

NOTE:
THIS EXHIBIT WAS PREPARED FOR ILLUSTRATIVE PURPOSES ONLY. THE LATEST AVAILABLE DIGITAL AERIAL FILES HAVE BEEN USED HOWEVER THIS MAY NOT ACCURATELY DEPICT CURRENT SITE CONDITIONS. ADDITIONAL ENGINEERING, ENVIRONMENTAL REVIEWS, FIELD SURVEYING AND DATA COLLECTION ARE NECESSARY TO CORRECTLY PORTRAY ACTUAL SITE CONDITIONS. THIS EXHIBIT IS SUBJECT TO CHANGE WITHOUT NOTICE BASED ON THE ABOVE.

DATE OF PHOTO: 2017

LEGAL DESCRIPTION

DESCRIPTION: A PARCEL OF LAND LYING IN SECTION 24, TOWNSHIP 24 SOUTH, RANGE 28 EAST, LAKE COUNTY, FLORIDA, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGIN AT THE SOUTHWEST CORNER OF THE NORTHWEST 1/4 OF SAID SECTION 24; THENCE ALONG THE WEST BOUNDARY OF THE SAID NORTHWEST 1/4, N.00°08'57"E, A DISTANCE OF 746.79 FEET TO THE SOUTHWEST CORNER OF SERENOA VILLAGE 1 PHASE 1B-1 ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 71, PAGE 12 OF THE PUBLIC RECORDS OF LAKE COUNTY, FLORIDA; THENCE ALONG THE SOUTH BOUNDARY OF SAID SERENOA VILLAGE 1 PHASE 1B-1 THE FOLLOWING THREE (3) COURSES: 1) S.89°51'14"E, A DISTANCE OF 1346.15 FEET; 2) N.00°00'00"E, A DISTANCE OF 614.90 FEET; 3) N.61°29'31"E, A DISTANCE OF 1297.85 FEET TO A POINT ON THE WESTERLY RIGHT OF WAY LINE OF SAWGRASS BAY BOULEVARD; THENCE ALONG SAID WESTERLY RIGHT OF WAY LINE THE FOLLOWING EIGHT (8) COURSES: 1) S.28°30'29"E, A DISTANCE OF 173.39 FEET; 2) SOUTHEASTERLY, 290.78 FEET ALONG THE ARC OF A TANGENT CURVE TO THE LEFT HAVING A RADIUS OF 1106.00 FEET AND A CENTRAL ANGLE OF 15°03'49" (CHORD BEARING S.36°02'22"E, 289.94 FEET); 3) S.43°34'17"E, A DISTANCE OF 415.73 FEET; 4) SOUTHEASTERLY, 253.55 FEET ALONG THE ARC OF A TANGENT CURVE TO THE RIGHT HAVING A RADIUS OF 1000.00 FEET AND A CENTRAL ANGLE OF 14°31'37" (CHORD BEARING S.36°18'29"E, 252.87 FEET); 5) SOUTHEASTERLY, 942.54 FEET ALONG THE ARC OF A REVERSE CURVE TO THE LEFT HAVING A RADIUS OF 856.00 FEET AND A CENTRAL ANGLE OF 63°05'18" (CHORD BEARING S.60°35'19"E, 895.64 FEET); 6) EASTERLY, 424.50 FEET ALONG THE ARC OF A REVERSE CURVE TO THE RIGHT HAVING A RADIUS OF 750.00 FEET AND A CENTRAL ANGLE OF 32°25'45" (CHORD BEARING S.75°50'09"E, 418.85 FEET); 7) S.59°42'12"E, A DISTANCE OF 885.38 FEET; 8) SOUTHEASTERLY, 191.92 FEET ALONG THE ARC OF A TANGENT CURVE TO THE RIGHT HAVING A RADIUS OF 729.50 FEET AND A CENTRAL ANGLE OF 15°04'24" (CHORD BEARING S.52°10'00"E, 191.36 FEET) TO A POINT ON THE EAST BOUNDARY OF THE SOUTHEAST 1/4 OF THE AFORESAID SECTION 24; THENCE ALONG SAID EAST BOUNDARY, S.90°02'26"W, A DISTANCE OF 1304.37 FEET TO THE SOUTHEAST CORNER OF THE NORTHEAST 1/4 OF SAID SECTION 24; THENCE ALONG THE SOUTH BOUNDARY OF THE NORTH 1/2 OF THE SOUTHWEST 1/4 OF SAID SECTION 24, S.89°59'12"W, A DISTANCE OF 2640.02 FEET TO THE SOUTHWEST CORNER OF THE NORTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SAID SECTION 24; THENCE ALONG THE WEST BOUNDARY OF THE NORTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SAID SECTION 24, N.00°11'49"E, A DISTANCE OF 1325.77 FEET TO THE POINT OF BEGINNING, CONTAINING 276.516 ACRES, MORE OR LESS.

HEIDT DESIGN
Civil Engineering • Planning & GIS
Transportation Engineering
Ecological Services • Landscape Architecture

5904-A Hampton Oaks Pkwy.
Tampa, Florida 33610
Office: 813-253-5311
Fax: 813-464-7629
www.HeidtDesign.com

Engineering Business Certificate of Authorization No. 28787D
Landscape Architecture Certificate of Authorization No. LC26060405
R/VAVALON GROVES/VILLAGE 3/ENGINEERING/ASP/DWG-C-104 2020/03/03 11:05 AM ERIC FRANCIS

SERENOA VILLAGE 3 - PHASE 1, 2 & 3
AERIAL SITE PLAN

PREPARED FOR: VK AVALON GROVES, LLC

REVISION SUBMITTAL	DATE	DESCRIPTION
11/08/2019		

PROJECT NO: KLP-AG-1089
FILE: ASP
DESIGN BY: FRANCIS
DRAWN BY: JLOAIZA

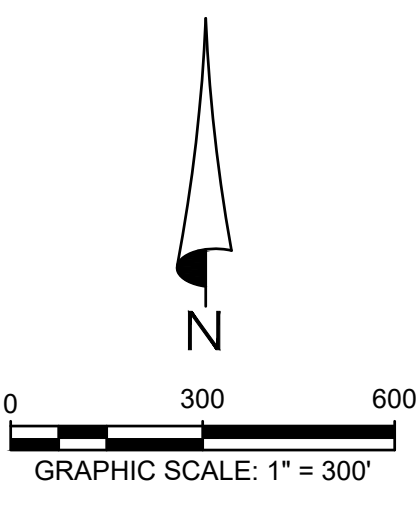
STATE OF FLORIDA
PROFESSIONAL ENGINEER

Timothy M. Plate, (State of Florida, Professional Engineer, License No. 41153)
This item has been digitally signed and sealed by Timothy M. Plate, P.E. on the date indicated here.
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
DATE: _____
LICENSE NO. 41153

C-104

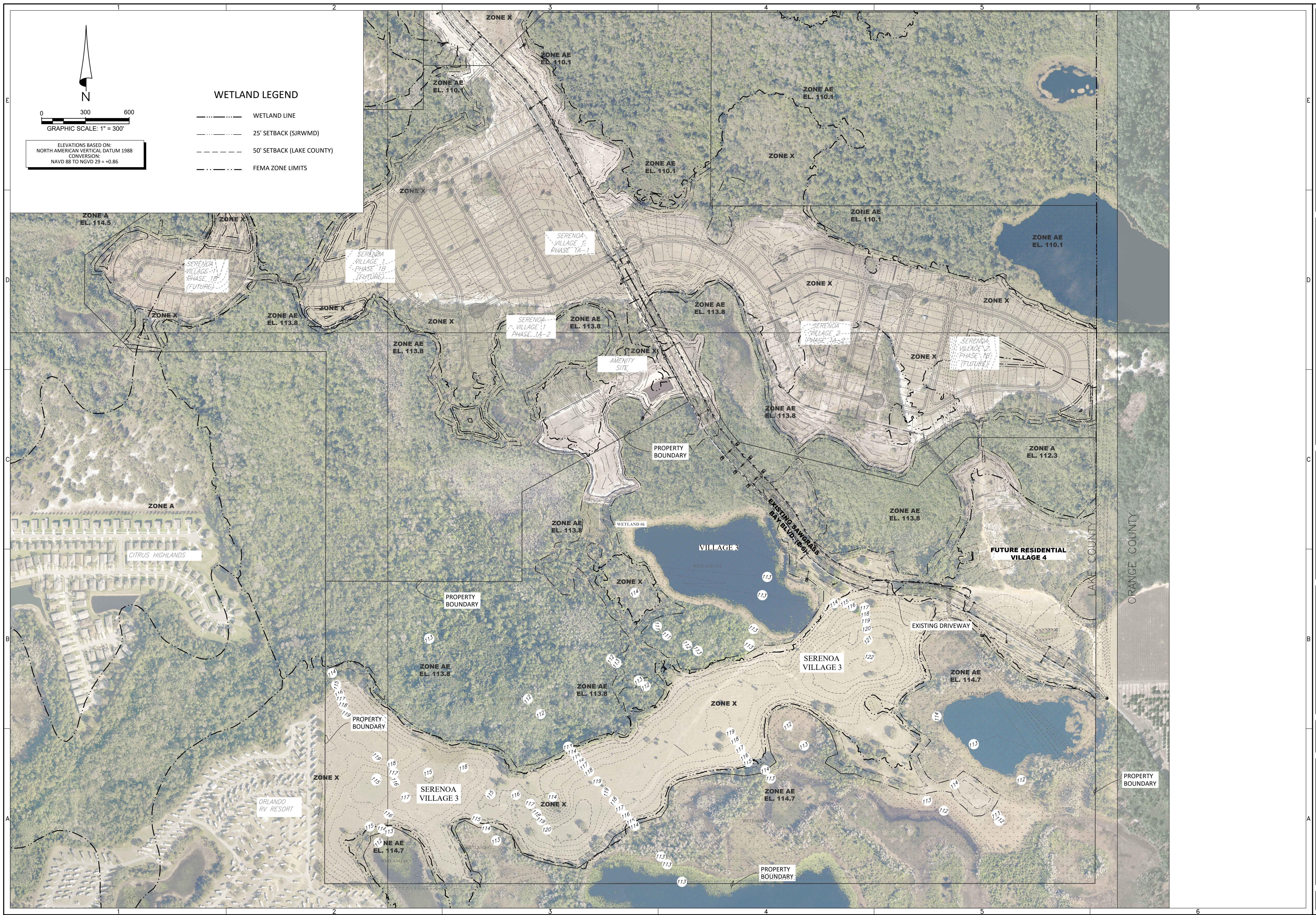
© COPYRIGHT 2020, HEIDT DESIGN, LLC. ALL RIGHTS RESERVED. NO DOCUMENTATION INCLUDING BUT NOT LIMITED TO DRAWINGS OR EXHIBITS MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT PERMISSION IN WRITING FROM HEIDT DESIGN, LLC. PERMISSION IS HEREBY GRANTED SPECIFICALLY TO GOVERNMENTAL AGENCIES TO REPRODUCE THIS DOCUMENTATION IN COMPLIANCE WITH F.S. CHAPTER 119.



ELEVATIONS BASED ON:
NORTH AMERICAN VERTICAL DATUM 1988
CONVERSION:
NAVD 88 TO NGVD 29 = +0.86

WETLAND LEGEND

	WETLAND LINE
	25' SETBACK (SJRWMD)
	50' SETBACK (LAKE COUNTY)
	FEMA ZONE LIMITS



HEIDT DESIGN
Civil Engineering • Planning & GIS
Transportation Engineering
Ecological Services • Landscape Architecture

5904-A Hampton Oaks Pkwy.
Tampa, Florida 33610
Office: 813-253-5311
Fax: 813-464-7629
www.HeidtDesign.com

Engineering Business Certificate of Authorization No. 28793
Landscape Architecture Certificate of Authorization No. LC26080405

SERENOA VILLAGE 3 - PHASE 1, 2 & 3

EXISTING SITE CONDITIONS

PREPARED FOR: **VK AVALON GROVES, LLC**

DATE	DESCRIPTION

DATE	DESCRIPTION
11/08/2018	REVIEW SUBMITTAL

PROJECT NO: KLP-AG-1089
FILE: EX-SITF
DESIGN BY: FRANCIS
DRAWN BY: JLOAIZA
FLORIDA PROFESSIONAL ENGINEER

Timothy M. Plate, State of Florida,
Professional Engineer, License No. 41153

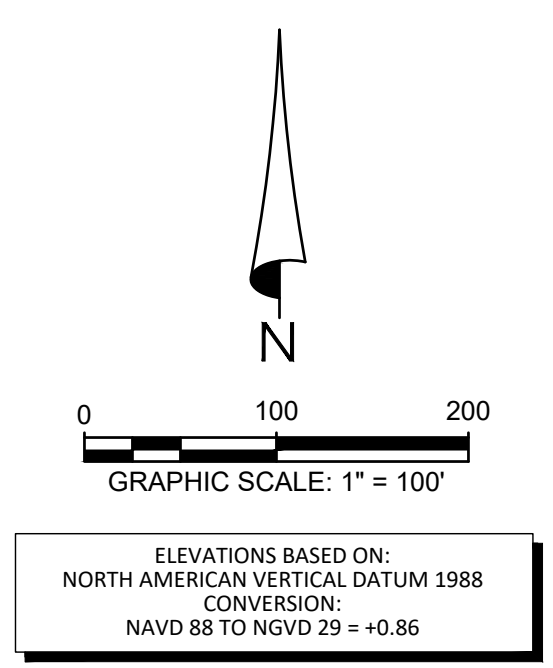
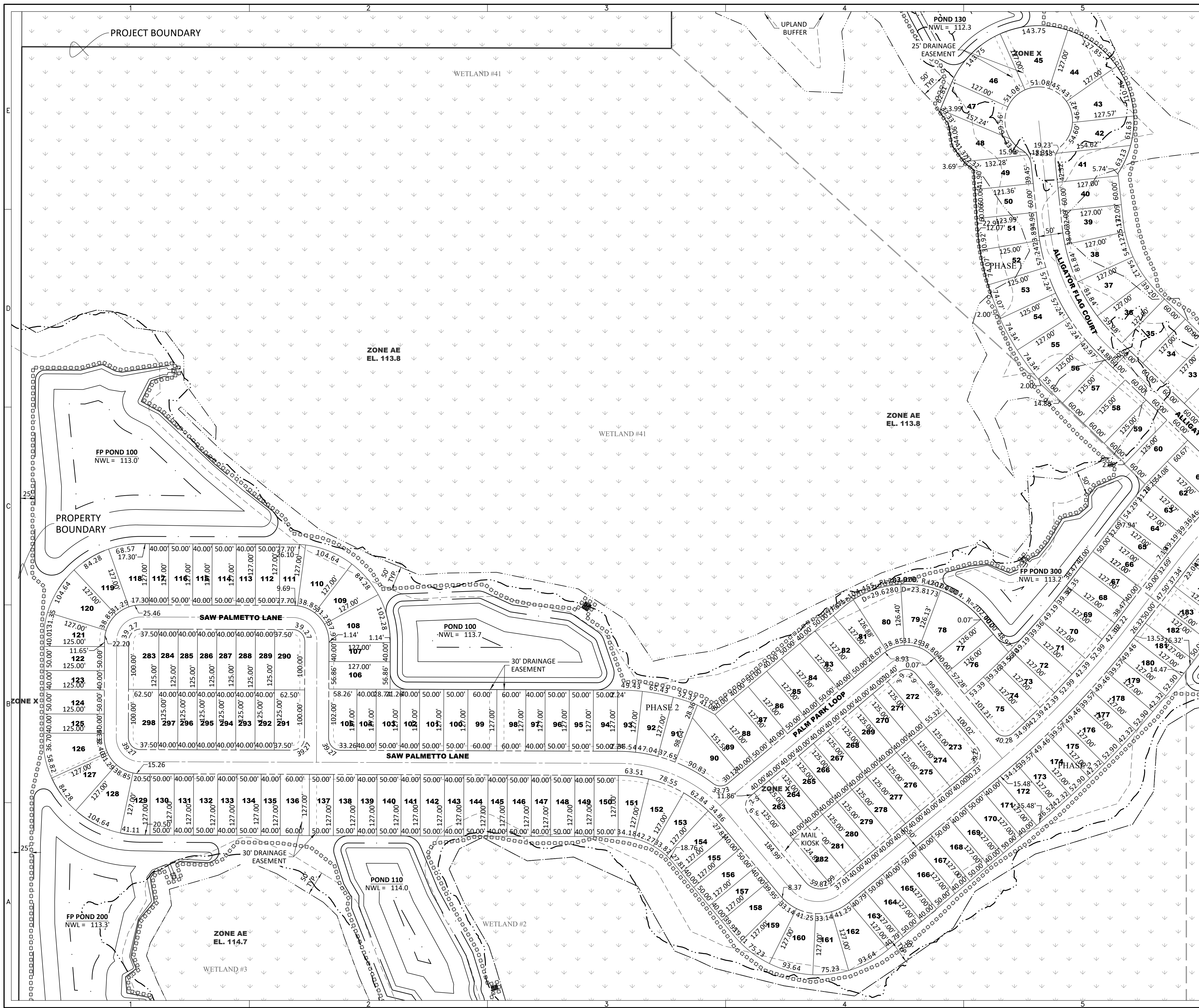
This item has been digitally
signed and sealed by
Timothy M. Plate, P.E. on the date
indicated here.

Printed copies of this document
are not considered signed and
sealed and the signature must be
verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
DATE: _____
REGISTRATION NO. 41153

C-105

© COPYRIGHT 2018, HEIDT DESIGN, LLC. ALL RIGHTS RESERVED. NO DOCUMENTATION INCLUDING BUT NOT LIMITED TO DRAWINGS OR EXHIBITS MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION IN WRITING FROM HEIDT DESIGN, LLC. THIS DOCUMENT IS HEREBY GRANTED SPECIFICALLY TO GOVERNMENTAL AGENCIES TO REPRODUCE THIS DOCUMENTATION IN COMPLIANCE WITH F.S. CHAPTER 119.



LEGEND

- SJWMD WETLAND LINE
- SJWMD WETLAND CONS. AREA SETBACK / LANDWARD EXTENT OF UPLAND BUFFER (50')
- FEMA LINE
- BOUNDARY LIMITS
- RIGHT-OF-WAY LINE
- PHASE LINE

HEIDT DESIGN
 Civil Engineering • Planning & GIS
 Transportation Engineering
 Ecological Services • Landscape Architecture

5904-A Hampton Oaks Pkwy.
 Tampa, Florida 33610
 Office: 813-253-5311
 Fax: 813-464-7629
 www.HeidtDesign.com

Engineering Business Certificate of Authorization No. 28792
 Landscape Architecture Certificate of Authorization No. LC26080405

SERENOA VILLAGE 3 - PHASE 1, 2 & 3
LOT DIMENSION PLAN

PREPARED FOR: **VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION
1	11/08/2023	REVIEW SUBMITTAL
2	03/20/2024	REV. LOT LAYOUT
3	05/27/2024	ADDED NEW LOT #48

PROJECT NO: KLP-AG-1089
 FILE: LAYOUT-WITH GEOMETRY
 DESIGN BY: FRANCIS
 DRAWN BY: JLOAIZA

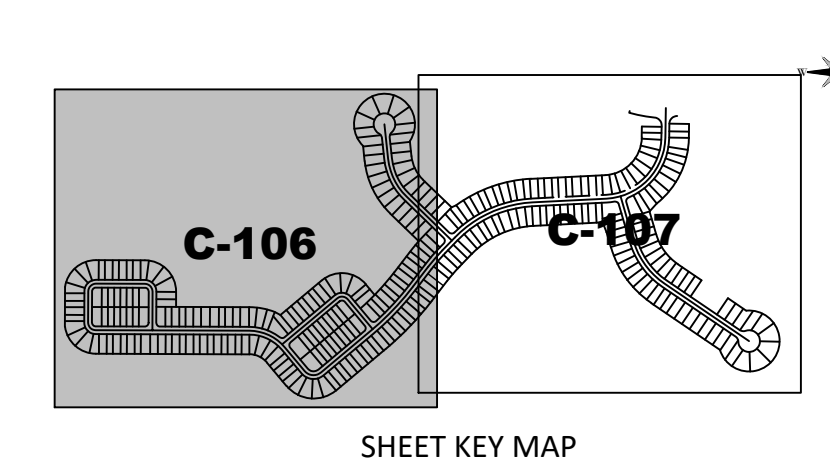
STATE OF FLORIDA
 PROFESSIONAL ENGINEER

Timothy M. Plate, (State of Florida, Professional Engineer, License No. 41153)
 This item has been digitally signed and sealed by Timothy M. Plate, P.E. on the date indicated here.

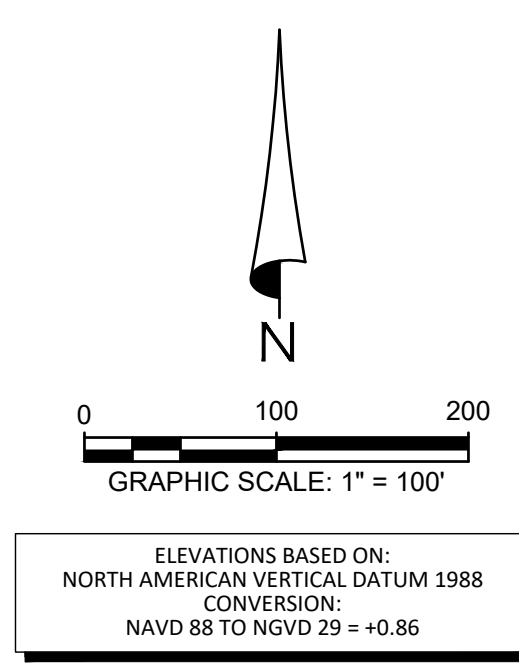
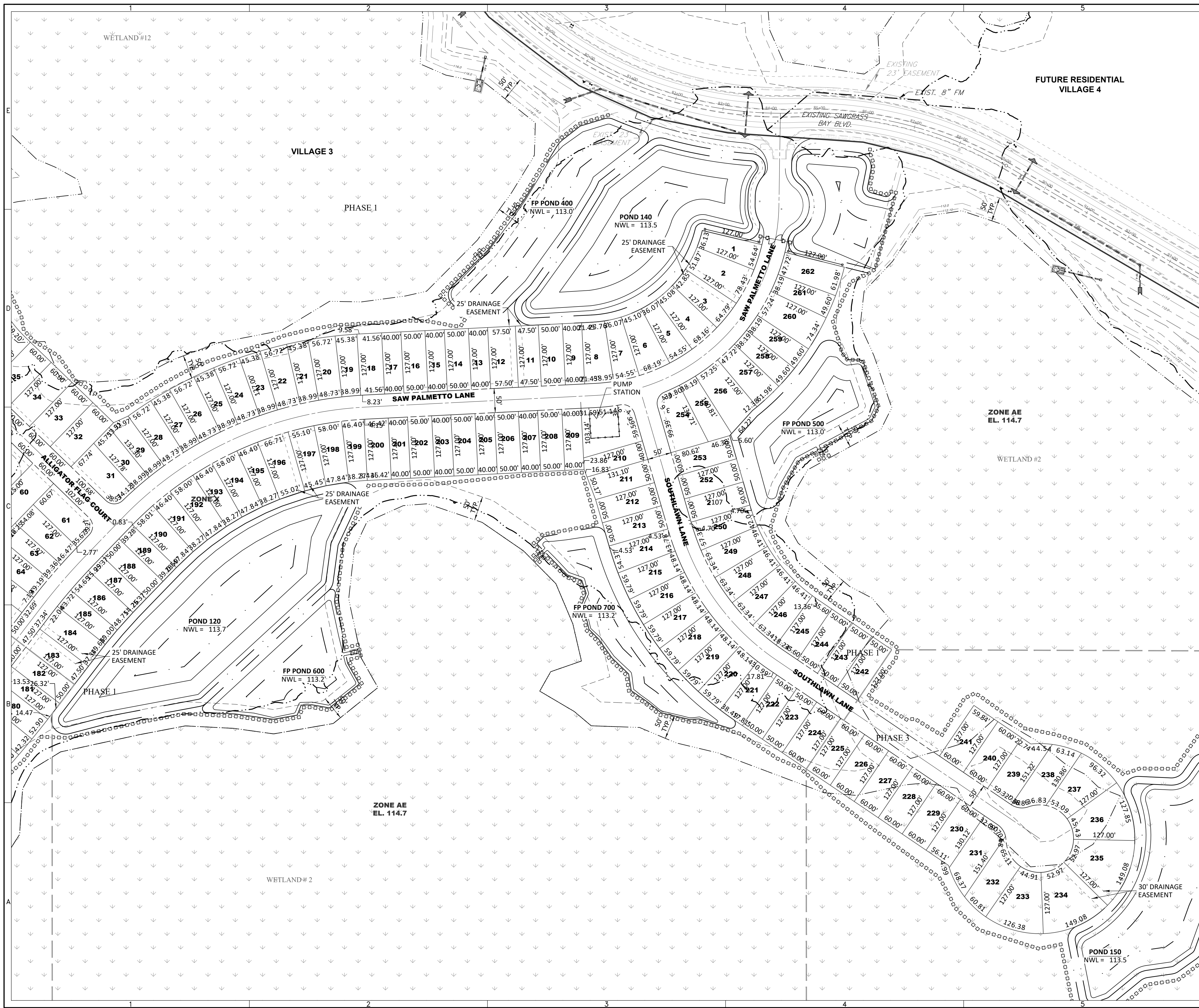
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
 DATE: _____
 LICENSE NO. 41153

C-106



R:\AVALON GROVES\VILLAGE 3\ENGINEERING\LAYOUT-WITH GEOMETRY\DWG-C-106 20230303 11:07 AM ERIC FRANCIS



LEGEND

- S/JWMD WETLAND LINE
- S/JWMD WETLAND CONS. AREA SETBACK / LANDWARD EXTENT OF UPLAND BUFFER (50')
- FEMA LINE
- BOUNDARY LIMITS
- RIGHT-OF-WAY LINE
- PHASE LINE

HEIDT DESIGN
 Civil Engineering • Planning & GIS
 Transportation Engineering
 Ecological Services • Landscape Architecture

5904-A Hampton Oaks Pkwy.
 Tampa, Florida 33610
 Office: 813-253-5311
 Fax: 813-464-7629
 www.HeidtDesign.com

Engineering Business Certificate of Authorization No. 28792
 Landscape Architecture Certificate of Authorization No. LC26000405

SERENOA
 VILLAGE 3 - PHASE 1, 2 & 3
 LOT DIMENSION PLAN

PREPARED FOR:
 VK AVALON GROVES, LLC

NO.	DATE	DESCRIPTION
2	03/20/2020	REV. LOT LAYOUT
1	11/08/2019	REVIEW SUBMITTAL

PROJECT NO.: KLP-AG-1089
 FILE: LAYOUT-WITH GEOMETRY
 DESIGN BY: FRANCIS
 DRAWN BY: JLOAIZA

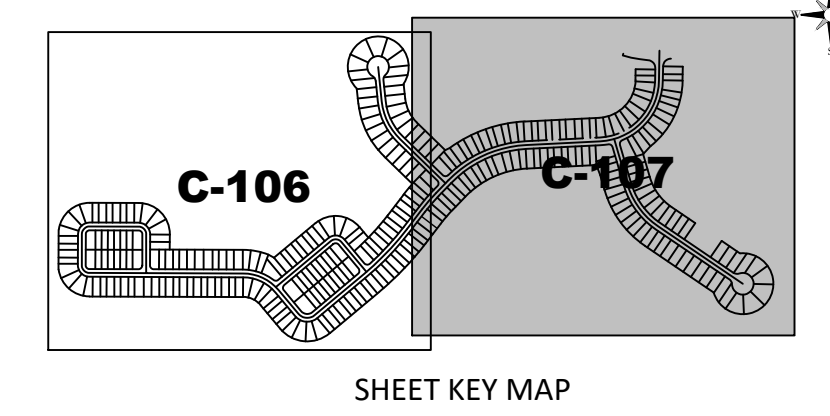
STATE OF FLORIDA
 PROFESSIONAL ENGINEER

Timothy M. Plate, State of Florida,
 Professional Engineer, License No. 41153

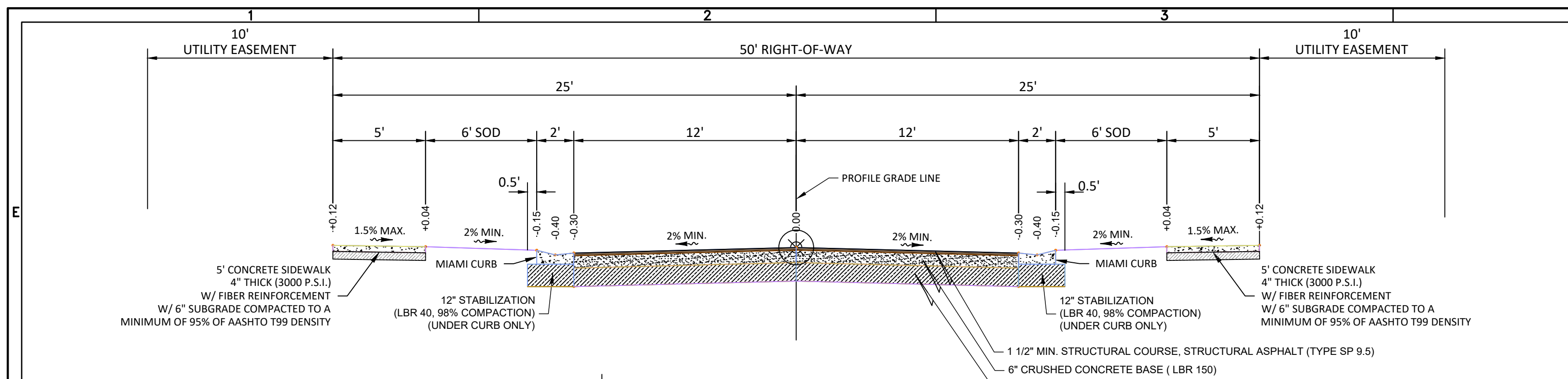
This item has been digitally
 signed and sealed by
 Timothy M. Plate, P.E. on the date
 indicated here.

Printed copies of this document
 are not considered signed and
 sealed and the signature must be
 verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
 DATE: _____
 LICENSE NO. 41153

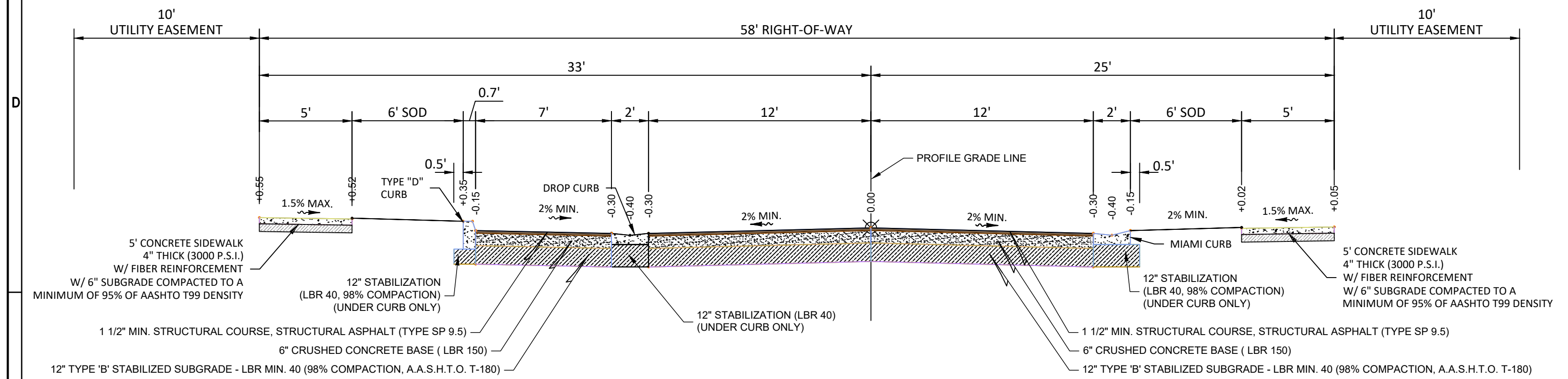


R: AVALON GROVES VILLAGE REENGINEERING LAYOUT WITH GEOMETRY DWG-C-107 20200303 11:07 AM ERIC FRANCIS



**LOCAL TWO-WAY ROAD
50' RIGHT-OF-WAY
DESIGN SPEED 30 M.P.H. (MAX.)**
SCALE: 1" = 5'

- NOTES:
- ALL STRIPING TO BE LEAD & SOLVENT FREE THERMOPLASTIC, UNLESS OTHERWISE NOTED.
 - SOD ENTIRE ROW BEYOND BACK OF CURB, EXCEPT WHERE DEVELOPER IS CONSTRUCTING SIDEWALK.



**LOCAL TWO-WAY ROAD W/ ONE SIDE PARKING
58' RIGHT-OF-WAY
SAW PALMETTO LANE FROM STA 33+00 TO STA 34+50
DESIGN SPEED 30 M.P.H. (MAX.)**
SCALE: 1" = 5'

- NOTES:
- ALL STRIPING TO BE LEAD & SOLVENT FREE THERMOPLASTIC, UNLESS OTHERWISE NOTED.
 - SOD ENTIRE ROW BEYOND BACK OF CURB, EXCEPT WHERE DEVELOPER IS CONSTRUCTING SIDEWALK.

PAVEMENT CONSTRUCTION NOTES:

1. SUBGRADE
THE FOLLOWING ARE MINIMUM STANDARDS FOR THE STABILIZED SUBGRADE:
WIDTH - THE SUBGRADE SHALL BE TWO (2) FEET WIDER THAN THE BASE COURSE (ONE (1) FOOT EACH SIDE) AND IN THE CASE OF CURB AND GUTTER SHALL EXTEND SIX (6) INCHES BEHIND THE CURB.

DEPTH - THE SUBGRADE SHALL HAVE A MINIMUM DEPTH OF 12-INCHES.

COMPACTION - THE SUBGRADE SHALL BE COMPACTED TO 98% DENSITY HAVING A MINIMUM LBR 40.
CARE OF SUBGRADE - TRUCKS WILL BE ALLOWED ON FINISHED SUBGRADE TO DUMP BASE COURSE, BUT CONTRACTOR WILL BE REQUIRED TO LEVEL OUT RUTS. IN THE EVENT THE TRUCKS CAUSE TOO MUCH DAMAGE TO THE SUBGRADE, THE COUNTY MANAGER OR DESIGNEE MAY REQUIRE DUMPING, SPREADING, AND HAULING ON THE BASE COURSE.

2. SHOULDERS
THE FOLLOWING ARE MINIMUM STANDARDS FOR SHOULDERS:

WIDTH - SHOULDERS SHALL BE EIGHT FEET WIDE. A REDUCTION IN THE WIDTH REQUIREMENT MAY BE ALLOWED IF APPROVED BY THE COUNTY MANAGER OR DESIGNEE.

DEPTH - SHOULDERS SHALL HAVE A MINIMUM DEPTH OF SIX INCHES.
COMPACTION - SHOULDERS SHALL BE COMPACTED TO 95% COMPACTION LBR 40.

GRADING - SHOULDERS SHALL BE GRADED WITH A MINIMUM CROSS-SLOPE OF 1/2 INCH/FOOT.

3. BASE COURSE
THE FOLLOWING ARE MINIMUM STANDARDS FOR THE BASE COURSE:

MATERIAL - OCALA LIMEROCK ARE ACCEPTABLE MATERIAL TYPES FOR THE ROAD BASE. OTHER MATERIALS MAY BE USED IF APPROVED BY THE COUNTY MANAGER OR DESIGNEE.

WIDTH - ALL BASES SHALL BE ONE (1) FOOT WIDER (SIX (6) INCHES EACH SIDE) THAN THE FINISHED SURFACE.

DEPTH - THE BASE SHALL HAVE A MINIMUM DEPTH OF SIX INCHES. HEAVY DUTY ROADS SHALL HAVE A BASE WITH A MINIMUM DEPTH OF EIGHT INCHES PLACED IN TWO LIFTS.

COMPACTION - LIMEROCK BASE SHALL BE COMPACTED TO A MINIMUM 98% DENSITY AS DETERMINED BY ASSHTO T-180. LBR 100

STRENGTH - SOIL CEMENT BASE SHALL HAVE A SEVEN DAY DESIGN COMPRESSIVE STRENGTH OF AT LEAST 300 PSI.

FORMS - NO FORM BOARDS WILL BE REQUIRED UNLESS, IN THE OPINION OF THE COUNTY MANAGER OR DESIGNEE, THE CONTRACTOR IS NOT TAKING PRECAUTIONS TO OBTAIN THE FULL DEPTH AT THE EDGES.

GRADING - THE BASE SHALL BE GRADED AND ROLLED TO CONFORM TO THE GRADE AND CROSS-SLOPE OF THE FINISHED ROADWAY.

PRIME COAT - PRIME COAT SHALL BE APPLIED TO ALL BASE COURSES, AND SAND SEALED.

NOTE:
ROADWAYS DESIGNED WITH UNDERDRAINS SHALL UTILIZE BASE MATERIAL OF CRUSHED CONCRETE OR SOIL CEMENT AS NOTED IN THE GEOTECHNICAL REPORT.

4. WEARING SURFACE
THE FOLLOWING ARE MINIMUM STANDARDS FOR PAVEMENT WEARING SURFACE:

MATERIAL - SP 9.5 ASPHALTIC CONCRETE SHALL BE USED FOR THE ROAD WEARING SURFACE. OTHER ASPHALT TYPES MAY BE USED IF REQUIRED BY THE COUNTY MANAGER OR DESIGNEE.

DEPTH - ROADS SHALL HAVE A MINIMUM 1 1/2 -INCH DEPTH OF WEARING SURFACE. THE MINIMUM DEPTH MAY BE INCREASED IF REQUIRED BY THE COUNTY MANAGER OR DESIGNEE.

HEAVY DUTY ROADS - HEAVY DUTY SHALL HAVE A WEARING SURFACE CONSISTING OF MINIMUM OF TWO INCHES OF SP 12.5 ASPHALTIC CONCRETE OVERLAPPED WITH A ONE INCH FRICTION COURSE. THE TYPE OF MATERIAL TO BE USED FOR THE FRICTION COURSE SHALL BE DETERMINED BY THE COUNTY MANAGER OR DESIGNEE.

GRADING - ROAD SURFACES SHALL BE GRADED WITH A MINIMUM CROSS-SLOPE OF 1/4 INCH/FOOT.

5. CURB AND GUTTER
THE WIDTH OF CURB AND GUTTER SHALL BE A MINIMUM OF TWENTY-FOUR (24) INCHES AND SHALL BE EITHER FLORIDA DEPARTMENT OF TRANSPORTATION TYPE F (STANDARD CURB AND GUTTER) OR MIAMI TYPE, DEPENDING UPON THE FLOW TO BE HANDLED. FDOT TYPE D (SIMPLE VERTICAL CURBING) WILL NOT BE ACCEPTABLE. FDOT TYPE A (MOUNTABLE MEDIAN CURB) MAY BE USED AROUND MEDIAN DIVIDERS ON THE HIGH SIDE OF PAVEMENT. THERE SHALL BE A STABILIZED SUBGRADE BENEATH ALL CURB AND GUTTER.

NO WATER VALVE BOXES, METERS, PORTIONS OF MANHOLES, OR OTHER APPURTENANCES OF ANY KIND RELATING TO ANY UNDERGROUND UTILITIES SHALL BE LOCATED IN ANY PORTION OF A CURB AND GUTTER SECTION.

THE CURB AND GUTTER FLOW LINE GRADES SHALL RUN PARALLEL TO THE ROAD CENTERLINE GRADE. THE MINIMUM ALLOWABLE FLOW LINE GRADE OF CURBS AND GUTTERS SHALL BE 0.30%, EXCEPT IN INTERSECTIONS WHERE FLATTER GRADES SHALL BE ALLOWABLE.

JOINTS SHALL BE SAWED (UNLESS AN ALTERNATE METHOD IS USED) AT INTERVALS OF TEN (10) FEET, EXCEPT WHERE SHORTER INTERVALS ARE REQUIRED FOR CLOSURES, BUT, IN NO CASE, LESS THAN FOUR (4) FEET. JOINTS SHALL BE CUT ON THE SAME DAY THAT THE CURB AND GUTTER IS POURED.

ALL CROSS-STREET VALLEY GUTTERS SHALL BE CONSTRUCTED OF CONCRETE.

6. TESTING
TESTING SHALL BE PROVIDED AS PART OF CONSTRUCTION AND SHALL BE AT NO COST TO THE COUNTY. TESTING SHALL BE PERFORMED BY AN INDEPENDENT ENGINEERING TESTING LABORATORY CERTIFIED IN THE STATE OF FLORIDA.

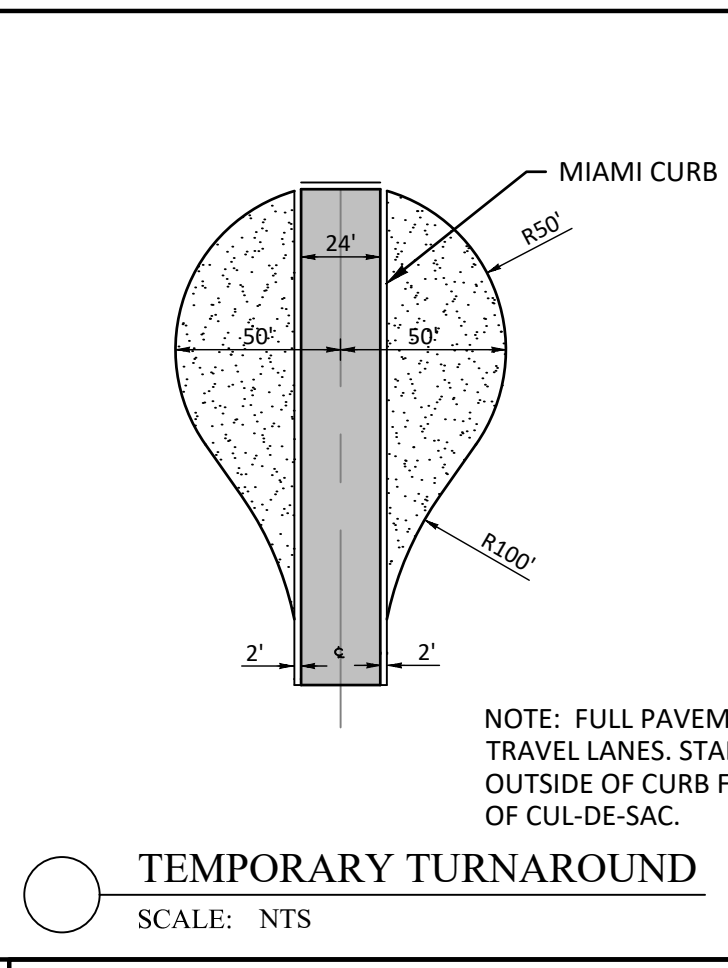
THE FOLLOWING ARE MINIMUM TESTING REQUIREMENTS:

SUBGRADE - TESTING FOR THE SUBGRADE THICKNESS, BEARING VALUE AND DENSITY SHALL BE LOCATED NO MORE THAN FIVE HUNDRED (500) FEET APART AND SHALL BE STAGGERED TO THE LEFT, RIGHT AND ON THE CENTERLINE OF THE ROADWAY. THE COUNTY MAY ALSO REQUIRE ADDITIONAL TEST LOCATIONS AS DIRECTED BY THE COUNTY MANAGER OR DESIGNEE. THERE SHALL BE NO LESS THAN ONE (1) TEST PER ROAD. TESTING SHALL BE IN ACCORDANCE WITH APPLICABLE FDOT, AASHTO, OR ASTM STANDARDS. CERTIFIED TEST RESULTS SHALL BE SUBMITTED TO THE COUNTY FOR APPROVAL PRIOR TO PROCEEDING WITH THE BASE COURSE.

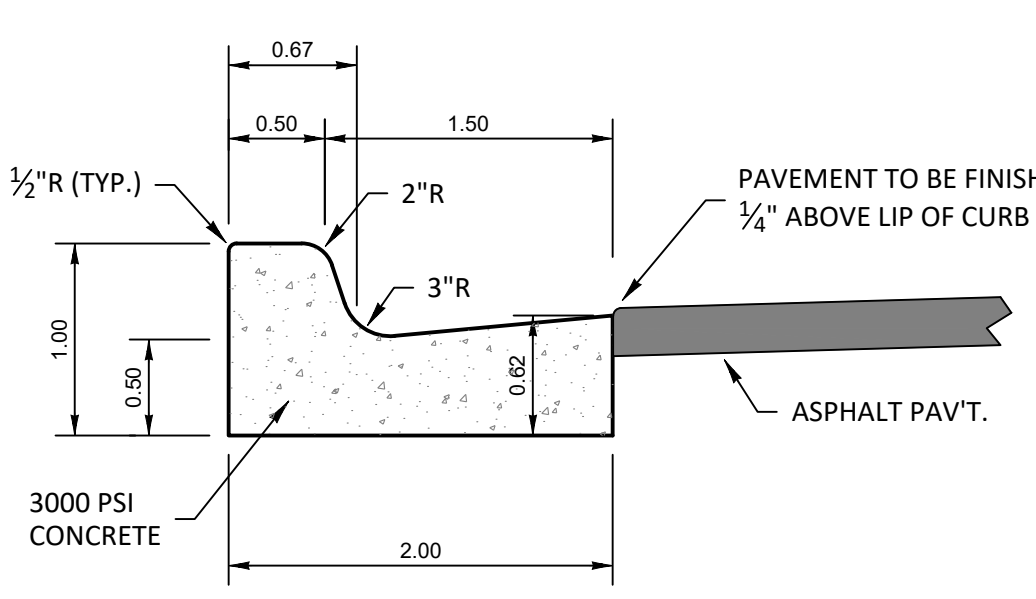
LIMEROCK BASE - TESTING FOR THE BASE THICKNESS AND DENSITY SHALL BE LOCATED NO MORE THAN 500-FEET APART AND SHALL BE STAGGERED TO THE LEFT, RIGHT AND ON THE CENTERLINE OF THE ROADWAY. THE COUNTY MAY ALSO REQUIRE ADDITIONAL TEST LOCATIONS AS DIRECTED BY THE COUNTY MANAGER OR DESIGNEE. THERE SHALL BE NO LESS THAN ONE TEST PER ROAD. TESTING SHALL INCLUDE: MODIFIED PROCTOR MAXIMUM DENSITY, IN-PLACE FIELD DENSITY AND THICKNESS. TESTING SHALL BE IN ACCORDANCE WITH APPLICABLE FDOT, AASHTO, OR ASTM STANDARDS. CERTIFIED TEST RESULTS SHALL BE SUBMITTED TO THE COUNTY FOR APPROVAL PRIOR TO PROCEEDING WITH THE WEARING SURFACE.

SOIL / CEMENT BASE - TESTING FOR THE BASE THICKNESS AND STRENGTH SHALL BE LOCATED NO MORE THAN 500-FEET APART AND SHALL BE STAGGERED TO THE LEFT, RIGHT AND ON THE CENTERLINE OF THE ROADWAY. THE COUNTY MAY ALSO REQUIRE ADDITIONAL TEST LOCATIONS AS DIRECTED BY THE COUNTY MANAGER OR DESIGNEE. THERE SHALL BE NO LESS THAN ONE TEST PER ROAD. TESTING SHALL INCLUDE: TEST CORES TAKEN AFTER SEVEN DAYS TO VERIFY THICKNESS AND TESTING TO VERIFY A MINIMUM SEVEN DAY COMPRESSIVE STRENGTH OF 300 PSI. TESTING SHALL BE IN ACCORDANCE WITH APPLICABLE FDOT, AASHTO, OR ASTM STANDARDS. CERTIFIED TEST RESULTS SHALL BE SUBMITTED TO THE COUNTY FOR APPROVAL PRIOR TO PROCEEDING WITH THE WEARING SURFACE.

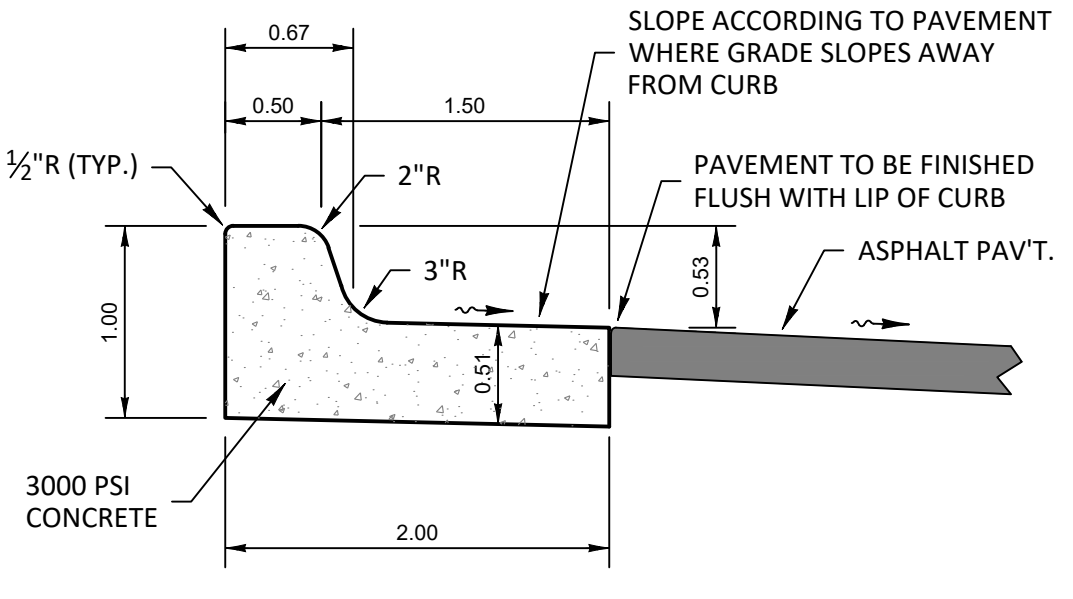
WEARING SURFACE - TESTING FOR WEARING SURFACE THICKNESS SHALL BE LOCATED NO MORE THAN 500-FEET APART AND SHALL BE STAGGERED TO THE LEFT, RIGHT AND ON THE CENTERLINE OF THE ROADWAY. THE COUNTY MAY ALSO REQUIRE ADDITIONAL TEST LOCATIONS AS DIRECTED BY THE COUNTY MANAGER OR DESIGNEE. THERE SHALL BE NO LESS THAN ONE TEST PER ROAD. TESTING SHALL INCLUDE: CERTIFIED DESIGN MIX SUBMITTED FOR APPROVAL PRIOR TO PLACING ASPHALT. EXTRACTIONS TAKEN IN FIELD AT LEAST ONE PER DAY AND CORINGS TO VERIFY THICKNESS. TESTING SHALL BE IN ACCORDANCE WITH APPLICABLE FDOT, AASHTO, OR ASTM STANDARDS. CERTIFIED TEST RESULTS SHALL BE SUBMITTED TO THE COUNTY FOR APPROVAL.



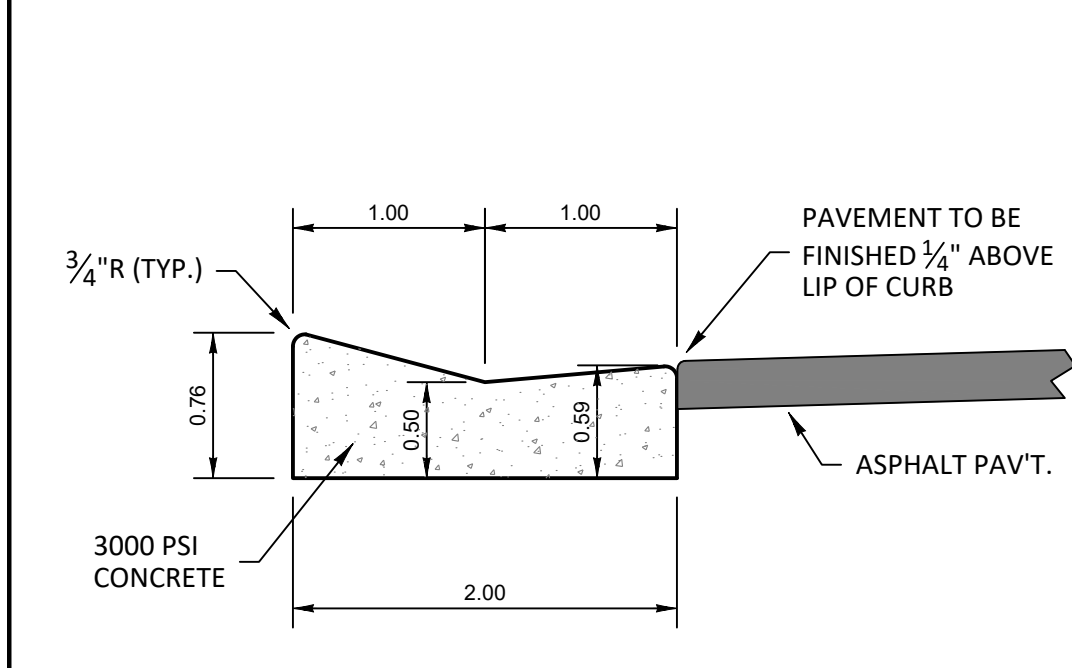
TEMPORARY TURNAROUND
SCALE: NTS



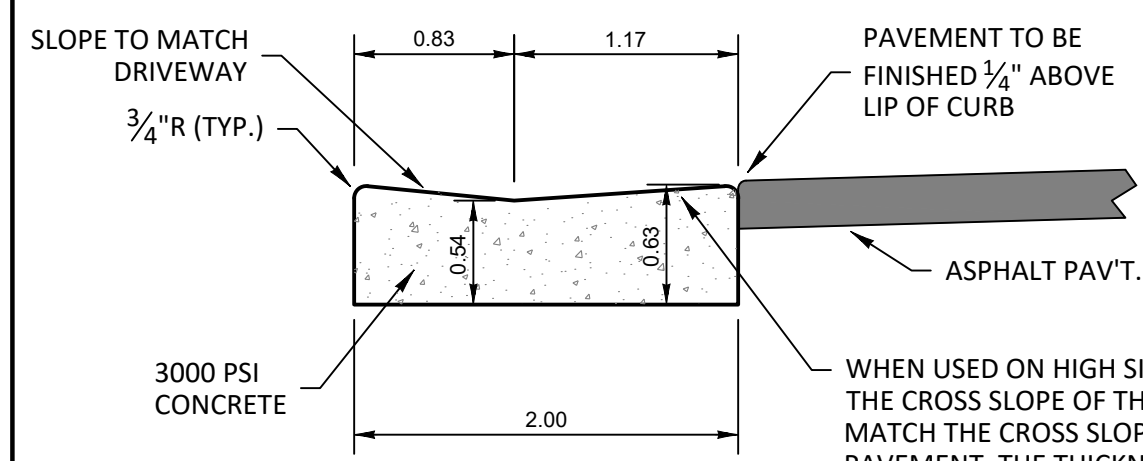
TYPE "F" CURB & GUTTER
SCALE: 1" = 1'



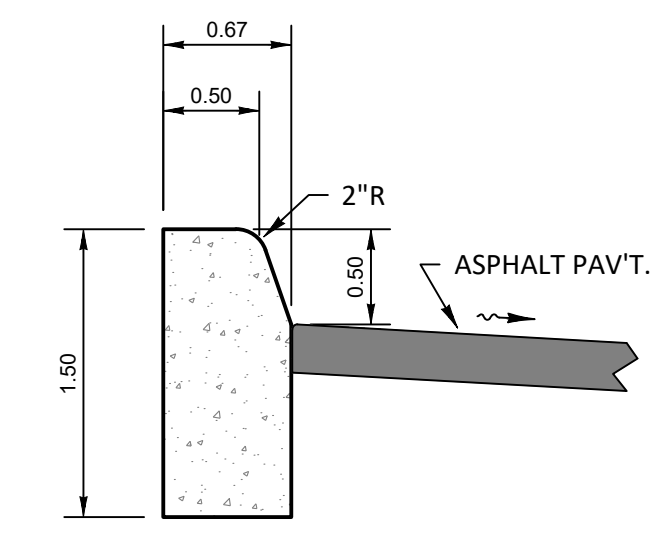
TYPE "F" CURB & GUTTER ROTATED
SCALE: 1" = 1'



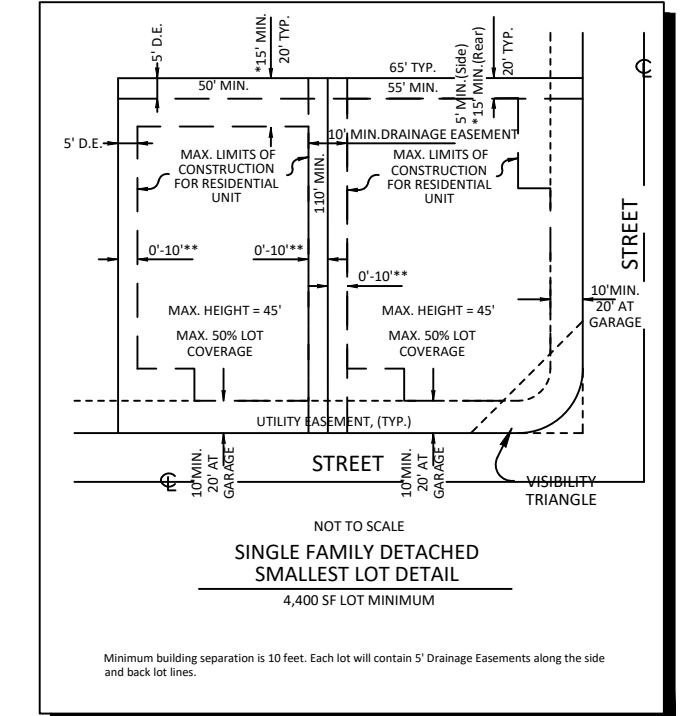
STANDARD MIAMI CURB
SCALE: 1" = 1'



DROP CURB
SCALE: 1" = 1'



TYPE "D" CURB
SCALE: 1" = 1'



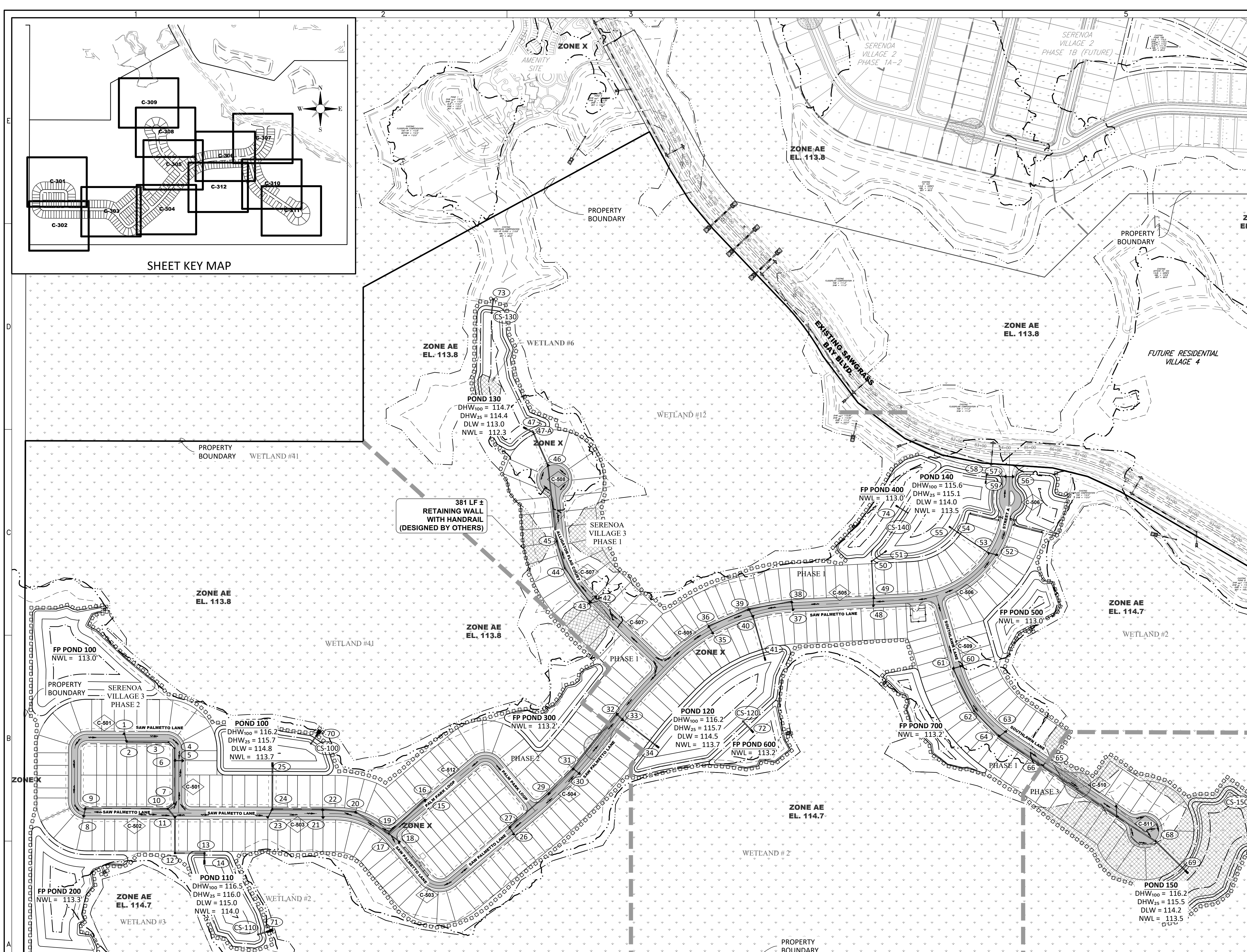
CONTRACTOR MAY PROPOSE ALTERNATE PAVEMENT DESIGNS. CONTRACTOR SHALL SUBMIT ANY PAVEMENT ALTERNATIVES TO ENGINEER FOR APPROVAL PRIOR TO FINAL SUBGRADE PREPARATIONS. ALTERNATIVES WOULD REQUIRE LAKE COUNTY REVIEW AND APPROVAL.

HEIDT DESIGN
Civil Engineering • Planning & GIS
Transportation Engineering
Ecological Services • Landscape Architecture
5904-A Hampton Oaks Pkwy.
Tampa, Florida 33610
Office: 813-253-5311
Fax: 813-464-7629
www.HeidtDesign.com

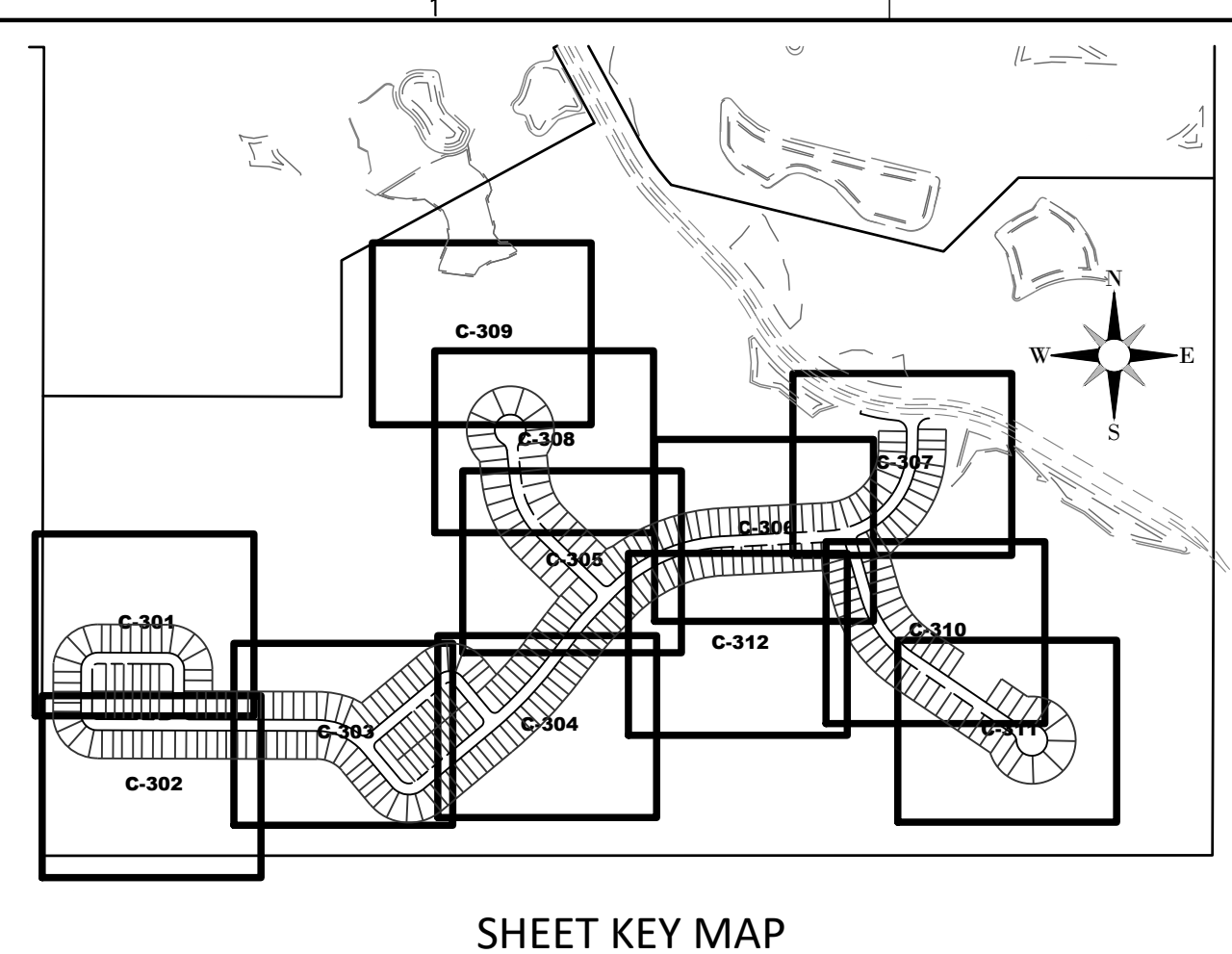
SERENOA
VILLAGE 3 - PHASE 1, 2 & 3
TYPICAL ROADWAY SECTIONS
PREPARED FOR: **VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION
3	05/27/2020	SOD NOTE, CURB, SUBGRADE
1	03/20/2020	TEMP TURN-AROUND, TYP SEC
1	11/08/2019	REVIEW SUBMITTAL

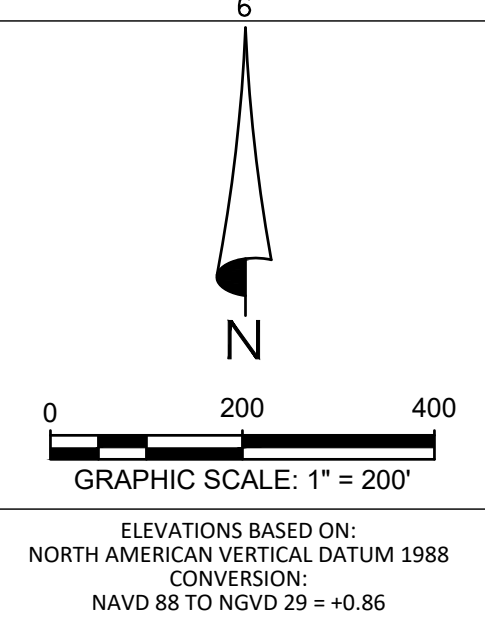
PROJECT NO.: KLP-AG-1089
FILE: RS-LAKECO
DESIGN BY: FRANCIS
DRAWN BY: JLOAIZA
STATE OF FLORIDA PROFESSIONAL ENGINEER
Timothy M. Plate, State of Florida, Professional Engineer, License No. 41153
This item has been digitally signed and sealed by Timothy M. Plate, P.E. on the date indicated here.
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.
TIMOTHY M. PLATE, P.E.
DATE: _____
LICENSE NO. 41153
C-200



PHASE 1		PHASE 2		PHASE 3		LOT COUNT TABLE	
LOT SIZE	TOTAL	LOT SIZE	TOTAL	LOT SIZE	TOTAL	LOT SIZE	TOTAL
40' X 125'	40	40' X 125'	94	40' X 125'	0	40' X 125'	134
50' X 125'	58	50' X 125'	58	50' X 125'	0	50' X 125'	116
60' X 125'	31	60' X 125'	0	60' X 125'	17	60' X 125'	48
TOTAL:	129	TOTAL:	152	TOTAL:	17	TOTAL:	298



SHEET KEY MAP



THIS PROJECT LIES WITHIN FLOOD ZONE "AE & X" ACCORDING TO FLOOD INSURANCE RATE MAPS FOR LAKE COUNTY, FLORIDA, FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) - FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY PANEL NO. 12069C0675E, DATED DECEMBER 18, 2012 AND ISSUED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.

- LEGEND**
- SIRWMD WETLAND LINE
 - SIRWMD WETLAND CONS. AREA SETBACK / LANDWARD EXTENT OF UPLAND BUFFER (50')
 - FEMA LINE
 - BOUNDARY LIMITS
 - RIGHT-OF-WAY LINE
 - PHASE LINE
 - WETLAND IMPACT
- DRAINAGE LEGEND**
- EXISTING: (10) STORM DRAINAGE STRUCTURE & PIPE
 - PROPOSED: (10) STORM DRAINAGE STRUCTURE & PIPE
 - (CS-F) CONTROL STRUCTURE NO.
 - (15.00) SPOT ELEVATION GROUND
 - (15.00) SPOT ELEVATION PAVEMENT
 - (60.2 / 58.3) TOP OF WALL (EXIST. ELEV)
 - 15.00 BOTTOM OF WALL (EXIST. ELEV)
 - 15.00 ROADWAY PROFILE ELEVATION
 - 15.00 FINISH FLOOR ELEVATION
 - FF=15.00 DIRECTION OF SURFACE FLOW
 - UDCO UNDERDRAIN WITH CLEANOUT
 - STAKED EROSION CONTROL (SIRWMD PROJECT LIMITS AND THE LIMITS OF CLEARING AND FILLING)
 - FLOATING TURBIDITY BARRIER
 - BOTTOM OF POND/TOP OF BANK OF POND
 - 6' WALL/FENCE (BY OTHERS)
 - C-505 PLAN & PROFILE SHEET NUMBER
 - A-A SECTION ID LABEL
 - C-317 SECTION SHEET NUMBER
 - P03 SOIL BORING

POND EXCAVATION NOTE:

NO EXCAVATION SHALL EXTEND BELOW THE PERMITTED DESIGN DEPTHS/ELEVATIONS SHOWN ON THE DRAWINGS, UNLESS ADDITIONAL TESTING SUPPORTS OTHERWISE AND THE ENGINEER OF RECORD HAS RECEIVED WRITTEN PERMISSION/APPROVAL FROM THE WATER MANAGEMENT DISTRICT AND LOCAL AGENCY HAVING JURISDICTION. NO LOWER SEMI-CONFINING UNIT CLAYEY SOIL MATERIAL AND/OR NO LIMESTONE MATERIALS SHALL BE EXCAVATED, REGARDLESS IF THESE MATERIALS ARE ENCOUNTERED WITHIN THE PERMITTED EXCAVATION DEPTHS/ELEVATIONS. IF ANY LOWER SEMI-CONFINING UNIT CLAYEY SOIL MATERIALS OR LIMESTONE MATERIALS ARE ENCOUNTERED ABOVE THE PERMITTED DEPTHS/ELEVATIONS, THEN EXCAVATION OPERATIONS SHALL CEASE IN THE GENERAL AREA AND THE ENGINEER OF RECORD AND GEOTECHNICAL CONSULTANT SHALL BE NOTIFIED IMMEDIATELY.

NO TEMPORARY DEWATERING DITCHES OR SUMPS (FOR POND EXCAVATION) SHALL EXTEND BELOW THE PERMITTED DESIGN DEPTHS SHOWN ON THE DRAWINGS. IF ANY LOWER SEMI-CONFINING UNIT CLAYEY MATERIALS OR LIMESTONE MATERIALS ARE ENCOUNTERED ABOVE THE PERMITTED EXCAVATION DEPTHS, THEN EXCAVATION OPERATIONS IN THAT POND AREA SHALL IMMEDIATELY CEASE IN THE GENERAL AREA, AND THE PROJECT GEOTECHNICAL CONSULTANT SHALL BE NOTIFIED TO PROVIDE SUBSEQUENT EVALUATIONS/RECOMMENDATIONS, AS APPROPRIATE, WHICH SHALL BE IMPLEMENTED BY THE CONTRACTOR.

ANY SIGNIFICANT UNSTABLE BOTTOM AREAS DISCOVERED OR CREATED, AND ANY SIGNIFICANT BOTTOM SOILS, SHALL BE DOCUMENTED/REPORTED BY THE CONTRACTOR AND THEN REPAIRED/IMPROVED BY THE CONTRACTOR, AS DIRECTED BY THE CIVIL AND GEOTECHNICAL CONSULTANTS, PRIOR TO OBTAINING FINAL POND ACCEPTANCE. ALL POND EXCAVATION OPERATIONS BY THE CONTRACTOR SHALL BE COORDINATED WITH A SENIOR FIELD TECHNICIAN WORKING DIRECTLY FOR THE PROJECT CIVIL AND GEOTECHNICAL CONSULTANTS.

HEIDT DESIGN
Civil Engineering • Planning & GIS
Transportation Engineering
Ecological Services • Landscape Architecture

Engineering Business Certificate of Authorization No. 28792
Landscape Architecture Certificate of Authorization No. LC26080405

5904-A Hampton Oaks Pkwy.
Tampa, Florida 33610
Office: 813-253-5311
Fax: 813-464-7629
www.HeidtDesign.com

SERENOA VILLAGE 3 - PHASE 1, 2 & 3
MASTER GRADING & DRAINAGE PLAN

PREPARED FOR: VK AVALON GROVES, LLC

NO.	DATE	DESCRIPTION
1	11/08/2019	REVIEW SUBMITTAL
2	03/20/2020	REV. STRUCTURE NUMBERS, LOTS & WETLANDS IMPACTS
3	05/27/2020	ADDED NEW LOT #48 & REV. R. WALL

PROJECT NO.: KLP-AG-1089
FILE: GD-KEY
DESIGN BY: FRANCIS
DRAWN BY: JLOAIZA

STATE OF FLORIDA
PROFESSIONAL ENGINEER

Timothy M. Plate, State of Florida,
Professional Engineer, License No. 41153

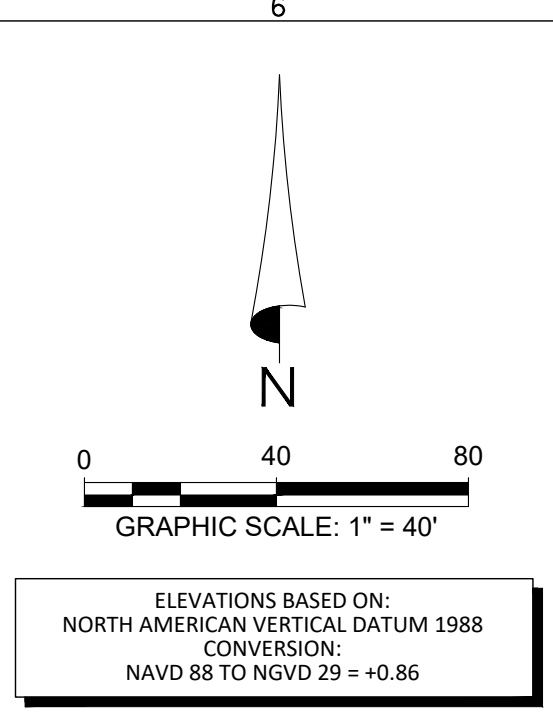
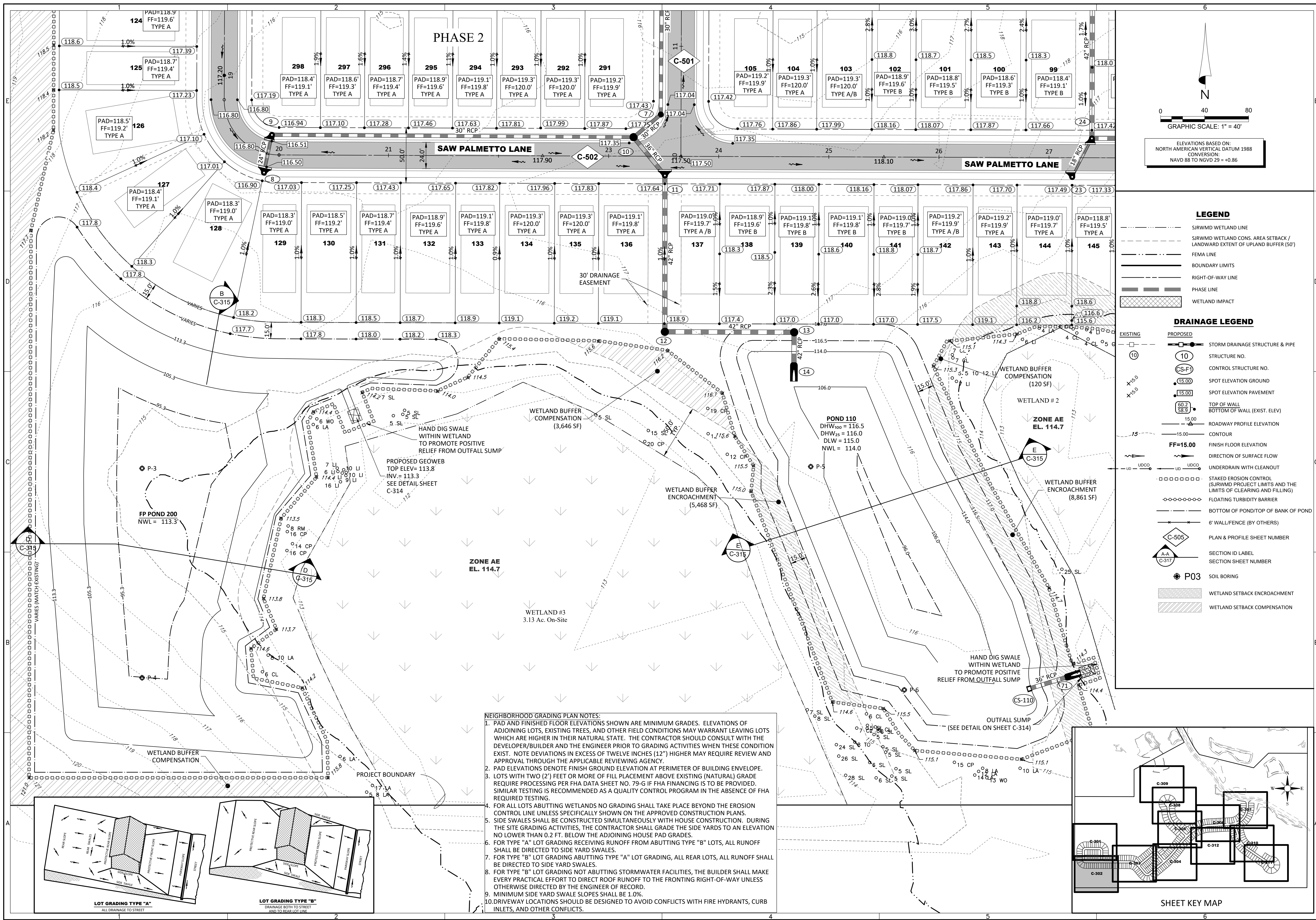
This item has been digitally
signed and sealed by
Timothy M. Plate, P.E. on the date
indicated here.

Printed copies of this document
are not considered signed and
sealed and the signature must be
verified on any electronic copies.

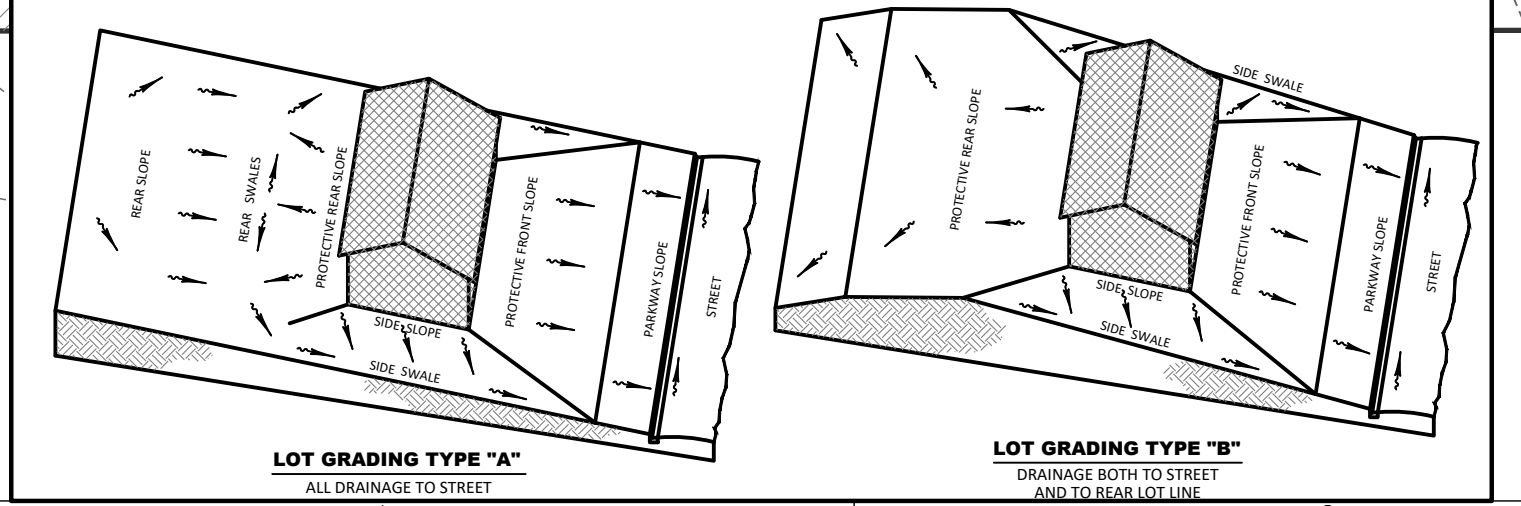
TIMOTHY M. PLATE, P.E.
DATE: _____
LICENSE NO. 41153

C-300

© COPYRIGHT 2020, HEIDT DESIGN, LLC. ALL RIGHTS RESERVED. NO DOCUMENTATION INCLUDING BUT NOT LIMITED TO DRAWINGS OR EXHIBITS MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION IN WRITING FROM HEIDT DESIGN, LLC. THIS DOCUMENT IS HEREBY GRANTED SPECIFICALLY TO GOVERNMENTAL AGENCIES TO REPRODUCE THIS DOCUMENTATION IN COMPLIANCE WITH F.S. CHAPTER 119.

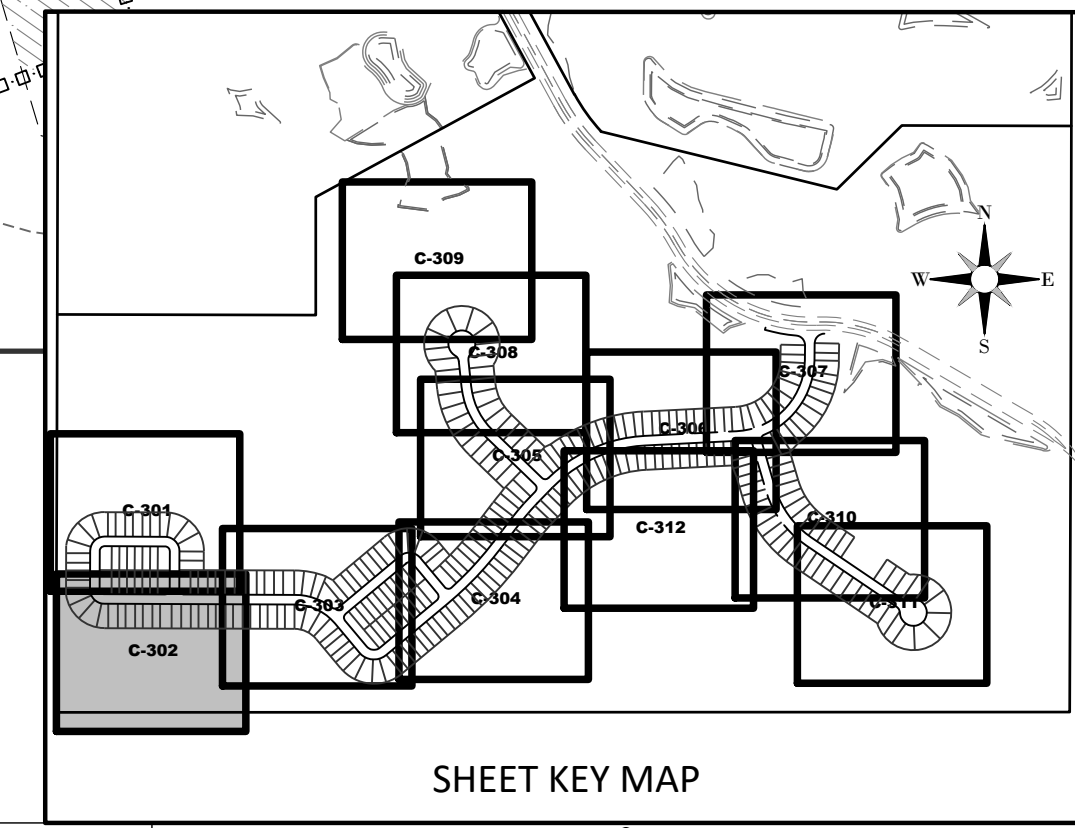


- LEGEND**
- SIRWMW WETLAND LINE
 - SIRWMW WETLAND CONS. AREA SETBACK / LANDWARD EXTENT OF UPLAND BUFFER (50')
 - FEMA LINE
 - BOUNDARY LIMITS
 - RIGHT-OF-WAY LINE
 - PHASE LINE
 - WETLAND IMPACT
- DRAINAGE LEGEND**
- EXISTING: (10) STORM DRAINAGE STRUCTURE & PIPE STRUCTURE NO.
 - PROPOSED: (CS-F) CONTROL STRUCTURE NO.
 - 15.00 SPOT ELEVATION GROUND
 - 15.00 SPOT ELEVATION PAVEMENT
 - 60.2 / 53.9 TOP OF WALL / BOTTOM OF WALL (EXIST. ELEV)
 - 15.00 ROADWAY PROFILE ELEVATION
 - 15.00 CONTOUR
 - FF=15.00 FINISH FLOOR ELEVATION
 - DIRECTION OF SURFACE FLOW
 - UNDERDRAIN WITH CLEANOUT
 - STAKED EROSION CONTROL (SIRWMW PROJECT LIMITS AND THE LIMITS OF CLEARING AND FILLING)
 - FLOATING TURBIDITY BARRIER
 - BOTTOM OF POND/TOP OF BANK OF POND
 - 6" WALL/FENCE (BY OTHERS)
 - PLAN & PROFILE SHEET NUMBER
 - SECTION ID LABEL
 - SECTION SHEET NUMBER
 - P03 SOIL BORING
 - WETLAND SETBACK ENCROACHMENT
 - WETLAND SETBACK COMPENSATION



NEIGHBORHOOD GRADING PLAN NOTES:

- PAD AND FINISHED FLOOR ELEVATIONS SHOWN ARE MINIMUM GRADES. ELEVATIONS OF ADJOINING LOTS, EXISTING TREES, AND OTHER FIELD CONDITIONS MAY WARRANT LEAVING LOTS WHICH ARE HIGHER IN THEIR NATURAL STATE. THE CONTRACTOR SHOULD CONSULT WITH THE DEVELOPER/BUILDER AND THE ENGINEER PRIOR TO GRADING ACTIVITIES WHEN THESE CONDITIONS EXIST. NOTE DEVIATIONS IN EXCESS OF TWELVE INCHES (12") HIGHER MAY REQUIRE REVIEW AND APPROVAL THROUGH THE APPLICABLE REVIEWING AGENCY.
- PAD ELEVATIONS DENOTE FINISH GROUND ELEVATION AT PERIMETER OF BUILDING ENVELOPE.
- LOTS WITH TWO (2') FEET OR MORE OF FILL PLACEMENT ABOVE EXISTING (NATURAL) GRADE REQUIRE PROCESSING PER FHA DATA SHEET NO. 79-G IF FHA FINANCING IS TO BE PROVIDED. SIMILAR TESTING IS RECOMMENDED AS A QUALITY CONTROL PROGRAM IN THE ABSENCE OF FHA REQUIRED TESTING.
- FOR ALL LOTS ABUTTING WETLANDS NO GRADING SHALL TAKE PLACE BEYOND THE EROSION CONTROL LINE UNLESS SPECIFICALLY SHOWN ON THE APPROVED CONSTRUCTION PLANS.
- SIDE SWALES SHALL BE CONSTRUCTED SIMULTANEOUSLY WITH HOUSE CONSTRUCTION. DURING THE SITE GRADING ACTIVITIES, THE CONTRACTOR SHALL GRADE THE SIDE YARDS TO AN ELEVATION NO LOWER THAN 0.2 FT. BELOW THE ADJOINING HOUSE PAD GRADES.
- FOR TYPE "A" LOT GRADING RECEIVING RUNOFF FROM ABUTTING TYPE "B" LOTS, ALL RUNOFF SHALL BE DIRECTED TO SIDE YARD SWALES.
- FOR TYPE "B" LOT GRADING ABUTTING TYPE "A" LOT GRADING, ALL REAR LOTS, ALL RUNOFF SHALL BE DIRECTED TO SIDE YARD SWALES.
- FOR TYPE "B" LOT GRADING NOT ABUTTING STORMWATER FACILITIES, THE BUILDER SHALL MAKE EVERY PRACTICAL EFFORT TO DIRECT ROOF RUNOFF TO THE FRONTING RIGHT-OF-WAY UNLESS OTHERWISE DIRECTED BY THE ENGINEER OF RECORD.
- MINIMUM SIDE YARD SWALE SLOPES SHALL BE 1.0%.
- DRIVEWAY LOCATIONS SHOULD BE DESIGNED TO AVOID CONFLICTS WITH FIRE HYDRANTS, CURB INLETS, AND OTHER CONFLICTS.



HEIDT DESIGN
Civil Engineering • Planning & GIS
Transportation Engineering
Ecological Services • Landscape Architecture

5904-A Hampton Oaks Pkwy.
Tampa, Florida 33610
Office: 813-253-5311
Fax: 813-464-7629
www.HeidtDesign.com

SERENOA VILLAGE 3 - PHASE 1, 2 & 3

GRADING & DRAINAGE PLAN

PREPARED FOR: **VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION
3	08/27/2020	ADDED STR. 7
2	03/20/2020	REV. WETLANDS MAP, LOTS & GRADES
1	11/13/2019	REV. STRUCTURE NUMBER
	11/08/2019	REVISED SUBMITTAL

PROJECT NO: KLP-AG-1089
FILE: GD
DESIGN BY: FRANCIS
DRAWN BY: JLOAIZA

STATE OF FLORIDA
PROFESSIONAL ENGINEER

Timothy M. Plate, State of Florida,
Professional Engineer, License No. 41153

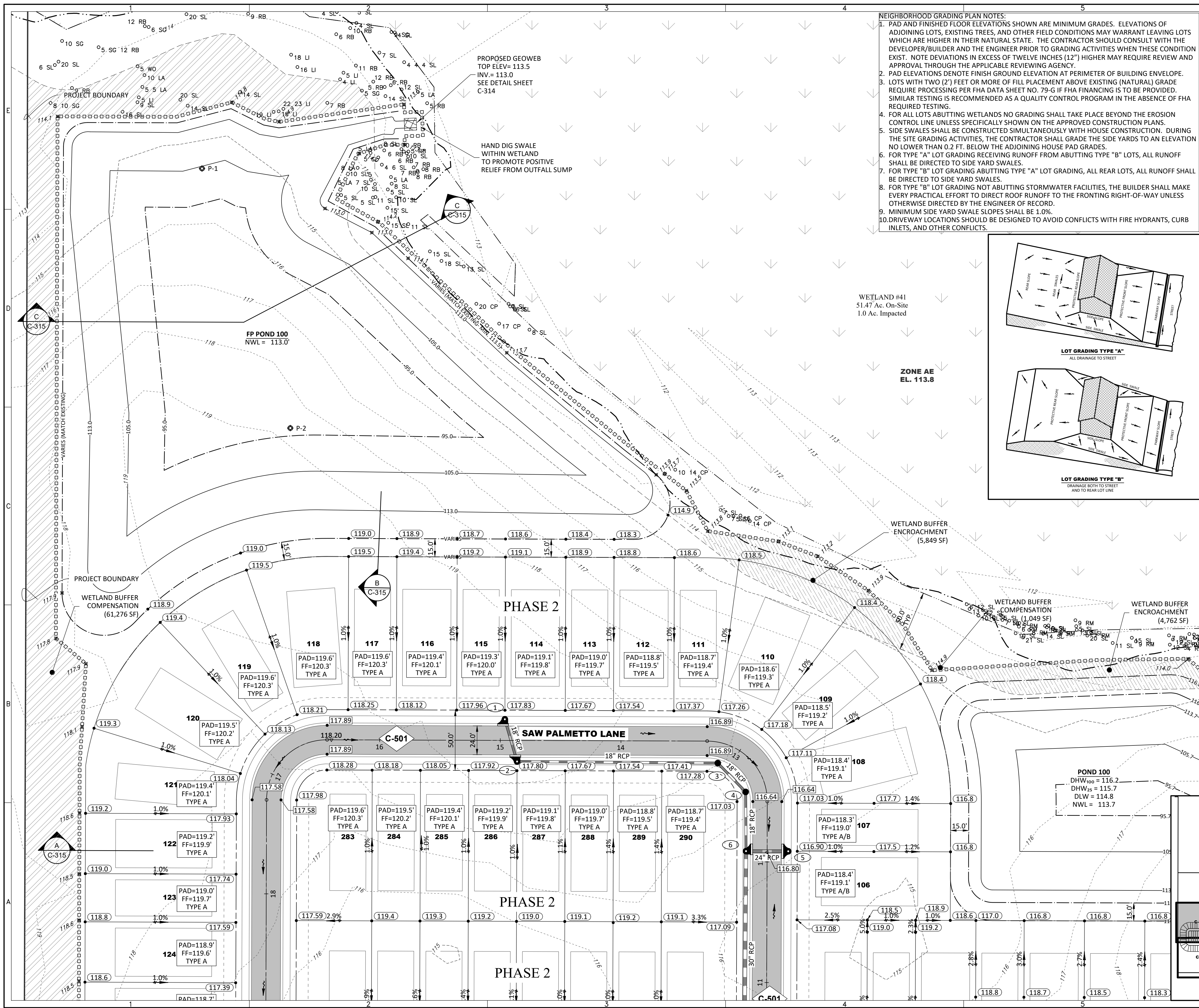
This item has been digitally
signed and sealed by
Timothy M. Plate, P.E. on the date
indicated here.

Printed copies of this document
are not considered signed and
sealed and the signature must be
verified on any electronic copies.

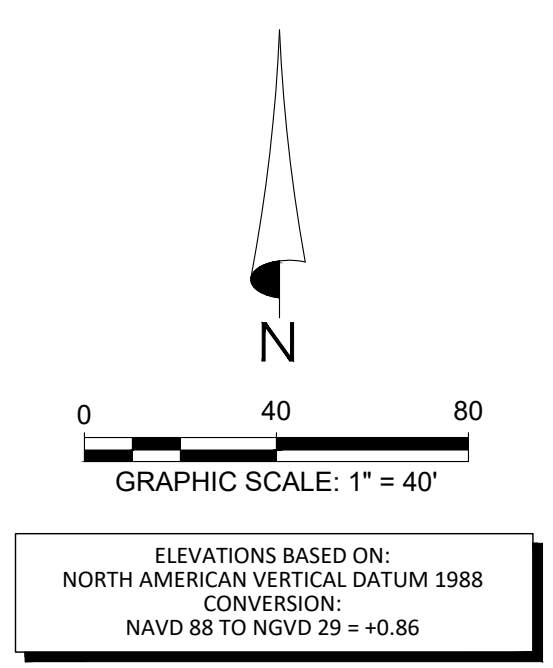
TIMOTHY M. PLATE, P.E.
DATE: _____
LICENSE NO. 41153

C-301

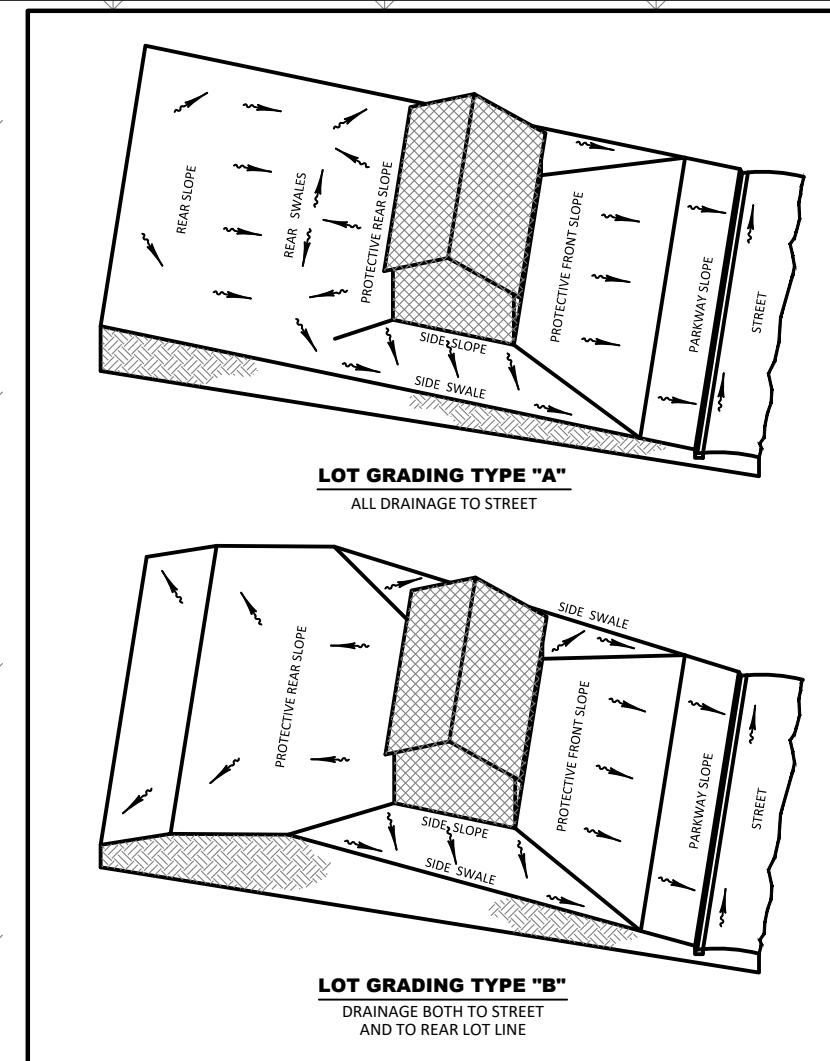
R:\AVALON GROVES\VILLAGE 3\ENGINEERING\DWG-C-302 2020\03-11-20 AM ERIC FRANCIS



- NEIGHBORHOOD GRADING PLAN NOTES:**
- PAD AND FINISHED FLOOR ELEVATIONS SHOWN ARE MINIMUM GRADES. ELEVATIONS OF ADJOINING LOTS, EXISTING TREES, AND OTHER FIELD CONDITIONS MAY WARRANT LEAVING LOTS WHICH ARE HIGHER IN THEIR NATURAL STATE. THE CONTRACTOR SHOULD CONSULT WITH THE DEVELOPER/BUILDER AND THE ENGINEER PRIOR TO GRADING ACTIVITIES WHEN THESE CONDITIONS EXIST. NOTE DEVIATIONS IN EXCESS OF TWELVE INCHES (12") HIGHER MAY REQUIRE REVIEW AND APPROVAL THROUGH THE APPLICABLE REVIEWING AGENCY.
 - PAD ELEVATIONS DENOTE FINISH GROUND ELEVATION AT PERIMETER OF BUILDING ENVELOPE. LOTS WITH TWO (2') FEET OR MORE OF FILL PLACEMENT ABOVE EXISTING (NATURAL) GRADE REQUIRE PROCESSING PER FHA DATA SHEET NO. 79-G IF FHA FINANCING IS TO BE PROVIDED. SIMILAR TESTING IS RECOMMENDED AS A QUALITY CONTROL PROGRAM IN THE ABSENCE OF FHA REQUIRED TESTING.
 - FOR ALL LOTS ABUTTING WETLANDS NO GRADING SHALL TAKE PLACE BEYOND THE EROSION CONTROL LINE UNLESS SPECIFICALLY SHOWN ON THE APPROVED CONSTRUCTION PLANS.
 - SIDE SWALES SHALL BE CONSTRUCTED SIMULTANEOUSLY WITH HOUSE CONSTRUCTION. DURING THE SITE GRADING ACTIVITIES, THE CONTRACTOR SHALL GRADE THE SIDE YARDS TO AN ELEVATION NO LOWER THAN 0.2 FT. BELOW THE ADJOINING HOUSE PAD GRADES.
 - FOR TYPE "A" LOT GRADING RECEIVING RUNOFF FROM ABUTTING TYPE "B" LOTS, ALL RUNOFF SHALL BE DIRECTED TO SIDE YARD SWALES.
 - FOR TYPE "B" LOT GRADING ABUTTING TYPE "A" LOT GRADING, ALL REAR LOTS, ALL RUNOFF SHALL BE DIRECTED TO SIDE YARD SWALES.
 - FOR TYPE "B" LOT GRADING NOT ABUTTING STORMWATER FACILITIES, THE BUILDER SHALL MAKE EVERY PRACTICAL EFFORT TO DIRECT ROOF RUNOFF TO THE FRONTING RIGHT-OF-WAY UNLESS OTHERWISE DIRECTED BY THE ENGINEER OF RECORD.
 - MINIMUM SIDE YARD SWALE SLOPES SHALL BE 1.0%.
 - DRIVEWAY LOCATIONS SHOULD BE DESIGNED TO AVOID CONFLICTS WITH FIRE HYDRANTS, CURB INLETS, AND OTHER CONFLICTS.



