



AGENDA
PLANNING COMMISSION
CITY OF PORT ORANGE

Meeting Date: Thursday, March 23, 2017

Time: 5:30 PM

Type of Meeting: Regular

Location: Council Chambers
City Hall, 1000 City Center Circle

A. CALL TO ORDER

1. Pledge of Allegiance
2. Silent Invocation
3. Roll Call

B. DISCUSSION/ACTION

4. Consideration of Minutes
5. Case No. 16-50000004
SUBDIVISION PLAT AND PLANS/KING'S LANDING - PHASE 1
East side of Hensel Road, between East Hensel Drive and Hills Boulevard

A proposal by the applicant to subdivide +/- 82.2 acres into 19 one-acre single-family lots, along with tracts of land for common area, storm water retention (+/- 9.2 acres), and future single-family lots (+45 acres).

Staff Contact: Tim Burman, Planner (386) 506-5675/tburman@port-orange.org

6. Case No. 17-50000001
SUBDIVISION PLAT AND PLANS/WOODHAVEN SUBDIVISION PHASE 1
North side of Williamson Boulevard, between Ashton Lakes and Sterling Chase Subdivisions and I-95

A proposal by the applicant to subdivide +/- 116 acres into 178 single-family lots and 93 townhome lots, along with associated subdivision improvements.

Staff Contact: Penelope Cruz, Planner (386) 506-5671/pcruz@port-orange.org

7. Case No. 16-50000005
SUBDIVISION REPLAT/CLARK PROFESSIONAL CENTER PHASE 2
5111 South Ridgewood Avenue

A proposal by the applicant to replat +/- 7.4 acres of the Clark Professional Center and Wedding Chapel PCD property into 6 lots as shown on the amended Clark Professional Center and Wedding Chapel Conceptual Development Plan (5th Amendment).

Staff Contact: Gwen Perney (386) 506-5673/gperney@port-orange.org

8. Case No. 17-25000001
LDC TEXT AMENDMENT/TATTOO ESTABLISHMENTS

Amendment to Chapters 2, 12, 16, 17, and 18 of the Land Development Code (LDC) related to Tattoo Establishments. The proposed amendments include adding the definition for tattoo establishment and updating the definition for personal service; adding a parking requirement for a tattoo establishment; adding tattoo establishment use to the list of prohibited home occupations; adding tattoo establishment as a permitted use in the Highway Commercial (HC), Ridgewood Development (RD), Interchange Commercial (ICD) zoning districts, and Planned Community-Agricultural (PC-A) zoning districts; removing tattoo parlor as a Special Exception use in the Highway Commercial and Ridgewood Development zoning districts; and removing Special Exception requirements for a tattoo parlor use.

Staff Contact: Tim Burman (386) 506-5675/tburman@port-orange.org

9. Case No. 17-25000002

LDC TEXT AMENDMENT/ADULT ENTERTAINMENT ESTABLISHMENTS

Amendment to Chapters 12, 17, and 18 of the Land Development Code (LDC) related to Adult Entertainment Establishments. The proposed amendments include adding parking requirements for adult entertainment establishment uses; removing adult entertainment establishment as a Special Exception use in the Highway Commercial (HC) zoning district and adding adult entertainment establishment as a Special Exception use in the Commercial Industrial (CI) zoning district; removing the adult entertainment establishment Special Exception criteria for the Highway Commercial (HC) zoning district and adding the adult entertainment establishment Special Exception requirements for the Commercial Industrial (CI) zoning district; and updating the requirement for measuring the Special Exception separation distance between an adult entertainment use and a residentially-zoned property or parcel with a pre-existing adult entertainment use, pre-existing house of worship, school, park, child care center, or establishment dealing in alcoholic beverages.

Staff Contact: Tim Burman (386) 506-5675/tburman@port-orange.org

10. Case No. 17-60000001

ADMINISTRATIVE REZONING/6080 DEERFEED TRAIL

A request to rezone +/- 0.77-acres from Floodplain-Conservation (F-C) to Rural Residential (RR).

Staff Contact: Penelope Cruz (386) 506-5671/pcruz@port-orange.org

C. OTHER BUSINESS

11. Commissioner Comments

12. Staff Comments

D. PUBLIC COMMENTS

E. ADJOURNMENT

ANY PERSON WHO DECIDES TO APPEAL ANY DECISION MADE BY THE **PLANNING COMMISSION** WILL NEED A RECORD OF THE PROCEEDINGS, AND FOR SUCH PURPOSE HE OR SHE MAY NEED TO ENSURE AT HIS OR HER OWN EXPENSE FOR THE TAKING AND PREPARATION OF A VERBATIM RECORD OF ALL TESTIMONY AND EVIDENCE OF THE PROCEEDINGS UPON WHICH THE APPEAL IS TO BE BASED. NOTE: IF YOU ARE A PERSON WITH A DISABILITY WHO NEEDS ANY ACCOMMODATION IN ORDER TO PARTICIPATE IN THIS PROCEEDING, YOU ARE ENTITLED, AT NO COST TO YOU, TO THE PROVISION OF CERTAIN ASSISTANCE. PLEASE CONTACT THE CITY CLERK FOR THE CITY OF PORT ORANGE, 1000 CITY CENTER CIRCLE, PORT ORANGE, FLORIDA 32129, TELEPHONE NUMBER 386-506-5563, WITHIN 2 WORKING DAYS OF YOUR RECEIPT OF THIS NOTICE OR 5 DAYS PRIOR TO THE MEETING DATE; IF YOU ARE HEARING OR VOICE IMPAIRED, CONTACT THE RELAY OPERATOR AT 1-800-955-8771.

PLANNING COMMISSION MEETING MINUTES
CITY OF PORT ORANGE
COUNCIL CHAMBERS
1000 CITY CENTER CIRCLE
FEBRUARY 23, 2017

THE REGULAR MEETING OF THE PLANNING COMMISSION of the City of Port Orange was called to order by Chairman Lance Green at 5:30 p.m.

Pledge of Allegiance

Silent Invocation

ROLL CALL

PRESENT: Lance Green, Chair
Newton White, Vice Chair, arrived at 5:45 p.m.
John Junco
Maria Mills-Benat
Mike Arminio
Bo Bofamy

ABSENT: Thomas Jordan

ALSO PRESENT: Tim Burman, Planning Manager
Penelope Cruz, Planner
Gwen Perney, Planner
Shannon Balmer, Assistant City Attorney
Fran Gosnell, Sr. Administrative Assistant

DISCUSSION/ACTION

4. Consideration of Minutes – January 26, 2017

Motion to approve the minutes as presented was made by Commissioner Arminio and Seconded by Commissioner Bofamy. Motion carried unanimously by roll call vote.

Commissioner Junco was asked to vote on the Minutes of December 15, 2016, as absence did not qualify for abstaining. Commissioner Junco voted to approve the minutes of December 15, 2016 as presented.

5. Case No. 16-90000010

VARIANCE/941 and 943 Orange Avenue

A request for a variance from the Land Development Code (LDC) to reduce the minimum lot area to no less than 4,000 square-feet in lieu of the required +/- 27,000 square-feet and reduce the minimum lot width to no less than 30-feet in lieu of the required +/- 123 feet for property zoned Neighborhood Preservation (NP). If the variance request is approved, the applicant is proposing to subdivide the subject property into four (4) lots. Three (3) lots would have a minimum lot width of 56-feet and minimum lot area of 7,000 square-feet and one (1) lot would have a minimum lot width of 30-feet and minimum lot area of 4,000 square-feet.

Staff Contact: Tim Burman, Planner (386) 506-5675/tburman@port-orange.org

Tim Burman, Planning Manager, discussed the variance being requested. Based on review of the variance criteria, staff recommends approval to allow for the creation of the 30-foot lot transferred to the church, a minimum lot width of 77-feet wide and minimum lot area of 10,000 square-feet; however, staff recommends denial of the lot width of 56-feet and minimum lot area of 7,000 square feet.

Council asked questions to Mr. Burman regarding the 200-foot radius being consistent with non-commercial property around it, minimum width size, the 30 feet deeded to the church, and setback requirements.

Colleen Miles, Land Development Resource Group, spoke on behalf of Habitat of Greater Volusia County, providing an overview of the process involved for home ownership.

Vice-Chairman Newton White arrived at 5:45 p.m.

Lori Gillooly, CEO of Habitat, Patty Ford, Board President, and Darleen Wilson, Director of Homeowner Services were introduced and explained the 16 to 24-month process, stating that many homeowners are in the medical field and criteria for home ownership is based on certain criteria including housing need, ability to pay, and willingness to partner.

Councilman White commented that when he did his research on this area, he noted several triplex buildings, and wanted to know if Habitat has entertained the idea of multi-family. Ms. Gillooly responded that currently only single homes are being planned.

Chairman Green discussed the unifying of the 30-foot lot and the opportunity to get smaller lot properties back on the tax rolls.

Frank Talbott, citizen, stated he was the owner of a triplex in the area and requested a privacy fence between their property and his to be maintained by Habitat.

Mr. Burman stated that it was not commercial property, and therefore not required.

Ms. Miles replied that fencing is the homeowner's decision typically; but stated that the backside of the lots will be heavily wooded.

Motion to approve the request as presented by Staff was made by Commissioner Mills-Benat with no special permissions, and Seconded by Commissioner Bofamy. Motion carried unanimously by roll call vote.

6. Case No. 16-20000003
SMALL-SCALE COMPREHENSIVE PLAN FUTURE LAND USE (FLU)
AMENDMENT/BENTON HOUSE SENIOR LIVING AND MEMORY CARE FACILITY
812 Airport Road

A request to amend the Comprehensive Plan Future Land Use (FLU) Map designation to change the FLU of ±4.88 acres from Rural Transition (0-2 units/acre) to Office/Residential Transition.

Staff Contact: Penelope Cruz, Planner (386) 506-5671/pcruz@port-orange.org

Penelope Cruz, Planner, requested #6 and #7 be discussed together.

Attorney Glen Storch spoke on behalf of the Applicant. Mr. Storch provided an overview of Assisted Living Facilities and Memory Care Facilities, and stated they were low traffic generation, very quiet, were low impact to neighborhoods and schools, and are valuable as taxable income, and job producers.

Chairman Green expressed fire and safety concerns.

Vice Chairman White questioned the number of parking spaces for the project.

Ms. Cruz responded to the fire and safety concerns as well as the parking space question, stating that both Police and Fire are involved in the approval process and their approval was received for the referenced projects. The City LDC requires a higher number of parking spaces, and that in fact, the applicant has included four more spaces than what is required.

Mr. Craig Bauman, citizen, said he had no issues with the approval; however, the southwest corner never changed, but the survey shows an overlap of 16 feet, and that Upton is providing a quit-claim deed for the 16 feet, and wanted to make it of record.

Motion to approve the request as presented was made by Commissioner Junco, and Seconded by Vice Chairman White. Motion carried unanimously by roll call vote.

7. Case No. 16-65000001

PLANNED UNIT DEVELOPMENT REZONING AND MASTER DEVELOPMENT AGREEMENT AND CONCEPTUAL DEVELOPMENT PLAN/BENTON HOUSE SENIOR LIVING AND MEMORY CARE FACILITY
812 Airport Road

A request to rezone 4.88 acres from R-20SF (Single-Family Residential) to Planned Unit Development (PUD) and to establish the Benton House Master Development Agreement (MDA) and Conceptual Development Plan (CDP).

Staff Contact: Penelope Cruz, Planner (386) 506-5671/pcruz@port-orange.org

Penelope Cruz, Planner, discussed the rezoning being requested.

Motion to approve the request as presented was made by Commissioner Arminio, and Seconded by Vice Chairman White. Motion carried unanimously by roll call vote.

8. Case No. 16-40000006

FIFTH AMENDMENT TO THE CLARK PROFESSIONAL CENTER AND WEDDING CHAPEL PLANNED COMMERCIAL DEVELOPMENT (PCD) MASTER DEVELOPMENT AGREEMENT (MDA) AND CONCEPTUAL DEVELOPMENT PLAN (CDP)
5111 South Ridgewood Avenue

A request by the applicant to modify the Fifth Amendment to the Master Development Agreement (MDA) and Conceptual Development Plan (CDP) for the Clark Professional Center and Wedding Chapel PCD, previously recommended for approval by the Planning Commission in December 2016.

Staff Contact: Gwen Perney, Planner (386) 506-5673/gperney@port-orange.org

Mr. Burman provided an overview of the modification to the Fifth Amendment to the MDA and CDP being requested.

Motion to approve the request as presented was made by Commissioner Arminio, and Seconded by Commissioner Bofamy. Motion carried unanimously by roll call vote.

OTHER BUSINESS

9. Commissioner Comments

Mr. Burman explained that the Activity Report is no longer on the agenda and that it will be sent separately via email and provided earlier in the future.

Chairman Green asked if there is going to be space to widen the underpass at Dunlawton Bridge. Mr. Burman replied that the State would not widen; it would be a City cost.

Chairman Bofamy asked the status of Riverwalk.

Mr. Burman replied that they were in contact with Buddy LaCour's office today. Their engineer is currently working on plans. They are focused on the design work of the park and the parking lot, landscaping and building.

Commissioner Arminio believes that the BJ's plaza in front of the restaurants has dedicated too many take-out parking signs for individual businesses instead of being shared, limiting parking availability.

Mr. Burman stated that Staff would review the signage.

Commissioner Mills-Benat would like to know where the sign is for the U-turn into Target. Mr. Burman replied that FDOT would have to be contacted.

Newton White commented on street lights that are out. Discussion ensued regarding ownership and responsibility of lights by individual property owners.

10. Staff Comments – there were none.

PUBLIC COMMENTS There were none.

ADJOURNMENT 6:41 p.m.

Lance Green, Chairman



STAFF REPORT

SUBDIVISION PLAT & PLANS /KING'S LANDING

CASE NO. 16-50000004

REQUEST: Approval of the King's Landing Subdivision Plat and Plans

LOCATION: East side of Hensel Road, between East Hensel Hill Drive and Hills Boulevard (See Figure 1)

OWNER/APPLICANT: Coventry Partners, LLC

STAFF RECOMMENDATION: Approval

STAFF CONTACT: Tim Burman, Planner (386) 506-5675

PLANNING COMMISSION DATE: March 23, 2017

DISCUSSION:

The applicant requests approval of the King's Landing Subdivision plat and plans (Exhibit A and B). The applicant proposes to subdivide the +/- 82.2-acre property into 19 one-acre single-family lots, an area for future residential development (+/- 45 acres), and tracts for tree preservation, stormwater retention, and open space.

Figure 1. Location Map



The +/- 82.2-acre subject property is currently designated Rural Residential (RR) and R-20 Single-Family Residential (R-20SF) on the City's Zoning Map (Figure 2) and designated *Rural Transition* (0-2 units/acre) and *Suburban Residential* (2-4 units/acre) on the City's Future Land Use Map (Figure 3). The 19 one-acre single-family lots are proposed to be developed on the west side of the subject property where the Future Land Use designation is *Rural Transition* (0-2 units/acre) and the zoning designation is Rural Residential (RR).

Figure 2. Current Zoning Map and Proposed Subdivision Layout

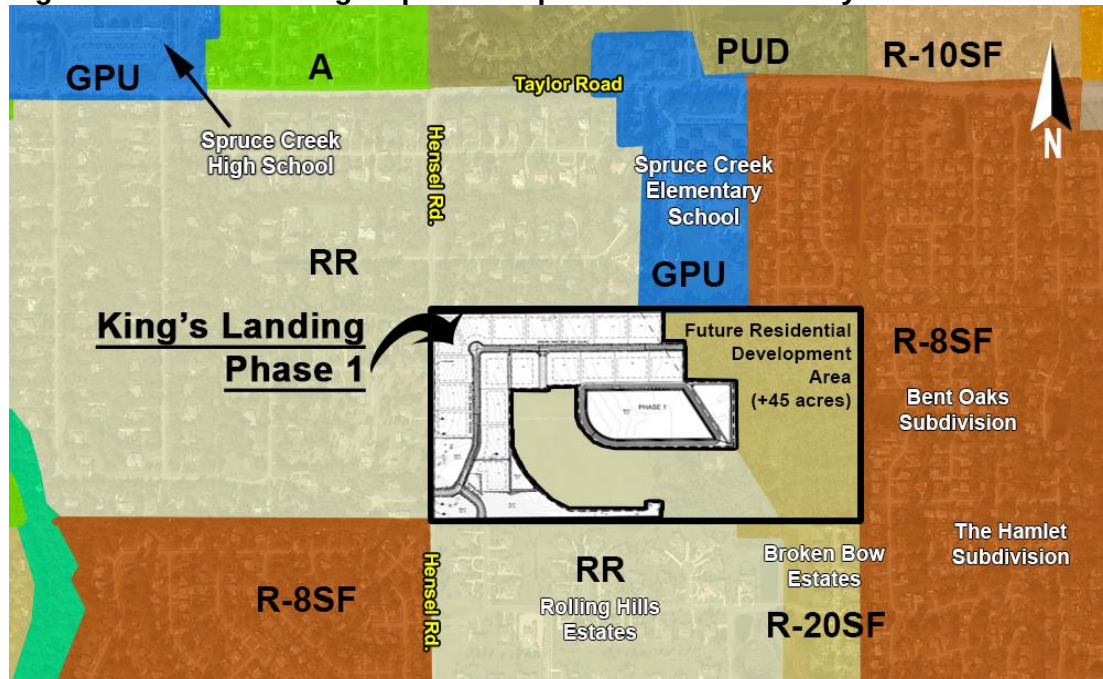
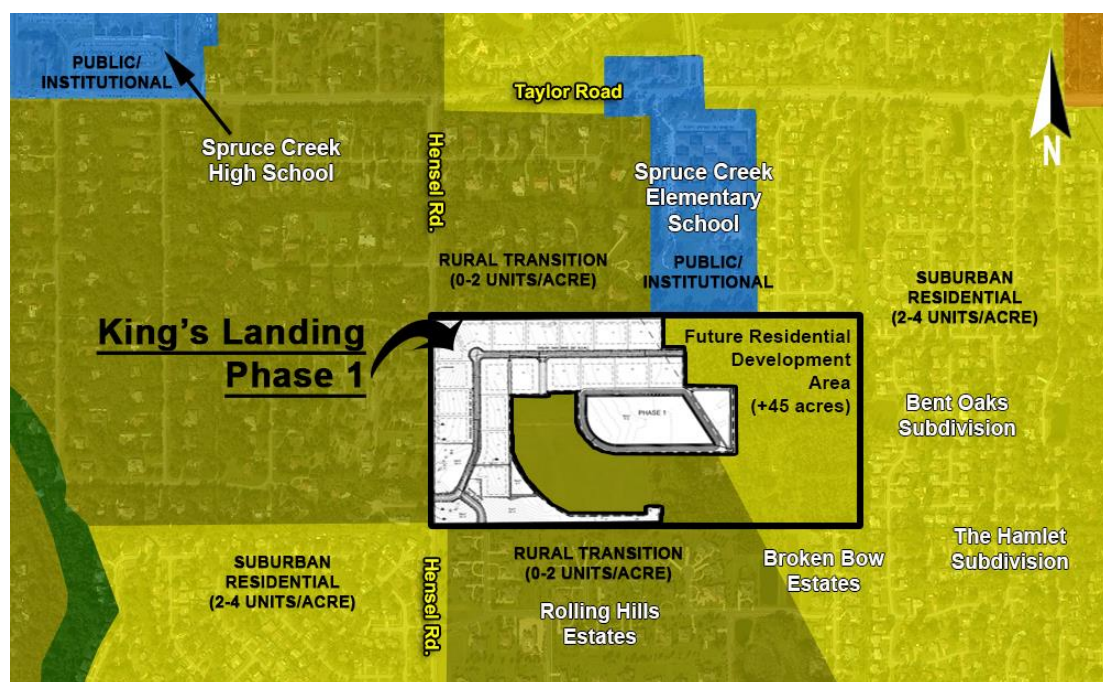


Figure 3. Current Future Land Use Map and Proposed Subdivision Layout



According to the City's Land Development Code (LDC), a plat and associated subdivision plans are to be designed according to the subdivision requirements in the LDC for stormwater, streetlights, roadways and sidewalks, utilities, easements, lot dimensions, roadway landscape buffers, and tree protection. The plat and subdivision plans (Exhibit A and B) have been designed according to the requirements of the City's Land Development Code (LDC) and the dimensional standards outlined in the RR zoning district of the LDC (Table 1).

Table 1: Developmental Standards for the RR Zoning District

LOT DEVELOPMENT STANDARDS	RR ZONING DISTRICT
Minimum lot size	1 acre or 43,560 SF
Minimum lot width (ft.)	100'
Front setback (ft.)	40'
Side setback (ft.)	15'
Rear setback (ft.)	30'
Maximum building coverage	20%
Minimum open space	60%
Maximum building height (ft.)	35'
Minimum floor area (SF)	1,400 SF

The following subdivision improvements will be constructed before or simultaneously with the development of the first lot:

- Access onto Hensel Road, roadway connection to adjacent tracts;
- Temporary cul-de-sac at the end of English Oaks Drive. English Oaks Drive is proposed to be extended and connect to the English Oaks Drive in Bent Oaks Subdivision as part of a future phase;
- Common Areas with Tree Conservation Easements for specimen trees being saved;
- Water, sewer, and reclaimed water infrastructure;
- Public local streets (Rocko Road, English Oaks Drive, and Forest Troll Drive) within the subdivision;
- Stormwater drainage infrastructure;
- Sidewalks and streetlights along Rocko Road, English Oaks Drive, and Forest Troll Drive;
- 10' landscape buffer with a 6' tall PVC white fence along Hensel Road; and
- Entry signage and landscaping at the Hensel Road entrance.

CONCURRENCY REVIEW:

According to the Land Development Code (LDC), public facilities and services, such as roads, public infrastructure, schools, and recreational facilities, are to be reviewed to verify sufficient capacity exists above the adopted level-of-service (LOS) to accommodate the impacts for all proposed residential subdivision.

Public facilities and services are currently available to serve the proposed 19 one-acre single-family lots. Any future phases will be separately evaluated for concurrency at the time of subdivision review. The following discussion summarizes the impacts the proposed 19 one-acre single-family lots will have on the public facilities and services.

Table 2 - Infrastructure Impact Assessment for 19 Lots

DEVELOPMENT VARIABLE	IMPACTS
Population ¹	43
A.M./P.M./Daily Peak Hour Trips ²	14/19/182 trips
Sanitary Sewer (gallons per day) ³	3,040 gallons
Potable Water (gallons per day) ⁴	3,420 gallons
Solid Waste (lbs. Per day) ⁵	138 lbs.
Stormwater Drainage ⁶	See Note
Recreation & Open Space ⁷ • Parkland • Ball Fields • Basketball Courts • Multipurpose Courts • Tennis Courts • Neighborhood Centers	0.30 acres 0.009 acres 0.01 acres 0.01 acres 0.01 acres 0.0003 acres

Notes:

- Population:** 2.25 persons per household (per 2010 Census)
- Transportation:** 1.02 PM peak hour trips per unit; 9.52 daily trips per unit; Single-family (210), ITE Trip Generation Manual, 9th Edition
- Sanitary Sewer:** 160 gallons per day per Equivalent Residential Unit; 1/10 gallon per square foot per day of non-residential development
- Potable Water:** 180 gallons per day per Equivalent Residential Unit; 1/10 gallon per square foot per day of non-residential development
- Solid Waste:** 3.21 pounds per person per day; 10 lbs. per 1,000 square feet of non-residential development per day
- Stormwater Drainage:** LOS standard = 25 year, 24-hour event. Drainage system will be designed to meet the requirements of the Land Development Code.
- Rec. & Open Space:**
 - Parkland: 7 acres per 1,000 persons (0.007 acres/person)
 - Ball Fields: 1 field per 5,000 persons (0.0002 ball fields/person)
 - Basketball Courts: 1 court per 4,000 persons (0.00025 basketball courts/person)
 - Multipurpose Fields: 1 field per 3,500 persons (0.0002857 multipurpose fields/person)
 - Tennis Courts: 1 court per 4,000 persons (0.00025 tennis courts/person)
 - Neighborhood Centers: 1 facility per 15,000 persons (0.0000666 neighborhood centers/person)

Water, Sewer, Reclaimed Water:

The City has available sanitary sewer and potable water capacity to accommodate the proposed 19 lots. The City's adopted level-of-service (LOS) standard for sanitary sewer is 160 gallons per day per single-family house and for potable water is 180 per day per single-family household.

The proposed 19 lots will be served by potable water, sanitary sewer, and reclaimed water. Potable water and reclaimed water lines are available along Hensel Road and connections will be at the intersection of Hensel Road and English Oaks Drive intersection. Sanitary sewer connection will be where English Oaks Drive abuts the east boundary line of the subject property. The developer will construct potable water, sanitary sewer, and reclaimed water lines throughout the proposed subdivision in accordance with the utility plan for this project. All lots will be provided with stub-outs for utilities.

Stormwater Drainage:

The drainage areas shown on the plans will provide the required stormwater drainage for the entire +/- 82.2-acre property. The design and size of the stormwater system complies with the stormwater requirements in the City's Land Development Code and the St. Johns River Water Management District (SJRWMD) Environmental Resource Permit (ERP) for a site that discharges stormwater to the Spruce Creek basin. The State of Florida classifies Spruce Creek as an Impaired Water Body and restricts the amount of Nitrogen and Phosphorus that can be discharged. The proposed drainage system consists of two (2) dry Pre-treatment retention areas for the removal of Nitrogen and Phosphorus from the stormwater pollutant prior to going into the wet detention pond. Eventually the stormwater from the wet detention pond is discharged into a series of pipes, swales, canals, and ponds and eventually enters into Spruce Creek.

Figure 4. Stormwater Drainage



The City's adopted level-of-service standard for stormwater drainage requires that all new retention/detention facilities be able to treat and convey the runoff from the 25-year, 24-hour storm event without causing flooding or pollution of receiving waterbodies. There must be no net loss of stormwater retention function as a result of development; therefore, the subdivision property must have the same ability to store and discharge water after development as it does before development occurs. In addition, the post-development runoff rates shall be less than the pre-development runoff rates.

According to the project engineer, it is anticipated that the usable fill dirt removed from the ponds will be used to bring the grade of the Phase 1 site up to comply with the City's and SJRWD stormwater requirements. If there is additional usable fill not needed for Phase 1 the developer can have it removed from the site or store it on the future phases. The storage of fill on the future phases will be required to comply with all applicable City and SJRWD stormwater requirements.

Recreation Facilities:

The City's adopted level-of-service for recreational facilities includes acreage of parkland, and number of ball fields, basketball courts, multi-purpose fields, tennis courts, and neighborhood centers. According to the City's 2016 Concurrency Management Report, the City is not deficient in any of the recreational facilities categories and there are sufficient facilities to support the anticipated 43 people from the proposed 19 lots.

School Capacity:

The Volusia County School District determined that the adopted level of service will be met and capacity exists in the schools for the estimated students to be generated by the proposed subdivision. According to the School Concurrency letter prepared by Volusia County Schools, the proposed 19 lots could generate six (6) full time students (Exhibit C).

Transportation:

According to the King's Landing Traffic Impact Analysis (TIA) prepared by Lassiter Transportation Group, Inc., the 19 single-family homes are expected to generate 14 AM peak-hour trips, 19 PM peak-hour trips, and 182 daily trips. The TIA indicates that all roadway segments and intersections identified in the TIA study area will operate within the adopted Level-of-Service standards with the traffic generated from the 19 single-family home subdivision (Phase 1).

Consistency with the Comprehensive Plan:

The +/- 82.2-acre subject property is designated *Rural Transition* (0-2 units/acre) and *Suburban Residential* (2-4 units/acre) on the City's Future Land Use Map. As shown on Exhibit B, the majority of the +/- 82.2-acre property has a Future Land Use (FLU) designation of *Rural Transition* (0-2 units/acre).

The 19 lots (Phase 1) are proposed to be developed on the west side of the +/- 82.2 area property where the Future Land Use designation is *Rural Transition* (0-2

units/acre). Specifically, the Comprehensive Plan states that the *Rural Transition* category includes rural-scale or large-lot (usually 1 to 2 acres) residential development situated between Agricultural lands and areas of higher density/intensity. The residential development is limited to no more than two units per acre. The development of the proposed 19 one-acre single-family lots is consistent with the intent of the FLU designation and permitted uses in the RR zoning district. The density for the initial phase is 0.52 residential units per acre.

Based on the current subdivision (phase 1), conceptual plans for the future phases proposed by the applicant, and development applications and reports (Traffic Study, School Concurrency Application, and Sewer Report) the applicant anticipates the 82.2 acres to be developed with a total of 69 lots and a density of 1.19 residential units per acre.

REMAINING COMMENTS:

The Staff Development Review Committee (SDRC) has reviewed the proposed Subdivision Plat and Plans and there are no remaining comments that need to be addressed on the plat or plans. However, the applicant must obtain release of the FDOT Murphy deeds and the recorded mineral rights on the subject property currently owned by FM Ford OGM, LLC Evidence that the Murphy deeds and mineral rights have been released must occur prior to this item being placed on a City Council agenda.

Murphy Deed:

According to the Florida Bar Association, the Murphy Act, passed in 1937, was designed to help bail Florida and its residents out of the Depression and recover from a real-estate bust. The Murphy Act returned land to landowners who had lost land due to tax default in the 1930's but the return of the land came with a condition that reserves right-of-way easements to the State of Florida for future roadway construction. In the late 1930's to early 1940's, landowners had a two-year window to have the deeds removed; after that, the state possessed the right-of-way easements on the land. There are currently two Murphy deeds on the subject property. The applicant has been working with FDOT on the release of these deeds and according to the applicant, FDOT is in the process of releasing these deeds because they do not have plans for any state road improvements on the subject property.

RECOMMENDATION:

Staff recommends approval of the final plat and plans for King's Landing Subdivision, subject to evidence being provided that the Murphy deeds and mineral rights have been resolved prior to this item being placed on a City Council agenda.

ATTACHMENTS:

1. Exhibit A - Subdivision Plat
2. Exhibit B - Subdivision Plans
3. Exhibit C - School Concurrency Letter



KING'S LANDING

LOCATED IN THE CITY OF PORT ORANGE, SECTION 21, TOWNSHIP 16 SOUTH, RANGE 33 EAST, VOLUSIA COUNTY, FLORIDA.

DESCRIPTION

A PORTION OF SECTION 21, TOWNSHIP 16 SOUTH, RANGE 33 EAST, VOLUSIA COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

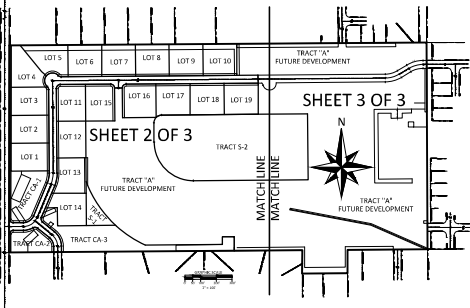
BEGIN AT THE NORTHWEST CORNER OF LOT 27, ROLLING HILLS ESTATES PHASE 2, AS RECORDED IN PLAT BOOK 49, PAGES 102, 103 AND 104, PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA, RUN THENCE N00°00'52"E ALONG THE EAST RIGHT-OF-WAY LINE OF HENSEL ROAD A DISTANCE OF 1,324.97 FEET TO THE SOUTHWEST CORNER OF THE LANDS DESCRIBED IN OFFICIAL RECORDS BOOK 2641, PAGE 2642, PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA, SAID POINT BEING ON THE NORTH LINE OF THE SOUTH 1/2 OF THE NORTHWEST 1/4 OF SECTION 21, TOWNSHIP 16 SOUTH, RANGE 33 EAST; THENCE N89°37'07"E ALONG SAID NORTH LINE, A DISTANCE OF 2,671.22 FEET TO THE SOUTHWEST CORNER OF LOT 33, RAINTREE SUBDIVISION, AS RECORDED IN PLAT BOOK 33, PAGE 190, PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA, SAID POINT BEING A POINT ON THE EAST LINE OF THE SOUTH 1/2 OF THE NORTHWEST 1/4 OF SAID SECTION 21; THENCE S89°33'46"W ALONG SAID SOUTH LINE A DISTANCE OF 512.21 FEET TO THE NORTHWEST CORNER OF TRACT "C", BROKEN BOW ESTATES, AS RECORDED IN PLAT BOOK 49, PAGES 126 AND 127, PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA; THENCE S00°08'52"W ALONG THE WEST LINE OF SAID TRACT "C" A DISTANCE OF 150.06 FEET TO THE NORTHEAST CORNER OF TRACT "C", ROLLING HILLS ESTATES PHASE 2, AS RECORDED IN PLAT BOOK 49, PAGES 102, 103 AND 104, PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA; THENCE S89°32'23"W ALONG THE NORTH LINE OF SAID ROLLING HILLS ESTATES PHASE 2, A DISTANCE OF 289.93 FEET TO THE NORTHWEST CORNER OF LOT 30, SAID ROLLING HILLS ESTATES PHASE 2, SAID POINT BEING A POINT ON THE EAST LINE OF LOTS 12, SAID ROLLING HILLS ESTATES PHASE 2; THENCE N00°08'51"E ALONG SAID EAST LINE AND THE EAST LINE OF LOT 13, SAID ROLLING HILLS ESTATES PHASE 2, A DISTANCE OF 149.98 FEET TO THE NORTHEAST CORNER OF LOT 13, SAID ROLLING HILLS ESTATES PHASE 2, SAID POINT BEING A POINT ON SAID SOUTH LINE OF THE SOUTH 1/2 OF THE NORTHWEST 1/4 OF SECTION 21; THENCE S89°32'48"W ALONG SAID SOUTH LINE, A DISTANCE OF 1,875.76 FEET TO THE POINT OF BEGINNING.

CONTAINS 3,582,585 SQUARE FEET OR 82.245 ACRES MORE OR LESS.

GENERAL NOTES

- GENERAL NOTES
- MONUMENTATION
 - DENOTES A PERMANENT REFERENCE MONUMENT, A 4"x4" CONCRETE MONUMENT WITH ABRASS DISC MARKED "PRM LB 4475", UNLESS OTHERWISE NOTED.
 - DENOTES A PERMANENT CONTROL POINT, A NAIL WITH A BRASS DISC MARKED "PRM LB4475", UNLESS OTHERWISE NOTED.
 - DENOTES FOUND SECTION CORNER WITH A CERTIFIED CORNER RECORD MARKED AS SHOWN.
 - (R) - DENOTES A LINE RADIAL RELATIVE TO ADJACENT CURVE.
 - (NR) - DENOTES A LINE NOT RADIAL RELATIVE TO ADJACENT CURVE.
 - DIMENSIONS SHOWN ARE IN FEET AND DECIMALS THEREOF.
 - ACCURACY
 - THE BOUNDARY LINEAR ERROR OF CLOSURE DOES NOT EXCEED 1:10,000.
 - THE BOUNDARY ANGULAR ERROR OF CLOSURE DOES NOT EXCEED 15 SECONDS MULTIPLIED BY THE SQUARE ROOT OF THE NUMBER OF ANGLES TURNED.
 - BEARINGS SHOWN HERE ON ARE RELATIVE TO STATE PLANE COORDINATES FLORIDA EAST ZONE.
 - NOTE: ALL MEASUREMENTS REFER TO HORIZONTAL PLANE IN ACCORDANCE WITH THE DEFINITION OF THE U.S. SURVEY FOOT OR METER ADOPTED BY THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY. ALL MEASUREMENTS SHALL USE THE $39.37/12 = 3.280833333333$ EQUATION FOR CONVERSION FROM A U.S. FOOT TO METERS.
 - 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.
 - THIS PLAT IS SUBJECT TO ALL EASEMENTS OF RECORD AND RESERVATIONS OF EASEMENTS, INCLUDING BUT NOT LIMITED TO TREE CONSERVATION, DRAINAGE, UTILITY, VEHICLE ACCESS CONTROL, LANDSCAPE BUFFER, MAINTENANCE, GOVERNMENT AND EMERGENCY SERVICES, AND TEMPORARY ACCESS EASEMENTS GRANTED HEREON.
 - UTILITIES INCLUDE BUT ARE NOT LIMITED TO SANITARY SEWER, POTABLE WATER, RECLAIMED WATER, STORM DRAINAGE, ELECTRIC, TELEPHONE, CABLE TELEVISION, SECURITY, NATURAL GAS, FIBER OPTIC, TELECOMMUNICATION.
 - UTILITY EASEMENTS PROVIDED ON THIS PLAT INCLUDE 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.
 - TREE CONSERVATION EASEMENTS AS DEFINED ON THIS PLAT IS FOR THE EXPRESS PURPOSE OF THE PRESERVATION AND LONGEVITY OF THE TREES THEREIN. ACTIONS DETRIMENTAL TO TREE HEALTH AND SURVIVAL WITHIN THE BOUNDARIES OF THE EASEMENT ARE PROHIBITED WITHOUT THE EXPRESS PERMISSION OF THE CITY OF PORT ORANGE AND ANY OTHER AUTHORITY HAVING JURISDICTION OVER THE CONSERVATION EASEMENT. NOTHING HEREIN SHALL, HOWEVER, BE CONSTRUED TO PREVENT NATURAL VEGETATION WITHIN THE EASEMENT AREA FROM BEING CLEARED BY HAND TO PROVIDE A NEAR MANICURED APPEARANCE. IN ADDITION, NOTHING HEREIN SHALL BE CONSTRUED TO PREVENT THE PLACEMENT OF SOIL, IRRIGATION AND LANDSCAPE PLANTS OR TO PREVENT NORMAL LAWN MAINTENANCE SUCH AS MOWING, EDGING AND WEEDING NOT HARMFUL TO THE OBJECTIVE OF TREE PRESERVATION WITHIN THE EASEMENT AREA. ANY PROPOSED CONSTRUCTION OR OTHER USE WITHIN A CONSERVATION EASEMENT MUST BE REVIEWED AND APPROVED BY THE CITY OF PORT ORANGE AND ANY OTHER AUTHORITY HAVING JURISDICTION OVER THE CONSERVATION EASEMENT.
 - BUILDING SETBACK REQUIREMENTS:
 - FRONT (STREET FRONTAGE): 40 FEET
 - SIDE: 15 FEET
 - REAR: 30 FEET
 - LOT COVERAGE REQUIREMENTS:
 - MINIMUM OPEN SPACE: 70%
 - MAXIMUM BUILDING COVERAGE: 20%
 - THE COMMON AREAS GRANTED TO THE KING'S LANDING HOMEOWNERS ASSOCIATION, INC. BY THIS PLAT SHALL BE SUBJECT TO EASEMENTS AS SHOWN OR DESCRIBED HEREON OR GRANTED IN ACCORDANCE WITH THE KING'S LANDING HOMEOWNERS ASSOCIATION, INC.'S COVENANTS AND RESTRICTIONS. THE GRANTING OF SUCH COMMON AREAS IS NOT INTENDED TO GRANT ANY RIGHT TO THE GENERAL PUBLIC.
 - THE KING'S LANDING HOMEOWNERS ASSOCIATION, INC., A FLORIDA NON-PROFIT CORPORATION SHALL BE RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF THE DRAINAGE SYSTEM SERVING THE AREA WITHIN THE BOUNDARIES OF THIS PLAT, AS DEPICTED ON THE STORMWATER MANAGEMENT PLAN APPROVED FOR THE DEVELOPMENT BY THE CITY OF PORT ORANGE, FLORIDA. SHOULD THE ASSOCIATION FAIL TO PERFORM THE MAINTENANCE OF THE DRAINAGE AND STORMWATER MANAGEMENT SYSTEMS, THE CITY OF PORT ORANGE SHALL BE ENTITLED TO ENTER UPON THE COMMON AREAS AND DESIGNATED EASEMENT AREAS TO PERFORM MAINTENANCE, REPAIR OR REPLACE THE FACILITIES AND, SHALL HAVE THE RIGHT TO LEND ALL OWNERS OF RECORD IN PROPERTY FOR THE COST OF SUCH MAINTENANCE, REPAIR, AND REPLACEMENT, AS DEEMED BY HE CITY TO BE NECESSARY. IN THE EVENT OF TERMINATION, DISSOLUTION, OR FINAL LIQUIDATION OF THE ASSOCIATION, THE RESPONSIBILITY FOR THE OPERATION AND MAINTENANCE OF THE SURFACE WATER OR STORM WATER MANAGEMENT SYSTEM WILL BE TRANSFERRED TO AND ACCEPTED BY AN ENTITY WHICH COMPLIES WITH SECTION 40C-42.027, F.A.C. AND BE APPROVED BY THE SAINT JOHN'S RIVER WATER MANAGEMENT DISTRICT PRIOR TO SUCH TERMINATION, DISSOLUTION, OR LIQUIDATION.
 - STORMWATER RETENTION AREAS AND COMMON AREAS ARE GRANTED AS EASEMENTS TO THE CITY OF PORT ORANGE WITH RIGHTS OF ACCESS, INGRESS, AND EGRESS, TOGETHER WITH THE RIGHT TO HARVEST EXCESS STORM WATER/GROUND WATER AS DEEMED APPROPRIATE IN THE DISCRETION OF THE CITY.
 - THE KING'S LANDING HOMEOWNERS ASSOCIATION, INC. SHALL BE RESPONSIBLE FOR MAINTAINING ALL LANDSCAPING AND IRRIGATION IN COMMON AREAS.
 - THE ARTICLES OF INCORPORATION FOR THE KING'S LANDING HOMEOWNERS ASSOCIATION, INC. ARE RECORDED IN OFFICIAL RECORDS BOOK _____, PAGES _____ OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA. THE DECLARATION OF COVENANTS AND RESTRICTIONS FOR THE ASSOCIATION, INC. ARE RECORDED IN OFFICIAL RECORDS BOOK _____, PAGES _____ OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA.
 - TRACT "A" (FUTURE DEVELOPMENT) IS TO BE OWNED AND MAINTAINED BY COVENTRY PARTNERS, LLC, A FLORIDA LIMITED LIABILITY COMPANY, ITS SUCCESSORS AND ASSIGNS.
 - TRACT CA-1, DEPICTED HEREON AS COMMON AREA, WILL BE OWNED AND MAINTAINED BY THE KING'S LANDING HOMEOWNERS ASSOCIATION, ITS SUCCESSORS AND ASSIGNS FOR THE PURPOSE OF COMMON AREA AND IS SUBJECT TO THE CONSERVATION EASEMENTS GRANTED TO THE CITY OF PORT ORANGE, FLORIDA AS RECORDED IN OFFICIAL RECORDS BOOK _____, PAGE _____ OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA.
 - TRACT CA-2, DEPICTED HEREON AS COMMON AREA, WILL BE OWNED AND MAINTAINED BY THE KING'S LANDING HOMEOWNERS ASSOCIATION, ITS SUCCESSORS AND ASSIGNS FOR THE PURPOSE OF COMMON AREA AND IS SUBJECT TO THE CONSERVATION EASEMENTS GRANTED TO THE CITY OF PORT ORANGE, FLORIDA AS RECORDED IN OFFICIAL RECORDS BOOK _____, PAGE _____ OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA.
 - TRACT CA-3, DEPICTED HEREON AS COMMON AREA, WILL BE OWNED AND MAINTAINED BY THE KING'S LANDING HOMEOWNERS ASSOCIATION, ITS SUCCESSORS AND ASSIGNS FOR THE PURPOSE OF COMMON AREA AND IS SUBJECT TO THE CONSERVATION EASEMENTS GRANTED TO THE CITY OF PORT ORANGE, FLORIDA AS RECORDED IN OFFICIAL RECORDS BOOK _____, PAGE _____ OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA.
 - TRACTS S-1 AND S-2 WILL BE OWNED AND MAINTAINED BY THE KING'S LANDING HOMEOWNERS ASSOCIATION, ITS SUCCESSORS AND ASSIGNS FOR THE PURPOSE OF COMMON AREA AND STORMWATER DRAINAGE.

KEYMAP (NOT TO SCALE)



VICINITY MAP (NOT TO SCALE)



- ADUGE - ACCESS, DRAINAGE, UTILITY, GOVERNMENT AND EMERGENCY SERVICES EASEMENT
- CR - CERTIFIED CORNER RECORD
- CM - CONCRETE MONUMENT
- A - DELTA / CENTRAL ANGLE
- DE - DRAINAGE ESMT
- DMAE - DRAINAGE, MAINTENANCE AND ACCESS EASEMENT
- DUME - DRAINAGE, UTILITY AND MAINTENANCE EASEMENT
- ESMT - EASEMENT
- FND - FOUND
- L - ARC LENGTH
- LB - LICENSED BUSINESS
- LBE - LANDSCAPE BUFFER EASEMENT
- N&D - NAIL & DISC
- NR - NON-RADIAL
- NT - NON-TANGENT
- NTS - NOT TO SCALE
- OR - OFFICIAL RECORDS BOOK
- PB - PLAT BOOK
- PC - POINT OF CURVATURE
- PG - PAGE
- PI - POINT OF INTERSECTION
- POB - POINT OF BEGINNING
- POL - POINT ON LINE

LEGEND

- PRC - POINT OF REVERSE CURVATURE
- PRM - PERMANENT REFERENCE MONUMENT
- PSM - PROFESSIONAL SURVEYOR AND MAPPER
- PT - POINT OF TANGENCY
- R - RADIUS
- RI - RADIAL
- R/W - RIGHT-OF-WAY
- SF - SQUARE FEET
- (T) - TOTAL
- TCE - TREE CONSERVATION ESMT
- VAC - VEHICLE ACCESS CONTROL

ACCURIGHT

ACCURIGHT SURVEYS OF ORLANDO INC., LB 4475
2012 E. Robinson Street, Orlando, Florida 32803
www.AccurightSurveys.net
ACCU@AccurightSurveys.net
PHONE: (407) 894-6314
SHEET 1 OF 3

PLAT
BOOK

PAGE

KING'S LANDING DEDICATION

KNOW ALL MEN BY THESE PRESENTS, THAT COVENTRY PARTNERS, LLC, A FLORIDA LIMITED LIABILITY COMPANY BEING THE OWNER IN FEE SIMPLE OF THE LANDS SHOWN AND DESCRIBED HEREON AS THE PLAT ENTITLED KING'S LANDING, LOCATED IN THE CITY OF PORT ORANGE, VOLUSIA COUNTY, FLORIDA, HEREBY DEDICATES THE SAID LANDS AND PLAT FOR THE USES AND PURPOSES HEREON EXPRESSED. ALL STREETS AND ROAD RIGHT-OF-WAYS, SHOWN OR DESCRIBED ON THE PLAT ARE, UNLESS OTHERWISE INDICATED, DEDICATED TO THE CITY OF PORT ORANGE. ALL POTABLE WATER, RECLAIMED WATER, AND SANITARY SEWER MAINS CONSTRUCTED WITHIN THE AREA ENCOMPASSED WITHIN THE PLAT ARE DEDICATED TO THE CITY OF PORT ORANGE. ALL CONSERVATION, DRAINAGE, MAINTENANCE, UTILITY, VEHICULAR ACCESS CONTROL, AND TEMPORARY ACCESS EASEMENTS SHOWN OR DESCRIBED ON THE PLAT ARE, UNLESS OTHERWISE INDICATED, GRANTED TO THE CITY OF PORT ORANGE. ALL DRAINAGE EASEMENTS SHOWN OR DESCRIBED ON THE PLAT ARE ALSO, UNLESS OTHERWISE INDICATED, GRANTED TO THE KING'S LANDING HOMEOWNERS ASSOCIATION, INC., FOR THE PURPOSES DESCRIBED IN THE GENERAL NOTES. TRACTS CA-1, CA-2, CA-3, S-1 AND S-2 ARE GRANTED TO THE KING'S LANDING HOMEOWNERS ASSOCIATION, INC.

IN WITNESS WHEREOF, THE UNDERSIGNED HAS HEREUNTO SET BY HAND ON THIS _____ DAY OF _____, A.D., 2016.

OWNER: COVENTRY PARTNERS, LLC, A FLORIDA LIMITED LIABILITY COMPANY

BY:

MITCHEL SABINA, MANAGER

SIGNED and SEALED IN THE PRESENCE OF:

(PRINT NAME)

(SIGNATURE)

(PRINT NAME)

(SIGNATURE)

ACKNOWLEDGMENT

STATE OF FLORIDA

COUNTY OF _____

THIS IS TO CERTIFY, THAT ON THIS _____ DAY OF _____, A.D., 2016, BEFORE ME, PERSONALLY APPEARED MITCHEL SABINA, MANAGER, ON BEHALF OF COVENTRY PARTNERS, LLC, A FLORIDA LIMITED LIABILITY COMPANY FORMED UNDER THE LAWS OF THE STATE OF DELAWARE, AS THE INDIVIDUAL DESCRIBED IN AND WHO EXECUTED THE FOREGOING DEDICATION AND ACKNOWLEDGED THE EXECUTION THEREOF TO BE HIS FREE ACT AND DEED AS SUCH MANAGER THEREUNTO DULY AUTHORIZED; AND SAID DEDICATION IS THE ACT AND DEED OF SAID LIMITED PARTNERSHIP AND WHO IS PERSONALLY KNOWN TO ME OR WHO HAS PRODUCED A _____ AS IDENTIFICATION AND WHO (DID/DID NOT) TAKE AN OATH.

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

NOTARY PUBLIC

COMMISSION NO.: _____

EXPIRATION: _____

CERTIFICATE OF CLERK

I HEREBY CERTIFY THAT I HAVE EXAMINED THE FOREGOING PLAT AND FOUND THAT IT COMPLIES, IN FORM, WITH ALL REQUIREMENTS STATED IN CHAPTER 177, FLORIDA STATUTES, AND THAT IT WAS FILED FOR RECORD ON _____ AT _____ A.M. / P.M.

FILE NO. _____

CLERK OF CIRCUIT COURT
VOLUSIA COUNTY, FLORIDA

REVIEW BY SURVEYOR AND MAPPER FOR THE CITY

I HEREBY CERTIFY TO THE CITY, THAT I HAVE REVIEWED THE FOREGOING PLAT FOR COMPLIANCE WITH THE REQUIREMENTS OF CHAPTER 177, FLORIDA STATUTES, AND THAT I HAVE PROVIDED BOTH THE CITY AND THE SURVEYOR AND MAPPER OF RECORD A LIST OF DEVIATIONS, IF ANY, FROM SUCH REQUIREMENTS.

(SIGNATURE)

DATE: _____

(PRINT NAME)

PSM. NO.: _____

CERTIFICATE OF SURVEYOR AND MAPPER

KNOW ALL MEN BY THESE PRESENTS, THAT THE UNDERSIGNED, BEING A LICENSED AND REGISTERED SURVEYOR AND MAPPER, DOES HEREBY CERTIFY THAT THE PLAT SHOWN AND DESCRIBED HEREON, ENTITLED KING'S LANDING, WAS PREPARED UNDER MY DIRECTION AND SUPERVISION, THAT THE PLAT COMPLIES WITH ALL OF THE SURVEY REQUIREMENTS OF CHAPTER 177, FLORIDA STATUTES, AND THAT ALL MONUMENTATION SHOWN HEREON OR REQUIRED PER CHAPTER 177, FLORIDA STATUTES, HAS BEEN PROPERLY PLACED.

Dated: _____

Signed: _____

James D. Bray, PSM #6507

Registration Number:

LB #4475

Accuright Surveys of Orlando, Inc.

2012 East Robinson Street

Orlando, Florida 32803

CITY COUNCIL CERTIFICATE OF APPROVAL

THIS STATEMENT HEREBY CERTIFIES THAT THE PLAT ENTITLED KING'S LANDING WAS APPROVED BY THE PORT ORANGE CITY COUNCIL ON _____.

BY:

MAYOR OF THE CITY OF PORT ORANGE

ATTEST:

CITY CLERK OF THE CITY OF PORT ORANGE

PLANNING COMMISSION CERTIFICATE OF APPROVAL

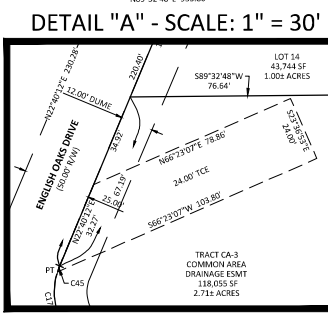
THIS STATEMENT HEREBY CERTIFIES THAT THE PLAT ENTITLED KING'S LANDING WAS APPROVED BY THE PORT ORANGE PLANNING COMMISSION ON _____.

BY:

CHAIRMAN OF THE PORT ORANGE

PLANNING COMMISSION

LOCATED IN THE CITY OF PORT ORANGE, SECTION 21, TOWNSHIP 16 SOUTH, RANGE 33 EAST, VOLUSIA COUNTY, FLORIDA.

[illegible]

ADJUGE	- ACCESS, DRAINAGE, UTILITY, GOVERNMENT AND	PB	- PLAT BOOK
CC	EMERGENCY SERVICES EASEMENT	PC	- POINT OF CURVATURE
CC	- CERTIFIED CORNER RECORD	PG	- PAGE
CC	- CENTERLINE SYMBOL	PI	- POINT OF INTERSECTION
CC	- CONCRETE MONUMENT	POB	- POINT OF BEGINNING
CC	- DRAINAGE / EASEMENT	POI	- POINT ON LINE
CC	- DRAINAGE ESMIT	PRC	- POINT OF REVERSE
CC	- DRAINAGE MAINTENANCE AND ACCESS EASEMENT	PRM	- PROFESSIONAL REFERENCE
CC	- DRAINAGE UTILITY AND MAINTENANCE EASEMENT	PSM	- PROFESSIONAL SURVEYOR
CC	- EASEMENT	MAPPER	
CC	- FOUND	PT	- POINT OF TANGENCY
CC	- LENGTH	R	- RADIUS
CC	- LICENSED BUREAU	(R)	- RADIAL
CC	- LANDSCAPE BUFFER EASEMENT	R/W	- RIGHT-OF-WAY
CC	- LANE & DISK	SF	- SQUARE FEET
CC	- NON-RADIANT	T	- TOTAL
CC	- NON-TANGENT	TCE	- TREE CONSERVATION EASEMENT
CC	- NOT TO SCALE		
CC	- PLAT BOOK		
CC	- PLAT BOOK		

CURVE CHART				LINE CHART	
NO.	CENTRAL	ARC	CHORD	CHORD	
	RADIUS	ANGLE	DISTANCE	DEGREE	
1	51°07'09"	95.00	84.764	N 64°17'21"E	91.42
2	51°17'13"	95.00	85.200	S 00°27'47"E	38.77
3	51°27'17"	95.00	85.636	S 00°27'12"E	50.00
4	51°37'21"	95.00	86.072	N 58°50'07"E	69.31
5	51°47'25"	95.00	86.508	N 58°51'50"E	88.62
6	51°57'29"	95.00	86.944	N 58°53'24"E	107.93
7	52°07'33"	95.00	87.380	N 58°54'58"E	127.24
8	52°17'37"	95.00	87.816	N 58°56'32"E	146.55
9	52°27'41"	95.00	88.252	N 58°58'06"E	165.86
10	52°37'45"	95.00	88.688	N 58°59'40"E	185.17
11	52°47'49"	95.00	89.124	N 59°01'14"E	204.48
12	52°57'53"	95.00	89.560	N 59°02'48"E	223.79
13	53°07'57"	95.00	90.000	N 59°04'22"E	243.10
14	53°18'01"	95.00	90.440	N 59°05'56"E	262.41
15	53°28'05"	95.00	90.880	N 59°07'30"E	281.72
16	53°38'09"	95.00	91.320	N 59°09'04"E	301.03
17	53°48'13"	95.00	91.760	N 59°10'38"E	320.34
18	53°58'17"	95.00	92.200	N 59°12'12"E	339.65
19	54°08'21"	95.00	92.640	N 59°13'46"E	358.96
20	54°18'25"	95.00	93.080	N 59°15'20"E	378.27
21	54°28'29"	95.00	93.520	N 59°16'54"E	397.58
22	54°38'33"	95.00	93.960	N 59°18'28"E	416.89
23	54°48'37"	95.00	94.400	N 59°19'52"E	436.20
24	54°58'41"	95.00	94.840	N 59°21'26"E	455.51
25	55°08'45"	95.00	95.280	N 59°23'00"E	474.82
26	55°18'49"	95.00	95.720	N 59°24'34"E	494.13
27	55°28'53"	95.00	96.160	N 59°26'08"E	513.44
28	55°38'57"	95.00	96.600	N 59°27'42"E	532.75
29	55°49'01"	95.00	97.040	N 59°29'16"E	552.06
30	55°59'05"	95.00	97.480	N 59°30'50"E	571.37
31	56°09'09"	95.00	97.920	N 59°32'24"E	590.68
32	56°19'13"	95.00	98.360	N 59°33'58"E	609.99
33	56°29'17"	95.00	98.800	N 59°35'32"E	629.30
34	56°39'21"	95.00	99.240	N 59°37'06"E	648.61
35	56°49'25"	95.00	99.680	N 59°38'40"E	667.92
36	56°59'29"	95.00	100.120	N 59°40'14"E	687.23
37	57°09'33"	95.00	100.560	N 59°41'48"E	706.54
38	57°19'37"	95.00	101.000	N 59°43'22"E	725.85
39	57°29'41"	95.00	101.440	N 59°44'56"E	745.16
40	57°39'45"	95.00	101.880	N 59°46'30"E	764.47
41	57°49'49"	95.00	102.320	N 59°48'04"E	783.78
42	57°59'53"	95.00	102.760	N 59°49'38"E	803.09
43	58°09'57"	95.00	103.200	N 59°51'12"E	822.40
44	58°19'61"	95.00	103.640	N 59°52'46"E	841.71
45	58°29'65"	95.00	104.080	N 59°54'20"E	861.02
46	58°39'69"	95.00	104.520	N 59°55'54"E	880.33
47	58°49'73"	95.00	104.960	N 59°57'28"E	899.64
48	58°59'77"	95.00	105.400	N 59°59'02"E	918.95
49	59°09'81"	95.00	105.840	N 60°00'36"E	938.26
50	59°19'85"	25.00	13.557	N 81°38'21"E	6.39



LOCATED IN THE CITY OF PORT ORANGE, SECTION 21, TOWNSHIP 16 SOUTH, RANGE 33 EAST, VOLUSIA COUNTY, FLORIDA.

[illegible]

LEGEND			
ADJUGE	- ACCESS, DRAINAGE, UTILITY, GOVERNMENT AND EMERGENCY SERVICES EASEMENT	PR	- PLAT BOOK
CCR	- CERTIFIED CORNER RECORD	PC	- POINT OF CURVATURE
CE	- CENTERLINE SYMBOL	PG	- PAGE
CH	- CONCRETE MONUMENT	PI	- POINT OF INTERSECTION
DE	- DELTA (CENTRAL ANGLE)	POB	- POINT OF BEGINNING
DE	- DRAINAGE ESENT	PLC	- POINT ON LINE
DE	- CONJUGATE MAINTENANCE AND ACCESS EASEMENT	POL	- POINT OF REVERSE CURVATURE
DSMT	- DRAINAGE, UTILITY AND MAINTENANCE EASEMENT	PRM	- PERMANENT REFERENCE MONUMENT
END	- FOUND	PSM	- PROFESSIONAL SURVEYOR AND MAPPER
FB	- BACK LENGTH	PT	- POINT OF TANGENCY
LB	- LICENSED BUSINESS	R	- RADIUS
LB	- LANDSCAPE BUFFER EASEMENT	RF	- RADIAL
NR	- NORTH & DIST	R/W	- RIGHT-OF-WAY
NR	- NON-RADIAL	SF	- SQUARE FEET
NT	- NON-TANGENT	T	- TOTAL
NT	- NOT TO SCALE	TCE	- TREE CONSERVATION ESMAT
ORB	- OFFICIAL RECORDS BOOK	VC	- VEHICLE ACCESS CONTROL

[illegible]

ACCURIGHT SURVEYS OF ORLANDO INC., LB 4475
2012 E. Robinson Street, Orlando, Florida 32803
www.AccurightSurveys.net
ACCU@AccurightSurveys.net
PHONE: (407) 894-6314
SHEET 3 OF 3

KING'S LANDING - PHASE 1

CITY OF PORT ORANGE VOLUSIA COUNTY, FL

FINAL ENGINEERING PLANS

CITY PROJECT ID: 16-50000004

RECEIVED
3-2-17
CITY OF PORT ORANGE
Community Development

REVISED



ORMOND BEACH
300 INTERCHANGE BLVD., STE. C
ORMOND BEACH, FL 32174
(888) 677-2482 FAX (888) 677-2505

EDGEWATER
EDGEWATER, FL 32132
(888) 677-2482 FAX (888) 677-2505

OWNER/
DEVELOPER:

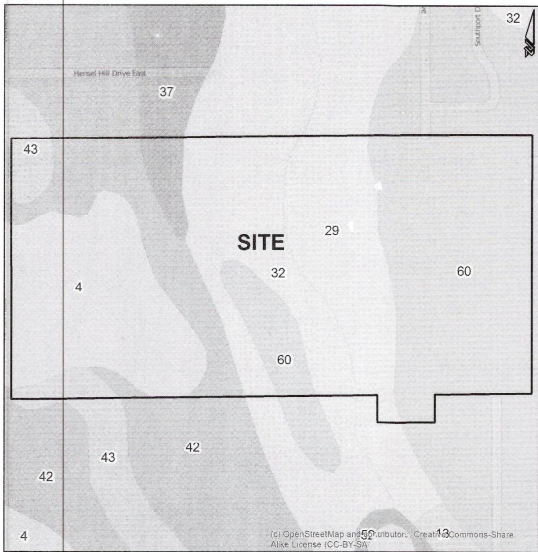
COVENTRY PARTNERS, LLC
1474A W 84TH ST
HIALEAH, FL 33014
386-527-3943
321-747-0404 (FAX)
CONTACT: FRANK COSTA
FCOSTA@LIBERTYFLA.COM

ENGINEER/PLANNER:

ZEV COHEN & ASSOC., INC.
300 INTERCHANGE BLVD
ORMOND BEACH, FL., 32174
(386) 677-2482
(386) 677-2505 (FAX)
CONTACT: RANDY M. HUDAK, P.E.
RHUDAK@ZEVCOHEN.COM

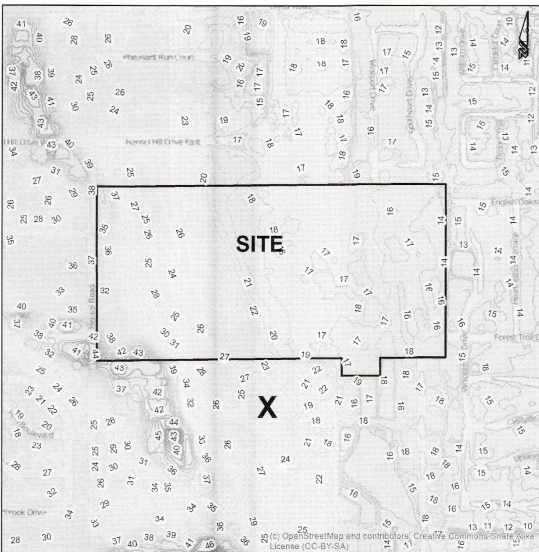
SURVEYOR:

ACCURIGHT SURVEYS
2012 E. ROBINSON ST.
ORLANDO, FL 32803
(407) 894-6314
(407) 894-3777 (FAX)



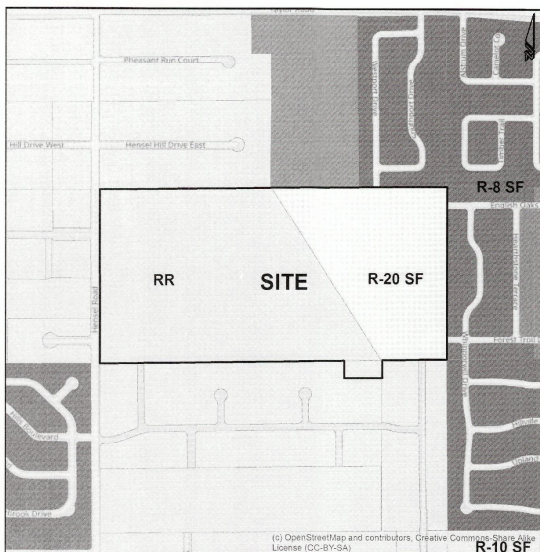
SOILS MAP

SOIL MAP NUMBER	SOIL NAME	HYDROLOGIC GROUP
4	ASTATULA FINE SAND	A
13	CASSIA FINE SAND	C
29	IMMOKALEE FINE SAND	A/D
32	MYAKKA FINE SAND	A/D
37	ORSINO FINE SAND, 0 TO 5% SLOPES	A
42	PAOLA FINE SAND, 0 TO 8% SLOPES	A
43	PAOLA FINE SAND, 8 TO 17% SLOPES	A
52	POMPANO FINE SAND	A/D
60	SMYRNA FINE SAND	A/D



FLOOD ZONE & LIDAR MAP

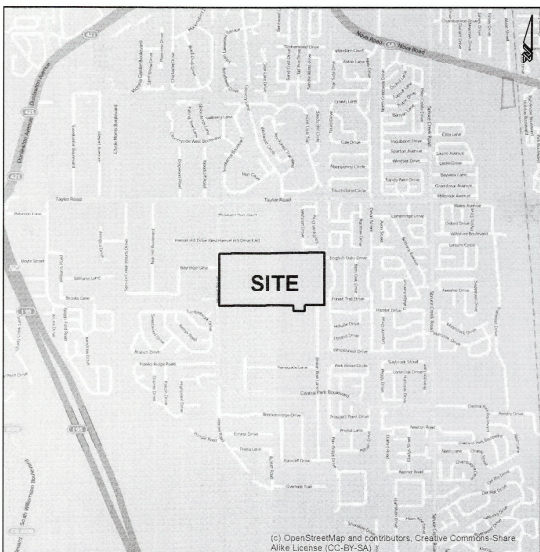
FLOOD MAP NUMBER 12127C0507H
EFFECTIVE ON 02/19/2014



ZONING MAP

EXISTING ZONING:
ADOPTED FUTURE LAND USE:

RR/R-20 SF
RURAL TRANSITIONAL
(0-2 UNITS/ACRE)
SUBURBAN RESIDENTIAL
(2-4 UNITS/ACRE)
PUD



VICINITY MAP

LEGAL DESCRIPTION

PARCEL 1
THE SOUTH 1/2 OF THE NORTHWEST 1/4 OF SECTION 21, TOWNSHIP 16 SOUTH, RANGE 33 EAST, VOLUSIA COUNTY, FLORIDA, FSS AND EXCEPT THE WEST 30 FEET FOR HENSEL ROAD.

AND

PARCEL 2
A PORTION OF SECTION 21, TOWNSHIP 16 SOUTH, RANGE 33 EAST, VOLUSIA COUNTY, FLORIDA, DESCRIBED AS FOLLOWS:

FROM THE NORTHEAST CORNER OF SEMINOLE WOODS, PHASE I, AS RECORDED IN MAP BOOK 41, PAGE 106, OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA, RUN NORTH 00 DEGREES 21 MINUTES 48 SECONDS EAST, THEN BEARING BASIS OF THIS DESCRIPTION ALONG THE WEST BOUNDARY OF THE HAMLET SUBDIVISION, FIRST ADDITION, AS RECORDED IN MAP BOOK 36, PAGE 98 AND 100, OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA, A DISTANCE OF 1322.28 FEET; THENCE DEPARTING SAID LINE, RUN NORTH 89 DEGREES 48 MINUTES 46 SECONDS WEST A DISTANCE OF 512.04 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE NORTH 89 DEGREES 48 MINUTES 46 SECONDS WEST, A DISTANCE OF 290.14 FEET; THENCE SOUTH 00 DEGREES 47 MINUTES 08 SECONDS WEST, A DISTANCE OF 150.00 FEET; THENCE SOUTH 89 DEGREES 48 MINUTES 46 SECONDS EAST, A DISTANCE OF 290.14 FEET; THENCE NORTH 00 DEGREES 47 MINUTES 08 SECONDS EAST, A DISTANCE OF 150.00 FEET TO THE POINT OF BEGINNING.

ALL THE ABOVE BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

A PORTION OF SECTION 21, TOWNSHIP 16 SOUTH, RANGE 33 EAST, VOLUSIA COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGIN AT THE NORTHWEST CORNER OF LOT 27, ROLLING HILLS ESTATES PHASE 2, AS RECORDED IN PLAT BOOK 49, PAGES 102, 103 AND 104, PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA, RUN THENCE NORTH 00 DEGREES 47 MINUTES 08 SECONDS EAST, A DISTANCE OF 1,324.97 FEET TO THE SOUTHWEST CORNER OF THE LANDS DESCRIBED IN OFFICIAL RECORDS BOOK 2641,

SOUTHWEST CORNER OF THE LANDS DESCRIBED IN OFFICIAL RECORDS BOOK 2641, PAGE 2642, PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA, SAID POINT BEING ON THE NORTH LINE OF THE SOUTH 1/2 OF THE NORTHWEST 1/4 OF SECTION 21, TOWNSHIP 16 SOUTH, RANGE 33 EAST; THENCE NORTH 89°37'07" E ALONG SAID NORTH LINE, A DISTANCE OF 2,671.22 FEET TO THE SOUTHWEST CORNER OF LOT 33, RAINBOW SUBDIVISION, AS RECORDED IN PLAT BOOK 33, PAGE 190, PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA, SAID POINT BEING A POINT ON THE EAST LINE OF THE SOUTH 1/2 OF THE NORTHWEST 1/4 OF SAID SECTION 21; THENCE SOUTH 16°25' E ALONG SAID EAST LINE, A DISTANCE OF 1,321.61 FEET TO THE SOUTHWEST CORNER OF PARCEL "B", BENT OAK SUBDIVISION, AS RECORDED IN PLAT BOOK 40, PAGE 66, PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA, SAID POINT BEING A POINT ON THE SOUTH LINE OF THE SOUTH 1/2 OF THE NORTHWEST 1/4 OF SAID SECTION 21; THENCE SOUTH 89°33'46" W ALONG SAID SOUTH LINE A DISTANCE OF 512.21 FEET TO THE NORTHWEST CORNER OF TRACT "C", BROKEN BOW ESTATES, AS RECORDED IN PLAT BOOK 49, PAGES 126 AND 127, PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA; THENCE SOUTH 00°08'52" W ALONG THE WEST LINE OF SAID TRACT "C", A DISTANCE OF 150.06 FEET TO THE NORTHEAST CORNER OF TRACT "C", ROLLING HILLS ESTATES PHASE 2, AS RECORDED IN PLAT BOOK 49, PAGES 102, 103 AND 104, PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA; THENCE SOUTH 89°37'23" W ALONG THE NORTH LINE OF SAID ROLLING HILLS ESTATES PHASE 2, A DISTANCE OF 289.93 FEET TO THE NORTHWEST CORNER OF LOT 30, SAID ROLLING HILLS ESTATES PHASE 2, SAID POINT BEING A POINT ON THE EAST LINE OF LOTS 12, SAID ROLLING HILLS ESTATES PHASE 2; THENCE NORTH 00°08'51" E ALONG SAID EAST LINE AND THE EAST LINE OF LOT 13, SAID ROLLING HILLS ESTATES PHASE 2, A DISTANCE OF 149.98 FEET TO THE NORTHEAST CORNER OF LOT 13, SAID ROLLING HILLS ESTATES PHASE 2, SAID POINT BEING A POINT ON SAID SOUTH LINE OF THE SOUTH 1/2 OF THE NORTHWEST 1/4 OF SECTION 21; THENCE SOUTH 89°32'48" W ALONG SAID SOUTH LINE, A DISTANCE OF 1,875.76 FEET TO THE POINT OF BEGINNING.

CONTAINS 3,582,585 SQUARE FEET OR 82.245 ACRES MORE OR LESS.

SITE DATA TABLE*

PROGRAM DATA	AREA
TOTAL AREA	82.20 ACRES
TOTAL AREA - PHASE 1	32.15 ACRES
TOTAL R/W AREA - PHASE 1	3.16 ACRES
TOTAL LOT AREA - PHASE 1	19.09 ACRES
TOTAL STORMWATER AREA - PHASE 1	8.53 ACRES
TOTAL NATURAL PRESERVATION AREA	13.68 ACRES
TOTAL LOTS PROPOSED - PHASE 1	19 LOTS
PARCEL NUMBERS:	6321-00-00-0071 6321-00-00-0074

SHEET INDEX:

SHEET NO.	DESCRIPTION
C1	COVER SHEET
C2-C3	CONSTRUCTION NOTES
C4	OVERALL DEVELOPMENT PLAN
C5	EROSION CONTROL PLAN
C6-C9	GEOMETRY, STRIPING & SIGNAGE PLAN
C10-C13	PAVING, GRADING, DRAINAGE PLAN
C14-C17	UTILITY PLAN
C18	PLAN & PROFILE KEY MAP
C19-C22	PLAN & PROFILE
C23-C28	CONSTRUCTION DETAILS
TP1-TP7	TREE PROTECTION PLANS
LA1-LA3	LANDSCAPE PLAN & DETAILS
IR1-IR2	IRRIGATION PLAN & DETAILS



KING'S LANDING PHASE 1 FINAL ENGINEERING PLANS COVER SHEET

PROJECT NO: 15082X

ISSUE DATE: 10-19-16

DESIGNED BY: RMH

DRAFTED BY: RMH

CHECKED BY: RMH

DRAWING FILE: 15082X-COV.DWG

SHEET: C1 OF 28

2. ALL DISTURBED AREAS SHALL BE SOODED OR SEEDED AND MULCHED.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND VERIFYING ALL ELEVATIONS OF EXISTING UTILITIES SHOWN OR NOT SHOWN PRIOR TO CONSTRUCTION AND FOR NOTIFYING THE VARIOUS UTILITY COMPANIES TO MAKE THE NECESSARY ARRANGEMENTS FOR ANY RELOCATION, DISRUPTION OF SERVICE OR OTHER REQUIRED ACTION PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN CROSSING AN UNDERGROUND UTILITY, WHETHER SHOWN ON THESE PLANS OR FIELD LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL UTILITIES LOCATED BY THE RESPECTIVE UTILITY DURING RELOCATION OPERATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OR DAMAGES TO EXISTING UTILITIES.
4. ALL DRAINAGE STRUCTURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MOST RECENT EDITION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION ROADWAY AND TRAFFIC DESIGN STANDARDS.
5. THE LENGTH OF ALL DRAINAGE PIPES AND LOCATION OF ALL DRAINAGE STRUCTURES ARE APPROXIMATE. THE LENGTH OF THE DRAINAGE STRUCTURES SHALL DETERMINE THE LENGTH OF PIPE.
6. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE AN "AS-BUILT" SURVEY OF THE COMPLETED CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL APPROPRIATE GOVERNMENTAL REGULATIONS AND SHALL BE SIGNED AND SEALED BY A FLORIDA REGISTERED PROFESSIONAL LAND SURVEYOR.
7. THE CONTRACTOR SHALL MAINTAIN, AT THE JOB SITE, A RECORD COPY OF ALL CONSTRUCTION DRAWINGS AND OPERATIONS ON WHICH ANY CHANGES ARE TO BE SHOWN. THESE CHANGES ARE TO BE INCORPORATED IN THE "AS-BUILT" SURVEY FURNISHED TO THE ENGINEER.

UTILITIES SHOWN OR NOT SHOWN PRIOR TO CONSTRUCTION AND FOR NOTIFYING THE VARIOUS UTILITY COMPANIES TO MAKE THE NECESSARY ARRANGEMENTS FOR ANY RELOCATION, DISRUPTION OF SERVICE OR CLOSURE OF ANY UTILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE UTILITY COMPANIES BY THE DATE OF ACTING AS THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXERCISING DUE CARE AND CAUTION WHEN CROSSING AN UNDERGROUND UTILITY, WHETHER SHOWN ON THESE PLANS OR FIELD LOCATED. UTILITIES WHICH INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE RELOCATED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF EXISTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF DAMAGES TO EXISTING UTILITIES.

4. ALL DRAINAGE STRUCTURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MOST RECENT EDITION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION ROADWAY AND TRAFFIC DESIGN STANDARDS.

5. THE LENGTH OF ALL DRAINAGE PIPES AND LOCATION OF ALL DRAINAGE STRUCTURES ARE APPROXIMATE. THE LOCATION OF THE DRAINAGE STRUCTURES SHALL DETERMINE THE LENGTH OF PIPE.

6. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE AN "AS-BUILT" SURVEY OF THE COMPLETED CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETION OF THE SURVEY WITH APPROPRIATE GOVERNMENTAL REGULATIONS AND SHALL BE SIGNED AND SEALED BY A FLORIDA REGISTERED PROFESSIONAL LAND SURVEYOR.

7. THE CONTRACTOR SHALL MAINTAIN, AT THE JOB SITE, A RECORD COPY OF ALL CONSTRUCTION DRAWINGS AND MODIFICATIONS ON WHICH ANY CHANGES SHALL BE SHOWN IN ORDER THAT THESE CHANGES ARE TO BE INCORPORATED IN THE "AS-BUILT" SURVEY FURNISHED TO THE ENGINEER.

ALL MATERIALS AND INSTALLATION METHODS USED FOR LAND DEVELOPMENT CODE REQUIRED IMPROVEMENTS FOR SUBDIVISIONS AND SITE PLANS SHALL BE IN CONFORMANCE WITH THE CITY, FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION), AND THE FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS (LATEST EDITION).

ALL MATERIALS AND INSTALLATION METHODS USED FOR LAND DEVELOPMENT CODE REQUIRED IMPROVEMENTS FOR SUBDIVISIONS AND SITE PLANS SHALL BE IN CONFORMANCE WITH THE CITY, FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION), AND THE FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS (LATEST EDITION).

11. MAINTENANCE IS TO INCLUDE:
 - A. BI-WEEKLY MOWING OF SIDESLOPES FOR VEGETATION CONTROL.
 - B. QUARTERLY INSPECTION AND/OR CLEANING OF CATCH BASINS TO KEEP FREE OF SAND AND DEBRIS.
12. ALL DISTURBED AREAS SHALL HAVE GRASS/ VEGETATION ESTABLISHED PRIOR TO THE INSPECTION FOR THE CERTIFICATE OF OCCUPANCY.
13. CONTACT THE TECHNICAL SERVICES BUREAU TO DETERMINE THE INSPECTIONS NEEDED FOR THIS FACILITY.
14. ALL REQUIRED FIRE LINES AND FIRE HYDRANTS SHALL BE INSTALLED AND OPERATIONAL PRIOR TO THE START OF CONSTRUCTION.
15. DURING CONSTRUCTION, AN ALL-WEATHER ACCESSIBLE ROADWAY SHALL BE MAINTAINED AT ALL TIMES FOR FIRE APPARATUS.
16. NOTIFY THE CITY OF PORT ORANGE 48 HOURS PRIOR TO THE START OF CONSTRUCTION AT 386-756-5366. THE CITY ENGINEER, ANY DEVIATION FROM THE ADOPTED STANDARDS SHALL BE CLEARLY NOTED AS SUCH IN ALL PLANS AND SPECIFICATIONS. IF INADVERTENT DEVIATIONS IN PLANS ARE NOT SO NOTED, ADOPTED STANDARDS SHALL APPLY.
17. ALL CONSTRUCTION SHALL COMPLY WITH THE STANDARD CONSTRUCTION DETAILS AS ADOPTED BY THE CITY OF PORT ORANGE. ANY DEVIATION FROM THE ADOPTED STANDARDS SHALL BE CLEARLY NOTED AS SUCH IN ALL PLANS AND SPECIFICATIONS. IF INADVERTENT DEVIATIONS IN PLANS ARE NOT SO NOTED, ADOPTED STANDARDS SHALL APPLY.
18. ELEVATIONS ARE BASED ON NGVD 1929 DATUM.

THE FOLLOWING MEASURES REPRESENT MINIMUM STANDARDS TO BE ADHERED TO BY THE CONTRACTOR THROUGHOUT THE CONSTRUCTION OF A PROJECT. THE CITY RESERVES THE RIGHT TO REQUIRE ADDITIONAL MEASURES TO BE IMPLEMENTED TO PROTECT THE ENVIRONMENT, AND TO PROTECT THE HEALTH OF THE CONTRACTOR TO EMPLOY THE APPROPRIATE EROSION CONTROL, STABILIZATION, AND/OR FAILURE, OF THE PROJECT. FAILURE TO COMPLY WITH THESE PROVISIONS SHALL RESULT IN THE ISSUANCE OF A "STOP WORK ORDER."

NO DISTURBANCE OF PROPOSED CONSERVATION EASEMENTS, NATURAL BUFFERS, OR WATER BODIES IS PERMITTED. THE CONTRACTOR SHALL LOCATE THESE AREAS ON SITE AND BARRICADE THEM TO AVOID ANY UNAUTHORIZED CLEARING, BARRICADES AND OTHER PROTECTIVE FENCING ARE TO BE LOCATED AT THE DRIP EDGE OF THE NATURAL BUFFER OR THE EDGE OF THE NATIVE UPLAND-- STORY HARBOR, WHICHEVER IS NEAREST TO THE CONSTRUCTION ACTIVITY.

THE FOLLOWING MEASURES REPRESENT MINIMUM STANDARDS TO BE ADHERED TO BY THE CONTRACTOR THROUGHOUT THE CONSTRUCTION OF A PROJECT. THE CITY RESERVES THE RIGHT TO REQUIRE ADDITIONAL MEASURES TO BE IMPLEMENTED TO PROTECT THE ENVIRONMENT, AND TO PROTECT THE HEALTH OF THE CONTRACTOR TO EMPLOY THE APPROPRIATE EROSION CONTROL, STABILIZATION, AND/OR FAILURE, OF THE PROJECT. FAILURE TO COMPLY WITH THESE PROVISIONS SHALL RESULT IN THE ISSUANCE OF A "STOP WORK ORDER."

NO DISTURBANCE OF PROPOSED CONSERVATION EASEMENTS, NATURAL BUFFERS, OR WATER BODIES IS PERMITTED. THE CONTRACTOR SHALL LOCATE THESE AREAS ON SITE AND BARRICADE THEM TO AVOID ANY UNAUTHORIZED CLEARING, BARRICADES AND OTHER PROTECTIVE FENCING ARE TO BE LOCATED AT THE DRIP EDGE OF THE NATURAL BUFFER OR THE EDGE OF THE NATIVE UPLAND-- STORY HARBOR, WHICHEVER IS NEAREST TO THE CONSTRUCTION ACTIVITY.

- SPECIMEN AND HISTORIC TREES, CONSERVATION EASEMENTS, NATURAL VEGETATION BUFFERS, AND "SIMILAR AREAS" MUST BE PROTECTED BY BARRICADES OR FENCING PRIOR TO CLEARING. BARRICADES ARE TO BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT. BARBED WIRE IS NOT PERMITTED AS A PROTECTIVE BARRIER.
- WHERE A CHANGE OF GRADE OCCURS AT THE Drip LINE OF A SPECIMEN TREE, Silt FENCES WILL BE INSTALLED TO PROTECT EXISTING CONSTRUCTION AND METEOROLOGICAL WALLS MUST BE INSTALLED PRIOR TO FINAL ACCEPTANCE BY THE CITY.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL PROTECTIVE VEGETATION PROTECTED PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMMENCEMENT OF ANY EARTHWORK, INCLUDING PRELIMINARY GRUBBING THESE MEASURES INCLUDE, BUT ARE NOT LIMITED TO, TEMPORARY CONSTRUCTION FENCES, SYNTHETIC JOE BALES, WATERS, &/OR HAVE ALL SPECIMEN TREES AND PLANTS PROTECTED BY BARRICADES OR FENCING PRIOR TO CONSTRUCTION. FURTHER, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN ALL EROSION CONTROL MEASURES THROUGHOUT THE DURATION OF THE PROJECT. EROSION CONTROL MEASURES INCLUDE PROTECTIVE INSPECTION AND REMOVAL OF DEBRIS ABUTTING EROSION CONTROL DEVICES AS SPECIALLY IDENTIFIED BY THE CITY'S INSPECTION AND RECORDS SECTION.
- PRIOR TO THE INSTALLATION OF ANY FILL MATERIALS ON SUBJECT SITE, Silt FENCES SHALL BE INSTALLED (1) ALONG SUBJECT SITE BOUNDARY AND PROPERTY LINES, (2) AT THE EDGE OF EXISTING PAVED AREAS, (3) AT THE EDGE OF EXISTING LANDSCAPE BUFFERS, (4) AT THE PERIMETER OF EXISTING STORMWATER TREATMENT FACILITIES, AND (5) AT ADDITIONAL AREAS THAT THE CITY DEEMS NECESSARY TO BE PROTECTED FROM POTENTIAL EROSION IMPACTS DURING CONSTRUCTION. Silt FENCES SHALL BE MAINTAINED THROUGHOUT THE PROJECT. Silt FENCES SHALL BE INSTALLED WITHIN 25 FEET OF ANY OF THE APPROPRIATE LOCATIONS. WHILE THESE ITEMS REPRESENT MINIMUM REQUIREMENTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING ADDITIONAL MEASURES, AS DETERMINED DURING ACTUAL SITE VISITS CONDUCTED AS PART OF THE STANDARD REVIEW AND INSPECTION OF THE PROJECT. CLEARING AND CONSTRUCTION SHALL BE CONDUCTED IN A MANNER THAT WERE FILL MATERIAL IS INTENDED TO BE INSTALLED ADJACENT TO EXISTING VEGETATION WHICH IS INTENDED TO REMAIN NATURAL, THE CONTRACTOR MAY INSTALL Silt FENCING AS A TREE PROTECTION MEASURE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING Silt FENCING. THIS PRACTICE IS ENCOURAGED BY THE CITY IF THE Silt FENCE FAILS TO PROVIDE ADEQUATE PROTECTION FROM IMPACT DUE TO CONSTRUCTION, THEN ADDITIONAL CONSTRUCTION FENCING OR WOOD BRACING SHALL BE REQUIRED.
- AT A MINIMUM, THE CONTRACTOR SHALL SEED AND MULCH ALL DISTURBED AREAS. SPECIFIC GRASS SEEDS AND MULCH ARE TO BE ESTABLISHED WITHIN TWO WEEKS.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR THROUGH SCHEDULING, TO MINIMIZE THE DISTURBANCE OF THE AREAS THAT ARE TO BE USED FOR THE PROJECT. FINAL ACCEPTANCE WITHIN SEVEN (7) DAYS OF BRINGING A SUBJECT AREA TO ITS FINAL GRADE OR INACTIVITY IN CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SEEDING AND MULCHING OF THE DISTURBED AREAS.
- FOR INDIVIDUAL CONSTRUCTION PROJECTS INVOLVING MULTIPLE PHASES, (PHASING IS REQUIRED FOR SITE 30 ACRES AND LARGER) UPON COMPLETION OF EACH PHASE OF THE PROJECT, SEEDING AND MULCHING AND / OR SODDING IS TO BE PERFORMED PRIOR TO COMMENCING THE NEXT PHASE OF CONSTRUCTION.
- ONCE AN AREA IS SEEDS OR SODED, IT MUST BE MAINTAINED BY THE CONTRACTOR TO ALLOW THE VEGETATION TO BE ESTABLISHED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE CITY MAY REQUIRE THE CONTRACTOR TO RE-SEED OR A NON-VESPERATE OPTION MAY BE EMPLOYED.
- ANY BURNING OF CLEARED MATERIALS MUST NOT BE OBSERVED AND PERMITTED ON A DAILY BASIS. CONTACT THE CITY OF FILLMORE FOR A BURNING PERMIT.
- ABSOLUTELY NO BURNING OF CLEARED MATERIALS IS PERMITTED.
- THE REMOVAL OF ALL VEGETATION AND TOPSOIL ON THE FUTURE ROADWAY, PARKING AND BUILDING LOT AREAS IS REQUIRED TO BE COMPLETED PRIOR TO THE PLACEMENT OF FILL ON THOSE AREAS. THE TOPSOIL MAY BE RE-USED ON THE PROJECT OR MAY BE RELOCATED TO OTHER AREAS SUCH AS PLANT BEDS, SOILED AREAS, AND WHERE TREES ARE TO BE INSTALLED OR RELOCATED.
- A SIGNED, DATED, AND SEALED LETTER FROM A SOILS ENGINEER OR THE ENGINEER OF RECORD CERTIFYING THAT THE PROJECT TO BE FILLED HAS BEEN STRIPPED OF ORGANIC MATERIALS, MUST BE SUBMITTED TO THE CITY PRIOR TO FILLING.

ALL MATERIALS AND INSTALLATION METHODS USED FOR LAND DEVELOPMENT CODE REQUIRED IMPROVEMENTS FOR SUBDIVISIONS AND SITE PLANS SHALL BE IN CONFORMANCE WITH THE CITY, FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION), AND THE FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS (LATEST EDITION).

ALL MATERIALS AND INSTALLATION METHODS USED FOR LAND DEVELOPMENT CODE REQUIRED IMPROVEMENTS FOR SUBDIVISIONS AND SITE PLANS SHALL BE IN CONFORMANCE WITH THE CITY, FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION), AND THE FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS (LATEST EDITION).

1. ALL SLOPE-OF-WAY OTHER THAN ROADWAY AREAS SHALL BE GRASSED AND MULCHED OR SOODED. ALL RIGHTS-OF-WAY OTHER THAN 6:1 SHALL REQUIRE SOODING. THE CITY RESERVES THE RIGHT TO REQUIRE SOODING ON SPECIAL AREAS WHERE EROSION IS A CONCERN.
2. THE FOLLOWING WILL BE THE STANDARD PROTECTION FOR OTHER LOCAL DRAINAGE CALCULATIONS INDICATE OTHERWISE:

SWALE / PROFILE / GRADES	PROTECTION REQUIRED
0.2% - 1.0%	GRASSING AND MULCHING
1.0% - 4.0 %	SOODING
4.0 % AND GREATER	DITCH PAVING
3. THE PAVEMENT, BASE, AND SUBGRADE THICKNESS PRESENTED ON DETAILS REPRESENTS THE MINIMUM REQUIREMENTS FOR LOCAL PUBLIC STREETS AND PRIVATE PARKING LOTS. THE CITY RESERVES THE RIGHT TO REQUIRE INCREASED THICKNESS REQUIREMENTS FOR COLLECTOR AND ARTERIAL ROADWAYS AND PRIVATE PARKING LOTS SUBJECTED TO HEAVY VEHICULAR COMMERCIAL TRAFFIC.
4. THE DEVELOPER SHALL PROVIDE AT THEIR OWN EXPENSE A CERTIFIED SOILS ENGINEERING LABORATORY TO COMPLY WITH THE CITY'S MINIMUM STANDARDS. IT IS THE RESPONSIBILITY OF THE DEVELOPER TO PROVIDE THAT COPIES OF ALL TEST REPORTS ARE PROVIDED TO THE CITY'S DESIGNATED SITE INSPECTOR PRIOR TO THE PROJECT'S SUBMITTAL TO THE CITY FOR REVIEW AND ACCEPTANCE BY THE CITY.
5. THE LIMITS OF STABILIZED SUBGRADE SHALL EXTEND TO TWENTY (20) FEET OR SIX INCHES (6") BELOW THE BOTTOM OF THE BASE AND OUTWARD TO TWELVE INCHES (12") BEYOND THE SIX INCHES (6") BELOW THE BOTTOM OF THE STABILIZING MATERIAL, IF REQUIRED, SHOULD BE A HIGH BEARING VALUE SOIL, SAND-CLAY, LIME TREATED CONCRETE, SLAG, OR OTHER MATERIAL AS APPROVED BY THE CITY'S DESIGNATED SITE INSPECTOR AND A LICENSED SOILS ENGINEER.
6. THE SUBGRADE SHALL BE STABILIZED NOT LESS THAN FOURTY (40) POUNDS/ LINEAR BEARING RATIO (LBR) BASED ON AASTHO T-180 SHALL BE REQUIRED.

37. THE DEVELOPER IS RESPONSIBLE FOR PAYING FEES FOR TRAFFIC CONTROL DEVICES TO THE CITY FOR INSTALLATION. STREET SIGNS AND STOP SIGNS SHALL BE PLACED AT ALL INTERSECTIONS, INCLUDING BUT NOT LIMITED TO PRIVATE STREETS, PUBLIC STREETS, COUNTY ROADS, AND STATE HIGHWAYS WITHIN THE CITY LIMITS.

37. THE DEVELOPER IS RESPONSIBLE FOR PAYING FEES FOR TRAFFIC CONTROL DEVICES TO THE CITY FOR INSTALLATION. STREET SIGNS AND STOP SIGNS SHALL BE PLACED AT ALL INTERSECTIONS, INCLUDING BUT NOT LIMITED TO PRIVATE CITY STREETS, PUBLIC STREETS, COUNTY ROADS, AND STATE HIGHWAYS WITHIN THE CITY LIMITS.
38. THE DEVELOPER IS RESPONSIBLE FOR PAYING FEES FOR ALL STREET LIGHTS PRIOR TO ACCEPTANCE OF THE PROJECT.
39. FOUR FOOT (4') SIDE WALKWAYS SHALL BE PROVIDED ON BOTH SIDES OF ALL RESIDENTIAL STREETS. (SEE DETAIL, INDEXES M-2 AND M-3)
40. BIKE PATHS SHALL BE CONSTRUCTED EIGHT FEET (8') IN WIDTH ALONG ALTERNATE HIGHWAYS AS DIRECTED BY THE CITY. (SEE DETAIL, INDEXES M-2 AND M-3)
41. STANDARD TURNING RADI FOR INTERSECTIONS
RESIDENTIAL STREETS WITH STATE & COUNTY ROADWAYS 35.00 FT.
ALL MAJOR THOROUGHFARES WITH STATE & COUNTY ROADWAYS 35.00 FT.
ENTRANCES TO COMMERCIAL SITES OFF CITY STREETS 35.00 FT.
INTERSECTIONS INTERIOR TO CITY LIMITS 35.00 FT.
SHOULD VOLUSIA COUNTY OR THE FLORIDA DEPARTMENT OF TRANSPORTATION (F.D.O.T.) DETERMINE THAT THE LARGER RADI SHALL PREVAIL.
42. CONSTRUCTION METHODS AND DESIGN FOR CONCRETE PAVEMENT SHALL CONFORM TO FDOT STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
43. ALL CONTRACTORS THAT ARE PERFORMING THE CONSTRUCTION OF LAND DEVELOPMENT CODE REQUIRED TO BE LICENSED BY THE STATE OF FLORIDA. ALL NEWER MAINS, RECLAIMED WATER MAINS, STORM SEWERS, AND SANITARY SEWERS SHALL BE CONSTRUCTED TO MEET THE REQUIREMENTS OF THE FLORIDA BOARD OF PROFESSIONAL REGULATIONS (BPR) FOR THE TYPE OF WORK THAT THEY PERFORM.
44. ALL CONTRACTORS THAT ARE PERFORMING THE CONSTRUCTION WORK OF LAND DEVELOPMENT CODE REQUIRED IMPROVEMENTS SHALL BE LICENSED BY THE STATE OF FLORIDA. ALL NEWER MAINS, STORM SEWERS, AND SANITARY SEWERS SHALL BE CONSTRUCTED TO MEET THE REQUIREMENTS OF THE FLORIDA BOARD OF PROFESSIONAL REGULATIONS (BPR) FOR THE TYPE OF WORK THAT THEY PERFORM.
45. EXCEPT AS PROVIDED IN THE LAND DEVELOPMENT CODE, ALL ELECTRIC, TELEPHONE, TELEVISION LINES AND CABLES ARE REQUIRED TO BE INSTALLED UNDERGROUND AT THE EXPENSE OF THE OWNER, DEVELOPER, AND BUILDER.

IN ORDER TO ENSURE THAT NEW SUBDIVISIONS AND SITE PLANS ARE
CONSTRUCTED SUBSTANTIALLY IN ACCORDANCE WITH CITY
REGULATIONS AND THE APPROVED DRAWINGS, THE FOLLOWING INFORMATION
IS REQUIRED ON ALL SUBDIVISION AS-BUILT DRAWINGS

IN ORDER TO ENSURE THAT NEW SUBDIVISIONS AND SITE PLANS ARE
CONSTRUCTED SUBSTANTIALLY IN ACCORDANCE WITH CITY
REGULATIONS AND THE APPROVED DRAWINGS, THE FOLLOWING INFORMATION
IS REQUIRED ON ALL SUBDIVISION AS-BUILT DRAWINGS

- [illegible]

1. ALL SINGLE RESIDENTIAL WATER SERVICES SHALL BE 1", DOUBLE RESIDENTIAL SERVICES SHALL ALSO BE 1", AND COMMERCIAL SERVICES SHALL BE 2" OR 3". NO 1 1/2" SERVICES ARE ALLOWED. POLYETHYLENE TUBING SHALL BE USED, IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS: POLYETHYLENE TUBING SHALL BE CTS 3408 HIGH DENSITY TUBING, BLUE IN COLOR, AND RATED FOR A MINIMUM OF 300 P.S.I. WITH SDR (S.D.R.) 15. THE TUBING SHALL HAVE A VIRGIN HIGH DENSITY POLYETHYLENE CENTER FOR WHICH THE MANUFACTURER

- [illegible]

	DETAIL REF: W-1
	REV. 12/08

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|--|------------|---------------------------|
| | | DETAIL REF:
W-1 |
| | REV. 12/08 | |

13. ALL PROPOSED POTABLE WATER MAINS SHALL BE FLUSHED, DISINFECTED, PRESSURE TESTED AND BACTERIOLOGICALLY CLEARED FOR SERVICE WHEN APPROPRIATE IN ACCORDANCE WITH THE LATEST AWWA STANDARDS AND THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS. THE

- [illegible]

	REV. 12/08	DETAIL REF: W-1

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|---|---------------------------------------|
|  | <div>DETAIL REF:
W-1</div> |
| REV. 12/08 | |

ORMOND BEACH
300 INTERCHANGE BLVD., STE. C
ORMOND BEACH, FL 32174
(386) 677-2482 FAX (386) 677-2505

EDGEWATER
1500 AIRBORNE CIRCLE
EDGEWATER, FL 32119
(386) 677-2482 FAX (386) 677-2505

[illegible]

No	Date	R
1	10/17/16	R
2	11/16/18	R

A COUNTY
S

**KING'S LANDING
PHASE 1
ENGINEERING PLAN
CONSTRUCTION NOTES**

FINA CON
CITY OF PORT ORANGE
PROJECT NO: 15082X

ISSUE DATE: 10-19-16
DESIGNED BY: RH/MG
DRAFTED BY: RMC
CHECKED BY: RMH
DRAWING FILE: 15082X-NOT.DWG
XREFS:
XREFS:

NOT VALID WITHOUT SEAL

RANDY M. HUDAK, P.E. NO. 65953

SCALE: N.T.S.

