City of Apopka
Planning Commission
Meeting Agenda
October 09, 2018
5:30 PM @ CITY COUNCIL CHAMBERS

I. CALL TO ORDER

If you wish to appear before the Planning Commission, please submit a "Notice of Intent to Speak" card to the Recording Secretary.

II. OPENING AND INVOCATION

III. APPROVAL OF MINUTES:

1 Approve minutes of the Planning Commission regular meeting held September 11, 2018.

IV. PUBLIC HEARING:

V. SITE PLANS:

1. Final Development Plan – 7-Eleven Rebuild – Property owned by 7-Eleven Inc. c/o Craig Cornelison, P.E., and located at 2229 East Semoran Boulevard. (Parcel ID #: 12-21-28-6896-00-710)

2. Plat – Carriage Hill, Phase II Subdivision- Property owned by JTD Land at Rogers Rd, LLC, and located at 1455 West Lester Road and West Lester Road. (Parcel ID #s: 29-20-28-0000-00-005; 29-20-28-0000-00-049)

3. Final Development Plan – Meadow View Apartments – Property owned by Allonde Development, LLC, and located at 1611 Vick Road. (Parcel ID#: 32-20-28-0000-00-042)

4. Final Development Plan – Sterling Title - Property owned by Prograde Homes, Inc., c/o Bryan Blake, and located at 217 South Highland Avenue. (Parcel ID #: 10-21-28-0000-00-031)

VI. OLD BUSINESS:

VIII. ADJOURNMENT:

VII. NEW BUSINESS:

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All interested parties may appear and be heard with respect to this agenda. Please be advised that, under state law, if you decide to appeal any decision made by the City Council with respect to any matter considered at this meeting or hearing, you will need a record of the proceedings, and that, for such purpose, you may need to ensure that a verbatim record of the proceedings is made, which record includes a testimony and evidence upon which the appeal is to be based. The City of Apopka does not provide a verbatim record.

In accordance with the American with Disabilities Act (ADA), persons with disabilities needing a special accommodation to participate in any of these proceedings should contact the City Clerk's Office at 120 East Main Street, Apopka, FL 32703, telephone (407) 703-1704, no less than 48 hours prior to the proceeding.

MINUTES OF THE PLANNING COMMISSION REGULAR MEETING HELD ON SEPTEMBER 11, 2018, AT 5:30 P.M. IN THE CITY COUNCIL CHAMBERS, APOPKA, FLORIDA.

MEMBERS PRESENT: James Greene, Linda Laurendeau, Robert Ryan, John Sprinkle, and Butch Stanley

ABSENT: Jose Molina, Orange County Public Schools (Non-voting)

STAFF PRESENT: James Hitt, FRA-RA – Community Development Director, David Moon, AICP - Planning Manager, Richard Earp – City Engineer, Patrick Brackins – City Attorney, Jean Sanchez – Planner II, Phil Martinez – Planner I, and Jeanne Green – Recording Secretary

OTHERS PRESENT: Mark Sessions, Luke Classon, Eric Bennett, Bryan Gaines, Julie Kendig, Matt Roth, Derek Schanreberg, Sam Stahnke, Selby Weeks, Paul Stranbinger, Suzanne Kidd, Elliott Jamison, Ryan Kingry, Mohammed Abdallah, Amy Deluce, Stephen Lebel, Michelle Lebell, and Theresa Sargeant – Apopka Chief

OPENING AND INVOCATION: Chairperson Greene called the meeting to order and asked for a moment of silent prayer. The Pledge of Allegiance followed.

September 11th Petition - Linda Laurendeau recited a petition in remembrance of the event that occurred on September 11, 2001.

APPROVAL OF MINUTES: Chairperson Greene asked if there were any additional corrections or additions to the regular meeting minutes of August 14, 2018, at 5:30 p.m.

Motion: **John Sprinkle made a motion to approve the Planning Commission minutes from the regular meeting held on August 14, 2018, at 5:30 p.m. and seconded by Robert Ryan. Aye votes were cast by James Greene, Linda Laurendeau, Robert Ryan, John Sprinkle, and Butch Stanley (5-0).**

LEGISLATIVE – LAND DEVELOPMENT CODE AMENDMENT – ARTICLE V, SECTION 5.05.00 - FLOODPLAIN - Chairperson Greene stated this is a request to recommend approval of the amendment to the Apopka Code of Ordinances, Part III, Land Development Code, Article V, Section 5.05.00 – Floodplains; and recommend adoption of the Technical Amendments to the Florida Building Code.

Staff Presentation: Richard Earp, P.E., City Engineer, stated this is a request to recommend approval of the amendment to the Apopka Code of Ordinances, Part III, Land Development Code, Article V, Section 5.05.00 – Floodplains; and recommend adoption of the Technical Amendments to the Florida Building Code. On January 5, 2018, the City of Apopka was formally notified by the State of Florida, Division of Emergency Management that the Florida Building Code 6th Edition, became effective on January 1, 2018. In order for the City to maintain compliance with the minimum requirements of the Federal Emergency Management Agency (FEMA) National Flood Insurance Program (NFIP), revisions to the City's Floodplain Ordinance and associated Floodplain elements of the Land Development Code are required.

This year, the Florida Division of Emergency Management (FDEM) collaborated with the City Engineer/Floodplain Administrator to develop code revisions. This request includes all FDEM and FEMA required revisions.

Only one proposed revision is in excess of minimum FDEM and FEMA requirements. As a minimum, FEMA requires that the Finished Floor Elevation (FFE) of all new and substantially improved structures be constructed at least 1-foot above the FEMA 100-year Floodplain Elevation. This proposed code revision requires 2-feet above the FEMA 100-year Floodplain Elevation. The FFE increase above the minimum provides both additional protection from flooding, and additional FEMA Community Rating System (CRS) credits. CRS credits are used by FEMA to calculate the amount of Floodplain Insurance Policy discount policy holders receive. FEMA's 2017 audit of the City's CRS program scored the City in Class 8. CRS Class 8 Communities enjoy a 10% discount on flood insurance policies for structures within the 100-year Special Flood Hazard Area and 5% discount on policies for structures outside of the 100-year Special Flood Hazard Area.

In response to a question by Ms. Laurendeau, Mr. Earp stated that the new changes will affect future projects.

In response to a question by Mr. Sprinkle, Mr. Earp the 100 year calculation is based on one percent of rain fall in any given year.

Chairperson Greene opened the meeting for public hearing. With no one wishing to speak, Chairperson Greene closed the public hearing.

Motion: **Linda Laurendeau made a motion to recommend approval of the amendment to the Apopka Code of Ordinances, Part III, Land Development Code, Article V, Section 5.05.00 – Floodplains; and recommend adoption of the Technical Amendments to the Florida Building Code. Motion seconded by Butch Stanley. Aye votes were cast by James Greene, Linda Laurendeau, Robert Ryan, John Sprinkle, and Butch Stanley (5-0). (Vote taken by poll.)**

LEGISLATIVE – COMPREHENSIVE PLAN AMENDMENT – CAPITAL IMPROVEMENTS ELEMENT - Chairperson Greene stated this is a request to find the proposed amendment of the Apopka Five-Year Capital Improvements Plan consistent with the Apopka Comprehensive Plan; and recommend approval of the Five-Year Capital Improvements Plan amendment and the incorporation into the Capital Improvements Element of the Comprehensive Plan.

Staff Presentation: David Moon, AICP, Planning Manager, stated this is a request to find the proposed amendment of the Apopka Five-Year Capital Improvements Plan consistent with the Apopka Comprehensive Plan; and recommend approval of the Five-Year Capital Improvements Plan amendment and the incorporation into the Capital Improvements Element of the Comprehensive Plan. The City desires to conduct recreation improvements at Kit Land Nelson Park and at Northwest Recreation Complex to accommodate a need for additional and improved playground equipment and facilities for youth. To fund these recreation improvements, the City proposes to apply for available grant funds sponsored by the Florida Department of Environmental Project.

Eligibility requirements for thee grant program require that the proposed recreation improvement must be recognized within the City's capital improvement program (CIP) established in the Comprehensive

Plan. Further, the City must proceed expeditiously at this time to meet grant application deadlines. Hence, the proposed update to the five-year CIP of the Comprehensive Plan at this time only addresses the new recreation improvements at Kit Land Nelson Park and at Northwest Recreation Complex.

After the Fiscal year 2018-19 budget has been approved by City Council, staff will conduct an annual update of the five-year CIP to address necessary to meet accepted levels of service (LOS), to maintain and repair failing facilities, and to provide additional infrastructure facilities and roads to meet demands generated by new growth and development. Typically, the five-year CIP within the Comprehensive Plan addresses the infrastructure needs related to transportation, water, sewer, reclaimed water, stormwater management, and recreation.

Exhibit 'A' of this report includes the updated CIP to be incorporated as Appendix 7-1 of the Capital Improvements Element. The proposed CIP changes (additions) are included in the 'General Fund' and 'FDEP Grant Fund' sections of the Recreation CIP (shown in Exhibit 'A'). Funds appearing in the 'General Fun' serve as the local government match requirement per the conditions of the FDEP grant program.

Legislative changes in 2011 to Chapter 163, Florida Statues allow local governments to update their five-year CIP by ordinance, and is not considered a comprehensive plan policy amendment. Therefore, incorporation of the updated CIP into the Capital Improvements Element does not require transmittal to the Florida Department of Economic Opportunity for state agency review.

Chairperson Greene opened the meeting for public hearing. With no one wishing to speak, Chairperson Greene closed the public hearing.

Motion: **Linda Laurendeau made a motion to find the proposed amendment of the Apopka Five-Year Capital Improvements Plan consistent with the Apopka Comprehensive Plan; and recommend approval of the Five-Year Capital Improvements Plan amendment and the incorporation into the Capital Improvements Element of the Comprehensive Plan. Motion seconded by Robert Ryan. Aye votes were cast by James Greene, Linda Laurendeau, Robert Ryan, John Sprinkle, and Butch Stanley (5-0). (Vote taken by poll.)**

QUASI-JUDICIAL – CHANGE OF ZONING - PLANNED UNIT DEVELOPMENT MASTER PLAN/PRELIMINARY DEVELOPMENT PLAN – MID-FLORIDA LOGISTICS PARK - Chairperson Greene stated this is a request to find the proposed rezoning to Planned Unit Development (PUD), PUD Master Plan/Preliminary Development Plan/Preliminary Site Plan consistent with the Comprehensive Plan and Land Development Code; and recommend approval of the rezoning from I-1 (Restricted Industrial), Mixed-EC, R-1AA (Residential Single-Family), AG (Agricultural), and A-1 (ZIP) to PUD (Planned Unit Development); recommend approval of the PUD Master Plan/Preliminary Development Plan/Preliminary Site Plan based on the findings and facts presented in the staff report and exhibits, and subject to City Council approving a development agreement for the property owned by Mid-Florida Freezer Warehouses LTD and Eagles Landing at Ocoee, LLC and located on the west side of SR 429, south of General Electric Road, east of Hermit Smith Road.

Chairperson Greene asked if there were any affected parties in attendance that wished to speak.

Mark Sessions requested affected party status as he owns property adjacent to the proposed project.

Erin Bennett, stated he represents The Coca-Cola Company that owns property adjacent to the proposed project and requested affected party status.

The Planning Commission unanimously agreed that Mr. Sessions and Mr. Bennet, as a representative for The Coca-Cola Company, were affected parties.

Chairperson Greene asked if the Commission members had any ex parte communications to divulge regarding this item. No ex parte communications occurred.

Staff Presentation: David Moon, AICP, Planning Manager, stated this is a request to find the proposed rezoning to Planned Unit Development (PUD), PUD Master Plan/Preliminary Development Plan/Preliminary Site Plan consistent with the Comprehensive Plan and Land Development Code; and recommend approval of the rezoning from I-1 (Restricted Industrial), Mixed-EC, R-1AA (Residential Single-Family), AG (Agricultural), and A-1 (ZIP) to PUD (Planned Unit Development); recommend approval of the PUD Master Plan/Preliminary Development Plan/Preliminary Site Plan based on the findings and facts presented in the staff report and exhibits, and subject to City Council approving a development agreement for the property owned by Mid-Florida Freezer Warehouses LTD and Eagles Landing at Ocoee, LLC and located on the west side of SR 429, south of General Electric Road, east of Hermit Smith Road. The engineer is Dave Schmitt Engineering, Inc., c/o Bryan Gaines, AICP. The existing use is vacant land. The proposed use is 2,406,095 square feet of industrial buildings to be developed in multiple phases. The current future land use is Industrial, Mixed-Use, Agriculture. The proposed future land use is Industrial and is being taken to City Council for second reading on September 19, 2018. The current zoning is I-1 (Restricted Industrial), Mixed-EC, R-1AA (Residential Single-Family), AG (Agriculture), and A-1 (ZIP). The proposed zoning is Planned Unit Development (PUD). The tract size is 186.03 +/- acres.

The subject property is approximately 188.893 acres in size and is zoned I-1 (Restricted Industrial District), Mixed-EC, R-1AA (Residential Single-Family District), AG (Agriculture District), and A-1 (ZIP) and has a future land use designation of Industrial. The subject property is located west of SR 429, south of General Electric Road and east of Hermit Smith Road. The proposed change of zoning to PUD (Planned Unit Development) is being requested by the prospective developer, who proposes to construct a subdivision consisting of five industrial warehouse buildings totaling 2,406,095 on the property.

A development agreement is required to address off-site infrastructure obligations placed on either the City or the Developer, land dedications, vacate of city right-of-way, timing of infrastructure, and special design or use standards. City staff and the city attorney's office has worked with the applicant and its attorney to prepare the development agreement. At this time it is not complete, but is anticipated to be ready for City Council review and action at the second public hearing for the PUD zoning. If the development agreement is not ready for the October 17 City Council meeting, City staff will request a continuation of the second hearing to the November 7 City Council meeting date.

The PUD Master Plan/Preliminary Development Plan/Preliminary Site Plan proposes a subdivision consisting of five industrial warehouse buildings totaling 2,406,095 square feet. Access to the site is proposed an ingress/egress point on Hermit Smith Road, two ingress/egress points on General Electric Road, and a yet to be constructed road that is dedicated to the public that is referred to as Fern Industrial Drive, which is proposed to be constructed in a north-south direction. In addition, three railroad spurs are proposed to lead into buildings 1A and 1B, 2, and 3. The railroad spurs will be located along the

right-of-way of Fern Industrial Drive. Parking will be provided on each lot, and will be owned and maintained by each property owner.

Four Stormwater retention areas are proposed on site. Pond A (dry retention) is proposed south of Building 3, Pond B is proposed east of Building 1A and 1B and adjacent to SR 429, and Ponds C1 (dry retention) and C2 (wet detention) are proposed south and west of Building 5.

An unimproved platted right-of-way known as Peterson Road bisects the property in an east to west direction. This right-of-way is proposed to be vacated when the property is platted, and the right-of-way of Peterson Road will be relocated to the south to allow access to the property owners located to the south of the PUD. The proposed relocation of the Peterson Road right-of-way is shown on the PUD Master Plan in a "J" shaped configuration that extends from north to south and east to west. The new right-of-way of Peterson Road is proposed at 55-feet in width in the north/south direction. Adjacent to the east of the new Peterson Road right-of-way, the Central Florida Expressway Authority has 25-foot perpetual ingress/egress easement that allows access to the property to the south. This easement will not be included in the north/south portion of the right of way. 80-feet of right-of-way is proposed in the east/west direction.

In order accommodated the subdivision plan and site plan, a small area of right-of-way in the northwestern corner of the site that is referred to as Fronds Road must also be vacated.

The applicant is requesting five deviations to the City's required development standards. For a PUD Master Plan, a deviation from the City's Land Development Code (LDC) does not represent a variance but a development standard or zoning condition unique to and approved as part of the Planned Unit Development zoning. PUD's are required to satisfy the requirements of the Land Development Code unless the City Council finds that, based on substantial evidence, a proposed alternative development guideline is adequate to protect to the public health safety, and welfare. Any deviations must be consistent with the policies of the Comprehensive Plan.

1. LDC, Section 6.03.02.A. Number of parking spaces required (Wholesale, industrial, manufacture, processing or assembly uses) - 2 spaces per 1,000 square feet of gross floor area up to 150,000 square feet, plus 1 space per vehicle operating from premises or 1 space per 2 employees. 1 space per 1,000 square feet over 150,000 square feet of gross floor area.

   The applicant is proposing 0.89 parking spaces per 1,000 square feet of gross floor area.

   The following justification has been provided: "The ITE Parking Generation Manual, 4th Edition, 85th percentile parking requirement for warehouse use is 0.81 spaces per 1,000 square feet of gross floor area."

2. LDC, Section 2.02.01.A. - Maximum building height for all zoning districts is 35-feet.

   The applicant is proposing a maximum building height of 55-feet within the PUD.

   The following justification has been provided: "The modern warehouses require 36-feet to 45-feet of clear space under roof to accommodate automated materials handling equipment and maximize storage."

3. LDC, Section 2.02.15.F. Yard requirements - Front yard – 25-feet, side yard – 10-feet, Yards adjacent to road right-of-ways shall be a minimum of 25-feet, Rear Yard – 10-feet (30-feet adjacent to residential)

   The applicant is proposing 15-foot setback on General Electric Road, Hermit Smith Road to main entrance, 0-feet to 10-feet adjacent to SR 429, 10-feet to 25-feet adjacent to Peterson Road, 10-feet adjacent to Fern Industrial Drive.

   The following justification has been provided: "The northwestern portion of the site is constrained by the encroachment of General Electric Road. SR 429 has 300-feet of right-of-way, 6 lanes, and provides a 20-foot high barrier to adjacent property to the east."

4. LDC, Section 2.02.01.b(8a) – Roof top equipment shall be completely screened from adjacent properties and rights-of-way to the maximum extent possible.

   The applicant is proposing roof top equipment shall be screened from view from adjacent property lines and public right-of-way, with the exception of SR 429 due to the large elevation change of the roadway and the finished floor elevation of the building. SR 429 is at an elevation of 135-feet, approximately 20-feet above the finished floor height of Building 2. Screening shall be reviewed to be in conformance by the subdivision president and the City of Apopka. Screening shall be reviewed through a sight line document from the nearest adjacent property line and/or from the center line of the public right-of-way. The eye line shall be from the typical height of a person driving an automobile.

   The following justification has been provided: "All buildings will have a site line evaluation to confirm that rooftop equipment will not be visible from adjacent properties and right-of-way."

5. LDC, Section 6.02.08.B.2 – All subdivisions are required to have four-foot wide concrete sidewalks on both sides of all local and minor collector streets.

   The applicant is proposing to construct a sidewalk along only one side of Fern Industrial Drive.

   The following justification has been provided: "We are requesting that we do not place a sidewalk on the east side of the right-of-way proximate to the rail spurs. The pedestrian access plan provided on Sheet 6 of the PUD Master Plan shows a network of pedestrian facilities serving the entire site. The sidewalk on the west side of Fern Industrial is the spine connecting the southern end of the site with General Electric Road. All buildings are connected to this north/south spine and the appropriate crosswalks are provided when needed. We (BlueScope) remain concerned that placement of a sidewalk will not increase the pedestrian connectivity over the current plan but will put pedestrians in close proximity to the rail spurs to the east of Fern Industrial serving the site. The benefit of the additional sidewalk does not, in our opinion, warrant the risk of inadvertent interaction of pedestrians and rail vehicles."

Access to the site is provided from General Electric Road and Hermit Smith Road. Peterson Road is also a future access point for this project as well as for properties to the south of the Mid-Florida Logistics Park site. Peterson Road and Fronds Road are both proposed to be vacated at the request of

the applicant and property owner. Peterson Road will be re-aligned to follow the south project/property line and intersect with Fern Industrial Drive. The vacated road right-of-way will become part of the development site, making it more compact and contiguous. Peterson Road access will serve as a future secondary access for emergency response. The proposed Peterson Road alignment will also create connection to Peterson Road east of SR 429, allowing residents of the proposed Avian Pointe residential development to reach the Logistics Park. The Peterson Road connection between the east and west side of SR 429 also allows another road connection besides using West Orange Avenue and Binion Road, thus allowing traffic to distribute over more routes.

A transportation impact analysis (TIA) was conducted for this project to assess its impacts on the surrounding roadway segments and intersections within a one-mile radius of the project per the City's adopted TIA methodology. Included in the analysis were segments of US 441, General Electric Road, Binion Road, Hermit Smith Road and Hogshead Road. Intersections analyzed were General Electric Road and Orange Avenue, Hermit Smith Road and General Electric Road, Hermit Smith Road and US 441, SR 429 Connector Road and US 441, Orange Avenue and US 441, Plymouth Sorrento Road and US 441, Boy Scout Boulevard and US 441, General Electric Road and Site Access, and Hermit Smith Road and Site Access. Peterson Road connection requires additional right-of-way east of SR 429. In exchange for the City vacating Fronds Road and Peterson Road, Mid-Florida Freezer will be obligated to donate an additional 30-foot width of land along Peterson Road, east of SR 429, to create a 50-foot wide right-of-way.

The project will generate 3,444 daily trips and 246 P.M. Peak Hour trips. It is estimated that 20% of the total traffic generated by this project will be truck traffic. The nature of the land use supports the assumption that most of the truck traffic will leave the site and access SR 429 from US 441 and SR 429 Connector Road.

The addition of project trips to the study roadways will not cause the Level of Service (LOS) to fall below the City's adopted LOS standard. The addition of project traffic to the intersection of Hermit Smith Road and US 441 will cause the intersection to fail. The applicant is required to design and construct a dedicated right turn lane on Hermit Smith Road to allow for safe access to US 441. The addition of project traffic to the other study intersections is not project to cause failures in the future.

The tenants of the Mid-Florida Logistics Park are unknown at this time, so trip generation is based on the best information currently available; however, it is possible that tenants occupying space at Mid-Florida Logistics Park will exceed the trip generation used to conduct the analysis. As the site develops and becomes occupied, the applicant must reassess the trip generation. If it exceeds the projected trip generation used in the analysis, an updated study is required and additional mitigation for roadway and intersection failures caused by the project traffic.

The PUD recommendations are that the zoning classification of the following described property be designated as Planned Unit Development (PUD), as defined in the Apopka Land Development Code, and with the following Master Plan provisions subject to the following zoning provisions:

A. The uses permitted within the PUD district shall be those described in C below.

B. Terms of Expiration for this PUD shall be as follows:

If a Final Development Plan associated with the PUD district has not been approved by the City within three years, and site development has not commenced within four years after approval of these Master Plan provisions, the approval of the Master Plan provisions will expire. At such time, the City Council may:

1. Permit a single six-month extension for submittal of the required Final Development Plan;

2. Allow the PUD zoning designation to remain on the property pending resubmittal of new Master Plan provisions and any conditions of approval; or

3. Rezone the property to a more appropriate zoning classification.

C. Zoning Standards

1. Permitted Uses:

(a) All permitted uses allowed under I-1 zoning district;

(b) The uses allowed by the "Developer's Agreement for Development of Copart, Inc. Apopka Property," as recorded as document number 20160275220 within the official records of Orange County, Florida, shall be available uses within this PUD if the Copart Developer's Agreement is terminated with the mutual consent of City Council and the property owner subject to the Copart Developer's Agreement;

(c) Long-term outdoor vehicle (bus, car, cab, and truck) storage and terminal use is permitted within the PUD as an accessory use if said vehicle parking is associated with an enclosed building having a minimum floor area of 10,000 square feet and located within the same Lot or abutting lots. All vehicles stored outdoors must be operable.

(d) Prohibited Use: Flea markets; day-care centers except when provided solely for on-site employees; churches, public or private schools (k-12th grade) except when located within a stand-alone building; community residential homes; All prohibited uses for the I-1 zoning district.

(e) Special Exceptions: As set forth by the I-1 zoning district except if listed as a permitted or prohibited uses above.

The proposed use of the property is consistent with the proposed Industrial Future Land Use designation and is consistent with the Land Development Code.

Pursuant to Section 7 of the Joint Planning Area agreement, notification to Orange County was provided on July 18, 2018.

The Development Review Committee finds the proposed rezoning to Planned Unit Development (PUD), PUD Master Plan/Preliminary Development Plan/Preliminary Site Plan consistent with the Comprehensive Plan and Land Development Code and recommends approval of the Mid-Florida Logistics Park PUD Master Plan/Preliminary Development Plan/Preliminary Site Plan.

Staff recommended the Planning Commission find the proposed zoning and PUD Master Plan/Preliminary Development Plan/Preliminary Site Plan consistent with the Comprehensive Plan and Land Development Code; and unanimously recommended approval of the rezoning of the subject parcel from I-1 (Restricted Industrial District), Mixed-EC, R-1AA (Residential Single-Family District), AG (Agriculture District), and A-1 (ZIP) to PUD (Planned Unit Development), and approval of the PUD Master Plan/Preliminary Development Plan/Preliminary Site Plan based on the findings and facts presented in the staff report and exhibits, subject to City Council approving a Development Agreement.

This item is considered quasi-judicial. The staff report and its findings are to be incorporated into and made a part of the minutes of this meeting.

Bryan Gaines, Dave Schmitt Engineering, Inc., 12301 Lake Underhill Road, Orlando, stated that he was available to answer any questions and their attorney, Julie Kendig, was also available to answer any questions.

Mark Sessions, St. Cloud, expressed his support of the proposed project. He stated that he owns a parcel of land that is land locked south of the subject property. He requested that the developer extend Peterson Road to allow access to his property.

Julie Kendig, GreenbergTraurig, 450 South Orange Avenue, Suite 650, Orlando, stated that Mr. Sessions property has been land locked for many years. Her client is under no obligation to provide access to Mr. Sessions property.

In response to a question by Mr. Sprinkle, Patrick Brackin, City Attorney, stated that extending Peterson Road to allow access to the properties located south of the proposed project was not included in the plan and staff has not been asked to review that access. The City is not responsible for providing access when access is not already there. This is an issue between the property owners. Based on the facts presented the City is under no obligation to provide access.

James Hitt, FRA-RA, Community Development Director, advised Mr. Sessions that there may be an option to open access on the south side of his property and he would provide Mr. Sessions with contact information.

Chairperson Greene opened the meeting for public hearing. With no one wishing to speak, Chairperson Greene closed the public hearing.

Motion: **John Sprinkle made a motion to this is a request to find the proposed rezoning to Planned Unit Development (PUD), PUD Master Plan/Preliminary Development Plan/Preliminary Site Plan consistent with the Comprehensive Plan and Land Development Code; and recommend approval of the rezoning from I-1 (Restricted Industrial), Mixed-EC, R-1AA (Residential Single-Family), AG (Agricultural), and A-1 (ZIP) to PUD (Planned Unit Development); recommend approval of the PUD Master Plan/Preliminary Development Plan/Preliminary Site Plan based on the findings and facts presented in the staff report and exhibits, and subject to City Council approving a development agreement for the property owned by Mid-Florida Freezer Warehouses LTD and Eagles Landing at Ocoee, LLC and located on the west side of SR 429, south of General Electric Road, east of Hermit Smith**

Road. Motion seconded by Linda Laurendeau. Aye votes were cast by Aye votes were cast by James Greene, Linda Laurendeau, Robert Ryan, John Sprinkle, and Butch Stanley (5-0). (Vote taken by poll.)

QUASI-JUDICIAL – FINAL DEVELOPMENT PLAN – APOPKA MEDICAL OFFICE - Chairperson Greene stated this is a request to find the AutoZone Store Final Development Plan consistent with the Land Development Code and Comprehensive Plan; and recommend approval of Final Development Plan, subject to the Condition of Approval and the findings of the staff report for the property owned by Urgent Care Developers of Apopka, LLC c/o Tim Burrill, and located at 1520 West Orange Blossom Trail.

Chairperson Greene asked if there were any affected parties in attendance that wished to speak. No one spoke.

Chairperson Greene asked if the Commission members had any ex parte communications to divulge regarding this item. No ex parte communications occurred.

Staff Presentation: Jean Sanchez, Planner II, stated this is a request to find the Apopka Medical Office Final Development Plan consistent with the Land Development Code and Comprehensive Plan; and recommend approval of Final Development Plan, subject to the Condition of Approval and the findings of the staff report for the property owned by Urgent Care Developers of Apopka, LLC c/o Tim Burrill, and located at 1520 West Orange Blossom Trail. The engineer is Klima Weeks Civil Engineering, Inc., c/o Selby G. Weeks, P.E. The future land use is Commercial and the zoning is C-1 (Retail Commercial) the existing use is vacant land and the proposed use is a 5,285 sq. ft. medical office. The floor area ratio is 0.03. The tract size is 4.48 +/- acres.

This is a request to approve the Apopka Medical Office Building – Final Development Plan/Site Plan that includes a proposed building floor area of 5,285 square feet for medical office use. This project on Lot 1 will use 0.57 acre. Lot 2 is intended for future commercial use with a total of 3.92 acres. The entire parcel with total size of 4.48 acres is intended to be platted prior to the completion of the medical office building. A Certificate of Occupancy for this project will not be issued until a plat is approved. The stormwater pond may later be incorporated into a master stormwater pond jointly used by the entire development.

A total of 26 parking spaces will be provided as required by Code, two of which are reserved as a handicap accessible parking spaces.

This project will have right-in-right-out only access to U.S. 441/W Orange Blossom Trail. Exiting traffic that wants to travel north on U.S. 441/W Orange Blossom trail will be required to make a U-turn at the U.S. 441/W Orange Blossom Trail and Errol Parkway signalized intersection.

Projects that generate less than 400 daily trips do not require the submittal of a Traffic Impact Analysis (TIA). The applicant was advised at DRC that when the remainder of the parcel is brought forward for development, a TIA will be required to assess the total site impacts.

The height of the proposed building is 25 feet, below the maximum allowable height of 35 feet. Staff has found the proposed building façade elevations to be in accordance with the City's Development Design Guidelines.

The stormwater management system includes an on-site retention area, on the southern portion of the site. The stormwater pond design meets the City's Land Development Code requirements based on this project but may be amended at the time of Lot 2 development.

As part of the development plan approval, blue cypress, bottle brush and crepe myrtle trees will embellish the 10-foot wide landscaping buffer adjacent to U.S. Highway 441. Live oaks are located around the parking landscaped islands and blue cypress trees surround the building. The planting materials and irrigation system design are consistent with the water-efficient landscape standards set forth in Ordinance No. 2069.

Arbor Assessment:

Total inches on-site:	12
Total inches removed	12
Total inches retained:	0
Total inches added:	89
Total inches post development:	89

The Development Review Committee recommends approval of the Apopka Medical Office Building Final Development Plan, subject to the findings of this staff report.

Staff recommended the Planning Commission find the Apopka Medical Office Building Final Development Plan consistent with the Land Development Code and Comprehensive Plan, and recommend approval of Apopka Medical Office Building Final Development Plan, subject to the findings of this staff report.

The role of the Planning Commission for this development application is to advise the City Council to approve, deny, or approve with conditions based on consistency with the Comprehensive Plan and Land Development Code.

This item is considered quasi-judicial. The staff report and its findings are to be incorporated into and made a part of the minutes of this meeting.

Chairperson Greene opened the meeting for public hearing. With no one wishing to speak, Chairperson Greene closed the public hearing.

Motion: **Butch Stanley made a motion to find the Apopka Medical Office Final Development Plan consistent with the Comprehensive Plan and Land Development Code; compatible with the character of the surrounding area; and recommend approval of Apopka Medical Office Final Development Plan, subject to the findings of the staff report for the property owned by Urgent Care Developers of Apopka, LLC c/o Tim Burrill, and located at 1520 West Orange Blossom Trail. Motion seconded by John Sprinkle. Aye votes were cast by James Greene, Linda Laurendeau, Robert Ryan, John Sprinkle, and Butch Stanley (5-0). (Vote taken by poll.)**

QUASI-JUDICIAL – PLAT – LAKESIDE, PHASE 2 - Chairperson Greene stated this is a request to find the Lakeside, Phase 2, Plat consistent with the Land Development Code and Comprehensive Plan; and recommend approval of Plat, subject to the findings of the staff report for the property owned by Avatar Properties Inc. and located south of Marshall Lake and West of SR 451.

Chairperson Greene asked if there were any affected parties in attendance that wished to speak. No one spoke.

Chairperson Greene asked if the Commission members had any ex parte communications to divulge regarding this item. No ex parte communications occurred.

Staff Presentation: Bobby Howell, AICP, Senior Planner, stated this is a request to find the Lakeside, Phase 2, Plat consistent with the Land Development Code and Comprehensive Plan; and recommend approval of Plat, subject to the findings of the staff report for the property owned by Avatar Properties Inc. and located south of Marshall Lake and West of SR 451. The engineer is Appian Engineering, LLC, c/o Luke M. Classon, P.E. The future land use is Low Density Residential, Mixed-Use and the zoning is PUD (Planned Unit Development). The existing use is vacant land and the proposed use is a 124 single-family homes subdivision. The overall tract size is 154.18 +/- acres with a developable area of 52.06 +/- acres.

On April 4, 2018 the City Council approved a PUD Master Plan/Preliminary Development Plan for the Lake Marshall subdivision, which details the development of 301 single family residential lots in two phases. The subject property is located south of Marshall Lake and west of SR 451. The surrounding properties consist primarily of single-family residential and agricultural uses. The developer has submitted a Final Development Plan and Plat for phase 2 of the Lake Marshall subdivision, now named Lakeside.

The applicant is requesting approval of the Plat for Phase 2 of Lakeside. The Lakeside Phase 2 plat is for 124 single-family residential lots. All internal roadways are proposed as privately owned and maintained, and the subdivision will be gated. Consistent with the approved PUD Master Plan/Preliminary Development Plan, lot widths of 55-feet and 60-feet are provided on the Phase 2 plat. A minimum living area of 1,600 square feet is provided for all units located within Phase 2.

The minimum setbacks applicable to this project are:

Setback	Min. Standard
Front	25’
Side	5’ – 60’ lot 7.5’ – 55’ lot
Rear	20’
Corner	15’

Ingress/egress access points for the development will be via Johns Road. Adjacent to the west of the subject property is the Breckenridge subdivision. A gated access for emergency vehicles will be provided between the two subdivisions. This access point will only be for emergency vehicles. In response to the Breckenridge homeowners association, pedestrian access will not be permitted between the two subdivisions.

There are three (3) retention ponds designed to meet the City's Land Development Code requirements.

Consistent with the approved PUD Master Plan/Preliminary Development Plan, the recreation package will be located within Phase 1 and will consist of a cabana with restrooms, a swimming pool, a playground, and a mixed-use active field at a minimum. In addition the developer is dedicating a tract in Phase 1 adjacent to Marshall Lake as a Community Lake Park that will have a community dock, and a 1.03 acre open space tract across the street from this park. These amenities will be available to residents in Phase 2. In the Phase 2 area, two tracts will be dedicated as a park/open space area. A 15.12 acre Conservation area within Tract "II" will also be dedicated with an easement to the St. Johns River Water Management Distirct.

Consistent with the approved PUD Master Plan/Preliminary Development Plan, landscaping is provided at the subdivision entrance on Johns Road, a 10-foot landscape buffer is provided along Johns Road, and a 20-foot wide landscape buffer is provided along SR 451. An existing 50-foot landscape buffer occurs along the western and northern project line within the Breckenridge plat. This buffer is noted as a tract on the Breckenridge plat. The Lake Marshall development will not be visible from the homes within Breckenridge or along SR 451.

The following is a summary of the tree replacement program for this project:

Total inches on-site:	15,296
Total number of specimen trees:	45
Total inches removed:	15,161
Total inches retained:	135
Total inches replaced:	2,502
Total Inches (Post Development):	4,637

The developer has obtained a school concurrency mitigation agreement with Orange County Public Schools to address school impacts generated by this residential development. The schools zoned to receive students from this community are the following: Apopka Elementary School, Wolf Lake Middle School and Apopka High School.

The County was notified at the time of the subdivision plan and plat for this property through the DRC agenda distribution.

The Development Review Committee recommends approval of the Lakeside, Phase 2 Plat subject to the final review by the City surveyor and City Engineer prior to recording the plat.

Staff recommended the Planning Commission recommend approval of the Lakeside, Phase 2 Plat, subject to final review by the City surveyor and City Engineer prior to recording the plat.

The role of the Planning Commission for this development application is to advise the City Council to approve or deny based on consistency with the Comprehensive Plan and Land Development Code.

This item is considered quasi-judicial. The staff report and its findings are to be incorporated into and made a part of the minutes of this meeting.

Luke Classon, Appian Engineering, LLC, 2221 Lee Road, Suite 17, Winter Park, stated he represented the owner, supported the staff report, and was available to answer any questions.

Chairperson Greene opened the meeting for public hearing. With no one wishing to speak, Chairperson Greene closed the public hearing.

Motion: **Butch Stanley made a motion to find the Lakeside, Phase 2, Plat consistent with the Comprehensive Plan and Land Development Code; compatible with the character of the surrounding area; and recommend approval of Lakeside, Phase 2 Plat, subject to the findings of the staff report for the property owned by Avatar Properties Inc. and located south of Marshall Lake and West of SR 451. Motion seconded by Robert Ryan. Aye votes were cast by James Greene, Linda Laurendeau, Robert Ryan, John Sprinkle, and Butch Stanley (5-0). (Vote taken by poll.)**

QUASI-JUDICIAL – PLAT – VISTA RESERVE - Chairperson Greene stated this is a request to recommend approval of the Vista Reserve Plat subject to the findings of the staff report and final review by the City surveyor and city engineer prior to recording the plat for property owned by Mikhail Wafaa, Abdelsayed George, Abdelsayed Lucy, Abdelsayed Wafeek and located on the east side of Rogers Road, approximately one half mile north of the intersection of Rogers Road and Lester Road.

Chairperson Greene asked if there were any affected parties in attendance that wished to speak. No one spoke.

Chairperson Greene asked if the Commission members had any ex parte communications to divulge regarding this item. No ex parte communications occurred.

Staff Presentation: Mr. Howell stated this is a request to recommend approval of the Vista Reserve Plat subject to the findings of the staff report and final review by the City surveyor and city engineer prior to recording the plat for property owned by Mikhail Wafaa, Abdelsayed George, Abdelsayed Lucy, Abdelsayed Wafeek and located on the east side of Rogers Road, approximately one half mile north of the intersection of Rogers Road and Lester Road. The applicant is Pulte Home Corporation. The future land use is Low Density Suburban Residential and the zoning is PUD (Planned Unit Development). The existing use is vacant land and the proposed use is a 153 single family homes subdivision to be developed in one phase. The tract size is 61.1 +/- acres.

On August 1, 2018, the City Council approved a PUD Master Plan/Preliminary Development Plan for the Vista Reserve subdivision, which details the development of 153 single family residential lots in one phase. The subject property is located on the east side of Rogers Road, approximately one half mile north of the intersection of Rogers Road and Lester Road. The applicant is requesting approval of the Plat for Vista Reserve. The plat for Vista Reserve is for 153 lots. Consistent with the approved PUD Master Plan/Preliminary Development Plan, lot widths of 65-feet and 90-feet are provided on the plat. The minimum living area is proposed at 2,190 square feet.

Ingress/egress access points for the development are located via Rogers Road. Rogers Road will terminate at the main entrance of the development. The developer will be dedicating a 0.68 acre portion of right-of-way along Rogers Road to the City. The subdivision will consist of public roads and

infrastructure that is owned and maintained by the City. Vehicular and pedestrian connections are provided to the property to the north and to the Carriage Hills subdivision located to the south.

Two tracts located on the northwestern and northeastern corners of the site are reserved for stormwater retention. The stormwater retention areas will be owned and maintained by the homeowners association.

Consistent with the approved PUD Master Plan/Preliminary Development Plan, a 1.67 acre tract is reserved for the community recreation facility that will be owned and maintained by the homeowners association. Included within the recreation facility is a picnic area, pool, pool cabana building, play structure, open play area, bicycle parking, and a parking area for 8 cars.

Consistent with the approved PUD Master Plan/Preliminary Development Plan, a continuous open space tract with is provided around the perimeter of the subdivision to buffer the homes from the surrounding existing subdivisions. Thirty percent of the site, or 18.13 acres of open space is provided, and will be owned and maintained by the homeowners association. Landscaping and a 6-foot high brick wall is provided along Rogers Road. Trees are located within the open space tract provided around the perimeter of the subdivision.

The applicant has agreed to pay a tree mitigation payment of $56,143.06.

Per Orange County Public Schools, the project is vested to satisfy capacity, however there are outstanding concurrency issues that will be required to be satisfied prior to approval of a plat.

The County was notified at the time of the subdivision plan and plat for this property through the DRC agenda distribution.

The Development Review Committee recommends approval of the Vista Reserve Plat, subject to final review by the City surveyor and City Engineer prior to recording the plat.

Staff recommended the Planning Commission recommend approval of the Vista Reserve plat, subject to final review by the City surveyor and City Engineer prior to recording the plat.

The role of the Planning Commission for this development application is to advise the City Council to approve or deny based on consistency with the Comprehensive Plan and Land Development Code and Final Development Plan and Master Plan.

This item is considered quasi-judicial. The staff report and its findings are to be incorporated into and made a part of the minutes of this meeting.

In response to a question by Chairperson Greene, Mr. Moon stated that the developer must obtain a school capacity enhancement agreement from Orange County Public Schools prior to the plat being presented to City Council for approval.

Chairperson Greene opened the meeting for public hearing. With no one wishing to speak, Chairperson Greene closed the public hearing.

Motion: **Robert Ryan made a motion to recommend approval of the Vista Reserve Plat subject to the findings of the staff report and final review by the City surveyor and city engineer prior to recording the plat for property owned by Mikhail Wafaa, Abdelsayed George, Abdelsayed Lucy, Abdelsayed Wafeek and located on the east side of Rogers Road, approximately one half mile north of the intersection of Rogers Road and Lester Road. Motion seconded by Butch Stanley. Aye votes were cast by James Greene, Linda Laurendeau, Robert Ryan, John Sprinkle, and Butch Stanley (5-0). (Vote taken by poll.)**

OLD BUSINESS: None.

NEW BUSINESS:

Hidden Lake Appeal - Mr. Ryan suggested that when an applicant appeals a decision by the Planning Commission, a member of the Planning Commission attend that City Council meeting to inform the City Council of why the decision was made to deny the request. He then asked for clarification of City Council decided.

Mr. Hitt stated City Council approved the appeal and overturned the Planning Commission's ruling. He stated that from the north and south there will be either a masonry or brick wall up to a certain point and the remainder will be vinyl.

Joint City Council/Planning Commission Meeting – Mr. Hitt announced that a joint meeting will be planned in October to go over the proposed amendments to the Land Development Code. The meeting was tentatively scheduled for Thursday, October 15th, between 1:00 p.m. and 5:00 p.m. When the meeting date and time has been finalized he will notify the Planning Commission members.

ADJOURNMENT: The meeting was adjourned at 6:35 p.m.

James Greene, Chairperson

James K. Hitt, FRA-RA
Community Development Director

CITY OF APOPKA
PLANNING COMMISSION

X	PUBLIC HEARING	MEETING OF:	October 9, 2018
X	SITE PLAN: Final Development Plan	FROM:	Community Development
___	SPECIAL REPORTS	EXHIBITS:	Vicinity Map
___	OTHER:		Aerial Map
			Final Development Plan
			Architectural Renderings

SUBJECT: **FINAL DEVELOPMENT PLAN – SITE PLAN – 7-ELEVEN REBUILD**

REQUEST: **RECOMMEND APPROVAL OF THE FINAL DEVELOPMENT PLAN FOR THE 7-ELEVEN REBUILD**

SUMMARY:

OWNER/APPLICANT:	7-Eleven Inc. c/o Craig Cornelison, P.E.
ENGINEER:	Cornelison Engineering & Design, Inc., c/o Craig Cornelison, P.E.
LOCATION:	2229 East Semoran Boulevard
PARCEL ID #s:	12-21-28-6896-00-710
FUTURE LAND USE:	Commercial
ZONING:	C-2 (General Commercial) District
EXISTING USE:	Automobile Service Station and Convenience Store
PROPOSED USE:	Automobile Service Station and Convenience Store
TRACT SIZE:	1.279 +/- acres
BUILDING SIZE:	4,799 square feet (3,519 square feet existing; 1,280 square feet additional proposed)
FLOOR AREA RATIO	0.086 (0.25 Maximum)

DISTRIBUTION

Mayor Nelson	Finance Director	Public Services Director
Commissioners	HR Director	Recreation Director
City Administrator	IT Director	City Clerk
Community Development Director	Police Chief	Fire Chief

G:\CommDev\PLANNING ZONING\SITE PLANS\2018\7-Eleven Rebuild\4 Planning Com Hearing

RELATIONSHIP TO ADJACENT PROPERTIES:

Direction	*Future Land Use*	*Zoning*	*Present Use*
North (City)	Commercial	C-1 (Retail Commercial)	Wekiva Riverwalk Multi-Tenant Center
East	Right-of-Way (ROW)	ROW	Wekiwa Springs Road
South	ROW	ROW	SR 436/Semoran Boulevard
West (City)	Commercial	C-2 (General Commercial)	Retail Sales

PROJECT SUMMARY: This is a request to approve the 7-Eleven Rebuild – Final Development Plan/Site Plan that includes an additional square footage of 1,280 to an existing building area of 2,655 square feet for convenience store. The car wash area will remain the same with the existing area of 884 square feet. This project has been determined as a redevelopment plan based on Section 6.07(A) Hardship Waiver of the Land Development Code (LDC) as it meets the following criteria:

1. Existing structure ten years of age or greater.

2. The proposed improvements enhance the economic value of the property.

3. The proposed improvements enhance the esthetics of the project site.

4. The developer/owner demonstrates to the satisfaction of the Development Review Committee (DRC) the proposed improvements would not adversely impact any surrounding properties.

5. Proposed improvements are less than 50 percent of the value of the property improvements.

PARKING: A total of 33 parking spaces will be provided as required by Code, one of which is reserved as a handicap accessible parking spaces.

ACCESS/TRANSPORTATION: This project has full access to SR 436/Semoran Boulevard.

EXTERIOR ELEVATIONS: The height of the proposed building is 22 feet, below the maximum allowable height of 35 feet. As a part of the rebuild, applicant has proposed amendments to the façade of the build and Staff has found the proposed building façade elevations to be in accordance with the City's Development Design Guidelines.

STORMWATER: The stormwater management system includes an on-site retention area, on the northwestern portion of the site. The stormwater pond design meets the City's Land Development Code requirements based on this project.

BUFFER/SCREENING/TREE PROGRAM: As part of the development plan approval, existing landscaping that are decayed will be removed and replaced. Landscaping will meet the current Code to the greatest extent possible. As this is a redevelopment plan, the required 10-foot wide landscaped buffer adjacent to a right-of-way has been has been reduced to the existing width of 5-feet adjacent to Wekiwa Springs Road Springs Road and Semoran Boulevard. Oak trees on the western perimeter are to be preserved

and red maple trees are added to the north boundary abutting Wekiva Riverwalk Shopping Plaza. Wax myrtles and crape myrtles are placed along the corner perimeter adjacent to Wekiwa Springs Road and Semoran Boulevard.

PUBLIC HEARING SCHEDULE:
October 9, 2018 - Planning Commission (5:30 pm)
November 7, 2018 - City Council (1:30 pm)

RECOMMENDATION ACTION:

The **Development Review Committee** recommends approval of the 7-Eleven Rebuild – Final Development Plan, subject to the findings of this staff report.

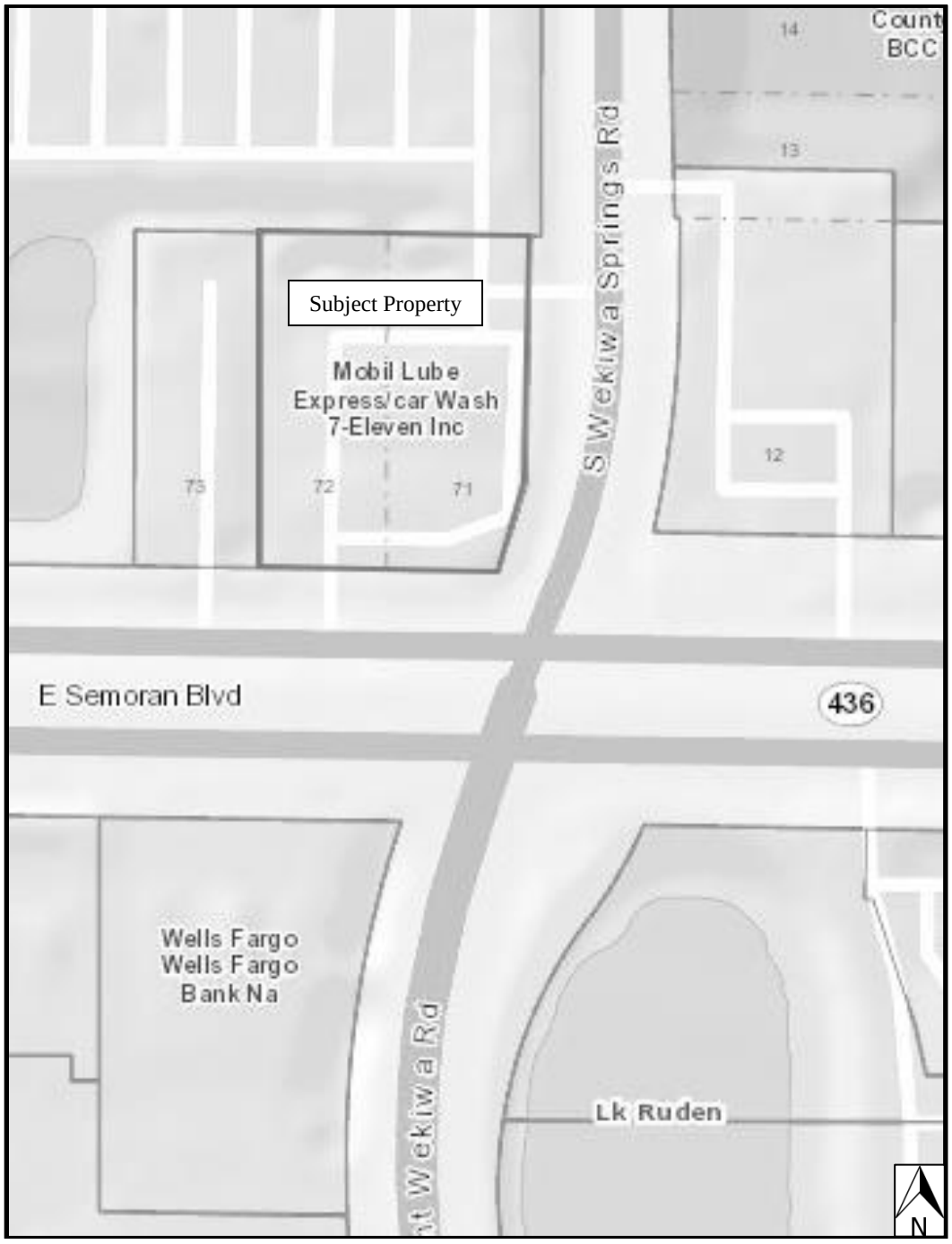
Planning Commission Recommendation: Find the 7-Eleven Rebuild – Final Development Plan consistent with the Land Development Code and Comprehensive Plan, and recommend approval of the Final Development Plan, subject to the findings of this staff report.

Planning Commission Role: The role of the Planning Commission for this development application is to advise the City Council to approve, deny, or approve with conditions based on consistency with the Comprehensive Plan and Land Development Code.

Note: This item is considered quasi-judicial. The staff report and its findings are to be incorporated into and made a part of the minutes of this meeting.

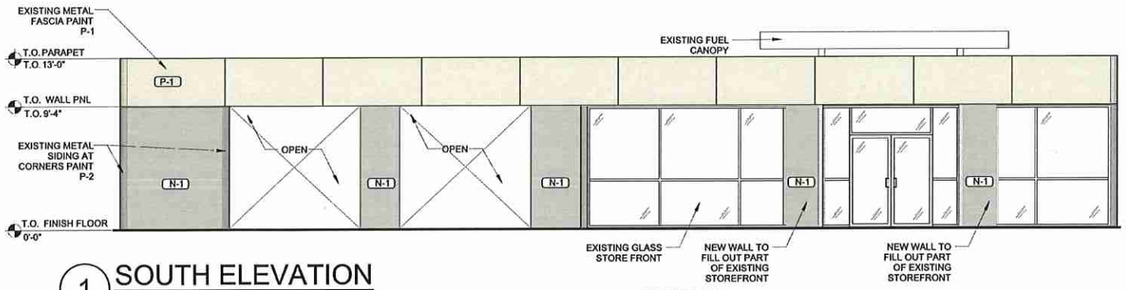
Application:	**Final Development Plan**
Owner:	**7-Eleven Inc.**
Applicant:	**7-Eleven Inc. c/o Craig Cornelison, P.E.**
Engineer:	**Cornelison Engineering & Design, Inc., c/o Craig Cornelison, P.E.**
Parcel I.D. #s:	**12-21-28-6896-00-710**
Location:	**2229 East Semoran Boulevard**
Acres:	**1.279 acres +/-**

VICINITY MAP

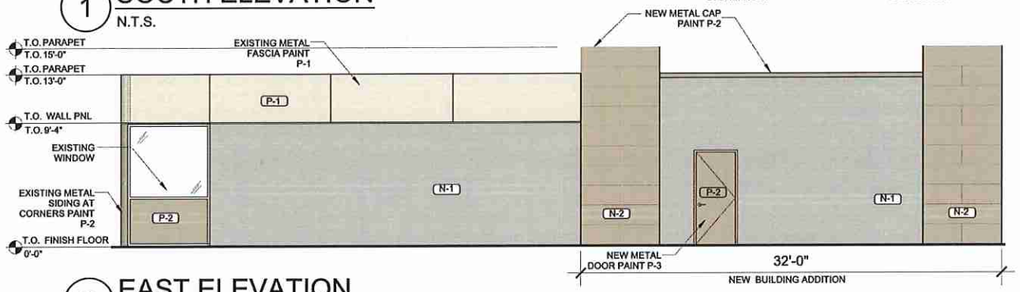


AERIAL MAP

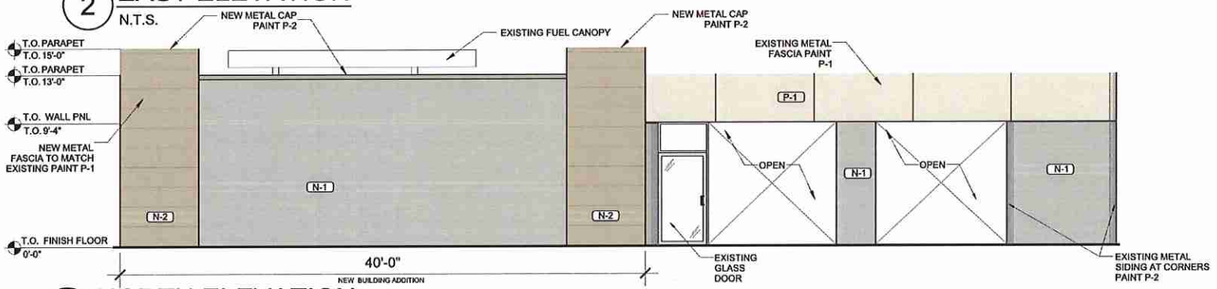
322.03
Subject Property
00730
00710
73
72
71
2213
2229
436
2222
N



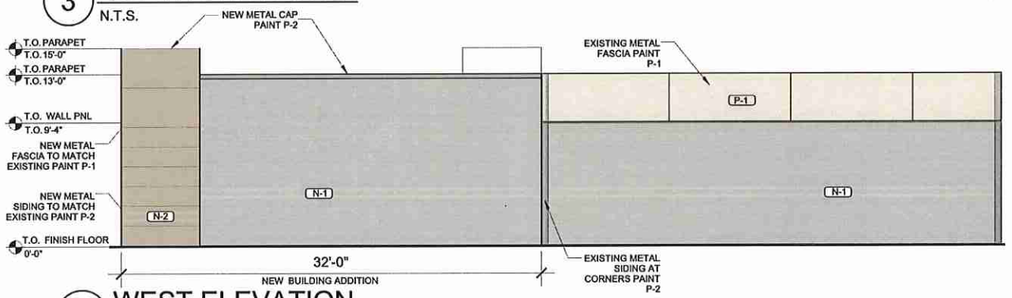
1 SOUTH ELEVATION
N.T.S.



2 EAST ELEVATION
N.T.S.



3 NORTH ELEVATION
N.T.S.



4 WEST ELEVATION
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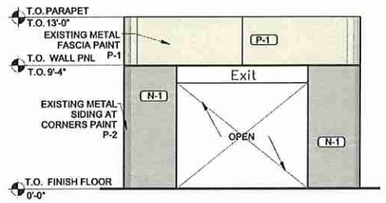
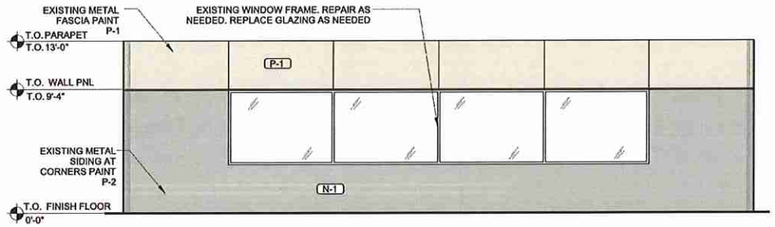
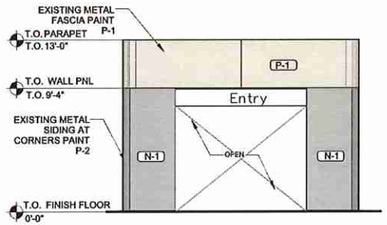


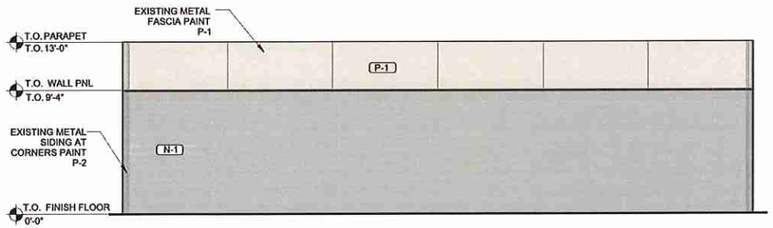
5 CARWASH SOUTH ELEVATION
N.T.S.



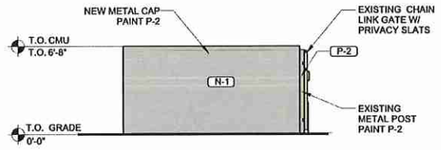
6 CARWASH EAST ELEVATION
N.T.S.



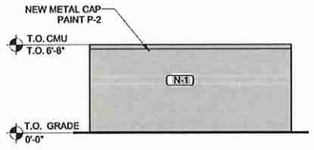
7 CARWASH NORTH ELEVATION
N.T.S.



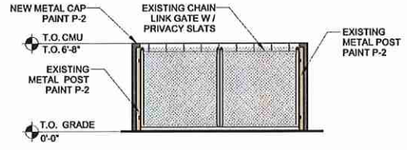
8 CARWASH WEST ELEVATION
N.T.S.



9 SIDE DUMPSTER ELEV.
N.T.S.



10 REAR DUMPSTER ELEV.
N.T.S.



11 FRONT DUMPSTER ELEV.
N.T.S.

N-1
NICHIHA PANELS
CANYON BRICK
SHALE BROWN

N-2
NICHIHA PANELS
ARCHITECTURAL BLOCK
PRIMED TO BE PAINTED P-2

MATERIALS AND PAINT SCHEDULE			
N-1	NICHIHA PANELS	SHALE BROWN	CANYON BRICK (BRICK SERIES)
N-2	NICHIHA PANELS	PAINT P-2 (SW 7037)	ARCHITECTURAL BLOCK - PRIMED FOR NEW PAINT
P-1	AESTHETIC WHITE	SW 7035	SHERCRYL HPA SEMI-GLOSS, B66W351
P-2	BALANCED BEIGE	SW 7037	SHERCRYL HPA SEMI-GLOSS, B66W351

Rev. #	Date	Description

7-ELEVEN, INC.
3200 Hackberry Rd, Irving, Texas 75063

7-11 #34778
2229 SEMORAN BLVD.
APOPKA, FL

THE DIMENSION GROUP
ARCHITECTURE
CIVIL ENGINEERING
MEP ENGINEERING
PLANNING
10755 SANDHILL ROAD
DALLAS, TEXAS 75238
O: 214-343-9400 | F: 214-503-6778
dimensiongrp.com

Job#:	17-425
Scale:	AS NOTED
Date:	6/12/18
Drawn By:	
Checked By:	

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PRELIMINARY DRAWINGS
DESIGN DEVELOPMENT
NOT FOR CONSTRUCTION

SHEET:

FINAL DEVELOPMENT PLANS △

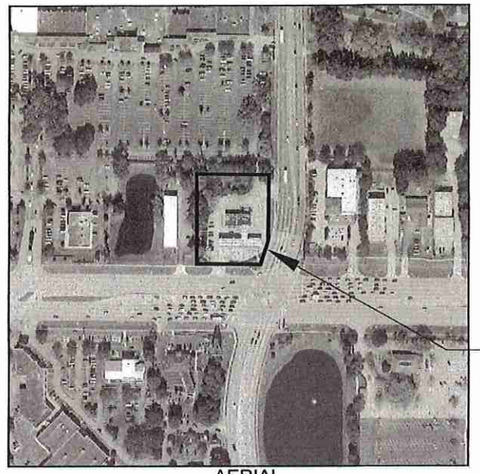
FOR

7-ELEVEN

2229 E. SEMORAN BLVD.
APOPKA, FLORIDA 32703

CITY OF APOPKA

PARCEL I.D. NUMBER: 12-21-28-6896-00-710



AERIAL

0 200 400
SCALE (IN FEET)

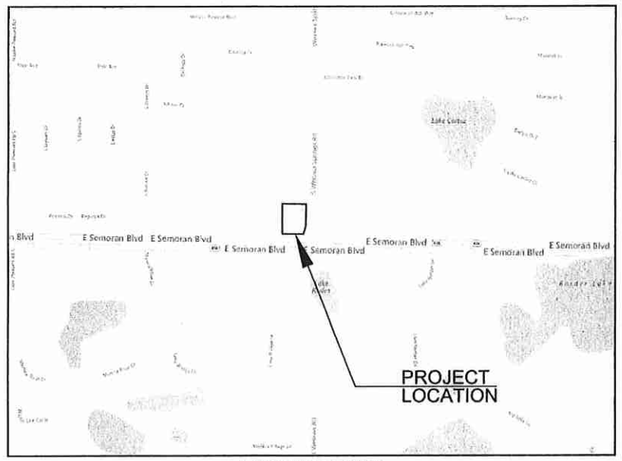
LEGAL DESCRIPTION:

(AS PROVIDED BY SURVEYOR):

A PORTION OF LOTS 71 AND 72, PIEDMONT ESTATES, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK R, AT PAGE 35, OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA MORE PARTICULARLY DESCRIBED AS FOLLOWS: COMMENCE AT THE SOUTHEAST CORNER OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 12, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA; THENCE RUN NORTH 00°09'31. WEST ALONG THE EAST LINE OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 12, A DISTANCE OF 42.47 FEET; THENCE RUN NORTH 89°21'31 WEST, A DISTANCE OF 81.50 FEET TO POINT OF BEGINNING; THENCE RUN N 89°21'31 W, A DISTANCE OF 188.57 FEET; THENCE RUN N 00°09'31" W. A DISTANCE OF 266.32 FEET; THENCE RUN S 89°20'01" E, A DISTANCE OF 214.00 FEET; THENCE RUN S 00°53'03 W, A DISTANCE OF 197.00 FEET; THENCE RUN N 17°25'42'. E. A DISTANCE OF 72.27 FEET TO THE POINT OF BEGINNING.

SHEET INDEX

SHEETS REVISED	SHEET NO.	SHEET DESCRIPTION
△△	C01	COVER SHEET
△	C02	GENERAL NOTES
△	C03	EXISTING CONDITIONS/ DEMO PLAN
△△	C04	SITE PLAN
△	C05	PAVING, GRADING, AND DRAINAGE PLAN
△	C06	UTILITY PLAN
△	C07	EROSION CONTROL PLAN
△	C08	EROSION CONTROL DETAILS
△	C09	CONSTRUCTION DETAILS
△	C10	CONSTRUCTION DETAILS
△	C11	UTILITY DETAILS
△	C-12	PHOTOMETRIC PLAN
△	C-13	PHOTOMETRIC DETAILS
△	LA-01	TREE PRESERVATION/REMOVAL PLAN
△	LA-02	LANDSCAPE PLAN
△	LA-03	IRRIGATION PLAN



LOCATION MAP
1" = 600'

SECTION 12 - TOWNSHIP 21S - RANGE 28E

REVISIONS

△ 02/15/2018 REVISED PER CITY COMMENTS
△ 08/18/2018 REVISED PER CITY COMMENTS

PROJECT TEAM

DEVELOPER:
7-ELEVEN, INC.
CONTACT: MATT MCCONNELL
1209 S. WHITE CHAPEL BLVD., SUITE 180
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CRAIG LEE CORNELISON LICENSE No. 55433 STATE OF FLORIDA PROFESSIONAL ENGINEER
8-18-18
CRAIG L. CORNELISON, P.E.
FL PE# 55433

SHEET NUMBER C01 SHEET 1 OF 15

7-ELEVEN - 2229 E. SEMORAN BLVD., APOPKA, FL
CED PROJECT# 1509023

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GENERAL

1. IT IS INTENDED THAT THE FLORIDA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" (LATEST EDITION) BE USED WHERE APPLICABLE FOR VARIOUS WORK, AND THAT WHERE SUCH WORDING THEREIN REFERS TO THE STATE OF FLORIDA AND ITS DEPARTMENT OF TRANSPORTATION AND PERSONNEL, SUCH WORDING IS INTENDED TO BE REPLACED WITH THAT WORDING WHICH WOULD PROVIDE PROPER TERMINOLOGY, THEREBY MAKING SUCH "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" AS THE STANDARD SPECIFICATIONS FOR THIS PROJECT. THE CONTRACTOR AND SUBCONTRACTORS SHALL OBTAIN A COPY OF THE FLORIDA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" (LATEST EDITION) AND BECOME FAMILIAR WITH THE CONTENTS PRIOR TO COMMENCING WORK.
2. IF WITHIN THAT PARTICULAR SECTION ANOTHER SECTION, ARTICLE OR PARAGRAPH IS REFERRED TO, IT SHALL BE PART OF THE STANDARD SPECIFICATIONS ALSO.
3. ALL WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER AND SHALL CONFORM WITH ALL APPLICABLE CITY, COUNTY, STATE AND FEDERAL REGULATIONS AND/OR CODES. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND LICENSES REQUIRED TO BEGIN WORK.
4. THE CONTRACTOR SHALL GIVE THE ENGINEER 48 HOURS NOTICE PRIOR TO REQUESTING REQUIRED INSPECTIONS AND SHALL SUPPLY ALL EQUIPMENT NECESSARY TO PROPERLY TEST AND OBSERVE THE COMPLETED WORK. THE CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS FOR A PERIOD OF ONE YEAR FROM THE DATE OF PROJECT ACCEPTANCE, DURING WHICH TIME ALL FAULTY CONSTRUCTION AND/OR MATERIALS SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.

GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING ABOVE-GROUND, UNDERGROUND, AND ON THE SURFACE STRUCTURES AND UTILITIES AGAINST ANY CONSTRUCTION OPERATION THAT MAY CAUSE DAMAGE TO SAID FACILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSEQUENTIAL DAMAGES RESULTING FROM LACK OF PROTECTION.
2. SOME, BUT NOT NECESSARILY ALL, EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
3. THE CONTRACTOR SHALL GIVE ADEQUATE NOTIFICATION TO ALL AFFECTED UTILITY OWNERS FOR REMOVAL, RELOCATION, AND ALTERATION OF THEIR EXISTING FACILITIES.
4. WHERE ENCOUNTERED, UNSUITABLE MATERIAL SHALL BE REMOVED TO A DEPTH AND AREA DETERMINED BY THE ENGINEER AND BACKFILLED WITH CLEAN GRANULAR SAND OR SELECT MATERIAL APPROVED BY THE ENGINEER. BACKFILLING SHALL BE IN LAYERS NOT GREATER THAN 8" THICKNESS AND COMPACTED TO 100 PERCENT OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99-C.
5. CONTRACTOR IS RESPONSIBLE FOR CHECKING ACTUAL SITE CONDITIONS BEFORE STARTING CONSTRUCTION.
6. STREET OR HIGHWAY RESTORATION WORK IS TO BE DONE AS PER LOCAL, COUNTY OR STATE AGENCY HAVING JURISDICTION.
7. THE CONTRACTOR SHALL COMPLY WITH ALL RULES AND REGULATIONS OF THE LOCAL, COUNTY, OR STATE AUTHORITIES REGARDING CLOSING OR RESTRICTING THE USE OF PUBLIC STREETS OR HIGHWAYS.
8. TRAFFIC CONTROL ON ALL LOCAL, COUNTY, AND STATE HIGHWAY RIGHTS-OF-WAY SHALL MEET THE REQUIREMENTS OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (U.S. DOT/FHA) AND THE REQUIREMENTS OF THE LOCAL, COUNTY, OR STATE AGENCY HAVING JURISDICTION.

BURNING

1. PRIOR TO BURNING ANY MATERIAL ON SITE, CONTRACTOR SHALL OBTAIN PERMIT FROM PROPER AUTHORITY AND SUBMIT TO ENGINEER.

DISTURBED AREAS

1. ALL AREAS DISTURBED WITHIN RIGHT OF WAY BY CONSTRUCTION SHALL BE SEEDED AND MULCHED OR SODDED AS SPECIFIED BELOW:

SEEDING AND MULCHING:

UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL, AFTER FINAL GRADING AND CLEANUP OF ALL DISTURBED AREAS, ESTABLISH A STAND OF GRASS BY SEEDING AND MULCHING IN ACCORDANCE WITH SECTION 570 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL WATER THE SEEDED AREA TO MAINTAIN MOISTURE LEVELS FOR OPTIMUM GROWTH FOR AT LEAST 2 WEEKS OR UNTIL THE GRASS IS ESTABLISHED.

SODDING:

WITHIN THE LIMITS DELINEATED IN THE PLANS, THE CONTRACTOR SHALL, AFTER FINAL GRADING AND CLEANUP, ESTABLISH A STAND OF GRASS BY FURNISHING AND PLACING SOD IN ACCORDANCE WITH SECTION 575 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL WATER THE SODDED AREA TO MAINTAIN MOISTURE LEVELS FOR OPTIMUM GROWTH TO ENSURE A HEALTHY STAND OF GRASS. SOD SHALL BE ROLLED AND TOP DRESSED AS REQUIRED BY THE ENGINEER.

GRADING

1. REFER TO PLANS FOR CLEARING LIMITS AND TEMPORARY EROSION CONTROL DEVICES TO BE INSTALLED PRIOR TO COMMENCING GRADING.
2. THE CONTRACTOR SHALL CLEAR AND GRUB THE SITE, AND PLACE, COMPACT, AND MOISTURE CONDITION ALL FILL PER THE PROJECT GEOTECHNICAL ENGINEER'S SPECIFICATIONS. THE FILL MATERIAL TO BE USED SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT.
3. ALL MATERIALS USED FOR BACKFILL SHALL BE FREE OF WOOD, ROOTS, ROCKS, BOULDERS, OR ANY OTHER NON-COMPATIBLE SOIL TYPE MATERIAL. UNSATISFACTORY MATERIALS ALSO INCLUDE MAN-MADE FILLS AND REFUSE DEBRIS DERIVED FROM ANY SOURCE.
4. PROPOSED CONTOURS AND GUTTER GRADIENTS ARE APPROXIMATE. PROPOSED SPOT ELEVATIONS ARE TO BE USED IN CASE OF DISCREPANCY.

STAKING

1. IF CONSTRUCTION STAKING IS PERFORMED BY THE OWNER, LOSS OR DISTURBANCE OF CONTROL POINTS DUE TO NEGLIGENCE BY THE CONTRACTOR WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

STABILIZING

1. STABILIZED SUBGRADE SHALL BE CONSTRUCTED TO THE FLORIDA BEARING VALUE (FBV) OR LIMEROCK BEARING RATIO (LBR) AS PER PLAN FOR THE DEPTH AND LIMITS SHOWN ON THE PLAN AND AS SPECIFIED BY THE GEOTECHNICAL ENGINEER. STABILIZED SUBGRADE SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 160 OF THE STANDARD SPECIFICATIONS.
2. ALL STABILIZED AREAS SHALL BE COMPACTED TO AT LEAST 98% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180.

ROCK BASE

1. ROCK BASE SHALL BE CONSTRUCTED PER THE GEOTECHNICAL ENGINEER'S RECOMMENDATION OF EITHER LIMEROCK MATERIAL IN ACCORDANCE WITH SECTION 911 OF THE STANDARD SPECIFICATIONS.
2. LIMEROCK BASE SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 200
3. ROCK BASE SHALL BE CONSTRUCTED TO THE DEPTH AND LIMITS AS SHOWN ON THE PLAN AND AS PER THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS. THE ROCK BASE SHALL BE COMPACTED TO AT LEAST 98% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180 AND SHALL BE PRIMED.

PRIME AND TACK COAT

1. PRIME AND TACK COATS FOR THE BASE COURSE SHALL BE IN ACCORDANCE WITH SECTION 300 OF THE STANDARD SPECIFICATIONS.

ASPHALTIC CONCRETE SURFACE COURSE (ACSC)

1. ACSC (SEE PLAN FOR TYPES) SHALL BE CONSTRUCTED TO THE DEPTH AND LIMITS SHOWN ON THE PLAN IN ACCORDANCE WITH SECTIONS 320, 330, AND 331 OF THE STANDARD SPECIFICATIONS UNLESS OTHERWISE SPECIFIED.

SIGNING AND PAVEMENT MARKING

1. ALL PARKING SPACES, WITH THE EXCEPTION OF THE HANDICAPPED PARKING SPACES, SHALL BE MARKED IN WHITE, RETRO-REFLECTIVE TRAFFIC PAINT AND BE IN ACCORDANCE WITH SECTION 710 OF THE STANDARD SPECIFICATIONS.
2. ALL HANDICAPPED PARKING SPACES SHALL BE PROPERLY SIGNED AND MARKED IN ACCORDANCE WITH THE FDOT STANDARD INDEX 17346.
3. WHERE APPLICABLE, ALL COMPACT SPACES SHALL BE MARKED "COMPACT" ON THE STALL OR WHEEL STOP.

PAVEMENT TESTING

1. THE CONTRACTOR SHALL RETAIN THE SERVICES OF AN OWNER-APPROVED INDEPENDENT TESTING LABORATORY TO CONDUCT ALL REQUIRED TESTS ON SUBGRADE, BASE, AND SURFACE COURSE MATERIALS. TEST RESULTS MUST BE SUBMITTED PRIOR TO ANY REQUEST FOR PAYMENT ON THE ABOVE ITEMS.

THE SCHEDULE FOR TESTING THE PAVEMENT SHALL BE AS FOLLOWS:

SUBGRADE:

a. FLORIDA BEARING VALUE OR LIMEROCK BEARING RATIO (LBR) TESTS SHALL BE TAKEN AT INTERVALS OF NOT MORE THAN 200 FEET, OR CLOSER AS MAY BE REQUIRED IN THE EVENT OF VARIATIONS IN SUBSOIL CONDITIONS.
b. DENSITY TESTS SHALL BE TAKEN AT INTERVALS OF NOT MORE THAN 200 FEET OR CLOSER AS MAY BE REQUIRED.

BASE:

a. DENSITY TESTS SHALL BE TAKEN AT INTERVALS OF NOT MORE THAN 500 FEET OR CLOSER AS MAY BE REQUIRED.
b. ALL TESTING SHALL BE TAKEN IN A STAGGERED SAMPLING PATTERN FROM A POINT 12 INCHES INSIDE THE LEFT EDGE, TO THE CENTER, TO A POINT 12 INCHES INSIDE THE RIGHT EDGE OF THE ITEM TESTED.
c. IF ANY TEST INDICATES THAT THE WORK DOES NOT MEET THE SPECIFICATIONS, THE SUBSTANDARD ITEM SHALL BE REWORKED OR CORRECTED AND RETESTED, AT THE CONTRACTOR'S EXPENSE, UNTIL THE PROVISIONS OF THESE SPECIFICATIONS ARE MET.
d. ALL TESTS SHALL BE PAID FOR BY THE CONTRACTOR.

SHOP DRAWING SUBMITTALS

THE FOLLOWING INFORMATION AND/OR DRAWINGS SHALL BE SUBMITTED TO THE PROJECT ENGINEER AND JURISDICTIONAL AGENCY PRIOR TO BEGINNING WORK:

1. INFORMATION ON THE PIPE AND CULVERTS, INDICATING THE TYPE, CLASS, SIZE, AND OTHER RELEVANT INFORMATION.
2. ASPHALT AND CONCRETE MIX DESIGN.
3. DOCUMENTATION ON ALL OTHER MATERIALS BEING USED INCLUDING, BUT NOT LIMITED TO, FILTER FABRIC, GUARDRAILS, CONCRETE, STEEL POSTS, CURING COMPOUND AND JOINT MATERIAL, INLETS, MANHOLES, PRESSURE PIPE, FITTINGS, LIFT STATION, HYDRANTS, ETC.
4. MAINTENANCE OF TRANSPORTATION "MOT," IF REQUIRED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING A MAINTENANCE OF TRAFFIC PLAN IN ACCORDANCE WITH THE LOCAL, COUNTY, AND STATE GUIDELINES AND SECURING THE APPROPRIATE APPROVALS FROM THE JURISDICTIONAL AGENCIES TO IMPLEMENT THE PLAN.

DRAINAGE SPECIFICATIONS

1. STORM INLETS AND MANHOLES SHALL BE CONSTRUCTED IN GENERAL ACCORDANCE WITH SECTION 425 OF THE STANDARD SPECIFICATIONS.
2. ALL REINFORCING STEEL TO BE ASTM A 615 (LATEST REVISION) GRADE 40 FYP=40,000 PSI, AND SHALL BE HANDLED AND PLACED IN ACCORDANCE WITH THE AMERICAN CONCRETE INSTITUTE (ACI) 318 (LATEST REVISION).
3. PRECAST CONCRETE MANHOLES AND STORM INLETS ARE TO BE USED (ONLY AFTER THE ENGINEER'S REVIEW OF THE MANUFACTURER'S SHOP DRAWINGS).
4. STORM SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH SECTION 430 AND RELATED SECTIONS OF THE STANDARD SPECIFICATIONS.
5. THE LOCATIONS OF STORM SEWER STRUCTURES SHOWN ON THESE PLANS (AND PROVIDED IN ASSOCIATED AUTOCAD FILES) ARE APPROXIMATE. THE CONTRACTOR SHALL STAKE ALL CURB INLET STRUCTURES SUCH THAT INLET TOPS ALIGN HORIZONTALLY WITH PROPOSED CURB LOCATIONS.

CONCRETE

1. UNLESS OTHERWISE SPECIFIED OR INDICATED, ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF 3,000 PSI. ALL WORK SHALL COMPLY WITH THE CURRENT EDITION OF THE AMERICAN CONCRETE INSTITUTE (ACI) BUILDING CODE AND THE APPLICABLE BUILDING CODES HAVING JURISDICTION IN THE AREA.

PRECAST INLETS

1. ALL STORM INLETS SHALL BE PRECAST REINFORCED CONCRETE IN ACCORDANCE WITH THE DETAILS SHOWN HEREIN. TYPE II PORTLAND CEMENT SHALL BE USED IN THE CONCRETE MIX. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF 4,000 PSI.

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CULVERT PIPES

1. REINFORCED CONCRETE PIPE (RCP) SHALL BE IN ACCORDANCE WITH SECTION 941 OF THE STANDARD SPECIFICATIONS.
2. CORRUGATED ALUMINUM PIPE (CAP) SHALL BE IN ACCORDANCE WITH SECTION 945 OF THE STANDARD SPECIFICATIONS.
3. HIGH DENSITY POLYETHYLENE PIPE (HDPE) SHALL BE IN ACCORDANCE WITH SECTION 948 OF THE STANDARD SPECIFICATIONS.

CONSTRUCTION OBSERVATION

THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, AN INDEPENDENT TESTING LABORATORY, AND THE APPLICABLE JURISDICTIONS AT LEAST 48 HOURS PRIOR TO PERIODS OF THE FOLLOWING CONSTRUCTION ACTIVITIES:

DRAINAGE

a. LAYING OF PIPE (BEFORE BACKFILL).
b. ALL DRAINAGE STRUCTURES AND PIPE LAYING COMPLETED.
c. CONSTRUCTION AND STABILIZATION OF RETENTION AREAS AND SWALES.
d. SEEDING, MULCH, AND SODDING IN AREAS WHERE EROSION IS EVIDENT OR WHERE PLANS SO IDENTIFY.

UTILITIES

a. LAYING OF PIPE (BEFORE BACKFILL).
b. JACK AND BORING OR DIRECTIONAL BORING.

CONCRETE

a. COMPLETION OF FORMING FOR CURBING, SIDEWALK, AND RETAINING WALLS BEFORE PLACEMENT OF CONCRETE.

PAVEMENT

a. LINE AND GRADE (CERTIFICATION).
b. SUB-BASE (PRIOR TO ADDING BASE MATERIAL).
c. BASE (PRIOR TO PRIMING AND SAND SEAL).
d. BASE (AFTER PRIMING, SAND SEAL, AND BEFORE PLACING ASPHALT).
e. ASPHALT OR CONCRETE PAVING.
f. TURN OUT CONSTRUCTION ONTO CITY, COUNTY, OR STATE ROAD (ABOVE INSPECTIONS APPLY).

RECORD DRAWINGS

1. THE CONTRACTOR SHALL MAINTAIN RECORD DRAWINGS ON THE PROJECT SITE AT ALL TIMES WHICH SHALL BE ANNOTATED BY THE CONTRACTOR DEPICTING ANY CHANGES MADE IN THE FIELD WHICH DIFFER FROM THE CONTRACT DRAWINGS.
2. RECORD DRAWINGS SHALL INCLUDE, BUT NOT BE LIMITED TO, CULVERT LENGTHS, INVERT AND TOP ELEVATIONS OF STORM SEWER INLETS, STORM AND SANITARY SEWER MANHOLES, LIFT STATIONS, WEIRS, AND CONTROL STRUCTURES. A RECORD DRAWING, IF REQUIRED, OF THE TOP ELEVATION OF THE BASE MATERIAL GRADING AT ALL LOCATIONS OF THE PROPOSED FINAL GRADES SHALL BE PREPARED AND SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO THE INSTALLATION OF ASPHALT OR FINAL SURFACE. THE CONTRACTOR SHALL PREPARE A RECORD DRAWING VERIFYING ALL PROPOSED GRADES OF EACH STORM WATER BODY AND CONTAIN A MINIMUM OF (2) CROSS SECTIONS IN EACH STORM WATER BODY.
3. THE CONTRACTOR SHALL SUBMIT COMPLETE AND FINAL RECORD DRAWINGS TO THE ENGINEER UPON COMPLETION OF THE PROJECT AND PRIOR TO FINAL INSPECTION AND FINAL PAYMENT. RECORD DRAWINGS SHALL BE CERTIFIED BY A SURVEYOR REGISTERED IN THE STATE OF FLORIDA.

CLEAN-UP

1. THE CONTRACTOR MUST PROVIDE CLEAN-UP OF EXCESS CONSTRUCTION MATERIAL UPON COMPLETION OF THE PROJECT. THE SITE MUST BE LEFT IN A NEAT, CLEAN, GRADED CONDITION.

EROSION CONTROL NOTES

1. THE STORMWATER POLLUTION PREVENTION PLAN ("SWPPP") IS COMPRISED OF THIS EROSION CONTROL PLAN, THE STANDARD DETAILS, THE PLAN NARRATIVE, ATTACHMENTS INCLUDED IN SPECIFICATIONS OF THE SWPPP, PLUS THE PERMIT AND ALL SUBSEQUENT REPORTS AND RELATED DOCUMENTS.
2. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORMWATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN AND THE STATE OF FLORIDA NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (NPDES PERMIT) AND BECOME FAMILIAR WITH THEIR CONTENTS.
3. THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THE SWPPP. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST TO THE OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.
4. BEST MANAGEMENT PRACTICES (BMP'S) AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE. THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY THE PERMITTING AGENCY OR OWNER.
5. EROSION CONTROL PLAN MUST CLEARLY DELINEATE ALL STATE WATERS. PERMITS FOR ANY CONSTRUCTION ACTIVITY IMPACTING STATE WATERS OR REGULATED WETLANDS MUST BE MAINTAINED ON SITE AT ALL TIMES.
6. THE CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT.
7. CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES.
8. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DETAINED AND PROPERLY TREATED OR DISPOSED.
9. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DUST CONTROL ON SITE. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
11. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORM WATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.
12. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THE PLAN, SHALL BE INITIATED AS SOON AS PRACTICABLE.
13. STABILIZATION PRACTICES SHOULD BE INITIATED AS SOON AS PRACTICAL, BUT IN NO CASE MORE THAN 7 DAYS WHERE CONSTRUCTION HAS TEMPORARILY CEASED.
14. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE PERMANENTLY SEEDED. THESE AREAS SHALL BE SEEDED NO LATER THAN 7 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRED IN THESE AREAS. REFER TO SECTION 981 OF THE STANDARD SPECIFICATIONS FOR SEEDING AND MAINTENANCE REQUIREMENTS.
15. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE.
16. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED AS SOON AS POSSIBLE.
17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING SEDIMENT IN THE DETENTION POND AND ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.
18. ON-SITE & OFFSITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE EROSION CONTROL PLAN AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.
19. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
20. DUE TO GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION CONTROL MEASURES (SILT FENCES, ETC.) TO PREVENT EROSION.
21. ALL CONSTRUCTION SHALL BE STABILIZED AT THE END OF EACH WORKING DAY, THIS INCLUDES BACKFILLING OF TRENCHES FOR UTILITY CONSTRUCTION AND PLACEMENT OF GRAVEL OR BITUMINOUS PAVING FOR ROAD CONSTRUCTION.

MAINTENANCE

ALL MEASURES STATED ON THIS EROSION AND SEDIMENT CONTROL PLAN, AND IN THE STORMWATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A 0.5" RAINFALL EVENT, AND CLEANED AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

1. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING, OR DETERIORATION.
2. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED AND RESEEDED AS NEEDED. FOR MAINTENANCE REQUIREMENTS REFER TO SECTION 981 OF THE STANDARD SPECIFICATIONS.
3. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-HALF THE HEIGHT OF THE SILT FENCE.
4. THE CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION ENTRANCES AS CONDITIONS DEMAND.
5. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AS CONDITIONS DEMAND.
6. OUTLET STRUCTURES IN THE SEDIMENTATION BASINS SHALL BE MAINTAINED IN OPERATIONAL CONDITIONS AT ALL TIMES. SEDIMENT SHALL BE REMOVED FROM SEDIMENT BASINS OR TRAPS WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY 55 CY/ACRE.
7. ALL MAINTENANCE OPERATIONS SHALL BE DONE IN A TIMELY MANNER BUT IN NO CASE LATER THAN 2 CALENDAR DAYS FOLLOWING THE INSPECTION.

OCU GENERAL NOTES:

1. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN EXCAVATING IN PROXIMITY OF WATER MAINS, WASTEWATER FORCE MAINS, GRAVITY MAINS AND RECLAIMED WATER MAINS. MAIN LOCATIONS SHOWN ON PLANS MAY NOT BE EXACT. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING EXISTING UTILITY LOCATIONS.
2. SHOULD A PIPE EMERGENCY OCCUR, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OCU DISPATCH OPERATOR (407-836-2777) AND THE OCU INSPECTOR.
3. THE CONTRACTOR SHALL NOTIFY THE OCU CONSTRUCTION DIVISION AT LEAST SEVEN DAYS PRIOR TO COMMENCEMENT OF THE CONSTRUCTION PROJECT BY CALLING (407) 254-9798.
4. THE CONTRACTOR SHALL NOTIFY THE OCU CONSTRUCTION DIVISION AT LEAST 48 HOURS PRIOR TO ANY UTILITIES CONSTRUCTION BY CALLING (407) 254-9798.
5. THE MATERIALS, PRODUCTS, AND CONSTRUCTION OF ALL UTILITIES CONNECTING TO THE OCU SYSTEM SHALL BE IN CONFORMANCE WITH THE ORANGE COUNTY UTILITIES STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL.
6. ALL OCU MAINS AND FACILITIES WITHIN THE LIMITS OF THE PROJECT SHALL BE SUPPORTED AND PROTECTED AGAINST DAMAGE DURING CONSTRUCTION.
7. THE CONTRACTOR, AT THE CONTRACTOR'S EXPENSE, SHALL IMMEDIATELY REPAIR ALL DAMAGES TO OCU MAINS AND FACILITIES. IF THE REPAIR IS NOT MADE IN A TIMELY MANNER, AS DETERMINED BY OCU, OCU MAY PERFORM REQUIRED REPAIRS AND CLEANUP. THE CONTRACTOR WILL BE CHARGED FOR ALL EXPENSES ASSOCIATED WITH THE REPAIR.
8. THE CONTRACTOR SHALL ADJUST ALL EXISTING OCU MAINS AND FACILITIES IN CONFLICT WITH NEW GRADE, NEW OR ALTERED ROADWAYS, SIDEWALKS, DRIVEWAYS, OR STORM WATER IMPROVEMENTS. OCU FACILITIES TO BE ADJUSTED INCLUDE, BUT ARE NOT LIMITED TO PIPELINES, PUMP STATIONS, VALVE BOXES, AIR RELEASE VALVES, FIRE HYDRANTS, MANHOLE COVERS, AND METERS.
9. ONLY OCU SHALL OPERATE OCU WATER, WASTEWATER, AND RECLAIMED WATER VALVES. THE CONTRACTOR SHALL COORDINATE VALVE OPERATION WITH THE OCU INSPECTOR. FOR OPERATION OF MAINS NOT OWNED BY OCU, IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE APPROPRIATE UTILITY REPRESENTATIVE.
10. CONSTRUCTION ACTIVITIES SHALL NOT CAUSE INTERRUPTIONS IN WATER, WASTEWATER, OR RECLAIMED WATER SERVICE. THE CONTRACTOR SHALL COORDINATE PRE-APPROVED INTERRUPTIONS OF SERVICE WITH THE OCU INSPECTOR 7 WORKING DAYS IN ADVANCE.
11. THE CONTRACTOR SHALL PROVIDE FOR BYPASSING AND/OR HAULING WASTEWATER DURING APPROVED INTERRUPTIONS OF WASTEWATER FLOWS AND CONNECTIONS. THE CONTRACTOR SHALL SUBMIT A BYPASS PLAN SIGNED AND SEALED BY A PROFESSIONAL ENGINEER TO OCU DEVELOPMENT ENGINEERING FOR APPROVAL PRIOR TO IMPLEMENTATION BY CONTRACTOR.
12. ALL VALVES INSTALLED AS PART OF THIS CONSTRUCTION PROJECT SHALL REMAIN CLOSED DURING CONSTRUCTION. KEEP VALVES ON ALL WET TAPS CLOSED UNTIL CLEARED BY FDEP. DO NOT CONNECT NEWLY CONSTRUCTED WATER MAINS TO ANY EXISTING WATER MAINS UNLESS CLEARED BY FDEP AND OCU.
13. THE CONTRACTOR SHALL PROVIDE A JUMPER ASSEMBLY WITH A BACKFLOW PREVENTER FOR MAKING TEMPORARY CONNECTIONS TO AN EXISTING POTABLE WATER SOURCE IN ORDER TO CHLORINATE AND FLUSH NEW WATER MAINS WITH POTABLE WATER. ANY TEMPORARY POTABLE WATER CONNECTIONS TO RECLAIMED WATER OR FORCEMAIN SHALL ALSO BE EQUIPPED WITH A BACKFLOW PREVENTER.
14. FOR PVC PIPE THAT WILL BE OWNED AND MAINTAINED BY OCU, NO PIPE BENDING IS ALLOWED. THE MAXIMUM ALLOWABLE TOLERANCE FOR JOINT DEFLECTION IS 0.75 DEGREES (3-INCHES PER JOINT PER 20 FT STICK OF PIPE.) ALIGNMENT CHANGE SHALL BE MADE ONLY WITH SLEEVES AND FITTINGS.
15. FOR NON-PVC PIPE THAT WILL BE OWNED AND MAINTAINED BY OCU, LONG RADIUS CURVES, EITHER HORIZONTAL OR VERTICAL, MAY BE INSTALLED WITH STANDARD PIPE BY DEFLECTIONS AT THE JOINTS. MAXIMUM DEFLECTIONS AT PIPE JOINTS, FITTINGS AND LAYING RADIUS FOR THE VARIOUS PIPE LENGTHS SHALL NOT EXCEED 75 PERCENT OF THE PIPE MANUFACTURER'S RECOMMENDATION.

NOTE:
THIS PROJECT QUALIFIES FOR A REDEVELOPMENT PLAN REVIEW. INCLUDED IN THE PLAN REVIEW IS A REQUEST FOR A HARDSHIP WAIVER FOR PARKING PER SECTION 6.07.00(C), ARTICLE VI OF THE CITY OF APOPKA LAND DEVELOPMENT CODE. △1

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

SUNSHINE STATE ONE CALL OF FLORIDA, INC.

CRAIG LEE CORNELISON, No. 55433, STATE OF FLORIDA, PROFESSIONAL ENGINEER

CED	CORNELISON ENGINEERING & DESIGN, INC.
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PROJECT NAME	7-ELEVEN AT SEMORAN BLVD. 2229 E. SEMORAN BLVD., APOPKA, FLORIDA 32703
CLIENT	7-ELEVEN, INC.
SHEET NAME	GENERAL NOTES
SCALE	AS NOTED
DESIGNED BY	GRH
DRAWN BY	GRH
CHECKED BY	CLC

No.	REVISIONS	DATE
1	REVISED PER CITY COMMENTS	02/15/2018

CRAIG L. CORNELISON, P.E. FLORIDA PE NO:55433 2-28-18

DATE 10/17/2017

PROJECT NO. 1509023

SHEET NUMBER C02 SHEET 2 OF 15 △1

Drawing name: P:\1509023 - 7-11, Semoran Blvd, Apopka\Cadd\Construction\C02-7-11-Apopka_FL-GEN NOTES.dwg C02 Feb 28, 2018 11:15am by: GeraldHarrison
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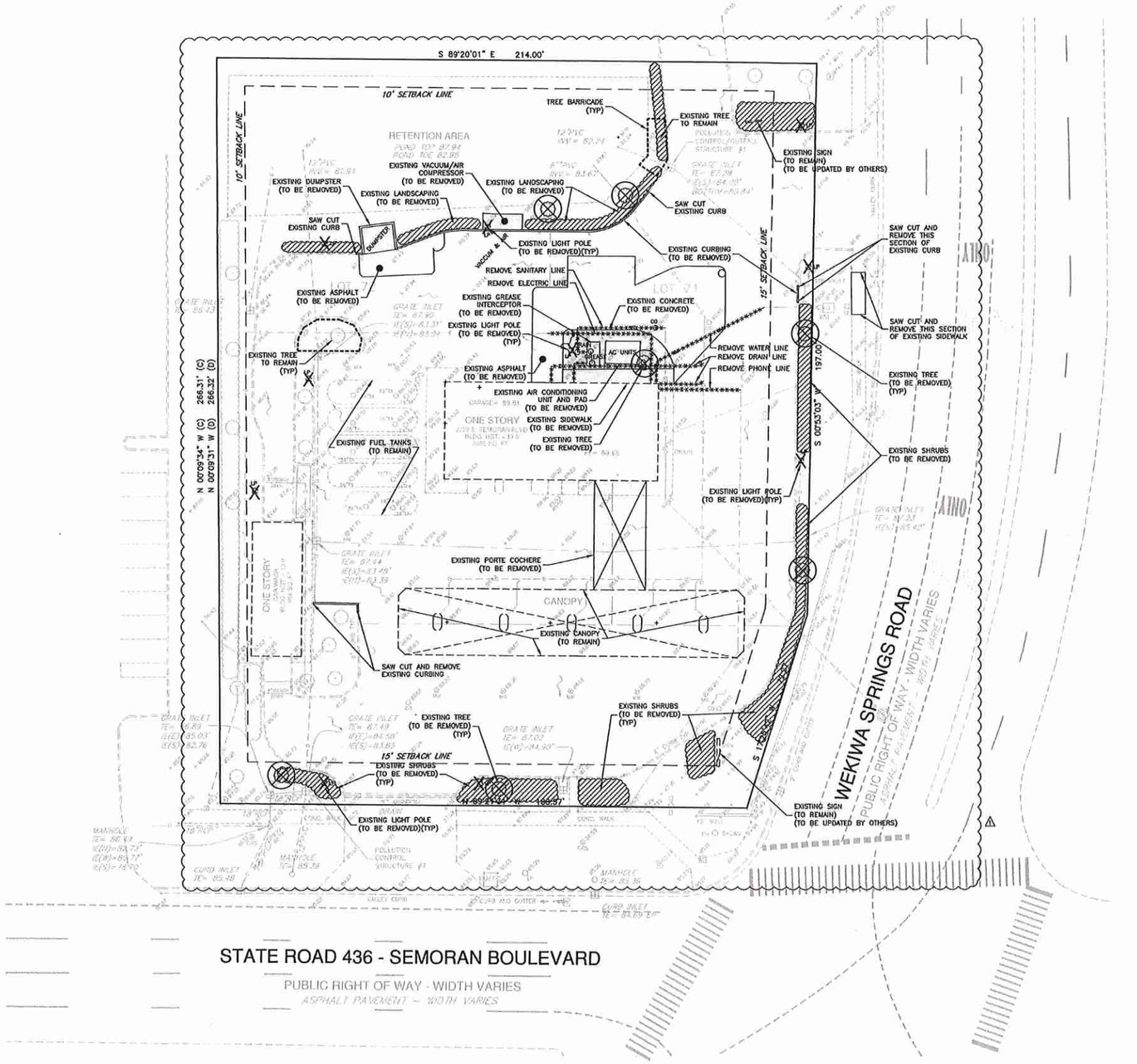

0 20 40
SCALE (IN FEET)

DEMOLITION/PHASING NOTES:

1. UNLESS OTHERWISE INDICATED ON PLANS, EXISTING SITE FEATURES SHALL REMAIN.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING ABOVE-GROUND, UNDERGROUND, AND ON THE SURFACE STRUCTURES AND UTILITIES AGAINST ANY CONSTRUCTION OPERATION THAT MAY CAUSE DAMAGE TO SAID FACILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSEQUENTIAL DAMAGES RESULTING FROM LACK OF PROTECTION.
3. SOME, BUT NOT NECESSARILY ALL, EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. CONTRACTOR SHALL NOTIFY ENGINEER OF ALL DEVIATIONS.
4. THE CONTRACTOR SHALL GIVE ADEQUATE NOTIFICATION TO ALL AFFECTED UTILITY OWNERS FOR REMOVAL, RELOCATION, AND ALTERATION OF THEIR EXISTING FACILITIES.
5. WHERE ENCOUNTERED, UNSUITABLE MATERIAL SHALL BE REMOVED TO A DEPTH AND AREA DETERMINED BY THE ENGINEER AND BACKFILLED WITH CLEAN GRANULAR SAND OR SELECT MATERIAL APPROVED BY THE ENGINEER. BACKFILLING SHALL BE IN LAYERS NOT GREATER THAN 8" THICKNESS AND COMPACTED TO 100 PERCENT OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99-C.
6. CONTRACTOR IS RESPONSIBLE FOR CHECKING ACTUAL SITE CONDITIONS BEFORE STARTING CONSTRUCTION.
7. THE CONTRACTOR SHALL COMPLY WITH ALL RULES AND REGULATIONS OF THE LOCAL, COUNTY, OR STATE AUTHORITIES REGARDING CLOSING OR RESTRICTING THE USE OF PUBLIC STREETS OR HIGHWAYS.
8. TRAFFIC CONTROL ON ALL LOCAL, COUNTY AND STATE HIGHWAY RIGHTS-OF-WAY SHALL MEET THE REQUIREMENTS OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (U.S. DOT/FHA) AND THE REQUIREMENTS OF THE LOCAL, COUNTY OR STATE AGENCY HAVING JURISDICTION.
9. WHERE APPLICABLE, ALL EXISTING TREES TO REMAIN TO BE PROTECTED AS INDICATED ON LANDSCAPE PLANS.
10. ALL TREES TO REMAIN MUST BE PROTECTED BY TREE PROTECTION BARRICADES MEETING THE MINIMUM STANDARDS OF THE CITY OF ORLANDO. PROTECTIVE BARRICADES SHALL REMAIN IN PLACE UNTIL LAND ALTERATION AND CONSTRUCTION ACTIVITIES ARE COMPLETED.
11. ALL TRIMMING UNDERTAKEN ON A TREE PROTECTED SHALL BE IN ACCORDANCE WITH THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) A-300 PRUNING STANDARDS.
12. EVERY EFFORT TO ENSURE THAT ALL UTILITY LINES (INCLUDING IRRIGATION SYSTEM LINES AND EQUIPMENT) ARE NOT INSTALLED WITHIN THE DRIPLINE OF ANY TREES TO REMAIN ON THE PROJECT SITE AND / OR OFFSITE IMPROVEMENT CORRIDOR. IF THE UTILITIES MUST BE INSTALLED WITHIN THE DRIPLINE, LOCATE THEM AS FAR AWAY FROM THE TREE(S) AS POSSIBLE AND UTILIZE SPECIAL DESIGN TECHNIQUES SUCH AS ROOT PRUNING OR TUNNELING AS DIRECTED BY THE LANDSCAPE ARCHITECT.

LEGEND

- PROPERTY LINE
- EXISTING UTILITY (TO BE REMOVED)
- TREE BARRICADE
- EXISTING LIGHT POLE (TO BE REMOVED)
- EXISTING TREE (TO BE REMOVED)
- EXISTING SHRUBS (TO BE REMOVED)
- EXISTING CURBING, CONCRETE AND PORTE COCHERE (TO BE REMOVED)
- EXISTING ASPHALT (TO BE REMOVED)
- EXISTING SPOT ELEVATION

UNLESS OTHERWISE INDICATED ON PLANS, EXISTING ABOVE AND BELOW GROUND STRUCTURES, UTILITIES, APPURTENANCES, PAVING, BASE MATERIAL, LANDSCAPING, ETC. WITHIN THE PROPERTY LIMITS TO REMAIN

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CERTIFICATE OF AUTHORIZATION 28928

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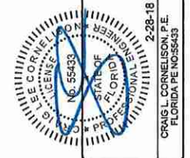
PROJECT NAME: 7-ELEVEN AT SEMORAN BLVD.
2229 E. SEMORAN BLVD., APOPKA, FLORIDA 32703
SHEET NAME: EXISTING CONDITIONS/ DEMO PLAN
CLIENT: 7-ELEVEN, INC.

