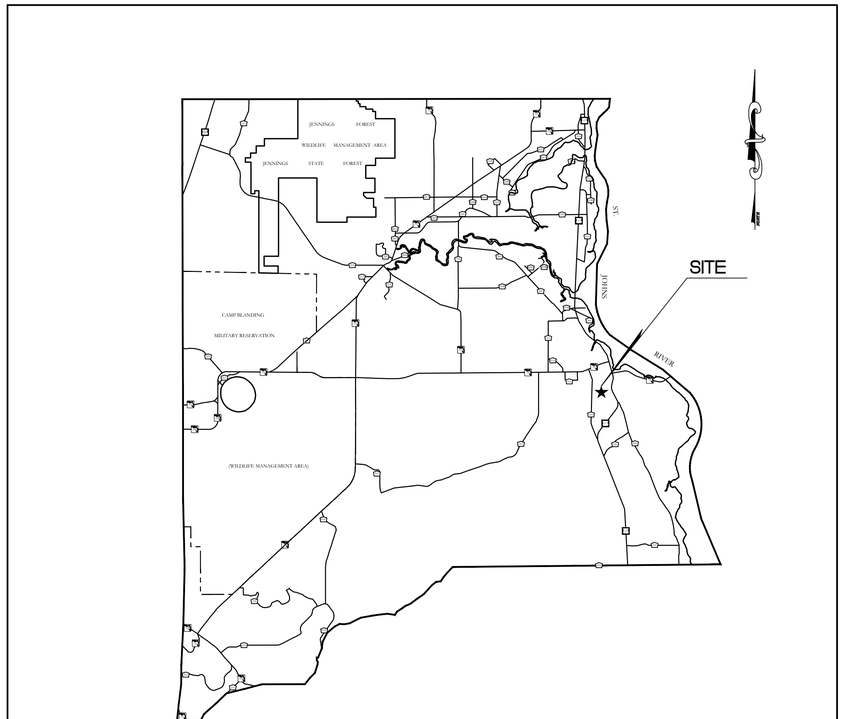
SITE ENGINEERING PLANS
For
ROOKERY - PH3A & 3B

Developed By:

D·R·HORTON® DHI Listed NYSE
America's Builder

Project No. : 2008-499-3



VICINITY MAP - CLAY COUNTY

SUBMITTAL SCHEDULE

SUBMITTAL No.	DATE	MUNICIPALITY
1ST	8-23-24	COGCS/SJRWMD/CCUA
2ND	11-18-24	COGCS/CCUA
2ND	11-21-24	SJRWMD
3RD	3-24-25	COGCS
3RD	3-03-26	CCUA
4TH	3-03-26	COGCS
MODCP	5-15-26	COGCS/CCUA

Joshua M Benolken

Digitally signed by Joshua M Benolken
DN: CN=Joshua M Benolken, dnQualifier=A01410D0000019C3479334D0004769F, O=LIVE OAK ENGINEERING INC., C=US
Date: 2026.05.15 09:48:30-04'00'

ROOKERY - PH3A & 3B

Dunn & Associates, Inc.
CIVIL ENGINEERS / LAND PLANNERS
8647 Baypine Road Building 1, Suite 200
Jacksonville, Florida 32256
Phone: 363-8916 Fax: 363-8917
www.dunneng.com

JOSHUA M. BENOLKEN LICENSE No 93672 STATE OF FLORIDA PROFESSIONAL ENGINEER

This item has been digitally signed and sealed by Joshua M. Benolken, P.E. on 05/15/2026 adjacent to the seal. Signature must be verified on any electronic copies

GLEN R. WIEGER ENGINEER NO. 61419 | JOSHUA M. BENOLKEN ENGINEER NO. 93672 | DAVID F. PEIGLER ENGINEER NO. 44100

CITY OF GREEN COVE SPRINGS GENERAL NOTES

GENERAL

1. CITY OF GREEN COVE SPRINGS DEPARTMENT OF ENGINEERING REQUIRES TWENTY-FOUR HOURS(24-HR) NOTICE ON ALL MEETINGS AND OR TESTING PROCEDURES.
2. CONSTRUCTION WARNING SIGNS ARE TO BE POST MOUNTED AND ERECTED BEFORE CONSTRUCTION CAN COMMENCE. THESE AND ALL TRAFFIC CONTROL DEVICES SHALL FOLLOW THE STANDARDS SET FORTH BY THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS AND DETAILS.
3. ALL CONSTRUCTION PROJECTS 1 ACRE OR MORE IN SIZE SHALL BE REQUIRED TO ABIDE BY THE PROVISIONS OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION (NPDES) PERMIT. THE OWNER OR CONTRACTOR IS RESPONSIBLE FOR PREPARING THE STORMWATER POLLUTION PREVENTION PLAN (SWPP) AND SUBMITTING THE NPDES "NOTICE OF INTENT" (NOI) AND "NOTICE OF TERMINATION" (NOT) TO THE EPA OR LOCAL STATE AGENCY HAVING JURESDICTION OVER THE NPDES PROGRAM. THE CONTRACTOR SHALL KEEP ONSITE COPIES OF THE SWPP, NOI, AND WATER MANAGEMENT DISTRICT PERMITS.
4. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO RECOGNIZE AND ABIDE BY ALL OSHA SAFETY STANDARDS.
5. ALL DISTURBED CITY OF GREEN COVE SPRINGS RIGHTS-OF-WAY SHALL BE SODDED TO THE DISCRETION AND APPROVAL OF THE CLAY COUNTY ENGINEERING DIVISION.
6. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO EXCAVATION AND TAKE ALL MEASURES NECESSARY TO PROTECT UTILITIES DURING CONSTRUCTION. SHOULD ANY UTILITY LINE OR COMPONENT BECOME DAMAGED OR REQUIRE RELOCATION THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE RESPONSIBLE UTILITY COMPANY, THE ENGINEER, AND THE COUNTY.

CALL BEFORE YOU DIG
1-800-432-4770
&
904-269-6359

- CALL 800-432-4770 TWO FULL BUSINESS DAYS BEFORE DIGGING. CALL 10 DAYS BEFORE DIGGING WHEN DIGGING UNDER WATER.
- CALL 904-269-6359 (CITY OF GREEN COVE SPRINGS SIGNAL & MAINTENANCE DIVISION) TWO FULL DAYS BEFORE DIGGING.
- WAIT THE REQUIRED TIME FOR BURIED UTILITIES TO BE LOCATED AND MARKED.
- PROTECT THE MARKS DURING YOUR PROJECT. IF MARKS ARE DESTROYED, CALL AGAIN.
- DIG SAFELY, USING EXTREME CAUTION WHEN DIGGING WITHIN 24 INCHES ON EITHER SIDE OF THE MARKS TO AVOID HITTING THE BURIED UTILITY LINES.

7. BEFORE WORKING IN EXISTING COUNTY RIGHTS-OF-WAY, THE CONTRACTOR SHALL BE REQUIRED TO OBTAIN A RIGHT-OF-WAY PERMIT. THE PERMIT CAN BE OBTAINED AT THE CITY OF GREEN COVE SPRINGS ENGINEERING DIVISION, 477 HOUSTON STREET, 3RD FLOOR, GREEN COVE SPRINGS, FLORIDA.
8. ALL SWALE SECTIONS AND PONDS ARE TO BE SODDED WITHIN 15 DAYS OF THEIR FINAL GRADING.
9. ANY OFFSITE SWALES OR DITCHES IMPACTED BY THE DEVELOPMENT, THE CONTRACTOR SHALL RE-GRADE AND RESTORE, TO OBTAIN POSITIVE DRAINAGE.
10. A COPY OF THE CONTRACTORS GENERAL LICENSE AND OR UNDER GROUND UTILITY LICENSE SHALL BE PROVIDED AT THE TIME OF THE PRE-CONSTRUCTION CONFERENCE.
11. ANY APPLICABLE SAINT JOHNS RIVER WATER MANAGEMENT DISTRICT (SJRWMD), FDEP (GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES, ARMY CORP OF ENGINEERS, AND A FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) PERMITS SHALL BE PROVIDED TO THE COUNTY BY THE PRE-CONSTRUCTION CONFERENCE. NO WORK SHALL BEGIN WITHOUT ALL APPLICABLE PERMITS ON FILE.
12. THE CONTRACTOR MUST OBTAIN APPROVAL FROM THE SAINT JOHNS RIVER WATER MANAGEMENT DISTRICT (SJRWMD) BEFORE THE COUNTY WILL ACCEPT THE PROJECT.
13. ALL STORM PIPES SHALL BE VIDEOED PRIOR TO FINAL INSPECTION AND ALL DATA SHALL BE RECORDED IN HIGH QUALITY DVD FORMAT WITH SOUND OR ANY EQUIPMENT APPROVED BY THE ENGINEERING DIVISION (REF. FDOT SSRBC LATEST EDITION).
14. THERE SHALL BE A MINIMUM FIVE (5) DAYS NOTICE GIVEN FOR SCHEDULING THE FINAL INSPECTION.
15. AT THE FINAL INSPECTION A LETTER OF COMPLIANCE WILL NEED TO BE FILLED OUT AND SIGNED BY THE STATE OF FLORIDA REGISTERED PROFESSIONAL ENGINEER OF RECORD FOR THE PROJECT. THE LETTER SHALL STATE THAT THE PROJECT HAS BEEN BUILT IN ACCORDANCE OF THE APPROVED DESIGN PLANS AND OTHER AGENCY PERMITS.
16. ALL SOIL AND DEBRIS TRACKED OUT OF THE PROJECT SHALL BE CLEANED IN ACCORDANCE WITH THE APPROVED SWPPP OR AT THE DISCRETION OF THE CITY OF GREEN COVE SPRINGS ENGINEERING DIVISION.
17. PRIOR TO ANY INSPECTION OR TESTING, ALL PIPE LINE, STRUCTURES, ROADWAY, ETC. SHALL BE CLEANED.

EROSION CONTROL:

18. PURSUANT TO COMPREHENSIVE PLAN POLICY 9: 1 OF THE CONSERVATION ELEMENT, THE USE OF ONE OR MORE EROSION CONTROL MEASURES AS REQUESTED BY THE CITY OF GREEN COVE SPRINGS ENGINEERING DIVISION, SHALL BE USED DURING CONSTRUCTION. THESE WILL BE, BUT NOT LIMITED TO, ITEMS SUCH AS TEMPORARY GRASS COVER, SEDIMENT BASINS OR PONDS, MULCHING, TEMPORARY FENCES, DIVERSION CHANNELS, AND HAY BALES.
19. PURSUANT TO COMPREHENSIVE PLAN POLICY 9: 1 OF THE CONSERVATION ELEMENT, SCHEDULING OF CONSTRUCTION SHALL BE GIVEN SPECIAL CONSIDERATION TO MINIMIZE EXPOSURE OF BARE SOIL. THE CONTRACT WILL FORMULATE ACONSTRUCTION SCHEDULE TO BE GIVEN TO THE COUNTY REPRESENTATIVE.
20. THE GOVERNING PUBLICATIONS FOR EROSION CONTROL ARE CURRENT FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS, INDEX 100-105, CURRENT FDOT STD. SPEC. FOR ROADWAY & BRIDGE CONST., SECTION 104, AND NPDES STORMWATER AND EROSION CONTROL MANUAL LATEST EDITION.
21. THE CONTRACTOR SHALL CHECK EACH DAY TO INSURE THAT ALL EROSION CONTROL DEVICES ARE IN PLACE AND WORKING PROPERLY.
22. ALL EROSION CONTROL MEASURES SHALL BE IN COMPLIANCE WITH THE RULES, REGULATIONS AND STANDARDS OF THE SAINT JOHNS RIVER WATER MANAGEMENT DISTRICT, THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, AND THE UNITED STATES ARMY CORP OF ENGINEERS AND CITY OF GREEN COVE SPRINGS REGULATIONS AND ORDINANCES.
23. THE CONTRACTOR SHALL TAKE WHATEVER MEANS NECESSARY TO PREVENT THE EROSION OF SOIL AND DEPOSITION OF SEDIMENT ON ADJACENT AND DOWNSTREAM PROPERTIES.
24. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF CONSTRUCTION. SEDIMENT CONTROL CONSISTS OF SILT FENCING, HAY BALES, AND FLOATING TURBIDITY BARRIERS PER FDOT INDEX NO. 102 & 103. EROSION CONTROL CONSISTS OF SEEDING AND MULCHING, SODDING, WETTING SURFACES, PLACEMENT OF COARSE AGGREGATE, TEMPORARY PAVING.
25. THE CONTRACTOR SHALL RESPOND TO EROSION AND SEDIMENT CONTROL MAINTENANCE WITHIN 24-HOURS OF BEING INFORMED BY CITY OF GREEN COVE SPRINGS, UNLESS THE SITUATION REQUIRES AN IMMEDIATE RESPONSE. THE CONTRACTOR WILL THEN RESPOND IMMEDIATELY AFTER NOTIFICATION BY THE COUNTY . THE CONTRACTORS EROSION INSPECTOR SHALL BE A QUALIFIED STORMWATER MANAGEMENT INSPECTOR BY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION.
26. THE CONTRACTOR SHALL BE REQUIRED TO INCORPORATE PERMANENT EROSION CONTROL MEASURES AT THE EARLIEST PRACTICAL TIME SO AS TO MINIMIZE THE NEED FOR TEMPORARY CONTROLS.
27. THE EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE PLANS ARE MINIMUM REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADDITIONAL EROSION CONTROL MEASURES AS DETERMINED BY THE COUNTY OR THE CONTRACTOR TO INSURE QUALITY CONTROL.
28. ALL DISTURBED AREAS SHALL BE GRASSED WITHIN 7 DAYS OF THE INITIAL DISTURBANCE. TYPES OF GRASSING SHALL BE AS FOLLOWS: SODDING IS REQUIRED FOR AROUND ALL DRAINAGE STRUCTURES, RETENTION/DETENTION AREAS, SWALES, DITCHES, AND WHERE 4:1 SLOPES ARE EXCEEDED. SEED AND MULCH MAY BE USED AT ALL OTHER LOCATIONS UNLESS SPECIFICALLY CALLED OUT FOR ON THESE DRAWINGS. THERE SHALL BE A STANDING ROW OF GRASS AT THE TIME OF FINAL ACCEPTANCE. IF SEED AND MULCH HAS BEEN USED AND HAS NOT TAKEN TO, SOD WILL BE REQUIRED FOR ESTABLISHED GRASS.
29. THE CONTRACTOR SHALL INSPECT AND REPORT EROSION AND SEDIMENT CONTROL METHODS EVERY WEEK AND AFTER ½ INCH OF RAIN DURING CONSTRUCTION. THE CONTRACTOR SHALL REMOVE ANY SEDIMENT BUILD UP, REPAIR OR REINSTALL ANY CONTROL MEASURES.

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DRAINAGE STRUCTURES & PIPE INSTALLATION

30. THE COUNTY REQUIRES BACKGROUND TESTING OF LOCAL WATERWAYS AND ADDITIONAL PERIODIC TESTING DURING CONSTRUCTION FOR WATER QUALITY AND CONFORMITY WITH CITY OF GREEN COVE SPRINGS STANDARDS.
31. THE GOVERNING PUBLICATIONS FOR PIPE ARE THE CURRENT FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS, INDEX 205 AND THE CURRENT FDOT STD. SPEC. FOR ROADWAY & BRIDGE CONST. SECTION 430.
32. THE GOVERNING PUBLICATIONS FOR INLETS, JUNCTION BOXES AND MANHOLES ARE THE CURRENT FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS, INDEX 201, 209, 215 AND THE CURRENT FDOT STD. SPEC. FOR ROADWAY & BRIDGE CONST. SECTION 425.
33. ALL JOINTS OF PIPE REGARDLESS OF MATERIAL TYPE SHALL BE WRAPPED WITH FABRIC FILTER CLOTH PER FLORIDA DEPARTMENT OF TRANSPORTATION INDEX NUMBER 199, TYPE D-3, A.O.S. 70-100. THE FABRIC SHALL BE INSTALLED IN ACCORDANCE WITH FDOT INDEX NUMBER 280. THE CONTRACTOR WILL PROVIDE A MINIMUM 12" OVERLAP IN THE FABRIC.
34. ALL STORM SEWER PIPES ARE TO BE STEEL REINFORCED CONCRETE PIPE (SRCP) UNLESS OTHERWISE NOTED ON THESE DRAWINGS. ROUND CONCRETE PIPE SHALL COMPLY WITH ASTM C76. ELLIPTICAL PIPE SHALL COMPLY WITH ASTM C507. PIPE JOINTS AND O RING GASKETS SHALL COMPLY WITH ASTM C443.
35. ALL STORM SEWER PIPES SHALL BE SUBJECTED TO LEAKAGE TESTING AND SHALL BE VIDEOED/ TV AFTER LIMEROCK HAS BEEN COMPACTED AND PRIOR TO THE FINAL INSPECTION.
36. ALL STORM SEWER PIPES SHALL BE CUT FLUSH WITH THE INTERIOR WALL OF ANY TYPE MANHOLE OR CURB AND DITCH BOTTOM INLETS.
37. IF THE APPROVED DESIGN REQUIRES THE INLET OR STORM RUN BE SURCHARGED, ALL INLETS SHALL BE INSPECTED BEFORE BEING EXPOSED TO THE SYSTEM.
38. MITERED END SECTIONS SHALL MEET THE REQUIREMENTS UNDER THE CURRENT FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS, INDEX 272 & 273.
39. NO MANHOLE SHALL BE PLACED WITHIN 2.5' OF THE CURB.
40. NO BRICK ADJUSTMENT SHALL BE ALLOWED FOR MANHOLES UNDERNEATH THE PAVEMENT.
41. THE MAXIMUM THRESHOLD FOR MANHOLE ADJUSTMENT UNDERNEATH THE ROADWAY SHALL BE BETWEEN 0 TO 4".
42. FINAL PIPE INSPECTION IN THE RIGHT-OF-WAY OR COUNTY'S EASEMENT: AFTER THE FINAL BASE COURSE OPERATION, THE CONTRACTOR SHALL DEWATER AND VIDEO THE PIPE/CULVERT; THE COUNTY WILL ONLY REVIEW THE VIDEO DATA POST BASE COMPACTION AND SUPPLIED BY THE CONTRACTOR/DEVELOPER, AND THE TESTS AND DVD MUST MEET SECTION 430 OF THE LATEST EDITION OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

SIGNAGE & PAVEMENT MARKINGS

43. ALL SIGNS AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH MANUEL OF UNIFORM TRAFFIC CONTROL DEVICES AND THE LATEST IMPLEMENTED ADDITION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) STANDARDS INDEX NUMBERS: 9535, 11860, 11862, 11865, 17302, 17346 AND 17349.
44. ALL FINAL PAVEMENT MARKINGS WITHIN THE RIGHTS-OF-WAY SHALL BE THERMOPLASTIC.
45. ALL SIGNS SHALL BE ON A TEN-FOOT (10') POLE A MINIMUM SEVEN FEET (7') FROM THE GROUND.
46. STREET SIGNS SHALL BE MOUNTED WITH TEE CAPS.
47. STREET SIGNS SHALL BE A SIX INCH (6") WIDE WITH GREEN BACKINGS AND WHITE LETTERS AND BORDERING.
48. STOP SIGNS SHALL MEET THE MINIMUM SIZE REQUIREMENTS OF THE MUTCD.
49. STOP SIGNS ARE TO BE PLACED FOUR FEET (4') FROM BACK OF CURB, FOUR FEET (4') BEHIND CROSSWALKS AND IN THE RIGHT HAND SIDE OF THE ROAD.
50. ALL REGULATORY SIGNS SHALL BE BLACK AND WHITE. ALL CONSTRUCTION WARNING SIGNS SHALL BE ORANGE AND BLACK. ALL WARNING SIGNS SHALL BE YELLOW AND BLACK. ALL NO PARKING AND STOP SIGNS SHALL BE RED AND WHITE.
51. STOP BARS SHALL BE TWENTY-FOUR INCHES (24") WIDE AND LANE WIDTH. ALL STOP BARS SHALL BE THERMOPLASTIC.
52. ALL SIGNS MUST MEET FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) STANDARDS FOR ENGINEERING GRADE SIGN FACES IN REFLECTIVITY.
53. FOR COUNTY MAINTAINED ROADS, STREET SIGNS SHALL BE COLORED WITH A GREEN BACKGROUND AND WHITE LETTERING. FOR PRIVATE ROADS, THE SIGN SHALL BE A WHITE BACKGROUND WITH GREEN LETTERING.
54. ALL PAVEMENT MARKINGS REQUIRE LAYOUT APPROVAL BY CITY OF GREEN COVE SPRINGS.

SIDEWALKS

55. THE GOVERNING PUBLICATIONS FOR SIDEWALK ARE THE CURRENT FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS, INDEX 304-310 AND THE CURRENT FDOT STD. SPEC. FOR ROADWAY & BRIDGE CONST. SECTION 522.
56. SIDEWALKS ARE A MINIMUM OF 5' IN WIDTH FOR A LOCAL ROAD AND 6' IN WIDTH FOR A RESIDENTIAL COLLECTOR. ALL OTHER ROADWAY CLASSIFICATIONS SHALL REFER TO THE DETAILS HEREIN. IN NO CASE SHALL THE SIDEWALK BE LESS THAN 5' WITHOUT WRITTEN APPROVAL FROM THE ENGINEERING DIVISION.
57. ALL SIDEWALKS THAT ARE NOT IN FRONT OF A BUILD ABLE LOT, SHALL BE INSTALLED PRIOR TO THE FINAL INSPECTION.
58. PEDESTRIAN CROSSING/HANDICAP RAMPS SHALL BE INSTALLED WHEREVER THE SIDEWALK MEETS THE CURB. THE RAMPS SHALL BE IN ACCORDANCE WITH FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD INDEX NUMBER 304. ALL ADA RAMPS SHALL BE INSTALLED PRIOR TO FINAL ACCEPTANCE UNLESS OTHERWISE APPROVED BY THE ENGINEERING DIVISION.
59. WHETHER DEPICTED ON THE PLANS OR NOT, A SIDEWALK IS TO BE INSTALLED AT THE SUBDIVISION ENTRANCE RUNNING
60. PARALLEL TO THE RIGHT OF WAY FOR THE EXTENT OF THE PROPERTY.
61. SIDEWALKS ARE TO BE PLACED, AT A MINIMUM, 3' FROM THE PROPERTY LINE OR AS OTHERWISE APPROVED BY THE ENGINEERING DIVISION.

MAINTENANCE OF TRAFFIC

62. THE GOVERNING PUBLICATIONS FOR MAINTENANCE OF TRAFFIC ARE THE CURRENT FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS, INDEX 600 AND THE CURRENT FDO STD. SPEC. FOR ROADWAY & BRIDGE CONST., SECTION 102, AND THE LATEST EDITION OF THE MUTCD.
63. WHEN FDOT STANDARD INDEXES DO NOT APPLY AND HAULING IS NECESSARY FOR THE CONSTRUCTION OF THE SITE, ADDITIONAL MOT MAYBE NECESSARY. INSTALLATION OF "TRUCKS ENTERING AND LEAVING HIGHWAY" SIGNS SHALL BE INSTALLED AND MAINTAINED THROUGHOUT THE LIMITS OF THE CONSTRUCTION SCHEDULE.

AS-BUILT REQUIREMENTS FOR PAVING AND DRAINAGE

GENERAL

SUBMIT TWO (2) SIGNED AND SEALED SETS OF PRINTS AND ONE DIGITAL COPY (AUTOCAD FORMAT; **PLEASE DO NOT USE REFERENCE FILES**; WITH THE DESIGN INFORMATION (ELEVATIONS, PIPE LENGTHS, STATIONING, ETC.) LINED THROUGH ~~(2640')~~ AND THE AS-BUILT INFORMATION PLACED ADJACENT TO IT.

THE FIRM OR LICENSED SURVEYOR SHALL USE THE ORIGINAL PAVING AND DRAINAGE SHEET(S)) SPECIFICALLY FOR AS-BUILT INFORMATION. THE DRAWING(S) ARE TO BE ON 24" X 36" SHEET(S) AND CONTAIN THE FOLLOWING IN ADDITION TO THE AS-BUILT INFORMATION:

- PROJECT NAME AS IT APPEARS ON THE PLAT
- PROJECT/DEVELOPMENT NUMBER
- STREET NAMES
- ALL COMMERCIAL SITES SHALL SHOW THE SITE PHYSICAL ADDRESS IN THE TITLE BLOCK
- DESIGN INFORMATION FOR ALL AS-BUILT INFORMATION PROVIDED LINED THROUGH
- NORTH ARROW
- SCALE
- SHOW AND LABEL ALL SURVEY-LINES USED FOR LOCATIONS
- THE WORDS "AS-BUILT" IN AT LEAST ONE-INCH HIGH LETTERS
- MATERIALS CERTIFICATION STATEMENT SIGNED BY THE CONTRACTOR
- SIGNED ENGINEER'S CERTIFICATION STATEMENT
- INFORMATION PERTAINING TO BENCHMARK(S) (LOCATION, ELEVATION, AND REFERENCE TYPE)
- SHOW **STATE PLANE COORDINATE (NAD. 83)**
- REFERENCES ON AT LEAST FOUR (4) BOUNDARY CORNERS AND ON ALL PRM(S) (ONE POSITION, TO BE KNOWN AS THE "NORTHING," SHALL GIVE THE POSITION IN A NORTH AND SOUTH DIRECTION; THE OTHER, TO BE KNOWN AS THE "EASTING," SHALL GIVE THE POSITION IN AN EAST AND WEST DIRECTION, REF. F.S CH. 177.151) FOR PLATS AND AS-BUILTS.

BENCHMARKS

PERMANENT BENCHMARKS ARE TO BE SITUATED AS TO **FACILITATE LOT GRADING** (I.E. TOP OF METAL CURB HOODS, MANHOLE RIMS, ETC.).

AT LEAST TWO (2) PERMANENT BENCHMARKS SHALL BE ESTABLISHED WITHIN A SUBDIVISION OR IN EACH PHASE OF A SUBDIVISION AND LOCATED SO THAT NO LOT IS MORE THAN ONE THOUSAND FEET (1,000') FROM A BENCHMARK. **PLEASE REFERENCE EACH BENCHMARK BY STATION.**

PAVING

STATIONS, OFFSETS, AND ELEVATIONS ON:

- CENTER-LINE OR PROFILE GRADE LINE
- TOP OF CURB
- GUTTER OR EDGE OF PAVEMENT (SPECIFY WHICH)
- BACK OF SIDEWALKS
- A MINIMUM OF EVERY 100 FEET AND AT THE FOLLOWING CHANGES IN VERTICAL AND HORIZONTAL ALIGNMENT:
- PVC, PC AND PVT
- LOW AND HIGH POINTS
- CURB RETURNS
- CENTERLINE INTERSECTIONS
- BEGIN AND END VALLEY GUTTER
- BEGIN AND END SUPERELEVATION TRANSITION
- BEGIN AND END FULL SUPERELEVATION
- BEGIN AND END ROADWAY TRANSITION
- GUTTER LINE (**CUL-DE-SAC EVERY 25'**)

DRAINAGE

LOCATION OF ALL DRAINAGE STRUCTURES. LOCATION SHOULD BE BY STATION AND OFFSET WHENEVER POSSIBLE, OTHERWISE STRUCTURES MUST BE TIED DOWN FROM AT LEAST TWO DIRECTIONS.

SIZES, LENGTHS, AND TYPES OF DRAINAGE PIPES INCLUDING UNDERDRAIN.

INFORMATION FOR ALL STRUCTURES TO INCLUDE:

- PIPE INVERT ELEVATIONS INCLUDING UNDERDRAIN
- TOP OR GRATE ELEVATIONS (SPECIFY WHICH)
- WEIR OR SLOT ELEVATIONS AND SIZES
- CROSS SECTIONS THROUGH ALL SWALE AND DITCH CONSTRUCTION A MINIMUM OF EVERY 25 FEET TO INCLUDE **ELEVATIONS** AND **LOCATIONS** OF THE CENTERLINE OR TOES OF SLOPE (SPECIFY WHICH) AND THE TOPS OF BANK.

INFORMATION FOR RETENTION / DETENTION BASINS TO INCLUDE:

- ELEVATIONS AND LOCATIONS ALONG THE TOP OF BANK A MINIMUM OF EVERY 100 FEET
- DATED ELEVATION OF THE WATER STAGE AT THE TIME OF AS-BUILT
- TIES FROM THE TOP OF BANK TO THE WATERS EDGE A MINIMUM OF EVERY 100 FEET
- ELEVATIONS ALONG THE BOTTOM OF BASIN (2 SHOTS PER AVERAGE POND ACREAGE)

INFORMATION FOR CONTROL STRUCTURE TO INCLUDE:

- LOCATION
- TOP ELEVATION
- WEIR OR SLOT ELEVATION AND SIZE
- ELEVATION AND SIZE OF DRAWDOWN ORIFICE
- LENGTH, SIZE, AND INVERTS (AT HIGH AND LOW POINTS) OF FILTER DRAIN
- INVERT OF OUTFALL PIPE

SHOW ALL DRAINAGE EASEMENTS, ENCROACHMENTS WITHIN THE EASEMENTS, AND ANY ENCROACHMENTS OF DRAINAGE OUTSIDE OF EASEMENTS.

SIGNAGE

THE LOCATION OF ALL STREET SIGNS SHALL BE SHOWN BY STATION AND OFFSET WHENEVER POSSIBLE, OTHERWISE, THE SIGNS MUST BE TIED DOWN FROM AT LEAST TWO DIRECTIONS.

ADDITIONAL NOTES

ALL PROPOSED ELEVATIONS SHALL BE CHECKED FOR APPROVAL; ADDITIONAL ELEVATIONS MAY BE REQUIRED TO CHECK FOR POSITIVE DRAINAGE.

ALL CUL-DE-SAC CURBING SHALL BE SURVEYED EVERY 25'.

SUBMIT THE BLUE-LINE OR BLACK-LINE (**THE FINAL SET MUST BE SIGNED AND SEALED BY A PROFESSIONAL LAND SURVEYOR, LICENSED BY THE STATE OF FLORIDA**) WITH THE CAD DISK FIVE (5) DAYS PRIOR TO SCHEDULING THE FINAL INSPECTION.

WATER MANAGEMENT APPROVALS ARE REQUIRED PRIOR TO FINAL ACCEPTANCE.

AS-BUILTS SHALL BE SIGNED IN, IF REVISIONS ARE REQUIRED, THE COMPANY WILL BE NOTIFIED TO PICK THEM UP AND SIGN THEM OUT. ONCE REVISIONS HAVE BEEN MADE, THE DOCUMENTS SHALL BE SIGNED BACK IN. **THE FILES ON THE CAD DISK SHOULD REFLECT THE SITE WITHOUT ADDITIONAL EDITING.**

REVISED - 12/9/15

CITY OF GREEN COVE SPRINGS SPECIFICATIONS

PROJECT DATUM ELEVATION

1. PROJECT DESIGN IS BASED ON NAVD 88 DATUM SEE PLANS FOR BENCH MARK ELEVATION & LOCATION(S)

CONSTRUCTION ENTRANCE

2. A STABILIZED CONSTRUCTION ENTRANCE IS REQUIRED WITH ALL DEVELOPMENTS. WHERE THE DEVELOPMENT IS BUILT IN PHASES, A SECONDARY CONSTRUCTION ENTRANCE WILL BE REQUIRED THAT DOES NOT ALLOW CONSTRUCTION EQUIPMENT TO ACCESS THROUGH THE EXISTING DEVELOPMENT IF POSSIBLE.

PUBLIC SAFETY NOTES

3. A BLUE, ALL-DIRECTIONAL HIGHWAY-STYLE REFLECTIVE MARKERS SHALL BE PROVIDED ON ALL ROADWAYS, ALLEYS, ACCESS ROADS, AND ALL PAVED AREA IN FRONT OF EACH HYDRANT. SAID MARKERS SHALL BE LOCATED IN THE CENTER OF TRAVEL LANE ON THE SAME SIDE AS THE HYDRANT. THESE MARKERS SHALL BE IN PLACE AT THE TIME OF THE FINAL INSPECTION OR APPROVAL.
4. A DISK SHALL BE PROVIDED TO THE PUBLIC SAFETY DEPARTMENT, IN AUTOCAD FORMAT, SHOWING THE LOCATION OF ALL FIRE HYDRANTS BEFORE FINAL APPROVAL.

EXCAVATION & EMBABNKMENTS NOTES

5. THE GOVERNING PUBLICATIONS FOR ROADWAY EXCAVATION AND EMBANKMENT ARE THE CURRENT FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS, INDEXES 500-505 AND SECTION 120 OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION LATEST EDITION. ALL SOILS SHALL BE CLASSIFIED PER ASSHTO SOIL CLASSIFICATION SYSTEM.
6. THE CONTRACTOR IS TO ROUGH EXCAVATE AND GRADE ANY PROPOSED PONDS AT THE START OF THE SITE GRADING. THE CONTRACTOR WILL DIRECT SITE RUNOFF TO THE PONDS TO MINIMIZE RUNOFF TO OFFSITE AREAS. THESE PONDS WILL NOT BE ALLOWED TO DISCHARGE PRIOR TO THE GRASSING AND INSPECTION TO MAKE SURE THE WATER QUALITY IS ACCEPTABLE.
7. CONTRACTOR SHALL PROVIDE BARRIERS, WARNING LIGHTS AND OTHER PROTECTIVE DEVICES AT ALL EXCAVATIONS..
8. SIDEWALKS, ROADS, STREETS, OR ANY OTHER TYPE OF PEDESTRIAN OR VEHICULAR PATHWAYS SHALL NOT BE BLOCKED OR OBSTRUCTED BY EXCAVATED MATERIALS OR THE EXCAVATED TRENCH UNLESS APPROVED BY CITY OF GREEN COVE SPRINGS.
9. ALL UNSUITABLE MATERIAL SHALL BE REMOVED THREE FEET (3') BEYOND THE BACK OF THE CURB AND TWO FEET (2') BELOW THE BOTTOM OF THE 12" STABILIZED SUBGRADE. IT SHALL BE THE DETERMINATION OF CITY OF GREEN COVE SPRINGS IF MORE EXCAVATION SHALL BE REQUIRED DUE TO SOIL CONDITION EVALUATED IN THE FIELD.

TYPE "B" STABILIZED SUBGRADE

10. THE GOVERNING PUBLICATIONS FOR SUB-GRADE ARE THE CURRENT FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS, INDEX 505 AND THE CURRENT FDOT STD. SPEC. FOR ROADWAY & BRIDGE CONST. SECTION 160 AND SECTION 914.
11. LIMEROCK BEARING RATIOS FOR SUBGRADE SHALL BE A MINIMUM OF 40 WITH NO UNDER TOLERANCE.
12. ALL STABILIZED SUB-GRADE SHALL MEET FDOT TYPE "B" STABILIZATION AS DEFINED BY THE STANDARD SPECIFICATIONS.

BASE COURSE

13. THE GOVERNING PUBLICATIONS FOR BASE MATERIALS ARE THE CURRENT FDOT STD. SPEC. FOR ROADWAY & BRIDGE CONST.
14. THE LIMEROCK BEARING RATIO FOR BASE COURSE IS A MINIMUM OF 100 WITH NO UNDER TOLERANCE.
15. ALL LIMEROCK BASE COURSES SHALL BE PRIMED BEFORE PAVING. IF THE LIMEROCK IS NOT PAVED WITHIN ONE (1) DAY OF THE PRIMING, THE BASE SHALL BE REQUIRED TO BE COVERED WITH SAND.
16. ANY CONTAMINATED BASE MATERIAL SHALL BE REMOVED. ALL BASE MATERIAL SHALL BE IN ITS VIRGIN STATE.