- LEGEND**
- SIRWMD WETLAND LINE
 - SIRWMD WETLAND CONS. AREA SETBACK / LANDWARD EXTENT OF UPLAND BUFFER (50')
 - FEMA LINE
 - BOUNDARY LIMITS
 - RIGHT-OF-WAY LINE
 - PHASE LINE
 - WETLAND IMPACT
- DRAINAGE LEGEND**
- EXISTING: 10 (Structure No.), 15.00 (Spot Elevation Ground), 15.00 (Spot Elevation Pavement), 60.2 (Top of Wall), 53.3 (Bottom of Wall), 15.00 (Roadway Profile Elevation), 15.00 (Contour)
 - PROPOSED: 10 (Structure No.), 15.00 (Spot Elevation Ground), 15.00 (Spot Elevation Pavement), 60.2 (Top of Wall), 53.3 (Bottom of Wall), 15.00 (Roadway Profile Elevation), 15.00 (Contour)
 - FF=15.00: FINISH FLOOR ELEVATION
 - Direction of Surface Flow
 - UDCO: UNDERDRAIN WITH CLEANOUT
 - Staked Erosion Control (SIRWMD PROJECT LIMITS AND THE LIMITS OF CLEARING AND FILLING)
 - Floating Turbidity Barrier
 - Bottom of Pond/Top of Bank of Pond
 - 6' Wall/Fence (by Others)
 - C-505: PLAN & PROFILE SHEET NUMBER
 - A-A, C-317: SECTION ID LABEL, SECTION SHEET NUMBER
 - P03: SOIL BORING
 - Wetland Setback Encroachment
 - Wetland Setback Compensation



HEIDT DESIGN
Civil Engineering, Planning & GIS
Transportation Engineering
Ecological Services • Landscape Architecture

5904-A Hampton Oaks Pkwy.
Tampa, Florida 33610
Office: 813-253-5311
Fax: 813-464-7629
www.HeidtDesign.com

SERENOA VILLAGE 3 - PHASE 1, 2 & 3
GRADING & DRAINAGE PLAN

PREPARED FOR: **VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION
1	08/20/2020	REV. WETLANDS MAP, LOTS & GRADES
2	11/08/2023	REVISION SUBMITTAL

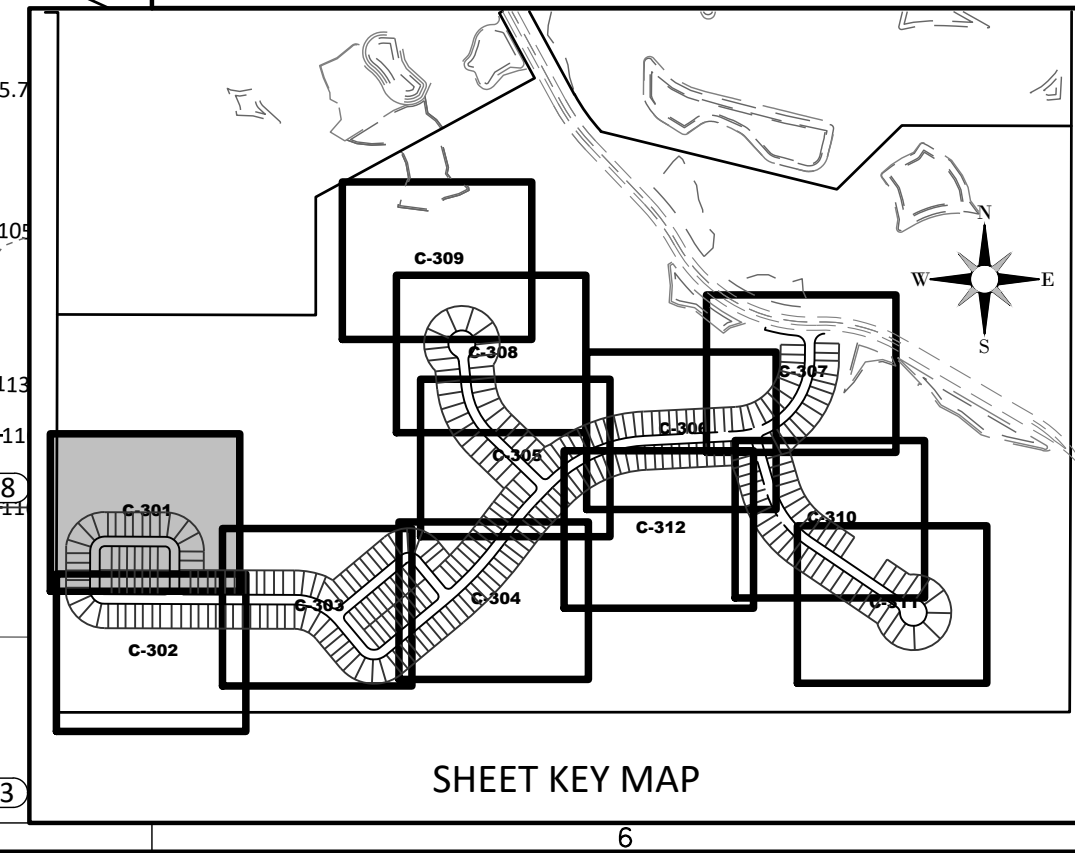
PROJECT NO.: KLP-AG-1089
FILE: GD
DESIGN BY: FRANCIS
DRAWN BY: JLOAIZA

STATE OF FLORIDA
PROFESSIONAL ENGINEER

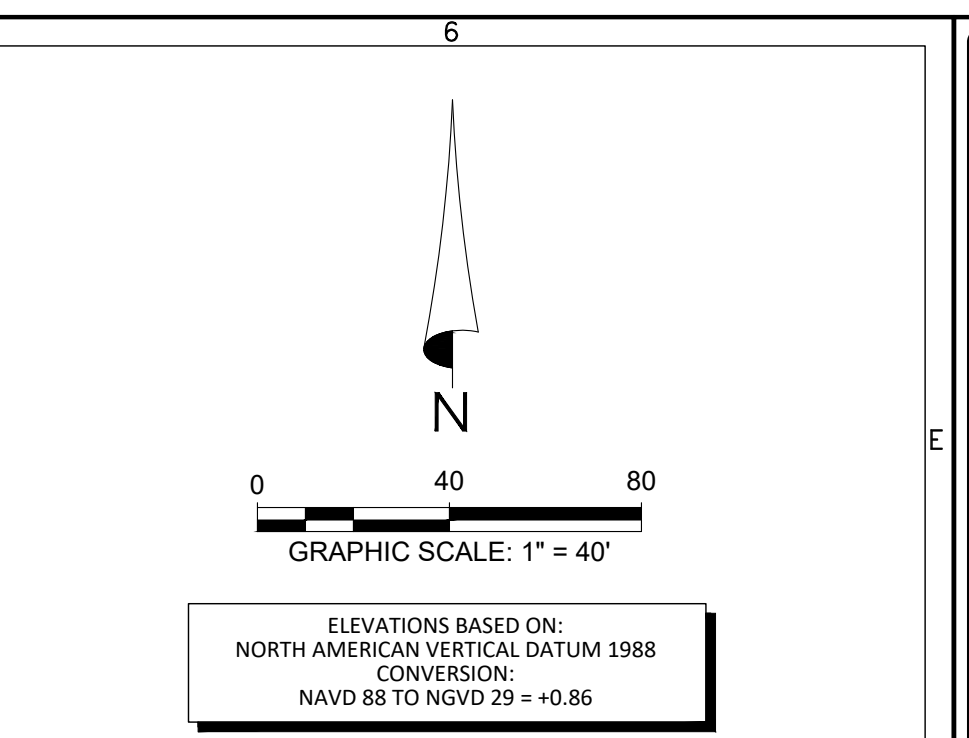
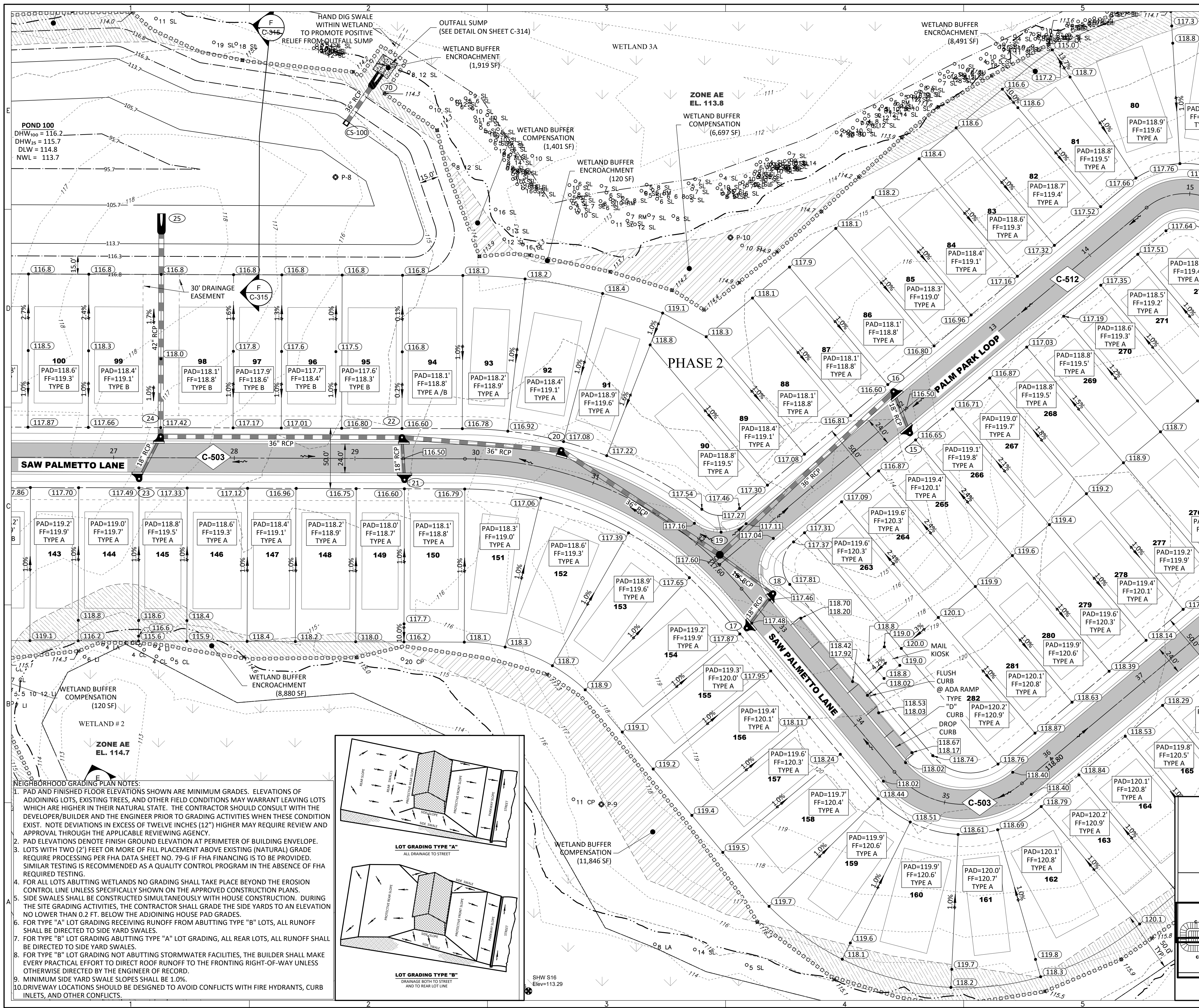
Timothy M. Plate, State of Florida, Professional Engineer, License No. 41153
This item has been digitally signed and sealed by Timothy M. Plate, P.E. on the date indicated here.
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
DATE: _____
LICENSE NO. 41153

C-301



R:\AVALON GROVES\VILLAGE 3\ENGINEERING\DWG-C-301 20200803 11:10 AM ERIC FRANCIS



LEGEND

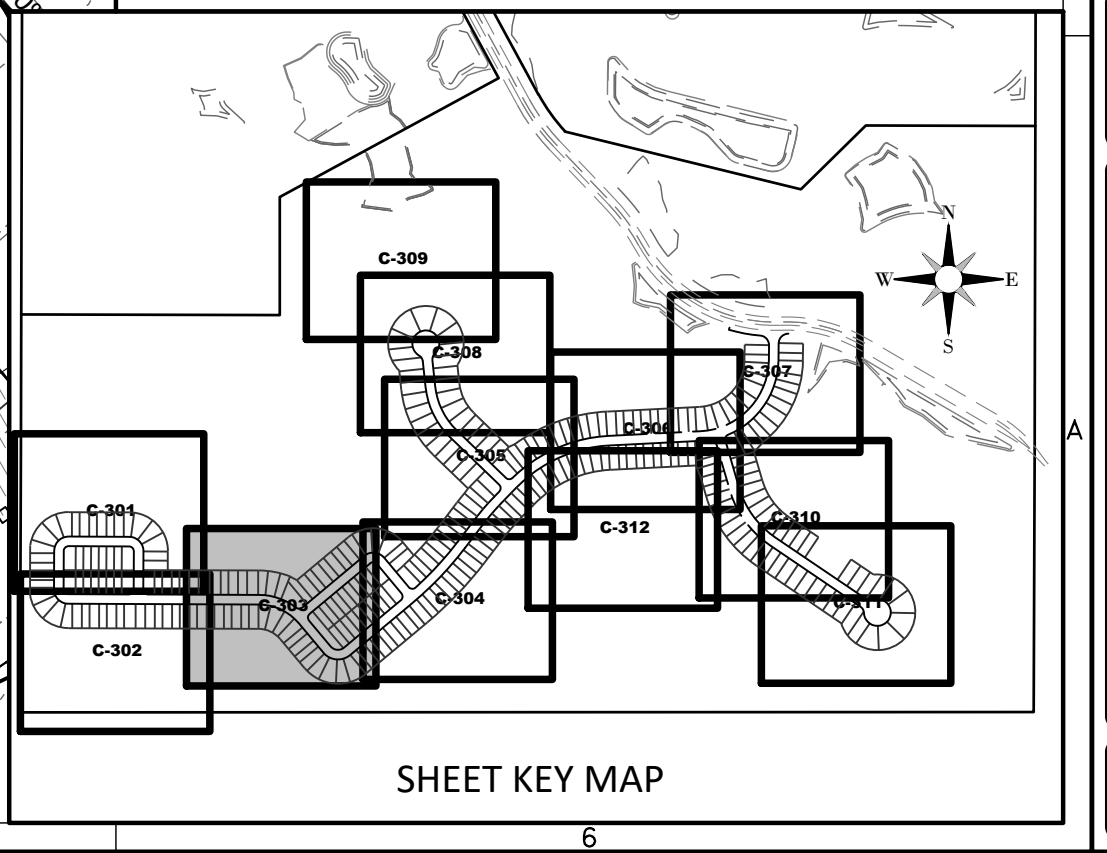
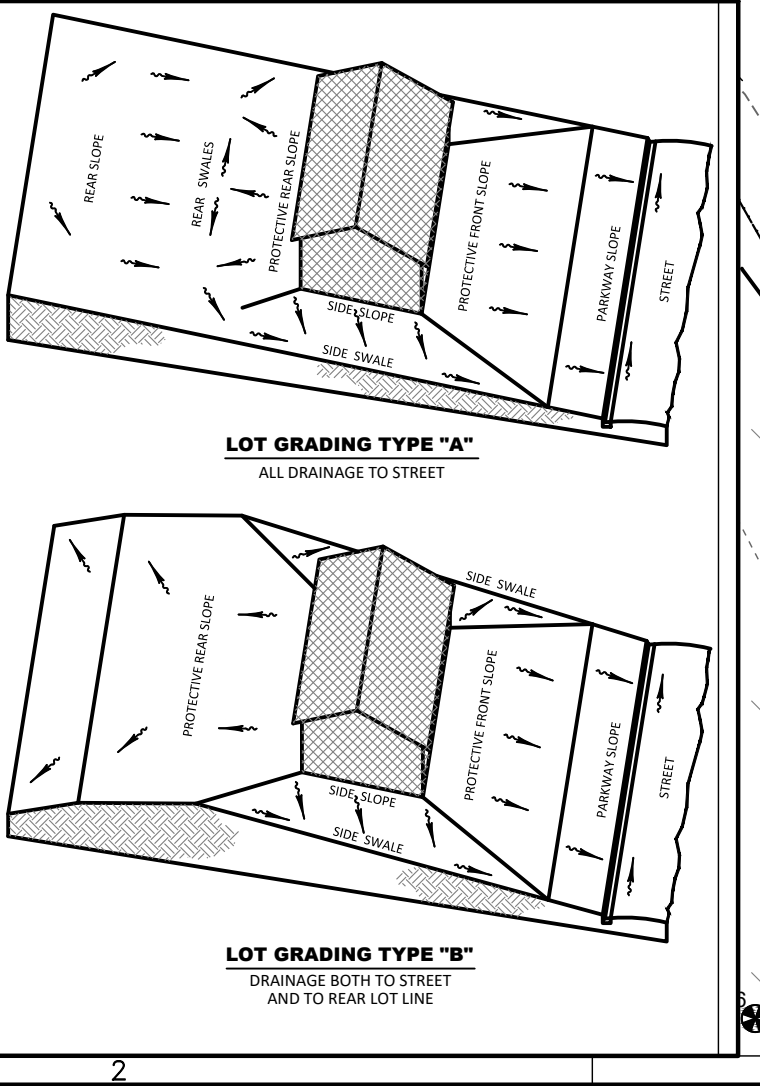
- SIRWMD WETLAND LINE
- SIRWMD WETLAND CONS. AREA SETBACK / LANDWARD EXTENT OF UPLAND BUFFER (50')
- FEMA LINE
- BOUNDARY LIMITS
- RIGHT-OF-WAY LINE
- PHASE LINE
- WETLAND IMPACT

DRAINAGE LEGEND

- EXISTING: STORM DRAINAGE STRUCTURE & PIPE
- PROPOSED: STORM DRAINAGE STRUCTURE & PIPE
- STRUCTURE NO.
- CONTROL STRUCTURE NO.
- SPOT ELEVATION GROUND
- SPOT ELEVATION PAVEMENT
- TOP OF WALL
- BOTTOM OF WALL (EXIST. ELEV)
- ROADWAY PROFILE ELEVATION
- CONTOUR
- FF=15.00
- FINISH FLOOR ELEVATION
- DIRECTION OF SURFACE FLOW
- UNDERDRAIN WITH CLEANOUT
- STAKED EROSION CONTROL (SIRWMD PROJECT LIMITS AND THE LIMITS OF CLEARING AND FILLING)
- FLOATING TURBIDITY BARRIER
- BOTTOM OF POND/TOP OF BANK OF POND
- 6' WALL/FENCE (BY OTHERS)
- PLAN & PROFILE SHEET NUMBER
- SECTION ID LABEL
- SECTION SHEET NUMBER
- SOIL BORING
- WETLAND SETBACK ENCROACHMENT
- WETLAND SETBACK COMPENSATION

NEIGHBORHOOD GRADING PLAN NOTES:

- PAD AND FINISHED FLOOR ELEVATIONS SHOWN ARE MINIMUM GRADES. ELEVATIONS OF ADJOINING LOTS, EXISTING TREES, AND OTHER FIELD CONDITIONS MAY WARRANT LEAVING LOTS WHICH ARE HIGHER IN THEIR NATURAL STATE. THE CONTRACTOR SHOULD CONSULT WITH THE DEVELOPER/BUILDER AND THE ENGINEER PRIOR TO GRADING ACTIVITIES WHEN THESE CONDITIONS EXIST. NOTE DEVIATIONS IN EXCESS OF TWELVE INCHES (12") HIGHER MAY REQUIRE REVIEW AND APPROVAL THROUGH THE APPLICABLE REVIEWING AGENCY.
- PAD ELEVATIONS DENOTE FINISH GROUND ELEVATION AT PERIMETER OF BUILDING ENVELOPE.
- LOTS WITH TWO (2') FEET OR MORE OF FILL PLACEMENT ABOVE EXISTING (NATURAL) GRADE REQUIRE PROCESSING PER FHA DATA SHEET NO. 79-G IF FHA FINANCING IS TO BE PROVIDED. SIMILAR TESTING IS RECOMMENDED AS A QUALITY CONTROL PROGRAM IN THE ABSENCE OF FHA REQUIRED TESTING.
- FOR ALL LOTS ABUTTING WETLANDS NO GRADING SHALL TAKE PLACE BEYOND THE EROSION CONTROL LINE UNLESS SPECIFICALLY SHOWN ON THE APPROVED CONSTRUCTION PLANS.
- SIDE SWALES SHALL BE CONSTRUCTED SIMULTANEOUSLY WITH HOUSE CONSTRUCTION. DURING THE SITE GRADING ACTIVITIES, THE CONTRACTOR SHALL GRADE THE SIDE YARDS TO AN ELEVATION NO LOWER THAN 0.2 FT. BELOW THE ADJOINING HOUSE PAD GRADES.
- FOR TYPE "A" LOT GRADING RECEIVING RUNOFF FROM ABUTTING TYPE "B" LOTS, ALL RUNOFF SHALL BE DIRECTED TO SIDE YARD SWALES.
- FOR TYPE "B" LOT GRADING ABUTTING TYPE "A" LOT GRADING, ALL REAR LOTS, ALL RUNOFF SHALL BE DIRECTED TO SIDE YARD SWALES.
- FOR TYPE "B" LOT GRADING NOT ABUTTING STORMWATER FACILITIES, THE BUILDER SHALL MAKE EVERY PRACTICAL EFFORT TO DIRECT ROOF RUNOFF TO THE FRONTING RIGHT-OF-WAY UNLESS OTHERWISE DIRECTED BY THE ENGINEER OF RECORD.
- MINIMUM SIDE YARD SWALE SLOPES SHALL BE 1.0%.
- DRIVEWAY LOCATIONS SHOULD BE DESIGNED TO AVOID CONFLICTS WITH FIRE HYDRANTS, CURB INLETS, AND OTHER CONFLICTS.



HEIDT DESIGN
Civil Engineering • Planning & GIS
Transportation Engineering
Ecological Services • Landscape Architecture

5904-A Hampton Oaks Pkwy.
Tampa, Florida 33610
Office: 813-253-5311
Fax: 813-464-7629
www.HeidtDesign.com

Engineering Business Certificate of Authorization No. 28787D
Landscape Architecture Certificate of Authorization No. LC26080405

SERENOA VILLAGE 3 - PHASE 1, 2 & 3
GRADING & DRAINAGE PLAN

PREPARED FOR: **VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION
1	11/08/2019	REVIEW SUBMITTAL
2	11/13/2019	REV. WETLANDS MAP, LOTS & GRADES
3	08/27/2020	MOVED STR 19

PROJECT NO.: KLP-AG-1089
FILE: GD
DESIGN BY: FRANCIS
DRAWN BY: JLOAIZA

STATE OF FLORIDA
PROFESSIONAL ENGINEER

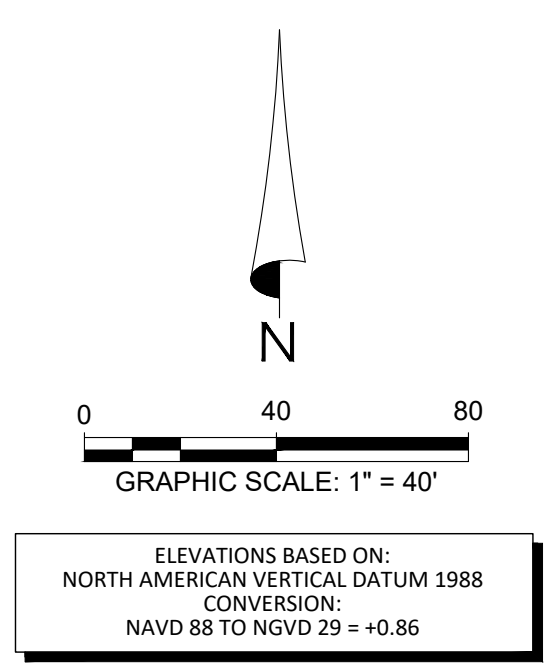
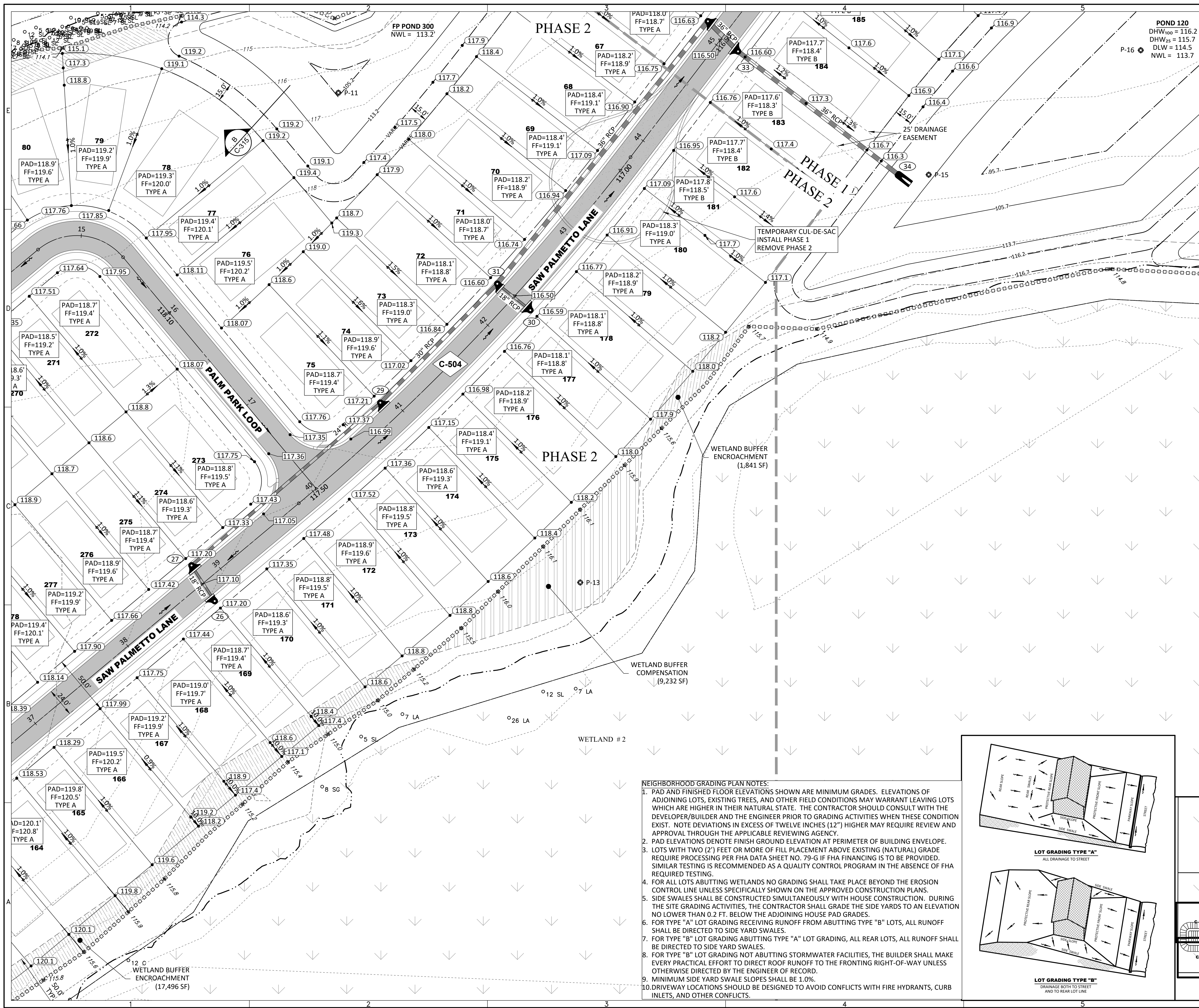
Timothy M. Plate, State of Florida,
Professional Engineer, License No. 41153

This item has been digitally
signed and sealed by
Timothy M. Plate, P.E. on the date
indicated here.

Printed copies of this document
are not considered signed and
sealed and the signature must be
verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
DATE: _____
LICENSE NO. 41153

C-303



LEGEND

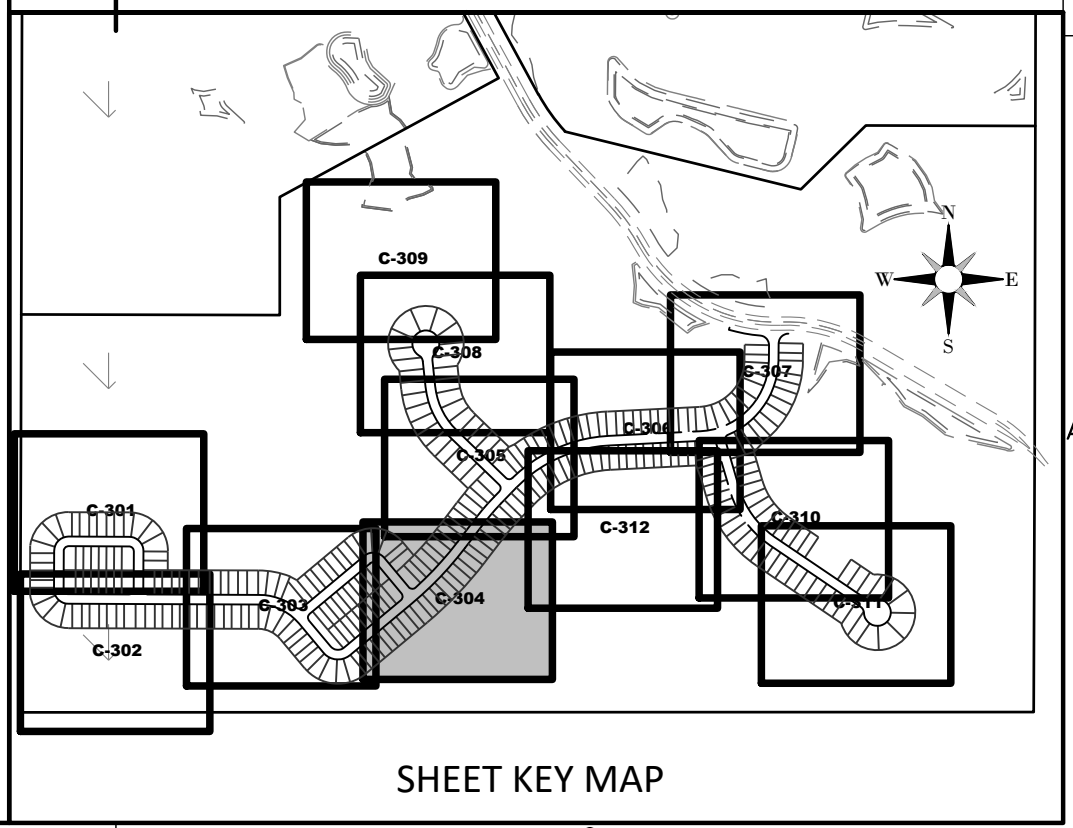
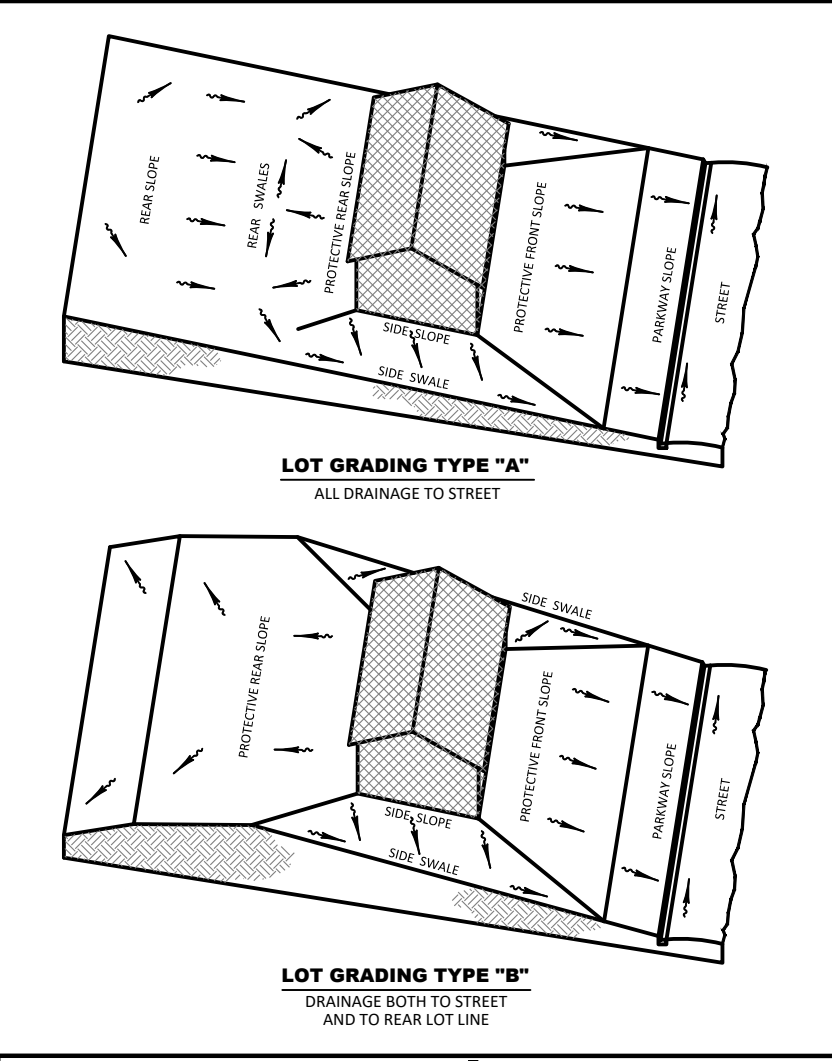
- SIRWMD WETLAND LINE
- SIRWMD WETLAND CONS. AREA SETBACK / LANDWARD EXTENT OF UPLAND BUFFER (50')
- FEMA LINE
- BOUNDARY LIMITS
- RIGHT-OF-WAY LINE
- PHASE LINE
- WETLAND IMPACT

DRAINAGE LEGEND

- EXISTING: 10' STORM DRAINAGE STRUCTURE & PIPE
- PROPOSED: 10' STORM DRAINAGE STRUCTURE & PIPE
- 10' STRUCTURE NO.
- (CS-F) CONTROL STRUCTURE NO.
- 15.00 SPOT ELEVATION GROUND
- 15.00 SPOT ELEVATION PAVEMENT
- 60.2' TOP OF WALL
- 53.9' BOTTOM OF WALL (EXIST. ELEV)
- 15.00 ROADWAY PROFILE ELEVATION
- 15.00 CONTOUR
- FF=15.00 FINISH FLOOR ELEVATION
- Direction of surface flow
- UNDERDRAIN WITH CLEANOUT
- STAKED EROSION CONTROL (SIRWMD PROJECT LIMITS AND THE LIMITS OF CLEARING AND FILLING)
- FLOATING TURBIDITY BARRIER
- BOTTOM OF POND/TOP OF BANK OF POND
- 6' WALL/FENCE (BY OTHERS)
- C-505 PLAN & PROFILE SHEET NUMBER
- A-A SECTION ID LABEL
- C-317 SECTION SHEET NUMBER
- P03 SOIL BORING
- WETLAND SETBACK ENCROACHMENT
- WETLAND SETBACK COMPENSATION

NEIGHBORHOOD GRADING PLAN NOTES:

- PAD AND FINISHED FLOOR ELEVATIONS SHOWN ARE MINIMUM GRADES. ELEVATIONS OF ADJOINING LOTS, EXISTING TREES, AND OTHER FIELD CONDITIONS MAY WARRANT LEAVING LOTS WHICH ARE HIGHER IN THEIR NATURAL STATE. THE CONTRACTOR SHOULD CONSULT WITH THE DEVELOPER/BUILDER AND THE ENGINEER PRIOR TO GRADING ACTIVITIES WHEN THESE CONDITIONS EXIST. NOTE DEVIATIONS IN EXCESS OF TWELVE INCHES (12") HIGHER MAY REQUIRE REVIEW AND APPROVAL THROUGH THE APPLICABLE REVIEWING AGENCY.
- PAD ELEVATIONS DENOTE FINISH GROUND ELEVATION AT PERIMETER OF BUILDING ENVELOPE.
- LOTS WITH TWO (2') FEET OR MORE OF FILL PLACEMENT ABOVE EXISTING (NATURAL) GRADE REQUIRE PROCESSING PER FHA DATA SHEET NO. 79-G IF FHA FINANCING IS TO BE PROVIDED. SIMILAR TESTING IS RECOMMENDED AS A QUALITY CONTROL PROGRAM IN THE ABSENCE OF FHA REQUIRED TESTING.
- FOR ALL LOTS ABUTTING WETLANDS NO GRADING SHALL TAKE PLACE BEYOND THE EROSION CONTROL LINE UNLESS SPECIFICALLY SHOWN ON THE APPROVED CONSTRUCTION PLANS.
- SIDE SWALES SHALL BE CONSTRUCTED SIMULTANEOUSLY WITH HOUSE CONSTRUCTION. DURING THE SITE GRADING ACTIVITIES, THE CONTRACTOR SHALL GRADE THE SIDE YARDS TO AN ELEVATION NO LOWER THAN 0.2 FT. BELOW THE ADJOINING HOUSE PAD GRADES.
- FOR TYPE "A" LOT GRADING RECEIVING RUNOFF FROM ABUTTING TYPE "B" LOTS, ALL RUNOFF SHALL BE DIRECTED TO SIDE YARD SWALES.
- FOR TYPE "B" LOT GRADING ABUTTING TYPE "A" LOT GRADING, ALL REAR LOTS, ALL RUNOFF SHALL BE DIRECTED TO SIDE YARD SWALES.
- FOR TYPE "B" LOT GRADING NOT ABUTTING STORMWATER FACILITIES, THE BUILDER SHALL MAKE EVERY PRACTICAL EFFORT TO DIRECT ROOF RUNOFF TO THE FRONTING RIGHT-OF-WAY UNLESS OTHERWISE DIRECTED BY THE ENGINEER OF RECORD.
- MINIMUM SIDE YARD SWALE SLOPES SHALL BE 1.0%.
- DRIVEWAY LOCATIONS SHOULD BE DESIGNED TO AVOID CONFLICTS WITH FIRE HYDRANTS, CURB INLETS, AND OTHER CONFLICTS.



HEIDT DESIGN
Civil Engineering • Planning & GIS
Transportation Engineering
Ecological Services • Landscape Architecture

5904-A Hampton Oaks Pkwy.
Tampa, Florida 33610
Office: 813-253-5311
Fax: 813-464-7629
www.HeidtDesign.com

Engineering Business Certificate of Authorization No. 28737D
Landscape Architecture Certificate of Authorization No. LC26080405

SERENOA VILLAGE 3 - PHASE 1, 2 & 3
GRADING & DRAINAGE PLAN

PREPARED FOR: **VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION
3	05/27/2020	REV. WETLANDS IMP. LOTS & GRADES
2	03/20/2020	REV. WETLANDS IMP. LOTS & GRADES
1	11/08/2019	REVISED SUBMITTAL

PROJECT NO: KLP-AG-1089
FILE: GD
DESIGN BY: FRANCIS
DRAWN BY: JLOAIZA

STATE OF FLORIDA
PROFESSIONAL ENGINEER

Timothy M. Plate, State of Florida,
Professional Engineer, License No. 41153

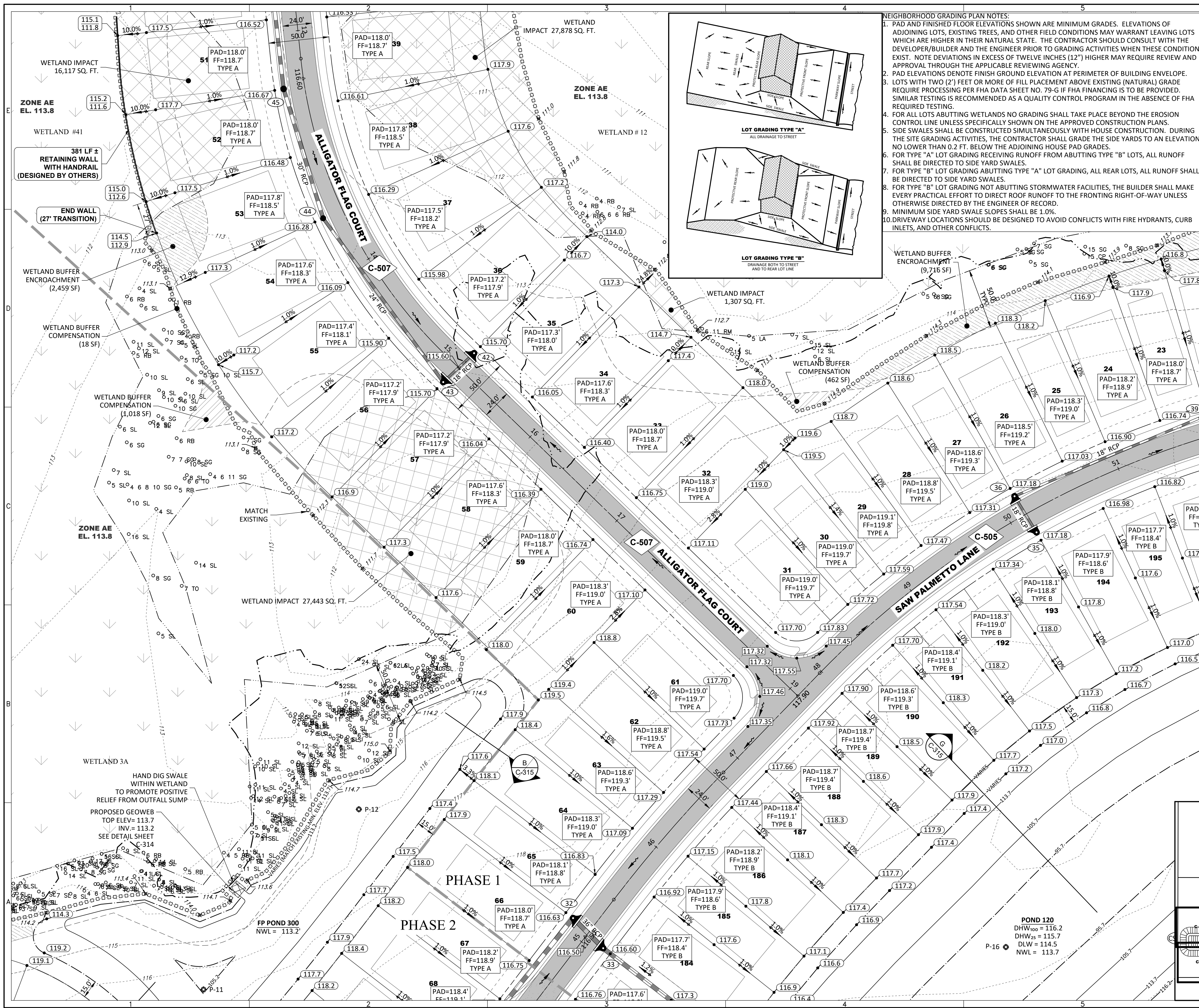
This item has been digitally
signed and sealed by
Timothy M. Plate, P.E. on the date
indicated here.

Printed copies of this document
are not considered signed and
sealed and the signature must be
verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
DATE: _____
LICENSE NO. 41153

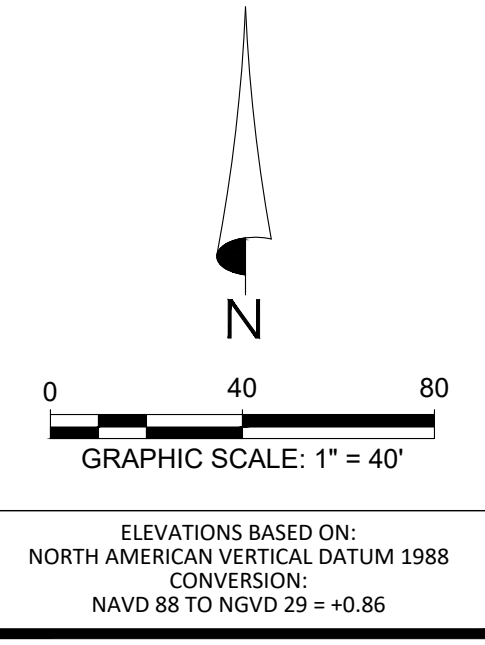
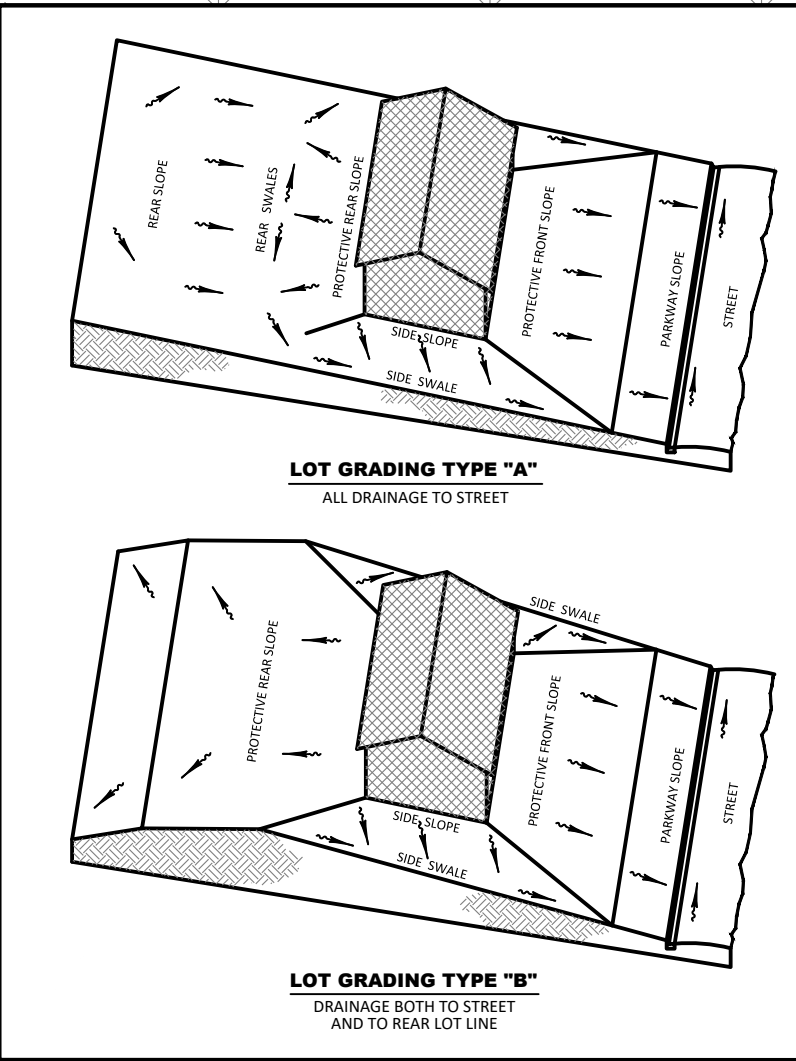
C-304

R:\AVALON GROVES\PROJECTS\ENGINEERING\DWG-C-304_20200303_11:10 AM ERIC FRANCIS

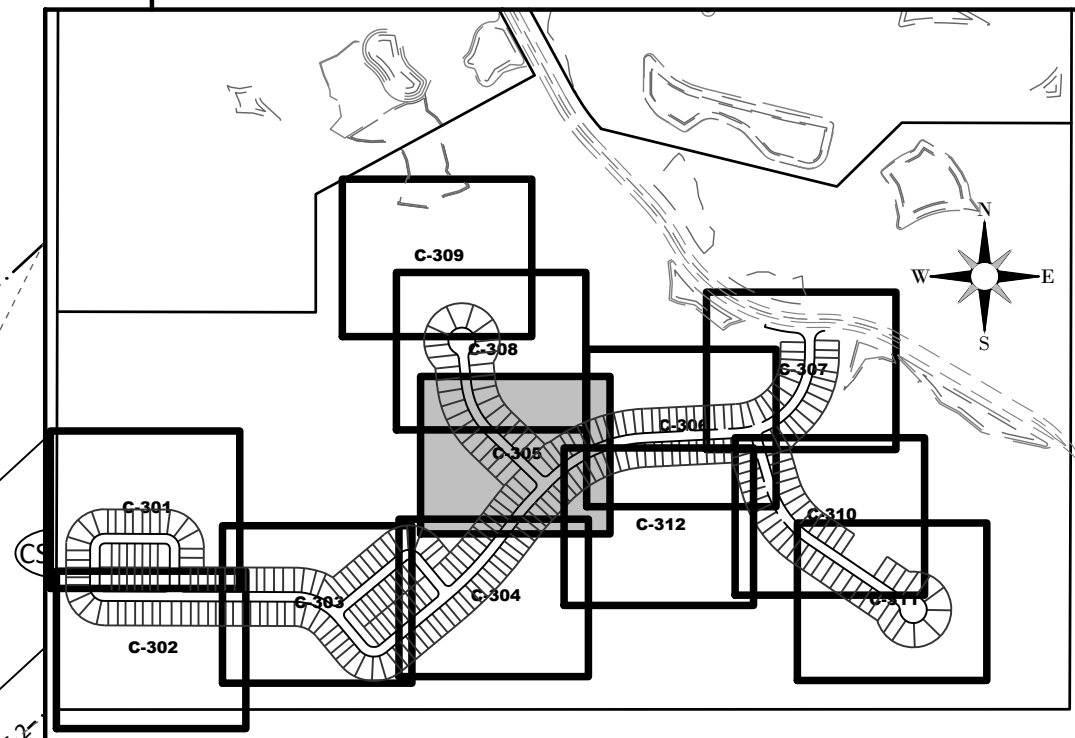


NEIGHBORHOOD GRADING PLAN NOTES:

- PAD AND FINISHED FLOOR ELEVATIONS SHOWN ARE MINIMUM GRADES. ELEVATIONS OF ADJOINING LOTS, EXISTING TREES, AND OTHER FIELD CONDITIONS MAY WARRANT LEAVING LOTS WHICH ARE HIGHER IN THEIR NATURAL STATE. THE CONTRACTOR SHOULD CONSULT WITH THE DEVELOPER/BUILDER AND THE ENGINEER PRIOR TO GRADING ACTIVITIES WHEN THESE CONDITIONS EXIST. NOTE DEVIATIONS IN EXCESS OF TWELVE INCHES (12") HIGHER MAY REQUIRE REVIEW AND APPROVAL THROUGH THE APPLICABLE REVIEWING AGENCY.
- PAD ELEVATIONS DENOTE FINISH GROUND ELEVATION AT PERIMETER OF BUILDING ENVELOPE.
- LOTS WITH TWO (2') FEET OR MORE OF FILL PLACEMENT ABOVE EXISTING (NATURAL) GRADE REQUIRE PROCESSING PER FHA DATA SHEET NO. 79-G IF FHA FINANCING IS TO BE PROVIDED. SIMILAR TESTING IS RECOMMENDED AS A QUALITY CONTROL PROGRAM IN THE ABSENCE OF FHA REQUIRED TESTING.
- FOR ALL LOTS ABUTTING WETLANDS NO GRADING SHALL TAKE PLACE BEYOND THE EROSION CONTROL LINE UNLESS SPECIFICALLY SHOWN ON THE APPROVED CONSTRUCTION PLANS.
- SIDE SWALES SHALL BE CONSTRUCTED SIMULTANEOUSLY WITH HOUSE CONSTRUCTION. DURING THE SITE GRADING ACTIVITIES, THE CONTRACTOR SHALL GRADE THE SIDE YARDS TO AN ELEVATION NO LOWER THAN 0.2 FT. BELOW THE ADJOINING HOUSE PAD GRADES.
- FOR TYPE "A" LOT GRADING RECEIVING RUNOFF FROM ABUTTING TYPE "B" LOTS, ALL RUNOFF SHALL BE DIRECTED TO SIDE YARD SWALES.
- FOR TYPE "B" LOT GRADING ABUTTING TYPE "A" LOT GRADING, ALL REAR LOTS, ALL RUNOFF SHALL BE DIRECTED TO SIDE YARD SWALES.
- FOR TYPE "B" LOT GRADING NOT ABUTTING STORMWATER FACILITIES, THE BUILDER SHALL MAKE EVERY PRACTICAL EFFORT TO DIRECT ROOF RUNOFF TO THE FRONTING RIGHT-OF-WAY UNLESS OTHERWISE DIRECTED BY THE ENGINEER OF RECORD.
- MINIMUM SIDE YARD SWALE SLOPES SHALL BE 1.0%.
- DRIVEWAY LOCATIONS SHOULD BE DESIGNED TO AVOID CONFLICTS WITH FIRE HYDRANTS, CURB INLETS, AND OTHER CONFLICTS.



- LEGEND**
- SIRWMD WETLAND LINE
 - SIRWMD WETLAND CONS. AREA SETBACK / LANDWARD EXTENT OF UPLAND BUFFER (50')
 - FEMA LINE
 - BOUNDARY LIMITS
 - RIGHT-OF-WAY LINE
 - PHASE LINE
 - WETLAND IMPACT
- DRAINAGE LEGEND**
- EXISTING: 10 (Structure No.), 60.2 (Spot Elevation), 15.00 (Spot Elevation Pavement), 60.2 (Top of Wall), 53.9 (Bottom of Wall), 15.00 (Roadway Profile Elevation), 15.00 (Contour), FF=15.00 (Finish Floor Elevation)
 - PROPOSED: 10 (Storm Drainage Structure & Pipe), 60.2 (Control Structure No.), 15.00 (Spot Elevation Pavement), 60.2 (Top of Wall), 53.9 (Bottom of Wall), 15.00 (Roadway Profile Elevation), 15.00 (Contour), FF=15.00 (Finish Floor Elevation)
 - Direction of Surface Flow
 - UNDERDRAIN WITH CLEANOUT
 - STAKED EROSION CONTROL (SIRWMD PROJECT LIMITS AND THE LIMITS OF CLEARING AND FILLING)
 - FLOATING TURBIDITY BARRIER
 - BOTTOM OF POND/TOP OF BANK OF POND
 - 6' WALL/FENCE (BY OTHERS)
 - PLAN & PROFILE SHEET NUMBER
 - SECTION ID LABEL
 - SECTION SHEET NUMBER
 - SOIL BORING
 - WETLAND SETBACK ENCROACHMENT
 - WETLAND SETBACK COMPENSATION



HEIDT DESIGN
 Civil Engineering • Planning & GIS
 Transportation Engineering
 Ecological Services • Landscape Architecture
 Engineering Business Certificate of Authorization No. 28782
 Landscape Architecture Certificate of Authorization No. LC26084045
 5904-A Hampton Oaks Pkwy.
 Tampa, Florida 33610
 Office: 813-253-5311
 Fax: 813-464-7629
 www.HeidtDesign.com

SERENOA VILLAGE 3 - PHASE 1, 2 & 3
GRADING & DRAINAGE PLAN

PREPARED FOR: **VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION
1	08/20/2020	REV. WETLANDS MAP, LOTS & GRADES
2	11/08/2023	REVIEW SUBMITTAL

PROJECT NO.: KLP-AG-1089
 FILE: GD
 DESIGN BY: FRANCIS
 DRAWN BY: JLOAIZA

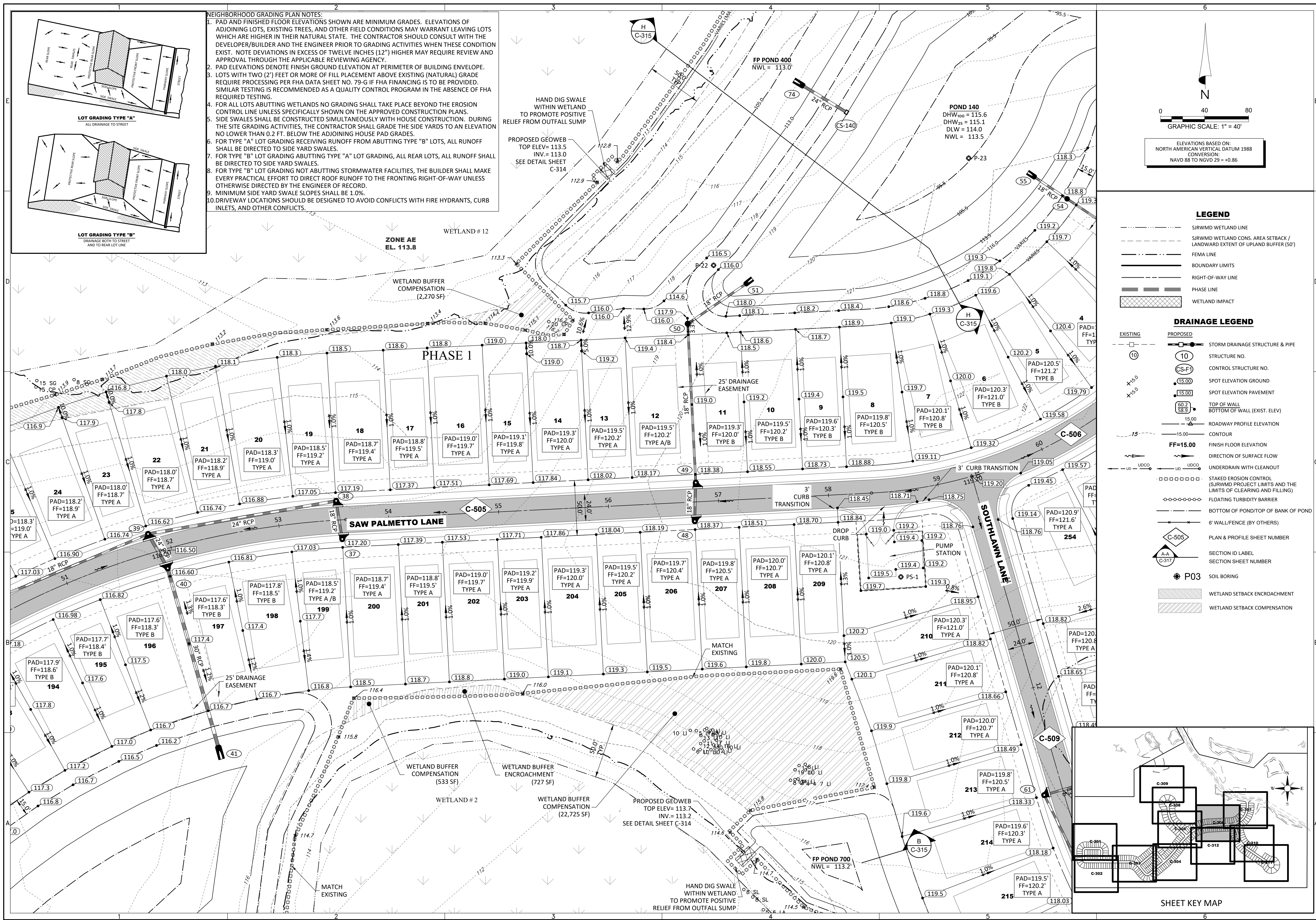
STATE OF FLORIDA
 PROFESSIONAL ENGINEER

Timothy M. Plate, State of Florida, Professional Engineer, License No. 41153
 This item has been digitally signed and sealed by Timothy M. Plate, P.E. on the date indicated herein.
 Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
 DATE: _____
 LICENSE NO. 41153

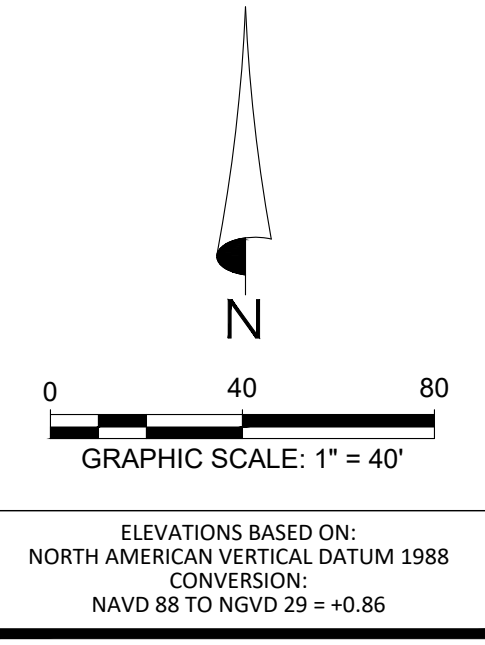
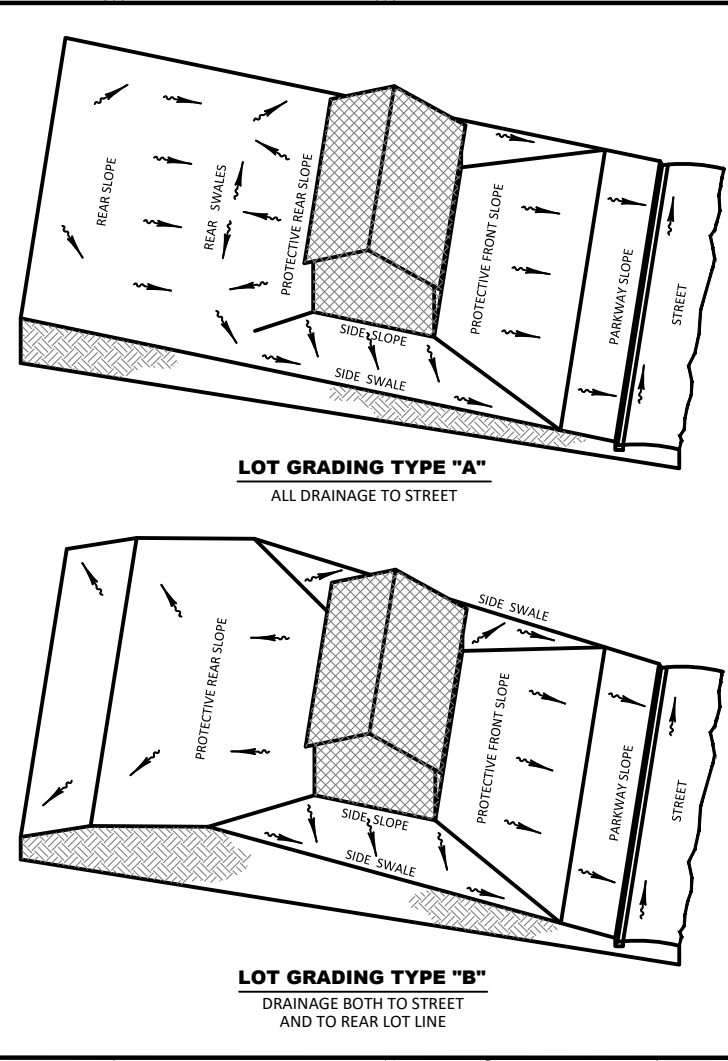
C-305

© COPYRIGHT 2020, HEIDT DESIGN, LLC. ALL RIGHTS RESERVED. NO DOCUMENTATION INCLUDING BUT NOT LIMITED TO DRAWINGS OR EXHIBITS MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION IN WRITING FROM HEIDT DESIGN, LLC.

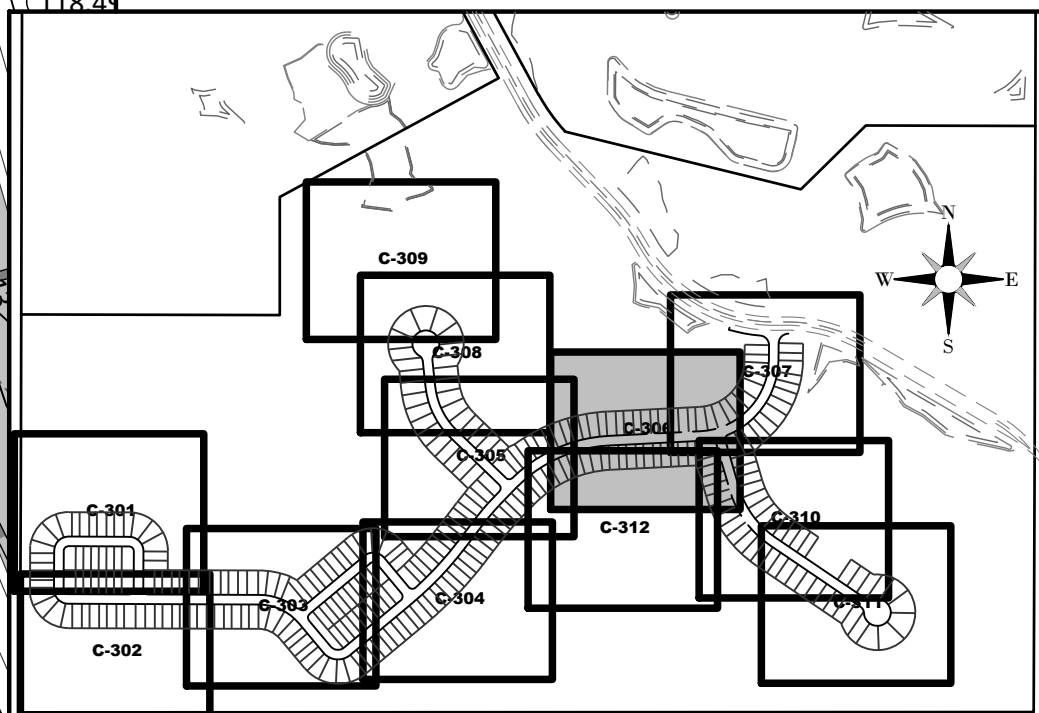


NEIGHBORHOOD GRADING PLAN NOTES:

- PAD AND FINISHED FLOOR ELEVATIONS SHOWN ARE MINIMUM GRADES. ELEVATIONS OF ADJOINING LOTS, EXISTING TREES, AND OTHER FIELD CONDITIONS MAY WARRANT LEAVING LOTS WHICH ARE HIGHER IN THEIR NATURAL STATE. THE CONTRACTOR SHOULD CONSULT WITH THE DEVELOPER/BUILDER AND THE ENGINEER PRIOR TO GRADING ACTIVITIES WHEN THESE CONDITIONS EXIST. NOTE DEVIATIONS IN EXCESS OF TWELVE INCHES (12") HIGHER MAY REQUIRE REVIEW AND APPROVAL THROUGH THE APPLICABLE REVIEWING AGENCY.
- PAD ELEVATIONS DENOTE FINISH GROUND ELEVATION AT PERIMETER OF BUILDING ENVELOPE.
- LOTS WITH TWO (2) FEET OR MORE OF FILL PLACEMENT ABOVE EXISTING (NATURAL) GRADE REQUIRE PROCESSING PER FHA DATA SHEET NO. 79-G IF FHA FINANCING IS TO BE PROVIDED. SIMILAR TESTING IS RECOMMENDED AS A QUALITY CONTROL PROGRAM IN THE ABSENCE OF FHA REQUIRED TESTING.
- FOR ALL LOTS ABUTTING WETLANDS NO GRADING SHALL TAKE PLACE BEYOND THE EROSION CONTROL LINE UNLESS SPECIFICALLY SHOWN ON THE APPROVED CONSTRUCTION PLANS.
- SIDE SWALES SHALL BE CONSTRUCTED SIMULTANEOUSLY WITH HOUSE CONSTRUCTION. DURING THE SITE GRADING ACTIVITIES, THE CONTRACTOR SHALL GRADE THE SIDE YARDS TO AN ELEVATION NO LOWER THAN 0.2 FT. BELOW THE ADJOINING HOUSE PAD GRADES.
- FOR TYPE "A" LOT GRADING RECEIVING RUNOFF FROM ADJUTING TYPE "B" LOTS, ALL RUNOFF SHALL BE DIRECTED TO SIDE YARD SWALES.
- FOR TYPE "B" LOT GRADING ABUTTING TYPE "A" LOT GRADING, ALL REAR LOTS, ALL RUNOFF SHALL BE DIRECTED TO SIDE YARD SWALES.
- FOR TYPE "B" LOT GRADING NOT ABUTTING STORMWATER FACILITIES, THE BUILDER SHALL MAKE EVERY PRACTICAL EFFORT TO DIRECT ROOF RUNOFF TO THE FRONTING RIGHT-OF-WAY UNLESS OTHERWISE DIRECTED BY THE ENGINEER OF RECORD.
- MINIMUM SIDE YARD SWALE SLOPES SHALL BE 1.0%.
- DRIVEWAY LOCATIONS SHOULD BE DESIGNED TO AVOID CONFLICTS WITH FIRE HYDRANTS, CURB INLETS, AND OTHER CONFLICTS.



- LEGEND**
- SIRWMD WETLAND LINE
 - SIRWMD WETLAND CONS. AREA SETBACK / LANDWARD EXTENT OF UPLAND BUFFER (50')
 - FEMA LINE
 - BOUNDARY LIMITS
 - RIGHT-OF-WAY LINE
 - PHASE LINE
 - WETLAND IMPACT
- DRAINAGE LEGEND**
- EXISTING: 10" RCP
 - PROPOSED: 10" RCP
 - 10: STORM DRAINAGE STRUCTURE & PIPE STRUCTURE NO.
 - CS-F: CONTROL STRUCTURE NO.
 - 15.00: SPOT ELEVATION GROUND
 - 15.00: SPOT ELEVATION PAVEMENT
 - 60.2 53.9: TOP OF WALL / BOTTOM OF WALL (EXIST. ELEV)
 - 15.00: ROADWAY PROFILE ELEVATION
 - 15.00: CONTOUR
 - FF=15.00: FINISH FLOOR ELEVATION
 - : DIRECTION OF SURFACE FLOW
 - UDCO: UNDERDRAIN WITH CLEANOUT
 - : STAKED EROSION CONTROL (SIRWMD PROJECT LIMITS AND THE LIMITS OF CLEARING AND FILLING)
 - : FLOATING TURBIDITY BARRIER
 - : BOTTOM OF POND/TOP OF BANK OF POND
 - 6" WALL/FENCE (BY OTHERS)
 - C-505: PLAN & PROFILE SHEET NUMBER
 - A-A C-317: SECTION ID LABEL
 - SECTION SHEET NUMBER
 - P03: SOIL BORING
 - WETLAND SETBACK ENCROACHMENT
 - WETLAND SETBACK COMPENSATION



HEIDT DESIGN
Civil Engineering • Planning & GIS
Transportation Engineering
Ecological Services • Landscape Architecture

5904-A Hampton Oaks Pkwy.
Tampa, Florida 33610
Office: 813-253-5311
Fax: 813-464-7629
www.HeidtDesign.com

SERENOA VILLAGE 3 - PHASE 1, 2 & 3
GRADING & DRAINAGE PLAN

PREPARED FOR: **VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION
1	08/20/2020	REV. WETLANDS MAP, LOTS & GRADES
2	11/08/2023	REVIEW SUBMITTAL

PROJECT NO.: KLP-AG-1089
FILE: GD
DESIGN BY: FRANCIS
DRAWN BY: JLOAIZA

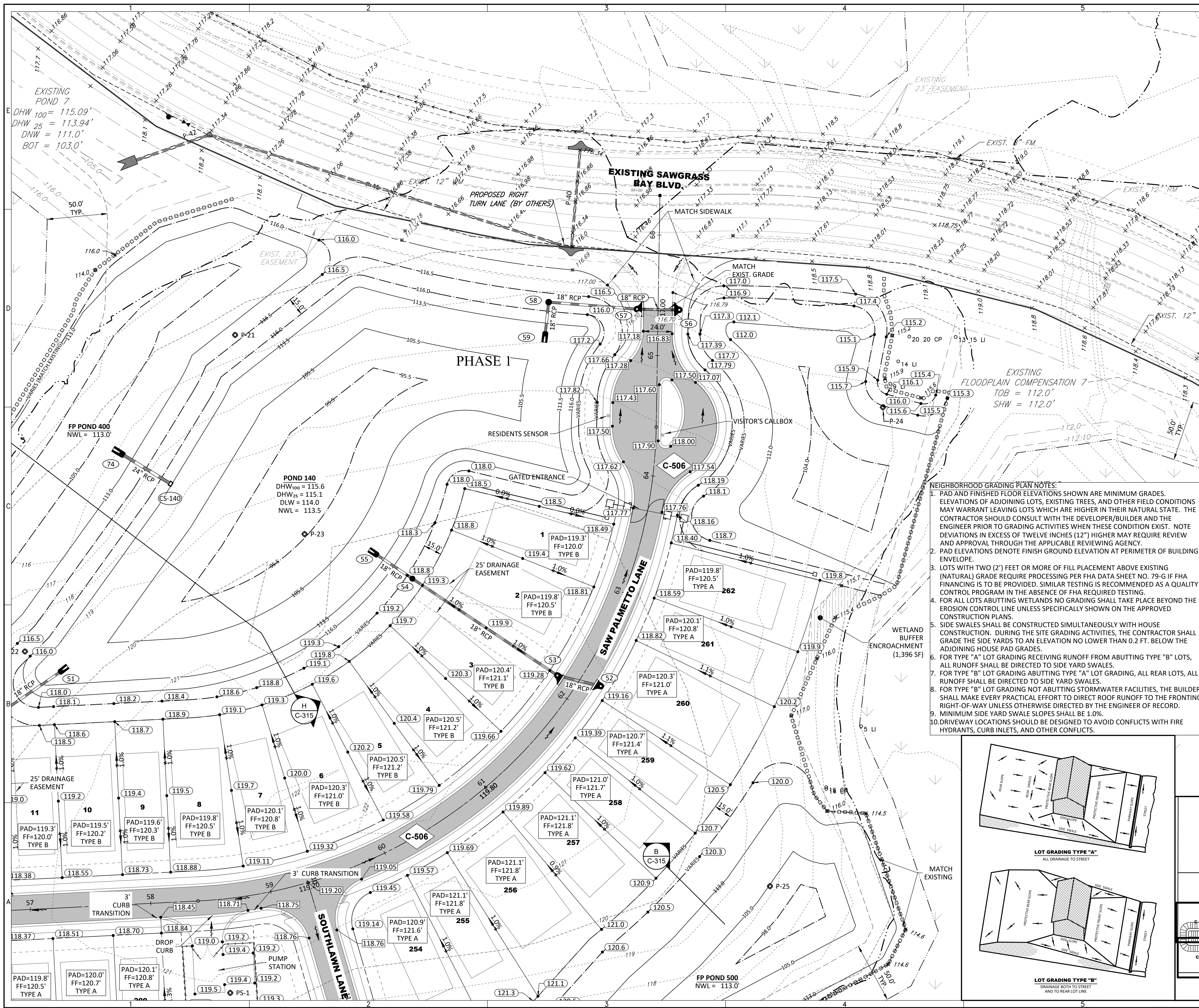
STATE OF FLORIDA
PROFESSIONAL ENGINEER

Timothy M. Plate, (State of Florida, Professional Engineer, License No. 41153)
This item has been digitally signed and sealed by Timothy M. Plate, P.E. on the date indicated here.
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
DATE: _____
LICENSE NO. 41153

C-306

R:\AVALON GROVES VILLAGE 3\ENGINEERING\DWG\C-306 20230803 11:11 AM ERIC FRANCIS



GRAPHIC SCALE: 1" = 40'

ELEVATIONS BASED ON:
NORTH AMERICAN VERTICAL DATUM 1988
CONVERSION:
NAVD 88 TO NGVD 29 = +0.86

LEGEND

- SIRWMD WETLAND LINE
- SIRWMD WETLAND CONS. AREA SETBACK / LANDWARD EXTENT OF UPLAND BUFFER (50')
- FEMA LINE
- BOUNDARY LIMITS
- RIGHT-OF-WAY LINE
- PHASE LINE
- WETLAND IMPACT

DRAINAGE LEGEND

EXISTING	PROPOSED	DESCRIPTION
		STORM DRAINAGE STRUCTURE & PIPE
		STRUCTURE NO.
		CONTROL STRUCTURE NO.
		SPOT ELEVATION GROUND
		SPOT ELEVATION PAVEMENT
		TOP OF WALL (EXIST. ELEV.)
		BOTTOM OF WALL (EXIST. ELEV.)
		ROADWAY PROFILE ELEVATION
		CONTOUR
		FF=15.00 FINISH FLOOR ELEVATION
		DIRECTION OF SURFACE FLOW
		UNDERDRAIN WITH CLEANOUT
		STAKED EROSION CONTROL (SIRWMD PROJECT LIMITS AND THE LIMITS OF CLEARING AND FILLING)
		FLOATING TURBIDITY BARRIER
		BOTTOM OF POND/TOP OF BANK OF POND
		6' WALL/FENCE (BY OTHERS)
		PLAN & PROFILE SHEET NUMBER
		SECTION ID LABEL
		SECTION SHEET NUMBER
		SOIL BORING
		WETLAND SETBACK ENCROACHMENT
		WETLAND SETBACK COMPENSATION

NEIGHBORHOOD GRADING PLAN NOTES:

- PAD AND FINISHED FLOOR ELEVATIONS SHOWN ARE MINIMUM GRADES. ELEVATIONS OF ADJOINING LOTS, EXISTING TREES, AND OTHER FIELD CONDITIONS MAY WARRANT LEAVING LOTS WHICH ARE HIGHER IN THEIR NATURAL STATE. THE CONTRACTOR SHOULD CONSULT WITH THE DEVELOPER/BUILDER AND THE ENGINEER PRIOR TO GRADING ACTIVITIES WHEN THESE CONDITIONS EXIST. NOTE DEVIATIONS IN EXCESS OF TWELVE INCHES (12") HIGHER MAY REQUIRE REVIEW AND APPROVAL THROUGH THE APPLICABLE REVIEWING AGENCY.
- PAD ELEVATIONS DENOTE FINISH GROUND ELEVATION AT PERIMETER OF BUILDING ENVELOPE.
- LOTS WITH TWO (2') FEET OR MORE OF FILL PLACEMENT ABOVE EXISTING (NATURAL) GRADE REQUIRE PROCESSING PER FHA DATA SHEET NO. 79-G IF FHA FINANCING IS TO BE PROVIDED. SIMILAR TESTING IS RECOMMENDED AS A QUALITY CONTROL PROGRAM IN THE ABSENCE OF FHA REQUIRED TESTING.
- FOR ALL LOTS ABUTTING WETLANDS NO GRADING SHALL TAKE PLACE BEYOND THE EROSION CONTROL LINE UNLESS SPECIFICALLY SHOWN ON THE APPROVED CONSTRUCTION PLANS.
- SIDE SWALES SHALL BE CONSTRUCTED SIMULTANEOUSLY WITH HOUSE CONSTRUCTION. DURING THE SITE GRADING ACTIVITIES, THE CONTRACTOR SHALL GRADE THE SIDE YARDS TO AN ELEVATION NO LOWER THAN 0.2 FT. BELOW THE ADJOINING HOUSE PAD GRADES.
- FOR TYPE "A" LOT GRADING RECEIVING RUNOFF FROM ABUTTING TYPE "B" LOTS, ALL RUNOFF SHALL BE DIRECTED TO SIDE YARD SWALES.
- FOR TYPE "B" LOT GRADING ABUTTING TYPE "A" LOT GRADING, ALL REAR LOTS, ALL RUNOFF SHALL BE DIRECTED TO SIDE YARD SWALES.
- FOR TYPE "B" LOT GRADING NOT ABUTTING STORMWATER FACILITIES, THE BUILDER SHALL MAKE EVERY PRACTICAL EFFORT TO DIRECT ROOF RUNOFF TO THE FRONTING RIGHT-OF-WAY UNLESS OTHERWISE DIRECTED BY THE ENGINEER OF RECORD.
- MINIMUM SIDE YARD SWALE SLOPES SHALL BE 1.0%.
- DRIVEWAY LOCATIONS SHOULD BE DESIGNED TO AVOID CONFLICTS WITH FIRE HYDRANTS, CURB INLETS, AND OTHER CONFLICTS.

LOT GRADING TYPE "A"
ALL DRAINAGE TO STREET

LOT GRADING TYPE "B"
DRAINAGE BOTH TO STREET AND TO REAR LOT LINE

SHEET KEY MAP

HEIDT DESIGN
Civil Engineering • Planning & GIS
Transportation Engineering
Ecological Services • Landscape Architecture

5904-A Hampton Oaks Pkwy.
Tampa, Florida 33610
Office: 813-253-5311
Fax: 813-464-7629
www.HeidtDesign.com

Engineering Business Certificate of Authorization No. 28793
Landscape Architecture Certificate of Authorization No. LC26080405
R:\AVALON GROVES\VILLAGE ENGINEERING\DWG-C-307 2020\0303 11:11 AM ERIC FRANCIS

SERENOA VILLAGE 3 - PHASE 1, 2 & 3
GRADING & DRAINAGE PLAN

PREPARED FOR: **VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION
3	05/27/2020	GATED ENTRY LABELS
2	03/20/2020	REV. WETLANDS MAP, LOTS & GRADES
1	11/08/2019	REVISION SUBMITTAL

PROJECT NO.: KLP-AG-1089
FILE: FRANCIS
DESIGN BY: FRANCIS
DRAWN BY: JLOAIZA

STATE OF FLORIDA
PROFESSIONAL ENGINEER

Timothy M. Plate, State of Florida,
Professional Engineer, License No. 41153

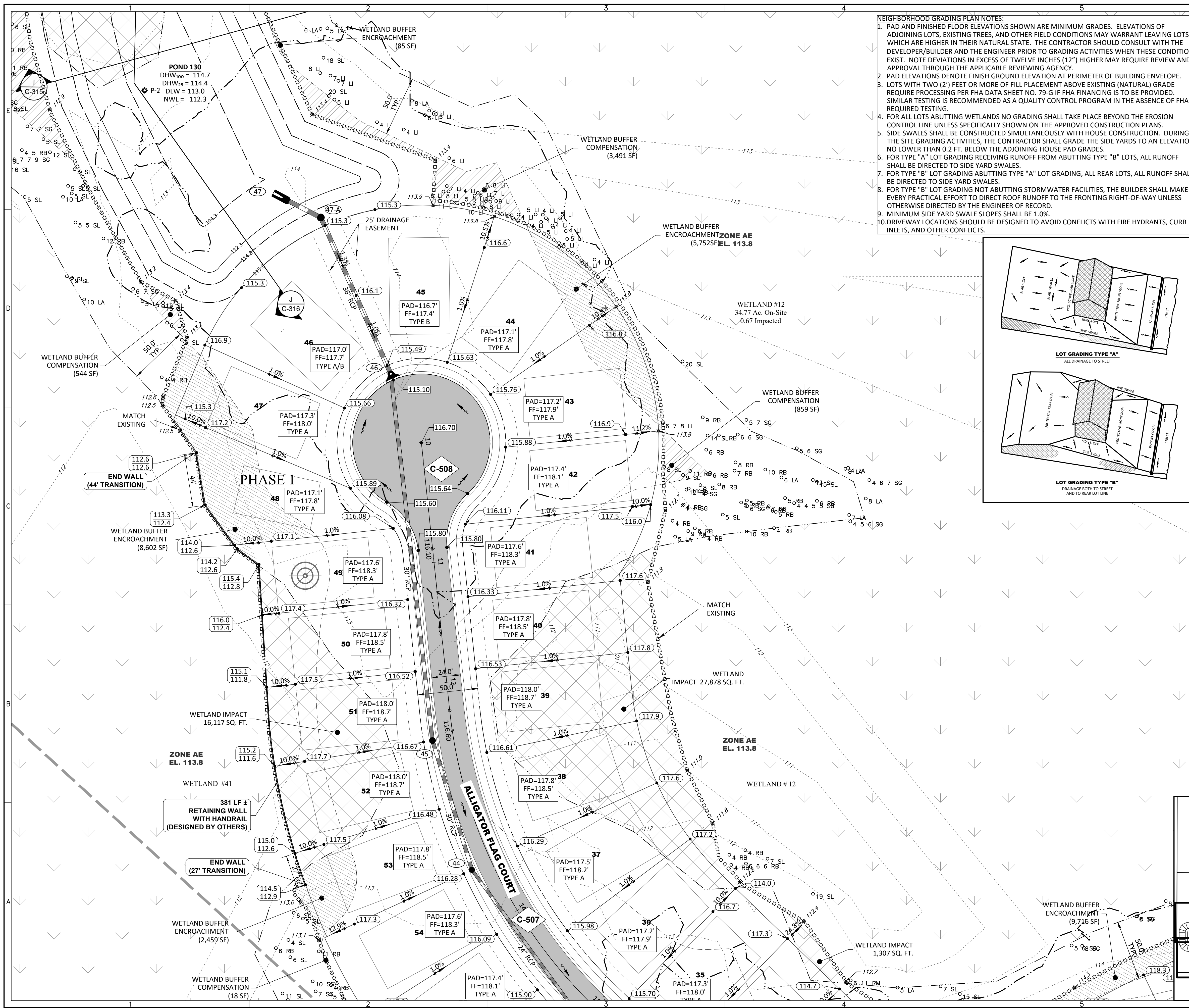
This item has been digitally
signed and sealed by
Timothy M. Plate, P.E. on the date
indicated here.

Printed copies of this document
are not considered signed and
sealed and the signature must be
verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
DATE: _____
LICENSE NO. 41153

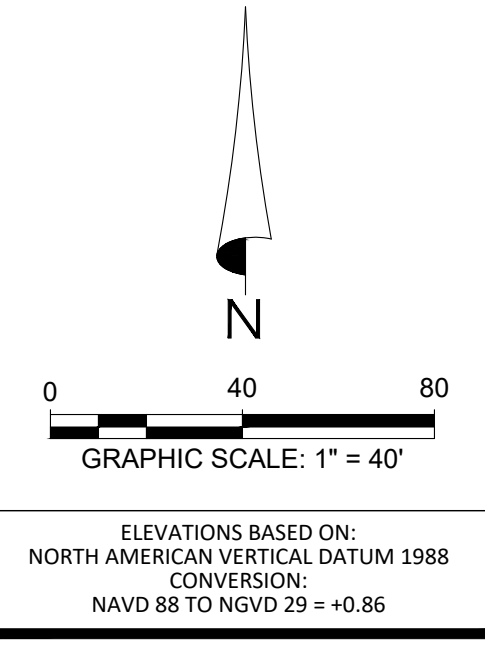
C-307

C-COPYRIGHT 2020, HEIDT DESIGN, LLC. ALL RIGHTS RESERVED. NO DOCUMENTATION INCLUDING BUT NOT LIMITED TO DRAWINGS OR EXHIBITS MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION IN WRITING FROM HEIDT DESIGN, LLC.

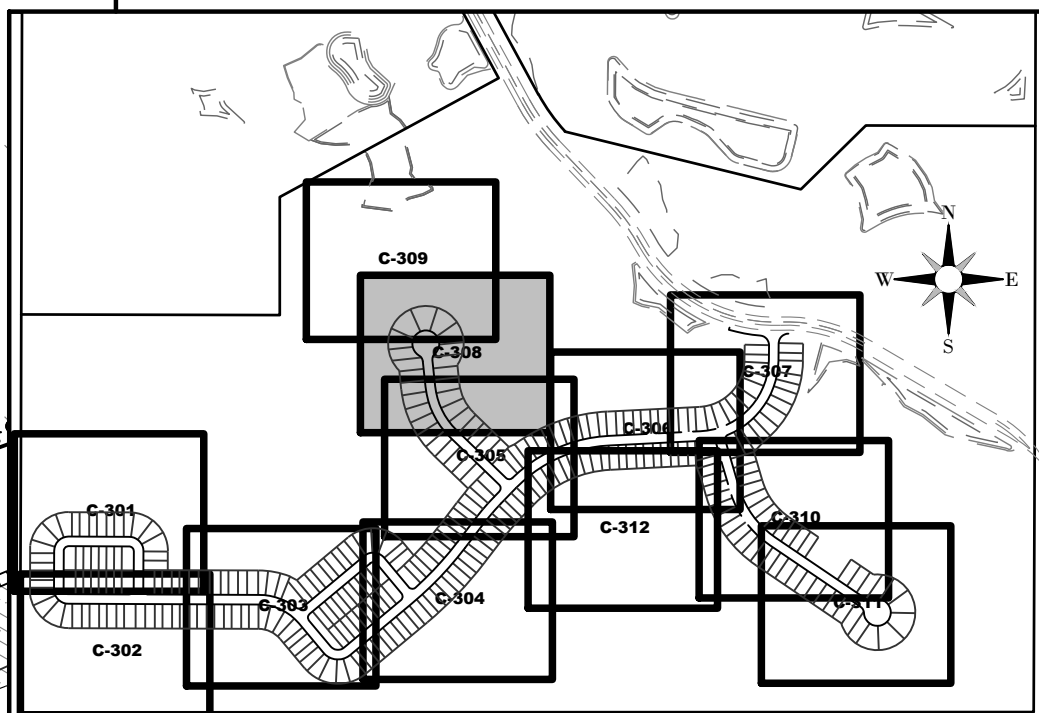
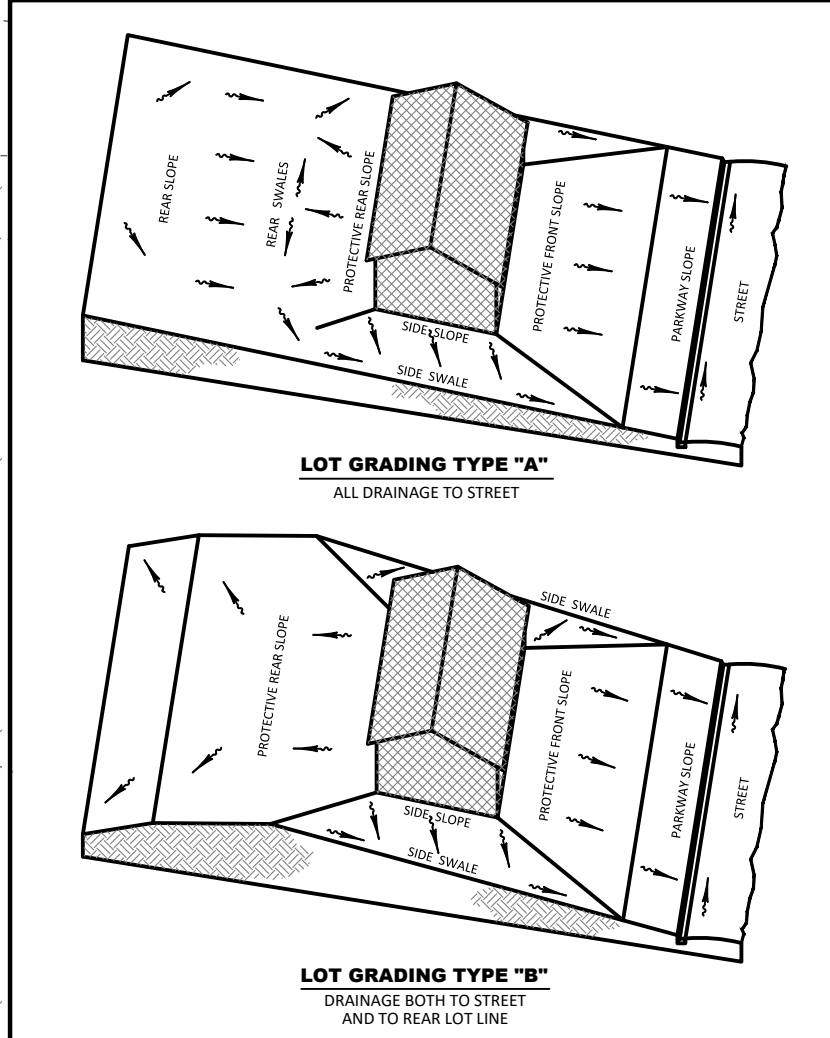


NEIGHBORHOOD GRADING PLAN NOTES:

- PAD AND FINISHED FLOOR ELEVATIONS SHOWN ARE MINIMUM GRADES. ELEVATIONS OF ADJOINING LOTS, EXISTING TREES, AND OTHER FIELD CONDITIONS MAY WARRANT LEAVING LOTS WHICH ARE HIGHER IN THEIR NATURAL STATE. THE CONTRACTOR SHOULD CONSULT WITH THE DEVELOPER/BUILDER AND THE ENGINEER PRIOR TO GRADING ACTIVITIES WHEN THESE CONDITIONS EXIST. NOTE DEVIATIONS IN EXCESS OF TWELVE INCHES (12") HIGHER MAY REQUIRE REVIEW AND APPROVAL THROUGH THE APPLICABLE REVIEWING AGENCY.
- PAD ELEVATIONS DENOTE FINISH GROUND ELEVATION AT PERIMETER OF BUILDING ENVELOPE.
- LOTS WITH TWO (2) FEET OR MORE OF FILL PLACEMENT ABOVE EXISTING (NATURAL) GRADE REQUIRE PROCESSING PER FHA DATA SHEET NO. 79-G IF FHA FINANCING IS TO BE PROVIDED. SIMILAR TESTING IS RECOMMENDED AS A QUALITY CONTROL PROGRAM IN THE ABSENCE OF FHA REQUIRED TESTING.
- FOR ALL LOTS ABUTTING WETLANDS NO GRADING SHALL TAKE PLACE BEYOND THE EROSION CONTROL LINE UNLESS SPECIFICALLY SHOWN ON THE APPROVED CONSTRUCTION PLANS.
- SIDE SWALES SHALL BE CONSTRUCTED SIMULTANEOUSLY WITH HOUSE CONSTRUCTION. DURING THE SITE GRADING ACTIVITIES, THE CONTRACTOR SHALL GRADE THE SIDE YARDS TO AN ELEVATION NO LOWER THAN 0.2 FT. BELOW THE ADJOINING HOUSE PAD GRADES.
- FOR TYPE "A" LOT GRADING RECEIVING RUNOFF FROM ABUTTING TYPE "B" LOTS, ALL RUNOFF SHALL BE DIRECTED TO SIDE YARD SWALES.
- FOR TYPE "B" LOT GRADING ABUTTING TYPE "A" LOT GRADING, ALL REAR LOTS, ALL RUNOFF SHALL BE DIRECTED TO SIDE YARD SWALES.
- FOR TYPE "B" LOT GRADING NOT ABUTTING STORMWATER FACILITIES, THE BUILDER SHALL MAKE EVERY PRACTICAL EFFORT TO DIRECT ROOF RUNOFF TO THE FRONTING RIGHT-OF-WAY UNLESS OTHERWISE DIRECTED BY THE ENGINEER OF RECORD.
- MINIMUM SIDE YARD SWALE SLOPES SHALL BE 1.0%.
- DRIVEWAY LOCATIONS SHOULD BE DESIGNED TO AVOID CONFLICTS WITH FIRE HYDRANTS, CURB INLETS, AND OTHER CONFLICTS.



- LEGEND**
- SIRWMD WETLAND LINE
 - SIRWMD WETLAND CONS. AREA SETBACK / LANDWARD EXTENT OF UPLAND BUFFER (50')
 - FEMA LINE
 - BOUNDARY LIMITS
 - RIGHT-OF-WAY LINE
 - PHASE LINE
 - WETLAND IMPACT
- DRAINAGE LEGEND**
- EXISTING: 10 (Structure No.), 15.00 (Spot Elevation Pavement), 60.2 (Top of Wall), 53.9 (Bottom of Wall), 15.00 (Roadway Profile Elevation), 15.00 (Contour), FF=15.00 (Finish Floor Elevation), DIRECTION OF SURFACE FLOW, UNDERDRAIN WITH CLEANOUT, STAKED EROSION CONTROL, FLOATING TURBIDITY BARRIER, BOTTOM OF POND/TOP OF BANK OF POND, 6' WALL/FENCE BY OTHERS, PLAN & PROFILE SHEET NUMBER, SECTION ID LABEL, SECTION SHEET NUMBER, P03 (Soil Boring), WETLAND SETBACK ENCROACHMENT, WETLAND SETBACK COMPENSATION
 - PROPOSED: 10 (Storm Drainage Structure & Pipe), CS-F (Control Structure No.), 15.00 (Spot Elevation Pavement), 60.2 (Top of Wall), 53.9 (Bottom of Wall), 15.00 (Roadway Profile Elevation), FF=15.00 (Finish Floor Elevation), DIRECTION OF SURFACE FLOW, UNDERDRAIN WITH CLEANOUT, STAKED EROSION CONTROL, FLOATING TURBIDITY BARRIER, BOTTOM OF POND/TOP OF BANK OF POND, 6' WALL/FENCE BY OTHERS, PLAN & PROFILE SHEET NUMBER, SECTION ID LABEL, SECTION SHEET NUMBER, P03 (Soil Boring), WETLAND SETBACK ENCROACHMENT, WETLAND SETBACK COMPENSATION



HEIDT DESIGN
Civil Engineering • Planning & GIS
Transportation Engineering
Ecological Services • Landscape Architecture

5904-A Hampton Oaks Pkwy.
Tampa, Florida 33610
Office: 813-253-5311
Fax: 813-464-7629
www.HeidtDesign.com

SERENOA VILLAGE 3 - PHASE 1, 2 & 3
GRADING & DRAINAGE PLAN

PREPARED FOR: **VK AVALON GROVES, LLC**

DATE	DESCRIPTION
05/27/2020	ADDED LOT 48 & REV. GRADES.
03/20/2020	REV. WALL & WET. ENCR. AREA.
11/13/2019	REV. STRUCTURE NUMBER
11/08/2019	REVISION SUBMITTAL

PROJECT NO.: KLP-AG-1089
FILE: GD
DESIGN BY: FRANCIS
DRAWN BY: JLOAIZA

STATE OF FLORIDA
PROFESSIONAL ENGINEER

Timothy M. Plate, State of Florida,
Professional Engineer, License No. 41153

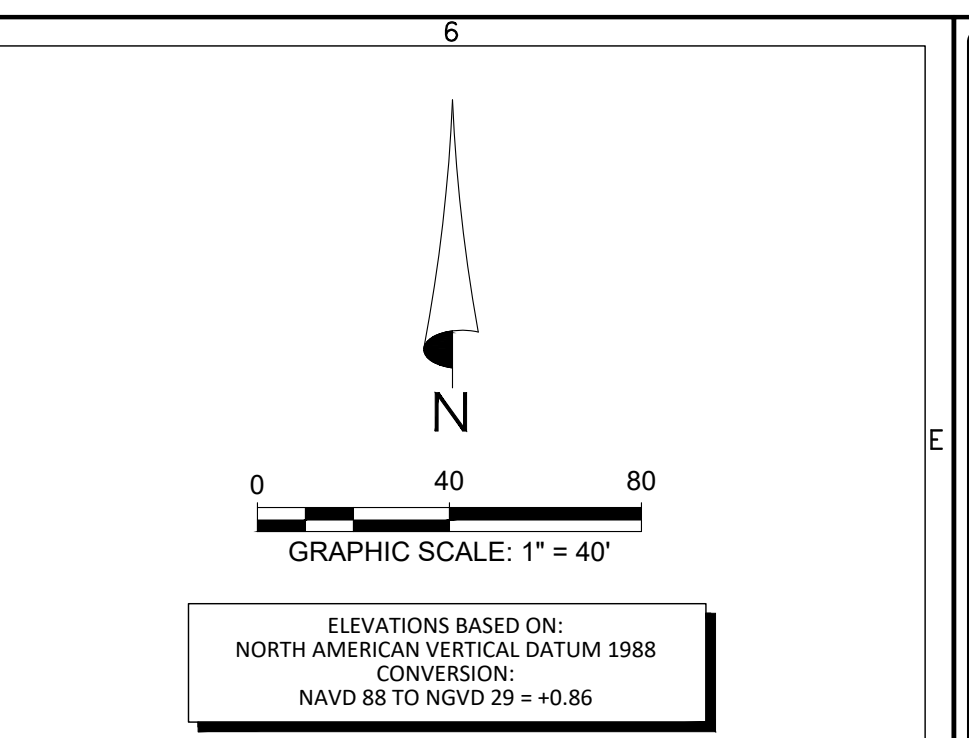
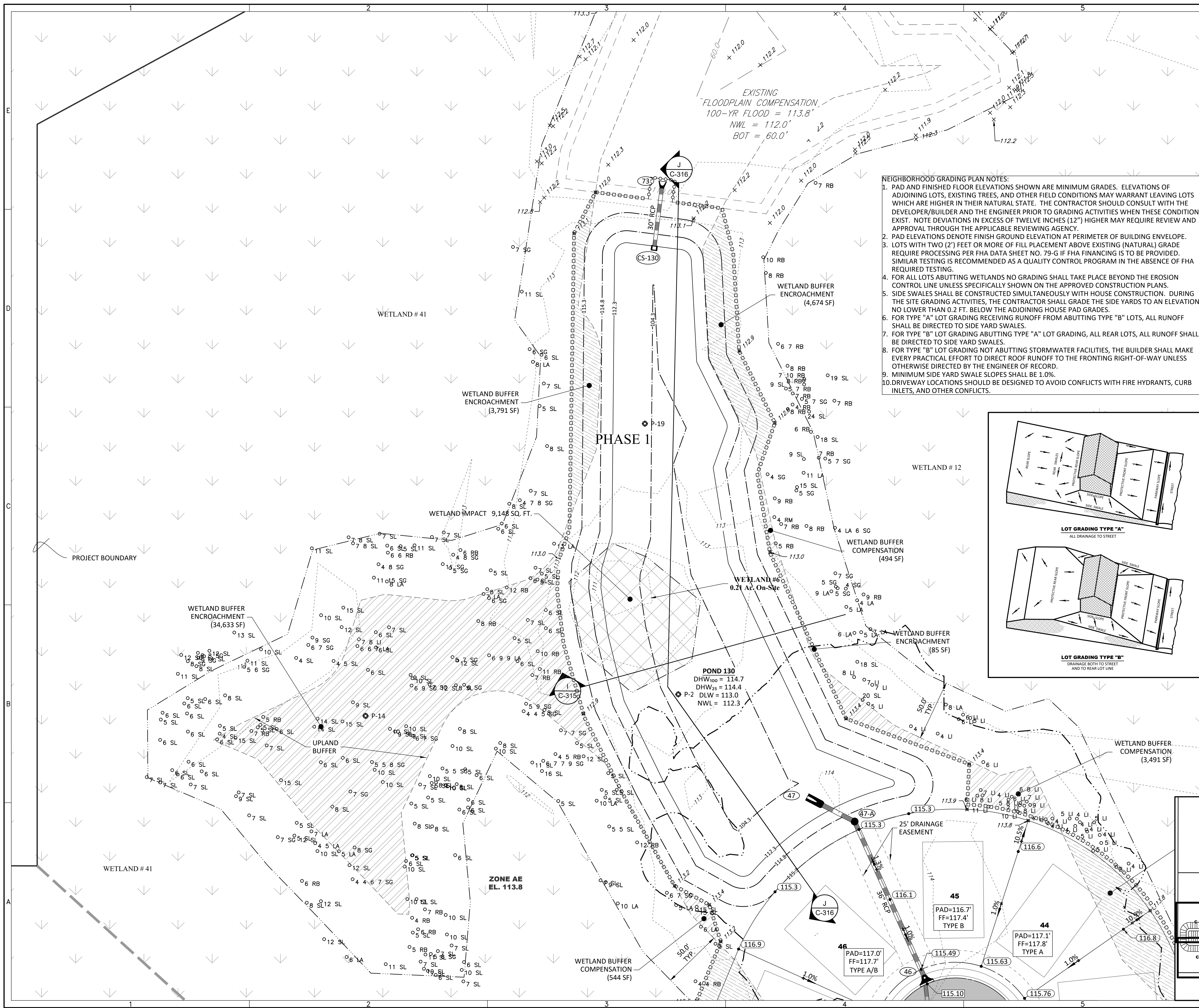
This item has been digitally
signed and sealed by
Timothy M. Plate, P.E. on the date
indicated here.

Printed copies of this document
are not considered signed and
sealed and the signature must be
verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
DATE: _____
LICENSE NO. 41153

C-308

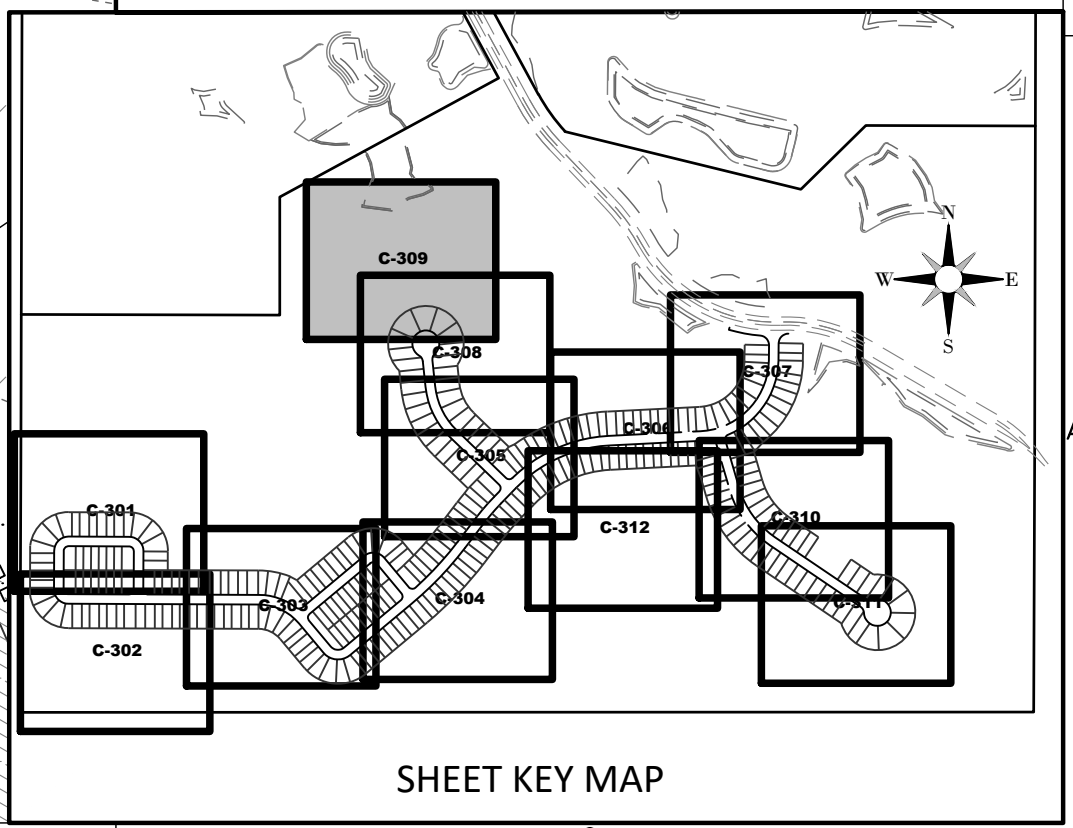
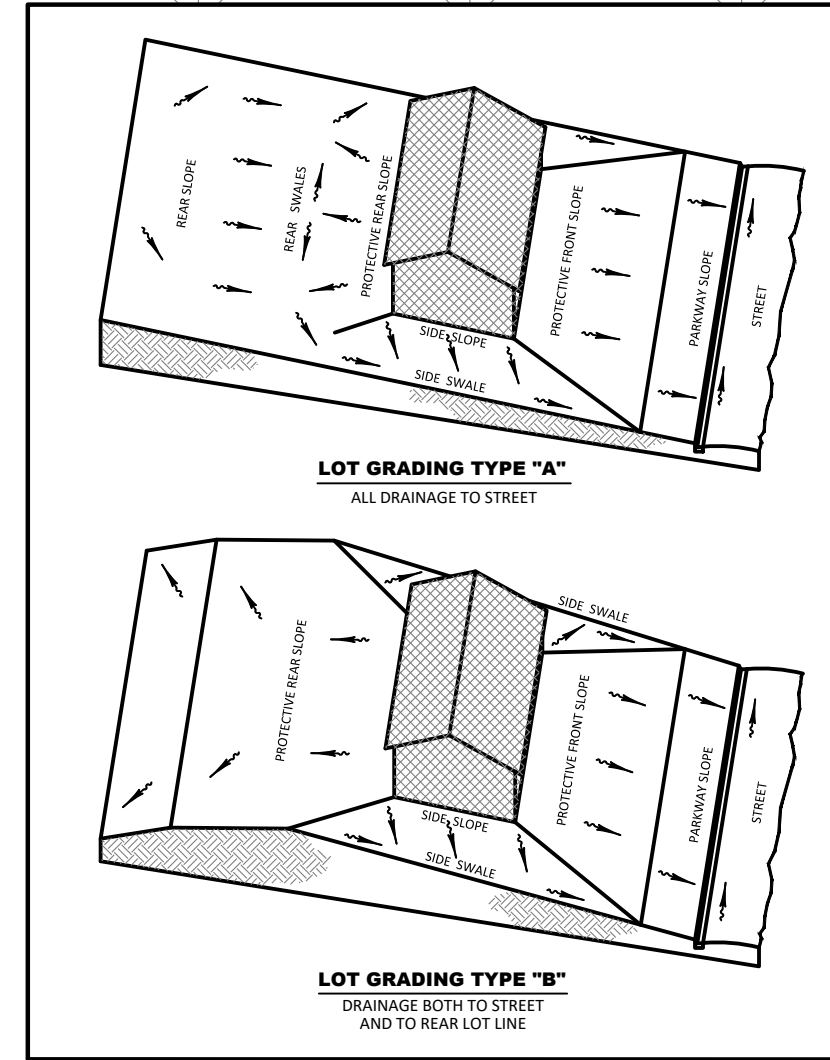
R:\AVALON GROVES\VILLAGE 3\ENGINEERING\DWG-C-308 2020\0303 11:11 AM ERIC FRANCIS



- NEIGHBORHOOD GRADING PLAN NOTES:**
- PAD AND FINISHED FLOOR ELEVATIONS SHOWN ARE MINIMUM GRADES. ELEVATIONS OF ADJOINING LOTS, EXISTING TREES, AND OTHER FIELD CONDITIONS MAY WARRANT LEAVING LOTS WHICH ARE HIGHER IN THEIR NATURAL STATE. THE CONTRACTOR SHOULD CONSULT WITH THE DEVELOPER/BUILDER AND THE ENGINEER PRIOR TO GRADING ACTIVITIES WHEN THESE CONDITIONS EXIST. NOTE DEVIATIONS IN EXCESS OF TWELVE INCHES (12") HIGHER MAY REQUIRE REVIEW AND APPROVAL THROUGH THE APPLICABLE REVIEWING AGENCY.
 - PAD ELEVATIONS DENOTE FINISH GROUND ELEVATION AT PERIMETER OF BUILDING ENVELOPE. LOTS WITH TWO (2) FEET OR MORE OF FILL PLACEMENT ABOVE EXISTING (NATURAL) GRADE REQUIRE PROCESSING PER FHA DATA SHEET NO. 79-G IF FHA FINANCING IS TO BE PROVIDED. SIMILAR TESTING IS RECOMMENDED AS A QUALITY CONTROL PROGRAM IN THE ABSENCE OF FHA REQUIRED TESTING.
 - FOR ALL LOTS ABUTTING WETLANDS NO GRADING SHALL TAKE PLACE BEYOND THE EROSION CONTROL LINE UNLESS SPECIFICALLY SHOWN ON THE APPROVED CONSTRUCTION PLANS.
 - SIDE SWALES SHALL BE CONSTRUCTED SIMULTANEOUSLY WITH HOUSE CONSTRUCTION. DURING THE SITE GRADING ACTIVITIES, THE CONTRACTOR SHALL GRADE THE SIDE YARDS TO AN ELEVATION NO LOWER THAN 0.2 FT. BELOW THE ADJOINING HOUSE PAD GRADES.
 - FOR TYPE "A" LOT GRADING RECEIVING RUNOFF FROM ABUTTING TYPE "B" LOTS, ALL RUNOFF SHALL BE DIRECTED TO SIDE YARD SWALES.
 - FOR TYPE "B" LOT GRADING ABUTTING TYPE "A" LOT GRADING, ALL REAR LOTS, ALL RUNOFF SHALL BE DIRECTED TO SIDE YARD SWALES.
 - FOR TYPE "B" LOT GRADING NOT ABUTTING STORMWATER FACILITIES, THE BUILDER SHALL MAKE EVERY PRACTICAL EFFORT TO DIRECT ROOF RUNOFF TO THE FRONTING RIGHT-OF-WAY UNLESS OTHERWISE DIRECTED BY THE ENGINEER OF RECORD.
 - MINIMUM SIDE YARD SWALE SLOPES SHALL BE 1.0%.
 - DRIVEWAY LOCATIONS SHOULD BE DESIGNED TO AVOID CONFLICTS WITH FIRE HYDRANTS, CURB INLETS, AND OTHER CONFLICTS.