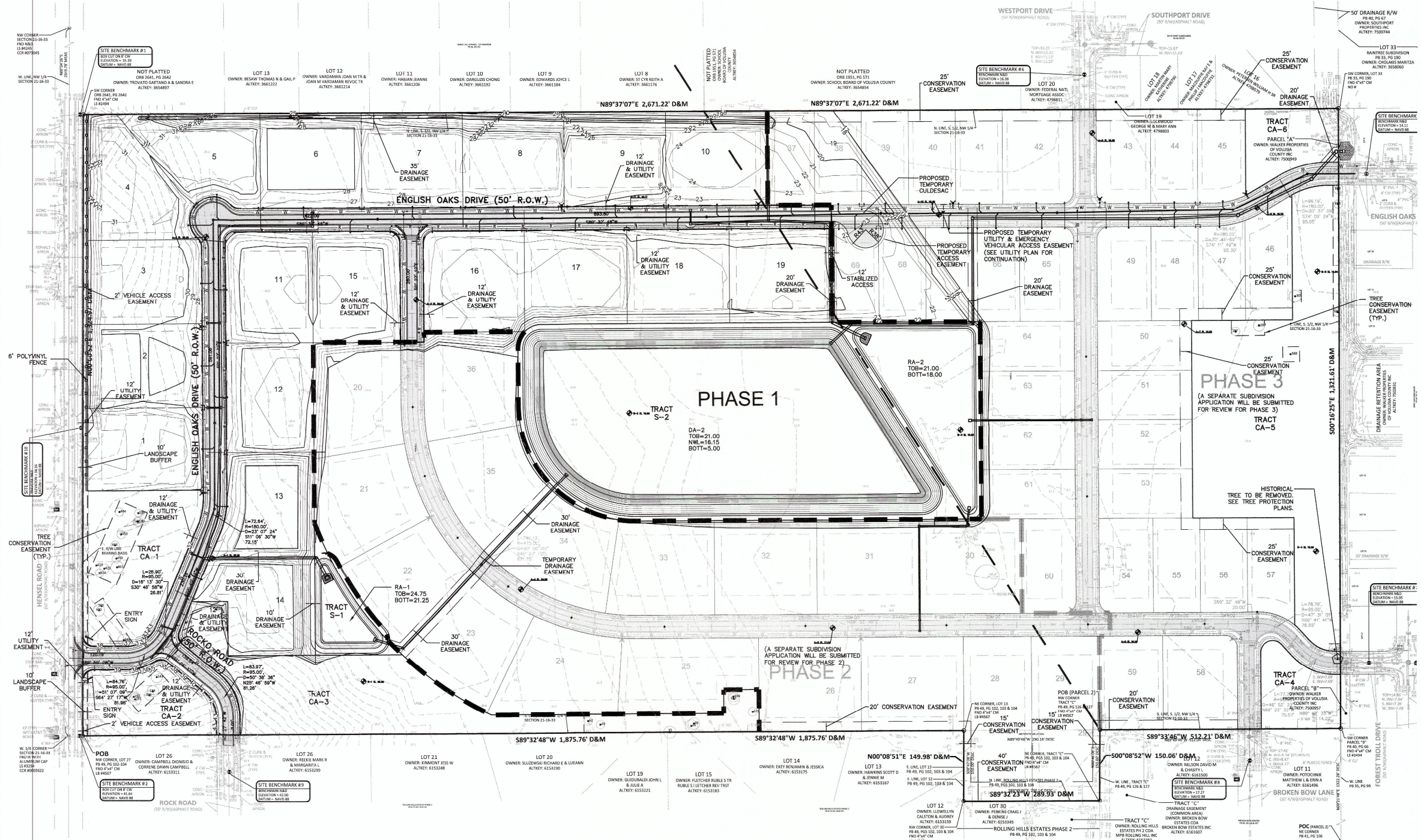
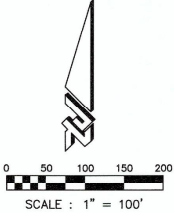
SHEET: C2 OF 28

— 159 —

TRACT SUMMARY TABLE			
TRACT NUMBER	AREA (AC)	TRACT OWNERSHIP	MAINTENANCE RESPONSIBILITY
RDW	3.40	CITY OF PORT ORANGE	CITY OF PORT ORANGE
TRACT S-1	0.50	HDA	HDA
TRACT CA-3	2.71	HDA	HDA
TRACT S-2	9.20	HDA	HDA
TRACT CA-2	0.87	HDA	HDA
TRACT CA-1	1.73	HDA	HDA

LEGEND

- PROPERTY BOUNDARY
- PROPOSED ASPHALT PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED LOT NUMBER
- PROPOSED SETBACK
- SPECIMEN TREE TO REMAIN



ZEV COHEN
REGISTERED PROFESSIONAL ENGINEER
CIVIL ENGINEERING & LANDSCAPE ARCHITECTS
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ORMOND BEACH, FL 32136
(386) 677-2482 FAX (386) 677-2505

EDGEWATER
300 INTERCHANGE BLVD., STE. C
EDGEWATER, FL 32136
(386) 677-2482 FAX (386) 677-2505

NO.	DATE	REVISIONS
1	02/28/16	1. 100% REVISION PER CITY COMMENTS DATED 02/28/16
2	11/02/16	2. 100% REVISION PER CITY COMMENTS DATED 11/02/16

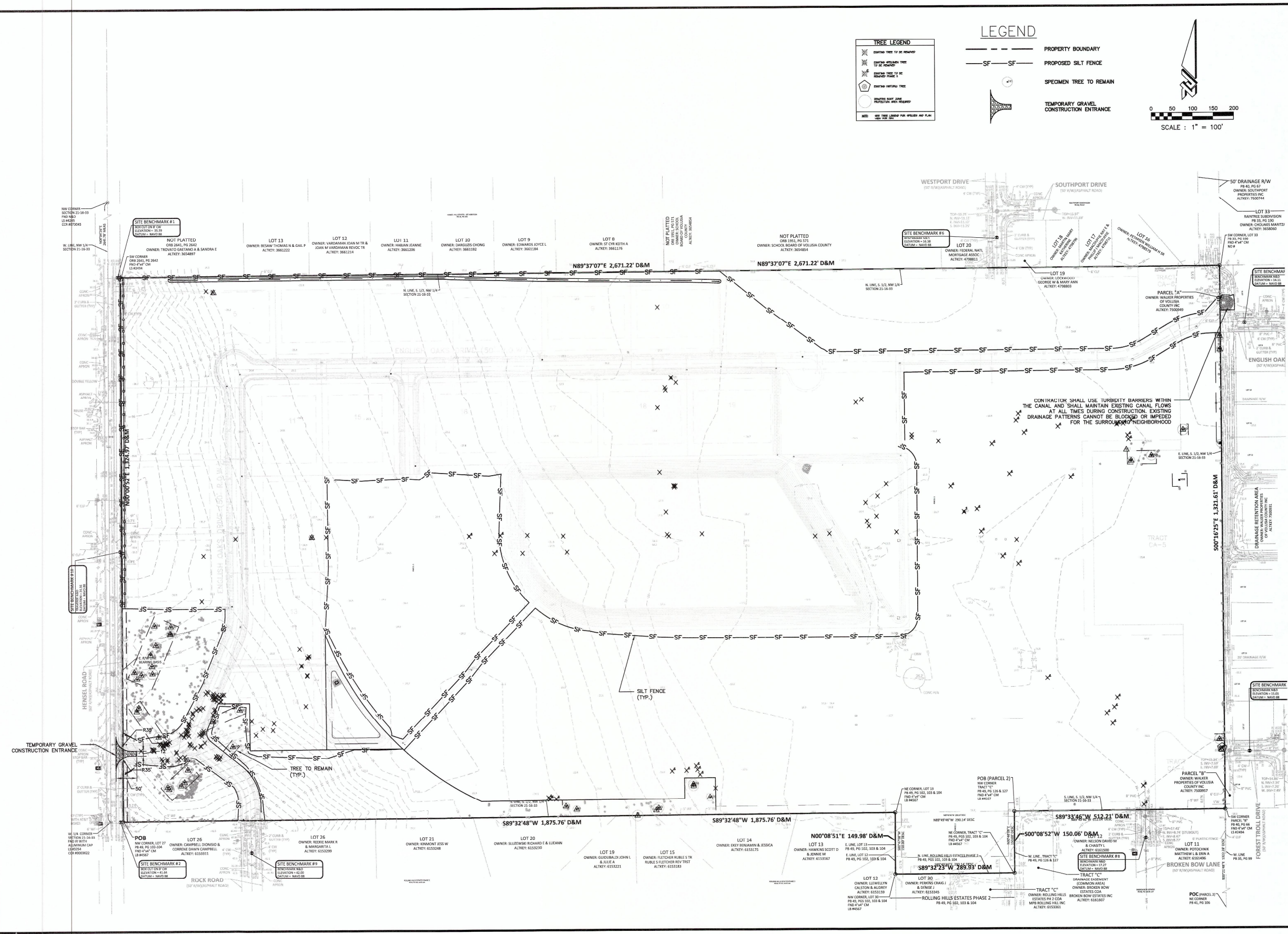
KING'S LANDING PHASE 1 FINAL ENGINEERING PLANS OVERALL DEVELOPMENT PLAN

CITY OF PORT ORANGE

PROJECT NO: 15082X
ISSUE DATE: 10-19-16
DESIGNED BY: RH/MG
DRAFTED BY: CM
CHECKED BY: RMH

RANDY M. HUDAK
REGISTERED PROFESSIONAL ENGINEER
STATE OF FLORIDA
LICENSE NO. 6596

SCALE: 1"=100'
SHEET: C4 OF 28



TREE LEGEND

- Symbol: Tree with 'X' - EXISTING TREE TO BE REMOVED
- Symbol: Tree with 'X' and 'S' - EXISTING SPECIMEN TREE TO BE MAINTAINED
- Symbol: Tree with 'X' and 'R' - EXISTING TREE TO BE MAINTAINED (SPECIMEN TREE TO REMAIN)
- Symbol: Tree with 'X' and 'P' - EXISTING TREE TO BE MAINTAINED (SPECIMEN TREE TO REMAIN)
- Symbol: Tree with 'X' and 'M' - EXISTING TREE TO BE MAINTAINED (SPECIMEN TREE TO REMAIN)

NOTES: SEE THIS PLAN FOR SPECIES AND PLANT

LEGEND

- Symbol: Dashed line - PROPERTY BOUNDARY
- Symbol: Solid line - PROPOSED SILT FENCE
- Symbol: Tree with 'X' - SPECIMEN TREE TO REMAIN
- Symbol: Arrow - TEMPORARY GRAVEL CONSTRUCTION ENTRANCE

0 50 100 150 200

SCALE : 1" = 100'

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WWW.ZEVCOHEN.COM

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EDGEWATER
1000 N. W. 10th Ave., Suite 100
Fort Lauderdale, FL 33311
(954) 577-2482 FAX (386) 877-2505

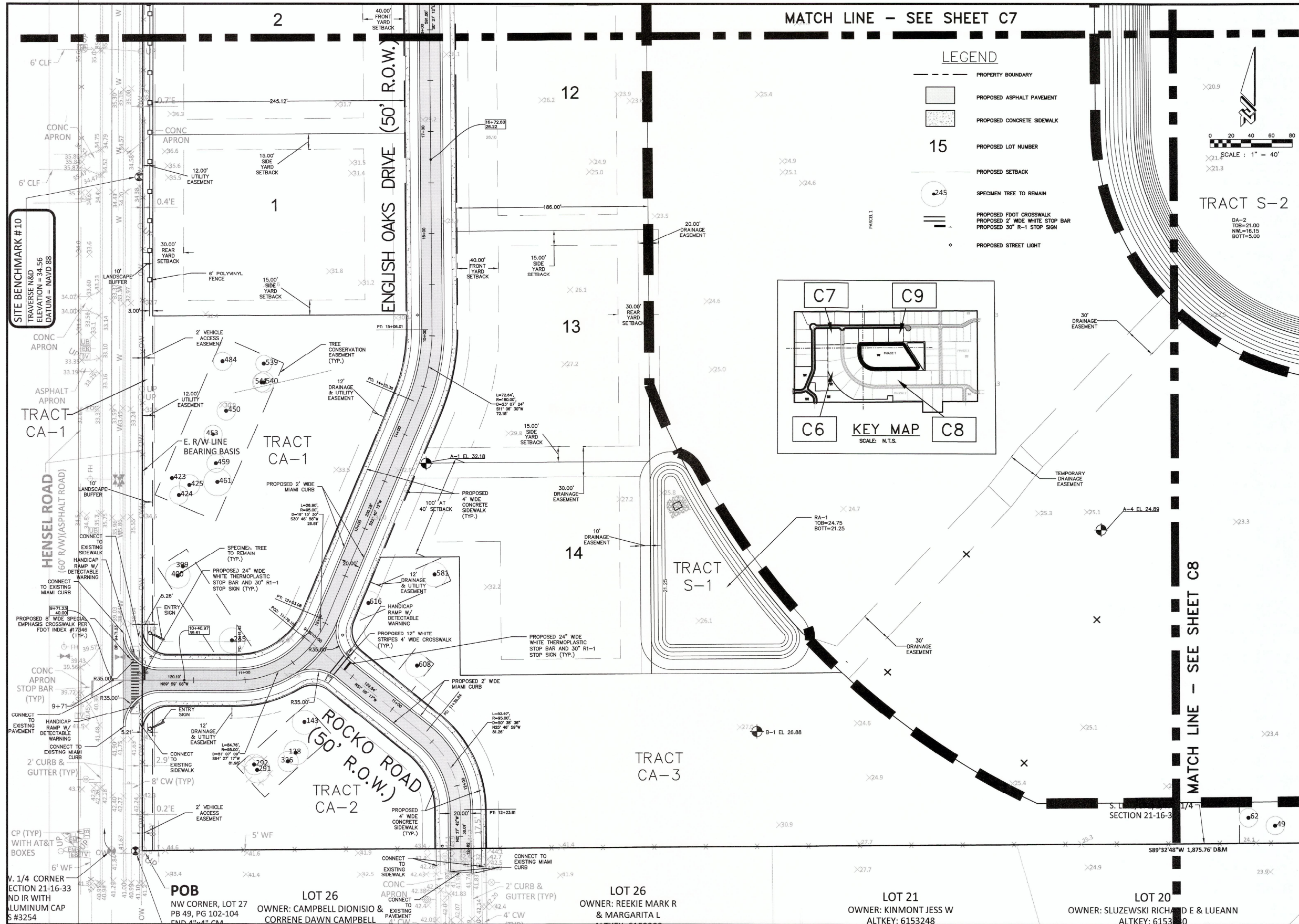
NO.	DATE	REVISIONS
1	10/19/16	ISSUED FOR CITY COMMENTS DATED 09/29/16
2	11/01/16	REVISED PER CITY COMMENTS DATED 11/01/16

**KING'S LANDING
PHASE 1
FINAL ENGINEERING PLANS
EROSION CONTROL PLAN**

PROJECT NO.: 15082X
ISSUE DATE: 10-19-16
DESIGNED BY: RHMG
DRAFTED BY: CM
CHECKED BY: RMH
DRAWING FILE: 15082X-ECP.DWG
XREFS: 15082X-BAS.DWG
XREFS: 15082X-SURV.DWG

NOT VALID WITHOUT SEAL
RANDY M. HUDAK, P.E. NO. 65653

SCALE: 1"=100'
SHEET: C5 OF 28



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ORMOND BEACH, FL 32174
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EDGEWATER
1740 AIRMARK ROAD
EDGEWATER, FL 32132
(386) 677-2482 FAX (386) 677-2505

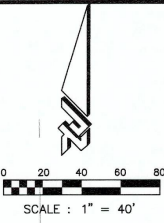
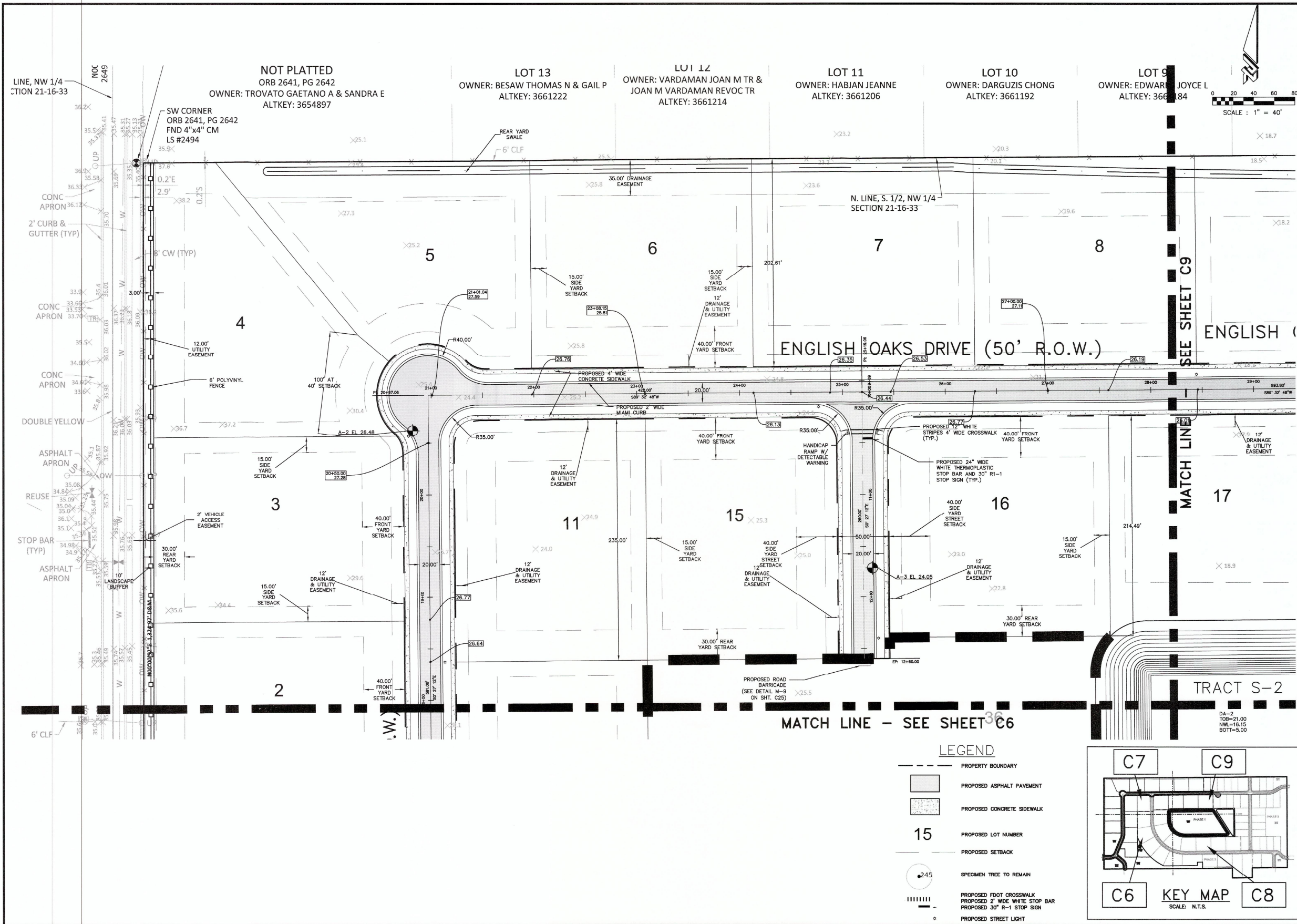
NO.	DATE	REVISIONS
1	10/07/16	REVISION PER CITY COMMENTS DATED 09/26/16
2	11/09/16	REVISION PER CITY COMMENTS DATED 11/09/16

KING'S LANDING
PHASE 1
FINAL ENGINEERING PLANS
GEOMETRY, STRIPING & SIGNAGE PLAN
VOLUSIA COUNTY, FL
CITY OF PORT ORANGE

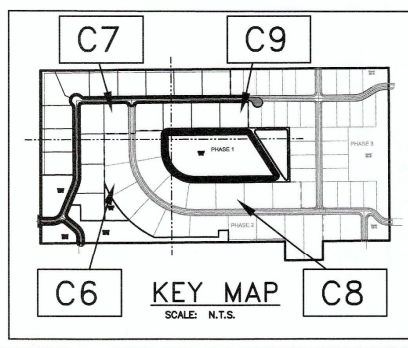
PROJECT NO. 15082X
ISSUE DATE 10-19-16
DESIGNED BY RHMM
DRAFTED BY CM
CHECKED BY RMH
DRAWING FILE: 15082X-SLP.DWG
XREFS: 15082X-BAS.DWG
XREFS: 15082X-SURV.DWG

NOT VALID WITHOUT SEAL
RANDY M. HUDAK, P.E. NO. 66603

SCALE: 1"=40'
SHEET: C6 OF 28



- LEGEND**
- PROPERTY BOUNDARY
 - PROPOSED ASPHALT PAVEMENT
 - PROPOSED CONCRETE SIDEWALK
 - 15 PROPOSED LOT NUMBER
 - PROPOSED SETBACK
 - 245 SPECIMEN TREE TO REMAIN
 - PROPOSED FDOT CROSSWALK
 - PROPOSED 2' WIDE WHITE STOP BAR
 - PROPOSED 30" R-1 STOP SIGN
 - PROPOSED STREET LIGHT



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EDGEWATER
1000 W. WINDY HILL RD.
EDGEWATER, FL 32132
(386) 677-2462 FAX (386) 677-2805

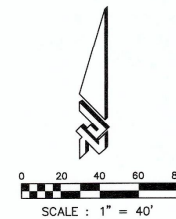
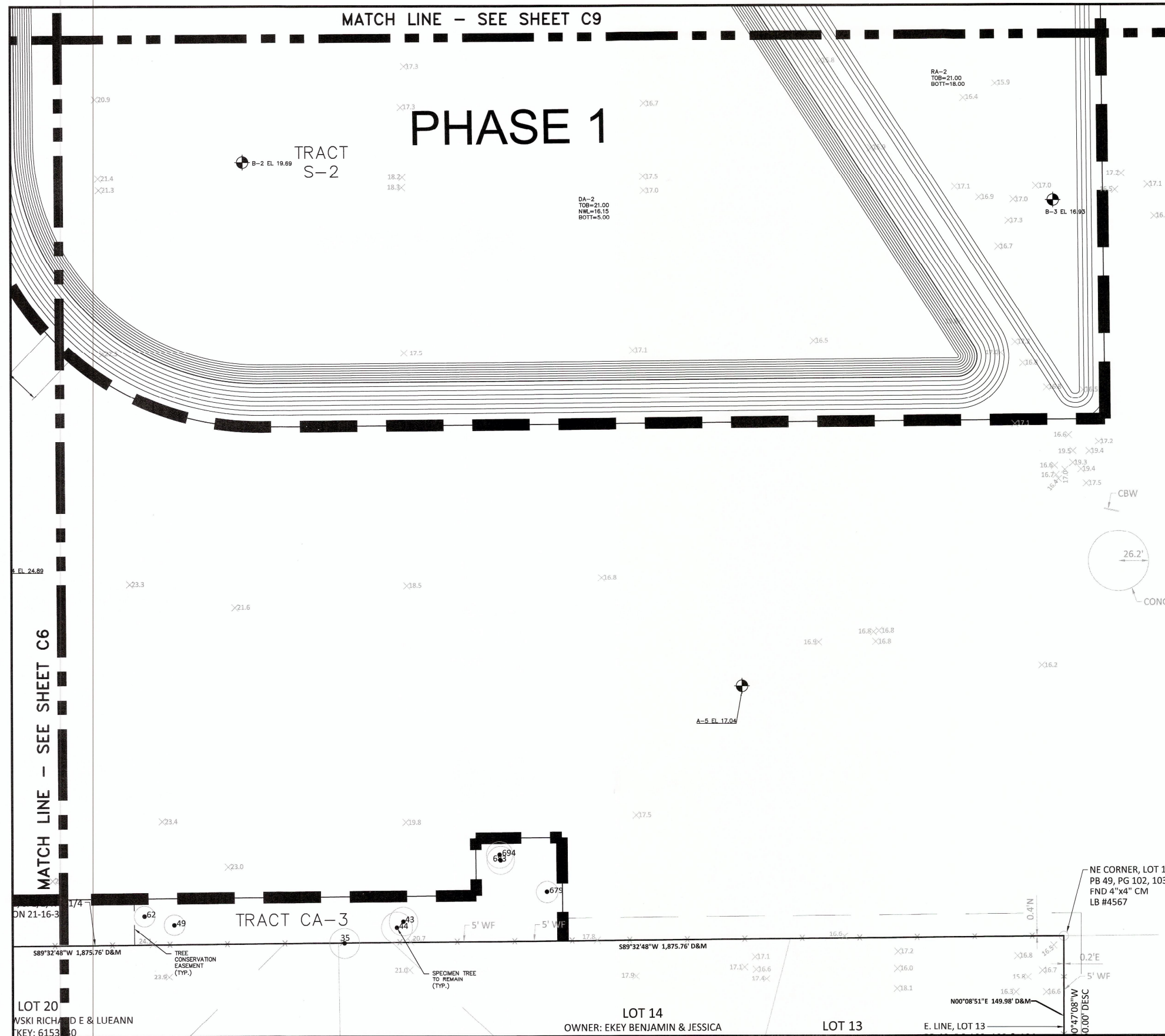
KING'S LANDING
PHASE 1
FINAL ENGINEERING PLANS
GEOMETRY, STRIPING & SIGNAGE PLAN

CITY OF PORT ORANGE
VOLusia COUNTY, FL

PROJECT NO: 15082X
ISSUE DATE: 10-18-16
DESIGNED BY: RHMG
DRAFTED BY: CM
CHECKED BY: RMH
DRAWING FILE: 15082X-SLP.DWG
XREFS: 15082X-BAS.DWG
XREFS: 15082X-SURV.DWG

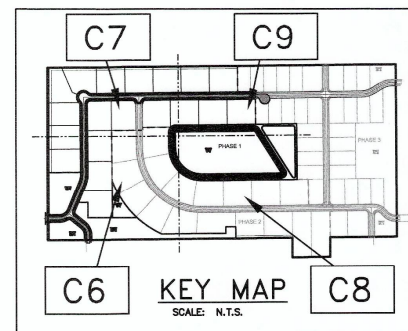
RANDY M. HUDAK, P.E. NO. 15082

SCALE: 1"=40'
SHEET: C7 OF 28



LEGEND

-
- PROPERTY BOUNDARY
- PROPOSED ASPHALT PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- 15
- PROPOSED LOT NUMBER
- PROPOSED SETBACK
- 245
- SPECIMEN TREE TO REMAIN
- PROPOSED FDOT CROSSWALK
- PROPOSED 2' WIDE WHITE STOP BAR
- PROPOSED 30' R-1 STOP SIGN
- PROPOSED STREET LIGHT



ORMOND BEACH
300 INTERCHANGE BLVD., STE. C
ORMOND BEACH, FL 32174
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EDGEWATER
1840 AIRPARK ROAD
EDGEWATER, FL 32132
(386) 677-2482 FAX (386) 677-2505

[illegible]

**KING'S LANDING
PHASE 1
FINAL ENGINEERING PLANS
GEOMETRY, STRIPING & SIGNAGE PLAN**

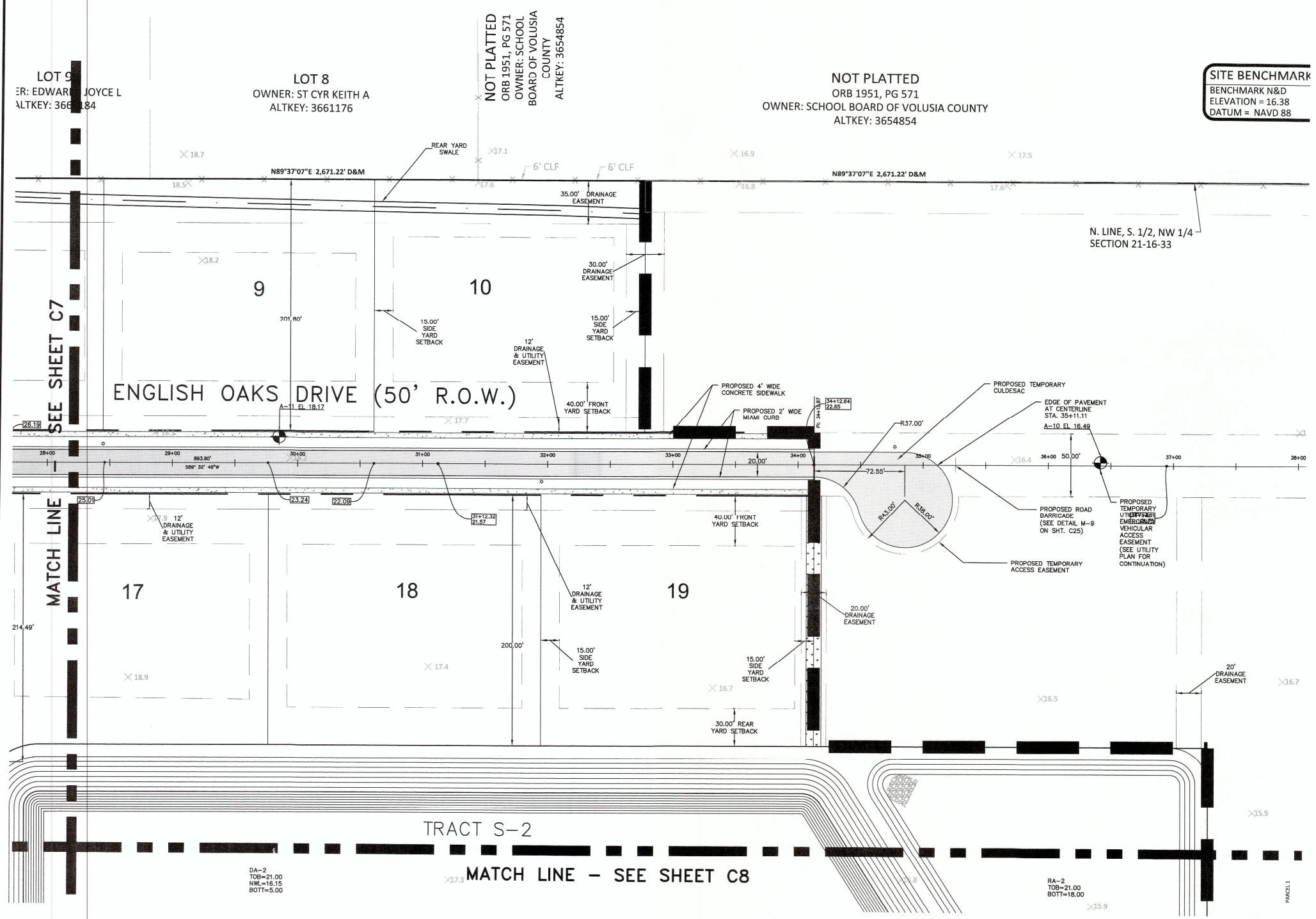
CITY OF PORT ORANGE
VOLusia COUNTY, FL

PROJECT NO:	15082X
ISSUE DATE:	10-19-16
DESIGNED BY:	RH/MG
DRAFTED BY:	CM
CHECKED BY:	RMH
DRAWING FILE: 15082X-SLP.DWG	
XREFS: 15082X-BAS.DWG	
XREFS: 15082X-SURV.DWG	

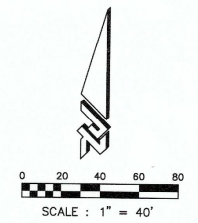


SCALE: 1"=40'

SHEET: C8 OF 2

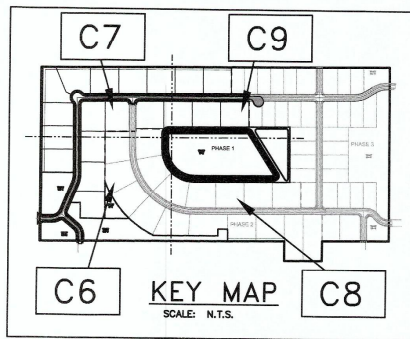


SITE BENCHMARK
BENCHMARK N&D
ELEVATION = 16.38
DATUM = NAVD 88



LEGEND

- PROPERTY BOUNDARY
- PROPOSED ASPHALT PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- 15 PROPOSED LOT NUMBER
- PROPOSED SETBACK
- 245 SPECIMEN TREE TO REMAIN
- PROPOSED FDOT CROSSWALK
- PROPOSED 2' WIDE WHITE STOP BAR
- PROPOSED 30" R-1 STOP SIGN
- PROPOSED STREET LIGHT



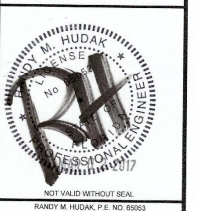
ZEV COHEN ASSOCIATES, INC.
CIVIL ENGINEERING & ARCHITECTS
PLANNING & ENVIRONMENTAL
300 N. MIAMI AVE., SUITE 200
MIAMI, FL 33132
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ORMOND BEACH
300 N. MIAMI AVE., SUITE 200
MIAMI, FL 33132
(305) 577-2482 FAX (305) 577-2505

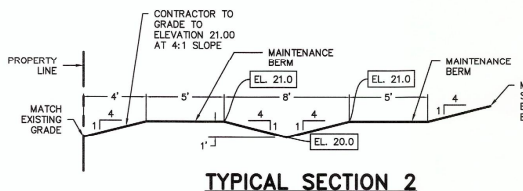
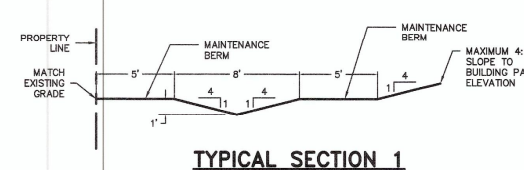
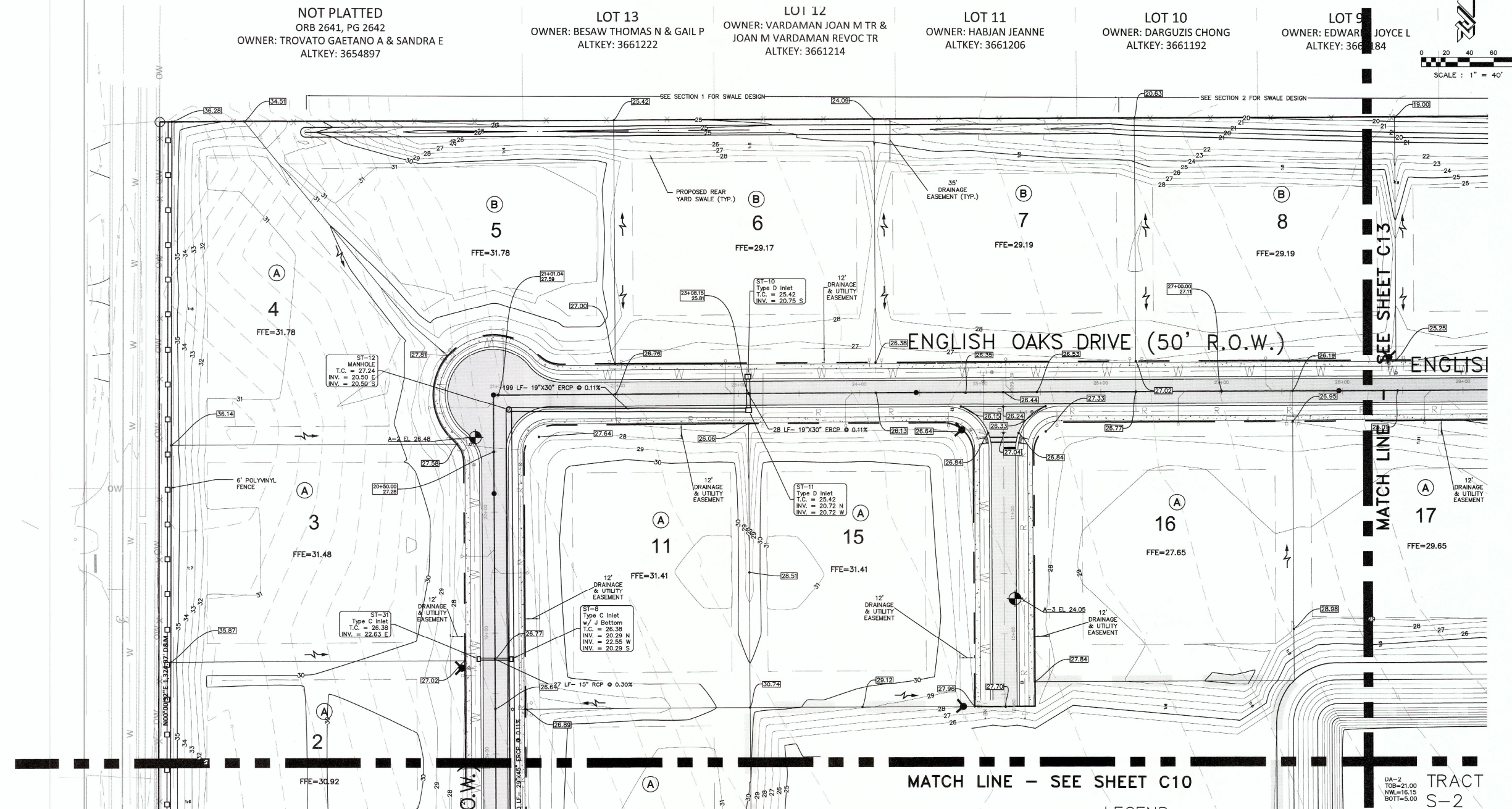
NO.	DATE	REVISIONS
1	10/17/16	REVISED PER CITY COMMENTS DATED 09/28/16
2	11/01/16	REVISED PER CITY COMMENTS DATED 11/09/16

**KING'S LANDING
PHASE 1
FINAL ENGINEERING PLANS
GEOMETRY, STRIPING & SIGNAGE PLAN**

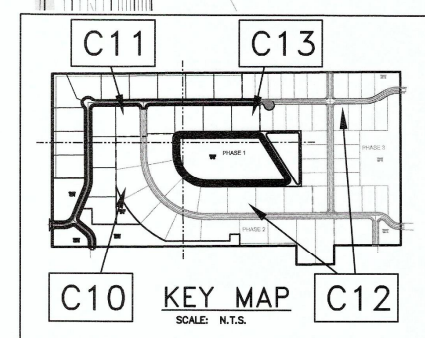
PROJECT NO: 15082X
ISSUE DATE: 10-19-16
DESIGNED BY: RHMG
DRAFTED BY: CM
CHECKED BY: RMH



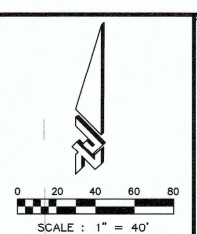
SCALE: 1"=40'
SHEET: C9 OF 28



- LEGEND**
- PROPOSED LIGHT DUTY ASPHALT PAVEMENT
 - PROPOSED REGULAR DUTY CONCRETE SIDEWALK
 - PROPOSED TYPE C INLET & PIPE
 - PROPOSED JUNCTION BOX
 - PROPOSED MES
 - PROPOSED TYPE 2 INLET
 - PROPOSED GRADE ELEVATION
 - DIRECTION OF OVERLAND FLOW
 - EXISTING CONTOUR
 - FFE FINISH FLOOR ELEVATION
 - LOT GRADING TYPE



NOTES:
1) PLEASE SEE SHEET C26 FOR POND CROSS-SECTIONS.
2) OWNER HAS THE OPTION OF INSTALLING A RETAINING WALL ALONG THE REAR LOT LINE INSTEAD OF GRADING AS SHOWN. RETAINING WALL TO BE PERMITTED THROUGH THE CITY'S BUILDING DEPARTMENT.



NOT PLATTED
ORB 2641, PG 2642
OWNER: TROVATO GAETANO A & SANDRA E
ALTKEY: 3654897

LOT 13
OWNER: BESAW THOMAS N & GAIL P
ALTKEY: 3661222

LOT 12
OWNER: VARDAMAN JOAN M TR &
JOAN M VARDAMAN REVOC TR
ALTKEY: 3661214

LOT 11
OWNER: HABJAN JEANNE
ALTKEY: 3661206

LOT 10
OWNER: DARGUZIS CHONG
ALTKEY: 3661192

LOT 9
OWNER: EDWARD JOYCE L
ALTKEY: 3661184



ORMOND BEACH
300 INTERCHANGE BLVD., STE. C
ORMOND BEACH, FL 32137
(386) 877-2482 FAX (386) 877-2595

EDGEWATER
1000 W. US HWY 1, STE. 100
EDGEWATER, FL 32132
(386) 877-2482 FAX (386) 877-2595

NO.	DATE	REVISION	BY	FOR CITY COMMENTS DATED
1	08/26/16	ISSUED FOR PERMIT	RMH	08/26/16
2	11/08/16	REVISION PER CITY COMMENTS	RMH	11/08/16

**KING'S LANDING
PHASE 1
FINAL ENGINEERING PLANS
PAVING, GRADING & DRAINAGE PLAN**

CITY OF PORT ORANGE
VOLusia COUNTY, FL

PROJECT NO: 15082X
ISSUE DATE: 10-19-16
DESIGNED BY: RHMG
DRAFTED BY: CM
CHECKED BY: RMH

DRAWING FILE: 15082X-PGD.DWG
XREF'S: 15082X-BAS.DWG
XREF'S: 15082X-SURV.DWG



NOT VALID WITHOUT SEAL
RANDY M. HUDA, P.E. NO. 15082

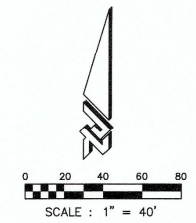
SCALE: 1"=40'
SHEET: C11 OF 28

LOT 9
OWNER: EDWARD JOYCE L
ALTKEY: 3661184

LOT 8
OWNER: ST CYR KEITH A
ALTKEY: 3661176

NOT PLATTED
ORB 1951, PG 571
OWNER: SCHOOL
BOARD OF VOLUSIA
COUNTY
ALTKEY: 3654854

NOT PLATTED
ORB 1951, PG 571
OWNER: SCHOOL BOARD OF VOLUSIA COUNTY
ALTKEY: 3654854



ORMOND BEACH
300 INTERCHANGE BLVD., STE. C
ORMOND BEACH, FL 32174
(888) 177-2482 FAX: (407) 871-2505

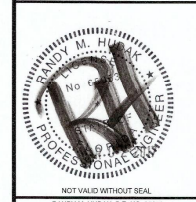
EDGEWATER
1500 W. US HWY 1, SUITE 203
EDGEWATER, FL 33032
(888) 877-2482 FAX: (888) 877-2505

NO.	DATE	REVISIONS
1	07/27/16	ISSUED FOR CITY COMMENTS DATED 06/29/16
2	07/27/16	REVISED PER CITY COMMENTS DATED 11/25/16

KING'S LANDING
PHASE 1
FINAL ENGINEERING PLANS
PAVING, GRADING & DRAINAGE PLAN

CITY OF PORT CHARLIE
VOLUSIA COUNTY, FL

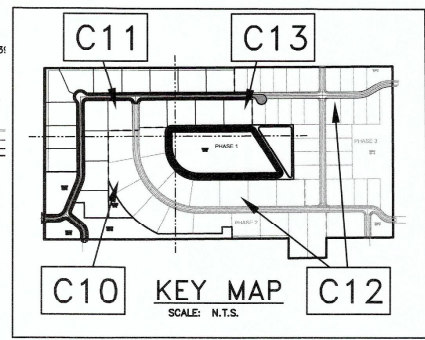
PROJECT NO: 15092X
ISSUE DATE: 10-19-16
DESIGNED BY: RH/MG
DRAFTED BY: CM
CHECKED BY: RMH



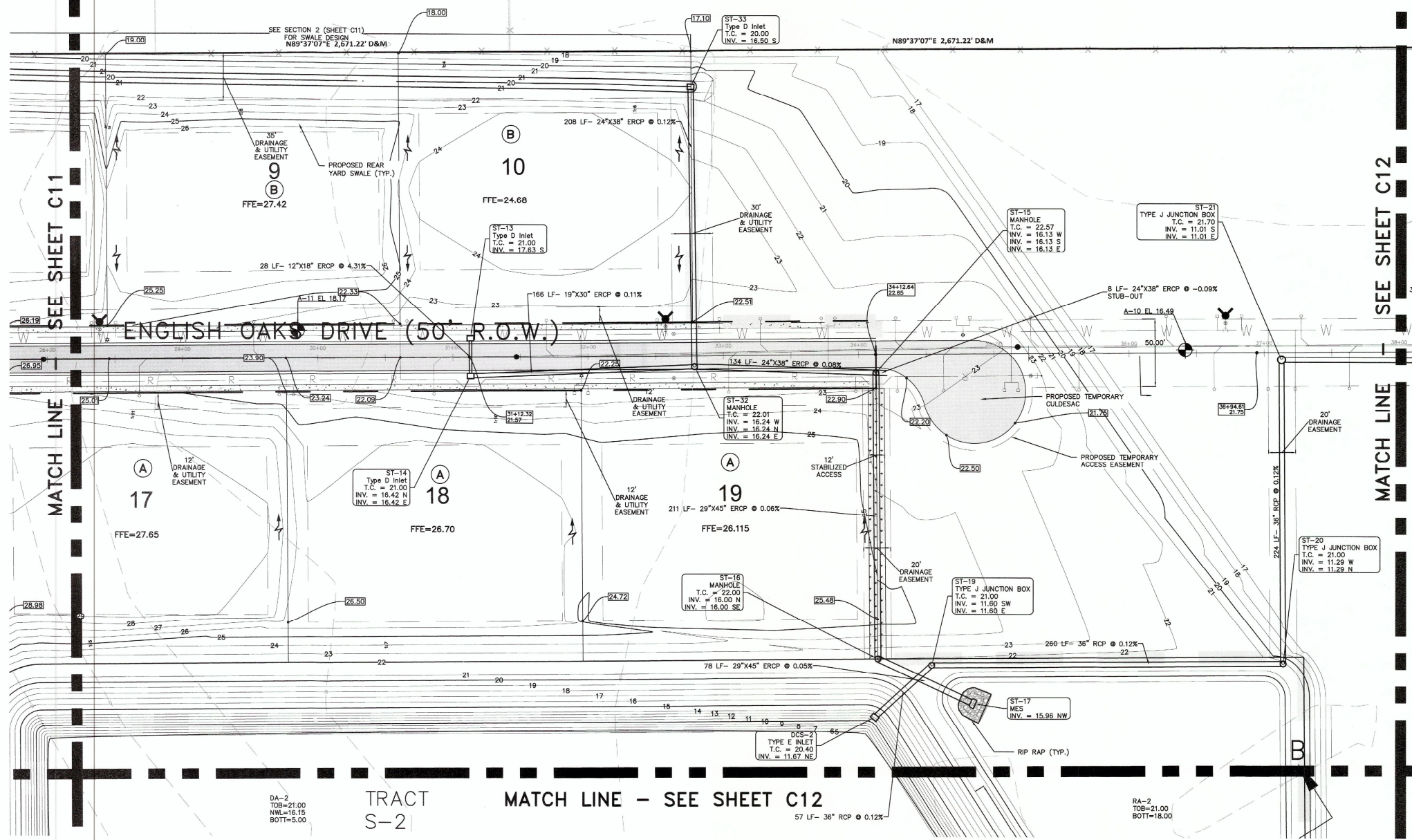
SCALE: 1"=40'
SHEET: C13 OF 28

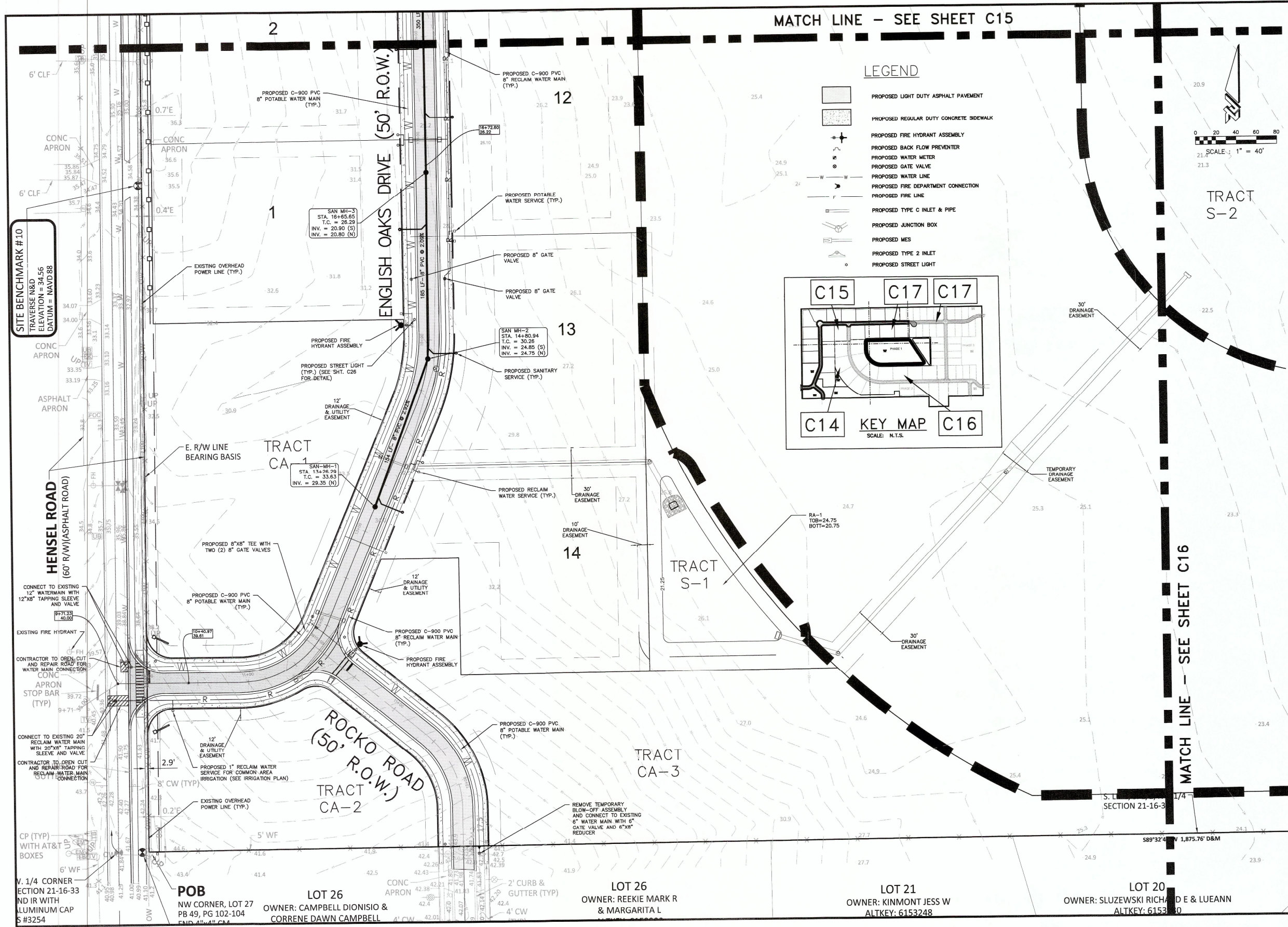
LEGEND

- PROPOSED LIGHT DUTY ASPHALT PAVEMENT
- PROPOSED REGULAR DUTY CONCRETE SIDEWALK
- PROPOSED TYPE C INLET & PIPE
- PROPOSED JUNCTION BOX
- PROPOSED MES
- PROPOSED TYPE 2 INLET
- PROPOSED GRADE ELEVATION
- DIRECTION OF OVERLAND FLOW
- EXISTING CONTOUR
- FINISH FLOOR ELEVATION
- LOT GRADING TYPE



- NOTES:
- PLEASE SEE SHEET C26 FOR POND CROSS-SECTIONS.
 - OWNER HAS THE OPTION OF INSTALLING A RETAINING WALL ALONG THE REAR LOT LINE INSTEAD OF GRADING AS SHOWN. RETAINING WALL TO BE PERMITTED THROUGH THE CITY'S BUILDING DEPARTMENT.

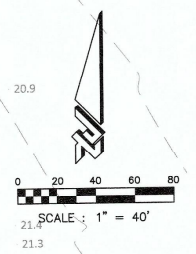
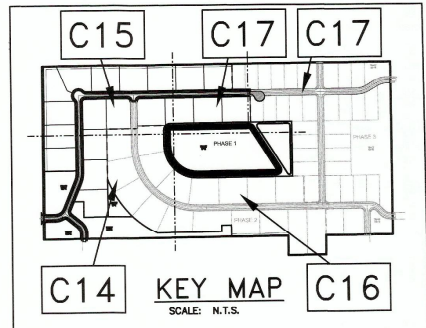




MATCH LINE - SEE SHEET C15

LEGEND

- PROPOSED LIGHT DUTY ASPHALT PAVEMENT
- PROPOSED REGULAR DUTY CONCRETE SIDEWALK
- PROPOSED FIRE HYDRANT ASSEMBLY
- PROPOSED BACK FLOW PREVENTER
- PROPOSED WATER METER
- PROPOSED GATE VALVE
- PROPOSED WATER LINE
- PROPOSED FIRE DEPARTMENT CONNECTION
- PROPOSED FIRE LINE
- PROPOSED TYPE C INLET & PIPE
- PROPOSED JUNCTION BOX
- PROPOSED MES
- PROPOSED TYPE 2 INLET
- PROPOSED STREET LIGHT



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(386) 877-2442 FAX (386) 877-2805

EDGEWATER
1840 AIRPARK ROAD
ORLANDO, FL 32817
(386) 877-2442 FAX (386) 877-2805

NO.	DATE	REVISION
1	10/17/16	REVISED PER CITY COMMENTS DATED 09/26/16
2	11/17/16	REVISED PER CITY COMMENTS DATED 11/09/16

**KING'S LANDING
PHASE 1
FINAL ENGINEERING PLANS
UTILITY PLAN**

CITY OF PORT ORANGE
VOLusia COUNTY, FL

PROJECT NO.:	15082X
ISSUE DATE:	10-19-16
DESIGNED BY:	RHMS
DRAFTED BY:	CM
CHECKED BY:	RMH
DRAWING FILE:	15082X-UTL.DWG
XREFS:	15082X-BAS.DWG 15082X-SURV.DWG

NOT VALID WITHOUT SEAL
RANDY M. HUDAK, P.E. NO. 15082

SCALE:	1"=40'
SHEET:	C14 OF 28

SITE BENCHMARK #10
TRAVERSE NAD
ELEVATION = 34.56
DATUM = NAVD 88

HENSEL ROAD
(60' R/W)(ASPHALT ROAD)

ENGLISH OAKS DRIVE (50' R.O.W.)

ROCKO ROAD
(50' R.O.W.)

MATCH LINE - SEE SHEET C16

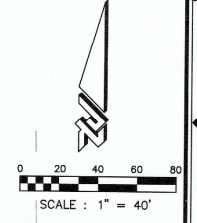
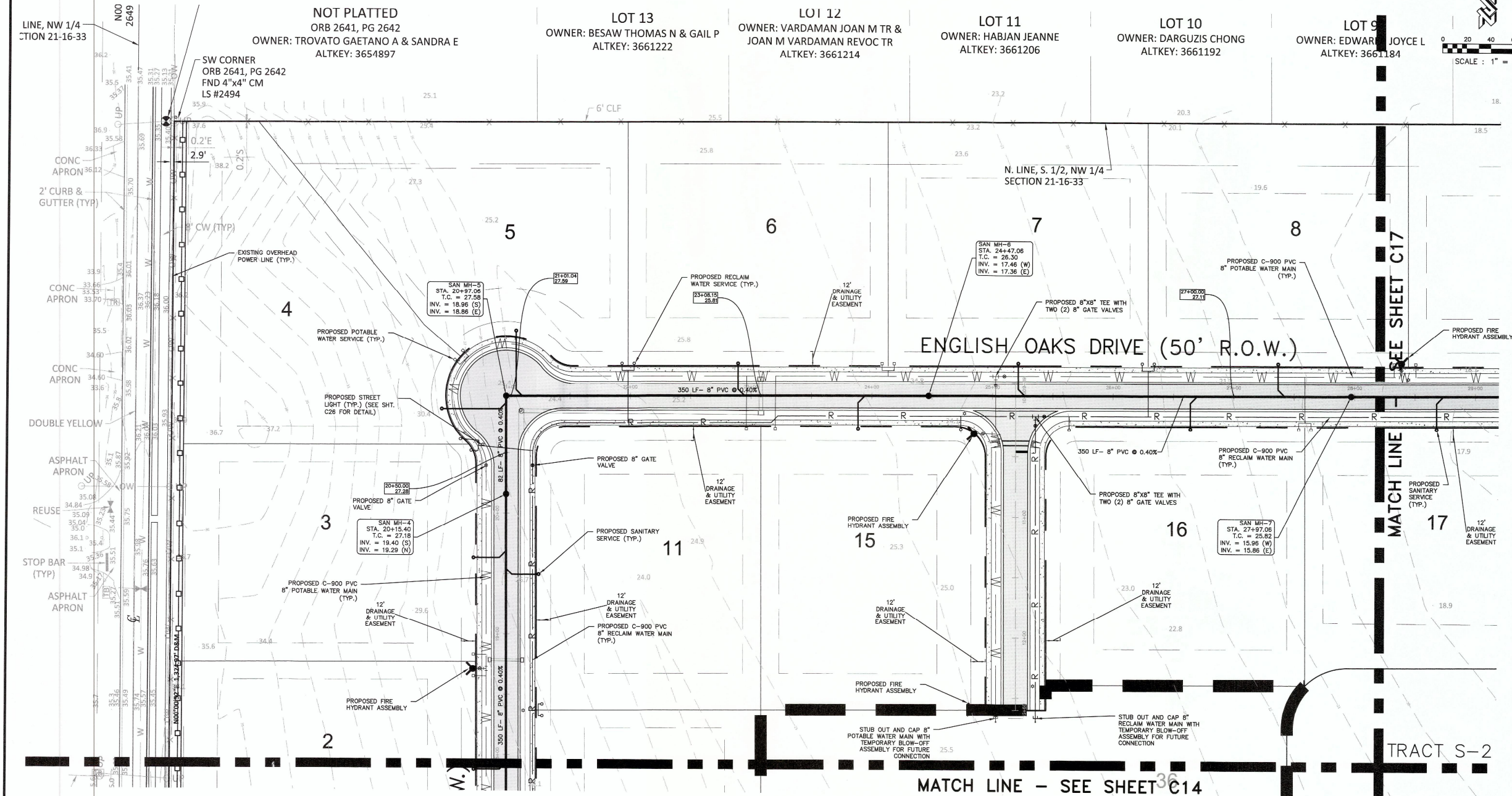
POB
NW CORNER, LOT 27
PB 49, PG 102-104
END 45° 45' 00"

LOT 26
OWNER: CAMPBELL DIONISIO &
CORRENE DAWN CAMPBELL

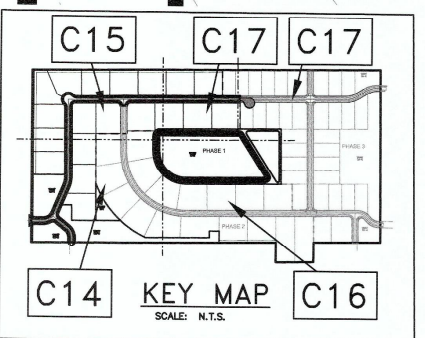
LOT 26
OWNER: REEKIE MARK R
& MARGARITA L

LOT 21
OWNER: KINMONT JESS W
ALTKEY: 6153248

LOT 20
OWNER: SLUZEWSKI RICHARD E & LUEANN
ALTKEY: 6153240



- LEGEND**
- PROPOSED LIGHT DUTY ASPHALT PAVEMENT
 - PROPOSED REGULAR DUTY CONCRETE SIDEWALK
 - PROPOSED FIRE HYDRANT ASSEMBLY
 - PROPOSED BACK FLOW PREVENTER
 - PROPOSED WATER METER
 - PROPOSED GATE VALVE
 - PROPOSED WATER LINE
 - PROPOSED FIRE DEPARTMENT CONNECTION
 - PROPOSED FIRE LINE
 - PROPOSED TYPE C INLET & PIPE
 - PROPOSED JUNCTION BOX
 - PROPOSED MES
 - PROPOSED TYPE 2 INLET



ORLANDO BEACH
300 N. MILITARY TRAIL
ORLANDO BEACH, FL 32714
(386) 877-2462 FAX (386) 877-2805

EDGEWATER
1840 AIRPORT ROAD
EDGEWATER, FL 32117
(386) 877-2462 FAX (386) 877-2805

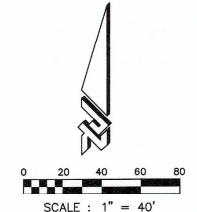
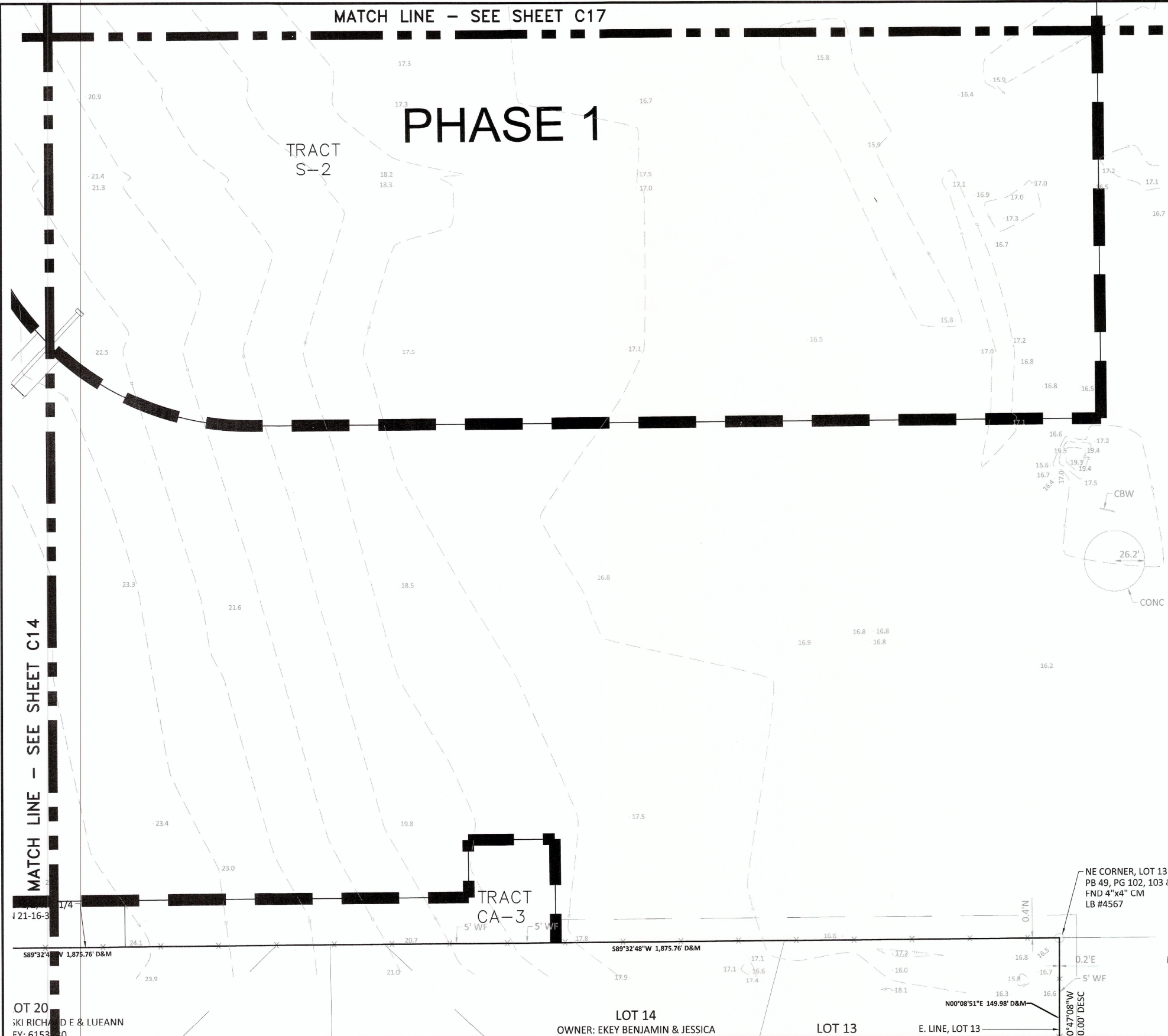
NO.	DATE	REVISIONS
1	10/19/16	REVISED PER CITY COMMENTS DATED 09/29/16
2	11/09/16	REVISED PER CITY COMMENTS DATED 11/29/16

**KING'S LANDING
PHASE 1
FINAL ENGINEERING PLANS
UTILITY PLAN**

PROJECT NO: 15082X
ISSUE DATE: 10-19-16
DESIGNED BY: RHMG
DRAFTED BY: CM
CHECKED BY: RMH

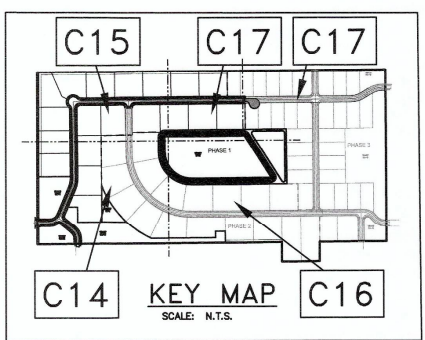


NOT VALID WITHOUT SEAL
RANDY M. HUDAK, P.E. NO. 65553



LEGEND

- PROPOSED LIGHT DUTY ASPHALT PAVEMENT
- PROPOSED REGULAR DUTY CONCRETE SIDEWALK
- PROPOSED FIRE HYDRANT ASSEMBLY
- PROPOSED BACK FLOW PREVENTER
- PROPOSED WATER METER
- PROPOSED GATE VALVE
- PROPOSED WATER LINE
- PROPOSED FIRE DEPARTMENT CONNECTION
- PROPOSED FIRE LINE
- PROPOSED TYPE C INLET & PIPE
- PROPOSED JUNCTION BOX
- PROPOSED MES
- PROPOSED TYPE 2 INLET



ZEV COHEN & ASSOCIATES, INC.
CIVIL ENGINEERS • LANDSCAPE ARCHITECTS
PLANNERS • TRANSPORTATION • ENVIRONMENTAL
WWW.ZEVCOHEN.COM

ORMOND BEACH
3000 S. ORMOND BEACH BLVD. C
ORMOND BEACH, FL 32174
(386) 677-2482 FAX (386) 677-2805

EDGEWATER
1500 AIRPARK ROAD
EDGEWATER, FL 33024
(386) 677-2482 FAX (386) 677-2805

NO.	DATE	REVISIONS
1	10/17/16	REVISED PER CITY COMMENTS DATED 09/28/16
2	11/01/16	REVISED PER CITY COMMENTS DATED 11/09/16

**KING'S LANDING
PHASE 1
FINAL ENGINEERING PLANS
UTILITY PLAN**

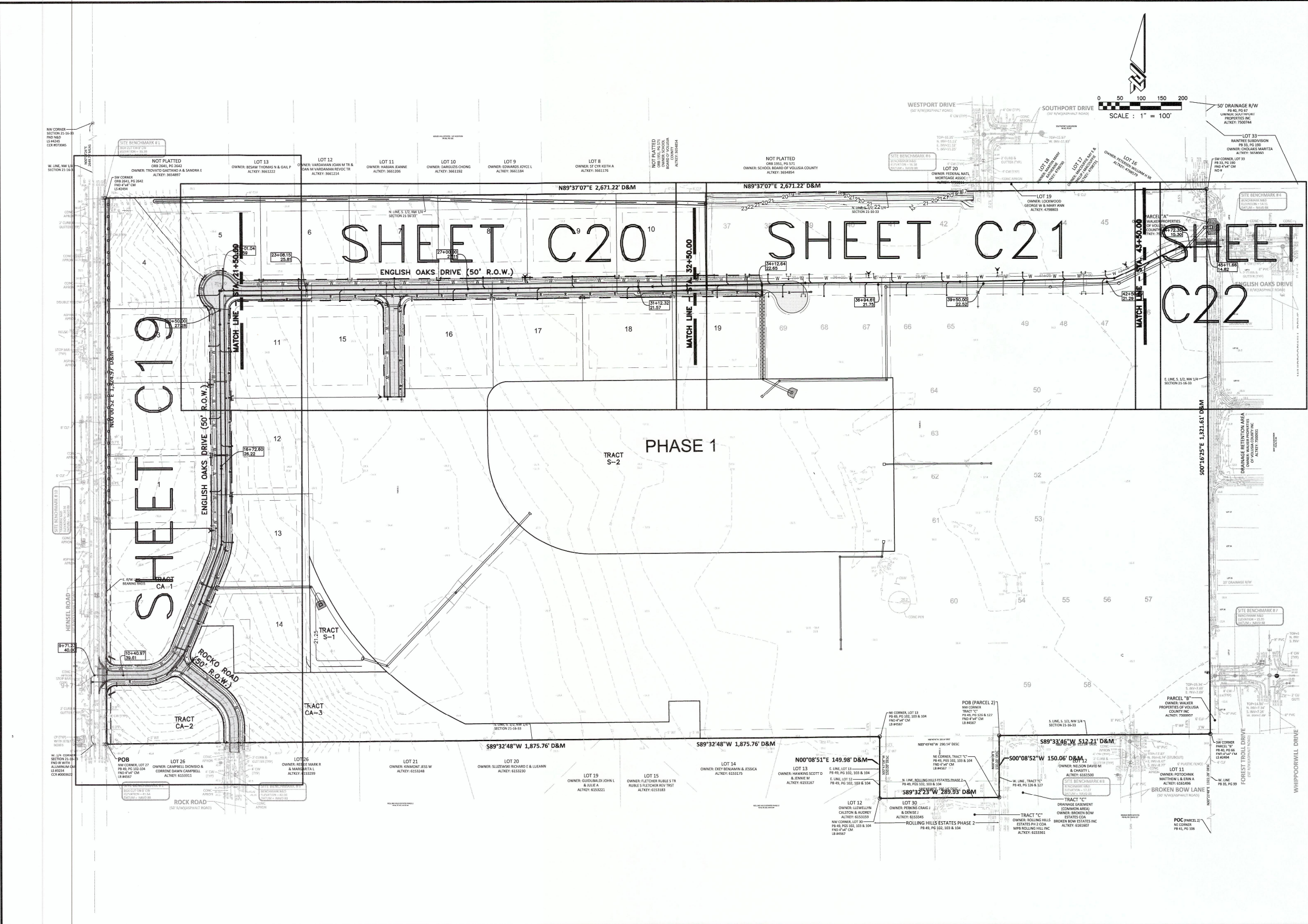
CITY OF FORT CHANCE
VOLusia COUNTY, FL

PROJECT NO: 15082X
ISSUE DATE: 10-19-16
DESIGNED BY: RH/MG
DRAFTED BY: CM
CHECKED BY: RMH

DRAWING FILE: 15082X-UTL.DWG
XREF'S: 15082X-BAS.DWG
XREF'S: 15082X-SURV.DWG

NOT VALID WITHOUT SEAL
RANDY M. HUDAK, P.E. NO. 65553

SCALE: 1"=40'
SHEET: C16 OF 28



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ORMOND BEACH, FL
3000 AIRPORT ROAD
(386) 877-2442 FAX (386) 877-2505

EDGEWATER, FL
1840 AIRPORT ROAD
(386) 877-2442 FAX (386) 877-2505

NO.	DATE	REVISIONS
1	07/16	REVISED PER CITY COMMENTS DATED 09/26/16
2	11/16	REVISED PER CITY COMMENTS DATED 11/09/16

**KING'S LANDING
PHASE 1
FINAL ENGINEERING PLANS
SEWER PLAN & PROFILE KEY MAP**

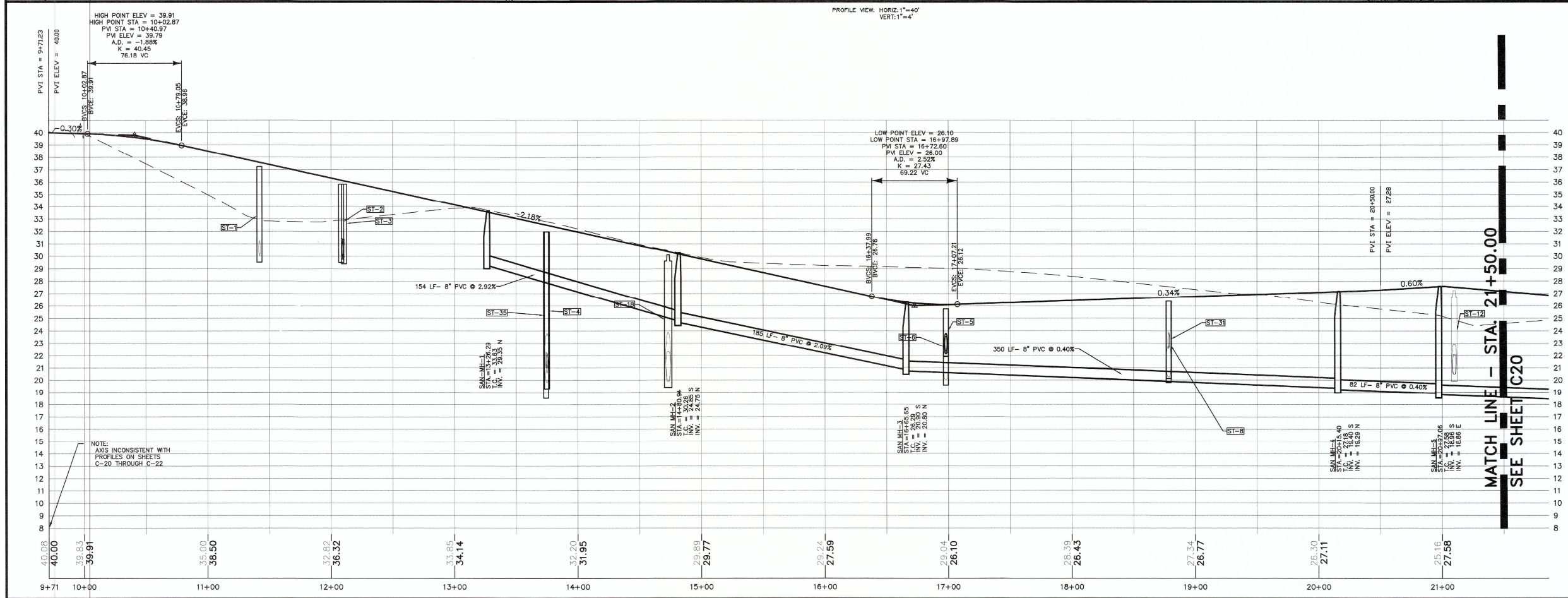
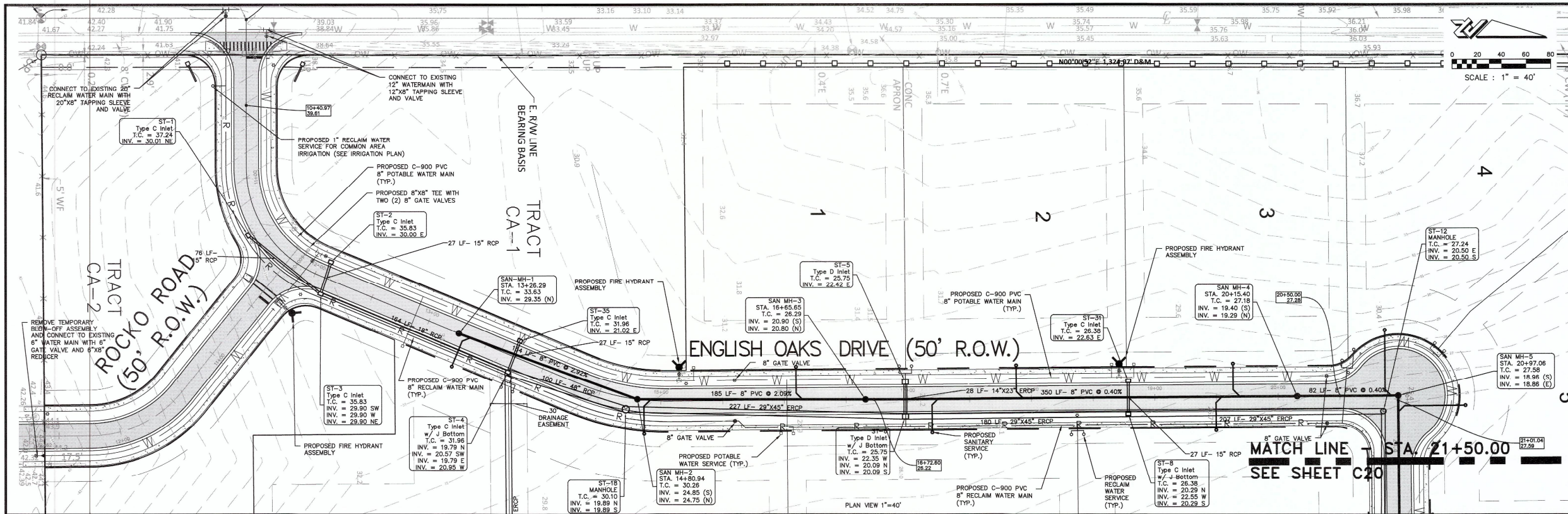
CITY OF FORT ORANGE
VOLUSIA COUNTY, FL

PROJECT NO. 15082X
ISSUE DATE: 10-19-16
DESIGNED BY: RHMG
DRAFTED BY: CM
CHECKED BY: RMH

DRAWING FILE: 15082X-PLPR.DWG
XREFS: 15082X-BAS.DWG
XREFS: 15082X-SURV.DWG

RANDY M. HUDAK, P.E. NO. 66663

SCALE: 1"=100'
SHEET: C18 OF 28



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PLANNERS • TRANSPORTATION ENGINEERS
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ORMOND BEACH
300 S. ORMOND BEACH BLVD., SUITE C
ORMOND BEACH, FL 32136
(386) 677-2482 FAX (386) 677-2505

EDGEWATER
1500 AIRMARK ROAD
EDGEWATER, FL 32132
(386) 677-2482 FAX (386) 677-2505

NO.	DATE	REVISIONS
1	10/07/16	REDESIGNED PER CITY COMMENTS DATED 02/26/16
2	11/09/16	REVISED PER CITY COMMENTS DATED 11/09/16

KING'S LANDING
PHASE 1
FINAL ENGINEERING PLANS
ENGLISH OAKS DRIVE (50' R.O.W.)
SEWER PLAN & PROFILE

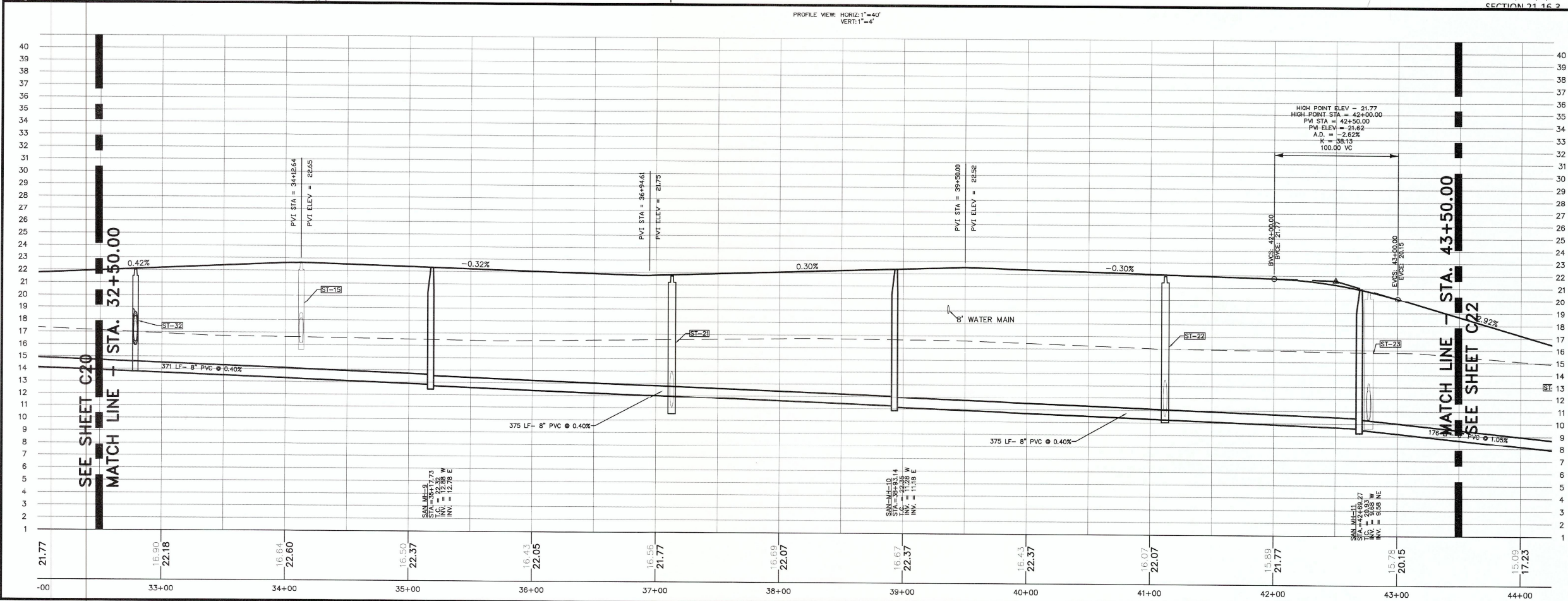
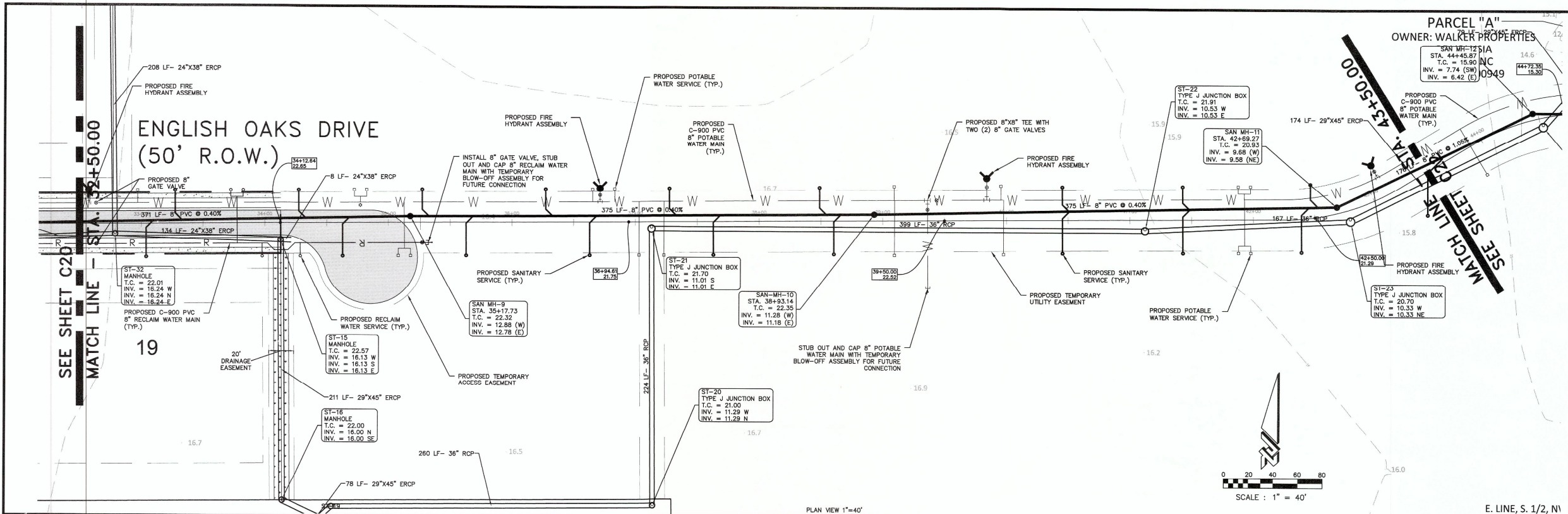
CITY OF PORT ORANGE
VOLusia COUNTY, FL

PROJECT NO:	15082X
ISSUE DATE:	10-19-16
DESIGNED BY:	RH/MG
DRAFTED BY:	CM
CHECKED BY:	RMH
DRAWING FILE:	15082X-PLPR.DWG
XREF'S:	15082X-BAS.DWG
XREF'S:	15082X-SURV.DWG

NOT VALID WITHOUT SEAL
RANDY M. HUDAK, P.E. NO. 15082

SCALE: 1"=40'

SHEET: **C19** OF **28**



ZEV COHEN & ASSOCIATES, INC.
CIVIL ENGINEERING • LANDSCAPE ARCHITECTS
PLANNERS • TRANSPORTATION ENVIRONMENTAL

ORMOND BEACH
300 INTERCHANGE BLVD., STE. C
(386) 877-2482 FAX (386) 877-2505

EDGEWATER
EDGEWATER, FL 32132
(386) 877-2482 FAX (386) 877-2505

NO.	DATE	REVISIONS
1	10/16/16	ISSUED PER CITY COMMENTS DATED 09/28/16
2	11/16/16	REVISED PER CITY COMMENTS DATED 11/09/16

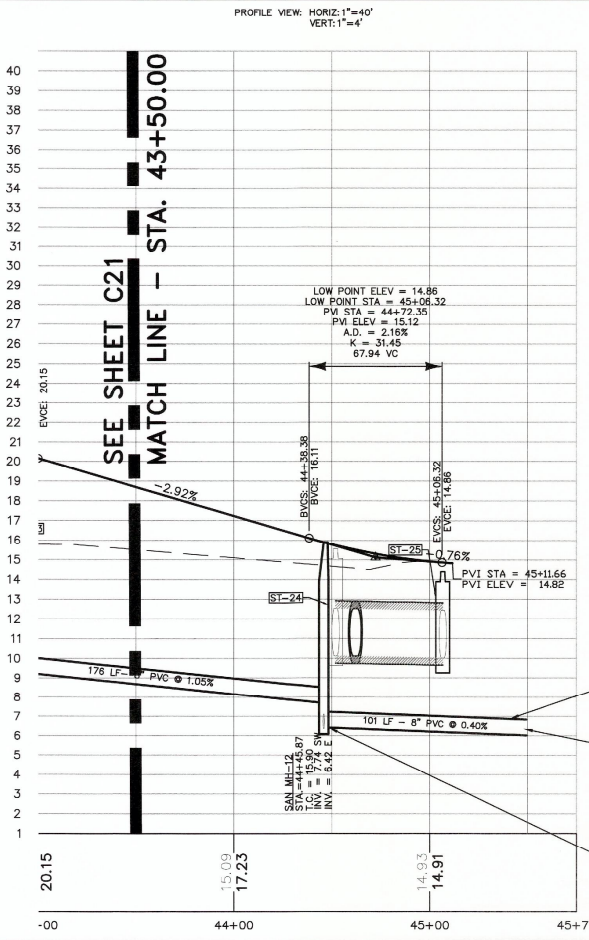
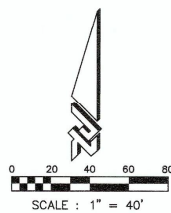
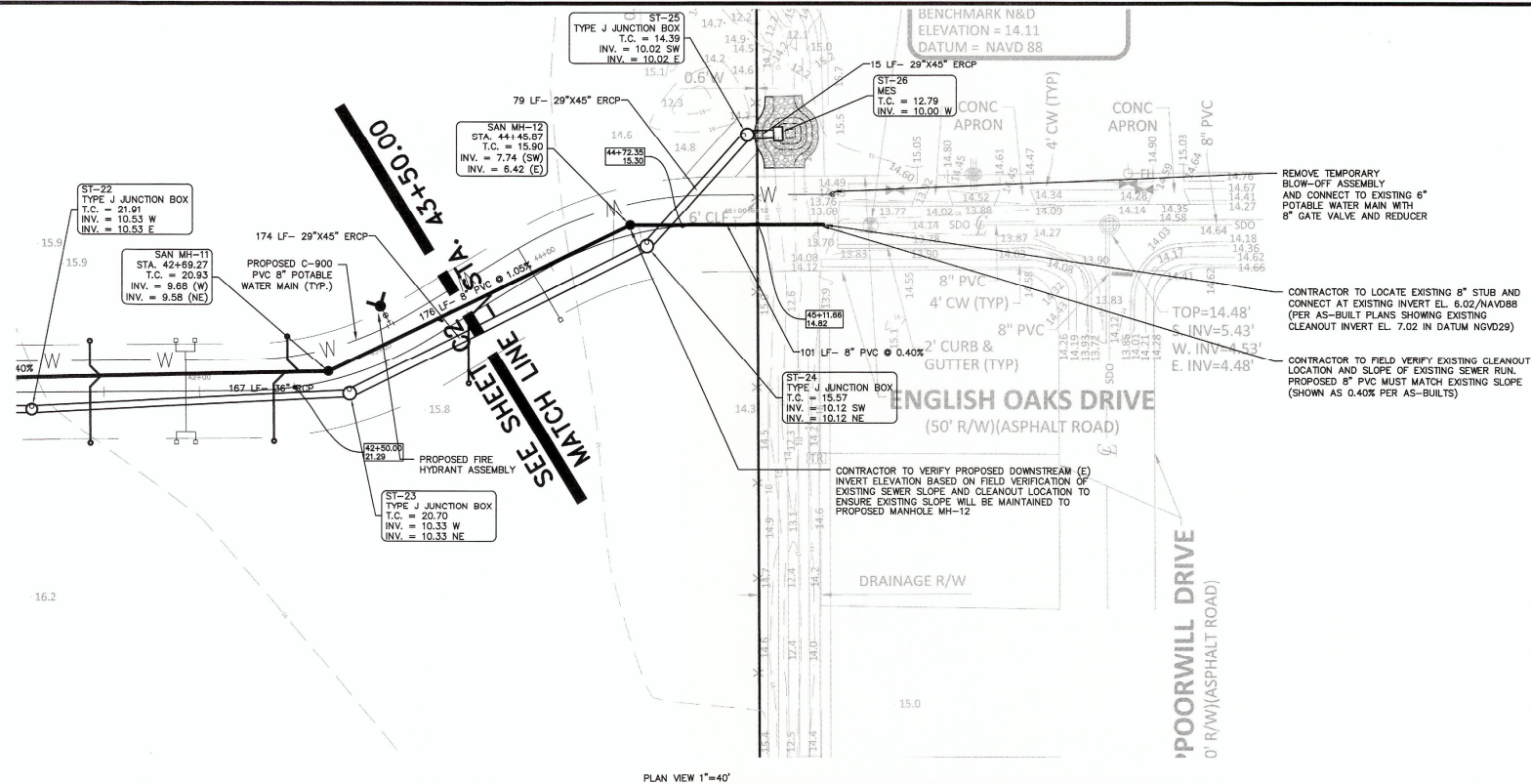
**KING'S LANDING
PHASE 1
FINAL ENGINEERING PLANS
ENGLISH OAKS DRIVE (50' R.O.W.)
SEWER PLAN & PROFILE**

CITY OF PORT CHARLIE
VOLusia COUNTY, FL

PROJECT NO: 15082X
ISSUE DATE: 10-16-16
DESIGNED BY: RH/MG
DRAFTED BY: CM
CHECKED BY: RMH
DRAWING FILE: 15082X-PLPR.DWG
XREFS: 15082X-S&S.DWG
XREFS: 15082X-SURV.DWG

NOT VALID WITHOUT SEAL
RANDY M. HUDAK, P.E. NO. 66053

SCALE: 1"=40'
SHEET **C21** OF **28**



CONTRACTOR TO FIELD VERIFY EXISTING CLEANOUT LOCATION AND SLOPE OF EXISTING SEWER RUN. PROPOSED 8" PVC MUST MATCH EXISTING SLOPE (SHOWN AS 0.40% PER AS-BUILTS)

CONTRACTOR TO LOCATE EXISTING 8" STUB AND CONNECT AT EXISTING INVERT EL. 6.02/NAVD88 (PER AS-BUILT PLANS SHOWING EXISTING CLEANOUT INVERT EL. 7.02 IN DATUM NGVD29)

CONTRACTOR TO VERIFY PROPOSED DOWNSTREAM (E) INVERT ELEVATION BASED ON FIELD VERIFICATION OF EXISTING SEWER SLOPE AND CLEANOUT LOCATION TO ENSURE EXISTING SLOPE WILL BE MAINTAINED TO PROPOSED MANHOLE MH-12



ORMOND BEACH
300 INTERCHANGE BLVD., STE. C
ORMOND BEACH, FL 32135
(386) 677-2462 FAX (386) 677-2605

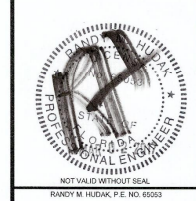
EDGEWATER
100 AIRPORT ROAD
EDGEWATER, FL 32135
(386) 677-2462 FAX (386) 677-2605

NO.	DATE	REVISION
1	10/27/16	RENDERED PER CITY COMMENTS DATED 09/28/16
2	11/01/16	RENDERED PER CITY COMMENTS DATED 11/09/16

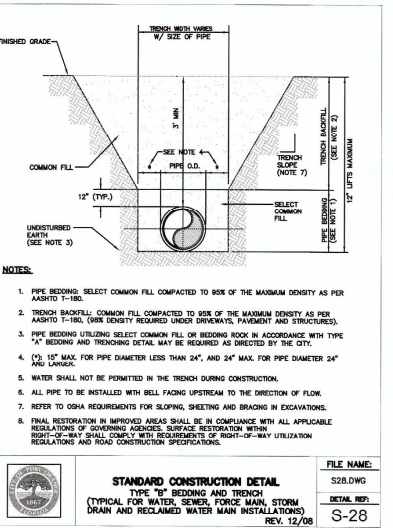
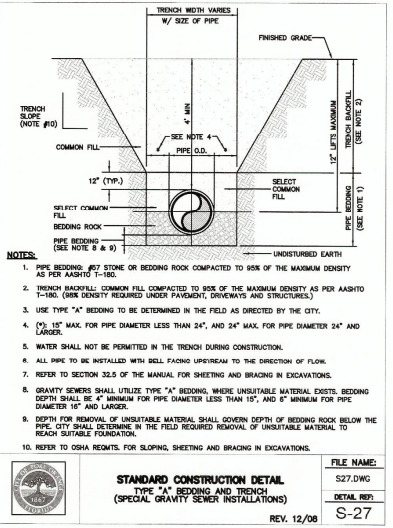
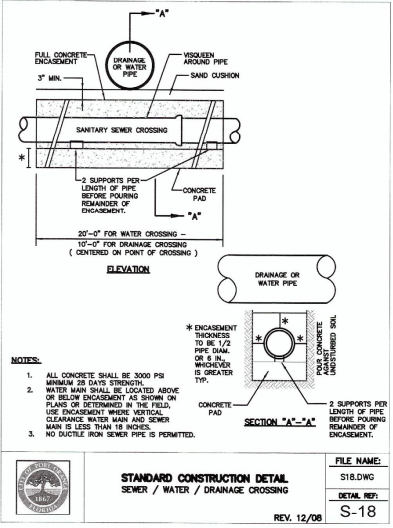
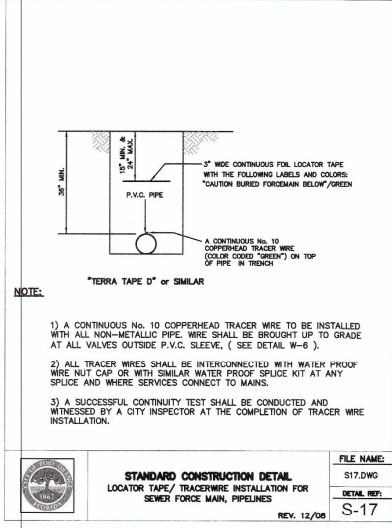
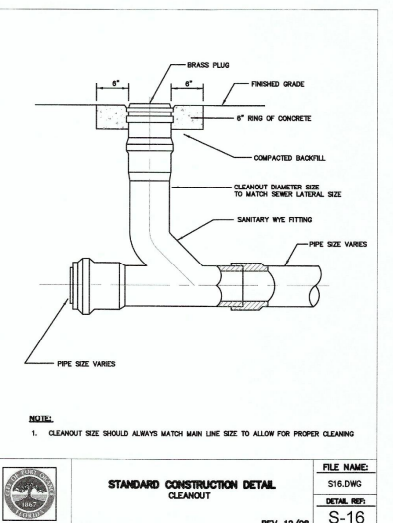
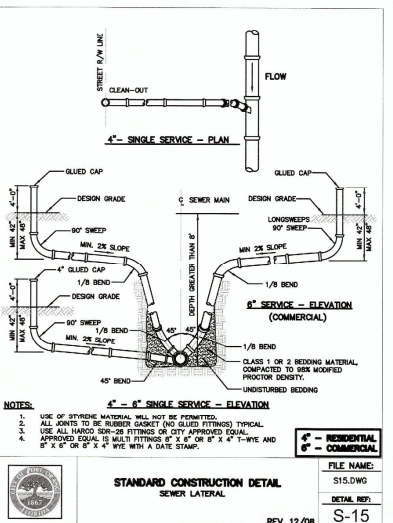
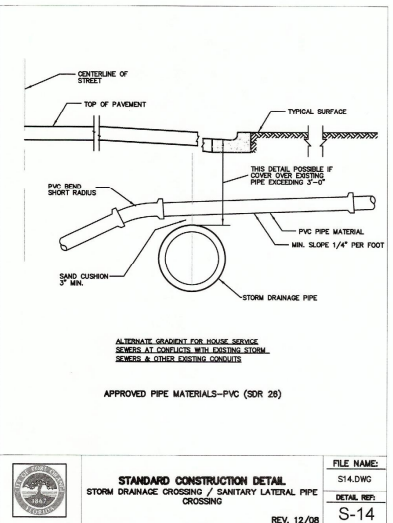
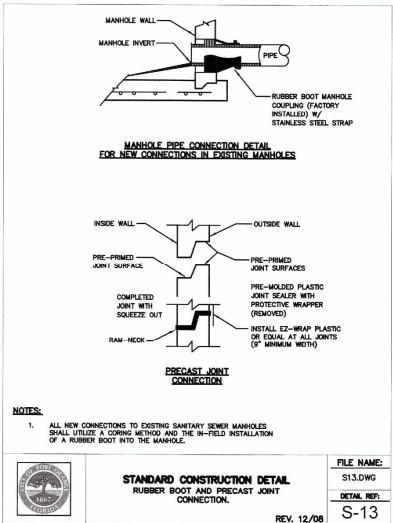
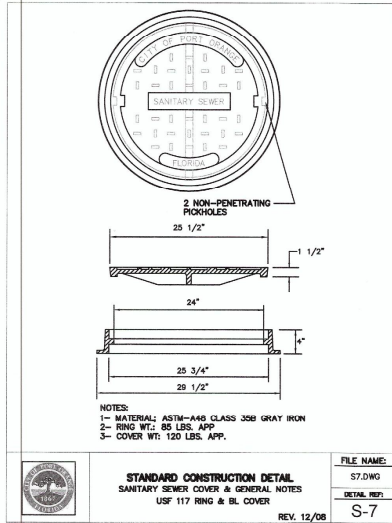
**KING'S LANDING
PHASE 1
FINAL ENGINEERING PLANS
ENGLISH OAKS DRIVE (50' R.O.W.)
SEWER PLAN & PROFILE**

CITY OF FORT ORANGE
VOLusia COUNTY, FL

PROJECT NO: 15082X
ISSUE DATE: 10-19-16
DESIGNED BY: RH/MG
DRAFTED BY: CM
CHECKED BY: RMH



SCALE: 1"=40'
SHEET: C22 OF 28



City of Port Orange Public Utilities Department
List of Approved Products

Reclaimed Water 12/08

Air Release Valves

MANUFACTURER	MODEL #
Vol Matic	Series 38

Gate Valves and Tapping Valves - Resilient Seated (AWWA C509 and C515) 24" or Smaller (Valve Sealer to be complete enclosed with EPDM rubber)

MANUFACTURER	MODEL #
American AVX Co.	Series 3, 18, 25, 45, 55, 8, 66
Crow	Model 2638 and 2639
Mueller	A-2360, A-2361, T-2360 & T-2361
American Flow Control	Series 2500

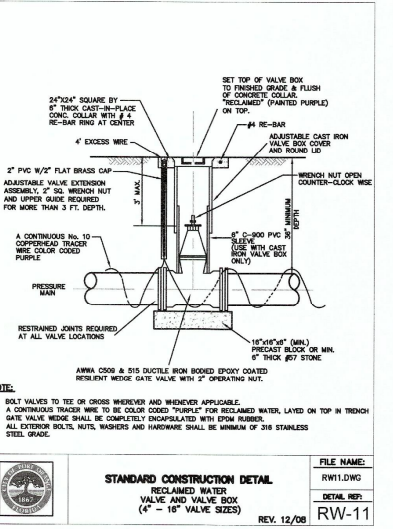
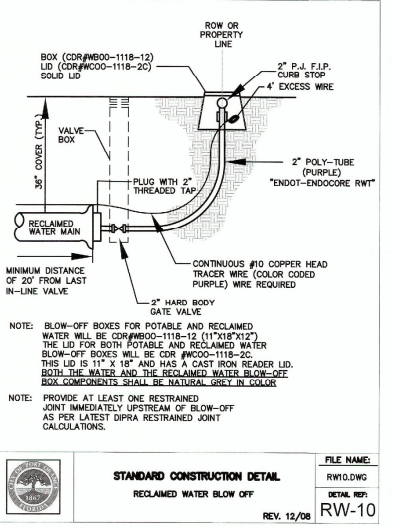
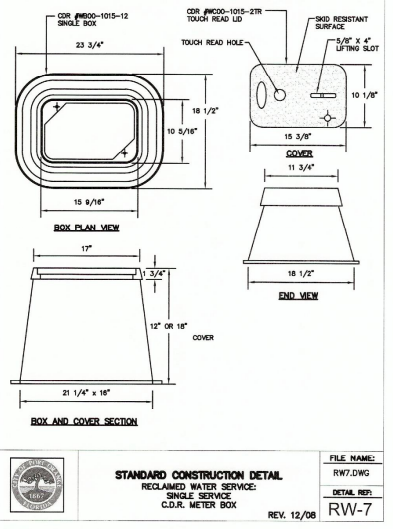
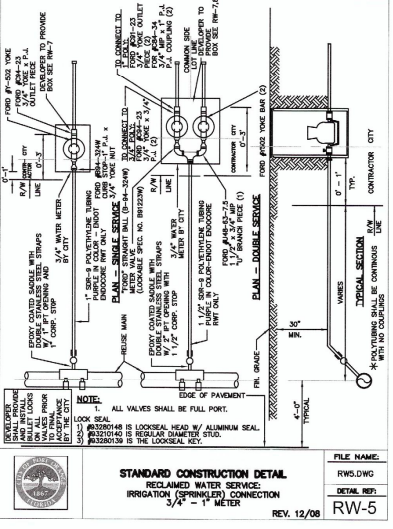
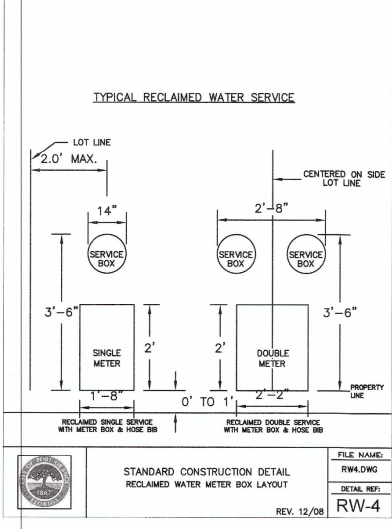
Joints Restrained - DIP and PVC

MANUFACTURER	MODEL #
EBBA Iron Inc.	Series 1500/1500/1600/2000/2500/2800
Star Pipe	StarPipe Series 1000/1000/1200/3000/4000
Sigma	One-Lox SLD & One-Lox SLC & PV-Lox for PVC
Smith-Blair	Cam-Lock (111 & 120) & Bell-Lock (115 & 165)

STANDARD CONSTRUCTION DETAIL
RECLAIMED WATER APPROVED PRODUCTS

REV. 12/08

FILE NAME: RW3.DWG
DETAIL REF: RW-3



NO. CASE / REVISION

NO.	CASE / REVISION
1	NOT/REVISED PER CITY COMMENTS DATED 09/28/16
2	NOT/REVISED PER CITY COMMENTS DATED 11/08/16

**KING'S LANDING
PHASE 1
FINAL ENGINEERING PLANS
CONSTRUCTION DETAILS**

PROJECT NO: 15082X
ISSUE DATE: 10-16-16
DESIGNED BY: RVMG
DRAFTED BY: RMC
CHECKED BY: RMH
DRAWING FILE: 15082X-NOT.DWG
XREF'S:
XREF'S:

NOT VALID WITHOUT SEAL

SCALE: N.T.S.
SHEET: C24 OF 28

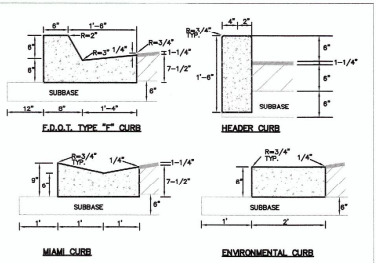
ROAD CLASSIFICATION	DESIGN SPEED (MPH)	LANE WIDTH (LW)	RIGHT OF WAY (ROW)	MIN. HORIZ. CURVE CL.	MIN. VERT. CURVE	MIN. LONG. GRADE (%)	MIN. INT. SPACE
LOCAL / COLLECTOR UP TO 400 VPD	15	10	50	50'	75'	0.3	150'
	20	11	60	100'	100'	0.3	200'
	25	11	60	100'	100'	0.3	200'
UP TO 1000 VPD	25	11	60	100'	100'	0.3	250'
	30	12	80	150'	150'	0.3	300'
UP TO 5000 VPD	30	12	80	150'	150'	0.3	300'
	35	12	80	200'	200'	0.5	350'
	40	12	80	250'	250'	0.5	400'
ARTERIAL UP TO 7500 VPD OVER 7500 VPD	35	12	80	250'	250'	0.5	400'
	40	12	80	300'	300'	0.5	450'

NOTES:

- ALL ROADWAY DESIGN SHALL MEET THE MINIMUM REQUIREMENTS OF THE MANUAL OF UNIFORM MINIMUM STANDARDS FOR DESIGN, CONSTRUCTION, AND MAINTENANCE FOR STREETS AND HIGHWAYS (LATEST EDITION), AS PUBLISHED BY THE FLORIDA DEPARTMENT OF TRANSPORTATION.
- PAVEMENT WIDTHS FOR INDUSTRIAL AND COMMERCIAL ROADS SHALL BE INDICATED BY A MINIMUM OF ONE (1) FOOT.
- AS A RULE, ALL INTERSECTIONS SHALL BE DESIGNED AT 90 DEGREE ANGLES. DEVIATION FROM THIS SHALL BE CONSIDERED STRICTLY ON A CASE BY CASE BASIS. IN THE EVENT THAT ANY DEVIATION IS PERMITTED, THEREIN NO CORNER SHALL INTERSECT AT AN ANGLE LESS THAN 75 DEGREES FOR INTERSECTIONS WITH ARTERIAL ROADWAYS EXCEPT ON LOCAL AND COLLECTOR ROADWAYS WHICH SHALL NOT BE LESS THAN 60 DEGREES. INTERSECTIONS WITH COUNTY AND STATE ROADS SHALL BE 90 DEGREES.
- ALL INTERSECTIONS AND ACCESS POINTS SHALL HAVE ADEQUATE LINE OF SIGHT BASED ON AN EYE LEVEL OF 5.5' ABOVE THE GROUND AND AN OBJECT 3.5' ABOVE THE LOWEST ROADWAY. FOR PURPOSES OF THIS STANDARD, THE EYE LEVEL SHALL BE MEASURED IF 8' BASE OF THE STOP BAR AT ENTRANCES. THE FOLLOWING SIGHT DISTANCES SHALL BE PROVIDED:

DESIGN SPEED (MPH)	30	35	40	45	50	55
SIGHT DISTANCE (FT) (MINIMUM)	200	250	300	350	400	500

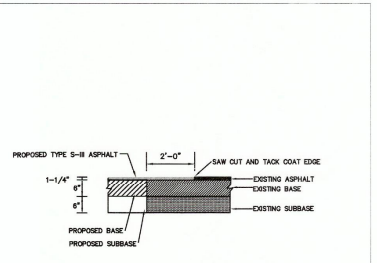
STANDARD CONSTRUCTION DETAIL
ROADWAY GEOMETRY
REV. 12/08
R-6



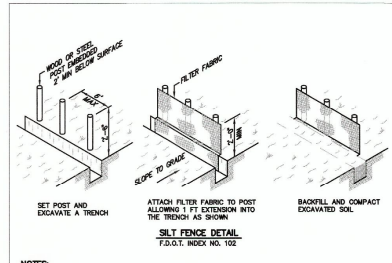
NOTES:

- ALL CURBS TO BE CONSTRUCTED OF 28 DAY, 3000 P.S.I. CONCRETE.
- 1/2" PRE-CASTED EXPANSION JOINT REQUIRED EVERY 500'.
- 1/2" PRE-CASTED EXPANSION JOINT REQUIRED AT EACH SIDE OF ALL STORM INLET STRUCTURES AND AT ALL RADIUS POINTS.
- 4" SUBGRADE TO BE COMPACTED AND TESTED TO 98% DENSITY BASED ON AASHTO T-99 MODIFIED PROCTOR TEST AND SHALL BE STABILIZED TO A MINIMUM L.B.R. 40.
- EXPANSION JOINT MATERIAL MUST COVER THE ENTIRE CROSS SECTION OF CURB.
- IN NO INSTANCE SHALL EXPOSED CURBS (DEFINED AS HEAD-ON TYPE CURBS) BE INSTALLED DIRECTLY ON TOP OF PAVEMENT BE PERMITTED.
- ALL ASPHALT AND/OR PAVED DRIVEWAYS ADJACENT TO PUBLIC RIGHTS-OF-WAY SHALL INCLUDE CURBING.

STANDARD CONSTRUCTION DETAIL
STANDARD CURB CONSTRUCTION
REV. 12/08
R-9



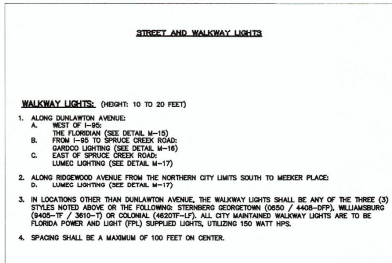
STANDARD CONSTRUCTION DETAIL
PAVEMENT BUTT JOINT
REV. 12/08
R-11



NOTES:

- MATERIALS, CONSTRUCTION METHODS AND MAINTENANCE SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS AND DESIGN STANDARDS CURRENT EDITION.
- CONTRACTOR SHALL PROVIDE SILT FENCES, SYNTHETIC JUTE BALES, MATS, &/OR HAVE BEST MANAGEMENT PRACTICES (BMPs) AS REQUIRED AT ALL EROSION CONTROL DISCHARGE POINTS FOR EROSION CONTROL AND SEDIMENT CONTROL DURING CONSTRUCTION.
- CONTRACTOR SHALL BUSH GRASS ESTABLISHMENT - WATER SHALES AND RETENTION AREAS PRIOR TO CONSTRUCTION OF SITE IMPROVEMENTS.
- CONTRACTOR SHALL MEET ALL PERMIT CONDITIONS AS ESTABLISHED BY THE CITY OF PORT ORANGE AND ALL OTHER APPLICABLE AGENCIES, INCLUDING BUT NOT LIMITED TO COUNTY, FOOT, AND THE STATE.
- CONTRACTOR WILL BE ALLOWED TO USE A SMALL PIECE OF EQUIPMENT UP TO THE SIZE AND WEIGHT OF A D-5 DOZER TO CLEAR A NARROW PASS TO INSTALL THE SILT FENCE.

STANDARD CONSTRUCTION DETAIL
SILT FENCE TURBOGY BARRIER
REV. 12/08
R-22



STREET AND WALKWAY LIGHTS

WALKWAY LIGHTS: (HEIGHT: 10 TO 20 FEET)

- ALONG DUNLAWTON AVENUE:
- WEST OF 1-90:
- THE FLORIAN (SEE DETAIL M-15)
- FROM 1-90 TO SPRUCE CREEK ROAD:
- LANDSCAPE LIGHTING (SEE DETAIL M-16)
- EAST OF SPRUCE CREEK ROAD:
- LANDSCAPE LIGHTING (SEE DETAIL M-17)

2. ALONG HOSKINS AVENUE FROM THE NORTHERN CITY LIMITS SOUTH TO MEADOW PLACE:

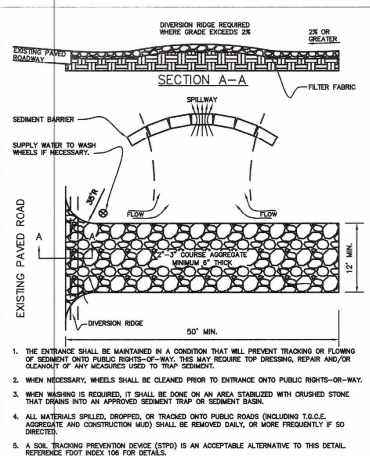
3. IN LOCATIONS OTHER THAN DUNLAWTON AVENUE, THE WALKWAY LIGHTS SHALL BE ANY OF THE THREE (3) STYLES NOTED ABOVE OR THE FOLLOWING: STYLING DESCRIPTION (0000 / 4000-000) WILLAMSBURG (0000-17 / 3000-17) OR COLUMBIA (0000-17). ALL CITY MAINTAINED WALKWAY LIGHTS ARE TO BE FLORIAN PIPES AND LIGHT (PIL) SUPPLIED LIGHTS UTILIZING 100 WATT HPS.

4. SPACING SHALL BE A MAXIMUM OF 100 FEET ON CENTER.

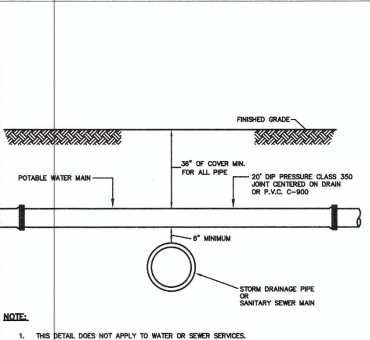
STREET LIGHTS: (HEIGHT: 20+ FEET)

- STREET LIGHTS SHALL BE GENERALLY PROVIDED AT ALL INTERSECTIONS AND AT MAJOR ENTRY ROADS INTO THE SUBDIVISION AS DESIGNATED BY THE ADMINISTRATIVE OFFICIAL.
- ALL CITY MAINTAINED STREET LIGHTS ARE TO BE PIL SUPPLIED STREET LIGHTS.
- PRIVATELY MAINTAINED STREET LIGHTS SHALL BE: GARDEN LIGHTING (H / 300 / 1 / 3 / 100 HPS / 340 / BWA / PC) (NOTE: POLE SHALL BE CONCRETE AVAILABLE THROUGH L.P.C. AND SPACED AT INTERVALS OF 300 TO 400 FEET).
- ALTERNATIVE STREET LIGHTING PROPOSALS BY DEVELOPERS SHOULD BE SUBMITTED TO THE COMMUNITY DEVELOPMENT DEPT. FOR APPROVAL.

STANDARD CONSTRUCTION DETAIL
STREET AND WALKWAY LIGHTS
REV. 12/08
M-14



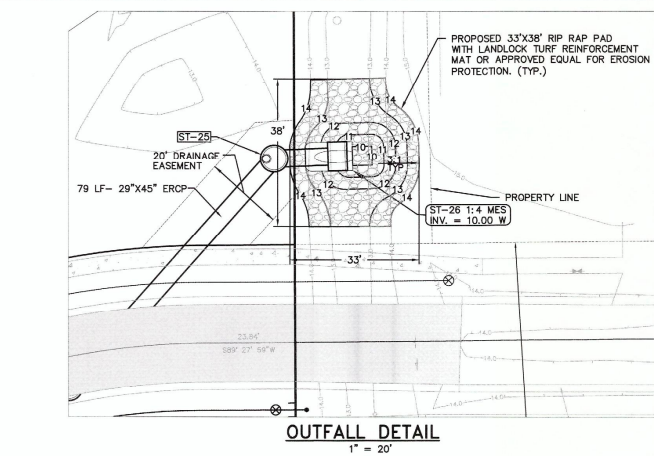
STANDARD CONSTRUCTION DETAIL
TEMPORARY GRAVEL CONSTRUCTION ENTRANCE
REV. 12/08
R-27



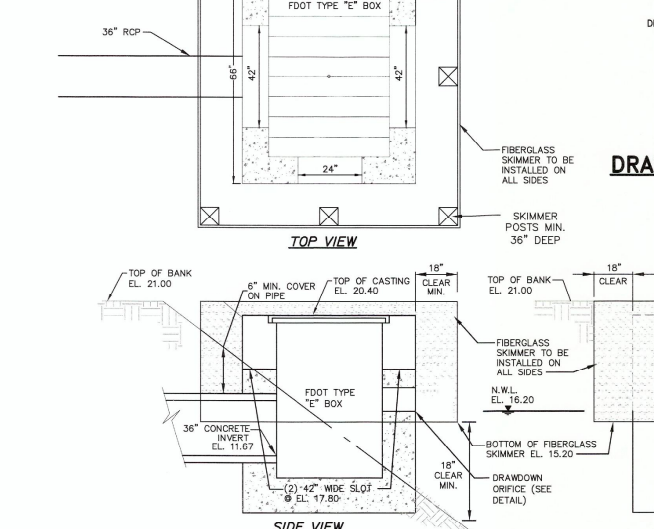
NOTE:

- THIS DETAIL DOES NOT APPLY TO WATER OR SEWER SERVICES.

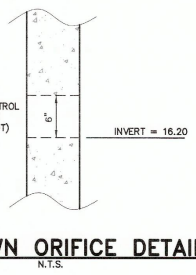
STANDARD CONSTRUCTION DETAIL
STORM DRAINAGE PIPE OR SANITARY SEWER MAIN CONDUIT
REV. 12/08
W-19



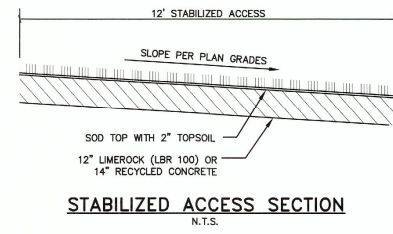
OUTFALL DETAIL
1" = 20'



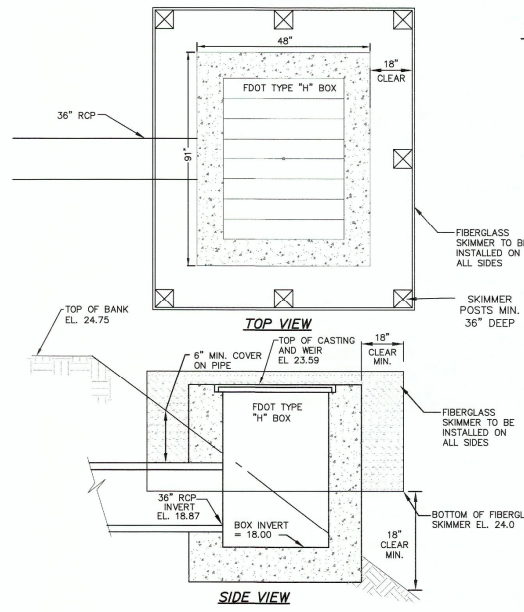
D.C.S.#2 DRAINAGE CONTROL STRUCTURE W/ FIBERGLASS SKIMMER
FOOT TYPE "E" BOX



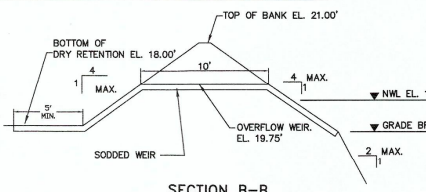
DRAINAGE CONTROL STRUCTURE
(12' x 6' SLOT)
N.T.S.



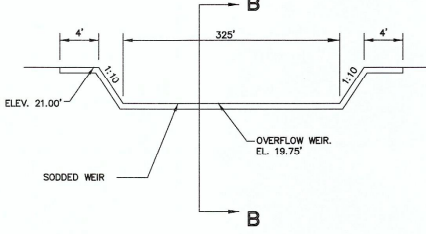
STABILIZED ACCESS SECTION
N.T.S.



D.C.S.#1 DRAINAGE CONTROL STRUCTURE W/ FIBERGLASS SKIMMER
FOOT TYPE "H" BOX



SECTION B-B



SODDED OVERFLOW WEIR DETAIL
(FROM BA-2 TO BA-1)
N.T.S.

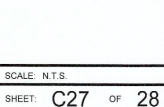


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NO.	DATE	REVISIONS
1	10/27/16	REVISED PER CITY COMMENTS DATED 09/28/16
2	11/02/16	REVISED PER CITY COMMENTS DATED 11/02/16

KING'S LANDING
PHASE 1
FINAL ENGINEERING PLANS
CONSTRUCTION DETAILS

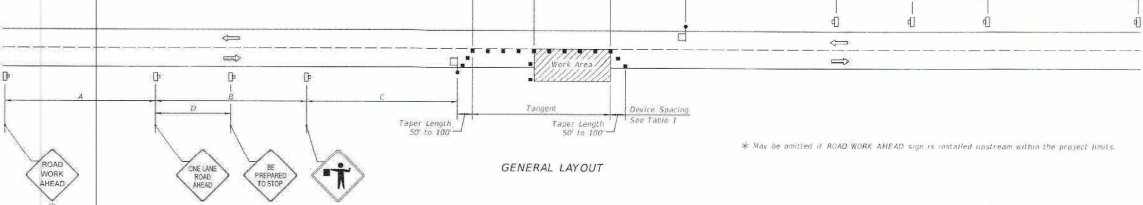
PROJECT NO: 15082X
ISSUE DATE: 10-19-16
DESIGNED BY: RHMG
DRAFTED BY: RMC
CHECKED BY: RMH
DRAWING FILE: 15082X-NOT DWG
XREFS:
XREFS:



SCALE: N.T.S.
SHEET: C27 OF 28

SYMBOLS:

- Work Area
- Channelizing Device (See Index No. 600)
- Work Zone Sign
- Flagger
- Automated Flagger Assistance Device (AFAD) With Sign
- Lane Identification - Direction of Traffic



GENERAL NOTES:

1. Special Conditions may be required in accordance with these notes and the following sheets.
2. If the Work Area encroaches on the Centerline, use the *General* for Temporary Lane Shift to Shoulder on Sheet 2 only if the Existing Paved Shoulder width is sufficient to provide for an 11' lane between the Work Area and the Edge of Existing Paved Shoulder. Reduce the posted speed when appropriate.
3. Temporary Raised Rumble Strips:
 - a. Use installation of the following conditions are met concurrently:
 - i. Existing Posted Speed is 50 mph or greater;
 - ii. Work duration is greater than 60 minutes;
 - iii. Use a continuous Strip color throughout the work zone;
 - iv. Place each Rumble Strip Set transversely across the lane at locations shown;
 - v. Use Option 1 or Option 2 as shown on Sheet 2. Use only one option throughout work zone.
4. Additional one-way control may be provided by the following means:
 - a. Flag-carrying vehicle;
 - b. Official vehicles;
 - c. Pilot vehicles;
 - d. Traffic signals.
5. When flaggers are the sole means of one-way control, the flaggers must be in sight of each other or in direct communication at all times.
6. The two channelizing devices directly in front of the work area may be limited ground vehicles in the work area have high-intensity rotating flashing, oscillating, or strobe lights operating.
7. When Buffer Space cannot be attained due to geometric constraints, use the greatest attainable length, not less than 200 ft.
8. Railroad Crossings:
 - a. If an active railroad crossing is located closer to the Work Area than the queue length plus 300 feet, extend the Buffer Space as shown on Sheet 2.
 - b. If the queuing of vehicles across an active railroad crossing cannot be avoided, provide a uniformed traffic control officer or flagger at the highway-rail grade crossing to prevent vehicles from stopping within the highway-rail grade crossing, even if automatic train warning devices are in place.
9. ROAD WORK AHEAD and the BE PREPARED TO STOP signs may be posted if all of the following conditions are met:
 - a. Work operations are 60 minutes or less;
 - b. Speed limit is 45 mph or less;
 - c. There are no sight obstructions to vehicles approaching the work area for a distance equal to the Buffer Space shown in Table 1.
10. Vehicles in the work area have high-intensity rotating flashing, oscillating, or strobe lights operating.
11. If a railroad crossing is present, vehicles will not queue across rail tracks.
12. AFADs are not in use.
13. See Index 600 for general TCZ requirements and additional information.
14. Automated Flagger Assistance Devices (AFADs) may be used in accordance with the Notes on Sheet 3.

Posted Speed	DEVICE SPACING				Distance Between Signs				Buffer Space
	On a Taper	On a Taper	On a Taper	On a Taper	A	B	C	D	
25	20	30	20	30	200	200	200	100	150
30	20	30	20	30	200	200	200	100	200
35	20	30	20	30	200	200	200	100	250
40	20	30	20	30	200	200	200	100	300
45	20	30	20	30	200	200	200	100	350
50	20	30	20	30	200	200	200	100	400
55	20	30	20	30	200	200	200	100	450
60	20	30	20	30	200	200	200	100	500
65	20	30	20	30	200	200	200	100	550
70	20	30	20	30	200	200	200	100	600

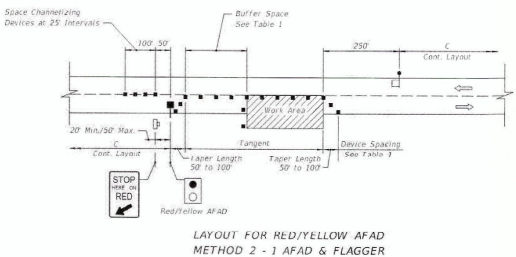
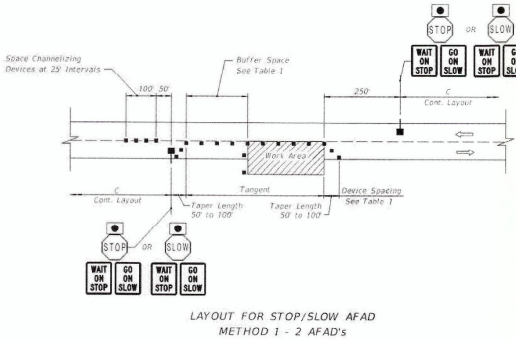
CONDITIONS

WHERE ARE VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCRACH THE AREA BETWEEN THE CENTERLINE AND A LINE 2' OUTSIDE THE EDGE OF TRAVEL WAY.

LAST REVISION	DESCRIPTION	2016 DESIGN STANDARDS	TWO-LANE, TWO-WAY WORK WITHIN THE TRAVEL WAY	INDEX NO. 603	SHEET NO. 1 of 3
07/01/15					

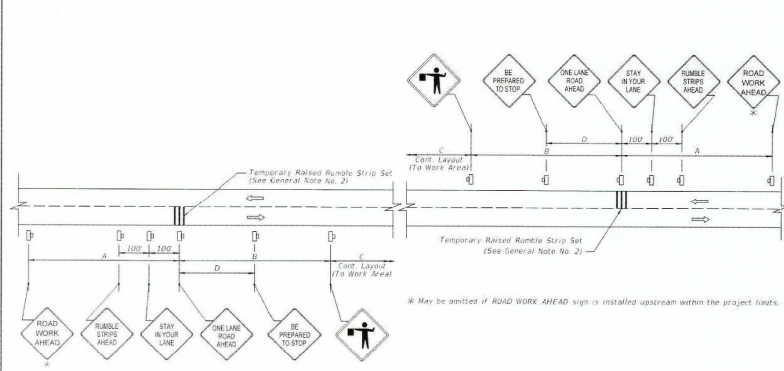
AUTOMATED FLAGGER ASSISTANCE DEVICES NOTES:

1. Terminate the flagging station when the AFAD is used at nighttime.
2. When the AFAD is not in use, remove or cover signs and close AFAD device outside the clear zone or shield it with a barrier or crash cushion.
3. Only qualified flaggers who have been trained in the operation of the AFAD may operate the AFAD. When in use, each AFAD must be in view of and attended at all times by the flagger operating the device. Use two flaggers and one of the following methods in the deployment of AFADs:
 - a. Method 1: Place an AFAD at each end of the temporary traffic control zone. Method 2: Place an AFAD at one end of the temporary traffic control zone and a flagger at the opposite end.
4. A single flagger may simultaneously operate two AFADs (Method 1) or may operate a single AFAD on one end of the temporary traffic control zone while being the flagger at the opposite end of the temporary traffic control zone (Method 2) if all four of the following conditions are present:
 - a. The flagger has an unobstructed view of the AFAD(s);
 - b. The flagger has an unobstructed view of approaching traffic in both directions;
 - c. For Method 1, the AFADs are less than 800 ft apart. For Method 2, the AFAD and the flagger are less than 800 ft apart;
 - d. Two trained flaggers are available on-site to provide normal flagging operations should an AFAD malfunction.

