF AN EAGLE MANAGEMENT PLAN HAS BEEN FILED AND APPROVED BY FLORIDA GAME AND FRESHWATER FISH COMMISSION AND THE U.S. DEPARTMENT OF THE INTERIOR FISH AND WILDLIFE SERVICE CONTRACTOR SHALL ABIDE BY THE PERMIT.

12. MAINTAIN MINIMUM 3' COVER OVER PROPOSED GRAVITY SANITARY, FORCE MAIN, WATER AND REUSE LINES, UNLESS OTHERWISE NOTED.

13. CONCRETE SIDEWALKS (AS SPECIFIED BY APPROPRIATE ROADWAY SECTION) ADJACENT TO ALL LOTS TO BE INSTALLED BY HOME BUILDER. SIDEWALKS ADJACENT TO PONDS, PARKS, AND OPEN SPACE, AS SHOWN ON PLANS, ARE TO BE CONSTRUCTED WITH INFRASTRUCTURE. ALL POND ACCESS TRACT SIDEWALK SHALL BE 6" MINIMUM.

14. DURING CONSTRUCTION, WHEN COMBUSTIBLES ARE BROUGHT ON TO THE SITE, ACCESS ROADS, AND A SUITABLE TEMPORARY OR PERMANENT SUPPLY OF WATER ACCEPTABLE TO THE FIRE DEPARTMENT SHALL BE PROVIDED.

15. ALL RECOMMENDATIONS AND REQUIREMENTS OF INSPECTION PERSONNEL OTHER THAN OWNER'S SHALL BE REPORTED TO ENGINEER,OWNER/OWNERS REPRESENTATIVE PRIOR TO IMPLEMENTATION. COMPENSATION WILL NOT BE ALLOWED FOR WORK WHICH IS NOT AUTHORIZED BY ENGINEER/OWNER.

16. CONTRACTOR SHALL BE EXTREMELY CAUTIOUS WHEN WORKING NEAR TREES WHICH ARE TO BE SAVED, WHETHER SHOWN IN THE PLANS OR DESIGNATED IN THE FIELD. CONTRACTOR SHALL BECOME FAMILIAR WITH AND CONFORM WITH ALL TREE PROTECTION/PRESERVATION PROVISIONS OF THE CONTRACT DOCUMENTS AND LOCAL GOVERNMENT. CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACEMENT AND MITIGATION COSTS FOR ANY TREES REMOVED THAT WERE DESIGNATED TO BE PRESERVED.

17. ALL WORK SHALL BE OPEN TO AND SUBJECT TO INSPECTION BY AUTHORIZED PERSONNEL OF THE CITY, COUNTY, OWNER, INVOLVED UTILITY COMPANIES, PROJECT ENGINEER AND REGULATORY AGENCIES.

18. CONTRACTOR SHALL CONFIRM COMPATIBILITY OF PIPE SLOPES AND INVERTS DURING SHOP DRAWING AND MATERIALS ORDERING PHASE OF PROJECT AND ADVISE ENGINEER OF ANY DISCREPANCIES.

19. NO EXISTING MATERIAL SHALL BE USED IN NEW CONSTRUCTION UNLESS APPROVED DURING THE SHOP DRAWING APPROVAL PROCESS OR AS APPROVED BY ENGINEER/OWNER IN WRITING.

20. ALL FDOT DESIGN INDICES ARE HEREBY INCORPORATED AS PLAN REFERENCES HEREIN. CONTRACTOR IS RESPONSIBLE FOR OBTAINING COMPLETE COPIES OF ALL APPLICABLE INDEX DRAWINGS AND CONSTRUCTING ALL WORKS IN CONFORMANCE WITH THE FDOT ROADWAY AND TRAFFIC STANDARD PLANS, LATEST EDITION.

21. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO COMPLETELY STAKE AND CHECK ALL IMPROVEMENTS TO ENSURE ADEQUATE POSITIONING, BOTH HORIZONTAL AND VERTICAL PRIOR TO THE INSTALLATION OF ANY IMPROVEMENT.

22. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING SURVEY MONUMENTATION. DISTURBED MONUMENTATION SHALL BE RESTORED BY A FLORIDA LICENSED LAND SURVEYOR SELECTED BY THE OWNER AT CONTRACTOR'S SOLE EXPENSE.

23. IMMEDIATELY AT ONSET OF CONSTRUCTION, CONTRACTOR SHALL FIELD VERIFY HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING UTILITIES CRITICAL TO COMPLETING THE PROJECT (INCLUDING WATER, REUSE, SEWER, POWER, TELEPHONE, GAS, AND CABLE TV) AND SHALL EVALUATE POTENTIAL CONFLICTS. ALL SUCH CONFLICTS SHALL BE REPORTED TO ENGINEER/OWNER IMMEDIATELY UPON DISCOVERY.

24. CONTRACTOR SHALL INSTRUCT THE GEOTECHNICAL TESTING LABORATORY PROVIDING CONSTRUCTION TESTING TO PROVIDE POULOS & BENNETT WITH COPIES OF ALL SITE-WORK TEST REPORTS AS THEY ARE GENERATED. CONTRACTOR SHALL MAINTAIN THE RESPONSIBILITY OF CONSTRUCTING THE PROJECT IN STRICT ACCORDANCE WITH THE PROJECT PLANS, SPECIFICATIONS AND REQUIREMENTS. RECEIPT OF COPIES OF GEOTECHNICAL REPORTS BY POULOS & BENNETT IN NO WAY OBLIGATES POULOS & BENNETT TO ANY REVIEW, COMMENTS OR ACTIONS REGARDING THE WORK.

25. DEWATERING IS ANTICIPATED FOR THIS PROJECT. THEREFORE, THE DISCHARGE OF GROUNDWATER FROM DEWATERING OPERATIONS REQUIRES APPROVAL FROM CITY OF APOPKA, FDEP AND THE APPLICABLE WATER MANAGEMENT DISTRICT. THE CONTRACTOR(S) SHALL BE RESPONSIBLE FOR OBTAINING ALL DEWATERING PERMITS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR(S) TO ENSURE THAT ALL REQUIRED PERMITS ARE OBTAINED AND ARE IN HAND AT THE JOB SITE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

26. WORK SHALL BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT THROUGH THE U.S. DEPARTMENT OF LABOR AND THE FLORIDA TRENCH SAFETY ACT.

27. ALL PERSONAL PROPERTY, EXCEPT MAIL BOXES, WITHIN THE RIGHT-OF-WAY THAT IS NOT RELOCATED BY THE PROPERTY OWNER SHALL BE REMOVED BY THE CONTRACTOR AS NECESSARY TO CONSTRUCT THE PROJECT IN ACCORDANCE WITH THE PLANS. MAIL BOXES SHALL BE RELOCATED BY THE CONTRACTOR IN ACCORDANCE WITH FDOT DESIGN STANDARD 532.

28. THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES IS BASED ON AVAILABLE RECORDS AND SURVEYS BUT IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR SHALL MAKE HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO AND PROTECT EXISTING FACILITIES DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING UTILITY RELOCATION WITH UTILITY OWNERS AND ENGINEER SHOULD SITE CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLANS.

29. CONTRACTOR IS TO MAINTAIN UNINTERRUPTED ACCESS TO ALL DRIVEWAYS AT ALL TIMES AND IS TO NOTIFY PROPERTY OWNERS FIVE DAYS PRIOR TO STARTING CONSTRUCTION.

30. SHOULD AGGRESSIVE SOILS BE ENCOUNTERED CONTRACTOR SHALL NOTIFY ENGINEER FOR REMEDIAL ACTION.

31. IMPACTS TO OFFSITE ROADWAYS, IF ANY, WILL NEED TO BE REPAIRED IN ACCORDANCE WITH CITY/COUNTY REQUIREMENTS. IF REQUIRED, CONTRACTOR SHALL OBTAIN SURETY BOND.

32. NO EQUIPMENT EXTENDING HIGHER THAN 15 FT. ABOVE EXISTING GRADE SHALL BE USED WITHIN POWER EASEMENTS.

33. THE EXISTENCE AND LOCATION OF ANY OVERHEAD OR UNDERGROUND UTILITY LINES, PIPES, OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A RESEARCH OF THE AVAILABLE RECORDS. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO SAME. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING NEAR OVERHEAD UTILITIES SO AS TO SAFELY PROTECT ALL PERSONNEL AND EQUIPMENT AND SHALL BE RESPONSIBLE FOR ALL COST AND LIABILITY IN CONNECTION THEREWITH.

34. ANY WELLS SHOWN HEREON ARE THE WELLS LOCATED TO DATE AND DO NOT NECESSARILY REPRESENT ALL WELLS ON THE PROPERTY. THE ENGINEER SHALL BE NOTIFIED OF ANY WELLS ENCOUNTERED DURING CONSTRUCTION. ALL WELLS NOT DESIGNATED TO REMAIN OR FUNCTION SHALL BE PROPERLY SEALED AND ABANDONDED PER APPLICABLE AGENCY REQUIREMENTS.

35. VIBRATORY COMPACTION METHODS SHALL NOT BE USED WITHIN ANY EXISTING GAS EASEMENTS.

36. ALL LIGHT POLES AND STRUCTURES TO BE LOCATED IN THE FIELD BY SURVEYOR RETAINED BY CONTRACTOR.

37. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE RESTORATION OF ANY TRAFFIC EQUIPMENT, INCLUDING BUT NOT LIMITED TO, FIBER, LOOP SENSORS, PULL BOXES, CONDUIT, TRAFFIC SIGNALS AND CABINETS. ANY ITEMS DAMAGED BY THE CONTRACTOR WILL BE RESTORED TO THEIR ORIGINAL CONDITION UNLESS OTHERWISE AGREED UPON BY THE STATE AND/OR LOCAL ENGINEER.

38. ALL EXCAVATED AREAS TO BE SEEDED AND/OR SODDED AFTER FINISH GRADING UNLESS OTHERWISE NOTED. ALL NEWLY SEEDED/SODDED AREAS SHALL HAVE A MINIMUM OF 4" OF TOPSOIL. HOLD SOIL DOWN 1" FROM PAVEMENT ELEVATION. CONTRACTOR TO SUPPLY STRAW MULCH WHERE GRASS SEED HAS BEEN PLANTED.

39. ALL EXISTING EASEMENTS, RIGHTS-OF-WAY, AND LOT LINES MAY NOT BE SHOWN. REFER TO THE ALTA/NSPS LAND TITLE SURVEY, BOUNDARY SURVEY OR TITLE WORK FOR ASSOCIATED ENCUMBRANCES.

40. SURROUNDING DEVELOPMENT AND ELEVATIONS WERE DETERMINED FROM DESIGN DRAWINGS AS LISTED IN THE SURVEYOR SECTION. CONTRACTOR TO FIELD VERIFY ALL ELEVATIONS PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER IF DIFFERENT.

41. SIGHT LINES SHOWN ON THE PLANS SHALL BE MAINTAINED WITHIN THE TRIANGLES BOTH HORIZONTALLY AND VERTICALLY FROM 30 INCHES TO EIGHT FEET IN HEIGHT. ALL VERTICAL SITE IMPROVEMENTS SHALL BE REMOVED OR KEPT CLEAR FROM TRIANGLES.

42. MAINTENANCE OF TRAFFIC DURING CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE APPROVED M.O.T. PLAN ON FILE.

43. CONTRACTOR TO MAINTAIN ALL EXISTING SIDEWALKS OPEN DURING CONSTRUCTION, OR A SAFE, ADA COMPLIANT, TEMPORARY APPROVED PEDESTRIAN PATH SHALL BE PROVIDED UNTIL THE SIDEWALK CAN BE REOPENED.

44. RETAINING WALLS SHOWN HEREON ARE TO BE DESIGNED BY OTHERS. ENGINEER ASSUMES NO LIABILITY FOR DAMAGE OR FAILURE OF CIVIL IMPROVEMENTS CAUSED BY FAILURE OF WALLS WHETHER DIRECTLY OR INDIRECTLY. ENGINEER RECOMMENDS GEOTECHNICAL CONSULTANT REVIEW SITE CONDITIONS TO DETERMINE IF A GLOBAL STABILITY ANALYSIS FOR RETAINING WALLS IS APPROPRIATE.

45. MANHOLE LIDS, VALVE COVERS AND CLEAN-OUTS LOCATED IN TRAVEL LANES SHALL BE TRAFFIC BEARING RATED.

46. PRIOR TO THE START OF LAND DISTURBING ACTIVITIES, WHICH INCLUDES DEMOLITION, EARTHWORK AND/OR CONSTRUCTION, THE DEVELOPER/CONTRACTOR SHALL PREPARE A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AND SUBMIT TO THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) A NOTICE OF INTENT (NOI) TO OBTAIN COVERAGE UNDER THE NPDES GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES (CGP) PURSUANT TO THE REQUIREMENTS OF 62-621.300(4)(A) F.A.C. A COPY OF THE NOI SHALL BE SUBMITTED TO THE OPERATOR(S) OF THE MS4. COPIES OF THE SWPPP, NOI, AND FDEP ACKNOWLEDGEMENT LETTER ARE TO BE KEPT ON THE PROJECT SITE AND MADE AVAILABLE UPON REQUEST. UPON COMPLETION OF ALL LAND DISTURBING ACTIVITIES AND AFTER FINAL STABILIZATION OF THE SITE IS COMPLETE, THE DEVELOPER/CONTRACT SHALL SUBMIT TO FDEP A NOTICE OF TERMINATION (NOT) TO END THEIR COVERAGE UNDER THE CGP AND PROVIDE A COPY OF THE NOT TO THE OPERATOR(S) OF THE MS4.

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 MUNICIPALITY REQUIREMENTS AND THE FOLLOWING REQUIREMENTS.

1.1. THE VERTICAL AND HORIZONTAL DATUMS USED SHALL BE AS STATED ON THE DRAWINGS.

1.2. DRAWINGS SHALL BE LEGIBLY MARKED TO RECORD ACTUAL CONSTRUCTION.

1.3. DRAWINGS SHALL SHOW ACTUAL LOCATION OF ALL UNDERGROUND AND ABOVE GROUND STORM DRAINAGE, POTABLE WATER AND WASTEWATER PIPING, AND RELATED APPURTENANCES. ALL CHANGES TO PIPING LOCATION 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.

1.4. DRAWINGS SHALL CLEARLY INDICATE VERTICAL AND HORIZONTAL SEPARATION BETWEEN POTABLE WATER MAIN AND STORM DRAINAGE/SANITARY SEWER/RECLAIMED WATER MAINS AT POINTS OF CROSSING IN ACCORDANCE WITH FDEP CRITERIA AND UTILITY PROVIDER REQUIREMENTS.

1.5. DRAWINGS SHALL CLEARLY SHOW ALL FIELD CHANGES OF DIMENSION AND DETAIL INCLUDING CHANGES MADE BY FIELD ORDER OR BY CHANGE ORDER.

1.6. 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.

1.7. LOCATION OF ALL INLETS, MANHOLES, HYDRANTS, VALVES, AND VALVE BOXES SHALL BE SHOWN. ALL VALVES SHALL BE REFERENCED FROM AT LEAST TWO AND PREFERABLY THREE PERMANENT POINTS OR BY STATE PLANE COORDINATES OR OTHER UTILITY PROVIDER ACCEPTABLE REFERENCE.

1.8. DIMENSIONS BETWEEN ALL INLETS AND MANHOLES SHALL BE FIELD VERIFIED, AND THE INVERTS AND GRADE ELEVATIONS OF ALL INLETS AND MANHOLES SHALL BE SHOWN.

1.9. CONTRACTOR SHALL PROVIDE AS-BUILT SURVEY FOR POND GRADING. AS-BUILT POND CONTOURS SHALL BE PROVIDED AT TOP OF BANK, POND BOTTOM, AND ALL GRADE BREAKS AND ELEVATIONS SPECIFIED ON THE PLANS. CONTRACTOR SHALL BE RESPONSIBLE FOR RE-GRADING POND SLOPES THAT ARE STEEPER THAN REQUIRED PER PLAN (HORIZONTAL:VERTICAL) TO A DEPTH OF 2 FT MINIMUM BELOW THE SLWT.

1.10. WHERE THE POTABLE WATER MAIN CROSSES OTHER UTILITIES (STORM, GRAVITY SEWER, FORCEMAIN AND RECLAIMED WATER), THE CERTIFIED AS-BUILT DRAWINGS SHALL CLEARLY INDICATE THE CONSTRUCTED ELEVATIONS, ALONG WITH PHOTOGRAPHS OF EACH CROSSING, 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 THE CONTRACTOR'S SOLE EXPENSE.

1.11. WHERE THE POTABLE WATER MAIN CROSSES OTHER UTILITIES (STORM, GRAVITY SEWER, FORCEMAIN AND RECLAIMED WATER), THE CERTIFIED AS-BUILT DRAWINGS SHALL CLEARLY INDICATE THE LOCATIONS OF PIPE JOINTS IN SUCH A MANNER AS TO DEMONSTRATE THE PIPE IS CENTERED AT ALL THE CROSSINGS. FAILURE TO PROVIDE THIS INFORMATION WILL RESULT IN THE CONTRACTOR EXCAVATING AND SURVEYING THE UTILITIES AT THE CONTRACTOR'S SOLE EXPENSE.

1.12. WHERE UPGRADED PIPE MATERIALS ARE SHOWN IN THE PLANS OR AS DIRECTED IN THE FIELD BY THE ENGINEER OR MUNICIPALITY, THE LENGTH, LOCATIONS, FITTINGS, ETC. FOR UPGRADED PIPE SHALL BE SHOWN ON THE AS-BUILT DRAWINGS, RECORD DRAWINGS OR PHOTOS.

1.13. CONTRACTOR SHALL PROVIDE AS-BUILT SURVEY FOR ALL PARK AND OPEN SPACE TRACTS GRADING. ENGINEER WILL CONFIRM COMPLIANCE WITH AGENCY REQUIREMENTS AND NOTIFY CONTRACTOR IF REMEDIAL ACTION IS NECESSARY.

2. COMPLETE CERTIFIED AS-BUILT DRAWINGS SHALL BE PROVIDED TO THE ENGINEER PRIOR TO BACTERIOLOGICAL TESTING. FAILURE TO PROVIDE ACCURATE DRAWINGS MAY RESULT IN EXPIRED TEST RESULTS AND REQUIRE ADDITIONAL TESTING AT THE CONTRACTOR'S SOLE EXPENSE.

3. AS-BUILT DRAWINGS SHALL BE PREPARED IN ACCORDANCE WITH POULOS & BENNETT CAD STANDARDS.

4. POTABLE WATER CROSSINGS - POULOS & BENNETT REQUIRES THAT AT LEAST TEN PERCENT (10%) OF THE POTABLE WATER CROSSINGS AND INSTALLATIONS BE FIELD VERIFIED BY POULOS & BENNETT STAFF. THE 10% TO BE FIELD VERIFIED WILL BE IDENTIFIED BY POULOS & BENNETT PRIOR TO CONSTRUCTION AND PROVIDED TO THE SITE CONTRACTOR.

5. IN CITY OF APOPKA COMPLETE AS-BUILTS AND ASSET TABLES, MEETING OCU MANUAL OF STANDARD AND CONSTRUCTION SPECIFICATIONS (DATED APRIL 2011), SHALL BE PROVIDED TO POULOS & BENNETT FOR REVIEW AND APPROVAL. PAY APPLICATIONS REQUESTING PAYMENT BEYOND 80% OF CONTRACT AMOUNT, PER SYSTEM, MAY BE HELD AT THE DISCRETION OF THE OWNER UNTIL THE AS-BUILTS AND ASSET TABLES ARE DEEMED COMPLETE BY POULOS & BENNETT.

6. CONTRACTOR SHALL PROVIDE ELEVATIONS OF THE ADA RAMPS, LANDINGS AND CROSS-WALKS AT SUFFICIENT LOCATIONS TO DETERMINE ADHERANCE TO THE ADA GUIDELINES.

SURVEY AND CONTROL:

1. EXISTING TOPOGRAPHY AND CONTOURS BASED ON THE FOLLOWING:

SURVEYOR: PEC SURVEYING AND MAPPING, LLC
DRAWING NO.: TOPOGRAPHIC SURVEY
DATED: 03/23/2022

2. SURVEYOR'S REFERENCE VERTICAL BENCHMARK:

DESCRIPTION: BENCHMARK NUMBER L 708029
LOCATION: ORANGE COUNTY ENGINEERING
ELEVATION: 127.968 FEET (NAVD 1988)

3. SITE TEMPORARY VERTICAL BENCHMARK:

DESCRIPTION: BENCHMARK NUMBER L 708027
LOCATION: ORANGE COUNTY ENGINEERING
ELEVATION: 145.285 FEET (NAVD 1988)

BENCHMARK LOCATION AND ELEVATION ARE AS REPRESENTED BY SURVEYOR AT THE TIME OF THE SURVEY. CONTRACTOR SHALL VERIFY ITS CORRECTNESS AT TIME OF CONSTRUCTION.

PAVING, DRAINAGE AND GRADING:

1. THE CONTRACTOR SHALL INSTALL, AS PART OF THE INFRASTRUCTURE AND PRIOR TO CERTIFICATE OF COMPLETION, DROP CURBS AND HANDICAP RAMPS AT ALL INTERSECTIONS OF SIDEWALK WITH THE PROPOSED PAVEMENT TO MEET STATE OF FLORIDA ACCESSIBILITY CODE AND FEDERAL A.D.A. REQUIREMENTS.

2. CONTRACTOR IS RESPONSIBLE FOR OBTAINING FDEP GENERIC PERMIT FOR THE DISCHARGE OF PRODUCED GROUND WATER FROM ANY NON-CONTAMINATED SITE ACTIVITY IN ACCORDANCE OF FLORIDA ADMINISTRATIVE CODE 62-621.300 (2), 62-620, AND FLORIDA STATUTES CHAPTER 403.

3. DURING CONSTRUCTION, THE GEOTECHNICAL ENGINEER PROVIDING PROJECT TESTING SHALL MONITOR CONSTRUCTION CONDITIONS AND PROVIDE RECOMMENDATIONS FOR ADDITIONAL ROADWAY UNDERDRAINS AS NEEDED. ENGINEER SHALL BE NOTIFIED OF ANY SUCH RECOMMENDATIONS.

4. ALL UPLAND DEVELOPMENT ONSITE AREA, EXCLUDING LANDSCAPE AREAS, SHALL, AT A MINIMUM, BE COMPACTED TO 95% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180 TEST METHOD. THIS REQUIREMENT APPLIES TO ALL WORK PREPARED BY THE GENERAL CONTRACTOR AND SUB-CONTRACTORS PERFORMING WORK ONSITE. ENGINEER RESERVES RIGHT TO WITHHOLD PAYMENT FOR ANY AREA THAT DOES NOT MEET DENSITY AS SPECIFIED.

5. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL FIELD STAKE AND ROPE OFF CONSERVATION AREA LINES. OWNER RESERVES THE RIGHT TO CHECK THE STAKING AND ROPING AND REQUIRE IT TO BE RELOCATED IF NECESSARY. IT SHALL REMAIN IN PLACE UNTIL ADJACENT CONSTRUCTION IS COMPLETE.

6. ALL SIGNAGE, PAVEMENT MARKING AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH FDOT "STANDARD PLANS" AND FHWA "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES"; LATEST EDITIONS.

7. REGULATORY SIGNS (STOP, ETC.) SHALL BE IN PLACE PRIOR TO FINAL INSPECTION OF PAVING AND DRAINAGE IMPROVEMENTS. UNLESS SIGNAGE IS PROVIDED BY THE MUNICIPALITY

8. PIPE LENGTHS SHOWN REPRESENT SCALED DISTANCE BETWEEN CENTERLINES OF DRAINAGE STRUCTURES AND FROM INVERTS OF ENDWALLS AND/OR MITERED END SECTIONS. BIDDERS SHALL ADJUST FOR PIPE LENGTHS WHEN BIDDING MITERED END SECTIONS.

9. CONTRACTOR SHALL NOT COMPACT, STABILIZE, OR CONSTRUCT BASE COURSE WITHIN LANDSCAPE ISLANDS, TRACTS OR MEDIANS. WHERE SUCH TREATMENT DOES OCCUR, IT SHALL BE REMOVED AND REPLACED WITH SUITABLE PLANTING SOILS ACCEPTABLE TO OWNER'S LANDSCAPE ARCHITECT.

10. ALL PAVEMENT RETURN RADII SHALL BE 25' AND MEASURED FROM THE INTERFACE TO THE CONCRETE CURB AND PAVEMENT SURFACE UNLESS OTHERWISE NOTED.

11. SITE GRADING, PAVING AND DRAINAGE MATERIALS AND CONSTRUCTION SHALL CONFORM TO FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.

12. STORM DRAINS SHALL BE REINFORCED CONCRETE PIPE, PER ASTM C-76 CLASS III, UNLESS OTHERWISE SPECIFIED. LIFTING HOLES ARE PROHIBITED.

13. UNDERDRAIN, IF ANY, SHALL BE HEAVY-DUTY CORRUGATED POLYETHLENE PIPE WITH FACTORY-INSTALLED FILTER FABRIC AS MANUFACTURED BY ADVANCED DRAINAGE SYSTEMS (ADS), OR APPROVED EQUAL.

14. UNDERDRAIN DISCHARGE PIPE, IF ANY, SHALL BE PVC PIR ASTM D3034 SDR 35 WITH ELASTOMERIC JOINTS, NON-PERFORATED.

15. YARD DRAINS, IF ANY, SHALL BE NYOPLAST INLINE DRAINS AND DRAIN BASINS AS APPLICABLE WITH CAST IRON GRATES AND WATERTIGHT ADAPTER CONNECTIONS (OR APPROVED EQUAL).

16. YARD DRAIN PIPING: PVC CONFORMING TO ASTM D3034, SDR35 SHALL BE USED FOR ALL PIPE RUNS IN WHICH ANY PART LIES UNDER PAVED AREAS. SAID PVC OR HEAVY DUTY CORRUGATED POLYETHYLENE MAY BE USED FOR ALL OTHER RUNS. MATERIAL SELECTION SHALL BE CONSISTENT THROUGHOUT THE PROJECT.

17. DITCH BOTTOM AND CONTROL STRUCTURE INLET GRATES SHALL BE SECURED WITH CHAIN AND EYEBOLT.

18. FIVE (5) FEET OF SOD IS REQUIRED AROUND ALL DITCH BOTTOM INLETS, MANHOLES, HEADWALLS AND MITERED END SECTIONS.

19. THE LIMITS OF THE POND TRACTS SHALL BE SODDED FROM TRACT LIMITS TO 2' BELOW NCL IN THE CASE OF DRY BOTTOM PONDS, THE BOTTOM WILL BE SEEDED AND MULCHED UNLESS OTHERWISE SPECIFIED.

20. BLUE REFLECTIVE PAVEMENT MARKERS FOR ALL FIRE HYDRANTS SHALL BE PLACED IN THE CENTER OF THE NEAREST TRAVELED LANE TO MARK THEIR LOCATIONS.

21. CONCRETE SIDEWALKS (AS SPECIFIED BY APPROPRIATE ROADWAY SECTION) ADJACENT TO ALL LOTS TO BE INSTALLED BY HOME BUILDER. SIDEWALKS ADJACENT TO PONDS, PARKS, AND OPEN SPACE, AS WELL AS TRACT ACCESS APRONS AS SHOWN ON PLANS, ARE TO BE CONSTRUCTED W

THE UTILITY NOTES BELOW ARE PROVIDED AS MINIMUM REQUIREMENTS AND ARE NOT INTENDED TO SUPERCEDE LOCAL GOVERNMENT AND AGENCY REQUIREMENTS

POTABLE WATER NOTES:

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN COMPLIANCE WITH AWWA STANDARDS AND IN ACCORDANCE WITH LOCAL GOVERNMENT STANDARDS.
2. PIPE LENGTHS SHOWN REPRESENT SCALED DISTANCES BETWEEN FITTINGS OF BRANCHES AND MAINS.
3. DEFLECTIONS AT PIPE JOINTS SHALL NOT EXCEED THOSE RECOMMENDED BY THE PIPE MANUFACTURER.
4. ALL GATE VALVES SHALL BE EQUIPPED WITH AN ADJUSTABLE CAST IRON VALVE BOX WITH COVER, WITH THREADED CAST BRONZE EXTENSIONS WHERE NEEDED.
5. 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 AND WILL BE MARKED WITH THE NSF SEAL OF APPROVAL.
6. ALL PIPE AND PIPE FITTINGS INSTALLED UNDER THIS PROJECT SHALL BE COLOR CODED IN ACCORDANCE WITH SUB PARAGRAPH 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. 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 ALONG THE TOP OF THE PIPE.
7. ALL NON-METALLIC WATER MAINS SHALL BE INSTALLED WITH A CONTINUOUS, INSULATED 10 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. 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 TESTING AND THE DISINFECTION OF THE WATER DISTRIBUTION SYSTEM SHALL BE DONE IN ACCORDANCE WITH THE AWWA STANDARDS. HYDROSTATIC TESTING TO BE DONE IN ACCORDANCE WITH AWWA C-600 FOR DUCTILE IRON PIPE AND C-605 FOR PVC PIPE. DISINFECTING AND BACTERIOLOGICAL EVALUATION TO BE DONE IN ACCORDANCE WITH AWWA C-651 AND RULE 62-555.340 F.A.C.
9. MARK SERVICES WITH 6' HIGH PIECE OF 2" X 4" PLANK PAINTED BLUE WITH LOT NUMBER CLEARLY MARKED AND A 'W' IMPRESSED IN THE CURB. IT IS THE INTENT THAT EVERY LOT IS CONSISTENT WITH A WATER SERVICE; THEREFORE IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSTALL A WATER SERVICE TO EACH LOT.
10. PIPE MATERIALS:

    PVC - ALL PIPE, PIPE FITTINGS, PIPE JOINT PACKING AND JOINTING MATERIALS, VALVES, FIRE HYDRANTS, AND METERS INSTALLED UNDER THIS PROJECT SHALL CONFORM TO APPLICABLE AWWA STANDARDS AND SHALL BE MANUFACTURED IN ACCORDANCE WITH AWWA STANDARD C900. LATEST EDITION. PVC SHALL BE MANUFACTURED IN ACCORDANCE WITH AWWA STANDARD C900. THE PVC SHALL HAVE A MINIMUM WORKING PRESSURE OF 150 P.S.I. AND SHALL HAVE A DIMENSION RATIO (DR) OF 18. PIPE SHALL BE THE SAME O.D. AS DUCTILE IRON PIPE.

    PVC JOINT - SHALL BE IN ACCORDANCE WITH ASTM D3139.

    DUCTILE IRON - SHALL CONFORM TO ANSI/AWWA C150/C151. A MINIMUM OF CLASS 50 PIPE SHALL BE SUPPLIED.

    DUCTILE IRON JOINT - SHALL BE IN ACCORDANCE WITH ANSI A21.11 AND AWWA C111.

    SERVICES - SHALL BE IN ACCORDANCE WITH AWWA C901/C800 STANDARDS FOR POLYETHYLENE TUBING, CLASS 160.
11. WATER MAIN CONNECTION SHALL BE MADE UNDER THE SUPERVISION OF CITY OF APOPKA. ALL VALVES SHALL BE OPERATED BY LOCAL GOVERNMENT PERSONNEL ONLY. WATER MAINS ARE TO BE DISINFECTED PER ANSI/AWWA C651-92 AND LOCAL GOVERNMENT STANDARDS.
12. VERTICAL SEPARATION BETWEEN UNDERGROUND POTABLE WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, AND RECLAIMED WATER PIPELINES:

    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.

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

    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.

    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.

    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 "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381.0065(2), F.S., AND RULE 64E-6.002, F.A.C.
15. A MINIMUM OF 3 FEET OF COVER SHALL BE MAINTAINED OVER WATERMAINS, UNLESS OTHERWISE NOTED.
16. ALL PIPE AND PIPE FITTINGS INSTALLED UNDER THIS PROJECT SHALL CONTAIN NO MORE 8.0% LEAD, AND ANY SOLDER OR FLUX USED IN THIS PROJECT SHALL CONTAIN NO MORE THAN 0.2% LEAD.
17. NEW OR ALTERED DEAD-END WATER MAINS INCLUDED IN THIS PROJECT SHALL BE PROVIDED WITH A FIRE OR FLUSHING HYDRANT OR BLOW-OFF FOR FLUSHING PURPOSES.
18. NEW OR ALTERED FIRE HYDRANT LEADS SHALL HAVE A MINIMUM INSIDE DIAMETER OF 6" AND SHALL INCLUDE AN AUXILIARY VALVE.
19. 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.
20. 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 A LEAST SIX INCHES BELOW THE BOTTOM OF UNDERGROUND PIPE INSTALLED UNDER THIS PROJECT.
21. CONTRACTOR SHALL NOT ACTIVATE WATER SERVICE UNTIL THE FDEP HAS CLEARED THE SYSTEM FOR USE AND THE CLEARANCE LETTER HAS BEEN RECEIVED BY THE OWNER.
22. CONTRACTOR SHALL COORDINATE ALL UTILITIES SYSTEMS TEST SCHEDULING TO ALLOW ENGINEER'S ATTENDANCE PROVIDING MINIMUM NOTICE OF FIVE (5) WORKING DAYS. CONTRACTOR'S FAILURE TO PROPERLY NOTIFY ENGINEER MAY RESULT IN RETESTING AT ENGINEER'S OPTION AND AT CONTRACTOR'S EXPENSE.
23. ENGINEER RESERVES THE RIGHT TO WITHHOLD AUTHORIZATION OF PAYMENT FOR ANY PORTION OF THE UTILITIES PIPE WORK WHICH HAS NOT BEEN TESTED (OBSERVED BY ENGINEER) AND REPORTED TO CONFORM TO PROJECT SPECIFICATIONS.
24. SITE CONTRACTOR SHALL COORDINATE AND VERIFY ALL UTILITY SERVICES WITH FINAL ARCHITECTURAL DRAWINGS AND BUILDING CONTRACTOR.
25. CONTRACTOR SHALL VERIFY SIZE AND TYPE OF EXISTING MAIN PRIOR TO ORDERING TAPPING MATERIALS FOR TIE-INS.
26. CONCRETE CURBS SHALL BE CHISELED OR IMPRINTED TO SHOW LOCATIONS OF WATER AND SEWER SERVICE LINES/LATERALS. MARKING SHALL CONFORM WITH LOCAL STANDARDS. WHERE NO STANDARDS EXIST, USE "R" FOR RECLAIMED WATER, "W" FOR WATER, AND "S" FOR SANITARY.
27. FIRE HYDRANTS WHICH ARE GRAPHICALLY SHOWN ON OR NEAR LOT LINES AND NOT OTHERWISE LOCATED BY STATIONING OR DIMENSIONING SHALL BE CENTERED ON THE LOT LINE.

THE UTILITY NOTES BELOW ARE PROVIDED AS MINIMUM REQUIREMENTS AND ARE NOT INTENDED TO SUPERCEDE LOCAL GOVERNMENT AND AGENCY REQUIREMENTS

SANITARY SEWER NOTES:

1. ALL MANHOLES SHALL HAVE A MINIMUM DIAMETER OF 48 INCHES AND A MINIMUM ACCESS DIAMETER OF 22 INCHES.
2. PIPE LENGTHS SHOWN REPRESENT SCALED DISTANCES BETWEEN MANHOLE CENTERLINE.
3. ALL SANITARY SERVICE LATERALS SHALL BE 6 INCH DIAMETER PVC. LATERALS SHALL END WITH A CLEAN OUT AT RIGHT-OF-WAY LINE.
4. INVERTS OF SANITARY SERVICE LATERALS AT THEIR CONNECTION TO SANITARY MANHOLES SHALL BE NO MORE THAN ONE (1) FOOT ABOVE THE MANHOLE INVERT.
5. PRIOR TO PAVING, CONTRACTOR SHALL VERIFY THE AS-BUILTS SANITARY SEWER PIPE SLOPES. MINIMUM SHALL BE IN ACCORDANCE WITH FDEP MINIMUM CRITERIA BUILT FOR 8" PVC SEWER LINE SLOPE WILL BE 0.28%, FOR 12" PVC WILL BE 0.17% AND FOR 15" PVC WILL BE 0.12%. ANY LINE NOT MEETING MINIMUM SLOPE WILL BE RELAYED BY CONTRACTOR TO MEET THE MINIMUM SLOPE REQUIREMENT AT NO ADDITIONAL COST.
6. MARK LATERALS WITH 6' HIGH PIECE OF 2" X 4" PLANK PAINTED ORANGE W/ LOT NUMBER CLEARLY MARKED AND A 'S' IMPRESSED IN THE CURB.
7. LEAKAGE TESTS ARE SPECIFIED REQUIRING THAT:

    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.

    EXFILTRATION OR INFILTRATION TESTS BE PERFORMED WITH A MINIMUM POSITIVE HEAD OF 2 FEET.

    AIR TESTS, AS A MINIMUM, CONFORM TO THE TEST PROCEDURE DESCRIBED IN ASTM C-828 FOR CLAY PIPE, ASTM C924 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.
8. MANHOLE LIFT HOLES AND GRADE ADJUSTMENT RINGS BE SEALED WITH NON-SHRINKING MORTAR OR OTHER APPROPRIATE MATERIAL.
9. INLET AND OUTLET PIPES BE JOINED TO THE MANHOLE WITH A GASKETED FLEXIBLE WATER-TIGHT CONNECTION OR ANOTHER WATER-TIGHT CONNECTION ARRANGEMENT THAT ALLOWS DIFFERENTIAL SETTLEMENT OF THE PIPE AND MANHOLE WALL.
10. WATER-TIGHT MANHOLE COVERS BE USED WHEREVER THE MANHOLE TOPS MAY BE FLOODED BY STREET RUNOFF OF HIGH WATER.
11. MINIMUM SEPARATION BETWEEN POTABLE WATER LINES AND SANITARY HAZARDS (SANITARY SEWER, FORCE MAIN, STORM SEWER, REUSE WATER) SHALL BE MAINTAINED. A HORIZONTAL CLEARANCE OF TEN (10) FEET IN PARALLEL INSTALLATION AND 12 INCHES VERTICALLY AT CROSSINGS SHALL A VERTICAL SEPARATION OF LESS THAN THAT STIPULATED BE REQUIRED, THE WATER LINE SHALL BE CONSTRUCTED OF 20 FEET OF PRESSURE TIGHT JOINT DUCTILE IRON PIPE. IF THE REQUIRED 10 FT. HORIZONTAL CLEARANCE CANNOT BE MAINTAINED, THE SEWER MAIN SHALL BE PLACED IN A D.I.P. SLEEVE OR ENCASED IN CONCRETE IN ACCORDANCE WITH FDEP SPECIFICATIONS.
12. PVC GRAVITY SEWER PIPE SHALL MEET ASTM D3034, SDR 35.
13. ALL SANITARY SEWER PIPE SHALL BE COLORED GREEN.
14. FIBERGLASS LINE ALL MANHOLES WHICH RECEIVE DISCHARGE FROM A FORCEMAIN.
15. CONTRACTOR IS RESPONSIBLE FOR PROVIDING SERVICES AT EACH LOT. SERVICES SHALL HAVE 3' MIN. AND 4' MAX. COVER AT LOT CLEAN OUT.

THE UTILITY NOTES BELOW ARE PROVIDED AS MINIMUM REQUIREMENTS AND ARE NOTE INTENDED TO SUPERCEDE LOCAL GOVERNMENT AND AGENCY REQUIREMENTS

RECLAIMED WATER NOTES:

1. ALL RECLAIMED WATER PIPES SHALL BE INSTALLED USING WATER PIPE CRITERIA. MAINS SHALL BE CLASS 52 DIP IF 24"-30" OF COVER IS PROVIDED AND CLASS 51 IF 30"-36" COVER IS PROVIDED.
2. PROVIDE 6" MINIMUM SEPARATION BETWEEN RECLAIMED WATER AND STORM PIPES AND A MINIMUM OF 3' OF COVER OVER THE RECLAIMED WATER MAIN. RECLAIMED WATER WHEN LESS THAN 3' OF COVER IS ACHIEVED SHALL BE D.I.P. (COVER LESS THAN 3' IS ONLY ALLOWED AT SPECIFIC CROSSINGS APPROVED BY ENGINEER) PROVIDE MECHANICAL JOINTS AND FITTINGS AS NECESSARY FOR THE VERTICAL TRANSITIONS.
3. EXCEPT FOR PVC PIPE, MAXIMUM DEFLECTIONS AT PIPE JOINTS, FITTINGS AND LAYING RADIUS FOR THE VARIOUS PIPE LENGTHS SHALL NOT EXCEED 75% OF THE PIPE MANUFACTURER'S RECOMMENDATION. A MINIMUM VERTICAL CLEARANCE OF 18" SHALL BE MAINTAINED. WHERE 18" CLEARANCE IS NOT POSSIBLE, WATER AND RECLAIMED WATER WILL BE UPGRADED TO D.I.P.
4. MARK LATERALS WITH 6' HIGH PIECE OF 2" X 4" PLANK PAINTED PURPLE, AND AN R IMPRESSED IN THE CURB.
5. CASINGS WILL BE PROVIDED FOR SERVICES LOCATED UNDER LANDSCAPE MEDIANS.
6. ALL PVC RECLAIMED WATER PIPE SHALL BE AS SPECIFIED IN THE CONTRACT DOCUMENTS, MARKED WITH THE SEAL OF APPROVAL OF THE NATIONAL SANITATION FOUNDATION (NSF) AND BE PURPLE IN COLOR.
7. ALL DUCTILE IRON RECLAIMED 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 PURPLE IN COLOR. BACKFILL SHALL NOT BE PLACED FOR 30 MINUTES FOLLOWING PAINT APPLICATION.
8. ALL NON-METALLIC RECLAIMED WATER MAINS SHALL BE INSTALLED WITH A CONTINUOUS, INSULATED 10 GAUGE COPPER WIRE INSTALLED DIRECTLY ON TOP OF THE PIPE FOR LOCATION PURPOSES. SEE STANDARD DRAWINGS. IN ADDITION, ALL PVC RECLAIMED WATER MAINS SHALL BE SOLID, PANTONE PURPLE COLOR.
9. HYDROSTATIC TESTING OF THE RECLAIMED WATER DISTRIBUTION SYSTEM SHALL BE DONE IN ACCORDANCE WITH THE AWWA STANDARDS. HYDROSTATIC TESTING TO BE DONE IN ACCORDANCE WITH AWWA C-600 FOR DUCTILE IRON PIPE AND M23 FOR PVC PIPE.
10. ALL RECLAIMED WATER HOSE BIBBS, HAND-OPERATED CONNECTIONS AND OUTLETS SHALL BE CONTAINED IN UNDERGROUND SERVICE VAULTS AND SHALL BE APPROPRIATELY TAGGED OR LABELED TO WARN THE PUBLIC AND EMPLOYEES THAT THE WATER IS NOT INTENDED FOR DRINKING. ALL PIPING, PIPELINES, VALVES AND OUTLETS SHALL BE COLOR CODED PANTONE 522C PURPLE AND MARKED PER LOCAL AND STATE CODES TO DIFFERENTIATE RECLAIMED WATER FROM POTABLE OR OTHER WATER.
11. VAULTS FOR RECLAIMED WATER HOSE BIBBS AND OUTLETS SHALL BE LOCKED OR REQUIRE A SPECIAL TOOL FOR OPERATION OF HOSE BIBBS AND OUTLETS.
12. LOW TRAJECTORY NOZZLES ARE REQUIRED WITHIN 100 FEET OF ANY OUTDOOR PUBLIC EATING, DRINKING OR BATHING FACILITIES.
13. A RESIDENTIAL DUAL CHECK VALVE OR OTHER BACKFLOW PREVENTION DEVICE AS SPECIFIED BY THE SEWER/RECLAIMED WATER UTILITY COMPANY IS REQUIRED ON ALL POTABLE WATER LINES AT EACH RESIDENTIAL SITE WHICH IS SERVICED WITH RECLAIMED WATER.
14. SIGNS SHALL BE POSTED IN THE VICINITY OF PUBLIC RECLAIMED WATER IRRIGATION SYSTEMS, ADVISING THE PUBLIC THAT RECLAIMED WATER IS PRACTICED.
15. BOX COVERS FOR RECLAIMED WATER SYSTEM ELEMENTS (VALVES, METER, BFP's, ETC.) SHALL, TO THE EXTENT REASONABLE, NOT BE INTERCHANGEABLE WITH BOX COVERS FOR WATER SYSTEM ELEMENTS.
16. RECLAIMED WATER SYSTEMS AND POTABLE WATER SYSTEMS SHALL NOT BE CROSS-CONNECTED. AN AIR GAP OF TWO PIPE DIAMETERS IS REQUIRED BETWEEN SUCH WATERS.
17. THE WETTED EDGE OF AREAS IRRIGATED WITH RECLAIMED WATER SHALL NOT BE CLOSER THAN 75 FEET TO ANY PUBLIC OR PRIVATE POTABLE WATER WELL.
18. NO RECLAIMED WATER TRANSMISSION FACILITY/MAIN SHALL BE WITHIN 75 FEET OF ANY PUBLIC WATER SUPPLY WELL.

DEMOLITION NOTES:

1. CONTRACTOR SHALL REMOVE ALL WASTE MATERIAL FOR DISPOSAL OFF-SITE. DISPOSAL SHALL CONFORM TO ALL APPLICABLE REGULATIONS.
2. EXISTING UNDERGROUND UTILITIES, UNLESS OTHERWISE NOTED, MAY BE CAPPED/PLUGGED AND ABANDONED IN PLACE EXCEPT WITHIN 30 FT. OF BUILDING. CAPPED AND PLUGGED PIPE ENDS SHALL BE ENCASED IN CONCRETE, 6" MINIMUM THICKNESS AROUND PIPE. MANHOLE BASES MAY BE LEFT IN PLACE PROVIDED THAT PIPE OPENINGS ARE PLUGGED AND REMAINING BASES ARE FILLED WITH CONCRETE 6" MINIMUM ABOVE HIGHEST INVERT.
3. ANY MATERIALS CLAIMED AS SALVAGE BY OWNER EITHER IN THE FIELD OR IN THE DRAWINGS SHALL BE STOCKPILED FOR OWNER'S REMOVAL.
4. CONTRACTOR SHALL BE KNOWLEDGEABLE OF THE CONSTRUCTION DOCUMENTS AND BE RESPONSIBLE FOR PROTECTING ANY EXISTING FACILITY SO DESIGNATED OR DESIGNATED TO BE USED IN THE WORK.
5. CONTRACTOR SHALL REMOVE ALL FOUNDATIONS, CONCRETE SLABS, AND UNDERGROUND STRUCTURES EXISTING ON THE SITE AT THE TIME OF BIDDING UNLESS OTHERWISE DIRECTED.
6. CONTRACTOR SHALL COORDINATE WITH APPLICABLE UTILITY COMPANIES AND BE RESPONSIBLE FOR THE TERMINATION, CAPPING-OFF AND REMOVAL OF ALL UNDERGROUND AND ABOVE-GROUND UTILITY SERVICES EXISTING AT THE TIME OF BIDDING UNLESS DIRECTED TO BID OTHERWISE.
7. CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING AND DISPOSING ALL WASTE MATERIALS CONSISTENT WITH ALL RULES AND REGULATIONS APPLICABLE TO THE SPECIFIC MATERIAL FOUND.

ADA NOTES:

1. THE CONTRACTOR SHALL INSTALL, AS PART OF THE INFRASTRUCTURE AND PRIOR TO CERTIFICATE OF COMPLETION, DROP CURBS, STRIPING AND HANDICAP RAMPS AT ALL INTERSECTIONS OF SIDEWALK WITH THE PROPOSED PAVEMENT TO MEET STATE OF FLORIDA ACCESSIBILITY CODE AND FEDERAL A.D.A. SPECIFICATIONS.
2. PAVEMENT GRADES OVER HANDICAPPED PARKING SPACES SHALL NOT EXCEED 2% IN ANY DIRECTION EXCEPT AT RAMPS. (NOTE: RAMP LENGTHS MAY EXCEED 6 FEET.)
3. PROPOSED AND EXISTING SIDEWALKS SHALL BE RAMPED FLUSH WITH PAVEMENT. RAMPS SHALL NOT EXCEED SLOPES OF 12 HORIZONTAL TO 1 VERTICAL. (NOTE: RAMP LENGTHS REQUIRED MAY EXCEED 6 FT.)
4. WHERE SIDEWALK RAMPS CONNECT TO MIAMI CURB, THE SLOPE OF THE MIAMI CURB SHALL BE NO STEEPER THAN 12:1 TO CONFORM WITH FLORIDA/FEDERAL REGULATORY REQUIREMENTS. TWO FT. LONG CURB TRANSITIONS SHALL BE USED AT EACH SIDE OF THE RAMP.
5. WHERE RAMPS ARE POURED ADJACENT TO EXISTING MIAMI CURB, THE CURB SHALL BE REMOVED, FOR A DISTANCE EXTENDING TWO FT. BEYOND EACH END OF THE WALK AND RECONSTRUCTED.
6. SIDEWALK RAMPS SHALL INCLUDE DETECTABLE WARNINGS THAT ARE TEXTURED IN CONFORMANCE WITH FDOT STANDARDS EXCEPT WHERE LOCAL CODES DICTATE OTHERWISE. CONTRACTOR SHALL COORDINATE WITH LOCAL AUTHORITY FOR PRE-POUR INSPECTION PRIOR TO ANY SIDEWALK AND/OR RAMP CONCRETE POURS. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO ENSURE THAT ALL RAMP TEXTURED SURFACES AND SIDEWALK LONGITUDINAL AND CROSS SLOPES ARE IN CONFORMANCE WITH LOCAL, STATE AND FEDERAL ADA AND FAIR HOUSING ACT STANDARDS.
7. CONTRACTOR SHALL COORDINATE WITH ENGINEER FOR PRE-POUR INSPECTION PRIOR TO ANY SIDEWALK AND/OR CURB RAMP CONCRETE POURS.
8. ALL MANHOLE, PULL BOX, UTILITY VAULT, VALVE, OR OTHER COVERS LOCATED WITHIN SIDEWALKS AND CROSSWALKS SHALL BE ADA COMPLIANT.

FIRE PROTECTION NOTES:

1. MAINS DESIGNATED AS FIRE PROTECTION SHALL BE INSTALLED BY A FLORIDA LICENSED FIRE PROTECTION CONTRACTOR AND REVIEWED FOR CONFORMANCE BY A LICENSED FIRE PROTECTION ENGINEER.
2. FIRE HYDRANTS SHALL BE INSTALLED AND IN SERVICE PRIOR TO THE ACCUMULATION OF COMBUSTIBLES.
3. IN INSTANCES WHERE THERE ARE NO FIRE HYDRANTS IN CLOSE PROXIMITY TO PROVIDE FIRE PROTECTION, PER THE NATIONAL FIRE PROTECTION ASSOCIATION, NFPA-1, 16.4.3.1.3, UNDERGROUND WATER MAINS AND HYDRANTS ARE REQUIRED TO BE PROVIDED SHALL BE INSTALLED, COMPLETED AND IN SERVICE PRIOR TO CONSTRUCTION WORK.
4. PER NFPA-1, 18.3.4.1, DURING CONSTRUCTION, CLEARANCES OF 7.5 FEET IN FRONT OF AND TO THE SIDES OF THE FIRE HYDRANT WITH A 4-FOOT CLEARANCE TO THE REAR MUST BE PROVIDED AND MAINTAINED AT ALL TIMES.