No.	REVISIONS	DATE
1	REVISED PER CITY COMMENTS	02/15/2018

SCALE: AS NOTED
DESIGNED BY: GRH
DRAWN BY: GRH
CHECKED BY: CLC



2-28-18
CRAIG L. CORNELISON, P.E.
FLORIDA PE NO55433

DATE: 10/17/2017
PROJECT NO.: 1509023
SHEET NUMBER: C03
SHEET 3 OF 15

Drawing name: P:\1509023 - 7-11, Semoran Blvd, Apopka\Cadd\Construction\C03-7-11-Apopka_FL-EXIST COND.dwg C03 Feb 28, 2018, 3:43pm by: GeraldHarrison
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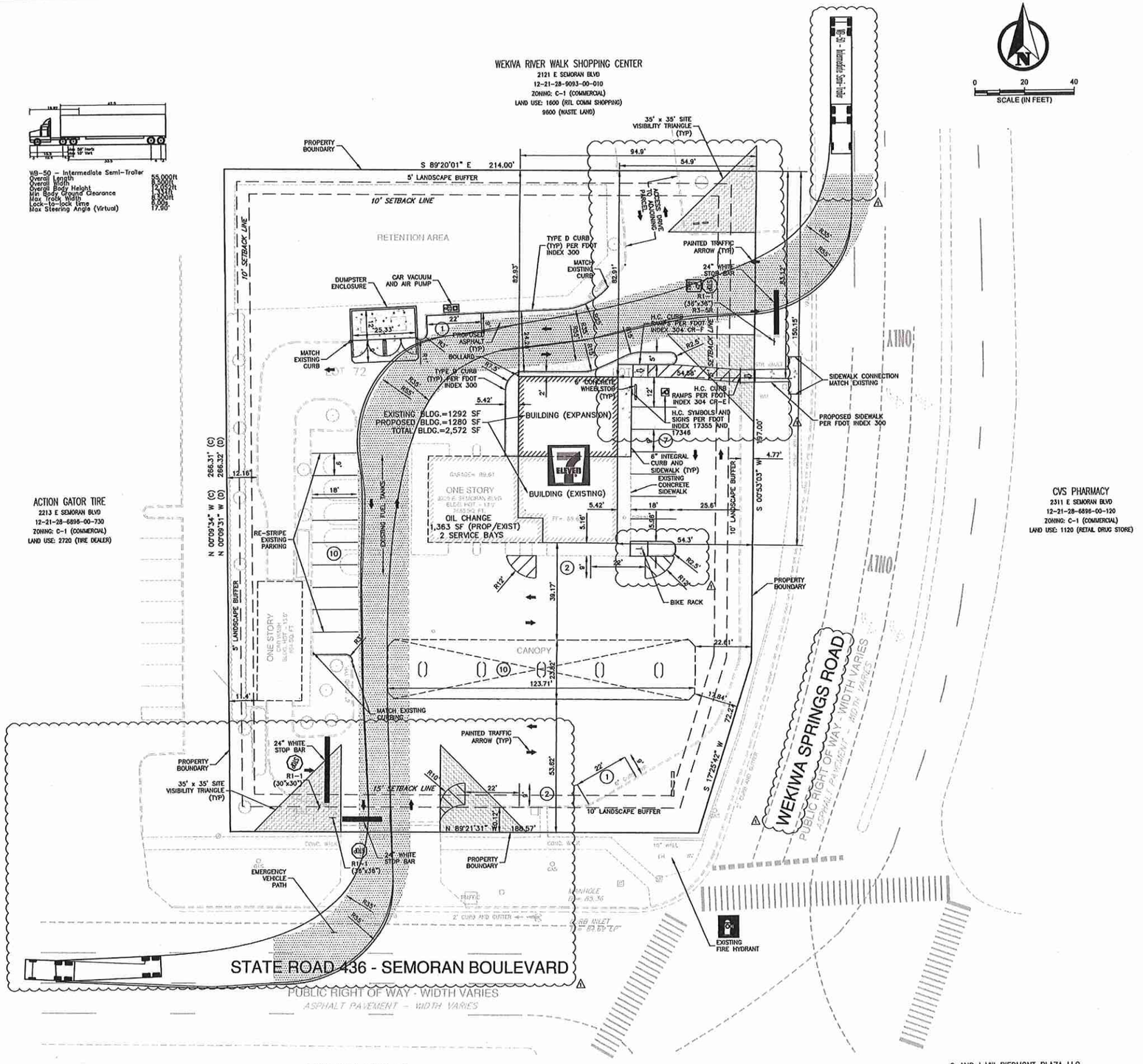
WB-50 – Intermediate Semi-Trailer

Overall Length	55.000ft
Overall Width	8.500ft
Overall Body Height	12.052ft
Min Body Ground Clearance	1.333ft
Max Track Width	8.500ft
Lock-to-lock time	6.00s
Max Steering Angle (Virtual)	17.90°



SITE DATA:

SITE AREA:	55,617 SF (1.28 AC)
PARCEL I.D. NUMBER:	12-21-28-6896-00-710
EXISTING ZONING:	C2
FUTURE LAND USE DESIGNATION:	COMMERCIAL
EXISTING USE:	GAS STATION W/ OIL CHANGE
PROPOSED USE:	GAS STATION W/ OIL CHANGE
TOTAL EXISTING BUILDING AREA:	2,655 (BUILDING) + 864 SF (CAR WASH) = 3,519 SF
TOTAL PROPOSED BUILDING AREA:	3,935 (BUILDING) + 864 SF (CAR WASH) = 4,799 SF
MAXIMUM ALLOWED FAR:	0.25
PROPOSED FAR:	0.086 (INCLUDES CARWASH + OIL CHANGE)
MAXIMUM ALLOWED BUILDING HEIGHT:	35'
PROPOSED BUILDING HEIGHT:	22' (1 STORY)
FLOOD ZONE:	X – DOES NOT LIE WITHIN A DESIGNATED FLOOD ZONE (PANEL 12095C0140F) SEPT. 25, 2009)
PROJECTED NUMBER OF EMPLOYEES:	10, 2 EMPLOYEES ON LARGEST SHIFT
ANTICIPATED HOURS OF OPERATION:	24 HOURS

PROJECT AREAS:

BUILDING AREA:	4,799 SF	8.6%
POND AREA:	6,936 SF	12.5%
PERVIOUS AREA:	10,309 SF	18.5%
IMPERVIOUS AREA (EXCLUDES BLDG):	33,573 SF	60.4%
TOTAL ACREAGE:	55,617 SF	100%

IMPERVIOUS AREA CALCULATIONS:

EXISTING IMPERVIOUS AREA = 37,986 SF (68.3%)
PROPOSED IMPERVIOUS AREA = 38,372 SF (69.0%)

NET REDUCTION IN IMPERVIOUS AREA = 386 SF

REQUIRED PARKING:

CONVENIENCE STORE: 1 SPACE PER 100 SF OF GFA (2,572 SF)
AUTO SERVICE: 3 SPACES PER BAY PLUS 1 SPACE PER 200 SF RETAIL/OFFICE (200 SF)

PARKING REQUIRED = 2,572 SF / 100 + 200 SF / 200 + 2 BAYS X 3 = 33 SPACES

PARKING REQUIRED = 33 SPACES

PROVIDED PARKING:

STANDARD SPACES PROVIDED:	22 SPACES
ACCESSIBLE SPACES PROVIDED:	1 SPACE
TOTAL SPACES PROVIDED:	23 SPACES

10 ADDITIONAL SPACES PROVIDED AT GAS PUMPS = 33 SPACES

REQUIRED BUILDING SETBACKS:

FRONT:	50' FROM CENTERLINE OR 10' FROM PROPERTY LINE
CORNER:	15'
SIDE:	10'
REAR:	10' OR 30' FROM RESIDENTIAL

REQUIRED LANDSCAPE BUFFERS:

FRONT:	10' FROM RIGHT OF WAY
SIDE:	5' FROM PROPERTY LINE
REAR:	10' FROM PROPERTY LINE

NOTES:

1. HANDICAP PARKING SPACES SHALL BE MARKED BY THE INTERNATIONAL HANDICAP SYMBOL AND EACH SPACE SHALL BE PROVIDED WITH A SIGN STATING "PARKING BY DISABLED PERMIT ONLY." ALL HANDICAP ACCESS POINTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH APPLICABLE HANDICAP CODES.
2. ALL CONSTRUCTION SHALL CONFORM TO THE SPECIFICATIONS AND STANDARDS OF THE CITY OF APOPKA AND THE FLORIDA DEPARTMENT OF TRANSPORTATION.
3. PRIOR TO STARTING CONSTRUCTION, THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION OF ANY ITEM SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED ALL PLANS AND ANY OTHER DOCUMENTATION FROM ALL OF THE PERMITTING AND ANY OTHER REGULATORY AUTHORITIES.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL SETBACKS AND/OR EASEMENTS BEFORE BEGINNING CONSTRUCTION.
5. UNLESS OTHERWISE INDICATED ON PLANS, ALL PARKING LOT DIMENSIONS ARE TO THE FACE OF THE CURB AND/OR CENTER OF STRIPING.
6. ALL BUILDING DIMENSIONS ARE TO THE EXTERIOR FACE OF CMU WALL.
7. EXISTING LIGHT POLES SHALL REMAIN AND BE RE-USED.
8. MAINTENANCE OF TRAFFIC (MOT) SET UP MUST BE SUPERVISED BY A CERTIFIED MOT PERSON.
9. AS-BUILT PLANS CERTIFIED BY A LICENSED SURVEYOR ARE REQUIRED BY CONTRACTOR AT TIME OF COMPLETION. GRADING, UTILITY, AND STORMWATER AS-BUILTS ARE REQUIRED TO THE ENGINEER IN BOTH SIGNED AND SEALED PAPER FORMAT AS WELL AS ELECTRONIC AUTOCAD FORMAT. AT A MINIMUM, THE GRADING AS-BUILTS ARE TO INCLUDE ALL CENTERLINE HIGH POINTS AND LOW POINTS, CHANGES IN GRADE, INTERSECTIONS, PAVEMENT AND SIDEWALK GRADES AT H.C. RAMPS, HANDICAP PARKING SPACES AND ACCESS AISLES, HANDICAP PATHS OF TRAVEL, AND ALL GRADES AS INDICATED ON THE PAVING, GRADING, AND DRAINAGE PLAN. UTILITY AND STORMWATER AS-BUILTS SHALL INCLUDE LOCATIONS (HORIZONTAL AND VERTICAL) OF ALL APPURTENANCES, INCLUDING, BUT NOT LIMITED TO PIPES, MANHOLES, VALVES, ETC.
10. ALL PROPOSED SIDEWALKS & HANDICAP RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH APPLICABLE HANDICAP CODE. CONTRACTOR SHALL IMMEDIATELY NOTIFY ENGINEER OF ANY DEVIATIONS.
11. SIGNAGE SHALL BE SUBMITTED AND PERMITTED SEPARATELY.
12. NO OBSTRUCTION SHALL BE PLACED WITHIN ANY SIGHT DISTANCE TRIANGLE.
13. FOR ALL ONSITE RAMPS (OUTSIDE FDOT RIGHT OF WAY) REFERENCED PER FDOT INDEX 304, DETECTIBLE WARNING (TRUNCATED DOMES) ARE NOT REQUIRED PER ADA GUIDELINES AND THE FLORIDA ACCESSIBILITY CODE.
14. ALL DISTURBED AREAS IN FDOT RIGHT-OF-WAY SHALL BE SODDED.
15. THERE WILL BE NO OUTDOOR STORAGE ON THE SITE.
16. ALL LANDSCAPING SHALL CONFORM TO FLORIDA-FRIENDLY LANDSCAPING (FFL) PROGRAM. ⚠

LEGEND:

- LANDSCAPE BUFFER
- BUILDING SETBACK
- PROPERTY LINE
- CONCRETE
- PROPOSED ASPHALT
- INDICATES DIRECTION OF TRAFFIC FLOW
- INDICATES SLOPE OF HANDICAP RAMP
- (10) INDICATES NUMBER OF PARKING SPACES IN ROW

THE PARCEL SHOWN FOR DEVELOPMENT IS LOCATED WITHIN THE FOLLOWING FLOOD ZONE(S) AS DETAILED BY FEMA FIRM (FLOOD INSURANCE RATE MAP) INFORMATION DESCRIBED BELOW:

FLOOD ZONE	COMMUNITY	NUMBER	PANEL	SUFFIX	MAP EFFECTIVE DATE	MAP NUMBER
X	APOPKA, CITY OF	120180	0140	F	SEP 25, 2009	12095C0140F

NOTE
EXISTING LANDSCAPING TO BE INSPECTED BY THE CITY OF APOPKA. MISSING PLANT MATERIAL TO BE REINSTALLED AS DIRECTED BY CITY STAFF PRIOR TO C.O. ⚠

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TEL: 813-788-2535 - FAX: 813-788-7062
WWW.CORNELISONENGINEERING.COM
CERTIFICATE OF AUTHORIZATION 28928

PROJECT NAME: 7-ELEVEN AT SEMORAN BLVD.
2229 E. SEMORAN BLVD., APOPKA, FLORIDA 32703
CLIENT: 7-ELEVEN, INC.
SHEET NAME: SITE PLAN

No.	REVISIONS	DATE	SCALE
1	REVISED PER CITY COMMENTS	02/15/2018	AS NOTED
2	REVISED PER CITY COMMENTS	08/16/2018	DESIGNED BY: GRH
			DRAWN BY:
			CHECKED BY: CLC

CRAIG L. CORNELISON P.E. FLORIDA PE NO.56433
8-18-18

DATE: 10/17/2017
PROJECT NO.: 1509023
SHEET NUMBER: C04
SHEET 4 OF 15 ⚠

Drawing name: P:\1509023 - 7-11, Semoran Blvd, Apopka\Cadd\Construction\C04-7-11-Apopka_FL-SITE PLAN.dwg C04 Aug 18, 2018 12:39pm by: CraigCornelison
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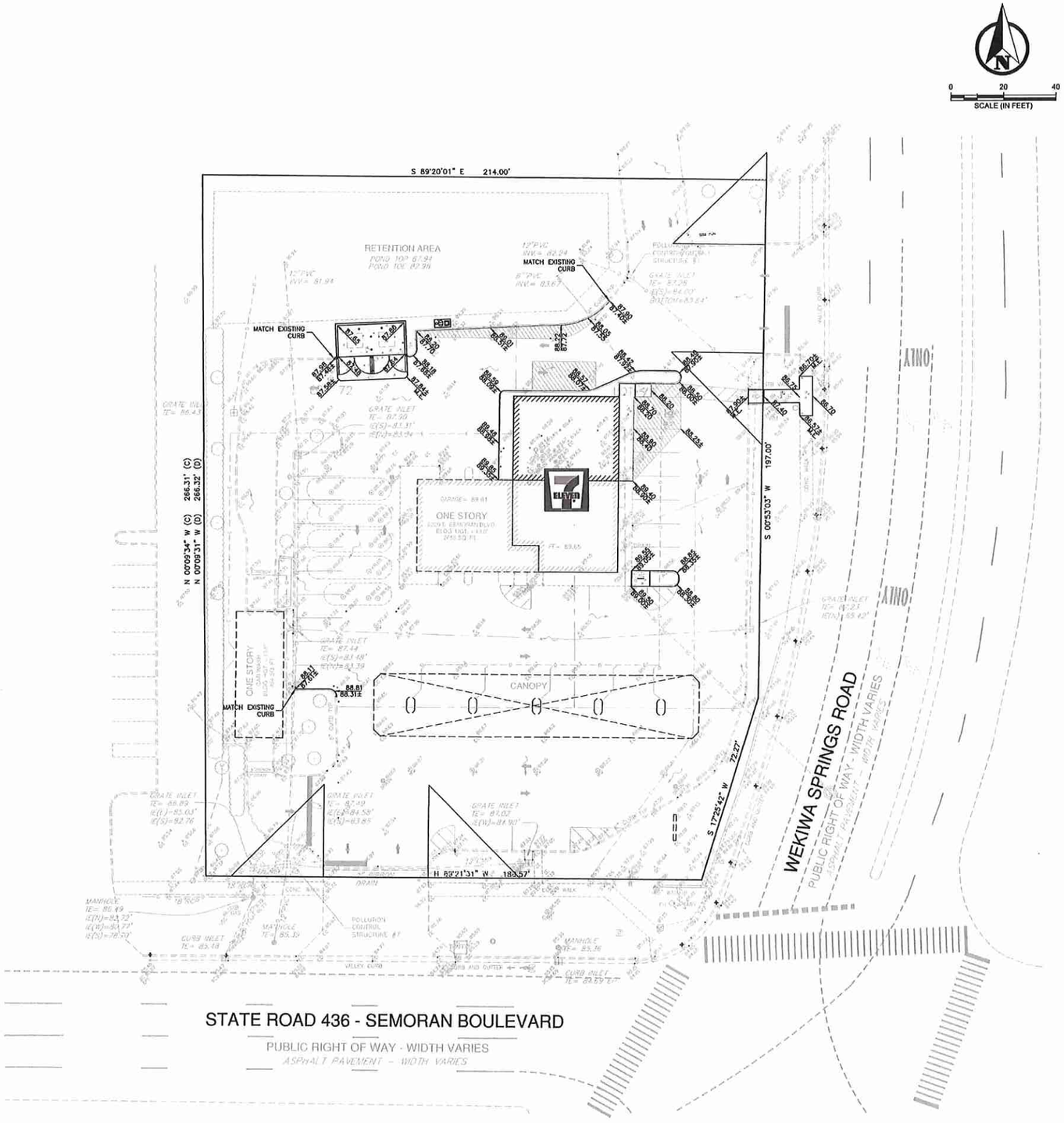

GENERAL NOTES:

1. THE CONTRACTOR SHALL INSTALL PRIOR TO THE START OF CONSTRUCTION AND MAINTAIN DURING CONSTRUCTION ALL SEDIMENT CONTROL MEASURES AS REQUIRED TO RETAIN ALL SEDIMENTS ON THE SITE. IMPROPER SEDIMENT CONTROL MEASURES MAY RESULT IN CODE ENFORCEMENT VIOLATION.
2. ALL DISTURBED AREAS WHICH ARE NOT PAVED SHALL BE STABILIZED WITH SEEDING, FERTILIZER AND MULCH, HYDROSEED AND/OR SOD.
3. ALL NEW BUILDING ROOF DRAINS, DOWN SPOUTS, OR GUTTERS SHALL BE ROUTED TO CARRY ALL STORMWATER TO RETENTION/DETENTION AREAS.
4. DEVELOPER/CONTRACTOR SHALL RESHAPE PER PLAN SPECIFICATIONS, CLEAN OUT ACCUMULATED SILT, AND STABILIZE RETENTION/DETENTION POND(S) AT THE END OF CONSTRUCTION WHEN ALL DISTURBED AREAS HAVE BEEN STABILIZED AND PRIOR TO REQUEST FOR INSPECTION.
5. CONTRACTOR SHALL MAINTAIN RECORD DRAWINGS DURING CONSTRUCTION WHICH SHOW "AS-BUILT" CONDITIONS OF ALL WORK INCLUDING PIPING, DRAINAGE STRUCTURES, TOPO OF POND(S), OUTLET STRUCTURES, DIMENSIONS, ELEVATIONS, GRADING ETC. SIGNED AND SEALED AS-BUILT DRAWINGS PREPARED BY A REGISTERED FLORIDA LAND SURVEYOR SHALL BE PROVIDED TO THE ENGINEER OF RECORD PRIOR TO REQUESTING FINAL INSPECTION.
6. NOTIFY SUNSHINE STATE ONE CALL 48 HOURS IN ADVANCE PRIOR TO DIGGING WITHIN R/W.
7. ANY DAMAGE TO EXISTING ROADS DURING CONSTRUCTION WILL BE REPAIRED BY THE DEVELOPER PRIOR TO FINAL AS-BUILT SIGN OFF FROM THE COUNTY.
8. IN ALL HANDICAP AREAS (PARKING SPACES AND ACCESS AISLE) MAXIMUM SLOPE/GRADE SHALL BE 2% IN ALL DIRECTIONS. IN ADDITION, ALL RAMPS HAVE A MAXIMUM SLOPE OF 1 TO 12.
9. TRANSITION CURB AND GUTTER AT HANDICAP RAMPS TO A MAXIMUM 2.0% CROSS SLOPE.
10. ALL DRAINAGE PIPE JOINTS SHALL BE FILTER FABRIC WRAPPED PER FDOT #280.
11. AS INDICATED ON THE ALTA SURVEY PERFORMED BY TERRAMETRIX, LLC, ELEVATIONS SHOWN HEREON REPRESENT NAVD88. ORIGINATING BENCH MARK DESIGNATION P 457, PID DE9881. SITE TBM'S HAVE BEEN NOTED HEREON.
12. ALL PAVEMENT CROSS SLOPES (SLOPES PERPENDICULAR TO THE DIRECTION OF TRAVEL) SHALL BE A MAXIMUM OF 2%. ALL RAMPS SHALL HAVE A MAXIMUM SLOPE OF 1 IN 12. ALL LANDINGS AT STAIRS AND RAMPS SHALL HAVE A MAXIMUM SLOPE OF 2% (ALL DIRECTIONS). ALL WALKWAYS SHALL HAVE A MAXIMUM SLOPE LESS THAN 5% IN THE DIRECTION OF TRAVEL. ALL MAXIMUM SLOPES ARE ABSOLUTE AND SUPERSEDE CONSTRUCTION TOLERANCES STATED IN THE PROJECT SPECIFICATION. THE CONTRACTOR HAS THE OPTION OF ADJUSTING GRADES TO ALLOW FOR CONSTRUCTION TOLERANCE BUT SHALL NOT ADJUST GRADES TO LESS THAN 1% SLOPE. THE CONTRACTOR SHALL CONTACT THE ENGINEER/ARCHITECT REGARDING ANY GRADE REVISIONS PRIOR TO CONSTRUCTION OF THE PAVEMENT AREAS. THE PAVEMENT SLOPES WILL BE REVIEWED AFTER CONSTRUCTION AND PAVEMENT OVER THE MAXIMUM SLOPES SPECIFIED ABOVE SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
13. TO MINIMIZE SOIL EROSION PROPOSED LAND ALTERATION ACTIVITIES SHALL NOT UNNECESSARILY REMOVE EXISTING VEGETATION AND ALTER EXISTING TOPOGRAPHY. ADEQUATE PROTECTION MEASURES (I.E., HAY BALES, BAFFLES, SODDING AND SANDBAGGING) SHALL BE PROVIDED, AS NECESSARY, TO MINIMIZE EROSION AND DOWNSTREAM SEDIMENTATION CAUSED BY SURFACE WATER RUN-OFF ON EXPOSED LAND SURFACES.
14. ANY AREAS SUBJECT TO EROSION MUST BE ADEQUATELY STABILIZED WITH VEGETATIVE MATERIAL THAT WILL, WITHIN A REASONABLE TIME FRAME, DETER SOIL DISTURBANCE. SODDING, PLUGGING, SPRIGGING OR SEEDING IS ACCEPTABLE FOR STABILIZATION; HOWEVER, SODDING MAY BE REQUIRED IN AREAS OF EROSION-PRONE SOILS OR WHERE SLOPES ARE GREATER THAN 5:1. VEGETATION OTHER THAN GRASS IS ACCEPTABLE UNLESS OTHERWISE SPECIFIED.

LEGEND:

- PROPOSED STORM PIPE
- ELEV → PROPOSED SPOT ELEVATION
- TOC / BOC → PROPOSED SPOT ELEVATION (TOP OF CURB/BOTTOM OF CURB)
- EXISTING SPOT ELEVATION
- INDICATES DIRECTION OF SURFACE WATER FLOW
- EXISTING DIRECTION OF SURFACE WATER FLOW
- PROPOSED STORM INLET
- PROPOSED MITERED END SECTION
- EXISTING STORM STRUCTURE
- SITE BENCHMARK LOCATION
- PROPOSED CONCRETE
- PROPOSED ASPHALT

NOTE: Contractor shall clear the pond of vegetation and the system will be brought into compliance with the original permit. ⚠

THE PARCEL SHOWN FOR DEVELOPMENT IS LOCATED WITHIN THE FOLLOWING FLOOD ZONE(S) AS DETAILED BY FEMA FIRM (FLOOD INSURANCE RATE MAP) INFORMATION DESCRIBED BELOW.						
FLOOD ZONE	COMMUNITY	NUMBER	PANEL	SUFFIX	MAP EFFECTIVE DATE	MAP NUMBER
X	APOPKA, CITY OF	120180	0140	F	SEP 25, 2009	12095C0140F

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WWW.CORNELISON-DSG.COM
CERTIFICATE OF AUTHORIZATION 28928

PROJECT NAME: 7-ELEVEN AT SEMORAN BLVD.
2229 E. SEMORAN BLVD., APOPKA, FLORIDA 32703
CLIENT: 7-ELEVEN, INC.
SHEET NAME: PAVING, GRADING AND DRAINAGE PLAN

No.	REVISIONS	DATE
1	REVISED PER CITY COMMENTS	02/19/2018

SCALE: AS NOTED
DESIGNED BY: GRH
DRAWN BY: GRH
CHECKED BY: CLC

CRAIG L. CORNELISON, P.E.
FLORIDA P.E. NO.55435
3-22-18

DATE: 10/17/2017
PROJECT NO.: 1509023
SHEET NUMBER: C05
SHEET 5 OF 15 ⚠

Drawing name: \\CEDSERVER\Shared Folders\Project\1509023 - 7-11, Semoran Blvd, Apopka\Cadd\Construction\C05-7-11-Apopka_FL-PGD PLAN.dwg C05 Mar 22, 2016 9:29am by: MarciaCornelison
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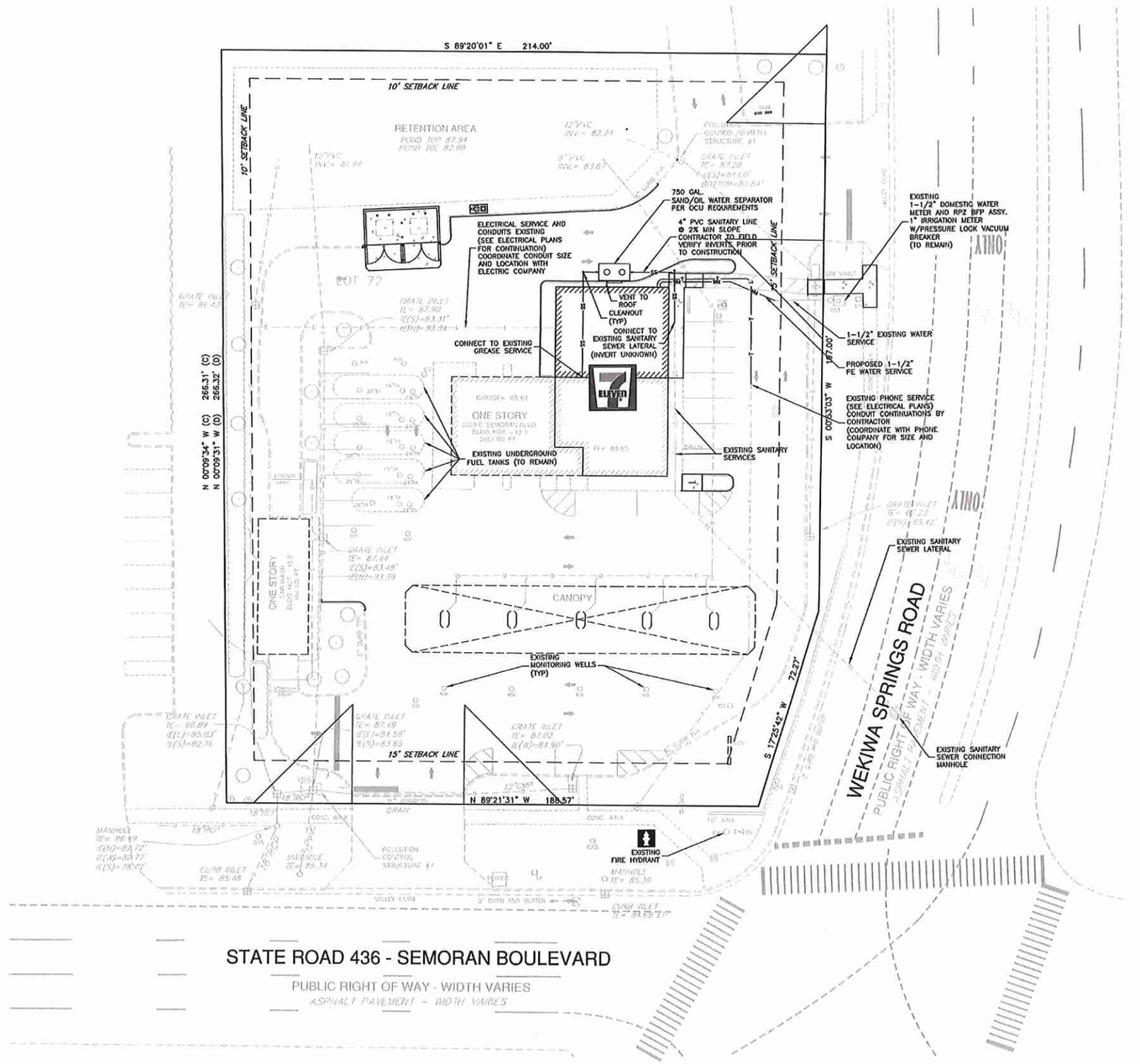

UTILITY NOTES:

1. WATER, WASTEWATER, AND RECLAIMED WATER SYSTEMS WORK SHALL COMPLY WITH THE ORANGE COUNTY UTILITIES STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL, CHAPTER 2.
2. ALL VALVES, SERVICES, HYDRANTS, FITTINGS, ETC., ARE NOT DRAWN TO SCALE BUT ARE SHOWN FOR SCHEMATIC PURPOSES ONLY.
3. ALL DISTURBED AREAS WITHIN THE RIGHT-OF-WAY SHALL BE RE-GRADED AND SODDED TO PRE-CONSTRUCTION CONDITIONS.
4. THE LOCATION OF THE EXISTING UTILITIES SHOWN IN THE PLANS ARE APPROXIMATE ONLY. THE EXACT LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. IN ADDITION, THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY IF "OTHER" UTILITIES (NOT SHOWN IN THE PLANS) EXIST WITHIN THE AREA OF CONSTRUCTION. SHOULD THERE BE UTILITY CONFLICTS, THE CONTRACTOR SHALL INFORM THE RESPECTIVE UTILITY OWNERS TO RESOLVE UTILITY CONFLICTS AND MAKE ADJUSTMENTS, AS REQUIRED.
5. THE APPROPRIATE UTILITY COMPANY SHALL BE NOTIFIED BY THE CONTRACTOR 48 HOURS IN ADVANCE OF ANY EXCAVATION INVOLVING THEIR UTILITIES SO THAT A COMPANY REPRESENTATIVE CAN BE PRESENT.
6. LANDSCAPE AREAS SHALL BE IRRIGATED, DESIGNED BY OTHERS.
7. ALL PVC WATER LINES SHALL BE BLUE IN COLOR ONLY.
8. ALL PIPE AND PIPE FITTINGS INSTALLED UNDER THIS PROJECT WILL CONTAIN NO MORE THAN 8.0% LEAD, AND ANY SOLDER OR FLUX USED IN THIS PROJECT WILL CONTAIN NO MORE THAN 0.2% LEAD.
9. ALL PIPE AND 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 FOR WATER. UNDERGROUND PLASTIC PIPE WILL BE SOLID-WALL BLUE PIPE.
10. THE WATER SYSTEMS SHALL BE CONSTRUCTED TO PROVIDE ALL APPLICABLE STANDARDS IN CHAPTER 62-550, F.A.C. AND THE REQUIREMENTS OF CHAPTER 62-555, F.A.C.
11. THE DRINKING WATER PIPING AND APPURTENANCES MUST COMPLY WITH STANDARDS, REGULATIONS, OR REQUIREMENTS OF THE AMERICAN WATER WORKS ASSOCIATION STANDARDS AS INCORPORATED INTO RULE 62-555.330, F.A.C. IF APPLICABLE. THE DEPARTMENT SHALL ALLOW USE OF PIPE AND APPURTENANCES THAT DO NOT CONFORM TO THESE STANDARDS ONLY IF DOCUMENTATION IS PROVIDED IN ACCORDANCE WITH PARAGRAPH 62-555.320(21)(C), F.A.C.
12. THE DRINKING WATER PIPING AND APPURTENANCES MUST COMPLY WITH STANDARDS, REGULATIONS, OR REQUIREMENTS OF THE NSF INTERNATIONAL STANDARD 61 AS ADOPTED IN RULE 62-555.335, F.A.C. OR OTHER STANDARDS, REGULATIONS, OR REQUIREMENTS REFERENCED UNDER PARAGRAPH 62-555.320(3)(B), F.A.C., IF APPLICABLE. THE DEPARTMENT SHALL ALLOW EXCEPTIONS TO CONFORMANCE WITH THESE STANDARDS, REGULATIONS OR REQUIREMENTS ONLY IF DOCUMENTATION AND ASSURANCE IS PROVIDED IN ACCORDANCE WITH PARAGRAPH 62-555.330(3)(D), F.A.C.
13. CONDUIT LOCATION, SIZE, NUMBER, ETC. SHOWN FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR TO COORDINATE WITH ELECTRIC AND PHONE COMPANIES FOR SERVICE AND CONDUIT LOCATIONS, TYPES, ETC.
14. AS RECORDED ON THE TOPOGRAPHIC SURVEY PERFORMED BY SHANNON SURVEY, INC., ELEVATIONS BASED ON BENCHMARK #1 AND #2, WITH ELEVATION OF 86.16 FEET AND 82.67 FEET RESPECTIVELY, NAVD 88 DATUM.
15. ALL SANITARY SEWER PIPES SHALL BE SDR 26, GREEN IN COLOR AND SHALL CONFORM TO THE CITY OF ORLANDO E.S.M SECTION 9.03.01.A.
16. ALL RECLAIMED PIPE SHALL BE AWWA C900 DR18 AND MEET ALL THE REQUIREMENTS LISTED IN THE CITY OF ORLANDO E.S.M. SECTION 10.14.A.
17. ALL RECLAIMED VALVES AND APPURTENANCES TO CONFORM TO CITY OF ORLANDO E.S.M SECTION 10.14.C.
18. IN ACCORDANCE WITH SECTION 3.15 OF THE CITY OF ORLANDO E.S.M., A PRE-CONSTRUCTION MEETING SHALL BE SCHEDULED BY CONTACTING THE CHIEF ENGINEERING INSPECTOR AT PERMITTING SERVICES. A REPRESENTATIVE FROM THE WASTEWATER DIVISION SHALL BE PRESENT AT THE PRE-CONSTRUCTION MEETING. THE ENGINEER OF RECORD AND CONTRACTOR RESPONSIBLE FOR THE PROJECT CLOSE OUT DOCUMENTATION SHALL BE AWARE OF ALL DOCUMENTS HOLDS ENTERED AT THE TIME OF THIS POSTING AND THROUGHOUT THE DURATION OF THE PROJECT.
19. REBUILD FLOW CHANNEL AND MANHOLE BENCH AS NECESSARY TO MEET CITY OF ORLANDO FLOW CHANNEL REQUIREMENT PER THE CITY OF ORLANDO E.S.M.

ESTIMATED WATER AND SEWER FLOW (PER O.C.U. STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL)

FOOD SERVICE: VEHICLE FUELING STATION/CONVINIENCE STORE
PER FIXTURE UNITS
PROPOSED SEATS = 0

WATER:
ESTIMATED FLOW (ERC) = 2.67 ERC
ESTIMATED FLOW (GPD) = 2.67 ERC X 350 GPD/ERC = 934.50 GPD

SEWER:
ESTIMATED FLOW (ERU) = 2.83 ERU
ESTIMATED FLOW (GPD) = 2.83 ERU X 300 GPD/ERU = 849.00 GPD

LEGEND

- EXISTING SANITARY PIPE
- PROPOSED SANITARY PIPE
- EXISTING WATER PIPE
- PROPOSED WATER PIPE
- EXISTING ELECTRIC LINE
- PROPOSED ELECTRIC LINE
- EXISTING PHONE LINE
- PROPOSED PHONE LINE
- EXISTING STORM PIPE
- PROPOSED STORM PIPE
- PROPOSED STORM STRUCTURE
- EXISTING SANITARY STRUCTURE
- EXISTING STORM STRUCTURE
- EXISTING FIRE HYDRANT
- EXISTING CLEAN OUT
- EXISTING FUEL TANK ACCESS
- EXISTING MONITORING WELL
- EXISTING LIGHT POLE
- EXISTING STORM VAULT
- EXISTING WATER METER AND BFP

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CERTIFICATE OF AUTHORIZATION 28928

CLIENT: 7-ELEVEN, INC.

PROJECT NAME: 7-ELEVEN AT SEMORAN BLVD.
2229 E. SEMORAN BLVD., APOPKA, FLORIDA 32703

SHEET NAME: UTILITY PLAN

SCALE	DRAWN BY	CHECKED BY
AS NOTED	GRH	CLC

DESIGNED BY: CRC

No.	REVISIONS	DATE
1	REVISED PER CITY COMMENTS	02/15/2018

CRAIG L. CORNELISON, P.E.
FLORIDA PE NO.:55433
2-28-18

DATE: 10/17/2017

PROJECT NO.: 1509023

SHEET NUMBER: C06
SHEET 6 OF 15

Drawing name: P:\1509023 - 7-11, Semoran Blvd, Apopka\Cadd\Construction\C06-7-11-Apopka_PL-UTILITY PLAN.dwg C06 Feb 28, 2018 3:46pm by: GeraldHarrison
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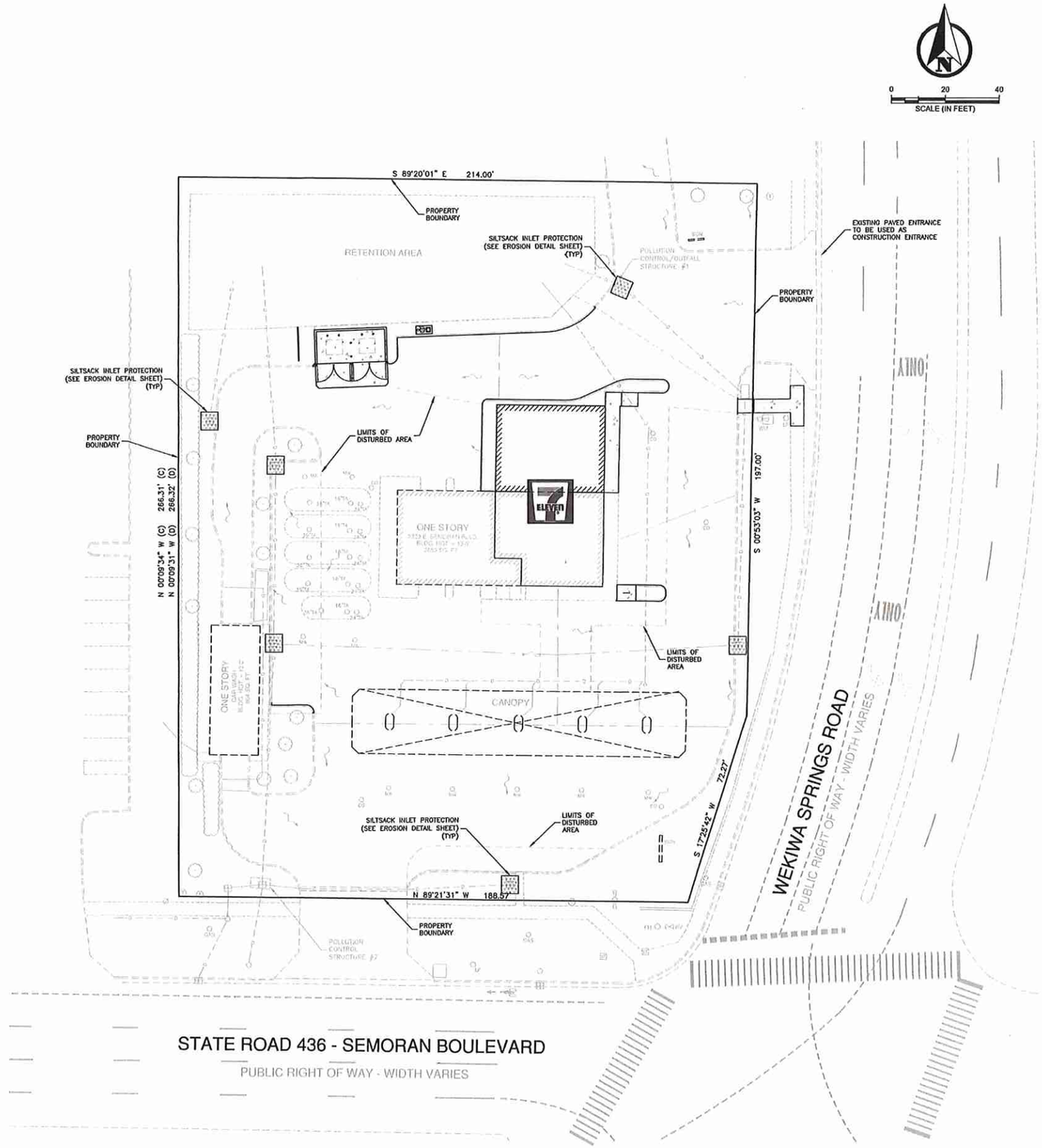

CLEARING AND SITE PREPARATION NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER INSTALLATION OF THE EROSION CONTROL DEVICES, AS SHOWN ON THE CONSTRUCTION PLANS, PRIOR TO ANY SITE CLEARING AND/OR DEMOLITION. REFER TO THE "EROSION CONTROL NOTES" SECTION CONTAINED HEREIN FOR ADDITIONAL REQUIREMENTS. NOT ALL NOTES MAY BE APPLICABLE.
2. PRIOR TO ANY SITE CLEARING, ALL TREES SHOWN TO REMAIN, AS INDICATED ON THE CONSTRUCTION PLANS, SHALL BE PROTECTED IN ACCORDANCE WITH LOCAL TREE ORDINANCES AND DETAILS CONTAINED IN THESE PLANS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THESE TREES IN GOOD CONDITION. NO TREE(S) SHOWN TO REMAIN SHALL BE REMOVED WITHOUT WRITTEN APPROVAL FROM THE OWNER AND THE LOCAL AGENCY HAVING JURISDICTION OVER THESE ACTIVITIES.
3. THE CONTRACTOR SHALL CLEAR AND GRUB ONLY THOSE PORTIONS OF THE SITE NECESSARY FOR CONSTRUCTION. ALL DISTURBED AREAS MUST BE SEEDED, MULCHED, SODDED OR PLANTED WITH OTHER APPROVED LANDSCAPE MATERIAL IMMEDIATELY FOLLOWING CONSTRUCTION.
4. THE TOP 4" TO 6" OF GROUND REMOVED DURING CLEARING AND GRUBBING ACTIVITIES SHALL BE STOCKPILED, TO BE USED FOR LANDSCAPING PURPOSES, UNLESS OTHERWISE DIRECTED BY THE OWNER. REMAINING EARTHWORK THAT RESULTS FROM CLEARING AND GRUBBING OR SITE EXCAVATION IS TO BE UTILIZED ON-SITE, PROVIDED THE MATERIAL IS DEEMED SUITABLE BY THE OWNER'S SOILS TESTING COMPANY. EXCESS MATERIAL IS TO EITHER BE STOCKPILED ON-SITE, AS DIRECTED BY THE OWNER OR OWNER'S ENGINEER, OR REMOVED FROM THE SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ANY PERMITS THAT ARE NECESSARY FOR REMOVING ANY EXCESS MATERIAL FROM THE SITE.
5. ALL EXISTING DEBRIS (ABOVE OR BELOW GROUND), CONSTRUCTION DEBRIS AND OTHER WASTE MATERIAL SHALL BE DISPOSED OF OFF-SITE BY THE CONTRACTOR, IN ACCORDANCE WITH APPLICABLE REGULATORY AGENCY REQUIREMENTS.
6. THE CONTRACTOR IS TO PREPARE THE SITE IN ACCORDANCE WITH THE SOILS REPORT, COPIES OF WHICH ARE AVAILABLE THROUGH THE OWNER OR SOILS TESTING COMPANY DIRECTLY.
7. CONTRACTOR TO BE RESPONSIBLE FOR INSTALLATION OF TEMPORARY CONSTRUCTION FENCE AROUND ENTIRE PERIMETER OF PROPERTY. TYPE OF FENCE IS TO BE SUBMITTED BY CONTRACTOR TO ENGINEER FOR APPROVAL.
8. THE CONTRACTOR SHALL REMOVE ALL VEGETATION, SURPLUS SOIL, DEMOLITION RUBBLE, AND OTHER UNDESIRABLE MATERIALS. SUCH MATERIALS SHALL BE PROMPTLY HAULED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH GOVERNING LAWS AND CODES.

EROSION AND SILTATION CONTROL:

1. GENERAL: ALL EROSION AND SILTATION CONTROL METHODS SHALL BE IMPLEMENTED PRIOR TO THE START OF CONSTRUCTION. DURING CONSTRUCTION, CLEARED AREAS SHALL BE COVERED BY MULCHES SUCH AS STRAW, HAY AND FILTER FABRIC. ALL STORM SEWER INLETS IN THE VICINITY OF THE PROJECT SHALL BE PROTECTED BY SEDIMENT TRAPS OR HAY BALES. THESE SHALL BE MAINTAINED AND MODIFIED DURING THE CONSTRUCTION PROCESS TO MINIMIZE DOWNSTREAM SILTATION. WHEN CONSTRUCTION IS COMPLETED, DETENTION AREAS WILL BE RESHAPED, CLEANED OF SILT, MUD AND DEBRIS, AND RE-SODDED TO PROPERLY DETAIN THE INTENDED STORM QUANTITIES.
2. PROTECTION AND STABILIZATION OF ON-SITE SOIL STOCKPILES: FILL MATERIAL STOCKPILES SHALL BE PROTECTED AT ALL TIMES BY ON-SITE DRAINAGE CONTROLS THAT PREVENT EROSION OF THE STOCKPILED MATERIAL. CONTROL OF DUST FROM SUCH STOCKPILES MAY BE REQUIRED, DEPENDING UPON THEIR LOCATION AND THE EXPECTED LENGTH OF TIME THE STOCKPILES WILL BE PRESENT. IN NO CASE SHALL ANY UNSTOCKPILED MATERIAL REMAIN MORE THAN THIRTY (30) CALENDAR DAYS AFTER SUBSTANTIAL PROJECT COMPLETION.
3. PROTECTION OF EXISTING STORM SEWER SYSTEMS: DURING CONSTRUCTION, ALL STORM SEWER INLETS IN THE VICINITY OF THE PROJECT SHALL BE PROTECTED BY SEDIMENT TRAPS SUCH AS SECURED HAY BALES, SOD, STONE, ETC., WHICH SHALL BE MAINTAINED AND MODIFIED AS REQUIRED BY CONSTRUCTION PROGRESS, AND WHICH MUST BE APPROVED BY THE ENGINEER BEFORE INSTALLATION.
4. SEDIMENT BASINS AND SEDIMENT TRAPPING MEASURES: PERIMETER BERMS, SEDIMENT BARRIERS, VEGETATIVE BUFFERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT AND/OR PREVENT THE TRANSPORT OF SEDIMENT ONTO ADJACENT PROPERTIES, OR INTO EXISTING BODIES OF WATER, MUST BE INSTALLED, CONSTRUCTED OR, IN THE CASE OF VEGETATIVE BUFFERS, PROTECTED FROM DISTURBANCE, AS A FIRST STEP IN THE LAND ALTERATION PROCESS. SUCH SYSTEMS SHALL BE FULLY OPERATIVE BEFORE ANY OTHER DISTURBANCE OF THE SITE BEGINS. EARTHEN STRUCTURES, INCLUDING BUT NOT LIMITED TO, BERMS, EARTH FILTERS, DAMS, OR DIKES SHALL BE STABILIZED AND PROTECTED FROM DRAINAGE DAMAGE OR EROSION WITHIN ONE WEEK OF INSTALLATION.
5. SWALES, DITCHES AND CHANNELS: CHANNELS LEADING FROM THE SITE SHALL BE SODDED WITH ARGENTINE BAHIA WITHIN THREE (3) DAYS OF EXCAVATION.
6. UNDERGROUND UTILITY CONSTRUCTION: UNDERGROUND UTILITY LINES AND OTHER STRUCTURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE FOLLOWING STANDARDS:
   A. NO MORE THAN 500 LINEAR FEET OF TRENCH SHALL BE OPEN AT ANY ONE TIME;
   B. EXCAVATED MATERIAL SHALL BE CAST TO THE UPHILL SIDE OF TRENCHES AS LONG AS SAFETY AND SPACE CONSIDERATION ALLOW. TRENCH MATERIAL SHALL NOT BE CAST INTO, (OR ONTO THE SLOPE OF) ANY STREAM, CHANNEL, ROAD, DITCH OR WATERWAY.
7. ALL EROSION AND SILTATION CONTROL DEVICES: SHALL BE REGULARLY INSPECTED AND MAINTAINED, (ESPECIALLY AFTER EACH RAINFALL) AND WILL BE CLEANED OUT AND/OR REPAIRED AS REQUIRED.
8. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO RAIN SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE STORMWATER SYSTEM.
9. APPLICATION RATES AND METHODS FOR USE OF FERTILIZERS AND PESTICIDES AT THE CONSTRUCTION SITE SHALL CONFORM WITH ALL LOCAL AND STATE ORDINANCES. NUTRIENTS SHALL BE APPLIED ONLY AT RATES NECESSARY TO ESTABLISH AND MAINTAIN VEGETATION SUCH THAT DISCHARGES WILL NOT CAUSE OR CONTRIBUTE TO VIOLATIONS OF STATE SURFACE OR GROUNDWATER QUALITY STANDARDS.
10. OFF-SITE VEHICLE TRACKING OF SEDIMENTS AND THE GENERATION OF DUST SHALL BE MINIMIZED BY CONTRACTOR.

DEWATERING NOTES:

1. DURING THE EXCAVATION OF THE STORMWATER PONDS, THE CONTRACTOR MUST CONSTRUCT A SEDIMENT BASIN TO PROVIDE A DISCHARGE POINT FOR DEWATERING. THE SEDIMENT BASIN CAN BE A 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.
2. DURING EXCAVATION, THE CONTRACTOR SHALL NOT PENETRATE THE EXISTING CLAY LAYER IF PRESENT. IF THE CONTRACTOR ENCOUNTERS THE CLAY LAYER, HE/SHE IS TO PLACE A MINIMUM OF 2' OF SANDY MATERIAL OVER THE CLAY AND TERMINATE THE DEPTH OF THE EXCAVATION.
3. IF CONTRACTOR ENCOUNTERS SILTY/CLAY SAND, WHICH CAUSE THE WATER TO BECOME TURBID, HE/SHE SHALL TREAT THE SEDIMENT BASIN WITH A CHEMICAL ADDITIVE SUCH AS ALUM TO PROMOTE THE COAGULATION AND SETTLEMENT OF THE PARTICLES FOR THE WATER TO BECOME LESS TURBID. IF TURBID WATER IS 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 TO ENSURE THE WATER WITHIN THE SEDIMENT BASIN BECOMES NON-TURBID AND ACCEPTABLE FOR DISCHARGE OFF-SITE.

BEST MANAGEMENT PRACTICES:

THIS PLAN HAS BEEN PREPARED TO ENSURE COMPLIANCE WITH APPROPRIATE CONDITIONS OF LOCAL, STATE, AND FEDERAL REGULATIONS. THE PLAN ADDRESSES THE FOLLOWING AREAS:

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

THE VARIOUS TECHNIQUES OR ACTIONS IDENTIFIED UNDER EACH SECTION INDICATE THE APPROPRIATE SITUATION WHEN THE TECHNIQUES SHOULD BE EMPLOYED. IT SHOULD BE NOTED THAT THE MEASURES IDENTIFIED ON THIS PLAN ARE ONLY SUGGESTED BMP(S). THE CONTRACTOR SHALL PROVIDE POLLUTION PREVENTION AND EROSION CONTROL MEASURES AS SPECIFIED IN FDOT INDEX #102 AND AS NECESSARY FOR EACH SPECIFIC APPLICATION.

DEMOLITION NOTES (IF NECESSARY):

1. CONTRACTOR SHALL SUBMIT DEMOLITION SCHEDULE TO OWNER PRIOR TO PROCEEDING WITH DEMOLITION ACTIVITIES.
2. EXTENT OF SITE CLEARING IS SHOWN ON DRAWINGS.
3. SITE DEMOLITION WORK INCLUDES, BUT IS NOT LIMITED TO:
   A. ROADWAY
   B. DRAINAGE AREA
   C. SITE UTILITIES
   D. LANDSCAPING
4. CONDUCT SITE DEMOLITION OPERATIONS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS, AND OTHER ADJACENT OCCUPIED OR USED FACILITIES. DO NOT CLOSE OR OBSTRUCT STREETS, WALKS OR OTHER OCCUPIED OR USED FACILITIES WITHOUT PERMISSION FROM AUTHORITIES HAVING JURISDICTION.
5. PROVIDE PROTECTION NECESSARY TO PREVENT DAMAGE TO EXISTING IMPROVEMENTS INDICATED ON PLAN AS "EXISTING TO REMAIN."
6. RESTORE DAMAGED IMPROVEMENTS TO THEIR ORIGINAL CONDITION, AS ACCEPTABLE TO PARTIES HAVING JURISDICTION.
7. REMOVE WASTE MATERIALS AND UNSUITABLE AND EXCESS TOPSOIL FROM PROPERTY AND DISPOSE OF OFF-SITE IN A LEGAL MANNER.
8. LOCATE EXISTING ABOVE-GROUND AND UNDERGROUND UTILITIES IN AREAS OF WORK. IF UTILITIES ARE TO REMAIN IN PLACE, PROVIDE ADEQUATE MEANS OF SUPPORT AND PROTECTION DURING DEMOLITION OPERATION.
9. SHOULD UNCHARTED, OR INCORRECTLY CHARTED, PIPING OR OTHER UTILITIES BE ENCOUNTERED DURING DEMOLITION, CONSULT PROJECT ENGINEER AND UTILITY OWNER FOR IMMEDIATE ACTION.
10. DEMOLISH AND COMPLETELY REMOVE FROM SITE MATERIAL INDICATED ON PLAN OR NOTES "TO BE REMOVED."
11. PROTECT: STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, OTHER FACILITIES FROM DAMAGE CAUSED BY: SETTLEMENT, LATERAL MOVEMENT, UNDERMINING, WASHOUT, OTHER HAZARDS CREATED BY THE DEMOLITION OPERATION.
12. FOR SELECTIVE CLEARING REFER TO LANDSCAPE PLAN.
13. CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS TO EXISTING CONDITIONS, OR BETTER. FURTHERMORE, CONTRACTOR SHALL PROVIDE TO THE ENGINEER A PHOTOGRAPH OF PRE-CONSTRUCTION CONDITIONS AND POST-CONSTRUCTION CONDITIONS AS NOTED ON PLANS.
14. CONTRACTOR SHALL MAINTAIN STORMWATER MANAGEMENT SYSTEM TO ENSURE NO DAMAGE TO ADJACENT PROPERTIES OCCURS DURING 100-YEAR STORM EVENTS.

GENERAL NOTES:

1. SITE DEVELOPER TO PROVIDE GRADING TO 0.1 FT PRIOR TO PAVING.
2. ONCE SITE IS CLEARED, EROSION CONTROL MEASURES (I.E., SEED AND MULCH) WILL BE IMPLEMENTED IN ACCORDANCE WITH THIS PLAN.
3. ALL ROADWAYS SHALL BE MAINTAINED/SWEPT DAILY TO REMOVE ANY DIRT TRANSPORTED ONTO THE EXISTING PAVED ROADWAYS.

EROSION AND SEDIMENT CONTROL PLAN NARRATIVE:

1. EXISTING SITE CONDITIONS: PROJECT AREA IS A PARCEL WITHIN THE CITY LIMITS OF APOPKA. THE SITE CURRENTLY EXISTS AS A VACANT OUT PARCEL. THE MAJORITY OF THE SITE CURRENTLY DRAINS OFF-SITE VIA OVERLAND FLOW. NOTE: ALL EROSION AND SEDIMENT CONTROL MEASURES TO BE COMPLETED PRIOR TO COMMENCING ANY OTHER WORK.
2. PROJECT DESCRIPTION: PROJECT SHALL CONSIST OF CONSTRUCTION OF A PROPOSED TACO BELL RESTAURANT ALONG WITH SITE RELATED INFRASTRUCTURE AND LANDSCAPING. THE
   CRITICAL OR SENSITIVE AREAS: THIS SITE DOES NOT CONTAIN ANY CRITICAL OR SENSITIVE AREAS.
3. CONSTRUCTION SCHEDULING: ORDER OF EROSION CONTROL CONSTRUCTION (PRIOR TO LAND DISTURBANCE)
   A. INSTALL CONSTRUCTION ENTRANCE, AND DESIGNATE EQUIPMENT AND CHEMICAL STORAGE AREAS.
   B. CONSTRUCT SILT FENCE AND INLET PROTECTION AS INDICATED.
   C. CONSTRUCT TEMPORARY SEDIMENT TRAP
   D. PERFORM LAND CLEARING AND GRADING, INSTALLING E&S COMPONENTS AT THE EARLIEST POSSIBLE TIME DURING GRADING ACTIVITIES.
   E. MAINTAIN E&S MEASURES THROUGHOUT THE GRADING PROCESS.
   F. STABILIZE SURFACES IMMEDIATELY IN AREAS WHERE WORK IS DELAYED OR COMPLETED.
   G. INSTALL PERMANENT STABILIZATION MEASURES, SUCH AS SEEDING AND MULCHING, SODDING, AT EARLIEST POSSIBLE TIME
   H. FOLLOWING COMPLETION OF GRADING AND CONSTRUCTION ACTIVITIES REMOVE TEMPORARY CONTROLS AND STABILIZE ALL DISTURBED AREAS.
5. INSPECTION AND MAINTENANCE SCHEDULE FOR BMP'S AND EROSION CONTROL DEVICES: NPDES REGULATIONS SPECIFY THAT ALL EROSION AND SEDIMENT CONTROL BMPS AND STORMWATER OUTFALLS MUST BE INSPECTED AT LEAST ONCE EVERY 7 DAYS AND WITHIN 24 HOURS AFTER A RAINFALL EVENT OF 1/2" OR GREATER.

DEVELOPER:

7-ELEVEN, INC.
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SOUTHLAKE, TX 76092
PHONE: (813) 716-9579
EMAIL: greg.webb@7-11.com

SURVEYOR:

TERRAMETRIX, LLC.
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PHONE: (813) 788-7835
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LEGEND:

- EXISTING SPOT ELEVATION
- INDICATES DIRECTION OF SURFACE WATER FLOW
- EXISTING DIRECTION OF SURFACE WATER FLOW
- EXISTING STORM STRUCTURE
- SITE BENCHMARK LOCATION
- PROPOSED INLET PROTECTION
- PROPOSED INLET PROTECTION
- INSTALL TREE BARRICADE (SEE EROSION DETAIL SHEET) (TYP)
- PROPOSED CONCRETE

DISTURBED AREA:

AREA = 12,299 SF, 0.28 ACRES

BENCHMARK:

ELEVATIONS BASED ON NAVD 1988 DATUM. ORIGINATING FROM BENCH MARK DESIGNATION P 457, PID DE9881.

THE PARCEL SHOWN FOR DEVELOPMENT IS LOCATED WITHIN THE FOLLOWING FLOOD ZONE(S) AS DETAILED BY FEMA FIRM (FLOOD INSURANCE RATE MAP) INFORMATION DESCRIBED BELOW:						
FLOOD ZONE	COMMUNITY	NUMBER	PANEL	SUFFIX	MAP EFFECTIVE DATE	MAP NUMBER
X	APOPKA, CITY OF	120180	0140	F	SEP 25, 2009	12095C0140F

EROSION CONTROL MEASURES SHOWN HEREIN ARE THE RECOMMENDED MINIMUM EROSION CONTROL MEASURES. CONTRACTOR IS RESPONSIBLE TO IMPLEMENT ALL EROSION CONTROL MEASURES AND TO MODIFY AS NECESSARY TO ENSURE COMPLIANCE WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES).

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811 Know what's below. Call before you dig.
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2-28-18
CRAIG L. CORNELISON, P.E.
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CLIENT: 7-ELEVEN, INC.

PROJECT NAME: 7-ELEVEN AT SEMORAN BLVD.
2229 E. SEMORAN BLVD., APOPKA, FLORIDA 32703

SHEET NAME: EROSION PLAN

No.	REVISIONS	DATE
1	REVISED PER CITY COMMENTS	02/15/2018

SCALE: AS NOTED
DESIGNED BY: GRH
DRAWN BY: GRH
CHECKED BY: CLC

DATE: 10/17/2017
PROJECT NO.: 1509023
SHEET NUMBER: C07
SHEET 7 OF 14

Drawing name: P:\1509023 - 7-11, Semoran Blvd, Apopka\Cadd\Construction\C07-7-11-Apopka_FL-EROSION PLAN.dwg C07 Feb 28, 2018 3:49pm by: GeraldHartson
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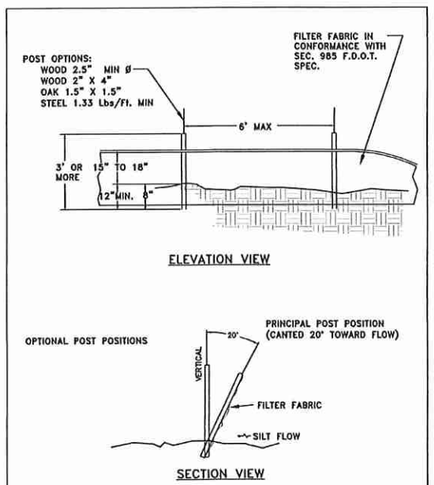
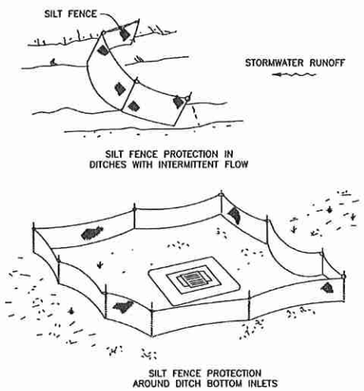


SILT FENCE INSTALLATION

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 602



SILT FENCE APPLICATIONS

SECTION 1 GENERAL EROSION CONTROL:

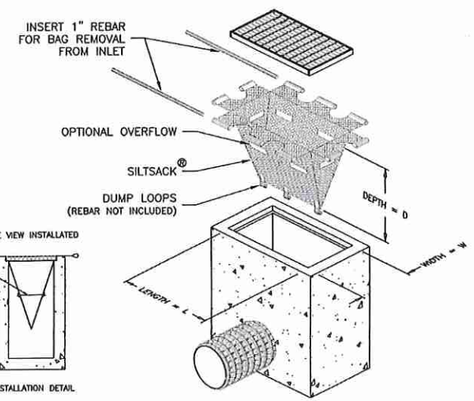
1.1 GENERAL EROSION CONTROL BEST MANAGEMENT PRACTICES SHALL BE EMPLOYED TO MINIMIZE SOIL EROSION AND POTENTIAL POND SLOPE FAILURES. WHILE THE VARIOUS TECHNIQUES REQUIRED WILL BE SITE AND PLAN SPECIFIC, THEY SHOULD BE EMPLOYED AS SOON AS POSSIBLE DURING CONSTRUCTION ACTIVITIES.
1.2 CLEARED SITE DEVELOPMENT AREAS NOT CONTINUALLY USED FOR CONSTRUCTION ACTIVITIES SHALL BE COVERED WITH HAY AND/OR OVERSEEDED AND SUFFICIENTLY WATERED TO STABILIZE THE TEMPORARY GROUNDCOVER.
1.3 BANKS OF RETENTION/DETENTION PONDS SHALL NOT BE CONSTRUCTED STEEPER THAN 4H:1V FROM TOP OF BANK TO TWO FEET BELOW THE CONTROL ELEVATION.
1.4 A 1-FOOT WIDE STRIP OF SOD SHALL BE PLACED ALONG ALL CURBING AND AROUND ALL INLETS. SOD SHALL BE PLACED BEFORE SILT BARRIERS ARE REMOVED.
1.5 THE CONTRACTOR WILL STABILIZE BY SEED AND MULCH, SOD, OR OTHER APPROVED MATERIALS ANY DISTURBED AREAS WITHIN ONE WEEK FOLLOWING COMPLETION OF THE UTILITY SYSTEMS AND PAVEMENT AREAS. CONTRACTOR SHALL MAINTAIN SUCH AREAS UNTIL FINAL ACCEPTANCE BY THE OWNER. THE CONTRACTOR IS TO COORDINATE WITH THE OWNER REGARDING THE TYPE OF MATERIAL, LANDSCAPING AND IRRIGATION REQUIREMENTS.

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

2.1 SURFACE WATER QUALITY SHALL BE MAINTAINED BY EMPLOYING THE FOLLOWING BEST MANAGEMENT PRACTICES IN THE CONSTRUCTION PLANNING AND CONSTRUCTION OF ALL IMPROVEMENTS.
2.2 WHERE PRACTICAL, STORMWATER SHALL BE CONVEYED BY SWALES.
2.3 EROSION CONTROL MEASURES SHALL BE EMPLOYED TO MINIMIZE TURBIDITY OF SURFACE WATERS LOCATED DOWNSTREAM OF ANY CONSTRUCTION ACTIVITY. WHILE THE VARIOUS MEASURES REQUIRED WILL BE SITE SPECIFIC, THEY SHALL BE EMPLOYED AS NEEDED IN ACCORDANCE WITH THE FOLLOWING:
A. IN GENERAL, EROSION SHALL BE CONTROLLED AT THE FURTHEST PRACTICAL UPSTREAM LOCATION.
B. STORMWATER INLETS SHALL BE PROTECTED DURING CONSTRUCTION AS SHOWN IN FDOT INDEX 102. PROTECTION MEASURES SHALL BE EMPLOYED AS SOON AS PRACTICAL DURING THE VARIOUS STAGES OF INLET CONSTRUCTION. SILT BARRIERS SHALL REMAIN IN PLACE UNTIL SODDING AROUND INLETS IS COMPLETE.
2.4 HEAVY CONSTRUCTION EQUIPMENT PARKING AND MAINTENANCE AREAS SHALL BE DESIGNED TO PREVENT OIL, GREASE, AND LUBRICANTS FROM ENTERING SITE DRAINAGE FEATURES INCLUDING STORMWATER COLLECTION AND TREATMENT SYSTEMS. CONTRACTORS SHALL PROVIDE BROAD DIKES, HAY BALES OR SILT SCREENS AROUND, AND SEDIMENT SUMPS WITHIN SUCH AREAS TO CONTAIN SPILLS OF OIL, GREASE OR LUBRICANTS. CONTRACTORS SHALL HAVE AVAILABLE, AND USE ABSORBENT FILTER PADS TO CLEAN UP SPILLS AS SOON AS POSSIBLE AFTER OCCURRENCE.
2.5 SILT BARRIERS: ANY SILT WHICH ACCUMULATES BEHIND THE BARRIERS AND ANY FILL USED TO ANCHOR THE BARRIERS SHALL BE REMOVED PROMPTLY AFTER THE END OF THE MAINTENANCE PERIOD SPECIFIED FOR THE BARRIERS.
2.6 PREVENT EROSION FROM SHEET FLOW ACROSS BARE GROUND FROM ENTERING A LAKE OR SWALE BY INSTALLING A TEMPORARY SEDIMENT SUMP AS REQUIRED. THE TEMPORARY SEDIMENT SUMP SHALL REMAIN IN PLACE UNTIL VEGETATION IS ESTABLISHED ON THE GROUND DRAINING TO THE SUMP.

SECTION 3 CONTROL OF WIND EROSION:

3.1 WIND EROSION SHALL BE CONTROLLED BY EMPLOYING THE FOLLOWING METHODS AS NECESSARY AND APPROPRIATE:
A. BARE EARTH AREAS SHALL BE WATERED DURING CONSTRUCTION AS NECESSARY TO MINIMIZE THE TRANSPORT OF FUGITIVE DUST. IT MAY BE NECESSARY TO LIMIT CONSTRUCTION VEHICLE SPEED IF BARE EARTH HAS NOT BEEN EFFECTIVELY WATERED. IN NO CASE SHALL FUGITIVE DUST BE ALLOWED TO LEAVE THE SITE UNDER CONSTRUCTION.
B. AS SOON AS PRACTICAL AFTER COMPLETION OF CONSTRUCTION, BARE EARTH AREAS SHALL BE VEGETATED.
C. ANY TIME DURING AND AFTER SITE CONSTRUCTION THAT WATERING AND/OR VEGETATION IS NOT EFFECTIVE IN CONTROLLING WIND EROSION AND/OR THE TRANSPORT OF FUGITIVE DUST, OTHER METHODS AS ARE NECESSARY FOR SUCH CONTROL SHALL BE EMPLOYED. THESE METHODS MAY INCLUDE ERECTION OF DUST CONTROL FENCES. DUST CONTROL FENCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH FDOT INDEX 102, EXCEPT THE MINIMUM HEIGHT SHALL BE 4 FEET.



SILTSACK INLET PROTECTION DETAIL (TYPE A)
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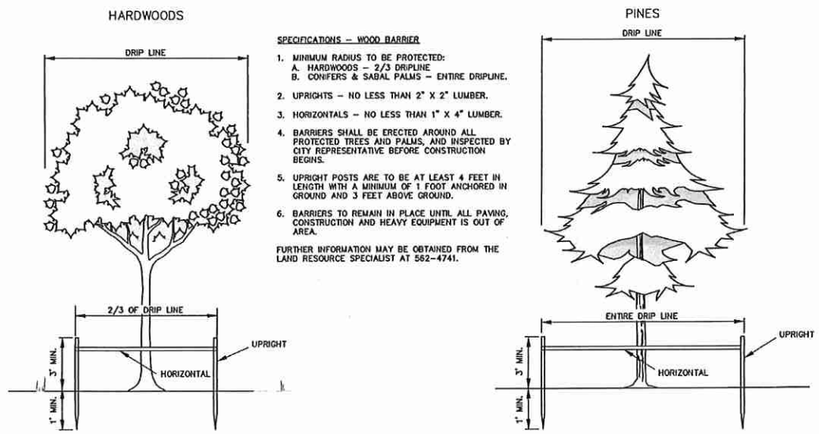

SPECIFICATIONS – WOOD BARRIER

1. MINIMUM RADIUS TO BE PROTECTED:
   A. HARDWOODS – 2/3 DRIPLINE
   B. CONIFERS & SABAL PALMS – ENTIRE DRIPLINE.
2. UPRIGHTS – NO LESS THAN 2" X 2" LUMBER.
3. HORIZONTALS – NO LESS THAN 1" X 4" LUMBER.
4. BARRIERS SHALL BE ERECTED AROUND ALL PROTECTED TREES AND PALMS, AND INSPECTED BY CITY REPRESENTATIVE BEFORE CONSTRUCTION BEGINS.
5. UPRIGHT POSTS ARE TO BE AT LEAST 4 FEET IN LENGTH WITH A MINIMUM OF 1 FOOT ANCHORED IN GROUND AND 3 FEET ABOVE GROUND.
6. BARRIERS TO REMAIN IN PLACE UNTIL ALL PAVING, CONSTRUCTION AND HEAVY EQUIPMENT IS OUT OF AREA.

FURTHER INFORMATION MAY BE OBTAINED FROM THE LAND RESOURCE SPECIALIST AT 562-4741.

TREE BARRICADES
N.T.S.

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WWW.CORNELISONENGINEERING.COM
CERTIFICATE OF AUTHORIZATION 28928

CLIENT
7-ELEVEN, INC.

PROJECT NAME
7-ELEVEN AT SEMORAN BLVD.
2229 E. SEMORAN BLVD., APOPKA, FLORIDA 32703

SHEET NAME
EROSION CONTROL DETAILS

No.	REVISIONS	DATE
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SCALE: AS NOTED
DESIGNED BY: GRH
DRAWN BY: GRH
CHECKED BY: CLC

CRAIG L. CORNELISON, P.E.
FLORIDA PE NO:55433
2-28-18

DATE
10/17/2017

PROJECT NO.
1509023

SHEET NUMBER
C08
SHEET 8 OF 15

Drawing name: P:\1509023 - 7-11, Semoran Blvd, Apopka\Cadd\Construction\C08-7-11-Apopka_FL-EROSION DET.dwg C08 Feb 28, 2018 11:23am by: GeraldHerrison
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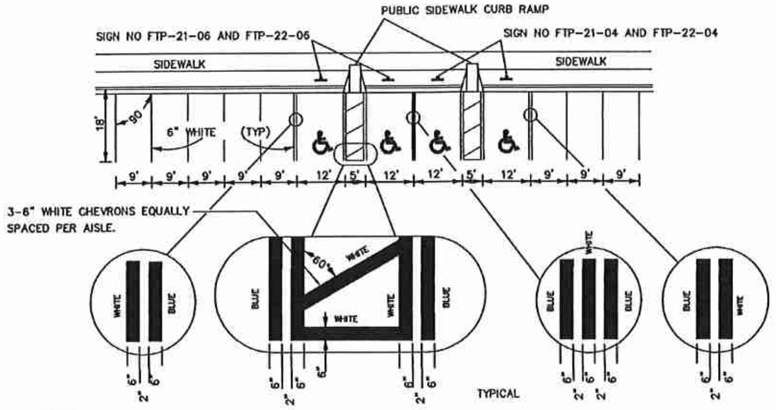
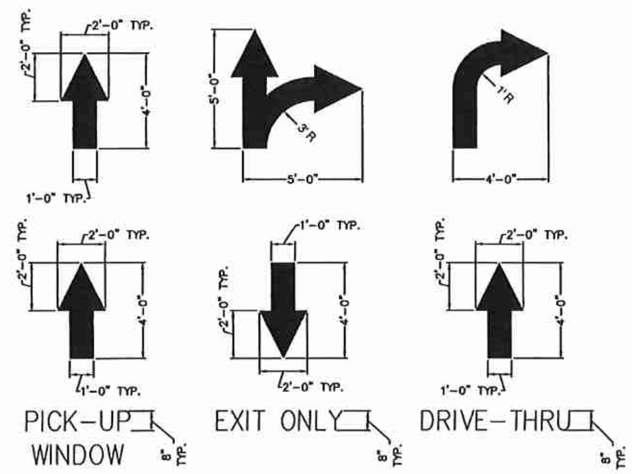


NOTES:

1. DIMENSIONS ARE TO THE CENTERLINE OF MARKINGS.
2. AN ACCESS AISLE IS REQUIRED FOR EACH ACCESSIBLE SPACE WHEN ANGLE PARKING IS USED.
3. CRITERIA FOR PAVEMENT MARKINGS ONLY, NOT PUBLIC SIDEWALK CURB RAMP LOCATIONS. FOR RAMP LOCATIONS REFER TO PLANS.
4. BLUE PAVEMENT MARKINGS SHALL BE TINTED TO MATCH SHADE 15180 OF FEDERAL STANDARDS 595A.
5. THE FTP-22-04 PANEL SHALL BE MOUNTED BELOW THE FTP-21-04 SIGN.
6. STALL DIMENSIONS SHOWN FOR REFERENCE ONLY. SEE PLANS FOR LAYOUT DIMENSIONS.

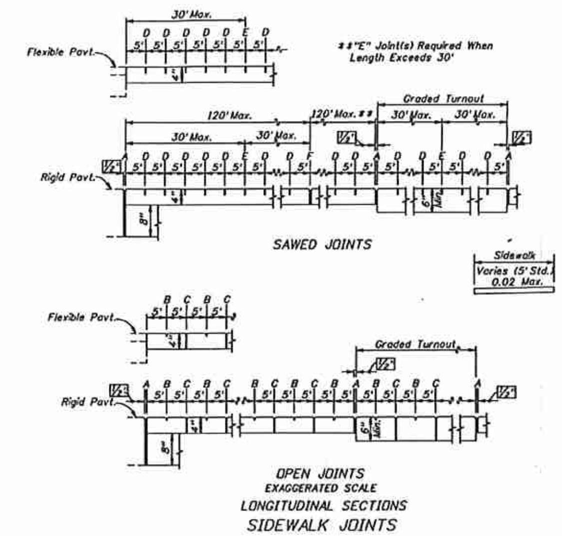
H.C. PAVEMENT MARKING DETAIL

PER FDOT INDEX 17346



ONSITE PAVEMENT MARKINGS

ALL PAVEMENT MARKINGS TO BE WHITE PAVEMENT PAINT, UNLESS STATED OTHERWISE.
ABOVE DETAIL FOR ONSITE MARKINGS ONLY. ALL MARKINGS WITHIN FDOT RIGHT OF WAY SHALL BE PER FDOT STANDARDS AND SPECIFICATIONS.



JOINT LEGEND

A- ½" Expansion Joints (Preformed Joint Filler)

B- ⅛" Dummy Joints, Tooled

C- 3/16" Formed Open Joints

D- 3/16" Saw Cut Joints, 1½" Deep (96 Hour) Max. 5' Centers

E- ½" Saw Cut Joints, 1½" Deep (12 Hour) Max. 30' Centers

F- ½" Expansion Joint When Run Of Sidewalk Exceeds 120'. Intermediate locations when called for in the plans or at locations as directed by the Engineer.

NOTES FOR CONCRETE SIDEWALKS ON UNCURBED ROADWAYS

1. Sidewalks shall be constructed in accordance with Section 522 of the FDOT Standard Specifications.

2. Provide detectable warnings that extend the full width of the sidewalk and 24" deep from the edge of pavement where sidewalks adjoin the following vehicular ways:
-side roads and streets
-driveways with signalized entrances
-driveways with entrance volumes greater than 600vpd
-driveways with entrance speeds of 25 mph or greater
-right in-right out composite driveways
Detectable warning surfaces shall conform to the requirements described in the General Notes of Index 304. To the extent practical, the rows of truncated domes in a detectable warning surface should be aligned to be perpendicular or radial to the street, roadway, or driveway, as applicable.

For sidewalks continuous through driveways, detectable warning surfaces are not required.

3. For turnouts see Index No. 515.

4. Construct sidewalks with 1' thick Edge Beam through the limits of any surface mounted Pedestrian/Bicycle Picket Railing or Pipe Guiderail shown in the plans. See Sheet 1 for details.

SIDEWALK DETAIL

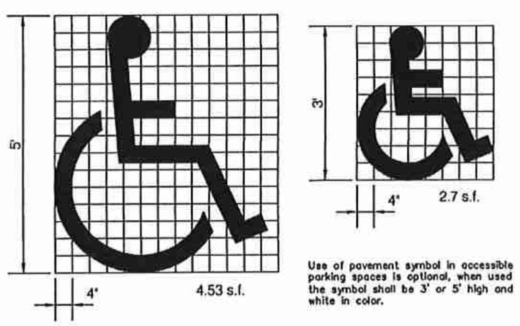
N.T.S.

TYPICAL NOTES:

1. RECORD DRAWINGS AND CERTIFICATION OF COMPLETION SHALL BE SUBMITTED, SIGNED, SEALED, AND DATED BY THE ENGINEER OF RECORD. THE DRAWINGS SHALL INDICATE ANY DEPARTURES FROM THE APPROVAL FROM THE APPROVED PLANS DURING CONSTRUCTION SHALL BE SUPPLIED BY THE CONTRACTOR. ASBUILT DRAWINGS SHALL BE CERTIFIED BY A FLORIDA LICENSED SURVEYOR.
2. THE HIGHEST GROUNDWATER WITHIN THE ROADWAY SHALL BE AT LEAST 1.5 FEET BELOW THE LIMEROCK BASE.
3. GOVERNING SPECIFICATIONS: STATE OF FLORIDA, DEPARTMENT OF TRANSPORTATION DESIGN STANDARD SPECIFICATIONS, LAST EDITION.
4. CONSTRUCTION DETAILS SHALL BE IN ACCORDANCE WITH STATE OF FLORIDA, DEPARTMENT OF TRANSPORTATION ROADWAY AND TRAFFIC DESIGN STANDARDS, LAST EDITION.
5. ANY NGVD-'29 MONUMENT WITHIN THE LIMITS OF CONSTRUCTION IS TO BE PROTECTED. IF IN DANGER OF DAMAGE, THE CONTRACTOR SHALL NOTIFY: GEODETIC INFORMATION CENTER ATTN: MARK MAINTENANCE SECTION N/CG-162 6001 EXECUTIVE BOULEVARD ROCKVILLE, MARYLAND 20852 TELEPHONE NO. 301-443-8319.
6. THE LOCATION OF THE EXISTING UTILITIES SHOWN IN THE PLANS ARE APPROX. ONLY. THE EXACT LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. IN ADDITION, THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY IF "OTHER" UTILITIES (NOT SHOWN IN THE PLANS) EXIST WITHIN THE AREA OF CONSTRUCTION. SHOULD THERE BE UTILITY CONFLICTS, THE CONTRACTOR SHALL INFORM THE RESPECTIVE UTILITY OWNERS TO RESOLVE UTILITY CONFLICTS AND ADJUSTMENTS, AS REQUIRED.
7. THE APPROPRIATE UTILITY COMPANY SHALL BE NOTIFIED BY THE CONTRACTOR 48 HOURS IN ADVANCE OF ANY EXCAVATION INVOLVING THEIR UTILITIES SO THAT A COMPANY REPRESENTATIVE CAN BE PRESENT.
8. THE CONTRACTOR IS TO USE CAUTION WHEN WORKING IN OR AROUND AREAS WHERE THERE ARE OVERHEAD TRANSMISSION LINES OR UNDERGROUND UTILITIES.
9. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES TO REMAIN IN PLACE.
10. THE CONTRACTOR SHALL CALL SUNSHINE STATE ONE CALL OF FLORIDA (811) FOR FIELD LOCATIONS 48 HOURS BEFORE DIGGING NEAR UNDERGROUND UTILITIES.
11. KNOWN UTILITIES:

    WATER: ORLANDO UTILITIES COMMISSION
    ELECTRIC: ORLANDO UTILITIES COMMISSION
    GAS: FLORIDA GAS TRANSMISSION COMPANY
    PHONE: AT&T

12. PRIOR TO COMMENCEMENT OF ANY EXCAVATION, THE CONTRACTOR SHALL COMPLY WITH FLORIDA STATUTE 553.851 FOR THE PROTECTION OF UNDERGROUND GAS PIPELINES.
13. DESIGN ELEVATIONS ARE BASED ON THE SURVEY PREPARED BY OTHERS.
14. BACKFILL FOR ALL UTILITY AND STORM LINES AND AROUND STRUCTURES SHALL BE COMPACTED WITH NO LESS THAN 95% DENSITY. A COPY OF TEST REPORT SHALL BE SUBMITTED TO THE COUNTY ENGINEER.
15. APPURTENANCES FOR STORM SEWER, SANITARY SEWER, WATER, AND OTHER UTILITY SYSTEMS, SUCH AS MANHOLE COVERS, VALVE BOX COVER, ETC., WHICH ARE LOCATED WITHIN AN EXISTING OR PROPOSED PAVEMENT SUCH AS A ROADWAY OR SIDEWALK, SHALL BE AT GRADE WITH THE FINAL PAVEMENT. ACCEPTABLE TOLERANCE IS 3/8 INCH. A DEFICIENCY IN ASPHALT ROADWAY SHALL BE CORRECTED EITHER BY ADJUSTING THE APPURTENANCE OR THE PLACEMENT OF ASPHALT FOR A LENGTH EXTENDING FROM THE APPURTENANCE AT A SLOPE OF 50:1.

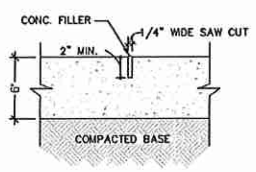


Use of pavement symbol in accessible parking spaces is optional, when used the symbol shall be 3' or 5' high and white in color.

UNIVERSAL SYMBOL OF ACCESSIBILITY

PER FDOT INDEX 17346

N.T.S.



CONC. FILLER

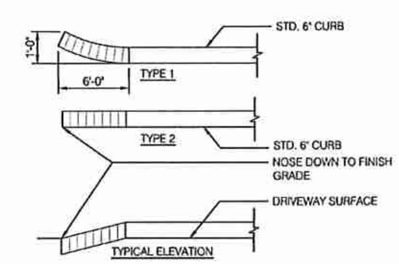
VULKEM 116 OR 245 (NON SAG) JOINT MATERIAL TO BE INSTALLED PER MANUFACTURERS SPECIFICATIONS. PROVIDE LIGHT GRAY COLOR TO MATCH CONC.

SAW CUT MUST BE COMPLETED WITHIN 24 HOURS OF POUR.

NOTE:
THOROUGHLY CLEAN JOINT OF ALL SAND, SOIL AND MISC. DEBRIS. APPLY MASKING TAPE ALONG SIDES OF JOINT FOR TEMPORARY PROTECTION DURING SEALANT APPLICATIONS. APPLY FULL BEAD OF VULKEM 116 OR 245 (NON SAG) POURABLE SEALANT AND TOOL LIGHTLY. REMOVE TAPE IMMEDIATELY. SAW CUT SHALL BE 1/3 DEPTH OF THE CONCRETE.

TYPICAL SAW CUT JOINT DETAIL

N.T.S.



CURB TRANSITION DETAIL

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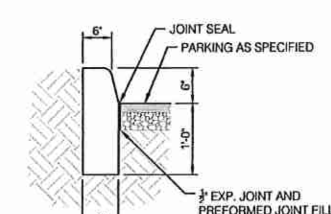

TYPE "D" CONCRETE CURB DETAIL

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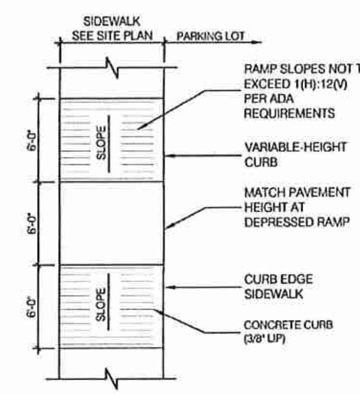
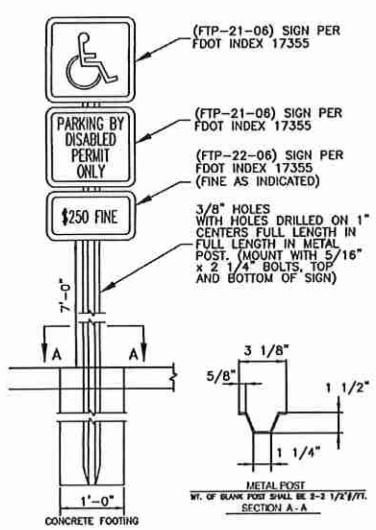


HANDICAP RAMP DETAIL

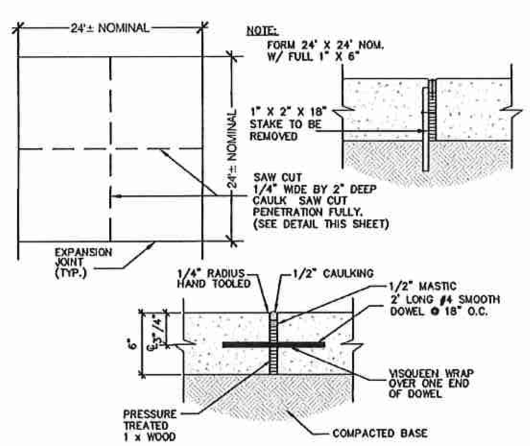


NOTES:

1. METAL POST TO BE GALVANIZED. ALL BOLTS, NUTS, WASHERS AND SCREWS MUST BE RUSTPROOF.
2. CONCRETE FOR FOOTING SHALL BE PORTLAND CEMENT AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 P.S.I.
3. SIGNS WILL BE FABRICATED BY USING REFLECTING COATING IN THE SYMBOL, MESSAGE AND BORDER APPLIED TO A SHEET ALUMINUM BACKING (.080) IN THICKNESS.
4. MESSAGE LETTERING SHALL BE UPPER CASE (BLACK)(SERIES C) 1.5" HIGH IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. EXCEPT AS NOTED WITHIN MUTCD
5. THE SYMBOL IS COMPOSED A WHITE WHEELCHAIR FIGURE (WHICH SHOULD ALWAYS FACE RIGHT)
6. SIGN POST SHALL BE MIN. 2'-0" CLEAR FROM BACK OF CURB OR WHEELSTOP.
7. THE USE OF PROPERLY LOCATED BOLLARDS IN ACCESSIBLE PARKING SPACES ARE ACCEPTABLE SUBSTITUTES FOR REGULAR BUMPER GUARD.
8. MINIMUM NUMBER OF ACCESSIBLE PARKING SPACES SHALL BE PER FLORIDA ACCESSIBILITY CODE.

HANDICAP SIGN DETAIL

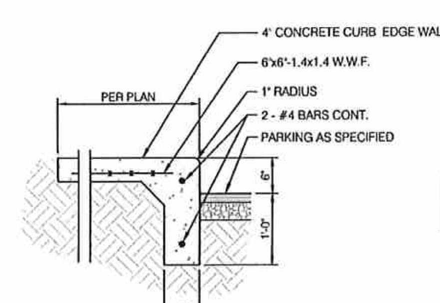
N.T.S.



TYP. EXPANSION JOINT & REBAR LAYOUT DETAIL

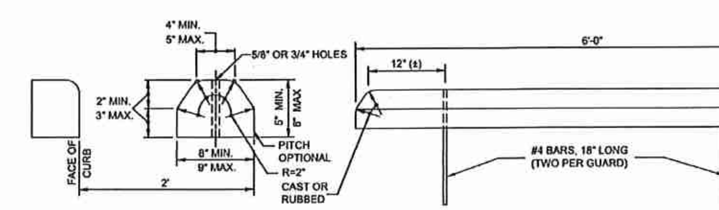
N.T.S.

*NOTE: CONTROL JOINT SPACING SHOULD BE DETERMINED IN ACCORDANCE WITH THE CURRENT ACI CODE.



INTEGRAL CURB AND SIDEWALK DETAIL

N.T.S.



CONCRETE WHEELSTOP

PER FDOT INDEX 300

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PROJECT NAME	7-ELEVEN AT SEMORAN BLVD. 2229 E. SEMORAN BLVD., APOPKA, FLORIDA 32703
CLIENT	7-ELEVEN, INC.
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CHECKED BY	CLC

No.	REVISIONS	DATE
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CRAIG LEE CORNELISON LICENSE No. 55433 STATE OF FLORIDA PROFESSIONAL ENGINEER

CRAIG L. CORNELISON, P.E.
FLORIDA PE NO:55433
2-28-18

DATE 10/17/2017

PROJECT NO. 1509023

SHEET NUMBER C09

SHEET 9 OF 15

Drawing name: P:\1509023 - 7-11, Semoran Blvd, Apopka\Cadd\Construction\C09-7-11-Apopka_FL-CONST DET.dwg C09 Feb 28, 2018 11:22am by: GeraldHarrison
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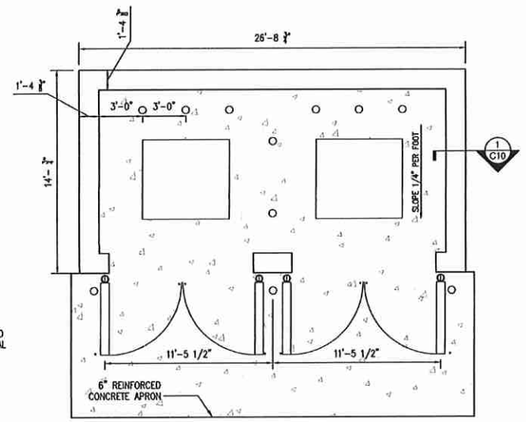
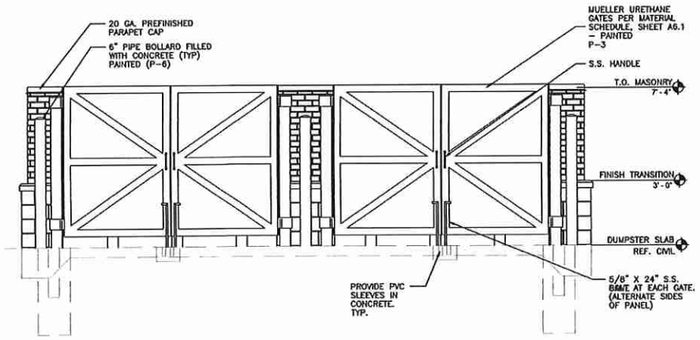
NOTES:
SLOPE SLAB TO DRIVEWAY SLOPE 1/4" PER FT.
APPROPRIATE COLLAR & SPANNER
WRENCH SERIES 67-2-63
FROSTFREE HOSEBIB BEHIND BOLLARDS
-3/4" C.W. FROM BLDG SUPPLY LINE-
WOODFORD MFG. CO. MODEL W34
FREEZELESS YARD HYDRANT
1" BURY DEPTH (719) 574-1101
6" BOLLARDS
SPLIT FACE BLOCK TO MATCH BUILDING TRASH ENCLOSURE WALL- SEE STRUCTURAL DETAIL

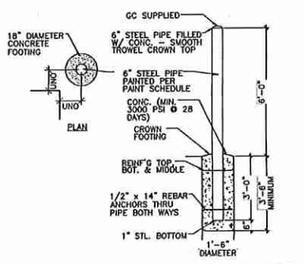
SEE SITE PLAN FOR LOCATION OF DUMPSTER PAD AND GATES. VERIFY SCREEN WALL HT. WITH LOCAL JURISDICTION.



DUMPSTER PLAN
NTS



DUMPSTER ENCLOSURE ELEVATION NTS



TYPICAL BOLLARD SECTION
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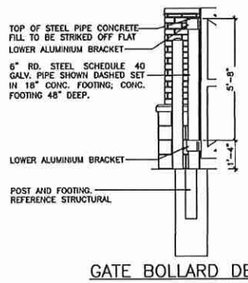
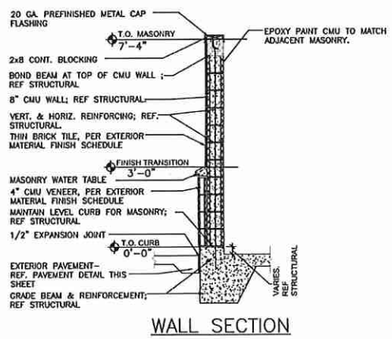
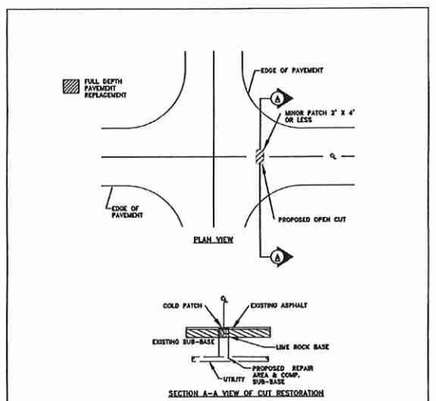


GATE BOLLARD DETAIL
NTS

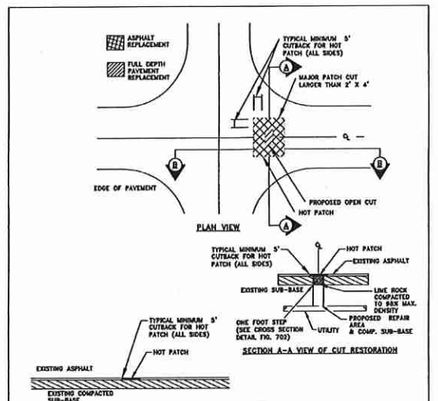


WALL SECTION
NTS



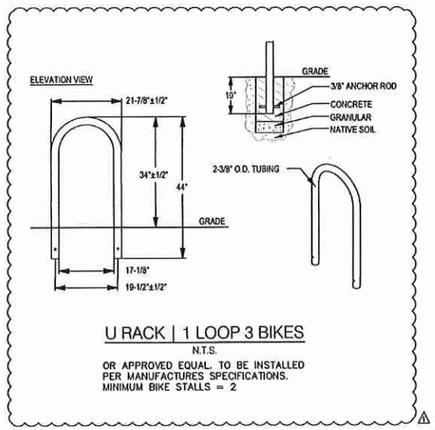
OPEN-CUT DETAIL - MINOR PATCH

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2015	FIG. 700



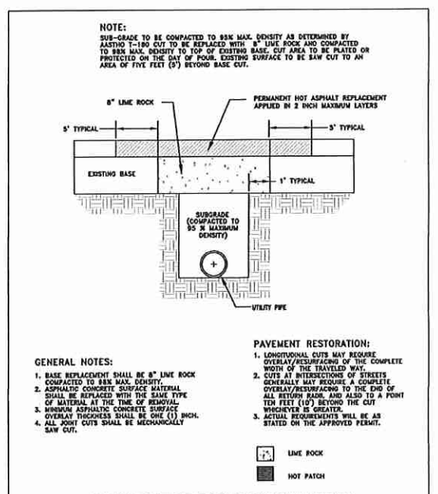
OPEN-CUT DETAIL - MAJOR PATCH

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2015	FIG. 701



U RACK | 1 LOOP 3 BIKES
N.T.S.

OR APPROVED EQUAL. TO BE INSTALLED PER MANUFACTURES SPECIFICATIONS.
MINIMUM BIKE STALLS = 2



OPEN-CUT CROSS SECTION DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2015	FIG. 702

CED
CORNELISON ENGINEERING & DESIGN, INC.
© 2017 CORNELISON ENGINEERING & DESIGN, INC.
20133 OLD 579 - SUITE 205 - LUTZ, FLORIDA 33549
TEL: 813-788-7835 - FAX: 813-788-7062
CERTIFICATE OF AUTHORIZATION 28926

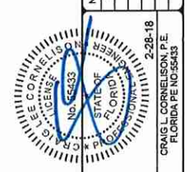
CLIENT: 7-ELEVEN, INC.

PROJECT NAME: 7-ELEVEN AT SEMORAN BLVD.
2229 E. SEMORAN BLVD., APOPKA, FLORIDA 32703

SHEET NAME: CONSTRUCTION DETAILS

No.	REVISIONS	DATE
1	REVISED PER CITY COMMENTS	02/15/2018

SCALE: AS NOTED
DESIGNED BY: CRC
DRAWN BY: GRH
CHECKED BY: CLC



CRAIG L. CORNELISON, P.E.
FLORIDA PE NO.55433

DATE: 10/17/2017
PROJECT NO.: 1509023
SHEET NUMBER: C10
SHEET 10 OF 15

Drawing name: P:\1509023 - 7-11, Semoran Blvd, Apopka\Cadd\Construction\C10-7-11-Apopka_FL-CONST DET.dwg C10 Feb 28, 2018 11:24am by: GeraldHamilton
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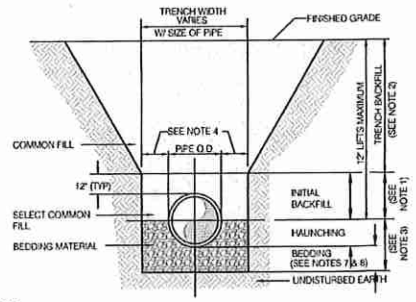
ORANGE COUNTY UTILITIES
STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL

APPENDIX A — STANDARD DRAWINGS — GENERAL

DATE: February 11, 2011 — **BEDDING AND TRENCHING - TYPE A** — FIGURE A101

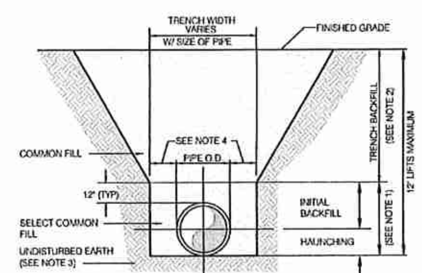


NOTES:
1. INITIAL BACKFILL: SELECT COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
3. TYPE A BEDDING MATERIAL SHALL CONFORM TO FDOT NO. 57 AGGREGATE.
4. 15" MAX. (12" MIN.) FOR PIPE DIAMETER LESS THAN 24" AND 24" MAX (12" MIN) FOR PIPE DIAMETER 24" AND LARGER.
5. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.
6. ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW.
7. BEDDING DEPTH SHALL BE 4" MINIMUM FOR PIPE DIAMETER UP TO 12" AND 6" MINIMUM FOR PIPE DIAMETER 16" AND LARGER.
8. DEPTH FOR REMOVAL OF UNSUITABLE MATERIAL SHALL GOVERN DEPTH OF BEDDING ROCK BELOW THE PIPE. UTILITIES SHALL DETERMINE IN THE FIELD REQUIRED REMOVAL OF UNSUITABLE MATERIAL TO REACH SUITABLE FOUNDATION.
9. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES. SURFACE RESTORATION WITHIN ORANGE COUNTY RIGHT-OF-WAY SHALL COMPLY WITH REQUIREMENTS OF R/W UTILIZATION REGULATIONS AND ROAD CONSTRUCTION SPECIFICATIONS.

ORANGE COUNTY UTILITIES
STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL

APPENDIX A — STANDARD DRAWINGS — GENERAL

DATE: February 11, 2011 — **BEDDING AND TRENCHING - TYPE B** — FIGURE A102



NOTES:
1. INITIAL BACKFILL AND HAUNCHING: SELECT COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 95% (96% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER 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 UTILITIES.
4. 15" MAX. (12" MIN.) FOR PIPE DIAMETER LESS THAN 24" AND 24" MAX (12" MIN) FOR PIPE DIAMETER 24" AND LARGER.
5. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.
6. ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW.
7. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES. SURFACE RESTORATION WITHIN ORANGE COUNTY RIGHT-OF-WAY SHALL COMPLY WITH REQUIREMENTS OF RIGHT-OF-WAY UTILIZATION REGULATIONS AND ROAD CONSTRUCTION SPECIFICATIONS.

ORANGE COUNTY UTILITIES
STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL

APPENDIX A — STANDARD DRAWINGS — GENERAL

DATE: February 11, 2011 — **RESTRAINED PIPE TABLE WATER AND RECLAIMED WATER MAINS** — FIGURE A104-1

MINIMUM LENGTH (FT) TO BE RESTRAINED ON EACH SIDE OF FITTING(S)

TYPE	PIPE SIZE									
	PVC					DIP				
	4"	6"	8"	10"	12"	16"	20"	24"	30"	36"
90° BEND	25	36	46	55	64	65	77	89	105	120
45° BEND	10	15	19	23	26	27	32	37	44	50
22-1/2° BEND	5	8	9	11	13	13	15	18	21	24
11-1/4° BEND	3	4	5	6	8	7	8	9	10	12
PLUG OR BRANCH OF TEE	53	74	97	117	135	138	166	194	231	265
VALVE	27	38	49	59	68	69	83	97	116	133
REDUCER	VARIES BY SIZE; TO BE DETERMINED BY THE DESIGN ENGINEER.									

NOTES:
1. FITTINGS SHALL HAVE RESTRAINED JOINTS UNLESS OTHERWISE INDICATED.
2. INSTALL FULL LENGTH JOINTS WITH TOTAL LENGTH EQUAL TO OR GREATER THAN LENGTH SHOWN IN THE TABLE.
3. WHERE TWO OR MORE FITTINGS ARE IN SERIES, SELECT FITTING RESTRAINT LENGTH THAT YIELDS THE LONGEST RESTRAINT DISTANCE.
4. ALL INLINE VALVES SHALL BE RESTRAINED.
5. WHERE INTERNAL RESTRAINED JOINTS ARE USED, THE ENTIRE BELL SHALL BE PAINTED RED.
6. LENGTHS SHOWN IN THE TABLE WERE CALCULATED IN ACCORDANCE WITH PROCEDURES OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" GUIDELINES PUBLISHED BY DIPRA, USING THE ASSUMPTIONS SHOWN BELOW.

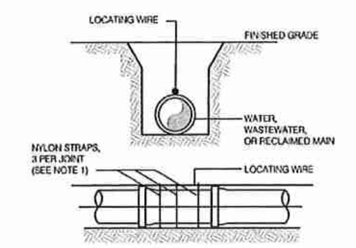
WORKING PRESSURE: 150 PSI
SOIL DESIGNATION: SM (SAND SILT)
LAYING CONDITIONS: 3
DEPTH OF COVER: 3 FT
SAFETY FACTOR: 1.5
CONVERSION FACTOR FOR PVC PIPE: 1.25

THE DESIGN ENGINEER SHALL INCREASE THE VALUES IN THE TABLE AS WARRANTED BY SITE-SPECIFIC SOIL DESIGNATIONS, LAYING CONDITIONS, PIPE MATERIAL, ETC. FOR DIP ENCASED IN POLYETHYLENE, INCREASE THE GIVEN VALUE BY A FACTOR OF 1.25.

ORANGE COUNTY UTILITIES
STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL

APPENDIX A — STANDARD DRAWINGS — GENERAL

DATE: February 11, 2011 — **PIPE LOCATING WIRE** — FIGURE A114



NOTES:
1. ALL PIPE SHALL REQUIRE INSULATED LOCATING WIRE (10 GAUGE SOLID COPPER) CAPABLE OF DETECTION BY A CABLE LOCATOR AND SHALL BE WRAPPED WITH NYLON STRAPS TO TOP CENTERLINE OF THE PIPE.
2. LOCATING WIRE SHALL BE CONTINUOUS INSIDE VALVE BOXES AND SHALL EXTEND 12" ABOVE TOP OF COLLAR.
3. WIRE INSULATION SHALL BE COLOR CODED FOR THE TYPE OF PIPE BEING INSTALLED.

ORANGE COUNTY UTILITIES
STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL

APPENDIX A — STANDARD DRAWINGS — GENERAL

DATE: February 11, 2011 — **SEPARATION REQUIREMENTS FOR WATER, WASTEWATER AND RECLAIMED WATER MAINS** — FIGURE A116

HORIZONTAL & VERTICAL SEPARATION REQUIREMENTS

PROPOSED UTILITY	POTABLE WATER		RECLAIMED WATER		WASTEWATER (GRAVITY & FM)		STORM SEWER	
	HORIZ	VERT	HORIZ	VERT	HORIZ	VERT	HORIZ	VERT
POTABLE WATER	3' NOTE 1	12"	3' NOTE 1 & 3	12" NOTE 3	6' NOTE 3	12" NOTE 3	3' NOTE 1 & 3	12"/18" NOTE 2 & 3
RECLAIMED WATER	3' NOTE 1 & 3	12" NOTE 3	3' NOTE 1	12"	3' NOTE 1	12"	3' NOTE 1	12"/18" NOTE 2
WASTEWATER (GRAVITY AND FM)	6' NOTE 3	12" NOTE 3	3' NOTE 1	12"	3' NOTE 1	12"	3' NOTE 1	12"/18" NOTE 2
RIGHT OF WAY	3' NOTE 1	N/A	3' NOTE 1	N/A	3' NOTE 1	N/A	N/A	N/A

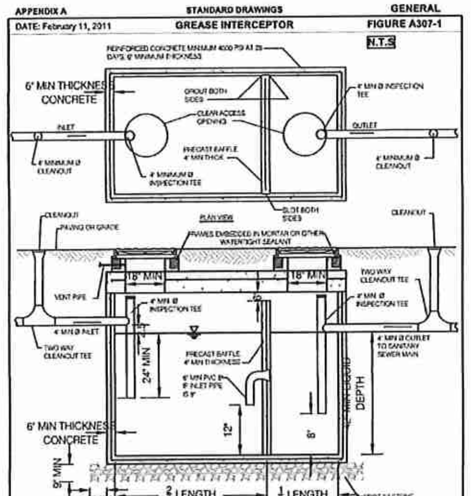
NOTES:
1. THIS SEPARATION REQUIREMENT IS TO PROVIDE ACCESSIBILITY FOR CONSTRUCTION AND MAINTENANCE. THREE FEET OF HORIZONTAL SEPARATION IS THE MINIMUM FOR PIPES WITH THREE FEET OF COVER. FOR PIPES INSTALLED AT GREATER DEPTHS, PROVIDE AN ADDITIONAL FOOT OF SEPARATION FOR EACH ADDITIONAL FOOT OF DEPTH.
2. THE 18-INCH SEPARATION REQUIREMENT APPLIES WHEN THE STORM PIPE CROSSES ABOVE THE OCU MAIN, AND WHEN THE STORM PIPE HAS A DIAMETER EQUAL TO OR GREATER THAN 24 INCHES. OTHERWISE, THE REQUIRED SEPARATION IS 12 INCHES.
3. THIS SEPARATION REQUIREMENT COMPLIES WITH MINIMUM FDEP SEPARATION REQUIREMENTS OUTLINED IN 62-555.314, FAC. VARIANCES FROM THE FDEP REQUIREMENTS MUST COMPLY WITH 62-555.314(5), FAC AND MUST BE APPROVED INDIVIDUALLY BY BOTH FDEP AND OCU.
4. DISTANCES GIVEN ARE FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE.
5. NO WATER PIPE SHALL PASS THROUGH OR COME IN CONTACT WITH ANY PART OF SANITARY OR STORM WATER MANHOLE OR STRUCTURE.