- LEGEND**
- SIRWMD WETLAND LINE
 - SIRWMD WETLAND CONS. AREA SETBACK / LANDWARD EXTENT OF UPLAND BUFFER (50')
 - FEMA LINE
 - BOUNDARY LIMITS
 - RIGHT-OF-WAY LINE
 - PHASE LINE
 - WETLAND IMPACT

- DRAINAGE LEGEND**
- EXISTING: 10 (Structure No.), 15.00 (Spot Elevation Ground), 15.00 (Spot Elevation Pavement), 60.2 (Top of Wall), 53.9 (Bottom of Wall (Exist. Elev)), 15.00 (Roadway Profile Elevation), 15.00 (Contour), FF=15.00 (Finish Floor Elevation), DIRECTION OF SURFACE FLOW, UNDERDRAIN WITH CLEANOUT, STAKED EROSION CONTROL (SIRWMD PROJECT LIMITS AND THE LIMITS OF CLEARING AND FILLING), FLOATING TURBIDITY BARRIER, BOTTOM OF POND/TOP OF BANK OF POND, 6' WALL/FENCE (BY OTHERS), PLAN & PROFILE SHEET NUMBER, SECTION ID LABEL, SECTION SHEET NUMBER, P03 (Soil Boring), WETLAND SETBACK ENCROACHMENT, WETLAND SETBACK COMPENSATION
 - PROPOSED: STORM DRAINAGE STRUCTURE & PIPE, CONTROL STRUCTURE NO., SPOT ELEVATION GROUND, SPOT ELEVATION PAVEMENT, TOP OF WALL, BOTTOM OF WALL (EXIST. ELEV), ROADWAY PROFILE ELEVATION, CONTOUR, FINISH FLOOR ELEVATION, DIRECTION OF SURFACE FLOW, UNDERDRAIN WITH CLEANOUT, STAKED EROSION CONTROL (SIRWMD PROJECT LIMITS AND THE LIMITS OF CLEARING AND FILLING), FLOATING TURBIDITY BARRIER, BOTTOM OF POND/TOP OF BANK OF POND, 6' WALL/FENCE (BY OTHERS), PLAN & PROFILE SHEET NUMBER, SECTION ID LABEL, SECTION SHEET NUMBER, P03 (Soil Boring), WETLAND SETBACK ENCROACHMENT, WETLAND SETBACK COMPENSATION



HEIDT DESIGN
Civil Engineering • Planning & GIS
Transportation Engineering
Ecological Services • Landscape Architecture

5904-A Hampton Oaks Pkwy.
Tampa, Florida 33610
Office: 813-253-5311
Fax: 813-464-7629
www.HeidtDesign.com

Engineering Business Certificate of Authorization No. 28793
Landscape Architecture of Authorization No. LC26080405
REVALON GROVES VILLAGE ENGINEERING/DWG-C-309 2020/03/11 11 AM ERIC FRANCIS

SERENOA VILLAGE 3 - PHASE 1, 2 & 3

GRADING & DRAINAGE PLAN

PREPARED FOR: **VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION
2	08/20/2020	REV. WETLANDS MAP, LOTS & GRADES
	11/08/2019	REVIEW SUBMITTAL

PROJECT NO.: KLP-AG-1089

FILE: GD

DESIGN BY: FRANCIS

DRAWN BY: JLOAIZA

STATE OF FLORIDA PROFESSIONAL ENGINEER

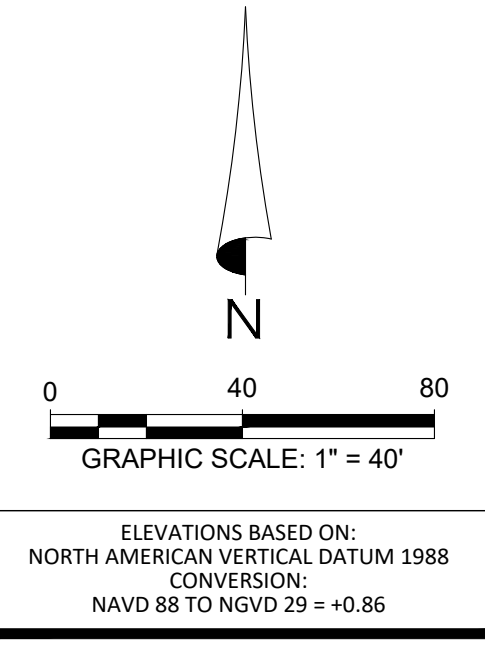
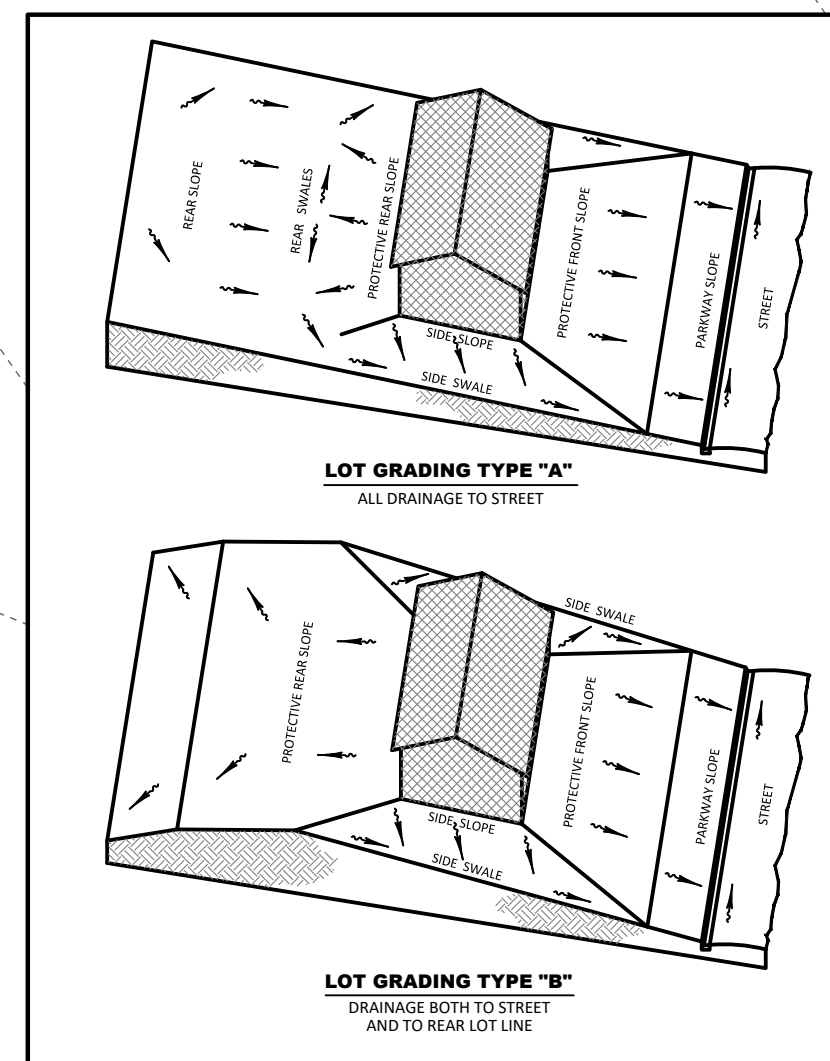
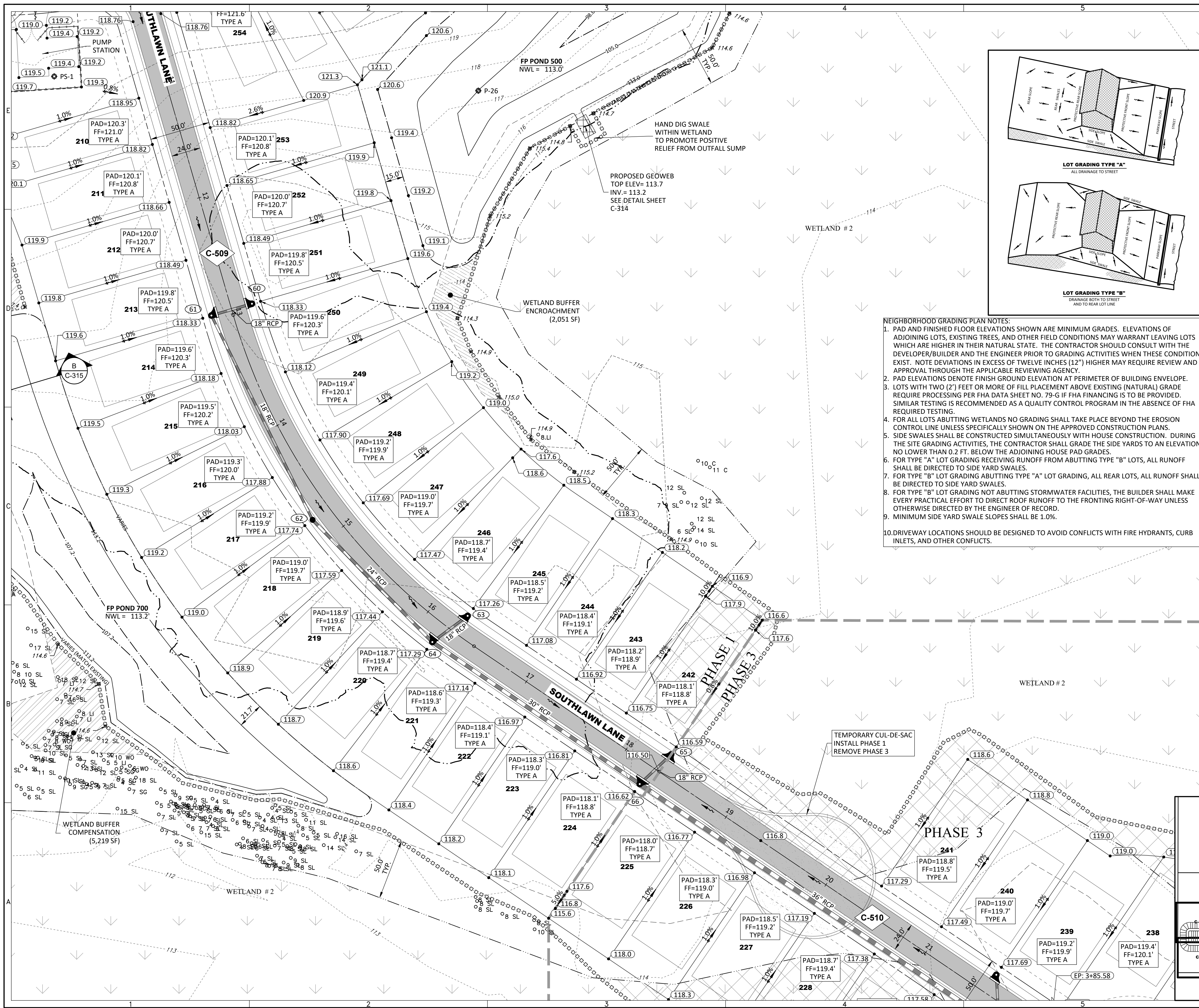
Timothy M. Plate, State of Florida, Professional Engineer, License No. 41153

This item has been digitally signed and sealed by Timothy M. Plate, P.E. on the date indicated here.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

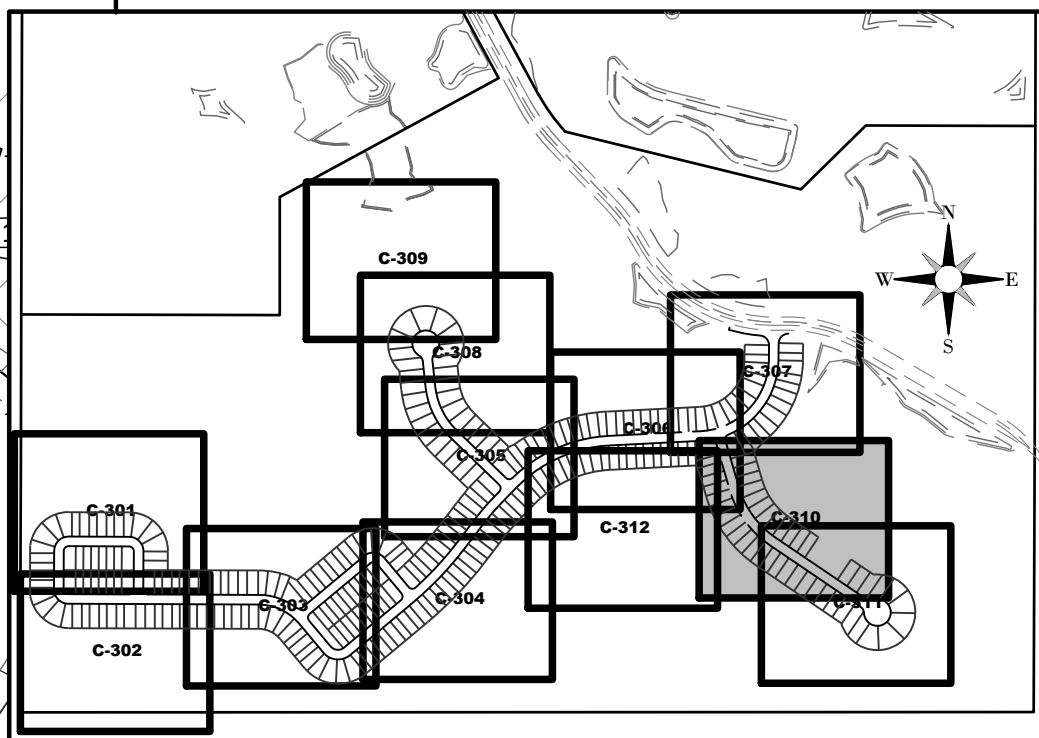
TIMOTHY M. PLATE, P.E.
DATE: _____
LICENSE NO. 41153

C-309



- LEGEND**
- SIRWMW WETLAND LINE
 - SIRWMW WETLAND CONS. AREA SETBACK / LANDWARD EXTENT OF UPLAND BUFFER (50')
 - FEMA LINE
 - BOUNDARY LIMITS
 - RIGHT-OF-WAY LINE
 - PHASE LINE
 - WETLAND IMPACT
- DRAINAGE LEGEND**
- EXISTING
 - PROPOSED
 - STORM DRAINAGE STRUCTURE & PIPE STRUCTURE NO.
 - CONTROL STRUCTURE NO.
 - SPOT ELEVATION GROUND
 - SPOT ELEVATION PAVEMENT
 - TOP OF WALL
 - BOTTOM OF WALL (EXIST. ELEV)
 - ROADWAY PROFILE ELEVATION
 - 15.00
 - 15.00
 - 15.00
 - FINISH FLOOR ELEVATION
 - DIRECTION OF SURFACE FLOW
 - UNDERDRAIN WITH CLEANOUT
 - STAKED EROSION CONTROL (SIRWMW PROJECT LIMITS AND THE LIMITS OF CLEARING AND FILLING)
 - FLOATING TURBIDITY BARRIER
 - BOTTOM OF POND/TOP OF BANK OF POND
 - 6' WALL/FENCE (BY OTHERS)
 - PLAN & PROFILE SHEET NUMBER
 - SECTION ID LABEL
 - SECTION SHEET NUMBER
 - P03 SOIL BORING
 - WETLAND SETBACK ENCROACHMENT
 - WETLAND SETBACK COMPENSATION

- NEIGHBORHOOD GRADING PLAN NOTES:**
- PAD AND FINISHED FLOOR ELEVATIONS SHOWN ARE MINIMUM GRADES. ELEVATIONS OF ADJOINING LOTS, EXISTING TREES, AND OTHER FIELD CONDITIONS MAY WARRANT LEAVING LOTS WHICH ARE HIGHER IN THEIR NATURAL STATE. THE CONTRACTOR SHOULD CONSULT WITH THE DEVELOPER/BUILDER AND THE ENGINEER PRIOR TO GRADING ACTIVITIES WHEN THESE CONDITIONS EXIST. NOTE DEVIATIONS IN EXCESS OF TWELVE INCHES (12") HIGHER MAY REQUIRE REVIEW AND APPROVAL THROUGH THE APPLICABLE REVIEWING AGENCY.
 - PAD ELEVATIONS DENOTE FINISH GROUND ELEVATION AT PERIMETER OF BUILDING ENVELOPE.
 - LOTS WITH TWO (2') FEET OR MORE OF FILL PLACEMENT ABOVE EXISTING (NATURAL) GRADE REQUIRE PROCESSING PER FHA DATA SHEET NO. 79-G IF FHA FINANCING IS TO BE PROVIDED. SIMILAR TESTING IS RECOMMENDED AS A QUALITY CONTROL PROGRAM IN THE ABSENCE OF FHA REQUIRED TESTING.
 - FOR ALL LOTS ABUTTING WETLANDS NO GRADING SHALL TAKE PLACE BEYOND THE EROSION CONTROL LINE UNLESS SPECIFICALLY SHOWN ON THE APPROVED CONSTRUCTION PLANS.
 - SIDE SWALES SHALL BE CONSTRUCTED SIMULTANEOUSLY WITH HOUSE CONSTRUCTION. DURING THE SITE GRADING ACTIVITIES, THE CONTRACTOR SHALL GRADE THE SIDE YARDS TO AN ELEVATION NO LOWER THAN 0.2 FT. BELOW THE ADJOINING HOUSE PAD GRADES.
 - FOR TYPE "A" LOT GRADING RECEIVING RUNOFF FROM ADJUTING TYPE "B" LOTS, ALL RUNOFF SHALL BE DIRECTED TO SIDE YARD SWALES.
 - FOR TYPE "B" LOT GRADING ABUTTING TYPE "A" LOT GRADING, ALL REAR LOTS, ALL RUNOFF SHALL BE DIRECTED TO SIDE YARD SWALES.
 - FOR TYPE "B" LOT GRADING NOT ABUTTING STORMWATER FACILITIES, THE BUILDER SHALL MAKE EVERY PRACTICAL EFFORT TO DIRECT ROOF RUNOFF TO THE FRONTING RIGHT-OF-WAY UNLESS OTHERWISE DIRECTED BY THE ENGINEER OF RECORD.
 - MINIMUM SIDE YARD SWALE SLOPES SHALL BE 1.0%.
 - DRIVEWAY LOCATIONS SHOULD BE DESIGNED TO AVOID CONFLICTS WITH FIRE HYDRANTS, CURB INLETS, AND OTHER CONFLICTS.



HEIDT DESIGN
Civil Engineering • Planning & GIS
Transportation Engineering
Ecological Services • Landscape Architecture

5904-A Hampton Oaks Pkwy.
Tampa, Florida 33610
Office: 813-253-5311
Fax: 813-464-7629
www.HeidtDesign.com

SERENOA VILLAGE 3 - PHASE 1, 2 & 3
GRADING & DRAINAGE PLAN

PREPARED FOR: **VK AVALON GROVES, LLC**

DATE	DESCRIPTION

NO.	DATE	DESCRIPTION
2	08/20/2020	REV. WETLANDS MAP, LOTS & GRADES
1	11/13/2019	REV. STAKED EROSION CONTROL
1	11/08/2019	REVISION SUBMITTAL

PROJECT NO: KLP-AG-1089

FILE: GD

DESIGN BY: FRANCIS

DRAWN BY: JLOAIZA

STATE OF FLORIDA PROFESSIONAL ENGINEER

Timothy M. Plate, State of Florida, Professional Engineer, License No. 41153

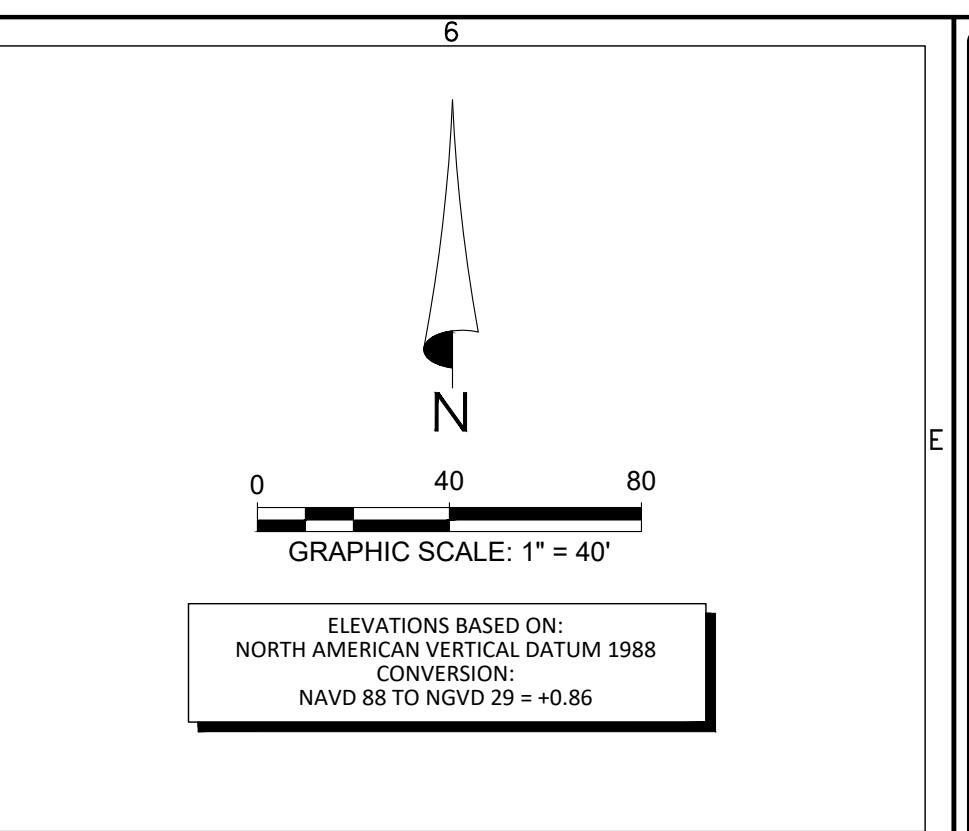
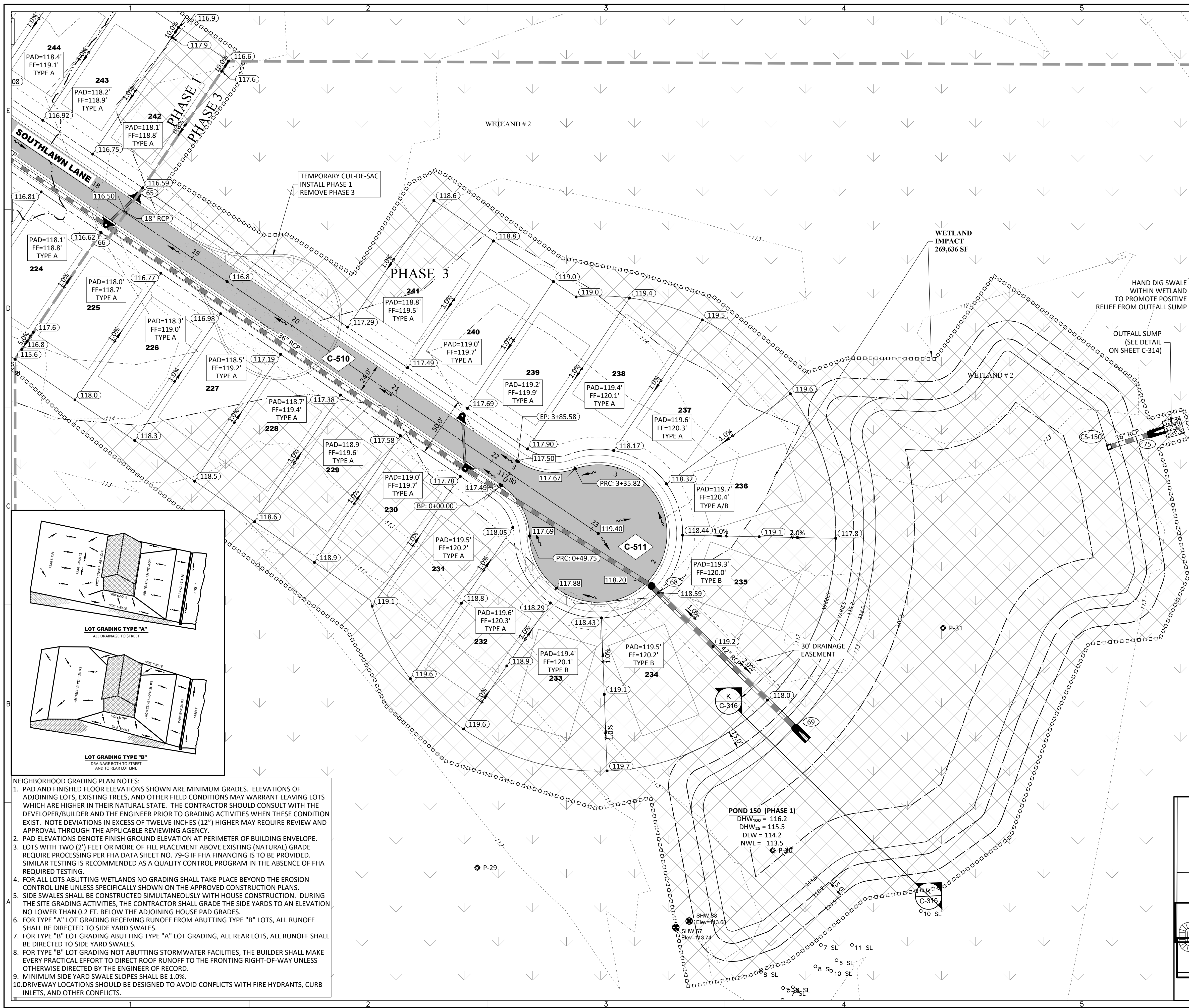
This item has been digitally signed and sealed by Timothy M. Plate, P.E. on the date indicated here.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
DATE: _____
LICENSE NO. 41153

C-310

R:\AVALON GROVES\VILLAGE 3\ENGINEERING\DWG-C-310 2020\0303 11:11 AM ERIC FRANCIS

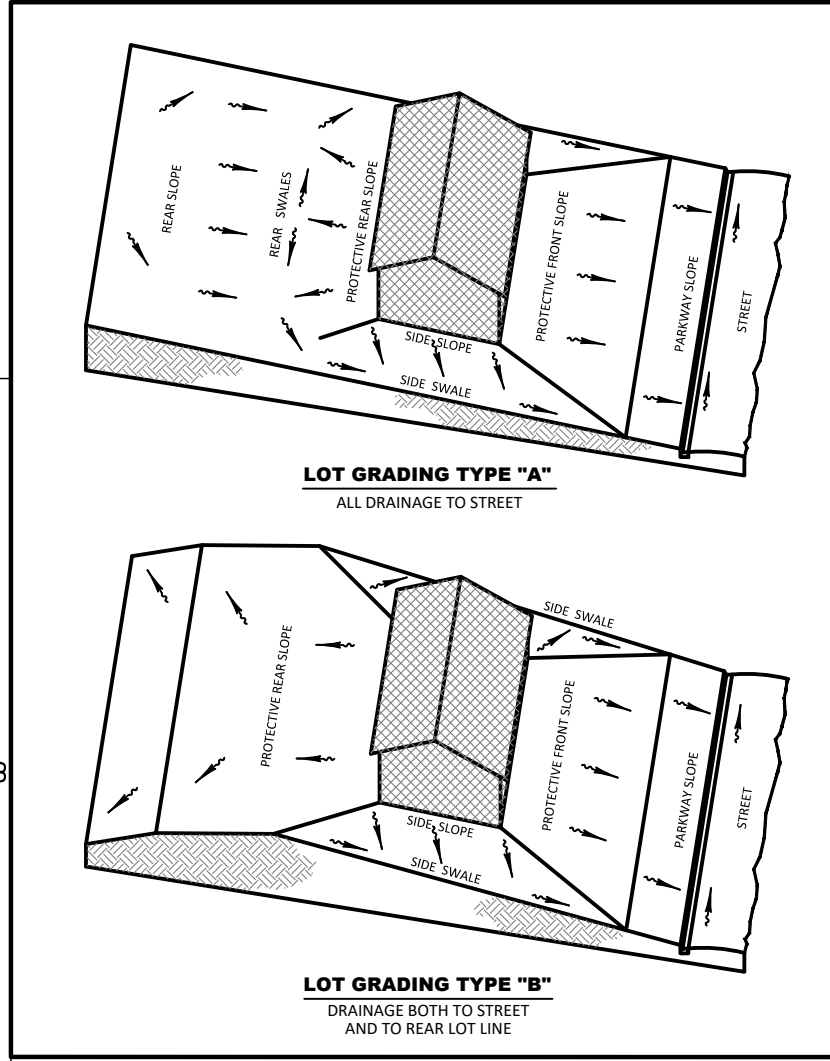


LEGEND

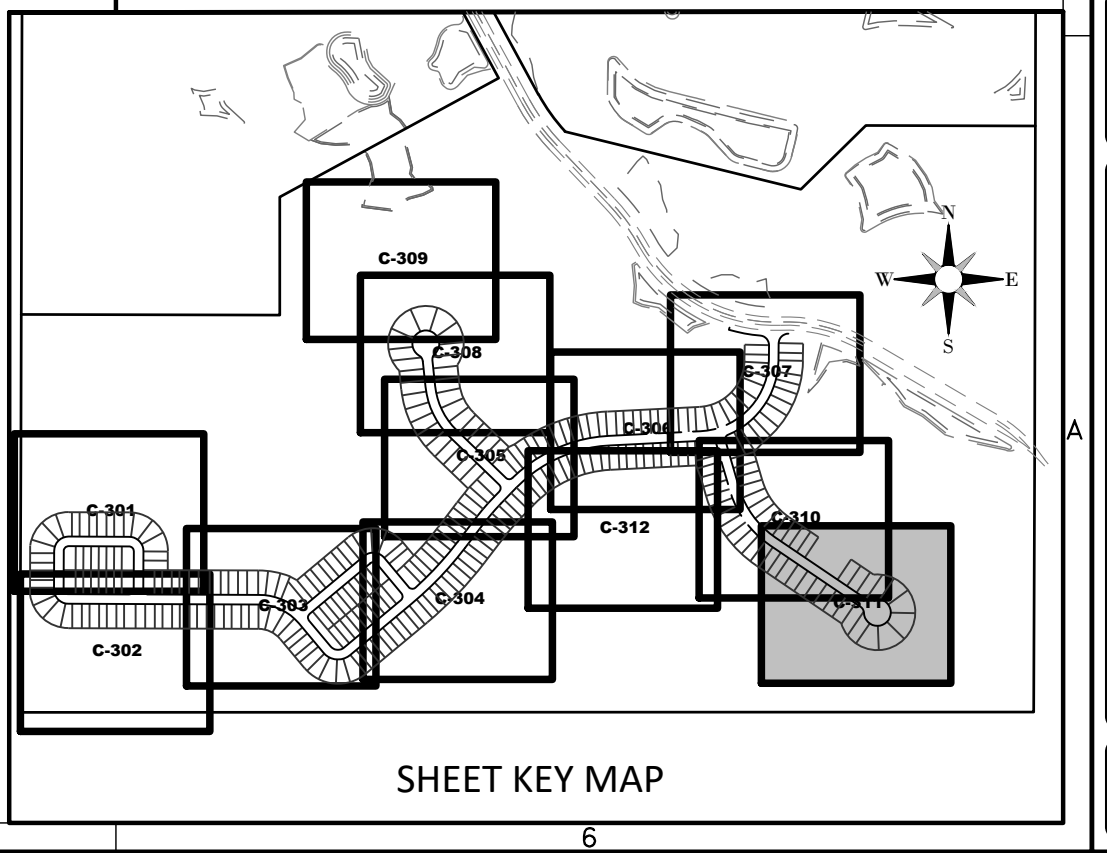
- SIRWMD WETLAND LINE
- SIRWMD WETLAND CONS. AREA SETBACK / LANDWARD EXTENT OF UPLAND BUFFER (50')
- FEMA LINE
- BOUNDARY LIMITS
- RIGHT-OF-WAY LINE
- PHASE LINE
- WETLAND IMPACT

DRAINAGE LEGEND

EXISTING	PROPOSED	DESCRIPTION
(10)	(10)	STORM DRAINAGE STRUCTURE & PIPE STRUCTURE NO.
(CS-F)	(CS-F)	CONTROL STRUCTURE NO.
15.00	15.00	SPOT ELEVATION GROUND
15.00	15.00	SPOT ELEVATION PAVEMENT
60.2 / 53.9	60.2 / 53.9	TOP OF WALL / BOTTOM OF WALL (EXIST. ELEV)
15.00	15.00	ROADWAY PROFILE ELEVATION
15.00	15.00	CONTOUR
FF=15.00	FF=15.00	FINISH FLOOR ELEVATION
→	→	DIRECTION OF SURFACE FLOW
UDCO	UDCO	UNDERDRAIN WITH CLEANOUT
□	□	STAKED EROSION CONTROL (SIRWMD PROJECT LIMITS AND THE LIMITS OF CLEARING AND FILLING)
○	○	FLOATING TURBIDITY BARRIER
—	—	BOTTOM OF POND/TOP OF BANK OF POND
—	—	6' WALL/FENCE (BY OTHERS)
C-505	C-505	PLAN & PROFILE SHEET NUMBER
A-A / C-317	A-A / C-317	SECTION ID LABEL / SECTION SHEET NUMBER
P03	P03	SOIL BORING
▨	▨	WETLAND SETBACK ENCROACHMENT
▨	▨	WETLAND SETBACK COMPENSATION



- NEIGHBORHOOD GRADING PLAN NOTES:**
- PAD AND FINISHED FLOOR ELEVATIONS SHOWN ARE MINIMUM GRADES. ELEVATIONS OF ADJOINING LOTS, EXISTING TREES, AND OTHER FIELD CONDITIONS MAY WARRANT LEAVING LOTS WHICH ARE HIGHER IN THEIR NATURAL STATE. THE CONTRACTOR SHOULD CONSULT WITH THE DEVELOPER/BUILDER AND THE ENGINEER PRIOR TO GRADING ACTIVITIES WHEN THESE CONDITIONS EXIST. NOTE DEVIATIONS IN EXCESS OF TWELVE INCHES (12") HIGHER MAY REQUIRE REVIEW AND APPROVAL THROUGH THE APPLICABLE REVIEWING AGENCY.
 - PAD ELEVATIONS DENOTE FINISH GROUND ELEVATION AT PERIMETER OF BUILDING ENVELOPE. LOTS WITH TWO (2') FEET OR MORE OF FILL PLACEMENT ABOVE EXISTING (NATURAL) GRADE REQUIRE PROCESSING PER FHA DATA SHEET NO. 79-G IF FHA FINANCING IS TO BE PROVIDED. SIMILAR TESTING IS RECOMMENDED AS A QUALITY CONTROL PROGRAM IN THE ABSENCE OF FHA REQUIRED TESTING.
 - FOR ALL LOTS ABUTTING WETLANDS NO GRADING SHALL TAKE PLACE BEYOND THE EROSION CONTROL LINE UNLESS SPECIFICALLY SHOWN ON THE APPROVED CONSTRUCTION PLANS.
 - SIDE SWALES SHALL BE CONSTRUCTED SIMULTANEOUSLY WITH HOUSE CONSTRUCTION. DURING THE SITE GRADING ACTIVITIES, THE CONTRACTOR SHALL GRADE THE SIDE YARDS TO AN ELEVATION NO LOWER THAN 0.2 FT. BELOW THE ADJOINING HOUSE PAD GRADES.
 - FOR TYPE "A" LOT GRADING RECEIVING RUNOFF FROM ADJUTING TYPE "B" LOTS, ALL RUNOFF SHALL BE DIRECTED TO SIDE YARD SWALES.
 - FOR TYPE "B" LOT GRADING ABUTTING TYPE "A" LOT GRADING, ALL REAR LOTS, ALL RUNOFF SHALL BE DIRECTED TO SIDE YARD SWALES.
 - FOR TYPE "B" LOT GRADING NOT ABUTTING STORMWATER FACILITIES, THE BUILDER SHALL MAKE EVERY PRACTICAL EFFORT TO DIRECT ROOF RUNOFF TO THE FRONTING RIGHT-OF-WAY UNLESS OTHERWISE DIRECTED BY THE ENGINEER OF RECORD.
 - MINIMUM SIDE YARD SWALE SLOPES SHALL BE 1.0%.
 - DRIVEWAY LOCATIONS SHOULD BE DESIGNED TO AVOID CONFLICTS WITH FIRE HYDRANTS, CURB INLETS, AND OTHER CONFLICTS.



HEIDT DESIGN
Civil Engineering • Planning & GIS
Transportation Engineering
Ecological Services • Landscape Architecture
Engineering Business Certificate of Authorization No. 28793
Landscape Architecture Certificate of Authorization No. LC26060405
www.HeidtDesign.com

5904-A Hampton Oaks Pkwy.
Tampa, Florida 33610
Office: 813-253-5311
Fax: 813-464-7629

SERENOA VILLAGE 3 - PHASE 1, 2 & 3
GRADING & DRAINAGE PLAN

PREPARED FOR: **VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION
1	11/08/2019	REVISION SUBMITTAL
2	03/20/2020	REV. WETLANDS MAP, LOTS & GRADES
3	11/13/2019	REV. PHASE 1 LABEL

PROJECT NO.: KLP-AG-1089
FILE: GD
DESIGN BY: FRANCIS
DRAWN BY: JLOAIZA

STATE OF FLORIDA
PROFESSIONAL ENGINEER

Timothy M. Plate, State of Florida,
Professional Engineer, License No. 41153

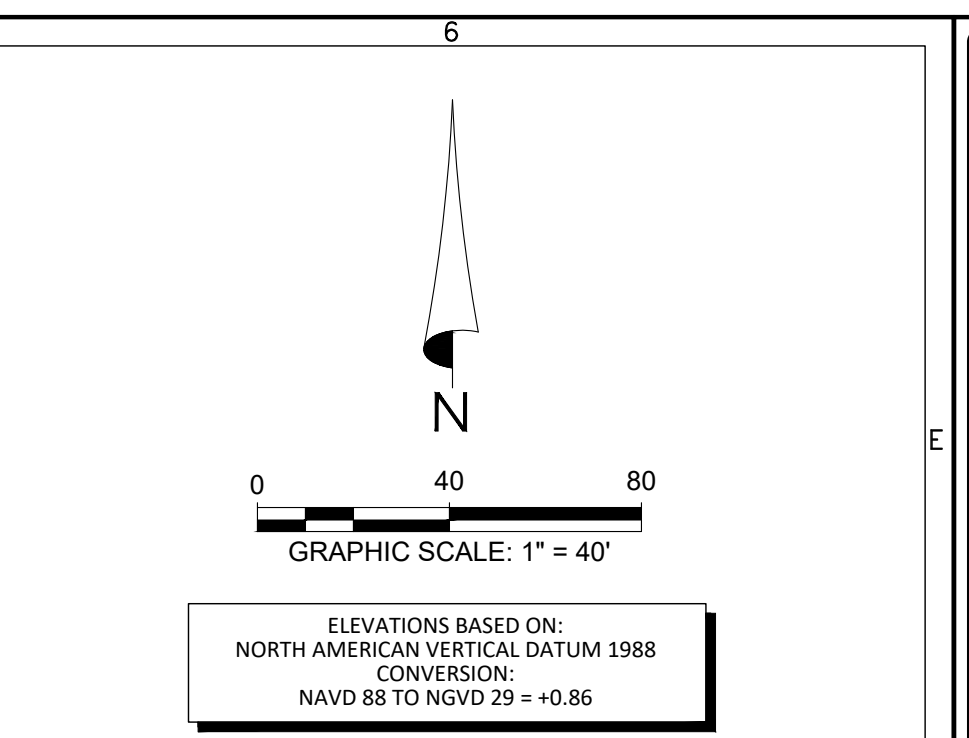
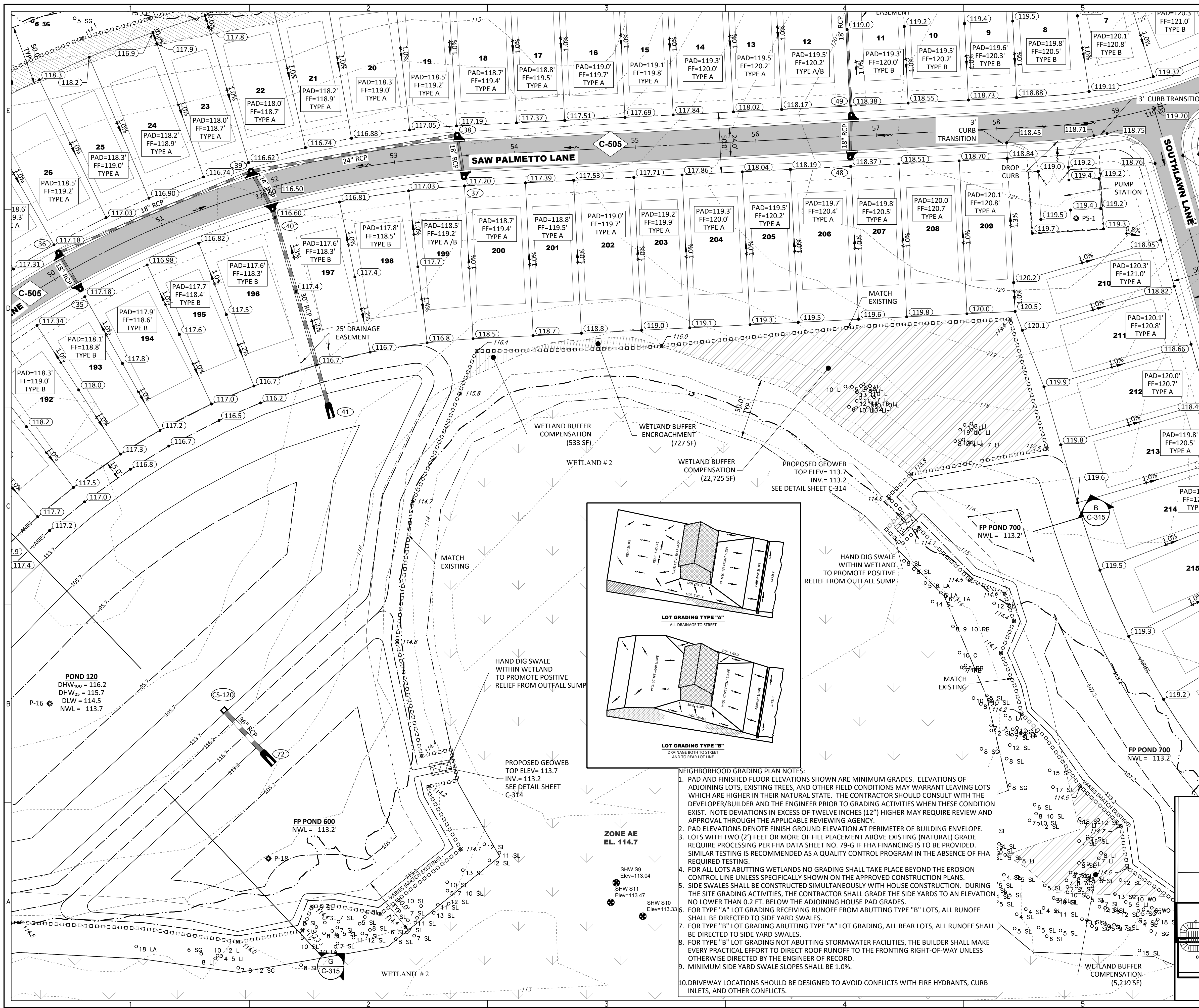
This item has been digitally
signed and sealed by
Timothy M. Plate, P.E. on the date
indicated here:

Printed copies of this document
are not considered signed and
sealed and the signature must be
verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
DATE: _____
LICENSE NO. 41153

C-311

© COPYRIGHT 2020 HEIDT DESIGN, LLC. ALL RIGHTS RESERVED. NO DOCUMENTATION INCLUDING BUT NOT LIMITED TO DRAWINGS OR EXHIBITS MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION IN WRITING FROM HEIDT DESIGN, LLC. THIS DOCUMENT IS HEREBY GRANTED SPECIFICALLY TO GOVERNMENTAL AGENCIES TO REPRODUCE THIS DOCUMENT IN COMPLIANCE WITH F.S. CHAPTER 119.

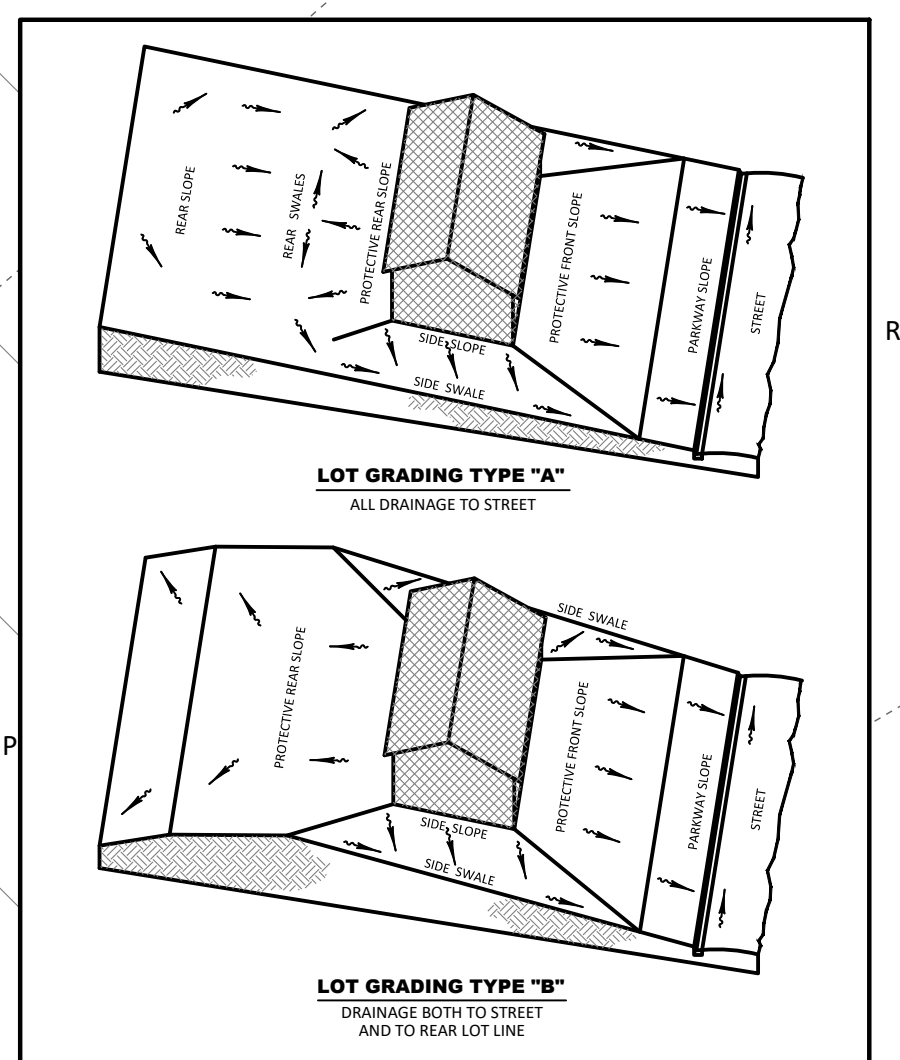


LEGEND

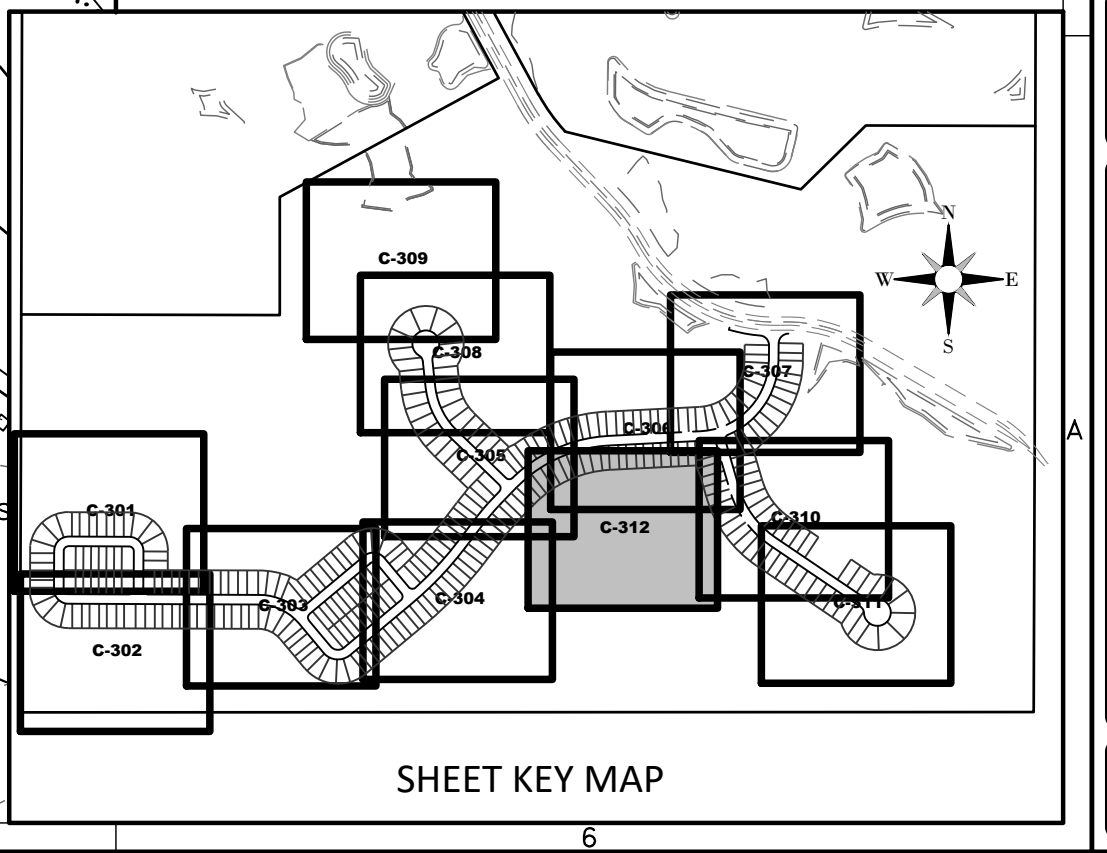
- SIRWMD WETLAND LINE
- SIRWMD WETLAND CONS. AREA SETBACK / LANDWARD EXTENT OF UPLAND BUFFER (50')
- FEMA LINE
- BOUNDARY LIMITS
- RIGHT-OF-WAY LINE
- PHASE LINE
- WETLAND IMPACT

DRAINAGE LEGEND

- EXISTING: 10 (Structure No.), 15.00 (Spot Elevation Ground), 15.00 (Spot Elevation Pavement), 15.00 (Top of Wall), 15.00 (Bottom of Wall), 15.00 (Roadway Profile Elevation), 15.00 (Contour), FF=15.00 (Finish Floor Elevation), UDCO (Direction of Surface Flow), UDCO (Underdrain with Cleanout), STAKED EROSION CONTROL, FLOATING TURBIDITY BARRIER, 6' WALL/FENCE (BY OTHERS), PLAN & PROFILE SHEET NUMBER (C-505), SECTION ID LABEL (A-A), SECTION SHEET NUMBER (C-317), P03 (Soil Boring)
- PROPOSED: 10 (Storm Drainage Structure & Pipe), CS-F (Control Structure No.), 15.00 (Spot Elevation Ground), 15.00 (Spot Elevation Pavement), 15.00 (Top of Wall), 15.00 (Bottom of Wall), 15.00 (Roadway Profile Elevation), FF=15.00 (Finish Floor Elevation), UDCO (Direction of Surface Flow), UDCO (Underdrain with Cleanout), STAKED EROSION CONTROL, FLOATING TURBIDITY BARRIER, 6' WALL/FENCE (BY OTHERS), PLAN & PROFILE SHEET NUMBER (C-505), SECTION ID LABEL (A-A), SECTION SHEET NUMBER (C-317), P03 (Soil Boring)
- WETLAND SETBACK ENCROACHMENT
- WETLAND SETBACK COMPENSATION



- NEIGHBORHOOD GRADING PLAN NOTES:**
- PAD AND FINISHED FLOOR ELEVATIONS SHOWN ARE MINIMUM GRADES. ELEVATIONS OF ADJOINING LOTS, EXISTING TREES, AND OTHER FIELD CONDITIONS MAY WARRANT LEAVING LOTS WHICH ARE HIGHER IN THEIR NATURAL STATE. THE CONTRACTOR SHOULD CONSULT WITH THE DEVELOPER/BUILDER AND THE ENGINEER PRIOR TO GRADING ACTIVITIES WHEN THESE CONDITIONS EXIST. NOTE DEVIATIONS IN EXCESS OF TWELVE INCHES (12") HIGHER MAY REQUIRE REVIEW AND APPROVAL THROUGH THE APPLICABLE REVIEWING AGENCY.
 - PAD ELEVATIONS DENOTE FINISH GROUND ELEVATION AT PERIMETER OF BUILDING ENVELOPE.
 - LOTS WITH TWO (2') FEET OR MORE OF FILL PLACEMENT ABOVE EXISTING (NATURAL) GRADE REQUIRE PROCESSING PER FHA DATA SHEET NO. 79-G IF FHA FINANCING IS TO BE PROVIDED. SIMILAR TESTING IS RECOMMENDED AS A QUALITY CONTROL PROGRAM IN THE ABSENCE OF FHA REQUIRED TESTING.
 - FOR ALL LOTS ABUTTING WETLANDS NO GRADING SHALL TAKE PLACE BEYOND THE EROSION CONTROL LINE UNLESS SPECIFICALLY SHOWN ON THE APPROVED CONSTRUCTION PLANS.
 - SIDE SWALES SHALL BE CONSTRUCTED SIMULTANEOUSLY WITH HOUSE CONSTRUCTION. DURING THE SITE GRADING ACTIVITIES, THE CONTRACTOR SHALL GRADE THE SIDE YARDS TO AN ELEVATION NO LOWER THAN 0.2 FT. BELOW THE ADJOINING HOUSE PAD GRADES.
 - FOR TYPE "A" LOT GRADING RECEIVING RUNOFF FROM ABUTTING TYPE "B" LOTS, ALL RUNOFF SHALL BE DIRECTED TO SIDE YARD SWALES.
 - FOR TYPE "B" LOT GRADING ABUTTING TYPE "A" LOT GRADING, ALL REAR LOTS, ALL RUNOFF SHALL BE DIRECTED TO SIDE YARD SWALES.
 - FOR TYPE "B" LOT GRADING NOT ABUTTING STORMWATER FACILITIES, THE BUILDER SHALL MAKE EVERY PRACTICAL EFFORT TO DIRECT ROOF RUNOFF TO THE FRONTING RIGHT-OF-WAY UNLESS OTHERWISE DIRECTED BY THE ENGINEER OF RECORD.
 - MINIMUM SIDE YARD SWALE SLOPES SHALL BE 1.0%.
 - DRIVEWAY LOCATIONS SHOULD BE DESIGNED TO AVOID CONFLICTS WITH FIRE HYDRANTS, CURB INLETS, AND OTHER CONFLICTS.



HEIDT DESIGN
Civil Engineering • Planning & GIS
Transportation Engineering
Landscape Architecture • Landscape Architecture

5904-A Hampton Oaks Pkwy.
Tampa, Florida 33610
Office: 813-253-5311
Fax: 813-464-7629
www.HeidtDesign.com

Engineering Business Certificate of Authorization No. 28792
Landscape Architecture Certificate of Authorization No. LC2608405
R1VALON GROVES VILLAGE ENGINEERING/DWG-C-312 2020/03/11 11:12 AM ERIC FRANCIS

SERENOA VILLAGE 3 - PHASE 1, 2 & 3
GRADING & DRAINAGE PLAN

PREPARED FOR: **VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION
1	11/08/2019	REVISION SUBMITTAL
2	03/20/2020	REV. WETLANDS MAP, LOTS & GRADES
1	11/13/2019	REV. STRUCTURE NUMBER

PROJECT NO.: KLP-AG-1089
FILE: GD
DESIGN BY: FRANCIS
DRAWN BY: JLOAIZA

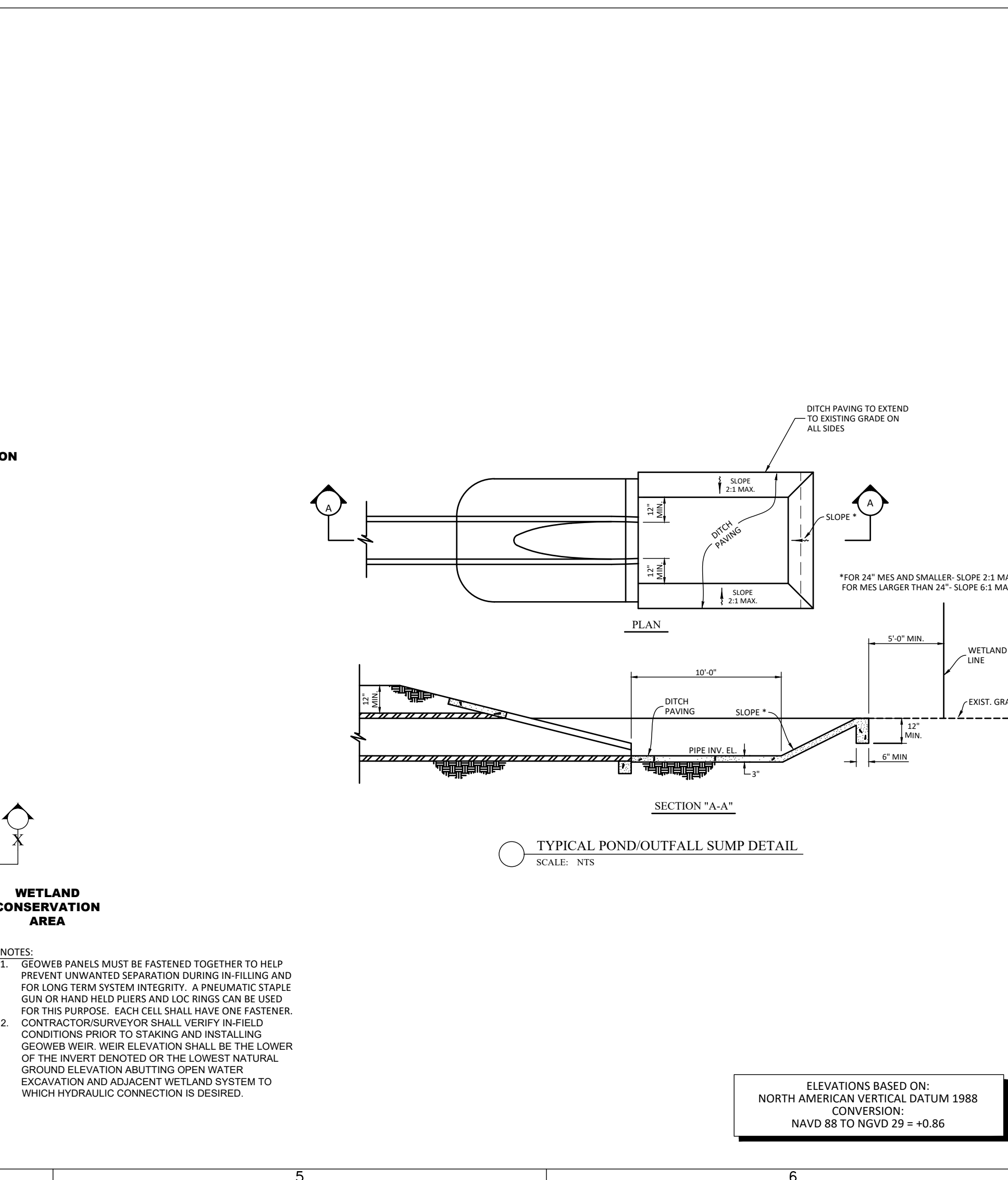
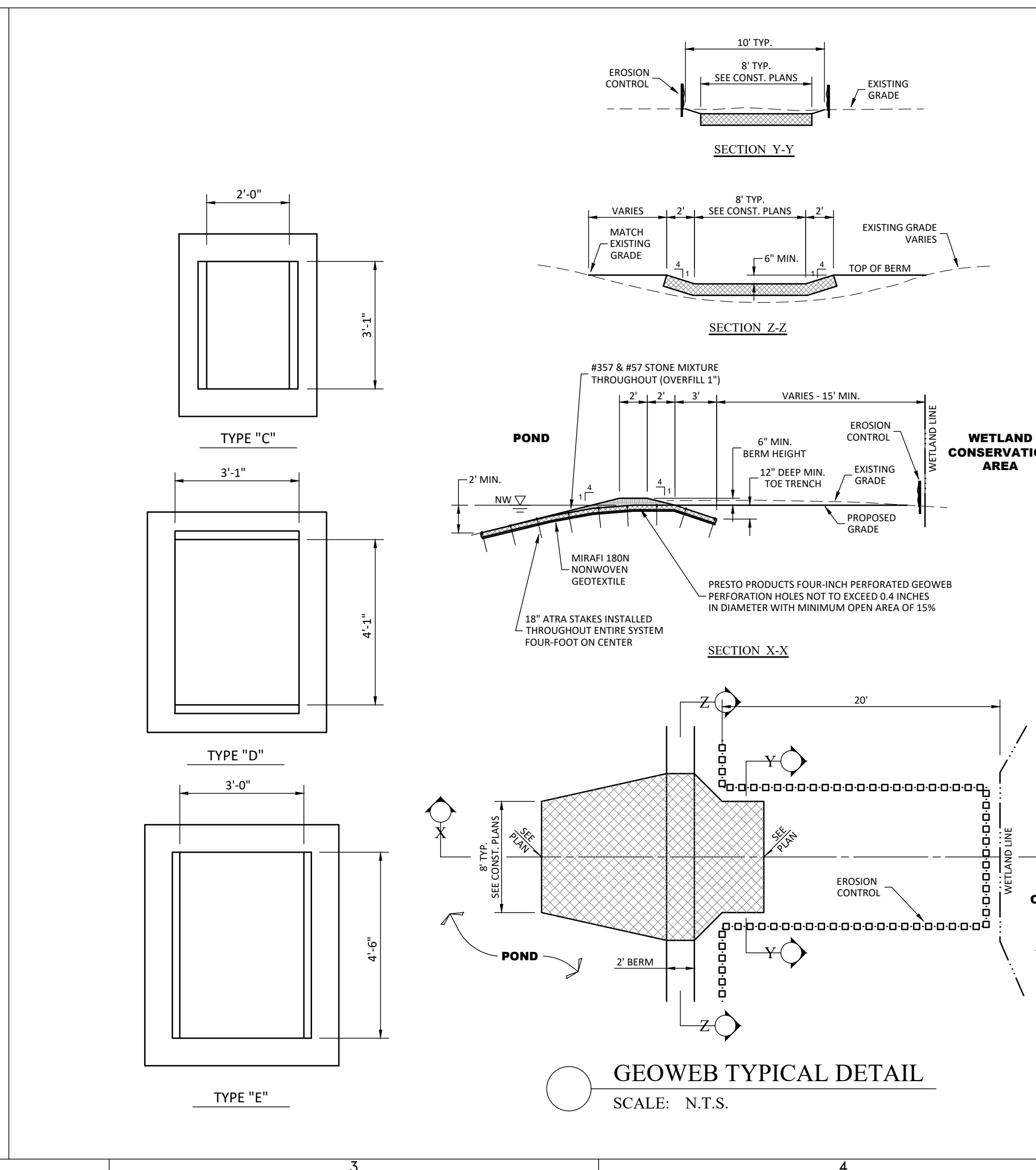
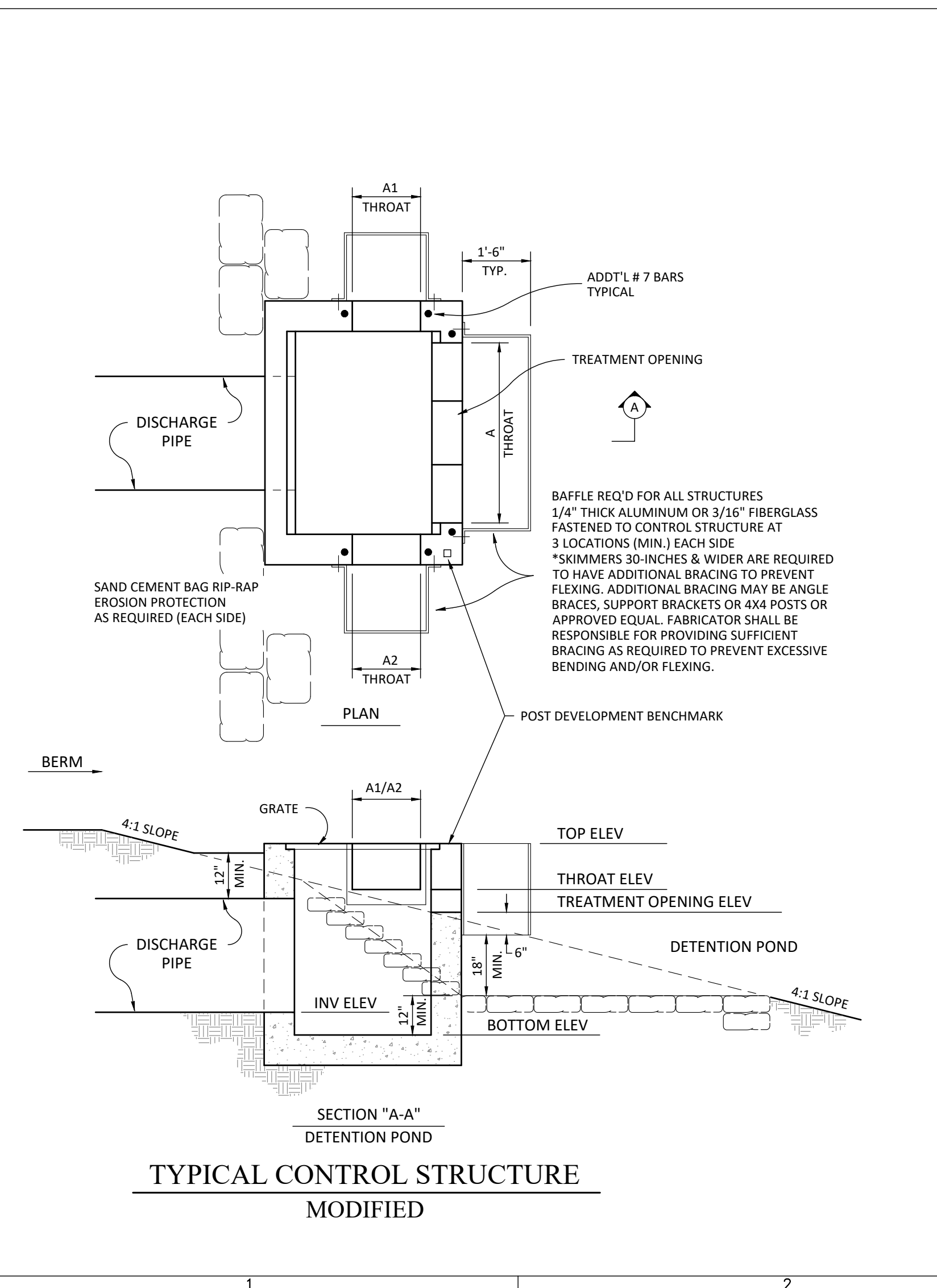
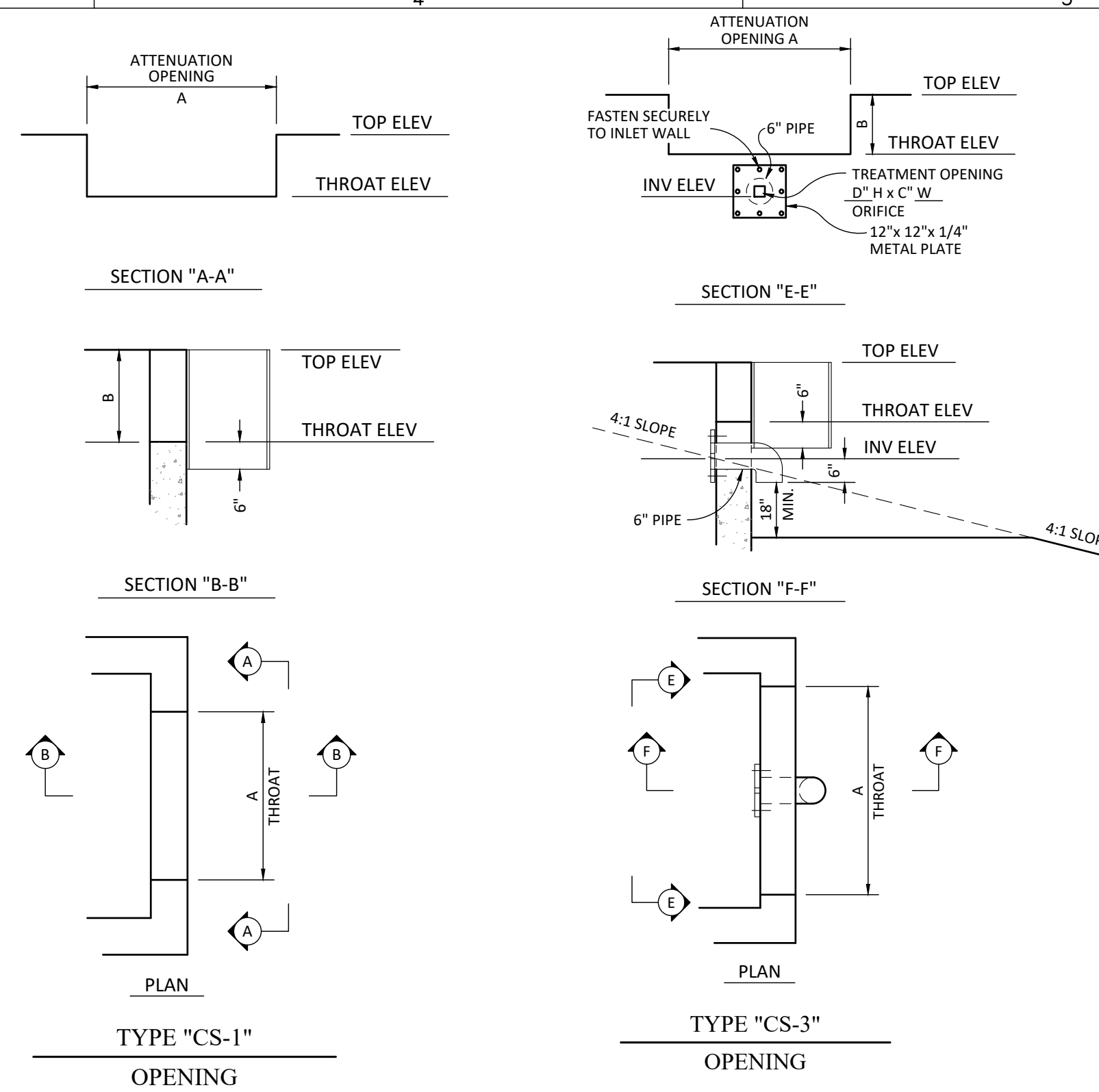
STATE OF FLORIDA
PROFESSIONAL ENGINEER

Timothy M. Plate, State of Florida, Professional Engineer, License No. 41153
This item has been digitally signed and sealed by Timothy M. Plate, P.E. on the date indicated here.
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
DATE: _____
LICENSE NO. 41153

C-312

CONTROL STRUCTURE DATA															
STRNO.	FDOT BOX TYPE	STRUCTURE		DISCHARGE PIPE			ATTENUATION AND TREATMENT CONTROLS					REMARKS			
		TOP EL.	BOTTOM EL.	TYPE	SIZE (IN.)	INV. EL. (IN.)	STR. TYPE	ATTENUATION OPENING		TREATMENT OPENING					
							A	B	ELEV. (FT.)	C	D	F'	ELEV. (FT.)		
CS-100	E	116.3	110.5	RCP	36	111.0	CS-3	4'-0"	1'-6"	114.8	3.33"	3.33"		113.7	POND 100 OUTFALL A THROAT
							CS-1	2'-0"	1'-6"	114.8					POND 100 OUTFALL A1 THROAT
							CS-1	2'-0"	1'-6"	114.8					POND 100 OUTFALL A2 THROAT
CS-110	D	116.5	111.1	RCP	36	111.6	CS-3	3'-0"	1'-6"	115.0	3"	3"		114.0	POND 110 OUTFALL A THROAT
							CS-1	2'-0"	1'-6"	115.0					POND 110 OUTFALL A1 THROAT
CS-120	D	116.2	107.8	RCP	36	108.3	CS-3	3'-6"	1'-8"	114.5	4.25"	4.25"		113.7	POND 120 OUTFALL A THROAT
							CS-1	2'-6"	1'-8"	114.5					POND 120 OUTFALL A1 THROAT
CS-130	D	114.8	107.5	RCP	30	108	CS-3	3'-0"	1'-6"	113.0	3"	3"		112.3	POND 130 OUTFALL A THROAT
							CS-1	2'-0"	1'-6"	113.0					POND 130 OUTFALL A1 THROAT
CS-140	C	116.0	108.6	RCP	24	109.1	CS-3	0'-6"	2'-0"	114.0	3.25"	3.25"		113.5	POND 140 OUTFALL A THROAT
CS-150	D	116.0	110.0	RCP	36	110.5	CS-3	2'-0"	1'-10"	114.2	3.75"	3.75"		113.5	POND 150 OUTFALL A THROAT



HEIDT DESIGN
Civil Engineering • Planning & GIS
Transportation Engineering
Ecological Services • Landscape Architecture

5904-A Hampton Oaks Pkwy.
Tampa, Florida 33610
Office: 813-253-5311
Fax: 813-464-7629
www.HeidtDesign.com

Engineering Business Certificate of Authorization No. 28793
Landscape Architecture Certificate of Authorization No. LC26080405

R/AVALON GROVES VILLAGE (ENGINEERING) CSTR.DWG-C-314 2020/03/03 11:12 AM ERIC FRANCIS

SERENOA VILLAGE 3 - PHASE 1, 2 & 3

CONTROL STRUCTURE DETAIL

PREPARED FOR: **VK AVALON GROVES, LLC**

DATE	DESCRIPTION
05/27/2020	CSTR TABLE
03/20/2020	CSTR I.D. 150
11/08/2019	REVIEW SUBMITTAL

PROJECT NO: KLP-AG-1089
FILE: CSTR
DESIGN BY: FRANCIS
DRAWN BY: JLOAIZA

STATE OF FLORIDA
PROFESSIONAL ENGINEER

Timothy M. Plate, State of Florida,
Professional Engineer, License No. 41153

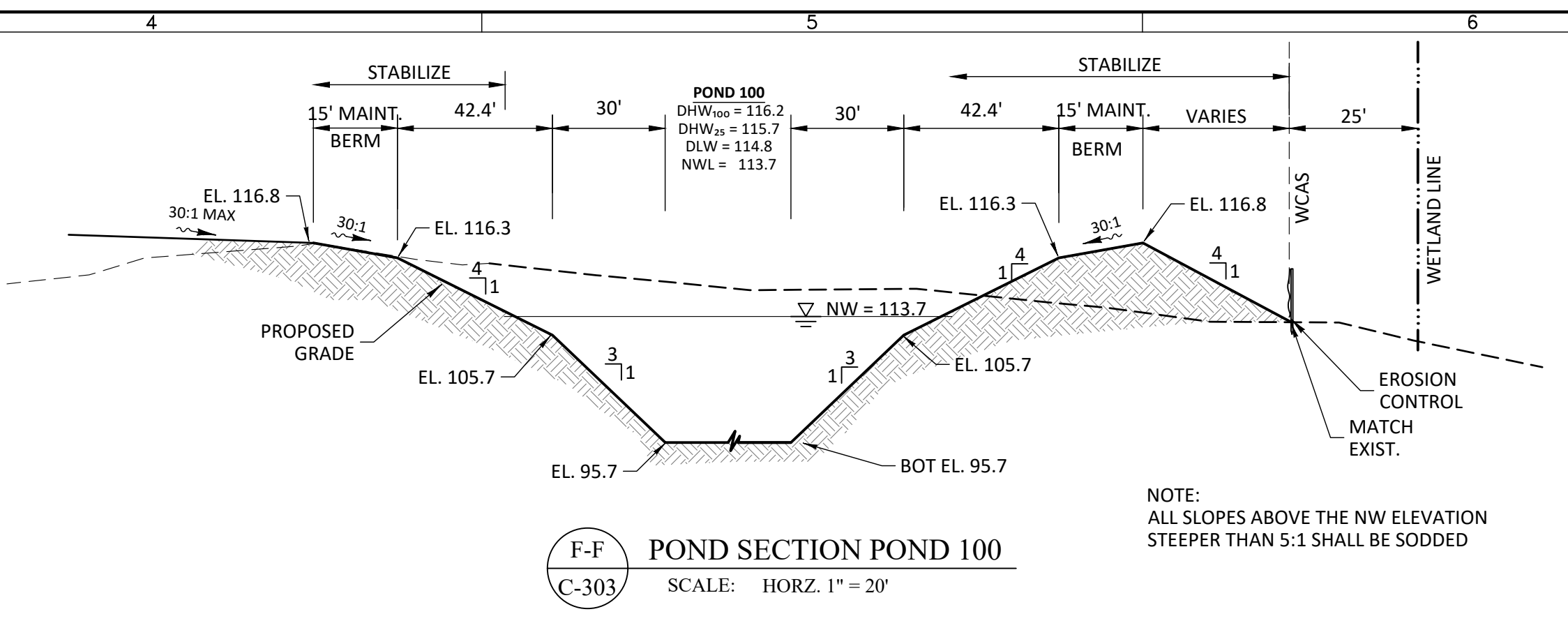
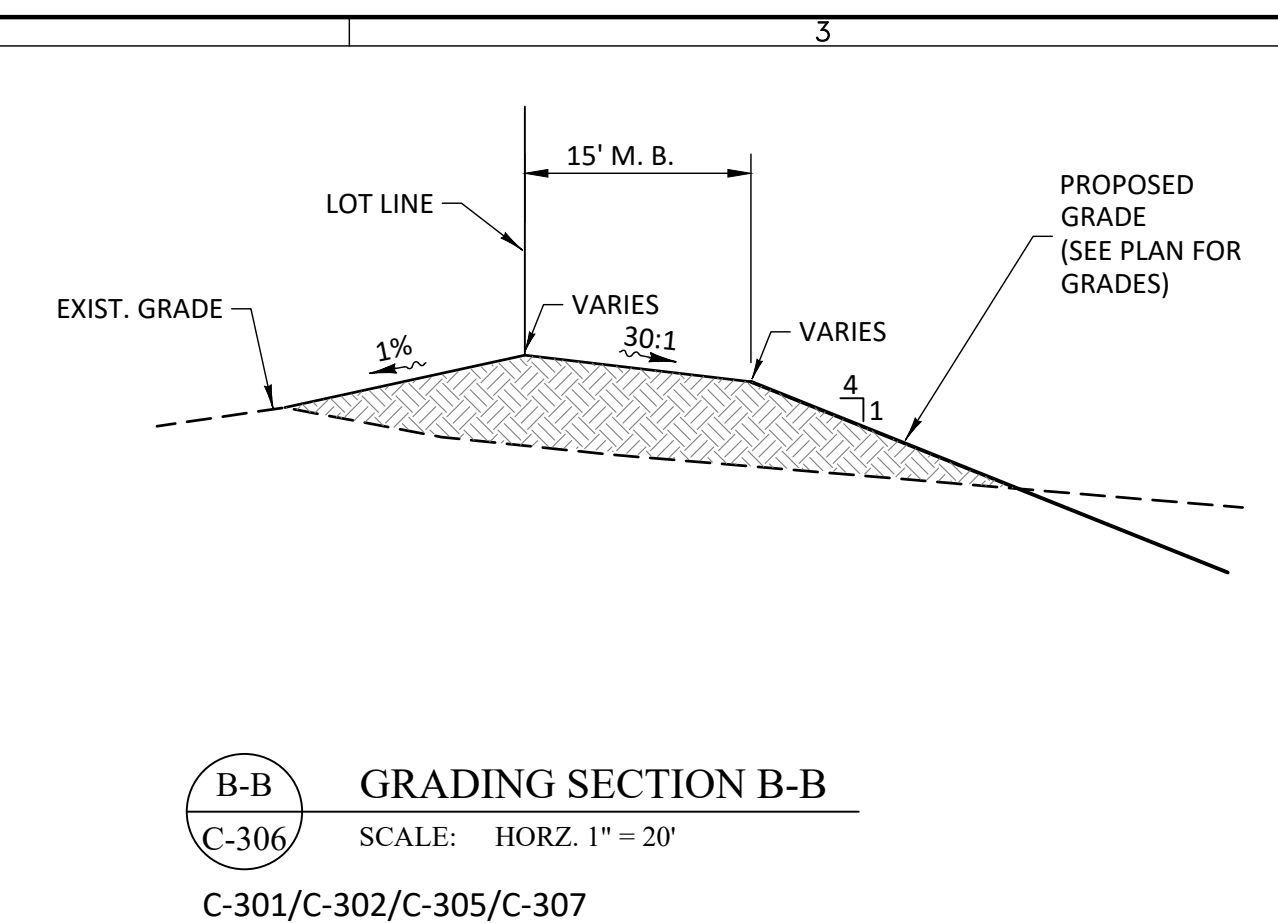
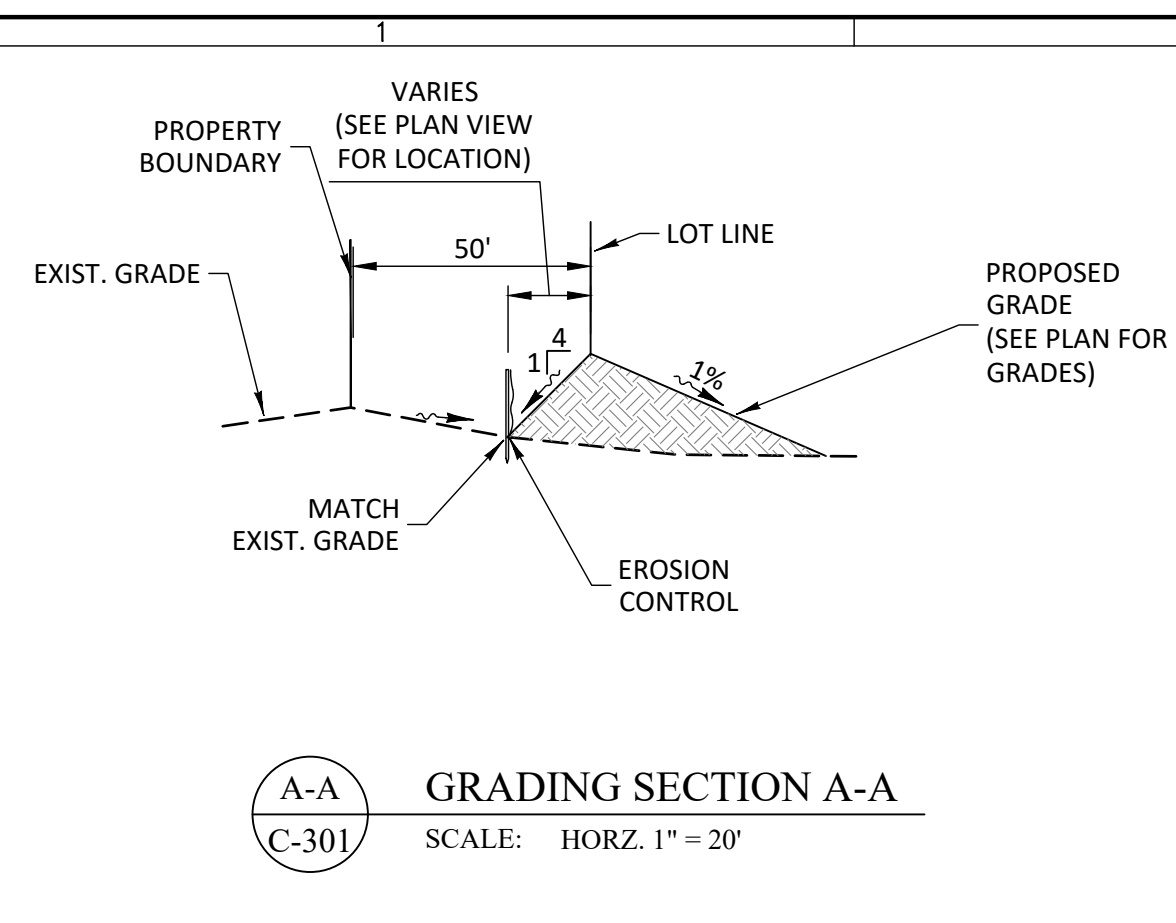
This item has been digitally
signed and sealed by
Timothy M. Plate, P.E. on the date
indicated here:

Printed copies of this document
are not considered signed and
sealed and the signature must be
verified on any electronic copies.

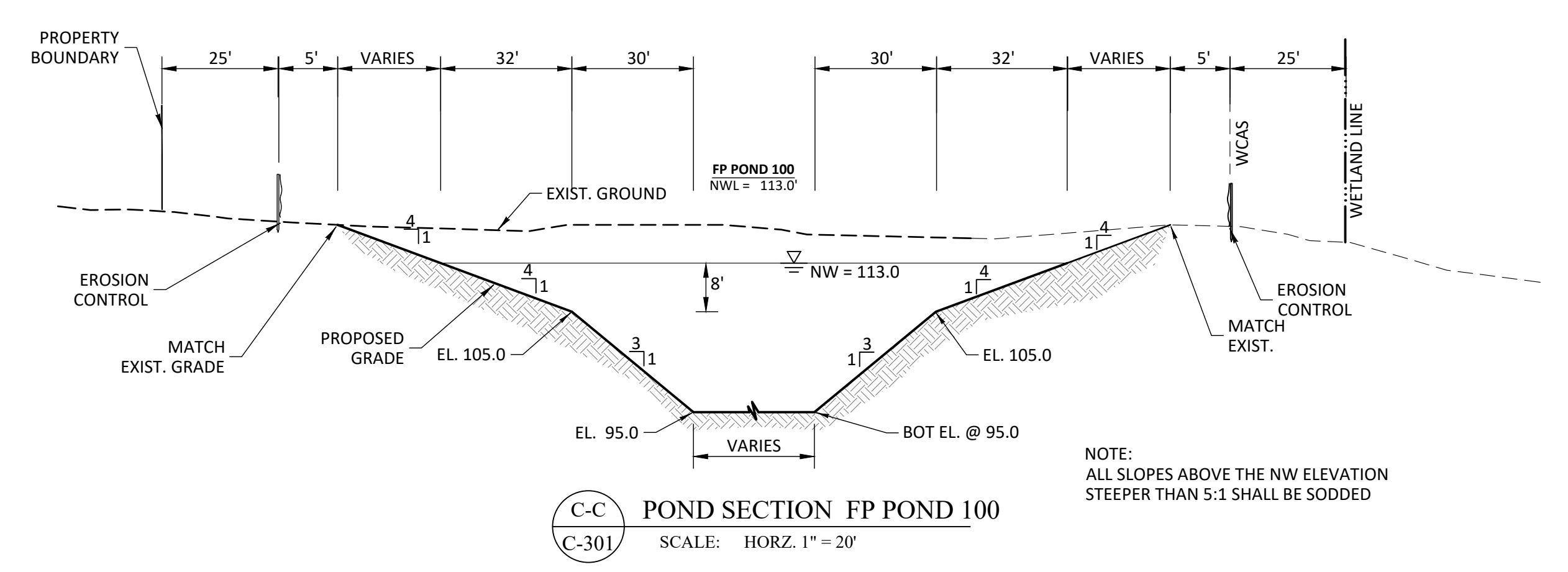
TIMOTHY M. PLATE, P.E.
DATE: 4/11/23
LICENSE NO. 41153

C-314

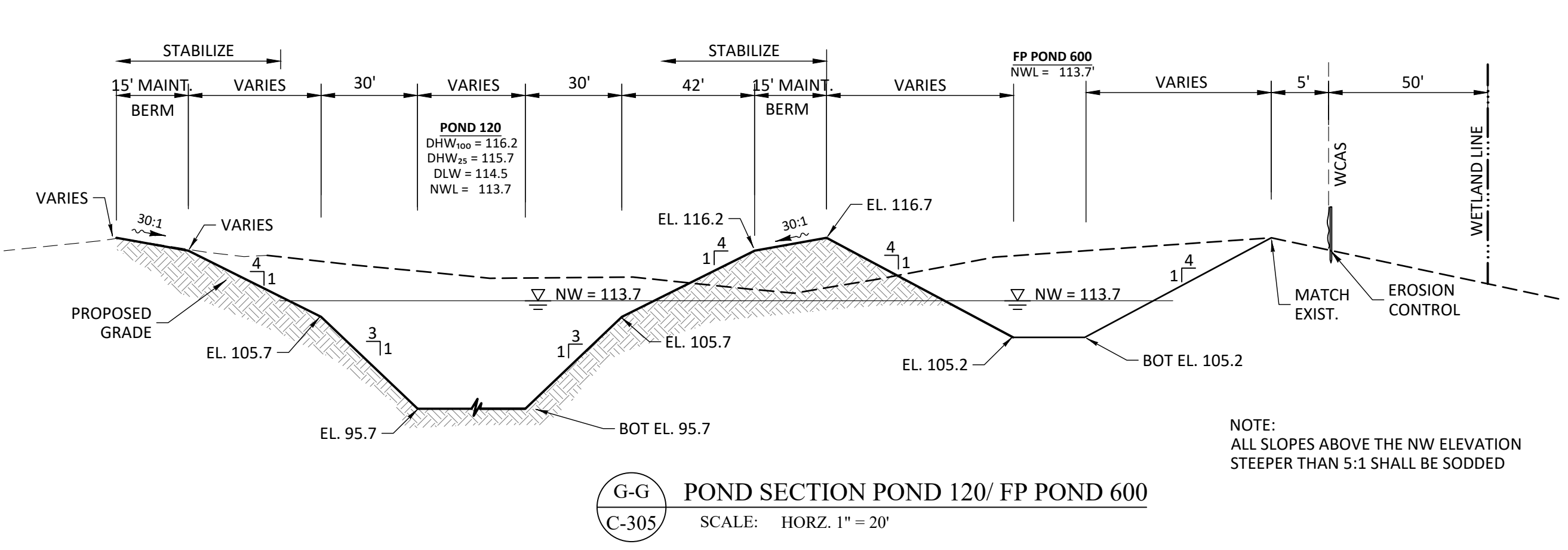
ELEVATIONS BASED ON:
NORTH AMERICAN VERTICAL DATUM 1988
CONVERSION:
NAVD 88 TO NGVD 29 = +0.86



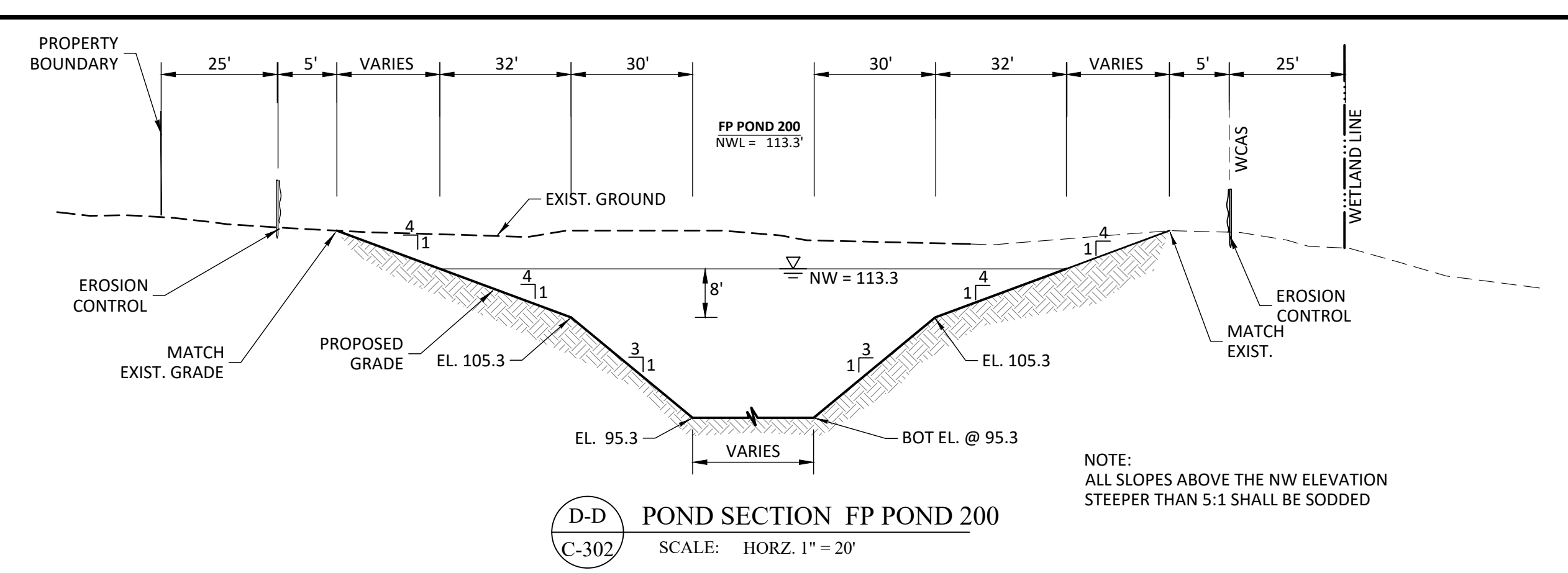
NOTE: ALL SLOPES ABOVE THE NW ELEVATION STEEPER THAN 5:1 SHALL BE SODDED



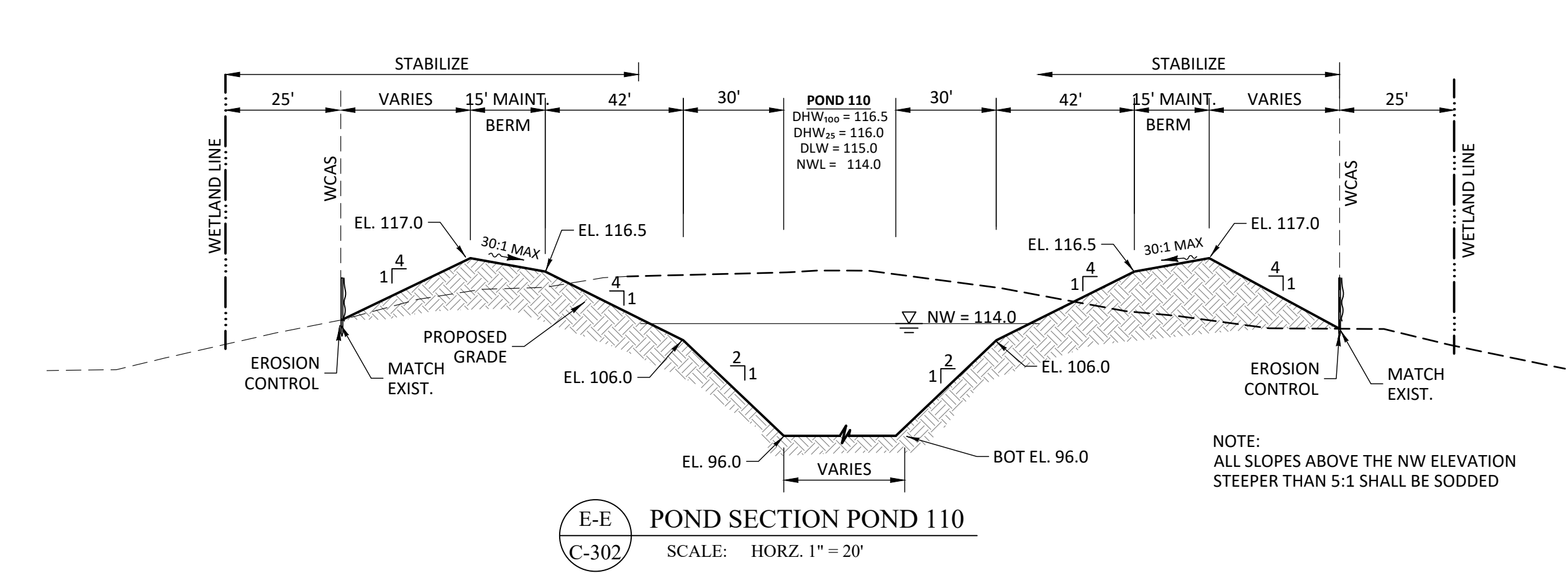
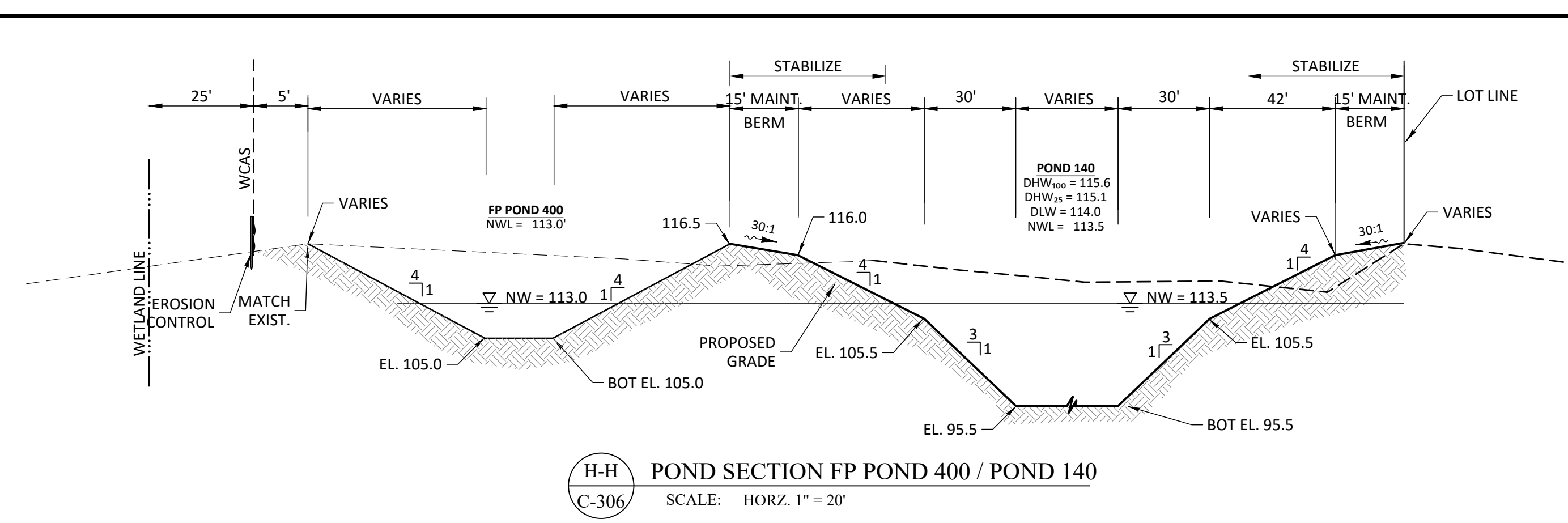
NOTE: ALL SLOPES ABOVE THE NW ELEVATION STEEPER THAN 5:1 SHALL BE SODDED



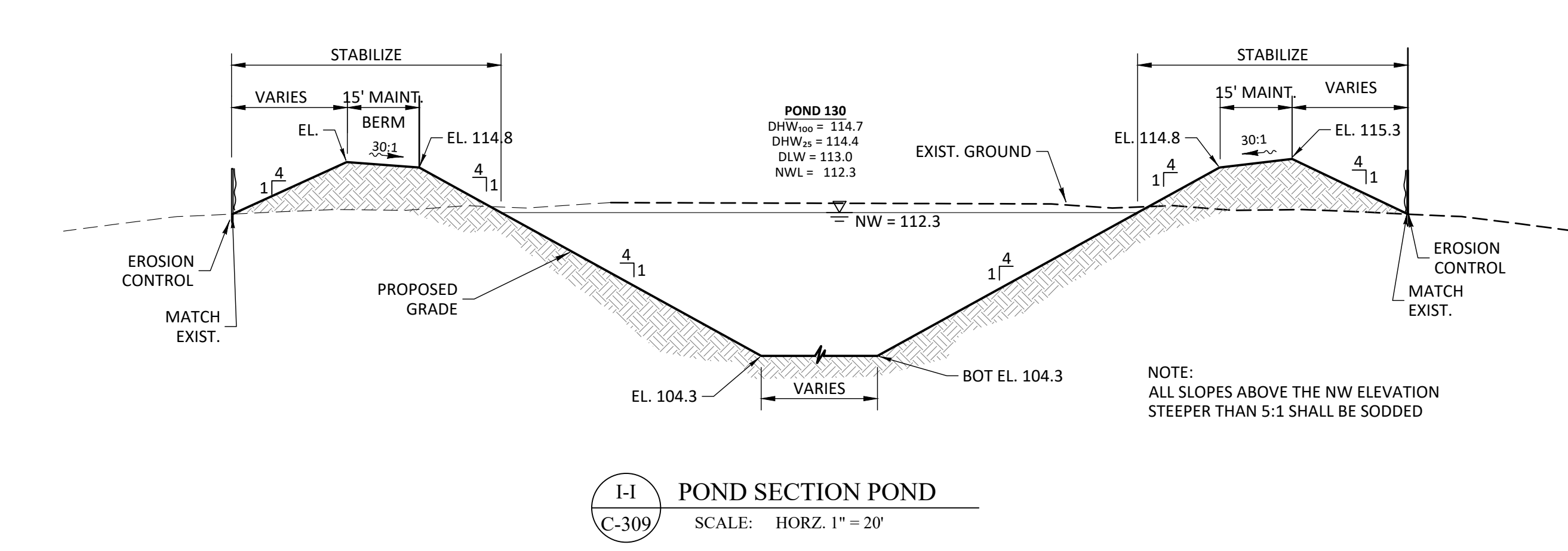
NOTE: ALL SLOPES ABOVE THE NW ELEVATION STEEPER THAN 5:1 SHALL BE SODDED



NOTE: ALL SLOPES ABOVE THE NW ELEVATION STEEPER THAN 5:1 SHALL BE SODDED



NOTE: ALL SLOPES ABOVE THE NW ELEVATION STEEPER THAN 5:1 SHALL BE SODDED



NOTE: ALL SLOPES ABOVE THE NW ELEVATION STEEPER THAN 5:1 SHALL BE SODDED

HEIDT DESIGN
 Civil Engineering • Planning & GIS
 Transportation Engineering
 Ecological Services • Landscape Architecture

5904-A Hampton Oaks Pkwy.
 Tampa, Florida 33610
 Office: 813-253-5311
 Fax: 813-464-7629
 www.HeidtDesign.com

SERENOA VILLAGE 3 - PHASE 1, 2 & 3
 GRADING & DRAINAGE SECTIONS

PREPARED FOR: **VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION
1	11/08/2018	REVIEW SUBMITTAL

PROJECT NO: KLP-AG-1089
 FILE: SEC
 DESIGN BY: FRANCIS
 DRAWN BY: JLOAIZA

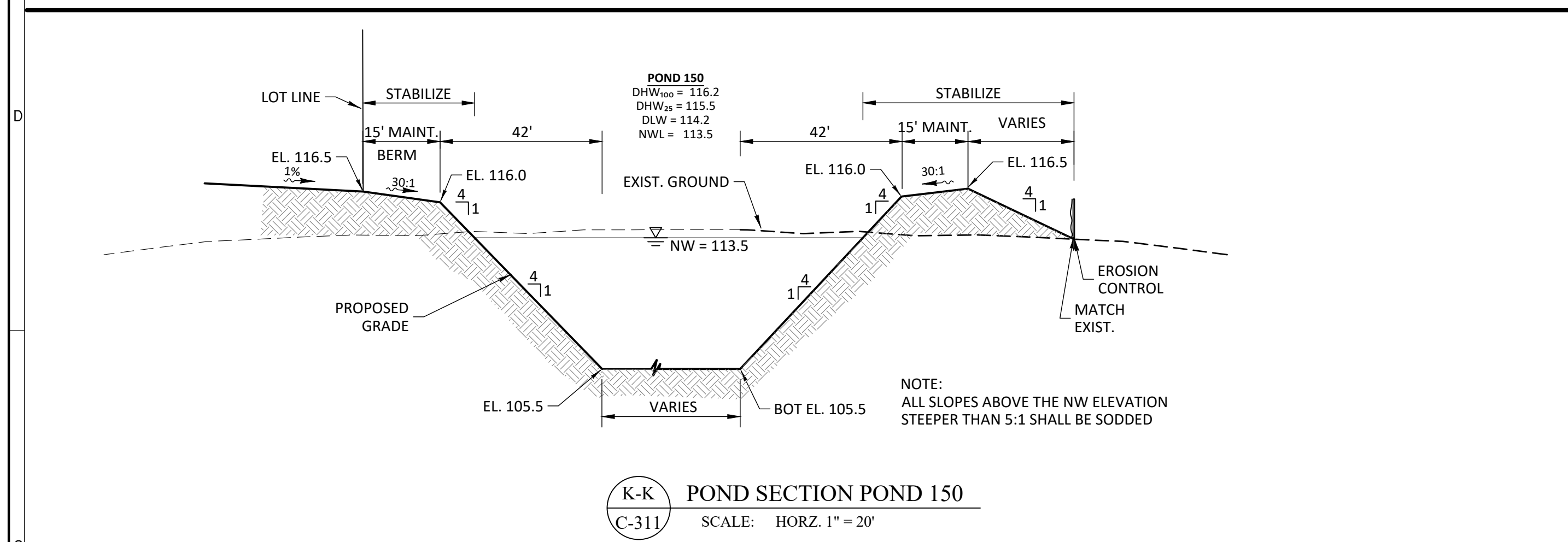
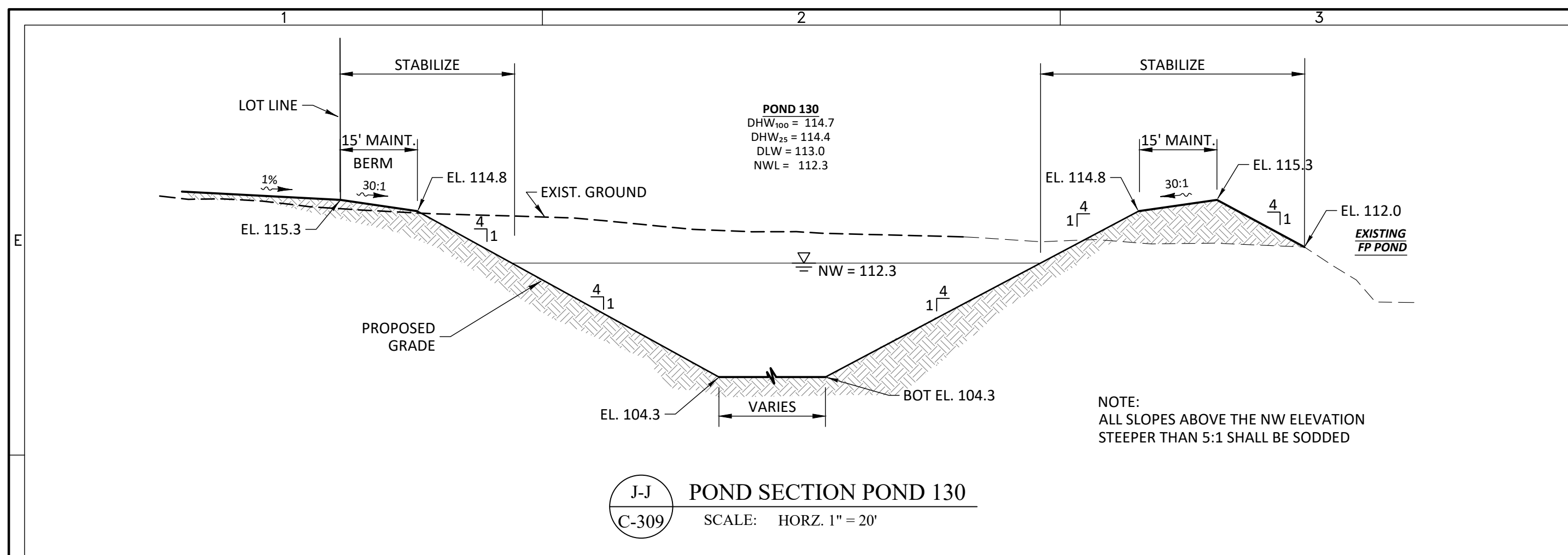
STATE OF FLORIDA
 PROFESSIONAL ENGINEER

Timothy M. Plate, State of Florida, Professional Engineer, License No. 41153
 This item has been digitally signed and sealed by Timothy M. Plate, P.E. on the date indicated here.
 Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
 DATE: 11/08/2018
 LICENSE NO. 41153

C-315

R:\AVALON GROVES\SERENOA VILLAGE 3\ENGINEERING\SEC.DWG-C-315 2020/03/11 11:12 AM ERIC FRANCIS



HEIDT DESIGN
 Civil Engineering • Planning & GIS
 Transportation Engineering
 Ecological Services • Landscape Architecture

5904-A Hampton Oaks Pkwy.
 Tampa, Florida 33610
 Office: 813-253-5311
 Fax: 813-464-7629
 www.HeidtDesign.com

SERENOA
 VILLAGE 3 - PHASE 1, 2 & 3
 GRADING & DRAINAGE SECTIONS

PREPARED FOR: VK AVALON GROVES, LLC

NO.	DATE	DESCRIPTION
1	11/08/2019	REVIEW SUBMITTAL

PROJECT NO.: KLP-AG-1089
 FILE: FRANCIS
 DESIGN BY: FRANCIS
 DRAWN BY: JLOAIZA

STATE OF FLORIDA
 PROFESSIONAL ENGINEER

Timothy M. Plate, State of Florida,
 Professional Engineer, License No. 41153

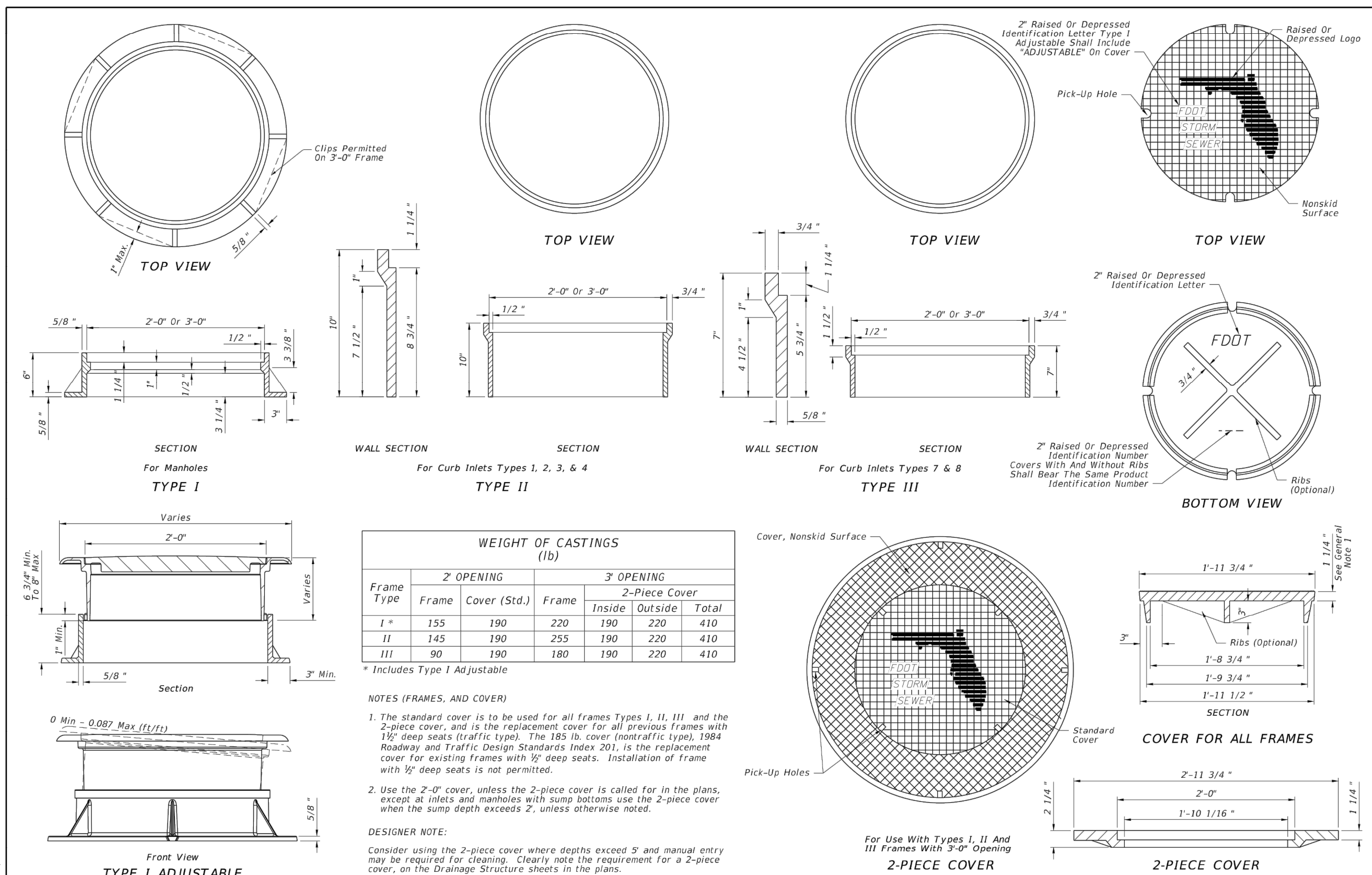
This item has been digitally
 signed and sealed by
 Timothy M. Plate, P.E. on the date
 indicated here:

Printed copies of this document
 are not considered signed and
 sealed and the signature must be
 verified on any electronic copies.