ADS HDPE GENERAL NOTES:

1. SHOULD CONSTRUCTION PLANS INDICATE ADS PIPE MAY BE USED, ENGINEER SHALL BE NOTIFIED OF SUCH BY CONTRACTOR PRIOR TO MATERIAL ORDERING. ENGINEER SHALL BE PROVIDED WITH SPECIFICATIONS AND INSTALLATION METHODS PRIOR TO INSTALLATION.
2. WHERE ADS PIPE IS USED AS AN ALTERNATE TO REINFORCED CONCRETE PIPE, CONTRACTOR SHALL SUBMIT BIDS TO ENGINEER IN WRITING FOR REVIEW AND APPROVAL OF MATERIAL COST SAVINGS TO OWNER.
3. ADS PIPE SHALL NOT BE USED IN AREAS OF HIGH GROUNDWATER UNLESS PROPER ADS APPROVED METHODS ARE USED TO MITIGATE FOR POTENTIAL FLOTATION AND ALIGNMENT SHIFTS. AN AUTHORIZED ADS REPRESENTATIVE SHALL INSPECT ALL SUCH AREAS.
4. PIPE SHALL MEET ALL GOVERNING LOCAL AUTHORITY REQUIREMENTS AS WELL AS THE FLORIDA DEPARTMENT OF TRANSPORTATION. CONTRACTOR SHALL PROVIDE WRITTEN PROOF OF ACCEPTANCE BY LOCAL GOVERNMENT FOR PIPE USE.
5. ADS PIPE PREVIOUSLY STORED IN OUTDOOR CONDITIONS SHALL BE DISCLOSED TO ENGINEER FOR THIRD PARTY REVIEW OF PIPE PRIOR TO ACCEPTANCE FOR USE.
6. ALL INSTALLED PIPE IS SUBJECT TO MANDREL TESTING PRIOR TO ACCEPTANCE.
7. IN MUNICIPALITIES WHERE ADS PIPE IS NOT ALLOWED IN THE PUBLIC RIGHTS-OF-WAY, THE CONTRACTOR MAY USE ADS PIPE IN PRIVATE, NON-PUBLIC AREAS WITH ENGINEER'S PERMISSION.
8. PIPE 4" TO 48" (WHERE DESIGNATED) SHALL BE ADS HDPE N-12 SMOOTH INTERIOR POLYETHYLENE PIPE. PIPE AND FITTINGS SHALL BE MADE OF VIRGIN PE COMPOUNDS WHICH CONFORM WITH THE REQUIREMENTS OF CELL CLASS 324420C AND DEFINED AND DESCRIBED IN ASTM D3350.
9. THE HDPE FITTINGS SHALL NOT REDUCE OR IMPAIR THE OVERALL INTEGRITY OR FUNCTION OF THE PIPE LINE. FITTINGS MAY BE EITHER MOLDED OR FABRICATED. THE FITTINGS MAY BE INSTALLED BY VARIOUS METHODS, SUCH AS SNAP-ON, SCREW-ON, BELL & SPIGOT AND WRAP AROUND. COUPLINGS SHALL PROVIDE SUFFICIENT LONGITUDINAL STRENGTH TO PRESERVE PIPE ALIGNMENT AND PREVENT SEPARATION AT THE JOINTS. FITTINGS SUPPLIED OR RECOMMENDED BY THE PIPE MANUFACTURER SHALL BE USED. WHERE DESIGNATED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER IN THE FIELD, A NEOPRENE OR RUBBER GASKET SHALL BE SUPPLIED.
10. PIPE SHALL BE INSTALLED BY A CONTRACTOR WHO HAS BEEN CERTIFIED BY ADS OR SHALL BE INSTRUCTED BY A CERTIFIED ADS REPRESENTATIVE TO DO SO.
11. A REPRESENTATIVE OF ADS SHALL INSPECT FROM TIME TO TIME THE INSTALLATION OF THE PIPE.
12. HP MANHOLE STRUCTURES WILL NOT BE ALLOWED FOR USE WITHOUT ENGINEERS PRE-AUTHORIZATION.
13. GENERAL SPECIFICATIONS:

    SCOPE

    THIS SPECIFICATION DESCRIBES 12- THROUGH 60-INCH (300 TO 1500 MM) ADS HP STORM PIPE FOR USE IN GRAVITY-FLOW STORM DRAINAGE APPLICATIONS.

    PIPE REQUIREMENTS

    12- THROUGH 30-INCH (300 TO 750 MM) PIPE SHALL HAVE A SMOOTH INTERIOR AND ANNULAR EXTERIOR CORRUGATIONS AND MEET OR EXCEED ASTM F2736 AND AASHTO M330

    36- THROUGH 60-INCH (900 TO 1500 MM) PIPE SHALL HAVE A SMOOTH INTERIOR AND ANNULAR EXTERIOR CORRUGATIONS AND MEET OR EXCEED ASTM F2881 AND AASHTO M330

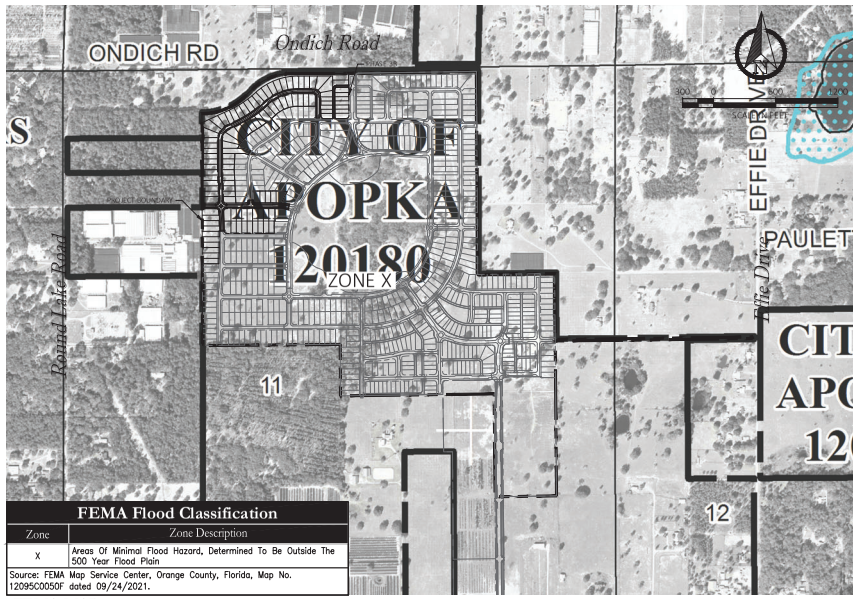
    MANNING'S "N" VALUE FOR USE IN DESIGN SHALL BE 0.012

    JOINT PERFORMANCE

    PIPE SHALL BE JOINED WITH A GASKETED INTEGRAL BELL & SPIGOT JOINT MEETING THE REQUIREMENTS OF ASTM F2736 OR F2881, FOR THE RESPECTIVE DIAMETERS.

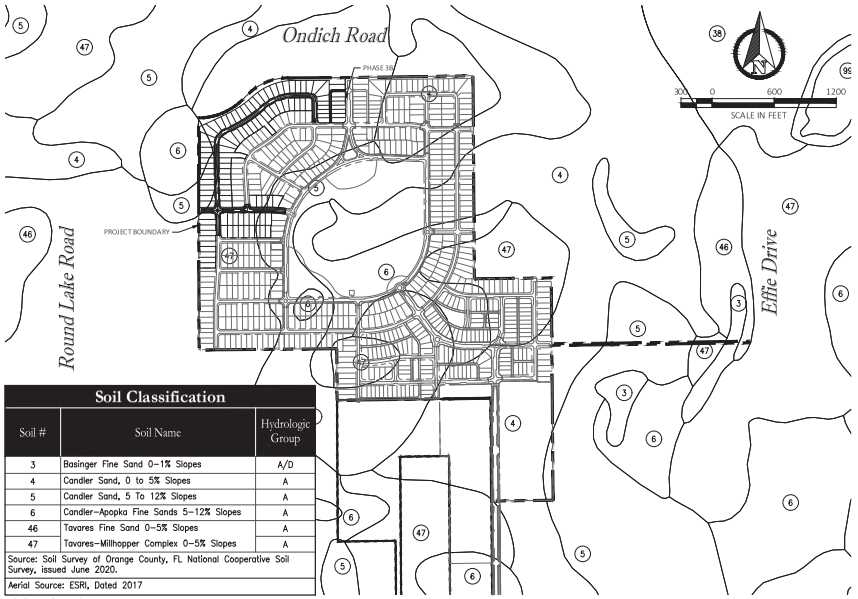
    12- THROUGH 60-INCH (300 TO 1500 MM) SHALL BE WATERTIGHT ACCORDING TO THE REQUIREMENTS OF ASTM D3212. SPIGOTS SHALL HAVE GASKETS MEETING THE REQUIREMENTS OF ASTM F477. GASKET SHALL BE INSTALLED BY THE PIPE MANUFACTURER AND COVERED WITH A REMOVABLE, PROTECTIVE WRAP TO ENSURE THE GASKET IS FREE FROM DEBRIS. A JOINT LUBRICANT AVAILABLE FROM THE MANUFACTURER SHALL BE USED ON THE GASKET AND BELL DURING ASSEMBLY.

    12- THROUGH 60-INCH (300 TO 1500 MM) DIAMETERS SHALL HAVE A REINFORCED BELL WITH A POLYMER COMPOSITE B



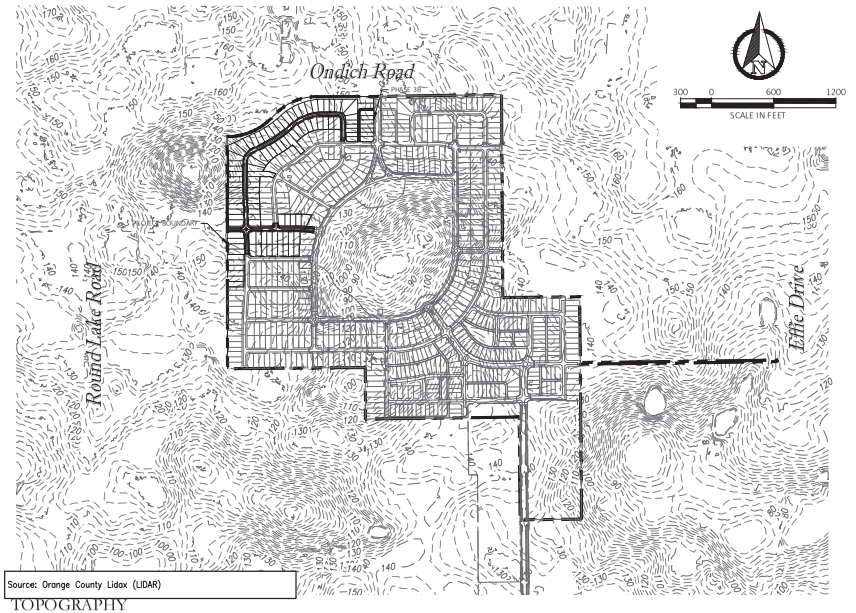
FEMA Flood Classification	
Zone	Zone Description
X	Areas Of Minimal Flood Hazard, Determined To Be Outside The 500 Year Flood Plain
Source: FEMA Map Service Center, Orange County, Florida, Map No. 12095C0050F dated 09/24/2021.	

FEMA MAP



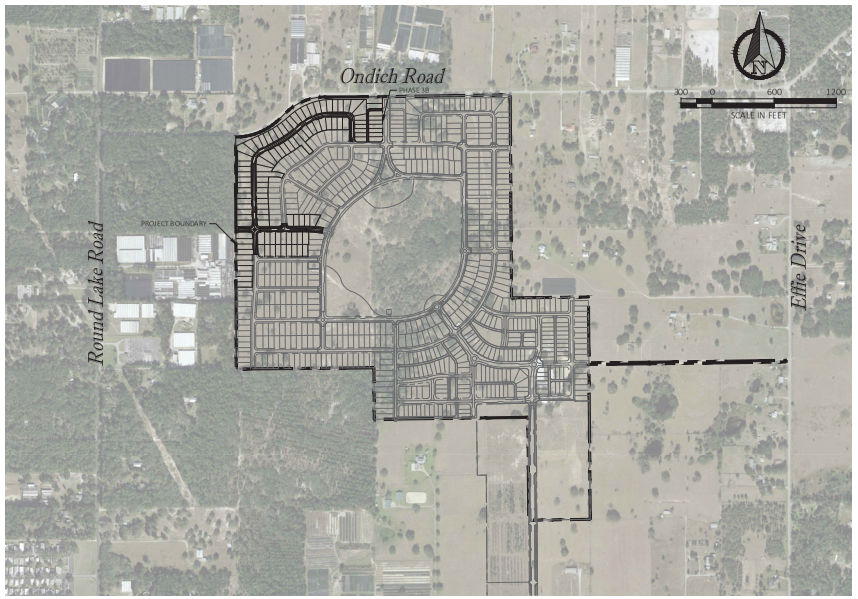
Soil Classification		
Soil #	Soil Name	Hydrologic Group
3	Basinger Fine Sand 0–1% Slopes	A/D
4	Candler Sand, 0 to 5% Slopes	A
5	Candler Sand, 5 To 12% Slopes	A
6	Candler–Apopka Fine Sands 5–12% Slopes	A
46	Tavares Fine Sand 0–5% Slopes	A
47	Tavares–Millhopper Complex 0–5% Slopes	A
Source: Soil Survey of Orange County, FL National Cooperative Soil Survey, issued June 2020.		
Aerial Source: ESRI, Dated 2017		

SOILS MAP



Source: Orange County Lidax (LIDAR)

TOPOGRAPHY



AERIAL

Key Map

NO.	DATE:	DESCRIPTION:
1	10/27/2025	SUBMIT TO CITY OF APOPKA & SJRWMD

SUBMISSIONS/REVISIONS

VERTICAL DATUM:	NAVD 88
JOB NO.:	21-027
DESIGNED BY:	KML
DRAWN BY:	EHW
CHECKED BY:	KML
APPROVED BY:	MDS
SCALE IN FEET:	1" = 600'

Project Name:

CROSSROADS AT KELLY PARK - PHASE 3B

Jurisdiction:

CITY of APOPKA, FL

Sheet Title:

EXISTING CONDITIONS PLAN

Sheet No.:

C0.03

Seal:

MARC DANIEL STELLI LICENSE NO. 88567 STATE OF FLORIDA

MARC DANIEL STELLI
FLORIDA LICENSE NO. 88567

DATE: October 29, 2025

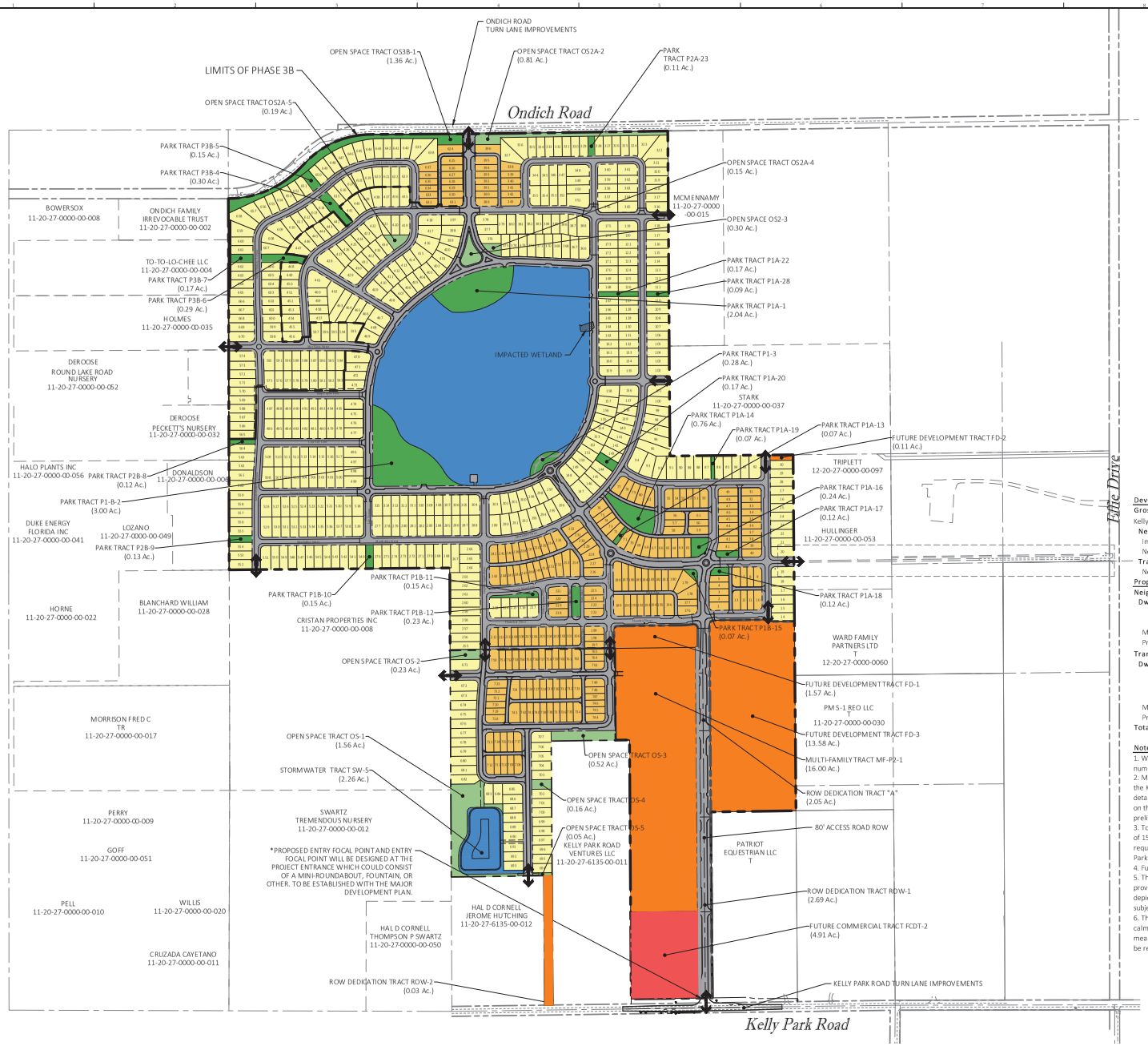
MDN: cn=Marc Daniel Stelli, dnQualifier=A01410D0000019A8AFE033DC0027AEA4, o=Florida, c=US
Date: 2025.10.27 17:05:21 -04'00'

This item has been electronically signed and sealed using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

POULOS & BENNETT
a Pape-Dawson company

Poulos & Bennett, LLC
2602 E. Livingston St., Orlando, FL 32803
Tel. 407.487.2594 www.poulosandbennett.com
Eng. Bus. No. 28567

C:\PROJECTS\PAPE-DAWSON\KELLY PARK CROSSROADS PHASE 3B\PROJECT FILES\CAD\FINAL\CIT\PHASE 1-3B\21-027-PHASE 1-3B-EC



150 0 300 600
SCALE IN FEET

LEGEND

- MASTER PLAN BOUNDARY
- PHASE LINE
- RIGHT-OF-WAY
- LOT LINE
- FULL ACCESS
- 52' x 110' MIN. LOTS
- 40' x 110' MIN. ALLEY LOTS
- OPEN SPACE
- PARK
- FUTURE DEVELOPMENT
- IMPACTED WETLAND

Development Data *(Ph 3 Acreages Not Included)*

Gross Site Area	205.04 Acres
Kelly Park Character District	Neighborhood & Transition
Neighborhood	181.28 Acres
Impacted Wetland	0.08 Acres
Net Developable Area	181.20 Acres
Transition	23.76 Acres
Net Developable Area	23.76 Acres

Proposed Development Program *(Ph 3 Units Not Included)*

Neighborhood District	
Dwelling Units	**651 Units**
52' x 110' Minimum	498 Units
40' x 110' Minimum	153 Units
Maximum Density	5 Du/Ac.
Proposed Density	3.59 Du/Ac.
Transition District[1]	
Dwelling Units	**319 Units**
52' x 110' Minimum	6 Units
40' x 110' Minimum	13 Units
Future Multi-Family[2]	300 Units
Maximum Density[3]	15 Du/Ac.
Proposed Density	13.43 Du/Ac.
Total Number of Dwelling Units	**970 Units**

Notes:

1. Within the Transition District, density will be calculated based on the total number of units in the entire Transition District of this Master Plan.
2. Multi-Family development will comply with the requirements of the Kelly Park Interchange Form Based Code. Development details will be provided at Site Plan submittal. Access locations shown on the Master Site Plan for the Multi-Family development are preliminary. Final locations will be determined with Site Plan approval.
3. To achieve the maximum density allowed within the Transition district of 15 dwelling units/acre, the 3,000 square foot public open space, as required by the KPI Form-Based Code Section R.1.b, is provided within Park Tract P1A-16.
4. Future Development Tract will be require separate development plan.
5. The amenity elements depicted for Park Tracts P1A-1 & P1B-2 shall be provided with the development of these tracts. However, the site plans as depicted within these plans should be considered conceptual in nature and subject to modification based on final design and permitting requirements.
6. The Development shall coordinate with the City of Apopka to provide traffic calming measures. The requirement for and design of traffic calming measures shall be determined at the Final Construction Plan phase and shall be reflected in the Final Construction Plans.

Key Map

NO.	DATE:	DESCRIPTION:
1	10/27/2025	SUBMIT TO CITY OF APOPKA & SJRWMD

SUBMISSIONS/REVISIONS

VERTICAL DATUM:	NAVD 88
JOB NO.:	21-027
DESIGNED BY:	KML
DRAWN BY:	EHW
CHECKED BY:	KML
APPROVED BY:	MDS
SCALE IN FEET:	1" = 300'

Project Name:

CROSSROADS AT KELLY PARK - PHASE 3B

Jurisdiction:

CITY of APOPKA, FL

Sheet Title:

OVERALL MASTER PLAN

Sheet No.:

C1.00

Seal:

MARC DANIEL STEHLI LICENSE NO. 76324 STATE OF FLORIDA PROFESSIONAL ENGINEER

MARC DANIEL STEHLI
FLA. LIC. NO. 76324

DATE: October 27, 2025

Digitally signed by Marc Daniel Stehli
DN: cn=Marc Daniel Stehli, o=Poulos & Bennett, LLC, ou=A01410D0000019A8AFE033DC00027AEA4, c=Florida, c=US
Date: 2025.10.27 17:05:23 -04'00'

This item has been electronically signed and sealed using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

POULOS & BENNETT
a Pape-Dawson company

Poulos & Bennett, LLC
2602 E. Livingston St., Orlando, FL 32803
Tel. 407.487.2594 www.poulosandbennett.com
Eng. Bus. No. 28567

C:\Users\mstehli\Pape-Dawson\Kelly Park Crossroads Phase 3B\Project Files\Civil\Final\Civil\Phase 1-3B-Overall Master Plan-C1.00.dwg

OWNERSHIP / MAINTENANCE

ROADWAYS	PUBLIC	TO BE OWNED AND MAINTAINED BY CITY OF APOPKA
ALLEYS	PRIVATE	TO BE OWNED AND MAINTAINED BY THE CDD OR HOA
DRAINAGE TRACTS	PRIVATE	TO BE OWNED AND MAINTAINED BY THE CDD OR HOA WITH EASEMENT TO CITY OF APOPKA
DRAINAGE EASEMENTS (D.E.)	PUBLIC	TO BE DEDICATED TO CDD OR HOA . DRAINAGE FACILITIES WITHIN THE EASEMENTS ARE TO BE OWNED AND MAINTAINED BY CITY OF APOPKA.
PRIVATE DRAINAGE EASEMENTS (P.D.E.)	PRIVATE	TO BE DEDICATED TO THE CDD OR HOA. DRAINAGE FACILITIES WITHIN THE EASEMENTS ARE TO BE OWNED AND MAINTAINED BY THE CDD OR HOA.
UTILITY EASEMENTS	PUBLIC	TO BE DEDICATED TO CITY OF APOPKA. UTILITIES WITHIN THE EASEMENTS ARE TO BE OWNED AND MAINTAINED BY APOPKA UTILITIES.
WATER, RECLAIMED WATER AND SANITARY SEWER UTILITIES	PUBLIC	TO BE OWNED AND MAINTAINED BY CITY OF APOPKA UP TO METERS/CLEAN-OUTS
LIFT STATION TRACTS	PUBLIC	TO BE OWNED AND MAINTAINED BY CITY OF APOPKA
PARK/OPEN SPACE TRACTS	PRIVATE	TO BE OWNED AND MAINTAINED BY THE CDD OR HOA
SIDEWALKS IN PUBLIC RIGHT OF WAY	PUBLIC	TO BE OWNED AND MAINTAINED BY CITY OF APOPKA
STORMWATER & STREET LIGHTING	PUBLIC	AN MSBU WILL BE ESTABLISHED FOR ROUTINE MAINTENANCE OF STORMWATER SYSTEM FUNCTIONALITY AND STANDARD OPERATION MAINTENANCE OF STREET LIGHTING
SIDEWALK EASEMENTS	PUBLIC	TO BE OWNED AND MAINTAINED BY CITY OF APOPKA
STREET TREES IN PUBLIC ROW	PRIVATE	TO BE OWNED AND MAINTAINED BY THE HOA
PARKING SPACE STRIPING IN PUBLIC ROW	PRIVATE	TO BE OWNED AND MAINTAINED BY THE HOA

MISCELLANEOUS

POTABLE WATER SERVICE	CITY OF APOPKA
RECLAIMED WATER SERVICE	CITY OF APOPKA
WASTEWATER SERVICE	CITY OF APOPKA
ELECTRIC SERVICE	DUKE ENERGY
FIRE PROTECTION	CITY OF APOPKA

PHASING

1. THE OVERALL KELLY PARK PROPERTY WILL BE CONSTRUCTED IN MULTIPLE PHASES. DEVELOPMENT MAY NOT BE SEQUENTIAL. THE NEEDED INFRASTRUCTURE SHALL BE INCLUDED SUCH THAT EACH PHASE MAY STAND ALONE.

SIGNAGE

1. ONSITE SIGNAGE WILL BE IN ACCORDANCE WITH THE MIXED USE KELLY PARK INTERCHANGE FORM-BASED CODE.

LANDSCAPE

1. LANDSCAPE MATERIALS WILL BE CHOSEN FROM THE FLORIDA FRIENDLY PLANT DATABASE (CENTRAL FLORIDA REGION).
2. A TWENTY-FIVE (25) FOOT BUFFER IS PROVIDED ADJACENT TO ONDICH ROAD. IN ACCORDANCE WITH THE CITY OF APOPKA LAND DEVELOPMENT CODE SEC. 5.2.5 - LANDSCAPING AND BUFFER STANDARDS, BUFFER TYPE C WILL BE PROVIDED BETWEEN THE FUTURE MULTI-FAMILY PARCEL AND EXISTING SINGLE-FAMILY DETACHED DWELLING ABUTTING LAND. NO OTHER PERIMETER BUFFERS ARE REQUIRED.

GARBAGE PICKUP

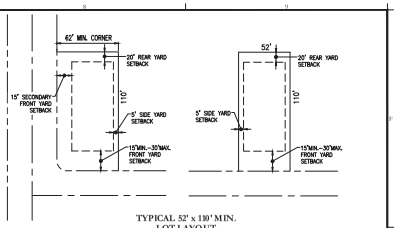
1. FRONT LOADED SINGLE FAMILY UNITS TO BE PICKED UP AT FRONT RIGHT OF WAY. REAR LOADED UNITS TO BE PICKED UP AT REAR ALLEY.

PARKING REQUIREMENTS

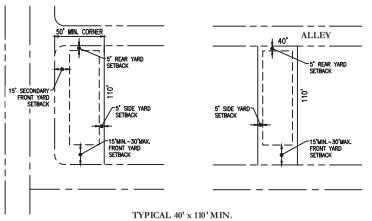
1. OFF-STREET PARKING WILL BE PROVIDED IN ACCORDANCE WITH THE MIXED USE KELLY PARK INTERCHANGE FORM-BASED CODE.

STREET LIGHTING

LIGHTING PHOTOMETRIC PLAN WILL BE PROVIDED AT THE TIME OF CONSTRUCTION PLAN SUBMITTAL. LIGHTING REQUIREMENTS SHALL MEET ALL APPLICABLE CITY OF APOPKA AND ELECTRIC PROVIDERS REGULATIONS AT THE TIME OF ANY CONSTRUCTION PLAN SUBMITTAL AND ANY SUBSEQUENT APPROVALS.



TYPICAL 52' x 110' MIN. LOT LAYOUT
N.T.S.



TYPICAL 40' x 110' MIN. LOT LAYOUT
N.T.S.

TYPICAL LOTS
N.T.S.

SUSTAINABILITY

Per LDC section 5.11.4.A.1.B, residential developments of 30 or more dwelling units shall obtain a minimum of 4 points from the green building point system, Table 5.11.4.B. this development shall satisfy this requirements as follows

GREEN BUILDING STANDARD	POINTS EARNED	NOTES
Development as a traditional neighborhood planned development (TN-PD) district	0.75	Development is proposed as a block pattern traditional neighborhood
Use central air conditioners that are energy star qualified	0.50	All HVAC's installed on site will be energy star qualified
Use vegetation or vegetated structures to shade HVAC units	0.25	2 shrubs per A/C unit will be shown on the final landscape plans
Orient a minimum of 25 percent of residential dwelling units or lots in the development within 20 percent of east-west axis for maximum passive solar exposure	1.00	270 lots (30%) are oriented east west lots
Create a soil management plan for development site that promotes stormwater infiltration through improved organic matter content, reduced compaction levels, and increased infiltration capacity	0.50	The entire site is designed to drain to an on-site retention pond that will fully recover thought infiltration
Preserve large, non-exotic trees on site (large tree defined as 20 feet or greater in height and 24 inches or greater DBH)	1.00	A minimum of Large trees are being preserved. Please see landscape plans for the tree locations.
Install operable windows to allow for natural ventilation in the event of power failures	0.25	All windows will be operable
TOTAL	**4.25**	

ALLEY TRACTS

PHASE-1A	A1A-6	0.21
	A1A-7	0.19
	A1A-8	0.53
	A1A-9	0.14
	PHASE-1A ALLEY TRACT	**1.07**
PHASE-1B	A1B-1	0.32
	A1B-2	0.08
	A1B-3	0.08
	A1B-4	0.39
	A1B-5	0.23
	PHASE-1B ALLEY TRACT	**1.10**
PHASE-2A-1	A2A-12	0.20
	PHASE-2A ALLEY TRACT	**0.20**
PHASE-3B	A3B-11	0.20
	PHASE-3B ALLEY TRACT	**0.20**
	TOTAL:	**2.58**

DRAINAGE TRACTS

PHASE 1	SW1-1	28.91
	PHASE-1 SUBTOTAL:	**28.91**
	TOTAL:	**28.91**

OPEN SPACE TRACTS

PHASE	TRACT ID	ACREAGE
PHASE-2	OS2-3	0.30
	PHASE-2 SUBTOTAL:	0.30
PHASE-2A-1	OS2A-2	0.81
	OS2A-4	0.15
PHASE-2A-2	OS2A-5	0.19
	PHASE-2A SUBTOTAL:	1.15
PHASE-3B	OS3B-1	1.36
	PHASE-3B SUBTOTAL:	1.36
	TOTAL:	2.81

LIFT STATION TRACTS

PHASE 1	LS1-1	0.06
	PHASE-1 SUBTOTAL:	**0.06**

PARK TRACTS

PHASE-1	P1-3	0.30
	PHASE-1 SUBTOTAL:	0.30
PHASE-1A	P1A-1	2.04
	P1A-14	0.76
	P1A-16	0.23
	P1A-17	0.12
	P1A-18	0.12
	P1A-19	0.07
	P1A-20	0.13
	P1A-22	0.17
	P1A-28	0.09
	P1A-13	0.07
	PHASE-1A SUBTOTAL:	3.79
PHASE-1B	P1B-10	0.15
	P1B-11	0.22
	P1B-12	0.23
	P1B-15	0.07
	P1B-2	3.00
	PHASE-1B SUBTOTAL:	3.67
PHASE-2A-1	P2A-23	0.11
	PHASE-2A SUBTOTAL:	0.11
PHASE-2B	P2B-8	0.12
	P2B-9	0.13
	PHASE-2B SUBTOTAL:	0.24
PHASE-3B	P3B-4	0.30
	P3B-5	0.15
	P3B-6	0.29
	P3B-7	0.17
	PHASE-3B SUBTOTAL:	0.91
	TOTAL:	**9.03**

OPEN SPACE & PARK REQUIREMENT TABLE

	PHASE-1	PHASE-1A	PHASE-1B	PHASE-2	PHASE-2A	PHASE-2B	PHASE-3B	Grand Total
Neighborhood Acreage	**67.72**	**28.11**	**25.57**	**1.84**	**27.92**	**14.79**	**20.58**	**186.53**
REQUIRED	13.54	5.62	5.11	0.37	5.58	2.96	4.12	37.31
PROPOSED	29.21	3.79	3.67	0.30	1.07	0.24	2.27	40.55
Transition Acreage	**0.00**	**3.07**	**0.07**	**0.00**	**0.00**	**0.00**	**0.00**	**3.15**
REQUIRED	0.00	0.46	0.01	0.00	0.00	0.00	0.00	0.47
PROPOSED	0.00	0.47	0.07	0.00	0.00	0.00	0.00	0.54
Total Net Acreages	**67.72**	**31.18**	**25.65**	**1.84**	**27.92**	**14.79**	**20.58**	**189.68**

1) Open Space Requirements
Neighborhood District = 20%
Transition District = 15%
2) Open Space and park tracts count towards open space requirements
3) Open Space requirements shall be met project wide. Surplus Acreage may carry over and meet future phase requirements.

STUDENT GENERATION TABLE

			Generation Rate			
KPI District	Units	Type	ES	MS	HS	Total
Neighborhood	651	Single Family	0.178	0.094	0.133	264
Transition	19	Single Family	0.178	0.094	0.133	8
Transition	300	Multi-Family(Non High Rise)	0.141	0.065	0.08	86
					Project Total	**357**

SOURCE: ORANGE COUNTY PUBLIC SCHOOLS STUDENT GENERATION RATES EFFECTIVE JUNE 22, 2021.

NOTES
1. LOT AREAS, EASEMENT LINES AND TRACT AREAS ON THE FINAL PLAT MAY VARY FROM THAT SHOWN DUE TO FINAL ENGINEERING DESIGN CRITERIA AND CONSTRAINTS.
2. THIS COMMUNITY IS NOT PROPOSED TO BE GATED. ALL RIGHTS OF WAY SHALL BE PUBLIC.
3. SINGLE-FAMILY RESIDENTIAL ARCHITECTURE SHALL MEET THE INTENT OF KELLY PARK INTERCHANGE FORM-BASED CODE DEVELOPMENT DESIGN GUIDELINES.
4. PARKS SHALL HAVE ADEQUATE LIGHTING ON AUTOMATIC TIMERS WITHOUT PROJECTING A GLARE ONTO ADJACENT PROPERTIES.
5. THE PROJECT IS GOVERNED BY CAPACITY ENHANCEMENT AGREEMENT # APK-10-001. ANTICIPATED STUDENT GENERATION IS FOR THE PROPOSED DEVELOPMENT PROGRAM IS PROVIDED IN THE STUDENT GENERATION TABLE BELOW. AN ORANGE COUNTY PUBLIC SCHOOLS (OCPS) FORMAL DETERMINATION OF SCHOOL CAPACITY (APPLICATION ID: CMA-APK-22-002) HAS BEEN SUBMITTED AND IS CURRENTLY UNDER REVIEW.

DEVELOPMENT STANDARDS

	Character District	
	Neighborhood	**Transition**
Living Area		
Min. Living Area	1,200 sf	1,200 sf
Building and Floor Height		
Min. Building Height	NA	NA
Max. Building Height	Principal Building - 2 Stories Accessory Building - 1 Story	Principal Building - 3 Stories* Accessory Building - NA
Min. Additional Floor Height	NA	8 ft
Building Setbacks		
Min. Front/Street Side	15 ft	10 ft
Max. Front/Street Side	30 ft	20 ft
Min. Side	Single-Family Detached (Rear Load) - 5 ft Single-Family Detached (Front Load) - 5 ft	Single-Family Detached (Rear Load) - 5 ft Single-Family Detached (Front Load) - 5 ft
Max. Side	NA	50% Frontage Arterial & Primary Street
Min. Building Separation	Single-Family Detached (Rear Load) - 10 ft Single-Family Detached (Front Load) - 10 ft	Single-Family Detached (Rear Load) - 10 ft Single-Family Detached (Front Load) - 10 ft Apartment Building - 20 ft
Min. Rear (Alley)	5 ft	5 ft
Min. Rear (No Alley)	20 ft	20 ft
Density		
Min. Density	1 du/ac	5 du/ac
Max. Density	5 du/ac	10 (15 with bonus) du/ac
Open Space		
Min. Open Space	20%	15%

*One (1) additional floor above the permitted base height may be permitted for every 1,500 square feet of public open space provided per KPI Form-Based Code Section R.1.b.

Modifications

1. A Modification from the City of Apopka Mixed Use Kelly Park Interchange Form-Based Code Section G - District Size and Block Standards to allow for a block length of greater than 500 feet in the Neighborhood District. Based on the topographic constraints of the property, a curvilinear roadway network forms the basis of the project design, which limits the opportunity for a traditional grid block pattern. Pocket parks were added to the longer blocks to break up the streetscape.

2. A Modification from the City of Apopka Mixed Use Kelly Park Interchange Form-Based Code Section I - Building and Floor Height to allow for a first floor height minimum of 8' in lieu of 12' in the Transition District.

3. A Modification from the City of Apopka Land Development Code Appendix D – Development Design Guidelines Section 3.6 – Residential Landscaping to exempt lots less than 52' in width from the requirement to plant three (3) trees per lot. The tree planting requirement for lots less than 52' in width will be determined with approval of the landscape plan submitted with the Major Development Plan.

4. A Modification from the City of Apopka Mixed Use Kelly Park Interchange Form-Based Code Section D - Applicability and Process to expand the Neighborhood District boundary by 12.20 acres, which equates to 2,300 linear feet.

5. A Modification from the City of Apopka Mixed Use Kelly Park Interchange Form-Based Code Section R - Developments utilizing the bonus system or receiving the transfer of development rights shall not have any multi-family buildings located within 100 feet from a neighborhood character zone or single-family residentially-zoned property. Single-family buildings shall meet the setbacks specified in their respective character zone. The code only states "buildings" and does not distinguish the type of building. This modification differentiates between multi-family versus single-family buildings, and clarifies that the multi-family buildings will have a greater setback to residentially zoned properties. This will allow for consistency of setbacks throughout the Master Plan for the single-family buildings and still requires that the multi-family buildings provide a 100 foot buffer from single-family zoned properties that are located outside of the Master Plan boundary.

SITE DATA

Site Information

Parcel I.D. #	11-20-27-0000-00-003
	11-20-27-0000-00-013
	11-20-27-0000-00-036
	11-20-27-0000-00-070
Current Zoning	T - Transition
Current FLU	Mixed Use
Proposed Zoning	Kelly Park Interchange - Mixed Use
Proposed Character District	Neighborhood & Transition
Land Summary (Acres)	
Gross Land Area	205.04 Acres
Neighborhood District	181.28 Acres
Transition District	23.76 Acres
Wetlands (Proposed for Impact)	0.08 Acres
Single-Family	670 Units
Multi-Family	300 Units
Proposed Units	970 Units

Key Map

NO.	DATE:	DESCRIPTION:
1	10/27/2025	SUBMIT TO CITY OF APOPKA & SJRWMD
		SUBMISSIONS/REVISIONS

VERTICAL DATUM:	NAVD 88
JOB NO.:	21-027
DESIGNED BY:	KML
DRAWN BY:	EHW
CHECKED BY:	KML
APPROVED BY:	MDS
SCALE: IN FEET:	N.T.S.

Project Name:
CROSSROADS AT KELLY PARK - PHASE 3B

Jurisdiction:
CITY of APOPKA, FL

Sheet Title:
SITE DATA TABLES

Sheet No.:
C1.01

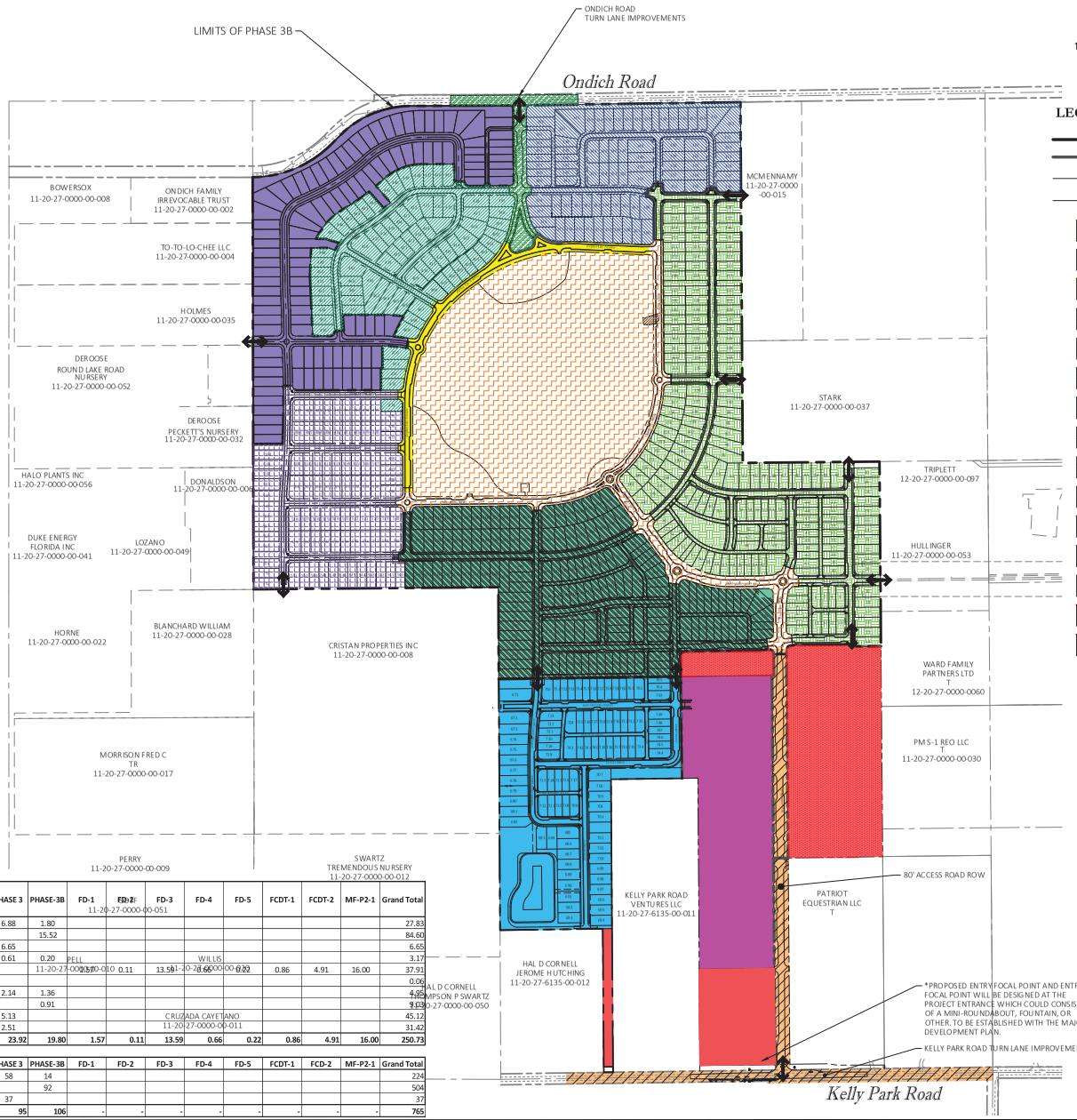
Seal:
MARC DANIEL STEELE LICENSE NO. 76574 STATE OF FLORIDA
MARC DANIEL STEELE
FL LIC. NO. 76574
DATE: September 30, 2025
Digitally signed by Marc Daniel Steele
DN: cn=Marc Daniel Steele, o=Poulos & Bennett, ou=A01410D0000019A8AFE033DC00027AEA4, c=US
Date: 2025.10.27 17:05:20 -04'00'

This item has been electronically signed and sealed using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

POULOS & BENNETT
a Pape-Dawson company

Poulos & Bennett, LLC
2602 E. Livingston St., Orlando, FL 32803
Tel. 407.487.2594 www.poulosandbennett.com
Eng. Bus. No. 28567

C:\USERS\EHW\DOCUMENTS\ACCDOCS\PAPE-DAWSON\KELLY PARK CROSSROADS PHASE 3B\PROJECT FILES\CAD\FINAL\CITY\PHASE 1-3B\21-027-PHASE



SITE DEVELOPMENT ACREAGES

Row Labels	PHASE-1-1\ PHASE-1-2\ PHASE 1-3	PHASE-1A	PHASE-1B	PHASE-2	PHASE-2A	PHASE-2B	PHASE 3	PHASE-3B	FD-1	FD-2	FD-3	FD-4	FD-5	FCDT-1	FCDT-2	MF-P2-1	Grand Total
40'X100' MIN. ALLEY LOTS		7.73	9.60		1.83		6.88	1.80									27.83
52'X110' MIN.		18.63	11.27		24.63	14.54		15.52									84.60
56'X110' MIN.							6.65										6.65
ALLEY TRACT		1.04	1.10		0.20		0.61	0.20									3.17
FUTURE DEVELOPMENT TRACT									0.57	0.11	13.59	0.66	0.22	0.86	4.91	16.00	37.91
LIFT STATION	0.06																0.06
OPEN SPACE				0.30	1.15		2.14	1.36									4.95
PARK	0.30	3.79	3.67		0.11	0.24		0.91									9.03
ROW	38.45			1.54			5.13										45.12
STORMWATER TRACT	28.91						2.51										31.42
Grand Total	**67.72**	**31.18**	**25.65**	**1.84**	**27.92**	**14.79**	**23.92**	**19.80**	**1.57**	**0.11**	**13.59**	**0.66**	**0.22**	**0.86**	**4.91**	**16.00**	**250.73**

UNITS COUNT

Type	PHASE-1-2	PHASE-1A	PHASE-1B	PHASE-2	PHASE-2A	PHASE-2B	PHASE 3	PHASE-3B	FD-1	FD-2	FD-3	FD-4	FD-5	FCDT-1	FCDT-2	MF-P2-1	Grand Total
40'X100' MIN. ALLEY LOTS		64	74		14	0	58	14									224
52'X110' MIN.		111	66		145	90		92									504
56'X110' MIN.							37										37
Grand Total	**0**	**175**	**140**	**0**	**159**	**90**	**95**	**106**	-	-	-	-	-	-	-	-	**765**

Key Map

NO.	DATE:	DESCRIPTIONS
1	10/27/2025	SUBMIT TO CITY OF APOPKA & SJRWMD

SUBMISSIONS/REVISIONS

VERTICAL DATUM:	NAVD 88
JOB NO.:	21-027
DESIGNED BY:	KML
DRAWN BY:	EHW
CHECKED BY:	KML
APPROVED BY:	MDS
SCALE IN FEET:	1" = 300'

Project Name:

CROSSROADS AT KELLY PARK - PHASE 3B

Jurisdiction:

CITY of APOPKA, FL

Sheet Title:

OVERALL PHASING PLAN

Sheet No.:

C1.02

Seal:

STATE OF FLORIDA
MARC DANIEL STEELE
LICENSE NO. 88567
PROFESSIONAL ENGINEER

MARC DANIEL STEELE
FLORIDA LICENSE NO. 88567

DATE: October 27, 2025

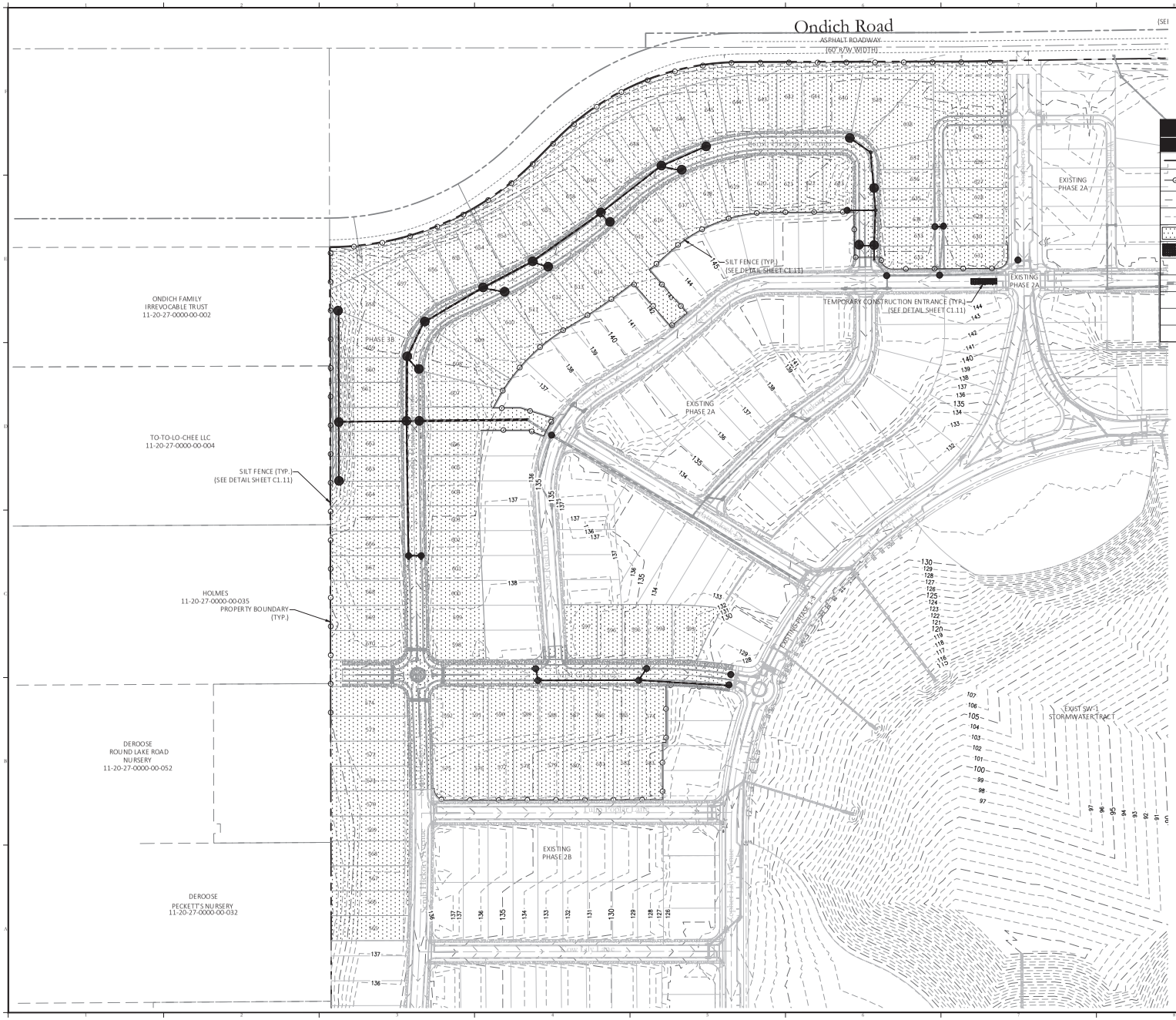
M.D.N. 10.1.1 Marc D. Steele
dnclue=A01.0.1.0.00.01.18AFE033DC00.27AEA4, O=Florida, C=US
Date: 2025.10.27 17:05:29 -04'00'

This item has been electronically signed and sealed using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

POULOS & BENNETT
a Pape-Dawson company

Poulos & Bennett, LLC
2602 E. Livingston St., Orlando, FL 32803
Tel. 407.487.2594 www.poulosandbennett.com
Eng. Bus. No. 28567

C:\EHW\ACCDOCS\PAPE-DAWSON\KELLY PARK CROSSROADS PHASE 3B\PROJECT FILES\CAD\PNA\CITY\PHASE 1-3B\21-027-PHASE



Erosion Legend

Symbol	Description
	PROPERTY BOUNDARY
	SILT FENCE (SILT FENCE TO BE INSTALLED PRIOR TO ANY DEMOLITION OR CONSTRUCTION ACTIVITIES)
80	MAJOR CONTOUR
79	MINOR CONTOUR
	PROPOSED DISTURBED AREA
	CONSTRUCTION ENTRANCE
	INLET PROTECTION
	STORM PIPE
	STORM MANHOLE
	INLET
	MITERED END SECTION

DISTURBED AREA	
PHASE 3B	22.28 Ac.