ASPHALT

17. THE GOVERNING PUBLICATIONS FOR ASPHALT ARE FDOT 2002 ROADWAY AND TRAFFIC DESIGN STANDARDS OR THE CURRENT EDITION, INDEX 513 AND FDOT 2000 STD. SPEC. FOR ROADWAY & BRIDGE CONST OR CURRENT EDITION. SECTION 330, 331, AND 333.
18. THE MINIMUM ASPHALT THICKNESS FOR A LOCAL ROAD IS 1 ½"WITH NO UNDER TOLERANCE.
19. THE MINIMUM ASPHALT THICKNESS FOR A RESIDENTIAL COLLECTOR IS 2" WITH NO UNDER TOLERANCE.
20. THE ASPHALT SHALL BE CORED FOR THICKNESS…IF HOWEVER THE COUNTY'S REPRESENTATIVE IS PRESENT AT POUR AND FEELS COMFORTABLE WITH THE REQUIREMENTS THEN HE OR SHE MAY WAVE THIS POLICY WITH THE DIRECTION OF THE CONSTRUCTION PROJECT MANAGER.
21. THE MAXIMUM RECYCLED RAP ALLOWED IN ASPHALT MIXES IS 20%.

UNDERDRAIN

22. THE GOVERNING PUBLICATIONS FOR UNDERDRAIN ARE THE CURRENT FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS, INDEX 286 AND THE CURRENT FDOT STD., SPEC. FOR ROADWAY & BRIDGE CONST. SECTION 440.
23. ALL UNDERDRAIN LINES SHALL HAVE A FORTY-FIVE DEGREE CLEAN OUT AT TWO HUNDRED FEET INTERVALS AND AT THE END OF THE PIPE RUN. THE CURB SHALL BE MARKED WITH TEAL OR HUNTER GREEN PAINT AS TO THE LOCATION OF THE CLEAN OUT.
24. ALL UNDERDRAIN FILTER MATERIAL SHALL BE FULLY WRAPPED WITH FILTER CLOTH. THE COUNTY WILL NOT PERMIT ANY ½ OR ¾ WRAPPED PIPING.
25. UNDERDRAIN SHALL BE PLACED, AT A MINIMUM, 2' FROM BACK OFF CURBING.
26. A 20' STUB OUT IS REQUIRED FOR ALL DRAINAGE STRUCTURES. ALL STUB OUTS SHALL BE CAPPED WITH AN UNDERDRAIN CLEAN OUT.
27. NO TREE ROOT BARRIER OR ROOTS SHALL BE PLACED WITHIN A HORIZONTAL DISTANCE OF 2' FROM THE UNDERDRAIN.
28. IF UNSUITABLE MATERIAL IS FOUND WITHIN THE LIMITS OF THE ROAD OR IF MATERIAL IS HAULED IN FOR ROADWAY FILL AT A DEPTH GRATER THAN ONE-FOOT (1') THEN THE ENTIRE ROADWAY SHALL BE UNDERDRAINED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT AND INSTALLED PER THE APPROVED CITY OF GREEN COVE SPRINGS DETAIL.

CURB & MISCELLANEOUS CONCRETE

29. THE GOVERNING PUBLICATIONS FOR CURB ARE FDOT 2004 ROADWAY AND TRAFFIC DESIGN STANDARDS, INDEX 300-304 AND FDOT 2004 STD. SPEC. FOR ROADWAY & BRIDGE CONST. SECTION 520.
30. THE CURB SHALL BE CHECKED FOR FLOW AT ANY STAGE OF THE PROJECT. A WATER TRUCK IS TO BE PROVIDED AT THE PRE- FINAL INSPECTION IN ORDER TO CHECK FLOW FOR PROPER DRAINAGE.

ROOKERY – PH3A & 3B

REVISIONS			
NO.	DATE	DESCRIPTION	BY:

DESIGNED BY:	MR
DRAWN BY:	MR
CHECKED BY:	VJD/GRW
SCALE:	N/A
DATE:	5/6/2026
PROJ. NO.:	2008-499-3

Dunn & Associates, Inc.
CIVIL ENGINEERS

ABBREVIATIONS

ABBREVIATION	DESCRIPTION
A	ARC
AC	ACRE
B.O.C.	BACK OF CURB
BFP	BACK FLOW PREVENTER
BLDG	BUILDING
BM	BENCHMARK
BOT.	BOTTOM
℄	CENTERLINE
C&G	CURB AND GUTTER
C.I.	CURB INLET
C.O.	CLEAN OUT
CB	CHORD BEARING
CH	CHORD
CMP	CORRUGATED METAL PIPE
CONC.	CONCRETE
CONN.	CONNECT
CONST	CONSTRUCT
CONT.	CONTINUATION
COORD.	COORDINATE
DBL. C.I.	DOUBLE CURB INLET
D.E.	DRAINAGE EASEMENT
DHW	DESIGN HIGH WATER
D.I.P.	DUCTILE IRON PIPE
△	DELTA
E	EAST
E.O.P.	EDGE OF PAVEMENT
EL.	ELEVATION
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE
ESMT	EASEMENT
EXIST	EXISTING
F.F.	FINISHED FLOOR
FH	FIRE HYDRANT
FH-LS	LIMITED SPACE FIRE HYDRANT
F.L.	FLOW LINE
FM	FORCE MAIN
F.P.	FIRE PROTECTION MAIN
FV	FLUSHING VALVE
GV	GATE VALVE
HDPE	HIGH DENSITY POLYETHYLENE
HDWL	HEADWALL
HWL	HIGH WATER LEVEL
INV.	INVERT
L	LENGTH
LF	LINEAR FEET
M.E.S.	MITERED END SECTION
MAX	MAXIMUM
MH	MANHOLE
MIN	MINIMUM
N	NORTH
N.I.C.	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
NWL	NORMAL WATER LEVEL
ℙ	PROPERTY LINE
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVE
PI	POINT OF INTERSECTION
P.I.P.	POUR IN PLACE
POB	POINT OF BEGINNING
PRC	POINT OF REVERSE CURVE
PT	POINT OF TANGENCY
P.U.D.E.	PRIVATE UNOBSTRUCTED DRAINAGE EASEMENT
PVC	POINT OF VERTICAL CURVATURE
PVI	POINT OF VERTICAL INFLECTION
PVT	POINT OF VERTICAL TANGENCY
PVMT	PAVEMENT
PVC	POLYVINYL CHLORIDE PIPE
R	RADIUS
R.P.	RADIUS POINT
R/W	RIGHT OF WAY
RCP	REINFORCED CONCRETE PIPE
RED.	REDUCER
RPZBFP	REDUCED PRESSURE ZONE BACKFLOW PREVENTER
S	SOUTH
SAN.	SANITARY
SEP	SEPARATION
SL	SLOPE
S.P.	SAMPLE POINT
SHT	SHEET
SS	SANITARY SEWER
STA	STATION
STB	STAKED TURBIDITY BARRIER
SWMF	STORM WATER MANAGEMENT FACILITY
T.O.B.	TOP OF BANK
SWR	SEWER
T.O.C.	TOP OF CURB
TRI C.I.	TRIPLE CURB INLET
TYP.	TYPICAL
U.A.D.E.	UNOBSTRUCTED ACCESS & DRAINAGE EASEMENT
U.D.E.	UNOBSTRUCTED DRAINAGE EASEMENT
U.E.	UTILITY EASEMENT
V.C.	VERTICAL CURVE
W	WEST
WM	WATER MAIN

GEOMETRY LEGEND

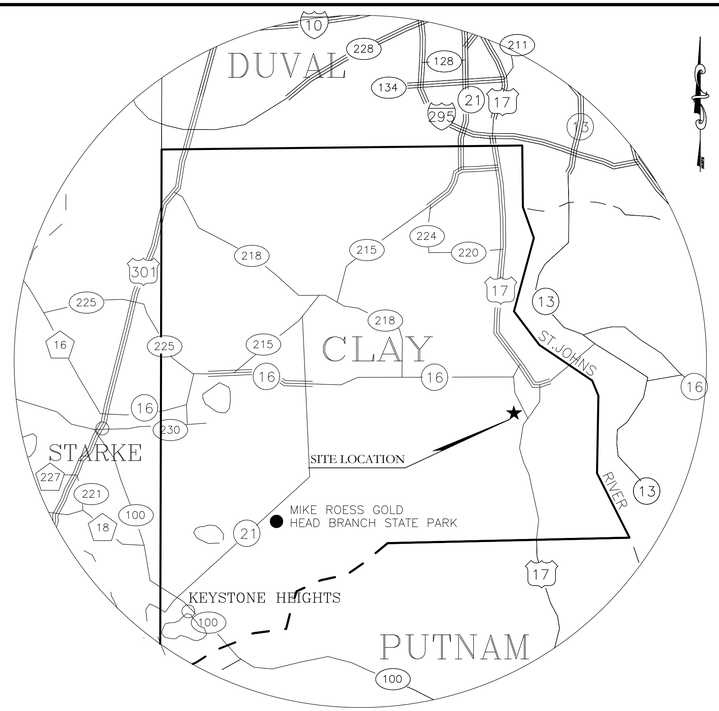
DESCRIPTION	SYMBOL
LINE NUMBER	L1
CURVE NUMBER	C1
BASELINE	℄
STATION NUMBER	12+00
LOT NUMBER	58
BUILDING NUMBER	2
NUMBER OF PARKING SPACES	5

PAVING AND DRAINAGE LEGEND

DESCRIPTION	SYMBOL
STORM PIPE	
UNDER DRAIN	–UD–
STORM WATER INLET	
CURB INLET	
MITERED END SECTION	
HEADWALL	
STORM SEWER MANHOLE	
STORM WATER STRUCTURE NUMBER	S-500
EXISTING SPOT ELEVATION	(28.5)
PROPOSED SPOT ELEVATION	28.7
EXISTING CONTOUR ELEVATION	–21–
PROPOSED CONTOUR ELEVATION	12
DRAINAGE DIVIDE	
DRAINAGE AREA (ACRES)	DA = 0.56 Ac
DRAINAGE FLOW DIRECTION	
SWALE FLOW DIRECTION	
ROAD SLOPE	0.3%
SILT FENCE	
STAKED TURBIDITY BARRIER	STB
BENCH MARK ELEVATION	BM23.75
PROPOSED ROADWAY ELEVATION	10.00

WATER AND SEWER LEGEND

DESCRIPTION	SYMBOL
PROPOSED WATER MAIN W/SIZE	W
EXISTING WATER MAIN W/SIZE	W
PROPOSED GATE VALVE W/BOX & COVER	
EXISTING GATE VALVE W/BOX & COVER	
PROPOSED REDUCER/INCREASER	
PROPOSED FIRE HYDRANT W/VALVE, BOX COVER	
PROPOSED LIMITED SPACE FIRE HYDRANT W/VALVE, BOX COVER	
SINGLE WATER SERVICE	
FLUSHING VALVE	
PROPOSED SANITARY SEWER MAIN	S
EXISTING SANITARY SEWER MAIN	S
PROPOSED SANITARY SEWER MANHOLE	
EXISTING SANITARY SEWER MANHOLE	
SANITARY SEWER CLEAN OUT	C.O.
SANITARY SEWER SERVICE LATERAL	
SANITARY SEWER MANHOLE NUMBER	1
PROPOSED SANITARY SEWER FORCE MAIN	FM
EXISTING SANITARY SEWER FORCE MAIN	FM
EXIST. FIRE HYDRANT	
PROPOSED FIRE PROTECTION MAIN	FP
EXISTING FIRE PROTECTION MAIN	FP
REDUCED PRESSURE ZONE BACK FLOW PREVENTER W/BY-PASS METER	
REDUCED PRESSURE ZONE BACK FLOW PREVENTER	
WATER MAIN CROSSING TYPE	B
SAMPLE POINT(S.P.)	S.P.
END OF WATER MAIN PLUG	
DUAL WATER SERVICE	



VICINITY MAP
N.T.S.



LOCATION MAP
N.T.S.

INDEX OF SHEETS

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3	I-2	INDEX - LEGEND
4	I-3	INDEX - NOTES
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13	PRE-1	PRE DEVELOPMENT PLAN
14	PST-1	POST DEVELOPMENT PLAN
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58	UTC-1	CCUA UTILITY PLACEMENT DETAILS
59 - 63	PDD-1 - PDD-5	PAVING AND DRAINAGE DETAILS
64 - 65	SPP-1 - SPP-2	STORMWATER POLLUTION PREVENTION PLANS

ADDITIONAL PLANS

1-6	-	PUD Boundary Survey and Legal

P:\2008-499-3 THE ROOKERY PHASE 3\ENG PLANS\499 3 INDEX.DWG5/6/2026 2:23 PMMike Reilly

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8647 Baypine Road, Suite 200
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Phone: (904)363-8916 Fax: (904)363-8917
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ROOKERY – PH3A & 3B

FOR:
D.R. HORTON, INC – JACKSONVILLE

CLAY COUNTY, FLORIDA

INDEX – LEGEND

JOSHUA M. BENOLKEN LICENSE No93672 STATE OF FLORIDA PROFESSIONAL ENGINEER

This item has been digitally signed and sealed by Joshua M. Benolken, P.E. on 05/15/2026 adjacent to the seal. Signature must be verified on any electronic copies

GLEN R. WIEGER ENGINEER NO. 81419 | JOSHUA M. BENOLKEN ENGINEER NO. 93672 | DAVID F. PEIGLER ENGINEER NO. 44100

Sheet No. 3 of 65

I-2

DWG. NO.

PROJECT SPECIFIC NOTES

GEOMETRY NOTES

1. BOUNDARY, TOPOGRAPHIC AND RIGHT OF WAY INFORMATION OBTAINED FROM SURVEY SUPPLIED BY OWNER
2. STATIONING REFERS TO CENTERLINE OF PAVEMENT.
3. ALL DIMENSIONING REFERS TO EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
4. ALL WORK WITHIN RIGHT OF WAY SHALL COMPLY WITH REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.
5. CONTRACTOR SHALL VERIFY LOCATIONS OF EXISTING STRUCTURES, IMPROVEMENTS, UTILITIES, PROPERTY LINES AND SETBACKS AND CONFIRM ALL PROPOSED DIMENSIONS AND ELEVATIONS PRIOR TO COMMENCING ANY CONSTRUCTION ORDERING OF MATERIALS.
6. GEOMETRY INFORMATION SHOWN IS FOR REFERENCE ONLY. CONTRACTORS SURVEYOR SHALL RE-COMPUTE/CONFIRM GEOMETRIC INFORMATION SHOWN PRIOR TO FIELD STAKING.DISCREPANCIES, IF ANY, WITH THESE PLANS SHALL BE BROUGHT TO THE ENGINEERS ATTENTION.

PAVING AND DRAINAGE NOTES

1. ALL GRADING AND PLACEMENT OF COMPACTED FILL SHALL BE IN ACCORDANCE WITH THE LATEST CLAY COUNTY SPECIFICATIONS.
2. ALL AREAS WITHIN THE PROPERTY SHALL BE CLEARED & GRUBBED TO REMOVE ALL ROOTS & MISCELLANEOUS VEGETATION EXCEPTING SPECIFIC TREES OR CLUSTERS OF TREES WHICH WILL BE FLAGGED BY THE OWNER & SHALL BE PROTECTED FROM DAMAGE.
3. ALL PIPE LENGTHS ARE APPROXIMATE DIMENSIONS. ALL DRAINAGE STRUCTURES SHALL BE CONSTRUCTED TO CONFORM WITH TYPICAL SECTIONS & DETAILS AS SHOWN ON THE PAVING & DRAINAGE DETAIL SHEETS & IN ACCORDANCE WITH THE LATEST CLAY COUNTY SPECIFICATIONS.
4. THE CONTRACTOR SHALL COORDINATE THE CONSTRUCTION OF PAVING & DRAINAGE WITH ALL OTHER CONSTRUCTION. FOR WATER & SEWER FACILITIES, SEE WATER & SEWER PLAN DRAWINGS.
5. LOCATION, EXISTENCE OR NONEXISTENCE OF ANY UTILITY DOES NOT CONSTITUTE RESPONSIBILITY OF THE ENGINEER.
6. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO CONSTRUCTION FOR VERIFICATION & LOCATION OF ANY UTILITY.
7. ALL UNDERGROUND UTILITIES MUST BE INSTALLED PRIOR TO PREPARATION OF SUBGRADE FOR PAVEMENT.
8. GRADES SHOWN ON PLANS ARE FINISHED GRADES, UNLESS OTHERWISE NOTED.
9. CONTRACTORS SHALL SUBMIT SHOP DRAWINGS FOR ALL WATER & SEWER PIPES, FITTINGS, VALVES, MANHOLES, ETC,.
10. CONTRACTORS SHALL SUBMIT SHOP DRAWINGS FOR ALL STRUCTURES TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.
11. ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE GRASSED & MULCHED IN ACCORDANCE WITH F.D.O.T. SPECIFICATIONS.
12. ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE PLANS & SPECIFICATIONS.
13. CONTRACTOR IS RESPONSIBLE FOR THE CONTROL OF SEDIMENT-LADEN RUNOFF RESULTING FROM STORM EVENTS DURING THE CONSTRICTION PHASE. EROSION CONTROL FACILITIES SHOULD BE INSTALLED EARLY DURING THE CONSTRUCTION PERIOD SO AS TO PREVENT THE TRANSPORT OF SEDIMENT INTO SURFACE WATERS. REVEGETATION & STABILIZATION OF DISTURBED AREAS SHOULD BE ACCOMPLISHED AS SOON AS POSSIBLE TO REDUCE THE POTENTIAL FOR FUTURE SOIL EROSION.
14. IN THE EVENT THAT UNSUITABLE MATERIAL IS ENCOUNTERED DURING ROADWAY EXCAVATION, THIS MATERIAL SHALL BE REMOVED AND REPLACED WITH PROPER ALLOWANCE FOR SUBSEQUENT COMPACTION. ALL SUBMERGE STUMPS ROOTS, MUCK, OR THERE PERISHABLE MATTER ENCOUNTERED IN THE PREPARATION OF THE SUBGRADE SHALL BE REMOVED TO A DEPTH OF AT LEAST THREE FEET BELOW FINISHED SUBGRADE AND 3' BEYOND PAVEMENT.
15. TWO SETS OF SIGNED AND SEALED AS-BUILTS ARE TO BE SUBMITTED FIVE (5) DAYS PRIOR TO THE FINAL INSPECTION WITH A COPY PROVIDED ON DISK IN AUTOCAD FORMAT.
16. CONSTRUCTION WARNING SIGNS ARE TO BE POST-MOUNTED AND ERECTED BEFORE CONSTRUCTION CAN COMMENCE THEY WILL FOLLOW THE STANDARDS SET FORTH BY THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
17. BENCH MARK DATUM (PROVIDED BY OWNER'S SURVEYOR) INFORMATION FOR THIS PROJECT IS SHOWN UNDER THE "PROJECT DATUM ELEVATION" HEADING ON THIS SHEET. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY BENCHMARK ELEVATIONS SHOWN ON PLANS PRIOR TO ANY CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES IN ELEVATION PRIOR TO ANY CONSTRUCTION.
18. CLAY COUNTY REQUIRES 24-HR NOTICE ON ALL TESTING OR MEETINGS.
19. DENSITIES FOR ALL CROSSINGS ARE TO BE TAKEN AT 1' LIFTS.
20. THE CONTRACTOR SHALL NOT COMMENCE CONSTRUCTION UNTIL ALL APPLICABLE PERMITS ARE OBTAINED.
21. THE CONTRACTORS SHALL CALL SUNSHINE STATE ONE CALL OF FLORIDA, INC., AT 811 OR 1-800-432-4770, 48 HOURS PRIOR TO ANY EXCAVATION IN ANY ESTABLISHED / EXISTING RIGHT-OF-WAY OR EASEMENT.
22. THE CONTRACTOR SHALL PROVIDE 20LF OF 6" UNDERDRAIN STUBOUT EACH SIDE OF CURB INLET. UNLESS OTHERWISE NOTED ON PLANS.
23. UNDERDRAIN CLEANOUTS (C.O.) TO BE LOCATED AT THE UPSTREAM END, AT EACH 90° BEND AND EVERY 300LF ALONG UNDERDRAIN.
24. ALL UNSUITABLE MATERIAL SHALL BE REMOVED TWO FEET (2') BEYOND THE BACK OF THE CURB AND TWO FEET (2') BELOW FINISHED GRADE.
25. IF UNSUITABLE MATERIALS IS FOUND WITHIN THE LIMITS OF THE ROAD OR IF MATERIAL IS HAULED IN FOR ROADWAY FILL AT A DEPTH GREATER THAN ONE-FOOT (1') THEN THE ENTIRE ROADWAY SHALL BE UNDER DRAINED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT AND INSTALLED PER THE APPROVED CLAY COUNTY DETAIL.
26. ALL STORM SEWER PIPES SHALL BE CUT FLUSH WITH THE INTERIOR WALL OF ANY TYPE MANHOLE OR CURB AND DITCH BOTTOM INLETS.
27. COMPACTION DENSITY TEST FOR ALL STORM SEWER PIPE SHALL START AT THE SPRING LINE OF THE PIPE.
28. IF THE APPROVAL DESIGN REQUIRES THE INLET OR STORM RUN BE SURCHARGED ALL INLETS SHALL BE INSPECTED BEFORE BEING EXPOSED TO THE SYSTEM.
29. TEST CYLINDERS SHALL BE RUN FOR ALL CONCRETE STRUCTURES. THERE WILL BE THREE (3) TESTS PER EACH DAY POUR WITH A ONE (1) SEVEN (7) DAYBREAK AND TWO (2) TWENTY-EIGHT (28) DAYS BREAKS.
30. THE ASPHALT SHALL BE CORED FOR THICKNESS AND WILL BE GIVEN A ONE-QUARTER INCH ($\frac{1}{4}$") TOLERANCE. IF HOWEVER THE COUNTY'S REPRESENTATIVE IS PRESENT AT POUR AND FEELS COMFORTABLE WITH REQUIREMENTS THEN HE OR SHE MAY WAVE THIS POLICY.
31. LIMEROCK BEARING RATIOS FOR SUBGRADE AT FORTY (40) AND LIMEROCK OR ALTERNATIVE BASE COURSE AT ONE HUNDRED (100) THERE WILL BE NO UNDER TOLERANCE.

POND BANK COMPACTION/CONSTRUCTION NOTES

1. CONTRACTOR SHALL COMPACT ALL POND BANKS.
2. POND BANK FILL SHOULD CONSIST OF "CLEAN" FINE SAND WITH LESS THAN 5% SOIL FINES.
3. CONTRACTOR MAY USE FILL MATERIALS WITH SOIL FINES BETWEEN 5% & 12%, BUT STRICT MOISTURE CONTROL MAY BE REQUIRED.
4. TOP 2' OF SOIL UNDER BERM SHALL BE COMPACTED TO A MIN DENSITY OF 95% OF MODIFIED PROCTOR MAX. DENSITY
5. PLACE FILL IN UNIFORM 10"-12" LOOSE LIFTS AND COMPACT EACH LIFT TO A MIN. DENSITY OF 95% OF MODIFIED PROCTOR MAXIMUM DENSITY.
6. PERFORM COMPLIANCE TESTS WITHIN THE FILL AT THE FREQUENCY OF NOT LESS THAN ONE TEST PER 300 LF OF POND BANK, OR A MIN. OF 2 TESTS IN ANY AREA LESS THAN 300' IN LENGTH.

WATER AND SEWER NOTES

1. ALL ELEVATIONS ARE SHOWN IN FEET.
2. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND AVOID ALL UTILITIES, STRUCTURES AND OBSTRUCTIONS, BOTH NEW AND EXISTING, ABOVE AND BELOW THE GROUND SURFACE. ALL DAMAGES RESULTING FROM THE CONTRACTOR'S EXPENSE. CONTRACTOR SHALL CONTACT ENGINEER IF CONFLICT OCCURS PRIOR TO INSTALLATION OF NEW UTILITIES.
3. THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES IN THE AREA OF THIS PROJECT NOT LESS THAN ONE WEEK PRIOR TO CONSTRUCTION OF WATER AND SEWER FACILITIES.
4. WHERE WATER MAIN IS LAID UNDER DITCHES, CULVERTS OR OTHER PIPELINES WITHOUT FITTINGS, THE MAXIMUM DEFLECTION SHALL NOT EXCEED 50% OF THE MAXIMUM DEFLECTION RECOMMEND BY THE MANUFACTURER OF THE PIPE FURNISHED, UNLESS OTHERWISE SHOWN ON DRAWINGS.
5. THE CONTRACTOR SHALL NOT PROVIDE LESS THAN A 1.5' FT. VERTICAL CLEARANCE BETWEEN ALL UTILITIES UNLESS OTHERWISE DIRECTED. NO SPECIAL PAYMENT ALLOWED.
6. EXISTING TOPOGRAPHIC FEATURES AND UNDERGROUND UTILITIES SHOWN ON THE DRAWINGS WERE TAKEN FROM EXISTING RECORDS AND ARE TO BE USED FOR GENERAL INFORMATION ONLY. CONTRACTOR SHALL VERIFY PRIOR T CONSTRUCTION.
7. ALL NEW WATER PIPE SHALL HAVE A MINIMUM DEPTH OF COVER OF 36" IN PAVED AREAS AND 36" IN UNPAVED AREAS, MEASURED FROM THE TOP OF THE PIPE TO GROUND SURFACE, EXCEPT AS OTHERWISE NOTED ON DRAWINGS. VERTICAL AND HORIZONTAL ALIGNMENT MAY BE ADJUSTED TO MEET ADVERSE FIELD CONDITIONS UPON APPROVAL BY THE ENGINEER. ALL NEW FORCE MAIN SHALL HAVE A MINIMUM DEPTH OF 60".
8. CLASS V, TYPE I BEDDING SHALL BE USED FOR THIS PROJECT UNLESS EXISTING SOILS ARE UNSUITABLE FOR USE A BEDDING, IN WHICH CASE CLASS B, TYPE II BEDDING WILL BE USED.
9. THE CONTRACTOR SHALL COORDINATE THE CONSTRUCTION OF WATER AND SEWER FACILITIES WITH ALL OTHER CONSTRUCTION AND PAVING AND DRAINAGE CONSTRUCTION, SEE DRAWINGS.
10. ALL SANITARY SEWER LINES TO MAINTAIN A MINIMUM OF 10' OFFSET FROM WATERMAINS AND TREES UNLESS OTHERWISE NOTED ON DRAWINGS OR UNLESS DIRECTED BY ENGINEER.
11. CLAY COUNTY UTILITY AUTHORITY STANDARD JOINT RESTRAINTS ARE REQUIRED AT ALL FITTINGS AND TERMINATION POINTS (SEE RESTRAINT SCHEDULE DWG NO. WD-3).
12. FOR WATER, RECLAIMED AND SEWER DETAILS SEE WD, RD, AND SD SHEETS.
13. SEWER LINES ARE DESIGNED TO FINISHED GRADE AND SHALL BE PROTECTED FROM DAMAGE UNTIL FINISH WORK IS COMPLETED.
14. AS-BUILT DRAWINGS SHALL BE FURNISHED TO THE CLAY COUNTY UTILITY AUTHORITY AND TO THE ENGINEER IN ACCORDANCE WITH THE LATEST CLAY COUNTY UTILITY AUTHORITY SPECIFICATIONS.
15. CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION TO FAMILIARIZE HIMSELF WITH THE FIELD CONDITIONS AT THE SITE PRIOR TO CONSTRUCTION.
16. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE PROPERTY LINES AND RIGHT-OF-WAY LINES PRIOR TO CONSTRUCTION.
17. SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER ADD TO CLAY COUNTY UTILITY AUTHORITY PRIOR TO CONSTRUCTION OF WATER AND SEWER FACILITIES.
18. ENDS OF ALL SEWER CONNECTIONS TO BE NOTED ON "AS-BUILT" DRAWING.
19. WATER TO BE FLUSHED AND PRESSURE TESTED IN ACCORDANCE WITH THE CLAY COUNTY UTILITY AUTHORITY STANDARDS AND SPECIFICATIONS.
20. WATER MAIN TO BE MARKED ON PIPE IN ACCORDANCE WITH CLAY COUNTY UTILITY AUTHORITY STANDARDS AND SPECIFICATIONS.
21. SHOP DRAWINGS ON ALL BACKFLOW PREVENTERS SHALL BE SUBMITTED TO CLAY COUNTY UTILITY AUTHORITY DEPARTMENT PRIOR TO INSTALLATION.
22. ALL WATER AND SEWER CONSTRUCTION SHALL BE ACCOMPLISHED BY AN UNDERGROUND UTILITY CONTRACTOR LICENSED UNDER THE PROVISIONS OF CHAPTER 489 FLORIDA STATUES.
23. THE CONTRACTOR SHALL NOT COMMENCE CONSTRUCTION UNTIL ALL APPLICABLE PERMITS ARE OBTAINED
24. THE CONTRACTOR SHALL CALL SUNSHINE STATE ONE CALL OF FLORIDA, INC., AT 1-800-432-4770, 48 HOURS PRIOR TO ANY EXCAVATION IN ANY ESTABLISHED / EXISTING RIGHT-OF-WAY OR EASEMENT.
25. COMPACTION DENSITY TESTS FOR ALL WATER AND SEWER CROSSINGS SHALL BE IN ACCORDANCE WITH CCUA SPECIFICATIONS.

PROJECT DATUM ELEVATION

1. PROJECT DESIGN IS BASED ON NAVD 88 DATUM SEE PLANS FOR BENCH MARK ELEVATION & LOCATION(S)

P:\2008-499-3 THE ROOKERY PHASE 3\ENG PLANS\499 3 INDEX.DWG5/6/2026 2:23 PMMike Reilly

REVISIONS

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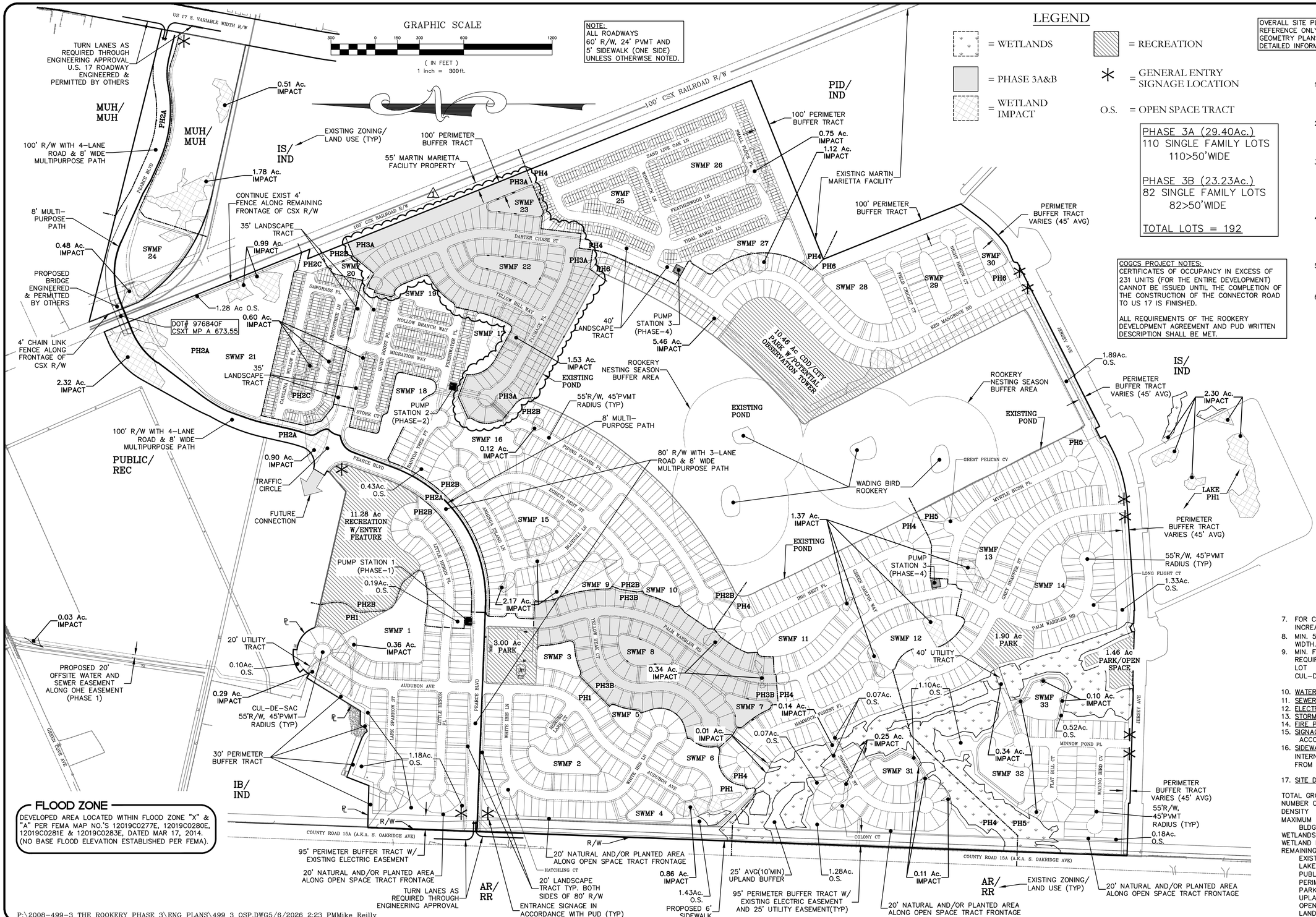
ROOKERY – PH3A & 3B
FOR:
D.R. HORTON, INC – JACKSONVILLE
CLAY COUNTY, FLORIDA
INDEX – NOTES

JOSHUA M. BENOLKEN LICENSE No93672 STATE OF FLORIDA PROFESSIONAL ENGINEER

This item has been digitally signed and sealed by Joshua M. Benolken, P.E. on 05/15/2026 adjacent to the seal. Signature must be verified on any electronic copies

GLEN R. WIEGER ENGINEER NO. 81419 | JOSHUA M. BENOLKEN ENGINEER NO. 93672 | DAVID F. PEIGLER ENGINEER NO. 44100

I–3
DWG. NO.



PHASE 3A (29.40Ac.)
110 SINGLE FAMILY LOTS
110>50'WIDE

PHASE 3B (23.23Ac.)
82 SINGLE FAMILY LOTS
82>50'WIDE

TOTAL LOTS = 192

COGCS PROJECT NOTES:
CERTIFICATES OF OCCUPANCY IN EXCESS OF 231 UNITS (FOR THE ENTIRE DEVELOPMENT) CANNOT BE ISSUED UNTIL THE COMPLETION OF THE CONSTRUCTION OF THE CONNECTOR ROAD TO US 17 IS FINISHED.

ALL REQUIREMENTS OF THE ROOKERY DEVELOPMENT AGREEMENT AND PUD WRITTEN DESCRIPTION SHALL BE MET.

SITE SUMMARY

1. OWNER:
ROOKERY INVESTORS, LLC
12443 SAN JOSE BLVD – SUITE 504
JACKSONVILLE, FL 32223

2. DEVELOPER:
D.R. HORTON, INC. – JACKSONVILLE
4220 RACE TRACK ROAD
ST JOHNS, FL 32259

3. ENGINEER:
DUNN & ASSOCIATES, INC.
8647 BAYPINE ROAD, SUITE 200
JACKSONVILLE, FL. 32256
PH: (904)363-8916
FA: (904)363-8917

4. SURVEYOR:
ETM SURVEYING & MAPPING, INC.
14775 OLD ST. AUGUSTINE RD,
JACKSONVILLE, FL. 32258
PH: (904) 642-8550

5. EXISTING/PROPOSED ZONING:
EXISTING PUD & REC
PROPOSED PUD

6. SITE DEVELOPMENT CRITERIA:

A. SINGLE FAMILY

MINIMUM LOT SIZE	=4,300 SF
MINIMUM LOT WIDTH (NOT >50%)	=43'
FRONT SETBACK(FACE OF GARAGE):	=20'
(FACADE OF HOME):	=15'
SECOND FRONT (CORNER LOTS):	=10'
SIDE SETBACK (43' LOTS):	=6.5'
(WIDER LOTS)	=5'
REAR SETBACK:	=10'
MAX HEIGHT OF STRUCTURES:	=35'
MAX (ISR)	=40 %
MAX LOT COVERAGE BY BLDGS	=60 %

B. TOWNHOME

MINIMUM LOT SIZE	=1,200 SF
MINIMUM LOT WIDTH	=15'
FRONT SETBACK:	=15'
SIDE SETBACK (FROM PL):	=10'
(INTERIOR LOTS)	=0'
REAR SETBACK:	=10'
MAX HEIGHT OF STRUCTURES:	=45'
MAX (ISR)	=40 %
MAX LOT COVERAGE BY BLDGS	=75 %

7. FOR CORNER LOTS THE MIN. LOT WIDTH SHALL BE INCREASED BY 5'.
8. MIN. 50% OF SINGLE FAMILY LOTS SHALL BE MIN. 50' IN WIDTH.
9. MIN. FRONTAGE OF EACH LOT SHALL BE 80% OF ITS REQUIRED LOT WIDTH PROVIDED, HOWEVER THAT THE LOT FRONTAGE MAY BE REDUCED TO 25' ON CUL-DE-SACS AND CURVES.