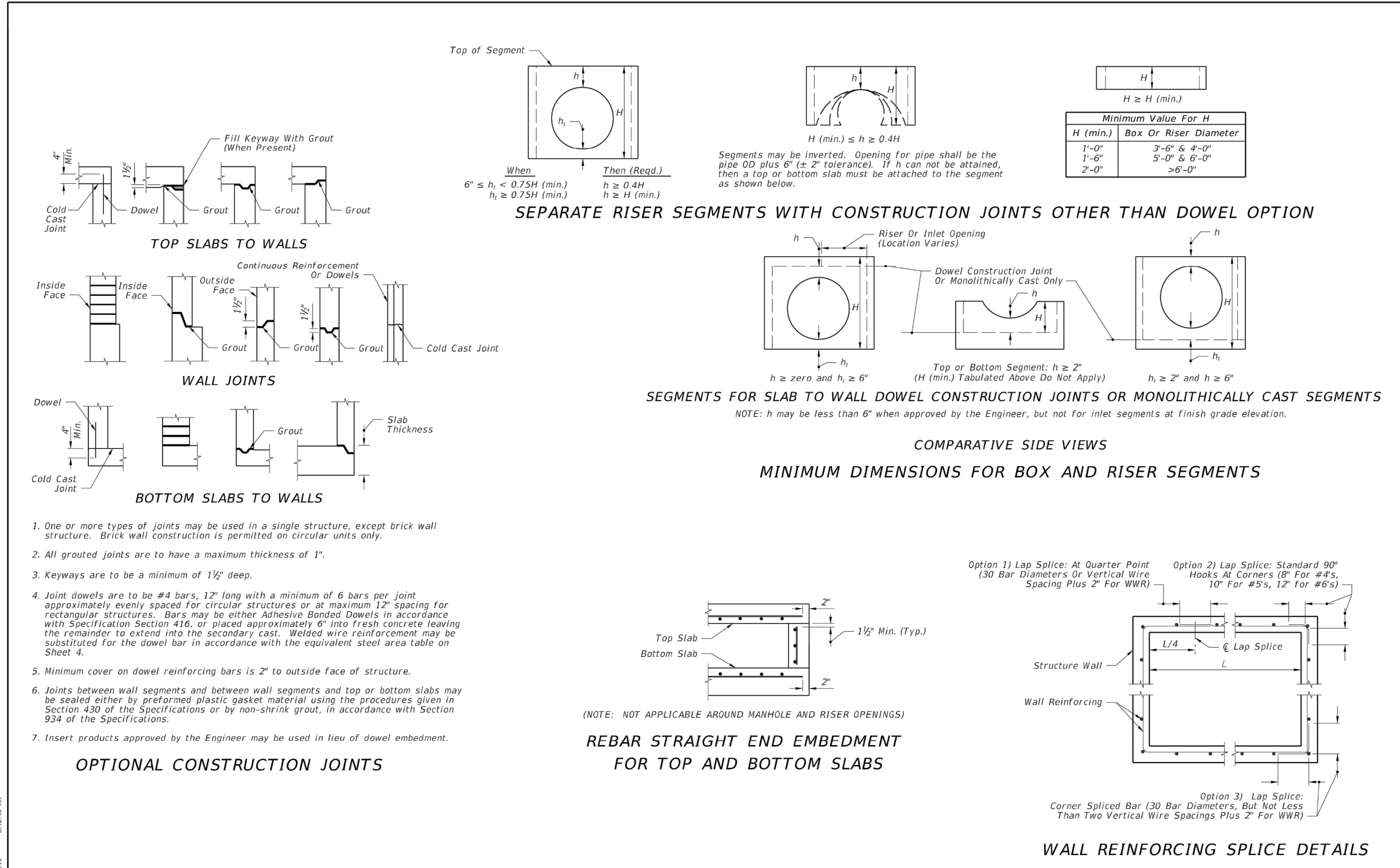
TIMOTHY M. PLATE, P.E.
 DATE: 11/08/2019
 LICENSE NO. 41153

C-316

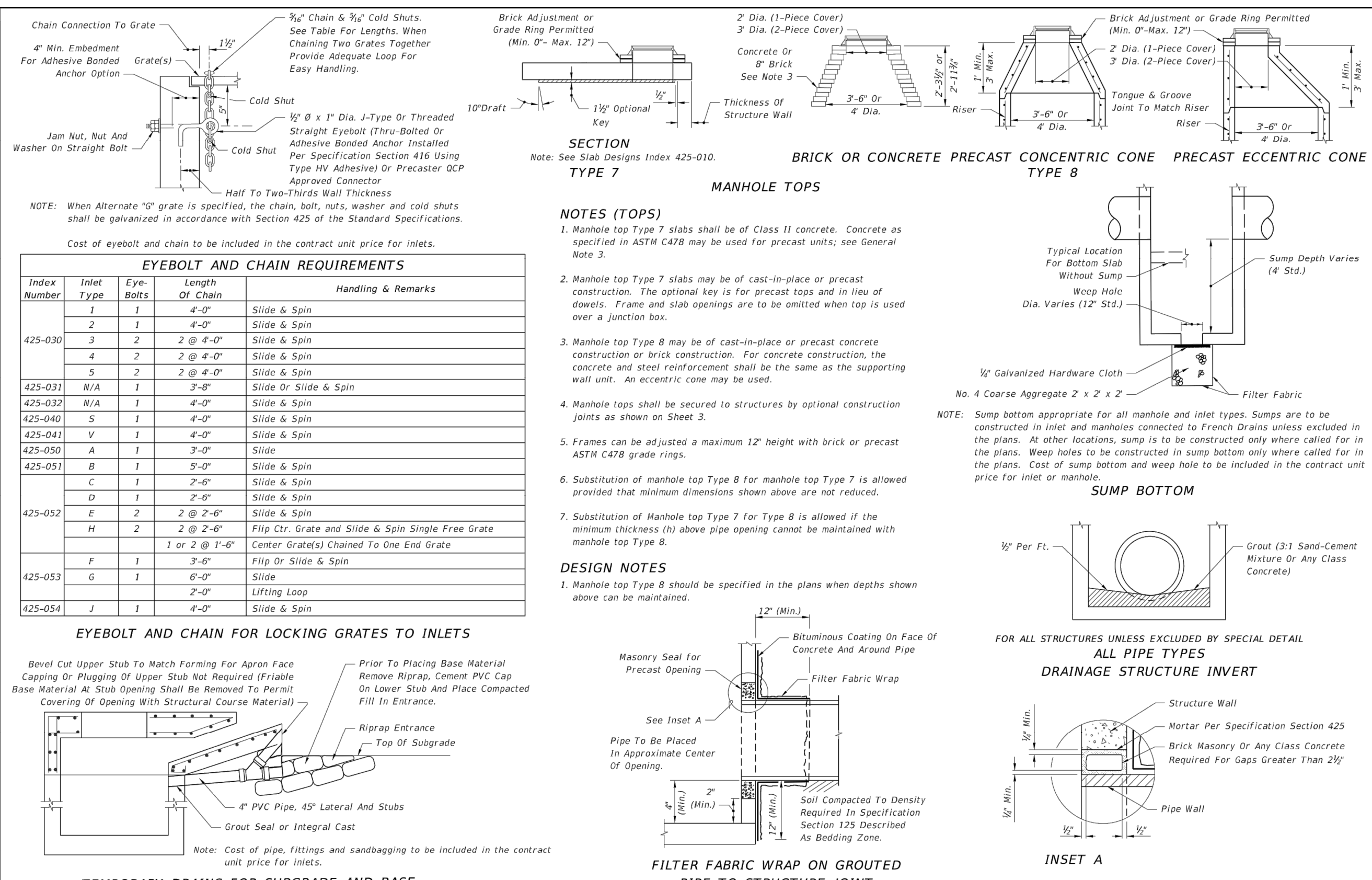
R:\AVALON GROVES\AVALON VILLAGE 3\ENGINEERING\SEC.DWG-C-316 2020\0303 11:12 AM ERIC FRANCIS



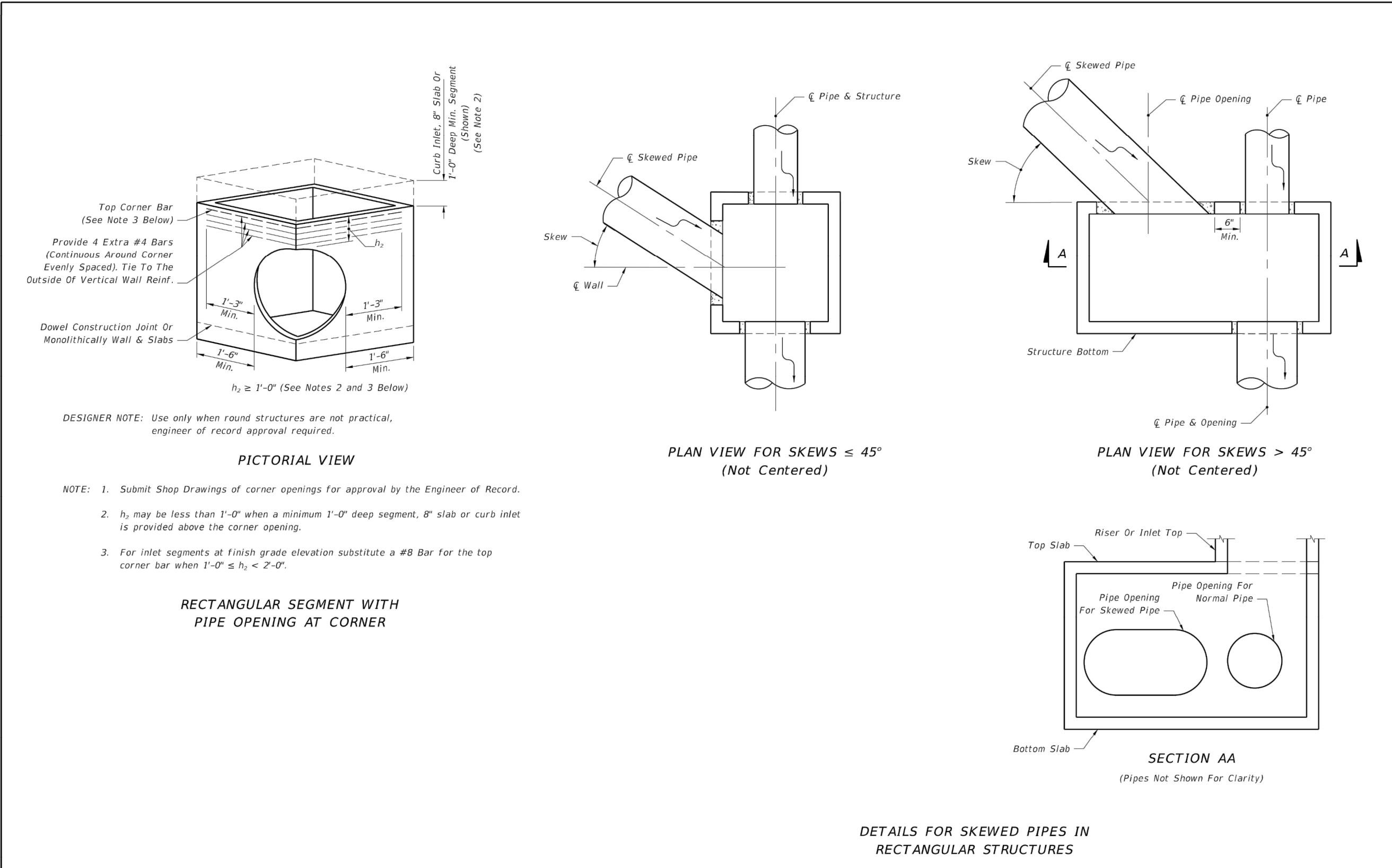
LAST REVISION	DESCRIPTION:	FDOT	FY 2019-20 STANDARD PLANS	SUPPLEMENTARY DETAILS FOR MANHOLES AND INLETS	INDEX	SHEET
11/01/17					425-001	1 of 5



LAST REVISION	DESCRIPTION:	FDOT	FY 2019-20 STANDARD PLANS	SUPPLEMENTARY DETAILS FOR MANHOLES AND INLETS	INDEX	SHEET
11/01/17					425-001	3 of 5



LAST REVISION	DESCRIPTION:	FDOT	FY 2019-20 STANDARD PLANS	SUPPLEMENTARY DETAILS FOR MANHOLES AND INLETS	INDEX	SHEET
11/01/17					425-001	2 of 5



LAST REVISION	DESCRIPTION:	FDOT	FY 2019-20 STANDARD PLANS	SUPPLEMENTARY DETAILS FOR MANHOLES AND INLETS	INDEX	SHEET
11/01/17					425-001	5 of 5

HEIDT DESIGN
Civil Engineering • Planning & GIS
Transportation Engineering
Professional Services • Landscape Architecture
Ecological Services

5904-A Hampton Oaks Pkwy.
Tampa, Florida 33610
Office: 813-253-5311
Fax: 813-464-7629
www.HeidtDesign.com

SERENOA VILLAGE 3 - PHASE 1, 2 & 3
DRAINAGE DETAILS

PREPARED FOR: **VK AVALON GROVES, LLC**

REVISION	DATE	DESCRIPTION
11/08/2018		REVIEW SUBMITTAL

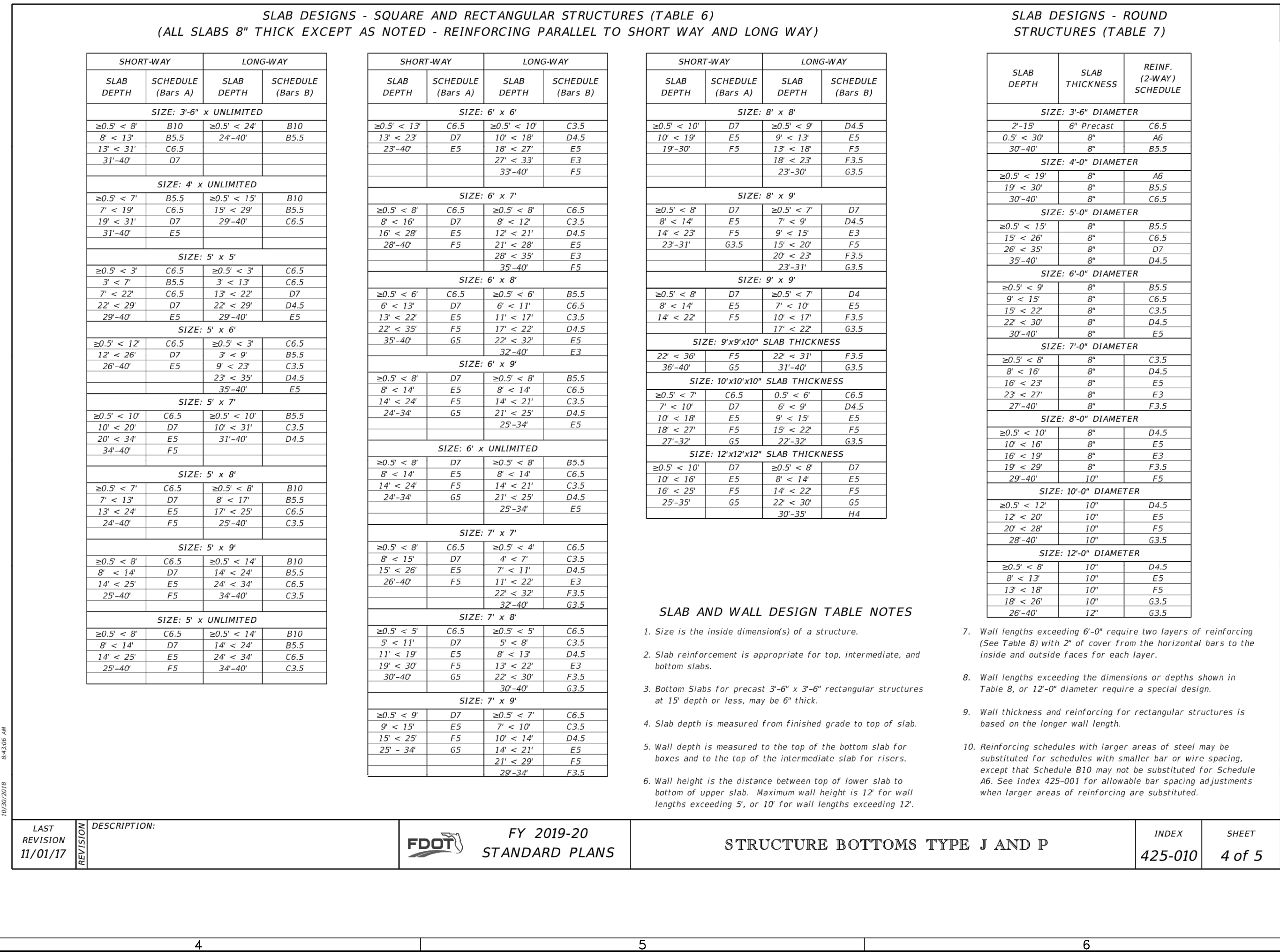
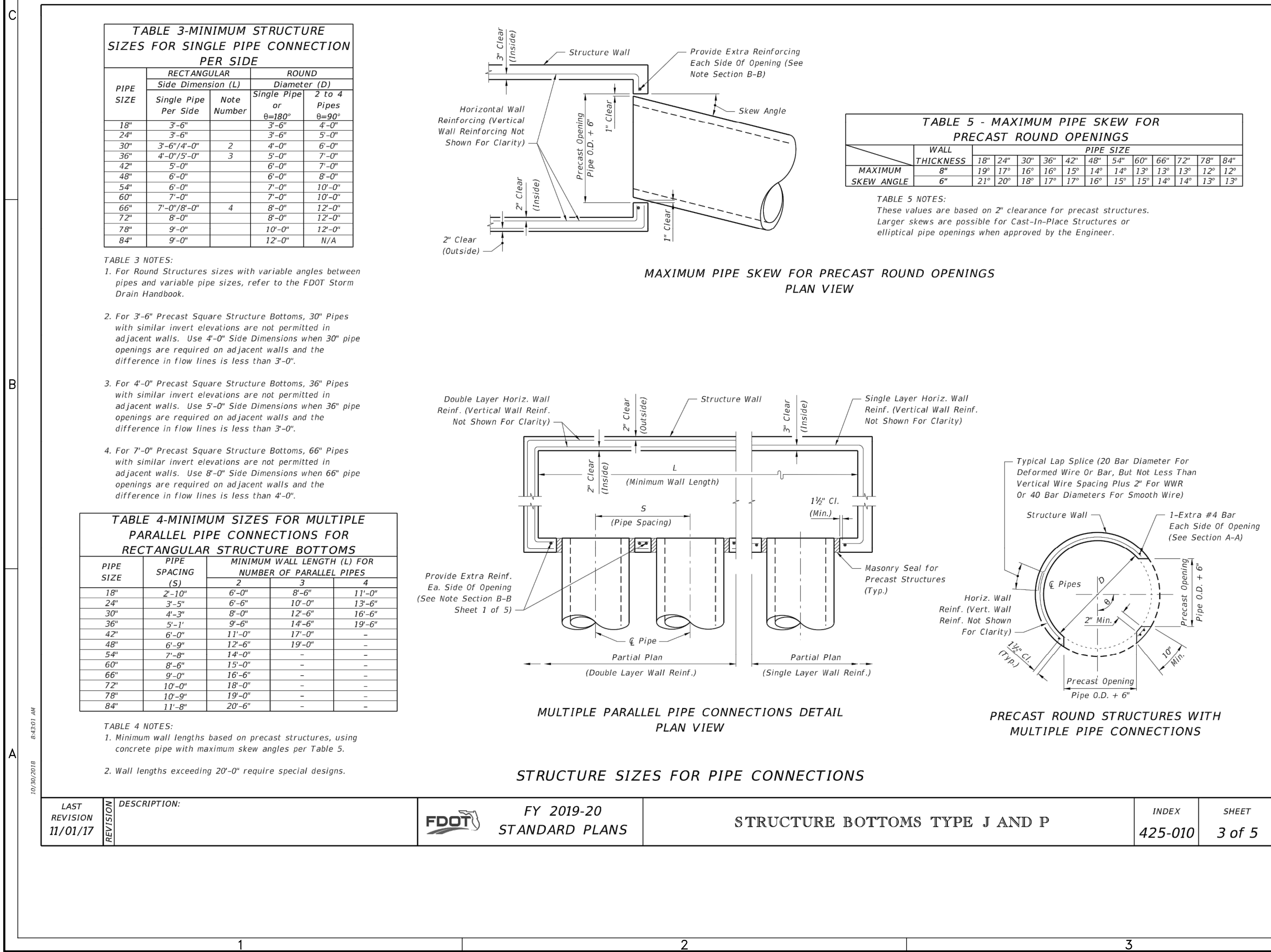
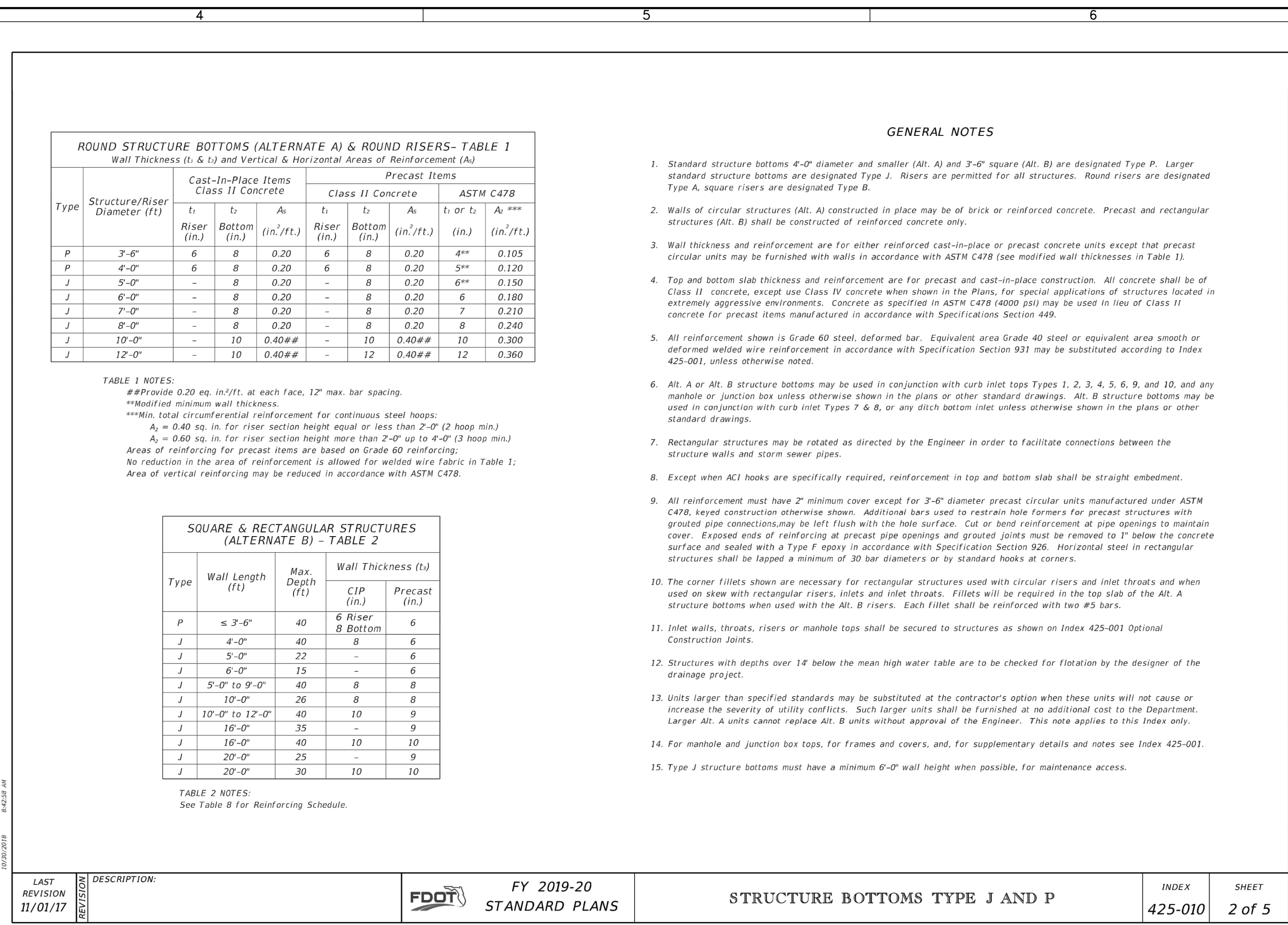
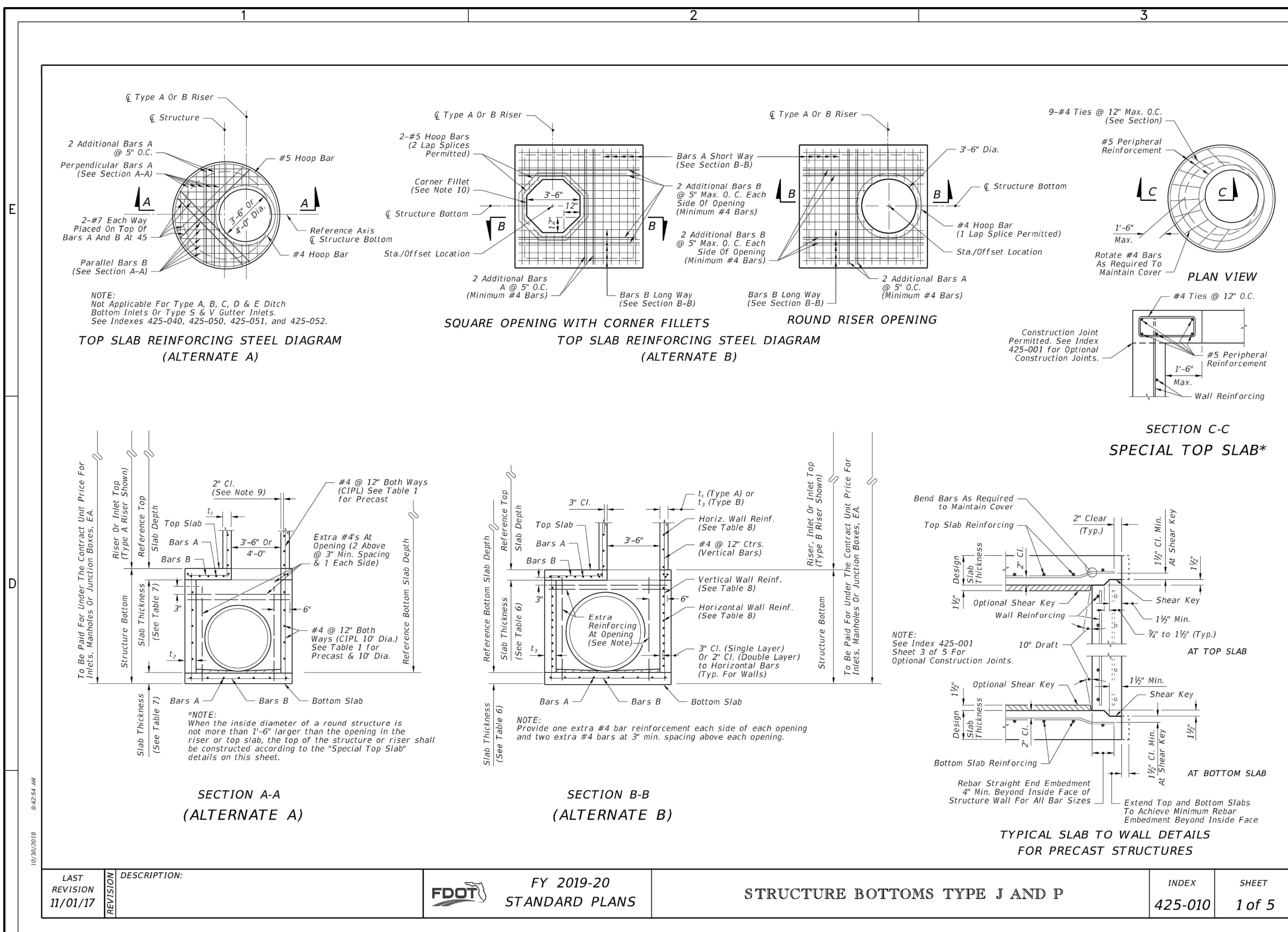
PROJECT NO.: KLP-AG-1089
FILE: DD
DESIGN BY: FRANCIS
DRAWN BY: JLOAIZA

STATE OF FLORIDA
PROFESSIONAL ENGINEER

Timothy M. Plate, State of Florida, Professional Engineer, License No. 41153
This item has been digitally signed and sealed by Timothy M. Plate, P.E. on the date indicated here.
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
DATE: LICENSE NO. 41153

C-317



HEIDT DESIGN
Civil Engineering • Planning & GIS
Transportation Engineering
Ecological Services • Landscape Architecture

9904-A Hampton Oaks Pkwy.
Tampa, Florida 33610
Office: 813-253-5311
Fax: 813-464-1629
www.HeidtDesign.com

SERENOA VILLAGE 3 - PHASE 1, 2 & 3
DRAINAGE DETAILS

VK AVALON GROVES, LLC

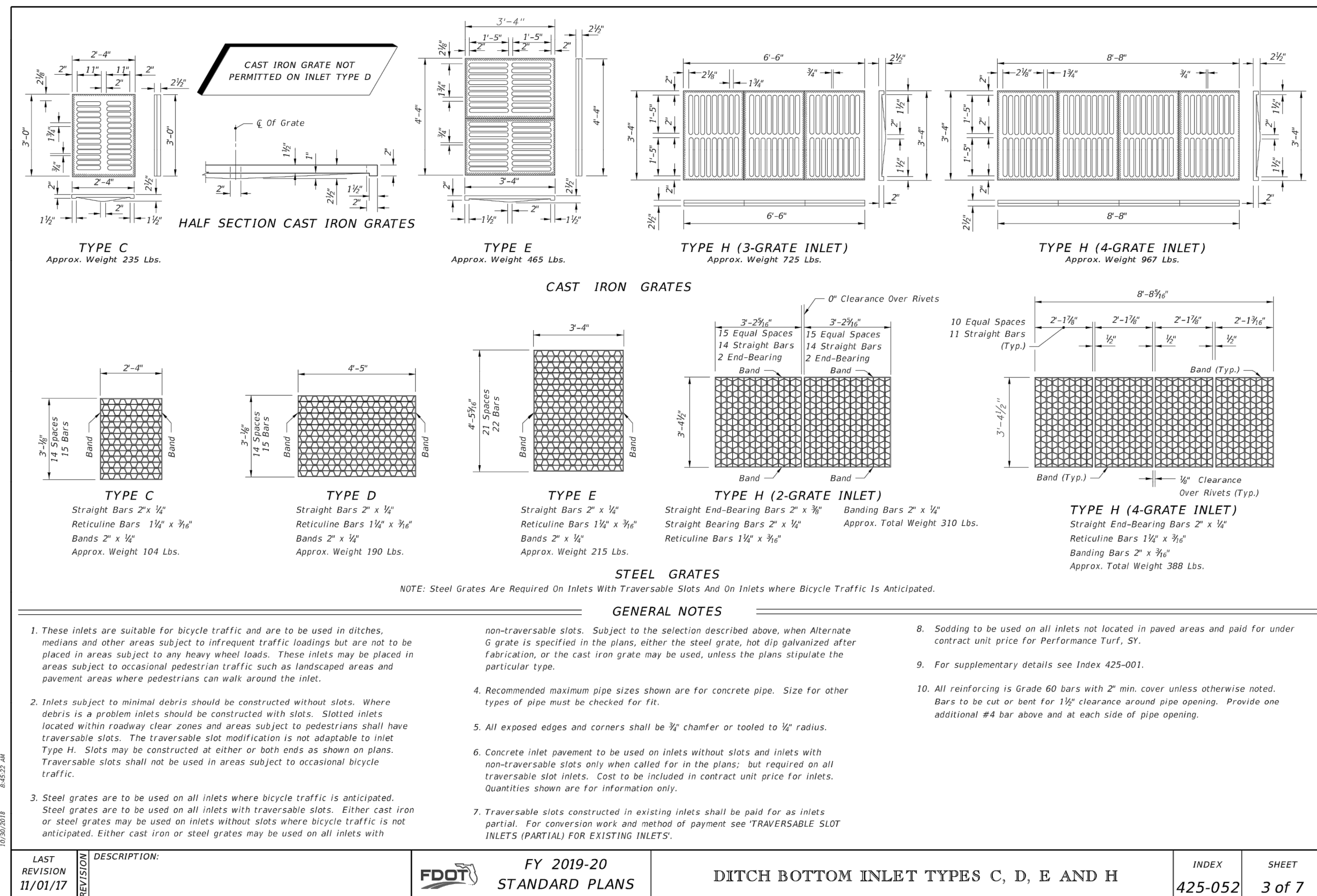
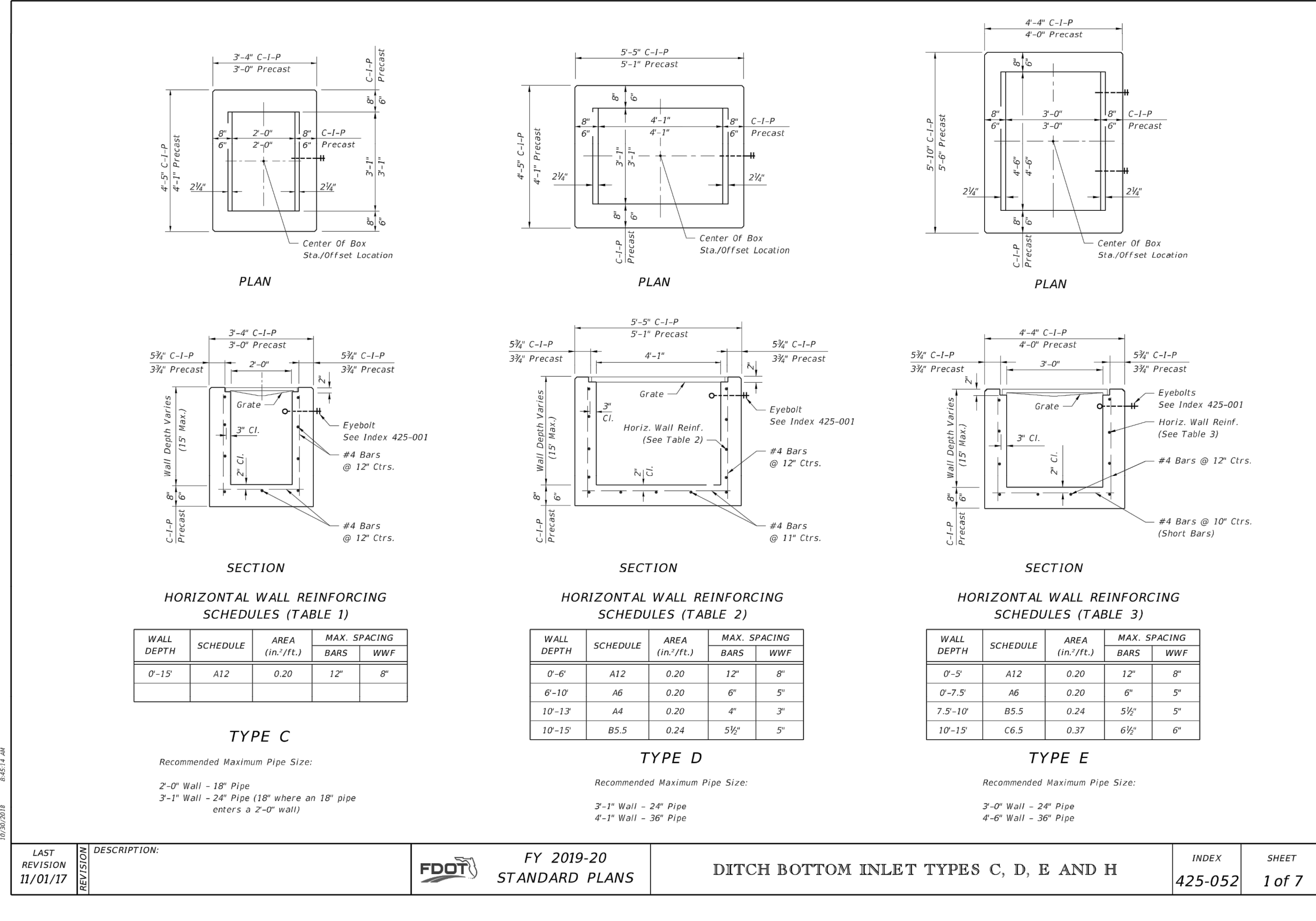
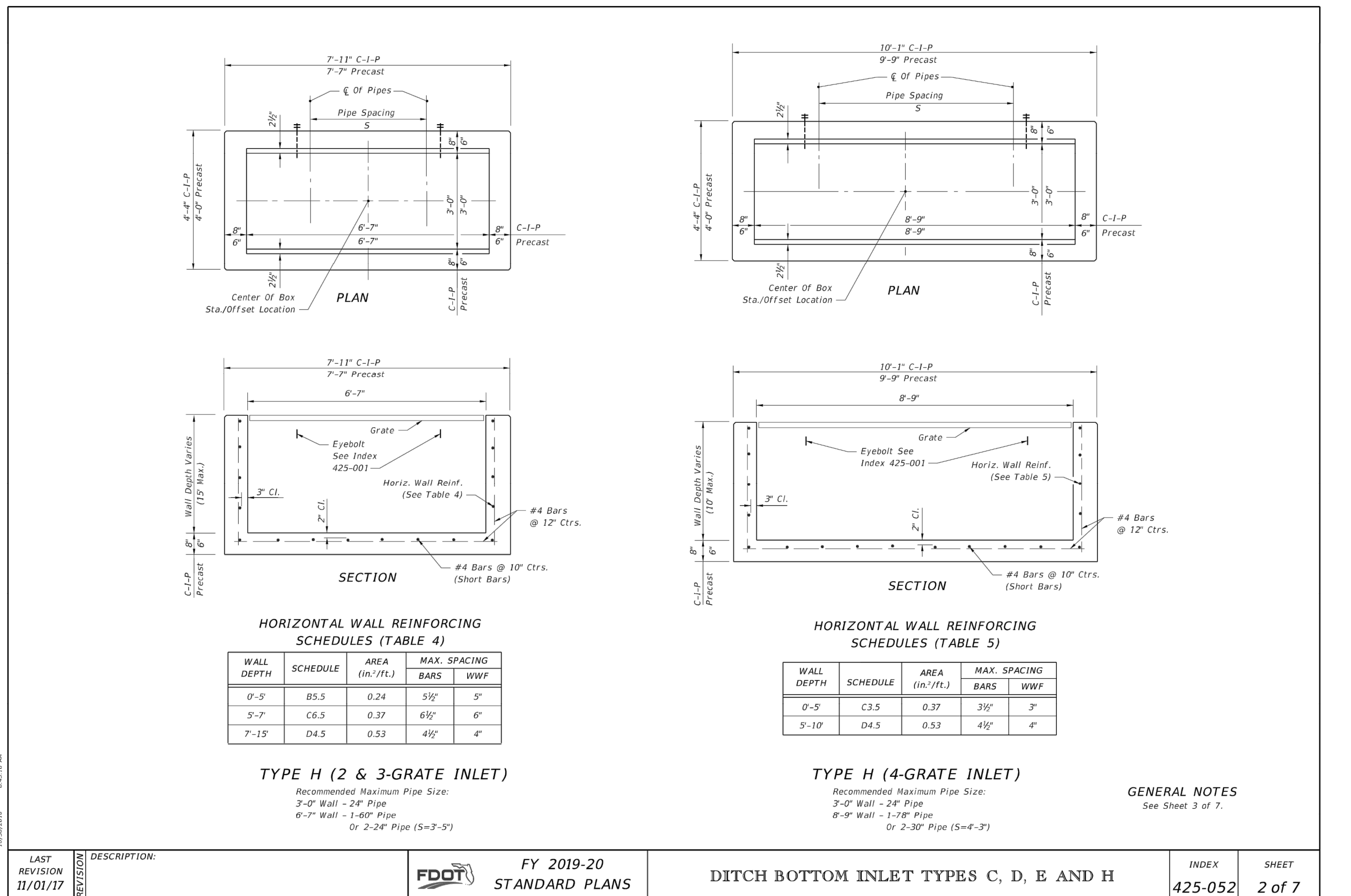
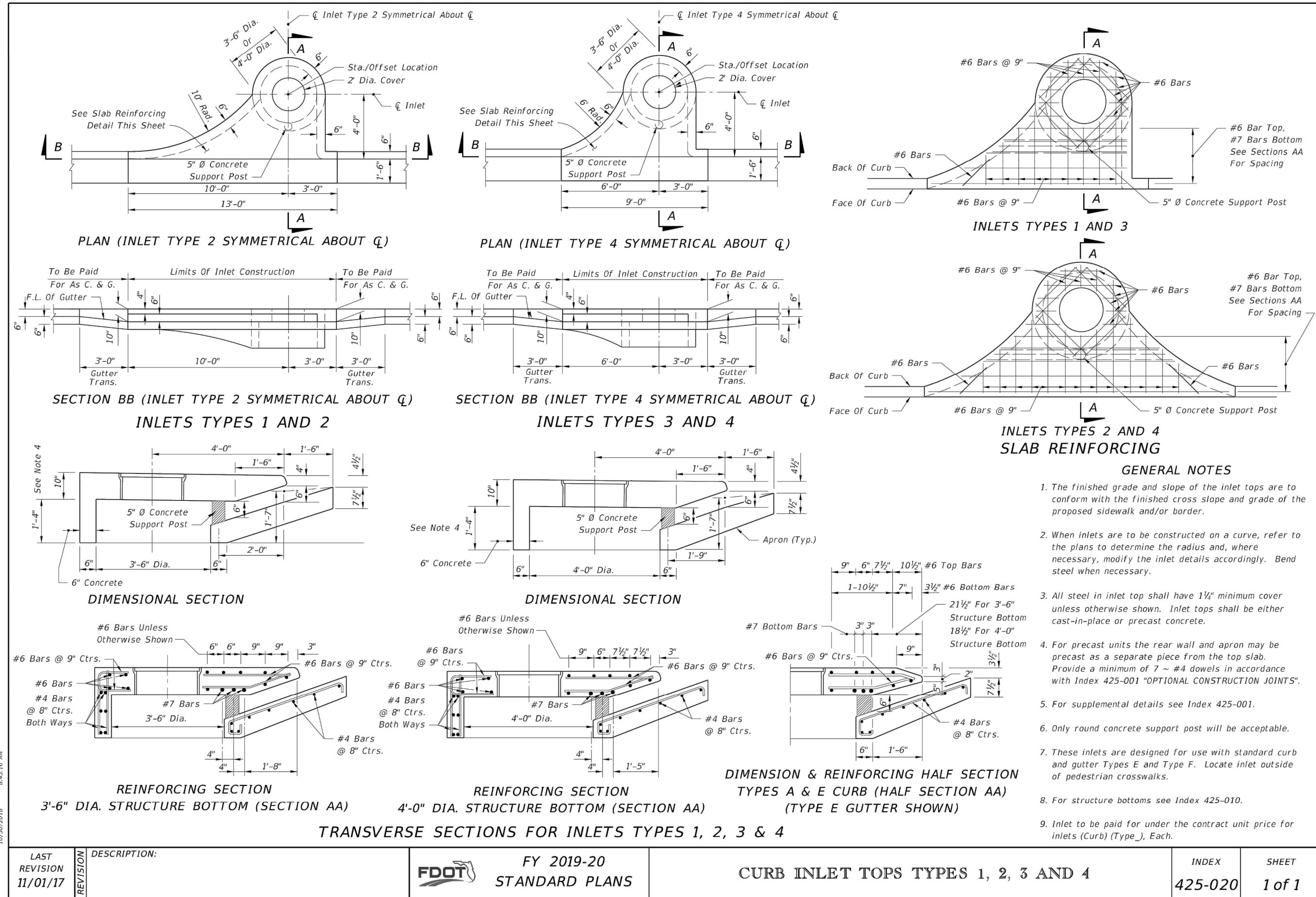
PREPARED FOR:

PROJECT NO.: KLP-AG-1089
DATE: 11/08/2013
DESIGN BY: FRANCIS
DRAWN BY: JOAOIZA

STATE OF FLORIDA
PROFESSIONAL ENGINEER
Timothy M. Plate, State of Florida, Professional Engineer, License No. 41153
This item has been digitally signed and sealed by Timothy M. Plate, P.E. on the date indicated here.
Printed copies of this document are not considered signed and sealed and the signature must be verified in any electronic copies.

TIMOTHY M. PLATE, P.E.
DATE: LICENSE NO. 41153

C-318



HEIDT DESIGN
Civil Engineering • Planning & GIS
Transportation Engineering
Ecological Services • Landscape Architecture

5904-A Hampton Oaks Pkwy.
Tampa, Florida 33610
Office: 813-253-5311
Fax: 813-464-7629
www.HeidtDesign.com

SERENOA VILLAGE 3 - PHASE 1, 2 & 3

DRAINAGE DETAILS

VK AVALON GROVES, LLC

PREPARED FOR:

NO.	DATE	DESCRIPTION
11/08/2018	REVIEW SUBMITTAL	

PROJECT NO: KLP-AG-1089

FILE: DD

DESIGN BY: FRANCIS

DRAWN BY: LOAIZA

STATE OF FLORIDA PROFESSIONAL ENGINEER

Timothy M. Plate, State of Florida, Professional Engineer, License No. 41153

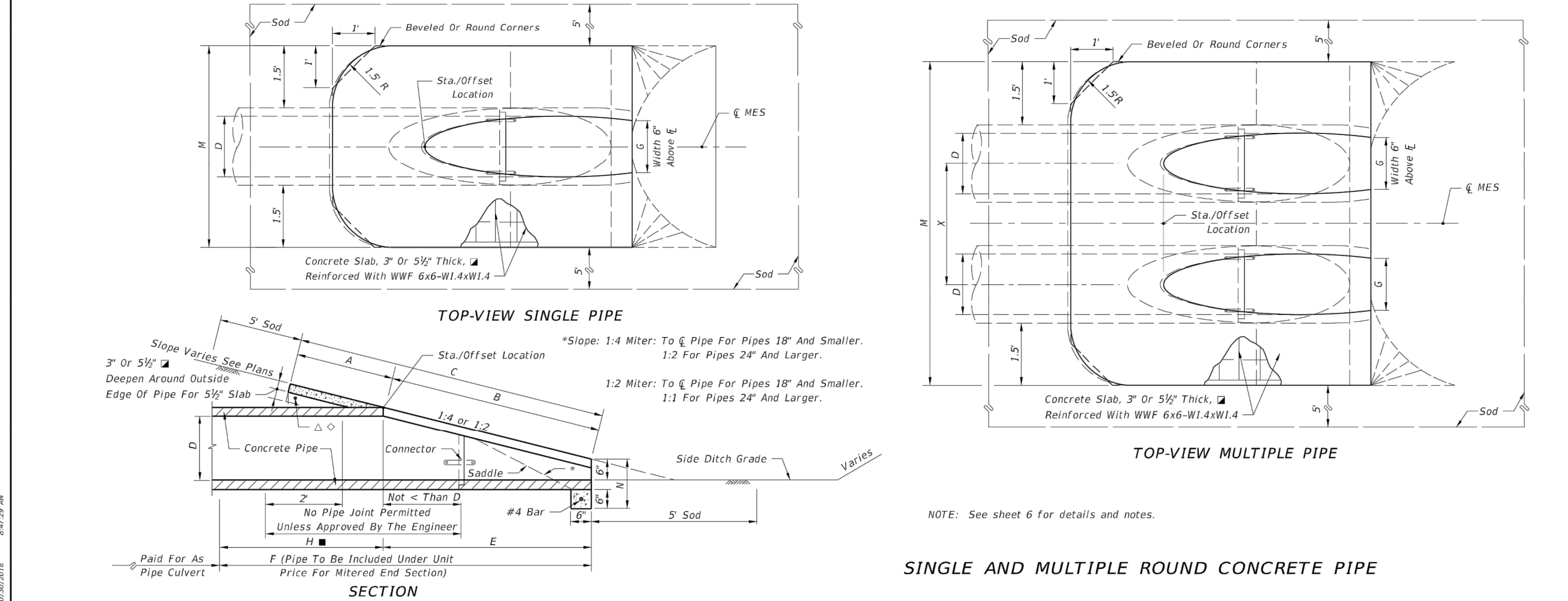
This item has been digitally signed and sealed by Timothy M. Plate, P.E. on the date indicated here.

Printed copies of this document are not considered signed and sealed and the signature must be verified in any electronic copies.

TIMOTHY M. PLATE, P.E.
DATE: 11/08/2018
LICENSE NO. 41153

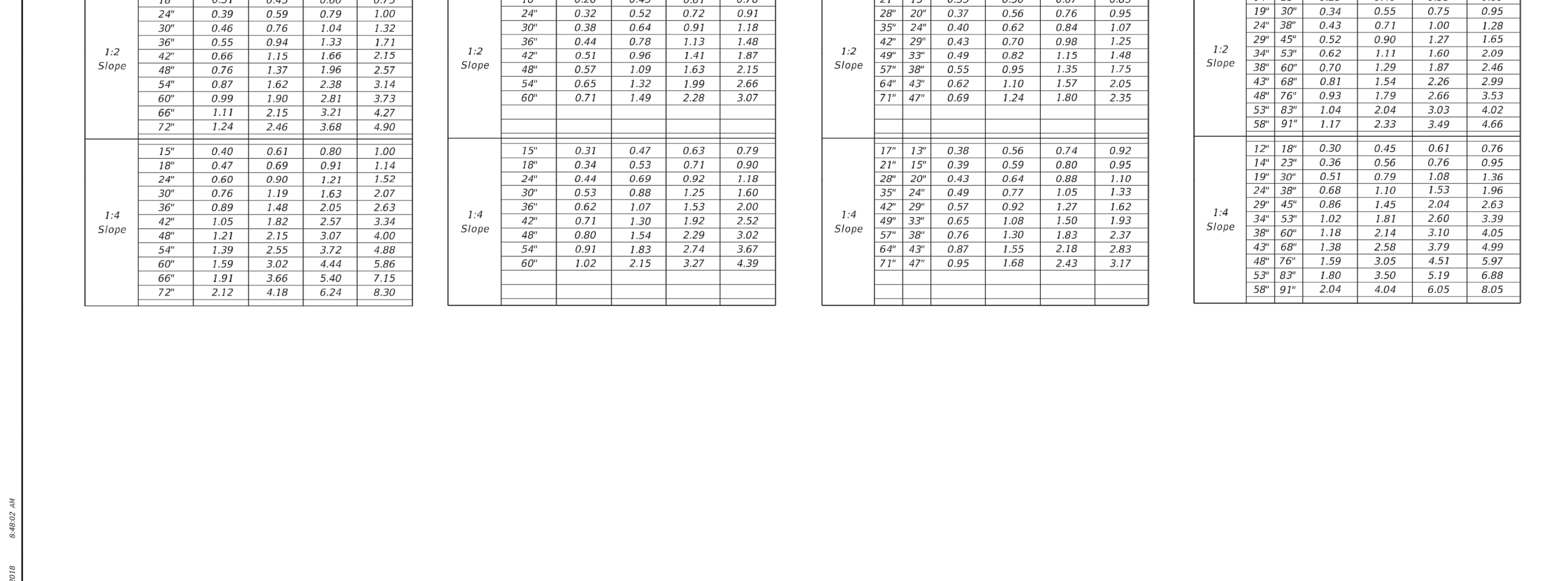
C-319

D	DIMENSIONS AND QUANTITIES																
	M						N										
	Single Pipe		Double Pipe		Triple Pipe		Quad. Pipe		Single Pipe		Double Pipe		Triple Pipe		Quad. Pipe		
12"	2'-7"	1.92	2.18	4.10	2.00	5'	1.22	2.59	4.67	7.27	9.79	12.37	1.39	0.38	0.58	0.77	0.96
18"	2'-10"	1.92	2.41	4.77	2.56	6'	1.41	3.47	6.62	7.75	10.58	13.42	1.21	0.44	0.65	0.87	1.09
24"	3'-5"	2.06	2.89	5.91	3.50	7'	1.73	3.4	5.50	8.92	12.33	15.73	1.25	0.54	0.83	1.12	1.42
30"	4'-3"	2.15	4.95	7.10	4.50	8'	2.00	3.4	6.08	10.33	14.58	18.83	1.29	0.66	1.09	1.50	1.91
36"	5'-1"	2.25	6.00	8.33	5.50	9'	2.24	3.4	6.67	11.75	16.87	21.92	1.33	0.81	1.38	1.95	2.51
42"	6'-0"	2.34	7.27	9.59	6.50	10'	2.49	3.4	7.29	13.25	19.25	25.25	1.38	0.97	1.70	2.45	3.19
48"	6'-9"	2.43	8.33	10.96	7.50	11'	2.69	3.4	7.91	14.58	21.37	28.67	1.42	1.13	2.04	2.93	3.84
54"	7'-8"	2.52	9.44	11.96	8.50	12'	2.83	3.4	8.47	16.08	23.75	31.42	1.46	1.31	2.44	3.58	4.72
60"	8'-6"	2.62	10.58	13.18	9.50	14'	3.00	4.4	9.00	17.50	26.00	34.50	1.50	1.51	2.89	4.28	5.68
66"	9'-2"	2.71	11.68	14.39	10.50	15'	3.16	4.4	9.58	18.75	27.62	37.00	1.54	1.68	3.25	4.84	6.43
72"	10'-0"	2.80	12.80	15.60	11.50	16'	3.30	4.4	10.10	20.16	30.16	40.16	1.58	1.89	3.74	5.59	7.45

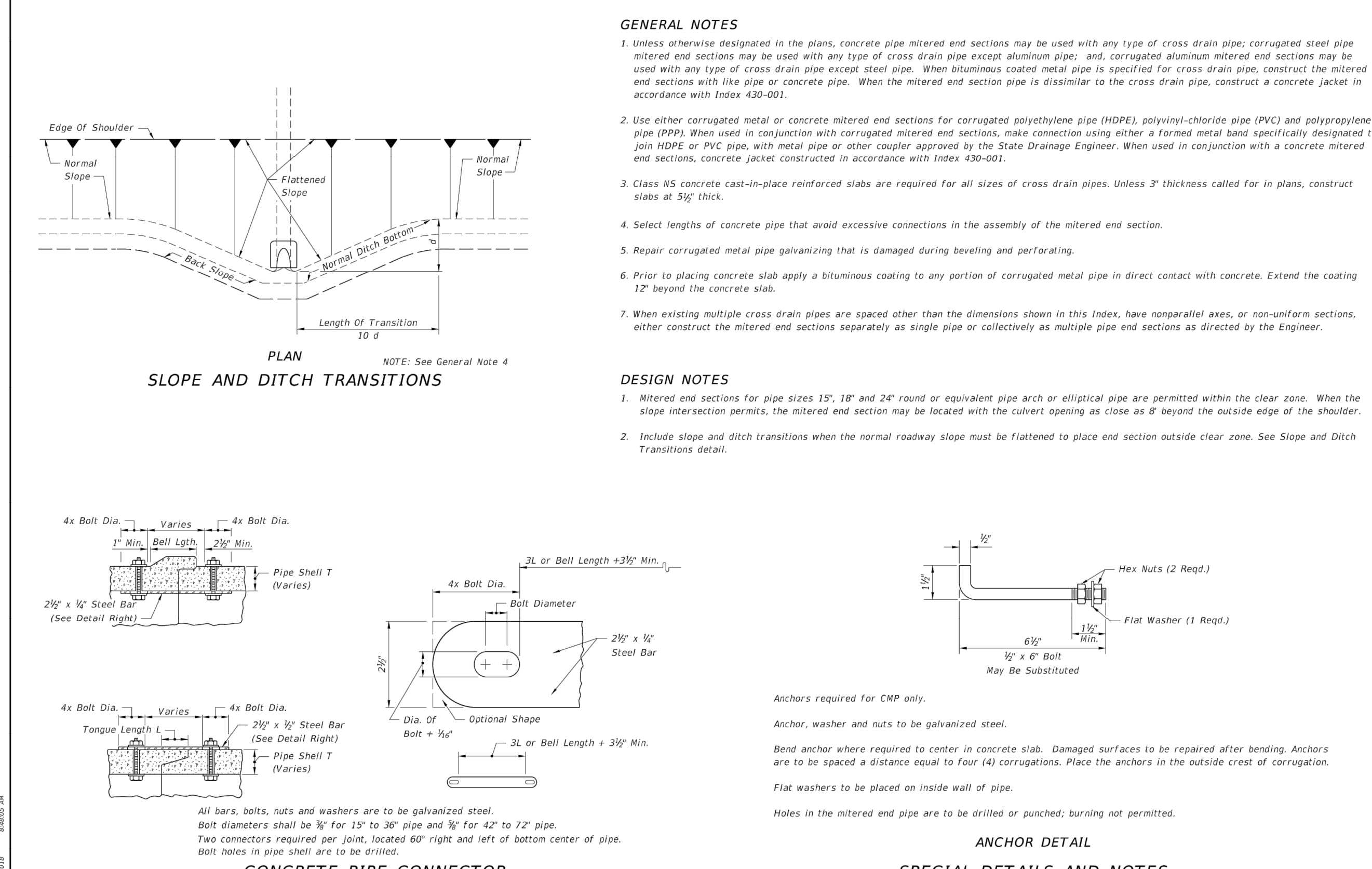


LAST REVISION	DESCRIPTION	INDEX	SHEET
11/01/17		430-021	1 of 6

D	QUANTITIES FOR 3" THICK CONCRETE SLABS (CY)																		
	ROUND-CONCRETE				ROUND-CMP				CMP-ARCH				ELLIPTICAL-CONCRETE						
	Single Pipe		Double Pipe		Triple Pipe		Quad. Pipe		Single Pipe		Double Pipe		Triple Pipe		Quad. Pipe				
15"	0.27	0.41	0.54	0.67	0.24	0.37	0.51	0.64	17"	0.33	0.49	0.65	0.81	12"	0.19	0.33	0.45	0.57	
18"	0.31	0.45	0.60	0.75	18"	0.26	0.43	0.61	0.78	21"	0.33	0.50	0.67	0.83	14"	0.25	0.40	0.55	0.69
24"	0.39	0.59	0.79	1.00	24"	0.32	0.52	0.72	0.91	24"	0.37	0.56	0.76	0.95	19"	0.34	0.55	0.75	0.95
30"	0.46	0.76	1.04	1.32	30"	0.38	0.64	0.91	1.18	35"	0.40	0.62	0.84	1.07	24"	0.43	0.71	1.00	1.28
36"	0.55	0.94	1.33	1.71	36"	0.44	0.78	1.13	1.48	42"	0.43	0.70	0.98	1.25	29"	0.52	0.90	1.27	1.65
42"	0.66	1.15	1.66	2.15	42"	0.51	0.86	1.41	1.87	48"	0.49	0.87	1.15	1.48	34"	0.62	1.11	1.60	2.09
48"	0.76	1.37	1.96	2.57	48"	0.57	1.09	1.63	2.15	54"	0.55	0.95	1.35	1.75	38"	0.70	1.29	1.87	2.46
54"	0.87	1.62	2.38	3.14	54"	0.65	1.32	1.99	2.66	60"	0.62	1.10	1.57	2.05	43"	0.81	1.54	2.26	2.99
60"	0.99	1.90	2.81	3.73	60"	0.71	1.49	2.28	3.07	66"	0.69	1.24	1.80	2.35	48"	0.93	1.79	2.66	3.53
66"	1.11	2.15	3.21	4.27	66"	0.78	1.63	2.44	3.23	72"	0.76	1.43	2.11	2.79	53"	1.04	2.04	3.03	4.02
72"	1.24	2.46	3.68	4.90	72"	0.84	1.78	2.64	3.43	72"	0.84	1.60	2.31	3.00	58"	1.17	2.33	3.49	4.66



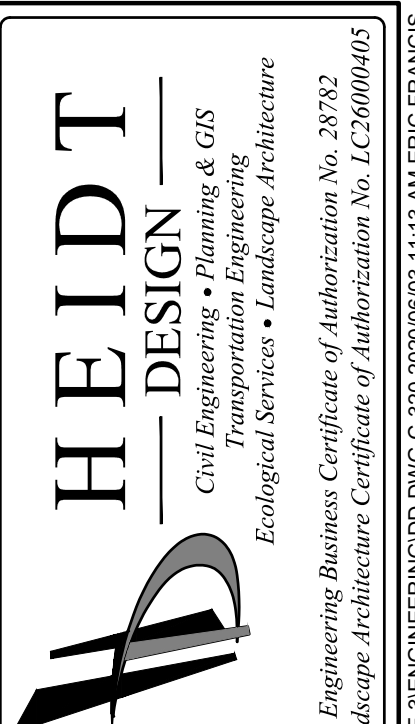
LAST REVISION	DESCRIPTION	INDEX	SHEET
11/01/17		430-021	5 of 6



LAST REVISION	DESCRIPTION	INDEX	SHEET
11/01/17		430-021	6 of 6



LAST REVISION	DESCRIPTION	INDEX	SHEET
11/01/17		430-021	6 of 6



5904-A Hampton Oaks Pkwy.
Tampa, Florida 33610
Office: 813-253-5311
Fax: 813-464-1629



SERENOA
VILLAGE 3 - PHASE 1, 2 & 3
DRAINAGE DETAILS

PREPARED FOR:
VK AVALON GROVES, LLC

NO.	DATE	DESCRIPTION
7	03/20/2020	REMOVED DETAIL
2	11/08/2019	REVISED SUBMITTAL

PROJECT NO: KLP-AG-1089
 FILE: DD
 DESIGN BY: FRANCIS
 DRAWN BY: JLOAIZA

STATE OF FLORIDA
 PROFESSIONAL ENGINEER

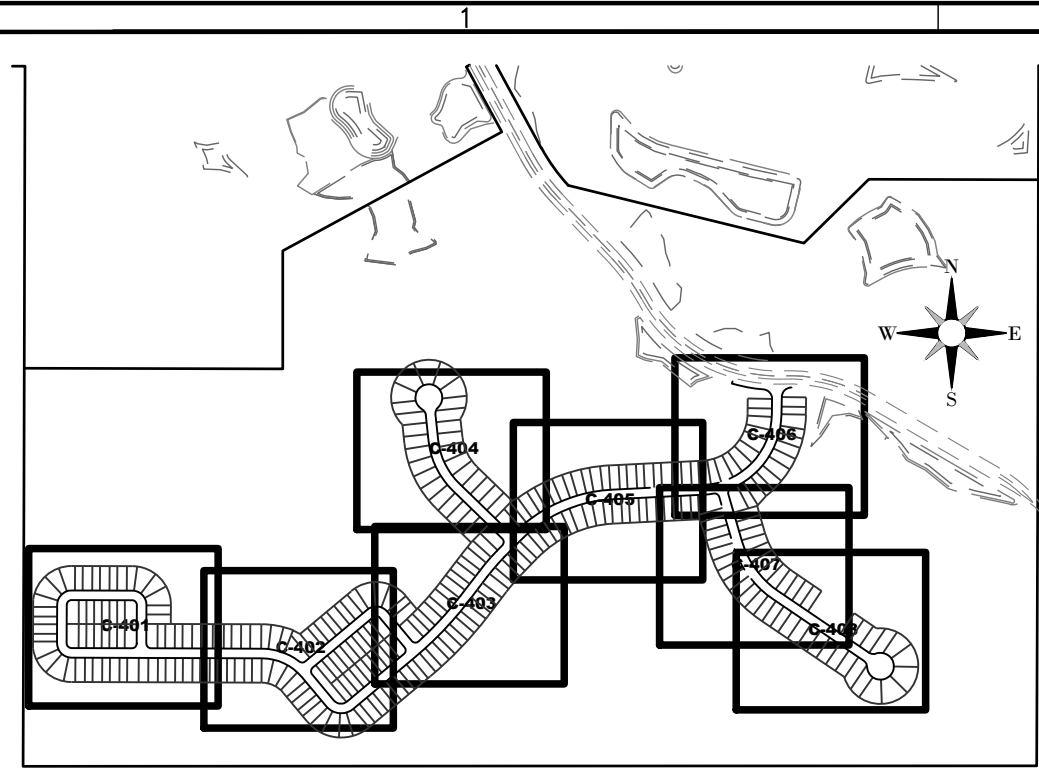
Timothy M. Plate, (State of Florida, Professional Engineer, License No. 41153)

This item has been digitally signed and sealed by
 Timothy M. Plate, P.E. on the date indicated here.

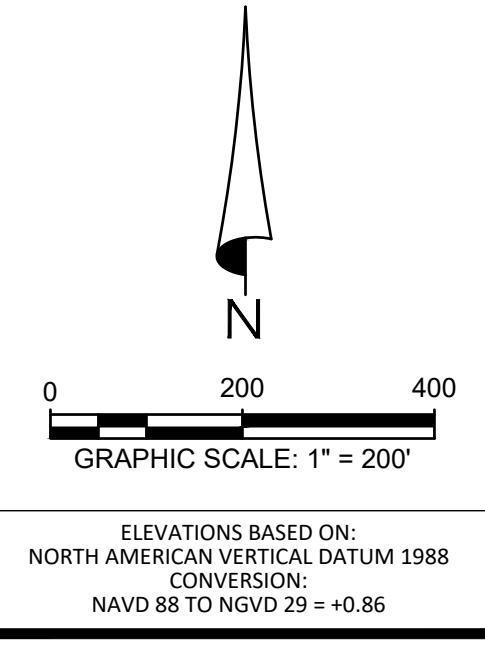
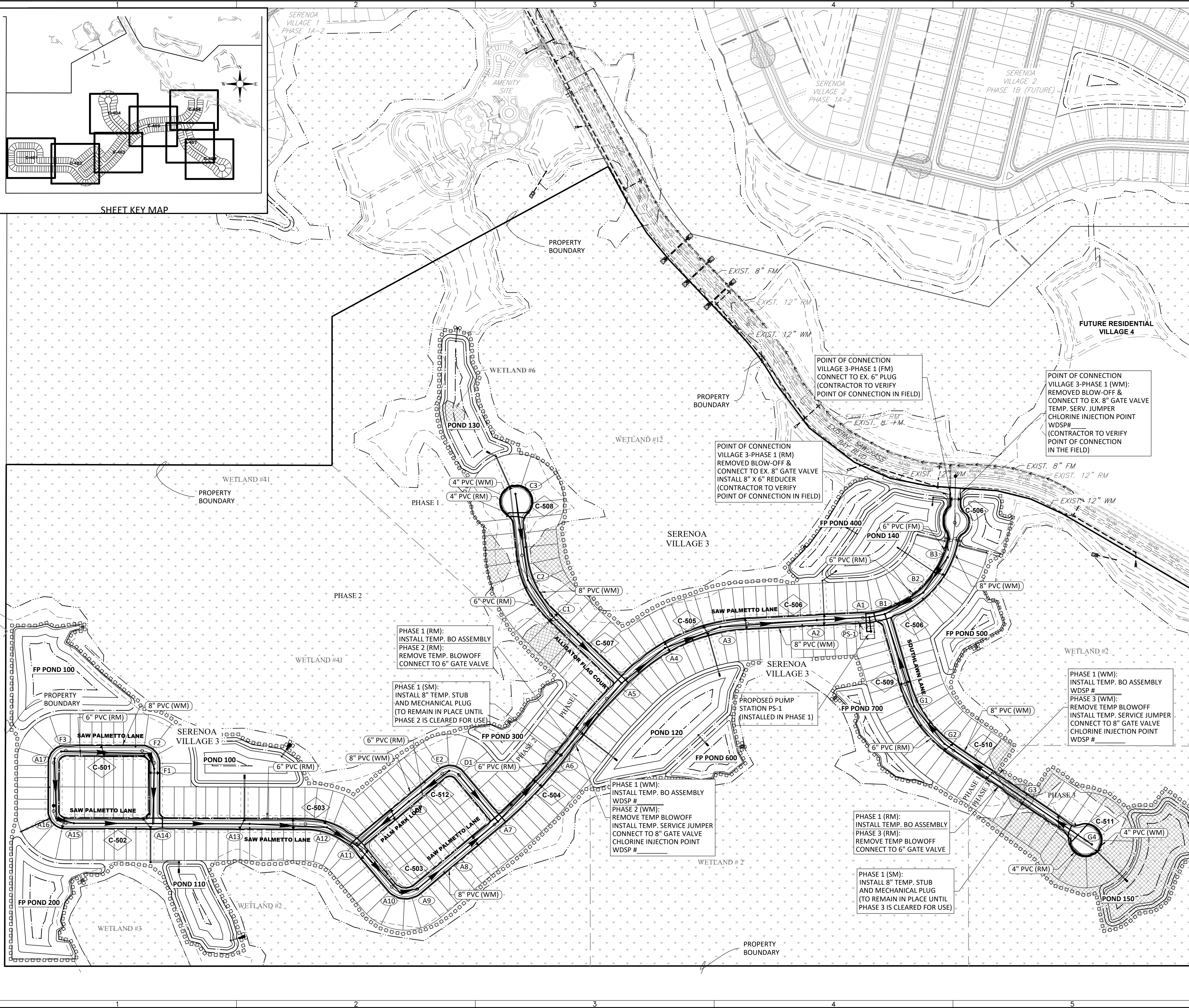
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
 DATE: _____
 LICENSE NO. 41153

C-320



SHEET KEY MAP



GENERAL LEGEND

- SIRWMD WETLAND LINE
- SIRWMD WETLAND CONS. AREA SETBACK / LANDWARD EXTENT OF UPLAND BUFFER (50')
- STAKED EROSION CONTROL
- PHASE LINE
- ◇ C-510 PLAN & PROFILE SHEET NUMBER

WATER & SEWER LEGEND

- | | | |
|----------|----------|------------------------------------|
| EXISTING | PROPOSED | STORM STRUCTURE NUMBER |
| --- | --- | STORM DRAINAGE STRUCTURE |
| --- | --- | WATER MAIN (WM) |
| --- | --- | RECLAIMED WATER MAIN (RM) |
| --- | --- | FIRE HYDRANT |
| --- | --- | VALVE & BOX |
| --- | --- | REDUCER |
| --- | --- | PLUG |
| --- | --- | BLOW-OFF |
| --- | --- | BENDS |
| --- | --- | VERTICAL BENDS |
| --- | --- | WATER DISTRIBUTION SAMPLING POINT |
| --- | --- | WATER SERVICE DOUBLE |
| --- | --- | WATER SERVICE SINGLE |
| --- | --- | WATER SERVICE CASING |
| --- | --- | RECLAIMED WATER SERVICE DOUBLE |
| --- | --- | RECLAIMED WATER SERVICE SINGLE |
| --- | --- | RECLAIMED WATER SERVICE SLEEVE |
| --- | --- | SANITARY SEWER (SM) |
| --- | --- | SANITARY FORCE MAIN (FM) |
| --- | --- | SANITARY SERVICE DOUBLE W/CLEANOUT |
| --- | --- | SANITARY SERVICE SINGLE W/CLEANOUT |
| --- | --- | DENOTES SLEEVE SIZE & LOCATION |

HEIDT DESIGN
Civil Engineering • Planning & GIS
Transportation Engineering
Ecological Services • Landscape Architecture

5904-A Hampton Oaks Pkwy.
Tampa, Florida 33610
Office: 813-253-5311
Fax: 813-464-7629
www.HeidtDesign.com

SERENOA VILLAGE 3 - PHASE 1, 2 & 3
MASTER WATER & SEWER PLAN

PREPARED FOR: **VK AVALON GROVES, LLC**

DATE	DESCRIPTION
05/26/2020	UTILITIES, INC. COMMENTS
11/08/2019	REVIEW SUBMITTAL

PROJECT NO: KLP-AG-1089
FILE: WS-KEY
DESIGN BY: FRANCIS
DRAWN BY: JLOAIZA

STATE OF FLORIDA
PROFESSIONAL ENGINEER

Timothy M. Plate, State of Florida,
Professional Engineer, License No. 41153

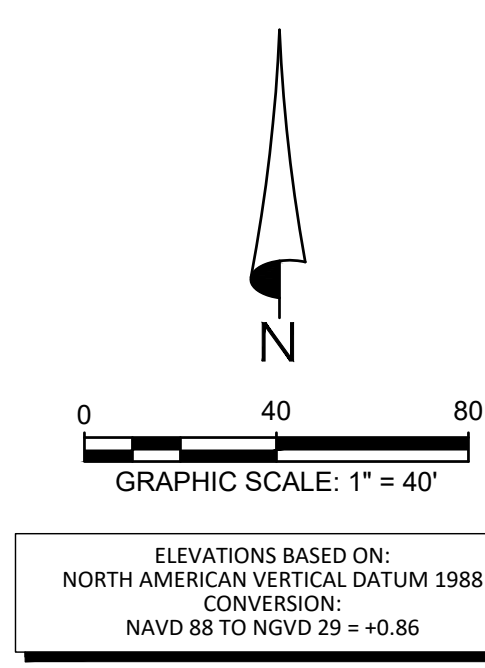
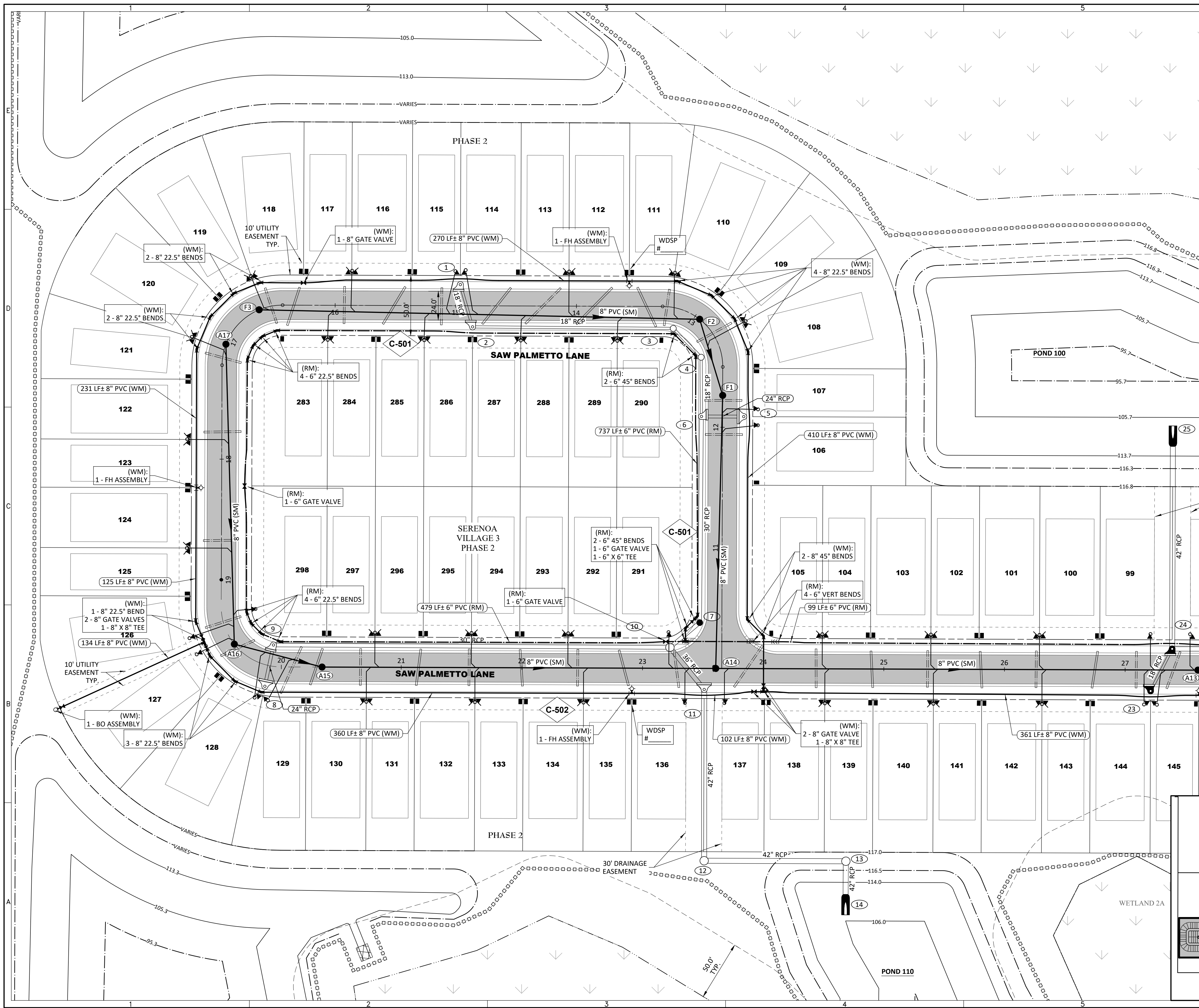
This item has been digitally
signed and sealed by
Timothy M. Plate, P.E. on the date
indicated herein.

Printed copies of this document
are not considered signed and
sealed and the signature must be
verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
DATE: _____
LICENSE NO. 41153

C-400

© COPYRIGHT 2020, HEIDT DESIGN, LLC. ALL RIGHTS RESERVED. NO DOCUMENTATION INCLUDING BUT NOT LIMITED TO DRAWINGS OR EXHIBITS MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION IN WRITING FROM HEIDT DESIGN, LLC. THIS DOCUMENT IS HEREBY GRANTED SPECIFICALLY TO GOVERNMENTAL AGENCIES TO REPRODUCE THIS DOCUMENTATION IN COMPLIANCE WITH F.S. CHAPTER 119.

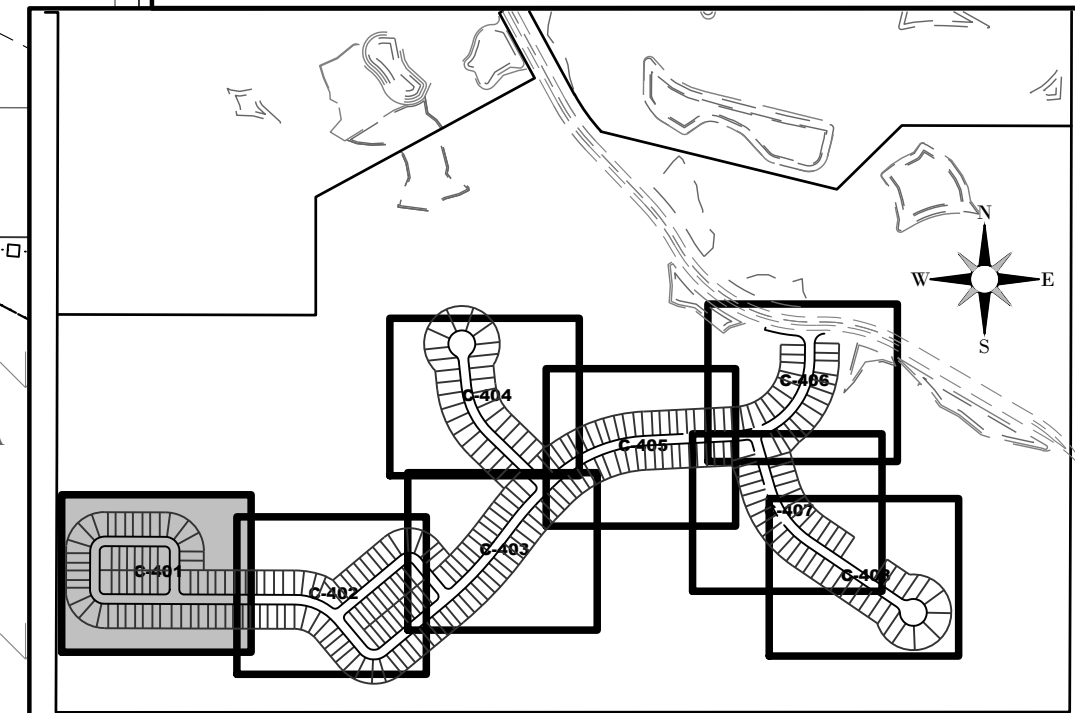


GENERAL LEGEND

- S/RWMD WETLAND LINE
- S/RWMD WETLAND CONS. AREA SETBACK / LANDWARD EXTENT OF UPLAND BUFFER (50')
- STAKED EROSION CONTROL
- PHASE LINE
- ◇ C-410 PLAN & PROFILE SHEET NUMBER

WATER & SEWER LEGEND

- | EXISTING | PROPOSED | DESCRIPTION |
|----------|----------|------------------------------------|
| ⑩ | ⑩ | STORM STRUCTURE NUMBER |
| ⊕ | ⊕ | STORM DRAINAGE STRUCTURE |
| — | — | WATER MAIN (WM) |
| — | — | RECLAIMED WATER MAIN (RM) |
| — | — | FIRE HYDRANT |
| — | — | VALVE & BOX |
| — | — | REDUCER |
| — | — | PLUG |
| — | — | BLOW-OFF |
| — | — | BENDS |
| — | — | VERTICAL BENDS |
| — | — | WDSP # |
| □ | □ | WATER SERVICE DOUBLE |
| □ | □ | WATER SERVICE SINGLE |
| — | — | WATER SERVICE CASING |
| △ | △ | RECLAIMED WATER SERVICE DOUBLE |
| △ | △ | RECLAIMED WATER SERVICE SINGLE |
| — | — | RECLAIMED WATER SERVICE SLEEVE |
| — | — | SANITARY SEWER (SM) |
| — | — | SANITARY FORCE MAIN (FM) |
| — | — | SANITARY SERVICE DOUBLE W/CLEANOUT |
| — | — | SANITARY SERVICE SINGLE W/CLEANOUT |
| — | — | DENOTES SLEEVE SIZE & LOCATION |



SHEET KEY MAP

HEIDT DESIGN
 Civil Engineering • Planning & GIS
 Transportation Engineering
 Ecological Services • Landscape Architecture

5904-A Hampton Oaks Pkwy.
 Tampa, Florida 33610
 Office: 813-253-5311
 Fax: 813-464-7629
 www.HeidtDesign.com

SERENOA VILLAGE 3 - PHASE 1, 2 & 3
WATER & SEWER PLAN

PREPARED FOR: **VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION
3	05/27/2020	ADDED STR. 7, MOD. RWS & REV. UTILITIES, INC. COMMENTS
2	03/20/2020	REV. UTILITIES, INC. COMMENTS
1	11/13/2019	REV. FITTING LABEL (WM)
	11/08/2019	REVIEW SUBMITTAL

PROJECT NO.: KLP-AG-1089
 FILE: WS
 DESIGN BY: FRANCIS
 DRAWN BY: JLOAIZA

STATE OF FLORIDA
 PROFESSIONAL ENGINEER

Timothy M. Plate, State of Florida,
 Professional Engineer, License No. 41153

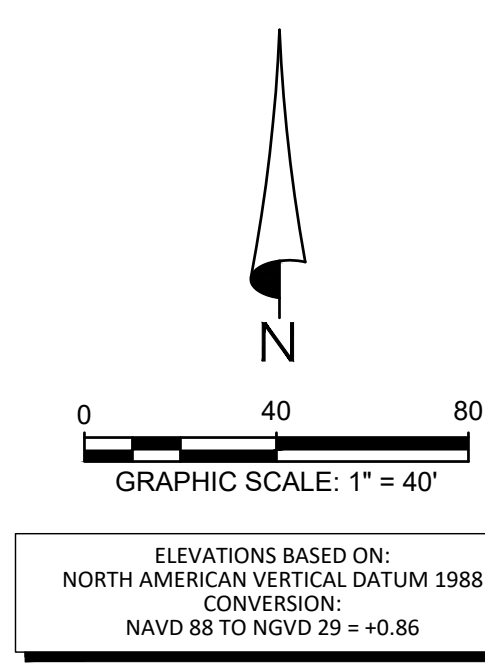
This item has been digitally
 signed and sealed by
 Timothy M. Plate, P.E. on the date
 indicated here:

Printed copies of this document
 are not considered signed and
 sealed and the signature must be
 verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
 DATE: _____
 LICENSE NO. 41153

C-401

© COPYRIGHT 2020, HEIDT DESIGN, LLC. ALL RIGHTS RESERVED. NO DOCUMENTATION INCLUDING BUT NOT LIMITED TO DRAWINGS OR EXHIBITS MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT PERMISSION IN WRITING FROM HEIDT DESIGN, LLC. THIS DOCUMENT IS HEREBY GRANTED SPECIFICALLY TO GOVERNMENTAL AGENCIES TO REPRODUCE THIS DOCUMENT IN COMPLIANCE WITH F.S. CHAPTER 119.

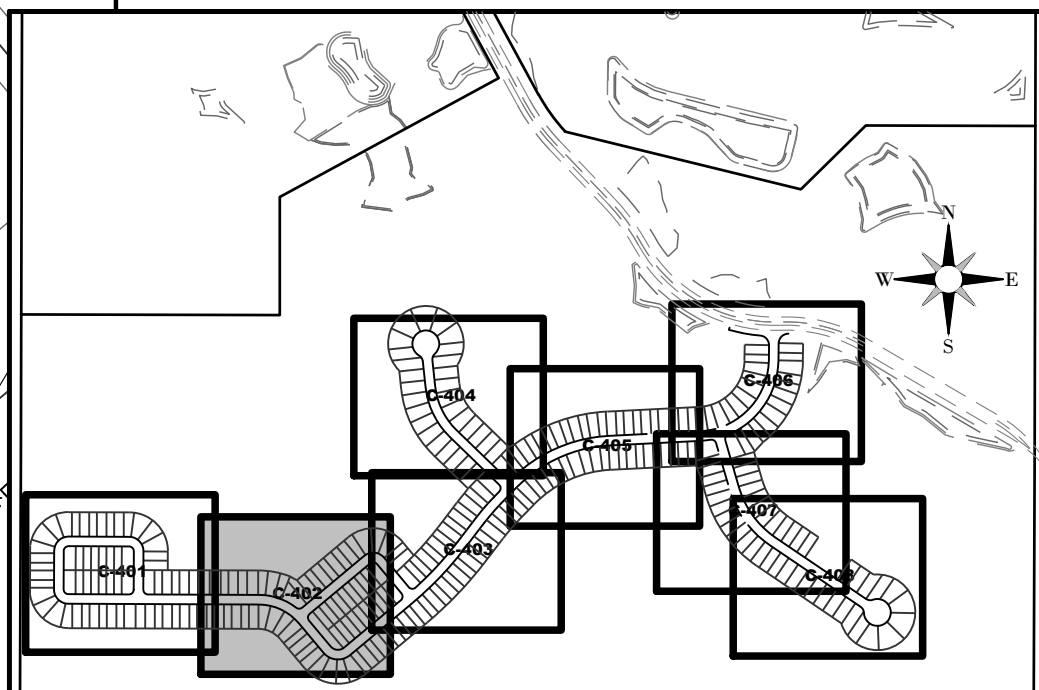


GENERAL LEGEND

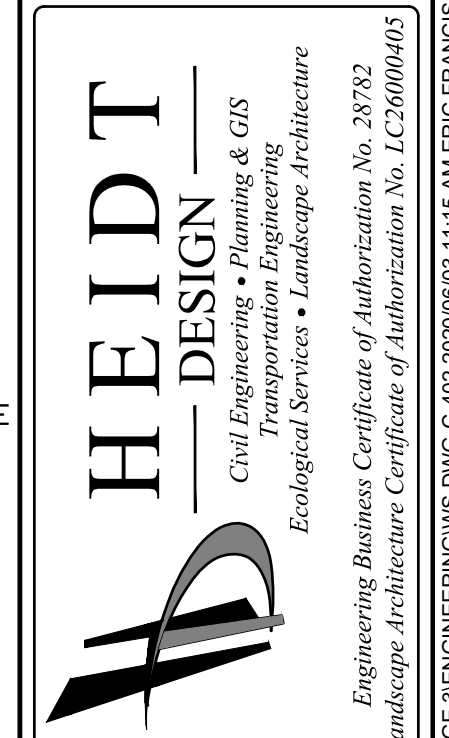
- SIRWMD WETLAND LINE
- SIRWMD WETLAND CONS. AREA SETBACK / LANDWARD EXTENT OF UPLAND BUFFER (50')
- STAKED EROSION CONTROL
- PHASE LINE
- ◇ C-510 PLAN & PROFILE SHEET NUMBER

WATER & SEWER LEGEND

- | EXISTING | PROPOSED | |
|----------|----------|------------------------------------|
| ○ | ○ | STORM STRUCTURE NUMBER |
| □ | □ | STORM DRAINAGE STRUCTURE |
| --- | --- | WATER MAIN (WM) |
| --- | --- | RECLAIMED WATER MAIN (RM) |
| + | + | FIRE HYDRANT |
| + | + | VALVE & BOX |
| --- | --- | REDUCER |
| --- | --- | PLUG |
| --- | --- | BLOW-OFF |
| --- | --- | BENDS |
| --- | --- | VERTICAL BENDS |
| □ | □ | WATER DISTRIBUTION SAMPLING POINT |
| □ | □ | WATER SERVICE DOUBLE |
| □ | □ | WATER SERVICE SINGLE |
| --- | --- | WATER SERVICE CASING |
| △ | △ | RECLAIMED WATER SERVICE DOUBLE |
| △ | △ | RECLAIMED WATER SERVICE SINGLE |
| --- | --- | RECLAIMED WATER SERVICE SLEEVE |
| ○ | ○ | SANITARY SEWER (SM) |
| --- | --- | SANITARY FORCE MAIN (FM) |
| --- | --- | SANITARY SERVICE DOUBLE W/CLEANOUT |
| --- | --- | SANITARY SERVICE SINGLE W/CLEANOUT |
| --- | --- | DENOTES SLEEVE SIZE & LOCATION |



SHEET KEY MAP



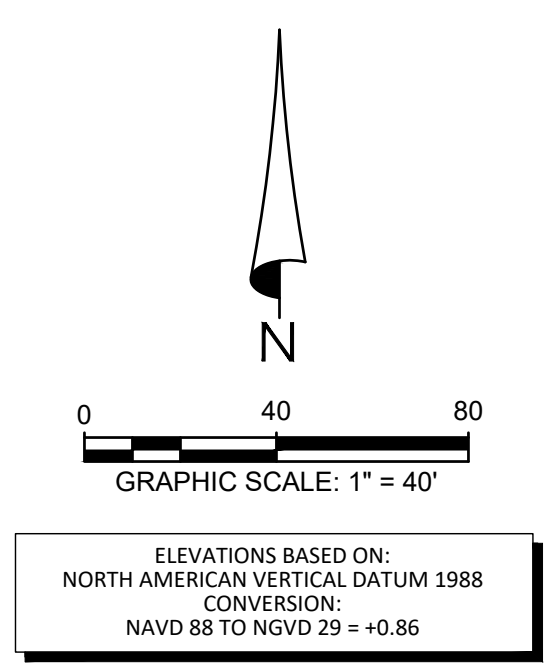
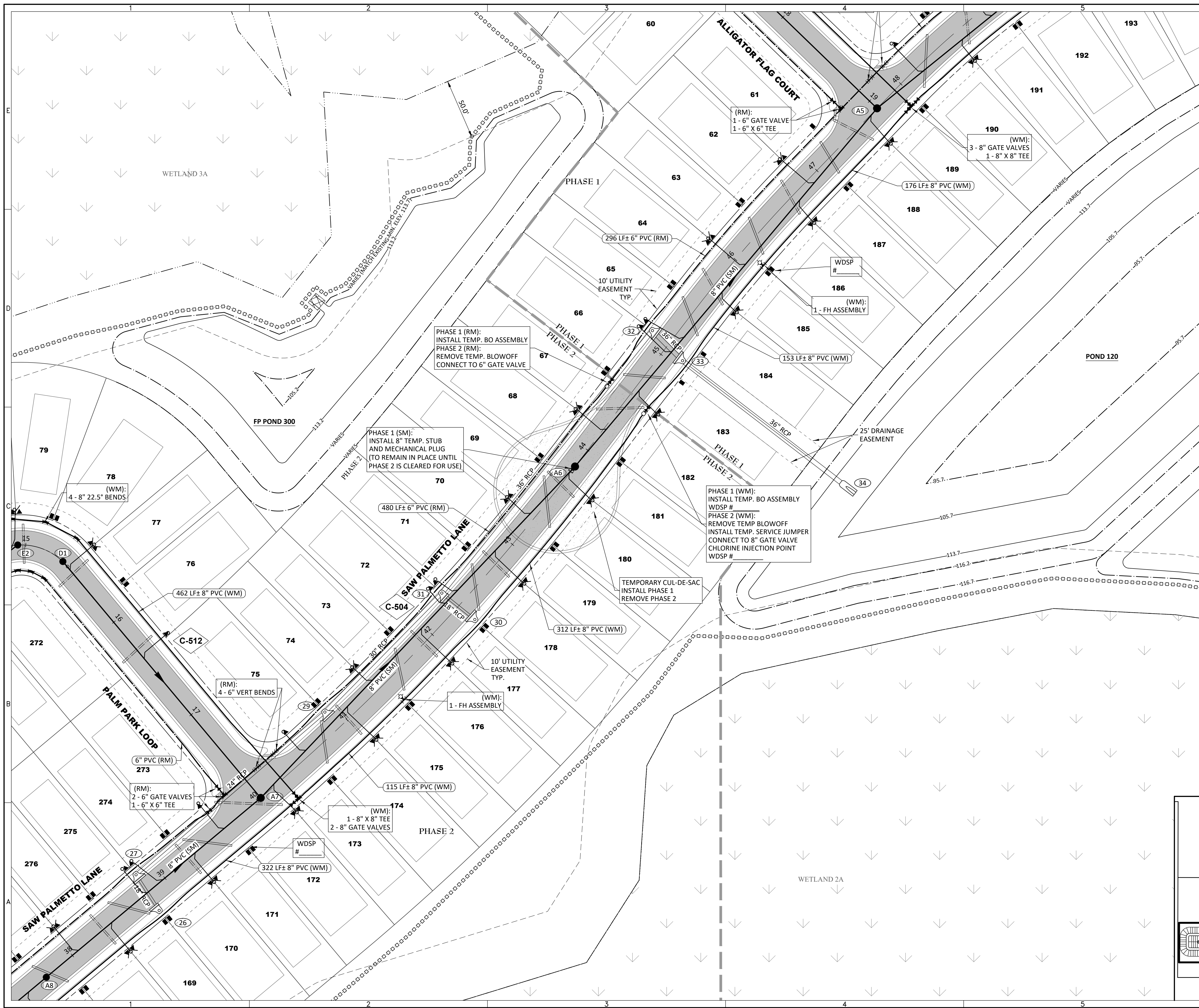
SERENOA VILLAGE 3 - PHASE 1, 2 & 3
WATER & SEWER PLAN
 PREPARED FOR: VK AVALON GROVES, LLC

DATE	DESCRIPTION

DATE	DESCRIPTION
05/27/2020	LIMITS, INC. COMMENTS
03/20/2020	REV. UTILITIES, INC. COMMENTS
11/13/2019	REV. PIPE LENGTH (WM)
11/08/2019	REVIEW SUBMITTAL

PROJECT NO: KLP-AG-1089
 FILE: WS
 DESIGN BY: FRANCIS
 DRAWN BY: JLOAIZA
 STATE OF FLORIDA PROFESSIONAL ENGINEER
 Timothy M. Plate, (State of Florida, Professional Engineer, License No. 41153)
 This item has been digitally signed and sealed by Timothy M. Plate, P.E. on the date indicated here:
 Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.
 TIMOTHY M. PLATE, P.E.
 DATE: _____
 LICENSE NO. 41153
C-402

© COPYRIGHT 2020, HEIDT DESIGN, LLC. ALL RIGHTS RESERVED. NO DOCUMENTATION INCLUDING BUT NOT LIMITED TO DRAWINGS OR EXHIBITS MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT PERMISSION IN WRITING FROM HEIDT DESIGN, LLC. THIS DOCUMENT IS HEREBY GRANTED SPECIFICALLY TO GOVERNMENTAL AGENCIES TO REPRODUCE THIS DOCUMENT IN COMPLIANCE WITH F.S. CHAPTER 119.

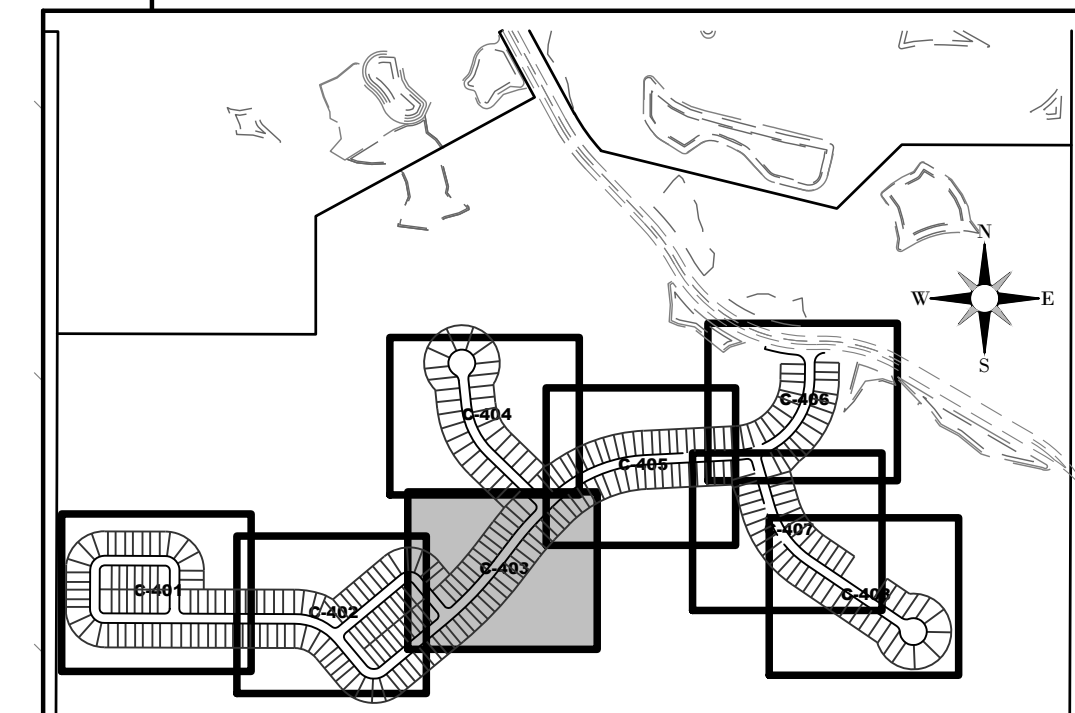


GENERAL LEGEND

- SJRWMD WETLAND LINE
- SJRWMD WETLAND CONS. AREA SETBACK / LANDWARD EXTENT OF UPLAND BUFFER (50')
- STAKED EROSION CONTROL
- PHASE LINE
- ◇ C-410 PLAN & PROFILE SHEET NUMBER

WATER & SEWER LEGEND

- | EXISTING | PROPOSED | DESCRIPTION |
|----------|----------|------------------------------------|
| ⊙ | ⊙ | STORM STRUCTURE NUMBER |
| ⊙ | ⊙ | STORM DRAINAGE STRUCTURE |
| --- | --- | WATER MAIN (WM) |
| --- | --- | RECLAIMED WATER MAIN (RM) |
| --- | --- | FIRE HYDRANT |
| --- | --- | VALVE & BOX |
| --- | --- | REDUCER |
| --- | --- | PLUG |
| --- | --- | BLOW-OFF |
| --- | --- | BENDS |
| --- | --- | VERTICAL BENDS |
| --- | --- | WATER DISTRIBUTION SAMPLING POINT |
| □ | □ | WATER SERVICE DOUBLE |
| □ | □ | WATER SERVICE SINGLE |
| --- | --- | WATER SERVICE CASING |
| --- | --- | RECLAIMED WATER SERVICE DOUBLE |
| --- | --- | RECLAIMED WATER SERVICE SINGLE |
| --- | --- | RECLAIMED WATER SERVICE SLEEVE |
| --- | --- | SANITARY SEWER (SM) |
| --- | --- | SANITARY FORCE MAIN (FM) |
| --- | --- | SANITARY SERVICE DOUBLE W/CLEANOUT |
| --- | --- | SANITARY SERVICE SINGLE W/CLEANOUT |
| --- | --- | DENOTES SLEEVE SIZE & LOCATION |



SHEET KEY MAP

HEIDT DESIGN
 Civil Engineering • Planning & GIS
 Transportation Engineering
 Ecological Services • Landscape Architecture

5904-A Hampton Oaks Pkwy.
 Tampa, Florida 33610
 Office: 813-253-5311
 Fax: 813-464-7629
 www.HeidtDesign.com

SERENOA VILLAGE 3 - PHASE 1, 2 & 3 WATER & SEWER PLAN

PREPARED FOR: **VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION
3	05/27/2020	LIMITS, INC. COMMENTS
2	03/20/2020	REV. UTILITIES, INC. COMMENTS
1	11/13/2019	REV. TEMP. SERVICE LABEL (WM)
	11/08/2019	REVIEW SUBMITTAL

PROJECT NO: KLP-AG-1089
 FILE: WS
 DESIGN BY: FRANCIS
 DRAWN BY: JLOAIZA

STATE OF FLORIDA
 PROFESSIONAL ENGINEER

Timothy M. Plate, State of Florida,
 Professional Engineer, License No. 41153

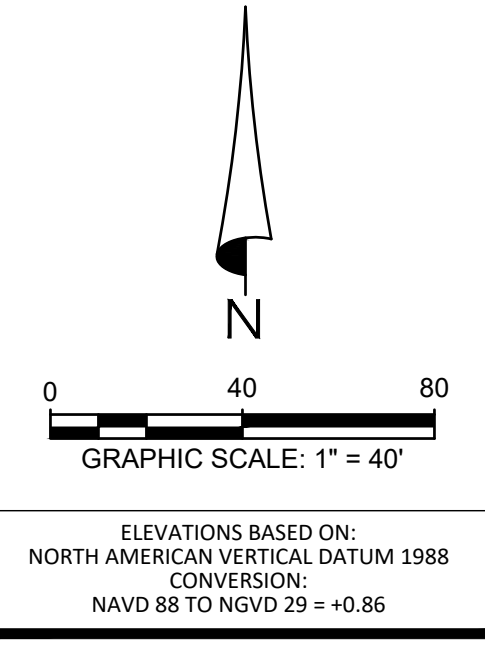
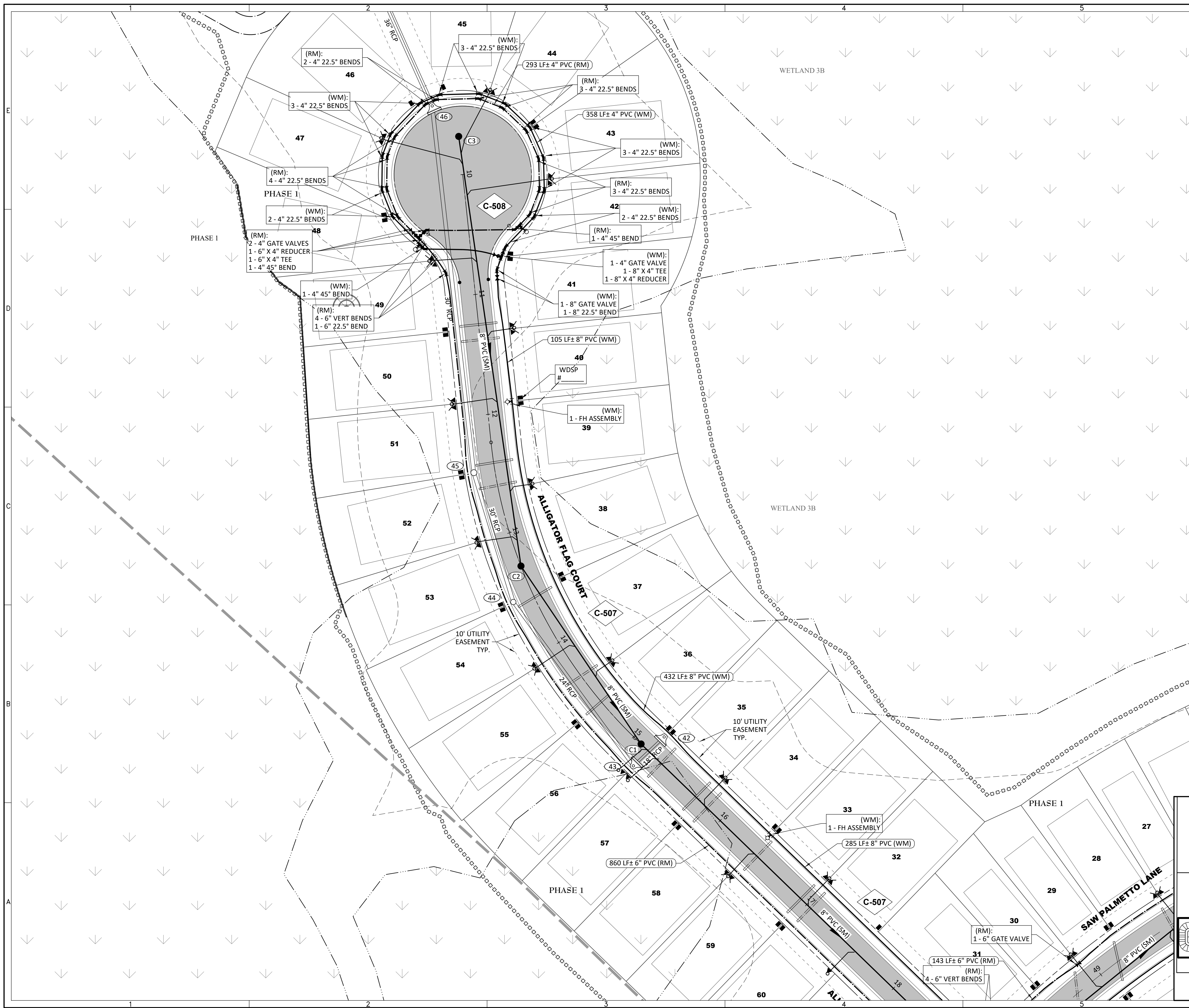
This item has been digitally
 signed and sealed by
 Timothy M. Plate, P.E. on the date
 indicated here:

Printed copies of this document
 are not considered signed and
 sealed and the signature must be
 verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
 DATE: _____
 LICENSE NO. 41153

C-403

© COPYRIGHT 2020, HEIDT DESIGN, LLC. ALL RIGHTS RESERVED. NO DOCUMENTATION INCLUDING BUT NOT LIMITED TO DRAWINGS OR EXHIBITS MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT PERMISSION IN WRITING FROM HEIDT DESIGN, LLC. THIS DOCUMENT IS HEREBY GRANTED SPECIFICALLY TO GOVERNMENTAL AGENCIES TO REPRODUCE THIS DOCUMENTATION IN COMPLIANCE WITH F.S. CHAPTER 119.