ORANGE COUNTY UTILITIES
STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL

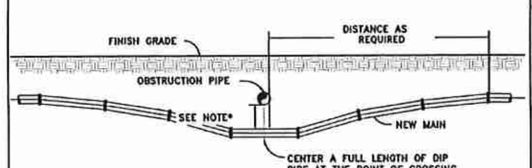
APPENDIX A — STANDARD DRAWINGS — GENERAL

DATE: February 11, 2011 — **GREASE INTERCEPTOR** — FIGURE A307-1

N.T.S



NOTES
1. SPECIFIC DESIGN DETAILS MUST IN ALL ASPECTS MEET APPLICABLE FLORIDA PLUMBING AND ADMINISTRATIVE CODE.
2. SIZE GREASE INTERCEPTOR PER OCU MANUAL SECTION 3313. MINIMUM SIZE 750 GAL. MAXIMUM SIZE 1250 GAL.
3. INTERCEPTORS SHALL BE WATER AND GAS TIGHT.
4. ALL FIXTURES LOCATED IN FOOD AND BEVERAGE PREPARATION AREAS SHALL BE ROUTED THOUGH GREASE INTERCEPTOR. RESTROOM WASTE SHALL NOT BE ROUTED THROUGH INTERCEPTOR.
5. BAFFLE REQUIRED, ALTERNATIVE DESIGNS ARE ACCEPTABLE. DESIGN MUST MEET FLORIDA PLUMBING AND ADMINISTRATIVE CODE.
6. LOADS: H-20 TRUCK WHEELS WITH 30% IMPACT PER AASHTO. TRAFFIC BEARING FRAME AND COVER TO MEET FDOT STANDARDS IF APPLICABLE.

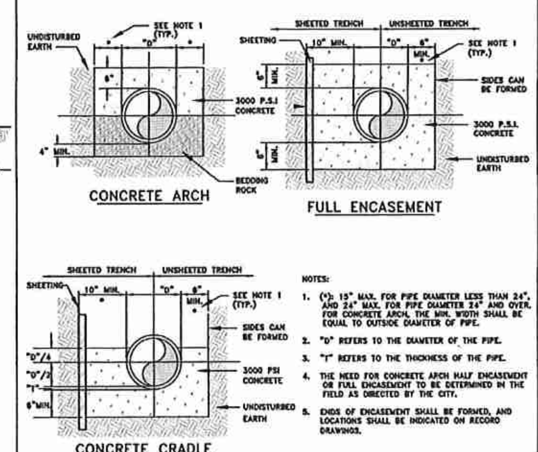


NOTES:
1. 18" MINIMUM CLEARANCE FOR WATER, SEWER AND RECLAIMED WATER MAIN CROSSINGS
2. 12" MINIMUM CLEARANCE REQUIRED FOR OTHER TYPE UTILITY CROSSINGS.
3. SEE ENCASEMENT DETAIL IF MINIMUM CLEARANCE CANNOT BE OBTAINED.

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

UTILITY CROSSING PIPE DEFLECTION DETAIL

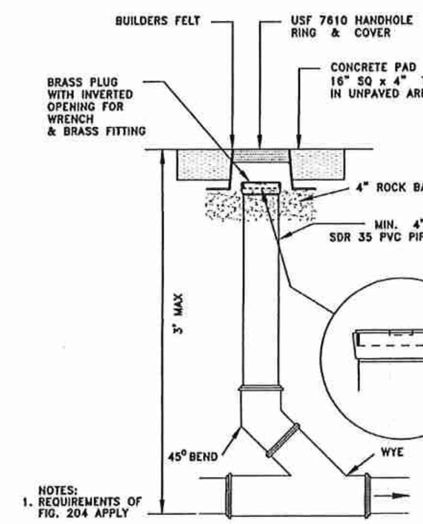
CITY OF APOPKA DESIGN ENGINEERING DIVISION | JANUARY 2014 | FIG. 117



NOTES:
1. (*): 15" MAX. FOR PIPE DIAMETER LESS THAN 24", AND 24" MAX. FOR PIPE DIAMETER 24" AND OVER. FOR CONCRETE ARCH, THE MIN. WIDTH SHALL BE EQUAL TO OUTSIDE DIAMETER OF PIPE.
2. "D" REFERS TO THE DIAMETER OF THE PIPE.
3. "T" REFERS TO THE THICKNESS OF THE PIPE.
4. THE NEED FOR CONCRETE ARCH HALF ENCASEMENT OR FULL ENCASEMENT TO BE DETERMINED IN THE FIELD AS DIRECTED BY THE CITY.
5. ENDS OF ENCASEMENT SHALL BE FORMED, AND LOCATIONS SHALL BE INDICATED ON RECORD DRAWINGS.

CONCRETE ARCH AND ENCASEMENT DETAILS

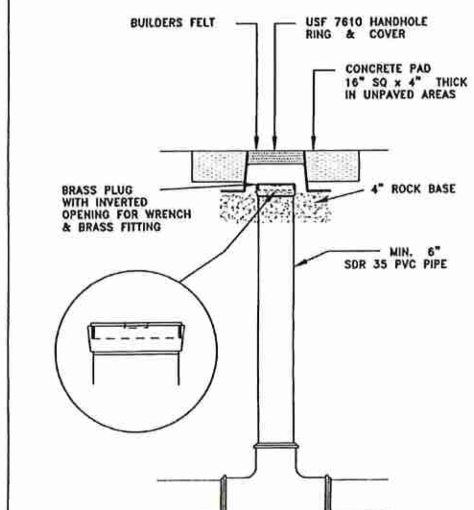
CITY OF APOPKA DESIGN ENGINEERING DIVISION | JANUARY 2014 | FIG. 102



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



GREASE INTERCEPTOR TRAFFIC RATED CLEAN-OUT DETAIL
NTS

CITY OF APOPKA DESIGN ENGINEERING DIVISION | JANUARY 2014 | FIG. 600 A

CED CORNELISON ENGINEERING & DESIGN, INC.
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38039 OLD 5TH AVE, ZEPHYRHILLS, FL 33542
TEL: 813-788-7835 - FAX: 813-788-7062
WWW.CORNELISON-ENG.COM
CERTIFICATE OF AUTHORIZATION 28928

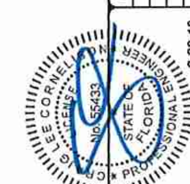
CLIENT: 7-ELEVEN, INC.

PROJECT NAME: 7-ELEVEN AT SEMORAN BLVD.
2229 E. SEMORAN BLVD., APOPKA, FLORIDA 32703

SHEET NAME: UTILITY DETAILS

SCALE: AS NOTED
DESIGNED BY: GRH
DRAWN BY: GRH
CHECKED BY: CLC

No.	REVISIONS	DATE
1	REVISED PER CITY COMMENTS	02/15/2018



2-28-18
CRAIG L. CORNELISON, P.E.
FLORIDA PE NO:55433

DATE: 10/17/2017
PROJECT NO. 1509023
SHEET NUMBER C11
SHEET 11 OF 15

Drawing name: P:\1509023 - 7-11, Semoran Blvd, Apopka\Cadd\Construction\C11-7-11-Apopka_FL-UTIL DET.dwg C11 Feb 28, 2018 11:19am by: GeraldHarrison

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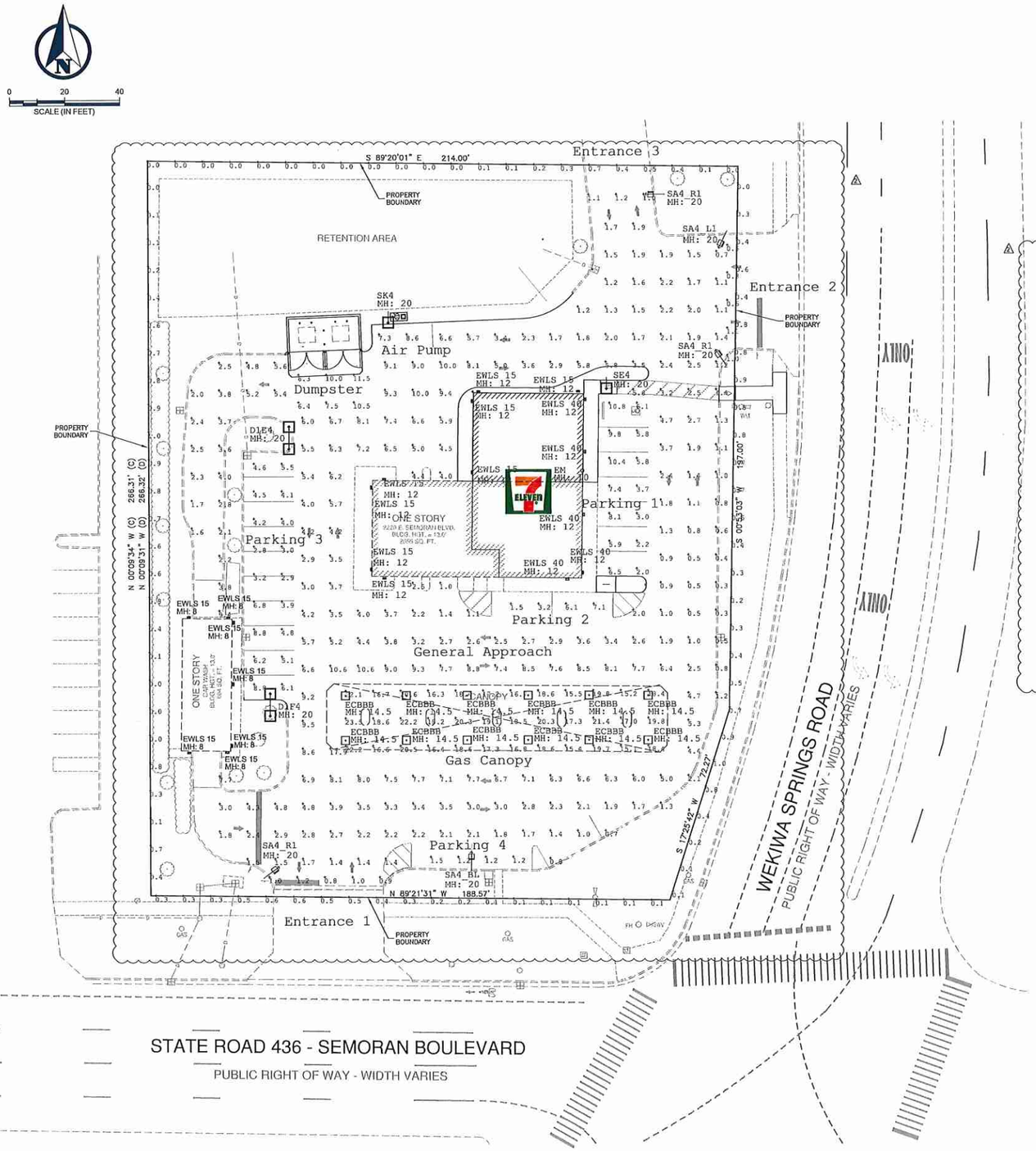

Luminaire Schedule							
Symbol	Qty	Label	Arrangement	LLF	Description	Arr. Watts	Arr. Lum. Lumens
	15	EWLS 15	SINGLE	1.000	EWLS01_15AF750_____-120-277V	12	1500
	5	EWLS 40	SINGLE	1.000	EWLS01_40AF750_____-120-277V	37	4000
	3	SA4_R1	SINGLE	1.000	1-EASC0A4F550DC____D with ELSEASXRS1BLCK (Right)	44	2400
	1	SA4_L1	SINGLE	1.000	1-EASC0A4F550DC____D with ELSEASXRS1BLCK (Left)	44	2400
	1	SA4_BL	SINGLE	1.000	1-EASC0A4F550DC____D with ELSEASXRBLBLCK	44	4000
	12	ECBBB	SINGLE	1.000	ECBB0B5F5501AWHTE	64	8110
	1	EM	SINGLE	0.010	LEDPRS-BR-CL (Phillips)	20	32
	1	D1E4	BACK-BACK	1.000	2-EASC0E4F5509C Color	238	25800
	1	D1F4	BACK-BACK	1.000	2-EASC0F4F5509C Color	288	30800
	1	SE4	SINGLE	1.000	1-EASC0E4F5509C Color	119	12900
	1	SK4	SINGLE	1.000	1-EASC0K4F5509C Color	283	30000

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Air Pump	Illuminance	Fc	7.95	8.6	7.3	1.09	1.18
Dumpster	Illuminance	Fc	8.70	11.5	6.3	1.38	1.83
Entrance 1	Illuminance	Fc	0.98	1.2	0.8	1.23	1.50
Entrance 2	Illuminance	Fc	0.82	1.1	0.6	1.37	1.83
Entrance 3	Illuminance	Fc	1.10	1.2	1.0	1.10	1.20
Gas Canopy	Illuminance	Fc	18.54	23.5	15.1	1.23	1.56
General Approach	Illuminance	Fc	3.85	17.9	0.3	12.83	59.67
Parking 1	Illuminance	Fc	6.25	10.8	2.0	3.13	5.40
Parking 2	Illuminance	Fc	4.48	7.1	1.5	2.99	4.73
Parking 3	Illuminance	Fc	4.96	8.8	2.8	1.77	3.14
Parking 4	Illuminance	Fc	1.28	1.5	1.2	1.07	1.25
Property Line	Illuminance	Fc	0.36	1.0	0.0	N.A.	N.A.

Standard 7-Eleven Lighting Specification	
Entrances	10FC AVG
Air Pump	10FC
Gasoline Canopy	30FC
Dumpster	10FC
Parking	10FC
General Approach	3FC
Sidewalk	NO SPEC
Property Line	NO SPEC
* Levels designed to be at initial output or 1.0LLF	

PROVIDED BY:
APPLICATION SOLUTION CENTER
CURRENT, POWERED BY GE
NELA PARK, EAST CLEVELAND, OH
P: 1-216-266-4660

7-ELEVEN

City Ordinance:
Property line cannot exceed 1FC.

Due to the ordinance, this design does not meet 7-Eleven spec.

PRELIMINARY

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PROJECT NAME
7-ELEVEN AT SEMORAN BLVD.
2229 E. SEMORAN BLVD., APOPKA, FLORIDA 32703

CLIENT
7-ELEVEN, INC.

SHEET NAME
PHOTOMETRIC PLAN

No.	REVISIONS	DATE
1.	REVISED PER CITY COMMENTS	02/15/2018
2.	REVISED PER CITY COMMENTS	08/16/2018

SCALE: AS NOTED
DESIGNED BY: GRH
DRAWN BY: GRH
CHECKED BY: CLC

DATE: 10/17/2017
PROJECT NO.: 1509023
SHEET NUMBER: C12
SHEET 12 OF 15

Drawing name: P:\1509023 - 7-11, Semoran Blvd, Apopka\Cadd\Construction\C12-7-11-Apopka_FL_LIGHT PLAN.dwg C12 Aug 29, 2018 3:54pm by: GeraldHarrison
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Ordering Number Logic

Evolve™ LED Scalable Area Light (EASC)

EAS C _ _ _ __ _ _ ____ ___

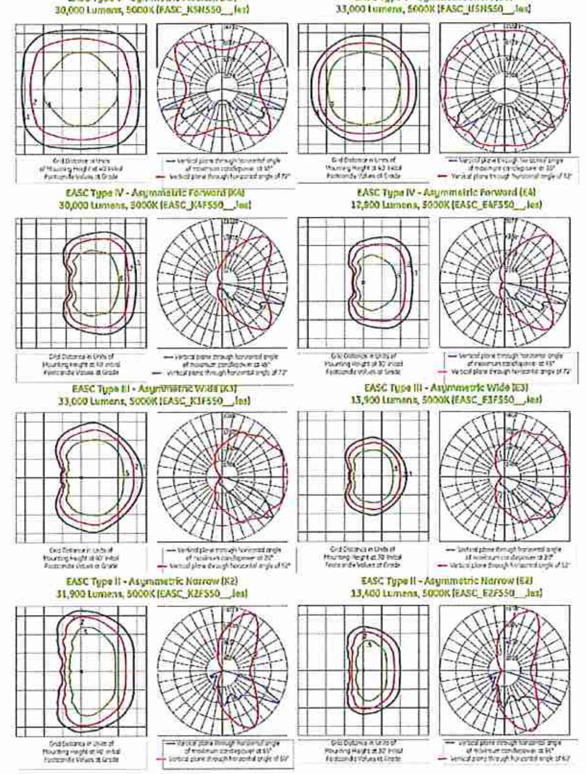
Product ID	Product Generation	Voltage	Distribution	Light Output	CCT	PE Function	Mounting Arm	Color	Options
E = Evolve A = Area S = Scalable	C = Photometric Series	0 = 120-277 1 = 120 2 = 208 3 = 240 4 = 277 5 = 480 D = 347 H = 347-480 *Specify single voltage if fuse option is selected	F = Front L = Left R = Right N = Not Applicable	5 = 525mA 7 = 700mA* *Only select for product offset	40 = 4000K 50 = 5000K	1 = None A = ANSI C136.41 7-pin dimming PE Receptacle B = ANSI C136.41 7-pin dimming PE Receptacle with Shorting Cap † When ordering PE function option A-B, a dimming driver must also be ordered under the "OPTIONS" column. ‡ Order Dimming Control PE as a separate item.	A = 10" Arm for Square Pole supplied with ends B = 10" Arm for Round Pole supplied with ends C = Slip fitter 2" Pipe (2.375 in. OD) supplied with ends D = 10" Arm for round or square poles, supplied with both ends and additional hardware S = Knuckle Slipfitter for 2.3 in. - 3.0 in. OD tenon, supplied with knob 0-45° vertical aiming angles achievable	BLCK = Black DKBZ = Dark Bronze GRAY = Gray WHTE = White Contact manufacturer for other colors	C = EC D = Dimming 0-10 volt input‡ F = Fusing H = Motion Sensor**# J = UL/Canada R = 10kV/Extra Surge Protection XXX = Special Options ‡ Dimming leads will be provided through the back of the unit, unless specified with A or B PE function. ** When ordering Motion Sensing Option H - "N" or "S" Mounting Arm must be selected. Fixture power instead of 2W expected with sensor on. # Dimming is standard with H option only. Do not also select D option. Not compatible with PE receptacle options A or B.

Front (F) · Left (L) · Right (R) · Not Applicable (N)

Type V									
D5	Symmetric Medium	6200	62	N	3	0	2	EASC_D5N540__.IES	EASC_D5N550__.IES
E5	Symmetric Medium	12700	119	N	4	0	2	EASC_E5N540__.IES	EASC_E5N550__.IES
F5	Symmetric Medium	15000	137	N	4	0	2	EASC_F5N540__.IES	EASC_F5N550__.IES
G5	Symmetric Medium	17500	156	N	4	0	2	EASC_G5N540__.IES	EASC_G5N550__.IES
H5	Symmetric Medium	21200	199	N	4	0	2	EASC_H5N540__.IES	EASC_H5N550__.IES
J5	Symmetric Medium	25200	235	N	5	0	3	EASC_J5N540__.IES	EASC_J5N550__.IES
K5	Symmetric Medium	30000	283	N	5	0	3	EASC_K5N540__.IES	EASC_K5N550__.IES
L5	Symmetric Medium	35000	395	N	5	0	4	EASC_L5N740__.IES	EASC_L5N750__.IES
N5	Symmetric Short	9200	62	N	3	0	1	EASC_N5N540__.IES	EASC_N5N550__.IES
P5	Symmetric Short	13800	119	N	3	0	2	EASC_P5N540__.IES	EASC_P5N550__.IES
Q5	Symmetric Short	16400	137	N	4	0	2	EASC_Q5N540__.IES	EASC_Q5N550__.IES
R5	Symmetric Short	18700	156	N	4	0	2	EASC_R5N540__.IES	EASC_R5N550__.IES
S5	Symmetric Short	23100	199	N	4	0	2	EASC_S5N540__.IES	EASC_S5N550__.IES
T5	Symmetric Short	27400	235	N	4	0	2	EASC_T5N540__.IES	EASC_T5N550__.IES
U5	Symmetric Short	33000	283	N	5	0	2	EASC_U5N540__.IES	EASC_U5N550__.IES
V5	Symmetric Short	41000	395	N	5	0	3	EASC_V5N740__.IES	EASC_V5N750__.IES
Type IV									
A4	Asymmetric Forward	4200	44	F, L, R	1	0	1	EASC_A4F540__.IES	EASC_A4F550__.IES
B4	Asymmetric Forward	6500	62	F, L, R	1	0	2	EASC_B4F540__.IES	EASC_B4F550__.IES
C4	Asymmetric Forward	7600	72	F, L, R	1	0	2	EASC_C4F540__.IES	EASC_C4F550__.IES
D4	Asymmetric Forward	8700	82	F, L, R	1	0	2	EASC_D4F540__.IES	EASC_D4F550__.IES
E4	Asymmetric Forward	12900	119	F, L, R	2	0	3	EASC_E4F540__.IES	EASC_E4F550__.IES
F4	Asymmetric Forward	15400	144	F, L, R	2	0	3	EASC_F4F540__.IES	EASC_F4F550__.IES
G4	Asymmetric Forward	17200	156	F, L, R	2	0	3	EASC_G4F540__.IES	EASC_G4F550__.IES
H4	Asymmetric Forward	21200	199	F, L, R	3	0	4	EASC_H4F540__.IES	EASC_H4F550__.IES
J4	Asymmetric Forward	25200	235	F, L, R	3	0	4	EASC_J4F540__.IES	EASC_J4F550__.IES
K4	Asymmetric Forward	30000	283	F, L, R	3	0	5	EASC_K4F540__.IES	EASC_K4F550__.IES
L4	Asymmetric Forward	34900	395	F, L, R	3	0	5	EASC_L4F740__.IES	EASC_L4F750__.IES
Type III									
A3	Asymmetric Wide	4700	44	F, L, R	1	0	1	EASC_A3F540__.IES	EASC_A3F550__.IES
B3	Asymmetric Wide	7100	62	F, L, R	1	0	1	EASC_B3F540__.IES	EASC_B3F550__.IES
C3	Asymmetric Wide	8300	72	F, L, R	1	0	2	EASC_C3F540__.IES	EASC_C3F550__.IES
D3	Asymmetric Wide	9500	82	F, L, R	2	0	2	EASC_D3F540__.IES	EASC_D3F550__.IES
E3	Asymmetric Wide	13900	119	F, L, R	2	0	2	EASC_E3F540__.IES	EASC_E3F550__.IES
F3	Asymmetric Wide	16600	144	F, L, R	2	0	2	EASC_F3F540__.IES	EASC_F3F550__.IES
G3	Asymmetric Wide	18700	156	F, L, R	2	0	2	EASC_G3F540__.IES	EASC_G3F550__.IES
H3	Asymmetric Wide	23100	199	F, L, R	3	0	3	EASC_H3F540__.IES	EASC_H3F550__.IES
J3	Asymmetric Wide	27400	235	F, L, R	3	0	3	EASC_J3F540__.IES	EASC_J3F550__.IES
K3	Asymmetric Wide	33500	283	F, L, R	3	0	4	EASC_K3F540__.IES	EASC_K3F550__.IES
L3	Asymmetric Wide	41500	395	F, L, R	3	0	4	EASC_L3F740__.IES	EASC_L3F750__.IES
Type II									
A2	Asymmetric Narrow	4600	44	F, L, R	1	0	1	EASC_A2F540__.IES	EASC_A2F550__.IES
B2	Asymmetric Narrow	6800	62	F, L, R	1	0	1	EASC_B2F540__.IES	EASC_B2F550__.IES
C2	Asymmetric Narrow	8000	72	F, L, R	2	0	2	EASC_C2F540__.IES	EASC_C2F550__.IES
D2	Asymmetric Narrow	9100	82	F, L, R	2	0	2	EASC_D2F540__.IES	EASC_D2F550__.IES
E2	Asymmetric Narrow	13400	119	F, L, R	2	0	2	EASC_E2F540__.IES	EASC_E2F550__.IES
F2	Asymmetric Narrow	16200	144	F, L, R	3	0	3	EASC_F2F540__.IES	EASC_F2F550__.IES
G2	Asymmetric Narrow	18000	156	F, L, R	3	0	3	EASC_G2F540__.IES	EASC_G2F550__.IES
H2	Asymmetric Narrow	22300	199	F, L, R	3	0	3	EASC_H2F540__.IES	EASC_H2F550__.IES
J2	Asymmetric Narrow	25500	235	F, L, R	3	0	3	EASC_J2F540__.IES	EASC_J2F550__.IES
K2	Asymmetric Narrow	31300	283	F, L, R	3	0	4	EASC_K2F540__.IES	EASC_K2F550__.IES
L2	Asymmetric Narrow	40000	395	F, L, R	4	0	4	EASC_L2F740__.IES	EASC_L2F750__.IES
KA	Asymmetric 100° Wide Auto	33400	283	F, L, R	4	0	3	EASC_KAF540__.IES	EASC_KAF550__.IES
LA	Asymmetric 100° Wide Auto	44900	398	F, L, R	5	0	4	EASC_LAF740__.IES	EASC_LAF750__.IES

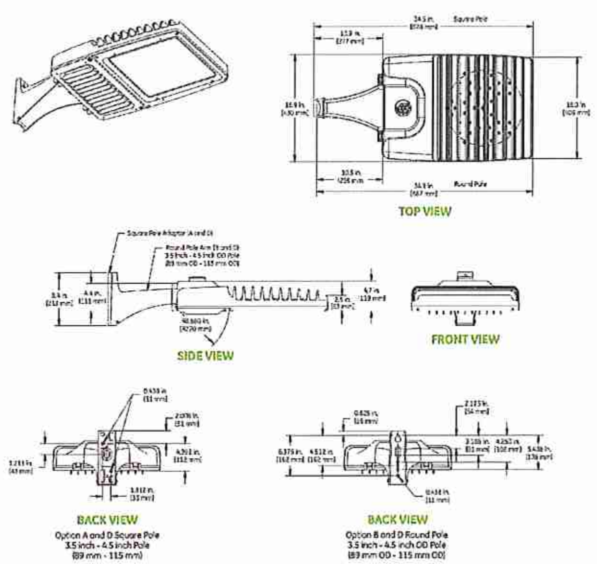
*Rating values for B and G are based on rated lumens and may vary due to flux tolerances.

Photometrics



Product Dimensions

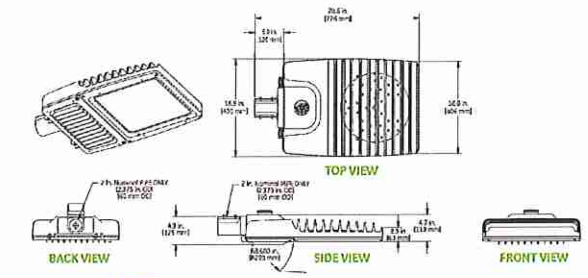
(Option A) 10" Arm for Square Pole Mount
(Option B) 10" Arm for Round Pole Mount
(Option D) 10" Arm for Square Pole Mount or Round Pole Mount
Option D includes all mounting hardware in Option A and Option B



DATA
- Approximate net weight: 43-47 lbs (19.50 - 21.32 kgs) Contact manufacturer for specific configuration weight.
- Effective Projected Area (EPA) with 10" Mounting Arm: 0.97 sq ft max (0.09 sq m)

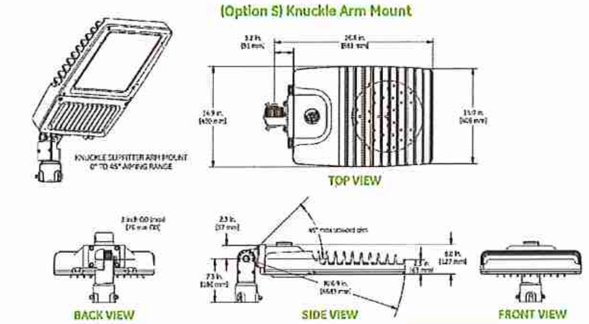
Product Dimensions

(Option C) Slipfitter Arm Mount



DATA
- Approximate net weight: 41-45 lbs (18.60 - 20.41 kgs) Contact manufacturer for specific configuration weight.
- Effective Projected Area (EPA) with Slipfitter: 0.47 sq ft max (0.04 sq m)

(Option S) Knuckle Arm Mount



DATA
- Approximate net weight: 41-45 lbs (18.60 - 20.41 kgs) Contact manufacturer for specific configuration weight.
- Effective Projected Area (EPA) with fixture mounted at 45° upward: 1.97 sq ft max

GE Evolve™

LED Area Lighting

Canopy Light - ECBB

Project name ______
Date ______
Type ______

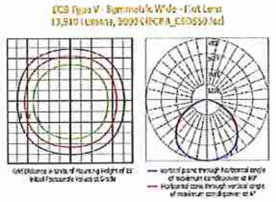
ECB B _ __ F 5 __ _ A ____ ___

Product ID	Product Generation	Voltage	Optical Code	Lens Type	Drive Current	LED Color Temp	Motion Sensor / PE Function	Mounting	Color	Options
E = Evolve C = Canopy B = Housing	B = Photometric Series "B"	0 = 120-277 H = 347-480V* * See below table for available options		F = Flat Lens	5 = Less than or equal to 525mA	30 = 3000K 40 = 4000K 50 = 5000K Select 3000K CCT for IDA approved units	1 = None 4 = Motion Sensor and Integral Photocell* * Not available with 347-480V. Must order with 10kV surge protection Option "R". * Must order with 10kV surge protection Option "R".	A = Surface Mount Other mounting options are available in the ECB accessories document.	WHTE = White BLCK = Black DKBZ = Dark Bronze Contact manufacturer for additional colors.	D = Dimmable 0-10 Volt input† D02 = Non-Dimming with Junction Box D01 = Dimming with Junction Box R = 10kV/5kA Surge Protection N = NOM01 † Dimming leads will be provided and terminated with quick disconnect terminals.

	Photometric Type	Optical Code	Lens Type	3000K	4000K	5000K	120-277V	347-480V	3000K	4000K	5000K
Type V	Symmetric Wide	T5	Flat Lens	3450	3500	3550	29	NA	ECBB_T5F530__120-277V.ies	ECBB_T5F540__120-277V.ies	ECBB_T5F550__120-277V.ies
Type V	Symmetric Wide	A5	Flat Lens	4120	4170	4230	35	NA	ECBB_A5F530__120-277V.ies	ECBB_A5F540__120-277V.ies	ECBB_A5F550__120-277V.ies
Type V	Symmetric Wide	B5	Flat Lens	7740	8012	8110	64	64	ECBB_B5F530__.ies	ECBB_B5F540__.ies	ECBB_B5F550__.ies
Type V	Symmetric Wide	C5	Flat Lens	13410	13410	13550	110	110	ECBB_C5F530__.ies	ECBB_C5F540__.ies	ECBB_C5F550__.ies

Photometrics

ECB Type V - Symmetric Wide - Flat Lens
13,910 Lumens, 3000K (ECBB_C5D530.ies)

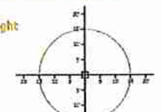


Motion Sensing Option:

- Intended for 8-25ft mounting heights.
- Provides a coverage area radius for walking motion of 15-20ft.
- Provides 360° of coverage.
- Factory pre-set 50% dimmed light output with no occupancy
- May be reprogrammed using additional remote programmer. Remote Programmer part number: WS FSIR-100 PROGRAMMER (197634)
- Photoelectric control is integrated through the motion sensor, and is offered as standard.

Approximate Sensor Pattern:

Canopy Fixture
15 ft. Mounting Height



JOB NAME:
TYPE NO.:
CATALOG NO.:

Crescent

High-Lites

Pluralux Series Wet Location LED Emergency Lighting Units

Self-Diagnostic Operation Plus High-Output LED Lamp!

Standard with dark bronze finish

ORDERING INFORMATION

Catalog Number: Example: LEDPRSWCL

LEDPRS		
MODEL NUMBER	HOUSING COLOR	OPTIONS
	BR - Dark Bronze B - Black W - White	see below

OPTIONS
CL Cold Location Operation

Also available in black or white finishes

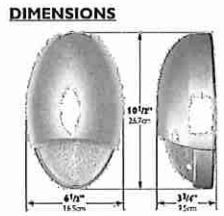
PRODUCT FEATURES

- Attractive, architectural styling
- Low profile design - meets ADA requirements
- Die-cast aluminum housing
- Choice of three decorator color finishes
- Self-diagnostic circuitry standard
- Ultra bright white LED lamps provide superior emergency lighting levels
- Polycarbonate lens and mirrored reflector provide even illumination
- Fast, easy wall mount installation
- Provision for back wiring or surface conduit entry
- Universal 120/277VAC input
- Fully automatic charger standard
- Maintenance-free nickel cadmium battery standard
- 90 minutes of emergency illumination
- Momentary test switch and AC ready indicator
- UL924 and UL Wet Location listed
- Suitable for damp and wet location applications
- Meets NFPA Life Safety Code 101, NEC and OSHA
- UL operating range 32°F to 122°F (0°C to 50°C)
- Cold location option allows operation range of -4°F to 122°F (-20°C to 50°C)

SPECIFICATIONS

Construction	Housings and backplates are constructed of rugged die-cast aluminum finished in scuff resistant, textured powder coat paint standard. All housings are sealed and gasketed for damp and wet location applications. Prismatic Lens: Unit lens is constructed of clear high impact polycarbonate.
Installation	The housing backplate provides knockouts for mounting the unit to wall surfaces and/or standard 3½" and 4" utility boxes. Wiring Knockouts in the unit backplate allow rear wiring input from utility boxes. An entry point is also provided on the top of the unit housing to allow connection to rigid surface conduit.
Illumination	Emergency illumination is provided by 4.8V, 5W ultra bright white LED. Prismatic lenses provide bright, even, glare-free operation in a wide pattern across the path of egress
Electronics	• Dual input 120/277VAC, 60 Hz • AC-On indicator light and test switch • Automatic, constant current charger • AC Lockout protection • Low voltage battery disconnect • Automatic brownout protection
Power Consumption	Input Power: 10W (maximum charge), 3.5W ready state
Battery	4.8V nickel cadmium sealed maintenance free battery. Optimum operating temperature range 32°F to 122°F (0°C to 50°C). Provides a minimum of 90 minutes of full output emergency illumination.
Code Compliance	Listed to UL924. Meets NFPA Life Safety Code 101. Complies with NEC and OSHA.
Warranty	Limited 3 year warranty. 5 year nickel cadmium pro rata battery warranty.

DIMENSIONS



NOTE: Dimensions and specifications subject to change without notice. Form 12786, 06/12 © 2006 Philips group

Specifications are subject to change without notice. Consult website for latest version of this spec sheet. Crescent/Stonco • 200 Franklin Square Drive • Somerset, NJ 08873 • 800-334-2212 • www.crescentlighting.com

Crescent is a Philips company

PHILIPS

GE Evolve™

LED L-Series Wall Pack

EWLS

Project name ______
Date ______
Type ______

Typical Specifications: EWLS

LED & Optical
- **Lumen Packages:** 1500 & 4000
- **System Efficacy:** Up to 125 lpw
- **CCT:** 3000K, 4000K, 5000K; High brightness LEDs.
- **CRI:** 70
- Upward Light Output Ratio (ULOR) = 0.
- Custom engineered reflective optics for optimized photometry
- High application efficiency and minimal glare.

Electrical
- **Input Voltage:** 120-277 volt and 347 volt
- **Input Frequency:** 50/60Hz
- **Power Factor (PF):** >90%
- **Total Harmonic Distortion (THD):** <20%
- **Surge Protection:** Integral surge protection

Ratings
- **Operating Temperature:** -40° to 50°C
- **Storage Temperature:** -40° to 50°C
- **Location:** Dry or Wet
- **Safety:** UL/cUL Listed. UL 1598 listed, suitable for wet locations.
- **DLC Premium & Standard** qualified models available. Please refer to http://www.designlights.org/QPL for complete information.
- **Environmental:** Compliant with the materials restrictions of RoHS.
- LM-79 testing in accordance with IESNA Standards.
- Optical enclosure IP66 per ANSI C136.25-2009.

Lumen Maintenance
- Projected L90>100,000 hours per IES TM-21 for 15AF optical codes.
- Projected L90>60,000 hours per IES TM-21 for 40AF optical codes.
- Projected Lxx per IES TM-21 at 25°C for reference.

Optical Code			
15AF	L96	L95	L91
40AF	L95	L92	L85

Construction & Finish
- **Housing:**
  - Die-cast aluminum. Integrated heat sink for maximum heat transfer.
  - Patented aesthetic design to complement your building façade.
- **Lens:** Impact resistant tempered glass lens.
- **Paint:** Corrosion resistant polyester powder painted, minimum 2.0 mil. thickness.
  - Standard Colors: Dark Bronze, Black, White, Gray
  - RAL & custom colors available.
- **Weight:** 8.5 lbs (4 kg)

Warranty
- **System Warranty:** 5 Year Standard, 10 Year Optional.

Controls
- **Dimming:** Wired Analog 0-10V Dimming.[1]
- **Sensors:**
  - Button Photo Electric sensor (PE) available 120-277V & 347V.
  - CA Title 24 Compliant Occupancy Sensor Option.[1]

[1] Available with Optic Code 40AF

Mounting
- Mounts to standard 3-1/2" to 4" round and octagonal, 4" square, single gang and masonry junction boxes.
  - **Flush Mount:** Mounts directly to customer supplied junction box.
  - **Conduit Box Mount:** Mounts to walls via separate mounting box with conduit knockouts.

Sensor Pattern:

Sensing Pattern Wall Pack Fixture: 8-25 ft.

Subject to Change 3

4

GE Evolve™

LED L-Series Wall Pack

EWLS

Project name ______
Date ______
Type ______

EWLS 01 _ ____ 7 __ _ _ __ ____ _

Product ID	Product Generation	Voltage	Optical Code	CRI	CCT	Dimming	PE Function	Mounting	Color	Options
E = Evolve W = Wallpack L = L-series S = Standard	01 = Generation	0 = 120-277V* 1 = 120* 2 = 208* 3 = 240* 4 = 277* D = 347* * Specify single voltage if Button PE option selected	15AF = 1500lm, Asymmetric Forward 40AF = 4000lm, Asymmetric Forward	7 = 70 CRI*	30 = 3000K** 40 = 4000K* 50 = 5000K **Select 3000K CCT for IDA Approved units	N = Non-Dimming D = Dimming* Leads ‡ ‡ Dimming not available at 1500lm	1 = None* 3 = Button PE[2] [2] Must specify discrete voltage	FM = Flush Mount* CB = Conduit Box Mount** **Must be selected when ordering with Button PE, Motion Sensor, or 347V	DKBZ = Dark Bronze* BLCK = Black GRAY = Gray WHTE = White	H = Motion Sensor* ### = Special Options J = UL/Canada W = Non-Graphical White Box

*Standard Option
* = Motion Sensor not available at 1500lm

Claims Table:

Product Code	Dist.													
15	AF	12	13	1,450	1,500	1,500	121	125	125	112	117	115	B1-U0-U0	B1-U0-U0
40	AF	37	38	3,980	4,001	4,000	105	108	108	102	105	105	B1-U0-U0	B1-U0-U0

CCT	120-277V	347V
3000K	EWLS01_15AF730____-120-277V.IES	EW.S01015AF730____-347V.IES
4000K	EWLS01_15AF740____-120-277V.IES	EW.S01015AF740____-347V.IES
5000K	EWLS01_15AF750____-120-277V.IES	EW.S01015AF750____-347V.IES
3000K	EWLS01_40AF730____-120-277V.IES	EW.S01040AF730____-347V.IES
4000K	EWLS01_40AF740____-120-277V.IES	EW.S01040AF740____-347V.IES
5000K	EWLS01_40AF750____-120-277V.IES	EW.S01040AF750____-347V.IES

SKU #	CAT LOGIC	DESCRIPTION
93056850	EWLS01015AF740N1FMDKBZ	1500lm, 4000K, Flush Mount
93060201	EWLS01015AF750N1FMDKBZ	1500lm, 5000K, Flush Mount
93059437	EWLS01040AF740N1FMDKBZ	4000lm, 4000K, Flush Mount
93060200	EWLS01040AF750N1FMDKBZ	4000lm, 5000K, Flush Mount
93060202	35-434781901	Conduit Box Mount KIT/Y II
93060203	35-968840-01	Conduit Box Mount KIT/Y II

Accessories:

Product ID		Kit	Size	Color
E = Evolve W = Wallpack L = L-series S = Standard	A = Accessory	E = Escutcheon Plate	1 = 10" x 12" 2 = 12" x 15" 3 = 12" x 20"	DKBZ = Dark Bronze* BLCK = Black GRAY = Gray WHTE = White RAL customer colors available. Contact Manufacturer

Product ID		Kit
E = Evolve W = Wallpack L = L series S = Standard	A = Accessory	D = Diffuser

Motion Sensing Option:

- Intended for 8-25 ft. mounting heights.
- Provides a coverage area radius for walking motion of 25-30 ft.
- Provides 180° of coverage (~180° is blocked by the wall).
- Factory preset to 50% dimming with no occupancy.
- May be reprogrammed using additional remote programmer.
  - Remote programmer part number: WS FSIR-100 PROGRAMMER (197634)
- Photoelectric control is integrated through the motion sensor, and is offered as standard

PRELIMINARY

PROVIDED BY:
APPLICATION SOLUTION CENTER
CURRENT, POWERED BY GE
NELA PARK, EAST CLEVELAND, OH
P: 1-216-266-4660

CALL 48 HOURS BEFORE YOU DIG
811
IT'S THE LAW! DIAL 811
Know what's below. Call before you dig.
SUNSHINE STATE ONE CALL OF FLORIDA, INC.

current powered by GE

PROJECT NAME	7-ELEVEN AT SEMORAN BLVD. 2229 E. SEMORAN BLVD., APOPKA, FLORIDA 32703
CLIENT	7-ELEVEN, INC.
SHEET NAME	PHOTOMETRIC DETAILS
SCALE	AS NOTED
DESIGNED BY	GRH
DRAWN BY	GRH
CHECKED BY	CLC

No.	REVISIONS	DATE
1	REVISED PER CITY COMMENTS	02/15/2018
2	REVISED PER CITY COMMENTS	08/18/2018

DATE 10/17/2017
PROJECT NO. 1509023
SHEET NUMBER C13
SHEET 13 OF 15

Drawing name: P:\1509023 - 7-11, Semoran Blvd, Apopka\Cadd\Construction\C13-7-11-Apopka_FL-LIGHT DET.dwg C13 Aug 29, 2018 3:52pm by: GeraldHarrison
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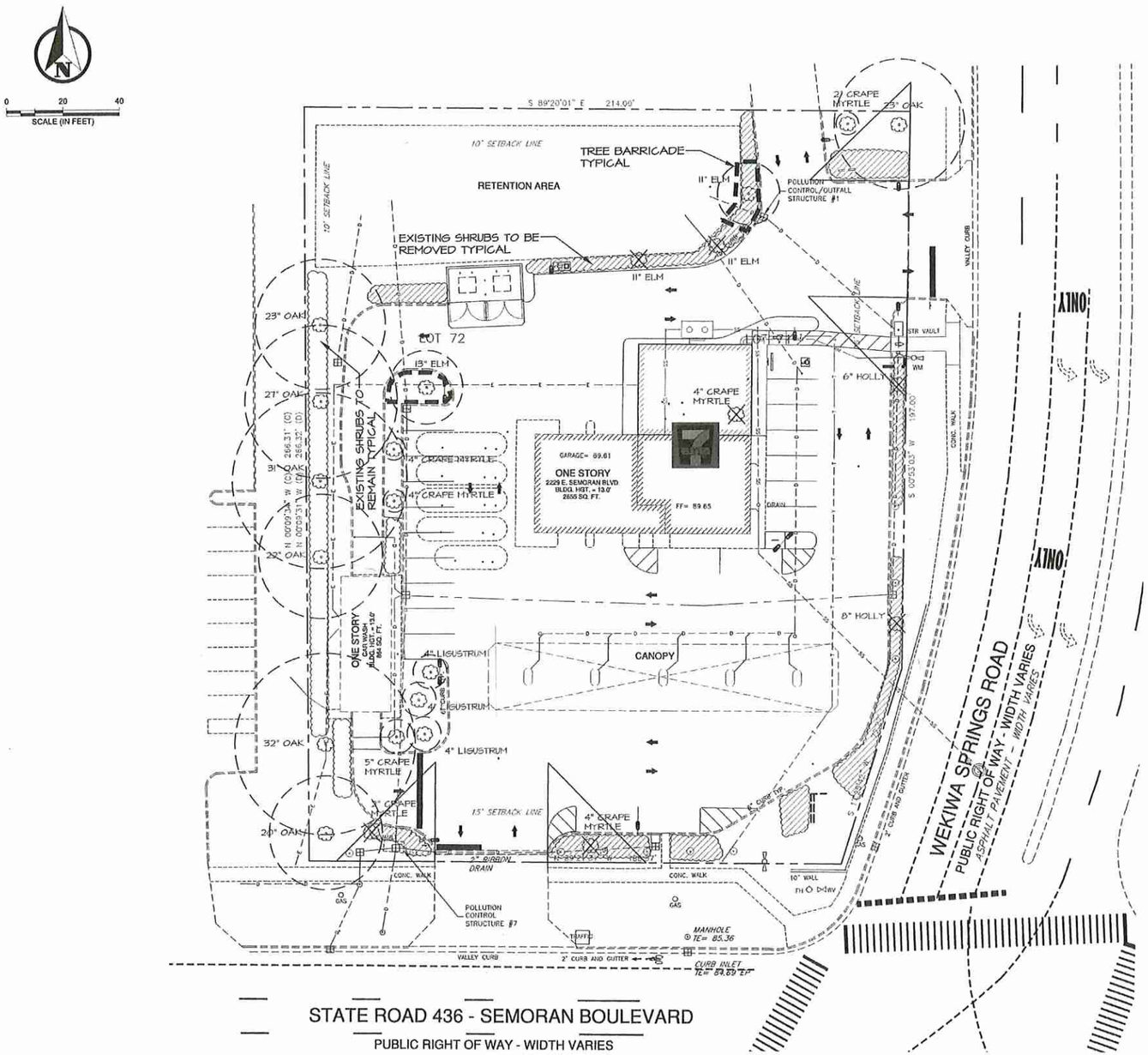

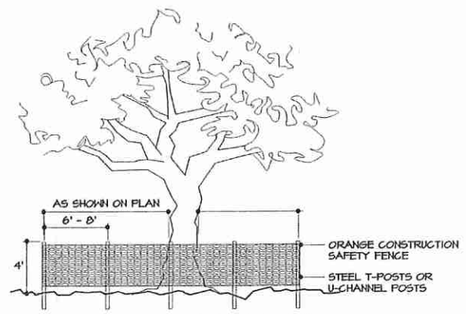

TREE PROTECTION DETAIL

ALL EXISTING TREES TO REMAIN WITHIN THE PROTECTION AREA SHALL BE BARRICADED AS PER THE DETAIL. BARRICADES SHALL BE ERECTED BEFORE SITE WORK BEGINS AND SHALL REMAIN FOR THE ENTIRE DURATION OF THE WORK.

SYMBOL LEGEND

- 32" — EXISTING TREE TO REMAIN
- 32" — EXISTING TREE TO BE REMOVED.
- TREE BARRICADE
- EXISTING SHRUBS TO REMAIN
- EXISTING SHRUBS TO BE REMOVED

ANDERSON LESNIAK LIMITED, INC.
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www.andersonlesniak.net

PROJECT NAME: 7-ELEVEN E. SEMORAN BOULEVARD
APOPKA, FLORIDA
SHEET NAME: TREE PRESERVATION / REMOVAL PLAN
CLIENT: 7-ELEVEN, INC.

No.	REVISIONS	DATE
1		
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4		
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6		

SCALE: AS NOTED
DESIGNED BY: BG
DRAWN BY: BG
CHECKED BY: LAU

03-22-18
L. ALYSON UTTER
FLORIDA LANDSCAPE ARCHITECT No. LA0001053

DATE: 3/22/2018
PROJECT NO.: 1509023
SHEET NUMBER: LA-01

Drawing name: \\Server\server\Projects 2016\1810 4-11 @ Apopka\2 CIV\LL-8.dwg L-1 Mar 22, 2018 9:29am by: Brian
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SYMBOL LEGEND

10 QUANTITY
QV SPECIES

ARGENTINE BAHIA SOD

EXISTING TREE TO REMAIN
23"

PROPOSED TREES

MAPLE	4
WAX MYRTLE	7
CRAPE MYRTLE	6
TOTAL TREES	17

LANDSCAPE REQUIREMENTS

1) INTERIOR REQUIREMENTS
1 CANOPY TREE + 1 SHADE TREE FOR EVERY 20 PARKING SPACES
10% OF VUA SHALL BE LANDSCAPED
22 PARKING SPOTS = 2 CANOPY + 2 SHADE TREES - 4 EXISTING = 0 TREES
33,556 SF X 10% = 3,356 SF LANDSCAPE REQUIRED

2) BUFFER YARDS
NORTH PERIMETER- 187 LF / 10 = 18.70 SF / 1000 = 1.87 X 3.5" DBH = 6.5" DBH REQUIRED. 3 TREES @ 2.5" DBH PROVIDED
SOUTH PERIMETER (POWER LINES) - 147 LF / 25 = 6 TREES - 2 EXISTING = 4 TREES @ 2.5 " DBH
EAST PERIMETER - 207 LF / 25 = 8 TREES - 1 EXISTING = 7 TREES
WEST PERIMETER - 265 LF X 5 = 1,325 SF / 1000 = 1.32 X 3.5" DBH = 4.6" DBH REQUIRED. 2 TREES - 5 EXISTING = 0 TREES
TOTAL PERIMETER 14 TREES

(3) 1 TREE PER 8,000 SF OF SITE REQUIRED - PERIMETER AND PARKING AREAS
55,617 SF / 8,000 SF = 7 TREES - 4 PARKING TREES = 3 TREES

4) TOTAL REQUIRED TREES
14 + 3 = 17 TREES @ 2.5" DBH

PLANT MATERIAL LIST

SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SPECIFICATIONS	SPACING
AR	4	ACER RUBRUM	*RED MAPLE*	16' HT X 7' SPD, 2.5" DBH, RPB	AS SHOWN
LA	6	LAGERSTROEMIA INDICA 'MUSKOGEE'	*LAVENDER CRAPE MYRTLE*	10' HT X 4' SPD, 3 STEMS @ 1", RPB	AS SHOWN
WM	7	MYRICA CERIFERA	*WAX MYRTLE*	10' HT X 4' SPD, 3 STEMS @ 1", RPB	AS SHOWN
MF	78	MYRICANTHES FRAGRANS	*SIMPSON'S STOPPER*	36" HT X 30" SPD, 7 GALLON	36" OC
MC	64	MUHLENBERGIA CAPILLARIS	*MUHLY GRASS*	36" HT X 30" SPD, 7 GALLON	36" OC
LM	60	LIRIOPE 'EMERALD GODDESS'	*EMERALD GODDDESS*	10" HT X 10" SPD, 1 GALLON	24" OC
LD	68	LANTANA DEPRESSA	*PINELAND LANTANA*	10" HT X 10" SPD, 1 GALLON	24" OC

100% FLORIDA FRIENDLY LANDSCAPING PLANTS

LANDSCAPE INSTALLATION NOTES

1) ALL PLANT MATERIALS SHALL BE FLORIDA #1 OR BETTER AS GIVEN IN, GRADES AND STANDARDS FOR NURSERY PLANTS, FEBRUARY LATEST EDITION, PUBLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES.

2) LOCATION OF PLANTS ON THE PLAN ARE DIAGRAMMATIC- SEE THE LANDSCAPE ARCHITECT FOR QUESTIONS ON EXACT LOCATIONS. THE PLANT MATERIALS LIST IS PROVIDED FOR THE CONVENIENCE OF THE LANDSCAPE CONTRACTOR. SHOULD THERE BE ANY DISCREPANCY BETWEEN THE PLANT LIST AND THE PLAN, THE PLAN SHALL PREVAIL.

3) IT IS THE LANDSCAPE CONTRACTORS RESPONSIBILITY TO INSURE THAT ALL PLANT BED AREAS HAVE PROPER DRAINAGE FOR OPTIMUM GROWTH OF LANDSCAPE MATERIAL BEFORE INSTALLATION BEGINS.

4) THE CONTRACTOR SHALL INSURE THAT ALL PLANTING ISLANDS AND OTHER AREAS SHALL BE CLEAN OF TRASH, CONSTRUCTION DEBRIS, OR OTHER WASTE MATERIALS TO A DEPTH OF 24" PRIOR TO LANDSCAPE INSTALLATION.

5) ALL PLANT BEDS AND TREE RINGS SHALL BE TREATED WITH A PRE-EMERGENT HERBICIDE AND THEN TOP-DRESSED WITH 3" DEEP TRIPLE SHREDDED BLACK MULCH. ALL NEW TREES SHALL HAVE A TREE RING WITH A MINIMUM OF 24" RADIUS, ALL NEW TREES AND PALMS SHALL BE STAKED. ALL EXISTING TREES TO REMAIN SHALL HAVE A 6' RADIUS MULCH RING AT A DEPTH OF 3".

6) NEW SOD SHALL BE ± 6,000 OF ARGENTINE BAHIA SOD, IN THE LOCATIONS SHOWN ON THE PLAN. CONTRACTOR SHALL DETERMINE EXACT QUANTITIES IN THE FIELD. SOD AREAS SHALL BE MAINTAINED BY THE CONTRACTOR FROM THE TIME OF INSTALLATION TO THE TIME OF FINAL ACCEPTANCE.

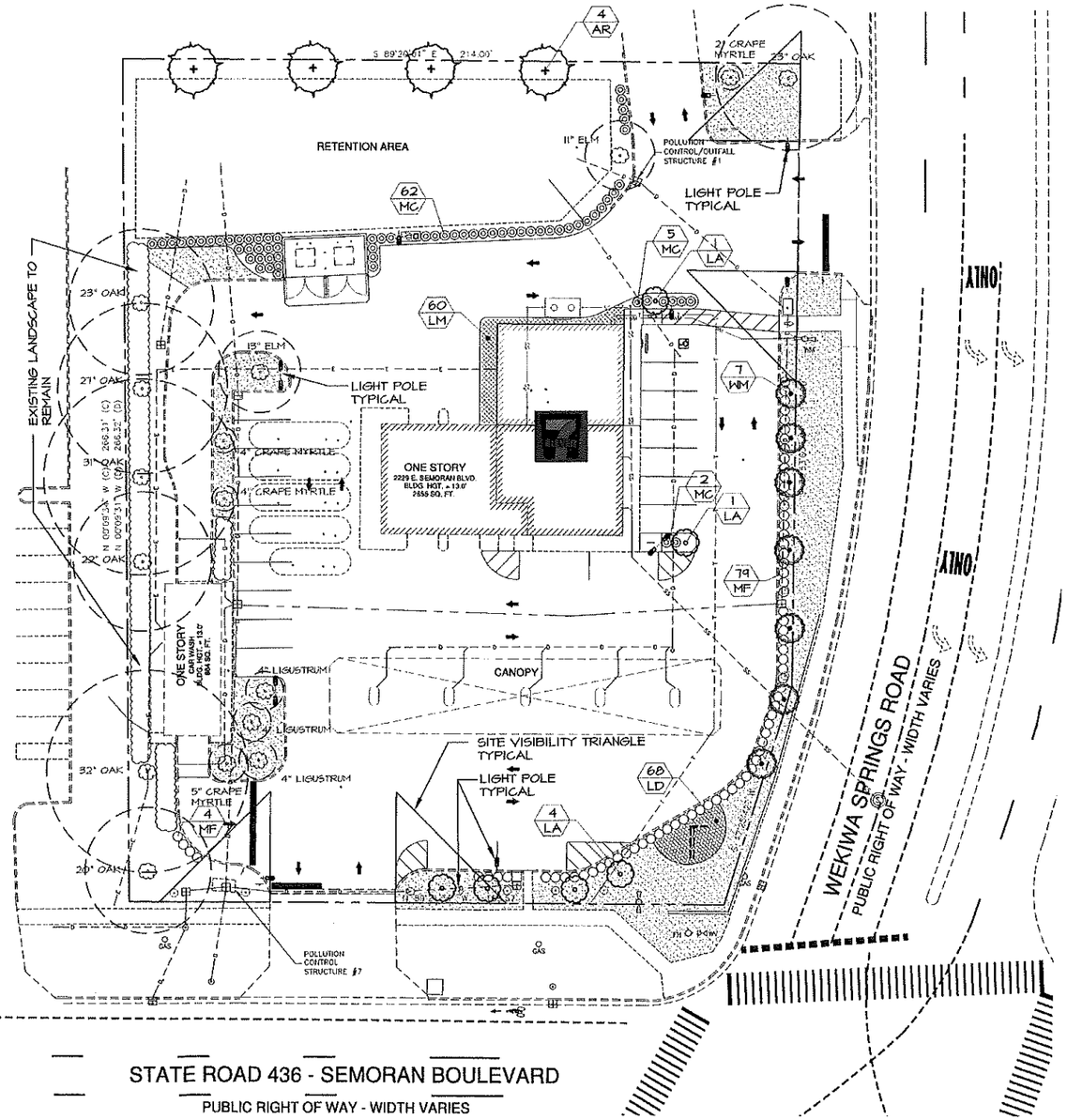
7) TREES SHRUBS, AND GROUND COVER SHALL BE INSTALLED USING THE FOLLOWING PROCEDURE: PLANT PITS SHALL BE EXCAVATED TO TWICE THE DIAMETER OF THE PLANT ROOT BALL. AERATE EXISTING SOIL BEFORE BACKFILLING PIT.

8) TREE INSTALLATION. ALL REQUIRED TREES SHALL BE INSTALLED 1" - 2" ABOVE FINISH GRADE. TREES INSTALLED OR BURIED TOO DEEP SHALL BE RESET TO THIS STANDARD. REMOVE THE TOP 1/3 OF THE WIRE BASKETS ON ALL B & B STOCK.

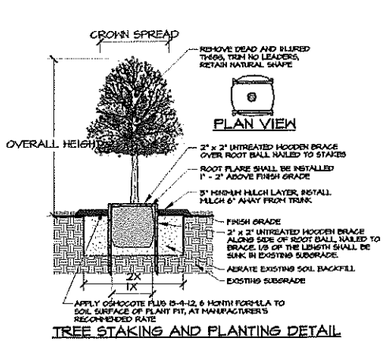
9) LANDSCAPE AND IRRIGATION PLANS SHALL BE IN COMPLIANCE WITH WATER WISE ORDINANCE 2069.

10) ANY DEAD OR DECLINING PLANTS OR SHRUBS SHALL BE REPLACED.

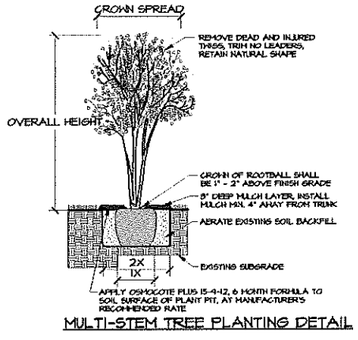
11) LANDSCAPE SHALL BE IN COMPLIANCE WITH "WATER WISE ORDINANCE 2069".



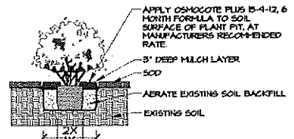
STATE ROAD 436 - SEMORAN BOULEVARD
PUBLIC RIGHT OF WAY - WIDTH VARIES



TREE STAKING AND PLANTING DETAIL



MULTI-STEM TREE PLANTING DETAIL



SHRUB PLANTING DETAIL

N

0 20 40
SCALE (IN FEET)

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CLIENT 7-ELEVEN, INC.

PROJECT NAME 7-ELEVEN E. SEMORAN BOULEVARD
APOPKA, FLORIDA

SHEET NAME LANDSCAPE PLAN

SCALE	DESIGNED BY	DRAWN BY	CHECKED BY
AS NOTED	BG	BG	LMJ

No.	REVISIONS	DATE
1		
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03-22-18
L. ALYSON OTTER
FLORIDA LANDSCAPE ARCHITECT No. LA0001563

DATE 3/22/2018
PROJECT NO. 1509023
SHEET NUMBER LA-02

Drawing name: \Server2\server\Projects 2018\15104 7-11 @ Apopka\2 CIVIL\L-5.dwg L-2 Mar 22, 2018 9:32am by: Brian
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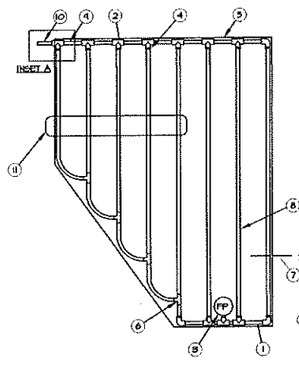
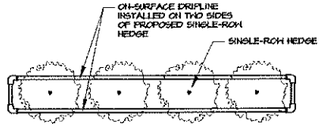


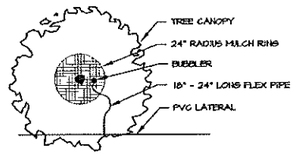
1. PVC EXHAUST HEADER
2. PVC SCH 40 TEE OR EL (TYPICAL)
3. FLUSH POINT (TYPICAL)
4. BARB X MALE FITTING
5. PERIMETER OF AREA
6. BARB X BARB INSERT TEE OR CROSS
7. PERIMETER DRIPLINE PIPE TO BE INSTALLED 2'-4" FROM PERIMETER OF AREA
8. ON-SURFACE DRIPLINE
9. PVC SUPPLY MANIFOLD
10. PVC SUPPLY PIPE FROM CONTROL
11. TOTAL LENGTH OF SELECTED DRIPLINE SHOULD NOT EXCEED 250 LF
12. PVC SCH 40 RISER PIPE

ON-SURFACE DRIPLINE INSTALLATION

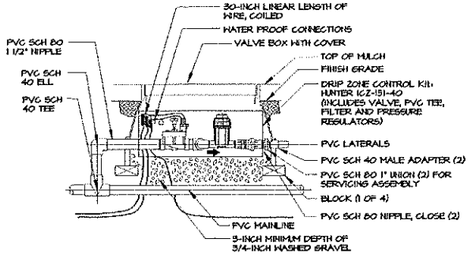


SINGLE-ROW HEDGE DRIPLINE DETAIL

NOTE: TOTAL LENGTH OF DRIPLINE SHALL NOT EXCEED 250 LF



BUBBLER DETAIL



DRIP CONTROL ZONE KIT

SYMBOL LEGEND

IRRIGATION

#1 — ZONE NUMBER

28 — ZONE GPM

IRRIGATION MATERIAL LIST

SYMBOL	QUANTITY	MODEL NUMBER
A ●	3	MPR40-08-MP3000, 8" POP-UP ROTATOR
B ●	6	MPR40-06-MP2000, 6" POP-UP ROTATOR
C ●	37	MPR40-06-MP1000, 6" POP-UP ROTATOR
D ●	37	MPR40-06-MPSS530, 6" POP-UP SIDE STRIP ROTATOR
E ●	17	MPR40-06-MPRS515, 6" POP-UP END STRIP ROTATOR
F ●	17	1401-0.25, FULL CIRCLE BUBBLER
▨	± 2,300 LF	XFD-09-18-250, LANDSCAPE DRIPLINE
- - - - -	± 15 LF	2" PVC, SCHEDULE 40, MAIN LINE
⊕	1	XCZ-PRB-150-COM, CONTROL ZONE KIT
◒	1	150-PEB-PRS-D, ELECTRICAL VALVE
☒	1	ESP-SMT4, 4 STATION CONTROLLER
	1	RAIN CHECK, AUTOMATIC RAIN SENSOR SHUTOFF

IRRIGATION INSTALLATION NOTES

1) ALL QUANTITIES SHOWN ON THE DRAWINGS ARE NOT GUARANTEED AS TO ACCURACY AND ARE SHOWN FOR THE PURPOSES OF INDICATING VOLUME OF WORK. IT SHALL BE THE RESPONSIBILITY OF THE BIDDER TO SATISFY HIMSELF AS TO THE ACCURACY OF THE QUANTITIES.

2) PIPING OR VALVES MAY SOMETIMES BE INDICATED AS BEING LOCATED IN UNLIKELY AREAS, I.E., IN BUILDINGS, UNDER PAVEMENT, OR OUTSIDE OF THE PROPERTY LINES. THIS IS DONE FOR GRAPHIC CLARITY ONLY. WHENEVER POSSIBLE, PIPING IS TO BE INSTALLED IN SOIL AREAS.

3) INSTALL IRRIGATION SYSTEM IN ACCORDANCE WITH ALL APPLICABLE CODES.

4) PIPE SIZES ARE LABELED AT LOCATIONS WHERE AN INCREASE IN SIZE OCCURS. CONTINUE PIPE SIZE UNTIL SIZE INCREASE IS INDICATED. PIPES SHALL BE INSTALLED ALONG WALKS, CURBS OR WALLS, THEY SHALL NOT BE INSTALLED IN THE MIDDLE OF PLANTERS. CONTRACTOR SHALL REVIEW LANDSCAPE PLANS TO DETERMINE TREE AND PALM LOCATIONS. MAIN LINE AND LATERALS SHALL BE SCH 40 PVC.

5) ALL POP-UP SPRAY AND ROTOR HEADS SHALL BE INSTALLED ON 18" LONG FLEX PIPE CONNECTIONS. RISERS SHALL BE 28" IN HEIGHT OR 4" ABOVE ADJACENT SHRUBS. ALL IRRIGATION EQUIPMENT SHALL BE BY HUNTER, UNLESS OTHERWISE STATED ON THE PLAN.

6) WATER SOURCE IS AN EXISTING 1" IRRIGATION WATER METER. IRRIGATION SYSTEM REQUIRES 34 GPM AT 40 PSI. WIRING USED FOR CONNECTING THE VALVES TO THE CONTROLLER SHALL BE TYPE UF, 16 AWG WIRE, WITH PVC INSULATION. ZONE WIRES SHALL BE COLOR CODED, AND COMMON WIRE SHALL BE WHITE. VALVE BOXES SHALL BE 22" X 17" X 12" RECTANGLE WITH GREEN LIDS. PLACE 3" GRAVEL INSIDE VALVE BOXES.

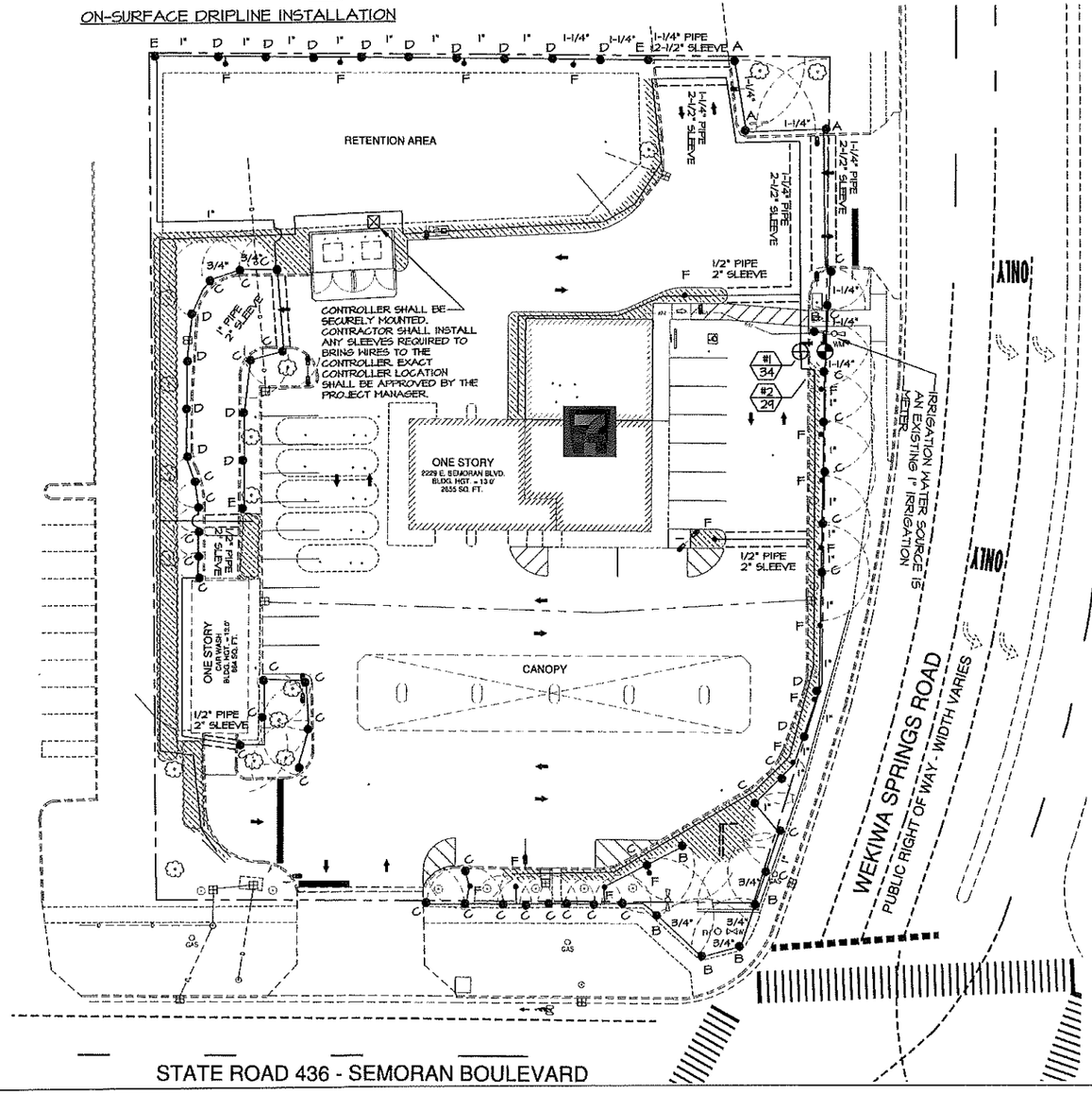
7) NEW CONTROLLER SHALL BE WALL MOUNTED IN THE LOCATION APPROVED BY THE PROJECT MANAGER. AFTER 30 DAY PLANT MATERIAL ESTABLISHMENT PERIOD, CONTROLLER SHALL BE SET AS PER LOCAL WATER RESTRICTIONS. AFTER IRRIGATION SYSTEM INSTALLATION IS COMPLETE, CONTRACTOR SHALL PROVIDE THE OWNER WITH AN AS-BUILT DRAWING SHOWING LOCATION OF IRRIGATION HEADS, VALVES AND PIPE.

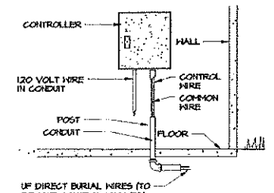
8) PIPING ON THE PLAN IS DIAGRAMMATICALLY ROUTED FOR CLARITY. DESIGN MODIFICATIONS SHALL BE MADE TO MEET FIELD CONDITIONS. THE PIPING SCHEMATIC IS DESIGNED TO MINIMIZE TRENCHING. WHENEVER POSSIBLE RUN MULTIPLE LINES AND WIRE IN THE SAME TRENCH.

9) WHERE EXISTING OR PROPOSED PAVED SURFACES CROSS IRRIGATION LINES, ALL PIPING UNDER SAID SURFACES SHALL BE IN SLEEVES. SLEEVES SHALL BE SCH 40 PVC, MINIMUM 2" DIAMETER OR AS SPECIFIED ON PLAN. WHERE EXISTING PAVEMENTS MUST BE CUT TO INSTALL IRRIGATION PIPE, SAW CUT SIX INCHES WIDER THAN THE NEEDED TRENCH. REPAIR CUTS WITH AN EQUIVALENT MATERIAL TO MATCH EXISTING.

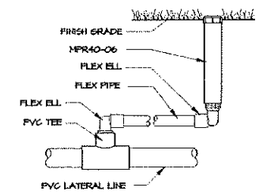
10) MINIMUM COVER: PROVIDE 18" MINIMUM COVER OVER SLEEVES, 18" MINIMUM COVER OVER TOP OF MAIN LINE AND CONTROL WIRING, AND 12" MINIMUM COVER OVER ANY OTHER INSTALLED IRRIGATION PIPING.

11) IRRIGATION SHALL BE IN COMPLIANCE WITH "WATER WISE ORDINANCE 2064.

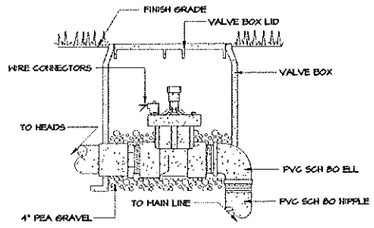




WALL MOUNTED CONTROLLER



6" POP-UP MP ROTATOR DETAIL



ELECTRIC VALVE DETAIL

DRIP INSTALLATION NOTES

1) DRIPLINE SHALL BE LAID DIRECTLY UNDER THE 3" MULCH BED. MULCHING OF PLANT BEDS SHALL OCCUR AFTER DRIPLINE INSTALLATION.

2) DRIPLINE SHALL COVER THE FULL EXTENT OF ALL PLANTING BEDS WHERE IT IS INDICATED ON THE DRAWINGS, AT A SPACING OF 12" ON CENTER. ON THE DRIPLINE ZONES, THE ELECTRIC VALVE, DISC FILTER, AND PRESSURE REGULATOR SHALL BE PLACED UNDERGROUND IN A PLASTIC VALVE BOX WITH COVER. ADJUST PRESSURE REGULATOR TO ACCOMMODATE EACH ZONE.

3) INDIVIDUAL SECTIONS OF DRIPLINE SHALL BE CONNECTED USING PVC PIPE, SIZED AS PER GPM REQUIREMENTS. DRIPLINE SHALL BE STAPLED OR OTHERWISE FASTENED TO THE FINISH GRADE EVERY 4' ON CENTER.

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SCALE (IN FEET)

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CLIENT: 7-ELEVEN, INC.

PROJECT NAME: 7-ELEVEN E. SEMORAN BOULEVARD
APOPKA FLORIDA

SHEET NAME: IRRIGATION PLAN

SCALE	DATE	REVISIONS	No.
AS NOTED			
DESIGNED BY BG			
DRAWN BY BD			
CHECKED BY LAU			

REVISIONS

L. ALYSON UTTER
FLORIDA LANDSCAPE ARCHITECT No. LA0001763

DATE 3/22/2018

PROJECT NO. 1509023

SHEET NUMBER LA-03

Drawing name: \\Server\server\Projects\ 2018\180104 7-11 @ Apopka\2 CIVIL\L-8.dwg L-3 Mar 22, 2018 8:33am by: BGan
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CITY OF APOPKA
PLANNING COMMISSION

___	PUBLIC HEARING	MEETING OF:	October 9, 2018
X	SITE PLAN	FROM:	Community Development
___	SPECIAL REPORTS	EXHIBITS:	Vicinity Map
X	OTHER: Plat		Aerial Map
			Plat
			Final Development Plan

SUBJECT: **PLAT – CARRIAGE HILL PHASE II SUBDIVISION**

REQUEST: **RECOMMEND APPROVAL OF THE PLAT FOR CARRIAGE HILL PHASE II SUBDIVISION**

SUMMARY:

OWNER/APPLICANT:	JTD Land at Rogers Rd, LLC
PROJECT ENGINEER:	Dewberry Engineers, Inc. c/o Christopher Allen, P.E.
LOCATION:	1455 West Lester Road; West Lester Road
EXISTING USE:	Vacant land
FUTURE LAND USE:	Residential Low Suburban (Max 3.5 du/ac)
ZONING:	R-1 (Single Family Residential) District
PROPOSED DEVELOPMENT:	Single-Family Residential Subdivision (15 Lots; min. 9,000 sq. ft. lot area, 75 ft. min. lot width)
PROPOSED DENSITY:	1.69 du/ac
TRACT SIZE:	10.31 +/- acres
DEVELOPABLE AREA:	8.89 +/- acres

DISTRIBUTION

Mayor Nelson	Finance Director	Public Services Director
Commissioners	HR Director	Recreation Director
City Administrator	IT Director	City Clerk
Community Development Director	Police Chief	Fire Chief

RELATIONSHIP TO ADJACENT PROPERTIES:

Direction	*Future Land Use*	*Zoning*	*Present Use*
North (City)	Residential Low Suburban	R-1AA	Vacant Land
East (City)	Residential Low Suburban	R-1AA	Oak Hill Reserve Subdivision
South (City)	Residential Low Suburban	R-1	Oak Hill Reserve Park and Open Space Tract
West (City)	Residential Low Suburban	R-1AA	Carriage Hill Phase I Subdivision

PROJECT SUMMARY: The Carriage Hill Phase II Subdivision – Plat proposes the development of 15 single family residential lots. The minimum typical lot width is 75 feet with a minimum lot size of 9,000 square feet. Lots abutting the Oak Hill Reserve neighborhood are 11,996 sq. ft. to 21,046 sq. ft. The required minimum living area for a house in this subdivision is 1,500 square feet as set forth in Chapter 2 of the Land Development Code for single-family lots located within the R-1 zoning.

ACCESS: Ingress/egress access points for the development will be via full access onto Rogers Road as approved in Phase I of the Carriage Hill Subdivision.

SCHOOL CAPACITY REPORT: A school concurrency mitigation agreement has been executed and a copy of the letter from Orange County Public Schools (OCPS) has been supplied to Staff.

ORANGE COUNTY NOTIFICATION: The County was notified at the time of the plat application for this property through the DRC agenda distribution.

PUBLIC HEARING SCHEDULE:
October 9, 2018 - Planning Commission, 5:30 p.m.
November 7, 2018 - City Council, 1:30 p.m.

RECOMMENDATION ACTION:

The **Development Review Committee** finds the Carriage Hill Phase II Subdivision – Plat to be consistent with the Preliminary Development Plan, subject to the findings of the staff report.

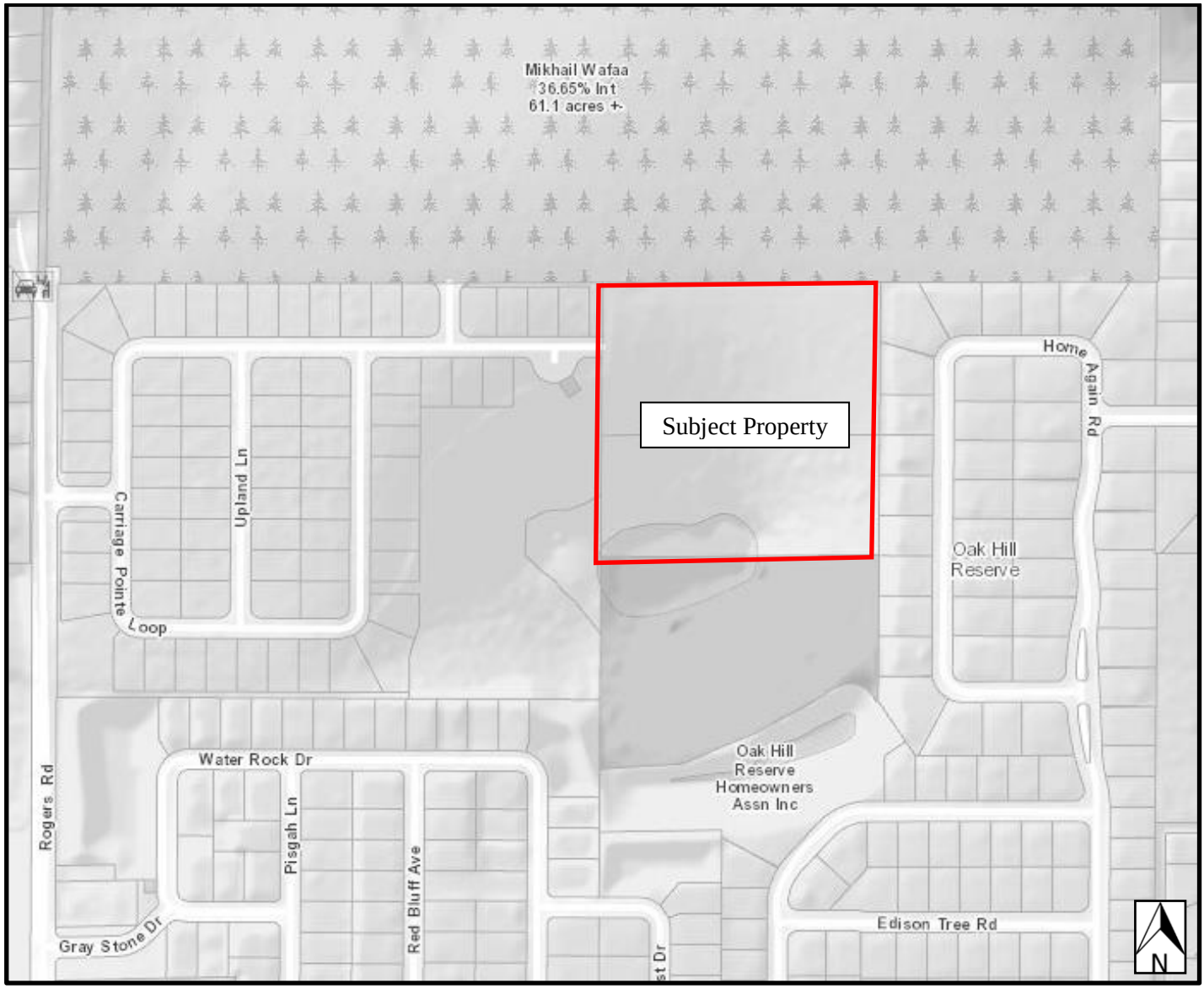
Recommended Motion: Find the proposed plat consistent with the Land Development Code and PUD Master Plan, and recommend approval of the Carriage Hill Phase II Subdivision – Plat, subject to the findings of the staff report.

Planning Commission Role: Planning Commission may advise the City Council to approve or deny the proposed plat for the Carriage Hill Phase II Subdivision – Plat based on consistency with the approved Preliminary Development Plan, Comprehensive Plan and Land Development Code and subject to the finding of the staff report.

Note: This item is considered Quasi-Judicial. The staff report and its findings are to be incorporated into and made a part of the minutes of this meeting.

Project Name: **Carriage Hill Phase II Subdivision – Plat**
Property Owner: **JTD Land at Rogers Rd. LLC**
Applicant: **Dewberry Engineers, Inc. c/o Christopher Allen, P.E.**
Total Site Area: **+/- 10.31 +/- acres**
Parcel ID #s: **29-20-28-0000-00-005 and 29-20-28-0000-00-049**

VICINITY MAP



AERIAL MAP

Subject Property
TRACT E
TRACT E
Home Again Rd
171
170
169
168
167
166
165
164
163
N

CARRIAGE HILL PHASE 2

SITUATED IN THE SOUTHWEST 1/4 OF SECTION 29,
TOWNSHIP 20 SOUTH, RANGE 28 EAST,
CITY OF APOPKA, ORANGE COUNTY, FLORIDA

GENERAL NOTES:

1. BEARINGS SHOWN HEREON ARE ASSUMED AND BASED ON THE NORTH LINE OF THE SOUTHWEST 1/4 OF SECTION 29, TOWNSHIP 20 SOUTH, RANGE 28 EAST, PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA, AS BEING N89°54'35"E.

2. ALL CURVILINEAR LINES ARE RADIAL UNLESS OTHERWISE NOTED.

3. UNLESS OTHERWISE INDICATED, A UTILITY AND DRAINAGE EASEMENT BEING 10.00 FEET WIDE AT THE FRONT OF ALL LOTS AND TRACTS ABUTTING ROAD RIGHTS-OF-WAY IS HEREBY DEDICATED TO THE CITY OF APOPKA, AND PUBLIC UTILITY SERVICE PROVIDERS. THE CITY OF APOPKA AND PUBLIC UTILITY SERVICE PROVIDERS ARE RESPONSIBLE ONLY FOR THE MAINTENANCE OF THEIR RESPECTIVE UTILITIES PLACED WITHIN THE UTILITY EASEMENTS. THE FEE SIMPLE OWNER OF SAID LOTS AND/OR TRACTS SHALL BE RESPONSIBLE FOR THE GRASS AND LANDSCAPING WITHIN ALL UTILITY EASEMENTS LOCATED UPON INDIVIDUAL LOTS AND/OR TRACTS.

4. UNLESS OTHERWISE INDICATED A UTILITY AND DRAINAGE EASEMENT BEING 5 FEET WIDE ADJACENT TO ALL SIDE LOT LINES AND A 7.5 FEET WIDE ADJACENT TO ALL REAR LOT LINES IS HEREBY DEDICATED TO THE CITY OF APOPKA AND PUBLIC UTILITY SERVICE PROVIDERS. THE CITY OF APOPKA AND PUBLIC UTILITY SERVICE PROVIDERS ARE RESPONSIBLE ONLY FOR THE MAINTENANCE OF THEIR RESPECTIVE UTILITIES PLACED WITHIN THE UTILITY EASEMENTS. THE FEE SIMPLE OWNER OF SAID LOTS AND/OR TRACTS SHALL BE RESPONSIBLE FOR THE GRASS AND LANDSCAPING WITHIN ALL UTILITY EASEMENTS LOCATED UPON INDIVIDUAL LOTS AND/OR TRACTS.

5. A UTILITY, DRAINAGE, ACCESS, WALL AND SIDEWALK EASEMENT OVER TRACTS I AND K IS HEREBY DEDICATED TO THE CITY OF APOPKA.

6. PURSUANT TO SECTION 177.091 (28), FLORIDA STATUTES, AS AMENDED; ALL PLATTED UTILITY EASEMENTS SHALL PROVIDE THAT SUCH EASEMENTS SHALL ALSO BE EASEMENTS FOR THE CONSTRUCTION, INSTALLATION, MAINTENANCE, AND OPERATION OF CABLE TELEVISION SERVICES; PROVIDED, HOWEVER, NO SUCH CONSTRUCTION, INSTALLATION, MAINTENANCE, AND OPERATION OF CABLE TELEVISION SERVICES SHALL INTERFERE WITH THE FACILITIES AND SERVICES OF AN ELECTRIC, TELEPHONE, GAS, OR OTHER PUBLIC UTILITY. IN THE EVENT A CABLE TELEVISION COMPANY DAMAGES THE FACILITIES OF A PUBLIC UTILITY, IT SHALL BE SOLELY RESPONSIBLE FOR THE DAMAGES. THIS SECTION SHALL NOT APPLY TO THOSE PRIVATE EASEMENTS GRANTED TO OR OBTAINED BY A PARTICULAR ELECTRIC, TELEPHONE, GAS, OR OTHER PUBLIC UTILITY. SUCH CONSTRUCTION, INSTALLATION, MAINTENANCE, AND OPERATION SHALL COMPLY WITH THE NATIONAL ELECTRICAL SAFETY CODE AS ADOPTED BY THE FLORIDA PUBLIC SERVICE COMMISSION.

7. THE PROPERTY SHOWN HEREON IS SUBJECT TO THE TERMS AND CONDITIONS OF THAT CERTAIN DECLARATION OF COVENANTS, CONDITIONS, EASEMENTS AND RESTRICTIONS FOR CARRIAGE HILL AND ALL EXHIBITS THERETO, WHICH IS RECORDED IN OFFICIAL RECORDS BOOK_____, PAGE_____, OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA.

8. TRACT H (OPEN SPACE/BUFFER/DRAINAGE), TRACT K (POND/DRAINAGE), AND TRACT I (OPEN SPACE) ARE HEREBY GRANTED TO AND SHALL BE MAINTAINED BY THE CARRIAGE HILL PROPERTY OWNERS ASSOCIATION, INC.

9. TRACT J (WETLAND/WETLAND BUFFER) IS HEREBY DEDICATED TO AND SHALL BE MAINTAINED BY THE CARRIAGE HILL PROPERTY OWNERS ASSOCIATION, INC. A CONSERVATION EASEMENT OVER TRACT J IS HEREBY DEDICATED TO THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT.

10. ALL DEVELOPMENT SHALL BE IN ACCORDANCE WITH AND SUBJECT TO THE CITY OF APOPKA LAND DEVELOPMENT CODE, AS AMENDED FROM TIME TO TIME, AND ALL FEDERAL, STATE, COUNTY AND CITY RULES, REGULATIONS, ORDINANCES, PROVISIONS AND APPROVALS. NOTHING THEREIN SHALL BE CONSTRUED TO WAIVE ANY PROVISION OF THE APOPKA LAND DEVELOPMENT CODE.

11. SUBJECT PROPERTY CONTAINS: 15 RESIDENTIAL LOTS AND 4 TRACTS.

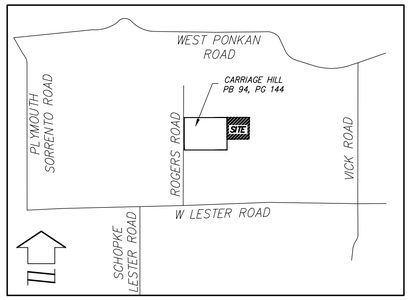
12. THE 7.50 FOOT WIDE DRAINAGE AND UTILITY EASEMENTS (D.U.E.) ARE HEREBY DEDICATED TO THE CITY OF APOPKA AND MAINTAINED BY THE INDIVIDUAL LOT OWNER.

13. THE 10.00' WATER MANAGEMENT ACCESS EASEMENT IN TRACT I IS HEREBY DEDICATED TO THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT.

14. THE 5.00' STREET TREE EASEMENTS ARE HEREBY DEDICATED TO THE CITY OF APOPKA.

LEGEND AND ABBREVIATIONS:

±	MORE OR LESS	PCP	PERMANENT CONTROL POINT
CB	CHORD BEARING	PG(S)	PAGE/PAGES
CCR	CERTIFIED CORNER RECORD	PI	POINT OF INTERSECTION
CH	CHORD DISTANCE	PLS	PROFESSIONAL LAND SURVEYOR
℄	CENTER LINE	PRC	POINT OF REVERSE CURVATURE
CM	CONCRETE MONUMENT	PRM	PERMANENT REFERENCE MONUMENT
DB	DEED BOOK	PSM	PROFESSIONAL SURVEYOR MAPPER
D.E.	DRAINAGE EASEMENT	PT	POINT OF TANGENCY
D.U.E.	DRAINAGE & UTILITY EASEMENT	R	RADIUS
FND	FOUND	(R)	RADIAL
ID	IDENTIFICATION	RR	RAILROAD
IP	IRON PIPE	R/W	RIGHT OF WAY
IPC	IRON PIPE & CAP	RCP	REINFORCED CONCRETE PIPE
IR	IRON ROD	RP	RADIUS POINT
IRC	IRON ROD & CAP	SEC	SECTION
L	ARC LENGTH	S.T.E.	STREET TREE EASEMENT
L.E.	LANDSCAPE EASEMENT	U.E.	UTILITY EASEMENT
LB	LICENSED BUSINESS	(TYP)	TYPICAL
M.E.	MAINTENANCE EASEMENT	△	CENTRAL ANGLE
N/D	NAIL & DISK	⌇	BREAK LINE
NO.	NUMBER	■	SET 4"x4" CM (LB 8011)
(NR)	NON-RADIAL	⊡	FOUND 4"x4" CM (AS NOTED)
OOCEA	ORLANDO ORANGE COUNTY EXPRESSWAY AUTHORITY	⊛	SET N/D (LB 8011)
		◎	FOUND N/D (AS NOTED)
ORB	OFFICIAL RECORDS BOOK	⊜	SET 5/8" IRC (LB 8011)
(P)	PLAT	●	FOUND IRON ROD (AS NOTED)
PB	PLAT BOOK	○	FOUND IRON PIPE (AS NOTED)
PC	POINT OF CURVATURE	⊙	FOUND RAIL ROAD SPIKE (AS NOTED)



VICINITY MAP
(NOT TO SCALE)

LEGAL DESCRIPTION:

THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 29, TOWNSHIP 20 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHWEST CORNER OF THE SOUTHWEST 1/4 OF SECTION 29 TOWNSHIP 20 SOUTH, RANGE 28 EAST; THENCE RUN N89°54'35"E ALONG THE NORTH LINE OF THE SOUTHWEST 1/4 OF SECTION 29, A DISTANCE OF 1351.79 FEET TO THE NORTHWEST CORNER OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 29; SAID POINT ALSO BEING THE NORTHEAST CORNER OF TRACT F, CARRAIGE HILL, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 94, PAGES 144 THROUGH 145 OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA; THENCE CONTINUE N89°54'35"E, ALONG THE NORTH LINE OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SAID SECTION 29, A DISTANCE OF 675.90 FEET TO THE NORTHEAST CORNER OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 29; SAID POINT BEING THE NORTHWEST CORNER OF LOT 171, OAK HILL RESERVE PHASE 2, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 65, PAGES 1 THROUGH 6 OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA; THENCE S00°20'21"W, ALONG THE EAST LINE OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SAID SECTION 29 AND THE WEST LINE OF SAID OAK HILL RESERVE PHASE 2, A DISTANCE OF 661.97 FEET TO THE SOUTHEAST CORNER OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 29; SAID POINT LYING ON THE NORTH LINE OF TRACT E OF SAID OAK HILL RESERVE PHASE 2; THENCE RUN S89°28'31"W ALONG THE SOUTH LINE OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SAID SECTION 29, A DISTANCE OF 675.54 FEET TO THE SOUTHWEST CORNER OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 29 AND THE NORTHWEST CORNER OF AFORESAID TRACT E; THENCE RUN N00°18'12"E, ALONG THE WEST LINE OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SAID SECTION 29, AND THE EAST LINE OF THE AFOREMENTIONED CARRIAGE HILL, A DISTANCE OF 667.09 TO THE POINT OF BEGINNING.

CONTAINING 449,004 SQUARE FEET OR 10.31 ACRES, MORE OR LESS

SHEET INDEX

SHEET 1: DEDICATION, NOTES, LEGEND, DESCRIPTION
SHEET 2: DETAIL SHEET

NOTICE

THIS PLAT, AS RECORDED IN ITS GRAPHIC FORM, IS THE OFFICIAL DEPICTION OF THE SUBDIVIDED LANDS DESCRIBED HEREIN AND WILL IN NO CIRCUMSTANCES BE SUPPLANTED IN AUTHORITY BY ANY OTHER GRAPHIC OR DIGITAL FORM OF THE PLAT.

THERE MAY BE ADDITIONAL RESTRICTIONS THAT ARE NOT RECORDED ON THIS PLAT THAT MAY BE FOUND IN THE PUBLIC RECORDS OF THIS COUNTY.

CERTIFICATE OF APPROVAL BY MUNICIPALITY

THIS IS TO CERTIFY, THAT ON _____, 2018, THE FOREGOING PLAT WAS APPROVED BY THE BOARD OF CITY COMMISSIONERS OF THE CITY OF APOPKA, FLORIDA.

_____
MAYOR:

ATTEST: _____

BY: _____D.C.

Dewberry
131 WEST KALEY STREET
ORLANDO, FLORIDA 32806
PHONE: 321.354.9826 FAX: 407.648.9104
WWW.DEWBERRY.COM
CERTIFICATE OF AUTHORIZATION NO. LB 8011

PLAT
BOOK : PAGE:

CARRIAGE HILL PHASE 2
DEDICATION

KNOW ALL MEN BY THESE PRESENTS, THAT JTD LAND AT ROGERS RD., LLC, A FLORIDA LIMITED LIABILITY COMPANY, BEING THE OWNER IN FEE SIMPLE OF THE LANDS DESCRIBED IN THE FOREGOING CAPTION TO THIS PLAT, HEREBY DEDICATE SAID LANDS AND PLAT FOR THE USES AND PURPOSES THEREIN EXPRESSED AND DEDICATE THE STREETS, SIDEWALK EASEMENTS, UTILITY EASEMENTS, DRAINAGE EASEMENTS (UNLESS OTHERWISE NOTED), SHOWN HEREON (TO THE EXTENT SUCH EASEMENTS ARE NOT SHOWN HEREON AS PRIVATE EASEMENTS) TO THE PERPETUAL USE OF THE PUBLIC; A CONSERVATION EASEMENT OVER TRACT J (WETLAND/WETLAND BUFFER) IS HEREBY DEDICATED TO THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT,

IN WITNESS WHEREOF, THE OWNERS HAVE CAUSED THESE PRESENTS TO BE SIGNED BY THE OFFICER NAMED BELOW ON _____, A.D. 2018.

BY: JTD LAND AT ROGERS RD., LLC, A FLORIDA LIMITED LIABILITY COMPANY

SIGNED: _____

NAME: CRAIG HARRIS
TITLE: MANAGER

SIGNED, SEALED AND DELIVERED IN THE PRESENCE OF:

_____ _____
WITNESS (SIGNATURE) WITNESS (PRINTED)

_____ _____
WITNESS (SIGNATURE) WITNESS (PRINTED)

STATE OF FLORIDA, COUNTY OF _____

THIS IS TO CERTIFY, THAT ON _____, 2018 BEFORE ME AN OFFICER DULY AUTHORIZED TO TAKE ACKNOWLEDGEMENTS IN THE STATE AND COUNTY AFORESAID PERSONALLY APPEARED CRAIG HARRIS, AS MANAGER OF JTD LAND AT ROGERS RD., LLC, A FLORIDA LIMITED LIABILITY COMPANY, ON BEHALF OF THE COMPANY. HE/SHE IS PERSONALLY KNOWN TO ME OR PRODUCED _____ AS IDENTIFICATION AND DID/DID NOT TAKE AN OATH.

IN WITNESS WHEREOF, I HAVE HEREUNTO SET MY HAND AND SEAL ON THE ABOVE DATE.

_____
SIGNATURE OF NOTARY

_____
NOTARY PRINTED NAME

_____ _____
MY COMMISSION EXPIRES MY COMMISSION NO.

CERTIFICATE OF APPROVAL BY CITY ENGINEER

EXAMINED AND APPROVED:

_____ _____
CITY ENGINEER DATE

QUALIFICATION STATEMENT OF SURVEYOR AND MAPPER

KNOW ALL MEN BY THESE PRESENTS, THAT THE UNDERSIGNED BEING A PROFESSIONAL SURVEYOR AND MAPPER HAS PREPARED THE FOREGOING PLAT AND IT WAS MADE UNDER MY DIRECTION AND SUPERVISION; AND THAT THIS PLAT COMPLIES WITH ALL OF THE SURVEY REQUIREMENTS AS REQUIRED BY CHAPTER 177, PART 1, PLATTING, FLORIDA STATUTES; AND THAT SAID LAND IS LOCATED IN ORANGE COUNTY, FLORIDA.

_____ _____
WILLIAM D. DONLEY DATE
FLORIDA REGISTRATION NUMBER: 5381
DEWBERRY (SEAL)
131 WEST KALEY STREET
ORLANDO, FLORIDA 32806
CERTIFICATE OF AUTHORIZATION NUMBER LB 8011

CERTIFICATE OF APPROVAL BY APOPKA PLANNING COMMISSION

EXAMINED AND APPROVED:

_____ _____
DIRECTOR OF PLANNING COMMISSION DATE

CERTIFICATE OF REVIEW BY CITY SURVEYOR

THIS PLAT HAS BEEN REVIEWED FOR CONFORMITY WITH CHAPTER 177, PART 1, PLATTING, FLORIDA STATUTES.

_____ _____
CITY SURVEYOR DATE
FLORIDA REGISTRATION NUMBER: _____

CERTIFICATE OF COUNTY COMPTROLLER

I HEREBY CERTIFY THAT THE FOREGOING PLAT WAS RECORDED IN THE ORANGE COUNTY OFFICIAL RECORDS ON_____, 2018, AS FILE NO._____.

COUNTY COMPTROLLER IN AND FOR ORANGE COUNTY, FLORIDA

BY: _____

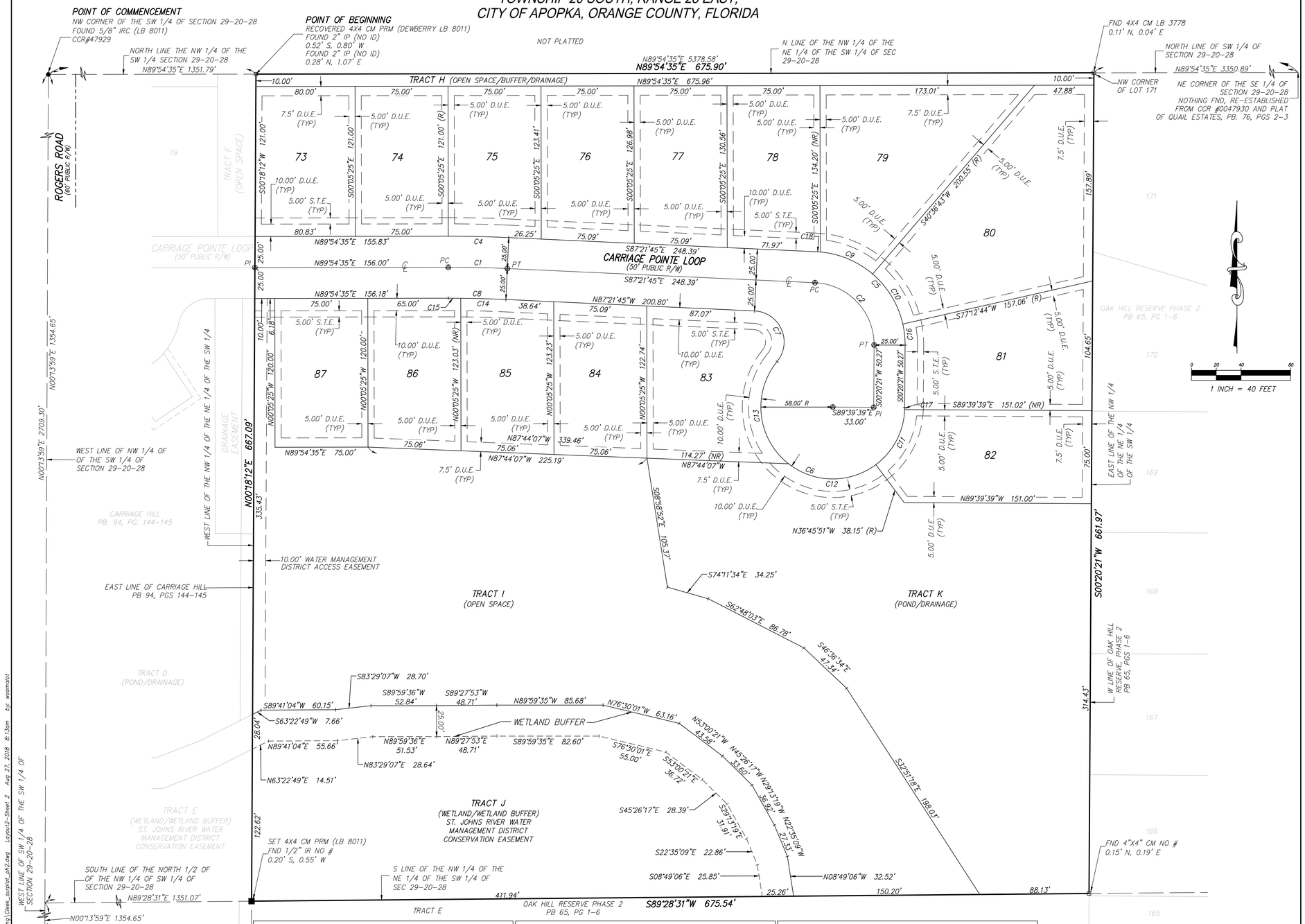
SHEET 1 OF 2

Drawing name: S:\Creek Property\Platting\Creek_surplat_ph2.dwg Layout1-Sheet 1 Aug 27, 2018 8:12am by: wsamalot

CARRIAGE HILL PHASE 2

SITUATED IN THE SOUTHWEST 1/4 OF SECTION 29,
TOWNSHIP 20 SOUTH, RANGE 28 EAST,
CITY OF APOPKA, ORANGE COUNTY, FLORIDA

PLAT
BOOK : PAGE:



CURVE TABLE					
CURVE	LENGTH	RADIUS	DELTA	CHORD	BEARING
C1	47.61'	1000.00	02°43'40"	47.61'	S88°43'35"W
C2	76.53'	50.00	87°42'06"	69.28'	S43°30'42"W
C4	48.80'	1025.00	02°43'40"	48.80'	S88°43'35"W
C5	114.80'	75.00	87°42'06"	103.92'	N43°30'42"W
C6	221.64'	58.00	218°56'54"	109.36'	S70°11'12"E

CURVE TABLE					
CURVE	LENGTH	RADIUS	DELTA	CHORD	BEARING
C7	55.26'	25.00	126°39'00"	44.68'	N24°02'15"W
C8	46.42'	975.00	02°43'40"	46.42'	N88°43'35"W
C9	46.59'	75.00	35°35'25"	45.84'	N67°10'59"W
C10	47.91'	75.00	36°36'00"	47.10'	N31°05'16"W
C11	51.87'	58.13	51°07'38"	50.17'	N27°38'33"E

CURVE TABLE					
CURVE	LENGTH	RADIUS	DELTA	CHORD	BEARING
C12	75.67'	58.00	74°44'49"	70.41'	S89°23'26"E
C13	92.43'	58.00	91°18'17"	82.95'	S06°21'53"E
C14	36.42'	975.00	02°08'25"	36.42'	N88°25'58"W
C15	10.00'	975.00	00°35'16"	10.00'	N89°47'48"W
C16	17.18'	75.00	13°07'37"	17.15'	N06°13'28"W

CURVE TABLE					
CURVE	LENGTH	RADIUS	DELTA	CHORD	BEARING
C17	1.68'	58.00	01°39'39"	1.68'	N01°10'10"E
C18	3.12'	75.00	02°23'04"	3.12'	N86°10'13"W

Dewberry
131 WEST KALEY STREET
ORLANDO, FLORIDA 32806
PHONE: 321.354.9826 FAX: 407.648.9104
WWW.DEWBERRY.COM
CERTIFICATE OF AUTHORIZATION NO. LB 8011

Drawing name: S:\Clnek Project\Platting\Clnek_surplot_ph2.dwg Layout2-Sheet 2 Aug 27, 2018 8:13am by wsamalot

SHEET 2 OF 2

CITY OF APOPKA
PLANNING COMMISSION

___	PUBLIC HEARING	MEETING OF:	October 9, 2018
_X_	SITE PLAN	FROM:	Community Development
___	SPECIAL REPORTS	EXHIBITS:	Vicinity Map
___	OTHER:		Zoning Map
			Aerial Map
			Final Development Plan
			Architectural Renderings
			Traffic Impact Analysis

SUBJECT: **FINAL DEVELOPMENT PLAN – SITE PLAN – MEADOW VIEW APARTMENTS**

REQUEST: **RECOMMEND APPROVAL OF THE FINAL DEVELOPMENT PLAN FOR MEADOW VIEW APARTMENTS**

SUMMARY:

OWNER/APPLICANT:	Allonde Development, LLC.
PROJECT ENGINEER:	CivilCorp Engineering, Inc. c/o Stephen Allen, P.E.
LOCATION:	1611 Vick Road
EXISTING USE:	Vacant
PARCEL ID #s:	32-20-28-0000-00-042
FUTURE LAND USE:	Residential Medium
ZONING:	R-3
PROPOSED USE:	Luxury Apartments
TRACT SIZE:	4.314 +/- acres

DISTRIBUTION

Mayor Nelson	Finance Director	Public Services Director
Commissioners	HR Director	Recreation Director
City Administrator	IT Director	City Clerk
Community Development Director	Police Chief	Fire Chief

RELATIONSHIP TO ADJACENT PROPERTIES:

Direction	***Future Land Use***	***Zoning***	***Present Use***
North (City)	R-L	R-3	Residential - Errol Golfside Village
East (City)	R-L, R-M	R-3	Residential - Wekiva Crest (Pond), Sanctuary Golf Estates
South (City)	R-M	R-3	Residential - Muirfield Estate at Errol Phase 2
West (City)	RML	PUD	Errol Estates Golf Course

ADDITIONAL COMMENTS: This is a request to approve Meadow View Apartments Final Development Plan. This project is proposed as a five building, 43 unit, two-story luxury apartment complex. There will be 4 one-bedroom units, 30 two-bedroom units, and 9 three-bedroom units. The one-bedroom units will be 771 square feet; the two-bedroom units will be 977 square feet; and the three-bedroom units will be 1,133 square feet. There are two building types. Building Type "A", of which there are three, is 18,953 square feet and will house nine units each. Building Type "B", of which there are two, is 8,088 square feet and will house eight units each.