10. WATER SUPPLY: =COGC(TEMP PH1) THEN CCUA
11. SEWER SERVICE =COGC(TEMP PH1) THEN CCUA
12. ELECTRICAL SERVICE: =CITY OF GREEN COVE
13. STORM WATER SYSTEM: WET DETENTION PONDS
14. FIRE PROTECTION: AS REQUIRED VIA HYDRANTS
15. SIGNAGE: TYPE, LOCATION AND DIMENSIONS TO BE IN ACCORDANCE WITH P.U.D.
16. SIDEWALKS: SHALL BE 5' WIDE ON ONE SIDE OF ALL INTERNAL ROADWAYS AND AN 8' MULTI-PURPOSE PATH FROM SR 17 TO CR 15A.

17. SITE DATA

TOTAL GROSS ACREAGE	= 569.93 Ac.
NUMBER OF RESIDENTIAL LOTS	= 2,100 D.U. MAX.
DENSITY	= 3.75 LOTS/ACRE
MAXIMUM COVERAGE OF BLDGS & STRUCTURES	= 60% OF LOT
WETLANDS	= 45.46 ±Ac.
WETLAND IMPACTS	= 25.23 ±Ac.
REMAINING UPLANDS	= 549.70 ±Ac.
EXIST POND	= 86.59 ±Ac.
LAKES	= 62.76 ±Ac.
PUBLIC R/W	= 81.53 ±Ac.
PERIMETER BUFFER	= 27.08 ±Ac.
PARK & RECREATION	= 28.10 ±Ac.
UPLAND BUFFER	= 8.02 ±Ac.
OPEN SPACE	= 11.05 ±Ac.
LANDSCAPE TRACT	= 6.01 ±Ac.

P:\2008-499-3 THE ROOKERY PHASE 3\ENG PLANS\499 3 OSP.DWG5/6/2026 2:23 PMMike Reilly

REVISIONS			
NO.	DATE	DESCRIPTION	BY:
1	3-3-26	REVISED PHASE 3A TO 50' LOTS	JB
2	4-30-26	REVISED PHASE 3B LOT SIZES TO 60' LOTS	JB

DESIGNED BY:	MR
DRAWN BY:	MR
CHECKED BY:	VJD/GRW
SCALE:	1" = 300'
DATE:	5/6/2026
PROJ. NO.:	2008-499-3

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www.dunneng.com

ROOKERY – PH3A & 3B

FOR:
D.R. HORTON, INC – JACKSONVILLE

CLAY COUNTY, FLORIDA

OVERALL SITE PLAN

JOSHUA M. BENOLKEN LICENSE No 93672 STATE OF FLORIDA PROFESSIONAL ENGINEER

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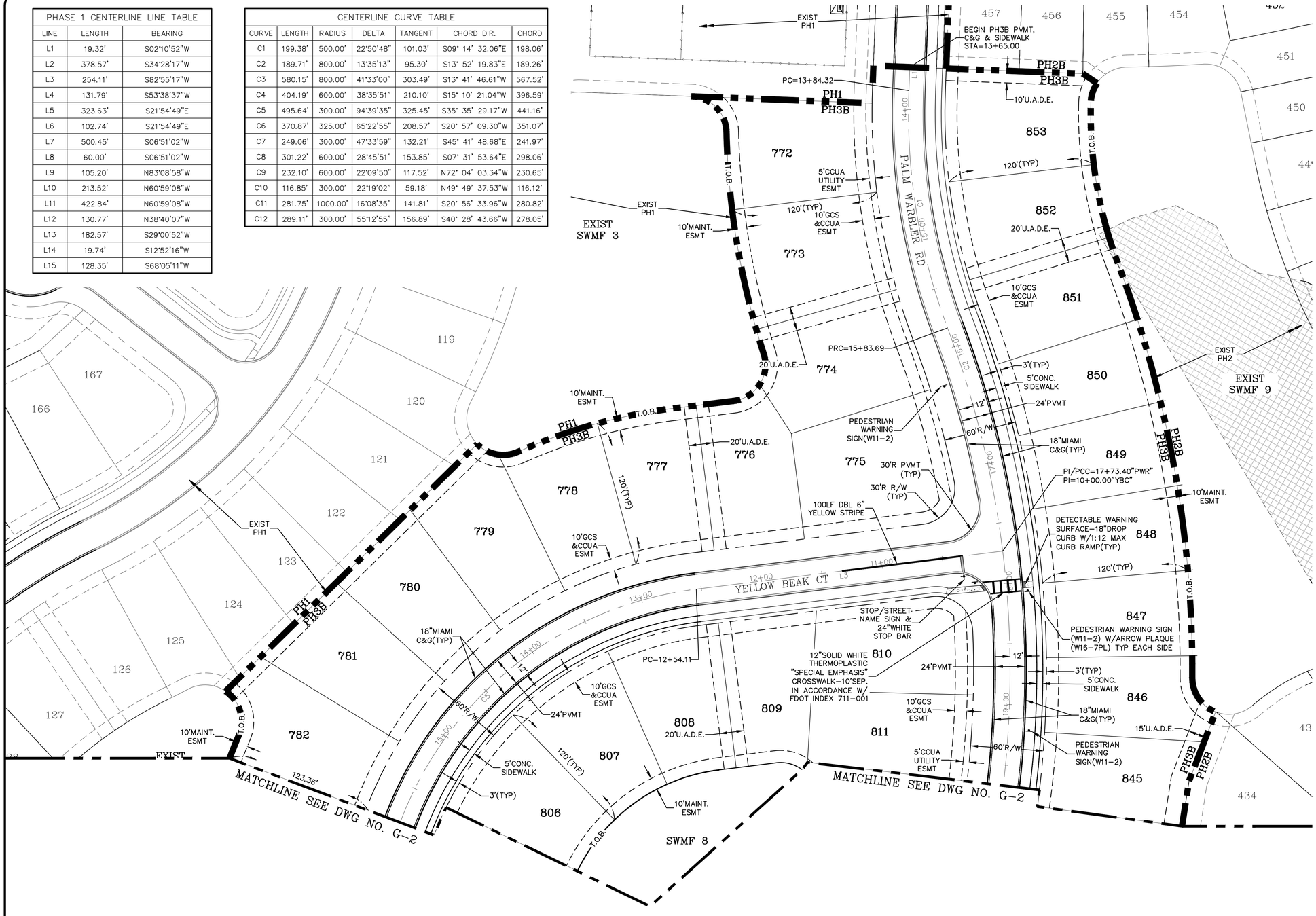
Sheet No. 5 of 65

OSP-1

DWG. NO.

PHASE 1 CENTERLINE LINE TABLE		
LINE	LENGTH	BEARING
L1	19.32'	S02°10'52"W
L2	378.57'	S34°28'17"W
L3	254.11'	S82°55'17"W
L4	131.79'	S53°38'37"W
L5	323.63'	S21°54'49"E
L6	102.74'	S21°54'49"E
L7	500.45'	S06°51'02"W
L8	60.00'	S06°51'02"W
L9	105.20'	N83°08'58"W
L10	213.52'	N60°59'08"W
L11	422.84'	N60°59'08"W
L12	130.77'	N38°40'07"W
L13	182.57'	S29°00'52"W
L14	19.74'	S12°52'16"W
L15	128.35'	S68°05'11"W

CENTERLINE CURVE TABLE						
CURVE	LENGTH	RADIUS	DELTA	TANGENT	CHORD DIR.	CHORD
C1	199.38'	500.00'	22°50'48"	101.03'	S09° 14' 32.06"E	198.06'
C2	189.71'	800.00'	13°35'13"	95.30'	S13° 52' 19.83"E	189.26'
C3	580.15'	800.00'	41°33'00"	303.49'	S13° 41' 46.61"W	567.52'
C4	404.19'	600.00'	38°35'51"	210.10'	S15° 10' 21.04"W	396.59'
C5	495.64'	300.00'	94°39'35"	325.45'	S35° 35' 29.17"W	441.16'
C6	370.87'	325.00'	65°22'55"	208.57'	S20° 57' 09.30"W	351.07'
C7	249.06'	300.00'	47°33'59"	132.21'	S45° 41' 48.68"E	241.97'
C8	301.22'	600.00'	28°45'51"	153.85'	S07° 31' 53.64"E	298.06'
C9	232.10'	600.00'	22°09'50"	117.52'	N72° 04' 03.34"W	230.65'
C10	116.85'	300.00'	22°19'02"	59.18'	N49° 49' 37.53"W	116.12'
C11	281.75'	1000.00'	16°08'35"	141.81'	S20° 56' 33.96"W	280.82'
C12	289.11'	300.00'	55°12'55"	156.89'	S40° 28' 43.66"W	278.05'



GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

LEGEND

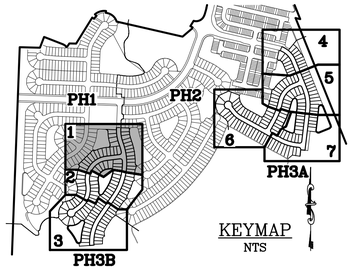
= WETLANDS

= WETLAND IMPACT (PREVIOUSLY PERMITTED)

= COMMON AREA SIDEWALK (SEE NOTE)

C&G = CURB AND GUTTER

O.S. = OPEN SPACE



KEYMAP
NTS

NORTH

ROOKERY – PH3A & 3B

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50'+ LOTS	125	92	192	409
TOTAL LOTS	231	248	192	671

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REVISIONS			
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DESIGNED BY:	MR
DRAWN BY:	MR
CHECKED BY:	VJD/GRW
SCALE:	1" = 40'
DATE:	5/6/2026
PROJ. NO.:	2008-499-3

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ROOKERY – PH3A & 3B

FOR:
D.R. HORTON, INC – JACKSONVILLE

CLAY COUNTY, FLORIDA

GEOMETRY PLANS

JOSHUA M. BENOLKEN LICENSE No93672 STATE OF FLORIDA PROFESSIONAL ENGINEER

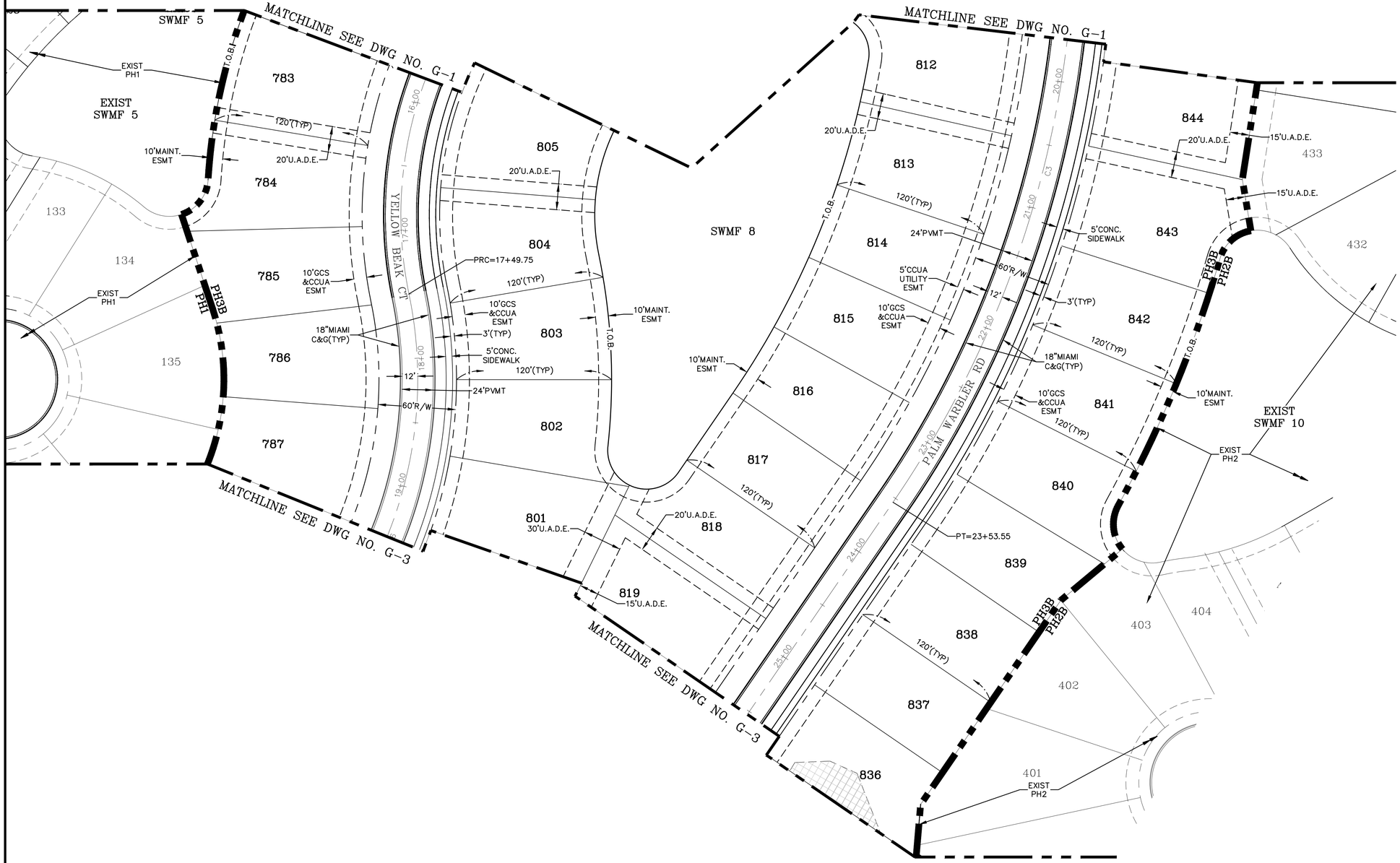
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Sheet No. 6 of 65

G-1

DWG. NO.



GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

LEGEND

= WETLANDS

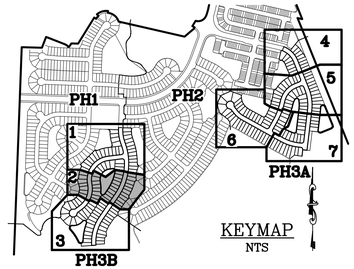
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KEYMAP
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ROOKERY – PH3A & 3B

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REVISIONS			
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SCALE:	1" = 40'
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ROOKERY – PH3A & 3B

FOR:
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CLAY COUNTY, FLORIDA

GEOMETRY PLAN

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Sheet No. 7 of 65

G–2

DWG. NO.

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

LEGEND

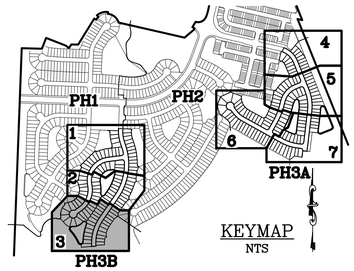
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KEYMAP
NTS

MATCHLINE SEE DWG NO. G-2

MATCHLINE SEE DWG NO. G-2

136 137 138 400 3

EXIST PH1

PH1 PH3B

PH2B PH4

PH3B PH4

FUTURE PH4

EXIST SWMF 6

SWMF 7

FUTURE SWMF 11

788 789 790 791 792 793 794 795 796 797 798 799 800 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835

24'PVMT

12'

60'R/W

5'CONC. SIDEWALK

3'(TYP)

15'U.A.D.E.

10'GCS &CCUA ESMT

PT=21+20.62

30'R PVMT(TYP)

30'R R/W(TYP)

18"MIAMI C&G(TYP)

10'MAINT. ESMT

T.O.B.

YELLOW BEAK CT

RP=22+52.40

DETECTABLE WARNING SURFACE–18"DROP CURB W/1:12 MAX CURB RAMP(TYP)

30'U.A.D.E.

5'CCUA UTILITY ESMT

PALM WARBLER RD

PC=27+32.12

134.62'

45'R PVMT

55'R R/W

12.5'U.A.D.E.

133.86'

120'(TYP)

10'MAINT. ESMT

10'T.O.B. WIDTH

20'x15' U.D.A.E.

45'R TEMP CUL–DE–SAC (PH3)

END PH3B PVMT, C&G AND SIDEWALK STA=31+36.31

DITCH

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REVISIONS			
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CHECKED BY:	VJD/GRW
SCALE:	1" = 40'
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ROOKERY – PH3A & 3B

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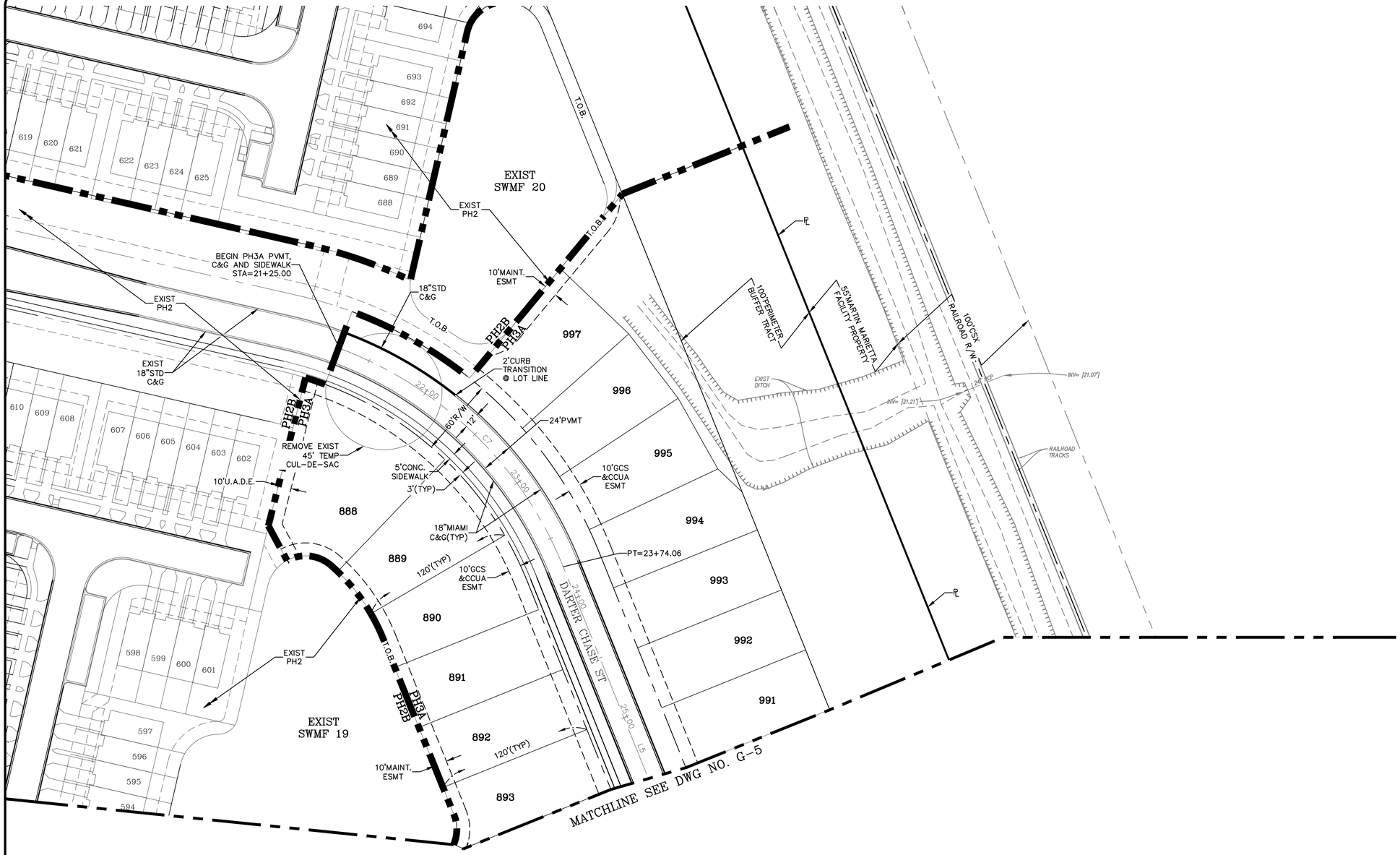
CLAY COUNTY, FLORIDA

GEOMETRY PLAN

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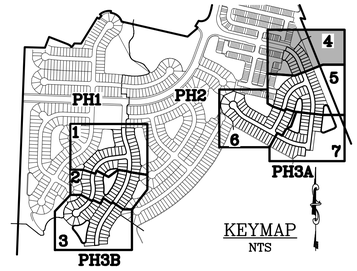
GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
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LEGEND

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- = WETLAND IMPACT (PREVIOUSLY PERMITTED)
- = COMMON AREA SIDEWALK (SEE NOTE)
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KEYMAP
NTS

NORTH

ROOKERY – PH3A & 3B

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CLAY COUNTY, FLORIDA

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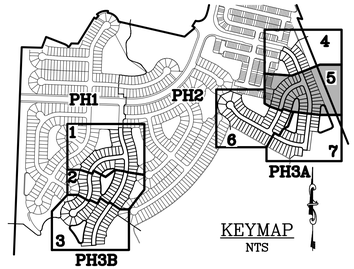
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KEYMAP
NTS

MATCHLINE SEE DWG NO. G-4

MATCHLINE SEE DWG NO. G-6

MATCHLINE SEE DWG NO. G-7

EXIST SWMF 19

EXIST SWMF 17

SWMF 22

SWMF 23

EXIST PH2

PH2B PH3A

YELLOW BILL WAY

DARTER CHASE ST

24'PVMT

18"MIAMI C&G(TYP)

3'(TYP)

5'CONC. SIDEWALK

60'R/W

12'

10'MAINT. ESMT

DETECTABLE WARNING SURFACE–18"DROP CURB W/1:12 MAX CURB RAMP(TYP)

30'R R/W (TYP)

30'R PVMT (TYP)

PI=26+97.69"DCS"
PI=10+00.00"YBW"

PC=11+28.35

20'U.A.D.E.

100LF DBL 6" YELLOW STRIPE

12"SOLID WHITE THERMOPLASTIC CROSSWALK 6'SEP

10'GCS &CCUA ESMT

STOP/STREET NAME SIGN & 24"WHITE STOP BAR

PC=28+00.43

120'(TYP)

PT=14+17.46

PC=14+37.19

PT=31+01.65

15'U.A.D.E.

10'T.O.B. WIDTH

T.O.B.

100'PERIMETER BUFFER TRACT

55'MARTIN MARIETTA FACILITY PROPERTY

100'CSX RAILROAD R/W

RIP RAP

DITCH

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FENCING:
REAR YARD FENCING, IF ANY, PLACED ALONG THE 10' POND MAINTENANCE EASEMENTS ARE LIMITED TO FOUR–FOOT HEIGHT UNLESS OFFSET 5' FROM EASEMENT.

CONSTRUCTION ACCESS: CONSTRUCTION ACCESS SHALL BE IN COMPLIANCE WITH G2 OF THE PUD AGREEMENT

REVISIONS			
NO.	DATE	DESCRIPTION	BY:
1	3-3-26	REVISED PHASE 3A TO 50' LOTS	JB

DESIGNED BY:	MR
DRAWN BY:	MR
CHECKED BY:	VJD/GRW
SCALE:	1" = 40'
DATE:	5/6/2026
PROJ. NO.:	2008-499-3

Dunn & Associates, Inc.
CIVIL ENGINEERS / LAND PLANNERS
8647 Baypine Road, Suite 200
Jacksonville, Florida 32256
Phone: (904)363-8916 Fax: (904)363-8917
www.dunneng.com

ROOKERY – PH3A & 3B

FOR:
D.R. HORTON, INC – JACKSONVILLE

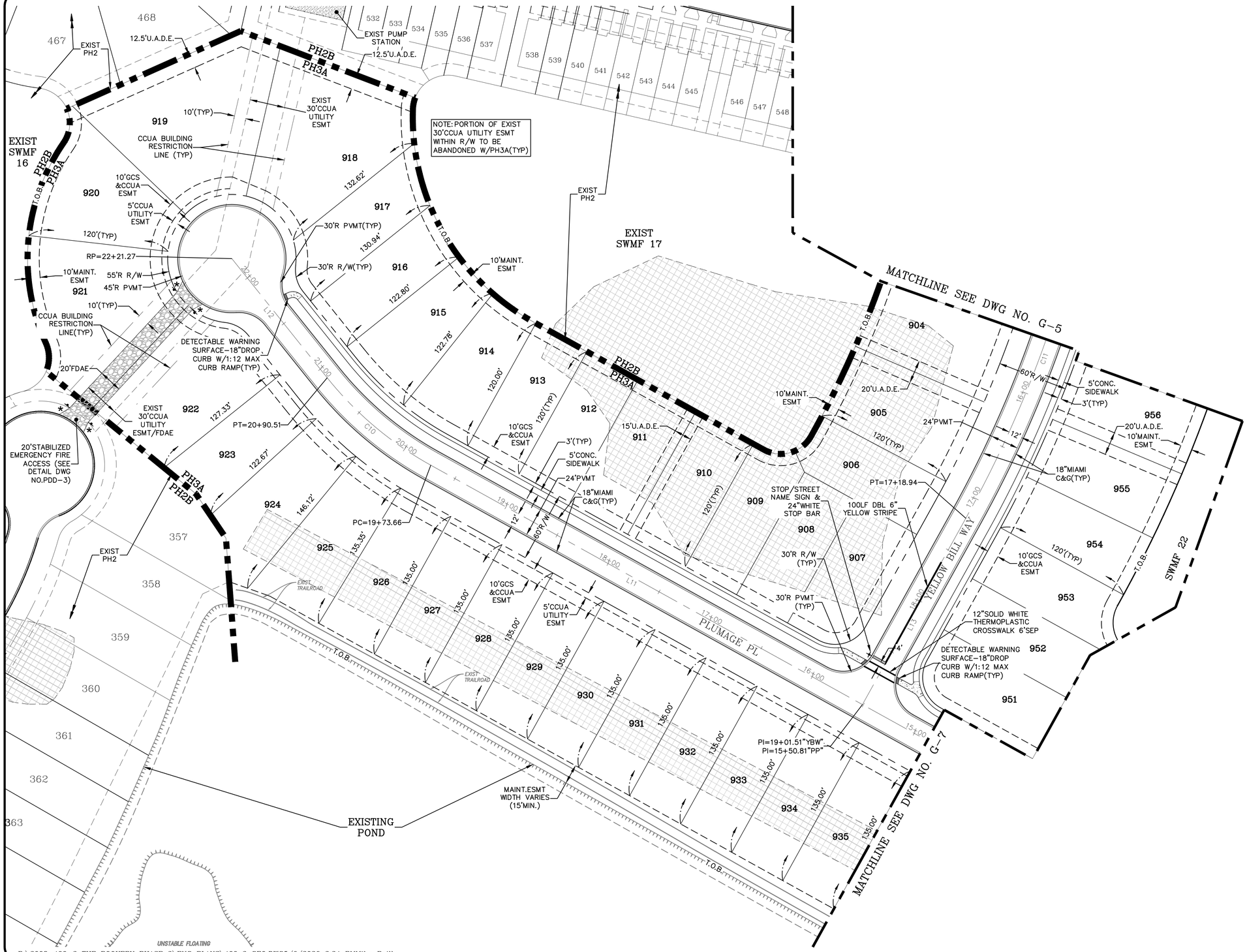
CLAY COUNTY, FLORIDA

GEOMETRY PLAN

JOSHUA M. BENOLKEN LICENSE No 93672 STATE OF FLORIDA PROFESSIONAL ENGINEER

This item has been digitally signed and sealed by Joshua M. Benolken, P.E. on 05/15/2026 adjacent to the seal. Signature must be verified on any electronic copies

GLEN R. WIEGER ENGINEER NO. 81419 | JOSHUA M. BENOLKEN ENGINEER NO. 93672 | DAVID F. PEIGLER ENGINEER NO. 44100



GRAPHIC SCALE

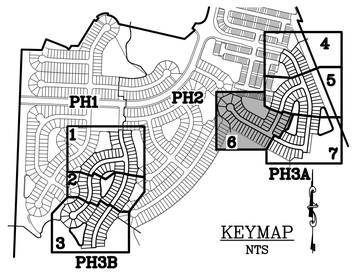
40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

LEGEND

- = WETLANDS
- = WETLAND IMPACT (PREVIOUSLY PERMITTED)
- = COMMON AREA SIDEWALK (SEE NOTE)
- C&G = CURB AND GUTTER
- O.S. = OPEN SPACE
- * = "FIRE LANE NO PARKING" SIGN LOCATION

NORTH



KEYMAP
NTS

LOT WIDTHS:
MIN. 50% OF SINGLE FAMILY LOTS SHALL BE MIN. 50' IN WIDTH.

PH3 ALL LOTS ARE 50' OR GREATER

PHASE #	1	2	3	1-3 COMBINED
<50' LOTS	106	156		262
50'+ LOTS	125	92	192	409
TOTAL LOTS	231	248	192	671

NOTES:

SIDEWALK: COMMON AREA SIDEWALK TO BE BUILT BY DEVELOPER (CONTRACTOR). ALL OTHER SIDEWALK TO BE BUILT BY HOME BUILDER.

DRIVEWAY:
ALL DRIVEWAYS ON SINGLE FAMILY LOTS SHALL BE A MINIMUM OF 12' IN WIDTH.

BOUNDARY:
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ROOKERY - PH3A & 3B

P:\2008-499-3 THE ROOKERY PHASE 3\ENG PLANS\499 3 GEO.DWG5/6/2026 2:24 PMMike Reilly

REVISIONS			
NO.	DATE	DESCRIPTION	BY:
1	3-3-26	REVISED PHASE 3A TO 50' LOTS	JB

DESIGNED BY:	MR
DRAWN BY:	MR
CHECKED BY:	VJD/GRW
SCALE:	1" = 40'
DATE:	5/6/2026
PROJ. NO.:	2008-499-3

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ROOKERY - PH3A & 3B

FOR:
D.R. HORTON, INC - JACKSONVILLE

CLAY COUNTY, FLORIDA

GEOMETRY PLAN

JOSHUA M. BENOLKEN LICENSE No93672 STATE OF FLORIDA PROFESSIONAL ENGINEER

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GLEN R. WIEGER ENGINEER NO. 81419 | JOSHUA M. BENOLKEN ENGINEER NO. 93672 | DAVID F. PEIGLER ENGINEER NO. 44100

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

LEGEND

= WETLANDS

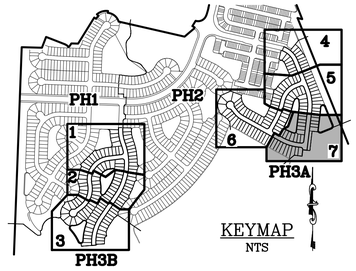
= WETLAND IMPACT (PREVIOUSLY PERMITTED)

= COMMON AREA SIDEWALK (SEE NOTE)

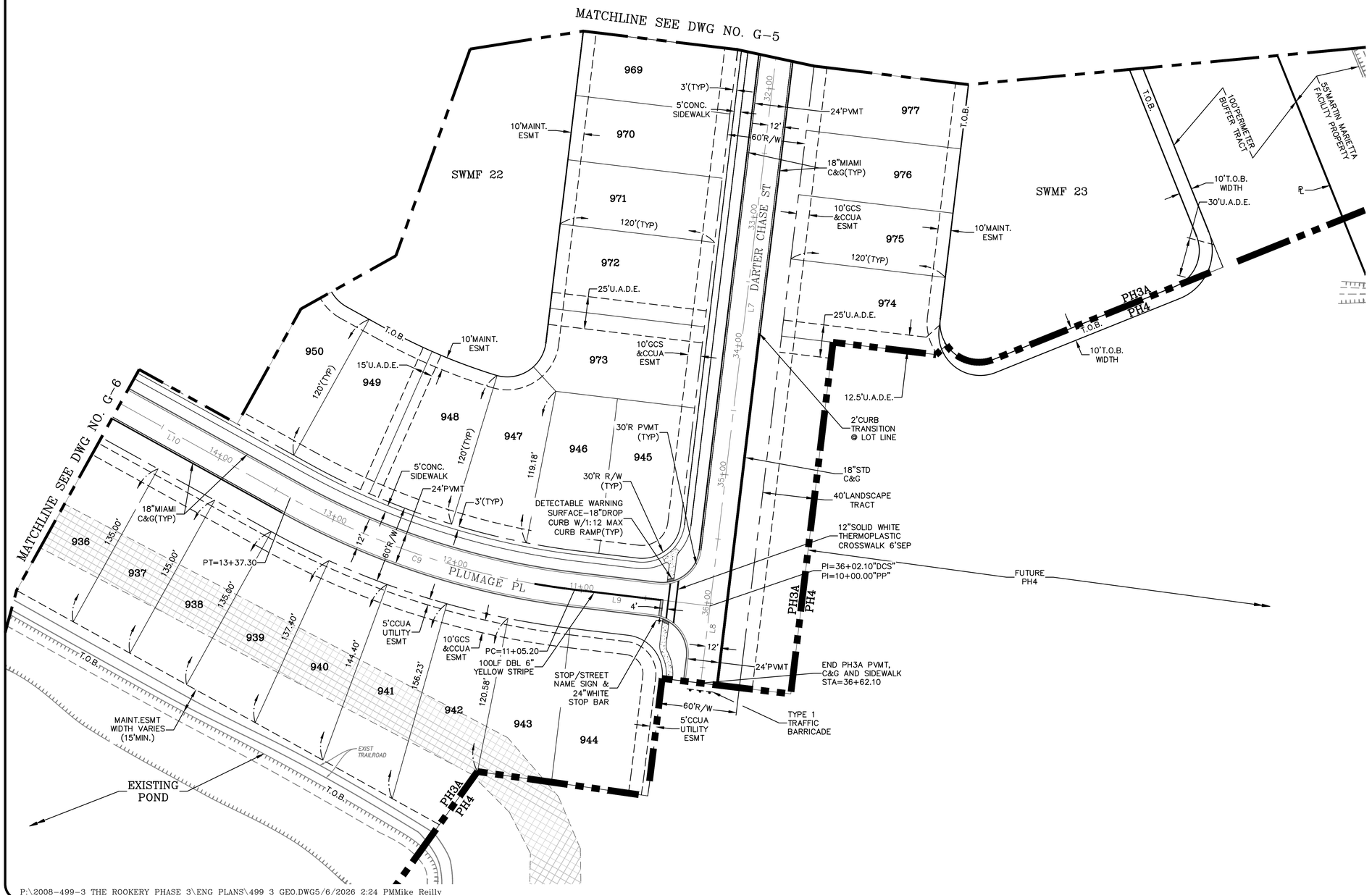
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NORTH



KEYMAP
NTS



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P:\2008-499-3 THE ROOKERY PHASE 3\ENG PLANS\499 3 GEO.DWG 5/6/2026 2:24 PM Mike Reilly

REVISIONS

NO.	DATE	DESCRIPTION	BY:
1	3-3-26	REVISED PHASE 3A TO 50' LOTS	JB

DESIGNED BY:	MR
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SCALE:	1" = 40'
DATE:	5/6/2026
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ROOKERY – PH3A & 3B