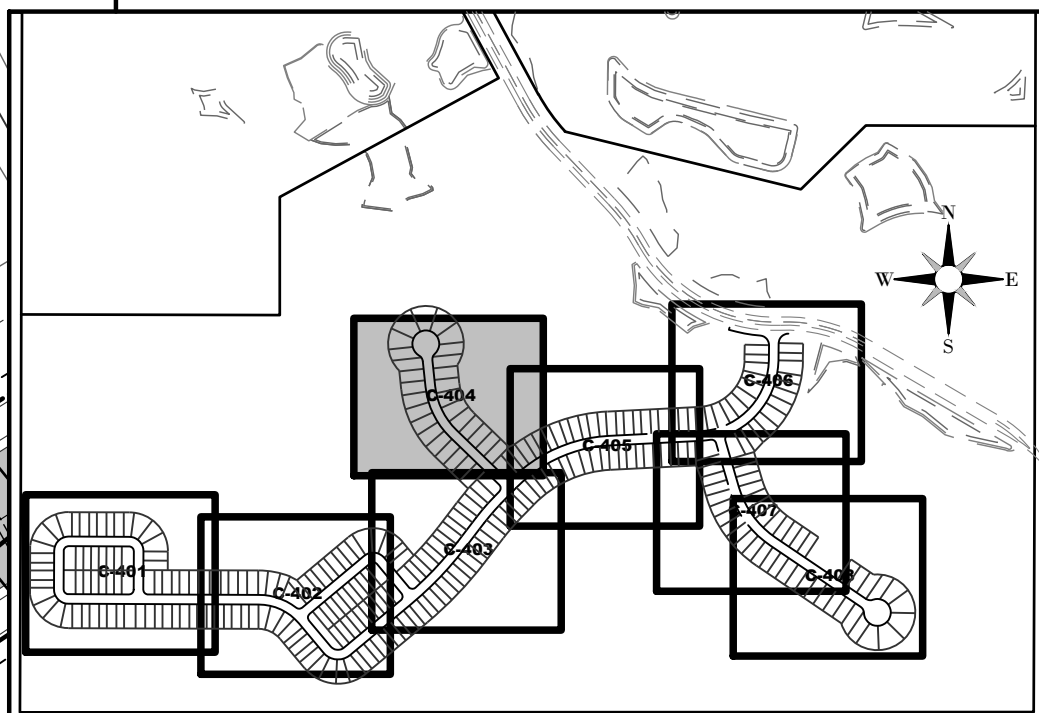


GENERAL LEGEND

- SJRWMD WETLAND LINE
- SJRWMD WETLAND CONS. AREA SETBACK / LANDWARD EXTENT OF UPLAND BUFFER (50')
- STAKED EROSION CONTROL
- PHASE LINE
- PLAN & PROFILE SHEET NUMBER

WATER & SEWER LEGEND

- | EXISTING | PROPOSED | DESCRIPTION |
|----------|----------|------------------------------------|
| | | STORM STRUCTURE NUMBER |
| | | STORM DRAINAGE STRUCTURE |
| | | WATER MAIN (WM) |
| | | RECLAIMED WATER MAIN (RM) |
| | | FIRE HYDRANT |
| | | VALVE & BOX |
| | | REDUCER |
| | | PLUG |
| | | BLOW-OFF |
| | | BENDS |
| | | VERTICAL BENDS |
| | | WATER DISTRIBUTION SAMPLING POINT |
| | | WATER SERVICE DOUBLE |
| | | WATER SERVICE SINGLE |
| | | WATER SERVICE CASING |
| | | RECLAIMED WATER SERVICE DOUBLE |
| | | RECLAIMED WATER SERVICE SINGLE |
| | | RECLAIMED WATER SERVICE SLEEVE |
| | | SANITARY SEWER (SM) |
| | | SANITARY FORCE MAIN (FM) |
| | | SANITARY SERVICE DOUBLE W/CLEANOUT |
| | | SANITARY SERVICE SINGLE W/CLEANOUT |
| | | 2" DENOTES SLEEVE SIZE & LOCATION |



SHEET KEY MAP

HEIDT DESIGN
 Civil Engineering • Planning & GIS
 Transportation Engineering
 Ecological Services • Landscape Architecture

5904-A Hampton Oaks Pkwy.
 Tampa, Florida 33610
 Office: 813-253-5311
 Fax: 813-464-7629
 www.HeidtDesign.com

SERENOA VILLAGE 3 - PHASE 1, 2 & 3

WATER & SEWER PLAN

PREPARED FOR: **VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION
3	05/27/2020	REV. UTILITIES, INC. COMMENTS & ADDED SERVICES ON NEW LOT #48
2	03/20/2020	REV. UTILITIES, INC. COMMENTS
1	11/13/2019	ADDED WATER SERVICE (WWS)
	11/08/2019	REVIEW SUBMITTAL

PROJECT NO.: KLP-AG-1089

FILE: WS

DESIGN BY: FRANCIS

DRAWN BY: JLOAIZA

STATE OF FLORIDA
 PROFESSIONAL ENGINEER

Timothy M. Plate, State of Florida, Professional Engineer, License No. 41153

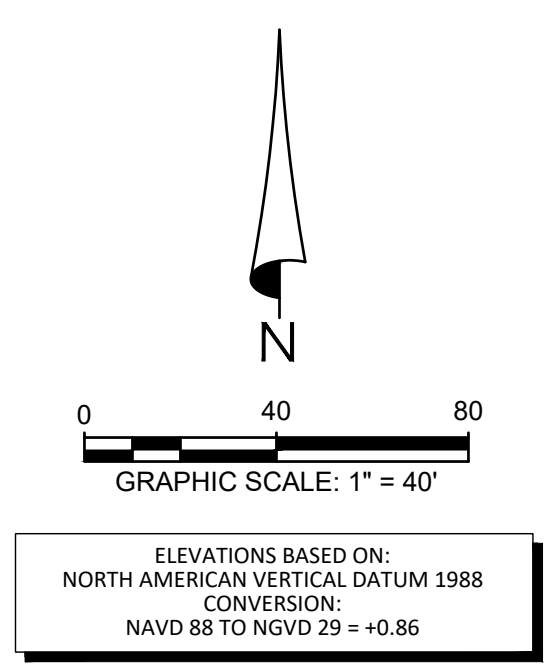
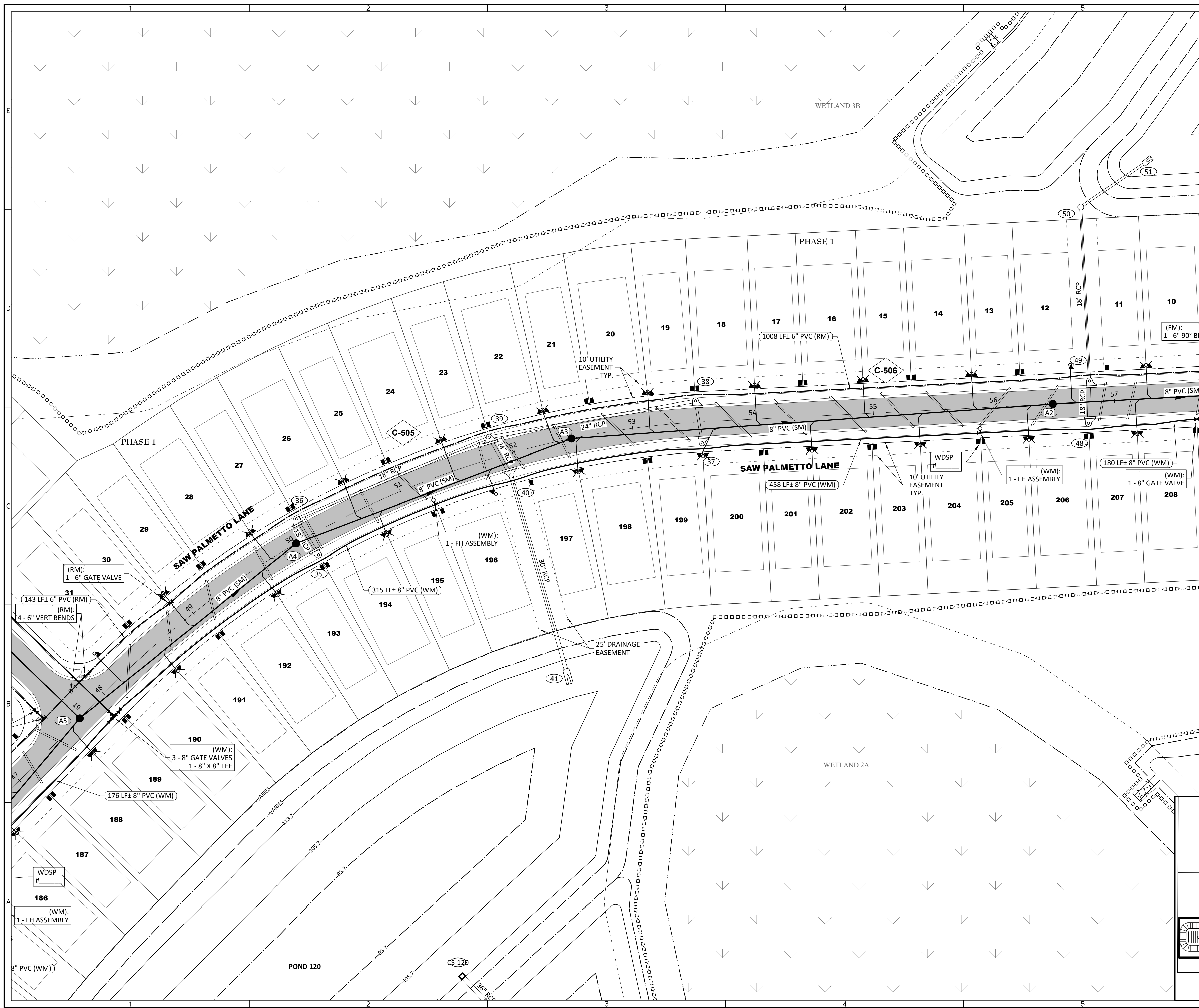
This item has been digitally signed and sealed by Timothy M. Plate, P.E. on the date indicated here:

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

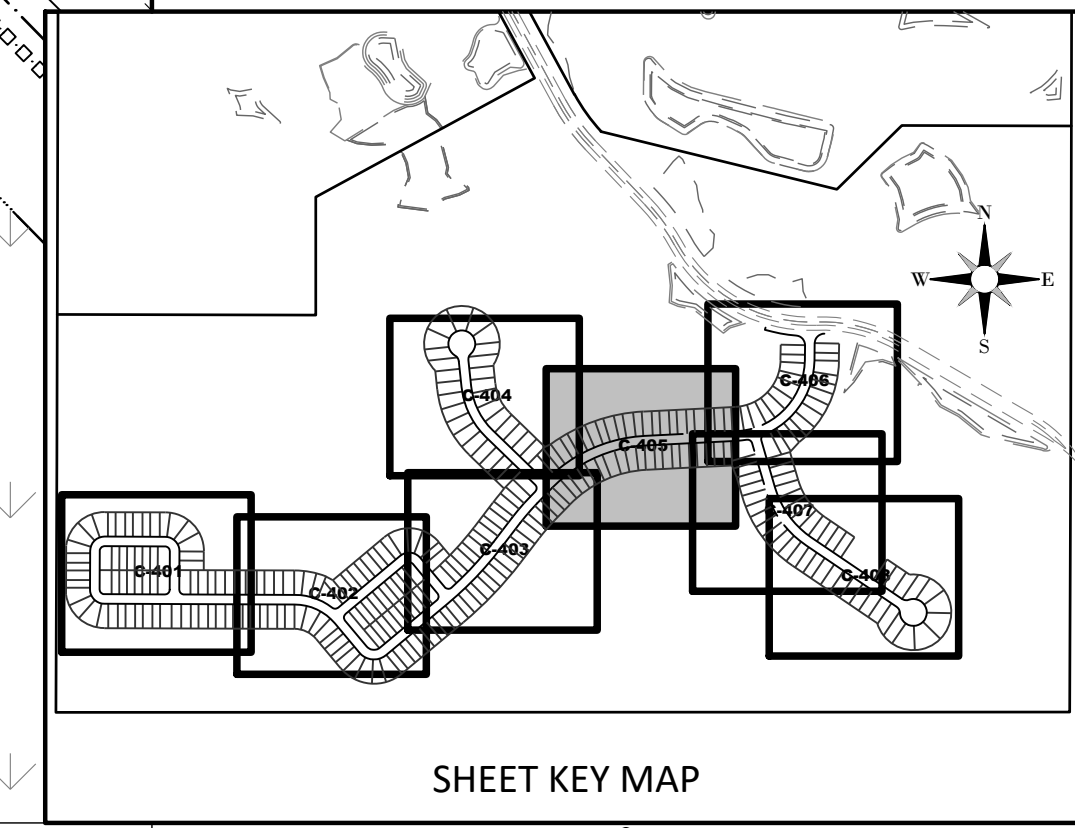
TIMOTHY M. PLATE, P.E.
 DATE: _____
 LICENSE NO. 41153

C-404

ENGINEERING BUSINESS CERTIFICATE OF AUTHORIZATION No. 28792
 Landscape Architecture Certificate of Authorization No. LC26080405
 R:\AVALON GROVES\WWS.DWG-C-404 20200303 11:16 AM ERIC FRANCIS



- GENERAL LEGEND**
- SIRWMD WETLAND LINE
 - SIRWMD WETLAND CONS. AREA SETBACK / LANDWARD EXTENT OF UPLAND BUFFER (50')
 - o-o-o-o-o-o-o-o-o-o STAKED EROSION CONTROL
 - PHASE LINE
 - ◇ C-410 PLAN & PROFILE SHEET NUMBER
- WATER & SEWER LEGEND**
- | EXISTING | PROPOSED | DESCRIPTION |
|----------|----------|------------------------------------|
| ⊙ 10 | ⊙ 10 | STORM STRUCTURE NUMBER |
| ⊙ | ⊙ | STORM DRAINAGE STRUCTURE |
| — | — | WATER MAIN (WM) |
| — | — | RECLAIMED WATER MAIN (RM) |
| — | — | FIRE HYDRANT |
| — | — | VALVE & BOX |
| — | — | REDUCER |
| — | — | PLUG |
| — | — | BLOW-OFF |
| — | — | BENDS |
| — | — | VERTICAL BENDS |
| — | — | WATER DISTRIBUTION SAMPLING POINT |
| □ | □ | WATER SERVICE DOUBLE |
| □ | □ | WATER SERVICE SINGLE |
| — | — | WATER SERVICE CASING |
| △ | △ | RECLAIMED WATER SERVICE DOUBLE |
| △ | △ | RECLAIMED WATER SERVICE SINGLE |
| — | — | RECLAIMED WATER SERVICE SLEEVE |
| ⊙ A1 | ⊙ A1 | SANITARY SEWER (SM) |
| ⊙ | ⊙ | SANITARY FORCE MAIN (FM) |
| — | — | SANITARY SERVICE DOUBLE W/CLEANOUT |
| — | — | SANITARY SERVICE SINGLE W/CLEANOUT |
| — | — | DENOTES SLEEVE SIZE & LOCATION |



HEIDT DESIGN
 Civil Engineering • Planning & GIS
 Transportation Engineering
 Ecological Services • Landscape Architecture
 Engineering Business Certificate of Authorization No. 28793
 Landscape Architecture Certificate of Authorization No. LC26004045
 5904-A Hampton Oaks Pkwy.
 Tampa, Florida 33610
 Office: 813-253-5311
 Fax: 813-464-7629
 www.HeidtDesign.com

SERENOA VILLAGE 3 - PHASE 1, 2 & 3
WATER & SEWER PLAN
 PREPARED FOR: VK AVALON GROVES, LLC

NO.	DATE	DESCRIPTION
1	05/27/2020	UTILITIES, INC. COMMENTS
2	09/20/2020	REVISED SUBMITTAL
3	11/08/2020	REVISED SUBMITTAL

PROJECT NO.: KLP-AG-1089
 FILE: WS
 DESIGN BY: FRANCIS
 DRAWN BY: JLOAIZA

STATE OF FLORIDA
 PROFESSIONAL ENGINEER

Timothy M. Plate, State of Florida,
 Professional Engineer, License No. 41153

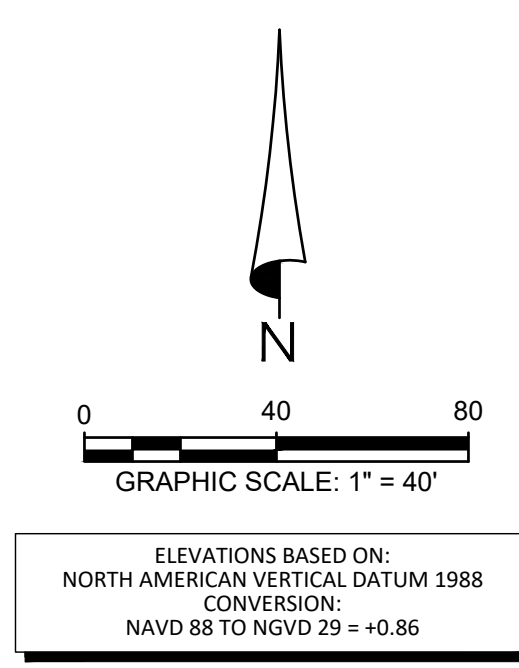
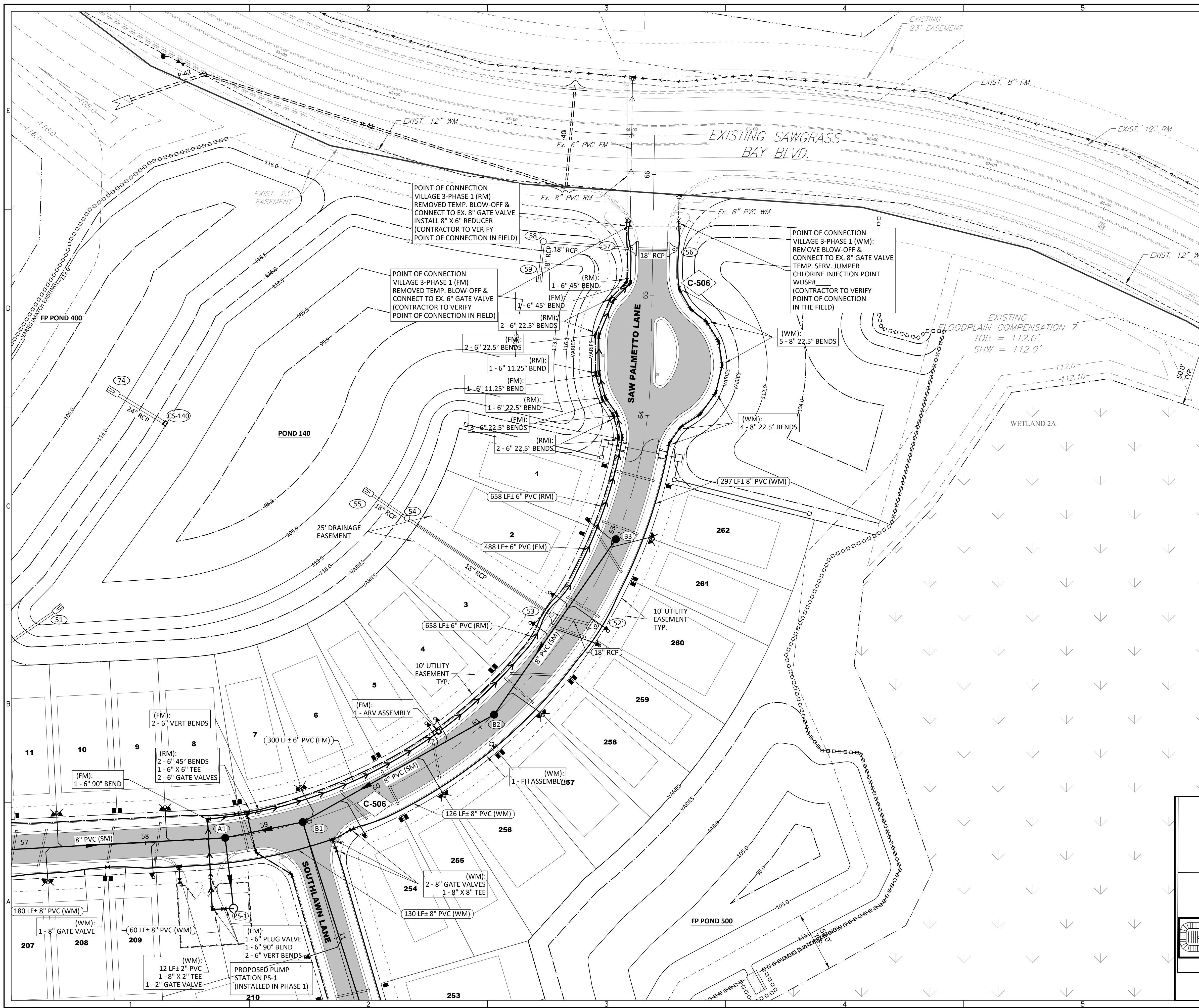
This item has been digitally
 signed and sealed by
 Timothy M. Plate, P.E. on the date
 indicated here:

Printed copies of this document
 are not considered signed and
 sealed and the signature must be
 verified on any electronic copies.

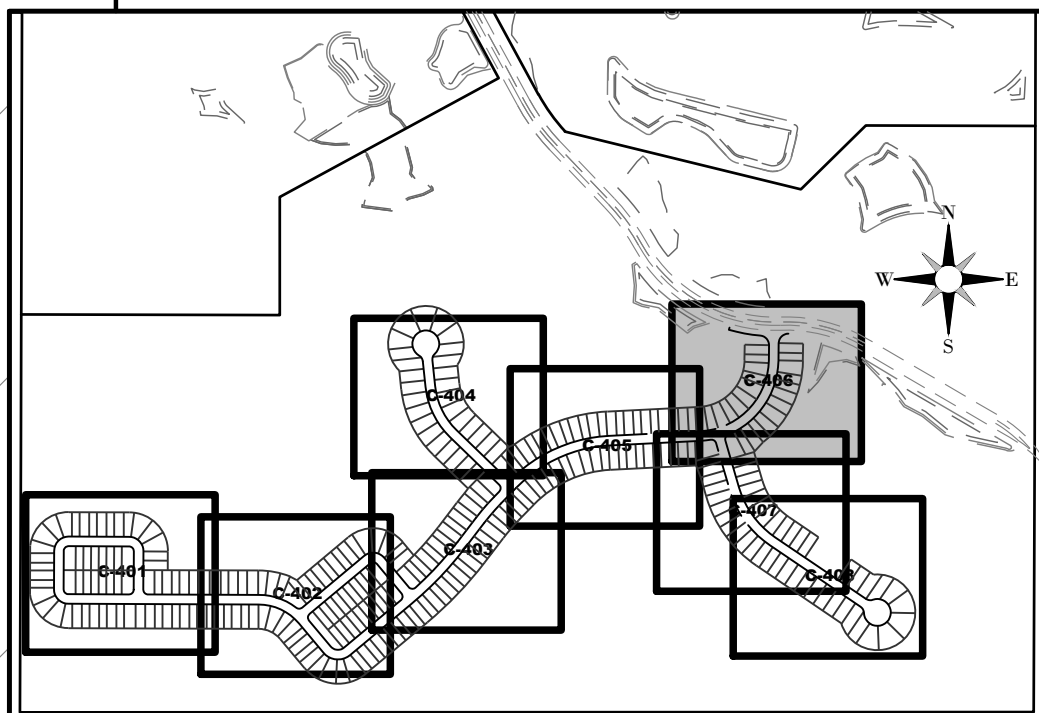
TIMOTHY M. PLATE, P.E.
 DATE: _____
 LICENSE NO. 41153

C-405

© COPYRIGHT 2020, HEIDT DESIGN, LLC. ALL RIGHTS RESERVED. NO DOCUMENTATION INCLUDING BUT NOT LIMITED TO DRAWINGS OR EXHIBITS MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION IN WRITING FROM HEIDT DESIGN, LLC. THIS DOCUMENT IS HEREBY GRANTED SPECIFICALLY TO GOVERNMENTAL AGENCIES TO REPRODUCE THIS DOCUMENTATION IN COMPLIANCE WITH F.S. CHAPTER 119.



- ### GENERAL LEGEND
- SJRWMD WETLAND LINE
 - - - - SJRWMD WETLAND CONS. AREA SETBACK / LANDWARD EXTENT OF UPLAND BUFFER (50')
 - ○ ○ ○ ○ ○ ○ ○ ○ ○ STAKED EROSION CONTROL
 - PHASE LINE
 - ◇ C-410 PLAN & PROFILE SHEET NUMBER
- ### WATER & SEWER LEGEND
- | EXISTING | PROPOSED | DESCRIPTION |
|----------|----------|------------------------------------|
| ○ 10 | ○ 10 | STORM STRUCTURE NUMBER |
| ○ 10 | ○ 10 | STORM DRAINAGE STRUCTURE |
| — | — | WATER MAIN (WM) |
| — | — | RECLAIMED WATER MAIN (RM) |
| — | — | FIRE HYDRANT |
| — | — | VALVE & BOX |
| — | — | REDUCER |
| — | — | PLUG |
| — | — | BLOW-OFF |
| — | — | BENDS |
| — | — | VERTICAL BENDS |
| — | — | WATER DISTRIBUTION SAMPLING POINT |
| □ | □ | WATER SERVICE DOUBLE |
| □ | □ | WATER SERVICE SINGLE |
| — | — | WATER SERVICE CASING |
| △ | △ | RECLAIMED WATER SERVICE DOUBLE |
| △ | △ | RECLAIMED WATER SERVICE SINGLE |
| — | — | RECLAIMED WATER SERVICE SLEEVE |
| — | — | SANITARY SEWER (SM) |
| — | — | SANITARY FORCE MAIN (FM) |
| — | — | SANITARY SERVICE DOUBLE W/CLEANOUT |
| — | — | SANITARY SERVICE SINGLE W/CLEANOUT |
| — | — | DENOTES SLEEVE SIZE & LOCATION |



HEIDT DESIGN
Civil Engineering • Planning & GIS
Transportation Engineering
Ecological Services • Landscape Architecture

5904-A Hampton Oaks Pkwy.
Tampa, Florida 33610
Office: 813-253-5311
Fax: 813-464-7629
www.HeidtDesign.com

SERENOA VILLAGE 3 - PHASE 1, 2 & 3

WATER & SEWER PLAN

PREPARED FOR: **VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION
3	05/27/2020	LIMITS, INC. COMMENTS
2	03/20/2020	REV. JLOAIZA, INC. COMMENTS
1	11/06/2019	REVIEW SUBMITTAL

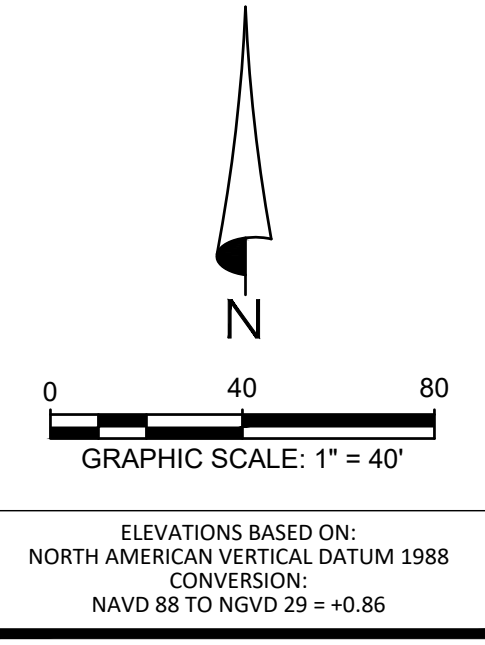
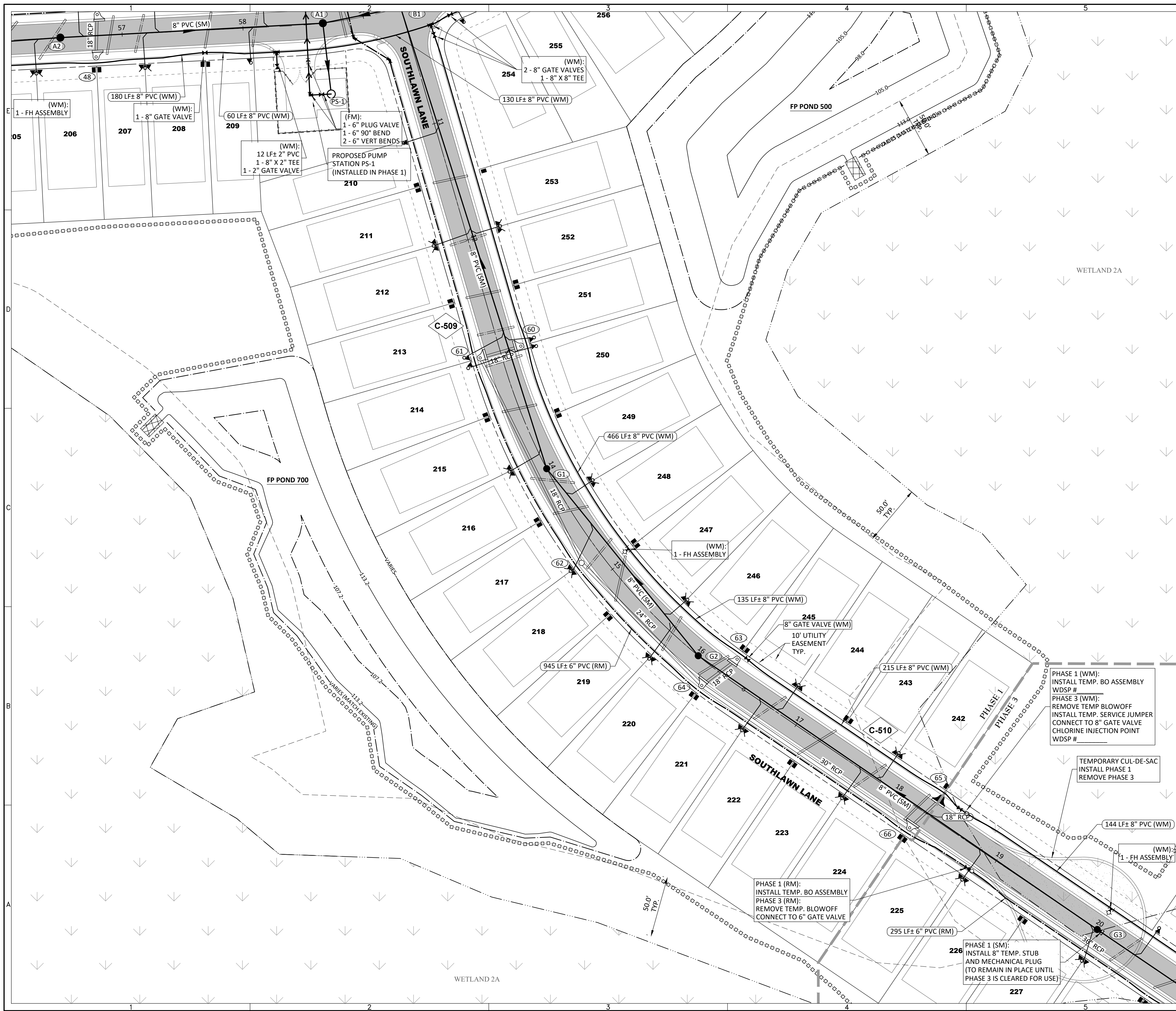
PROJECT NO: KLP-AG-1089
FILE: WS
DESIGN BY: FRANCIS
DRAWN BY: JLOAIZA

STATE OF FLORIDA
PROFESSIONAL ENGINEER

Timothy M. Plate, (State of Florida, Professional Engineer, License No. 41153)
This form has been digitally signed and sealed by Timothy M. Plate, P.E. on the date indicated here.
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
DATE: _____
LICENSE NO. 41153

© COPYRIGHT 2020, HEIDT DESIGN, LLC. ALL RIGHTS RESERVED. NO DOCUMENTATION INCLUDING BUT NOT LIMITED TO DRAWINGS OR EXHIBITS MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION IN WRITING FROM HEIDT DESIGN, LLC. THIS DOCUMENT IS THE PROPERTY OF HEIDT DESIGN, LLC. ANY UNAUTHORIZED REPRODUCTION OR TRANSMISSION IS STRICTLY PROHIBITED. PROJECT NO. KLP-AG-1089. SHEET NO. C-406. DATE: 05/27/2020. TIME: 11:16 AM. ENGINEER: FRANCIS.



GENERAL LEGEND

- SJRWMD WETLAND LINE
- SJRWMD WETLAND CONS. AREA SETBACK / LANDWARD EXTENT OF UPLAND BUFFER (50')
- STAKED EROSION CONTROL
- PHASE LINE
- PLAN & PROFILE SHEET NUMBER

WATER & SEWER LEGEND

- | | | |
|--|--|------------------------------------|
| | | STORM STRUCTURE NUMBER |
| | | STORM DRAINAGE STRUCTURE |
| | | WATER MAIN (WM) |
| | | RECLAIMED WATER MAIN (RM) |
| | | FIRE HYDRANT |
| | | VALVE & BOX |
| | | REDUCER |
| | | PLUG |
| | | BLOW-OFF |
| | | BENDS |
| | | VERTICAL BENDS |
| | | WATER DISTRIBUTION SAMPLING POINT |
| | | WATER SERVICE DOUBLE |
| | | WATER SERVICE SINGLE |
| | | WATER SERVICE CASING |
| | | RECLAIMED WATER SERVICE DOUBLE |
| | | RECLAIMED WATER SERVICE SINGLE |
| | | RECLAIMED WATER SERVICE SLEEVE |
| | | SANITARY SEWER (SM) |
| | | SANITARY FORCE MAIN (FM) |
| | | SANITARY SERVICE DOUBLE W/CLEANOUT |
| | | SANITARY SERVICE SINGLE W/CLEANOUT |
| | | SANITARY SERVICE SINGLE W/CLEANOUT |
| | | 2" DENOTES SLEEVE SIZE & LOCATION |

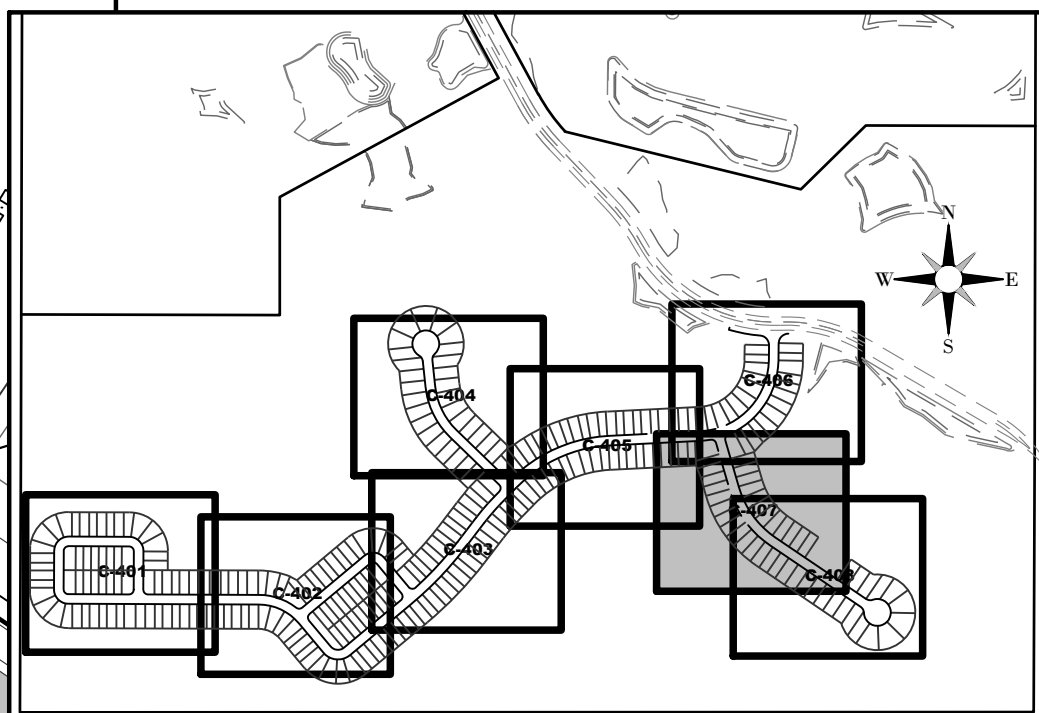
PHASE 1 (WM):
INSTALL TEMP. BO ASSEMBLY
WDS# #

PHASE 3 (WM):
REMOVE TEMP. BLOWOFF
INSTALL TEMP. SERVICE JUMPER
CONNECT TO 8" GATE VALVE
CHLORINE INJECTION POINT
WDS# #

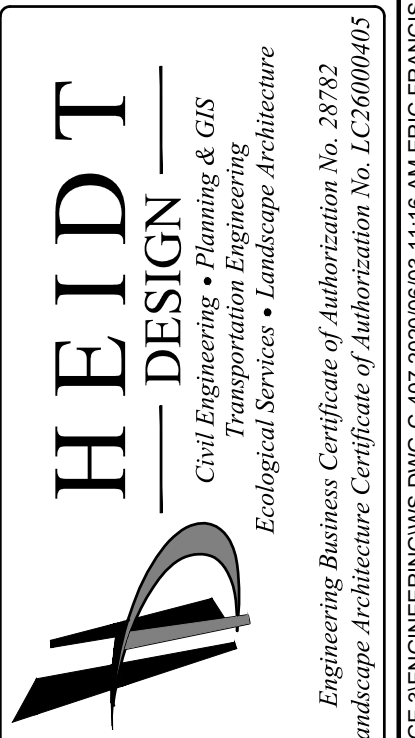
TEMPORARY CUL-DE-SAC
INSTALL PHASE 1
REMOVE PHASE 3

PHASE 1 (RM):
INSTALL TEMP. BO ASSEMBLY
PHASE 3 (RM):
REMOVE TEMP. BLOWOFF
CONNECT TO 6" GATE VALVE

PHASE 1 (SM):
INSTALL 8" TEMP. STUB
AND MECHANICAL PLUG
(TO REMAIN IN PLACE UNTIL
PHASE 3 IS CLEARED FOR USE)



SHEET KEY MAP



5904-A Hampton Oaks Pkwy.
Tampa, Florida 33610
Office: 813-253-5311
Fax: 813-464-7629
www.HeidtDesign.com

SERENOA
VILLAGE 3 - PHASE 1, 2 & 3
WATER & SEWER PLAN

PREPARED FOR:
VK AVALON GROVES, LLC

DATE	DESCRIPTION

DATE	DESCRIPTION
05/27/2020	LIMITS, INC. COMMENTS
08/20/2020	REV. UTILITIES, INC. COMMENTS
11/13/2019	REV. TEMP. SERVICE LABEL (WM)
11/08/2019	REVISED SUBMITTAL

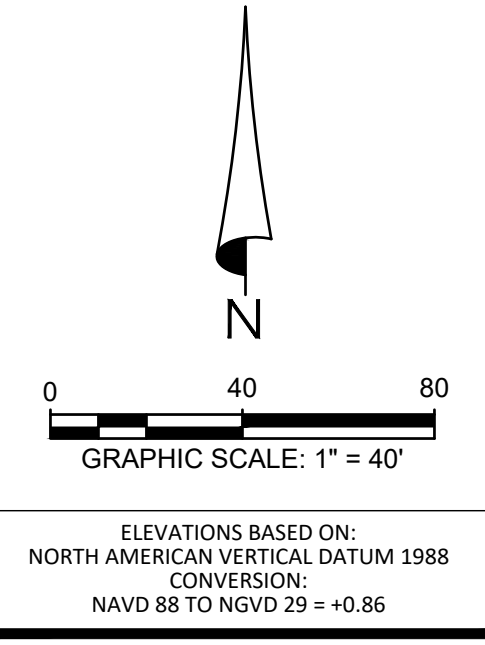
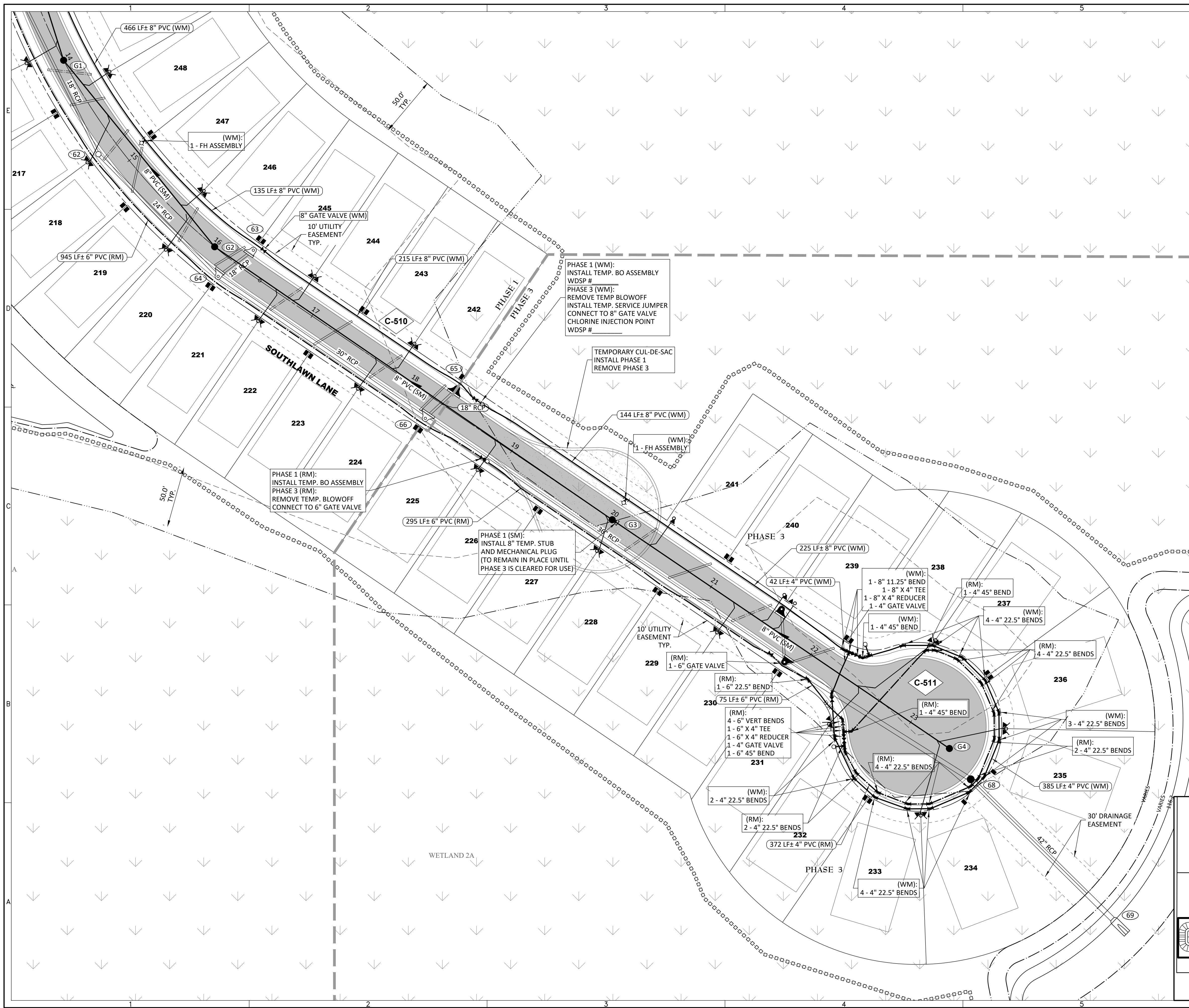
PROJECT NO.: KLP-AG-1089
FILE: WS
DESIGN BY: FRANCIS
DRAWN BY: JLOAIZA

STATE OF FLORIDA
PROFESSIONAL ENGINEER
Timothy M. Plate, State of Florida,
Professional Engineer, License No. 41153
This item has been digitally
signed and sealed by
Timothy M. Plate, P.E. on the date
indicated here:
Printed copies of this document
are not considered signed and
sealed and the signature must be
verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
DATE: 11/13/2019
LICENSE NO. 41153

C-407

© COPYRIGHT 2020, HEIDT DESIGN, LLC. ALL RIGHTS RESERVED. NO DOCUMENTATION INCLUDING BUT NOT LIMITED TO DRAWINGS OR EXHIBITS MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION IN WRITING FROM HEIDT DESIGN, LLC. THIS DOCUMENT IS HEREBY GRANTED SPECIFICALLY TO GOVERNMENTAL AGENCIES TO REPRODUCE THIS DOCUMENTATION IN COMPLIANCE WITH F.S. CHAPTER 119.

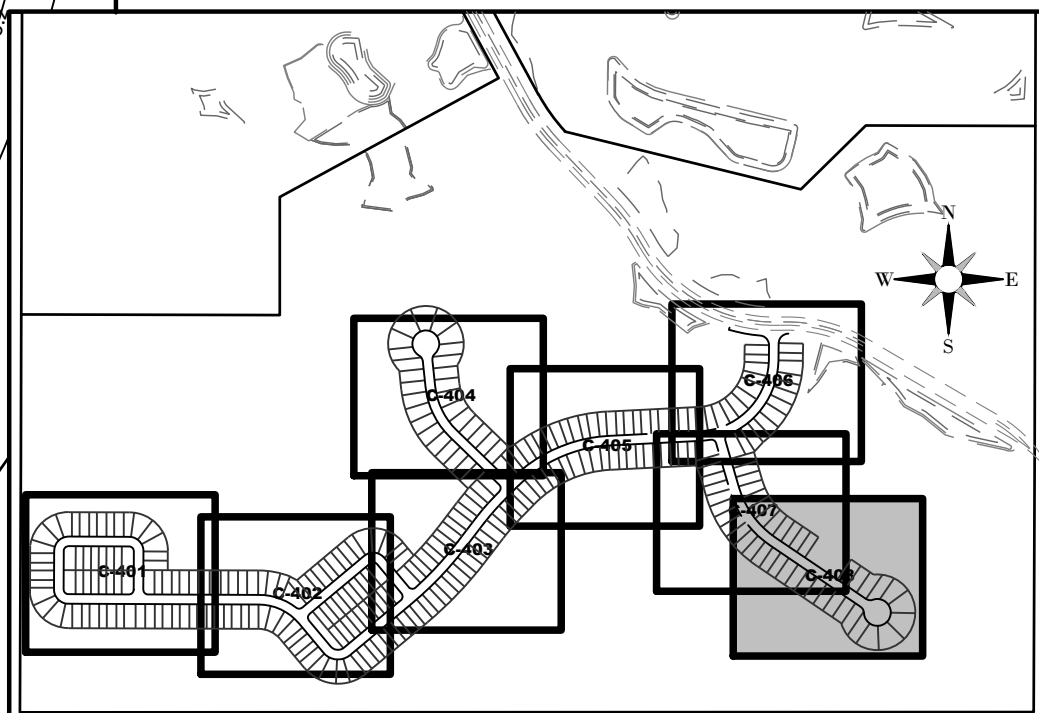


GENERAL LEGEND

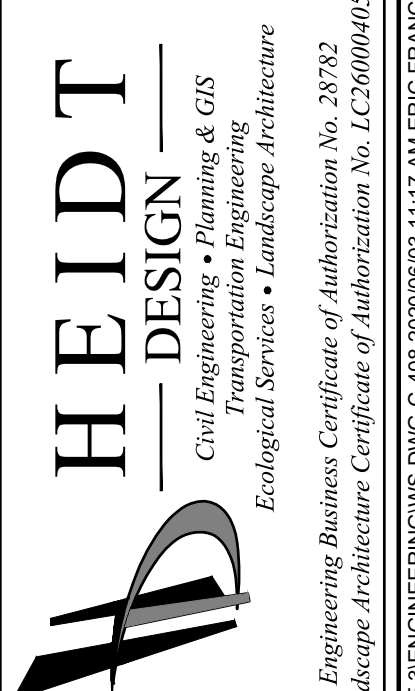
- SIRWMD WETLAND LINE
- SIRWMD WETLAND CONS. AREA SETBACK / LANDWARD EXTENT OF UPLAND BUFFER (50')
- STAKED EROSION CONTROL
- PHASE LINE
- ◇ C-510 PLAN & PROFILE SHEET NUMBER

WATER & SEWER LEGEND

- | EXISTING | PROPOSED | DESCRIPTION |
|----------|----------|------------------------------------|
| ⊙ | ⊙ | STORM STRUCTURE NUMBER |
| ⊙ | ⊙ | STORM DRAINAGE STRUCTURE |
| --- | --- | WATER MAIN (WM) |
| --- | --- | RECLAIMED WATER MAIN (RM) |
| --- | --- | FIRE HYDRANT |
| --- | --- | VALVE & BOX |
| --- | --- | REDUCER |
| --- | --- | PLUG |
| --- | --- | BLOW-OFF |
| --- | --- | BENDS |
| --- | --- | VERTICAL BENDS |
| --- | --- | WATER DISTRIBUTION SAMPLING POINT |
| --- | --- | WATER SERVICE DOUBLE |
| --- | --- | WATER SERVICE SINGLE |
| --- | --- | WATER SERVICE CASING |
| --- | --- | RECLAIMED WATER SERVICE DOUBLE |
| --- | --- | RECLAIMED WATER SERVICE SINGLE |
| --- | --- | RECLAIMED WATER SERVICE SLEEVE |
| --- | --- | SANITARY SEWER (SM) |
| --- | --- | SANITARY FORCE MAIN (FM) |
| --- | --- | SANITARY SERVICE DOUBLE W/CLEANOUT |
| --- | --- | SANITARY SERVICE SINGLE W/CLEANOUT |
| --- | --- | 2" DENOTES SLEEVE SIZE & LOCATION |



SHEET KEY MAP



5904-A Hampton Oaks Pkwy.
Tampa, Florida 33610
Office: 813-253-5311
Fax: 813-464-7629
www.HeidtDesign.com

SERENOA VILLAGE 3 - PHASE 1, 2 & 3 WATER & SEWER PLAN

PREPARED FOR: **VK AVALON GROVES, LLC**

DATE	DESCRIPTION

DATE	DESCRIPTION
05/27/2020	LIMITED COMMENTS
03/20/2020	REV. UTILITIES, INC. COMMENTS
11/08/2019	REVISION SUBMITTAL

PROJECT NO: KLP-AG-1089
FILE: WS
DESIGN BY: FRANCIS
DRAWN BY: JLOAIZA

STATE OF FLORIDA
PROFESSIONAL ENGINEER

Timothy M. Plate, State of Florida,
Professional Engineer, License No. 41153

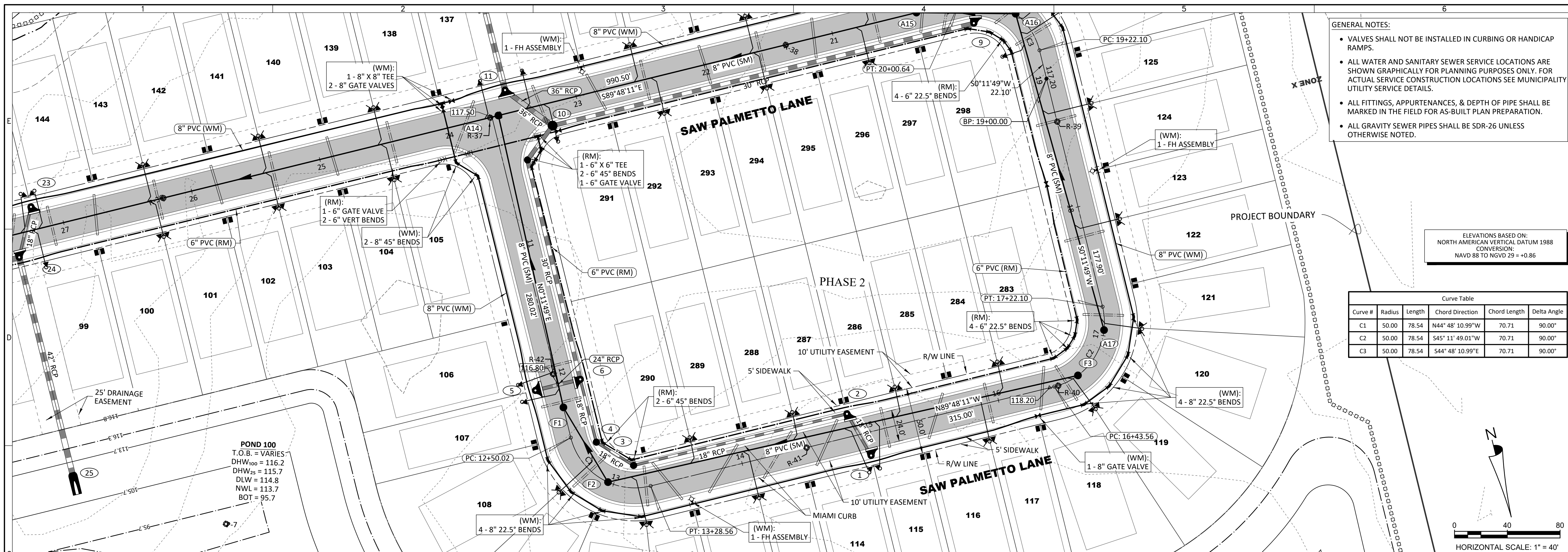
This item has been digitally
signed and sealed by
Timothy M. Plate, P.E. on the date
indicated here:

Printed copies of this document
are not considered signed and
sealed and the signature must be
verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
DATE: _____
LICENSE NO. 41153

C-408

© COPYRIGHT 2020, HEIDT DESIGN, LLC. ALL RIGHTS RESERVED. NO DOCUMENTATION INCLUDING BUT NOT LIMITED TO DRAWINGS OR EXHIBITS MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT PERMISSION IN WRITING FROM HEIDT DESIGN, LLC. THIS DOCUMENT IS HEREBY GRANTED SPECIFICALLY TO GOVERNMENTAL AGENCIES TO REPRODUCE THIS DOCUMENTATION IN COMPLIANCE WITH F.S. CHAPTER 119.



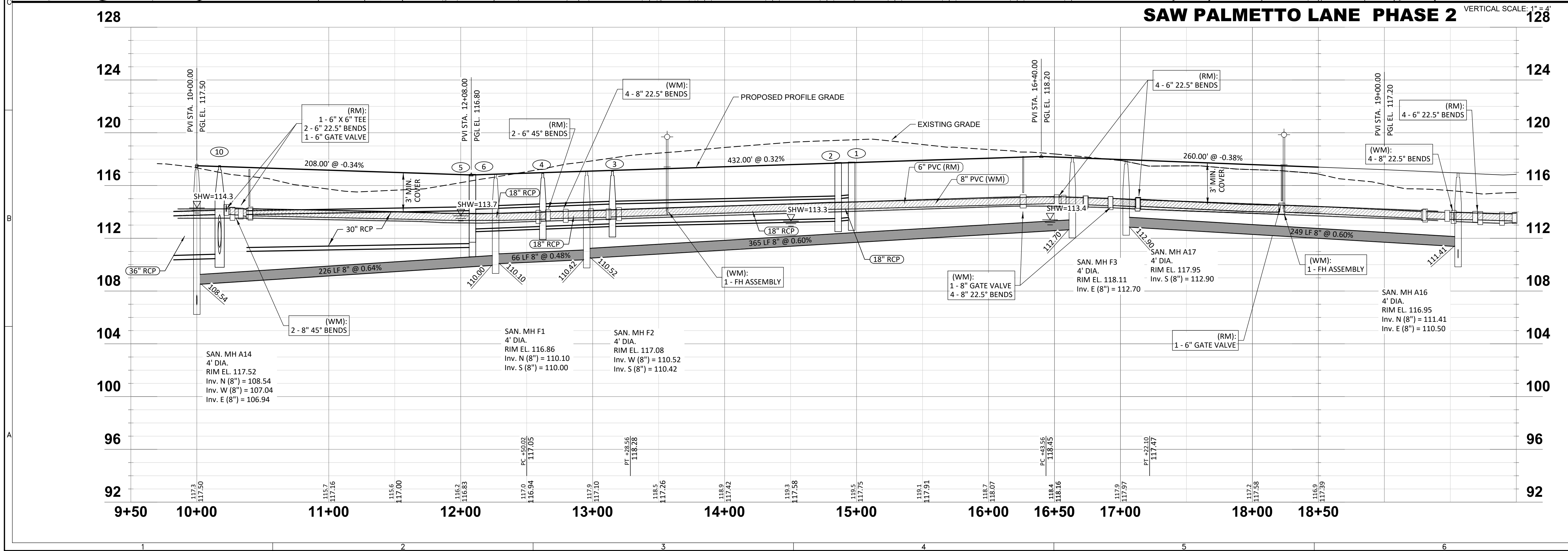
HEIDT DESIGN
Civil Engineering • Planning & GIS
Transportation Engineering
Ecological Services • Landscape Architecture

5904-A Hampton Oaks Pkwy.
Tampa, Florida 33610
Office: 813-253-5311
Fax: 813-464-7629
www.HeidtDesign.com

Engineering Business Certificate of Authorization No. 28792
Landscape Architecture Certificate of Authorization No. LC26080405

SERENOA VILLAGE 3 - PHASE 1, 2 & 3
ROADWAY PLAN & PROFILE

PREPARED FOR: **VK AVALON GROVES, LLC**



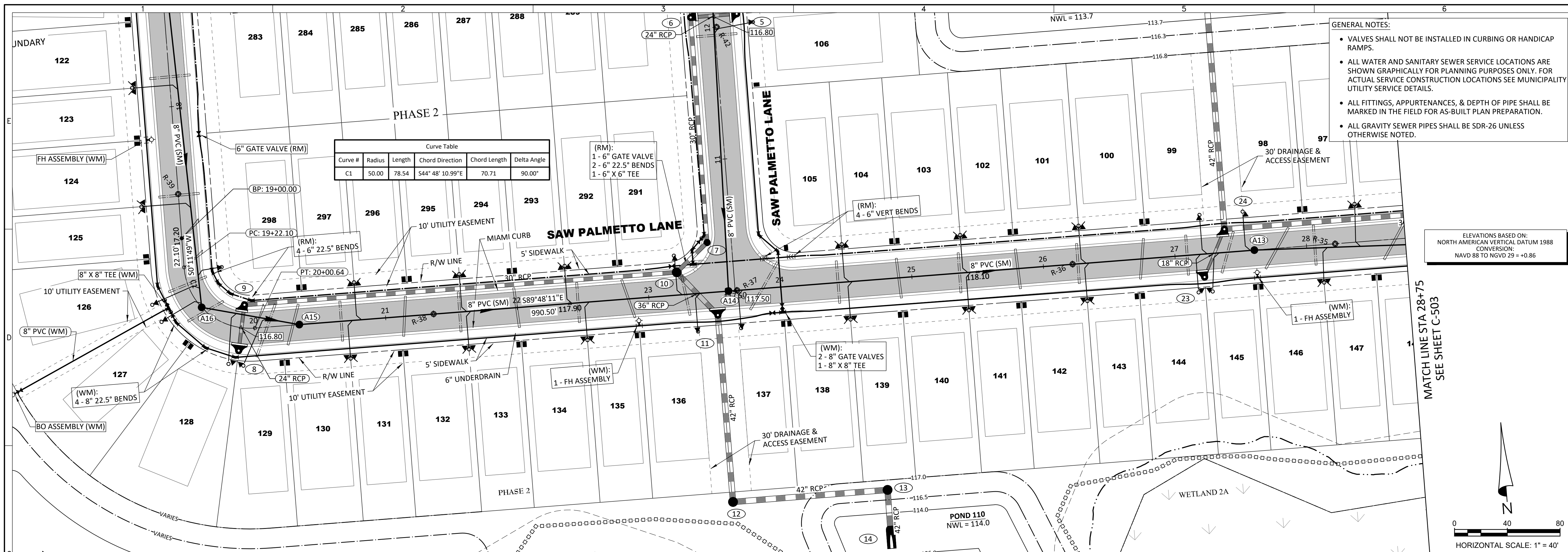
DATE	DESCRIPTION
11/08/2019	REVIEW SUBMITTAL
11/13/2019	REV. SAN SEWER PIPE INVERTS
03/20/2020	COUNTY & UTILITIES INC. COMMENTS
05/27/2020	COUNTY & UTILITIES INC. COMMENTS

PROJECT NO.: KLP-AG-1089
FILE: RP-1
DESIGN BY: FRANCIS
DRAWN BY: JLOAIZA

STATE OF FLORIDA PROFESSIONAL ENGINEER
Timothy M. Plate, State of Florida, Professional Engineer, License No. 41153
This item has been digitally signed and sealed by Timothy M. Plate, P.E. on the date indicated here.
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
DATE: _____
LICENSE NO. 41153

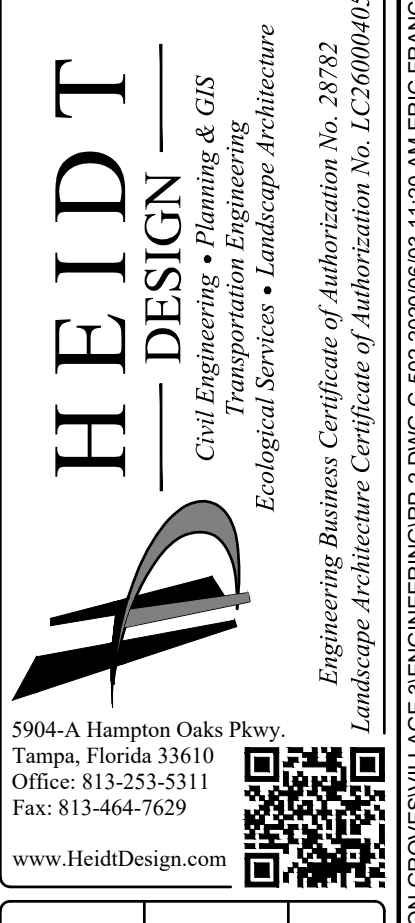
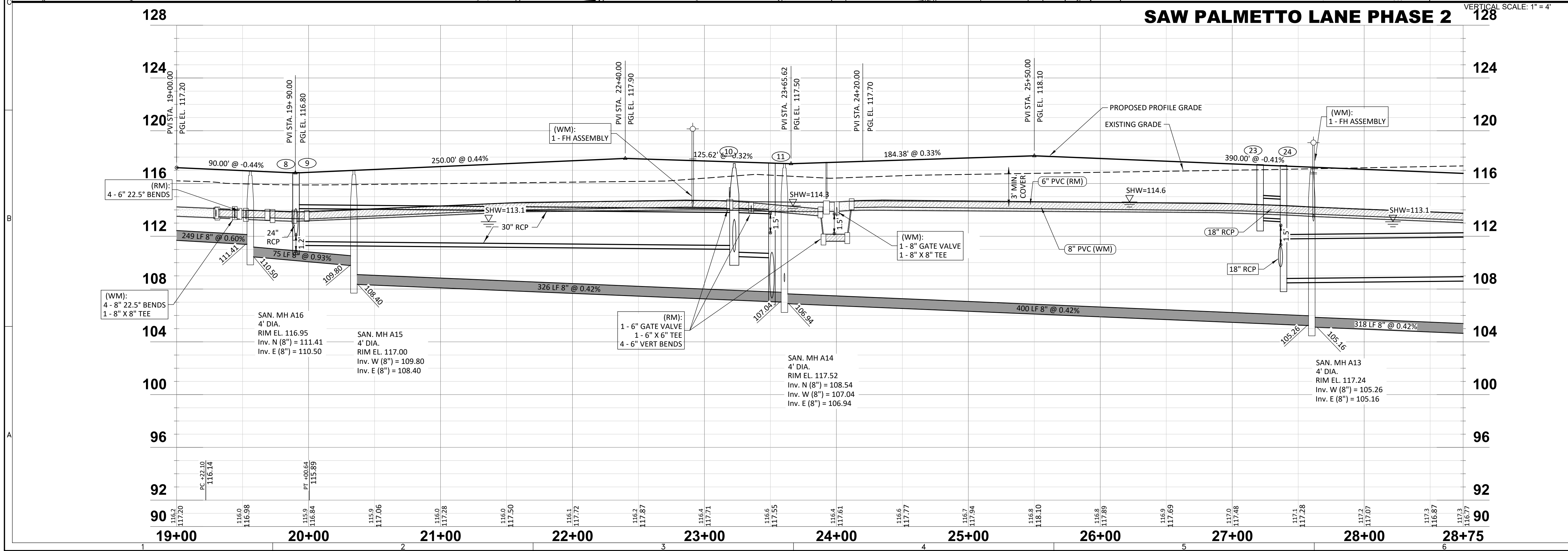
C-501



- GENERAL NOTES:**
- VALVES SHALL NOT BE INSTALLED IN CURBING OR HANDICAP RAMPS.
 - ALL WATER AND SANITARY SEWER SERVICE LOCATIONS ARE SHOWN GRAPHICALLY FOR PLANNING PURPOSES ONLY. FOR ACTUAL SERVICE CONSTRUCTION LOCATIONS SEE MUNICIPALITY UTILITY SERVICE DETAILS.
 - ALL FITTINGS, APPURTENANCES, & DEPTH OF PIPE SHALL BE MARKED IN THE FIELD FOR AS-BUILT PLAN PREPARATION.
 - ALL GRAVITY SEWER PIPES SHALL BE SDR-26 UNLESS OTHERWISE NOTED.

ELEVATIONS BASED ON:
NORTH AMERICAN VERTICAL DATUM 1988
CONVERSION:
NAVD 88 TO NGVD 29 = +0.86

HORIZONTAL SCALE: 1" = 40'



SERENOA
VILLAGE 3 - PHASE 1, 2 & 3
ROADWAY PLAN & PROFILE
FOR
VK AVALON GROVES, LLC

DATE	DESCRIPTION
08/27/2020	ADDED STR 7 & UTILITIES INC. COM.
03/20/2020	COUNTY & UTILITIES INC. COMMENTS
11/13/2019	REV. SAN SEWER PIPE
11/08/2019	REVISION SUBMITTAL

PROJECT NO.: KLP-AG-1089
FILE: RP-2
DESIGN BY: FRANCIS
DRAWN BY: JLOAIZA

STATE OF FLORIDA
PROFESSIONAL ENGINEER

Timothy M. Plate, State of Florida,
Professional Engineer, License No. 41153

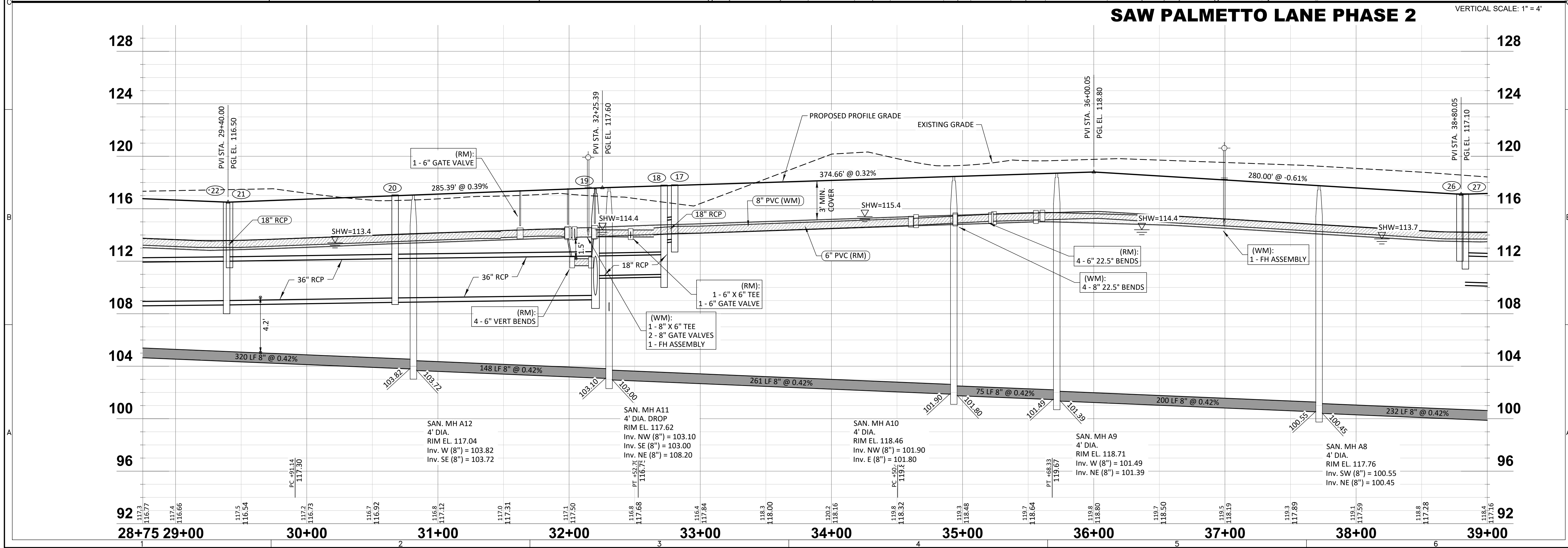
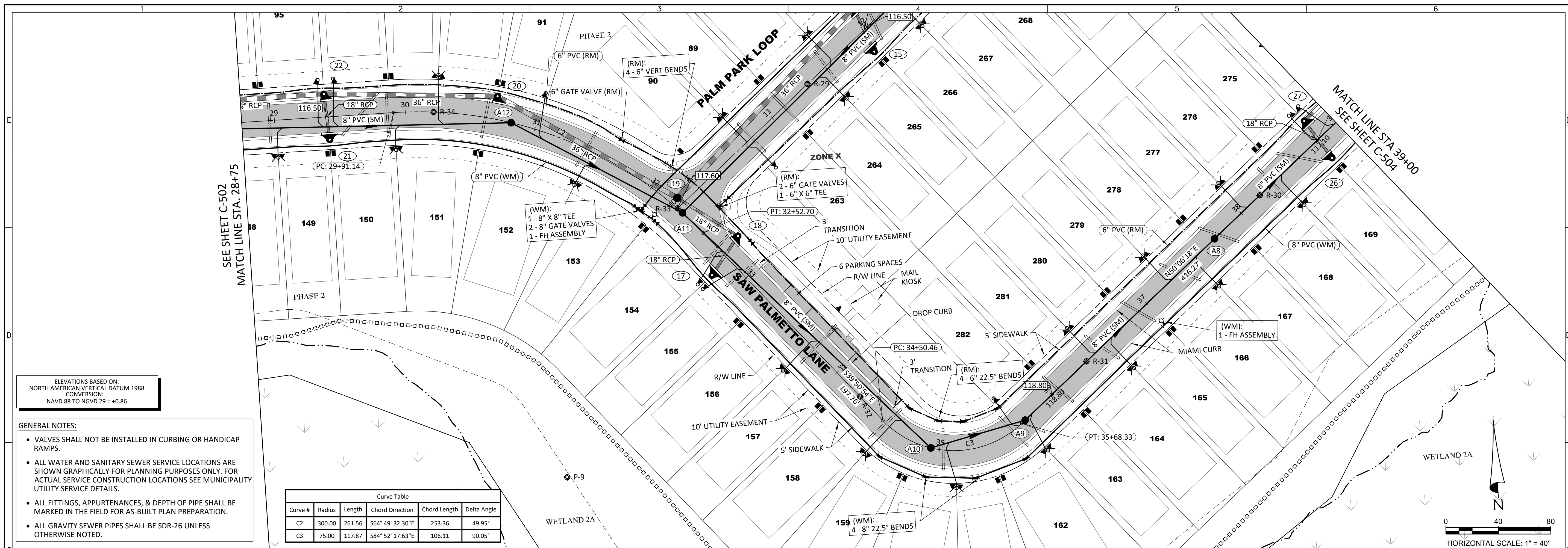
This item has been digitally
signed and sealed by
Timothy M. Plate, P.E. on the date
indicated here:

Printed copies of this document
are not considered signed and
sealed and the signature must be
verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
DATE: _____
LICENSE NO. 41153

C-502

© COPYRIGHT 2020, HEIDT DESIGN, LLC. ALL RIGHTS RESERVED. NO DOCUMENTATION INCLUDING BUT NOT LIMITED TO DRAWINGS OR EXHIBITS MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION IN WRITING FROM HEIDT DESIGN, LLC. THIS DOCUMENT IS HEREBY GRANTED SPECIFICALLY TO GOVERNMENTAL AGENCIES TO REPRODUCE THIS DOCUMENTATION IN COMPLIANCE WITH F.S. CHAPTER 119.



HEIDT DESIGN
Civil Engineering • Planning & GIS
Transportation Engineering
Ecological Services • Landscape Architecture

5904-A Hampton Oaks Pkwy.
Tampa, Florida 33610
Office: 813-253-5311
Fax: 813-464-7629
www.HeidtDesign.com

Engineering Business Certificate of Authorization No. 28793
Landscape Architecture Certificate of Authorization No. LC26080405

PROJECT NO. KLP-AG-1089
FILE: RP-2
DESIGN BY: FRANCIS
DRAWN BY: JLOAIZA

STATE OF FLORIDA
PROFESSIONAL ENGINEER

Timothy M. Plate, State of Florida,
Professional Engineer, License No. 41153

This item has been digitally
signed and sealed by
Timothy M. Plate, P.E. on the date
indicated here:

Printed copies of this document
are not considered signed and
sealed and the signature must be
verified on any electronic copies.

DATE: 11/15/2023
TIMOTHY M. PLATE, P.E.
LICENSE NO. 41153

PREPARED FOR: VK AVALON GROVES, LLC

REVISIONS:

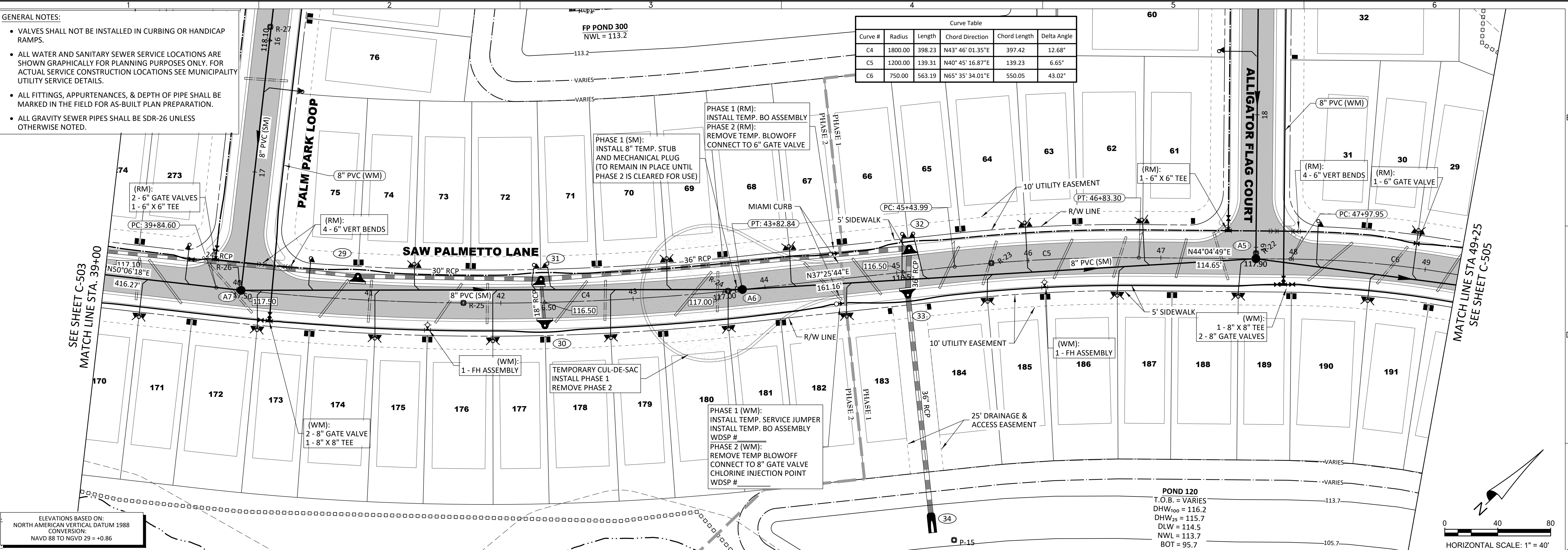
NO.	DATE	DESCRIPTION
1	05/27/2020	UTILITIES INC. COMMENTS
2	03/20/2020	COUNTY UTILITIES INC. COMMENTS
3	11/08/2019	REVISED SUBMITTAL

C-503

R:\AVALON GROVES\VILLAGE 3\ENGINEERING\RP-2.DWG-C-503 20200303 11:20 AM ERIC FRANCIS

- GENERAL NOTES:**
- VALVES SHALL NOT BE INSTALLED IN CURBING OR HANDICAP RAMPS.
 - ALL WATER AND SANITARY SEWER SERVICE LOCATIONS ARE SHOWN GRAPHICALLY FOR PLANNING PURPOSES ONLY. FOR ACTUAL SERVICE CONSTRUCTION LOCATIONS SEE MUNICIPALITY UTILITY SERVICE DETAILS.
 - ALL FITTINGS, APPURTENANCES, & DEPTH OF PIPE SHALL BE MARKED IN THE FIELD FOR AS-BUILT PLAN PREPARATION.
 - ALL GRAVITY SEWER PIPES SHALL BE SDR-26 UNLESS OTHERWISE NOTED.

Curve #	Radius	Length	Chord Direction	Chord Length	Delta Angle
C4	1800.00	398.23	N43° 46' 01.35"E	397.42	12.68°
C5	1200.00	139.31	N40° 45' 16.87"E	139.23	6.65°
C6	750.00	563.19	N65° 35' 34.01"E	550.05	43.02°

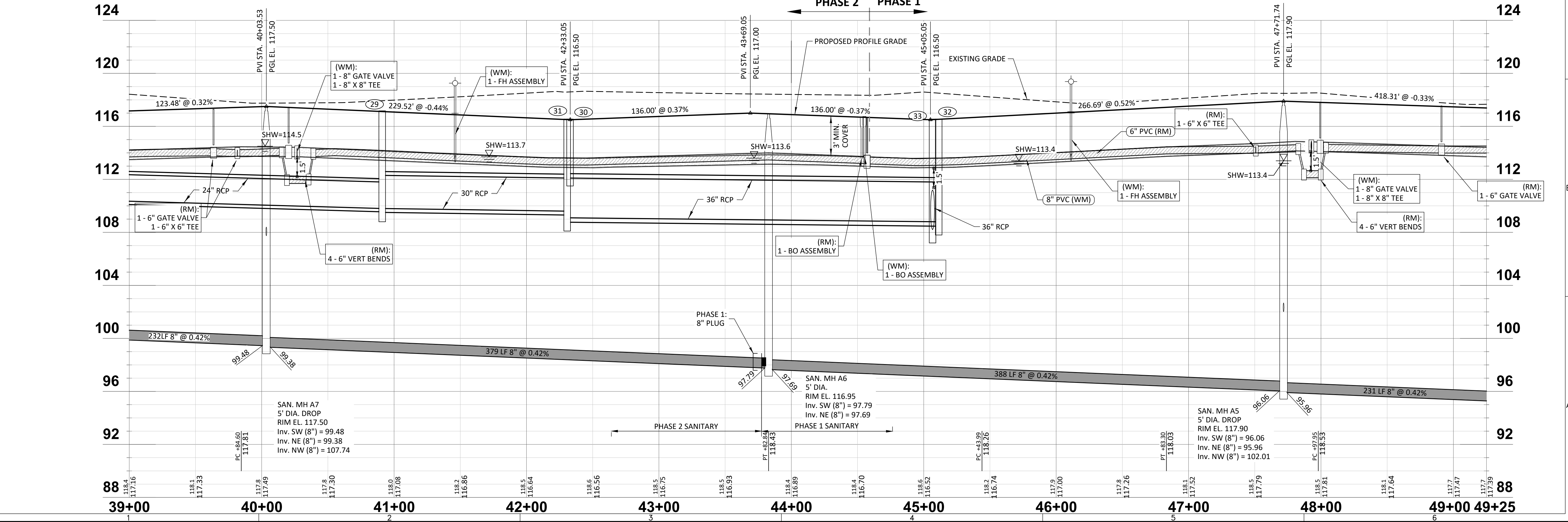


ELEVATIONS BASED ON:
NORTH AMERICAN VERTICAL DATUM 1988
CONVERSION:
NAVD 88 TO NGVD 29 = +0.86

POND 120
I.O.B. = VARIES
DHW_{top} = 116.2
DHW_{bot} = 115.7
DLW = 114.5
NWL = 113.7
BOT = 95.7

HORIZONTAL SCALE: 1" = 40'
VERTICAL SCALE: 1" = 4'

SAW PALMETTO LANE PHASE 1 & PHASE 2



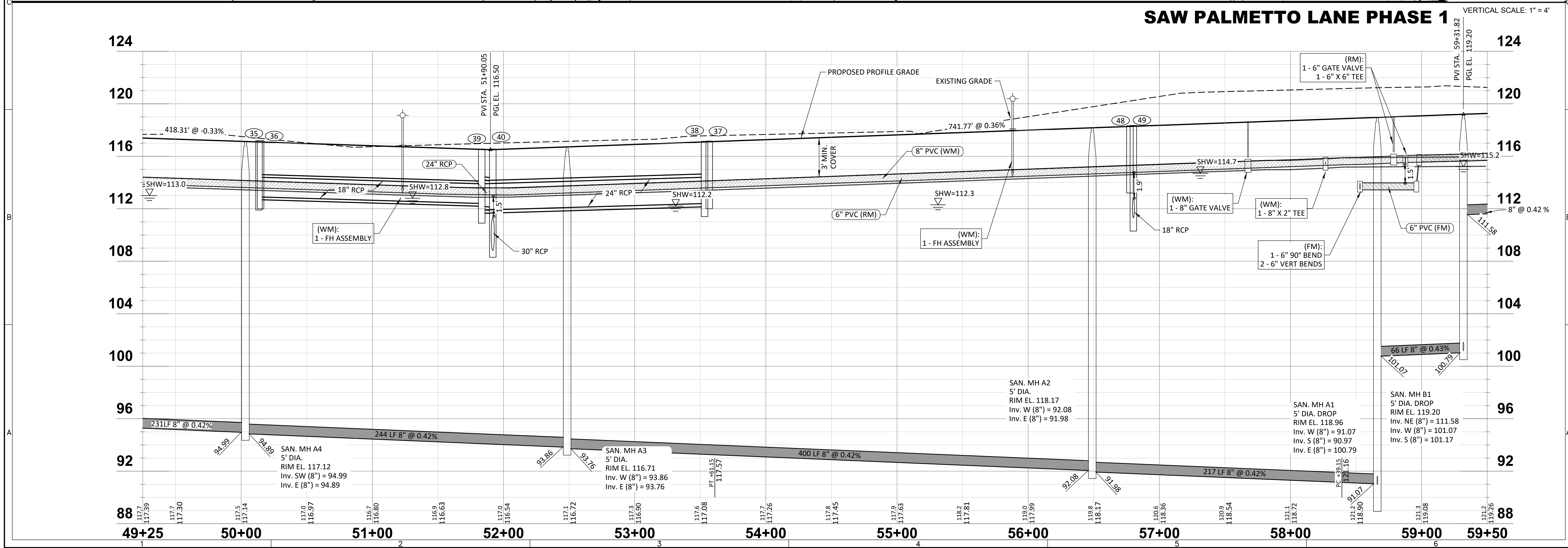
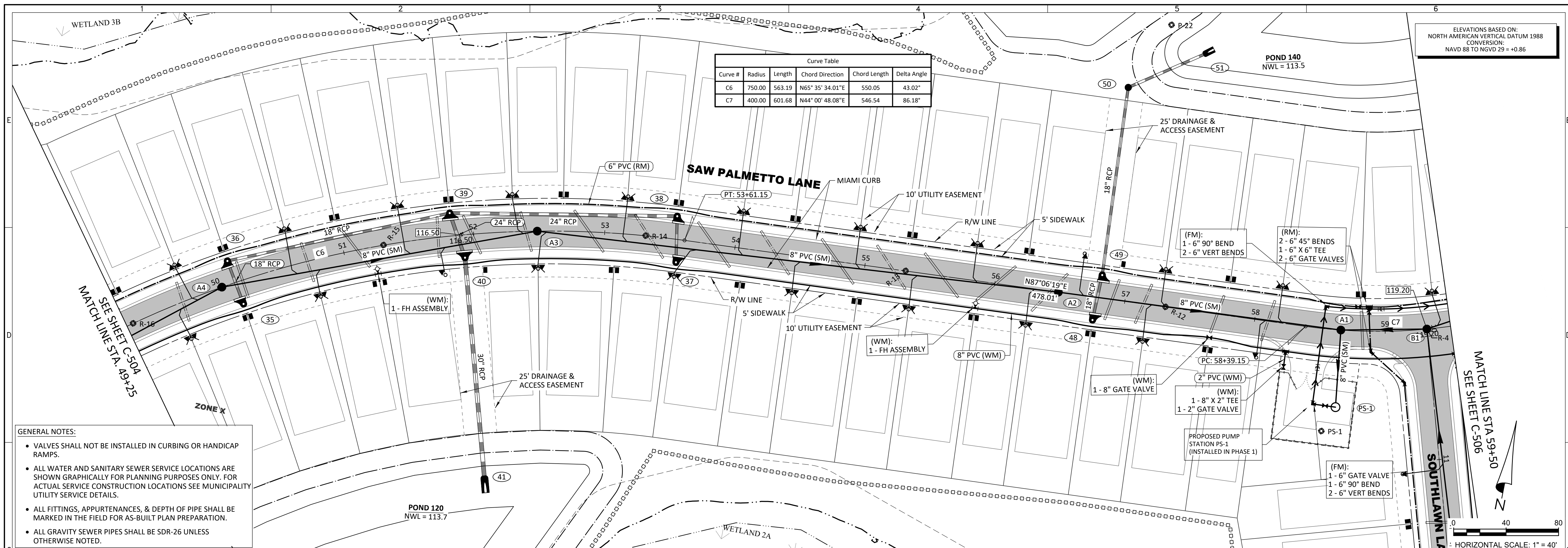
HEIDT DESIGN
Civil Engineering • Planning & GIS
Transportation Engineering
Ecological Services • Landscape Architecture
Engineering Business Certificate of Authorization No. 28793
Landscape Architecture Certificate of Authorization No. LC26080405
5904-A Hampton Oaks Pkwy.
Tampa, Florida 33610
Office: 813-253-5311
Fax: 813-464-7629
www.HeidtDesign.com

SERENOA
VILLAGE 3 - PHASE 1, 2 & 3
ROADWAY PLAN & PROFILE
PREPARED FOR: VK AVALON GROVES, LLC

NO.	DATE	DESCRIPTION
1	11/08/2019	REVIEW SUBMITTAL
2	03/20/2020	COUNTY & UTILITIES INC. COMMENTS
3	05/27/2020	UTILITIES INC. COMMENTS

PROJECT NO.: KLP-AG-1089
FILE: RP-2
DESIGN BY: FRANCIS
DRAWN BY: JLOAIZA
STATE OF FLORIDA
PROFESSIONAL ENGINEER
Timothy M. Plate, State of Florida,
Professional Engineer, License No. 41153
This item has been digitally
signed and sealed by
Timothy M. Plate, P.E. on the date
indicated here:
Printed copies of this document
are not considered signed and
sealed and the signature must be
verified on any electronic copies.
TIMOTHY M. PLATE, P.E.
DATE: 04/15/2020
C-504

© COPYRIGHT 2020 HEIDT DESIGN, LLC. ALL RIGHTS RESERVED. NO DOCUMENTATION INCLUDING BUT NOT LIMITED TO DRAWINGS OR EXHIBITS MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION IN WRITING FROM HEIDT DESIGN, LLC. THIS DOCUMENT IS HEREBY GRANTED SPECIFICALLY TO GOVERNMENTAL AGENCIES TO REPRODUCE THIS DOCUMENTATION IN COMPLIANCE WITH F.S. CHAPTER 119.



HEIDT DESIGN
Civil Engineering • Planning & GIS
Transportation Engineering
Ecological Services • Landscape Architecture

5904-A Hampton Oaks Pkwy.
Tampa, Florida 33610
Office: 813-253-5311
Fax: 813-464-7629
www.HeidtDesign.com

Engineering Business Certificate of Authorization No. 28793
Landscape Architecture Certificate of Authorization No. LC26004005
RAVALON GROVE/VILLAGE 3/ENGINEERING/2.DWG-C-05 2020/03/11-21 AM ERIC FRANCIS

SERENOA VILLAGE 3 - PHASE 1, 2 & 3
ROADWAY PLAN & PROFILE

PREPARED FOR: **VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION
3	05/27/2020	UTILITIES INC. COMMENTS
2	02/20/2020	COUNTY UTILITIES INC. COMMENTS
1	11/08/2019	REVISED SUBMITTAL

PROJECT NO.: KLP-AG-1089
FILE: RP-7
DESIGN BY: FRANCIS
DRAWN BY: JLOAIZA

STATE OF FLORIDA
PROFESSIONAL ENGINEER

Timothy M. Plate, State of Florida,
Professional Engineer, License No. 41153

This item has been digitally
signed and sealed by
Timothy M. Plate, P.E. on the date
indicated here:

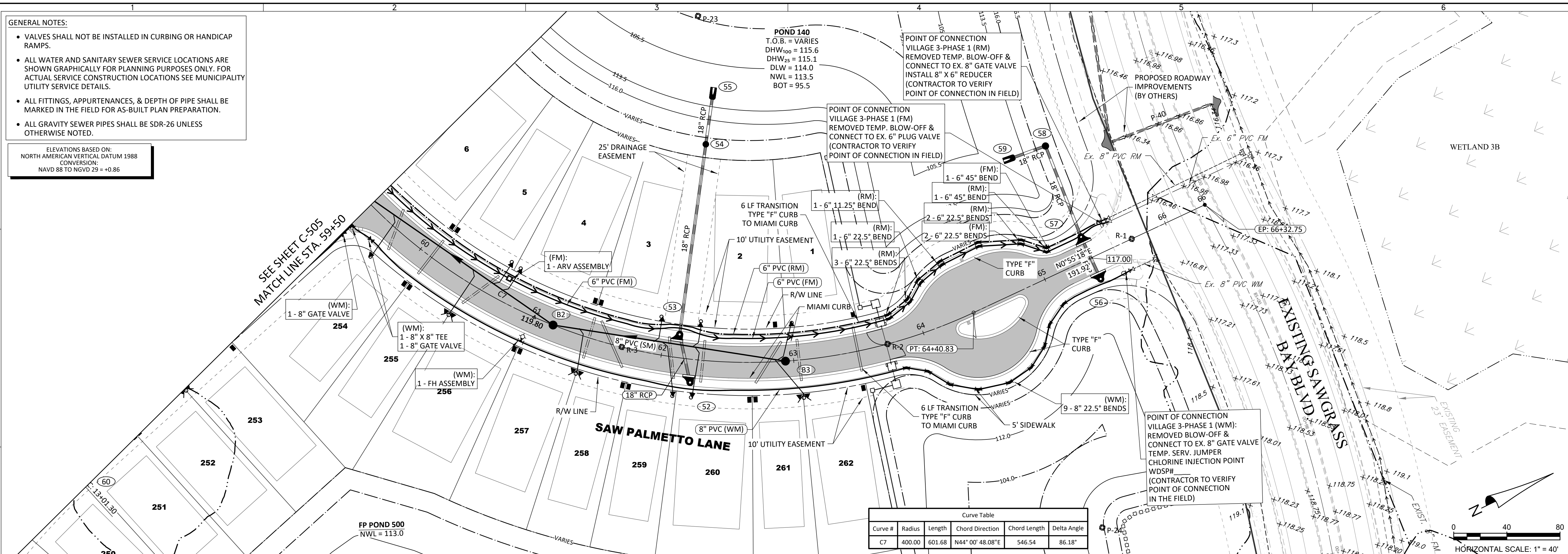
Printed copies of this document
are not considered signed and
sealed and the signature must be
verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
DATE: _____
LICENSE NO. 41153

C-505

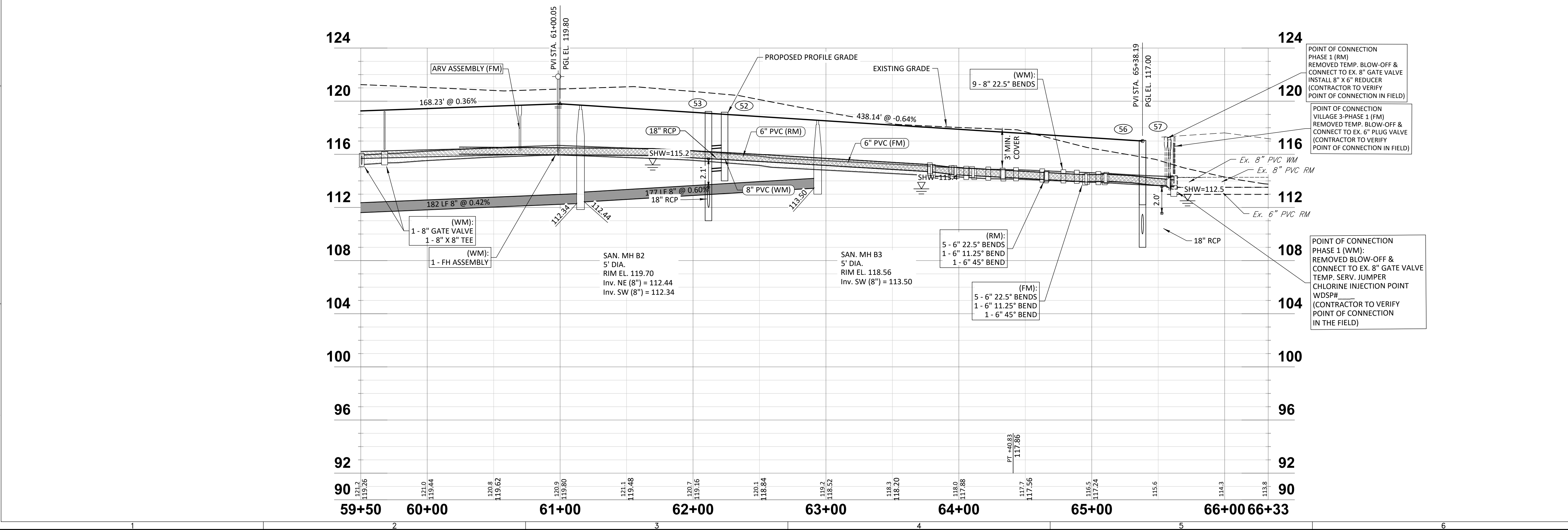
- GENERAL NOTES:**
- VALVES SHALL NOT BE INSTALLED IN CURBING OR HANDICAP RAMPS.
 - ALL WATER AND SANITARY SEWER SERVICE LOCATIONS ARE SHOWN GRAPHICALLY FOR PLANNING PURPOSES ONLY. FOR ACTUAL SERVICE CONSTRUCTION LOCATIONS SEE MUNICIPALITY UTILITY SERVICE DETAILS.
 - ALL FITTINGS, APPURTENANCES, & DEPTH OF PIPE SHALL BE MARKED IN THE FIELD FOR AS-BUILT PLAN PREPARATION.
 - ALL GRAVITY SEWER PIPES SHALL BE SDR-26 UNLESS OTHERWISE NOTED.

ELEVATIONS BASED ON:
NORTH AMERICAN VERTICAL DATUM 1988
CONVERSION:
NAVD 88 TO NGVD 29 = +0.86



Curve #	Radius	Length	Chord Direction	Chord Length	Delta Angle
C7	400.00	601.68	N44° 00' 48.08" E	546.54	86.38°

SAW PALMETTO LANE - PHASE 1



SERENOA
VILLAGE 3 - PHASE 1, 2 & 3
ROADWAY PLAN & PROFILE
PREPARED FOR: **VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION
3	05/27/2020	UTILITIES INC. COMMENTS
2	03/20/2020	COUNTY & UTILITIES INC. COMMENTS
1	11/13/2019	REV. SAN SEWER PIPE INVERTS
	11/08/2019	REVISED SUBMITTAL

PROJECT NO.: KLP-AG-1089
FILE: RP-2
DESIGN BY: FRANCIS
DRAWN BY: JLOAIZA

STATE OF FLORIDA
PROFESSIONAL ENGINEER

Timothy M. Plate, State of Florida,
Professional Engineer, License No. 41153

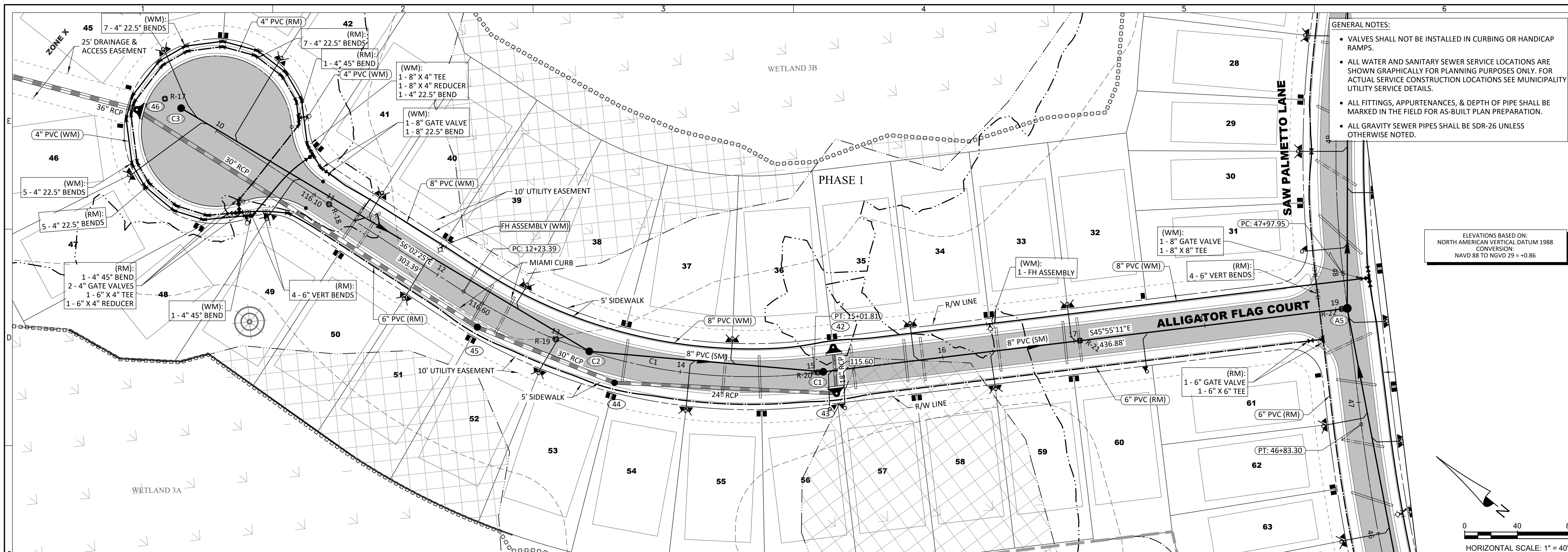
This item has been digitally
signed and sealed by
Timothy M. Plate, P.E. on the date
indicated here:

Printed copies of this document
are not considered signed and
sealed and the signature must be
verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
DATE: _____
LICENSE NO. 41153

C-506

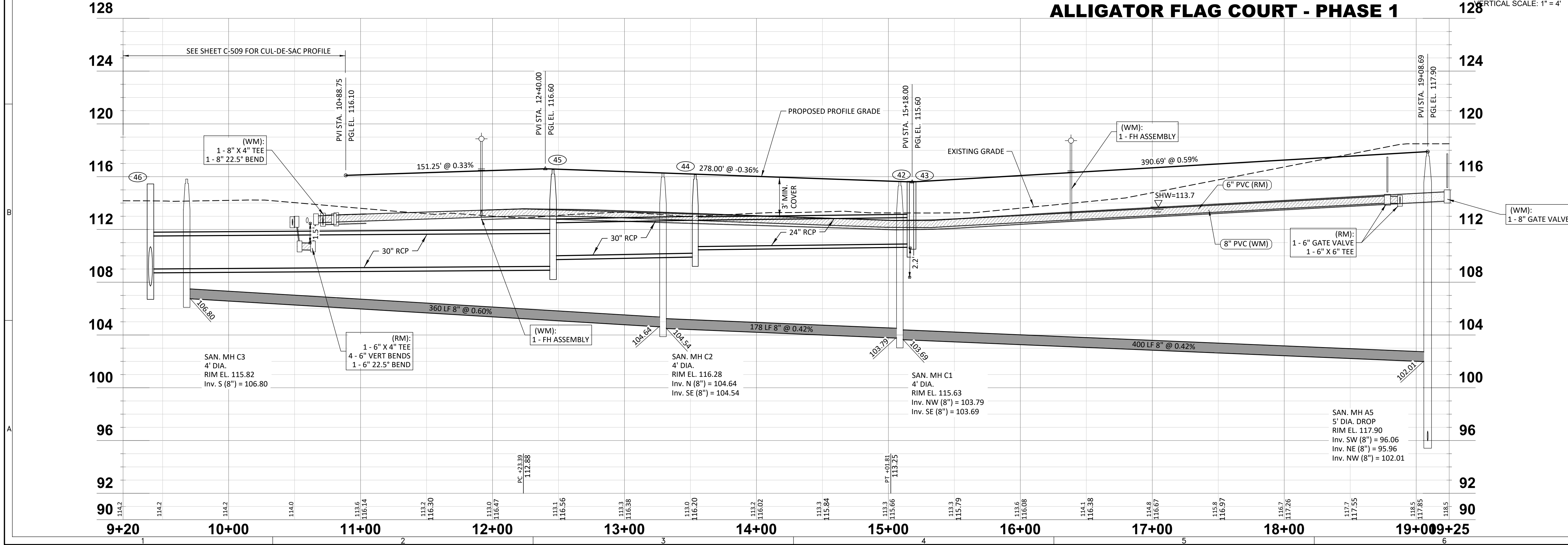
© COPYRIGHT 2020, HEIDT DESIGN, LLC. ALL RIGHTS RESERVED. NO DOCUMENTATION INCLUDING BUT NOT LIMITED TO DRAWINGS OR EXHIBITS MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT PERMISSION IN WRITING FROM HEIDT DESIGN, LLC. THIS DOCUMENT IS HEREBY GRANTED SPECIFICALLY TO GOVERNMENTAL AGENCIES TO REPRODUCE THIS DOCUMENTATION IN COMPLIANCE WITH F.S. CHAPTER 119.



- GENERAL NOTES:**
- VALVES SHALL NOT BE INSTALLED IN CURBING OR HANDICAP RAMPS.
 - ALL WATER AND SANITARY SEWER SERVICE LOCATIONS ARE SHOWN GRAPHICALLY FOR PLANNING PURPOSES ONLY. FOR ACTUAL SERVICE CONSTRUCTION LOCATIONS SEE MUNICIPALITY UTILITY SERVICE DETAILS.
 - ALL FITTINGS, APPURTENANCES, & DEPTH OF PIPE SHALL BE MARKED IN THE FIELD FOR AS-BUILT PLAN PREPARATION.
 - ALL GRAVITY SEWER PIPES SHALL BE SDR-26 UNLESS OTHERWISE NOTED.

ELEVATIONS BASED ON:
NORTH AMERICAN VERTICAL DATUM 1988
CONVERSION:
NAVD 88 TO NGVD 29 = +0.86

HORIZONTAL SCALE: 1" = 40'



HEIDT DESIGN
Civil Engineering • Planning & GIS
Transportation Engineering
Ecological Services • Landscape Architecture

5904-A Hampton Oaks Pkwy.
Tampa, Florida 33610
Office: 813-253-5311
Fax: 813-464-7629
www.HeidtDesign.com

SERENOA VILLAGE 3 - PHASE 1, 2 & 3
ROADWAY PLAN & PROFILE

PREPARED FOR: **VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION
3	05/27/2020	REV. UTILITIES, INC. COMMENTS
1	11/13/2019	REV. ADDED SAN MH AS PROFILE
1	11/08/2019	REVISED SUBMITTAL

PROJECT NO.: KLP-AG-1089
FILE: RP-3
DESIGN BY: FRANCIS
DRAWN BY: JLOAIZA

STATE OF FLORIDA
PROFESSIONAL ENGINEER

Timothy M. Plate, State of Florida,
Professional Engineer, License No. 41153

This form has been digitally
signed and sealed by
Timothy M. Plate, P.E. on the date
indicated here:

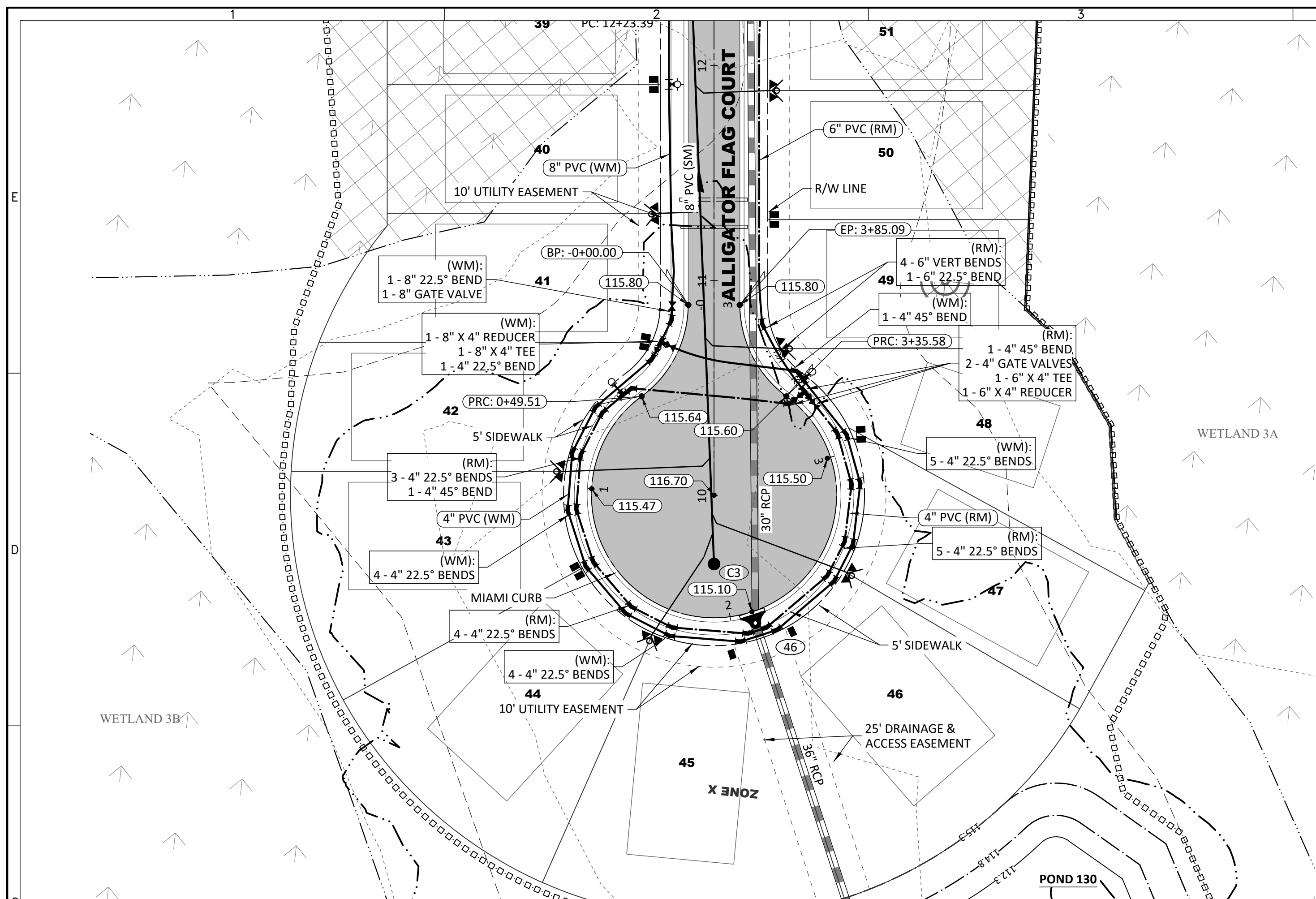
Printed copies of this document
are not considered signed and
sealed and the signature must be
verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
DATE: _____
LICENSE NO. 41153

C-507

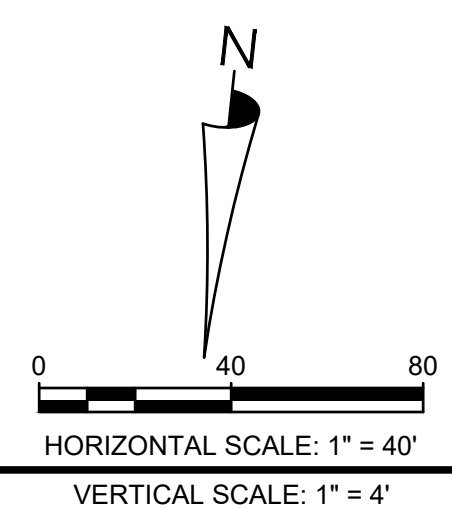
© COPYRIGHT 2020, HEIDT DESIGN, LLC. ALL RIGHTS RESERVED. NO DOCUMENTATION INCLUDING BUT NOT LIMITED TO DRAWINGS OR EXHIBITS MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION IN WRITING FROM HEIDT DESIGN, LLC. THIS DOCUMENT IS HEREBY GRANTED SPECIFICALLY TO GOVERNMENTAL AGENCIES TO REPRODUCE THIS DOCUMENTATION IN COMPLIANCE WITH F.S. CHAPTER 119.

R:\AVALON GROVES\VILLAGE 3\ENGINEERING\RP-3.DWG-C-507 2020\0303 11:22 AM ERIC FRANCIS

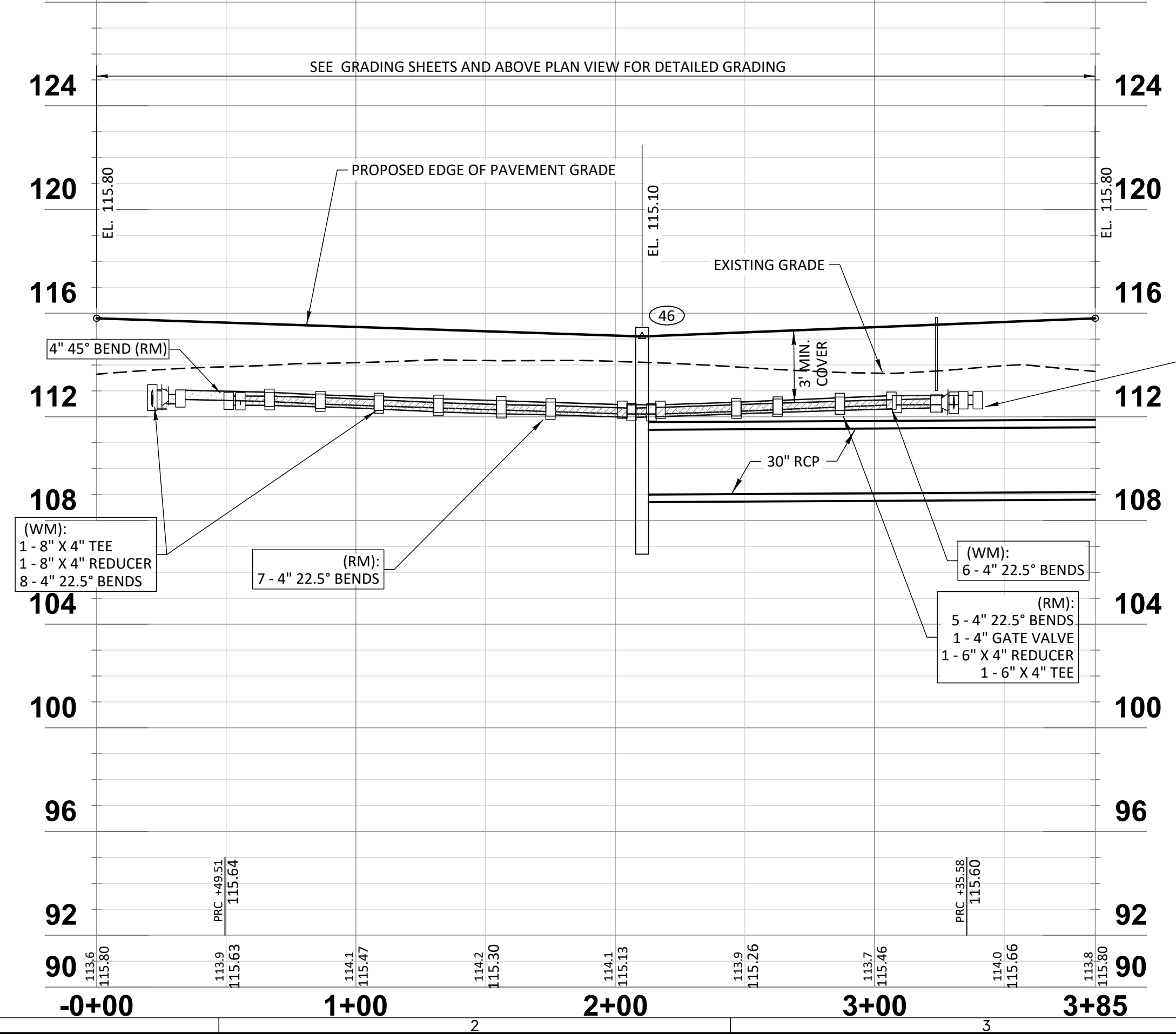


- GENERAL NOTES:**
- VALVES SHALL NOT BE INSTALLED IN CURBING OR HANDICAP RAMPS.
 - ALL WATER AND SANITARY SEWER SERVICE LOCATIONS ARE SHOWN GRAPHICALLY FOR PLANNING PURPOSES ONLY. FOR ACTUAL SERVICE CONSTRUCTION LOCATIONS SEE MUNICIPALITY UTILITY SERVICE DETAILS.
 - ALL FITTINGS, APPURTENANCES, & DEPTH OF PIPE SHALL BE MARKED IN THE FIELD FOR AS-BUILT PLAN PREPARATION.
 - ALL GRAVITY SEWER PIPES SHALL BE SDR-26 UNLESS OTHERWISE NOTED.