Meadow View Apartments will have additional amenities that distinguish it as a luxury apartment complex. The Final Development Plan includes development conditions that amenities will include wireless internet access, balcony/porches, a fitness center, a resort style swimming pool and clubhouse, walk-in shower, walk-in closets, full size washer and dryer in each unit, granite counter tops and 9 foot ceilings.

The site is significantly sloped from south to north. On the northwest side, the property slopes down approximately 16 feet over a 10 foot distance. Ten-foot retaining walls are required to support the buildings on the west side of the property.

PARKING: The Land Development Code requires 2 parking spaces per apartment for a total of 86 parking spaces, including 5 handicapped parking. This project is providing 98 parking spaces plus 5 handicapped parking spaces for a total of 103 parking spaces to ensure accommodation of overflow parking when needed.

ACCESS: Access to the site is provided through a single entrance on Vick Road, north of Welch Road. A site distance issue exists due to the curve and elevation of Vick Road north of the entrance. To ensure the safety of residents entering and exiting the site as well as northbound and southbound traffic traveling on Vick Road, a condition of approval has been placed on the plan, requiring the developer and future property owner to trim back the trees and shrubs located in the City's right-of-way on the east side of the road, approximately 280 feet north of the site entrance.

TRANSPORTATION: A Traffic Impact Analysis (TIA) was submitted for this project that assessed the impacts on the transportation facilities within one mile of the site. The project is anticipated to generate 384 Daily trips and 26 PM Peak Hour net new trips. The following roadway segments were analyzed for capacity in the study: Welch Road from Vick Road to Rock Springs Road; Lester Road from Vick Road to Rock Springs Road and Vick Road to Schopke Lester Road; and Vick Road from Old Dixie Highway to Martin Street, Martin Street to Welch Road, Welch Road to Lake Francis Drive, Lake Francis Drive to Lester Road, and Lester Road to Ponkan Road. The roadway segment analysis demonstrates sufficient capacity exists on both roadways to accommodate the addition of trips generated by this project.

The intersection of Vick Road and Welch Road was analyzed for existing and future conditions for the PM Peak Hour. The analysis shows that the intersection is currently operating satisfactorily and will continue to operate at satisfactory LOS in the projected conditions.

Warrants for left and right turn deceleration lanes on Vick Road at the Meadow View driveway were conducted to determine if auxiliary turn lanes are necessary to maintain the integrity of traffic flow and capacity of the road during the peak hours. Neither turn lanes were warranted, however, for safety purposes, the applicant has agreed to install a left turn lane at the site entrance.

EXTERIOR ELEVATIONS: The height of the proposed two-story buildings is 31 feet, falling below the maximum allowable height of 35'. Staff finds the proposed building elevations meet the intent of the City's Development Design Guidelines.

STORMWATER: Stormwater will be captured and attenuated through an underground exfiltration system.

DEVELOPMENT CONDITONS: The applicant is required to trim back the trees and shrubs located in the City's right-of-way on the east side of Vick Road and ensure the future property owner maintains a clear line of site from the project entrance. Also, the applicant is required to install a left turn lane on Vick Road at the site entrance.

BUFFER/SCREENING/LANDSCAPING/TREE PROGRAM: The landscape buffers and site landscaping will be artfully arranged with Sabal Palms, Podocarpus Shrubs, Walter's Viburnum, Drift Rose, Gold mound Duranta, Dwarf Yaupon Holly, and Dwarf Asiatic Jasmine. All plant materials will be "Florida Friendly".

As part of the development plan approval, 22 Live Oaks, 24 Magnolias, 19 Red Cedars, 25 Crepe Myrtles, and 19 Eagleston Holly trees will be planted on the site. Tree mitigation is required for 469 inches dbh. The proposed Tree Bank payment is $4,960.00 (496 inches X $10.00/inch).

Arbor Assessment	
Total inches on-site:	1,922
Total inches removed	1,384
Total inches retained:	494
Total inches added:	372
Total inches post development:	866

PUBLIC HEARING SCHEDULE:
October 9, 2018 - Planning Commission, 5:30 pm
October 17, 2018 - City Council, 7:00 pm

RECOMMENDATION ACTION:

The **Development Review Committee** recommends approval of the Meadow View Apartments Final Development Plan, subject to the findings of this staff report.

Planning Commission Recommendation: Find the Meadow View Apartments Final Development Plan consistent with the Land Development Code and Comprehensive Plan, and recommend approval of Final Development Plan, subject to the findings of this staff report.

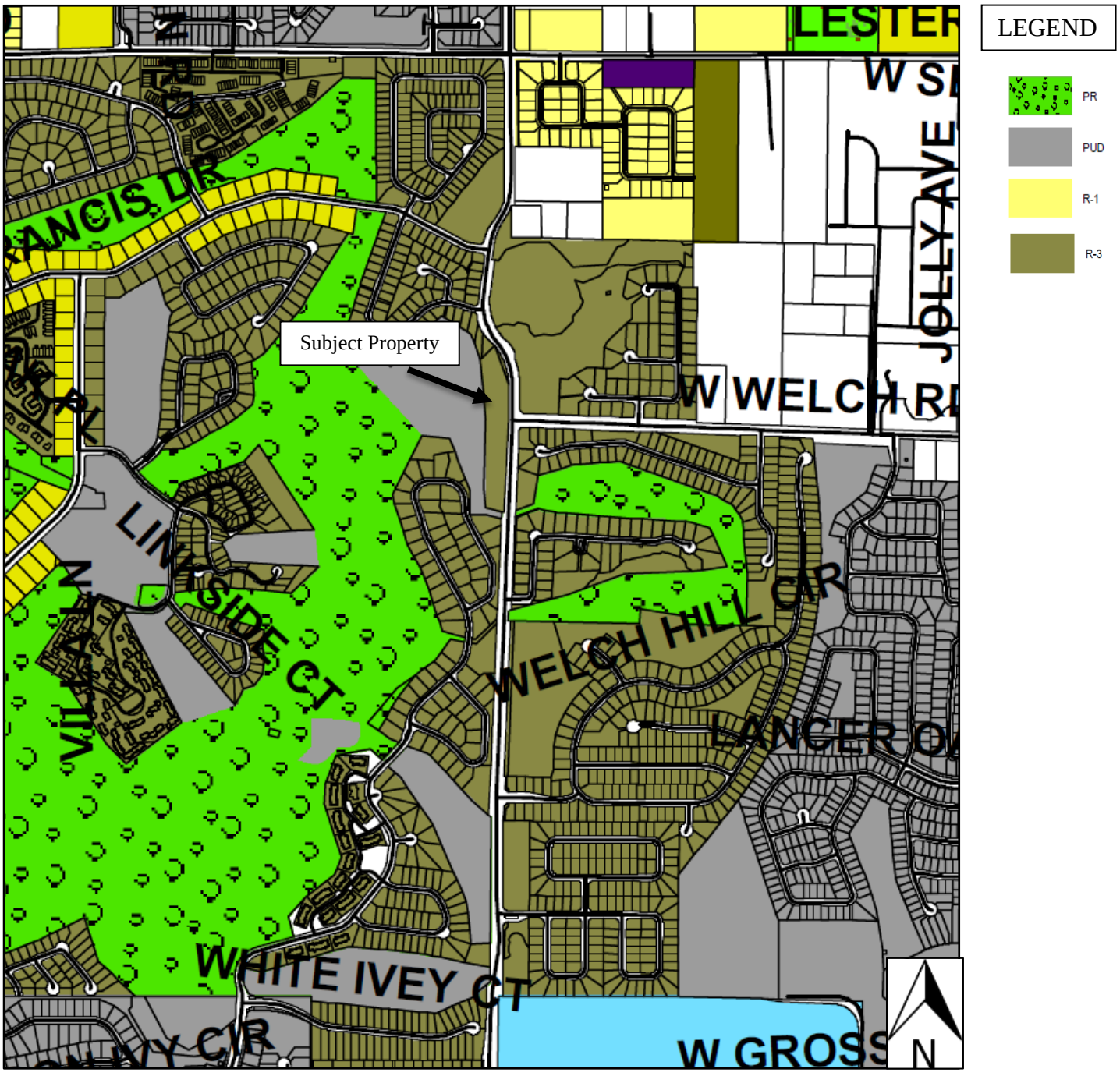
Planning Commission Role: The role of the Planning Commission for this development application is to advise the City Council to approve or deny based on consistency with the Comprehensive Plan and Land Development Code.

Note: This item is considered quasi-judicial. The staff report and its findings are to be incorporated into and made a part of the minutes of this meeting.

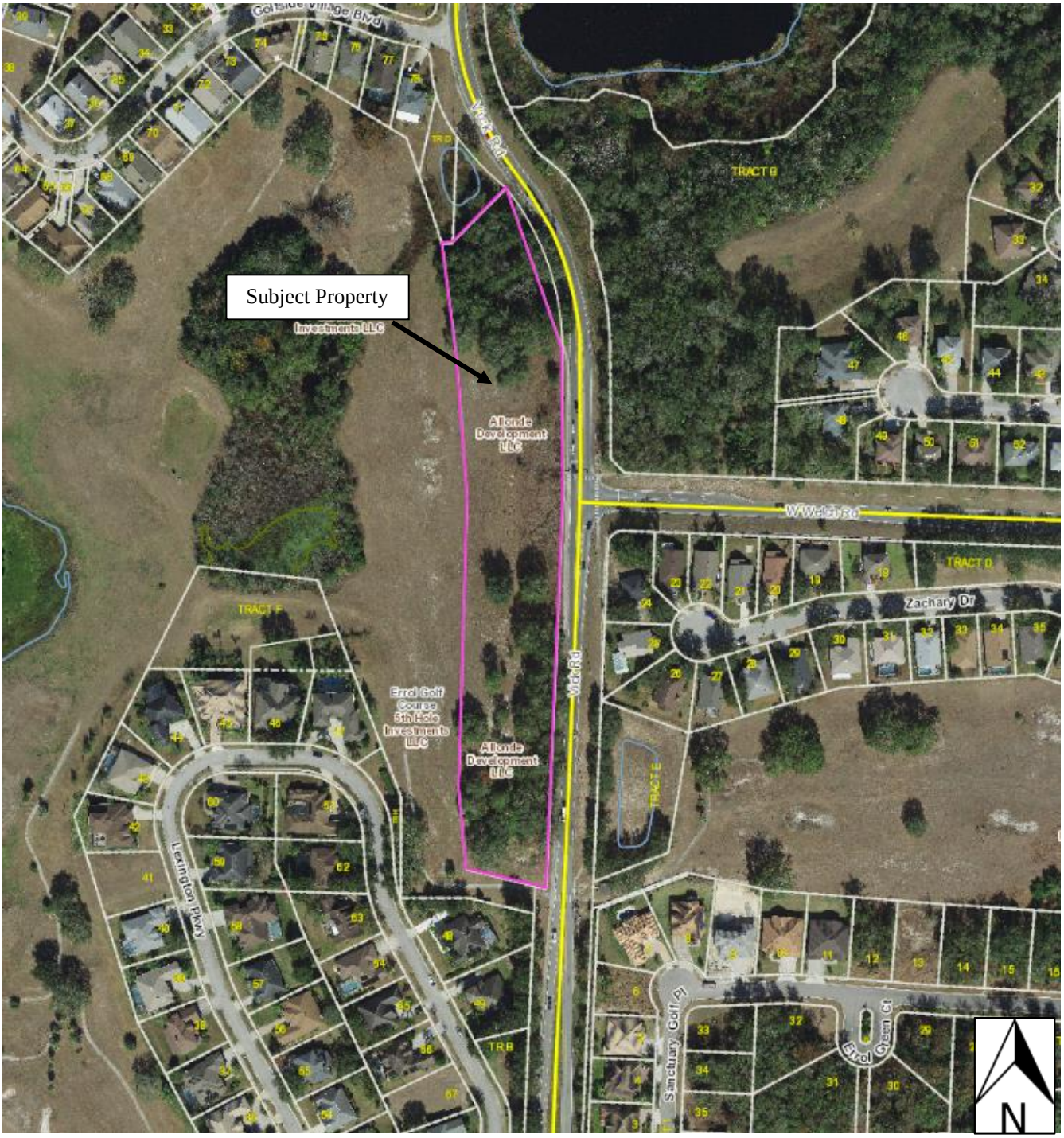
Application:	**Meadow View Apartments Final Development Plan**
Owner/Applicant:	**Allonde Development, LLC.**
Engineer:	**CivilCorp Engineering, Inc. c/o Stephen Allen, P.E.**
Location:	**1611 Vick Road**
Parcel I.D. #s:	**32-20-28-0000-00-042**
Total Site Area:	**4.314 +/- acres**

VICINITY MAP

ZONING MAP


LEGEND
PR
PUD
R-1
R-3
Subject Property
W WELCH RD
JOLLY AVE
WELCH HILL CIR
LANCER OVAL
LINDSIDE CT
WHITE IVEY CT
W GROSS
N

AERIAL MAP


Subject Property
Investments LLC
Allonde Development LLC
TRACT B
TRACT D
TRACT F
TRACT E
Zachary Dr
Victor Rd
Errol Golf Course 5th Hole Investments LLC
Allonde Development LLC
Lexington Pkwy
Sanctuary Golf Pl
Errol Green Ct
TRB
N

MEADOW VIEW APARTMENTS
FINAL DEVELOPMENT PLAN
PROJECT # APK-17-006

PLAN SET INDEX

C-1	COVER SHEET
C-2A	SURVEY (BY OTHERS)
C-2B	SURVEY (BY OTHERS)
C-3	DEMO & EROSION CONTROL PLAN
C-4	SITE PLAN
C-5	GRADING & DRAINAGE PLAN
C-5A	GRADING CROSS SECTIONS
C-5B	GRADING CROSS SECTIONS
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C-6B	SEWER PROFILE
C-6C	SEWER PROFILE
C-7	DETAIL SHEET
C-8	DETAIL SHEET
C-9	DETAIL SHEET
C-10	DETAIL SHEET
C-11	DETAIL SHEET
C-12	TRUCK TURN PLAN
L-1	TREE MITIGATION PLAN
L-2	LANDSCAPE PLAN
L-3	IRRIGATION PLAN
L-4	IRRIGATION DETAILS
SL-1	SITE LIGHTING PLAN
RW-1.0	RETAINING WALL COVER
RW-1.1	GENERAL NOTES
RW-2.1	WALL LAYOUT PLAN
RW-3.1	WALL ELEVATION
RW-3.2	WALL ELEVATION
RW-3.3	WALL ELEVATION
RW-3.4	WALL ELEVATION
RW-3.5	WALL ELEVATION
RW-3.6	WALL ELEVATION
RW-3.7	WALL SECTIONS
RW-3.8	WALL 2 ELEVATIONS
RW-3.9	WALL 2 SECT., WALL 2 AND 3 ELEV.
RW-3.10	WALL 3 ELEVATIONS
RW-3.11	WALL 3 ELEVATIONS
RW-3.12	WALL 3 SECTIONS
RW-4.1	DETAILS
A-01	ENTRY WALL DETAILS, NOTES, SCHEDULES

LEGAL DESCRIPTION

FROM SE COR OF NE1/4 OF SE1/4 RUN W 30.04 FT N 4 DEG E 782.41 FT TO POB TH RUN N 74 DEG W 142.15 FT N 3 DEG W 140.61 FT N 4 DEG E 501.31 FT N 2 DEG W 244.86 FT N 5 DEG W 194.31 FT N 16 DEG W 192.19 FT N 56 DEG W 250.51 FT S 47 DEG W 516.80 FT N 48 DEG W 417.92 FT N 24 DEG E 23 FT N 18 DEG E 285.35 FT N 21 DEG E 350.96 FT N 20 DEG E 237.22 FT TO SLY R/W OF LAKE FRANCIS DR TH RUN S 79 DEG E 35 FT SELY 88.19 FT S 59 DEG E 464.68 FT SELY 109.72 FT S 79 DEG E 64.89 FT SELY 39.23 FT TO WLY R/W OF VICK RD TH RUN S 9 DEG W 390.50 FT SELY 240.10 FT S 49 DEG E 104.55 FT SELY 131.56 FT S 400.42 FT S 4 DEG W 671.32 FT TO POB (LESS ERROL GOLFSIDE VILLAGE 10-43 &44) & (LESS BEG SE COR TR D ERROL GOLFSIDE VILLAGE PB 10/43 N 04 DEG E 182.39 FT SELY ALONG RD 62.18 FT S 49 DEG E 104.55 FT SWLY 131.56 FT S 01 DEG W 139.31 FT NWLY 296.5 FT S 46 DEG W 131.57 FT TO POB) IN SEC 32-20-28

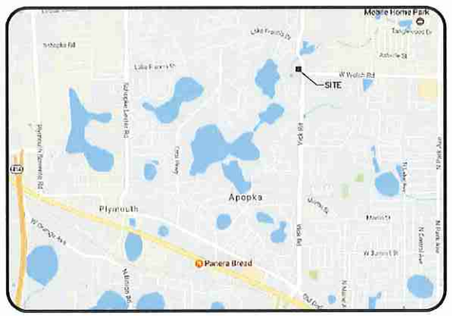
PROJECT CONSULTANTS

CIVIL ENGINEERS
CIVILCORP ENGINEERING, INC.
630 N. WYMORE AVE. STE 310
MAITLAND , FL 32751
PHONE: (407) 516-0437

SURVEYORS
MCMAHON SURVEYING & MAPPING, LLC
245 SAN MARCOS AVE
SANFORD, FL 32771
PHONE: (407) 328-7201

ARCHITECT
RABITS AND RAMANO
5127 S. ORANGE AVE. STE 110
ORLANDO, FL 32809
PHONE: (407) 490-0350

LOCATION MAP



1611 VICK RD.
APOPKA, FL 32712

PREPARED FOR:
ALLONDE DEVELOPMENT, LLC
1101 N. MAITLAND AVE.
MAITLAND, FL 32751
PHONE: (407) 790-9978

PREPARED BY:
CivilCorp Engineering, Inc.
CIVILCORP ENGINEERING, INC.
CERTIFICATE OF AUTHORIZATION #29390
630 N. WYMORE RD. STE 310
MAITLAND, FL 32751
PHONE: (407) 516-0437

SITE DATA TABLE	
PARCEL ID NUMBER	32-20-28-0000-00-042
FUTURE LAND USE	RESIDENTIAL MEDIUM
ZONING	R-3
ADJACENT LAND USE	RESIDENTIAL MEDIUM,RESIDENTIAL LOW & PARKS/RECREATION
ADJACENT ZONING	N: R-3 S: R-3 E: R-3 W: PR
ACREAGE/SQ. FT.	4.314 AC / 187,918 SF
BUILDING HEIGHT	PROPOSED: 28' MAX: 35'
FLOOR AREA RATIO	PROPOSED: N/A MAX: N/A
BUILDING SETBACKS	PROPOSED & REQUIRED 20' BETWEEN BUILDINGS'
PARKING SPACES	PROVIDED: 115 REQUIRED 97
PROPOSED NUMBER OF APARTMENTS	1 BEDROOM: 4, 9.3% – 2 BEDROOM: 30, 69.8% 3 BEDROOM: 9, 20.9%
WAIVER REQEST	NO
VARIANCE REQUEST	NO

NOTES

PROPERTY OWNER:
ALLONDE DEVELOPMENT LLC
160 N. SPRING LAKE DR.
ALTAMONTE SPRINGS, FL 32714

OPEN SPACE CALCULATIONS:
REQUIRED = 30%
PROVIDED = 2.58 ACRES / 4.31 ACRES
= 59.9 %

PARKING REQUIRED:
APARTMENTS - 2 SPACE PER UNIT = 86
PLUS 1 SPACE PER 4 UNITS FOR OVERFLOW = 11
TOTAL = 97

PARKING PROPOSED:
98 REGULAR SPACES AND 5 HANDICAP SPACE

BEDROOM COUNT PER APARTMENT:
ONE BEDROOM = 4
TWO BEDROOM = 30
THREE BEDROOM = 9
TOTAL =43

SQUARE FOOTAGE PER APARTMENT TYPE
ONE BEDROOM = 771 SF
TWO BEDROOM = 977 SF
THREE BEDROOM = 1,133 SF

THESE LUXURY APARTMENTS WILL HAVE CERTAIN AMENITIES INCLUDING BUT NOT LIMITED TO THE FOLLOWING: ELEVATED FIRST FLOOR, WIRELESS INTERNET ACCESS, BALCONY/PORCHES, FITNESS CENTER, RESORT-STYLE SWIMMING POOL, WALK-IN SHOWERS, ENERGY EFFICIENT APPLIANCES, FULL SIZE WASHER AND DRYER, WALK-IN CLOSETS, BIKE RACKS, GRANITE COUNTER TOPS, 9FT. CEILINGS.

ON-SITE LANDSCAPING AND AMENITIES REQUIRE A FINAL INSPECTION. CONTACT THE COMMUNITY DEVELOPMENT DEPARTMENT AT LEAST 7 DAYS PRIOR TO FINAL INSPECTION AND THE SITE SUPERINTENDENT MUST BE ON SITE.

#	Date	Description	By
4	04/02/18	REVISED PER CITY COMMENTS	STA
3	12/8/17	REVISED PER CITY COMMENTS	STA
2	09/26/17	REVISED PER CITY COMMENTS	STA
1	07/14/17	REVISED PER CITY COMMENTS	STA

Revisions

Project No. 132-002 | Drawn By CEF
Scale NTS | Date 02/02/2017

ALLONDE DEVELOPMENT LLC

CivilCorp Engineering, Inc.
630 N. Wymore Rd Ste 310
Maitland, FL 32751
Phone: (407) 516-0437
Certificate of Authorization No. 29390

STATE OF FLORIDA * STEPHEN THOMAS ALLEN * No. 59994 * LICENSED PROFESSIONAL ENGINEER

Stephen Allen, PE # 59994
Engineer FL Reg No

PROJECT NAME: MEADOW VIEW APARTMENTS
1611 VICK RD, APOPKA, FL

SHEET NAME: COVER SHEET

SHEET NO. C-1

BOUNDARY, TOPOGRAPHIC AND TREE SURVEY

SEE SHEET 2 FOR TREE SURVEY

LEGEND / ABBREVIATIONS

- ⊙ = FOUND 5/8" IRON ROD #2108
- ■ = FOUND 4"X4" CONC MONUMENT #1263
- ● = SET 5/8" IRON ROD #4887
- UVLT = UTILITY VAULT
- PVMT = PAVEMENT
- UMH = UTILITY MANHOLE
- TSP = TRAFFIC SIGNAL POLE
- NAVD = NORTH AMERICAN VERTICAL DATUM
- ELEV = ELEVATION
- O.R.B. = OFFICIAL RECORDS BOOK
- C.C.R. = CERTIFIED CORNER RECORD
- P.O.B. = POINT OF BEGINNING
- P.O.C. = POINT OF COMMENCEMENT
- REG = REGISTERED
- LB = LICENSED BUSINESS
- (D.) = DESCRIPTION
- (C.) = CALCULATED
- (P.) = PLAT
- (M.) = MEASURED
- WPP = WOOD POWER POLE
- CONC = CONCRETE
- R/W = RIGHT OF WAY
- OHW = OVERHEAD WIRES
- RGV = RECLAIM GATE VALVE
- FH = FIRE HYDRANT
- TSB = TRAFFIC SIGNAL BOX
- SGV = SEWER GATE VALVE
- UB = UTILITY BOX
- EPAN = ELECTRIC PANEL
- RMH = RECLAIM MANHOLE
- RWV = RECLAIM WATER VALVE
- OHSIG = OVERHEAD SIGNAL WIRES
- CR = CABLE RISER

GRAPHIC SCALE

C.C.R. #47939
WEST 1/4 CORNER
SECTION 32, TOWNSHIP 20 S., RANGE 28 E.
FOUND 4"X4" CONC MONUMENT W/ BRASS DISC

SANITARY MANHOLE
TOP=67.53
INV=61.56 N
INV=61.50 SW

15.00' SANITARY SEWER EASEMENT PER O.R.B. 5130, PAGE 963

N.89°26'12"E.
5405.92'

ERROL GOLF COURSE

N.03°54'17"W.(D.)
N.06°07'12"W.
140.61'

N.04°46'05"E.(D.)
N.02°33'10"E.
501.31'

N.02°58'59"W.(D.)
N.05°11'54"W.
244.86'

N.05°37'38"W.(D.)
N.07°50'33"W.
194.31'

N.84°22'22"E.(D.)
N.82°09'27"E.
180.07'

S.W. CORNER, TRACT 'D', ERROL ESTATE, GULFSIDE VILLAGE PLAT BOOK 10, PGS 43-44
SANITARY SEWER EASEMENT PER O.R.B. 6587, PG. 1977

S.E. CORNER, TRACT 'D', ERROL ESTATE, GULFSIDE VILLAGE, PLAT BOOK 10, PGS 43-44

TRACT D
ERROL GULFSIDE VILLAGE
PLAT BOOK 10, PGS 43-44

N.46°45'59"E.(D.)
N.44°33'04"E.
131.57'

CITY OF APOPKA
O.R.B. 4192, PG 2477

SITE BENCHMARK
3" ALUM. DISC
S-1379-010
ELEV = 76.521

10' WALL EASEMENT PER EASEMENT PER O.R.B. 8613, PG 1854

15.00' SANITARY SEWER EASEMENT PER O.R.B. 5130, PAGE 963

N.74°20'56"W.(D.)
N.76°33'51"W.
142.15'

N.04°42'00"E.(D.)
N.02°29'05"E.
788.41'

P.O.B.

V. R/W LINE

E. R/W LINE

1452.97'
N.02°29'10"E.

2985.93'

671.32'
S.02°29'05"W.
S.04°42'00"W.(D.)

SITE BENCHMARK
BOX CUT IN INLET
ELEV = 128.00

P.O.C.
S.E. CORNER, N.E. 1/4, S.E. 1/4,
SECTION 32, TOWNSHIP 20 S., RANGE 28 E.

C.C.R. #47950
S.E. CORNER,
SECTION 32, TOWNSHIP 20 S., RANGE 28 E.
FOUND 6"X6" CONC MONUMENT (NO ID)

ERROL GOLF COURSE

WINGED FOOT ESTATES
PLAT BOOK 38 PGS 85-86

VICK ROAD
CENTERLINE (R/W WIDTH VARIES)

C.C.R. #68590 EAST 1/4 CORNER
SECTION 32, TOWNSHIP 20 S., RANGE 28 E.
FOUND 6"X6" CONC MONUMENT W/ BRASS DISC

WELCH ROAD
100' R/W
50.00'
50.00'

259.32'
S.00°22'04"E.
S.01°50'51"W.(D.)

WEKIVA CREST
PLAT BOOK 52 PGS 50 - 51

Curve number 1
Radius= 445.00
Delta= 38°24'22"
Arc= 298.29
Tangent= 154.99
Chord= 292.74
Chord Brg. S.19°20'23"E.
S.17°07'28"E.(D.)

DESCRIPTION

Commence at the Southeast corner of the Northeast 1/4 of the Southeast 1/4 of Section 32, Township 20 South, Range 28 East, Orange County, Florida, run North 89°30'07" West, along the South line of said Northeast 1/4 of the Southeast 1/4 of Section 32, a distance of 30.04 feet to the Westerly right of way line of Vick Road; thence run North 04°42'00" East, along the Westerly right of way line, a distance of 788.41 feet to the POINT OF BEGINNING; thence run North 74°20'56" West, a distance of 142.15 feet; thence run North 03°54'17" West, a distance of 140.61 feet; thence run North 04°46'05" East, a distance of 501.31 feet; thence run North 02°58'59" West, a distance of 244.86 feet; thence run North 05°37'38" West, a distance of 194.31 feet to the Southwest corner of Tract D of ERROL GULFSIDE VILLAGE as recorded in Plat Book 10, Pages 43 and 44 of the Public Records of Orange County, Florida; thence run North 84°22'22" East, along the South line of said Tract D, a distance of 18.00 feet to the Southeast corner of said Tract D; thence run North 46°45'59" East, a distance of 131.57 feet to a point on the Westerly right of way line of Vick Road and a point on a curve concave Southwesterly having a radius of 445.00 feet and a central angle of 38°24'22"; thence from a chord bearing of South 17°07'28" East, run Southeasterly along the arc of said curve a distance of 298.29 feet to the point of tangency; thence run South 01°50'51" West, along said Westerly right of way line a distance of 259.32 feet; thence run South 04°42'00" West, along said Westerly right of way line, a distance of 671.32 feet to the POINT OF BEGINNING.

SURVEYOR'S NOTES

1. BEARINGS BASED ON THE FLORIDA COORDINATE SYSTEM, EAST ZONE.
2. UNDERGROUND IMPROVEMENTS NOT LOCATED (EXCEPT AS SHOWN).
3. SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD. NO TITLE PROVIDED.
4. SUBJECT PROPERTY LIES IN ZONE "X" PER FLOOD INSURANCE RATE MAP PANEL #12095C0110F, DATED 9/25/2009, AND LIES OUTSIDE THE 500-YEAR FLOOD PLAIN.
5. DATE OF FIELD SURVEY: 3/1/17
6. ELEVATION BASED ON ORANGE COUNTY BENCHMARK #S-1379-010 WITH AN ELEVATION OF 76.521 RELATIVE TO NAVD 88.

SHEET C-2A OF 20

SURVEYOR'S CERTIFICATION

CERTIFIED TO:
MICHAEL HILAL

I HEREBY CERTIFY:
THAT THIS SURVEY MEETS THE MINIMUM TECHNICAL STANDARDS SET FORTH BY THE FLORIDA BOARD OF LAND SURVEYORS IN CHAPTER 5J-17, FLORIDA ADMINISTRATIVE CODE.

DATE: 3/1/17
SCALE: 1" = 40'
JOB NO. 16-VICK

THOMAS J. MCMAHON
FL REG LAND SURVEYOR #4887 CERTIFICATE OF AUTHORIZATION LB7434
MCMAHON SURVEYING AND MAPPING, LLC
245 SAN MARCOS AVENUE
SANFORD, FLORIDA, 32771
PHONE 407-328-7201

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

TREE SURVEY

LEGEND / ABBREVIATIONS

- ⊙ = FOUND 5/8" IRON ROD #2108
- ■ = FOUND 4"X4" CONC MONUMENT #1263
- ● = SET 5/8" IRON ROD #4887
- UVLT = UTILITY VAULT
- PVMT = PAVEMENT
- UMH = UTILITY MANHOLE
- TSP = TRAFFIC SIGNAL POLE
- NAVD = NORTH AMERICAN VERTICAL DATUM
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- O.R.B. = OFFICIAL RECORDS BOOK
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- P.O.B. = POINT OF BEGINNING
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- REG = REGISTERED
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- (D.) = DESCRIPTION
- (C.) = CALCULATED
- (P.) = PLAT
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- R/W = RIGHT OF WAY
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- RGV = RECLAIM GATE VALVE
- FH = FIRE HYDRANT
- TSB = TRAFFIC SIGNAL BOX
- SGV = SEWER GATE VALVE
- UB = UTILITY BOX
- EPAN = ELECTRIC PANEL
- RMH = RECLAIM MANHOLE
- RWV = RECLAIM WATER VALVE
- OHSIG = OVERHEAD SIGNAL WIRES
- CR = CABLE RISER

GRAPHIC SCALE

C.C.R. #47939
WEST 1/4 CORNER
SECTION 32, TOWNSHIP 20 S., RANGE 28 E.
FOUND 4"X4" CONC MONUMENT W/ BRASS DISC

SANITARY MANHOLE
TOP=67.53
INV=61.56 H
INV=61.50 SW

15.00' SANITARY SEWER EASEMENT PER O.R.B. 5130, PAGE 963

ERROL GOLF COURSE

N.89°26'12"E.
5405.92'

N.03°54'17"W.(D.)
N.06°07'12"W.
140.61'

N.04°46'05"E.(D.)
N.02°33'10"E.
501.31'

N.02°58'59"W.(D.)
N.05°11'54"W.
244.86'

N.05°37'38"W.(D.)
N.07°50'33"W.
194.31'

N.84°22'22"E.(D.)
N.82°09'27"E.
180.00'

S.W. CORNER, TRACT 'D', ERROL ESTATE GOLFSIDE VILLAGE PLAT BOOK 10, PGS 43-44
SANITARY SEWER EASEMENT PER O.R.B. 8597, PG. 1977

S.E. CORNER, TRACT 'D', ERROL ESTATE GOLFSIDE VILLAGE PLAT BOOK 10, PGS 43-44

TRACT D
ERROL GOLFSIDE VILLAGE
PLAT BOOK 10, PGS 43-44

N.46°45'59"E.(D.)
N.44°33'04"E.
131.57'

CITY OF APOPKA
O.R.B. 4192, PG 2477

SITE BENCHMARK
3" ALUM. DISC
S-1379-010
ELEV = 76.321

19' WALL EASEMENT PER EASEMENT PER O.R.B. 8613, PG 1854

15.00' SANITARY SEWER EASEMENT PER O.R.B. 5130, PAGE 963

N.76°33'51"W.(D.)
N.76°33'51"W.
142.15'

N.64°42'00"E.(D.)
N.62°29'05"E.
788.41'

P.O.B.

V. R/V LINE

2905.93'

N.82°29'16"E.
1452.97'

SITE BENCHMARK
BOX CUT IN INLET
ELEV = 120.00

P.O.C.
S.E. CORNER, NE. 1/4, S.E. 1/4,
SECTION 32, TOWNSHIP 20 S., RANGE 28 E.

E. R/V LINE

671.32'
S.02°29'05"W.
S.04°42'00"W.(D.)

VICK ROAD
CENTERLINE (R/W WIDTH VARIES)

WINGED FOOT ESTATES
PLAT BOOK 38 PGS 85-86

C.C.R. #68590 EAST 1/4 CORNER
SECTION 32, TOWNSHIP 20 S., RANGE 28 E.
FOUND 6"X6" CONC MONUMENT W/ BRASS DISC

WELCH ROAD
100' R/W
50.00' 50.00'

259.32'
S.00°22'04"E.
S.01°50'51"W.(D.)

Curve number 1
Radius= 445.00
Delta= 38°24'22"
Arc= 298.29
Tangent= 154.99
Chords= 292.74
Chord Brg. S.19°20'23"E.
S.17°07'28"E.(D.)

WEKIVA CREST
PLAT BOOK 52 PGS 50 - 51

C.C.R. #47950
S.E. CORNER,
SECTION 32, TOWNSHIP 20 S., RANGE 28 E.
FOUND 6"X6" CONC MONUMENT (NO ID)

DESCRIPTION

Commence at the Southeast corner of the Northeast 1/4 of the Southeast 1/4 of Section 32, Township 20 South, Range 28 East, Orange County, Florida, run North 88°30'07" West, along the South line of said Northeast 1/4 of the Southeast 1/4 of Section 32, a distance of 30.04 feet to the Westerly right of way line of Vick Road; thence run North 04°42'00" East, along the Westerly right of way line, a distance of 788.41 feet to the POINT OF BEGINNING; thence run North 74°20'56" West, a distance of 142.15 feet; thence run North 03°54'17" West, a distance of 140.61 feet; thence run North 04°46'05" East, a distance of 501.31 feet; thence run North 02°58'59" West, a distance of 244.86 feet; thence run North 05°37'38" West, a distance of 194.31 feet to the Southwest corner of Tract D of ERROL GULFSIDE VILLAGE as recorded in Plat Book 10, Pages 43 and 44 of the Public Records of Orange County, Florida; thence run North 84°22'22" East, along the South line of said Tract D, a distance of 180.00 feet to the Southeast corner of said Tract D; thence run North 46°45'59" East, a distance of 131.57 feet to a point on the Westerly right of way line of Vick Road and a point on a curve concave Southwesterly having a radius of 445.00 feet and a central angle of 38°24'22"; thence from a chord bearing of South 17°07'28" East, run Southeasterly along the arc of said curve a distance of 298.29 feet to the point of tangency; thence run South 01°50'51" West, along said Westerly right of way line a distance of 259.32 feet; thence run South 04°42'00" West, along said Westerly right of way line, a distance of 671.32 feet to the POINT OF BEGINNING.

SURVEYOR'S NOTES

1. BEARINGS BASED ON THE FLORIDA COORDINATE SYSTEM, EAST ZONE.
2. UNDERGROUND IMPROVEMENTS NOT LOCATED (EXCEPT AS SHOWN).
3. SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD. NO TITLE PROVIDED.
4. SUBJECT PROPERTY LIES IN ZONE "X", PER FLOOD INSURANCE RATE MAP PANEL #12095C0110F, DATED 9/25/2009, AND LIES OUTSIDE THE 500-YEAR FLOOD PLAIN.
5. DATE OF FIELD SURVEY: 3/1/17
6. ELEVATION BASED ON ORANGE COUNTY BENCHMARK #S-1379-010 WITH AN ELEVATION OF 76.321 RELATIVE TO NAVD 88.

SHEET C-2B OF 20

SURVEYOR'S CERTIFICATION

CERTIFIED TO:
MICHAEL HILAL

I HEREBY CERTIFY:
THAT THIS SURVEY MEETS THE MINIMUM TECHNICAL STANDARDS SET FORTH BY THE FLORIDA BOARD OF LAND SURVEYORS IN CHAPTER 5J-17, FLORIDA ADMINISTRATIVE CODE.

DATE: 3/1/17
SCALE: 1" = 40'
JOB NO. 16-VICK

THOMAS J. MCMAHON
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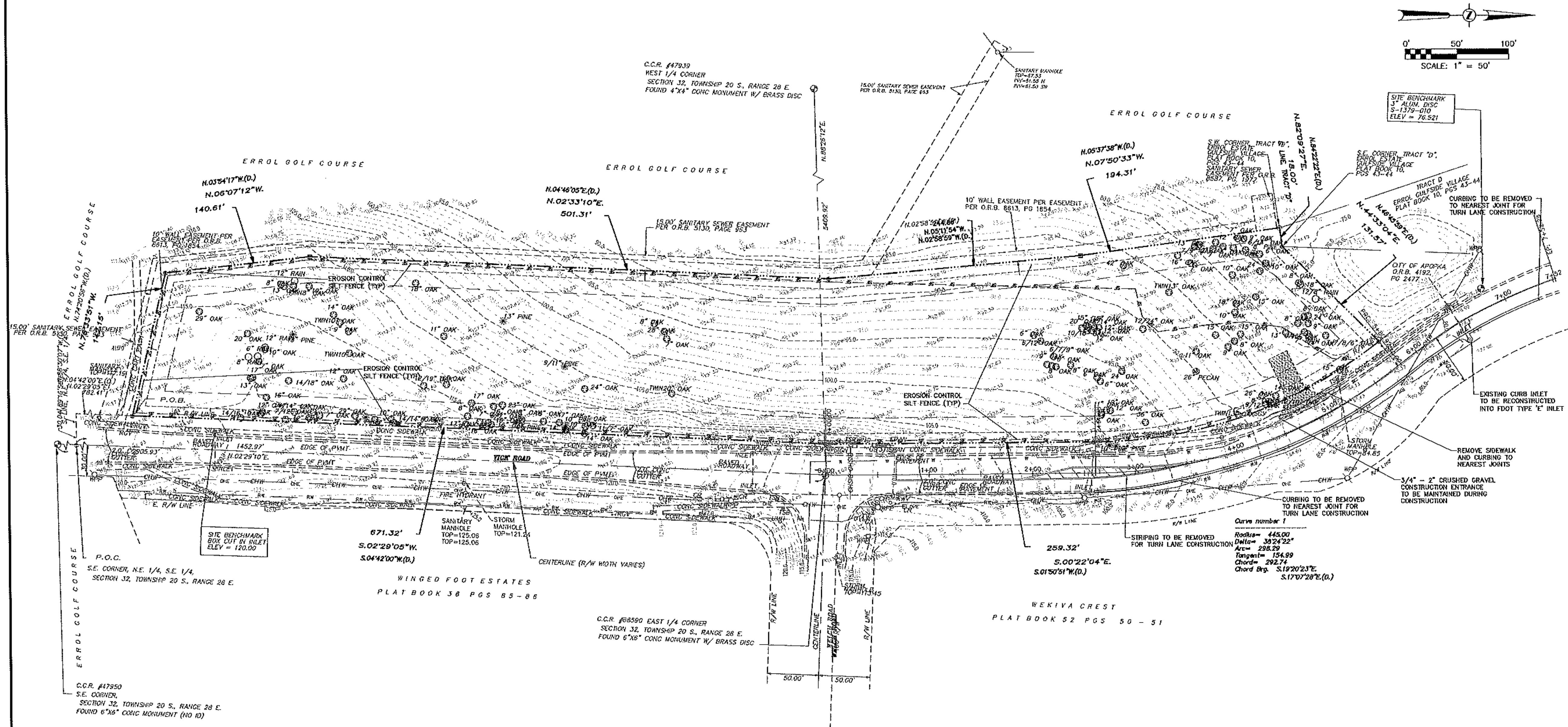
NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER



CONSTRUCTION SEQUENCE

1. INSTALL STABILIZED CONSTRUCTION ENTRANCE
2. INSTALL SILT FENCES (STAKED EVERY 100' MAX) AND SYNTHETIC BALES AS REQUIRED
3. STOCKPILE TOPSOIL IF REQUIRED
4. PERFORM PRELIMINARY GRADING ON SITE AS REQUIRED
5. STABILIZE DENUDED AREAS AND STOCKPILES AS SOON AS PRACTICAL
6. INSTALL STORM SEWER
7. CONSTRUCT BUILDING AND OTHER UNDERGROUND UTILITIES
8. INSTALL PAVEMENT AND CURBING
9. INSTALL LANDSCAPE AND SOD
10. REMOVE ACCUMULATED SEDIMENT FROM BASINS
11. WHEN ALL CONSTRUCTION ACTIVITY IS COMPLETE AND THE SITE IS STABILIZED, REMOVE ANY TEMPORARY BMP MEASURES.

SOIL TYPES

SEE GRADING PLAN

DEWATERING METHODS AND LOCATIONS

DEWATERING SHALL BE UTILIZED ONLY IF NECESSARY BY MEANS OF WELL POINT SYSTEM. DISCHARGE FROM THE WELL POINT SYSTEM SHALL BE DIRECTED TO THE PROPOSED DRAINAGE STRUCTURES. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FOR WELL POINT SYSTEM PRIOR TO CONSTRUCTION.

ADDITIONAL NOTES

1. NON-STORMWATER DISCHARGES: IT IS EXPECTED THAT THE FOLLOWING NON-STORMWATER DISCHARGES WILL OCCUR FROM THE SITE DURING THE CONSTRUCTION PERIOD:
   1.1. PAVEMENT WASH WATERS (WHERE NO SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE OCCURRED).
   1.2. UNCONTAMINATED GROUNDWATER (FROM DEWATERING EXCAVATION). ALL NON-STORMWATER DISCHARGES WILL BE DIRECTED TO THE PROPOSED DRAINAGE STRUCTURES/SWALES.
2. CONTRACTOR IS RESPONSIBLE FOR INSTALLING ANY ADDITIONAL EROSION CONTROL IF IT BECOMES NECESSARY TO MEET THE STATE AND LOCAL STANDARDS.

EROSION TEMPORARY MEASURES (BMP'S)

1. SYNTHETIC BALE BARRIERS SHALL BE USED TO PROTECT PROPOSED INLETS PER DETAILS
2. FILTER FABRIC BARRIERS SHALL BE USED AT THE PERIMETER/LIMITS OF PROPOSED CONSTRUCTION TO PREVENT SEDIMENT FORM LEAVING THE PROJECT BOUNDARIES OR DISCHARGING INTO OFF-SITE DRAINAGE FACILITIES
3. STOCKPILING MATERIAL: NO EXCAVATED MATERIAL SHALL BE STOCKPILED IN SUCH A MANNER AS TO DIRECT RUNOFF DIRECTLY OFF THE PROJECT SITE INTO ANY ADJACENT WATER BODY OR STORMWATER COLLECTION FACILITY
4. INLET PROTECTION: INLETS AND CATCH BASINS WHICH DISCHARGE DIRECTLY OFF-SITE SHALL BE PROTECTED FROM SEDIMENT-LADEN STORM RUNOFF UNTIL THE COMPLETION OF ALL CONSTRUCTION OPERATIONS THAT MAY CONTRIBUTE SEDIMENT TO THE INLET TEMPORARY SEEDING AND MULCHING: AREAS OPENED BY CONSTRUCTION OPERATIONS AND THAT AREA NOT ANTICIPATED TO BE RE-EXCAVATED OR DRESSED AND RECEIVE FINAL GRASSING TREATMENT WITHIN 30 DAYS SHALL BE SEEDED WITH A QUICK GROWING GRASS SPECIES WHICH WILL PROVIDE AN EARLY COVER DURING THE SEASON IN WHICH IT IS PLANTED AND WILL NOT LATER COMPETE WITH THE PERMANENT GRASSING. SLOPES STEEPER THAN 6:1 THAT FALL WITHIN THE CATEGORY ESTABLISHED IN PARAGRAPH NUMBER 2 ABOVE SHALL ADDITIONALLY RECEIVE MULCHING OF APPROXIMATELY 2 INCHES LOOSE MEASURE OF MULCH MATERIAL CUT INTO THE SOIL OF SEEDED AREA ADEQUATE TO PREVENT MOVEMENT OF SEED AND MULCH
5. MAINTENANCE: ALL FEATURES OF THE PROJECT DESIGNED AND CONSTRUCTED TO PREVENT EROSION AND SEDIMENT CONTROL SHALL BE MAINTAINED DURING THE LIFE OF THE CONSTRUCTION SO AS TO FUNCTION AS THEY WERE ORIGINALLY DESIGNED AND CONSTRUCTED.

INSPECTIONS

1. CONSTRUCTION SITE WILL BE INSPECTED FOR EROSION PROBLEMS DAILY AFTER EACH RAINFALL GREATER THAN 0.5 INCHES. A RAIN GAGE WILL BE ON SITE TO MEASURE THE RAINFALL AMOUNTS.
2. ALL CONTROL MEASURES WILL BE INSPECTED BY THE SUPERINTENDENT, THE PERSON RESPONSIBLE FOR THE DAY TO DAY SITE OPERATIONS OR SOMEONE APPOINTED BY THE SUPERINTENDENT AT LEAST ONCE AND FOLLOWING ANY STORM EVEN OF 0.25 INCHES OR GREATER.
3. ALL TURBIDITY CONTROL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER; IF A REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS.
4. BUILT UP SEDIMENT WILL BE REMOVED FROM THE SILT FENCE WHEN IT HAS REACHED ON-THIRD THE HEIGHT OF THE FENCE.
5. THE SILT FENCE WILL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, TO SEE IF THE FABRIC IS SECURELY ATTACHED TO THE FENCE POSTS, AND TO SEE THAT THE FENCE POSTS ARE FIRMLY IN THE GROUND.
6. TEMPORARY AND PERMANENT SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH.
7. A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH INSPECTION. A COPY OF THE REPORT FORM TO BE COMPLETED CAN BE OBTAINED BY THE ENGINEER. THE REPORTS WILL BE KEPT ON SITE DURING CONSTRUCTION AND AVAILABLE UPON REQUEST TO THE OWNER, ENGINEER OR ANY FEDERAL, STATE OR LOCAL AGENCY APPROVING SEDIMENT AND EROSION CONTROL PLANS OR STORMWATER MANAGEMENT PLANS. THE REPORTS SHALL BE MADE AND RETAINED AS PART OF THE STORMWATER POLLUTION PREVENTION PLAN FOR AT LEAST TREE YEARS FROM THE DATE THAT THE SITE IS FINALLY STABILIZED AND THE NOTICE OF TERMINATION IS SUBMITTED. THE REPORTS SHALL IDENTIFY ANY INCIDENTS OF NON-COMPLIANCE.
8. PERSONNEL SELECTED FOR INSPECTION AND MAINTENANCE RESPONSIBILITIES WILL RECEIVE TRAINING FORM THE SITE SUPERINTENDENT. THEY WILL BE TRAINED IN ALL THE INSPECTION AND MAINTENANCE PRACTICES NECESSARY FOR KEEPING THE EROSION AND SEDIMENT CONTROLS USED ON-SITE IN GOOD WORKING ORDER AND FILLING OUT THE INSPECTION AND MAINTENANCE REPORTS.

PERMANENT EROSION CONTROL MEASURES (BMP'S)

1. PERMANENT SODDING: ALL AREAS WHICH HAVE BEEN DISTURBED BY CONSTRUCTION WILL, AT A MINIMUM, BE SODDED. THE SEEDING MIX MUST PROVIDE BOTH LONG-TERM VEGETATION AND RAPID GROWTH SEASONAL VEGETATION. SLOPES STEEPER THAN 4:1 SHALL BE SEED AND MULCHED OR SODDED.
2. MAINTENANCE OF STORMWATER MANAGEMENT SYSTEM: THE PERMITTED STORMWATER MANAGEMENT SYSTEM SHALL BE MAINTAINED, CLEANED AND INSPECTED IN ACCORDANCE WITH THE WATER MANAGEMENT DISTRICT PERMIT.

#	Date	Description	By
4			
3	04/3/18	REVISED PER CITY COMMENTS	STA
2	12/8/17	REVISED PER CITY COMMENTS	STA
1	09/08/17	REVISED PER CITY COMMENTS	STA

Revisions

Project No. 132-002 | Drawn By CEF
Scale 1"=50' | Date 02/02/2017

ALLONDE DEVELOPMENT LLC

CivilCorp Engineering, Inc.
630 N Wymore Rd, Ste 310
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Phone 407-516-0437
Certificate of Authorization No. 29390

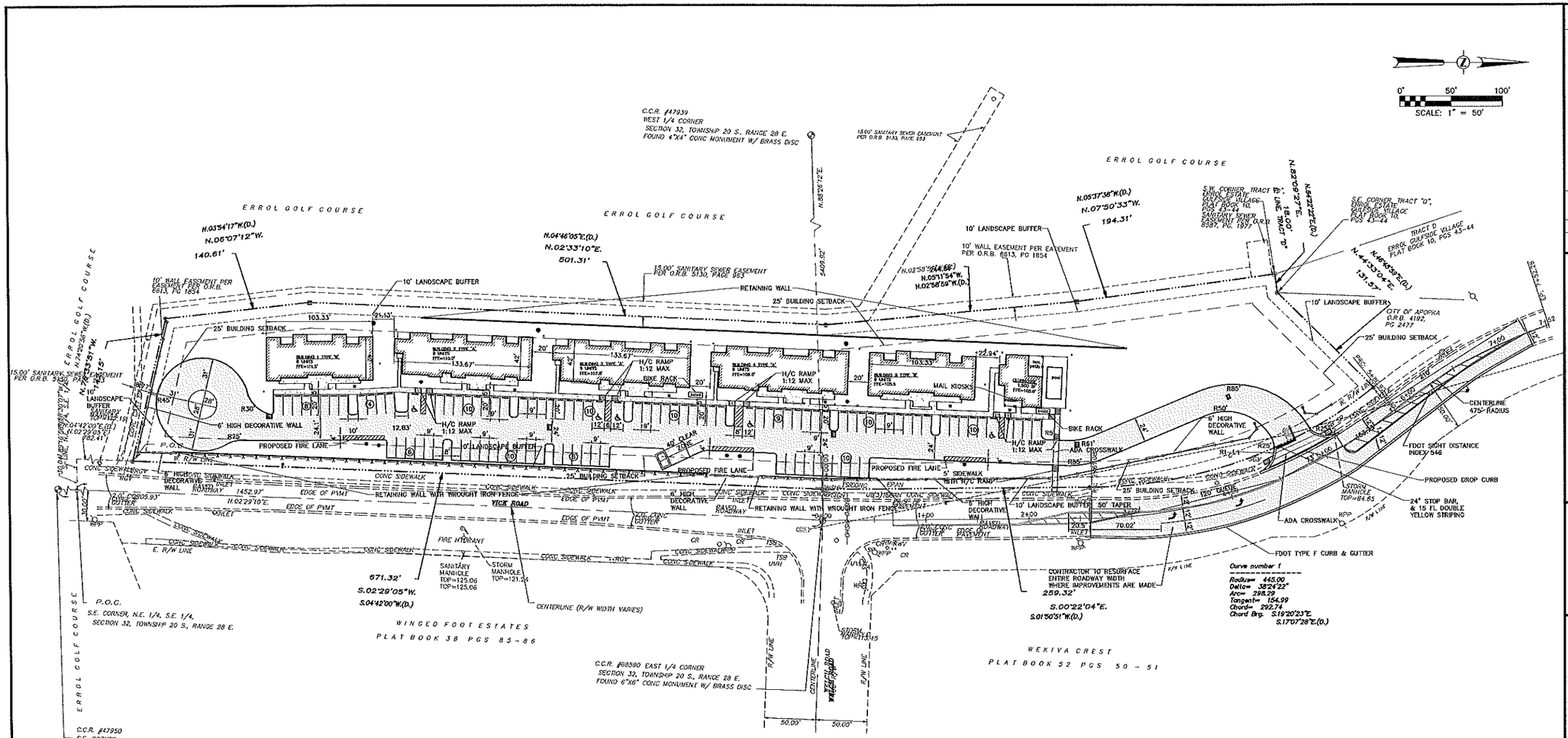
STEPHEN THOMAS ALLEN LICENSE No. 59994 STATE OF FLORIDA PROFESSIONAL ENGINEER

Stephen Allen, PE # 59994
Engineer FL Reg No

PROJECT NAME: MEADOWVIEW APARTMENTS 1611 VICK RD. APOPKA, FL

SHEET NAME: DEMO + EROSION CONTROL PLAN

SHEET NO. C-3



SITE LEGEND

SITE BOUNDARY LINE	
CENTER LINE OF ROAD	
EASEMENT LINE	
EXISTING EDGE OF PAVEMENT	
PROPOSED 6", 3000 PSI CONCRETE	
PROPOSED 7", 4000 PSI CONCRETE	
SIDEWALK	S/W
LINEAR FEET	LF
SQUARE FEET	SF
HANDICAP PARKING	
HANDICAP	HC
TYPICAL	TYP
5' RADIUS	R5'
# PARKING SPACES	

STRIPING NOTES

1. TYPICAL PARKING SPACE SHALL BE STRIPED WITH A 6" WHITE STRIPE.
2. SEE DETAILS FOR HANDICAP PARKING.
3. 30" HIGH INTENSITY STOP SIGNS AND WHITE, THERMOPLASTIC STOP BARS FOR THE DRIVEWAYS

GENERAL NOTES

1. ALL CURB RADII TO BE 3' UNLESS OTHERWISE NOTED.
2. ALL CURB TO BE 6" VERTICAL CURBING.
3. ALL DIMENSIONS ARE MEASURED FROM FACE OF CURB.
4. ANY PAVEMENT WORK DONE IN THE ROW WILL NEED TO UTILIZE TYPE SP-9.5 ASPHALT MIX
5. BOTH BUILDING ENTRANCES ARE FOR CUSTOMER USE
6. BASE OF LAMP POSTS SHALL BE FLUSH TO THE GROUND. NO LAMP POST SHALL BE INSTALLED ON A BOLLARD OR SIMILAR STRUCTURE THAT EXTENDS ABOVE THE SURROUNDING GRADE. ADD NOTE: LIGHT POLE FOOTERS CANNOT BE EXPOSED ABOVE FINISH GRADE.
7. THE CUL-DE-SAC HAS BEEN DESIGNED IN ACCORDANCE WITH ALL APPROPRIATE TRAFFIC ENGINEERING AND GEOMETRY STANDARDS.

POOL NOTES

POOL SIZING AS FOLLOWS PER FLORIDA POOL CODE 64E-9.006 (8):
- MINIMUM POOL SIZE- 15' X 15'.
- MINIMUM WATER RECIRCULATION FLOW- 215 GPM (43 UNITS AT 5 GPM).
- FILTRATION SYSTEM- 1 GPM FOR EACH LIVING UNIT = 43 GPM.

BUILDING SETBACKS

NORTH = 25'
EAST = 25'
WEST = 25'
SOUTH = 25'

LANDSCAPE BUFFERS

NORTH = 10'
EAST = 10'
WEST = 10'
SOUTH = 10'

BICYCLE PARKING NOTE

BICYCLE PARKING DEVICES SHALL MEET THE FOLLOWING:
A. BE DESIGNED TO ALLOW EACH BICYCLE TO BE SUPPORTED BY ITS FRAME.
B. BE DESIGNED TO ALLOW THE FRAME AND WHEELS OF EACH BICYCLE TO BE SECURED AGAINST THEFT.
C. BE DESIGNED TO AVOID DAMAGE TO THE BICYCLES.
D. BE ANCHORED TO RESIST REMOVAL AND SOLIDLY CONSTRUCTED TO RESIST DAMAGE BY RUST, CORROSION, AND VANDALISM.
E. ACCOMMODATE A RANGE OF BICYCLE SHAPES AND SIZES AND TO FACILITATE EASY LOCKING WITHOUT INTERFERING WITH ADJACENT BICYCLES.
F. BE LOCATED TO PREVENT DAMAGE TO BICYCLES BY CARS.
G. BE CONSISTENT WITH THE SURROUNDINGS IN COLOR AND DESIGN AND BE INCORPORATED WHENEVER POSSIBLE INTO BUILDING OR STREET FURNITURE DESIGN.
H. BE LOCATED IN CONVENIENT, HIGHLY VISIBLE, ACTIVE, WELL-LIGHTED AREAS.
I. BE LOCATED SO AS NOT TO INTERFERE WITH PEDESTRIAN MOVEMENTS.
J. BE LOCATED AS NEAR THE PRINCIPAL ENTRANCE OF THE BUILDING AS PRACTICABLE.
K. PROVIDE SAFE ACCESS FROM THE SPACES TO THE RIGHT-OF-WAY OR BICYCLE LANE.

CITY OF APOPKA NOTES

1. ANY PAVEMENT WORK DONE IN THE CITY RIGHT-OF-WAY WILL NEED TO UTILIZE TYPE SP-9.5 ASPHALT MIX.
2. PLEASE REFER TO THE TRAFFIC IMPACT ANALYSIS PROVIDED BY TRAFFIC & MOBILITY CONSULTANTS DATED NOVEMBER 2, 2017.

#	Date	Description	By
4	04/02/18	REVISED PER CITY COMMENTS	STA
3	12/19/17	REVISED PER CITY COMMENTS	STA
2	10/25/17	REVISED PER CITY COMMENTS	STA
1	07/13/17	REVISED PER CITY COMMENTS	STA

Revisions

Project No. 132-002
Scale 1"=50'
Drawn By CEF
Date 02/02/2017

ALLONDE DEVELOPMENT LLC

CivilCorp Engineering, Inc.
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STATE OF FLORIDA · STEPHEN THOMAS ALLEN · LICENSE No. 59804 · PROFESSIONAL ENGINEER

Stephen Allen, PE # 59804
Engineer
FL Reg No

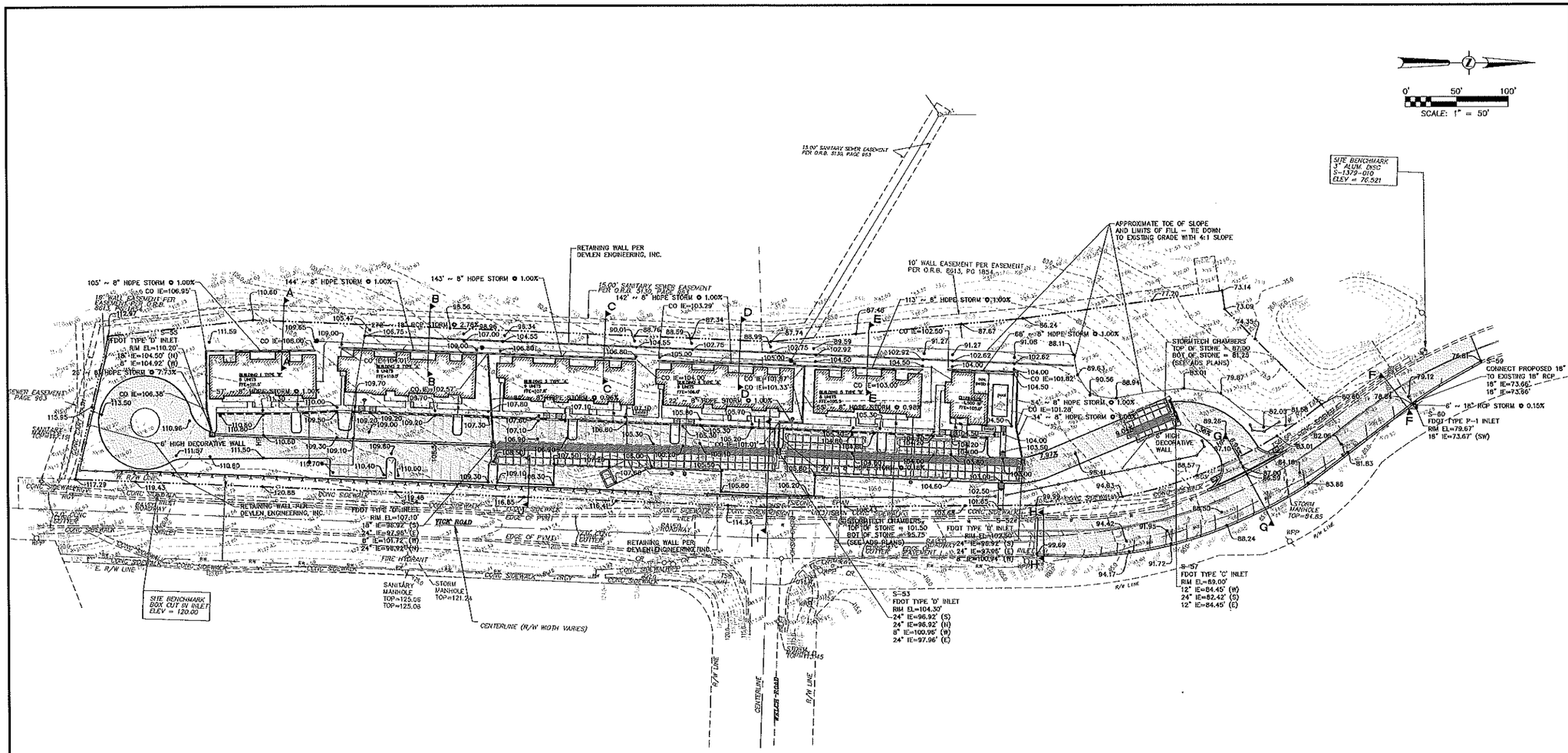
MEADOW VIEW APARTMENTS
1611 VICK RD. APOPKA, FL

PROJECT NAME

SITE PLAN

SHEET NAME

SHEET NO.
C-4



GRADING LEGEND

ELEVATION	EL
TYPICAL	TYP
CLEANOUT	CO
INVERT ELEVATION	IE
HANDICAP	HC
EXISTING ELEVATION	(+)
PROPOSED SPOT ELEVATION	
DRAINAGE INLET	
MITERED END SECTION	
ELLIPTICAL REINFORCED CONCRETE PIPE	ERCP
REINFORCED CONCRETE PIPE	RCP
POLY VINYL CHLORIDE PIPE	PVC
FINISH FLOOR ELEVATION	FFE
SIDEWALK	S/W
BOTTOM OF CURB	BC
TOP OF CURB	TC
HIGH POINT	HP
PROPOSED SURFACE FLOW	

ROADWAY GRADING NOTE

PLEASE REFERENCE THE 2% CROSS SLOPE IN CROSS SECTION H-H FOR NEW PAVEMENT AREA SLOPE WITHIN VICK ROAD. THE LONGITUDINAL SLOPE SHALL FOLLOW EXISTING GRADE.

DRAINAGE NOTES

1. ALL INLETS SHALL HAVE TRAFFIC BEARING GRATES.
2. ALL BUILDINGS SHALL BE GUTTERED IN THE BACK AND DIRECTED INTO THE 8" TRUCK LINES SHOWN ON ALONG THE BACK OF EACH BUILDING SO THAT NO RUNOFF FROM ANY BUILDING WILL BE DISCHARGE TOWARD THE REAR RETAINING WALLS.
3. STORMWATER RETENTION WILL BE IN TWO (2) UNDERGROUND STORMTECH CHAMBER SYSTEMS. PLEASE SEE PLANS PROVIDED BY AD ON 03/28/2018 FOR DETAILS.

#	Date	Revisions
4	04/30/18	REVISED PER CITY COMMENTS
3	03/21/18	REVISED PER CITY COMMENTS
2	09/06/17	REVISED PER CITY COMMENTS
1	07/14/17	REVISED PER CITY COMMENTS

By	Description
STA	
STA	
STA	

Project No. 132-002
Scale 1"=50'
Drawn By STA
Date 02/02/2017

ALLONDE DEVELOPMENT LLC

CivilCorp Engineering, Inc.
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STEPHEN THOMAS ALLEN LICENSE No. 59894 STATE OF FLORIDA PROFESSIONAL ENGINEER

Stephen Allen, PE # 59894
Engineer FL Reg No

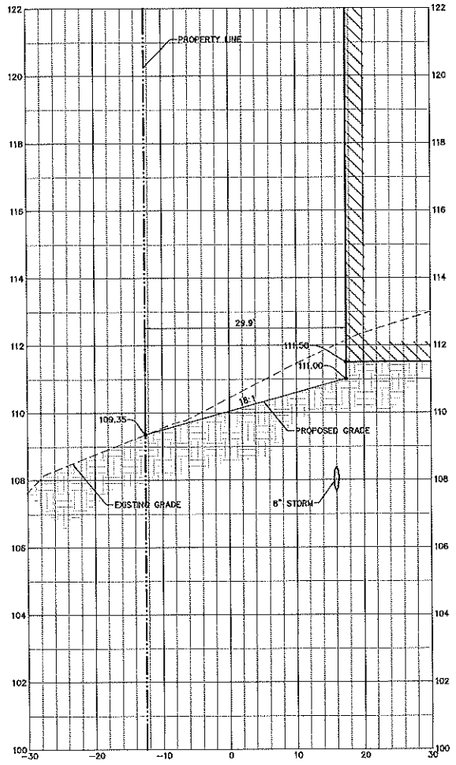
MEADOWVIEW APARTMENTS
1611 VICK RD. APOPKA, FL

PROJECT NAME

GRADING PLAN

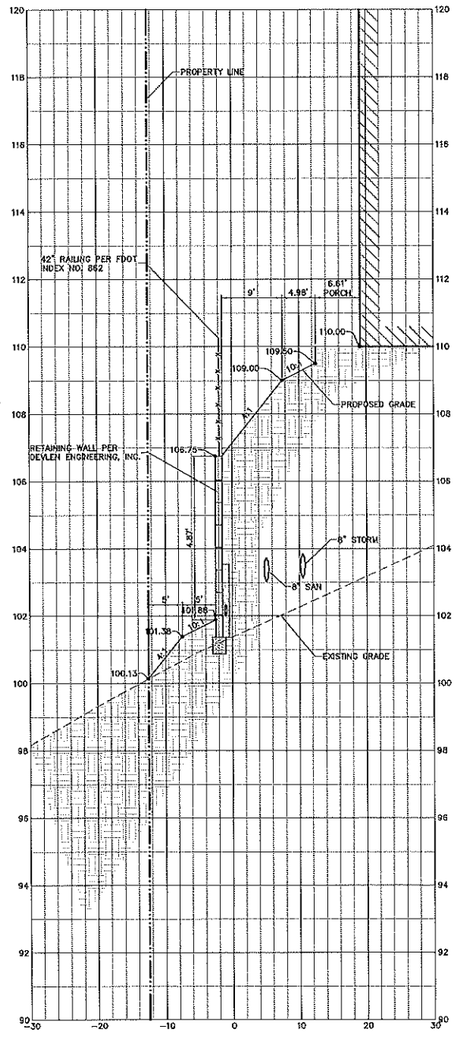
SHEET NAME

SHEET NO.
C-5



CROSS SECTION A-A

HORZ: 1"=10'
VERT: 1"=2'



CROSS SECTION B-B

HORZ: 1"=10'
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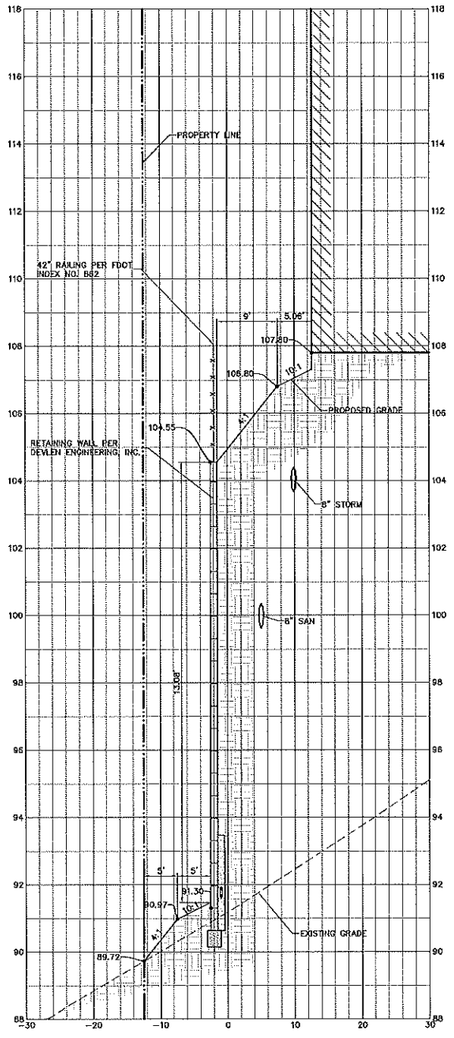

CROSS SECTION C-C

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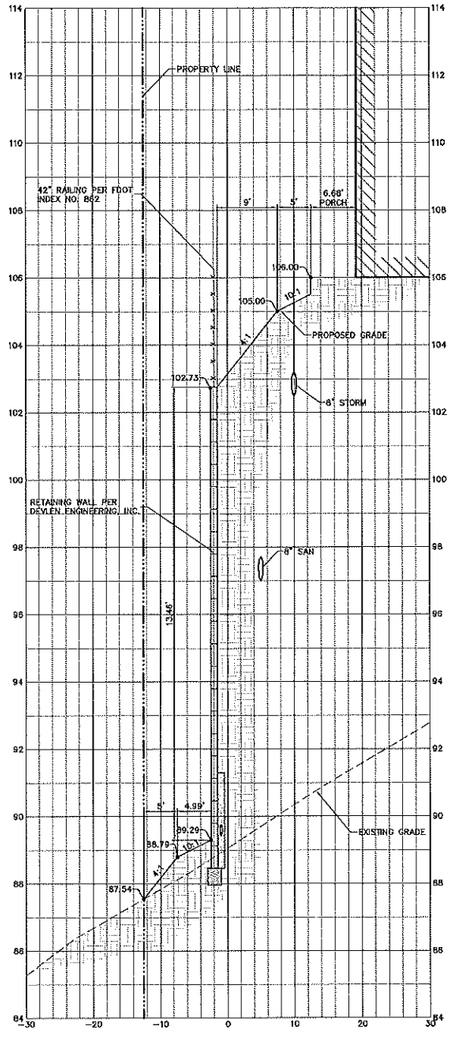


CROSS SECTION D-D

HORZ: 1"=10'
VERT: 1"=2'

#	Date	Description	By
4	04/03/18	REVISED PER CITY COMMENTS	STA
3	12/5/17	REVISED PER CITY COMMENTS	STA
2	09/06/17	REVISED PER CITY COMMENTS	STA
1	07/14/17	ADDED PER CITY COMMENTS	STA

Revisions

ALLONDE DEVELOPMENT LLC

CivilCorp Engineering, Inc.
630 N Wymore Rd. Ste 310
Maitland, FL 32751
Phone 407-216-0437
Certificate of Authorization No. 29590

Stephen Allen, PE # 59994 — Engineer — FL Reg No

Project No.	132-002
Drawn By	STA
Scale	1"=10'
Date	02/02/2017

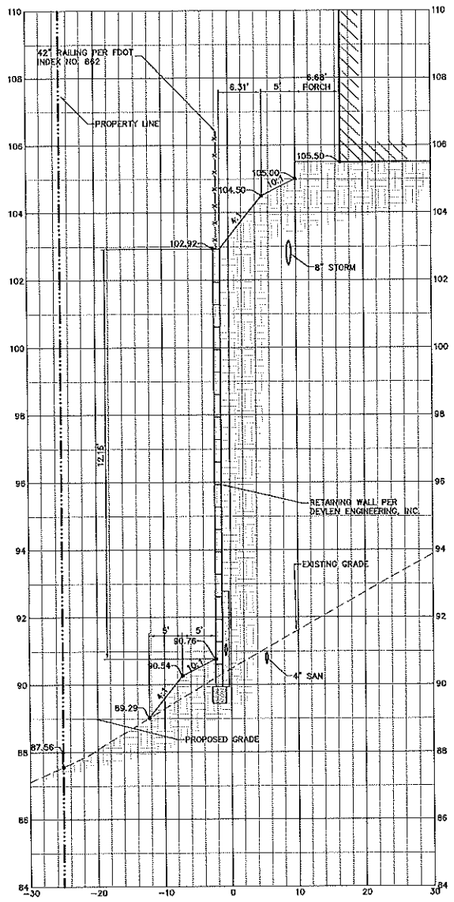
MEADOWVIEW APARTMENTS
1611 VICK RD. APOPKA, FL

PROJECT NAME

GRADING CROSS SECTIONS

SHEET NAME

SHEET NO.
C-5A



CROSS SECTION D-D

HORZ: 1"=10'
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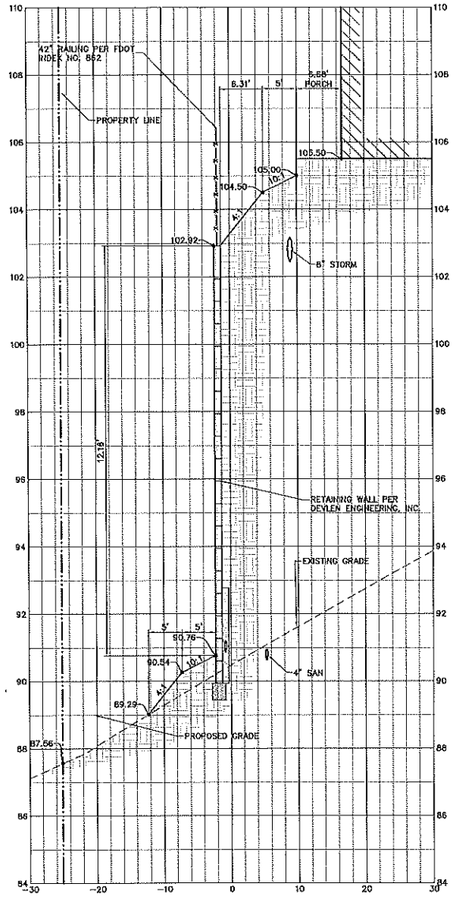

CROSS SECTION E-E

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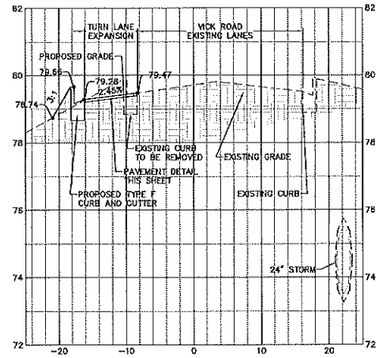

CROSS SECTION F-F

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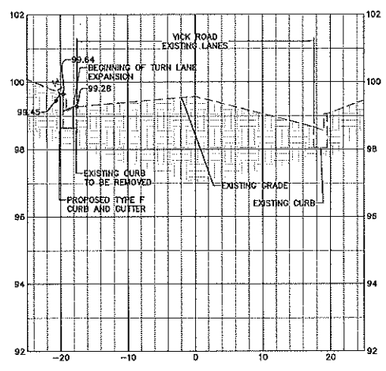
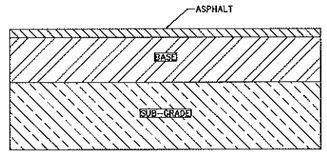
VERT: 1"=2'



CROSS SECTION H-H

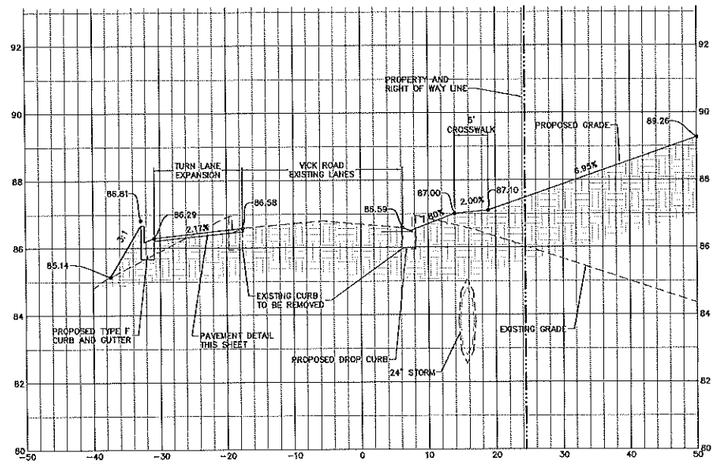
HORZ: 1"=10'
VERT: 1"=2'



ASPHALT	1.5"	TYPE SP-9.5 ASPHALTING CONCRETE SURFACE COURSE
BASE	6"	GRADED AGGREGATE BASE (LIMEROCK OR CRUSHED CONCRETE MEETING FDOT SPECIFICATIONS)
SUB-BASE	12"	NORMAL COMPACTED SUB-GRADE LBR 40 COMPACTED TO 98% AASHTO T-180

ASPHALT PAVEMENT SECTION

NTS



CROSS SECTION G-G

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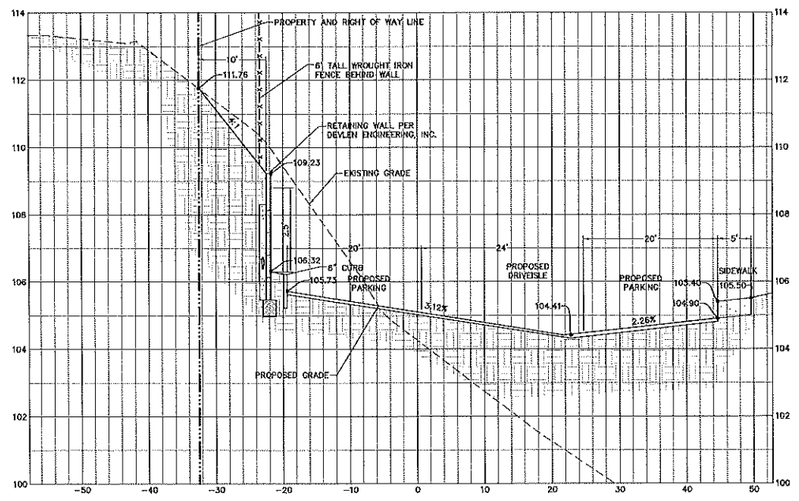
VERT: 1"=2'



CROSS SECTION I-I

HORZ: 1"=10'
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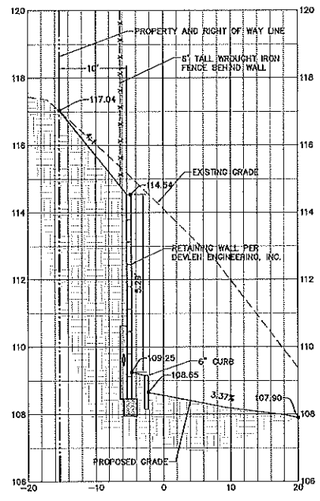

CROSS SECTION J-J

HORZ: 1"=10'
VERT: 1"=2'

Revisions			
4	04/03/18	REVISED PER CITY COMMENTS	STA
3	12/5/17	REVISED PER CITY COMMENTS	STA
2	09/26/17	REVISED PER CITY COMMENTS	STA
1	07/14/17	ADDED PER CITY COMMENTS	STA
#	Date	Description	By

Project No. 132-002
Scale 1"=10'
Drawn By STA
Date 02/02/2017

ALLONDE DEVELOPMENT LLC

CivilCorp Engineering, Inc.
630 N Wymore Rd, Ste 310
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Phone 407-516-0437
Certificate of Authorization No. 29390

Stephen Allen, PE # 59994
Engineer FL Reg No

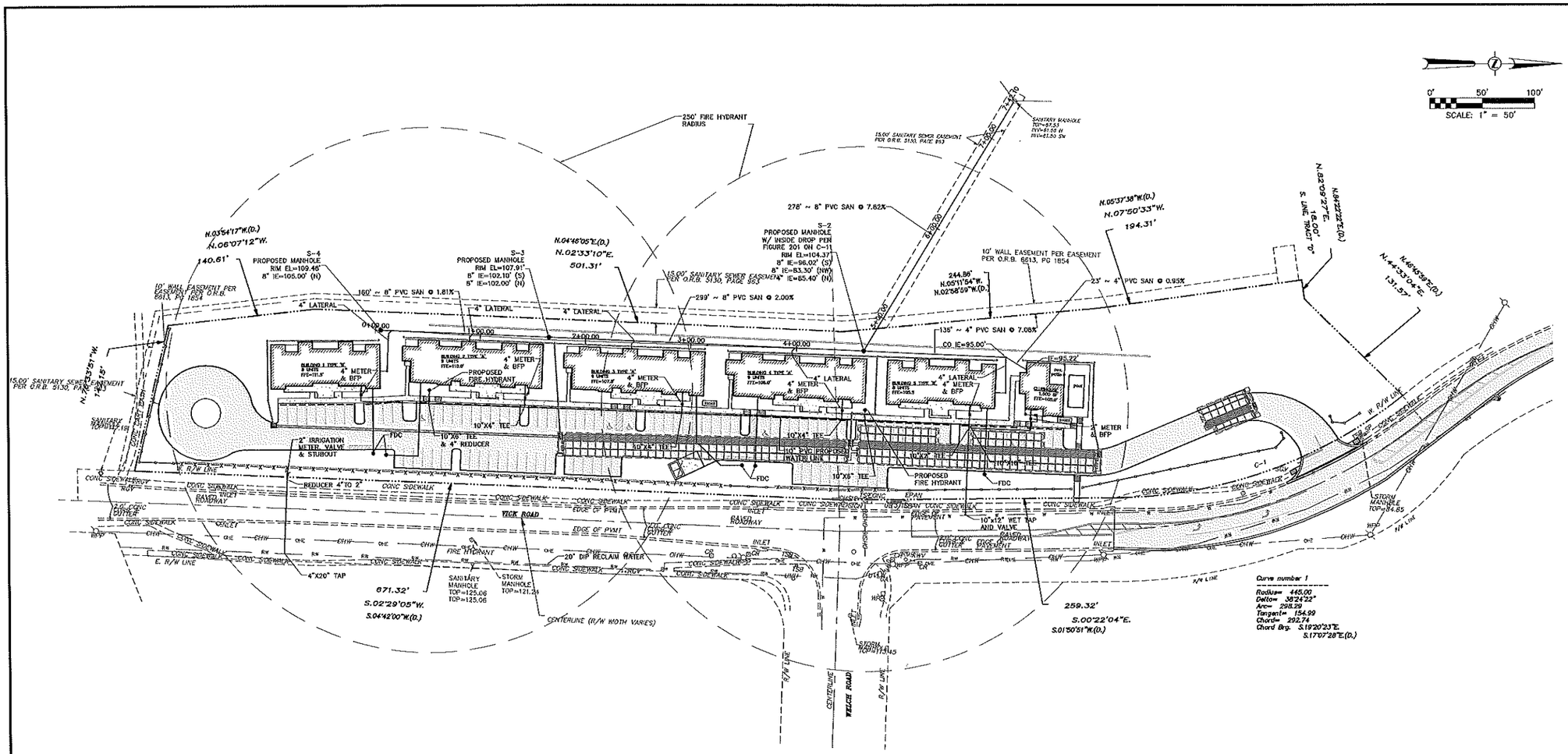
MEADOWVIEW APARTMENTS
1611 VICK RD. APOPKA, FL

PROJECT NAME

GRADING CROSS SECTIONS

SHEET NAME

SHEET NO.
C-5B



UTILITY LEGEND

EXISTING WATER MAIN	— w —
EXISTING SANITARY MAIN	— s —
EXISTING OVER HEAD WIRE	— OHW —
EXISTING GATE VALVE	
EXISTING FIRE HYDRANT	
EXISTING WATER METER	
EXISTING SANITARY MANHOLE	
EXISTING SANITARY CLEANOUT	
SANITARY SEWER	SS
PROPOSED CLEANOUT – CO	•
PROPOSED GATE VALVE – GV	
PROPOSED FIRE HYDRANT – FH	
PROPOED WATER METER	
PROPOSED BACKFLOW PREVENTER	
WATER LINE	WL
REDUCED PRESSURE BACKFLOW PREVENTER	RPBP
DOUBLE DETECTOR CHECK VALVE ASSEMBLY	DDCVA

CITY OF APOPKA NOTES

1. ALL POWER SERVICE WILL HAVE TO BE PROVIDED UNDERGROUND, NO OVERHEAD SERVICE WILL BE ALLOWED.
2. ALL ROADWAYS, WATER LINE INFRASTRUCTURE AND FIRE HYDRANTS SHALL BE IN PLACE BEFORE BUILDING CONSTRUCTION MAY BEGIN.
3. FIRE HYDRANT SHALL BE MARKED WITH A BLUE ROAD REFLECTOR.
4. BUILDINGS WILL BE REQUIRED TO HAVE AN AUTOMATIC FIRE SPRINKLER SYSTEM.
5. BUILDINGS MUST BE MONITORED BY AN AUTOMATIC SPRINKLER SYSTEM.
6. WILL REQUIRE A LOCK BOX FOR THE FIRE ALARM CONTROL ROOM.
7. THE DISTURBED AREA FOR ANY OFF-SITE WORK WILL BE RESTORED TO THE EXISTING CONDITIONS OR BETTER WHEN COMPLETED.
8. ALL PIPES WILL HAVE CITY OF APOPKA MINIMUM COVER.
9. ANY OFF-SITE WORK, WHEN COMPLETED, SHALL HAVE DISTURBED AREAS RESORTED TO EQUAL OR BETTER CONDITIONS.

FIRE NOTES

1. ALL ROADWAYS, WATER LINE INFRASTRUCTURE AND FIRE HYDRANTS SHALL BE IN PLACE BEFORE BUILDING CONSTRUCTION MAY BEGIN
2. FIRE HYDRANTS SHALL BE MARKED WITH A BLUE ROAD REFLECTOR
3. BUILDING CONSTRUCTION SHALL FOLLOW FLORIDA STATUE 633.027 CONCERNING LIGHT FRAME TRUSS CONSTRUCTION
4. NFPA AND FLORIDA FIRE PREVENTION CODE SHALL BE FOLLOWED CONCERNING FIRE AND LIFE SAFETY
5. THE BUILDINGS WILL BE REQUIRED TO HAVE AN AUTOMATIC FIRE SPRINKLER SYSTEM
6. BUILDINGS MUST BE MONITORED BY AN AUTOMATIC FIRE ALARM SYSTEM
7. THE BUILDINGS WILL REQUIRE A LOCK BOX FOR THE FIRE ALARM CONTROL ROOM

#	Date	Revisions	By
4	04/02/18	REVISED PER CITY COMMENTS	STA
3	12/5/17	REVISED PER CITY COMMENTS	STA
2	10/26/17	REVISED PER CITY COMMENTS	STA
1	07/17/17	REVISED PER CITY COMMENTS	STA

Project No. 132-002 | Drawn By CEF

Scale 1"=50' | Date 02/02/2017

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STEPHEN THOMAS ALLEN LICENSE No. 59994 STATE OF FLORIDA PROFESSIONAL ENGINEER

Stephen Allen, PE # 59994
Engineer | FL Reg No

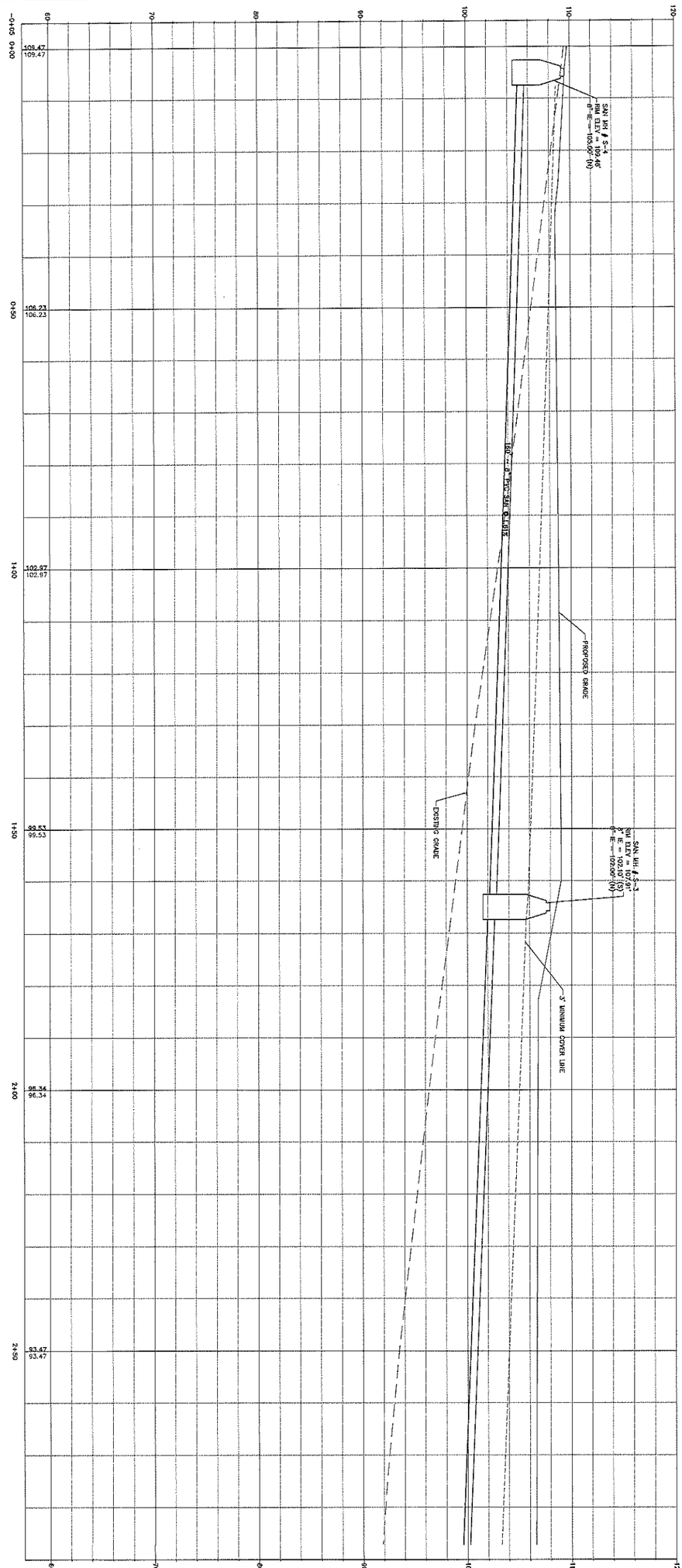
MEADOWVIEW APARTMENTS
1611 VICK RD. APOPKA, FL

PROJECT NAME

UTILITY PLAN

SHEET NAME

SHEET NO.
C-6



HOR: 1"=10'
VERT: 1"=5'

SHEET NO. C-6A

PROJECT NAME: MEADOWVIEW APARTMENTS
1611 VICK RD. APOPKA, FL.

SHEET NAME: SEWER PROFILE

STEPHEN THOMAS ALLEN LICENSE No. 59994 STATE OF FLORIDA PROFESSIONAL ENGINEER

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Certificate of Authorization No. 29390

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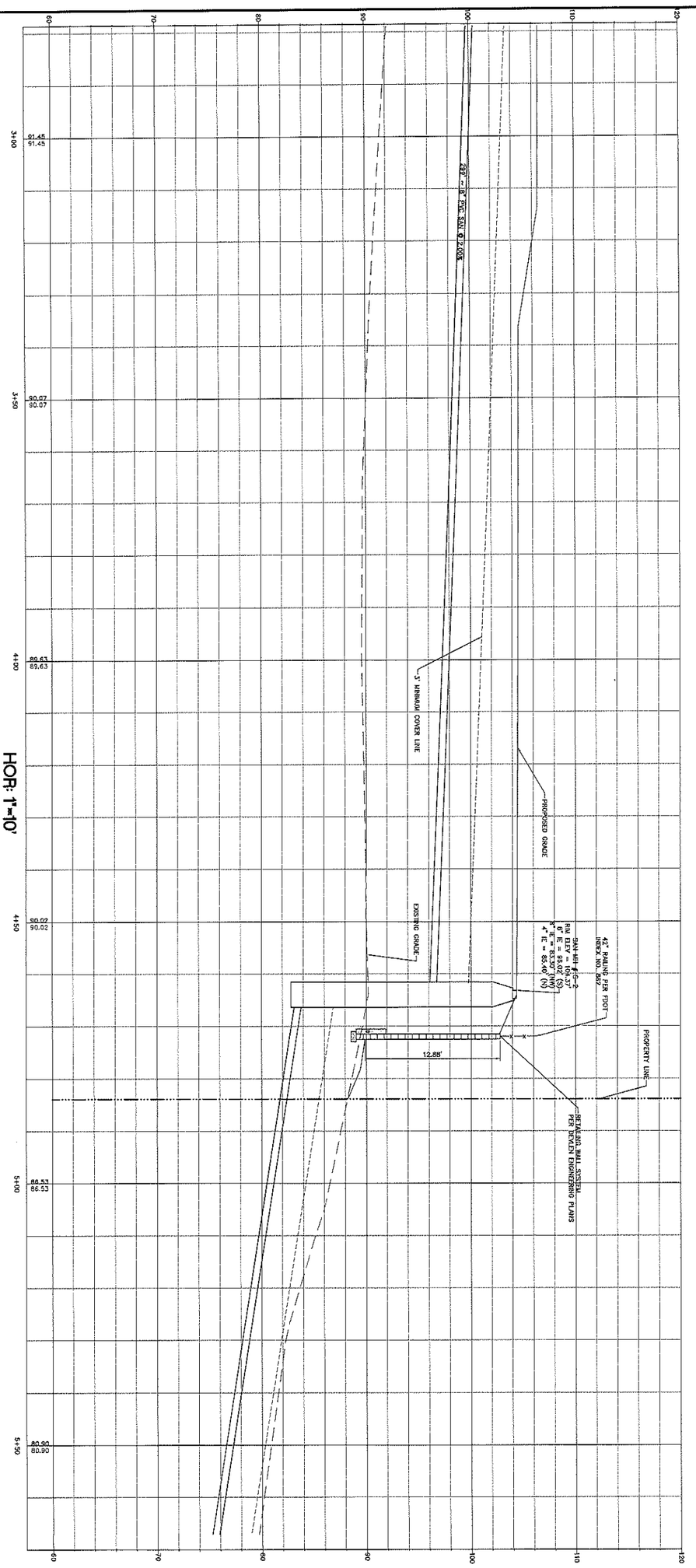
	4	04/03/18	REVISED PER CITY COMMENTS	STA
	3	12/5/17	REVISED PER CITY COMMENTS	STA
	2	09/06/17	REVISED PER CITY COMMENTS	STA
	1	07/14/17	ADDED PER CITY COMMENTS	STA

Project No.	132-002	Drawn By	CEF
Scale	1"=10'	Date	02/02/2017



PROJECT NAME	MEADOWVIEW APARTMENTS 1611 VICK RD. APOPKA, FL	ALLONDE DEVELOPMENT LLC	
SHEET NAME	SEWER PROFILE		

STEPHEN THOMAS ALLEN — LICENSE — No. 59994 — STATE OF FLORIDA — PROFESSIONAL ENGINEER

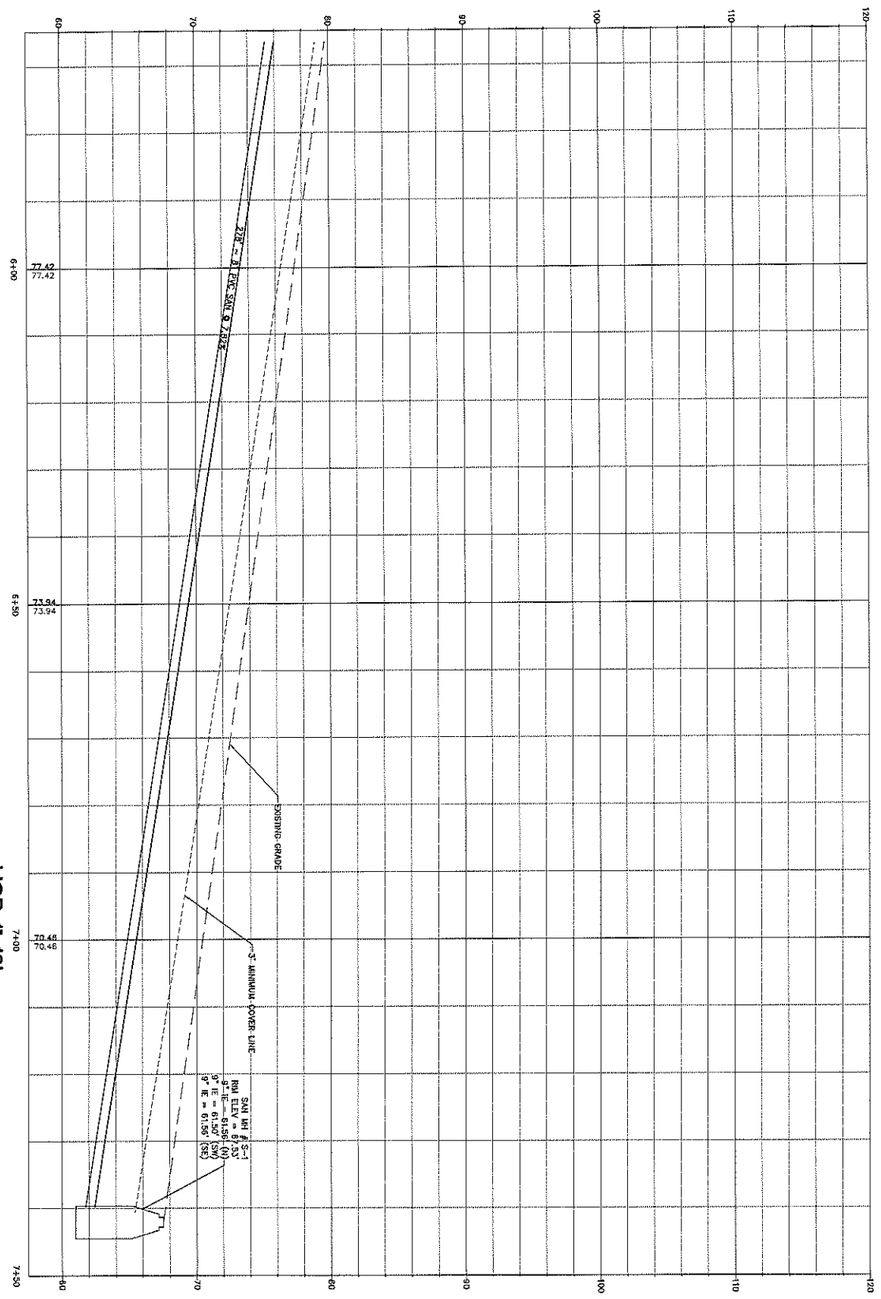
Stephen Allen, PE # 59994
Engineer — FL Reg No

CivilCorp Engineering, Inc.
630 N Wymore Rd. Ste 310
Maitland, FL 32751
Phone 407-516-0437
Certificate of Authorization No. 29390

Revisions			
4	04/03/18	REVISED PER CITY COMMENTS	STA
3	12/8/17	REVISED PER CITY COMMENTS	STA
2	09/06/17	REVISED PER CITY COMMENTS	STA
1	07/14/17	ADDED PER CITY COMMENTS	STA
#	Date	Description	By

Project No.	132-002	Drawn By	CEF
Scale	1"=10'	Date	02/02/2017

SHEET NO. C-6B



SHEET NO. C-6C	PROJECT NAME	MEADOWVIEW APARTMENTS 1611 VICK RD. APOPKA, FL	ALLONDE DEVELOPMENT LLC
	SHEET NAME	SEWER PROFILE	

STEPHEN THOMAS ALLEN LICENSE No. 59994 STATE OF FLORIDA PROFESSIONAL ENGINEER

Stephen Allen, PE # 59994
Engineer FL Reg No

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GENERAL CONSTRUCTION NOTES

1. ALL ELEVATION REFER TO VERTICAL DATUM AS INDICTED ON THE SURVEY PROVIDED HEREIN.
2. LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES, AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS, ELEVATIONS, AND DIMENSIONS OF ALL EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES AFFECTING THIS WORK PRIOR TO CONSTRUCTION, AND NOTIFY ENGINEER OF DISCREPANCIES.
3. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN AREAS OF BURIED UTILITIES, AND SHALL PROVIDE AT LEAST 48 HOURS NOTICE TO THE VARIOUS UTILITY COMPANIES, IN ORDER TO PERMIT MARKING THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES, IN ADVANCE OF CONSTRUCTION, BY CALLING "SUNSHINE" AT 1-800-432-4770. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL UTILITIES NOT INCLUDED IN THE "SUNSHINE" PROGRAM.
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 THIS CONTRACTOR.
5. ALL UNDERGROUND UTILITIES MUST BE IN PLACE AND TESTED OR INSPECTED PRIOR TO PAVEMENT AND STRUCTURE CONSTRUCTION.
6. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BECOME FAMILIAR WITH THE PERMIT AND INSPECTION REQUIREMENTS OF THE VARIOUS GOVERNMENTAL AGENCIES. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION, AND SCHEDULE INSPECTIONS ACCORDING TO AGENCY REQUIREMENTS AND CODES.
7. ALL SPECIFICATIONS AND DOCUMENTS REFERENCED BY THE PLANS AND PERMITS SHALL BE OF LATEST REVISIONS AND/OR LATEST EDITION.
8. ALL WORK BY CONTRACTOR/SUBCONTRACTOR SHALL COMPLY WITH THE REGULATIONS AND ORDINANCES OF THE VARIOUS GOVERNMENTAL AGENCIES HAVING JURISDICTION OVER THE WORK.
9. THE CONTRACTOR SHALL SUBMIT FOR APPROVAL TO THE OWNER'S ENGINEER, SHOP DRAWINGS ON ALL PROPOSED PRECAST AND MANUFACTURES STRUCTURES. FAILURE TO OBTAIN APPROVAL BEFORE INSTALLATION MAY RESULT IN REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE. ALL SHOP DRAWINGS ARE TO BE REVIEWED AND APPROVED BY CONTRACTOR SIGNATURE PRIOR TO SUBMITTAL TO THE OWNER'S ENGINEER.
10. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND APPROPRIATE AGENCIES, AND PROVIDE THEM WITH ALL REQUIRED SHOP DRAWINGS, THE CONTRACTOR'S NAME, STARTING DATE, PROJECTED SCHEDULE, AND OTHER INFORMATION AS REQUIRED, AT LEAST TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION. ANY WORK PERFORMED PRIOR TO NOTIFYING THE ENGINEER, OR WITHOUT AGENCY INSPECTOR PRESENT, MAY BE DEEMED NON-COMPLIANT AND WILL BE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
11. WORK PERFORMED UNDER THIS CONTRACT SHALL BE COORDINATED 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, WITH OTHER CONTRACTORS AND UTILITY COMPANIES.
12. BACKFILL MATERIAL SHALL BE COMPACTED AROUND PIPES IN 6" LAYERS UP TO A LEVEL OF AT LEAST ONE FOOT ABOVE THE TOP AND BELOW BOTTOM OF THE PIPE. IN AREAS TO BE PAVED, BACKFILL SHALL BE COMPACTED TO 100% MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99.
13. SITE WORK CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF AT LEAST 4,000 P.S.I. IN 28 DAYS, UNLESS OTHERWISE NOTED.
14. CONCRETE REINFORCING SHALL CONFORM TO ASTM A615 GRADE OR BETTER, UNLESS OTHER WISE INDICATED ON STRUCTURE PLANS.
15. ALL PRIVATE AND PUBLIC PROPERTY AFFECTED BY THIS WORK SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN EXISTING CONDITIONS. ADDITIONAL COSTS SHALL BE COORDINATED BETWEEN CONTRACTOR AND VENDOR.
16. ALL DISTURBED AREAS WHICH ARE NOT TO BE SODDED, ARE TO BE SEEDED AND MULCHED TO FDOT STANDARDS, AND MAINTAINED UNTIL ACCEPTABLE TO THE REGULATORY AGENCY AND EGINEER OF RECORD, HAVE BEEN OBTAINED. ANY WASHOUTS, REGRADING, RESEEDING, AND GRASSING WORK, AND OTHER EROSION WORK REQUIRED, WILL BE PERFORMED BY THE CONTRACTOR, UNTIL THE SYSTEM IS ACCEPTED, BY THE OWNER, REGULATORY AGENCY AND ENGINEER OF RECORD.
17. CHAPTER77-153 OF THE FLORIDA STATUES REQUIRES THAT AN EXCAVATOR NOTIFY ALL GAS UTILITIES A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO EXCAVATING. THESE PLANS SHOW ONLY THE APPROXIMATE LOCATION OF GAS MAINS. AN ON-SITE INSPECTION BY THE RESPECTIVE GAS PERSONNEL OF THE RESPECTIVE GAS COMPANY SHALL BE CALLED FOR BY THE CONTRACTOR TWO (2) WORKING DAYS BEFORE ENTERING A CONSTRUCTION AREA.
18. THE CONTRACTOR SHALL UTILIZE THE "DESIGN SURVEYOR" TO LOCATE AND FLAG ALL PROPERTY CORNERS PRIOR TO CONSTRUCTION AND FINAL ENGINEERING INSPECTION AND CERTIFICATION. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO HAVE PROPERTY CORNERS, WHICH HAVE BEEN LOST DURING CONSTRUCTION, REESTABLISHED BY A PROFESSIONAL LAND SURVEYOR, PREFERABLY THE "DESIGN SURVEYOR".
19. THE SOILS ENGINEER IS TO SUPPLY THE ENGINEER WITH A PHOTOCOPY OF ALL COMPACTION TESTS, AND ASPHALT RESULTS. THE SOILS ENGINEER IS TO CERTIFY TO THE ENGINEER OF RECORD, IN WRITING, THAT ALL TESTING REQUIREMENTS, REQUIRED BY THE OWNER, LOCAL REGULATORY AGENCY, AND THE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT), FOR THE IMPROVEMENTS, AS REQUIRED BY THE SOILS REPORT, ENGINEERING CONSTRUCTION DRAWINGS AND PERMITS, HAVE BEEN SATISFIED.
20. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING APPLICABLE TESTING WITH THE SOILS ENGINEER. TESTS WILL BE REQUIRED PURSUANT WITH THE TESTING REQUIREMENTS AS SHOWN ON THE ENGINEERING CONSTRUCTION DRAWINGS AND IN THE SOILS REPORT. UPON COMPLETION OF THE WORK, THE SOILS ENGINEER IS TO SUBMIT CERTIFICATIONS TO THE OWNER'S ENGINEER, STATION THAT ALL REQUIREMENTS HAVE BEEN MET.
21. THE CONTRACTOR IS TO REVIEW THE DESIGN SOIL REPORTS AND BORINGS PRIOR TO BIDDING THE PROJECT AND PRIOR TO COMMENCING CONSTRUCTION.
22. THE 100% IRRIGATION SYSTEM SHALL BE DIFFERENTIATED FROM POTABLE WATER PIPING.
23. THE CONTRACTOR SHALL MAINTAIN A COPY OF THE APPROVED PLANS AND PERMITS AT THE CONSTRUCTION SITE, AT ALL TIMES.
24. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR INSTRUCTION OF THE CONTRACTOR REGARDING CONSTRUCTION SAFETY. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR MEANS AND METHODS FOR CONSTRUCTION SITE SAFETY.
25. ALL SODDING, SEEDING AND MULCHING SHALL INCLUDE WATER AND FERTILIZATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THESE AREAS UNTIL THE PROJECT IS COMPLETED AND ACCEPTED BY OTHERS.