NOTES

1. EXISTING TOPOGRAPHY SHOWN REPRESENTS THE CROSSROADS AT KELLY PARK PHASE 1-2, 1-3 AND PHASE 2 MASTER INFRASTRUCTURE AND MASS GRADING PLANS, DATED 08/07/2023.
2. LOCATION OF SILT FENCE IS GRAPHICAL IN NATURE. THE CONTRACTOR SHALL INSTALL SILT FENCE ONSITE AND IN LOCATION THAT ALLOWS FOR SITE GRADING. RELOCATION OF SILT FENCE, AS MAY BE NEEDED, SHALL BE THE CONTRACTORS RESPONSIBILITY AND PERFORMED AS PART OF THE PROJECT EXECUTION AT NO ADDITIONAL COST TO OWNER.

Key Map

NO.	DATE:	DESCRIPTIONS
	10/27/2025	SUBMIT TO CITY OF APOPKA & SJRWMD

SUBMISSIONS/REVISIONS

VERTICAL DATUM:	NAVD 88
JOB NO.:	21-027
DESIGNED BY:	KML
DRAWN BY:	EHW
CHECKED BY:	KML
APPROVED BY:	MDS
SCALE IN FEET:	1" = 100'

Project Name:

CROSSROADS AT KELLY PARK - PHASE 3B

Jurisdiction:

CITY of APOPKA, FL

Sheet Title:

EROSION CONTROL PLAN

Sheet No.:

C1.10

Seal:

MARC DANIEL STEELE
LICENSE
No. 84...
STATE OF FLORIDA
PROFESSIONAL ENGINEER

MARC DANIEL STEELE
P.E. LICENSE NUMBER

DATE: October 29, 2025

Marc Daniel Steele
dnclusifier=A01.0.0.0

EROSION CONTROL NOTES:

1. DURING CONSTRUCTION, THE CONTRACTOR 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. SODDING OF DETENTION PONDS AND OTHER AREAS DESIGNATED FOR SOD, SHOULD BE ACCOMPLISHED WITHIN SEVEN (7) DAYS FOLLOWING COMPLETION OF GRADING TO MINIMIZE EROSION POTENTIAL.
3. AT A MINIMUM, THE RETENTION/DETENTION STORAGE AREA MUST BE EXCAVATED TO ROUGH GRADE 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.
4. IF DURING CONSTRUCTION, THE PROPOSED EROSION CONTROL SYSTEM DOES NOT PERFORM SATISFACTORILY, ALTERNATIVES AND ADDITIONAL METHODS OF PROTECTION SHALL BE IMPLEMENTED BY THE CONTRACTOR IN ORDER TO COMPLY WITH S.J.R.W.M.D. AND CITY OF APOPKA EROSION PROTECTION STANDARDS.
5. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT A DETAILED EROSION CONTROL PLAN TO THE CITY OF APOPKA FOR REVIEW AND APPROVAL A MINIMUM OF 2 WORKING DAYS PRIOR TO THE PRECONSTRUCTION MEETING. THE EROSION CONTROL PLAN SHALL PROPOSE SILT SCREEN OR SYNTHETIC HAY BALES AND TURBIDITY BARRIERS, IN ACCORDANCE WITH THE CONSTRUCTION PLANS.
6. ALL PERMANENT EROSION CONTROL MEASURES SHALL BE COMPLETED WITHIN 7 DAYS OF FINAL GRADING. ALL TEMPORARY EROSION CONTROL SHALL BE MAINTAINED UNTIL PERMANENT MEASURES ARE COMPLETED AND ESTABLISHED.
7. AT A MINIMUM SILT BARRIERS SHALL BE PLACED AS SHOWN ON THE CONSTRUCTION PLANS TO INSURE AGAINST POLLUTING, SILTING OR DISTURBING TO SUCH AN EXTENT TO CAUSE AN INCREASE IN TURBIDITY, OR DISCHARGE OF MATERIAL OFFSITE OR TO EXISTING WETLANDS. IF DURING CONSTRUCTION THE PROPOSED EROSION CONTROL SYSTEM DOES NOT PERFORM SATISFACTORY ALTERNATIVES AND ADDITIONAL MEASURES SHALL BE IMPLEMENTED BY THE CONTRACTOR IN ORDER TO COMPLY WITH CITY OF APOPKA AND S.J.R.W.M.D. EROSION PROTECTION STANDARDS.
8. CONTRACTOR IS ULTIMATELY RESPONSIBLE FOR ALL EROSION CONTROL COSTS, INCLUDING ANY COST ASSOCIATED WITH COMPLIANCE ISSUES AND ENFORCEMENT ACTIONS.
9. CONTRACTOR IS RESPONSIBLE FOR PREPARING AND ADHERING TO A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IN ACCORDANCE WITH THE FLORIDA STORMWATER, EROSION, AND SEDIMENTATION CONTROL INSPECTORS MANUAL PUBLISHED BY FDEP.
10. CONTRACTOR SHALL STAKE IN ALL SOD UNTIL SUCH TIME THAT GROUND IS STABILIZED IN ORDER TO PREVENT EROSION.
11. WORK SHALL BE DONE IN ACCORDANCE WITH EPA, FDEP, SJRWMD, AND CITY OF APOPKA BEST MANAGEMENT PRACTICES AND EROSION CONTROL SPECIFICATIONS.
12. THE SITE SHALL BE STABILIZED FOLLOWING GRUBBING, CLEARING, EARTH WORK OR MASS GRADING TO ESTABLISH A DENSE STAND OF GRASS, OR SHALL INCORPORATE OTHER APPROVED BEST MANAGEMENT PRACTICES, ON ALL DISTURBED AREAS IF DEVELOPMENT DOES NOT BEGIN WITHIN 7 DAYS. FINAL STABILIZATION SHALL ACHIEVE A MINIMUM OF 70% COVERAGE OF THE DISTURBED LAND AREA AND SHALL INCLUDE A MAINTENANCE PROGRAM TO ENSURE MINIMUM COVERAGE SURVIVAL AND OVERALL SITE STABILIZATION UNTIL SITE DEVELOPMENT.
13. IF DETERMINED TO BE NECESSARY DURING CONSTRUCTION A 6 FOOT HIGH SCREEN FENCE MAY BE REQUIRED ALONG ALL PROPERTY LINES.

DUST CONTROL PROVISIONS

1. CONTRACTOR SHALL PRE-WATER THE SITE AND ALL WORK WILL BE PHASED TO REDUCED THE AMOUNT OF DISTURBED SURFACE AREA AT ANY ONE TIME ACTIVE OPERATIONS.
   - 1.1. WATER TO BE APPLIED TO DRY AREAS DURING LEVELING, GRADING, TRENCHING, AND EARTHMOVING ACTIVITIES.
   - 1.2. WATER TO BE APPLIED ON DISTURBED SURFACE AREAS TO FORM A VISIBLE CRUST.
   - 1.3. VEHICULAR ACCESS TO BE RESTRICTED AND WATER OR DUST SUPPRESSANTS TO BE APPLIED AND MAINTAINED AT ALL UN-VEGETATED AREAS.
2. CONTRACTOR SHALL PREVENT DUST FROM WIND EVENTS.
   - 2.1. WATER TO BE APPLIED TO VEHICULAR TRAFFIC AND EQUIPMENT STORAGE AREAS.
   - 2.2. WATER APPLICATION EQUIPMENT WILL APPLY WATER TO CONTROL FUGITIVE DUST DURING WIND EVENTS, UNLESS UNSAFE TO DO SO.
   - 2.3. OUTDOOR CONSTRUCTION ACTIVITIES THAT DISTURB THE SOIL TO BE CEASED WHENEVER VISIBLE DUST EMISSIONS CANNOT BE EFFECTIVELY CONTROLLED.
3. CONTRACTOR SHALL HANDLE BULK MATERIAL.
   - 3.1. WATER TO BE APPLIED WHEN HANDLING BULK MATERIALS.
   - 3.2. WATER TO BE APPLIED TO STORAGE PILES.
   - 3.3. VEHICLE SPEED TO BE LIMITED ON THE WORK SITE.
   - 3.4. ALL HAUL TRUCKS TO BE LOADED SUCH THAT THE FREEBOARD IS NOT LESS THAN SIX INCHES WHEN TRANSPORT USING A CHUTE OR CONVEYOR.
4. CONTRACTOR SHALL DO DAILY CLEANUPS:
   - 4.1. MINIMUM CLEANUP FREQUENCY TO BE DONE AT THE END OF THE WORK DAY AND REMOVED IMMEDIATELY IF CARRYOUT AND TRACK OUT EXTENDS BEYOND 50 FEET.
   - 4.2. CLEAN UP METHODS:
   - 4.2.1. MANUALLY SWEEPING AND PICKING UP.
   - 4.2.2. MECHANICAL SWEEPING WITH A ROTARY BRUSH OR BROOM ACCOMPANIED BY WATER SPRAYER ON BROOM.

SWPPP NOTES

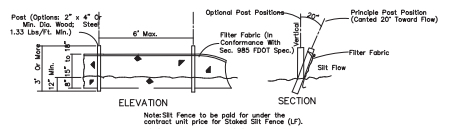
1. CONSTRUCTION ACTIVITY PERTAINS TO CONSTRUCTION OF A SHARED PARK AND ASSOCIATED UTILITIES, AND SIDEWALKS. EXISTING ON-SITE SOILS: REFER TO NPDES TABLE.
2. ALL PROPOSED INLETS/OUTFALLS, ONCE INSTALLED, SHALL BE PROTECTED FROM EROSION AND SEDIMENT RUNOFF USING PROPERLY INSTALLED FILTER FABRICS. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE PERMANENTLY CEASED SHALL BE STABILIZED WITH SOD. SILT FENCE SHALL BE INSTALLED AROUND PERIMETER OF THE SITE. A DOUBLE ROW OF SILT FENCE, REINFORCED WITH FIELD FENCING, SHALL BE PLACED AROUND VEGETATIVE BUFFERS AND WETLAND AREAS. ALL AREAS DISTURBED MORE THAN 7 DAYS SHALL BE STABILIZED WITH RYE GRASS OR OTHER APPROPRIATE TEMPORARY VEGETATION APPLIED AT MANUFACTURER'S RECOMMENDATION.
3. THE TEMPORARY AND PERMANENT STABILIZATION PRACTICES INCLUDE SODDING ALL DISTURBED AREAS FOR STABILIZATION.
4. SILT FENCE AND INLET/OUTLET PROTECTION SHALL BE INSTALLED PER BEST MANAGEMENT PRACTICES, SEE SECTION 8.
5. CONTROL DETAILS OF POTENTIAL POLLUTANTS AS FOLLOWS:
   - 5.1. WASTE DISPOSAL - ALL CONSTRUCTION MATERIALS AND DEBRIS WILL BE PLACED IN DUMPSTER AND HAULED OFF SITE TO A LANDFILL OR OTHER DISPOSAL SITE. NO MATERIALS SHALL BE BURIED ON SITE.
   - 5.2. PROPER APPLICATION RATES OF ALL FERTILIZERS, HERBICIDES AND PESTICIDES AT CONSTRUCTION SITE - FLORIDA FRIENDLY FERTILIZERS AND PESTICIDES WILL BE USED AT A MINIMUM AND IN ACCORDANCE WITH MANUFACTURER'S SUGGESTED APPLICATION RATES. THE FERTILIZERS AND PESTICIDES WILL BE STORED IN A COVERED SHED. USE OF FERTILIZERS MUST ADHERE TO THE CITY OF APOPKA FERTILIZER ORDINANCE. USE MUST BE IN COMPLIANCE WITH LOCAL ORDINANCES, SOME OF WHICH ARE MORE STRINGENT THAN CITY OF APOPKA. FOR INFORMATIONAL PURPOSES, SOME GENERAL FACTS ON THE COUNTY'S ORDINANCE INCLUDE:
     - NO MORE THAN 1 LB. OF FERTILIZER CONTAINING %50 SLOW RELEASE NITROGEN SHALL BE APPLIED PER 1,000 SQ. FT.
     - NO P CAN BE APPLIED WITHOUT A VALID SOIL DEFICIENCY TEST FROM IFAS. IF THEY PLAN TO APPLY P, PLEASE PROVIDE COPY OF SOIL TEST INDICATING P DEFICIENCY.
     - NO FERTILIZER CAN BE APPLIED WITHIN 15 FT. OF WATER BODIES.
     - FERTILIZER RELEASED ON TO IMPERVIOUS SURFACES MUST BE IMMEDIATELY CLEANED UP OR APPLIED PER CODE.
     - JUNE 1 - SEPTEMBER 30 IS THE SUMMER APPLICATION RESTRICTED PERIOD. APPLICATORS MUST SHOW PROOF OF TRAINING TO APPLY NITROGEN AND PHOSPHORUS FERTILIZER DURING THIS PERIOD.
   - 6.3 STORAGE, APPLICATION, GENERATION AND MIGRATION OF ALL TOXIC SUBSTANCES - ALL PAINTS AND OTHER CHEMICALS WILL BE STORED IN A LOCKED COVERED SHED.
   - 6.4 OTHER - PORT-O-LETS WILL BE PLACED AWAY FROM STORM SEWER SYSTEMS, STORM INLETS, SURFACE WATER AND WETLANDS. NO VEHICLE MAINTENANCE SHALL BE CONDUCTED ON-SITE. A WASHDOWN AREA SHALL BE DESIGNATED AT ALL TIMES AND WILL NOT BE LOCATED IN ANY AREA ALLOWING FOR OF POLLUTED RUNOFF. A SMALL VEGETATED BERM SHALL BE PLACED AROUND THE WASHDOWN AREA.
7. MAINTENANCE FOR ALL STRUCTURAL AND NON-STRUCTURAL CONTROLS SHALL BE AS FOLLOWS:
   - 7.1. SILT FENCE SHALL BE INSPECTED AT LEAST WEEKLY. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY. SEDIMENT DEPOSITS SHALL BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
   - 7.2. MAINTENANCE SHALL BE PERFORMED ON THE ROCK ENTRANCE WHEN ANY VOID SPACES ARE FULL OF SEDIMENTS.
   - 7.3. INLETS/OUTLETS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAIN EVENT AND ANY REQUIRED REPAIRS TO THE FILTER FABRIC ON INLETS AND SILT FENCE SHALL BE PERFORMED IMMEDIATELY.
   - 7.4. BARE AREAS OF THE SITE THAT WERE PREVIOUSLY SEEDED SHALL BE RE-SEEDED PER MANUFACTURER'S INSTRUCTIONS.
   - 7.5. MULCH AND SOD THAT HAS BEEN WASHED OUT SHALL BE REPLACED IMMEDIATELY.
   - 7.6. MAINTAIN ALL OTHER AREAS OF THE SITE WITH PROPER CONTROLS AS NECESSARY.
8. QUALIFIED PERSONNEL WILL INSPECT ALL POINTS OF DISCHARGES, ALL DISTURBED AREAS OF CONSTRUCTION NOT STABILIZED, CONSTRUCTION AREAS, INGRESS/EGRESS AND ALL BMPs DAILY AND WITHIN 24 HOURS OF A RAINFALL EVENT THAT IS 0.5 INCHES OR GREATER. WHERE SITES HAVE BEEN FINALLY STABILIZED, SAID INSPECTIONS SHALL BE CONDUCTED AT LEAST ONCE A MONTH UNTIL NOTICE OF TERMINATION IS FILED.
9. NON-STORMWATER DISCHARGES MAY OCCUR FROM CONSTRUCTION ACTIVITIES SUCH AS WATERLINE FLUSHING, PAVEMENT WASH WATER (WHERE NO SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE OCCURRED) AND UNCONTAMINATED GROUNDWATER (DEWATERING EXCAVATION). DEWATERING SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE DEP GENERIC PERMIT FOR THE DISCHARGE OF PRODUCED GROUND WATER FROM ANY NON-CONTAMINATED SITE ACTIVITY. IF SAID DISCHARGES DO OCCUR, THEY WILL BE DIRECTED TO THE TEMPORARY SEDIMENT BASIN PRIOR TO DISCHARGE. TURBID WATER FROM STORMWATER POND SHALL NOT BE PUMPED DIRECTLY INTO ANY RECEIVING WATERS. TREATMENT CAN INCLUDE SILT FENCES, SETTLING PONDS, PROPER USE OF FLOCCULATING AGENTS OR OTHER APPROPRIATE MEANS.
10. DRY RETENTION POND TO BE PROTECTED FROM SILT DURING CONSTRUCTION ACTIVITIES. IF IT IS DETERMINED THAT THE POND BOTTOM HAS BECOME SILTED THEN 6 INCHES OF POND BOTTOM SHALL BE REMOVED & REPLACED WITH CLEAN BACKFILL.

NPDES Information	
Address	W. Kelly Park Road
Latitude	28°46'10.32"N
Longitude	81°34'51.47"W
Jurisdictional Authority	City Of Apopka
Total Area (Per Survey)	205.07 ac
Total Project (Disturbed) Area	22.28 ac
Area Operator	N/A
MS4 Operator	N/A
Receiving Water Name	Onsite depressional area
Soils (USDA NCRS "Web Soil Survey")	No. 5 Candler Fine Sand, 5 To 12 Percent Slopes
	No. 6 Candler-Apopka Fine Sands 5 To 12 Percent Slopes
	No. 47 Tavares-Millhopper Complex, 0 To 5 Percent Slopes

NOTE: FOR PROJECTS WITH DISTURBED AREAS LESS THAN 1 ACRE NPDES PERMITTING IS NOT REQUIRED.

NPDES PERMIT

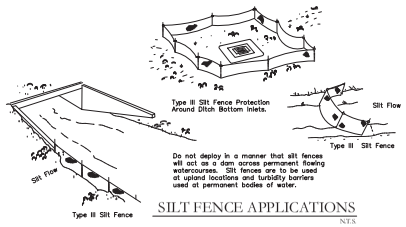
CONTRACTOR SHALL PREPARE AND SUBMIT TO THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION THE "NOTICE OF INTENT" AND "NOTICE OF TERMINATION" FOR "STORMWATER DISCHARGE FROM CONSTRUCTION ACTIVITIES," PER FLORIDA ADMINISTRATIVE CODE 62-621.300(4) IN ACCORDANCE WITH FDEP REQUIREMENTS. THE CONTRACTOR SHALL PREPARE AND SUBMIT WITH THE APPLICATION, AN APPROVED "STORMWATER POLLUTION PREVENTION PLAN" AND PERFORM/CERTIFY ALL INSPECTIONS AND RETAIN ALL INSPECTION REPORTS AND DOCUMENTATION ON FILE AS REQUIRED FOR FDEP REVIEW. ALL FEES SHALL BE PAID BY THE CONTRACTOR, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY PENALTIES OR FINES FDEP MAY LEVY FOR FAILURE TO COMPLY WITH THE PERMITTING REQUIREMENTS.



Note: Silt Fence to be paid for under the contract unit price for Staked Silt Fence (LF).

TYPE III SILT FENCE

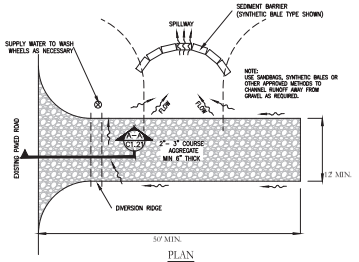
N.T.S.



SILT FENCE APPLICATIONS

N.T.S.

SECTION A-A

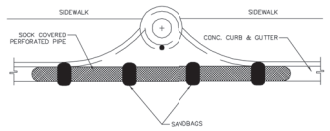


PLAN

NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.
4. TEMPORARY ACCESS TO BE CONSTRUCTED TO SUPPORT THE LOAD OF A FIRE APPARATUS.

TEMPORARY CONSTRUCTION ENTRANCE

N.T.S.



PLAN VIEW

NOTES:
1. PLACE CURB TYPE SEDIMENT BARRIERS ON GENTLY SLOPING STREET SEGMENTS, WHERE WATER CAN POND AND ALLOW SEDIMENT TO SEPARATE FROM RUNOFF.
2. SANDBAGS OF EITHER BURLAP OR WOVEN GEOTEXTILE FABRIC ARE FILLED WITH GRAVEL LAYERED AND PACKED TIGHTLY.
3. LEAVE A ONE SANDBAG GAP IN THE TOP ROW TO PROVIDE A SPILLWAY FOR OVERFLOW.
4. INSPECT BARRIERS AND REMOVED SEDIMENT AFTER EACH STORM EVENT. SEDIMENT AND GRAVEL MUST BE REMOVED FROM THE TRAVELED WAY IMMEDIATELY.
5. AT THE END OF EACH WORKDAY, SWEEP OR SCRAPE UP SOIL TRACKED ONTO THE STREET.

CURB AND GUTTER SEDIMENT BARRIER

N.T.S.

Key Map

NO.	DATE:	DESCRIPTION:
1	10/27/2025	SUBMIT TO CITY OF APOPKA & SJRWMD

SUBMISSIONS/REVISIONS

VERTICAL DATUM:	NAVD 88
JOB NO.:	21-027
DESIGNED BY:	KML
DRAWN BY:	EHW
CHECKED BY:	KML
APPROVED BY:	MDS
SCALE IN FEET:	N.T.S.

Project Name:

CROSSROADS AT KELLY PARK - PHASE 3B

Jurisdiction:

CITY of APOPKA, FL

Sheet Title:

EROSION CONTROL DETAILS

Sheet No.:

C1.11

Seal:

DATE: 10/27/2025

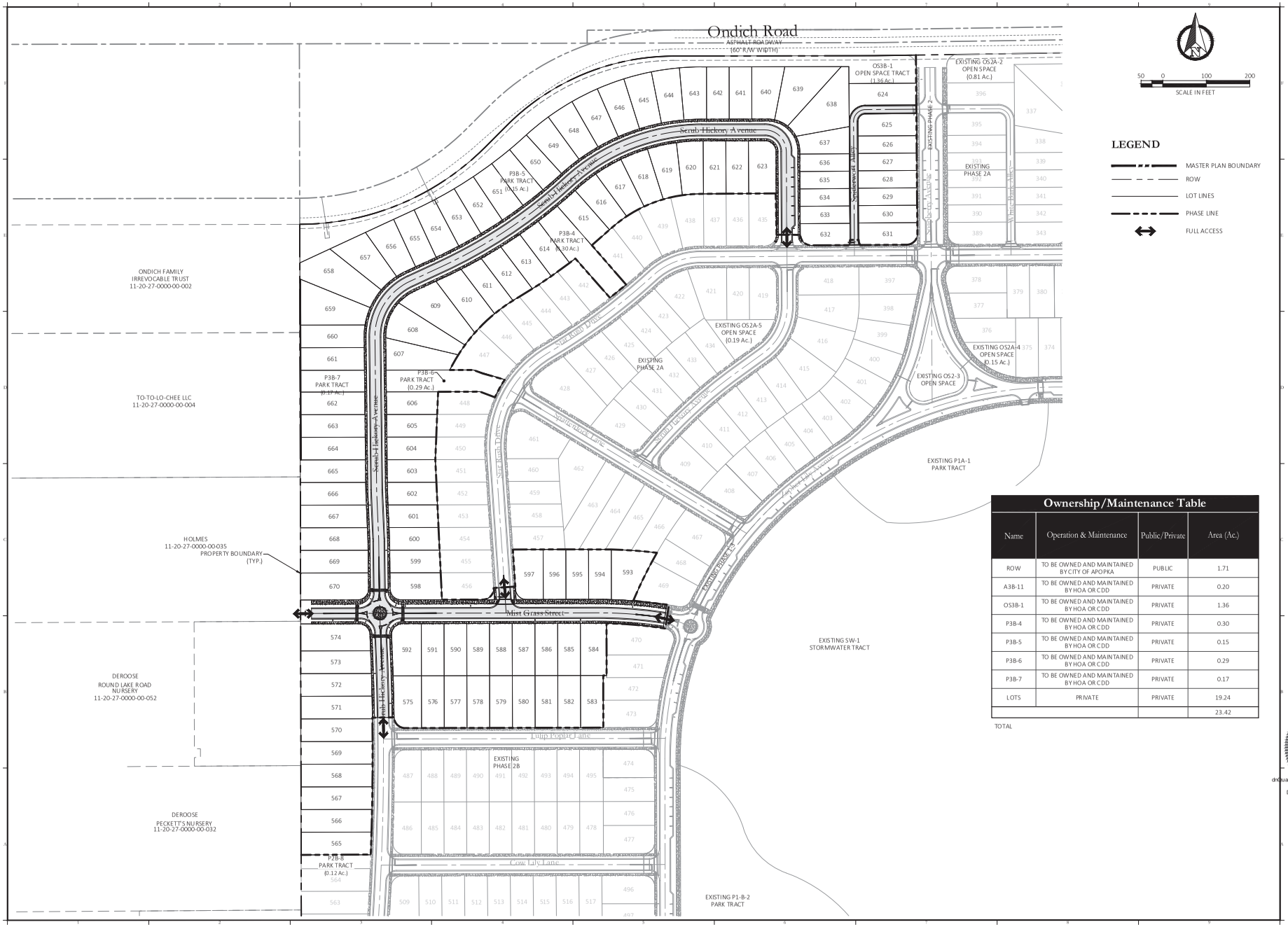
Digitally signed by Marc Daniel Steele
dnQualifier=A01410D000001918A8AFE033DC00027AEA4, O=Florida, C=US
Date: 2025.10.27 17:05:34 -04'00'

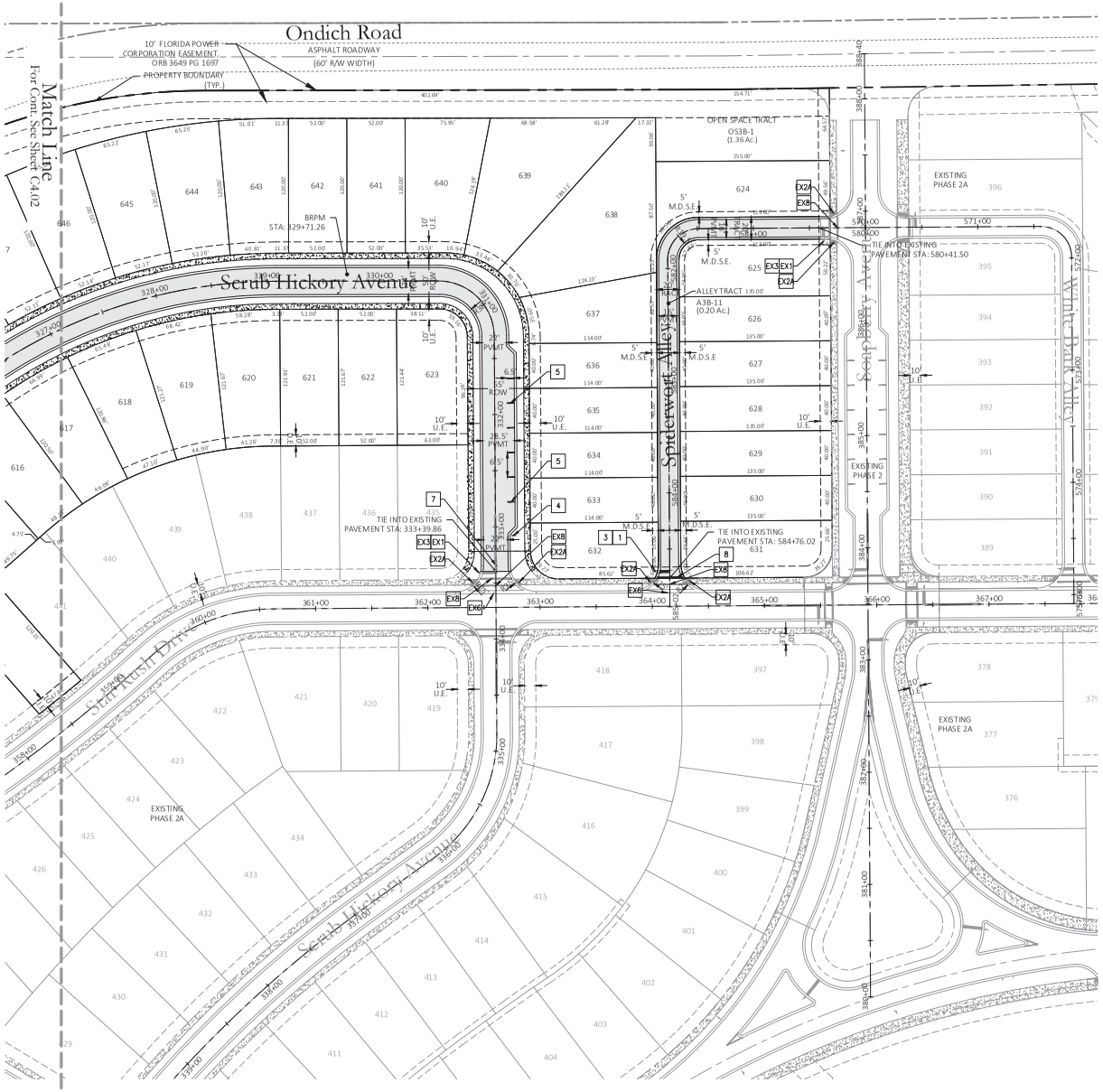
This item has been electronically signed and sealed using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

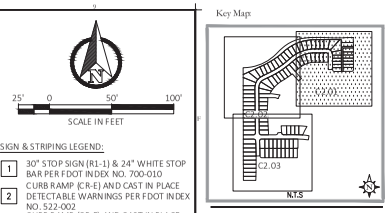
POULOS & BENNETT
a Pape-Dawson company

Poulos & Bennett, LLC
2602 E. Livingston St., Orlando, FL 32803
Tel. 407.487.2594 www.poulosandbennett.com
Eng. Bus. No. 28567

C:\Users\EHW\DC\ACCDOCS\PAPE-DAWSON\KELLY PARK CROSSROADS PHASE 3B\PROJECT FILES\CAD\PNA\CITY\PHASE 1-3B\21-027-PHASE


Ondich Road
ASPHALT ROADWAY
(60' R/W WIDTH)
Scrub Hickory Avenue
Mist Grass Street
Palm Hickory Avenue
Lime Poplar Lane
Cow Lily Lane
Sweet Gum Drive
Sweet Bay Drive
Sand Live Oak Drive
Spanish Needle Drive
Saw Palm Drive
Sand Pine Drive
Cypress Grove Drive
Tall Pine Drive
Spring Flower Drive
Spring Vine Drive
Spring Tree Drive
Spring Bloom Drive
Spring Leaf Drive
Spring Berry Drive
Spring Blossom Drive
Spring Meadow Drive
Spring Branch Drive
Spring Trail Drive
Spring Hill Drive
Spring Valley Drive
Spring Creek Drive
Spring Lake Drive
Spring Pond Drive
Spring Water Drive
Spring Rain Drive
Spring Cloud Drive
Spring Sky Drive
Spring Sun Drive
Spring Moon Drive
Spring Star Drive
Spring Planet Drive
Spring Galaxy Drive
Spring Universe Drive
Spring Infinity Drive
Spring Eternity Drive
Spring Forever Drive
Spring Always Drive
Spring Never Drive
Spring Ever Drive
Spring Time Drive
Spring Space Drive
Spring Matter Drive
Spring Energy Drive
Spring Force Drive
Spring Power Drive
Spring Work Drive
Spring Play Drive
Spring Rest Drive
Spring Sleep Drive
Spring Dream Drive
Spring Wake Drive
Spring Rise Drive
Spring Shine Drive
Spring Glow Drive
Spring Light Drive
Spring Dark Drive
Spring Night Drive
Spring Day Drive
Spring Week Drive
Spring Month Drive
Spring Year Drive
Spring Decade Drive
Spring Century Drive
Spring Millennium Drive
Spring Epoch Drive
Spring Era Drive
Spring Age Drive
Spring Period Drive
Spring Moment Drive
Spring Second Drive
Spring Minute Drive
Spring Hour





SIGN & STRIPING LEGEND:

1. 30" STOP SIGN (R1-1) & 24" WHITE STOP BAR PER FDOT INDEX NO. 700-010
2. CURB RAMP (CR-E) AND CAST IN PLACE DETECTABLE WARNINGS PER FDOT INDEX NO. 522-002
2A. CURB RAMP (CR-F) AND CAST IN PLACE DETECTABLE WARNINGS PER FDOT INDEX NO. 522-002
3. STREET NAME SIGN (D3-1)
4. SPEED LIMIT SIGN (25 MPH) (R2-1)
5. 6" SOLID WHITE PER FDOT INDEX NO. 711-001
6. VALLEY GUTTER PER FDOT INDEX NO. 520-001
7. 50' LF-6" SOLID DOUBLE YELLOW PER FDOT INDEX NO. 711-001
8. SIDEWALK STANDARD CROSSWALK, 6' AND 10' PER FDOT INDEX 711-001
8A. SPECIAL EMPHASIS CROSSWALK, 6' AND 10' PER FDOT INDEX 711-001
9. 30"x30" PEDESTRIAN CROSSING SIGN (W11-2) W/ 24"x12" DOWNWARD POINTING ARROW SIGN (W16-7P) PER MUTCD
10. 12" WHITE SKIP 2' LONG - 2' SKIP PER FDOT INDEX NO. 711-001
11. 6" SOLID YELLOW PER FDOT INDEX NO. 711-001
12. ROUNDABOUT CIRCULATION PLAQUE (R6-5P)
13. YIELD SIGN (R1-2)
14. PEDESTRIAN SIGN (W11-2) AND AHEAD PLAQUE (W16-9P)
15. STREET TERMINATION BARRIER (FDOT INDEX 700-109)

NOTES:
1. ALL STRIPING & SIGNAGE PER FDOT STANDARDS & SPECIFICATIONS MANUAL LATEST EDITION, MUTCD & CITY OF APOPKA ROAD CONSTRUCTION SPECIFICATIONS, UNLESS OTHERWISE SPECIFIED.
2. ALL STRIPING SHALL BE THERMOPLASTIC UNLESS OTHERWISE SPECIFIED.
3. ALL PAVEMENT MARKINGS MUST COMPLY WITH FDOT INDEX 711-001.
4. SIGNS WILL NOT BE INSTALLED WITH CONCRETE.
5. HANDICAP (HC) RAMPS AND DETECTABLE WARNING SURFACE WILL BE CONSTRUCTED AT THE STREET INTERSECTION(S) AND DRIVEWAY CONNECTION(S) TO COMPLY WITH THE AMERICANS WITH DISABILITY ACT (ADA) AND WILL MEET FDOT
6. STREET SIGNS POSTS TO BE SQUARE GALVANIZED STEEL AND HOLES SHALL BE CORED. 2 INCH SQUARE GALVANIZED POLES SHALL BE PRE-SCORED OR QUICK PUNCH.
7. ALL TRAFFIC CONTROL SIGNS WITHIN THE RIGHT-OF-WAY SHALL BE MANUFACTURED USING DIAMOND GRADE REFLECTIVE SHEETING. ALL SIGNS SHALL BE CONSTRUCTED IN ACCORDANCE WITH MUTCD AND CITY OF APOPKA CRITERIA FOR SIGN SIZE AND SHAPE AND LETTERING DIMENSIONS.

NOTES:
1. DESIGN AND POSTED SPEED LIMITS ARE AS FOLLOWS:
   INTERNAL STREETS
   DESIGN SPEED: 30 MPH
   POSTED SPEED: 25 MPH

Sign Legend

Id.	M.U.T.C.D. Number	Dimensions Width	Dimensions Height	Symbol
1	R1-1	30"	30"	STOP
3	D3-1	VARIES	12"	Main St
4	R2-1	24"	30"	SPEED LIMIT 25
9	W11-2	30"	30"	
	W16-7P	24"	12"	
12	R6-5P	30"	30"	
13	R1-2	36"	36"	YIELD
14	W11-2	30"	30"	
	W16-9P	24"	30"	AHEAD

1	10/27/2025	SUBMIT TO CITY OF APOPKA & SJRWMD
NO.	DATE:	DESCRIPTION

SUBMISSIONS/REVISIONS

VERTICAL DATUM:	NAVD 88
JOB NO.:	21-027
DESIGNED BY:	KML
DRAWN BY:	EJHW
CHECKED BY:	KML
APPROVED BY:	MDS
SCALE IN FEET:	1" = 50'

Project Name:

CROSSROADS AT KELLY PARK - PHASE 3B

Jurisdiction:

CITY of APOPKA, FL

Sheet Title:

SIGNAGE, STRIPING & GEOMETRY PLAN

Sheet No.:

C2.01

Seal:

MARC DANIEL STEELE LICENSE NO. 73538 STATE OF FLORIDA

MARC DANIEL STEELE FLORIDA LICENSE NO. 73538

DATE: October 29, 2025

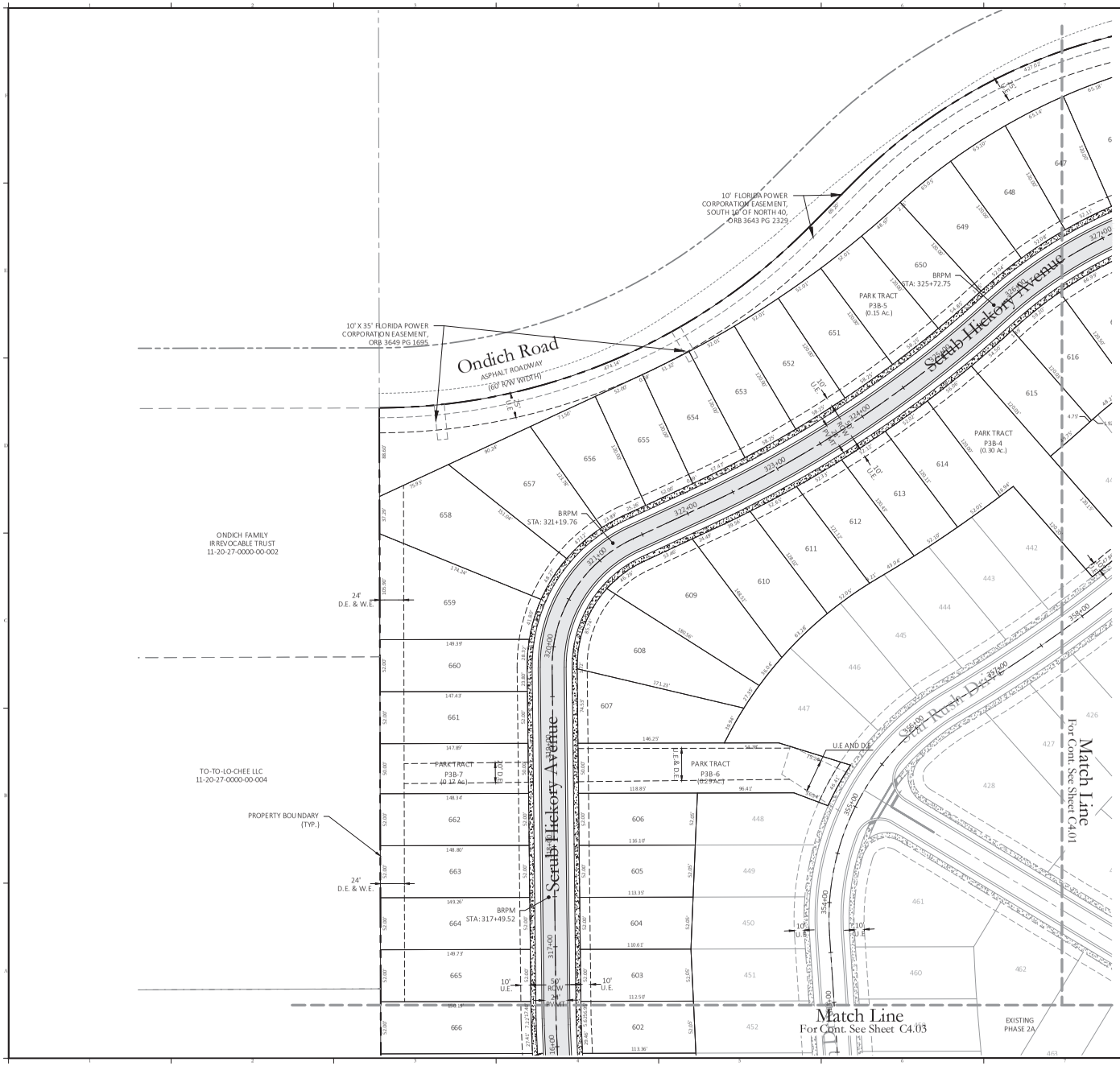
MDN: 10.1.4.1 c=Marc Daniel Steele, o=Poulos & Bennett, ou=A01410D000001918AFE033DC00027AEA4, o=Florida, c=US
Date: 2025.10.27 17:05:40 -04'00'

This item has been electronically signed and sealed using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

POULOS & BENNETT
a Pape-Dawson company

Poulos & Bennett, LLC
2602 E. Livingston St., Orlando, FL 32803
Tel. 407.487.2594 www.poulosandbennett.com
Eng. Bus. No. 28567

C:\USERS\PAPE-DAWSON\KELLY PARK CROSSROADS PHASE 3B\PROJECT FILES\CAD\FINAL\CIT\PHASE 1-3B\21-027-PHASE 1-3B-SSP



SCALE IN FEET

SIGN & STRIPING LEGEND:

1. 30" STOP SIGN (R1-1) & 24" WHITE STOP BAR PER FDOT INDEX NO. 700-010
2. CURB RAMP (CR-E) AND CAST IN PLACE DETECTABLE WARNINGS PER FDOT INDEX NO. 522-002
2A. CURB RAMP (CR-F) AND CAST IN PLACE DETECTABLE WARNINGS PER FDOT INDEX NO. 522-002
3. STREET NAME SIGN (D3-1)
4. SPEED LIMIT SIGN (25 MPH) (R2-1)
5. 6" SOLID WHITE PER FDOT INDEX NO. 711-001
6. VALLEY GUTTER PER FDOT INDEX NO. 520-001
7. 50' LF-6" SOLID DOUBLE YELLOW PER FDOT INDEX NO. 711-001
8. SIDEWALK STANDARD CROSSWALK, 6' AND 10' PER FDOT INDEX 711-001
8A. SPECIAL EMPHASIS CROSSWALK, 6' AND 10' PER FDOT INDEX 711-001
9. 30"x30" PEDESTRIAN CROSSING SIGN (W11-2) W/ 24"x12" DOWNWARD POINTING ARROW SIGN (W16-7P) PER MUTCD
10. 12" WHITE SKIP 2' LONG - 2' SKIP PER FDOT INDEX NO. 711-001
11. 6" SOLID YELLOW PER FDOT INDEX NO. 711-001
12. ROUNDABOUT CIRCULATION PLAQUE (R6-5P)
13. YIELD SIGN (R1-2)
14. PEDESTRIAN SIGN (W11-2) AND AHEAD PLAQUE (W16-9P)
15. STREET TERMINATION BARRIER (FDOT INDEX 700-109)

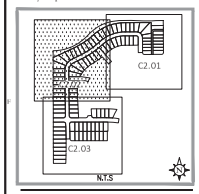
NOTES:
1. ALL STRIPING & SIGNAGE PER FDOT STANDARDS & SPECIFICATIONS MANUAL LATEST EDITION, MUTCD & CITY OF APOPKA ROAD CONSTRUCTION SPECIFICATIONS, UNLESS OTHERWISE SPECIFIED.
2. ALL STRIPING SHALL BE THERMOPLASTIC UNLESS OTHERWISE SPECIFIED.
3. ALL PAVEMENT MARKINGS MUST COMPLY WITH FDOT INDEX 711-001.
4. SIGNS WILL NOT BE INSTALLED WITH CONCRETE.
5. HANDICAP (HC) RAMPS AND DETECTABLE WARNING SURFACE WILL BE CONSTRUCTED AT THE STREET INTERSECTION(S) AND DRIVEWAY CONNECTION(S) TO COMPLY WITH THE AMERICANS WITH DISABILITY ACT (ADA) AND WILL MEET FDOT
6. STREET SIGNS POSTS TO BE SQUARE GALVANIZED STEEL AND HOLES SHALL BE CORED. 2 INCH SQUARE GALVANIZED POLES SHALL BE PRE-SCORED OR QUICK PUNCH.
7. ALL TRAFFIC CONTROL SIGNS WITHIN THE RIGHT-OF-WAY SHALL BE MANUFACTURED USING DIAMOND GRADE REFLECTIVE SHEETING. ALL SIGNS SHALL BE CONSTRUCTED IN ACCORDANCE WITH MUTCD AND CITY OF APOPKA CRITERIA FOR SIGN SIZE AND SHAPE AND LETTERING DIMENSIONS.