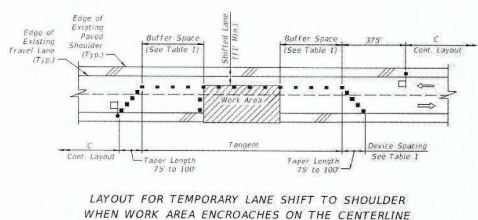
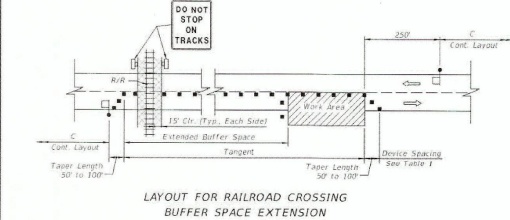


AUTOMATED FLAGGER ASSISTANCE DEVICES (AFADs)

LAST REVISION	DESCRIPTION	2016 DESIGN STANDARDS	TWO-LANE, TWO-WAY WORK WITHIN THE TRAVEL WAY	INDEX NO. 603	SHEET NO. 3 of 3
07/01/15					

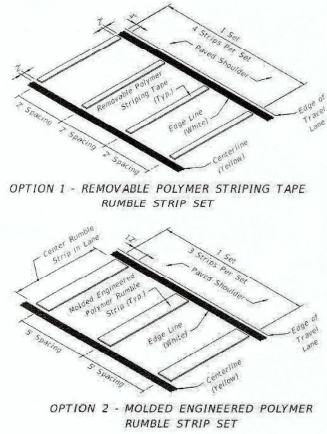


LAYOUT FOR TEMPORARY RAISED RUMBLE STRIPS WHEN REQUIRED WITH ADDITIONAL SIGNS



SPECIAL CONDITIONS

LAST REVISION	DESCRIPTION	2016 DESIGN STANDARDS	TWO-LANE, TWO-WAY WORK WITHIN THE TRAVEL WAY	INDEX NO. 603	SHEET NO. 2 of 3
07/01/15					



TEMPORARY RAISED RUMBLE STRIPS



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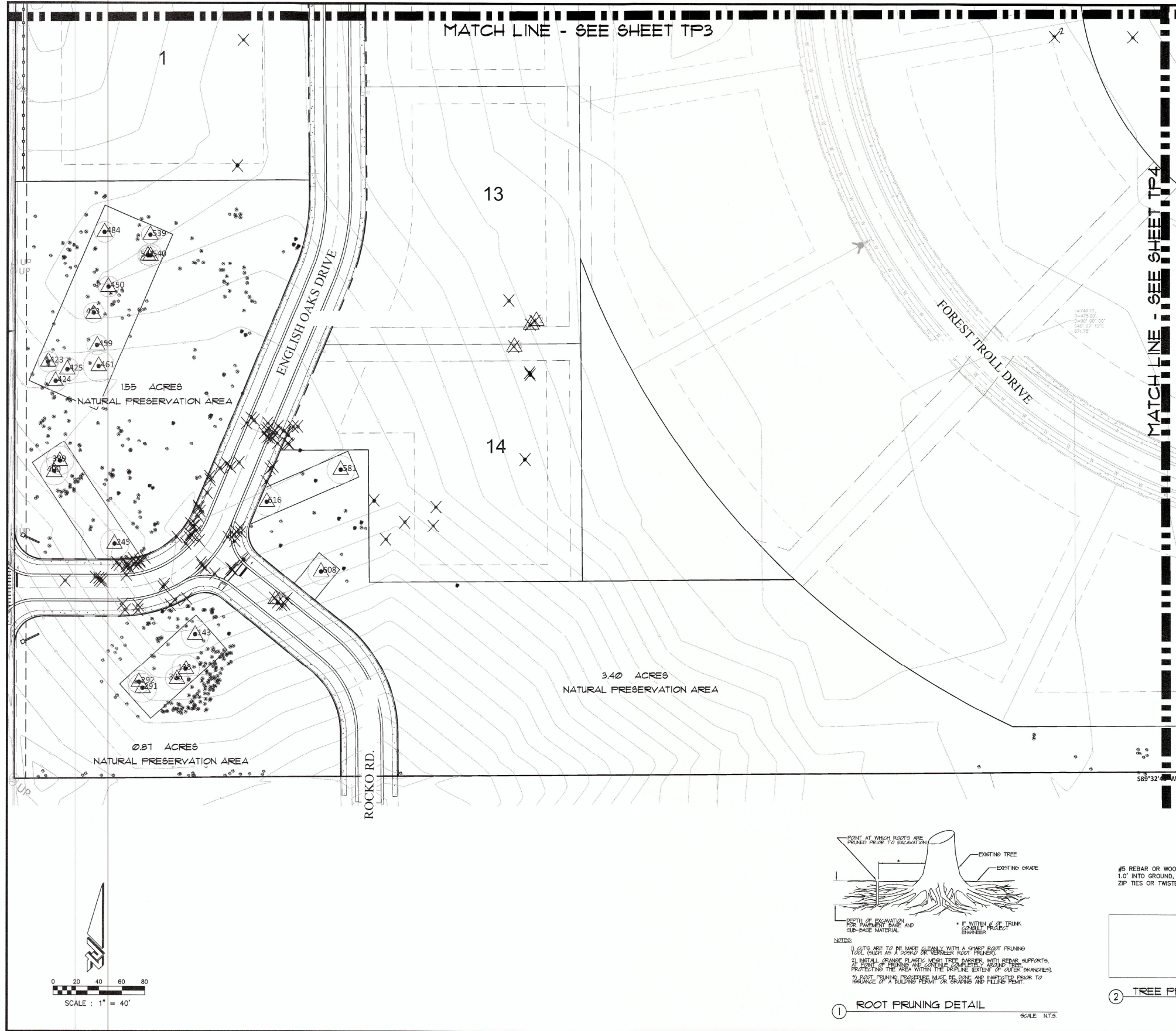
EDGEWATER
EDGEWATER, FL 32132
(386) 677-2462 FAX (386) 677-2565

**KING'S LANDING
PHASE 1
FINAL ENGINEERING PLANS
CONSTRUCTION DETAILS**

PROJECT NO. 15082X
ISSUE DATE 10-19-16
DESIGNED BY: RH/MG
DRAFTED BY: RMC
CHECKED BY: RMH
DRAWING FILE: 15082X-NOT.DWG
XREF'S:
XREF'S:



SCALE: N.T.S.
SHEET: C28 OF 28



LEGEND

- EXISTING TREE TO BE REMOVED
- EXISTING SPECIMEN TREE TO BE REMOVED
- PROPOSED FUTURE REMOVAL OF SPECIMEN TREES IN PHASE 1 AND 3 TO BE ADDRESSED DURING REVIEW OF THE SUBDIVISION PLAT AND PLANS FOR PHASE 2 AND 3
- EXISTING HISTORIC TREE
- EXISTING SPECIMEN TREE
- DENOTES ROOT ZONE PROTECTION AREA REQUIRED
- DENOTES NATURAL PRESERVATION / CONSERVATION AREA TO REMAIN
- DENOTES EXISTING TREE

NOTE: SEE TREE LEGEND FOR SPECIES AND PLAN VIEW FOR PH.

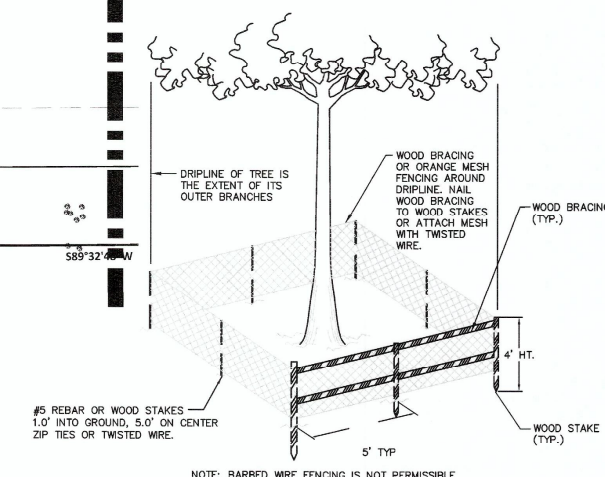
15% NATURAL PRESERVATION	
TOTAL SITE AREA	89.2 ACRES
TOTAL PRESERVATION AREA REQUIRED (CALCULATION: 89.2 AC. x 15% = 13.38 AC.)	13.38 ACRES
UNDISTURBED NATURAL PRESERVATION AREA	13.38 ACRES
MINIMUM ON SITE TREES	
MINIMUM TREES REQUIRED ON SITE CALCULATION: 3200/200 SF. / 1500 SF. = 1.07	1.07
EXISTING TREES TO BE PRESERVED	1.07
NUMBER OF TREES PROVIDED ON LANDSCAPE PLAN	43
NUMBER OF TREES PROVIDED ON RR ZONED LOTS CALCULATION: 17 SHORE TREES x 2% LOTS = .34	.34
NUMBER OF TREES PROVIDED ON R-1000 ZONED LOTS CALCULATION: 8 SHORE TREES x .5% LOTS = .04	.04
TOTAL NUMBER OF TREES EXISTING PLUS PROVIDED	1.45

NOTE: TREES WITHIN THE NATURAL VEGETATION AREAS SHALL BE COUNTED TOWARDS ANY DEFICIT OF REQUIRED TREES ON SITE.

NOTE: NO TREES IN PHASE 2 OR 3 BOUNDARY EXCEPT FOR THE 50' R/W ENGLISH OAK DRIVE R/W IN PHASE 3 WILL BE REMOVED WITH THE DEVELOPMENT OF PHASE 1 TREE REMOVAL IN PHASE 2 AND 3 WILL BE ADDRESSED WHEN SUBDIVISION PLAT AND PLAN APPLICATION IS SUBMITTED FOR EACH PHASE.

SPECIMEN TREE CALCULATIONS	
SPECIMEN TREES ON SITE	50
SITE AVERAGE	89.2
SPECIMEN TREES PER ACRE	1.6
SPECIMEN TREES REQUIRED TO BE PRESERVED (CALCULATION: 50 TREES x 80% = 40 TREES)	40
SPECIMEN TREES TO REMAIN	10

PROTECTIVE BARRIERS SHALL BE SET UP AND MAINTAINED PER THE FOLLOWING SPECIFICATIONS:	
LESS THAN 10'	50%
10' TO 15'	75%
15' TO 20'	100%
20' OR MORE	1 PER ACRE



NOTE: BARBED WIRE FENCING IS NOT PERMISSIBLE

STANDARD CONSTRUCTION DETAIL
TREE PROTECTION BARRICADE

REV. 12/08

FILE NAME:
R23.DWG

DETAIL REF:
R-23

2 TREE PROTECTION BARRICADE DETAIL

1 ROOT PRUNING DETAIL

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ORMOND BEACH, FL 32136
(386) 877-2462 FAX (386) 877-2505

ST. AUGUSTINE
1000 S. PALM BLVD., STE. 4
ST. AUGUSTINE, FL 32080
(904) 797-1610 FAX (904) 880-677-2505

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NO. 1 DATE 1 REVISIONS

01	11/15/10	REVISED PER CITY COMMENTS
02	11/15/10	REVISED PER CITY COMMENTS
03	11/15/10	REVISED PER CITY COMMENTS

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KINGS LANDING
FINAL ENGINEERING PLANS
TREE PROTECTION PLAN & DETAILS

VOLUSIA COUNTY, FLORIDA
CITY OF PORT ORANGE

PROJECT NO: 15082X

ISSUE DATE: 8/31/16

DESIGNED BY: JES

DRAFTED BY: JES

CHECKED BY: SB

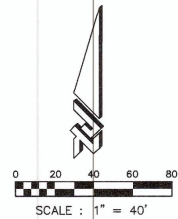
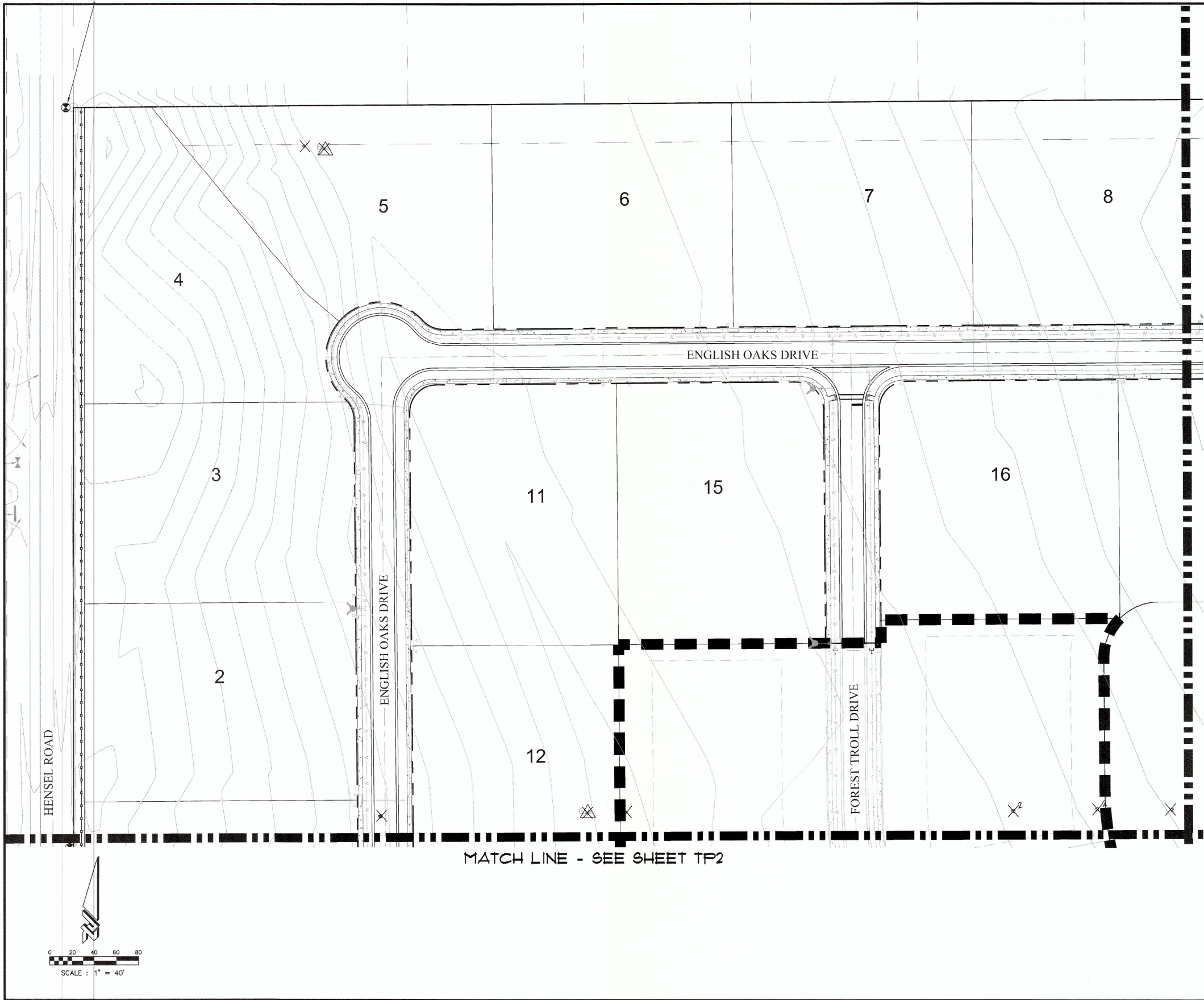
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NOT VALID WITHOUT SEAL

STEPHEN R. BURNS, R.L.A. NO. 998

SCALE: 1" = 40'

SHEET: TP2 OF 7



LEGEND	
	EXISTING TREE TO BE REMOVED
	EXISTING SPECIMEN TREE TO BE REMOVED
	PROPOSED FUTURE REMOVAL OF SPECIMEN TREES IN PHASE 2 AND 3 TO BE ADDRESSED DURING REVIEW OF THE SUBDIVISION PLAN AND PLANS FOR PHASE 2 AND 3
	EXISTING HISTORIC TREE
	EXISTING SPECIMEN TREE
	DENOTES ROOT ZONE PROTECTION AREA REQUIRED
	DENOTES NATURAL PRESERVATION / CONSERVATION AREA TO REMAIN
	DENOTES EXISTING TREE
NOTE: SEE TREE LEGEND FOR SPECIES AND PLAN VIEW FOR PH.	

NOT VALID WITHOUT SEAL

STEPHEN R. BURNS, R.L.A. NO. 986

SCALE: 1" = 40'

SHEET: TP3 OF 7

PROJECT NO: 15082X

ISSUE DATE: 8/31/16

DESIGNED BY: JES

DRAFTED BY: JES

CHECKED BY: SB

DRAWING FILE: 15082X-TP

XREFS: 15082X-MODIFIEDTRSURV

XREFS:

KINGS LANDING

FINAL ENGINEERING PLANS

TREE PROTECTION PLAN & DETAILS

CITY OF FORT ORANGE

VOLusia COUNTY, FLORIDA

NO.	DATE	REVISIONS
01	02/27/19	REVISED PER CITY COMMENTS
02	11/19/19	REVISED PER CITY COMMENTS
03	11/21/19	REVISED PER CITY COMMENTS
04	11/21/19	REVISED PER CITY COMMENTS
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18	11/21/19	REVISED PER CITY COMMENTS
19	11/21/19	REVISED PER CITY COMMENTS
20	11/21/19	REVISED PER CITY COMMENTS

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MATCH LINE - SEE SHEET TP2

MATCH LINE - SEE SHEET TP5

MATCH LINE - SEE SHEET TP6

FOREST TROLL DRIVE

LEGEND

EXISTING TREE TO BE REMOVED

EXISTING SPECIMEN TREE TO BE REMOVED

PROPOSED FUTURE REMOVAL OF SPECIMEN TREES IN PHASE 2 AND 3 TO BE ADDRESSED DURING REVIEW OF THE SUBDIVISION PLAT AND PLANS FOR PHASE 2 AND 3

EXISTING HISTORIC TREE

EXISTING SPECIMEN TREE

DENOTES ROOT ZONE PROTECTION AREA REQUIRED

DENOTES NATURAL PRESERVATION / CONSERVATION AREA TO REMAIN

DENOTES EXISTING TREE

NOTE:

SEE TREE LEGEND FOR SPECIES AND PLAN VIEW FOR DPH

SCALE : 1" = 40'

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ORLANDO BEACH, FL 32174
(386) 677-2482 FAX (386) 677-2500

EDGEWATER
1040 AIRWAY ROAD, SUITE 100
EDGEWATER, FL 33138
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NO.	DATE	REVISIONS	BY
01	02/27/16	ISSUED FOR PERMIT COMMENTS	JES
02	03/17/16	REVISED PER CITY COMMENTS	JES
03	11/12/17	REVISED PER CITY COMMENTS	JES

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KINGS LANDING
FINAL ENGINEERING PLANS
TREE PROTECTION PLAN & DETAILS

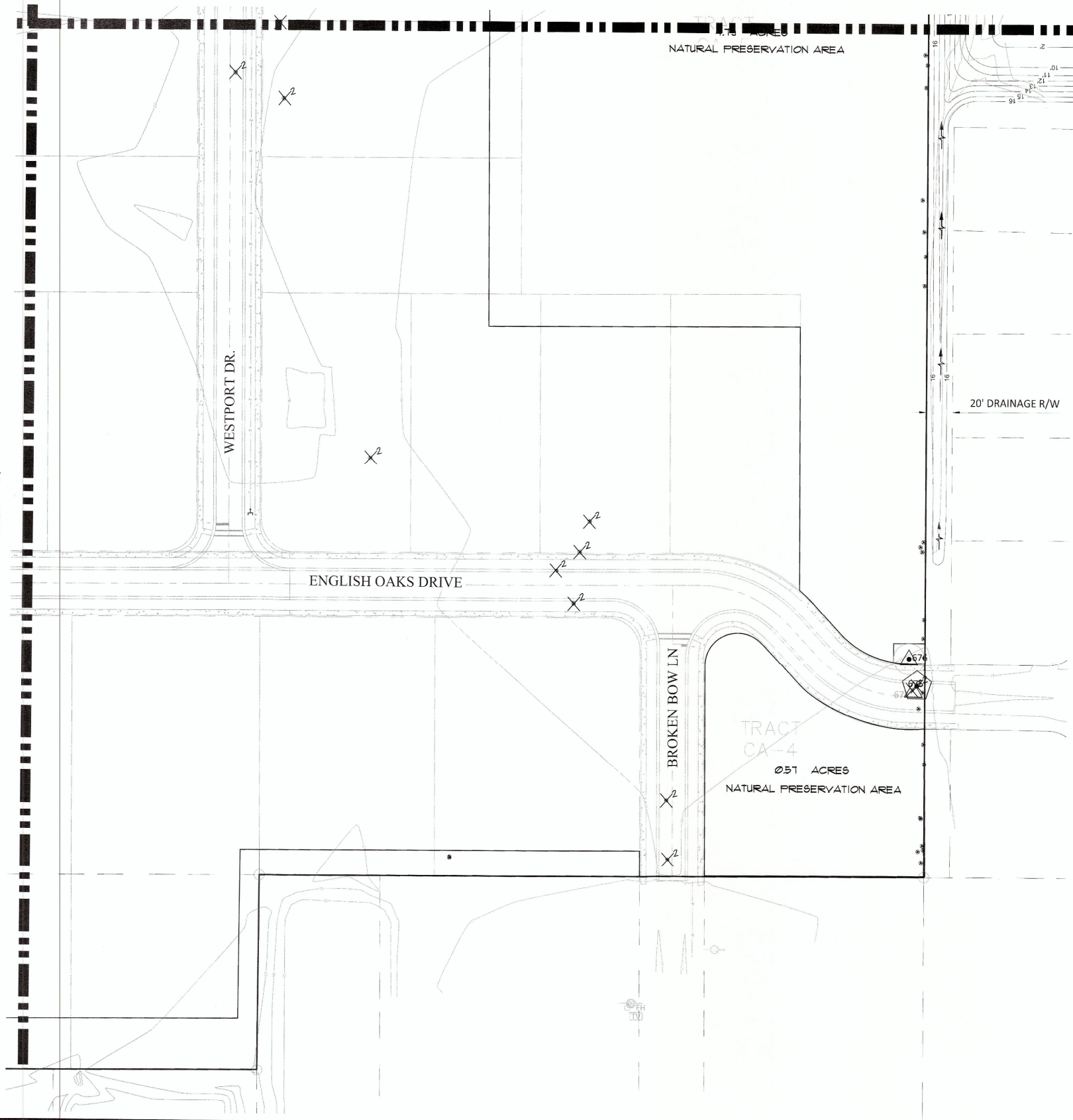
CITY OF PORT ORANGE
VOLusia COUNTY, FLORIDA

PROJECT NO: 15082X
ISSUE DATE: 8/31/16
DESIGNED BY: JES
DRAFTED BY: JES
CHECKED BY: SS
DRAWING FILE: 15082X.TP
XREFS: 15082X-MODIFIED-TSURV
XREFS:

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STEPHEN R. BURNS, R.L.A. NO. 986
SCALE: 1" = 40'
SHEET: TP4 OF 7

MATCH LINE - SEE SHEET TP4

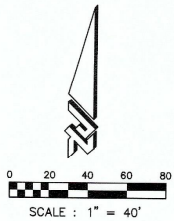
MATCH LINE - SEE SHEET TP1



LEGEND

- EXISTING TREE TO BE REMOVED
- EXISTING SPECIMEN TREE TO BE REMOVED
- PROPOSED FUTURE REMOVAL OF SPECIMEN TREES IN PHASE 2 AND 3 TO BE ADDRESSED DURING REVIEW OF THE SUBDIVISION PLAT AND PLANS FOR PHASE 2 AND 3
- EXISTING HISTORIC TREE
- EXISTING SPECIMEN TREE
- DENOTES ROOT ZONE PROTECTION AREA REQUIRED
- DENOTES NATURAL PRESERVATION / CONSERVATION AREA TO REMAIN
- DENOTES EXISTING TREE

NOTE: SEE TREE LEGEND FOR SPECIES AND PLAN VIEW FOR DETAIL



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EDGEWATER, FL 32132
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NO.	DATE	REVISIONS
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2	11/1/16	REVISED PER CITY COMMENTS
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94	11/1/16	REVISED PER CITY COMMENTS
95	11/1/16	REVISED PER CITY COMMENTS
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99	11/1/16	REVISED PER CITY COMMENTS
100	11/1/16	REVISED PER CITY COMMENTS

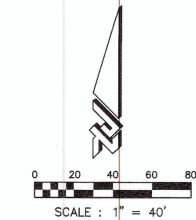
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KINGS LANDING
FINAL ENGINEERING PLANS
TREE PROTECTION PLAN & DETAILS

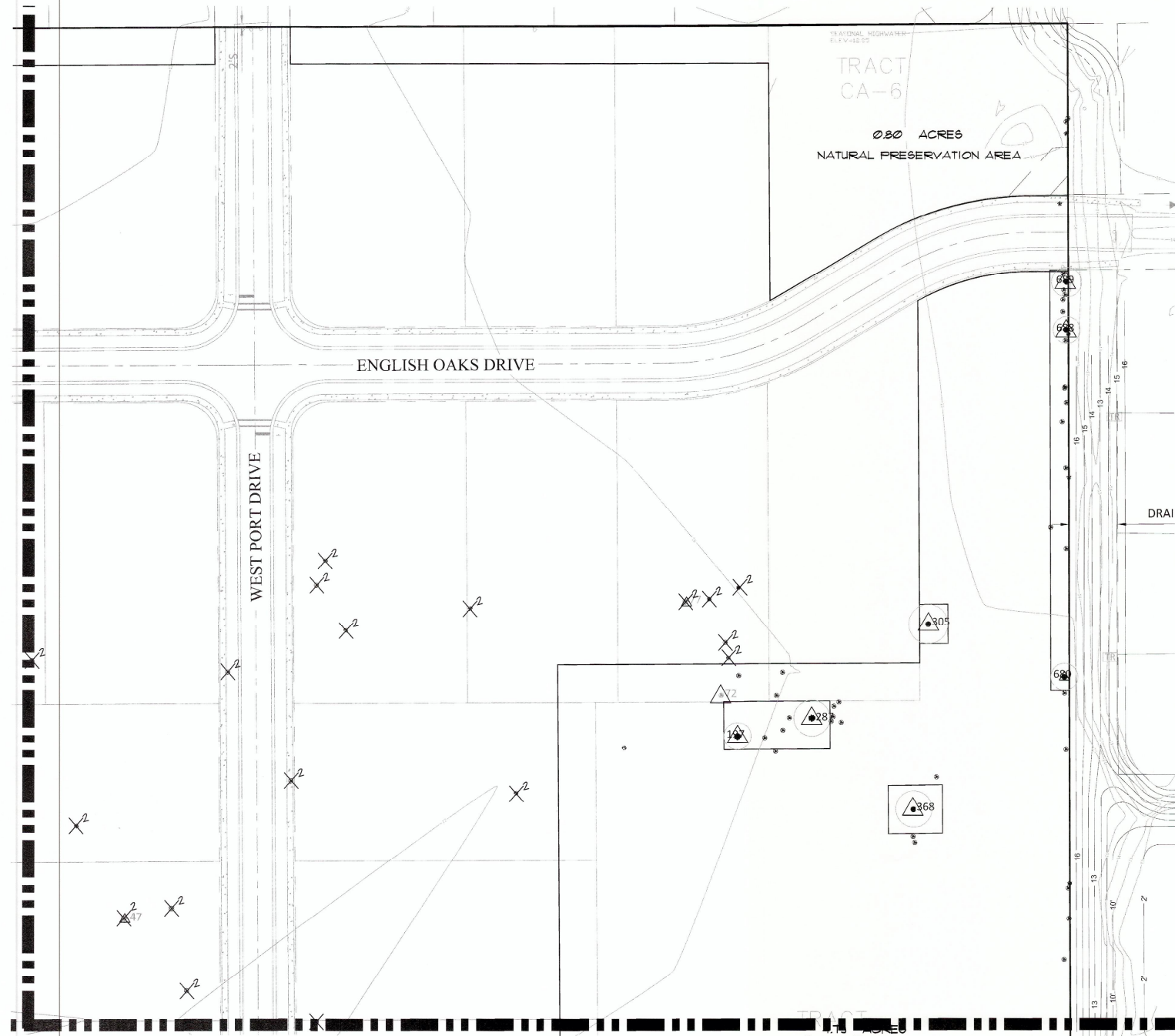
CITY OF PORT ORANGE
VOLusia COUNTY, FLORIDA

PROJECT NO: 15082X
ISSUE DATE: 8/31/16
DESIGNED BY: JES
DRAFTED BY: JES
CHECKED BY: SB
DRAWING FILE: 15082X-TP
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XREFS:

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STEPHEN R. BURNS, R.L.A. NO. 986
SCALE: 1" = 40'
SHEET: TP6 OF 7



MATCH LINE - SEE SHEET TP5

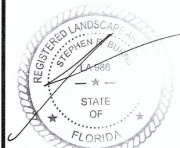


MATCH LINE - SEE SHEET TP6

LEGEND

- EXISTING TREE TO BE REMOVED
- EXISTING SPECIMEN TREE TO BE REMOVED
- PROPOSED FUTURE REMOVAL OF SPECIMEN TREES IN PHASE 2 AND 3 TO BE ADDRESSED DURING REVIEW OF THE SUBDIVISION PLAT AND PLANS FOR PHASE 2 AND 3
- EXISTING HISTORIC TREE
- EXISTING SPECIMEN TREE
- DENOTES ROOT ZONE PROTECTION AREA REQUIRED
- DENOTES NATURAL PRESERVATION / CONSERVATION AREA TO REMAIN
- DENOTES EXISTING TREE

NOTE: SEE TREE LEGEND FOR SPECIES AND PLAN VIEW FOR DD1.



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STEPHEN R. BURNS, R.L.A. NO. 986
SCALE: 1" = 40'
SHEET: TP7 OF 7

KINGS LANDING
FINAL ENGINEERING PLANS
TREE PROTECTION PLAN & DETAILS

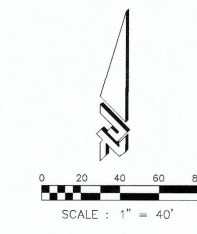
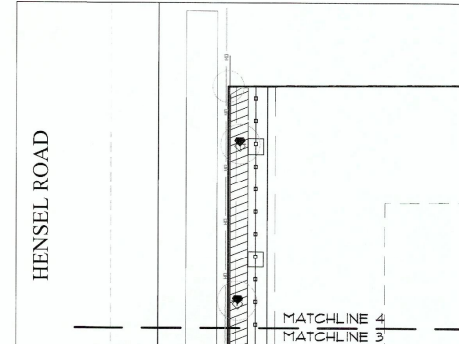
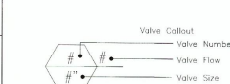
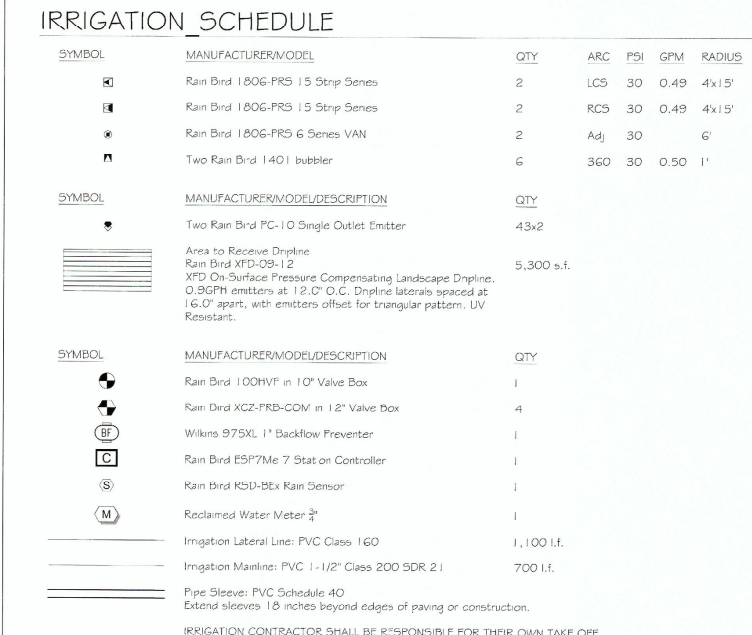
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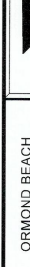
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01	07/17/16	REVISED PER CITY COMMENTS	JES
02	08/11/16	REVISED PER CITY COMMENTS	JES
03	11/21/17	REVISED PER CITY COMMENTS	JES

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ORMOND BEACH
3000 S. ORMOND BEACH BLVD., SUITE C
ORMOND BEACH, FL 32174
(386) 677-2489 FAX (386) 677-2505
ST. AUGUSTINE
6277 A.A. SOUTH, SUITE #102, OFFICE 4
ST. AUGUSTINE, FL 32080
(904) 797-1610 FAX (386) 677-2505
EDGEWATER
1500 ORANGE ROAD
EDGEWATER, FL 33123
(386) 677-2482 FAX (386) 677-2505

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ST. AUGUSTINE 6277 AIA SOUTH, STE. #102, OFFICE 4 ST. AUGUSTINE, FL 32080 (904) 797-1010 FAX (386) 677-2505	
EDGEWATER 1240 AIRPARK ROAD EDGEWATER, FL 32112-2995 (386) 677-2482 FAX (386) 677-2505	
NO. DATE REVISIONS BY JES	
01 10/27/16 REVISED PER CITY COMMENTS SEP. 26, 16	
FOR REVIEW ONLY NOT FOR CONSTRUCTION	
KING'S LANDING FINAL ENGINEERING PLANS IRRIGATION PLAN & DETAILS	
VOLUSIA COUNTY, FLORIDA CITY OF PORT ORANGE	
PROJECT NO: 15082X ISSUE DATE: 8/31/16 DESIGNED BY: JES DRAFTED BY: JES CHECKED BY: SB DRAWING FILE: 15082X-IR XREF'S: 15082X-BASE XREF'S:	
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STEPHEN R. BURNS, R.L.A. NO. 986	
SCALE: 1" = 20'	
SHEET: IR1 OF 2	

UNDERGROUND IRRIGATION SPECIFICATIONS

1.0 GENERAL

- 1.1 SUMMARY: Includes but not limited to:
- A. Furnishing and installing sprinkler system as described in Contract Documents complete with accessories necessary for proper functioning.
- 1.2 SYSTEM DESCRIPTION:
- A. Design Requirements:
 - 1. Layout of Irrigation Heads:
 - a. Location of heads shown on Drawings is approximate. Actual placement may vary slightly as is required to achieve full, even coverage without spraying onto buildings, sidewalks, fences, etc.
 - b. During layout, consult with Landscape Architect to verify proper placement and make recommendations, where revisions are advisable.
- 1.3 QUALITY ASSURANCE:
- A. Regulatory Requirements:
 - 1. Work and materials shall be in accordance with latest rules and regulations, and other applicable state or local laws. Nothing in Contract Documents is to be construed to permit work not conforming to these codes.
 - B. Pre-Installation Conference:
 - 1. Meet with Owner and Landscape Architect to discuss and clarify all aspects of job requirements prior to commencing work of this Section.
 - C. System Adjustments:
 - 1. Minor adjustments in system will be permitted to avoid existing fixed obstructions.
 - 2. Mainline, laterals, and valves are shown for clarity purposes only. All irrigation equipment to be with landscape area. Mainline, laterals and valves to be installed as far away from existing and new specimen trees as possible.
 - D. 1. Documentation and submittal of actual water supply performance prior to commencing installation.
- 1.4 SUBMITTALS:
- A. Record Drawings:
 - 1. Prepare an accurate as-built drawing as installation proceeds to be submitted prior to final inspection. Drawing shall include:
 - a. Detail and dimension changes made during construction.
 - b. Significant details and dimensions not shown in original Bidding Documents.
 - 2. Maintain, at job site, one copy of Contract Documents (as defined in General Conditions) and relevant shop drawings.
 - 3. Clearly mark each document "PROJECT RECORD COPY" and maintain in good condition for use of the Landscape Architect and Owner.
 - 4. As-built drawing shall be provided in pdf format.
 - 5. Submit product literature for all sprinklers, valves, pipe, wire, wire connectors and controller.
 - 6. Final payment for system will not be authorized until accurate and complete submittals are delivered to the Landscape Architect.
 - B. Instruction Manual:
 - 1. Provide instruction manual which lists complete instructions for system operation and maintenance.
- 1.5 PRODUCT STORAGE:
- A. During construction and storage, protect materials from damage and prolonged exposure to sunlight.
- 1.6 WARRANTY:
- A. Standard one (1) year warranty stipulated in General Conditions shall include:
 - 1. Completed system including parts and labor.
 - 2. Filling and repairing depressions and replacing plantings due to settlement of irrigation trenches for one (1) year following final acceptance.
 - 3. System adjustment to supply proper coverage to areas to receive water.
- 1.7 MAINTENANCE:
- A. Extra Materials:
 - 1. In addition to installed system, furnish Owner with the following items at close-out:
 - a. Two sprinkler head bodies of each size and type.
 - b. Two nozzles for each size and type.
 - c. Two adjusting keys for each sprinkler head cover type.

2.0 PRODUCTS:

- 2.1 PIPE, PIPE FITTINGS, AND CONNECTIONS:
- A. Pipe shall be continuously and permanently marked with Manufacturer's name, size, schedule, type, and working pressure.
 - B. Pipe:
 - 1. Pressure Lines: as indicated on plans.
 - 2. Lateral Lines: as indicated on plans.
 - 3. Risers: sch. 80 PVC, gray
 - C. Fittings:
 - 1. Schedule 40 PVC.
 - D. Sleeving:
 - 1. Schedule 40 PVC.
- 2.2 SPRINKLER HEADS:
- A. Conform to requirements shown on Drawings as to type, radius of throw, pressure, and discharge.
- 2.3 AUTOMATIC SPRINKLER SYSTEM:
- A. Control valves shall be of size and type indicated on Drawings.
 - B. Control wire shall be UL listed, color coded copper conductor direct burial size 18. Use 3M-DBY water-proof wire connectors at splices and locate all splices within valve boxes. Use white or gray color for common wire and other colors for all other wire.
- 2.4 VALVES:
- A. Electric Valves:
 - 1. Make and model shown on Drawings.
 - B. Gate valves:
 - 1. Bronze construction, angle type, 150 pound class, threaded connections, with cross-type operating handle designed to receive operating key.
 - C. Automatic Controller:
 - 1. Make and model shown on Drawings.
 - D. Backflow Preventer:
 - 1. Make and model shown on Drawings.
- 2.5 VALVE ACCESSORIES:
- A. Valve Boxes:
 - 1. Ametek or Brooks rectangular heavy duty valve box with locking lid or Landscape Architect approved equal.
 - 2. Do not install more than one (1) valve in a single box.
 - 3. Valve boxes shall be large enough for easy removal or maintenance of valves.

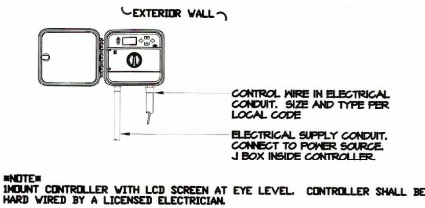
3.0 EXECUTION:

- 3.1 PREPARATION:
- A. Protection:
 - 1. Work of others damaged by this Section during course of its work shall be replaced or repaired by original installer at this Section's expense.
- 3.2 INSTALLATION:
- A. Trenching and Backfilling:
 - 1. Over-excavate trenches by two (2") inches and bring back to indicated depth by filling with fine, rock-free soil or sand.
 - 2. Cover pipe both top and sides with two (2") inches of material specified in paragraph above. In no case shall there be less than two (2") inches of rock-free soil or sand surrounding pipe.

3. Do not cover pressure main, sprinkler pipe, or fittings until the Landscape Architect has inspected and approved system.
- B. Installation of Plastic Pipe:
1. Install plastic pipe in a manner to provide for expansion and contraction as recommended by Manufacturer.
 2. Unless otherwise indicated on Drawings, install main lines with a minimum cover of eighteen (18") inches based on finish grade. Install lateral lines with a minimum cover of twelve (12") inches based on finish grade.
 3. Install pipe and wires under driveways or parking areas in specified sleeves a minimum of eighteen (18") inches below finish grade or as shown on Drawings.
 4. Locate no sprinkler head closer than twelve (12") inches from building foundation. Heads immediately adjacent to mowing strips, walks or curbs shall be one (1") inch below top of mowing strip, walk or curb and have a minimum of one (1") inch clearance between head and mowing strip, walk or curb.
 5. Drawings show arrangement of piping. Should local conditions necessitate rearrangement, obtain approval of Landscape Architect prior to proceeding with work.
 6. Cut plastic pipe square. Remove burrs at cut ends prior to installation so unobstructed flow will result.
 7. Make solvent weld joints in the following manner:
 - a. Clean mating pipe and fitting with clean, dry cloth and apply one (1) coat of P-70 primer to each.
 - b. Apply uniform coat of 711 solvent to outside of pipe.
 - c. Apply solvent to fitting in similar manner.
 - d. Reapply a light coat of solvent to pipe and quickly insert into fitting.
 - e. Give pipe or fitting a quarter turn to insure even distribution of solvent and make sure pipe is inserted to full depth of fitting socket.
 - f. Hold in position for fifteen (15) seconds minimum or long enough to secure joint.
 - g. Wipe off solvent appearing on outer shoulder of fitting.
 - h. Do not use an excessive amount of solvent thereby causing an obstruction to form on the inside of pipe.
 - i. Allow joints to set at least 24 hours before applying pressure to PVC pipe.
 8. Tape threaded connection with teflon tape.
 9. Install concrete thrust blocks wherever change of direction occurs a PVC main pressure lines unless otherwise detailed on Drawings.
- C. Control Valves and Controller:
1. Install controller, control wires, and valves in accordance with Manufacturer's recommendations and according to applicable electrical code.
 2. Install valves in plastic boxes with reinforced heavy duty plastic covers. Locate valve box tops at finish grade.
 3. Install remote control valves in valve boxes positioned over valve so all parts of valve can be reached for service. Set cover of valve box even with finish grade.
 4. Install all valve boxes over nine (9") inches of gravel for drainage.
- D. Sprinkler Heads:
1. Prior to the installation of sprinkler heads, open control valves and use full head of water to flush out system.
 2. Set sprinkler heads perpendicular to finish grade.
 3. Set lawn sprinkler heads adjacent to existing walks, curbs, and other paved areas to grade.
- E. Dripline:
1. Install one Rain Bird zone operation indicator (OPERIND), air relief (ARV050) and flush valve (MDCFPCAP) for each drip zone.
 2. Stake dripline every 6' with drip stake.

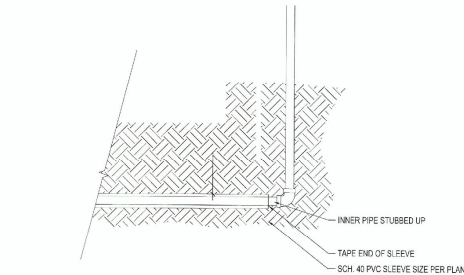
- 3.3 ADJUSTMENT AND CLEANING:
- A. Adjust heads to proper grade when turf is sufficiently established to allow walking on it without appreciable harm. Such lowering or raising of heads shall be part of the original contract with no additional charge to the Owner.
 - B. Adjust sprinkler heads for proper distribution and trim to ensure spray does not fall on building.
 - C. Adjust watering time of valves to provide proper amounts of water to all plants.
- 3.4 DEMONSTRATION:
- A. After system is installed and approved, instruct Owners Representative in complete operation and maintenance.

END OF SECTION



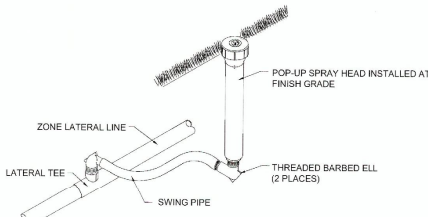
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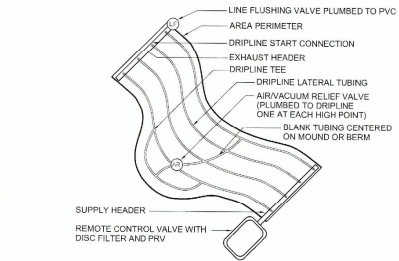
SLEEVING ROUGH-IN DETAIL

SCALE: NTS

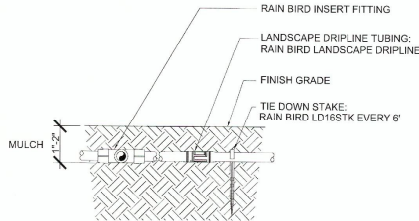


SPRAY HEAD INSTALLATION DETAIL

SCALE: NTS



IRREGULAR AREA DIPLINE LAYOUT



LANDSCAPE DIPLINE 2" BELOW GRADE WITH EASY FIT TEE

NOT TO SCALE



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300 INTERCHANGE BLVD., STE. C
ORMOND BEACH, FL 32136
(386) 677-2482 FAX (386) 677-2555
ST. AUGUSTINE
3277 ALA. ROUTE 101, STE. 100
ST. AUGUSTINE, FL 32080
(904) 797-1610 FAX (386) 677-2555
EDGEWATER
10000 W. BAYVIEW BLVD., SUITE 100
EDGEWATER, FL 33124
(386) 677-2482 FAX (386) 677-2555

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KING'S LANDING
FINAL ENGINEERING PLANS
IRRIGATION PLAN & DETAILS

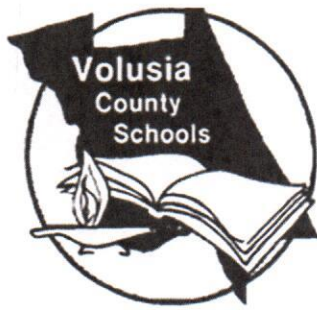
VOLusia COUNTY, FLORIDA

CITY OF PORT ORANGE

PROJECT NO: 15082X
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DRAWING FILE: 15082X-IR
XREF'S: 15082X-BASE
XREF'S:



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STEPHEN R. BURNS, R.L.A. NO. 986
SCALE:
SHEET: IR2 OF 2



James T. Russell
Superintendent of Schools

FACILITIES SERVICES

3750 Olson Drive, Daytona Beach, Florida 32124
PHONE: 386/734-7190 FAX: 386/506-5056

Page 1 of 2

EXHIBIT C

School Board of Volusia County

Mrs. Linda Costello, Chairman
Mrs. Ida White, Vice-Chairman
Mrs. Linda Cuthbert
Dr. John Hill
Mrs. Melody Johnson

09 February, 2017

Owner:
Coventry Partners, LLC
500 Fentress Blvd.
Daytona Beach, FL 32114

Agent:
Randy Hudak, P.E.

**RE: Kings Landing Phase 1 – Port Orange
School Concurrency Case #16-10-21-001-R**

Dear Mr. Hudak:

School district staff has reviewed the project information for a proposed Single family residential project known as Kings Landing (Phase 1). The complete project site of 82.2+/- acre site is located at 5931 Hensel Road in the City of Port Orange. The information provided in the application packet, the dwelling unit worksheet, and site plans indicate the development of 69 total units to be completed in three phases. Due to the timing of these phases this review will only be relevant for the first phase of nineteen (19) units.

By utilizing the School District's student generation rate (.305) per single family dwelling unit, the project could generate six (6) full time students. The table below contains the impacted school concurrency areas (CSA) and their associated capacity information.

Schools	Adopted LOS	SY15/16 Enrollment	Reserved Capacity	% of Permanent Capacity	Students Generated by Request	Change to LOS
Spruce Creek Elementary	115%	768	58	103%	3	105%
Creekside Middle School	115%	1206	37	110%	1	110%
Halifax High School CSA	120%	7450	182	100%	2	100%
Other					0	

Kings Landing Phase 1 – Port Orange
09 February, 2017

This projected increase in students will not impact the school enrollment beyond adopted LOS utilization rates. At this time the impacted school concurrency areas are operating at or below the adopted level of service standards; for that reason, the school district does not have an objection to the proposed site plan.

At a minimum advance planning considerations should include both pedestrian and vehicular access, safety, connectivity and buffering. The site plan submitted includes sidewalks within the apartment complex but those sidewalks do not connect thus do not positively impact the bicycle/ pedestrian connectivity to the surrounding area.

Please note that the School Board has the right to adjust the attendance boundaries to balance the student enrollment populations at these area schools. Therefore, students generated from this project may not attend the current assigned schools.

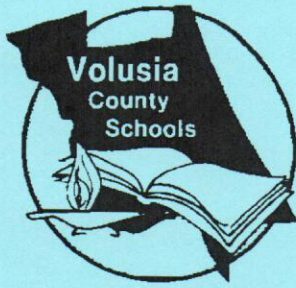
If you should have additional questions or require more information, please feel free to contact me at extension 50810.

Sincerely,



Eric A. Kozielski
Planning & GIS Specialist

Cc: James Russell, Superintendent of Schools
Tim Burman, City of Port Orange
Project File



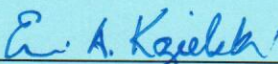
Certificate of School Concurrency

Volusia County School Board

Project Information					
Project Name	Kings Landing Phase 1				
VCSB Project #	16-10-21-001-R				
Jurisdiction Project#					
Parcel ID Numbers:	6321-00-00-0071; 6321-00-00-0074				
Project Location:	5931 Hensel Road				
# of residential units:	19				
Residential Unit Type:	Single Family Detached				
Property Owners:	Coventry Partners, LLC				
Applicant/Agent Name:	Randy Hudak, P.E.				
School Concurrency Analysis					
Schools:	Elementary	Middle	High	Other	Total Capacity Reserved
Students Generated	3	1	2		6
Comments: This certificate is required to be included with the building permit submittal(s) as proof of school concurrency.					

This School Concurrency Certificate shall reserve capacity for the above referenced project and shall confirm that said project meets the School Concurrency requirements of the adopted Interlocal Agreement for Public School Facility Planning.

This concurrency reservation shall expire two (2) years from the date of issuance of this certificate.


Eric Kozielski
Planning and GIS Specialist


Issue Date



STAFF REPORT

SUBDIVISION PLAT & PLANS /

WOODHAVEN, PHASE I & SUBDIVISION VARIANCE

CASE NO. 17-50000001

REQUEST: Approval of the Woodhaven Phase I Plat and Subdivision Plans, subject to approval of the subdivision variance to waive the requirement to provide a trash compactor or dumpsters in the townhome portion of the subdivision.

LOCATION: North of Williamson Boulevard, east of I-95 (see Figure 1)

OWNER/APPLICANT: CC Woodhaven, LLC

STAFF RECOMMENDATION: Approval

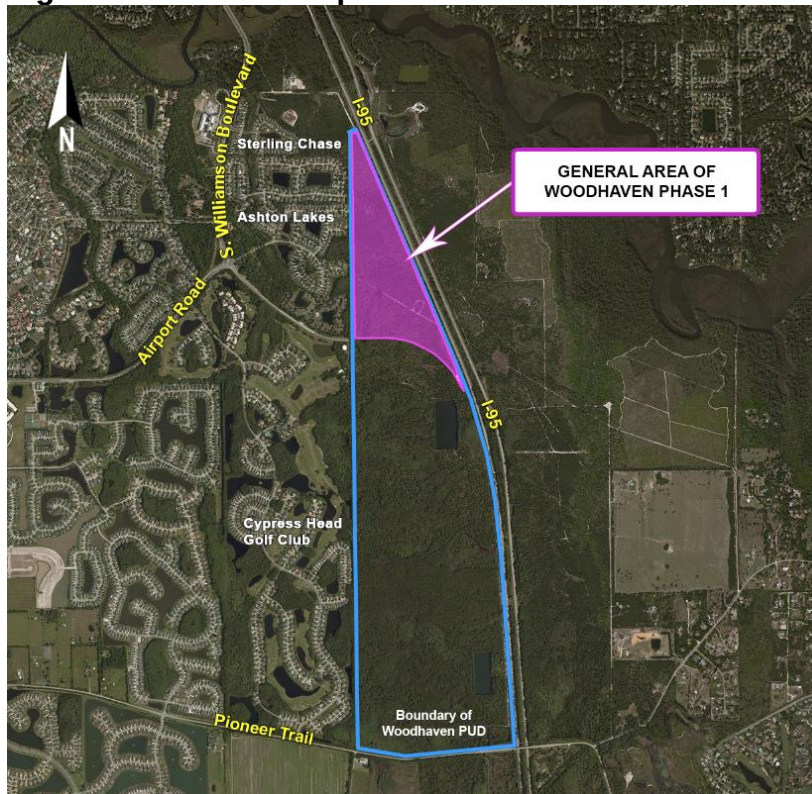
STAFF CONTACT: Penelope Cruz (386) 506-5671

PLANNING COMMISSION DATE: March 23, 2017

DISCUSSION

The Applicant requests approval of the Woodhaven Subdivision (Phase 1). If approved, the Applicant proposes to subdivide ± 116 acres into 178 single-family lots and 93 townhome lots, along with associated infrastructure and stormwater improvements (Exhibit B). The subject property is located north of Williamson Boulevard, between I-95 and the Ashton Lakes and Sterling Chase subdivisions.

Figure 1. Location Map



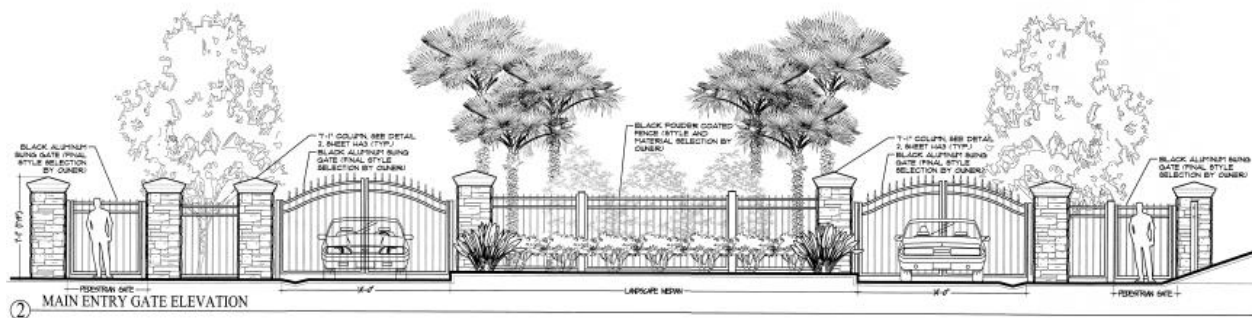
The subject property is currently vacant. It has been zoned Planned Unit Development (PUD) since 1997. The subject ± 116 -acre property's Future Land Use designation is primarily *Rural Transition* (0-2 units/acre), with some areas of *Conservation* and *Suburban Residential* (2-4 units/acre).

The plat and subdivision plans have been designed according to the requirements of the Woodhaven PUD Master Development Agreement (MDA) and the City's Land Development Code (LDC),

except for the variance requested and discussed later in the report. The subdivision will have access from Williamson Boulevard. The following subdivision improvements will be constructed:

- Water and sewer infrastructure;
- Private, gated local streets within the subdivision (travel lanes, 5' sidewalks, and streetlights);
- Stormwater drainage infrastructure;
- 50'-wide buffers along Williamson Boulevard, I-95, and the western perimeter adjacent to the existing Ashton Lake and Sterling Chase subdivisions and the Ashton Lake apartments; and
- Entry signage, gate and landscaping at the entrance off Williamson Boulevard (see Figure 2 and Staff Report Exhibit C).

Figure 2. Main Entrance Gate



CONCURRENCY REVIEW

Public facilities and services, such as roads, public infrastructure, schools, and recreational facilities are currently available to serve the proposed 271 residential lots. The following discussion and table summarizes the impacts the proposed development is expected to have on the public facilities and services.

Table 1. Infrastructure Impact Assessment for 178 Single-Family Lots & 93 Townhome Lots

Development Variable	Development Impact
Population ¹	610
A.M./P.M./Daily Peak Hour Trips ²	209/275/2,767
Sanitary Sewer (gallons per day) ³	43,360
Potable Water (gallons per day) ⁴	48,780
Stormwater Drainage ⁵	See note
Solid Waste (lbs. Per day) ⁶	1,958
Recreation & Open Space ⁷	
• Parkland	4.27
• Ball Fields	0.122
• Basketball Courts	0.153
• Multipurpose Courts	0.174
• Tennis Courts	0.153
• Neighborhood Centers	0.041

Table 1 Notes:

1. **Population:** 2.25 persons per household (per 2010 Census)
2. **Transportation:** Single-family (210) 0.77 AM peak hour trip per unit, 1.02 PM peak hour trip per unit, 9.52 daily trips per unit; Condo/Townhomes (230) 0.44 AM peak hour trip per unit, 0.52 PM peak hour trip per unit, 5.81 daily trips per unit; ITE Trip Generation Manual, 9th Edition
3. **Sanitary Sewer:** 160 gallons per day per Equivalent Residential Unit
4. **Potable Water:** 180 gallons per day per Equivalent Residential Unit
5. **Solid Waste:** 3.21 pounds per person per day
6. **Stormwater Drainage:** LOS standard = 25 year, 24-hour event. Drainage system will be designed to meet the requirements of the Land Development Code.
7. **Rec. & Open Space:**
 - Parkland: 7 acres per 1,000 persons (0.007 acres/person)
 - Ball Fields: 1 field per 5,000 persons (0.0002 ball fields/person)
 - Basketball Courts: 1 court per 4,000 persons (0.00025 basketball courts/person)
 - Multipurpose Fields: 1 field per 3,500 persons (0.0002857 multipurpose fields/person)
 - Tennis Courts: 1 court per 4,000 persons (0.00025 tennis courts/person)
 - Neighborhood Centers: 1 facility per 15,000 persons (0.0000666 neighborhood centers/person)

Water and Sewer

The City has available sanitary sewer and potable water capacity to accommodate the proposed 217 lot subdivision. All lots will be provided with stub-outs for utilities. The developer will construct potable water and sanitary sewer lines in accordance with the Land Development Code and the utility plan for this project. Irrigation will be provided through private wells.

Stormwater Drainage

The City's adopted level-of-service standard for stormwater drainage requires that all new retention/detention facilities be able to treat the runoff from a 25-year, 24-hour storm event and convey the runoff from a 100-year, 24-hour storm event without causing flooding or pollution of receiving water bodies. In addition, there must be no net loss of stormwater retention function as a result of development; therefore, the subdivision property must have the same ability to store and discharge water after development as it does before development occurs.

The stormwater treatment system for the single-family portion of this subdivision consists of four wet detention ponds and one dry retention pond. The townhome portion of this subdivision includes one wet detention pond, and two interconnected dry retention ponds. The system ultimately discharges to Spruce Creek, a nutrient impaired and Outstanding Florida Waterbody (OFW). The Applicant has demonstrated that the system is designed to meet the OFW and nutrient discharge criteria. The system is designed to attenuate the post-development peak rate of discharge to pre-development levels for the 25-year 24-hour storm event.

Recreation and Open Space

The City's adopted level-of-service for recreational facilities includes acreage of parkland, and number of ball fields, basketball courts, multi-purpose fields, tennis courts, and neighborhood centers. According to the City's 2016 Concurrency Management Report, the City is not deficient in any of the recreational facilities

categories and there are sufficient facilities to support the anticipated additional population¹ from this subdivision.

School Capacity

The Volusia County School District determined that the adopted level-of-service will be met and capacity exists in the schools for the estimated students (eighty-three full time students) to be generated by the proposed development (see Exhibit A).

Transportation

According to the Woodhaven, Phase 1, Traffic Impact Analysis (TIA) prepared by Lassiter Transportation Group, Inc., the 178 single-family homes and 93 townhomes are expected to generate 209 AM peak-hour, 275 PM peak-hour trips, and 2,767 daily trips.

The TIA indicates that all intersections identified in the TIA study area that would be impacted by this development will operate within the adopted Level-of-Service standards with the traffic generated from the proposed subdivision, subject to the developer coordinating with Volusia County to adjust the signal timing at the intersection of Williamson Boulevard at Airport Road and Williamson Boulevard at Taylor Road. The TIA also anticipates that in 2022, the 2-lane segment of Williamson Boulevard from Beville Road to Town West Boulevard could exceed capacity if the road is not widened to 4-lanes similar to the other segments of Williamson Boulevard (except Hand Avenue to LPGA) and the 2-lane segment of Taylor Road between Crane Lakes Road and Summer Trees Road could exceed its capacity if not widened to 4-lanes. Because the improvements are on roadways maintained by Volusia County, the developer will be required to obtain concurrency certification from the County and may be subject to proportionate fair-share agreements and/or other mitigation strategies with the County. If required, proof of concurrency certification from the County will need to be provided prior to the item going before City Council.

CONSISTENCY WITH THE COMPREHENSIVE PLAN

The proposed subdivision is consistent with the Woodhaven PUD Master Development Plan and Conceptual Development Plan that have already been determined to be consistent with the City's Comprehensive Plan. The overall Woodhaven PUD allows for a maximum of 1,338 dwelling units.

SUBDIVISION VARIANCE

The Land Development Code (LDC) requires townhouse and multifamily developments to provide one standard dumpster pad and enclosed collection point for every 20 residential units or a trash compactor sufficient in size to serve the entire development [LDC, Chapter 11, Section 7(a)]. This requirement was added to the LDC in 2011² due to some staff concerns about possible visual clutter from the number of individual trash cans on smaller townhome lots (18'-wide) and inefficient solid waste collection service. However, this has not turned out to be an actual problem in existing Port Orange

¹ The 2.25 persons per household ratio for the City of Port Orange (per 2010 Census) would theoretically yield an estimated population of 610 people.

² Ordinance 2011-27

developments or in other cities with developments similar to the proposed townhomes, but because it is an LDC requirement the Applicant must request a variance to permit an alternative approach.

The applicant has requested a subdivision variance to allow the townhome portion of this subdivision to be developed with individual curbside solid waste disposal rather than with the required trash compactor or dumpsters. Pursuant to LDC, Chapter 5, Section 8(b)(2) a variance may be requested from required improvements or design criteria. The variance may be granted by the City Council, upon recommendation of the Planning Commission.

Chapter 5, Section 8(b)(4) of the LDC, lists the review criteria used to determine whether a subdivision variance request should be granted. For a subdivision variance to be approved the following criteria may be considered.

1. *Topographic or other physical conditions exist which are peculiar to the site and not a result of the actions of the applicant.*

The requirement to provide one standard dumpster pad and enclosed collection point for every 20 residential units or a trash compactor for a townhome development is based on the 18 – 20 foot wide townhome lots size allowed in the LDC. The lots sizes provided for the proposed townhomes in this development are generally 30 feet wide. The wider lot width creates a layout that functions more like detached single-family home development as opposed to a multi-family development. However, the requested variance is ultimately a matter of design choice and is not based on topographic or other physical conditions.

2. *Literal interpretation of this code would result in unnecessary and undue hardship on the applicant.*

This proposed project is designed for a maximum of four units per building with each fee-simple lot having a two-car garage and full width driveway. According to the Applicant, the townhomes are more similar to detached single-family homes as opposed to a multi-family development. The Developer has constructed this exact product in the Plantation Bay community in Ormond Beach. A photograph of the streetscape on garbage collection day in that development was provided by the Applicant (see Figure 3) to display the lack of objectionable clutter. Also, a letter from the City's solid waste service provider, Waste-Pro, has been provided indicating a willingness and ability to provide curbside pick-up service in this neighborhood similar to a single-family development.

Figure 3. Plantation Bay Townhomes on Garbage Day



3. *Required services are already available to proposed lots without the construction of additional improvements.*

All required public utilities and services can be provided to all proposed lots through the proposed subdivision design. A letter from the City's solid waste service provider, Waste-Pro, has been provided indicating a willingness and ability to provide curbside pick-up service in this neighborhood similar to a single-family development.

4. *Levels of service can be reasonably provided through the site development plan review process or residential site plan review process for individual lots.*

The applicant will be able to provide the required services and meet the Level of Service standards for all homes in the subdivision through the proposed subdivision design.

5. *Other methods can be arranged to assure construction of improvements, eliminating the need for formal subdivision approval.*

The Applicant is not requesting a variance from the subdivision review process. The request is to be allowed to utilize curbside pick-up service for solid waste disposal rather than dumpsters or a trash compactor, so this criterion is not applicable to this request.

6. *The granting of a variance is consistent with the overall intent of this code, and will not be injurious to the surrounding properties or detrimental to the public welfare.*

The intent of the Chapter 11 requirements of the LDC are to meet the level-of-service (LOS) requirements of the Comprehensive Plan and to provide adequate service capacities for individual projects. The solid waste LOS standard adopted in

the Comprehensive Plan for residential development is: 3.21 pounds per capita per day and up to 1,350 residential units per curbside collection vehicle. A letter from the City's solid waste service provider, Waste-Pro, has been provided indicating a willingness and ability to provide curbside pick-up service in this neighborhood similar to a single-family development.

The specific requirement for townhomes developments to provide dumpsters every 20 residential units or a trash compactor was added to the LDC due to some staff concerns about possible visual clutter from the number of individual trash cans on smaller townhome lots (18'-wide) and inefficient solid waste collection service. However, this has not turned out to be an actual problem in existing Port Orange developments or in other cities with developments similar to the proposed townhomes. The lots sizes provided for the proposed townhomes in this subdivision are generally 30 feet wide. The wider lot width creates a layout that function more like detached single-family home development as opposed to a multi-family development.

The granting of the requested variance will allow for the adequate provision of solid waste disposal and will not be injurious to the surrounding properties or detrimental to the public welfare.

Based on the review criteria above, staff recommends approval of the subdivision variance to allow the townhome portion of this subdivision to be developed with individual curbside solid waste disposal rather than with the required trash compactor or dumpsters.

OUTSTANDING TECHNICAL COMMENTS

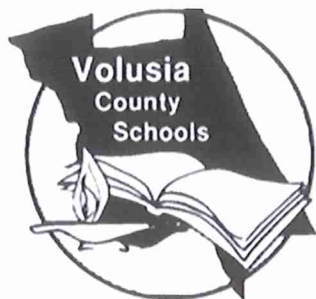
The Staff Development Review Committee (SDRC) has reviewed this project and there some remaining technical comments that must be addressed prior to scheduling this item for City Council. These comments include resolving underground utility conflicts, finalizing the transportation impact analysis review by Volusia County, and other labeling and plat note revisions on the plat and plans.

RECOMMENDATION

Staff recommends **approval** of the final plat and plans for Woodhaven Phase I, subject to approval of the subdivision variance to waive the requirement to provide a trash compactor or dumpsters in the townhome portion of the development.

ATTACHMENTS

- Exhibit A – School District Letter
- Exhibit B – Plat for Woodhaven Phase I
- Exhibit C – Plans for Woodhaven Phase I



James T. Russell
Superintendent of Schools

FACILITIES SERVICES

3750 Olson Drive, Daytona Beach, Florida 32124
PHONE: 386/734-7190 FAX: 386/506-5056

School Board of Volusia County

Mrs. Ida D. Wright, Chairman
Mrs. Melody Johnson, Vice-Chairman
Mrs. Linda Costello
Mrs. Linda Cuthbert
Dr. John Hill

15 June, 2016

Owner:
CC Woodhaven LLC by CC North Central LLC.

Agent:
Richard D. Smith
ICI Homes
2379 Beville Road
Daytona Beach, FL 32119

**RE: Woodhaven Phase 1a & 1b
School Concurrency Case #16-06-13-001-R**

Dear Mr. Smith:

School district staff has reviewed the project information for the proposed residential project known as Woodhaven Phases 1a & 1b. The ±119.6 acre site is located near South Williamson Boulevard and I-95. The information provided in the application packet, site plan, and dwelling unit worksheet indicates the development of a 271 total dwelling unit single family detached and town home complex to be completed in one phase.

By utilizing the School District's student generation rates of (.305) for single family dwelling unit types; the project could generate eighty three (83) full time students. The table below contains the impacted school concurrency areas (CSA) and their associated capacity information.

Schools	Adopted LOS	SY15/16 Enrollment	Reserved Capacity	% of Permanent Capacity	Planned Capacity On site	Students Generated by Request	Change to LOS
Cypress Creek Elementary	115%	783	38	109%	N	35	114%
Creekside Middle School	115%	1206	20	108%	N	22	110%
Halifax High School CSA	120%	7450	155	100%	N	24	100%
Other						2	

Woodhaven Phase 1a & 1b
15 June, 2016

This addition of students is not projected to increase the school capacity beyond current adopted LOS percentages. At this time the impacted school concurrency areas are operating at or below the adopted level of service standards; for that reason, the school district does not have an objection to the proposed subdivision.

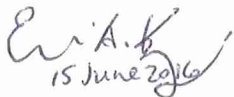
However, due to growth and development in the region there is an expectation that both Creekside Middle and Cypress Creek Elementary will exceed the LOS standard in the near future. Adjacent planning areas are also constrained at the elementary and middle school levels. A finding which illustrates an increase in school utilization beyond adopted level of service necessitates a mitigation agreement. Upcoming development will likely need to plan for mitigation of school impacts in this region for the near future.

At a minimum advance planning considerations should include both pedestrian and vehicular access, safety, connectivity and buffering. The site plan should indicate sidewalks connecting this subdivision to the surrounding neighborhood thus aiding in the bicycle/ pedestrian connectivity of the site.

Please note that the School Board has the right to adjust the attendance boundaries to balance the student enrollment populations at these area schools. Therefore, students generated from this project may not attend the current assigned schools.

If you should have additional questions or require more information, please feel free to contact me at extension 50810.

Sincerely,



15 June 2016

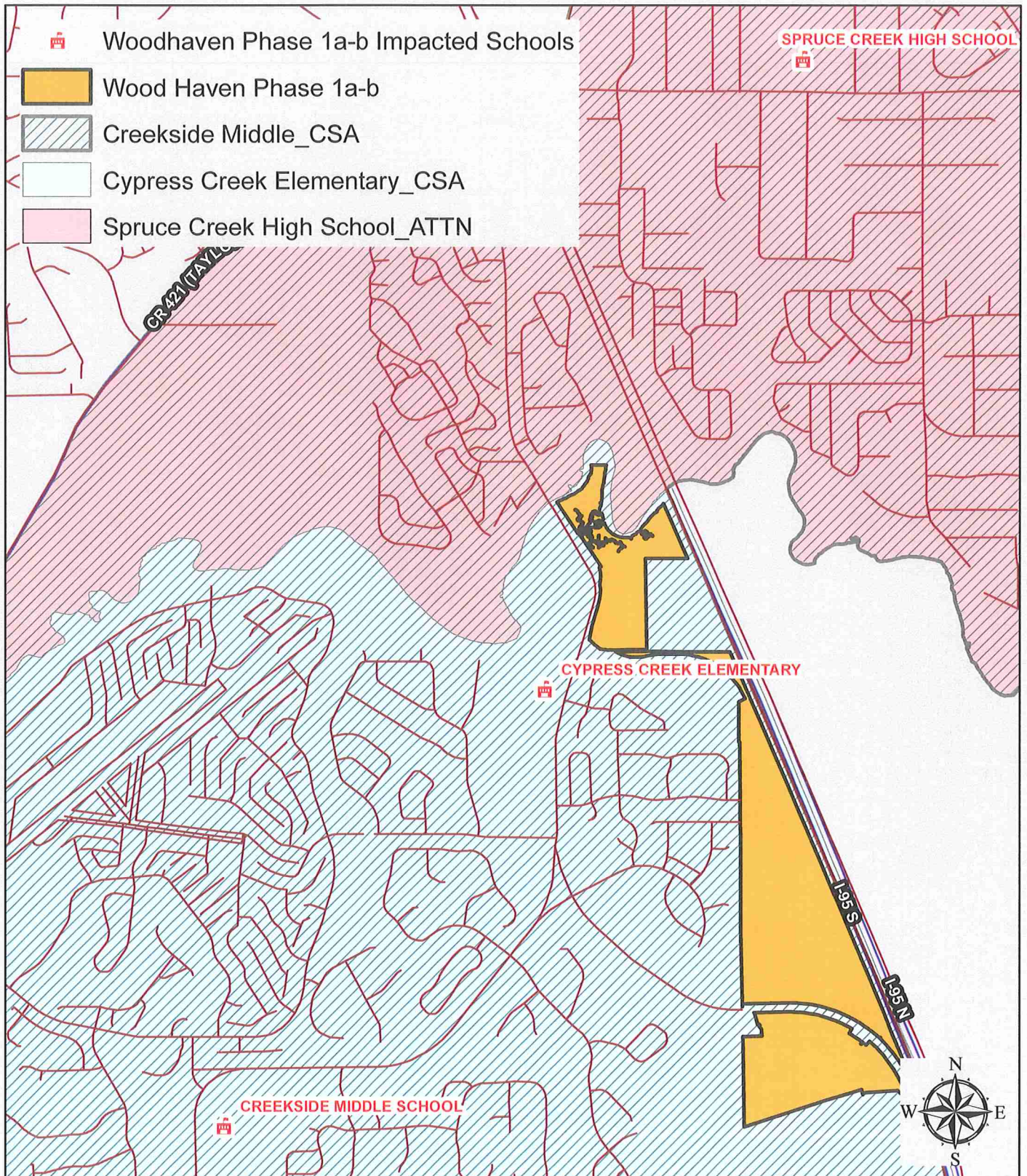
Eric A. Kozielski
Planning & GIS Specialist

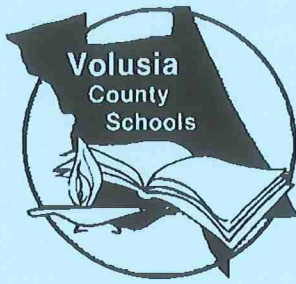
Cc: James Russell, Superintendent of Schools
Penelope Cruz, City of Port Orange
Project File

VCSB Schools Impacted by Development Proposal



Created by Facilities Services
June 2016





Certificate of School Concurrency

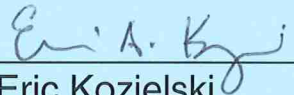
Volusia County School Board

Project Information	
Project Name	Woodhaven Phase 1a & 1b
VCSB Project #	16-06-13-001-R
Jurisdiction Project#	
Parcel ID Numbers:	6329-00-00-0040
Project Location:	South Williamson and I-95
# of residential units:	271
Residential Unit Type:	178 Single family detached, 93 Town Home units
Property Owners:	CC Woodhaven, LLC by CC North Central, LLC.
Applicant/Agent Name:	Richard D. Smith, ICI Homes

School Concurrency Analysis					
Schools:	Elementary	Middle	High	Other	Total Capacity Reserved
Students Generated	35	22	24	2	83
Comments: This certificate is required to be included with the building permit submittal(s) as proof of school concurrency.					

This School Concurrency Certificate shall reserve capacity for the above referenced project and shall confirm that said project meets the School Concurrency requirements of the adopted Interlocal Agreement for Public School Facility Planning.

This concurrency reservation shall expire two (2) years from the date of issuance of this certificate.


 Eric Kozielski
 Planning and GIS Specialist

15 June 2016
 Issue Date



REVISED

WOODHAVEN – PHASE 1

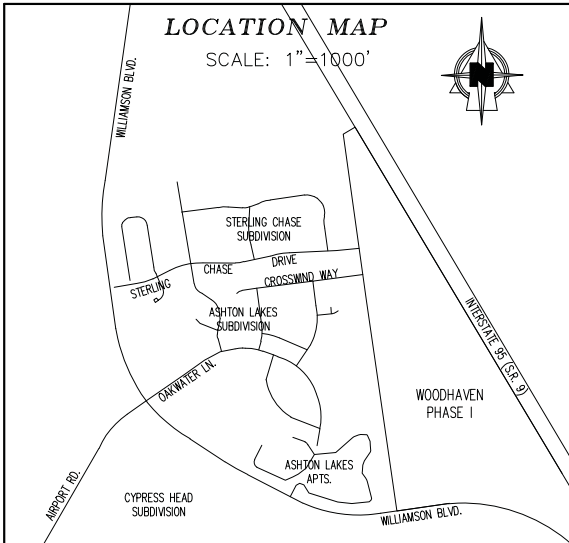
A PORTION OF THE EAST 1/2 OF SECTIONS 29 AND 32, TOWNSHIP 16 SOUTH, RANGE 33 EAST,
CITY OF PORT ORANGE, VOLUSIA COUNTY, FLORIDA

GENERAL NOTES:

1. ☐ DENOTES PERMANENT MONUMENT (P.R.M.) FOUND 4" X 4" CONCRETE MONUMENT STAMPED "PM LB 3019" UNLESS OTHERWISE SHOWN.
☒ DENOTES PERMANENT REFERENCE MONUMENT (P.R.M.) SET 4" X 4" CONCRETE MONUMENT STAMPED "PM LB3019".
☒ DENOTES PERMANENT CONTROL POINT (P.C.P.) STAMPED "PC LB3019".
+ DENOTES POINT OF CURVATURE.
(NR) DENOTES NON-RADIAL LINE RELATIVE TO CURVES.
2. 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 VOLUSIA COUNTY, FLORIDA.
3. DIMENSIONS ARE SHOWN IN FEET AND DECIMALS THEREOF.
4. NOTE: ALL MEASUREMENTS REFER TO HORIZONTAL PLANE IN ACCORDANCE WITH THE DEFINITION OF THE U.S. SURVEY FOOT OR METER ADOPTED BY THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY. ALL MEASUREMENTS SHALL USE THE 39.37/12=3.28083333333333 EQUATION FOR CONVERSION FROM A U.S. FOOT TO METERS.
5. ACCURACY: THE BOUNDARY LINEAR ERROR OF CLOSURE DOES NOT EXCEED 1:10,000. THE BOUNDARY ANGULAR ERROR OF CLOSURE DOES NOT EXCEED 15 SECONDS MULTIPLIED BY THE SQUARE ROOT OF THE NUMBER OF ANGLES TURNED.
6. BEARING STRUCTURE IS ASSUMED WITH THE BEARING ON THE WEST LINE OF THE SOUTHEAST 1/4 SECTION 29, TWP 16S, R3E, 33E, BEING N00°25'12"W.
7. ALL LOT LINES ARE RADIAL UNLESS SHOWN OTHERWISE.
8. THIS PLAT IS SUBJECT TO ALL EASEMENTS OF RECORD AND RESERVATIONS OF EASEMENTS, INCLUDING BUT NOT LIMITED TO DRAINAGE AND UTILITY EASEMENTS GRANTED TO THE CITY WHICH SHALL BE LOCATED AS FOLLOWS, EXCEPT AS OTHERWISE NOTED ON THE PLAT: FRONT LOT AND PARCEL LINES (STREET FRONTAGE), 12.00 FOOT WIDE.
9. UTILITY EASEMENTS PROVIDED ON THIS PLAT INCLUDE 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.
10. ALL OTHER EASEMENTS ARE SUBORDINATE TO ANY CONSERVATION EASEMENTS DEDICATED HEREON. THERE SHALL BE NO REMOVAL OR DISTURBANCE OF ANY VEGETATION WITHIN SUCH CONSERVATION EASEMENTS. ANY PROPOSED CONSTRUCTION OR OTHER USE WITHIN A CONSERVATION EASEMENT MUST BE REVIEWED AND APPROVED BY THE CITY OF PORT ORANGE AND ANY OTHER AUTHORITY HAVING JURISDICTION OVER THE CONSERVATION EASEMENT.
11. THE TERM "UTILITIES" AS USED ON THIS PLAT SHALL INCLUDE, BUT NOT BE LIMITED TO, SEWER, SECURITY, TELEPHONE, ELECTRIC, CABLE TELEVISION SYSTEMS, POTABLE WATER, RECLAIMED WATER, DRAINAGE STRUCTURES, FIBER OPTIC, TELECOMMUNICATIONS AND NATURAL GAS.
12. ADDITIONAL RESTRICTIONS REGARDING FENCING OF INDIVIDUAL LOTS MAY BE FOUND IN THE DECLARATION OF COVENANTS AND RESTRICTIONS FOR WOODHAVEN HOMEOWNERS ASSOCIATION, INC.
13. RESIDENTIAL SITE DEVELOPMENT CRITERIA:
SINGLE FAMILY DETACHED: MIN. LOT AREA=5,000 S.F.; MIN. LOT WIDTH=50 FEET; MAX. LOT COVERAGE=60% MIN. OPEN SPACE=40%
BUILDING SETBACKS: SIDE: 5 FEET; FRONT: 20 FEET; REAR: 20 FEET; MAX. HEIGHT 35 FEET
TWO FAMILY: MIN. LOT AREA=2,000 S.F.; MIN. LOT WIDTH=30 FEET; MAX. LOT COVERAGE=65% MIN. OPEN SPACE=35%
BUILDING SETBACKS: SIDE: 5 FEET; FRONT: 20 FEET; REAR: 10 FEET; MAX. HEIGHT 35 FEET
MULTI-FAMILY: MIN. LOT AREA=1,000 S.F.; MIN. LOT WIDTH=18 FEET; MAX. LOT COVERAGE=70% MIN. OPEN SPACE=30%
BUILDING SETBACKS: SIDE: 10 FEET; FRONT: 20 FEET; REAR: 10 FEET; MAX. HEIGHT 35 FEET
* APPLIES TO UNITS WITH INDIVIDUAL LOTS UNDER FEE SIMPLE OWNERSHIP
NOTE: THE CITY OF PORT ORANGE, FLORIDA REQUIRES A 20 FOOT BUILDING SETBACK FROM ANY WETLAND BUFFER LIMITS
14. THE COMMON AREAS SHALL BE SUBJECT TO EASEMENTS AS SHOWN OR DESCRIBED HEREON. THE GRANTING OF SUCH COMMON AREAS IS NOT INTENDED TO GRANT ANY RIGHT TO THE GENERAL PUBLIC.
15. ALL LANDSCAPING AND IRRIGATION IN THE COMMON AREAS IS TO BE MAINTAINED BY THE WOODHAVEN HOMEOWNERS ASSOCIATION, INC. OR THE PIONEER COMMUNITY DEVELOPMENT DISTRICT.
16. THE ARTICLES OF INCORPORATION FOR WOODHAVEN HOMEOWNERS ASSOCIATION, INC. ARE RECORDED IN OFFICIAL RECORDS BOOK _____, PAGES _____ THROUGH _____ OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA.
17. RETENTION AREAS AND COMMON AREAS ARE GRANTED AS EASEMENTS TO THE CITY OF PORT ORANGE WITH RIGHTS OF ACCESS, INGRESS, AND EGRESS, TOGETHER WITH THE RIGHT TO HARVEST EXCESS STORM WATER / GROUND WATER AS DEEMED APPROPRIATE AT THE DISCRETION OF THE CITY.
18. THE DECLARATION OF COVENANTS AND RESTRICTIONS FOR THE WOODHAVEN HOMEOWNERS ASSOCIATION, INC. ARE RECORDED IN OFFICIAL RECORDS BOOK _____, PAGES _____ THROUGH _____ OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA, AS AMENDED.
19. DRAINAGE EASEMENTS SHOWN OR DESCRIBED ON THIS PLAT SHALL BE FOR THE INSTALLATION, OPERATION, AND MAINTENANCE OF AND ACCESS TO THE STORMWATER DRAINAGE FACILITIES WITHIN THE BOUNDARIES OF THIS PLAT.
20. THE PIONEER COMMUNITY DEVELOPMENT DISTRICT, A LOCAL UNIT OF SPECIAL PURPOSE GOVERNMENT, SHALL BE RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF THE DRAINAGE SYSTEM SERVING THE AREA WITHIN THE BOUNDARIES OF THIS PLAT, AS DEPICTED ON THE STORMWATER MANAGEMENT PLAN APPROVED FOR THIS DEVELOPMENT BY THE CITY OF PORT ORANGE, FLORIDA. SHOULD THE DISTRICT FAIL TO PERFORM THE MAINTENANCE OF THE DRAINAGE AND STORMWATER MANAGEMENT SYSTEMS, THE CITY OF PORT ORANGE SHALL BE ENTITLED TO ENTER UPON THE COMMON AREAS AND DESIGNATED EASEMENT AREAS TO PERFORM MAINTENANCE, REPAIR OR REPLACE THE FACILITIES AND, SHALL HAVE THE RIGHT TO LIEK ALL OWNERS OF RECORD IN PROPERTY FOR THE COST OF SUCH MAINTENANCE, REPAIR AND REPLACEMENT, AS DEEMED BY THE CITY TO BE NECESSARY. IN THE EVENT OF TERMINATION, DISSOLUTION, OR FINAL LIQUIDATION OF THE DISTRICT, THE RESPONSIBILITY FOR THE OPERATION AND MAINTENANCE OF THE SURFACE WATER OR STORM WATER MANAGEMENT SYSTEM WILL BE TRANSFERRED TO AND ACCEPTED BY AN ENTITY WHICH COMPLES WITH SECTION 400-42.027, F.A.C. AND BE APPROVED BY THE SAINT JOHNS RIVER WATER MANAGEMENT DISTRICT PRIOR TO SUCH TERMINATION, DISSOLUTION, OR LIQUIDATION.
21. THE PIONEER COMMUNITY DEVELOPMENT DISTRICT SHALL BE RESPONSIBLE FOR MAINTAINING ALL PRIVATE ROADS GRANTED TO THE DISTRICT BY THIS PLAT.
22. THE PIONEER COMMUNITY DEVELOPMENT DISTRICT MAY IMPOSE AND LEVY TAXES OR ASSESSMENTS, OR BOTH TAXES AND ASSESSMENTS, ON THIS PROPERTY. THESE TAXES AND ASSESSMENTS PAY THE CONSTRUCTION, OPERATION, AND MAINTENANCE COSTS OF CERTAIN PUBLIC FACILITIES AND SERVICES OF THE DISTRICT AND ARE SET ANNUALLY BY THE GOVERNING BOARD OF THE DISTRICT. THESE TAXES AND ASSESSMENTS ARE IN ADDITION TO COUNTY AND OTHER LOCAL GOVERNMENTAL TAXES AND ASSESSMENTS AND ALL OTHER TAXES AND ASSESSMENTS PROVIDED FOR BY LAW.
23. THIS PLAT IS SUBJECT TO THE PIONEER COMMUNITY DEVELOPMENT DISTRICT AS ESTABLISHED IN OFFICIAL RECORDS BOOK 5689, PAGE 4447 OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA.
24. THIS PLAT IS SUBJECT TO SAINT JOHNS RIVER WATER MANAGEMENT DISTRICT CONSERVATION EASEMENTS AS DESCRIBED IN OFFICIAL RECORDS BOOK _____, PAGE _____ OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA AND SHOWN HEREON.
25. THIS PLAT IS SUBJECT TO A 30.00 FOOT WIDE GAS LINE EASEMENT AS DESCRIBED IN OFFICIAL RECORDS BOOK 619, PAGE 570 OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA AND SHOWN HEREON.
26. THIS PLAT IS SUBJECT TO A FLORIDA POWER AND LIGHT COMPANY EASEMENT AS DESCRIBED IN OFFICIAL RECORDS BOOK 2980, PAGE 0440 OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA AND SHOWN HEREON.
27. THIS PLAT IS SUBJECT TO A 20.00 FOOT WIDE DRAINAGE/ACCESS/ AND STORMWATER EASEMENT AS DESCRIBED IN OFFICIAL RECORDS BOOK _____, PAGE _____ OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA AND SHOWN HEREON.
28. THIS PLAT IS SUBJECT TO A MASTER DEVELOPMENT AGREEMENT AS RECORDED IN OFFICIAL RECORDS BOOK _____, PAGE _____ OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA AND AS AMENDED AND RECORDED IN OFFICIAL RECORDS BOOK _____, PAGE _____ OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA .

LEGAL DESCRIPTION (PHASE 1)

A PORTION OF THE EAST 1/2 OF SECTIONS 29 AND 32, TOWNSHIP 16 SOUTH, RANGE 33 EAST, VOLUSIA COUNTY, FLORIDA, BEING MORE PARTICULAR DESCRIBED AS FOLLOWS:
BEGIN AT THE NORTHEAST CORNER OF STERLING CHASE PHASE II, AS RECORDED IN MAP BOOK 44, PAGES 120-122, PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA; THENCE N00°25'12"W, ALONG THE WEST LINE OF THE SOUTHEAST 1/4 OF SAID SECTION 29, A DISTANCE OF 579.06 FEET TO THE SOUTHERLY RIGHT OF WAY LINE OF MARTIN ROAD AS RECORDED IN O.R. BOOK 5379, PAGE 15 OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA; THENCE ALONG SAID SOUTHERLY RIGHT OF WAY LINE AND THE EASTERLY EXTENSION THEREOF, N66°36'33"E, 155.82 FEET TO THE WESTERLY RIGHT OF WAY LINE OF INTERSTATE 95 (STATE ROAD 9) AS SHOWN ON FLORIDA STATE ROAD DEPARTMENT RIGHT OF WAY MAP SECTION 79002-2407; THENCE ALONG SAID WESTERLY RIGHT OF WAY LINE, S23°23'27"E, 5184.40 FEET TO THE BEGINNING OF A CURVE, CONCAVE WESTERLY, HAVING A RADIUS OF 11359.30 FEET AND CENTRAL ANGLE OF 07°16'45" WITH A CHORD BEARING S19°45'04"E; THENCE IN A SOUTHERLY DIRECTION ALONG THE ARC OF SAID CURVE, 1443.17 FEET; THENCE DEPARTING SAID WESTERLY RIGHT OF WAY LINE, S77°14'51"W, 40.07 FEET TO THE EASTERLY RIGHT OF WAY LINE OF SOUTH WILLIAMSON BOULEVARD AS RECORDED IN OFFICIAL RECORDS BOOK 7186, PAGE 4520 OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA AND THE BEGINNING OF A NON TANGENT CURVE, CONCAVE SOUTHWESTERLY, HAVING A RADIUS OF 11319.30 FEET AND CENTRAL ANGLE OF 02°23'50" WITH A CHORD BEARING N17°19'21"W; THENCE ALONG SAID RIGHT OF WAY LINE AND THE ARC OF SAID CURVE, 473.85 FEET TO THE BEGINNING OF A COMPOUND CURVE, CONCAVE SOUTHWESTERLY, HAVING A RADIUS OF 1897.00 FEET AND CENTRAL ANGLE OF 72°13'17" WITH A CHORD BEARING N54°37'57"W; THENCE CONTINUING ALONG SAID RIGHT OF WAY LINE AND ALONG THE ARC OF SAID CURVE, 2391.17 FEET TO THE POINT OF TANGENT; THENCE CONTINUING ALONG SAID RIGHT OF WAY LINE, S89°15'25"W, 639.78 FEET TO THE WEST LINE OF THE NORTHEAST 1/4 OF SAID SECTION 32; THENCE DEPARTING SAID RIGHT OF WAY LINE AND ALONG SAID WEST LINE, N00°44'35"W, 2422.80 FEET TO THE NORTHWEST CORNER OF THE NORTHEAST 1/4 OF SAID SECTION 32, SAID POINT ALSO BEING THE SOUTHWEST CORNER OF THE SOUTHEAST 1/4 OF SAID SECTION 29; THENCE ALONG THE WEST LINE OF SAID SOUTHEAST 1/4 OF SECTION 29, N00°25'12"W, 1322.82 FEET TO THE POINT OF BEGINNING, CONTAINING 5,066,593 SQ. FT. OR 116.31 ACRES, MORE OR LESS.



ACCEPTANCE OF RESERVATIONS:

STATE OF FLORIDA
COUNTY OF VOLUSIA
PIONEER COMMUNITY DEVELOPMENT DISTRICT, A LOCAL UNIT OF SPECIAL PURPOSE GOVERNMENT ORGANIZED AND EXISTING IN ACCORDANCE WITH CHAPTER 190, FLORIDA STATUTES, HEREBY ACCEPTS THE DEDICATIONS OR RESERVATIONS TO SAID DISTRICT AS STATED AND SHOWN HEREON, AND HEREBY ACCEPTS ITS MAINTENANCE OBLIGATIONS FOR SAME AS STATED HEREON, DATED THIS _____ DAY OF _____, 2017.

WITNESS: _____
PIONEER COMMUNITY DEVELOPMENT DISTRICT, A LOCAL UNIT OF SPECIAL PURPOSE GOVERNMENT
BY: RICHARD D. SMITH, CHAIR

PLANNING COMMISSION CERTIFICATE OF APPROVAL:

THIS STATEMENT HEREBY CERTIFIES THAT THE PLAT ENTITLED "WOODHAVEN – PHASE 1" WAS APPROVED BY THE PORT ORANGE PLANNING COMMISSION ON _____
BY: _____
CHAIRMAN OF THE PORT ORANGE PLANNING COMMISSION

CITY COUNCIL CERTIFICATE OF APPROVAL

THIS STATEMENT HEREBY CERTIFIES THAT THE PLAT ENTITLED "WOODHAVEN – PHASE 1" WAS APPROVED BY THE PORT ORANGE CITY COUNCIL ON _____
BY: _____
MAYOR OF THE CITY OF PORT ORANGE
ATTEST: _____
CITY CLERK OF THE CITY OF PORT ORANGE

CERTIFICATE OF CLERK

I HEREBY CERTIFY THAT I HAVE EXAMINED THE FOREGOING PLAT AND FIND THAT IT COMPLIES IN FORM, WITH ALL THE REQUIREMENTS OF CHAPTER 177, FLORIDA STATUTES, AND THAT IT WAS FILED FOR RECORD ON _____ AT _____ A.M./P.M.
FILE NO. _____
CLERK OF CIRCUIT COURT
VOLUSIA COUNTY, FLORIDA

REVIEW BY SURVEYOR AND MAPPER FOR THE CITY

I HEREBY CERTIFY TO THE CITY, THAT I HAVE REVIEWED THE FOREGOING PLAT FOR COMPLIANCE WITH THE REQUIREMENTS OF CHAPTER 177, FLORIDA STATUTES, AND THAT I HAVE PROVIDED BOTH THE CITY AND THE SURVEYOR AND MAPPER OF RECORD A LIST OF DEVIATIONS, IF ANY, FROM SUCH REQUIREMENTS.
(SIGNATURE) _____ DATE: _____
GREGG CULLUM, P.S.M. NO:5095

PLAT BOOK _____ PAGE _____

DEDICATION:

KNOW ALL MEN BY THESE PRESENTS, THAT CC WOODHAVEN, LLC, A FLORIDA LIMITED LIABILITY COMPANY, BEING THE OWNER IN FEE SIMPLE OF THE LANDS SHOWN AND DESCRIBED HEREON AS THE PLAT ENTITLED "WOODHAVEN – PHASE 1", LOCATED IN THE CITY OF PORT ORANGE, VOLUSIA COUNTY, FLORIDA, HEREBY DEDICATES THE SAID LANDS AND PLAT FOR THE USES AND PURPOSES HEREON EXPRESSED. THE STREET RIGHTS OF WAY SHOWN AS WOODHAVEN VILLAGE DRIVE, EAST FALLSROCK LANE, WEST FALLSROCK LANE, HANFELD DRIVE AND HANFELD LANE SHALL BE PRIVATE. ALL PRIVATE ROAD RIGHTS OF WAY, AND ALL COMMON AREA PARCELS SHOWN HEREON, ARE GRANTED TO THE PIONEER COMMUNITY DEVELOPMENT DISTRICT, WHICH SHALL BE RESPONSIBLE FOR THE MAINTENANCE THEREOF. ACCESS EASEMENTS OVER AND ACROSS ALL PRIVATE ROADS ARE HEREBY GRANTED TO EACH LOT OWNER FOR INGRESS AND EGRESS; ACCESS EASEMENTS FOR INGRESS AND EGRESS OVER AND ACROSS ALL PRIVATE ROADS AND RIGHTS OF WAY, ARE HEREBY GRANTED TO THE CITY OF PORT ORANGE FOR EMERGENCY VEHICLES AND GOVERNMENT SERVICES PURPOSES. ALL POTABLE WATER, RECLAIMED WATER, FORCE MAIN, SANITARY SEWER MAINS AND THE SANITARY SEWER LIFT STATION CONSTRUCTED WITHIN THE AREA ENCOMPASSED BY THIS PLAT ARE HEREBY DEDICATED TO THE CITY OF PORT ORANGE, FLORIDA. ALL DRAINAGE, MAINTENANCE, ACCESS, UTILITY, EASEMENTS SHOWN OR DESCRIBED ON THE PLAT, UNLESS OTHERWISE INDICATED, ARE GRANTED TO THE CITY OF PORT ORANGE, FLORIDA. ALL CONSERVATION EASEMENTS SHOWN AS ST. JOHNS RIVER WATER MANAGEMENT DISTRICT CONSERVATION EASEMENTS DESCRIBED IN OFFICIAL RECORDS BOOK _____, PAGE _____, PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA ARE GRANTED TO THE CITY OF PORT ORANGE, FLORIDA. TRACTS "A", "B", "C", "D", "E" AND "F" ARE COMMON AREAS AND ARE FOR THE PURPOSES DEPICTED ON THE SUBDIVISION PLANS APPROVED BY THE CITY OF PORT ORANGE, FLORIDA AND ARE GRANTED TO THE PIONEER COMMUNITY DEVELOPMENT DISTRICT. LIFT STATION EASEMENTS ARE GRANTED TO THE CITY OF PORT ORANGE, FLORIDA OVER TRACT "C" AND TRACT "D". THE 40.00 FOOT WIDE FLORIDA POWER & LIGHT COMPANY EASEMENT IS GRANTED TO FLORIDA POWER & LIGHT COMPANY FOR INSTALLATION AND MAINTENANCE OF ELECTRICAL FACILITIES. THE EMERGENCY ACCESS EASEMENTS SHOWN HEREON ARE GRANTED TO THE CITY OF PORT ORANGE, FLORIDA FOR EMERGENCY VEHICLES AND GOVERNMENT SERVICES.

IN WITNESS WHEREOF, CC WOODHAVEN, LLC, A FLORIDA LIMITED LIABILITY COMPANY, HAS CAUSED THESE PRESENTS TO BE SIGNED, SEALED AND ATTESTED TO, BY THE PERSONS NAMED BELOW:

ON THIS _____ DAY OF _____, 20____
WITNESSES: CC WOODHAVEN, LLC
A Florida Limited Liability Company
By: INTERVEST CONSTRUCTION, INC.
A Florida corporation, its Managing Partner
PRINTED NAME: _____
BY: _____
MORTEZA HOSSEINI-KARGAR, PRESIDENT
PRINTED NAME: _____
ATTEST: _____
CHARLENE B. IRLAND
VICE PRESIDENT
PRINTED NAME: _____

STATE OF FLORIDA, COUNTY OF VOLUSIA
THIS IS TO CERTIFY THAT, ON _____, 20____, BEFORE ME, AN OFFICER DULY AUTHORIZED TO TAKE ACKNOWLEDGMENTS IN THE STATE AND COUNTY AFORESAID, PERSONALLY APPEARED MORTEZA HOSSEINI-KARGAR AND CHARLENE B. IRLAND, AS PRESIDENT AND VICE PRESIDENT, RESPECTIVELY, OF INTERVEST CONSTRUCTION, INC., A FLORIDA CORPORATION, MANAGING PARTNER OF CC WOODHAVEN, LLC, A FLORIDA LIMITED LIABILITY COMPANY, EXECUTED THE FOREGOING DEDICATION AND SEVERALLY ACKNOWLEDGED THE EXECUTION THEREOF FOR AND ON BEHALF OF SAID CORPORATION AND PARTNERSHIP; THEY (ARE) _____ (ARE NOT) _____ KNOWN TO ME OR HAVE PRODUCED _____ AS IDENTIFICATION AND THEY (HAVE) _____ (HAVE NOT) _____ TAKEN OATH. IN WITNESS WHEREOF, I HAVE HEREUNTO SET MY HAND AND SEAL ON THE ABOVE DATE.

NOTARY PUBLIC
STATE OF FLORIDA AT LARGE
MY COMMISSION EXPIRES: _____
TITLE/RANK: _____
COMMISSION NUMBER: _____
SEAL

JOINDER AND CONSENT TO DEDICATION:

THE UNDERSIGNED HEREBY CERTIFIES THAT IT IS THE HOLDER OF MORTGAGES, LIENS, OR OTHER ENCUMBRANCE UPON THE ABOVE DESCRIBED PROPERTY AND THAT THE UNDERSIGNED HEREBY JOINS IN AND CONSENTS TO THE DEDICATION OF THE LANDS DESCRIBED ABOVE BY THE OWNERS THEREOF, AND AGREES THAT ITS MORTGAGES, LIENS OR OTHER ENCUMBRANCES RECORDED IN OFFICIAL RECORDS BOOK _____, PAGE _____, OFFICIAL RECORDS BOOK _____, PAGE _____, AND OFFICIAL RECORDS BOOK _____, PAGE _____ OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA, SHALL BE SUBORDINATED TO THE ABOVE DEDICATION.

WITNESSES: _____, A FLORIDA LIMITED LIABILITY LIMITED PARTNERSHIP
BY: _____, A FLORIDA LIMITED LIABILITY LIMITED PARTNERSHIP, ITS MANAGING PARTNER
PRINTED NAME: _____
BY: _____, A FLORIDA LIMITED LIABILITY COMPANY, ITS MANAGING PARTNER
PRINTED NAME: _____
BY: _____, VICE PRESIDENT

STATE OF FLORIDA, COUNTY OF VOLUSIA
THIS IS TO CERTIFY THAT, ON _____, 20____, BEFORE ME, AN OFFICER DULY AUTHORIZED TO TAKE ACKNOWLEDGMENTS IN THE STATE AND COUNTY AFORESAID, PERSONALLY APPEARED _____, AS VICE PRESIDENT OF _____, LLC, MANAGING PARTNER OF _____, LLP, A FLORIDA LIMITED LIABILITY LIMITED PARTNERSHIP, EXECUTED THE FOREGOING DEDICATION AND ACKNOWLEDGED THE EXECUTION THEREOF FOR AND ON BEHALF OF SAID COMPANY. HE/SHE (IS) _____ (IS NOT) _____ KNOWN TO ME OR HAS PRODUCED _____ (HAS NOT) _____ AS IDENTIFICATION AND HE/SHE (HAS) _____ TAKEN OATH. IN WITNESS WHEREOF, I HAVE HEREUNTO SET MY HAND AND SEAL ON THE ABOVE DATE.

NOTARY PUBLIC
STATE OF FLORIDA AT LARGE
MY COMMISSION EXPIRES: _____
TITLE/RANK: _____
COMMISSION NUMBER: _____
SEAL

CERTIFICATE OF SURVEYOR

KNOW ALL MEN BY THESE PRESENTS, THAT THE UNDERSIGNED BEING A LICENSED AND REGISTERED SURVEYOR AND MAPPER, DOES HEREBY CERTIFY THAT THE PLAT SHOWN AND DESCRIBED HEREON, ENTITLED "WOODHAVEN – PHASE 1" WAS PREPARED UNDER MY RESPONSIBLE DIRECTION AND SUPERVISION, THAT THE PLAT COMPLIES WITH ALL OF THE SURVEY REQUIREMENTS OF CHAPTER 177, PART 1, FLORIDA STATUTES, THAT ALL MONUMENTATION SHOWN HEREON OR REQUIRED PER CHAPTER 177, FLORIDA STATUTES, HAS BEEN PROPERLY PLACED AND THAT SAID LAND IS IN THE CITY OF PORT ORANGE, VOLUSIA COUNTY, FLORIDA.

J.E. ZAPERT, P.L.S. NO. 4046 _____ DATE _____
3921 NOVA ROAD
PORT ORANGE, FL. 32127
(386) 761-5385

PREPARED BY:



SLIGER & ASSOCIATES, INC.
PROFESSIONAL LAND SURVEYORS
LICENSED BUSINESS CERTIFICATION #3019
3921 NOVA ROAD
PORT ORANGE, FL. 32127
(386) 761-5385

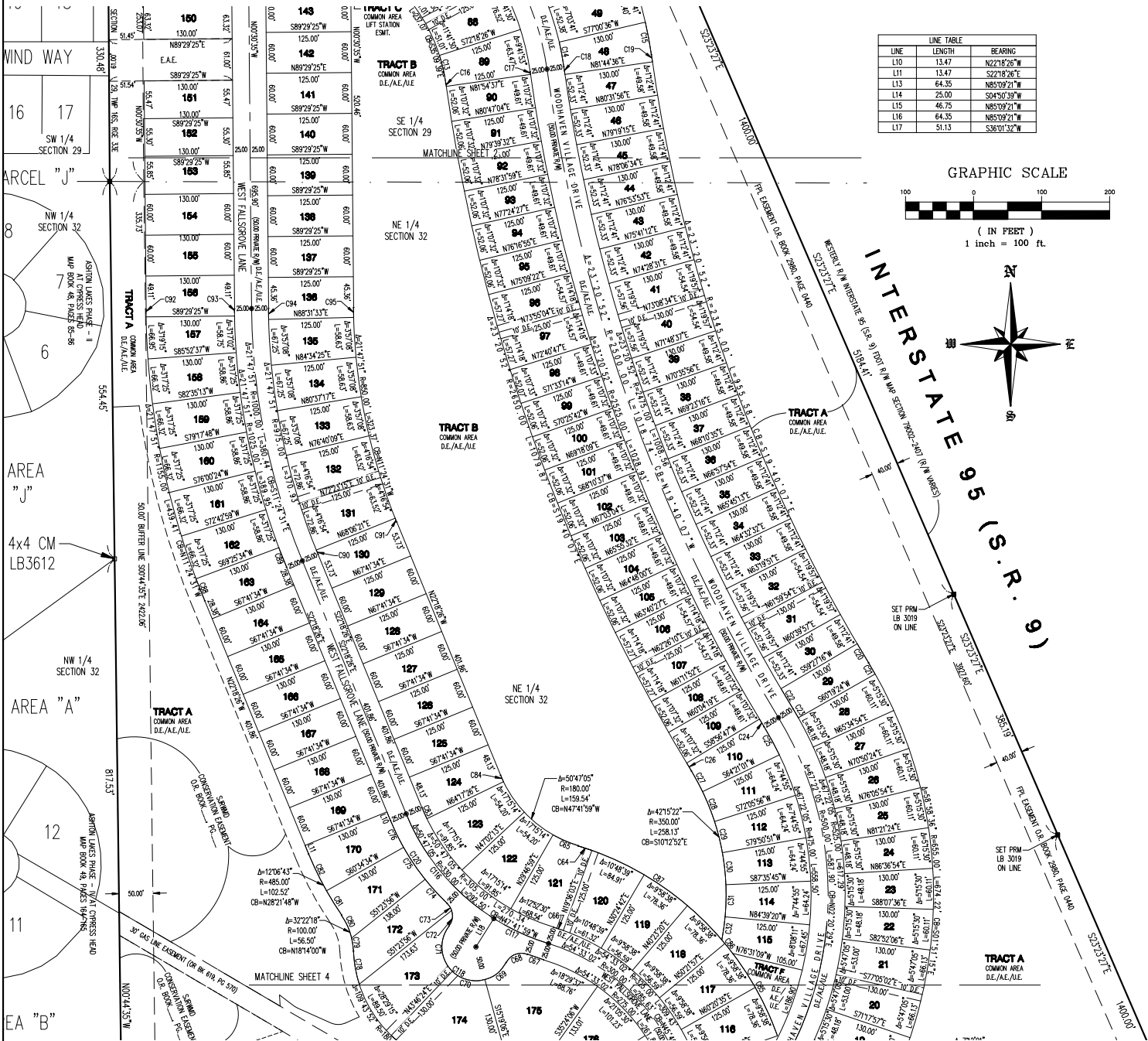
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SHEET 1 OF 7

WOODHAVEN — PHASE 1

A PORTION OF THE EAST 1/2 OF SECTIONS 29 AND 32, TOWNSHIP 16 SOUTH, RANGE 33 EAST,
CITY OF PORT ORANGE, VOLUSIA COUNTY, FLORIDA

PLAT BOOK PAGE



- GENERAL NOTES:
- DENOTES PERMANENT REFERENCE MONUMENT (P.R.M.) FOUND 4" X 4" CONCRETE MONUMENT STAMPED "PRM LB 3019" UNLESS OTHERWISE SHOWN.
 - DENOTES PERMANENT REFERENCE MONUMENT (P.R.M.) SET 4" X 4" CONCRETE MONUMENT STAMPED "PRM LB3019".
 - DENOTES PERMANENT CONTROL POINT (P.C.P.) STAMPED "PCP LB3019".
 - † DENOTES POINT OF CURVATURE.
 - (NR) DENOTES NON-RADIAL LINE RELATIVE TO CURVES.
2. 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 VOLUSIA COUNTY, FLORIDA.
3. DIMENSIONS ARE SHOWN IN FEET AND DECIMALS THEREOF.
4. NOTE: ALL MEASUREMENTS REFER TO HORIZONTAL PLANE IN ACCORDANCE WITH THE DEFINITION OF THE U.S. SURVEY FOOT OR METER ADOPTED BY THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY. ALL MEASUREMENTS SHALL USE THE 39.37/12=3.28083333333333 EQUATION FOR CONVERSION FROM A U.S. FOOT TO METERS.
5. ACCURACY: THE BOUNDARY LINEAR ERROR OF CLOSURE DOES NOT EXCEED 1:10,000. THE BOUNDARY ANGULAR ERROR OF CLOSURE DOES NOT EXCEED 15 SECONDS MULTIPLIED BY THE SQUARE ROOT OF THE NUMBER OF ANGLES TURNED.
6. BEARING STRUCTURE IS ASSUMED WITH THE BEARING ON THE WEST LINE OF THE SOUTHEAST 1/4 SECTION 29, TWP 16S, R33E, S33E, BEING N00°25'12"W.
7. ALL LOT LINES ARE RADIAL UNLESS SHOWN OTHERWISE.
8. THIS PLAT IS SUBJECT TO ALL EASEMENTS OF RECORD AND RESERVATIONS OF EASEMENTS, INCLUDING BUT NOT LIMITED TO DRAINAGE AND UTILITY EASEMENTS GRANTED TO THE CITY WHICH SHALL BE LOCATED AS FOLLOWS, EXCEPT AS OTHERWISE NOTED ON THE PLAT: FRONT LOT AND PARCEL LINES (STREET FRONTAGE): 12.00 FEET WIDE.
9. UTILITY EASEMENTS PROVIDED ON THIS PLAT INCLUDE 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.
10. ALL OTHER EASEMENTS ARE SUBORDINATE TO ANY CONSERVATION EASEMENTS DEDICATED HEREON. THERE SHALL BE NO REMOVAL OR DISTURBANCE OF ANY VEGETATION WITHIN SUCH CONSERVATION EASEMENTS. ANY PROPOSED CONSTRUCTION OR OTHER USE WITHIN A CONSERVATION EASEMENT MUST BE REVIEWED AND APPROVED BY THE CITY OF PORT ORANGE AND ANY OTHER AUTHORITY HAVING JURISDICTION OVER THE CONSERVATION EASEMENT.
11. THE TERM "UTILITIES" AS USED ON THIS PLAT SHALL INCLUDE, BUT NOT BE LIMITED TO, SEWER, SECURITY, TELEPHONE, ELECTRIC, CABLE TELEVISION SYSTEMS, POTABLE WATER, RECLAIMED WATER, DRAINAGE STRUCTURES, FIBER OPTIC, TELECOMMUNICATIONS AND NATURAL GAS.
12. ADDITIONAL RESTRICTIONS REGARDING FINDINGS OF INDIVIDUAL LOTS MAY BE FOUND IN THE DECLARATION OF COVENANTS AND RESTRICTIONS FOR WOODHAVEN HOMEOWNERS ASSOCIATION, INC.
13. RESIDENTIAL SITE DEVELOPMENT CRITERIA:
SINGLE FAMILY DETACHED: MIN. LOT AREA=5,000 SF; MIN. LOT WIDTH=50 FEET; MAX. LOT COVERAGE=60%; MIN. OPEN SPACE=40%;
BUILDING SETBACKS: SIDE: 5 FEET; FRONT: 20 FEET; REAR: 20 FEET; MAX. HEIGHT 35 FEET;
TWO FAMILY: MIN. LOT AREA=5,000 SF; MIN. LOT WIDTH=50 FEET; MAX. LOT COVERAGE=60%; MIN. OPEN SPACE=35%;
BUILDING SETBACKS: SIDE: 5 FEET; FRONT: 20 FEET; REAR: 10 FEET; MAX. HEIGHT 35 FEET;
MULTI-FAMILY: MIN. LOT AREA=2,000 SF; MIN. LOT WIDTH=30 FEET; MAX. LOT COVERAGE=70%; MIN. OPEN SPACE=30%;
BUILDING SETBACKS: SIDE: 10 FEET; FRONT: 20 FEET; REAR: 10 FEET; MAX. HEIGHT 35 FEET;
** APPLIES TO UNITS WITH INDIVIDUAL LOTS UNDER FEE SIMPLE OWNERSHIP.
NOTE: THE CITY OF PORT ORANGE, FLORIDA REQUIRES A 20 FOOT BUILDING SETBACK FROM ANY WETLAND BUFFER LIMITS.
14. THE COMMON AREAS SHALL BE SUBJECT TO EASEMENTS AS SHOWN OR DESCRIBED HEREON. THE GRANTING OF SUCH COMMON AREAS IS NOT INTENDED TO GRANT ANY RIGHT TO THE GENERAL PUBLIC.
15. ALL LANDSCAPING AND IRRIGATION IN THE COMMON AREAS IS TO BE MAINTAINED BY THE WOODHAVEN HOMEOWNERS ASSOCIATION, INC. OR THE PIONEER COMMUNITY DEVELOPMENT DISTRICT.
16. THE ARTICLES OF INCORPORATION FOR WOODHAVEN HOMEOWNERS ASSOCIATION, INC. ARE RECORDED IN OFFICIAL RECORDS BOOK _____, PAGES _____ THROUGH _____ OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA.
17. RETENTION AREAS AND COMMON AREAS ARE GRANTED AS EASEMENTS TO THE CITY OF PORT ORANGE WITH RIGHTS OF ACCESS, INGRESS, AND EGRESS, TOGETHER WITH THE RIGHT TO HARVEST EXCESS STORM WATER / GROUND WATER AS DEEMED APPROPRIATE AT THE DISCRETION OF THE CITY.
18. THE DECLARATION OF COVENANTS AND RESTRICTIONS FOR THE WOODHAVEN HOMEOWNERS ASSOCIATION, INC. ARE RECORDED IN OFFICIAL RECORDS BOOK _____, PAGES _____ THROUGH _____ OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA, AS AMENDED.
19. DRAINAGE EASEMENTS SHOWN OR DESCRIBED ON THIS PLAT SHALL BE FOR THE INSTALLATION, OPERATION, AND MAINTENANCE OF AND ACCESS TO THE STORMWATER DRAINAGE FACILITIES WITHIN THE BOUNDARIES OF THIS PLAT.
20. THE PIONEER COMMUNITY DEVELOPMENT DISTRICT, A LOCAL UNIT OF SPECIAL PURPOSE GOVERNMENT, SHALL BE RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF THE DRAINAGE SYSTEM SERVING THE AREA WITHIN THE BOUNDARIES OF THIS PLAT, AS DEPICTED ON THE STORMWATER MANAGEMENT PLAN APPROVED FOR THIS DEVELOPMENT BY THE CITY OF PORT ORANGE, FLORIDA. SHOULD THE DISTRICT FAIL TO PERFORM THE MAINTENANCE OF THE DRAINAGE AND STORMWATER MANAGEMENT SYSTEMS, THE CITY OF PORT ORANGE SHALL BE ENTITLED TO ENTER UPON THE COMMON AREAS AND DESIGNATED EASEMENT AREAS TO PERFORM MAINTENANCE, REPAIR OR REPLACE THE FACILITIES AND SHALL HAVE THE RIGHT TO LEND ALL OWNERS OF RECORD IN PROPERTY FOR THE COST OF SUCH MAINTENANCE, REPAIR AND REPLACEMENT, AS DEMAND BY THE CITY TO BE NECESSARY IN THE EVENT OF TERMINATION, DISSOLUTION, OR FINAL LIQUIDATION OF THE DISTRICT. THE RESPONSIBILITY FOR THE OPERATION AND MAINTENANCE OF THE SURFACE WATER OR STORM WATER MANAGEMENT SYSTEM WILL BE TRANSFERRED TO AND ACCEPTED BY AN ENTITY WHICH COMPLIES WITH SECTION 400-42.027, F.A.C. AND BE APPROVED BY THE SAINT JOHNS RIVER WATER MANAGEMENT DISTRICT PRIOR TO SUCH TERMINATION, DISSOLUTION, OR LIQUIDATION.
21. THE PIONEER COMMUNITY DEVELOPMENT DISTRICT SHALL BE RESPONSIBLE FOR MAINTAINING ALL PRIVATE ROADS GRANTED TO THE DISTRICT BY THIS PLAT.
22. THE PIONEER COMMUNITY DEVELOPMENT DISTRICT MAY IMPOSE AND LEVY TAXES OR ASSESSMENTS, OR BOTH TAXES AND ASSESSMENTS, ON THIS PROPERTY. THESE TAXES AND ASSESSMENTS PAY THE CONSTRUCTION, OPERATION, AND MAINTENANCE COSTS OF CERTAIN PUBLIC FACILITIES AND SERVICES OF THE DISTRICT AND ARE SET ANNUALLY BY THE GOVERNING BOARD OF THE DISTRICT. THESE TAXES AND ASSESSMENTS ARE IN ADDITION TO COUNTY AND OTHER LOCAL GOVERNMENTAL TAXES AND ASSESSMENTS AND ALL OTHER TAXES AND ASSESSMENTS PROVIDED FOR BY LAW.
23. THIS PLAT IS SUBJECT TO THE PIONEER COMMUNITY DEVELOPMENT DISTRICT AS ESTABLISHED IN OFFICIAL RECORDS BOOK 5889, PAGE 4447 OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA.
24. THIS PLAT IS SUBJECT TO SAINT JOHNS RIVER WATER MANAGEMENT DISTRICT CONSERVATION EASEMENTS AS DESCRIBED IN OFFICIAL RECORDS BOOK _____, PAGE _____ OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA AND SHOWN HEREON.
25. THIS PLAT IS SUBJECT TO A 30.00 FOOT WIDE GAS LINE EASEMENT AS DESCRIBED IN OFFICIAL RECORDS BOOK 619, PAGE 570 OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA AND SHOWN HEREON.
26. THIS PLAT IS SUBJECT TO A FLORIDA POWER AND LIGHT COMPANY EASEMENT AS DESCRIBED IN OFFICIAL RECORDS BOOK 2880, PAGE 0440 OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA AND SHOWN HEREON.
27. THIS PLAT IS SUBJECT TO A 20.00 FOOT WIDE DRAINAGE/ACCESS/ AND STORMWATER EASEMENT AS DESCRIBED IN OFFICIAL RECORDS BOOK _____, PAGE _____ OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA AND SHOWN HEREON.
28. THIS PLAT IS SUBJECT TO A MASTER DEVELOPMENT AGREEMENT AS RECORDED IN OFFICIAL RECORDS BOOK _____, PAGE _____ OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA AND AS AMENDED AND RECORDED IN OFFICIAL RECORDS BOOK _____, PAGE _____ OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA.