CLEARING AND EROSION CONTROL NOTES

1. PRIOR TO ANY SITE CLEARING, ALL TREES SHOWN TO REMAIN ON THE CONSTRUCTION PLANS SHALL BE PROTECTED IN ACCORDANCE WITH THE LOCAL REGULATORY AGENCY' TREE ORDINANCE AND DETAILS CONTAINED IN THESE PLANS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THESE TREES IN GOOD CONDITION. NO TREES SHOWN TO REMAIN SHALL BE REMOVED WITHOUT WRITTEN APPROVAL FROM THE OWNER.
2. THE CONTRACTOR IS TO PREPARE THE SITE PRIOR TO BEGINNING ACTUAL CONSTRUCTION IN ACCORDANCE, WITH THE SOILS TESTING REPORT, COPIES OF THE SOILS REPORT AREA AVAILABLE THROUGH THE OWNER OR THE SOILS TESTING COMPANY. QUESTIONS REGARDING SITE PREPARATION REQUIREMENTS DESCRIBED IN THE SOILS REPORT ARE TO BE DIRECTED TO THE SOILS TESTING COMPANY.
3. THE CONTRACTOR SHALL CLEAR AND GRUB, ONLY THOSE PORTIONS OF THE SITE, NECESSARY FOR CONSTRUCTION. DISTURBED AREAS WILL BE SEEDED, MULCHED, OR PLANTED WITH OTHER APPROVED LANDSCAPE MATERIAL IMMEDIATELY FOLLOWING CONSTRUCTION.
4. THE TOP 4" TO 6" OF GRAND REMOVED DURING CLEARING AND GRUBBING SHALL BE STOCKPILED AT A SITE DESIGNATED BY THE OWNER TO BE USED FOR LANDSCAPING PURPOSES, UNLESS OTHERWISE DIRECTED BY THE OWNER.
5. ALL CONSTRUCTION DEBRIS AND OTHER WASTE MATERIAL SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH APPLICABLE REGULATIONS. ONLY "GRADING BY HAND" IS PERMITTED WITHIN THE CANOPY LINE OF TREES THAT ARE TO REMAIN.
6. THE CONTRACTOR IS TO OBTAIN ALL NECESSARY PERMITS FOR REMOVING ANY EXISTING STRUCTURES.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY ALL UTILITY COMPANIES TO DISCONNECT OR REMOVE THEIR FACILITIES PRIOR TO REMOVING OR DEMOLISHING ANY EXISTING STRUCTURES FROM THE SITE.
8. THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR ACCURACY. PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE VARIOUS UTILITIES AND TO MAKE THE NECESSARY ARRANGEMENTS FOR ANY RELOCATIONS OF THE THESE UTILITIES WITH THE OWNER OF THE UTILITY. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN CROSSING ANY UNDERGROUND UTILITY, WHETHER SHOWN ON THE PLANS OR LOCATED BY THE UTILITY COMPANY. ALL UTILITIES WHICH INTERFACE WITH THE PROPOSED CONSTRUCTION SHALL BE RELOCATED BY THE RESPECTIVE UTILITY COMPANIES, AND THE CONTRACTOR SHALL COOPERATE WITH THE UTILITY COMPANIES DURING RELOCATION OPERATIONS. ANY DELAY OR INCONVENIENCE CAUSED TO THE CONTRACTOR BY THE VARIOUS UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED.
9. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAKING A VISUAL INSPECTION OF THE SITE AND WILL BE RESPONSIBLE FOR THE DEMOLITION AND REMOVAL OF ALL UNDERGROUND AND ABOVE GROUND STRUCTURES THAT WILL NOT BE INCORPORATED WITH THE NEW FACILITIES. SHOULD ANY DISCREPANCIES EXIST WITH THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CALLING THE OWNER AND REQUESTING A CLARIFICATION OF THE PLANS PRIOR TO DEMOLITION.
10. DURING CONSTRUCTION, ALL STORM SEWER INLETS IN THE VICINITY OF THE PROJECT SHALL BE PROTECTED BY SEDIMENT TRAPS SUCH AS SECURED SYNTHETIC BALES, SOD, STONE, ETC., WHICH SHALL BE MAINTAINED AND MODIFIED AS REQUIRED BY CONSTRUCTION PROGRESS.
11. ALL EROSION AND SILTATION CONTROL METHODS SHALL BE IMPLEMENTED PRIOR TO THE START OF CONSTRUCTION AND MAINTAINED UNTIL CONSTRUCTION IS COMPLETE.
12. WHEN CONSTRUCTION IS COMPLETED, THE RETENTION/DETENTION AREAS WILL BE RESHAPED, CLEANED OF SILT, MUD AND DEBRIS, AND RE-SODDED IN ACCORDANCE TO THE PLANS.
13. CONTRACTOR IS TO PROVIDE EROSION CONTROL/SEDIMENTATION BARRIER (SYNTHETIC BALES OR SILTATION CURTAIN) TO PREVENT SITUATION OF ADJACENT PROPERTY, STREETS, STORM SEWERS, WATERWAYS, AND EXISTING WETLANDS. IN ADDITION, THE CONTRACTOR SHALL PLACE STRAW, MULCH, OR OTHER SUITABLE MATERIAL ON THE GROUND IN AREAS WHERE CONSTRUCTION RELATED TRAFFIC IS TO ENTER AND EXIT THE SITE. IF, IN THE OPINION OF THE ENGINEER AND/OR LOCAL AUTHORITIES, EXCESSIVE QUANTITIES OF EARTH ARE TRANSPORTED OFF-SITE EITHER BY NATURAL DRAINAGE OR BY VEHICULAR TRAFFIC, THE CONTRACTOR IS TO REMOVE SAID EARTH TO THE SATISFACTION OF THE ENGINEER AND/OR AUTHORITIES.
14. IF WIND EROSION BECOMES SIGNIFICANT DURING CONSTRUCTION, THE CONTRACTOR SHALL STABILIZE THE AFFECTED AREA USING SPRINKLING, IRRIGATION, OR OTHER ACCEPTABLE METHODS.
15. THERE IS TO BE NO DISCHARGE (I.E. PUMPING, SHEET FLOW, SWALE, DITCH, ETC.) INTO EXISTING LAKE SYSTEM, WETLAND, OR RIVER, WITHOUT THE USE OF SETTLING PONDS. IF THE CONTRACTOR DESIRES TO DISCHARGE INTO THE EXISTING LAKE SYSTEM OR RIVER, A SETTLING POND PLAN MUST BE SUBMITTED AND APPROVED BY THE ENGINEER OF RECORD AND LOCAL REGULATORY AGENCY PRIOR TO CONSTRUCTION.

PAVING, GRADING AND DRAINAGE NOTES

1. ALL DELETERIOUS SUBSTANCE MATERIAL, (I.E. MUCH, PEAT, BURIED DEBRIS), IS TO BE EXCAVATED IN ACCORDANCE WITH THESE PLANS, OR AS DIRECTED BY THE OWNER'S ENGINEER, OR OWNER'S SOIL TESTING COMPANY. DELETERIOUS MATERIAL IS TO BE STOCKPILED OR REMOVED FROM THE SITE AS DIRECTED BY THE OWNER. EXCAVATED AREAS ARE TO BE BACKFILLED WITH APPROVED MATERIALS AND COMPACTED AS SHOWN ON THESE PLANS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXCAVATIONS AGAINST COLLAPSE AND WILL PROVIDE BRACING, SHEETING, OR SHORING, AS NECESSARY. TRENCHES SHALL BE KEPT DRY WHILE PIPE AND APPURTENANCES ARE BEING PLACED. DEWATERING SHALL BE USED AS REQUIRED.
3. IT MAY BE NECESSARY TO FIELD ADJUST PAVEMENT ELEVATIONS TO PRESERVE THE ROOT SYSTEMS OF TREES SHOWN TO BE SAVED. THE CONTRACTOR IS TO COORDINATE WITH OWNER'S ENGINEER PRIOR TO ANY ELEVATION CHANGES.
4. PRIOR TO CONSTRUCTION CONCRETE PAVEMENT, THE CONTRACTOR IS TO SUBMIT A PROPOSED JOINTING PATTERN TO THE OWNER'S ENGINEER FOR APPROVAL.
5. THE CONTRACTOR IS TO PROVIDE A $\frac{1}{2}$" BITUMINOUS EXPANSION JOINT MATERIAL WITH SEALER, AT ABUTMENT OF CONCRETE AND ANY STRUCTURE.
6. ALL PAVEMENT MARKINGS SHALL BE MADE WITH TRAFFIC PAINT IN ACCORDANCE TO FDOT STANDARD SPECIFICATIONS 971-12 OR 971-13. PARKING STALL STRIPING TO BE 4" WIDE PAINTED WHITE STRIPES, UNLESS OTHERWISE SPECIFIED BY AGENCIES.
7. THE CONTRACTOR IS TO INSTALL EXTRA BASE MATERIAL WHEN THE DISTANCE BETWEEN THE PAVEMENT ELEVATION AND THE TOP OF THE PIPE OR BELL IS LESS THAN TWELVE (12) INCHES.
8. STANDARD INDICES REFER TO THE LATEST EDITION OF FDOT "ROADWAY AND TRAFFIC DESIGN STANDARDS".
9. ALL STORM SEWER PIPE SHALL BE REINFORCED CONCRETE CLASS IV (ASTM C-76) UNLESS OTHERWISE NOTED ON PLANS.
10. PVC STORM PIPE, 12" AND SMALLER SHALL CONFORM TO AWWA C-900, CLASS 150 STANDARDS, UNLESS OTHERWISE NOTED.
11. PIPE LENGTHS SHOWN ARE APPROXIMATE AND TO THE CENTER OF DRAINAGE STRUCTURES. PIPE LENGTH FOR MITERED ENG AND FLARED END SECTIONS ARE TO END OF PIPE.
12. ALL DRAINAGE STRUCTURE GRATES AND COVERS WITHIN TRAFFIC AREAS SHALL BE TRAFFIC RATED FOR AND CAPABLE OF WITHSTANDING H-20 LOADINGS.
13. THE CONTRACTOR IS TO SOD THE RETENTION/DETENTION POND AS INDICATED ON PLANS WITHIN ONE WEEK FOLLOWING CONSTRUCTION OF THE POND.
14. MATERIALS AND CONSTRUCTION METHODS FOR STREETS AND STORM DRAINAGE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LOCAL REGULATORY AGENCY AND THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 1991, OR LATEST REVISION THEREOF AND SUPPLEMENTAL SPECIFICATIONS THERETO.
15. UNDERCUTTING AND/OR OVER EXCAVATING THE RETENTION/DETENTION AREAS WILL NOT BE ALLOWED.
16. THE CONTRACTOR SHALL PROVIDE CERTIFIED RECORD DRAWINGS, SIGNED AND SEALED BY A PROFESSIONAL LAND SURVEYOR. THE RECORD DRAWINGS SHALL SHOW FINAL GRADES, INVERTS, AND LOCATIONS OF ALL STORMWATER FACILITIES INCLUDING THE STORMWATER POND, DRAINAGE STRUCTURES, BERMS & SWALES. THE CONTRACTOR SHALL PROVIDE TEN COPIES OF THE CERTIFIED RECORD DRAWINGS TO THE ENGINEER FOR THE PURPOSE OF CERTIFYING THE STROMWATER MANAGEMENT SYSTEM.

PAVING, GRADING AND DRAINAGE TESTING AND INSPECTION REQUIREMENTS

1. THE STORM DRAINAGE PIPING AND FILTRATION SYSTEM SHALL BE SUBJECT TO A VISUAL INSPECTION BY THE OWNER'S ENGINEER PRIOR TO THE PLACEMENT OF BACKFILL. THE CONTRACTOR IS TO NOTIFY THE ENGINEER 48 HOURS IN ADVANCE TO SCHEDULE AN INSPECTION.
2. THE CONTRACTOR SHALL MAINTAIN THE STORM DRAINAGE SYSTEMS UNTIL FINAL ACCEPTANCE OF THE PROJECT.
3. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE APPLICABLE TESTING WITH THE SOILS ENGINEER. TESTS WILL BE REQUIRED PURSUANT WITH THE TESTING SCHEDULE FOUND IN THE ENGINEERING CONSTRUCTION DRAWINGS. UPON COMPLETION OF THE WORK, THE SOILS ENGINEER MUST SUBMIT CERTIFICATION TO THE OWNER'S ENGINEER STATING THAT ALL REQUIREMENTS HAVE BEEN MET.

WATER/SEWER CLEARANCE REQUIREMENTS

VERTICAL CLEARANCE AT CROSSINGS:
GRAVITY SEWERS OR FORCE MAINS CROSSING UNDER WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE INVERT OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE. THE CROSSING SHALL BE ARRANGED SO THAT THE SEWER JOINTS AND WATER JOINTS WILL BE EQUALLY SPACED FROM THE POINT OF CROSSING WITH NO LESS THAN 10 FEET BETWEEN ANY TWO JOINTS. WHERE THE MINIMUM 18 INCH SEPARATION CANNOT BE MAINTAINED, THE SEWER SHALL BE PLACED IN A SLEEVE OR ENCASED IN CONCRETE FOR 20 FEET CENTERED ON THE POINT OF CROSSING. WHERE THERE IS NO ALTERNATIVE TO SEWER PIPES CROSSING OVER WATER MAINS, THE PIPES SHALL BE CENTERED AT THE CROSSING AS INDICATED ABOVE, AND THE WATER MAIN SHALL BE PLACED IN A SLEEVE OR ENCASED IN CONCRETE FOR 20 FEET CENTERED ON THE POINT OF CROSSING. ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO PREVENT DAMAGE TO THE WATER MAIN.

HORIZONTAL SEPARATION BETWEEN PARALLEL LINES:
GRAVITY SEWERS SHALL BE INSTALLED AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED WATER MAIN. THE DISTANCE SHALL BE MEASURED EDGE TO EDGE. IN CASES WHERE IT IS NOT PRACTICAL TO MAINTAIN A 10 FOOT SEPARATION, THE WATER MAIN SHALL BE INSTALLED IN A SEPARATE TRENCH OR ON AN UNDISTURBED EARTH SHELF LOCATED ON ONE SIDE OF THE SEWER AND AT AN ELEVATION SO THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER, AND THE WATER AND SEWER JOINTS SHALL BE STAGGERED.

FORCE MAINS SHALL BE INSTALLED AT LEAST 10 FEET HORIZONTALLY FORM ANY EXISTING OR PROPOSED WATER MAIN.

SANITARY SEWER/RECLAIMED WATER AND POTABLE WATER/RECLEAMINED WATER SEPARATIONS.

WHEN THE RECLAIMED WATER LINE IS TRANSPORTING WATER FOR PUBLIC ACCESS IRRIGATION:
MAXIMUM OBTAINABLE SEPARATION FOR RECLAIMED WATER LINES AND DOMESTIC WATER LINES SHALL BE PRACTICED. A MINIMUM HORIZONTAL SEPARATION OF 5 FEET (CENTER TO CENTER) OR 3 FEET (OUTSIDE TO OUTSIDE) SHALL BE MAINTAINED BETWEEN RECLAIMED WATER LINES AND EITHER POTABLE WATER MAINS OR SEWAGE COLLECTION LINES. AN 18 INCH VERTICAL SEPARATION SHALL BE MAINTAINED AT CROSSINGS.

WHEN THE RECLAIMED WATER LINE IS TRANSPORTING WATER FOR NON-PUBLIC ACCESS IRRIGATION:
THE RECLAIMED WATER MAIN SHALL BE TREATED LIKE A SANITARY SEWER. A 10 FOOT HORIZONTAL AND 18 INCH VERTICAL SEPARATION SHALL BE MAINTAINED BETWEEN THE RECLAIMED WATER MAIN AND ALL EXISTING OR PROPOSED POTABLE WATER MAINS. NO MINIMUM SEPARATION IS REQUIRED BETWEEN THE RECLAIMED WATER MAIN AND SANITARY SEWERS, OTHER THAN THAT NECESSARY TO ENSURE STRUCTURAL INTEGRITY AND PROTECTION OF THE LINES THEMSELVES.

NOTE: WHEN IT IS IMPOSSIBLE TO OBTAIN PROPERTY HORIZONTAL AND VERTICAL SEPARATION AS STIPULATED ABOVE, THE DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP) MAY ALLOW DEVIATION ON A CASE-BY-CASE BASIS IF SUPPORTED BY DATA FROM THE DESIGN ENGINEER. APPROVAL FOR THE DEVIATION MUST BE OBTAINED PRIOR TO CONSTRUCTION.

WATER SYSTEM NOTES

1. ALL WATER MAINS SHALL HAVE A MINIMUM OF 36 INCHES OF COVER.
2. ALL WATER SYSTEM WORK SHALL CONFORM WITH LOCAL REGULATORY STANDARDS AND SPECIFICATIONS.
3. CONFLICTS BETWEEN WATER AND STORM OR SANITARY SEWER TO BE RESOLVED BY ADJUSTING THE WATER LINES AS NECESSARY.
4. ALL DUCTILE IRON PIPE SHALL BE CLASS 52 IN ACCORDANCE WITH ANSI A 21.50 (AWWA C 150) AND ANSI A 21.31 (AWWA C 151) AND PIPE SHALL RECEIVE EXTERIOR BITUMINOUS COATING IN ACCORDANCE WITH ANSI A 21.6, A 21.8, OR A 21.51 AND SHALL BE MORTAR LINED, STANDARD THICKNESS, AND BITUMINOUS SEALED IN ACCORDANCE WITH ANSI A (AWWA C 104-71).
5. ALL FITTINGS LARGER THAN 2" SHALL BE DUCTILE IRON CLASS 53 IN ACCORDANCE WITH AWWA C-110 WITH A PRESSURE RATING OF 350 PSI. JOINTS SHALL BE MECHANICAL JOINTS IN ACCORDANCE WITH AWWA C-111. FITTINGS SHALL BE CEMENT MORTAR LINED AND COATED IN ACCORDANCE WITH AWWA C-104.
6. THE CONTACTOR IS TO INSTALL TEMPORARY BLO-OFFS AT THE END OF WATER SERVICE LATERALS TO ASSURE ADEQUATE FLUSHING AND DISINFECTION.
7. THRUST BLOCKING SHALL BE PROVIDED AT ALL FITTINGS AND HYDRANTS AS SHOWN ON DETAILS.
8. ALL PVC WATER MAINS 4" THROUGH 12" SHALL BE IN ACCORDANCE WITH AWWA C-900. PIPE SHALL BE CLASS 150 AND MEET THE REQUIREMENTS OF SDR 18 IN ACCORDANCE WITH ASTM D-2241.
9. WATER MAIN PIPE OF LESS THAN 4" SHALL BE PER ASTM D2241-89.
10. ALL FITTINGS 2" AND SMALLER SHALL BE SCHEDULE 40 PVC WITH SOLVENT WELDED SLEEVE TYPE JOINTS.
11. ALL GATE VALVES 2" OR LARGER SHALL BE RESILIENT SEAT OR RESILIENT WEDGE MEETING THE REQUIREMENTS OF AWWA C509.
12. ALL FIRE HYDRANTS SHALL MEET THE REQUIREMENTS OF AWWA C502 AND SHALL BE APPROVED BY THE LOCAL UTILITY AND FIRE MARSHAL.
13. MATERIALS AND CONSTRUCTION METHODS FOR WATER DISTRIBUTION SYSTEM SHALL BE IN ACCORDANCE WITH THE LOCAL REGULATORY AGENCY CODES, PLANS, AND SPECIFICATIONS FOR CONSTRUCTION, LATEST REVISION THEREOF, AND SUPPLEMENTAL SPECIFICATIONS THERETO. APPROVAL AND CONSTRUCTION OF ALL POTABLE WATER SERVICE MAIN EXTENSIONS AND CONNECTIONS MUST BE COORDINATED THROUGH THE LOCAL REGULATORY AGENCY.
14. THE CONTRACTOR SHALL PROVIDE CERTIFIED UTILITY RECORD DRAWINGS, SIGNED AND SEALED BY A PROFESSIONAL LAND SURVEYOR. THE RECORD DRAWINGS SHALL SHOW THE LOCATION ON ALL WATER MAINS AND SERVICES. THE CONTRACTOR SHALL PROVIDE TEN COPIES OF THE CERTIFIED RECORD DRAWINGS TO THE ENGINEER.

WATER SYSTEM TESTING AND INSPECTION REQUIREMENTS

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. PRESSURE TESTS TO BE IN ACCORDANCE WITH WATER DEPARTMENT SPECIFICATIONS. CONTRACTOR TO NOTIFY OWNER'S ENGINEER AND WATER DEPARTMENT INSPECTORS 48 HOURS IN ADVANCE OF PERFORMING TESTS.
2. CONTRACTOR TO PERFORM CHLORINATION AND BACTERIOLOGICAL SAMPLING IN ACCORDANCE WITH ALL PERMIT REQUIREMENTS. BACTERIOLOGICAL SAMPLING SHALL BE BY THE LOCAL PUBLIC HEALTH UNIT AND/OR LOCAL UTILITY. CONTRACTOR SHALL OBTAIN CLEARANCE OF DOMESTIC WATER SYSTEM. COPIES OF ALL BACTERIOLOGICAL TESTS TO BE SUBMITTED TO OWNER'S ENGINEER.

SANITARY SEWER NOTES

1. ALL SANITARY SEWER MAINS & LATERALS SHALL HAVE A MINIMUM OF 36 INCHES OF COVER.
2. ALL SANITARY SEWER MAINS & SERVICE LATERALS SHALL BE CONSTRUCTED OF POLYVINYL CHLORIDE PIPE, SDR 35 OR AS OTHERWISE INDICATED ON THE CONSTRUCTION DRAWINGS.
3. ALL SANITARY SEWER WORK SHALL CONFORM WITH LOCAL REGULATORY STANDARDS AND SPECIFICATIONS.
4. PRIOR TO COMMENCING WORK WHICH REQUIRES CONNECTING NEW WORK TO EXISTING LINES OR APPURTENANCES, THE CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF EXISTING CONNECTION POINT AND NOTIFY OWNER'S ENGINEER OF ANY CONFLICTS OR DISCREPANCIES.
5. PVC PIPE AND FITTINGS SHALL CONFORM TO ASTM SPECIFICATIONS DESIGNATION D-3034-77C, MA SDR 35. INSTALLATION OF SDR 35 PIPE SHALL BE IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF ASTM SPECIFICATION SECTION D2321. ALL SANITARY SEWER PIPELINES SHALL BE SOLID GREEN IN COLOR.
6. ALL PVC FORCE MAINS SHALL BE CLASS 200, SDR 21, COLOR GREEN, WITH A GREEN MAGNETIC TAPE A MINIMUM OF 2" WIDE, PLACED 1 FOOT BELOW THE PROPOSED GRADE. THE PRINTING ON THE MAGNETIC TAPE SHOULD READ "FORCEMAIN".
7. ALL DUCTILE IRON PIPE SHALL BE CLASS 52 IN ACCORDANCE WITH ANSI A 21.50 (AWWA C 150) AND ANSI A21.51 (AWWA C 151). DUCTILE IRON PIPE SHALL RECEIVE INTERIOR AND EXTERIOR BITUMINOUS COATING IN ACCORDANCE WITH ANSI A 21.6, A 21.8, OR A 21.51.
8. ALL SANITARY SEWER GRAVITY MAINS OR SANITARY SEWER FORCEMAINS THAT REQUIRE DUCTILE IRON PIPE ARE TO BE POLYLINED OR EPOXY LINED.
9. ALL SANITARY SEWER COVERS SHALL BE TRAFFIC RATED FOR H-20 LEADING.
10. THE CONTRACTOR SHALL PROVIDE CERTIFIED UTILITY RECORD DRAWINGS, SIGNED AND SEALED BY A PROFESSIONAL LAND SURVEYOR. THE RECORD DRAWINGS SHALL SHOW FINAL GRADES AND LOCATIONS ON ALL SANITARY SEWER MAINS AND SERVICES. THE CONTRACTOR SHALL PROVIDE TEN COPIES OF THE CERTIFIED RECORD DRAWINGS TO THE ENGINEER.
11. ALL SANITARY FORCEMANS AND GRAVITY MAINS SHALL BE SEPARATED A MINIMUM OF 10 FEET HORIZONTALLY AND 1.5 FEET VERTICALLY FORM ADJACENT WATER MAINS. WHEN THESE SEPARATION DISTANCES ARE NOT POSSIBLE, CONTRACTOR SHALL CONSULT ENGINEER AND AGENCY HAVING JURISDICTION FOR PIPE MATERIAL AND/OR ENCASEMENT ALTERNATIVES.

SANITARY SEWER TESTING AND INSPECTION REQUIREMENTS

1. ALL GRAVITY SEWER PIPING SHALL BE SUBJECT TO VISUAL INSPECTION BY THE OWNER'S ENGINEER. CONTRACTOR TO NOTIFY THE ENGINEER 48 HOURS IN ADVANCE TO SCHEDULE INSPECTION.
2. CONTRACTOR SHALL CONDUCT VIDEO CAMERA INSPECTION OF ALL GRAVITY SEWER PIPING AND PROVIDE ENGINEER WITH VIDEO TAPE OR DVD OF INSPECTION FOR VIEW AND APPROVAL.
3. THE CONTRACTOR SHALL PERFORM AN INFILTRATION/EXFILTRATION TEST ON ALL GRAVITY SEWERS IN ACCORDANCE WITH THE REGULATION AGENCY HAVING JURISDICTION. SAID TESTS ARE TO BE CERTIFYING BY THE ENGINEER OF RECORD AND SUBMITTED TO THE REGULATORY AGENCY FOR APPROVAL. COORDINATION AND NOTIFICATION OF ALL PARTIES IS THE CONTRACTOR'S RESPONSIBILITY.
4. ALL FORCE MAINS SHALL BE SUBJECT TO HYDROSTATIC PRESSURE TEST 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. COORDINATION AND NOTIFICATION OF ALL PARTIES IS THE CONTRACTOR'S REASONABILITY.

GENERAL SAFETY NOTES

1. DURING THE CONSTRUCTION AND/OR MAINTENANCE OF THIS PROJECT, ALL SAFETY REGULATIONS ARE TO BE ENFORCED BY THE CONTRACTOR. THE CONTRACTOR OR HIS REPRESENTATIVE SHALL BE RESPONSIBLE FOR THE CONTROL AND SAFETY OF THE TRAVELING PUBLIC AND THE SAFETY OF HIS PERSONNEL.
2. 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 THE TRAFFIC CONTROL DEVICES, WARNING DEVICES, AND BARRIERS NECESSARY TO PROTECT THE PUBLIC AND WORKMEN FROM HAZARDS WITHIN THE PROJECT LIMITS.
3. ALL TRAFFIC CONTROL MARKINGS AND DEVICES SHALL CONFORM TO THE PROVISIONS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES PREPARED BY THE U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION.
4. LABOR SAFETY REGULATIONS SHALL CONFORM TO THE PROVISIONS SET FORTH BY OSHA IN THE FEDERAL REGISTER AND THE FLORIDA DEPARTMENT OF TRANSPORTATION REGULATIONS.
5. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY AND ENFORCE ALL APPLICABLE SAFETY REGULATIONS. THE ABOVE INFORMATION HAS BEEN PROVIDED FOR THE CONTRACTOR'S INFORMATION ONLY AND DOES NOT IMPLY THAT THE OWNER OR ENGINEER WILL INSPECT AND/OR ENFORCE SAFETY REGULATIONS.
6. ALL MAINTENANCE OF TRAFFIC SHALL ADHERE TO THE REQUIREMENTS OF THE DESIGN STANDARDS 600 INDEXES.

Revisions

#	Date	Description	By
1	12/20/2017	REVISED PER CITY COMMENTS	STA
2			
3			
4			

Project No.	132-002	Drawn By	STA
Scale	NTS	Date	4/28/2017

ALLONDE DEVELOPMENT LLC

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630 N Wymore Rd. Ste 310
Maitland, FL 32751
Phone 407-516-0437
Certificate of Authorization No. 29390

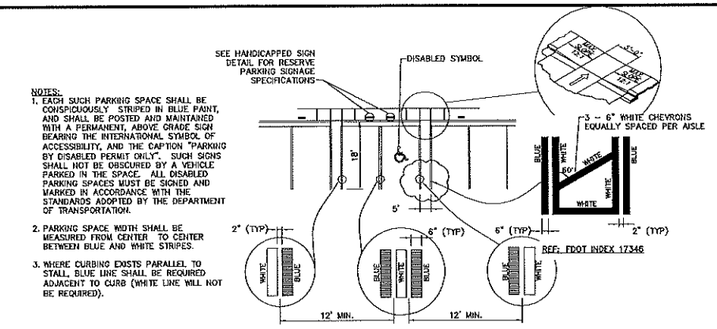
STEPHEN THOMAS ALLEN ★ LICENSE No. 59994 ★ STATE OF FLORIDA ★ PROFESSIONAL ENGINEER

Stephen Allen, PE # 59994
Engineer FL Reg No

PROJECT NAME: MEADOW VIEW APARTMENTS
1611 VICK RD. APOPKA FL

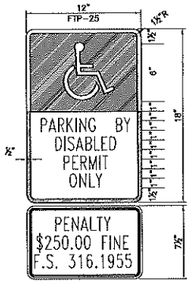
SHEET NAME: GENERAL CIVIL NOTES

SHEET NO.
C-7



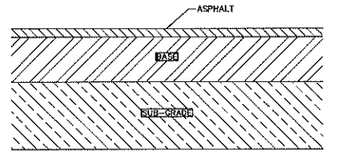
NOTES:
1. EACH SUCH PARKING SPACE SHALL BE CONSPICUOUSLY STRIPED IN BLUE PAINT, AND SHALL BE POSTED AND MAINTAINED WITH A PERMANENT, ABOVE GRADE SIGN BEARING THE INTERNATIONAL SYMBOL OF ACCESSIBILITY, AND THE CAPTION "PARKING BY DISABLED PERMIT ONLY". SUCH SIGNS SHALL NOT BE OBSCURED BY A VEHICLE PARKED IN THE SPACE. ALL DISABLED PARKING SPACES MUST BE SIGNED AND MARKED IN ACCORDANCE WITH THE STANDARDS ADOPTED BY THE DEPARTMENT OF TRANSPORTATION.
2. PARKING SPACE WIDTH SHALL BE MEASURED FROM CENTER TO CENTER BETWEEN BLUE AND WHITE STRIPES.
3. WHERE CURBING EXISTS PARALLEL TO STALL BLUE LINE SHALL BE REQUIRED ADJACENT TO CURB (WHITE LINE WILL NOT BE REQUIRED).

HANDICAPPED PARKING DETAIL



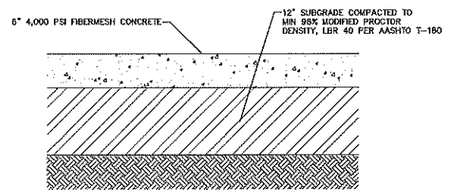
NOTES:
1. ALL LETTERS SHALL BE BLACK AND 1" IN HEIGHT. LETTERS ARE TO BE SERIES "B" OR "C", PER MUTCD.
2. TOP PORTION OF SIGN SHALL HAVE REFLECTORIZED (ENGINEERING GRADE) BLUE BACKGROUND WITH WHITE REFLECTORIZED LEGEND AND BORDER.
3. BOTTOM PORTION OF SIGN SHALL HAVE A REFLECTORIZED (ENGINEERING GRADE) WHITE BACKGROUND WITH BLACK BORDER.
4. ONE SIGN REQUIRED FOR EACH PARKING SPACE.
5. HEIGHT OF SIGN SHALL BE IN ACCORDANCE WITH SECTION 24-23 OF THE MANUAL ON UNIFORMED TRAFFIC CONTROL DEVICES (MUTCD)

HANDICAPPED SIGN DETAIL

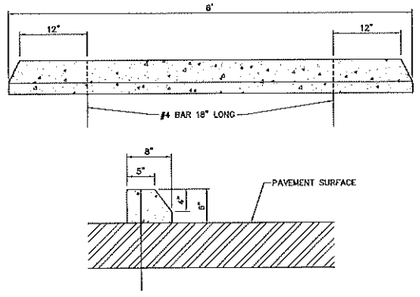


ASPHALT	1.5"	TYPE SP-9.5 ASPHALTING CONCRETE SURFACE COURSE
BASE	6"	GRADED AGGREGATE BASE (LIMEROCK OR CRUSHED CONCRETE MEETING FDOT SPECIFICATIONS)
SUB-BASE	12"	NORMAL COMPACTED SUB-GRADE LBR 40 COMPACTED TO 98% AASHTO T-180

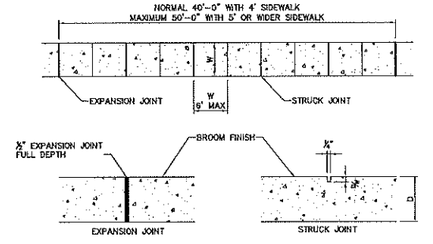
ASPHALT PAVEMENT SECTION
NTS



CONCRETE PAVEMENT SECTION (ONSITE)
NTS



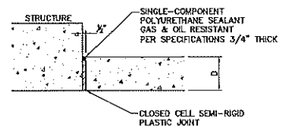
PRECAST CONCRETE WHEEL STOP
NTS



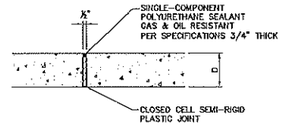
NOTES:
1. SIDEWALK EXPANSION JOINTS TO BE AT ALL TIES TO CONCRETE OTHER THAN DRIVEWAYS. MAXIMUM SPACING SHALL BE 50'
2. EXPANSION JOINT MATERIAL SHALL BE ASPHALT FIBER IMPREGNATED PERFORMED JOINT FILLER, TO FILL DEPT OF CONCRETE.

TYPICAL SIDEWALK
NTS

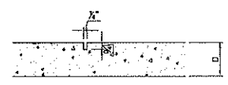
CONSTRUCTION JOINT
NTS



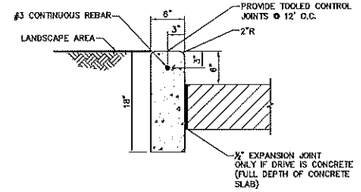
1/2" EXPANSION JOINT
NTS



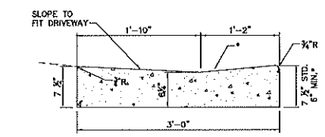
1/2" EXPANSION JOINT
NTS



CONTROL JOINT
NTS

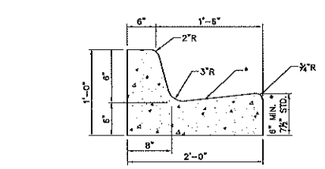


CAST-IN-PLACE CONCRETE CURB
NTS



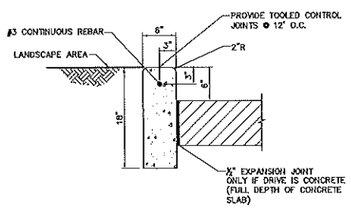
* WHEN USED ON HIGH SIDE OF ROADWAYS, THE CROSS SLOPE OF THE GUTTER SHALL MATCH THE CROSS SLOPE OF THE ADJACENT PAVEMENT. THE THICKNESS OF THE LIP SHALL BE 6", UNLESS OTHERWISE SHOWN ON PLANS.

FDOT DROP CURB
NTS

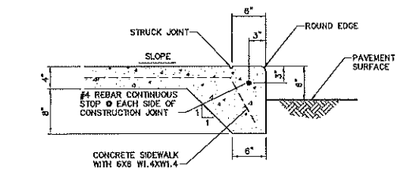


* WHEN USED ON HIGH SIDE OF ROADWAYS, THE CROSS SLOPE OF THE GUTTER SHALL MATCH THE CROSS SLOPE OF THE ADJACENT PAVEMENT. THE THICKNESS OF THE LIP SHALL BE 6", UNLESS OTHERWISE SHOWN ON PLANS.

TYPE F CURB
NTS



CAST-IN-PLACE CONCRETE CURB
NTS



INTEGRAL CURB AND SIDEWALK
NTS

Revisions					
#	Date	Description	By		
1					
2					
3					
4					

Project No.	132-002
Scale	NTS
Drawn By	STA
Date	04/28/2017

ALLONDE DEVELOPMENT LLC

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STATE OF FLORIDA · THOMAS ALLEN · No. 59894 · LICENSED PROFESSIONAL ENGINEER

Stephen Allen, PE # 59894
Engineer FL Reg No

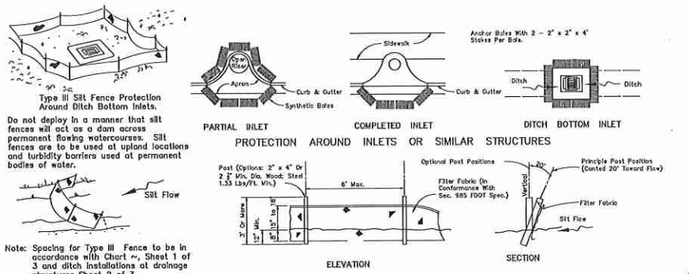
MEADOW VIEW APARTMENTS
1611 VICK RD. APOPKA, FL

PROJECT NAME

DETAIL SHEET

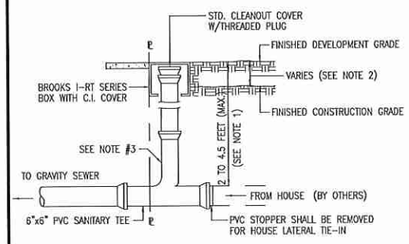
SHEET NAME

SHEET NO.
C-8



INLET EROSION CONTROL DETAILS

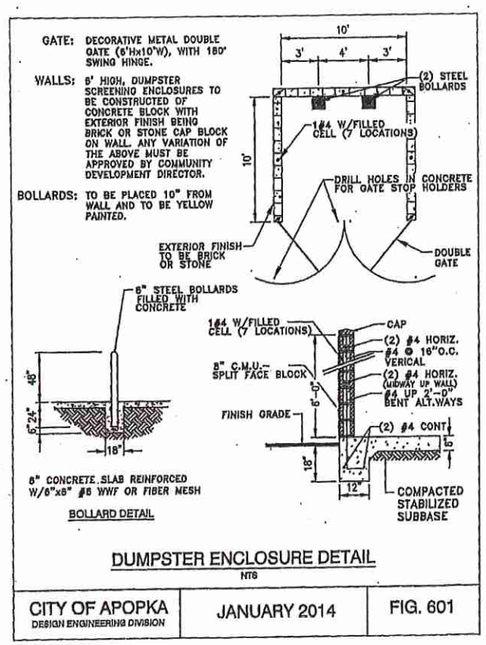
NTS



NOTE:
1. DEPTH OF CLEANOUT SHALL BE SET BY DISTANCE TO HOUSE CONNECTION @ 1/4" PER FOOT, PLUS ONE FOOT.
2. CONTRACTOR TO COORDINATE DEPTH WITH DEVELOPER. READJUSTMENT OF CLEANOUT HEIGHT AFTER ACCEPTANCE SHALL BE THE RESPONSIBILITY OF THE BUILDER/HOMEOWNER.
3. IN ACCORDANCE WITH THE STANDARD PLUMBING CODE SECTION 706.3, A SANITARY TEE CAN ONLY BE USED FOR HORIZONTAL TO VERTICAL FLOW. CONNECTIONS TO THE RISER ARE NOT ACCEPTABLE.

CLEANOUT

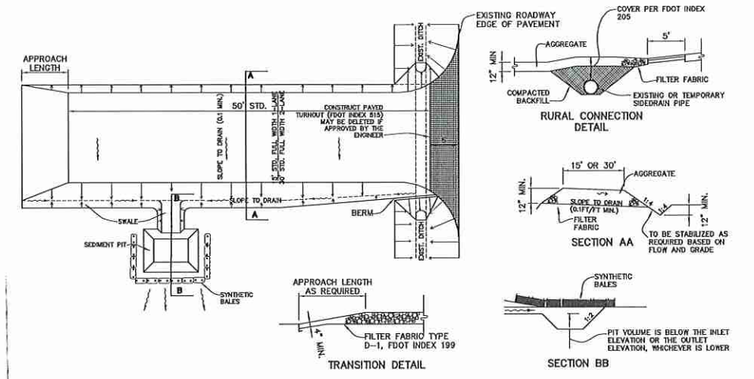
NTS



DUMPSTER ENCLOSURE DETAIL

NTS

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 601



GENERAL NOTES:

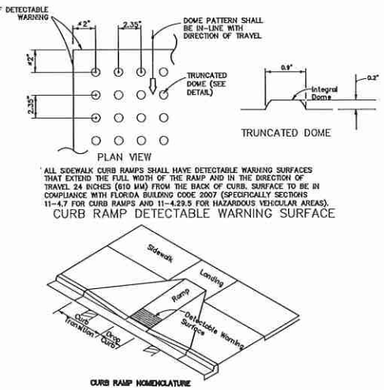
1. A SOIL TRACKING PREVENTION DEVICE (STPD) SHALL BE CONSTRUCTED AT LOCATION DESIGNATED BY THE ENGINEER FOR POINTS OF EGRESS FROM UNSTABILIZED AREAS OF THE PROJECT TO PUBLIC ROADS WHERE OFF-SITE TRACKING OF MUD COULD OCCUR. TRAFFIC FROM UNSTABILIZED AREAS OF THE CONSTRUCTION PROJECT SHALL BE DIRECTED 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 TO MINIMIZE OFF-SITE TRACKING OF SEDIMENT. THE ALTERNATIVE MUST BE REVIEWED AND APPROVED BY THE ENGINEER AND/OR LOCAL MUNICIPALITY PRIOR TO ITS USE.
3. ALL MATERIAL 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 AND/OR LOCAL MUNICIPALITY.
4. AGGREGATES SHALL BE 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 FT³ 30' X 50' = 200 FT³
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. THE NOMINAL SIZE OF A STANDARD STPD IS 15'X50' 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.

CONSTRUCTION ENTRANCE DETAILS

NTS

CURB RAMP - GENERAL NOTES & DETAILS

1. PUBLIC SIDEWALK CURB RAMPS SHALL BE CONSTRUCTED IN THE PUBLIC RIGHT OF WAY AT LOCATIONS THAT WILL PROVIDE CONTINUOUS UNOBSTRUCTED PEDESTRIAN CIRCULATION PATHS TO PEDESTRIAN AREAS, ELEMENTS AND FACILITIES IN THE PUBLIC RIGHT OF WAY AND TO ACCESSIBLE PEDESTRIAN ROUTES ON ADJACENT SITES. CURBED FACILITIES WITH SIDEWALKS AND THOSE WITHOUT SIDEWALKS ARE TO HAVE CURB RAMPS CONSTRUCTED AT ALL STREET INTERSECTIONS AND AT TURNOUTS THAT HAVE CURBED RETURNS. PARTIAL CURB RETURNS SHALL EXTEND TO THE LIMIT PRESCRIBED BY FDOT INDEX NO. 515 TO ACCOMMODATE CURB RAMPS. RAMPS CONSTRUCTED AT LOCATIONS WITHOUT SIDEWALKS SHALL HAVE A 5' X 5' LANDING CONSTRUCTED AT THE TOP OF EACH RAMP.
2. THE LOCATION OF CURB RAMPS SHALL BE AS SHOWN IN THE PLANS, BUT SHALL CONFORM TO THESE STANDARD DETAILS. ALL RAMPS, LANDINGS AND CURBS SHALL BE CONSTRUCTED WITH MINIMUM 3000 PSI, CLASS A CONCRETE AND SHALL HAVE MINIMUM THICKNESS OF 6 INCHES. ALL CONCRETE FOR PEDESTRIAN AREAS SHALL HAVE A MEDIUM BROOM FINISH AND STANDARD COLOR, UNLESS SPECIFICALLY REQUIRED BY THE PLANS.
3. CURB RAMP RUNNING SLOPES AT UNRESTRAINED SITES SHALL NOT BE STEEPER THAN 1 : 12 AND CROSS SLOPE SHALL NOT BE STEEPER THAN 2%. TRANSITION SLOPES SHALL NOT BE STEEPER THAN 1 : 12. WHEN ALTERING EXISTING PEDESTRIAN FACILITIES WHERE EXISTING SITE DEVELOPMENT PRECLUDES THE ACCOMMODATION OF A RAMP SLOPE OF 1 : 12, A RUNNING SLOPE BETWEEN 1 : 12 AND 1 : 10 IS PERMITTED FOR A RISE OF 6" MAXIMUM AND A RUNNING SLOPE OF BETWEEN 1 : 10 AND 1 : 8 IS PERMITTED FOR A RISE OF 3" MAXIMUM. WHERE COMPLIANCE WITH THE REQUIREMENTS FOR CROSS SLOPE CANNOT BE FULLY MET, THE MINIMUM FEASIBLE CROSS SLOPE SHALL BE PROVIDED.
4. IF A CURB RAMP IS LOCATED WHERE PEDESTRIANS MUST WALK ACROSS THE RAMP, THEN THE WALK SHALL HAVE TRANSITIONS WITH A MAXIMUM LONGITUDINAL SLOPE OF 1 : 12 AND A 2% CROSS-SLOPE. RAMPS WITH CURB RETURNS MAY BE USED TO PROVIDE GUIDANCE, AVOID AN OBSTACLE, OR WHEN R/W LIMITATIONS PROHIBIT FLARES. IMPROVEMENTS FOR DIRECTIONAL GUIDANCE ARE REQUIRED WHENEVER NECESSARY TO GUIDE OR RE-DIRECT THE PEDESTRIAN TOWARDS THE RECEIVING RAMP.
5. ALL CURB RAMPS SHALL HAVE DETECTABLE WARNING SURFACES THAT EXTEND THE FULL WIDTH OF THE RAMP AND 24" FROM THE BACK OF CURB IN THE DIRECTION OF TRAVEL. DETECTABLE WARNING SURFACES SHALL BE CONSTRUCTED BY TEXTURING A TRUNCATED DOME PATTERN IN CONFORMANCE WITH U.S. DEPARTMENT OF JUSTICE A.D.A. STANDARDS FOR ACCESSIBLE DESIGN, A.D.A. ACCESSIBILITY GUIDELINES, SECTION 4.29.2, (DETAIL SHOWN ABOVE LEFT). TRANSITION SLOPES ARE NOT TO HAVE DETECTABLE WARNINGS. DOME PATTERN SHALL BE IN-LINE WITH DIRECTION OF TRAVEL. USE ARMOR TILE CAST-IN PLACE DETECTABLE WARNING TILES, OR APPROVED EQUAL.
6. THE COLOR REQUIREMENT FOR DETECTABLE WARNINGS IS TO PROVIDE A DARK-ON-LIGHT VISUAL CONTRAST BETWEEN THE DETECTABLE WARNING SURFACE AND THE ADJACENT WALKING SURFACE.
   WHERE ADJACENT WALKING SURFACES ARE DARK COLORED AND/OR CONSTRUCTED WITH MATERIALS OTHER THAN STANDARD CLASS I PORTLAND CEMENT CONCRETE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS, THE CONTRACTOR MUST PROVIDE A DETECTABLE WARNING SURFACE COLOR THAT PROVIDES THE NECESSARY CONTRAST, WITH THE ADJACENT CONCRETE. THE STANDARD COLOR IS DARK RED BRICK COLORED DETECTABLE WARNING TILE WITH STANDARD CONCRETE UNLESS OTHERWISE NOTED.
7. WHERE A CURB RAMP IS CONSTRUCTED WITHIN EXISTING CURB, CURB AND GUTTER OR SIDEWALK, THE EXISTING CONCRETE SHALL BE REMOVED TO THE NEAREST JOINT BEYOND THE TRANSITION SLOPE SO THAT NO REMAINING SECTION OF CONCRETE IS LESS THAN 5' LONG. THE EXISTING SIDEWALK SHALL BE REMOVED TO THE NEAREST JOINT BEYOND THE TRANSITION SLOPE, IF THE RAMP MUST EXTEND INTO THE SIDEWALK.
8. EXPANSION JOINTS SHALL BE PLACED AT ALL PERIMETER EDGES ABUTTING CONCRETE, BUT NO JOINTS SHALL BE MADE IN THE RAMP ITSELF.
9. PUBLIC SIDEWALK CURB RAMPS ARE TO BE PAID FOR AS FOLLOWS: RAMPS, LANDINGS, CURB TRANSITIONS, FLARES, RAMP AND SIDEWALK CURBS ARE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR CONCRETE CURB RAMPS, 6" THICK. RECONSTRUCTED CURBS BEYOND THE RAMP ARE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR CONCRETE CURB.
   WHEN A SEPARATE PAY ITEM FOR THE REMOVAL AND DISPOSAL OF EXISTING CURB, CURB AND GUTTER, AND/OR SIDEWALK IS NOT PROVIDED IN THE BID FORM, THE COST OF REMOVAL AND DISPOSAL SHALL BE INCLUDED UNDER DEMOLITION, CLEARING/GRUBBING, OR IN THE CONTRACT UNIT PRICE FOR NEW CURB, CURB AND GUTTER OR SIDEWALK, RESPECTIVELY.
10. IF CURBS ARE NOT PRESENT ON BOTH SIDES OF THE WALKWAY, THEN THE CONCRETE IS NOT CONSIDERED A CURB RAMP AND IS THEREFORE MAY BE PAID FOR AS 6" CONCRETE SIDEWALK OR DRIVEWAY.
11. DROP AND TRANSITION CURB MAY BE FORMED AT THE TIME OF CURB CONSTRUCTION OR MAY BE MONOLITHIC WITH THE RAMP, BUT IS INCLUDED WITH THE PAY ITEM FOR THE RAMP.
12. TWO RAMP DESIGN MAY BE REQUIRED AT CERTAIN LARGE RADIUS, SIGNALIZED, OFFSET OR ANGLED INTERSECTIONS. FLARE AND CURB TRANSITIONS MAY BE REPLACED WITH RAMP CURBS IF SITE CONDITIONS WARRANT.

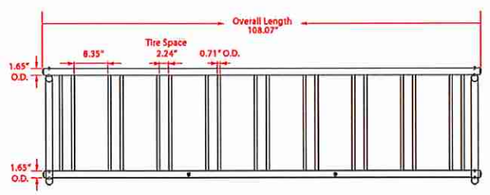


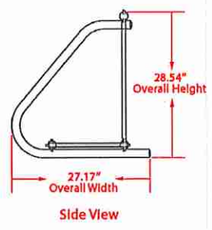
HANDICAPPED RAMP DETAILS

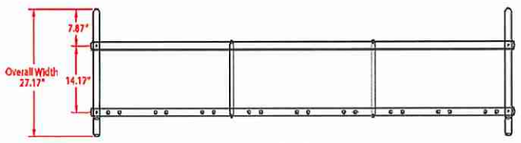
NTS

Specification Sheet

Traditional Bike Rack [9 bike capacity]







Material	Finish	Dimensions	Weight
Steel tubing	Galvanized PLUS clear coat finish	108.07" l x 27.17" w x 28.54" h	74 lbs.

Type of Mount: Portable

Size of Tubing: Grid: 0.71" x 15-gauge
Frame: 1.65" x 14-gauge

1 of 2

2 of 2

4	12/5/17	REVISED PER CITY COMMENTS	STA	
3	09/08/17	REVISED PER CITY COMMENTS	STA	
2	04/15/16	REVISED PER FDOT COMMENTS	STA	
1	Date	Description	By	
Revisions			Drawn By	STA
Project No.		132-002	Date	04/28/2017
Scale		NTS		

ALLONDE DEVELOPMENT LLC

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STEPHEN THOMAS ALLEN LICENSE No. 59894 STATE OF FLORIDA PROFESSIONAL ENGINEER

Stephen Allen, PE # 59894
Engineer | FL Reg No

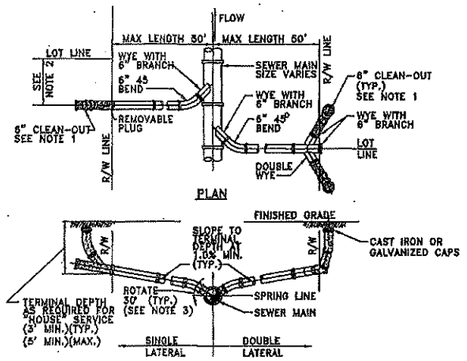
MEADOW VIEW APARTMETNS
1611 VICK RD. APOPKA, FL

DETAIL SHEET

PROJECT NAME

SHEET NAME

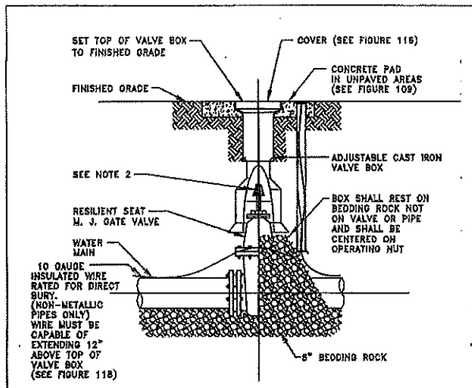
SHEET NO.
C-9



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

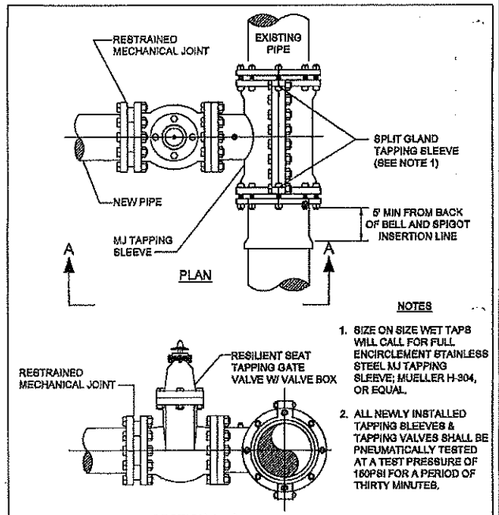
CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 204



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

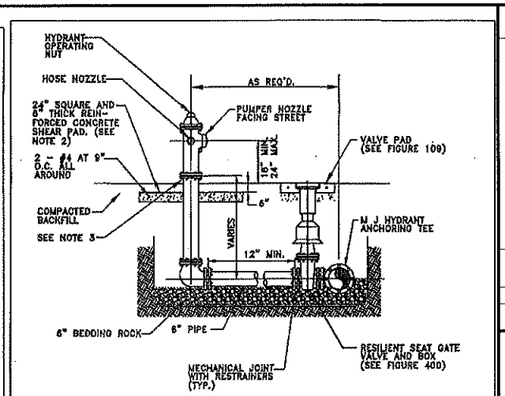
CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 400



NOTES
1. 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

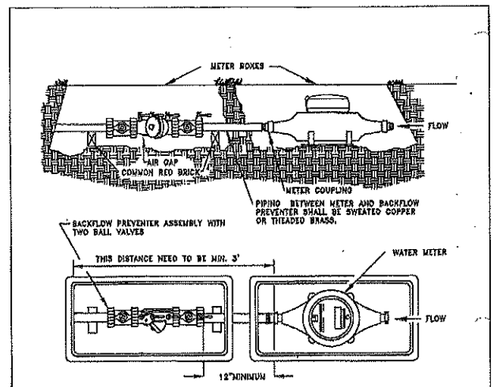
CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 406



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

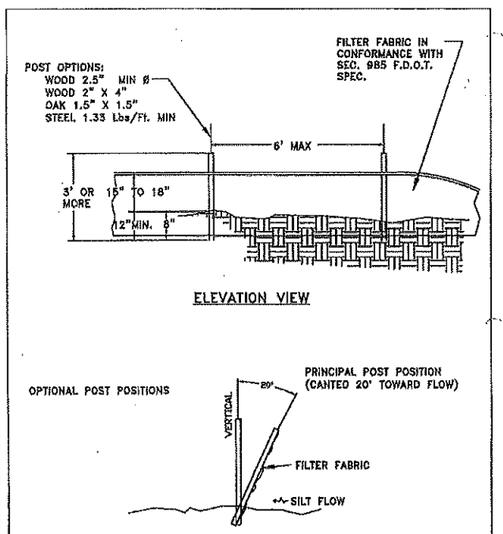
CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 402



1. A 3' PIECE OF STRAIGHT PIPE MUST BE CONNECTED TO METER USING THE DESIGNATED HOLES IN THE METER BOX BEFORE ANY ANGLES ARE CONNECTED. THE SAME RULES APPLY 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.

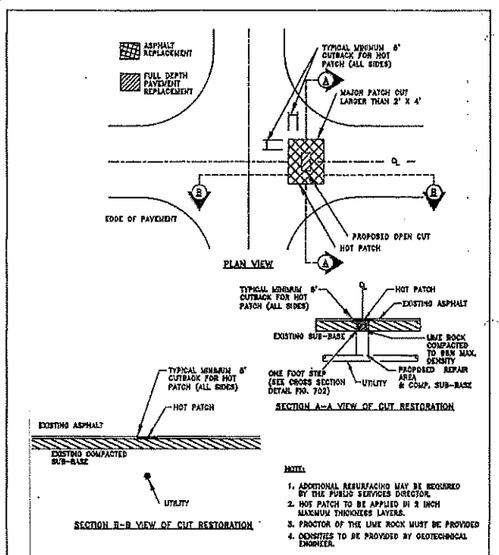
POTABLE WATER SERVICE DETAIL FOR LOTS SERVED WITH RECLAIMED WATER

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 505



SILT FENCE INSTALLATION

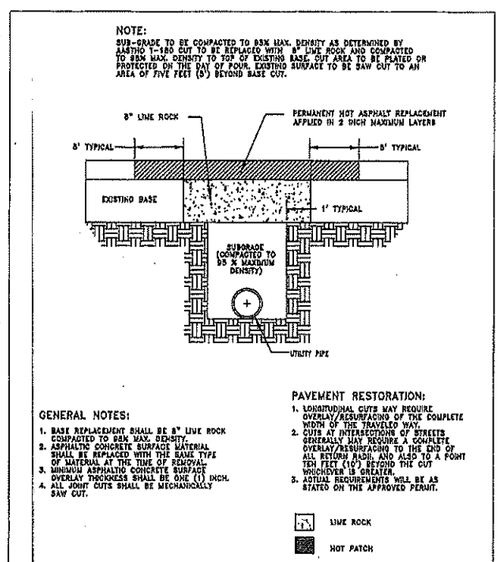
CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 602



NOTE:
1. ADDITIONAL RESURFACING MAY BE REQUIRED BY THE PUBLIC SERVICES DIRECTOR.
2. HOT PATCH TO BE APPLIED IN 2 INCH MAXIMUM THICKNESS LAYERS.
3. PROCTOR OF THE LIME ROCK MUST BE PROVIDED
4. DENSITIES TO BE PROVIDED BY GEOTECHNICAL ENGINEER.

OPEN-CUT DETAIL - MAJOR PATCH

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2015	FIG. 701



GENERAL NOTES:
1. BASE REPLACEMENT SHALL BE 8" LIME ROCK COMPACTED TO 98% MAX. DENSITY.
2. ASPHALTIC CONCRETE SURFACE MATERIAL SHALL BE REPLACED WITH THE SAME TYPE OF MATERIAL AT THE TIME OF REMOVAL.
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 WHICHEVER IS GREATER.
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

Revisions						
#	Description	By				
1			Drawn By	STA	Date	04/28/2017
2			Project No.	132-002	Date	
3			Scale	NTS		
4						

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STATE OF FLORIDA PROFESSIONAL ENGINEER STEPHEN THOMAS ALLEN No. 59984

Stephen Allen, PE # 59984
Engineer — FL Reg. No

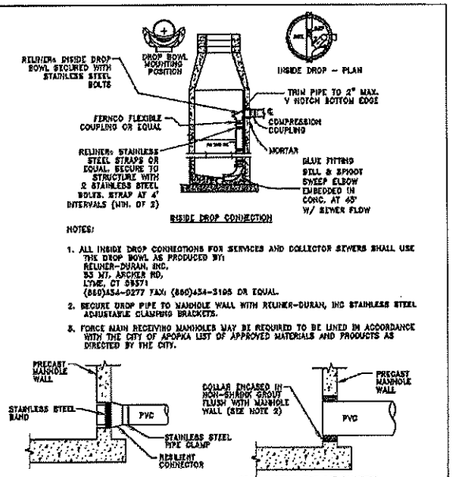
MEADOW VIEW APARTMENTS
1611 VICK RD. APOPKA FL

PROJECT NAME

DETAIL SHEET

SHEET NAME

SHEET NO.
C-10

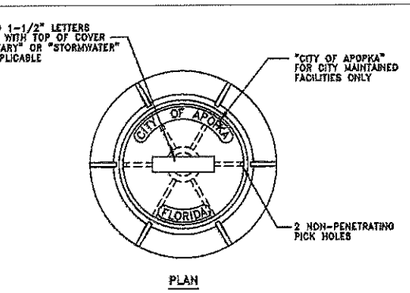


NOTES:

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 2015	FIG. 201

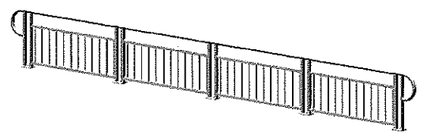


NOTES:

1. MANHOLE FRAME AND COVER ARE TO BE TRAFIC BEARING RATED H-20, CLASS 50 MEETING ASTM A 48.

STANDARD MANHOLE FRAME AND COVER

CITY OF APOPKA DESIGN ENGINEERING DIVISION	JANUARY 2014	FIG. 202



3D VIEW OF RAILING WITH TYPE 1 - PICKET INFILL PANEL
(42" Height shown, 48" Height Similar)

TABLE 1 - RAILING MEMBERS

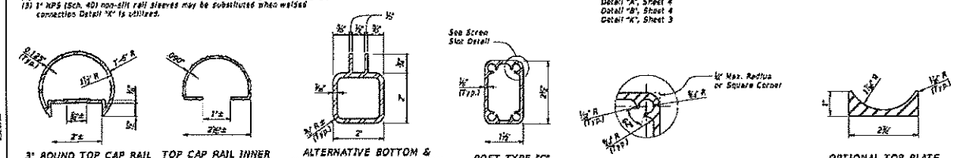
MEMBER	ALLOY[2]	DESIGNATION	OUTSIDE DIMENSION	WALL THICKNESS
Posts (Type "A" & "B")	6061-T6	RT 2x2x0.250	2.00" x 2.00"	0.250"
Posts (Type "C")	6061-T6	Extrusion 11/2x2½x0.125	1.50" x 2.50"	0.125"
Top Plate (Type "C")	6061-T6	Extrusion (See Details)	2½" x 7"	Varies
Top Rail	6061-T6	2½" NPS (Sch. 10)	2.875"	0.120"
		3" Round Top Cap Rail	3.000"	0.125"
End Hoops	6063-T5	2½" NPS (Sch. 10)	2.875"	0.120"
		3.00 OD x 0.125 Wall	3.000"	0.125"
Top Rail Joint/Splice Sleeves	6063-T5	2.50 OD x 0.125 Wall	2.500"	0.123"
		Top Cap Rail Inner Sleeve	2.850"	0.090"
Intermediate & Bottom Rail	6061-T6	RT 2x2x0.250	2.00" x 2.00"	0.220"[1][3]
Int. & Bottom Rail Post Connection Sleeve	6063-T5	1.50 OD x 0.125 Wall[3]	1.500"	0.125"
Handrail Joint/Splice Sleeves	6063-T5	1" NPS (Sch. 40)	1.315"	0.133"
	6063-T5	1.50 OD x 0.125 Wall	1.500"	0.125"
Handrails	6061-T6	1½" NPS (Sch. 40)	1.900"	0.145"
Handrail Support Bar	6061-T6	¾" B Round Bar	0.750"	N/A
Pickets (Type 1 Infill Panel)	6061-T6	¾" B Round Bar	0.750"	N/A
Infill Panel Members (Types 2 - 5)	6063-T5	Varies (See Details)	Varies	Varies

TABLE 1 NOTES:
(1) Alloy 6061-T6 or 6063-T52 & T6 may be substituted for Alloy 6063-T5.
(2) 0.188" wall thickness permitted for rails with post spacings less than 9'-0".
(3) 1" NPS (Sch. 40) non-slip rail sleeves may be substituted when welded connection Detail "K" is utilized.

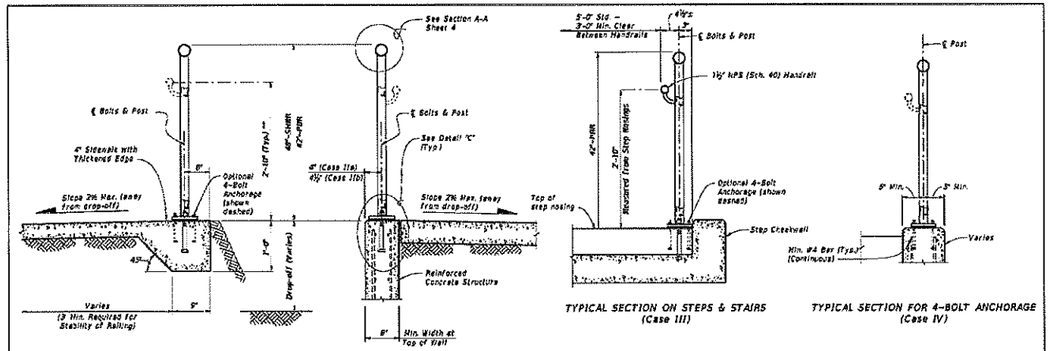
NOTES

1. Shop Drawings are required, see Specification Section 515.
2. For bridge mounted railings, work this Index with Index 851 Bridge Bicycle/Pedestrian Railing (Aluminum)
3. Materials:
   A. Structural Extrusions, Tube, Pipe and Bars: Table 1 and ASTM 5221 or ASTM B429
      a. Top, bottom and intermediate rail corner bends with maximum 4'-0" post spacing may be Alloy 6063-T6
   B. Base Plates and Rail Caps: ASTM B209 Alloy 6061-T6
   C. Perforated panels (Type 5) Alloy 3003-H14
   D. Stainless steel (SS) screws: Type 316 or 18-8 Alloy
   E. Aluminum screws: Alloy 2024-T4 or 7075-T73
   F. Galvanized Steel Fasteners coated in accordance with Specification Section 962.
      a. Hex Head Bolts: ASTM A 307
         1. ⅜" diameter single bolt option, Grade 36
         2. ⅝" diameter four bolt option, Grade 55
      b. Adhesive Anchors: ASTM F1554 fully threaded rods, Grade 55
      c. Hex Nuts: ASTM A563
      d. Flat Washers: ASTM F436
      e. Plate washers: ASTM A36 or ASTM A706 Grade 36.
   G. Shims: ASTM B209 Alloy 6061 or 6063
   H. Bearing Pads: Provide ⅛" thick Plain, Fabric Reinforced or Fabric Laminated Bearing Pads meeting the requirements of Specification Section 932 for Ancillary Structures.
4. Fabricate pickets and vertical panel elements parallel to the posts; except Type 2, 3 and 5 panel infills may be fabricated parallel to the longitudinal grade. Maintain a maximum clear opening of 5⅜" for standard installations and 3⅞" when a 4" sphere requirement is indicated in the Data Tables.
5. Locate railing expansion joints between the posts on either side of the deck expansion joint. Maximum spacing between expansion joints is 33'-0".
6. Field notches are similar to the Expansion Joint Detail and may be approved by the Engineer to facilitate handling, but the top rail must be continuous across a minimum of two posts.
7. For intermediate and bottom horizontal rails, the screened joints shown may be substituted with alternate joints shown in detail "A" for Post Type "A" & "B".
8. Make corners and changes in tangential longitudinal alignment with a 9" bend radius or terminate adjoining sections with mitered end sections when handrails are not required.
9. For changes in tangential longitudinal alignment greater than 45°, position posts a maximum of 2'-0" each side of the corner but not at the corner apex.
10. For curved longitudinal alignments, shop bend the top and bottom rails and handrails to match the alignment radius.
11. Handrails are required and must be continuous at landings for:
    A. Grades Steeper than 5%.
    B. Three or more risers
12. Installation Cutting of reinforcing steel is permitted for post installed anchors.

CROSS REFERENCES:
Detail "A", Sheet 4
Detail "B", Sheet 4
Detail "K", Sheet 3



LAST REVISION 11/01/16	REVISION DESCRIPTION:	FDOT FY 2017-18 DESIGN STANDARDS	ALUMINUM PEDESTRIAN/BICYCLE RAILING	INDEX NO. 862	SHEET NO. 1 of 9



ANCHOR BOLT TABLE

CASE	STRUCTURE TYPE	DIMENSIONS "A" Edge Dist.	DIMENSIONS "B" Edge Dist.	DIMENSIONS "C" Embedment	ANCHOR LENGTH C.I.P. Hex Head Bolt	ANCHOR LENGTH Adhesive Anchor	ANCHOR SIZE
I	Unreinforced Concrete	6"	7'-2"	9"	10½"	11"	⅝" Ø
IIa	Reinforced Concrete	6"	6"	9"	10½"	11"	⅝" Ø
IIb	Gravity Wall Index No. 8011	4½"	3½" @ top	1'-0" *	1'-1½"	1'-2"	⅝" Ø
III	Step Cheekwall	4½"	4½"	9"	10½"	11"	⅝" Ø
IV	Varies	9"	5"	5"	8½"	7"	⅜" Ø

* Embedment length "C" may be reduced to 5" for the 42" height railings for Case IIb, when the post spacing does not exceed 8'-0".

** When required; measured from top of sidewalk (Typ.)

LAST REVISION 11/01/16	REVISION DESCRIPTION:	FDOT FY 2017-18 DESIGN STANDARDS	ALUMINUM PEDESTRIAN/BICYCLE RAILING	INDEX NO. 862	SHEET NO. 9 of 9

No.	Description	By
4		
3	ADDED RAILING DETAILS PER CITY	STA
2	REVISED PER CITY COMMENTS	STA
1	ADDED PER CITY COMMENTS	STA

Revisions

Project No.	132-002
Drawn By	STA
Date	04/28/2017
Scale	NTS

ALLONDE DEVELOPMENT LLC

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630 N Wymore Rd., Ste 310
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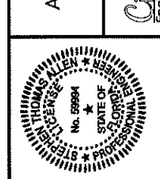


Stephen Allen, PE # 69994
Engineer — FL Reg. No

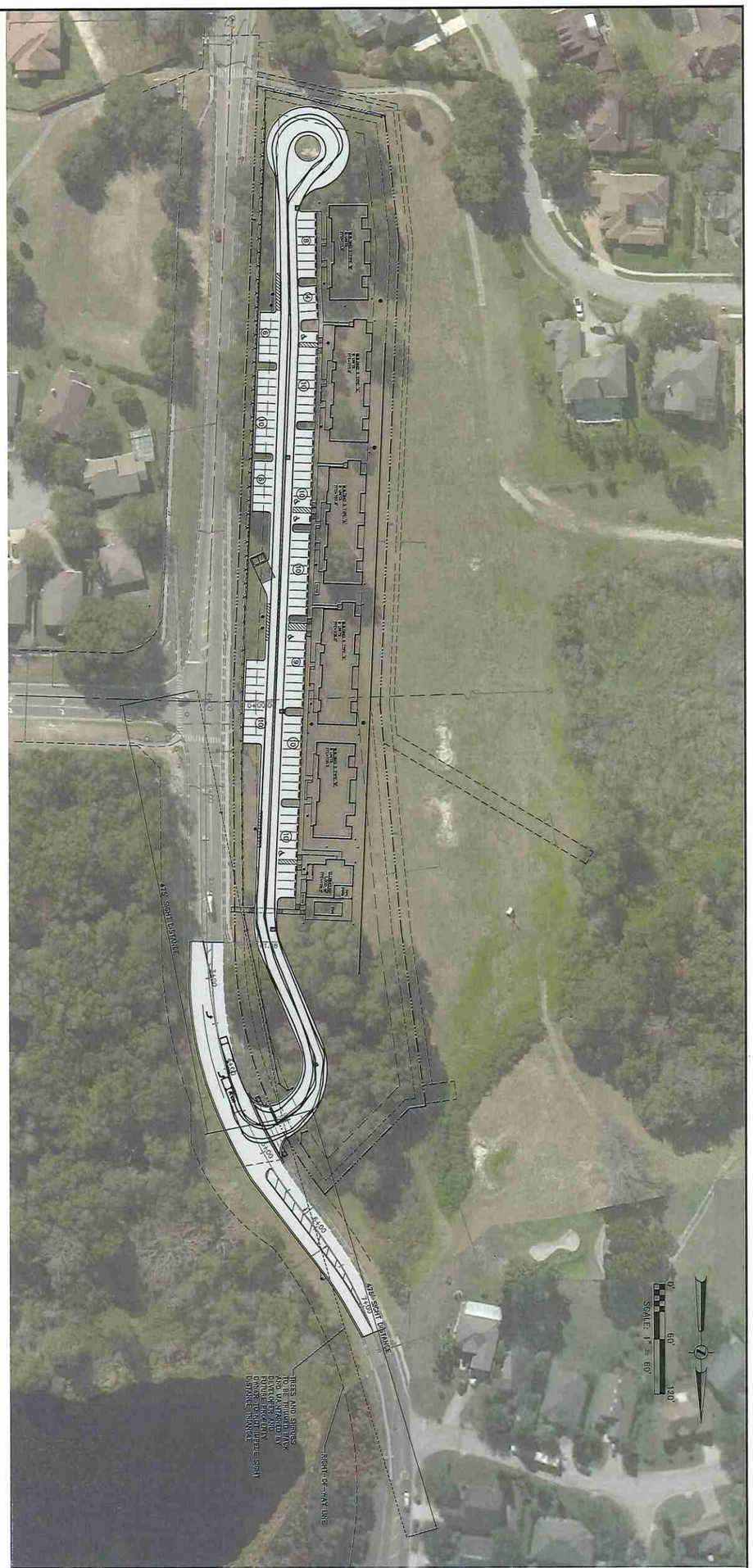
MEADOW VIEW APARTMENTS
1611 VICK RD. APOPKA FL

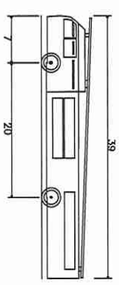
PROJECT NAME

DETAIL SHEET

SHEET NAME

SHEET NO.
C-11





Aerial Fire Truck	
Overall Length	39.000ft
Overall Width	8.160ft
Overall Body Height	9.750ft
Min Ground Clearance	0.750ft
Track Width	8.167ft
Lock-to-lock time	5.00s
Max Wheel Angle	45.00°

SHEET NO. C-12	PROJECT NAME	MEADOW VIEW APARTMENTS 1611 VICK RD. APOPKA, FL
	SHEET NAME	TRUCK TURN PLAN

STEPHEN THOMAS ALLEN LICENSE No. 59994 STATE OF FLORIDA PROFESSIONAL ENGINEER

Stephen Allen, PE # 59994
Engineer FL Reg No

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Certificate of Authorization No. 29390

Revisions	#	Date	Description	By
	4			
	3	08/13/18	REVISED PER CITY COMMENTS	STA
	2	04/03/18	REVISED PER CITY COMMENTS	CEF
	1	08/07/17	REVISED PER CITY COMMENTS	STA

Project No.	132-002	Drawn By	STA
Scale	1"=60'	Date	02/02/2017

Luminaire Schedule									
Symbol	Label	Qty	Arrangement	Description	LLF	Lum. Watts	Lum. Lumens	BUG Rating
	SLB-HS	6	SINGLE	DOUBLE 100 WATT HPS/MVOLT/HE POLE MOUNTED @ 10' AFG	1.000	158	11027	B1-U0-G2
	SLB-HS	7	SINGLE	DOUBLE 100 WATT HPS/MVOLT/HE POLE MOUNTED @ 16' AFG	1.000	158	11027	B1-U0-G2
	SLC-HS	3	SINGLE	DOUBLE 100 WATT HPS/MVOLT/HE POLE MOUNTED @ 30' AFG	1.000	158	11193	B1-U0-G2

Luminaire Lighting Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Entire Site	Illuminance	Fc	0.28	6.5	0.0	N.A.	N.A.
Property Boundary	Illuminance	Fc	0.10	0.7	0.0	N.A.	N.A.
Parking Lots & Drive Lane	Illuminance	Fc	1.25	3.3	0.5	2.50	3.67
Pool	Illuminance	Fc	2.20	5.2	1.1	1.38	1.68

NORTH

SITE LIGHTING PLAN

SCALE: 1"=40'-0"

REVISIONS

1	
2	
3	
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8	

PROJECT NO.
MKTG0016-01

DATE
11-5-2016

SITE LIGHTING PLAN
SPECIFICATIONS

MEADOW VIEW APARTMENTS FOR:

HILAL PROPERTIES

INTERSECTION OF WELCH & VICK ROADS

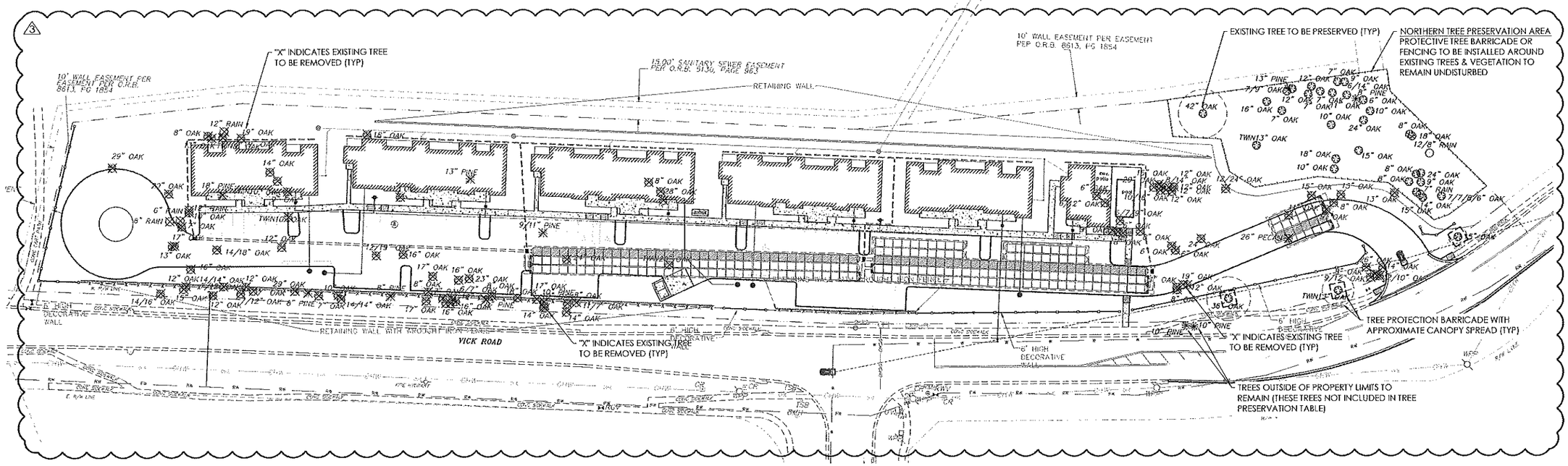
APOPKA, FLORIDA

RABITS & ROMANO
ARCHITECTURE
PLANNING AND DESIGN
AA26002490
5172 SOUTH ORANGE AVE.
SUITE 110 ORLANDO, FL. 32809
TEL - 407-490-6350
FAX - 407-232-6000
info@rabbitsromanoarchitect.com
www.rabbitsromanoarchitect.com

SIGN/SEAL

DATE

SHEET
SL100
OF
-



3

TREE REMOVAL

(7) 6" OAK
(8) 7" OAK
(13) 8" OAK
(5) 9" OAK
(9) 10" OAK
(4) 11" OAK
(15) 12" OAK
(1) 13" OAK
(12) 14" OAK
(4) 15" OAK
(8) 16" OAK
(4) 17" OAK
(3) 18" OAK
(1) 19" OAK
(4) 20" OAK
(1) 23" OAK
(3) 24 " OAK
(1) 26" OAK
(1) 26" PECAN
(1) 28" OAK
(2) 29" OAK

PROTECTED TREES (<24" DBH) REMOVED: 99 TREES (1,174")
SPECIMEN TREES (≥24" DBH) REMOVED: 8 TREES (210")
(NOTE: PINE TREES, RAIN TREES & TREES UNDER 6" DBH NOT INCLUDED)

ARBOR TREE CALCULATION: (MAX. REPLACEMENT)

SPECIMEN TREES:
TOTAL SITE AREA: 187,918 SQ. FT.
LESS 6,000 SQ. FT.: 181,918 SQ. FT.
DIVIDED BY 1,000: 182 TREES
TIMES 5" DBH: 910 INCHES
PLUS 30 INCHES: 940 INCHES MAX. REPLACEMENT (SPECIMEN)

NON-SPECIMEN TREES:
TOTAL SITE AREA: 187,918 SQ. FT.
LESS 6,000 SQ. FT.: 181,918 SQ. FT.
DIVIDED BY 1,000: 182 TREES
TIMES 3.5" DBH: 637 INCHES
PLUS 21 INCHES: 658 INCHES MAX. REPLACEMENT (NON-SPECIMEN)

SPECIMEN REPLACEMENT REQUIRED: 210" (ACTUAL REMOVED)
NON-SPECIMEN REPLACEMENT REQUIRED: 658" (MAX. REPLACEMENT)
TOTAL REPLACEMENT INCHES REQUIRED: 868"

TREE PRESERVATION

(3) 6" OAK
(7) 7" OAK
(4) 8" OAK
(3) 9" OAK
(3) 10" OAK
(1) 11" OAK
(2) 12" OAK
(4) 13" OAK
(2) 14" OAK
(3) 15" OAK
(1) 16" OAK
(2) 18" OAK
(2) 24 " OAK
(1) 36" OAK
(1) 42" OAK

PROTECTED TREES (<24" DBH) PRESERVED: 35 TREES (368")
SPECIMEN TREES (≥24" DBH) PRESERVED: 4 TREES (126")
(NOTE: PINE TREES, RAIN TREES & TREES UNDER 6" DBH NOT INCLUDED)

TREE REQUIREMENT (MAX. TREE STOCK)

TOTAL SITE AREA: 187,918 SQ. FT. (4.314 ACRES)
TREES REQUIRED: 23.5 TREES (1 TREE/8,000 SQ. FT.)
TREES PROVIDED: 109 TREES (INCLUDES BUFFER TREES)

TREE REPLACEMENT (PROPOSED TREES)

22 LIVE OAKS @ 3.5" DBH = 77"
24 MAGNOLIAS @ 3.5" DBH = 84"
19 RED CEDAR @ 3.5" DBH = 66.5"
25 CRAPE MYRTLES @ 3.5" DBH = 87.5"
19 EAGLESTON HOLLY @ 3" DBH = 57"

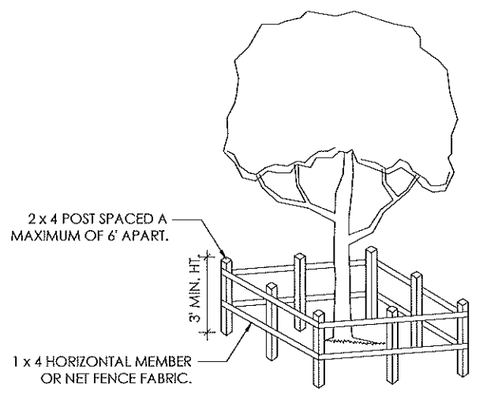
TOTAL PROPOSED INCHES TO BE PLANTED: 372"

TREE MITIGATION CALCULATIONS

TOTAL REPLACEMENT INCHES REQUIRED: 868"
LESS PROPOSED INCHES TO BE PLANTED: - 372"
REMAINING INCHES TO BE MITIGATED: 496"

PROPOSED TREE BANK PAYMENT ($10/INCH): $4,960.00

TREE PROTECTION DETAIL



PROTECTIVE BARRIERS SHALL BE PLACED AT POINTS NOT CLOSER THAN SIX (6) FEET FROM THE BASE OF THE TREE. EACH SECTION OF THE BARRIER SHALL BE CLEARLY VISIBLE (FLAGGED WITH BRIGHTLY COLORED PLASTIC TAPES OR OTHER MARKERS). NO ATTACHMENTS OR WIRES OTHER THAN THOSE OF A PROTECTIVE OR NON-DAMAGING NATURE SHALL BE ATTACHED TO ANY TREE.

GRAPHIC SCALE
40 0 20 40 80
(IN FEET)
1 inch = 40 ft.

TREE REMOVAL & MITIGATION PLAN

LANDSCAPE & IRRIGATION DESIGN

I CERTIFY THAT THE LANDSCAPE AND IRRIGATION DESIGN FOR THIS PROJECT IS IN ACCORDANCE WITH THE CITY OF APOPKA'S ORDINANCE 2069 ADOPTED MAY 21, 2008 WHICH ESTABLISHES WATERWISE LANDSCAPE AND IRRIGATION STANDARDS.

SIGNATURE REG. NO. DATE

SCHWEIZER BOJACK LANDSCAPE ARCHITECTURE
LANDSCAPE & IRRIGATION DESIGN
PO BOX 940383 • MAITLAND, FLORIDA 32794 • PH. (407) 376-1423
LICENSE NO. LC26000487 • DESIGN@SCHWEIZERBOJACK.COM

MEADOW VIEW APARTMENTS
1161 VICK ROAD - CITY OF APOPKA, FL

3 4/02/18
2 12/14/17
1 9/07/17
7/13/17
DRAWN BY: KB

SHEET NUMBER
L-1

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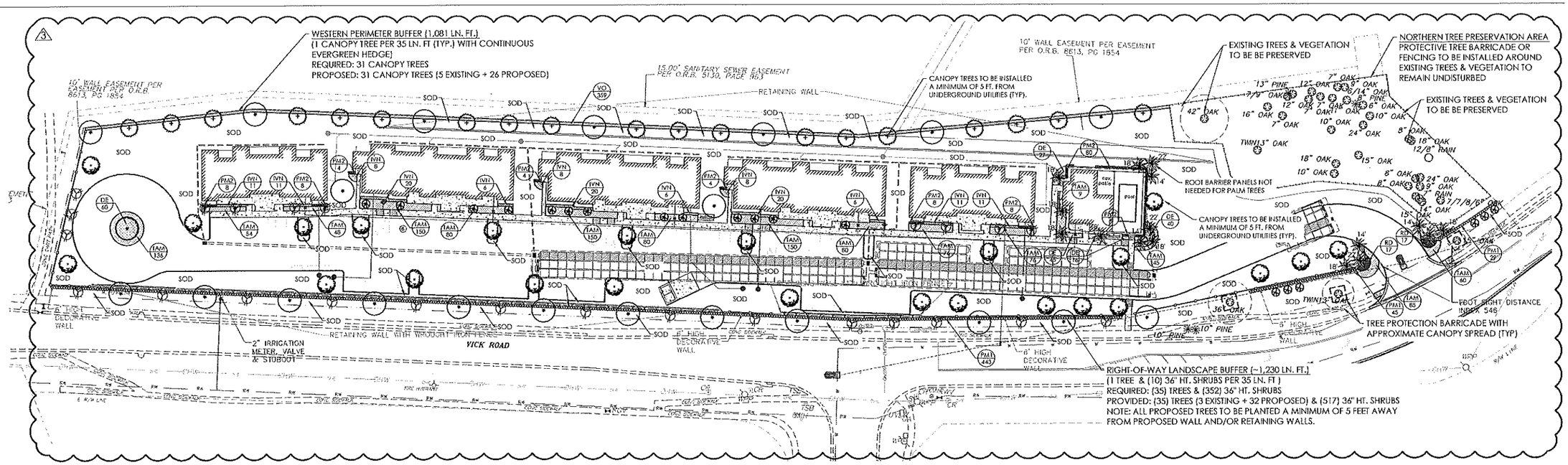

LANDSCAPE GENERAL NOTES

1. The Landscape Contractor shall insure that this work does not interrupt established or projected drainage patterns. The Landscape Contractor shall insure adequate vertical drainage in all plant beds and planters. Vertical drilling through any compacted fill to native soil shall be accomplished to insure drainage.

2. The Landscape Contractor shall be responsible for all materials and all work as called for on the landscape plans and in the landscape specifications. The list of plant quantities accompanying the plans shall be sued as a quide only. Contractor shall verify all quantities and report any discrepancies at the time of bidding.

3. All plant materials shall be graded Florida No. 1 or better, as outlined under Grades and Standards for Nursery Plants, Division of Plant Industry, State of Florida, unless otherwise noted.

4. All plant beds and tree rings shall be top dressed with a 3" minimum depth of pine bark nuggets.

5. The Landscape Contractor shall be wholly responsible for stability and plumb condition of all trees and shrubs. Staking of trees or shrubs, if desired or requested by the Landscape Architect or owner, shall be done utilizing a method agreed upon by the Landscape Architect.

6. No fill material or use of heavy equipment around existing trees is allowed. Existing trees are to be protected by a wood barricade erected in compliance with local codes.

7. The Landscape Contractor is responsible for testing project soils. The Landscape Contractor is to provide a certified soils report to the Owner and Landscape Architect. The Landscape Contractor shall verify that the soils on site are acceptable for proper growth of the proposed plant material. Should the Landscape Contractor find poor soil conditions, the Owner and Landscape Architect must be consulted prior to planting.

8. All grades, dimensions and existing conditions shall be verified by the Contractor on site before construction begins. Any discrepancies shall be brought to the attention of the Landscape Architect.

9. All proposed trees to be installed either entirely in or entirely out of planting beds. Planting bedlines are not to be obstructed; smooth and flowing.

10. The Landscape Contractor shall review architectural/engineering plans to become thoroughly familiar with surface and subsurface utilities.

11. The Landscape Contractor shall coordinate with the lighting and irrigation contractors regarding the timing of the installation of plant material.

12. Every possible safeguard shall be taken to protect building surfaces, equipment and furnishings, Landscape Contractor shall be responsible for any damage or injury to person or property which may occur as a result of his negligence in the execution of work.

PLANT MATERIALS LEGEND

SYMBOL	KEY	QNTY.	COMMON/BOTANICAL NAME	SPECIFICATIONS/DESCRIPTION
	QV	22	Live Oak *Quercus virginiana*	3½" DBH, 10' - 12' Ht., 100 Gal. or B&B
	MG	24	Southern Magnolia *Magnolia grandiflora*	3½" DBH, 10' - 12' Ht., 100 Gal. or B&B
	JV	19	Southern Red Cedar *Juniperus virginiana*	3½" DBH, 12' Ht., 100 Gal. or B&B
	LI	25	Crape Myrtle *Lagerstroemia indica*	3½" Total DBH, Multi Trunk, 10'- 12' Ht., 65 Gal. or B&B
	IO	19	Eagleston Holly - Standard Form *Ilex opaca 'Eagleston'*	3" DBH, 10' - 12' Ht., 100 Gal. or B&B
	SP	16	Sabal Palms *Sabal palmetto*	14', 18' & 22' Hts., Slick Trunks
	PM1	517	Podocarpus Shrubs *Podocarpus macrophyllus*	7 Gal., 36" Ht., 24" O.C.
	PM2	127	Podocarpus Shrubs *Podocarpus macrophyllus*	3 Gal., 24" Ht., 18" O.C.
	VO	359	Walter's Viburnum *Viburnum obovatum*	3 Gal., Full, 30" O.C.
	RD	34	Drift Roses *Rosa spp. 'Drift'*	3 Gal., Full, 24" O.C.
	DE	188	Gold Mound Duranta *Duranta erecta 'Gold Mound'*	3 Gal., Full, 24" O.C.
	IVN	146	Dwarf Yaupon Holly *Ilex vomitoria 'Nana'*	3 Gal., Full, 24" O.C.
	TAM	1,279	Dwarf Asiatic Jasmine *Trachelospermum asiaticum 'Minima'*	1 Gal., Full, 18" O.C.
	SOD	TBD	Bahia Sod *Paspalum notatum*	Solid Sod, As Indicated On Plans
	MULCH	TBD	Pine Bark Mulch	3" Minimum Depth, All Planting Areas

LANDSCAPE INSTALLATION NOTES

1. All proposed/installed plant materials to be "Florida Friendly"

2. All proposed landscaping adjacent to building foundations to be installed a minimum of 2.5 ft. away from foundation.

3. All proposed trees to be installed a minimum of 5 feet away from proposed walls (masonry and/or retaining) and underground utilities.

4. All disturbed areas in the right-of-way to be repaired with sod.

GRAPHIC SCALE

(IN FEET)
1 inch = 40 ft.

LANDSCAPE PLAN

LANDSCAPE & IRRIGATION DESIGN

I CERTIFY THAT THE LANDSCAPE AND IRRIGATION DESIGN FOR THIS PROJECT IS IN ACCORDANCE WITH THE CITY OF APOPKA'S ORDINANCE 2069 ADOPTED MAY 21, 2008 WHICH ESTABLISHES WATERWISE LANDSCAPE AND IRRIGATION STANDARDS.

SIGNATURE | REG. NO. | DATE

SCHWEIZER BOJACK LANDSCAPE ARCHITECTURE

LANDSCAPE & IRRIGATION DESIGN
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MEADOW VIEW APARTMENTS
1161 VICK ROAD - CITY OF APOPKA, FL

3 4/02/18
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DRAWN BY: KB

SHEET NUMBER
L-2

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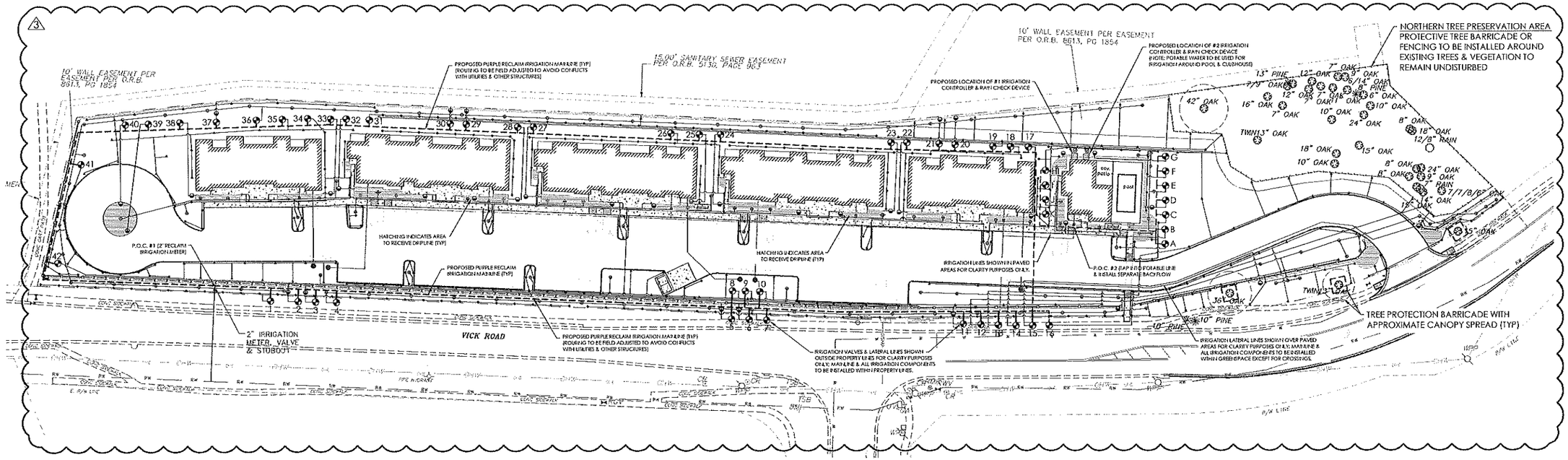

POC #1 (RECLAIM) IRRIGATION ZONE LEGEND

ZONE	DESCRIPTION	USAGE
1	TEMPORARY SPRAYS (SOD)	55.5 GPM
2	DRIP ZONE (SHRUBS)	1.7 GPM
3	DRIP ZONE (SHRUBS)	1.3 GPM
4	BUBBLER ZONE (TREES)	60 GPM
5	DRIP ZONE (SHRUBS)	1.4 GPM
6	DRIP ZONE (SHRUBS)	1.3 GPM
7	TEMPORARY SPRAYS (SOD)	55.5 GPM
8	TEMPORARY ROTORS (SOD)	45 GPM
9	BUBBLER ZONE (TREES)	52.5 GPM
10	TEMPORARY SPRAYS (SOD)	44.6 GPM
11	DRIP ZONE (SHRUBS)	1.1 GPM
12	TEMPORARY ROTORS (SOD)	43.8 GPM
13	TEMPORARY ROTORS (SOD)	40 GPM
14	DRIP ZONE (SHRUBS)	1.6 GPM
15	DRIP ZONE (SHRUBS)	1.4 GPM
16	TEMPORARY SPRAYS (SOD)	54.6 GPM
17	DRIP ZONE (SHRUBS)	1.4 GPM
18	TEMPORARY SPRAYS (SOD)	54.6 GPM
19	TEMPORARY ROTORS (SOD)	45 GPM
20	DRIP ZONE (SHRUBS)	1.4 GPM
21	DRIP ZONE (SHRUBS)	1.5 GPM
22	DRIP ZONE (SHRUBS)	1.3 GPM
23	DRIP ZONE (SHRUBS)	1.2 GPM
24	DRIP ZONE (SHRUBS)	1.8 GPM
25	DRIP ZONE (SHRUBS)	1.2 GPM
26	TEMPORARY SPRAYS (SOD)	54.6 GPM
27	DRIP ZONE (SHRUBS)	1.8 GPM
28	DRIP ZONE (SHRUBS)	1.2 GPM

CONTINUED: POC #1 (RECLAIM) ZONE LEGEND

ZONE	DESCRIPTION	USAGE
29	DRIP ZONE (SHRUBS)	1.5 GPM
30	DRIP ZONE (SHRUBS)	1.4 GPM
31	TEMPORARY SPRAYS (SOD)	51.8 GPM
32	DRIP ZONE (SHRUBS)	1.8 GPM
33	DRIP ZONE (SHRUBS)	1.4 GPM
34	TEMPORARY SPRAYS (SOD)	50 GPM
35	TEMPORARY ROTORS (SOD)	50 GPM
36	BUBBLER ZONE (TREES)	55.5 GPM
37	DRIP ZONE (SHRUBS)	1.2 GPM
38	DRIP ZONE (SHRUBS)	1.3 GPM
39	DRIP ZONE (SHRUBS)	1.3 GPM
40	DRIP ZONE (SHRUBS)	1.2 GPM
41	TEMPORARY SPRAYS (SOD)	37.5 GPM
42	TEMPORARY ROTORS (SOD)	27.5 GPM

POC #2 (POTABLE) IRRIGATION ZONE LEGEND

ZONE	DESCRIPTION	USAGE
A	TEMPORARY SPRAYS (SOD)	7.3 GPM
B	DRIP ZONE (SHRUBS)	1.8 GPM
C	TEMPORARY SPRAYS (SOD)	7.4 GPM
D	DRIP ZONE (SHRUBS)	1.9 GPM
E	BUBBLER ZONE (TREES/PALMS)	10.5 GPM
F	TEMPORARY SPRAYS (SOD)	9.3 GPM
G	DRIP ZONE (SHRUBS)	1.8 GPM
H	TEMPORARY SPRAYS (SOD)	9.3 GPM
I	TEMPORARY SPRAYS (SOD)	8.8 GPM
J	BUBBLER ZONE (TREES/PALMS)	7.5 GPM
K	TEMPORARY SPRAYS (SOD)	9.7 GPM

IRRIGATION EQUIPMENT LEGEND

SYMBOL	SPECIFICATIONS/DESCRIPTION
P.O.C. #1	2" RECLAIM IRRIGATION METER WITH BACKFLOW PREVENTER
P.O.C. #2	¾" TAP INTO POTABLE WATER (WITH BACKFLOW PREVENTER) FOR IRRIGATION AROUND POOL & CLUBHOUSE AREA
	(2) HUNTER REMOTE RAIN CHECK DEVICES
C1 C2	(2) RAINBIRD OUTDOOR ESP-LX IRRIGATION CONTROLLERS UPON COMPLETION OF INSTALLATION, ADHERE A STICKER TO THE CONTROLLER WITH A ZONE LEGEND, DATE INSTALLED, INSTALLER'S NAME/COMPANY & PERMIT NUMBER.
	RAINBIRD 2" PGA SERIES ELECTRIC VALVE INSTALLED IN A 12" AMETEK VALVE BOX WITH PURPLE RECLAIM LID (PURPLE LIDS NOT REQUIRED ON VALVE BOXES FOR POOL AREA IRRIGATION)
	RAINBIRD FLUSH VALVE FOR DRIP ZONES
	PURPLE RECLAIM IRRITROL BUBBLERS INSTALLED USING ½" FLEX PIPE WITH A MINIMUM OF 12" LENGTH (PURPLE BUBBLERS NOT REQUIRED ON POTABLE WATER AROUND POOL AREA)
	HUNTER ROTORS (TEMPORARY IRRIGATION ZONES ONLY) WITH PURPLE HEADS OR CAPS
	RAINBIRD LOW-VOLUME 1806-PRS 6" POP-UP SPRAY HEADS WITH ROTARY STREAM NOZZLE & PURPLE HEADS OR CAPS (PURPLE HEADS OR CAPS NOT REQUIRED ON POTABLE WATER SPRAYS AROUND POOL AREA)
	RAINBIRD XF SERIES PURPLE (RECLAIM) ON SURFACE DRIPLINE WITH 12" INLINE EMITTERS, DRIP LINES TO BE SPACED 12" APART (BROWN DRIPLINE TO BE USED ON POTABLE DRIP ZONES AROUND CLUBHOUSE)
	2½" PURPLE RECLAIM IRRIGATION MAINLINE, CLASS 200 PVC NOTE: INSTALL 1 ¼" WHITE PVC MAINLINE AROUND POOL AREA
	IRRIGATION PURPLE (RECLAIM) LATERAL LINES TO BE SIZED & INSTALLED BY THE IRRIGATION CONTRACTOR. VELOCITY IN THE LATERAL PIPES NOT TO EXCEED 5 FEET PER SECOND IN EACH ZONE. NOTE: WHITE PVC LATERAL LINES TO BE USED ON POTABLE SYSTEM AROUND POOL.