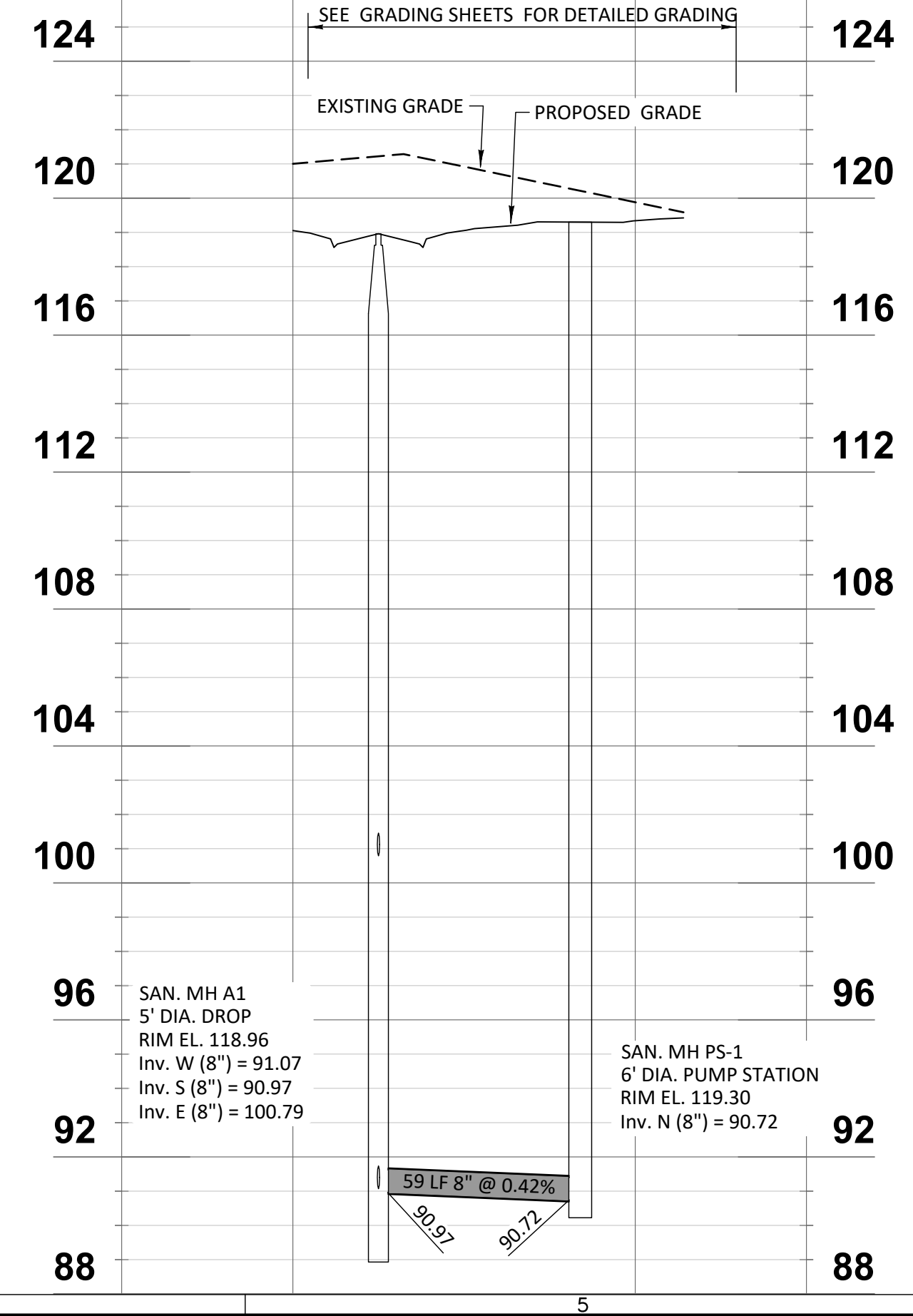
ELEVATIONS BASED ON:
NORTH AMERICAN VERTICAL DATUM 1988
CONVERSION:
NAVD 88 TO NGVD 29 = +0.86



ALLIGATOR FLAG COURT CUL-DE-SAC PHASE 1



SAN SEWER PROFILE FROM MH A1 TO PS-1 PHASE 1



HEIDT DESIGN
Civil Engineering • Planning & GIS
Transportation Engineering
Ecological Services • Landscape Architecture

5904-A Hampton Oaks Pkwy.
Tampa, Florida 33610
Office: 813-253-5311
Fax: 813-464-7629
www.HeidtDesign.com

SERENOA
VILLAGE 3 - PHASE 1, 2 & 3
ROADWAY PLAN & PROFILE
PREPARED FOR: VK AVALON GROVES, LLC

NO.	DATE	DESCRIPTION
3	05/27/2020	UTILITIES, INC. COMMENTS & ADDED NEW LOT #48
1	11/13/2019	ADDED SAN SEWER PROFILE
1	11/08/2019	REVIEW SUBMITTAL

PROJECT NO.: KLP-AG-1089
FILE: RP-4
DESIGN BY: FRANCIS
DRAWN BY: JLOAIZA

STATE OF FLORIDA
PROFESSIONAL ENGINEER

Timothy M. Plate, State of Florida,
Professional Engineer, License No. 41153

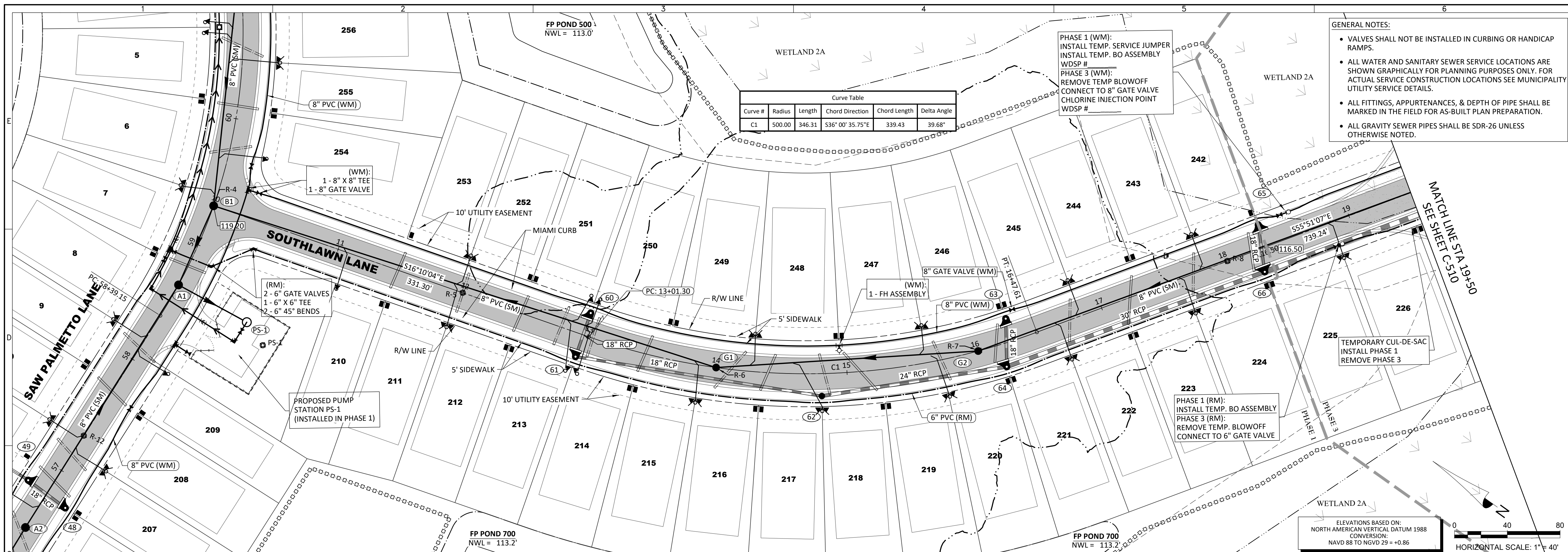
This item has been digitally
signed and sealed by
Timothy M. Plate, P.E. on the date
indicated here:

Printed copies of this document
are not considered signed and
sealed and the signature must be
verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
DATE: _____
LICENSE NO. 41153

C-508

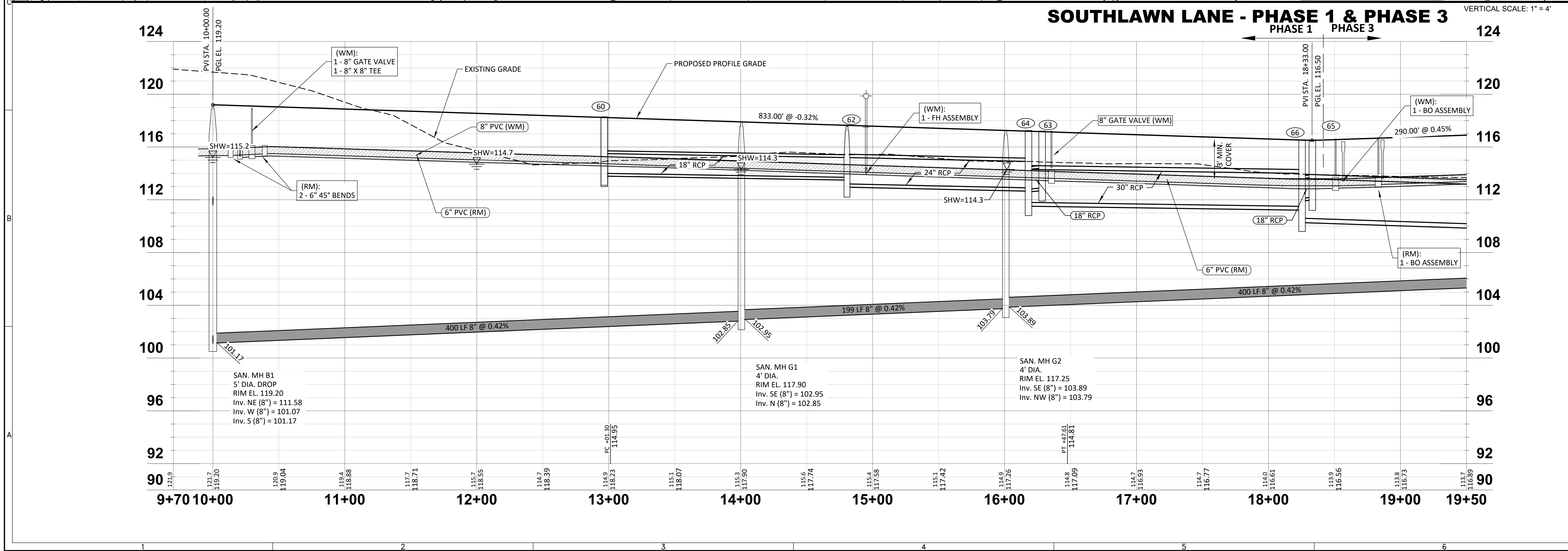
R:\AVALON GROVES\BILLBOARD\ENGINEERING\RP-4.DWG-C-508 20200603 11:23 AM ERIC FRANCIS



Curve #	Radius	Length	Chord Direction	Chord Length	Delta Angle
C1	500.00	346.31	S36°00'35.75\"/>		

- GENERAL NOTES:**
- VALVES SHALL NOT BE INSTALLED IN CURBING OR HANDICAP RAMPS.
 - ALL WATER AND SANITARY SEWER SERVICE LOCATIONS ARE SHOWN GRAPHICALLY FOR PLANNING PURPOSES ONLY. FOR ACTUAL SERVICE CONSTRUCTION LOCATIONS SEE MUNICIPALITY UTILITY SERVICE DETAILS.
 - ALL FITTINGS, APPURTENANCES, & DEPTH OF PIPE SHALL BE MARKED IN THE FIELD FOR AS-BUILT PLAN PREPARATION.
 - ALL GRAVITY SEWER PIPES SHALL BE SDR-26 UNLESS OTHERWISE NOTED.

SOUTHLAWN LANE - PHASE 1 & PHASE 3



HEIDT DESIGN
Civil Engineering • Planning & GIS
Transportation Engineering
Ecological Services • Landscape Architecture

5904-A Hampton Oaks Pkwy.
Tampa, Florida 33610
Office: 813-253-5311
Fax: 813-464-7629
www.HeidtDesign.com

SERENOA VILLAGE 3 - PHASE 1, 2 & 3

ROADWAY PLAN & PROFILE

PREPARED FOR: **VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION
3	05/27/2020	UTILITIES, INC. COMMENTS
	11/08/2019	REVIEW SUBMITTAL

PROJECT NO.:	KLP-AG-1089
FILE:	RP-15
DESIGN BY:	FRANCIS
DRAWN BY:	JLOAIZA

STATE OF FLORIDA
PROFESSIONAL ENGINEER

Timothy M. Plate, State of Florida,
Professional Engineer, License No. 41153

This item has been digitally
signed and sealed by
Timothy M. Plate, P.E. on the date
indicated here:

Printed copies of this document
are not considered signed and
sealed and the signature must be
verified on any electronic copies.

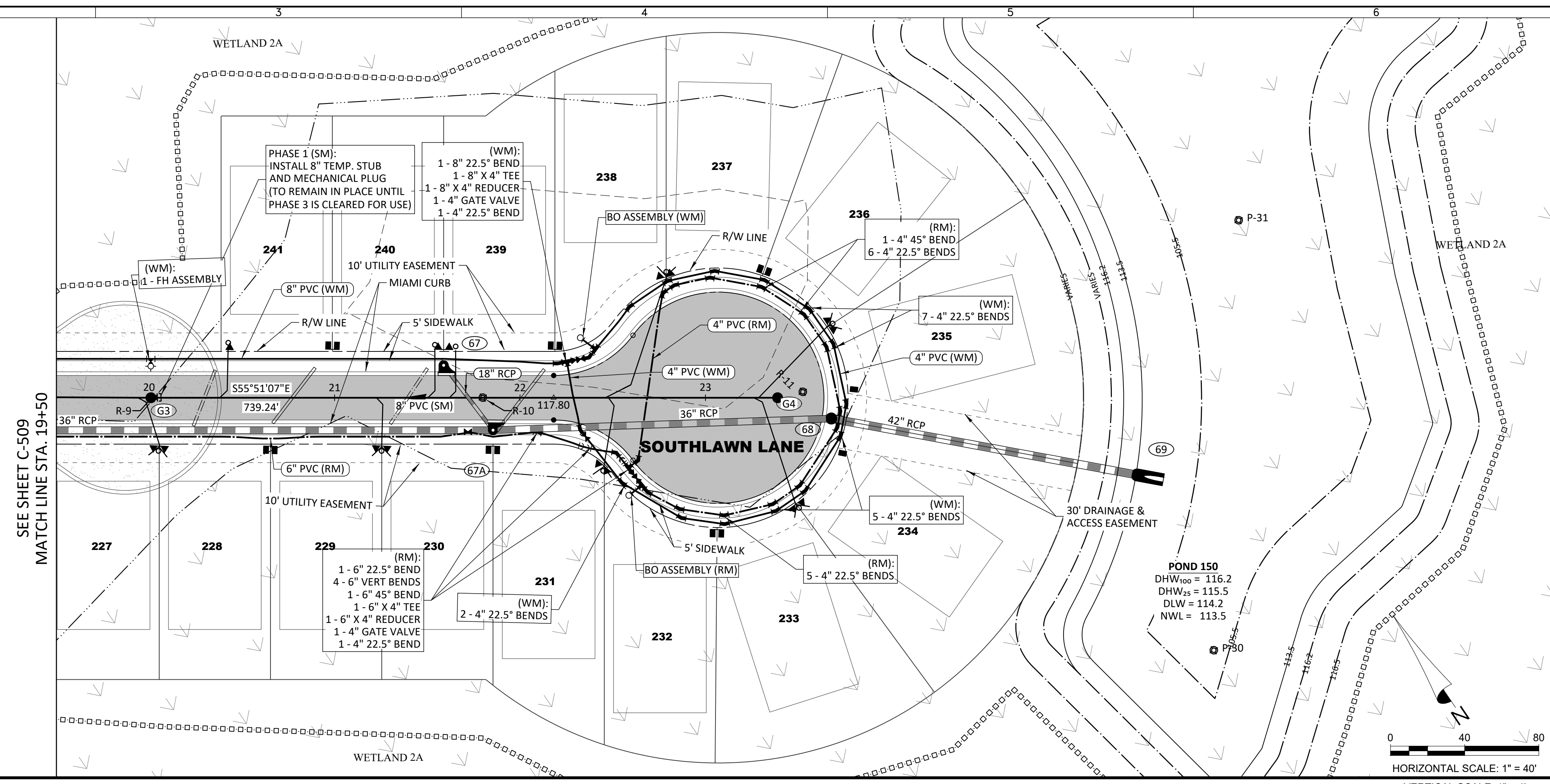
TIMOTHY M. PLATE, P.E.
DATE: _____
LICENSE NO. 41153

C-509

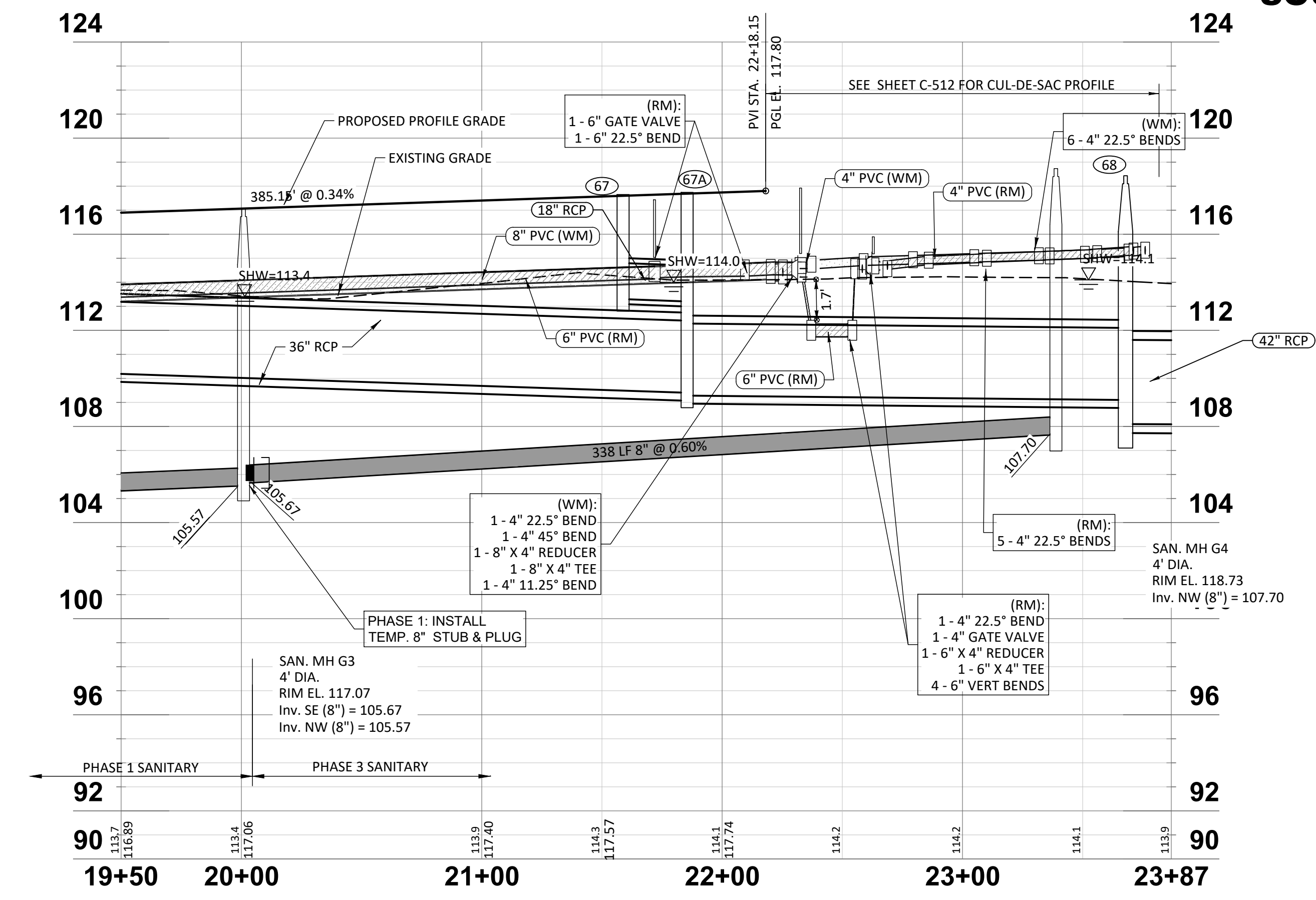
R:\AVALON GROVES\VILLAGE 3\ENGINEERING\RP-15.DWG-C-509 2020/03/11 12:24 AM ERIC FRANCIS
 Engineering Business Certificate of Authorization No. 28793
 Landscape Architecture Certificate of Authorization No. LC26080405

- GENERAL NOTES:**
- VALVES SHALL NOT BE INSTALLED IN CURBING OR HANDICAP RAMPS.
 - ALL WATER AND SANITARY SEWER SERVICE LOCATIONS ARE SHOWN GRAPHICALLY FOR PLANNING PURPOSES ONLY. FOR ACTUAL SERVICE CONSTRUCTION LOCATIONS SEE MUNICIPALITY UTILITY SERVICE DETAILS.
 - ALL FITTINGS, APPURTENANCES, & DEPTH OF PIPE SHALL BE MARKED IN THE FIELD FOR AS-BUILT PLAN PREPARATION.
 - ALL GRAVITY SEWER PIPES SHALL BE SDR-26 UNLESS OTHERWISE NOTED.

ELEVATIONS BASED ON:
 NORTH AMERICAN VERTICAL DATUM 1988
 CONVERSION:
 NAVD 88 TO NGVD 29 = +0.86



SOUTHLAWN LANE - PHASE 3
 HORIZONTAL SCALE: 1" = 40'
 VERTICAL SCALE: 1" = 4'



HEIDT DESIGN
 Civil Engineering • Planning & GIS
 Transportation Engineering
 Ecological Services • Landscape Architecture

5904-A Hampton Oaks Pkwy.
 Tampa, Florida 33610
 Office: 813-253-5311
 Fax: 813-464-7629
 www.HeidtDesign.com

SERENOA VILLAGE 3 - PHASE 1, 2 & 3
ROADWAY PLAN & PROFILE

PREPARED FOR: **VK AVALON GROVES, LLC**

DATE	DESCRIPTION
11/17/2019	SAN SEWER PROFILE LABELS
11/08/2019	REVIEW SUBMITTAL

PROJECT NO: KLP-AG-1089
 FILE: RP-15
 DESIGN BY: FRANCIS
 DRAWN BY: JLOAIZA

STATE OF FLORIDA
 PROFESSIONAL ENGINEER

Timothy M. Plate, State of Florida,
 Professional Engineer, License No. 41153

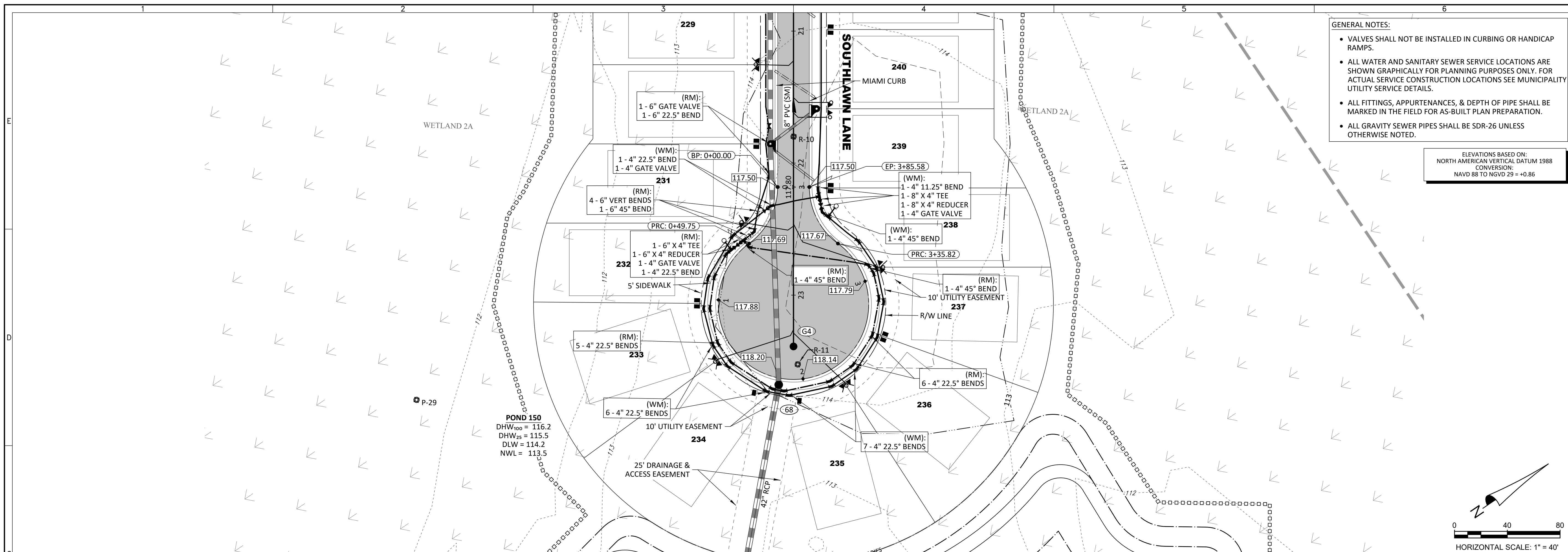
This item has been digitally
 signed and sealed by
 Timothy M. Plate, P.E. on the date
 indicated here:

Printed copies of this document
 are not considered signed and
 sealed and the signature must be
 verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
 DATE: _____
 LICENSE NO. 41153

C-510

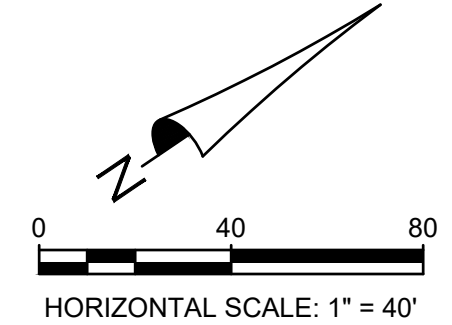
© COPYRIGHT 2020, HEIDT DESIGN, LLC. ALL RIGHTS RESERVED. NO DOCUMENTATION INCLUDING BUT NOT LIMITED TO DRAWINGS OR EXHIBITS MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT PERMISSION IN WRITING FROM HEIDT DESIGN, LLC. THIS DOCUMENT IS HEREBY GRANTED SPECIFICALLY TO GOVERNMENTAL AGENCIES TO REPRODUCE THIS DOCUMENTATION IN COMPLIANCE WITH F.S. CHAPTER 119.



GENERAL NOTES:

- VALVES SHALL NOT BE INSTALLED IN CURBING OR HANDICAP RAMPS.
- ALL WATER AND SANITARY SEWER SERVICE LOCATIONS ARE SHOWN GRAPHICALLY FOR PLANNING PURPOSES ONLY. FOR ACTUAL SERVICE CONSTRUCTION LOCATIONS SEE MUNICIPALITY UTILITY SERVICE DETAILS.
- ALL FITTINGS, APPURTENANCES, & DEPTH OF PIPE SHALL BE MARKED IN THE FIELD FOR AS-BUILT PLAN PREPARATION.
- ALL GRAVITY SEWER PIPES SHALL BE SDR-26 UNLESS OTHERWISE NOTED.

ELEVATIONS BASED ON:
NORTH AMERICAN VERTICAL DATUM 1988
CONVERSION:
NAVD 88 TO NVD 29 = +0.86



HEIDT DESIGN
Civil Engineering • Planning & GIS
Transportation Engineering
Ecological Services • Landscape Architecture

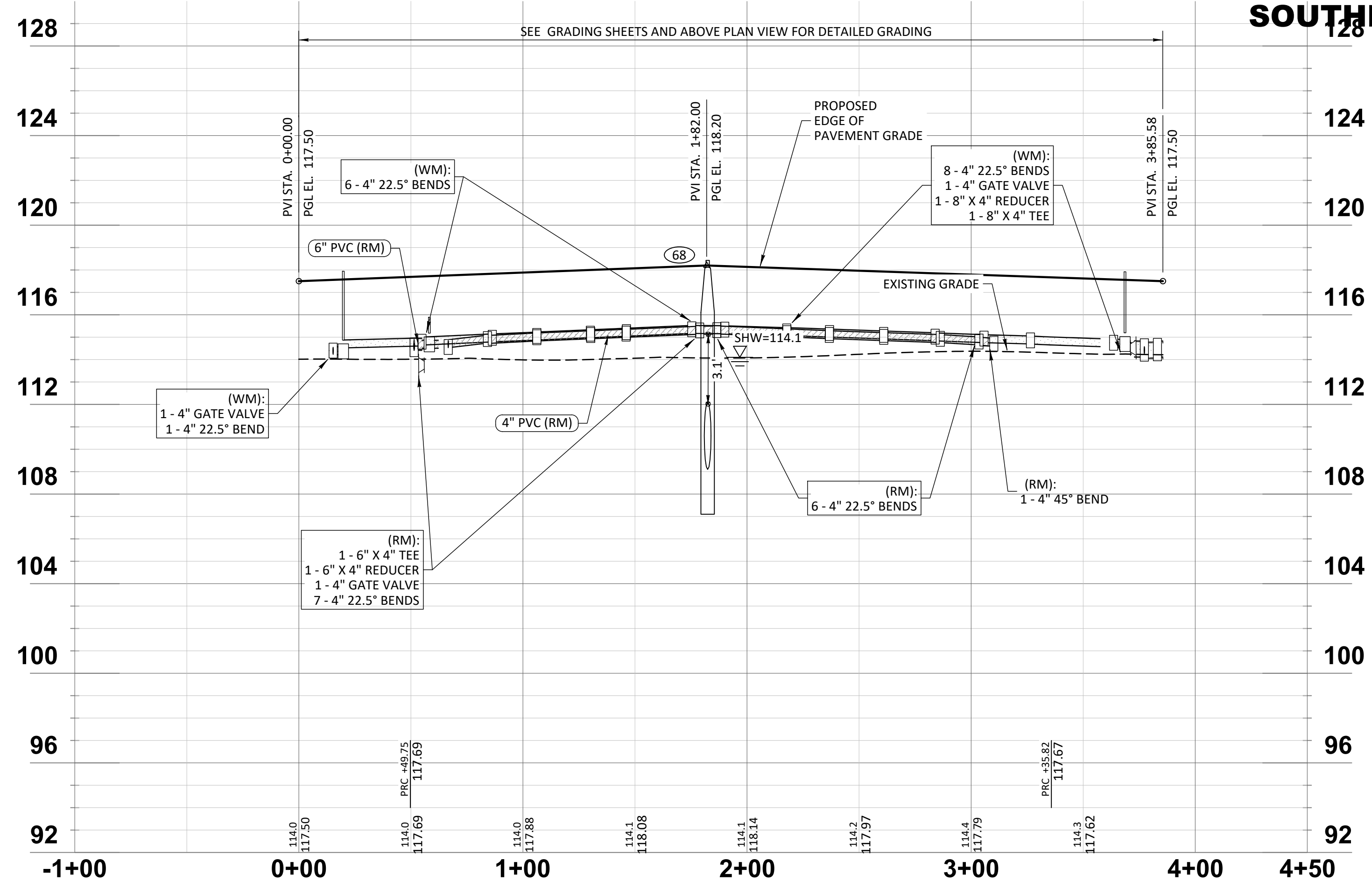
5904-A Hampton Oaks Pkwy.
Tampa, Florida 33610
Office: 813-253-5311
Fax: 813-464-7629
www.HeidtDesign.com

SERENOA
VILLAGE 3 - PHASE 1, 2 & 3

ROADWAY PLAN & PROFILE

PREPARED FOR: VK AVALON GROVES, LLC

**SOUTHLAWN LANE - CUL-DE-SAC
PHASE 3**



DATE	DESCRIPTION
11/08/2019	UTILITIES, INC. COMMENTS
11/08/2019	REVISION SUBMITTAL

PROJECT NO.: KLP-AG-1089
FILE: RP-6
DESIGN BY: FRANCIS
DRAWN BY: JLOAIZA

STATE OF FLORIDA
PROFESSIONAL ENGINEER

Timothy M. Plate, State of Florida,
Professional Engineer, License No. 41153

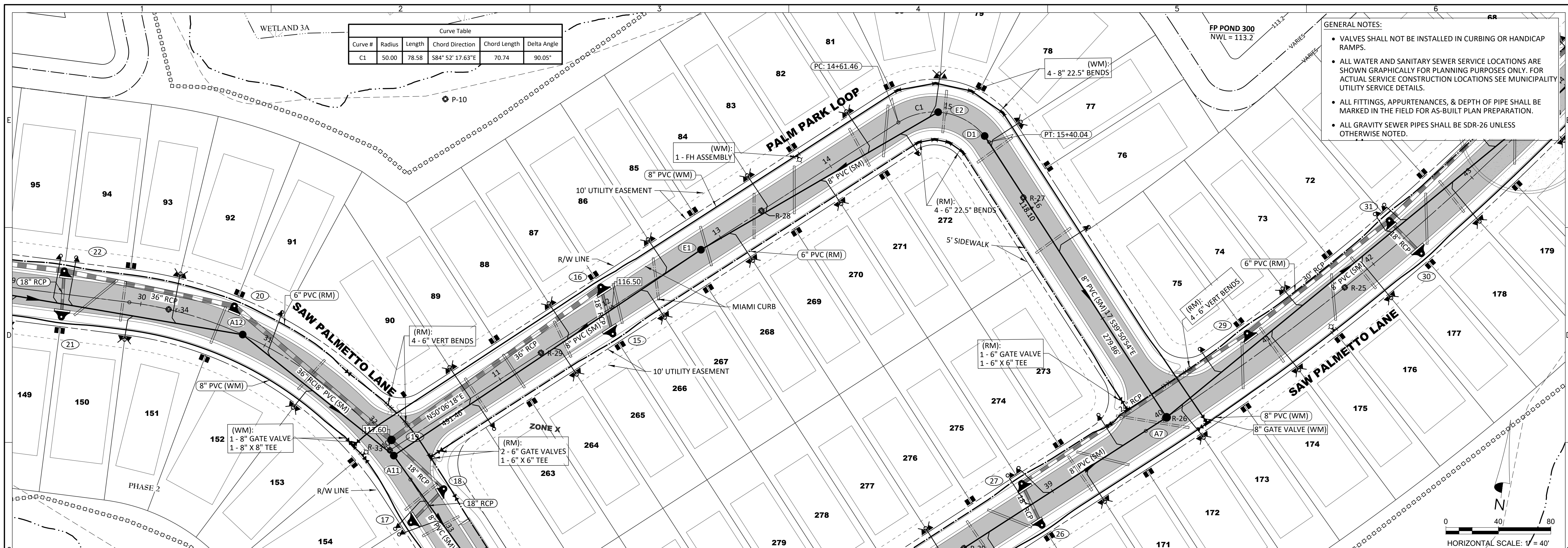
This item has been digitally
signed and sealed by
Timothy M. Plate, P.E. on the date
indicated here:

Printed copies of this document
are not considered signed and
sealed and the signature must be
verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
DATE: _____
LICENSE NO. 41153

C-511

R:\AVALON GROVES\BILLBOARD\DWG-C-511 2020\03-11 11:25 AM ERIC FRANCIS



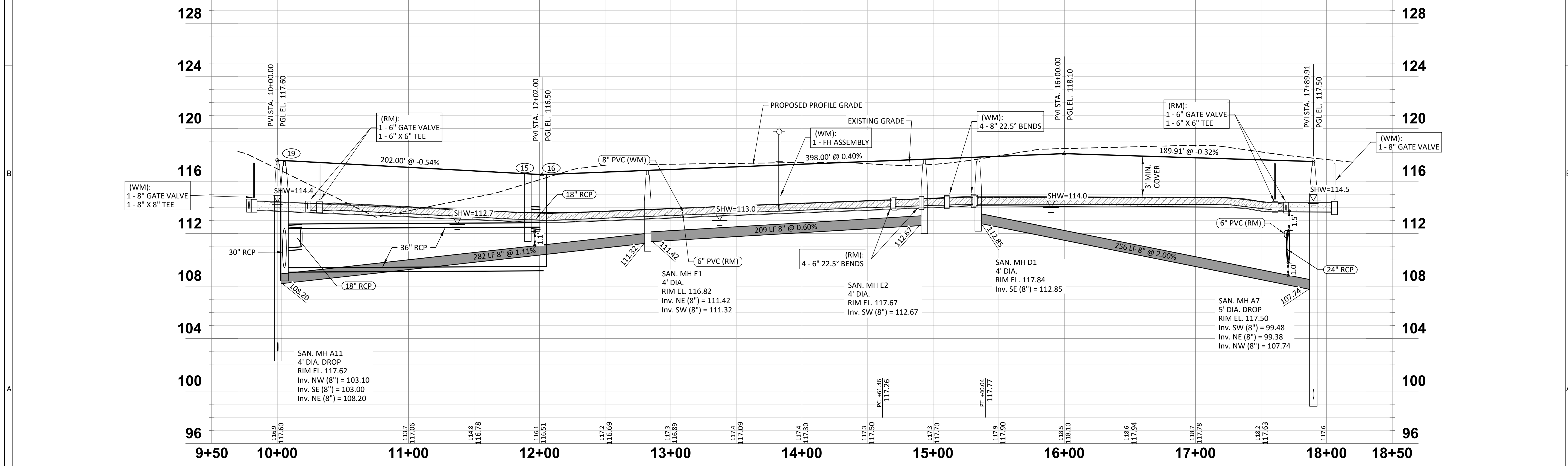
Curve #	Radius	Length	Chord Direction	Chord Length	Delta Angle
C1	50.00	78.58	S84°52'17.63"E	70.74	90.05°

- GENERAL NOTES:**
- VALVES SHALL NOT BE INSTALLED IN CURBING OR HANDICAP RAMPS.
 - ALL WATER AND SANITARY SEWER SERVICE LOCATIONS ARE SHOWN GRAPHICALLY FOR PLANNING PURPOSES ONLY. FOR ACTUAL SERVICE CONSTRUCTION LOCATIONS SEE MUNICIPALITY UTILITY SERVICE DETAILS.
 - ALL FITTINGS, APPURTENANCES, & DEPTH OF PIPE SHALL BE MARKED IN THE FIELD FOR AS-BUILT PLAN PREPARATION.
 - ALL GRAVITY SEWER PIPES SHALL BE SDR-26 UNLESS OTHERWISE NOTED.

ELEVATIONS BASED ON:
 NORTH AMERICAN VERTICAL DATUM 1988
 CONVERSION:
 NAVD 88 TO NGVD 29 = +0.86

PALM PARK LOOP - PHASE 2

HORIZONTAL SCALE: 1" = 40'
 VERTICAL SCALE: 1" = 4'



HEIDT DESIGN
 Civil Engineering • Planning & GIS
 Transportation Engineering
 Ecological Services • Landscape Architecture

5904-A Hampton Oaks Pkwy.
 Tampa, Florida 33610
 Office: 813-253-5311
 Fax: 813-464-7629
 www.HeidtDesign.com

SERENOA VILLAGE 3 - PHASE 1, 2 & 3
ROADWAY PLAN & PROFILE

PREPARED FOR: **VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION
3	05/27/2020	REMOVED STD 28
	11/08/2019	REVISION SUBMITTAL

PROJECT NO.: KLP-AG-1089
 FILE: RP-7
 DESIGN BY: FRANCIS
 DRAWN BY: JLOAIZA

STATE OF FLORIDA PROFESSIONAL ENGINEER
 Timothy M. Plate, State of Florida, Professional Engineer, License No. 41153
 This item has been digitally signed and sealed by Timothy M. Plate, P.E. on the date indicated here:
 Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
 DATE: _____
 LICENSE NO. 41153

C-512

9504-A HAMPTON OAKS PKWY. TAMPA, FLORIDA 33610 OFFICE: 813-253-5311 FAX: 813-464-7629 WWW.HEIDTDESIGN.COM
 ENGINEERING BUSINESS CERTIFICATE OF AUTHORIZATION NO. 28793 LANDSCAPE ARCHITECTURE CERTIFICATE OF AUTHORIZATION NO. LC26080405
 R-AVALON GROVES VILLAGE 3 ENGINEERING RP-7 DWG-C-512 2020/03/11 11:26 AM ERIC FRANCIS

WASTEWATER PUMPING STATION DESIGN PARAMETERS

DESIGN CAPACITY:

A. Average Daily Flow (ADF):

305 x 200 GPD/UNIT (Single Family Units)=	61,000.0 GPD
x 100 GPD/Room (Hole)=	GPD
x 170 GPD/UNIT (Condos & Townhomes)=	0.0 GPD
x 0.15 GPD per Square Foot (Office/Retail)=	GPD
ADF Total=	61,000.0 GPD

B. Peak Influent Rate:

Peak Factor 3.00 (Per Utility Manual, Appendix 5)
 Peak Flow = (ADF x Peak Factor) / 1440 = 127.1 GPM

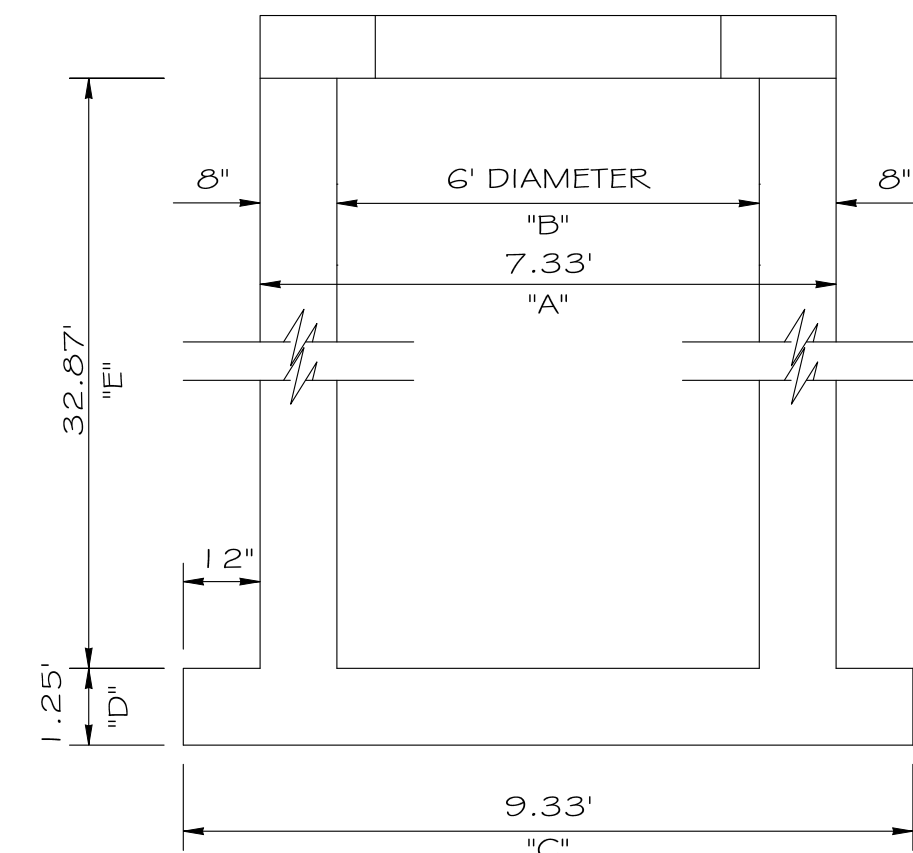
C. Design Minimum Flow:

(ADF x 0.20) / 1440 = 8.5 GPM

D. Design Pump Capacity (Minimum Required): 127.1 GPM

E. Velocity in Force Main at Max. Pumping Rate: 3.24 fps

FLOTATION CALCULATIONS CONCRETE WET WELL



ASSUMPTIONS:
 CONCRETE = 150 LBS./FT.³
 SATURATED SOIL = 110 LBS./FT.³
 WATER = 62.4 LBS./FT.³

NO WATER IN WET WELL
 NEGLECT TOP SLAB WEIGHT
 NEGLECT SOIL FRICTION

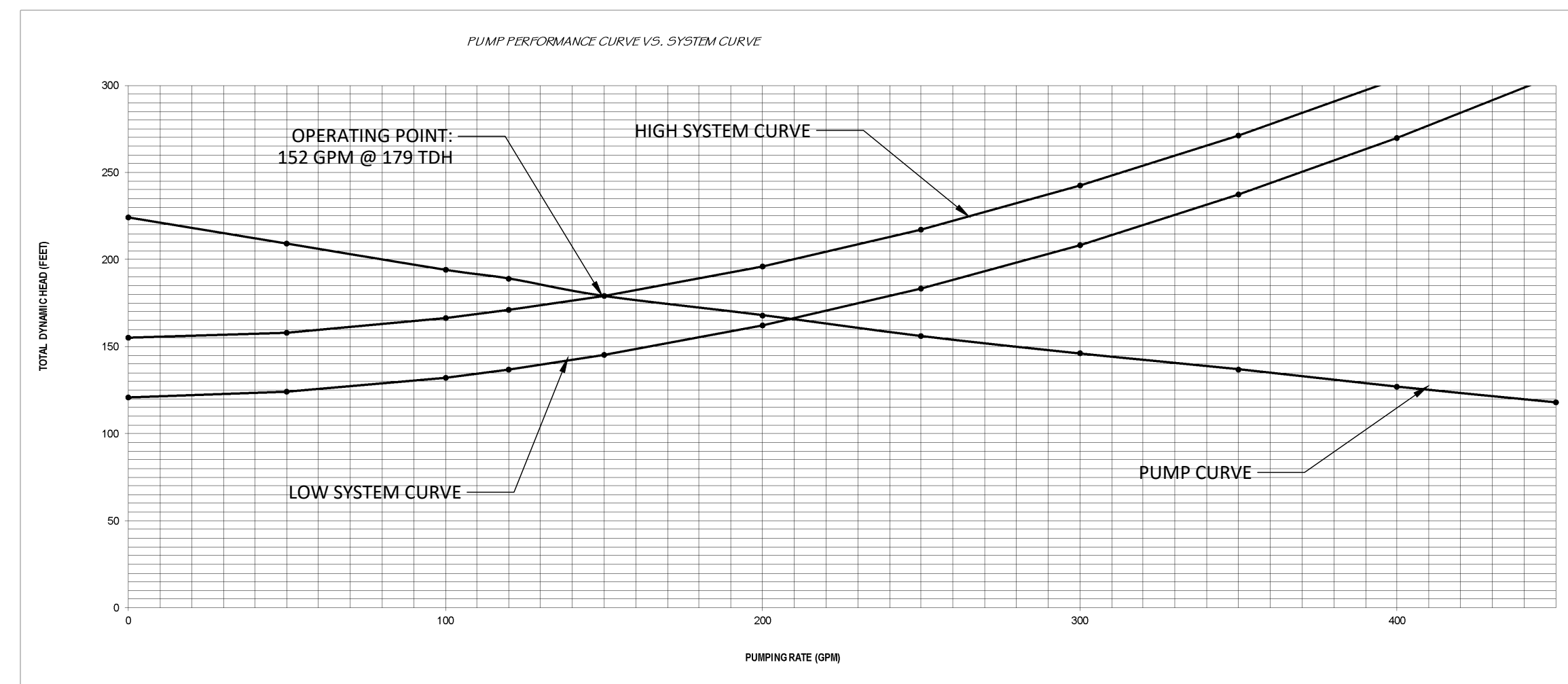
- (1) Barrel Weight = (A² - B²) x π/4 x E x (W_c) = 68,836 lb
- (2) Bottom Slab Weight = C² x π/4 x D x W_c = 12,828 lb
- (3) Soil Weight = (C² - A²) x π/4 x E x (120 - 62.4) = 49,562 lb
- (4) Total Weight = 131,226 lb
- (5) H₂O Displaced = ((A² x π/4 x E) + (C² x π/4 x D)) x 62.4 = 91,959 lb

NOTE:
 BASE OF NEW WETWELL FOUNDATION SHOULD BEAR ON AT LEAST 2' OF APPROVED COMPACTED GRANULAR STONE BACKFILL (NO. 57 STONE OR APPROVED EQUAL)

SYSTEM CURVE CALCULATIONS:

Item	0	50	100	120	150	200	250	300	350	400	450
Pump Station Piping (Equivalent Length) 150 LF 4" DIP	0.00	0.51	1.83	2.57	3.88	6.61	10.00	14.01	18.64	23.87	29.69
Force Main Piping (Equivalent Length) 1000 LF 4" PVC 2960 LF 8" PVC LF "PVC	0.00	2.41	8.71	12.21	18.46	31.45	47.55	66.65	88.67	113.54	141.22
Static Head	28.90	28.90	28.90	28.90	28.90	28.90	28.90	28.90	28.90	28.90	28.90
Low (County Provided)	92.00	92.00	92.00	92.00	92.00	92.00	92.00	92.00	92.00	92.00	92.00
High (County Provided)	126.00	126.00	126.00	126.00	126.00	126.00	126.00	126.00	126.00	126.00	126.00
Low System Losses (System Curve)	120.90	124.07	132.33	136.92	145.11	162.15	183.26	208.30	237.18	269.81	306.10
High System Losses	154.90	158.07	166.33	170.92	179.11	196.15	217.26	242.30	271.18	303.81	340.10

SYSTEM CURVE vs. PUMP CHARACTERISTIC CURVE



WETWELL DESIGN

A. Design Criteria:

- Maximum Pump Motor Cycle Rate = 6 Starts Per Hour
- Maximum Detention Time at Minimum Flow = 30 Minutes

B. Pump Control Level Settings:

- Pump Cycling Rates are at a minimum when inflow equals one-half the design pumping rate of 127.1 gpm.
- Wetwell volume required between Lead Pump Start and Pump Shut Off Level = 0.5 x Cycle Period x 1/2 Pumping Rate = 317.71 Gallons
- Wetwell Diameter (D) = 6 feet
- Wetwell Volume = 211.49 gals / ft. depth
- Wetwell level change between pump stop and lead pump start = 1.50 feet
- Design For: 1.60 feet (2.00' max)

5. Control Elevations:

Top of Slab	119.30
Influent Invert	90.72
High Water Alarm	90.72
Lag Pump On	90.20
Lead Pump On	89.70
All Pumps Off	88.10
Bottom**	85.60

Pump Height = 2.50 feet

A. Friction Loss

1. Pump Station Piping

Item	Size (in)	Quantity	Friction Loss (ea.)	Total
Tee	4	1	22	22
22.5" Bend	4	0		
45" Bend	4	0		
90" Bend	4	1	22	22
Check Valve	4	1	25	25
Gate Valve	4	1	2.5	2.5
Total				71.50

Pipe Length = 35.00
 Total Equivalent Length = 106.50 Design For: 150.0

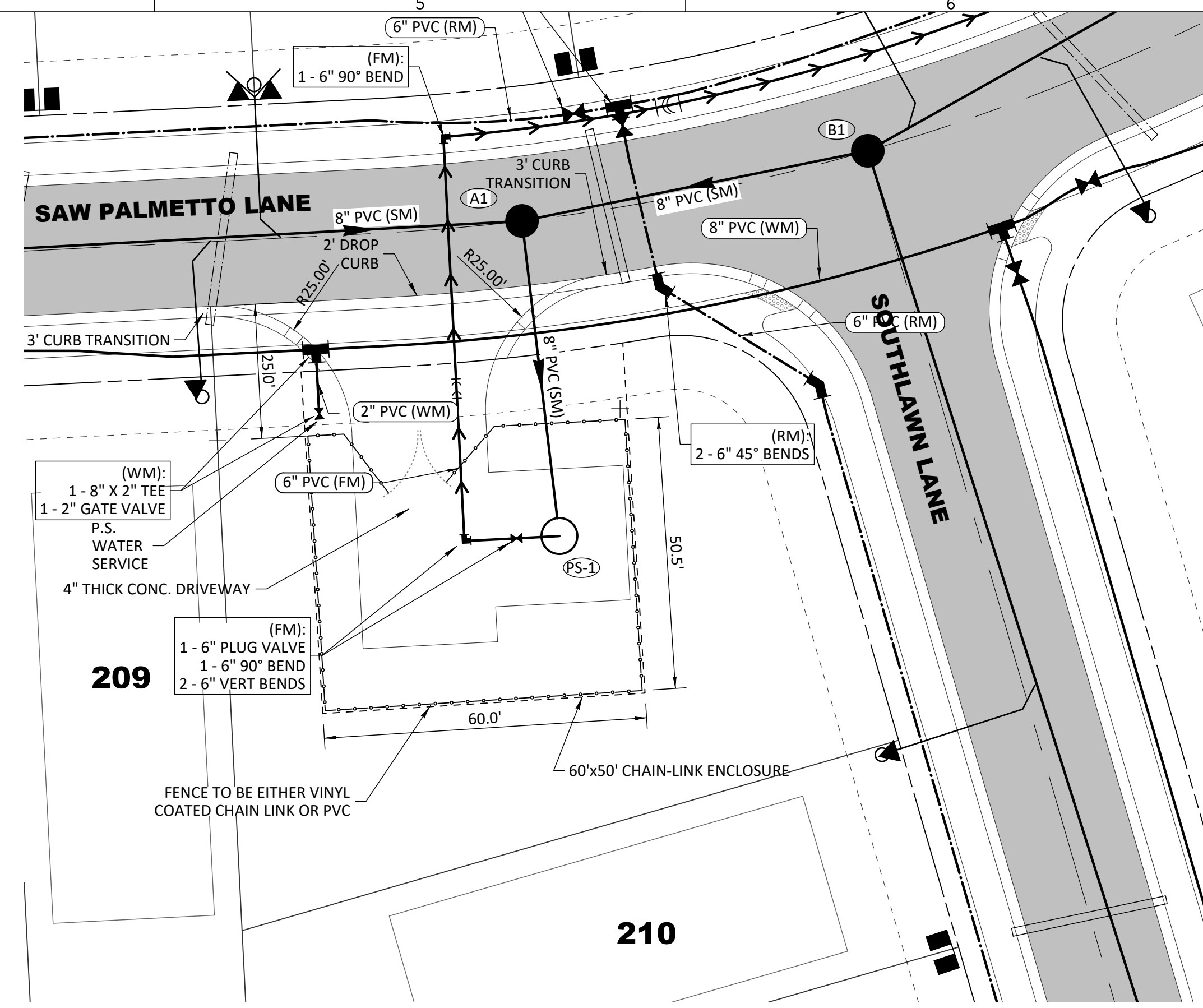
2. Force Main Piping

Item	Size (in)	Quantity	Friction Loss (ea.)	Total
Tee	4	0		
22.5" Bend	4	0		
45" Bend	4	4	5	20
90" Bend	4	2	22	44
Cross	4	0		
Gate Valve	4	3	2.5	7.5
Total				71.50

Pipe Length = 880.00
 Total Equivalent Length = 951.50 Design For: 1000.0

Item	Size (in)	Quantity	Friction Loss (ea.)	Total
Tee	8	2	43	86
22.5" Bend	8	0		
45" Bend	8	0		
90" Bend	8	0		
Cross	8	0		
Gate Valve	8	4	4.5	18
Total				104.00

Pipe Length = 2855.00
 Total Equivalent Length = 2959.00 Design For: 2960.0



SITE PLAN

- NOTES:
- PUMP STATION IS TO BE EQUIPPED WITH ALARM BATTERY-BACKUP SYSTEM (1 HR).
- SYSTEM HEAD VERSUS PUMP CAPACITY CURVES ARE TO BE SHOWN TO DETERMINE THE SYSTEM OPERATING CAPABILITY AT THE FOLLOWING CONDITIONS:
- A. CONVENTIONAL PUMPING STATION - FORCE MAIN (NON-MANIFOLDED)**
- ONE PUMP RUNNING, IF DUPLEX STATION
 - ONE PUMP AND TWO PUMPS RUNNING, IF TRIPLEX STATION, ETC.
 - IF FORCE MAIN PROFILE RESULTS IN SIPHON, CURVES SHALL SHOW OPERATION AT START-UP (TO HIGH POINT ONLY) AS WELL AS FULL FLOW CONDITIONS.
- B. MANIFOLD PUMPING STATIONS**
- ALL CONDITIONS OUTLINED UNDER (A) ABOVE, AND THE FOLLOWING ADDITIONAL CONDITIONS:
- SIMULTANEOUS OPERATION OF ALL PUMPING STATIONS ON SYSTEM.
 - OPERATION WHILE ALL REMAINING STATIONS ARE OFF.
- C. VARIABLE SPEED PUMPING STATIONS**
- ALL APPLICABLE CONDITIONS UNDER (A) AND (B) ABOVE AND IN ADDITION:
- OPERATION POINT, INCLUDING SPEED, AT PEAK, AVERAGE, AND MINIMUM FLOWS.

PUMP DATA

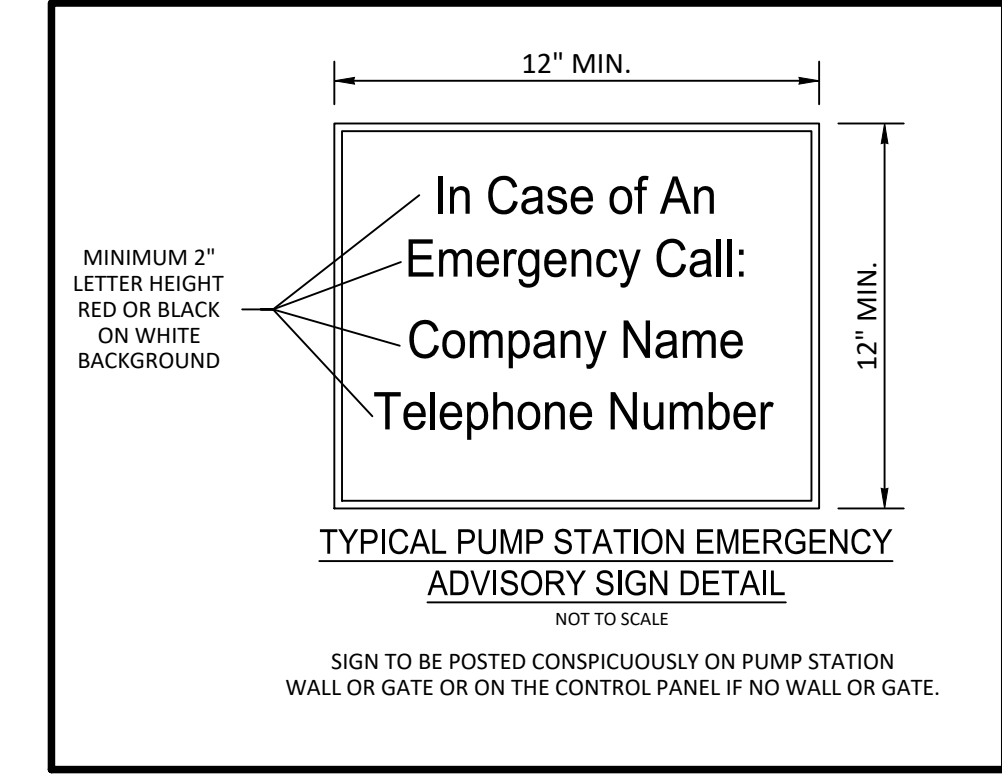
MAKE/MODEL: FLYGT NP 3153 SH 3-274

PUMP HP: 23 PHASE: 3

PUMP IMP. NO.: 176 mm

PUMP VOLTS: 480

PUMP SPEED: 3520 RPM



HEIDT DESIGN
 Civil Engineering • Planning & GIS
 Transportation Engineering
 Ecological Services • Landscape Architecture

5904-A Hampton Oaks Pkwy.
 Tampa, Florida 33610
 Office: 813-253-5311
 Fax: 813-464-7629
 www.HeidtDesign.com

SERENOA VILLAGE 3 - PHASE 1, 2 & 3
 PUMP STATION DETAILS

PREPARED FOR: VK AVALON GROVES, LLC

NO.	DATE	DESCRIPTION
1	11/08/2018	REVIEW SUBMITTAL

PROJECT NO: KLP-AG-1089

FILE: PS

DESIGN BY: FRANCIS

DRAWN BY: JLOAIZA

STATE OF FLORIDA PROFESSIONAL ENGINEER

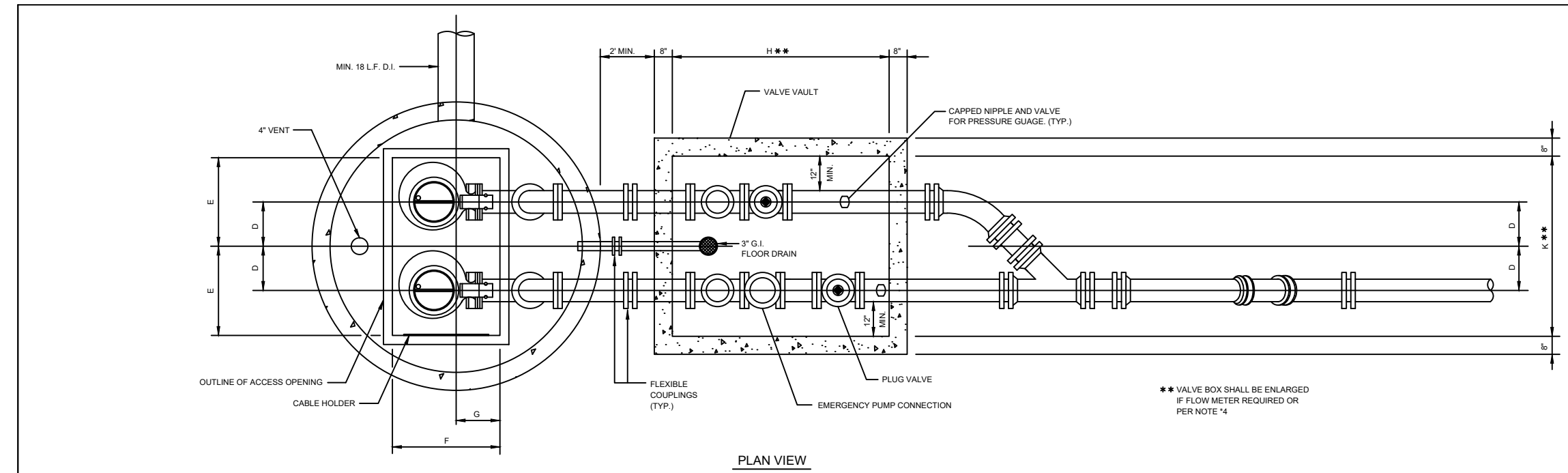
Timothy M. Platte, State of Florida, Professional Engineer, License No. 41153

This item has been digitally signed and sealed by Timothy M. Platte, P.E. on the date indicated here:

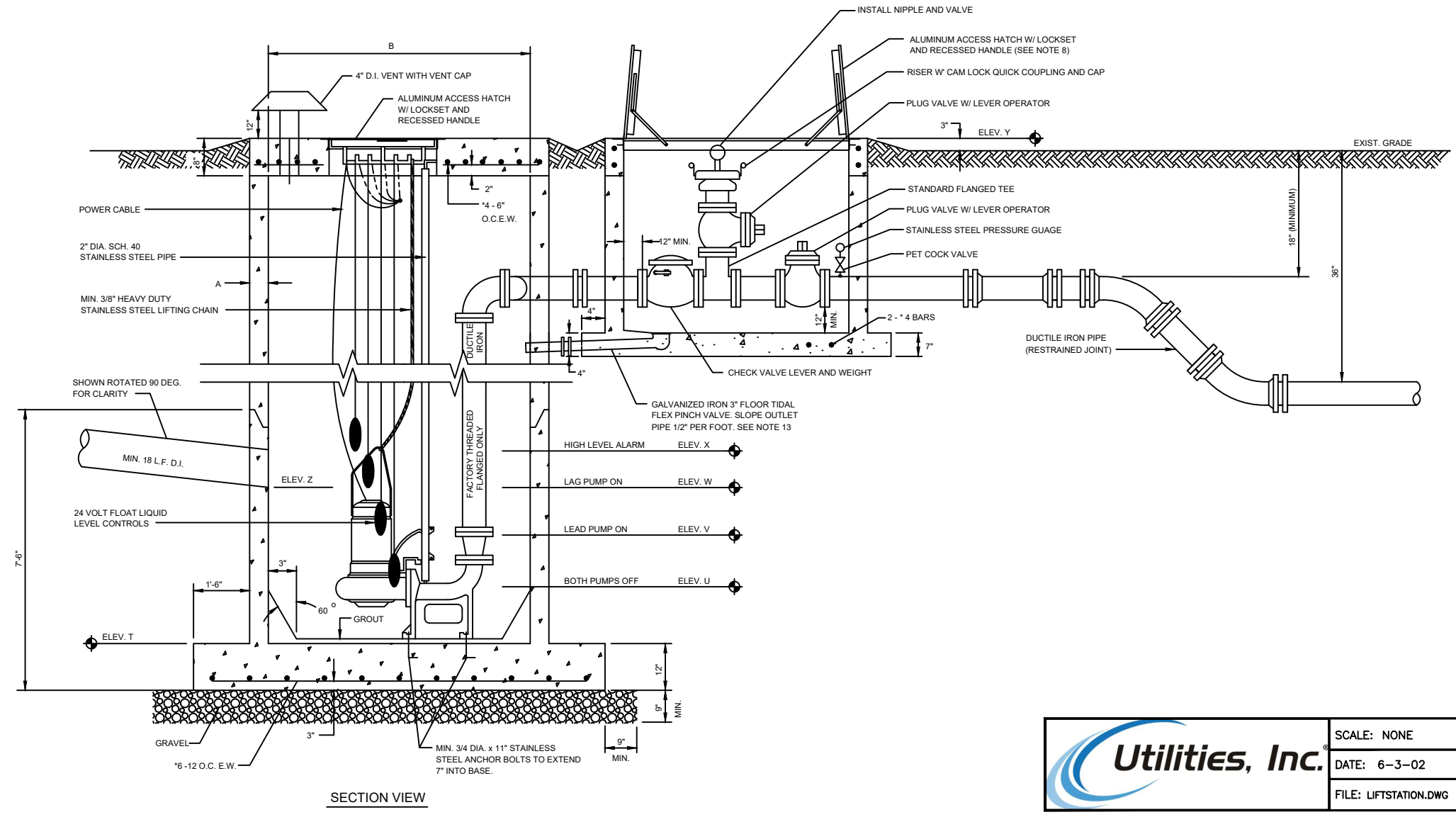
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

TIMOTHY M. PLATTE, P.E.
 DATE: _____
 LICENSE NO. 41153

C-600



PUMPING STATIONS	DIMENSIONS	ELEV. AT CONSTRUCTION
DM A	8" MIN.	
DM B	6'-0" MIN.	
DM C	-	
DM D	-	
DM E	24" MIN.	
DM F	48" MIN.	
DM G	-	
DM H	6'-0" MIN.	
DM J	-	
DM K	4'-0" MIN.	
ELEV T	85.80	
ELEV U	89.70	
ELEV V	89.70	
ELEV W	90.30	
ELEV X	90.72	
ELEV Y	119.30	
ELEV Z	90.72	4'-6" MIN.



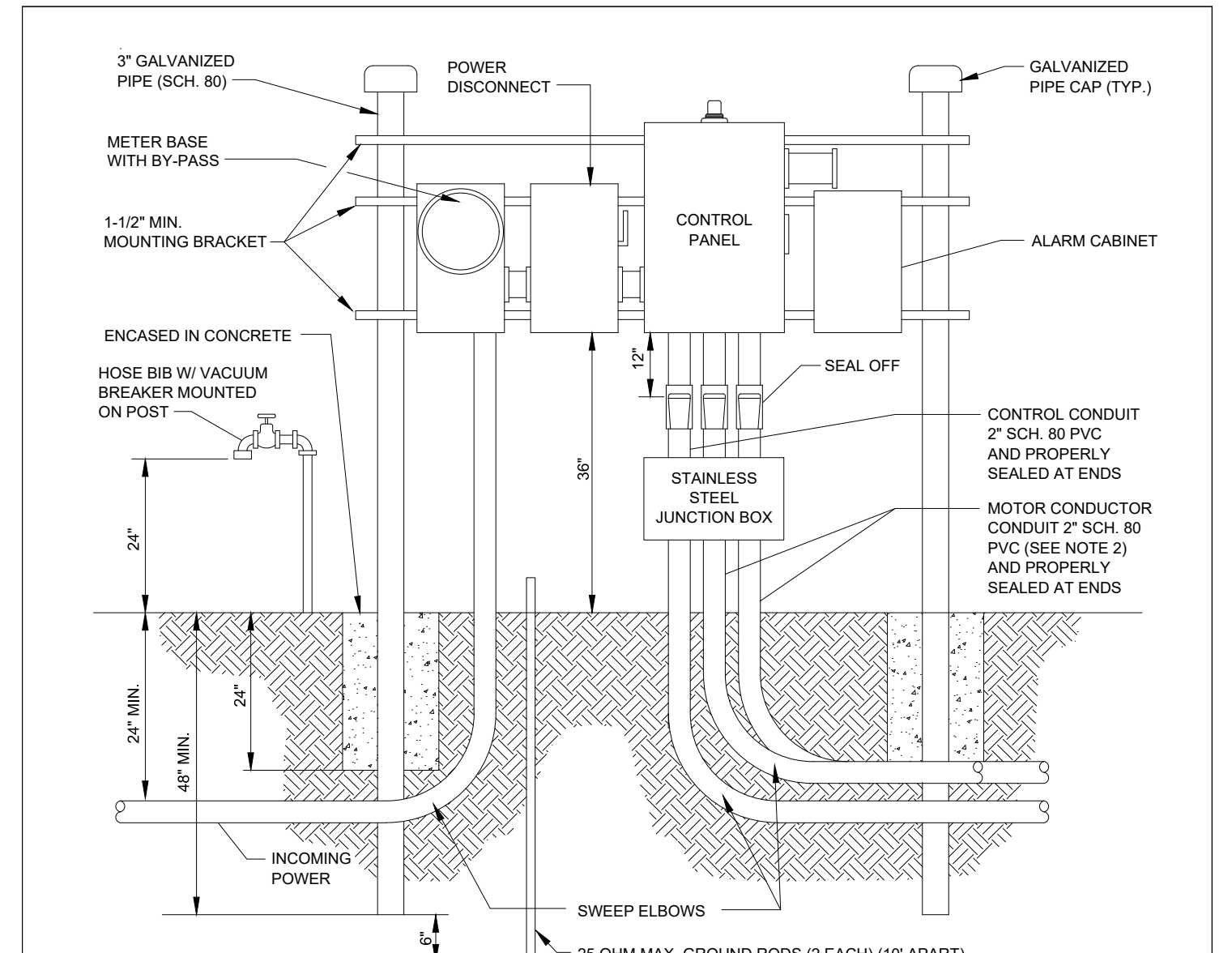
- GENERAL NOTES:
1. ALL EXPOSED METAL SHALL BE PAINTED WITH 2 COATS OF EXTERIOR ENAMEL PAINT.
 2. VALVE VAULT SHALL BE COATED WITH COAL TAR AND ENAMEL (TWO COATS MIN. EACH).
 3. BASE AND FIRST RISE ONLY TO BE CAST MONOLITHIC.
 4. VALVE VAULT SHALL BE DESIGNED TO PERMIT EASY REMOVAL OF CHECK VALVE.
 5. VALVE VAULT SHALL BE DESIGNED TO PERMIT EASY REMOVAL OF CHECK VALVE AND SHALL BE REMOVED AS SHOWN FROM DRAWING PER PIPE AND SHALL BE REMOVED AS SHOWN FROM DRAWING PER PIPE.
 6. VALVE VAULT SHALL HAVE FLOOR AND DRAIN.
 7. VALVE VAULT SHALL BE MADE WATER TIGHT WITH WALL, SEWER OR NON-SHOWN GROUT ALL ELECTRICAL CONDUITS SHALL BE SEALED.
 8. ALL LOCKERS WHERE PIPES ENTER OR LEAVE THE WET WELL OR VALVE VAULT SHALL BE MADE WATER TIGHT WITH WALL, SEWER OR NON-SHOWN GROUT ALL ELECTRICAL CONDUITS SHALL BE SEALED.
 9. THERE SHALL BE NO VALVES OR ELECTRICAL JUNCTION BOXES IN WET WELL. ALL ELECTRICAL CABLES SHALL BE CONFINED TO CONTROL PANEL OR BOX. SEE NOTE 10 FOR ALTERNATIVE TO FLOOR DRAIN SHOWN.
 10. THE 1" AND 1/2" VALVE VAULT COVER SHALL BE ALUMINUM 1/8" B. HARDWARE AND LOCK BRACKET. SIZE AS REQUIRED BY PUMP MANUFACTURER AND APPROVED BY UTILITIES.
 11. FLEXIBLE COUPLING SHALL BE SLEEVE TYPE.
 12. PUMPS SHALL BE:

MANUFACTURER	MODEL	HP	DA
WEG	DRIVE	1/2	1/2
WEG	DRIVE	1/2	1/2
WEG	DRIVE	1/2	1/2
 13. OPERATING CONDITIONS SHALL BE:

TEMP	FEET TO H
40	40
 14. ALL HARDWARE IN WET WELL AND VALVE VAULT TO BE STAINLESS STEEL.
 15. CONDUITORS MUST BE METAL AND TOOK SLIP RINGS VALVE TRAP BETWEEN THE VALVE VAULT AND WET WELL AS AN ALTERNATIVE TO THE FLOOR DRAIN SHOWN.
 16. DISCHARGE PIPING TO BE 1/2" MINIMUM.
 17. ALL INTERIOR SURFACES OF THE WET WELL SHALL BE LINED WITH AN AGRI. RUBBER LINER.

Utilities, Inc. SCALE: NONE DATE: 6-3-02 FILE: LIFTSTATION.DWG STANDARD DETAIL NUMBER: **S-11**

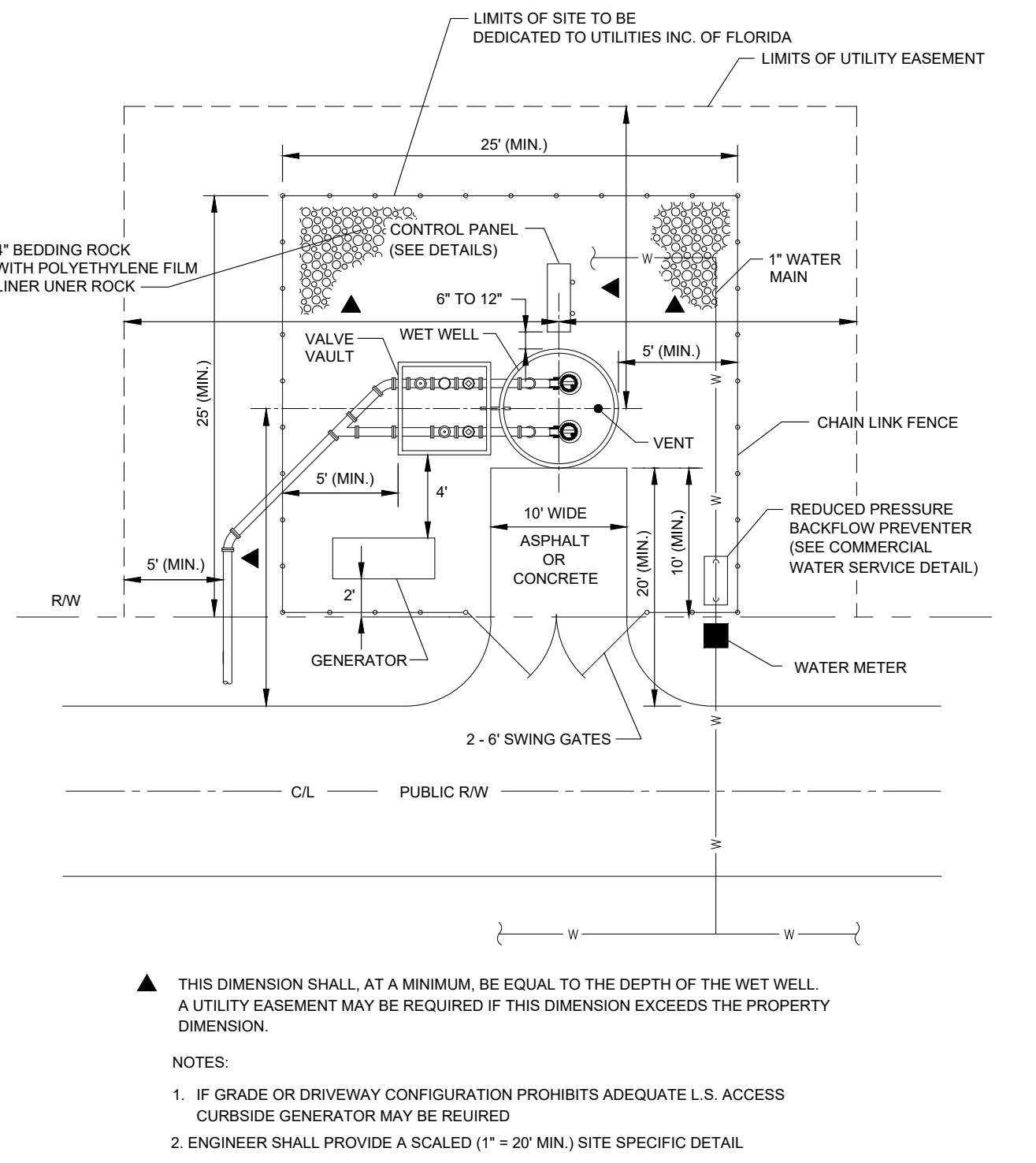
SANITARY DETAILS LIFT STATION PLAN, COVER AND NOTES



- NOTES:
1. DRAWING IS SHOWN FOR 230 VOLT POWER SUPPLY. THE LOCATION OF METER AND MAIN POWER DISCONNECT SHALL BE REVERSED FOR 480 VOLT SUPPLY.
 2. WHEN TWO (2) SEPARATE CONDUCTOR-TYPE MOTORS ARE USED, CONDUIT SHALL BE INCREASED TO 3".
 3. POWER SUPPLY SHALL BE UNDERGROUND ON THE LIFT STATION SITE AND SHALL BE 3 PHASE FROM A 3 PHASE SOURCE ONLY.
 4. PROVIDE TELEPHONE SERVICE LINE.
 5. NO WIRING SPLICES ARE ALLOWED WITH THE EXCEPTION OF THE JUNCTION BOX.
 6. A MANUAL GENERATOR TRANSFER SWITCH SHALL BE PLACED BETWEEN THE METER BASE AND CONTROL BOX. SIZED FOR 100 AMP PUMP MINIMUM.
 7. LIGHTNING ARRESTOR SHALL BE LOCATED AHEAD OF CONTROL PANEL (GE OR EQUAL).
 8. ALARM CABINET SHALL BE SANDERS CO ALLEN BRADLEY RTU (NO SUBSTITUTES).
 9. LIFT STATIONS 47 H.P. AND ABOVE SHALL BE EQUIPPED WITH ON-SITE GENERATOR.
 10. ADD SOFT START 20 H.P. AND ABOVE.

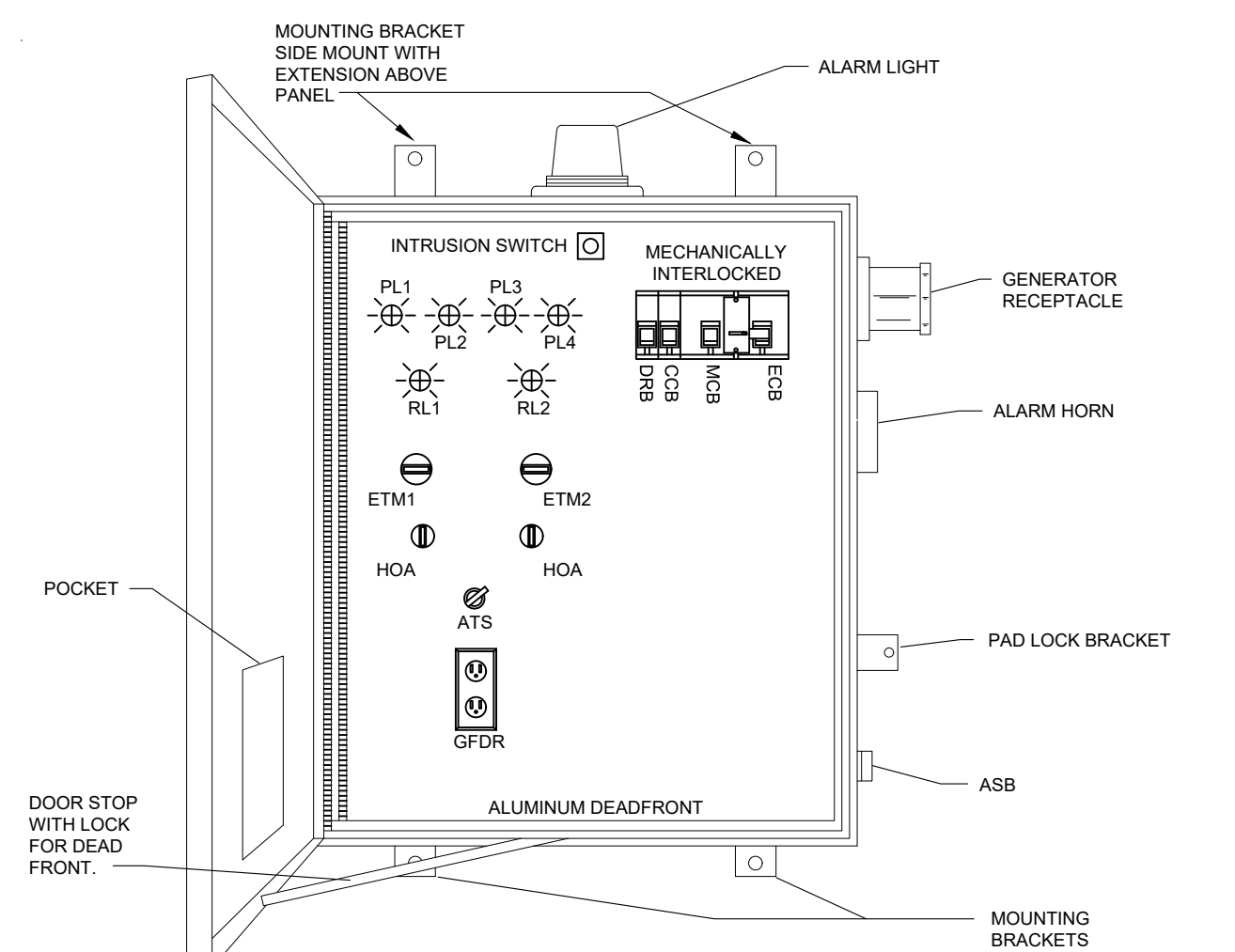
Utilities, Inc. SCALE: NONE DATE: 7-12-01 FILE: CTRLPANEL.DWG STANDARD DETAIL NUMBER: **S-7**

SANITARY DETAILS PUMP STATION CONTROL PANEL INSTALLATION DETAIL



Utilities, Inc. SCALE: NONE DATE: 6-3-02 FILE: P5GEN.DWG STANDARD DETAIL NUMBER: **S-11**

SANITARY DETAILS PUMP STATION WITH GENERATOR SITE PLAN



- NOTES:
1. OUTER BOX SIZE SHALL BE A MINIMUM OF 24" W x 36" H x 10" D OR AS APPROVED BY UTILITIES, INC. OF FLORIDA.
 2. FOR STATIONS WITH PUMPS RATED 20 HP OR GREATER, OUTER BOX SIZE SHALL BE A MINIMUM OF 30" W x 42" H x 10" D AND SHALL HAVE 2 LATCHES ON THE DEAD FRONT.
 3. DRAWINGS SHALL BE REVISED FOR STATIONS WITH PUMPS RATED GREATER THAN 47 HP AND SUBMITTED TO UTILITIES, INC. OF FLORIDA FOR APPROVAL.
 4. PROVIDE EQUIPMENT FOR SCADA CONTROL CONNECTION. ALARM SHALL BE SANDERS CO ALLEN RTU (NO SUBSTITUTES).
 5. ALARM LIGHT, HORN AND SILENCE BUTTON AND GENERATOR RECEPTACLE ARE FOR VISUAL PURPOSES ONLY. EXACT LOCATION TO BE DETERMINED BY CONTRACTOR.
 6. ELECTRICAL CONTROLS FOR HIGH LEVEL DC ALARM TO HAVE AUXILIARY CONTACTS FOR EMERGENCY AUTO DIALER INSTALLATION.
 7. 3-PHASE PROTECTION IS REQUIRED.
 8. PROVIDE HOUR METER FOR EACH PUMP AND LOCATE INSIDE CONTROL PANEL.
 9. STATIONS 20 HP AND BELOW MUST BE 240 VOLT WITH A PYLE NATIONAL # JRS4100 GENERATOR RECEPTACLE.
 10. STATIONS ABOVE 20 HP MUST BE 480 VOLT WITH A PYLE NATIONAL # JRS2044R GENERATOR RECEPTACLE.
 11. STATIONS 47 HP AND ABOVE ADD GENERATOR.

Utilities, Inc. SCALE: NONE DATE: 6-3-02 FILE: CTRLPANEL.DWG STANDARD DETAIL NUMBER: **S-8**

SANITARY DETAILS DUPLIX CONTROL PANEL ENCLOSURE DEAD FRONT LAYOUT

HEIDT DESIGN
Civil Engineering • Planning & GIS
Transportation Engineering
Ecological Services • Landscape Architecture

Engineering Business Certificate of Authorization No. 28787
Landscape Architecture Certificate of Authorization No. LC20080405

5904-A Hampton Oaks Pkwy.
Tampa, Florida 33610
Office: 813-253-5311
Fax: 813-464-7629
www.HeidtDesign.com

SERENOA VILLAGE 3 - PHASE 1, 2 & 3
PUMP STATION DETAILS
PREPARED FOR: VK AVALON GROVES, LLC

DATE	DESCRIPTION
03/20/2020	UTILITIES INC. OF FLORIDA COMMENTS
11/08/2019	REVIEW SUBMITTAL
2	

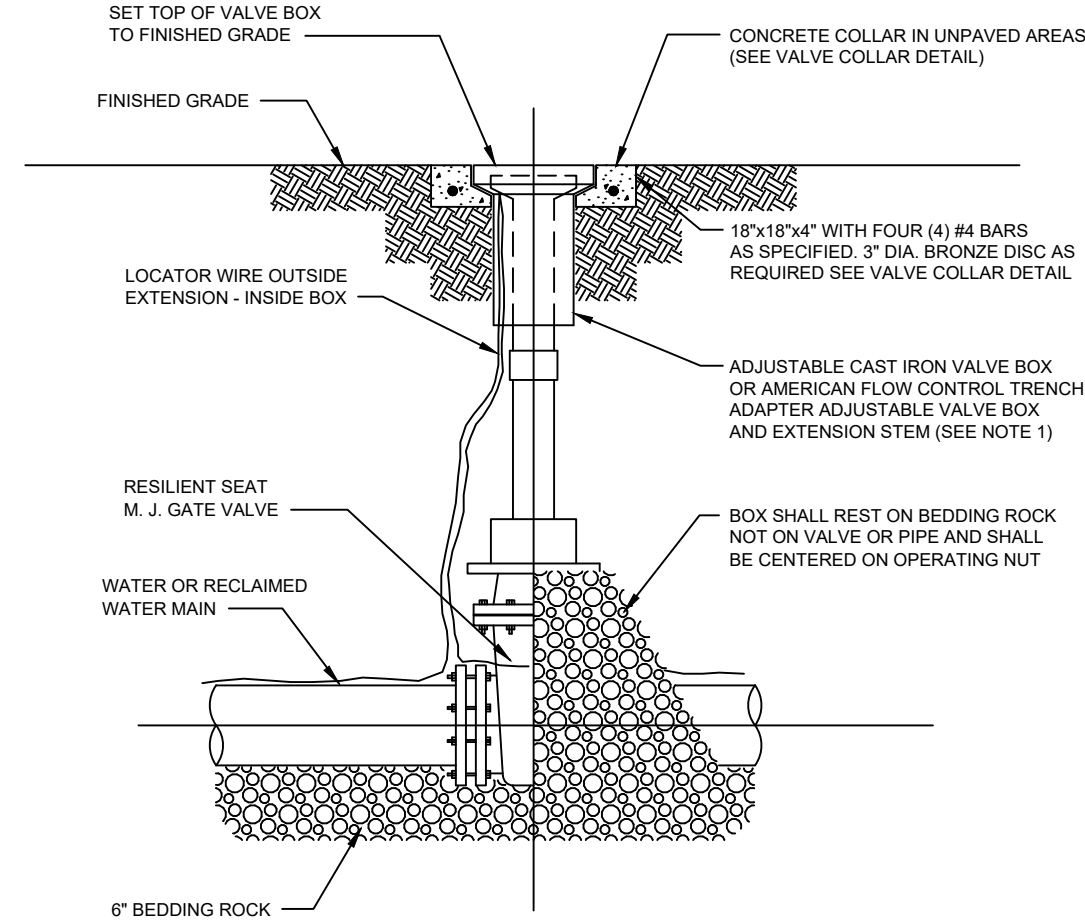
PROJECT NO.: KLP-AG-1089
FILE: P5
DESIGN BY: FRANCIS
DRAWN BY: JLOAIZA

STATE OF FLORIDA PROFESSIONAL ENGINEER
Timothy M. Plate, State of Florida, Professional Engineer, License No. 41153
This item has been digitally signed and sealed by Timothy M. Plate, P.E. on the date indicated here.
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
DATE: _____
LICENSE NO. 41153

C-601

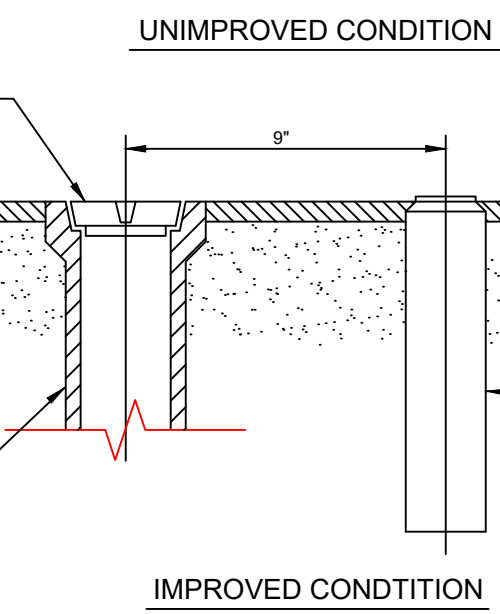
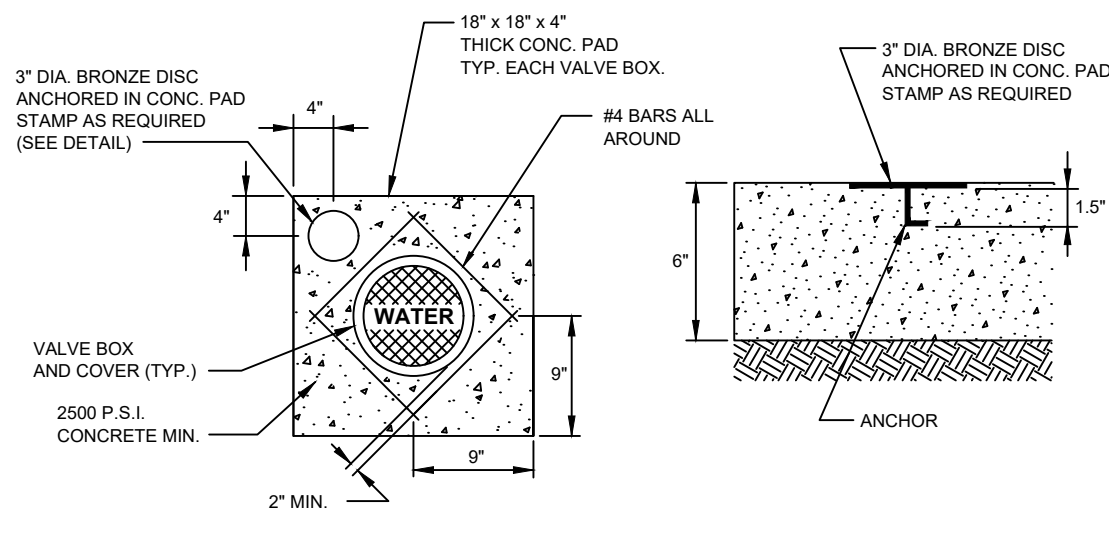
© COPYRIGHT 2002, HEIDT DESIGN, LLC. ALL RIGHTS RESERVED. NO DOCUMENTATION INCLUDING BUT NOT LIMITED TO DRAWINGS OR EXHIBITS MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT PERMISSION IN WRITING FROM HEIDT DESIGN, LLC. THIS DOCUMENT IS HEREBY GRANTED SPECIFICALLY TO GOVERNMENTAL AGENCIES TO REPRODUCE THIS DOCUMENT IN COMPLIANCE WITH F.S. CHAPTER 119.



- NOTES:
- PVC EXTENSIONS SHALL NOT BE USED ON VALVE BOX INSTALLATION, EXCEPT FOR THE AMERICAN FLOW CONTROL TRENCH ADAPTER WITH 2\"/>

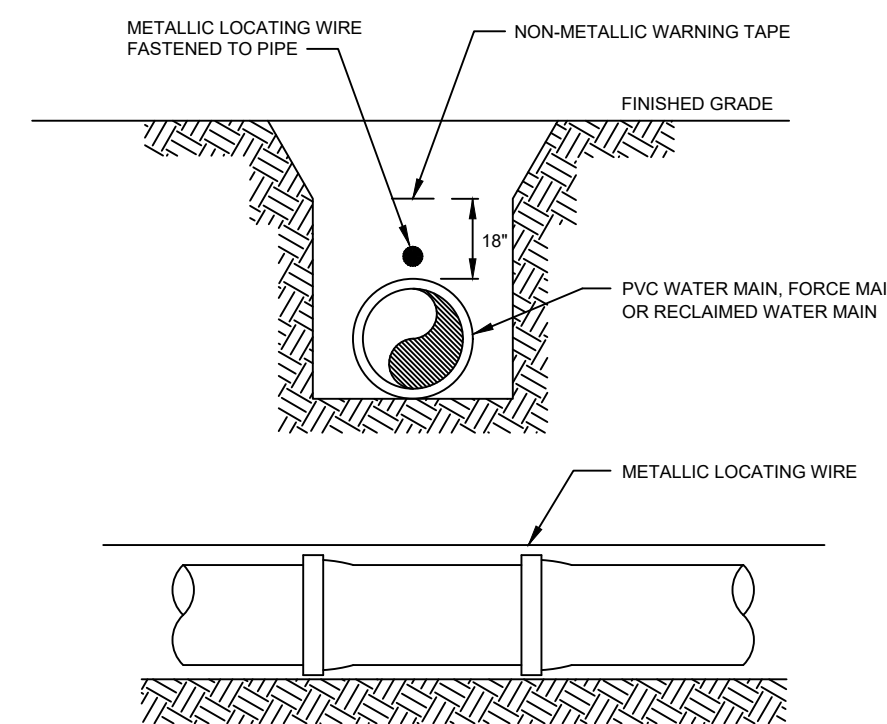
VALVE AND VALVE BOX DETAIL
N.T.S.

Utilities, Inc.	SCALE: NONE	GENERAL DETAILS	STANDARD DETAIL NUMBER
	DATE: 6-26-02	VALVE AND VALVE BOX DETAIL	G-1
	FILE: VALVEBOX.DWG		



VALVE COLLAR DETAIL
N.T.S.

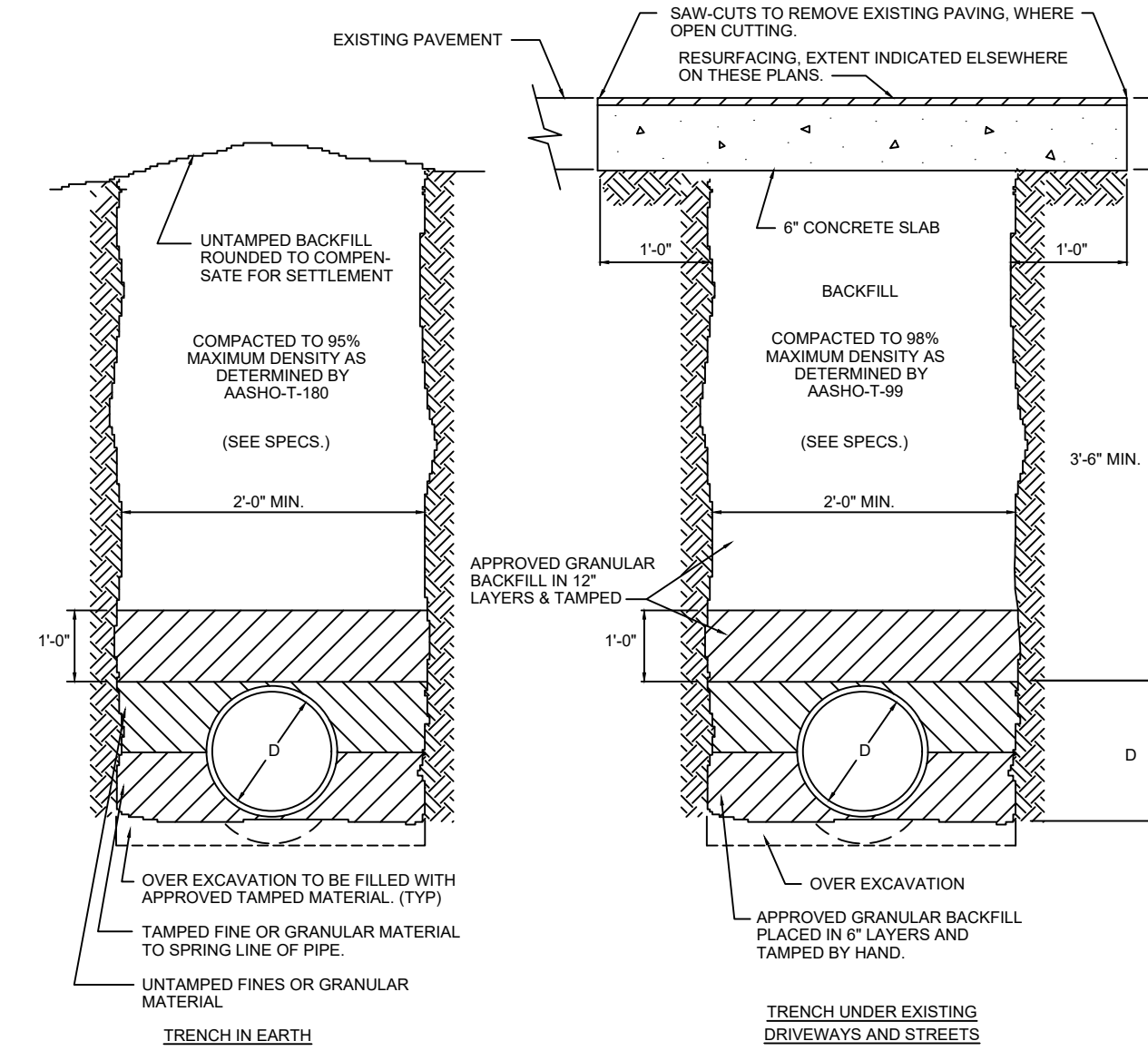
Utilities, Inc.	SCALE: NONE	GENERAL DETAILS	STANDARD DETAIL NUMBER
	DATE: 2-24-04	VALVE COLLAR DETAIL	G-3
	FILE: VCOLLAR.DWG		



- NOTES:
- ALL NON-METALLIC PIPE SHALL REQUIRE CONTINUOUS INSULATED METALLIC LOCATING WIRE (14 GAUGE COPPER) CAPABLE OF DETECTION BY A CABLE LOCATOR AND SHALL BE BURIED DIRECTLY ABOVE THE CENTERLINE OF THE PIPE.
 - THE TRACING WIRE SHALL BE CENTERED ON ALL PIPE (INCLUDING SERVICES) AND TIED INTO ALL HYDRANTS, VALVE BOXES AND METER BOXES. TESTING FOR CONTINUITY IS REQUIRED.
 - USE VINYL TIE STRIPS AS NECESSARY TO HOLD WIRE DIRECTLY ON THE TOP OF THE PIPE. DUCT TAPE SHALL NOT BE USED.
 - WIRE CONNECTIONS MUST BE CLAMPED TOGETHER AND SEALED FOR MOISTURE.
 - ALL WIRE SPLICE LOCATIONS SHALL BE SHOWN ON THE AS-BUILT DRAWINGS.
 - WIRE AND WARNING TYPING SHALL BE COLOR CODED AS FOLLOWS:
WATER: BLUE
SEWER: GREEN
RECLAIMED: PURPLE

PIPE LOCATING WIRE DETAIL
N.T.S.

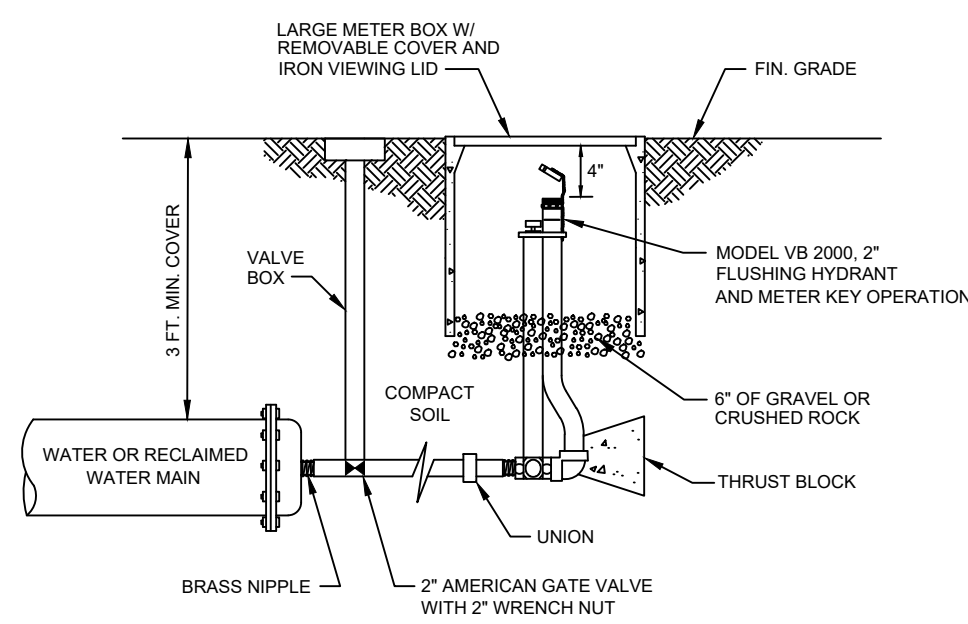
Utilities, Inc.	SCALE: NONE	GENERAL DETAILS	STANDARD DETAIL NUMBER
	DATE: 6-3-02	PIPE LOCATING WIRE DETAIL	G-10
	FILE: PIPE-LOC.DWG		



- NOTE:
- TRENCHES SHALL BE AS NARROW AS POSSIBLE TO ALLOW FOR SAFE AND PROPER PIPE INSTALLATION. TRENCH SIDES SHALL BE VERTICAL TO A POINT 1'-0\"/>

TRENCH DETAILS
N.T.S.

Utilities, Inc.	SCALE: NONE	GENERAL DETAILS	STANDARD DETAIL NUMBER
	DATE: 7-12-01	TRENCH DETAILS	G-11
	FILE: TRENCH.DWG		



- NOTES:
- NO GALVANIZED FITTINGS PERMITTED.
 - ALL BRASS FITTINGS SHALL BE 2\"/>

BLOW-OFF (FLUSH HYDRANT) DETAIL
N.T.S.

Utilities, Inc.	SCALE: NONE	GENERAL DETAILS	STANDARD DETAIL NUMBER
	DATE: 6-3-02	BLOW-OFF (FLUSH HYDRANT) DETAIL	G-15
	FILE: BLOWOFF.DWG		

PROPOSED UTILITY	MINIMUM HORIZONTAL AND VERTICAL SEPARATION REQUIREMENTS	
	HORIZONTAL	VERTICAL
POTABLE WATER	3'	12"
RECLAIMED WATER	3'	12"
SANITARY SEWER	3'	12"
SANITARY SEWER FORCE MAIN	6"	12"
MULTI-USE UNDERGROUND DRAINS	3'	12"

1. THE TABLE REPRESENTS THE MINIMUM SEPARATION REQUIREMENTS AS DESCRIBED IN F.O.P. RULES PER THE FLORIDA ADMINISTRATION BETWEEN PROPOSED UTILITY LINES AND EXISTING UTILITY LINES.

2. UNRESTRICTED PUBLIC ACCESS REUSE WATER AS DEFINED BY F.A.C. SHALL BE TREATED AS SANITARY SEWER FOR SEPARATION PURPOSES.

3. ALL SEPARATION DISTANCES ARE FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE.

4. ALL SEPARATION DISTANCES BETWEEN POTABLE WATER AND SANITARY SEWER SHALL BE 3 FEET MINIMUM.

5. AT UTILITY CROSSINGS ONE FULL LENGTH OF WATER MAIN SHALL BE CENTERED ABOVE OR BELOW THE OTHER UTILITY PIPELINE MAXIMIZING SEPARATION DISTANCES.

6. NO WATER PIPE SHALL PASS THROUGH OR BE CONSTRUCTED UNDER ANY SANITARY SEWER PIPE UNLESS THE WATER PIPE IS MANHOLE OR INLET STRUCTURE.

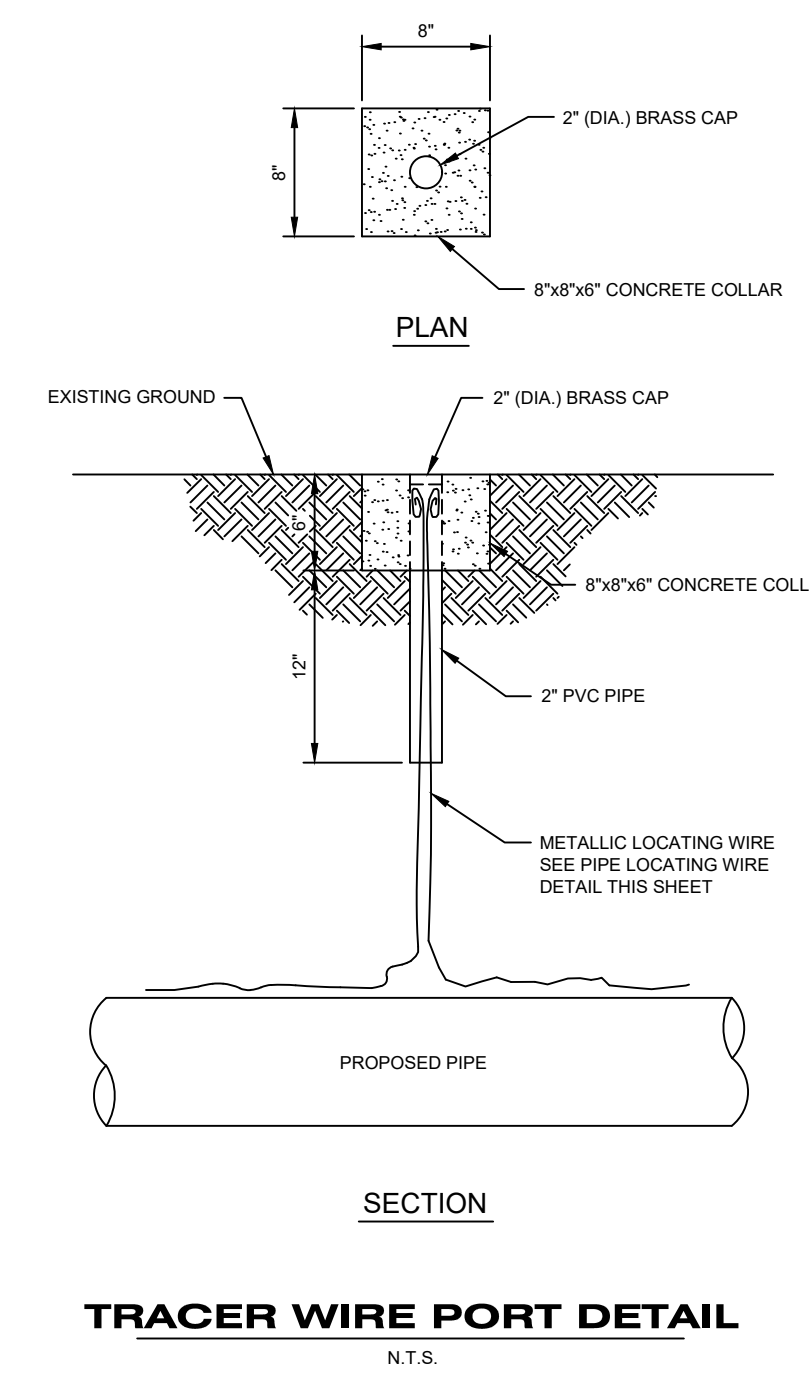
Utilities, Inc.	SCALE: NONE	GENERAL DETAILS	STANDARD DETAIL NUMBER
	DATE: 11-3-2003	MINIMUM HORIZONTAL AND VERTICAL SEPARATION REQUIREMENTS	G-17
	FILE: CLEAR.DWG		

FITTING TYPE	PIPE SIZE - INCHES											
	4	6	8	10	12	14	16	18	20	24		
VERT. UP OR HORIZ.	2	3	4	5	6	6	6	7	8	9	10	
11-1/4 BEND	5	6	8	10	12	13	15	16	17	20		
22-1/2 BEND	10	13	17	21	24	27	30	33	36	41		
45 BEND	23	32	42	50	58	66	73	80	87	100		
90 BEND	6	8	10	12	14	16	18	20	22	25		
11-1/4 BEND	11	16	20	24	28	32	36	40	43	50		
22-1/2 BEND	23	33	42	51	59	67	75	83	91	105		
45 BEND	56	79	102	122	143	163	182	201	219	253		
90 BEND	120	141	163	183	203	223	243	263	283	313		
BRANCH-OF-TEE	20	24	28	33	38	43	48	53	58	63		
HEAD-END	56	79	102	122	143	163	182	201	219	253		

- NOTES:
- SAND-SILT SOIL (COHESIONLESS SOIL WITH 30\"/>

RESTRAINED JOINT PIPE LENGTHS
C900 PVC PIPE
N.T.S.

Utilities, Inc.	SCALE: NONE	GENERAL DETAILS	STANDARD DETAIL NUMBER
	DATE: 7-12-01	RESTRAINED JOINT PIPE LENGTHS C900 PVC PIPE	G-18
	FILE: RJL_PVC.DWG		



TRACER WIRE PORT DETAIL
N.T.S.

Utilities, Inc.	SCALE: NONE	GENERAL DETAILS	STANDARD DETAIL NUMBER
	DATE: 6-3-02	TRACER WIRE PORT DETAIL	G-23
	FILE: WIREPORT.DWG		

HEIDT DESIGN
Civil Engineering • Planning & GIS
Transportation Engineering
Ecological Services • Landscape Architecture

5904-A Hampton Oaks Pkwy.
Tampa, Florida 33610
Office: 813-253-5311
Fax: 813-464-7629
www.HeidtDesign.com

SERENOA VILLAGE 3 - PHASE 1, 2 & 3
WATER & SEWER DETAILS

PREPARED FOR: **VK AVALON GROVES, LLC**

DATE	DESCRIPTION
11/08/2018	REVIEW SUBMITTAL

PROJECT NO.:	KLP-AG-1089
FILE:	WSD
DESIGN BY:	FRANCIS
DRAWN BY:	JLOAIZA

STATE OF FLORIDA
PROFESSIONAL ENGINEER

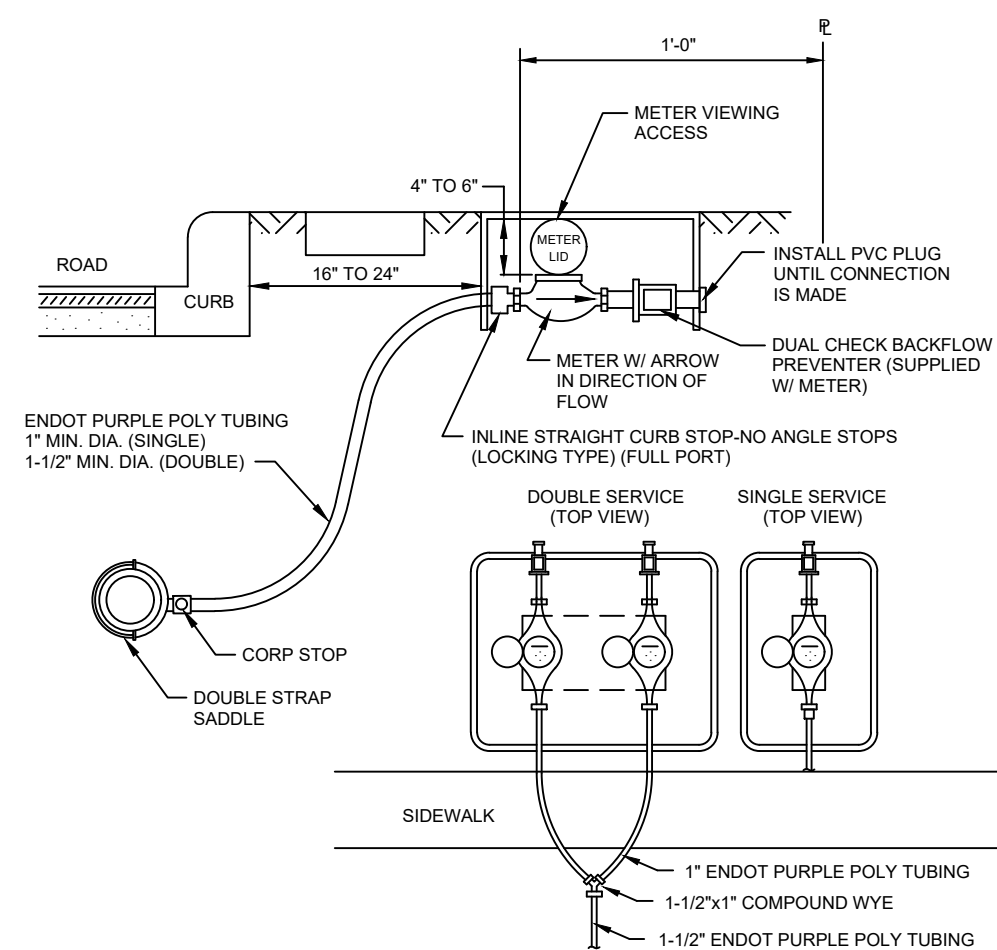
Timothy M. Plate, State of Florida,
Professional Engineer, License No. 41153

This item has been digitally
signed and sealed by
Timothy M. Plate, P.E. on the date
indicated here.