FOR:
D.R. HORTON, INC – JACKSONVILLE

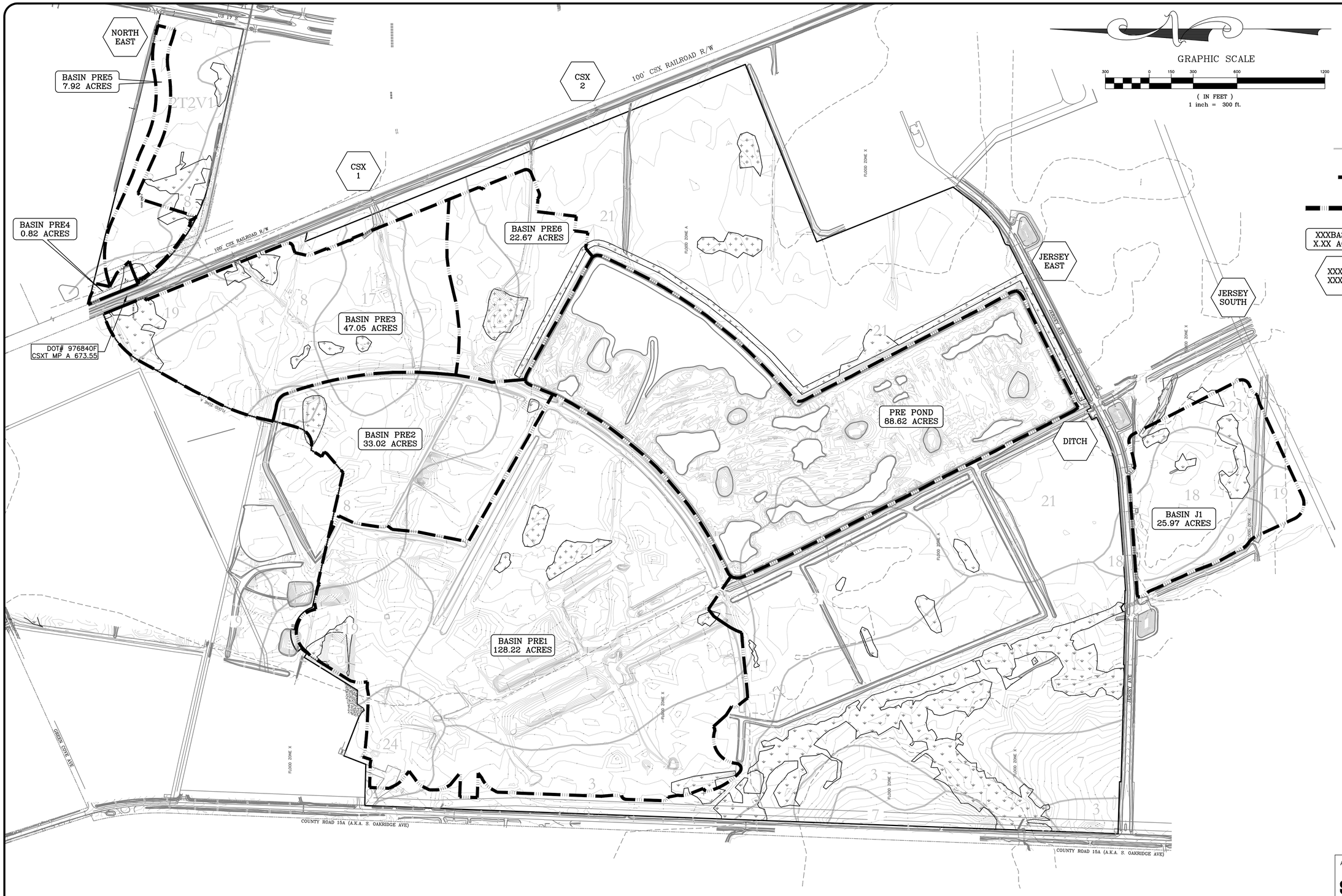
CLAY COUNTY, FLORIDA

GEOMETRY PLAN

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ROOKERY – PH3A & 3B

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Sunshine811.com

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REVISIONS			
NO.	DATE	DESCRIPTION	BY:
–	–	–	–

DESIGNED BY:	MR
DRAWN BY:	MR
CHECKED BY:	VJD/GRW
SCALE:	1" = 300'
DATE:	5/6/2026
PROJ. NO.:	2008-499-3

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ROOKERY – PH3A & 3B

FOR:
D.R. HORTON, INC – JACKSONVILLE

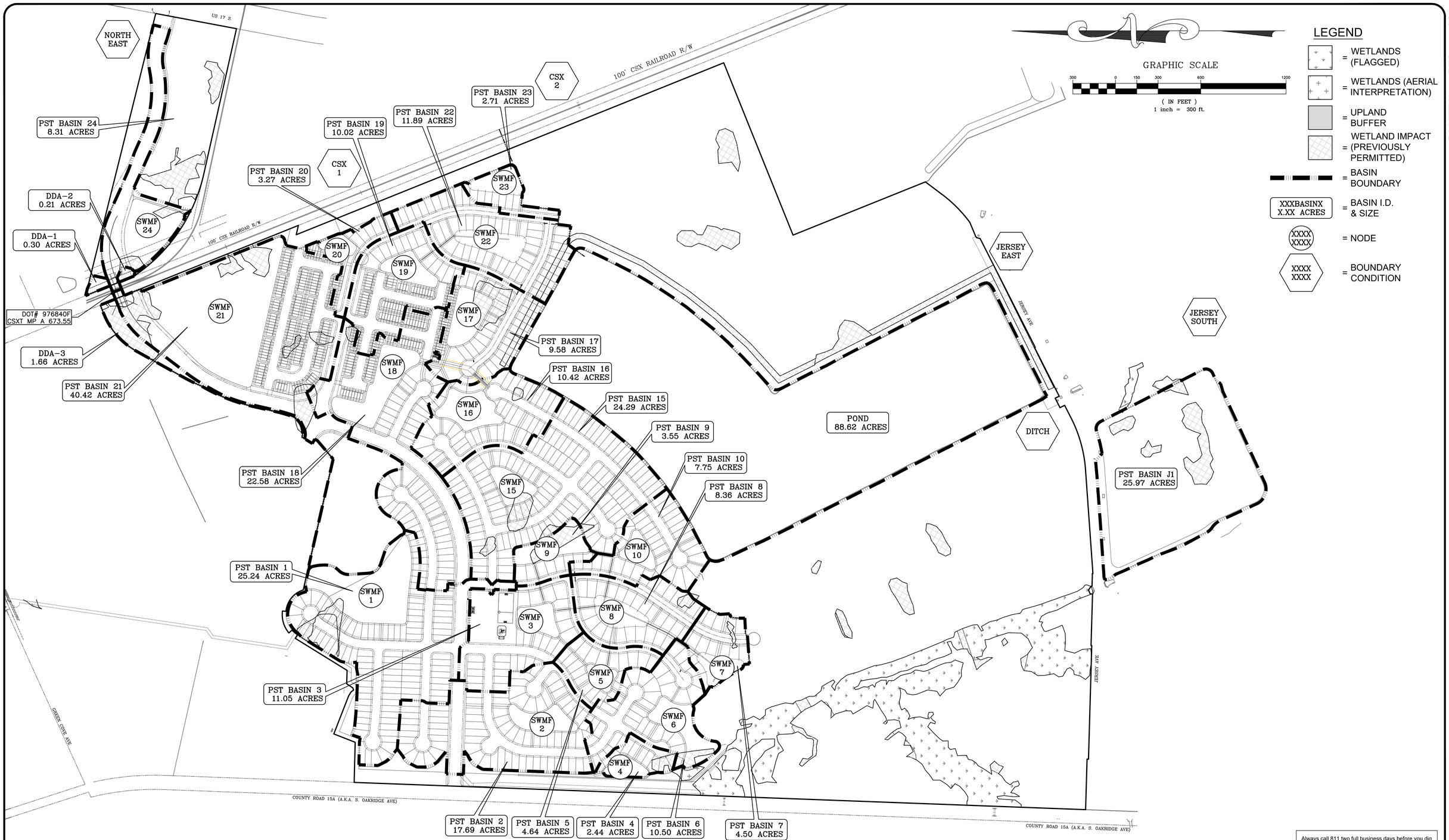
CLAY COUNTY, FLORIDA

PRE DEVELOPMENT PLAN

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ROOKERY – PH3A & 3B

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REVISIONS			
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ROOKERY – PH3A & 3B

FOR:
D.R. HORTON, INC – JACKSONVILLE

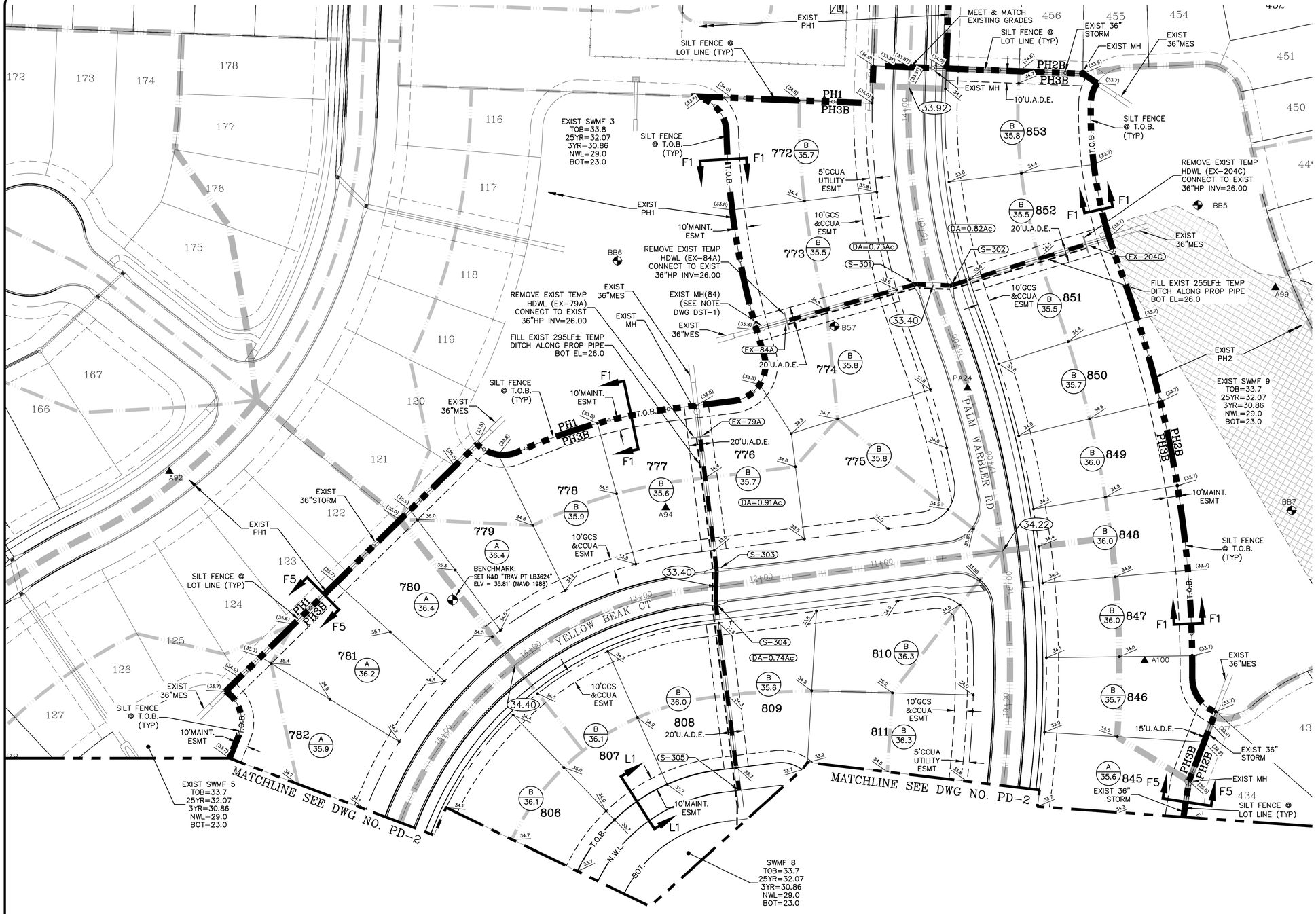
CLAY COUNTY, FLORIDA

POST DEVELOPMENT PLAN

JOSHUA M. BENOLKEN LICENSE No93672 STATE OF FLORIDA PROFESSIONAL ENGINEER

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GRAPHIC SCALE

(IN FEET)
1 inch = 40 ft.

LEGEND

= WETLANDS

= WETLAND IMPACT (PREVIOUSLY PERMITTED)

= LOT TYPE / F.F. EL.

= PROPOSED GRADE EL.

= SILT FENCE

= STAKED TURBIDITY BARRIER

ROOKERY – PH3A & 3B

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REVISIONS			
NO.	DATE	DESCRIPTION	BY:
1	4-30-26	REVISED PHASE 3B LOT SIZES TO 60' LOTS	JB

DESIGNED BY:	MR
DRAWN BY:	MR
CHECKED BY:	VJD/GRW
SCALE:	40
DATE:	5/6/2026
PROJ. NO.:	2008-499-3

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ROOKERY – PH3A & 3B

FOR:
D.R. HORTON, INC – JACKSONVILLE

CLAY COUNTY, FLORIDA

PAVING AND DRAINAGE PLAN

JOSHUA M. BENOLKEN LICENSE No 93672 STATE OF FLORIDA PROFESSIONAL ENGINEER

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Sheet No. 15 of 65

PD-1

DWG. NO.

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

LEGEND

= WETLANDS

= WETLAND IMPACT (PREVIOUSLY PERMITTED)

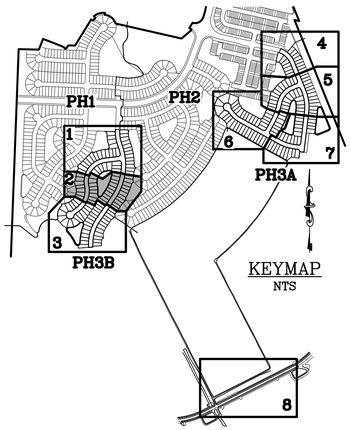
X / XX.X = LOT TYPE / F.F. EL.

30.5 = PROPOSED GRADE EL.

= SILT FENCE

FB = STAKED TURBIDITY BARRIER

NORTH



KEYMAP
NTS

EXIST SWMF 5
TOB=33.7
25YR=32.07
3YR=30.86
NWL=29.0
BOT=23.0

MATCHLINE SEE DWG NO. PD-1

EXIST PH1

REMOVE EXIST TEMP HDWL (EX-74A) CONNECT TO EXIST 36"HP INV=26.50

FILL EXIST 295LF± TEMP DITCH ALONG PROP PIPE BOT EL=26.5

EXIST 30"MES

EXIST MH EX-74A

10'MAINT. ESMT

20'U.A.D.E.

SILT FENCE @ T.O.B. (TYP)

SILT FENCE @ LOT LINE (TYP)

FILL EXIST 295LF± TEMP DITCH ALONG PROP PIPE BOT EL=26.0

SWMF 8
TOB=33.7
25YR=32.07
3YR=30.86
NWL=29.0
BOT=23.0

REMOVE EXIST TEMP HDWL (EX-205D) CONNECT TO EXIST 36"HP INV=26.00

EXIST MH

15'U.A.D.E.

EXIST 36" STORM

EXIST 36"MES

FILL EXIST 315LF± TEMP DITCH ALONG PROP PIPE BOT EL=26.0

5'CCUA UTILITY ESMT

10'GCS &CCUA ESMT

EXIST PH2

EXIST SWMF 10
TOB=33.3
25YR=32.06
3YR=30.86
NWL=29.0
BOT=23.0

YELLOW BEAK CT

PALM WARBLER RD

DA=1.84Ac
DA=1.45Ac
DA=0.84Ac
DA=1.27Ac
DA=1.38Ac
DA=1.61Ac

783 B 35.8
784 B 36.1
785 A 36.1
786 A 36.5
787 A 36.9
801 B 36.8
802 B 36.4
803 B 36.3
804 B 36.0
805 B 35.8
812 B 35.7
813 B 35.5
814 B 35.8
815 B 35.9
816 B 35.9
817 B 35.7
818 B 36.6
819 A 36.6
836 A 35.6
837 A 35.5
838 A 35.5
839 A 35.8
840 B 36.0
841 B 36.0
842 B 35.7
843 B 35.5
844 A 35.4

PA28 PA93 PA23 PA25

B56 BB8 B58 B54

S-308 S-309 S-310 S-311 S-306 S-307 S-312 S-313 S-314 S-315

133 134 135 401 403 404 432 433

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Sunshine811.com

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REVISIONS			
NO.	DATE	DESCRIPTION	BY:
1	4-30-26	REVISED PHASE 3B LOT SIZES TO 60' LOTS	JB

DESIGNED BY:	MR
DRAWN BY:	MR
CHECKED BY:	VJD/GRW
SCALE:	40
DATE:	5/6/2026
PROJ. NO.:	2008-499-3

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ROOKERY – PH3A & 3B

FOR:
D.R. HORTON, INC – JACKSONVILLE

CLAY COUNTY, FLORIDA

PAVING AND DRAINAGE PLAN

JOSHUA M. BENOLKEN LICENSE No 93672 STATE OF FLORIDA PROFESSIONAL ENGINEER

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JOSHUA M. BENOLKEN ENGINEER NO. 93672
DAVID F. PEIGLER ENGINEER NO. 44100

Sheet No. 16 of 65

PD-2

DWG. NO.

GRAPHIC SCALE

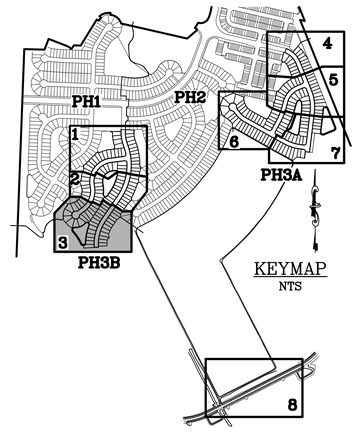
40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

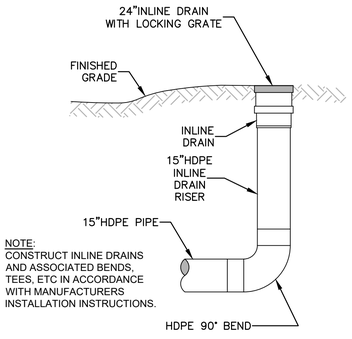
LEGEND

- = WETLANDS
- = WETLAND IMPACT (PREVIOUSLY PERMITTED)
- (X / XX.X) = LOT TYPE / F.F. EL.
- 30.5 = PROPOSED GRADE EL.
- = SILT FENCE
- STAKED TURBIDITY BARRIER = STAKED TURBIDITY BARRIER

NORTH



KEYMAP
NTS



NOTE:
CONSTRUCT INLINE DRAINS AND ASSOCIATED BENDS, TEES, ETC IN ACCORDANCE WITH MANUFACTURERS INSTALLATION INSTRUCTIONS.

STRUCTURE 325-A

Always call 811 two full business days before you dig
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ROOKERY – PH3A & 3B

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CLAY COUNTY, FLORIDA

PAVING AND DRAINAGE PLAN

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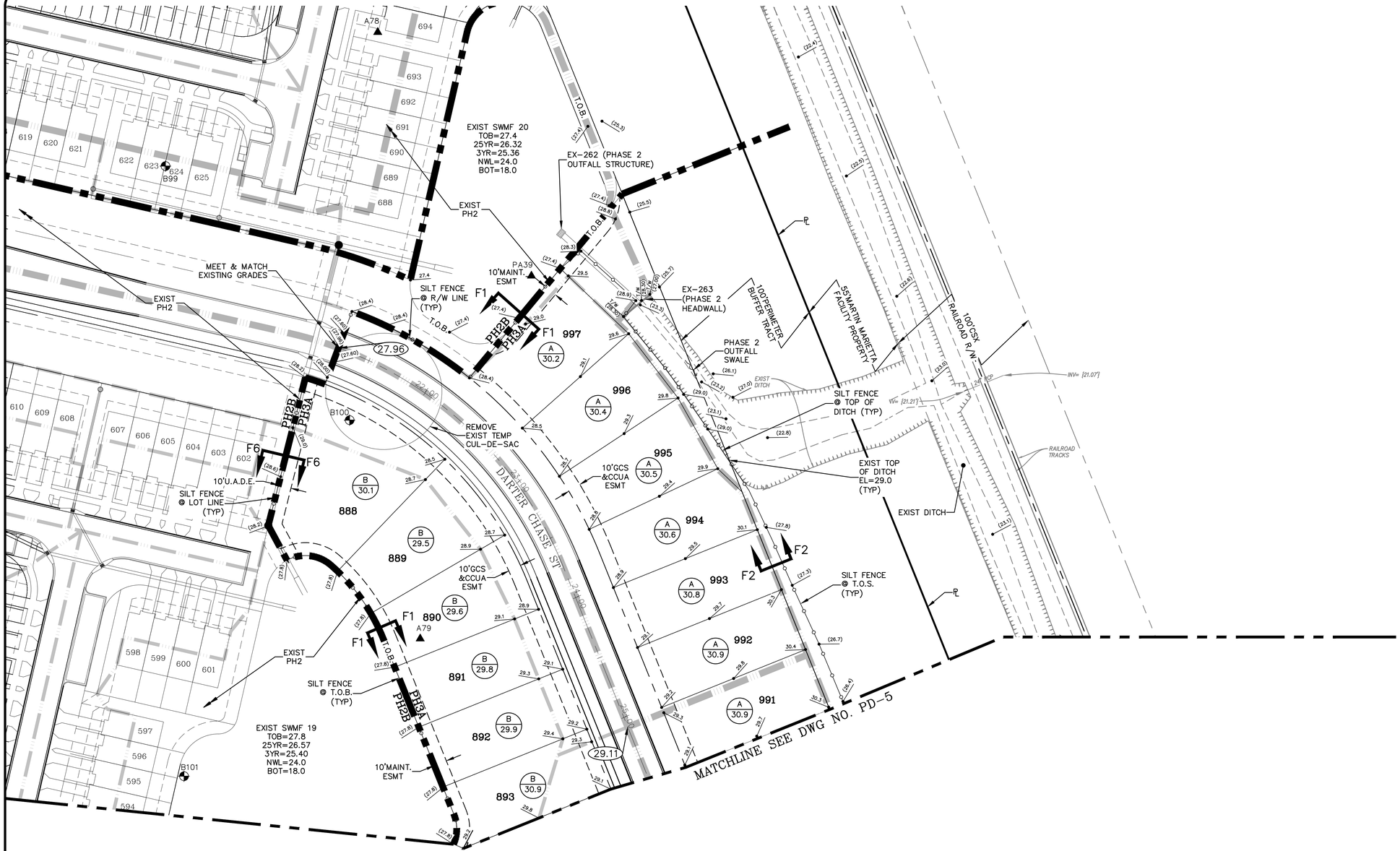
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Sheet No. 17 of 65

PD–3

DWG. NO.



GRAPHIC SCALE

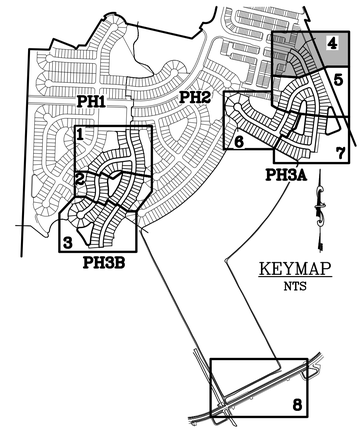
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- = SILT FENCE
- STAKED TURBIDITY BARRIER = TURBIDITY BARRIER

NORTH



KEYMAP
NTS

ROOKERY – PH3A & 3B

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PAVING AND DRAINAGE PLAN

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Sheet No. 18 of 65

PD-4

DWG. NO.

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

LEGEND

= WETLANDS

= WETLAND IMPACT (PREVIOUSLY PERMITTED)

X / XX.X = LOT TYPE / F.F. EL.

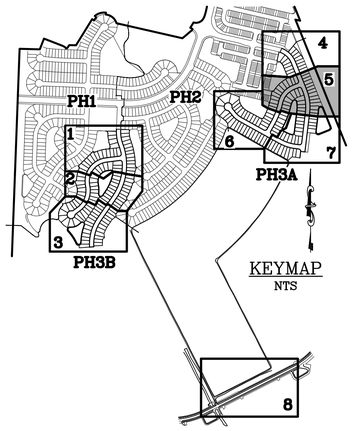
30.5 = PROPOSED GRADE EL.

= SILT FENCE

= STAKED TURBIDITY BARRIER

NORTH

ROOKERY – PH3A & 3B



KEYMAP
NTS

MATCHLINE SEE DWG NO. PD-4

MATCHLINE SEE DWG NO. PD-6

MATCHLINE SEE DWG NO. PD-7

DARTER CHASE ST

YELLOW BILL WAY

EXIST SWMF 19
TOB=27.8
25YR=26.57
3YR=25.40
NWL=24.0
BOT=18.0

EXIST SWMF 17
TOB=28.1
25YR=26.64
3YR=25.41
NWL=24.0
BOT=18.0

SWMF 22
TOB=27.8
25YR=26.58
3YR=25.41
NWL=24.0
BOT=18.0

SWMF 23
TOB=27.4
25YR=26.42
3YR=25.38
NWL=24.0
BOT=18.0

EXIST 36"MES

10'MAINT. ESMT

REMOVE EXIST TEMP HDWL (EX-244A) CONNECT TO EXIST 36"HP INV=21.00

FILL EXIST 310LF± TEMP DITCH ALONG PROP PIPE BOT EL=21.0

EXIST PH2

SILT FENCE @ T.O.B. (TYP)

SILT FENCE @ LOT LINE (TYP)

SILT FENCE @ T.O.S. (TYP)

20'U.A.D.E.

10'GCS &CCUA ESMT

15'U.A.D.E.

DA=1.27Ac

DA=0.70Ac

DA=2.23Ac

DA=0.75Ac

100'PERIMETER BUFFER TRACT

55'MARTIN MARIETTA FACILITY PROPERTY

100'CSX RAILROAD R/W

EXIST DITCH

RAILROAD TRK

DITCH

990 989 988 987 986 985 984 983 982 981 980 979 978

894 895 896 897 898 899 900 901 902 903

962 963 964 965 966 967 968

961 960 959 958 957

B102 A113 A114 PA41

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REVISIONS			
NO.	DATE	DESCRIPTION	BY:
1	3-3-26	REVISED PHASE 3A TO 50' LOTS	JB

DESIGNED BY:	MR
DRAWN BY:	MR
CHECKED BY:	VJD/GRW
SCALE:	40
DATE:	5/6/2026
PROJ. NO.:	2008-499-3

Dunn & Associates, Inc.
CIVIL ENGINEERS / LAND PLANNERS
8647 Baypine Road, Suite 200
Jacksonville, Florida 32256
Phone: (904)363-8916 Fax: (904)363-8917
www.dunneng.com

ROOKERY – PH3A & 3B

FOR:
D.R. HORTON, INC – JACKSONVILLE

CLAY COUNTY, FLORIDA

PAVING AND DRAINAGE PLAN

JOSHUA M. BENOLKEN LICENSE No93672 STATE OF FLORIDA PROFESSIONAL ENGINEER

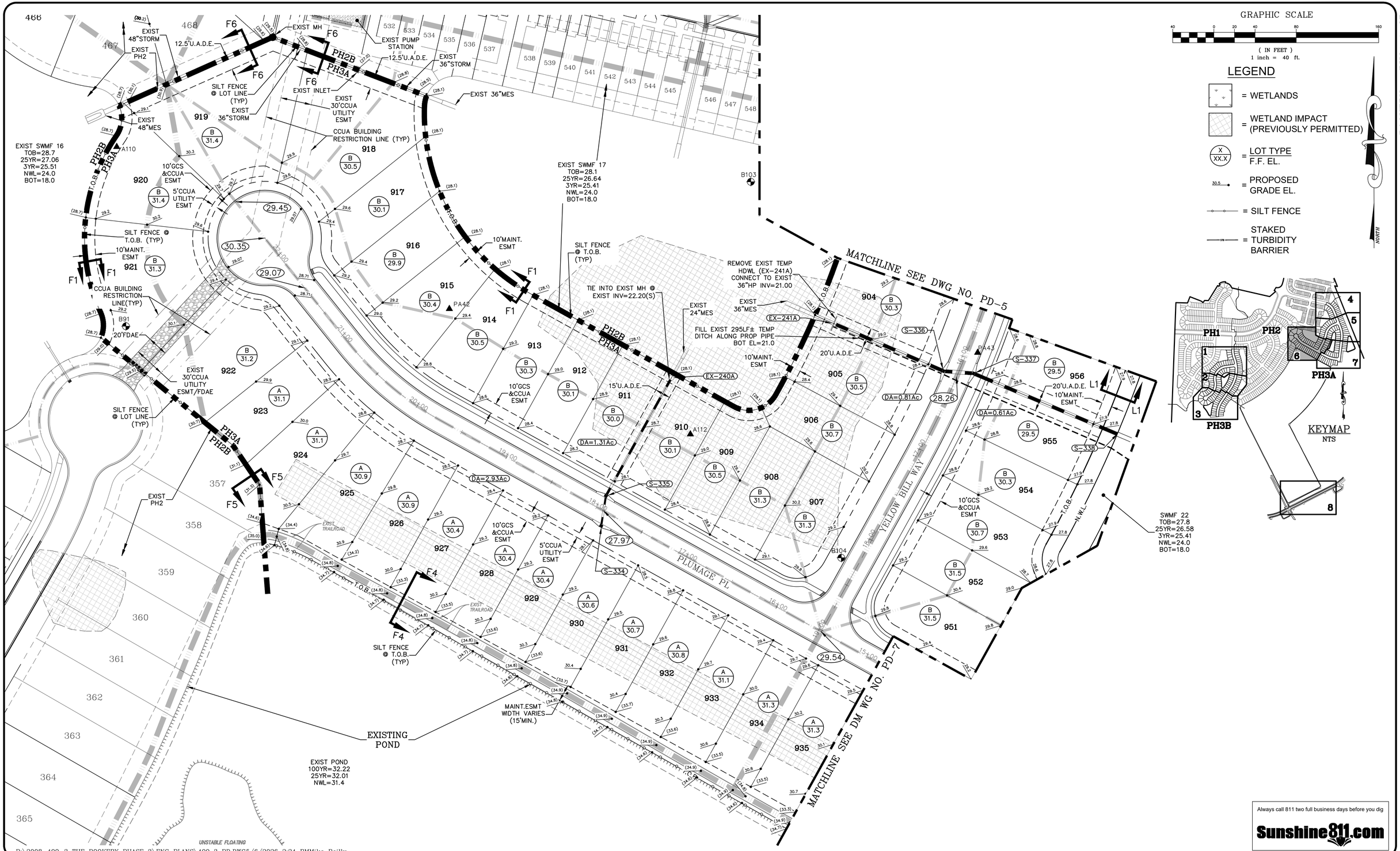
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GLEN R. WIEGER ENGINEER NO. 81419 | JOSHUA M. BENOLKEN ENGINEER NO. 93672 | DAVID F. PEIGLER ENGINEER NO. 44100

Sheet No. 19 of 65

PD-5

DWG. NO.



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REVISIONS			
NO.	DATE	DESCRIPTION	BY:
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DESIGNED BY:	MR
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ROOKERY – PH3A & 3B

FOR:
D.R. HORTON, INC – JACKSONVILLE

CLAY COUNTY, FLORIDA

PAVING AND DRAINAGE PLAN

JOSHUA M. BENOLKEN LICENSE No 93672 STATE OF FLORIDA PROFESSIONAL ENGINEER

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Sheet No. 20 of 65

PD-6

DWG. NO.

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

LEGEND

= WETLANDS

= WETLAND IMPACT (PREVIOUSLY PERMITTED)

X / XX.X = LOT TYPE / F.F. EL.

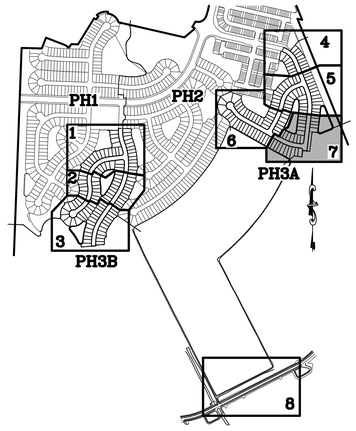
30.5 = PROPOSED GRADE EL.

= SILT FENCE

STAKED TURBIDITY BARRIER

NORTH

ROOKERY – PH3A & 3B



MATCHLINE SEE DWG NO. PD-5

MATCHLINE SEE DWG NO. PD-6

SWMF 22
TOB=27.8
25YR=26.58
3YR=25.41
NWL=24.0
BOT=18.0

SWMF 23
TOB=27.4
25YR=26.42
3YR=25.38
NWL=24.0
BOT=18.0

EXISTING POND
EXIST POND
100YR=32.22
25YR=32.01
NWL=31.4

DA=0.37Ac
DA=1.08Ac
DA=0.96Ac
DA=1.17Ac
DA=0.62Ac

969 970 971 972 973 974 975 976 977
948 947 946 945 949 950
936 937 938 939 940 941 942 943 944

B105 B106 B107 B108 A115 A116

S-340 S-341 S-342 S-343 S-344 S-345 S-346 S-347 S-348 S-349 S-350

10'MAINT. ESMT
10'GCS &CCUA ESMT
5'CCUA UTILITY ESMT
15'U.A.D.E.
25'U.A.D.E.
12.5'U.A.D.E.
30'U.A.D.E.
MAINT.ESMT WIDTH VARIES (15'MIN.)
100'PERIMETER BUFFER TRACT
40'LANDSCAPE TRACT
55'MARTIN MARIETTA FACILITY PROPERTY

SILT FENCE @ T.O.S. (TYP)
10'LONG CONC RIP-RAP TO EL=24.5
AREA TO BE SODDED, FILL AND GRADE TO DRAIN TO PROP DITCH
CONNECT PROP DITCH TO EXISTING DITCH SOD ANY DISTURBED AREAS
EXIST DITCH
S.T.B. @ DITCH T.O.B. TO T.O.B.
6:1 MIN SODDED SIDE SLOPE OFF END OF PVMT
FUTURE PH4

DARTER CHASE ST
PLUMAGE PL
EXIST TRAILROAD

PH3A PH4

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ROOKERY – PH3A & 3B

FOR:
D.R. HORTON, INC – JACKSONVILLE

CLAY COUNTY, FLORIDA

PAVING AND DRAINAGE PLAN

JOSHUA M. BENOLKEN LICENSE No 93672 STATE OF FLORIDA PROFESSIONAL ENGINEER

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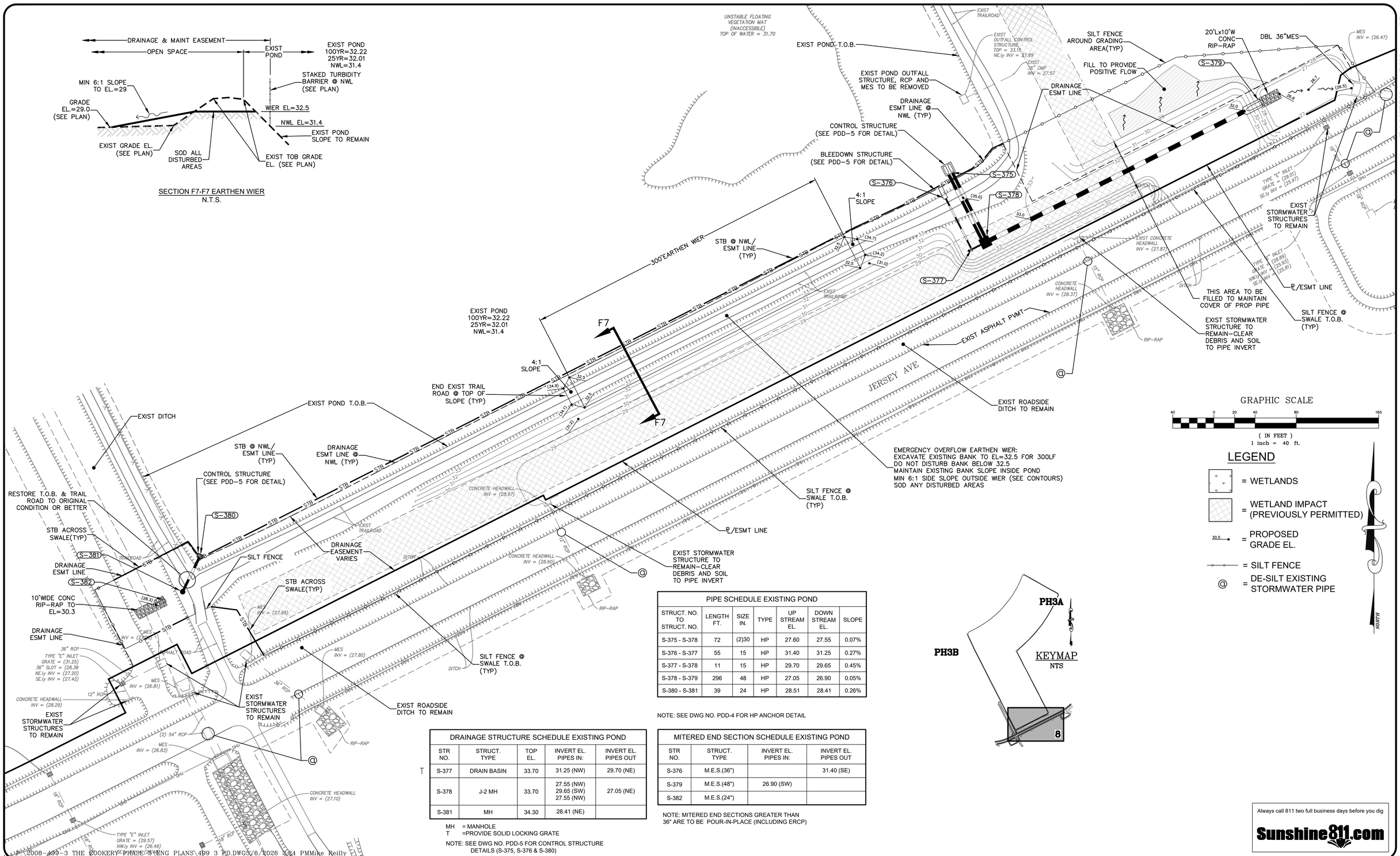
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Sheet No. 21 of 65

PD-7

DWG. NO.