ADDITIONAL IRRIGATION CLARIFICATIONS:

1. VELOCITY IN THE LATERAL PIPES NOT TO EXCEED 5 FEET PER SECOND IN EACH ZONE.

2. ALL IRRIGATION LINES UNDER PAVED AREAS TO BE SLEEVED WITH SCH. 40 SLEEVING SIZED AT LEAST (2) TIMES THE DIAMETER OF THE IRRIGATION LINE SIZE.

3. AVOID CONFLICT WITH EXISTING AND PROPOSED UNDERGROUND UTILITIES & EXISTING TREES DURING INSTALLATION OF PROPOSED IRRIGATION SYSTEM. FIELD ADJUST LAYOUT AS NECESSARY.

4. TREE BUBBLERS, SOD SPRAYS, ROTORS & DRIPLINE DESIGNED TO BE ON SEPARATE ZONES.

5. ALL IRRIGATION DISTRIBUTION EQUIPMENT MUST BE 24" FROM VERTICAL STRUCTURES.

IRRIGATION RISERS ARE NOT ALLOWED

GRAPHIC SCALE

40 0 20 40 80

(IN FEET)

1 inch = 40 ft.

IRRIGATION PLAN

LANDSCAPE & IRRIGATION DESIGN

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SIGNATURE | REG. NO. | DATE

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MEADOW VIEW APARTMENTS
1161 VICK ROAD - CITY OF APOPKA, FL

△ 7/13/17
△3 4/02/18
△2 12/14/17
△1 9/07/17
7/13/17
• DRAWN BY: KB

SHEET NUMBER
L-3

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IRRIGATION GENERAL NOTES

1. THE IRRIGATION CONTRACTOR SHALL REFER TO THE LANDSCAPE PLAN WHEN TRENCHING TO LAY PIPE TO AVOID NEW AND EXISTING TREES AND LARGE SHRUBS.

2. ALL WIRING FROM THE IRRIGATION CONTROLLER TO THE REMOTE CONTROL VALVES SHALL BE UF-14/1 DIRECT BURIAL CABLE. ALL WIRE SPLICES SHALL BE MADE IN VALVE BOXES ONLY USING RAINBIRD SNAP-TITE CONNECTORS AND SEALANT.

3. UNLESS OTHERWISE INDICATED, PIPE TO A SINGLE SPRAY HEAD SHALL BE ½" PVC CL-315 PIPING.

4. ALL MAINLINE PIPING SHALL BE BURIED TO HAVE A MINIMUM COVER OF 18 INCHES. ALL LATERAL PIPING DOWNSTREAM OF THE MAINLINE SHALL BE BURIED TO HAVE A MINIMUM COVER OF 12 INCHES.

5. THE IRRIGATION CONTRACTOR SHALL COORDINATE WITH THE OWNER OR ARCHITECT ON THE EXACT LOCATION OF THE IRRIGATION CONTROLLER.

6. THE IRRIGATION CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS SHOWN ON THE PLANS AT THE SITE PRIOR TO COMMENCEMENT OF WORK UNDER THIS CONTRACT.

7. ALL IRRIGATION INSTALLATION SHALL CONFORM TO LOCAL CODES AND REGULATIONS.

8. ALL PIPING ON THE PLANS IS DIAGRAMMATICALLY ROUTED FOR CLARITY AND SHALL BE ROUTED TO AVOID NEW AND EXISTING PLANTS. DESIGN MODIFICATIONS SHALL ONLY BE MADE AS NECESSARY TO MEET FIELD CONDITIONS AND ONLY UPON APPROVAL OF THE LANDSCAPE ARCHITECT.

9. THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR THE FINAL ADJUSTMENT OF THE SPRINKLERS ARC AND RADIUS TO ASSURE 100 PERCENT COVERAGE.

10. 115 VOLT, SINGLE PHASE ELECTRICAL POWER IS REQUIRED TO OPERATE THE IRRIGATION CONTROLLER. THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE LOCATION OF THE POWER WITH THE OWNER OR OWNER'S REPRESENTATIVE. IT SHALL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO SEE THAT THE CONTROLLER IS WIRED IN ACCORDANCE WITH ALL ELECTRICAL CODES BY A LICENSED ELECTRICIAN. ALL MATERIALS NECESSARY TO WIRE THE CONTROLLER SHALL BE FURNISHED BY THE IRRIGATION CONTRACTOR.

11. THE IRRIGATION CONTRACTOR SHALL CHOOSE THE APPROPRIATE NOZZLES TO PROVIDE MAXIMUM COVERAGE.

12. ALL LANDSCAPE IRRIGATION SYSTEMS SHALL BE LOW-VOLUME IRRIGATION SYSTEMS. A LOW-VOLUME IRRIGATION SYSTEM IS DESIGNED TO PROVIDE NO MORE THAN THE MINIMUM AMOUNT OF WATER REQUIRED BY ANY SPECIFIC LANDSCAPE MATERIAL TO ENSURE SURVIVAL OF THAT MATERIAL. SUCH A SYSTEM UTILIZES A COMBINATION OF SPRINKLER MECHANISMS AND ZONES TO ACCOMODATE THE INDIVIDUAL IRRIGATION REQUIREMENTS OF EACH TYPE OF LANDSCAPE MATERIAL, INCLUDING TREES, SHRUBS, ORNAMENTALS AND TURF AREAS.

13. ALL UNDERGROUND IRRIGATION SYSTEMS SHALL BE REGULATED BY AN AUTOMATIC TIMER OR CONTROLLER.

14. THE DESIGN OF THE IRRIGATION SYSTEM SHALL INCLUDE SPRINKLER HEADS AND DEVICES APPROPRIATE FOR THE LANDSCAPE MATERIALS TO BE IRRIGATED.

15. LOW TRAJECTORY HEADS OR LOW-VOLUME WATER DISTRIBUTING DEVICES SHALL BE USED TO IRRIGATE CONFINED AREAS IN ORDER TO PREVENT OVERSPRAY ONTO IMPERVIOUS AREAS.

16. IRRIGATION SYSTEMS SHALL BE DESIGNED TO PLACE HIGH WATER DEMAND AREAS, SUCH AS LAWNS, ON SEPARATE ZONES FROM THOSE AREAS WITH REDUCED WATER REQUIREMENTS.

17. AUTOMATICALLY CONTROLLED IRRIGATION SYSTEMS SHALL BE OPERATED BY AN IRRIGATION CONTROLLER THAT IS CAPABLE OF IRRIGATING HIGH REQUIREMENT AREAS.

IRRIGATION SYSTEM MAINTENACE CHECKLIST

1. _____ Make sure the controller (timer) is set to the correct water restrictions.

2. _____ Check each zone once per month to ensure there are no broken irrigation heads and that you have 100% coverage.

3. _____ Adjust each zone twice per year to ensure the correct spray pattern and to ensure impervious surfaces are not being watered.

4. _____ Set irrigation frequency to once per week during the months of December, January and February and twice per week the rest of the months. Make sure the day and time corresponds to the local water restrictions.

5. _____ Add mulch to landscape as needed to maintain 3-inches on all beds.

6. _____ Check rain sensor quarterly to make sure it is functioning.

7. _____ Calibrate irrigation zones once per year using flat-bottomed cans so that no more than ½-inch per application is applied in the high volume zone, no more than ¼-inch per application is applied in the medium volume zone, and no more than 1/8-inch per application is applied in the low volume zone. The above mentioned settings presume two watering days per week.
Note: Controller must be adjusted to keep the irrigation within the water restrictions time frame.

8. _____ If your system is equipped with a filter, check and/or clean the filter quarterly.

If someone other than the owner does the above checks, it is recommended they be a Licensed Irrigation Contractor and a member of the Florida Irrigation Society.

ADDITIONAL IRRIGATION CLARIFICATIONS:

1. VELOCITY IN THE LATERAL PIPES NOT TO EXCEED 5 FEET PER SECOND IN EACH ZONE.

2. ALL IRRIGATION LINES UNDER PAVED AREAS TO BE SLEEVED WITH SCH. 40 SLEEVING SIZED AT LEAST (2) TIMES THE DIAMETER OF THE IRRIGATION LINE SIZE.

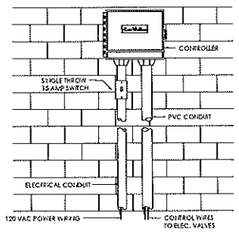
3. AVOID CONFLICT WITH EXISTING AND PROPOSED UNDERGROUND UTILITIES & EXISTING TREES DURING INSTALLATION OF PROPOSED IRRIGATION SYSTEM. FIELD ADJUST LAYOUT AS NECESSARY.

4. TREE BUBBLERS, SOD SPRAYS, ROTORS & DRIPLINE DESIGNED TO BE ON SEPARATE ZONES.

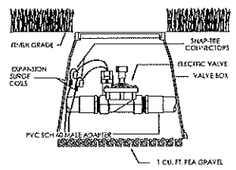
5. ALL IRRIGATION DISTRIBUTION EQUIPMENT MUST BE 24" FROM VERTICAL STRUCTURES.

IRRIGATION RISERS ARE NOT ALLOWED

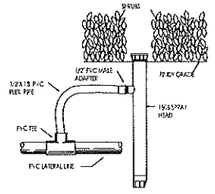
IRRIGATION DETAILS



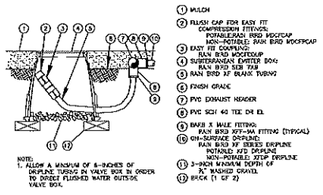
RAINBIRD WALL MOUNT IRRIGATION CONTROLLER



RAINBIRD MODEL PGA SERIES ELECTRIC VALVE



RAINBIRD MODEL 1806 - 6" POP-UP SPRAY HEAD



RAINBIRD XFD ON-SURFACE DRIPLINE FLUSH POINT WITH EASY FIT COMPRESSIONS FITTINGS

GRAPHIC SCALE

(IN FEET)
1 inch = 40 ft.

IRRIGATION DETAILS

LANDSCAPE & IRRIGATION DESIGN

I CERTIFY THAT THE LANDSCAPE AND IRRIGATION DESIGN FOR THIS PROJECT IS IN ACCORDANCE WITH THE CITY OF APOPKA'S ORDINANCE 2069 ADOPTED MAY 21, 2008 WHICH ESTABLISHES WATERWISE LANDSCAPE AND IRRIGATION STANDARDS.

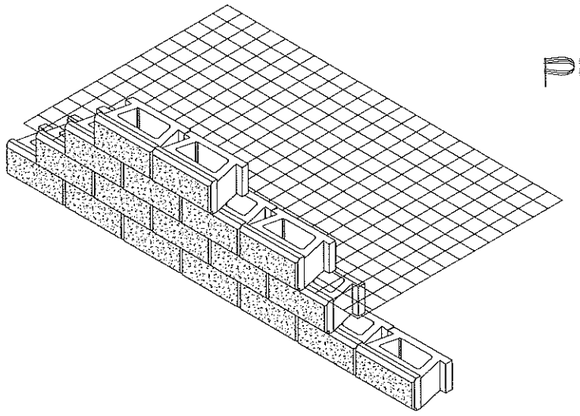
SIGNATURE | REG. NO. | DATE

SCHWEIZER BOJACK LANDSCAPE ARCHITECTURE
LANDSCAPE & IRRIGATION DESIGN
PO BOX 940593 • MAITLAND, FLORIDA 32794 • PH. (407) 376-1423
LICENSE NO. LC26000487 • DESIGN@SCHWEIZERBOJACK.COM

MEADOW VIEW APARTMENTS
1161 VICK ROAD - CITY OF APOPKA, FL

3 4/02/18
2 12/14/17
1 9/07/17
7/13/17
DRAWN BY: KB

SHEET NUMBER
L-4



ALLAN BLOCK CLASSIC

PROPOSED SEGMENTAL RETAINING WALL
MEADOWVIEW APARTMENTS
CITY OF APOPKA, FLORIDA

DRAWING SHEET INDEX			REV
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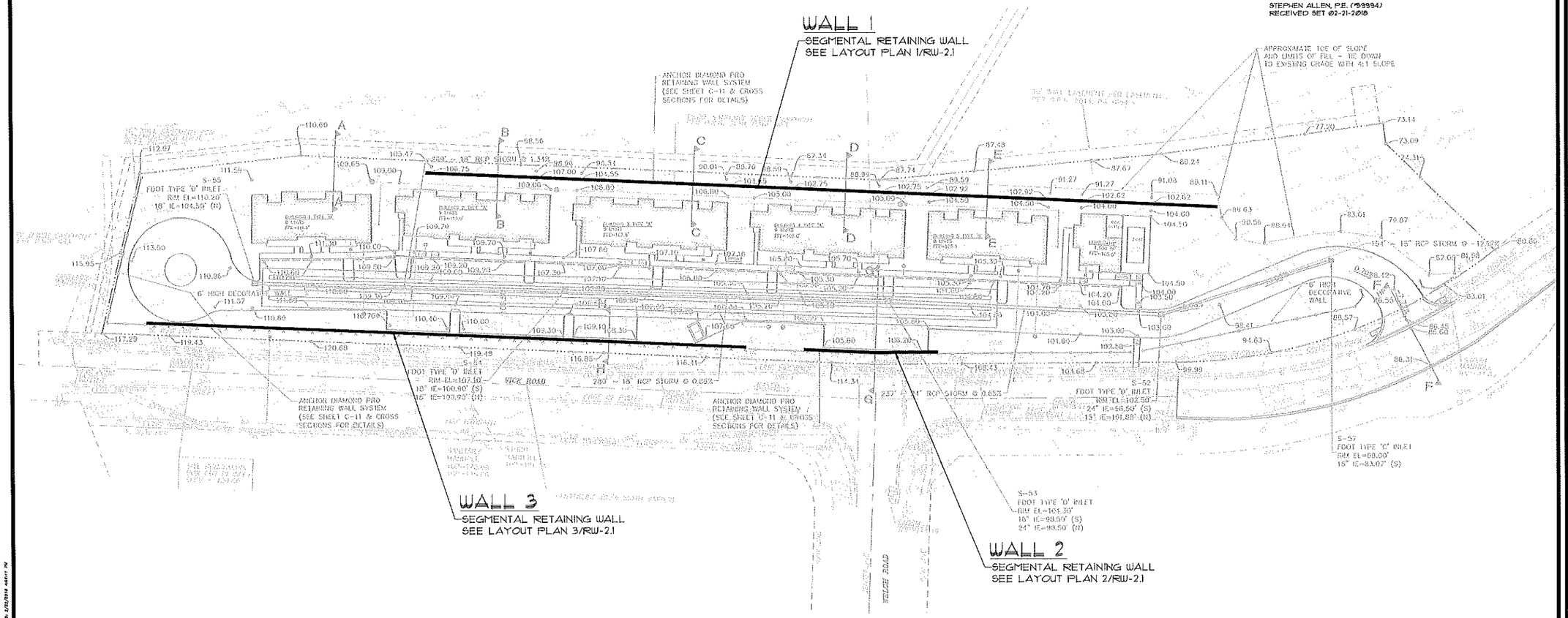
REFERENCE PLANS

MEADOWVIEW APARTMENTS
APOPKA, FLORIDA

CIVIL ENGINEER OF RECORD:
CIVILCORP ENGINEERING, INC.
630 N WYMORE RD., SUITE 310
MAITLAND, FL 32751

STEPHEN ALLEN, P.E. (53994)
RECEIVED SET 02-21-2018



(REFERENCE SHEET: 8E)
RETAINING WALL SITE PLAN
SCALE: NTS

DEVLEN ENGINEERING, Inc.
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TITLE PAGE AND SITE PLAN

MEADOWVIEW APARTMENTS
1611 VICK RD.
APOPKA, FL 32712

03-23-2018
CHAD E. HATCHER P.E.
FL. PROF. REG. NO. 84151

REVISIONS

DATE: 03/23/2018
SCALE: AS NOTED
DRAWN: MED
APPROVED: CEH
JOB NO: 18-059

SHEET
COVER

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GENERAL NOTES

A. RETAINING WALL HAS BEEN DESIGNED IN ACCORDANCE WITH SECTIONS 1610 AND 1807.2.4 OF THE FLORIDA BUILDING CODE, 5TH EDITION (2014) AND SECTIONS 6 AND 7 OF THE NCMA 'DESIGN MANUAL FOR SEGMENTAL RETAINING WALLS', 3RD EDITION. THE WALLS HAVE NOT BEEN CHECKED FOR THE DETERMINATION AND/OR VERIFICATION OF THE BEARING CAPACITY AND STRENGTH PROPERTIES OF THE IN-SITU FOUNDATION SOILS, LONG TERM GLOBAL STABILITY OF THE WALL STRUCTURE EMBANKMENT, SETTLEMENT ESTIMATES, AND GROUND WATER AND SUBSURFACE DRAINAGE CONSIDERATIONS.

B. THIS RETAINING WALL HAS BEEN EVALUATED FOR WINDS LOADS IN ACCORDANCE WITH CHAPTER 16 OF THE FLORIDA BUILDING CODE, 5TH EDITION (2014) AS FOLLOWS:
RISK CATEGORY: CATEGORY I
ULTIMATE DESIGN WIND SPEED 129 MPH (3-SECOND GUST)
NOMINAL DESIGN WIND SPEED 100 MPH

C. A GEOTECHNICAL REPORT WAS NOT FURNISHED FOR THIS PROJECT. THE DESIGN IS BASED UPON THE FOLLOWING ASSUMED SOIL PROPERTIES. THESE PROPERTIES SHALL BE SUBJECT TO REVIEW AND APPROVAL OF OWNER'S SITE ENGINEER(S).

REINFORCED SOIL
USCS CLASSIFICATION: SP
DENSITY: 110 PCF
FRICTION ANGLE: 30 DEGREES

RETAINED SOIL
USCS CLASSIFICATION: SP
DENSITY: 110 PCF
FRICTION ANGLE: 30 DEGREES

IN-SITU SOIL
USCS CLASSIFICATION: SP
DENSITY: 110 PCF
FRICTION ANGLE: 30 DEGREES

LEVELING PAD
USCS CLASSIFICATION: GW
DENSITY: 140 PCF
FRICTION ANGLE: 39 DEGREES.

ASSUMED MINIMUM ALLOWABLE SOIL BEARING CAPACITY = 1,500 PSF.

D. THE CONTRACTOR IS TO VERIFY ALL EXISTING CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND START OF CONSTRUCTION AND NOTIFY THE SITE ENGINEER IMMEDIATELY OF ANY SITE CONDITIONS THAT DIFFER FROM THOSE SHOWN ON THE DRAWING(S) THAT WOULD PRECLUDE THE CONSTRUCTION BEING PERFORMED IN THE MANNER SHOWN ON THESE DRAWINGS.

E. REFER TO THE PROJECT CIVIL ENGINEER-OF-RECORD'S DRAWINGS FOR ALL DIMENSIONS NOT GIVEN OR INDICATED. ANY DIMENSION DISCREPANCIES FOUND ON THE SITE DRAWINGS SHALL BE COORDINATED WITH THE ENGINEER-OF-RECORD PRIOR TO CONSTRUCTION.

F. SURCHARGE LIVE LOAD: 120 PSF
SURCHARGE DEAD LOAD: 40 PSF
SURCHARGE LIVE LOADS AND DEAD LOADS ARE APPLIED AT THE START OF THE GRADE BEHIND THE WALL, UNLESS NOTED OTHERWISE.

G. THE CONTENTS OF THIS SUBMITTAL SHALL BE SUBJECT TO THE REVIEW AND APPROVAL OF THE OWNER'S SITE ENGINEER(S) PRIOR TO CONSTRUCTION OF WALL(S).

H. BEARING CAPACITY AND STRENGTH PROPERTIES OF THE IN-SITU FOUNDATION SOILS, LONG TERM GLOBAL STABILITY OF THE WALL STRUCTURE EMBANKMENT, SETTLEMENT ESTIMATES, AND GROUND WATER AND SUBSURFACE DRAINAGE SHALL BE CONSIDERED AND EVALUATED BY THE OWNER'S SITE ENGINEER(S) PRIOR TO CONSTRUCTION.

STRUCTURAL NOTES

A. WORK SHALL CONSIST OF FURNISHING AND CONSTRUCTION OF A CONCRETE RETAINING WALL IN ACCORDANCE WITH THESE SPECIFICATIONS AND IN REASONABLY CLOSE CONFORMITY WITH THE LINES, GRADES, DESIGN AND DIMENSIONS SHOWN ON THE CONSTRUCTION DRAWINGS. NO ALTERNATE WALL SYSTEMS WILL BE CONSIDERED.

B. WORK INCLUDES PREPARING FOUNDATION SOIL, FURNISHING AND INSTALLING A LEVELING PAD, UNIT DRAINAGE FILL, A GEOSYNTHETIC SOIL REINFORCEMENT OF THE TYPE, SIZE, LOCATION AND LENGTHS DESIGNATED ON THE CONSTRUCTION DRAWINGS AND BACKFILL TO THE LINES AND GRADES ON THE CONSTRUCTION DRAWINGS.

C. ALLAN BLOCK CONCRETE RETAINING WALL UNITS SHALL BE ALLAN BLOCK CLASSIC UNITS, LAID IN RUNNING BOND, NOMINALLY LOCATED AT THE MIDPOINT OF VERTICALLY ADJACENT UNITS, IN BOTH STRAIGHT AND CURVED ALIGNMENTS.

D. BASE LEVELING PAD MATERIAL SHALL CONSIST OF A CRUSHED STONE BASE OR GRANULAR FILL MEETING THE FOLLOWING GRADATION AS DETERMINED IN ACCORDANCE WITH ASTM D448:

SIEVE SIZE	PERCENT PASSING
1 INCH	100
NO. 4	35 - 70
NO. 40	10 - 35
NO. 200	3 - 10

E. UNIT DRAINAGE AGGREGATE SHALL CONSIST OF CLEAN, CRUSHED STONE OR GRANULAR FILL MEETING THE FOLLOWING GRADATION AS DETERMINED IN ACCORDANCE WITH ASTM D448:

SIEVE SIZE	PERCENT PASSING
1 INCH	100
3/4 INCH	75 - 100
NO. 4	0 - 60
NO. 40	0 - 50
NO. 200	0 - 5

F. PLACE 12 INCHES OF DRAINAGE FILL AGGREGATE WITHIN THE CORES OF, BETWEEN, AND BEHIND THE UNITS AS INDICATED ON THE CONSTRUCTION DRAWINGS. CAP THE DRAINAGE AGGREGATE ZONE WITH 12 INCHES OF IMPERVIOUS MATERIAL (CLAYEY SOIL OR SIMILAR MATERIAL WHICH WILL PREVENT PERCOLATION INTO THE DRAINAGE ZONE BEHIND THE WALL).

G. REINFORCED BACKFILL SHALL BE FREE OF ORGANICS AND DEBRIS AND CONSISTING OF SP TYPE CLASSIFIED SOIL IN ACCORDANCE WITH ASTM D2487 AND THE UCS CLASSIFICATION SYSTEM AND COMPACTED IN ACCORDANCE WITH ASTM D1556 OR ASTM D2922. MAXIMUM PARTICLE SIZE IS 4 INCHES.

H. GEOSYNTHETIC SOIL REINFORCEMENT SHALL BE STRATAGRID SG-200 OR BETTER AS MANUFACTURED BY STRATA SYSTEMS, INC.

I. GEOTEXTILE FILTER FABRIC SHALL BE N-SERIES FILTER FABRIC AS MANUFACTURED BY TENCATE GEOSYNTHETICS OR BETTER.

J. THE CONTRACTOR SHALL EXCAVATE AND BACKFILL TO THE LINES AND GRADES SHOWN ON THE CONSTRUCTION DRAWINGS. IT IS ASSUMED THAT ALL PROBLEMATIC SOILS (ORGANIC, EXPANSIVE, ETC.) WILL BE REMOVED AND REPLACED WITH SUITABLE STRUCTURAL FILL.

K. ANY FILL REQUIRED TO BACKFILL EXCAVATED AREA OR ACHIEVE FINISH GRADE IN STRUCTURAL AREAS SHALL BE AS INDICATED BY THE GEOTECHNICAL ENGINEER.

L. SOIL COMPACTION, UNLESS NOTED OTHERWISE IN THE GEOTECHNICAL REPORT, SHALL ADHERE TO THE FOLLOWING MINIMUM REQUIREMENTS:

1. 2'-0" MINIMUM LEVELING PAD TRENCH: SHALL BE COMPACTED TO A MINIMUM DEPTH OF ONE (1) FOOT BELOW STRIPPED GRADE. ANY LOOSE, SOFT OR UNDESIRABLE MATERIAL SHALL BE REMOVED AND REPLACED WITH STRUCTURAL FILL IN LEVEL LIFTS NOT TO EXCEED 12 INCHES LOOSE THICKNESS, AND COMPACTED TO A MINIMUM OF 95% OF THE SOIL'S MODIFIED PROCTOR MAXIMUM DRY DENSITY AS DETERMINED BY ASTM SPECIFICATION D-1557.

M. BASE LEVELING PAD MATERIAL SHALL BE PLACED ON COMPACTED SOIL TO THE DEPTHS, WIDTHS, LINES AND GRADES SHOWN ON THE CONSTRUCTION DRAWINGS, TO A MINIMUM THICKNESS OF 6 INCHES AND EXTEND LATERALLY A MINIMUM OF 6" IN FRONT AND BEHIND THE RETAINING WALL.

N. BASE LEVELING PAD MATERIAL SHALL BE COMPACTED AND PREPARED TO INSURE FULL CONTACT TO THE BASE SURFACE OF THE RETAINING WALL CONCRETE UNITS.

ALLAN BLOCK UNIT INSTALLATION

A. FIRST COURSE OF UNITS SHALL BE PLACED ON THE LEVELING PAD AT THE APPROPRIATE LINE AND GRADE. ALIGNMENT AND LEVEL SHALL BE CHECKED IN ALL DIRECTIONS AND INSURE THAT ALL UNITS ARE IN FULL CONTACT WITH THE BASE AND PROPERLY SEATED.

B. PLACE THE FRONT OF UNITS SIDE-BY-SIDE. DO NOT LEAVE GAPS BETWEEN ADJACENT UNITS. LAYOUT OF CORNERS AND CURVES SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

C. INSTALL EACH SUCCEEDING COURSE, BACKFILL AS EACH COURSE IS COMPLETED. PULL THE UNITS FORWARD UNTIL THE LOCATING SURFACE OF THE UNITS CONTACT THE LOCATING SURFACE OF THE UNITS IN THE PRECEDING COURSE. INTERLOCK WALL SEGMENTS THAT MEET AT CORNERS BY OVERLAPPING SUCCESSIVE COURSE. ATTACH CONCRETE RETAINING WALL UNITS AT EXTERIOR CORNERS WITH SPECIFIED ADHESIVE.

D. PLACE AND COMPACT DRAINAGE FILL WITHIN AND BEHIND WALL UNITS. PLACE AND COMPACT BACKFILL SOIL BEHIND DRAINAGE FILL. FOLLOW WALL ERECTION AND DRAINAGE FILL CLOSELY WITH STRUCTURAL BACKFILL.

E. GEOTEXTILE FILTER FABRIC SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTION AS THE WALL IS LAID UP AND THE DRAINAGE FILL MATERIAL IS PLACED AND COMPACTED.

F. MAXIMUM STACKED VERTICAL HEIGHT OF WALL UNITS, PRIOR TO UNIT DRAINAGE FILL AND BACKFILL PLACEMENT AND COMPACTION, SHALL NOT EXCEED ONE COURSE.

STRUCTURAL GEOGRID INSTALLATION

A. INSTALL GEOSYNTHETIC SOIL REINFORCEMENT IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. ORIENT THE GEOSYNTHETIC SOIL REINFORCEMENT WITH THE HIGHEST STRENGTH AXIS PERPENDICULAR TO THE WALL FACE.

B. GEOSYNTHETIC SOIL REINFORCEMENT SHALL BE PLACED AT THE STRENGTHS, LENGTHS AND ELEVATIONS SHOWN ON THESE CONSTRUCTION DESIGN DRAWINGS.

C. THE GEOSYNTHETIC SOIL REINFORCEMENT SHALL BE LAID HORIZONTALLY ON TOP OF THE CONCRETE BLOCK UNITS AND THE COMPACTED BACKFILL SOILS. PLACE THE GEOSYNTHETIC SOIL REINFORCEMENT TO WITHIN ONE INCH OF THE FACE OF THE CONCRETE RETAINING WALL UNITS. PLACE THE NEXT COURSE OF CONCRETE RETAINING WALL UNITS ON TOP OF THE GEOSYNTHETIC SOIL REINFORCEMENT.

D. THE GEOSYNTHETIC SOIL REINFORCEMENT SHALL BE IN TENSION AND FREE FROM WRINKLES PRIOR TO PLACEMENT OF BACKFILL SOILS ON TOP OF THE GEOSYNTHETIC SOIL REINFORCEMENT.

E. GEOSYNTHETIC SOIL REINFORCEMENTS SHALL BE CONTINUOUS THROUGHOUT THEIR EMBEDMENT LENGTHS AND PLACED SIDE-BY-SIDE TO PROVIDE 100% COVERAGE AT EACH LEVEL. SPLICED CONNECTIONS BETWEEN SHORTER PIECES OF GEOSYNTHETIC SOIL REINFORCEMENT OR GAPS BETWEEN ADJACENT PIECES OF GEOSYNTHETIC SOIL REINFORCEMENT ARE NOT PERMITTED.

F. GEOGRID NOMENCLATURE: STRATAGRID 200 - 600
GEOGRID TYPE
LENGTH IN DECIMAL FEET

REINFORCED BACKFILL PLACEMENT

A. REINFORCED BACKFILL SHALL BE PLACED, SPREAD AND COMPACTED IN SUCH A MANNER THAT MINIMIZES THE DEVELOPMENT OF SLACK IN THE GEOSYNTHETIC SOIL REINFORCEMENT AND INSTALLATION DAMAGE.

B. REINFORCED BACKFILL SHALL BE PLACED AND COMPACTED IN LIFTS NOT TO EXCEED 6 INCHES WHERE HAND COMPACTION IS USED, OR 8 TO 10 INCHES WHERE HEAVY COMPACTION EQUIPMENT IS USED. LIFT THICKNESS SHALL BE DECREASED TO ACHIEVE THE REQUIRED DENSITY AS REQUIRED.

C. REINFORCED BACKFILL SHALL BE COMPACTED TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY PER ASTM D698 OR 92% MODIFIED PROCTOR DENSITY PER ASTM D1557. THE MOISTURE CONTENT OF THE BACKFILL MATERIAL PRIOR TO AND DURING COMPACTION SHALL BE UNIFORMLY DISTRIBUTED THROUGHOUT EACH LAYER AND SHALL BE WITHIN 2 PERCENTAGE POINTS OF THE OPTIMUM MOISTURE CONTENT FOR ALL WALL HEIGHTS.

D. ONLY LIGHTWEIGHT HAND-OPERATED EQUIPMENT SHALL BE ALLOWED WITHIN 4 FEET FROM THE BACK OF THE RETAINING WALL.

E. TRACKED CONSTRUCTION EQUIPMENT SHALL NOT BE OPERATED DIRECTLY UPON THE GEOSYNTHETIC SOIL REINFORCEMENT. A MINIMUM FILL THICKNESS OF 6 INCHES IS REQUIRED PRIOR TO OPERATION OF TRACKED VEHICLES OVER THE GEOSYNTHETIC SOIL REINFORCEMENT. TRACKED VEHICLE TURNING SHOULD BE KEPT TO A MINIMUM TO PREVENT TRACKS FROM DISPLACING THE FILL AND DAMAGING THE GEOSYNTHETIC SOIL REINFORCEMENT.

F. RUBBER TIRED EQUIPMENT MAY PASS OVER GEOSYNTHETIC SOIL REINFORCEMENT AT SLOW SPEEDS, LESS THAN 5 MPH. SUDDEN BRAKING AND SHARP TURNING ON THE GEOSYNTHETIC SOIL REINFORCEMENT SHALL NOT BE ALLOWED.

G. AT THE END OF EACH DAYS OPERATION, THE CONTRACTOR SHALL SLOPE THE LAST LIFT OF REINFORCEMENT BACKFILL AWAY FROM THE WALL UNITS TO DIRECT RUNOFF AWAY FROM THE WALL FACE. THE CONTRACTOR SHALL NOT ALLOW SURFACE RUNOFF FROM ADJACENT AREAS TO ENTER THE WALL CONSTRUCTION SITE.

H. COMPACTION TESTING SHALL BE DONE IN ACCORDANCE WITH ASTM D1556 OR ASTM D2922. TESTING FREQUENCY SHALL BE ONE TEST FOR EVERY 2 FEET (VERTICAL) OF FILL PLACED AND COMPACTED AND FOR EVERY 50 LINEAL FEET OF RETAINING WALL.

CAP UNITS

A. CAP UNITS SHALL BE GLUED TO UNDERLYING UNITS WITH AN ALL-WEATHER ADHESIVE RECOMMENDED BY THE MANUFACTURER.

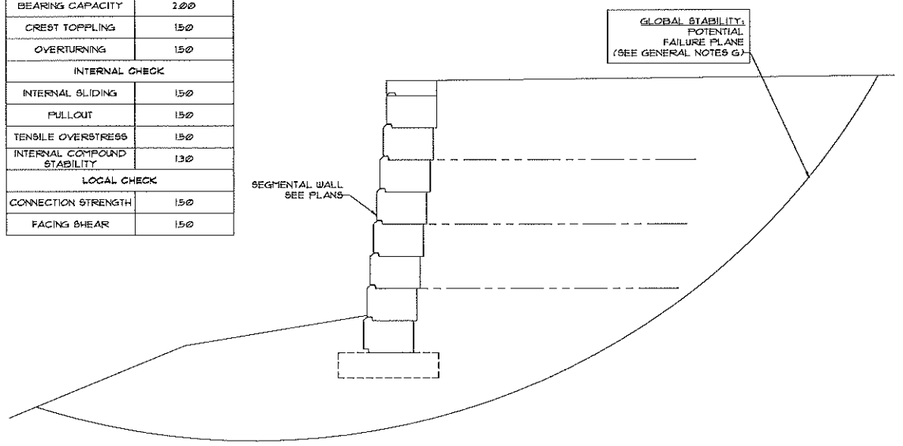
AS-BUILT CONSTRUCTION TOLERANCES

A. VERTICAL ALIGNMENT: 1.5" OVER ANY 10' DISTANCE WITH A MAXIMUM DIFFERENTIAL OF 3 INCHES OVER THE LENGTH OF THE WALL.

B. IMMEDIATE POST CONSTRUCTION BATTER: WITHIN 2 DEGREES OF DESIGN BATTER OF THE CONCRETE RETAINING WALL UNITS.

C. HORIZONTAL LOCATION CONTROL FROM GRADING PLAN:
STRAIGHT LINES, (+/-) 1 1/2 INCHES OVER ANY 10 FOOT DISTANCE.
CORNER AND RADIUS LOCATIONS, (+/-) 12 INCHES.
CURVES AND SERPENTINE RADII, (+/-) 2 FEET.

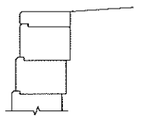
WALL STABILITY	
PARAMETERS	FACTORS OF SAFETY (MIN.)
EXTERNAL CHECK	
BASE SLIDING	1.50
BEARING CAPACITY	2.00
CREST TOPPLING	1.50
OVERTURNING	1.50
INTERNAL CHECK	
INTERNAL SLIDING	1.50
PULLOUT	1.50
TENSILE OVERSTRESS	1.50
INTERNAL COMPOUND STABILITY	1.30
LOCAL CHECK	
CONNECTION STRENGTH	1.50
FACING SHEAR	1.50



WALL DESIGN PARAMETERS
N.T.S.

WALL BATTER

1. WALL CONTRACTOR SHALL VERIFY W/ OWNER WALL PRODUCT AND WALL BATTER.
2. SEGMENTAL RETAINING WALL(S) INDICATED HAVE BEEN DESIGNED FOR THE FOLLOWING BATTER:



NOTE: WALL BATTER AFFECTS THE DESIGN LENGTHS OF GEOGRID.

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CONSTRUCTION CONCEPTS

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GENERAL NOTES

MEADOWVIEW APARTMENTS
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APOPKA, FL 32712

03-23-2018
CHAD E. HATCHER P.E.
FL. PROF. REG. NO. 84151

REVISIONS

DATE: 03/23/2018
SCALE: AS NOTED
DRAWN: MED
APPROVED: CEH
JOB NO: 18-059

SHEET
RW-1.1

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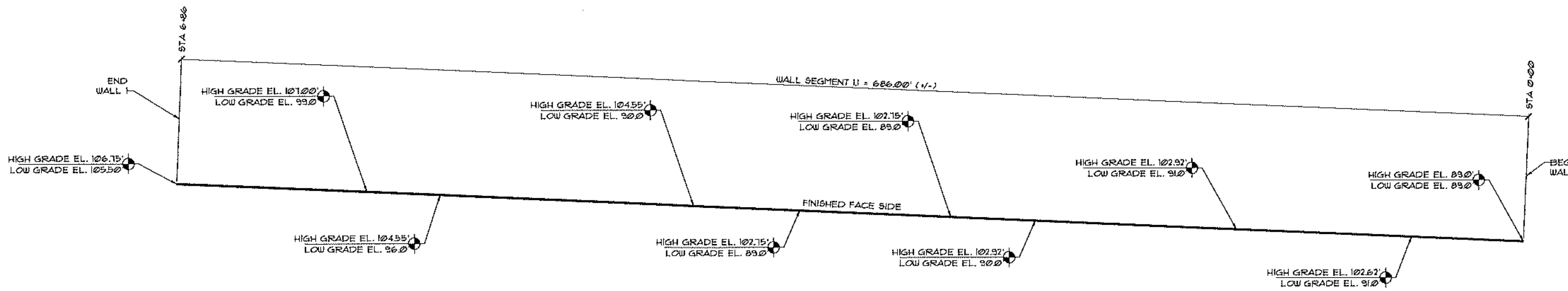
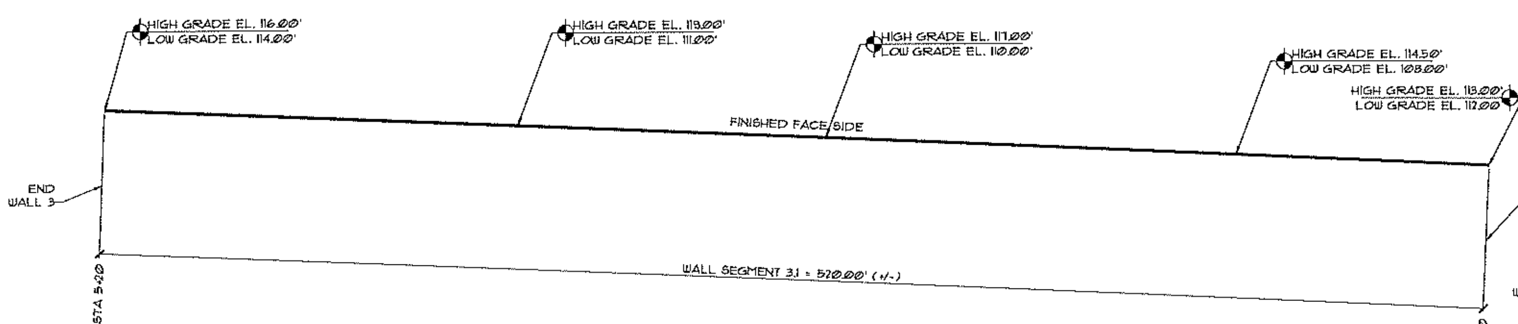
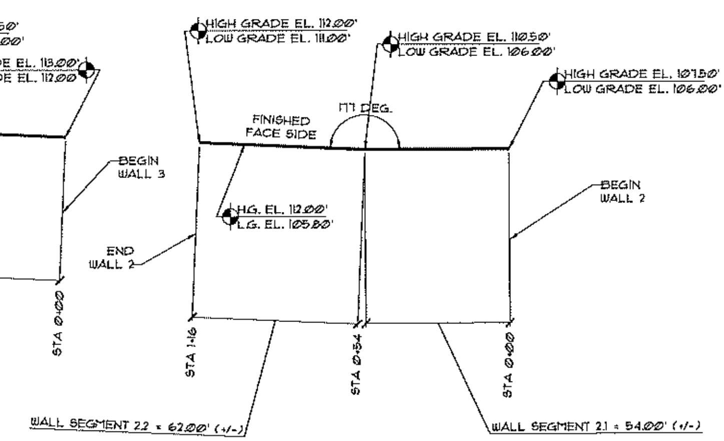


RETAINING WALL 1 LAYOUT (1)
SCALE: 1/32" = 1'-0"





RETAINING WALL 3 LAYOUT (3)
SCALE: 1/32" = 1'-0"

RETAINING WALL 2 LAYOUT (2)
SCALE: 1/32" = 1'-0"

RETAINING WALL NOTES:

1. FOR GENERAL STRUCTURAL NOTES, SEE SHEET RW-1.1.
2. RETAINING WALL SHOWN SHALL BE CONSTRUCTED OF CONCRETE SEGMENTAL UNITS WITH GEOGRID REINFORCEMENT AS DETAILED IN THESE PLANS AND GENERAL NOTES.
3. WALL ALIGNMENT, DIMENSIONS, ELEVATIONS, ETC. SHALL BE VERIFIED WITH THE REFERENCED CIVIL ENGINEER OF RECORD DRAWINGS PRIOR TO START OF CONSTRUCTION.

THIS DRAWING PUBLISHED: 3/23/2018 4:58:12 PM

TCC CONSTRUCTION CONCEPTS

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WALL LAYOUT PLAN

MEADOWVIEW APARTMENTS
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03-23-2018
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FL. PROF. REG. NO. 84151

REVISIONS

DATE:	03/23/2018
SCALE:	AS NOTED
DRAWN:	MED
APPROVED:	CEH
JOB NO:	18-059
SHEET	RW-2.1

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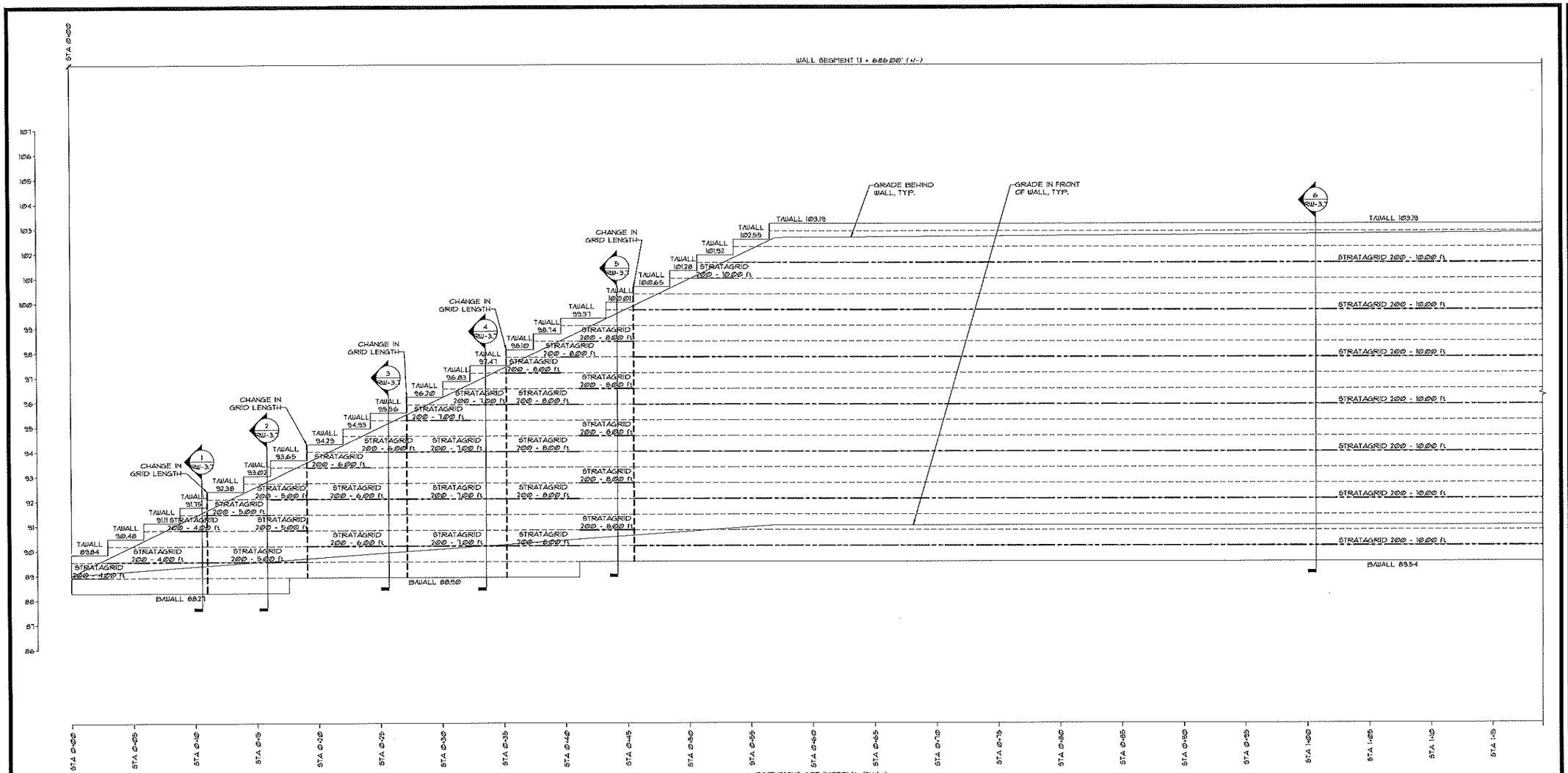

DIMENSIONS ARE IMPERIAL (2H:1V)

WALL 1 ELEVATION

SCALE: 1/2" = 1'-0"

(1)

NOTES:

1. FOR GENERAL STRUCTURAL NOTES, SEE SHEET RW-1.1.
2. WALL ELEVATIONS ARE VIEWED FROM FINISHED FACE U.N.O.
3. WALL SECTIONS ARE SHOWN WITH BATTER, FOR WALL BATTER DETAIL, SEE SHEET RW-1.1.
4. FOR ADDITIONAL INFORMATION NOT SHOWN ON WALL SECTIONS SEE DET. 4/RW-4.1.

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WALL 1 ELEVATION

MEADOWVIEW APARTMENTS
1611 VICK RD.
APOPKA, FL 32712

03-23-2018
CHAD E. HATCHER P.E.
FL. PROF. REG. NO. 84151

REVISIONS

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APPROVED: CEH
JOB NO: 18-059

SHEET
RW-3.1

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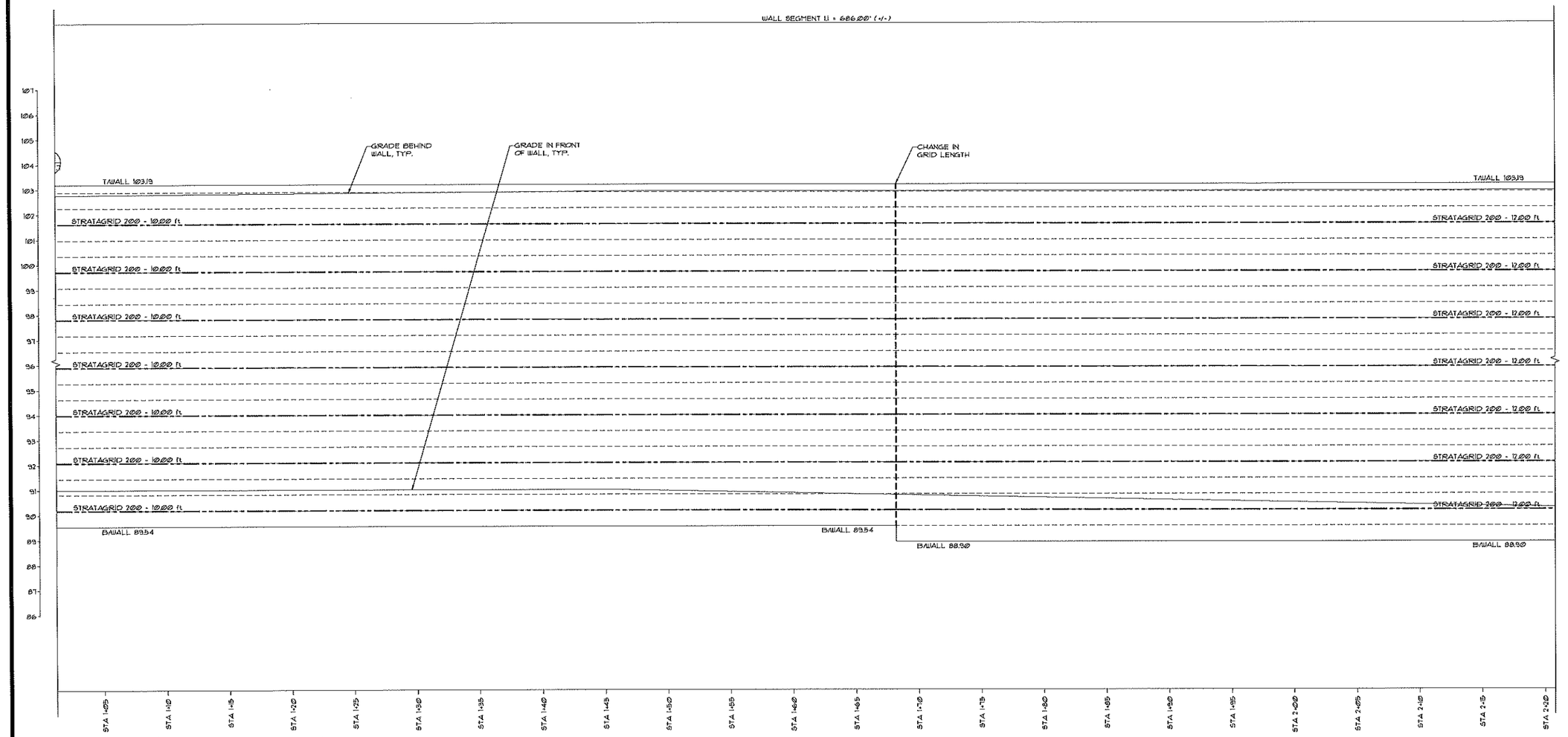

DIMENSIONS ARE IMPERIAL (2H:1V)

WALL 1 ELEVATION

SCALE: 1/2" = 1'-0" (1)

NOTES:

1. FOR GENERAL STRUCTURAL NOTES, SEE SHEET RW-1.1.
2. WALL ELEVATIONS ARE VIEWED FROM FINISHED FACE U.N.O.
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HCL CONSTRUCTION CONCEPTS

WALL 1 ELEVATION

MEADOWVIEW APARTMENTS
1611 VICK RD.
APOPKA, FL 32712

03-23-2018
CHAD E. HATCHER P.E.
FL. PROF. REG. NO. 84151

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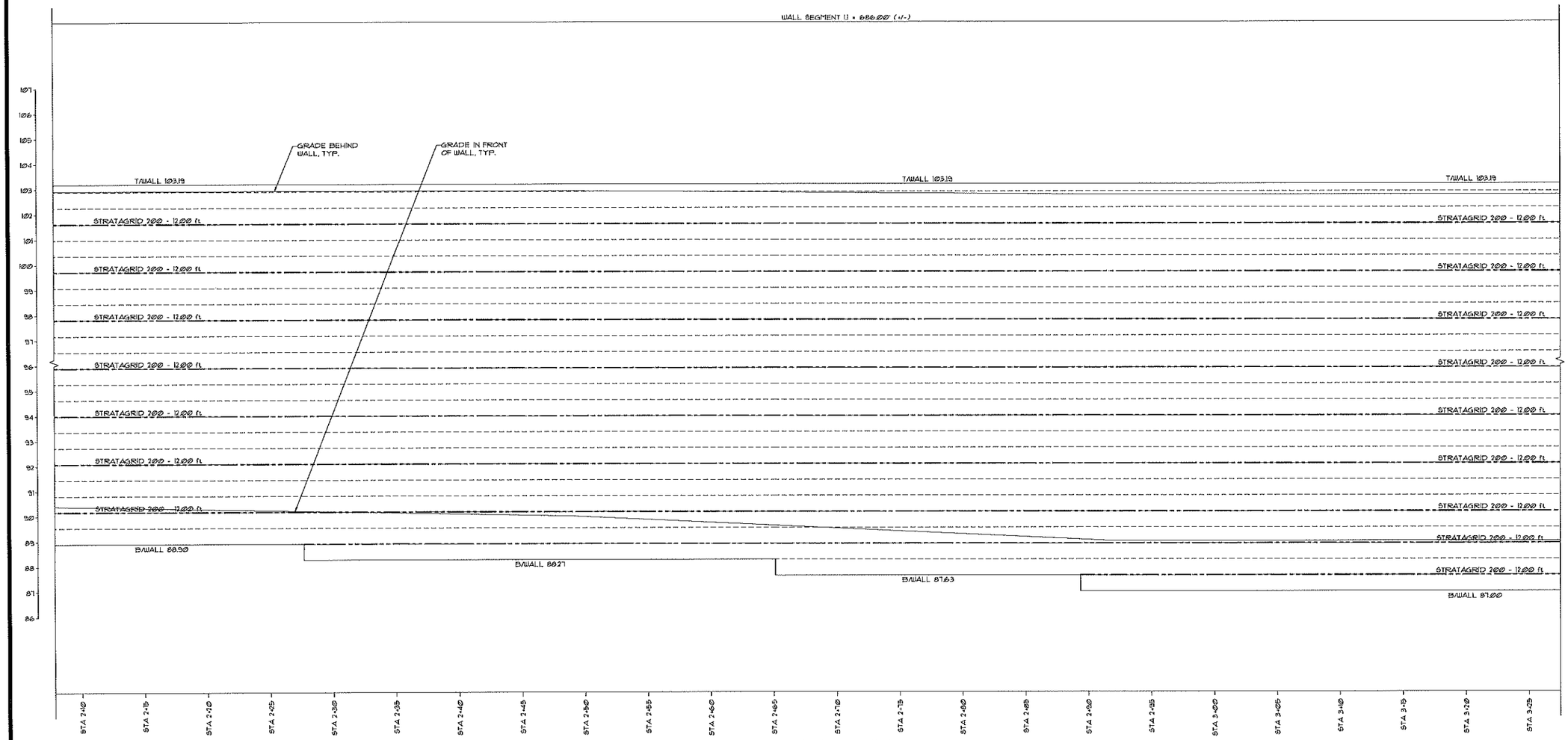

DIMENSIONS ARE IMPERIAL (2H:1V)

WALL 1 ELEVATION (1)

SCALE: 1/2" = 1'-0"

NOTES:

1. FOR GENERAL STRUCTURAL NOTES, SEE SHEET RW-1.1.
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WALL 1 ELEVATION

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03-23-2018
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SHEET
RW-3.3

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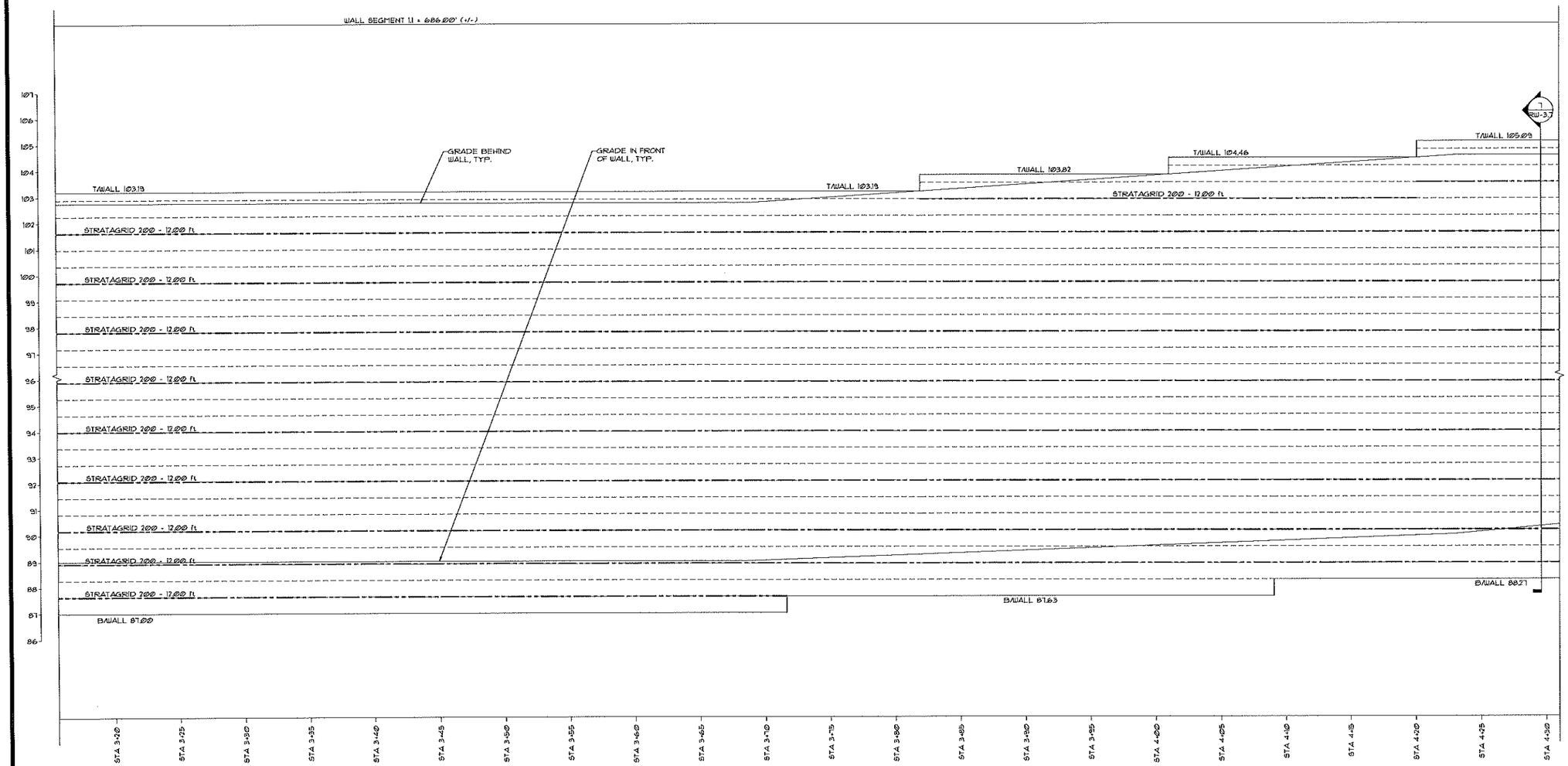

DIMENSIONS ARE IMPERIAL (ZH:LV)

WALL 1 ELEVATION (1)

SCALE: 1/2" = 1'-0"

NOTES:

1. FOR GENERAL STRUCTURAL NOTES, SEE SHEET RW-1.1.
2. WALL ELEVATIONS ARE VIEWED FROM FINISHED FACE U.N.O.
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WALL 1 ELEVATION

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SHEET: RW-3.4

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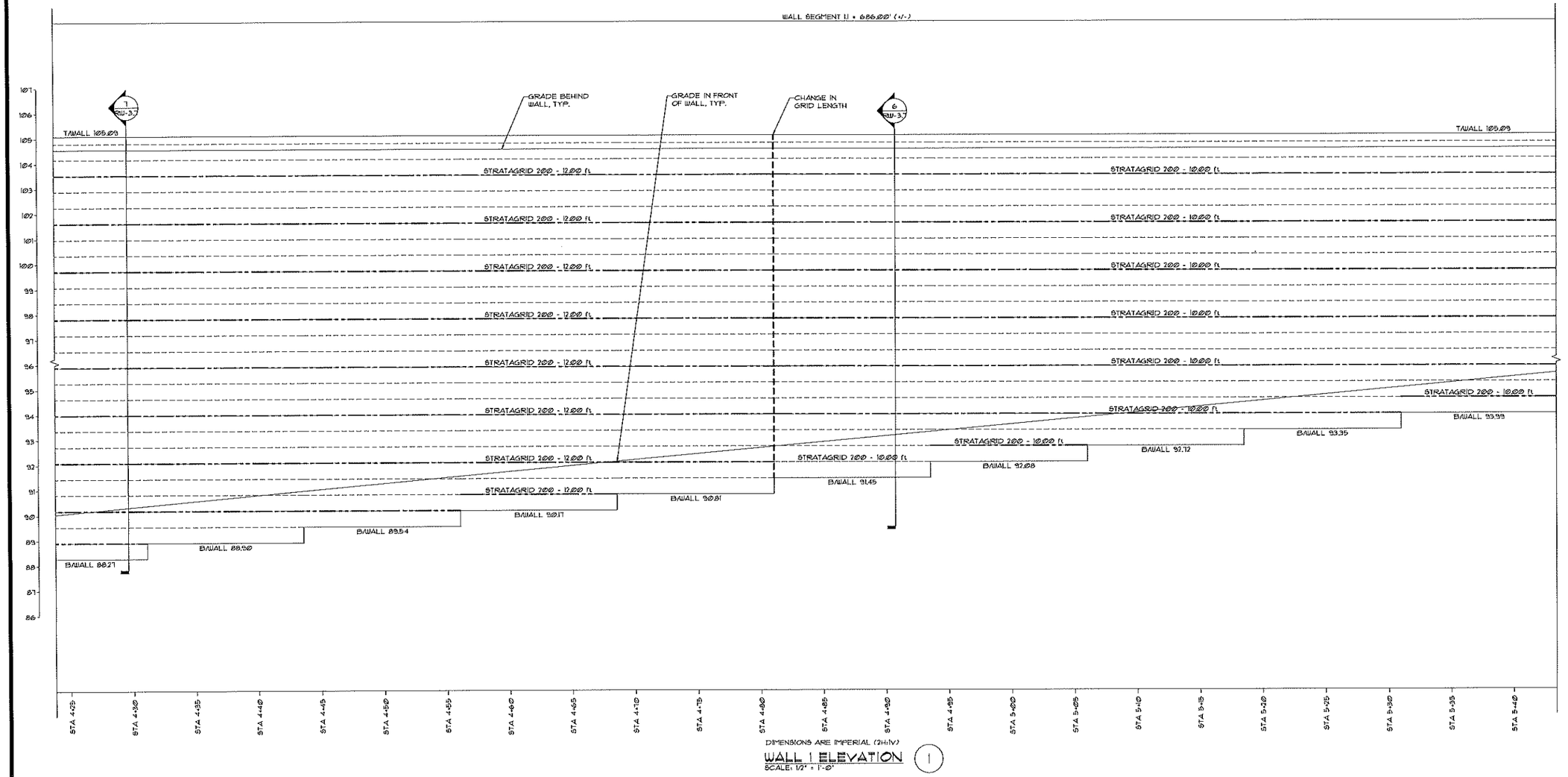

DIMENSIONS ARE IMPERIAL (2H:1V)

WALL 1 ELEVATION (1)

SCALE: 1/2" = 1'-0"

NOTES:

1. FOR GENERAL STRUCTURAL NOTES, SEE SHEET RW-1.1.
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WALL 1 ELEVATION

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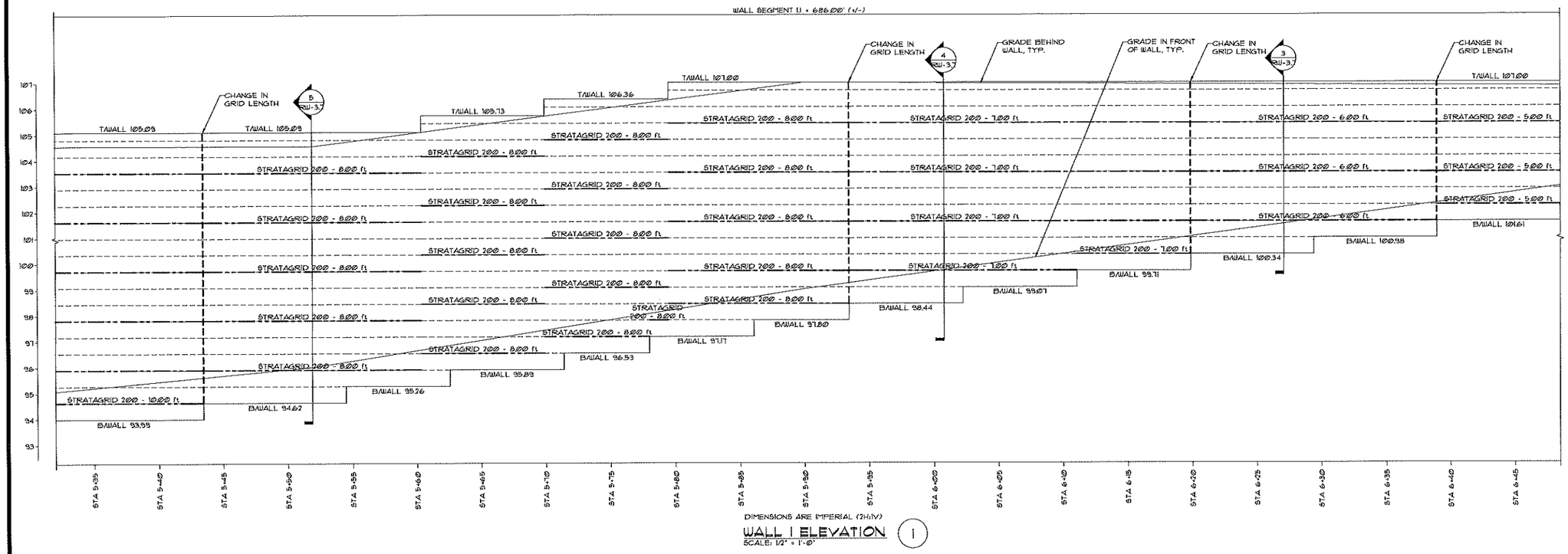
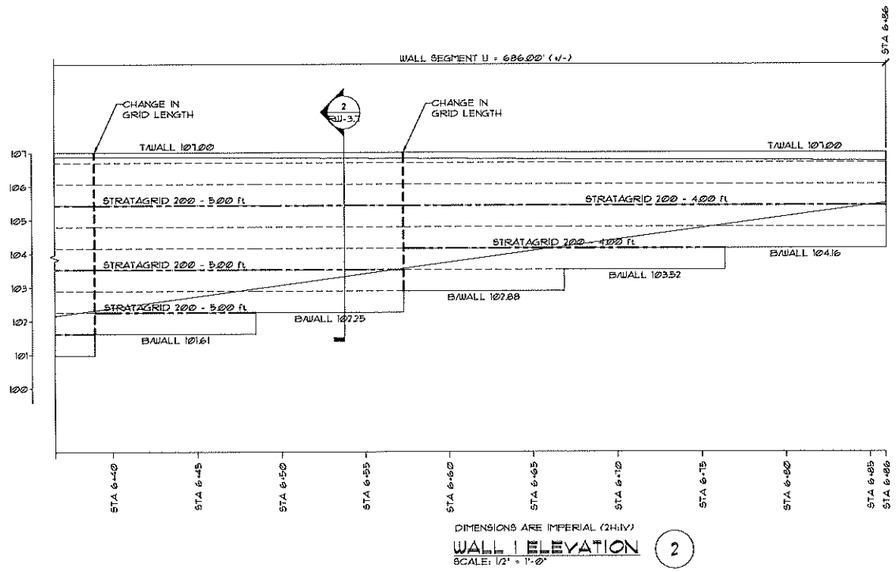


WALL 1 ELEVATION

SCALE: 1/2" = 1'-0"

(1)



WALL 1 ELEVATION

SCALE: 1/2" = 1'-0"

(2)

NOTES:

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WALL 1 ELEVATIONS

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03-23-2018

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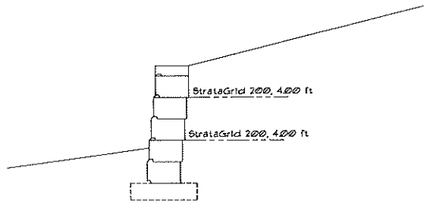
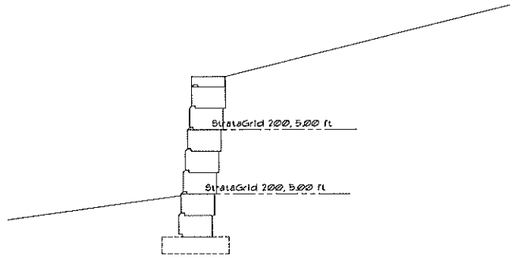
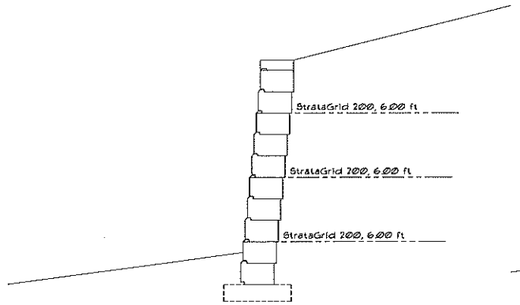


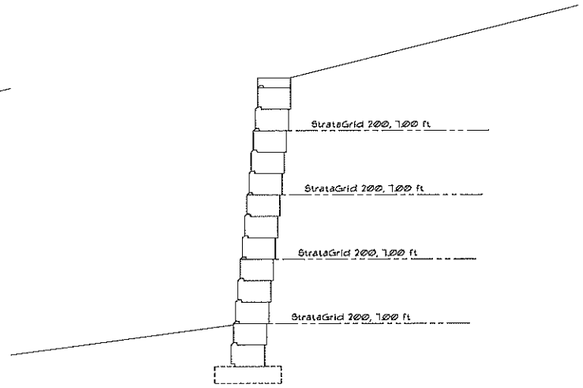
WALL 1 SECTION (1)
SCALE: 1/2" = 1'-0"



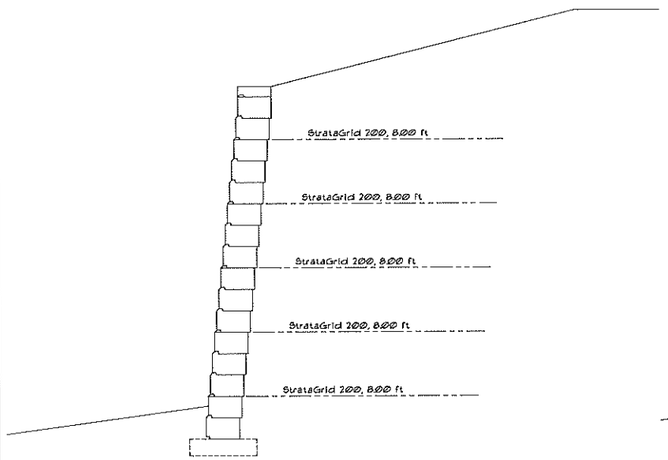
WALL 1 SECTION (2)
SCALE: 1/2" = 1'-0"



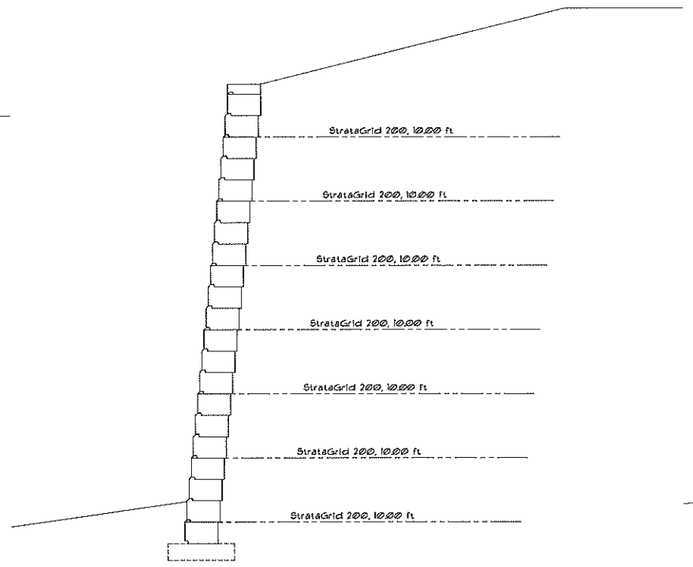
WALL 1 SECTION (3)
SCALE: 1/2" = 1'-0"



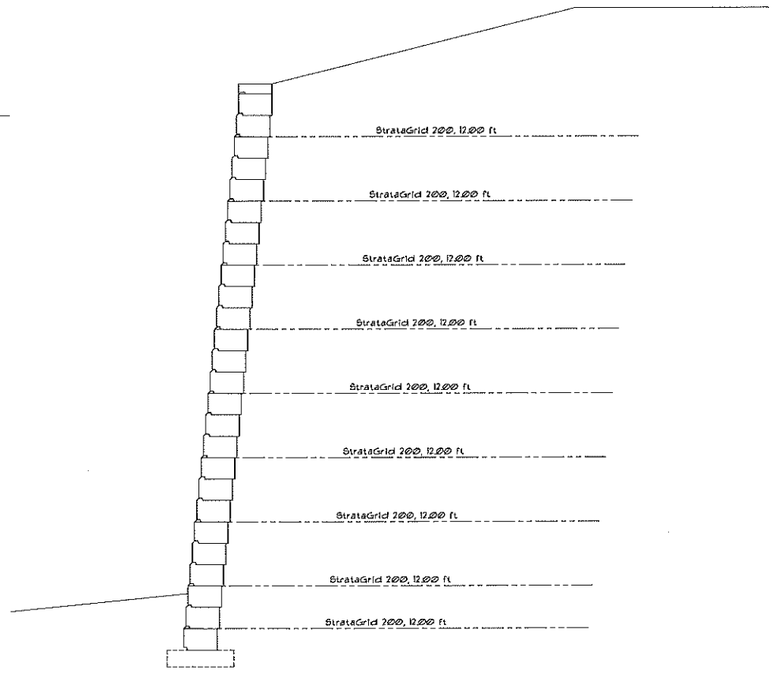
WALL 1 SECTION (4)
SCALE: 1/2" = 1'-0"



WALL 1 SECTION (5)
SCALE: 1/2" = 1'-0"



WALL 1 SECTION (6)
SCALE: 1/2" = 1'-0"



WALL 1 SECTION (7)
SCALE: 1/2" = 1'-0"

NOTES:

1. FOR GENERAL STRUCTURAL NOTES, SEE SHEET RW-1.1.
2. WALL ELEVATIONS ARE VIEWED FROM FINISHED FACE U.N.O.
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TCL CONSTRUCTION CONCEPTS

WALL 1 SECTIONS

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03-23-2018
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FL. PROF. REG. NO. 84151

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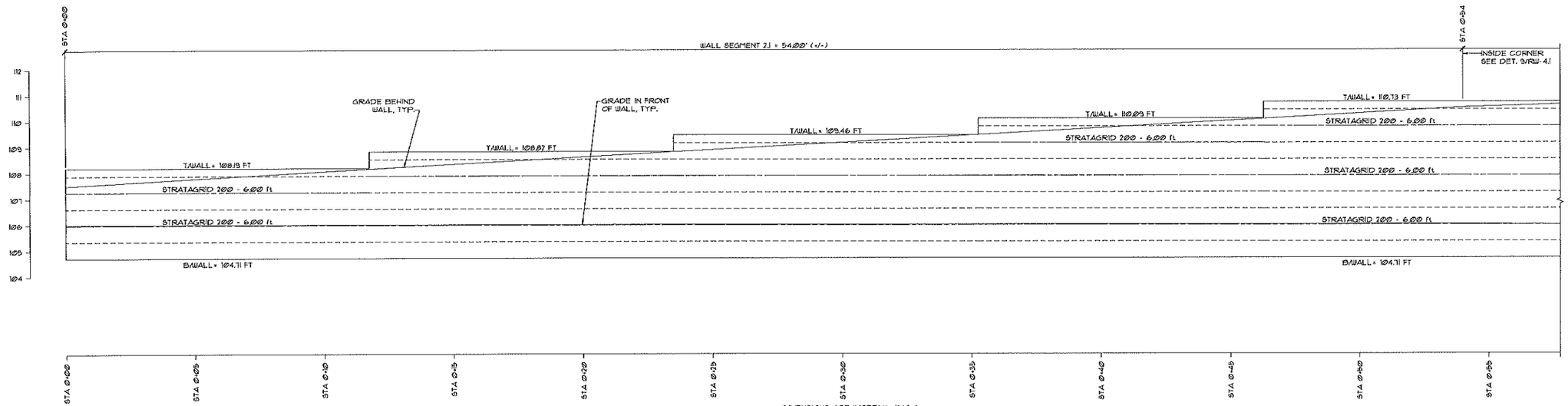

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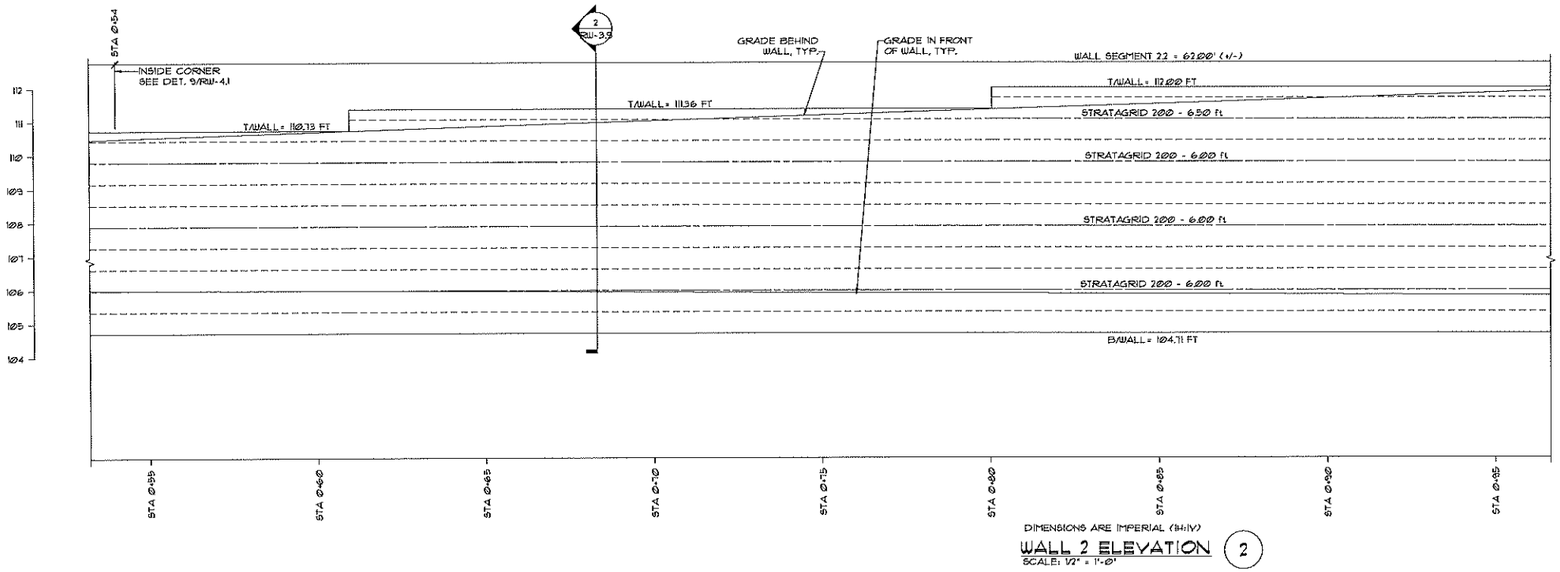
WALL 2 ELEVATION (1)

SCALE: 1/2" = 1'-0"



DIMENSIONS ARE IMPERIAL (H:V)

WALL 2 ELEVATION (2)

SCALE: 1/2" = 1'-0"

NOTES:

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ECL CONSTRUCTION CONCEPTS

WALL 2 ELEVATIONS

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03-23-2018
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REVISIONS

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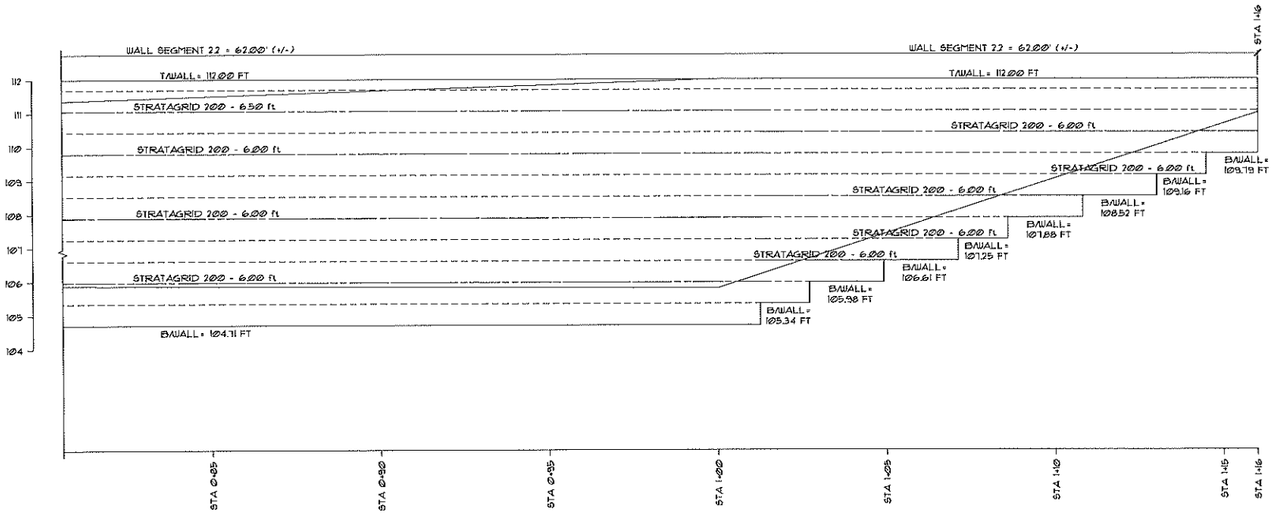

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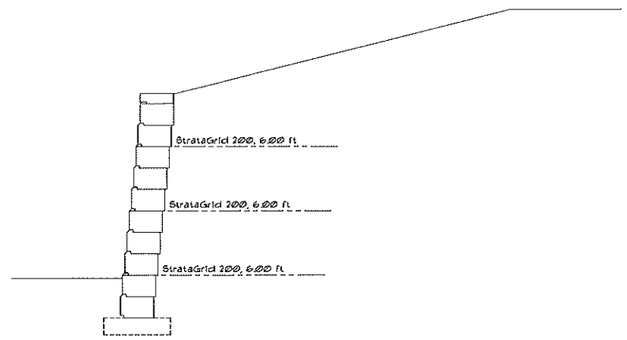
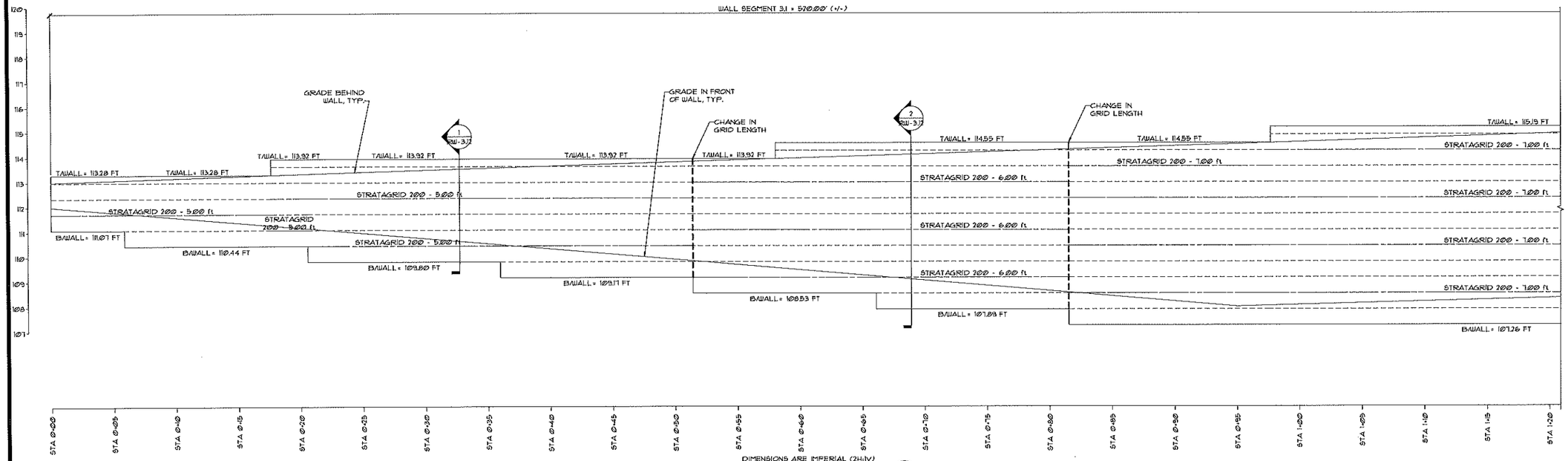
WALL 2 ELEVATION (1)

SCALE: 1/2" = 1'-0"



WALL 2 SECTION (2)

SCALE: 1/2" = 1'-0"



DIMENSIONS ARE IMPERIAL (2H:1V)

WALL 3 ELEVATION (3)

SCALE: 1/2" = 1'-0"

NOTES:

1. FOR GENERAL STRUCTURAL NOTES, SEE SHEET RW-1.1.
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WALL 2 SECT., WALL 2 AND 3 ELEV.

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03-23-2018
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FL. PROF. REG. NO. 84151

REVISIONS

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SHEET
RW-3.9

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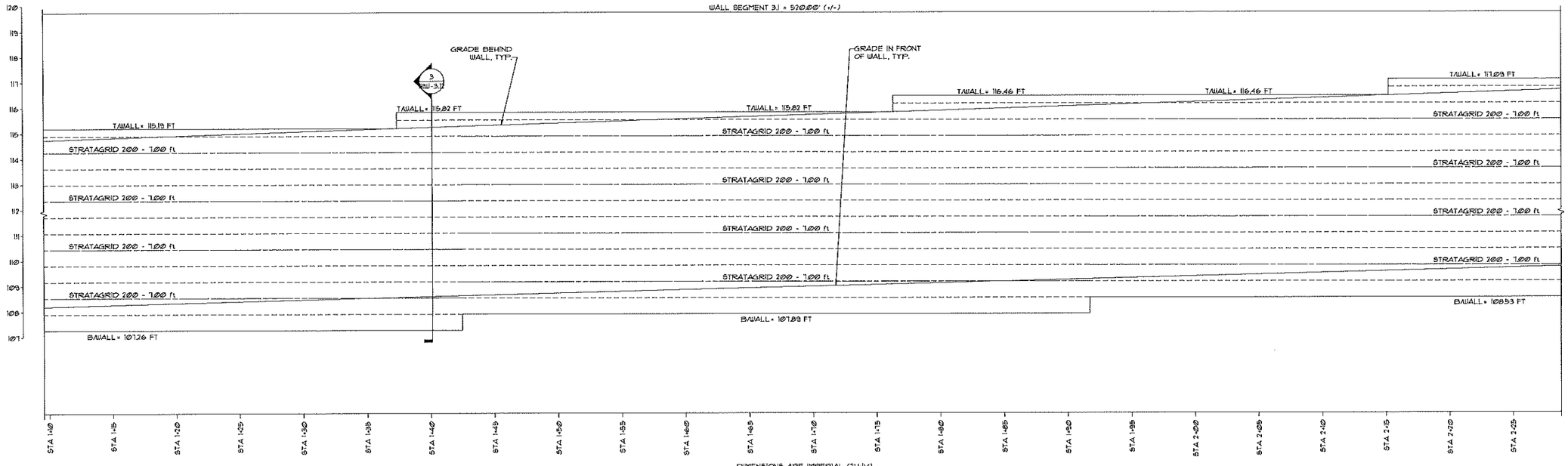

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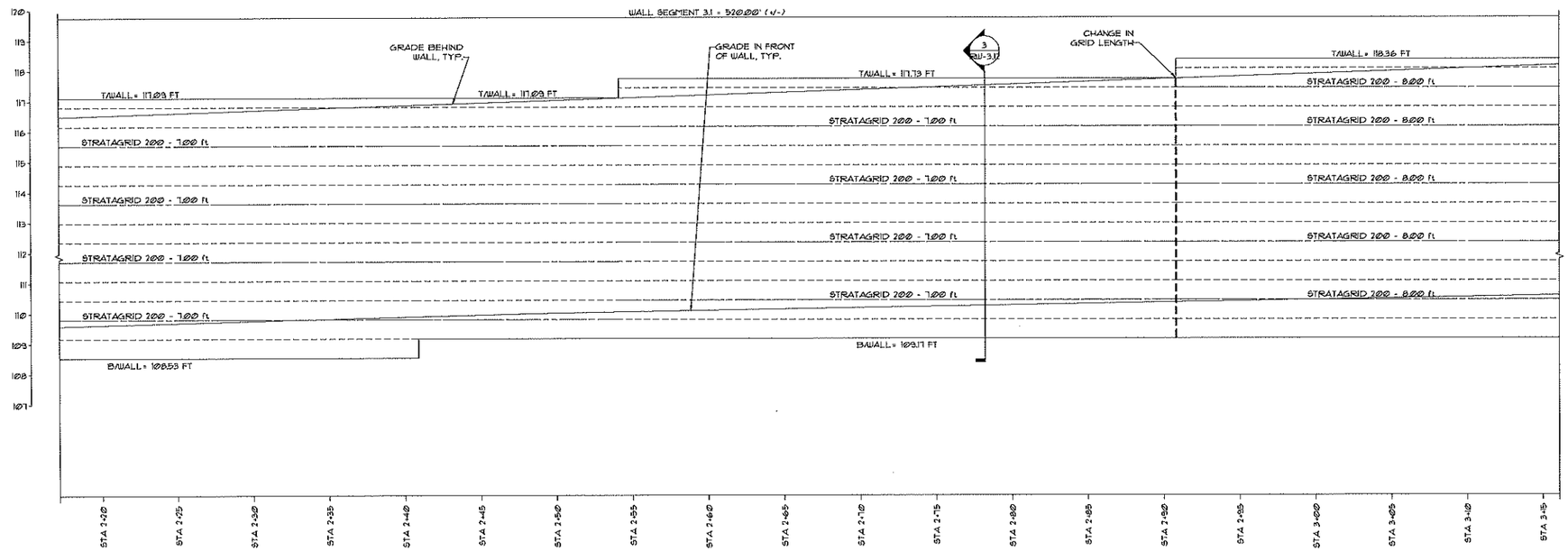

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WALL 3 ELEVATIONS

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03-23-2018

CHAD E. HATCHER P.E.
FL. PROF. REG. NO. 84151

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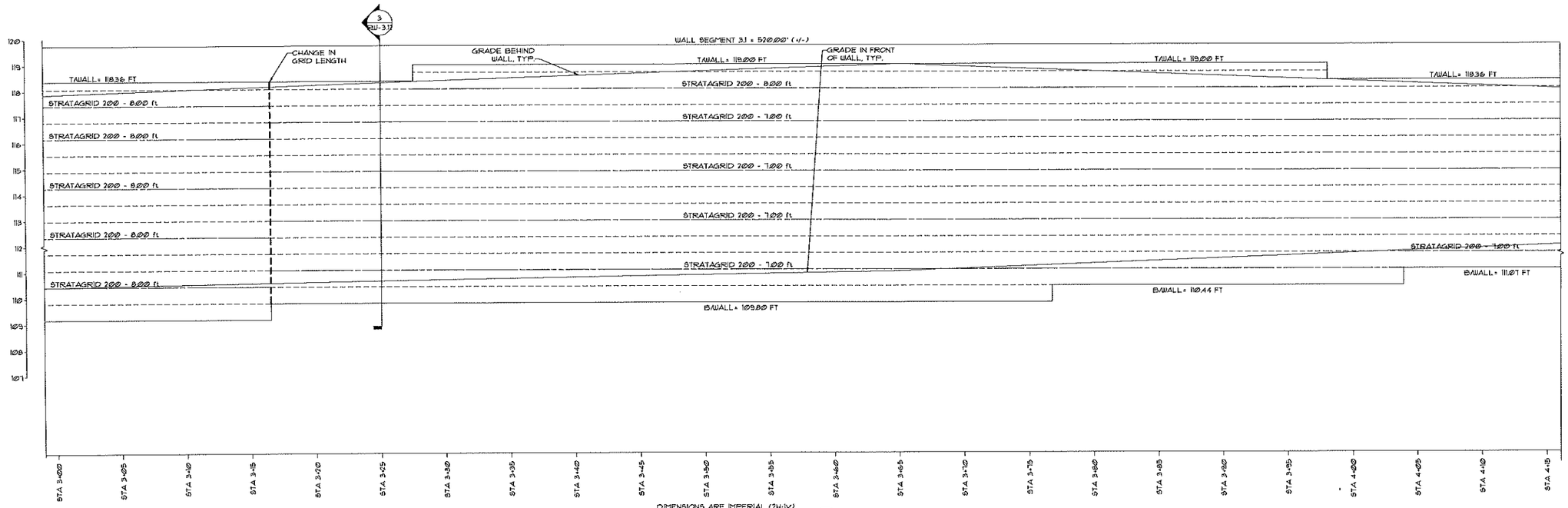

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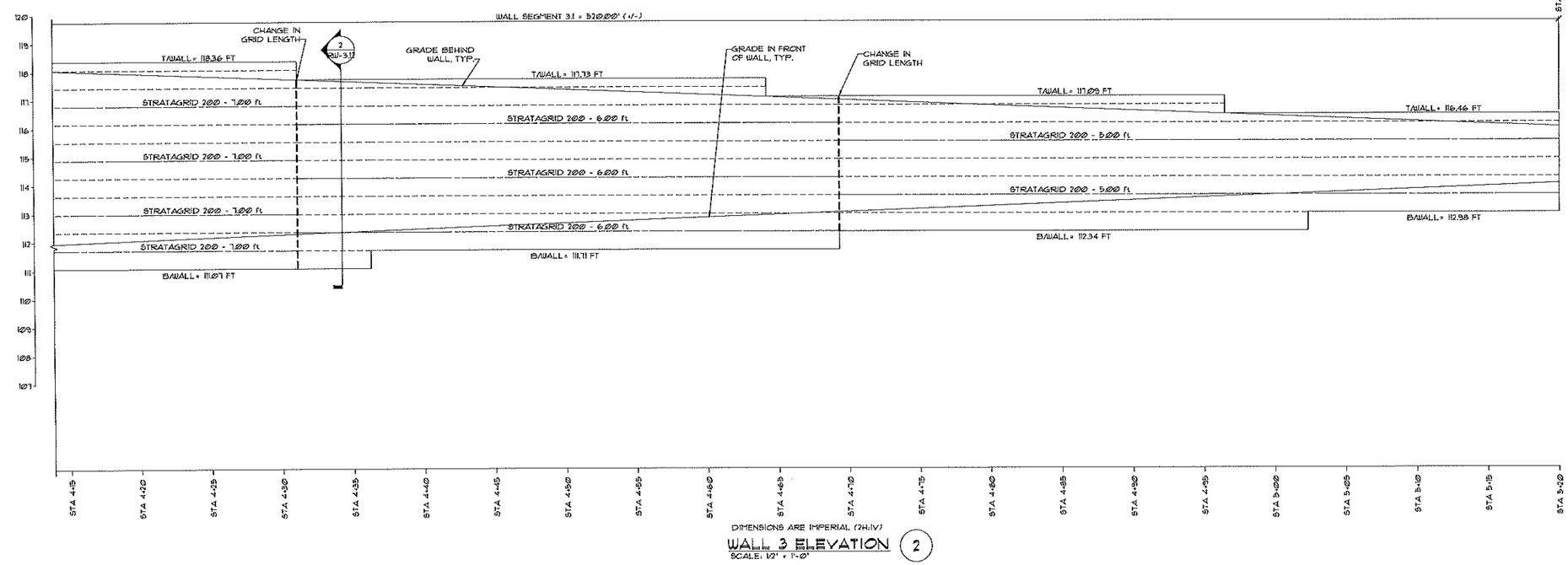

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ECL CONSTRUCTION CONCEPTS

WALL 3 ELEVATIONS

MEADOWVIEW APARTMENTS
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APOPKA, FL 32712

03-23-2018
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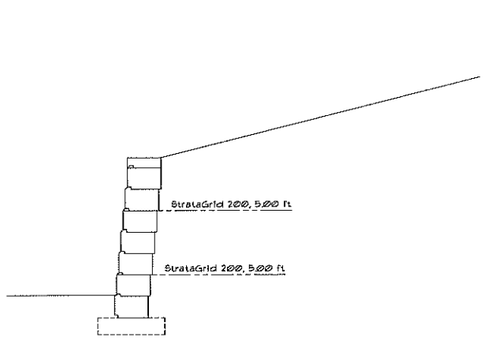

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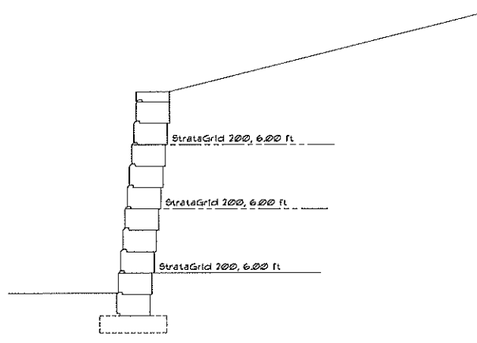

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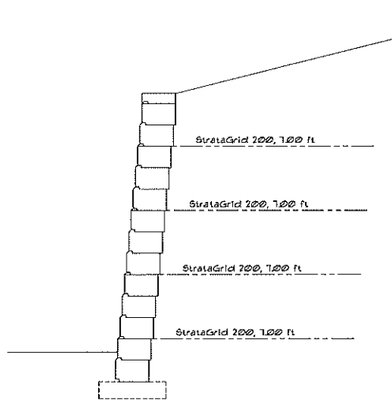

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WALL 3 SECTIONS

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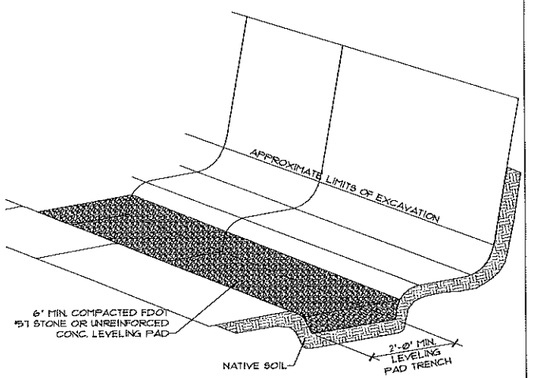

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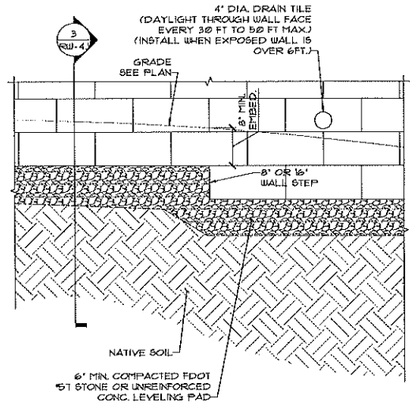

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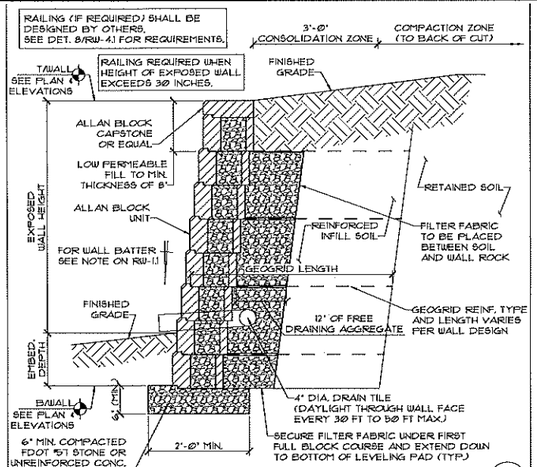

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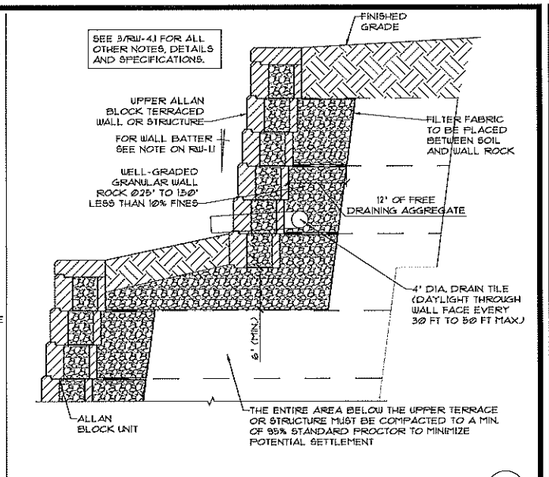

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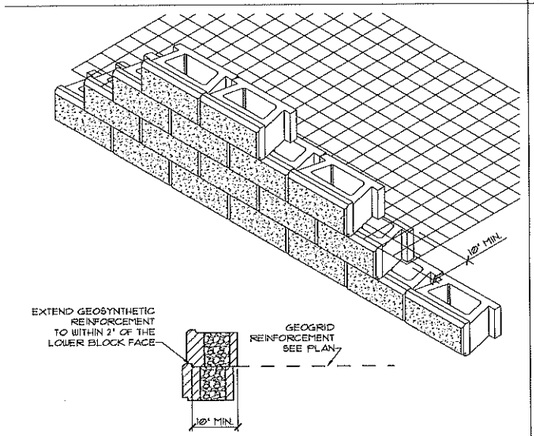

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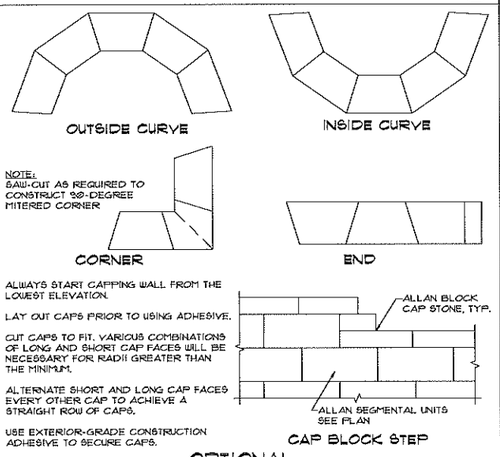

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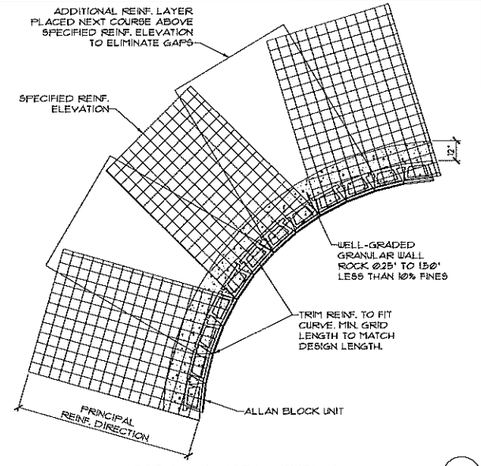

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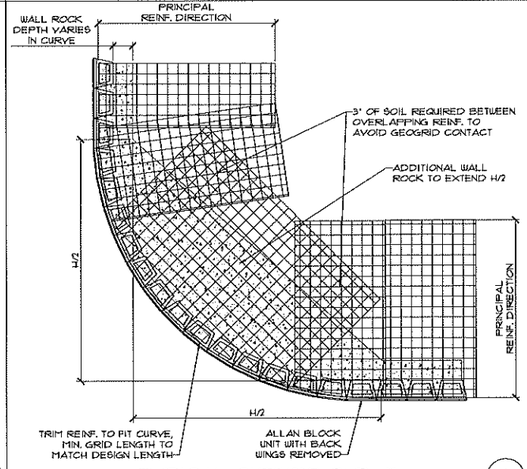

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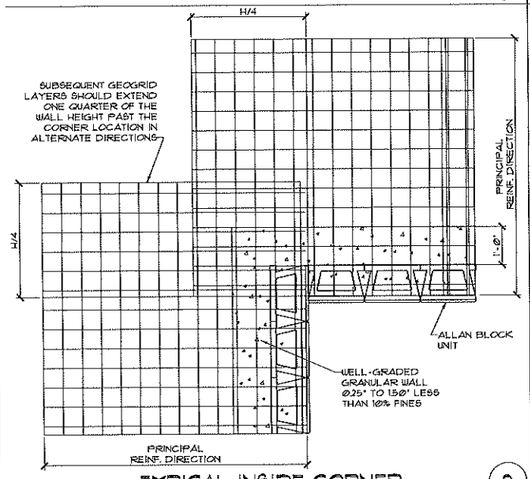

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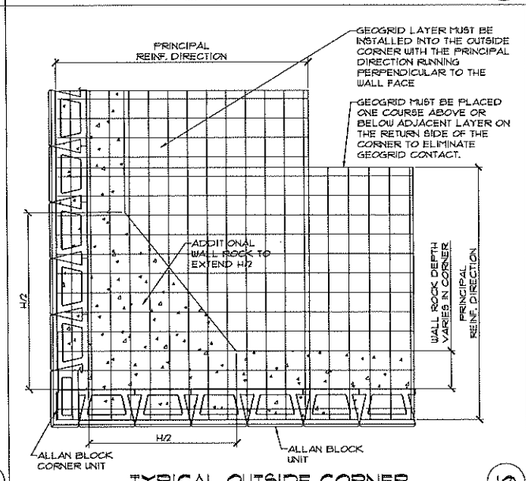

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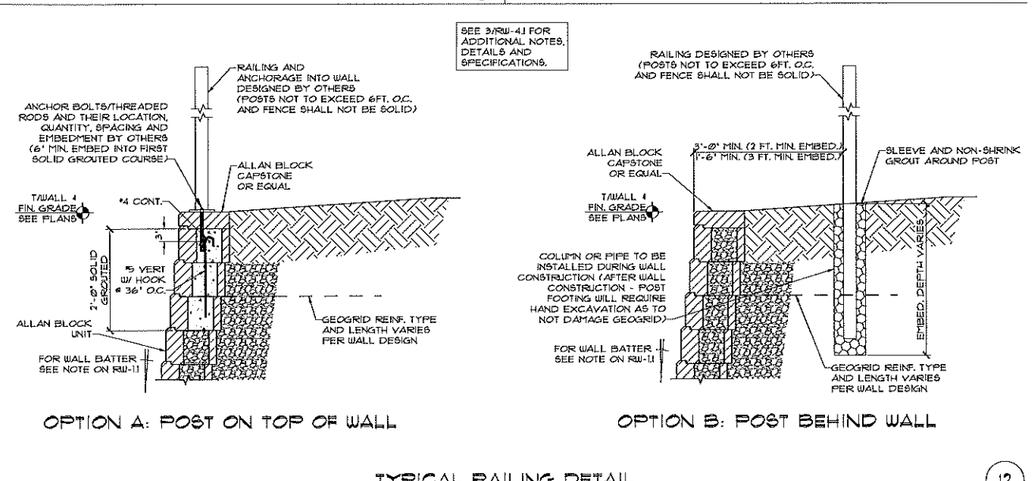

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DETAILS

MEADOWVIEW APARTMENTS
1611 VICK RD.
APOPKA, FL 32712

03-23-2018
CHAD E. HATCHER P.E.
FL. PROF. REG. NO. 84151

REVISIONS

DATE: 03/23/2018
SCALE: AS NOTED
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JOB NO: 18-059

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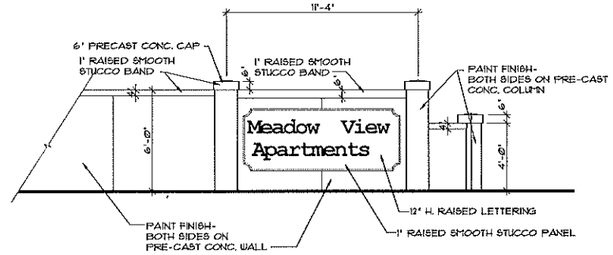
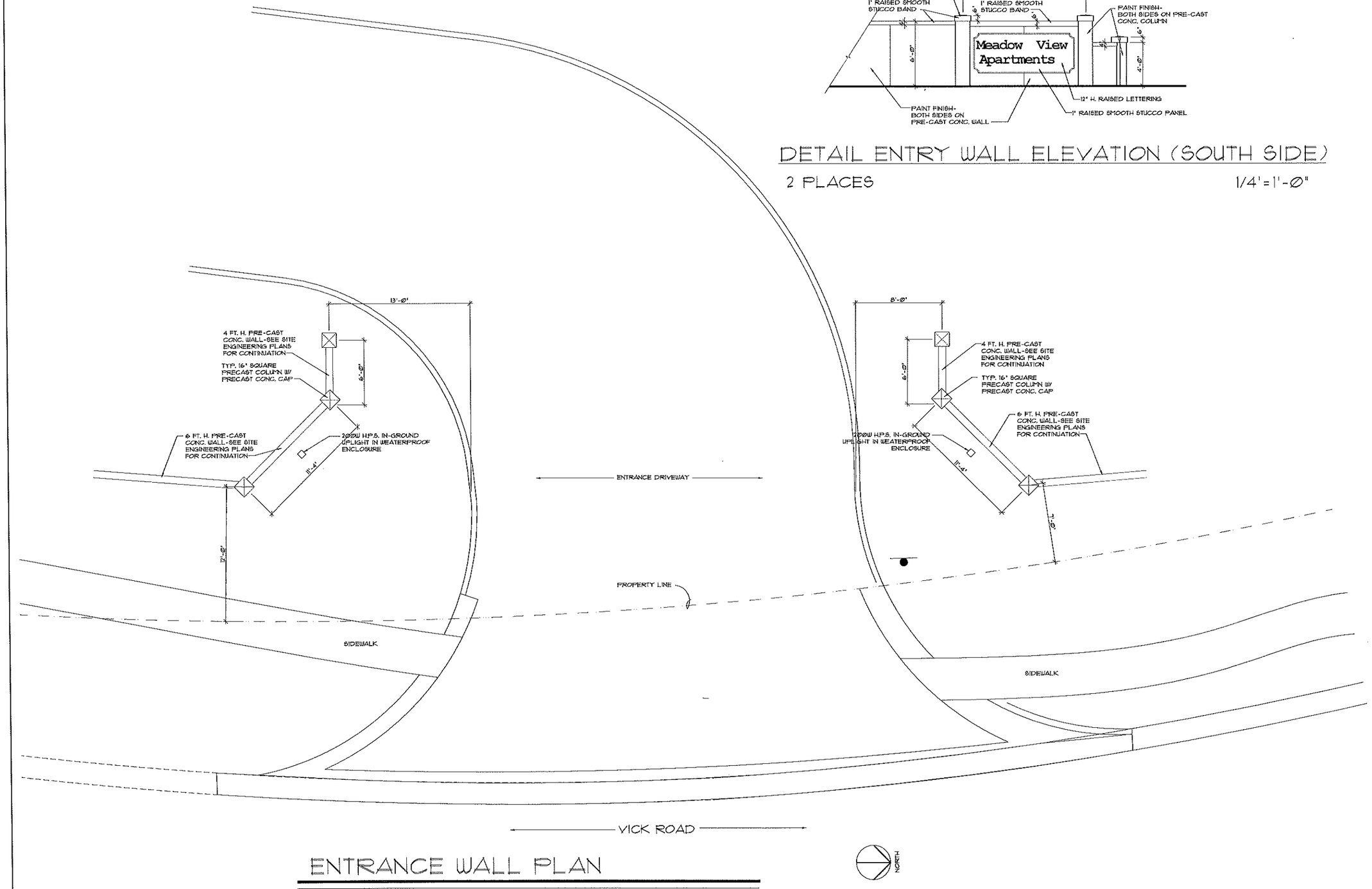


DETAIL ENTRY WALL ELEVATION (SOUTH SIDE)

2 PLACES

1/4" = 1'-0"



ENTRANCE WALL PLAN

1/4" = 1'-0"

REVISIONS	
1	11/30/2017
2	
3	
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7	
8	

PROJECT NO. 1617.08.16-01

DATE 11-5-2016

ENTRY WALL DETAILS
NOTES, SCHEDULES

MEADOW VIEW APARTMENTS FOR:
HILAL PROPERTIES
INTERSECTION OF WELCH & VICK ROADS
APOPKA, FLORIDA

AA26002490

RABITS & ROMANO
ARCHITECTURE
PLANNING AND DESIGN

5127 SOUTH ORANGE AVE.
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www.rabits-architect.com

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A-01
OF
-

MEADOW VIEW APARTMENTS
BUILDING TYPE A

RABITS + ROMANO ARCHITECTURE

1	2	3	4	5	6
SW 6130 MANNERED GOLD	SW 6048 TERRA BRUN	SW 2854 CARRIBEAN CORAL	SW 7570 EGRET WHITE	SW 2861 AVOCADO	SW 7005 PURE WHITE(FOR TRIM)

MEADOW VIEW APARTMENTS

BUILDING TYPE B

RABITS + ROMANO ARCHITECTURE

1	2	3	4	5	6
SW 6130 MANNERED GOLD	SW 6048 TERRA BRUN	SW 2854 CARRIBEAN CORAL	SW 7570 EGRET WHITE	SW 2861 AVOCADO	SW 7005 PURE WHITE(FOR TRIM)

MEADOW VIEW APARTMENTS
CLUBHOUSE

RABITS + ROMANO ARCHITECTURE

SW 6130 MANNERED GOLD	SW 6048 TERRA BRUN	SW 2854 CARRIBEAN CORAL	SW 7570 EGRET WHITE	SW 2861 AVOCADO	SW 7005 PURE WHITE

MEADOW VIEW APARTMENTS
Project № 17032 v2.0
November 2017

TRAFFIC IMPACT ANALYSIS
CITY OF APOPKA
FLORIDA

Prepared by:

Traffic & Mobility Consultants
3101 Maguire Boulevard, Suite 265
Orlando, Florida 32803
www.trafficmobility.com
(407) 531-5332

Prepared for:

Allonde Development LLC
160 N Spring Lake Drive
Altamonte Springs, Florida 32714

EXECUTIVE SUMMARY

This traffic analysis was performed to assess the impact of the proposed Meadow View Apartments. The site is located on the intersection of Vick Road and Welch Road in the City of Apopka. The property will include a total of 43 apartment units.