Printed copies of this document
are not considered signed and
sealed and the signature must be
verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
DATE: 6-3-02
LICENSE NO. 41153

C-602

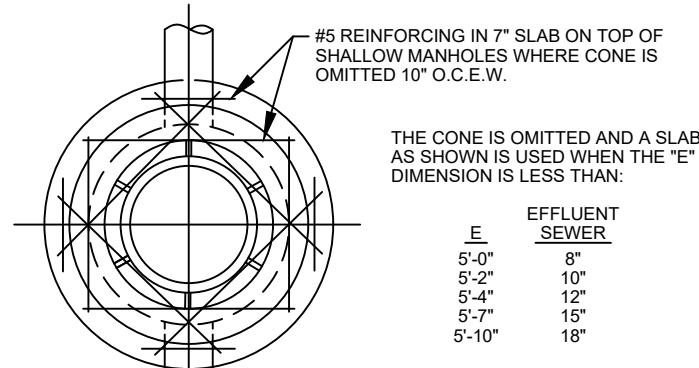


- NOTES:
1. ALL FITTINGS SHALL BE BRASS WITH COMPRESSION/Joint TYPE CONNECTIONS.
 2. NO SERVICE LINE SHALL TERMINATE UNDER A DRIVEWAY OR A SIDEWALK.
 3. EACH SERVICE LINE SHALL TERMINATE AT A CURB STOP(S) WHICH SHALL BE BURIED APPROXIMATELY 2" BELOW FINAL GRADE AND SHALL BE CLEARLY MARKED WITH A 2"x2"x18" STAKE WITH THE TOP PAINTED PURPLE AND MARKED WITH THE NUMBER OF THE LOT(S) TO BE SERVED.
 4. ALL RECLAIMED WATER SERVICES AND METER BOXES SHALL BE LOCATED AT THE LOT LINE, ON THE RESIDENT'S SIDE OF THE SIDEWALK.
 5. SERVICE LINES SHALL BE CONTINUOUS FROM CORPORATION STOP TO CURB STOP.
 6. ALL SERVICE LINES SHALL BE DRISCO D.R.-9 TYPE "P" POLYETHYLENE TUBING (PURPLE).
 7. CURB STOPS AND CURB STOPS SHALL BE BRASS EQUIPPED WITH CONNECTION COMPATIBLE TO CONNECTING SERVICE TYPE AS MANUFACTURED BY MUELLER CO. OR APPROVED EQUAL.
 8. RECLAIMED WATER METERS AND RECLAIMED WATER METER BOXES SHALL BE INSTALLED BY THE CONTRACTOR. RECLAIMED WATER METERS SHALL BE INSTALLED BY THE UTILITY.
 9. LONG SERVICES UNDER PAVEMENT TO BE INSTALLED IN 3" PVC SLEEVE, MINIMUM 3' DEEP.
 10. DOUBLE SERVICE METER BOXES SHALL BE HEFCO PLASTIC JUMBO (PURPLE) W/ CAST IRON LID OR APPROVED EQUAL (MINIMUM DIMENSIONS: LENGTH x WIDTH = 21.5"x15"). SINGLE SERVICE METER BOXES SHALL BE HEFCO PLASTIC (PURPLE) W/ CAST IRON LID (MINIMUM DIMENSIONS: LENGTH x WIDTH 21.5"x10").

RECLAIMED WATER SERVICE CONNECTION

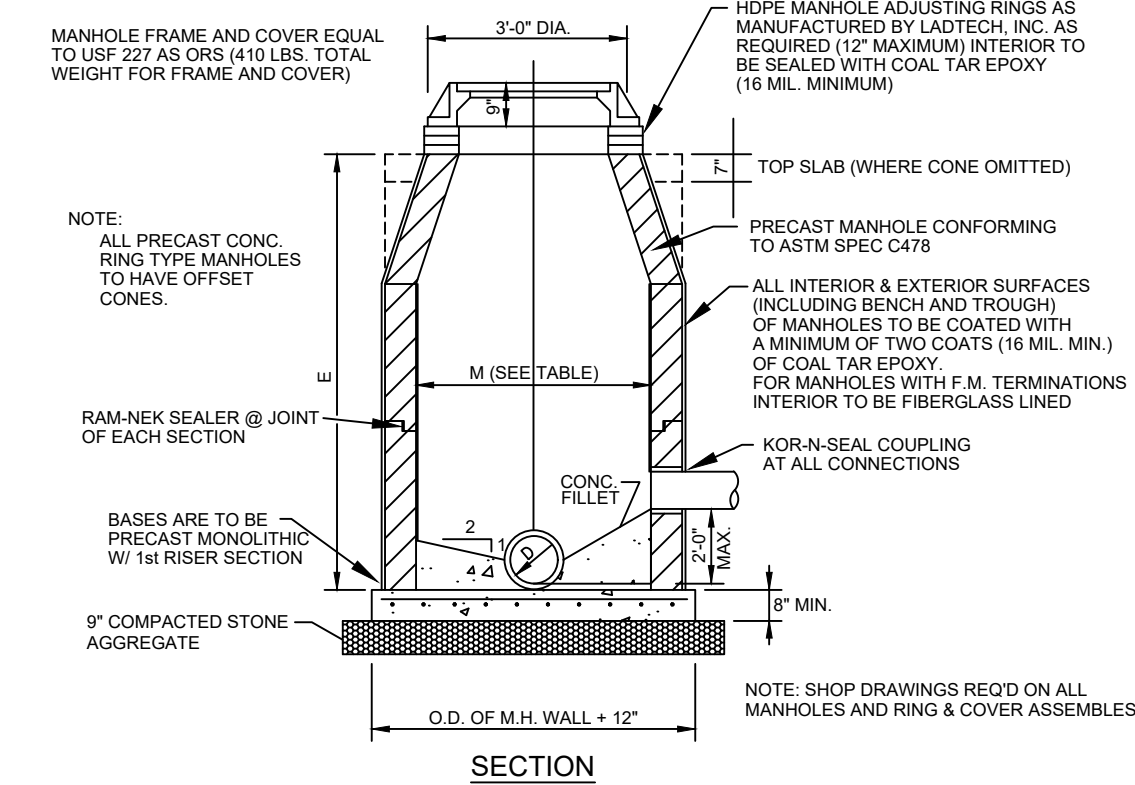
N.T.S.

	SCALE: NONE	RECLAIMED WATER DETAILS	STANDARD DETAIL NUMBER
	DATE: 6-3-02	RECLAIMED WATER SERVICE CONNECTION	RW-1
	FILE: RWSEV.DWG		



M.H. DIAMETER TABLE

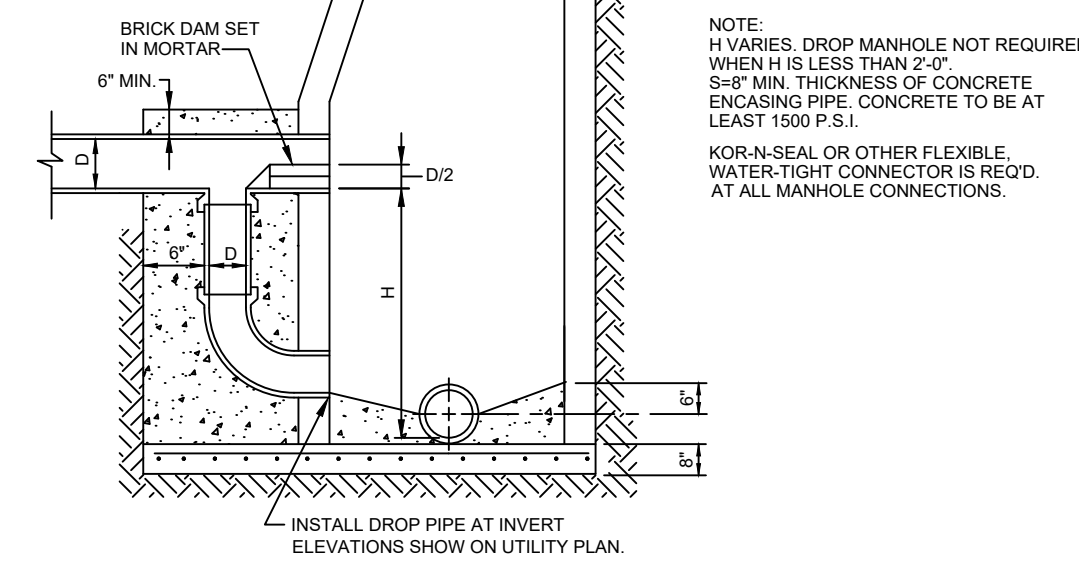
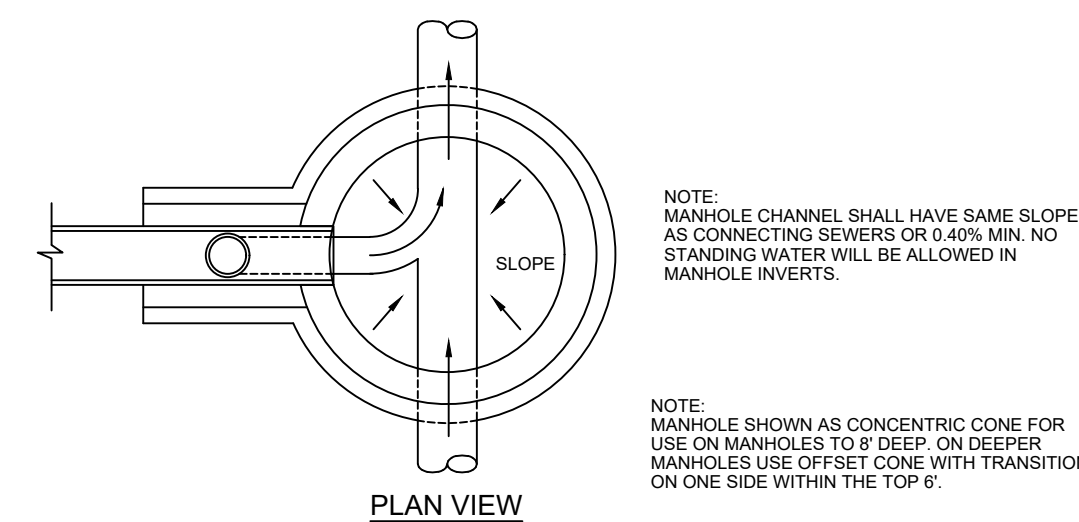
PIPE DIA. "Ø"	MANHOLE DIA. "Ø"
6" - 24"	4'-0"
24" - 36"	5'-0"
> 36"	SPECIAL M.H.



TYPICAL MANHOLE

N.T.S.

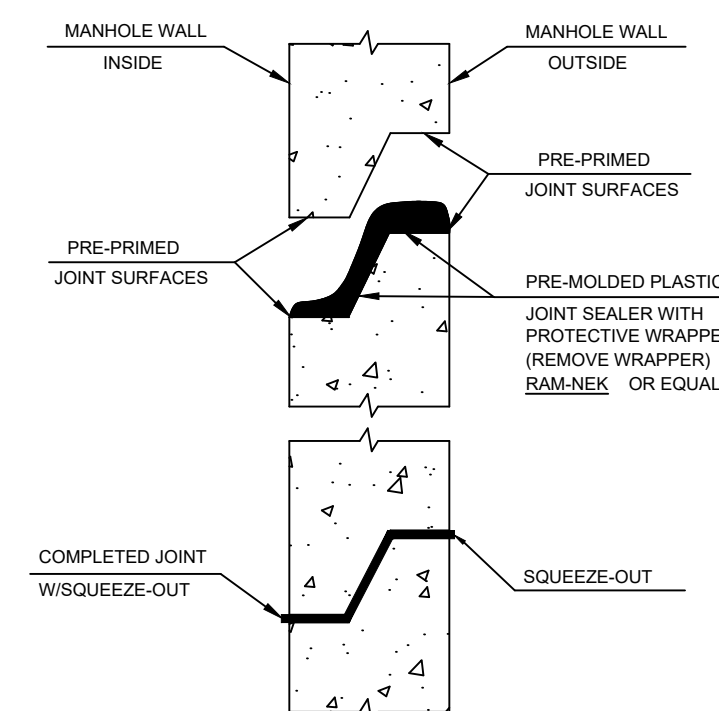
	SCALE: NONE	SANITARY DETAILS	STANDARD DETAIL NUMBER
	DATE: 6-3-02	TYPICAL MANHOLE	S-1
	FILE: MANHOLE.DWG		



DETAIL OF OUTSIDE DROP MANHOLE

N.T.S.

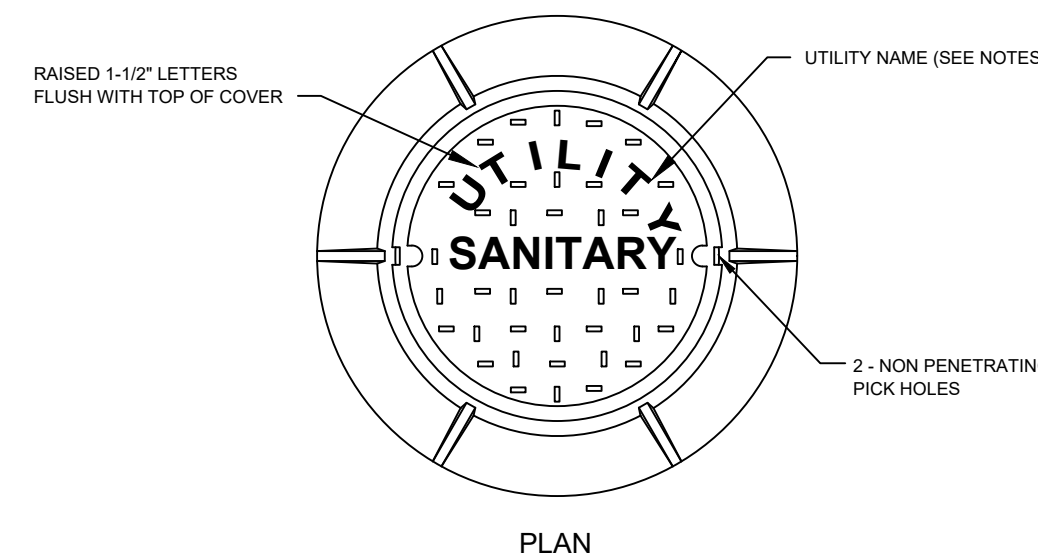
	SCALE: NONE	SANITARY DETAILS	STANDARD DETAIL NUMBER
	DATE: 7-12-01	DETAIL OF OUTSIDE DROP MANHOLE	S-2
	FILE: DROP.MAN.DWG		



TYPICAL PRECAST STRUCTURE JOINT DETAIL

N.T.S.

	SCALE: NONE	SANITARY DETAILS	STANDARD DETAIL NUMBER
	DATE: 7-12-01	TYPICAL PRECAST STRUCTURE JOINT DETAIL	S-3
	FILE: CONC.JOINT.DWG		

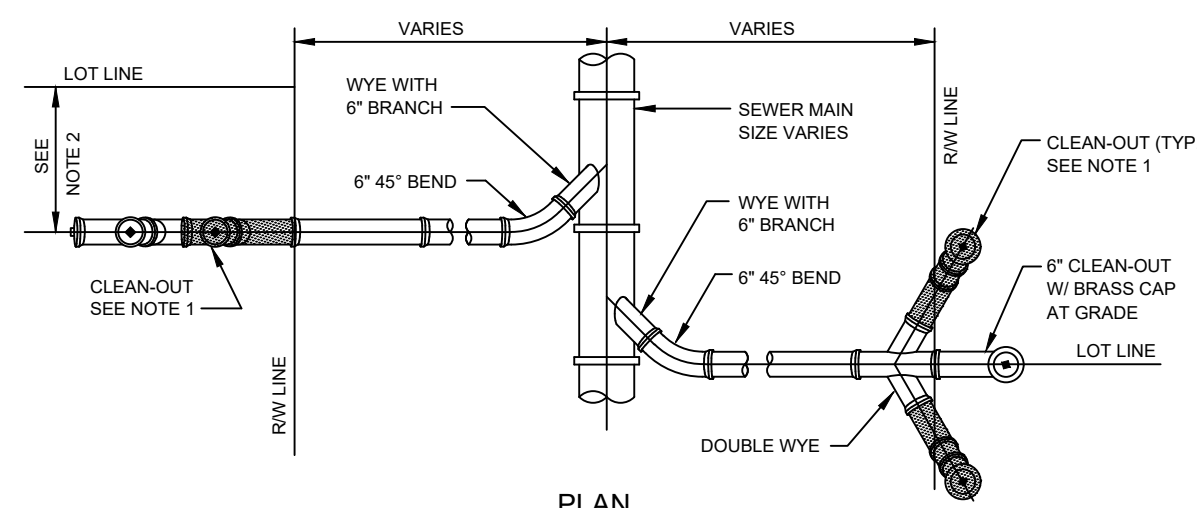


- NOTES:
1. MANHOLE FRAME AND COVER SHALL BE USE 227 AS ORS (410 LBS. TOTAL WEIGHT FOR FRAME AND COVER) OR APPROVED EQUAL.
 2. UTILITY NAME SHALL BE THE NAME OF THE UTILITY PROVIDING SERVICE. DETAIL SHALL BE SUBMITTED WITH SHOP DRAWINGS FOR UTILITY APPROVAL.

STANDARD MANHOLE FRAME AND COVER

N.T.S.

	SCALE: NONE	SANITARY DETAILS	STANDARD DETAIL NUMBER
	DATE: 6-3-02	STANDARD MANHOLE FRAME AND COVER	S-4
	FILE: MHCOVER.DWG		

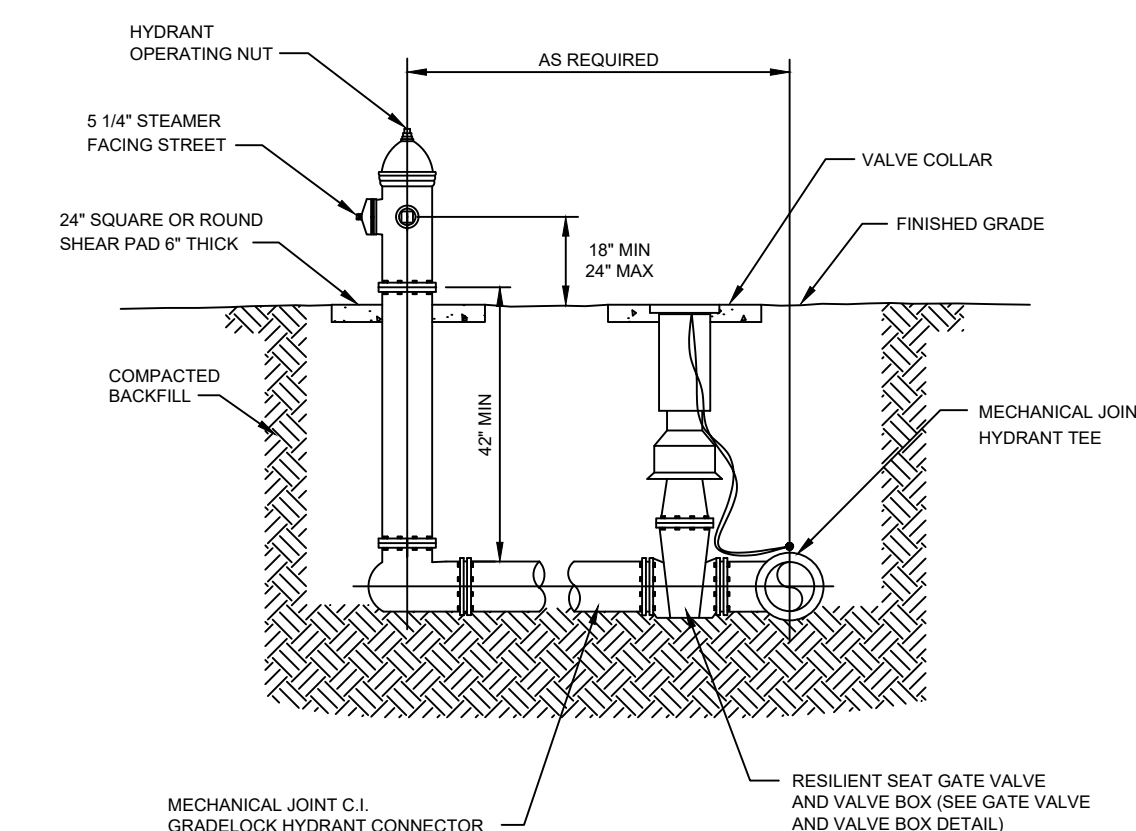


- NOTES:
1. ELDER VALVE CLEAN-OUT (SHOWN SHADED) SHALL BE INSTALLED BY THE BUILDER IN ACCORDANCE WITH STANDARD PLUMBING CODE.
 2. LOCATE SINGLE LATERAL AS CLOSE TO LOT LINE AS POSSIBLE, 25" MAXIMUM.
 3. INVERT OF SERVICE LATERAL SHALL NOT ENTER SEWER MAIN BELOW SPRING LINE.
 4. WYE BRANCH CONNECTIONS ON DOUBLE SERVICE CONNECTIONS TO BE CAPPED WITH REMOVABLE STOPPER AND SEALED WITH JOINT COMPOUND.
 5. SERVICE LINES SHALL BE EXTENDED 18" ABOVE GRADE PRIOR TO VIDEOTAPING THE SANITARY SYSTEM. UPON ACCEPTANCE BY THE UTILITY, THE CONTRACTOR SHALL CUT THE CLEAN-OUT TO FINISHED GRADE AND THE SERVICE CONNECTIONS TO WITHIN 3 FEET OF FINISHED GRADE.

SANITARY SERVICE LATERAL DETAIL

N.T.S.

	SCALE: NONE	SANITARY DETAILS	STANDARD DETAIL NUMBER
	DATE: 6-3-02	SANITARY SERVICE LATERAL DETAIL	S-5
	FILE: SANLAT.DWG		

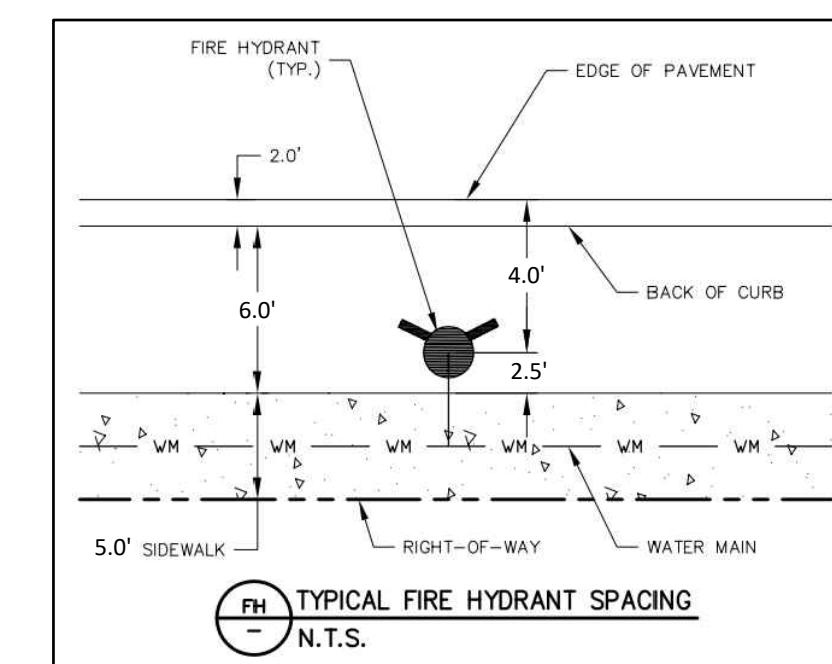


- NOTES:
1. FIRE HYDRANT SHALL BE AMERICAN DARLING 8-84-B WITHOUT WEEP HOLE, OR APPROVED EQUAL.
 2. PROVIDE A BLUE REFLECTORIZED MARKER IN THE PAVEMENT.
 3. THE SHEAR PAD MAY BE INSTALLED UP TO 4" BELOW FINISH GRADE.
 4. CLEARANCE BETWEEN BOTTOM OF BOLTS AND TOP OF SHEAR PAD SHALL BE 6-INCH MINIMUM.

FIRE HYDRANT ASSEMBLY DETAIL

N.T.S.

	SCALE: NONE	WATER DETAILS	STANDARD DETAIL NUMBER
	DATE: 6-3-02	FIRE HYDRANT ASSEMBLY DETAIL	W-1
	FILE: FIREHYD.DWG		



TYPICAL FIRE HYDRANT SPACING

N.T.S.

HEIDT DESIGN
Civil Engineering • Planning & GIS
Transportation Engineering
Ecological Services • Landscape Architecture

Engineering Business Certificate of Authorization No. 28793
Landscape Architecture Certificate of Authorization No. LC26080405

5904-A Hampton Oaks Pkwy.
Tampa, Florida 33610
Office: 813-253-5311
Fax: 813-464-7629
www.HeidtDesign.com

SERENOA
VILLAGE 3 - PHASE 1, 2 & 3
WATER & SEWER DETAILS
PREPARED FOR: VK AVALON GROVES, LLC

NO.	DATE	DESCRIPTION
3	05/27/2020	FOR DETAIL 4 FROM BOC
2	03/20/2020	UTILITIES, INC. OF FLORIDA COMMENTS
1	11/08/2019	REVISED SUBMITTAL

PROJECT NO.: KLP-AG-1089
FILE: WSD
DESIGN BY: FRANCIS
DRAWN BY: JLOAIZA

STATE OF FLORIDA
PROFESSIONAL ENGINEER

Timothy M. Plate, (State of Florida, Professional Engineer, License No. 41153)

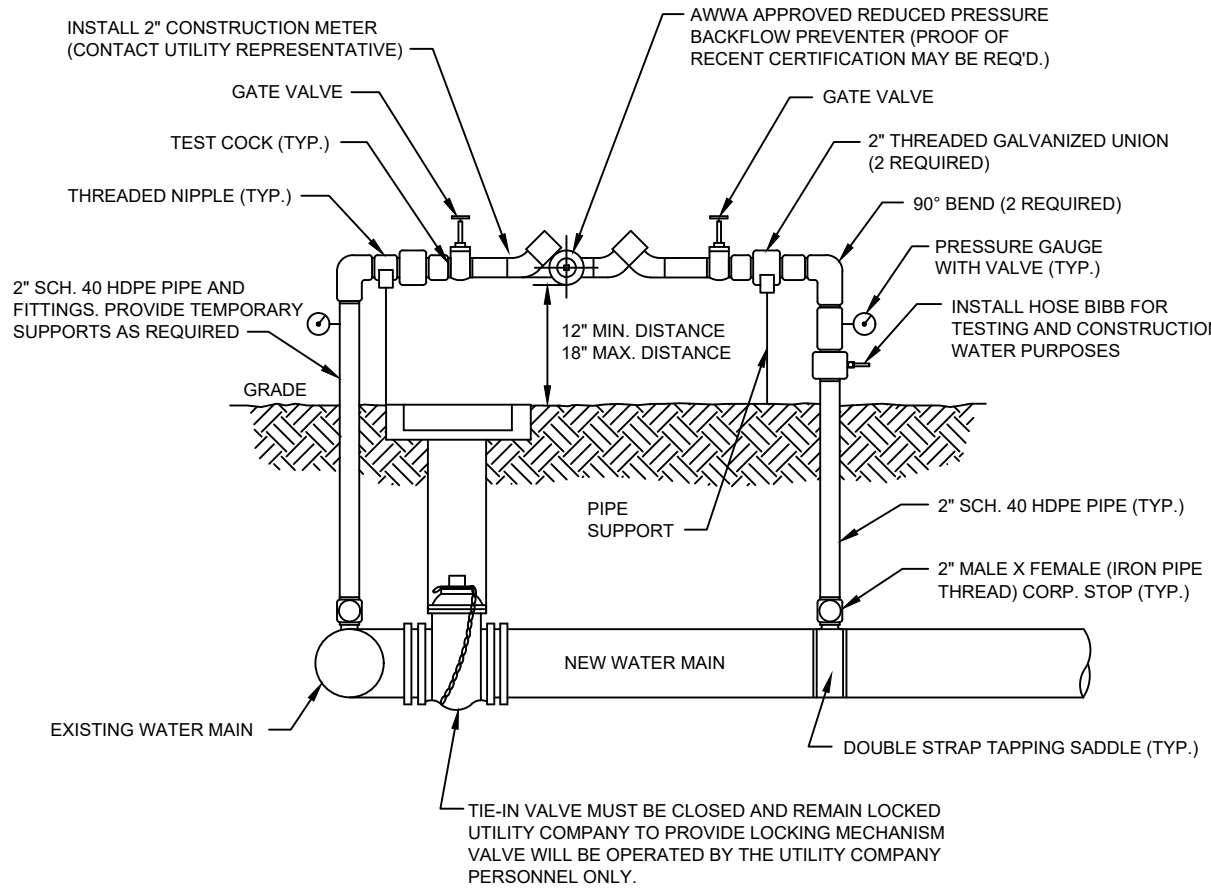
This item has been digitally signed and sealed by Timothy M. Plate, P.E. on the date indicated here:

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
DATE: _____
LICENSE NO. 41153

C-603

© COPYRIGHT 2020, HEIDT DESIGN, LLC. ALL RIGHTS RESERVED. NO DOCUMENTATION INCLUDING BUT NOT LIMITED TO DRAWINGS OR EXHIBITS MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT PERMISSION IN WRITING FROM HEIDT DESIGN, LLC. THIS DOCUMENT IS HEREBY GRANTED SPECIFICALLY TO GOVERNMENTAL AGENCIES TO REPRODUCE THIS DOCUMENTATION IN COMPLIANCE WITH F.S. CHAPTER 119.



TEMPORARY JUMPER CONNECTION
N.T.S.

Utilities, Inc.	SCALE: NONE	WATER DETAILS	STANDARD DETAIL NUMBER
	DATE: 6-3-02	TEMPORARY JUMPER CONNECTION	W-2
	FILE: JUMPER.DWG		

TEMPORARY JUMPER NOTES:

1. A TEMPORARY JUMPER CONNECTION IS REQUIRED AT ALL CONNECTIONS BETWEEN EXISTING ACTIVE WATER MAINS AND PROPOSED NEW WATER MAIN IMPROVEMENTS.
2. THE DETAIL ABOVE IS TO BE USED FOR FILLING ANY NEW WATER MAIN OF ANY SIZE FROM EXISTING ACTIVE WATER MAINS AND FOR FLUSHING OF NEW MAINS UP TO 6" IN DIAMETER (2.5 FPS MINIMAL VELOCITY) AND FOR FLUSHING BACTERIOLOGICAL SAMPLES FROM ANY NEW WATER MAIN OF ANY SIZE. THE JUMPER CONNECTION SHALL BE MAINTAINED UNTIL AFTER FILLING, FLUSHING, TESTING, AND DISINFECTION OF THE NEW MAIN HAS BEEN SUCCESSFULLY COMPLETED AND CLEARANCE FOR USE FROM THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) & OTHER PERTINENT AGENCIES HAS BEEN RECEIVED BY UTILITIES, INC. THIS JUMPER CONNECTION SHALL ALSO BE USED TO MAINTAIN A MINIMUM PRESSURE OF 20 PSI IN THE NEW MAINS ALL THE TIME AFTER DISINFECTION AND UNTIL THE FDEP CLEARANCE LETTER IS OBTAINED. ADEQUATE TRUST BLOCKING AND/OR RESTRAINTS SHALL BE PROVIDED TEMPORARILY, AS REQUIRED. PIPE AND FITTINGS USED FOR CONNECTING THE NEW PIPE TO THE EXISTING PIPE SHALL BE DISINFECTED PRIOR TO INSTALLATION IN ACCORDANCE WITH AWWA C651, 1992 EDITION. THIS TAPPING SLEEVE AND THE EXTERIOR OF THE MAIN TO BE TAPPED SHALL BE DISINFECTED BY SPRAYING OR SWABING PER SECTION II OF AWWA C651-92.

CONTINUED ON PAGE W-3A

Utilities, Inc.	SCALE: NONE	WATER DETAILS	STANDARD DETAIL NUMBER
	DATE: 7-12-01	TEMPORARY JUMPER NOTES	W-3
	FILE: JUMPNOTES.DWG		

CONTINUED FROM PAGE W-3

3. FLUSHING OF 10" DIAMETER AND LARGER WATER MAINS MAY BE DONE THROUGH THE TIE-IN VALVE UNDER VERY CONTROLLED CONDITIONS.

THE FOLLOWING PROCEDURES SHALL BE FOLLOWED:

- A. THE TIE-IN VALVES SHALL BE OPERATED AND PRESSURE TESTED IN THE PRESENCE OF THE UTILITY COMPANY AND ENGINEER TO VERIFY WATER TIGHTNESS PRIOR TO TIE-IN. VALVES WHICH ARE NOT WATERTIGHT SHALL BE REPLACED OR A NEW VALVE INSTALLED IMMEDIATELY ADJACENT TO THE LEAKING VALVE.

- B. THE TEMPORARY JUMPER CONNECTION SHALL BE CONSTRUCTED AS DETAILED. THE JUMPER CONNECTION SHALL BE USED TO FILL THE NEW WATER MAIN AND FOR PROVIDING WATER FOR BACTERIOLOGICAL SAMPLING OF THE NEW MAIN AS REQUIRED BY THE FDEP PERMIT.

- C. FLUSHING SHALL NOT BE ATTEMPTED DURING PEAK DEMAND HOURS OF THE EXISTING WATER MAINS.

- D. ALL DOWNSTREAM VALVES IN THE NEW SYSTEM MUST BE OPEN PRIOR TO OPENING THE TIE-IN VALVE.

- E. PROVIDE FOR AND MONITOR THE PRESSURE AT THE TIE-IN POINT. THE PRESSURE ON THE EXISTING MAIN MUST NOT DROP BELOW 35 PSI.

- F. THE TIE-IN VALVE SHALL BE OPENED A FEW TURNS ONLY, ENSURING A PRESSURE DROP ACROSS THE VALVE IS ALWAYS GREATER THAN 10 PSI.

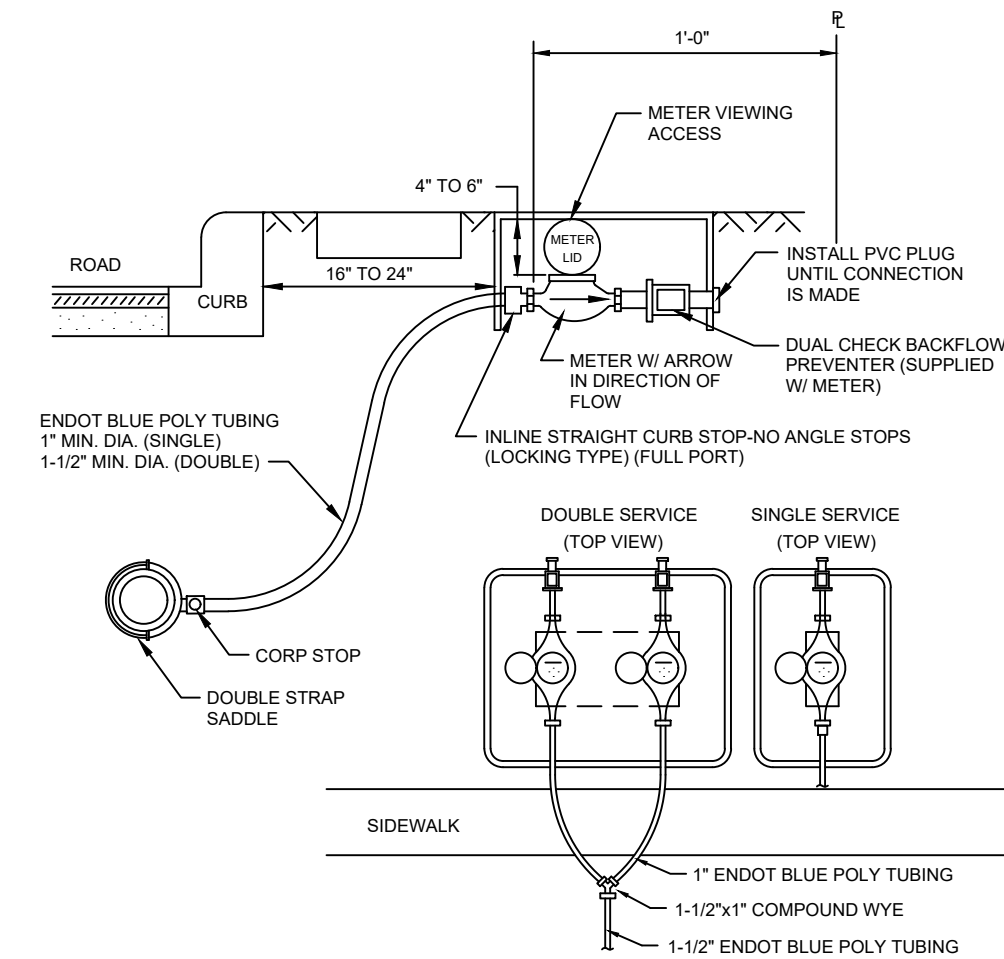
- G. THE TIE-IN VALVE SHALL BE LOCKED CLOSED BY THE UTILITY COMPANY UNTIL FLUSHING BEGINS.

- H. THE TIE-IN VALVE SHALL BE OPENED ONLY FOR FLUSHING OF THE NEW MAIN. THE PROCEDURE SHALL BE DIRECTED BY THE UTILITY COMPANY AND OBSERVED BY THE ENGINEER.

- I. EXCEPT AS REQUIRED TO FLUSH LINES OF GREATER THAN 8" IN DIAMETER, THE TIE-IN VALVE SHALL REMAIN CLOSED, LOCKED, AND VERIFIED BY THE UTILITY COMPANY. THE TIE-IN VALVE SHALL REMAIN LOCKED UNTIL THE NEW SYSTEM HAS BEEN CLEARED FOR USE BY FDEP AND ALL OTHER PERTINENT AGENCIES.

- J. UPON RECEIPT OF CLEARANCE FOR USE FROM FDEP AND ALL OTHER PERTINENT AGENCIES, THE CONTRACTOR SHALL REMOVE THE TEMPORARY JUMPER CONNECTION. THE CORPORATION STOPS ARE TO BE CLOSED AND PLUGGED WITH 2" BRASS PLUGS.

- K. ALL INSTALLATION AND MAINTENANCE OF THE TEMPORARY JUMPER CONNECTION AND ASSOCIATED BACKFLOW PREVENTION DEVICE, FITTINGS, VALVE, ETC. SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.



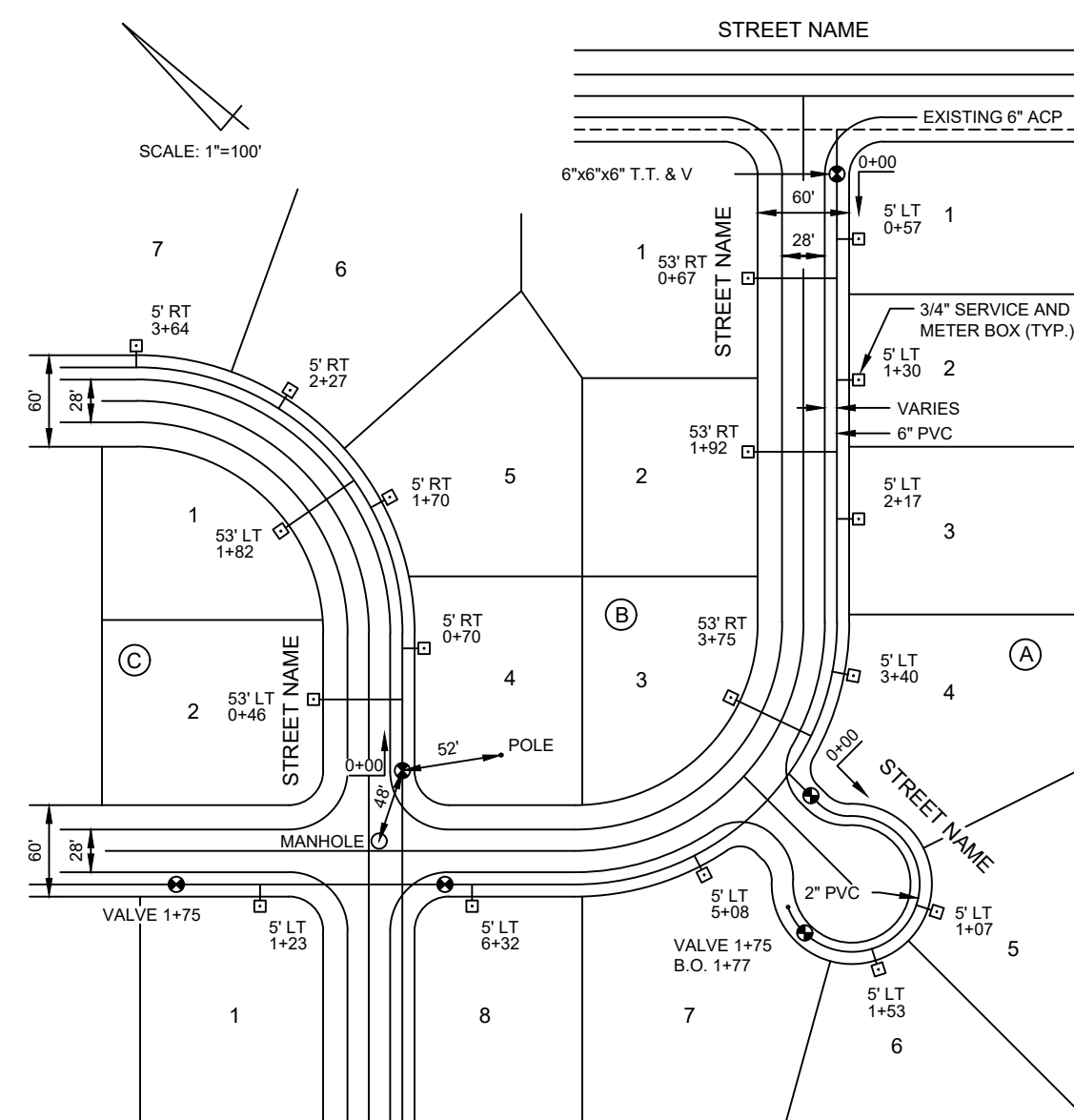
NOTES:

1. ALL FITTINGS SHALL BE BRASS WITH COMPRESSION/JACKET TYPE CONNECTIONS.
2. NO SERVICE LINE SHALL TERMINATE UNDER A DRIVEWAY OR A SIDEWALK.
3. EACH SERVICE SHALL TERMINATE AT A CURB STOP(S) WHICH SHALL BE BURIED APPROXIMATELY 3" BELOW FINAL GRADE AND SHALL BE CLEARLY MARKED WITH A 2"x2"x18" STAKE WITH THE TOP PAINTED BLUE AND MARKED WITH THE NUMBER OF THE LOT(S) TO BE SERVED.
4. ALL WATER SERVICES AND METER BOXES SHALL BE LOCATED AT THE LOT, ON THE RESIDENT'S SIDE OF SIDEWALK.
5. CURB STOPS AND CURB STOPS SHALL BE BRASS EQUIPPED WITH CONNECTION COMPATIBLE TO CONNECTING SERVICE TYPE AS MANUFACTURED BY MUELLER CO. B25170 WITH A 1" x 3/4" BRASS BUSHING OR APPROVED EQUAL.
6. DOUBLE SERVICE METER BOXES SHALL BE HEFCO PLASTIC JUMBO W/ CAST IRON LID OR APPROVED EQUAL (MINIMUM DIMENSIONS: LENGTH x WIDTH = 21.5"x15").
7. WATER METER VALVES AND WATER METER BOXES SHALL BE INSTALLED BY THE CONTRACTOR. WATER METERS SHALL BE INSTALLED BY THE UTILITY.
8. LONG SERVICES UNDER PAVEMENT TO BE INSTALLED IN 3" PVC SLEEVE, MINIMUM 3" DEEP.
9. SINGLE SERVICE METER BOXES SHALL BE HEFCO PLASTIC W/ CAST IRON LID OR APPROVED EQUAL (MINIMUM DIMENSIONS: LENGTH x WIDTH = 21.5"x10").

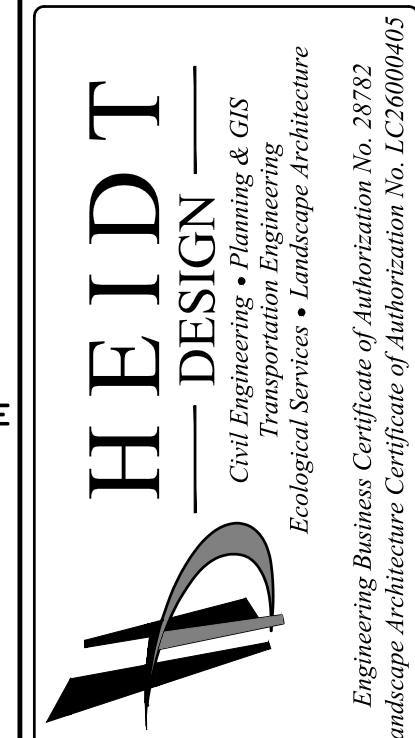
WATER SERVICE CONNECTION
N.T.S.

Utilities, Inc.	SCALE: NONE	WATER DETAILS	STANDARD DETAIL NUMBER
	DATE: 6-3-02	WATER SERVICE CONNECTION	W-4
	FILE: WSERVICE.DWG		

- NOTES:
1. START 0+00 FROM ALL INLINE VALVES FOR MEASUREMENTS OF SERVICES, ETC. MANHOLES, ETC., MAY BE USED AS ZERO STATION UNDER CERTAIN CONDITIONS.
 2. IDENTIFY EACH LOT BY LOT AND BLOCK NUMBER.
 3. MEASUREMENTS FOR ENDS OF SERVICES SHALL BE MADE FROM THE CENTERLINE OF MAIN.
 4. DIMENSION ALL VALVES, FIRE HYDRANTS, ETC. FROM TWO FIXED VISIBLE OBJECTS.
 5. ALL SERVICES ARE 3/4" (TYPICAL).
 6. DRAWINGS SHALL BE SAME SCALE AS THE CONSTRUCTION PLANS.
 7. INDICATE ROW, CURB & GUTTER, AND/OR PAVEMENT WIDTH.



Utilities, Inc.	SCALE: NONE	APPLICABLE ALL UTILITIES	STANDARD DETAIL NUMBER
	DATE: 7-12-01	TYPICAL UTILITY "AS-BUILT"	AB-1
	FILE: ASBUILT.DWG		



Engineering Business Certificate of Authorization No. 28787D
Landscape Architecture Certificate of Authorization No. LC26080405
RVAVALON GROVES/VILLAGE ENGINEERING/WSO-DWG-C-004 2020/03/03 11:27 AM ERIC FRANCIS

SERENOA
VILLAGE 3 - PHASE 1, 2 & 3
WATER & SEWER DETAILS
PREPARED FOR: VK AVALON GROVES, LLC

DATE	DESCRIPTION
11/08/2019	REVIEW SUBMITTAL

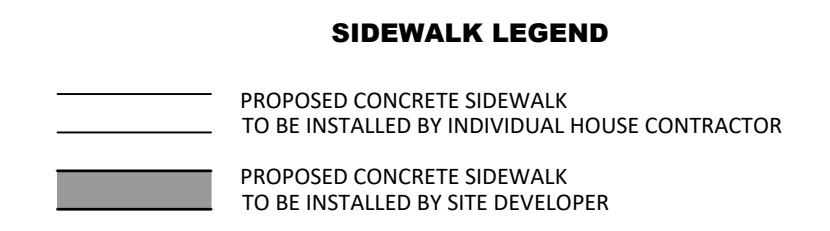
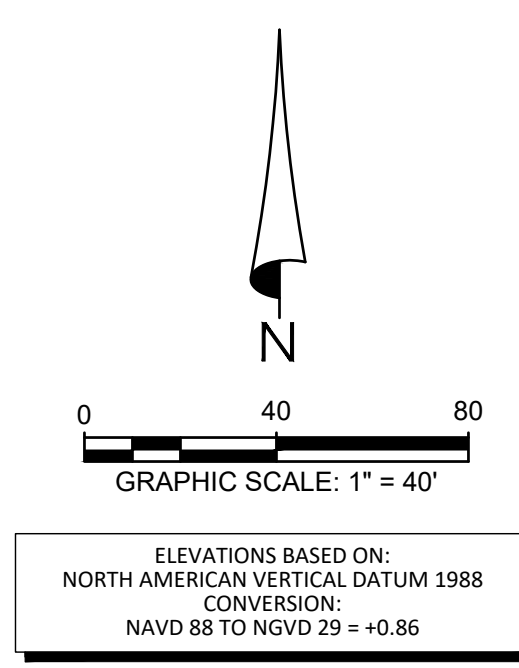
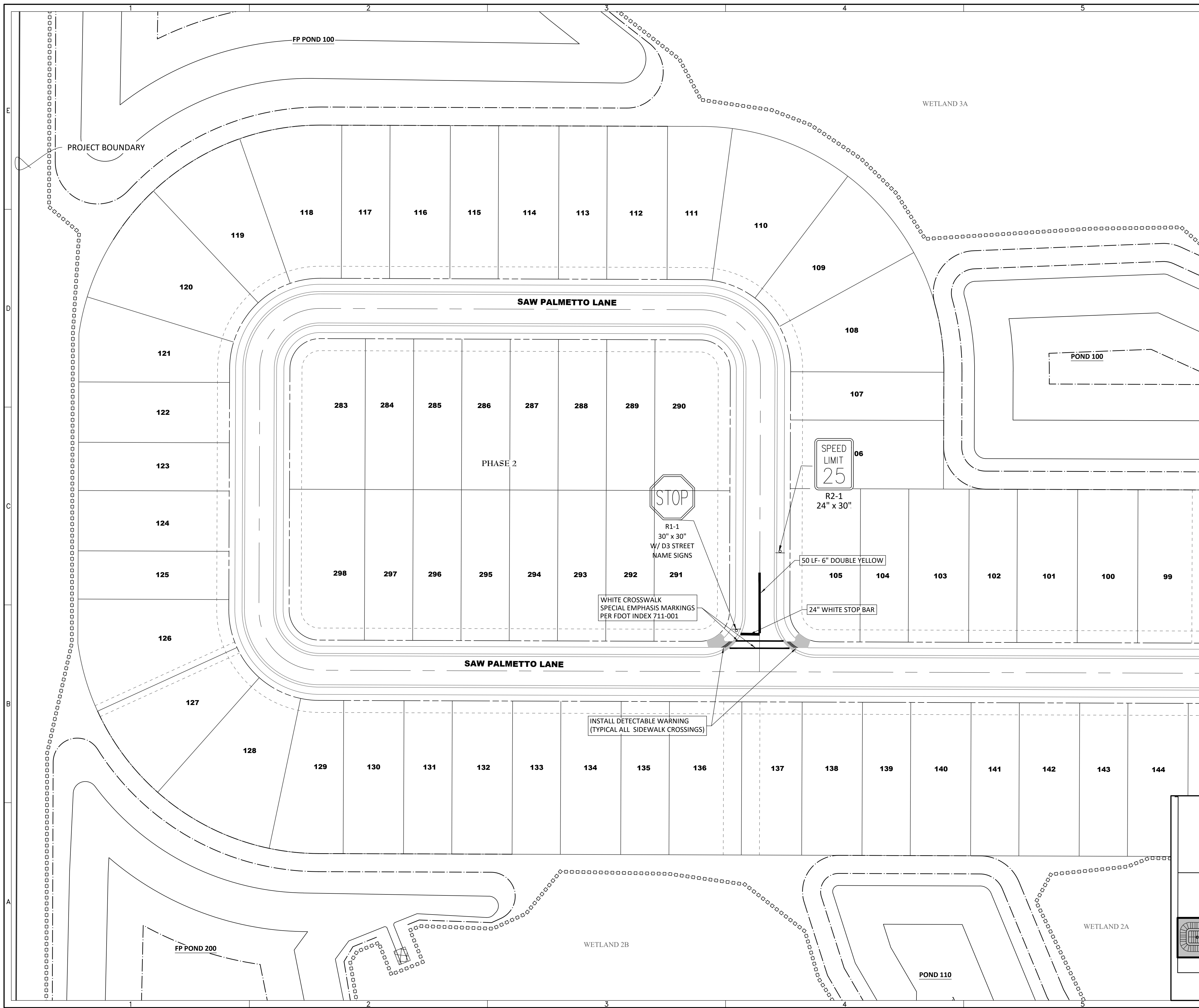
PROJECT NO: KLP-AG-1089
FILE: WSD
DESIGN BY: FRANCIS
DRAWN BY: JLOAIZA

STATE OF FLORIDA
PROFESSIONAL ENGINEER
Timothy M. Plate, State of Florida, Professional Engineer, License No. 41153
This item has been digitally signed and sealed by Timothy M. Plate, P.E. on the date indicated here.
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
DATE:
LICENSE NO. 41153

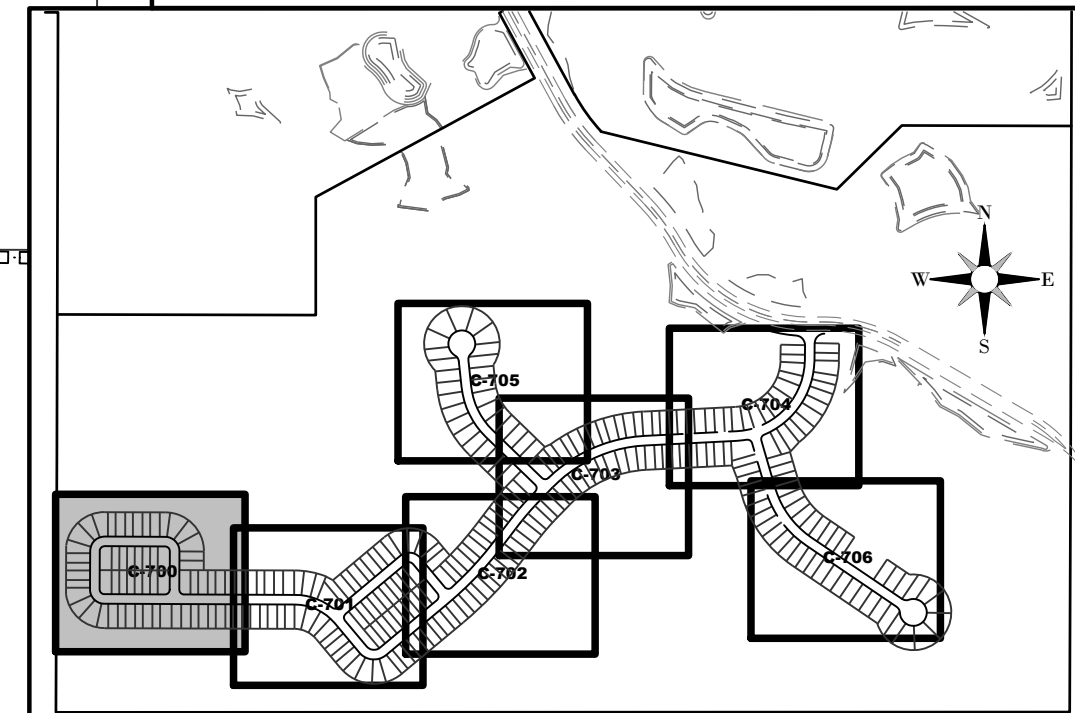
C-604

© COPYRIGHT 2002, HEIDT DESIGN, LLC. ALL RIGHTS RESERVED. NO DOCUMENTATION INCLUDING BUT NOT LIMITED TO DRAWINGS OR EXHIBITS MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION IN WRITING FROM HEIDT DESIGN, LLC. THIS DOCUMENT IS HEREBY GRANTED SPECIFICALLY TO GOVERNMENTAL AGENCIES TO REPRODUCE THIS DOCUMENTATION IN COMPLIANCE WITH F.S. CHAPTER 119.



- SIDEWALK NOTES:**
- SIDEWALK INDICATED AS INSTALLED BY DEVELOPER SHALL BE COMPLETED PRIOR TO FINAL INFRASTRUCTURE INSPECTION OR SHALL BE SUBJECT TO COVERAGE UNDER A PERFORMANCE GUARANTEE.
 - SIDEWALKS INSTALLED BY BUILDERS SHALL BE COMPLETED PRIOR TO CERTIFICATE OF OCCUPANCY OF ITS CORRESPONDING DWELLING UNIT.
 - ALL SIDEWALKS SHALL BE 6" THICK WHERE SIDEWALK IS CROSSED BY A DRIVEWAY.
 - SIDEWALK DETECTABLE WARNING SURFACES SHALL BE ALIGNED IN THE DIRECTION OF PEDESTRIAN TRAVEL.

- NOTES:**
- INSTALL 2' DETECTABLE WARNING STRIP AT ALL SIDEWALK CROSSINGS. SEE FDOT STANDARD SPECIFICATIONS SECTION 527.
 - INSTALL DROP CURB WITH 3' TRANSITIONS AT ALL SIDEWALK CROSSINGS.



HEIDT DESIGN
 Civil Engineering • Planning & GIS
 Transportation Engineering
 Ecological Services • Landscape Architecture

5904-A Hampton Oaks Pkwy.
 Tampa, Florida 33610
 Office: 813-253-5311
 Fax: 813-464-7629
 www.HeidtDesign.com

Engineering Business Certificate of Authorization No. 28793
 Landscape Architecture Certificate of Authorization No. LC26080405

SERENOA VILLAGE 3 - PHASE 1, 2 & 3
SIGNING, PAVEMENT MARKING & SIDEWALK PLANS

PREPARED FOR: **VK AVALON GROVES, LLC**

DATE	DESCRIPTION

DATE	DESCRIPTION
05/27/2020	ADDED SPEED LIMIT SIGN
11/08/2019	REVIEW SUBMITTAL

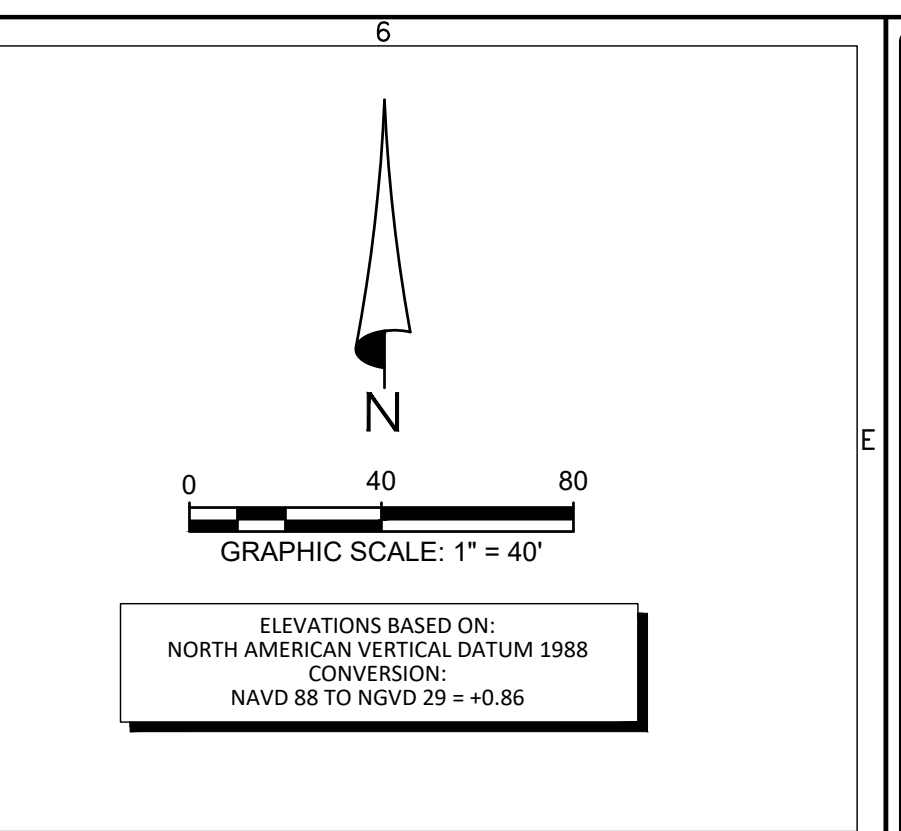
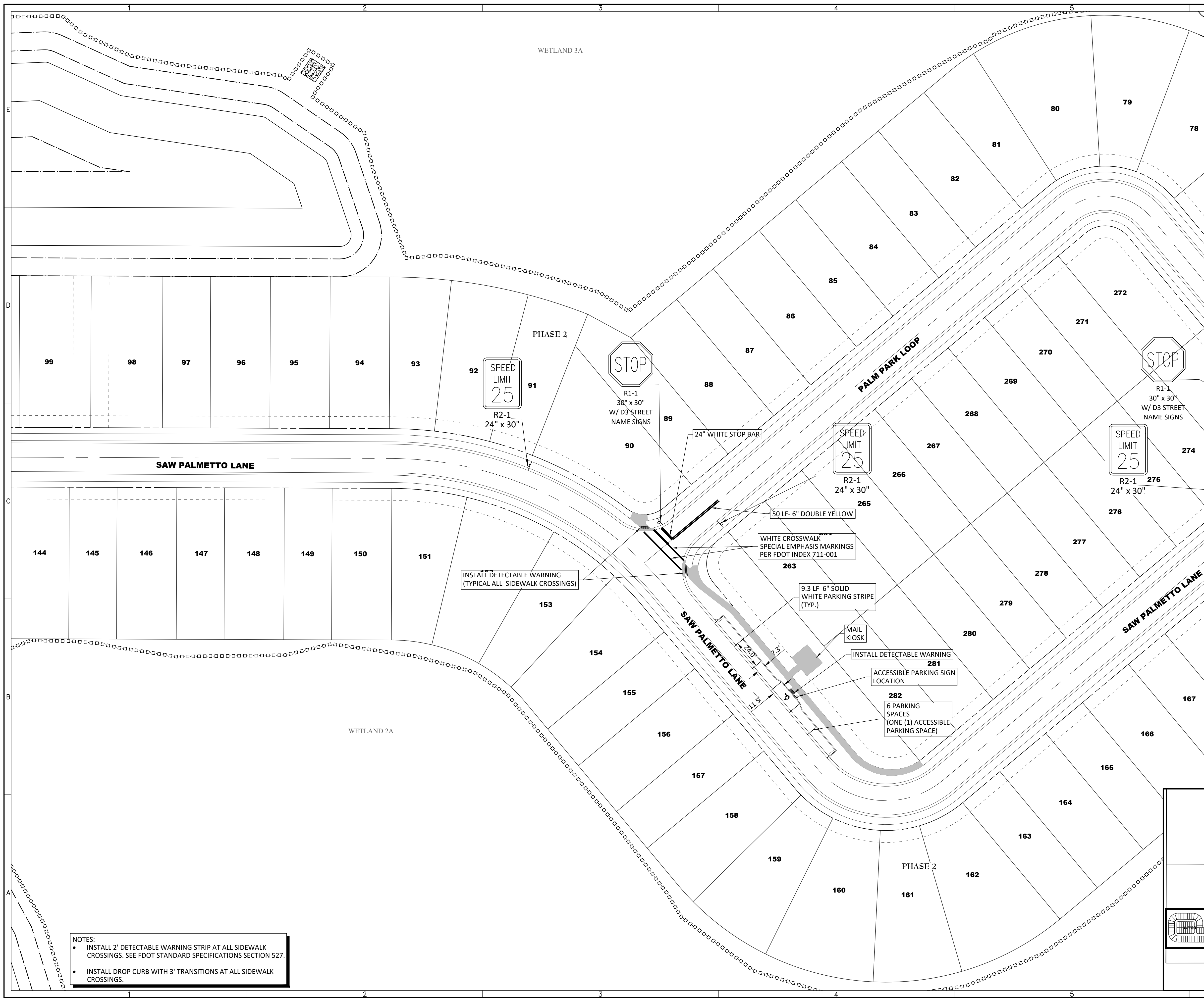
PROJECT NO: KLP-AG-1089
 FILE: SPM
 DESIGN BY: FRANCIS
 DRAWN BY: JLOAIZA

STATE OF FLORIDA PROFESSIONAL ENGINEER
 Timothy M. Plate, State of Florida, Professional Engineer, License No. 41153
 This item has been digitally signed and sealed by Timothy M. Plate, P.E. on the date indicated here.
 Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
 DATE: _____
 LICENSE NO. 41153

C-700

© COPYRIGHT 2020, HEIDT DESIGN, LLC. ALL RIGHTS RESERVED. NO DOCUMENTATION INCLUDING BUT NOT LIMITED TO DRAWINGS OR EXHIBITS MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT PERMISSION IN WRITING FROM HEIDT DESIGN, LLC. THIS DOCUMENT IS HEREBY GRANTED SPECIFICALLY TO GOVERNMENTAL AGENCIES TO REPRODUCE THIS DOCUMENT IN COMPLIANCE WITH F.S. CHAPTER 119.



- SIDEWALK LEGEND**
- PROPOSED CONCRETE SIDEWALK TO BE INSTALLED BY INDIVIDUAL HOUSE CONTRACTOR
 - PROPOSED CONCRETE SIDEWALK TO BE INSTALLED BY SITE DEVELOPER
- SIDEWALK NOTES:**
- SIDEWALK INDICATED AS INSTALLED BY DEVELOPER SHALL BE COMPLETED PRIOR TO FINAL INFRASTRUCTURE INSPECTION OR SHALL BE SUBJECT TO COVERAGE UNDER A PERFORMANCE GUARANTEE.
 - SIDEWALKS INSTALLED BY BUILDERS SHALL BE COMPLETED PRIOR TO CERTIFICATE OF OCCUPANCY OF ITS CORRESPONDING DWELLING UNIT.
 - ALL SIDEWALKS SHALL BE 6" THICK WHERE SIDEWALK IS CROSSED BY A DRIVEWAY.
 - SIDEWALK DETECTABLE WARNING SURFACES SHALL BE ALIGNED IN THE DIRECTION OF PEDESTRIAN TRAVEL.

- NOTES:**
- INSTALL 2' DETECTABLE WARNING STRIP AT ALL SIDEWALK CROSSINGS. SEE FDOT STANDARD SPECIFICATIONS SECTION 527.
 - INSTALL DROP CURB WITH 3' TRANSITIONS AT ALL SIDEWALK CROSSINGS.

HEIDT DESIGN
 Civil Engineering • Planning & GIS
 Transportation Engineering
 Ecological Services • Landscape Architecture

5904-A Hampton Oaks Pkwy.
 Tampa, Florida 33610
 Office: 813-253-5311
 Fax: 813-464-7629
 www.HeidtDesign.com

Engineering Business Certificate of Authorization No. 28793
 Landscape Architecture Certificate of Authorization No. LC26080405

SERENOA VILLAGE 3 - PHASE 1, 2 & 3
SIGNING, PAVEMENT MARKING & SIDEWALK PLANS

PREPARED FOR: **VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION
1	05/27/2020	ADDRESS SPEED LIMIT SIGN
2	03/20/2020	ADDRESS SIGNS
3	11/08/2019	REVIEW SUBMITTAL

PROJECT NO.: KLP-AG-1089

FILE: SPM
 DESIGN BY: FRANCIS
 DRAWN BY: JLOAIZA

STATE OF FLORIDA
 PROFESSIONAL ENGINEER

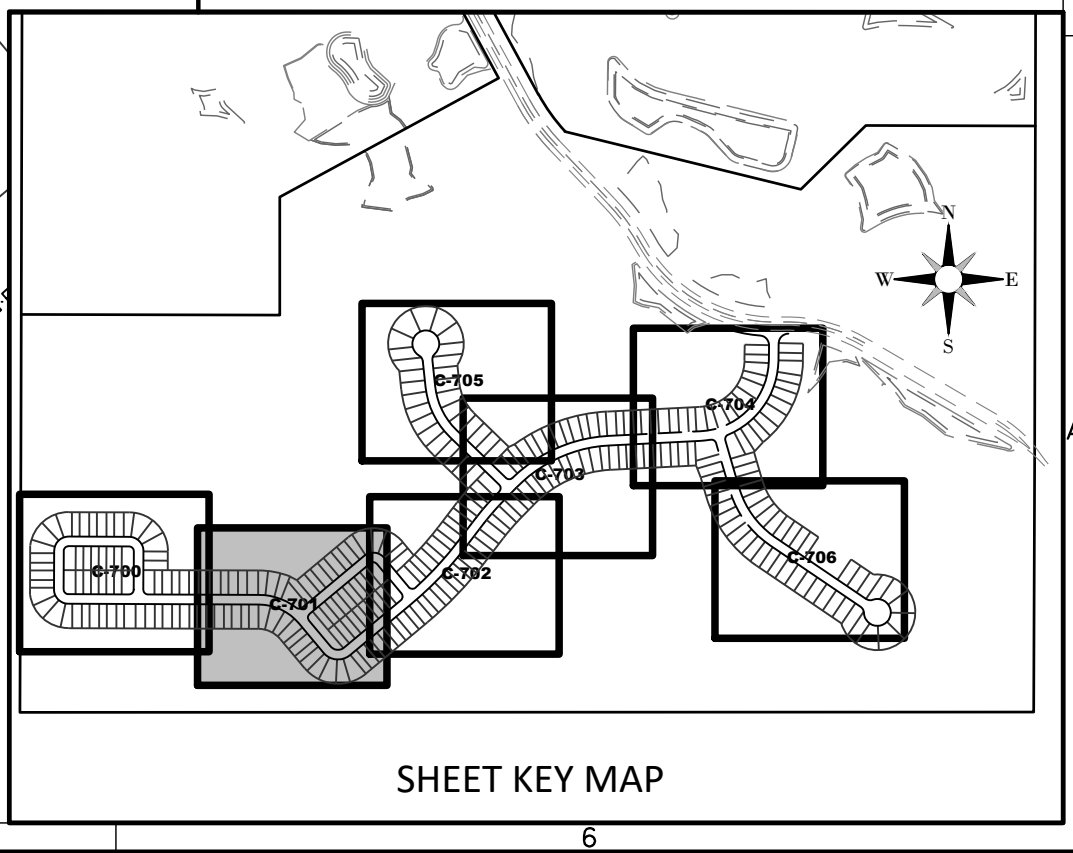
Timothy M. Plate, State of Florida, Professional Engineer, License No. 41153

This item has been digitally signed and sealed by Timothy M. Plate, P.E. on the date indicated here:

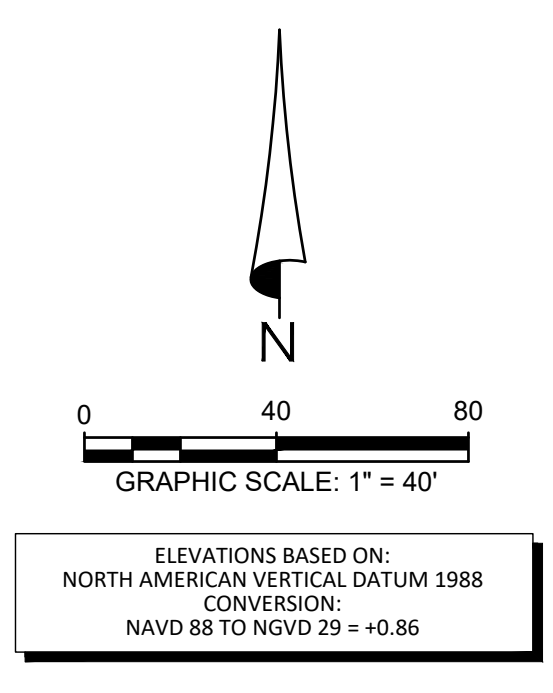
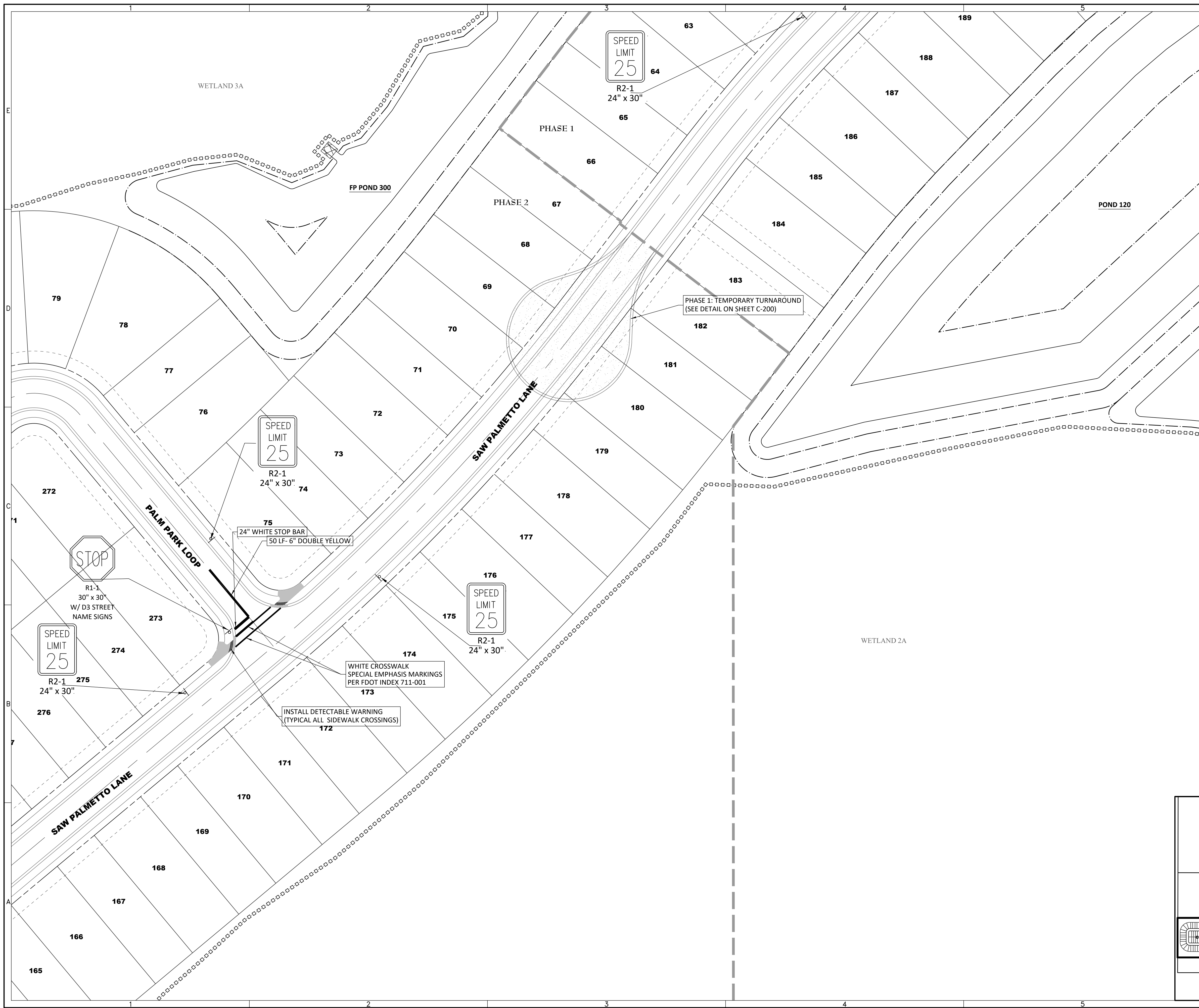
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
 DATE: _____
 LICENSE NO. 41153

C-701

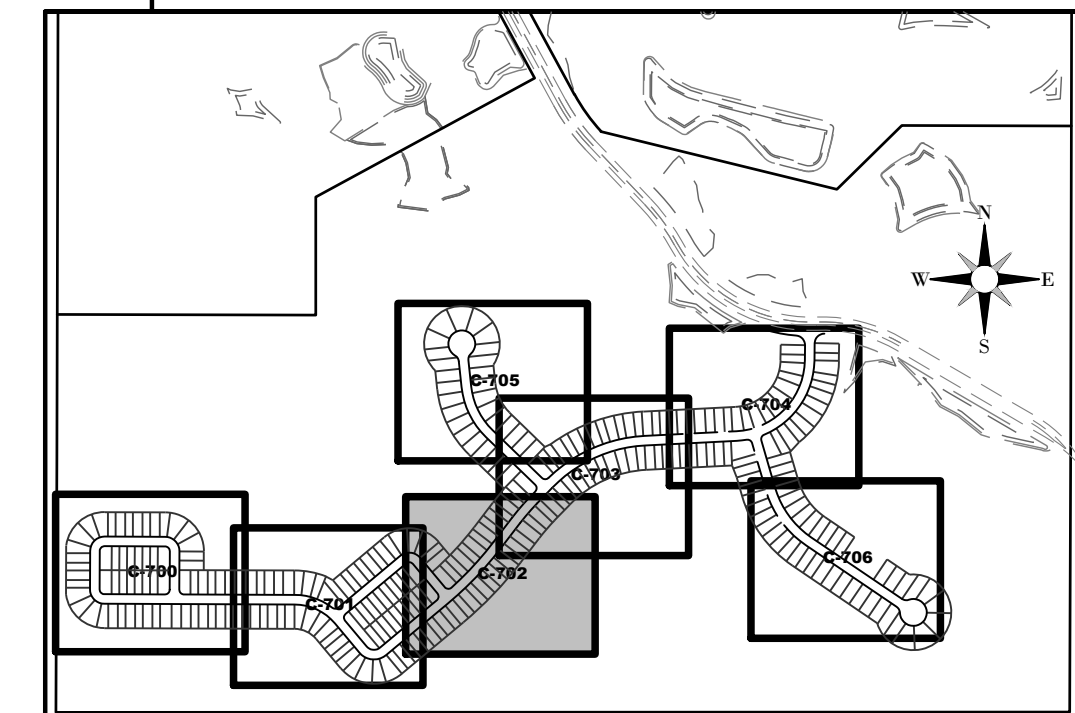


R:\AVALON GROVES\VILLAGE 3\ENGINEERING\SPM\DWG-C-701 20200603 11:28 AM ERIC FRANCIS



- SIDEWALK NOTES:**
- SIDEWALK INDICATED AS INSTALLED BY DEVELOPER SHALL BE COMPLETED PRIOR TO FINAL INFRASTRUCTURE INSPECTION OR SHALL BE SUBJECT TO COVERAGE UNDER A PERFORMANCE GUARANTEE.
 - SIDEWALKS INSTALLED BY BUILDERS SHALL BE COMPLETED PRIOR TO CERTIFICATE OF OCCUPANCY OF ITS CORRESPONDING DWELLING UNIT.
 - ALL SIDEWALKS SHALL BE 6" THICK WHERE SIDEWALK IS CROSSED BY A DRIVEWAY.
 - SIDEWALK DETECTABLE WARNING SURFACES SHALL BE ALIGNED IN THE DIRECTION OF PEDESTRIAN TRAVEL.

- NOTES:**
- INSTALL 2' DETECTABLE WARNING STRIP AT ALL SIDEWALK CROSSINGS. SEE FDOT STANDARD SPECIFICATIONS SECTION 527.
 - INSTALL DROP CURB WITH 3" TRANSITIONS AT ALL SIDEWALK CROSSINGS.



HEIDT DESIGN
Civil Engineering • Planning & GIS
Transportation Engineering
Ecological Services • Landscape Architecture

5904-A Hampton Oaks Pkwy.
Tampa, Florida 33610
Office: 813-253-5311
Fax: 813-464-7629
www.HeidtDesign.com

Engineering Business Certificate of Authorization No. 28793
Landscape Architecture Certificate of Authorization No. LC26080405

SERENOA VILLAGE 3 - PHASE 1, 2 & 3
SIGNING, PAVEMENT MARKING & SIDEWALK PLANS

PREPARED FOR: VK AVALON GROVES, LLC

NO.	DATE	DESCRIPTION
3	05/27/2020	ADDRESS SPEED LIMIT SIGN
2	03/20/2020	ADDRESS SIGNS
1	11/08/2019	REVISION SUBMITTAL

PROJECT NO.: KLP-AG-1089

FILE: SPM
DESIGN BY: FRANCIS
DRAWN BY: JLOAIZA

STATE OF FLORIDA
PROFESSIONAL ENGINEER

Timothy M. Plate, State of Florida,
Professional Engineer, License No. 41153

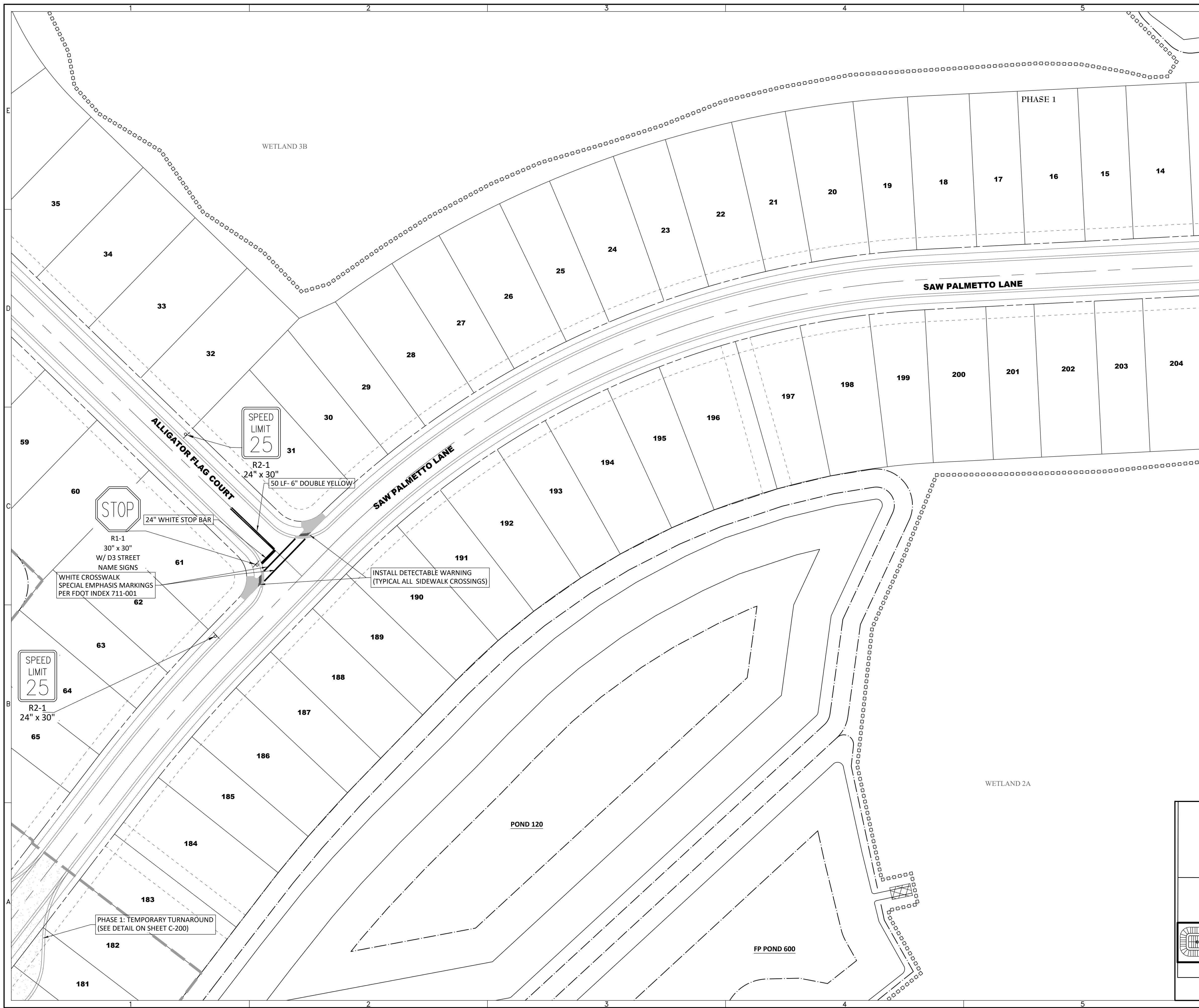
This item has been digitally
signed and sealed by
Timothy M. Plate, P.E. on the date
indicated here:

Printed copies of this document
are not considered signed and
sealed and the signature must be
verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
DATE: _____
LICENSE NO. 41153

C-702

R:\AVALON GROVES\VILLAGE 3\ENGINEERING\SPM\DWG-C-702 2020\0303 11:28 AM ERIC FRANCIS



N

0 40 80

GRAPHIC SCALE: 1" = 40'

ELEVATIONS BASED ON:
NORTH AMERICAN VERTICAL DATUM 1988
CONVERSION:
NAVD 88 TO NGVD 29 = +0.86

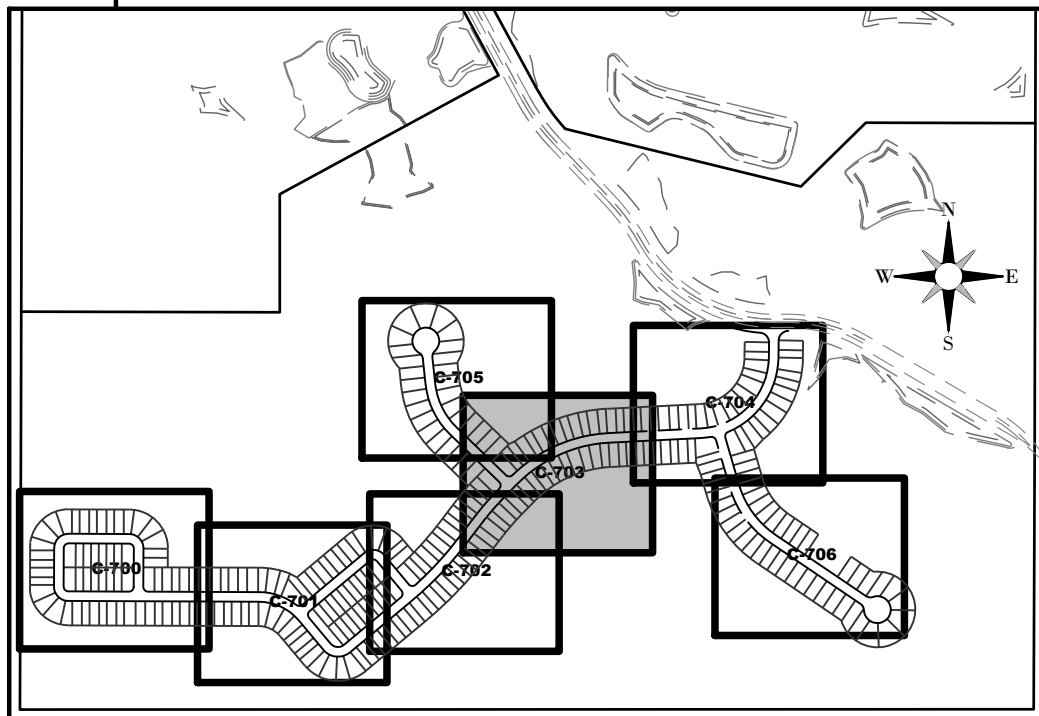
SIDEWALK LEGEND

— PROPOSED CONCRETE SIDEWALK
TO BE INSTALLED BY INDIVIDUAL HOUSE CONTRACTOR

— PROPOSED CONCRETE SIDEWALK
TO BE INSTALLED BY SITE DEVELOPER

- SIDEWALK NOTES:**
- SIDEWALK INDICATED AS INSTALLED BY DEVELOPER SHALL BE COMPLETED PRIOR TO FINAL INFRASTRUCTURE INSPECTION OR SHALL BE SUBJECT TO COVERAGE UNDER A PERFORMANCE GUARANTEE.
 - SIDEWALKS INSTALLED BY BUILDERS SHALL BE COMPLETED PRIOR TO CERTIFICATE OF OCCUPANCY OF ITS CORRESPONDING DWELLING UNIT.
 - ALL SIDEWALKS SHALL BE 6" THICK WHERE SIDEWALK IS CROSSED BY A DRIVEWAY.
 - SIDEWALK DETECTABLE WARNING SURFACES SHALL BE ALIGNED IN THE DIRECTION OF PEDESTRIAN TRAVEL.

- NOTES:**
- INSTALL 2' DETECTABLE WARNING STRIP AT ALL SIDEWALK CROSSINGS. SEE FDOT STANDARD SPECIFICATIONS SECTION 527.
 - INSTALL DROP CURB WITH 3" TRANSITIONS AT ALL SIDEWALK CROSSINGS.



HEIDT DESIGN

Civil Engineering • Planning & GIS
Transportation Engineering
Ecological Services • Landscape Architecture

Engineering Business Certificate of Authorization No. 28793
Landscape Architecture Certificate of Authorization No. LC26080405

5904-A Hampton Oaks Pkwy.
Tampa, Florida 33610
Office: 813-253-5311
Fax: 813-464-7629
www.HeidtDesign.com

**SERENOA
VILLAGE 3 - PHASE 1, 2 & 3
SIGNING, PAVEMENT MARKING &
SIDEWALK PLANS**

PREPARED FOR: **VK AVALON GROVES, LLC**

DATE	DESCRIPTION
11/08/2019	REVIEW SUBMITTAL

PROJECT NO: KLP-AG-1089
FILE: SPM
DESIGN BY: FRANCIS
DRAWN BY: JLOAIZA

**STATE OF FLORIDA
PROFESSIONAL ENGINEER**

Timothy M. Plate, State of Florida,
Professional Engineer, License No. 41153

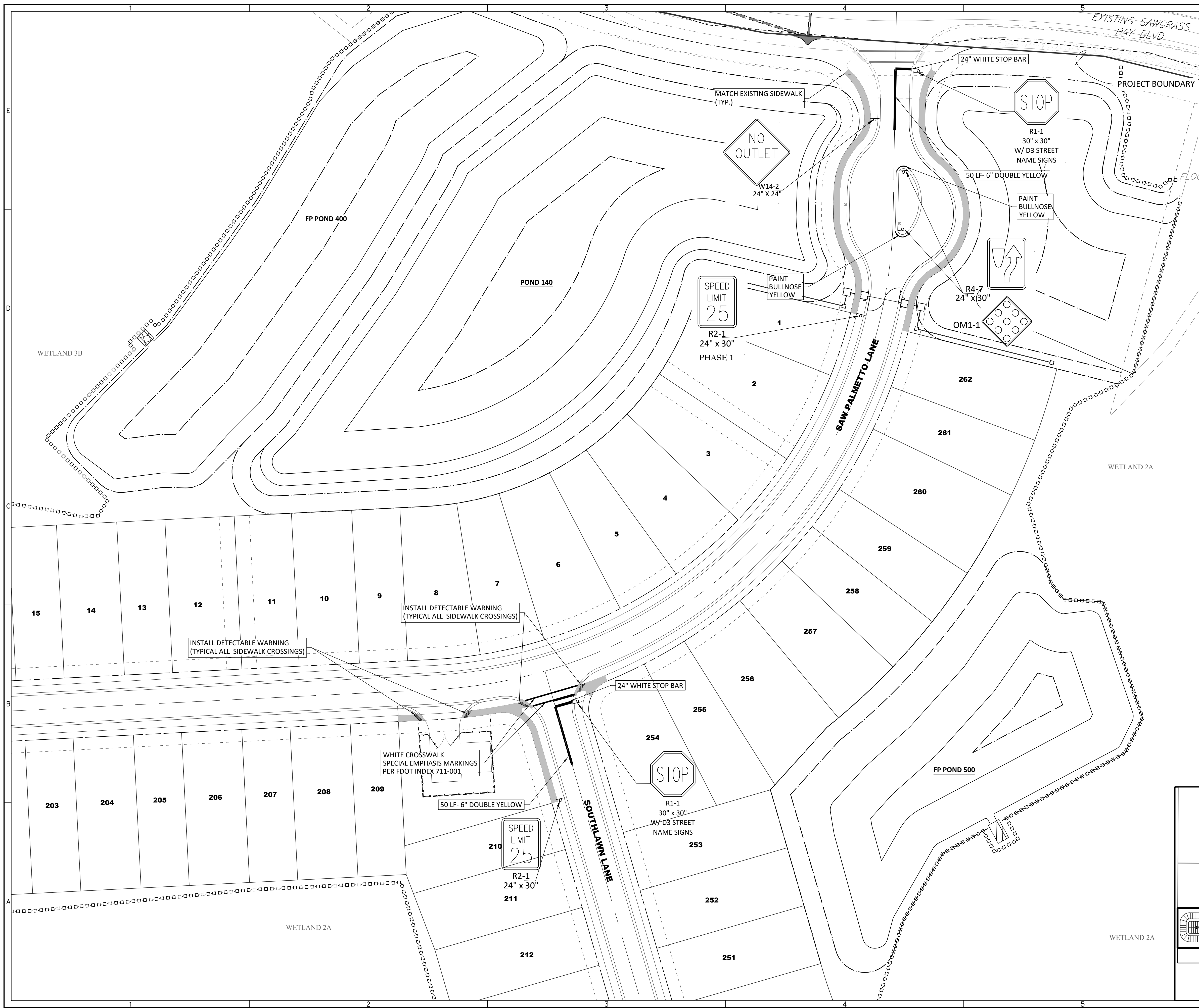
This item has been digitally
signed and sealed by
Timothy M. Plate, P.E. on the date
indicated here:

Printed copies of this document
are not considered signed and
sealed and the signature must be
verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
DATE: _____
LICENSE NO. 41153

C-703

© COPYRIGHT 2020, HEIDT DESIGN, LLC. ALL RIGHTS RESERVED. NO DOCUMENTATION INCLUDING BUT NOT LIMITED TO DRAWINGS OR EXHIBITS MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION IN WRITING FROM HEIDT DESIGN, LLC. THIS DOCUMENT IS HEREBY GRANTED SPECIFICALLY TO GOVERNMENTAL AGENCIES TO REPRODUCE THIS DOCUMENT IN COMPLIANCE WITH F.S. CHAPTER 119.



GRAPHIC SCALE: 1" = 40'
 ELEVATIONS BASED ON:
 NORTH AMERICAN VERTICAL DATUM 1988
 CONVERSION:
 NAVD 88 TO NGVD 29 = +0.86

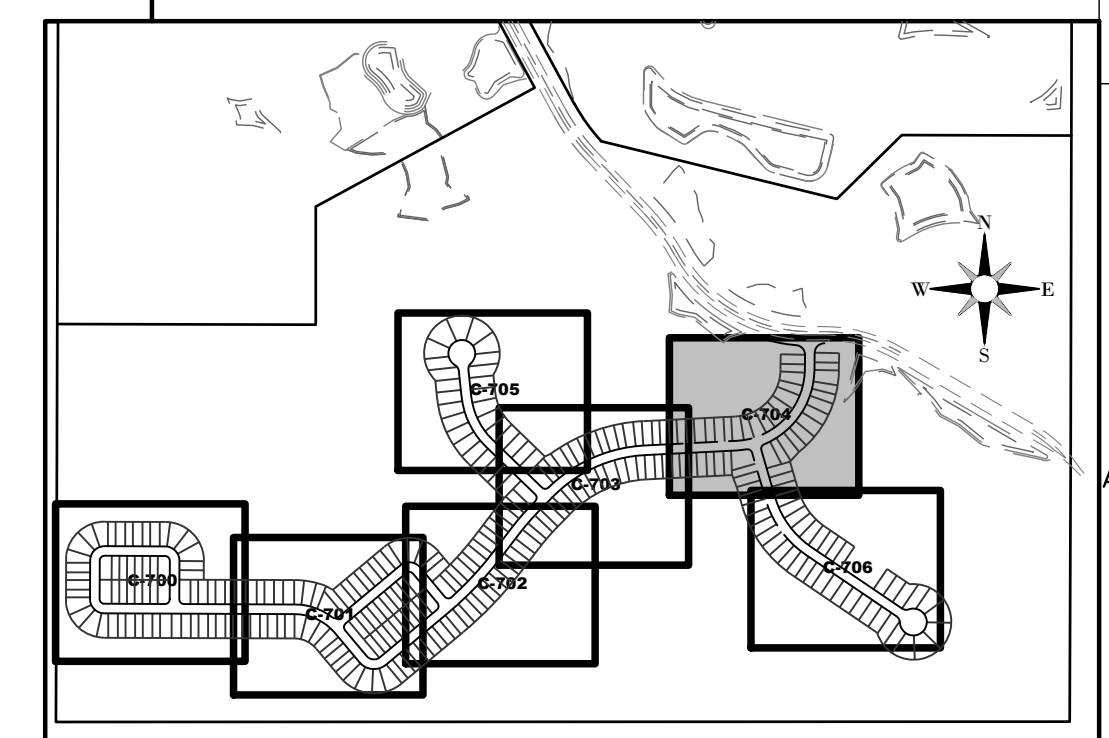
SIDEWALK LEGEND

PROPOSED CONCRETE SIDEWALK TO BE INSTALLED BY INDIVIDUAL HOUSE CONTRACTOR

 PROPOSED CONCRETE SIDEWALK TO BE INSTALLED BY SITE DEVELOPER

- SIDEWALK NOTES:**
1. SIDEWALK INDICATED AS INSTALLED BY DEVELOPER SHALL BE COMPLETED PRIOR TO FINAL INFRASTRUCTURE INSPECTION OR SHALL BE SUBJECT TO COVERAGE UNDER A PERFORMANCE GUARANTEE.
 2. SIDEWALKS INSTALLED BY BUILDERS SHALL BE COMPLETED PRIOR TO CERTIFICATE OF OCCUPANCY OF ITS CORRESPONDING DWELLING UNIT.
 3. ALL SIDEWALKS SHALL BE 6" THICK WHERE SIDEWALK IS CROSSED BY A DRIVEWAY.
 4. SIDEWALK DETECTABLE WARNING SURFACES SHALL BE ALIGNED IN THE DIRECTION OF PEDESTRIAN TRAVEL.

- NOTES:**
- INSTALL 2' DETECTABLE WARNING STRIP AT ALL SIDEWALK CROSSINGS. SEE FDOT STANDARD SPECIFICATIONS SECTION 527.
 - INSTALL DROP CURB WITH 3" TRANSITIONS AT ALL SIDEWALK CROSSINGS.



SHEET KEY MAP

HEIDT DESIGN
 Civil Engineering • Planning & GIS
 Transportation Engineering
 Ecological Services • Landscape Architecture
 Engineering Business Certificate of Authorization No. 28793
 Landscape Architecture Certificate of Authorization No. LC26080405
 5904-A Hampton Oaks Pkwy.
 Tampa, Florida 33610
 Office: 813-253-5311
 Fax: 813-464-7629
 www.HeidtDesign.com

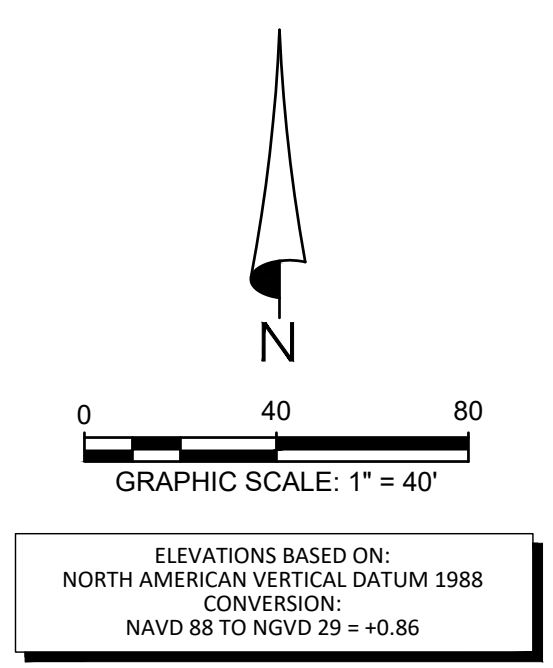
SERENOA VILLAGE 3 - PHASE 1, 2 & 3
SIGNING, PAVEMENT MARKING & SIDEWALK PLANS
 PREPARED FOR: **VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION
2	02/20/2020	SIGNS, SIDEWALK PER ACCESS ROAD
	11/08/2019	REVISOR SUBMITTAL

PROJECT NO: KLP-AG-1089
 FILE: SPM
 DESIGN BY: FRANCIS
 DRAWN BY: JLOAIZA
 STATE OF FLORIDA PROFESSIONAL ENGINEER
 Timothy M. Plate, State of Florida, Professional Engineer, License No. 41153
 This item has been digitally signed and sealed by Timothy M. Plate, P.E. on the date indicated here.
 Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.
 TIMOTHY M. PLATE, P.E.
 DATE: _____
 LICENSE NO. 41153

C-704

R:\AVALON GROVES\VILLAGE 3\ENGINEERING\SPM\DWG-C-704 20200303 11:28 AM ERIC FRANCIS



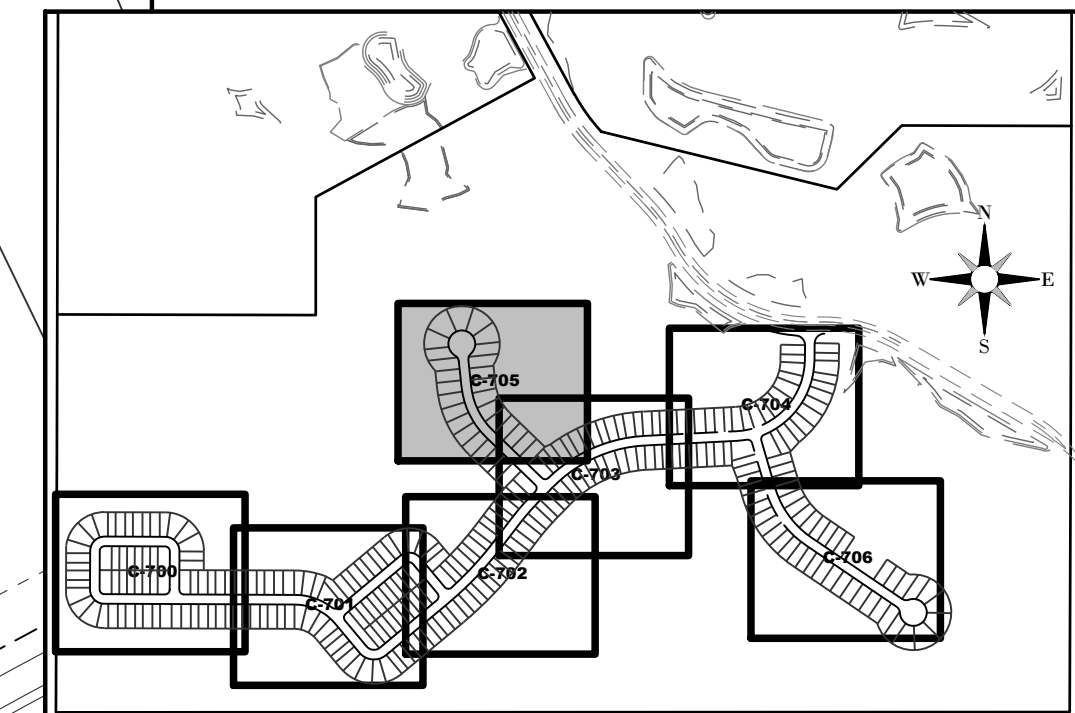
SIDEWALK LEGEND

— PROPOSED CONCRETE SIDEWALK TO BE INSTALLED BY INDIVIDUAL HOUSE CONTRACTOR

— PROPOSED CONCRETE SIDEWALK TO BE INSTALLED BY SITE DEVELOPER

- SIDEWALK NOTES:**
1. SIDEWALK INDICATED AS INSTALLED BY DEVELOPER SHALL BE COMPLETED PRIOR TO FINAL INFRASTRUCTURE INSPECTION OR SHALL BE SUBJECT TO COVERAGE UNDER A PERFORMANCE GUARANTEE.
 2. SIDEWALKS INSTALLED BY BUILDERS SHALL BE COMPLETED PRIOR TO CERTIFICATE OF OCCUPANCY OF ITS CORRESPONDING DWELLING UNIT.
 3. ALL SIDEWALKS SHALL BE 6" THICK WHERE SIDEWALK IS CROSSED BY A DRIVEWAY.
 4. SIDEWALK DETECTABLE WARNING SURFACES SHALL BE ALIGNED IN THE DIRECTION OF PEDESTRIAN TRAVEL.

- NOTES:**
- INSTALL 2' DETECTABLE WARNING STRIP AT ALL SIDEWALK CROSSINGS. SEE FDOT STANDARD SPECIFICATIONS SECTION 527.
 - INSTALL DROP CURB WITH 3' TRANSITIONS AT ALL SIDEWALK CROSSINGS.



SHEET KEY MAP

HEIDT DESIGN
 Civil Engineering • Planning & GIS
 Transportation Engineering
 Ecological Services • Landscape Architecture

Engineering Business Certificate of Authorization No. 28793
 Landscape Architecture Certificate of Authorization No. LC26080405

5904-A Hampton Oaks Pkwy.
 Tampa, Florida 33610
 Office: 813-253-5311
 Fax: 813-464-7629
 www.HeidtDesign.com

SERENOA VILLAGE 3 - PHASE 1, 2 & 3 SIGNING, PAVEMENT MARKING & SIDEWALK PLANS

PREPARED FOR: **VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION

NO.	DATE	DESCRIPTION
3	05/27/2020	ADDED LOT #48
2	03/20/2020	REV. SIDEWALK
1	11/08/2019	REVISION SUBMITTAL

PROJECT NO: KLP-AG-1089
 FILE: SPM
 DESIGN BY: FRANCIS
 DRAWN BY: JLOAIZA

STATE OF FLORIDA PROFESSIONAL ENGINEER

Timothy M. Plate, State of Florida, Professional Engineer, License No. 41153

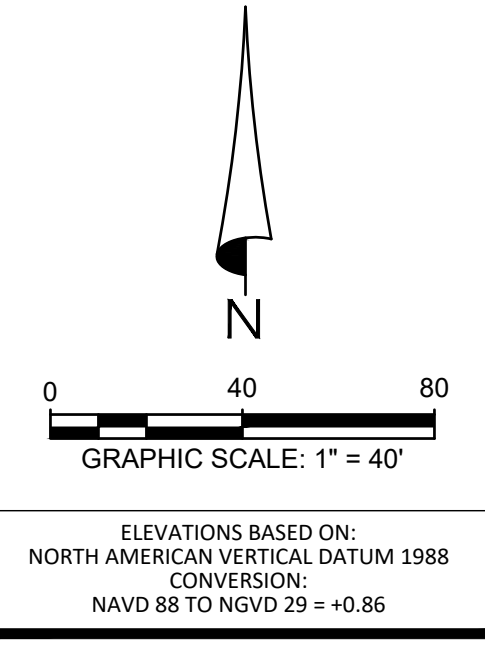
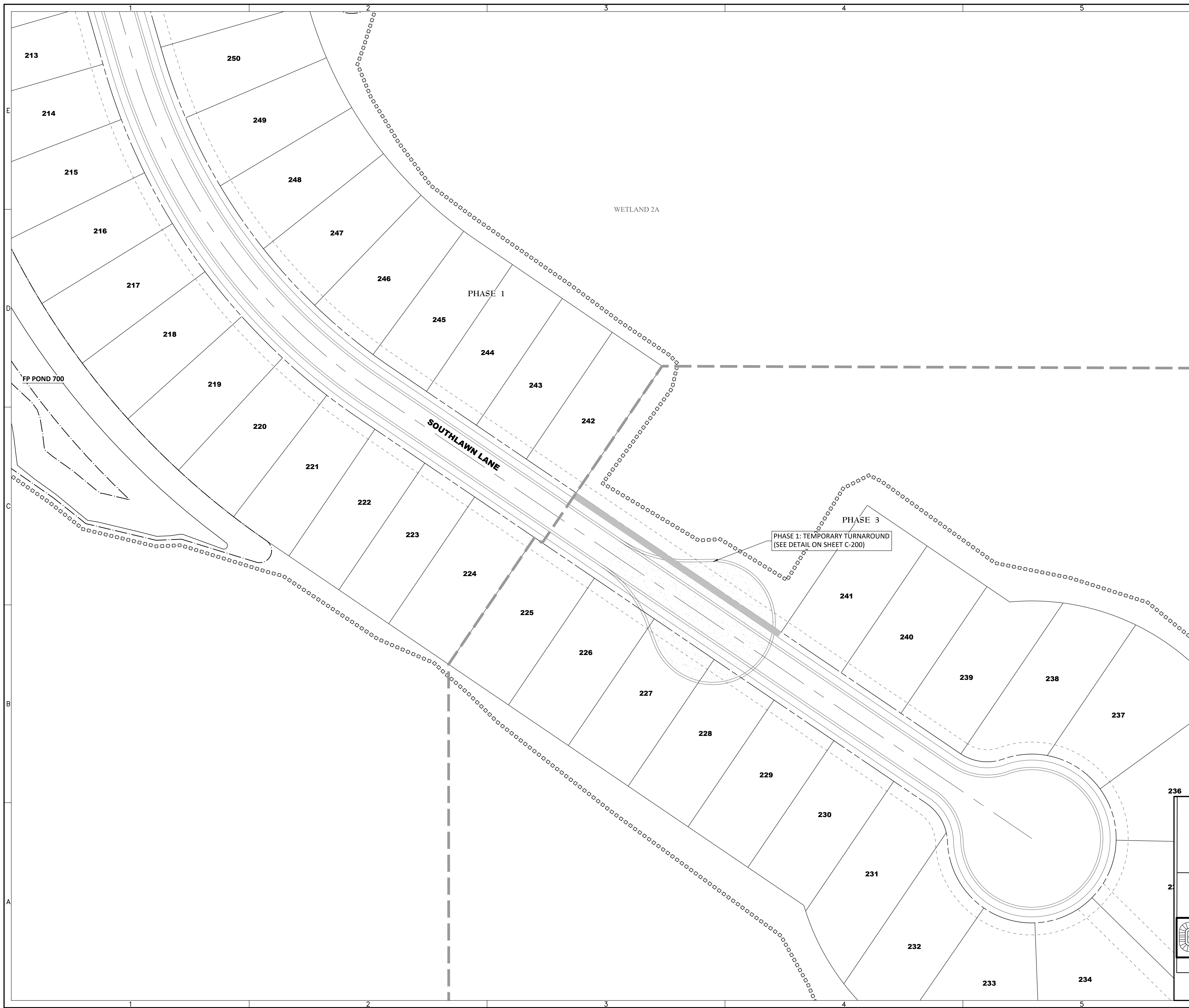
This item has been digitally signed and sealed by Timothy M. Plate, P.E. on the date indicated here:

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
 DATE: _____
 LICENSE NO. 41153

C-705

© COPYRIGHT 2020, HEIDT DESIGN, LLC. ALL RIGHTS RESERVED. NO DOCUMENTATION INCLUDING BUT NOT LIMITED TO DRAWINGS OR EXHIBITS MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION IN WRITING FROM HEIDT DESIGN, LLC. THIS DOCUMENT IS HEREBY GRANTED SPECIFICALLY TO GOVERNMENTAL AGENCIES TO REPRODUCE THIS DOCUMENTATION IN COMPLIANCE WITH F.S. CHAPTER 119.