CURVE TABLE				
CURVE	DELTA	RADIUS	LENGTH	DIRECTION
C20	0°47'50"	2345.00	32.63	S30°56'38"W
C21	1°39'57"	655.00	19.04	N30°30'35"W
C22	0°47'50"	2475.00	34.43	S30°56'38"W
C23	1°39'57"	525.00	15.26	N30°30'35"W
C24	0°17'20"	2525.00	12.73	S31°11'53"E
C25	5°41'34"	473.00	47.20	N09°29'46"W
C26	0°17'20"	2650.00	13.36	S31°11'53"E
C27	5°41'34"	350.00	34.78	N08°29'46"W
C28	7°44'55"	350.00	47.33	N01°46'33"W
C29	7°44'55"	350.00	47.33	N14°01'37"W
C30	7°44'55"	350.00	47.33	N06°16'42"W
C31	7°44'55"	350.00	47.33	N01°28'15"E
C32	5°24'09"	350.00	34.02	N08°07'45"E
C34	2°41'34"	450.00	21.15	N71°44'44"W
C65	12°52'30"	180.00	40.45	S66°39'18"E
C66	2°41'34"	325.00	15.27	N71°44'44"W
C67	4°03'43"	355.00	25.17	S71°03'39"E

CURVE TABLE				
CURVE	DELTA	RADIUS	LENGTH	DIRECTION
C68	81°52'06"	25.00	36.59	S89°02'10"W
C69	47°34'47"	50.00	41.52	N50°53'30"E
C70	59°05'30"	50.00	51.57	S75°46'21"E
C71	83°44'09"	50.00	73.07	S04°21'31"E
C72	55°43'50"	25.00	24.32	N09°38'39"E
C73	26°08'15"	25.00	12.28	N33°17'24"W
C74	7°45'28"	355.00	48.07	S42°28'48"E
C75	91°10'38"	355.00	56.86	S34°00'45"E
C76	7°07'00"	355.00	44.09	S25°51'56"E
C77	59°05'30"	180.00	185.64	S75°46'21"E
C78	15°41'30"	180.00	49.30	S09°53'36"E
C79	11°18'06"	100.00	18.73	N07°41'54"W
C80	2°04'42"	100.00	36.77	N02°53'10"W
C81	4°59'43"	485.00	42.28	S31°55'18"E
C82	7°07'00"	485.00	60.24	S25°51'56"E
C83	3°24'07"	305.00	18.11	S24°00'30"E
C84	3°24'07"	180.00	10.69	S24°00'30"E

CURVE TABLE				
CURVE	DELTA	RADIUS	LENGTH	DIRECTION
C85	17°35'48"	450.00	138.20	N28°28'42"W
C86	3°16'17"	450.00	25.69	N38°54'44"W
C87	3°32'38"	450.00	25.60	N66°49'12"W
C88	14°10'11"	1155.00	34.95	S21°26'26"E
C89	14°10'11"	1025.00	31.01	S21°26'26"E
C90	0°24'47"	975.00	7.03	S22°06'03"E
C91	0°24'47"	975.00	6.13	S22°06'03"E
C92	0°17'32"	1155.00	5.89	S00°38'21"E
C93	0°19'45"	1025.00	5.89	S00°40'28"E
C94	0°57'51"	975.00	16.41	S00°59'31"E
C95	0°57'51"	850.00	14.30	S00°59'31"E
C96	19°02'47"	50.00	88.16	S37°41'40"E
C97	22°33'57"	225.00	87.96	S08°42'55"E
C100	24°31'05"	355.00	149.02	S34°19'59"E

ABBREVIATIONS

S.E.	STORMWATER EASEMENT	A.E.	ACCESS EASEMENT
D.M.	DRAINAGE, MAINTENANCE AND ACCESS EASEMENT	FP&L	FLORIDA POWER & LIGHT COMPANY
P.R.M.	PERMANENT REFERENCE MONUMENT	NR	NOT RADIAL
R/W	RIGHT OF WAY	C.M.	CONCRETE MONUMENT
SEC	SECTION	D	DELTA
TWP	TOWNSHIP	R	RADIUS
E.S.E.	ELECTRIC SERVICE EASEMENT	L	LENGTH
O.R.B.	OFFICIAL RECORDS BOOK	CB	CHORD BEARING
ESMT.	EASEMENT	CH	CHORD
T.C.E.	TREE CONSERVATION EASEMENT	U.E.	UTILITY EASEMENT
E.A.E.	EMERGENCY ACCESS EASEMENT		
SRWMD	SAINT JOHNS RIVER WATER MANAGEMENT DISTRICT		

PREPARED BY:
SLIGER & ASSOCIATES, INC.
LICENSED BUSINESS CERTIFICATION #3019
3921 SOUTH NOVA ROAD
PORT ORANGE, FL 32127
(386) 761-5385

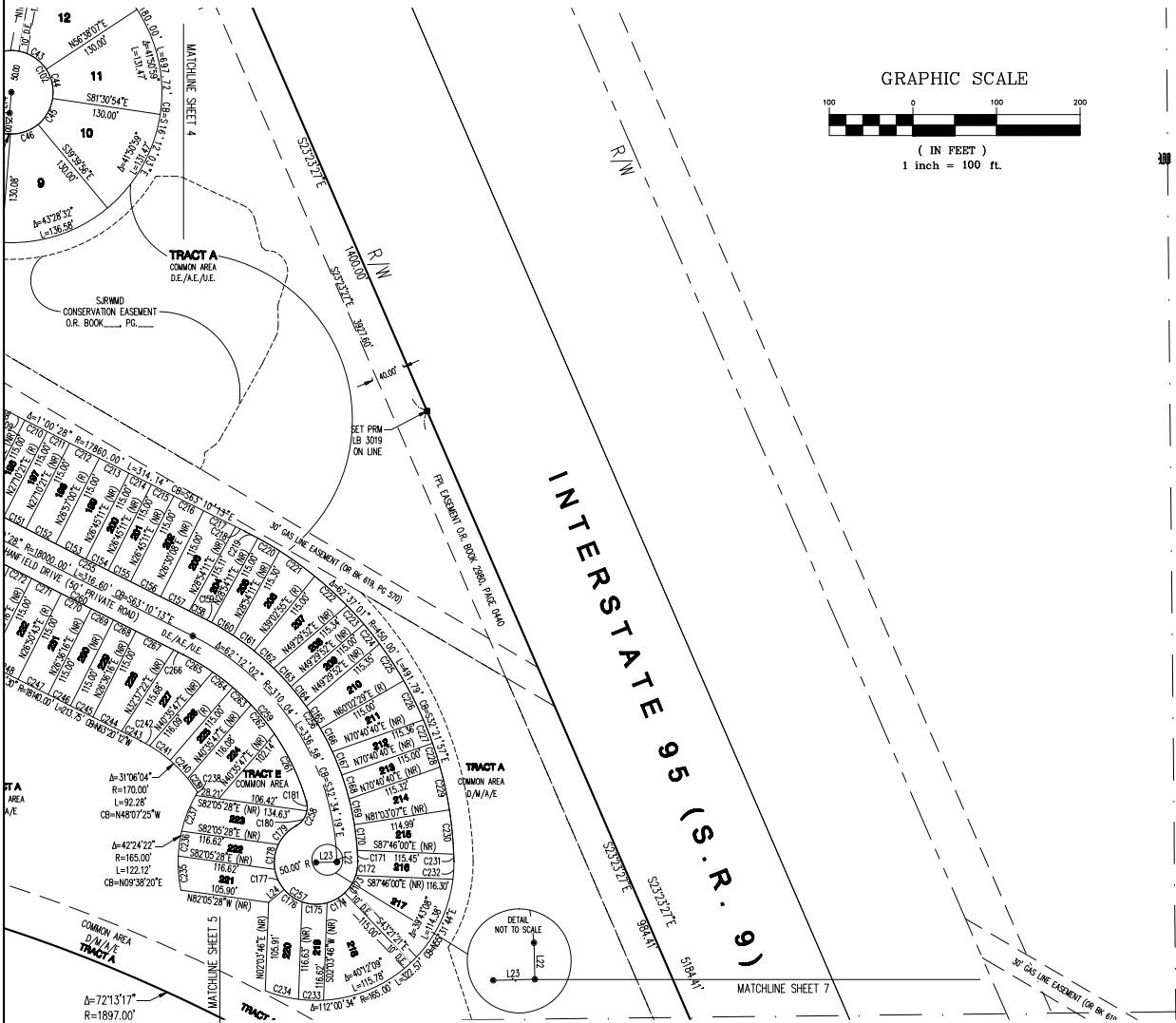
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WOODHAVEN — PHASE 1

A PORTION OF THE EAST 1/2 OF SECTIONS 29 AND 32, TOWNSHIP 16 SOUTH, RANGE 33 EAST,
CITY OF PORT ORANGE, VOLUSIA COUNTY, FLORIDA

PLAT BOOK PAGE



CURVE TABLE				
CURVE	DELTA	RADIUS	LENGTH	DIRECTION
C151	0°05'44"	17975.00	30.00	S62°52'26"E
C152	0°07'42"	17975.00	40.29	S63°59'09"E
C153	0°07'42"	17975.00	40.27	S63°06'51"E
C154	0°05'44"	17975.00	30.00	S63°53'55"E
C155	0°05'44"	17975.00	30.00	S63°19'09"E
C156	0°07'42"	17975.00	40.23	S63°26'00"E
C157	0°07'17"	17975.00	38.09	S63°33'31"E
C160	5°08'09"	335.04	30.03	N58°54'38"W
C161	5°23'31"	335.04	31.53	N53°38'49"W
C162	5°28'14"	335.04	31.26	N48°16'41"W
C163	5°28'13"	335.04	30.04	N43°02'13"W
C164	5°28'14"	335.04	30.04	N37°53'59"W
C165	5°22'12"	335.04	31.40	N32°38'46"W
C166	5°21'07"	335.04	31.30	N27°17'06"W
C167	5°08'16"	335.04	30.04	N22°02'24"W
C168	5°08'12"	335.04	30.04	N16°54'10"W
C169	5°22'54"	335.04	31.47	N11°38'12"W
C170	5°15'51"	335.04	30.78	N06°19'14"W
C171	2°13'01"	335.04	12.86	N02°34'48"W
C172	19°46'20"	50.00	17.25	N08°00'26"E
C173	28°45'03"	50.00	25.09	N32°16'07"E
C174	27°57'39"	50.00	24.40	N60°37'28"E
C175	34°56'37"	50.00	30.50	S67°56'24"E
C176	30°26'33"	50.00	26.57	S55°13'48"E
C177	30°27'16"	50.00	26.58	S24°46'54"E
C178	34°54'51"	50.00	30.47	S07°54'10"W
C179	36°28'31"	50.00	31.83	S43°35'51"W
C180	5°17'07"	25.00	22.33	N36°14'50"E
C181	25°25'54"	25.00	11.55	N63°32'39"W
C209	0°03'45"	17860.00	19.76	S62°41'57"E
C210	0°05'46"	17860.00	30.00	S62°46'40"E
C211	0°05'46"	17860.00	30.00	S62°52'27"E
C212	0°07'40"	17860.00	39.85	S62°59'10"E
C213	0°07'41"	17860.00	39.88	S63°06'51"E
C214	0°05'46"	17860.00	30.00	S63°13'34"E
C215	0°05'46"	17860.00	30.00	S63°19'20"E
C216	0°07'39"	17860.00	39.72	S63°26'03"E
C217	0°06'16"	17860.00	42.92	S63°34'00"E
C218	0°02'19"	17860.00	12.02	S63°39'18"E
C219	2°17'31"	450.00	18.00	N62°31'42"W
C220	3°49'19"	450.00	30.02	N59°28'17"W
C221	6°36'13"	450.00	51.91	N54°15'21"W
C222	6°39'09"	450.00	52.25	N47°31'30"W
C223	3°49'21"	450.00	30.02	N42°23'15"W
C224	3°49'21"	450.00	30.02	N38°13'54"W
C225	8°41'42"	450.00	52.58	N33°18'22"W
C226	6°42'07"	450.00	52.66	N08°36'21"W
C227	3°49'22"	450.00	30.02	N2°20'31"W
C228	3°49'20"	450.00	30.02	N17°31'09"W
C229	6°39'36"	450.00	52.31	N12°16'41"W
C230	6°46'49"	450.00	53.25	N05°33'29"W
C231	1°06'39"	450.00	8.72	N01°36'45"W
C232	7°24'04"	165.00	21.31	N03°11'29"E
C233	10°26'25"	165.00	30.07	S87°56'59"E
C234	14°14'48"	165.00	41.03	S75°36'23"E
C235	14°15'19"	165.00	41.05	S04°26'11"E
C236	10°25'54"	165.00	30.04	S07°54'25"W
C237	16°01'40"	165.00	46.11	S21°07'42"W
C238	14°27'29"	165.00	49.22	S09°59'16"W
C240	10°09'49"	170.00	30.16	N44°02'56"W
C241	10°09'54"	170.00	30.16	N54°31'47"W
C242	4°03'43"	170.00	12.05	N61°38'35"W
C243	0°04'53"	18140.00	25.75	S63°38'00"E
C244	0°07'16"	18140.00	38.32	S63°31'36"E
C245	0°05'41"	18140.00	30.00	S63°25'28"E
C246	0°05'41"	18140.00	30.00	S63°19'47"E
C247	0°07'39"	18140.00	40.35	S63°13'07"E
C255	1°00'28"	17975.00	316.16	S63°10'13"E
C256	6°21'02"	335.04	363.72	N32°34'19"W
C257	24°34'50"	50.00	212.69	S60°01'16"E
C258	78°08'12"	25.00	34.10	N22°45'30"E
C259	47°21'21"	285.00	235.56	N39°59'46"W

LINE TABLE	
LINE	BEARING
L22	0.39 S01°24'00"E
L23	25.00 S88°36'00"W
L24	24.11 N49°58'56"E

ABBREVIATIONS

S.E.	STORMWATER EASEMENT	A.E.	ACCESS EASEMENT
D.E.	DRAINAGE, MAINTENANCE AND ACCESS EASEMENT	FP&L	FLORIDA POWER & LIGHT COMPANY
P.R.M.	PERMANENT REFERENCE MONUMENT	NR	NOT RADIAL
R/W	RIGHT OF WAY	C.M.	CONCRETE MONUMENT
SEC	SECTION	D	DELTA
TWP	TOWNSHIP	R	RADIUS
E.S.E.	ELECTRIC SERVICE EASEMENT	L	LENGTH
O.R.B.	OFFICIAL RECORDS BOOK	CB	CHORD BEARING
ESMT	EASEMENT	CH	CHORD
T.C.E.	TREE CONSERVATION EASEMENT	U.E.	UTILITY EASEMENT
E.A.E.	EMERGENCY ACCESS EASEMENT		
SURWMD	SAINT JOHNS RIVER WATER MANAGEMENT DISTRICT		

GENERAL NOTES:

1. □ DENOTES PERMANENT REFERENCE MONUMENT (P.R.M.) FOUND 4" X 4" CONCRETE MONUMENT STAMPED "PRM LB 3019" UNLESS OTHERWISE SHOWN.
- DENOTES PERMANENT REFERENCE MONUMENT (P.R.M.) SET 4" X 4" CONCRETE MONUMENT STAMPED "PRM LB3019".
- DENOTES PERMANENT CONTROL POINT (P.C.P.) STAMPED "POP LB3019".
- † DENOTES POINT OF CURVATURE.
- (NR) DENOTES NON-RADIAL LINE RELATIVE TO CURVES.
2. 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 VOLUSIA COUNTY, FLORIDA.
3. DIMENSIONS ARE SHOWN IN FEET AND DECIMALS THEREOF.
4. NOTE: ALL MEASUREMENTS REFER TO HORIZONTAL PLANE IN ACCORDANCE WITH THE DEFINITION OF THE U.S. SURVEY FOOT OR METER ADOPTED BY THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY. ALL MEASUREMENTS SHALL USE THE 39.37/124-3.280833333333333 EQUATION FOR CONVERSION FROM A U.S. FOOT TO METERS.
5. ACCURACY: THE BOUNDARY LINEAR ERROR OF CLOSURE DOES NOT EXCEED 1:10,000. THE BOUNDARY ANGULAR ERROR OF CLOSURE DOES NOT EXCEED 15 SECONDS MULTIPLIED BY THE SQUARE ROOT OF THE NUMBER OF ANGLES TURNED.
6. BEARING STRUCTURE IS ASSUMED WITH THE BEARING ON THE WEST LINE OF THE SOUTHEAST 1/4 SECTION 29, TWP 16S, R3E, J3E, BEING N00°25'12"W.
7. ALL LOT LINES ARE RADIAL UNLESS SHOWN OTHERWISE.
8. THIS PLAT IS SUBJECT TO ALL EASEMENTS OF RECORD AND RESERVATIONS OF EASEMENTS, INCLUDING BUT NOT LIMITED TO DRAINAGE AND UTILITY EASEMENTS GRANTED TO THE CITY WHICH SHALL BE LOCATED AS FOLLOWS, EXCEPT AS OTHERWISE NOTED ON THE PLAT: FRONT LOT AND PARCEL LINES (STREET FRONTAGE) 12.00 FEET WIDE.
9. UTILITY EASEMENTS PROVIDED ON THIS PLAT INCLUDE 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.
10. ALL OTHER EASEMENTS ARE SUBORDINATE TO ANY CONSERVATION EASEMENTS DEDICATED HEREON. THERE SHALL BE NO REMOVAL OR DISTURBANCE OF ANY VEGETATION WITHIN SUCH CONSERVATION EASEMENTS. ANY PROPOSED CONSTRUCTION OR OTHER USE WITHIN A CONSERVATION EASEMENT MUST BE REVIEWED AND APPROVED BY THE CITY OF PORT ORANGE AND ANY OTHER AUTHORITY HAVING JURISDICTION OVER THE CONSERVATION EASEMENT.
11. THE TERM "UTILITIES" AS USED ON THIS PLAT SHALL INCLUDE, BUT NOT BE LIMITED TO, SEWER, SECURITY, TELEPHONE, ELECTRIC, CABLE TELEVISION SYSTEMS, POTABLE WATER, RECLAIMED WATER, DRAINAGE STRUCTURES, FIBER OPTIC, TELECOMMUNICATIONS AND NATURAL GAS.
12. ADDITIONAL RESTRICTIONS REGARDING FENCING OF INDIVIDUAL LOTS MAY BE FOUND IN THE DECLARATION OF COVENANTS AND RESTRICTIONS FOR WOODHAVEN HOMEOWNERS ASSOCIATION, INC.
13. RESIDENTIAL SITE DEVELOPMENT CRITERIA:
SINGLE FAMILY DETACHED: MIN. LOT AREA=5,000 S.F.; MIN. LOT WIDTH=50 FEET; MAX. LOT COVERAGE=60%; MIN. OPEN SPACE=40%;
BUILDING SETBACKS: SIDE: 5 FEET; FRONT: 20 FEET; REAR: 20 FEET; MAX. HEIGHT 35 FEET
TWO FAMILY: MIN. LOT AREA=2,000 S.F.; MIN. LOT WIDTH=32 FEET; MAX. LOT COVERAGE=60%; MIN. OPEN SPACE=35%;
BUILDING SETBACKS: SIDE: 5 FEET; FRONT: 20 FEET; REAR: 10 FEET; MAX. HEIGHT 35 FEET
MULTI-FAMILY: MIN. LOT AREA=1,000 S.F.; MIN. LOT WIDTH=18 FEET; MAX. LOT COVERAGE=70%; MIN. OPEN SPACE=30%;
BUILDING SETBACKS: SIDE: 10 FEET; FRONT: 20 FEET; REAR: 10 FEET; MAX. HEIGHT 35 FEET
** APPLIES TO LOTS WITH INDIVIDUAL LOTS UNDER FEE SIMPLE OWNERSHIP
NOTE: THE CITY OF PORT ORANGE, FLORIDA REQUIRES A 20 FOOT BUILDING SETBACK FROM ANY WETLAND BUFFER LIMITS.
14. THE COMMON AREAS SHALL BE SUBJECT TO EASEMENTS AS SHOWN OR DESCRIBED HEREON. THE GRANTING OF SUCH COMMON AREAS IS NOT INTENDED TO GRANT ANY RIGHT TO THE GENERAL PUBLIC.
15. ALL LANDSCAPING AND IRRIGATION IN THE COMMON AREAS IS TO BE MAINTAINED BY THE WOODHAVEN HOMEOWNERS ASSOCIATION, INC. OR THE PIONEER COMMUNITY DEVELOPMENT DISTRICT.
16. THE ARTICLES OF INCORPORATION FOR WOODHAVEN HOMEOWNERS ASSOCIATION, INC. ARE RECORDED IN OFFICIAL RECORDS BOOK _____, PAGES _____ THROUGH _____ OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA.
17. RETENTION AREAS AND COMMON AREAS ARE GRANTED AS EASEMENTS TO THE CITY OF PORT ORANGE, WITH RIGHTS OF ACCESS, INGRESS, AND EGRESS, TOGETHER WITH THE RIGHT TO HARVEST EXCESS STORM WATER / GROUND WATER AS DEEMED APPROPRIATE AT THE DISCRETION OF THE CITY.
18. THE DECLARATION OF COVENANTS AND RESTRICTIONS FOR THE WOODHAVEN HOMEOWNERS ASSOCIATION, INC. ARE RECORDED IN OFFICIAL RECORDS BOOK _____, PAGES _____ THROUGH _____ OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA, AS AMENDED.
19. DRAINAGE EASEMENTS SHOWN OR DESCRIBED ON THIS PLAT SHALL BE FOR THE INSTALLATION, OPERATION, AND MAINTENANCE OF AND ACCESS TO THE STORMWATER DRAINAGE FACILITIES WITHIN THE BOUNDARIES OF THIS PLAT.
20. THE PIONEER COMMUNITY DEVELOPMENT DISTRICT, A LOCAL UNIT OF SPECIAL PURPOSE GOVERNMENT, SHALL BE RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF THE DRAINAGE SYSTEM SERVING THE AREA WITHIN THE BOUNDARIES OF THIS PLAT, AS DEPICTED ON THE STORMWATER MANAGEMENT PLAN APPROVED FOR THIS DEVELOPMENT BY THE CITY OF PORT ORANGE, FLORIDA. SHOULD THE DISTRICT FAIL TO PERFORM THE MAINTENANCE OF THE DRAINAGE AND STORMWATER MANAGEMENT SYSTEMS, THE CITY OF PORT ORANGE SHALL BE ENTITLED TO ENTER UPON THE COMMON AREAS AND DESIGNATED EASEMENT AREAS TO PERFORM MAINTENANCE, REPAIR OR REPLACE THE FACILITIES AND, SHALL HAVE THE RIGHT TO LEND ALL OWNERS OF RECORD IN PROPERTY FOR THE COST OF SUCH MAINTENANCE, REPAIR AND REPLACEMENT, AS DEMAND BY THE CITY TO BE NECESSARY, IN THE EVENT OF TERMINATION, DISSOLUTION, OR FINAL LIQUIDATION OF THE DISTRICT, THE RESPONSIBILITY FOR THE OPERATION AND MAINTENANCE OF THE SURFACE WATER OR STORMWATER MANAGEMENT SYSTEM WILL BE TRANSFERRED TO AND ACCEPTED BY AN ENTITY WHICH COMPLIES WITH SECTION 400-42.022, F.A.C. AND BE APPROVED BY THE SAINT JOHNS RIVER WATER MANAGEMENT DISTRICT PRIOR TO SUCH TERMINATION, DISSOLUTION, OR LIQUIDATION.
21. THE PIONEER COMMUNITY DEVELOPMENT DISTRICT SHALL BE RESPONSIBLE FOR MAINTAINING ALL PRIVATE ROADS GRANTED TO THE DISTRICT BY THIS PLAT.
22. THE PIONEER COMMUNITY DEVELOPMENT DISTRICT MAY IMPOSE AND LEVY TAXES OR ASSESSMENTS, OR BOTH TAXES AND ASSESSMENTS, ON THIS PROPERTY. THESE TAXES AND ASSESSMENTS PAY THE CONSTRUCTION, OPERATION, AND MAINTENANCE COSTS OF CERTAIN PUBLIC FACILITIES AND SERVICES OF THE DISTRICT AND ARE SET ANNUALLY BY THE GOVERNING BOARD OF THE DISTRICT. THESE TAXES AND ASSESSMENTS ARE IN ADDITION TO COUNTY AND OTHER LOCAL GOVERNMENTAL TAXES AND ASSESSMENTS AND ALL OTHER TAXES AND ASSESSMENTS PROVIDED FOR BY LAW.
23. THIS PLAT IS SUBJECT TO THE PIONEER COMMUNITY DEVELOPMENT DISTRICT AS ESTABLISHED IN OFFICIAL RECORDS BOOK 5889, PAGE 4447 OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA.
24. THIS PLAT IS SUBJECT TO SAINT JOHNS RIVER WATER MANAGEMENT DISTRICT CONSERVATION EASEMENTS AS DESCRIBED IN OFFICIAL RECORDS BOOK _____, PAGE _____ OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA AND SHOWN HEREON.
25. THIS PLAT IS SUBJECT TO A 30.00 FOOT WIDE GAS LINE EASEMENT AS DESCRIBED IN OFFICIAL RECORDS BOOK 610, PAGE 570 OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA AND SHOWN HEREON.
26. THIS PLAT IS SUBJECT TO A FLORIDA POWER AND LIGHT COMPANY EASEMENT AS DESCRIBED IN OFFICIAL RECORDS BOOK 2986, PAGE 0440 OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA AND SHOWN HEREON.
27. THIS PLAT IS SUBJECT TO A 30.00 FOOT WIDE DRAINAGE/ACCESS/ AND STORMWATER EASEMENT AS DESCRIBED IN OFFICIAL RECORDS BOOK _____, PAGE _____ OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA AND SHOWN HEREON.
28. THIS PLAT IS SUBJECT TO A MASTER DEVELOPMENT AGREEMENT AS RECORDED IN OFFICIAL RECORDS BOOK _____, PAGE _____ OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA AND AS AMENDED AND RECORDED IN OFFICIAL RECORDS BOOK _____, PAGE _____ OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA .

PREPARED BY:

SLIGER & ASSOCIATES, INC.
LICENSED BUSINESS CERTIFICATION #3019

3921 SOUTH NOVA ROAD

PORT ORANGE, FL 32127

(386) 761-5385

www.sligerassociates.com

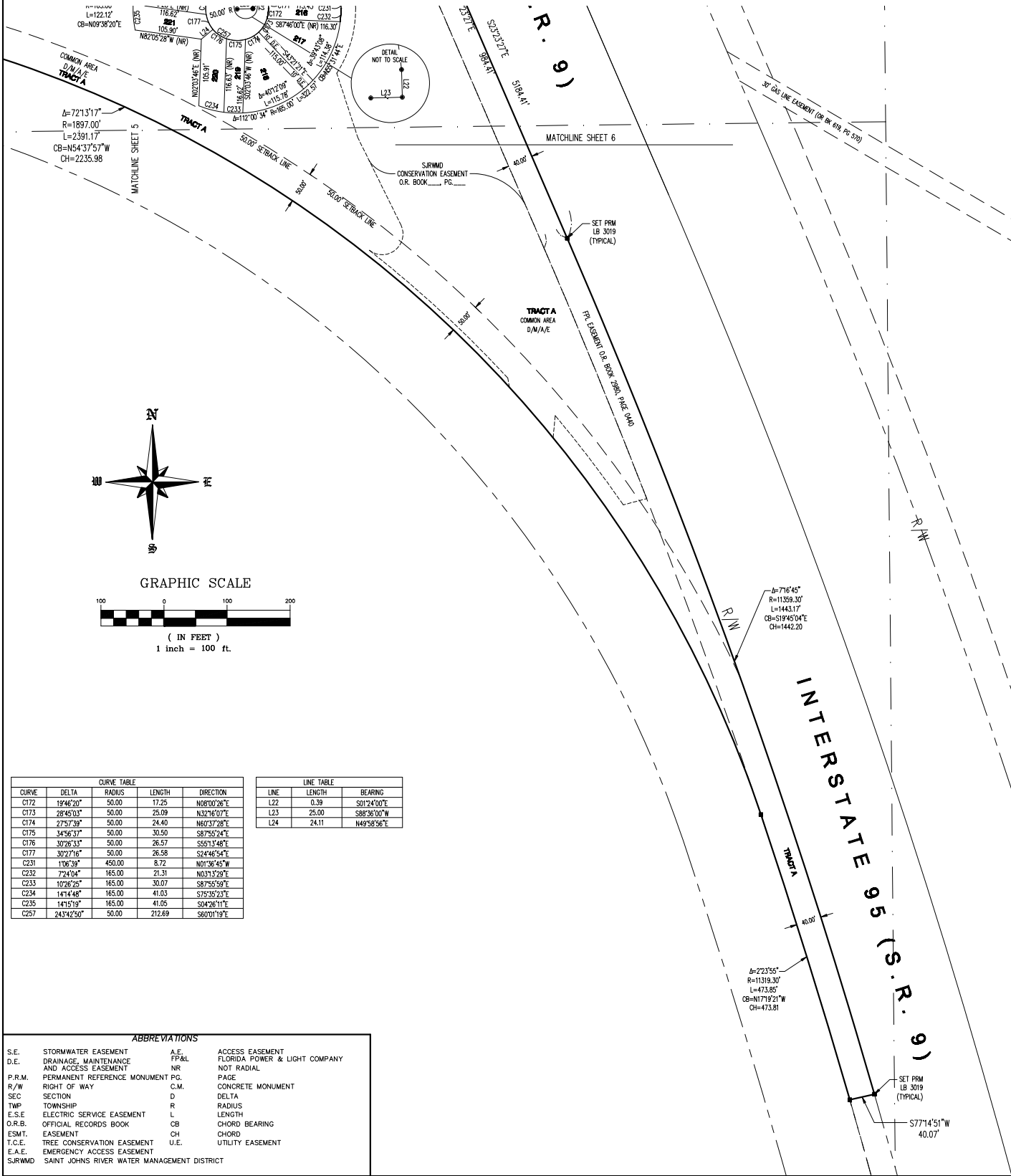
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SHEET 6 OF 7

WOODHAVEN — PHASE 1

A PORTION OF THE EAST 1/2 OF SECTIONS 29 AND 32, TOWNSHIP 16 SOUTH, RANGE 33 EAST,
CITY OF PORT ORANGE, VOLUSIA COUNTY, FLORIDA

PLAT BOOK PAGE



- GENERAL NOTES:
1. DENOTES PERMANENT REFERENCE MONUMENT (P.R.M.) FOUND 4" X 4" CONCRETE MONUMENT STAMPED "PRM LB 3019" UNLESS OTHERWISE SHOWN.
 2. DENOTES PERMANENT REFERENCE MONUMENT (P.R.M.) SET 4" X 4" CONCRETE MONUMENT STAMPED "PRM LB3019".
 3. DENOTES PERMANENT CONTROL POINT (P.C.P.) STAMPED "PCP LB3019".
 4. DENOTES POINT OF CURVATURE.
 5. (NR) DENOTES NON-RADIAL LINE RELATIVE TO CURVES.
 6. 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 VOLUSIA COUNTY, FLORIDA.
 7. DIMENSIONS ARE SHOWN IN FEET AND DECIMALS THEREOF.
 8. NOTE: ALL MEASUREMENTS REFER TO HORIZONTAL PLANE IN ACCORDANCE WITH THE DEFINITION OF THE U.S. SURVEY FOOT OR METER ADOPTED BY THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY. ALL MEASUREMENTS SHALL USE THE 39.37/124-3.28083333333333 EQUATION FOR CONVERSION FROM A U.S. FOOT TO METERS.
 9. ACCURACY: THE BOUNDARY LINEAR ERROR OF CLOSURE DOES NOT EXCEED 1:10,000. THE BOUNDARY ANGULAR ERROR OF CLOSURE DOES NOT EXCEED 15 SECONDS MULTIPLIED BY THE SQUARE ROOT OF THE NUMBER OF ANGLES TURNED.
 10. BEARING STRUCTURE IS ASSUMED WITH THE BEARING ON THE WEST LINE OF THE SOUTHEAST 1/4 SECTION 29, T16P, R33E, S33E, BEING N00°25'12"W.
 11. ALL LOT LINES ARE RADIAL UNLESS SHOWN OTHERWISE.
 12. THIS PLAT IS SUBJECT TO ALL EASEMENTS OF RECORD AND RESERVATIONS OF EASEMENTS, INCLUDING BUT NOT LIMITED TO DRAINAGE AND UTILITY EASEMENTS GRANTED TO THE CITY WHICH SHALL BE LOCATED AS FOLLOWS, EXCEPT AS OTHERWISE NOTED ON THE PLAT: FRONT LOT AND PARCEL LINES (STREET FRONTAGE) 12.00 FEET WIDE.
 13. UTILITY EASEMENTS PROVIDED ON THIS PLAT INCLUDE 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.
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 17. RESIDENTIAL SITE DEVELOPMENT CRITERIA:
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TWO FAMILY: MIN. LOT AREA=2,000 S.F.; MIN. LOT WIDTH=32 FEET; MAX. LOT COVERAGE=60%; MIN. OPEN SPACE=35%;
BUILDING SETBACKS: SIDE: 5 FEET; FRONT: 20 FEET; REAR: 10 FEET; MAX. HEIGHT 35 FEET
MULTI-FAMILY: MIN. LOT AREA=1,000 S.F.; MIN. LOT WIDTH=18 FEET; MAX. LOT COVERAGE=70%; MIN. OPEN SPACE=30%;
BUILDING SETBACKS: SIDE: 10 FEET; FRONT: 20 FEET; REAR: 10 FEET; MAX. HEIGHT 35 FEET
** APPLIES TO UNITS WITH INDIVIDUAL LOTS UNDER FEE SIMPLE OWNERSHIP
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 23. DRAINAGE EASEMENTS SHOWN OR DESCRIBED ON THIS PLAT SHALL BE FOR THE INSTALLATION, OPERATION, AND MAINTENANCE OF AND ACCESS TO THE STORMWATER DRAINAGE FACILITIES WITHIN THE BOUNDARIES OF THIS PLAT.
 24. THE PIONEER COMMUNITY DEVELOPMENT DISTRICT, A LOCAL UNIT OF SPECIAL PURPOSE GOVERNMENT, SHALL BE RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF THE DRAINAGE SYSTEM SERVING THE AREA WITHIN THE BOUNDARIES OF THIS PLAT, AS DEPICTED ON THE STORMWATER MANAGEMENT PLAN APPROVED FOR THIS DEVELOPMENT BY THE CITY OF PORT ORANGE, FLORIDA. SHOULD THE DISTRICT FAIL TO PERFORM THE MAINTENANCE OF THE DRAINAGE AND STORMWATER MANAGEMENT SYSTEMS, THE CITY OF PORT ORANGE SHALL BE ENTITLED TO ENTER UPON THE COMMON AREAS AND DESIGNATED EASEMENT AREAS TO PERFORM MAINTENANCE, REPAIR OR REPLACE THE FACILITIES AND SHALL HAVE THE RIGHT TO LIEB ALL OWNERS OF RECORD IN PROPERTY FOR THE COST OF SUCH MAINTENANCE, REPAIR AND REPLACEMENT, AS DEMAND BY THE CITY TO BE NECESSARY. IN THE EVENT OF TERMINATION, DISSOLUTION, OR FINAL LIQUIDATION OF THE DISTRICT, THE RESPONSIBILITY FOR THE OPERATION AND MAINTENANCE OF THE SURFACE WATER OR STORM WATER MANAGEMENT SYSTEM WILL BE TRANSFERRED TO AND ACCEPTED BY AN ENTITY WHICH COMPLIES WITH SECTION 400-42.027, F.A.C. AND BE APPROVED BY THE SAINT JOHNS RIVER WATER MANAGEMENT DISTRICT PRIOR TO SUCH TERMINATION, DISSOLUTION, OR LIQUIDATION.
 25. THE PIONEER COMMUNITY DEVELOPMENT DISTRICT SHALL BE RESPONSIBLE FOR MAINTAINING ALL PRIVATE ROADS GRANTED TO THE DISTRICT BY THIS PLAT.
 26. THE PIONEER COMMUNITY DEVELOPMENT DISTRICT MAY IMPOSE AND LEVY TAXES OR ASSESSMENTS, OR BOTH TAXES AND ASSESSMENTS, ON THIS PROPERTY. THESE TAXES AND ASSESSMENTS PAY THE CONSTRUCTION, OPERATION, AND MAINTENANCE COSTS OF CERTAIN PUBLIC FACILITIES AND SERVICES OF THE DISTRICT AND ARE SET ANNUALLY BY THE GOVERNING BOARD OF THE DISTRICT. THESE TAXES AND ASSESSMENTS ARE IN ADDITION TO COUNTY AND OTHER LOCAL GOVERNMENTAL TAXES AND ASSESSMENTS AND ALL OTHER TAXES AND ASSESSMENTS PROVIDED FOR BY LAW.
 27. THIS PLAT IS SUBJECT TO THE PIONEER COMMUNITY DEVELOPMENT DISTRICT AS ESTABLISHED IN OFFICIAL RECORDS BOOK 5889, PAGE 4447 OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA.
 28. THIS PLAT IS SUBJECT TO SAINT JOHNS RIVER WATER MANAGEMENT DISTRICT CONSERVATION EASEMENTS AS DESCRIBED IN OFFICIAL RECORDS BOOK _____, PAGE _____ OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA AND SHOWN HEREON.
 29. THIS PLAT IS SUBJECT TO A 30.00 FOOT WIDE GAS LINE EASEMENT AS DESCRIBED IN OFFICIAL RECORDS BOOK 610, PAGE 570 OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA AND SHOWN HEREON.
 30. THIS PLAT IS SUBJECT TO A FLORIDA POWER AND LIGHT COMPANY EASEMENT AS DESCRIBED IN OFFICIAL RECORDS BOOK 2980, PAGE 0440 OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA AND SHOWN HEREON.
 31. THIS PLAT IS SUBJECT TO A 20.00 FOOT WIDE DRAINAGE/ACCESS/ AND STORMWATER EASEMENT AS DESCRIBED IN OFFICIAL RECORDS BOOK _____, PAGE _____ OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA AND SHOWN HEREON.
 32. THIS PLAT IS SUBJECT TO A MASTER DEVELOPMENT AGREEMENT AS RECORDED IN OFFICIAL RECORDS BOOK _____, PAGE _____ OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA AND AS AMENDED AND RECORDED IN OFFICIAL RECORDS BOOK _____, PAGE _____ OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA.

PREPARED BY:

SLIGER & ASSOCIATES, INC.
PROFESSIONAL LAND SURVEYORS
LICENSED BUSINESS CERTIFICATION #3019
3921 SOUTH NOVA ROAD
PORT ORANGE, FL. 32127
(386) 761-5385

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SHEET 7 OF 7

WOODHAVEN PHASE 1

CITY OF PORT ORANGE - VOLUSIA COUNTY, FLORIDA

FINAL ENGINEERING PLANS

RECEIVED
3-2-17
CITY OF PORT ORANGE
Community Development
REVISED

ZEV COHEN & ASSOCIATES, INC.
CIVIL ENGINEERS • LANDSCAPE ARCHITECTS
PLANNERS • TRANSPORTATION • ENVIRONMENTAL
WWW.ZEVCOHEN.COM

ORMOND BEACH
300 INTERCHANGE BLVD., SUITE C
ORMOND BEACH, FL. 32174
(386) 677-2482 FAX (386) 677-2505

EDGEWATER
300 INTERCHANGE BLVD., SUITE C
EDGEWATER, FL. 32132
(386) 677-2482 FAX (386) 677-2505

NO.	DATE	REVISIONS
1	01/25/17	Revisions Per City Comments Dated 01/25/17
2	02/27/17	Revisions Per City Comments Dated 01/25/17
3	02/27/17	Revisions Per City Comments Dated 02/16/17

WOODHAVEN PHASE 1
FINAL ENGINEERING PLANS
COVER SHEET

CITY OF PORT ORANGE
VOLUSIA COUNTY, FL

PROJECT NO: ZC 16011
ISSUE DATE: 10-28-2016
DESIGNED BY: HK
DRAFTED BY: CW/TR
CHECKED BY: BB
DRAWING FILE: C1 16011COV
XREFS: 16011TIB
XREFS:



NOT VALID WITHOUT SEAL
ROBERT J. BALL, P.E. NO. 00001

SCALE: AS SHOWN
SHEET: C1 OF 46

**OWNER/
DEVELOPER:**

MHK OF VOLUSIA COUNTY, INC.
2379 BEVILLE ROAD
DAYTONA BEACH, FLORIDA 32119
(386) 236-4170
(386) 763-7870
CONTACT: DAVID HAAS

SURVEYOR:

SLIGER & ASSOC., INC.
3921 NOVA ROAD
PORT ORANGE, FL 32127
(386) 761-5385
(386) 760-0619 (FAX)
CONTACT: JOE ZAPERT, P.L.S.

ENGINEER:

ZEV COHEN & ASSOC., INC.
300 INTERCHANGE BLVD.
ORMOND BEACH, FL., 32174
(386) 677-2482
(386) 677-2505 (FAX)
CONTACT: BOBBY BALL, P.E.

**GEOTECHNICAL
ENGINEER:**

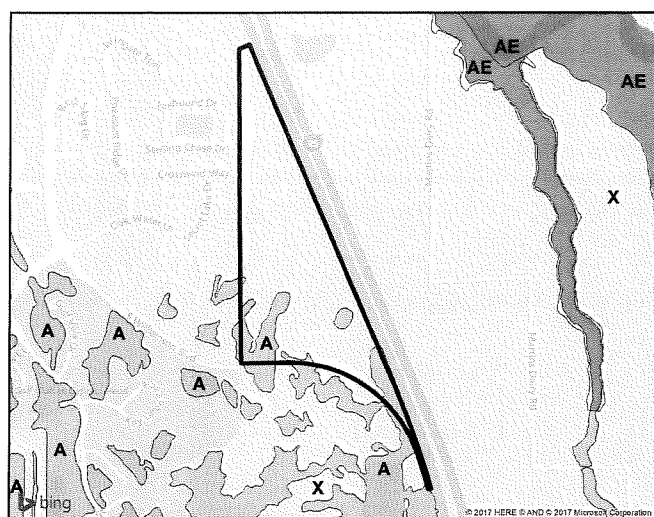
UNIVERSAL ENGINEERING SCIENCES
911 BEVILLE ROAD, SUITE C
SOUTH DAYTONA, FLORIDA 32119
(386) 756-1105
(386) 760-4067 (FAX)
CONTACT: BRIAN POHL, P.E.

ENVIRONMENTAL:

BREEDLOVE, DENNIS & ASSOC., INC.
330 W. CANTOR AVENUE
WINTER PARK, FLORIDA 32789
(407) 677-1882
(407) 657-7008 (FAX)
CONTACT: MIKE DENNIS, PHD

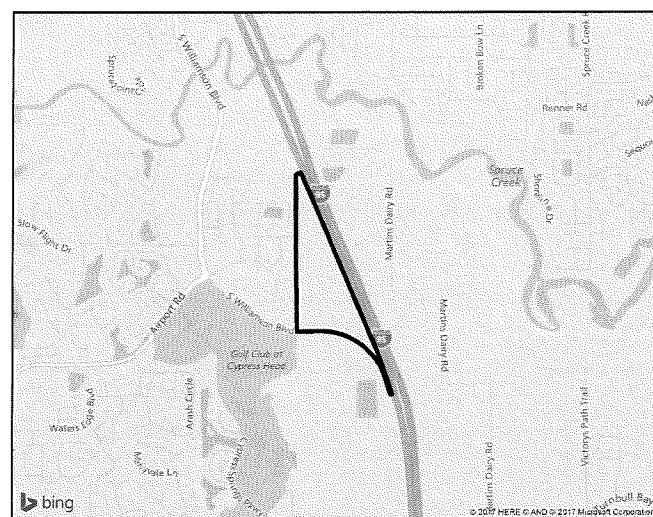
**LANDSCAPE
ARCHITECT:**

ZEV COHEN & ASSOC., INC.
300 INTERCHANGE BLVD.
ORMOND BEACH, FL., 32174
(386) 677-2482
(386) 677-2505 (FAX)
CONTACT: STEVEN BURNS, RLA

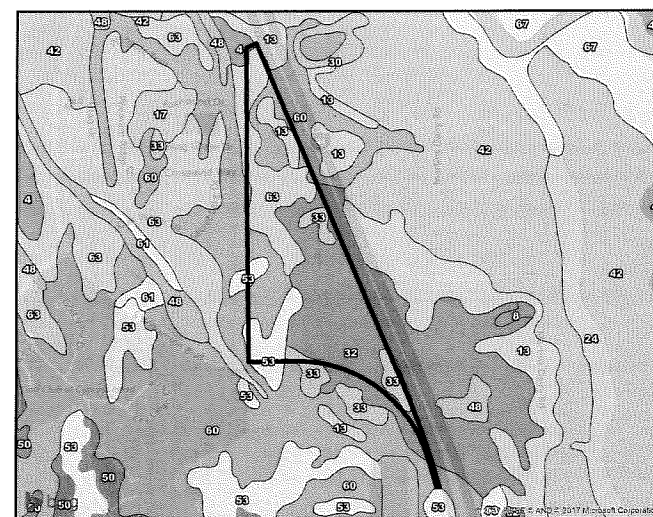


FLOOD MAP
SCALE: 1" = 1000'

THE PROPERTY LIES IN:
FLOOD ZONE A-NO BASE FLOOD ELEVATIONS DETERMINED
FLOOD ZONE X-AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN
FEMA MAP 12127C0509H REVISED FEBRUARY 19, 2014



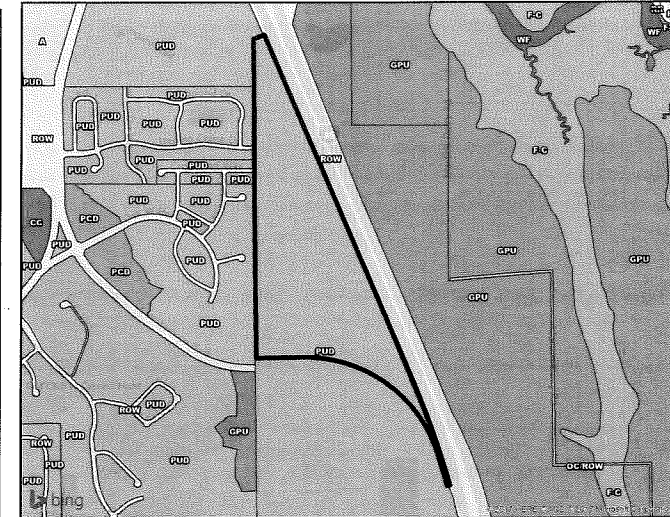
LOCATION MAP
SCALE: 1" = 2000'



SOILS MAP
SCALE: 1" = 1000'

THE SITE LIES WITHIN THE FOLLOWING VOLUSIA COUNTY SOIL CLASSIFICATIONS:

4 ASTATULA FINE SAND (A)	42 PAOLA FINE SAND (A)
13 CASSIA FINE SAND (C)	48 PLACID FINE SAND, DEPRESSIONAL (A/D)
17 DAYTONA SAND (B)	53 POMPANO PLACID COMPLEX (A/D)
32 MYAKKA FINE SAND (A/D)	60 SMYRNA FINE SAND (A/D)
33 MYAKKA FINE SAND, DEPRESSIONAL (A/D)	63 TAVARES FINE SAND (A)



ZONING MAP
SCALE: 1" = 1000'

PARCEL ID#: 2916-33-00-00-0040
ZONING: PLANNED UNIT DEVELOPMENT (PUD)
FUTURE LAND USE: RURAL TRANSITION (0-2 UNITS/ACRE);
SUBURBAN RESIDENTIAL (2-4 UNITS/ACRE); CONSERVATION

SITE DATA TABLE

TOTAL PROPERTY AREA-PHASE 1	116.31 ACRES
TOTAL PROJECT AREA - PHASE 1	80.46 ACRES
TOTAL R/W AREA - PHASE 1	10.70 ACRES
TOTAL LOT AREA - PHASE 1	41.32 ACRES
TOTAL STORMWATER AREA - PHASE 1	17.50 ACRES
TOTAL OPEN SPACE - PHASE 1	10.94 ACRES
TOTAL LOTS PROPOSED (SINGLE FAMILY)- PHASE 1	178 LOTS
TOTAL LOTS PROPOSED (MULTI-FAMILY)- PHASE 1	93 LOTS
FULL PARCEL NUMBER:	2916-33-00-00-0040

PLANNED UNIT DEVELOPMENT TRACKING TABLE

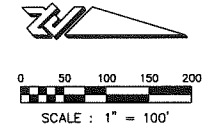
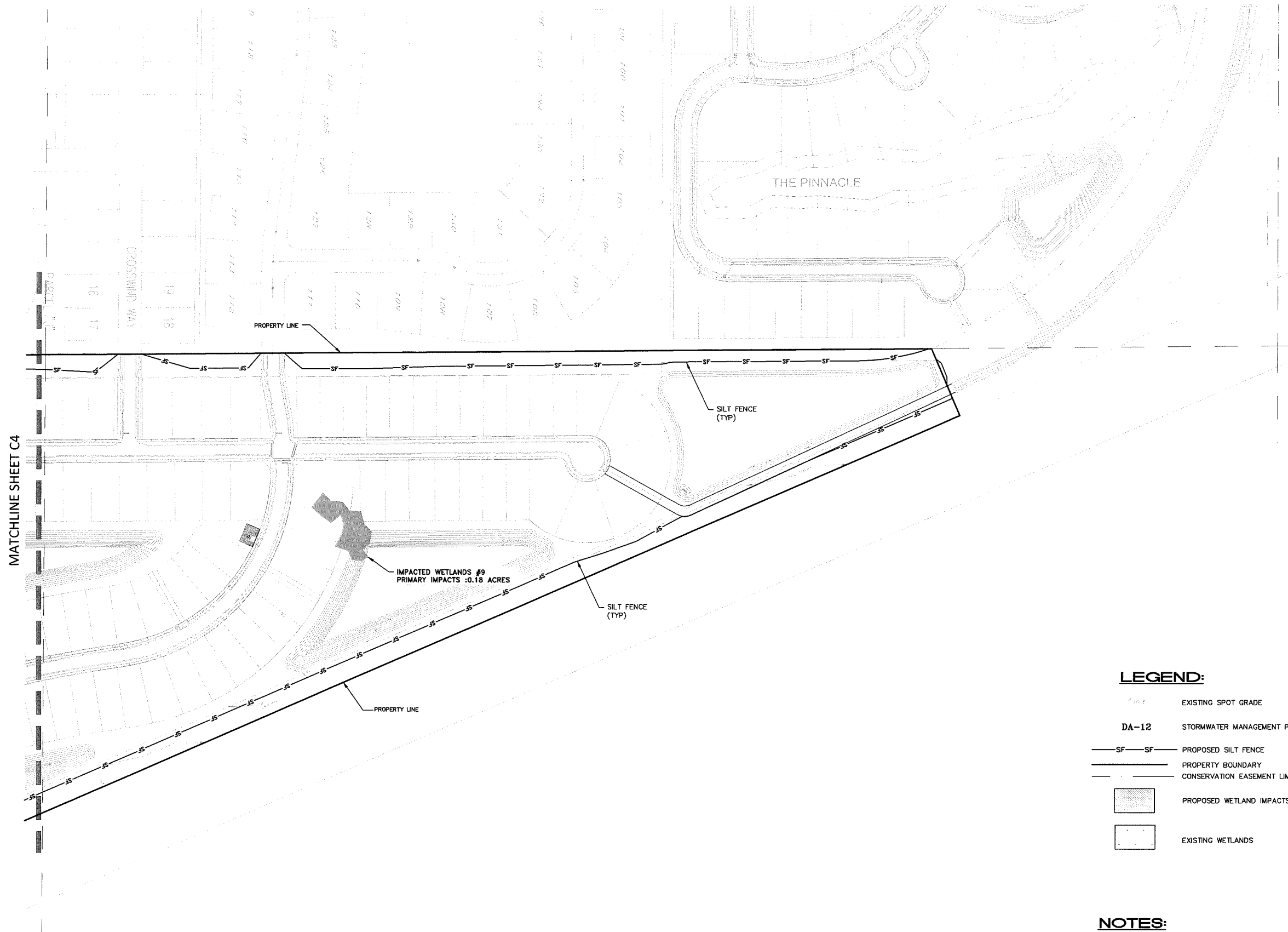
TOTAL NO. OF UNITS ALLOWED	1,338 UNITS
TOTAL NO. OF UNITS PROPOSED-PHASE 1	271 UNITS
TOTAL NON RESIDENTIAL SQUARE FOOTAGE ALLOWED	650,000 SQ. FT.
TOTAL NON RESIDENTIAL SQUARE FOOTAGE PROPOSED-PHASE 1	0
TOTAL OPEN SPACE REQUIRED	45%
TOTAL OPEN SPACE PROPOSED-PHASE 1	45%

GENERAL NOTES:

- ALL DISTURBED AREAS SHALL BE SODED OR SEEDED AND MULCHED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND VERIFYING ALL ELEVATIONS OF EXISTING UTILITIES SHOWN OR NOT SHOWN PRIOR TO CONSTRUCTION AND FOR NOTIFYING THE VARIOUS UTILITY COMPANIES TO MAKE THE NECESSARY ARRANGEMENTS FOR ANY RELOCATION, DISRUPTION OF SERVICE OR CLARIFICATION OF ACTIVITY REGARDING SAID UTILITY. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN CROSSING AN UNDERGROUND UTILITY, WHETHER SHOWN ON THESE PLANS OR FIELD LOCATED. UTILITIES WHICH INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE RELOCATED BY THE RESPECTIVE UTILITY DURING RELOCATION OPERATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF DAMAGES TO EXISTING UTILITIES.
- ALL ROADWAY CONSTRUCTION AND ALL DRAINAGE STRUCTURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MOST RECENT EDITION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION ROADWAY AND TRAFFIC DESIGN STANDARDS.
- THE LENGTH OF ALL DRAINAGE PIPES AND LOCATION OF ALL DRAINAGE STRUCTURES ARE APPROXIMATE. THE LOCATION OF THE DRAINAGE STRUCTURES SHALL DETERMINE THE LENGTH OF PIPE.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE AN "AS-BUILT" SURVEY OF THE COMPLETED CONSTRUCTION. THE "AS-BUILT" SURVEY SHALL BE PREPARED IN ACCORDANCE WITH APPROPRIATE GOVERNMENTAL REGULATIONS AND SHALL BE SIGNED AND SEALED BY A FLORIDA REGISTERED PROFESSIONAL LAND SURVEYOR.
- THE CONTRACTOR SHALL MAINTAIN, AT THE JOB SITE, A RECORD COPY OF ALL CONSTRUCTION DRAWINGS AND SPECIFICATIONS ON WHICH ALL FIELD CHANGES ARE TO BE SHOWN. THESE CHANGES ARE TO BE INCORPORATED IN THE "AS-BUILT" SURVEY FURNISHED TO THE ENGINEER.
- CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL REQUIRED PERMITS. THE CONTRACTOR SHALL MAINTAIN COPIES OF ALL RELEVANT PERMITS AVAILABLE ON THE JOB SITE AT ALL TIMES.
- PRIOR TO COMMENCEMENT OF CONSTRUCTION THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE ELECTRIC, TELEPHONE, GAS AND CABLE TELEVISION COMPANIES TO DETERMINE THE TYPE AND LOCATION OF ALL UNDERGROUND FACILITIES IN THE AREA OF CONSTRUCTION.
- OPERATION AND MAINTENANCE OF THE STORMWATER SYSTEM WILL BE PROVIDED BY THE OWNER OF PROPERTY.
- MAINTENANCE IS TO INCLUDE:
A. 8-WEEKLY MOWING OF SLOPESIDES FOR VEGETATION CONTROL.
B. QUARTERLY INSPECTION AND/OR CLEANING OF CATCH BASINS TO KEEP FREE OF SAND AND DEBRIS.
- ALL DISTURBED AREAS SHALL HAVE GRASS/VEGETATION ESTABLISHED PRIOR TO THE INSPECTION FOR THE CERTIFICATE OF OCCUPANCY.
- DURING CONSTRUCTION, AN ALL-WEATHER ACCESSIBLE ROADWAY SHALL BE MAINTAINED AT ALL TIMES FOR FIRE APPARATUS.
- NPDES PERMIT THROUGH FDEP SHALL BE OBTAINED PRIOR TO START OF CONSTRUCTION.
- THE VERTICAL DATUM FOR THIS PROJECT REFER TO N.A.V.D. OF 1988.
- ALL CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE CITY STANDARD CONSTRUCTION DETAILS, LATEST VERSION, UNLESS SPECIFICALLY APPROVED.
- PURSUANT TO LDC, CHAPTER 5, SECTION 8(b)(2), APPROVAL OF THESE CONSTITUTES A VARIANCE TO THE REQUIRED SUBDIVISION IMPROVEMENTS WITH REGARD TO THE REQUIREMENTS OF CHAPTER 11, SECTION 7(a) FOR ONE STANDARD DUMPSITE PAD AND ENCLOSED COLLECTION POINT FOR EVERY 20 RESIDENTIAL UNITS OR A TRASH COMPACTOR SUFFICIENT IN SIZE TO SERVE THE ENTIRE DEVELOPMENT.

SHEET INDEX

C1	COVER SHEET
C2-C3	CONSTRUCTION NOTES
C4-C5	WETLAND MANAGEMENT PLANS
C6-C7	CLEARING & EROSION CONTROL
C8-C9	OVERALL DEVELOPMENT PLAN
C10-C15	GEOMETRY, SIGNING & STRIPING PLAN
C16-C21	PAVING, GRADING & DRAINAGE PLAN
C22-C27	MASTER UTILITY PLAN
C28-C37	PLAN & PROFILES
C38-C46	CONSTRUCTION DETAILS
HA1-HA3	HARDSCAPE PLAN & DETAILS
TR1-TP2	TREE PROTECTION
LA1-LA10	LANDSCAPE PLAN & DETAILS
IR1-IR8	IRRIGATION PLAN & DETAILS
OS1	OPEN SPACE EXHIBIT



ORMOND BEACH
300 INTERCHANGE BLVD., STE. C
ORMOND BEACH, FL 32174
(386) 677-2482 FAX (386) 677-2505

EDGEWATER
1840 AIRPARK ROAD
EDGEWATER, FL 32132
(386) 677-2482 FAX (386) 677-2505

[illegible]

**WOODHAVEN
PHASE 1
FINAL ENGINEERING PLANS
WETLAND MANAGEMENT PLAN**

PROJECT NO: ZC 16011
ISSUE DATE: 10-28-2016
DESIGNED BY: HK
DRAFTED BY: CW/TR
CHECKED BY: BB
DRAWING FILE: C4-C5 16011WMP REF'S: 16011BAS REF'S: 16011TIB



ROBERT J. BALL, P.E. NO. 60001

SCALE: 1"=100'

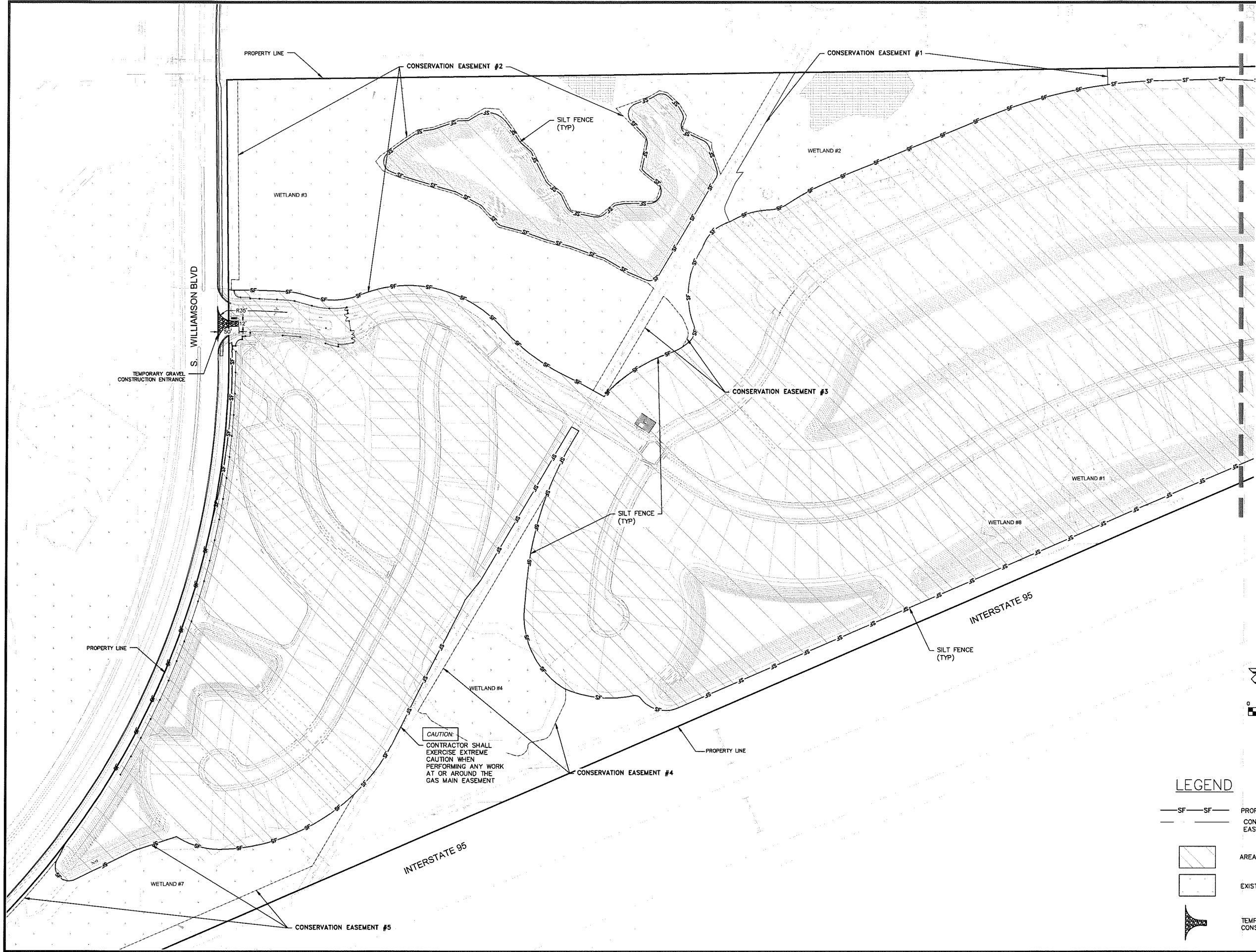
SHEET: C5 OF 46

LEGEND:

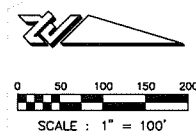
- EXISTING SPOT GRADE
- DA-12
- STORMWATER MANAGEMENT POND
- SF — SF — PROPOSED SILT FENCE
- PROPERTY BOUNDARY
- CONSERVATION EASEMENT LIMITS
-  PROPOSED WETLAND IMPACTS
-  EXISTING WETLANDS

NOTES:

- 1) SILT FENCE TO BE INSTALLED ALONG CLEARING LIMITS; GRAPHICAL REPRESENTATION OF CLEARING LIMITS AND SILT FENCE IS EXAGGERATED FOR PICTORIAL PURPOSES ONLY.



MATCHLINE SHEET C7



LEGEND

- SF — SF — PROPOSED SILT FENCE
- — — CONSERVATION EASEMENT LIMITS
- [Hatched Box] AREA TO BE CLEARED
- [White Box] EXISTING WETLANDS
- [Truncated Arrow] TEMPORARY GRAVEL CONSTRUCTION ENTRANCE

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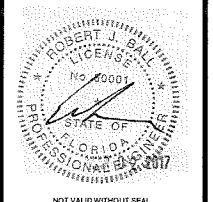
ORMOND BEACH
300 N. PALM BEACH BLVD., SUITE C
ORMOND BEACH, FL 32132
(386) 877-2482 FAX (386) 877-2505

EDGEWATER
1000 W. PALM BEACH BLVD., SUITE 100
EDGEWATER, FL 32132
(386) 877-2482 FAX (386) 877-2505

NO.	DATE	REVISIONS
1	01/25/17	Revised Per City Comments Dated 01/25/17
2	02/07/17	Revised Per City Comments Dated 01/25/17
3	03/01/17	Revised Per City Comments Dated 02/16/17

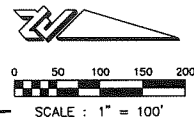
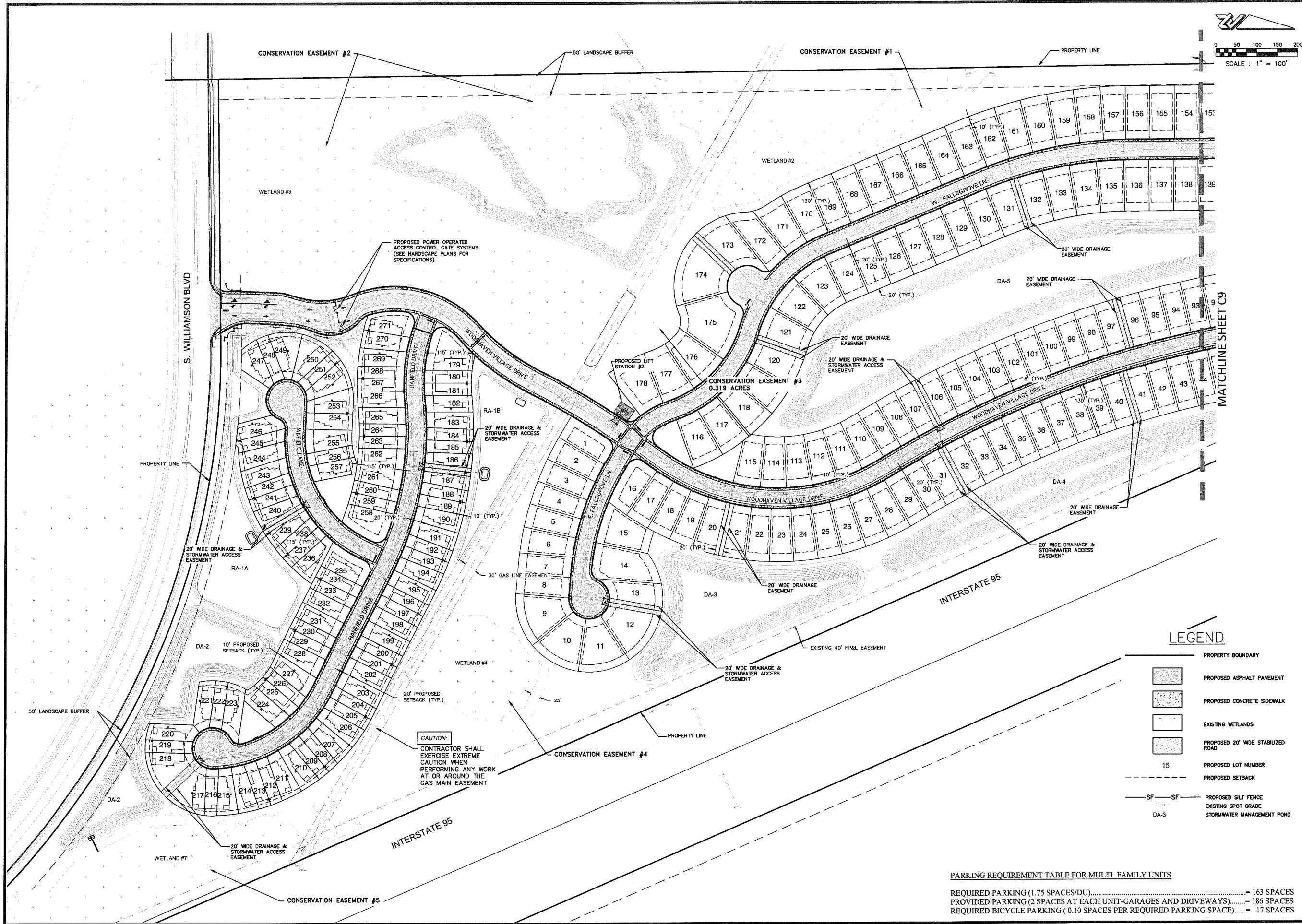
WOODHAVEN
PHASE 1
FINAL ENGINEERING PLANS
CLEARING & EROSION CONTROL PLAN
VOLUSIA COUNTY, FL
CITY OF PORT ORANGE

PROJECT NO: ZC 18011
ISSUE DATE: 10-28-2018
DESIGNED BY: HK
DRAFTED BY: CWTR
CHECKED BY: BB
DRAWING FILE: C6-C7 18011CLR
XREF'S: 18011BAS
XREF'S: 18011TB



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ROBERT J. BALL, P.E. NO. 60001

SCALE: 1"=100'
SHEET: C6 OF 46



LEGEND

[Solid Line]	PROPERTY BOUNDARY
[Stippled Area]	PROPOSED ASPHALT PAVEMENT
[Dotted Area]	PROPOSED CONCRETE SIDEWALK
[Hatched Area]	EXISTING WETLANDS
[Cross-hatched Area]	PROPOSED 20' WIDE STABILIZED ROAD
[Number 15]	PROPOSED LOT NUMBER
[Dashed Line]	PROPOSED SETBACK
[Line with SF]	PROPOSED SILT FENCE
[Line with DA-3]	EXISTING SPOT GRADE STORMWATER MANAGEMENT POND

PARKING REQUIREMENT TABLE FOR MULTI FAMILY UNITS

REQUIRED PARKING (1.75 SPACES/DU).....	= 163 SPACES
PROVIDED PARKING (2 SPACES AT EACH UNIT-GARAGES AND DRIVEWAYS).....	= 186 SPACES
REQUIRED BICYCLE PARKING (0.10 SPACES PER REQUIRED PARKING SPACE).....	= 17 SPACES

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 ORMOND BEACH, FL 32174
 (888) 677-2505 FAX (386) 677-2505

EDGEWATER
 10000 EDGEWATER BLVD., SUITE 200
 EDGEWATER, FL 32122
 (386) 677-2482 FAX (386) 677-2505

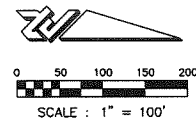
WOODHAVEN PHASE 1
FINAL ENGINEERING PLANS
OVERALL DEVELOPMENT PLAN

CITY OF PORT ORANGE
 VOLusia COUNTY, FL

PROJECT NO: ZC 16011
 ISSUE DATE: 10-28-2016
 DESIGNED BY: HK
 DRAFTED BY: CW/IR
 CHECKED BY: BB
 DRAWING FILE: CS-C9 160110DP
 XREF'S: 160116AS
 XREF'S: 16011TB

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 ROBERT J. BALL, P.E. NO. 60001

SCALE: 1"=100'
 SHEET: **C8** OF **46**



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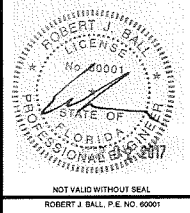
ORMOND BEACH
300 ORMOND BEACH, FL 32174
(386) 877-2482 FAX (386) 877-2505

EDGEWATER
EDGEWATER, FL 32132
(386) 877-2482 FAX (386) 877-2505

NO.	DATE	REVISIONS
1	01/25/17	Revisions Per City Comments Dated 01/25/17
2	02/07/17	Revisions Per City Comments Dated 02/07/17
3	03/07/17	Revisions Per City Comments Dated 03/07/17
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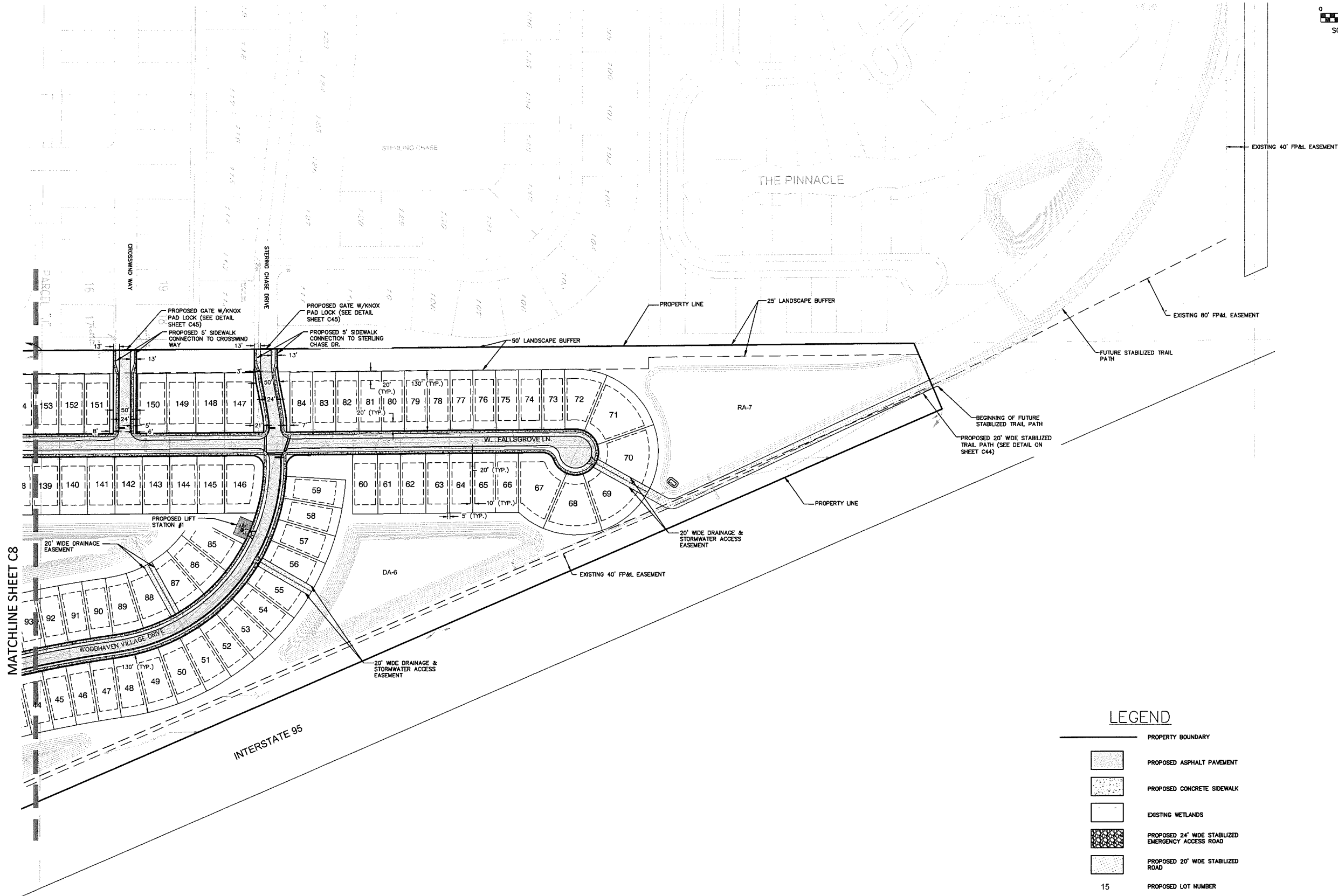
WOODHAVEN
PHASE 1
FINAL ENGINEERING PLANS
OVERALL DEVELOPMENT PLAN

PROJECT NO: ZC 16011
ISSUE DATE: 10-28-2016
DESIGNED BY: HK
DRAFTED BY: CWTR
CHECKED BY: BB
DRAWING FILE: C8-Q9 160110DP
XREF'S: 16011BA8
XREF'S: 16011TB



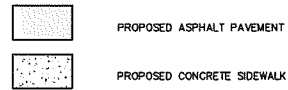
LEGEND

- PROPERTY BOUNDARY
- PROPOSED ASPHALT PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- EXISTING WETLANDS
- PROPOSED 24' WIDE STABILIZED EMERGENCY ACCESS ROAD
- PROPOSED 20' WIDE STABILIZED ROAD
- PROPOSED LOT NUMBER
- PROPOSED SETBACK
- PROPOSED SILT FENCE
- EXISTING SPOT GRADE
- STORMWATER MANAGEMENT POND



MATCHLINE SHEET C8

LEGEND



PROPOSED ASPHALT PAVEMENT

PROPOSED CONCRETE SIDEWALK

PROPOSED 20' WIDE STABILIZED ROAD

15

PROPOSED LOT NUMBER

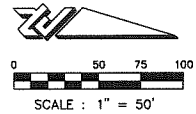
PROPOSED LOT NUMBER



PROPOSED SETBACK

PROPOSED SILT FENCE

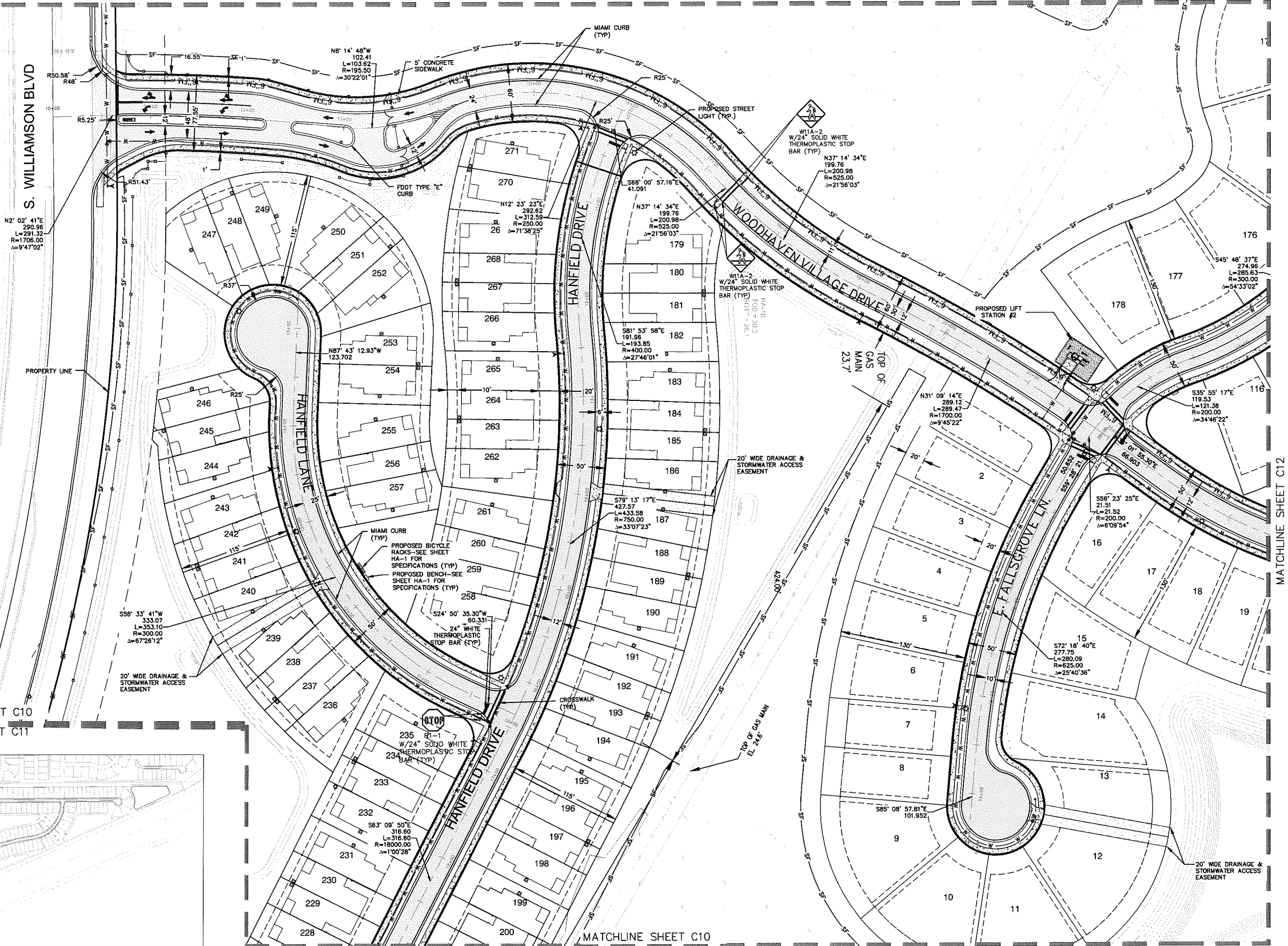
PROPOSED STREET LIGHT



SCALE : 1" = 50'

MATCHLINE SHEET C15

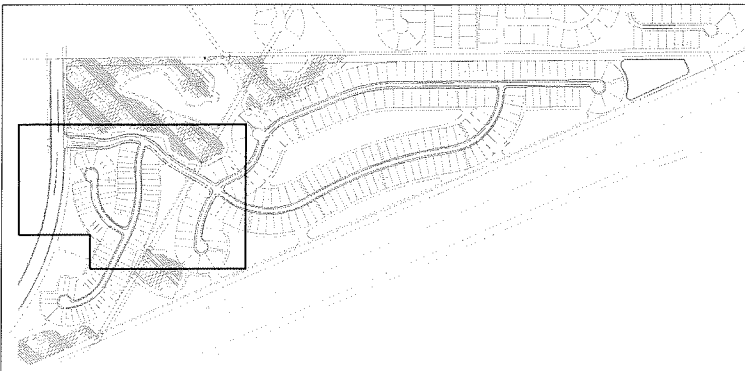
S. WILLIAMSON BLVD



MATCHLINE SHEET C10
MATCHLINE SHEET C11

MATCHLINE SHEET C12

MATCHLINE SHEET C10
MATCHLINE SHEET C11



SHEET LOCATION KEY



ORMOND BEACH
300 ORMOND BEACH, FL 32174
(386) 677-2482 FAX (386) 677-2505

EDGEWATER
300 ORMOND BEACH, FL 32174
(386) 677-2482 FAX (386) 677-2505

NO.	DATE	REVISIONS
1	12/25/17	Revisions Per City Comments, Dated 01/25/17
2	02/07/17	Revisions Per City Comments, Dated 01/25/17
3	02/07/17	Revisions Per City Comments, Dated 02/07/17

WOODHAVEN PHASE 1 FINAL ENGINEERING PLANS GEOMETRY, SIGNING & STRIPING PLAN

VOLUSIA COUNTY, FL

CITY OF PORT ORANGE

PROJECT NO: ZC 18011
ISSUE DATE: 10-28-2016
DESIGNED BY: HK
DRAFTED BY: CW/IR
CHECKED BY: BB
DRAWING FILE: C10-C15 16011SLP
XREFS: 16011BAS
XREFS: 16011SURV



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ROBERT J. BALL, P.E. NO. 90001

SCALE: 1"=50'
SHEET: C10 OF 46

PROPOSED ASPHALT PAVEMENT

PROPOSED CONCRETE SIDEWALK

PROPOSED 20' WIDE STABILIZED ROAD

15

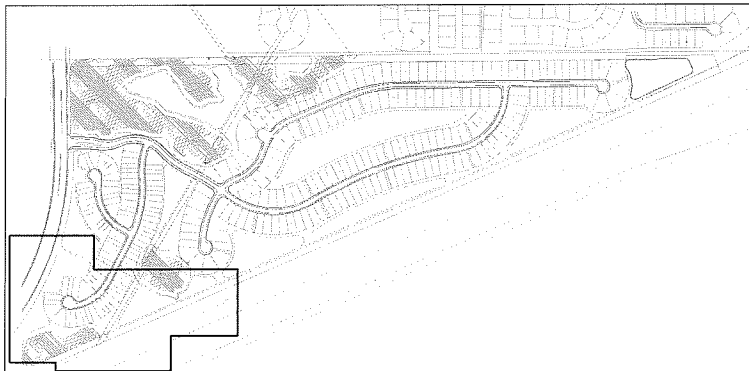
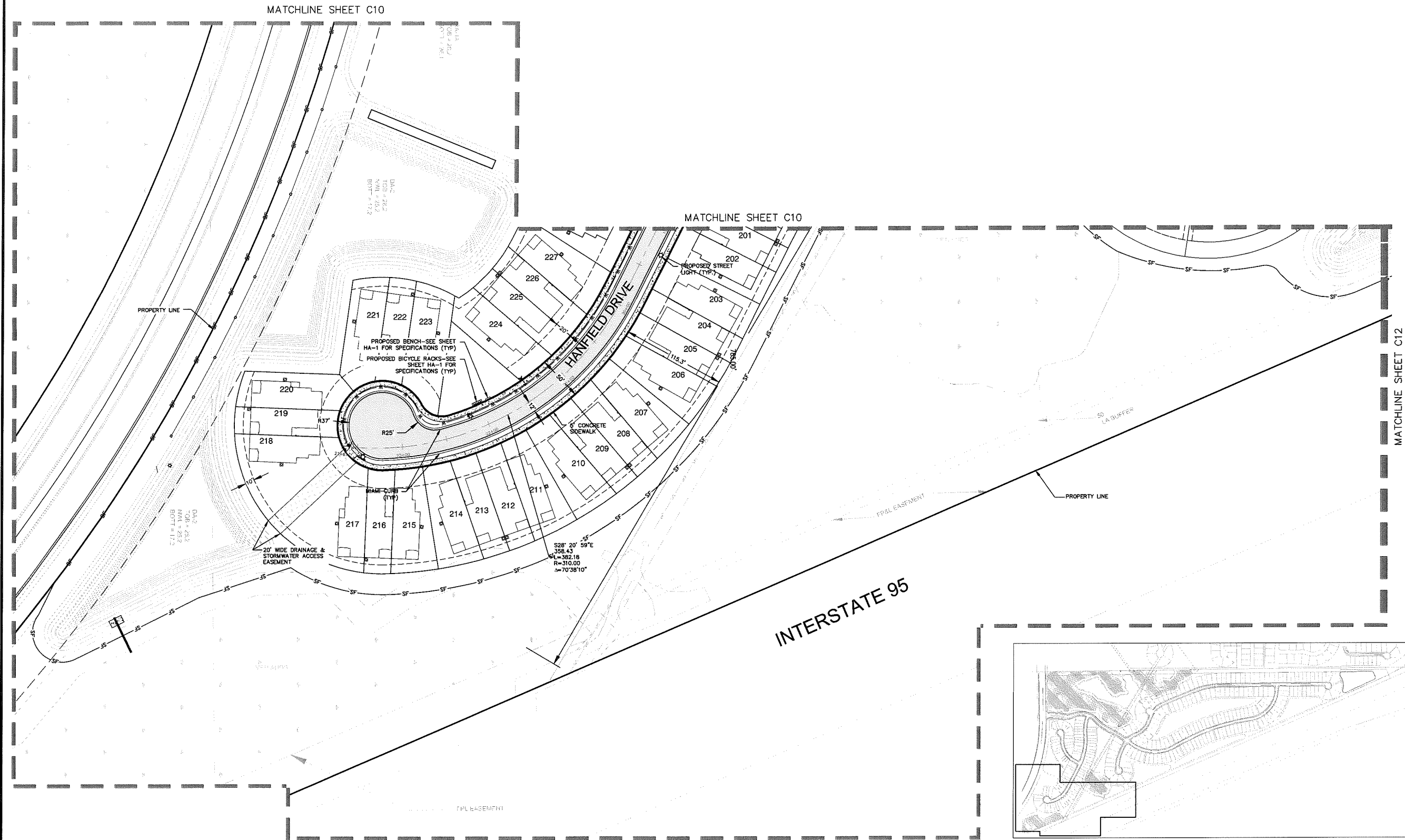
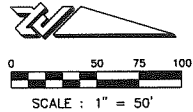
PROPOSED LOT NUMBER

PROPERTY BOUNDARY

PROPOSED SETBACK

SF SF PROPOSED SILT FENCE

☆ PROPOSED STREET LIGHT



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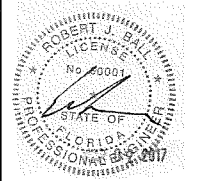
ORMOND BEACH
300 INTERCHANGE BLVD., SUITE C
ORMOND BEACH, FL 32174
(386) 677-2482 FAX (386) 677-2505

EDGEWATER
100 AIRPORT BLVD.
EDGEWATER, FL 32132
(386) 677-2482 FAX (386) 677-2505

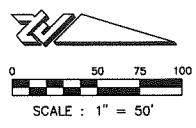
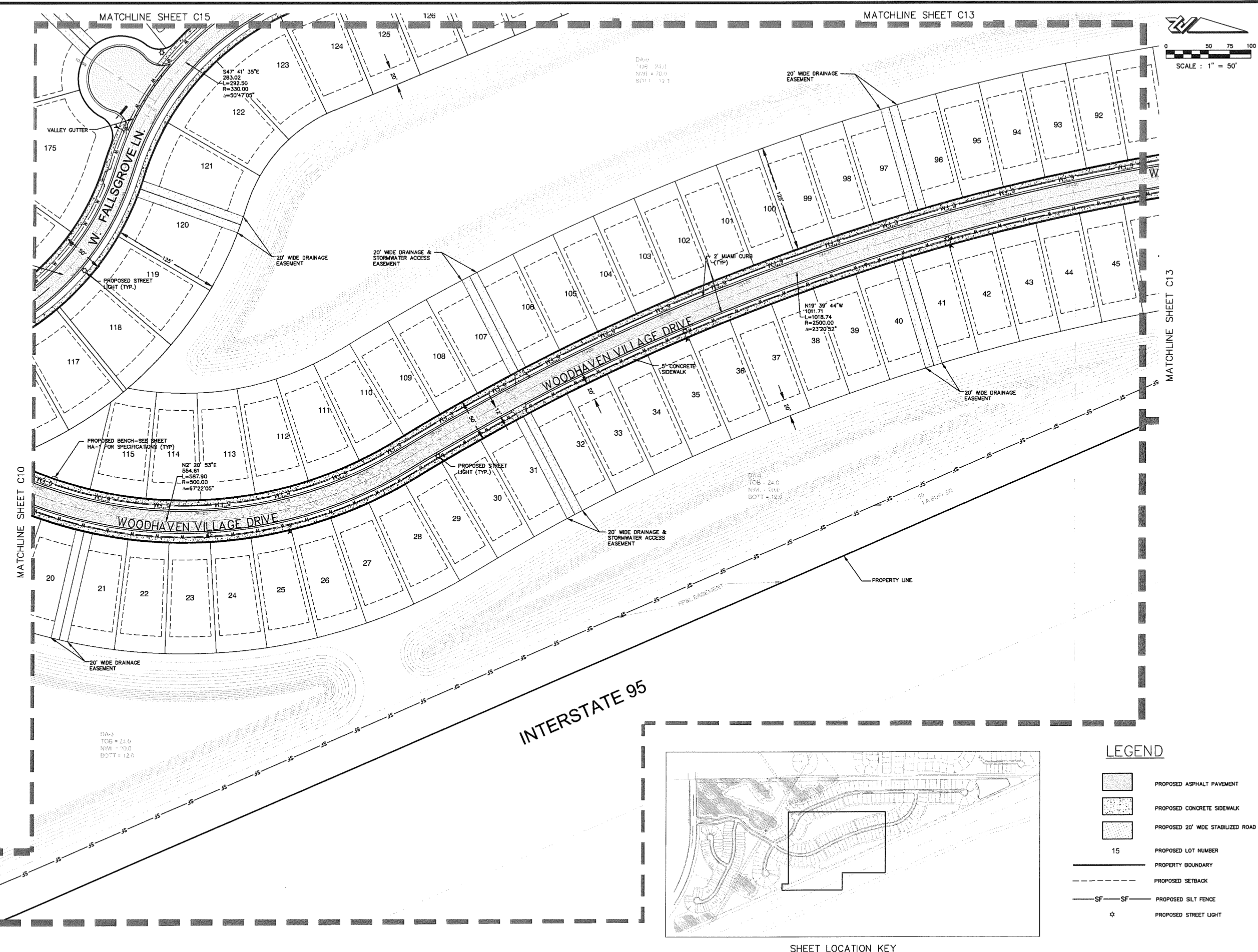
NO.	DATE	REVISIONS
1	11/28/17	Revised Per City Comments Dated 01/25/17
2	03/01/17	Revised Per City Comments Dated 01/25/17
3	03/01/17	Revised Per City Comments Dated 02/17/17

WOODHAVEN
PHASE 1
FINAL ENGINEERING PLANS
GEOMETRY, SIGNING & STRIPING PLAN
CITY OF PORT ORANGE
VOLusia COUNTY, FL

PROJECT NO.: ZC 16011
ISSUE DATE: 10-28-2018
DESIGNED BY: HK
DRAFTED BY: CWTR
CHECKED BY: BB
DRAWING FILE: C10-C15 16011SLP
XREFS: 16011BAS
XREFS: 16011SURV



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ROBERT J. BALL, P.E. NO. 00001



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ORMOND BEACH
3000 ORMOND BEACH BLVD., SUITE C
ORMOND BEACH, FL 32174
(386) 877-2462 FAX (386) 877-2505

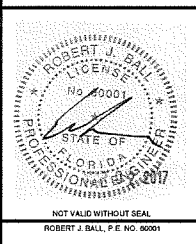
EDGEWATER
EDGEWATER, FL 32132
(386) 877-2462 FAX (386) 877-2505

NO.	DATE	REVISIONS	BY
1	01/25/17	Revised Per City Comments Dated 01/25/17	TOR
2	02/27/17	Revised Per City Comments Dated 01/25/17	TOR
3	03/07/17	Revised Per City Comments Dated 02/16/17	TOR

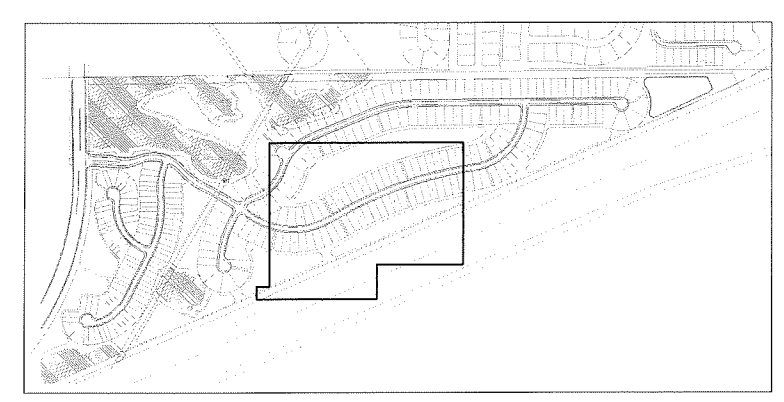
**WOODHAVEN
PHASE I
FINAL ENGINEERING PLANS
GEOMETRY, SIGNING & STRIPING PLAN**

CITY OF PORT ORANGE
VOLusia COUNTY, FL

PROJECT NO: ZC 18011
ISSUE DATE: 10-28-2016
DESIGNED BY: HK
DRAFTED BY: CW/TR
CHECKED BY: BB

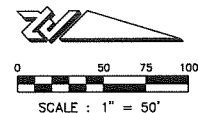


SCALE: 1"=50'
SHEET: **C12** OF 46



- LEGEND**
- PROPOSED ASPHALT PAVEMENT
 - PROPOSED CONCRETE SIDEWALK
 - PROPOSED 20' WIDE STABILIZED ROAD
 - 15 PROPOSED LOT NUMBER
 - PROPERTY BOUNDARY
 - PROPOSED SETBACK
 - SF—SF PROPOSED SILT FENCE
 - ☆ PROPOSED STREET LIGHT

SHEET LOCATION KEY



LEGEND

- PROPOSED ASPHALT PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED 20' WIDE STABILIZED ROAD
- PROPOSED 24' WIDE STABILIZED EMERGENCY ACCESS ROAD
- PROPOSED LOT NUMBER
- PROPERTY BOUNDARY
- PROPOSED SETBACK
- PROPOSED SILT FENCE
- PROPOSED STREET LIGHT



ORMOND BEACH
300 INTERCHANGE BLVD., STE. C
(386) 677-2482 FAX (386) 677-2505

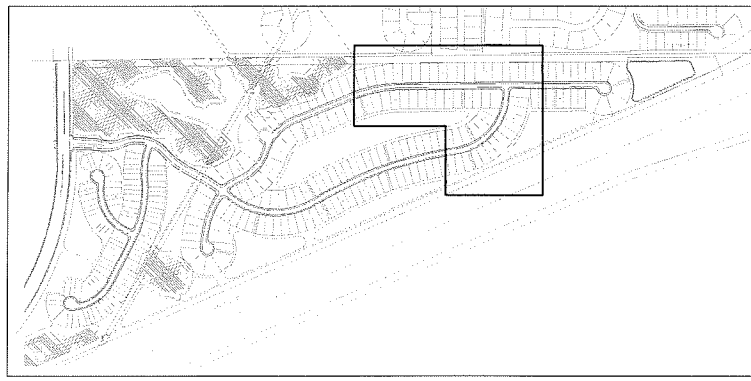
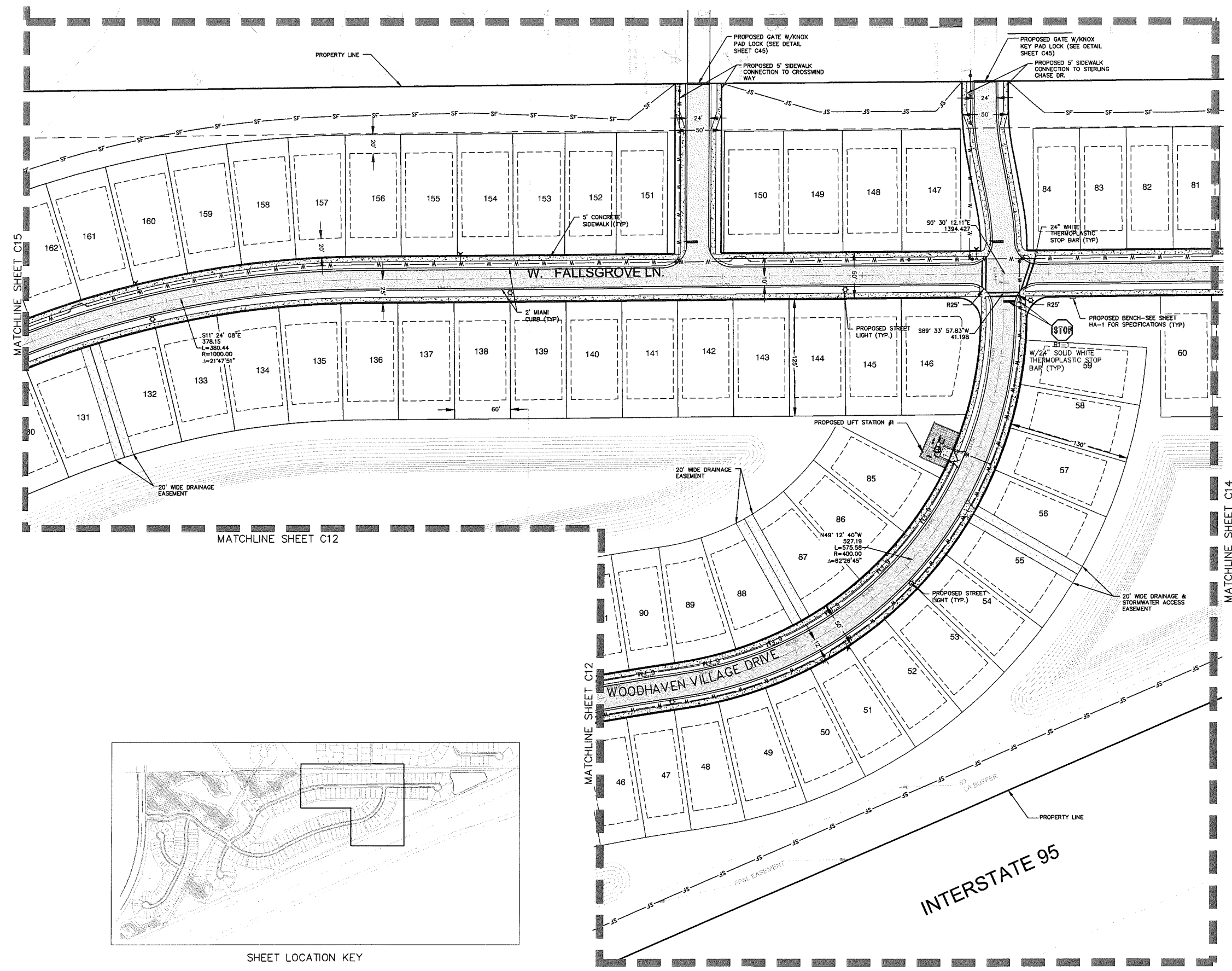
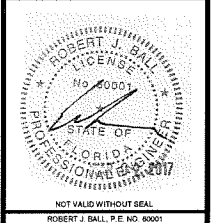
EDGEWATER
100 W. PARK ROAD
EDGEWATER, FL 33115
(386) 677-2482 FAX (386) 677-2505

NO.	DATE	REVISIONS
1	01/25/17	Revisions Per City Comments Dated 01/25/17
2	02/07/17	Revisions Per City Comments Dated 01/25/17
3	02/07/17	Revisions Per City Comments Dated 02/16/17

WOODHAVEN
PHASE I
FINAL ENGINEERING PLANS
GEOMETRY, SIGNING & STRIPING PLAN

VOLUSIA COUNTY, FL
CITY OF FORT ORANGE

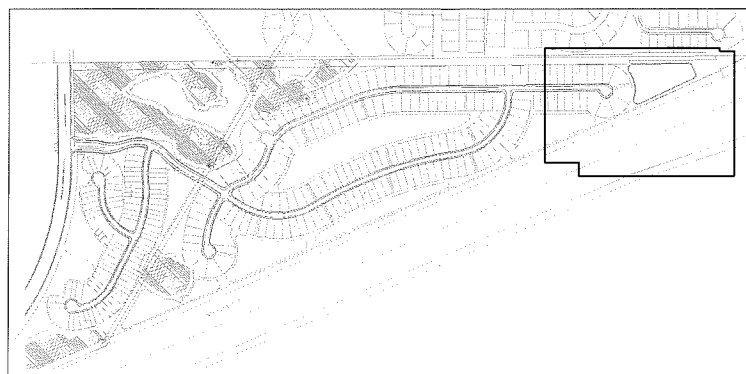
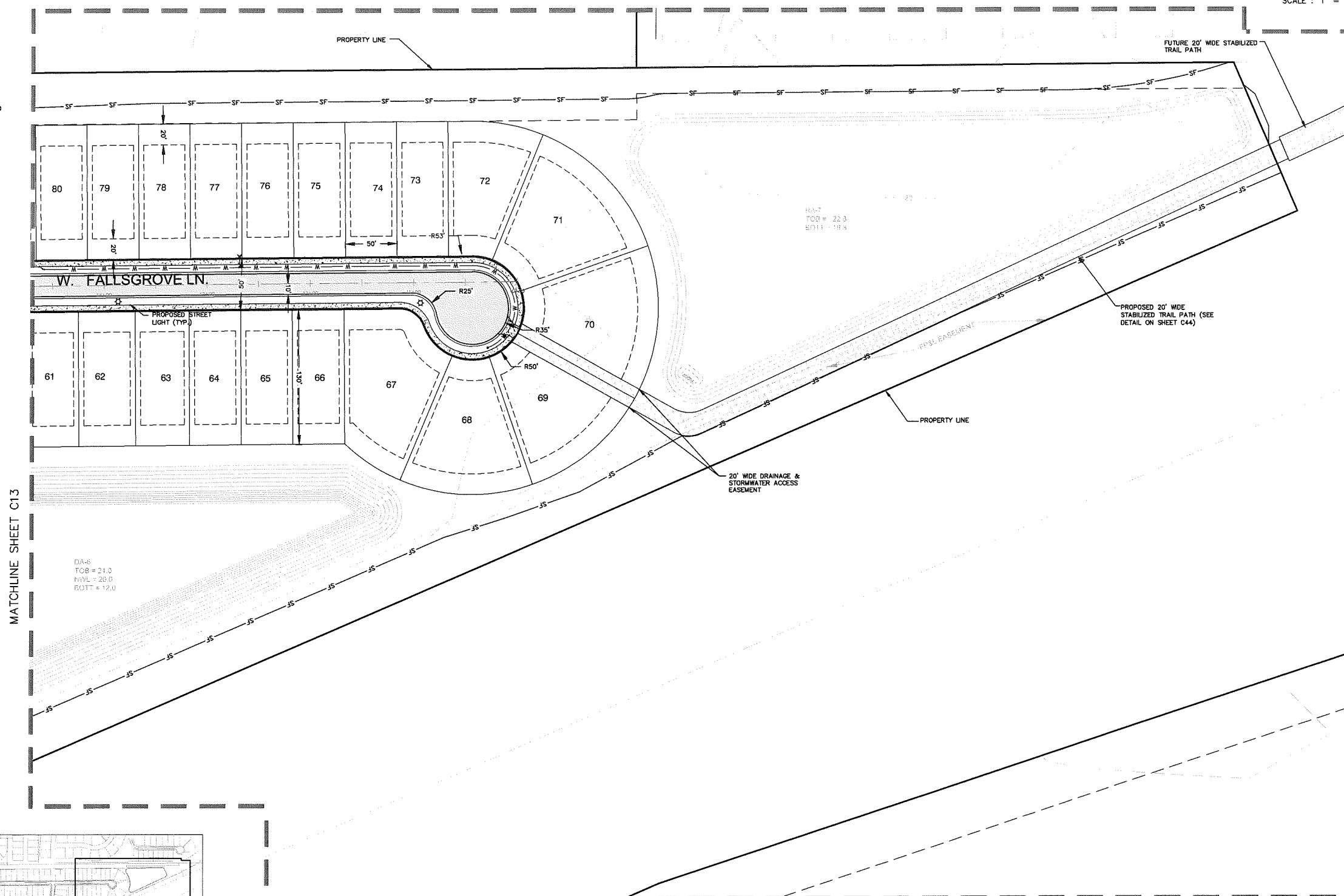
PROJECT NO: ZC 16011
ISSUE DATE: 10-28-2016
DESIGNED BY: HK
DRAFTED BY: CWTR
CHECKED BY: BB
DRAWING FILE: C10-C15 16011SLP
XREF'S: 16011BAS
XREF'S: 16011SURV



SHEET LOCATION KEY

LEGEND

- | | |
|---|--|
|  | PROPOSED ASPHALT PAVEMENT |
|  | PROPOSED CONCRETE SIDEWALK |
|  | PROPOSED 20' WIDE STABILIZED ROAD |
|  | PROPOSED 24' WIDE STABILIZED EMERGENCY ACCESS ROAD |
| 15 | PROPOSED LOT NUMBER |
|  | PROPERTY BOUNDARY |
|  | PROPOSED SETBACK |
|  | PROPOSED SILT FENCE |
|  | PROPOSED STREET LIGHT |



SHEET LOCATION KEY



ZEV COHEN
 & ASSOCIATES, INC.
 CIVIL ENGINEERS • LANDSCAPE ARCHITECTS
 (EB 4616) (LC 62)
 PLANNERS • TRANSPORTATION • ENVIRONMENTAL
 WWW.ZEVCOHEN.COM

ORMOND BEACH
3300 INTERCHANGE BLVD., STE. C
ORMOND BEACH, FL 32174
(886) 877-2482 FAX (386) 677-2505

EDGEWATER
1840 AIRPARK ROAD
EDGEWATER, FL 32132
(386) 677-2482 FAX (386) 677-2505

[illegible]

**WOODHAVEN
PHASE 1
FINAL ENGINEERING PLANS
GEOMETRY, SIGNING & STRIPING PLAN**

10

PROJECT NO: ZC 16011

ISSUE DATE: 10-28-2016

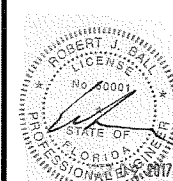
DESIGNED BY: HK

DRAFTED BY: CW/TR

CHECKED BY: BB

DRAWING FILE: C10-C15 16011SLF

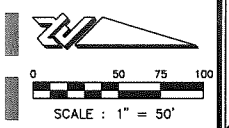
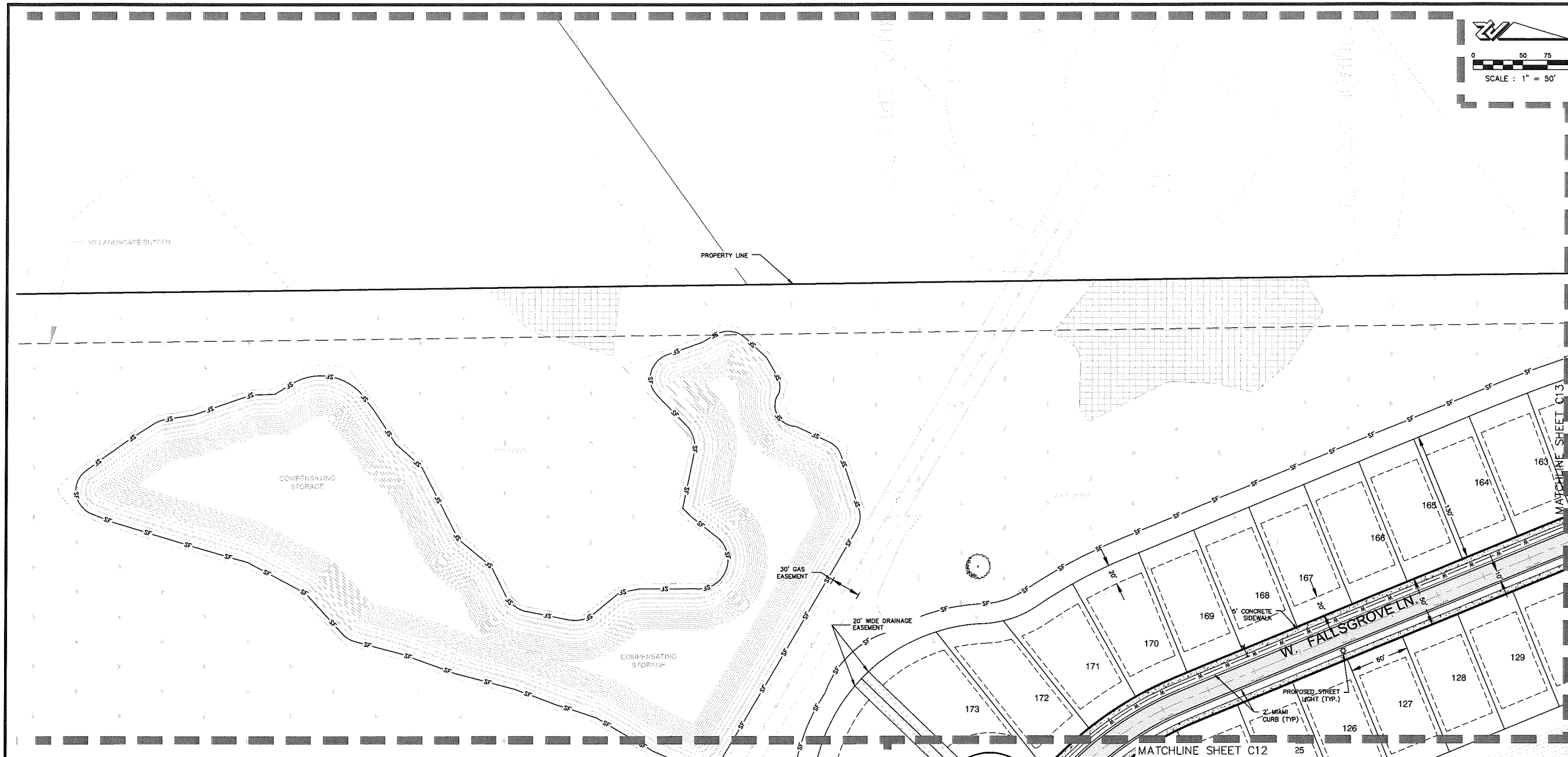
XREF'S: 16011BAS
XREF'S: 16011SURV



NOT VALID WITHOUT SEAL

SCALE: 1"=50'

SHEET: C14 OF 46



ZEV COHEN & ASSOCIATES, INC.
CIVIL ENGINEERS • LANDSCAPE ARCHITECTS
PLANNERS • TRANSPORTATION • ENVIRONMENTAL
WWW.ZEVCOHEN.COM

ORMOND BEACH
300 INTERCHANGE BLVD., STE. C
ORMOND BEACH, FL 32055
(386) 677-2462 FAX (386) 677-2505

EDGEWATER
160 AIRPORT ROAD
EDGEWATER, FL 32041
(386) 677-2462 FAX (386) 677-2505

NO.	DATE	REVISIONS	BY
1	10/25/17	Revisions Per City Comments Dated 10/25/17	TNR
2	10/27/17	Revisions Per City Comments Dated 10/27/17	TNR
3	10/27/17	Revisions Per City Comments Dated 10/27/17	TNR

WOODHAVEN

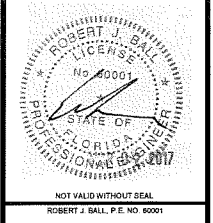
PHASE 1

FINAL ENGINEERING PLANS

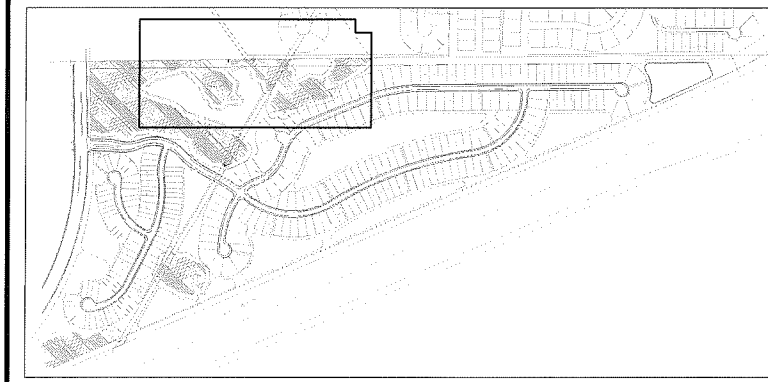
GEOMETRY, SIGNING & STRIPING PLAN

VOLUSIA COUNTY, FL
CITY OF PORT ORANGE

PROJECT NO: 2016011
ISSUE DATE: 10-28-2016
DESIGNED BY: HK
DRAFTED BY: CWTR
CHECKED BY: BB
DRAWING FILE: C10-C15 16011SLP
XREFS: 16011BAS
XREFS: 16011SURV



NOT VALID WITHOUT SEAL
ROBERT J. BALL, P.E. NO. 80001
SCALE: 1"=50'
SHEET: **C15** OF **46**



SHEET LOCATION KEY

LEGEND

PROPOSED ASPHALT PAVEMENT

PROPOSED CONCRETE SIDEWALK

PROPOSED 20' WIDE STABILIZED ROAD

PROPOSED 24' WIDE STABILIZED EMERGENCY ACCESS ROAD

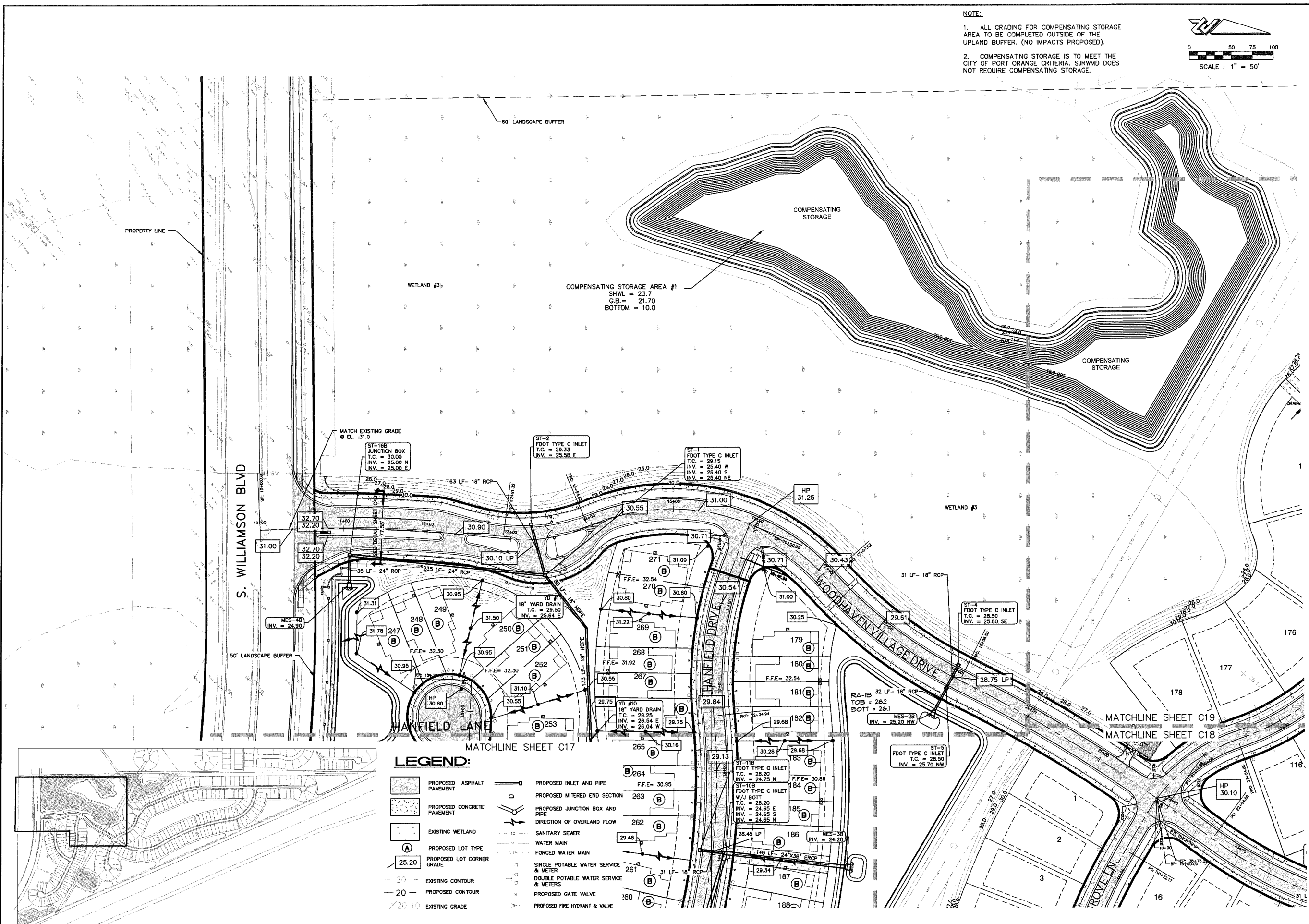
PROPOSED LOT NUMBER

PROPERTY BOUNDARY

PROPOSED SETBACK

PROPOSED SILT FENCE

PROPOSED STREET LIGHT



NOTE:
1. ALL GRADING FOR COMPENSATING STORAGE AREA TO BE COMPLETED OUTSIDE OF THE UPLAND BUFFER. (NO IMPACTS PROPOSED).
2. COMPENSATING STORAGE IS TO MEET THE CITY OF PORT ORANGE CRITERIA. SJRWMD DOES NOT REQUIRE COMPENSATING STORAGE.