The analysis evaluated project impacts to roadway segments and intersections within the primary site's influence area and a preliminary access review. The results of the analysis as documented herein are summarized below:

- The proposed development will generate a new daily traffic volume of 384 vehicle trips, of which 26 will occur in the PM peak hour.

- Analysis of roadway segment capacity reveals that all study segments currently operate within their adopted capacity and are projected to continue to do so at project buildout.

- Analysis of the study intersections indicates that they currently operate at adequate LOS and are projected to continue to do so at project buildout.

- A review of the project driveway at Vick Road and the required turn lane treatments reveals that turn deceleration lanes on Vick Road are not warranted or necessary to serve the projected traffic.

- Queuing is not anticipated at the access driveway on Vick Road. The proposed left turn lane is approximately 170 feet long and is adequate to serve the projected left turns.

- ***The proposed development does not adversely impact traffic operations in the vicinity of the site.***

PROFESSIONAL ENGINEERING CERTIFICATION

I hereby certify that I am a Professional Engineer properly registered in the State of Florida practicing with Traffic & Mobility Consultants LLC, a corporation authorized to operate as an engineering business, EB-30024, by the State of Florida Department of Professional Regulation, Board of Professional Engineers, and that I have prepared or approved the evaluations, findings, opinions, conclusions, or technical advice attached hereto for:

PROJECT: Meadow View Apartments

LOCATION: City of Apopka, Florida

CLIENT: Allonde Development LLC

I hereby acknowledge that the procedures and references used to develop the results contained in these computations are standard to the professional practice of Transportation Engineering as applied through professional judgment and experience.

NAME: Mohammed Abdallah

P.E. No.: Florida P.E. No. 56169

DATE: November 13, 2017

SIGNATURE: _____

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Appendix B Meadow View Apartments Study Methodology
Appendix C City of Apopka CMS Data
Appendix D Traffic Counts & FDOT Seasonal Factors
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1.0 INTRODUCTION

This revised traffic analysis was performed to assess the impact of the proposed Meadow View Apartments located on the intersection of Vick Road and Welch Road in the City of Apopka. The property will include a total of 43 apartment units. **Figure 1** depicts the location of the project site and the surrounding roadway network. A preliminary site plan is provided in **Appendix A**.

The following analysis was conducted in accordance with the methodology submitted to the city, and which is included in **Appendix B**. The analysis considers the project's impacts on the following roadways and intersections, within the project's influence area:

Roadway Segments

- Welch Road
  - Vick Road to Rock Spring Road

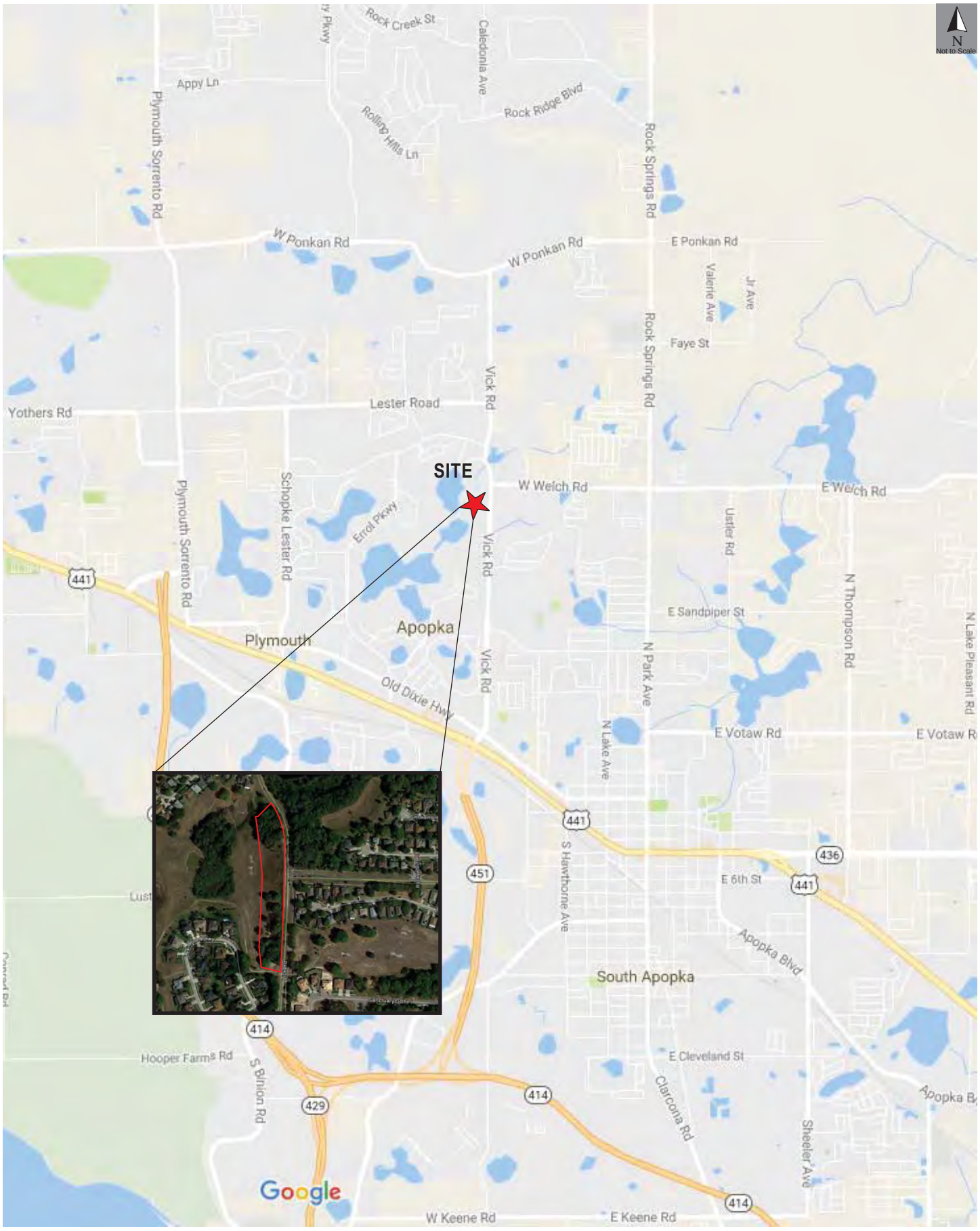
- Lester Road
  - Rock Spring Road to Vick Road
  - Vick Road to Schopke Lester Road

- Vick Road
  - Old Dixie Highway to Martin Street
  - Martin Street to Welch Road
  - Welch Road to Lake Francis Drive
  - Lake Francis Drive to Lester Road
  - Lester Road to Ponkan Road

Intersections

- Vick Road & Welch Road
- Vick Road & Access

Data used in the analysis consisted of site plan/development information provided by the Project Engineers, PM peak hour traffic counts obtained by Traffic & Mobility Consultants LLC (TMC), road segment data obtained from the City of Apopka, seasonal data obtained from Florida Department of Transportations (FDOT).



TMC Traffic & Mobility Consultants

Site Location Map

Meadow View Apartments
17032 v2.0

Figure 1

2.0 EXISTING CONDITIONS ANALYSIS

2.1 Roadway Segment Capacity

Table 1 presents a summary of the existing conditions for the roadway segments examined in this study. Roadway segments were analyzed by comparing the existing Level of Service (LOS) for each roadway segment with the adopted LOS standard. Existing Daily, PM peak hour directional traffic volumes, capacities, and committed trips were obtained from the City of Apopka's *Encumbered Traffic Allocation Worksheets*, which are included in **Appendix C**.

Table 1
Existing Roadway Capacity Analysis

Roadway Segment	No Lns	LOS Std	Daily					PM Peak Hour					
			Capacity	Volume	Comm Trips	Total	LOS	Capacity	Volume	Peak Dir	Comm Trips	Total	LOS
Welch Rd													
Vick Rd to Rock Spring Rd	2	E	16,400	10,312	227	10,539	A	840	518	NB/EB	24	542	A
Lester Rd													
Rock Spring Rd to Vick Rd	2	E	14,000	3,910	115	4,025	C	720	227	SB/WB	12	239	C
Vick Rd to Schopke Lester Rd	2	E	14,000	3,910	439	4,349	C	720	227	SB/WB	42	269	C
Vick Rd													
Old Dixie Hwy to Martin St	2	E	16,400	12,674	40	12,714	D	840	758	NB/EB	2	760	D
Martin St to Welch Rd	2	E	16,400	11,510	208	11,718	D	840	684	NB/EB	21	705	D
Welch Rd to Lake Francis Dr	2	E	14,000	10,107	34	10,141	D	720	520	NB/EB	1	521	D
Lake Francis Dr to Lester Rd	2	E	14,000	7,264	346	7,610	C	720	362	NB/EB	34	396	C
Lester Rd to Ponkan Rd	2	E	14,000	11,980	191	12,171	D	720	277	NB/EB	18	295	C

The existing conditions analysis reveals that the study roadway segments currently operate at satisfactory LOS.

2.2 Intersection Capacity

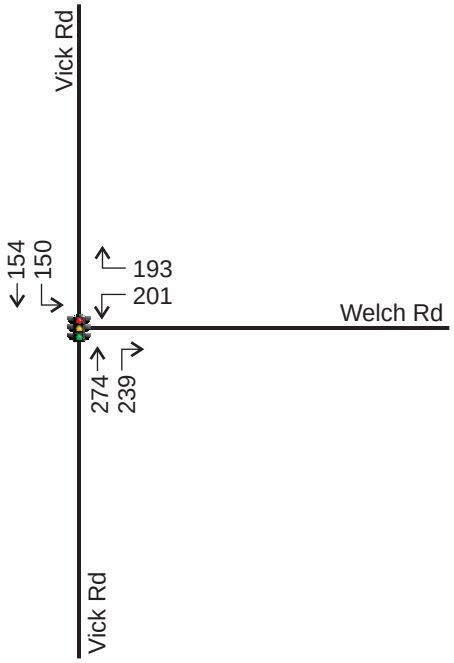
An intersection analysis was conducted using the *Synchro Software* and the methods of the *2010 Highway Capacity Manual (HCM)*. The capacity analysis was performed using the existing intersection geometries and traffic volumes during the PM peak hour. Existing turning movement counts were obtained at the study intersections. The raw turning movement counts were conducted within the peak season. Therefore, a Seasonal Adjustment Factor was not applied to the counts based on the data obtained from the FDOT Traffic Online website. The raw intersection volume counts and seasonal factors are included in **Appendix D**.

The intersection volumes are displayed in **Figure 2**. A summary of the intersection capacity analysis is shown in **Table 2**. This analysis indicates that the study intersections currently operate at satisfactory LOS. Detailed analysis worksheets are included in **Appendix E**.

Table 2
Existing Intersection Capacity Analysis

Intersection	Control	EB		WB		NB		SB		Overall	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Vick Rd & Welch Rd	Signal	--	--	36.4	D	20.5	C	9.4	A	22.7	C

N
Not to Scale



Existing PM Intersection Volumes
Meadow View Apartments
17032 v2.0

Figure
2

3.0 PROJECT TRAFFIC

3.1 Trip Generation

Information published by the Institute of Transportation Engineers (ITE) in the *Trip Generation Manual, 9th Edition* was used to determine the trip generation of the proposed development as summarized in **Table 3**. Detailed trip generation sheets are included in **Appendix F**.

Table 3
Trip Generation Analysis

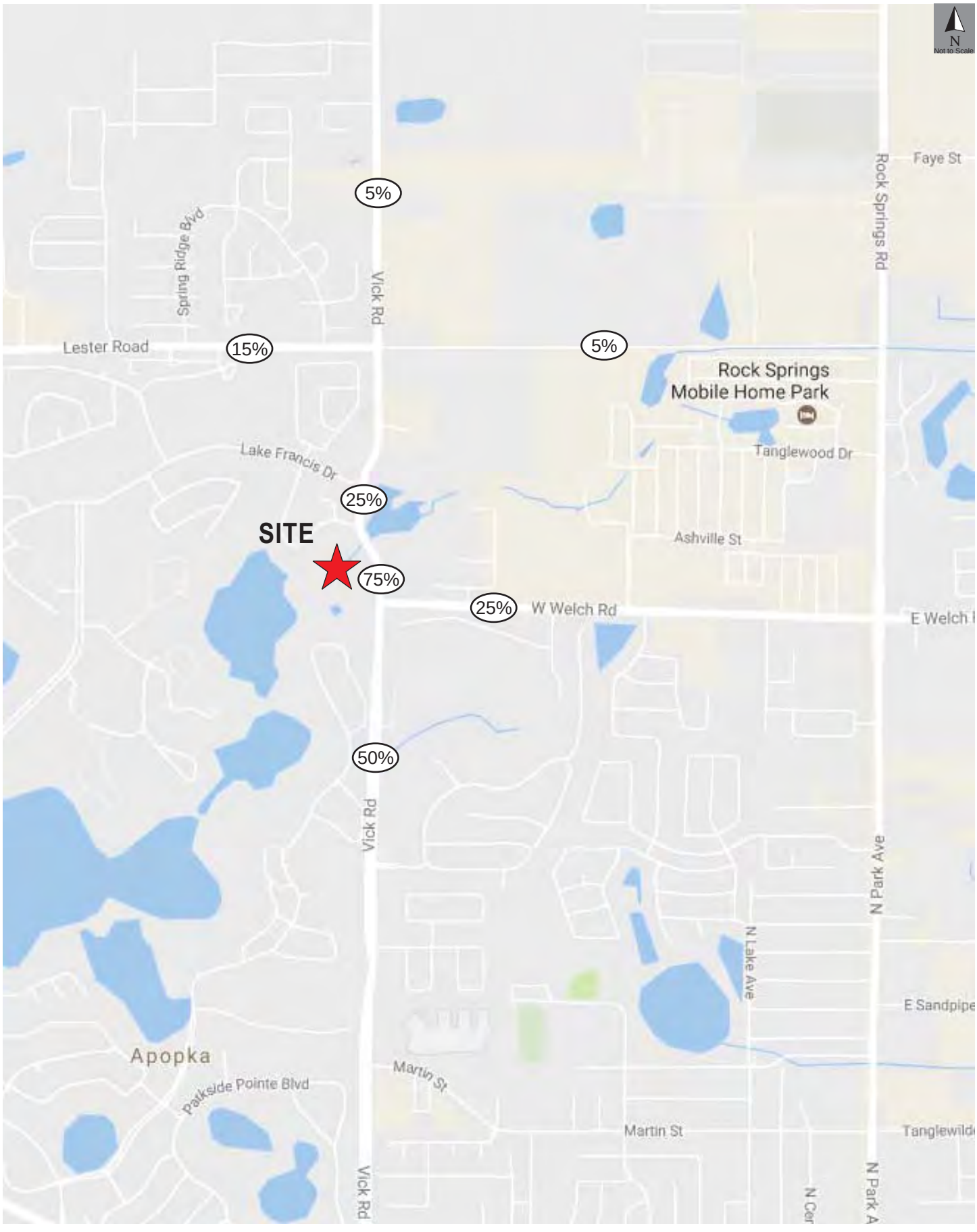
ITE Code	Land Use	Size	Daily		PM Peak Hour			
			Rate	Trips	Rate	Total	Enter	Exit
220	Apartments	43 DU	8.93	384	0.60	26	17	9

Trip generation analysis based on ITE Trip Generation Manual, 9th Edition
Eqaution has been used to calculate the rate

The proposed development will generate 384 trips per day, of which 26 trips will occur during the PM peak hour.

3.2 Trip Distribution/Assignment

To assign the PM peak hour trips generated by the proposed development to the study roadways, a distribution pattern in the general vicinity of the project site was determined based on the OUATS model output included in **Appendix G** and modified to reflect the local network and prevailing traffic patterns. The proposed trip distribution pattern is provided in **Figure 3**.



TMC Traffic & Mobility Consultants

Project Trip Distribution

Meadow View Apartments
17032 v2.0

Figure 3

4.0 PROJECTED CONDITIONS ANALYSIS

Projected traffic conditions at project buildout were analyzed for Daily and PM peak hour traffic. Buildout year for the project is 2018. The analyses were conducted for the projected background traffic volumes and project trips. Background traffic consists of existing traffic and committed trips from approved developments in the area, which were obtained from the City's *Encumbered Traffic Allocation Worksheets*.

4.1 Roadway Segment Capacity

The roadway segment analysis was performed by comparing the projected LOS of the roadway with the adopted LOS standard. This analysis is summarized in **Table 4**, which reveals that the segments will continue to operate at satisfactory LOS in the projected condition. The project's impact on the backlogged roadway segment is less than 2% of the roadway's current capacity.

Table 4
Projected Roadway Capacity Analysis

Roadway Segment	No Lns	LOS Std	Daily							PM Peak Hour						
			Capacity	Volume	Comm Trips	Trip Distr	Project Trips	Total	LOS	Capacity	Volume	Peak Dir	Comm Trips	Project Trips	Total	LOS
Welch Rd																
Vick Rd to Rock Spring Rd	2	E	16,400	10,312	227	25%	96	10,635	A	840	518	NB/EB	24	2	544	A
Lester Rd																
Rock Spring Rd to Vick Rd	2	E	14,000	3,910	115	5%	19	4,044	C	720	227	SB/WB	12	0	239	C
Vick Rd to Schopke Lester Rd	2	E	14,000	3,910	439	15%	58	4,407	C	720	227	SB/WB	42	1	270	C
Vick Rd																
Old Dixie Hwy to Martin St	2	E	16,400	12,674	40	50%	192	12,906	D	840	758	NB/EB	2	9	769	D
Martin St to Welch Rd	2	E	16,400	11,510	208	50%	192	11,910	D	840	684	NB/EB	21	9	714	D
Welch Rd to Lake Francis Dr	2	E	14,000	10,107	34	75%	288	10,429	D	720	520	NB/EB	1	7	528	D
Lake Francis Dr to Lester Rd	2	E	14,000	7,264	346	25%	96	7,706	C	720	362	NB/EB	34	2	398	C
Lester Rd to Ponkan Rd	2	E	14,000	11,980	191	5%	19	12,190	D	720	277	NB/EB	18	0	295	C

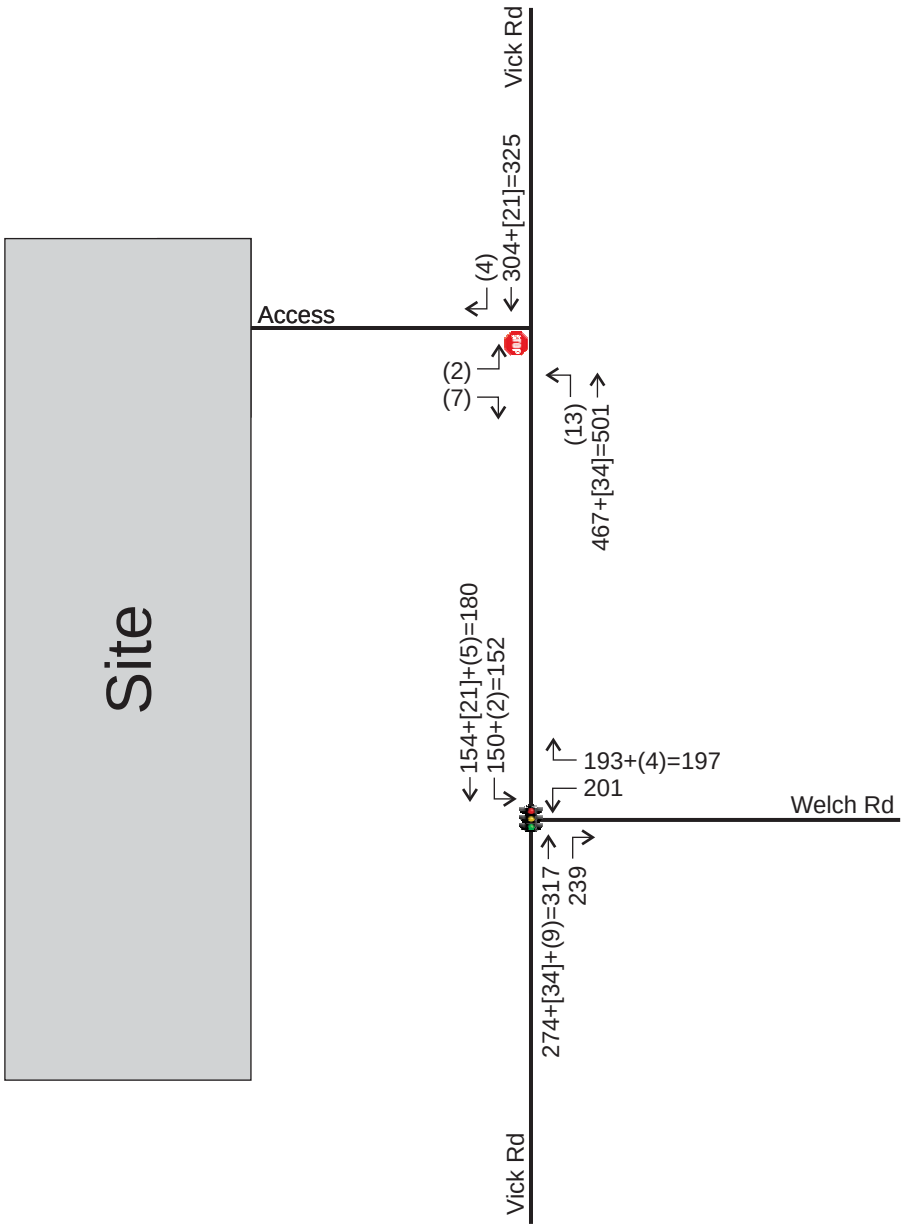
4.2 Intersection Capacity

To assess the projected operating conditions at the study intersections, an intersection capacity analysis was conducted using projected traffic volumes and projected intersection configurations. The intersections were analyzed using the *Synchro Software.* Projected peak hour volumes were calculated by adding background traffic and project trips at the intersections. Background traffic is comprised of existing and committed traffic at the intersections. Committed trips were estimated by assigning the segment committed trips to the intersection turning movements. The projected PM peak intersection volumes are shown in **Figure 4**, and the intersection analysis is summarized in **Table 5**.

Table 5
Projected Intersection Capacity Analysis

Intersection	Control	EB		WB		NB		SB		Overall	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Vick Rd & Welch Rd	Signal	--	--	36.6	D	21.8	C	9.7	A	23.1	C
Vick Rd & Access	TWSC	11.9	B	--	--	8.0	A	--	--	--	--

The analysis shows that the intersections will continue to operate at satisfactory LOS in the projected conditions. Detailed printouts of the analysis are included in **Appendix H.**



Legend
Background+[Committed]+(Project)=Total

Projected PM Intersection Volumes
Meadow View Apartments
17032 v2.0

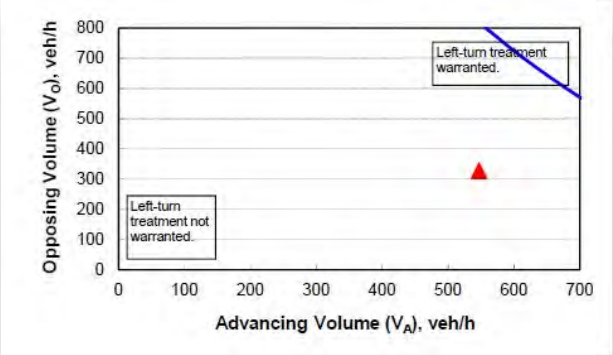
Figure 4

5.0 SITE ACCESS REVIEW

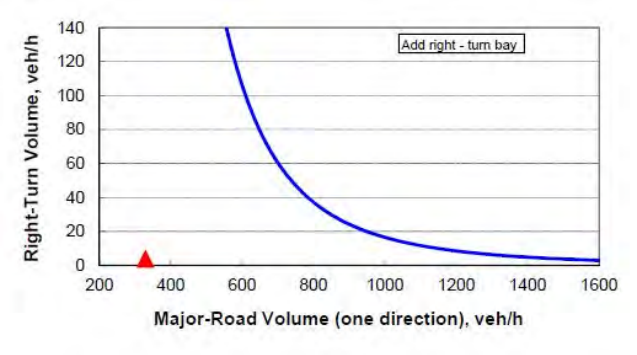
The site is proposed to be served by a full access driveway, located approximately 650 feet north east of the intersection of Vick Road and Welch Road. The following review evaluates the proposed access configuration and the warrants for deceleration lanes at the driveways.

Turn Lane Warrants

A review of warrants for left and right turn deceleration lanes on Vick Road at the Meadow View driveway was conducted to determine if auxiliary turn lanes are necessary to maintain the integrity of traffic flow and capacity of the road during the peak hours. The review was conducted based on the methodology of the National Cooperative Highway Research Program (NCHRP) Report 457. The results of the warrants are summarized in the charts below and the full output forms are included in **Appendix I**.



Left Turn Lane Warrant



Right Turn Lane Warrant

Based on this review, turn lanes are not required on Vick Road at the intersection of Vick Road and project access.

Left Turn Lane at Vick Road (NB)

Although a left turn lane is not warranted by volume, one is proposed to minimize the potential friction from the proposed full access driveway on Vick Road. The proposed left turn deceleration lane on Vick Road should be designed in accordance with the requirements of Index 301 of the *FDOT Design Standards* for a speed of 35 mph. A copy of FDOT Index 301 is included in **Appendix J**. The queue storage area is based on the Preparation Manual (PPM) formula for queue length storage.

Queue Storage = 2 x 25 x # of Vehicles / 60

The required turn lane length is as follows:

Total Length = Deceleration Length + Storage
Deceleration @ 35 mph = 145 feet (incl. 50-foot taper)
Queue = 2 x 25 x # of Vehicles / 60
= 2 x 25 x 13 Vehicles / 60
= 11 feet (use 25 minimum)
Total = 145 + 25 = 170 feet (include 50-foot taper)

The proposed left turn lane is approximately 170 feet which is adequate to serve the projected left turns into the site.

6.0 STUDY CONCLUSIONS

This traffic analysis was performed to assess the impact of the proposed Meadow View Apartments. The site is located on the intersection of Vick Road and Welch Road in the City of Apopka. The property will include a total of 43 apartment units.

The analysis evaluated project impacts to roadway segments and intersections within the primary site's influence area and a preliminary access review. The results of the analysis as documented herein are summarized below:

- The proposed development will generate a new daily traffic volume of 384 vehicle trips, of which 26 will occur in the PM peak hour.

- Analysis of roadway segment capacity reveals that all study segments currently operate within their adopted capacity and are projected to continue to do so at project buildout.

- Analysis of the study intersections indicates that they currently operate at adequate LOS and are projected to continue to do so at project buildout.

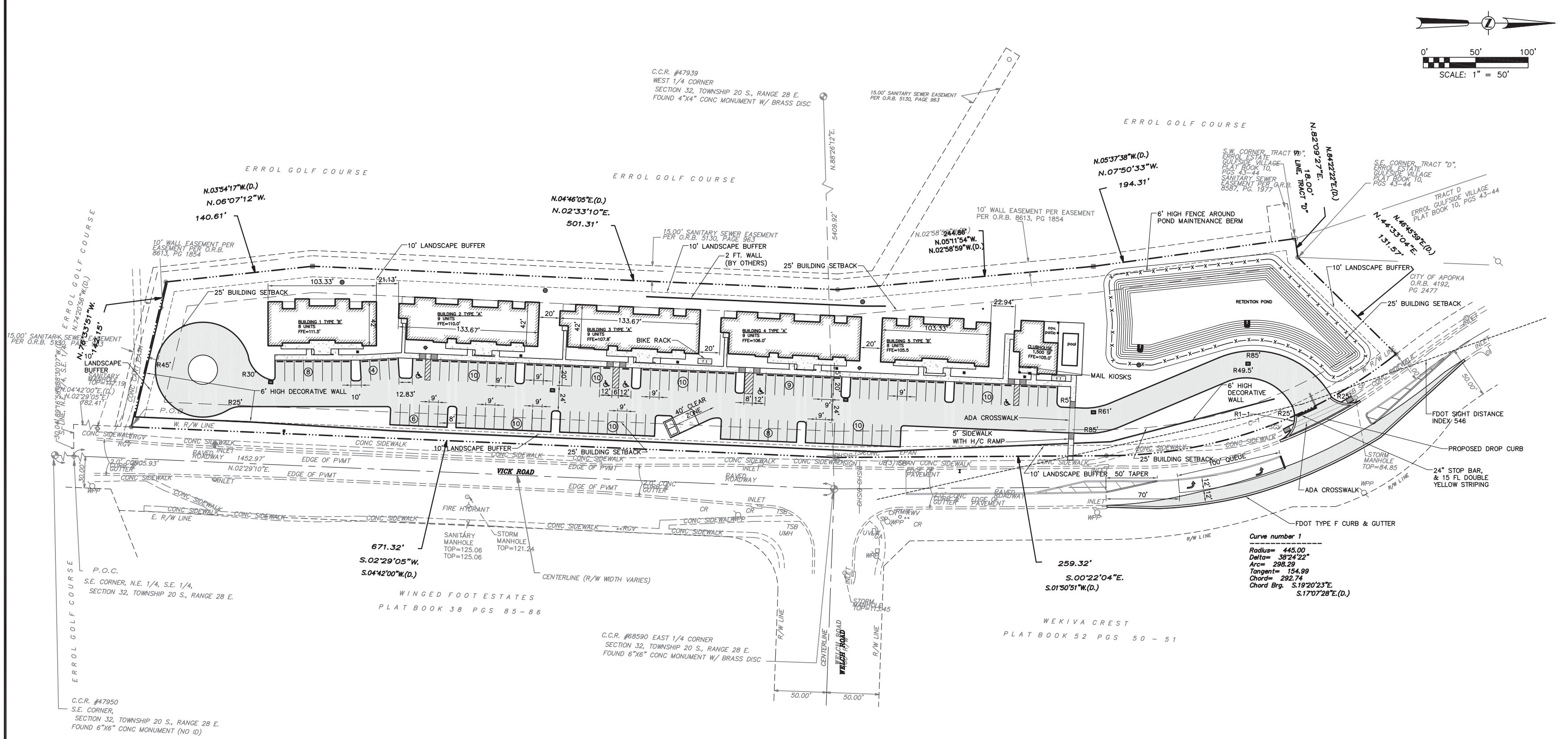
- A review of the project driveway at Vick Road and the required turn lane treatments reveals that turn deceleration lanes on Vick Road are not warranted or necessary to serve the projected traffic.

- Queuing is not anticipated at the access driveway on Vick Road. The proposed left turn lane is approximately 170 feet long and is adequate to serve the projected left turns.

- ***The proposed development does not adversely impact traffic operations in the vicinity of the site.***

APPENDICES

Appendix A
Preliminary Site Plan



STRIPING NOTES

1. TYPICAL PARKING SPACE SHALL BE STRIPED WITH A 6" WHITE STRIPE.
2. SEE DETAILS FOR HANDICAP PARKING.
3. 30" HIGH INTENSITY STOP SIGNS AND WHITE, THERMOPLASTIC STOP BARS FOR THE DRIVEWAYS

SITE LEGEND

SITE BOUNDARY LINE	
CENTER LINE OF ROAD	
EASEMENT LINE	
EXISTING EDGE OF PAVEMENT	
PROPOSED 6", 3000 PSI CONCRETE	
PROPOSED 7", 4000 PSI CONCRETE	
SIDEWALK	S/W
LINEAR FEET	LF
SQUARE FEET	SF
HANDICAP PARKING	♿
HANDICAP	HC
TYPICAL	TYP
5' RADIUS	R5'
# PARKING SPACES	(#)

GENERAL NOTES

1. ALL CURB RADII TO BE 3' UNLESS OTHERWISE NOTED.
2. ALL CURB TO BE 6" VERTICAL CURBING.
3. ALL DIMENSIONS ARE MEASURED FROM FACE OF CURB.
4. ANY PAVEMENT WORK DONE IN THE ROW WILL NEED TO UTILIZE TYPE SP-9.5 ASPHALT MIX
5. BOTH BUILDING ENTRANCES ARE FOR CUSTOMER USE
6. BASE OF LAMP POSTS SHALL BE FLUSH TO THE GROUND. NO LAMP POST SHALL BE INSTALLED ON A BOLLARD OR SIMILAR STRUCTURE THAT EXTENDS ABOVE THE SURROUNDING GRADE. ADD NOTE: LIGHT POLE FOOTERS CANNOT BE EXPOSED ABOVE FINISH GRADE.
7. THE CUL-DE-SAC HAS BEEN DESIGNED IN ACCORDANCE WITH ALL APPROPRIATE TRAFFIC ENGINEERING AND GEOMETRY STANDARDS.

POOL NOTES

POOL SIZING AS FOLLOWS PER FLORIDA POOL CODE 64E-9.006 (B):

- MINIMUM POOL SIZE- 15' X 15'.
- MINIMUM WATER RECIRCULATION FLOW- 215 GPM (43 UNITS AT 5 GPM).
- FILTRATION SYSTEM- 1 GPM FOR EACH LIVING UNIT = 43 GPM.

BUILDING SETBACKS

NORTH = 25'
EAST = 25'
WEST = 25'
SOUTH = 25'

LANDSCAPE BUFFERS

NORTH = 10'
EAST = 10'
WEST = 10'
SOUTH = 10'

BICYCLE PARKING NOTE

BICYCLE PARKING DEVICES SHALL MEET THE FOLLOWING:

A. BE DESIGNED TO ALLOW EACH BICYCLE TO BE SUPPORTED BY ITS FRAME.
B. BE DESIGNED TO ALLOW THE FRAME AND WHEELS OF EACH BICYCLE TO BE SECURED AGAINST THEFT.
C. BE DESIGNED TO AVOID DAMAGE TO THE BICYCLES.
D. BE ANCHORED TO RESIST REMOVAL AND SOLIDLY CONSTRUCTED TO RESIST DAMAGE BY RUST, CORROSION, AND VANDALISM.
E. ACCOMMODATE A RANGE OF BICYCLE SHAPES AND SIZES AND TO FACILITATE EASY LOCKING WITHOUT INTERFERING WITH ADJACENT BICYCLES.
F. BE LOCATED TO PREVENT DAMAGE TO BICYCLES BY CARS.
G. BE CONSISTENT WITH THE SURROUNDINGS IN COLOR AND DESIGN AND BE INCORPORATED WHENEVER POSSIBLE INTO BUILDING OR STREET FURNITURE DESIGN.
H. BE LOCATED IN CONVENIENT, HIGHLY VISIBLE, ACTIVE, WELL-LIGHTED AREAS.
I. BE LOCATED SO AS NOT TO INTERFERE WITH PEDESTRIAN MOVEMENTS.
J. BE LOCATED AS NEAR THE PRINCIPAL ENTRANCE OF THE BUILDING AS PRACTICABLE.
K. PROVIDE SAFE ACCESS FROM THE SPACES TO THE RIGHT-OF-WAY OR BICYCLE LANE.

#	Date	Description	By
1	07/13/17	REVISED PER CITY COMMENTS	STA
2	08/08/17	REVISED PER CITY COMMENTS	STA
3			
4			

Revisions

Project No. 132-002
Drawn By CEF
Scale 1"=50'
Date 02/02/2017

ALLONDE DEVELOPMENT LLC

CivilCorp Engineering, Inc.
630 N Wymore Rd, Ste 310
Maitland, FL 32751
Phone 407-516-0437
Certificate of Authorization No. 29390

Stephen Allen, PE # 59994
Engineer FL Reg No

PROJECT NAME: MEADOW VIEW APARTMENTS
1611 VICK RD. APOPKA, FL

SHEET NAME: SITE PLAN

SHEET NO.
C-4 of 20

Appendix B
Meadow View Apartments Study Methodology

MEMORANDUM

April 26, 2017

Re: Meadow View Apartments
Traffic Impact Analysis Methodology
Project № 17032

The following is a methodology outline for the Traffic Impact Analysis (TIA) for the above referenced project.

Project Description

The proposed project includes a 43 Apartment units. A copy of the proposed site plan is provided in the **Attachments**.

Project Location

The site is located on Vick Road, west of the intersection with Welch Road in the City of Apopka (see **Figure 1**).

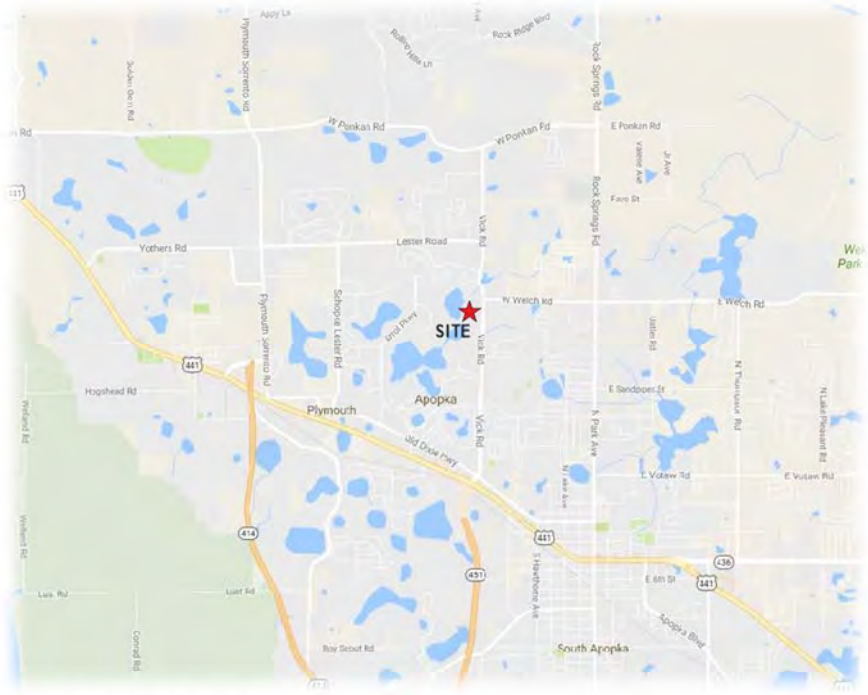


Figure 1 – Project Location

Project Access

Primary access to the site will be provided throw a proposed Right-in/Right-out driveway on Vick Road as shown in the proposed concept plan in the **Attachments**.

Trip Generation

The trip generation analysis was conducted using information published by the Institute of Transportation Engineers (ITE) in the *Trip Generation Manual, 9th Edition*. **Table 1** summarizes the resulting trip generation analysis conducted. The ITE Trip Generation sheets are attached.

Table 1
Trip Generation

ITE Code	Land Use	Size	Daily		PM Peak Hour			
			Rate	Trips	Rate	Total	Enter	Exit
220	Apartments	43 DU	8.93	384	0.60	26	17	9

Trip generation analysis based on ITE Trip Generation Manual, 9th Edition

Proposed Trip Distribution

A trip distribution pattern was estimated using the OUATS model and modified to reflect the local network and prevailing traffic flow patterns. The OUATS output is included in the **Attachments**. And the general distribution presents as follows:

To/from South on Vick Road	50%
To/from North on Vick Road	25%
To/from East on Welch Road	25%

Study Area

The following intersections and roadway segments will be analyzed for the PM peak hour as part of this study:

Study Intersections

- Vick Road & Welch Road
- Vick Road & Access

Roadway Segments

- Welch Road
  - Vick Road to Rock Spring Road

- Lester Road
  - Rock Spring Road to Vick Road
  - Vick Road to Schopke Lester Road

- Vick Road
  - Old Dixie Highway to Martin Street
  - Martin Street to Welch Road
  - Welch Road to Lake Francis Drive
  - Lake Francis Drive to Lester Road
  - Lester Road to Ponkan Road

Appendix C
City of Apopka CMS Data

City of Apopka CMS
Daily and PM Peak Hour/Peak Direction (PH/PD) Encumbered Traffic Allocation Worksheets
FINAL REPORT

Base Traffic Volume: 2015

Revision Date: 2/9/2016

Roadway Section	# of Lanes	Adopted Standard Roadway Capacity LOS	Daily	PHPD	Applicant Inventory	Encumbered Trips Daily	PM PH/PD	Daily Traffic Base Volume	Available Capacity	PM PH/PD Traffic Base Volume	Available Capacity	Peak Direction
Minor Arterials (Continued)												
Wekiva Springs Road/Piedmont-Wekiwa Road/Hiawassee Road												
Votaw Rd to SR 436	5L	E	39,800	2,000				23,591	16,078	1,304	690	NB/EB
					Apopka Gateway Center	50	2		40.40%		34.50%	
					North Park (FF Rests)	81	4					
					Applicant Inventory Total	131	6					
SR 436 to Piedmont Lakes Blvd	5L	E	39,800	2,000				26,964	12,276	1,423	542	NB/EB
					Apopka Gateway Center	269	12		30.84%		27.10%	
					North Park (FF Rests)	291	23					
					Applicant Inventory Total	560	35					
Piedmont Lakes Blvd to US 441	5L	E	39,800	2,000				28,809	10,700	1,772	205	NB/EB
					North Park (FF Rests)	291	23		26.88%		10.25%	
					Applicant Inventory Total	291	23					
US 441 to CR 424 (Apopka Blvd)	4LD	E	39,800	2,000				23,571	16,229	1,111	889	NB/EB
					Development Name	0	0		40.78%		44.45%	
					Applicant Inventory Total	0	0					
CR 424 (Apopka Blvd) to SR 414	4LD	E	39,800	2,000				19,336	20,464	864	1,136	NB/EB
					Development Name	0	0		51.42%		56.80%	
					Applicant Inventory Total	0	0					
SR 414 to Beggs Rd	4LD	E	39,800	2,000				21,460	18,340	908	1,092	NB/EB
					Development Name	0	0		46.08%		54.60%	
					Applicant Inventory Total	0	0					
Welch Road												
Vick Rd to Rock Springs Rd (CR 435)	2L	E	16,400	840				10,312	5,861	518	298	NB/EB
					Ladybird Academy	72	8		35.74%		35.48%	
					Sanctuary Golf Estates (fka Apopka Golf Residence)	155	16					
					Applicant Inventory Total	227	24					
Rock Springs Rd (CR 435) to Ustler Rd	3L	E	35,000	1,720				16,707	18,222	774	938	SB/WB
					Ladybird Academy	71	8		52.06%		54.53%	
					Applicant Inventory Total	71	8					
Ustler Rd to Thompson Rd	2L	E	33,300	1,640				16,277	17,023	845	795	NB/EB
					Development Name	0	0		51.12%		48.48%	
					Applicant Inventory Total	0	0					
Minor Collectors												
6th Street												
Park Avenue to Alabama Ave	2L	D	9,600	490				1,963	7,637	155	335	SB/WB
					Development Name	0	0		79.55%		68.37%	
					Applicant Inventory Total	0	0					
Binion Road (CR 437)/Orange Avenue (CR 437)												
Ocoee-Apopka Rd to Harmon Rd	2L	E	17,700	880				3,580	12,086	242	486	NB/EB
					Apopka Woods	67	7		68.28%		55.23%	
					Breckenridge (fka Pines of Lake Apopka)	21	1					
					Clearlake Landing	284	21					
					Clear Lake Reserve	21	2					
					Florida Hospital Replacement	1,109	66					
					Magnolia Park Estates (fka Park Place)	87	8					
					Maudehelen, Phase 1, 2, & 3	63	7					
					Old Palm Center PUD (fka, Thompson Hills Estates)	382	40					
					Applicant Inventory Total	2,034	152					
Harmon Rd to Boy Scout Rd	2L	E	17,700	880				3,899	11,615	227	493	NB/EB
					Apopka Woods	67	7		65.62%		56.02%	
					Breckenridge (fka Pines of Lake Apopka)	21	1					
					Clearlake Landing	284	21					
					Clear Lake Reserve	21	2					
					Florida Hospital Replacement	1,261	74					
					Magnolia Park Estates (fka Park Place)	87	8					
					Maudehelen, Phase 1, 2, & 3	63	7					
					Old Palm Center PUD (fka, Thompson Hills Estates)	382	40					
					Applicant Inventory Total	2,186	160					

City of Apopka CMS
Daily and PM Peak Hour/Peak Direction (PH/PD) Encumbered Traffic Allocation Worksheets
FINAL REPORT

Base Traffic Volume: 2015 Revision Date: 2/9/2016

Roadway Section	# of Lanes	Adopted Standard LOS	Roadway Capacity Daily	Roadway Capacity PHPD	Applicant Inventory	Encumbered Trips Daily	Encumbered Trips PM PH/PD	Daily Traffic Base Volume	Daily Traffic Available Capacity	PM PH/PD Traffic Base Volume	PM PH/PD Traffic Available Capacity	PM PH/PD Traffic Peak Direction
Minor Collectors (Continued)												
Kelly Park Road												
Round Lake Rd to Plymouth-Sorrento Rd	2L	D	23,100	1,200				2,633	20,467	156	1,044	SB/WB
					Development Name	0	0		88.60%		87.00%	
					Applicant Inventory Total	0	0					
Plymouth-Sorrento Rd to Jason Dwelley Pkwy	2L	D	23,100	1,200				3,898	19,017	215	973	NB/EB
					Orchid Estates (fka J.B. Nurseries)	185	12		82.32%		81.08%	
					Applicant Inventory Total	185	12					
Jason Dwelley Pkwy to Mt. Plymouth Rd	2L	D	23,100	1,200				5,059	17,926	270	922	SB/WB
					Orchid Estates (fka J.B. Nurseries)	115	8		77.60%		76.83%	
					Applicant Inventory Total	115	8					
Mt. Plymouth Rd to Rock Springs Rd	2L	D	23,100	1,200				10,376	12,724	569	631	SB/WB
					Development Name	0	0		55.08%		52.58%	
					Applicant Inventory Total	0	0					
Lake Avenue												
Martin St to Orange St	2L	D	13,300	680				2,899	10,401	211	469	NB/EB
					Development Name	0	0		78.20%		68.97%	
					Applicant Inventory Total	0	0					
Orange St to US 441	2L	D	13,300	680				1,523	11,777	106	574	NB/EB
					Development Name	0	0		88.55%		84.41%	
					Applicant Inventory Total	0	0					
Lake Doe Boulevard												
US 441 to Dunn Cove Dr	2L	D	13,300	680				3,277	10,989	194	407	SB/WB
					Poe Reserve	788	79		82.62%		59.85%	
					Applicant Inventory Total	788	79					
Lake Francis Drive												
Schopke Lester Rd to Errol Pkwy	2L	D	13,300	680				747	12,190	31	606	SB/WB
					Errol Clubhouse Villas	363	43		91.65%		89.12%	
					Applicant Inventory Total	363	43					
Errol Pkwy to Vick Rd	2L	D	13,300	680				3,352	9,739	179	476	NB/EB
					Errol Clubhouse Villas	209	25		73.23%		70.00%	
					Applicant Inventory Total	209	25					
Lester Road												
Rock Springs Rd to Vick Rd	2L	E	14,000	720				3,910	10,965	227	559	SB/WB
					Rock Springs Estates	115	12		78.32%		77.64%	
					Applicant Inventory Total	115	12					
Vick Rd to Schopke Lester Rd	2L	E	14,000	720				3,910	9,651	227	451	SB/WB
					Belmonte Reserve (fka Greenbrook Villas, Phase 3)	165	13		68.94%		62.64%	
					Lester Ridge Subdivision	216	23					
					Rock Springs Estates	58	6		68.94%		62.64%	
					Applicant Inventory Total	439	42					
Schopke Lester Rd to Plymouth Sorrento Rd	2L	E	14,000	720				2,898	10,965	146	559	NB/EB
					Lester Ridge Subdivision	137	15		78.32%		77.64%	
					Applicant Inventory Total	137	15					
Marden Road												
Ocoee Apopka Rd to Keene Rd	2L	E	14,000	720				1,388	9,989	75	510	NB/EB
					Emerson Point	1,722	104					
					Marden Ridge Apartments (**Weighted Trips**)	901	31					
					Applicant Inventory Total	2,623	135					
Martin Street												
Park Ave to Lake Ave	2L	E	14,000	720				2,211	11,749	109	610	SB/WB
					Center of Faith	40	1		83.92%		84.72%	
					Applicant Inventory Total	40	1					
McCormick Road												
Ocoee-Apopka Rd to Clarcona Rd (CR 435)	2L	E	15,900	790				3,576	10,294	158	421	NB/EB
					Apopka Woods	431	43		64.74%		53.29%	
					Old Palm Center PUD (fka, Thompson Hills Estates)	1,599	168					
					Applicant Inventory Total	2,030	211					
Monroe Avenue												
Park Ave to Alabama Ave	2L	D	13,300	680				3,767	9,533	300	380	SB/WB
					Development Name	0	0		71.68%		55.88%	
					Applicant Inventory Total	0	0					
Alabama Ave to Sheeler Rd	2L	D	13,300	680				4,734	8,566	258	422	SB/WB
					Development Name	0	0		64.41%		62.06%	
					Applicant Inventory Total	0	0					

City of Apopka CMS
Daily and PM Peak Hour/Peak Direction (PH/PD) Encumbered Traffic Allocation Worksheets
FINAL REPORT

Base Traffic Volume: 2015 **Revision Date: 2/9/2016**

Roadway Section	# of Lanes	Adopted Standard LOS	Roadway Capacity Daily	Roadway Capacity PHPD	Applicant Inventory	Encumbered Trips Daily	Encumbered Trips PM PH/PD	Daily Traffic Base Volume	Daily Traffic Available Capacity	PM PH/PD Traffic Base Volume	PM PH/PD Traffic Available Capacity	PM PH/PD Traffic Peak Direction
Minor Collectors (Continued)												
Sandpiper Road												
Park Ave to Ustler Rd	2L	E	15,900	790				3,828	11,910	263	516	SB/WB
					Sandpiper Road Subdivision	162	11		74.91%		65.32%	
					Applicant Inventory Total	162	11					
Ustler Rd to Thompson Rd	2L	E	15,900	790				5,049	10,474	334	431	SB/WB
					Sandpiper Road Subdivision	377	25		65.87%		54.56%	
					Applicant Inventory Total	377	25					
Schopke-Lester Road												
Lester Rd to Old Dixie Hwy	2L	E	14,000	720				3,416	10,545	190	526	NB/EB
					Lester Ridge Subdivision	39	4		75.32%		73.06%	
					Applicant Inventory Total	39	4					
Thompson Road												
Welch Rd to Votaw Rd	2L	E	15,900	790				10,046	5,854	586	204	NB/EB
					Development Name	0	0		36.82%		25.82%	
					Applicant Inventory Total	0	0					
Votaw Rd to SR 436	2L	E	14,000	720				9,975	4,025	315	405	SB/WB
					Development Name	0	0		28.75%		56.25%	
					Applicant Inventory Total	0	0					
Ustler Road												
Sandpiper Rd to Welch Rd	2L	E	14,000	720				778	13,222	39	681	SB/WB
					Development Name	0	0		94.44%		94.58%	
					Applicant Inventory Total	0	0					
Vick Road												
Old Dixie Hwy to Martin St	2L	E	16,400	840				12,674	3,686	758	80	NB/EB
					Center of Faith	40	2		22.48%		9.52%	
					Applicant Inventory Total	40	2					
Martin St to Welch Rd	2L	E	16,400	840				11,510	4,682	684	135	NB/EB
					Center of Faith	20	1		28.55%		16.07%	
					Sanctuary Golf Estates (fka Apopka Golf Residence)	188	20					
					Applicant Inventory Total	208	21					
Welch Rd to Lake Francis Dr	2L	E	14,000	720				10,107	3,859	520	#REF!	NB/EB
					Sanctuary Golf Estates (fka Apopka Golf Residence)	34	#REF!		27.56%		#REF!	
					Applicant Inventory Total	34	#REF!					
Lake Francis Dr to Lester Rd	2L	E	14,000	720				7,264	6,390	362	324	NB/EB
					Belmonte Reserve (fka Greenbrook Villas, Phase 3)	110	9		45.64%		45.00%	
					Lester Ridge Subdivision	137	15					
					Rock Springs Estates	57	6					
					Wekiva Springs Reserve	42	4					
					Applicant Inventory Total	346	34					
Lester Rd to Ponkan Rd	2L	E	14,000	720				4,868	8,941	277	425	NB/EB
					Belmonte Reserve (fka Greenbrook Villas, Phase 3)	55	4		63.86%		59.03%	
					Lester Ridge Subdivision	78	8					
					Rock Springs Estates	58	6					
					Applicant Inventory Total	191	18					
Votaw Road												
Park Ave to Christiana Ave	2L	E	15,900	790				7,588	8,297	439	350	SB/WB
					Park Ave Professional Center	15	1		52.18%		44.30%	
					Applicant Inventory Total	15	1					
Christiana Ave to Thompson Rd	2L	E	15,900	790				7,857	8,043	463	327	SB/WB
					Development Name	0	0		50.58%		41.39%	
					Applicant Inventory Total	0	0					
Yothers Road/Church Drive												
US 441 to Plymouth Sorrento Rd	2L	E	14,000	720				1,592	11,852	82	579	SB/WB
					Chandler Estates	556	59					
					Applicant Inventory Total	556	59					

Notes:

1 Allowable 15% Degradation Thresholds Capacity, see attached Transportation Consulting Group's 12/29/92 letter.

Source: 2015 Traffic Counts from ***Luke Transportation Engineering Consultants, Inc.***

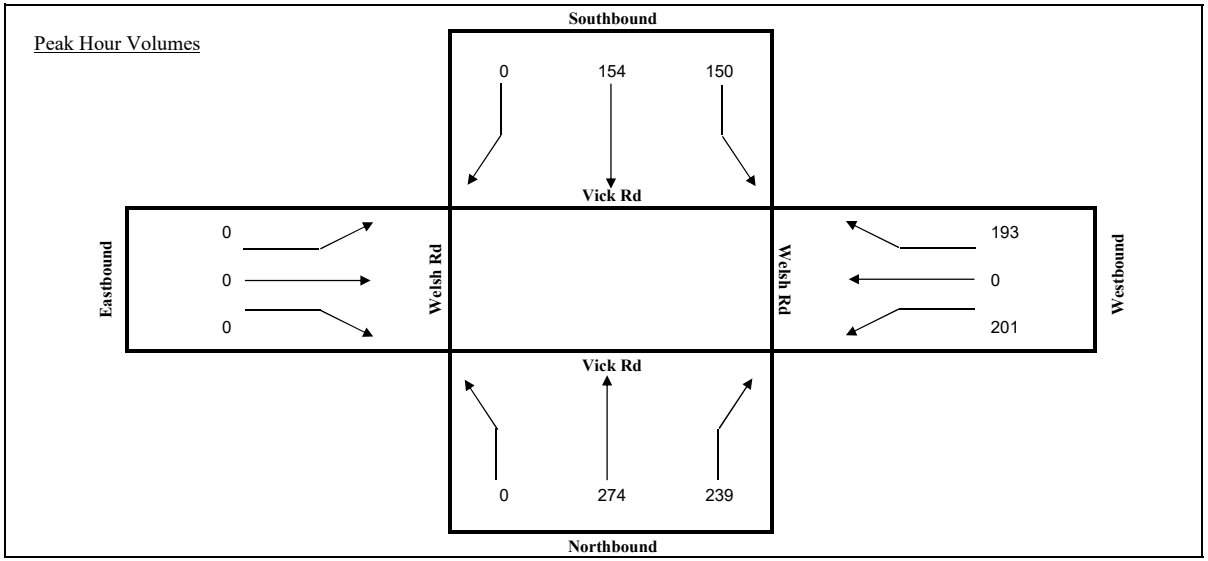
Appendix D
Traffic Counts & FDOT Seasonal Factors

TURNING MOVEMENT COUNT ANALYSIS

AUTOS & TRUCKS

Intersection (N/S): Vick Rd
Intersection (E/W): Welsh Rd
Date: 4/27/2017

			Vick Rd			Vick Rd			Welsh Rd			Welsh Rd			
			NB			SB			EB			WB			
	Start	End	L	T	R	L	T	R	L	T	R	L	T	R	TOTAL
	4:00 PM	4:15 PM	0	47	44	16	18	0	0	0	0	30	0	22	177
	4:15 PM	4:30 PM	0	66	40	16	40	0	0	0	0	41	0	36	239
	4:30 PM	4:45 PM	0	59	53	31	39	0	0	0	0	52	0	51	285
	4:45 PM	5:00 PM	0	64	60	40	44	0	0	0	0	43	0	48	299
	5:00 PM	5:15 PM	0	80	60	39	32	0	0	0	0	50	0	40	301
	5:15 PM	5:30 PM	0	67	48	41	46	0	0	0	0	48	0	55	305
	5:30 PM	5:45 PM	0	63	71	30	32	0	0	0	0	60	0	50	306
	5:45 PM	6:00 PM	0	71	56	25	30	0	0	0	0	42	0	51	275
Total for:	4:00 PM	5:00 PM	0	236	197	103	141	0	0	0	0	166	0	157	1000
Total for:	5:00 PM	6:00 PM	0	281	235	135	140	0	0	0	0	200	0	196	1187
Tota Peak Hour:	4:45 PM	5:45 PM	0	274	239	150	154	0	0	0	0	201	0	193	1211
Overall PHF:	0.99														



2016 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 7500 ORANGE COUNTYWIDE

MOCF: 0.98

WEEK	DATES	SF	PSCF
1	01/01/2016 - 01/02/2016	1.01	1.03
2	01/03/2016 - 01/09/2016	1.03	1.05
3	01/10/2016 - 01/16/2016	1.06	1.08
4	01/17/2016 - 01/23/2016	1.04	1.06
5	01/24/2016 - 01/30/2016	1.03	1.05
6	01/31/2016 - 02/06/2016	1.02	1.04
7	02/07/2016 - 02/13/2016	1.01	1.03
8	02/14/2016 - 02/20/2016	1.00	1.02
9	02/21/2016 - 02/27/2016	0.99	1.01
*10	02/28/2016 - 03/05/2016	0.99	1.01
*11	03/06/2016 - 03/12/2016	0.98	1.00
*12	03/13/2016 - 03/19/2016	0.98	1.00
*13	03/20/2016 - 03/26/2016	0.98	1.00
*14	03/27/2016 - 04/02/2016	0.98	1.00
*15	04/03/2016 - 04/09/2016	0.98	1.00
*16	04/10/2016 - 04/16/2016	0.98	1.00
*17	04/17/2016 - 04/23/2016	0.98	1.00
*18	04/24/2016 - 04/30/2016	0.98	1.00
*19	05/01/2016 - 05/07/2016	0.98	1.00
*20	05/08/2016 - 05/14/2016	0.98	1.00
*21	05/15/2016 - 05/21/2016	0.99	1.01
*22	05/22/2016 - 05/28/2016	0.99	1.01
23	05/29/2016 - 06/04/2016	1.00	1.02
24	06/05/2016 - 06/11/2016	1.00	1.02
25	06/12/2016 - 06/18/2016	1.01	1.03
26	06/19/2016 - 06/25/2016	1.01	1.03
27	06/26/2016 - 07/02/2016	1.01	1.03
28	07/03/2016 - 07/09/2016	1.01	1.03
29	07/10/2016 - 07/16/2016	1.02	1.04
30	07/17/2016 - 07/23/2016	1.01	1.03
31	07/24/2016 - 07/30/2016	1.01	1.03
32	07/31/2016 - 08/06/2016	1.00	1.02
33	08/07/2016 - 08/13/2016	1.00	1.02
34	08/14/2016 - 08/20/2016	1.00	1.02
35	08/21/2016 - 08/27/2016	1.00	1.02
36	08/28/2016 - 09/03/2016	1.01	1.03
37	09/04/2016 - 09/10/2016	1.01	1.03
38	09/11/2016 - 09/17/2016	1.02	1.04
39	09/18/2016 - 09/24/2016	1.01	1.03
40	09/25/2016 - 10/01/2016	1.01	1.03
41	10/02/2016 - 10/08/2016	1.01	1.03
42	10/09/2016 - 10/15/2016	1.00	1.02
43	10/16/2016 - 10/22/2016	1.00	1.02
44	10/23/2016 - 10/29/2016	1.00	1.02
45	10/30/2016 - 11/05/2016	1.00	1.02
46	11/06/2016 - 11/12/2016	1.00	1.02
47	11/13/2016 - 11/19/2016	1.00	1.02
48	11/20/2016 - 11/26/2016	1.00	1.02
49	11/27/2016 - 12/03/2016	1.00	1.02
50	12/04/2016 - 12/10/2016	1.01	1.03
51	12/11/2016 - 12/17/2016	1.01	1.03
52	12/18/2016 - 12/24/2016	1.03	1.05
53	12/25/2016 - 12/31/2016	1.06	1.08

* PEAK SEASON

Appendix E
Existing Conditions Analysis Worksheets

HCM 2010 Signalized Intersection Summary
2: Vick Rd & Welch Rd

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	201	193	274	239	150	154
Future Volume (veh/h)	201	193	274	239	150	154
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	203	180	277	231	152	156
Adj No. of Lanes	1	1	1	0	1	1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	390	348	455	379	492	1208
Arrive On Green	0.22	0.22	0.48	0.48	0.10	0.65
Sat Flow, veh/h	1774	1583	940	784	1774	1863
Grp Volume(v), veh/h	203	180	0	508	152	156
Grp Sat Flow(s),veh/h/ln	1774	1583	0	1724	1774	1863
Q Serve(g_s), s	9.2	9.1	0.0	19.6	3.4	2.9
Cycle Q Clear(g_c), s	9.2	9.1	0.0	19.6	3.4	2.9
Prop In Lane	1.00	1.00		0.45	1.00	
Lane Grp Cap(c), veh/h	390	348	0	834	492	1208
V/C Ratio(X)	0.52	0.52	0.00	0.61	0.31	0.13
Avail Cap(c_a), veh/h	390	348	0	834	492	1208
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.3	31.3	0.0	17.2	10.9	6.1
Incr Delay (d2), s/veh	4.9	5.4	0.0	3.3	1.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	4.5	0.0	10.1	1.8	1.5
LnGrp Delay(d),s/veh	36.2	36.7	0.0	20.5	12.5	6.4
LnGrp LOS	D	D		C	B	A
Approach Vol, veh/h	383		508			308
Approach Delay, s/veh	36.4		20.5			9.4
Approach LOS	D		C			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	15.0	50.0				65.0		26.0
Change Period (Y+Rc), s	6.0	6.0				* 6		6.0
Max Green Setting (Gmax), s	9.0	43.0				* 59		20.0
Max Q Clear Time (g_c+I1), s	5.4	21.6				4.9		11.2
Green Ext Time (p_c), s	0.1	4.3				4.9		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	22.7
HCM 2010 LOS	C

Notes

Appendix F
Trip Generation Sheets

Apartment
(220)

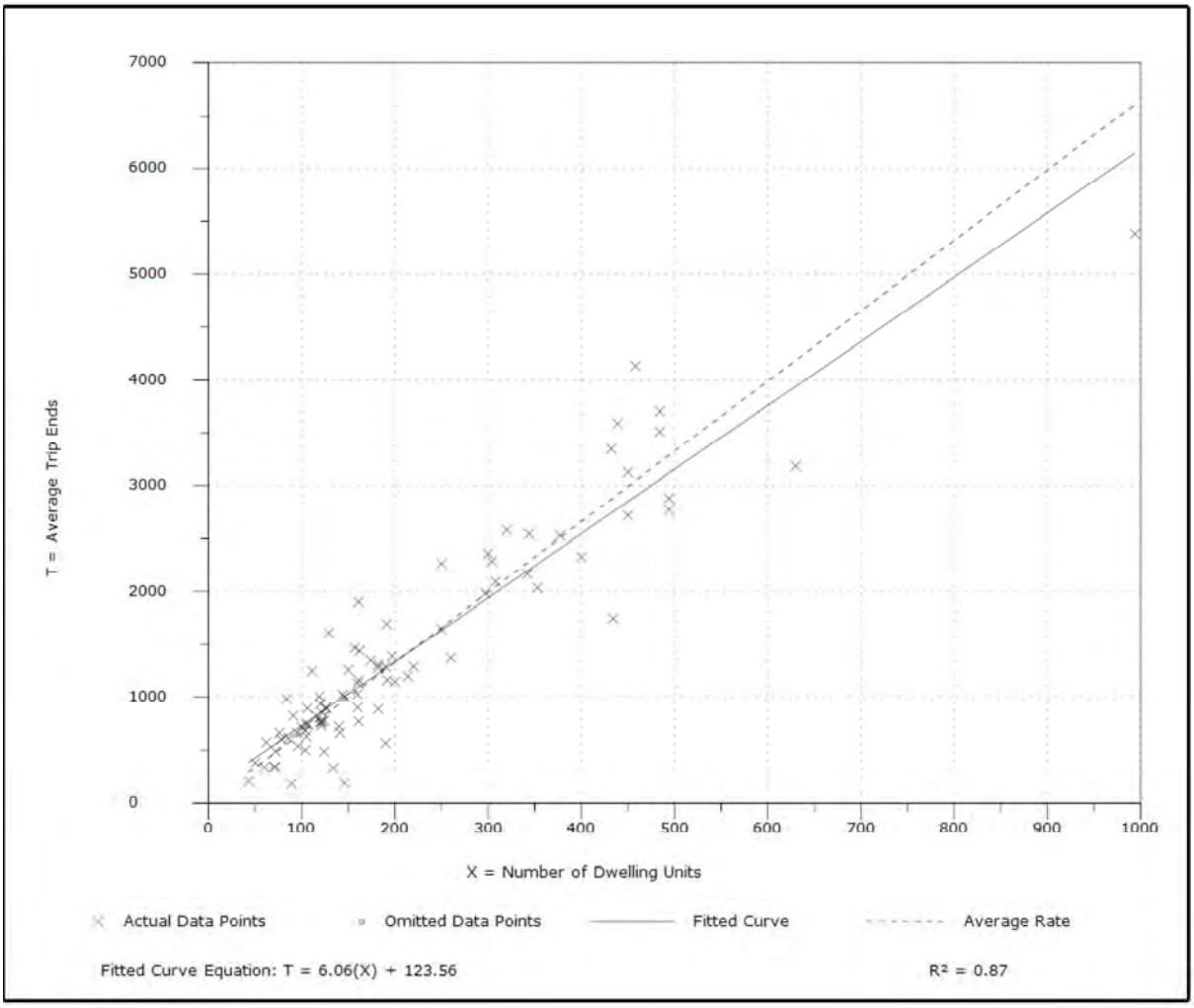
Average Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday**

Number of Studies: 88
Avg. Number of Dwelling Units: 210
Directional Distribution: 50% entering, 50% exiting

Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
6.65	1.27 - 12.5	1.68

Data Plot and Equation



Apartment
(220)

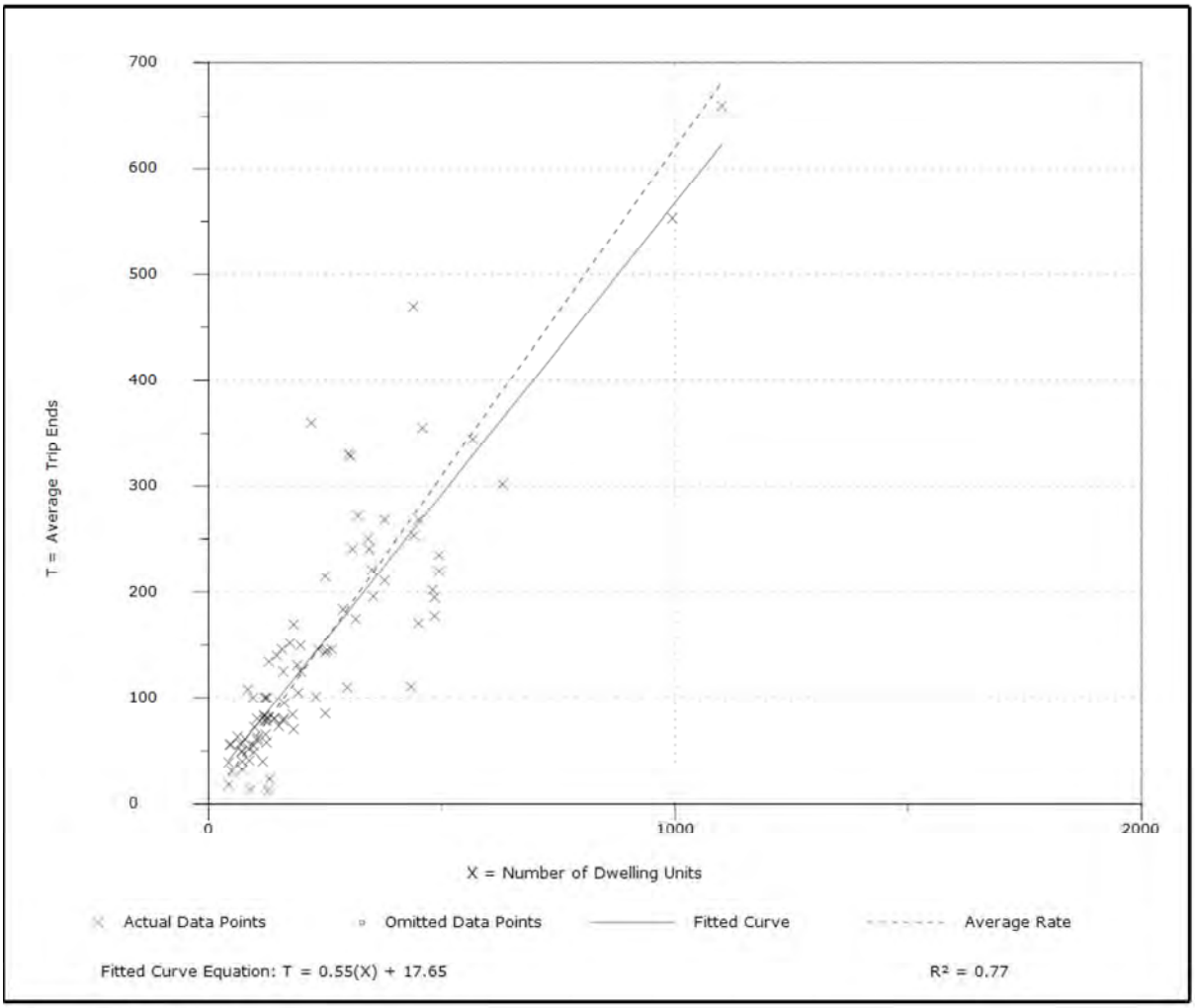
Average Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Number of Studies: 90
Avg. Number of Dwelling Units: 233
Directional Distribution: 65% entering, 35% exiting

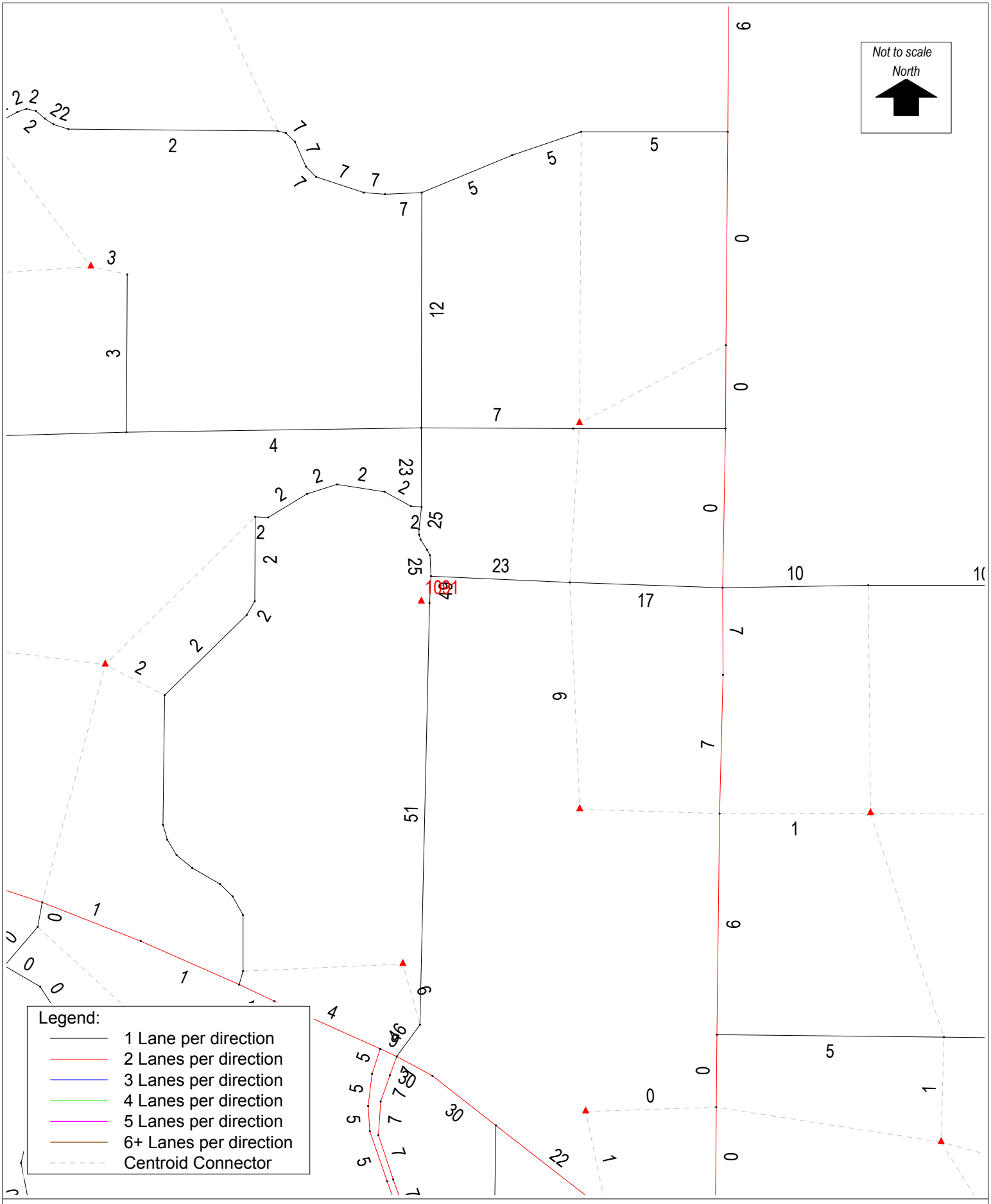
Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.62	0.1 - 1.64	0.23

Data Plot and Equation



Appendix G
OUATS Model



Orlando 2040 LRTP Model - OUATS Year 2020 Cost Feasible Model Meadow View Apts (17-032)
Project Ditribution (TAZ 1091)
C:\FSUTMS\D5\OUATS.2040\Base\CF2020\P17032\Output\HRLDXY_C20.NET (Tue 25 Apr 2017)

cube
(Licensed to Traffic & Mobility Consultants, LLC)

Appendix H
Projected Conditions Analysis Worksheets

HCM 2010 Signalized Intersection Summary
2: Welch Rd & Vick Rd

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	201	197	317	239	152	180
Future Volume (veh/h)	201	197	317	239	152	180
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	203	184	320	231	154	182
Adj No. of Lanes	1	1	1	0	1	1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	390	348	487	352	462	1208
Arrive On Green	0.22	0.22	0.48	0.48	0.10	0.65
Sat Flow, veh/h	1774	1583	1007	727	1774	1863
Grp Volume(v), veh/h	203	184	0	551	154	182
Grp Sat Flow(s),veh/h/ln	1774	1583	0	1734	1774	1863
Q Serve(g_s), s	9.2	9.3	0.0	21.9	3.4	3.5
Cycle Q Clear(g_c), s	9.2	9.3	0.0	21.9	3.4	3.5
Prop In Lane	1.00	1.00		0.42	1.00	
Lane Grp Cap(c), veh/h	390	348	0	839	462	1208
V/C Ratio(X)	0.52	0.53	0.00	0.66	0.33	0.15
Avail Cap(c_a), veh/h	390	348	0	839	462	1208
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.3	31.3	0.0	17.8	11.6	6.2
Incr Delay (d2), s/veh	4.9	5.7	0.0	4.0	1.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	4.6	0.0	11.3	1.9	1.9
LnGrp Delay(d),s/veh	36.2	37.0	0.0	21.8	13.6	6.5
LnGrp LOS	D	D		C	B	A
Approach Vol, veh/h	387		551			336
Approach Delay, s/veh	36.6		21.8			9.7
Approach LOS	D		C			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	15.0	50.0				65.0		26.0
Change Period (Y+Rc), s	6.0	6.0				* 6		6.0
Max Green Setting (Gmax), s	9.0	43.0				* 59		20.0
Max Q Clear Time (g_c+I1), s	5.4	23.9				5.5		11.3
Green Ext Time (p_c), s	0.1	4.6				5.6		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	23.1
HCM 2010 LOS	C

Notes

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	7	13	501	325	4
Future Vol, veh/h	2	7	13	501	325	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	8	14	545	353	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	928	355	358	0	-	0
Stage 1	355	-	-	-	-	-
Stage 2	573	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	297	689	1201	-	-	-
Stage 1	710	-	-	-	-	-
Stage 2	564	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	294	689	1201	-	-	-
Mov Cap-2 Maneuver	294	-	-	-	-	-
Stage 1	710	-	-	-	-	-
Stage 2	557	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.9	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1201	-	531	-	-
HCM Lane V/C Ratio	0.012	-	0.018	-	-
HCM Control Delay (s)	8	-	11.9	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Appendix I
Turn Warrants

igure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

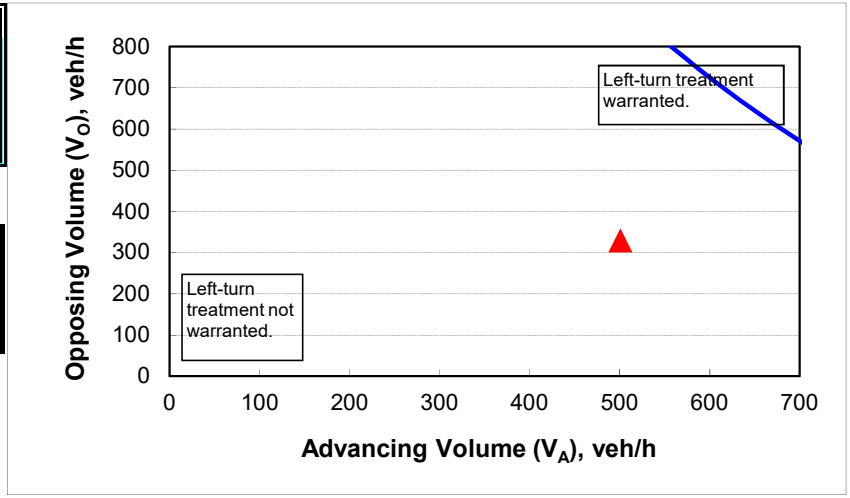
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	35
Percent of left-turns in advancing volume (V_A), %:	2%
Advancing volume (V_A), veh/h:	501
Opposing volume (V_O), veh/h:	329

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	902
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Source: National Cooperative Highway Research Program (NCHRP) Report 457- Evaluating Intersection Improvements: An Engineering Study Guide

Vick Road and Meadow View
Driveway Right Turn Warrant

Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

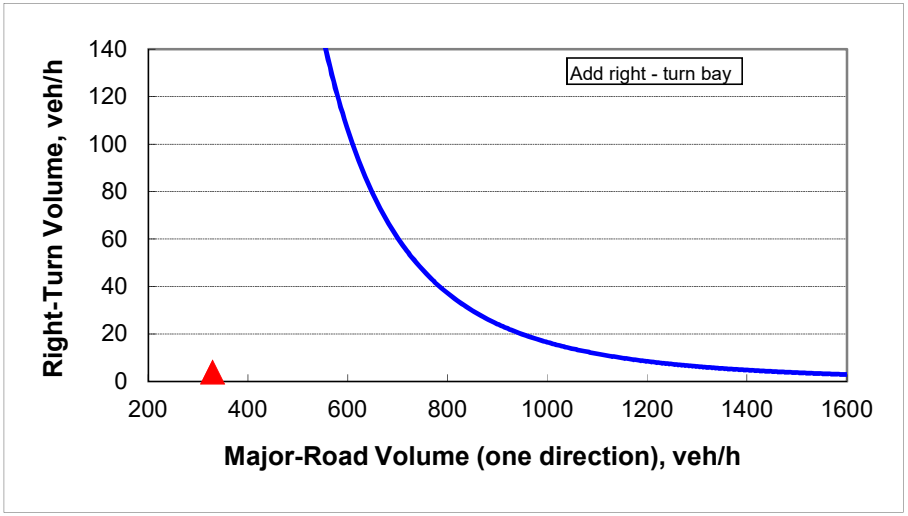
INPUT

Roadway geometry:	2-lane roadway

Variable	Value
Major-road speed, mph:	35
Major-road volume (one direction), veh/h:	329
Right-turn volume, veh/h:	4

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	942
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	



Source: National Cooperative Highway Research Program (NCHRP) Report 457- Evaluating Intersection Improvements: An Engineering Study Guide

Appendix J
FDOT Index 301

TURN LANES • CURBED AND UNCURBED MEDIANS								
			URBAN CONDITIONS			RURAL CONDITIONS		
Design Speed (mph)	Entry Speed (mph)	Clearance Distance L_1	Brake To Stop Distance L_2	Total Decel. Distance L	Clearance Distance L_3	Brake To Stop Distance L_2	Total Decel. Distance L	Clearance Distance L_3
35	25	70′	75′	145′	110′	———	———	———
40	30	80′	75′	155′	120′	———	———	———
45	35	85′	100′	185′	135′	———	———	———
50	40/44	105′	135′	240′	160′	185′	290′	160′
55	48	125′	———	———	———	225′	350′	195′
60	52	145′	———	———	———	260′	405′	230′
65	55	170′	———	———	———	290′	460′	270′

DESIGN NOTES

1. Basis for turn lane configurations:
   - Informed Driver.
   - Stop condition (With Or Without Stop Control).
   - Wet Pavement.
   - Reaction preceding entry point.
   - Minimum braking distance for urban conditions.
   - 75′ min. for L_2.
   - Comfortable deceleration rates for rural conditions (AASHTO 2001 threshold rate of 11.2 ft./s²).

GENERAL NOTES

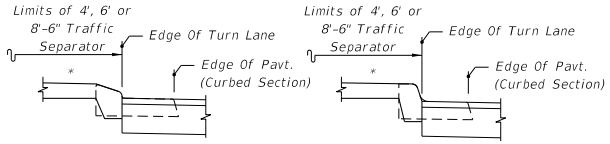
1. The plan views shown are for turn lane taper shapes and dimensional purposes only, they do not prescribe the use of curb, curb and gutter, shoulders nor separators specifically to either rural or urban conditions.

2. Total deceleration distances must not be reduced except where lesser values are imposed by unrelocatable control points.

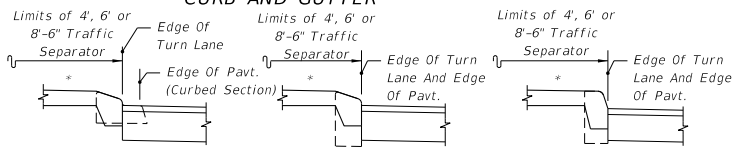
3. Right turn lane tapers and distances identical to left turn lanes under stop control conditions. Right turn lane tapers and/or distances are site specific under free flow or yield conditions.

4. These left turn configurations apply to continuous left turn lanes only where specifically called for in the plans.

5. For pavement markings see Index No. 17346.



TYPE E CURB AND GUTTER TYPE F

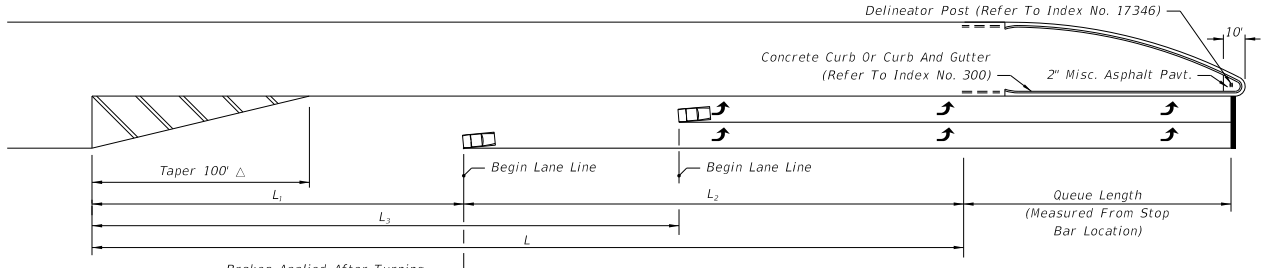


TYPE A TYPE B CURB TYPE D

For Curb And Curb & Gutter Types, See Index No. 300

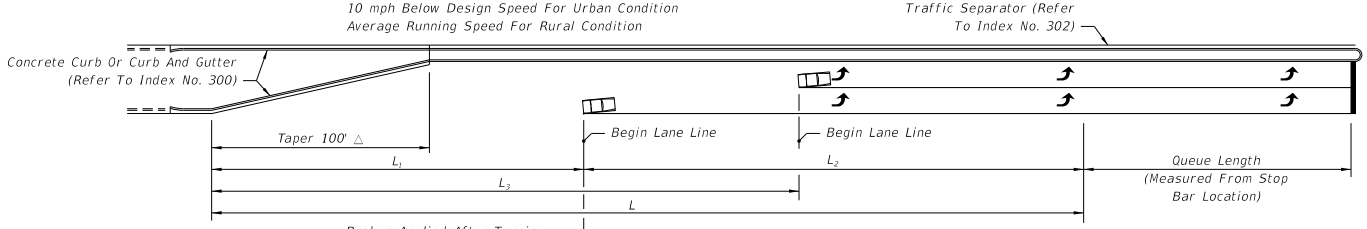
* Option 1 Separators Shown (Refer To Index No. 302)

MEDIAN CURB AND TRAFFIC SEPARATOR JUNCTURE DETAILS



Brakes Applied After Turning Vehicle Clears Through Lane;
Entry Speed:
10 mph Below Design Speed For Urban Condition
Average Running Speed For Rural Condition

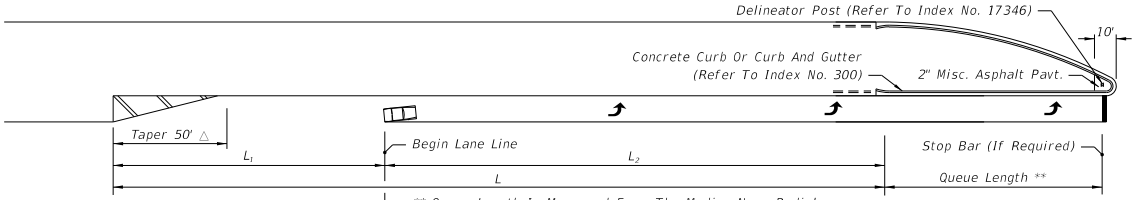
FLUSH AND/OR CURBED SEPARATION



Brakes Applied After Turning Vehicle Clears Through Lane;
Entry Speed:
10 mph Below Design Speed For Urban Condition
Average Running Speed For Rural Condition

RAISED SEPARATION

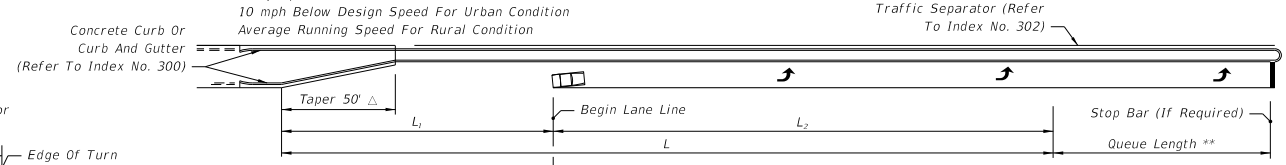
DOUBLE LEFT TURNS



Brakes Applied After Turning Vehicle Clears Through Lane;
Entry Speed:
10 mph Below Design Speed For Urban Condition
Average Running Speed For Rural Condition

** Queue Length Is Measured From The Median Nose Radial Point Or, When A Stop Bar Is Required, From The Stop Bar.

FLUSH AND/OR CURBED SEPARATION



Brakes Applied After Turning Vehicle Clears Through Lane;
Entry Speed:
10 mph Below Design Speed For Urban Condition
Average Running Speed For Rural Condition

RAISED SEPARATION

SINGLE LEFT TURNS

△ The length of taper may be increased to L_1 for single left turns and L_2 for double left turns when:
- a. Left turn queue vehicles are adequately provided for within the design queue length.
- b. Through vehicle queues will not block access to left turn lane.
- c. Approved by District Design Engineer.

LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2016-17 DESIGN STANDARDS	TURN LANES	INDEX NO.	SHEET NO.
07/01/05						301	1 of 1

12/31/2015 9:32:10 AM

CITY OF APOPKA
PLANNING COMMISSION

X	PUBLIC HEARING	MEETING OF:	October 9, 2018
X	SITE PLAN: Final Development Plan	FROM:	Community Development
___	SPECIAL REPORTS	EXHIBITS:	Vicinity Map
___	OTHER:		Aerial Map
			Final Development Plan

SUBJECT: **FINAL DEVELOPMENT PLAN (REDEVELOPMENT) – SITE PLAN – STERLING TITLE**

REQUEST: **RECOMMEND APPROVAL OF THE FINAL DEVELOPMENT PLAN (REDEVELOPMENT) FOR STERLING TITLE**

SUMMARY:

OWNER/APPLICANT:	Prograde Homes, Inc. c/o Bryan Blake
ENGINEER:	Linn Engineering and Design c/o Eric Lagassey, P.E.
LOCATION:	217 South Highland Avenue
PARCEL ID #:	10-21-28-0000-00-031
FUTURE LAND USE:	Commercial
ZONING:	C-1 (Retail Commercial)
EXISTING USE:	Residential
PROPOSED USE:	Office
TRACT SIZE:	0.26 +/- acres
BUILDING SIZE:	1,337 square feet
FLOOR AREA RATIO	0.12 (0.25 Maximum)

DISTRIBUTION

Mayor Nelson	Finance Director	Public Services Director
Commissioners	HR Director	Recreation Director
City Administrator	IT Director	City Clerk
Community Development Director	Police Chief	Fire Chief

G:\CommDev\PLANNING ZONING\SITE PLANS\2018\Sterling Title\4 Planning Com Hearing

RELATIONSHIP TO ADJACENT PROPERTIES:

Direction	***Future Land Use***	***Zoning***	***Present Use***
North (City)	Commercial	C-1 (Retail Commercial)	Automobile Service Station and Multi-tenant Center
South (City)	Commercial	C-1	Alterations and Tailoring Studio
East (City)	Commercial	C-1	Single Family Residence and Salon
West (City)	Commercial	PUD (Planned Unit Development)	Vacant

PROJECT SUMMARY: This is a request to approve the Sterling Title Redevelopment Final Development Plan that includes conversion of an existing residential structure with 1,337 square feet. A preliminary development plan is not required for development proposing less than 10,000 square feet of building floor area. No square footage will be added to the existing building, which a one being converted from residential use to commercial use. No existing canopy trees are proposed to be removed. This project has been determined as a redevelopment plan based on Section 6.07(A) Hardship Waiver of the Land Development Code (LDC) as it meets the following criteria:

1. Existing structure ten years of age or greater.

2. The proposed improvements enhance the economic value of the property.

3. The proposed improvements enhance the esthetics of the project site.

4. The developer/owner demonstrates to the satisfaction of the Development Review Committee (DRC) the proposed improvements would not adversely impact any surrounding properties.

5. Proposed improvements are less than 50 percent of the value of the property improvements.

PARKING/ACCESS/TRANSPORTATION: Per LDC parking requirements, 5 parking spaces are required and being proposed, one of which is reserved as a handicapped accessible space. As a redevelopment, the applicant is requesting to reduce the required minimum length of a tandem parking space from 18-feet to 16-feet.

The site will have ingress and egress via Highland Avenue. Due to the area restrictions of the site, the applicant is requesting to reduce the required minimum width of a one-way drive aisle from 18-feet to 11-feet, as well as, a request to reduce the required minimum width of a two-way internal drive aisle from 24-feet to 16-feet.

According to LDC Section 6.07(C), adjustments to requirements, parking. The DRC may, in accordance with this site plan application, authorize parking requirements upon demonstration by the developer that the characteristics of the proposed use required a greater or lesser number of parking spaces than that required or proposed.

STORMWATER: The stormwater management system includes an on-site retention area, on the eastern portion of the project site. The stormwater pond design meets the City's Land Development Code requirements.

LANDSCAPING/BUFFER/TREE PROGRAM: As part of the redevelopment plan approval, four specimen oak trees ranging from 24 inches to 48 inches in diameter at breast height (DBH) will be preserved. A row of Japanese Holly trees will be added to the south façade of the building. Red Bud, King Sago and Crape Myrtle trees will be planted to embellish the entrance and driveway. As no trees will be removed, there is no arbor mitigation fee is due based on the following arbor assessment.

Arbor Assessment

Total inches on-site (before removal):	124
Total specimen inches removed	0
Total inches retained:	124
Total inches added:	3
Total inches post development:	127

PUBLIC HEARING SCHEDULE:
October 9, 2018 – Planning Commission, 5:30 pm
November 7, 2018 – City Council, 1:30 pm

RECOMMENDATION ACTION:

The **Development Review Committee** recommends approval of the Sterling Title – Final Development Plan, subject to the findings of this staff report.

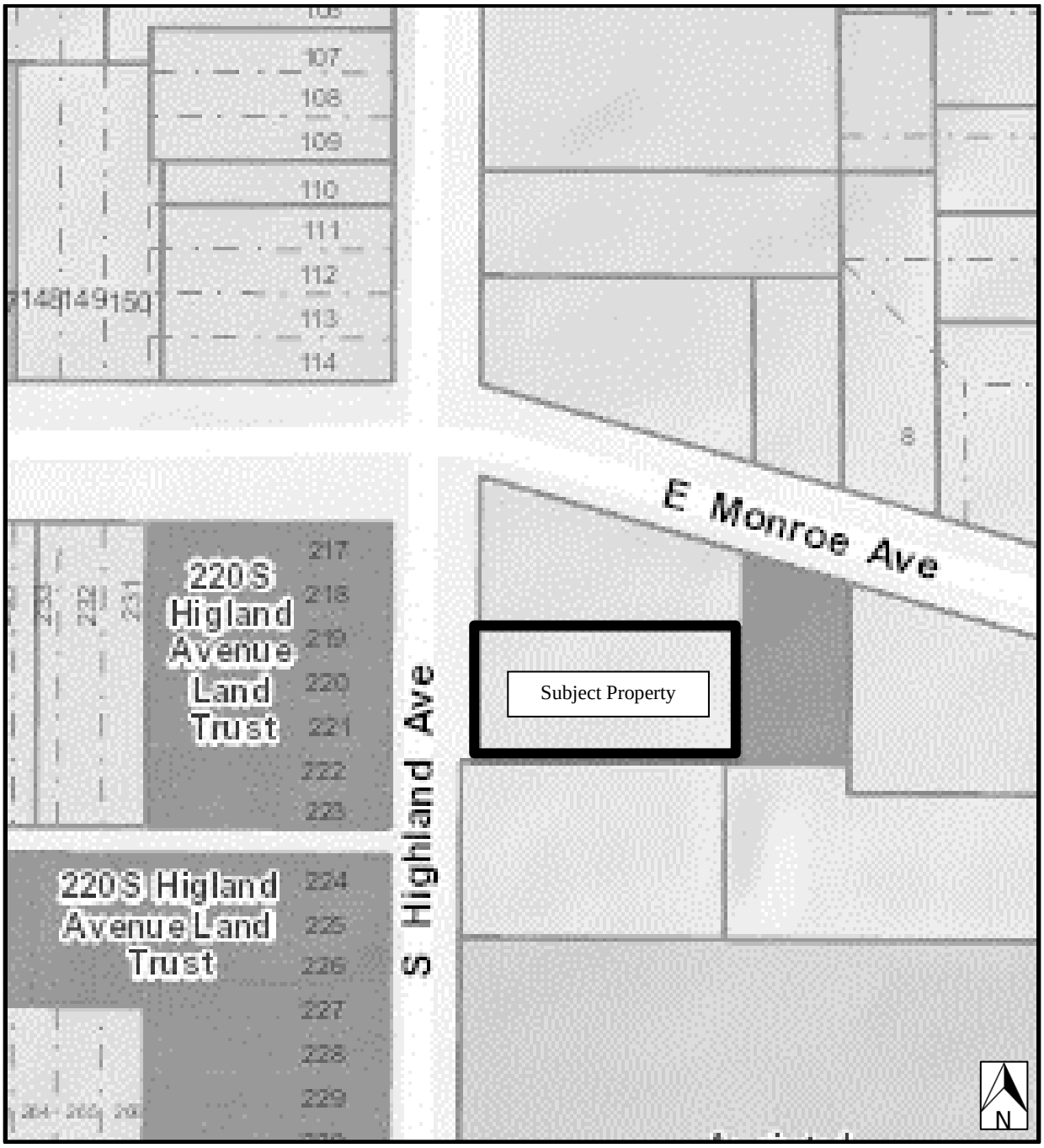
Planning Commission Recommendation: Find the Sterling Title – Final Development Plan consistent with the Land Development Code and Comprehensive Plan, and recommend approval of Final Development Plan, subject to the findings of this staff report.

Planning Commission Role: The role of the Planning Commission for this development application is to advise the City Council to approve or deny based on consistency with the Comprehensive Plan and Land Development Code.

Note: This item is considered quasi-judicial. The staff report and its findings are to be incorporated into and made a part of the minutes of this meeting.