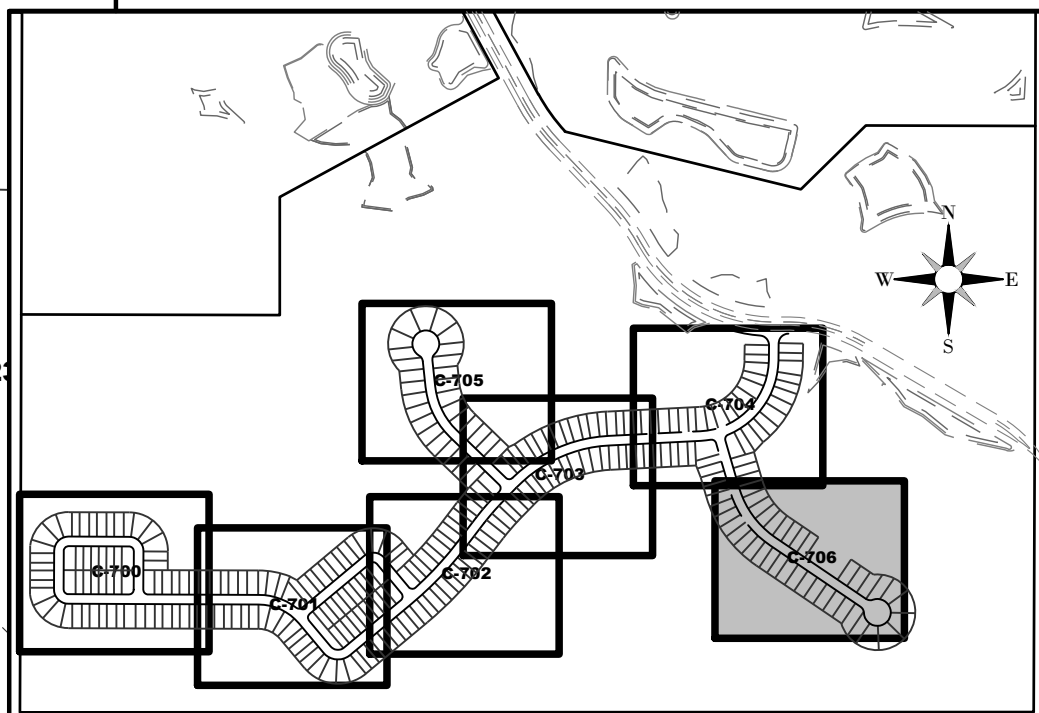
SIDEWALK LEGEND

— PROPOSED CONCRETE SIDEWALK TO BE INSTALLED BY INDIVIDUAL HOUSE CONTRACTOR

— PROPOSED CONCRETE SIDEWALK TO BE INSTALLED BY SITE DEVELOPER

- SIDEWALK NOTES:**
- SIDEWALK INDICATED AS INSTALLED BY DEVELOPER SHALL BE COMPLETED PRIOR TO FINAL INFRASTRUCTURE INSPECTION OR SHALL BE SUBJECT TO COVERAGE UNDER A PERFORMANCE GUARANTEE.
 - SIDEWALKS INSTALLED BY BUILDERS SHALL BE COMPLETED PRIOR TO CERTIFICATE OF OCCUPANCY OF ITS CORRESPONDING DWELLING UNIT.
 - ALL SIDEWALKS SHALL BE 6" THICK WHERE SIDEWALK IS CROSSED BY A DRIVEWAY.
 - SIDEWALK DETECTABLE WARNING SURFACES SHALL BE ALIGNED IN THE DIRECTION OF PEDESTRIAN TRAVEL.

- NOTES:**
- INSTALL 2' DETECTABLE WARNING STRIP AT ALL SIDEWALK CROSSINGS. SEE FDOT STANDARD SPECIFICATIONS SECTION 527.
 - INSTALL DROP CURB WITH 3' TRANSITIONS AT ALL SIDEWALK CROSSINGS.



SHEET KEY MAP

HEIDT DESIGN
Civil Engineering • Planning & GIS
Transportation Engineering
Ecological Services • Landscape Architecture

Engineering Business Certificate of Authorization No. 28793
Landscape Architecture Certificate of Authorization No. LC26080405

5904-A Hampton Oaks Pkwy.
Tampa, Florida 33610
Office: 813-253-5311
Fax: 813-464-7629
www.HeidtDesign.com

SERENOA VILLAGE 3 - PHASE 1, 2 & 3
SIGNING, PAVEMENT MARKING & SIDEWALK PLANS

PREPARED FOR: **VK AVALON GROVES, LLC**

DATE	DESCRIPTION
11/08/2019	REVIEW SUBMITTAL

PROJECT NO: KLP-AG-1089
FILE: SPM
DESIGN BY: FRANCIS
DRAWN BY: JLOAIZA

STATE OF FLORIDA PROFESSIONAL ENGINEER

Timothy M. Plate, State of Florida, Professional Engineer, License No. 41153

This item has been digitally signed and sealed by Timothy M. Plate, P.E. on the date indicated here:

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
DATE: _____
LICENSE NO. 41153

C-706

LAKE COUNTY SIGN SPECIFICATIONS FOR COUNTY MAINTAINED ROADS
For Builders/Contractors/Developers



Street Name Signs (D3's)

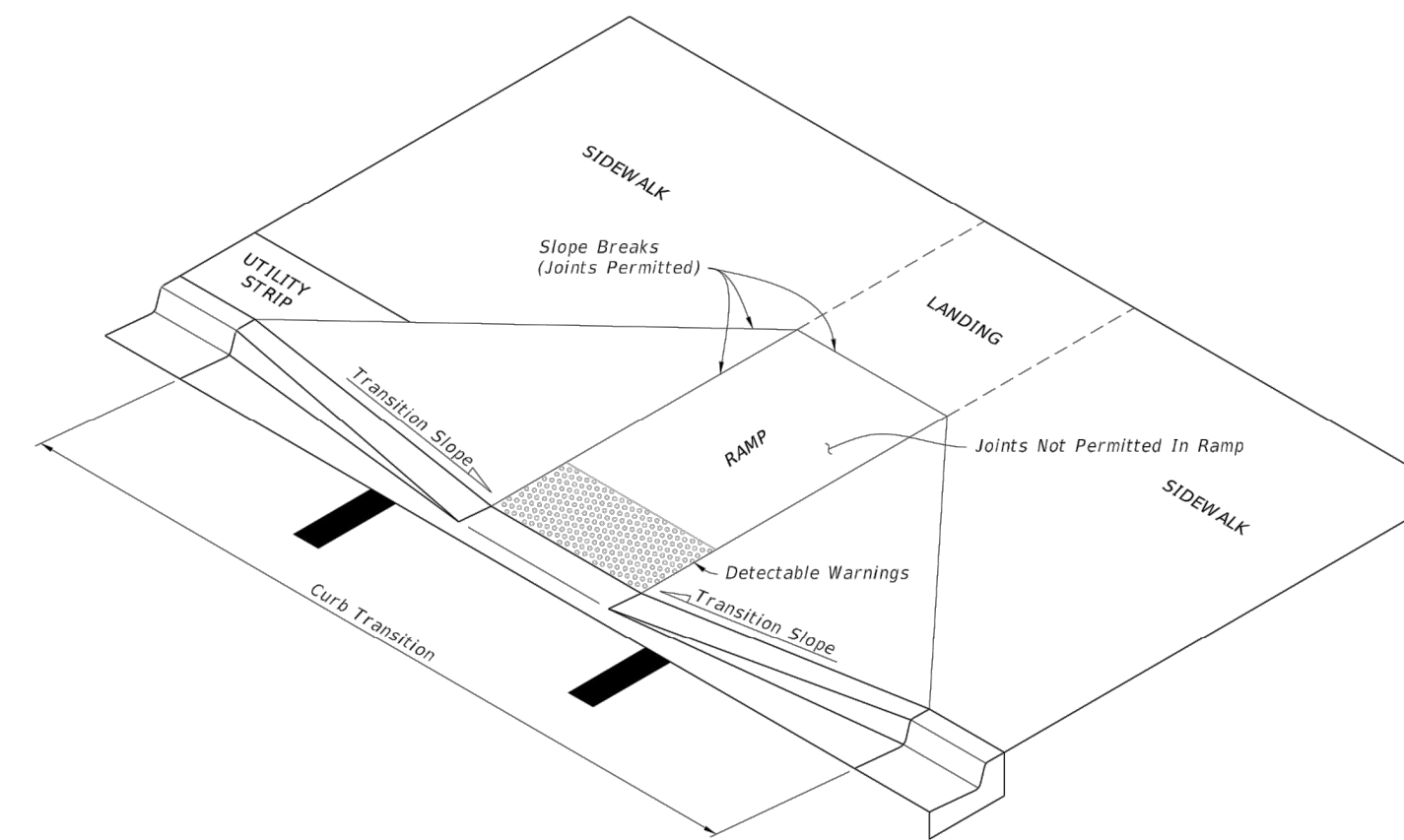
- Sign Blanks**
 - 3/8" thick aluminum
 - Aluminum chemically treated to meet ASTM B449 standard (retreatment for paint or reflective sheeting)
 - Dimensions are to be 9" height x 24" minimum (34" maximum length).
- Color**
 - The background shall be high intensity prismatic or greater white sheeting, with green transparent overlay film
- Legend/Lettering**
 - One-half inch (1/2") white border, 1/4" from the edge.
 - Street names shall be 6" series B letters
 - The abbreviated suffix "St", "Ave", "Dr", etc., shall be 4" series B
 - Distinct number in the upper right corner of sign shall be 1 1/2" series B
- Mounting**
 - Mounting shall be two single-sided signs with attributes above, mounted back to back, with ends pop-rieveted together, on a galvanized 9" twist bracket. No edge-clamping style mounting brackets are to be used.
- Regulatory and Warning Signage**
- Material/Sign Blanks & Facings**
 - 300 Gauge
 - With the exception of the Street Name Signs, all signs shall conform in color, size, legend and logo with specification in the Manual on Uniform Traffic Control Devices (MUTCD)
 - Sign stop minimum 30" x 30", minimum high intensity prismatic sheeting or greater. Sheeting for all signs shall be high intensity prismatic or greater.
- Placement Specifications**
 - Placement shall be in accordance with the MUTCD (Sections 2A-21 through 2A-27) with respect to offset from edge of road, height, etc.
 - Poles should be buried to a minimum depth of 2 1/2' (30"), allowing 7" to bottom of sign from the level of the traveled roadway.
 - Poles are NOT to be concealed in place.
- Poles**
 - Sign posts shall be galvanized steel U-Channel poles, not less than 1 1/2" in length (14" or 16" for severe shoulder drop-offs), with minimum weight of 9 lbs. per foot, or square tube, minimum 1 1/2" galvanized steel, minimum 14 gauge, drilled 1/2" holes on 1" centers full length.

SPECIFICATIONS FOR DESIGN AND INSTALLATION OF TRAFFIC CONTROL DEVICES ON COUNTY ROADS

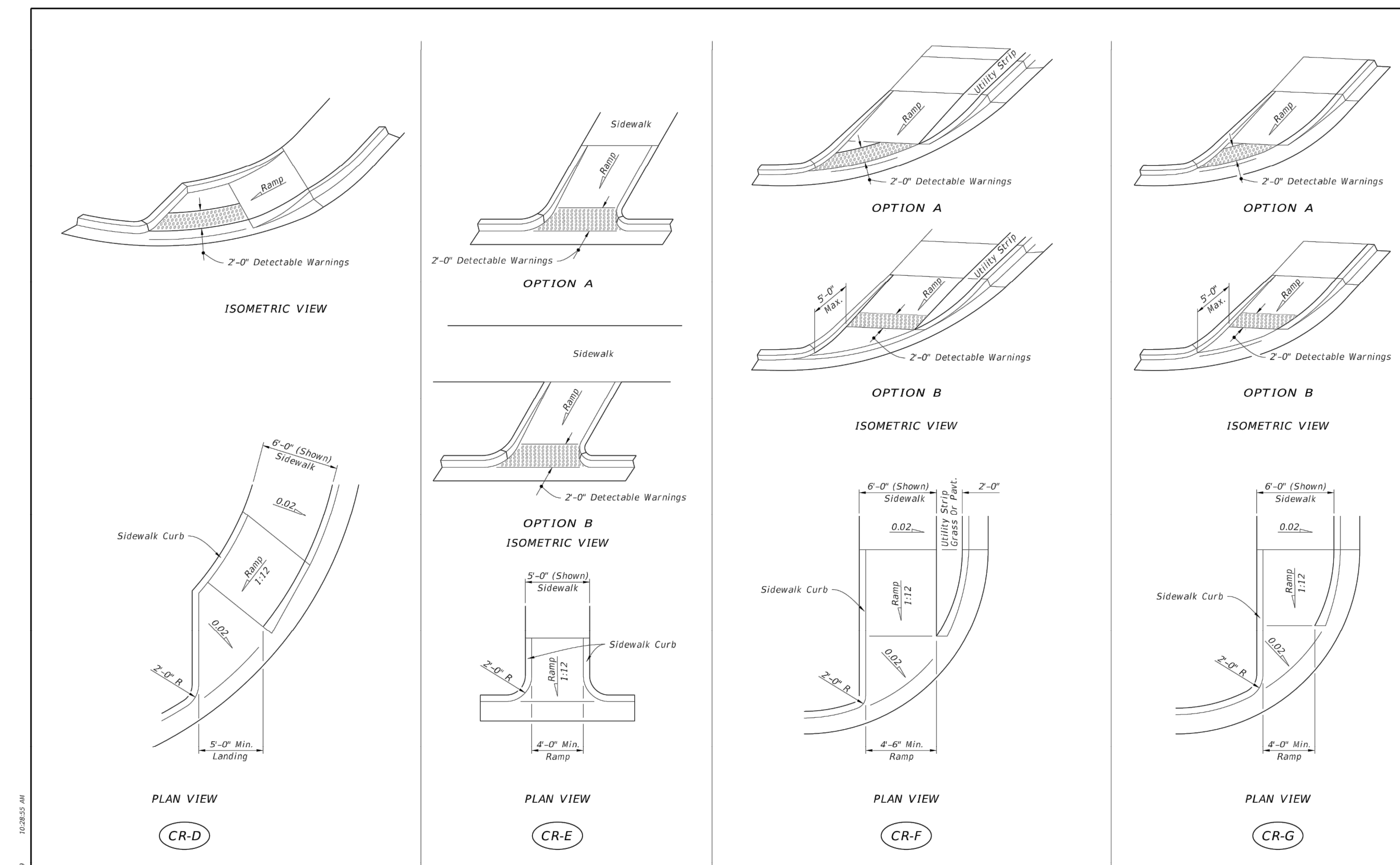
- 1) PURPOSE:
THESE SPECIFICATIONS HAVE BEEN DEVELOPED TO PROVIDE DEVELOPERS WITH A UNIFORM SYSTEM FOR INSTALLATION OF TRAFFIC CONTROL DEVICES ON THE COUNTY ROAD SYSTEM. A UNIFORM SYSTEM PROVIDES FOR REDUCED MAINTENANCE COSTS AND A HIGH STANDARD OF VISIBILITY FOR DRIVERS. ALL REQUIRED TRAFFIC CONTROL DEVICES SHALL BE INSTALLED BY THE DEVELOPER OF THE PROJECT.
- 2) FLORIDA STATE STATUTE 316.0745:
2.1) ANY AND ALL TRAFFIC CONTROL DEVICES INSTALLED ON THE COUNTY ROAD SYSTEM SHALL CONFORM TO FLORIDA STATE STATUTE 316.0745, UNIFORM SIGNALS AND DEVICES.
2.2) THIS STATUTE REQUIRES THAT ALL DEVICES CONFORM TO FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) SPECIFICATIONS. THE FDOT HAS ADOPTED THE FEDERAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AS THE STANDARDS TO BE USED IN THE STATE OF FLORIDA.
- 3) PAVEMENT MARKINGS:
3.1) ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC OR PREFORMED TAPES; RAISED PAVEMENT MARKERS SHALL BE CLASS "B".
3.2) THIS STATUTE REQUIRES THAT ALL DEVICES CONFORM TO FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) SPECIFICATIONS. THE FDOT HAS ADOPTED THE FEDERAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AS THE STANDARDS TO BE USED IN THE STATE OF FLORIDA.
- 4) TRAFFIC CONTROL SIGNS:
4.1) ALL SIGN BLANKS SHALL BE OF A TYPE CURRENTLY CERTIFIED BY THE FDOT FOR USE IN THE STATE OF FLORIDA.
4.2) ALL SIGN FACES SHALL BE HIGH INTENSITY PRISMATIC GRADE AND OF A TYPE CURRENTLY CERTIFIED BY THE FDOT FOR USE IN THE STATE OF FLORIDA.
4.3) ALL SIGNS SHALL BE NO LESS THAN THE STANDARD SIZE AS SPECIFIED BY THE FEDERAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. NO MINIMUM SIZE SIGNING SHALL BE ACCEPTED. LARGER SIGNS SHALL BE USED WHEN REQUIRED BY DESIGN SPEED, ETC.
4.6) ALL POST SYSTEMS, MOUNTING BRACKETS AND HARDWARE SHALL BE OF A TYPE CURRENTLY IN USE BY THE LAKE COUNTY PUBLIC WORKS DEPARTMENT AND CURRENTLY CERTIFIED BY THE FLORIDA DEPARTMENT OF TRANSPORTATION FOR USE IN THE STATE OF FLORIDA. ALTERNATIVE SYSTEMS, ETC., SHALL ONLY BE USED IF APPROVED BY THE COUNTY ENGINEER.
- 5) CERTIFICATION OF MATERIALS:
5.1) ALL TRAFFIC CONTROL DEVICES AND MATERIALS SHALL BE ON THE CURRENT FDOT APPROVED PRODUCTS LIST. PROOF OF CERTIFICATION IS REQUIRED FOR ALL TRAFFIC CONTROL DEVICES.

GENERAL NOTES:

- Cross Slopes and Grades:**
 - Sidewalk, ramp, and landing slopes (i.e. 0.02, 0.05, and 1:12) shown in this Index are maximums. With approval of the Engineer, provide the minimum feasible slope where the requirements cannot be met.
 - Landings must have cross-slopes less than or equal to 0.02 in any direction.
 - Maintain a single longitudinal slope along each side of the curb ramp. Ramp slopes are not required to exceed 15 feet in length.
 - Joints permitted at the location of Slope Breaks. Otherwise locate joints in accordance with Index 522-001. No joints are permitted within the ramp portion of the Curb Ramp.
- Grade Breaks:**
 - Grade breaks at the top and bottom of ramps must be parallel to each other and perpendicular to the direction of the ramp slope.
- Curb, Curb and Gutter, and/or Sidewalk:**
 - Refer to Index 522-001 for concrete thickness and sidewalk details.
 - Remove any existing curb, curb and gutter, or sidewalk to the nearest joint beyond the curb transition or to the extent that no remaining section is less than 5 feet long.
- Curb Ramp Alpha-Identification:**
 - Sidewalk curb ramp alpha-identifications (e.g. CR-A) are provided for reference purposes in the Plans.
 - Alpha-identifications CR-I and CR-J are intentionally omitted.
- Detectable Warnings:**
 - Install detectable warnings in accordance with Specification 527.
 - Place detectable warnings across the full width of the ramp or landing, to a minimum depth of 2 feet measured perpendicular to the curb line and no greater than 5 feet from the back of the curb or edge of pavement.
 - If detectable warnings are shown in the Plans on slopes greater than 5%, align the truncated domes with the centerline of the ramp; otherwise, the truncated domes are not required to be aligned.
- Detectable Warnings - Acceptance Criteria:**
 - Color and texture shall be complete and uniform.
 - 90% of individual truncated domes shall be in accordance with the Americans with Disabilities Act Standards for Transportation Facilities, Section 705.
 - There shall be no more than 4 non-compliant domes in any one square foot.
 - Non-compliant domes shall not be adjacent to other non-compliant domes.
 - Surfaces shall not deviate more than 0.10" from a true plane.



LAST REVISION 11/01/18	DESCRIPTION:	FDOT	FY 2019-20 STANDARD PLANS	DETECTABLE WARNINGS AND SIDEWALK CURB RAMP	INDEX 522-002	SHEET 1 of 8
---------------------------	--------------	------	------------------------------	--	------------------	-----------------



LAST REVISION 11/01/18	DESCRIPTION:	FDOT	FY 2019-20 STANDARD PLANS	DETECTABLE WARNINGS AND SIDEWALK CURB RAMP	INDEX 522-002	SHEET 4 of 8
---------------------------	--------------	------	------------------------------	--	------------------	-----------------

HEIDT DESIGN
Civil Engineering • Planning & GIS
Transportation Engineering
Ecological Services • Landscape Architecture

5904-A Hampton Oaks Pkwy.
Tampa, Florida 33610
Office: 813-253-5311
Fax: 813-464-7629
www.HeidtDesign.com

SERENOA
VILLAGE 3 - PHASE 1, 2 & 3
SIGNING, PAVEMENT MARKING & SIDEWALK DETAILS AND NOTES
PREPARED FOR: VK AVALON GROVES, LLC

NO.	DATE	DESCRIPTION
1	02/20/2020	UPDATE SIGN SPECS
2	11/08/2018	REVIEW SUBMITTAL

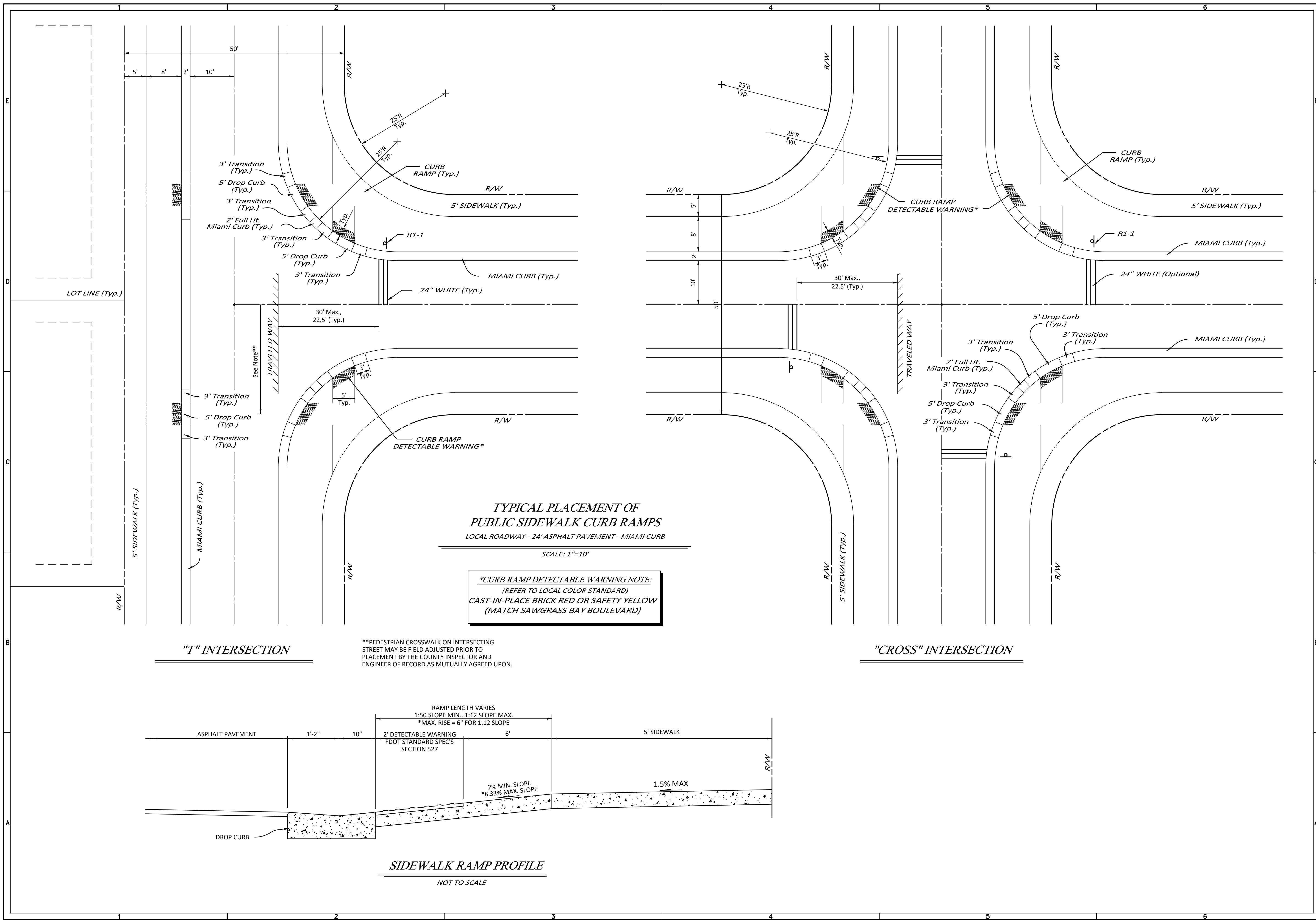
PROJECT NO.: KLP-AG-1089
FILE: SPM-DTL
DESIGN BY: FRANCIS
DRAWN BY: JLOAIZA

STATE OF FLORIDA
PROFESSIONAL ENGINEER
Timothy M. Plate, State of Florida, Professional Engineer, License No. 41153
This item has been digitally signed and sealed by Timothy M. Plate, P.E. on the date indicated here.
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
DATE: LICENSE NO. 41153

C-707

R:\AVALON GROVES\VILLAGE 3\ENGINEERING\SPM\DTL\DWG-C-707 2020\0303 11:28 AM ERIC FRANCIS



TYPICAL PLACEMENT OF PUBLIC SIDEWALK CURB RAMPS
 LOCAL ROADWAY - 24' ASPHALT PAVEMENT - MIAMI CURB

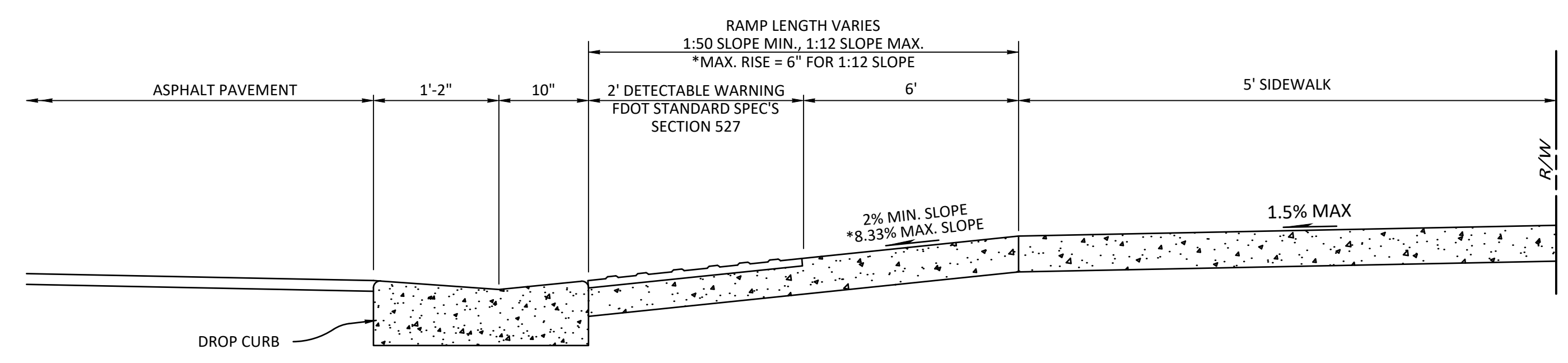
SCALE: 1"=10'

***CURB RAMP DETECTABLE WARNING NOTE:**
 (REFER TO LOCAL COLOR STANDARD)
 CAST-IN-PLACE BRICK RED OR SAFETY YELLOW
 (MATCH SAWGRASS BAY BOULEVARD)

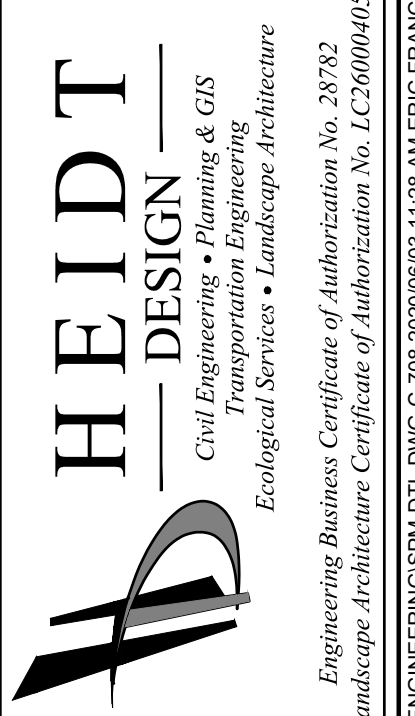
"T" INTERSECTION

**PEDESTRIAN CROSSWALK ON INTERSECTING STREET MAY BE FIELD ADJUSTED PRIOR TO PLACEMENT BY THE COUNTY INSPECTOR AND ENGINEER OF RECORD AS MUTUALLY AGREED UPON.

"CROSS" INTERSECTION



SIDEWALK RAMP PROFILE
 NOT TO SCALE



Engineering Business Certificate of Authorization No. 28793
 Landscape Architecture Certificate of Authorization No. LC26080405

SERENOA VILLAGE 3 - PHASE 1, 2 & 3
SIGNING, PAVEMENT MARKING & SIDEWALK DETAILS AND NOTES
 PREPARED FOR: VK AVALON GROVES, LLC

DATE	DESCRIPTION

DATE	DESCRIPTION
11/08/2019	REVIEW SUBMITTAL

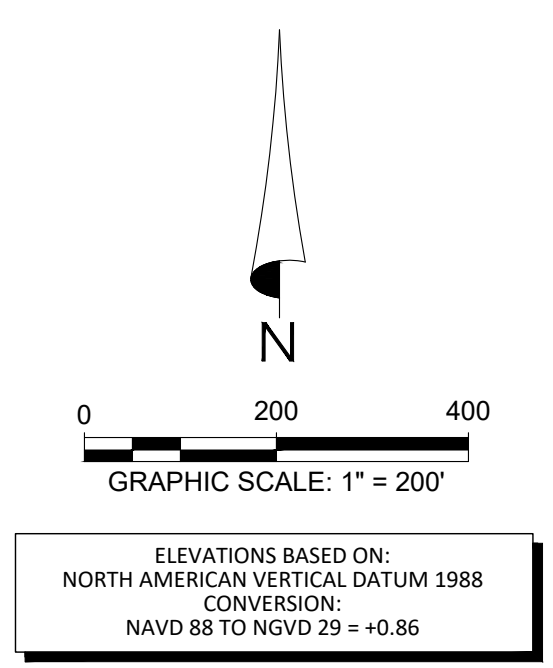
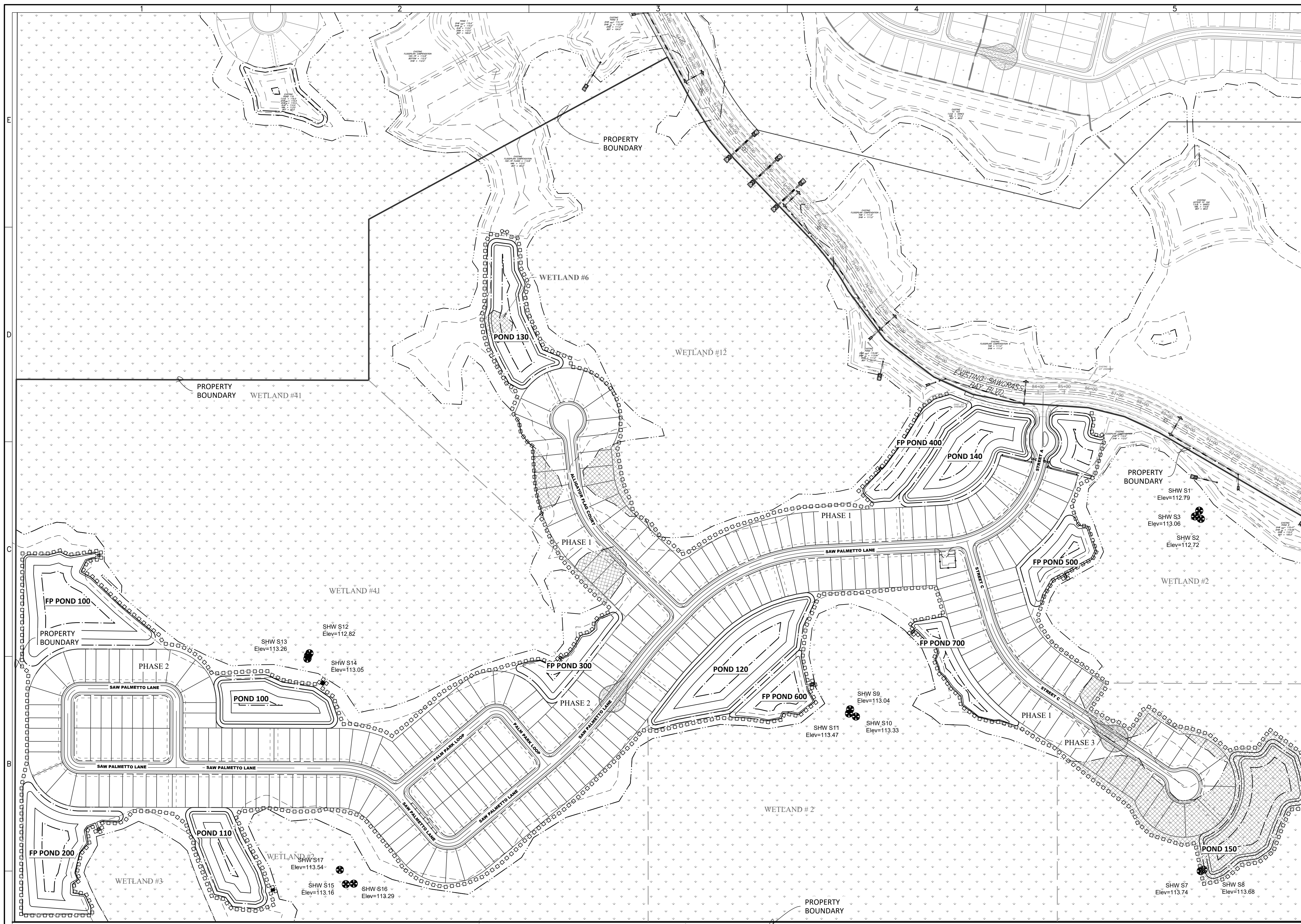
PROJECT NO.: KLP-AG-1089
 FILE: SPM-DTL
 DESIGN BY: FRANCIS
 DRAWN BY: JLOAIZA

STATE OF FLORIDA
 PROFESSIONAL ENGINEER
 Timothy M. Plate, State of Florida, Professional Engineer, License No. 41153
 This item has been digitally signed and sealed by Timothy M. Plate, P.E. on the date indicated here.
 Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
 DATE: _____
 LICENSE NO. 41153

C-708

R:\AVALON GROVES\VILLAGE 3\ENGINEERING\SPM\DTL\DWG-C-708 2020\0303 11:28 AM ERIC FRANCIS



LEGEND

- SIRMWD WETLAND LINE
- WETLAND CONS. AREA SETBACK
- STAKED EROSION CONTROL PROJECT LIMITS

SEE SHEET C-901 FOR SWPP NOTES

HEIDT DESIGN
 Civil Engineering • Planning & GIS
 Transportation Engineering
 Ecological Services • Landscape Architecture

Engineering Business Certificate of Authorization No. 28793
 Landscape Architecture Certificate of Authorization No. LC2608405

5904-A Hampton Oaks Pkwy.
 Tampa, Florida 33610
 Office: 813-253-5311
 Fax: 813-464-7629
 www.HeidtDesign.com

SERENOA
 VILLAGE 3 - PHASE 1, 2 & 3
 CONSTRUCTION SURFACE WATER
 MANAGEMENT PLAN

PREPARED FOR:
 VK AVALON GROVES, LLC

DATE	DESCRIPTION
11/08/2019	REVIEW SUBMITTAL

PROJECT NO.: KLP-AG-1089
 FILE: CSWMP
 DESIGN BY: FRANCIS
 DRAWN BY: JLOAIZA

STATE OF FLORIDA
 PROFESSIONAL ENGINEER

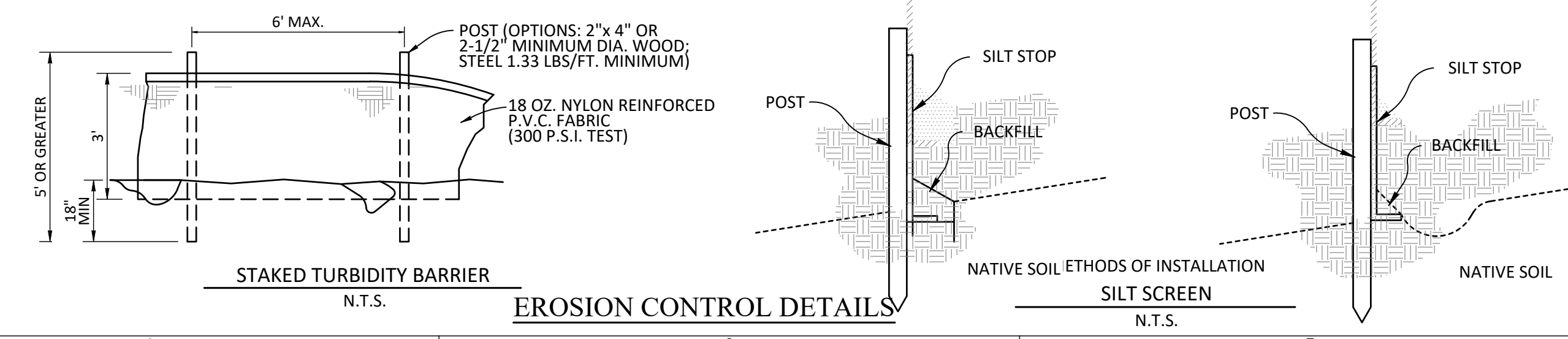
Timothy M. Plate, State of Florida,
 Professional Engineer, License No. 41153

This item has been digitally
 signed and sealed by
 Timothy M. Plate, P.E. on the date
 indicated here.

Printed copies of this document
 are not considered signed and
 sealed and the signature must be
 verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
 DATE: _____
 LICENSE NO. 41153

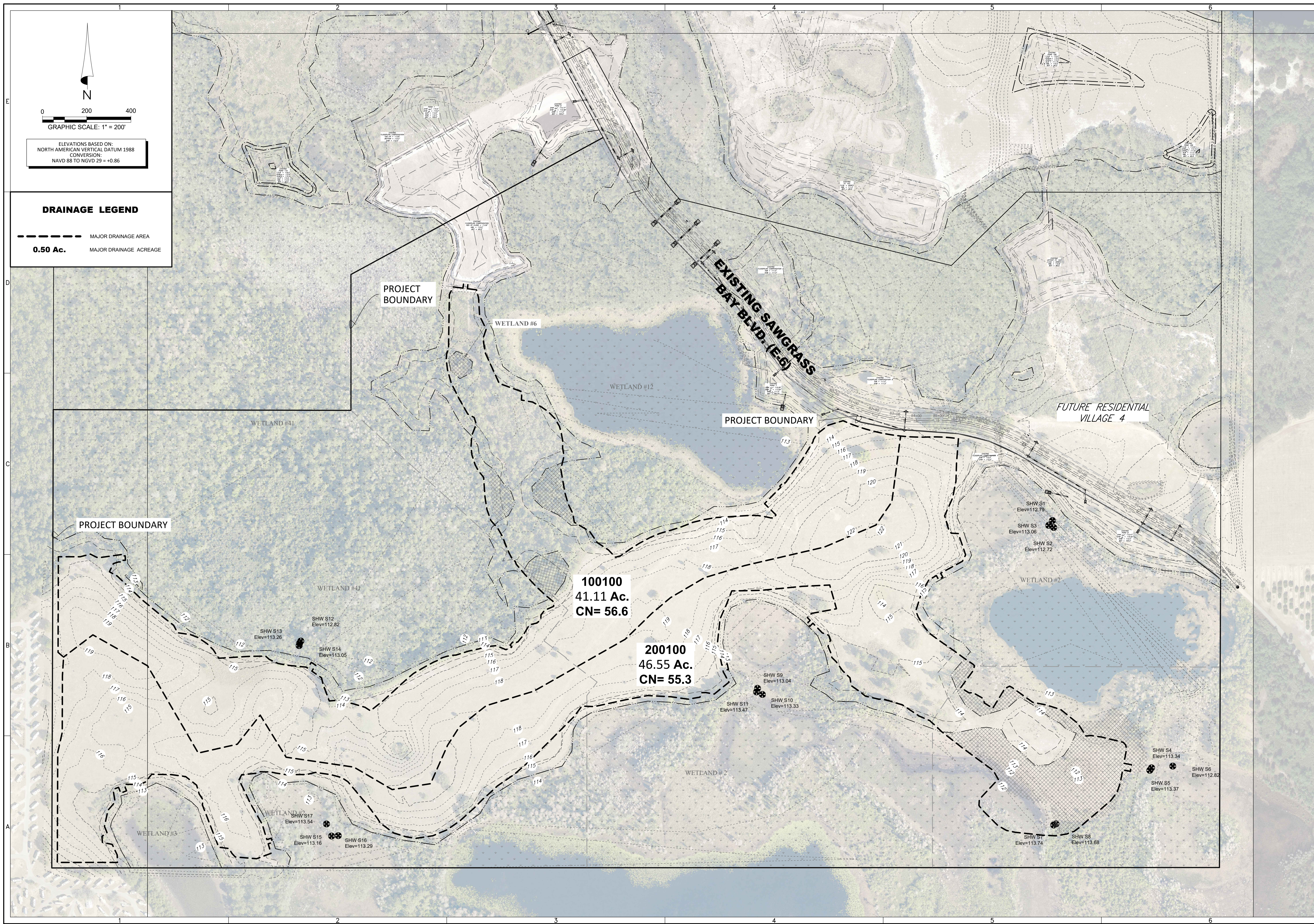
C-900



NOTE:
 THE EROSION BARRIERS, AS SHOWN, ARE NOT TO BE CONSTRUED TO MEAN THAT
 THEY ARE ALL THAT MAY BE REQUIRED. THE CONTRACTOR IS TO TAKE WHATEVER
 MEASURES NECESSARY TO CONTROL EROSION THROUGHOUT THE PROJECT.

NOTE:
 1. PONDS TO BE EXCAVATED PRIOR TO EARTHWORK.
 2. CONTRACTOR TO DIRECT RUNOFF TO PONDS
 DURING CONSTRUCTION ACTIVITIES.
 3. NOTE DOUBLE ROW SILT FENCE ALONG WETLAND
 BOUNDARIES.

R:\AVALON GROVES\VILLAGE 3\ENGINEERING\SWMP DWG-C-900 2020\DWG03 11-28 AM ERIC FRANCIS



GRAPHIC SCALE: 1" = 200'

ELEVATIONS BASED ON:
NORTH AMERICAN VERTICAL DATUM 1988
CONVERSION:
NAVD 88 TO NGVD 29 = +0.86

DRAINAGE LEGEND

--- MAJOR DRAINAGE AREA

0.50 Ac. MAJOR DRAINAGE ACREAGE

HEIDT DESIGN
Civil Engineering • Planning & GIS
Transportation Engineering
Ecological Services • Landscape Architecture

5904-A Hampton Oaks Pkwy.
Tampa, Florida 33610
Office: 813-253-5311
Fax: 813-464-7629
www.HeidtDesign.com

Engineering Business Certificate of Authorization No. 28793
Landscape Architecture Certificate of Authorization No. LC26080405

SERENOA
VILLAGE 3 - PHASE 1, 2 & 3
PRE-DEVELOPMENT DRAINAGE
AREA MAP

PREPARED FOR: VK AVALON GROVES, LLC

DATE	DESCRIPTION

DATE	DESCRIPTION
11/08/2018	REVIEW SUBMITTAL

PROJECT NO.: KLP-AG-1089
FILE: DA-PRF
DESIGN BY: FRANCIS
DRAWN BY: JLOAIZA

STATE OF FLORIDA
PROFESSIONAL ENGINEER

Timothy M. Plate, State of Florida,
Professional Engineer, License No. 41153

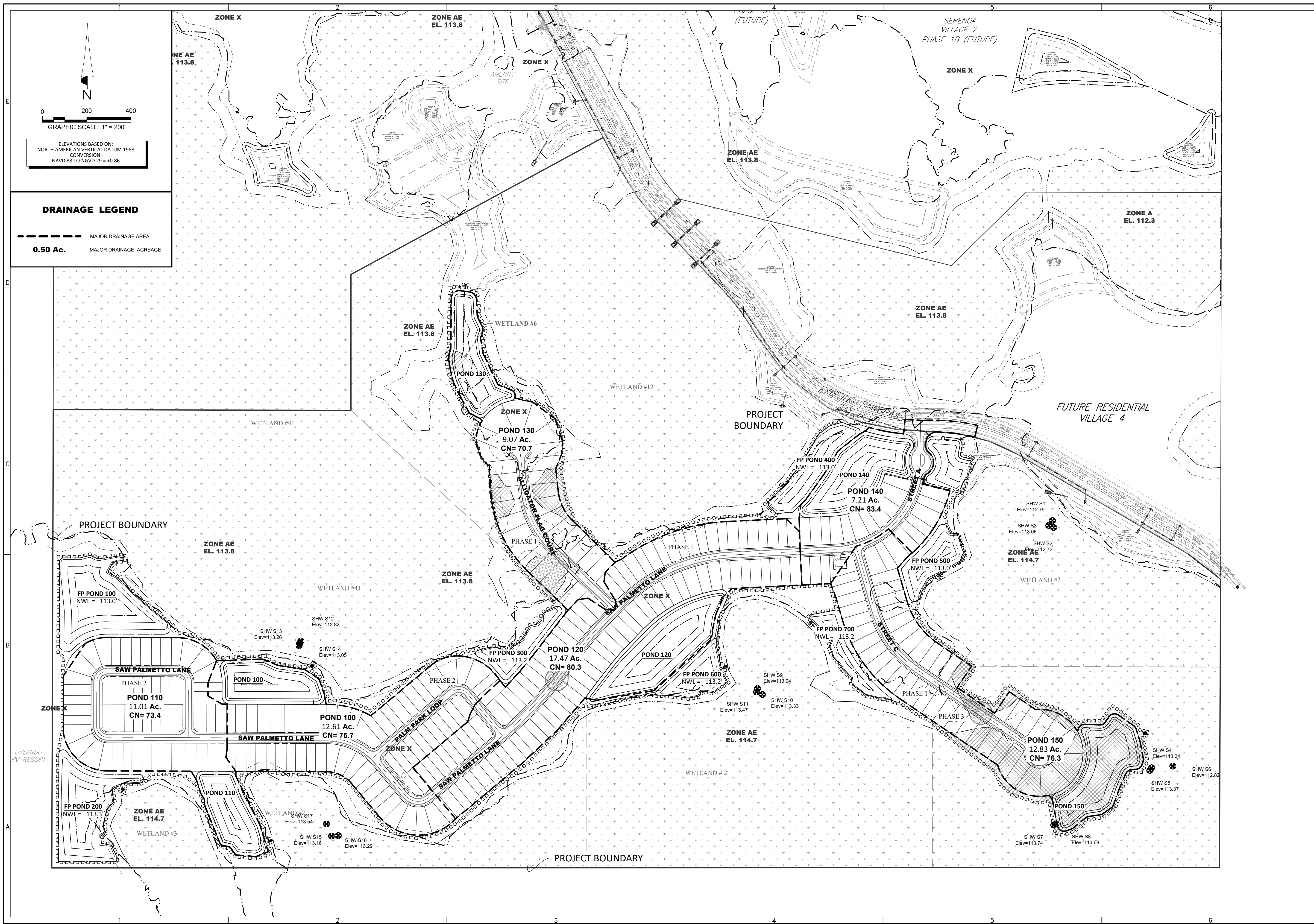
This item has been digitally
signed and sealed by
Timothy M. Plate, P.E. on the date
indicated here:


Printed copies of this document
are not considered signed and
sealed and the signature must be
verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
DATE: _____
LICENSE NO. 41153

C-902

R:\AVALON GROVES\3\ENGINEERING\DA-PRF\DWG-C-902 20200603 11:29 AM ERIC FRANCIS




 0 200 400
 GRAPHIC SCALE: 1" = 200'
 ELEVATIONS BASED ON:
 NORTH AMERICAN VERTICAL DATUM 1988
 CONVERSION:
 NAVD 88 TO NGVD 29 = +0.86

DRAINAGE LEGEND
 - - - - - MAJOR DRAINAGE AREA
 0.50 Ac. MAJOR DRAINAGE ACREAGE

HEIDT DESIGN
 Civil Engineering • Planning & GIS
 Transportation Engineering
 Ecological Services • Landscape Architecture
 Engineering Business Certificate of Authorization No. 28793
 Landscape Architecture Certificate of Authorization No. LC26080405
 5904-A Hampton Oaks Pkwy.
 Tampa, Florida 33610
 Office: 813-253-5311
 Fax: 813-464-7629
 www.HeidtDesign.com

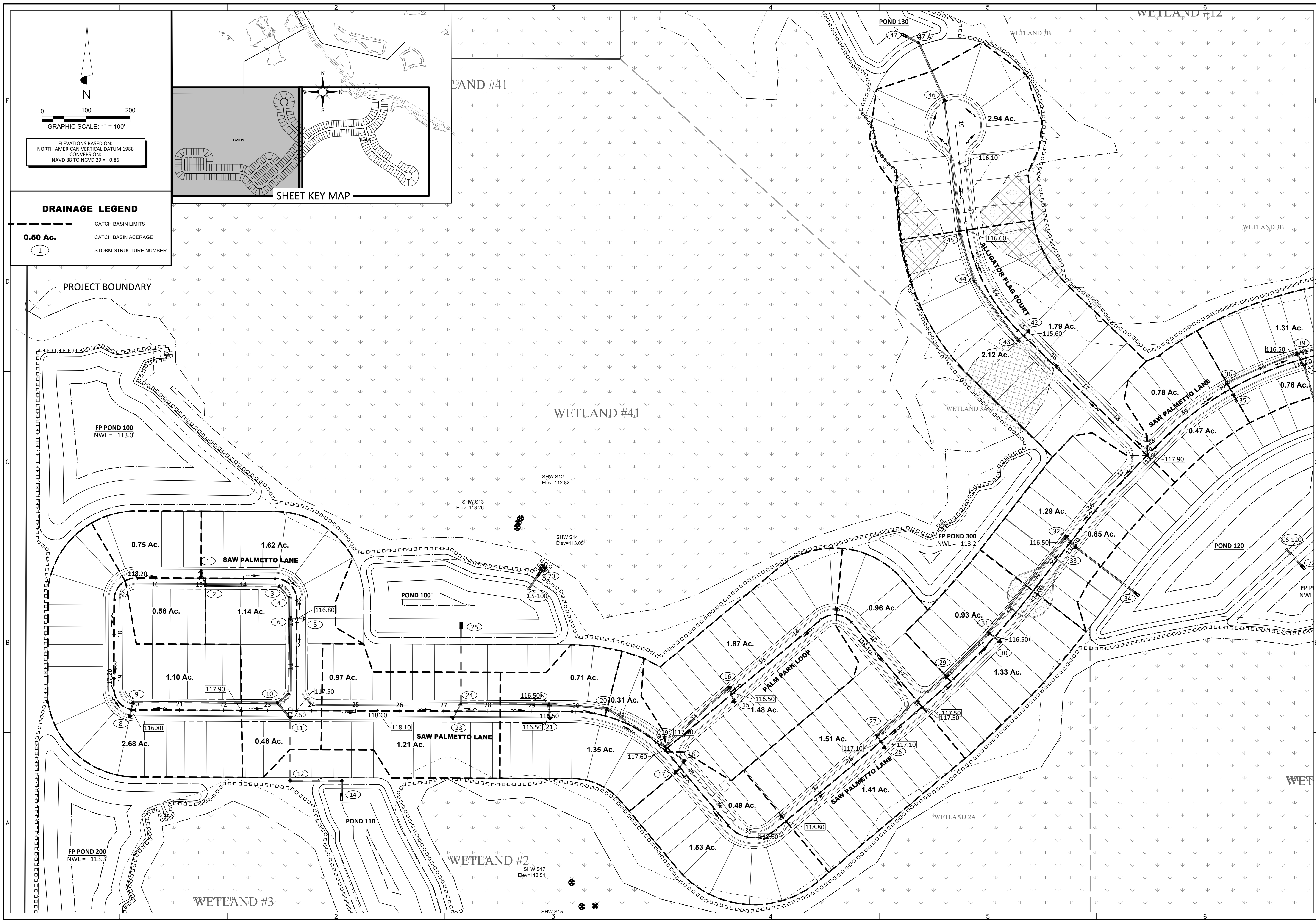
SERENOA VILLAGE 3 - PHASE 1, 2 & 3
OVERALL POST-DEVELOPMENT DRAINAGE AREA MAP
 PREPARED FOR: **VK AVALON GROVES, LLC**

DATE	DESCRIPTION
11/08/2018	REVIEW SUBMITTAL

PROJECT NO.: KLP-AG-1089
 FILE: DA-POST
 DESIGN BY: FRANCIS
 DRAWN BY: JLOAIZA
STATE OF FLORIDA PROFESSIONAL ENGINEER
 Timothy M. Plate, State of Florida, Professional Engineer, License No. 41153
 This item has been digitally signed and sealed by Timothy M. Plate, P.E. on the date indicated here.
 Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
 DATE: _____
 LICENSE NO. 41153
C-903

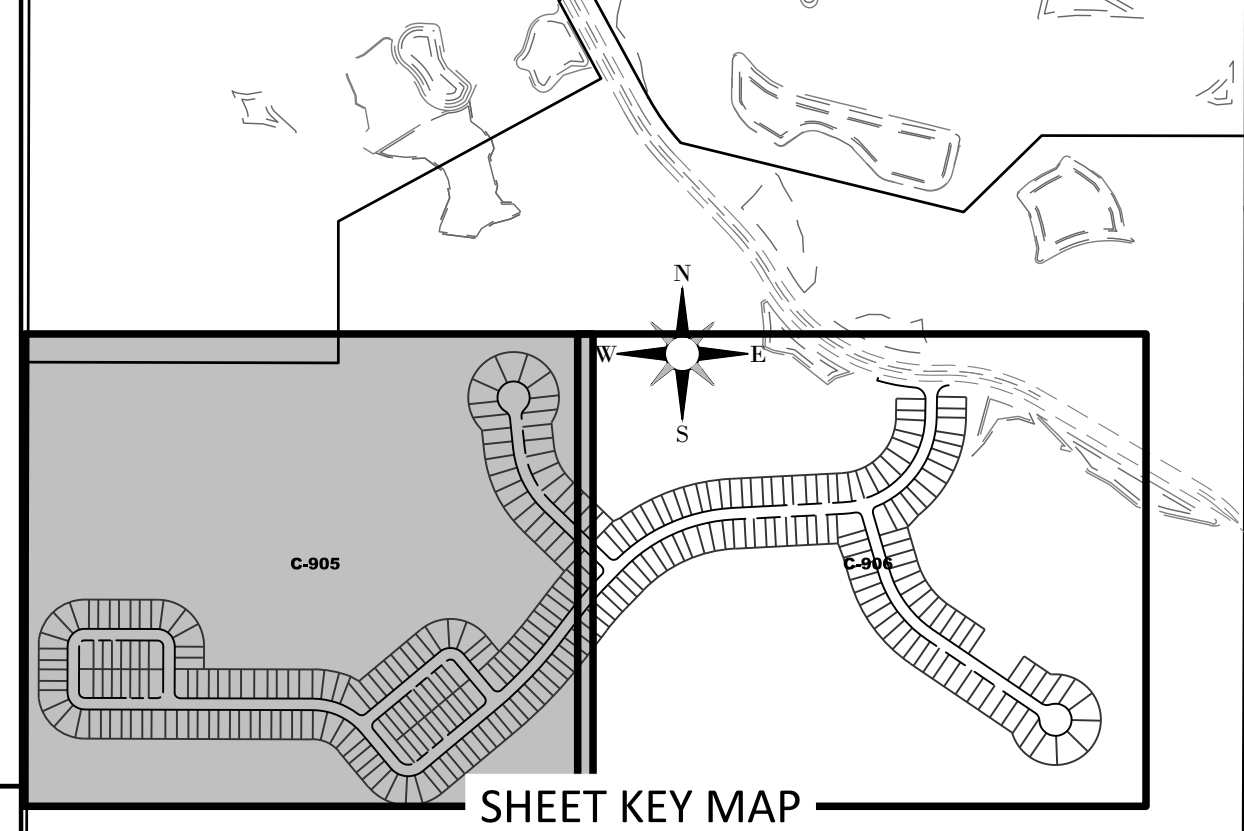
R:\AVALON GROVES\SERENOA VILLAGE 3\PHASE 1, 2 & 3\DWG-C-903 2020\0303 11:29 AM ERIC FRANCIS



ELEVATIONS BASED ON:
NORTH AMERICAN VERTICAL DATUM 1988
CONVERSION:
NAVD 88 TO NGVD 29 = +0.86

DRAINAGE LEGEND

	CATCH BASIN LIMITS
0.50 Ac.	CATCH BASIN ACERAGE
	STORM STRUCTURE NUMBER



HEIDT DESIGN
Civil Engineering • Planning & GIS
Transportation Engineering
Ecological Services • Landscape Architecture

5904-A Hampton Oaks Pkwy.
Tampa, Florida 33610
Office: 813-253-5311
Fax: 813-464-7629
www.HeidtDesign.com

Engineering Business Certificate of Authorization No. 28793
Landscape Architecture Certificate of Authorization No. LC26080405

SERENOA
VILLAGE 3 - PHASE 1, 2 & 3
DRAINAGE SUB-BASIN AREA MAP

PREPARED FOR: VK AVALON GROVES, LLC

DATE	DESCRIPTION
11/08/2019	REVIEW SUBMITTAL

PROJECT NO: KLP-AG-1089
FILE: DA-SUB
DESIGN BY: FRANCIS
DRAWN BY: JLOAIZA

STATE OF FLORIDA
PROFESSIONAL ENGINEER

Timothy M. Plate, State of Florida,
Professional Engineer, License No. 41153

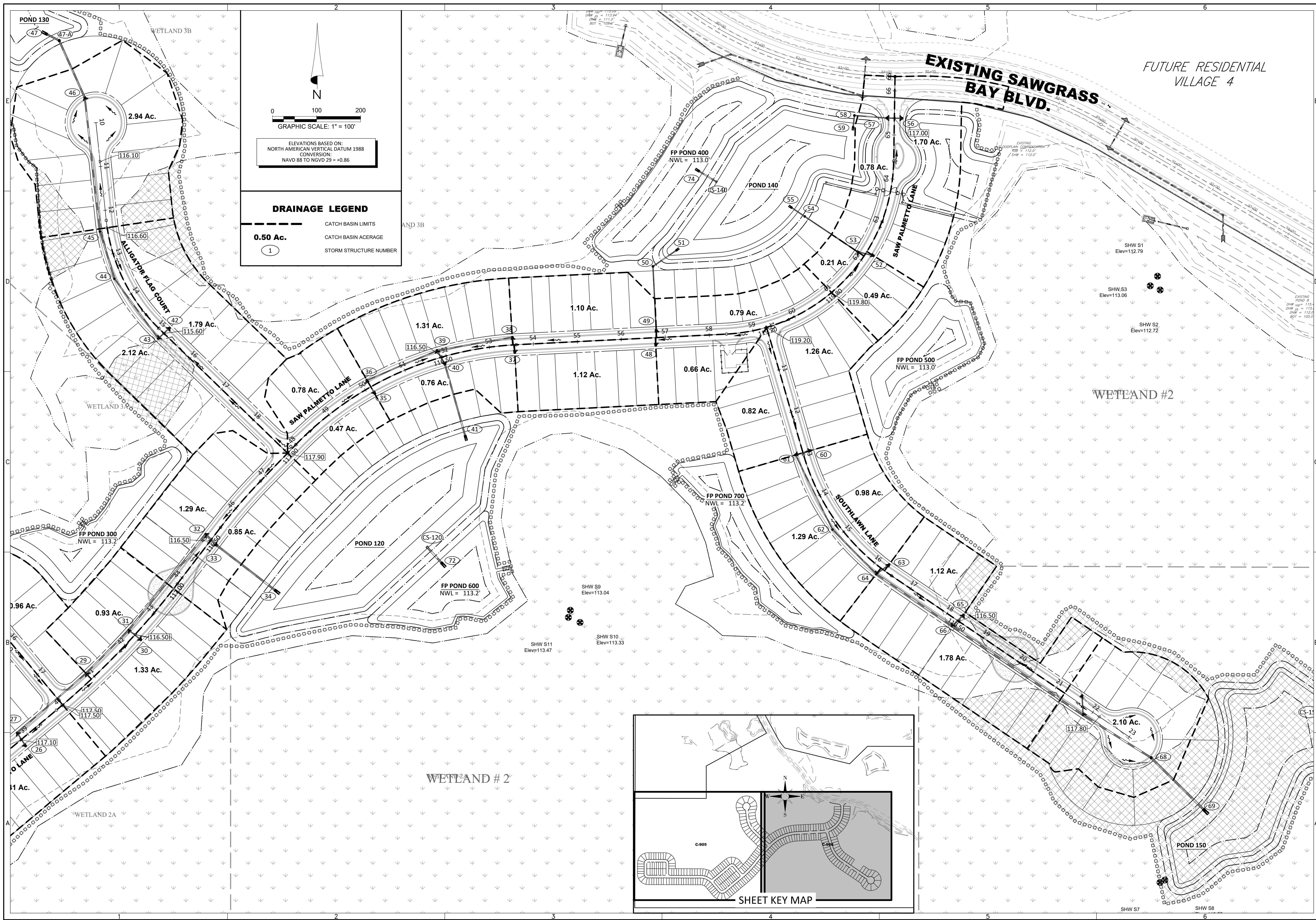
This item has been digitally
signed and sealed by
Timothy M. Plate, P.E. on the date
indicated here.

Printed copies of this document
are not considered signed and
sealed and the signature must be
verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
DATE: _____
LICENSE NO. 41153

C-904

© COPYRIGHT 2020, HEIDT DESIGN, LLC. ALL RIGHTS RESERVED. NO DOCUMENTATION INCLUDING BUT NOT LIMITED TO DRAWINGS OR EXHIBITS MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT PERMISSION IN WRITING FROM HEIDT DESIGN, LLC. THIS DOCUMENT IS HEREBY GRANTED SPECIFICALLY TO GOVERNMENTAL AGENCIES TO REPRODUCE THIS DOCUMENT IN COMPLIANCE WITH F.S. CHAPTER 119.



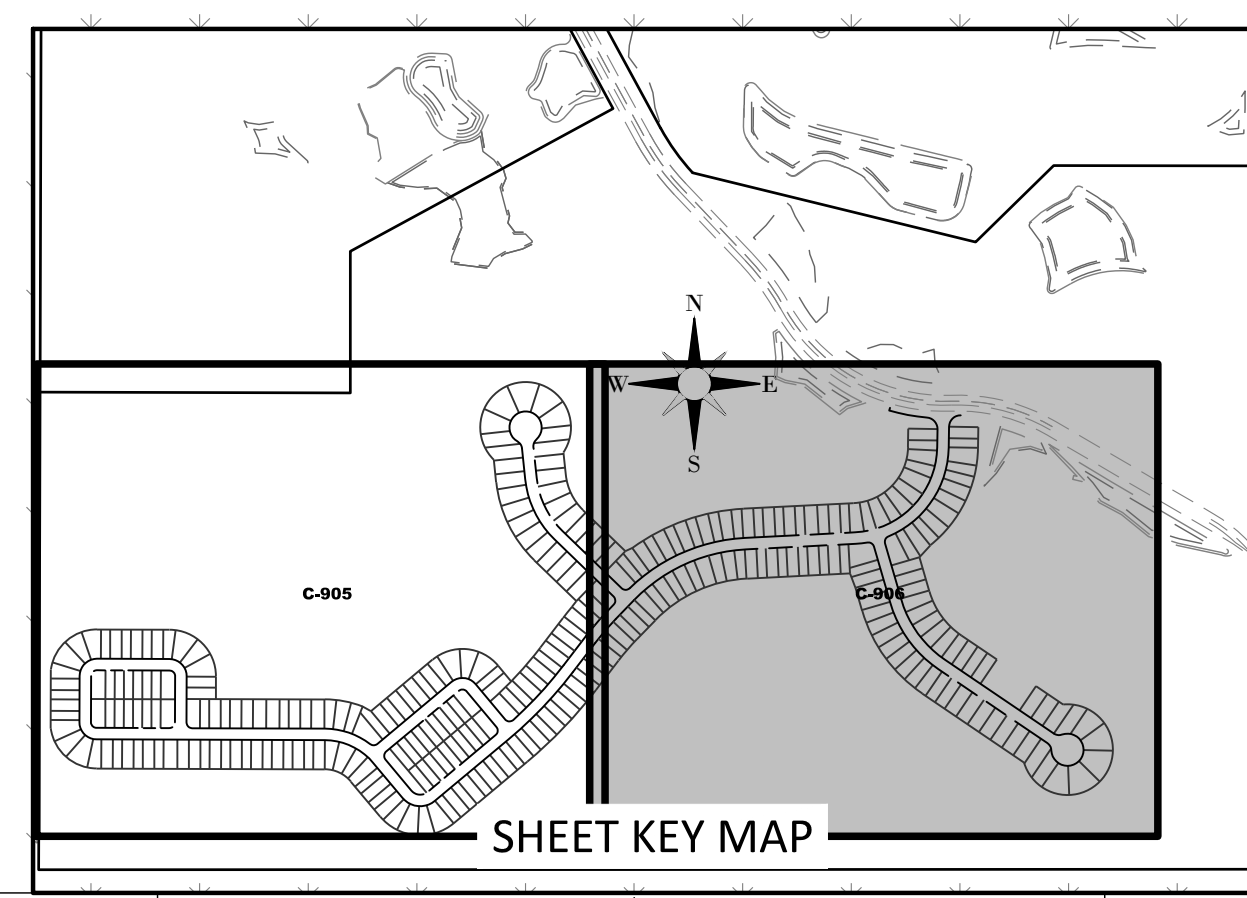
N

0 100 200
GRAPHIC SCALE: 1" = 100'

ELEVATIONS BASED ON:
NORTH AMERICAN VERTICAL DATUM 1988
CONVERSION:
NAVD 88 TO NGVD 29 = +0.86

DRAINAGE LEGEND

	CATCH BASIN LIMITS
	CATCH BASIN ACERAGE
	STORM STRUCTURE NUMBER



HEIDT DESIGN
Civil Engineering • Planning & GIS
Transportation Engineering
Ecological Services • Landscape Architecture

904-A Hampton Oaks Pkwy.
Tampa, Florida 33610
Office: 813-253-5311
Fax: 813-464-7629
www.HeidtDesign.com

Engineering Business Certificate of Authorization No. 28793
Landscape Architecture Certificate of Authorization No. LC26080405
RIVALON GROVES VILLAGE 3IENGINEERING.DWG-C-05 2020/03/03 11:30 AM ERIC FRANCIS

SERENOA VILLAGE 3 - PHASE 1, 2 & 3

DRAINAGE SUB-BASIN AREA MAP

PREPARED FOR: **VK AVALON GROVES, LLC**

DATE	DESCRIPTION
11/08/2019	REVIEW SUBMITTAL

PROJECT NO.:	KLP-AG-1089
FILE:	DA-SUB
DESIGN BY:	FRANCIS
DRAWN BY:	JLOAIZA

STATE OF FLORIDA
PROFESSIONAL ENGINEER

Timothy M. Plate, State of Florida,
Professional Engineer, License No. 41153

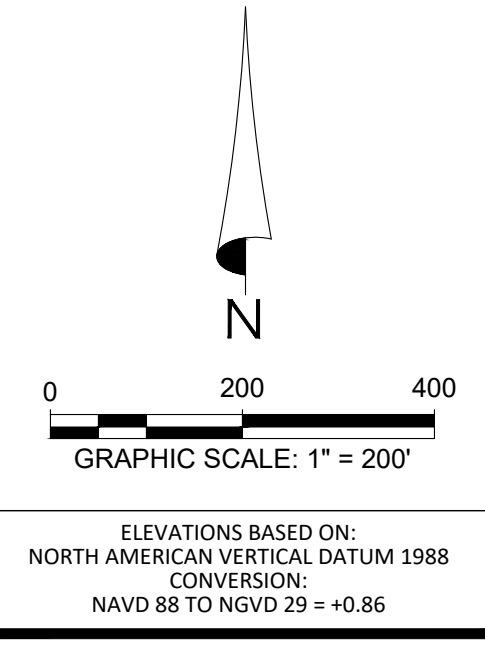
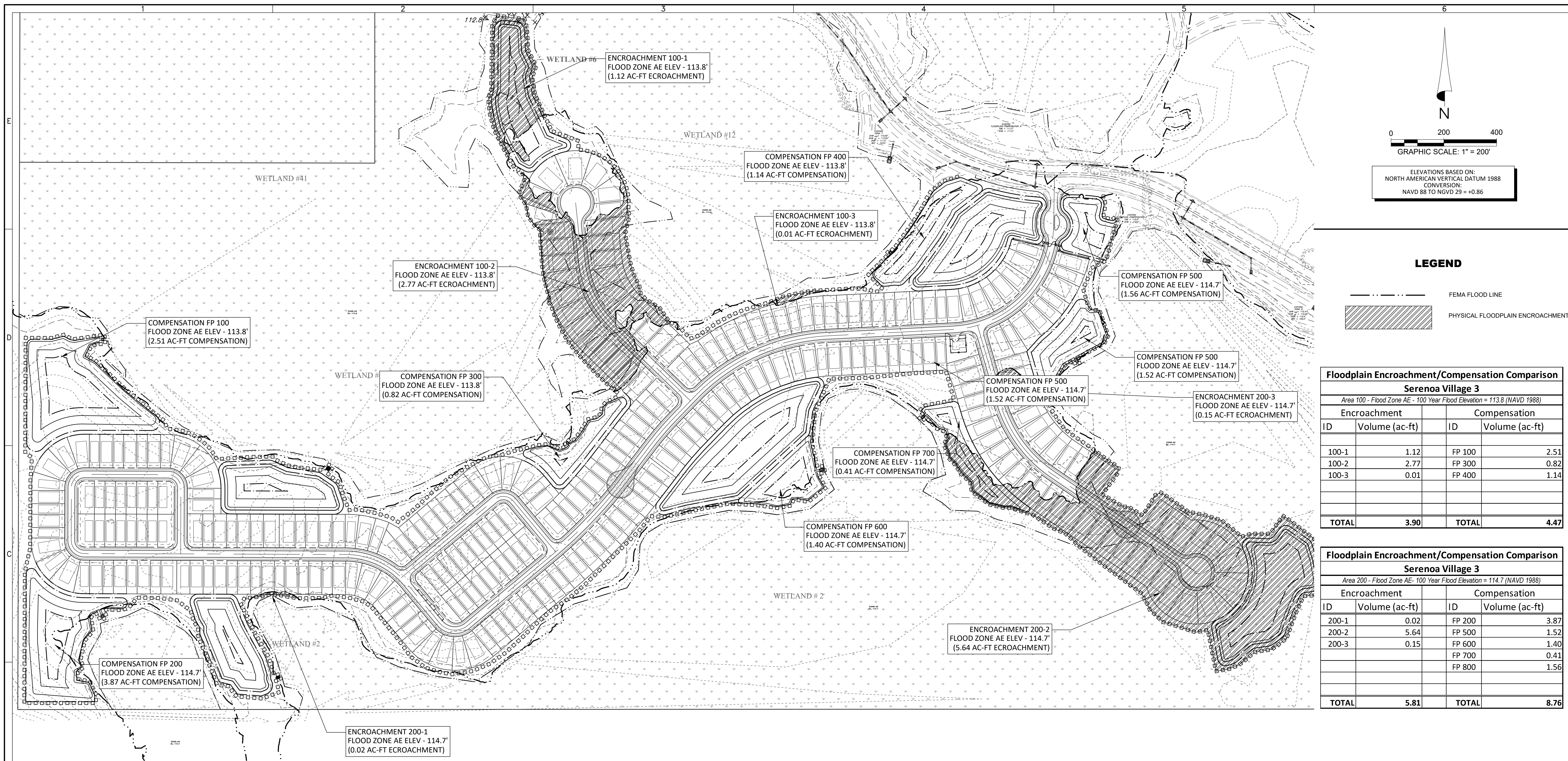
This item has been digitally signed and sealed by Timothy M. Plate, P.E. on the date indicated here.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
DATE: _____
LICENSE NO. 41153

C-905

© COPYRIGHT 2020, HEIDT DESIGN, LLC. ALL RIGHTS RESERVED. NO DOCUMENTATION INCLUDING BUT NOT LIMITED TO DRAWINGS OR EXHIBITS MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT PERMISSION IN WRITING FROM HEIDT DESIGN, LLC. THIS DOCUMENT IS HEREBY GRANTED SPECIFICALLY TO GOVERNMENTAL AGENCIES TO REPRODUCE THIS DOCUMENT IN COMPLIANCE WITH F.S. CHAPTER 119.



LEGEND

--- FEMA FLOOD LINE

▨ PHYSICAL FLOODPLAIN ENCROACHMENT

Floodplain Encroachment/Compensation Comparison
Serenoa Village 3
Area 100 - Flood Zone AE - 100 Year Flood Elevation = 113.8 (NAVD 1988)

Encroachment		Compensation	
ID	Volume (ac-ft)	ID	Volume (ac-ft)
100-1	1.12	FP 100	2.51
100-2	2.77	FP 300	0.82
100-3	0.01	FP 400	1.14
TOTAL	3.90	TOTAL	4.47

Floodplain Encroachment/Compensation Comparison
Serenoa Village 3
Area 200 - Flood Zone AE - 100 Year Flood Elevation = 114.7 (NAVD 1988)

Encroachment		Compensation	
ID	Volume (ac-ft)	ID	Volume (ac-ft)
200-1	0.02	FP 200	3.87
200-2	5.64	FP 500	1.52
200-3	0.15	FP 600	1.40
		FP 700	0.41
		FP 800	1.56
TOTAL	5.81	TOTAL	8.76

Floodplain Encroachment 100-1
Zone AE - 100 Year Flood Elevation = 113.8 (NAVD 1988)

Elevation	Surface Area (Ac.)	Depth Interval (feet)	Storage Sub-Total (Ac-Ft)	Storage Total (Ac-Ft)	Notes
112.30	0.380	-	-	-	SHWL
113.00	0.680	0.70	0.3710	0.3710	
113.80	1.200	0.80	0.7520	1.1230	100 Year Elevation
Total Encroachment = 1.1230 Ac-Ft					

Floodplain Encroachment 200-1
Zone AE - 100 Year Flood Elevation = 114.7 (NAVD 1988)

Elevation	Surface Area (Ac.)	Depth Interval (feet)	Storage Sub-Total (Ac-Ft)	Storage Total (Ac-Ft)	Notes
114.00	0.010	-	-	-	Lowest Existing Grade
114.70	0.063	0.70	0.0254	0.0254	100 Year Elevation
Total Encroachment = 0.0254 Ac-Ft					

Floodplain Compensation Pond 100
Zone AE - 100 Year Flood Elevation = 113.8 (NAVD 1988)

Elevation	Surface Area (Ac.)	Depth Interval (feet)	Storage Sub-Total (Ac-Ft)	Storage Total (Ac-Ft)	Notes
113.80	3.25	-	-	-	100 Year Flood Elevation
113.00	3.03	0.80	2.51	2.51	Seasonal High Water Elevation
Total Mitigation = 2.51 Ac-Ft					

Floodplain Compensation Pond 400
Zone AE - 100 Year Flood Elevation = 113.8 (NAVD 1988)

Elevation	Surface Area (Ac.)	Depth Interval (feet)	Storage Sub-Total (Ac-Ft)	Storage Total (Ac-Ft)	Notes
113.80	1.56	-	-	-	100 Year Flood Elevation
113.00	1.28	0.80	1.14	1.14	Seasonal High Water Elevation
Total Mitigation = 1.14 Ac-Ft					

Floodplain Compensation Pond 700
Zone AE - 100 Year Flood Elevation = 114.7 (NAVD 1988)

Elevation	Surface Area (Ac.)	Depth Interval (feet)	Storage Sub-Total (Ac-Ft)	Storage Total (Ac-Ft)	Notes
114.70	0.31	-	-	-	100 Year Flood Elevation
113.30	0.27	1.40	0.41	0.41	Seasonal High Water Elevation
Total Mitigation = 0.41 Ac-Ft					

Floodplain Encroachment 100-2
Zone AE - 100 Year Flood Elevation = 113.8 (NAVD 1988)

Elevation	Surface Area (Ac.)	Depth Interval (feet)	Storage Sub-Total (Ac-Ft)	Storage Total (Ac-Ft)	Notes
112.30	0.410	-	-	-	SHWL
113.00	1.240	0.70	0.5775	0.5775	
113.80	4.250	0.80	2.1960	2.7735	100 Year Elevation
Total Encroachment = 2.7735 Ac-Ft					

Floodplain Encroachment 200-2
Zone AE - 100 Year Flood Elevation = 114.7 (NAVD 1988)

Elevation	Surface Area (Ac.)	Depth Interval (feet)	Storage Sub-Total (Ac-Ft)	Storage Total (Ac-Ft)	Notes
113.30	0.250	-	-	-	SHWL
114.00	3.330	0.70	1.2530	1.2530	
114.70	9.210	0.70	4.3890	5.6420	100 Year Elevation
Total Encroachment = 5.6420 Ac-Ft					

Floodplain Compensation Pond 200
Zone AE - 100 Year Flood Elevation = 114.7 (NAVD 1988)

Elevation	Surface Area (Ac.)	Depth Interval (feet)	Storage Sub-Total (Ac-Ft)	Storage Total (Ac-Ft)	Notes
114.70	2.85	-	-	-	100 Year Flood Elevation
113.30	2.68	1.40	3.87	3.87	Seasonal High Water Elevation
Total Mitigation = 3.87 Ac-Ft					

Floodplain Compensation Pond 500
Zone AE - 100 Year Flood Elevation = 114.7 (NAVD 1988)

Elevation	Surface Area (Ac.)	Depth Interval (feet)	Storage Sub-Total (Ac-Ft)	Storage Total (Ac-Ft)	Notes
114.70	1.15	-	-	-	100 Year Flood Elevation
113.30	1.02	1.40	1.52	1.52	Seasonal High Water Elevation
Total Mitigation = 1.52 Ac-Ft					

Floodplain Compensation Pond 800
Zone AE - 100 Year Flood Elevation = 114.7 (NAVD 1988)

Elevation	Surface Area (Ac.)	Depth Interval (feet)	Storage Sub-Total (Ac-Ft)	Storage Total (Ac-Ft)	Notes
114.70	0.67	-	-	-	100 Year Flood Elevation
112.00	0.49	2.70	1.56	1.56	Seasonal High Water Elevation
Total Mitigation = 1.56 Ac-Ft					

Floodplain Encroachment 100-3
Zone AE - 100 Year Flood Elevation = 113.8 (NAVD 1988)

Elevation	Surface Area (Ac.)	Depth Interval (feet)	Storage Sub-Total (Ac-Ft)	Storage Total (Ac-Ft)	Notes
113.40	0.010	-	-	-	Lowest Existing Grade
113.80	0.034	0.40	0.0088	0.0088	100 Year Elevation
Total Encroachment = 0.0088 Ac-Ft					

Floodplain Encroachment 200-3
Zone AE - 100 Year Flood Elevation = 114.7 (NAVD 1988)

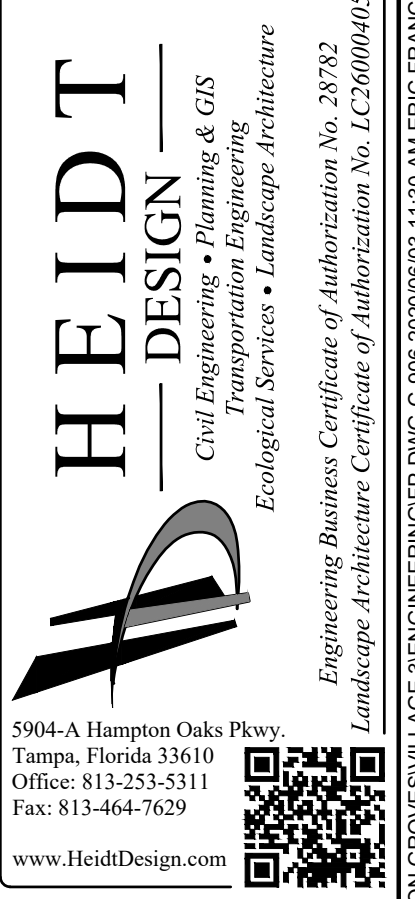
Elevation	Surface Area (Ac.)	Depth Interval (feet)	Storage Sub-Total (Ac-Ft)	Storage Total (Ac-Ft)	Notes
113.30	0.040	-	-	-	Lowest Existing Grade
114.70	0.330	0.80	0.1480	0.1480	100 Year Elevation
Total Encroachment = 0.1480 Ac-Ft					

Floodplain Compensation Pond 300
Zone AE - 100 Year Flood Elevation = 113.8 (NAVD 1988)

Elevation	Surface Area (Ac.)	Depth Interval (feet)	Storage Sub-Total (Ac-Ft)	Storage Total (Ac-Ft)	Notes
113.80	1.21	-	-	-	100 Year Flood Elevation
113.00	0.85	0.80	0.82	0.82	Seasonal High Water Elevation
Total Mitigation = 0.82 Ac-Ft					

Floodplain Compensation Pond 600
Zone AE - 100 Year Flood Elevation = 114.7 (NAVD 1988)

Elevation	Surface Area (Ac.)	Depth Interval (feet)	Storage Sub-Total (Ac-Ft)	Storage Total (Ac-Ft)	Notes
114.70	1.15	-	-	-	100 Year Flood Elevation
113.30	0.85	1.40	1.40	1.40	Seasonal High Water Elevation
Total Mitigation = 1.40 Ac-Ft					



SERENOA VILLAGE 3 - PHASE 1, 2 & 3

FLOODPLAIN ENCROACHMENT & COMPENSATION

PREPARED FOR: **VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION
1	03/20/2020	ADDED FP 800, REVISED SF, POND 255
2	11/08/2019	REVISED SUBMITTAL

PROJECT NO: KLP-AG-1089

FILE: _____

DESIGN BY: FRANCIS

DRAWN BY: JLOAIZA

STATE OF FLORIDA PROFESSIONAL ENGINEER

Timothy M. Plate, State of Florida, Professional Engineer, License No. 41153

This item has been digitally signed and sealed by Timothy M. Plate, P.E. on the date indicated herein.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

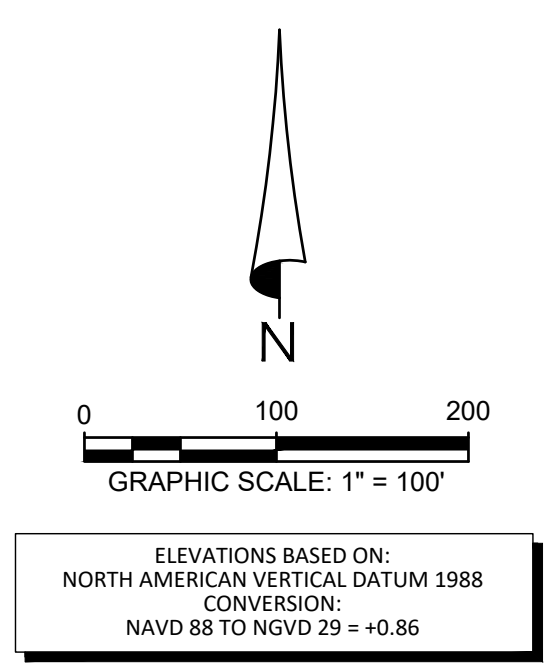
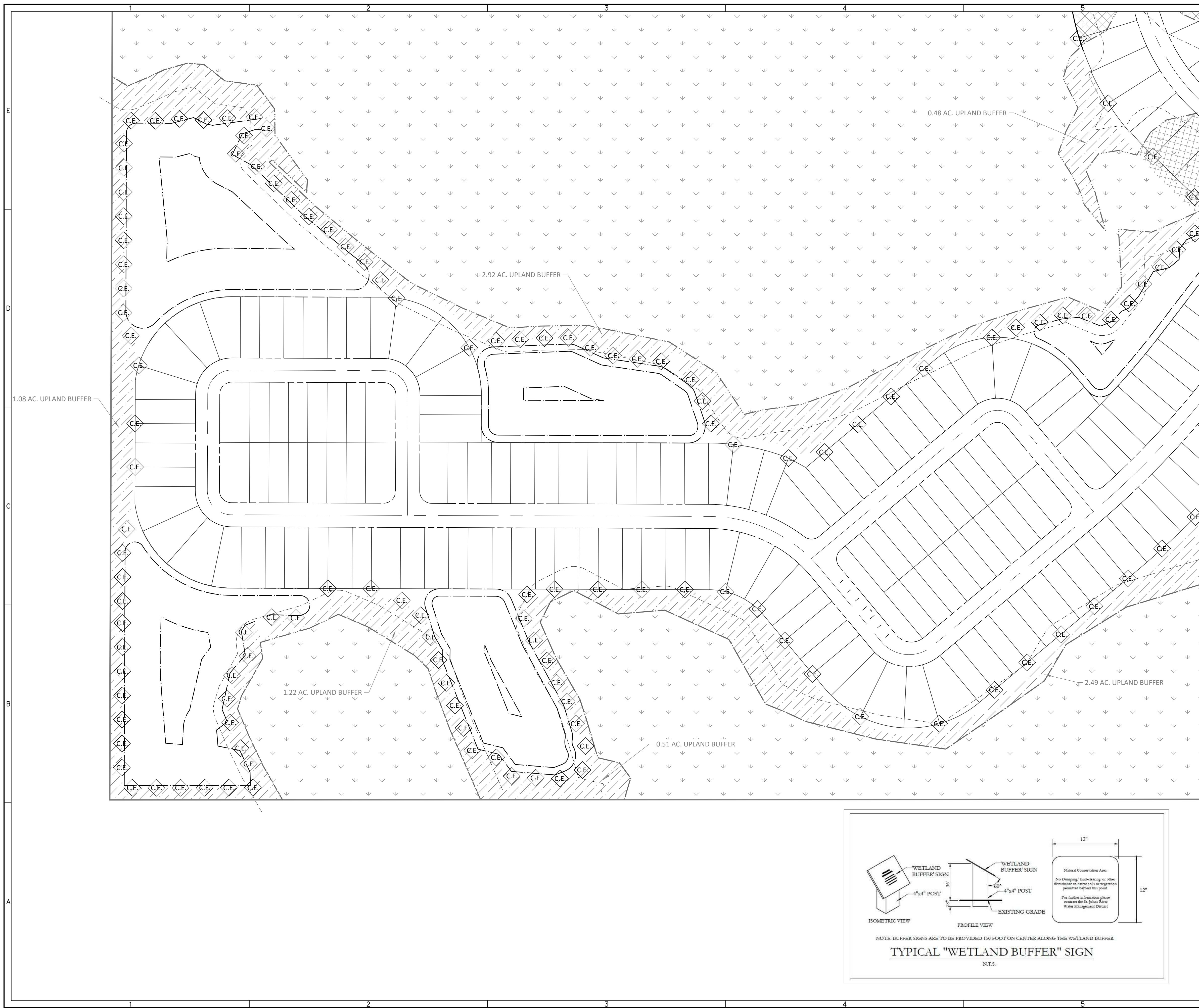
TIMOTHY M. PLATE, P.E.

DATE: _____

LICENSE NO. 41153

C-906

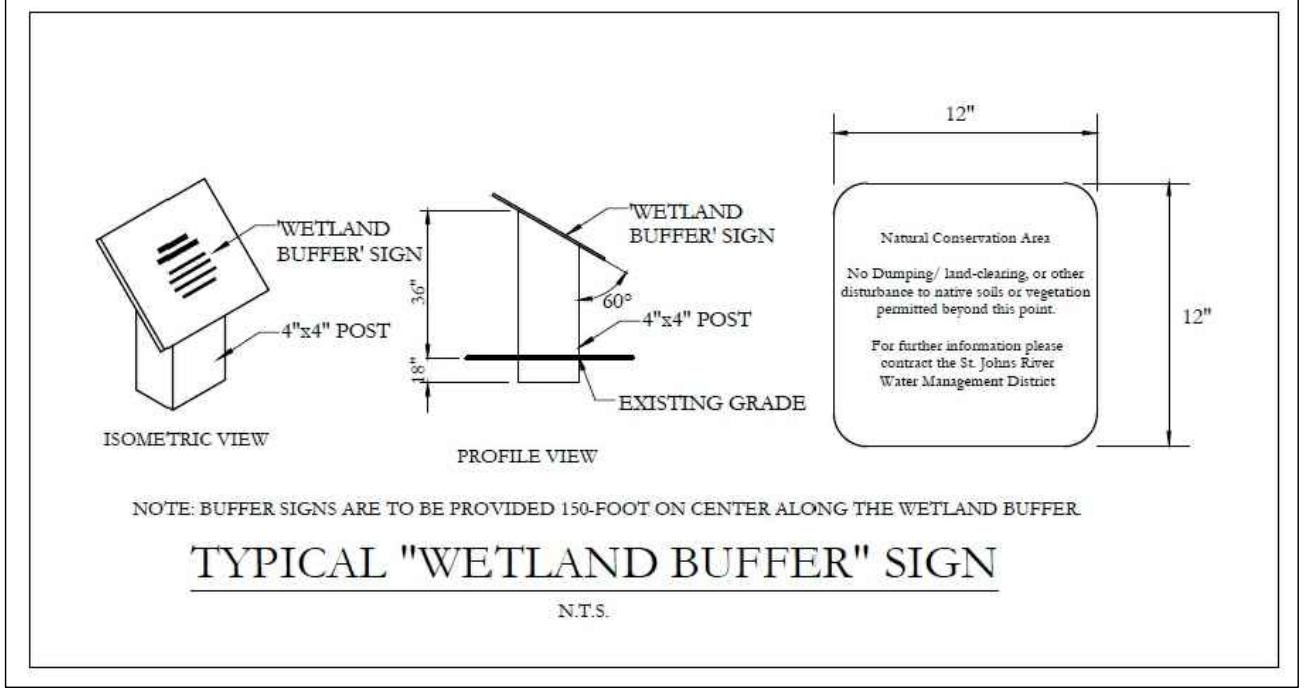
© COPYRIGHT 2020, HEIDT DESIGN, LLC. ALL RIGHTS RESERVED. NO DOCUMENTATION INCLUDING BUT NOT LIMITED TO DRAWINGS OR EXHIBITS MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT PERMISSION IN WRITING FROM HEIDT DESIGN, LLC. THIS DOCUMENT IS THE PROPERTY OF HEIDT DESIGN, LLC. IT IS HEREBY GRANTED SPECIFICALLY TO GOVERNMENTAL AGENCIES TO REPRODUCE THIS DOCUMENT IN COMPLIANCE WITH F.S. CHAPTER 119.



GENERAL LEGEND

- PROPERTY LINE
- PHASE LINE
- WETLAND LINE
- UPLAND BUFFER
- CE SIGN - SEE DETAIL THIS SHEET

NOTE:
 Conservation areas shall remain undisturbed and all construction, dumping and disturbance to soils and vegetation including mowing, trimming and removal is prohibited.



HEIDT DESIGN
 Civil Engineering • Planning & GIS
 Transportation Engineering
 Ecological Services • Landscape Architecture

5904-A Hampton Oaks Pkwy.
 Tampa, Florida 33610
 Office: 813-253-5311
 Fax: 813-464-7629
 www.HeidtDesign.com

Engineering Business Certificate of Authorization No. 28793
 Landscape Architecture Certificate of Authorization No. LC26080405

SERENOA
VILLAGE 3 - PHASE 1, 2 & 3
UPLAND BUFFER AND C.E. SIGN
LOCATIONS

PREPARED FOR: **VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION
1	11/08/2018	REVIEW SUBMITTAL

PROJECT NO.: KLP-AG-1089
 FILE: BUFFER
 DESIGN BY: FRANCIS
 DRAWN BY: JLOAIZA

STATE OF FLORIDA
PROFESSIONAL ENGINEER

Timothy M. Plate, State of Florida,
 Professional Engineer, License No. 41153

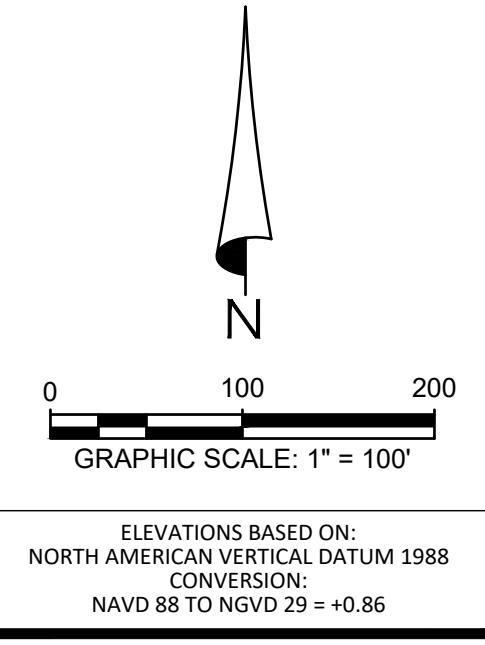
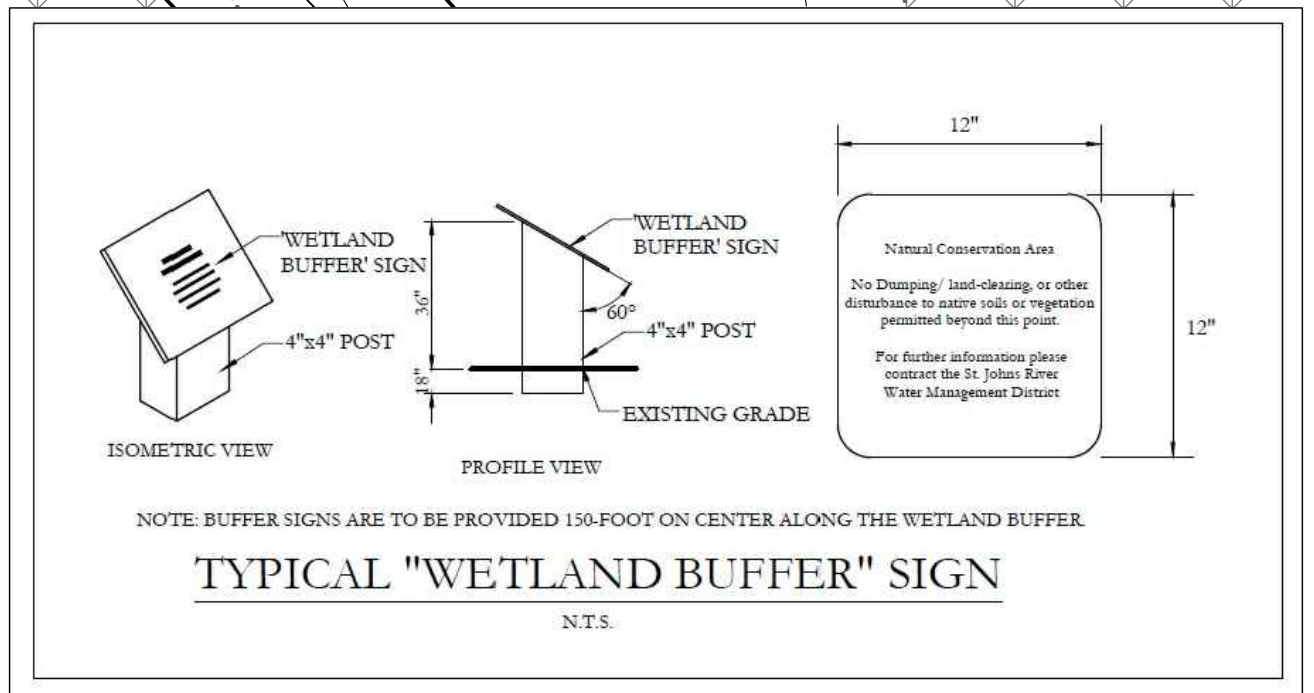
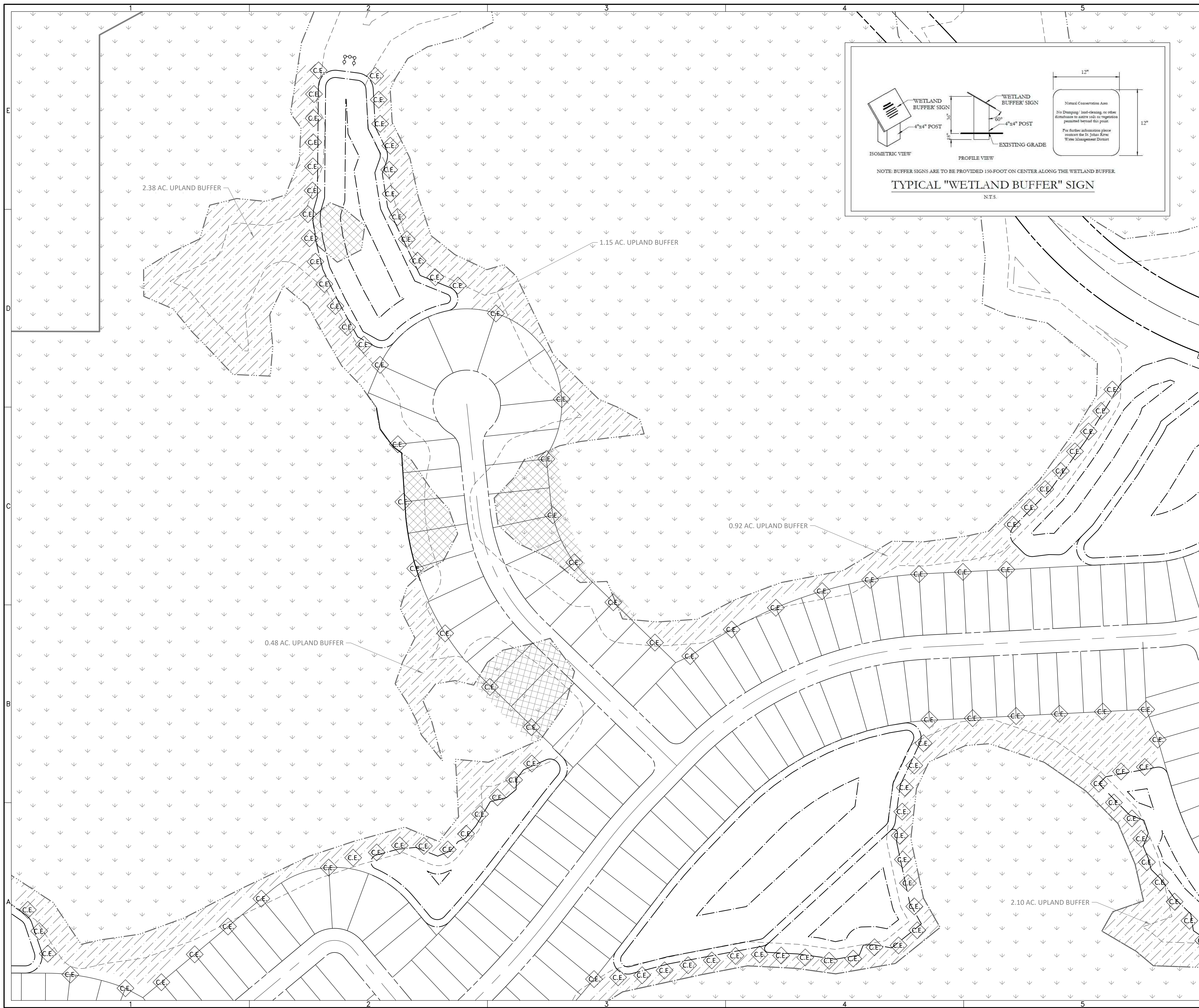
This item has been digitally
 signed and sealed by
 Timothy M. Plate, P.E. on the date
 indicated here:

Printed copies of this document
 are not considered signed and
 sealed and the signature must be
 verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
 DATE: _____
 LICENSE NO. 41153

C-907

R:\AVALON GROVES\BILLBOARDING\BUFFER.DWG-C-07 20200303 11:31 AM ERIC FRANCIS



GENERAL LEGEND

- PROPERTY LINE
- PHASE LINE
- WETLAND LINE
- UPLAND BUFFER
- CE SIGN - SEE DETAIL THIS SHEET

NOTE:
Conservation areas shall remain undisturbed and all construction, dumping and disturbance to soils and vegetation including mowing, trimming and removal is prohibited.

HEIDT DESIGN
Civil Engineering • Planning & GIS
Transportation Engineering
Ecological Services • Landscape Architecture

Engineering Business Certificate of Authorization No. 28793
Landscape Architecture Certificate of Authorization No. LC2600405

5904-A Hampton Oaks Pkwy.
Tampa, Florida 33610
Office: 813-253-5311
Fax: 813-464-7629
www.HeidtDesign.com

SERENOA VILLAGE 3 - PHASE 1, 2 & 3 UPLAND BUFFER AND C.E. SIGN LOCATIONS

PREPARED FOR: **VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION
1	11/08/2018	REVIEW SUBMITTAL

PROJECT NO.: KLP-AG-1089
FILE: BUFFER
DESIGN BY: FRANCIS
DRAWN BY: JLOAIZA

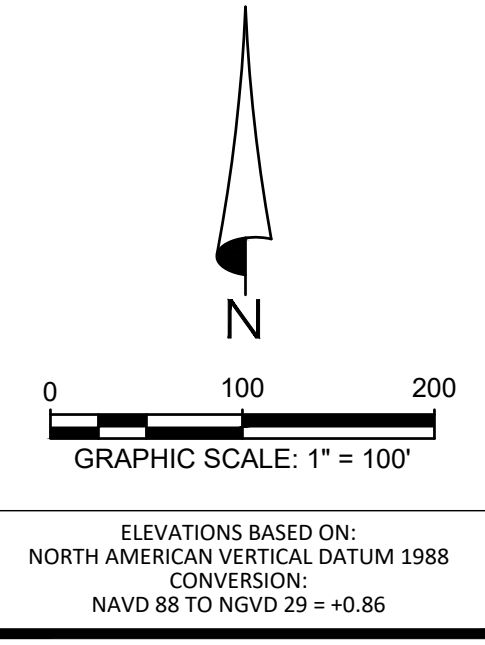
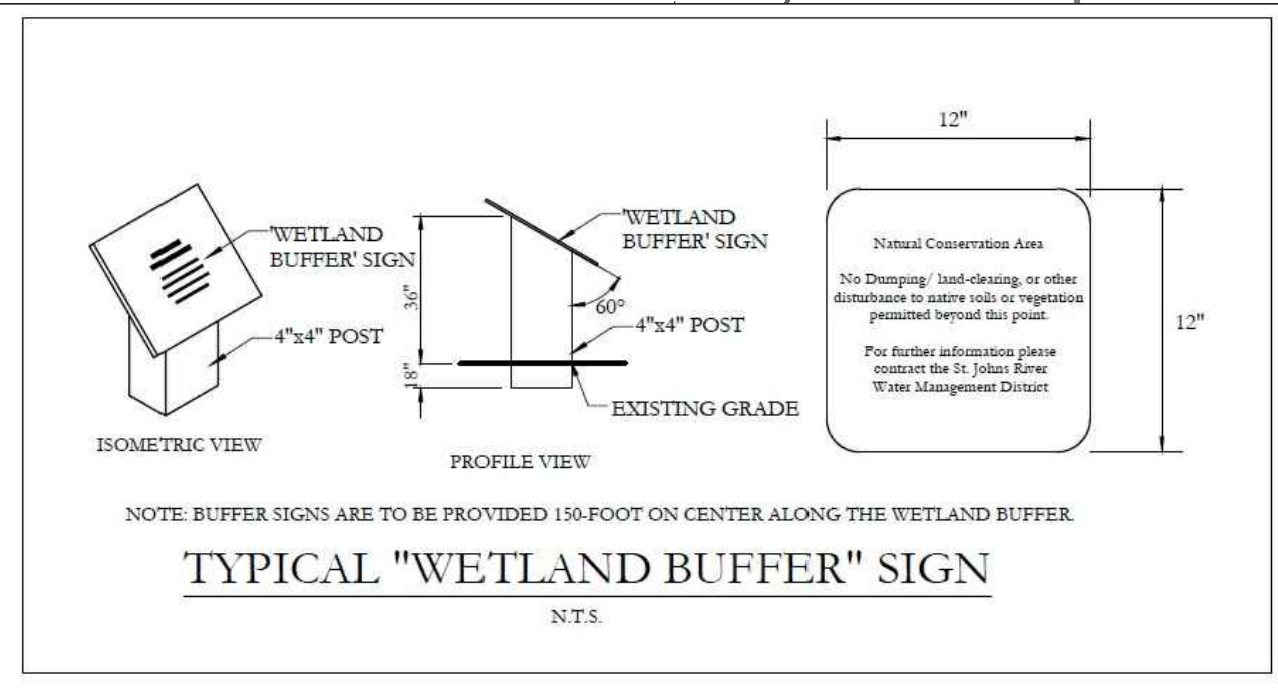
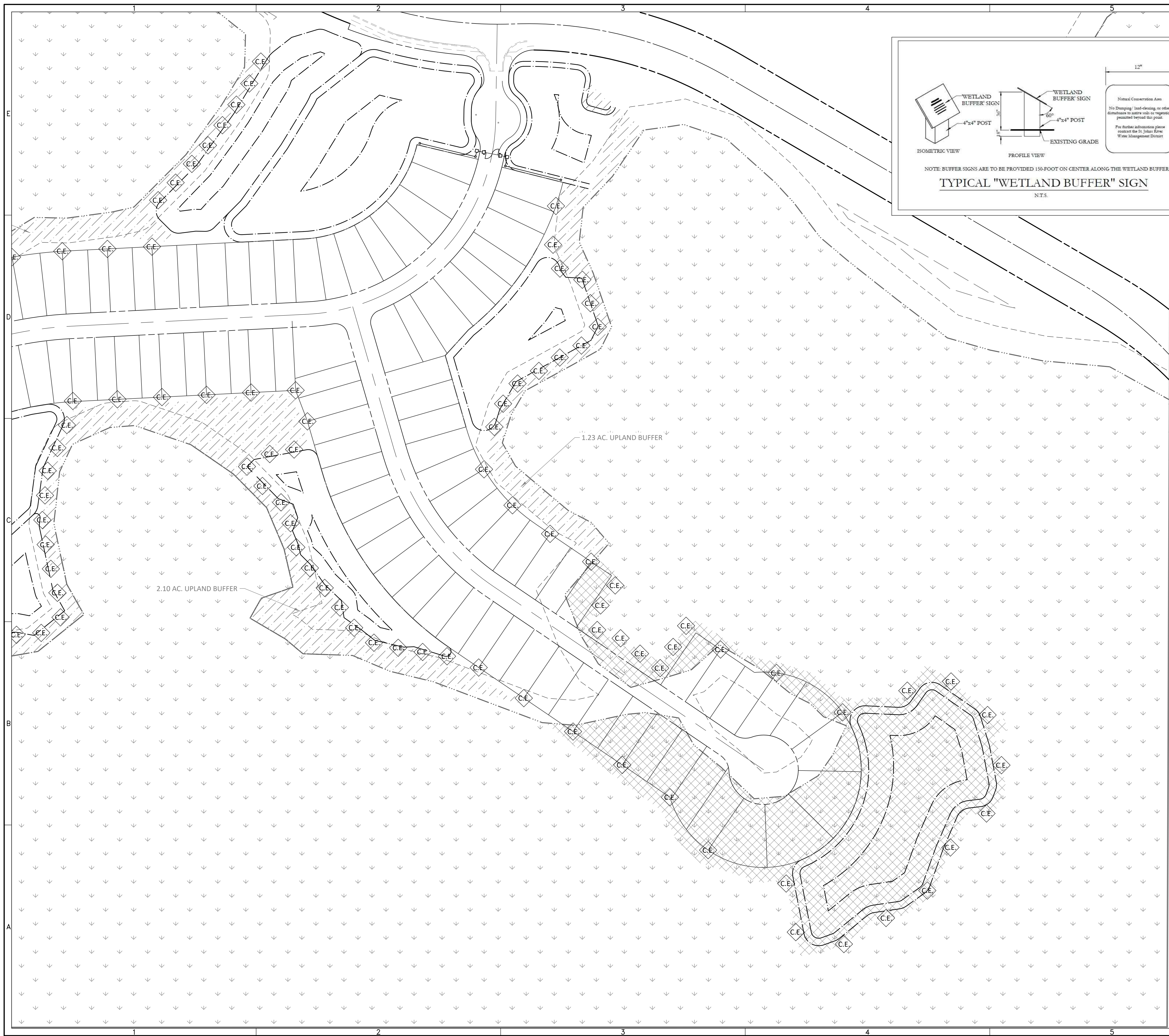
STATE OF FLORIDA
PROFESSIONAL ENGINEER

Timothy M. Plate, State of Florida, Professional Engineer, License No. 41153
This item has been digitally signed and sealed by Timothy M. Plate, P.E. on the date indicated here.
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
DATE: _____
LICENSE NO. 41153

C-908

RIVALON GROVES VILLAGE 3 ENGINEERING BUFFER.DWG-C-08 2020/03/11 3:11 AM ERIC FRANCIS



GENERAL LEGEND

- PROPERTY LINE
- PHASE LINE
- WETLAND LINE
- UPLAND BUFFER
- CE SIGN - SEE DETAIL THIS SHEET

NOTE:
 Conservation areas shall remain undisturbed and all construction, dumping and disturbance to soils and vegetation including mowing, trimming and removal is prohibited.

HEIDT DESIGN
 Civil Engineering • Planning & GIS
 Transportation Engineering
 Ecological Services • Landscape Architecture

5904-A Hampton Oaks Pkwy.
 Tampa, Florida 33610
 Office: 813-253-5311
 Fax: 813-464-7629
 www.HeidtDesign.com

Engineering Business Certificate of Authorization No. 28793
 Landscape Architecture Certificate of Authorization No. LC26080405

PREPARED FOR:
VK AVALON GROVES, LLC

SERENOA
 VILLAGE 3 - PHASE 1, 2 & 3
 UPLAND BUFFER AND C.E. SIGN
 LOCATIONS

NO.	DATE	DESCRIPTION
1	11/08/2018	REVIEW SUBMITTAL

PROJECT NO.: KLP-AG-1089
 FILE: BUFFER
 DESIGN BY: FRANCIS
 DRAWN BY: JLOAIZA

STATE OF FLORIDA
 PROFESSIONAL ENGINEER

Timothy M. Plate, State of Florida,
 Professional Engineer, License No. 41153

This item has been digitally
 signed and sealed by
 Timothy M. Plate, P.E. on the date
 indicated here:

Printed copies of this document
 are not considered signed and
 sealed and the signature must be
 verified on any electronic copies.

TIMOTHY M. PLATE, P.E.
 DATE: _____
 LICENSE NO. 41153

C-909

R:\AVALON GROVES\VILLAGE 3\ENGINEERING\BUFFER.DWG-C-909 2020/03/11 11:31 AM ERIC FRANCIS