NOTES:
1. DESIGN AND POSTED SPEED LIMITS ARE AS FOLLOWS:
   INTERNAL STREETS
   DESIGN SPEED: 30 MPH
   POSTED SPEED: 25 MPH

Sign Legend

Id.	M.U.T.C.D. Number	Dimensions Width	Dimensions Height	Symbol
1	R1-1	30"	30"	STOP
3	D3-1	VARIES	12"	Main St
4	R2-1	24"	30"	SPEED LIMIT 25
9	W11-2	30"	30"	
	W16-7P	24"	12"	
12	R6-5P	30"	30"	
13	R1-2	36"	36"	YIELD
14	W11-2	30"	30"	
	W16-9P	24"	30"	AHEAD

Key Map



NO.	DATE:	DESCRIPTION
1	10/27/2025	SUBMIT TO CITY OF APOPKA & SJRWMD

SUBMISSIONS/REVISIONS

VERTICAL DATUM:	NAVD 88
JOB NO.:	21-027
DESIGNED BY:	KML
DRAWN BY:	EHW
CHECKED BY:	KML
APPROVED BY:	MDS
SCALE IN FEET:	1" = 50'

Project Name:

CROSSROADS AT KELLY PARK - PHASE 3B

Jurisdiction:

CITY of APOPKA, FL

Sheet Title:

SIGNAGE, STRIPING & GEOMETRY PLAN

Sheet No.:

C2.02

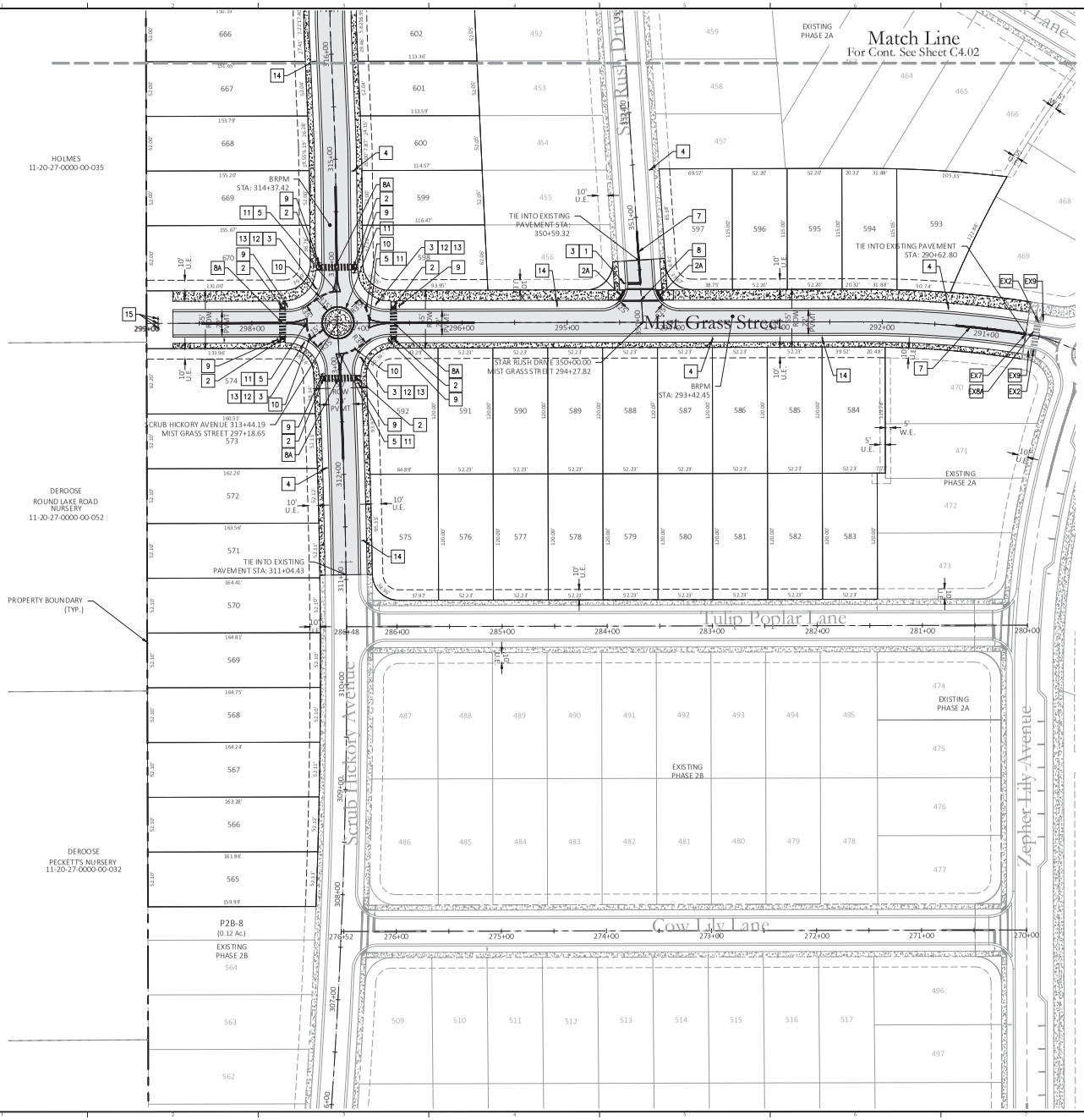
Seal:

This item has been electronically signed and sealed using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

POULOS & BENNETT
a Pape-Dawson company

Poulos & Bennett, LLC
2602 E. Livingston St., Orlando, FL 32803
Tel. 407.487.2594 www.poulosandbennett.com
Eng. Bus. No. 28567

G:\PROJECTS\PAPE-DAWSON\KELLY PARK CROSSROADS PHASE 3B\PROJECT FILES\CAD\FINAL\CITY\PHASE 1--21-027--PHASE 1--3B--SSP



SCALE IN FEET

SIGN & STRIPING LEGEND:

1. 30" STOP SIGN (R1-1) & 24" WHITE STOP BAR PER FDOT INDEX NO. 700-010
2A. CURB RAMP (CR-E) AND CAST IN PLACE DETECTABLE WARNINGS PER FDOT INDEX NO. 522-002
2. CURB RAMP (CR-F) AND CAST IN PLACE DETECTABLE WARNINGS PER FDOT INDEX NO. 522-002
3. STREET NAME SIGN (D3-1)
4. SPEED LIMIT SIGN (25 MPH) (R2-1)
5. 6" SOLID WHITE PER FDOT INDEX NO. 711-001
6. VALLEY GUTTER PER FDOT INDEX NO. 520-001
7. 50' LF-6" SOLID DOUBLE YELLOW PER FDOT INDEX NO. 711-001
8. SIDEWALK STANDARD CROSSWALK, 6' AND 10' PER FDOT INDEX 711-001
8A. SPECIAL EMPHASIS CROSSWALK, 6' AND 10' PER FDOT INDEX 711-001
9. 30"x30" PEDESTRIAN CROSSING SIGN (W11-2) W/ 24"x12" DOWNWARD POINTING ARROW SIGN (W16-7P) PER MUTCD
10. 12" WHITE SKIP 2' LONG - 2' SKIP PER FDOT INDEX NO. 711-001
11. 6" SOLID YELLOW PER FDOT INDEX NO. 711-001
12. ROUNDABOUT CIRCULATION PLAQUE (R6-5P)
13. YIELD SIGN (R1-2)
14. PEDESTRIAN SIGN (W11-2) AND AHEAD PLAQUE (W16-9P)
15. STREET TERMINATION BARRIER (FDOT INDEX 700-109)

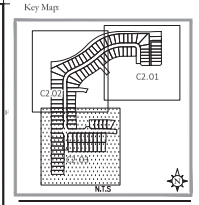
NOTES:
1. ALL STRIPING & SIGNAGE PER FDOT STANDARDS & SPECIFICATIONS MANUAL LATEST EDITION, MUTCD & CITY OF APOPKA ROAD CONSTRUCTION SPECIFICATIONS, UNLESS OTHERWISE SPECIFIED.
2. ALL STRIPING SHALL BE THERMOPLASTIC UNLESS OTHERWISE SPECIFIED.
3. ALL PAVEMENT MARKINGS MUST COMPLY WITH FDOT INDEX 711-001.
4. SIGNS WILL NOT BE INSTALLED WITH CONCRETE.
5. HANDICAP (HC) RAMPS AND DETECTABLE WARNING SURFACE WILL BE CONSTRUCTED AT THE STREET INTERSECTION(S) AND DRIVEWAY CONNECTION(S) TO COMPLY WITH THE AMERICANS WITH DISABILITY ACT (ADA) AND WILL MEET FDOT
6. STREET SIGNS POSTS TO BE SQUARE GALVANIZED STEEL AND HOLES SHALL BE CORED. 2 INCH SQUARE GALVANIZED POLES SHALL BE PRE-SCORED OR QUICK PUNCH.
7. ALL TRAFFIC CONTROL SIGNS WITHIN THE RIGHT-OF-WAY SHALL BE MANUFACTURED USING DIAMOND GRADE REFLECTIVE SHEETING. ALL SIGNS SHALL BE CONSTRUCTED IN ACCORDANCE WITH MUTCD AND CITY OF APOPKA CRITERIA FOR SIGN SIZE AND SHAPE AND LETTERING DIMENSIONS.

NOTES:
1. DESIGN AND POSTED SPEED LIMITS ARE AS FOLLOWS:
   INTERNAL STREETS
   DESIGN SPEED: 30 MPH
   POSTED SPEED: 25 MPH

Sign Legend

Id.	M.U.T.C.D. Number	Dimensions Width	Dimensions Height	Symbol
1	R1-1	30"	30"	STOP
3	D3-1	VARIES	12"	Main St
4	R2-1	24"	30"	SPEED LIMIT 25
9	W11-2	30"	30"	
	W16-7P	24"	12"	
12	R6-5P	30"	30"	
13	R1-2	36"	36"	YIELD
14	W11-2	30"	30"	
	W16-9P	24"	30"	AHEAD

Key Map



NO.	DATE:	DESCRIPTION
1	10/27/2025	SUBMIT TO CITY OF APOPKA & SJRWMD

SUBMISSIONS/REVISIONS

VERTICAL DATUM:	NAVD 88
JOB NO.:	21-027
DESIGNED BY:	KML
DRAWN BY:	EHW
CHECKED BY:	KML
APPROVED BY:	MDS
SCALE IN FEET:	1" = 50'

Project Name:

CROSSROADS AT KELLY PARK - PHASE 3B

Jurisdiction:

CITY of APOPKA, FL

Sheet Title:

SIGNAGE, STRIPING & GEOMETRY PLAN

Sheet No.:

C2.03

Seal:

MARC DANIEL STEELE
P.E. LICENSE NO. 92574

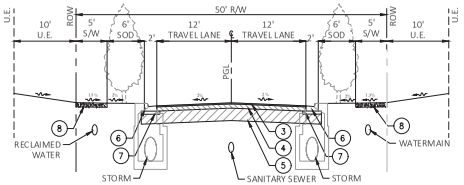
DATE: October 29, 2025

This item has been electronically signed and sealed using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

POULOS & BENNETT
a Pape-Dawson company

Poulos & Bennett, LLC
2602 E. Livingston St., Orlando, FL 32803
Tel. 407.487.2594 www.poulosandbennett.com
Eng. Bus. No. 28567

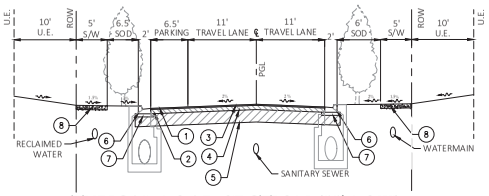
M:\DRAWINGS\PAPE-DAWSON\KELLY PARK CROSSROADS PHASE 3B\PROJECT FILES\CAD\FINAL\CIT\[PHASE 1--CAD]21-027-PHASE 1--3B-SSP



A TYPICAL ROAD SECTION (50' ROW)

N.T.S.

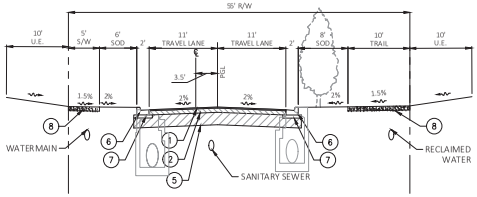
1. STREET TREES SHALL NOT BE ROOT AGGRESSIVE AND SHALL BE INSTALLED WITH ROOT BARRIERS TO PREVENT ROOTS FROM ADVERSELY AFFECTING UTILITIES, CURBS AND/OR SIDEWALK
2. HOA DOCUMENTS SHALL INDICATE THAT THE HOA IS RESPONSIBLE FOR MAINTENANCE OF STREET TREES
3. PARKING SPACE STRIPING WITHIN CITY MAINTAINED PUBLIC RIGHT OF WAY SHALL BE MAINTAINED BY THE HOA/CDD.
4. A PERMANENT 10' UTILITY EASEMENT WILL BE PROVIDED WITH THE PLATTING OF EACH FUTURE RESIDENTIAL PHASE TO REPLACE THE TEMPORARY 10' UTILITY EASEMENT
5. CONTRACTOR SHALL REFERENCE GEOTECHNICAL SHEETS (C3.10-C3.11) AND OVER EXCAVATION PLAN (C3.21) TO IDENTIFY LIMITS OF LOW PERMEABLE SOILS TO BE OVER EXCAVATED AND BACKFILLED. SEE U.E.S. REPORT NO. 1985238 DATED OCTOBER 26, 2022 FOR RECOMMENDATIONS AND SPECIFICATIONS. CONTRACTOR SHALL RETAIN PROJECT GEOTECHNICAL ENGINEER TO DEFINE LIMITS OF OVER EXCAVATION DURING CONSTRUCTION. GEOTECHNICAL TESTING REPORTS AT 100' O.C. INTERVALS SHALL BE PROVIDED TO E.O.R. PRIOR TO PLACING BASE MATERIAL.



B TYPICAL ROAD SECTION (55' ROW)

N.T.S.

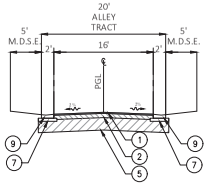
1. STREET TREES SHALL NOT BE ROOT AGGRESSIVE AND SHALL BE INSTALLED WITH ROOT BARRIERS TO PREVENT ROOTS FROM ADVERSELY AFFECTING UTILITIES, CURBS AND/OR SIDEWALK
2. HOA DOCUMENTS SHALL INDICATE THAT THE HOA IS RESPONSIBLE FOR MAINTENANCE OF STREET TREES
3. PARKING SPACE STRIPING WITHIN CITY MAINTAINED PUBLIC RIGHT OF WAY SHALL BE MAINTAINED BY THE HOA/CDD.
4. A PERMANENT 10' UTILITY EASEMENT WILL BE PROVIDED WITH THE PLATTING OF EACH FUTURE RESIDENTIAL PHASE TO REPLACE THE TEMPORARY 10' UTILITY EASEMENT
5. CONTRACTOR SHALL REFERENCE GEOTECHNICAL SHEETS (C3.10-C3.11) AND OVER EXCAVATION PLAN (C3.21) TO IDENTIFY LIMITS OF LOW PERMEABLE SOILS TO BE OVER EXCAVATED AND BACKFILLED. SEE U.E.S. REPORT NO. 1985238 DATED OCTOBER 26, 2022 FOR RECOMMENDATIONS AND SPECIFICATIONS. CONTRACTOR SHALL RETAIN PROJECT GEOTECHNICAL ENGINEER TO DEFINE LIMITS OF OVER EXCAVATION DURING CONSTRUCTION. GEOTECHNICAL TESTING REPORTS AT 100' O.C. INTERVALS SHALL BE PROVIDED TO E.O.R. PRIOR TO PLACING BASE MATERIAL.



C TYPICAL ROAD SECTION (55' ROW)

N.T.S.

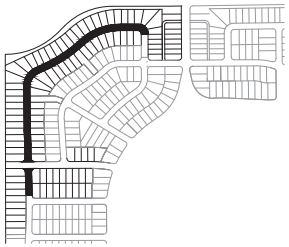
1. STREET TREES SHALL NOT BE ROOT AGGRESSIVE AND SHALL BE INSTALLED WITH ROOT BARRIERS TO PREVENT ROOTS FROM ADVERSELY AFFECTING UTILITIES, CURBS AND/OR SIDEWALK
2. HOA DOCUMENTS SHALL INDICATE THAT THE HOA IS RESPONSIBLE FOR MAINTENANCE OF STREET TREES
3. PARKING SPACE STRIPING WITHIN CITY MAINTAINED PUBLIC RIGHT OF WAY SHALL BE MAINTAINED BY THE HOA
4. A PERMANENT 10' UTILITY EASEMENT WILL BE PROVIDED WITH THE PLATTING OF EACH FUTURE RESIDENTIAL PHASE TO REPLACE THE TEMPORARY 10' UTILITY EASEMENT
5. CONTRACTOR SHALL REFERENCE GEOTECHNICAL SHEETS (C3.10-C3.11) AND OVER EXCAVATION PLAN (C3.21) TO IDENTIFY LIMITS OF LOW PERMEABLE SOILS TO BE OVER EXCAVATED AND BACKFILLED. SEE U.E.S. REPORT NO. 1985238 DATED OCTOBER 26, 2022 FOR RECOMMENDATIONS AND SPECIFICATIONS. CONTRACTORS SHALL RETAIN PROJECT GEOTECHNICAL ENGINEER PRIOR TO DEFINE LIMITS OF OVER EXCAVATION DURING CONSTRUCTION. GEOTECHNICAL TESTING REPORTS AT 100' O.C. INTERVALS SHALL BE PROVIDED TO E.O.R. PRIOR TO PLACING BASE MATERIAL.

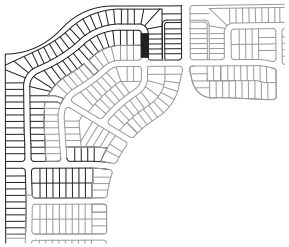


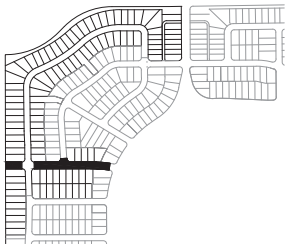
D TYPICAL ALLEY SECTION WITHOUT UTILITIES

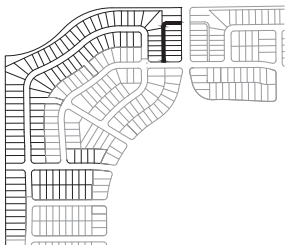
N.T.S.

1. NO PUBLIC UTILITIES PROPOSED WITHIN ALLEY.
2. NO PARKING TO BE POSTED.
3. 5' MAINTENANCE, DRAINAGE, AND SIGNAGE EASEMENT SHALL BE DEDICATED TO THE CDD AND/OR HOA.
4. ALLEY TRACT SHALL BE PROPERTY OWNED AND MAINTAINED BY THE CDD AND/OR HOA.
5. CONTRACTOR SHALL REFERENCE GEOTECHNICAL SHEETS (C3.10-C3.11) AND OVER EXCAVATION PLAN (C3.21) TO IDENTIFY LIMITS OF LOW PERMEABLE SOILS TO BE OVER EXCAVATED AND BACKFILLED. SEE U.E.S. REPORT NO. 1985238 DATED OCTOBER 26, 2022 FOR RECOMMENDATIONS AND SPECIFICATIONS. CONTRACTOR SHALL RETAIN PROJECT GEOTECHNICAL ENGINEER TO DEFINE LIMITS OF OVER EXCAVATION DURING CONSTRUCTION. GEOTECHNICAL TESTING REPORTS AT 100' O.C. INTERVALS SHALL BE PROVIDED TO E.O.R. PRIOR TO PLACING BASE MATERIAL.









Pavement Legend

Symbol Id.	Description
1	1" (IN.) TYPE SP-9.5 ASPHALT (SEE NOTE 1)
2	6" (IN.) LIMEROCK BASE COMPACTED TO A MIN. DENSITY OF 98% OF MODIFIED PROCTOR DRY DENSITY A MIN. LBR OF 100. THE LIMEROCK MATERIAL SHALL COMPLY WITH THE LATEST EDITION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE CONSTRUCTION SPECIFICATIONS.
3	1.5" (IN.) TYPE SP-9.5 ASPHALT (SEE NOTE 1)
4	8" (IN.) LIMEROCK BASE COMPACTED TO A MIN. DENSITY OF 98% OF MODIFIED PROCTOR DRY DENSITY A MIN. LBR OF 100. THE LIMEROCK MATERIAL SHALL COMPLY WITH THE LATEST EDITION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE CONSTRUCTION SPECIFICATIONS.
5	12" (IN.) COMPACTED SUBGRADE TO 98% MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D 1557) VALUE. THE UPPER 6" (IN.) OF SUBGRADE SHALL BE STABILIZED TO A MIN. LBR OF 40 AS SPECIFIED BY FDOT.
6	TYPE 'F' CONC. CURB & GUTTER
7	6" (IN.) STABILIZED SUBGRADE IN CURB AREA TO EXTEND 12" (IN.) EACH SIDE TO 50 FBV
8	4" (IN.) THICK CONC. SIDEWALK (3000 P.S.I.)
9	MIAMI CURB

NOTES:

1. ASPHALT MIX WILL REQUIRE A MIX DESIGN APPROVAL BY CITY OF APOPKA.
2. THE ABOVE PAVEMENT THICKNESS IS THE MINIMUM REQUIRED THICKNESS. CONTRACTORS SHALL BE RESPONSIBLE FOR REPAIR AND/OR REPLACEMENT WHERE TESTING RESULTS DO NOT MEET THE MINIMUM REQUIRED THICKNESS.
3. CONTRACTOR SHALL INSTALL A 2' STRIP OF SOD ALONG THE BACK OF ALL ROADWAY CURBING.
4. AT THE TIME OF PLATTING A 10' WIDE UTILITY EASEMENT WILL BE PROVIDED ADJACENT TO ALL RIGHT-OF-WAY. IF ROW IS ADJACENT TO A FUTURE PHASE A TEMPORARY 10' UTILITY EASEMENT SHALL BE PROVIDED, WHICH WILL BECOME PERMANENT WITH THE PLATTING OF THE FUTURE PHASE.
5. SEE UNIVERSAL ENGINEERING SCIENCES REPORT NO. 1919910 DATED JANUARY 27, 2022 FOR PAVEMENT RECOMMENDATIONS.

Key Map

NO.	DATE:	DESCRIPTION:
1	10/27/2025	SUBMIT TO CITY OF APOPKA & SJRWMD

SUBMISSIONS/REVISIONS

VERTICAL DATUM:	NAVD 88
JOB NO.:	21-027
DESIGNED BY:	KML
DRAWN BY:	EHW
CHECKED BY:	KML
APPROVED BY:	MDS
SCALE IN FEET:	N/A

Project Name:

CROSSROADS AT KELLY PARK - PHASE 3B

Jurisdiction:

CITY of APOPKA, FL

Sheet Title:

TYPICAL ROAD SECTIONS

Sheet No.:

C3.00

Seal:

MARC DANIEL STEHLI LICENSE NO. 73824 STATE OF FLORIDA

MARC DANIEL STEHLI
FLA. LIC. 73824
DATE: October 27, 2025

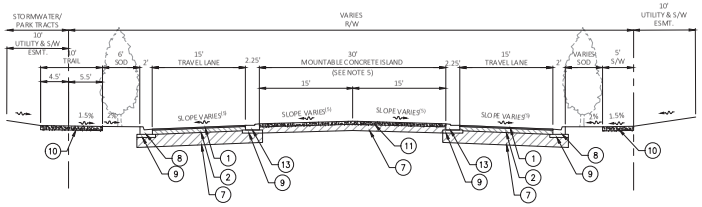
MARC DANIEL STEHLI
dnclusifier=A01410180000019A8AFE033DC00
27AEA4, O=Florida, C=US
Date: 2025.10.27 17:05:50 04'00'

This item has been electronically signed and sealed using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

POULOS & BENNETT
a Pape-Dawson company

Poulos & Bennett, LLC
2602 E. Livingston St., Orlando, FL 32803
Tel. 407.487.2594 www.poulosandbennett.com
Eng. Bus. No. 28567

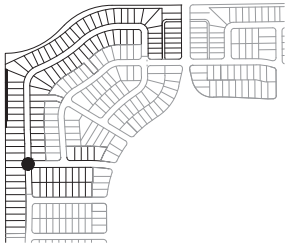
M:\PROJECTS\2021\21-027\CAD\CIVIL\PHASE 3B\PROJECT FILES\CAD\FINAL\CITY\PHASE 3B\21-027-PHASE 3B_CROSSROADS PHASE 3B\CAD\ACCDOCS\PAPE-DAWSON\KELLY PARK CROSSROADS PHASE 3B\PROJECT FILES\CAD\FINAL\CITY\PHASE 1-3B\21-027-PHASE



E TYPICAL MINI ROUNDABOUT SECTION

N.T.S.

1. STREET TREES SHALL NOT BE ROOT AGGRESSIVE AND SHALL BE INSTALLED WITH ROOT BARRIERS TO PREVENT ROOTS FROM ADVERSELY AFFECTING UTILITIES, CURBS AND/OR SIDEWALK
2. 10' SIDEWALK CAN MEANDER WITHIN RIGHT-OF-WAY AND STORMWATER/PARK TRACTS.
3. A PERMANENT 10' UTILITY EASEMENT WILL BE PROVIDED WITH THE PLATTING OF EACH FUTURE RESIDENTIAL PHASE TO REPLACE THE TEMPORARY 10' UTILITY EASEMENT.
4. CONTRACTOR SHALL REFERENCE GEOTECHNICAL SHEETS (C3.10-C3.20) AND OVER EXCAVATION PLAN (C3.21) TO IDENTIFY LIMITS OF LOW PERMEABLE SOILS TO BE OVER EXCAVATED AND BACKFILLED. SEE U.E.S. REPORT NO. 1985238 DATED OCTOBER 26, 2022 FOR RECOMMENDATIONS AND SPECIFICATIONS. CONTRACTOR SHALL RETAIN PROJECT GEOTECHNICAL ENGINEER TO DEFINE LIMITS OF OVER EXCAVATION DURING CONSTRUCTION. GEOTECHNICAL TESTING REPORTS AT 100' O.C. INTERVALS SHALL BE PROVIDED TO E.O.R. PRIOR TO PLACING BASE MATERIAL.
5. SEE SHEET C6.01 FOR ROUNDABOUT GRADING DETAIL.



Pavement Legend

Symbol Id.	Description
1	1" (IN.) TYPE SP-9.5 ASPHALT (SEE NOTE 1)
2	6" (IN.) LIMEROCK BASE COMPACTED TO A MIN. DENSITY OF 98% OF MODIFIED PROCTOR DRY DENSITY A MIN. LBR OF 100. THE LIMEROCK MATERIAL SHALL COMPLY WITH THE LATEST EDITION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE CONSTRUCTION SPECIFICATIONS.
3	1.5" (IN.) TYPE SP-9.5 ASPHALT (SEE NOTE 1)
4	8" (IN.) LIMEROCK BASE COMPACTED TO A MIN. DENSITY OF 98% OF MODIFIED PROCTOR DRY DENSITY A MIN. LBR OF 100. THE LIMEROCK MATERIAL SHALL COMPLY WITH THE LATEST EDITION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE CONSTRUCTION SPECIFICATIONS.
5	12" (IN.) COMPACTED SUBGRADE TO 98% MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D 1557) VALUE. THE UPPER 6" (IN.) OF SUBGRADE SHALL BE STABILIZED TO A MIN. LBR OF 40 AS SPECIFIED BY FDOT.
6	TYPE 'F' CONC. CURB & GUTTER
7	6" (IN.) STABILIZED SUBGRADE IN CURB AREA TO EXTEND 12" (IN.) EACH SIDE TO 50 FBV
8	4" (IN.) THICK CONC. SIDEWALK (3000 P.S.I.)
9	MIAMI CURB

NOTES:

1. ASPHALT MIX WILL REQUIRE A MIX DESIGN APPROVAL BY CITY OF APOPKA.
2. THE ABOVE PAVEMENT THICKNESS IS THE MINIMUM REQUIRED THICKNESS. CONTRACTORS SHALL BE RESPONSIBLE FOR REPAIR AND/OR REPLACEMENT WHERE TESTING RESULTS DO NOT MEET THE MINIMUM REQUIRED THICKNESS.
3. CONTRACTOR SHALL INSTALL A 2' STRIP OF SOD ALONG THE BACK OF ALL ROADWAY CURBING.
4. AT THE TIME OF PLATTING A 10' WIDE UTILITY EASEMENT WILL BE PROVIDED ADJACENT TO ALL RIGHT-OF-WAY. IF ROW IS ADJACENT TO A FUTURE PHASE A TEMPORARY 10' UTILITY EASEMENT SHALL BE PROVIDED, WHICH WILL BECOME PERMANENT WITH THE PLATTING OF THE FUTURE PHASE.
5. SEE UNIVERSAL ENGINEERING SCIENCES REPORT NO. 1919910 DATED JANUARY 27, 2022 FOR PAVEMENT RECOMMENDATIONS.

Key Map

NO.	DATE:	DESCRIPTION:
1	10/27/2025	SUBMIT TO CITY OF APOPKA & SJRWMD

SUBMISSIONS/REVISIONS

VERTICAL DATUM:	NAVD 88
JOB NO.:	21-027
DESIGNED BY:	KML
DRAWN BY:	EHW
CHECKED BY:	KML
APPROVED BY:	MDS
SCALE IN FEET:	N/A

Project Name:

CROSSROADS AT KELLY PARK - PHASE 3B

Jurisdiction:

CITY of APOPKA, FL

Sheet Title:

TYPICAL ROAD SECTIONS

Sheet No.:

C3.01

Seal:

MARC DANIEL STEELE LICENSE No. 84278 STATE OF FLORIDA

MARC DANIEL STEELE
FLORIDA LICENSE NO. 84278

DATE: October 29, 2025

M.D.N. 10L1Mtyrc D-Steel dnclualiFe=A01,OU=Users,0=8AFE033DC00 27AEA4,O=Florida,C=US
Date: 2025.10.27 17:05:54 -04'00'

This item has been electronically signed and sealed using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

POULOS & BENNETT
a Pape-Dawson company

Poulos & Bennett, LLC
2602 E. Livingston St., Orlando, FL 32803
Tel. 407.487.2594 www.poulosandbennett.com
Eng. Bus. No. 28567

C:\PAPE-DAWSON\PROJECTS\PAPE-DAWSON\KELLY PARK CROSSROADS PHASE 3B\PROJECT FILES\CAD\FINAL\CIVIL\PHASE 1-3B\21-027-PHASE 1-3B-TMS

Key Map

NO.	DATE	DESCRIPTION / SUBMISSIONS / REVISIONS	
1	10/27/25	SUBMIT TO CITY OF APOPKA FOR PD	
	VERTICAL DATUM		NAVD 88
	JOB NO:		21-027
	DESIGNED BY:		KML
	DRAWN BY:		EHW
	CHECKED BY:		KML
	APPROVED BY:		MDS
	SCALE IN FEET:		N/A

Project Name:
CROSSROADS AT KELLY PARK - PHASE 3B

Jurisdiction:
CITY of APOPKA, FL

Sheet Title:
BORING LOCATION MAP

Sheet No.:
C3.10

DATE: October 27, 2025

POULOS & BENNETT
a Pape-Dawson company
Poulos & Bennett, LLC
2602 E. Livingston St., Orlando, FL 32803
Tel. 407.487.2594 www.poulos-bennett.com
Eng. Bus. No.: 28567

NOTE: THIS PLAN IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR SHALL REFER TO UES REPORT NO. 1919910v2, DATED MAY 26, 2023, FOR ADDITIONAL SOIL INFORMATION.

UNIVERSAL ENGINEERING SCIENCES

PAGE NO: B-2

EVALUATION OF MAPPED KARST AREAS
KELLY PARK PROPERTY - SOUTHERN ASSEMBLAGE
APOPKA, ORANGE COUNTY, FLORIDA

BORING LOCATION PLAN

DRAWN BY:	N.F.	DATE:	2 - 1 - 2023
CHECKED BY:	Z.W.A.	DATE:	-
REPORT NO:	1915768	SCALE:	AS SHOWN
PROJECT NO:	0130.2100493.0000		

FOR: GALVIN LAND SERVICES, LLC

THIS DRAWING CREATED USING PLAN PROVIDED BY CLIENT.

21-0638-02

UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.: 0130.2100493.0000 | REPORT NO.: 1919910 | PAGE: B-2.16

PROJECT: EVALUATION OF MAPPED KARST AREAS KELLY PARK PROPERTY - SOUTHERN ASSEMBLAGE APOPKA, FLORIDA
BORING I.D.: R-16 | SECTION: | TOWNSHIP: | RANGE: | SHEET: 1 of 1
CLIENT: GALVIN LAND SERVICES, LLC
LOCATION: SEE BORING LOCATION PLAN
REMARKS: SHGWT = SEASONAL HIGH GROUNDWATER TABLE, N.S. = NOT SURVEYED, NE = NOT ENCOUNTERED
G.S. ELEVATION (ft): 139.5 | WATER TABLE (ft): NE | DATE OF READING: 12/14/2021 | EST. SHGWT (ft): 10.0+
DATE STARTED: 12/14/21 | DATE FINISHED: 12/14/21 | DRILLED BY: ORL - AICM | TYPE OF SAMPLING: ASTM D 1586

DEPTH (FT.)	SAMPLE TYPE	BLOWS PER 6" INCREMENT	N BLOWS / FT	W.T.	SOIL CLASS	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT/DAY)	ORG. CONT. (%)
0						Very loose grey brown fine SAND [SP]						
		1-1-2	3			-- light brown						
5		2-1-2	3			-- loose						
		2-2-2	4			-- very light brown	2	3				
		2-2-2	4									
		2-3-3	6			Loose orange fine SAND with clay [SP-SC]						
10		3-4-6	10	▽								
						Medium dense oraneg clayey fine SAND [SC]						
15		7-6-9	15			BORING TERMINATED AT 15.0 FEET						
20												
25												
30												

W-11951.GPJ

UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.: 0130.2100493.0000 | REPORT NO.: 1919910 | PAGE: B-2.17

PROJECT: EVALUATION OF MAPPED KARST AREAS KELLY PARK PROPERTY - SOUTHERN ASSEMBLAGE APOPKA, FLORIDA
BORING I.D.: R-17 | SECTION: | TOWNSHIP: | RANGE: | SHEET: 1 of 1
CLIENT: GALVIN LAND SERVICES, LLC
LOCATION: SEE BORING LOCATION PLAN
REMARKS: SHGWT = SEASONAL HIGH GROUNDWATER TABLE, N.S. = NOT SURVEYED, NE = NOT ENCOUNTERED
G.S. ELEVATION (ft): 136.7 | WATER TABLE (ft): NE | DATE OF READING: 12/15/2021 | EST. SHGWT (ft): 3.5
DATE STARTED: 12/15/21 | DATE FINISHED: 12/15/21 | DRILLED BY: ORL - AICM | TYPE OF SAMPLING: ASTM D 1586

DEPTH (FT.)	SAMPLE TYPE	BLOWS PER 6" INCREMENT	N BLOWS / FT	W.T.	SOIL CLASS	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT/DAY)	ORG. CONT. (%)
0						Loose brown fine SAND [SP]						
		2-2-2	4	▽								
		2-2-2	4			Loose orange clayey fine SAND [SC]						
5		2-2-6	8			-- medium dense						
		7-7-10	17									
		12-12-11	23									
10		10-12-11	23									
						Loose pink fine SAND with clay [SP-SC]						
15		3-3-4	7			BORING TERMINATED AT 15.0 FEET						
20												
25												
30												

W-11951.GPJ

UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.: 0130.2100493.0000 | REPORT NO.: 1919910 | PAGE: B-2.18

PROJECT: EVALUATION OF MAPPED KARST AREAS KELLY PARK PROPERTY - SOUTHERN ASSEMBLAGE APOPKA, FLORIDA
BORING I.D.: R-18 | SECTION: | TOWNSHIP: | RANGE: | SHEET: 1 of 1
CLIENT: GALVIN LAND SERVICES, LLC
LOCATION: SEE BORING LOCATION PLAN
REMARKS: SHGWT = SEASONAL HIGH GROUNDWATER TABLE, N.S. = NOT SURVEYED, NE = NOT ENCOUNTERED
G.S. ELEVATION (ft): 147.3 | WATER TABLE (ft): NE | DATE OF READING: 12/15/2021 | EST. SHGWT (ft): 10.0+
DATE STARTED: 12/15/21 | DATE FINISHED: 12/15/21 | DRILLED BY: ORL - AICM | TYPE OF SAMPLING: ASTM D 1586

DEPTH (FT.)	SAMPLE TYPE	BLOWS PER 6" INCREMENT	N BLOWS / FT	W.T.	SOIL CLASS	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT/DAY)	ORG. CONT. (%)
0						Very loose light brown fine SAND [SP]						
		1-1-1	2									
		2-2-1	3			-- loose						
5		1-1-1	2									
		1-2-2	4			Loose orange fine SAND with clay [SP-SC]						
		2-2-2	4									
10		2-3-3	6	▽								
						Medium dense orange clayey fine SAND [SC]						
15		4-5-7	12			BORING TERMINATED AT 15.0 FEET						
20												
25												
30												

W-11951.GPJ

UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.: 0130.2100493.0000 | REPORT NO.: 1919910 | PAGE: B-2.19

PROJECT: EVALUATION OF MAPPED KARST AREAS KELLY PARK PROPERTY - SOUTHERN ASSEMBLAGE APOPKA, FLORIDA
BORING I.D.: R-19 | SECTION: | TOWNSHIP: | RANGE: | SHEET: 1 of 1
CLIENT: GALVIN LAND SERVICES, LLC
LOCATION: SEE BORING LOCATION PLAN
REMARKS: SHGWT = SEASONAL HIGH GROUNDWATER TABLE, N.S. = NOT SURVEYED, NE = NOT ENCOUNTERED
G.S. ELEVATION (ft): 150.1 | WATER TABLE (ft): NE | DATE OF READING: 12/20/2021 | EST. SHGWT (ft): 10.0+
DATE STARTED: 12/20/21 | DATE FINISHED: 12/20/21 | DRILLED BY: ORL - AICM | TYPE OF SAMPLING: ASTM D 1586

DEPTH (FT.)	SAMPLE TYPE	BLOWS PER 6" INCREMENT	N BLOWS / FT	W.T.	SOIL CLASS	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT/DAY)	ORG. CONT. (%)
0						Very loose orange brown fine SAND [SP]						
		1-1-1	2									
		1-1-1	2			-- orange						
5		1-1-1	2									
		1-1-2	3				1	4				
						Very loose orange fine SAND with clay [SP-SC]						
		2-1-2	3			-- loose						
10		2-3-3	6	▽								
15		4-3-4	7			BORING TERMINATED AT 15.0 FEET						
20												
25												
30												

W-11951.GPJ

UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.: 0130.2100493.0000 | REPORT NO.: 1919910 | PAGE: B-2.35

PROJECT: EVALUATION OF MAPPED KARST AREAS KELLY PARK PROPERTY - SOUTHERN ASSEMBLAGE APOPKA, FLORIDA
BORING I.D.: R-35 | SECTION: | TOWNSHIP: | RANGE: | SHEET: 1 of 1
CLIENT: GALVIN LAND SERVICES, LLC
LOCATION: SEE BORING LOCATION PLAN
REMARKS: SHGWT = SEASONAL HIGH GROUNDWATER TABLE, N.S. = NOT SURVEYED, NE = NOT ENCOUNTERED
G.S. ELEVATION (ft): 144.2 | WATER TABLE (ft): NE | DATE OF READING: 12/20/2021 | EST. SHGWT (ft): 10.0+
DATE STARTED: 12/20/21 | DATE FINISHED: 12/20/21 | DRILLED BY: ORL - AICM | TYPE OF SAMPLING: ASTM D 1586

DEPTH (FT.)	SAMPLE TYPE	BLOWS PER 6" INCREMENT	N BLOWS / FT	W.T.	SOIL CLASS	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT/DAY)	ORG. CONT. (%)
0						Loose brown fine SAND [SP]						
		1-2-2	4									
		2-2-2	4			-- light brown						
5		2-1-2	3			-- very loose						
		2-1-1	2									
						Loose very light brown fine SAND with clay [SP-SC]						
		2-2-2	4			Loose very light brown fine SAND [SP]						
10		2-3-5	8	▽								
						Loose orange clayey fine SAND [SC]						
15		4-4-6	10			BORING TERMINATED AT 15.0 FEET						
20												
25												
30												

W-11951.GPJ

UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.: 0130.2100493.0000 | REPORT NO.: 1919910 | PAGE: B-2.15

PROJECT: EVALUATION OF MAPPED KARST AREAS KELLY PARK PROPERTY - SOUTHERN ASSEMBLAGE APOPKA, FLORIDA
BORING I.D.: R-15 | SECTION: | TOWNSHIP: | RANGE: | SHEET: 1 of 1
CLIENT: GALVIN LAND SERVICES, LLC
LOCATION: SEE BORING LOCATION PLAN
REMARKS: SHGWT = SEASONAL HIGH GROUNDWATER TABLE, N.S. = NOT SURVEYED, NE = NOT ENCOUNTERED
G.S. ELEVATION (ft): 143.2 | WATER TABLE (ft): NE | DATE OF READING: 12/14/2021 | EST. SHGWT (ft): 10.0+
DATE STARTED: 12/14/21 | DATE FINISHED: 12/14/21 | DRILLED BY: ORL - AICM | TYPE OF SAMPLING: ASTM D 1586

DEPTH (FT.)	SAMPLE TYPE	BLOWS PER 6" INCREMENT	N BLOWS / FT	W.T.	SOIL CLASS	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT/DAY)	ORG. CONT. (%)
0						Loose light brown fine SAND [SP]						
		2-2-2	4									
		2-2-2	4			-- very loose						
5		1-2-1	3			-- loose						
		2-2-2	4			-- very loose						
		2-1-2	3			-- loose						
10		2-2-2	4	▽								
						-- light grayish brown						
15		2-2-3	5			BORING TERMINATED AT 15.0 FEET						
20												
25												
30												

W-11951.GPJ

UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.: 0130.2100493.0000 | REPORT NO.: 1919910 | PAGE: B-2.21

PROJECT: EVALUATION OF MAPPED KARST AREAS KELLY PARK PROPERTY - SOUTHERN ASSEMBLAGE APOPKA, FLORIDA
BORING I.D.: R-21 | SECTION: | TOWNSHIP: | RANGE: | SHEET: 1 of 1
CLIENT: GALVIN LAND SERVICES, LLC
LOCATION: SEE BORING LOCATION PLAN
REMARKS: SHGWT = SEASONAL HIGH GROUNDWATER TABLE, N.S. = NOT SURVEYED, NE = NOT ENCOUNTERED
G.S. ELEVATION (ft): 138.2 | WATER TABLE (ft): NE | DATE OF READING: 12/15/2021 | EST. SHGWT (ft): 2.0
DATE STARTED: 12/15/21 | DATE FINISHED: 12/15/21 | DRILLED BY: ORL - AICM | TYPE OF SAMPLING: ASTM D 1586

DEPTH (FT.)	SAMPLE TYPE	BLOWS PER 6" INCREMENT	N BLOWS / FT	W.T.	SOIL CLASS	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT/DAY)	ORG. CONT. (%)
0						Loose brown fine SAND with clay [SP-SC]						
		2-2-2	4	▽								
		2-2-3	5			Loose mix brown clayey fine SAND [SC]						
5		3-3-15	18			-- medium dense						
		16-20-21	41			-- dense						
		10-10-8	18			-- medium dense						
10		10-9-12	21									
						Loose light orange fine SAND with clay [SP-SC]						
15		4-3-3	6			BORING TERMINATED AT 15.0 FEET						
20												
25												
30												

W-11951.GPJ

UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO.: 0130.2100493.0000 | REPORT NO.: 1919910 | PAGE: B-2.22

PROJECT: EVALUATION OF MAPPED KARST AREAS KELLY PARK PROPERTY - SOUTHERN ASSEMBLAGE APOPKA, FLORIDA
BORING I.D.: R-22 | SECTION: | TOWNSHIP: | RANGE: | SHEET: 1 of 1
CLIENT: GALVIN LAND SERVICES, LLC
LOCATION: SEE BORING LOCATION PLAN
REMARKS: SHGWT = SEASONAL HIGH GROUNDWATER TABLE, N.S. = NOT SURVEYED, NE = NOT ENCOUNTERED
G.S. ELEVATION (ft): 141.5 | WATER TABLE (ft): NE | DATE OF READING: 12/14/2021 | EST. SHGWT (ft): 6.5
DATE STARTED: 12/14/21 | DATE FINISHED: 12/14/21 | DRILLED BY: ORL - AICM | TYPE OF SAMPLING: ASTM D 1586

DEPTH (FT.)	SAMPLE TYPE	BLOWS PER 6" INCREMENT	N BLOWS / FT	W.T.	SOIL CLASS	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS LL	ATTERBERG LIMITS PI	K (FT/DAY)	ORG. CONT. (%)
0						Loose mix grey brown fine SAND [SP]						
		2-2-2	4									
		2-1-1	2			-- very loose, light brown						
5		1-1-2	3									
		2-2-3	5	▽		-- loose						
		6-8-11	19			Medium dense mix orange clayey fine SAND [SC]	23	15				
		12-12-13	25									
10												
		8-10-10	20			BORING TERMINATED AT 15.0 FEET						
15												
20												
25												
30												

W-11951.GPJ

NOTE: THIS PLAN IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR SHALL REFER TO UES REPORT NO. 1919910v2, DATED MAY 26, 2023, FOR ADDITIONAL SOIL INFORMATION.

Key Map

NO.	DATE:	DESCRIPTION:
1	10/27/2025	SUBMIT TO CITY OF APOPKA & SJRWMD

SUBMISSIONS/REVISIONS

VERTICAL DATUM:	NAVD 88
JOB NO.:	21-027
DESIGNED BY:	KML
DRAWN BY:	EHW
CHECKED BY:	KML
APPROVED BY:	MDS
SCALE IN FEET:	N/A

Project Name:
CROSSROADS AT KELLY PARK - PHASE 3B

Jurisdiction:
CITY of APOPKA, FL

Sheet Title:
SOIL BORINGS

Sheet No.:
C3.11

DATE: October 27, 2025

POULOS & BENNETT
a Pape-Dawson company
Poulos & Bennett, LLC
2602 E. Livingston St., Orlando, FL 32803
Tel. 407.487.2594 www.poulosandbennett.com
Eng. Bus. No. 28567

C:\Users\ACCDocs\Pape-Dawson\Kelly Park Crossroads Phase 3B\Project Files\Civil\Final\City\Phase 1-3B\21-027-Phase 1-3B Soil Boring.dwg

Key Map

10/27/25	SUBMIT TO CITY OF APOPKA
NO. DATE	DESCRIPTION / SUBMISSIONS/REVISIONS
VERTICAL DATUM:	NAVD 88
JOB NO.:	21-027
DESIGNED BY:	KML
DRAWN BY:	EHW
CHECKED BY:	KML
APPROVED BY:	MDS
SCALE IN FEET:	1" = 150'

Project Name:
CROSSROADS AT KELLY PARK - PHASE 3B

Jurisdiction:
CITY of APOPKA, FL

Sheet Title:
CLAY CONTOUR MAP

Sheet No.:
C3.20

DATE: October 27, 2025

POULOS & BENNETT
a Pape-Dawson company
Poulos & Bennett, LLC
2602 E. Livingston St., Orlando, FL 32803
Tel: 407.487.2594 www.poulos-bennett.com
Eng. Bus. No.: 28567

A-1
PAGE NO:

UNIVERSAL ENGINEERING SCIENCES

GEOTECHNICAL EXPLORATION
KELLY PARK PROPERTY
APOPKA, ORANGE COUNTY, FLORIDA

TOP OF CLAY CONTOUR MAP

FOR:
GALVIN LAND SERVICES, LLC

DRAWN BY:	R.K.	DATE: 2 - 27 - 2025
CHECKED BY:	A.W.	DATE: 2 - 27 - 2025
REPORT NO.:	--	SCALE: AS SHOWN
PROJECT NO:	0130.220042 2.0000	

THIS PLAN BASED ON DRAWINGS PREPARED BY POULOS & BENNETT

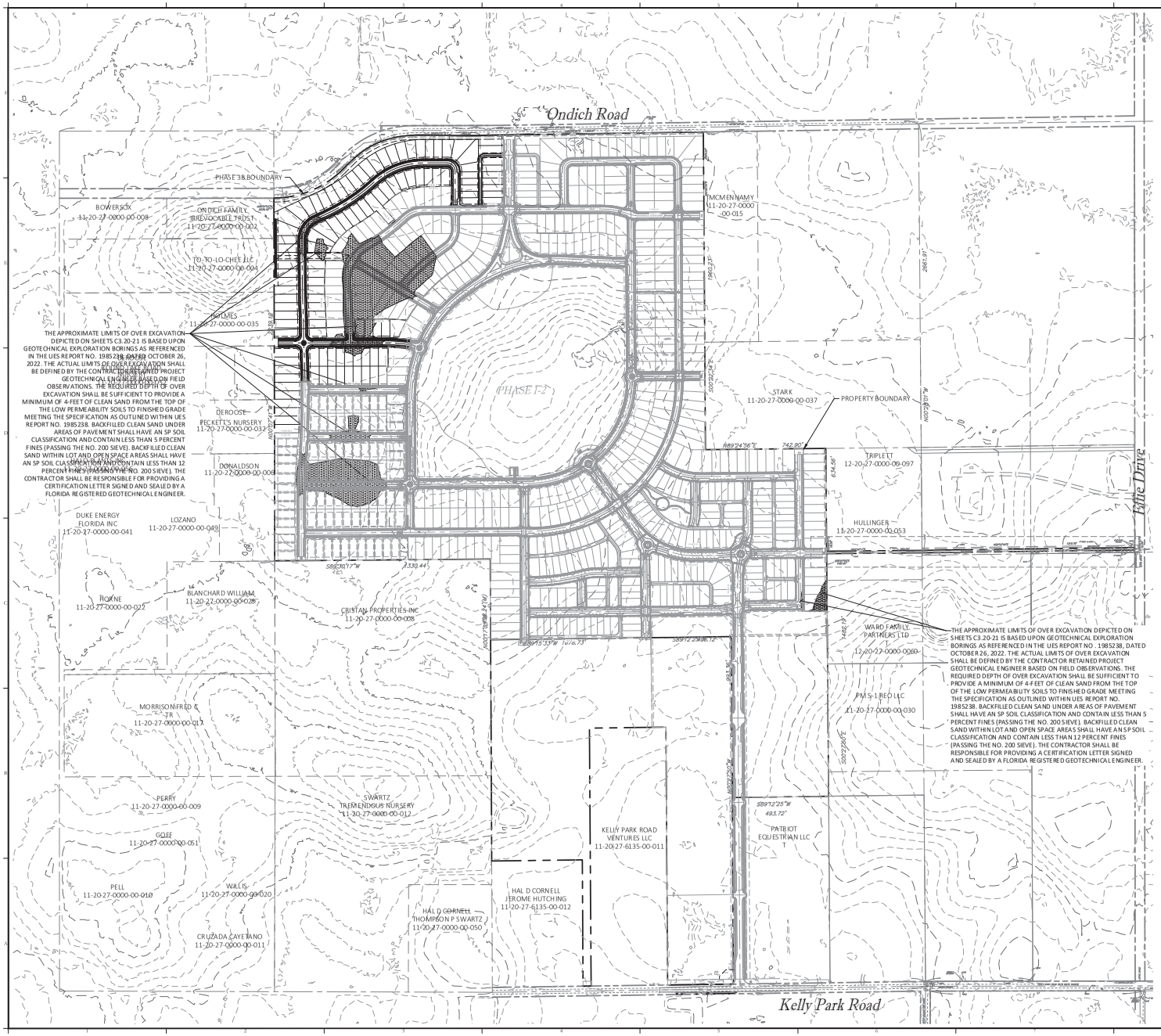
LEGEND

ESTIMATED TOP OF CLAY
ELEVATION CONTOUR, FEET

SCALE, FEET
0
400

N

22-0556-02



Grading Legend

Symbol	Description
– – –74– – –	EXISTING CONTOUR
	AREA OF OVEREXCAVATION

150 0 300 600
SCALE IN FEET

NOTE
THIS PLAN IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY AND REPRESENTS OVER EXCAVATION AS PROPOSED WITHIN THE CROSSROADS AT KELLY PARK PHASE 1-2, 1-3, 2 AND MASS GRADING CONSTRUCTION SITE PLANS. CONTRACTOR SHALL VERIFY THAT OVER EXCAVATION WITHIN PHASE 3B HAS BEEN PERFORMED AND SHALL NOTIFY ENGINEER IF OTHERWISE.