SECTION F7-F7 EARTHEN WIER
N.T.S.



PIPE SCHEDULE EXISTING POND						
STRUCT. NO. TO STRUCT. NO.	LENGTH FT.	SIZE IN.	TYPE	UP STREAM EL.	DOWN STREAM EL.	SLOPE
S-375 - S-378	72	(2)30	HP	27.60	27.55	0.07%
S-376 - S-377	55	15	HP	31.40	31.25	0.27%
S-377 - S-378	11	15	HP	29.70	29.65	0.45%
S-378 - S-379	296	48	HP	27.05	26.90	0.05%
S-380 - S-381	39	24	HP	28.51	28.41	0.26%

NOTE: SEE DWG NO. PDD-4 FOR HP ANCHOR DETAIL

DRAINAGE STRUCTURE SCHEDULE EXISTING POND				
STR NO.	STRUCT. TYPE	TOP EL.	INVERT EL. PIPES IN:	INVERT EL. PIPES OUT
T S-377	DRAIN BASIN	33.70	31.25 (NW)	29.70 (NE)
S-378	J-2 MH	33.70	27.55 (NW) 29.65 (SW) 27.55 (NW)	27.05 (NE)
S-381	MH	34.30	28.41 (NE)	

MH = MANHOLE
T =PROVIDE SOLID LOCKING GRATE

NOTE: SEE DWG NO. PDD-5 FOR CONTROL STRUCTURE DETAILS (S-375, S-376 & S-380)

MITERED END SECTION SCHEDULE EXISTING POND			
STR NO.	STRUCT. TYPE	INVERT EL. PIPES IN:	INVERT EL. PIPES OUT
S-376	M.E.S.(36")		31.40 (SE)
S-379	M.E.S.(48")	26.90 (SW)	
S-382	M.E.S.(24")		

NOTE: MITERED END SECTIONS GREATER THAN 36" ARE TO BE POUR-IN-PLACE (INCLUDING ERCP)

GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1 inch = 40 ft.

LEGEND
= WETLANDS
= WETLAND IMPACT (PREVIOUSLY PERMITTED)
30.5 = PROPOSED GRADE EL.
= SILT FENCE
@ = DE-SILT EXISTING STORMWATER PIPE

KEYMAP
NTS

ROOKERY – PH3A & 3B

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REVISIONS			
NO.	DATE	DESCRIPTION	BY:
–	–	–	–

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CHECKED BY:	VJD/GRW
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DATE:	5/6/2026
PROJ. NO.:	2008-499-3

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ROOKERY – PH3A & 3B

FOR:
D.R. HORTON, INC – JACKSONVILLE

CLAY COUNTY, FLORIDA

PAVING AND DRAINAGE PLANS

JOSHUA M. BENOLKEN LICENSE No 93672 STATE OF FLORIDA PROFESSIONAL ENGINEER

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PD-8

DWG. NO.

DRAINAGE STRUCTURE SCHEDULE PH3A

STR NO.	STRUCT. TYPE	TOP EL.	INVERT EL. PIPES IN:	INVERT EL. PIPES OUT
C-1	C-MH	27.88	21.00 (NW)	21.00 (SE)
S-327	C.I.	27.54	21.00 (NW)	21.00 (SE)
S-328	C.I.	27.54	21.00 (NW)	21.00 (SE)
S-329	D.C.I.	27.54		24.05 (SW)
S-330	C.I.	27.54	23.95 (NE)	23.95 (W)
S-331	MH	28.40	23.75 (E)	23.75 (SW)
S-332	MH	28.00	23.65 (NE) 21.00 (NW)	21.00 (S)
S-334	T.C.I.	27.61		24.10 (N)
S-335	D.C.I.	27.61	24.00 (S)	23.50 (NE)
S-336	C.I.	27.90	21.00 (NW)	21.00 (E)
S-337	C.I.	27.90	21.00 (W)	21.00 (SE)
S-339	C.I.	28.44		25.20 (NE)
S-340	C.I.	28.44	25.10 (SW)	24.60 (NE)
S-343	D.C.I.	27.45		24.20 (N)
S-344	C.I.	27.45	24.10 (S)	24.10 (E)
S-345	C.I.	27.45	24.00 (W)	21.80 (N)
S-346	MH	28.60	18.50 (W) 21.55 (S)	18.50 (E)
S-347	MH	27.50	18.50 (W)	18.50 (NE)

C.I. = CURB INLET
D.C.I. = DOUBLE CURB INLET
T.C.I. = TRIPLE CURB INLET
MH = MANHOLE
C-MH = CONFLICT MANHOLE

NOTE: SEE DWG NO. PDD-5 FOR CONTROL STRUCTURE DETAILS (S-349)

MITERED END SECTION SCHEDULE PH3A

STR NO.	STRUCT. TYPE	INVERT EL. PIPES IN:	INVERT EL. PIPES OUT
S-333	M.E.S.(36")	21.00 (N)	
S-338	M.E.S.(36")	21.00 (NW)	
S-341	M.E.S.(15")	22.75 (SW)	
S-342	M.E.S.(36")		18.50 (E)
S-348	M.E.S.(36")	18.50 (SW)	
S-350	M.E.S.(36")	23.00 (W)	

NOTE: MITERED END SECTIONS GREATER THAN 36" ARE TO BE POUR-IN-PLACE (INCLUDING ERCP)

NOTE: EX - DENOTES EXISTING STORMWATER STRUCTURE

PIPE SCHEDULE PH3A

STRUCT. NO. TO STRUCT. NO.	LENGTH FT.	SIZE IN.	TYPE	UP STREAM EL.	DOWN STREAM EL.	SLOPE
C-1 - S-328	12	36	HP	21.00	21.00	0.00%
EX-241A - S-336	116	36	HP	21.00	21.00	0.00%
EX-244A - S-327	116	36	HP	21.00	21.00	0.00%
S-327 - C-1	16	36	HP	21.00	21.00	0.00%
S-328 - S-332	136	36	HP	21.00	21.00	0.00%
S-329 - S-330	28	18	HP	24.05	23.95	0.36%
S-330 - S-331	115	18	HP	23.95	23.75	0.18%
S-331 - S-332	41	18	HP	23.75	23.65	0.25%
S-332 - S-333	31	36	HP	21.00	21.00	0.00%
S-334 - S-335	29	18	HP	24.10	24.00	0.32%
S-335 - EX-240A	131	24	HP	23.50	22.20	0.99%
S-336 - S-337	29	36	HP	21.00	21.00	0.00%
S-337 - S-338	151	36	HP	21.00	21.00	0.00%
S-339 - S-340	28	15	HP	25.20	25.10	0.34%
S-340 - S-341	151	15	HP	24.60	22.75	1.22%
S-342 - S-346	193	36	HP	18.50	18.50	0.00%
S-343 - S-344	44	15	HP	24.20	24.10	0.23%
S-344 - S-345	36	15	HP	24.10	24.00	0.28%
S-345 - S-346	191	24	HP	21.80	21.55	0.13%
S-346 - S-347	132	36	HP	18.50	18.50	0.00%
S-347 - S-348	35	36	HP	18.50	18.50	0.00%
S-349 - S-350	25	36	HP	23.10	23.00	0.40%

NOTE: SEE DWG NO. PDD-4 FOR HP ANCHOR DETAIL

DRAINAGE STRUCTURE SCHEDULE PH3B

STR NO.	STRUCT. TYPE	TOP EL.	INVERT EL. PIPES IN:	INVERT EL. PIPES OUT
S-301	C.I.	33.04	26.00 (W)	26.00 (E)
S-302	C.I.	33.04	26.00 (W)	26.00 (E)
S-303	C.I.	33.04	26.00 (N)	26.00 (S)
S-304	C.I.	33.04	26.00 (N)	26.00 (S)
S-306	C.I.	33.04	26.00 (E)	26.00 (W)
S-307	C.I.	33.04	26.00 (E)	26.00 (W)
S-309	C.I.	33.30	26.50 (W)	26.50 (SE)
S-310	C.I.	33.30	26.50 (NW)	26.50 (E)
S-312	D.C.I.	33.00		29.55 (N)
S-313	D.C.I.	33.00	29.45 (S)	29.45 (NW)
S-315	MH	35.10	25.00 (NE) 29.15 (SE)	25.00 (SW)
S-316	MH	36.40	25.00 (NE)	25.00 (SW)
S-317	MH	36.60	25.00 (NE)	25.00 (SW)
S-319	D.C.I.	33.47		30.20 (NW)
S-320	MH	33.70	29.40 (SW)	27.80 (NE)
S-323	C.I.	33.24	23.00 (W)	23.00 (E)
S-324	C.I.	33.24	23.00 (W)	23.00 (E)
S-325	MH	34.10	23.00 (W)	23.00 (S)
S-325A	SEE NOTE	32.50	23.00 (N)	

NOTE: S-325A - CAP 48"HDPE WITH 48"x15" REDUCER - INSTALL TEMPORARY 15"HDPE INLINE DRAIN WITH 24"GRATE (SEE DETAIL DWG NO. PD-3)

MITERED END SECTION SCHEDULE PH3B

STR NO.	STRUCT. TYPE	INVERT EL. PIPES IN:	INVERT EL. PIPES OUT
S-305	M.E.S.(36")	26.00 (N)	
S-308	M.E.S.(36")	26.00 (E)	
S-311	M.E.S.(30")	26.50 (W)	
S-314	M.E.S.(48")		25.00 (SW)
S-318	M.E.S.(48")	25.00 (NE)	
S-321	M.E.S.(18")	27.50 (SW)	
S-322	M.E.S.(48")		23.00 (E)

NOTE: MITERED END SECTIONS GREATER THAN 36" ARE TO BE POUR-IN-PLACE (INCLUDING ERCP)

PIPE SCHEDULE PH3B

STRUCT. NO. TO STRUCT. NO.	LENGTH FT.	SIZE IN.	TYPE	UP STREAM EL.	DOWN STREAM EL.	SLOPE
EX-74A - S-309	111	30	HP	26.50	26.50	0.00%
EX-79A - S-303	110	36	HP	26.00	26.00	0.00%
* EX-84A - S-301	110	36	HP	26.00	26.00	0.00%
EX-205D - S-306	118	36	HP	26.00	26.00	0.00%
S-301 - S-302	29	36	HP	26.00	26.00	0.00%
S-302 - EX-204C	116	36	HP	26.00	26.00	0.00%
S-303 - S-304	28	36	HP	26.00	26.00	0.00%
S-304 - S-305	155	36	HP	26.00	26.00	0.00%
S-306 - S-307	28	36	HP	26.00	26.00	0.00%
S-307 - S-308	155	36	HP	26.00	26.00	0.00%
S-309 - S-310	37	30	HP	26.50	26.50	0.00%
S-310 - S-311	155	30	HP	26.50	26.50	0.00%
S-312 - S-313	35	18	HP	29.55	29.45	0.29%
S-313 - S-315	158	18	HP	29.45	29.15	0.19%
S-314 - S-315	60	48	HP	25.00	25.00	0.00%
S-315 - S-316	139	48	HP	25.00	25.00	0.00%
S-316 - S-317	143	48	HP	25.00	25.00	0.00%
S-317 - S-318	159	48	HP	25.00	25.00	0.00%
S-319 - EX-71	123	18	HP	30.20	29.95	0.20%
S-320 - S-321	24	18	HP	27.80	27.50	1.26%
S-322 - S-323	179	48	HP	23.00	23.00	0.00%
S-323 - S-324	28	48	HP	23.00	23.00	0.00%
S-324 - S-325	154	48	HP	23.00	23.00	0.00%
S-325 - S-325A	19	48	HP	23.00	23.00	0.00%

NOTE: SEE DWG NO. PDD-4 FOR HP ANCHOR DETAIL

* NOTE: REMOVE EXISTING 36"HP PIPE STUB BACK TO EXIST MH 84 INV.EL=25.00. CORE MH TO PROPOSED INV.EL=26.00.

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REVISIONS

NO.	DATE	DESCRIPTION	BY:
–	–	–	–

DESIGNED BY: MR
DRAWN BY: MR
CHECKED BY: VJD/GRW
SCALE: N/A
DATE: 5/6/2026
PROJ. NO.: 2008-499-3

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ROOKERY – PH3A & 3B
FOR:
D.R. HORTON, INC – JACKSONVILLE
CLAY COUNTY, FLORIDA
DRAINAGE STRUCTURE TABLES

JOSHUA M. BENOLKEN LICENSE No 93672 STATE OF FLORIDA PROFESSIONAL ENGINEER

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Sheet No. 23 of 65

DST-1

DWG. NO.

ROOKERY – PH3A & 3B

LEGEND

= WETLANDS (FLAGGED)

= WETLANDS (AERIAL INTERPRETATION)

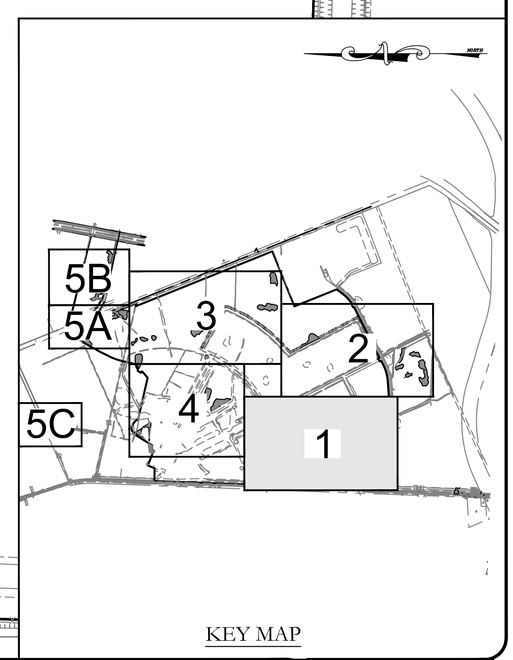
GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

NORTH

JERSEY AVE



KEY MAP

P:\2008-499-3 THE ROOKERY PHASE 3\ENG PLANS\499 3 WFM.DWG5/6/2026 2:25 PMMike Reilly

REVISIONS			
NO.	DATE	DESCRIPTION	BY:
–	–	–	–

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ROOKERY – PH3A & 3B

FOR:
D.R. HORTON, INC – JACKSONVILLE

CLAY COUNTY, FLORIDA

WETLAND FLAG MAP

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Sheet No. 24 of 65

WFM–1

DWG. NO.

ROOKERY – PH3A & 3B

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

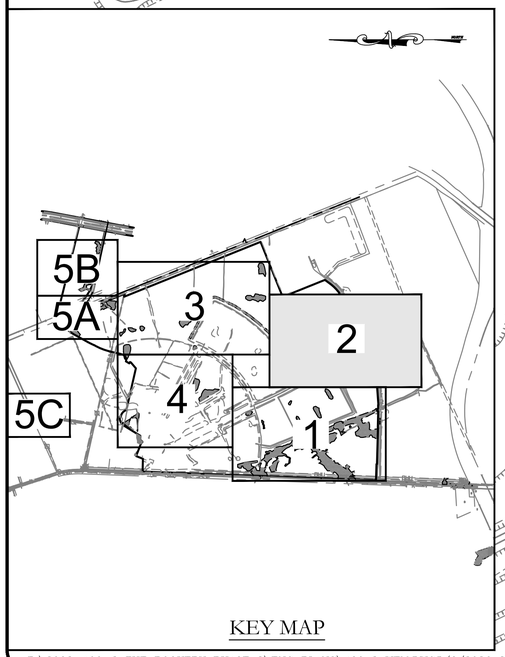
NORTH

LEGEND

= WETLANDS (FLAGGED)

= WETLANDS (AERIAL INTERPRETATION)

JERSEY AVE



KEY MAP

P:\2008-499-3 THE ROOKERY PHASE 3\ENG PLANS\499 3 WFM.DWG5/6/2026 2:25 PMMike Reilly

REVISIONS			
NO.	DATE	DESCRIPTION	BY:
–	–	–	–

DESIGNED BY:	MR
DRAWN BY:	MR
CHECKED BY:	VJD/GRW
SCALE:	1" = 100'
DATE:	5/6/2026
PROJ. NO.:	2008-499-3

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CIVIL ENGINEERS / LAND PLANNERS
8647 Baypine Road, Suite 200
Jacksonville, Florida 32256
Phone: (904)363-8916 Fax: (904)363-8917
www.dunneng.com

ROOKERY – PH3A & 3B

FOR:
D.R. HORTON, INC – JACKSONVILLE

CLAY COUNTY, FLORIDA

WETLAND FLAG MAP

JOSHUA M. BENOLKEN LICENSE No93672 STATE OF FLORIDA PROFESSIONAL ENGINEER

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GLEN R. WIEGER ENGINEER NO. 81419 | JOSHUA M. BENOLKEN ENGINEER NO. 93672 | DAVID F. PEIGLER ENGINEER NO. 44100

GRAPHIC SCALE

100 0 50 100 200 400

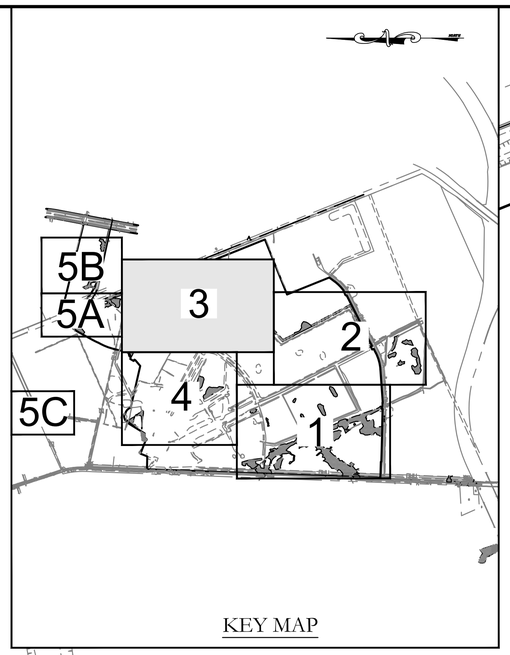
(IN FEET)
1 inch = 100 ft.

NORTH

LEGEND

= WETLANDS (FLAGGED)

= WETLANDS (AERIAL INTERPRETATION)



KEY MAP

ROOKERY – PH3A & 3B

P:\2008-499-3 THE ROOKERY PHASE 3\ENG PLANS\499 3 WFM.DWG5/6/2026 2:25 PMMike Reilly

REVISIONS			
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ROOKERY – PH3A & 3B

FOR:
D.R. HORTON, INC – JACKSONVILLE

CLAY COUNTY, FLORIDA

WETLAND FLAG MAP

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ROOKERY – PH3A & 3B

GRAPHIC SCALE

100 0 50 100 200 400

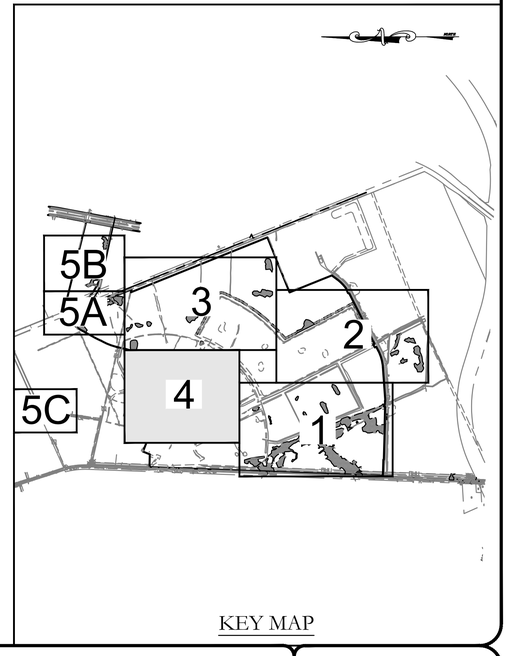
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LEGEND

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KEY MAP

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ROOKERY – PH3A & 3B

FOR:
D.R. HORTON, INC – JACKSONVILLE

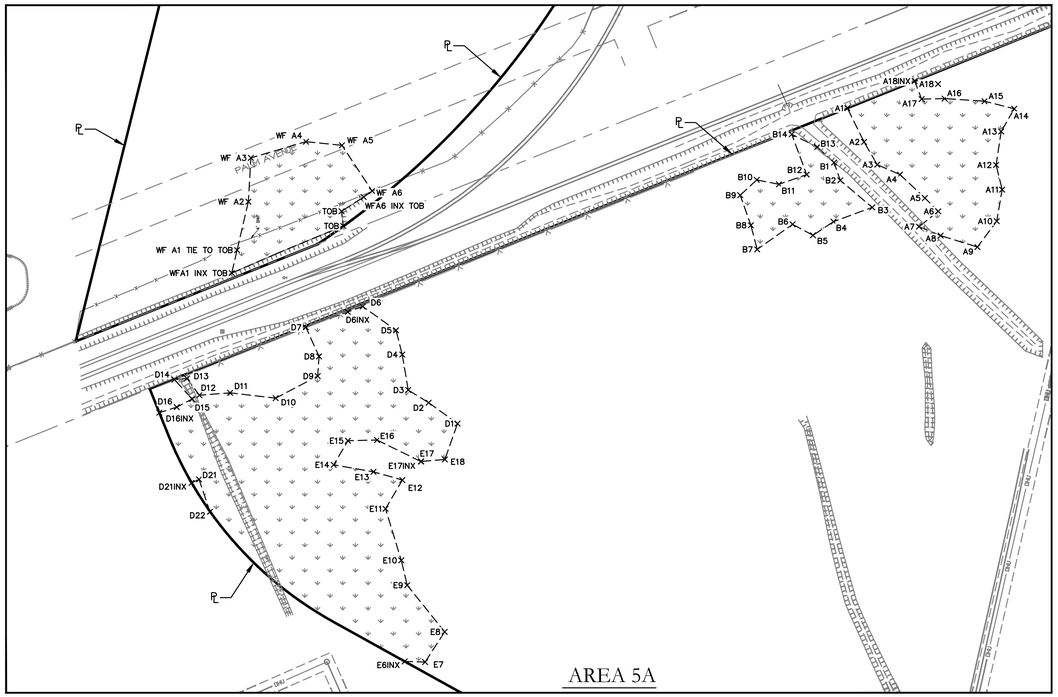
CLAY COUNTY, FLORIDA

WETLAND FLAG MAP

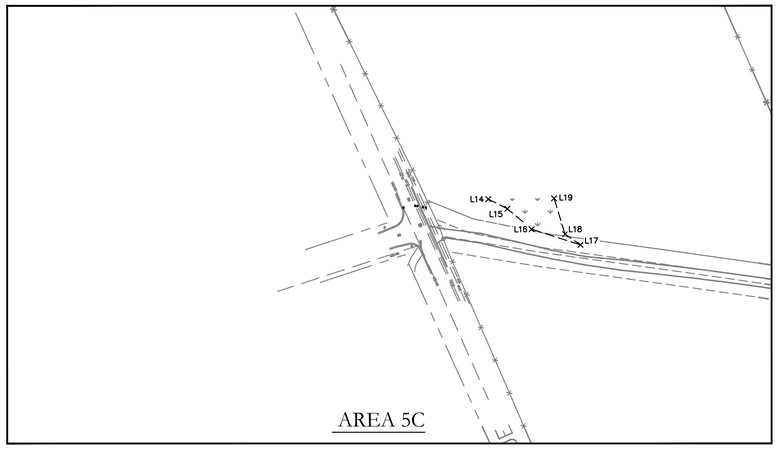
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GLEN R. WIEGER ENGINEER NO. 81419 JOSHUA M. BENOLKEN ENGINEER NO. 93672 DAVID F. PEIGLER ENGINEER NO. 44100







GRAPHIC SCALE

100 0 50 100 200 400

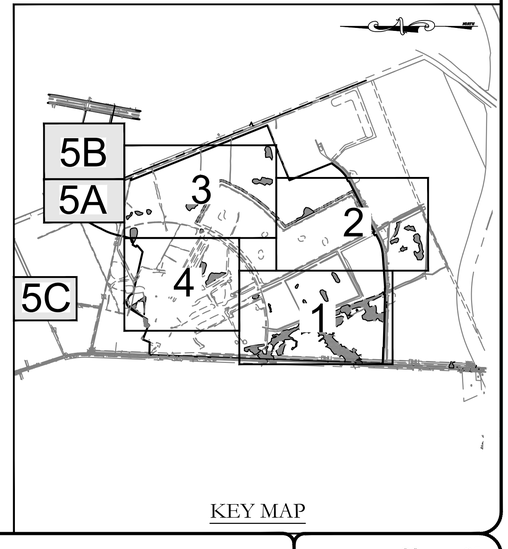
(IN FEET)
1 inch = 100 ft.

NORTH

LEGEND

= WETLANDS (FLAGGED)

= WETLANDS (AERIAL INTERPRETATION)



KEY MAP

ROOKERY – PH3A & 3B

P:\2008-499-3 THE ROOKERY PHASE 3\ENG PLANS\499 3 WFM.DWG 5/6/2026 2:25 PMMike Reilly

REVISIONS			
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–	–	–	–

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CHECKED BY:	VJD/GRW
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DATE:	5/6/2026
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ROOKERY – PH3A & 3B

FOR:
D.R. HORTON, INC – JACKSONVILLE

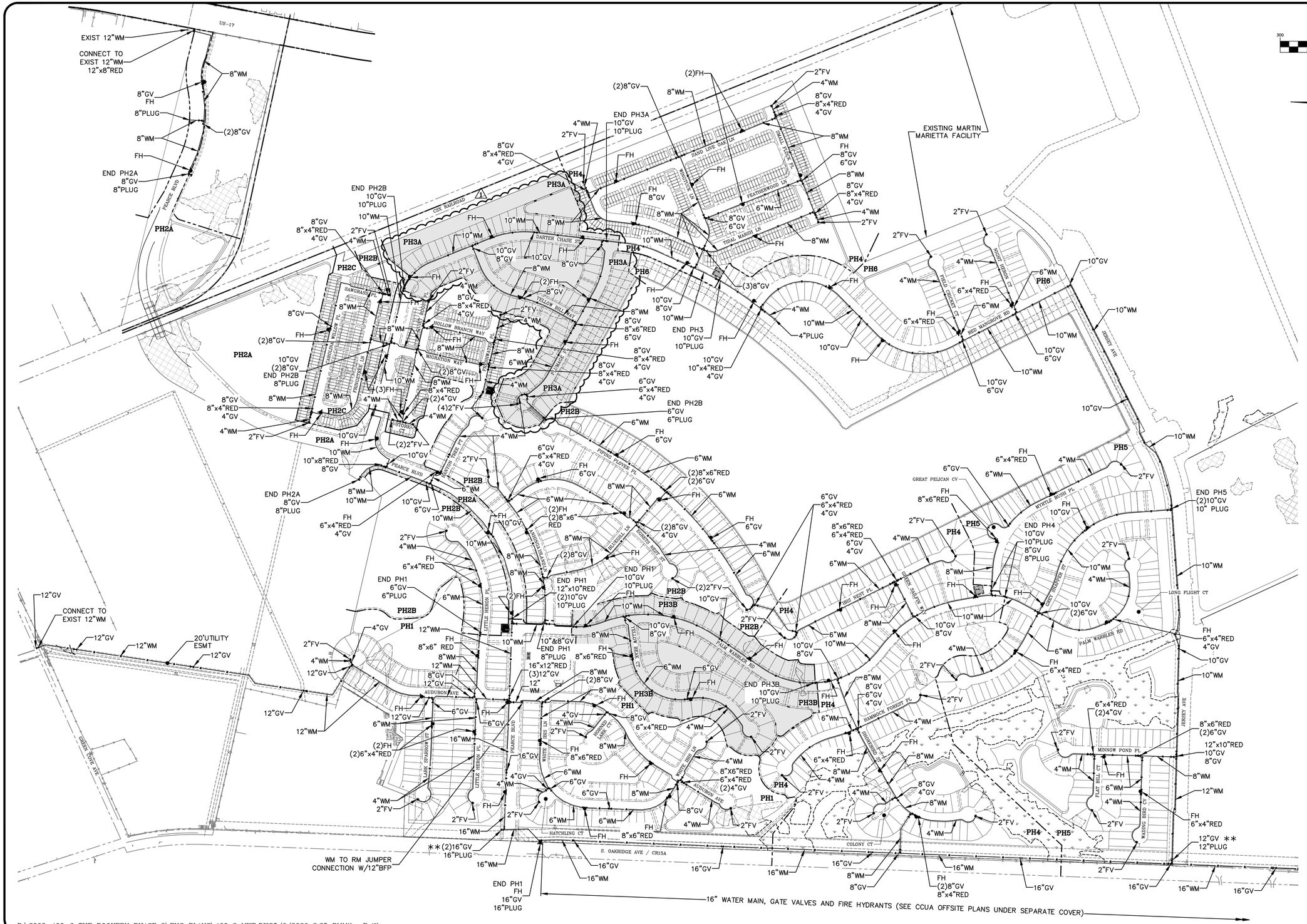
CLAY COUNTY, FLORIDA

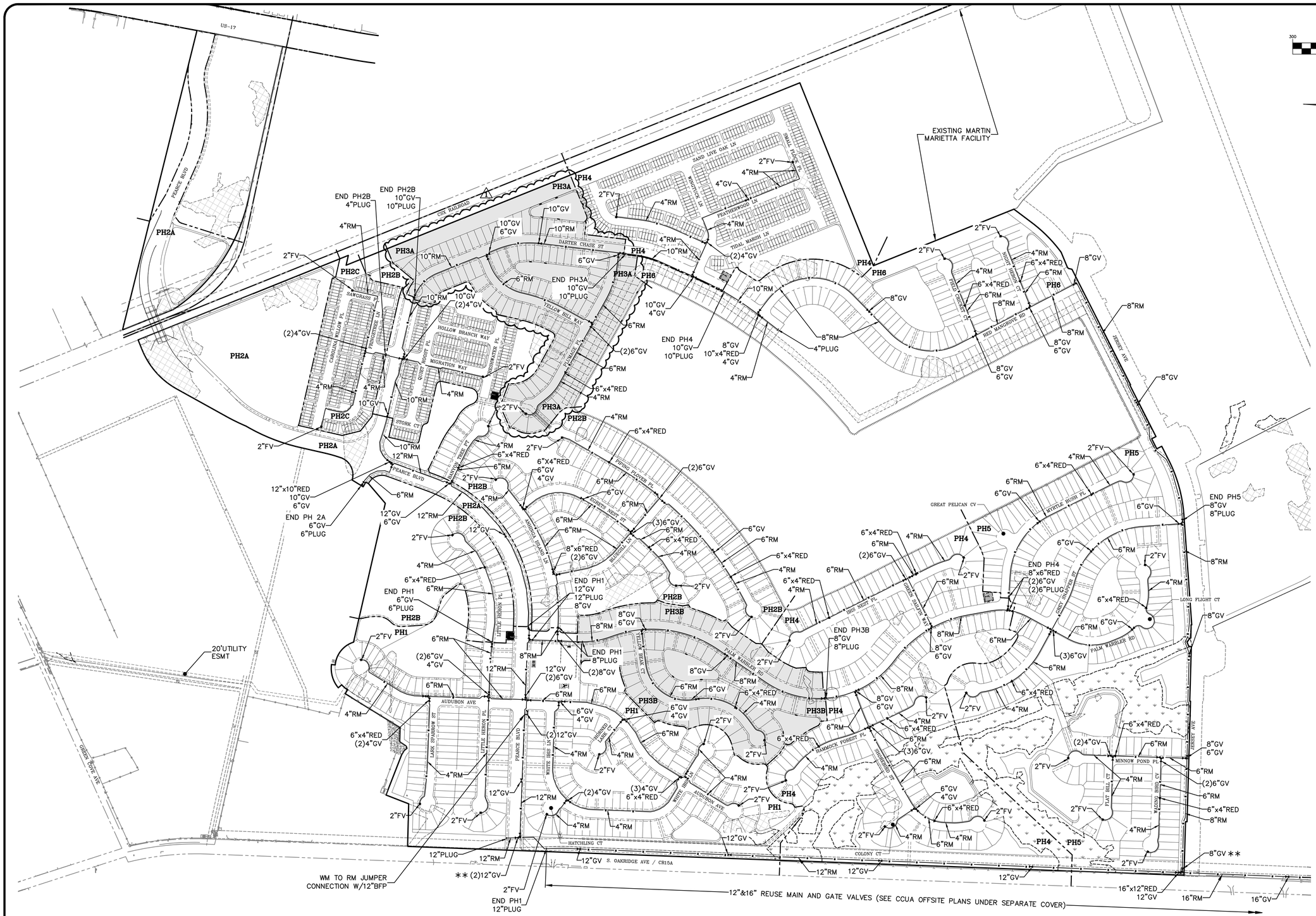
WETLAND FLAG MAP

JOSHUA M. BENOLKEN LICENSE No93672 STATE OF FLORIDA PROFESSIONAL ENGINEER

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GLEN R. WIEGER ENGINEER NO. 81419 | JOSHUA M. BENOLKEN ENGINEER NO. 93672 | DAVID F. PEIGLER ENGINEER NO. 44100