SCALE : 1" = 50'

ZEV COHEN & ASSOCIATES, P.C.
CIVIL ENGINEERS - LANDSCAPE ARCHITECTS
PLANNERS - TRANSPORTATION - ENVIRONMENTAL
WWW.ZEVCOHEN.COM

ORMOND BEACH, FL 32174
300 INTERCHANGE BLVD., STE. C
(386) 677-2482 FAX (386) 677-2505

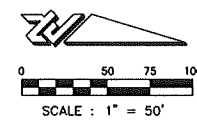
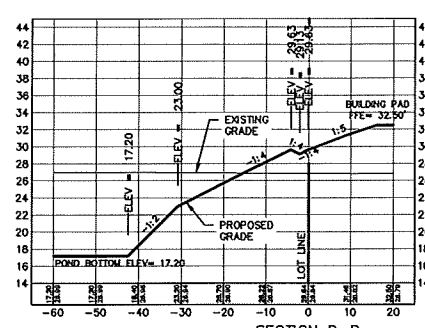
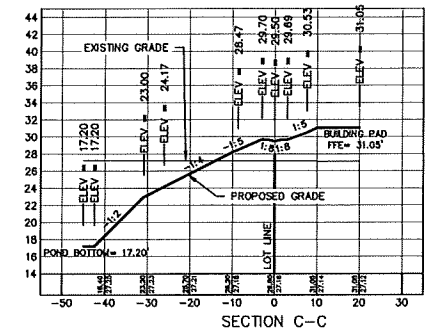
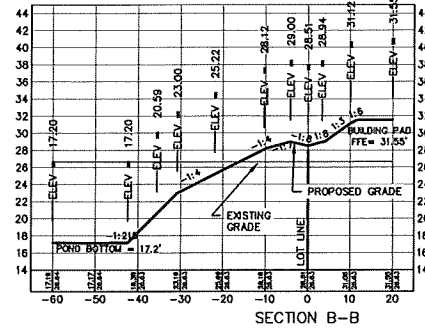
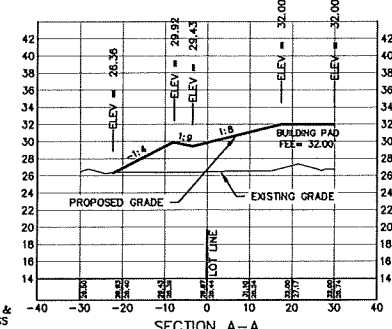
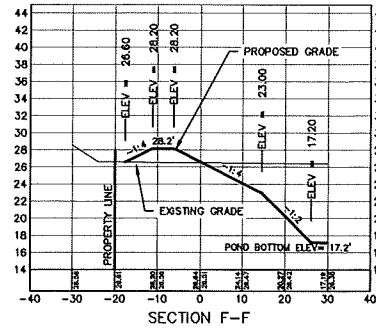
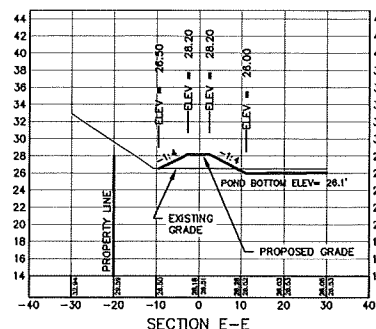
EDGEWATER, FL 32132
1000 AIRWAY ROAD
(386) 677-2482 FAX (386) 677-2505

NO.	DATE	REVISIONS
1	10/28/2016	Initial Design
2	11/01/2016	Revisions Per City Comments Dated 01/15/17
3	03/01/17	Revisions Per City Comments Dated 02/16/17

**WOODHAVEN
PHASE 1
FINAL ENGINEERING PLANS
PAVING, GRADING & DRAINAGE PLAN**
VOLUSIA COUNTY, FL

PROJECT NO: ZC 16011
ISSUE DATE: 10-28-2016
DESIGNED BY: HK
DRAFTED BY: CWTR
CHECKED BY: BB
DRAWING FILE: C16-C21 16011PGD
XREF'S: 16011BAS
XREF'S:

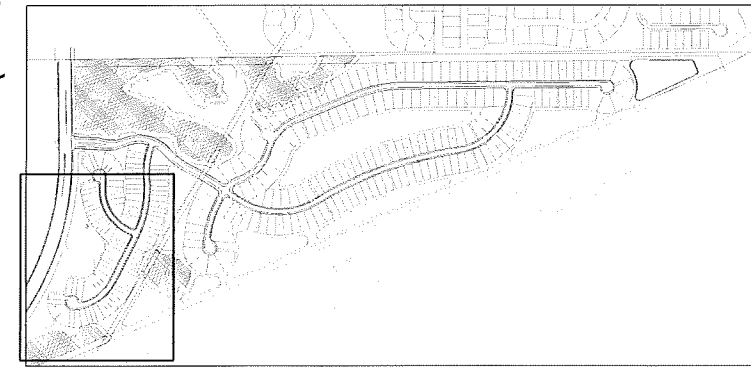
SCALE: 1"=50'
SHEET: C16 OF 46



- NOTE:**
1. ALL GRADING FOR COMPENSATING STORAGE AREA TO BE COMPLETED OUTSIDE OF THE UPLAND BUFFER. (NO IMPACTS PROPOSED).
 2. COMPENSATING STORAGE IS TO MEET THE CITY OF PORT ORANGE CRITERIA. S.W.R.M.D. DOES NOT REQUIRE COMPENSATING STORAGE.

LEGEND:

- PROPOSED ASPHALT PAVEMENT
- PROPOSED CONCRETE PAVEMENT
- EXISTING WETLAND
- PROPOSED LOT TYPE
- PROPOSED LOT CORNER GRADE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING GRADE
- PROPOSED INLET AND PIPE
- PROPOSED MITERED END SECTION
- PROPOSED JUNCTION BOX AND PIPE
- DIRECTION OF OVERLAND FLOW
- SANITARY SEWER
- WATER MAIN
- FORCED WATER MAIN
- SINGLE POTABLE WATER SERVICE & METER
- DOUBLE POTABLE WATER SERVICE & METERS
- PROPOSED GATE VALVE
- PROPOSED FIRE HYDRANT & VALVE



SHEET LOCATION KEY



ZEV COHEN & ASSOCIATES, INC.
CIVIL ENGINEERS • LANDSCAPE ARCHITECTS
PLANNERS • TRANSPORTATION • ENVIRONMENTAL
WWW.ZEVCOHEN.COM

ORLANDO BEACH
300 ORLANDO BEACH, FL 32714
(888) 677-2482 FAX (888) 677-2505

EDGEWATER
EDGEWATER, FL 33132
(888) 677-2482 FAX (888) 677-2505

NO.	DATE	REVISIONS
1	10/25/17	Revised per City Comments dated 10/25/17
2	10/25/17	Revised per City Comments dated 10/25/17
3	10/25/17	Revised per City Comments dated 10/25/17

WOODHAVEN
PHASE 1
FINAL ENGINEERING PLANS
PAVING, GRADING & DRAINAGE PLAN
CITY OF PORT ORANGE
VOLUSIA COUNTY, FL

PROJECT NO.: ZC 16011
ISSUE DATE: 10-28-2018
DESIGNED BY: HK
DRAFTED BY: CWTR
CHECKED BY: BB

DRAWING FILE: C16-C21 16011PGD
XREFS: 16011BAS
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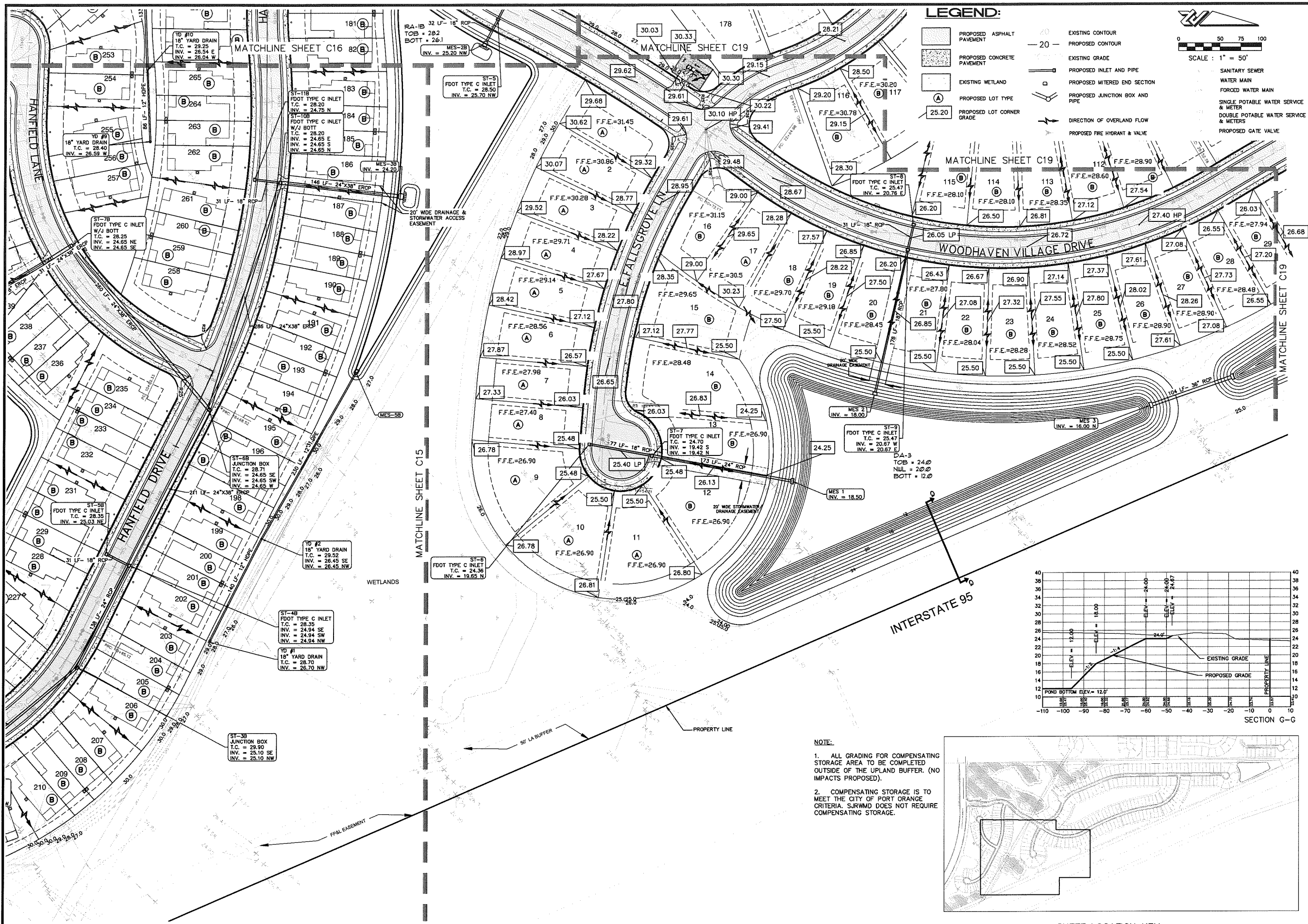


NOT VALID WITHOUT SEAL
ROBERT J. BALL, P.E. NO. 00001

SCALE: 1"=50'

SHEET: **C17** OF 46

CONTRACTOR TO GRADE THIS AREA AND MATCH EXISTING GRADE AT 25.0 IN ORDER TO PROVIDE POSITIVE DRAINAGE FOR THE PROPOSED ORIFICE STRUCTURES (SEE DETAIL SHEET C44)



LEGEND:

- PROPOSED ASPHALT PAVEMENT
- PROPOSED CONCRETE PAVEMENT
- EXISTING WETLAND
- PROPOSED LOT TYPE
- PROPOSED LOT CORNER GRADE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING GRADE
- PROPOSED INLET AND PIPE
- PROPOSED MITERED END SECTION
- PROPOSED JUNCTION BOX AND PIPE
- DIRECTION OF OVERLAND FLOW
- PROPOSED FIRE HYDRANT & VALVE
- SANITARY SEWER
- WATER MAIN
- FORCED WATER MAIN
- SINGLE POTABLE WATER SERVICE & METER
- DOUBLE POTABLE WATER SERVICE & METERS
- PROPOSED GATE VALVE

SCALE: 1" = 50'

ZEV COHEN & ASSOCIATES, INC.
CIVIL ENGINEERS - LANDSCAPE ARCHITECTS
PLANNERS - TRANSPORTATION - ENVIRONMENTAL
WWW.ZEVCOHEN.COM

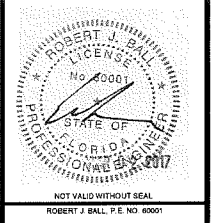
ORLANDO BEACH
3000 UNIVERSITY BLVD., SUITE 200
ORLANDO BEACH, FL 32714
(386) 677-5482 FAX (386) 677-5505

EDGEWATER
EDGEWATER, FL 32132
(386) 677-5482 FAX (386) 677-5505

NO.	DATE	REVISIONS
1	10/25/17	Revisions Per City Comments Dated 10/25/17
2	10/27/17	Revisions Per City Comments Dated 10/27/17
3	10/27/17	Revisions Per City Comments Dated 10/27/17

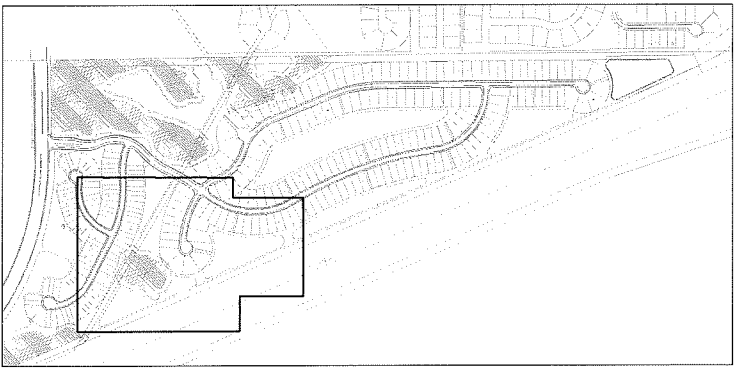
**WOODHAVEN
PHASE 1
FINAL ENGINEERING PLANS
PAVING, GRADING & DRAINAGE PLAN**
CITY OF PORT ORANGE
VOLUSIA COUNTY, FL

PROJECT NO: 2010011
ISSUE DATE: 10-28-2016
DESIGNED BY: HK
DRAFTED BY: CWT/R
CHECKED BY: BB
DRAWING FILE: C18-C21 10011 PGD
XREF'S: 10011BAS
XREF'S:

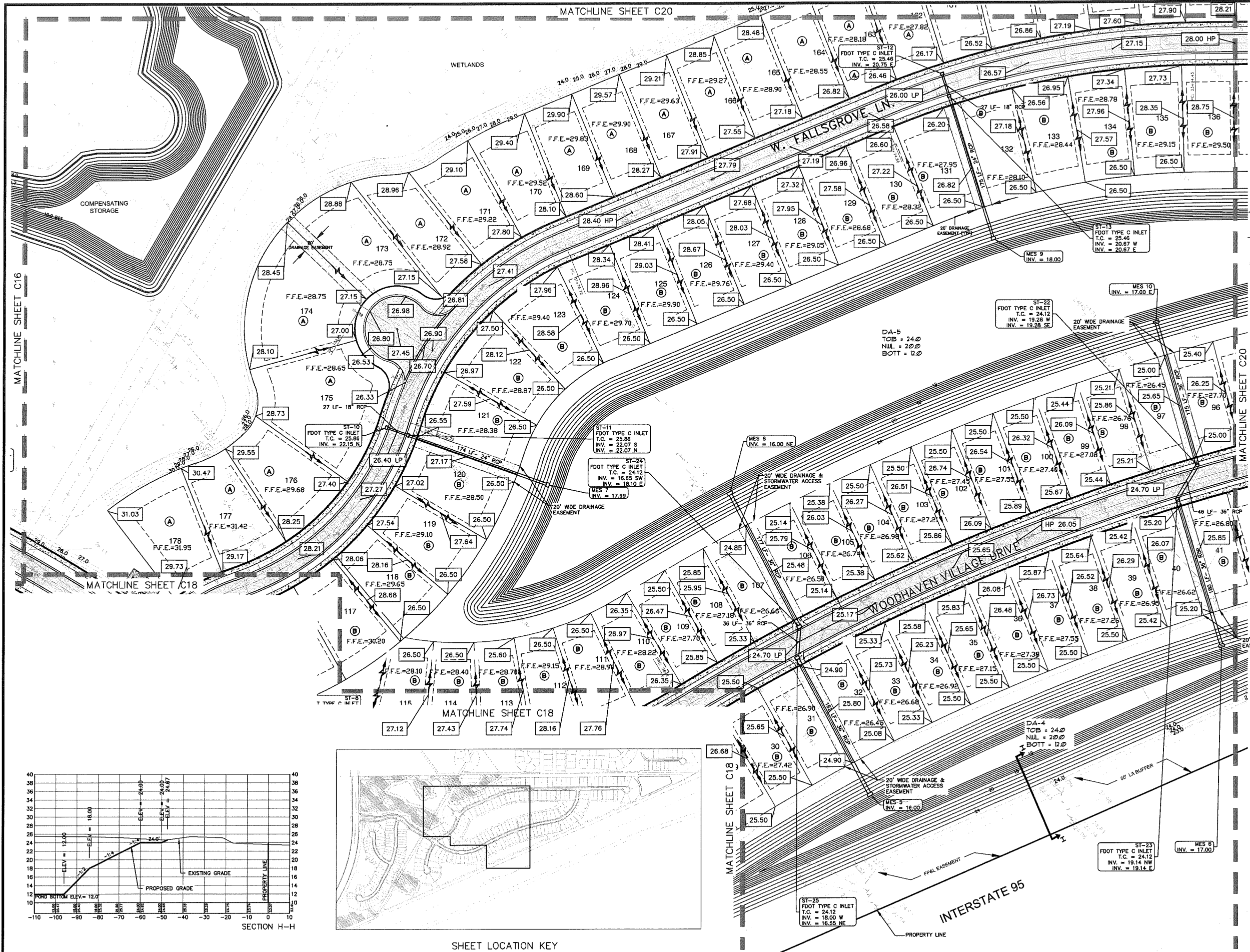


NOT VALID WITHOUT SEAL
ROBERT J. BALL, P.E. NO. 60001
SCALE: 1"=50'
SHEET: C18 OF 46

- NOTE:**
1. ALL GRADING FOR COMPENSATING STORAGE AREA TO BE COMPLETED OUTSIDE OF THE UPLAND BUFFER. (NO IMPACTS PROPOSED).
 2. COMPENSATING STORAGE IS TO MEET THE CITY OF PORT ORANGE CRITERIA. SURWMO DOES NOT REQUIRE COMPENSATING STORAGE.



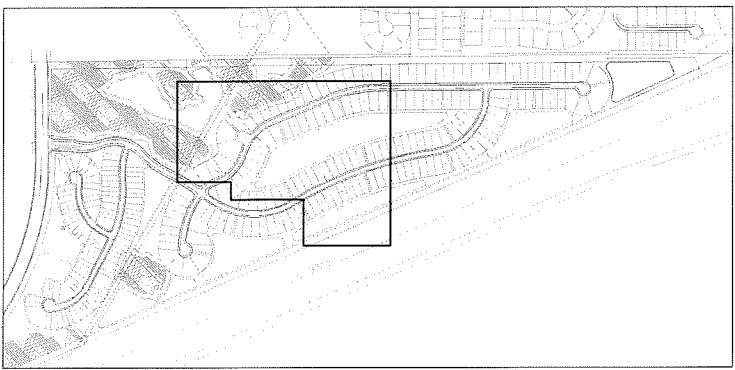
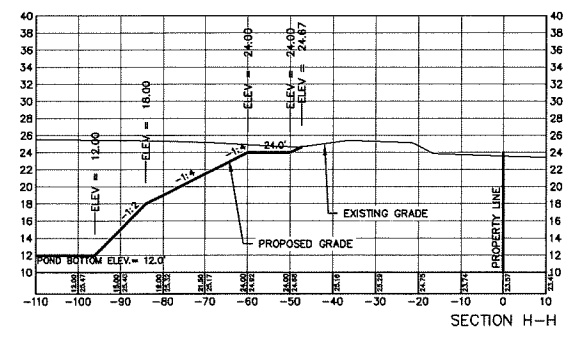
SHEET LOCATION KEY



0 50 75 100
SCALE: 1" = 50'

LEGEND:

- PROPOSED ASPHALT PAVEMENT
- PROPOSED CONCRETE PAVEMENT
- EXISTING WETLAND
- PROPOSED LOT TYPE
- PROPOSED LOT CORNER GRADE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING GRADE
- PROPOSED INLET AND PIPE
- PROPOSED MITERED END SECTION
- PROPOSED JUNCTION BOX AND PIPE
- DIRECTION OF OVERLAND FLOW
- SANITARY SEWER
- WATER MAIN
- FORCED WATER MAIN
- SINGLE POTABLE WATER SERVICE & METER
- DOUBLE POTABLE WATER SERVICE & METERS
- PROPOSED GATE VALVE
- PROPOSED FIRE HYDRANT & VALVE



WOODHAVEN PHASE 1
FINAL ENGINEERING PLANS
PAVING, GRADING & DRAINAGE PLAN
VOLUSIA COUNTY, FL

PROJECT NO: ZC 18011
ISSUE DATE: 10-28-2018
DESIGNED BY: HK
DRAFTED BY: CWTR
CHECKED BY: BB
DRAWING FILE: C18-C21 18011PGD
XREFS: 18011BAS
XREFS:

NOT VALID WITHOUT SEAL
ROBERT J. BALL, P.E. No. 60001

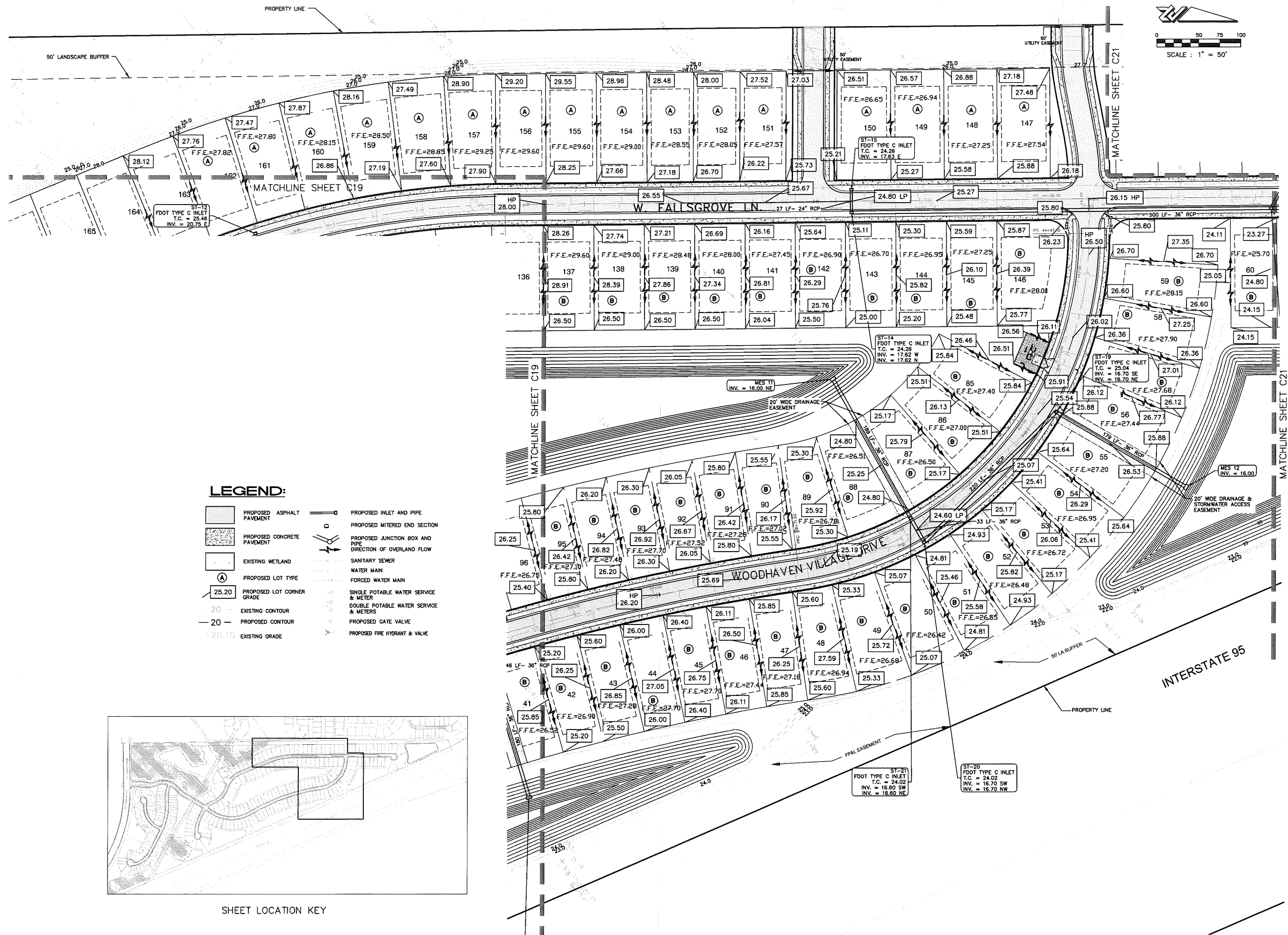
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SHEET: C19 OF 46

REVISIONS

NO.	DATE	REVISIONS
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2	02/27/17	Revisions Per City Comments, dated 01/25/17
3	03/27/17	Revisions Per City Comments, dated 02/15/17

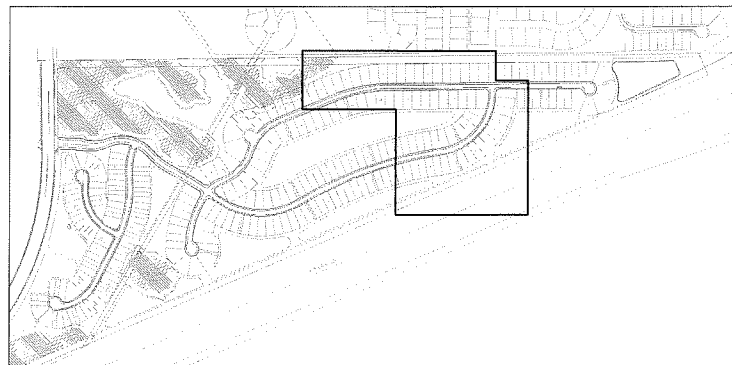
ORLANDO BEACH & ASSOCIATES, INC.
3000 UNIVERSITY BLVD., SUITE 200
ORLANDO, FL 32814
(386) 877-2482 FAX (386) 877-2505
WWW.ZEVCOHEN.COM

ZEVE COHEN & ASSOCIATES, INC.
CIVIL ENGINEERS • LANDSCAPE ARCHITECTS
(FL 00001) (FL 00001)
EDgewater
EDgewater, FL 32132
(386) 877-2482 FAX (386) 877-2505
WWW.ZEVCOHEN.COM

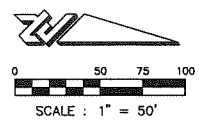


LEGEND:

- | | | | |
|--|----------------------------|--|---------------------------------------|
| | PROPOSED ASPHALT PAVEMENT | | PROPOSED INLET AND PIPE |
| | PROPOSED CONCRETE PAVEMENT | | PROPOSED MITRED END SECTION |
| | EXISTING WETLAND | | PROPOSED JUNCTION BOX AND PIPE |
| | PROPOSED LOT TYPE | | DIRECTION OF OVERLAND FLOW |
| | PROPOSED LOT CORNER GRADE | | SANITARY SEWER |
| | EXISTING CONTOUR | | WATER MAIN |
| | PROPOSED CONTOUR | | FORCED WATER MAIN |
| | EXISTING GRADE | | SINGLE POTABLE WATER SERVICE & METER |
| | | | DOUBLE POTABLE WATER SERVICE & METERS |
| | | | PROPOSED GATE VALVE |
| | | | PROPOSED FIRE HYDRANT & VALVE |



SHEET LOCATION KEY



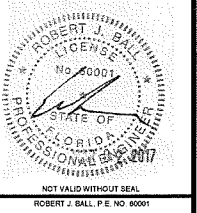
ORLANDO BEACH
3000 UNIVERSITY BLVD., SUITE 200
ORLANDO BEACH, FL 32714
(386) 677-5462 FAX (386) 677-5305

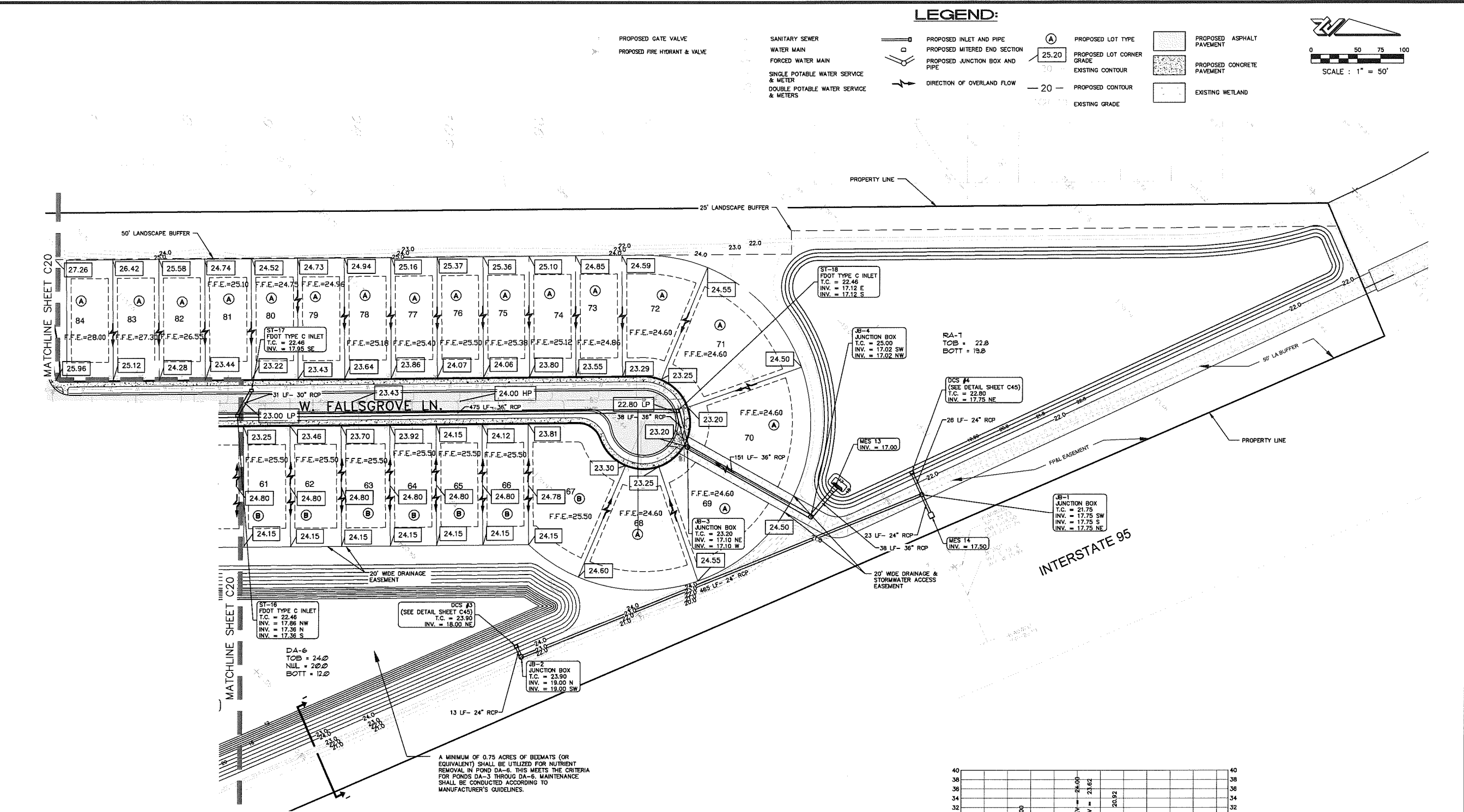
EDGEWATER
EDGEWATER, FL 32132
(386) 677-5462 FAX (386) 677-5305

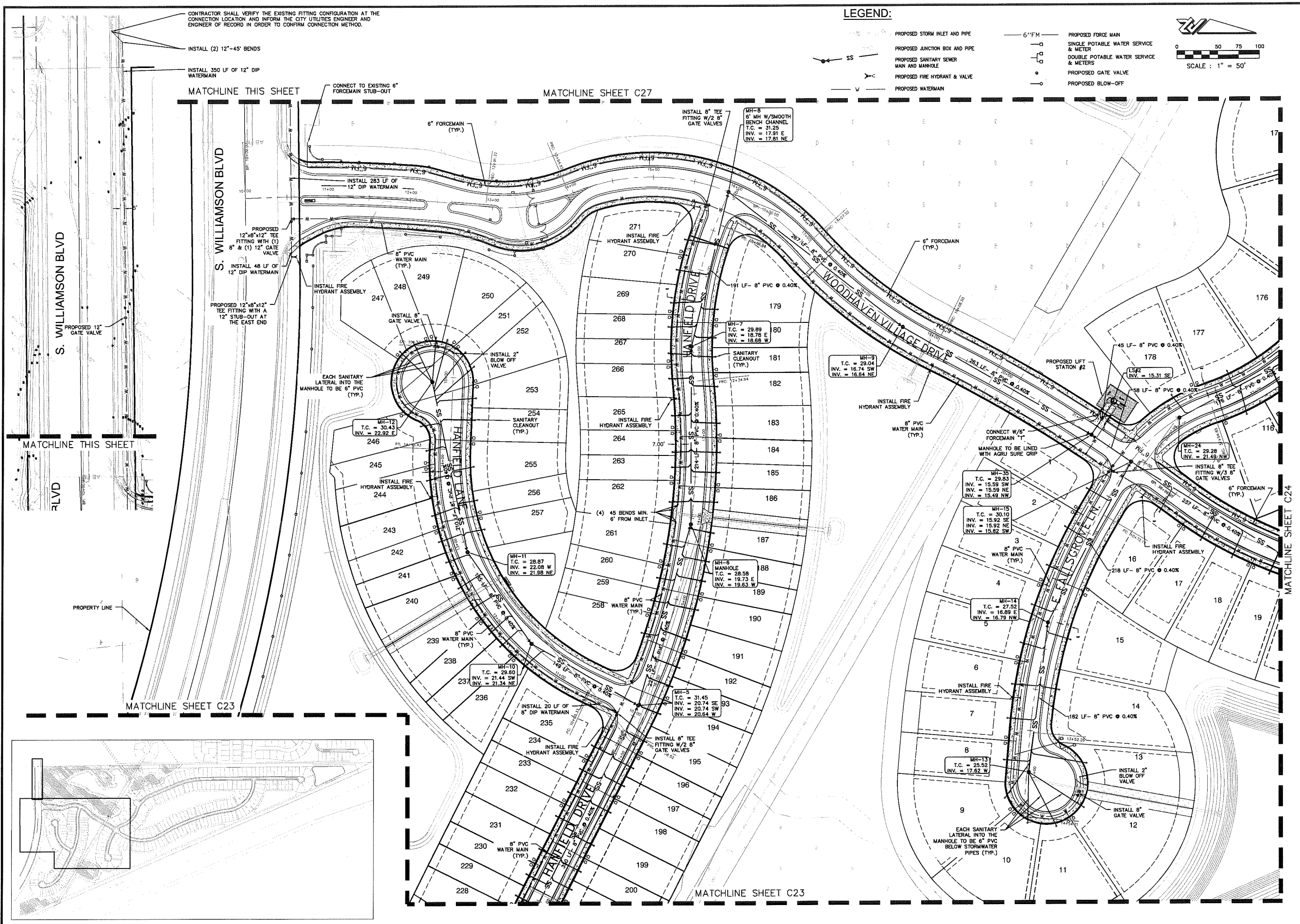
NO.	DATE	REVISIONS
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2	10/28/2016	Revisions Per City Comments Dated 10/28/16
3	10/28/2016	Revisions Per City Comments Dated 10/28/16

**WOODHAVEN
PHASE 1
FINAL ENGINEERING PLANS
PAVING, GRADING & DRAINAGE PLAN**

PROJECT NO.: ZC 10011
ISSUE DATE: 10-28-2016
DESIGNED BY: HK
DRAFTED BY: CW/IR
CHECKED BY: BB
DRAWING FILE: C14-C19 10011PGD
XREFS: 10011BAS
XREFS:

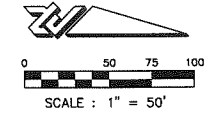






LEGEND:

- PROPOSED STORM INLET AND PIPE
- PROPOSED JUNCTION BOX AND PIPE
- PROPOSED SANITARY SEWER MAIN AND MANHOLE
- PROPOSED FIRE HYDRANT & VALVE
- PROPOSED WATERMAIN
- 6" FM
- PROPOSED FORCE MAIN
- SINGLE POTABLE WATER SERVICE & METER
- DOUBLE POTABLE WATER SERVICE & METERS
- PROPOSED GATE VALVE
- PROPOSED BLOW-OFF



ZEV COHEN & ASSOCIATES, INC.
CIVIL ENGINEERS - LANDSCAPE ARCHITECTS
PLANNERS • TRANSPORTATION • ENVIRONMENTAL
(813) 416-1100
WWW.ZEVCOHEN.COM

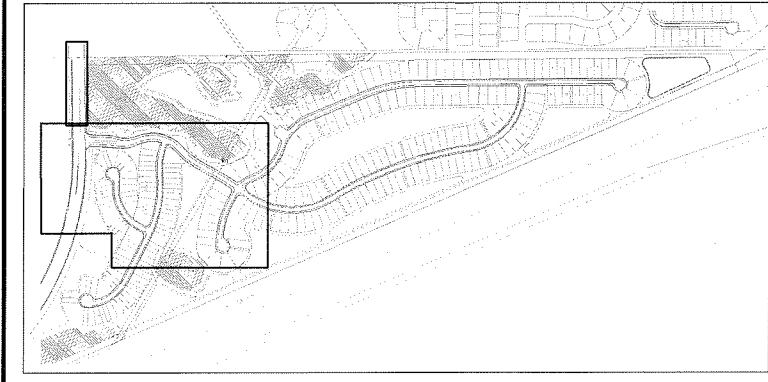
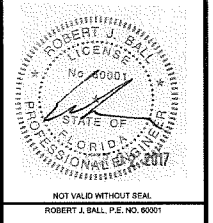
ORMOND BEACH
300 INTERCHANGE BLVD., STE. C
ORMOND BEACH, FL 32174
(386) 677-2462 FAX (386) 677-2505

EDGEWATER
150 AIRPORT ROAD
EDGEWATER, FL 32132
(386) 677-2462 FAX (386) 677-2505

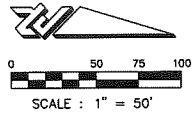
NO.	DATE	REVISIONS
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2	11/15/17	Revisions Per City Comments Dated 11/15/17
3	11/15/17	Revisions Per City Comments Dated 11/15/17

**WOODHAVEN
PHASE 1
FINAL ENGINEERING PLANS
MASTER UTILITY PLAN**

PROJECT NO: ZC 16011
ISSUE DATE: 10-28-2016
DESIGNED BY: HK
DRAFTED BY: CWTR
CHECKED BY: BB
DRAWING FILE: C22-C27 16011.UTL
XREFS: 16011B.A5
XREFS: 16011T.B

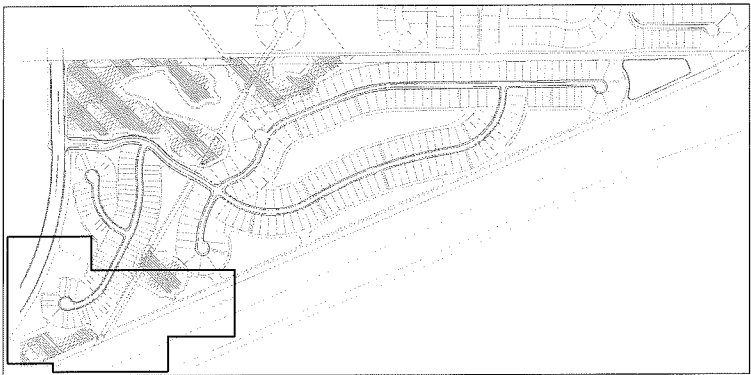
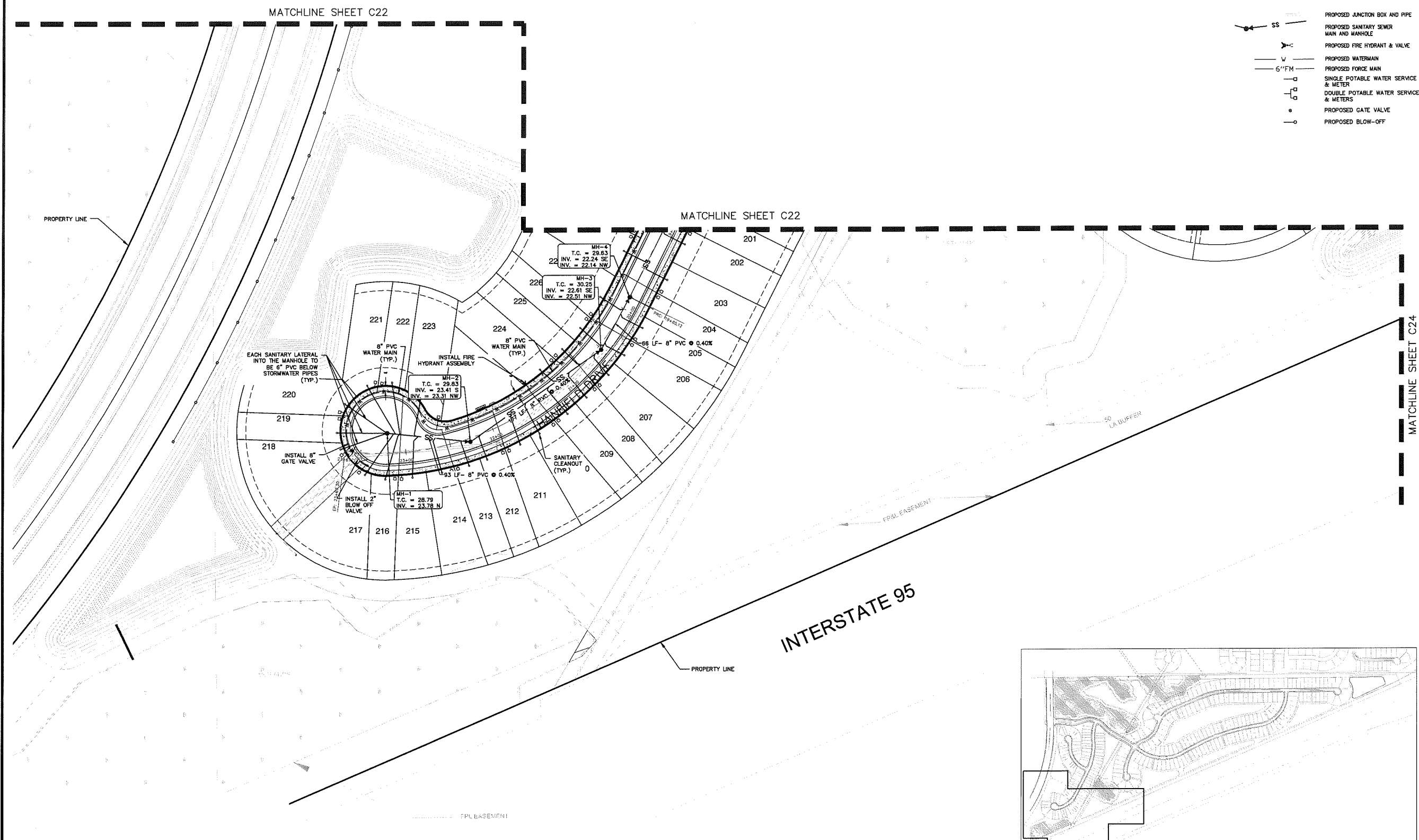


SHEET LOCATION KEY



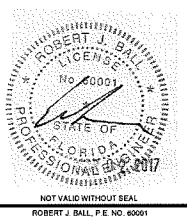
LEGEND:

- PROPOSED STORM INLET AND PIPE
- PROPOSED JUNCTION BOX AND PIPE
- PROPOSED SANITARY SEWER MAIN AND MANHOLE
- PROPOSED FIRE HYDRANT & VALVE
- PROPOSED WATERMAIN
- PROPOSED FORCE MAIN
- SINGLE POTABLE WATER SERVICE & METER
- DOUBLE POTABLE WATER SERVICE & METERS
- PROPOSED GATE VALVE
- PROPOSED BLOW-OFF



WOODHAVEN
PHASE 1
FINAL ENGINEERING PLANS
MASTER UTILITY PLAN

PROJECT NO: ZC 19011
ISSUE DATE: 10-28-2016
DESIGNED BY: HK
DRAFTED BY: CWTR
CHECKED BY: BB
DRAWING FILE: C22-C27 19011.UPL
XREFS: 19011BAS
XREFS: 19011TB



SCALE: 1"=50'
SHEET: C23 OF 46

ZEV COHEN & ASSOCIATES, INC.
CIVIL ENGINEERS - LANDSCAPE ARCHITECTS
(FL 4549)
PLANNERS - TRAFFIC ENGINEERS (FL 67)
WWW.ZEVCOHEN.COM

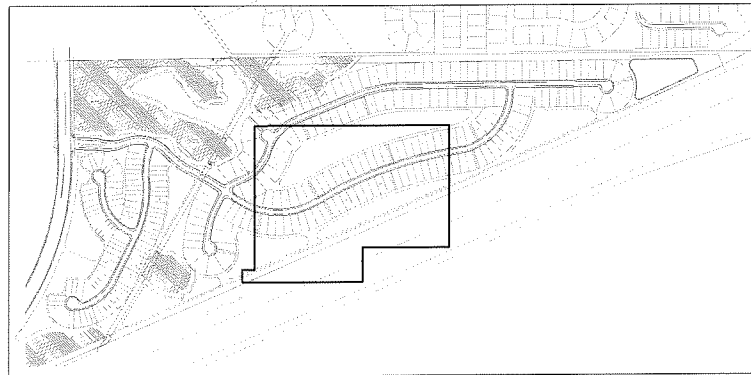
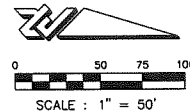
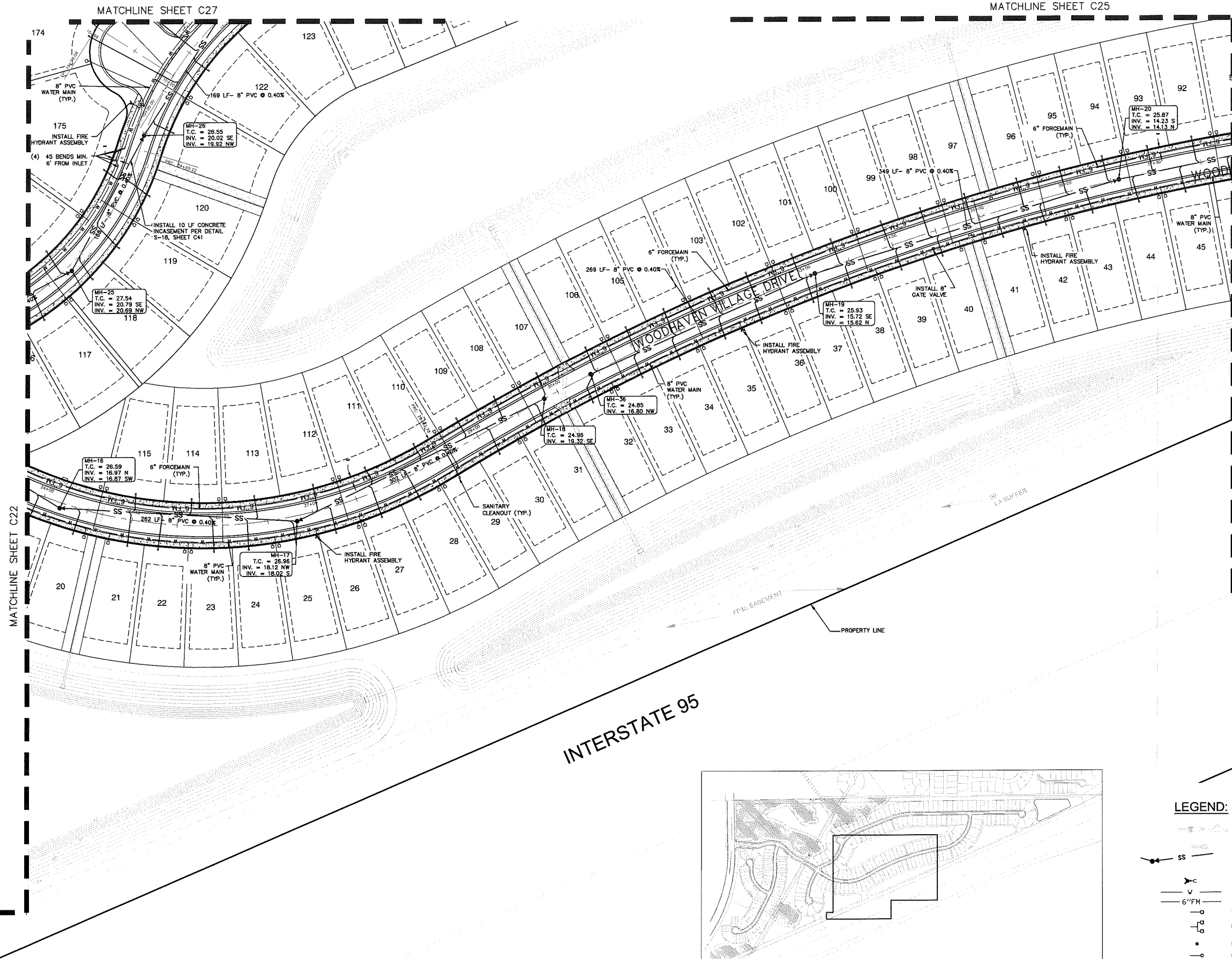
**ORMOND BEACH
DIVISION**
300 INTERCHANGE BLVD., STE. C
ORMOND BEACH, FL 32174
(386) 677-2482 FAX (386) 677-2505

**EDGEWATER
DIVISION**
140 AIRPARK ROAD
EDGEWATER, FL 32132
(386) 677-2482 FAX (386) 677-2505

BY	DATE	REVISIONS
1	10/25/17	Revisions Per City Comments Dated 10/25/17
2	10/25/17	Revisions Per City Comments Dated 10/25/17
3	10/25/17	Revisions Per City Comments Dated 10/25/17

CITY OF PORT ORANGE VOLusia COUNTY, FL

MATCHLINE SHEET C23



SHEET LOCATION KEY

LEGEND:

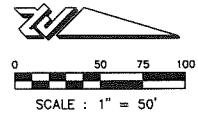
- PROPOSED STORM INLET AND PIPE
- PROPOSED JUNCTION BOX AND PIPE
- PROPOSED SANITARY SEWER MAIN AND MANHOLE
- PROPOSED FIRE HYDRANT & VALVE
- PROPOSED WATERMAIN
- PROPOSED FORCE MAIN
- SINGLE POTABLE WATER SERVICE & METER
- DOUBLE POTABLE WATER SERVICE & METERS
- PROPOSED GATE VALVE
- PROPOSED BLOW-OFF



ORMOND BEACH
300 INTERCHANGE BLVD. STE. C
ORMOND BEACH, FL 32174
(386) 677-2487 FAX (386) 677-2505

EDGEWATER
150 AIRPORT ROAD
EDGEWATER, FL 32132
(386) 677-2487 FAX (386) 677-2505

NO.	DATE	REVISIONS
1	10/25/17	Revisions Per City Comments Dated 10/25/17
2	10/25/17	Revisions Per City Comments Dated 10/25/17
3	10/25/17	Revisions Per City Comments Dated 10/25/17
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LEGEND:

- PROPOSED STORM INLET AND PIPE
- PROPOSED JUNCTION BOX AND PIPE
- PROPOSED SANITARY SEWER MAIN AND MANHOLE
- PROPOSED FIRE HYDRANT & VALVE
- PROPOSED WATERMAIN
- PROPOSED FORCE MAIN
- SINGLE POTABLE WATER SERVICE & METER
- DOUBLE POTABLE WATER SERVICE & METERS
- PROPOSED GATE VALVE
- PROPOSED BLOW-OFF



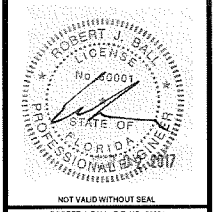
ORMOND BEACH
300 ORMOND BEACH, FL 32174
(386) 677-2482 FAX (386) 677-2505

EDGEWATER
300 ORMOND BEACH, FL 32174
(386) 677-2482 FAX (386) 677-2505

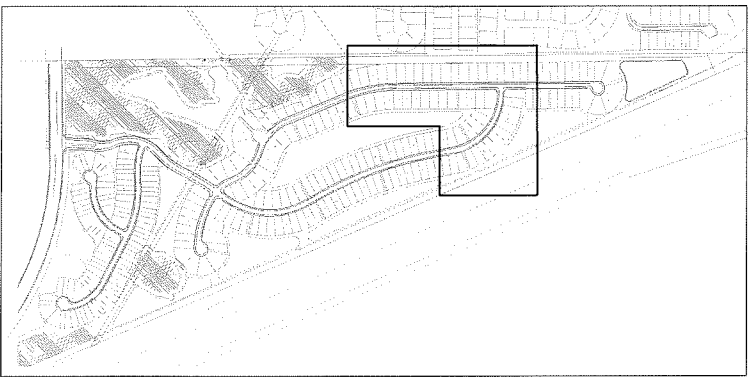
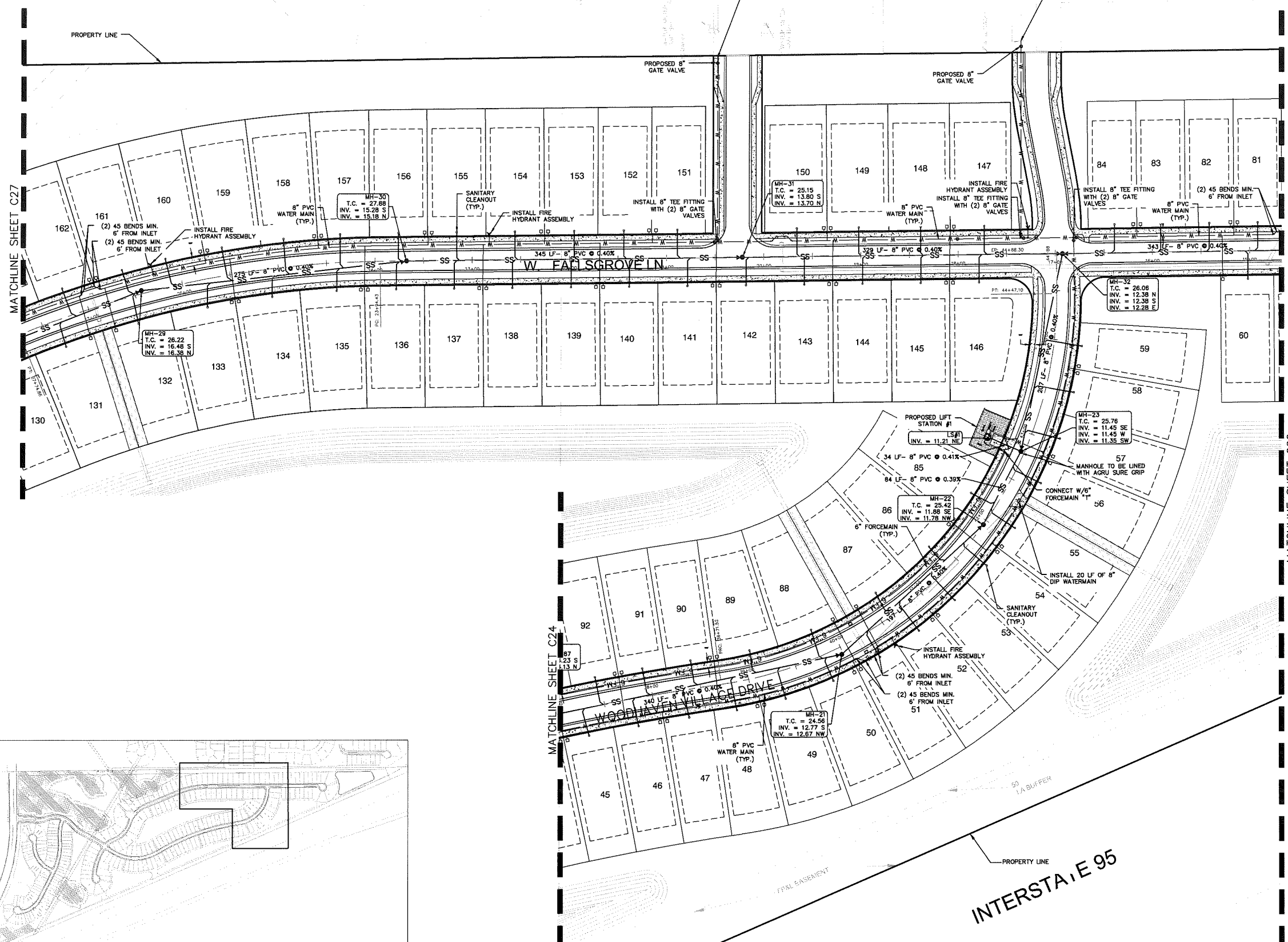
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2	02/07/17	Revisions Per City Comments Dated 01/25/17
3	03/01/17	Revisions Per City Comments Dated 02/16/17

**WOODHAVEN
PHASE 1
FINAL ENGINEERING PLANS
MASTER UTILITY PLAN**

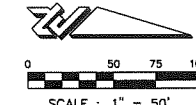
PROJECT NO: 2018011
ISSUE DATE: 10-28-2016
DESIGNED BY: HK
DRAFTED BY: CW/IR
CHECKED BY: BB
DRAWING FILE: C22-C27 16011UTL
XREFS: 16011BAS
XREFS: 16011TB



NOT VALID WITHOUT SEAL
ROBERT J. BALL, P.E. NO. 12001



SHEET LOCATION KEY



ORMOND BEACH
1000 INTERCHANGE BLVD., STE. C
ORMOND BEACH, FL 32174
(886) 677-2482 FAX (386) 677-2505

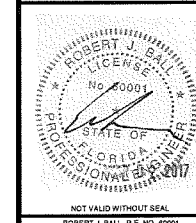
EDGEWATER
1840 AIRPARK ROAD
EDGEWATER, FL 32132
(886) 677-2482 FAX (386) 677-2505

[illegible]

WOODHAVEN PHASE 1 FINAL ENGINEERING PLANS MASTER UTILITY PLAN

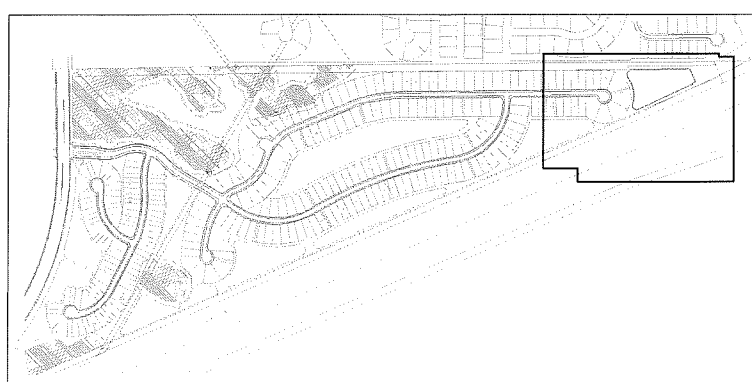
CITY OF PORT ORANGE

PROJECT NO:	ZC 16011
ISSUE DATE:	10-28-2016
DESIGNED BY:	HK
DRAFTED BY:	CW/TR
CHECKED BY:	BB
DRAWING FILE: C22-C27 16011UTL	
XREF'S: 16011BAS	
XREF'S: 16011JRL	



SCALE: 1"=50'

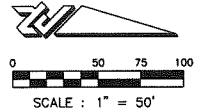
SHEET: C26 OF 4



SHEET LOCATION KEY

LEGEND:

- | | |
|---|---|
|  | PROPOSED STORM INLET AND PIPE |
|  | PROPOSED JUNCTION BOX AND PIPE |
|  | PROPOSED SANITARY SEWER
MAIN AND MANHOLE |
|  | PROPOSED FIRE HYDRANT & VALVE |
|  | PROPOSED WATERMAIN |
|  | PROPOSED FORCE MAIN |
|  | SINGLE POTABLE WATER SERVICE
& METER |
|  | DOUBLE POTABLE WATER SERVICE
& METERS |
|  | PROPOSED GATE VALVE |
|  | PROPOSED BLOW-OFF |



ORLANDO BEACH
300 ORLANDO BEACH, FL 32714
(386) 677-2482 FAX (386) 677-2505

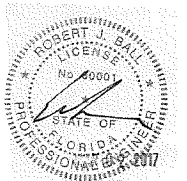
EDGEWATER
300 EDGEWATER, FL 32132
(386) 677-2482 FAX (386) 677-2505

NO.	DATE	REVISIONS
1	10-28-2017	Revisions Per City Comments Dated 01-25-17
2	10-28-2017	Revisions Per City Comments Dated 01-25-17
3	10-28-2017	Revisions Per City Comments Dated 01-25-17

WOODHAVEN
PHASE 1
FINAL ENGINEERING PLANS
MASTER UTILITY PLAN

CITY OF PORT CHARLOTTE
VOLUSIA COUNTY, FL

PROJECT NO: ZC 160111
ISSUE DATE: 10-28-2018
DESIGNED BY: HK
DRAFTED BY: CWTR
CHECKED BY: BB
DRAWING FILE: C22-C27 160111UTL
XREF'S: 16011BAS
XREF'S: 16011TIB



NOT VALID WITHOUT SEAL
ROBERT J. BALL, P.E. NO. 00001

SCALE: 1"=50'
SHEET: C27 OF 46

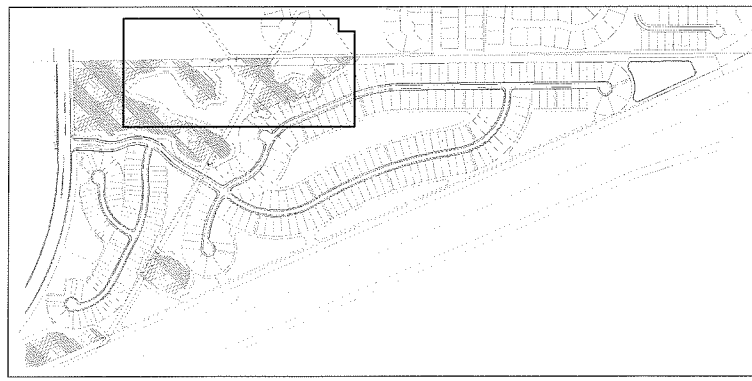
50' LANDSCAPE BUFFER

PROPERTY LINE

MATCHLINE SHEET C22

MATCHLINE SHEET C24

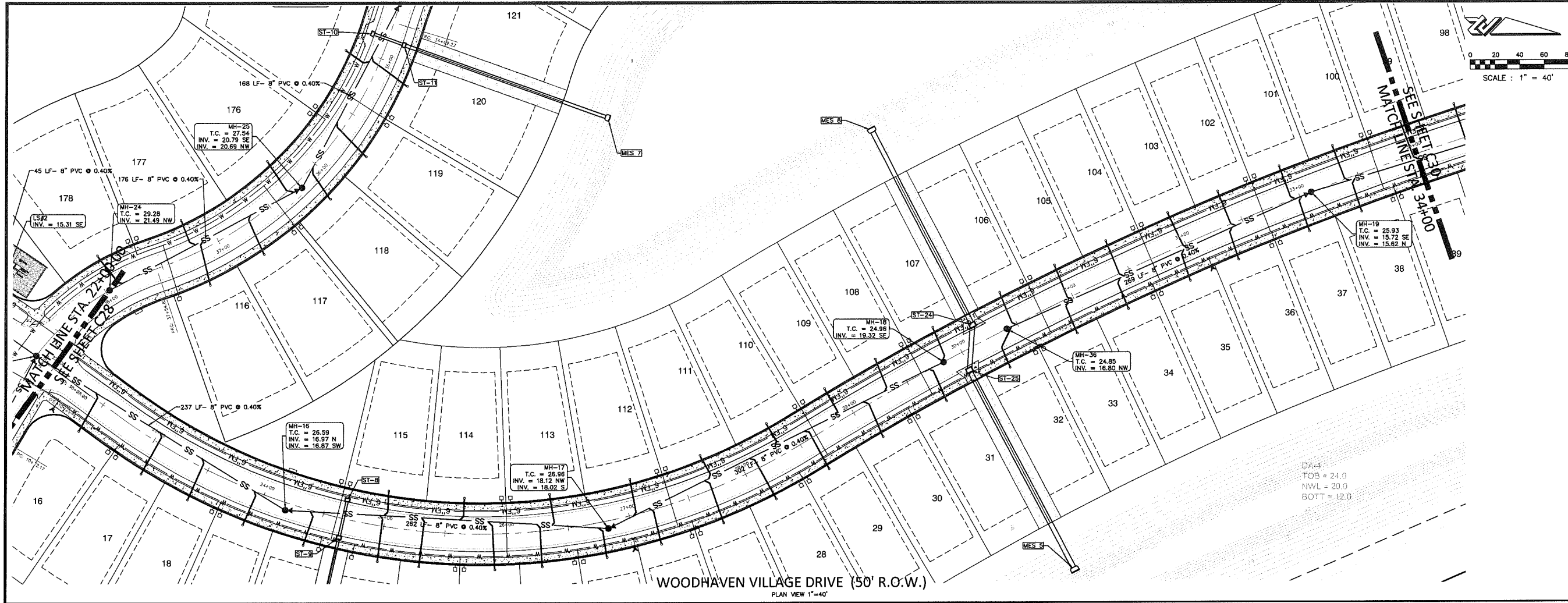
MATCHLINE SHEET C23



SHEET LOCATION KEY

LEGEND:

- PROPOSED STORM INLET AND PIPE
- PROPOSED JUNCTION BOX AND PIPE
- PROPOSED SANITARY SEWER MAIN AND MANHOLE
- PROPOSED FIRE HYDRANT & VALVE
- PROPOSED WATERMAIN
- PROPOSED FORCE MAIN
- SINGLE POTABLE WATER SERVICE & METER
- DOUBLE POTABLE WATER SERVICE & METERS
- PROPOSED GATE VALVE
- PROPOSED BLOW-OFF



ZEV COHEN & ASSOCIATES, INC.
CIVIL ENGINEERS • LANDSCAPE ARCHITECTS
PLANNERS • TRANSPORTATION • ENVIRONMENTAL
WWW.ZEVCOHEN.COM

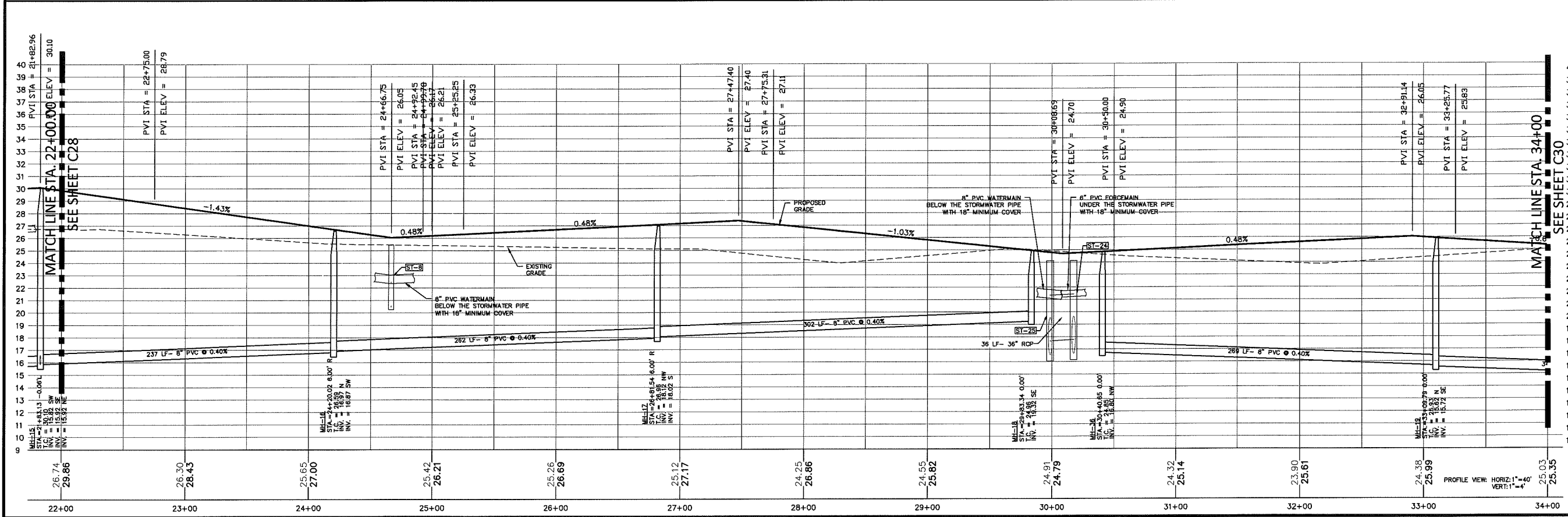
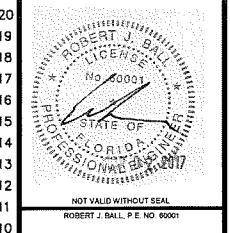
ORMOND BEACH
300 S. PALM BLVD.
ORMOND BEACH, FL 32174
(386) 677-2482 FAX (386) 677-2605

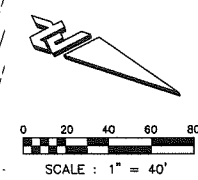
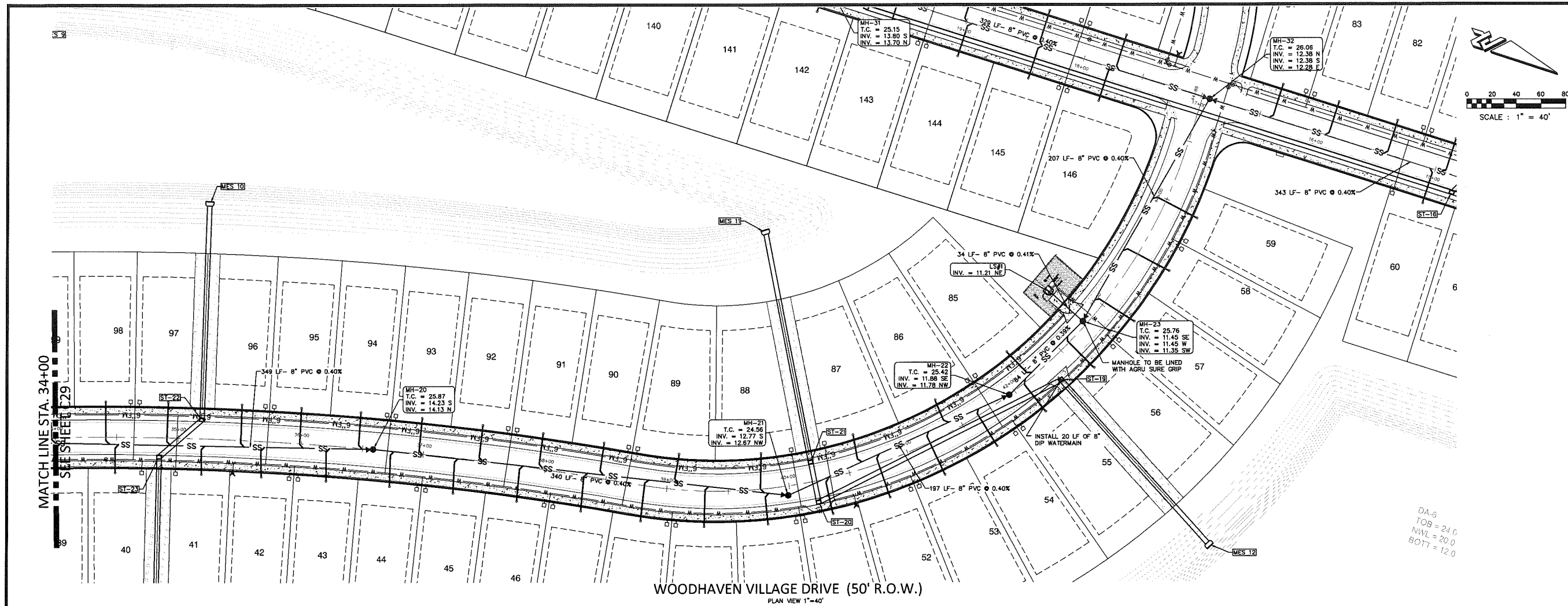
EDGEWATER
300 S. PALM BLVD.
EDGEWATER, FL 32132
(386) 677-2482 FAX (386) 677-2605

NO.	DATE	REVISIONS
1	10/25/17	Revisions Per City Comments Dated 10/25/17
2	10/27/17	Revisions Per City Comments Dated 10/25/17
3	10/31/17	Revisions Per City Comments Dated 10/25/17

WOODHAVEN
PHASE 1
FINAL ENGINEERING PLANS
PLAN & PROFILE
WOODHAVEN VILLAGE (STA. 22+00 - STA. 34+00)
CITY OF PORT ORANGE

PROJECT NO: ZC 16011
ISSUE DATE: 10-28-2016
DESIGNED BY: HK
DRAFTED BY: CW/IR
CHECKED BY: BB
DRAWING FILE: C28-C37 16011PP
XREF'S: 16011BAS
XREF'S: 16011TB







**ZEV COHEN
& ASSOCIATES, INC.**
CIVIL ENGINEERS • LANDSCAPE ARCHITECTS
PLANNERS • TRANSPORTATION • ENVIRONMENTAL
WWW.ZEVCOHEN.COM

ORMOND BEACH
300 S. FLORIDA AVE., SUITE C
ORMOND BEACH, FL 32137
(386) 877-2482 FAX (386) 877-2505

EDGEWATER
1000 W. PARKWAY, SUITE 100
EDGEWATER, FL 33122
(386) 877-2482 FAX (386) 877-2505

NO.	DATE	REVISIONS	BY
1	01/25/17	Revisions Per City Comments Dated 01/25/17	TKR
2	02/27/17	Revisions Per City Comments Dated 02/27/17	TKR
3	03/21/17	Revisions Per City Comments Dated 03/21/17	TKR

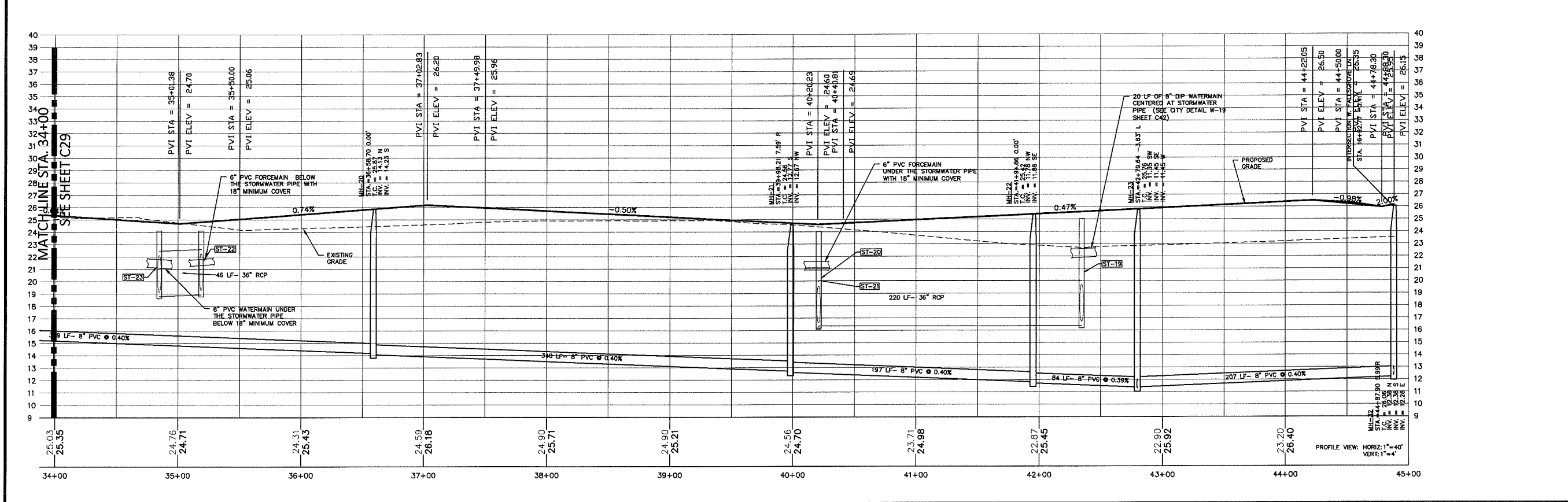
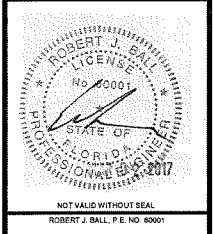
**WOODHAVEN
PHASE 1**

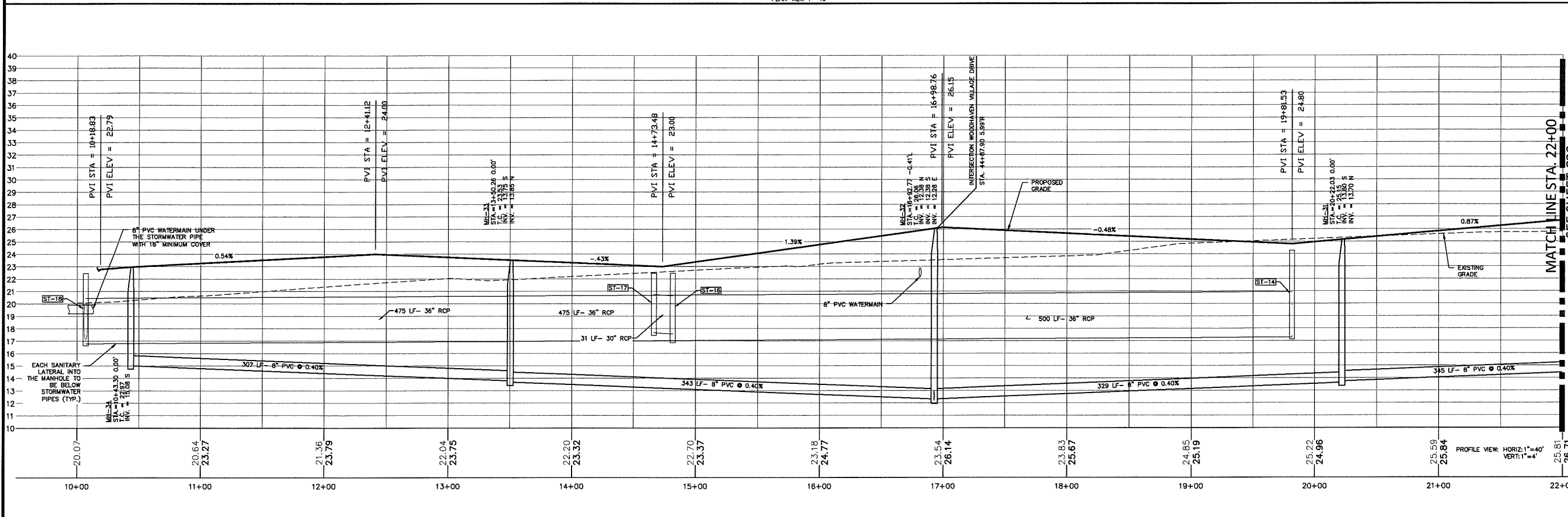
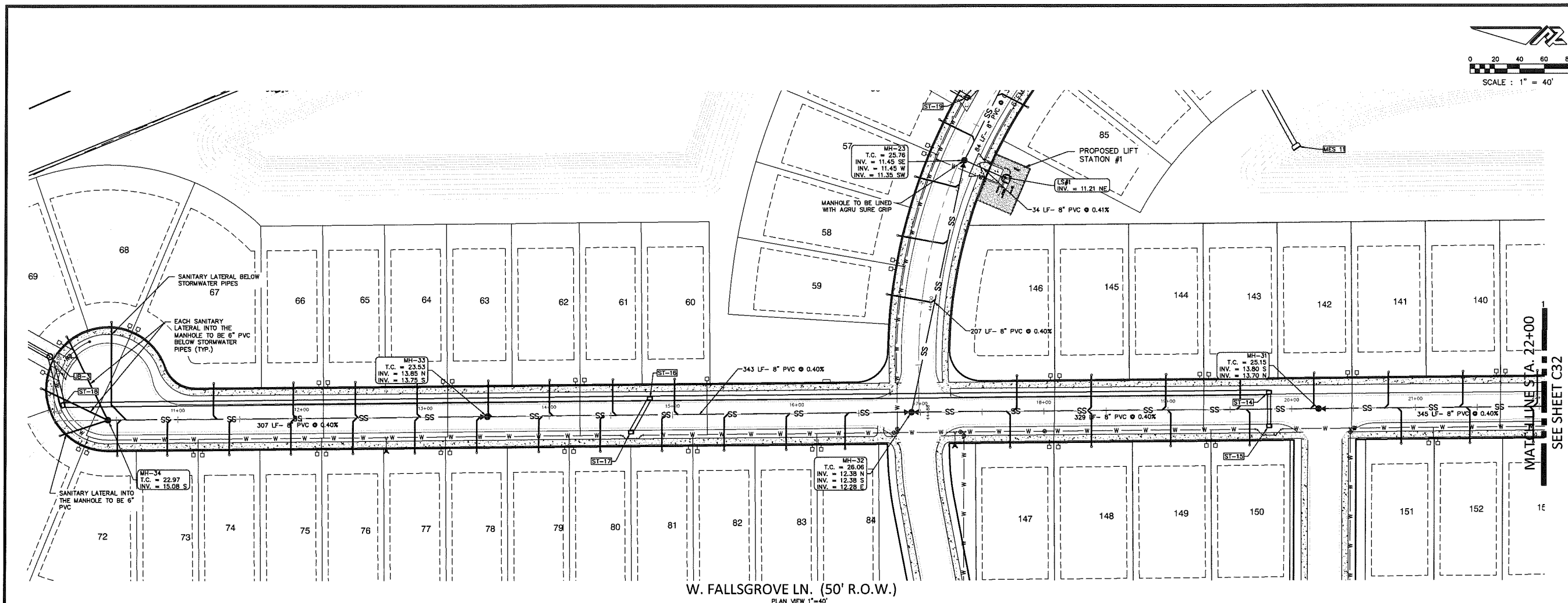
**FINAL ENGINEERING PLANS
PLAN & PROFILE**

WOODHAVEN VILLAGE (STA. 34+00 - STA. 44+88)

CITY OF PORT ORANGE

PROJECT NO: 20-16011
ISSUE DATE: 10-28-2016
DESIGNED BY: HK
DRAFTED BY: CW/IR
CHECKED BY: BB
DRAWING FILE: C28-C37 16011PP
XREFS: 16011B4S
XREFS: 16011TB





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EDGEWATER
EDGEWATER, FL 32132
(386) 677-2482 FAX (386) 677-2505

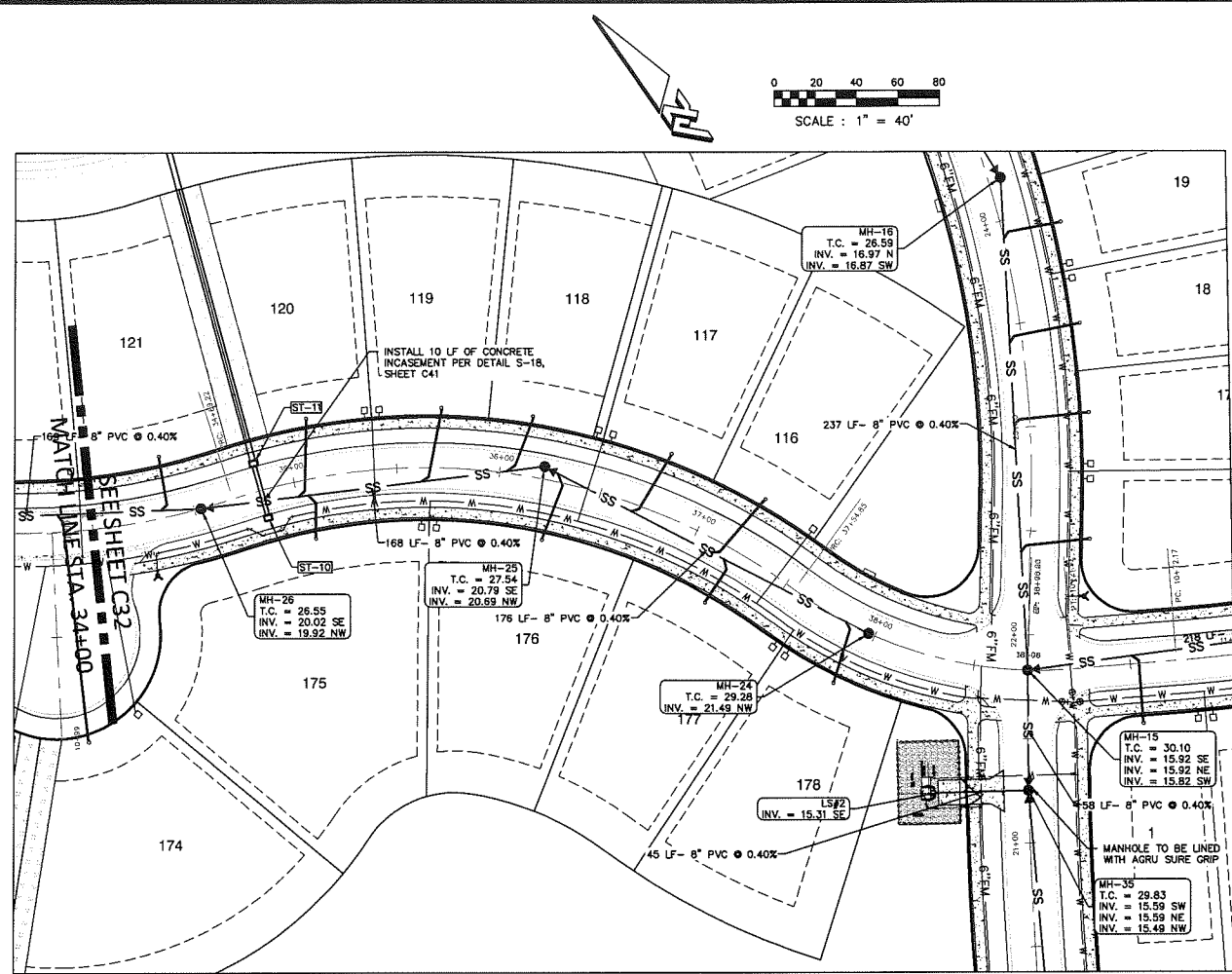
NO.	DATE	REVISIONS
1	10/25/17	Revisions Per City Comments Dated 01/25/17
2	10/25/17	Revisions Per City Comments Dated 01/25/17
3	10/25/17	Revisions Per City Comments Dated 01/25/17

WOODHAVEN
PHASE 1
FINAL ENGINEERING PLANS
PLAN & PROFILE
W. FALLSGROVE LN. (STA. 10+00 - STA. 22+00)
CITY OF PORT ORANGE

PROJECT NO.: 2018011
ISSUE DATE: 10-28-2018
DESIGNED BY: HK
DRAFTED BY: CWTR
CHECKED BY: BB
DRAWING FILE: C28-C97 16011PP
XREF'S: 16011BAS
XREF'S: 16011TB

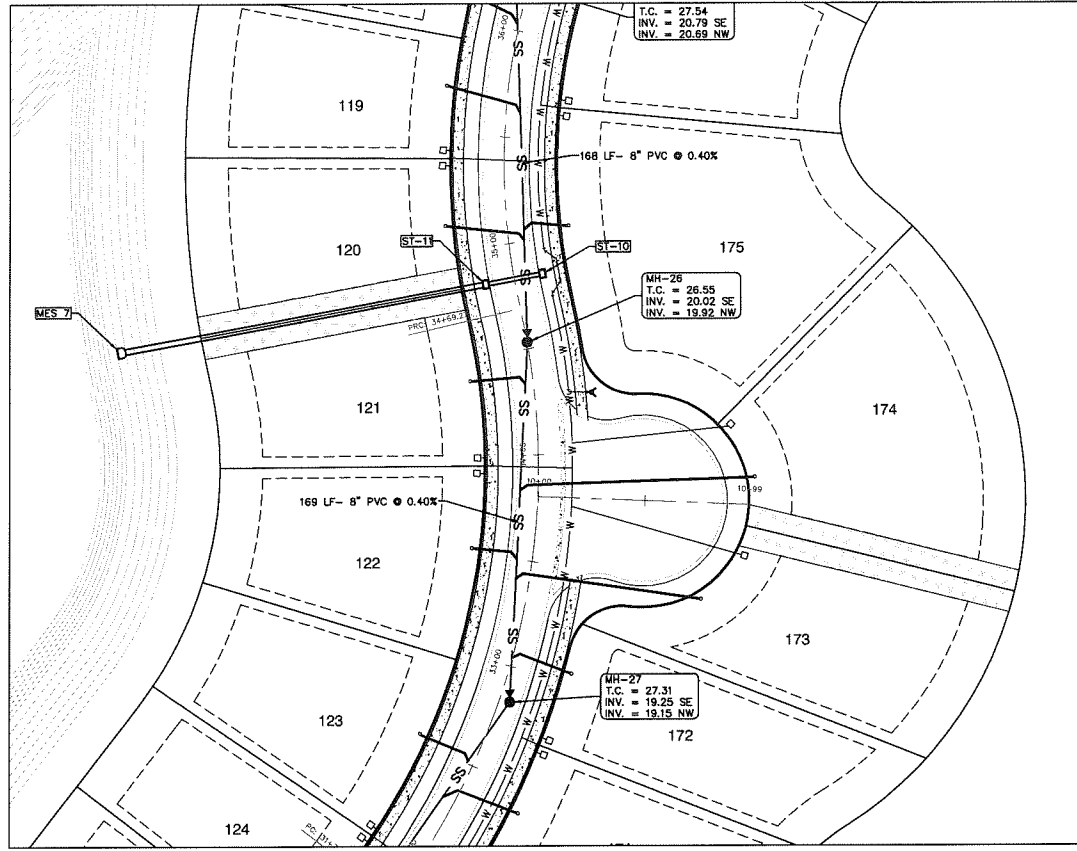
NOT VALID WITHOUT SEAL
ROBERT J. BALL, P.E. NO. 00001

SCALE: 1"=40'
SHEET: C31 OF 46



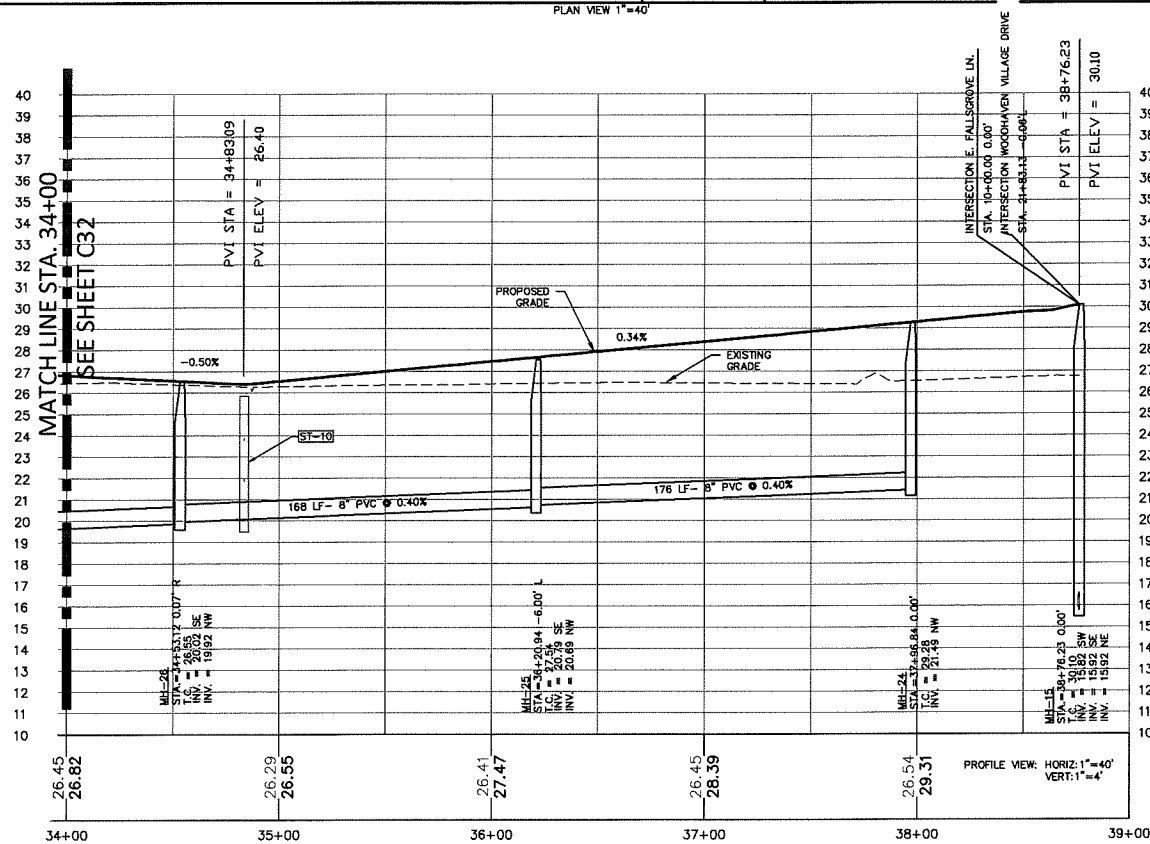
W. FALLSGROVE LN. (50' R.O.W.)

PLAN VIEW 1"=40'

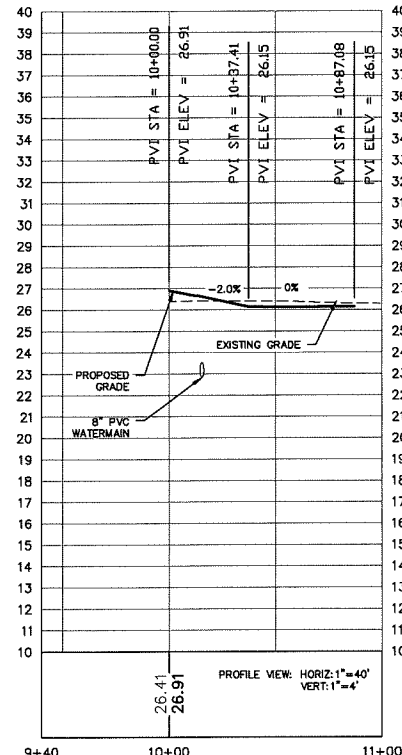


(50' R.O.W.)

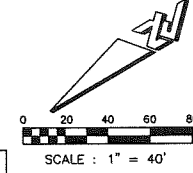
PLAN VIEW 1"=40'



PROFILE VIEW: HORIZ: 1"=40'
VERT: 1"=4'



PROFILE VIEW: HORIZ: 1"=40'
VERT: 1"=4'



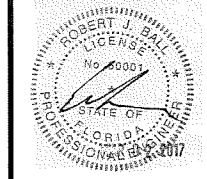
ORMOND BEACH
300 S. ORMOND BEACH BLVD., SUITE 200
ORMOND BEACH, FL 32174
(386) 677-2462 FAX (386) 677-2505

EDGEWATER
EDGEWATER, FL 32132
(386) 677-2462 FAX (386) 677-2505

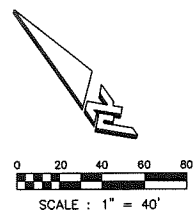
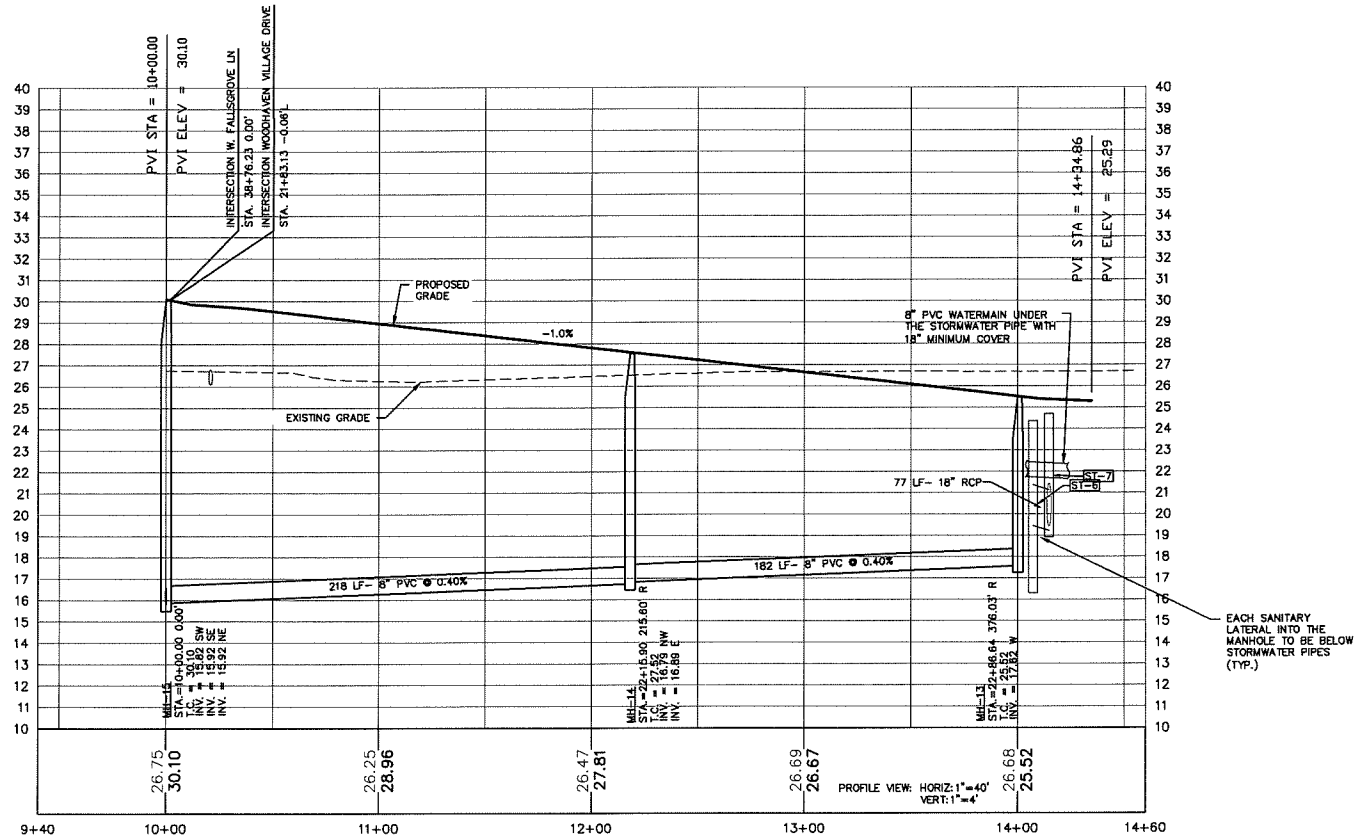
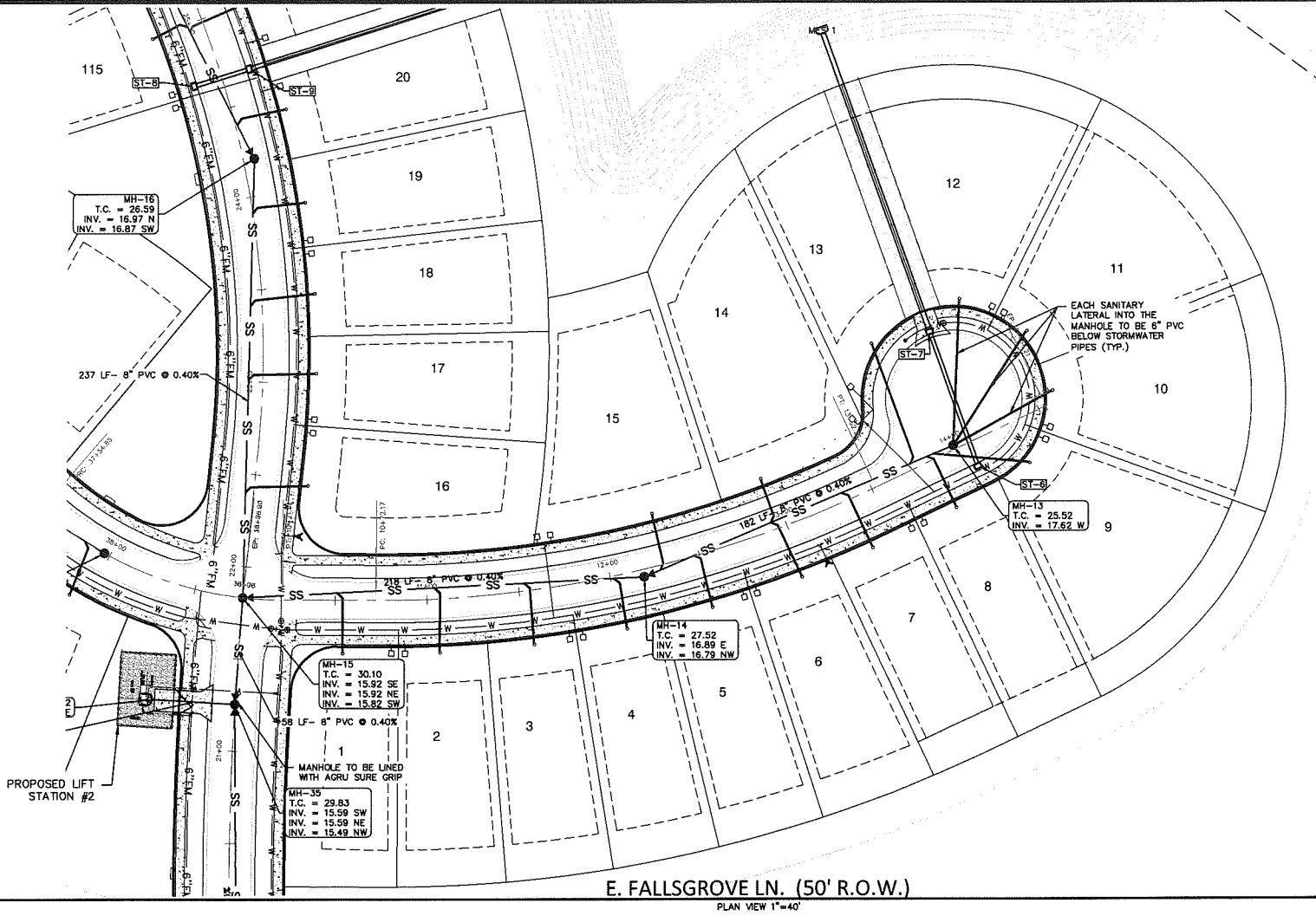
NO.	DATE	REVISIONS
1	01/25/17	Revised Per City Comments Dated 01/25/17
2	02/07/17	Revisions Per City Comments Dated 01/25/17
3	03/07/17	Revisions Per City Comments Dated 02/16/17

**WOODHAVEN
PHASE I
FINAL ENGINEERING PLANS
W. FALLSGROVE LN. (STA. 34+00-STA. 38+76)
(STA. 10+00-STA. 10+99)**

PROJECT NO: ZC 10011
ISSUE DATE: 10-28-2018
DESIGNED BY: HK
DRAFTED BY: CWTR
CHECKED BY: BB
DRAWING FILE: C28-C37 10011PP
XREF'S: 100110AS
XREF'S: 100111TB



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ROBERT J. BALL, P.E. NO. 60001



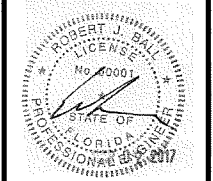
ORMOND BEACH
3000 W. ORMOND BEACH BLVD. SUITE 100
(386) 677-5482 FAX (386) 677-5505

EDGEWATER
3000 W. ORMOND BEACH BLVD. SUITE 100
(386) 677-5482 FAX (386) 677-5505

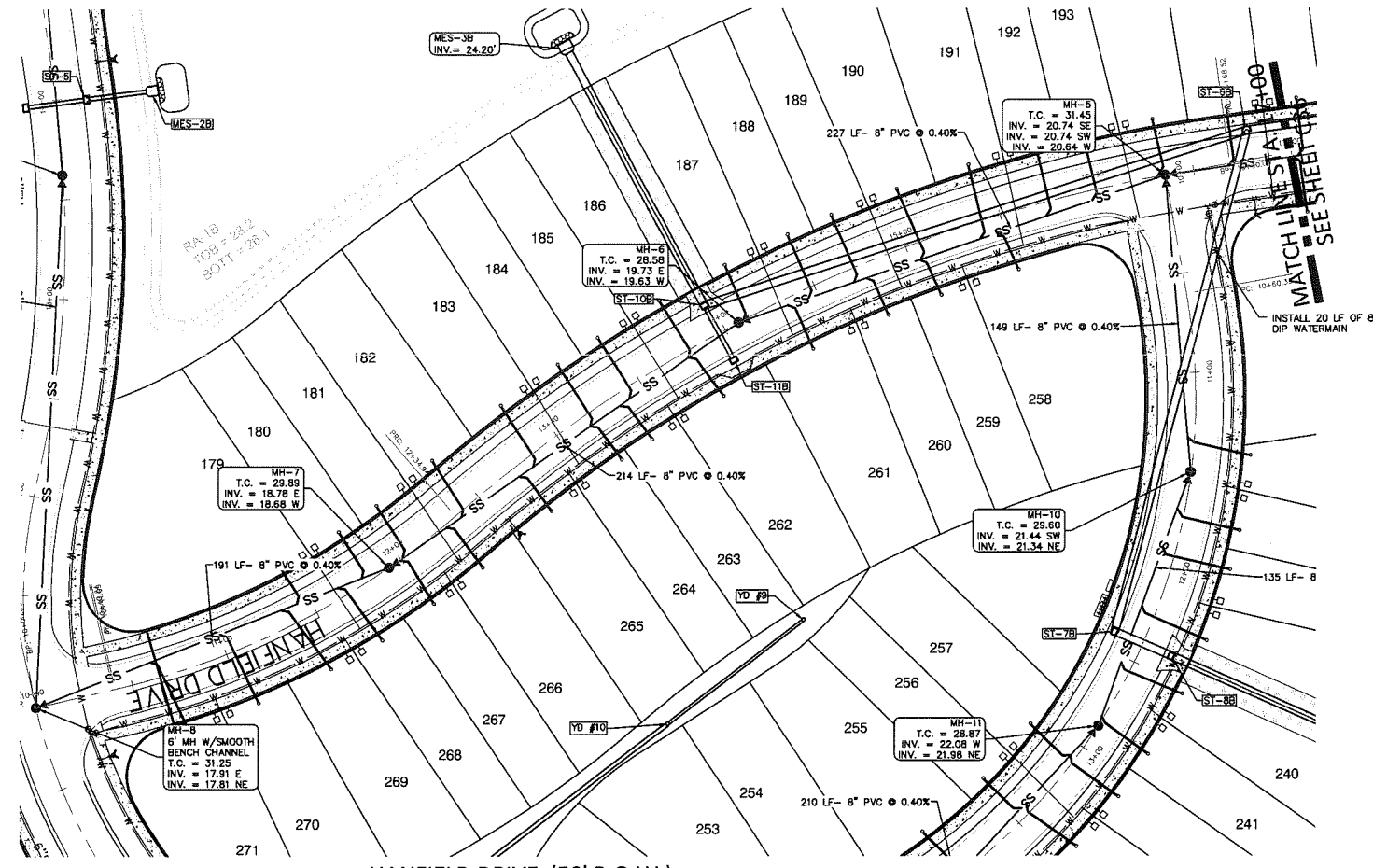
NO.	DATE	REVISIONS
1	10/28/17	Revisions Per City Comments dated 01/25/17
2	10/28/17	Revisions Per City Comments dated 01/25/17
3	10/28/17	Revisions Per City Comments dated 02/13/17

WOODHAVEN
PHASE 1
FINAL ENGINEERING PLANS
PLAN PROFILE
E. FALLSGROVE LN. (STA. 10+00-STA. 14+60)
CITY OF PORT ORANGE
VOLusia COUNTY, FL

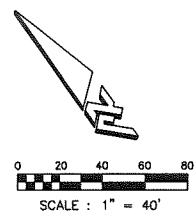
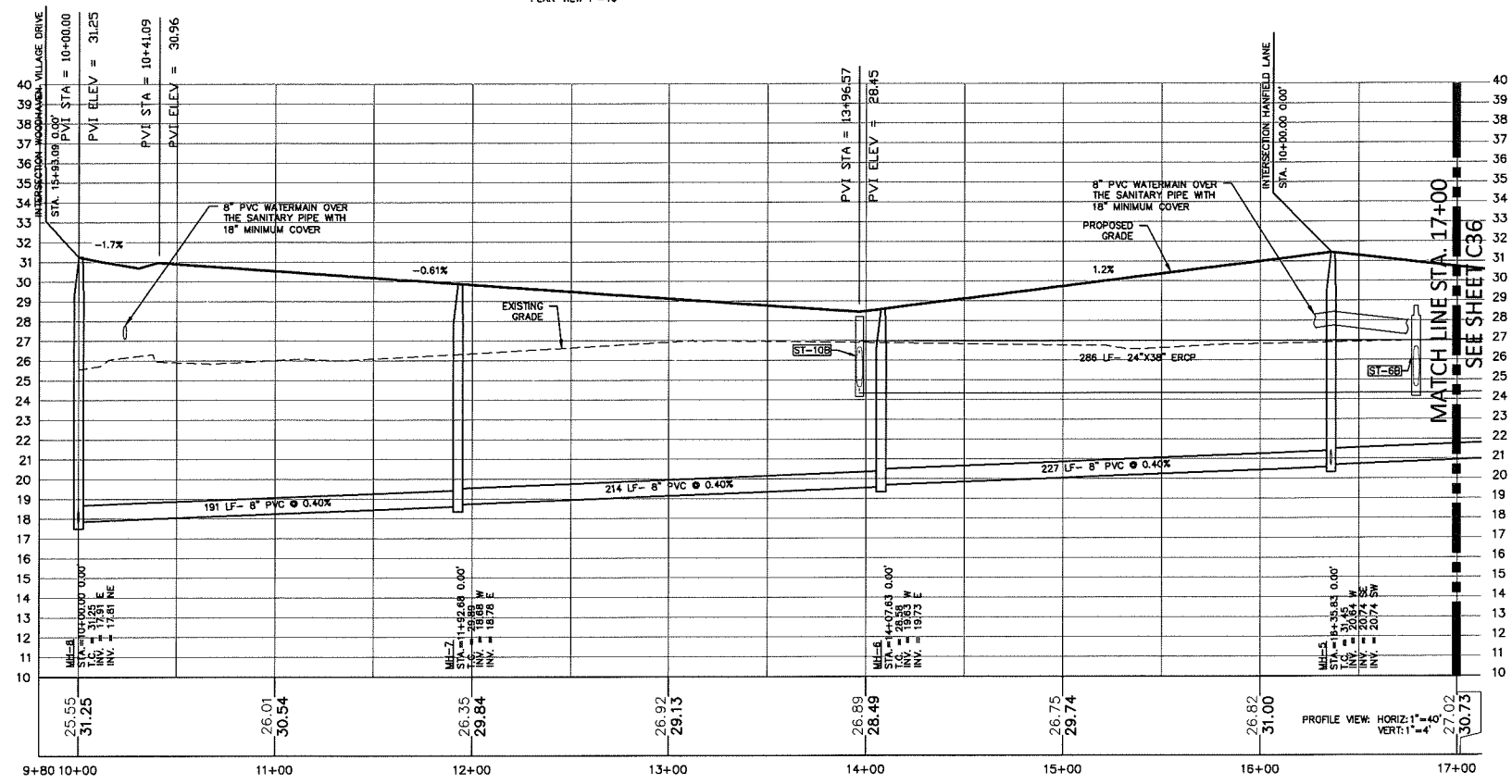
PROJECT NO: 2010011
ISSUE DATE: 10-28-2016
DESIGNED BY: HK
DRAFTED BY: CWTR
CHECKED BY: BB
DRAWING FILE: C28-C37 10011PP
XREFS: 10011BAS
XREFS: 10011TB



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ROBERT J. BALL, P.E. NO. 00001



HANFIELD DRIVE (50' R.O.W.)