Key Map

NO.	DATE:	DESCRIPTION:
1	10/27/2025	SUBMIT TO CITY OF APOPKA & SJRWMD

SUBMISSIONS/REVISIONS

VERTICAL DATUM:	NAVD 88
JOB NO.:	21-027
DESIGNED BY:	KML
DRAWN BY:	EJHW
CHECKED BY:	KML
APPROVED BY:	MDS
SCALE IN FEET:	1" = 300'

Project Name:
CROSSROADS AT KELLY PARK - PHASE 3B

Jurisdiction:
CITY of APOPKA, FL

Sheet Title:
OVER EXCAVATION PLAN

Sheet No.:
C3.21

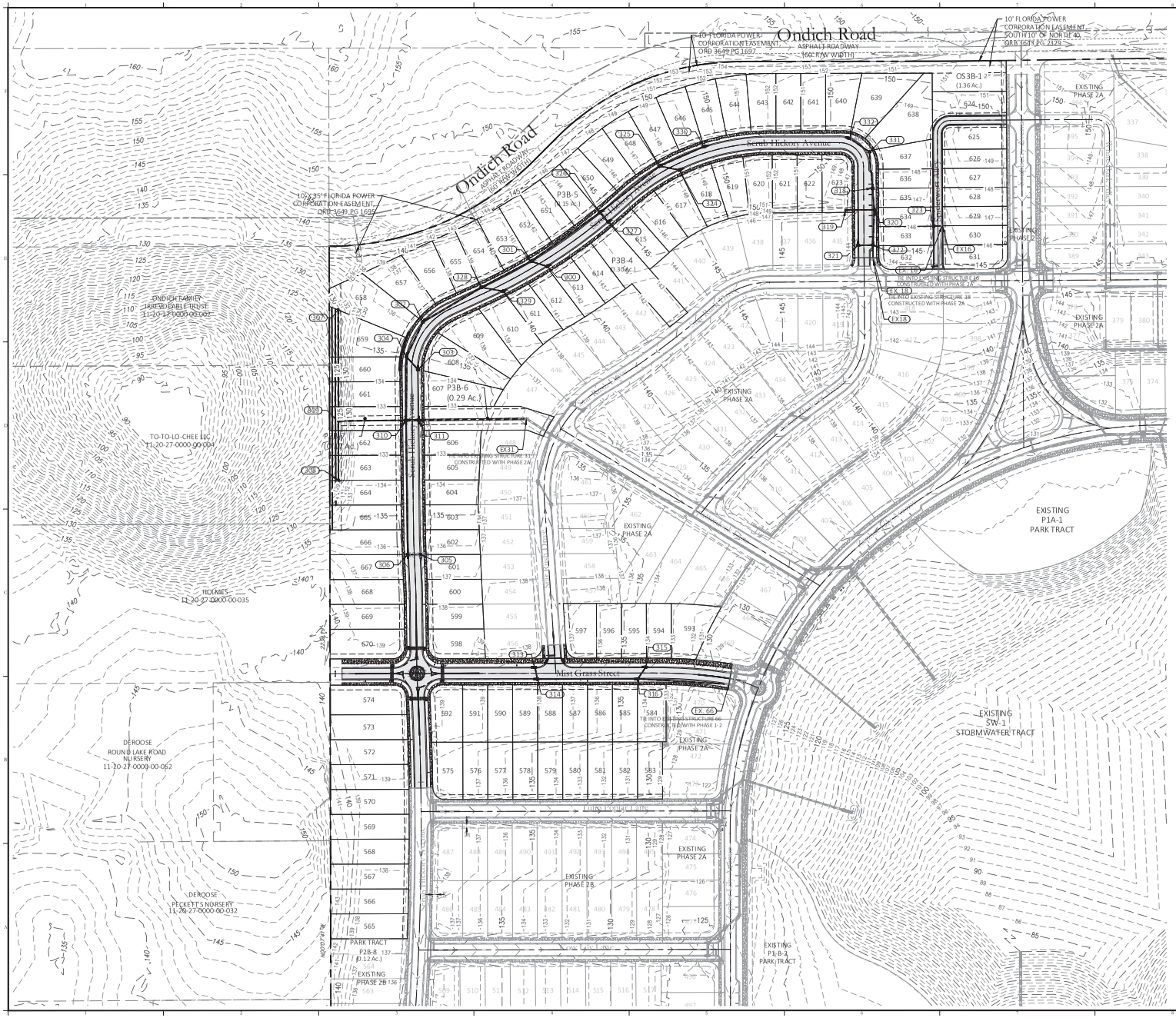
Seal:
MARC DANIEL STEELE LICENSE NO. 84324 STATE OF FLORIDA
MARC DANIEL STEELE FL LIC. NO. 84324
DATE: October 29, 2025
MDN: 10.1.1.1.rsa.2.384.1.dnQualifier=A01410180000019B6AFE033DC00027AEA4,O=Florida,C=US
Date: 2025.10.27 17:05:58 04'00'

This item has been electronically signed and sealed using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

POULOS & BENNETT
a Pape-Dawson company

Poulos & Bennett, LLC
2602 E. Livingston St., Orlando, FL 32803
Tel. 407.487.2594 www.poulosandbennett.com
Eng. Bus. No. 28567

P:\PROJECTS\ACCOUNTS\PAPE-DAWSON\KELLY PARK CROSSROADS PHASE 3B\PROJECT FILES\CAD\PNA\CITY\PHASE 1-3&2-21-027-PHASE



Key Map

Drainage Legend

Existing	Utility Type	Proposed
	STORM PIPE	
	STORM MANHOLE	
	P-1/P-2 INLET	
	MITERED END	
	DRAINAGE FLOW ARROW	

Grading Legend

Symbol	Description
100.00 EX	EXISTING SPOT GRADE
104.00	PROPOSED SPOT GRADE
101.00 FL	PROPOSED SWALE/DITCH FLOW LINE ELEV.
	FLOW ARROW
	DRAINAGE CONVEYANCE SWALE
74	EXISTING CONTOUR
74	PROPOSED CONTOUR

NOTES:

1. ELEVATIONS SHOWN WITHIN EACH HOUSE PAD REPRESENT THE DESIGNED FINISH FLOOR ELEVATION. CONTRACTOR TO SET FINISHED DIRT GRADE 8" BELOW THE FINISHED FLOOR ELEVATION AND COMPACTED TO 95% OF MODIFIED PROCTOR AASHTO T-180.

2. THE SIZE AND LOCATION OF THE HOUSE PADS SHOWN ARE ONLY SCHEMATIC AND SHOULD NOT BE USED FOR FINAL HOME BUILDING LAYOUT AND CONSTRUCTION.

3. EXISTING TOPO SOURCE SHOWN ON THIS PLAN BASED ON APPROVED MASS GRADING PLANS AS DEPICTED IN THE CROSS ROADS AT KELLY PARK PH 1-2, 1-3, 2 MASTER INFRASTRUCTURE AND MASS GRADING PLANS.

4. INDIVIDUAL HOMES ARE TO BE CONSTRUCTED WITHIN THE SETBACKS SHOWN AND TO THE DESIGN FINISHED FLOOR ELEVATION. IF THE BUILDER DESIRES TO BUILD THE HOUSE IN AN ALTERNATE LOCATION OR BUILD A HOUSE LARGER THAN THE ENVELOPE PROVIDED; THE PROPOSED CHANGES MUST BE RE-SUBMITTED TO CITY OF APOPKA FOR APPROVAL. INDIVIDUAL HOME BUILDERS PROPOSING BUILDINGS INCONSISTENT WITH THE BUILDING PAD LOCATIONS AND FINISHED FLOOR ELEVATIONS SHOWN WILL BE RESPONSIBLE FOR PROVIDING FINAL LOT GRADING THAT PROVIDES POSITIVE DRAINAGE AWAY FROM THE HOUSE AND DOES NOT HAVE ADVERSE IMPACTS ON ADJACENT LOTS.

5. ALL LOTS HAVE BEEN DESIGNED UTILIZING A 1.0% MINIMUM SLOPE. MINIMUM HOUSE PADS HAVE BEEN SET AT THE GREATER OF 18" ABOVE THE FRONTING CENTERLINE OF THE ROADWAY/ALLEY OR 1-FT ABOVE THE 100-YR/24-HR STORM ELEVATION FOR THE RESPECTIVE BASIN.

6. ALL BACKYARD AND ENVIRONMENTAL SWALES LOCATED WITHIN PHASE SHALL BE CONSTRUCTED AS PART OF THE MASTER SURFACE WATER MANAGEMENT SYSTEM, NOT BY INDIVIDUAL LOT OWNERS.

7. SIDEWALKS AND CURB RAMPS AS SHOWN ARE REQUIRED FOR THE CITY OF APOPKA CERTIFICATION OF COMPLETION FOR INFRASTRUCTURE. CURB RAMPS SHALL BE PROVIDED AT EVERY INTERSECTION AND SIDEWALKS SHALL BE PROVIDED PER ROADWAY CROSS SECTIONS ADJACENT TO ALL RIGHT-OF-WAYS AND SHALL BE INSTALLED WITH SITE INFRASTRUCTURE WHEN ADJACENT TO COMMON AREAS OR DURING VERTICAL CONSTRUCTION OF HOMES WHEN ADJACENT TO LOTS. HANDICAP RAMPS AT ALL INTERSECTIONS OF THE SIDEWALK AND PAVEMENT SHALL MEET CITY OF APOPKA AND A.D.A. SPECIFICATIONS.

8. THE SECONDARY STORM SEWER HAS BEEN DESIGNED TO PROVIDE A MINIMUM OF 6" SEPARATION BETWEEN THE CURB GUTTER ELEVATION AND THE STORM WATER HYDRAULIC GRADE LINE.

NO.	DATE:	DESCRIPTION
1	10/27/2025	SUBMIT TO CITY OF APOPKA & SJRWMD

SUBMISSIONS/REVISIONS

VERTICAL DATUM:	NAVD 88
JOB NO.:	21-027
DESIGNED BY:	KML
DRAWN BY:	EHW
CHECKED BY:	KML
APPROVED BY:	MDS
SCALE IN FEET:	1" = 100'

Project Name:

CROSSROADS AT KELLY PARK - PHASE 3B

Jurisdiction:

CITY of APOPKA, FL

Sheet Title:

MASTER DRAINAGE PLAN

Sheet No.:

C4.00

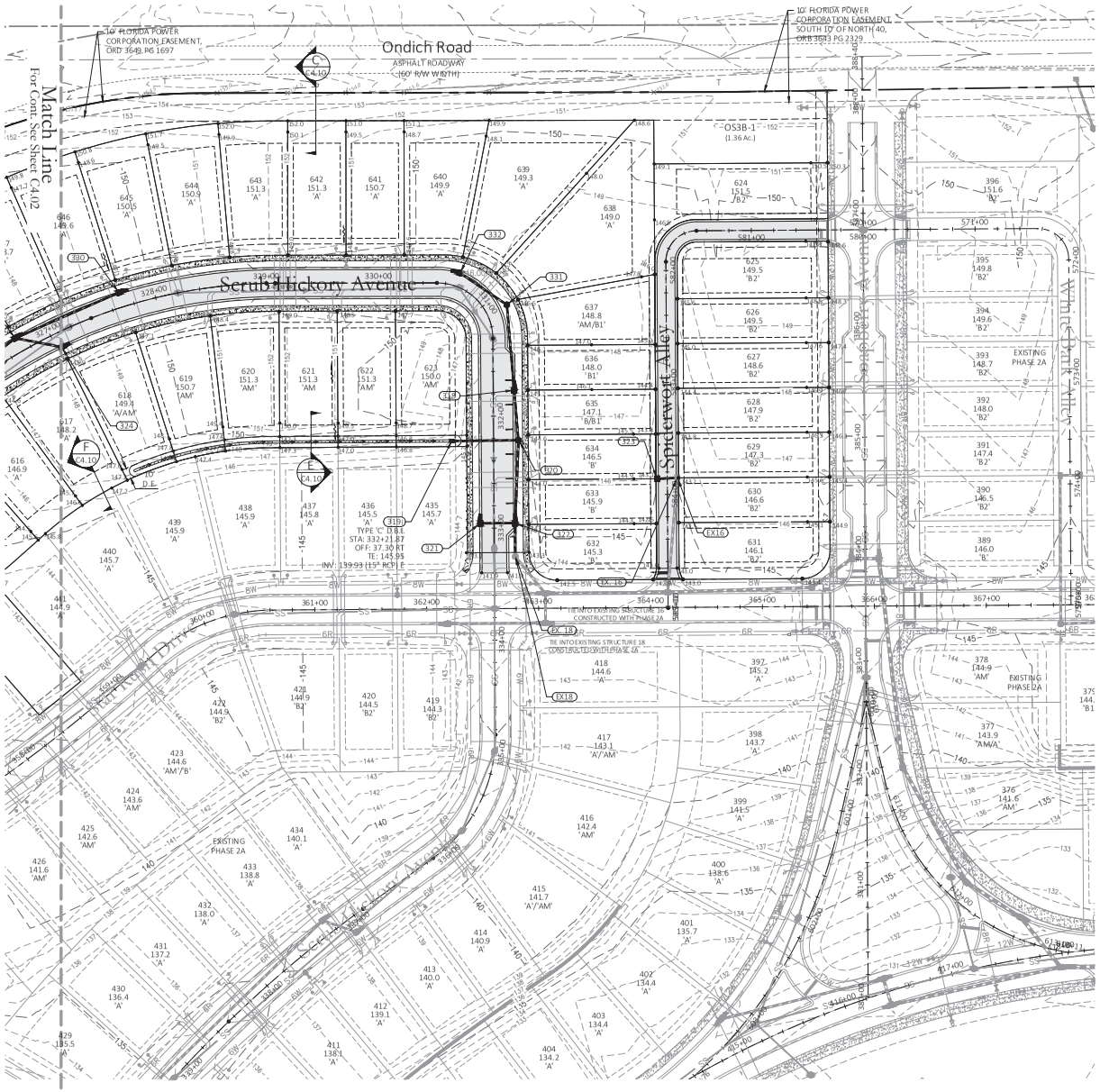
Seal:

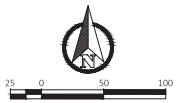
This item has been electronically signed and sealed using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

POULOS & BENNETT
a Pape-Dawson company

Poulos & Bennett, LLC
2602 E. Livingston St., Orlando, FL 32803
Tel. 407.487.2594 www.poulosandbennett.com
Eng. Bus. No. 28567

C:\PROJECTS\PAPE-DAWSON\KELLY PARK CROSSROADS PHASE 3B\PROJECT FILES\CAD\FINAL\CIT\PHASE 1-3&2\21-027-PHASE 1-3B-GDP





Drainage Legend

Existing	Utility Type	Proposed
	STORM PIPE	
	STORM MANHOLE	
	P-1/P-2 INLET	
	MITERED END	
	DRAINAGE FLOW ARROW	

Grading Legend

Symbol	Description
100.00 EX	EXISTING SPOT GRADE
104.00	PROPOSED SPOT GRADE
101.00 FL	PROPOSED SWALE/DITCH FLOW LINE ELEV.
	FLOW ARROW
	DRAINAGE CONVEYANCE SWALE
74	EXISTING CONTOUR
74	PROPOSED CONTOUR

NOTES:

1. ELEVATIONS SHOWN WITHIN EACH HOUSE PAD REPRESENT THE DESIGNED FINISH FLOOR ELEVATION. CONTRACTOR TO SET FINISHED DIRT GRADE 8" BELOW THE FINISHED FLOOR ELEVATION AND COMPACTED TO 95% OF MODIFIED PROCTOR AASHTO T-180.

2. THE SIZE AND LOCATION OF THE HOUSE PADS SHOWN ARE ONLY SCHEMATIC AND SHOULD NOT BE USED FOR FINAL HOME BUILDING LAYOUT AND CONSTRUCTION.

3. EXISTING TOPO SOURCE SHOWN ON THIS PLAN BASED ON APPROVED MASS GRADING PLANS AS DEPICTED IN THE CROSS ROADS AT KELLY PARK PH 1-2, 1-3, 2 MASTER INFRASTRUCTURE AND MASS GRADING PLANS.

4. INDIVIDUAL HOMES ARE TO BE CONSTRUCTED WITHIN THE SETBACKS SHOWN AND TO THE DESIGN FINISHED FLOOR ELEVATION. IF THE BUILDER DESIRES TO BUILD THE HOUSE IN AN ALTERNATE LOCATION OR BUILD A HOUSE LARGER THAN THE ENVELOPE PROVIDED; THE PROPOSED CHANGES MUST BE RE-SUBMITTED TO CITY OF APOPKA FOR APPROVAL. INDIVIDUAL HOME BUILDERS PROPOSING BUILDINGS INCONSISTENT WITH THE BUILDING PAD LOCATIONS AND FINISHED FLOOR ELEVATIONS SHOWN WILL BE RESPONSIBLE FOR PROVIDING FINAL LOT GRADING THAT PROVIDES POSITIVE DRAINAGE AWAY FROM THE HOUSE AND DOES NOT HAVE ADVERSE IMPACTS ON ADJACENT LOTS.

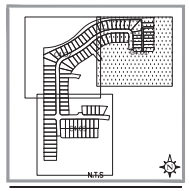
5. ALL LOTS HAVE BEEN DESIGNED UTILIZING A 1.0% MINIMUM SLOPE. MINIMUM HOUSE PADS HAVE BEEN SET AT THE GREATER OF 18" ABOVE THE FRONTING CENTERLINE OF THE ROADWAY/ALLEY OR 1-FT ABOVE THE 100-YR/24-HR STORM ELEVATION FOR THE RESPECTIVE BASIN.

6. ALL BACKYARD AND ENVIRONMENTAL SWALES LOCATED WITHIN PHASE SHALL BE CONSTRUCTED AS PART OF THE MASTER SURFACE WATER MANAGEMENT SYSTEM, NOT BY INDIVIDUAL LOT OWNERS.

7. SIDEWALKS AND CURB RAMPS AS SHOWN ARE REQUIRED FOR THE CITY OF APOPKA CERTIFICATION OF COMPLETION FOR INFRASTRUCTURE. CURB RAMPS SHALL BE PROVIDED AT EVERY INTERSECTION AND SIDEWALKS SHALL BE PROVIDED PER ROADWAY CROSS SECTIONS ADJACENT TO ALL RIGHT-OF-WAYS AND SHALL BE INSTALLED WITH SITE INFRASTRUCTURE WHEN ADJACENT TO COMMON AREAS OR DURING VERTICAL CONSTRUCTION OF HOMES WHEN ADJACENT TO LOTS. HANDICAP RAMPS AT ALL INTERSECTIONS OF THE SIDEWALK AND PAVEMENT SHALL MEET CITY OF APOPKA AND A.D.A. SPECIFICATIONS.

8. THE SECONDARY STORM SEWER HAS BEEN DESIGNED TO PROVIDE A MINIMUM OF 6" SEPARATION BETWEEN THE CURB GUTTER ELEVATION AND THE STORM WATER HYDRAULIC GRADE LINE.

Key Map



NO.	DATE:	DESCRIPTION
1	10/27/2025	SUBMIT TO CITY OF APOPKA & SJRWMD

SUBMISSIONS/REVISIONS

VERTICAL DATUM:	NAVD 88
JOB NO.:	21-027
DESIGNED BY:	KML
DRAWN BY:	EJHW
CHECKED BY:	KML
APPROVED BY:	MDS
SCALE IN FEET:	1" = 50'

Project Name:

CROSSROADS AT KELLY PARK - PHASE 3B

Jurisdiction:

CITY of APOPKA, FL

Sheet Title:

GRADING & DRAINAGE PLAN

Sheet No.:

C4.01

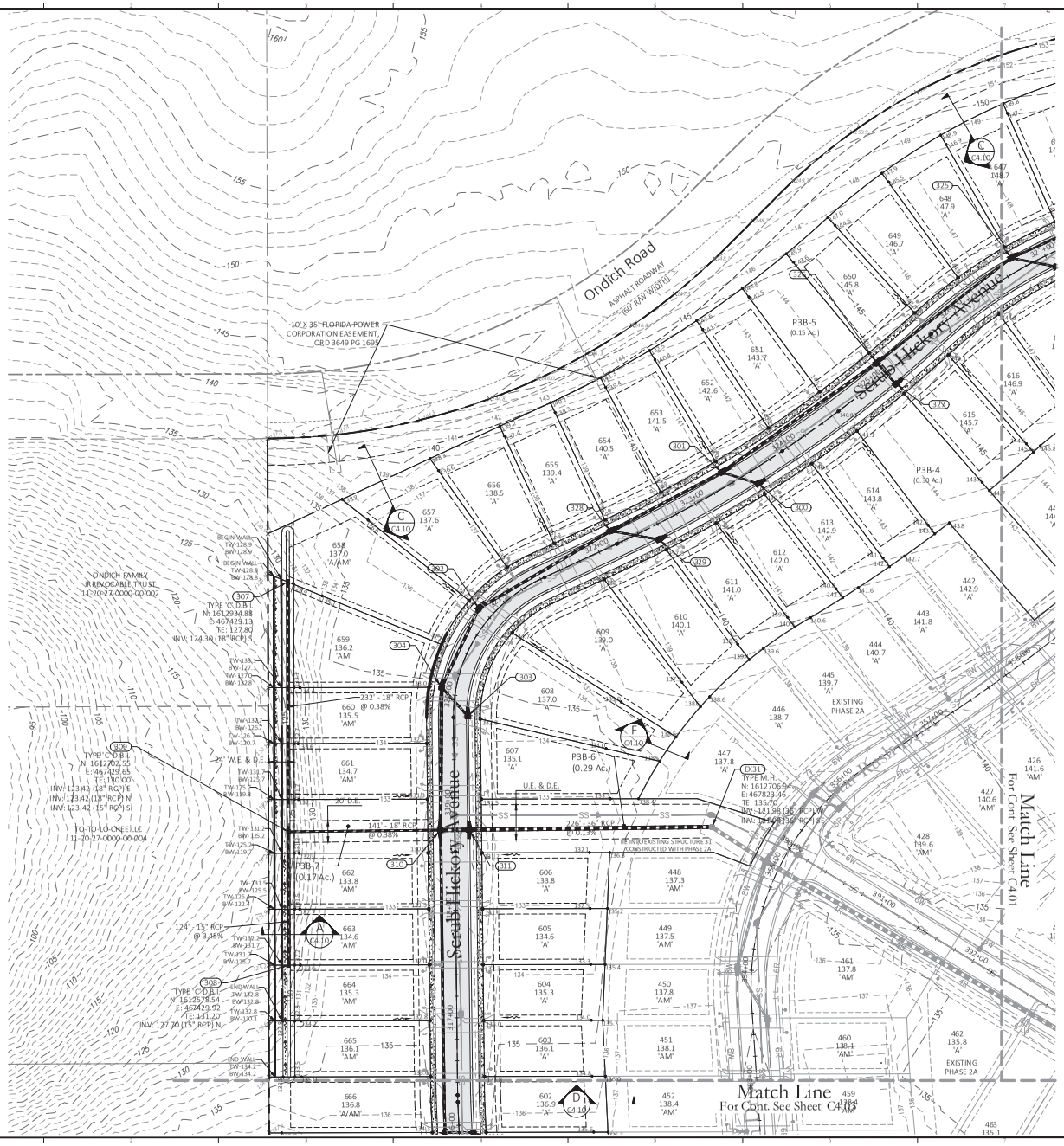
Seal:

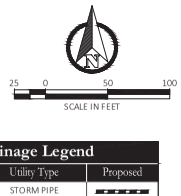
This item has been electronically signed and sealed using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

POULOS & BENNETT
a Pape-Dawson company

Poulos & Bennett, LLC
2602 E. Livingston St., Orlando, FL 32803
Tel. 407.487.2594 www.poulosandbennett.com
Eng. Bus. No. 28567

C:\PROJECTS\PAPE-DAWSON\KELLY PARK CROSSROADS PHASE 3B\PROJECT FILES\CAD\FINAL\CIT\PHASE 1-3&2\21-027-PHASE 1-3&-02P





Drainage Legend

Existing	Utility Type	Proposed
	STORM PIPE	
	STORM MANHOLE	
	P-1/P-2 INLET	
	MITERED END	
	DRAINAGE FLOW ARROW	

Grading Legend

Symbol	Description
100.00 EX	EXISTING SPOT GRADE
104.00	PROPOSED SPOT GRADE
101.00 FL	PROPOSED SWALE/DITCH FLOW LINE ELEV.
	FLOW ARROW
	DRAINAGE CONVEYANCE SWALE
74	EXISTING CONTOUR
74	PROPOSED CONTOUR

NOTES:

1. ELEVATIONS SHOWN WITHIN EACH HOUSE PAD REPRESENT THE DESIGNED FINISH FLOOR ELEVATION. CONTRACTOR TO SET FINISHED DIRT GRADE 8" BELOW THE FINISHED FLOOR ELEVATION AND COMPACTED TO 95% OF MODIFIED PROCTOR AASHTO T-180.

2. THE SIZE AND LOCATION OF THE HOUSE PADS SHOWN ARE ONLY SCHEMATIC AND SHOULD NOT BE USED FOR FINAL HOME BUILDING LAYOUT AND CONSTRUCTION.

3. EXISTING TOPO SOURCE SHOWN ON THIS PLAN BASED ON APPROVED MASS GRADING PLANS AS DEPICTED IN THE CROSS ROADS AT KELLY PARK PH 1-2, 1-3, 2 MASTER INFRASTRUCTURE AND MASS GRADING PLANS.

4. INDIVIDUAL HOMES ARE TO BE CONSTRUCTED WITHIN THE SETBACKS SHOWN AND TO THE DESIGN FINISHED FLOOR ELEVATION. IF THE BUILDER DESIRES TO BUILD THE HOUSE IN AN ALTERNATE LOCATION OR BUILD A HOUSE LARGER THAN THE ENVELOPE PROVIDED; THE PROPOSED CHANGES MUST BE RE-SUBMITTED TO CITY OF APOPKA FOR APPROVAL. INDIVIDUAL HOME BUILDERS PROPOSING BUILDINGS INCONSISTENT WITH THE BUILDING PAD LOCATIONS AND FINISHED FLOOR ELEVATIONS SHOWN WILL BE RESPONSIBLE FOR PROVIDING FINAL LOT GRADING THAT PROVIDES POSITIVE DRAINAGE AWAY FROM THE HOUSE AND DOES NOT HAVE ADVERSE IMPACTS ON ADJACENT LOTS.

5. ALL LOTS HAVE BEEN DESIGNED UTILIZING A 1.0% MINIMUM SLOPE. MINIMUM HOUSE PADS HAVE BEEN SET AT THE GREATER OF 18" ABOVE THE FRONTING CENTERLINE OF THE ROADWAY/ALLEY OR 1-FT ABOVE THE 100-YR/24-HR STORM ELEVATION FOR THE RESPECTIVE BASIN.

6. ALL BACKYARD AND ENVIRONMENTAL SWALES LOCATED WITHIN PHASE SHALL BE CONSTRUCTED AS PART OF THE MASTER SURFACE WATER MANAGEMENT SYSTEM, NOT BY INDIVIDUAL LOT OWNERS.

7. SIDEWALKS AND CURB RAMPS AS SHOWN ARE REQUIRED FOR THE CITY OF APOPKA CERTIFICATION OF COMPLETION FOR INFRASTRUCTURE. CURB RAMPS SHALL BE PROVIDED AT EVERY INTERSECTION AND SIDEWALKS SHALL BE PROVIDED PER ROADWAY CROSS SECTIONS ADJACENT TO ALL RIGHT-OF-WAYS AND SHALL BE INSTALLED WITH SITE INFRASTRUCTURE WHEN ADJACENT TO COMMON AREAS OR DURING VERTICAL CONSTRUCTION OF HOMES WHEN ADJACENT TO LOTS. HANDICAP RAMPS AT ALL INTERSECTIONS OF THE SIDEWALK AND PAVEMENT SHALL MEET CITY OF APOPKA AND A.D.A. SPECIFICATIONS.

8. THE SECONDARY STORM SEWER HAS BEEN DESIGNED TO PROVIDE A MINIMUM OF 6" SEPARATION BETWEEN THE CURB GUTTER ELEVATION AND THE STORM WATER HYDRAULIC GRADE LINE.

NO.	DATE:	DESCRIPTION
1	10/27/2025	SUBMIT TO CITY OF APOPKA & SJRWMD

SUBMISSIONS/REVISIONS

VERTICAL DATUM:	NAVD 88
JOB NO.:	21-027
DESIGNED BY:	KML
DRAWN BY:	EHW
CHECKED BY:	KML
APPROVED BY:	MDS
SCALE IN FEET:	1" = 50'

Project Name:

CROSSROADS AT KELLY PARK - PHASE 3B

Jurisdiction:

CITY of APOPKA, FL

Sheet Title:

GRADING & DRAINAGE PLAN

Sheet No.:

C4.02

Seal:

MARC DANIEL STIELI
LICENSE
NO. 73514
STATE OF FLORIDA
REGISTERED
ENGINEER
MARC DANIEL STIELI
P.E. No. 73514
DATE: October 27, 2025

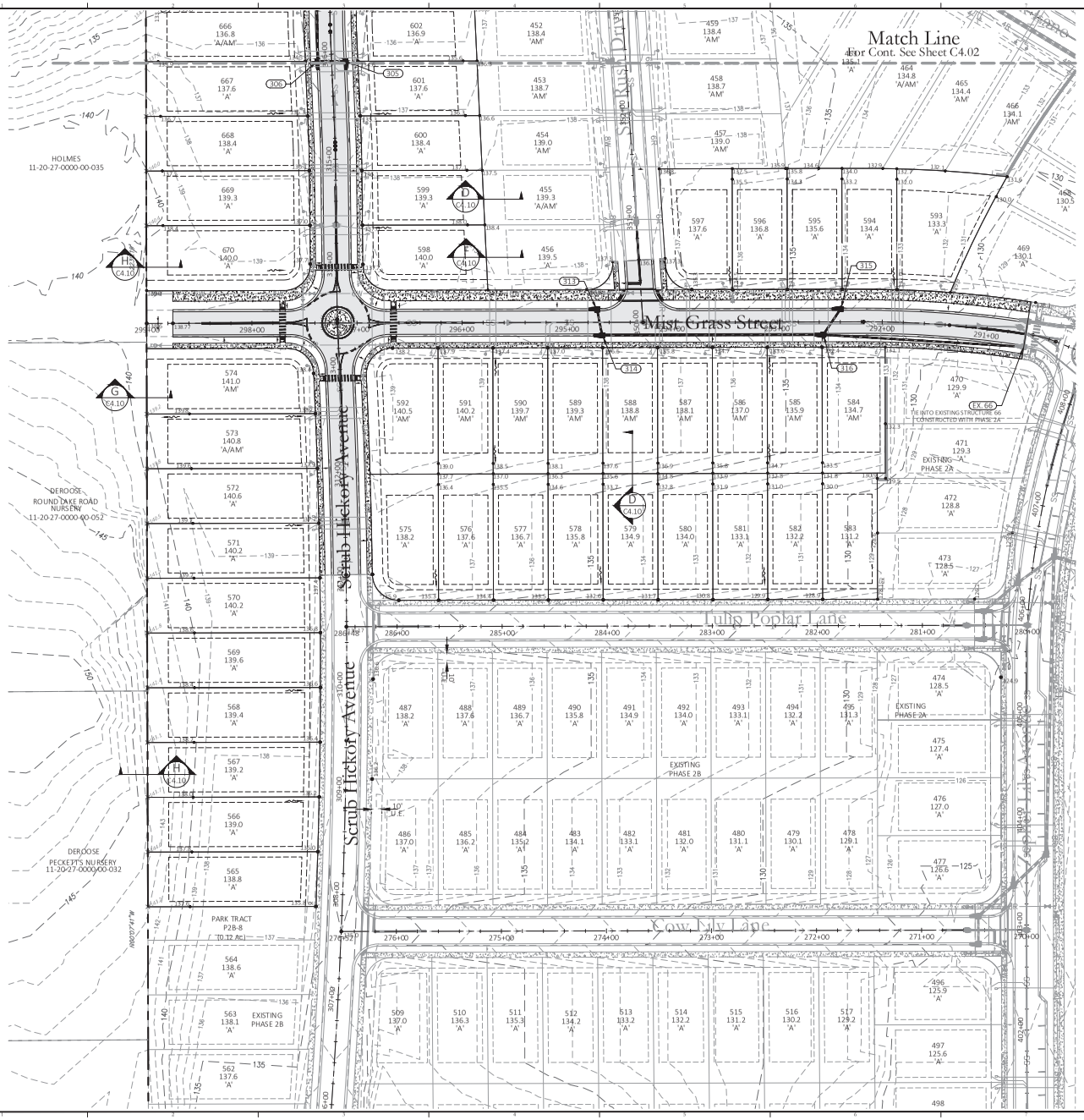
Marc Daniel Stieli
dnclud=fe=A0C7D4A0C7D4A8AFE033DC00
27AEA4, O=Florida, C=US
Date: 2025.10.27 17:06:09 0400'

This item has been electronically signed and sealed using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

POULOS & BENNETT
a Pape-Dawson company

Poulos & Bennett, LLC
2602 E. Livingston St., Orlando, FL 32803
Tel. 407.487.2594 www.poulosandbennett.com
Eng. Bus. No. 28567

M:\PROJECTS\21-027 CROSSROADS PHASE 3B\PROJECT FILES\CIVIL\DWG\21-027-PHASE 3B-GRADING.DWG



SCALE IN FEET

Drainage Legend		
Existing	Utility Type	Proposed
	STORM PIPE	
	STORM MANHOLE	
	P-1/P-2 INLET	
	MITERED END	
	DRAINAGE FLOW ARROW	

Grading Legend	
Symbol	Description
100.00 EX	EXISTING SPOT GRADE
104.00	PROPOSED SPOT GRADE
101.00 FL	PROPOSED SWALE/DITCH FLOW LINE ELEV.
	FLOW ARROW
	DRAINAGE CONVEYANCE SWALE
74	EXISTING CONTOUR
74	PROPOSED CONTOUR

NOTES:

1. ELEVATIONS SHOWN WITHIN EACH HOUSE PAD REPRESENT THE DESIGNED FINISH FLOOR ELEVATION. CONTRACTOR TO SET FINISHED DIRT GRADE 8" BELOW THE FINISHED FLOOR ELEVATION AND COMPACTED TO 95% OF MODIFIED PROCTOR AASHTO T-180.

2. THE SIZE AND LOCATION OF THE HOUSE PADS SHOWN ARE ONLY SCHEMATIC AND SHOULD NOT BE USED FOR FINAL HOME BUILDING LAYOUT AND CONSTRUCTION.

3. EXISTING TOPO SOURCE SHOWN ON THIS PLAN BASED ON APPROVED MASS GRADING PLANS AS DEPICTED IN THE CROSS ROADS AT KELLY PARK PH 1-2, 1-3, 2 MASTER INFRASTRUCTURE AND MASS GRADING PLANS.

4. INDIVIDUAL HOMES ARE TO BE CONSTRUCTED WITHIN THE SETBACKS SHOWN AND TO THE DESIGN FINISHED FLOOR ELEVATION. IF THE BUILDER DESIRES TO BUILD THE HOUSE IN AN ALTERNATE LOCATION OR BUILD A HOUSE LARGER THAN THE ENVELOPE PROVIDED; THE PROPOSED CHANGES MUST BE RE-SUBMITTED TO CITY OF APOPKA FOR APPROVAL. INDIVIDUAL HOME BUILDERS PROPOSING BUILDINGS INCONSISTENT WITH THE BUILDING PAD LOCATIONS AND FINISHED FLOOR ELEVATIONS SHOWN WILL BE RESPONSIBLE FOR PROVIDING FINAL LOT GRADING THAT PROVIDES POSITIVE DRAINAGE AWAY FROM THE HOUSE AND DOES NOT HAVE ADVERSE IMPACTS ON ADJACENT LOTS.

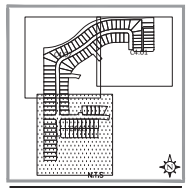
5. ALL LOTS HAVE BEEN DESIGNED UTILIZING A 1.0% MINIMUM SLOPE. MINIMUM HOUSE PADS HAVE BEEN SET AT THE GREATER OF 18" ABOVE THE FRONTING CENTERLINE OF THE ROADWAY/ALLEY OR 1-FT ABOVE THE 100-YR/24-HR STORM ELEVATION FOR THE RESPECTIVE BASIN.

6. ALL BACKYARD AND ENVIRONMENTAL SWALES LOCATED WITHIN PHASE SHALL BE CONSTRUCTED AS PART OF THE MASTER SURFACE WATER MANAGEMENT SYSTEM, NOT BY INDIVIDUAL LOT OWNERS.

7. SIDEWALKS AND CURB RAMPS AS SHOWN ARE REQUIRED FOR THE CITY OF APOPKA CERTIFICATION OF COMPLETION FOR INFRASTRUCTURE. CURB RAMPS SHALL BE PROVIDED AT EVERY INTERSECTION AND SIDEWALKS SHALL BE PROVIDED PER ROADWAY CROSS SECTIONS ADJACENT TO ALL RIGHT-OF-WAYS AND SHALL BE INSTALLED WITH SITE INFRASTRUCTURE WHEN ADJACENT TO COMMON AREAS OR DURING VERTICAL CONSTRUCTION OF HOMES WHEN ADJACENT TO LOTS. HANDICAP RAMPS AT ALL INTERSECTIONS OF THE SIDEWALK AND PAVEMENT SHALL MEET CITY OF APOPKA AND A.D.A. SPECIFICATIONS.

8. THE SECONDARY STORM SEWER HAS BEEN DESIGNED TO PROVIDE A MINIMUM OF 6" SEPARATION BETWEEN THE CURB GUTTER ELEVATION AND THE STORM WATER HYDRAULIC GRADE LINE.

Key Map



NO.	DATE:	DESCRIPTION
10/27/2025		SUBMIT TO CITY OF APOPKA & SJRWMD
SUBMISSIONS/REVISIONS		

VERTICAL DATUM:	NAVD 88
JOB NO.:	21-027
DESIGNED BY:	KML
DRAWN BY:	EJHW
CHECKED BY:	KML
APPROVED BY:	MDS
SCALE IN FEET:	1" = 50'

Project Name:

CROSSROADS AT KELLY PARK - PHASE 3B

Jurisdiction:

CITY of APOPKA, FL

Sheet Title:

GRADING & DRAINAGE PLAN

Sheet No.:

C4.03

Seal:

MARC DANIEL STEELE
P.E. No. 102774

DATE: October 29, 2025

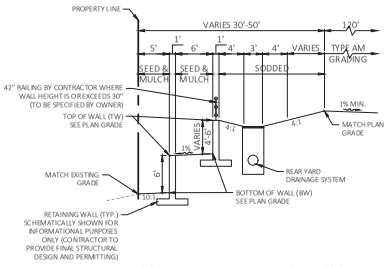
Digitally signed by Marc Daniel Steele
DN: cn=Marc Daniel Steele, o=Poulos & Bennett, LLC, ou=A01410D0000019A8AFE033DC0027AEA4, c=US
Date: 2025.10.27 17:05:12 -04'00'

This item has been electronically signed and sealed using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

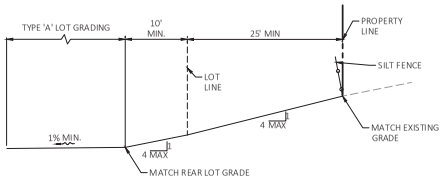
POULOS & BENNETT
a Pape-Dawson company

Poulos & Bennett, LLC
2602 E. Livingston St., Orlando, FL 32803
Tel. 407.487.2594 www.poulosandbennett.com
Eng. Bus. No. 28567

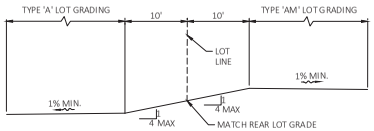
M:\PROJECTS\PAPE-DAWSON\KELLY PARK CROSSROADS PHASE 3B\PROJECT FILES\CAD\FINAL\CIVIL\PHASE 1-3&2\21-027-PHASE 1-3B-GDP



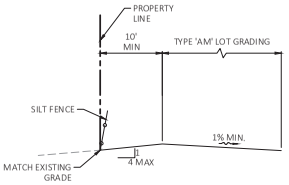
A TYPICAL GRADING SECTION
LOTS 664-659 N.T.S.



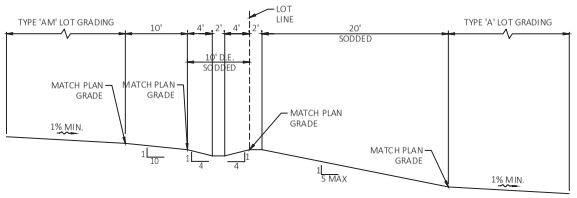
C TYPICAL GRADING SECTION
LOTS 638-658 N.T.S.



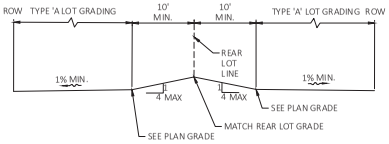
D TYPICAL GRADING SECTION
LOTS 575-592 & 599-606 N.T.S.



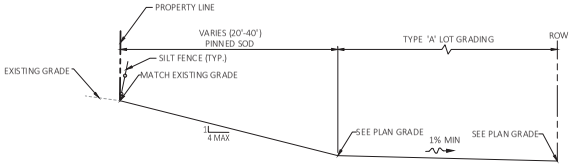
G TYPICAL GRADING SECTION
LOTS 573-574 N.T.S.



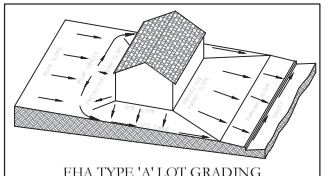
E TYPICAL GRADING SECTION
LOTS 618-623 N.T.S.



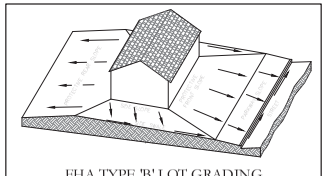
F TYPICAL GRADING SECTION
LOTS 598 & 607-617 N.T.S.



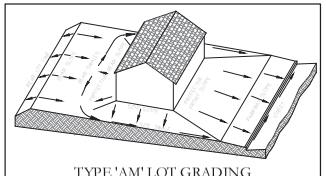
H TYPICAL GRADING SECTION
LOTS 565-572, 666-670 N.T.S.



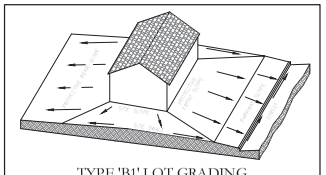
N.T.S.



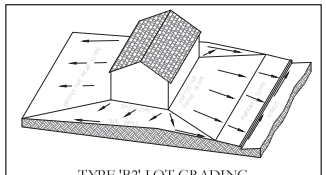
N.T.S.



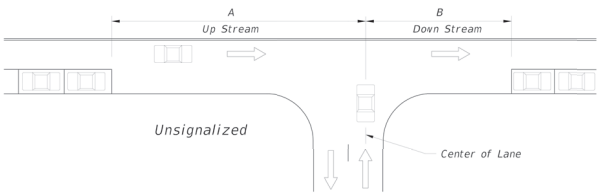
N.T.S.



N.T.S.

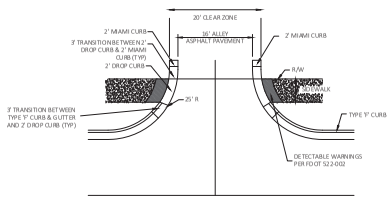


N.T.S.



ON-STREET PARKING RESTRICTIONS DETAIL
N.T.S.

NOTE:
1. PER FDOT DESIGN MANUAL SECTION 212, TABLE 212.11.2 FOR POSTED SPEED <35 MPH



TRAVEL LANE AND ALLEY CONNECTION DETAIL
N.T.S.

NOTES:
1. SEE INTERSECTION GRADING, SHEETS C6.00-C6.04 FOR LIMITS OF TYPE 'F' SPILL-OUT CURB IF APPLICABLE.

Key Map

NO.	DATE:	DESCRIPTION:
1	10/27/2025	SUBMIT TO CITY OF APOPKA & SJRWMD
		SUBMISSIONS/REVISIONS

VERTICAL DATUM:	NAVD 88
JOB NO.:	21-027
DESIGNED BY:	KML
DRAWN BY:	EHW
CHECKED BY:	KML
APPROVED BY:	MDS
SCALE IN FEET:	N.T.S.

Project Name:
CROSSROADS AT KELLY PARK - PHASE 3B

Jurisdiction:
CITY of APOPKA, FL

Sheet Title:
GRADING SECTIONS & DETAILS

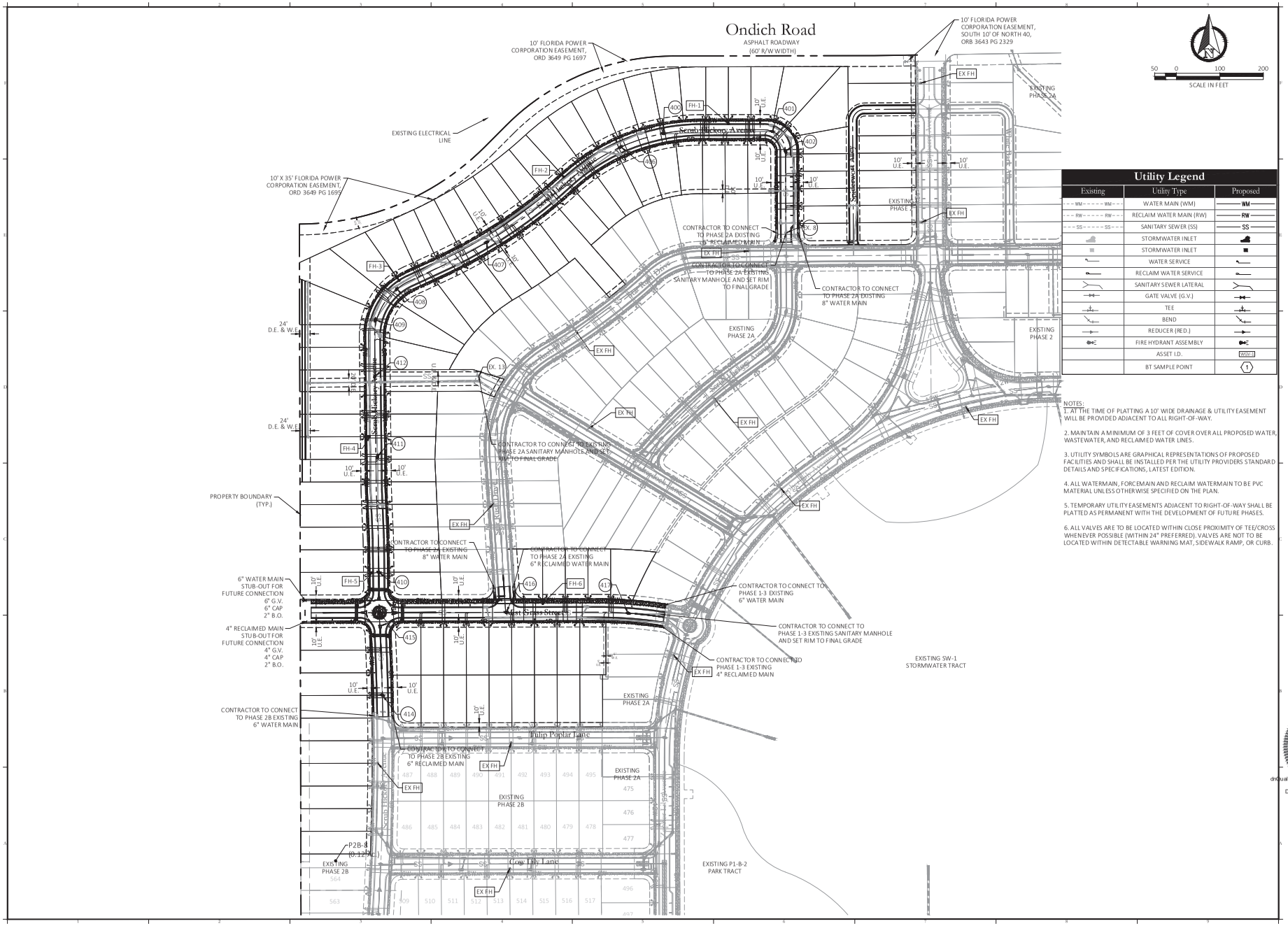
Sheet No.:
C4.10

Seal:
MARC DANIEL STEELL LICENSE NO. 88567 STATE OF FLORIDA
MARC DANIEL STEELL
FLORIDA LICENSE
DATE: October 29, 2025
Marc Steell
dnclusa=e=A0C7C4AA0C7C4BAFE033DC00
27AEA4, O=Florida, C=US
Date: 2025.10.27 17:06:16 04'00'

This item has been electronically signed and sealed using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

POULOS & BENNETT
a Pape-Dawson company
Poulos & Bennett, LLC
2602 E. Livingston St., Orlando, FL 32803
Tel. 407.487.2594 www.poulosandbennett.com
Eng. Bus. No. 28567

G:\PROJECTS\PAPE-DAWSON\KELLY PARK CROSSROADS PHASE 3B\PROJECT FILES\CAD\FINAL\CIV\PHASE 1-3B\21-027-PHASE 1-3B-GSD



Utility Legend

Existing	Utility Type	Proposed
WM	WATER MAIN (WM)	WM
RW	RECLAIM WATER MAIN (RW)	RW
SS	SANITARY SEWER (SS)	SS
	STORMWATER INLET	
	STORMWATER INLET	
	WATER SERVICE	
	RECLAIM WATER SERVICE	
	SANITARY SEWER LATERAL	
	GATE VALVE (G.V.)	
	TEE	
	BEND	
	REDUCER (RED.)	
	FIRE HYDRANT ASSEMBLY	
	ASSET I.D.	WSV-1
	BT SAMPLE POINT	1

NOTES:

1. AT THE TIME OF PLATTING A 10' WIDE DRAINAGE & UTILITY EASEMENT WILL BE PROVIDED ADJACENT TO ALL RIGHT-OF-WAY.
2. MAINTAIN A MINIMUM OF 3 FEET OF COVER OVER ALL PROPOSED WATER, WASTEWATER, AND RECLAIMED WATER LINES.
3. UTILITY SYMBOLS ARE GRAPHICAL REPRESENTATIONS OF PROPOSED FACILITIES AND SHALL BE INSTALLED PER THE UTILITY PROVIDERS STANDARD DETAILS AND SPECIFICATIONS, LATEST EDITION.
4. ALL WATERMAIN, FORCEMAIN AND RECLAIM WATERMAIN TO BE PVC MATERIAL UNLESS OTHERWISE SPECIFIED ON THE PLAN.
5. TEMPORARY UTILITY EASEMENTS ADJACENT TO RIGHT-OF-WAY SHALL BE PLATTED AS PERMANENT WITH THE DEVELOPMENT OF FUTURE PHASES.
6. ALL VALVES ARE TO BE LOCATED WITHIN CLOSE PROXIMITY OF TEE/CROSS WHENEVER POSSIBLE (WITHIN 24" PREFERRED). VALVES ARE NOT TO BE LOCATED WITHIN DETECTABLE WARNING MAT, SIDEWALK RAMP, OR CURB.