EXIST 12"WM
CONNECT TO EXIST 12"WM 12"x8"RED
US-17
PEARCE BLVD
PH2A
8"WM
8"GV FH
8"PLUG
(2)8"GV
END PH2A 8"GV 8"PLUG
CSX RAILROAD
END PH2B 10"GV 10"PLUG
PH2B
PH2C
PH3A
PH4
PH6
END PH3A 10"GV 10"PLUG
EXISTING MARTIN MARIETTA FACILITY
END PH3 10"GV 10"PLUG
SAWGRASS PL
CROSSOPTERA WILLOW PL
PHEASANT RIDGE CT
HOLLOW BRANCH WAY
MIGRATION WAY
DARTER CHASE PL
YELLOW BILL WAY
SAND DUNE OAK DR
SMALL FLOCK PL
FEATHERWOOD LN
TIDAL MARSH LN
WIGEON LN
FIELD CROWES CT
WIGHT HERON CT
RED MANGROVE RD
JERSEY AVE
PHEASANT PLAINS PL
PHEASANT PLAINS TR
PHEASANT PLAINS WAY
PHEASANT PLAINS LN
PHEASANT PLAINS CT
PHEASANT PLAINS DR
PHEASANT PLAINS CIR
PHEASANT PLAINS BLVD
PHEASANT PLAINS PKWY
PHEASANT PLAINS TRL
PHEASANT PLAINS PL



ROOKERY – PH3A & 3B

P:\2008-499-3 THE ROOKERY PHASE 3\ENG PLANS\499 3 MRP.DWG 5/6/2026 2:25 PM Mike Reilly

REVISIONS			
NO.	DATE	DESCRIPTION	BY:
1	3-3-26	REVISED PHASE 3A TO 50' LOTS	JB

DESIGNED BY:	MR
DRAWN BY:	MR
CHECKED BY:	VJD/GRW
SCALE:	1" = 300'
DATE:	5/6/2026
PROJ. NO.:	2008-499-3

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ROOKERY – PH3A & 3B

FOR:
D.R. HORTON, INC – JACKSONVILLE

CLAY COUNTY, FLORIDA

MASTER REUSE PLAN

JOSHUA M. BENOLKEN LICENSE No 93672 STATE OF FLORIDA PROFESSIONAL ENGINEER

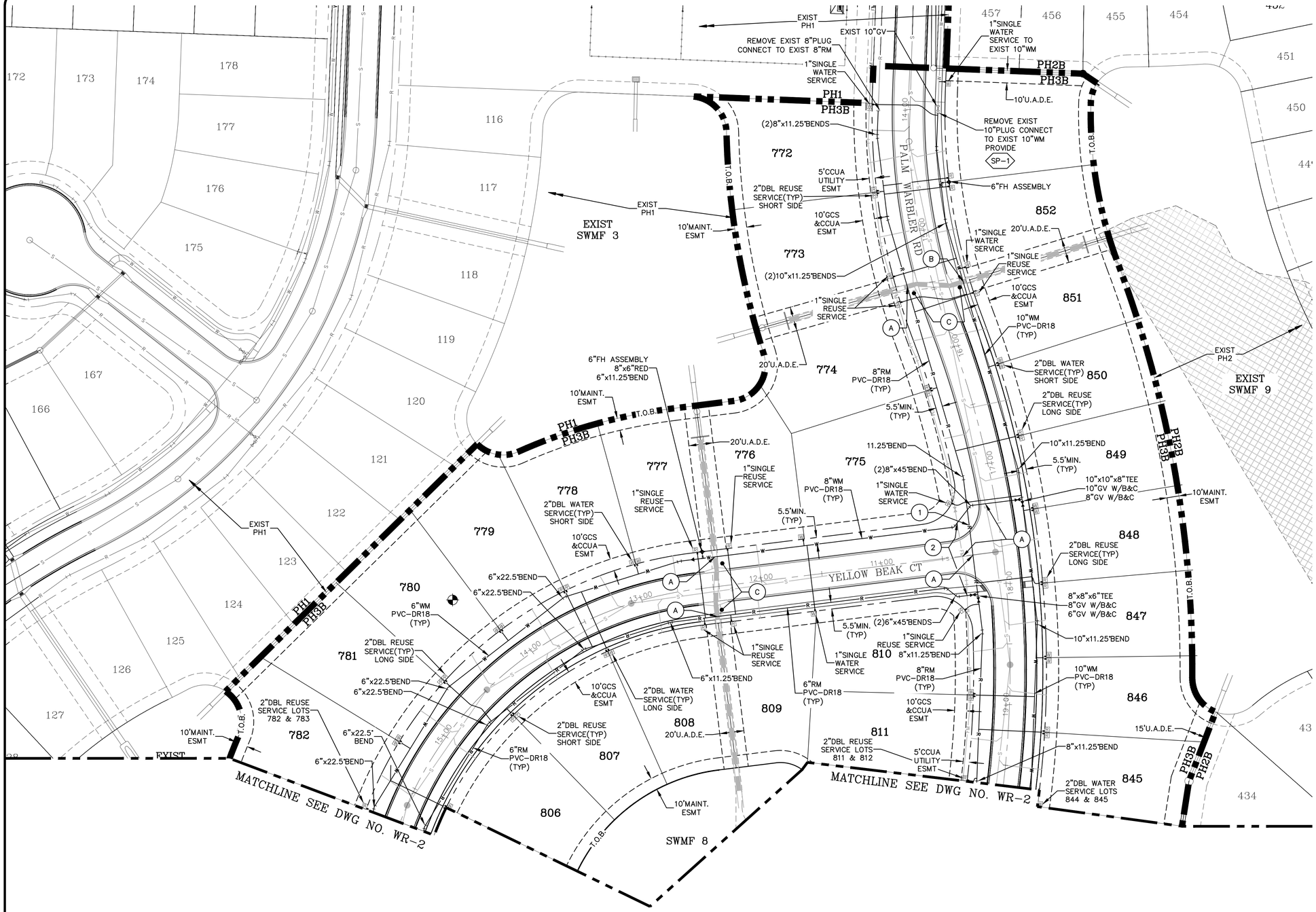
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GLEN R. WIEGER ENGINEER NO. 81419 | JOSHUA M. BENOLKEN ENGINEER NO. 93672 | DAVID F. PEIGLER ENGINEER NO. 44100

Sheet No. 30 of 65

MRP–1

DWG. NO.



GRAPHIC SCALE

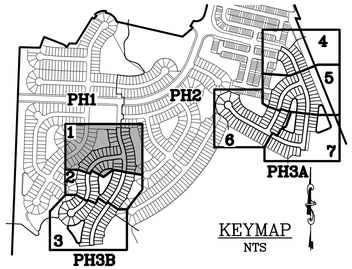
40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

LEGEND

= WETLANDS SP-1 = SAMPLE POINT

= WETLAND IMPACT (PREVIOUSLY PERMITTED)



KEYMAP
NTS

UTILITY CROSSING LEGEND

ALL PIPE CROSSINGS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CCUA SPECIFICATIONS

(1) = CONSTRUCT REUSE MAIN BELOW WATER MAIN - MAINTAIN 12" MIN. SEPARATION

(2) = CONSTRUCT FORCE MAIN BELOW WATER MAIN OR REUSE MAIN- MAINTAIN 12" MIN. SEPARATION

(A) = CONSTRUCT PRESSURE MAIN 6" (MIN) 12"(PREFERED) ABOVE OUTSIDE WALL OF SEWER/STORM PIPE

(B) = CONSTRUCT PRESSURE MAIN 12" MIN. BELOW OUTSIDE WALL OF SEWER/STORM PIPE

(C) = MAINTAIN HORIZONTAL SEPARATION PER CCUA NOTES BELOW

CCUA NOTES:

1. WATER MAIN, REUSE MAIN AND FORCE MAIN TO BE INSTALLED WITH TRACER WIRE, SEE DETAIL DWG. NO. WD-5.
2. THE MINIMUM COVER OVER TOP OF WATER MAIN SHALL BE 36".
3. THE MINIMUM COVER OVER TOP OF REUSE MAIN SHALL BE 48".
4. FOR UTILITIES (CLAY ELECTRIC, BELL SOUTH & CABLE, T.V.) LOCATIONS SEE DETAILS 50' R/W AND 60' R/W DWG. NO. UTC-1.
5. IN LOCATIONS WHERE WATER MAIN (WM) & REUSE MAIN (RM) CROSS, IF RM MUST BE ABOVE WM MAINTAIN 18" MIN VERTICAL SEPARATION.
6. IN LOCATIONS WHERE WATER MAIN (WM) IS NEAR STORM PIPES OR STRUCTURES MAINTAIN 3' MIN HORIZONTAL CLEARANCE BETWEEN THEM WITH BENDS OR DEFLECTION AS DEPICTED.
7. IN LOCATIONS WHERE WATER MAIN (WM) IS NEAR SANITARY PIPES OR STRUCTURES MAINTAIN 6' MIN HORIZONTAL CLEARANCE BETWEEN THEM WITH BENDS OR DEFLECTION AS DEPICTED.
8. IN LOCATIONS WHERE REUSE MAIN (RM) IS NEAR STORM OR SANITARY PIPES OR STRUCTURES MAINTAIN 3' MIN HORIZONTAL CLEARANCE BETWEEN THEM WITH BENDS OR DEFLECTION AS DEPICTED.
9. POTABLE WATER AND REUSE MAINS TO BE PLACED AS CLOSE AS POSSIBLE TO CENTER OF SIDEWALK.
10. WATER/REUSE METERS MUST BE LOCATED IN THE R/W OR UTILITY EASEMENT OUTSIDE OF THE SIDEWALK & DRIVEWAY.
11. FOR WATER AND REUSE MAINS – A&B CROSSINGS & FITTINGS SHALL NOT BE LOCATED UNDER PAVEMENT.
12. WATER & REUSE MAIN VALVES & VALVE BOXES SHALL NOT BE LOCATED WITHIN THE PAVEMENT.
13. FIRE HYDRANTS ARE TO BE LOCATED AT THE PROPERTY LINE.
14. WATER MAIN SHALL BE 5.5' FROM PROPERTY LINE TO NEAREST POINT OF THE MAIN.
15. MAINTAIN 10' MIN. BETWEEN WATER AND RECLAIMED SERVICES/ METER BOXES.

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P:\2008-499-3 THE ROOKERY PHASE 3\ENG PLANS\499 3 WR.DWG5/6/2026 2:25 PMMike Reilly

REVISIONS			
NO.	DATE	DESCRIPTION	BY:
1	4-30-26	REVISED PHASE 3B LOT SIZES TO 60' LOTS	JB

DESIGNED BY:	MR
DRAWN BY:	MR
CHECKED BY:	VJD/GRW
SCALE:	1" = 40'
DATE:	5/6/2026
PROJ. NO.:	2008-499-3

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Phone: (904)363-8916 Fax: (904)363-8917
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ROOKERY – PH3A & 3B

FOR:
D.R. HORTON, INC – JACKSONVILLE

CLAY COUNTY, FLORIDA

WATER AND REUSE PLAN

JOSHUA M. BENOLKEN LICENSE No 93672 STATE OF FLORIDA PROFESSIONAL ENGINEER

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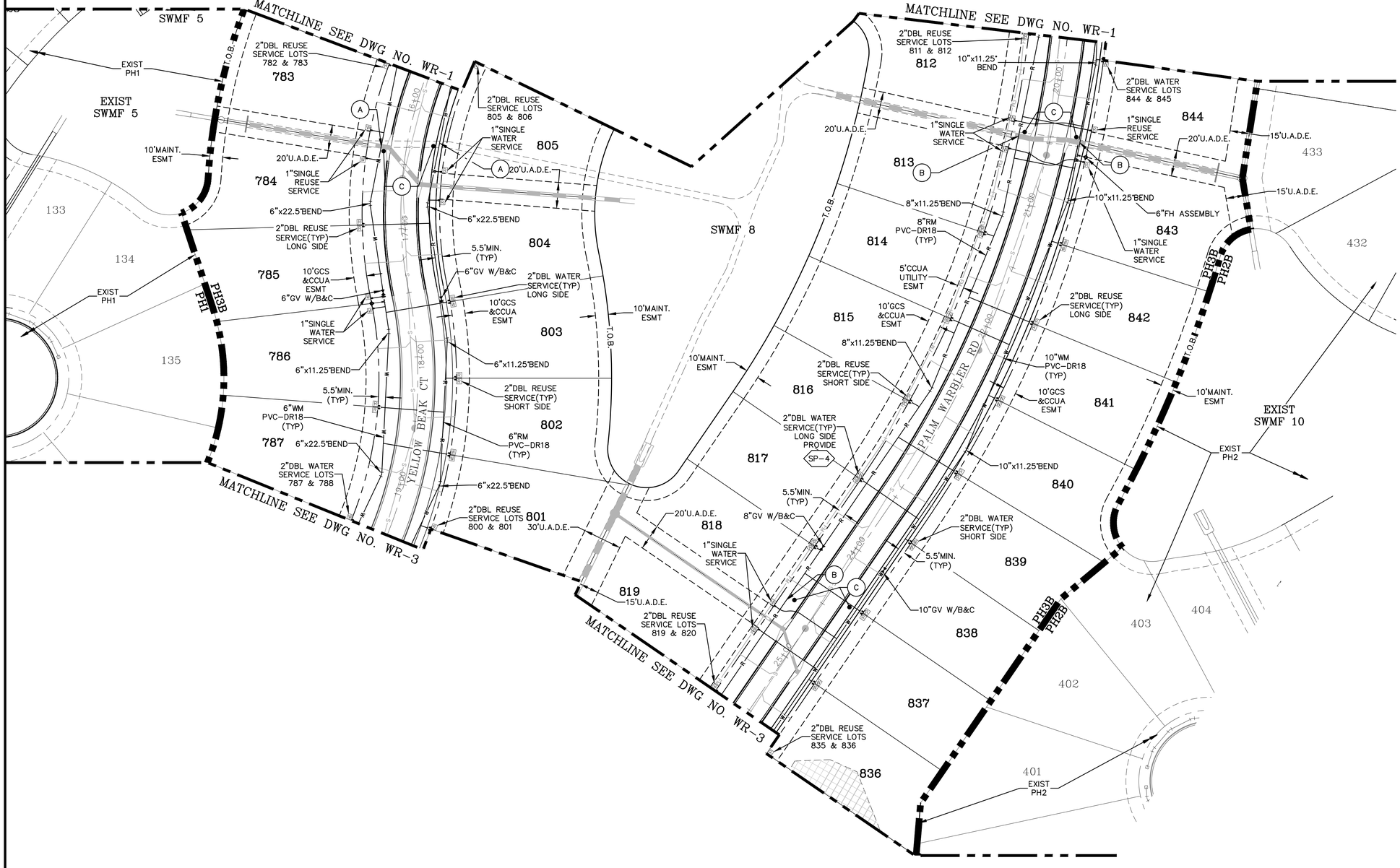
GLEN R. WIEGER ENGINEER NO. 81419 | JOSHUA M. BENOLKEN ENGINEER NO. 93672 | DAVID F. PEIGLER ENGINEER NO. 44100

Sheet No. 31 of 65

WR-1

DWG. NO.

ROOKERY – PH3A & 3B



GRAPHIC SCALE

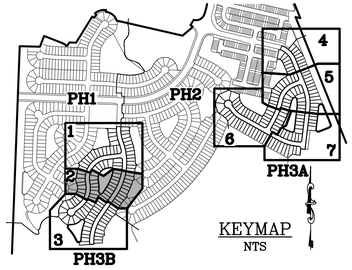
40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

LEGEND

= WETLANDS SP-1 = SAMPLE POINT

= WETLAND IMPACT (PREVIOUSLY PERMITTED)



KEYMAP
NTS

UTILITY CROSSING LEGEND

ALL PIPE CROSSINGS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CCUA SPECIFICATIONS

(1) = CONSTRUCT REUSE MAIN BELOW WATER MAIN - MAINTAIN 12" MIN. SEPARATION

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(C) = MAINTAIN HORIZONTAL SEPARATION PER CCUA NOTES BELOW

CCUA NOTES:

1. WATER MAIN, REUSE MAIN AND FORCE MAIN TO BE INSTALLED WITH TRACER WIRE, SEE DETAIL DWG. NO. WD-5.
2. THE MINIMUM COVER OVER TOP OF WATER MAIN SHALL BE 36".
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ROOKERY – PH3A & 3B

P:\2008-499-3 THE ROOKERY PHASE 3\ENG PLANS\499 3 WR.DWG5/6/2026 2:25 PMMike Reilly

REVISIONS			
NO.	DATE	DESCRIPTION	BY:
1	4-30-26	REVISED PHASE 3B LOT SIZES TO 60' LOTS	JB

DESIGNED BY:	MR
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CHECKED BY:	VJD/GRW
SCALE:	1" = 40'
DATE:	5/6/2026
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ROOKERY – PH3A & 3B

FOR:
D.R. HORTON, INC – JACKSONVILLE

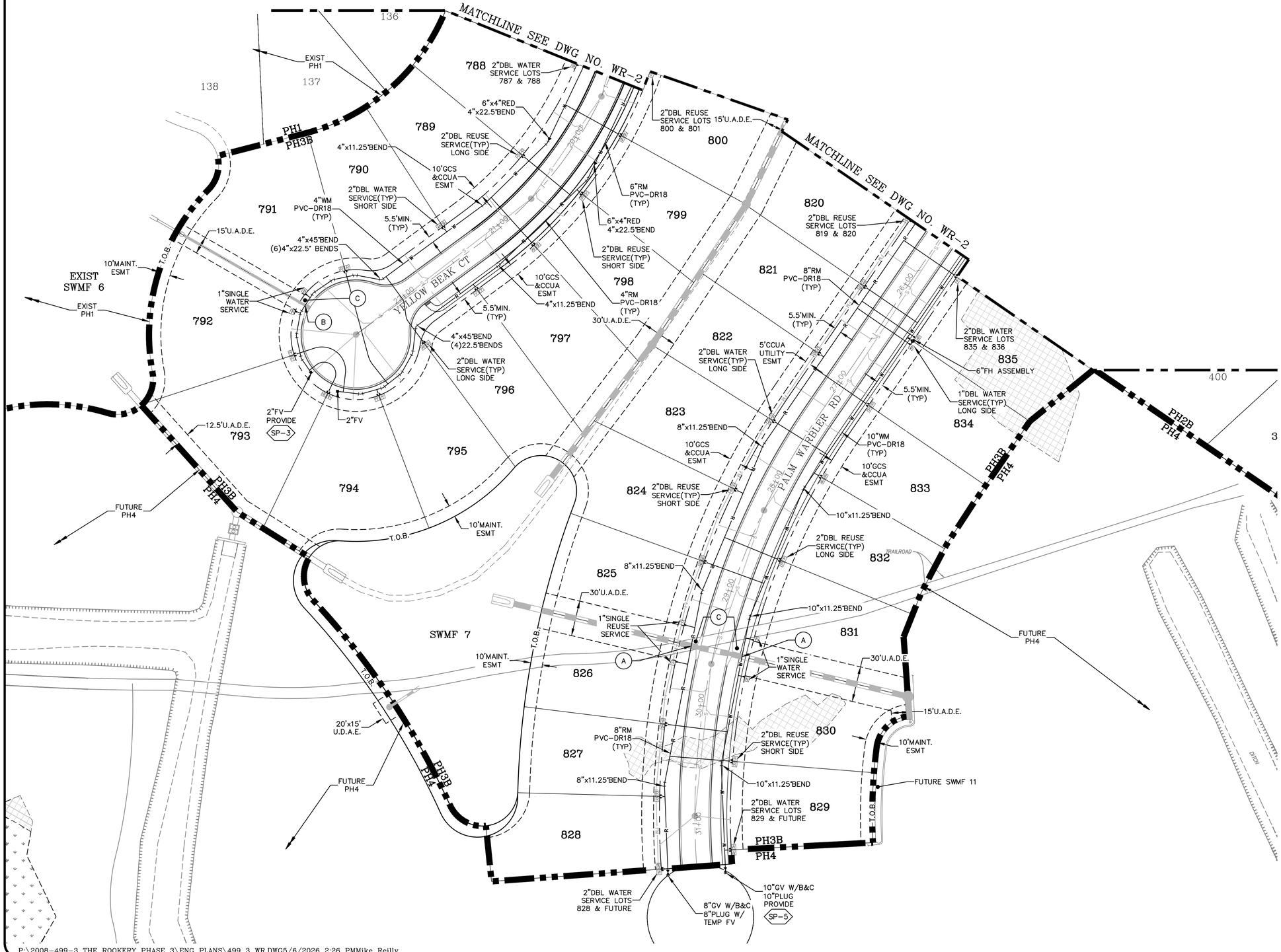
CLAY COUNTY, FLORIDA

WATER AND REUSE PLAN

JOSHUA M. BENOLKEN LICENSE No 93672 STATE OF FLORIDA PROFESSIONAL ENGINEER

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GRAPHIC SCALE

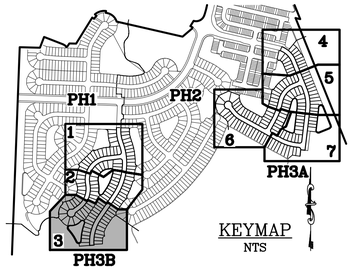
40 0 20 40 80 160

(IN FEET)
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LEGEND

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NTS

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REVISIONS			
NO.	DATE	DESCRIPTION	BY:
1	4-30-26	REVISED PHASE 3B LOT SIZES TO 60' LOTS	JB

DESIGNED BY:	MR
DRAWN BY:	MR
CHECKED BY:	VJD/GRW
SCALE:	1" = 40'
DATE:	5/6/2026
PROJ. NO.:	2008-499-3

Dunn & Associates, Inc.
CIVIL ENGINEERS / LAND PLANNERS
8647 Baypine Road, Suite 200
Jacksonville, Florida 32256
Phone: (904)363-8916 Fax: (904)363-8917
www.dunneng.com

ROOKERY – PH3A & 3B

FOR:
D.R. HORTON, INC – JACKSONVILLE

CLAY COUNTY, FLORIDA

WATER AND REUSE PLAN

JOSHUA M. BENOLKEN LICENSE No 93672 STATE OF FLORIDA PROFESSIONAL ENGINEER

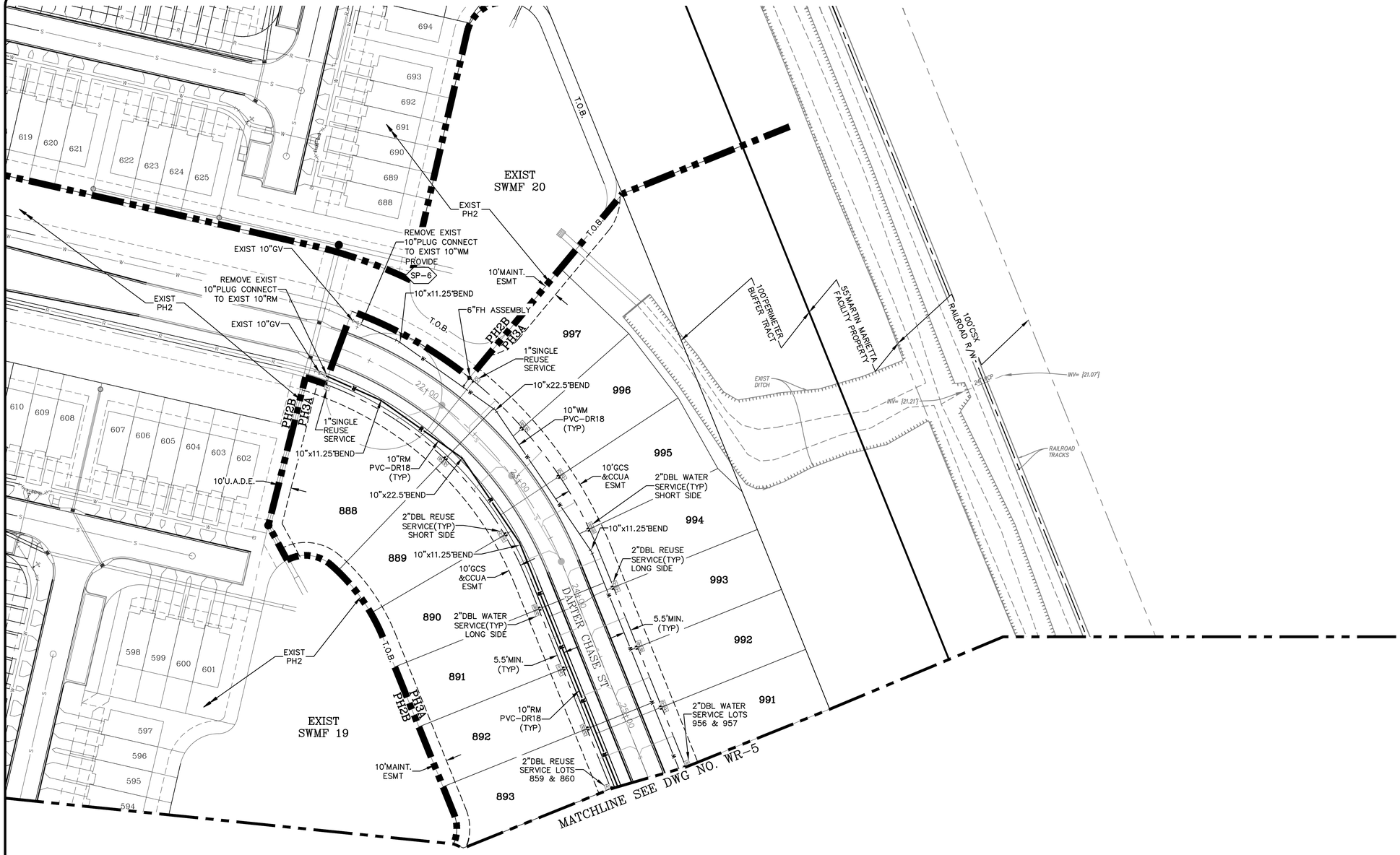
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GLEN R. WIEGER ENGINEER NO. 81419 | JOSHUA M. BENOLKEN ENGINEER NO. 93672 | DAVID F. PEIGLER ENGINEER NO. 44100

Sheet No. 33 of 65

WR-3

DWG. NO.



GRAPHIC SCALE

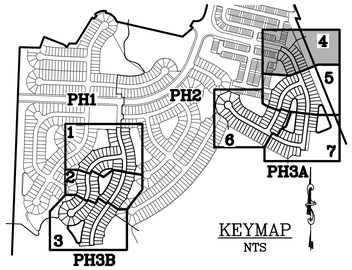
40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

LEGEND

= WETLANDS SP-1 = SAMPLE POINT

= WETLAND IMPACT (PREVIOUSLY PERMITTED)



KEYMAP
NTS

UTILITY CROSSING LEGEND

ALL PIPE CROSSINGS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CCUA SPECIFICATIONS

(1) = CONSTRUCT REUSE MAIN BELOW WATER MAIN - MAINTAIN 12" MIN. SEPARATION

(2) = CONSTRUCT FORCE MAIN BELOW WATER MAIN OR REUSE MAIN- MAINTAIN 12" MIN. SEPARATION

(A) = CONSTRUCT PRESSURE MAIN 6" (MIN) 12"(PREFERED) ABOVE OUTSIDE WALL OF SEWER/STORM PIPE

(B) = CONSTRUCT PRESSURE MAIN 12" MIN. BELOW OUTSIDE WALL OF SEWER/STORM PIPE

(C) = MAINTAIN HORIZONTAL SEPARATION PER CCUA NOTES BELOW

CCUA NOTES:

1. WATER MAIN, REUSE MAIN AND FORCE MAIN TO BE INSTALLED WITH TRACER WIRE, SEE DETAIL DWG. NO. WD-5.
2. THE MINIMUM COVER OVER TOP OF WATER MAIN SHALL BE 36".
3. THE MINIMUM COVER OVER TOP OF REUSE MAIN SHALL BE 48".
4. FOR UTILITIES (CLAY ELECTRIC, BELL SOUTH & CABLE, T.V.) LOCATIONS SEE DETAILS 50' R/W AND 60' R/W DWG. NO. UTC-1.
5. IN LOCATIONS WHERE WATER MAIN (WM) & REUSE MAIN (RM) CROSS, IF RM MUST BE ABOVE WM MAINTAIN 18" MIN VERTICAL SEPARATION.
6. IN LOCATIONS WHERE WATER MAIN (WM) IS NEAR STORM PIPES OR STRUCTURES MAINTAIN 3' MIN HORIZONTAL CLEARANCE BETWEEN THEM WITH BENDS OR DEFLECTION AS DEPICTED.
7. IN LOCATIONS WHERE WATER MAIN (WM) IS NEAR SANITARY PIPES OR STRUCTURES MAINTAIN 6' MIN HORIZONTAL CLEARANCE BETWEEN THEM WITH BENDS OR DEFLECTION AS DEPICTED.
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12. WATER & REUSE MAIN VALVES & VALVE BOXES SHALL NOT BE LOCATED WITHIN THE PAVEMENT.
13. FIRE HYDRANTS ARE TO BE LOCATED AT THE PROPERTY LINE.
14. WATER MAIN SHALL BE 5.5' FROM PROPERTY LINE TO NEAREST POINT OF THE MAIN.
15. MAINTAIN 10' MIN. BETWEEN WATER AND RECLAIMED SERVICES/ METER BOXES.

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P:\2008-499-3 THE ROOKERY PHASE 3\ENG PLANS\499 3 WR.DWG5/6/2026 2:26 PMMike Reilly

REVISIONS			
NO.	DATE	DESCRIPTION	BY:
1	3-3-26	REVISED PHASE 3A TO 50' LOTS	JB

DESIGNED BY:	MR
DRAWN BY:	MR
CHECKED BY:	VJD/GRW
SCALE:	1" = 40'
DATE:	5/6/2026
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ROOKERY – PH3A & 3B

FOR:
D.R. HORTON, INC – JACKSONVILLE

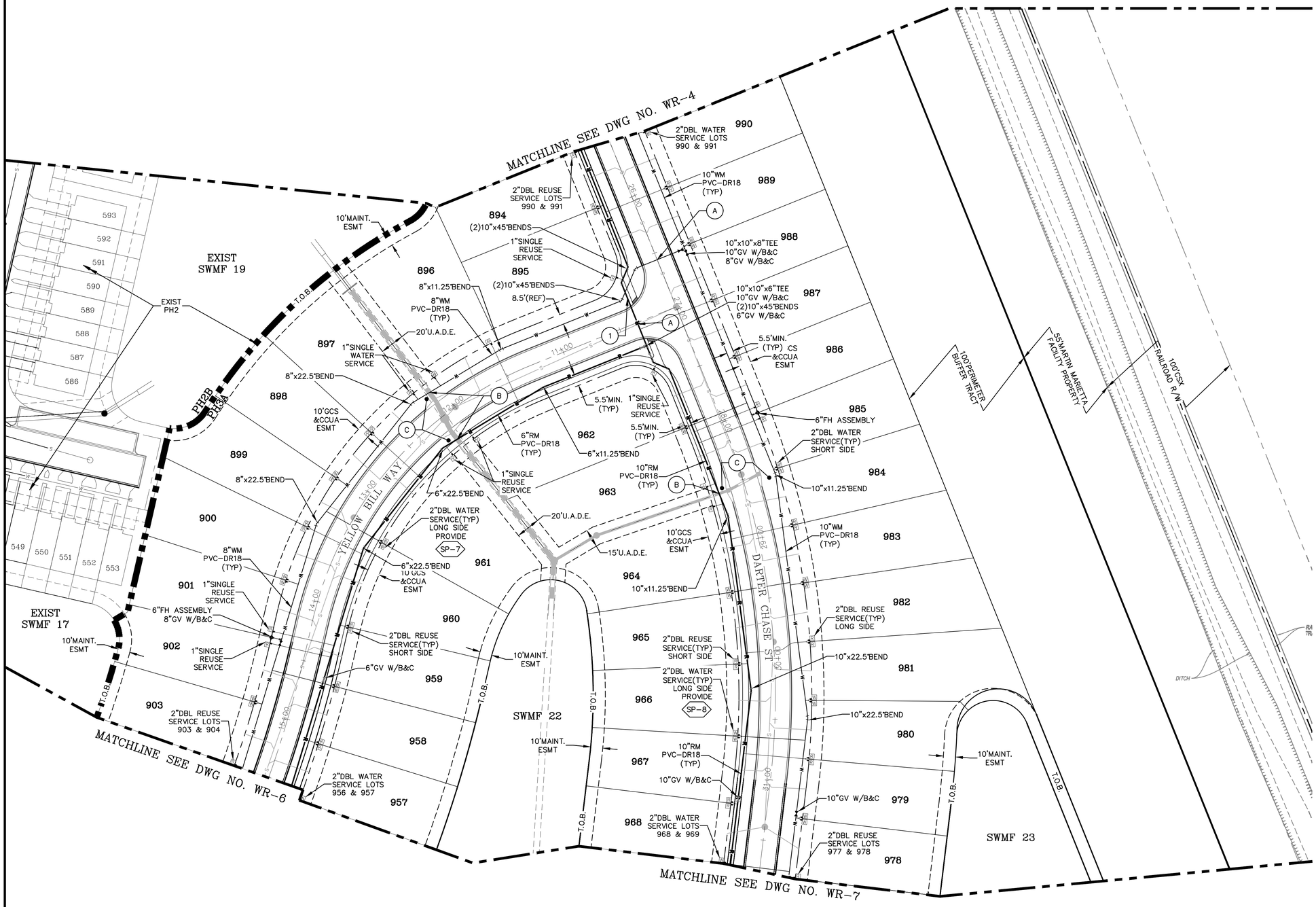
CLAY COUNTY, FLORIDA

WATER AND REUSE PLAN

JOSHUA M. BENOLKEN LICENSE No93672 STATE OF FLORIDA PROFESSIONAL ENGINEER

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GLEN R. WIEGER ENGINEER NO. 81419 | JOSHUA M. BENOLKEN ENGINEER NO. 93672 | DAVID F. PEIGLER ENGINEER NO. 44100



GRAPHIC SCALE

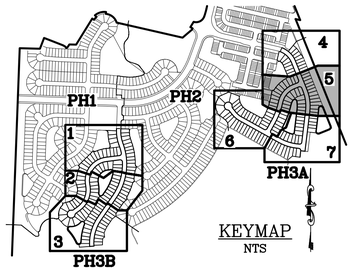
40 0 20 40 80 160

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KEYMAP
NTS

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ALL PIPE CROSSINGS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CCUA SPECIFICATIONS

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CCUA NOTES:

1. WATER MAIN, REUSE MAIN AND FORCE MAIN TO BE INSTALLED WITH TRACER WIRE, SEE DETAIL DWG. NO. WD-5.
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REVISIONS

NO.	DATE	DESCRIPTION	BY:
1	3-3-26	REVISED PHASE 3A TO 50' LOTS	JB

DESIGNED BY:	MR
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ROOKERY – PH3A & 3B