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3300 CHANCE BLVD. SUITE C
ORMOND BEACH, FL 32054
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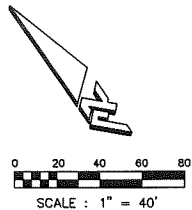
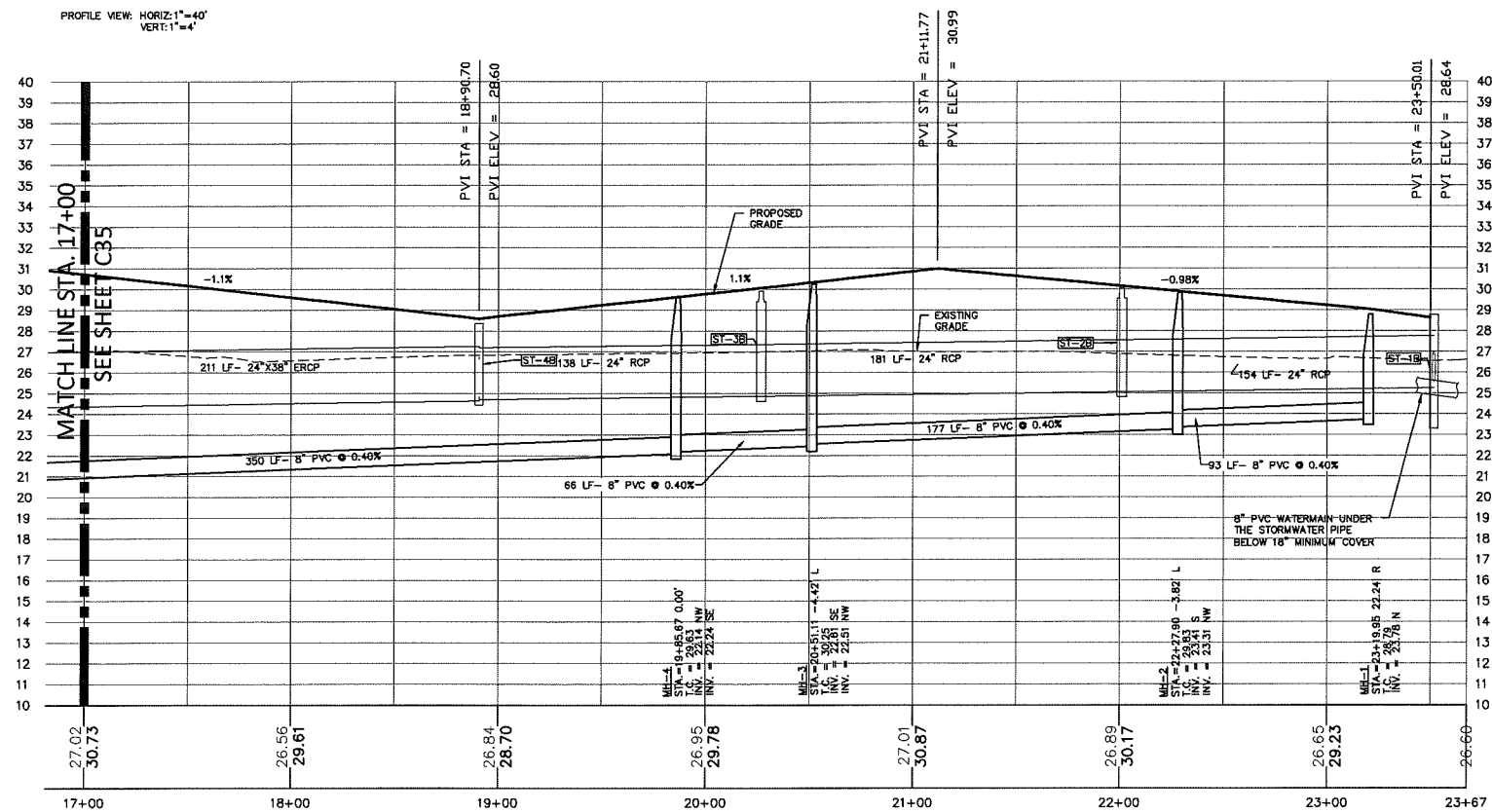
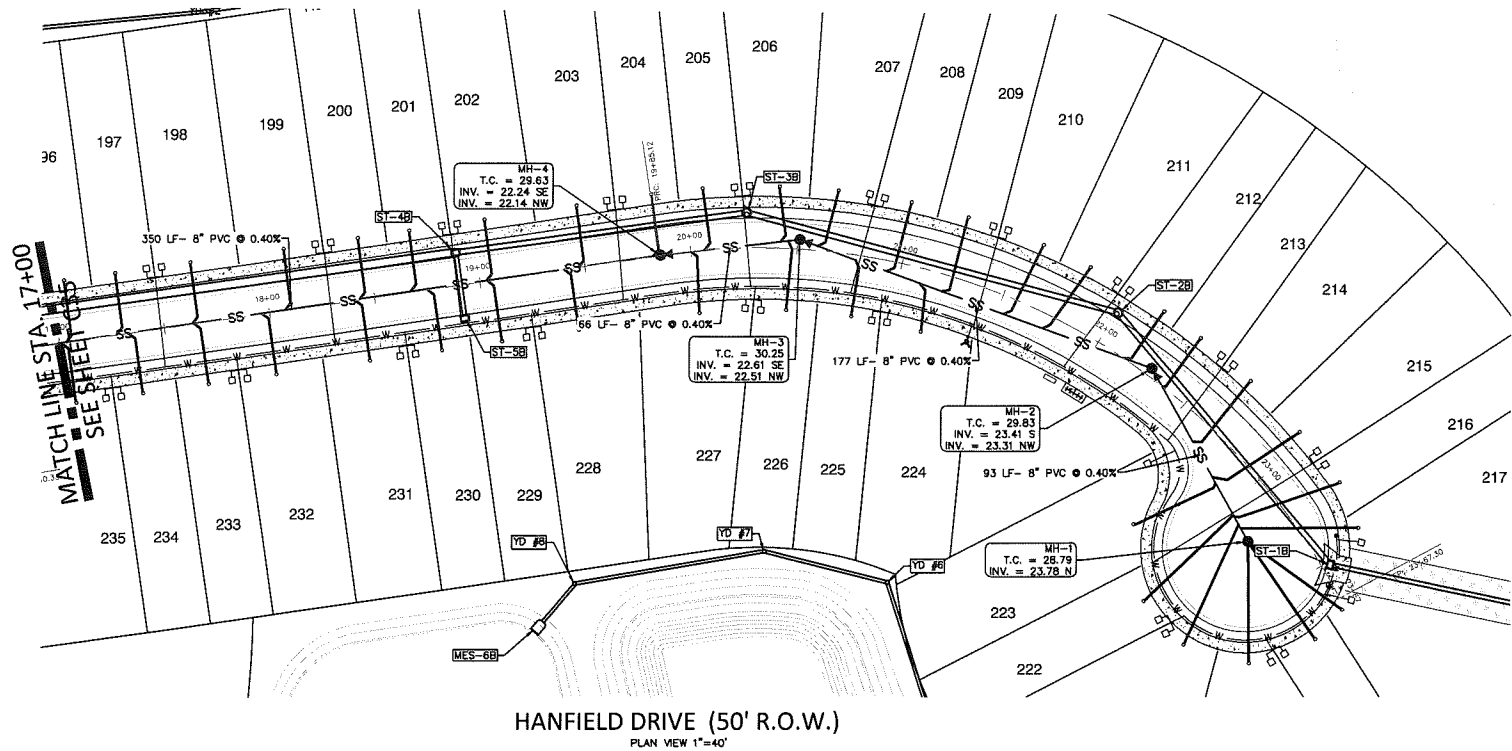
EDGEWATER
EDGEWATER, FL 33115
(386) 877-2482 FAX (386) 877-2505

NO.	DATE	REVISIONS
1	01.25.17	Revisions Per City Comments Dated 01.25.17
2	02.07.17	Revisions Per City Comments Dated 02.07.17
3	03.01.17	Revisions Per City Comments Dated 03.01.17

WOODHAVEN
PHASE 1
FINAL ENGINEERING PLANS
PLAN & PROFILE
HANFIELD DRIVE (STA. 10+00 - STA. 17+00)
CITY OF FORT ORANGE
VOLUSIA COUNTY, FL

PROJECT NO: 2016011
ISSUE DATE: 10-28-2016
DESIGNED BY: HK
DRAFTED BY: CWTR
CHECKED BY: BB
DRAWING FILE: C28-C37 16011PP
XREFS: 16011BAS
XREFS: 16011TB

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ROBERT J. BILL, P.E. NO. 60001



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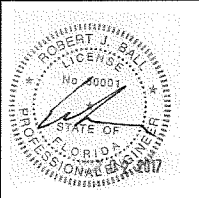
EDGEWATER
1500 W. PALM BEACH BLVD.
EDGEWATER, FL 32132
(386) 677-3482 FAX (386) 677-2505

NO.	DATE	REVISIONS	BY
1	10/25/17	Revisions Per City Comments Dated 10/25/17	TKR
2	11/14/17	Revisions Per City Comments Dated 11/14/17	TKR
3	12/01/17	Revisions Per City Comments Dated 12/01/17	TKR

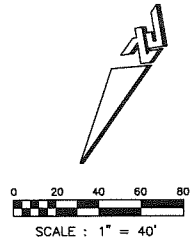
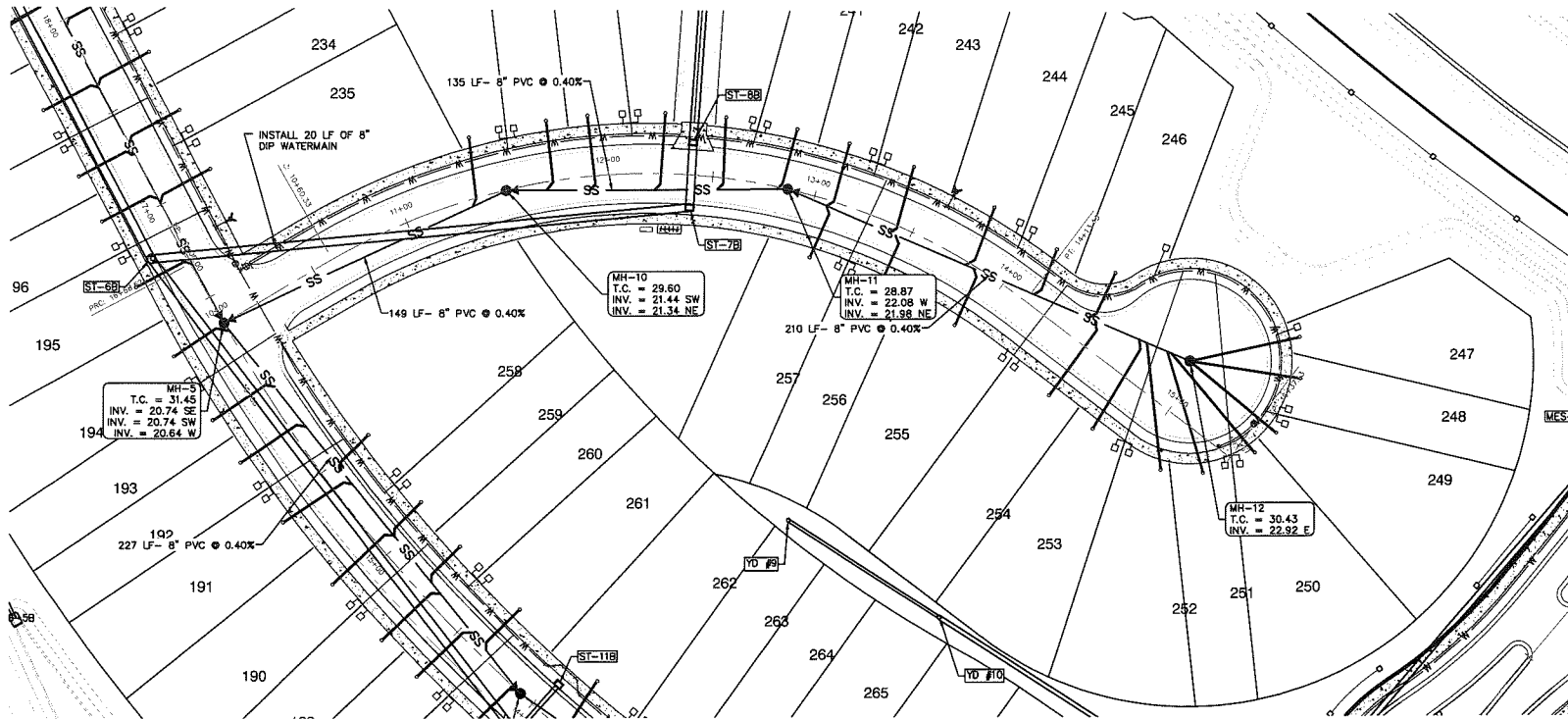
WOODHAVEN
PHASE 1
FINAL ENGINEERING PLANS
PLAN & PROFILE
HANFIELD DRIVE (STA.16+35.93- STA. 23+67)
CITY OF PORT ORANGE
VOLusia COUNTY, FL

PROJECT NO:	ZC 18011
ISSUE DATE:	10-28-2016
DESIGNED BY:	HK
DRAFTED BY:	CWTR
CHECKED BY:	BB

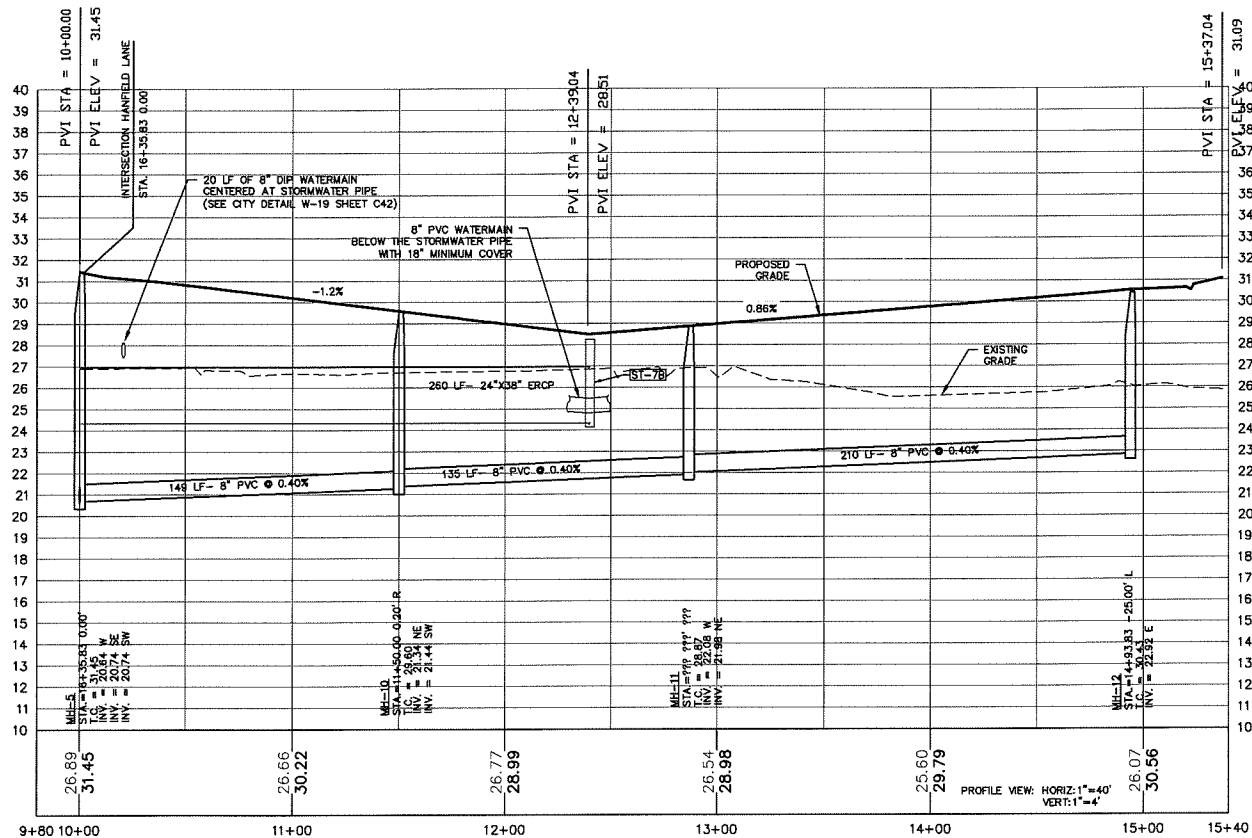
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XREF'S: 18011BAS
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NOT VALID WITHOUT SEAL
ROBERT J. BALL P.E. NO. 40001



HANFIELD LANE (50' R.O.W.)
PLAN VIEW 1"=40'



PROFILE VIEW: HORIZ: 1"=40'
VERT: 1"=4'



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300 HUNTERWOOD BLVD., SUITE C
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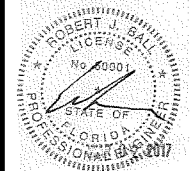
EDGEWATER OFFICE
EDGEWATER, FL 32132
(386) 677-2482 FAX (386) 677-2505

NO.	DATE	REVISIONS	BY
1	01/25/17	Revisions Per City Comments Dated 01/25/17	TMR
2	02/27/17	Revisions Per City Comments Dated 02/25/17	TMR
3	03/01/17	Revisions Per City Comments Dated 02/10/17	TMR

**WOODHAVEN
PHASE 1
FINAL ENGINEERING PLANS
PLAN & PROFILE
HANFIELD LANE (STA. 10+00 - STA. 15+37)**
VOLusia COUNTY, FL
CITY OF PORT ORANGE

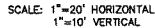
PROJECT NO: ZC 16011
ISSUE DATE: 10-28-2016
DESIGNED BY: HK
DRAFTED BY: CWTR
CHECKED BY: BB

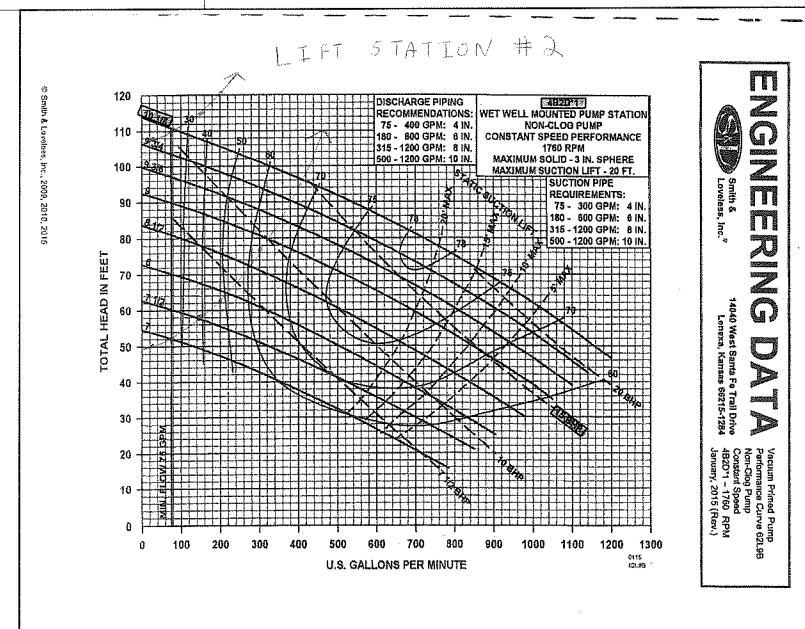
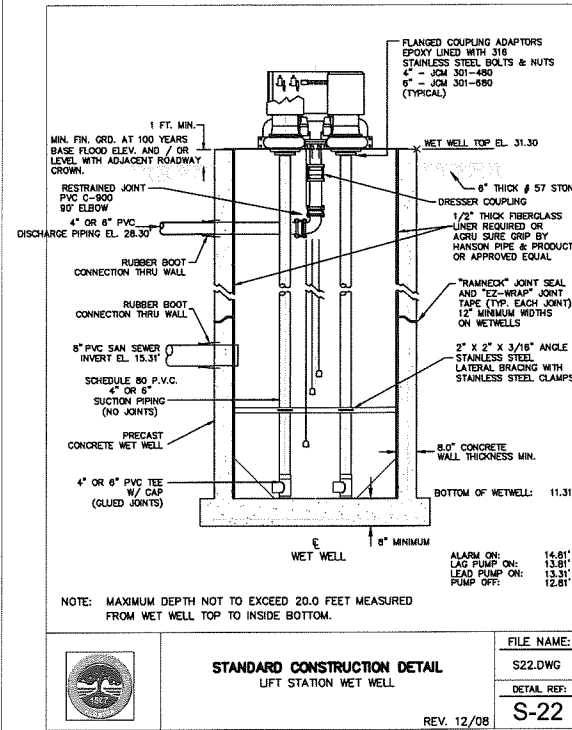
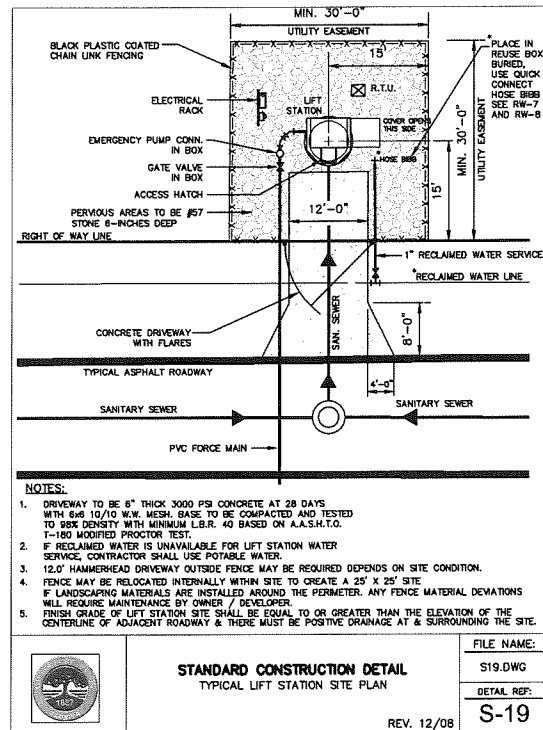
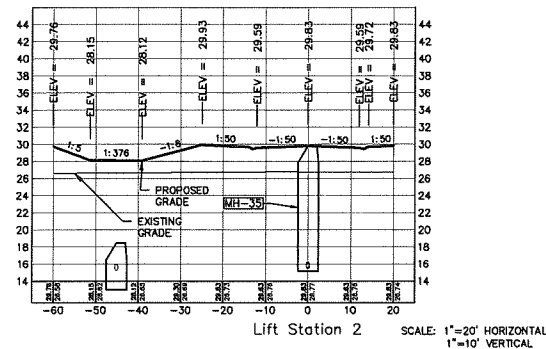
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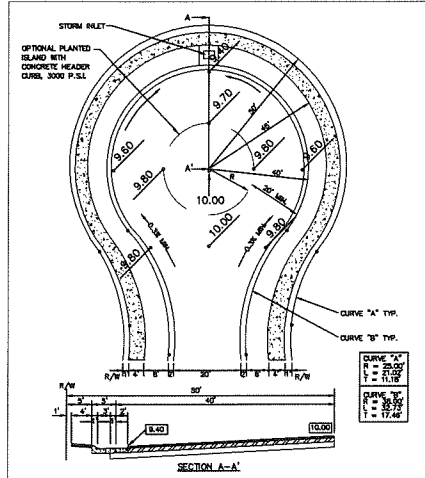


NOT VALID WITHOUT SEAL
ROBERT J. BALL, P.E. NO. 60001

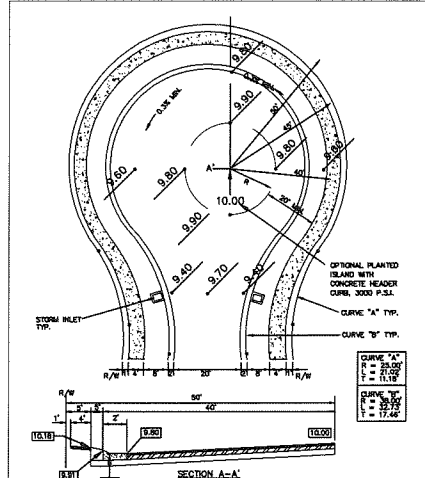
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SHEET: C37 OF 46



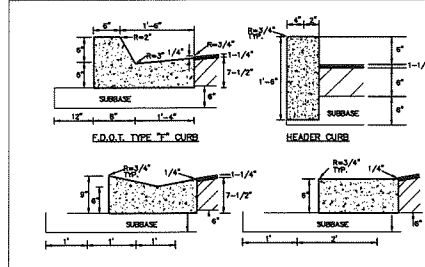




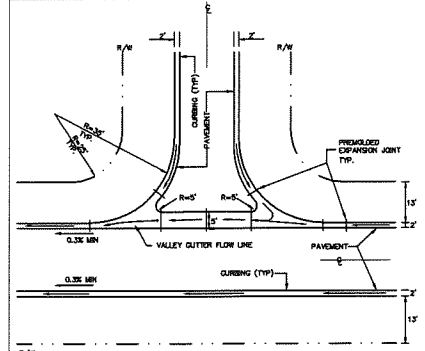
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STANDARD CUL-DE-SAC DETAIL
WITH SINGLE STORM INLET
ALTERNATE
REV. 12/08
R-7



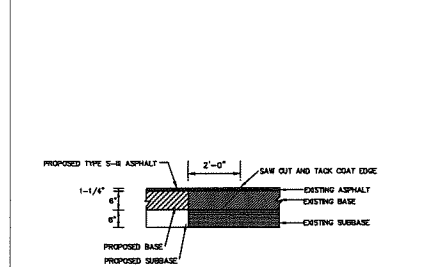
STANDARD CONSTRUCTION DETAIL
STANDARD CUL-DE-SAC DETAIL
WITH DUAL STORM INLET
"PREFERRED"
REV. 12/08
R-8



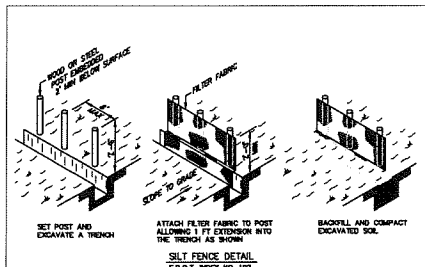
STANDARD CONSTRUCTION DETAIL
STANDARD CURB CONSTRUCTION
REV. 12/08
R-9



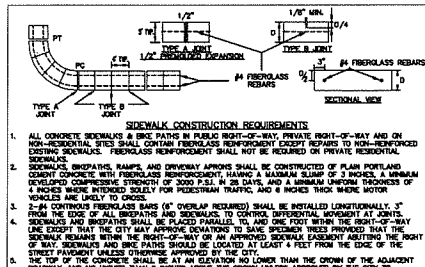
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ROADWAY INTERSECTION VALLEY GUTTER
REV. 12/08
R-10



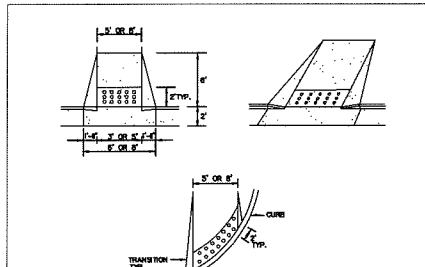
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PAVEMENT BUTT JOINT
REV. 12/08
R-11



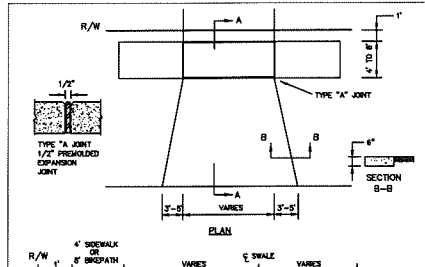
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SILT FENCE TURBIDITY BARRIER
REV. 12/08
R-22



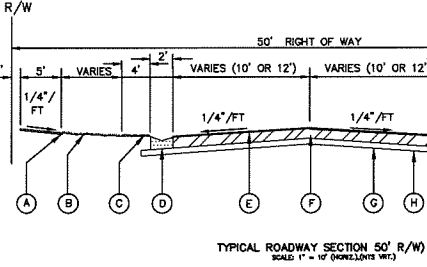
STANDARD CONSTRUCTION DETAIL
SIDEWALK CONSTRUCTION REQUIREMENTS
REV. 12/08
M-3



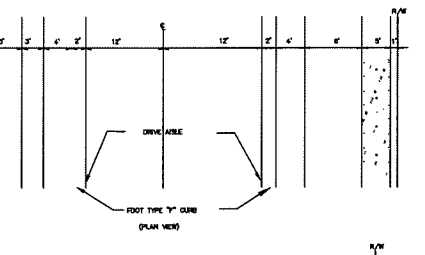
STANDARD CONSTRUCTION DETAIL
SIDEWALK AND BIKEPATH RAMP
(WITHIN RIGHT-OF-WAY)
REV. 2/13
M-4



STANDARD CONSTRUCTION DETAIL
DRIVEWAY APRON
REV. 12/08
M-6

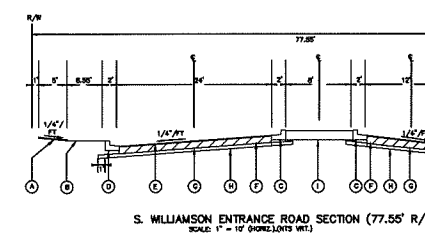


TYPICAL ROADWAY SECTION 50' R/W
SCALE 1" = 10' (HORIZONTAL) 1" = 4' (VERTICAL)



TYPICAL ROADWAY SECTION (80' R/W)
SCALE 1" = 10' (HORIZONTAL) 1" = 4' (VERTICAL)

- A 5'-0" WIDE CONCRETE SIDEWALK
4" THICK, 3000 P.S.I.
- B 300 or SEED AND MULCH PER F.D.O.T. STANDARD SPECIFICATION SECTION 570 OR 575, AS APPLICABLE.
- C 4' WIDE AREA WITH MAXIMUM SLOPE OF 1" PER 4' FT.
- D F.D.O.T. TYPE "T" CURB
- E ASPHALT PAVEMENT
1-1/4" ASPHALT BITUMINOUS CONCRETE TYPE S-II; MINIMUM MARSHALL FIELD STABILITY 1500, COMPACTED TO 98% DENSITY PER FM 1-1238 (METHOD B), NUCLEAR DENSITY TEST, "BACK SCATTER METHOD".
- F BASE:
6" SOIL CEMENT BASE MINIMUM BEARING STRENGTH OF 350 P.S.I. SHALL BE OBTAINED WITHIN 7 DAYS COMPACTED TO 98% DENSITY BASED ON AASHTO T-99 STANDARD PROCTOR TEST; CONSTRUCTION METHODS SHALL CONFORM TO SECTION 270 OF STANDARD F.D.O.T. SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
- G SUB-BASE:
6" SUB-BASE COMPACTED TO 98% DENSITY BASED ON AASHTO T-180 MODIFIED PROCTOR TEST WITH MINIMUM LBR 40.
- H SUBGRADE:
12" SUBGRADE COMPACTED TO 98% DENSITY BASED ON AASHTO T-180 MODIFIED PROCTOR TEST WITH MINIMUM LBR 40.



S. WILLIAMSON ENTRANCE ROAD SECTION (77.55' R/W)
SCALE 1" = 10' (HORIZONTAL) 1" = 4' (VERTICAL)

- A 5'-0" WIDE CONCRETE SIDEWALK
4" THICK, 3000 P.S.I.
- B 300 or SEED AND MULCH PER F.D.O.T. STANDARD SPECIFICATION SECTION 570 OR 575, AS APPLICABLE.
- C 4' WIDE AREA WITH MAXIMUM SLOPE OF 1" PER 4' FT.
- D F.D.O.T. TYPE "T" CURB
- E ASPHALT PAVEMENT
1-1/4" ASPHALT BITUMINOUS CONCRETE TYPE S-II; MINIMUM MARSHALL FIELD STABILITY 1500, COMPACTED TO 98% DENSITY BASED ON AASHTO T-99 STANDARD PROCTOR TEST; CONSTRUCTION METHODS SHALL CONFORM TO SECTION 270 OF STANDARD F.D.O.T. SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
- F BASE:
6" SOIL CEMENT BASE MINIMUM BEARING STRENGTH OF 350 P.S.I. SHALL BE OBTAINED WITHIN 7 DAYS COMPACTED TO 98% DENSITY BASED ON AASHTO T-99 STANDARD PROCTOR TEST; CONSTRUCTION METHODS SHALL CONFORM TO SECTION 270 OF STANDARD F.D.O.T. SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
- G SUB-BASE:
6" SUB-BASE COMPACTED TO 98% DENSITY BASED ON AASHTO T-180 MODIFIED PROCTOR TEST WITH MINIMUM LBR 40.
- H SUBGRADE:
12" SUBGRADE COMPACTED TO 98% DENSITY BASED ON AASHTO T-180 MODIFIED PROCTOR TEST WITH MINIMUM LBR 40.
- I LANDSCAPE AREA

S. WILLIAMSON ENTRANCE ROAD SECTION (77.55' R/W)
SCALE 1" = 10' (HORIZONTAL) 1" = 4' (VERTICAL)

- A 5'-0" WIDE CONCRETE SIDEWALK
4" THICK, 3000 P.S.I.
- B 300 or SEED AND MULCH PER F.D.O.T. STANDARD SPECIFICATION SECTION 570 OR 575, AS APPLICABLE.
- C 4' WIDE AREA WITH MAXIMUM SLOPE OF 1" PER 4' FT.
- D F.D.O.T. TYPE "T" CURB
- E ASPHALT PAVEMENT
1-1/4" ASPHALT BITUMINOUS CONCRETE TYPE S-II; MINIMUM MARSHALL FIELD STABILITY 1500, COMPACTED TO 98% DENSITY BASED ON AASHTO T-99 STANDARD PROCTOR TEST; CONSTRUCTION METHODS SHALL CONFORM TO SECTION 270 OF STANDARD F.D.O.T. SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
- F BASE:
6" SOIL CEMENT BASE MINIMUM BEARING STRENGTH OF 350 P.S.I. SHALL BE OBTAINED WITHIN 7 DAYS COMPACTED TO 98% DENSITY BASED ON AASHTO T-99 STANDARD PROCTOR TEST; CONSTRUCTION METHODS SHALL CONFORM TO SECTION 270 OF STANDARD F.D.O.T. SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
- G SUB-BASE:
6" SUB-BASE COMPACTED TO 98% DENSITY BASED ON AASHTO T-180 MODIFIED PROCTOR TEST WITH MINIMUM LBR 40.
- H SUBGRADE:
12" SUBGRADE COMPACTED TO 98% DENSITY BASED ON AASHTO T-180 MODIFIED PROCTOR TEST WITH MINIMUM LBR 40.
- I LANDSCAPE AREA

TYPICAL ROADWAY SECTION (80' R/W)
SCALE 1" = 10' (HORIZONTAL) 1" = 4' (VERTICAL)

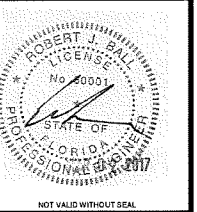
ZEV COHEN & ASSOCIATES, INC.
CIVIL ENGINEER • LANDSCAPE ARCHITECTS
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300 ORMOND BEACH, FL 32174
(386) 677-2482 FAX (386) 677-2605
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300 ORMOND BEACH, FL 32174
(386) 677-2482 FAX (386) 677-2605
EDGEWATER
EDGEWATER, FL 32132
(386) 677-2482 FAX (386) 677-2605

NO.	DATE	REVISIONS
1	11/25/17	Revisions Per City Comments Dated 01/25/17
2	02/07/17	Revisions Per City Comments Dated 01/25/17
3	03/01/17	Revisions Per City Comments Dated 02/06/17

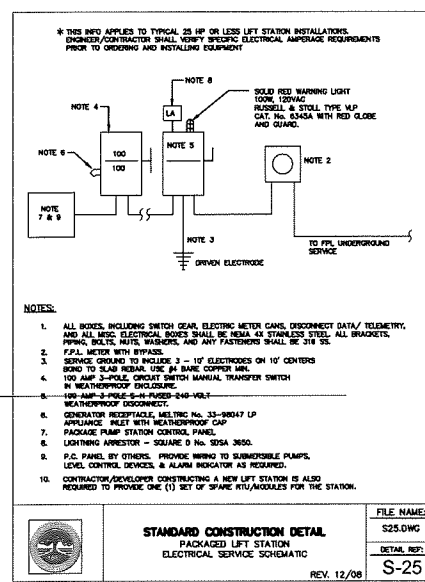
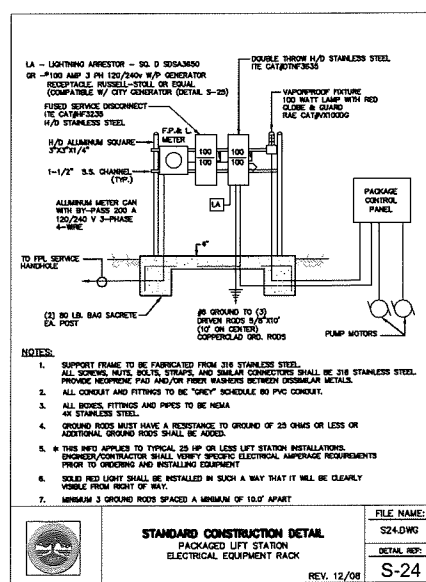
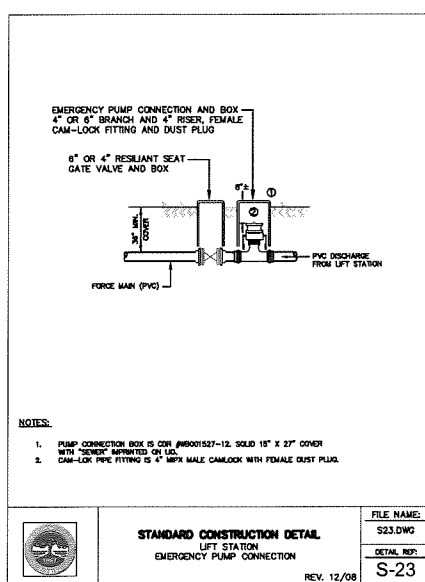
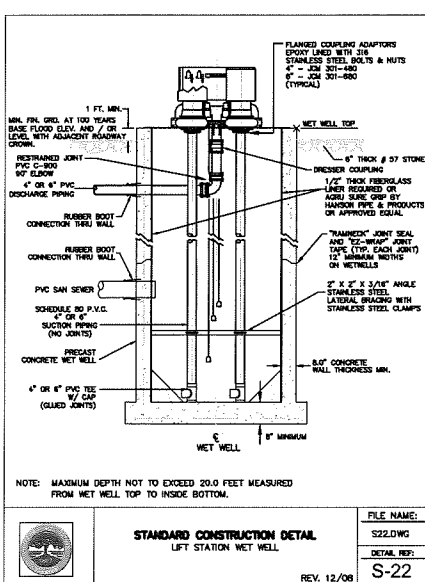
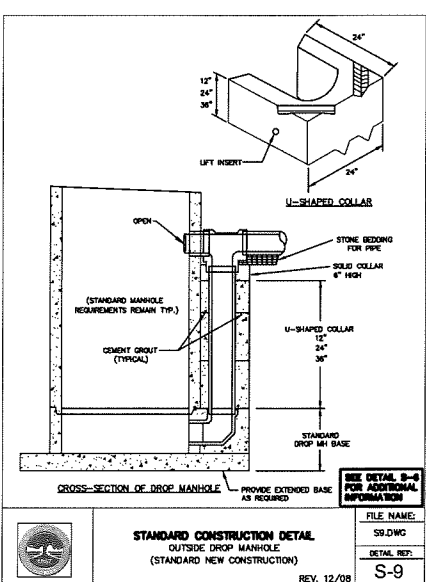
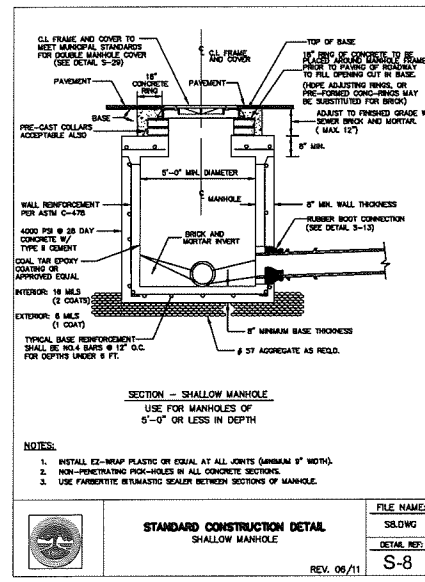
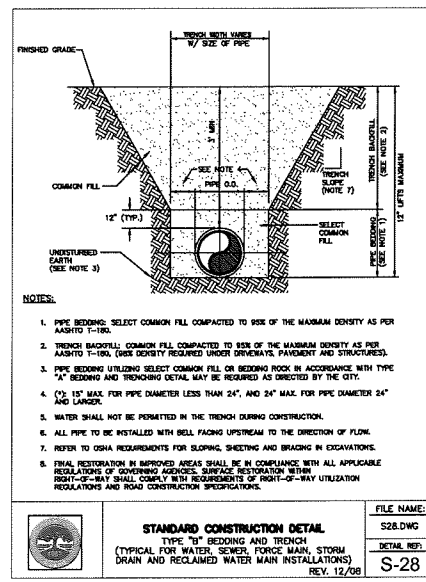
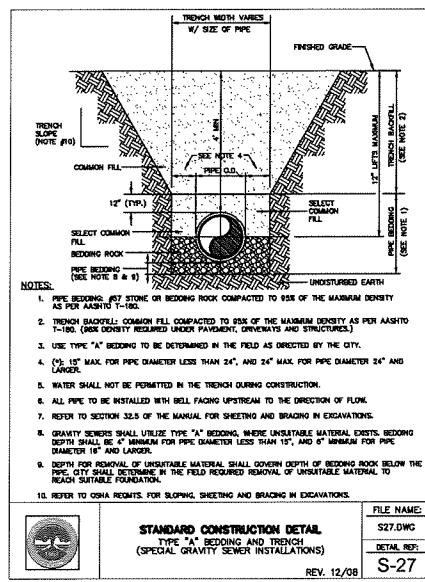
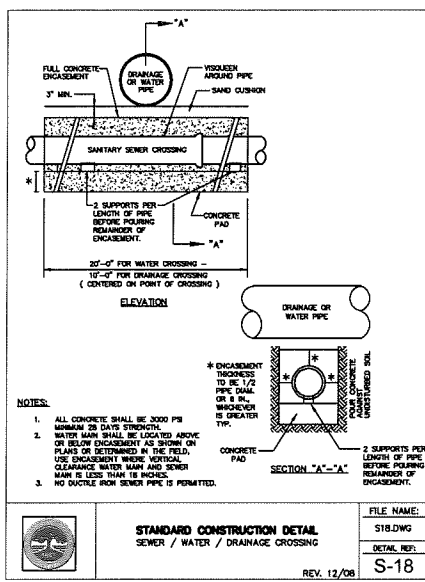
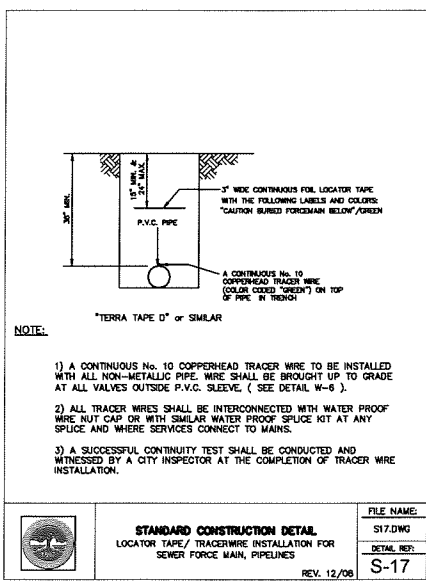
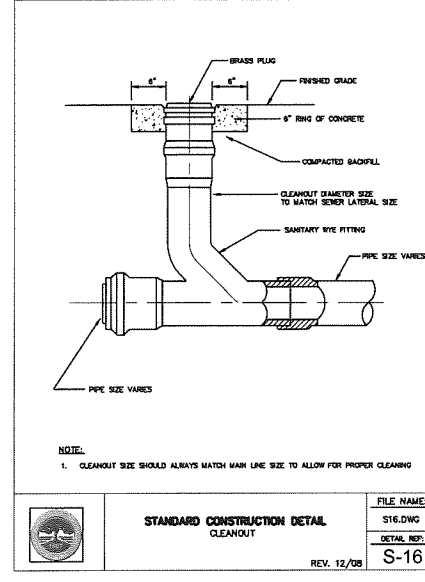
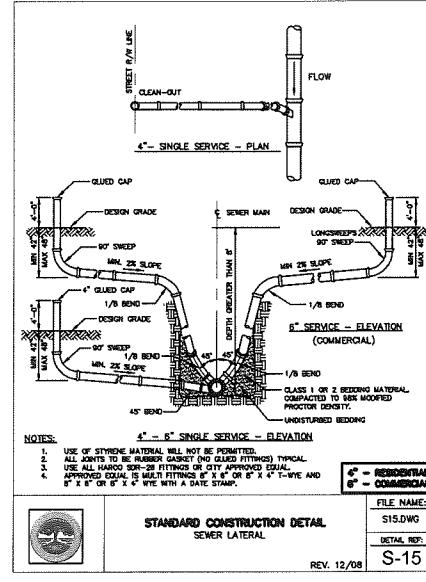
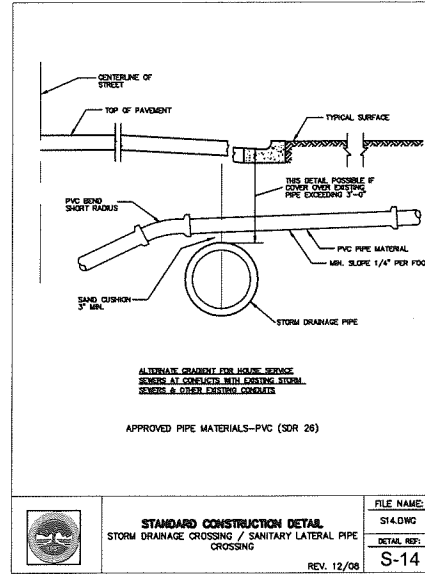
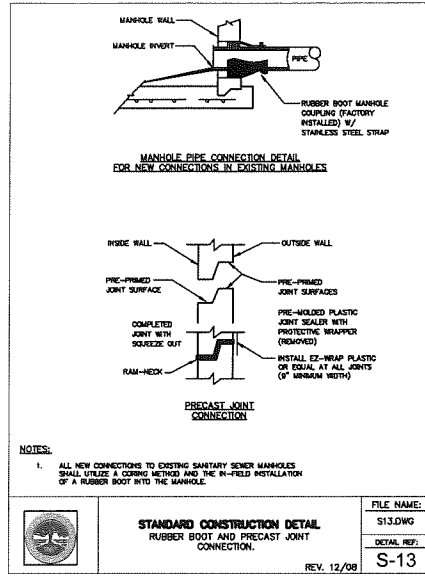
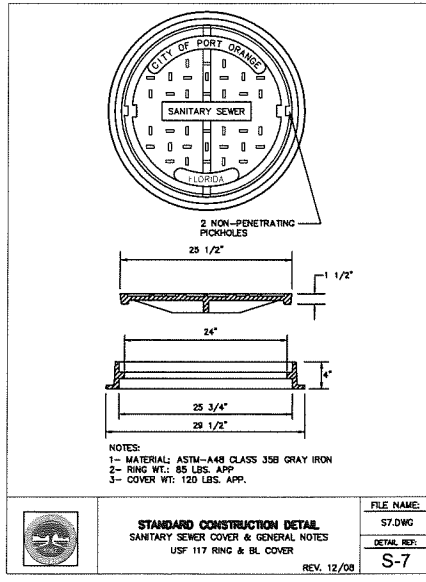
WOODHAVEN
PHASE 1
FINAL ENGINEERING PLANS
CONSTRUCTION DETAILS
CITY OF PORT ORANGE
VOLUSH COUNTY, FL

PROJECT NO: ZC 16011
ISSUE DATE: 10-28-2016
DESIGNED BY: HK
DRAFTED BY: CWTR
CHECKED BY: BB
DRAWING FILE: C38-C46 16011.DET
XREF: 16011TB
XREF: 8



NOT VALID WITHOUT SEAL
ROBERT J. BALL, P.E. NO. 00001

SCALE: AS SHOWN
SHEET: C40 OF 46



ZEV COHEN & ASSOCIATES, INC.
CIVIL ENGINEERS
PLANNERS • TRANSPORTATION • ENVIRONMENTAL

ORLANDO BEACH
3000 ORLANDO BEACH, FL 32174
(386) 677-2482 FAX (386) 677-2505

EDGEWATER
EDGEWATER, FL 32132
(386) 677-2482 FAX (386) 677-2505

WWW.ZEVCOHEN.COM

NO.	DATE	REVISIONS
1	01/23/17	Revisions Per City Comments, Dated 01/23/17
2	02/07/17	Revisions Per City Comments, Dated 02/07/17
3	02/07/17	Revisions Per City Comments, Dated 02/07/17
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WOODHAVEN
PHASE 1
FINAL ENGINEERING PLANS
CONSTRUCTION DETAILS

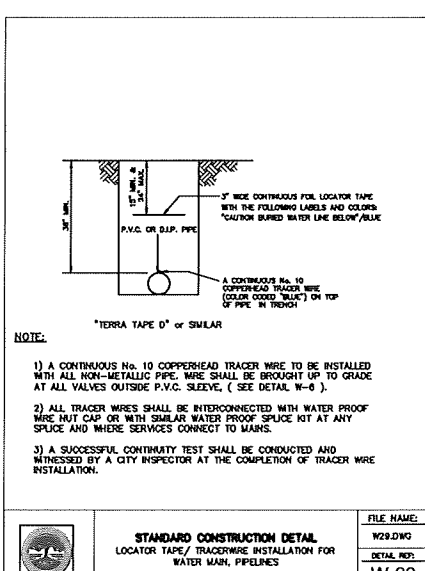
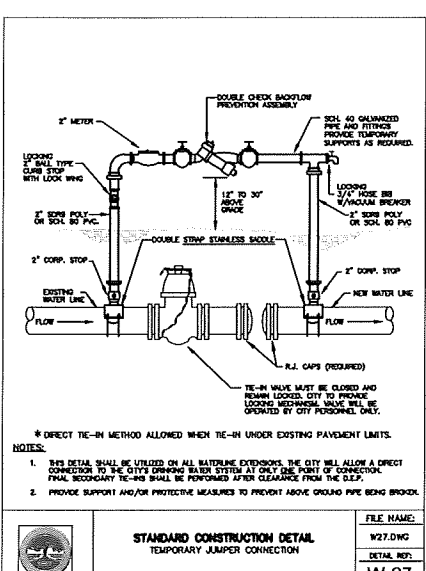
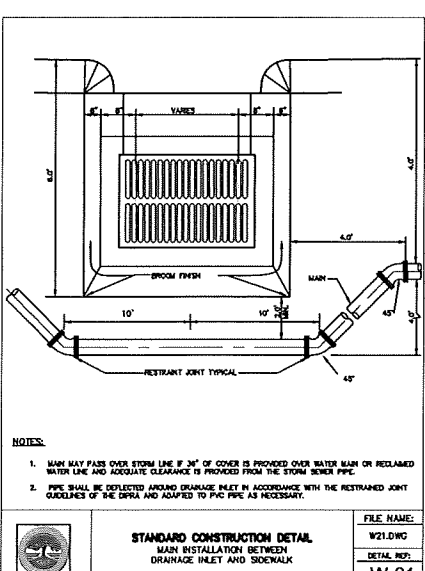
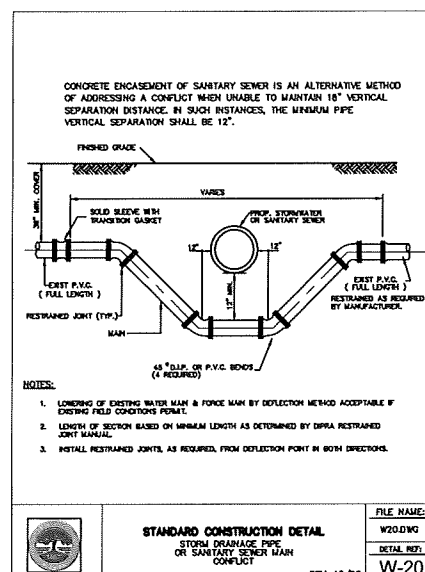
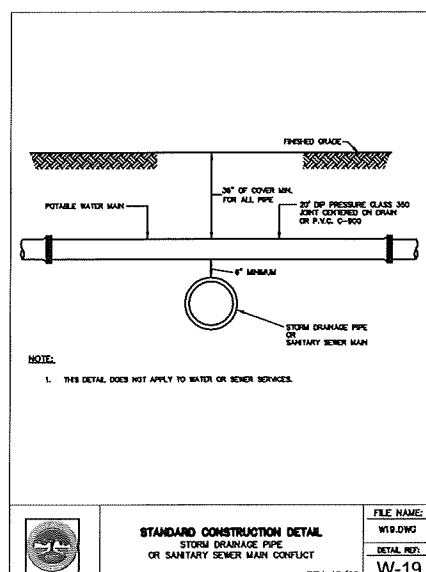
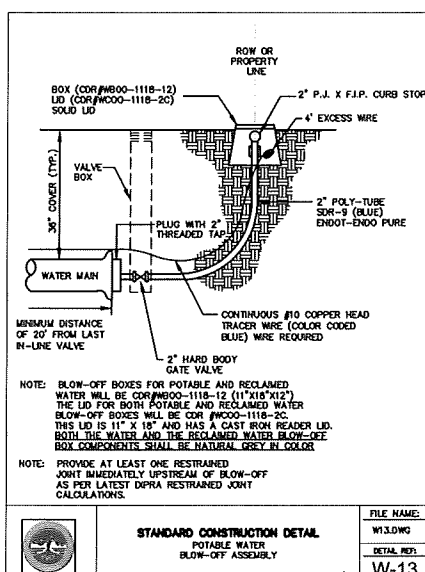
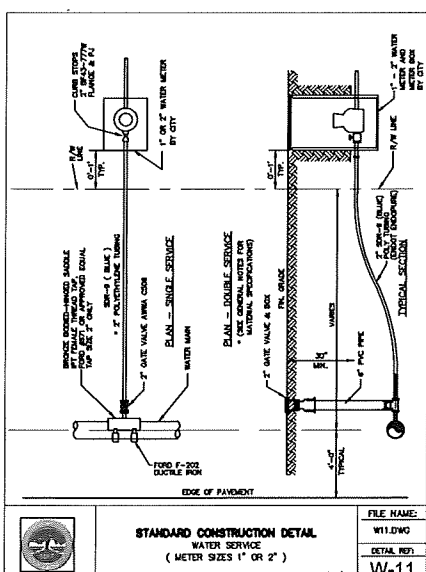
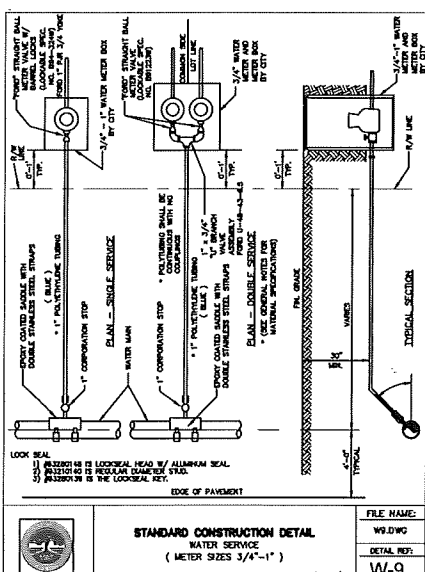
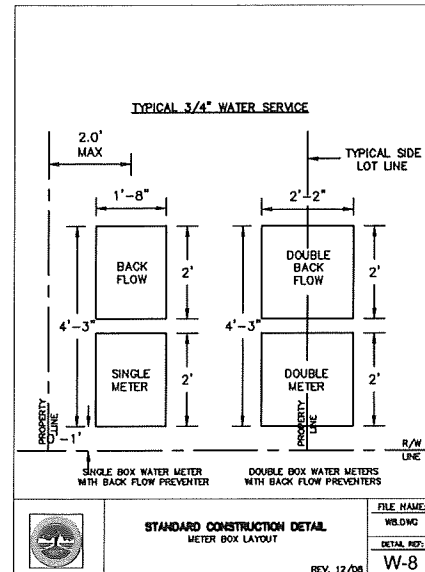
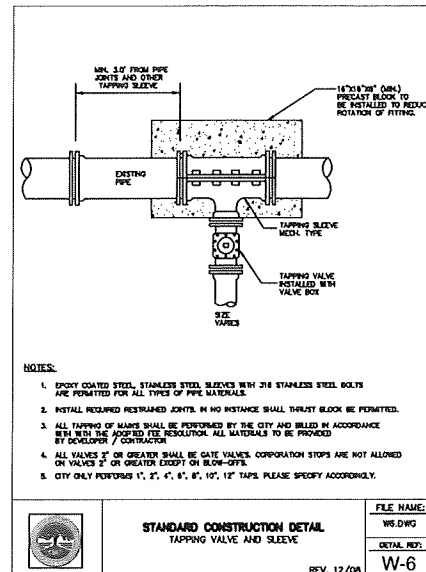
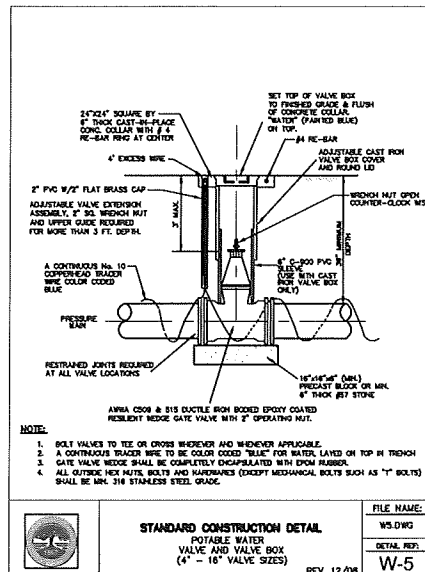
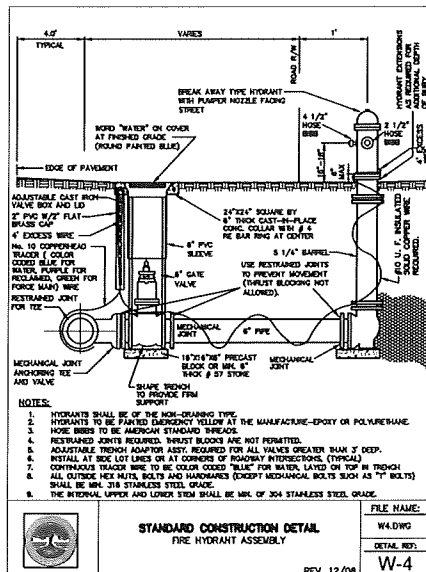
CITY OF PORT ORANGE

PROJECT NO: 2018011
ISSUE DATE: 10-28-2018
DESIGNED BY: HK
DRAFTED BY: CWTR
CHECKED BY: BB
DRAWING FILE: C38-C48 18011DET
XREF'S: 18011TB
XREF'S:

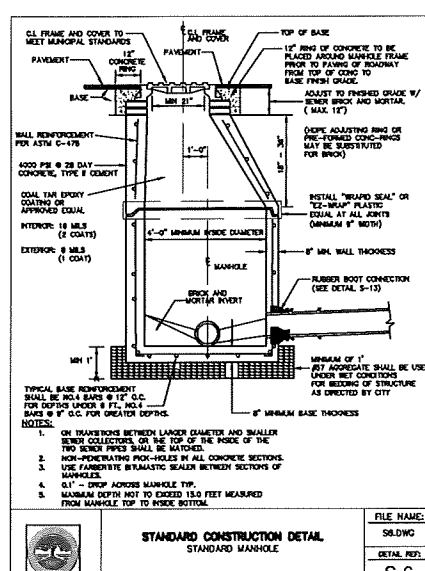
NOT VALID WITHOUT SEAL
ROBERT J. BALL, P.E. No. 60001

SCALE: AS SHOWN
SHEET: C41 OF 46

City of Port Orange Public Utilities Department List of Approved Products		
Potable Water		12/08
<i>Fire Hydrant (5' N" Bar)</i>		
MANUFACTURER		MODEL #
Mueller	A433 Super Centurion 250	
American AVE Co.	Series K2780	
American Dwyer	5' N" & 8" & 45	
Clow	Modelation F 2345 SS	
<i>Gate Valves</i>		
MANUFACTURER		MODEL #
Val-Matic	Series 38	
<i>Gate Valves and Tapping Valves - Resilient Seated (AWWA C509 and C515) 24" or Smaller (Valve Seals to be complete enclosed with EPDM rubber)</i>		
MANUFACTURER		MODEL #
American AVE Co	Series 3, 18, 25, 45, 55, & 66	
Clow	Model 2638 and 2639	
Mueller	A-2360, A-2361, T-2360 & T-2361	
American Flow Control	Series 2500	
STANDARD CONSTRUCTION DETAIL POTABLE WATER APPROVED PRODUCTS		FILE NAME: WB.DWG DETAIL REF: W-3



City of Port Orange Public Utilities Department List of Approved Products		
Sanitary Sewer & Force Main		12/08
<i>Air Release Valves</i>		
MANUFACTURER	MODEL #	
A.R.I.	D-0257 (Huck)	
<i>Gate Valves and Tapping Valves - Resilient Seated (AWWA C509 and C515) 24" or Smaller</i>		
MANUFACTURER	MODEL #	
American AVE Co	Series 3, 18, 25, 45, 55, & 66	
Clow	Model 2638 and 2639	
Mueller	A-2360, A-2361, T-2360 & T-2361	
American Flow Control	Series 2500	
<i>Valves Restrained - PVC Only</i>		
MANUFACTURER	MODEL #	
EEBA Valve Inc	Series 1500/1600 2000/2250/2500	
Star Pipe	Star g Series 1000/1100/1200/1300/1400	
Signa	One-Lock SLC PV-Lok for PVC	
Smith Bar	Com-Lock 1111 & 1300 B Bell-Lock 1115 & 1165	
STANDARD CONSTRUCTION DETAIL SANITARY SEWER & FORCE MAIN APPROVED PRODUCTS		
	FILE NAME: S5.DWG DETAIL REF: S-5	



ORLANDO BEACH
3000 ORLANDO BEACH, FL 32714
(386) 877-2442 FAX (386) 877-2505

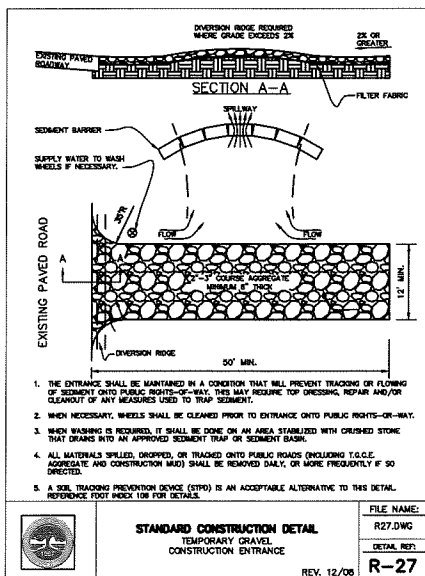
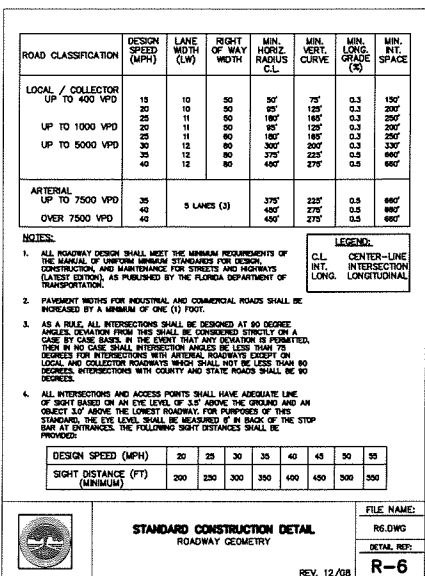
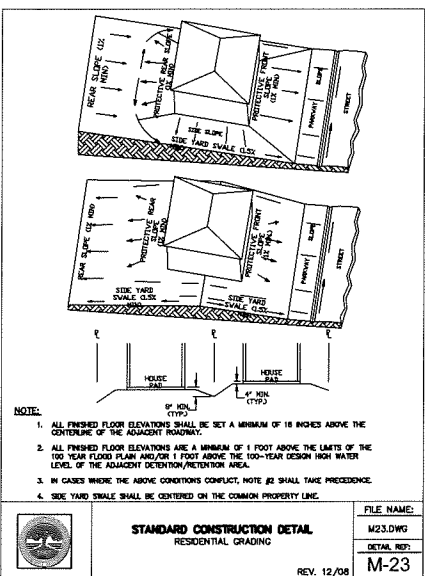
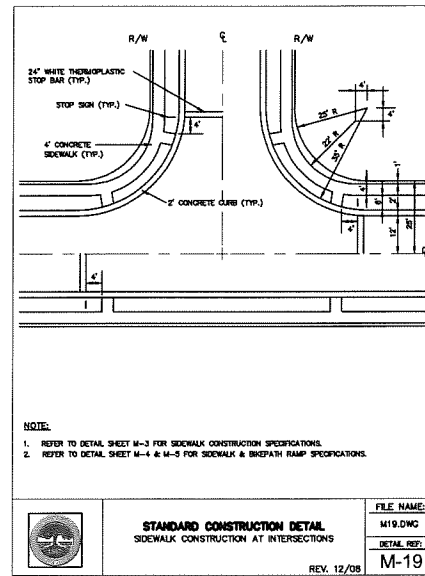
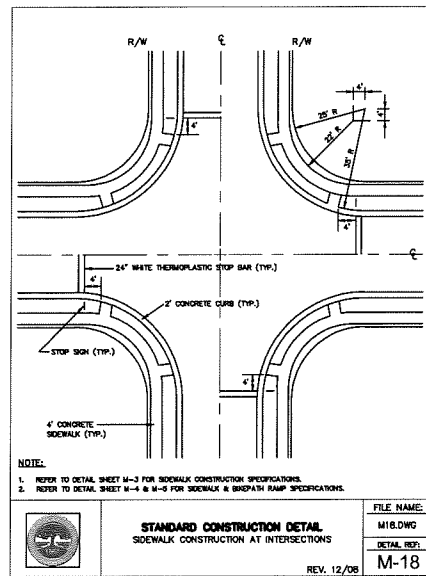
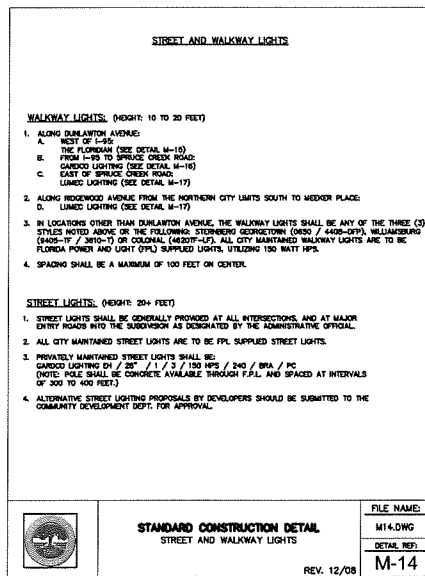
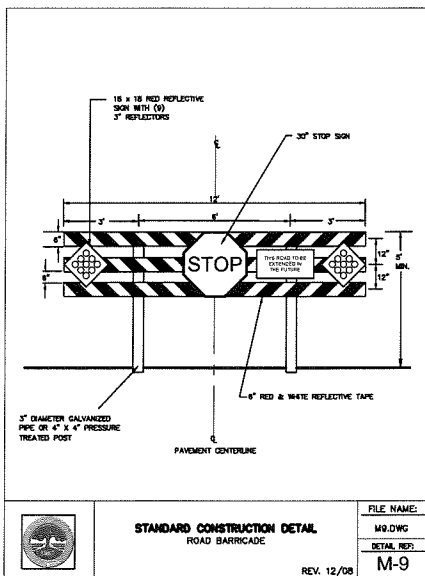
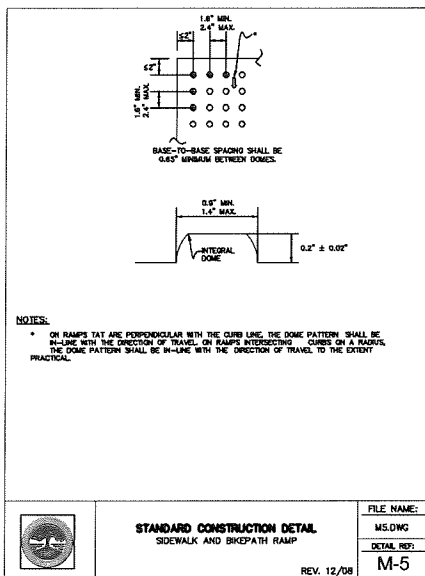
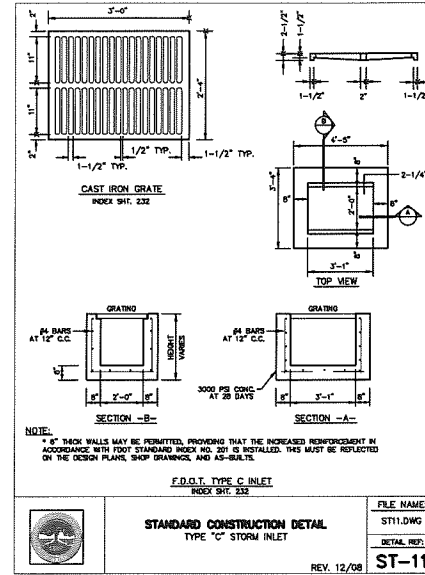
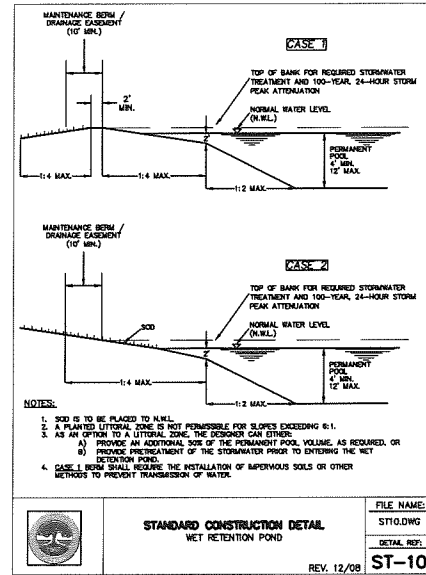
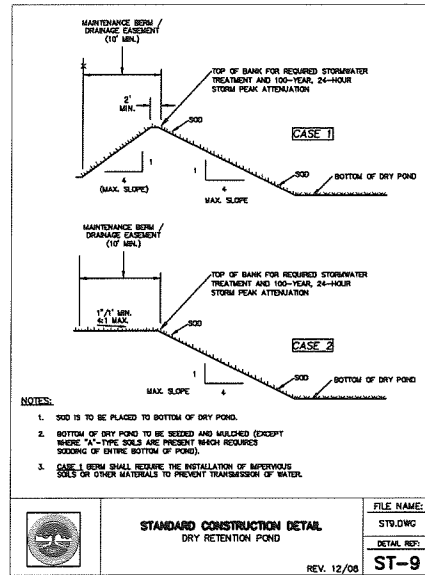
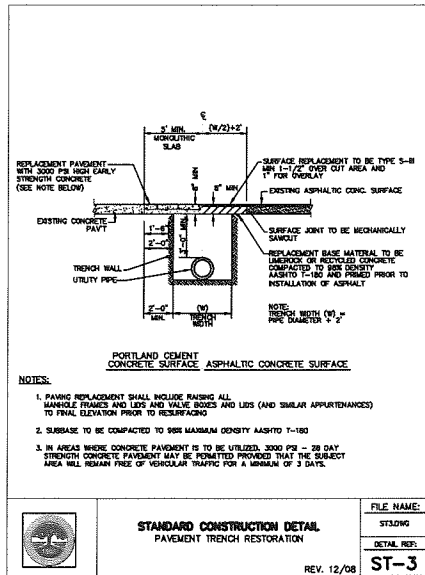
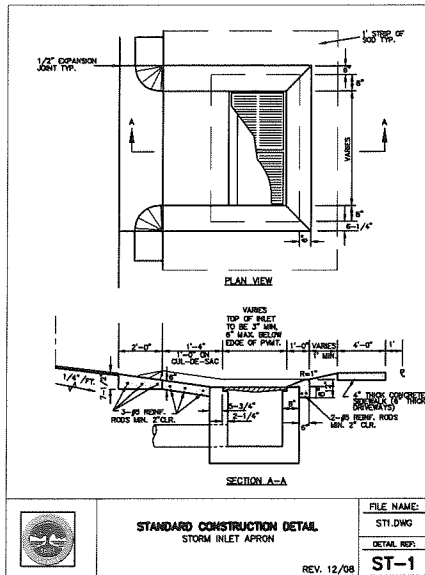
EDGEWATER
EDGEWATER, FL 32132
(386) 877-2442 FAX (386) 877-2505

NO.	DATE	REVISIONS
1	10/15/17	Revisions Per City Comment, Detail D-15.17
2	10/17/17	Revisions Per City Comment, Detail D-15.17
3	10/17/17	Revisions Per City Comment, Detail D-15.17

**WOODHAVEN
PHASE 1
FINAL ENGINEERING PLANS
CONSTRUCTION DETAILS**

CITY OF PORT ORANGE
VOLUSIA COUNTY, FL

PROJECT NO:	NC 19011
ISSUE DATE:	10-28-2016
DESIGNED BY:	HK
DRAFTED BY:	CWTR
CHECKED BY:	BB
DRAWING NO:	C38-C40 10011DET
SHEET:	C42 OF 46



ORLANDO BEACH
3800 S. US HWY 1, SUITE 100
ORLANDO BEACH, FL 32811
(386) 677-2482 FAX (386) 677-2505

EDGEWATER
3800 S. US HWY 1, SUITE 100
EDGEWATER, FL 32132
(386) 677-2482 FAX (386) 677-2505

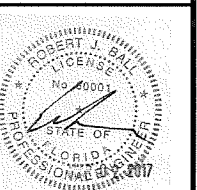
NO.	DATE	REVISIONS
1	01/25/17	Revised Per City Comments Dated 01/25/17
2	02/07/17	Revised Per City Comments Dated 01/25/17
3	02/07/17	Revised Per City Comments Dated 02/06/17

WOODHAVEN
PHASE 1
FINAL ENGINEERING PLANS
CONSTRUCTION DETAILS

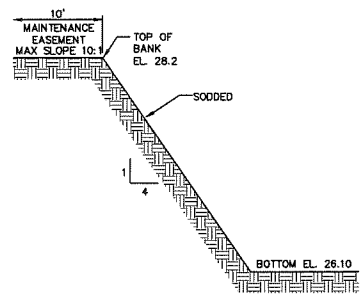
CITY OF PORT ORANGE
VOLUSIA COUNTY, FL

PROJECT NO: ZC 16011
ISSUE DATE: 10-28-2016
DESIGNED BY: HK
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CHECKED BY: BB

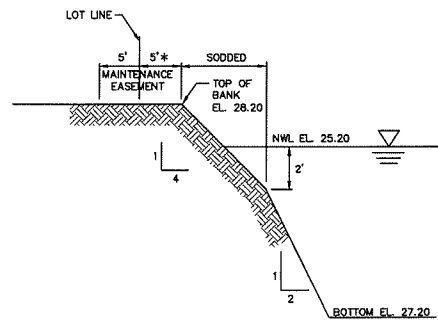
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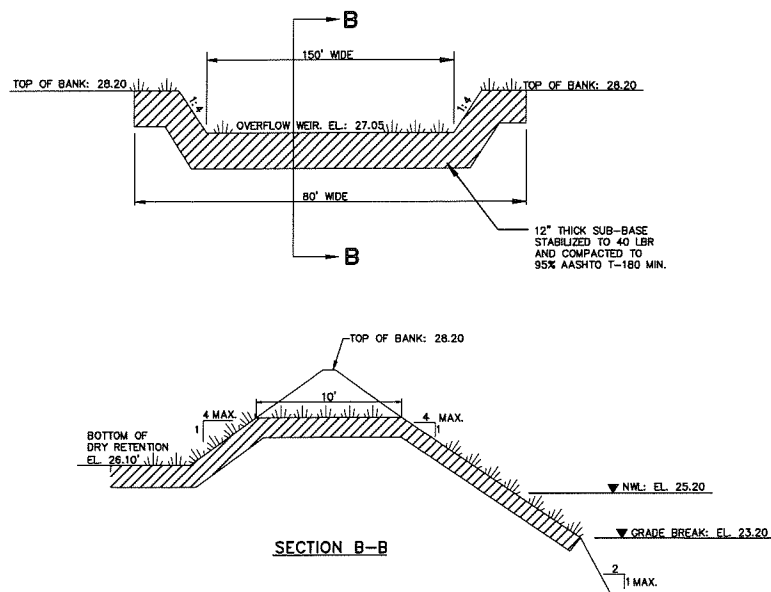
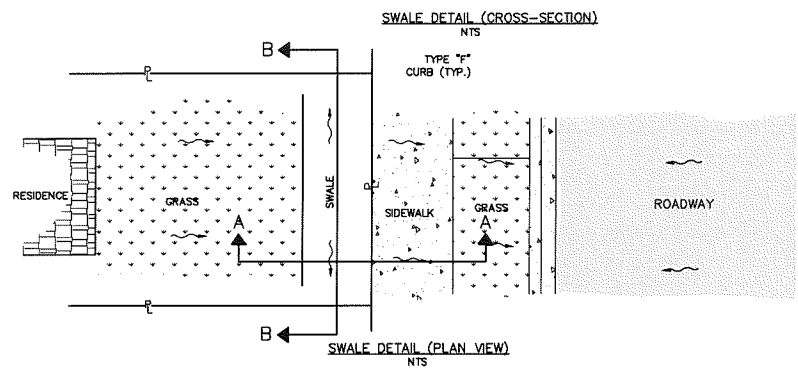
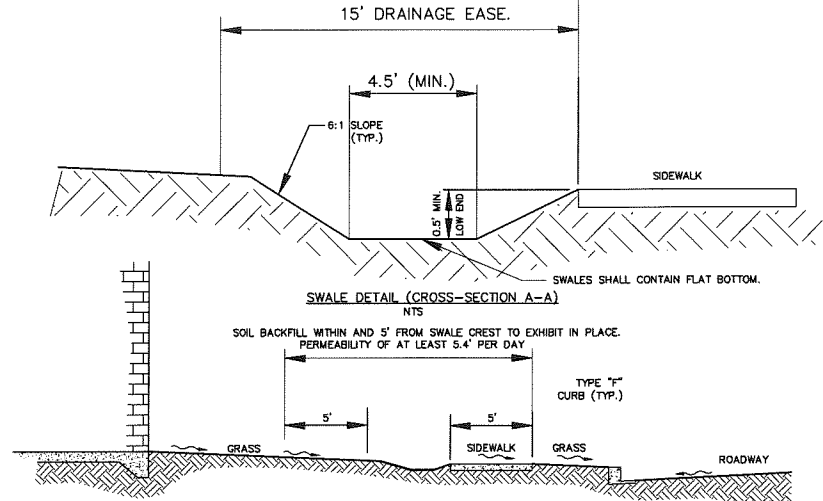
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ROBERT J. BALL, P.E. No. 60001



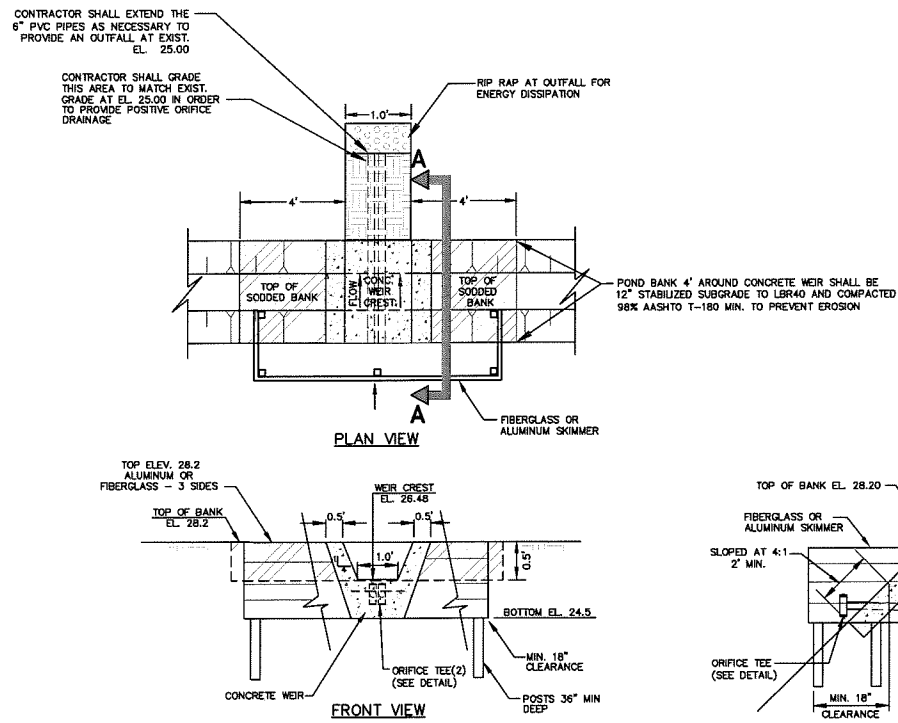
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RA-1A & RA-1B
N.T.S.



TYPICAL WET DETENTION AREA CROSS-SECTION
(DA-2)
N.T.S.



D.C.S. #1 SODDED OVERFLOW WEIR DETAIL
RA-1A > DA-2
N.T.S.

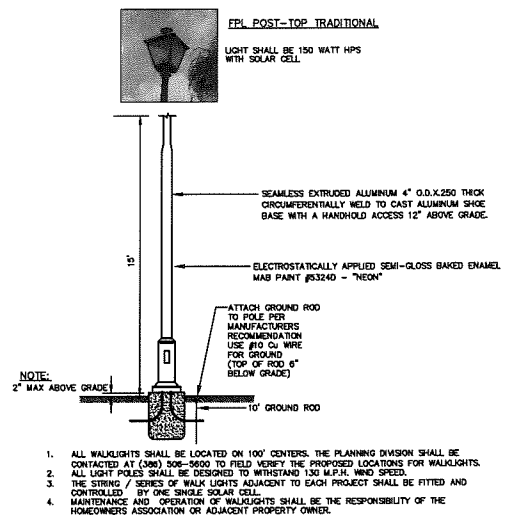


D.C.S. #2 CONCRETE OVERFLOW WEIR
DA-2 > 99S
N.T.S.

FDEP SEPARATION NOTES

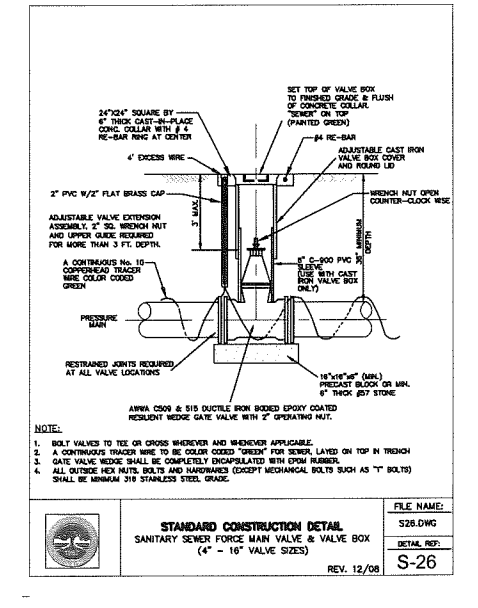
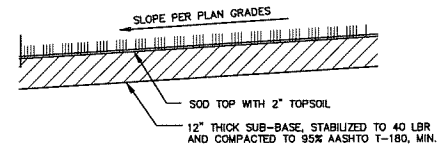
NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY- OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS SHALL BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER. NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY- OR VACUUM-TYPE SANITARY SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES, AND PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE. NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.

AT THE UTILITY CROSSINGS DESCRIBED ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C. AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY-OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.



WALKWAY LIGHT DETAIL
N.T.S.

20' WIDE STABILIZED TRAIL PATH & STORMWATER ACCESS SECTION
N.T.S.



ZEV COHEN & ASSOCIATES, INC.
ENGINEERS, ARCHITECTS
CIVIL • MECHANICAL • ELECTRICAL
PLANNERS • TRANSPORTATION • ENVIRONMENTAL
ORLANDO, FL 32814
(386) 677-2462 FAX (386) 677-2505
WWW.ZEVCOHEN.COM

WOODHAVEN PHASE 1
FINAL ENGINEERING PLANS
CONSTRUCTION DETAILS
CITY OF PORT ORANGE
VOLUSIA COUNTY, FL

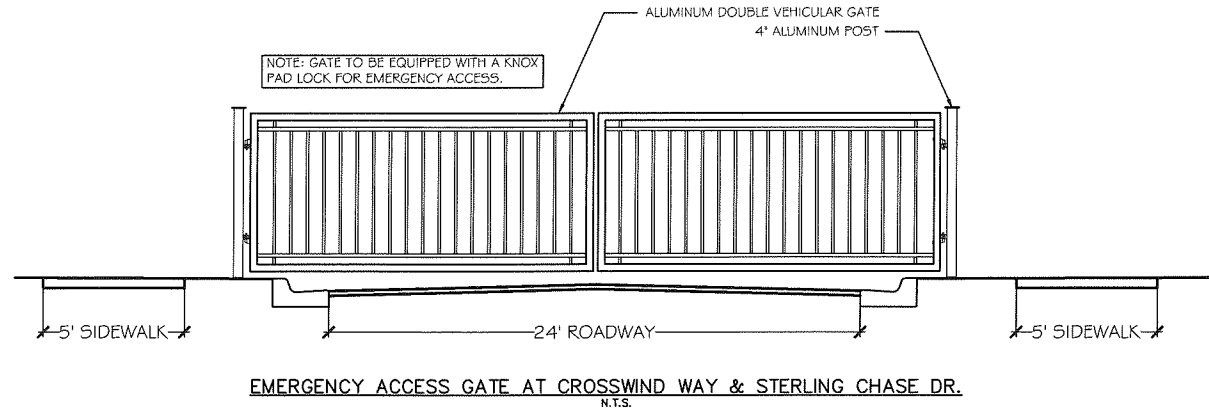
NO.	DATE	REVISIONS
1	01/25/17	Revised Per City Comments dated 01/25/17
2	02/27/17	Revised Per City Comments dated 01/25/17
3	03/21/17	Revised Per City Comments dated 02/26/17

WOODHAVEN PHASE 1
FINAL ENGINEERING PLANS
CONSTRUCTION DETAILS
CITY OF PORT ORANGE
VOLUSIA COUNTY, FL

PROJECT NO: ZC 16011
ISSUE DATE: 10-28-2016
DESIGNED BY: HK
DRAFTED BY: CWTR
CHECKED BY: BB

DRAWING FILE: C38-C48 16011DET
XREF: 16011TB
XREFS:
NOT VALID WITHOUT SEAL
ROBERT J. BALL, P.E. NO. 60001

SCALE: AS SHOWN
SHEET: C44 OF 46

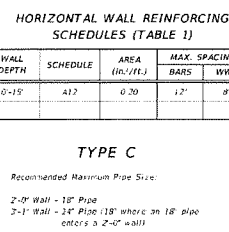
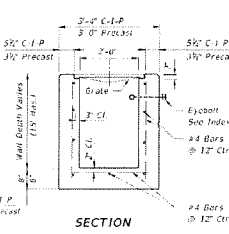
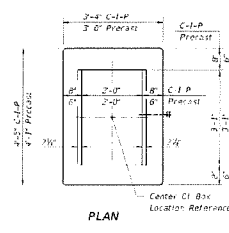


DIMENSIONS AND QUANTITIES																					
D	X	A	B	C	E	F	G	H	5" CONCRETE SLAB (CY) ▲				SODDING (SF)				See General Note No. 5 See Sheet 5 For 3" Slab Quantities				
									Single Pipe	Double Pipe	Triple Pipe	Quad. Pipe	Single Pipe	Double Pipe	Triple Pipe	Quad. Pipe	Values shown for estimating pipe quantities and are for information only.				
1/2 Slope	15'	2'-0"	1.82	2.18	4.10	3.00	8	1.22	3.0	1.82	2.18	4.10	1.19	0.36	0.58	0.77	0.96	21	21	21	21
	18'	2'-0"	1.87	2.23	4.17	3.06	8	1.27	3.4	1.92	2.28	4.56	1.21	0.44	0.65	0.87	1.09	22	22	22	22
	24'	2'-0"	2.08	2.45	4.51	3.36	7	1.73	3.4	2.50	2.92	4.99	1.25	0.54	0.77	1.02	1.27	24	24	24	24
	30'	2'-0"	2.12	2.49	4.55	3.40	8	1.50	3.4	2.16	2.53	5.02	1.30	0.55	0.78	1.03	1.28	24	24	24	24
	36'	2'-0"	2.23	2.59	4.67	3.50	9	1.59	3.4	2.26	2.63	5.12	1.31	0.57	0.80	1.05	1.30	25	25	25	25
	42'	2'-0"	2.34	2.70	4.79	3.60	10	1.68	3.4	2.35	2.73	5.22	1.32	0.58	0.82	1.07	1.32	26	26	26	26
1/4 Slope	48'	2'-0"	2.43	2.79	4.88	3.69	11	1.76	3.4	2.43	2.81	5.31	1.33	0.59	0.83	1.08	1.33	27	27	27	27
	54'	2'-0"	2.52	2.88	4.97	3.78	12	1.84	3.4	2.51	2.89	5.40	1.34	0.60	0.84	1.09	1.34	28	28	28	28
	60'	2'-0"	2.62	2.97	5.06	3.87	14	1.99	4.0	2.67	3.05	5.49	1.35	0.61	0.85	1.10	1.35	30	30	30	30
	66'	2'-0"	2.71	3.06	5.15	3.96	15	2.10	4.4	2.76	3.15	5.58	1.36	0.62	0.86	1.11	1.36	30	30	30	30
	72'	2'-0"	2.80	3.15	5.24	4.05	16	2.20	4.4	2.85	3.25	5.67	1.37	0.63	0.87	1.12	1.37	31	31	31	31
	78'	2'-0"	2.89	3.24	5.33	4.14	18	2.34	4.4	2.99	3.39	5.76	1.38	0.64	0.88	1.13	1.38	32	32	32	32
	84'	2'-0"	2.98	3.33	5.42	4.23	19	2.44	4.4	3.07	3.49	5.85	1.39	0.65	0.89	1.14	1.39	33	33	33	33
	90'	2'-0"	3.07	3.42	5.51	4.32	20	2.54	4.4	3.15	3.59	5.94	1.40	0.66	0.90	1.15	1.40	34	34	34	34
	96'	2'-0"	3.16	3.51	5.60	4.41	21	2.64	4.4	3.23	3.69	6.03	1.41	0.67	0.91	1.16	1.41	35	35	35	35
	102'	2'-0"	3.25	3.60	5.69	4.50	22	2.74	4.4	3.31	3.79	6.12	1.42	0.68	0.92	1.17	1.42	36	36	36	36
E																					
6 42' 6 25' Dimensions permitted to allow use of 3" standard pipe lengths																					
10 42' 10 10' Dimensions permitted to allow use of 1/2" standard pipe lengths																					
Concrete slab shall be accepted to form bridge across crown of pipe. See section below.																					

NOTE: See sheet 6 for details and notes.

SINGLE AND MULTIPLE ROUND CONCRETE PIPE

LAST REVISION 07/01/02	DESCRIPTION	FX 2016-17 DESIGN STANDARDS	CROSS DRAIN MITERED END SECTION	INDEX NO. 272	SHEET NO. 1 of 1
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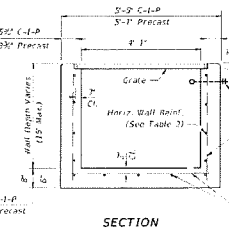
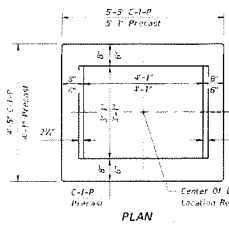


HORIZONTAL WALL REINFORCING SCHEDULES (TABLE 1)

WALL DEPTH	SCHEDULE	AREA (in. ² /ft.)	MAX. SPACING	WVF
0-15'	A12	0.20	12"	8"

TYPE C

Recommended Maximum Pipe Size:
 2'-0" Wall - 18" Pipe
 2'-1" Wall - 24" Pipe (18" where an 18" pipe enters a 2'-0" wall)

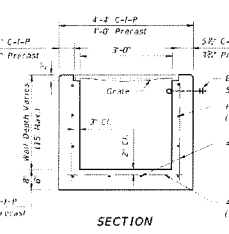
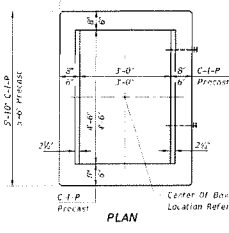


HORIZONTAL WALL REINFORCING SCHEDULES (TABLE 2)

WALL DEPTH	SCHEDULE	AREA (in. ² /ft.)	MAX. SPACING	WVF
0-6'	A12	0.20	12"	8"
6-10'	A6	0.20	6"	5"
10-12'	A4	0.20	4"	3"
12-15'	B55	0.24	5 1/2"	5"

TYPE D

Recommended Maximum Pipe Size:
 2'-1" Wall - 24" Pipe
 2'-1" Wall - 36" Pipe

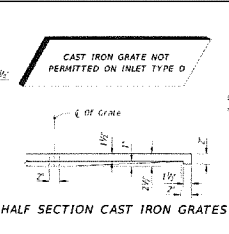


HORIZONTAL WALL REINFORCING SCHEDULES (TABLE 3)

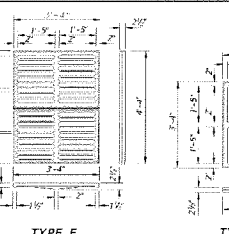
WALL DEPTH	SCHEDULE	AREA (in. ² /ft.)	MAX. SPACING	WVF
0-5'	A12	0.20	12"	8"
5-7.5'	A6	0.20	6"	5"
7.5-10'	B55	0.24	5 1/2"	5"
10-15'	C65	0.37	6 1/2"	6"

TYPE E

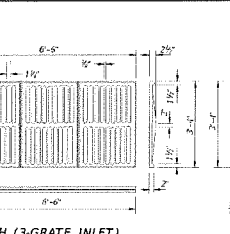
Recommended Maximum Pipe Size:
 2'-0" Wall - 24" Pipe
 4'-0" Wall - 36" Pipe



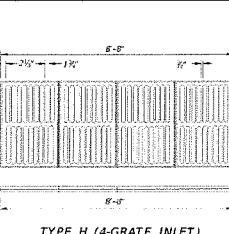
TYPE C
Approx. Weight 235 Lbs.



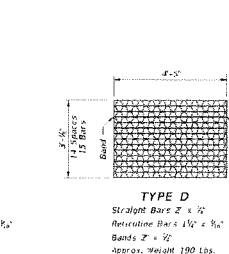
TYPE E
Approx. Weight 485 Lbs.



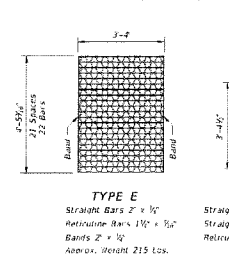
TYPE H (3-GRATE INLET)
Approx. Weight 725 Lbs.



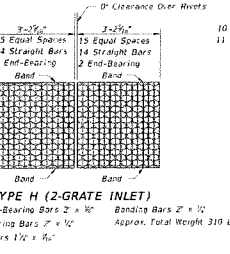
TYPE H (4-GRATE INLET)
Approx. Weight 967 Lbs.



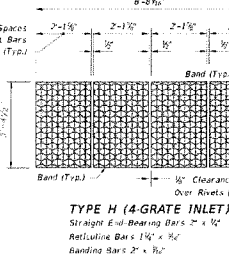
TYPE C
Straight Bars 2" x 1/2"
Reinforcing Bars 1 1/2" x 1/2"
Bands 2" x 1/2"
Approx. Weight 104 Lbs.



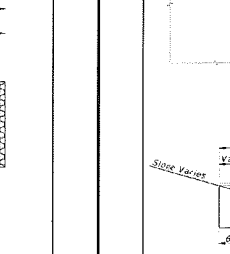
TYPE D
Straight Bars 2" x 1/2"
Reinforcing Bars 1 1/2" x 1/2"
Bands 2" x 1/2"
Approx. Weight 180 Lbs.



TYPE E
Straight Bars 2" x 1/2"
Reinforcing Bars 1 1/2" x 1/2"
Bands 2" x 1/2"
Approx. Weight 215 Lbs.



TYPE H (2-GRATE INLET)
Straight End-Bearing Bars 2" x 1/2"
Straight Bearing Bars 2" x 1/2"
Reinforcing Bars 1 1/2" x 1/2"
Approx. Total Weight 310 Lbs.



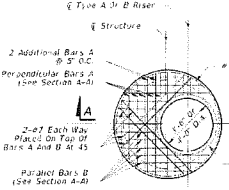
TYPE H (4-GRATE INLET)
Straight End-Bearing Bars 2" x 1/2"
Straight Bearing Bars 2" x 1/2"
Reinforcing Bars 1 1/2" x 1/2"
Approx. Total Weight 388 Lbs.

- GENERAL NOTES**
- These inlets are suitable for bicycle traffic and are to be used in alleys, medians and other areas subject to infrequent traffic loadings but are not to be placed in areas subject to heavy wheel loads. These inlets may be placed in areas subject to occasional pedestrian traffic such as landscaped areas and sidewalk areas where pedestrians can walk around the inlet.
 - Inlets subject to minimal debris should be constructed without slots. Where access in a pavement unit shall be constructed with slots. Slotted inlets located within roadway clear zones and areas subject to pedestrian traffic shall be constructed with slots. The traversable slot modification is not applicable to inlet Type H. Slots may be constructed at either or both ends as shown on plans. Traversable slots shall not be used in areas subject to occasional bicycle traffic.
 - Steel grates are to be used on all inlets where bicycle traffic is anticipated. Steel grates are to be used on all inlets with traversable slots. Either cast iron or steel grates may be used on inlets without slots where bicycle traffic is not anticipated. Either cast iron or steel grates may be used on all inlets with traversable slots.
 - Non-traversable slots: Subject to the selection described above, when Alternate G grate is specified in the plans, either the steel grate, hot dip galvanized after fabrication, or the cast iron grate may be used, unless the plans stipulate the particular type.
 - Recommended maximum pipe sizes shown are for concrete pipe. Size for other types of pipe must be checked for fit.
 - All exposed edges and corners shall be 1/2" chamfer or rounded to 1/2" radius.
 - Concrete inlet pavement to be used on inlets without slots and units with non-traversable slots, only when called for in the plans; but required on all traversable slot inlets. Cost to be included in contract unit price for inlets. Quantities shown are for information only.
 - Traversable slots constructed in existing inlets shall be paid for as inlets, per foot, for replacement and removal of payment for TRaversable SLOT INLETS (PARTIAL) FOR EXISTING INLETS.
 - Sanding to be used on all inlets not located in paved areas and paid for under contract unit price for Performance Turf, 51.
 - For supplementary details see Index No. 201.
 - All reinforcing is Grade 60 bars with 2" min. cover unless otherwise noted. Bars to be cut or bent for 1/2" clearance around pipe opening. Provide the additional #4 bar shown on each side of pipe opening.

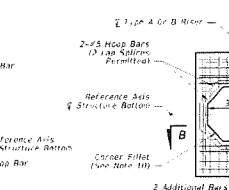
PAVEMENT AND SODDING QUANTITIES FOR TRAVERSABLE SLOTS

Inlet	Pavement		Sod	
	Single Slot	Double Slot	Single Slot	Double Slot
C	1.07	0.77	0.16	0.09
D	5.39	0.91	7.70	1.19
E	5.68	0.91	7.37	1.08

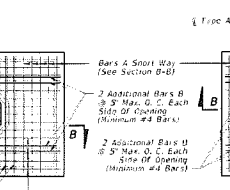
LAST REVISION	DESCRIPTION	INDEX NO.	SHEET NO.
07/01/10		232	3 of 7



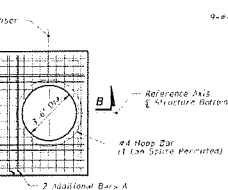
TOP SLAB REINFORCING STEEL DIAGRAM (ALTERNATE A)



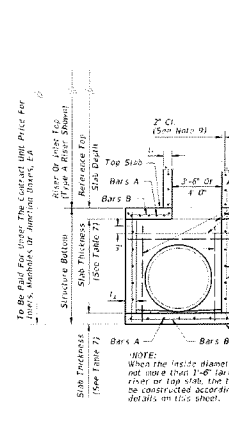
TOP SLAB REINFORCING STEEL DIAGRAM (ALTERNATE B)



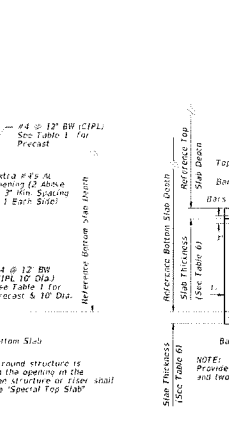
ROUND RISER OPENING



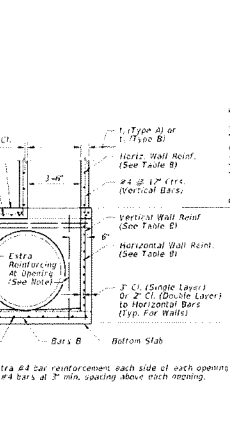
SECTION C-C SPECIAL TOP SLAB



SECTION A-A (ALTERNATE A)



SECTION B-B (ALTERNATE B)



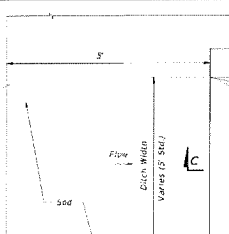
TYPICAL SLAB TO WALL DETAILS FOR PRECAST STRUCTURES

LAST REVISION	DESCRIPTION	INDEX NO.	SHEET NO.
07/01/14		232	1 of 7

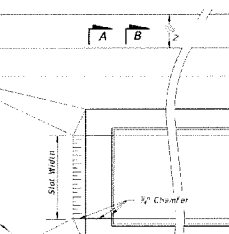
LAST REVISION	DESCRIPTION	INDEX NO.	SHEET NO.
07/01/14		232	1 of 7

LAST REVISION	DESCRIPTION	INDEX NO.	SHEET NO.
07/01/14		232	1 of 7

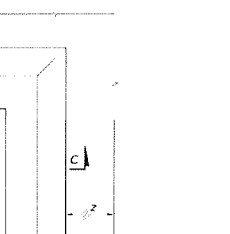
LAST REVISION	DESCRIPTION	INDEX NO.	SHEET NO.
07/01/14		232	1 of 7



TYPE C
Approx. Weight 235 Lbs.



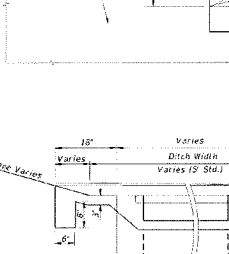
TYPE E
Approx. Weight 485 Lbs.



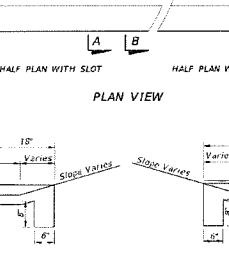
TYPE H (3-GRATE INLET)
Approx. Weight 725 Lbs.



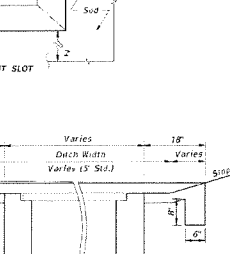
TYPE H (4-GRATE INLET)
Approx. Weight 967 Lbs.



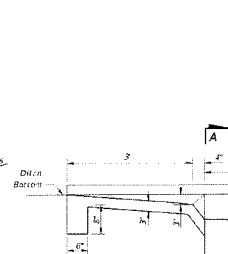
TYPE C
Straight Bars 2" x 1/2"
Reinforcing Bars 1 1/2" x 1/2"
Bands 2" x 1/2"
Approx. Weight 104 Lbs.



TYPE D
Straight Bars 2" x 1/2"
Reinforcing Bars 1 1/2" x 1/2"
Bands 2" x 1/2"
Approx. Weight 180 Lbs.



TYPE E
Straight Bars 2" x 1/2"
Reinforcing Bars 1 1/2" x 1/2"
Bands 2" x 1/2"
Approx. Weight 215 Lbs.



TYPE H (2-GRATE INLET)
Straight End-Bearing Bars 2" x 1/2"
Straight Bearing Bars 2" x 1/2"
Reinforcing Bars 1 1/2" x 1/2"
Approx. Total Weight 310 Lbs.

- GENERAL NOTES**
- These inlets are suitable for bicycle traffic and are to be used in alleys, medians and other areas subject to infrequent traffic loadings but are not to be placed in areas subject to heavy wheel loads. These inlets may be placed in areas subject to occasional pedestrian traffic such as landscaped areas and sidewalk areas where pedestrians can walk around the inlet.
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PAVEMENT AND SODDING QUANTITIES FOR TRAVERSABLE SLOTS

Inlet	Pavement		Sod	
	Single Slot	Double Slot	Single Slot	Double Slot
C	1.07	0.77	0.16	0.09
D	5.39	0.91	7.70	1.19
E	5.68	0.91	7.37	1.08

LAST REVISION	DESCRIPTION	INDEX NO.	SHEET NO.
07/01/07		232	3 of 7

LAST REVISION	DESCRIPTION	INDEX NO.	SHEET NO.
07/01/07		232	3 of 7

LAST REVISION	DESCRIPTION	INDEX NO.	SHEET NO.
07/01/07		232	3 of 7

LAST REVISION	DESCRIPTION	INDEX NO.	SHEET NO.
07/01/07		232	3 of 7

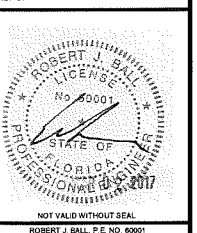


ZEV COHEN & ASSOCIATES, INC.
 CIVIL ENGINEERING - LANDSCAPE ARCHITECTS
 PLANNERS - TRANSPORTATION - ENVIRONMENTAL
 300 N. W. 10th Ave., Suite 200
 ORMOND BEACH, FL 32136
 (386) 677-2482 FAX (386) 677-2505

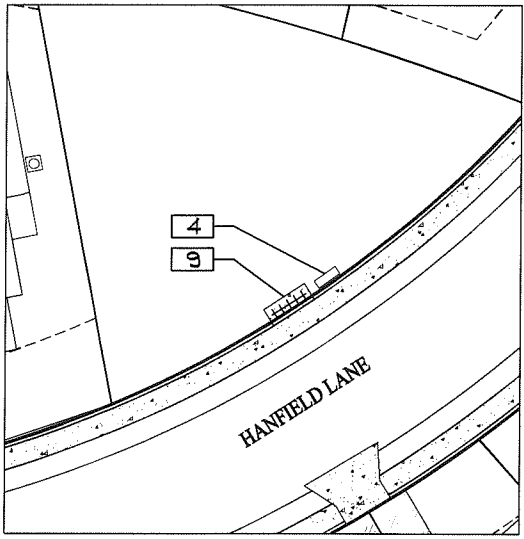
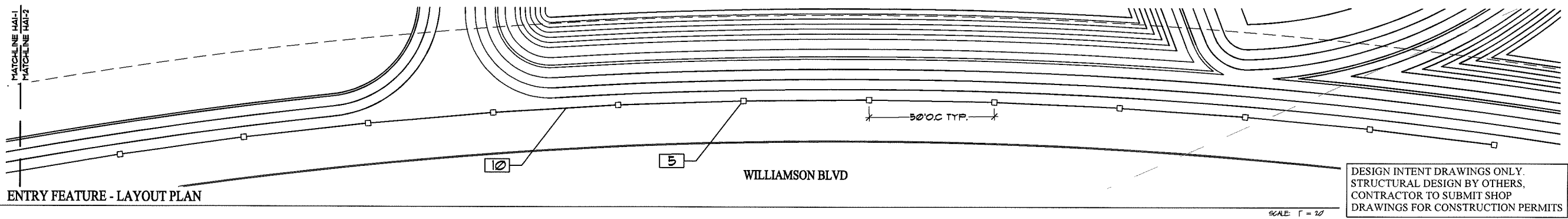
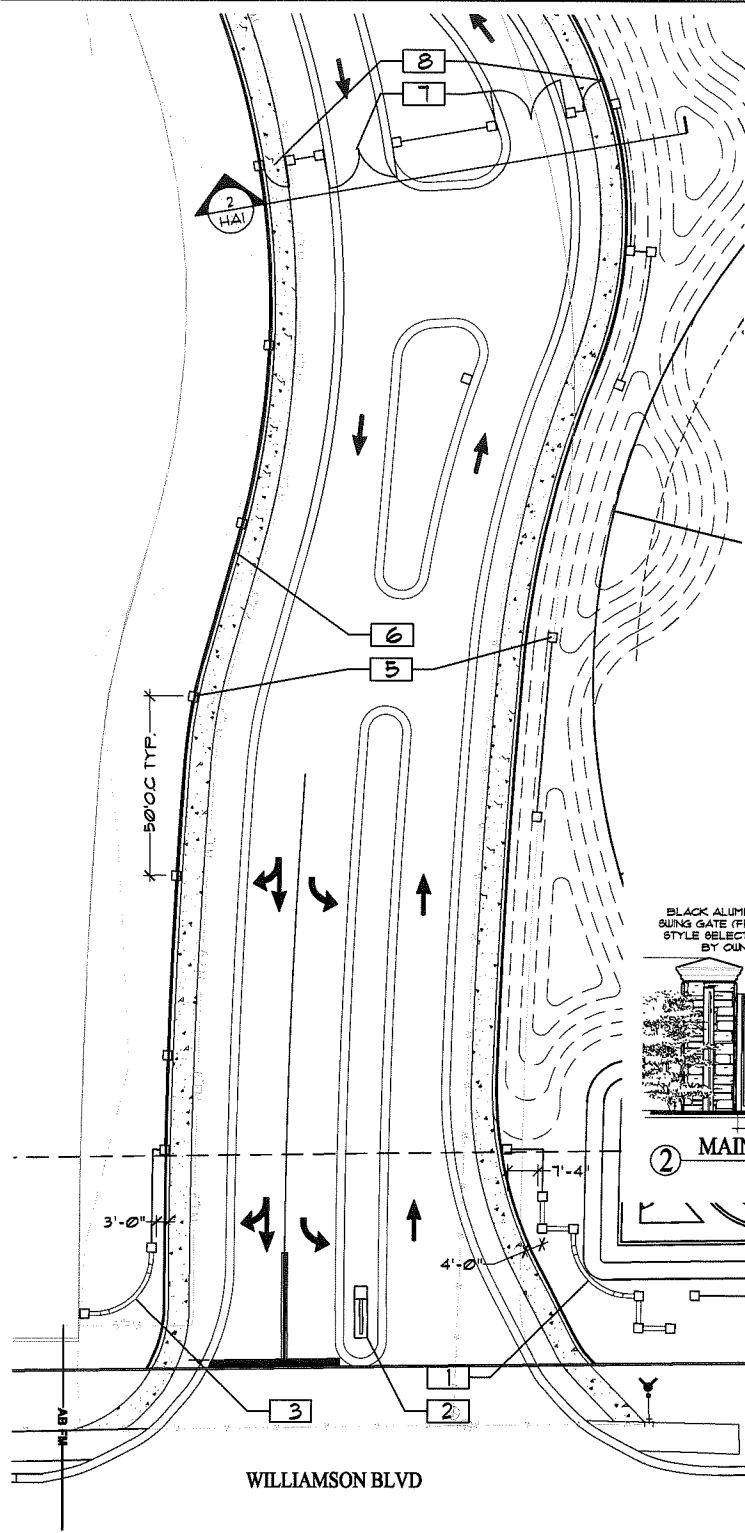
NO.	DATE	REVISIONS
1	07/01/17	Revisions Per City Comments Dated 02/26/17
2	07/01/17	Revisions Per City Comments Dated 02/26/17
3	07/01/17	Revisions Per City Comments Dated 02/26/17

WOODHAVEN
PHASE 1
FINAL ENGINEERING PLANS
CONSTRUCTION DETAILS
 CITY OF PORT ORANGE
 VOLusia COUNTY, FL

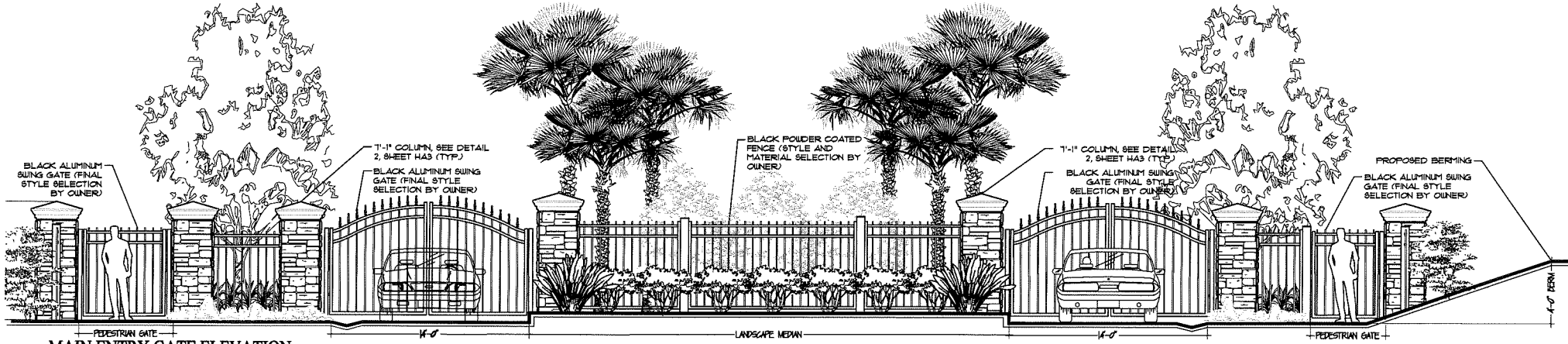
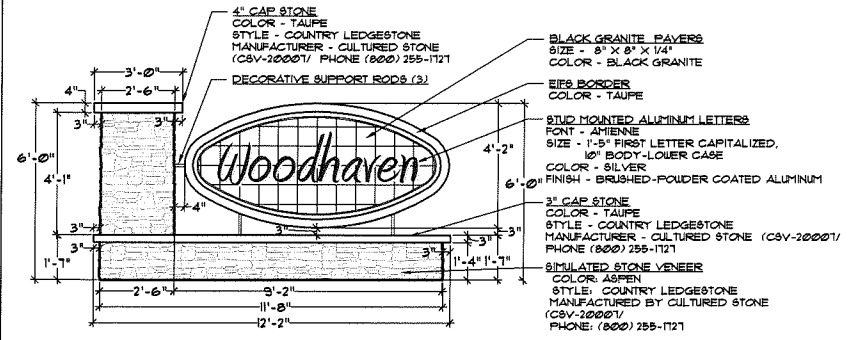
PROJECT NO.: ZC 18011
 ISSUE DATE: 10-28-2016
 DESIGNED BY: HK
 DRAFTED BY: CWTR
 CHECKED BY: BB



SCALE: AS SHOWN
 SHEET: C46 OF 46



- HARDSCAPE LEGEND (SITE AMENITIES)**
- 1 ENTRANCE MONUMENT SIGNAGE (1)
SEE DETAILS 1 & 8, SHEET HA2
 - 2 ENTRANCE MONUMENT SIGNAGE (1)
SEE DETAIL 1 THIS SHEET
 - 3 ENTRANCE MONUMENT SIGNAGE (1)
SEE DETAILS 5 & 6, SHEET HA2
 - 4 BENCH (6) - SEE LANDSCAPE PLANS (LA6)
FOR LOCATIONS (SEE DETAIL 2, SHEET HA2)
VICTOR STANLEY C-5 BENCH, 6' LENGTH
CONTACT: EDDBA BOWEN, SITE HORIZONS,
PHONE: (407) 941-6318
 - 5 COLUMNS (4)
SEE DETAILS 4-HA2 & 2-HA3
 - 6 FENCE
6" BLACK POWDER COATED FENCE SECTION
SEE DETAIL 3, SHEET HA2
 - 7 GATE ASSEMBLY (VEHICULAR)
6" BLACK POWDER COATED FENCE SECTION
SEE DETAIL 2, THIS SHEET
 - 8 GATE ASSEMBLY (PEDESTRIAN)
6" BLACK POWDER COATED FENCE SECTION
SEE DETAIL 2, THIS SHEET
 - 9 BIKE RACK (2 @ 9 EACH)
SEE LANDSCAPE PLANS (LA6) FOR LOCATIONS
MANUFACTURER: RIBBON BIKE RACK COMPANY
PHONE: 1-800-849-3488
 - 10 SCREENING WALL
SEE DETAILS 1, SHEET HA2 & 5, SHEET HA3



POWER OPERATED ACCESS CONTROL GATE SYSTEM SHALL BE EQUIPPED WITH AN AUTOMATIC ACTIVATION SYSTEM ACCEPTABLE BY THE LOCAL AUTHORITY TO ALLOW FOR ACCESS BY RESPONDING FIRE RESCUE. THIS AUTOMATIC ACTIVATION SYSTEM SHALL INCLUDE, BUT NOT BE LIMITED TO, A YELP SIREN, KNOX KEY SWITCH, FIRE DEPARTMENT SECURITY KEY, AND A BACK-UP POWER SOURCE.