Application: **Sterling Title - Final Development Plan (Redevelopment)**
Owner/Applicant: **Prograde Homes, Inc. c/o Bryan Blake**
Engineer: **Linn Engineering and Design c/o Eric Lagassey, P.E.**
Location: **217 South Highland Avenue**
Parcel I.D. #: **10-21-28-0000-00-031**
Total Site Area: **0.26 acres +/-**

VICINITY MAP



AERIAL MAP

MONROE AVE
Subject Property
114
217
218
219
220
221
222
223
224
155.7
155.7
52.9
323
314
62.4
105
150
70
100
99.8
120.5
106.
205
76
44
220
217
15.15
227
100
00030
00028
00033
00032
Jeffers
Wendi M
N

REDEVELOPMENT/FINAL DEVELOPMENT PLAN

FOR

STERLING TITLE

217 S. HIGHLAND AVENUE
APOPKA, FLORIDA 32703

PARCEL ID# 10-21-28-0000-00-031

AUGUST, 2018

OWNER/APPLICANT:
BRYAN BLAKE
PROGRADE HOMES, INC.
P.O. BOX 916806
LONGWOOD, FL 32789
PHONE: (407) 557-2829
FAX: (407) 898-2911

SURVEYOR:
IRELAND & ASSOCIATES SURVEYING, INC.
1301 S. INTERNATIONAL PARKWAY
SUITE 2001
LAKE MARY, FLORIDA 32746
PHONE: (407) 678-3366
FAX: (407) 320-8165

ENGINEER:
ERIC P. LAGASSEY, P.E.
LINN ENGINEERING & DESIGN
P.O. BOX 140024
ORLANDO, FL 32814
PHONE: 407-493-2261
EMAIL: elagassey@linnengineering.com

LANDSCAPE ARCHITECT:
RON DALE
DALE & COMPANY
651 N. MILLS AVENUE
ORLANDO, FLORIDA 32803
PHONE: (407) 894-1317
FAX: (407) 894-8986

Legal Description:

Beginning 706.6 Feet North of The Southwest Corner of The Northeast 1/4 of The Southwest 1/4 of Section 10, Township 21 South, Range 28 East, Orange County, Florida, Run North 75.15 Feet, East 160 Feet, South 75.15 Feet, West 160 Feet To The Point of Beginning. (Less Any Portion of Caption Property Lying Within Road Right of Way On The West).

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 City of Apopka, community number 120180, dated 9/25/2009.

LOCATION MAP
SECTION 10, TOWNSHIP 21 S, RANGE 28 E
SCALE : NTS

DRAWING INDEX

C1	COVER
C2	GENERAL NOTES
C3	EXISTING CONDITIONS & DEMOLITION PLAN
C4	SITE PLAN
C5	PAVING, GRADING, DRAINAGE & UTILITY PLAN
SWPPP-1 - SWPPP-2	EROSION CONTROL & STORMWATER POLLUTION PREVENTION PLAN & DETAILS
S1	SURVEY
L101	LANDSCAPE SITE PLAN
L501	LANDSCAPE DETAILS AND SPECIFICATIONS
LI101	IRRIGATION SITE PLAN
LI501	IRRIGATION DETAILS AND SPECIFICATIONS

Table 1
VARIANCE OR WAIVER REQUEST

WAIVER REQUEST 1	
Code Number	6.02.10.C.16
Code Requirement	The minimum and maximum width of commercial drives shall be as specified below:

	Minimum (feet)	Maximum (feet)
One-way	18	20*
Two-way	24	40*

*Or as required for multilane driveways

Variance or Waiver	Waiver
Request	A request to reduce the required minimum width of a one-way drive aisle from 18 feet to 11 feet.
Justification	Per 6.07.00 - Hardship Waiver, B. Unique Engineering Requirements - Existing main building and patio are located approximately 19.3 and 18.6 feet, respectively from the north property line. A 5 foot landscape buffer is required between the subject property and the property to the north, which is zoned C-1, and a future land use designation of Commercial. The available land for construction of a driveway while maintaining the 5 foot landscaper buffer as well as some landscaping between the building and driveway is 11 feet.

WAIVER REQUEST 2	
Code Number	6.03.05.B.3
Code Requirement	Tandem parking spaces must be minimum of nine feet wide and 18 feet long.
Variance or Waiver	Waiver
Request	A request to reduce the required minimum length of a tandem parking space from 18 feet to 16 feet.
Justification	Per 6.07.00 - Hardship Waiver, B. Unique Engineering Requirements - A historic tree (32" oak tree) is located near the northeast portion of the property. A 5 foot landscape buffer is required between the subject property and the property to the east which is zoned C-1, and a future land use designation of Commercial. The available land between the historic oak tree and the 5-foot landscape buffer along the east side of the property measures approximately 32-feet. In an effort to preserve the historic oak tree and maintain the required 5-foot landscape buffer, we are proposing to reduce the width of the access way to 16-feet near the northeast portion of the property as well as reduce the length of the 5 required parking spaces adjacent to the east property boundary to 16-feet.

WAIVER REQUEST 3	
Code Number	6.03.05.B.11
Code Requirement	Access ways for internal traffic circulation of parking areas shall be a minimum of 18 feet for one-way traffic and 24 feet for two-way traffic.
Variance or Waiver	Waiver
Request	A request to reduce the required minimum width of a two-way internal drive aisle from 24 feet to 16 feet.
Justification	Per 6.07.00 - Hardship Waiver, B. Unique Engineering Requirements - A historic tree (32" oak tree) is located near the northeast portion of the property. A 5 foot landscape buffer is required between the subject property and the property to the east which is zoned C-1, and a future land use designation of Commercial. The available land between the historic oak tree and the 5-foot landscape buffer along the east side of the property measures approximately 32-feet. In an effort to preserve the historic oak tree and maintain the required 5-foot landscape buffer, we are proposing to reduce the width of the access way to 16-feet near the northeast portion of the property as well as reduce the length of the 5 required parking spaces adjacent to the east property boundary to 16-feet.

NO.	REVISIONS	DATE	BY
1	REVISED PER CITY COMMENTS	09/2018	EPL

LINN ENGINEERING & DESIGN
P.O. BOX 140024
ORLANDO, FL 32814
PHONE: 407-252-8433
elagassey@linnengineering.com
CA LIC. NO. 31710

SCALE: AS NOTED
DESIGNED BY: EPL
DRAWN BY: EPL
CHECKED BY: EPL

DESIGN ENGINEER: ERIC P. LAGASSEY, P.E.
FLORIDA REGISTRATION NUMBER: 57514
SEAL

COVER SHEET

STERLING TITLE
217 S. HIGHLAND AVENUE
CITY OF APOPKA
ORANGE COUNTY FLORIDA

DATE 08/23/18
PROJECT NO. 24200-18-100
SHEET NUMBER C1

Drawing name: Y:\Projects\24200-Bryan Blake -Sterling\18-100-216 Highland\Cadd-Civil\C01-Blake Cover Sheet.dwg C01 COVER Sep 18, 2018 1:32pm by: Eric

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 THESE PLANS. THE EXISTING UTILITY INFORMATION SHOWN IS BASED ON THE BOUNDARY SURVEY PROVIDED BY THE SURVEYOR. ALL EXISTING UTILITES HAVE BEEN FIELD VERIFIED AT ALL POINTS OF CONNECTION AND AREAS OF INTEREST.

2. PRIOR TO THE INITIATION OF SITE CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ANY EXISTING UTILITIES INCLUDING GAS, WATER, ELECTRIC, CABLE TV, COMMUNICATIONS, SANITARY SEWERS AND STORM DRAINAGE SYSTEMS, ON AND / OR ADJACENT TO THE SITE. REMOVE OR CAP AS NECESSARY.

3. THE CONTRACTOR SHALL EXERCISE CAUTION IN AREAS OF BURIED UTILITIES AND SHALL CALL "SUNSHINE" AT 1-800-432-4770 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION TO ARRANGE FOR FIELD LOCATIONS OF BURIED 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 OR SUB-CONTRACTORS, AS CALLED FOR IN THESE CONTRACT DOCUMENTS.

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 ACCORDING TO AGENCY INSTRUCTION/REQUIREMENTS.

6. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS, ON ALL PRECAST AND MANUFACTURED ITEMS, TO THE OWNER'S ENGINEER FOR APPROVAL. FAILURE TO OBTAIN APPROVAL BEFORE INSTALLATION MAY RESULT IN REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.

7. ALL UTILITY SERVICE STUB-OUTS (WATER, SANITARY SEWER, etc.) ARE TO BE INSTALLED WITHIN 5' OF BUILDING(S), UNLESS OTHERWISE NOTED ON PLANS.

8. 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.

9. 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/HER PERSONNEL.

B. LABOR SAFETY REGULATIONS SHALL CONFORM TO THE PROVISIONS SET FORTH BY OSHA IN THE FEDERAL REGISTER OF THE DEPARTMENT OF TRANSPORTATION.

C. 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.

D. ALL TRAFFIC CONTROL MARKINGS AND DEVICES SHALL CONFORM TO THE PROVISIONS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES PREPARED BY THE U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION.

E. 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.

10. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN AN "ON-SITE PIPING PERMIT" (IF REQUIRED) FOR CONSTRUCTION OF THE PROPOSED UTILITIES. THIS PERMIT MUST BE OBTAINED BY A DULY LICENSED PLUMBING CONTRACTOR (OR CLASS A GENERAL CONTRACTOR) PRIOR TO THE START OF CONSTRUCTION. THESE PLANS AND ANY SUBSEQUENT REVISIONS TO THESE PLANS, THAT ARE ISSUED BY THE ENGINEER, WILL BE SUBJECT TO THE APPROVAL CONDITIONS OF THIS PERMIT.

11. 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.

12. ALL SPECIFICATIONS AND DOCUMENTS REFERENCED HEREIN SHALL BE OF THE LATEST REVISION.

13. ALL UNDERGROUND UTILITIES MUST BE IN-PLACE, TESTED AND INSPECTED PRIOR TO BASE AND SURFACE CONSTRUCTION.

14. WORK PERFORMED UNDER THIS CONTRACT SHALL INTERFACE SMOOTHLY WITH ANY OTHER WORK BEING PERFORMED ON SITE BY OTHER CONTRACTORS/SUBCONTRACTORS AND UTILITY COMPANIES. IT WILL BE NECESSARY FOR THE GENERAL CONTRACTOR TO COORDINATE AND SCHEDULE HIS/HER ACTIVITIES ACCORDINGLY.

15. ALL DISTURBED AREAS WITHIN THE FDOT R/W SHALL BE SODDED WITH ARGENTINE BAHIA SOD.

16. WHERE APPLICABLE UTILITY TRENCHES CROSSING PAVEMENT AREAS SHALL BE BACKFILLED WITH GRANULAR MATERIAL IN TWELVE INCH (12") LAYERS AND COMPACTED TO NINETY EIGHT PERCENT (98 %) MAXIMUM DENSITY AS DETERMINED BY AASHTO T-19 OR T-238.

17. ALL DIMENSIONS ARE TO FACE OF CURB.

18. ALL DENSITIES AT UTILITY AND STORM STRUCTURES (INLET/MANHOLES WITHIN ROADWAY TO 3' IN BACK OF CURB) SHALL BE 98% WITHIN PAVEMENT AREAS, AND A DENSITY OF 95% FOR STRUCTURES OUTSIDE PAVED AREAS PER AASHTO-180 (MODIFIED) IS REQUIRED.

AS BUILT:

UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL FURNISH THE OWNER'S ENGINEER WITH COMPLETE "AS-BUILT" INFORMATION, CERTIFIED BY A REGISTERED LAND SURVEYOR. THIS "AS-BUILT" INFORMATION SHALL INCLUDE INVERT ELEVATIONS, LOCATIONS OF STRUCTURES FOR ALL UTILITIES INSTALLED, AS WELL AS GRADE BREAK LOCATIONS AND ELEVATIONS FOR PROPOSED CONSTRUCTION. NO ENGINEER'S CERTIFICATIONS FOR CERTIFICATE OF OCCUPANCY (C.O.) PURPOSES WILL BE MADE UNTIL THIS INFORMATION HAS BEEN RECEIVED AND APPROVED BY THE OWNER'S ENGINEER.

CLEARING AND SITE PREPARATION NOTES:

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

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

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

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

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

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

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

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

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

10. DO NOT DISTRUB EXISTING UNDERDRAIN OR STORM SYSTEMS.

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

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

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

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

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

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

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

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

PAVING AND GRADING NOTES:

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 OWNER, THE OWNERS ENGINEERS, OR OWNERS SOILS TESTING COMPANY. DELETERIOUS MATERIAL IS TO BE STOCKPILED OR REMOVED FROM THE SITE AS DIRECTED BY THE OWNER. EXCAVATED AREAS ARE TO BE BACKFILLED WITH APPROVED MATERIALS AND COMPACTED AS SHOWN ON THESE PLANS. CONTRACTOR IS RESPONSIBLE FOR ACQUIRING ANY PERMITS THAT ARE NECESSARY FOR REMOVING DELETERIOUS MATERIAL FROM THE SITE.

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 LATEST EDITION OF F.D.O.T. "ROADWAY AND TRAFFIC DESIGN STANDARDS" FOR DETAILS AND SPECIFICATIONS OF ALL F.D.O.T. TYPE CURB AND GUTTERS 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 INDEX #17346.

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.

15. FINAL GRADES SHOWN INCLUDE SOD HEIGHT. ALL AREAS SHALL BE GRADED TO DRAIN AWAY FROM THE BUILDINGS.

TESTING AND INSPECTION REQUIREMENTS (PAVING/GRADING):

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. THE VARIOUS AGENCIES AND PERMIT CONDITIONS. SHOULD ANY RETESTING BE REQUIRED DUE TO THE FAILURE OF ANY TESTS TO MEET THE REQUIREMENTS, THE CONTRACTOR WILL BEAR ALL COSTS OF SAID RETESTING.

STORM DRAINAGE SYSTEM NOTES:

1. CONSTRUCTION OF THE STORMWATER 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~~ (OMT) RESPONSIBLE ENTITY.

2. NON-MUCK GROWN SOD WILL BE UTILIZED FOR STABILIZATION OF THE PROPOSED STORMWATER RETENTION FACILITY. MUCK-GROWN SOD MAY IMPEDE THE PERCOLATION OF RUNOFF INTO THE GROUND AND IS NOT RECOMMENDED FOR THE STABILIZATION OF RETENTION POND BOTTOMS.

DEWATERING NOTES:

1. DURING THE EXCAVATION OF THE STORMWATER PONDS, THE CONTRACTOR MUST 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 DEWATERING BE DIRECTLY INTO THE CANAL~~ NOTE OMITTED.

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

4. IF CONTRACTOR ENCOUNTERS SILTY/CLAY SAND, WHICH CAUSE THE WATER TO BECOME TURBID, HE/SHE SHALL TREAT THE SEDIMENT BASIN WITH CHEMICAL ADDITIVE SUCH AS ALLUM IN ORDER TO PROMOTE THE COAGULATION OF THE PARTICLES WHICH ALLOW 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 TURBITY AND ALLOW DISCHARGE THAT MEET WATER QUALITY STANDARDS.

5. 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.

BEST MANAGEMENT PRACTICES:

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

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

THE VARIOUS TECHNIQUES OR ACTIONS IDENTIFIED UNDER EACH SECTION INDICATE THE APPROPRIATE SITUATION WHEN THE TECHNIQUES SHOULD BE EMPLOYED. IT SHOULD BE NOTED THAT THE MEASURES IDENTIFIED ON THIS PLAN ARE ONLY SUGGESTED BMP(S). THE CONTRACTOR SHALL PROVIDE POLLUTION PREVENTION AND EROSION CONTROL MEASURES AS SPECIFIED IN FDOT INDEX #100 AND AS NECESSARY FOR EACH SPECIFIC APPLICATION

SECTION 1 GENERAL EROSION CONTROL

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

1.2 SLOPES OF BANKS OF RETENTION/DETENTION PONDS SHALL BE CONSTRUCTED NOT STEEPER THAN 5H:1V FROM TOP OF BANK TO TWO FEET BELOW THE CONTROL ELEVATION.

1.3 SOD SHALL BE PLACED FOR A MIN. 2-FOOT WIDE STRIP ADJOINING ALL CURBING AND AROUND ALL INLETS SOD SHALL BE PLACED BEFORE SILT BARRIERS ARE REMOVED.

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

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

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

2.2 WHERE PRACTICAL, STORMWATER SHALL BE CONVEYED BY SWALES.

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

A. IN GENERAL, EROSION SHALL BE CONTROLLED AT THE FURTHEST PRACTICAL UPSTREAM LOCATION.

B. STORMWATER INLETS SHALL BE PROTECTED DURING CONSTRUCTION AS SHOWN ON THIS SHEET. PROTECTION MEASURES SHALL BE EMPLOYED AS SOON AS PRACTICAL DURING THE VARIOUS STAGES OF INLET CONSTRUCTION. SILT BARRIERS SHALL REMAIN IN PLACE UNTIL SODDING AROUND INLETS IS COMPLETE.

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

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

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

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

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

A. THE CONTRACTOR IS REQUIRED TO PROVIDE A QUALIFIED INSPECTOR TO PERFORM AND DOCUMENT REQUIRED INSPECTIONS.

B. ALL DISTURBED AREAS, STORAGE AREAS, AND CONSTRUCTION EXITS MUST BE INSPECTED. THIS INCLUDES OFF-SITE CONSTRUCTION AREAS.

C. INSPECTIONS MUST BE COMPLETED ONCE EVERY SEVEN DAYS AND/OR WITHIN 24 HOURS OF A STORM EVENT OF 0.5 INCHES OR GREATER (CONTRACTOR TO PROVIDE AN ON-SITE RAIN GAUGE AND PROVIDE DAILY RECORDING OF RAIN EVENTS).

D. ALL AREAS OF UNSATISFACTORY CONTROLS (INCLUDING EXISTING CONTROL MEASURES OR AREAS REQUIRING ADDITIONAL CONTROL MEASURES) SHALL BE REPAIRED/MAINTAINED/INSTALLED WITHIN 24 HOURS OF THE OBSERVANCE OR PRIOR TO AN ANTICIPATED RAIN EVENT IF FORECAST SOONER THAN 24 HOURS.

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

SECTION 3 CONTROL OF WIND EROSION:

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

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

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

C. AT ANY TIME BOTH DURING AND AFTER SITE CONSTRUCTION THAT WATERING AND/OR VEGETATION ARE NOT EFFECTIVE IN CONTROLLING WIND EROSION AND/OR TRANSPORT OF FUGITIVE DUST, OTHER METHODS AS ARE NECESSARY FOR SUCH CONTROL SHALL BE EMPLOYED. THESE METHODS MAY INCLUDE ERECTION OF DUST CONTROL FENCES. IF REQUIRED, DUST CONTROL FENCES SHALL BE CONSTRUCTED IN ACCORDANCE

EROSION AND SILTATION CONTROL:

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

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

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

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

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

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

A. NO MORE THAN 500 LINEAR FEET OF TRENCH SHALL BE OPEN AT ANY ONE TIME UNLESS A GREATER LENGTH OF OPEN TRENCH IS APPROVED BY THE OWNER'S ENGINEER.

B. WHEREVER CONSISTENT WITH SAFETY AND SPACE CONSIDERATION, EXCAVATED MATERIAL SHALL BE CAST TO THE UPHILL SIDE OF TRENCHES. TRENCH MATERIAL SHALL NOT BE CAST INTO OR ONTO THE SLOPE OF ANY STREAM, CHANNEL, ROAD, DITCH OR WATERWAY.

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

8. STAKED HAY BALES WILL NOT BE UTILIZED FOR EROSION, SEDIMENT AND TURBIDITY CONTROL.

No.	REVISIONS	DATE	BY
1	REVISED PER CITY COMMENTS	09/2018	EPL

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DESIGN ENGINEER: ERIC P. LAGASSEY, P.E.
FLORIDA REGISTRATION NUMBER: 57514
SEAL

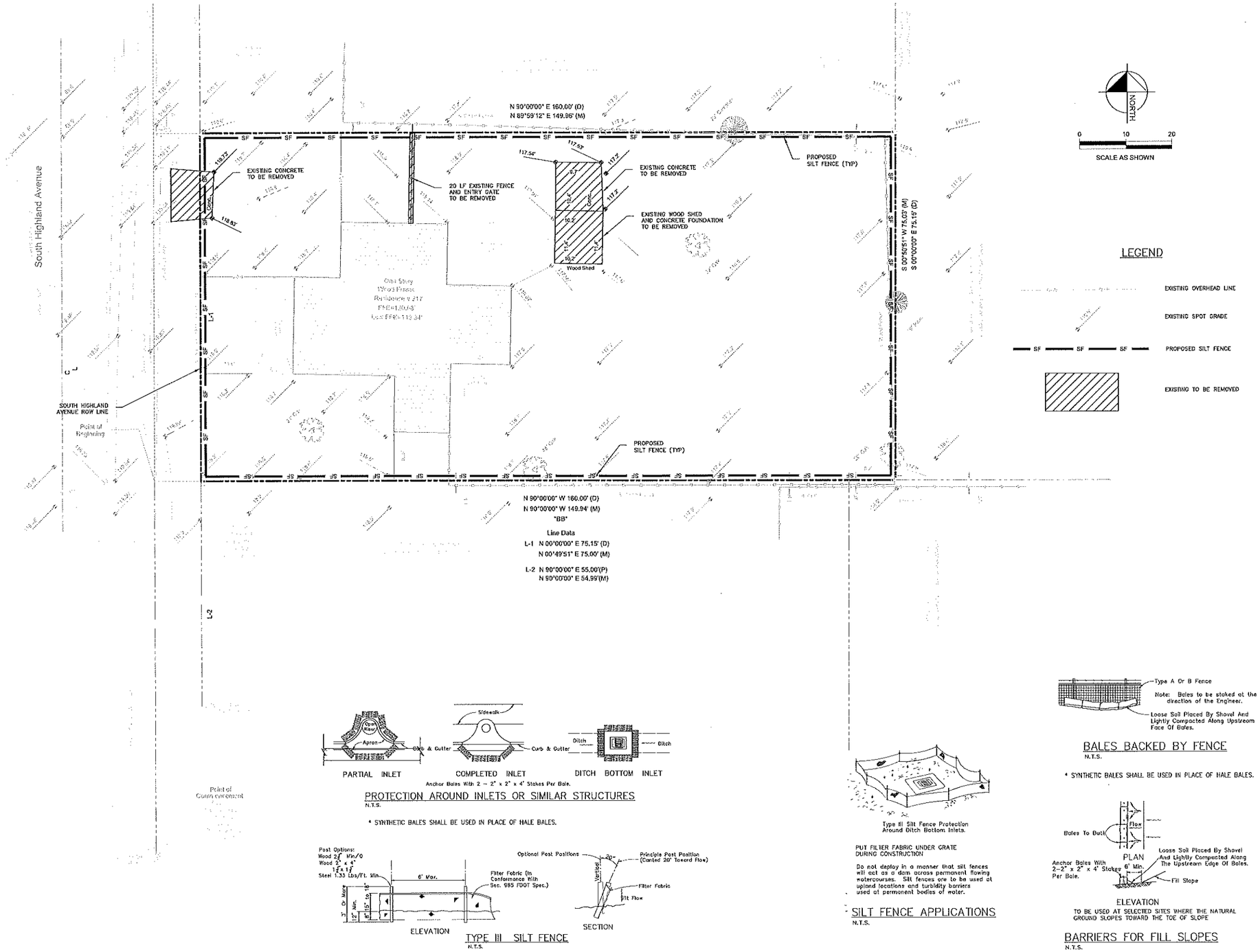
SCALE AS NOTED
DESIGNED BY EPL
DRAWN BY EPL
CHECKED BY EPL

GENERAL NOTES

STERLING TITLE
217 S. HIGHLAND AVENUE
CITY OF APOPKA
ORANGE COUNTY FLORIDA

DATE 08/23/18
PROJECT NO. 24200-18-100
SHEET NUMBER C2

Drawing name: Y:\Projects\24200-Bryan Blake -Sterling\18-100-216 Highland\Cadd-Civil\C02-Blake General Notes.dwg C02 GENERAL NOTES Sep 18, 2018 1:19pm by: Eric



Anchor Bales With 2 – 2" x 2" x 4' Stakes Per Bale.

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

* SYNTHETIC BALES SHALL BE USED IN PLACE OF HALE BALES.

TYPE III SILT FENCE
N.T.S.

Type III Silt Fence Protection Around Ditch Bottom Inlets.

PUT FILTER FABRIC UNDER GRATE DURING CONSTRUCTION

Do not deploy in a manner that silt fences will act as a dam across permanent flowing watercourses. Silt fences are to be used at upland locations and turbidity barriers used at permanent bodies of water.

SILT FENCE APPLICATIONS
N.T.S.

BALES BACKED BY FENCE
N.T.S.

* SYNTHETIC BALES SHALL BE USED IN PLACE OF HALE BALES.

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

BARRIERS FOR FILL SLOPES
N.T.S.

NO.	REVISIONS	DATE	BY
A1	REVISED PER CITY COMMENTS	09/2018	EPL

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SCALE: AS NOTED
DESIGNED BY: EPL
DRAWN BY: EPL
CHECKED BY: EPL

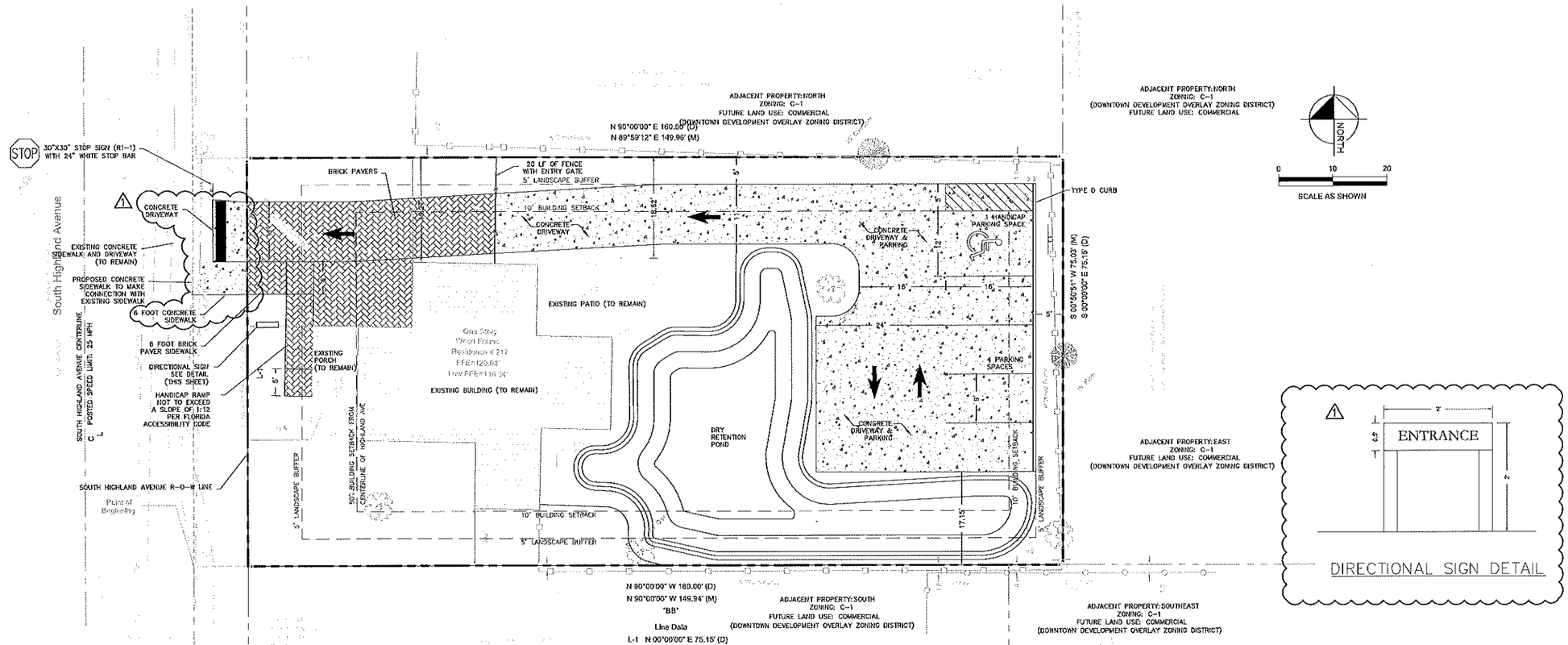
DESIGN ENGINEER:
ERIC P. LAGASSEY, P.E.
FLORIDA REGISTRATION NUMBER:
57514
SEAL

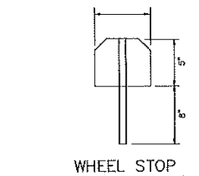
EXISTING CONDITIONS & DEMOLITION PLAN

STERLING TITLE
217 S. HIGHLAND AVENUE
CITY OF APOPKA
ORANGE COUNTY FLORIDA

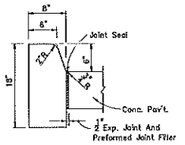
DATE
08/23/18
PROJECT NO.
24200-18-100
SHEET NUMBER
C3

Drawing name: Y:\Projects\24200-Bryon Blake - Sterling\18-100-216 Highland\Ceda-Civil\C03-Blake Existing Conditions.dwg C03 EXISTING Sep 18, 2018 1:21pm by: Eric

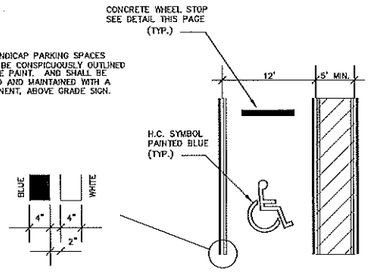




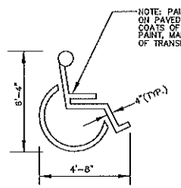
NOTES:
1. THE STOPPING EDGE OF ANY CURB OR WHEEL STOP SHALL BE PLACED NO LESS THAN TWO FEET FROM THE END OF THE PARKING STALL.



FDOT TYPE D CURB

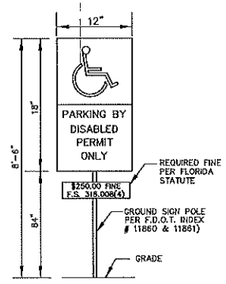


TYPICAL HANDICAPPED STRIPING
NTS



TYPICAL SYMBOL FOR HANDICAP PKG.

1. TOP PORTION OF FTP 25 & 26 SHALL HAVE A REFLECTIVE SYMBOL AND BORDER.
2. BOTTOM PORTION SHALL HAVE A REFLECTIVE WHITE BACKGROUND WITH BLACK OPAQUE LEGEND AND BORDER.
3. FTP 25 & 26 MAY BE FABRICATED ON ONE PANEL OR TWO.
4. FTP 25 MAY BE SUBSTITUTED FOR THE FTP 26 IN AREAS WHERE SPACE IS LIMITED.
5. SIGNS ARE TO BE MOUNTED AT STANDARD HEIGHT. (7' FROM PAVEMENT TO BOTTOM OF SIGN).



HANDICAP SIGN DETAIL

SITE DATA

PARCEL ID#	10-21-28-0000-00-031
PROJECT AREA:	.26 ACRES (11,272 SF)
MINIMUM LOT AREA:	.23 ACRES (10,000 SF)
ZONING:	C-1
OVERLAY ZONE:	DOWNTOWN DEVELOPMENT OVERLAY ZONING DISTRICT
EXISTING USE:	RESIDENTIAL
FUTURE LAND USE:	COMMERCIAL
PROPOSED USE:	OFFICE
PERMITTED USE:	OFFICE
EXISTING BUILDING:	1,337 SF
MAX FAR:	0.25
EXISTING FAR:	0.12
MINIMUM LOT WIDTH:	100 FT
EXISTING LOT WIDTH:	75 FT
USDA NRCS SOIL TYPE:	ZOLFO-URBAN LAND COMPLEX (HYDROLOGIC SOIL GROUP A)

MAXIMUM BUILDING HEIGHT:
35 FEET IS THE MAXIMUM BUILDING HEIGHT ALLOWED AS THE SITE ABUTS RESIDENTIAL USES. (1)

PARKING REQUIRED:
1 SP PER 250 SF 1,337 SF / 250 = 5 SPACES

PARKING PROVIDED:

HANDICAP SPACES (12'x18')	1 SPACES
PROPOSED REGULAR SPACES (9'x18')	4 SPACES
TOTAL SPACES	5 SPACES

PROPOSED IMPERVIOUS AREA:

PAVEMENT/CONCRETE:	1,642 SF
BUILDING AREA (OFFICE AND SHED):	3,669 SF
ONSITE IMPERVIOUS AREA:	5,312 SF / 0.12 AC (46%)

REQUIRED BUILDING SETBACK:

FRONT	50 FT FROM CENTERLINE OR 10 FT FROM PROPERTY LINE, WHICHEVER IS GREATER
REAR	10 FT OR 30 FT FROM RESIDENTIAL
SIDE	10 FT

LANDSCAPE BUFFER:

FRONT (ADJACENT TO R-O-W)	10 FT
REAR	5 FT
SIDE	5 FT

SANITATION
THE OWNER WILL COORDINATE WITH THE CITY OF APOPKA SANITATION DIVISION TO PROVIDE CURBSIDE PICKUP. (1)

NO.	REVISIONS	DATE	BY
1	REVISED PER CITY COMMENTS	09/2018	EPL

LINN ENGINEERING & DESIGN
P.O. BOX 140024
ORLANDO, FL 32814
PHONE: 407-252-8433
chinnlinn@yahoo.com
CA LIC. NO. 31710

DESIGN ENGINEER: ERIC P. LAGASSEY, P.E.
FLORIDA REGISTRATION NUMBER: 57514
SEAL

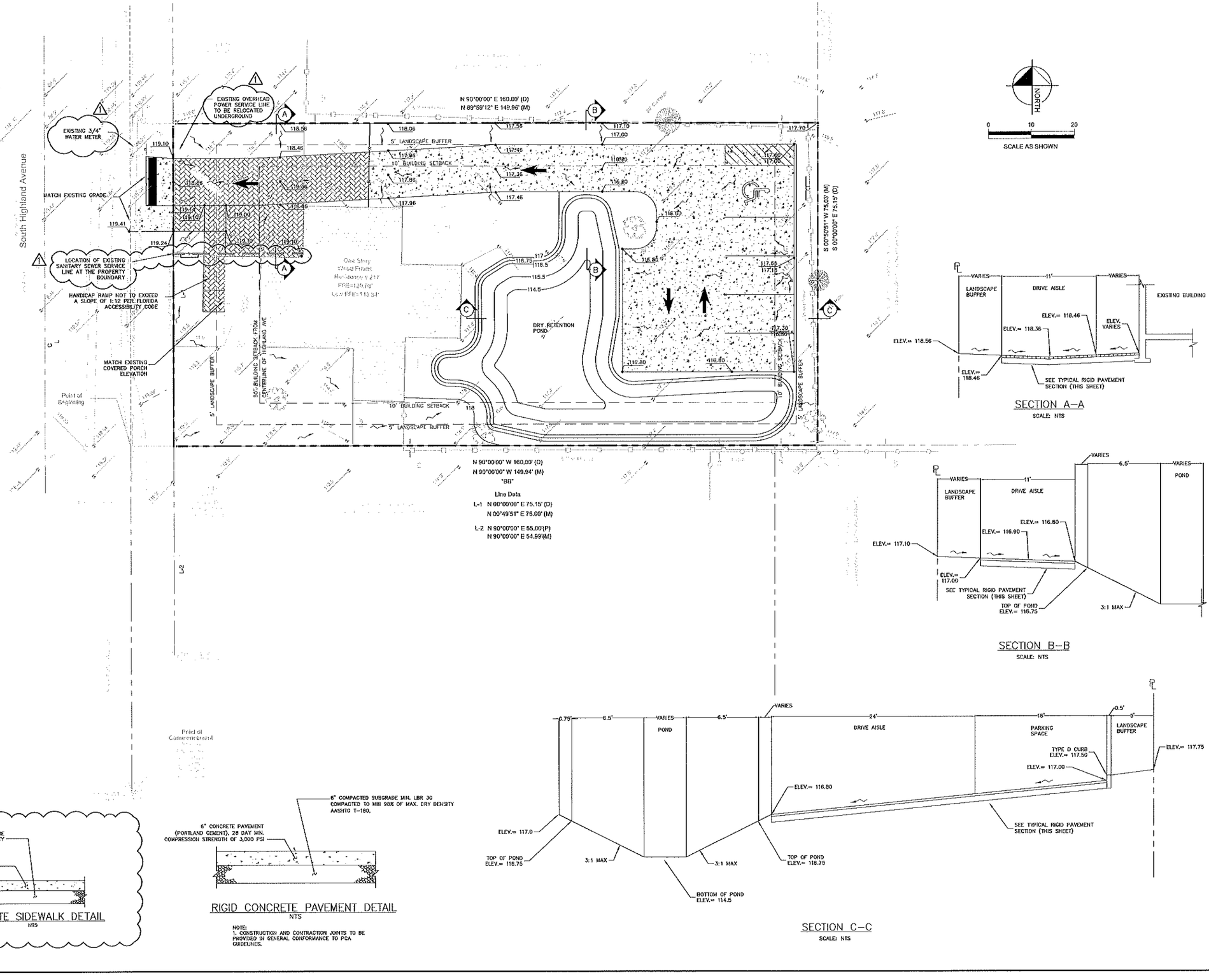
SCALE: AS NOTED
DESIGNED BY: EPL
DRAWN BY: EPL
CHECKED BY: EPL

SITE PLAN

STERLING TITLE
217 S. HIGHLAND AVENUE
CITY OF APOPKA
ORANGE COUNTY FLORIDA

DATE 08/23/18
PROJECT NO. 24200-18-100
SHEET NUMBER C4

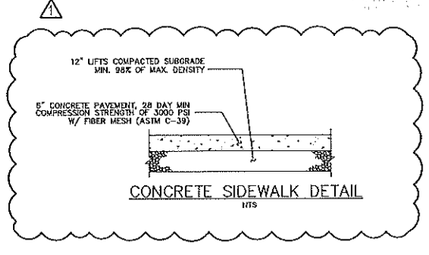
Drawing name: Y:\Projects\24200-Bryan Blake -Sterling\18-100-216 Highland\Cadd-Civil\C04-Blake Site Plan.dwg C04 SITE PLAN Sep 18, 2018 2:37pm by: Eric



SECTION A–A
SCALE: NTS

SECTION B–B
SCALE: NTS

SECTION C–C
SCALE: NTS



CONCRETE SIDEWALK DETAIL
NTS

RIGID CONCRETE PAVEMENT DETAIL
NTS

NOTE:
1. CONSTRUCTION AND CONTRACTION JOINTS TO BE PROVIDED IN GENERAL CONFORMANCE TO PCA GUIDELINES.

NO.	REVISIONS	DATE	BY
A	REVISED PER CITY COMMENTS	09/2018	EPL

LINN ENGINEERING & DESIGN
P.O. BOX 140024
ORLANDO, FL 32814
PHONE: 407-252-8433
clinn@linnengineering.com
CA LIC. NO. 31713

SCALE: AS NOTED
DESIGNED BY: EPL
DRAWN BY: EPL
CHECKED BY: EPL

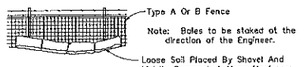
DESIGN ENGINEER: ERIC P. LAGASSEY, P.E.
FLORIDA REGISTRATION NUMBER: 57514
SEAL

PAVING, GRADING, DRAINAGE & UTILITY PLAN

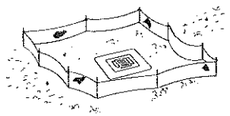
STERLING TITLE
217 S. HIGHLAND AVENUE
CITY OF APOPKA
ORANGE COUNTY FLORIDA

DATE: 08/23/18
PROJECT NO.: 24200-18-100
SHEET NUMBER: C5

Drawing name: Y:\Projects\24200-Bryan Blake -Sterling\18-100-216 Highland\Cadd-Civil\C05-Blake PCD.dwg C05 PCD Sep 18, 2018 1:36pm by: Eric



BALES BACKED BY FENCE
N.T.S.

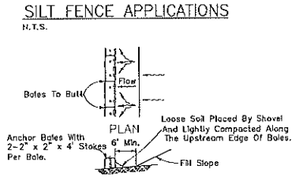


Type III Silt Fence Protection Around Ditch Bottom Inlets.

PUT FILTER FABRIC UNDER GRATE DURING CONSTRUCTION

Do not deploy in a manner that silt fences will act as a dam across permanent flowing watercourses. Silt fences are to be used at upland locations and turbidity barriers used at permanent bodies of water.

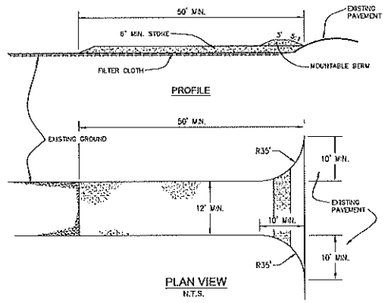
SILT FENCE APPLICATIONS
N.T.S.



ELEVATION

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

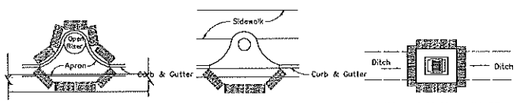
BARRIERS FOR FILL SLOPES
N.T.S.



N.T.S.

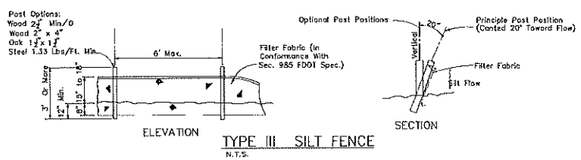
STABILIZED CONSTRUCTION ENTRANCE

1. STONE SIZE – USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH – AS REQUIRED, BUT NOT LESS THAN 50 FEET.
3. THICKNESS – NOT LESS THAN SIX (6) INCHES.
4. WIDTH – TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. FILTER CLOTH – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE , IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACK OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING – WHEELS SHALL BE CLEANED TO REMOVED SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.



Anchor Bales With 2 – 2" x 2" x 4' Stakes Per Bale.

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



TYPE III SILT FENCE
N.T.S.

BEST MANAGEMENT PRACTICES:

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

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

THE VARIOUS TECHNIQUES OR ACTIONS IDENTIFIED UNDER EACH SECTION INDICATE THE APPROPRIATE SITUATION WHEN THE TECHNIQUES SHOULD BE EMPLOYED. IT SHOULD BE NOTED THAT THE MEASURES IDENTIFIED ON THIS PLAN ARE ONLY SUGGESTED BMP(S). THE CONTRACTOR SHALL PROVIDE POLLUTION PREVENTION AND EROSION CONTROL MEASURES AS SPECIFIED IN FDOT INDEX #100 AND AS NECESSARY FOR EACH SPECIFIC APPLICATION.

SECTION 1 GENERAL EROSION CONTROL:

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

1.2 SLOPES OF BANKS OF RETENTION/DETENTION PONDS SHALL BE CONSTRUCTED NOT STEEPER THAN 6H:1V FROM TOP OF BANK TO TWO FEET BELOW THE CONTROL ELEVATION.

1.3 SOD SHALL BE PLACED FOR A MIN. 2-FOOT WIDE STRIP ADJOINING ALL CURBING AND AROUND ALL INLETS SOD SHALL BE PLACED BEFORE SILT BARRIERS ARE REMOVED.

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

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

2.2 WHERE PRACTICAL, STORMWATER SHALL BE CONVEYED BY SWALES.

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

A. IN GENERAL, EROSION SHALL BE CONTROLLED AT THE FURTHEST PRACTICAL UPSTREAM LOCATION.

B. STORMWATER INLETS SHALL BE PROTECTED DURING CONSTRUCTION AS SHOWN ON THIS SHEET. PROTECTION MEASURES SHALL BE EMPLOYED AS SOON AS PRACTICAL DURING THE VARIOUS STAGES OF INLET CONSTRUCTION. SILT BARRIERS SHALL REMAIN IN PLACE UNTIL SODDING AROUND INLETS IS COMPLETE.

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

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

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

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

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

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

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

SECTION 3 CONTROL OF WIND EROSION:

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

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

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

C. AT ANY TIME BOTH DURING AND AFTER SITE CONSTRUCTION THAT WATERING AND/OR VEGETATION ARE NOT EFFECTIVE IN CONTROLLING WIND EROSION AND/OR TRANSPORT OF FUGITIVE UST, OTHER METHODS AS ARE NECESSARY FOR SUCH CONTROL SHALL BE EMPLOYED. THESE METHODS MAY INCLUDE ERECTION OF DUST CONTROL FENCES. IF REQUIRED, DUST CONTROL FENCES SHALL BE CONSTRUCTED IN ACCORDANCE

CLEARING AND SITE PREPARATION NOTES:

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

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

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

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

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

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

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

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

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

10. DO NOT DISTRUB EXISTING UNDERDRAIN OR STORM SYSTEMS.

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

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

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

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

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

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

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

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

EROSION AND SILTATION CONTROL:

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

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

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

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

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

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

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

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

DEWATERING NOTES:

1. DURING THE EXCAVATION OF THE STORMWATER PONDS, THE CONTRACTOR MUST CONSTRUCT A SEDIMENT BASIN TO PROVIDE A DISCHARGE POINT FOR DEWATERING. THE SEDIMENT BASIN CAN BE CEA 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 DEWATERING BE DIRECTLY INTO THE CANAL.~~ NOTE OMITTED ⚠1
3. DURING THE EXCAVATION THE CONTRACTOR SHALL NOT PENETRATE THE EXISTING CLAY LAYER. IF THE CONTRACTOR ENCOUNTERS THE CLAY LAYER, HE/SHE IS TO PLACE A MINIMUM OF 2 FEET OF SANDY MATERIAL OVER THE CLAY AND TERMINATE THE DEPTH OF THE EXCAVATION.
4. IF CONTRACTOR ENCOUNTERS SILTY/CLAY SAND, WHICH CAUSE THE WATER TO BECOME TURBID, HE/SHE SHALL TREAT THE SEDIMENT BASIN WITH CHEMICAL ADDITIVE SUCH AS 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 TURBITY AND ALLOW DISCHARGE THAT MEET WATER QUALITY STANDARDS.
5. 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.

NO	REVISIONS	DATE	BY
1	REVISED PER CITY COMMENTS	09/2018	EPL

LINN ENGINEERING & DESIGN
P.O. BOX 140024
ORLANDO, FL 32814
PHONE: 407-252-6433
dlinn@linnengineering.com
CA LIC. NO. 31716

SCALE: AS NOTED
DESIGNED BY EPL
DRAWN BY EPL
CHECKED BY EPL

DESIGN ENGINEER: ERIC P. LAGASSEY, P.E.
FLORIDA REGISTRATION NUMBER: 57514
SEAL

STORMWATER POLLUTION & PREVENTION PLAN

STERLING TITLE
217 S. HIGHLAND AVENUE
CITY OF APOPKA
ORANGE COUNTY FLORIDA

DATE 08/23/18
PROJECT NO. 24200-18-100
SHEET NUMBER SWPPP-1

Drawing name: Y:\Projects\24200-Bryan Bloka -Sterling\18-100-216 Highland\Cadd-Civil\C6 & C7 SWPPP1 & SWPPP2.dwg C6 SWPPP-1 Sep 18, 2018 1:50pm by: Eric

Legal Description:

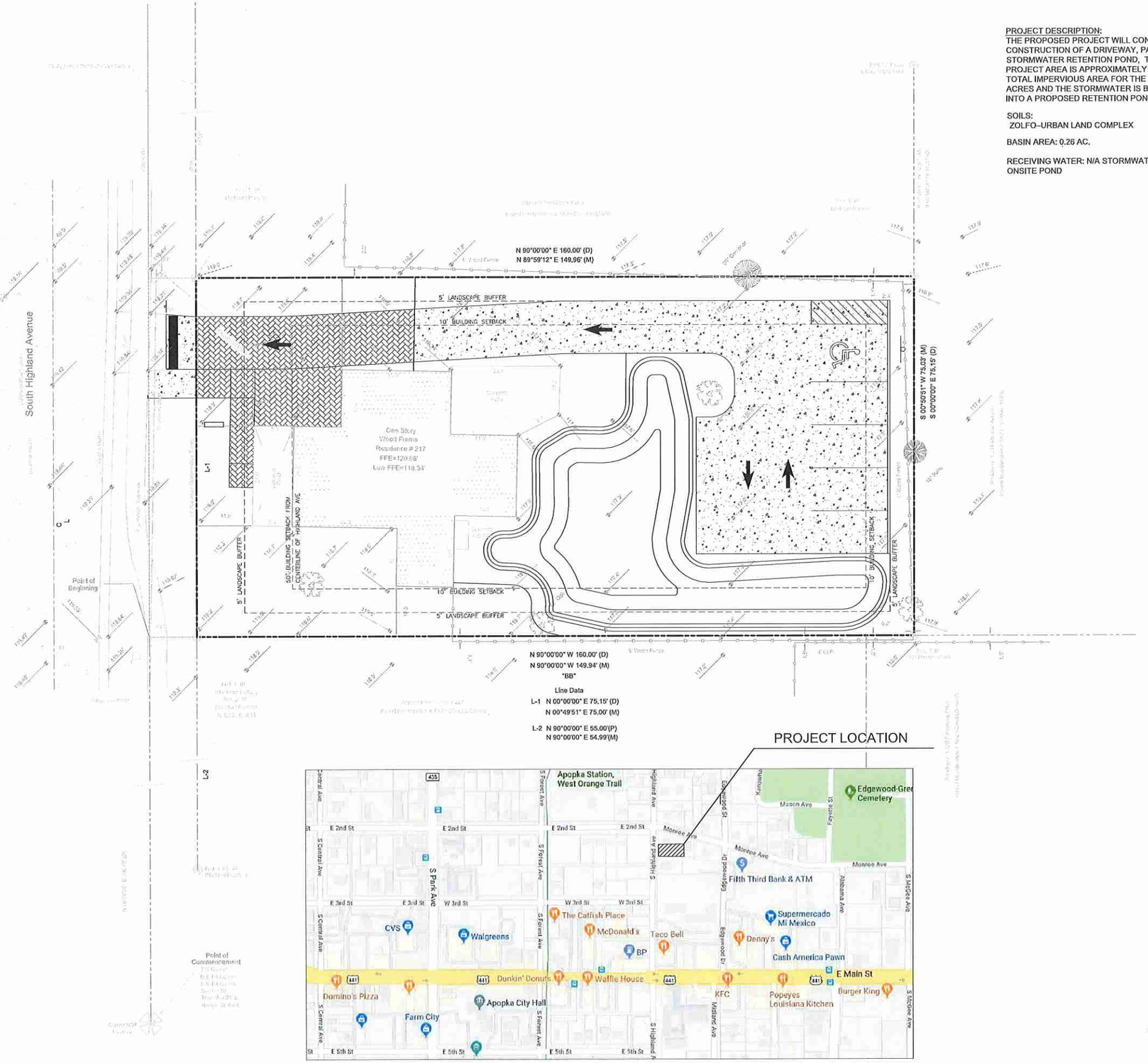
Beginning 706.6 Feet North of The Southwest Corner of The Northeast 1/4 of The Southwest 1/4 of Section 10, Township 21 South, Range 28 East, Orange County, Florida, Run North 75.15 Feet, East 160 Feet, South 75.15 Feet, West 160 Feet To The Point of Beginning. (Less Any Portion of Caption Property Lying Within Road Right of Way On The West).

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 City of Apopka, community number 120180, dated 9/25/2009.

OWNER/APPLICANT:
BRYAN BLAKE
PROGRADE HOMES, INC.
P.O. BOX 916806
LONGWOOD, FL 32789
PHONE: (407) 557-2829
FAX: (407) 898-2911

ENGINEER:
ERIC P. LAGASSEY, P.E.
P.O. BOX 140024
ORLANDO, FL 32814
PHONE: 407-493-2261
EMAIL: elagassey@linnengineering.com

SURVEYOR:
IRELAND & ASSOCIATES SURVEYING, INC.
1301 S. INTERNATIONAL PARKWAY
SUITE 2001
LAKE MARY, FLORIDA 32746
PHONE: (407) 678-3366
FAX: (407) 320-8165



PROJECT DESCRIPTION:
THE PROPOSED PROJECT WILL CONSIST OF CONSTRUCTION OF A DRIVEWAY, PARKING LOT AND STORMWATER RETENTION POND. THE TOTAL PROJECT AREA IS APPROXIMATELY 0.26 ACRES. THE TOTAL IMPERVIOUS AREA FOR THE SITE IS 0.12 ACRES AND THE STORMWATER IS BEING ROUTED INTO A PROPOSED RETENTION POND.

SOILS:
ZOLFO–URBAN LAND COMPLEX

BASIN AREA: 0.26 AC.

RECEIVING WATER: N/A STORMWATER RETAINED WITHIN ONSITE POND

NO.	REVISIONS	DATE	BY
A	REVISED PER CITY COMMENTS	09/2018	EPL

LINN ENGINEERING & DESIGN
P.O. BOX 140024
ORLANDO, FL 32814
PHONE: 407-252-6433
dlinn@linnengineering.com
CA LIC. NO. 31710

SCALE: AS NOTED
DESIGNED BY EPL
DRAWN BY EPL
CHECKED BY EPL

DESIGN ENGINEER:
ERIC P. LAGASSEY, P.E.
FLORIDA REGISTRATION NUMBER:
57514
SEAL

STORMWATER POLLUTION & PREVENTION PLAN

STERLING TITLE
217 S. HIGHLAND AVENUE
CITY OF APOPKA
FLORIDA
ORANGE COUNTY

DATE
08/23/18
PROJECT NO.
24200-18-100
SHEET NUMBER
SWPPP-2

Drawing name: Y:\Projects\24200-Bryan Blake -Sterling\18-100-216 Highland\Cadd-Civil\C6 & C7 SWPPP1 & SWPPP2.dwg C7 SWPPP-2 Sep 16, 2018 1:51pm by: Eric

-Benchmark Information-

Orange County Survey Datum Elevation: 117.502'

Orange County Survey Department
B.M. Point: L651023
Elevation: 117.502'
Northing: 1578052
Easting: 495301
Description: Found 2" Orange County Control Disk in Curb Inlet on the Northwest Corner Intersection of State Road 441 And Mcgee, 30 Ft.+/· West of Mcgee Avenue And 35 Ft./· North Of State Road 441 (Main St.) (Note: Top of Hill East End Apopka).

(Elevations are based upon North American Vertical Datum 1988)

-Site Benchmark Information-

BM #1

Set Nail & Disk (LB 7623) in Edge of Pavement
Elevation: 119.16'

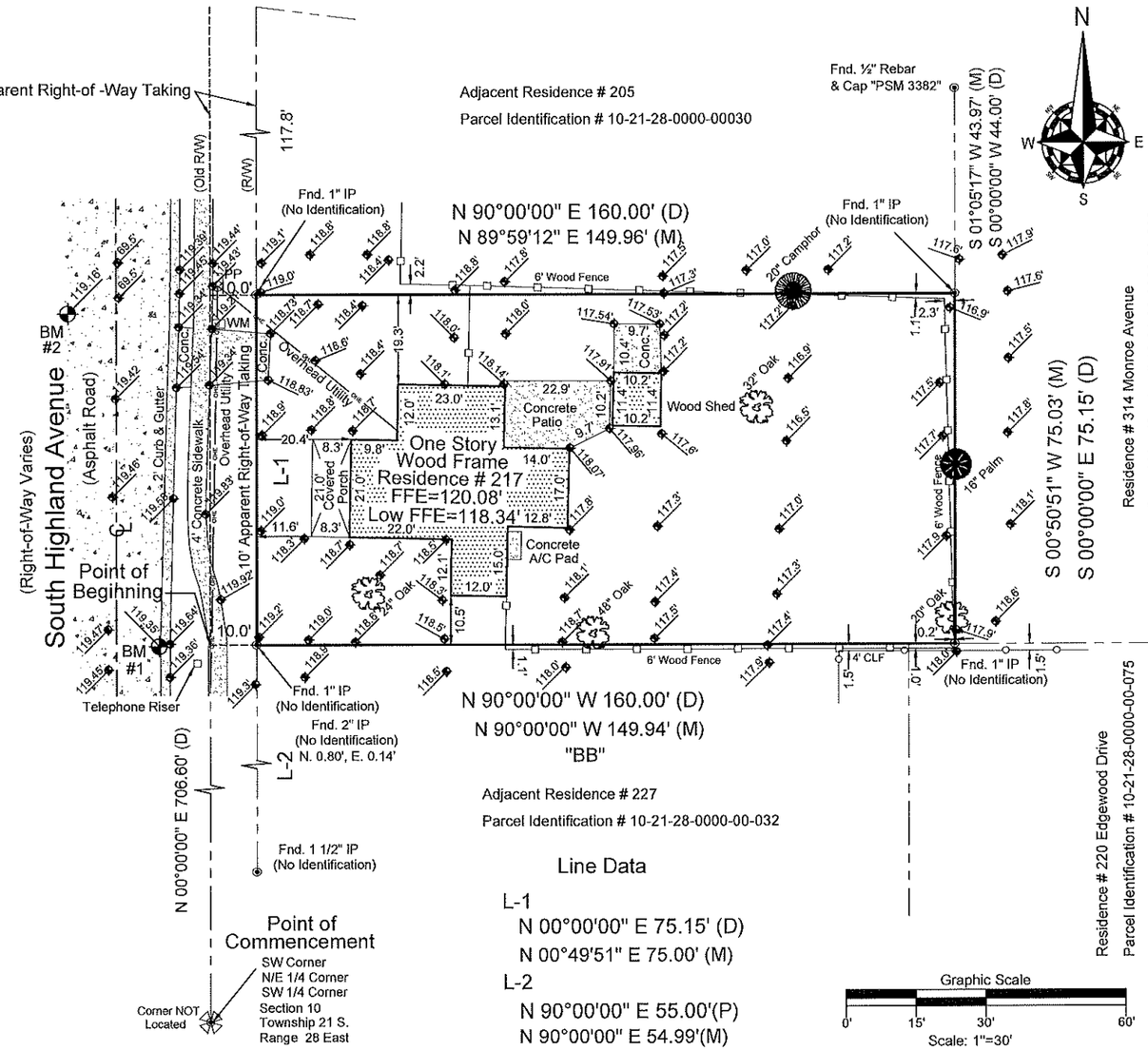
BM #2

Set Nail & Disk (LB 7623) in Edge of Pavement
Elevation: 119.35'

25.0' = Existing Elevations (Typical)

Tree Note:

Palm - Denotes Tree Type
(18") - Diameter of Tree measured at Chest Height



Boundary & Topographic Survey

Legal Description:

Beginning 706.6 Feet North of The Southwest Corner of The Northeast 1/4 of The Southwest 1/4 of Section 10, Township 21 South, Range 28 East, Orange County, Florida, Run North 75.15 Feet, East 160 Feet, South 75.15 Feet, West 160 Feet To The Point of Beginning. (Less Any Portion of Caption Property Lying Within Road Right of Way On The West).

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 City of Apopka, community number 120180, dated 9/25/2009.

CERTIFIED TO:
BRYAN BLAKE

Field Date: 11/29/17	Date Completed: 12/4/17
Drawn By: ATA	File Number: IS-42680

-Legend-

C	- Calculated	PC	- Point of Curvature
℄	- Centerline	Pg.	- Page
CB	- Concrete Block	PI	- Point of Intersection
CM	- Concrete Monument	P.O.B.	- Point of Beginning
Conc.	- Concrete	P.O.L.	- Point on Line
D	- Description	PP	- Power Pole
DE	- Drainage Easement	PRM	- Permanent Reference Monument
Esmt.	- Easement		
F.E.M.A.	- Federal Emergency Management Agency	PT	- Point of Tangency
		R	- Radius
FFE	- Finished Floor Elevation	Rad.	- Radial
Fnd.	- Found	R&C	- Rebar & Cap
IP	- Iron Pipe	Rec.	- Recovered
L	- Length (Arc)	Rfd.	- Roofed
M	- Measured	Set	- Set ½" Rebar & Cap "LB 7623"
N&D	- Nail & Disk		
N.R.	- Non-Radial	Typ.	- Typical
ORB	- Official Records Book	UE	- Utility Easement
P	- Plat	WM	- Water Meter
P.B.	- Plat Book	Δ	- Delta (Central Angle)

-Notes-

>Survey is Based upon the Legal Description Supplied by Client.
>Abutting Properties Deeds have NOT been Researched for Gaps, Overlaps and/or Hiatus.
>Subject to any Easements and/or Restrictions of Record.
>Bearing Basis shown hereon, is Assumed and Based upon the Line Denoted with a "BB".
>Building Ties are NOT to be used to reconstruct Property Lines.
>Fence Ownership is NOT determined.
>Roof Overhangs, Underground Utilities and/or Footers have NOT been located UNLESS otherwise noted.
>Septic Tanks and/or Drainfield locations are approximate and MUST be verified by appropriate Utility Location Companies.
>Use of This Survey for Purposes other than Intended, Without Written Verification, Will be at the User's Sole Risk and Without Liability to the Surveyor. Nothing Hereon shall be Construed to give ANY Rights or Benefits to Anyone Other than those Certified.
>Flood Zone Determination Shown Heron is Given as a Courtesy, and is Subject to Final Approval by F.E.M.A. This Determination may be affected by Flood Factors and/or other information NEITHER known by NOR given to this Surveying Company at the time of this Endeavor. Ireland & Associates Surveying Inc. and the signing surveyor assume NO Liability for the Accuracy of this Determination.

STERLING TITLE PLANT LIST				
KEY	TOTAL	BOTANICAL NAME	COMMON NAME	SIZE, HIGHT, WIDTH
UNDERSTORY TREES				
CC	1	CERCIS CANADENSIS	RED BUD	1.5" CAL. / 8' HT.
LI	1	LAGERSTROEMIA INDICA	CRAPE MYRTLE	12' HT. / M.T.
ACCENT SHRUBS				
CR	1	CYCAS REVOLUTA	SAGO CYCAS (KING SAGO)	7 GAL. / FULL
HS	1	HIBISCUS SPP.	HIBISCUS	7 GAL. / FULL
OF	1	OSMANTHUS FORTUNEI	FORTUNR TEA OLIVE	7 GAL. / FULL
ZF	1	ZAMIA FLORIDANA	COONTIE	7 GAL. / FULL
SHRUBS				
IC	15	ILEX CRENATA	JAPANESE HOLLY	30" HT. / 30" O.C. / FULL
PM	1	PODOCARPUS MACROPHYLLUS 'MAKI'	MAKI PODOCARPUS	30" HT. / 30" O.C. / FULL
GROUNDCOVER				
LEG	58	LIRIOPE MUSCARI 'EVERGREEN GIANT'	EVERGREEN GIANT LIRIOPE	1 GAL. / 18" O.C.
TAM	100	TRACHELOSPERMUM ASIATICUM 'MINIMA'	DWARF ASIATIC JASMINE	1 GAL. /18" O.C. / MIN. 12 RUNNERS
SOD				
SOD	AS REQ.	PAPSALUM NOTATUM 'ARGENTINE'	ARGENTINE BAHIA GRASS	SOD

NOTE: LANDSCAPING PLAN SHALL BE IN COMPLIANCE WITH WATER WISE ORDINANCE 2069.

STERLING TITLE TREE MITIGATION CHART

NO.	TREE TYPE	INCHES PRESERVED	INCHES REMOVED	SPECIMEN	PROTECTED*	REMOVAL REASON CODE
1	OAK	24	-	YES	YES	—
2	OAK	45	-	YES	YES	—
3	OAK	32	-	YES	YES	—
4	OAK	20	-	NO	YES	—
TOTAL		124	0			

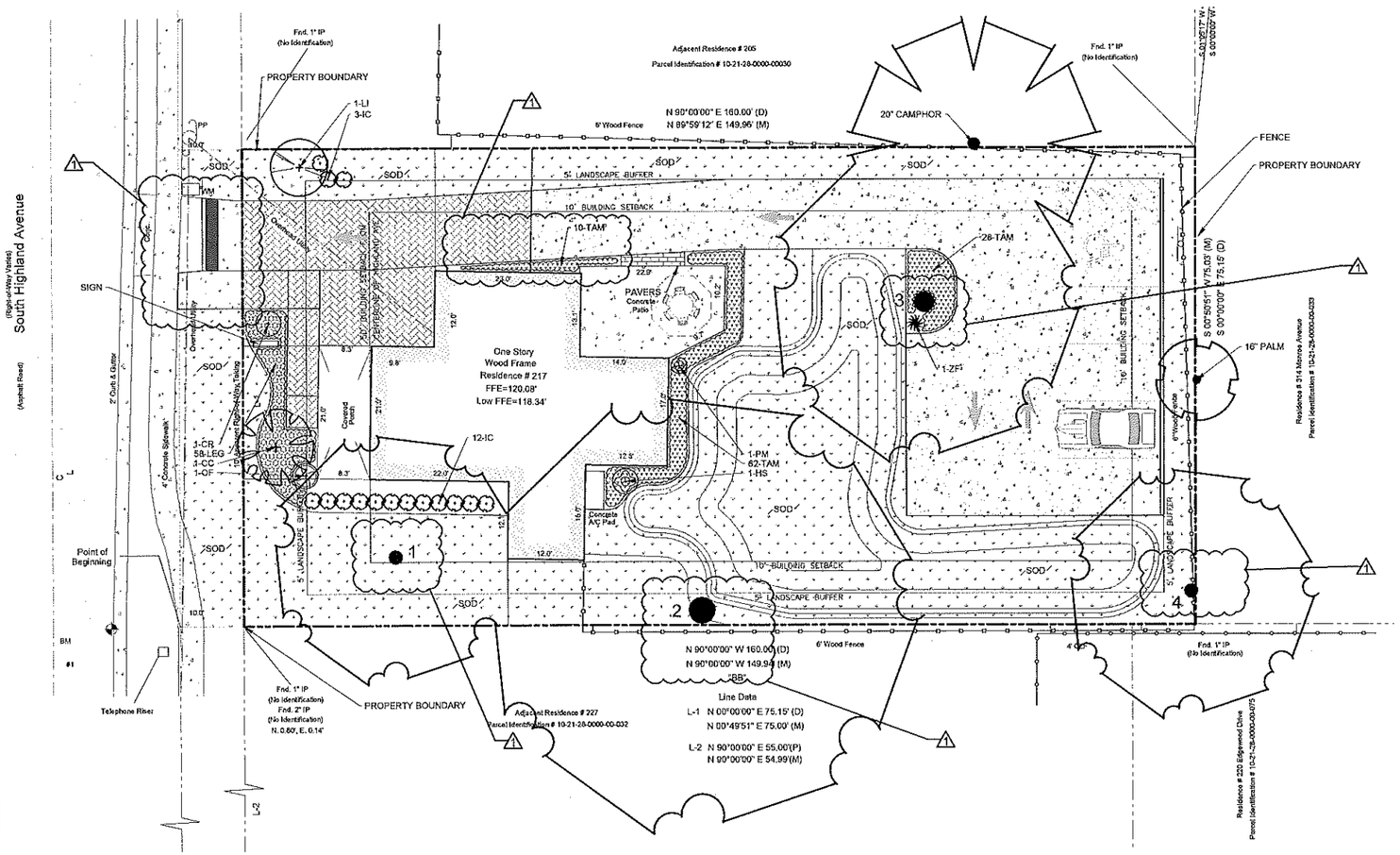
STERLING TITLE TREE REPLACEMENT CALCULATIONS

SITE AREA: 11,272.500 S.F. (0.26 ACRES)

SITE CLEARING AREA: 0 S.F. (0 ACRES)

TREE CLASSIFICATION	PREDEV. INCHES ON-SITE	MAXIMUM TREE STOCK REQ'D (IN.)	TOTAL TREES	TOTAL TREES REMOVED	TOTAL TREES PRESERVED	REPLACEMENT INCHES REQ'D	POST-DEVELOPMENT INCHES
NON-SPECIMEN TREES	20"	21" + (0.5" X 5) = 38.5"	1	0	1	0	127"
SPECIMEN TREES	104"	10" + (5" X 5) = 55"	3	0	3	0	
GRAND TOTAL	124"	93.5"	4	0	4	0"	

NO TREES WERE REMOVED AND THERFORE NO TREES NEED TO BE REPLACED.



A LANDSCAPE PLAN

SCALE: 1"=10'-0"

RON DALE & COMPANY
651 North Mills Avenue
Orlando, Florida 32803
Ph: (407) 894-1317
Fax: (407) 894-8986
Landscape Architecture Analysis Planning

LANDSCAPE SITE PLAN FOR **STERLING TITLE** CITY OF APOPKA FLORIDA

DESIGNED BY: RCD
DRAWN BY: AP
CHECKED BY: RCD
DATE: 09-17-18

REVISIONS
1. 09-17-18 CC
2.
3.
4.
5.
6.

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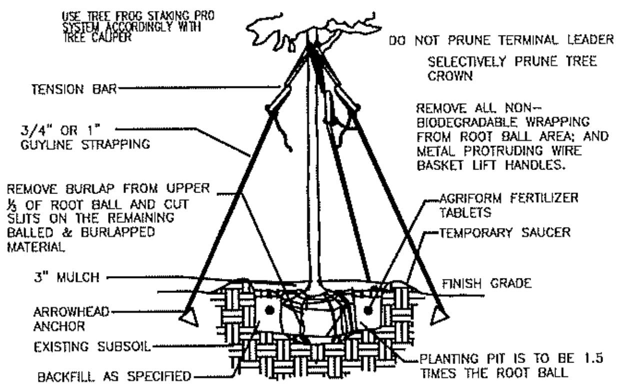
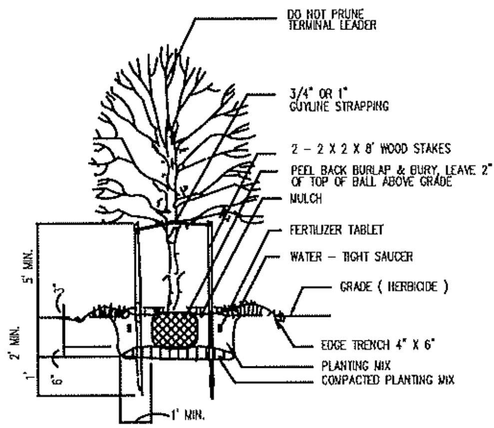
Call before you dig
It's not just another safety slogan. It's the law.
FLORIDA LAW REQUIRES EXCAVATORS TO NOTIFY OWNERS OF UNDERGROUND FACILITIES NO LESS THAN TWO (2) DAYS PRIOR TO EXCAVATION
Sunshine State One Call
www.callsunshine.com
1-800-432-4770

L-101 OF 4



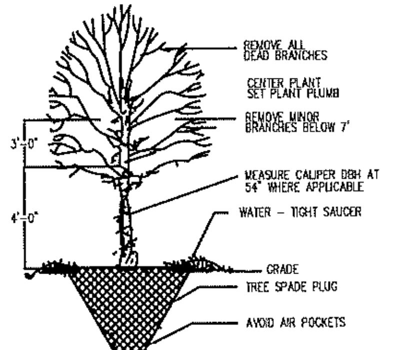
TREE STAKING DETAIL

CONTAINER OR BALL & BURLAP : 3 1/2" CAL > NO SCALE



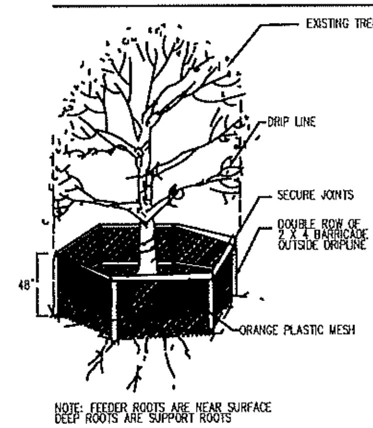
TREE DETAIL

NO SCALE



TREE TRANSPLANT DETAIL

NO SCALE



TREE PROTECTION

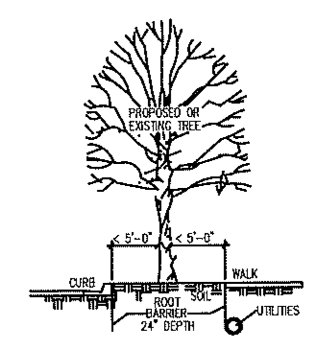
NO SCALE

Call before you dig

It's not just another catchy slogan. It's the law.

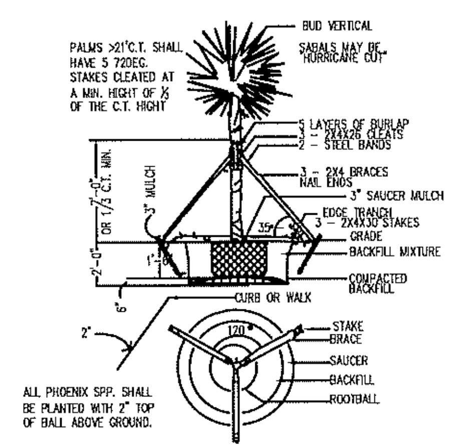
FLORIDA LAW REQUIRES EXCAVATORS TO NOTIFY OWNERS OF UNDERGROUND FACILITIES NO LESS THAN TWO (2) DAYS PRIOR TO EXCAVATION

Sunshine State One Call
www.callsunshine.com
1-800-432-4770



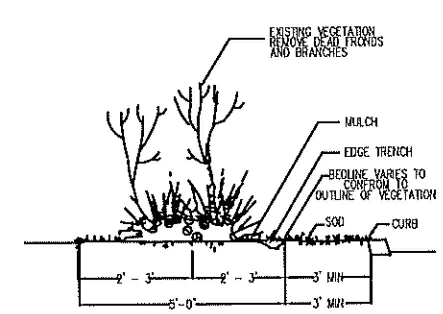
ROOT BARRIER DETAIL

NO SCALE



PALM BRACING DETAIL

NO SCALE



SOD DETAIL

NO SCALE

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SECTION 02900 LANDSCAPE
PART ONE – GENERAL

1.0 SUMMARY
A. All portions of Division I – General Requirements are included with this section.
B. Furnish all transportation, materials, labor, equipment, taxes, and service to complete all work as shown on the drawings and as specified herein.
C. Avoid conditions which will create hazards. Post signs or barriers as required.
D. Provide adequate means for protection from damage trough excessive erosion, flooding, heavy rains or winds, etc. Repair or replace such damage.
E. Plant totals are for the convenience of the Contractor and are not guaranteed. Verify drawings. Planting is required as indicated on drawings.
F. Comply with all federal, state and local regulations.
G. Contractor shall notify L.A. of any adverse soil conditions encountered ie. clay, loose fill , high water table or poor drainage and any condition adverse to planting.
H. Quantity deviations, questions on plans; please notify. Plant list is an estimate.

1.1 RELATED SECTIONS; SECTION 02810 IRRIGATION

1.2 REFERENCES
A. Standard Plant Names, 1942 edition prepared by the American Joint Committee on Horticultural Nomenclature.
B. Grades and Standards for Nursery Plants, Florida Department of Agriculture; Part II 1998
C. American Standard for Nursery Stock, prepared by the American Association of Nurserymen, Inc. (ANSI Z60. 1–1986)
D. Hortus Third, Liberty Hyde Bailer Hortorium 1976.
E. Florida Irrigation Society Standards and Specifications for turf and Landscape Systems (Revision 61098).

1.3 SUBMITTALS
Provide to Owner's representative during;
A. Preconstruction
   1. Unit Prices for all materials, including estimate (or quotation) or area to be sodded or seeded.
   2. Proposed substitutions of materiels or sizes. Obtain approval by both landscape architect and Owner's representative.
B. Construction
   1. Plant inspection certificates and shipping invoices as requested.
   2. All fertilizer labels and notarized letter of conformance with these specifications.
C. Contract Close-out
   1. Two sets as-built record documents (red-line prints).

1.4 QUALITY ASSURANCE
A. All work shall be performed under the constant supervision of a foreman, having at least one year experience or education in the nursery trades.
B. Contractor is expected to participate in a pre-construction conference with Owner and landscape architect to coordinate schedule, clarify questions, and discuss acceptable performance for payment.
C. Contractor is expected to participate in a contract close-out conference with Owner and landscape architect to verify completion of the work, and to establish a "Date of Substantial Completion".

1.5 MAINTENANCE
A. Contractor shall be fully responsible for all maintenance, damages, and replacements until Date of Substantial Completion of that specific phase of work. Document damage to the work caused by other trades. Immediately bring to Owner's attention, and quickly repair (at Owner's expense) as directed
B. Maintenance consists of pruning, cultivation, edginbeds and walks, weeding, mulching, adjusting guys, resetting plants to proper grade or upright position, hand watering as required, restoration of planting saucer, and furnishing and applying such sprays as necessary to keep the planting free from insects or disease.
C. The Contractor shall keep the premises free from accumulations of waste materials or rubbish caused by his employees or work, at all times.

1.6 REPLACEMENTS
A. During the guarantee period any plant required under this contract that is dead or not in satisfactory growth condition (as determined by the landscape architect) shall be promptly replaced by the Contractor. Replacement shall be as specified for the original planting and at no cost to the Owner.
B. Replacement period commences at Date of Substantial Completion and continues as follows:
   a. Trees – one (1) year
   b. Shrubs – ninety (90) days
   c. Sod – ninety (90) days
   d. Other Products – one (1) year
   Time limit may be extended by mutual agreement for material in questionable health at end of guarantee period.
C. Plant damage by theft, vandalism, gross neglect, undue weather conditions, acts of God, or unseasonable planting are exempt from the guarantee provision.

3.3 INSTALLATION
A. Topsoil
   Spread topsoil over all areas to receive ground cover to a minimum compacted depth of 4 inches.
B. Rough Grading
   1. Mold land surfaces to within 1 inch of final grade. Construct swales and berms. Fill low areas. Ensure proper drainage of all areas. Spread 6 inch lifts at 85% compaction (Proctor)
   2. Slope grade away from buildings at a minimum slope of 1/2 inch per foot for a distance of 10 feet minimum.
C. Final Grading
   1. Remove all non-conforming matter from site, such as rocks, sods, sticks, building rubble, wire, or cans.
   2. Dig out weeds by the roots.
   3. Till in soil amendments such as lime, iron, or gypsums if indicated by local conditions, but only after approval by landscape architect. Ensure uniform application.

PART TWO – PRODUCTS

2.0 MATERIALS
A. Topsoils shall be fertile, natural, and typical of the locality. It shall be without subsoil or slag and shall be free of stones, lumps, plants or their roots, sticks, or other extraneous matter that is not conductive to production of plant life, or would interfere with future maintenance.
B. Sod may have no visible broadleaf weeds when viewed from a standing position and the turf shall be visibly consistent with no obvious patches of foreign grasses. It may have no visible signs of disease or insect stress. In no case may the total amount of foreign grasses or weeds exceed 2% of the total canopy. The sod shall be (as noted on plan) neatly mowed and be mature enough that when grasped at one end it can be picked up and handled without damage.
C. Seed shall meet the tolerance for germination and purity in accordance with the U.S. Department of Agriculture Rules and Regulations under the latest edition of the "Federal Seed Act" for certified seed. Seed shall be mixed by the dealers and shall be delivered to the site in sealed containers which shall beat the dealer's guaranteed analysis. Seed mixture and seeding rate shall be as specified on the drawings.
D. Fertilizer
   1. "Agri-form" or "Woodace" 21 gram tablet of 20-10-5 formulation.
   2. Granular fertilizer shall be a balanced formula, uniform in composition, free flowing and delivered to site in unopened bags.
E. Peat
   Incorporate black Florida peat into planting mix when specified on plant list at the following rates:
   1. 1 gallon plants – 1/8 cubic feet
   2. 3 gallon plants – 1 cubic feet
   3. Trees – 1/2 cubic foot per foot of height
F. Herbicide
   "Selfen" or "Preen" pre-emergent.
G. Additional Soil Amendments
   1. Apply as needed to bring soil into optimum growth range for specified plants.
   2. If soil is below 5.0 ph incorporate enough horticultural lime to bring within 5.6 to 6.5 ph range.
H. Plants
   1. Measured standing in natural form of the size indicated on "plant list" and grade "Florida No 1" unless otherwise indicated.
   2. Non-classified plants to meet AAN standards. Tree calipers shall be measured 6 inches above soil level.
   3. All plants shall be sound, healthy, free from insect pests and eggs, and have normal, healthy root systems.
   4. Form shall be symmeterical or typical for species and variety.
   5. Any plant may be rejected by landscape architect if not of satisfactory size, health, quality, or character.
   6. Trees having rootballs wrapped with synthetic burlap will be rejected.
I. Mulch shall be Pine bark, no cypress bark, & free from sticks, stones, leaves or other debris.

2.1 EQUIPMENT
Use magnesium grading rakes of 30 inch minimum width to remove irregularities in final grade prior to sodding or seeding and to ensure a flat subgrade.

2.2 MIXES
A. Planting Mixture
   1. Use the best natural soil existing on site, combined with fertilizer.

PART THREE – EXECUTION

3.0 EXAMINATION
A. Examine surfaces to which work will be applied and immediately notify landscape architect in writing if site is not in proper condition for Contractor to perform his duties under the terms of this contract.
B. Review engineering drawings for additional information.
C. Coordinate work with Owner and other related trades.
D. Relocate existing plant material as directed by landscape architect, and according to drawings.

3.1 PROTECTION
Locate, identify and mark all known utilities in area of the work. Take reasonable care to avoid damages or hazards.

3.2 PREPARATION
Remove from site existing sods, seeds, inferior plantings and preconstruction debris as necessary to incorporate work to the site. Obtain verification regarding removal of questionable material. Clean up of debris from new construction (by other trades) is not included in this contract.

D. Planting Pits
   Excavate to dimensions shown on plan.
E. Plant Installation
   1. Do not crack or break soil away from root ball.
   2. Carefully set plant plumb, best side facing "out", at the same soil level, to 1" higher, as previously grown.
   3. Remove all twine, burlap, or rope from top third of root ball. Retain cloth under ball. Wash in backfill with slow hose.
   4. Form shallow basin at each plant. Adjust grade to 1 1/2" below adjacent pavement. All plants shall be 30" minimum from walls, walks and fences.
   5. Space ground cover in triangle pattern with outside row parallel to bedline, 1/2 plant spacing distance from edge.
F. Sod Installation
1. Sod all areas indicated on plan and areas disturbed by work of other trades.
2. Lay panels tightly together. Top dress cracks with sand. Water thoroughly.
G. Stake and Guy
   Stake and guy ..as per plan.
H. Fertilize
Fertilize evenly at following rates:
1. Tablet Fertilizer
   1 gallon plant – 1 tablet
   2 gallon plant – 1 to 2 tablets
   5 gallon plant – 2 to 3 tablets
   Trees – 1 tablet per foot of height
2. Granular Fertilizer
   Work into the top 2 " of soil at the rate of 20 pounds per 1000 square feet for lawn areas.
I. Prune
   Prune as little as necessary to remove damaged twigs. In any case, terminal leader shall not be topped either before or after installation.
J. Herbicide
   Apply pre-emergent herbicide to all beds according to manufacturer's recommendations.
K. Mulch
   Spread to a uniform depth of 2"min. Fluff and pat in place.

3.4 FIELD QUALITY CONTROL

A. Landscape architect or Owner may conduct periodic inspections to determine that the terms of this contract are fulfilled.
B. Contractor will be expected to participate with Owner in final inspection to review project for conformance to the contract. Items to be reviewed include type, quantities, sizes, locations, dimensions, and quality of materials and workmanship. Final payment for work will depend upon satisfactory condition of project on Date of Substantial Completion.

END OF SECTION

DALE & COMPANY
651 North Mills Avenue
Orlando, Florida 32803
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Fax: (407) 894-8986
Landscape Architecture Analysis Planning

LANDSCAPE DETAILS & SPECIFICATIONS
FOR
STERLING TITLE
CITY OF APOPKA FLORIDA

DESIGNED BY: RCD
DRAWN BY: AP
CHECKED BY: RCD
DATE: 09-17-18

REVISIONS
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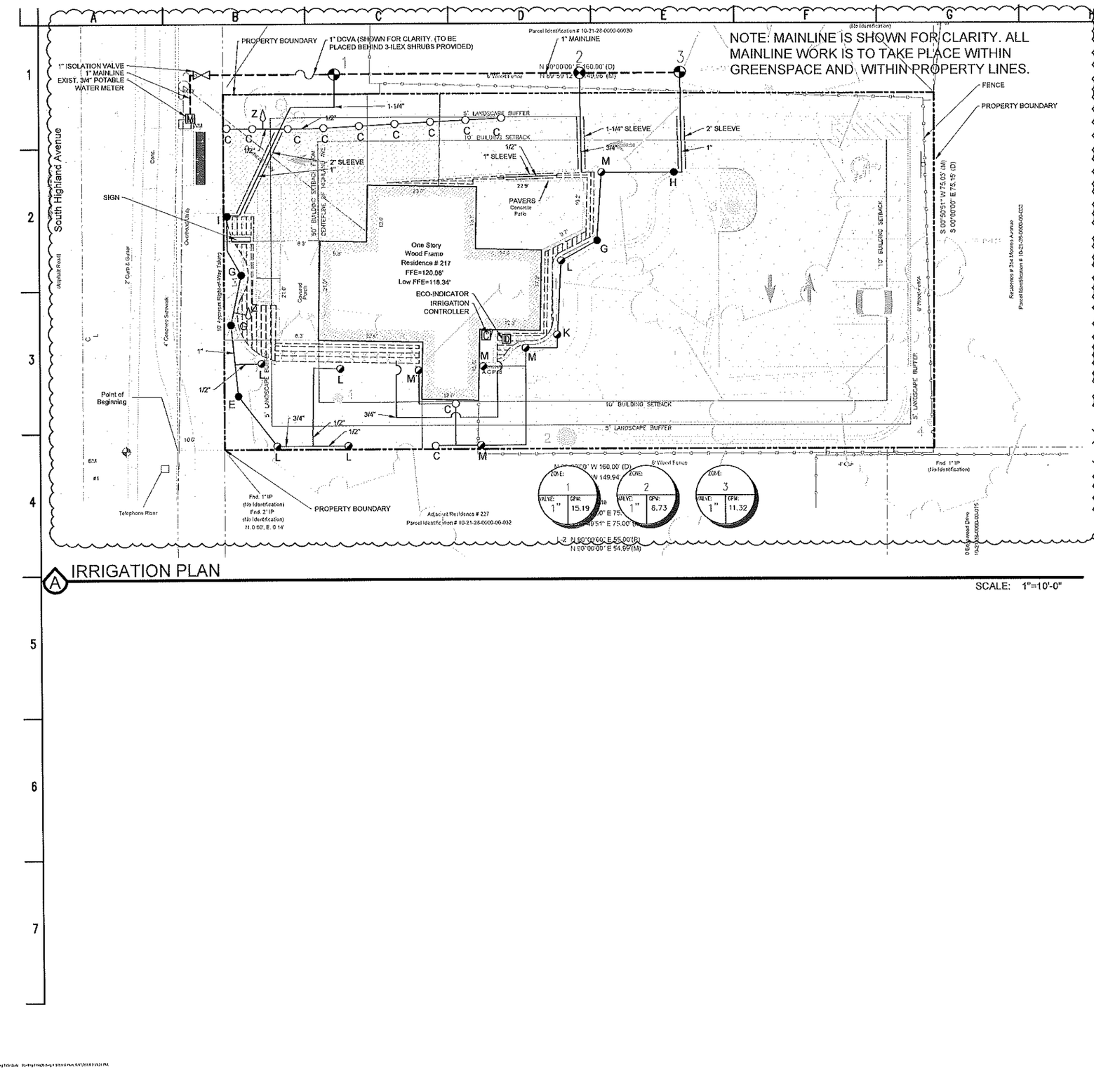
L-501 OF 4



IRRIGATION PLAN

SCALE: 1"=10'-0"

SLEEVE SIZE SCHEDULE

PIPE SIZES	SLEEVE SIZES
3/4"	1-1/4"
1"	2"
1-1/4"	2-1/2"
1-1/2"	2-1/2"
2"	3"
2-1/2"	4"
3", 4"	6"

NORTH

0 5' 10' 20'

SCALE: 1"=10'-0"

HUNTER IRRIGATION LEGEND

KEY	MODEL DESCRIPTION	NOZZLE	RADIUS	GPM	ARC	PSI	COMMENTS/GENERAL
A	HUNTER PROS-PRS40-MP-1000-360	OLIVE	8'-15' ADJ.	0.84	360°	40	*NOTES* WITHIN SHRUBS, NOZZLE SHALL BE 12" POP-UPS
B	HUNTER PROS-PRS40-MP-1000-270	LT. BLUE	8'-15' ADJ.	0.63	270°	40	
C	HUNTER PROS-PRS40-MP-1000-180	MAROON	8'-15' ADJ.	0.42	180°	40	
D	HUNTER PROS-PRS40-MP-1000-90	MAROON	8'-15' ADJ.	0.21	90°	40	
E	HUNTER PROS-PRS40-MP-2000-360	RED	13'-21' ADJ.	1.48	360°	40	NO RISERS WILL BE USED.
F	HUNTER PROS-PRS40-MP-2000-270	GREEN	13'-21' ADJ.	1.10	270°	40	
G	HUNTER PROS-PRS40-MP-2000-210	BLACK	13'-21' ADJ.	0.86	210°	40	
H	HUNTER PROS-PRS40-MP-2000-180	BLACK	13'-21' ADJ.	0.77	180°	40	WITHIN BEDS, 12" POP-UPS.
I	HUNTER PROS-PRS40-MP-2000-90	BLACK	13'-21' ADJ.	0.43	90°	40	
J	HUNTER PROS-PRS40-MP-3000-360	GRAY	22'-33' ADJ.	3.64	360°	40	ALL LAWN AREAS SHALL BE 6" POP-UPS.
K	HUNTER PROS-PRS40-MP-3000-270	YELLOW	22'-33' ADJ.	2.73	270°	40	
L	HUNTER PROS-PRS40-MP-3000-180	BLUE	22'-33' ADJ.	1.82	180°	40	ADJUST HEADS TO AVOID OVERSPRAY.
M	HUNTER PROS-PRS40-MP-3000-90	BLUE	22'-33' ADJ.	0.66	90°	40	
N	HUNTER PROS-PRS40-MP-CORNER	TURQUOISE	8'-15' ADJ.	0.44	45°	40	FOR RE-USE WATER USE PURPLE HEADS, PIPES, & VALVES ONLY.
Q	HUNTER PROS-PRS40-MP-LCS-515	IVORY	5' x 15' ADJ.	0.22	RECT.	40	
R	HUNTER PROS-PRS40-MP-RCS-515	COPPER	5' x 15' ADJ.	0.22	RECT.	40	**FOR LARGE CANOPY TREES USE 1 - PCB-50 BUBBLER @ 0.5 GPM
S	HUNTER PROS-PRS40-MP-SS-530	BROWN	5' x 30' ADJ.	0.44	RECT.	40	
T	I-20-06-8.0		8.0	44'	8.0	360°	45	**FOR LARGE PALM TREES USE 2 - PCB-10 BUBBLERS @ 1.0 GPM EACH
U	I-20-06-4.0		4.0	40'	4.0	160	45	
V	I-20-06-2.0		2.0	34'	2.0	90°	45	
W	HUNTER PCJ-06		4.0	38'	4.0	360°	40	**FOR UNDERSTORY TREES USE 1 - PCB-25 BUBBLER @ 0.25 GPM
X	HUNTER PCJ-06		2.0	29'	2.0	180°	40	
Y	HUNTER PCJ-06		1.0	19'	1.0	90°	40	
Z	HUNTER PCB (MODELS 25, 50, &10)		BEST. COV.	N/A	0.25-1.0	360°	VAR.	*VELOCITY SHALL NOT EXCEED 5' PER SEC. IN ALL PIPELINES

- EXISTING 3/4" POTABLE WATER METER
- ECO-INDICATOR
- HUNTER 1" ICV-101G VALVE
- HUNTER 1" ICZ-101 DRIP CONTROL ZONE VALVE
- 1" ISOLATION VALVE
- 1" CLASS 200 MAINLINE
- SLEEVE SCH40 SEE SLV SIZE CHART
- HUNTER XC-400 CONTROLLER WITH RAIN CLICK; EXTERIOR WALL-MOUNT
- 1" POTABLE WATER DOUBLE CHECK VALVE ASSEMBLY

NOTE: ALL TREE BUBBLERS WILL BE CONNECTED TO THE SHRUBS SPRAY ZONES ONLY, NOT SOD SPRAY ZONES.
NOTE: IRRIGATION PLAN SHALL BE IN COMPLIANCE WITH WATER WISE ORDINANCE 2069.

Call before you dig
It's not just another catchy slogan. It's the law.
Okay. Now, it's not the law only, but it's also the law.
FLORIDA LAW REQUIRES EXCAVATORS TO NOTIFY OWNERS OF UNDERGROUND FACILITIES NO LESS THAN TWO (2) DAYS PRIOR TO EXCAVATION
Sunshine State One Call
www.callsunshine.com
1-800-432-4770

IRRIGATION WATER DEMAND

*GALLONS PER CYCLE	1,066.55
*GALLONS PER WEEK	2,133.10
GALLONS PER YEAR, 52 WEEKS	91,723.30
**GALLONS PER YEAR, 46 WEEKS	78,924.70

* TWICE A WEEK DURING DAYLIGHT SAVINGS TIME (34 WEEKS). ONCE A WEEK DURING STANDARD TIME (18 WEEKS).

** 6 WEEKS OF RAINY SEASON
TWICE A WEEK DURING DAYLIGHT SAVINGS TIME (28 WEEKS). ONCE A WEEK DURING STANDARD TIME (18 WEEKS).

RON DALE & COMPANY
651 North Mills Avenue
Orlando, Florida 32803
Ph: (407) 894-1317
Fax: (407) 894-8986
FLORIDA
Landscape Architecture Analysis Planning

IRRIGATION SITE PLAN FOR
STERLING TITLE
CITY OF APOPKA

DESIGNED BY: RCD
DRAWN BY: AP
CHECKED BY: RCD
DATE: 09-17-18

REVISIONS
1. 09-17-18 CC
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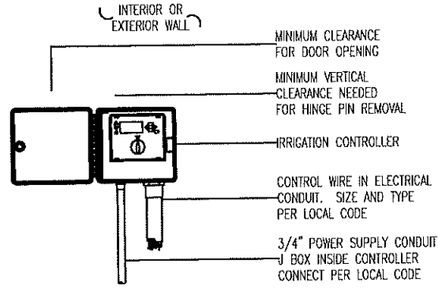
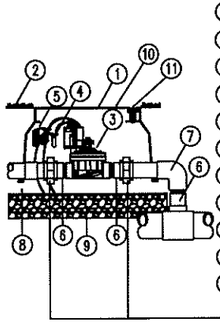


MOUNT CONTROLLER WITH LCD SCREEN AT EYE LEVEL. CONTROLLER SHALL BE HARD-WIRED TO GROUNDED 110 or 220 VAC SOURCE.

IRRIGATION CONTROLLER

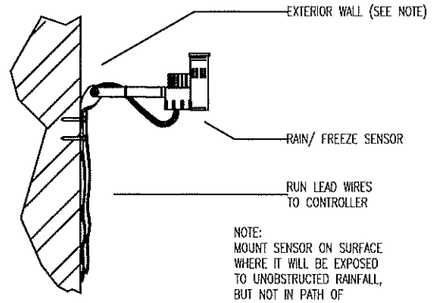
*IF THE PLAN SPECIFIES THE USE OF A TWO WIRE CONTROLLER, OR IF ONE WILL BE USED, PLEASE SEE THE ADDITIONAL DETAILS AND SPECIFICATIONS FOR IT LOCATED ON A SEPORATE SHEET. IF THE SHEET WAS NOT INCLUDED WITH THIS SET OF PLANS PLEASE CONTACT DALE AND COMPANY FOR A COPY.



1. STANDARD VALVE BOX
2. FINISH GRADE
3. REMOTE CONTROL VALVE
4. WATERPROOF CONNECTORS (2)
5. 18-24" COILED WIRE
6. SCH 80 T.O.E. NIPPLE
7. MAIN LINE PIPE & FITTINGS
8. BRICK SUPPORTS (4)
9. 3/4" MINUS WASHED GRAVEL
10. SCREW/LOCK VALVE COVERS
11. SCREW/BOLT

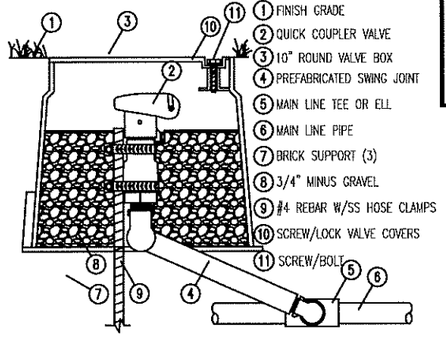
PVC SLIP UNIONS

REMOTE CONTROL VALVE



NOTE:
MOUNT SENSOR ON SURFACE WHERE IT WILL BE EXPOSED TO UNOBSTRUCTED RAINFALL, BUT NOT IN PATH OF SPRINKLER SPRAY.

RAIN/ FREEZE SENSOR



1. FINISH GRADE
2. QUICK COUPLER VALVE
3. 10" ROUND VALVE BOX
4. PREFABRICATED SWING JOINT
5. MAIN LINE TEE OR ELL
6. MAIN LINE PIPE
7. BRICK SUPPORT (3)
8. 3/4" MINUS GRAVEL
9. #4 REBAR W/SS HOSE CLAMPS
10. SCREW/LOCK VALVE COVERS
11. SCREW/BOLT

QUICK COUPLER VALVE

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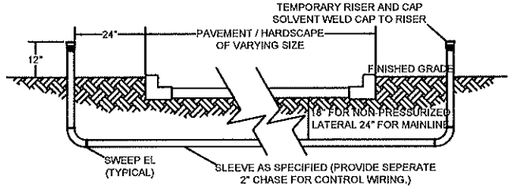
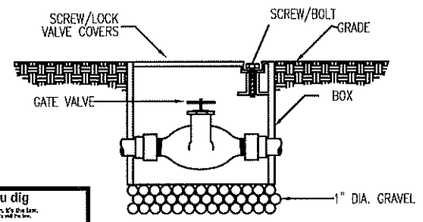


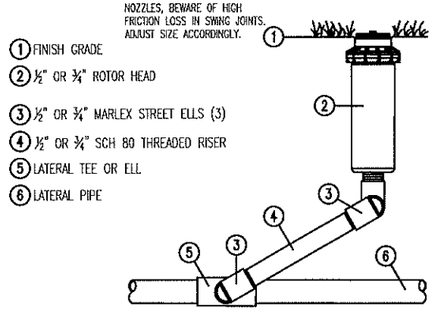
SLEEVE INSTALLATION



GATE VALVE

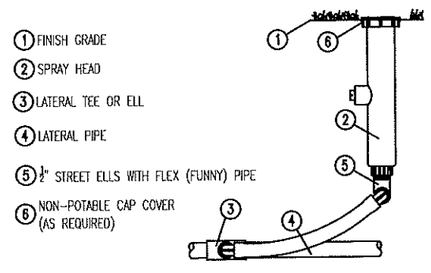
Call before you dig
It's not just a good idea, it's the law.
Dial, Dig, It's as free as it is safe and it's the law.
FLORIDA LAW REQUIRES EXCAVATORS TO NOTIFY OWNERS OF UNDERGROUND FACILITIES NO LESS THAN TWO (2) DAYS PRIOR TO EXCAVATION
Sunshine State One Call
www.callsunshine.com
1-800-432-4770

*WHEN USING LARGER GPM NOZZLES, BEWARE OF HIGH FRICTION LOSS IN SWING JOINTS. ADJUST SIZE ACCORDINGLY.



1. FINISH GRADE
2. ½" OR ¾" ROTOR HEAD
3. ½" OR ¾" MARLEX STREET ELLS (3)
4. ½" OR ¾" SCH 80 THREADED RISER
5. LATERAL TEE OR ELL
6. LATERAL PIPE

ROTOR HEAD



1. FINISH GRADE
2. SPRAY HEAD
3. LATERAL TEE OR ELL
4. LATERAL PIPE
5. ½" STREET ELLS WITH FLEX (FUNNY) PIPE
6. NON-POTABLE CAP COVER (AS REQUIRED)

SPRAY HEAD

SECTION 02810
IRRIGATION SYSTEMS

PART ONE - GENERAL

1.0 SUMMARY
A. All portions of Division 1 - General Requirements are included with this section.
B. Furnish all transportation, materials, labor, equipment, and services to complete all work shown on the drawings and as specified.

1.1 RELATED SECTIONS: section 02900 landscape planting

1.2 TOLERANCE
A. Install sprinkler heads where indicated by symbol.
B. Drawings are schematic. Adjust pipe and locations to conform to site conditions and to avoid obstructions. Conceal components behind walls of shrubbery where possible. Verify questionable locations before installation.

1.3 SUBMITTAL
A. Submit two bound folders containing:
1. Written operating instructions for all components.
2. Complete parts list and manufacturer's data.
3. Copy of well completion report.
4. Written maintenance instructions.
5. Provide 2 sets as-built record drawings with the following items dimensioned to the nearest foot:
a. Sprinkler main lines
b. Water source
c. Control valves
d. Gate valve
e. Electric control wire path
(Red-line prints).
B. Products furnished but not installed:
1. 2 extra heads of each type and size
2. 2 extra nozzles of each type and size
3. 2 extra head wrenches for each type of head
4. 1 extra valve box with lid

1.4 COORDINATE WORK WITH OWNER AND OTHER TRADES
A. A Licensed electrician will install/provide power to the controller, pump, or fountain if utilized on project.

1.5 QUALITY ASSURANCE
A. Contractor is expected to participate in preconstruction meeting with Owner and landscape architect to coordinate schedule, clarify questions, and discuss acceptable performance criteria for payment.
B. Contractor is expected to participate in contract closeout meeting with Owner and landscape architect to verify proper completion of the work, establish "Date of Substantial Completion", and advise Owner as to system operation.

1.6. WARRANTIES
A. Contractor will be fully responsible for system operation until Date of Substantial Completion.
B. Contractor is fully responsible for all parts and workmanship for one year after Date of Substantial Completion of each specific phase or portion of the project.
C. See to the fulfillment of all manufacturer's warranties.

PART TWO - PRODUCTS
2.0 MATERIALS
Backfill shall be free from stone, trash, or other debris.

2.1 MANUFACTURED UNITS
A. Automatic electro-mechanical controller fully installed and operating.
B. Electric valve installed in valve box.
C. Valve box with lid manufactured by "Amtek" or "Brooks".
D. Connection for control wires manufactured by "Penlite" or "3M" installed as per manufacturer's directions, and above grade in valve boxes.
E. Gate valves shall be brass and installed in valve box.
F. Automatic drain valves shall be installed in 1 cubic foot gravel.

2.2 COMPONENTS
A. Control wire shall be direct burial # 14, type UF. Tape to underside of main every 10 feet. Install spare ground wire + 5 extra wires.
B. Main line shall be class 200 PVC (ANSI/ASTM D2241).
C. Lateral lines shall be class 160 PVC minimum (ANSI/ASTM D2241).
D. Sleeve at all road and drive crossings shall be class 200 PVC.
E. All pipe, connectors and misc. fittings for the meter and check valve assembly will be galvanized.
F. all electrical work will conform to year construction N.E.C.

PART THREE - EXECUTION

3.0 EXAMINATION
Examine surfaces to which work will be applied and immediately notify landscape architect in writing if site is not in proper condition for Contractor to perform his duties under the terms of this contract.

3.1 PROTECTION
A. Locate identify, and mark all known utilities in area of the work. Take reasonable care to avoid damages or hazards.
B. Damage caused by Contractor's work will be repaired to Owner's satisfaction at Contractor's expense.
C. Document any damage to work caused by other trades. Immediately bring costs to Owner's attention and quickly repair at Owner's expense, as directed.

3.2 PREPARATION
A. Surface Preparation. Stake out each run of pipes, each head, and each valve.
B. Test control wire for continuity before unreeling for installation.

3.3 INSTALLATION
A. Keep pipe interior clean and dry at all times.
B. Ensure a square cut at all joints and ream ends to a smooth finish, inside and out.
C. Lay all runs greater than 100 feet from side to side on trench bottom in serpentine pattern.
D. Support all pipe with clean, compact soil.
E. Backfill and compact to original soil.
F. Set heads plumb and flush with top of sod or mulch.
G. For lateral lines flush all debris from lines. Open valve and screw on one head at a time, starting at valve and continuing to the end. Ensure that lines are watertight.

3.4 TOLERANCES
A. Main line and drive crossings shall have 18 inches minimum cover.
B. Lateral lines shall have 12 inches minimum cover.
C. All heads shall be 4 inches minimum from walks, drives, or curbs.
D. All pop-up heads and valve boxes shall be installed with top flush with grade.
E. All heads shall be installed plumb.

3.6
FIELD TESTS
Apply 100 psi hydrostatic pressure to main lines for 120 minutes. If a leak is found, repair and retest until satisfactory.

3.6 ADJUSTMENTS
A. Adjust sprinkler patterns and radius. Ensure uniform and sufficient coverage for optimum plant growth.
B. No heads shall be allowed to spray walls, fences, walks, or drives.
C. Set times to operate as appropriate for season, soil type, drainage, and plant requirements.

3.7 FIELD QUALITY CONTROL
A. Landscape architect or Owner may conduct periodic inspections to determine that the terms of this contract are fulfilled.
B. Contractor will be expected to participate with Owner in final inspection to review project for conformance to the contract. Items to be reviewed include, type, quantities, sizes, locations, dimensions, and quality of materials and workmanship.
C. The Contractor shall keep the premises free from accumulations of waste materials or rubbish caused by his employees or work at all times.

END OF SECTION

DALE & COMPANY
Landscape Architecture Analysis Planning
651 North Mills Avenue
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Fax: (407) 894-8866

IRRIGATION DETAILS & SPECIFICATIONS
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DESIGNED BY: RCD
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