FOR:
D.R. HORTON, INC – JACKSONVILLE

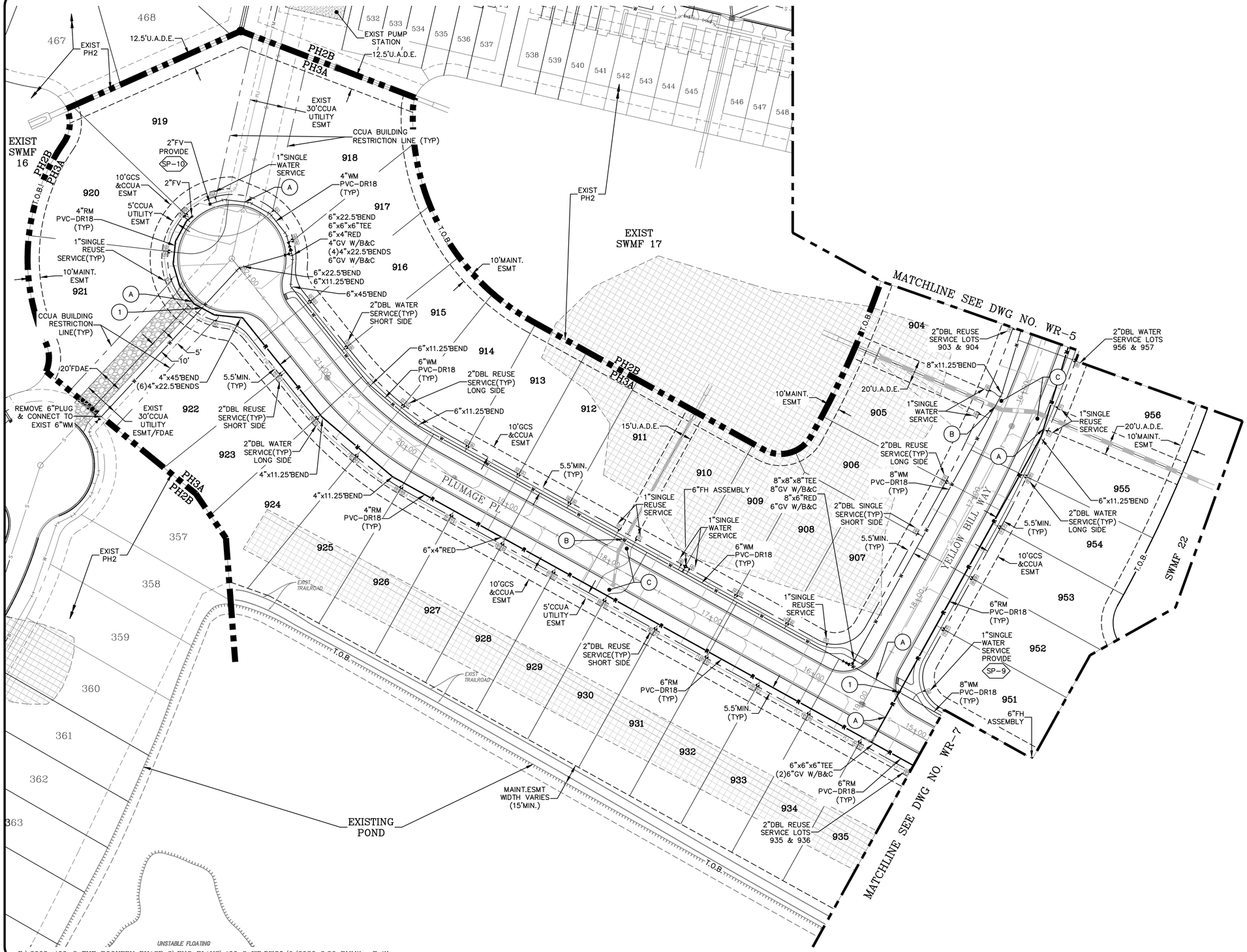
CLAY COUNTY, FLORIDA

WATER AND REUSE PLAN

JOSHUA M. BENOLKEN LICENSE No93672 STATE OF FLORIDA PROFESSIONAL ENGINEER

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GLEN R. WIEGER ENGINEER NO. 81419 | JOSHUA M. BENOLKEN ENGINEER NO. 93672 | DAVID F. PEIGLER ENGINEER NO. 44100



GRAPHIC SCALE

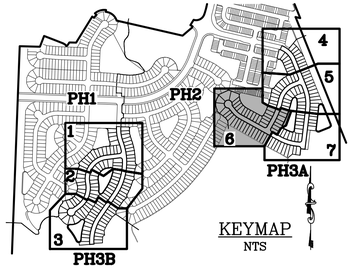
40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

LEGEND

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= WETLAND IMPACT (PREVIOUSLY PERMITTED)



KEYMAP
NTS

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ROOKERY – PH3A & 3B

P:\2008-499-3 THE ROOKERY PHASE 3\ENG PLANS\499 3 WR.DWG5/6/2026 2:26 PMMike Reilly

REVISIONS			
NO.	DATE	DESCRIPTION	BY:
1	3-3-26	REVISED PHASE 3A TO 50' LOTS	JB

DESIGNED BY:	MR
DRAWN BY:	MR
CHECKED BY:	VJD/GRW
SCALE:	1" = 40'
DATE:	5/6/2026
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ROOKERY – PH3A & 3B

FOR:
D.R. HORTON, INC – JACKSONVILLE

CLAY COUNTY, FLORIDA

WATER AND REUSE PLAN

JOSHUA M. BENOLKEN LICENSE No93672 STATE OF FLORIDA PROFESSIONAL ENGINEER

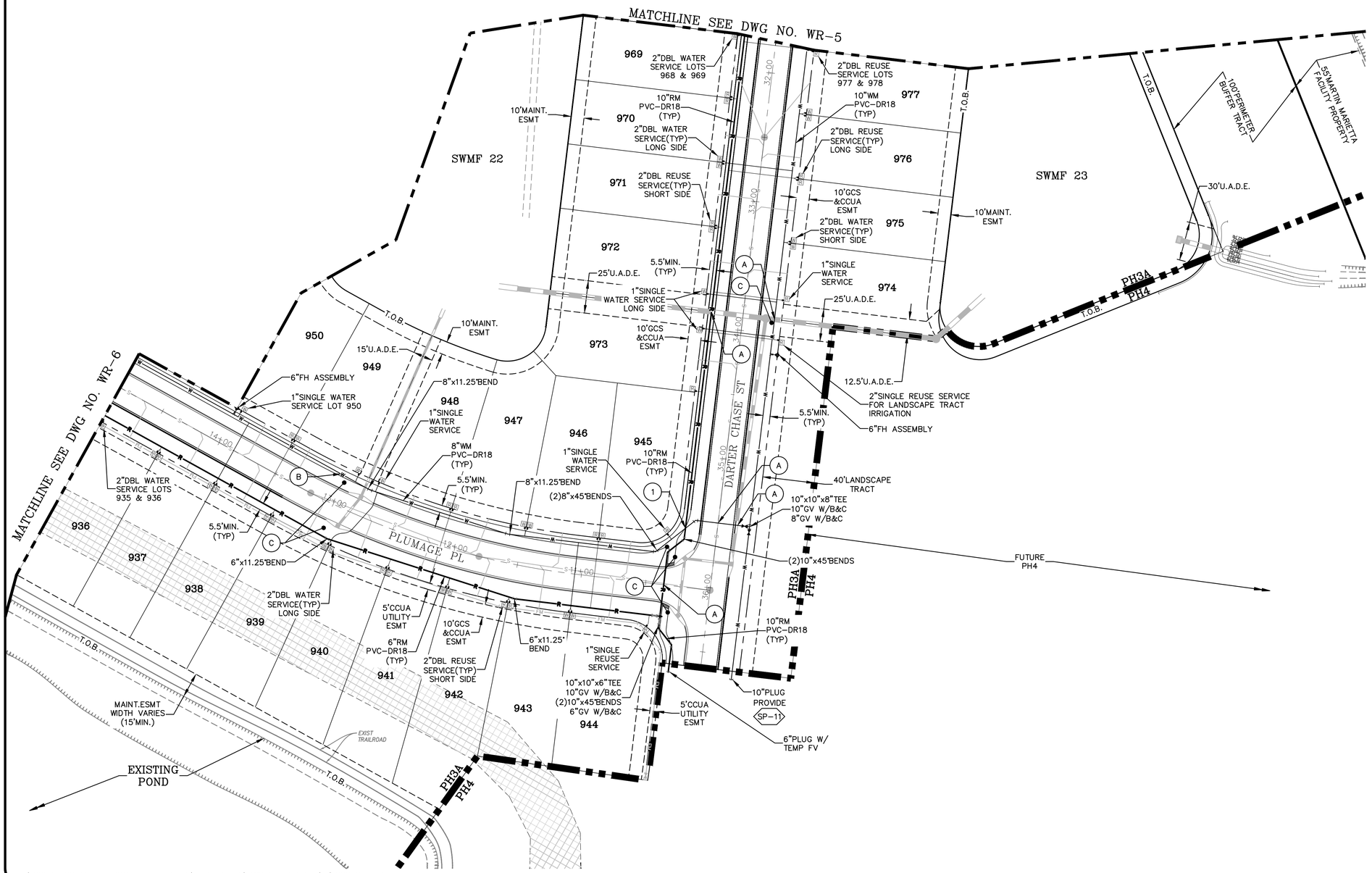
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GLEN R. WIEGER ENGINEER NO. 61419 | JOSHUA M. BENOLKEN ENGINEER NO. 93672 | DAVID F. PEIGLER ENGINEER NO. 44100

Sheet No. 36 of 65

WR-6

DWG. NO.



GRAPHIC SCALE

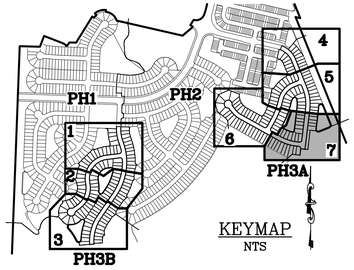
40 0 20 40 80 160

(IN FEET)
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LEGEND

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KEYMAP
NTS

UTILITY CROSSING LEGEND

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CCUA NOTES:

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2. THE MINIMUM COVER OVER TOP OF WATER MAIN SHALL BE 36".
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6. IN LOCATIONS WHERE WATER MAIN (WM) IS NEAR STORM PIPES OR STRUCTURES MAINTAIN 3' MIN HORIZONTAL CLEARANCE BETWEEN THEM WITH BENDS OR DEFLECTION AS DEPICTED.
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P:\2008-499-3 THE ROOKERY PHASE 3\ENG PLANS\499 3 WR.DWG5/6/2026 2:26 PMMike Reilly

REVISIONS

NO.	DATE	DESCRIPTION	BY:
1	3-3-26	REVISED PHASE 3A TO 50' LOTS	JB

DESIGNED BY:	MR
DRAWN BY:	MR
CHECKED BY:	VJD/GRW
SCALE:	1" = 40'
DATE:	5/6/2026
PROJ. NO.:	2008-499-3

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ROOKERY - PH3A & 3B

FOR:
D.R. HORTON, INC - JACKSONVILLE

CLAY COUNTY, FLORIDA

WATER AND REUSE PLAN

JOSHUA M. BENOLKEN LICENSE No 93672 STATE OF FLORIDA PROFESSIONAL ENGINEER

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Sheet No. 37 of 65

WR-7

DWG. NO.

ROOKERY – PH3A & 3B

GRAPHIC SCALE

300 0 150 300 600 1200

(IN FEET)
1 inch = 300 ft.

LEGEND

= WETLANDS

= PHASE 3A & 3B

= WETLAND IMPACT

= MANHOLE

= DIRECTION OF FLOW

SS = SANITARY SEWER

EXISTING MARTIN MARIETTA FACILITY

PS-1
383 SF LOTS

PS-2
292 TOWNHOMES
342 SF LOTS

PS-3
334 TOWNHOMES
157 SF LOTS

PS-4
446 SF LOTS

12" FORCE MAIN, GATE VALVES (SEE CCUA OFFSITE PLANS UNDER SEPARATE COVER)

MASTER SEWER PLAN DEPICTS OVERALL SEWER & FORCE MAIN LOCATION, PRELIMINARY PIPE SIZE, VALVE LOCATIONS & GENERAL INFORMATION. FOR PHASE 3A&3B DETAILED INFORMATION SEE SANITARY SEWER PLANS. FUTURE PHASE DETAILED INFORMATION WILL BE PROVIDED AT THE TIME OF SUBMITTAL.

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Sunshine811.com

P:\2008-499-3 THE ROOKERY PHASE 3\ENG PLANS\499 3 MSP.DWG 5/6/2026 2:26 PM Mike Reilly

REVISIONS			
NO.	DATE	DESCRIPTION	BY:
1	3-3-26	REVISED PHASE 3A TO 50' LOTS	JB
2	4-30-26	REVISED PHASE 3B LOT SIZES TO 60' LOTS	JB

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CHECKED BY:	VJD/GRW
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PROJ. NO.:	2008-499-3

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ROOKERY – PH3A & 3B

FOR:
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CLAY COUNTY, FLORIDA

MASTER SEWER PLAN

JOSHUA M. BENOLKEN LICENSE No 93672 STATE OF FLORIDA PROFESSIONAL ENGINEER

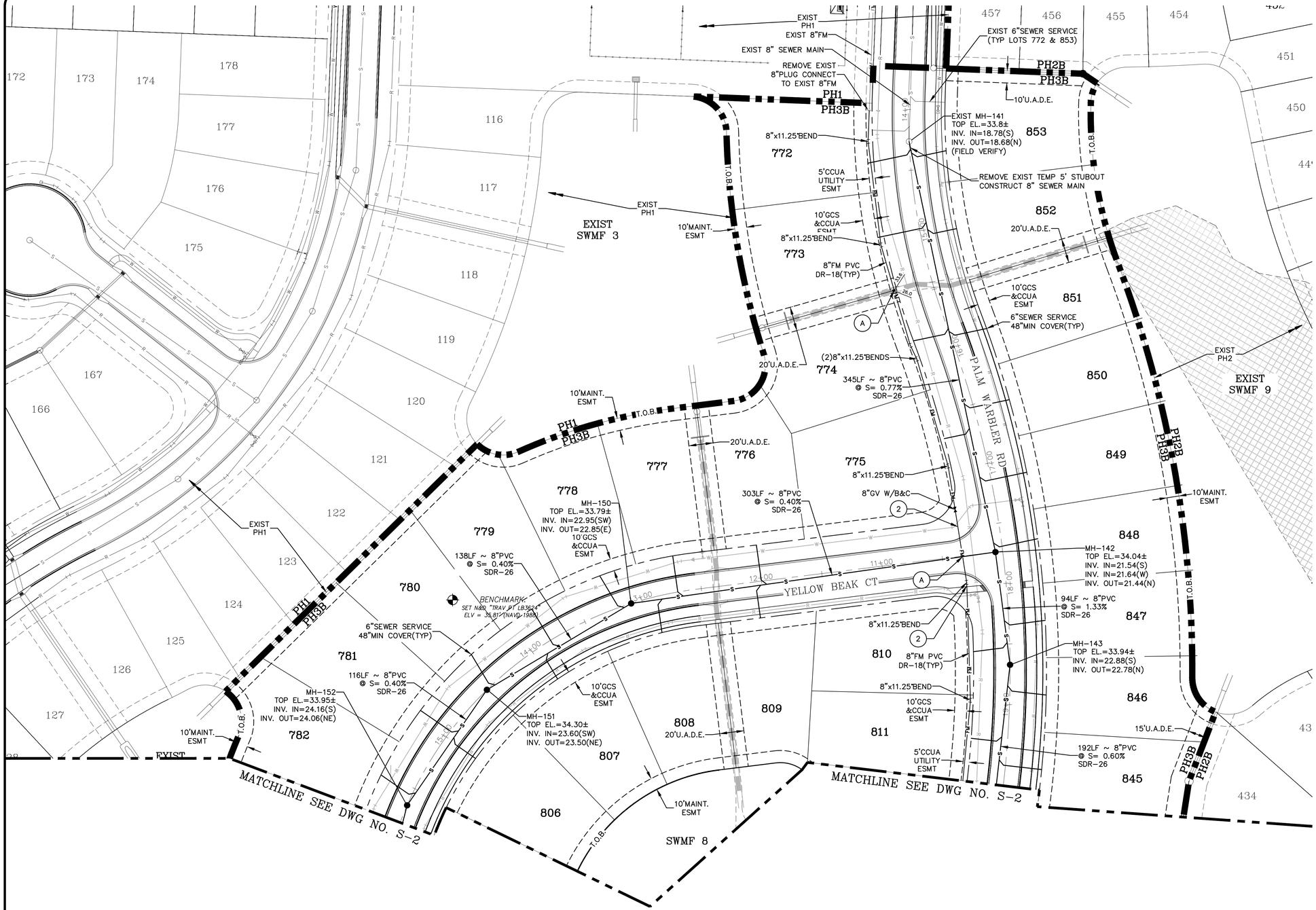
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Sheet No. 38 of 65

MSP-1

DWG. NO.



GRAPHIC SCALE

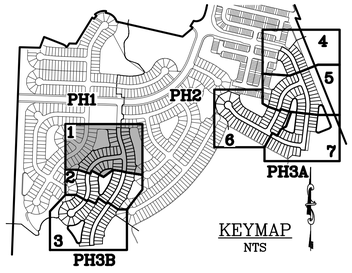
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(IN FEET)
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(C) = MAINTAIN HORIZONTAL SEPARATION PER CCUA NOTES BELOW

∗ = CONSTRUCT 6" SEWER SERVICE ABOVE STORM PIPE.

= CONSTRUCT 6" SEWER SERVICE BELOW STORM PIPE.

NOTES:

1. FORCE MAIN TO BE INSTALLED WITH TRACER WIRE, SEE DETAIL DWG. NO. WD-5.
2. THE MINIMUM COVER OVER TOP OF FORCE MAIN SHALL BE 60".
3. FOR UTILITIES (CLAY ELECTRIC, BELL SOUTH & CABLE, T.V.) LOCATIONS SEE DETAILS 50' R/W AND 60' R/W DWG. NO. UTC-2.
4. FORCEMAIN FITTINGS SHALL NOT BE LOCATED UNDER PAVEMENT.
5. NO VALVES/ VALVE BOXES SHALL BE LOCATED IN THE ROADWAY.
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ROOKERY - PH3A & 3B

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P:\2008-499-3 THE ROOKERY PHASE 3\ENG PLANS\499 3 SEW.DWG5/6/2026 2:26 PMMike Reilly

REVISIONS			
NO.	DATE	DESCRIPTION	BY:
1	4-30-26	REVISED PHASE 3B LOT SIZES TO 60' LOTS	JB

DESIGNED BY:	MR
DRAWN BY:	MR
CHECKED BY:	VJD/GRW
SCALE:	1" = 40'
DATE:	5/6/2026
PROJ. NO.:	2008-499-3

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8647 Baypine Road, Suite 200
Jacksonville, Florida 32256
Phone: (904)363-8916 Fax: (904)363-8917
www.dunneng.com

ROOKERY - PH3A & 3B

FOR:
D.R. HORTON, INC - JACKSONVILLE

CLAY COUNTY, FLORIDA

SANITARY SEWER PLANS

JOSHUA M. BENOLKEN LICENSE No93672 STATE OF FLORIDA PROFESSIONAL ENGINEER

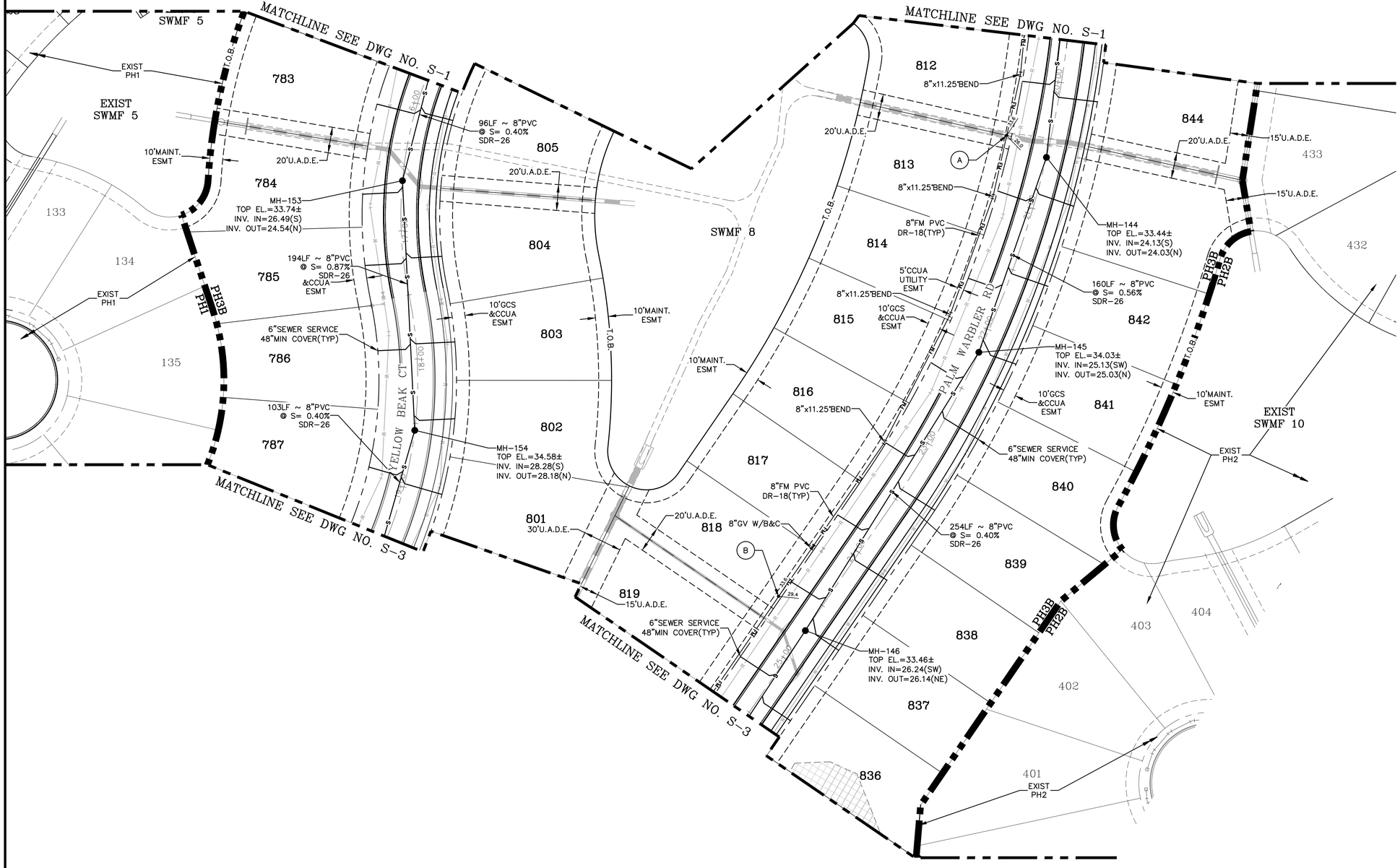
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GLEN R. WIEGER ENGINEER NO. 81419 | JOSHUA M. BENOLKEN ENGINEER NO. 93672 | DAVID F. PEIGLER ENGINEER NO. 44100

Sheet No. 39 of 65

S-1

DWG. NO.



GRAPHIC SCALE

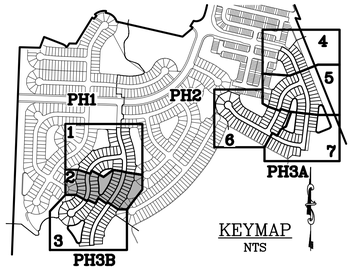
40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

LEGEND

= WETLANDS

= WETLAND IMPACT (PREVIOUSLY PERMITTED)



KEYMAP
NTS

UTILITY CROSSING LEGEND

ALL PIPE CROSSINGS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CCUA SPECIFICATIONS

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ROOKERY - PH3A & 3B

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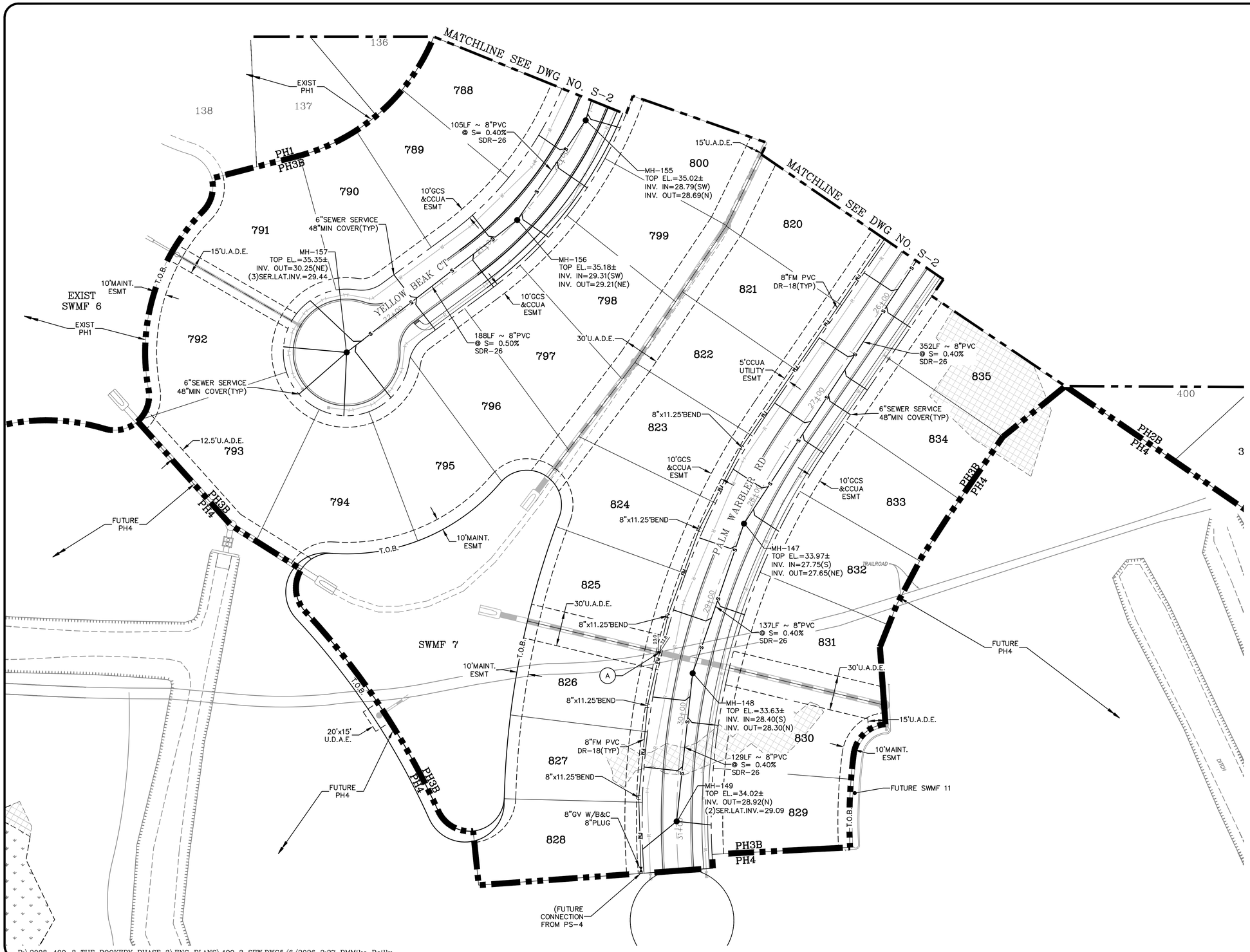
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Sheet No. 40 of 65

S-2

DWG. NO.



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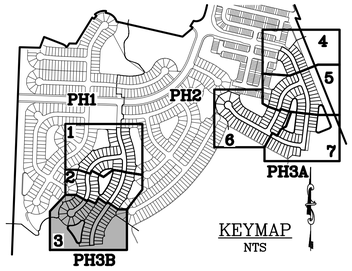
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S-3

DWG. NO.



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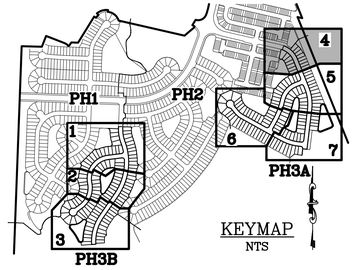
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ROOKERY - PH3A & 3B

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REVISIONS			
NO.	DATE	DESCRIPTION	BY:
1	3-3-26	REVISED PHASE 3A TO 50' LOTS	JB

DESIGNED BY:	MR
DRAWN BY:	MR
CHECKED BY:	VJD/GRW
SCALE:	1" = 40'
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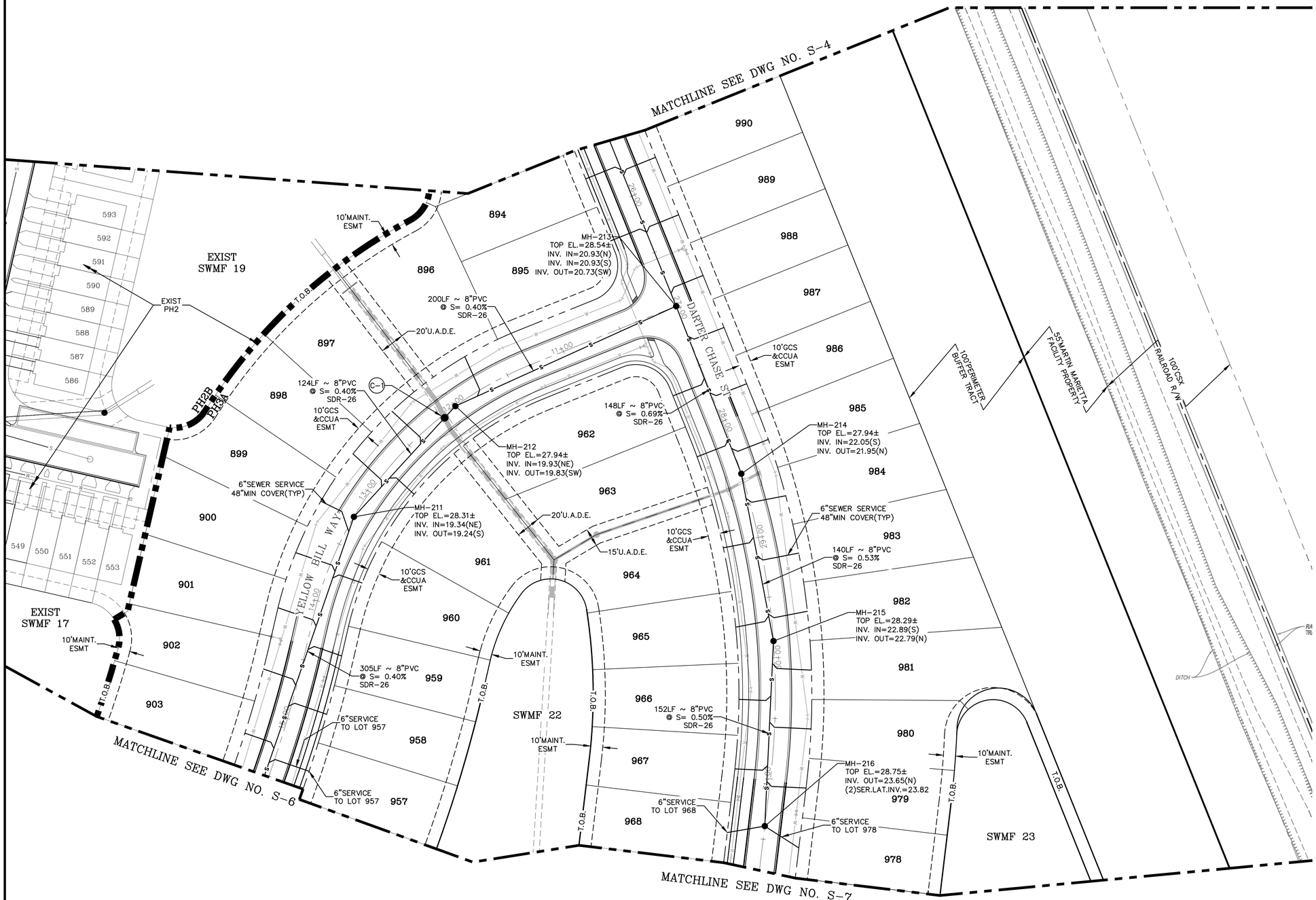
CLAY COUNTY, FLORIDA

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GRAPHIC SCALE

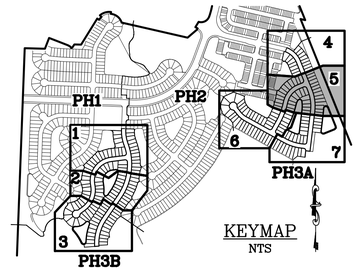
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ROOKERY – PH3A & 3B

FOR:
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CLAY COUNTY, FLORIDA

SANITARY SEWER PLAN

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Sheet No. 43 of 65

S-5

DWG. NO.