ZEV COHEN & ASSOCIATES, INC.
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**WOODHAVEN
PHASE 1
HARDSCAPE PLAN & DETAILS**

ORLANDO BEACH
300 INTERCHANGE BLVD., STE. C
ORLANDO BEACH, FL 32714
(386) 677-2482 FAX (386) 677-2505

EDGEWATER
1140 AIRPARK ROAD
EDGEWATER, FL 32132
(386) 677-2482 FAX (386) 677-2505

NO.	DATE	REVISIONS
1.	3-1-17	REVISED PER STAFF COMMENTS DATED 1-23-17
2.	3-2-17	REVISED PER STAFF COMMENTS DATED 2-16-17

PROJECT NO: 16011

ISSUE DATE: 12-28-16

DESIGNED BY: SMG

DRAFTED BY: SMG

CHECKED BY: SRB

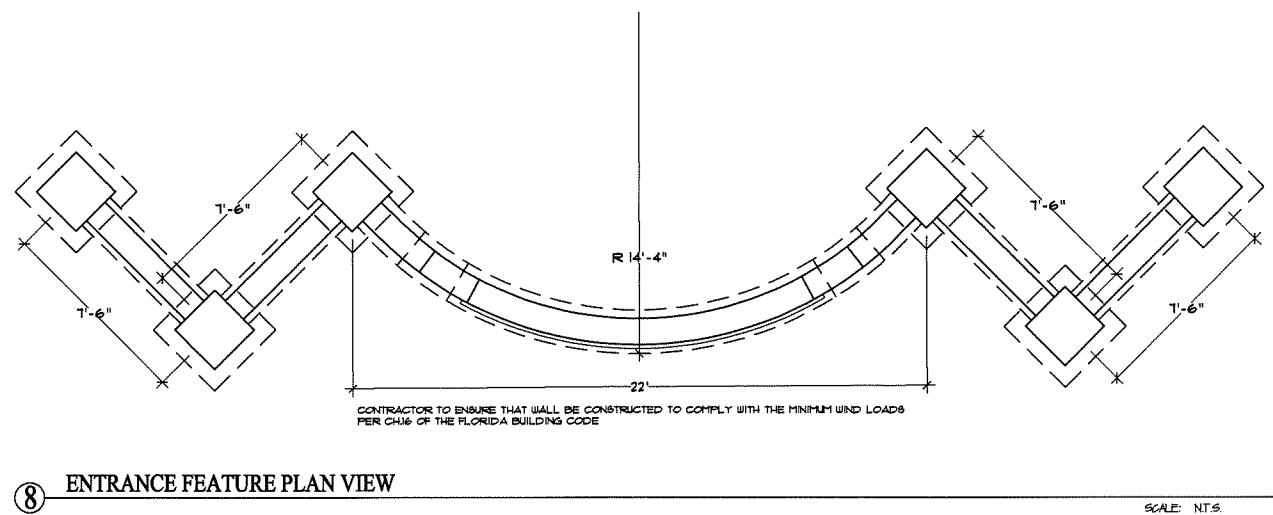
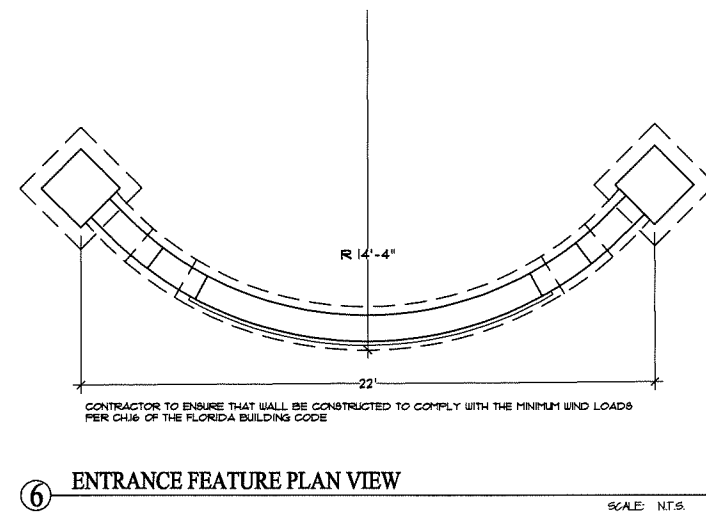
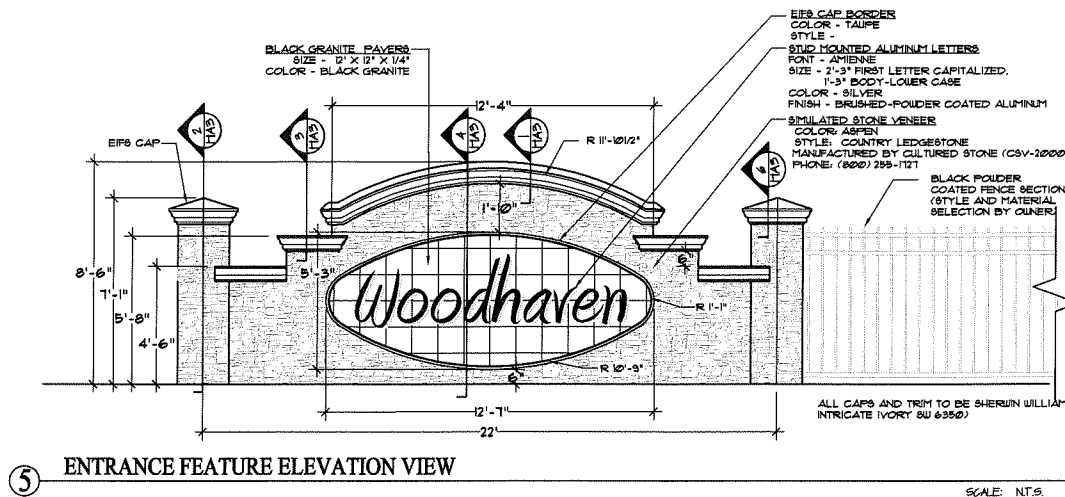
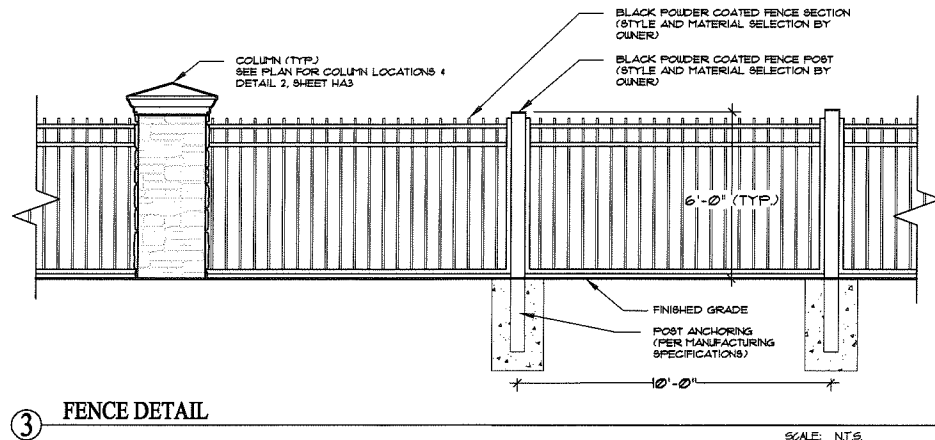
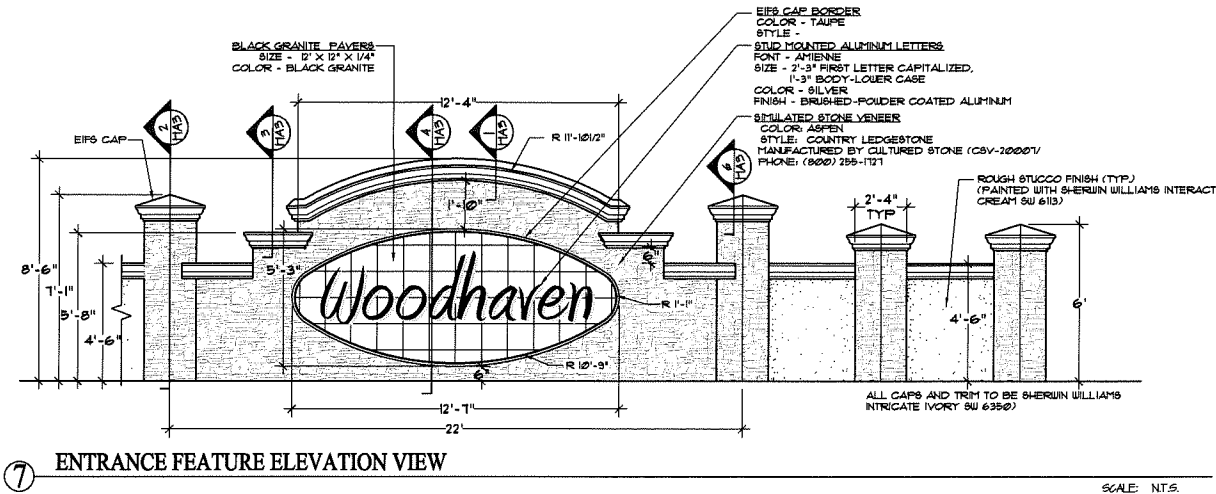
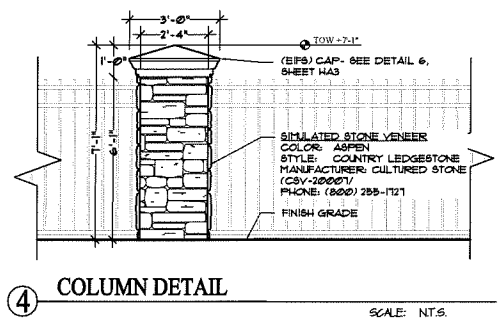
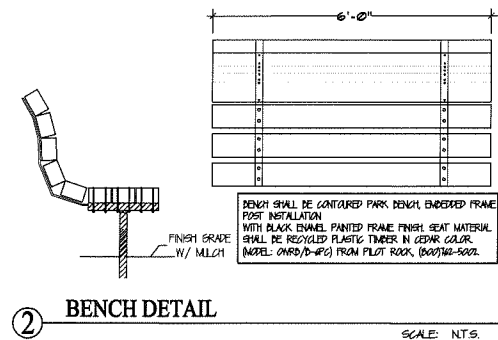
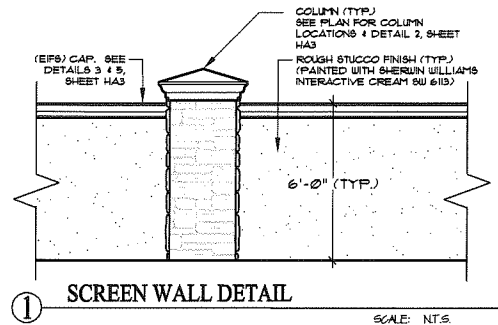
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XREFS: 16011BAS
XREFS:

NOT VALID WITHOUT SEAL

STEPHEN R. BURNS, R.L.A. NO. 986

SCALE:

SHEET: HA1 OF 3



DESIGN INTENT DRAWINGS ONLY.
STRUCTURAL DESIGN BY OTHERS,
CONTRACTOR TO SUBMIT SHOP
DRAWINGS FOR CONSTRUCTION PERMITS

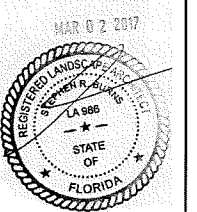


ORMOND BEACH
300 INTERCHANGE BLVD., STE. C
ORMOND BEACH, FL 32174
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WWW.ZEVCOHEN.COM

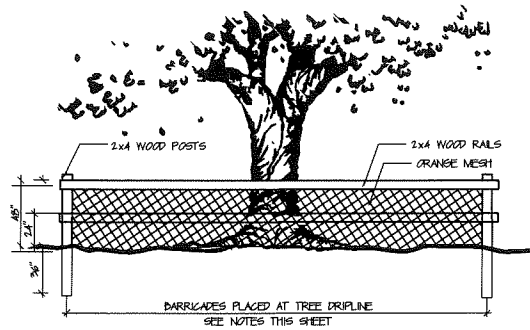
NO.	DATE	REVISIONS
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2	2-2-17	REVISED PER STAFF COMMENTS, DATED 2-16-17

WOODHAVEN
PHASE 1
HARDSCAPE PLAN & DETAILS
VOLUSIA COUNTY, FLORIDA
CITY OF PORT ORANGE

PROJECT NO: 16011
ISSUE DATE: 12-28-16
DESIGNED BY: SMG
DRAFTED BY: SMG
CHECKED BY: SRB
DRAWING FILE: 16011HA
XREF'S: 16011BAS
XREF'S:

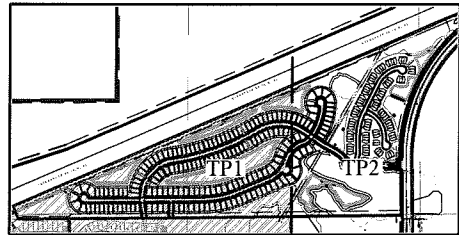


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STEPHEN R. BURNS, R.L.A. NO. 986
SCALE:
SHEET: HA2 OF 3



1 TREE PROTECTION BARRICADE DETAIL
SCALE: N.T.S.

1. PROTECT DESIGNATED EXISTING TREES SCHEDULED TO REMAIN AGAINST:
 - UNNECESSARY CUTTING, BREAKING, OR SKIPPING OF ROOTS
 - GRUBBING AND BRUISING OF BARK
 - SHOOTING OF TREES BY STOCKPILING CONSTRUCTION OR EXCAVATION MATERIALS WITHIN DRIP-LINE
 - FOOT OR VEHICULAR TRAFFIC
 - PARKING VEHICLES WITHIN DRIP-LINE
2. ERECT TEMPORARY WOODEN BARRICADES AS SHOWN ON THIS SHEET. BEFORE COMMENCEMENT OF ANY SITE CLEARING OR GRADING, FENCE TO BE A MINIMUM WITH 2 X 4 POSTS AND 2-X4 RAILS AT 4' AND 4' ABOVE GROUND AND SHALL BE SET DEEP ENOUGH IN THE GROUND TO BE STABLE WITHOUT ADDITIONAL SUPPORT. ALL FENCING SHOULD BE A MINIMUM CLEAR DISTANCE OF 6' FROM THE FACE OF ANY TREES. IF DPH AND UNDER SHALL FULLY ENCLOSE ALL TREES SCHEDULED TO REMAIN. NOTHING SHALL BE PLACED INSIDE OF PROTECTIVE BARRICADES, INCLUDING BUT NOT LIMITED TO CONSTRUCTION MATERIAL, WAREHOUSE, CHEMICALS, OR TEMPORARY SOIL DEPOSITS. ON TREES LARGER THAN 18" DBH, BARRICADES SHALL BE NO CLOSER THAN 12' FROM FACE OF TREE. WHEN PAVING, EXCAVATION, OR HARDSCAPE MUST BE DONE WITHIN BARRICADES, BARRICADES SHALL BE MOVED BACK TO A SECONDARY LOCATION AT EDGE OF WORK. EXTRA CARE MUST BE TAKEN AT THIS TIME BY THE CONTRACTOR TO ENSURE THAT NO DAMAGE TO THE TREE OCCURS.
3. PROVIDE WATER TO TREES AS REQUIRED TO MAINTAIN THEIR HEALTH DURING CONSTRUCTION WORK.
4. NO GRADE CHANGES ARE TO BE MADE WITHIN THE BARRICADES WITHOUT PRIOR APPROVAL OF THE COUNTY FORESTER.



SHEET LAYOUT LEGEND

LEGEND

- EXISTING SPECIMEN TREE TO REMAIN
- EXISTING SPECIMEN TREE TO BE REMOVED
- DENOTES NATURAL PRESERVATION / CONSERVATION AREA TO REMAIN

NOTE: SEE TREE LEGEND FOR SPECIES AND PLAN VIEW FOR DBH.

TREE LEGEND

- MV SWEET BAY MAGNOLIA
- QS SAND LIME OAK

15% NATURAL PRESERVATION

TOTAL SITE AREA	16.5 ACRES
TOTAL PRESERVATION AREA REQUIRED (CALCULATION: 16.5 AC. x 15% = 2.475 AC.)	2.475 ACRES
UNDISTURBED NATURAL PRESERVATION AREA PROVIDED	2.475 ACRES

MINIMUM ON SITE TREES

MINIMUM TREES REQUIRED ON SITE CALCULATION: 5044/200 SF. / 1500 SF. = 3.36	3.36
EXISTING TREES TO BE PRESERVED	304+
NUMBER OF TREES PROVIDED ON LANDSCAPE PLAN	400
NUMBER OF PALMS PROVIDED	2 x 1/2
TOTAL NUMBER OF TREES EXISTING, PLUS PROVIDED	122+

* THE OVERALL TREE COUNT FOR PROPOSED TREES WILL TAKE INTO ACCOUNT THE INDIVIDUAL SINGLE FAMILY LOTS, MULTI-FAMILY BUILDINGS, WILLOWSON BLVD. AND ENTRY FEATURES AND MEDJANS TO MEET THE MINIMUM ON-SITE TREE REQUIREMENTS.

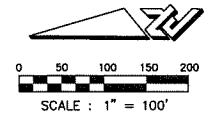
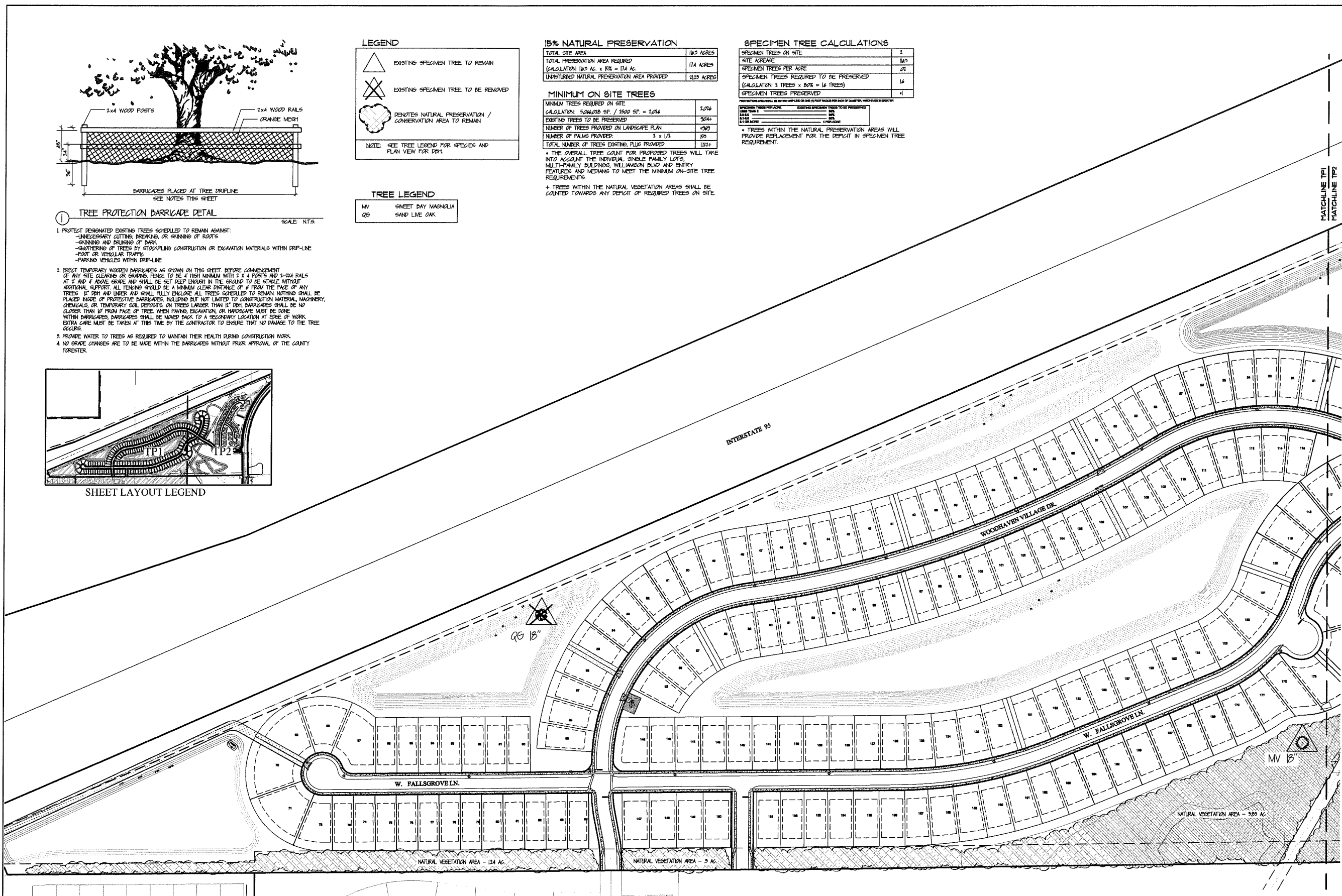
+ TREES WITHIN THE NATURAL VEGETATION AREAS SHALL BE COUNTED TOWARDS ANY DEFICIT OF REQUIRED TREES ON SITE.

SPECIMEN TREE CALCULATIONS

SPECIMEN TREES ON SITE	2
SITE ACREAGE	16.5
SPECIMEN TREES PER ACRE	0.12
SPECIMEN TREES REQUIRED TO BE PRESERVED (CALCULATION: 2 TREES x 80% = 1.6 TREES)	1.6
SPECIMEN TREES PRESERVED	1

PROTECTIVE AREAS SHALL BE SETTING SHIP-LINE OR ONE (2) FOOT BARRIERS FOR EACH OF QUARTER, THREE-QUARTER & FULL-QUARTER

SPECIMEN TREES PER ACRE	EXISTING SPECIMEN TREES TO BE PRESERVED
LESS THAN 1	ONE
1.0 TO 1.99	TWO
2.0 TO 2.99	THREE
3.0 TO 3.99	FOUR
4.0 TO 4.99	FIVE
5.0 TO 5.99	SIX
6.0 TO 6.99	SEVEN
7.0 TO 7.99	EIGHT
8.0 TO 8.99	NINE
9.0 TO 9.99	TEN
10.0 TO 10.99	ELEVEN
11.0 TO 11.99	TWELVE
12.0 TO 12.99	THIRTEEN
13.0 TO 13.99	FOURTEEN
14.0 TO 14.99	FIFTEEN
15.0 TO 15.99	SIXTEEN
16.0 TO 16.99	SEVENTEEN
17.0 TO 17.99	EIGHTEEN
18.0 TO 18.99	NINETEEN
19.0 TO 19.99	TWENTY
20.0 TO 20.99	TWENTY-ONE
21.0 TO 21.99	TWENTY-TWO
22.0 TO 22.99	TWENTY-THREE
23.0 TO 23.99	TWENTY-FOUR
24.0 TO 24.99	TWENTY-FIVE
25.0 TO 25.99	TWENTY-SIX
26.0 TO 26.99	TWENTY-SEVEN
27.0 TO 27.99	TWENTY-EIGHT
28.0 TO 28.99	TWENTY-NINE
29.0 TO 29.99	THIRTY
30.0 TO 30.99	THIRTY-ONE
31.0 TO 31.99	THIRTY-TWO
32.0 TO 32.99	THIRTY-THREE
33.0 TO 33.99	THIRTY-FOUR
34.0 TO 34.99	THIRTY-FIVE
35.0 TO 35.99	THIRTY-SIX
36.0 TO 36.99	THIRTY-SEVEN
37.0 TO 37.99	THIRTY-EIGHT
38.0 TO 38.99	THIRTY-NINE
39.0 TO 39.99	FOURTY
40.0 TO 40.99	FOURTY-ONE
41.0 TO 41.99	FOURTY-TWO
42.0 TO 42.99	FOURTY-THREE
43.0 TO 43.99	FOURTY-FOUR
44.0 TO 44.99	FOURTY-FIVE
45.0 TO 45.99	FOURTY-SIX
46.0 TO 46.99	FOURTY-SEVEN
47.0 TO 47.99	FOURTY-EIGHT
48.0 TO 48.99	FOURTY-NINE
49.0 TO 49.99	FIFTY
50.0 TO 50.99	FIFTY-ONE
51.0 TO 51.99	FIFTY-TWO
52.0 TO 52.99	FIFTY-THREE
53.0 TO 53.99	FIFTY-FOUR
54.0 TO 54.99	FIFTY-FIVE
55.0 TO 55.99	FIFTY-SIX
56.0 TO 56.99	FIFTY-SEVEN
57.0 TO 57.99	FIFTY-EIGHT
58.0 TO 58.99	FIFTY-NINE
59.0 TO 59.99	SIXTY
60.0 TO 60.99	SIXTY-ONE
61.0 TO 61.99	SIXTY-TWO
62.0 TO 62.99	SIXTY-THREE
63.0 TO 63.99	SIXTY-FOUR
64.0 TO 64.99	SIXTY-FIVE
65.0 TO 65.99	SIXTY-SIX
66.0 TO 66.99	SIXTY-SEVEN
67.0 TO 67.99	SIXTY-EIGHT
68.0 TO 68.99	SIXTY-NINE
69.0 TO 69.99	SEVENTY
70.0 TO 70.99	SEVENTY-ONE
71.0 TO 71.99	SEVENTY-TWO
72.0 TO 72.99	SEVENTY-THREE
73.0 TO 73.99	SEVENTY-FOUR
74.0 TO 74.99	SEVENTY-FIVE
75.0 TO 75.99	SEVENTY-SIX
76.0 TO 76.99	SEVENTY-SEVEN
77.0 TO 77.99	SEVENTY-EIGHT
78.0 TO 78.99	SEVENTY-NINE
79.0 TO 79.99	EIGHTY
80.0 TO 80.99	EIGHTY-ONE
81.0 TO 81.99	EIGHTY-TWO
82.0 TO 82.99	EIGHTY-THREE
83.0 TO 83.99	EIGHTY-FOUR
84.0 TO 84.99	EIGHTY-FIVE
85.0 TO 85.99	EIGHTY-SIX
86.0 TO 86.99	EIGHTY-SEVEN
87.0 TO 87.99	EIGHTY-EIGHT
88.0 TO 88.99	EIGHTY-NINE
89.0 TO 89.99	NINETY
90.0 TO 90.99	NINETY-ONE
91.0 TO 91.99	NINETY-TWO
92.0 TO 92.99	NINETY-THREE
93.0 TO 93.99	NINETY-FOUR
94.0 TO 94.99	NINETY-FIVE
95.0 TO 95.99	NINETY-SIX
96.0 TO 96.99	NINETY-SEVEN
97.0 TO 97.99	NINETY-EIGHT
98.0 TO 98.99	NINETY-NINE
99.0 TO 99.99	HUNDRED
100.0 TO 100.99	HUNDRED-ONE
101.0 TO 101.99	HUNDRED-TWO
102.0 TO 102.99	HUNDRED-THREE
103.0 TO 103.99	HUNDRED-FOUR
104.0 TO 104.99	HUNDRED-FIVE
105.0 TO 105.99	HUNDRED-SIX
106.0 TO 106.99	HUNDRED-SEVEN
107.0 TO 107.99	HUNDRED-EIGHT
108.0 TO 108.99	HUNDRED-NINE
109.0 TO 109.99	HUNDRED-TEN
110.0 TO 110.99	HUNDRED-ONE
111.0 TO 111.99	HUNDRED-TWO
112.0 TO 112.99	HUNDRED-THREE
113.0 TO 113.99	HUNDRED-FOUR
114.0 TO 114.99	HUNDRED-FIVE
115.0 TO 115.99	HUNDRED-SIX
116.0 TO 116.99	HUNDRED-SEVEN
117.0 TO 117.99	HUNDRED-EIGHT
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119.0 TO 119.99	HUNDRED-TEN
120.0 TO 120.99	HUNDRED-ONE
121.0 TO 121.99	HUNDRED-TWO
122.0 TO 122.99	HUNDRED-THREE
123.0 TO 123.99	HUNDRED-FOUR
124.0 TO 124.99	HUNDRED-FIVE
125.0 TO 125.99	HUNDRED-SIX
126.0 TO 126.99	HUNDRED-SEVEN
127.0 TO 127.99	HUNDRED-EIGHT
128.0 TO 128.99	HUNDRED-NINE
129.0 TO 129.99	HUNDRED-TEN
130.0 TO 130.99	HUNDRED-ONE
131.0 TO 131.99	HUNDRED-TWO
132.0 TO 132.99	HUNDRED-THREE
133.0 TO 133.99	HUNDRED-FOUR
134.0 TO 134.99	HUNDRED-FIVE
135.0 TO 135.99	HUNDRED-SIX
136.0 TO 136.99	HUNDRED-SEVEN
137.0 TO 137.99	HUNDRED-EIGHT
138.0 TO 138.99	HUNDRED-NINE
139.0 TO 139.99	HUNDRED-TEN
140.0 TO 140.99	HUNDRED-ONE
141.0 TO 141.99	HUNDRED-TWO
142.0 TO 142.99	HUNDRED-THREE
143.0 TO 143.99	HUNDRED-FOUR
144.0 TO 144.99	HUNDRED-FIVE
145.0 TO 145.99	HUNDRED-SIX
146.0 TO 146.99	HUNDRED-SEVEN
147.0 TO 147.99	HUNDRED-EIGHT
148.0 TO 148.99	HUNDRED-NINE
149.0 TO 149.99	HUNDRED-TEN
150.0 TO 150.99	HUNDRED-ONE
151.0 TO 151.99	HUNDRED-TWO
152.0 TO 152.99	HUNDRED-THREE
153.0 TO 153.99	HUNDRED-FOUR
154.0 TO 154.99	HUNDRED-FIVE
155.0 TO 155.99	HUNDRED-SIX
156.0 TO 156.99	HUNDRED-SEVEN
157.0 TO 157.99	HUNDRED-EIGHT
158.0 TO 158.99	HUNDRED-NINE
159.0 TO 159.99	HUNDRED-TEN
160.0 TO 160.99	HUNDRED-ONE
161.0 TO 161.99	HUNDRED-TWO
162.0 TO 162.99	HUNDRED-THREE
163.0 TO 163.99	HUNDRED-FOUR
164.0 TO 164.99	HUNDRED-FIVE
165.0 TO 165.99	HUNDRED-SIX
166.0 TO 166.99	HUNDRED-SEVEN
167.0 TO 167.99	HUNDRED-EIGHT
168.0 TO 168.99	HUNDRED-NINE
169.0 TO 169.99	HUNDRED-TEN
170.0 TO 170.99	HUNDRED-ONE
171.0 TO 171.99	HUNDRED-TWO
172.0 TO 172.99	HUNDRED-THREE
173.0 TO 173.99	HUNDRED-FOUR
174.0 TO 174.99	HUNDRED-FIVE
175.0 TO 175.99	HUNDRED-SIX
176.0 TO 176.99	HUNDRED-SEVEN
177.0 TO 177.99	HUNDRED-EIGHT
178.0 TO 178.99	HUNDRED-NINE
179.0 TO 179.99	HUNDRED-TEN
180.0 TO 180.99	HUNDRED-ONE
181.0 TO 181.99	HUNDRED-TWO
182.0 TO 182.99	HUNDRED-THREE
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200.0 TO 200.99	HUNDRED-ONE



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REVISIONS

NO.	DATE	REVISIONS
1.	3-2-17	REVISED PER STAFF COMMENTS, DATED 2-16-17
2.	3-2-17	REVISED PER STAFF COMMENTS, DATED 2-16-17

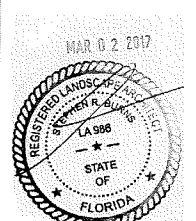
**WOODHAVEN
PHASE 1
TREE PROTECTION PLAN & DETAILS**

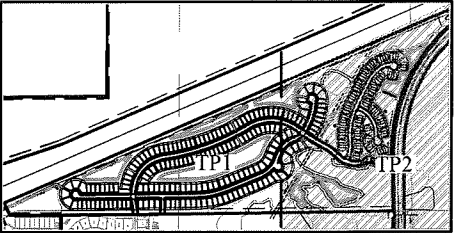
PROJECT NO: 16011
ISSUE DATE: 2-1-17
DESIGNED BY: SMG
DRAFTED BY: SMG
CHECKED BY: SRB
DRAWING FILE: 16011TP
XREFS: 16011 BAS
XREFS:

CITY OF PORT ORANGE
VOLusia COUNTY, FLORIDA

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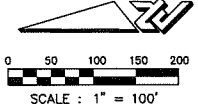
STEPHEN R. BURNS, R.L.A. NO. 986
SCALE: 1" = 100'
SHEET: TP1 OF 2





LEGEND

DENOTES NATURAL PRESERVATION / CONSERVATION AREA TO REMAIN



ZEV COHEN & ASSOCIATES, INC.
CIVIL ENGINEERS • LANDSCAPE ARCHITECTS
PLANNERS • TRANSPORTATION • ENVIRONMENTAL
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EDgewater, FL 32132
(904) 977-2462 FAX (904) 977-2506
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**WOODHAVEN
PHASE 1
TREE PROTECTION PLAN & DETAILS**

PROJECT NO: 16011
ISSUE DATE: 2-1-17
DESIGNED BY: SMG
DRAFTED BY: SMG
CHECKED BY: SRB
DRAWING FILE: 16011TP
XREFS: 16011 BAS
XREFS:

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STEPHEN R. BURNS, R.L.A. NO. 986
SCALE: 1" = 100'
SHEET: TP2 OF 2

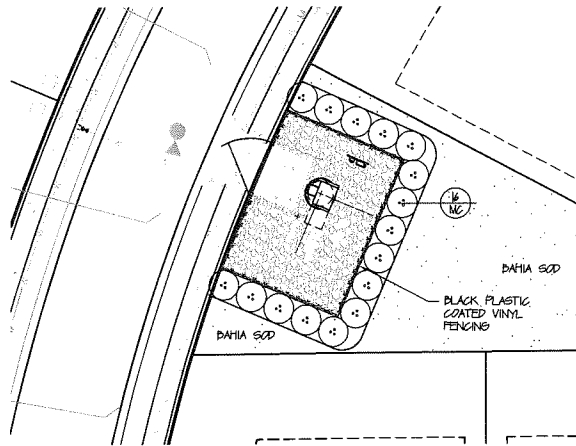
ORMOND BEACH
300 INTERCHANGE BLVD., STE. C
ORMOND BEACH, FL 32174
(386) 977-2462 FAX (386) 977-2506

EDGEWATER
1810 AIRPARK ROAD
EDGEWATER, FL 32132
(904) 977-2462 FAX (904) 977-2506

NO.	DATE	REVISIONS	BY
1.	2-1-17	REVISED PER STAFF COMMENTS, DATED 2-1-17	SMG
2.	2-1-17	REVISED PER STAFF COMMENTS, DATED 2-1-17	SMG

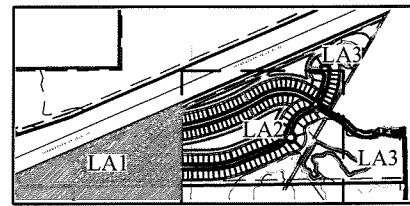
VOLUSIA COUNTY, FLORIDA
CITY OF PORT ORANGE

SINGLE FAMILY - PLANT SCHEDULE			
SYMB.	QTY.	SCIENTIFIC NAME	COMMON NAME
PALMS			
SP	12	SABAL PALMETTO	CABBAGE PALM
TREES			
AR	85	ACER RUBRUM	RED MAPLE
DN	55	DETULA NERA	RIVER BIRCH
IAE	25	ILEX X ATTENUATA 'EAST PALATKA'	EAST PALATKA HOLLY
IAES	29	ILEX X ATTENUATA 'EAGLESTON'	EAGLESTON HOLLY
LI	34	LABERSTROEMIA INDICA 'CHOCOTAW'	PINK GRAPE MYRTLE
LI2	10	LABERSTROEMIA INDICA 'NATCHEZ'	WHITE GRAPE MYRTLE
LJ	89	LIQUSTRUM JAPONICUM TREE FORM	LIQUSTRUM TREE
MC	92	MYRICA CERIFERA	WAX MYRTLE
MS	12	MAGNOLIA GRANDIFLORA 'D.D. BLANCHARD'	D.D. BLANCHARD MAGNOLIA
PE	51	PINUS ELLIOTTII	SLASH PINE
QV	19	QUERUS VIRGINIANA	LIVE OAK
SP	24	SAUK BAYLONICA	WEeping WILLOW
TD	30	TAXODIUM DISTICHUM	BALD CYPRESS
SHRUBS, GROUNDCOVERS, AND VINES			
AA	198	AGAPANTHUS AFRICANUS 'PETER PAN'	DWARF LILY OF THE NILE
EP	832	ELAEAGNUS PUNGENS	SILVERTHORN
JC	78	JUNIPERUS CONFERTA	SHORE JUNIPER
MUC	1007	MUHLENBERGIA CAPILLARIS	MULY GRASS
TF	259	TRIPSACUM FLORIDANUM	DWARF FAKAHATCHEE/FLORIDA BANAGRASS
ZF	256	ZAMIA FLORIDANA (ZAMIA PUMILA)	COONTIE
		SIZE & SPACING	
		VARY CLEAR TRUNK HEIGHTS 8'-16'	
		65 GAL. 3 1/2" CAL., 10' HT.	
		30 GAL. 2 1/2" CAL., 10' HT., TRIPLE TRUNK	
		15 GAL. 1 1/2" CAL., 8' HT.	
		15 GAL. 1 1/2" CAL., 8' HT.	
		15 GAL. 1 1/2" CAL., 8' HT., MULTI-TRUNK	
		15 GAL. 1 1/2" CAL., 8' HT.	
		8' x 8' M.T. 4' C.T. PRUNED	
		45 GAL. 8' HT. X 6' SPRD., 2 1/2" CAL., 4' C.T.	
		30 GAL. 2 1/2" CAL., 10' HT.	
		30 GAL. 2 1/2" CAL., 10' HT.	
		30 GAL. 2 1/2" CAL., 10' HT.	
		45 GAL. 2 1/2" CAL., 1 1/2" 10' HT.	
		30 GAL. 2 1/2" CAL., 10' HT.	
		1 GAL. 8" HT. X 12" SPRD., 18" OC.	
		3 GAL. 24" HT. X 18" SPRD., FULL 36" OC.	
		1 GAL. 12" HT. X 12" SPRD., FULL 18" OC.	
		3 GAL. 18" HT. X 24" SPRD., 30" OC.	
		3 GAL. 24" HT. X 18" SPRD., FULL 36" OC.	
		3 GAL. 24" HT. X 18" SPRD., FULL 36" OC.	

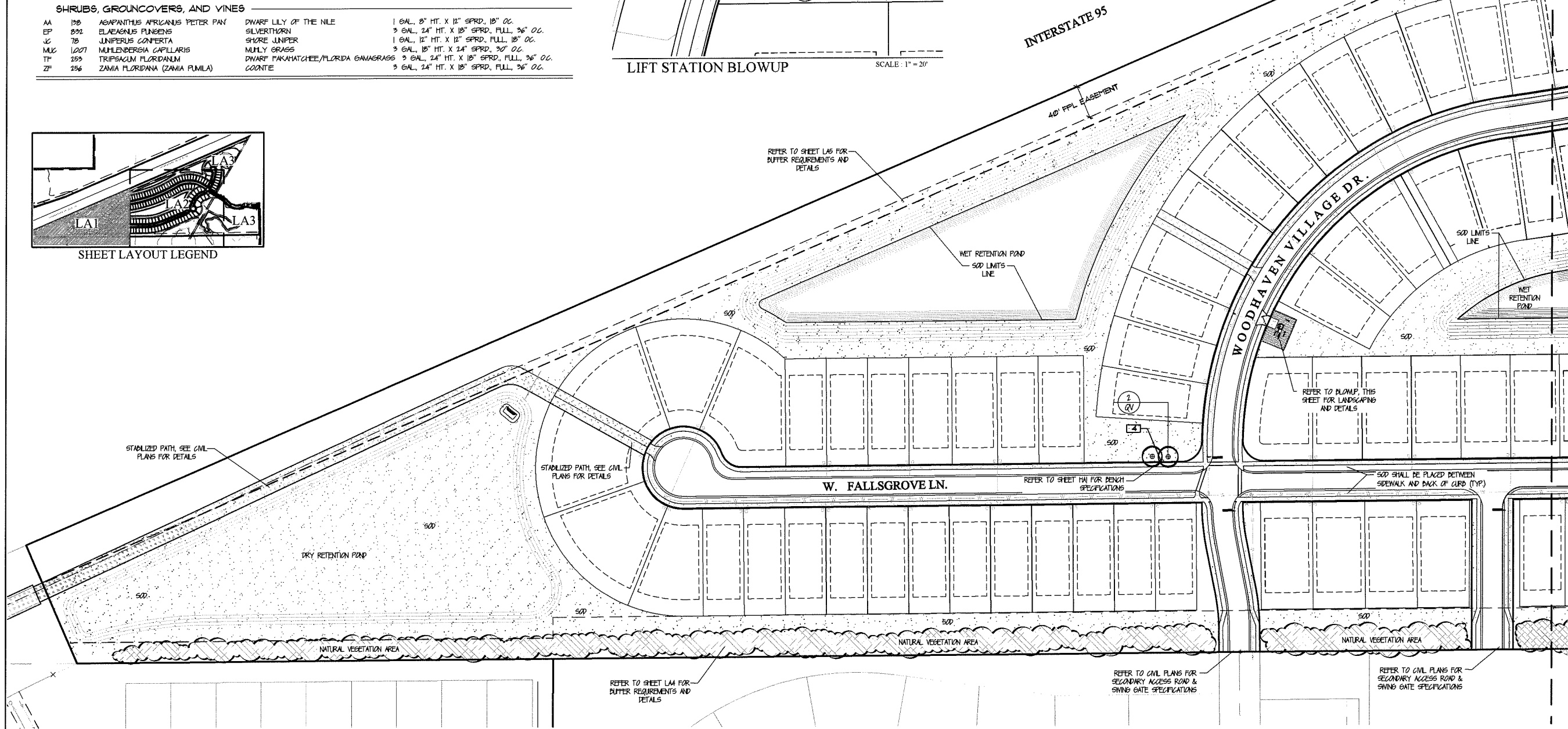


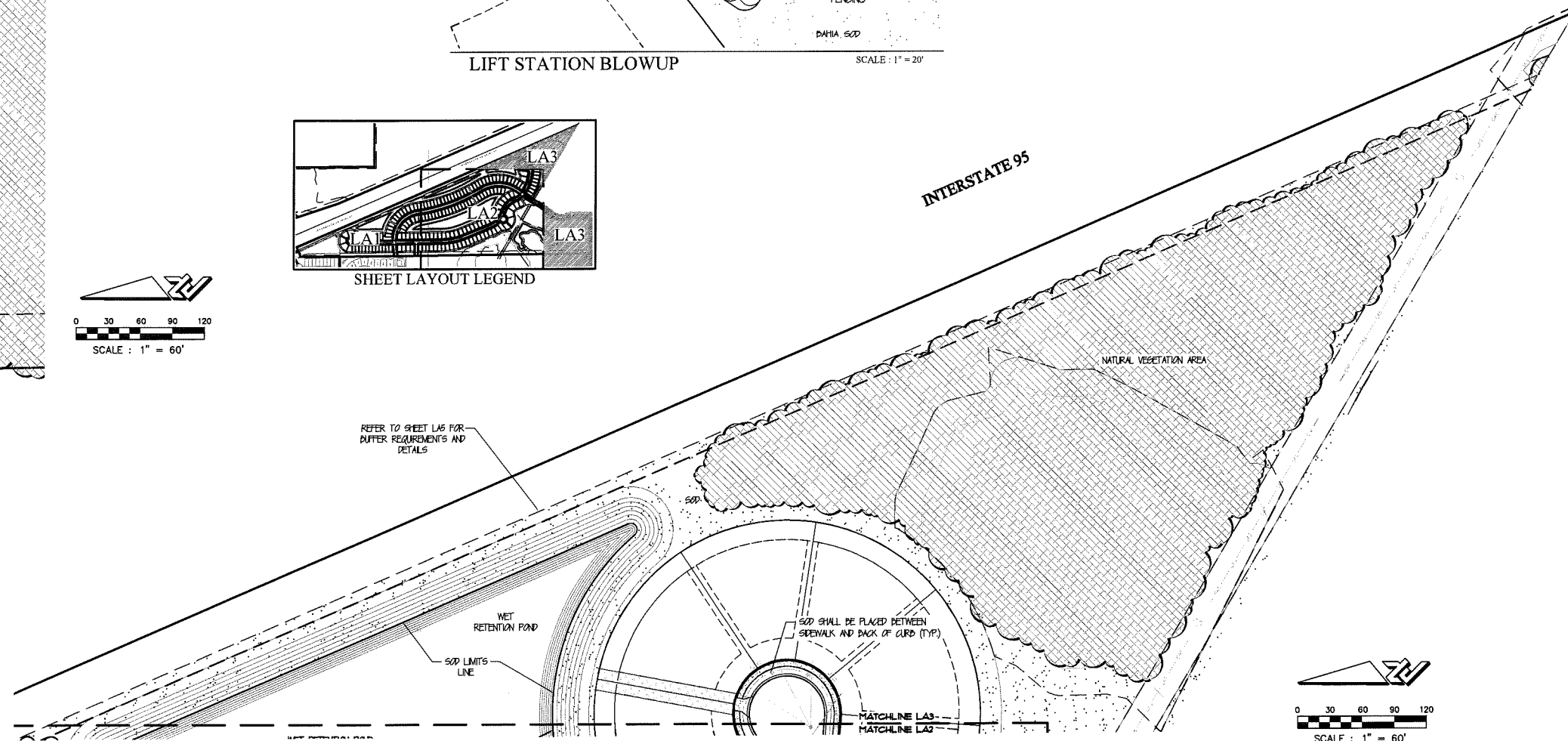
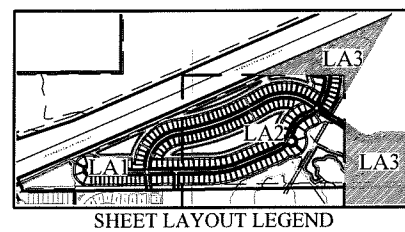
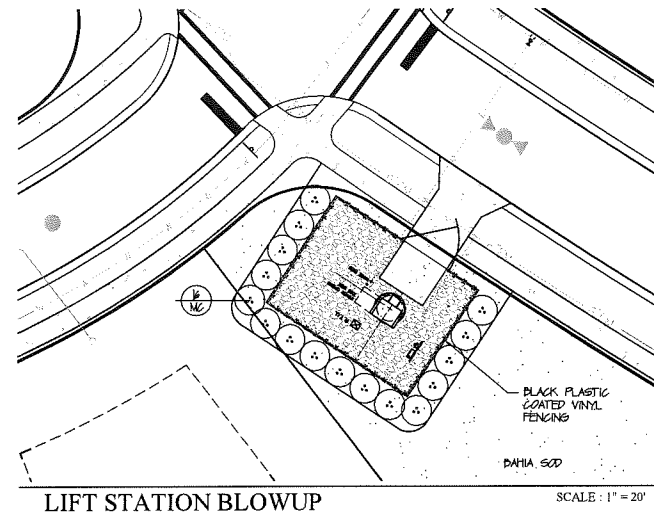
LIFT STATION BLOWUP

SCALE: 1" = 20"



SHEET LAYOUT LEGEND





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ORMOND BEACH, FL 32174
(386) 677-2482 FAX (386) 677-2505

EDGEWATER
1840 AIRPARK ROAD
EDGEWATER, FL 32132
(386) 677-2482 FAX (386) 677-2505

[illegible]

WOODHAVEN
PHASE 1
LANDSCAPE PLAN & DETAILS

VOLUSIA COUNTY, FLORIDA

CITY OF PORT ORANGE

PROJECT NO: 16011

ISSUE DATE: 2-1-17

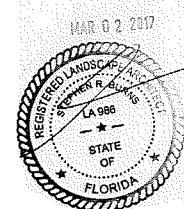
DESIGNED BY: SMG

DRAFTED BY: SMG

CHECKED BY: SRB

DRAWING FILE: 16011L

XREFS:

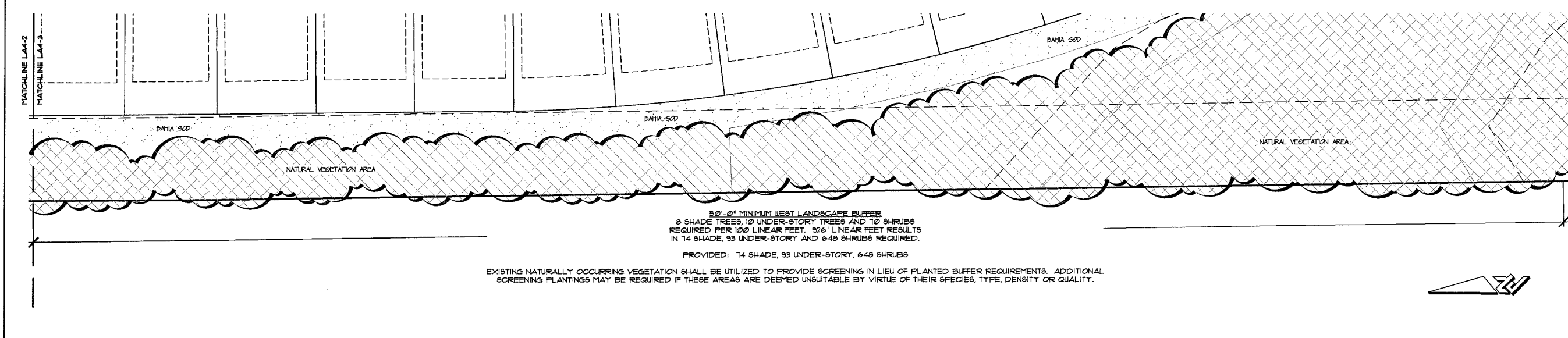


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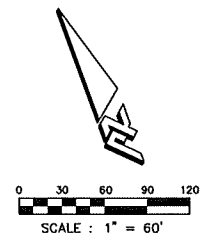
STEPHEN R. BURNS, R.L.A NO. 986

SCALE: 1" = 60'

SHEET: **LA3** OF 10

[illegible]

SYMB	QUN	SCIENTIFIC NAME	COMMON NAME	SIZE & SPACING
TREES				
QV	A	QUERCUS VIRGINIANA	LIVE OAK	30 GAL, 2 1/2" CAL, 10' HT.



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300 INTERCHANGE BLVD., STE. C
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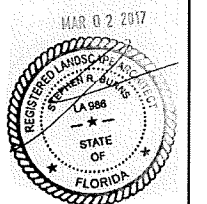
EDGEWATER
1146 AIRPARK ROAD
EDGEWATER, FL 32132
(386) 677-2482 FAX (386) 677-2505

[illegible]

WOODHAVEN
PHASE 1
LANDSCAPE PLAN & DETAILS

UNIT 1 / UNIT OVERVIEW

PROJECT NO: 16011
ISSUE DATE: 2-1-17
DESIGNED BY: SMG
DRAFTED BY: SMG
CHECKED BY: SRB
DRAWING FILE: 16011LA REFS: 16011 BAS REFS:

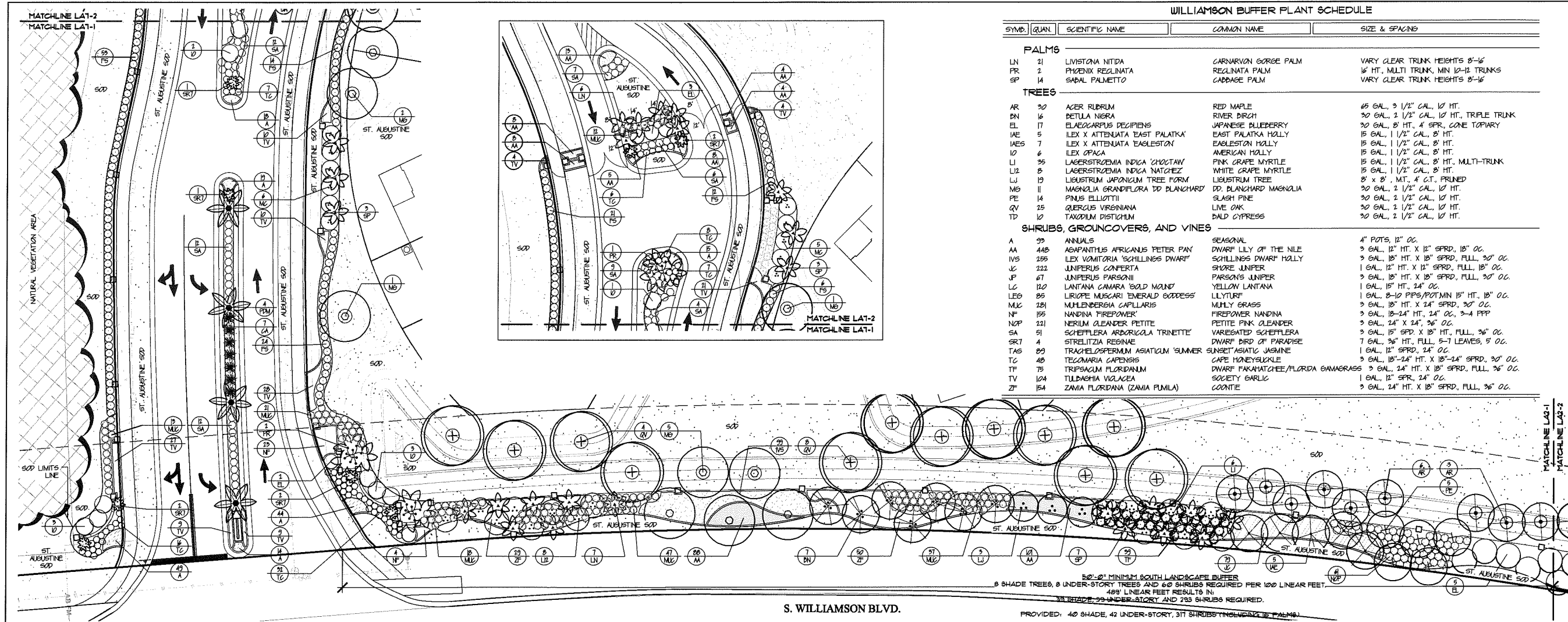


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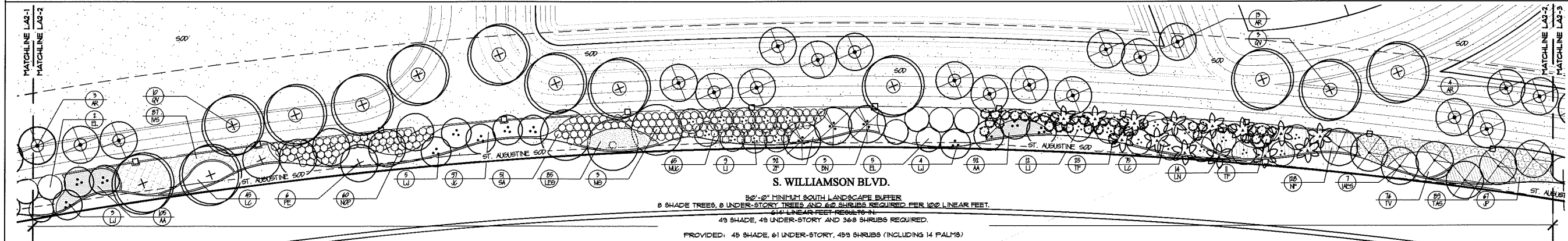
STEPHEN R. BURNS, R.L.A NO. 586

SCALE: 1" = 60'

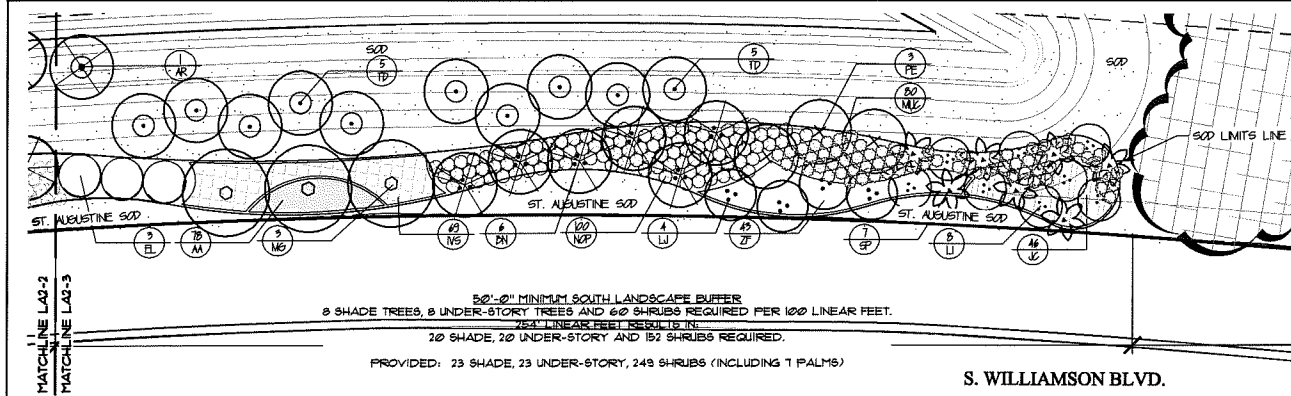
SHEET: LA6 OF 10



WILLIAMSON BUFFER PLANT SCHEDULE				
SYMB.	QUAN.	SCIENTIFIC NAME	COMMON NAME	SIZE & SPACING
PALMS				
LN	21	LIVISTONA NITIDA	CARNARVON GORGE PALM	VARY CLEAR TRUNK HEIGHTS 8'-16'
PR	2	PHOENIX RECLINATA	RECLINATA PALM	16' HT, MULTI TRUNK, MIN 10-12 TRUNKS
SP	14	SABAL PALMETTO	CABBAGE PALM	VARY CLEAR TRUNK HEIGHTS 8'-16'
TREES				
AR	30	ACER RUBRUM	RED MAPLE	65 GAL., 3 1/2" CAL., 10' HT.
BN	16	BETULA NIGRA	RIVER BIRCH	30 GAL., 2 1/2" CAL., 10' HT, TRIPLE TRUNK
EL	17	ELAEAGARUS DECIPENS	JAPANESE BLUEBERRY	30 GAL., 8' HT., 4' SPR., CONE TOPIARY
IE	5	ILEX X ATTENUATA 'EAST PALATKA'	EAST PALATKA HOLLY	15 GAL., 1 1/2" CAL., 8' HT.
IES	7	ILEX X ATTENUATA 'EASLESTON'	EASLESTON HOLLY	15 GAL., 1 1/2" CAL., 8' HT.
IO	6	ILEX OPACA	AMERICAN HOLLY	15 GAL., 1 1/2" CAL., 8' HT.
LI	35	LAGERSTROEMIA INDICA 'CHOCOLAT'	PINK GRAPE MYRTLE	15 GAL., 1 1/2" CAL., 8' HT, MULTI-TRUNK
LI2	8	LAGERSTROEMIA INDICA 'NATCHEZ'	WHITE GRAPE MYRTLE	15 GAL., 1 1/2" CAL., 8' HT.
LJ	19	LIGUSTRUM JAPONICUM TREE FORM	LIGUSTRUM TREE	8' X 8', MT., 4' CT., PRUNED
MG	11	MAGNOLIA GRANDIFLORA 'DD BLANCHARD'	DD. BLANCHARD MAGNOLIA	30 GAL., 2 1/2" CAL., 10' HT.
PE	14	PINUS ELLIOTTII	SLASH PINE	30 GAL., 2 1/2" CAL., 10' HT.
QV	25	QUERCUS VIRGINIANA	LIVE OAK	30 GAL., 2 1/2" CAL., 10' HT.
TD	10	TAEDULUM DISTICHUM	DALY CYPRESS	30 GAL., 2 1/2" CAL., 10' HT.
SHRUBS, GROUNDCOVERS, AND VINES				
A	99	ANNUALS	SEASONAL	4" POTS, 12" OC.
AA	448	AGAPANTHUS AFRICANUS 'PETER PAN'	DWARF LILY OF THE NILE	3 GAL., 12" HT. X 12" SPRD., 18" OC.
IVS	255	ILEX VOMITORIA 'SCHILLINGS DWARF'	SCHILLINGS DWARF HOLLY	3 GAL., 18" HT. X 18" SPRD., FULL, 30" OC.
JC	222	JUNIPERUS CONFERTA	SHORE JUNIPER	1 GAL., 12" HT. X 12" SPRD., FULL, 18" OC.
JP	67	JUNIPERUS PARSONII	PARSONS JUNIPER	3 GAL., 18" HT. X 18" SPRD., FULL, 30" OC.
LC	120	LANTANA CAMARA 'GOLD MOUND'	YELLOW LANTANA	1 GAL., 18" HT., 24" OC.
LEG	85	LIROPE MUSCARI 'EMERALD EXCESSUS'	LILYTURF	1 GAL., 8-10 PIPS/POT/MIN 15" HT., 18" OC.
MLK	281	MULLENBERGIA CAPILLARIS	MULHY GRASS	3 GAL., 18" HT. X 24" SPRD., 30" OC.
NF	155	NANDINA 'FIREPOWER'	FIREPOWER NANDINA	3 GAL., 18-24" HT., 24" SPRD., 3-4 PFP
NOP	221	NEROLIUM CLEANDER PETITE	PETITE PINK CLEANDER	3 GAL., 24" X 24", 36" OC.
SA	91	SCHEFFLERA ARDORICOLA 'TRINETTE'	VARIEGATED SCHEFFLERA	3 GAL., 18" SPD. X 18" HT., FULL, 36" OC.
SR7	4	STRELITZIA REGINAE	DWARF BIRD OF PARADISE	7 GAL., 36" HT., FULL, 5-7 LEAVES, 5' OC.
TAS	89	TECAHOLLOPSIS ASIATICUM 'SUMMER SANGATASIA'	CAPE HONEYSUCKLE	1 GAL., 12" SPRD., 24" OC.
TC	45	TECAHOLLOPSIS ASIATICUM 'SUMMER SANGATASIA'	CAPE HONEYSUCKLE	3 GAL., 18-24" HT. X 18-24" SPRD., 30" OC.
TF	75	TREESACUM FLORIDANUM	DWARF PAKAHATCHEE/FLORIDA BANAGRASS	3 GAL., 24" HT. X 18" SPRD., FULL, 36" OC.
TV	104	TULBASHIA VIOLACEA	SOCIETY GARLIC	1 GAL., 12" SPD., 24" OC.
ZF	154	ZAMIA FLORIDANA (ZAMIA FUMILA)	COONTE	3 GAL., 24" HT. X 18" SPRD., FULL, 36" OC.



MAIN ENTRY-MEDIAN PLANT SCHEDULE				
SYMB.	QUAN.	SCIENTIFIC NAME	COMMON NAME	SIZE & SPACING
PALMS				
LN	4	LIVISTONA NITIDA	CARNARVON GORGE PALM	VARY CLEAR TRUNK HEIGHTS 8'-16'
PR	1	PHOENIX DACTYLIFERA 'MEDJOL'	MEDJOL DATE PALM	12' CT., SPECIMEN
FR	1	PHOENIX RECLINATA	RECLINATA PALM	16' HT, MULTI TRUNK, MIN 10-12 TRUNKS
SP	6	SABAL PALMETTO	CABBAGE PALM	VARY CLEAR TRUNK HEIGHTS 8'-16'
TREES				
EL	3	ELAEAGARUS DECIPENS	JAPANESE BLUEBERRY	30 GAL., 8' HT., 4' SPR., CONE TOPIARY
IO	3	ILEX OPACA	AMERICAN HOLLY	15 GAL., 1 1/2" CAL., 8' HT.
MC	11	MYRTICA CERIFERA	WAX MYRTLE	45 GAL., 8' HT. X 6' SPRD., 2 1/2" CAL., 4' CT.
MG	4	MAGNOLIA GRANDIFLORA 'DD BLANCHARD'	DD. BLANCHARD MAGNOLIA	30 GAL., 2 1/2" CAL., 10' HT.
SHRUBS, GROUNDCOVERS, AND VINES				
A	66	ANNUALS	SEASONAL	4" POTS, 12" OC.
AA	27	AGAPANTHUS AFRICANUS 'PETER PAN'	DWARF LILY OF THE NILE	3 GAL., 12" HT. X 12" SPRD., 18" OC.
CA	7	CRinum ASIATICUM	CRINUM LILY	3 GAL., 20"-36" O.A., SPECIMEN
EG	14	EVOLVULUS GLAUCERATUS 'BLUE MY MIND'	BLUE DATE	1 GAL., 8" HT. X 8" SPRD., 18" OC.
FS	190	FENDIA SELLOWIANA	PINEAPPLE GUAVA	7 GAL., 24" HT. X 18-24" SPRD., 36" OC.
MLK	12	MULLENBERGIA CAPILLARIS	MULHY GRASS	3 GAL., 18" HT. X 24" SPRD., 30" OC.
SA	62	SCHEFFLERA ARDORICOLA 'TRINETTE'	VARIEGATED SCHEFFLERA	3 GAL., 18" SPD. X 18" HT., FULL, 36" OC.
SR7	4	STRELITZIA REGINAE	DWARF BIRD OF PARADISE	7 GAL., 36" HT., FULL, 5-7 LEAVES, 5' OC.
TC	25	TECAHOLLOPSIS ASIATICUM	CAPE HONEYSUCKLE	3 GAL., 18-24" HT. X 18-24" SPRD., 30" OC.
TV	91	TULBASHIA VIOLACEA	SOCIETY GARLIC	1 GAL., 12" SPD., 24" OC.



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EDGEWATER, FL 32132
(386) 677-2482 FAX (386) 677-2555

NO.	DATE	REVISIONS
1	2-1-17	REVISED PER STAFF COMMENTS, DATED 2-3-17
2	3-2-17	REVISED PER STAFF COMMENTS, DATED 3-16-17

WOODHAVEN
PHASE 1
LANDSCAPE PLAN & DETAILS

FLORIDA
VOLusia COUNTY
CITY OF PORT ORANGE

PROJECT NO: 16011
ISSUE DATE: 2-1-17
DESIGNED BY: SMG
DRAFTED BY: SMG
CHECKED BY: SRB
DRAWING FILE: 16011LA
XREF'S: 16011BAS
XREF'S:

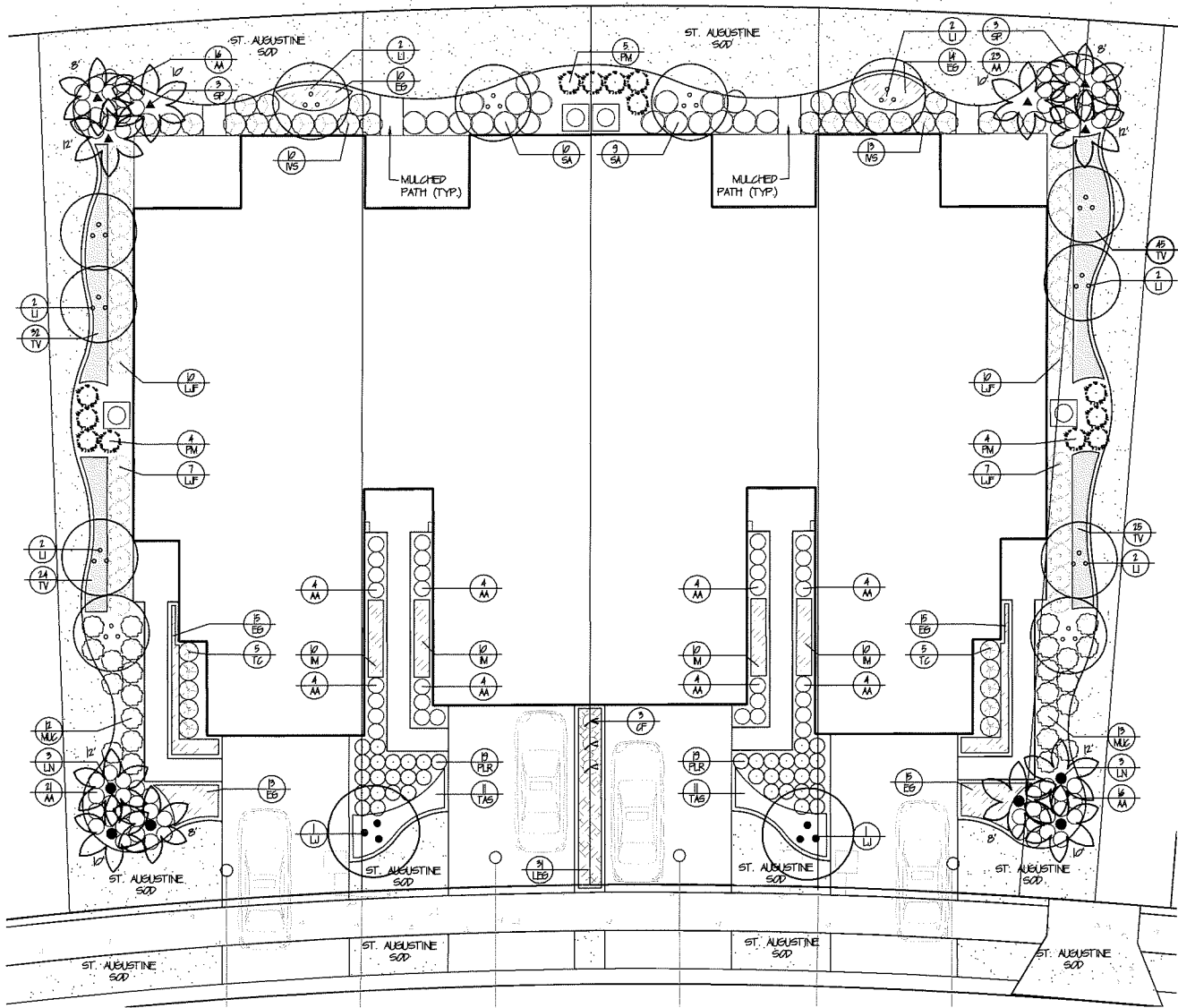
MAR 02 2017
REGISTERED LANDSCAPE ARCHITECT
STEPHEN R. BURNS, R.L.A. NO. 986
STATE OF FLORIDA
NOT VALID WITHOUT SEAL

SCALE: 1" = 20'
SHEET: LA7 OF 10

4 - UNIT PLANT SCHEDULE (x 17 BUILDINGS)

SYMB.	QUAN.	SCIENTIFIC NAME	COMMON NAME	SIZE & SPACING
PALMS				
LN	102	LIVISTONA NITIDA	CARNARVON GORSE PALM	SEE PLAN FOR CLEAR TRUNK HT'S
SP	102	SADAL PALMETTO	CABBAGE PALM	SEE PLAN FOR C.T. HT'S, REMOVE BOOTS 6'
TREES				
LI	204	LAGERSTROEMIA INDICA 'CHOCTAW'	PINK GRAPE MYRTLE	15 GAL., 1 1/2" CAL., 5' HT., MULTI-TRUNK
LJ	34	LIGUSTRUM JAPONICUM TREE FORM	LIGUSTRUM TREE	5' x 5', M.T., 4' C.T., PRUNED
SHRUBS, GROUNDCOVERS, AND VINES				
AA	1256	AGAPANTHUS AFRICANUS PETER PAN	DWARF LILY OF THE NILE	1 GAL., 5" HT. X 12" SPRD., 15" OC.
CF	51	CORDYLINE FRUTICOSA	TI PLANT	3 GAL., 24" HT. X 15-24" SPRD., 3 PPP
EB	1394	EVOLVULUS GLUMERATUS 'BLUE MY MIND'	BLUE DAZE	1 GAL., 5" HT. X 8" SPRD., 15" OC.
IM	680	IKORA NORA GRANT	DWARF IKORA	3 GAL., 15" HT. X 15" SPRD., FULL, 30" OC.
NS	321	ILEX VOMITORIA 'SCHILLINGS DWARF'	SCHILLINGS DWARF HOLLY	3 GAL., 15" HT. X 15" SPRD., FULL, 30" OC.
LEG	527	LIRIOPE MUSCARI 'EMERALD GODDESS'	LILYTURF	1 GAL., 8-10 PIPS/POT/MIN 15" HT., 15" OC.
LJF	575	LIGUSTRUM JAPONICA 'JACK FROST'	JACK FROST PRIVET	3 GAL., 24" HT. X 24" SPRD., 30" OC.
MUG	425	MULLENBERGIA CAPILLARIS	MULLY GRASS	3 GAL., 15" HT. X 24" SPRD., 30" OC.
PLR	646	PENTAS LANCEOLATA RUBY RED	RED PENTAS	1 PINT, MIN. 10" HT., 24" OC.
PM	221	PODOCARPUS MACROPHYLLA	YEW PODOCARPUS	3 GAL., 3" HT. X 15-24" SPRD., 2' OC.
SA	323	SCHEFFLERA ARBORICOLA 'TRINETTE'	VAREGATED SCHEFFLERA	3 GAL., 15" SPD. X 15" HT., FULL, 36" OC.
TAS	374	TRACHELOSPERMUM ASIATICUM 'SUMMER'	SUNSET ASIATIC JASMINE	1 GAL., 12" SPRD., 24" OC.
TC	170	TEUCOMARIA CAPENSIS	CAPE HONEYSUCKLE	3 GAL., 15-24" HT. X 15-24" SPRD., 30" OC.
TV	2142	TULBAGHIA VIOLACEA	SOCIETY GARLIC	1 GAL., 12" SFR., 15" OC.

* QUANTITIES SHOWN ABOVE INDICATE FULL BUILDOUT, A TOTAL OF 17 BUILDING



4-UNIT TOWNHOME PROTOTYPE
(SEE THIS SHEET FOR PLANT LEGEND SPECIFIC TO PROTOTYPE)

4 - UNIT FOUNDATION PLANTINGS

PLDG. PERIMETER = 556 LF	REQUIREMENT	REQUIRED	PROVIDED
PLANTS	1 PER 1 LF PLDG.	556	574
UNDERSTORY TREE	1 PER 30 LF PLDG.	19	20

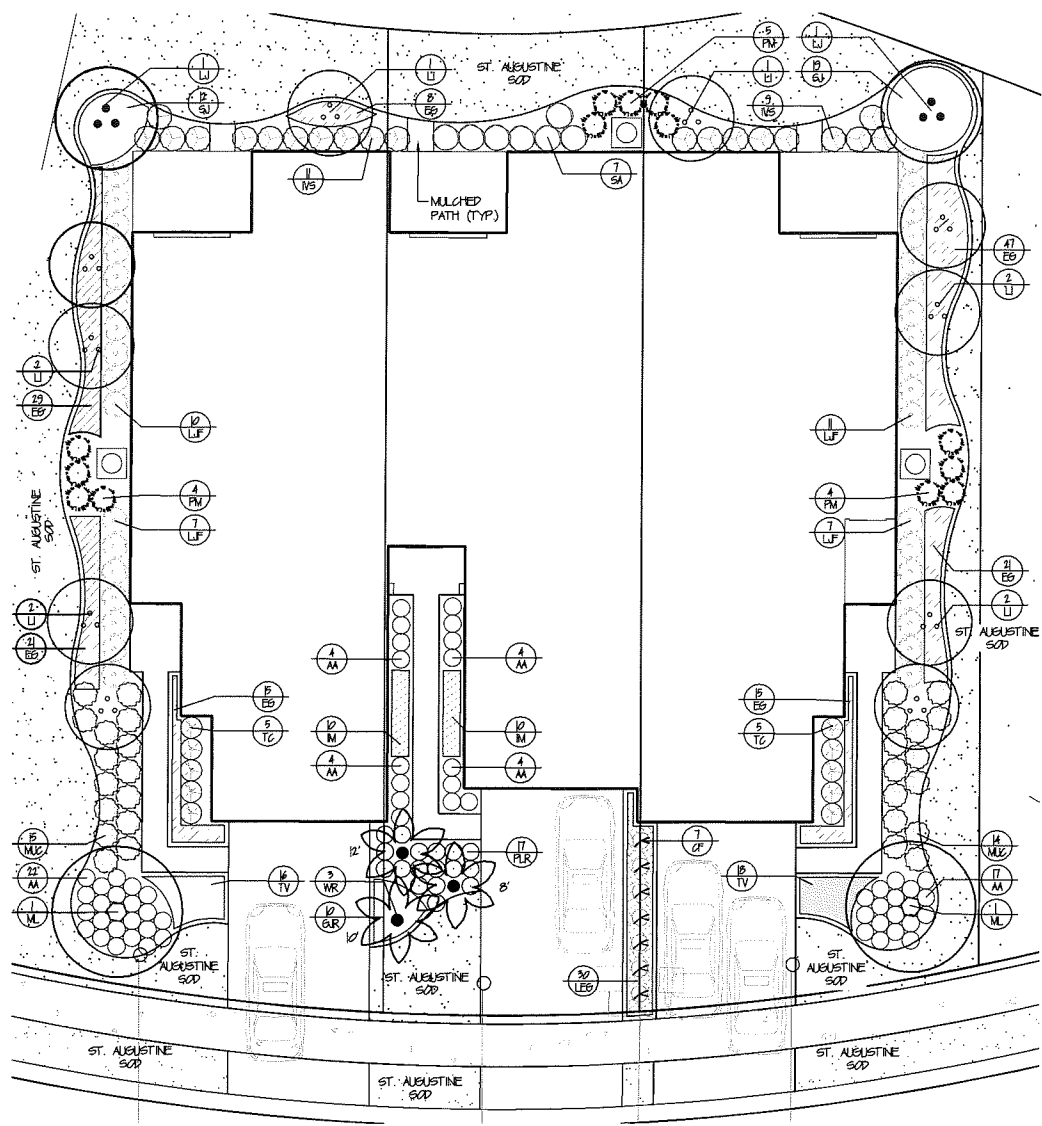
* (2) PALMS ARE COUNTED AS (1) UNDERSTORY TREE

SCALE: 1" = 10'

3 - UNIT PLANT SCHEDULE (X 7 BUILDINGS)

SYMB.	QUAN.	SCIENTIFIC NAME	COMMON NAME	SIZE & SPACING
PALMS				
WR	21	WASHINGTONIA ROBUSTA	WASHINGTON PALM	SEE PLAN FOR C.T. HT'S, REMOVE BOOTS 6'
TREES				
LI	70	LAGERSTROEMIA INDICA 'CHOCTAW'	PINK GRAPE MYRTLE	15 GAL., 1 1/2" CAL., 5' HT., MULTI-TRUNK
LJ	14	LIGUSTRUM JAPONICUM TREE FORM	LIGUSTRUM TREE	5' x 5', M.T., 4' C.T., PRUNED
ML	14	MAGNOLIA GRANDIFLORA 'LITTLE GEM'	LITTLE GEM MAGNOLIA	30 GAL., 2 1/2" CAL., 10' HT.
SHRUBS, GROUNDCOVERS, AND VINES				
AA	365	AGAPANTHUS AFRICANUS PETER PAN	DWARF LILY OF THE NILE	1 GAL., 5" HT. X 12" SPRD., 15" OC.
CF	43	CORDYLINE FRUTICOSA	TI PLANT	3 GAL., 24" HT. X 15-24" SPRD., 3 PPP
EB	1032	EVOLVULUS GLUMERATUS 'BLUE MY MIND'	BLUE DAZE	1 GAL., 5" HT. X 8" SPRD., 15" OC.
GR	70	GARDEIA JASMINOIDES RADICANS	GARDEIA	3 GAL., 15" HT. X 15" SPRD., FULL, 30" OC.
IM	140	IKORA NORA GRANT	DWARF IKORA	3 GAL., 15" HT. X 15" SPRD., FULL, 30" OC.
NS	140	ILEX VOMITORIA 'SCHILLINGS DWARF'	SCHILLINGS DWARF HOLLY	3 GAL., 15" HT. X 15" SPRD., FULL, 30" OC.
LEG	210	LIRIOPE MUSCARI 'EMERALD GODDESS'	LILYTURF	1 GAL., 8-10 PIPS/POT/MIN 15" HT., 15" OC.
LJF	245	LIGUSTRUM JAPONICA 'JACK FROST'	JACK FROST PRIVET	3 GAL., 24" HT. X 24" SPRD., 30" OC.
MUG	205	MULLENBERGIA CAPILLARIS	MULLY GRASS	3 GAL., 15" HT. X 15" SPRD., 30" OC.
PLR	119	PENTAS LANCEOLATA RUBY RED	RED PENTAS	1 PINT, MIN. 10" HT., 24" OC.
PM	31	PODOCARPUS MACROPHYLLA	YEW PODOCARPUS	3 GAL., 3" HT. X 15-24" SPRD., 2' OC.
SA	49	SCHEFFLERA ARBORICOLA 'TRINETTE'	VAREGATED SCHEFFLERA	3 GAL., 15" SPD. X 15" HT., FULL, 36" OC.
SJ	217	SPIRAEA JAPONICA 'GOLDMOUND'	GOLDMOUND SPIRAEA	3 GAL., 24" HT. X 24" SPRD., 24" OC.
TC	70	TEUCOMARIA CAPENSIS	CAPE HONEYSUCKLE	3 GAL., 15-24" HT. X 15-24" SPRD., 30" OC.
TV	323	TULBAGHIA VIOLACEA	SOCIETY GARLIC	1 GAL., 12" SFR., 15" OC.

* QUANTITIES SHOWN ABOVE INDICATE FULL BUILDOUT, A TOTAL OF 7 BUILDING



3-UNIT TOWNHOME PROTOTYPE
(SEE THIS SHEET FOR PLANT LEGEND SPECIFIC TO PROTOTYPE)

3 - UNIT FOUNDATION PLANTINGS

PLDG. PERIMETER = 421 LF	REQUIREMENT	REQUIRED	PROVIDED
PLANTS	1 PER 1 LF PLDG.	421	483
UNDERSTORY TREE	1 PER 30 LF PLDG.	14	15

* (2) PALMS ARE COUNTED AS (1) UNDERSTORY TREE

SCALE: 1" = 10'

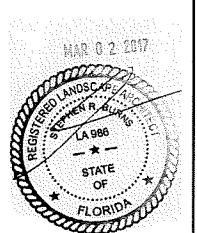


ZEV COHEN & ASSOCIATES, INC.
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EDGEWATER, FL 32132
1400 W. WEAVER BLVD., SUITE 100
(386) 677-2482 FAX (386) 677-2505

NO.	DATE	REVISIONS
1.	2-1-17	REVISED PER STAFF COMMENTS, DATED 12-3-17
2.	3-2-17	REVISED PER STAFF COMMENTS, DATED 2-16-17

WOODHAVEN
PHASE 1
LANDSCAPE PLAN & DETAILS
CITY OF PORT ORANGE
VOLusia COUNTY, FLORIDA

PROJECT NO: 16011
ISSUE DATE: 2-1-17
DESIGNED BY: SMG
DRAFTED BY: SMG
CHECKED BY: SRB
DRAWING FILE: 16011A
XREFS: 16011 BAS
XREFS:



NOT VALID WITHOUT SEAL
STEPHEN R. BURNS, R.L.A. NO. 986
SCALE:
SHEET: **LA8** OF **10**

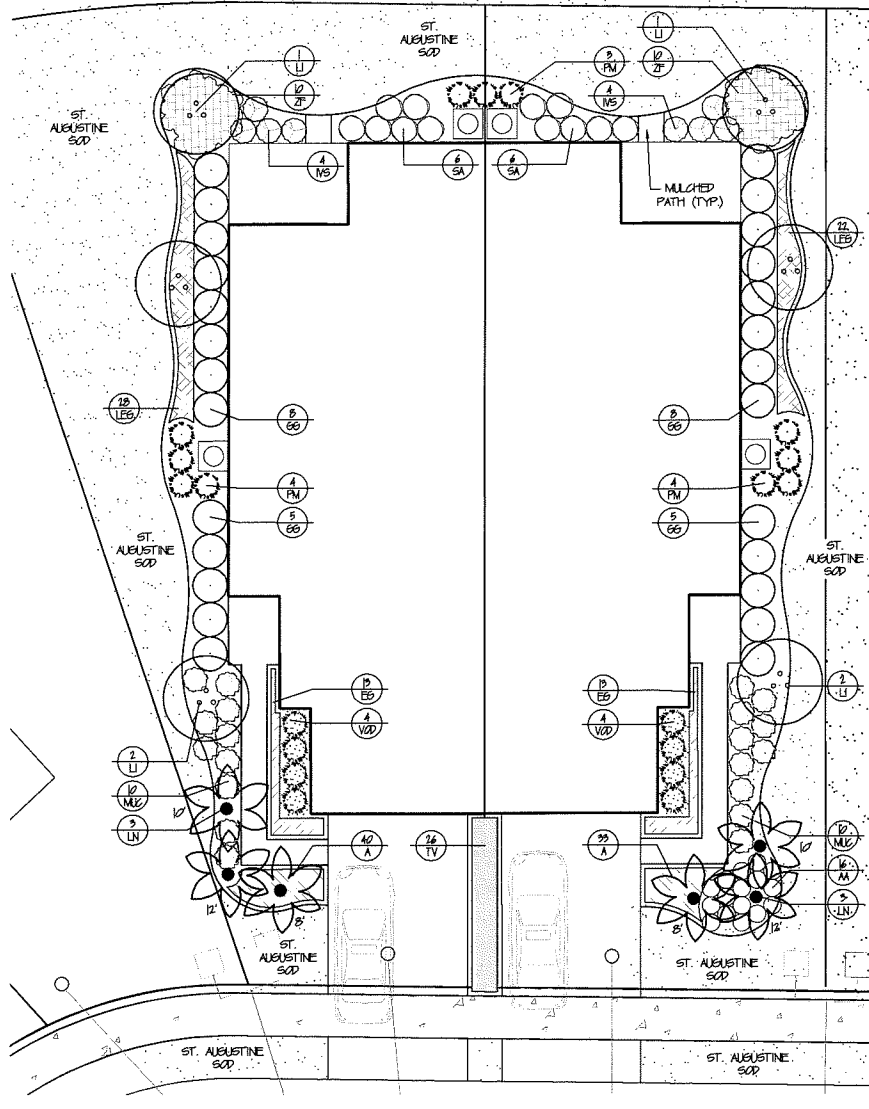
LANDSCAPE SPECIFICATIONS

- FLORIDA #1:** ALL PLANT MATERIAL SHALL BE GRADE FLORIDA NO. 1 OR BETTER IN QUALITY AS DESIGNATED IN THE MOST RECENT PUBLICATION OF "STANDARDS AND STANDARDS FOR NURSERY PLANTS", PUBLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES.
- EXISTING PLANTS:** IF EXISTING LANDSCAPING INTERFERES WITH PROPOSED PLANTINGS SHOWN ON PLAN, THE EXISTING LANDSCAPING IS TO BE REMOVED IN FAVOR OF THE NEW PLANTINGS, UNLESS OTHERWISE INDICATED. IF THE EXISTING VEGETATION IS INTENDED TO REMAIN, THE PROPOSED LANDSCAPING SHALL BE LOCATED AS CLOSE AS POSSIBLE TO ITS INTENDED LOCATION.
- MULCH:** ALL PLANTING BEDS SHALL BE TOP DRESSED WITH 3" FINE DARK MULCH, GRADE "D" OR BETTER. ALL TREES NOT IN BEDS SHALL HAVE A 5' DIAMETER MULCH RING. ALL PALMS NOT IN BEDS SHALL HAVE A 3' DIAMETER MULCH RING.
- SOD:** SOD SHALL BE ARGENTINE DAWIA UNLESS OTHERWISE SPECIFIED ON THE PLANS AS FLORATAM ST. AUGUSTINE. ALL SOD SHALL BE ROLLED. CONTRACTOR TO SOD ALL AREAS THAT ARE DISTURBED BY CONSTRUCTION RELATED ACTIVITIES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THE SOD IS FREE OF WEEDS UPON INSTALLATION AND FOR THE DURATION OF THE 30 DAY MAINTENANCE PERIOD. SOD QUANTITY TAKEOFFS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- QUANTITIES:** IN THE EVENT OF A VARIATION BETWEEN THE QUANTITIES SHOWN ON THE PLANT LIST AND THE ACTUAL QUANTITY OF PLANTS SHOWN ON THE PLAN, THE PLAN SHALL CONTROL.
- UNFORESEEN CONDITIONS:** CONTRACTOR SHALL NOT WILLFULLY INSTALL ANY PORTION OF THE LANDSCAPE PLAN AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT UNFORESEEN OBSTRUCTIONS, GRADE DIFFERENCES, STANDING WATER, SOIL CONDITIONS OR OTHER CONFLICTS EXIST. SUCH UNFORESEEN CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE AND THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
- SUBSTITUTIONS:** NO SUBSTITUTIONS OR VARIATIONS OF ANY PLANT MATERIAL OR ITS INSTALLED LOCATION WILL BE PERMITTED WITHOUT THE PRIOR WRITTEN CONSENT OF THE LANDSCAPE ARCHITECT.
- CONTAINERS:** IF GALLONAGE FOR PLANTS OR TREES IS SHOWN THEY SHALL BE CONTAINER GROWN AND THE SIZE SHOWN SHALL REPRESENT THE MINIMUM ALLOWABLE GALLONAGE. IN ALL CASES THE PLANT SPECIFIED SIZE SHALL GROWN OVER THE GALLONAGE INDICATED.
- PLANTING SOIL:** CONTRACTOR SHALL VERIFY THAT SOIL CONDITIONS ARE SUITABLE TO THE PLANT SPECIES SPECIFIED. IF SOIL CONDITIONS ARE DEEMED UNSUITABLE FOR PROPER PLANT HEALTH, CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT AND PROPER SUBSTITUTIONS SHALL BE SPECIFIED BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. THE CONTRACTOR SHALL REMOVE LINE ROCK, CONCRETE AND OTHER DELETERIOUS DEBRIS FROM PLANTING BEDS. IF DEBRIS IS INTEGRATED IN THE SOIL, THE SOIL MUST BE EXCAVATED AND REPLACED WITH ACCEPTABLE SOIL. ALL FILL TO BE PLACED IN LANDSCAPE AREAS MUST HAVE A pH RANGE BETWEEN 5.5 AND 7.5, BE ORGANIC IN NATURE, AND BE FREE OF ROCKS AND DEBRIS.
- TOPSOIL:** TOPSOIL MATERIAL, IF REQUIRED, SHALL BE FREE FROM ALL HARD CLODS, WEEDS, STONES OVER 1" IN DIAMETER, CLAY, HARD PAN, NOxious PLANTS, SOD, INSECTS, OR OTHER UNDESIRABLE PLANTS, SEEDS, OR MATERIAL WHICH MAY BE HARMFUL FOR GROWTH AND SHALL BE CERTIFIED AS STERILE.
- WEEDS:** IF PRESENT, THE CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE ANY WEEDS FROM PLANTINGS AND SOD AREAS PRIOR TO THE INSTALLATION OF PROPOSED PLANT MATERIAL AND MULCH COVER. CONTRACTOR SHALL BE RESPONSIBLE TO KEEP BEDS AND SOD FREE OF WEEDS FOR THE DURATION OF THE 30 DAY MAINTENANCE PERIOD.
- GRADING:** UNLESS OTHERWISE STATED ON THESE PLANS, THE LANDSCAPE CONTRACTOR SHALL FINE GRADE ALL AREAS TO BE PLANTED AND SODDED IN ORDER TO ELIMINATE BUMPS AND DEPRESSIONS. FINE GRADING SHALL BE DEFINED AS THE FINAL 2" OF GRADE TO BE ACHIEVED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING AND RESEEDING WASHOUT AREAS CAUSED BY EROSION UNTIL FINAL ACCEPTANCE OF THE PROJECT.
- STAKING:** ALL TREES AND PALMS ARE TO BE STAKED ACCORDING TO THE DETAILS IN THESE PLANS. IF THE CONTRACTOR PREFERENCES TO USE OTHER STAKING METHODS THAN SHOWN IN THE DETAILS, HE OR SHE MUST SUBMIT PROPOSED STAKING DETAILS TO THE LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION. THE LANDSCAPE CONTRACTOR SHALL STRAIGHTEN, REPAIR, AND/OR REPLACE ANY PLANTS DAMAGED BY FAILURE TO PROPERLY STAKE OR GUY ANY TREES ON SITE, AT THEIR OWN EXPENSE.
- BED LINES:** CURVILINEAR LANDSCAPE BEDS ARE TO BE EDGED WITH SMOOTH FLOWING CURVES. STRAIGHT-LINE LANDSCAPE BEDS ARE TO BE EDGED IN A STRAIGHT LINE PARALLEL TO PARKING LOTS AND STRUCTURES UNLESS DESIGNED OTHERWISE.
- FERTILIZER:** OSMO-COTE SLOW RELEASE FERTILIZER OR EQUIVALENT SHALL BE APPLIED TO ALL TREE, SHRUB, AND GROUND COVER PLANTING AREAS AT THE RATE OF THREE (3) TABLESPOONS PER 1 SF. OF PLANTING AREA.
- DRAINAGE:** THE LANDSCAPE CONTRACTOR SHALL ENSURE THAT THIS WORK DOES NOT INTERRUPT EXISTING OR PROPOSED DRAINAGE PATTERNS AND SHALL NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY SHALL A CONFLICT ARISE. CONTRACTOR IS RESPONSIBLE FOR ALL LANDSCAPE/SOD AREAS TO PROPERLY DRAIN AWAY FROM BUILDINGS/STRUCTURES.
- SPECIFICATIONS:** THE LANDSCAPE ARCHITECT SHALL BE PERMITTED THE RIGHT DURING INSTALLATION, TO REJECT ANY AND ALL PLANT MATERIAL AND WORKMANSHIP WHICH IN HIS OR HER OPINION DOES NOT MEET THE REQUIREMENTS OF THESE SPECIFICATIONS.
- NATURAL AREAS:** NATURAL VEGETATION PRESERVATION AREAS SHALL BE CLEANED UP INCLUDING BUT NOT LIMITED TO THE REMOVAL OF ANY DEBRIS OR WEEDS AND PRUNING OF DEAD OR YELLOW BRANCHES AND PALM FRONDS. MULCH EDGE OF NATURAL AREA 5 FEET.
- WILDLIFE NOTIFICATION:** LANDSCAPE ARCHITECT SHALL NOT BE HELD RESPONSIBLE FOR DAMAGES TO PROPOSED PLANT MATERIAL CAUSED BY DEER OR OTHER ANIMALS. THE PROPER PLANT SUBSTITUTIONS SHALL BE SPECIFIED BY THE LANDSCAPE ARCHITECT UPON WRITTEN NOTIFICATION OF NUISANCE ANIMAL EXISTENCE.
- TURNOVER:** CONTRACTOR SHALL CONTACT OWNER'S REPRESENTATIVE FOR A TURNOVER DATE TO INCLUDE A WALK-THROUGH AND ACCEPTANCE OF WORK BY THE LANDSCAPE ARCHITECT. ANY WORK DEEMED UNACCEPTABLE SHALL BE CORRECTED IMMEDIATELY AND RE-INSPECTED AS SCHEDULED.
- MAINTENANCE:** CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE TO BEGIN AFTER EACH PLANT HAS BEEN INSTALLED AND SHALL CONTINUE 30 DAYS AFTER FINAL WRITTEN ACCEPTANCE BY THE OWNER. MAINTENANCE SHALL INCLUDE WATERING, PRUNING, WEEDING, MULCHING, MOVING, REPLACEMENT OF SICK OR DEAD PLANTS, AND ANY OTHER CARE NECESSARY IN ORDER TO MAINTAIN PROPER PLANT HEALTH AND SOIL MOISTURE CONTENT.
- GUARANTEE:** CONTRACTOR SHALL GUARANTEE ALL INSTALLED PLANT MATERIAL FOR ONE (1) CALENDAR YEAR STARTING FROM THE TURNOVER DATE FOR WORK FOUND ACCEPTABLE. ANY CORRECTED WORK SHALL HAVE A PROPORTIONAL EXTENSION OF WARRANTY. ONCE APPROVED, ANY SICK OR DEAD MATERIAL SHALL BE REPLACED IMMEDIATELY. THE LANDSCAPE CONTRACTOR SHALL NOT BE RESPONSIBLE TO HONOR ANY WARRANTY FOR THE LOSS OF ANY PLANT MATERIAL CAUSED BY FLOODING, FIRE, FREEZING TEMPERATURES, WINDS OVER 50 MPH, LIGHTNING, ANY OTHER NATURAL DISASTER, OR ANY LOSS/DAMAGE CAUSED BY VANDALISM OR NEGLIGENCE ON THE PART OF THE OWNER.
- CALL BEFORE YOU DIG:** CONTRACTOR SHALL NOTIFY SUNSHINE 811 AND HAVE UTILITIES LOCATED, PRIOR TO DIGGING, BY CALLING 811. CONTRACTOR SHALL NOT PLANT TREES WITHIN 3' OF AN UNDERGROUND UTILITY, EITHER AS LOCATED OR AS SHOWN ON THE PLAN, WITHOUT FIRST OBTAINING WRITTEN PERMISSION FROM OWNER'S REPRESENTATIVE.

2 - UNIT PLANT SCHEDULE (X 2 BUILDINGS)

SYMB	QUAN	SCIENTIFIC NAME	COMMON NAME	SIZE & SPACING
PALMS				
LN	6	LIVISTONA NITIDA	CARNARVON GORSE PALM	SEE PLAN FOR CLEAR TRUNK HT.'S
TREES				
LI	4	LAGERSTROEMIA INDICA 'CHOCOLAY'	PINK GRAPE MYRTLE	15 GAL., 1 1/2" CAL., 8' HT., MULTI-TRUNK
ML	2	MAGNOLIA GRANDIFLORA 'LITTLE GEM'	LITTLE GEM MAGNOLIA	30 GAL., 2 1/2" CAL., 10' HT.
SHRUBS, GROUNDCOVERS, AND VINES				
A	88	ANNUALS	SEASONAL	4" POTS, 12" OC.
AA	30	ASAPANTHUS AFRICANUS 'PETER PAN'	DWARF LILY OF THE NILE	1 GAL., 8" HT. X 12" SPRD., 18" OC.
EG	44	EVOLVULUS GLOMERATUS 'BLUE MY MIND'	BLUE DAZE	1 GAL., 8" HT. X 8" SPRD., 18" OC.
GG	52	GALPHIMIA GRACILIS	GOLDEN THYLLIS	3 GAL., 24" HT. X 24" SPRD., FULL, 4' OC.
IVS	16	ILEX VOMITORIA 'SCHILLINGS DWARF'	SCHILLINGS DWARF HOLLY	3 GAL., 18" HT. X 18" SPRD., FULL, 30" OC.
MUC	40	MULLENBERGIA CAPILLARIS	MULHY GRASS	1 GAL., 10" HT. X 10" SPRD., 30" OC.
PM	22	PODOCARPUS MACROPHYLLA	YEW PODOCARPUS	3 GAL., 9" HT. X 18" SPRD., 2' OC.
SA	24	SCHETFLERA ARBORESCENS 'TRINETTE'	VAREGATED SCHEFFLERA	3 GAL., 15" SPD. X 18" HT., FULL, 36" OC.
TV	78	TILLANDSIA VIOLACEA	SOCIETY GARLIC	1 GAL., 12" SPD., 18" OC.
VD	16	VIORNIUM OVATUM 'DENSE'	DWARF WALTERS VIORNIUM	3 GAL., 24" HT. X 36" SPRD., 36" OC.
ZF	40	ZAMIA FLORIDANA (ZAMIA FUMILA)	COONTIE	3 GAL., 24" HT. X 18" SPRD., FULL, 36" OC.

* QUANTITIES SHOWN ABOVE INDICATE FULL BUILDOUT, A TOTAL OF 2 BUILDING



2-UNIT TOWNHOME PROTOTYPE
(SEE THIS SHEET FOR PLANT LEGEND SPECIFIC TO PROTOTYPE)

SCALE: 1" = 10'

2 - UNIT FOUNDATION PLANTINGS

BLDG. PERIMETER = 271 LF	REQUIREMENT	REQUIRED	PROVIDED
PLANTS	1 PER 1 LF BLDG.	271	236
UNDERSTORY TREE	1 PER 30 LF BLDG.	9	9

* (2) PALMS ARE COUNTED AS (1) UNDERSTORY TREE



ORMOND BEACH
300 WINDY HILL BLVD., STE. C
ORMOND BEACH, FL 32137
(386) 877-2482 FAX (386) 877-2505

EDGEWATER
1800 AIRPORT ROAD
EDgewater, FL 33122
(386) 877-2482 FAX (386) 877-2505

NO.	DATE	REVISIONS
1	2-1-17	REVISED PER STAFF COMMENTS, DATED 2-1-17
2	2-1-17	REVISED PER STAFF COMMENTS, DATED 2-1-17

WOODHAVEN PHASE 1 LANDSCAPE PLAN & DETAILS

VOLUSIA COUNTY, FLORIDA

CITY OF PORT ORANGE

PROJECT NO: 16011

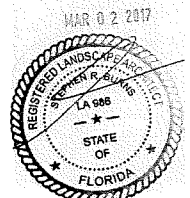
ISSUE DATE: 2-1-17

DESIGNED BY: SMG

DRAFTED BY: SMG

CHECKED BY: SRB

DRAWING FILE: 16011A
XREFS: 16011 BAS
XREFS:



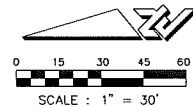
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STEPHEN R. BURNS, R.L.A. NO. 986

SCALE: 1" = 20'

SHEET: LA9 OF 10

IRRIGATION DESIGN AND CONSULTATION SERVICES
Edgewater, Florida
Tel: (386) 424-0027
EMAIL: cid@atlantic.net



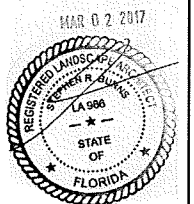
W. FALLSGROVE LN.

**WOODHAVEN
PHASE 1**

IRRIGATION PLAN & DETAILS

CITY OF PORT ORANGE

PROJECT NO: 16011
ISSUE DATE: 2-1-17
DESIGNED BY: SMG
DRAFTED BY: SMG
CHECKED BY: SRB
DRAWING FILE: 16011IR XREFS: 16011BAS XREFS:



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STEPHEN R. BURNS, R.L.A. NO. 586

SCALE: 1" = 30'

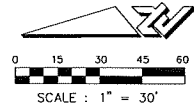
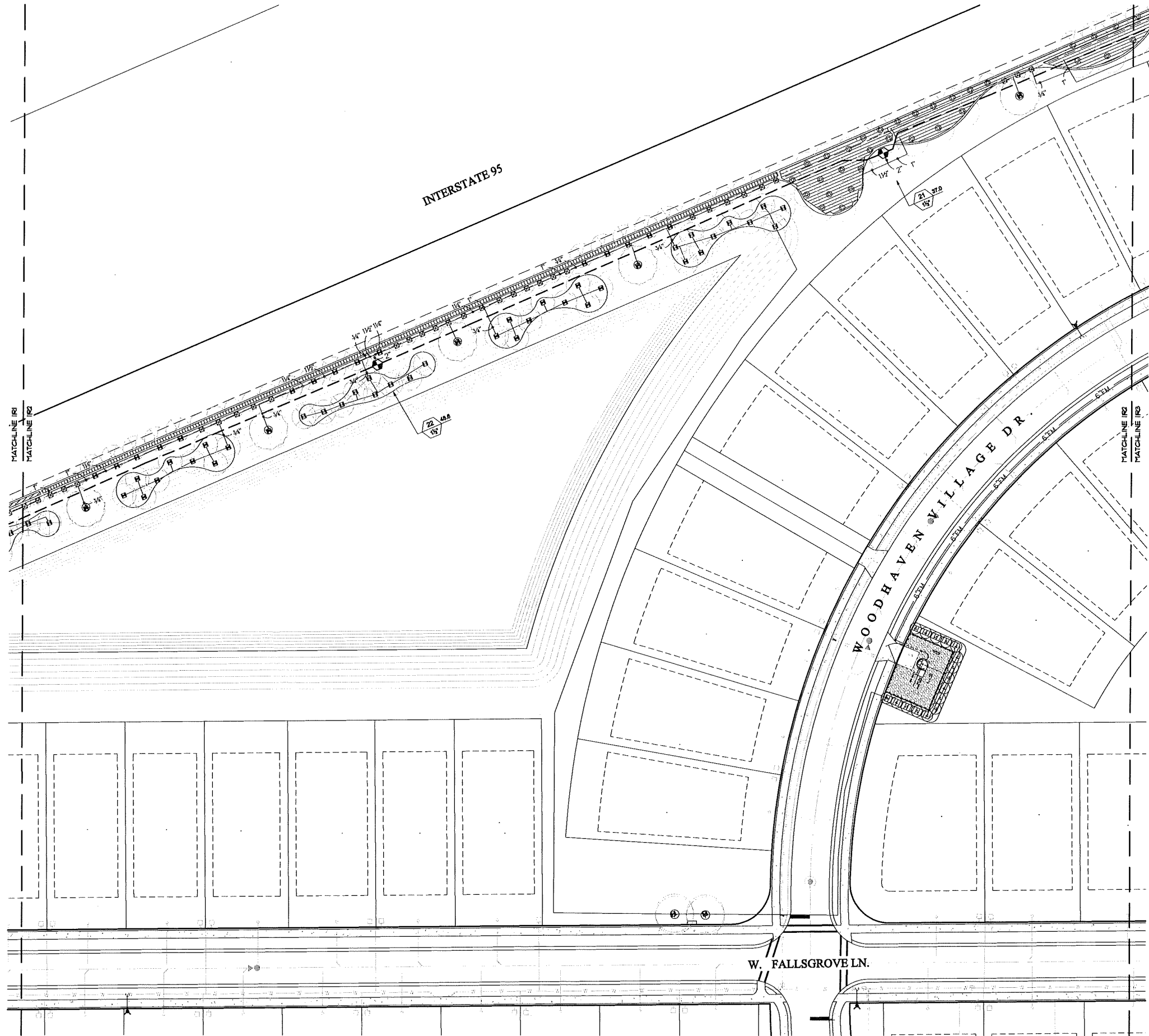
SHEET: IR1 OF 8

ORMOND BEACH
300 INTERCHANGE BLVD., STE. C
ORMOND BEACH, FL 32174
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EDGEWATER
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STEPHEN R. BURNS, R.L.A. NO. 886
SCALE: 1" = 30'
SHEET: IR2 OF 8

WOODHAVEN
PHASE 1
IRRIGATION PLAN & DETAILS

CITY OF PORT ORANGE VOLusia COUNTY, FLORIDA

PROJECT NO: 16011
ISSUE DATE: 2-1-17
DESIGNED BY: SMG
DRAFTED BY: SMG
CHECKED BY: SRB

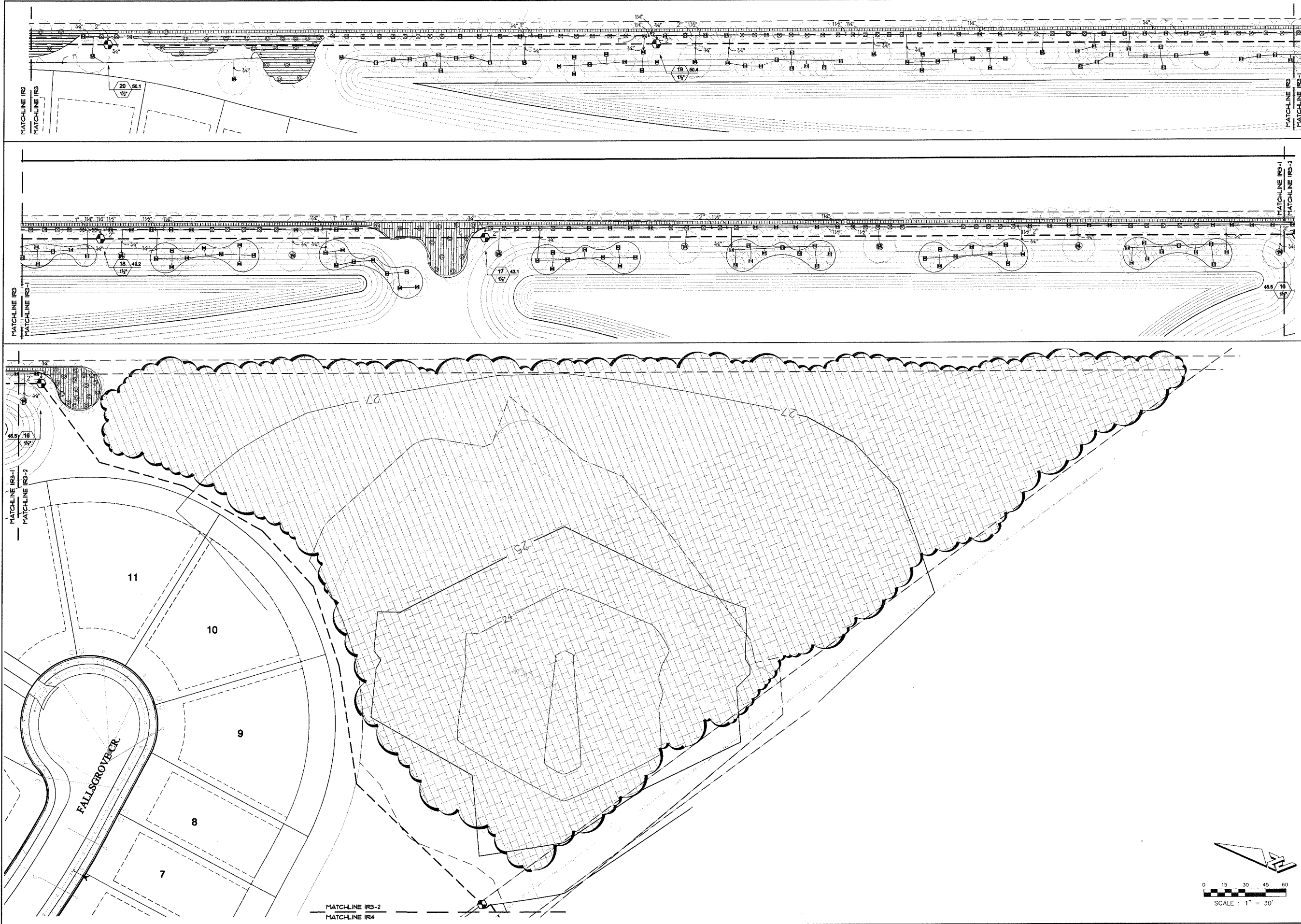
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XREFS:

NO.	DATE	REVISIONS	BY
1.	3-2-17	REVISED PER STAFF COMMENTS, DATED 2-16-17	SMG

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ORMOND BEACH, FL 32174
(386) 877-2482 FAX (386) 877-2505

EDGEWATER
1640 AIRPARK ROAD
EDGEWATER, FL 32132
(386) 877-2482 FAX (386) 877-2505





ORMOND BEACH
300 INTERCHANGE BLVD., STE. C
ORMOND BEACH, FL 32174
(386) 677-2442 FAX (386) 677-2505

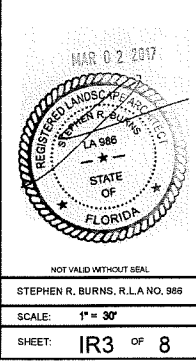
EDGEWATER
140 AIRPARK ROAD
EDGEWATER, FL 32132
(386) 677-2442 FAX (386) 677-2505

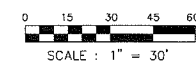
NO.	DATE	REVISIONS	BY
1	2-1-17	REVISED PER STAFF COMMENTS DATED 2-1-17	SMG

WOODHAVEN
PHASE 1
IRRIGATION PLAN & DETAILS

CITY OF PORT ORANGE
VOLusia COUNTY, FLORIDA

PROJECT NO: 16011
ISSUE DATE: 2-1-17
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CHECKED BY: SRB
DRAWING FILE: 16011R
XREFS: 16011BAS
XREFS:





**WOODHAVEN
PHASE 1
IRRIGATION PLAN & DETAILS**

MAR 02 2017

REGISTERED LANDSCAPE ARCHITECT
STEPHEN R. BURNS, R.L.A. No. 986
LA 986
— ★ —
STATE
OF
FLORIDA

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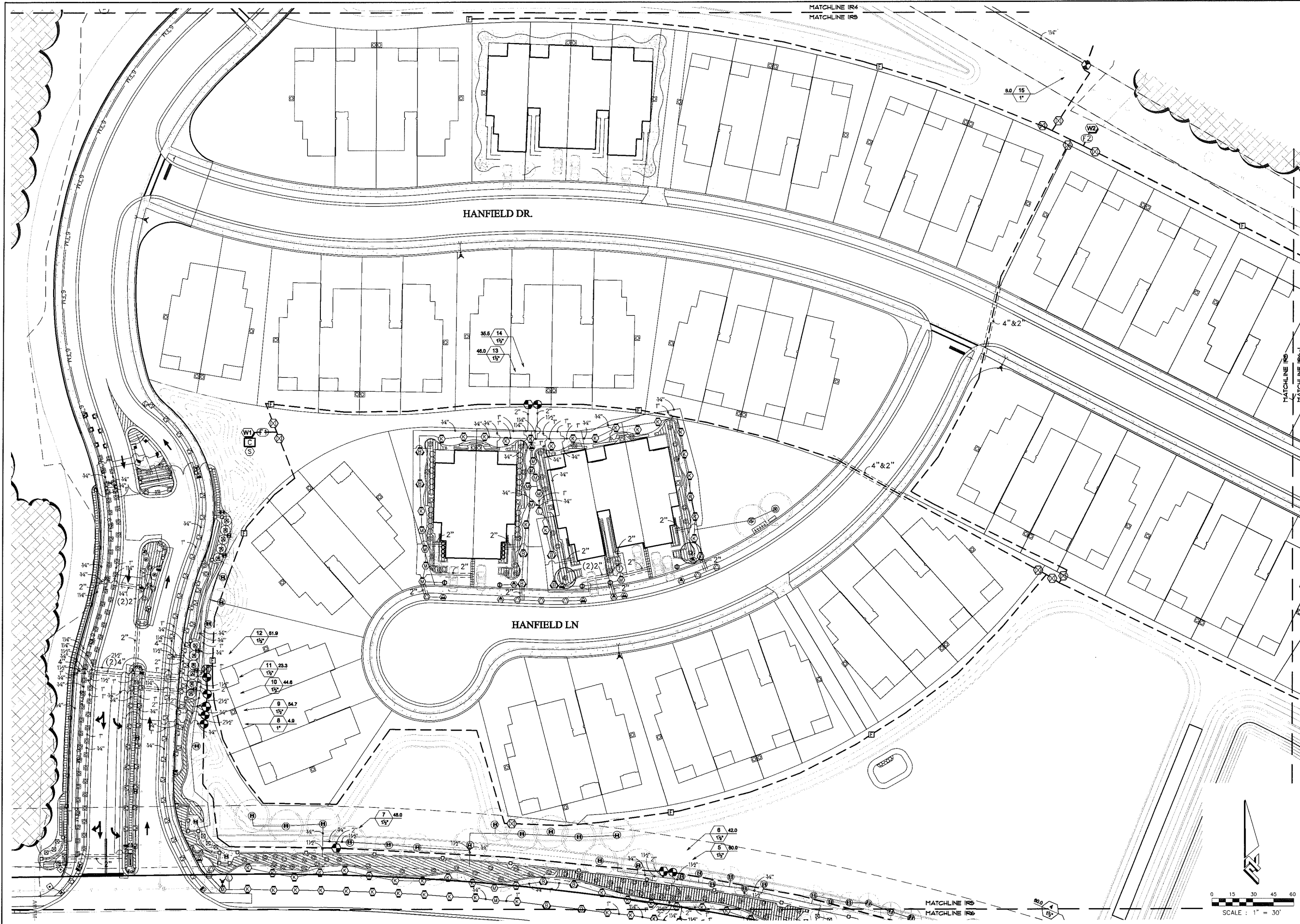
STEPHEN R. BURNS, R.L.A. No. 986

SCALE: 1" = 30'

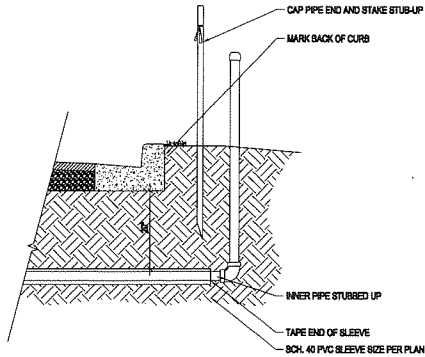
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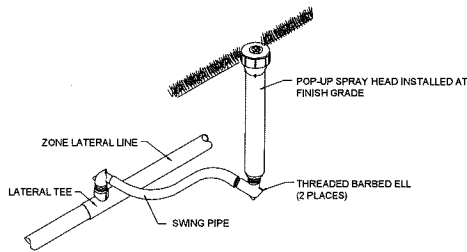


PROVIDE MEASUREMENTS FROM 2
REFERENCE POINTS TO STUB UP ON THE
AS-BUILD DRAWING



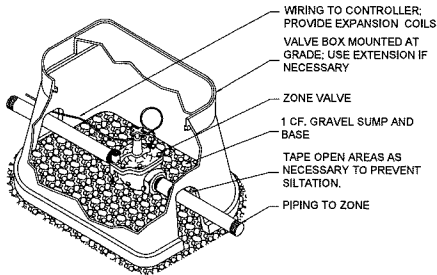
SLEEVING ROUGH-IN DETAIL

SCALE: NTS



SPRAY HEAD INSTALLATION DETAIL

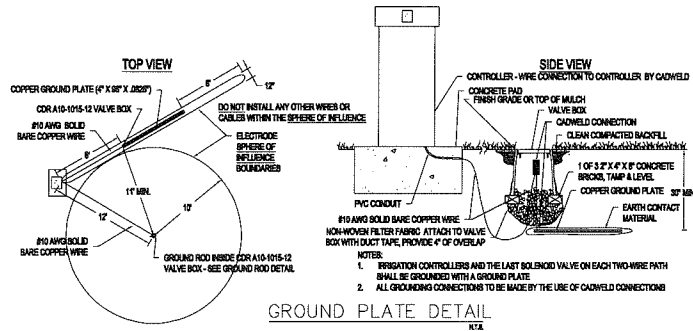
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INSTALL TOP OF VALVE A MAXIMUM OF 15" FROM FINISHED GRADE.