Key Map

NO.	DATE:	DESCRIPTION
	10/27/2025	SUBMIT TO CITY OF APOPKA & SJRWMD
SUBMISSIONS/REVISIONS		

VERTICAL DATUM:	NAVD 88
JOB NO.:	21-027
DESIGNED BY:	KML
DRAWN BY:	EHW
CHECKED BY:	KML
APPROVED BY:	MDS
SCALE IN FEET:	1" = 100'

Project Name:

CROSSROADS AT KELLY PARK - PHASE 3B

Jurisdiction:

CITY of APOPKA, FL

Sheet Title:

MASTER UTILITY PLAN

Sheet No.:

C5.00

Seal:

MARC DANIEL STIELL
LICENSE
No. 73...
STATE OF FLORIDA

MARC DANIEL STIELL
P.E. No. 73...
DATE: October 29, 2025

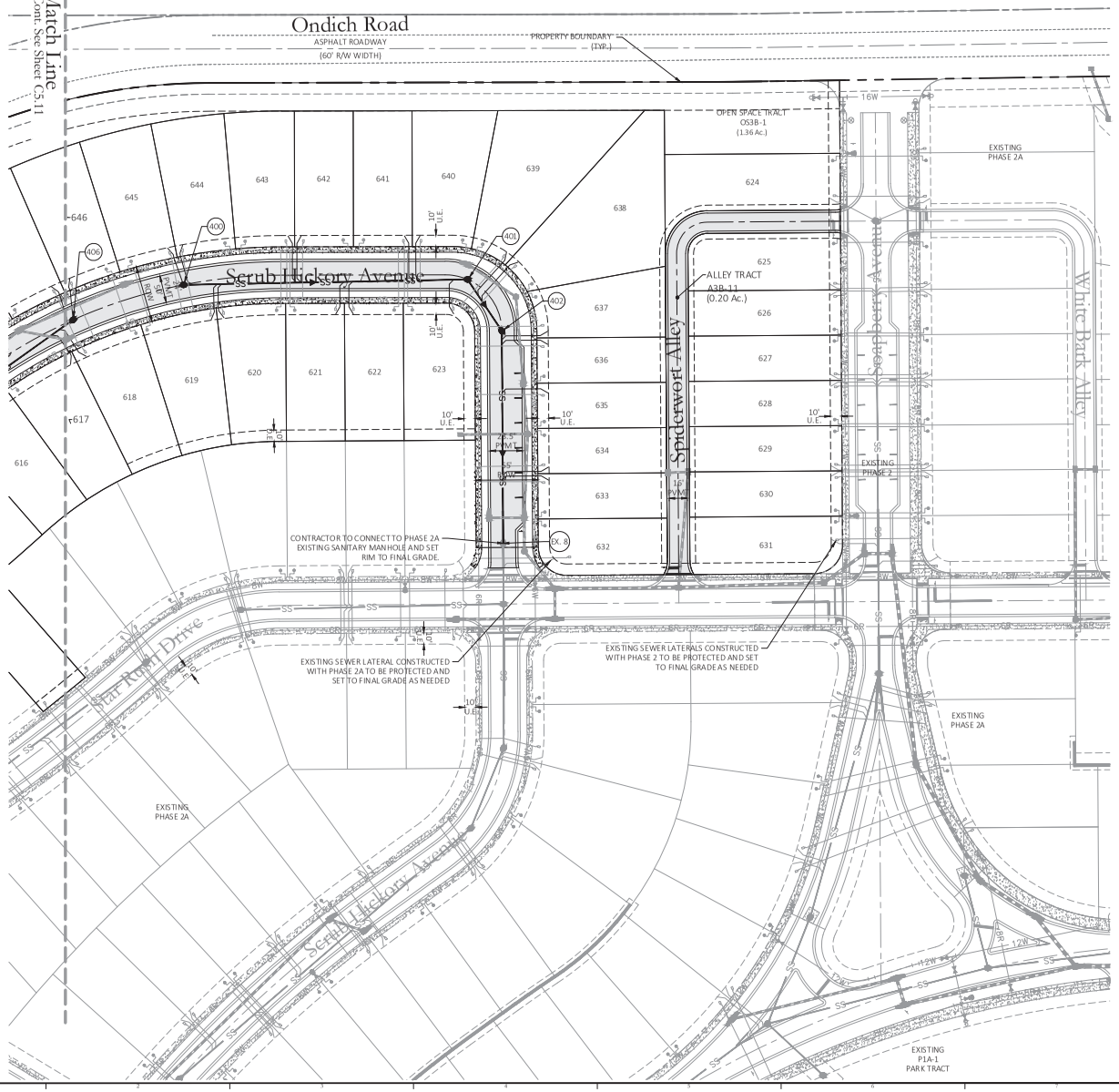
Digitally signed by Marc Daniel Stiell
DN: E=MStiell@poulosandbennett.com, CN=Marc Daniel Stiell, O=Poulos & Bennett, LLC, OU=A01410D0000019A8AFE033DC0027AEA4, C=US
Date: 2025.10.27 17:06:20 -04'00'

This item has been electronically signed and sealed using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

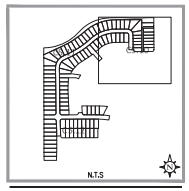
POULOS & BENNETT
a Pape-Dawson company

Poulos & Bennett, LLC
2602 E. Livingston St., Orlando, FL 32803
Tel. 407.487.2594 www.poulosandbennett.com
Eng. Bus. No. 28567

C:\PROJECTS\PAPE-DAWSON\KELLY PARK CROSSROADS PHASE 3B\PROJECT FILES\CAD\FINAL\CIT\PHASE 1-3B\21-027-PHASE 1-3B-CMAP



Key Map



Utility Legend

Existing	Utility Type	Proposed
WM	WATER MAIN (WM)	6W
RW	RECLAIM WATER MAIN (RW)	4R
SS	SANITARY SEWER (SS)	SS
	STORMWATER INLET	
	STORMWATER INLET	
	WATER SERVICE	
	RECLAIM WATER SERVICE	
	SANITARY SEWER LATERAL	
	GATE VALVE (G.V.)	
	TEE	
	BEND	
	REDUCER (RED.)	
	FIRE HYDRANT ASSEMBLY	
	ASSET I.D.	2022-1
	BT SAMPLE POINT	1

NOTES:

1. AT THE TIME OF PLATTING A 10' WIDE DRAINAGE & UTILITY EASEMENT WILL BE PROVIDED ADJACENT TO ALL RIGHT-OF-WAY.

2. MAINTAIN A MINIMUM OF 3 FEET OF COVER OVER ALL PROPOSED WATER, WASTEWATER, AND RECLAIMED WATER LINES.

3. UTILITY SYMBOLS ARE GRAPHICAL REPRESENTATIONS OF PROPOSED FACILITIES AND SHALL BE INSTALLED PER THE UTILITY PROVIDERS STANDARD DETAILS AND SPECIFICATIONS, LATEST EDITION.

4. ALL WATERMAIN, FORCEMAIN AND RECLAIM WATERMAIN TO BE PVC MATERIAL UNLESS OTHERWISE SPECIFIED ON THE PLAN.

5. ALL VALVES ARE TO BE LOCTED WITHIN CLOSE PROXIMITY OF TEE/CROSS WHENEVER POSSIBLE (WITHIN 24" PREFERRED). VALVES ARE NOT TO BE LOCATED WITHIN DETECTABLE WARNING MAT, SIDEWALK RAMP, OR CURB.

NO.	DATE:	DESCRIPTION
1	10/27/2025	SUBMIT TO CITY OF APOPKA & SJRWMD

SUBMISSIONS/REVISIONS

VERTICAL DATUM:	NAVD 88
JOB NO.:	21-027
DESIGNED BY:	KML
DRAWN BY:	EHW
CHECKED BY:	KML
APPROVED BY:	MDS
SCALE IN FEET:	1" = 50'

Project Name:

CROSSROADS AT KELLY PARK - PHASE 3B

Jurisdiction:

CITY of APOPKA, FL

Sheet Title:

WASTEWATER COLLECTION PLAN

Sheet No.:

C5.10

Seal:

MARC DANIEL STEELE
P.E. LICENSE NO.

DATE: October 29, 2025

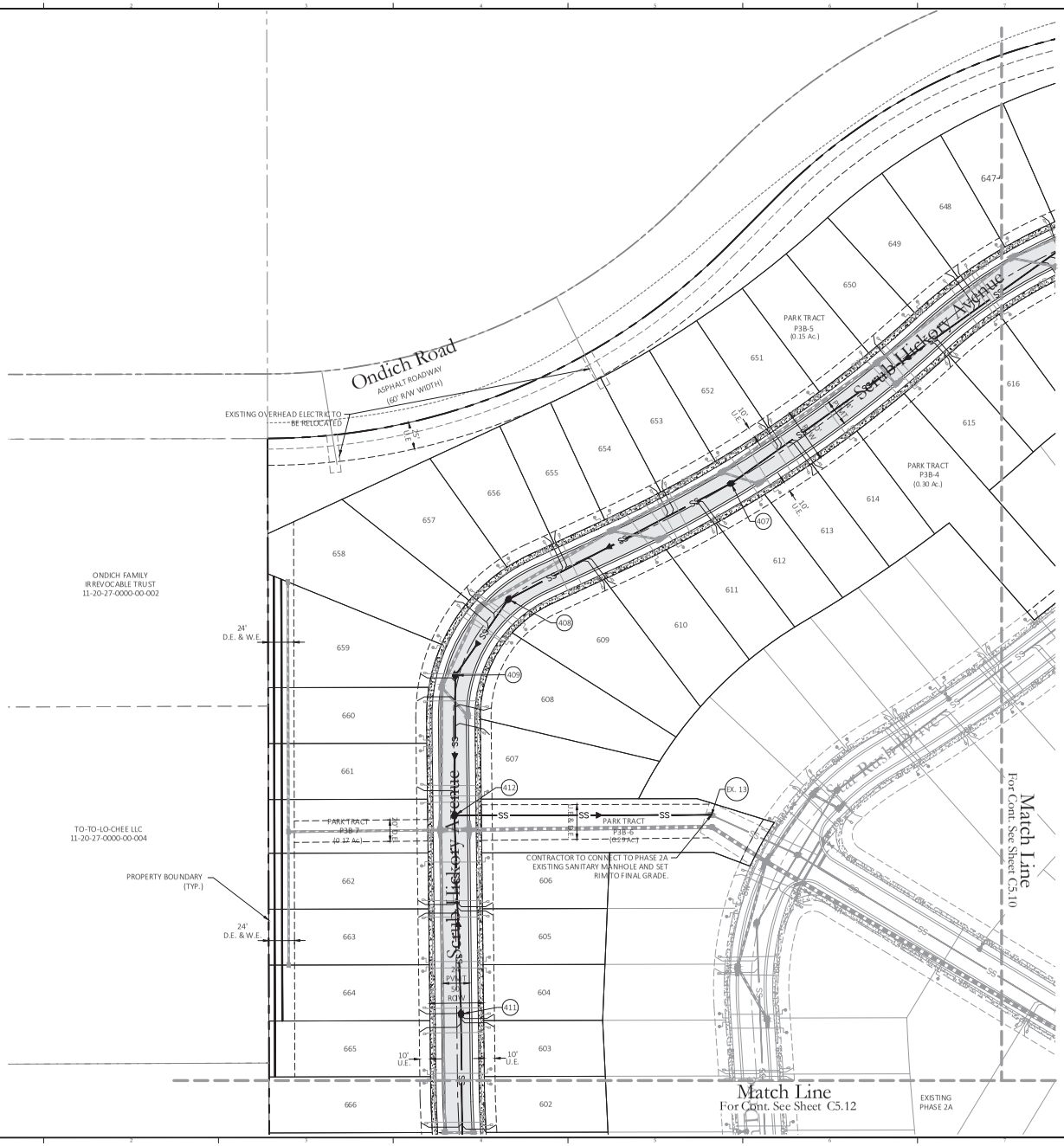
MDN: 10.1.4.1 cn=D_Steel, dnQualifier=A01...68AFE033DC00 27AEA4, O=Florida, C=US
Date: 2025.10.27 17:06:24 0400'

This item has been electronically signed and sealed using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

POULOS & BENNETT
a Pape-Dawson company

Poulos & Bennett, LLC
2602 E. Livingston St., Orlando, FL 32803
Tel. 407.487.2594 www.poulosandbennett.com
Eng. Bus. No. 28567

G:\PROJECTS\PAPE-DAWSON\KELLY PARK CROSSROADS PHASE 3B\PROJECT FILES\CAD\FINAL\CIT\PHASE 1-3B\21-027-PHASE 1-3B-WWCP



25' 0 50' 100'
SCALE IN FEET

Utility Legend

Existing	Utility Type	Proposed
WM	WATER MAIN (WM)	6W
RW	RECLAIM WATER MAIN (RW)	4R
SS	SANITARY SEWER (SS)	SS
	STORMWATER INLET	
	STORMWATER INLET	
	WATER SERVICE	
	RECLAIM WATER SERVICE	
	SANITARY SEWER LATERAL	
	GATE VALVE (G.V.)	
	TEE	
	BEND	
	REDUCER (RED.)	
	FIRE HYDRANT ASSEMBLY	
	ASSET I.D.	2022-1
	BT SAMPLE POINT	1

NOTES:

1. AT THE TIME OF PLATTING A 10' WIDE DRAINAGE & UTILITY EASEMENT WILL BE PROVIDED ADJACENT TO ALL RIGHT-OF-WAY.

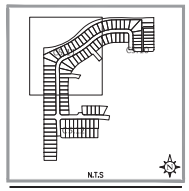
2. MAINTAIN A MINIMUM OF 3 FEET OF COVER OVER ALL PROPOSED WATER, WASTEWATER, AND RECLAIMED WATER LINES.

3. UTILITY SYMBOLS ARE GRAPHICAL REPRESENTATIONS OF PROPOSED FACILITIES AND SHALL BE INSTALLED PER THE UTILITY PROVIDERS STANDARD DETAILS AND SPECIFICATIONS, LATEST EDITION.

4. ALL WATERMAIN, FORCEMAIN AND RECLAIM WATERMAIN TO BE PVC MATERIAL UNLESS OTHERWISE SPECIFIED ON THE PLAN.

5. ALL VALVES ARE TO BE LOCTED WITHIN CLOSE PROXIMITY OF TEE/CROSS WHENEVER POSSIBLE (WITHIN 24" PREFERRED). VALVES ARE NOT TO BE LOCATED WITHIN DETECTABLE WARNING MAT, SIDEWALK RAMP, OR CURB.

Key Map



NO.	DATE:	DESCRIPTION:
1	10/27/2025	SUBMIT TO CITY OF APOPKA & SJRWMD

SUBMISSIONS/REVISIONS

VERTICAL DATUM:	NAVD 88
JOB NO.:	21-027
DESIGNED BY:	KML
DRAWN BY:	EHW
CHECKED BY:	KML
APPROVED BY:	MDS
SCALE IN FEET:	1" = 50'

Project Name:

CROSSROADS AT KELLY PARK - PHASE 3B

Jurisdiction:

CITY of APOPKA, FL

Sheet Title:

WASTEWATER COLLECTION PLAN

Sheet No.:

C5.11

Seal:

MARC DANIEL STEHLI
P.E. No. 56274
DATE: October 29, 2025

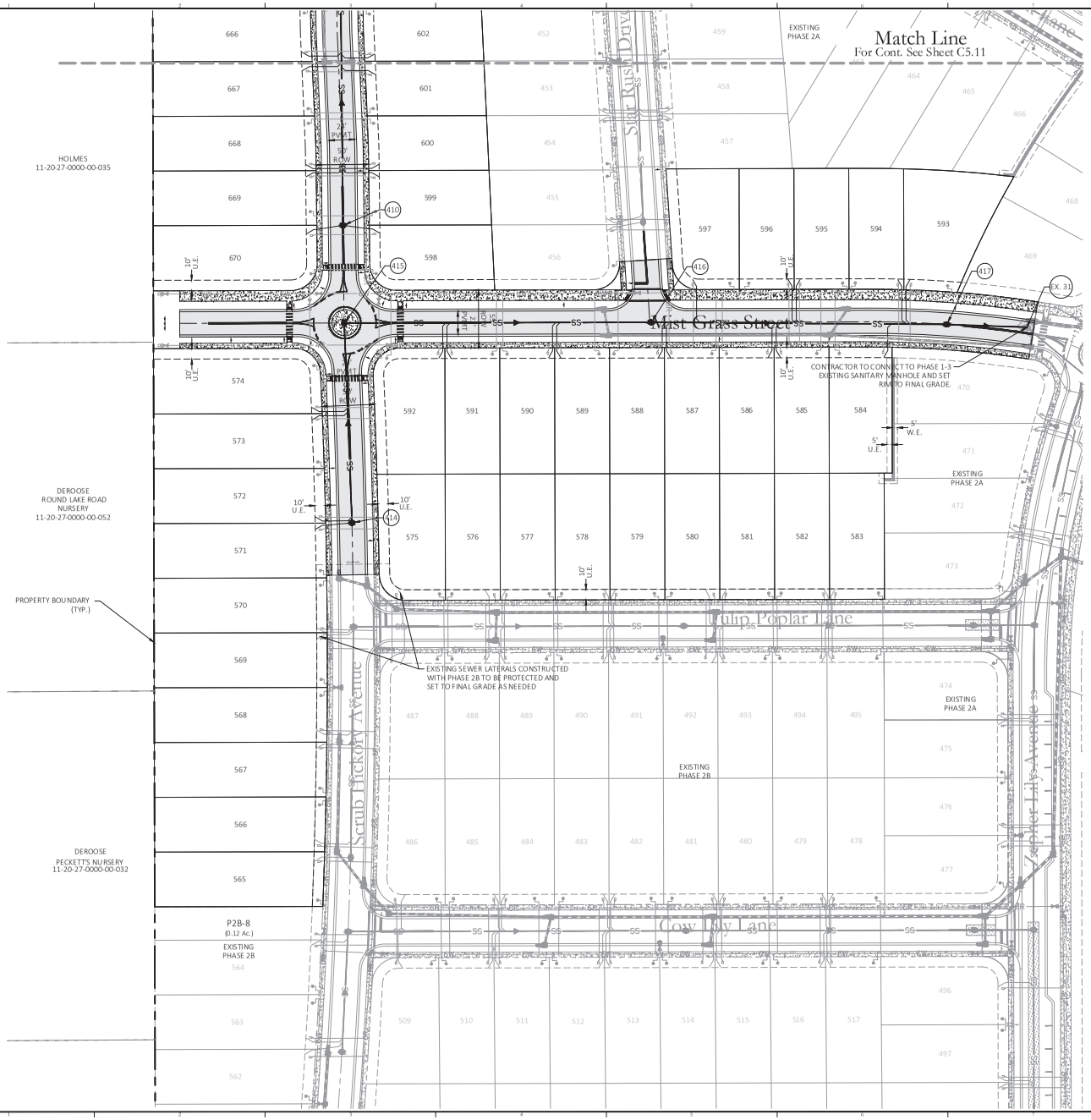
Digitally signed by Daniel Stehli
dnclsaifer=A01410D0000019...8AFE033DC00...27AEA4, O=Florida, C=US
Date: 2025.10.27 17:06:27 -04'00'

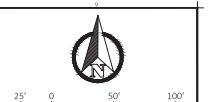
This item has been electronically signed and sealed using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

POULOS & BENNETT
a Pape-Dawson company

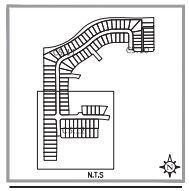
Poulos & Bennett, LLC
2602 E. Livingston St., Orlando, FL 32803
Tel. 407.487.2594 www.poulosandbennett.com
Eng. Bus. No. 28567

G:\PROJECTS\PAPE-DAWSON\KELLY PARK CROSSROADS PHASE 3B\PROJECT FILES\CAD\FINAL\CIT\PHASE 1-3B\21-027-PHASE 1-3B-WWCP





Key Map



Utility Legend

Existing	Utility Type	Proposed
WM	WATER MAIN (WM)	6W
RW	RECLAIM WATER MAIN (RW)	4R
SS	SANITARY SEWER (SS)	SS
	STORMWATER INLET	
	STORMWATER INLET	
	WATER SERVICE	
	RECLAIM WATER SERVICE	
	SANITARY SEWER LATERAL	
	GATE VALVE (G.V.)	
	TEE	
	BEND	
	REDUCER (RED.)	
	FIRE HYDRANT ASSEMBLY	
	ASSET I.D.	2025-1
	BT SAMPLE POINT	1

NOTES:

1. AT THE TIME OF PLATTING A 10' WIDE DRAINAGE & UTILITY EASEMENT WILL BE PROVIDED ADJACENT TO ALL RIGHT-OF-WAY.
2. MAINTAIN A MINIMUM OF 3 FEET OF COVER OVER ALL PROPOSED WATER, WASTEWATER, AND RECLAIMED WATER LINES.
3. UTILITY SYMBOLS ARE GRAPHICAL REPRESENTATIONS OF PROPOSED FACILITIES AND SHALL BE INSTALLED PER THE UTILITY PROVIDERS STANDARD DETAILS AND SPECIFICATIONS, LATEST EDITION.
4. ALL WATERMAIN, FORCEMAIN AND RECLAIM WATERMAIN TO BE PVC MATERIAL UNLESS OTHERWISE SPECIFIED ON THE PLAN.
5. ALL VALVES ARE TO BE LOCATED WITHIN CLOSE PROXIMITY OF TEE/CROSS WHENEVER POSSIBLE (WITHIN 24" PREFERRED). VALVES ARE NOT TO BE LOCATED WITHIN DETECTABLE WARNING MAT, SIDEWALK RAMP, OR CURB.

NO.	DATE:	DESCRIPTION:
1	10/27/2025	SUBMIT TO CITY OF APOPKA & SJRWMD

SUBMISSIONS/REVISIONS

VERTICAL DATUM:	NAVD 88
JOB NO.:	21-027
DESIGNED BY:	KML
DRAWN BY:	EHW
CHECKED BY:	KML
APPROVED BY:	MDS
SCALE IN FEET:	1" = 50'

Project Name:

CROSSROADS AT KELLY PARK - PHASE 3B

Jurisdiction:

CITY of APOPKA, FL

Sheet Title:

WASTEWATER COLLECTION PLAN

Sheet No.:

C5.12

Seal:

MARC DANIEL STEELE LICENSE NO. 68276 STATE OF FLORIDA

MARC DANIEL STEELE
FLORIDA LICENSE NO. 68276

DATE: October 29, 2025

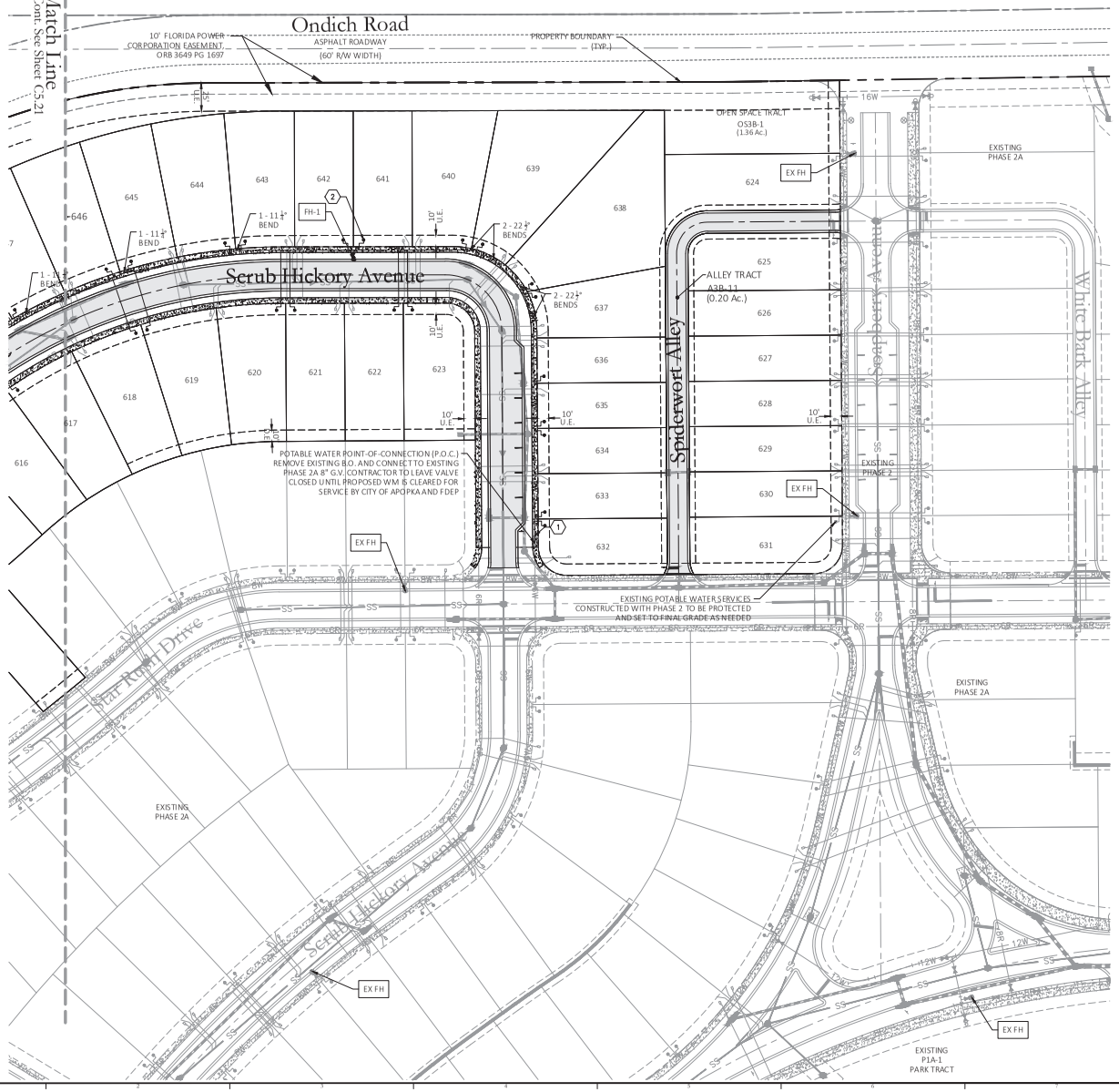
Digitally signed by Daniel Steele
DN: cn=Daniel Steele, o=Poulos & Bennett, ou=A01410D0000019A8AFE033DC00027AEA4, c=US
Date: 2025.10.27 17:06:31 -04'00'

This item has been electronically signed and sealed using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

POULOS & BENNETT
a Pape-Dawson company

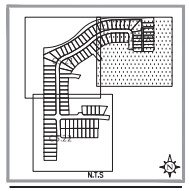
Poulos & Bennett, LLC
2602 E. Livingston St., Orlando, FL 32803
Tel. 407.487.2594 www.poulosandbennett.com
Eng. Bus. No. 28567

J:\PROJECTS\PAPE-DAWSON\KELLY PARK CROSSROADS PHASE 3B\PROJECT FILES\CAD\FINAL\CIT\PHASE 1-3\21-027-PHASE 1-3B-WWCP



25' 0 50' 100'
SCALE IN FEET

Key Map



Utility Legend

Existing	Utility Type	Proposed
WM	WATER MAIN (WM)	6W
RW	RECLAIM WATER MAIN (RW)	4R
SS	SANITARY SEWER (SS)	SS
	STORMWATER INLET	
	STORMWATER INLET	
	WATER SERVICE	
	RECLAIM WATER SERVICE	
	SANITARY SEWER LATERAL	
	GATE VALVE (G.V.)	
	TEE	
	BEND	
	REDUCER (RED.)	
	FIRE HYDRANT ASSEMBLY	
	ASSET I.D.	22222-1
	BT SAMPLE POINT	1

NOTES:

1. AT THE TIME OF PLATTING A 10' WIDE DRAINAGE & UTILITY EASEMENT WILL BE PROVIDED ADJACENT TO ALL RIGHT-OF-WAY.
2. MAINTAIN A MINIMUM OF 3 FEET OF COVER OVER ALL PROPOSED WATER, WASTEWATER, AND RECLAIMED WATER LINES.
3. UTILITY SYMBOLS ARE GRAPHICAL REPRESENTATIONS OF PROPOSED FACILITIES AND SHALL BE INSTALLED PER THE UTILITY PROVIDERS STANDARD DETAILS AND SPECIFICATIONS, LATEST EDITION.
4. ALL WATERMAIN, FORCEMAIN AND RECLAIM WATERMAIN TO BE PVC MATERIAL UNLESS OTHERWISE SPECIFIED ON THE PLAN.
5. ALL VALVES ARE TO BE LOCATED WITHIN CLOSE PROXIMITY OF TEE/CROSS WHENEVER POSSIBLE (WITHIN 24" PREFERRED). VALVES ARE NOT TO BE LOCATED WITHIN DETECTABLE WARNING MAT, SIDEWALK RAMP, OR CURB.

NO.	DATE:	DESCRIPTION
1	10/27/2025	SUBMIT TO CITY OF APOPKA & SJRWMD

SUBMISSIONS/REVISIONS

VERTICAL DATUM:	NAVD 88
JOB NO.:	21-027
DESIGNED BY:	KML
DRAWN BY:	EHW
CHECKED BY:	KML
APPROVED BY:	MDS
SCALE IN FEET:	1" = 50'

Project Name:

CROSSROADS AT KELLY PARK - PHASE 3B

Jurisdiction:

CITY of APOPKA, FL

Sheet Title:

WATER DISTRIBUTION PLAN

Sheet No.:

C5.20

Seal:

MARC DANIEL STEELE
P.E. LICENSE NO.

DATE: October 29, 2025

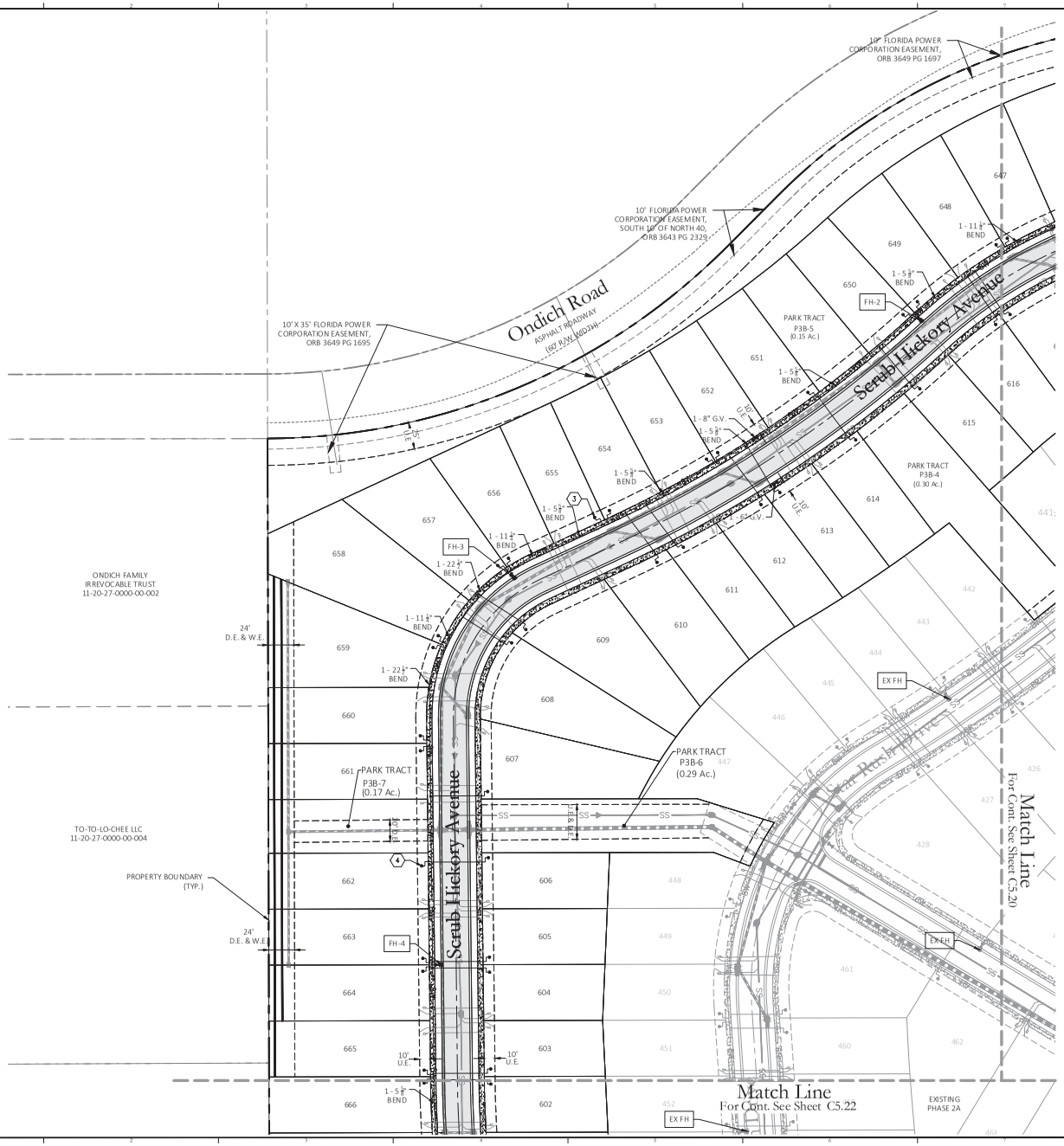
M=DN: 1.2.840.113549.1.9.1=marc.steele@pandb.com, dnQualifier=A01.410.AA0C7188AFE033DC00027AEA4, O=Florida, C=US
Date: 2025.10.27 17:06:35 0400'

This item has been electronically signed and sealed using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

POULOS & BENNETT
a Pape-Dawson company

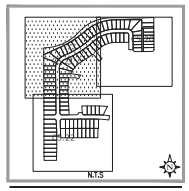
Poulos & Bennett, LLC
2602 E. Livingston St., Orlando, FL 32803
Tel. 407.487.2594 www.poulosandbennett.com
Eng. Bus. No. 28567

C:\PROJECTS\PAPE-DAWSON\KELLY PARK CROSSROADS PHASE 3B\PROJECT FILES\CAD\FINAL\CIT\PHASE 1-3B\21-027-PHASE 1-3B-WDP



25' 0 50' 100'
SCALE IN FEET

Key Map



Utility Legend

Existing	Utility Type	Proposed
WM	WATER MAIN (WM)	6W
RW	RECLAIM WATER MAIN (RW)	4R
SS	SANITARY SEWER (SS)	SS
	STORMWATER INLET	
	STORMWATER INLET	
	WATER SERVICE	
	RECLAIM WATER SERVICE	
	SANITARY SEWER LATERAL	
	GATE VALVE (G.V.)	
	TEE	
	BEND	
	REDUCER (RED.)	
	FIRE HYDRANT ASSEMBLY	
	ASSET I.D.	20221
	BT SAMPLE POINT	1

NOTES:

1. AT THE TIME OF PLATTING A 10' WIDE DRAINAGE & UTILITY EASEMENT WILL BE PROVIDED ADJACENT TO ALL RIGHT-OF-WAY.
2. MAINTAIN A MINIMUM OF 3 FEET OF COVER OVER ALL PROPOSED WATER, WASTEWATER, AND RECLAIMED WATER LINES.
3. UTILITY SYMBOLS ARE GRAPHICAL REPRESENTATIONS OF PROPOSED FACILITIES AND SHALL BE INSTALLED PER THE UTILITY PROVIDERS STANDARD DETAILS AND SPECIFICATIONS, LATEST EDITION.
4. ALL WATERMAIN, FORCEMAIN AND RECLAIM WATERMAIN TO BE PVC MATERIAL UNLESS OTHERWISE SPECIFIED ON THE PLAN.
5. ALL VALVES ARE TO BE LOCATED WITHIN CLOSE PROXIMITY OF TEE/CROSS WHENEVER POSSIBLE (WITHIN 24' PREFERRED). VALVES ARE NOT TO BE LOCATED WITHIN DETECTABLE WARNING MAT, SIDEWALK RAMP, OR CURB.

NO.	DATE:	DESCRIPTION
1	10/27/2025	SUBMIT TO CITY OF APOPKA & SJRWMD

SUBMISSIONS/REVISIONS

VERTICAL DATUM:	NAVD 88
JOB NO.:	21-027
DESIGNED BY:	KML
DRAWN BY:	EHW
CHECKED BY:	KML
APPROVED BY:	MDS
SCALE IN FEET:	1" = 50'

Project Name:

CROSSROADS AT KELLY PARK - PHASE 3B

Jurisdiction:

CITY of APOPKA, FL

Sheet Title:

WATER DISTRIBUTION PLAN

Sheet No.:

C5.21

Seal:

MARC DANIEL STEELE
P.E. No. 93274
DATE: October 29, 2025

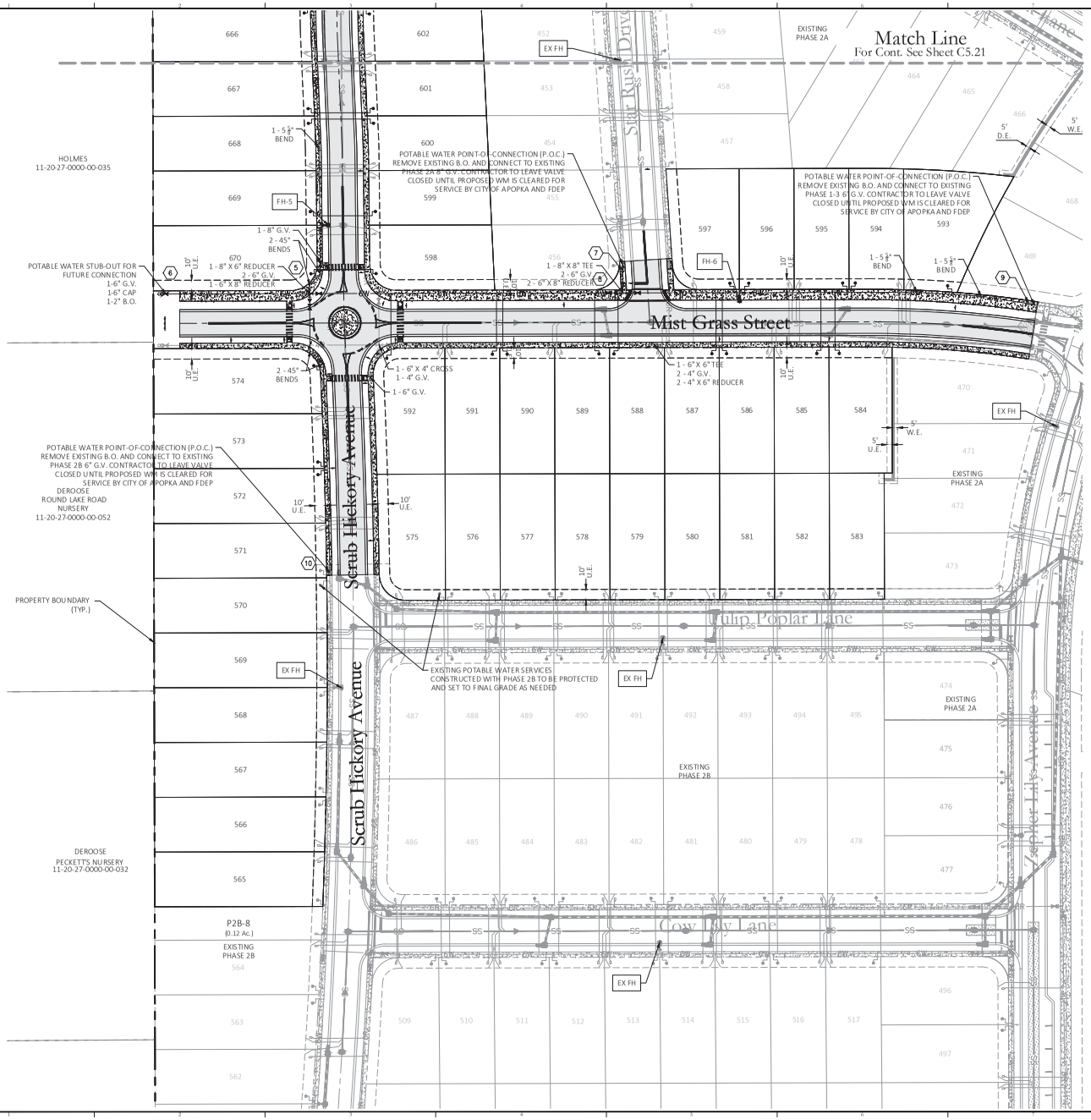
M.D.N. 10:41:47 -04'00'
dnclusa=e=A0,cn=MARC DANIEL STEELE,o=POULOS & BENNETT,ou=Engineering,email=msteele@poulosbennett.com,c=US
27AEA4,O=Florida,C=US
Date: 2025.10.27 17:06:40 -04'00'

This item has been electronically signed and sealed using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

POULOS & BENNETT
a Pape-Dawson company

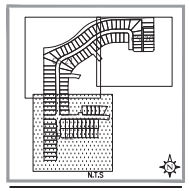
Poulos & Bennett, LLC
2602 E. Livingston St., Orlando, FL 32803
Tel. 407.487.2594 www.poulosandbennett.com
Eng. Bus. No. 28567

G:\PAPE-DAWSON\KELLY PARK CROSSROADS PHASE 3B\PROJECT FILES\CAD\FINAL\CIT\PHASE 1-3B\21-027-PHASE 1-3B-WDP



25' 0 50' 100'
SCALE IN FEET

Key Map



Utility Legend

Existing	Utility Type	Proposed
WM	WATER MAIN (WM)	6W
RW	RECLAIM WATER MAIN (RW)	4R
SS	SANITARY SEWER (SS)	SS
	STORMWATER INLET	
	STORMWATER INLET	
	WATER SERVICE	
	RECLAIM WATER SERVICE	
	SANITARY SEWER LATERAL	
	GATE VALVE (G.V.)	
	TEE	
	BEND	
	REDUCER (RED.)	
	FIRE HYDRANT ASSEMBLY	
	ASSET I.D.	22222-1
	BT SAMPLE POINT	1

NOTES:

1. AT THE TIME OF PLATTING A 10' WIDE DRAINAGE & UTILITY EASEMENT WILL BE PROVIDED ADJACENT TO ALL RIGHT-OF-WAY.
2. MAINTAIN A MINIMUM OF 3 FEET OF COVER OVER ALL PROPOSED WATER, WASTEWATER, AND RECLAIMED WATER LINES.
3. UTILITY SYMBOLS ARE GRAPHICAL REPRESENTATIONS OF PROPOSED FACILITIES AND SHALL BE INSTALLED PER THE UTILITY PROVIDERS STANDARD DETAILS AND SPECIFICATIONS, LATEST EDITION.
4. ALL WATERMAIN, FORCEMAIN AND RECLAIM WATERMAIN TO BE PVC MATERIAL UNLESS OTHERWISE SPECIFIED ON THE PLAN.
5. ALL VALVES ARE TO BE LOCATED WITHIN CLOSE PROXIMITY OF TEE/CROSS WHENEVER POSSIBLE (WITHIN 24" PREFERRED). VALVES ARE NOT TO BE LOCATED WITHIN DETECTABLE WARNING MAT, SIDEWALK RAMP, OR CURB.

NO.	DATE:	DESCRIPTION:
1	10/27/2025	SUBMIT TO CITY OF APOPKA & SJRWMD

SUBMISSIONS/REVISIONS

VERTICAL DATUM:	NAVD 88
JOB NO.:	21-027
DESIGNED BY:	KML
DRAWN BY:	EHW
CHECKED BY:	KML
APPROVED BY:	MDS
SCALE IN FEET:	1" = 50'

Project Name:

CROSSROADS AT KELLY PARK - PHASE 3B

Jurisdiction:

CITY of APOPKA, FL

Sheet Title:

WATER DISTRIBUTION PLAN

Sheet No.:

C5.22

Seal:

MARC DANIEL STEELE
LICENSE
No. 68278
STATE OF FLORIDA
PROFESSIONAL ENGINEER

MARC DANIEL STEELE
FLA. LIC. NO. 68278

DATE: October 29, 2025

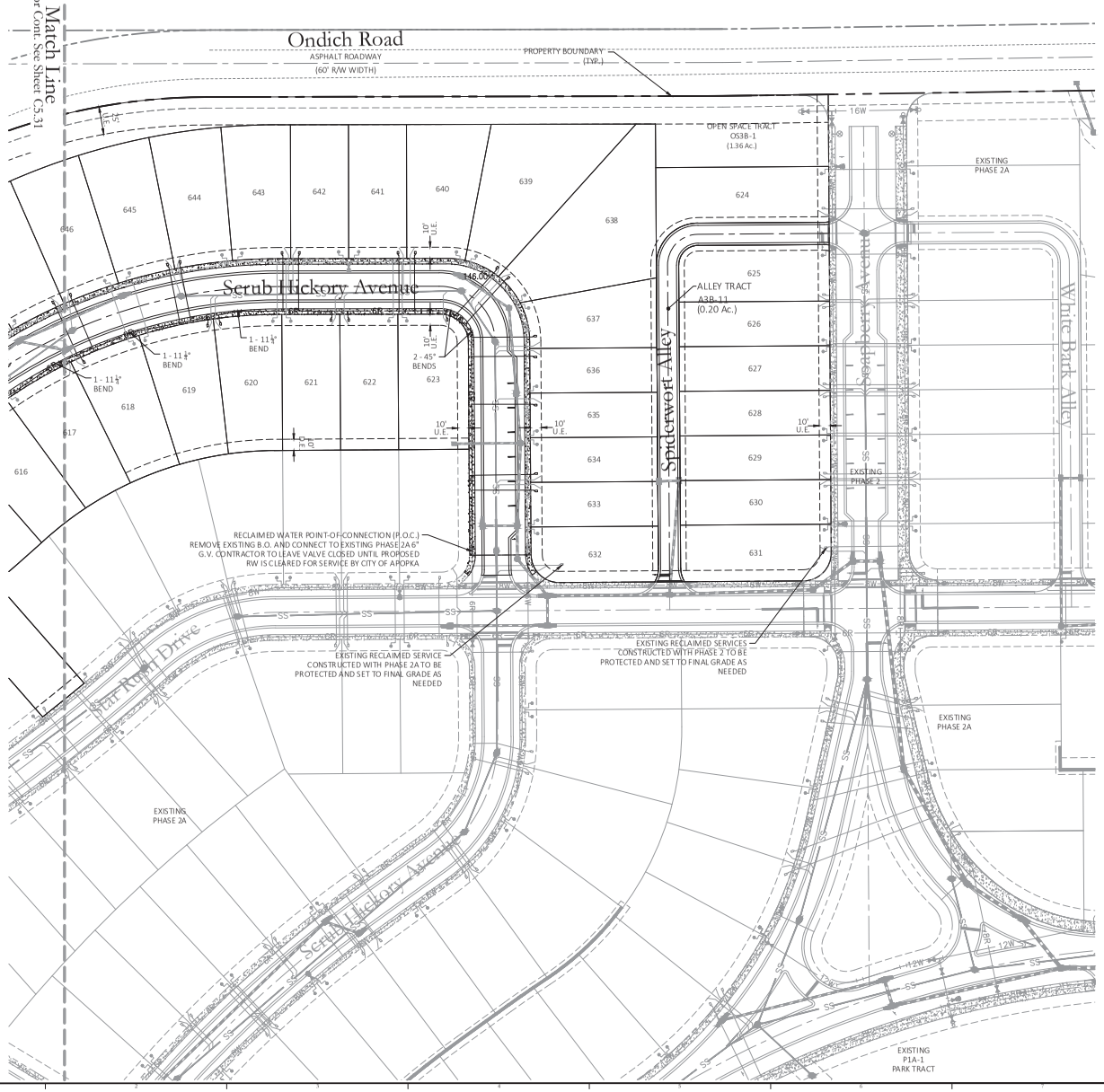
Digitally signed by Marc Daniel Steele
DN: cn=Marc Daniel Steele, o=Poulos & Bennett, LLC, ou=A01410D0000019A8AFE033DC00027AEA4, c=US
Date: 2025.10.27 17:06:44 -04'00'

This item has been electronically signed and sealed using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

POULOS & BENNETT
a Pape-Dawson company

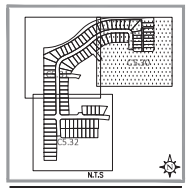
Poulos & Bennett, LLC
2602 E. Livingston St., Orlando, FL 32803
Tel. 407.487.2594 www.poulosandbennett.com
Eng. Bus. No. 28567

C:\USERS\MSTEELE\DESKTOP\PAPE-DAWSON\CROSSROADS PHASE 3B\PROJECT FILES\DANY\FINAL\CITY\PHASE 1-3&2B-21-027-PHASE



25' 0 50' 100'
SCALE IN FEET

Key Map



Utility Legend		
Existing	Utility Type	Proposed
WM	WATER MAIN (WM)	6W
RW	RECLAIM WATER MAIN (RW)	4R
SS	SANITARY SEWER (SS)	SS
	STORMWATER INLET	
	STORMWATER INLET	
	WATER SERVICE	
	RECLAIM WATER SERVICE	
	SANITARY SEWER LATERAL	
	GATE VALVE (G.V.)	
	TEE	
	BEND	
	REDUCER (RED.)	
	FIRE HYDRANT ASSEMBLY	
	ASSET I.D.	2025-21
	BT SAMPLE POINT	1

NOTES:

1. AT THE TIME OF PLATTING A 10' WIDE DRAINAGE & UTILITY EASEMENT WILL BE PROVIDED ADJACENT TO ALL RIGHT-OF-WAY.

2. MAINTAIN A MINIMUM OF 3 FEET OF COVER OVER ALL PROPOSED WATER, WASTEWATER, AND RECLAIMED WATER LINES.

3. UTILITY SYMBOLS ARE GRAPHICAL REPRESENTATIONS OF PROPOSED FACILITIES AND SHALL BE INSTALLED PER THE UTILITY PROVIDERS STANDARD DETAILS AND SPECIFICATIONS, LATEST EDITION.

4. ALL WATERMAIN, FORCEMAIN AND RECLAIM WATERMAIN TO BE PVC MATERIAL UNLESS OTHERWISE SPECIFIED ON THE PLAN.

5. ALL VALVES ARE TO BE LOCATED WITHIN CLOSE PROXIMITY OF TEE/CROSS WHENEVER POSSIBLE (WITHIN 24" PREFERRED). VALVES ARE NOT TO BE LOCATED WITHIN DETECTABLE WARNING MAT, SIDEWALK RAMP, OR CURB.

NO.	DATE:	DESCRIPTION:
1	10/27/2025	SUBMIT TO CITY OF APOPKA & SJRWMD

SUBMISSIONS/REVISIONS

VERTICAL DATUM:	NAVD 88
JOB NO.:	21-027
DESIGNED BY:	KML
DRAWN BY:	EHW
CHECKED BY:	KML
APPROVED BY:	MDS
SCALE IN FEET:	1" = 50'

Project Name:

CROSSROADS AT KELLY PARK - PHASE 3B

Jurisdiction:

CITY of APOPKA, FL

Sheet Title:

RECLAIMED WATER DISTRIBUTION PLAN

Sheet No.:

C5.30

Seal:

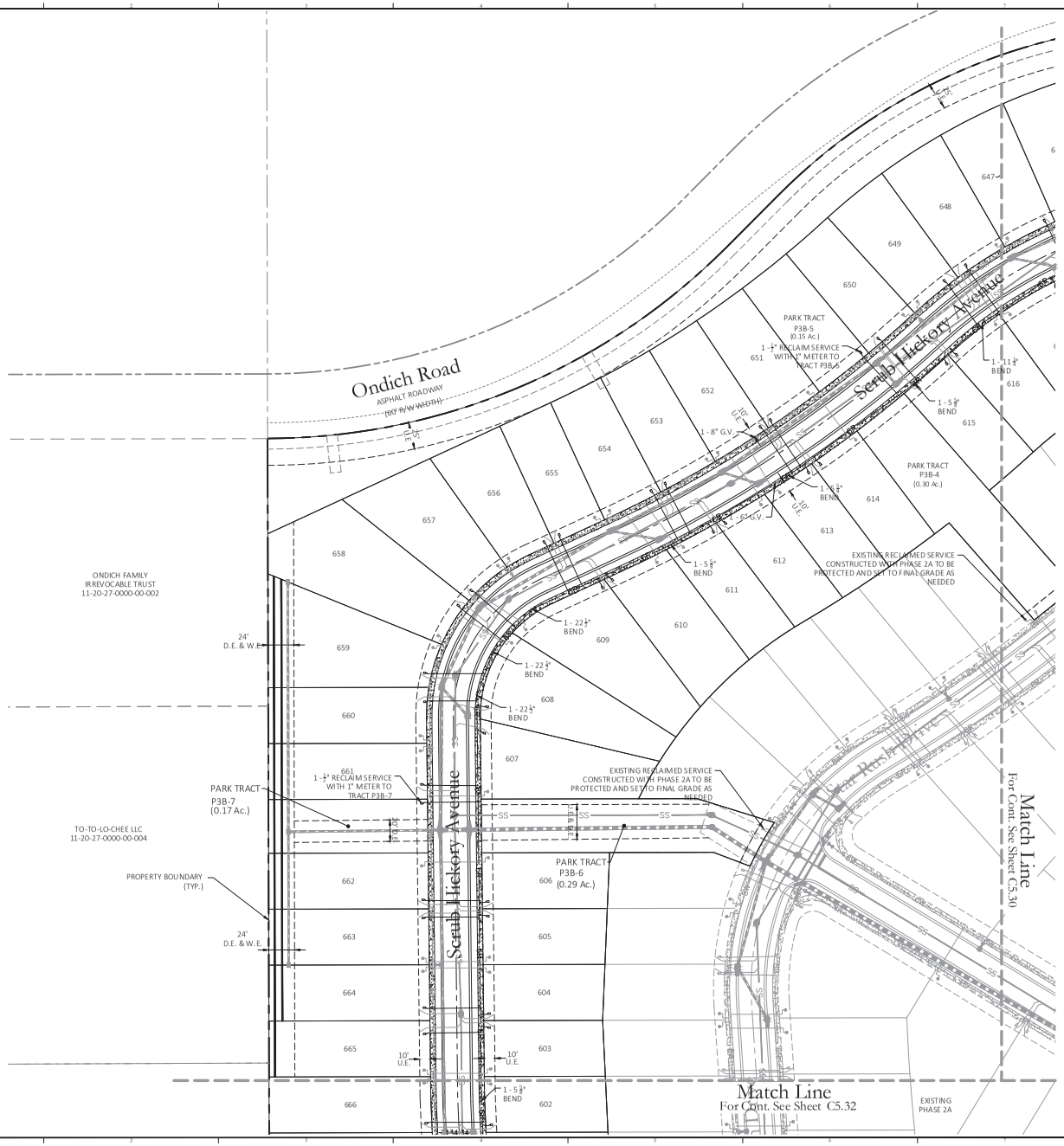
MARC DANIEL STEELE
P.E. LICENSE NO. 92274
DATE: October 29, 2025

This item has been electronically signed and sealed using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

POULOS & BENNETT
a Pape-Dawson company

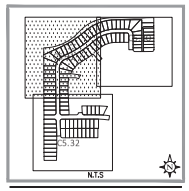
Poulos & Bennett, LLC
2602 E. Livingston St., Orlando, FL 32803
Tel. 407.487.2594 www.poulosandbennett.com
Eng. Bus. No. 28567

M:\DWG\PAPE-DAWSON\KELLY PARK CROSSROADS PHASE 3B\PROJECT FILES\CAD\FINAL\CIT\PHASE 1-3B-RECLAIM.DWG



25' 0 50' 100'
SCALE IN FEET

Key Map



Utility Legend

Existing	Utility Type	Proposed
WM	WATER MAIN (WM)	6W
RW	RECLAIM WATER MAIN (RW)	4R
SS	SANITARY SEWER (SS)	SS
	STORMWATER INLET	
	STORMWATER INLET	
	WATER SERVICE	
	RECLAIM WATER SERVICE	
	SANITARY SEWER LATERAL	
	GATE VALVE (G.V.)	
	TEE	
	BEND	
	REDUCER (RED.)	
	FIRE HYDRANT ASSEMBLY	
	ASSET I.D.	0027-1
	BT SAMPLE POINT	1

NOTES:

1. AT THE TIME OF PLATTING A 10' WIDE DRAINAGE & UTILITY EASEMENT WILL BE PROVIDED ADJACENT TO ALL RIGHT-OF-WAY.
2. MAINTAIN A MINIMUM OF 3 FEET OF COVER OVER ALL PROPOSED WATER, WASTEWATER, AND RECLAIMED WATER LINES.
3. UTILITY SYMBOLS ARE GRAPHICAL REPRESENTATIONS OF PROPOSED FACILITIES AND SHALL BE INSTALLED PER THE UTILITY PROVIDERS STANDARD DETAILS AND SPECIFICATIONS, LATEST EDITION.
4. ALL WATERMAIN, FORCEMAIN AND RECLAIM WATERMAIN TO BE PVC MATERIAL UNLESS OTHERWISE SPECIFIED ON THE PLAN.
5. ALL VALVES ARE TO BE LOCATED WITHIN CLOSE PROXIMITY OF TEE/CROSS WHENEVER POSSIBLE (WITHIN 24" PREFERRED). VALVES ARE NOT TO BE LOCATED WITHIN DETECTABLE WARNING MAT, SIDEWALK RAMP, OR CURB.

NO.	DATE:	DESCRIPTION:
1	10/27/2025	SUBMIT TO CITY OF APOPKA & SJRWMD

SUBMISSIONS/REVISIONS

VERTICAL DATUM:	NAVD 88
JOB NO.:	21-027
DESIGNED BY:	KML
DRAWN BY:	EHW
CHECKED BY:	KML
APPROVED BY:	MDS
SCALE IN FEET:	1" = 50'

Project Name:

CROSSROADS AT KELLY PARK - PHASE 3B

Jurisdiction:

CITY of APOPKA, FL

Sheet Title:

RECLAIMED WATER DISTRIBUTION PLAN

Sheet No.:

C5.31

Seal:

MARC DANIEL STEELE LICENSE NO. 68276 STATE OF FLORIDA

MARC DANIEL STEELE
FLORIDA LICENSE NO. 68276

DATE: October 29, 2025

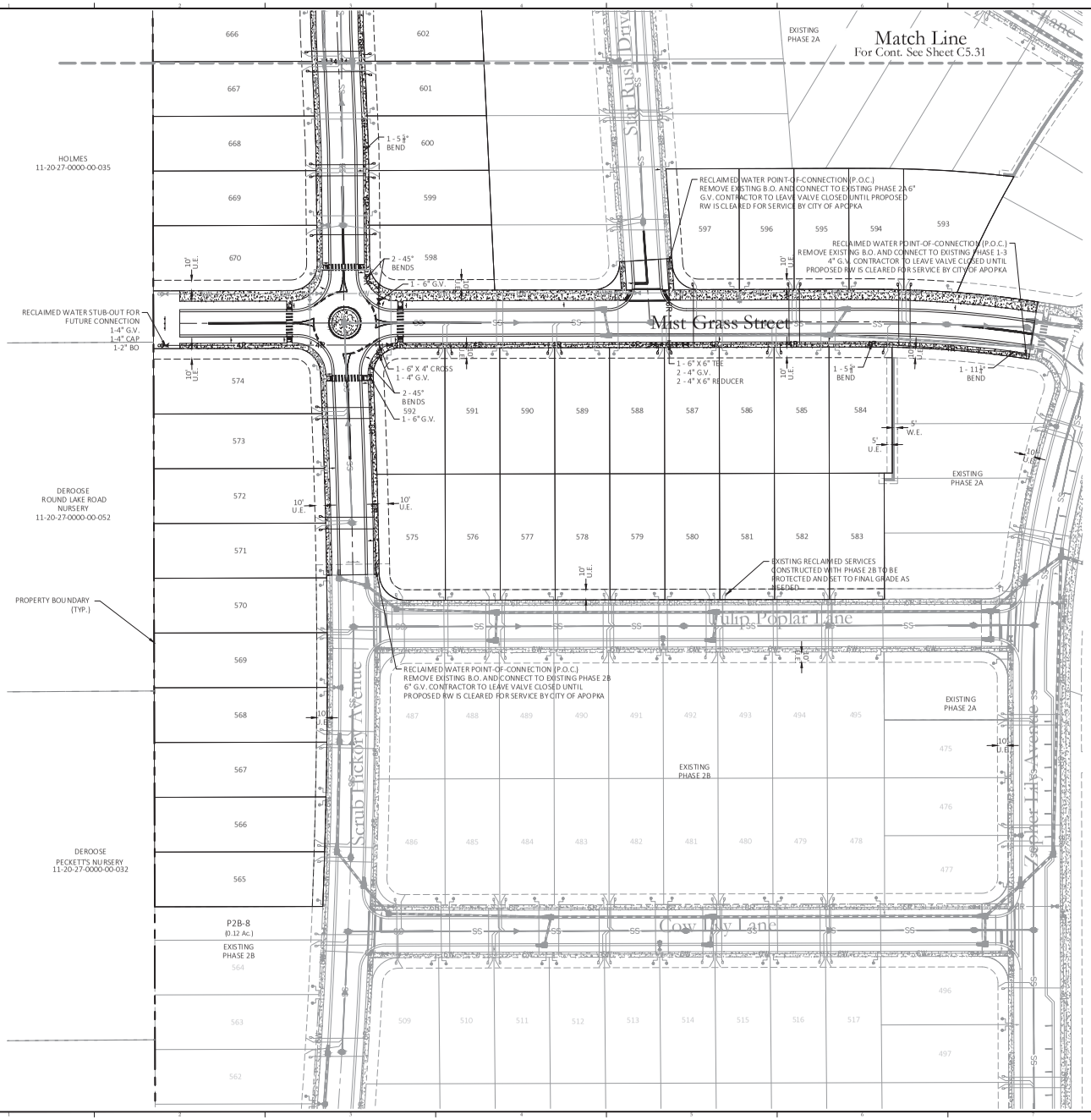
MDN: 10=Marc Daniel Steele, dnQualifier=A01410D000001968AFE033DC00027AEA4, O=Florida, C=US
Date: 2025.10.27 17:06:52 -04'00'

This item has been electronically signed and sealed using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

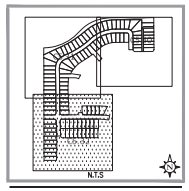
POULOS & BENNETT
a Pape-Dawson company

Poulos & Bennett, LLC
2602 E. Livingston St., Orlando, FL 32803
Tel. 407.487.2594 www.poulosandbennett.com
Eng. Bus. No. 28567

K:\ORL_PROJECTS\PAPE-DAWSON\KELLY PARK CROSSROADS PHASE 3B\PROJECT FILES\ADV\FINAL\CIT\PHASE 1-2&3\21-027-PHASE 1-3B-RWDP



Key Map



Utility Legend

Existing	Utility Type	Proposed
WM	WATER MAIN (WM)	6W
RW	RECLAIM WATER MAIN (RW)	4R
SS	SANITARY SEWER (SS)	SS
	STORMWATER INLET	
	STORMWATER INLET	
	WATER SERVICE	
	RECLAIM WATER SERVICE	
	SANITARY SEWER LATERAL	
	GATE VALVE (G.V.)	
	TEE	
	BEND	
	REDUCER (RED.)	
	FIRE HYDRANT ASSEMBLY	
	ASSET I.D.	2022-1
	BT SAMPLE POINT	1

NOTES:

1. AT THE TIME OF PLATTING A 10' WIDE DRAINAGE & UTILITY EASEMENT WILL BE PROVIDED ADJACENT TO ALL RIGHT-OF-WAY.
2. MAINTAIN A MINIMUM OF 3 FEET OF COVER OVER ALL PROPOSED WATER, WASTEWATER, AND RECLAIMED WATER LINES.
3. UTILITY SYMBOLS ARE GRAPHICAL REPRESENTATIONS OF PROPOSED FACILITIES AND SHALL BE INSTALLED PER THE UTILITY PROVIDERS STANDARD DETAILS AND SPECIFICATIONS, LATEST EDITION.
4. ALL WATERMAIN, FORCEMAIN AND RECLAIM WATERMAIN TO BE PVC MATERIAL UNLESS OTHERWISE SPECIFIED ON THE PLAN.
5. ALL VALVES ARE TO BE LOCATED WITHIN CLOSE PROXIMITY OF TEE/CROSS WHENEVER POSSIBLE (WITHIN 24" PREFERRED). VALVES ARE NOT TO BE LOCATED WITHIN DETECTABLE WARNING MAT, SIDEWALK RAMP, OR CURB.

NO.	DATE:	DESCRIPTION
1	10/27/2025	SUBMIT TO CITY OF APOPKA & SJRWMD

SUBMISSIONS/REVISIONS

VERTICAL DATUM:	NAVD 88
JOB NO.:	21-027
DESIGNED BY:	KML
DRAWN BY:	EHW
CHECKED BY:	KML
APPROVED BY:	MDS
SCALE IN FEET:	1" = 50'

Project Name:

CROSSROADS AT KELLY PARK - PHASE 3B

Jurisdiction:

CITY of APOPKA, FL

Sheet Title:

RECLAIMED WATER DISTRIBUTION PLAN

Sheet No.:

C5.32

Seal:

MARC DANIEL STIELI
LICENSE
No. 82574
STATE OF FLORIDA
PROFESSIONAL ENGINEER

MARC DANIEL STIELI
FLORIDA LICENSE NO. 82574

DATE: October 29, 2025

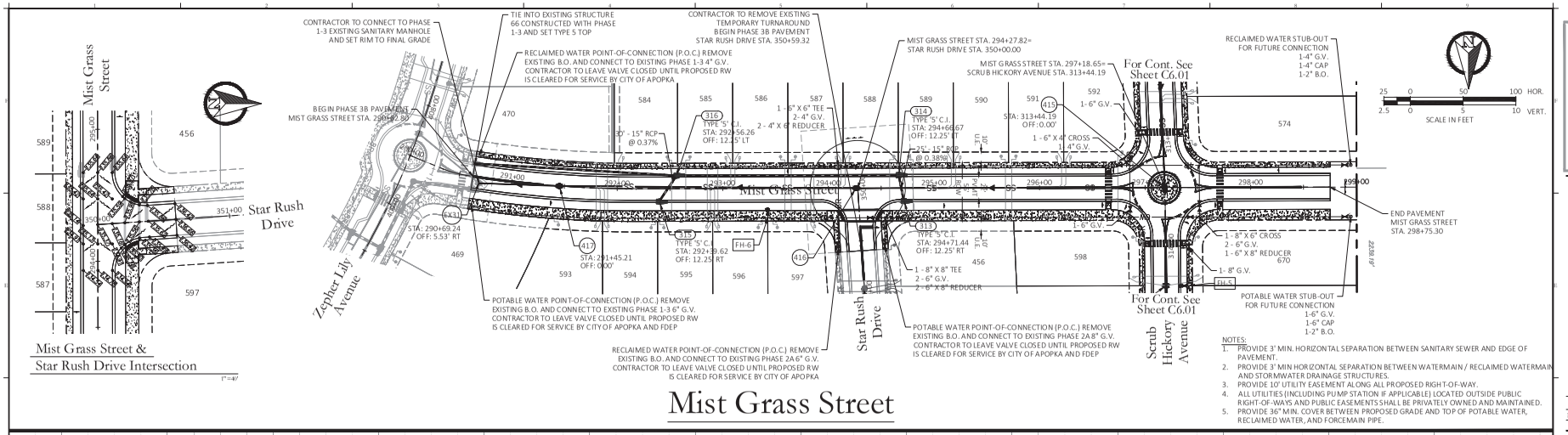
Digitally signed by Marc Daniel Stieli
DN: cn=Marc Daniel Stieli, o=Poulos & Bennett, LLC, ou=A01410D0000019A8AFE033DC0027AEA4, c=US
Date: 2025.10.27 17:06:56 -04'00'

This item has been electronically signed and sealed using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

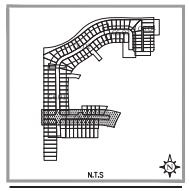
POULOS & BENNETT
a Pape-Dawson company

Poulos & Bennett, LLC
2602 E. Livingston St., Orlando, FL 32803
Tel. 407.487.2594 www.poulosandbennett.com
Eng. Bus. No. 28567

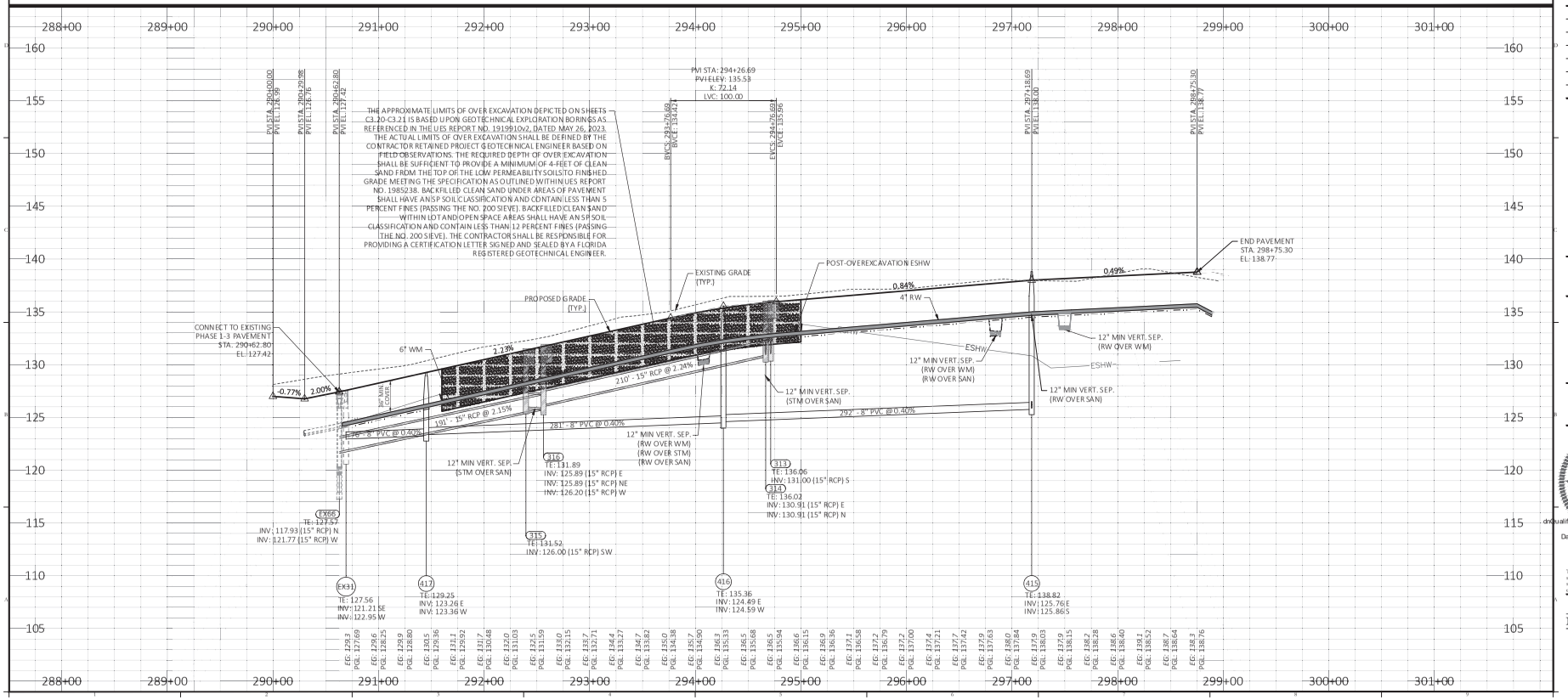
G:\PAPE-DAWSON\KELLY PARK CROSSROADS PHASE 3B\PROJECT FILES\CAD\FINAL\CIVIL\PHASE 1-3\21-027-PHASE 1-3R-RWDP



Key Map



Mist Grass Street



NO.	DATE:	DESCRIPTION
1	10/27/2025	SUBMIT TO CITY OF APOPKA & SJRWMD

SUBMISSIONS/REVISIONS

VERTICAL DATUM:	NAVD 88
JOB NO.:	21-027
DESIGNED BY:	KML
DRAWN BY:	EHW
CHECKED BY:	KML
APPROVED BY:	MDS
SCALE IN FEET:	1" = 50'

Project Name:

CROSSROADS AT KELLY PARK - PHASE 3B

Jurisdiction:

CITY of APOPKA, FL

Sheet Title:

MIST GRASS STREET PLAN & PROFILE

Sheet No.:

C6.00

Seal:

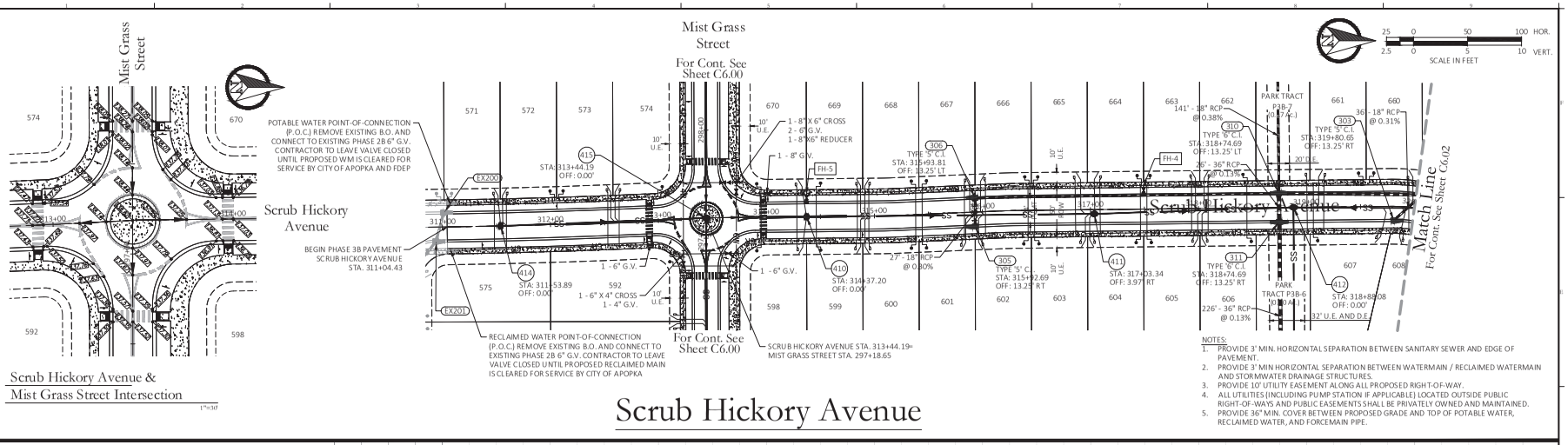
MARC DANIEL STEELE
P.E. No. 0082704
DATE: October 29, 2025

This item has been electronically signed and sealed using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

POULOS & BENNETT
a Pape-Dawson company

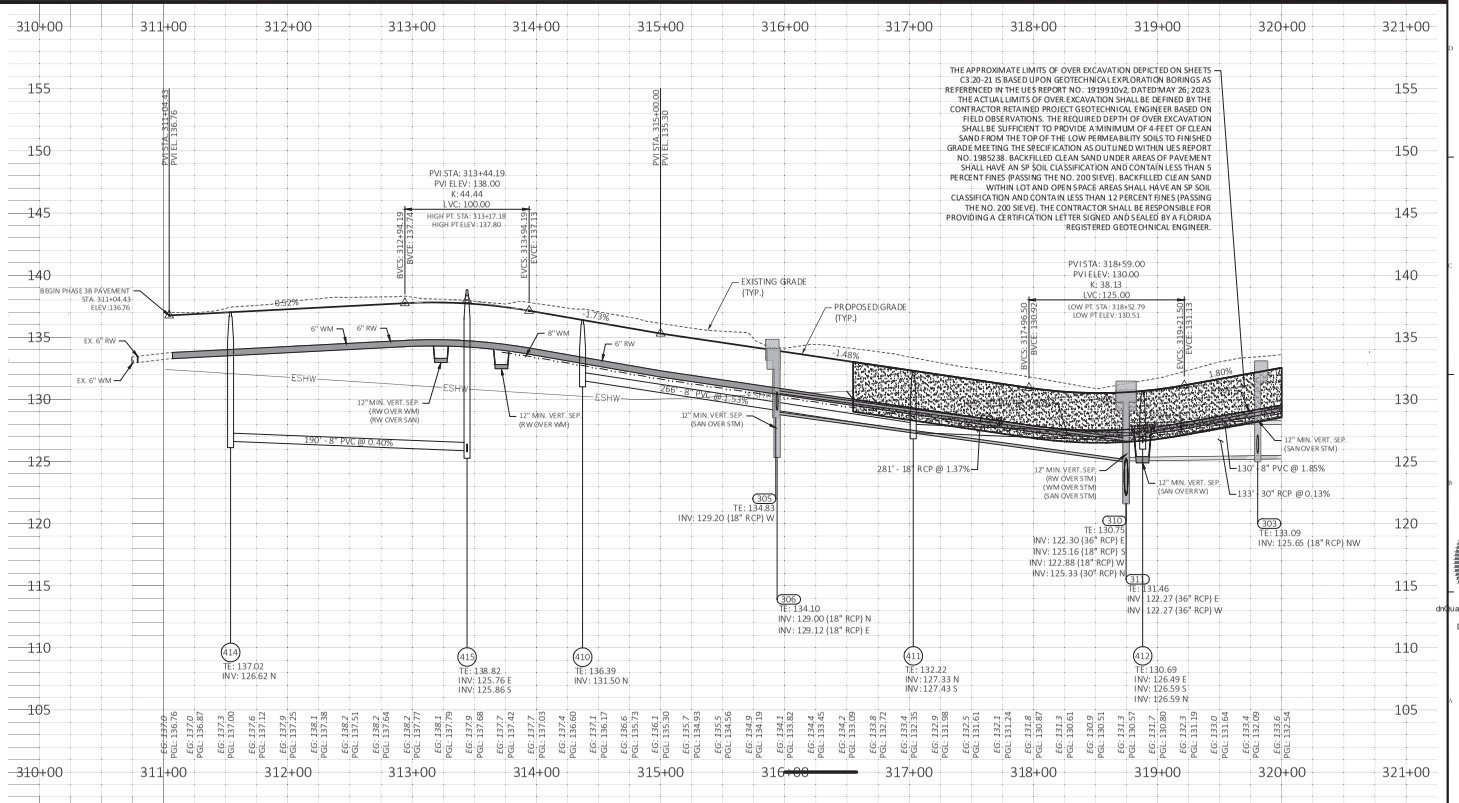
Poulos & Bennett, LLC
2602 E. Livingston St., Orlando, FL 32803
Tel. 407.487.2594 www.poulosandbennett.com
Eng. Bus. No. 28567

J:\PROJECTS\PAPE-DAWSON\KELLY PARK CROSSROADS PHASE 3B\PROJECT FILES\CAD\FINAL\CIT\PHASE 1-3\21-027-PHASE 1-3B-4P



NOTES:
1. PROVIDE 3' MIN. HORIZONTAL SEPARATION BETWEEN SANITARY SEWER AND EDGE OF PAVEMENT.
2. PROVIDE 3' MIN HORIZONTAL SEPARATION BETWEEN WATERMAIN / RECLAIMED WATERMAIN AND STORMWATER DRAINAGE STRUCTURES.
3. PROVIDE 10' UTILITY EASEMENT ALONG ALL PROPOSED RIGHT-OF-WAY.
4. ALL UTILITIES (INCLUDING PUMP STATION IF APPLICABLE) LOCATED OUTSIDE PUBLIC RIGHT-OF-WAYS AND PUBLIC EASEMENTS SHALL BE PRIVATELY OWNED AND MAINTAINED.
5. PROVIDE 36" MIN. COVER BETWEEN PROPOSED GRADE AND TOP OF POTABLE WATER, RECLAIMED WATER, AND FORCEMAIN PIPE.

Scrub Hickory Avenue



10/27/2025	SUBMIT TO CITY OF APOPKA & SJRWMD
NO. DATE:	DESCRIPTION
SUBMISSIONS/REVISIONS	
VERTICAL DATUM:	NAVD 88
JOB NO.:	21-027
DESIGNED BY:	KML
DRAWN BY:	EHW
CHECKED BY:	KML
APPROVED BY:	MDS
SCALE IN FEET:	1" = 50'

Project Name:
CROSSROADS AT KELLY PARK - PHASE 3B

Jurisdiction:
CITY of APOPKA, FL

Sheet Title:
SCRUB HICKORY AVENUE PLAN & PROFILE

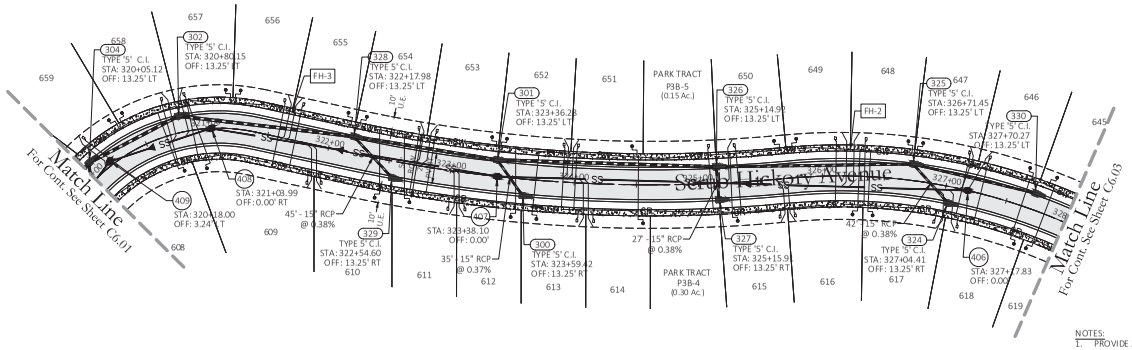
Sheet No.:
C6.01

Seal:
MARC DANIEL STEELE LICENSE NO. 73014 STATE OF FLORIDA PROFESSIONAL ENGINEER
MARC DANIEL STEELE P.E. No. 73014
DATE: October 27, 2025
(PDF) Digitally signed by Daniel Steele DN: cn=Daniel Steele, o=Poulos & Bennett, ou=A01410D0000019A8AFE033DC0027AEA4, c=US Date: 2025.10.27 17:07:05 04'00'

This item has been electronically signed and sealed using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

POULOS & BENNETT
a Pape-Dawson company

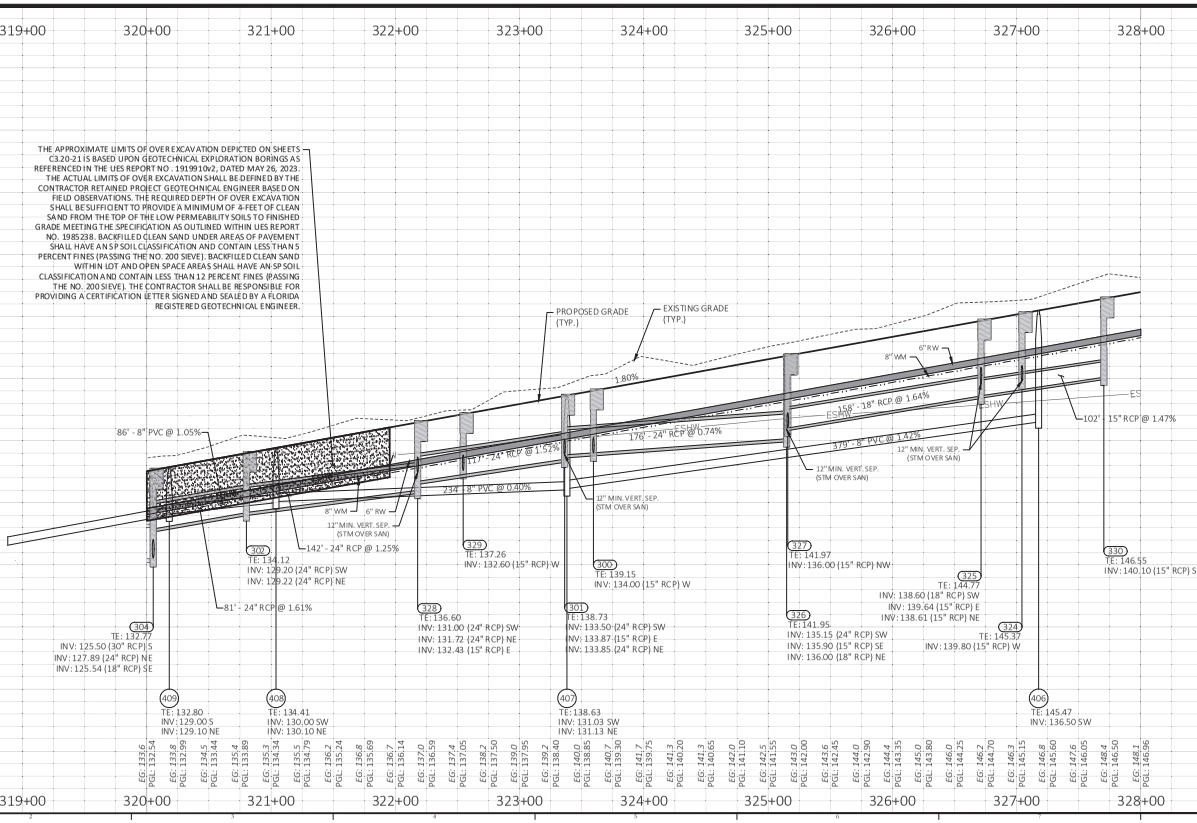
Poulos & Bennett, LLC
2602 E. Livingston St., Orlando, FL 32803
Tel. 407.487.2594 www.poulosandbennett.com
Eng. Bus. No. 28567



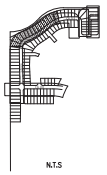
25 0 50 100 HOR.
2.5 0 5 10 VERT.
SCALE IN FEET

NOTES:
1. PROVIDE 3' MIN. HORIZONTAL SEPARATION BETWEEN SANITARY SEWER AND EDGE OF PAVEMENT.
2. PROVIDE 3' MIN HORIZONTAL SEPARATION BETWEEN WATERMAIN / RECLAIMED WATERMAIN AND STORMWATER DRAINAGE STRUCTURES.
3. PROVIDE 10' UTILITY EASEMENT ALONG ALL PROPOSED RIGHT-OF-WAY.
4. ALL UTILITIES (INCLUDING PUMP STATION IF APPLICABLE) LOCATED OUTSIDE PUBLIC RIGHT-OF-WAYS AND PUBLIC EASEMENTS SHALL BE PRIVATELY OWNED AND MAINTAINED.
5. PROVIDE 36" MIN. COVER BETWEEN PROPOSED GRADE AND TOP OF POTABLE WATER, RECLAIMED WATER, AND FORCEMAIN PIPE.

Scrub Hickory Avenue



Key Map



NO.	DATE:	DESCRIPTION:
1	10/27/2025	SUBMIT TO CITY OF APOPKA & SJRWMD

SUBMISSIONS/REVISIONS

VERTICAL DATUM:	NAVD 88
JOB NO.:	21-027
DESIGNED BY:	KML
DRAWN BY:	EHW
CHECKED BY:	KML
APPROVED BY:	MDS
SCALE IN FEET:	1" = 50'

Project Name:

CROSSROADS AT KELLY PARK - PHASE 3B

Jurisdiction:

CITY of APOPKA, FL

Sheet Title:

SCRUB HICKORY AVENUE PLAN & PROFILE

Sheet No.:

C6.02

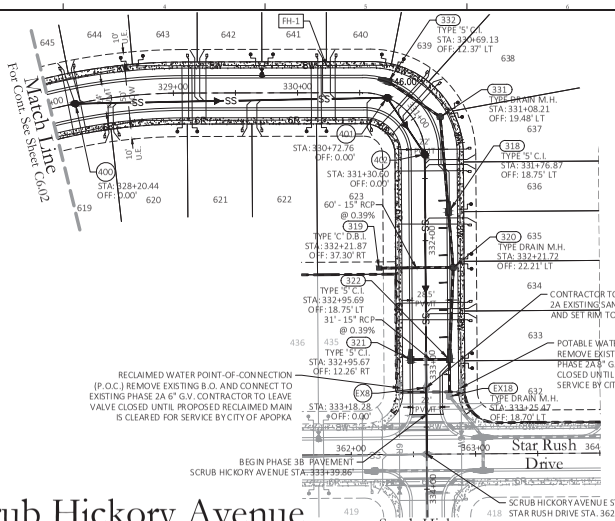
Seal:

This item has been electronically signed and sealed using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

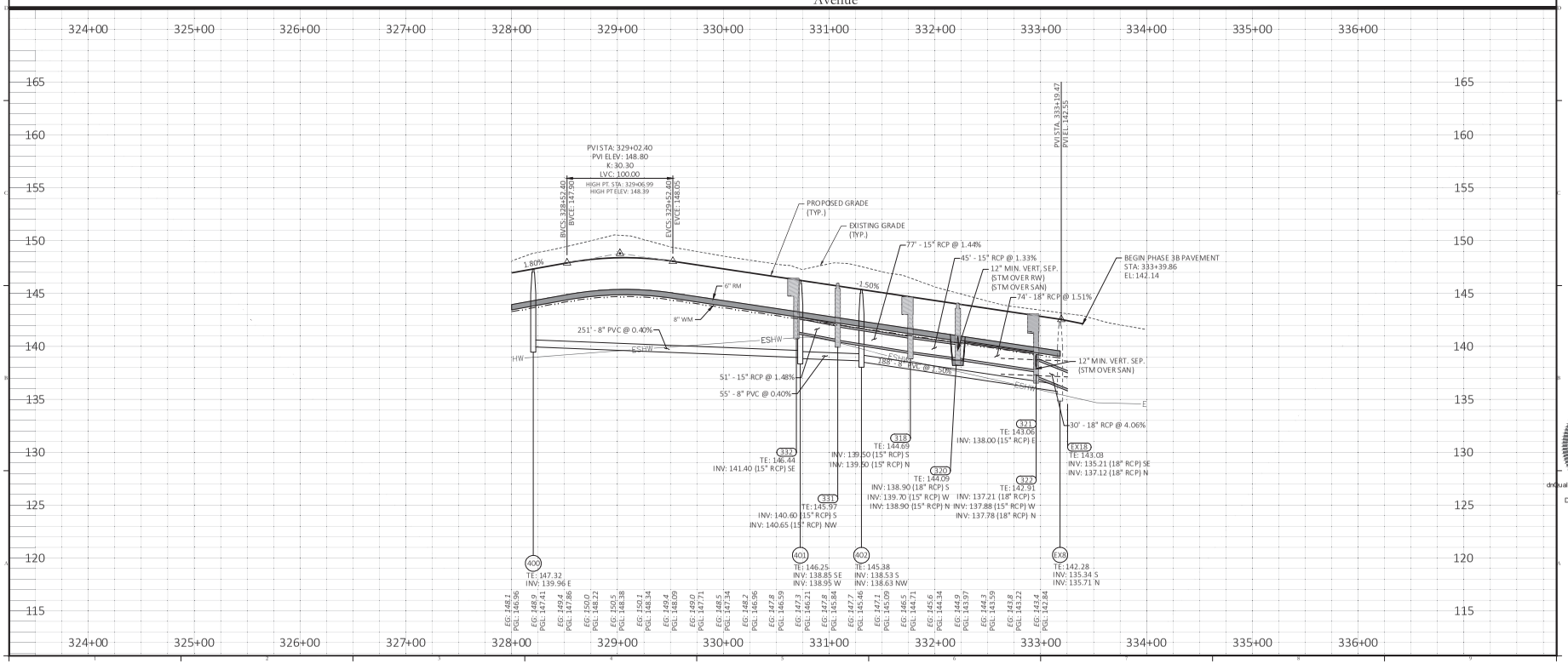
POULOS & BENNETT
a Pape-Dawson company

Poulos & Bennett, LLC
2602 E. Livingston St., Orlando, FL 32803
Tel. 407.487.2594 www.poulosandbennett.com
Eng. Bus. No. 28567

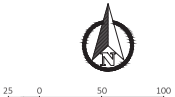
G:\PROJECTS\PAPE-DAWSON\KELLY PARK CROSSROADS PHASE 3B\PROJECT FILES\CAD\FINAL\CIT\PHASE 1--3B\21-027-PHASE 1--3B-4P



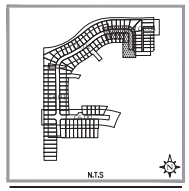
Scrub Hickory Avenue



NOTES:
1. PROVIDE 3' MIN. HORIZONTAL SEPARATION BETWEEN SANITARY SEWER AND EDGE OF PAVEMENT.
2. PROVIDE 3' MIN HORIZONTAL SEPARATION BETWEEN WATERMAIN / RECLAIMED WATERMAIN AND STORMWATER DRAINAGE STRUCTURES.
3. PROVIDE 10' UTILITY EASEMENT ALONG ALL PROPOSED RIGHT-OF-WAY.
4. ALL UTILITIES (INCLUDING PUMP STATION IF APPLICABLE) LOCATED OUTSIDE PUBLIC RIGHT-OF-WAYS AND PUBLIC EASEMENTS SHALL BE PRIVATELY OWNED AND MAINTAINED.
5. PROVIDE 36"MIN. COVER BETWEEN PROPOSED GRADE AND TOP OF POTABLE WATER, RECLAIMED WATER, AND FORCEMAIN PIPE.



Key Map



NO.	DATE:	DESCRIPTION:
1	10/27/2025	SUBMIT TO CITY OF APOPKA & SJRWMD

SUBMISSIONS/REVISIONS

VERTICAL DATUM:	NAVD 88
JOB NO.:	21-027
DESIGNED BY:	KML
DRAWN BY:	EHW
CHECKED BY:	KML
APPROVED BY:	MDS
SCALE IN FEET:	1" = 50'

Project Name:

CROSSROADS AT KELLY PARK - PHASE 3B

Jurisdiction:

CITY of APOPKA, FL

Sheet Title:

SCRUB HICKORY AVENUE PLAN & PROFILE

Sheet No.:

C6.03

Seal:

MARC DANIEL STEELE
FLA. LIC. 56237
DATE: October 27, 2025

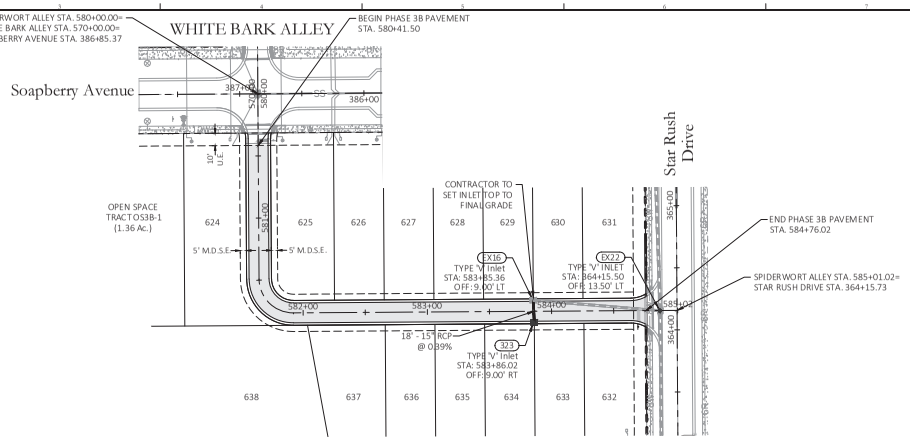
Digitally signed by Marc Daniel Steele
DN: E=marc.steele@pape-dawson.com, C=US, O=Pape-Dawson Engineers, Inc., OU=Orlando, CN=Marc Daniel Steele, SN=Steele, GN=Marc, Daniel, I=MDS, UID=A01410D0000019BAFE033DC0027AEA4
Date: 2025.10.27 17:07:14 -04'00'

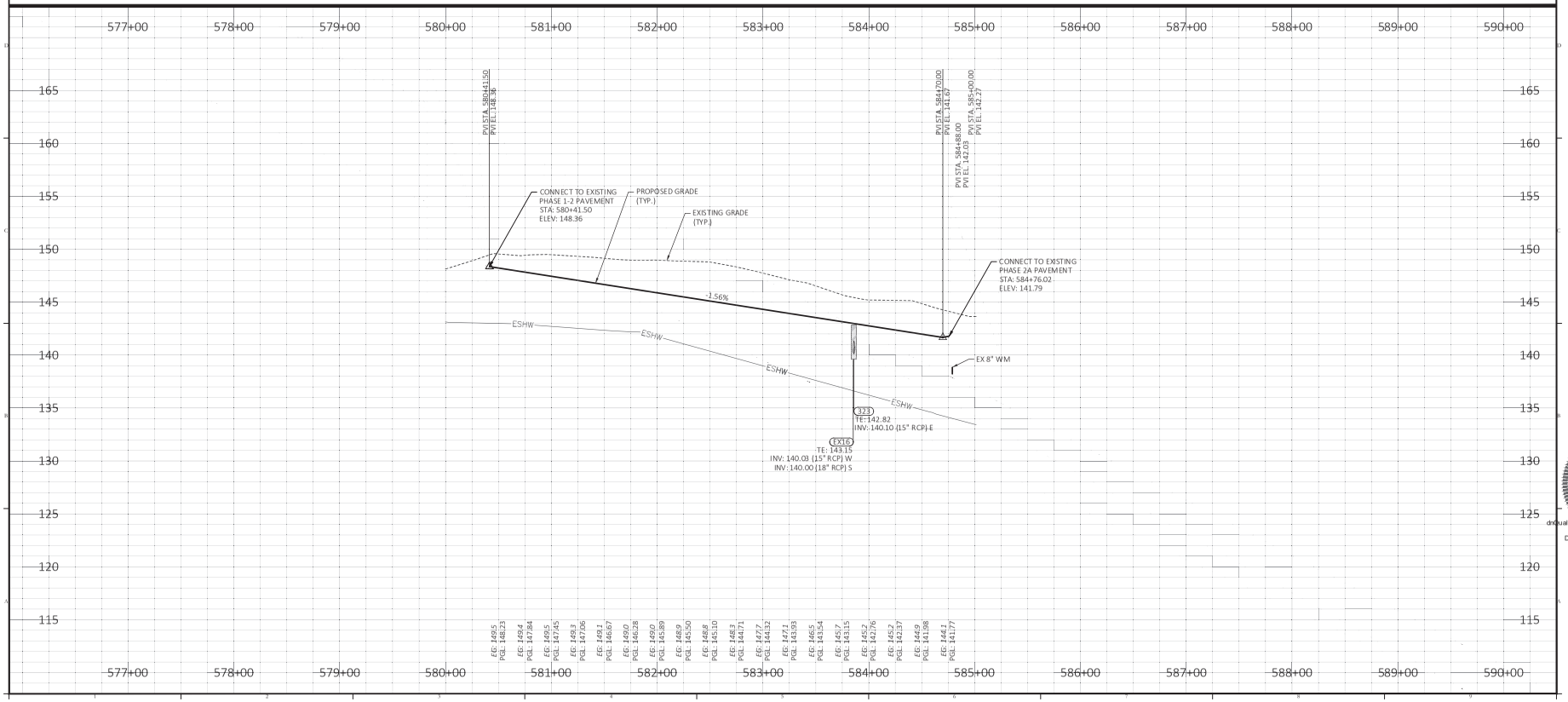
This item has been electronically signed and sealed using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

POULOS & BENNETT
a Pape-Dawson company

Poulos & Bennett, LLC
2602 E. Livingston St., Orlando, FL 32803
Tel. 407.487.2594 www.poulosandbennett.com
Eng. Bus. No. 28567

J:\PROJECTS\21-027 PAPE-DAWSON KELLY PARK CROSSROADS PHASE 3B\PROJECT FILES\CAD\FINAL\CIT\PHASE 1-3B\21-027-PHASE 1-3B-4P





NOTES:
1. PROVIDE 3' MIN. HORIZONTAL SEPARATION BETWEEN SANITARY SEWER AND EDGE OF PAVEMENT.
2. PROVIDE 3' MIN HORIZONTAL SEPARATION BETWEEN WATERMAIN / RECLAIMED WATERMAIN AND STORMWATER DRAINAGE STRUCTURES.
3. PROVIDE 10' UTILITY EASEMENT ALONG ALL PROPOSED RIGHT-OF-WAY.
4. ALL UTILITIES (INCLUDING PUMP STATION IF APPLICABLE) LOCATED OUTSIDE PUBLIC RIGHT-OF-WAYS AND PUBLIC EASEMENTS SHALL BE PRIVATELY OWNED AND MAINTAINED.
5. PROVIDE 36" MIN. COVER BETWEEN PROPOSED GRADE AND TOP OF POTABLE WATER, RECLAIMED WATER, AND FORCEMAIN PIPE.