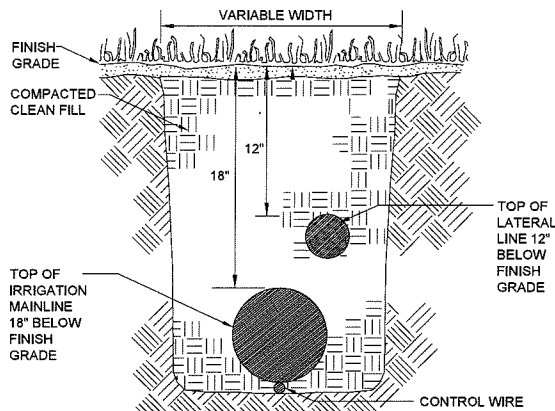
ZONE VALVE INSTALLATION DETAIL

SCALE: NTS



GROUND PLATE DETAIL

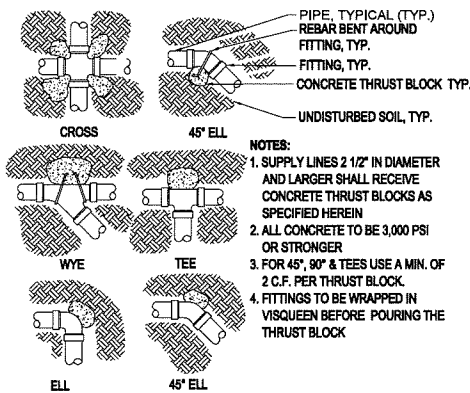
N.T.S.



- NOTES:
1. DEPTH MEASUREMENTS ARE TO BE DONE FROM FINISH GRADE TO TOP OF PIPE.
 2. PROVIDE A 6" MINIMUM VERTICAL SEPARATION BETWEEN MAINLINES AND LATERAL LINES.
 3. ALL TRENCHES SHALL BE BACKFILLED WITH CLEAN SOIL FREE OF DEBRIS & NOXIOUS WEEDS.

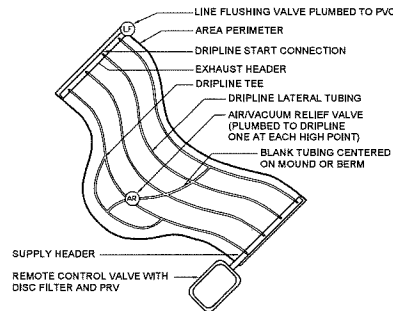
TRENCHING DETAIL

N.T.S.



THRUST BLOCK REINFORCEMENT DETAILS

N.T.S.



IRREGULAR AREA DIPLINE LAYOUT



ORMOND BEACH
300 INTERCHANGE BLVD., STE. C
ORMOND BEACH, FL 32174
(386) 677-2482 FAX (386) 677-2505

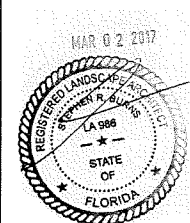
EDGEWATER
1840 AIRPARK ROAD
EDGEWATER, FL 32132
(386) 677-2482 FAX (386) 677-2505

NO.	DATE	REVISIONS	BY
1	5-2-17	REVISED PER STAFF COMMENTS, DATED 2-16-17	SMG

WOODHAVEN
PHASE 1
IRRIGATION PLAN & DETAILS

VOLUSIA COUNTY, FLORIDA
CITY OF PORT ORANGE

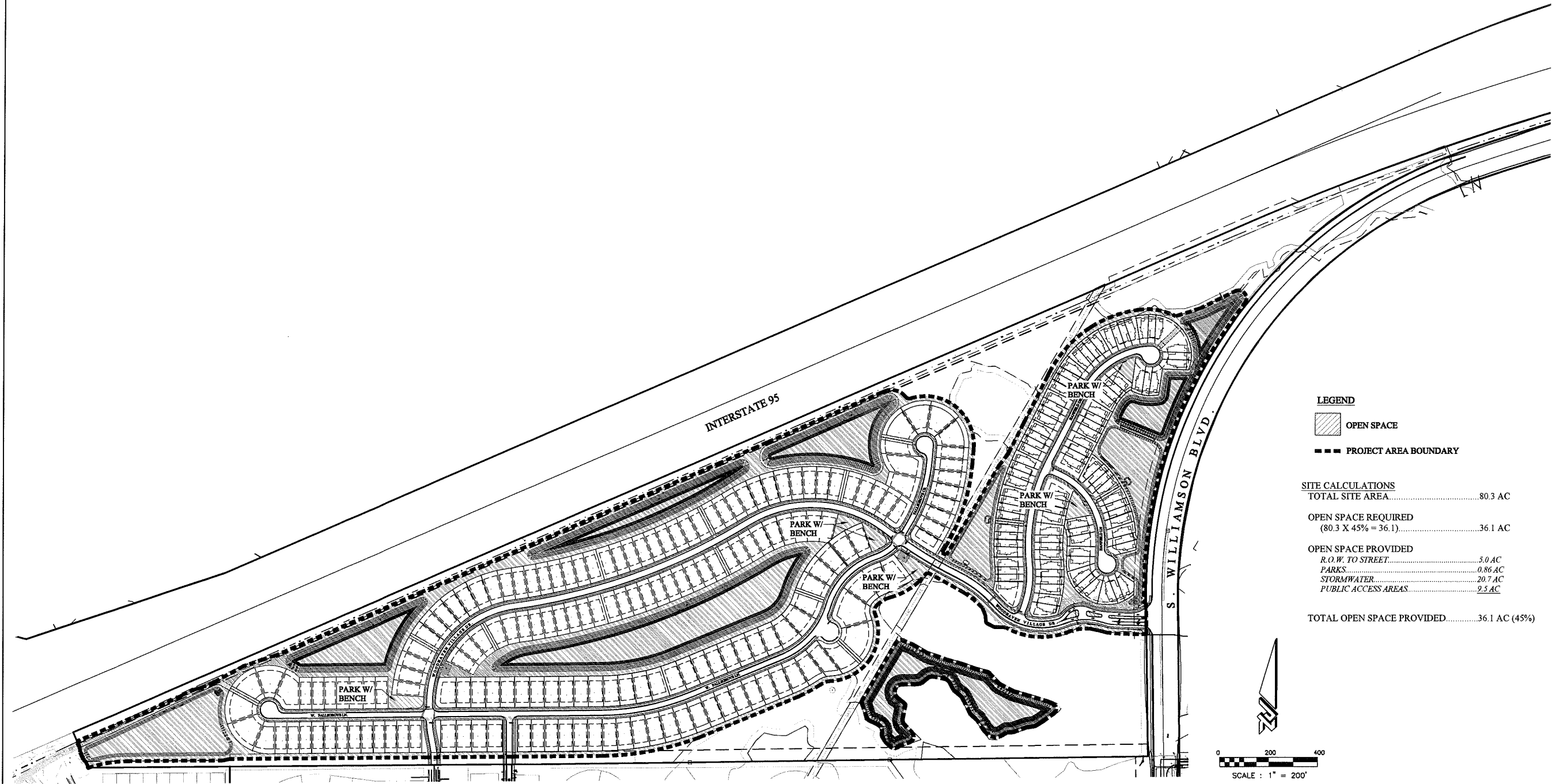
PROJECT NO: 16011
ISSUE DATE: 2-1-17
DESIGNED BY: SMG
DRAFTED BY: SMG
CHECKED BY: SRB
DRAWING FILE: 16011R
XREF'S: 16011 BAS
XREF'S



NOT VALID WITHOUT SEAL
STEPHEN R. BURNS, R.L.A. NO. 986
SCALE:
SHEET: IR8 OF 8

Crawford Irrigation Design, Inc

IRRIGATION DESIGN AND CONSULTATION SERVICES
Edgewater, Florida
Tel: (386) 424-0027 EMAIL: cid@atlantic.net



LEGEND

OPEN SPACE

PROJECT AREA BOUNDARY

SITE CALCULATIONS

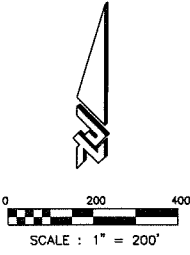
TOTAL SITE AREA..... 80.3 AC

OPEN SPACE REQUIRED
(80.3 X 45% = 36.1)..... 36.1 AC

OPEN SPACE PROVIDED

R.O.W. TO STREET.....	5.0 AC
PARKS.....	0.86 AC
STORMWATER.....	20.7 AC
PUBLIC ACCESS AREAS.....	9.5 AC

TOTAL OPEN SPACE PROVIDED..... 36.1 AC (45%)



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300 INTERCHANGE BLVD., STE. C
ORMOND BEACH, FL 32174
(386) 677-2482 FAX (386) 677-2555

EDGEWATER
1440 AIRPARK ROAD
EDGEWATER, FL 32112
(386) 677-2482 FAX (386) 677-2555

NO.	DATE	REVISIONS	BY
1.	2-2-17	REVISED PER STAFF COMMENTS DATED 2-16-17	SMG

WOODHAVEN SUBDIVISION

OPEN SPACE EXHIBIT

VOLUSIA COUNTY, FLORIDA

CITY OF PORT ORANGE

PROJECT NO: 16011

ISSUE DATE: 2-1-17

DESIGNED BY: SMG

DRAFTED BY: SMG

CHECKED BY: SRB

DRAWING FILE: 16011_Open Space
XREF'S: 16011BAS
XREF'S: 16011SURV



NOT VALID WITHOUT SEAL

STEPHEN R. BURNS, R.L.A. NO. 986

SCALE: 1" = 200'

SHEET: OS1 OF 1



STAFF REPORT

**SUBDIVISION REPLAT/ Clark Professional Center
and Wedding Chapel PCD
CASE NO. 16-50000005**

REQUEST: Replat ± 7.4 acres of the Clark Professional Center and Wedding Chapel PCD property into 6 lots as shown on the amended Clark Professional Center and Wedding Chapel Conceptual Development Plan (5th Amendment)

LOCATION: East side of Ridgewood Avenue, West of the Halifax River, between Katherine Street and Kirby Place

OWNER: All Aboard Holdings, LLC, D. Andrew Clark, Clark Office Building, Ltd., Clark Professional Center Condo Association Inc., the Douglas J. Clark Irrevocable Trust, and Lois Clark

APPLICANT: D. Andrew Clark

STAFF RECOMMENDATION: **Approval**

STAFF CONTACT: Gwen Perney, Planner (386) 506-5673

PLANNING COMMISSION DATE: March 23, 2017

DISCUSSION:

The proposal is to replat ± 7.4 acres consisting of portions of the Allendale and Clark Professional Center Subdivision Plats into six lots. The subject properties are located on the east side of Ridgewood Avenue, west of the Halifax River, between Katherine Street and Kirby Place. The majority of the properties are developed, except for property at the northwest corner of Ridgewood Avenue and Katherine Street.

Location Map of Replat Area



The proposed replat (Exhibit "A") has been designed according to the layout of the Conceptual Development Plan for the 5th Amendment to the Clark Professional Center and Wedding Chapel PCD Master Development Agreement (MDA) and the lot dimensional (lot area and width) and site (building setbacks, parking, open space, etc.) requirements of the 5th Amendment to the MDA (Scheduled for 1st Reading at City Council on March 28th). The lot configuration consists of six lots and will have the following developed structures or facilities located on the proposed lots:

1. Lot #1: Vacant lot at the southeast corner of Ridgewood Avenue and Katherine Street. Previously approved amendments indicate this lot being developed with an office building
2. Lot #2: Developed lot with an existing 3-story office building and parking lot
3. Lot #3: An improved parking lot to serve the Tavern and Wedding Chapel
4. Lot #4: Developed lot with an office building and parking lot
5. Lot #5: Developed lot with the Chapel, Tavern, Railroad car, stormwater pond, and parking area
6. Lot #6: Vacant lot fronting Halifax Drive with a gazebo constructed on piers in the Halifax River and the potential for the construction of permanent open-air canopy structure to serve future events held on the property

Replat Area



The required subdivision and site infrastructure (water, sewer, drainage, access drives, driveways, parking lots and landscaping) to serve the commercial development was completed when the property was previously developed in the late 1990's to early 2000. Therefore, no subdivision infrastructure improvements are required with the replat. The proposed lots are accessed from driveways off Ridgewood Avenue, Katherine Street, Kirby Place, and Riverside Drive. Cross-access and shared parking easements are provided between the lots in order for vehicles and pedestrians to move between the lots.

CONCURRENCY REVIEW:

Public facilities and services are available and serve the buildings on the six proposed lots. Concurrency reviews for Transportation, Water, Sewer, Solid Waste, and Stormwater Drainage were completed for the proposed six lots when the site plans for the subject property were approved in 1999, 2001, and 2002. If any additional site plans are submitted in the future, concurrency will be evaluated at that time. The replat of the subject property does not create any additional impacts to City facilities.

DEVELOPMENT REVIEW COMMITTEE (DRC):

The Development Review Committee (DRC) has reviewed the replat and the applicant will need to address some minor comments related to the format, labeling, and clarifying notes to comply with requirements of the 5th amendment to the Clark Professional Center and Wedding Chapel MDA, and the Land Development Code.

RECOMMENDATION:

Staff recommends approval of the subdivision replat of the Clark Professional Center and Wedding Chapel PCD Replat, subject to approval of the 5th Amendment to the MDA.

ATTACHMENTS:

1. Exhibit "A" – Replat

CLARK PROFESSIONAL CENTER PHASE 2

A PORTION OF SECTION 10, TOWNSHIP 16 SOUTH, RANGE 33 EAST CITY OF PORT ORANGE, VOLUSIA COUNTY, FLORIDA.

BEING A REPLAT OF THE FOLLOWING DESCRIBED PARCELS:

ALL OF LOT 1, CLARK PROFESSIONAL CENTER, AS RECORDED IN MAP BOOK 47, PAGE 200 OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA,

TOGETHER WITH:

LOTS 9 AND 10, BLOCK 11, ALLANDALE, AS RECORDED IN MAP BOOK 4, PAGE 146 AND MAP BOOK 17, PAGE 166 OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA, LESS AND EXCEPT THAT PORTION TAKEN FOR STATE ROAD RIGHT OF WAY PURPOSES,

TOGETHER WITH:

THAT PORTION OF LOTS 7 AND 8, BLOCK 3, AND THAT PORTION OF PALMETTO STREET, A 50 FOOT RIGHT OF WAY LYING SOUTHERLY OF KATHERINE STREET, AS SHOWN ON THE PLAT OF NORWOOD, RECORDED IN MAP BOOK 5, PAGE 1, AND MAP BOOK 15,

PAGE 174 OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA, DESCRIBED AS FOLLOWS:

TOGETHER WITH:

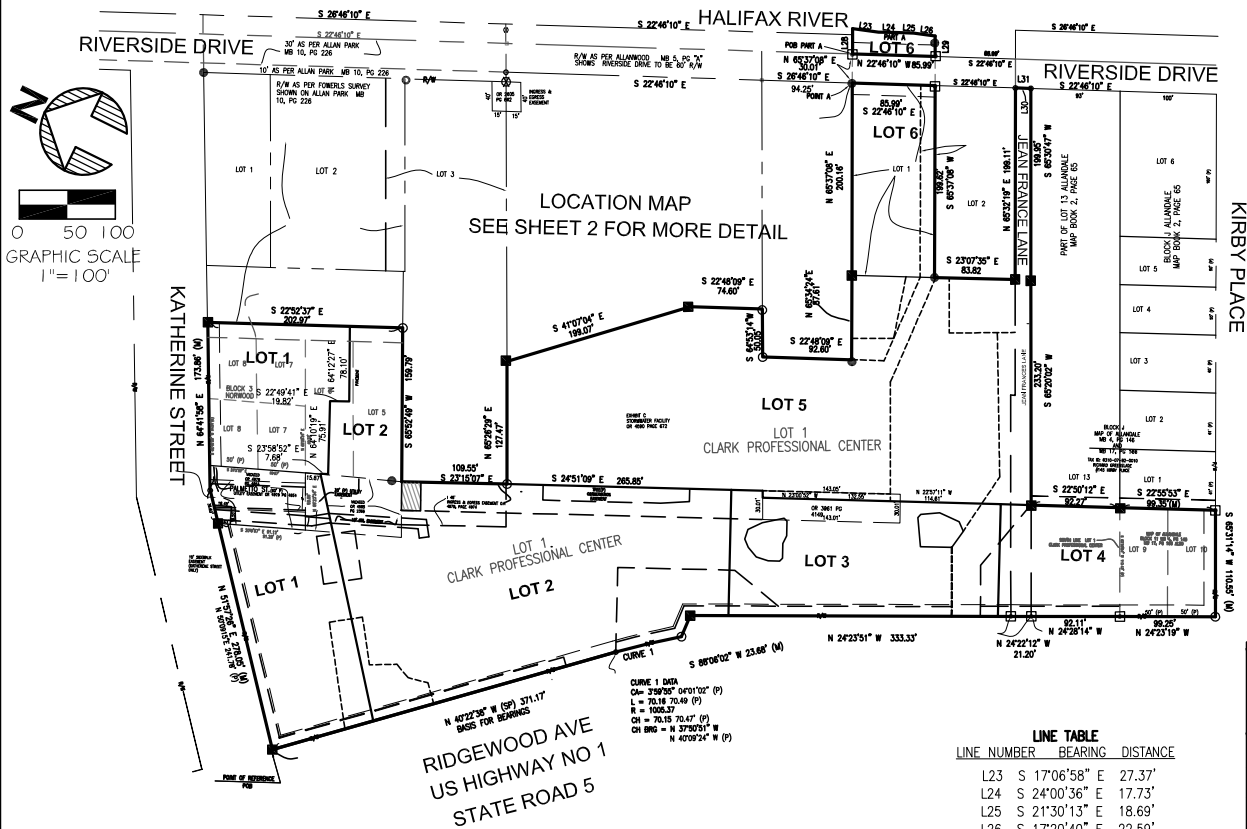
LOT 1, ALLAN PARK AND WITH ITS NORTH AND SOUTH LINE PROJECTED EASTERLY TO THE SHORE OF THE HALIFAX RIVER AS RECORDED IN MAP BOOK 10, PAGE 226, OF THE PUBLIC RECORDS OF VOLUSIA COUNTY FLORIDA.

FROM THE INTERSECTION OF THE EASTERLY RIGHT OF WAY LINE OF SOUTH RIDGEWOOD AVENUE (US NO. 1 AND SR NO. 5) WITH THE SOUTHERLY RIGHT OF WAY LINE OF SAID KATHERINE STREET AS THE POINT OF REFERENCE, RUN ALONG THE BOUNDARY OF SAID LOT 1, CLARK PROFESSIONAL CENTER, NORTH 50 DEGREES, 09 MINUTES, 15 SECONDS EAST, A DISTANCE OF 241.78 FEET TO THE POINT OF BEGINNING, THENCE CONTINUE ALONG SAID BOUNDARY THE FOLLOWING COURSES AND DISTANCES: SOUTH 21 DEGREES, 56 MINUTES, 31 SECONDS EAST, A DISTANCE OF 91.28 FEET; THENCE NORTH 63 DEGREES, 31 MINUTES, 13 SECONDS EAST A DISTANCE OF 128.84 FEET; THENCE NORTH 21 DEGREES, 44 MINUTES, 39 SECONDS WEST A DISTANCE OF 100.84 FEET TO THE SOUTHERLY RIGHT OF WAY LINE OF SAID KATHERINE STREET; THENCE SOUTH 82 DEGREES, 49 MINUTES, 28 SECONDS WEST ALONG SAID SOUTHERLY RIGHT OF WAY LINE AND THE WESTERLY PROJECTION THEREOF, A DISTANCE OF 94.81 FEET; THENCE CONTINUE ALONG SAID WESTERLY PROJECTION SOUTH 50 DEGREES, 09 MINUTES, 15 SECONDS WEST, A DISTANCE OF 36.12 FEET TO THE POINT OF BEGINNING.

BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

AS A POINT OF REFERENCE AND THE POINT OF BEGINNING COMMENCE AT THE NORTHWEST CORNER OF LOT 1, CLARK PROFESSIONAL CENTER, AS RECORDED IN MAP BOOK 47, PAGE 200 OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA, RUN THENCE N 51°57'26" E ALONG SOUTH RIGHT OF WAY LINE OF KATHERINE STREET A 75 FOOT RIGHT OF WAY FOR A DISTANCE OF 278.05 FEET; THENCE N 64°41'58" E CONTINUING ALONG SAID SOUTH RIGHT OF WAY LINE FOR A DISTANCE OF 173.86 FEET TO THE NORTHEAST CORNER OF SAID LOT 1, CLARK PROFESSIONAL CENTER; THENCE S 22°52'37" E ALONG THE BOUNDARY LINE OF SAID CLARK PROFESSIONAL CENTER FOR A DISTANCE OF 202.97 FEET; THENCE S 65°52'49" W ALONG SAID BOUNDARY LINE OF CLARKS PROFESSIONAL CENTER FOR A DISTANCE OF 159.79 FEET; THENCE S 23°15'07" E ALONG SAID BOUNDARY LINE OF CLARKS PROFESSIONAL CENTER FOR A DISTANCE OF 109.55 FEET; THENCE N 65°26'29" E ALONG SAID BOUNDARY LINE FOR A DISTANCE OF 127.47 FEET; THENCE S 41°07'04" E ALONG SAID BOUNDARY LINE FOR A DISTANCE OF 199.07 FEET; THENCE S 22°48'39" E ALONG SAID BOUNDARY LINE FOR A DISTANCE OF 74.60 FEET; THENCE S 64°53'14" W ALONG SAID BOUNDARY LINE FOR A DISTANCE OF 50.05 FEET; THENCE S 22°48'09" E ALONG SAID BOUNDARY LINE FOR A DISTANCE OF 92.60 FEET; THENCE N 65°34'24" E ALONG SAID BOUNDARY LINE FOR A DISTANCE OF 87.61 FEET TO NORTHWEST CORNER OF LOT 1, ALLAN PARK AS RECORDED IN MAP BOOK 10, PAGE 226, PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA; THENCE N 65°37'08" E ALONG THE NORTH LINE OF LOT 1, OF SAID ALLEN PARK FOR A DISTANCE OF 200.16 FEET TO POINT A TO BE USED LATER IN THIS DESCRIPTION, SAID POINT BEING ON THE WEST RIGHT OF WAY LINE OF RIVERSIDE DRIVE (A PLATTED 30 FOOT RIGHT OF WAY) AS SHOWN ON AFORESAID ALLEN PARK; THENCE S 22°46'10" E ALONG SAID WEST RIGHT OF WAY LINE OF RIVERSIDE DRIVE FOR A DISTANCE OF 85.99 FEET TO THE SOUTHEAST CORNER OF LOT 1, OF SAID ALLEN PARK; THENCE S 65°37'08" W ALONG THE SOUTH LINE OF SAID LOT 1, ALLEN PARK FOR A DISTANCE OF 199.62 FEET TO THE EAST BOUNDARY LINE OF AFORESAID LOT 1, CLARK PROFESSIONAL CENTER; THENCE S 23°07'35" E ALONG SAID CLARK PROFESSIONAL CENTER BOUNDARY LINE FOR A DISTANCE OF 83.82 FEET; THENCE N 65°32'19" E ALONG SAID BOUNDARY LINE OF A DISTANCE OF 198.11 FEET TO THE WEST RIGHT OF WAY LINE OF SAID RIVERSIDE DRIVE; THENCE S 22°46'10" E ALONG SAID WEST RIGHT OF WAY LINE FOR A DISTANCE OF 16.04 FEET TO THE SOUTHEAST CORNER OF LOT 1, OF SAID CLARK PROFESSIONAL CENTER; THENCE S 65°30'47" W ALONG THE SOUTH BOUNDARY LINE OF SAID LOT 1, CLARK PROFESSIONAL CENTER FOR A DISTANCE OF 199.95 FEET; THENCE S 65°20'02" W ALONG SAID SOUTH BOUNDARY LINE FOR A DISTANCE OF 233.20 FEET; THENCE S 22°50'12" E ALONG THE AFORESAID BOUNDARY LINE OF CLARKS PROFESSIONAL CENTER FOR A DISTANCE OF 92.27 FEET TO THE NORTHEAST CORNER OF LOT 9, BLOCK 11, MAP OF ALLANDALE AS RECORDED IN MAP BOOK 4, PAGE 146, PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA; THENCE S 22°55'53" E ALONG THE EAST LINE OF LOTS 9 AND 10, BLOCK 11, OF SAID MAP OF ALLANDALE FOR A DISTANCE OF 99.35 FEET TO THE NORTH RIGHT OF WAY LINE OF KIRBY PLACE (A PLATTED 50 FOOT RIGHT OF WAY); THENCE S 65°31'14" W ALONG THE SAID NORTH RIGHT OF WAY OF KIRBY PLACE FOR A DISTANCE OF 110.55 FEET THE EAST RIGHT OF WAY LINE OF RIDGEWOOD AVE (US HIGHWAY NUMBER 1) A RIGHT OF WAY THAT VARIES IN THIS AREA; THENCE N 24°23'19" W ALONG THE EAST RIGHT OF WAY LINE OF RIDGEWOOD AVE (US HIGHWAY NUMBER 1) FOR A DISTANCE OF 99.25 FEET TO THE SOUTHWEST CORNER OF SAID LOT 1, CLARK PROFESSIONAL CENTER; THENCE N 24°28'14" W ALONG THE WEST BOUNDARY OF SAID LOT 1, CLARK PROFESSIONAL CENTER AND THE EAST RIGHT OF WAY OF RIDGEWOOD AVE (US HIGHWAY NUMBER 1) FOR A DISTANCE OF 92.11 FEET; THENCE N 24°22'12" W ALONG SAID EAST RIGHT OF WAY FOR A DISTANCE OF 21.20 FEET; THENCE N 24°23'51" W FOR A DISTANCE OF 333.33 FEET; THENCE S 88°06'02" W FOR A DISTANCE OF 23.68 FEET TO A POINT ON A NON-TANGENT CURVE CONCAVE WESTERLY AND TO THE LEFT, HAVING A CENTRAL ANGLE OF 03°59'55", A RADIUS OF 1005.37 FEET, WITH A CHORD BEARING OF N 37°50'51" W, A CHORD DISTANCE OF 70.15 FEET; THENCE ALONG THE ARC OF SAID CURVE A DISTANCE OF 70.15 FEET TO THE POINT OF TANGENCY THEREOF; THENCE N 40°22'38" W ALONG SAID EAST RIGHT OF WAY LINE OF RIDGEWOOD AVE (US HIGHWAY NUMBER 1) FOR A DISTANCE OF 371.17 FEET TO THE POINT OF BEGINNING, RETURNING TO POINT A AFORESAID RUN THENCE N 65°37'08" E CROSSING RIVERSIDE DRIVE FOR A DISTANCE OF 30.01 FEET TO THE POINT OF BEGINNING OF PART A; THENCE N 65°37'08" E FOR A DISTANCE OF 26.23 FEET THE HALIFAX RIVER; THENCE ALONG THE HALIFAX RIVER S 17°06'58" E A DISTANCE OF 27.37 FEET; THENCE S 24°00'36" E A DISTANCE OF 17.73 FEET; THENCE S 21°30'13" E A DISTANCE OF 18.69 FEET; THENCE S 17°20'40" E A DISTANCE OF 22.59 FEET; THENCE S 65°37'08" W LEAVING THE HALIFAX RIVER FOR A DISTANCE OF 21.37 FEET TO THE EAST RIGHT OF WAY LINE OF RIVERSIDE DRIVE; THENCE N 22°46'10" W ALONG THE EAST RIGHT OF WAY LINE OF SAID RIVERSIDE DRIVE FOR A DISTANCE OF 85.99 FEET TO THE POINT OF BEGINNING OF PART A.

TOTAL AREA 7.436 ACRES MORE OR LESS



LEGEND:

1. MONUMENTATION:

- DENOTES PERMANENT REFERENCE MONUMENT FOUND
- DENOTES PERMANENT REFERENCE MONUMENT SET, 4"x4" CONCRETE MONUMENT WITH BRASS DISK STAMPED LB 3612 FROM
- DENOTES PERMANENT CONTROL POINT, SET METAL DISK STAMPED LB 3612.
- DENOTES 5/8" IRON ROD AND CAP STAMPED LB 3612
- DENOTES FOUND NAIL AND BRASS DISK LB 3612

2. ABBREVIATIONS

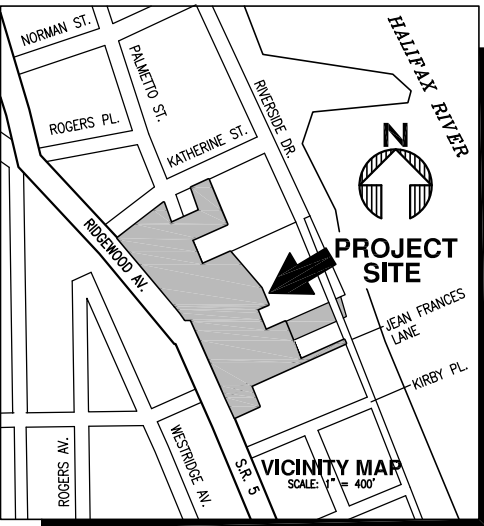
- (R) DENOTES A LINE RADIAL RELATIVE TO ADJACENT CURVE
- (NR) DENOTES A LINE NON-RADIAL RELATIVE TO ADJACENT CURVE
- CL CENTER LINE
- CA CENTRAL ANGLE
- L LENGTH OR ARC
- R RADIUS
- CH CHORD
- OB CHORD BEARING
- MFG. MANUFACTURING
- O.R. OFFICIAL RECORDS BOOK

- FD FOUND
- FSM PROFESSIONAL SURVEYOR AND MAPPER
- INC. INCORPORATED
- FL. FLORIDA
- P.O. POST OFFICE
- AC ACRES
- RW RIGHT-OF-WAY
- U.S. UNITED STATES
- (P) PLAT
- PG. PAGE

- LS LICENSED SURVEYOR
- (SP) STATE PLANE FLORIDA EAST GRID
- IR 5/8" IRON ROD
- IRC 5/8" IRON ROD & CAP
- LB LICENSED BUSINESS
- CM CONCRETE MONUMENT

GENERAL NOTES:

1. ACCURACY
THE BOUNDARY LINEAR ERROR OF CLOSURE DOES NOT EXCEED 1:10,000. THE BOUNDARY ANGULAR ERROR OF CLOSURE DOES NOT EXCEED 15 SECONDS MULTIPLIED BY SQUARE ROOT OF THE NUMBER OF ANGLES TURNED.
2. BEARING STRUCTURE (N 40°22'38" W) STATE PLANE FLORIDA EAST GRID ALONG THE EAST RIGHT-OF-WAY LINE OF RIDGEWOOD AVE (US HIGHWAY HIGHWAY NO. 1, STATE PLANE CONTROL USED FOR THIS PROJECT USGAG 4404, AND CITY OF PORT ORANGE HORIZONTAL AND VERTICAL CONTROL PD-18, (ESTABLISHED BY SOUTHEASTERN SURVEYING DATED OCTOBER 24, 1996).
3. ALL MEASUREMENTS REFER TO HORIZONTAL PLANE IN ACCORDANCE WITH THE DEFINITION OF THE UNITED STATES SURVEY FOOT BY METER ADOPTED BY THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY. ALL MEASUREMENTS SHALL USE THE 39.37/12 = 3.2803333333 EQUATION FOR CONVERSION FROM A U.S. FOOT TO SURVEY METERS. ALL MEASUREMENTS ON THIS PLAT ARE IN U.S. FOOT AND DECIMALS THEREOF.
4. 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 WHETHER GRAPHIC OR DIGITAL. THERE MAY BE ADDITIONAL RESTRICTIONS THAT ARE NOT RECORDED ON THIS PLAT THAT MAY BE FOUND IN THE OFFICIAL RECORDS OF VOLUSIA COUNTY, FLORIDA.
5. THIS PLAT IS SUBJECT TO ALL EASEMENTS OF RECORD AND RESERVATIONS OF RECORD, INCLUDING BUT NOT LIMITED TO ALL DRAINAGE AND UTILITY EASEMENTS DECARED HEREON.
6. BUILDING SETBACK REQUIREMENTS
FRONT (STREET FRONTAGE): 10'
SIDE STREET: 10'
SIDE: 10'
REAR: 10'
7. UTILITY EASEMENTS PROVIDED ON THIS PLAT INCLUDE 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.
8. UTILITIES INCLUDE BUT ARE NOT LIMITED TO SANITARY SEWER, POTABLE WATER, RECLAIMED WATER, STORM DRAINAGE, ELECTRIC, TELEPHONE, CABLE TELEVISION, SECURITY AND NATURAL GAS.
9. ALL OTHER EASEMENTS SHOWN HEREON ARE SUBORDINATE TO ANY CONSERVATION EASEMENTS DEDICATED HEREON. THERE SHALL BE NO REMOVAL OR DISTURBANCE OF ANY VEGETATION WITHIN SUCH CONSERVATION EASEMENTS. ANY PROPOSED CONSTRUCTION OR OTHER USE WITHIN A CONSERVATION EASEMENT MUST BE REVIEWED AND APPROVED BY THE CITY OF PORT ORANGE AND ANY OTHER AUTHORITY HAVING JURISDICTION OVER THE CONSERVATION EASEMENT.
10. THIS PLAT CONFORMS TO CHAPTER 177 PART 1 FLORIDA STATUTES LAST REVISED PER CH. 99-288, PERMANENT REFERENCE MONUMENTS (PRM) NOT SHOWN AS A OR A CONFORMS TO FLORIDA STATUTE CHAPTER 177.031 (15) (C), CHAPTER 98-20.
11. THE CLARK OFFICE BUILDING, LTD. PARTNERSHIP SHALL BE RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF THE DRAINAGE SYSTEM SERVING THE AREA WITHIN THE BOUNDARIES OF THIS PLAT, AS DEPICTED ON THE STORM WATER MANAGEMENT PLAN APPROVED FOR THIS DEVELOPMENT BY THE CITY OF PORT ORANGE, FL.
12. THE CLARK OFFICE BUILDING, LTD. PARTNERSHIP SHALL BE RESPONSIBLE FOR MAINTAINING ALL PRIVATE ROADS GRANTED BY THIS PLAT.
13. A 12 FOOT UTILITY EASEMENT SHALL BE LOCATED ALONG THE FRONTAGE OF KATHERINE STREET AND SOUTH RIDGEWOOD AVENUE.



MAP BOOK PAGE

DEDICATION

KNOW ALL MEN BY THESE PRESENTS THAT "CLARK PROFESSIONAL CENTER CONDO ASSOCIATION INC.", BEING THE OWNER IN FEE SIMPLE OF THE LANDS SHOWN AND DESCRIBED HEREON AS THE PLAT ENTITLED "CLARK PROFESSIONAL CENTER NO. 2", LOCATED IN THE CITY OF PORT ORANGE, VOLUSIA COUNTY, FLORIDA, HEREBY DEDICATES THE SAID LANDS AND PLAT FOR THE USES AND PURPOSES HEREON EXPRESSED. ALL DRAINAGE, UTILITY, INGRESS/EGRESS, NON-VEHICULAR ACCESS, SIDEWALK, AND CONSERVATION EASEMENTS SHOWN OR DESCRIBED ON THE PLAT ARE, UNLESS OTHERWISE INDICATED, GRANTED TO THE CITY OF PORT ORANGE. ALL DRAINAGE EASEMENTS ALSO GRANTED TO THE CLARK OFFICE BUILDING, LTD. PARTNERSHIP FOR THE PURPOSES DESCRIBED IN THE GENERAL NOTES. ALL PRIVATE ROADS ARE HEREBY GRANTED TO THE CLARK OFFICE BUILDING, LTD. PARTNERSHIP. ACCESS EASEMENTS ON AND ACROSS ALL PRIVATE ROADS ARE HEREBY DEDICATED TO THE CITY OF PORT ORANGE FOR EMERGENCY VEHICLES AND GOVERNMENT SERVICES. UTILITY EASEMENTS ON, ACROSS, OVER, THROUGH, AND UNDER ALL PRIVATE ROADS ARE HEREBY DEDICATED TO THE CITY OF PORT ORANGE AND FRANCHISE UTILITY COMPANIES FOR THE CONSTRUCTION AND MAINTENANCE OF UTILITIES.

IN WITNESS WHEREOF, CLARK OFFICE BUILDING, LTD. PARTNERSHIP HAS CAUSED THE PRESENTS TO BE SIGNED, ATTESTED, AND SEALED BY THOSE NAMED BELOW ON THIS _____ DAY OF _____, 2016.

CLARK OFFICE BUILDING, LTD.
A FLORIDA LIMITED PARTNERSHIP
BY: ALL ABOARD PROPERTIES CORPORATION
1/3/a CLARK PROPERTIES CORPORATION
ITS GENERAL PARTNER

BY:
D. ANDREW CLARK, PRESIDENT

ALL ABOARD HOLDINGS, LLC
A FLORIDA LIMITED LIABILITY COMPANY

BY:
D. ANDREW CLARK, MANAGING MEMBER

D. ANDREW CLARK, a/k/a DOUGLAS ANDREW CLARK, INDIVIDUALLY

D. ANDREW CLARK AND LOIS CLARK LOESCH, 1/3/a LOUIS E. CLARK
AS SUCCESSOR CO-TRUSTEES OF DOUGLAS J. CLARK TRUST DATED 2/7/92

BY:
D. ANDREW CLARK, AS CO-TRUSTEE

BY:
LOIS CLARK LOESCH, AS CO-TRUSTEE

LOIS CLARK LOESCH, 1/3/a LOIS E. CLARK, AS TRUSTEE OF
LOIS E. CLARK TRUST DATED 2/7/92

BY:
LOIS CLARK LOESCH, 1/3/a LOIS E. CLARK

STATE OF FLORIDA
COUNTY OF VOLUSIA
THIS IS TO CERTIFY THAT ON _____ BEFORE ME, AN OFFICER DULY AUTHORIZED TO TAKE ACKNOWLEDGMENTS IN THE STATE AND COUNTY AFORESAID, PERSONALLY APPEARED _____ AS IDENTIFICATION AND THEY (HAVE) ☐ (HAVE NOT) ☐ TAKEN OATH.
IN WITNESS WHEREOF, I HAVE HEREUNTO SET MY HAND AND SEAL ON THE ABOVE DATE

NOTARY PUBLIC
STATE OF FLORIDA AT LARGE
MY COMMISSION EXPIRES: _____
TITLE/RANK:
COMMISSION NUMBER: _____

CERTIFICATE OF SURVEYOR AND MAPPER KNOW ALL MEN BY THESE PRESENTS THAT THE UNDERSIGNED, BEING A LICENSED AND PROFESSIONAL SURVEYOR AND MAPPER, DOES HEREBY CERTIFY THAT THE PLAT SHOWN AND DESCRIBED HEREON, ENTITLED CLARK PROFESSIONAL CENTER, WAS PREPARED UNDER MY DIRECTION AND SUPERVISION, THAT THE PLAT COMPLIES WITH ALL OF THE SURVEY REQUIREMENTS OF CHAPTER 177, FLORIDA STATUTES, AND THAT ALL MONUMENTATION SHOWN HEREON OR REQUIRED PER CHAPTER 177, FLORIDA STATUTES, HAS BEEN PROPERLY PLACED.

DATE: _____

WILLIAM S. HART, P.S.M. NO. 3905
UPHAM, INC. LB 3612
ADDRESS: 265 KENILWORTH AVENUE
ORMOND BEACH, FLORIDA 32174

REVIEW BY SURVEYOR AND MAPPER FOR THE CITY I HEREBY CERTIFY TO THE CITY, THAT I HAVE REVIEWED THE FOREGOING PLAT FOR COMPLIANCE WITH THE REQUIREMENTS OF CHAPTER 177, FLORIDA STATUTES, AND THAT I HAVE PROVIDED BOTH THE CITY AND THE SURVEYOR AND MAPPER OF RECORD A LIST OF DEVIATIONS, IF ANY, FROM SUCH REQUIREMENTS.

DATE: _____

PRINTED NAME: _____ P.S.M. NO. _____

PLANNING COMMISSION CERTIFICATE OF APPROVAL
THIS STATEMENT HEREBY CERTIFIES THAT THE PLAT ENTITLED CLARK PROFESSIONAL CENTER WAS APPROVED BY THE PORT ORANGE PLANNING COMMISSION ON _____
BY: _____

CHAIRMAN OF THE PORT ORANGE PLANNING COMMISSION

CITY COUNCIL CERTIFICATE OF APPROVAL
THIS STATEMENT HEREBY CERTIFIES THAT THE PLAT ENTITLED CLARK PROFESSIONAL CENTER WAS APPROVED BY THE PORT ORANGE CITY COUNCIL ON _____

BY: _____ ATTEST: _____
MAYOR OF THE CITY OF PORT ORANGE CITY CLERK OF THE CITY OF PORT ORANGE

CERTIFICATE OF CLERK
I HEREBY CERTIFY THAT I HAVE EXAMINED THE FOREGOING PLAT AND FOUND THAT IT COMPLIES, IN FORM, WITH ALL REQUIREMENTS STATED IN CHAPTER 177, FLORIDA STATUTES, AND THAT IT WAS FILED FOR RECORD ON _____ AT _____ AM/PM.

CLERK OF CIRCUIT COURT
VOLUSIA COUNTY, FLORIDA

UPHAM⁰²
CIVIL ENGINEERING • SURVEYING • LANDSCAPE ARCHITECTURE
265 Kenilworth Avenue • Ormond Beach • Florida 32174
Voice: 386.672.9515 • Fax: 386.673.6554 • uphaminc.com
LB # 0003612 LC # 0000357

CLARK PROFESSIONAL CENTER PHASE 2

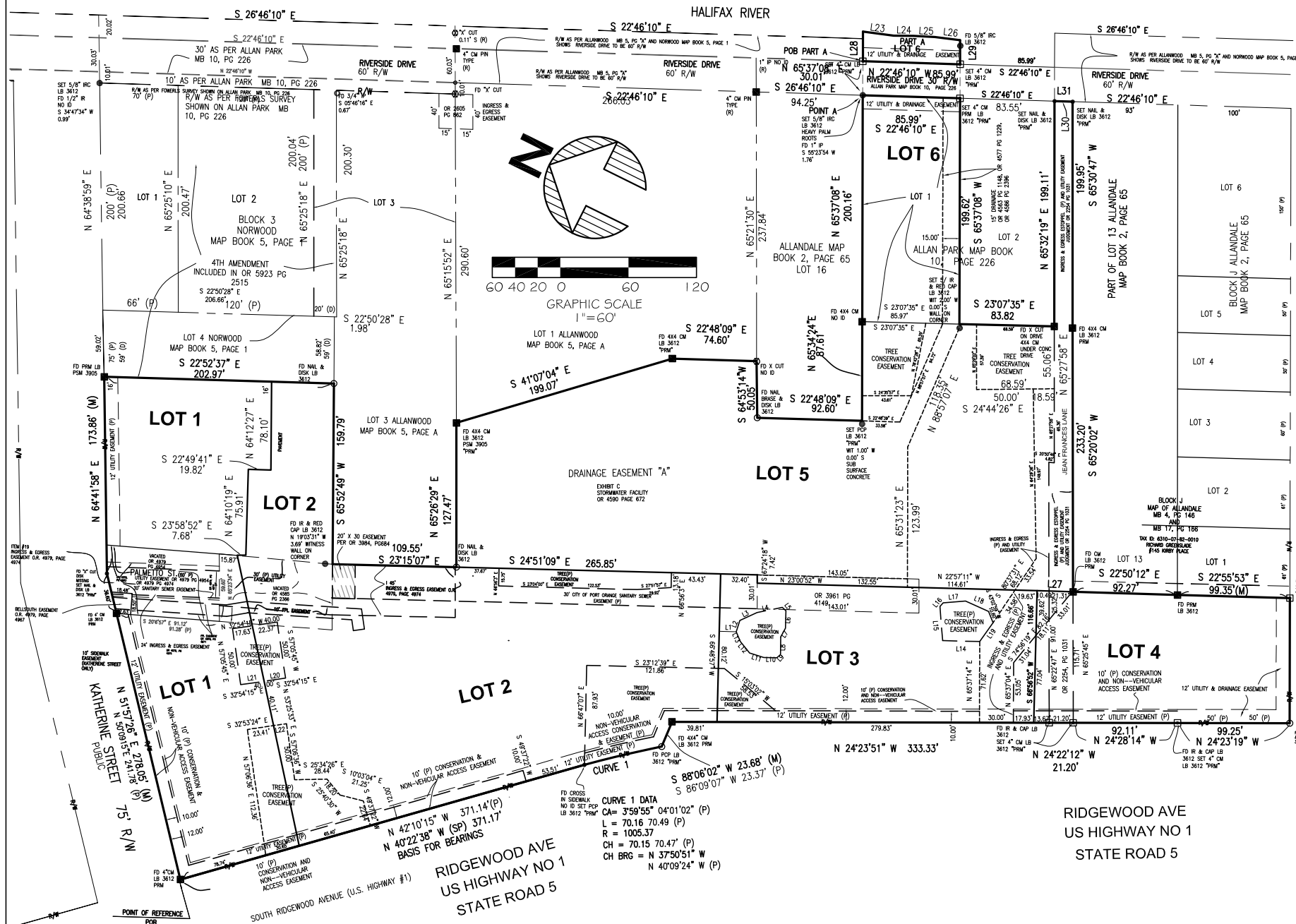
A PORTION OF SECTION 10, TOWNSHIP 16 SOUTH, RANGE 33 EAST CITY OF PORT ORANGE, VOLUSIA COUNTY, FLORIDA.

MAP BOOK

PAGE

GENERAL NOTES:

1. ACCURACY: THE BOUNDARY LINEAR ERROR OF CLOSURE DOES NOT EXCEED 1:10,000. THE BOUNDARY ANGULAR ERROR OF CLOSURE DOES NOT EXCEED 15 SECONDS MULTIPLIED BY SQUARE ROOT OF THE NUMBER OF ANGLES TURNED.
2. BEARING STRUCTURE (N 40°22'38" W) STATE PLANE FLORIDA EAST GRID ALONG THE EAST RIGHT-OF-WAY LINE OF RIDGEWOOD AVE (US HIGHWAY HIGHWAY NO. 1, STATE PLANE CONTROL, USED FOR THIS PROJECT USCG & X404, AND CITY OF PORT ORANGE HORIZONTAL AND VERTICAL CONTROL PD-16, (ESTABLISHED BY SOUTHEASTERN SURVEYING DATED OCTOBER 24, 1996).
3. ALL MEASUREMENTS REFER TO HORIZONTAL PLANE IN ACCORDANCE WITH THE DEFINITION OF THE UNITED STATES SURVEY FOOT OR METER ADOPTED BY THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY. ALL MEASUREMENTS SHALL USE THE 39.37/12 = 3.2803333333 EQUATION FOR CONVERSION FROM A U.S. FOOT TO SURVEY METERS. ALL MEASUREMENTS ON THIS PLAN ARE IN U.S. FOOT AND DECIMALS THEREOF.
4. NOTICE: THIS PLAN, AS RECORDED IN ITS GRAPHIC FORM, IS THE OFFICIAL DEPICTION OF THE SUBDIVIDED LANDS DESCRIBED HEREIN AND WILL, IN NO CIRCUMSTANCES BE SUPERPLANTED IN AUTHORITY BY ANY OTHER GRAPHIC OR DIGITAL FORM OF THE PLAN WHETHER GRAPHIC OR DIGITAL. THERE MAY BE ADDITIONAL RESTRICTIONS THAT ARE NOT RECORDED ON THIS PLAN THAT MAY BE FOUND IN THE OFFICIAL RECORDS OF VOLUSIA COUNTY, FLORIDA.
5. THIS PLAN IS SUBJECT TO ALL EASEMENTS OF RECORD AND RESERVATIONS OF RECORD, INCLUDING BUT NOT LIMITED TO ALL DRAINAGE AND UTILITY EASEMENTS DEDICATED HEREON.
6. BUILDING SETBACK REQUIREMENTS: FRONT (STREET FRONTAGE): 10' SIDE STREET: 10' REAR: 10'
7. UTILITY EASEMENTS PROVIDED ON THIS PLAN INCLUDE 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.
8. UTILITIES INCLUDE BUT ARE NOT LIMITED TO SANITARY SEWER, POTABLE WATER, RECLAIMED WATER, STORM DRAINAGE, ELECTRIC, TELEPHONE, CABLE TELEVISION, SECURITY AND NATURAL GAS.
9. ALL OTHER EASEMENTS SHOWN HEREON ARE SUBORDINATE TO ANY CONSERVATION EASEMENTS DEDICATED HEREON. THERE SHALL BE NO REMOVAL OR DISTURBANCE OF ANY VEGETATION WITHIN SUCH CONSERVATION EASEMENTS. ANY PROPOSED CONSTRUCTION OR OTHER USE WITHIN A CONSERVATION EASEMENT MUST BE REVIEWED AND APPROVED BY THE CITY OF PORT ORANGE AND ANY OTHER AUTHORITY HAVING JURISDICTION OVER THE CONSERVATION EASEMENT.
10. THIS PLAN CONFORMS TO CHAPTER 177 PART 1 FLORIDA STATUTES LAST REVISED PER CH. 99-288, PERMANENT REFERENCE MONUMENTS (PRM) NOT SHOWN AS A OR A CONFORMS TO FLORIDA STATUTE CHAPTER 177.031 (15) (C) CHAPTER 90-20.
11. THE CLARK OFFICE BUILDING, LTD. PARTNERSHIP SHALL BE RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF THE DRAINAGE SYSTEM SERVING THE AREA WITHIN THE BOUNDARIES OF THIS PLAN, AS DEPICTED ON THE STORM WATER MANAGEMENT PLAN APPROVED FOR THIS DEVELOPMENT BY THE CITY OF PORT ORANGE, FL.
12. THE CLARK OFFICE BUILDING, LTD. PARTNERSHIP SHALL BE RESPONSIBLE FOR MAINTAINING ALL PRIVATE ROADS GRANTED BY THIS PLAN.
13. A 12 FOOT UTILITY EASEMENT SHALL BE LOCATED ALONG THE FRONTAGE OF KATHERINE STREET AND SOUTH RIDGEWOOD AVENUE.



LINE TABLE
LINE NUMBER BEARING DISTANCE

L1	S 23°11'03" E	15.05'
L2	N 83°13'19" E	10.35'
L3	S 49°09'20" E	16.71'
L4	S 36°31'05" E	22.93'
L5	S 19°47'21" W	4.39'
L6	S 66°47'21" W	15.32'
L7	N 86°33'23" W	8.85'
L8	S 66°47'21" W	15.50'
L9	N 68°12'39" W	4.24'
L10	N 23°12'39" W	11.71'
L11	N 06°40'46" W	13.09'
L12	N 26°23'00" E	13.09'
L13	N 42°54'53" E	9.41'
L14	S 23°12'39" E	32.70'
L15	N 60°47'21" E	30.23'
L16	S 74°12'39" E	4.24'
L17	S 29°12'39" E	19.93'
L18	S 00°08'54" E	22.35'
L19	S 79°12'38" E	20.18'
L20	S 32°54'15" E	19.16'
L21	S 32°54'15" E	20.86'
L22	S 32°53'24" E	11.59'
L23	S 17°06'58" E	27.37'
L24	S 24°00'36" E	17.73'
L25	S 21°30'13" E	18.69'
L26	S 17°20'40" E	22.59'
L27	S 22°43'52" E	31.80'
L28	N 65°37'08" E	26.23'
L29	S 65°37'08" W	21.37'
L30	S 22°49'47" E	16.04'
L31	S 22°46'10" E	16.04'

LEGEND:

1. MONUMENTATION:

- DENOTES PERMANENT REFERENCE MONUMENT FOUND
- DENOTES PERMANENT REFERENCE MONUMENT SET, 4"x4" CONCRETE MONUMENT WITH BRASS DISK STAMPED LB 3612 PRM
- DENOTES PERMANENT CONTROL POINT, SET METAL DISK STAMPED LB 3612
- DENOTES 5/8" IRON ROD AND CAP STAMPED LB 3612
- DENOTES 5/8" IRON ROD AND CAP STAMPED LB 3612
- DENOTES 5/8" IRON ROD AND CAP STAMPED LB 3612
- DENOTES FOUND IRON PIPE
- DENOTES FOUND DISK LB 3612

2. ABBREVIATIONS:

- (R) DENOTES A LINE RADIAL RELATIVE TO ADJACENT CURVE
- (NR) DENOTES A LINE NON-RADIAL RELATIVE TO ADJACENT CURVE
- CL CENTER LINE
- CA CENTRAL ANGLE
- L LENGTH OR ARC
- R RADIUS
- CH CHORD
- CB CHORD BEARING
- MFG. MANUFACTURING
- O.R. OFFICIAL RECORDS BOOK
- (R) RECORD
- FD FOUND
- PSM PROFESSIONAL SURVEYOR AND MAPPER
- INC. INCORPORATED
- FL FLORIDA
- P.O. POST OFFICE
- AC ACRES
- RW RIGHT-OF-WAY
- U.S. UNITED STATES
- (P) PLAT
- LS LICENSED SURVEYOR
- PG PAGE
- (SP) STATE PLANE FLORIDA EAST GRID
- IR 5/8" IRON ROD
- IRC 5/8" IRON ROD & CAP
- LB LICENSED BUSINESS
- CM CONCRETE MONUMENT

SHEET 2 OF 2

UPHAM
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Voice: 386.672.9515 • Fax: 386.673.6554 • uphaminc.com
LB # 0003612 LC # 0000357



STAFF REPORT

Case No. 17-25000001

LDC Amendment/Chapters 2, 12, 16, 17, and 18 – Tattoo Establishments

REQUEST:

To amend Chapter 2 of the Land Development Code (LDC) to add definition for tattoo establishment and update the definition for personal service; amend Chapter 12 to add a parking requirement for tattoo establishment; amend Chapter 16 to add tattoo establishment to the list of prohibited home occupations; amend Chapter 17 of the LDC to add tattoo establishment as a permitted use in the Highway Commercial, Ridgewood Development, and Interchange Commercial zoning districts, remove tattoo parlor as a prohibited use in the Planned Community-Agricultural (PC-A) zoning district, and remove tattoo parlor as a Special Exception use in the Highway Commercial and Ridgewood Development zoning districts; and amend Chapter 18 of the LDC to remove Special Exception requirements for a tattoo parlor use.

STAFF RECOMMENDATION: **Approval**

STAFF CONTACT: Tim Burman, Planner Manager (386) 506-5675

PLANNING COMMISSION DATE: March 23, 2017

BACKGROUND:

In December 2015, the United States Court of Appeals for the Eleventh Circuit ruled that tattooing is a First Amendment-protected act of artistic expression (Buehrle vs City of Key West). The Eleventh Circuit recited the standard for regulating protected artistic expression as follows: 1) the regulation must be justified without reference to the content of the regulated speech (i.e. content neutral); 2) the regulation must be narrowly tailored to serve a significant governmental interest; and 3) the regulation must also leave open ample alternate channels for communication of the information. The Eleventh Circuit found that Key West had not met its burden to demonstrate that it had a reasonable basis for believing that its regulation would further its legitimate interests of preserving aesthetics and encouraging tourism through pre-enactment evidence such as its own findings, evidence gathered by other localities, or evidence described in a judicial opinion.

Currently, a tattoo parlor is not permitted by right in any of the City's zoning districts and only allowed in the Highway Commercial (HC) and Ridgewood Development (RD) zoning districts through approval of a special exception reviewed by the Planning Commission and approved by the City Council. According to the LDC, a Special Exception is a use that would not be appropriate without restriction, but if controlled as

to number, area, location or relation to the surrounding area, would promote the public health, safety, and general welfare.

In October 2016, a 9-month moratorium was approved on uses related to tattoo parlors in order to provide time to review existing regulations in the Land Development Code (LDC) related to tattooing and develop possible amendments if necessary to comply with the latest ruling from the Eleventh Circuit.

The proposed LDC amendment would make tattoo establishments a permitted use in the Highway Commercial (HC), Ridgewood Development (RD), Interchange Commercial (ICD), and Planned Commercial-Agricultural (PC-A) Workplace¹ zoning districts (Exhibit A) and is based on the case law established by the Eleventh Circuit in Buehrle vs City of Key West. According to the Key West case, restricting the location of a tattoo establishment through a Special Exception requires evidence to justify that a tattoo establishment would cause blight, public safety problems, or harm to the public. At this time, Staff has not identified any evidence, study, or judicial decision to support controlling the number of tattoo establishments because of concerns that they could harm the health, safety, and general welfare of the public.

In Port Orange, a tattoo establishment is allowed as a Special Exception use in the Highway Commercial (HC) and Ridgewood Development (RD) zoning districts (Exhibit A). The current Special Exception use criteria in the Land Development Code (LDC) for a tattoo establishment limits the location in the RD and HC zoning districts for tattoo establishments.

1. The proposed site shall be at least 300 feet from a residential zone measured along right-of-way centerlines;
2. The proposed site shall be at least 1,000 feet from any other such use;
3. The proposed site shall be at least 300 feet from the nearest house of worship, school or child care center; and
4. Buffering shall be provided based on a land use intensity factor of eight.

The Eleventh Circuit's opinion originates from the denial of an application for a business license for a tattoo establishment in the historic district of Key West. The City of Key West denied the application based on the use being prohibited in that area. Tattoo establishments were only permitted in one district in the City as a "conditional use". The history of restriction on the use in Key West came from the belief that these establishments are inconsistent with the district's historic character, and Key West feared that, "rash tourists will obtain regrettable tattoos, leading to negative association with Key West," and that therefore, "permitting tattoo establishments will adversely affect tourism."

The Eleventh Circuit's opinion joined the Ninth Circuit's 2010 decision in Anderson vs City of Hermosa Beach, finding tattooing to be a protected form of artistic expression under the First Amendment. As set forth above, the *Eleventh Circuit* stated that a city ordinance limiting artistic expression is constitutional only if regulation is justified without

¹The PC-A Workplace zoning district allows the same permitted uses as those in the HC and ICD zoning districts

significant governmental interest, and leaves open ample alternative channels for communication of the information.

In this case, the Eleventh Circuit found that the City of Key West conducted no investigation, made no findings, supplied no evidence, and could point to no study or judicial decisions to support its claims of tattoo establishments negatively impacting tourism. The Eleventh Circuit found that the district court erred when it found that the City's ordinance met the reasonable time, place, and manner restriction on artistic expressions, and therefore reversed and remanded the lower court's grant of summary judgement.

DISCUSSION:

According to the American Planning Association's 2010 Planning Advisory Service (PAS) report on Regulating Contentious Commercial Uses, due to the puncturing of skin, tattoo parlors and body piercing studios tend to have heavy licensing regulations that focus on health and sanitation. These regulations may cover facilities, personnel, and operational practices to protect public health. In Florida, tattoo artists and tattoo establishments are regulated by the Florida Department of Health (DOH). The DOH requires licensure of tattoo artists and tattoo establishments along with educational requirements and standards of practice for conventional and cosmetic tattoo artists, and operational requirements for tattoo establishments. Prior to issuance or renewal of a City Business Tax to operate a tattoo establishment in Port Orange, an active license for the tattoo artist(s) and tattoo establishment from the Florida Department of Health is required. Notable provisions of state law include:

1. Minors are prohibited from receiving tattoos except 16 or 17-year old with parental consent and accompaniment;
2. Both tattoo artists and tattoo establishments must be licensed;
3. As part of licensure, a tattoo establishment must demonstrate that it complies with all applicable zoning codes;
4. A person may not tattoo the body of any human being in the state except at a properly licensed establishment; and
5. There are minimum education and training requirements for tattoo artists which include the study of blood-borne pathogens.

Currently there are two tattoo establishments with active business licenses operating in Port Orange. According to the Police Department, since January 2014 there have not been any calls concerning the two locations where general welfare of the public was in harm.

1. Hold Fast Tattoo & Body Piercing, located at 5153 S. Ridgewood Ave.
2. Chris Hawkins Creations, located at 5521 S. Ridgewood Ave., Unit #5

The development or redevelopment of a building/site for a tattoo establishment would be required to comply with all site development requirements listed in the LDC and Code of Ordinances, such as landscape buffers, screen wall, stormwater, water, sewer, and reclaim lines, parking, appearance of the building, signage, noise ordinance, and other site requirements, and are finalized with a site plan or building permit.

The City of Daytona Beach is also currently in the process of amending their LDC to comply with the Eleventh Circuit's ruling to expand the zoning districts where a tattoo establishment is a use permitted by right. Daytona Beach allows tattoo establishments in the Heavy Industrial (M-5) zoning district and has proposed to add it as a permitted use in the Business Automotive (BA) zoning district.

Proposed Amendments:

The proposed LDC amendment would make tattoo establishments a permitted use in the Highway Commercial (HC), Ridgewood Development (RD), Interchange Commercial (ICD), and Planned Commercial-Agricultural (PC-A) Workplace zoning districts (Exhibit A) and update the regulations related to tattooing to comply with the latest ruling by the Eleventh Circuit:

1. Clearly defining tattoo establishment. The use is not currently defined in the LDC;
2. Updating the existing definition in the LDC for personal service use to allow the application of cosmetic permanent eye makeup and clarify that use is not equivalent to tattooing;
3. Removing tattoo parlor as a Special Exception use in the Highway Commercial (HC) and Ridgewood Development (RD) zoning districts;
4. Removing tattoo parlor as a prohibited use in the Planned Community-Agricultural (PC-A) zoning district;
5. Adding tattoo establishment as a permitted use in the Highway Commercial (HC), Interchange Commercial District (ICD), Ridgewood Development (RD) zoning districts (Exhibit B and C);
6. Adding tattoo establishment to the list of prohibited home occupations;
7. Adding parking requirement of 1 space per 200 square feet for a tattoo establishment.

Proposed Definitions

Tattoo Establishment. An establishment whose principle business activity, either in terms of operation or as held out to the public, is the practice of placing of designs, letters, figures, symbols, or other marks upon or under the skin of any person, using ink or other substances that result in the permanent coloration or alteration of the skin by means of the use of needles or other instruments designed to contact or puncture the skin. This use does not include tattooing by licensed medical professional exclusively for medical or dental purposes, or the application of cosmetic permanent eye makeup as an accessory use of a personal services establishment.

Personal service. An establishment which provides for the care of a person or a person's apparel, and may include, but not be limited to, beauty/barber shop, nail salon, tanning salon, application of cosmetic permanent eye makeup, laundry, dry cleaning (retail store), garment service, and shoe repair. This term shall not include pain management clinic or tattoo establishment.

RECOMMENDATION:

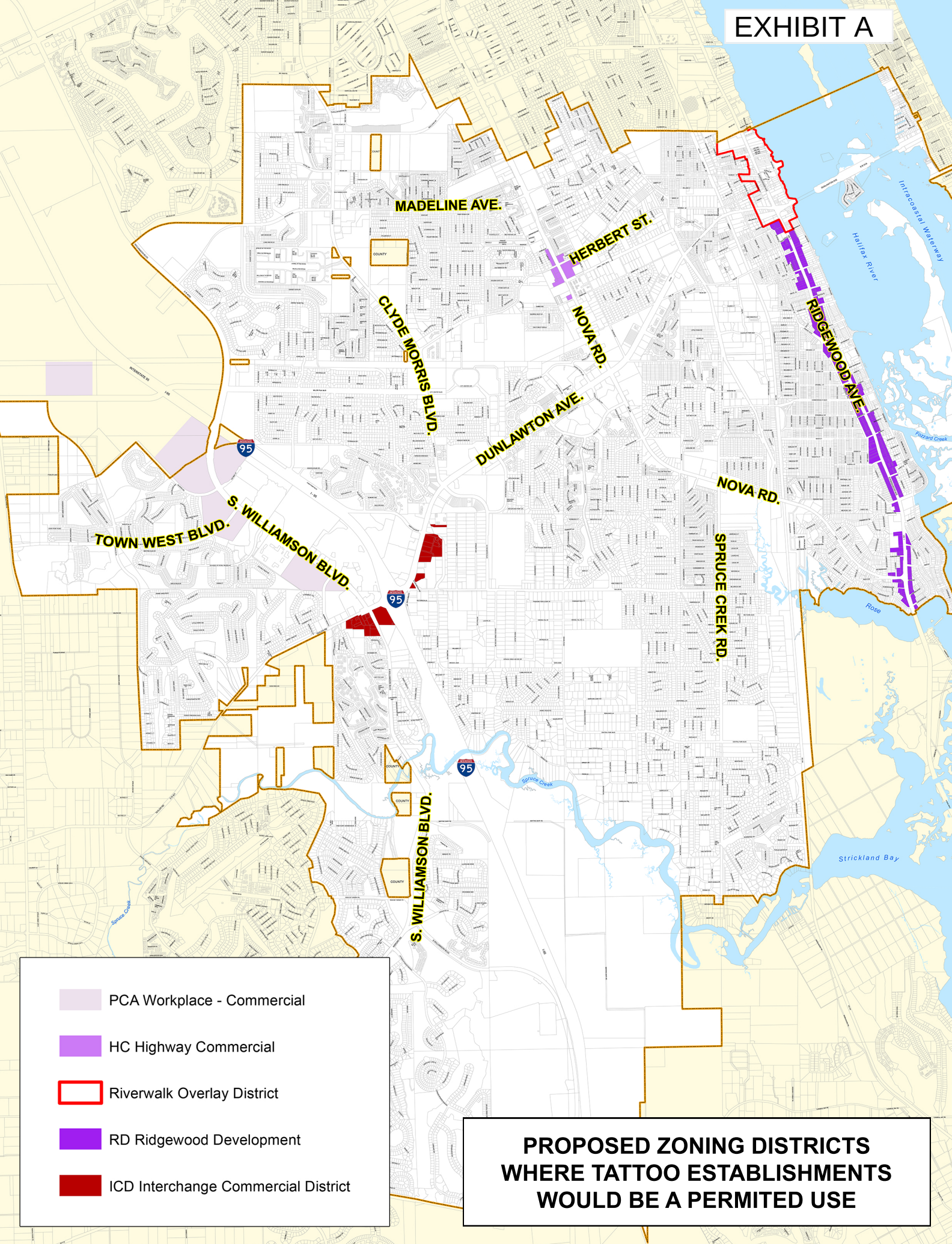
Approval of the amendments to Chapter 2, 12, 16, 17, and 18 of the Land Development Code regarding to uses related to tattoo establishments, is based on the case law established in the December 2015 decision of the U.S. Court of Appeals for the Eleventh Circuit in the Key West case.

ATTACHMENTS:

Exhibit A – Overview Map of the areas zoned HC, ICD, RD, and PC-A

Exhibit B – Location Map of the areas zoned HC and ICD

Exhibit C – Location Map of the areas zoned PC-A and RD



TOWN WEST BLVD.
S. WILLIAMSON BLVD.

MADELINE AVE.

CLYDE MORRIS BLVD.

HERBERT ST.

NOVA RD.

DUNLAWTON AVE.

NOVA RD.

SPRUCE CREEK RD.

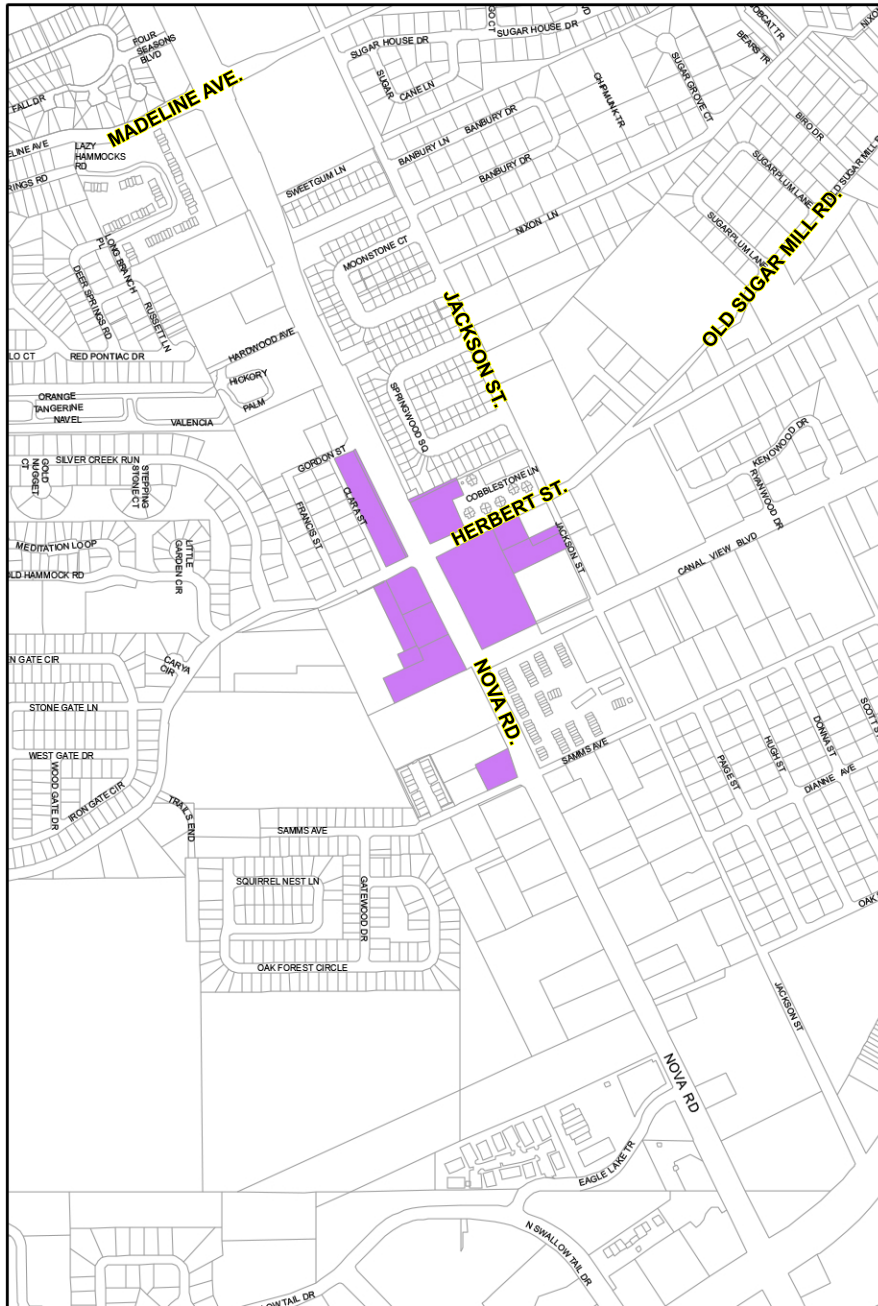
RIDGEWOOD AVE.

S. WILLIAMSON BLVD.

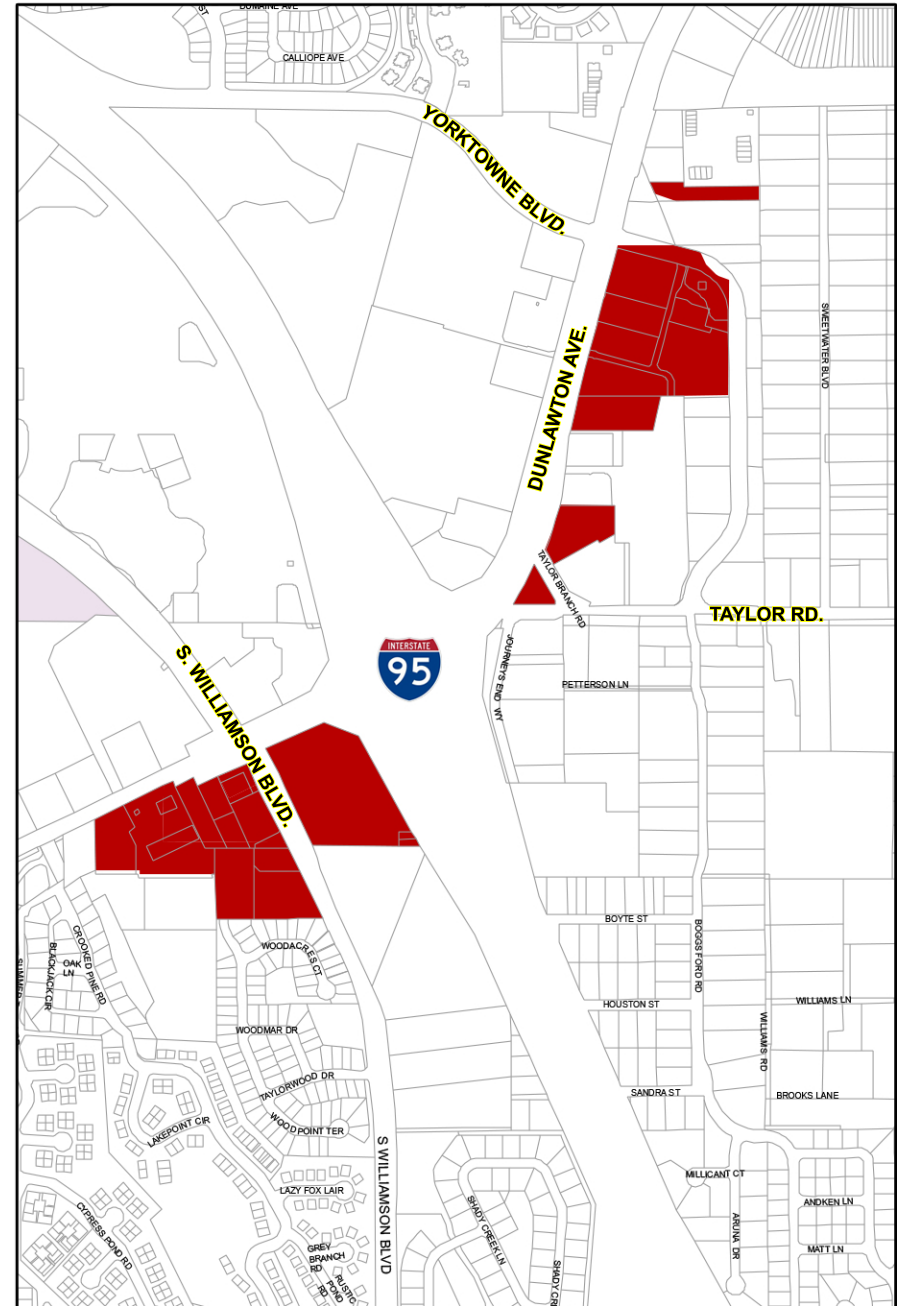
- PCA Workplace - Commercial
- HC Highway Commercial
- Riverwalk Overlay District
- RD Ridgewood Development
- ICD Interchange Commercial District

**PROPOSED ZONING DISTRICTS
WHERE TATTOO ESTABLISHMENTS
WOULD BE A PERMITTED USE**

HC Highway Commercial



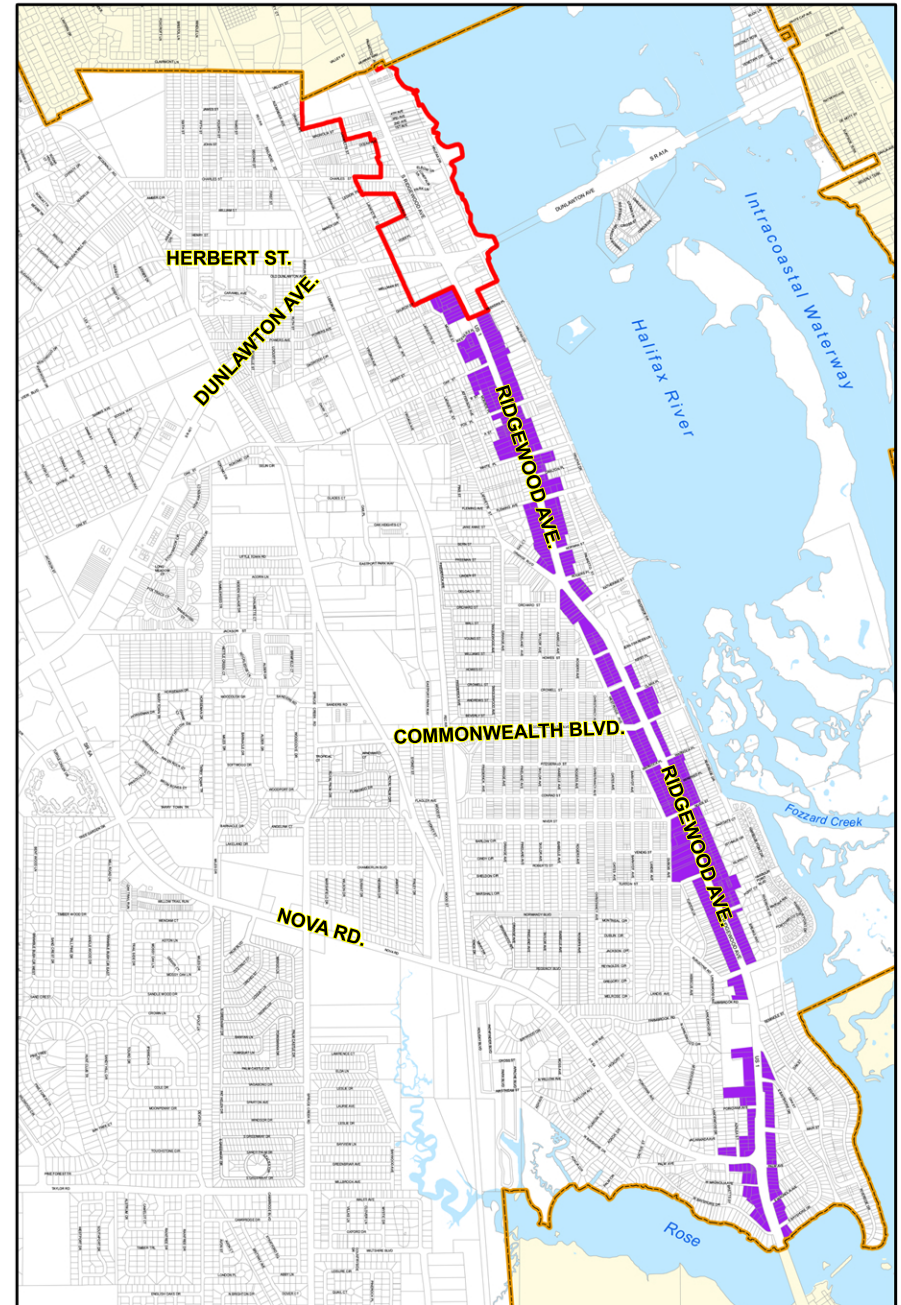
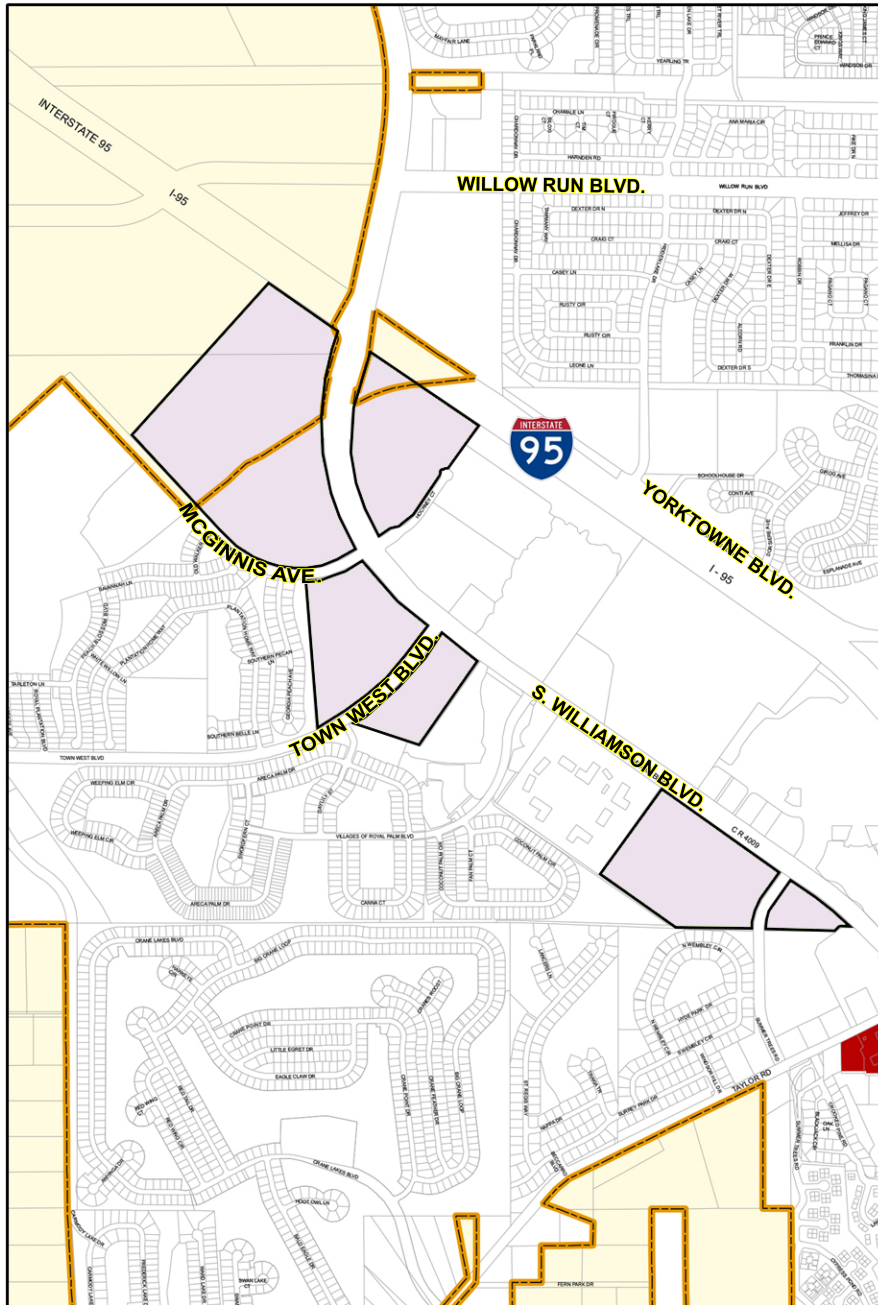
ICD Interchange Commercial District



**PROPOSED ZONING DISTRICTS WHERE
TATTOO ESTABLISHMENTS WOULD BE A PERMITTED USE**

PCA Workplace 

RD Ridgewood Development 



**PROPOSED ZONING DISTRICTS WHERE
TATTOO ESTABLISHMENTS WOULD BE A PERMITTED USE**



STAFF REPORT

Case No. 17-25000002

LDC Amendment/Chapters 12, 17 and 18 – Adult Entertainment Establishments

REQUEST:

To amend Chapter 12 of the Land Development Code (LDC) to add parking requirement for adult entertainment establishment use; amend Chapter 17 of the LDC to remove adult entertainment establishment as a Special Exception use in the Highway Commercial (HC) zoning district and add adult entertainment establishment as a Special Exception use in the Commercial Industrial (CI) zoning district; and amend Chapter 18 to remove the adult entertainment establishment Special Exception criteria for the Highway Commercial (HC) zoning district and add the adult entertainment establishment Special Exception requirements for the Commercial Industrial (CI) zoning district and update the requirement for measuring the Special Exception separation distance between an adult entertainment use and a residentially-zoned property or parcel with a preexisting adult entertainment use, preexisting house of worship, school, park, child care center, or establishment dealing in alcoholic beverages.

STAFF RECOMMENDATION: **Approval**

STAFF CONTACT: Tim Burman, Planner Manager (386) 506-5675

PLANNING COMMISSION DATE: March 23, 2017

BACKGROUND:

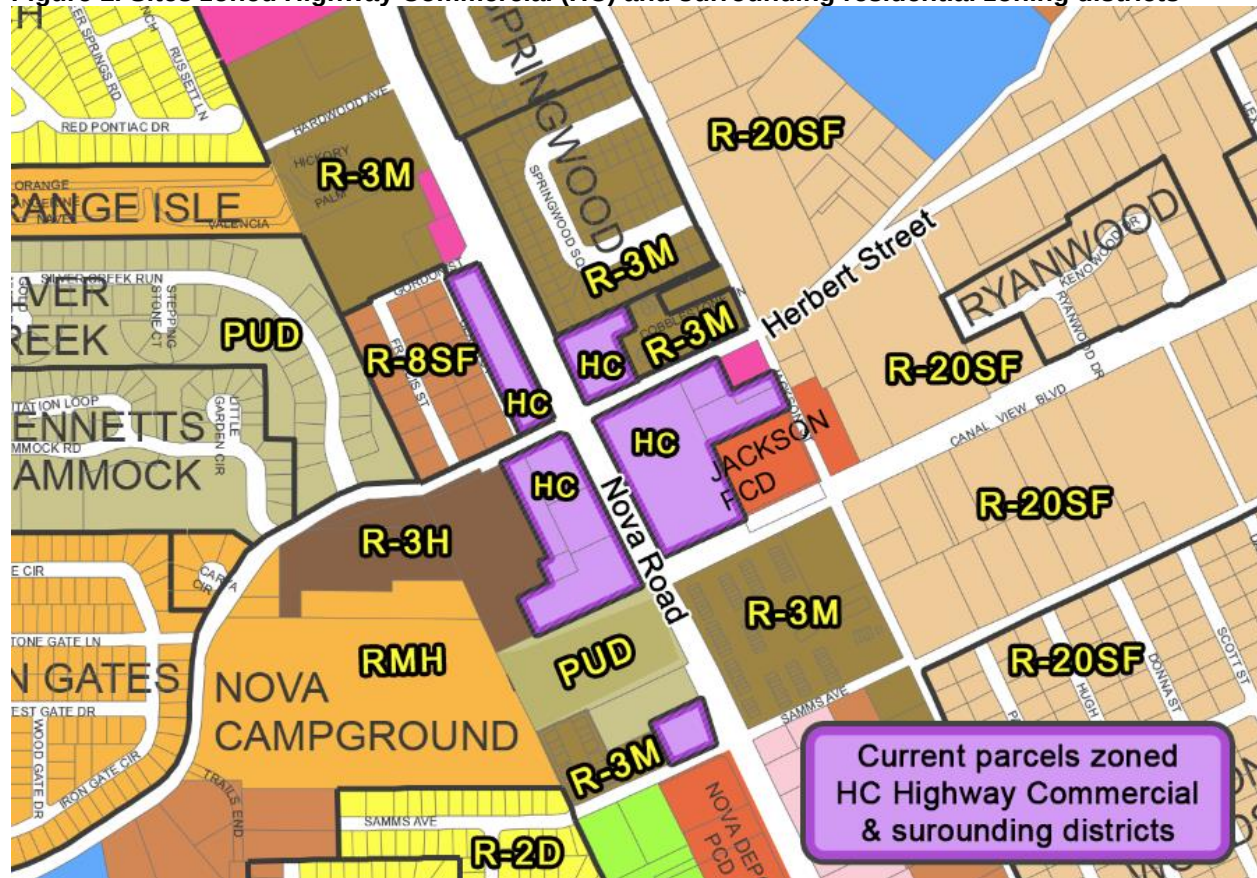
In June 2016, a 12-month moratorium was approved for adult entertainment establishment uses in order to provide time to review existing regulations in the LDC related to adult entertainment establishments and if necessary to develop amendments to maintain reasonable and uniform regulations that protect the health, safety and general welfare of the residents of Port Orange. The Land Development Code (LDC) defines adult entertainment establishment as an adult theater, adult bookstore or adult performance establishment, operated for commercial or pecuniary gain.

The federal courts, including the United States Supreme Court, have determined that adult entertainment establishments are engaged in conduct that is protected under the First Amendment to the Constitution of the United States, and that local governments cannot adopt regulations that prohibit protected activity. As providers of protected First Amendment activity, the courts have uniformly ruled that these types of adult entertainment establishments cannot be prohibited but the use can be regulated. Regulations may include restrictions regarding where and how adult entertainment establishments may operate, but the designated sites must be reasonable in number and location to allow adult entertainment establishments to operate and engage in protected activities.

In Port Orange, adult entertainment establishments are not permitted by right in any of the City's zoning districts and are currently allowed as a Special Exception use in the Highway

Commercial (HC) zoning district (Figure 1) or subject to City Council approval of a Master Development Agreement in a Planned Commercial Development (PCD) zoning district.

Figure 1. Sites zoned Highway Commercial (HC) and surrounding residential zoning districts



According to the LDC, a Special Exception is a use that would not be appropriate without restriction, but if controlled as to number, area, location or relation to the surrounding area, would promote the public health, safety, and general welfare. All requests for Special Exception uses must be reviewed by the Planning Commission and approved by the City Council. Below are the existing Special Exception criteria currently in the LDC for this use:

1. The proposed site shall be at least 500 feet from any residentially-zoned property, including planned unit developments.
2. The proposed site shall be at least 1,000 feet from any preexisting adult entertainment use.
3. The proposed site shall be at least 1,000 feet from any preexisting house of worship, school, park or child care center.
4. The proposed site shall be at least 300 feet from any preexisting establishment dealing in alcoholic beverages, as defined in the Code or Ordinances, for on-premises consumption.
5. Buffering shall be provided based on a land use intensity factor of nine.

When the Special Exception use criteria in the LDC for adult entertainment establishments is applied to all the lots currently zoned HC there are no lots in the HC zoning district available to operate an adult entertainment establishment (Figure 1). Therefore, the current requirements in the LDC may prohibit the use from operating within the City. When the adult entertainment

establishments ordinance was updated in 1996 there were areas in the City zoned HC, but over the last 20 years a majority of these areas have been rezoned to Planned Commercial Development (PCD). The proposed LDC amendment updates the zoning districts where the use would be allowed as a Special Exception and maintains the existing Special Exception criteria currently in the LDC for this use.

In addition to receiving approval of a Special Exception from Council, the development or redevelopment of a building/site for an adult entertainment establishment would be required to comply with all site development requirements listed in the LDC and Code of Ordinances, such as landscape buffers, screen wall, stormwater, water, sewer, and reclaim lines, parking, appearance of the building, signage, noise ordinance, and other site requirements, and are finalized with a site plan or building permit.

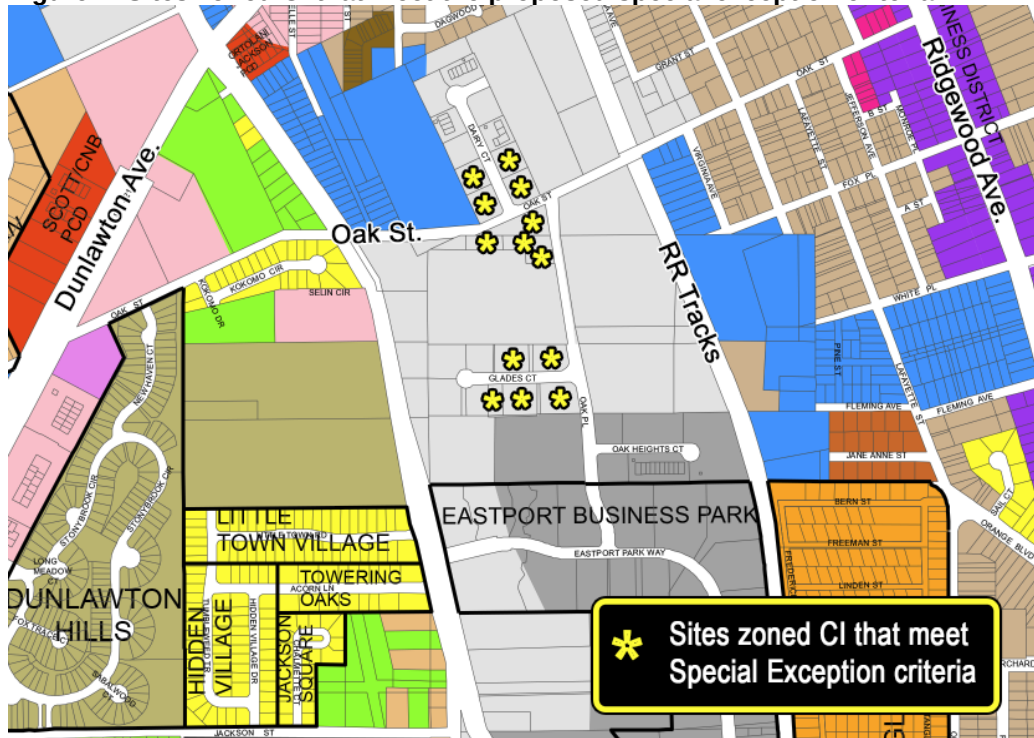
The proposed ordinance is content neutral under the Renton standard established by the United States Supreme Court in the County of Renton v. Playtime Theaters, Inc., because it is designed to further the City's purposes and goals in limiting and preventing the secondary effects associated with adult entertainment establishment. These adverse secondary effects include: urban blight; increased crime; decreased property values; reduced retail trade; prostitution; and illegal drug transactions.

PROPOSED AMENDMENT

The proposed amendments are intended to update the regulations in the LDC related to adult entertainment establishments to comply with the First Amendment rights that the courts have uniformly ruled cannot be prohibited:

- a. Remove all references to adult entertainment establishment as a Special Exception use in the HC zoning district and all associated requirements.
- b. Add adult entertainment establishment as a Special Exception use in the Commercial Industrial (CI) zoning district (Figure 2.)

Figure 2. Sites zoned CI that meet the proposed special exception criteria



- c. Add the Special Exception criteria currently in the LDC for this use and update the requirement for measuring the Special Exception separation distance between an adult entertainment use and a preexisting adult entertainment use, preexisting house of worship, school, park, child care center, or establishment dealing in alcoholic beverages. Current language does not specify how to measure the separation. The revised language would require the separation distance to be measured from the nearest property line of a parcel with a proposed adult entertainment establishment use to the nearest property line of a residentially-zoned property or parcel with a preexisting adult entertainment use, preexisting house of worship, school, park, child care center, or establishment dealing in alcoholic beverages.
- d. Add parking requirements for adult entertainment establishment use. The LDC does not have parking requirements for adult entertainment establishment (adult theater or adult performance establishment). According to the Institute of Transportation Engineers (ITE) Parking Generation Manual, 4th edition, a parking ratio between 5.23 to 5.90 spaces per 1,000 square-feet [$5.23 \text{ spaces} / 1,000 \text{ SF} = 1 \text{ space per } 191 \text{ SF}$ and $5.90 \text{ spaces} / 1,000 \text{ SF} = 1 \text{ space per } 169 \text{ SF}$] for an adult theater or adult performance establishment will provide sufficient parking. The proposed 1 parking space per 180 square-feet is consistent with the ITE and is on the higher end of the suggested range. Parking for each employee will also be required at a rate of 1 space/employee on largest shift. This ratio is consistent with the parking requirement in the LDC for employees at a bar. The existing general retail parking ratio of 1 space per 200 square feet will be used for an adult bookstore use.

RECOMMENDATION:

Approval of the amendments to Chapter 12, 17, and 18 of the Land Development Code regarding to uses related to adult entertainment establishments, is based on the case law established by the United States Supreme Court.



STAFF REPORT

REZONING/6080 Deerfeed Trail

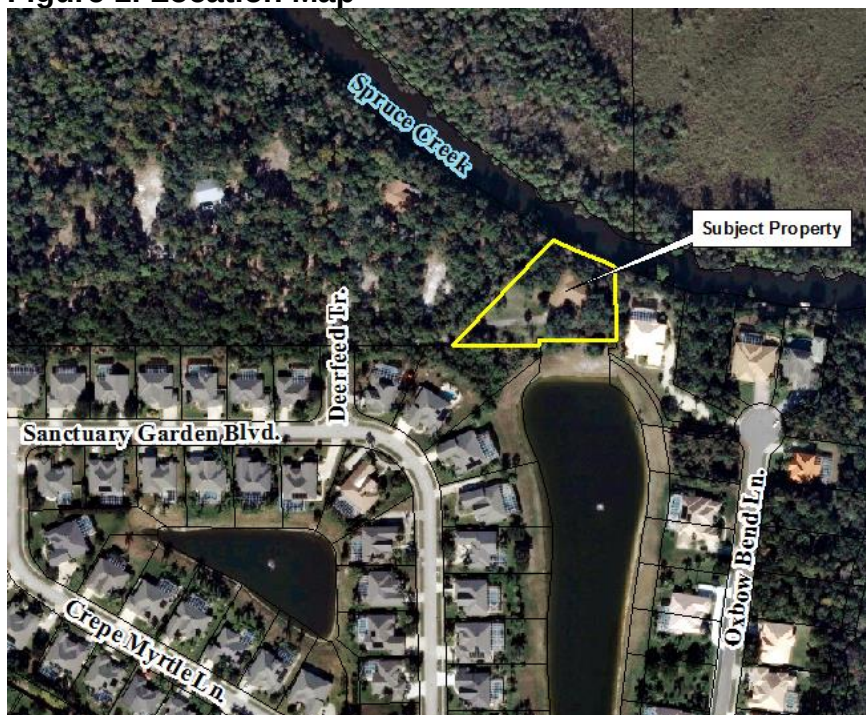
CASE NO. 17-60000001

REQUEST:	Rezone ± 0.77 -acres from Floodplain-Conservation (F-C) to Rural Residential (RR)
OWNER:	Michael Callahan
APPLICANT:	City of Port Orange
LOCATION:	6080 Deerfeed Trail
STAFF RECOMMENDATION:	Approval
STAFF CONTACT:	Penelope Cruz, Principal Planner (386) 506-5671
PLANNING COMMISSION:	March 23, 2017

OVERVIEW

The proposed rezoning would change the subject area from Flood Plain-Conservation (F-C) to Rural Residential (RR) for ± 0.77 -acres (amendment area) of an overall ± 1 -acre property. The remaining ± 0.23 -acres are not included in the proposed rezoning amendment and would retain the current Flood Plain-Conservation (F-C) zoning designation to maintain the required 50' Spruce Creek Environmental Corridor buffer. According to the Land Development Code (LDC), a Spruce Creek Environmental Corridor buffer is to be established 50' beyond the top of the Spruce Creek bank to provide for the preservation of native vegetation and only water-dependent structures can be built within the buffer (e.g. docks).

Figure 1. Location Map



DISCUSSION

The overall ±1-acre property has a Suburban Residential Future Land Use, is currently zoned Flood Plain-Conservation (F-C), and is developed with a single-family home. The property was annexed into the City in 1984 and a building permit was issued in 1985 for the construction of the single-family home that was completed in 1986. On the 1985 zoning map (and all subsequent maps), the subject property is zoned "F-C". According to the Volusia County Property Appraisers website, the property is designated as a single-family lot. However, single-family homes are not a permitted use in the "F-C" zoning district. Due to the more than 30-year time lapse since the building permit was issued, staff has not been able to identify any information regarding how the subject home was permitted in the "F-C" zoning district. The inconsistent zoning of the property had not been identified before now because the property owner had not requested any other building permits until now.

In January 2017, a building permit was proposed to be submitted to construct a ±363-square foot addition onto the existing single-family home. That is when the non-conforming use of land was identified. Because the current zoning (F-C) of the property does not allow single-family homes as a permitted-use, the proposed addition cannot be approved because it would expand a non-conforming use. For the addition to the single-family home to be approved, the property must be rezoned from Flood Plain-Conservation (F-C) to a district that permits single-family homes.

Staff has prepared the subject administrative rezoning application in order to correct this longstanding inconsistency, so that the subject property will have a zoning consistent with the Comprehensive Plan Future Land Use designation and its long-term use as a single-family home since the mid-1980's.

The rezoning request was reviewed according to the criteria established in Chapter 3, Section 5 of the Land Development Code (LDC) in terms of consistency with the Comprehensive Plan and the surrounding land uses and zoning.

COMPATIBILITY WITH SURROUNDING USES AND ZONING

The Rural Residential (RR) zoning district is intended to provide low-density residential development in those areas only suitable for such development due to their location adjacent to agricultural areas, environmentally sensitive areas, or existing large lot residential development; or in those areas that, due to their inaccessibility from adequate urban services, fail to justify higher densities.

The property is currently developed with a single-family home. Located to the east and south of the subject property is the existing Sanctuary on Spruce Creek residential subdivision with various sized single-family lots ranging from 6,000 to 8,000 sq.ft. and to the west is the Russell Property that is owned by the City. Located to the north of the property is Spruce Creek. The table below summarizes the land use and zoning of the adjacent properties and the Future Land Use and zoning maps are attached (Exhibit A and B).

Table 1. Surrounding Land Use & Zoning

Direction	Existing Land Use	Zoning District
North	Spruce Creek, Open Space	Planned Unit development (Summer Trees)
South	Single-family	Planned Unit development (Sanctuary on Spruce Creek)
East	Single-family	Planned Unit development (Sanctuary on Spruce Creek)
West	Public (Russell Property)	Floodplain-Conservation (F-C)

CONSISTENCY WITH COMPREHENSIVE PLAN

The proposed Rural Residential (RR) zoning district is considered compatible with the Suburban Residential Future Land Use designation. The Suburban Residential designation is generally characterized by detached or attached single-family homes on lots one quarter-acre in size or more. Based on compatibility with adjacent zoning districts and availability of infrastructure, staff believes that the existing use (single-family home) and requested zoning are appropriate at this location and consistent with existing land use designation.

RECOMMENDATION

Staff recommends approval of the request to rezone ±0.77 acres located at 6080 Deerfeed Trail from Floodplain-Conservation (F-C) to Rural Residential (RR).

ATTACHMENTS

1. Exhibit A - Current and Proposed Zoning Map
2. Exhibit B - Future Land Use Map

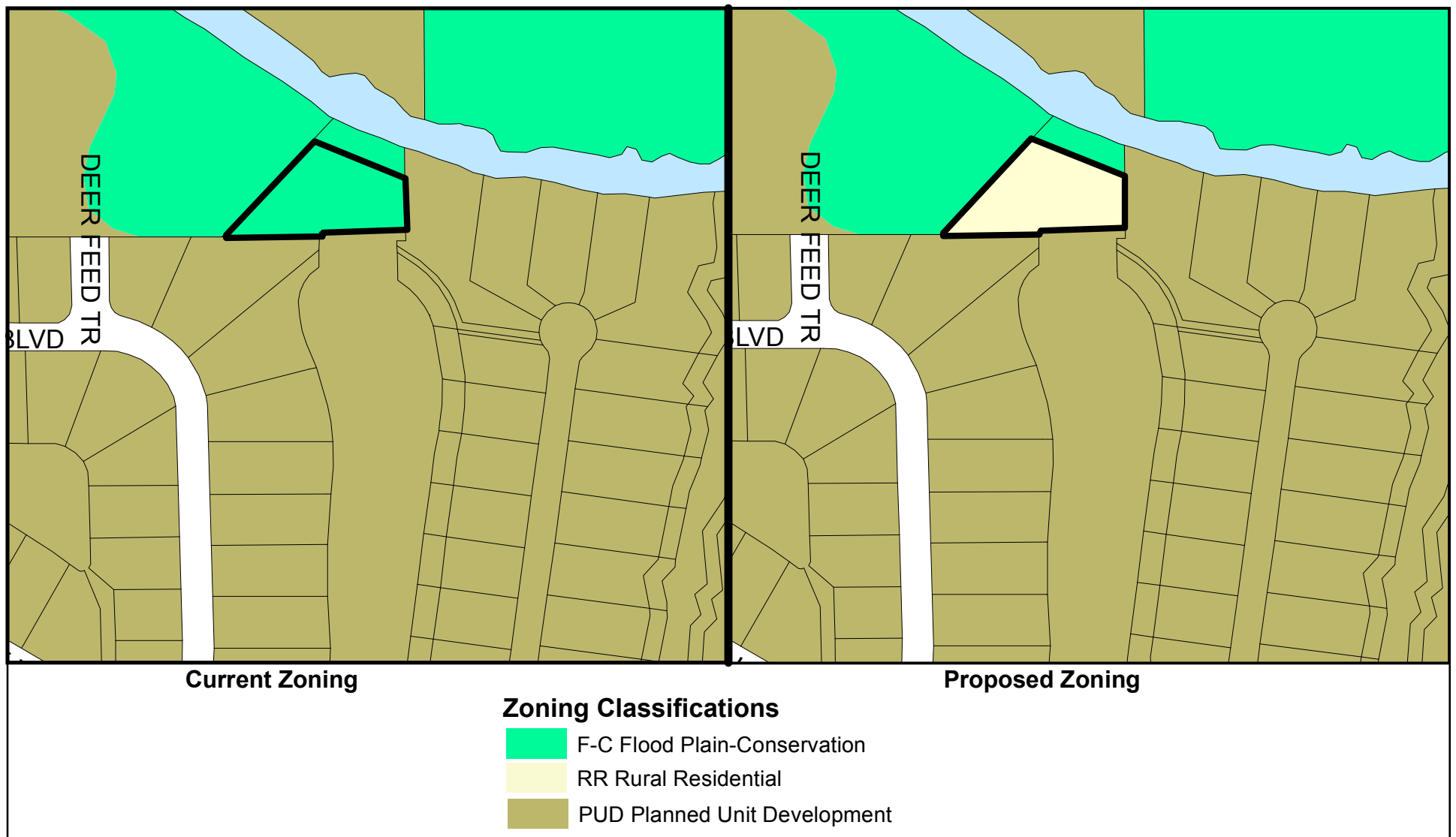
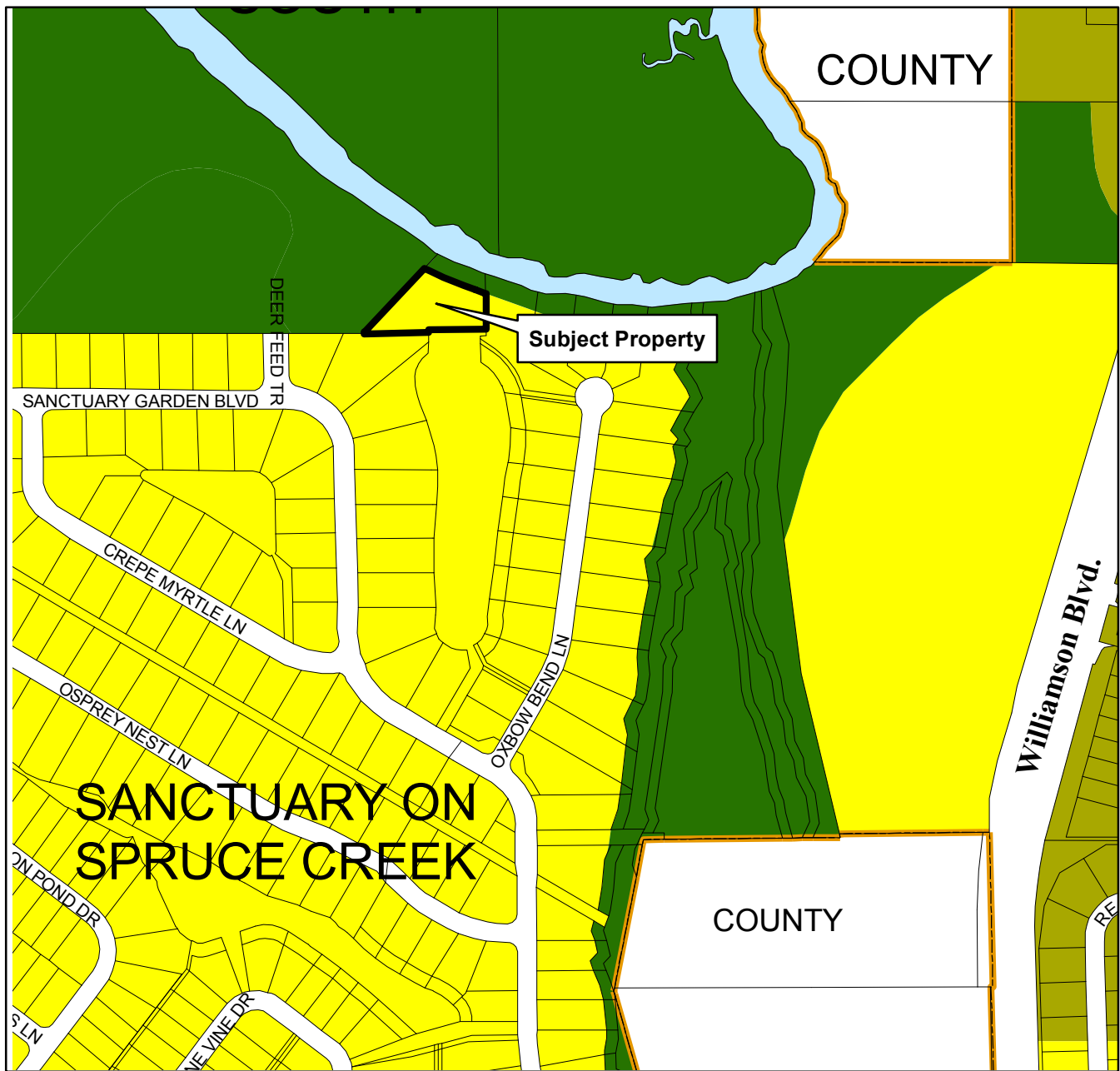


Exhibit A - Zoning

DEPARTMENT OF COMMUNITY DEVELOPMENT





Future Land Use Designations

-  Conservation
-  Rural Transition (0-2 Units/Acre)
-  Suburban Residential (2-4 Units/Acre)



Exhibit B - Future Land Use
CITY OF PORT ORANGE
DEPARTMENT OF COMMUNITY DEVELOPMENT