SCALE IN FEET

Key Map

N.T.S

NO.	DATE:	DESCRIPTION:
	10/27/2025	SUBMIT TO CITY OF APOPKA & SJRWMD
SUBMISSIONS/REVISIONS		

VERTICAL DATUM:	NAVD 88
JOB NO.:	21-027
DESIGNED BY:	KML
DRAWN BY:	EHW
CHECKED BY:	KML
APPROVED BY:	MDS
SCALE IN FEET:	1" = 50'

Project Name:
CROSSROADS AT KELLY PARK - PHASE 3B

Jurisdiction:
CITY of APOPKA, FL

Sheet Title:
SPIDERWORT ALLEY PLAN & PROFILE

Sheet No.:
C6.04

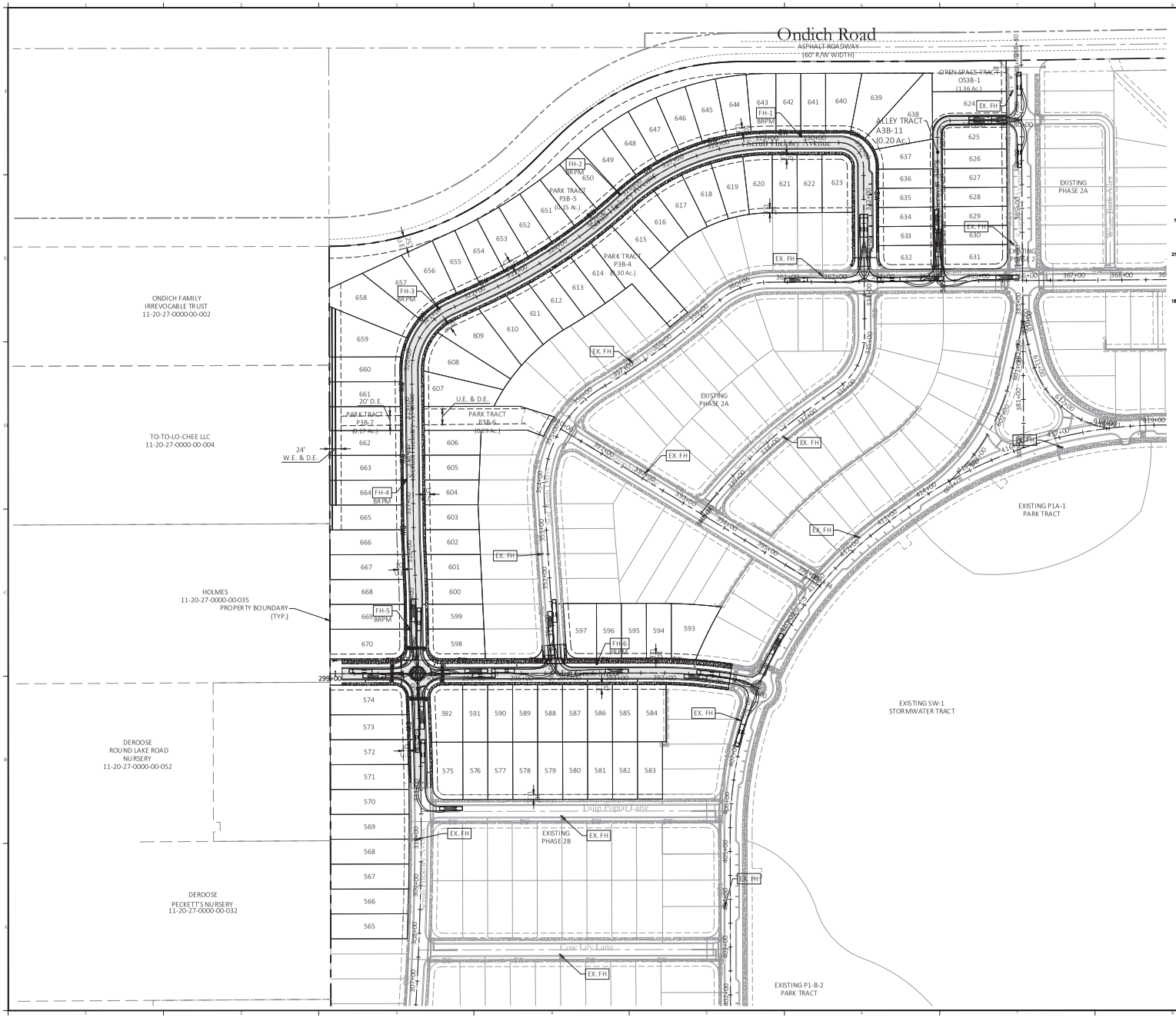
Seal:
MARC DANIEL STEHLI
P.E. No. 56276
DATE: October 27, 2025
STATE OF FLORIDA
PROFESSIONAL ENGINEER
LICENSE
Digitally signed by Marc Daniel Stehli
DN: cn=Marc Daniel Stehli, dnQualifier=A01410D0000019A8AFE033DC00027AEA4, o=Florida, c=US
Date: 2025.10.27 17:07:18 -04'00'

This item has been electronically signed and sealed using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

POULOS & BENNETT
a Pape-Dawson company

Poulos & Bennett, LLC
2602 E. Livingston St., Orlando, FL 32803
Tel. 407.487.2594 www.poulosandbennett.com
Eng. Bus. No. 28567

C:\PROJECTS\PAPE-DAWSON\KELLY PARK CROSSROADS PHASE 3B\PROJECT FILES\CAD\FINAL\CIT\[PHASE 1-3B\21-027-PHASE 1-3B-4P



NOTES:

1. FIRE HYDRANTS SHALL BE INSTALLED SO THAT THE DESIGN AND CALCULATIONS MEET THE REQUIREMENTS IN THE CITY OF APOPKA SUBDIVISION REGULATIONS AND THE FFPC 7TH EDITION AND NFPA
2. FIRE ACCESS SHALL BE FROM THE FRONT OF THE PROPOSED DWELLING UNITS. ALLEYS HAVE BEEN DESIGNED FOR FIRE ACCESS WHERE REQUIRED. ACCESS SHALL BE IN ACCORDANCE WITH CHAPTER 18 OF THE FFPC 7TH EDITION AND NFPA 1(2018) WITH FLORIDA AMENDMENTS.
3. FIRE HYDRANTS SHALL BE PROVIDED FOR DETACHED ONE- AND TWO- FAMILY DWELLINGS IN ACCORDANCE WITH BOTH OF THE FOLLOWING:
   3.1 THE MAXIMUM DISTANCE TO A FIRE HYDRANT FROM THE CLOSEST POINT ON THE BUILDING SHALL NOT EXCEED 250 FEET
   3.2 THE MAXIMUM DISTANCE BETWEEN FIRE HYDRANTS SHALL NOT EXCEED 500 FEET.
4. FIRE HYDRANTS SHALL BE PROVIDED FOR BUILDINGS OTHER THAN DETACHED ONE- AND TWO-FAMILY DWELLINGS IN ACCORDANCE WITH BOTH OF THE FOLLOWING:
   4.1 THE MAXIMUM DISTANCE TO A FIRE HYDRANT FROM THE CLOSEST POINT ON THE BUILDING SHALL NOT EXCEED 250 FEET.
   4.2 THE MAXIMUM DISTANCE BETWEEN FIRE HYDRANTS SHALL NOT EXCEED 500 FEET.
5. NEEDED FIRE FLOW FOR SINGLE FAMILY DWELLINGS SHALL BE AS FOLLOWS: HOMES 5,000 S.F. OR LESS 1,000 GPM; HOMES EXCEEDING 5,000 S.F. SHALL PROVIDE FIRE FLOW IN ACCORDANCE WITH TABLE 18.4.5.2. 1OF THE FFPC 7TH EDITION AND NFPA 1(2018) WITH FLORIDA AMENDMENTS. REDUCTION OF FIRE FLOW MAY BE PERMITTED IF DWELLING IS EQUIPPED WITH AN AUTOMATIC SPRINKLER SYSTEM OR SEPARATED FROM OTHER STRUCTURES BY 30 FEET BUT IN NO CASE SHALL THE FIRE FLOW BE LESS THAN 500 GPM PER 18.4.5 FFPC 7TH EDITION AND NFPA 1(2018) WITH FLORIDA AMENDMENTS.
6. DURING CONSTRUCTION, WHEN COMBUSTIBLES ARE BROUGHT ON TO THE SITE, ACCESS ROADS AND A SUITABLE TEMPORARY OR PERMANENT SUPPLY OF WATER ACCEPTABLE TO THE WIRE DEPARTMENT SHALL BE PROV I DED AN D MAINTAINED PER FFPC 7TH EDITION AND N GPA 1(2018) WITH FLORI DA AMEN DMENTS.
7. ALL PRIMARY BUILDING STRUCTURES SHALL BE LOCATED ON LOTS SUCH THAT THE FIRE DEPARTMENT ACCESS ROAD IS WITHIN 50 FT. OF AN EXTERIOR DOOR IN ACCORDANCE WITH 18.2.3.2. 1OF THE FFPC 7TH EDITION AND NFPA 1(2018) WITH FLORIDA AMENDMENTS
8. STREET DESIGN CAN ACCOMODATE LARGE TRUCKS, FIRE TRUCKS, MOVING COMPANY SEMITRUCKS WB-40 AND GARBAGE TRUCKS AND BASED ON THE CENTERLINE MINIMUM RADIUS OF 50.0'.
9. ALL ROUNDABOUTS SHALL INCORPORATE A CONCRETE MOUNTABLE APRON TO ALLOW FIRE TRUCKS TO MANEUVER THROUGH THE INTERSECTION.
10. FIRE HYDRANTS SHALL BE LOCATED 5 FEET TO 7 FEET FROM THE EDGE OF PAVEMENT TO CENTER OF HYDRANTS
11. CONTRACTOR SHALL INSTALL BLUE REFLECTIVE PAVEMENT MARKING IN THE CENTER OF THE ADJACENT TRAVEL LANE IN FRONT OF ALL FIRE HYDRANTS.

Key Map

NO.	DATE:	DESCRIPTION
1	10/27/2025	SUBMIT TO CITY OF APOPKA & SJRWMD

SUBMISSIONS/REVISIONS

VERTICAL DATUM:	NAVD 88
JOB NO.:	21-027
DESIGNED BY:	KML
DRAWN BY:	EHW
CHECKED BY:	KML
APPROVED BY:	MDS
SCALE IN FEET:	1" = 100'

Project Name:

CROSSROADS AT KELLY PARK - PHASE 3B

Jurisdiction:

CITY of APOPKA, FL

Sheet Title:

FIRE PROTECTION PLAN

Sheet No.:

C7.00

Seal:

MARC DANIEL STEELE LICENSE NO. 76141 STATE OF FLORIDA

MARC DANIEL STEELE FLORIDA LICENSE NO. 76141

DATE: October 27, 2025

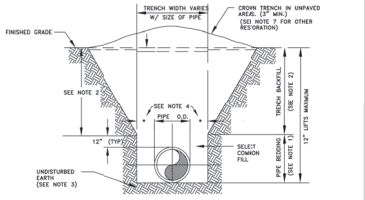
ADOBE DIGITAL SIGNATURE
CN=MARC DANIEL STEELE
email=MSTEELE@POULOSBENNETT.COM
C=US
Date: 2025.10.27 17:07:23-04'00'

This item has been electronically signed and sealed using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

POULOS & BENNETT
a Pape-Dawson company

Poulos & Bennett, LLC
2602 E. Livingston St., Orlando, FL 32803
Tel. 407.487.2594 www.poulosandbennett.com
Eng. Bus. No. 28567

C:\PAPE-DAWSON\KELLY PARK CROSSROADS PHASE 3B\PROJECT FILES\CAD\FINAL\CIT\PHASE 1--3B\21-027-PHASE 1--3B-FFP

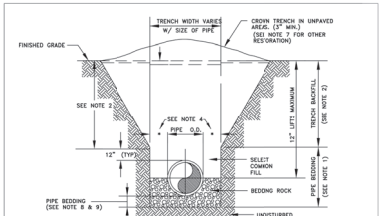


NOTES:

1. PIPE BEDDING: SELECT COMMON FILL COMPACTED TO 98% UNDER PAVEMENT OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 98% UNDER PAVEMENT OF THE MAXIMUM DENSITY AS TO AASHTO T-180.
3. PIPE BEDDING UTILIZING SELECT COMMON FILL OR BEDDING ROCK IN ACCORDANCE WITH TYPE A BEDDING AND TRENCHING DETAIL MAY BE REQUIRED AS DIRECTED BY THE CITY.
4. (*): 15" MAX. FOR PIPE DIAMETERS LESS THAN 24", AND 24" 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.
8. SURFACE RESTORATION WITHIN CITY RIGHT-OF-WAY, SHALL COMPLY WITH REQUIREMENTS OF RIGHT-OF-WAY UTILIZATION REGULATIONS.
9. ALL UNPAVED DISTURBED AREAS SHALL BE SODDED TO MATCH ADJACENT DOMINATE GRASS SPECIES.

TYPE "B" BEDDING AND OPEN-CUT DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 100



NOTES:

1. PIPE BEDDING: SELECT COMMON FILL COMPACTED TO 98% UNDER PAVEMENT OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 98% UNDER PAVEMENT OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
3. USE OF TYPE A BEDDING TO BE DETERMINED IN THE FIELD AS DIRECTED BY THE CITY.
4. (*): 15" MAX. FOR PIPE DIAMETER LESS THAN 24", AND 24" MAX. 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. GRAVITY SEWERS SHALL UTILIZE TYPE A BEDDING IF REQUIRED BY THE CITY. BEDDING DEPTH SHALL BE 4" MINIMUM FOR PIPE DIAMETER LESS THAN 15" AND 6" MINIMUM FOR PIPE DIAMETER 18" AND LARGER.
8. DEPTH FOR REMOVAL OF INSUITABLE MATERIAL SHALL GOVERN DEPTH OF BEDDING ROCK BELOW THE PIPE. THE CITY SHALL DETERMINE IN THE FIELD IF REMOVAL OF UNSUITABLE MATERIAL IS REQUIRED TO REACH A SUITABLE FOUNDATION.
9. ALL UNPAVED DISTURBED AREAS SHALL BE SODDED TO MATCH ADJACENT DMINATE GRASS SPECIES.
10. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF THE GOVERNING AGENCIES. SURFACE RESTORATION WITHIN CITY RIGHT-OF-WAY, SHALL COMPLY WITH REQUIREMENTS OF RIGHT-OF-WAY UTILIZATION REGULATIONS.

TYPE "A" BEDDING AND OPEN-CUT DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 101

MINIMUM LENGTH (F1) TO BE RESTRAINED ON EACH SIDE OF FITTING(S). *

	PIPE SIZE									
	6"	8"	10"	12"	16"	18"	20"	24"	30"	36"	48"
90° BEND	33	43	51	60							
45° BEND	14	18	22	25							
22-1/2° BEND	7	9	11	12							
11-1/4° BEND	4	5	6	6							
TEE**	1	7	24	44							
REDUCER (ONE SIZE SMALLER)		41	39	40							
DEAD END	74	96	115	136							

* ONLY RESTRAIN BRANCH PIPE FOR TEES. ONLY RESTRAIN LARGER PIPE FOR REDUCERS
** LENGTH ALONG RUN ASSUMED TO BE 18'

NOTES:

1. FITTINGS SHALL BE DUCTILE IRON RESTRAINED JOINT TYPE. FM FITTINGS TO BE LINED WITH PROTECTO 401.
2. INSTALL FULL LENGTHS OF PIPE WITH TOTAL LENGTH CONTAINING ONLY RESTRAINED JOINTS EQUAL TO OR GREATER THAN LENGTH SHOWN IN TABLE.
3. WHERE TWO OR MORE FITTINGS ARE TOGETHER, USE FITTING WHICH YIELDS GREATES' LENGTH OF RESTRAINED PIPE.
4. IN LINE VALVES AND THROUGH RUN OF TEES OUTSIDE LIMITS OF RESTRAINED JOINTS FROM OTHER FITTINGS NEED NOT BE RESTRAINED UNLESS OTHERWISE INDICATED.
5. LENGTHS SHOWN IN THE TABLE HAVE BEEN CALCULATED IN ACCORDANCE WITH THE PROCIDURE OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PPE" AS PUBLISHED BY DIPRA, FOR PVC WITH THE FOLLOWING ASSUMPTIONS:
   TYPE OF PIPE: PVC
   WORKING PRESSURE: 150 P.S.I.** ** FM = 100 P.S.I. / WM OR RWM = 150 P.S.I.
   SOIL DESIGNATION: SM(SAND SILT)
   LAYING CONDITIONS: 3
6. FOR PIPE ENCASED IN POLYETHYLENE INCREASE THE GIVEN VALUE BY A FACTOR OI 1.5.
7. VALUES NOT LISTED IN THE TABLE TO BE COMPLETED BY THE ENGINEER.

RESTRAINED PIPE TABLE (PVC)

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 105

MINIMUM LENGTH (F1) TO BE RESTRAINED ON EACH SIDE OF FITTING(S). *

	PIPE SIZE									
	6"	8"	10"	12"	16"	18"	20"	24"	30"	36"	48"
90° BEND					61	67	73	84	100	114	
45° BEND					26	28	31	35	42	48	
22-1/2° BEND					13	14	15	17	20	23	
11-1/4° BEND					6	7	8	9	10	12	
TEE**					52	62	74	95	124	152	
REDUCER (ONE SIZE SMALLER)					48	25	25	47	66	66	
DEAD END					111	123	135	157	188	218	

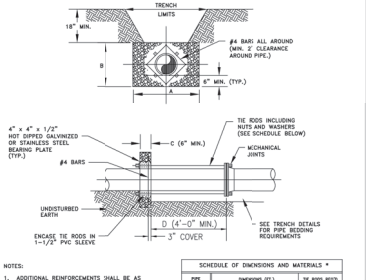
* ONLY RESTRAIN BRANCH PIPE FOR TEES. ONLY RESTRAIN LARGER PIPE FOR REDUCERS
** LENGTH ALONG RUN ASSUMED TO BE 18'

NOTES:

1. FITTINGS SHALL BE RESTRAINED JOINT TYPE. FM FITTINGS TO BE LINED WITH PROTECTO 401.
2. INSTALL FULL LENGTHS OF PIPE WITH TOTAL LENGTH CONTAINING ONLY RESTRAINED JOINTS EQUAL TO OR GREATER THAN LENGTH SHOWN IN TABLE.
3. WHERE TWO OR MORE FITTINGS ARE TOGETHER, USE FITTING WHICH YIELDS GREATES' LENGTH OF RESTRAINED PIPE.
4. IN LINE VALVES AND THROUGH RUN OF TEES OUTSIDE LIMITS OF RESTRAINED JOINTS FROM OTHER FITTINGS NEED NOT BE RESTRAINED UNLESS OTHERWISE INDICATED.
5. LENGTHS SHOWN IN THE TABLE HAVE BEEN CALCULATED IN ACCORDANCE WITH THE PROCIDURE OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PPE" AS PUBLISHED BY DIPRA, WITH THE FOLLOWING ASSUMPTIONS:
   TYPE OF PIPE:
   WORKING PRESSURE: 150 P.S.I.** ** FM = 100 P.S.I. / WM OR RWM = 150 P.S.I.
   SOIL DESIGNATION: SM(SAND SILT)
   LAYING CONDITIONS: 3
6. VALUES NOT LISTED IN THE TABLE TO BE COMPLETED EY THE ENGINEER.

RESTRAINED PIPE TABLE (DI)

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JAUARY 2014	FIG. 106



NOTES:

1. ADDITIONAL REINFORCEMENTS SHALL BE AS SPECIFIED BY THE ENGINEER.
2. MINIMUM COMPRESSIVE STRESNTH FOR CONCRETE SHALL BE 2500 P.S.I.
3. BEDDING, BACKFILL, AND COMPACTION SHALL BE AS SPECIFIED ELSEWHERE IN THE STANDARD DRAWINGS.
4. ALL FORM BOARDS SHALL BE REMOVED PRIOR TO BACKFILL.
5. NO ALLOWANCE SHALL BE MAIE FOR FRICTION BETWEEN THE PIPE WALL ANE THE THRUST COLLAR.
6. DESIGN PRESSURE: 150 P.S.I.

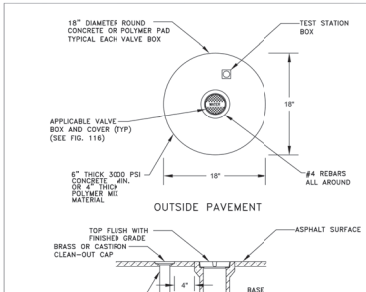
SCHEDULE OF DIMENSIONS AND MATERIALS *

PIPE SIZE (INCHES)	DIMENSIONS (FT.) A	B	C	D	TIE RODS REQ'D DIA.	NO.
6	2.0	2.0	1.0		3/4	2
8	2.5	2.5	1.0		3/4	2
10	3.5	3.0	1.0		3/4	4
12	3.0	3.0	1.0		3/4	4
16	6.0	4.0	1.5		3/4	4
20	8.0	5.0	1.5		3/4	8
24	8.0	6.0	1.5		3/4	8

NOTE: THRUST BLOCK AREAS TO BE COMPUTED ON BASIS OF 2,000 LBS. PER SQ. FT. SOIL BEARING ASSUMED. * TO BE COMPLETED BY ENGINEER. 2,000 (1,000 MIN) SEE NOTE 5

WATER MAIN THRUST COLLAR DETAIL

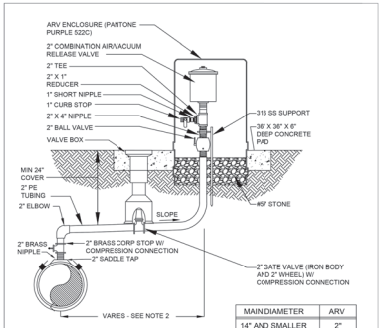
CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 107



VALVE IDENTIFICATION TAG TO BE INSTALLED BY CITY & PAID FOR BY DEVELOPER

VALVE BOX

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 109



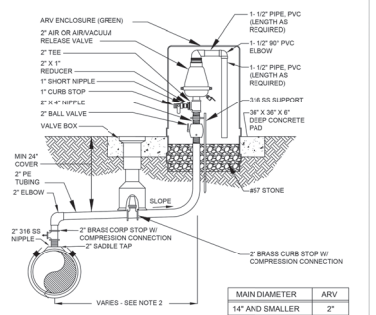
MAINDIAMETER	ARV
14" AND SMALLER	2"
16" AND LARGER	3"

NOTES:

1. FOR RECLAIMED WATER USE ONLY.
2. OFFSET DISTANCE TO BE FIELD DETERMINED AND AS CLOSE TO THE R/W LINE AS POSSIBLE
3. ADJUST HORIZONTAL LCCATION OF SIDEWALK, AS REQUIRED TO AVOID ARV ENCLOSURE.
4. LOCATE ARV ENCLOSURE WITHIN 6" OF R/W LINE
5. ASSEMBLY PIPE, FITTINGS, AND APPURTENANCES TO MATCH ARV SIZE..

OFFSET COMBINATION AIR/VACUUM RELEASE VALVE DETAIL - RECLAIMED WATER ONLY

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2015	FIG. 113



MAIN DIAMETER	ARV
14" AND SMALLER	2"
16" AND LARGER	3"

NOTES:

1. FOR WASTEWATER USE ONLY.
2. OFFSET DISTANCE TO BE FIELD DETERMINED AND AS CLOSE TO THE R/W LINE AS POSSIBLE
3. ADJUST HORIZONTAL LCCATION OF SIDEWALK, AS REQUIRED TO AVOID ARV ENCLSOURE.
4. LOCATE ARV ENCLOSURE WITHIN 6" OF R/W LINE.

OFFSET AIR OR COMBINATION AIR/VACUUM RELEASE VALVE DETAIL - WASTEWATER ONLY

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2015	FIG. 114

Key Map

NO.	DATE:	DESCRIPTION
1	10/27/2025	SUBMIT TO CITY OF APOPKA & SJRWMD

SUBMISSIONS/REVISIONS

VERTICAL DATUM:	NAVD 88
JOB NO.:	21-027
DESIGNED BY:	KML
DRAWN BY:	EHW
CHECKED BY:	KML
APPROVED BY:	MDS
SCALE IN FEET:	N.T.S.

Project Name:

CROSSROADS AT KELLY PARK - PHASE 3B

Jurisdiction:

CITY of APOPKA, FL

Sheet Title:

APOPKA CONSTRUCTION DETAILS

Sheet No.:

C9.10

Seal:

MARC DANIEL STEELE
PE NO. 56274
DATE: 2025.10.27 17:07:27 -04'00'

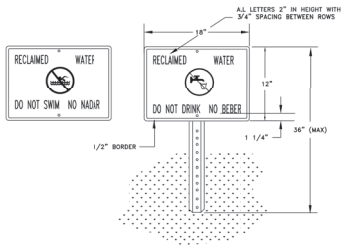
DN: cn=MARC DANIEL STEELE, c=US, o=Florida, ou=A01410D0000019A8AFE033DC00027AEA4, o=Florida, c=US
Date: 2025.10.27 17:07:27 -04'00'

This item has been electronically signed and sealed using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

POULOS & BENNETT
a Pape-Dawson company

Poulos & Bennett, LLC
2602 E. Livingston St., Orlando, FL 32803
Tel. 407.487.2594 www.poulosandbennett.com
Eng. Bus. No. 28567

C:\USERS\MARC.STEELE\DESKTOP\WORKING\CROSSROADS PHASE 3B\PROJECT FILES\ORLANDO\CIVIL\PHASE 1-3B\21-027-PHASE 1-3B-CONSTRUCTION DETAILS.DWG
Page 121 of 124

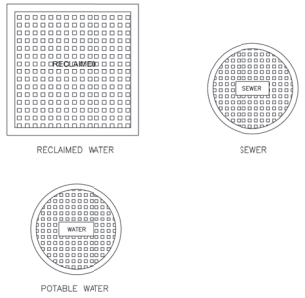


NOTES:

1. HEIGHT OF SIGN WILL DEPEND ON LOCATION AND SURROUNDING LANDSCAPE PLANT TYPES. IN ALL CASES, THE SIGN SHALL BE VISIBLE TO THE PUBLIC.
2. BACKGROUND SHALL BE WHITE. LETTERS AND FIGURES SHALL BE BLACK. PROHIBITIVE SYMBOL SHALL BE RED.
3. ENGINEERING GRADE REFLECTIVE MATERIALS SHALL BE USED.
4. POST SHALL BE U CHANNEL 12 FT. 2 LB. HOT ROLLED HIGH TENSILE RAIL OR BILLET STEEL. HOT DIP GALVANIZED PER ASTM A-123.
5. MOUNTING HARDWARE SHALL BE STAINLESS STEEL.
6. SIGNS SHALL BE PLACED BY THE CONTRACTOR IN ACCORDANCE WITH THE CITY APPROVED ENGINEERING PLANS AND/OR AS APPROVED BY PUBLIC SERVICES DEPARTMENT.

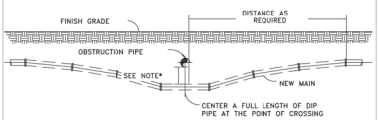
RECLAIMED WATER ADVISORY SIGN

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 115



TYPICAL VALVE BOX COVER DETAILS

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 116



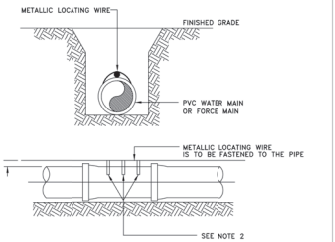
NOTES:

1. 18" MINIMUM CLEARANCE FOR WATER, SEWER AND RECLAIMED WATER MAIN CROSSINGS
2. 12" MINIMUM CLEARANCE REQUIRED FOR OTHER TYPE UTILITY CROSSINGS.
3. SEE ENCASEMENT DETAIL IF MINIMUM CLEARANCE CANNOT BE OBTAINED.

* CONSTRUCT UNIFORM PIPE DEFLECTION NOT TO EXCEED 75% OF MANUFACTURER RECOMMENDED MAXIMUM DEFLECTION PER PIPE JOINT

UTILITY CROSSING PIPE DEFLECTION DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 117

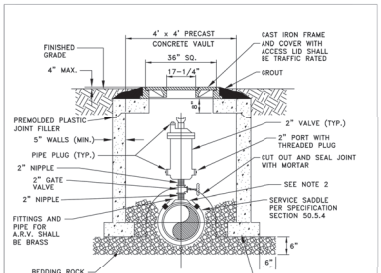


NOTES:

1. PVC PIPE SHALL REQUIRE INSULATED METALLIC LOCATING WIRE (10 AWG-SOLD) CCS REINFORCED TRACER WIRE-INSULATED 30 MIL HDPE – 30 VOLT MFG. BY COPPERHEAD INDUSTRIES, ,LC OR EQUAL) CAPABLE OF DETECTION BY A CABLE LOCATOR.
2. SHALL BE BURIED DIRECTLY ABOVE THE CENTERLINE OF THE PIPE AND ATTACHED WITH DUCT TAPE OR NYLON STRAPS AT 3 LOCATIONS PER JOINT. LOCATING WIRE SHALL TERMINATE AT THE TEST STATION BOX AS SHOWN IN FIG. 109.
3. BE CAPABLE OF EXTENDING 12" ABOVE TOP OF TEST STATION BOX IN SUCH A MANNER SO AS NOT TO INTERFERE WITH VALVE OPERATION.
4. SPLICES SHOULD BE MADE USING STANDARDS AND PRODUCTS DESIGNED FOR DIRECT BIRIAL CONDUCTORS.
5. WIRE INSULATION SHALL BE COLOR CODED FOR THE TYPE OF PIPE BEING INSTALLED.

PVC PIPE LOCATING WIRE DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 118

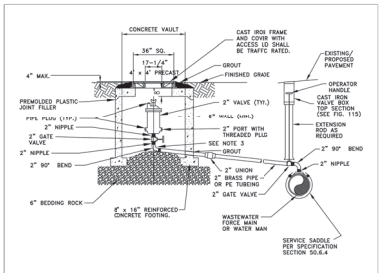


NOTES:

1. ABOVE DETAIL IS BASED ON 2 INCH COMBINATIOI AIR/VACUUM RELEASE VALVE. CHANGE PIPE AND FITTINGS ACCORDINGLY FOR OTHER VLVE SIZES AND TYPES. VALVE SIZES TO BE DETER-MINED BY THE ENGINEER AND APPROVED BY THE CITY PRIOR TO INSTALLATION.
2. THE MINIMUM DIMENSION FROM TOP OF PIPE TO FINISHED GRADE SHALL BE 4.0 FEET.
3. ALL STRICTURES TO BE TRAFFIC BEARING RATED

AIR OR COMBINATION AIR/VACUUM RELEASE VALVE DETAIL - UNDERGROUND

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 119

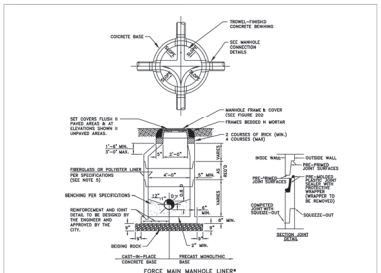


NOTES:

1. ABOVE DETAIL IS BASED ON 2 INCH COMBINATION AIR/VACUUM RELEASE VALVE. CHANGE PIPE AND FITTINGS ACCORDINGLY FOR OTHER VALVE SIZES AND TYPES. VALVE SIZES TO BE DETERMINED BY THE ENGINEER AND APPROVED BY THE CITY PRIOR TO INSTALATION.
2. THE MINIMUM DIMENSION FROM ELBOW INVERT TO FINISHED GRADE SHALL BE 4.0 FEET.
3. THE AIR RELEASE VALVE SHALL BE ADEQUATE.Y SUPPORTED.
4. ALL FTTINGS ARE TO BE BRASS.

OFFSET AIR OR COMBINATION AIR/VACUUM RELEASE VALVE DETAIL - UNDERGROUND

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 120



FORCE MAIN MANHOLE LINER*

DIAMETER (INCHES)	THICKNESS (INCHES) HEIGHT (FEET) 3–6	7–12	13–17	MATERIAL	MANUFACTURER
48					
60					
72					

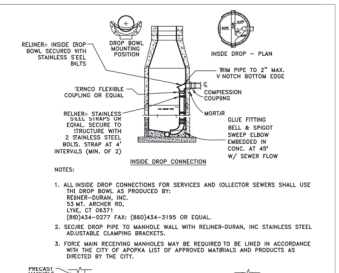
* TO BE COMPLETED BY THE ENGINEER

NOTES:

1. MANHOLE SHOWN IS FOR SEWER SIZE 8" THRU 24", SEE SCTION 20.4 OF THE MANUAL FOR MANHOLE DIAMETER FOR SEWERS LARGER THAN 24".
2. DROP CONNECTIONS ARE REQUIRED WHENEVER INVERT OF INFLUENT SEWER IS 24" OR MORE ABOVE THE INVERT OF THE MANHOLE. SEE MANHOLE CONNECTION DETAILS.
3. THE THICKNESS OF THE LINER SHALL BE 3/8" MINIMUM.
4. EACH BENCH YALL SHALL BE A MINIMUM OF 18 INCHES LONG FROM THE WALL OF THE MANHOLE TOWARD THE CENTER.
5. SANITARY SEWER MANHOLES MAY BE REQUIRED TO BE LINED IN ACCORDANCE WITH THE CITY OF APOPKA LIST OF APPROVED MATERIALS AND PRODUCTS AS DIRECTED BY THE CITY.

TYPICAL MANHOLE

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2015	FIG. 200



NOTES:

1. DROP PIPE AND FTTINGS SHALL BE OF EQUAL SIZE AND MATERIAL AS THE INFLUENT SEWER.
2. THE CITY MAY APPROVE ALTERNATE WATERTIGHT CONNECTION DETAILS FOR CONNECTION OF 24" DIAMETER PIPES AND LARGER.
3. AN INSIDE DROP CONNECTION SHALL BE REQUIRED FOR ALL INFLUENT WHICH HAVE AN INVERT 24" OR MORE ABOVE THE OUTFLOW PIPE INVERT.
4. CONCRETE TO BE MINIMUM OF 3000 PSI.

MANHOLE CONNECTION DETAILS

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2015	FIG. 201

Key Map

NO.	DATE:	DESCRIPTION
1	10/27/2025	SUBMIT TO CITY OF APOPKA & SJRWMD

SUBMISSIONS/REVISIONS

VERTICAL DATUM:	NAVD 88
JOB NO.:	21-027
DESIGNED BY:	KML
DRAWN BY:	EHW
CHECKED BY:	KML
APPROVED BY:	MDS
SCALE IN FEET:	N.T.S.

Project Name:

CROSSROADS AT KELLY PARK - PHASE 3B

Jurisdiction:

CITY of APOPKA, FL

Sheet Title:

APOPKA CONSTRUCTION DETAILS

Sheet No.:

C9.11

Seal:

MARC DANIEL STEELE
P.E. No. 56274
STATE OF FLORIDA
DATE: 2025.10.27 17:07:32 -04'00'

MARC DANIEL STEELE
P.E. No. 56274
STATE OF FLORIDA
DATE: 10/27/2025

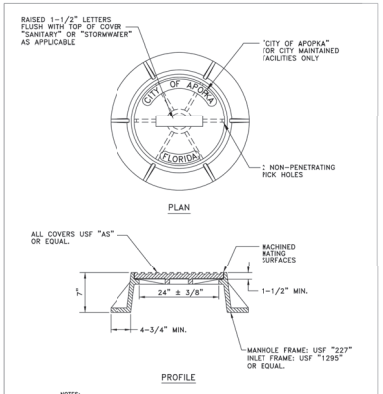
MARC DANIEL STEELE (Affiliate)
dnclusifier=A01.2.ORG=POULOS\26BENNETT,L.L.C.:1.2.840.113549.1.9.16.2.12=AFE033DC0027AEA4,O=Florida,C=US
Date: 2025.10.27 17:07:32-04'00'

This item has been electronically signed and sealed using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

POULOS & BENNETT
a Pape-Dawson company

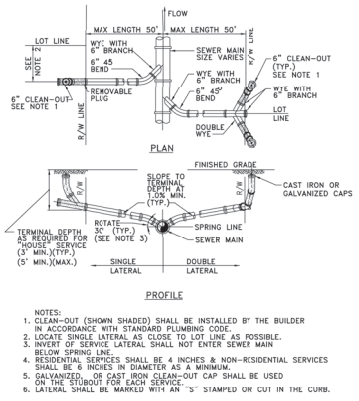
Poulos & Bennett, LLC
2602 E. Livingston St., Orlando, FL 32803
Tel. 407.487.2594 www.poulosandbennett.com
Eng. Bus. No. 28567

P:\2021\21-027\PHASE 1-3\CROSSROADS PHASE 3B\PROJECT FILES\CIVIL\PHASE 1-3\21-027-PHASE 3B CROSSROADS AT KELLY PARK - PHASE 3B.DWG 10/27/2025 5:06:54 PM EDT



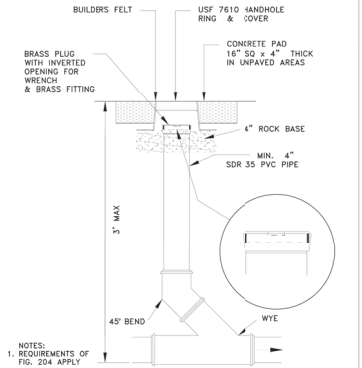
STANDARD MANHOLE FRAME AND COVER

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 202



SERVICE LATERAL DETAIL

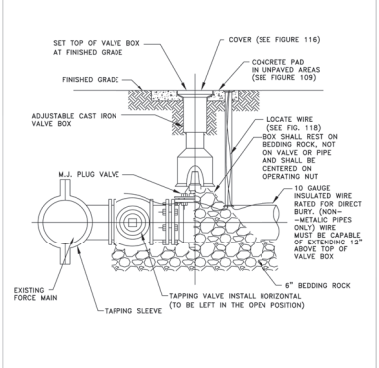
CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 204



SANITARY SEWER SERVICE TRAFFIC RATED CLEAN-OUT DETAIL

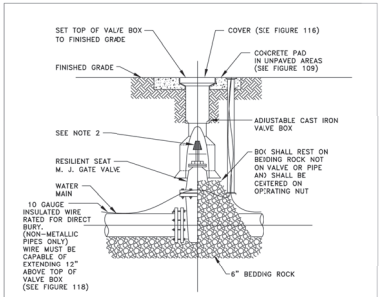
NTS

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 205



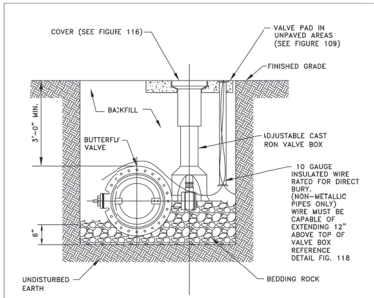
FORCE MAIN WET TAP TIE-IN DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 206



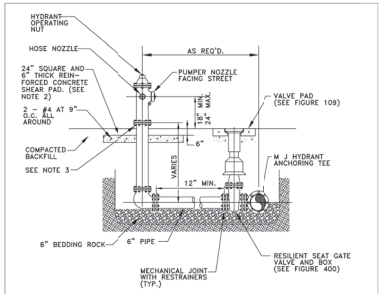
GATE VALVE AND BOX DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 400



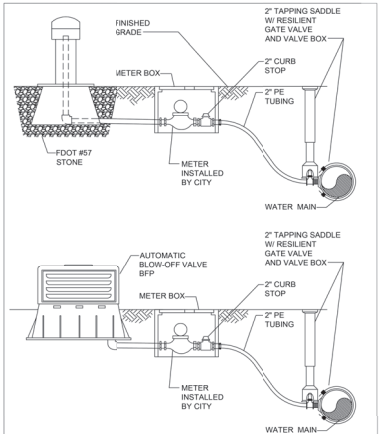
BUTTERFLY VALVE AND BOX DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 401



FIRE HYDRANT ASSEMBLY DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 402



BLOW OFF VALVE DETAIL (AUTOMATIC)

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 403 A

Key Map

NO.	DATE:	DESCRIPTION:
1	10/27/2025	SUBMIT TO CITY OF APOPKA & SJRWMD

SUBMISSIONS/REVISIONS

VERTICAL DATUM:	NAVD 88
JOB NO.:	21-027
DESIGNED BY:	KML
DRAWN BY:	EHW
CHECKED BY:	KML
APPROVED BY:	MDS
SCALE IN FEET:	N.T.S.

Project Name:

CROSSROADS AT KELLY PARK - PHASE 3B

Jurisdiction:

CITY of APOPKA, FL

Sheet Title:

APOPKA CONSTRUCTION DETAILS

Sheet No.:

C9.12

Seal:

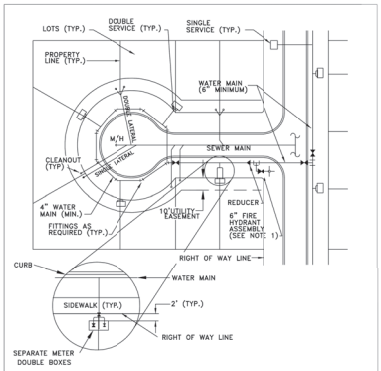
Signature: Not Verified
Digitally signed by Marc Daniel Steele
Date: 2025.10.27 17:07:37 -04'00'

This item has been electronically signed and sealed using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

POULOS & BENNETT
a Pape-Dawson company

Poulos & Bennett, LLC
2602 E. Livingston St., Orlando, FL 32803
Tel. 407.487.2594 www.poulosandbennett.com
Eng. Bus. No. 28567

PLOTTED: 10/27/2025 4:07:37 PM BY: Steele, Marc Daniel
J:\JOBS\21-027\CADD\CONSTRUCTION PLANS\PHASE 3B\PROJECT FILES\PHASE 1-3B\21-027-PHASE 1-3B-CROSSROADS PARK KELLY PARK PHASE 3B.DWG

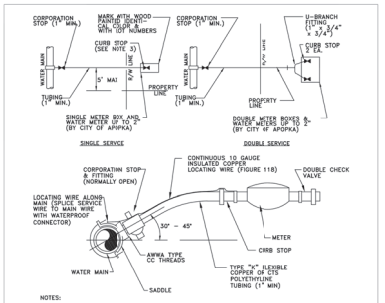


NOTES:

1. ANCHORING TYPE 90° BEND SHALL ONLY BE USED WHERE RIGHT-OF-WAY CONSTRUCTION WILL NOT ALLOW INSTALLATION OF A STRAIGHT ASSEMBLY.
2. POTABLE WATER AND RECLAIMED WATER MAINS SHALL BE LOOPED THROUGHOUT CUL-DE SAC.

TYPICAL SERVICE LOCATION DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 404

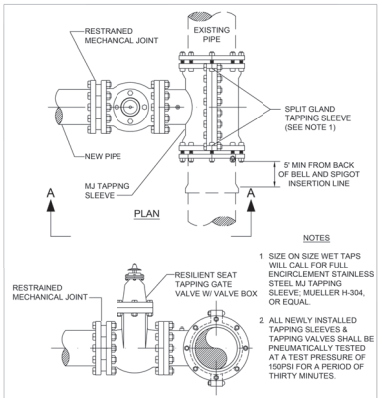


NOTES:

1. ALL FITTINGS SHALL BE BRASS WITH COMPRESSION/PACK JOINT TYPE CONNECTIONS.
2. NO SERVICE LINE SHALL TERMINATE UNDER A DRIVEWAY.
3. EACH SERVICE SHALL TERMINATE AT A CURB STOP(S) WHICH SHALL BE BURIED APPROXIMATELY 5" BELOW FINAL GRADE AND SHALL BE CLEARLY MARKED WITH A PROPERTY LINE STAKE WITH THE TOP PAINTED BLUE FOR POTABLE WATER AND PURPLE FOR RECLAIMED WATER, AND MARKED WITH THE NUMBER OF THE LOT(S) TO BE SERVED.
4. RECLAIMED WATER SERVICES SHALL USE PURPLE COLORED CTS POLYETHYLENE TUBING.
5. POTABLE WATER SERVICES SHALL USE BLUE COLORED CTS POLYETHYLENE TUBING.
6. ALL SERVICE UNDER EXISTING OR PROPOSED PAVEMENT SHALL BE INSTALLED IN A MINIMUM 2" PVC SLEEVE.

WATER SERVICE CONNECTION DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 405

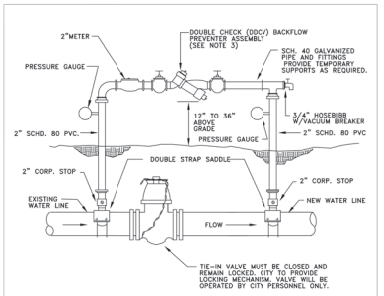


NOTES

1. SIZE ON SIZE WET TAPS WILL CALL FOR FULL ENCIRCLEMENT STAINLESS STEEL MJ TAPPING SLEEVE; MUELLER H-304, OR EQUAL.
2. ALL NEWLY INSTALLED TAPPING SLEEVES & TAPPING VALVES SHALL BE PNEUMATICALLY TESTED AT A TEST PRESSURE OF 150PSI FOR A PERIOD OF THIRTY MINUTES.

WATER AND RECLAIMED WATER MAINS WET TAP TIE-IN DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 406

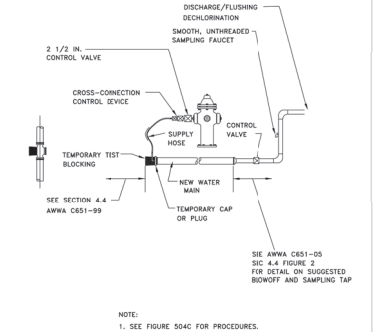


NOTE:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MA'ERIALS, ASSEMBLY, AND THE INSTALLATION OF THE DEVICE.
2. SEE FIGURE 504C FOR PROCEDURES.
3. DDCV IS MINIMUM PROTECTION REQUIRED. A RPZ DEVICE MAY BE REQUIRED DEPENDING ON PROJECT. PROVIDE COPY OF LATEST CERTIFICATON TEST RESULTS.

TEMPORARY JUMPER CONNECTION

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 504 A



NOTE:

1. SEE FIGURE 504C FOR PROCEDURES.

TEMPORARY JUMPER CONNECTION FROM FIRE HYDRANT

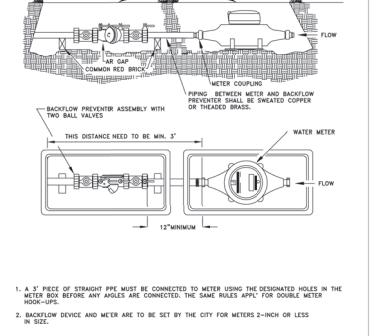
CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 504 B

TEMPORARY JUMPER CONNECTION NOTES:

1. A temporary jumper connection is required at all connections between existing active water mains and proposed new water main improvements.
2. Figures 504 A and 504 B to be used for filling any new water main of any size from existing active water mains and for flushing of new mains up to 8 inches in diameter (2.5 FPS minimum velocity and for pulling bacteriological samples from any new water main of any size. The jumper connection shall be maintained until after filling, flushing testing and disinfection of the new main has been successfully completed and cleared for use from the Florida Department of Environmental Protection (FDEP) and other pertinent agencies have been received. The jumper connection shall also be used to maintain a minimum pressure of 20 psi in the new water main during testing. A minimum clearance letter is required. Thrust blocking and/or restrainers shall be provided temporarily, as required. Pipe and fittings used for connecting the new pipe to the existing pipe shall be disinfected prior to installation in accordance with AWWA C651, 2005 edition The tapping sleeve and the exterior of the main to be tapped shall be disinfected by spraying or swabbing per section II of AWWA C651-05.
3. Flushing of 10 inches in diameter and larger water mains may be done through the tie-in valve under very controlled conditions. The following procedures shall be followed:
   A. The tie-in valves shall be operated and pressure tested in the presence of the City engineer to verify water tightness prior to tie-in. Valves which are not water tigh shall be replaced with a new valve installed immediately adjacent to the leaking valve.
   B. The temporary jumper connection shall be constructed as detailed. The jumper connection shall be used to fill the new water main and for providing wter for bac-teriological sampling of the new main as required by the FDEP permit.
   * Flushing shall not be attempted during peak demand hours of the existing water mains.
   * All downstream valves in the system must be open prior to opening the tie-in valve.
   * Provide for and monitor the pressure in the tie-in point. The pressure is the existing main must not drop below 35 psi.
   * The tie-in valve shall be opened a few turns only, ensuring a pressure drop across the valve is greater than 10 psi.
   C. The tie-in valve shall be locked closed by the City personel until flushing begins.
   D. The tie-in valve shall be opened only for flushing of the new main. The procedure shall be directed by the City and observed by the engineer.
   E. After flushing, the tie-in valve shall be closed and locked in the closed position by the City personel.
4. The contractor shall provide documentation demonstrating that the double check backflow prevention device has been tested and is in good working order at the time of installation.
5. Except as required to flush lines of greater than 8 inches in diameter, the tie-in valve shall remain closed and shall be locked in the closed position by the City. The tie-in valve shall remain locked closed until the new system has been cleared for use by FDEP and all other pertinent agencies.
6. Upon receipt of clearance for use from FDEP and all other pertinent agencies the contractor shall remove the temporary jumper connection. The corporation stops are to be closed and plugged with 2 inch brass plugs.
7. All installation and maintenance of the temporary jumper connection and associated backflow prevention device, fittings, valve, etc. shall be the responsibility of the contractor.

PROCEDURES FOR TEMPORARY JUMPER CONNECTION

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 504 C



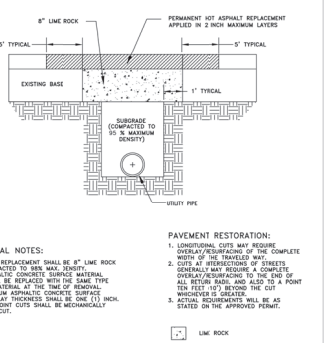
1. A 3' PIECE OF STRAIGHT PIPE MUST BE CONNECTED TO METER USING THE DESIGNATED HOLES IN THE METER BOX BEFORE ANY AGLES ARE CONNECTED. THE SAME RULES APPL' FOR DOUBLE METER HOOK-UPS.
2. BACKFLOW DEVICE AND METER ARE TO BE SET BY THE CITY FOR METERS 2-INCH OR LESS IN SIZE.

POTABLE WATER SERVICE DETAIL FOR LOTS SERVED WITH RECLAIMED WATER

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 505

NOTE:

SUB-GRADE TO BE COMPACTED TO 95% MAX. DENSITY AS IETERMINED BY AASTHO T-180 CUT TO BE REPLACED WITH 8" LIME ROCK AND COMPACTED TO 98% MAX. DENSITY TO TOP OF EXISTING BASE. CUT ARIA TO BE PLATED OR PROTECTED ON THE DAY OF POUR. EXISTING SURFACE TO BE SAW CUT TO AN AREA OF FIVE FEET (5') BEYOND BASE CUT.



GENERAL NOTES:

1. BASE REPLACEMENT SHALL BE 8" LIME ROCK COMPACTED TO 98% MAX. DENSITY.
2. ASPHALTIC CONCRETE SURFACE MATERIAL SHALL BE TYPE S-III OR FC-12.5 (SAME TYPE MATERIAL AT BOTH THE TOP AND BOTTOM).
3. MINIMUM ASPHALTIC CONCRETE SURFACE OVERLAY THICKNESS SHALL BE ONE (1) INCH.
4. ALL JOINT CUTS SHALL BE MECHANICALLY SAW CUT.

PAVEMENT RESTORATION:

1. LONGITUDINAL CUTS MAY REQUIRE OVERLAY/RESURFACING OF THE COMPLETE WIDTH OF THE TRAVELED WAY.
2. CUTS AT INTERSECTIONS OF STREETS GENERALLY MAY REQUIRE A COMPLETE OVERLAY/RESURFACING TO THE END OF ALL RETURN RADII, AND ALSO TO A POINT TEN FEET (10') BEYOND THE CUT ALONG EACH LEG OF THE ROAD.
3. ACTUAL REQUIREMENTS WILL BE AS STATED ON THE APPROVED PERMIT.

LIME ROCK

HOT PATCH

OPEN-CUT CROSS SECTION DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2015	FIG. 702

Key Map

NO.	DATE:	DESCRIPTION
1	10/27/2025	SUBMIT TO CITY OF APOPKA & SJRWMD

SUBMISSIONS/REVISIONS

VERTICAL DATUM:	NAVD 88
JOB NO.:	21-027
DESIGNED BY:	KML
DRAWN BY:	EHW
CHECKED BY:	KML
APPROVED BY:	MDS
SCALE IN FEET:	N.T.S.

Project Name:

CROSSROADS AT KELLY PARK - PHASE 3B

Jurisdiction:

CITY of APOPKA, FL

Sheet Title:

APOPKA CONSTRUCTION DETAILS

Sheet No.:

C9.13

Seal:

Signature Not Verified
Digitally signed by Marc Daniel Stell
DN: cn=Marc Daniel Stell, o=Poulos & Bennett, LLC, ou=A01410D0000019A8AFE033DC0027AEA4, c=US
Date: 2025.10.27 17:07:42 -04'00'

This item has been electronically signed and sealed using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

POULOS & BENNETT
a Pape-Dawson company

Poulos & Bennett, LLC
2602 E. Livingston St., Orlando, FL 32803
Tel. 407.487.2594 www.poulosandbennett.com
Eng. Bus. No. 28567

C:\Users\MDS\Documents\DOCS\DOCS\DOCS