GRAPHIC SCALE

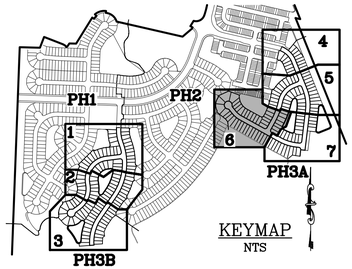
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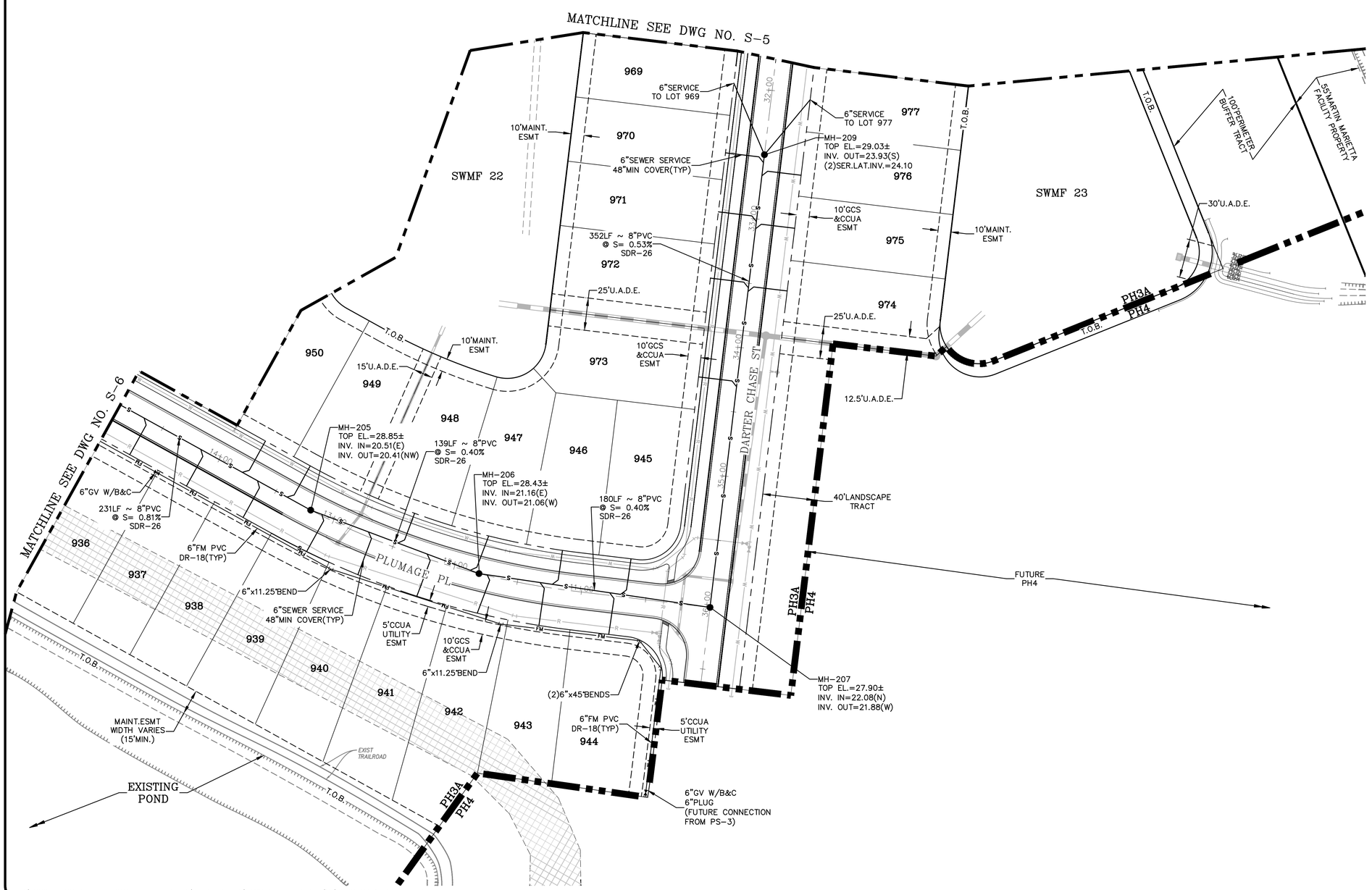
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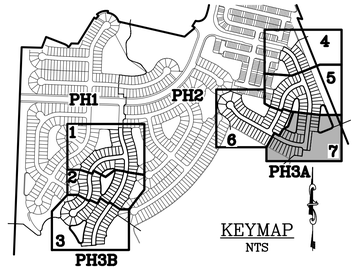
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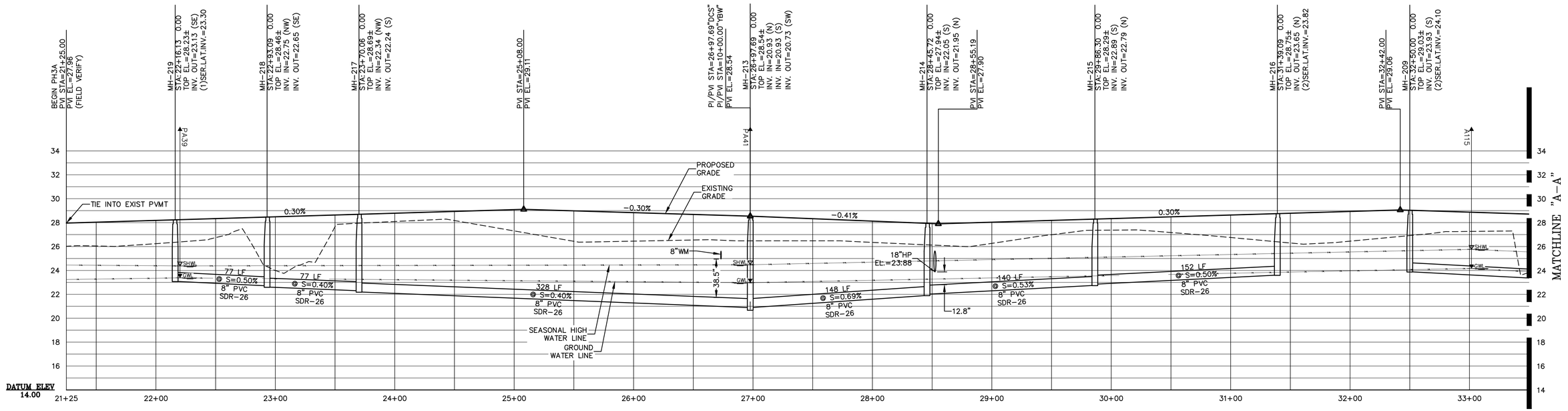
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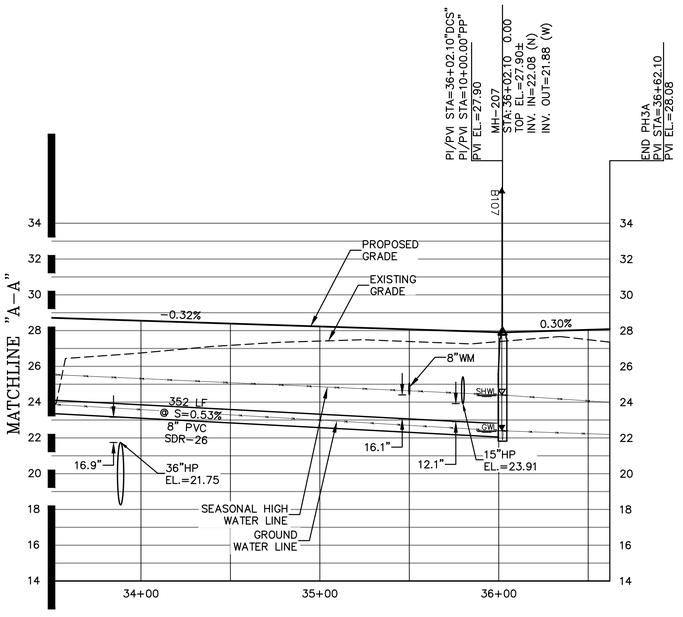
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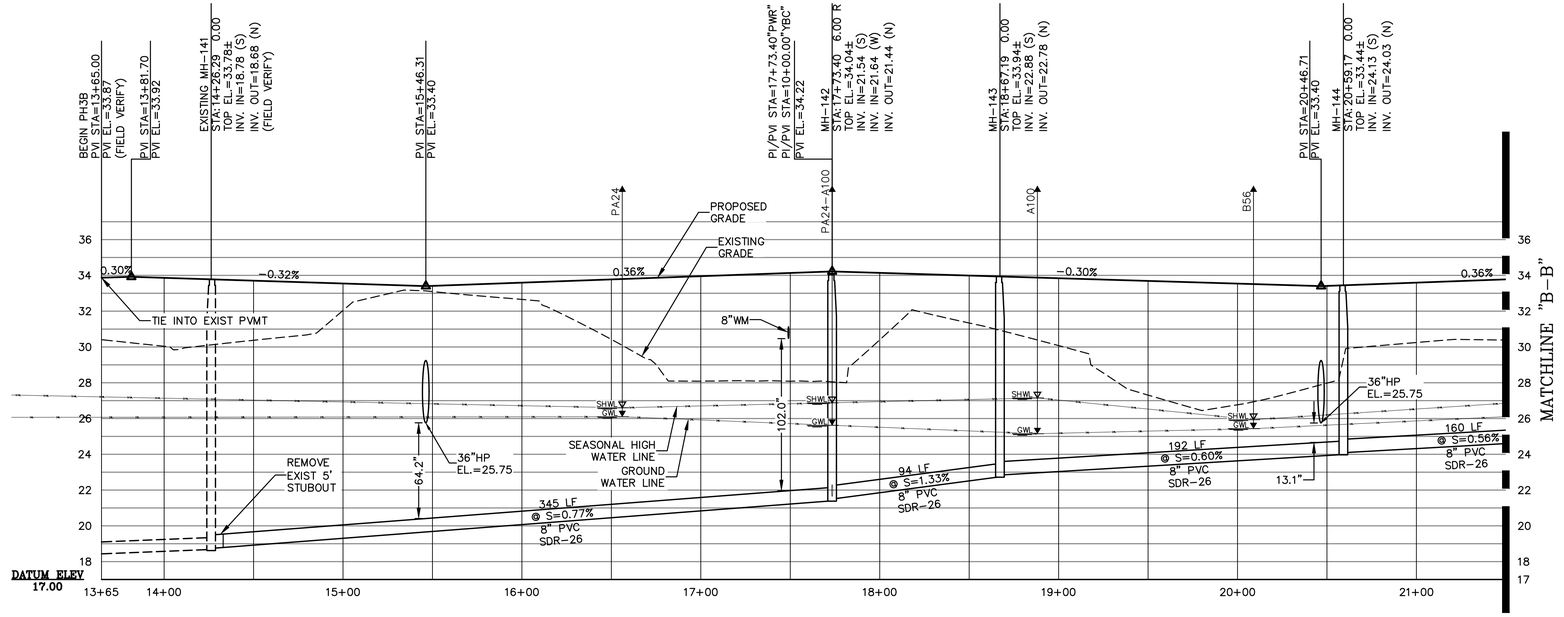
DARTER CHASE ST

SCALE: 1" = 40' HOR.
1" = 4' VERT.



DARTER CHASE ST

SCALE: 1" = 40' HOR.
1" = 4' VERT.



PALM WARBLER RD

SCALE: 1" = 40' HOR.
1" = 4' VERT.

P:\2008-499-3 THE ROOKERY PHASE 3\ENG PLANS\499 3 RSP.DWG 5/6/2026 2:27 PM Mike Reilly

REVISIONS			
NO.	DATE	DESCRIPTION	BY:
1	3-3-26	REVISED PHASE 3A TO 50' LOTS	JB

DESIGNED BY:	MR
DRAWN BY:	MR
CHECKED BY:	VJD/GRW
SCALE:	AS NOTED
DATE:	5/6/2026
PROJ. NO.:	2008-499-3

Dunn & Associates, Inc.
CIVIL ENGINEERS / LAND PLANNERS
8647 Baypine Road, Suite 200
Jacksonville, Florida 32256
Phone: (904)363-8916 Fax: (904)363-8917
www.dunneng.com

ROOKERY – PH3A & 3B

FOR:
D.R. HORTON, INC – JACKSONVILLE

CLAY COUNTY, FLORIDA

ROADWAY AND SEWER PROFILES

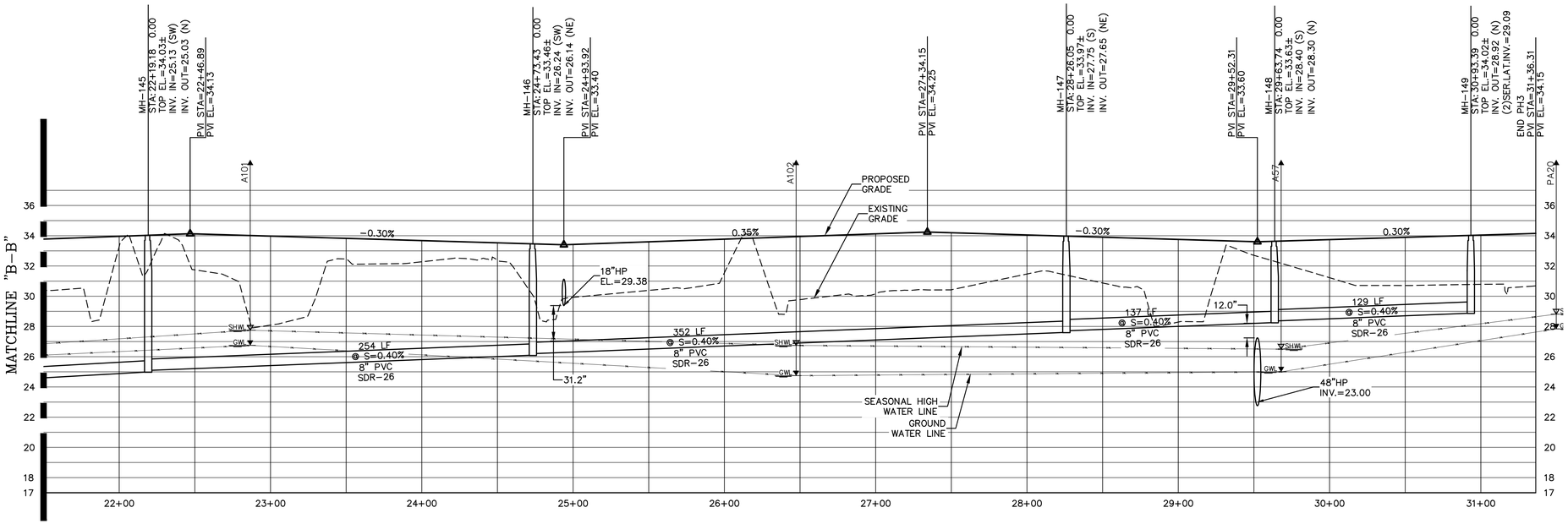
JOSHUA M. BENOLKEN LICENSE No 93672 STATE OF FLORIDA PROFESSIONAL ENGINEER

This item has been digitally signed and sealed by Joshua M. Benolken, P.E. on 05/15/2026 adjacent to the seal. Signature must be verified on any electronic copies

GLEN R. WIEGER ENGINEER NO. 81419 | JOSHUA M. BENOLKEN ENGINEER NO. 93672 | DAVID F. PEIGLER ENGINEER NO. 44100

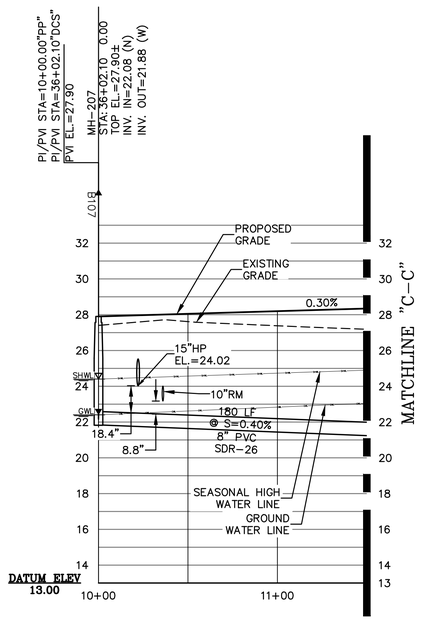
RSP–1

DWG. NO.



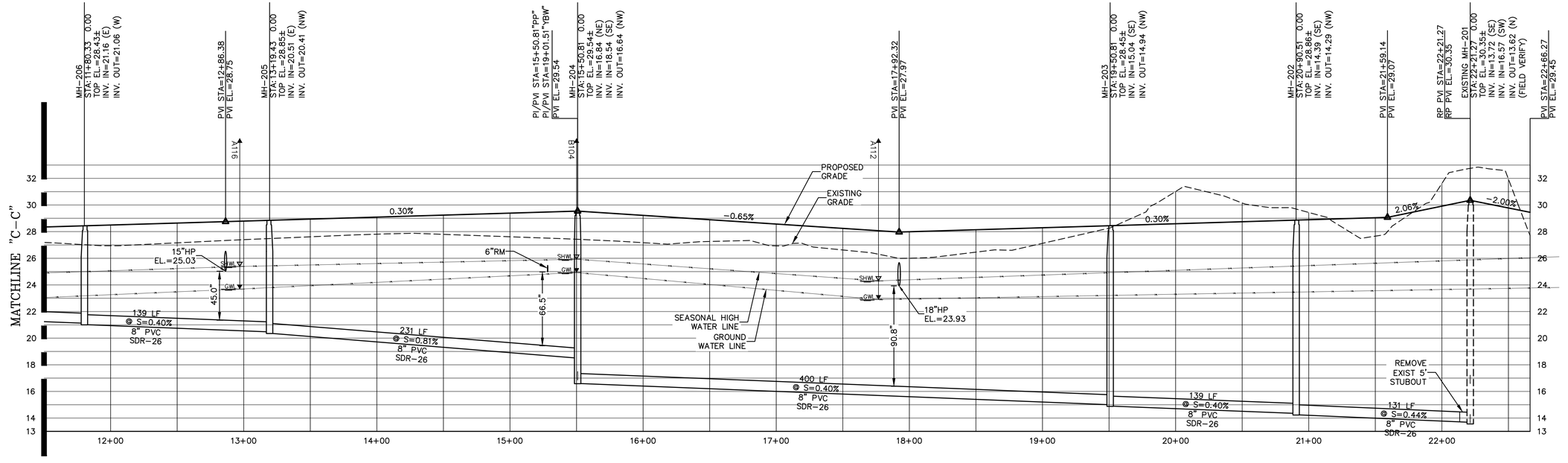
PALM WARBLER RD

SCALE: 1" = 40' HOR.
1" = 4' VERT.



PLUMAGE PLACE

SCALE: 1" = 40' HOR.
1" = 4' VERT.



PLUMAGE PLACE

SCALE: 1" = 40' HOR.
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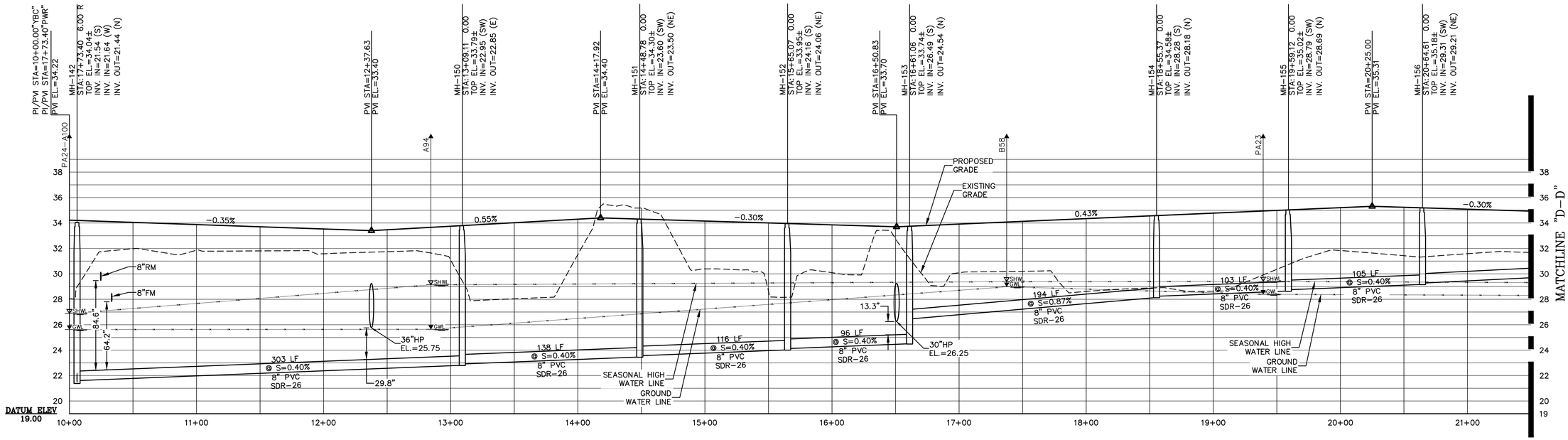
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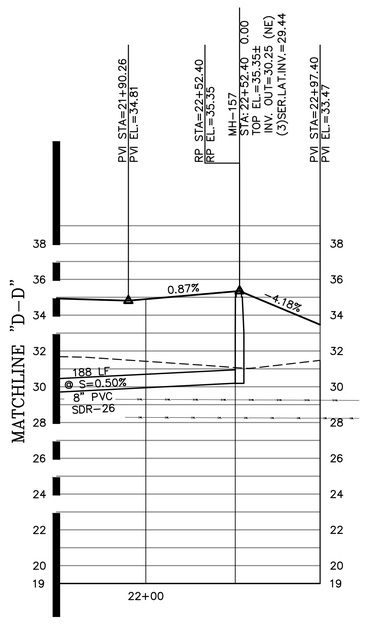
RSP-2

DWG. NO.



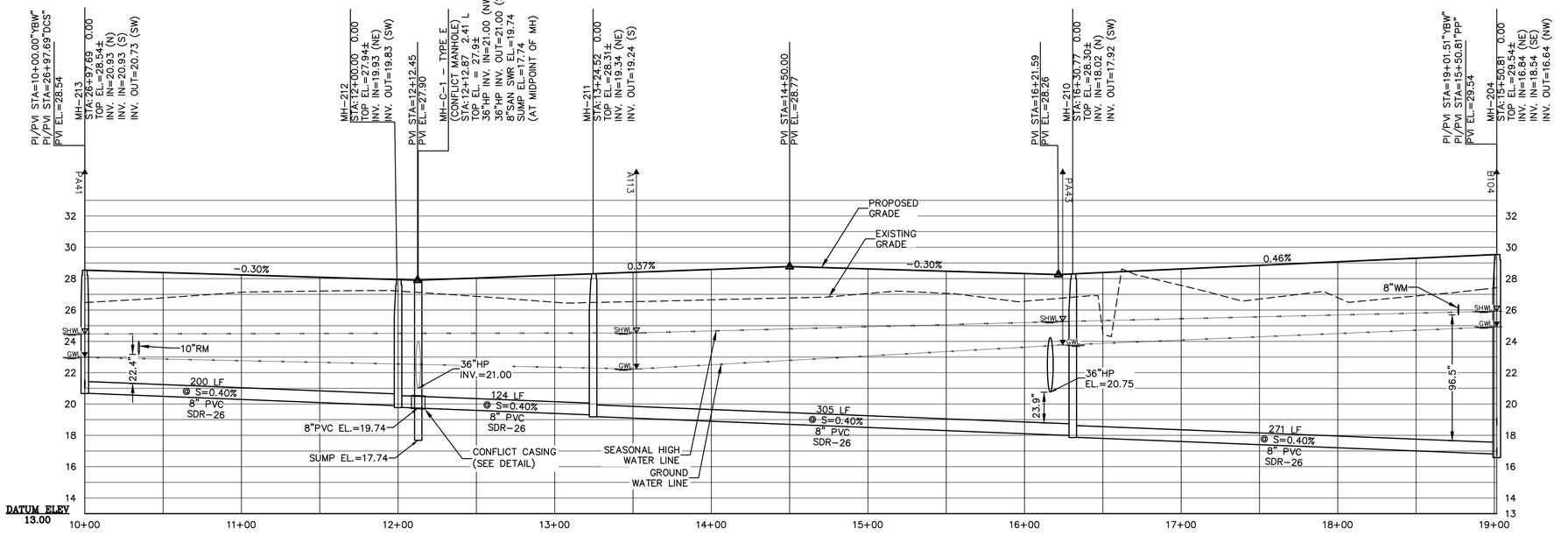
YELLOW BEAK CT

SCALE: 1" = 40' HOR.
1" = 4' VERT.



YELLOW BEAK CT

SCALE: 1" = 40' HOR.
1" = 4' VERT.



YELLOW BILL WAY

SCALE: 1" = 40' HOR.
1" = 4' VERT.

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Sheet No. 48 of 65

RSP-3

DWG. NO.

GENERAL NOTES

1. INTENTION. It is Clay County Utility Authority's (CCUA) `intention to secure a new utility infrastructure system, complete, in accordance with the plans, specifications, and contract documents. All new work shall be in accordance with CCUA Engineering Department Details and Specifications and any other Govenment Regulatory Agency. All work shall conform to the above, whether or not specifically called out or noted on the plans.

2. GENERAL. All materials shall be of those listed in the CCUA Approved Materials Manual. The installation shall be warranted by the Contractor as to materials, workmanship and accuracy of the asbuilt drawings for a period of two years from the date of completion of the work or beneficial use of the facilities. Workmanship shall be of good quality; i.e., gravity mains shall be laid true to line and grade, fittings shall be properly installed and restrained, trenches shall be properly excavated and backfilled, manholes shall be installed at locations and to elevations shown on the plans. CCUA Approved Material Manual can be found at the following weblink: https://www.clayutility.org/engineering /materials_manual.aspx

2.1 CONTRACTOR LICENSE AND APPROVAL. Utility reserves the right to approve or deny selected Contractor prior to construction of any on-site or off-site utility facilities. Contractor must hold a State of Florida Underground Utility Contractors license, that named contracting company being the one doing the utility work on the project, and demonstrate acceptable experience in the field of utility construction.

3. CCUA SHOP DRAWING AND SUBMITTAL PROCESS. A signed acknowledgment by the Contractor and the Material Supplier, on the "Shop Drawings and CCUA's Approved Materials List Form", that all materials will be in accordance with CCUA's Specifications, CCUA's Details and CCUA's Approved Materials Manual, is the only submittal CCUA will require for each item of materials with the following exception: any alternate materials requested by the Engineer; any materials not listed in the CCUA Materials Manual; and materials associated with pumping stations and plant installations. Those exceptions shall have an individual shop drawing submitted for CCUA's review and approval prior to any installation of said materials. This is CCUA's procedure and it does not preclude the Design Engineer from requiring additional submittals and shop drawings as he deems necessary for the project.

4. JOBSITE SAFETY. While on the job site, the Contractor shall at all times observe all Federal, State and local safety rules, regulations and laws. This includes, but is not limited to, confined spaces and excavation protection systems as per O.S.H.A. standards.

5. SURVEYS. The Utility Contractor shall provide all surveys necessary for the layout and construction of the work of his contract.

6. AS-BUILT DRAWINGS AND ASSOCIATED COSTS. All records pertaining to the water, reclaim and sewer facilities being transferred to the Utility shall be provided by applicant at no cost to the Utility. Prior to acceptance of any extension to the Utility's system that is completed by a licensed State of Florida underground utility Contractor, the Utility will require that the applicant's Contractor provide the Utility, to retain for its permanent records, all field as-built data which shall be provided in accordance with the Utility's 'As-built Specifications Standards Manual', which can be obtained from the Utility's website (https://www.clayutility.org/engineering/development_permitting.aspx).

7. CONSTRUCTION WARRANTY AND WARRANTY SECURITY PERIOD. Developer/Contractor shall secure a written and fully assignable warranty that the system installed will be and remain free from all defects, latent or otherwise, with respect to workmanship. materials, installation, and accuracy of their as-built drawings in accordance with the Utility approved plans and specifications for a minimum period of two years from the date of the system acceptance by the Utility and immediately assign the same and the right to enforce the same to Utility on or before the date of the Utility's acceptance of the system for Ownership and maintenance.

8. RESTORATION. New Water, Sewer and Reclaimed construction in earthen areas shall be restored, in accordance with the permitting agency having jurisdiction. In locations where existing grassed (sodded) areas are disturbed, sod shall be replaced to preconstruction condition and to limits of construction or placed where directed by the engineer of record.

9. PERMITS. The Contractor/Developer shall be responsible for obtaining and providing construction records of all permits required for performing work.

10. EARTHWORK. Earthwork shall include all excavation, fill and backfill (hand/machine), compaction and rough grading of materials encountered. No unsuitable materials clay, muck, or peat removed from pipe trenches are to be used for backfill. All fill or backfill shall be either sand or sandy clay, free of roots, rock, trash or other debris. All backfill alongside of and to a height twenty-four inches above all pipe shall be free of clay or organic material, compacted in lifts, the first of which shall be to the spring line of the pipe by either hand or machine operation carefully to 98% of maximum density. All other backfill shall be compacted by either hand or machine operation carefully to 95% (outside of paving), 98% (under paving) of its optimum moisture content as determined by ASTM D698, latest. Copies of compaction density test reports from a licensed testing agency shall be made available to CCUA if requested.

11. EXCAVATION must meet OSHA requirements and Contractor shall conform to the guidelines set forth in the Trench Safety Act throughout the duration of the project. Contractor shall provide written assurance that the trench excavation will comply with the applicable trench safety standards.

12. PIPE BEDDING. In the event unsuitable or unstable bedding material is encountered at or below the limits of the excavation required for installation, such material shall be removed and replaced with ASTM D2487 A3 soil material specified by the Design Engineer and approved by the Utility to provide a stable trench bedding surface suitable for proper pipe installation.

12.1 PIPE BEDDING (ROCK BEDDING MATERIAL) Rock material used for pipe bedding shall be ASTM #57 stone or crushed concrete (crush-crete) in a #57 size. Rock bedding material shall be completely wrapped in a heavy filter fabric material, overlapped a minimum of one foot. Rock bedding shall be installed to the correct grade and compacted to a density which will prevent any settlement, either by mechanical tamping equipment or other methods approved by the Engineer of Record The compaction method shall be accepted by the Utility.

13. DEWATERING. The Contractor shall at all times during construction provide ample means and equipment to promptly remove and dispose of all water entering the trench and structure excavations and shall keep said excavations acceptably dry until the piping and / or structures to be built therein are completed. All water pumped or drained from the work area shall be disposed of in a manner as to not damage sewer, water, electrical or any other piping, structures, or property. No pipe shall be installed in water and no water shall be allowed to rise above the bottom of any pipe while it is being jointed, except as accepted in writing by the Utility. Additionally, pipe trenching must be dewatered in accordance with the Utility's *Typical Pipe Trench Detail*.

14. HYDROSTATIC TESTING. After all pressure pipes (water, force and reclaimed mains, and services) are installed, the joints completed, and the trench backfilled, the newly installed pipe and appurtenances shall be subjected to a hydrostatic pressure test minimum of 150 pounds per square inch (p.s.i.) for a minimum period of two hours. The engineer of record and the Utility must be notified 48 hours before a test and be present as the test is performed. Test shall be as set forth in AWWA Standard C600. Any leaks detected shall be corrected and the section of pipeline retested. The two-hour test period shall begin when all joints have been determined to be watertight. Leakage shall be limited to that allowance set forth in Section 4 of AWWA Standard C600-87. Hydrostatic and leakage test and blow-down (zeroing of gauge) must occur before sampling for bacteriological test. The maximum allowable pressure loss is 5 p.s.i. regardless of the length of pipe and the hydrostatic pressure test shall not fall below 150 p.s.i.

15. HDPE. Hydrostatic testing shall consist of a pressure test and leakage test. Hydrostatic tests shall be conducted on all newly laid pressure pipes, joints, hydrants and valves, including all service lines to the curb stops. Air testing of pressure pipes shall not be permitted under any circumstance. Tests shall be made on sections not exceeding 3,000 feet. Contractor shall furnish all necessary equipment and material, make all taps, and furnish all closure pieces in the pipe as required. Equipment to be furnished by the Contractor shall include graduated containers, pressure gauges, hydraulic force pumps, and suitable hoses and piping. The Owner or their designated representative shall monitor and approve a satisfactory test. The basic provisions of ASTM F2164 - "Standard Practice for Field Leak Testing of Polyethylene (PE) Pressure Piping Systems Using Hydrostatic Pressure" shall apply.

16. DENSITY TESTING. Backfill In-place density tests are required at intervals not to exceed 150 feet along pipelines for every other lift. A minimum of one test between manholes is required for every other lift regardless of the distance between sanitary sewer manholes.

17. PIPE AND PIPE JOINTING FOR FUSED & HDPE PIPE:

a. Heat Fusion Jointing: Joints between plain end pipes and pipe fittings shall be made by butt fusion when possible. Electro fusion welding may also be used to complete when the location is not accessible to butt fusion welding equipment. The on-site welder making the joints (butt fusion or electro fusion) shall have received specific training from the Manufacturer of the fittings and/or pipe being welded and shall have written proof of proper training/certification from the associated Manufacturers. Only certified welders who have written training certifications from the fitting and/or pipe Manufacturer will be allowed to perform this work. To weld a fitting or electro fusion coupling in place, the on-site welder (employee) must be trained and certified by the fitting Manufacturer. To butt weld pipe, the on-site welder (employee) must be trained and certified by the pipe Manufacturer. The fusion work shall be accomplished (welding and cool-down/closing times) in accordance with the fitting and pipe Manufacturers' recommendations, at a minimum. The Utility reserves the right to require the Contractor to remove from or not permit an employee to work on the welding or fusing portion of the work if in the opinion of the Utility that person is not properly trained or cannot perform the welding or fusion process in high quality and professional workmanship manner.

b. External and internal beads shall only be removed when required by the Utility. The internal bead shall be removed from all fused joints of a pipe that is to be used as a gravity sewer line, or as a sewer force main line or as a sleeve or host pipe which will have another pipe installed inside it. The external bead shall be removed from all fused joints of a pipe which will be installed inside of a sleeve or host pipe and the external bead shall be removed from all fused joints of a pipe to be pulled through a reamed Horizontal Directional Drill hole which may have a possible catch point such as extreme rocky ground conditions or other hazards. The Contractor shall be required to follow the requirements and recommendations of the pipe Manufacturer and the Utility.

18. FUSIBLE POLYVINYL CHLORIDE (FPVC) PIPE:

a. FPVC Pipe shall conform to AWWA C900, Ductile Iron Pipe Size (DIPS), DR18, and color coded. The pipe material shall be clean, virgin, National Sanitation Foundation No.14, ASTM cell class 12454. FPVC shall be extruded with plain ends. The ends shall be square to the pipe and free of any bevel or chamfer. There shall be no bell or gasket of any kind incorporated into the pipe. Each length shall be clearly marked with the name of the manufacturer, location of the plant, pressure rating, nominal pipe diameter.
b. FPVC pipe shall not be bent beyond the manufacturer's recommended minimum allowable bend radius. The published allowable bend radius is applicable to all pipe alignments, including during handling and movement, as well as final positioning and installation.
c. FPVC pipe shall not be subjected to a pull force greater than 80% of the manufacturer's recommended allowable pull force for the pipe wall thickness and size. Allowable pull force is the tensile load that may be safely applied to the pipe and is a function of the tensile stress capacity of FPVC and the cross-sectional area of the FPVC pipe section. FPVC pipe shall meet the cell class tensile stress capacity of 7,000 psi when the compound is tested per ASTM 1784. Safety factor shall be 2.5.

19. PIPE INSTALLATION. The installation of all pipe regardless of the type or size shall be installed in accordance with the Manufacturer's specifications or recommended criteria for the pipe being installed. No pipe shall be installed with the joints over-homed. The reference mark (home-line) shall not be installed into the bell beyond the Manufacturer's recommendation. The Contractor shall be responsible to mark any pipe cut to length with a reference mark (home-line) placed at the correct location on the pipe according to the type and size pipe being installed. CCUA will not permit any pipe joint to be left in place if the joint is over-homed. It shall be the Contractor's responsibility to obtain the information pertaining to installation of pipe to be installed from the Supplying Manufacturer and to install the pipe accordingly.

20. PIPE ABANDONMENT. Any utility pipe regardless of the type or size which has been abandoned, or taken out of service or out of use for any reason, shall either be removed from the ground for its entire length and disposed of in a legal manner, or shall be grout filled in place for its entire length. A CCUA inspector shall be present and witness the grout filling of the pipe from start to finish of the process. If the abandoned pipe is being removed, a CCUA inspector shall be present or be able to view the open ditch where pipe was removed from prior to backfilling that ditch. A grout fill plan must be submitted to CCUA for their acceptance at a minimum of two (2) weeks in advance of the proposed grout fill operation.

21. DISINFECTION/STERILIZATION NOTES:

a. CCUA staff shall authorize changes or adjustments to existing CCUA valves.
b. The General Superintendent of the Distribution and Collection System must be informed of any changes to existing CCUA valves.
c. Engineer of Record shall provide a Disinfection/Sterilization Plan in accordance to F.A.C 63-302.530 showing the proposed sample point locations with the initial plan review submittal.
d. The scheduling of the disinfection process for new water mains must be coordinated with CCUA at least seven (7) days in advance.
e. CCUA inspectors must be present to observe and monitor the disinfection process.

22. Extreme caution shall be exercised to eliminate any possibility of any damage to utilities resulting from Contractor's activities. The locations of all overhead utilities shall also be verified by the Contractor. The Engineer shall be notified of any conflict that may occur. The Contractor shall be responsible for determining which poles will need shoring during excavation and shall provide such shoring and support as required.

23. CCUA details and specifications (latest available copy) shall be included in all plans submitted for work within the CCUA utility system. No person shall modify, change, omit, or replace any portion of those details and specifications without the express written consent of CCUA. In any instance where the Design Engineer has included his written specifications or details in the plans then the more stringent of the two shall govern.

24. Under no circumstance shall any trees be planted within a CCUA utility easement without:

a. CCUA approving landscape and irrigation plans.
b. CCUA being notified prior to the planting of trees and giving approval.
c. CCUA inspecting the installation of root barrier material (required at all trees which are closer than 7.5' to any CCUA utility line) as shown in CCUA approved material manual and CCUA roadway cross section details, whether or not shown on the plans.

25. CLOSE OUT/COMPLETION. Minimum items required for Close Out / Completion for submittal to CCUA will include:

a. Construction Warranty from Developer in the form of a Bond, Letter of Credit or Cashier's Check for a two-year period, no less than ten percent (10%) of the construction cost or Value of Acceptance, unless otherwise specified in the agreement.
b. Warranty Certificate for a two-year warranty from the Contractor to the Developer and assignment of same to the CCUA.
c. Developer's Affidavit certifying there is no outstanding debt or liens against utility assets to be deeded to CCUA.
d. Value of Acceptance Report showing value of assets to be deeded to the CCUA.
e. Bill of Sale to CCUA
f. Bacteriological Test(s)Reports from an approved FDEP laboratory.
g. Pressure Test(s)
h. Closed Circuit Television (C.C.T.V.) Reports submitted electrotonically.
i. Density Reports
j. Locate Wire test
k. Final As-Built Drawings in accordance with CCUA As-Built Standards and Specifications located at the following web page: https://www.clayutility.org/engineering/development_permitting.aspx

NO	DATE	BY	REVISION DESCRIPTION
24	OCT 23	RHD	UPDATED TO ADD FPVC NOTES
23	JULY 23	RHD	UPDATED SEWER & GENERAL NOTES
22	JAN 17	RHD	UPDATED WATER OUTLINE NOTE 2.0
21	MAR 16	RHD	ADDED FINAL INSPECTION NOTES
20	SEP 15	RHD	UPDATED
19	AUG 15	RHD	UPDATED
18	AUG 15	RHD	REVISED
17	FEB 15	RHD	REVISED 06. SERVICE SERVICE LATERAL NOTES

DESG XXX
DRWN RHD
CHKD XXX
APRV XXX
DATE 00/00/

SPECIFICATIONS FOR CONSTRUCTION OF WATER DISTRIBUTION SYSTEM

01. JOINT RESTRAINT. All fittings shall be properly and adequately restrained against lateral movement at all water main tees, crosses, valves, bends, and fire hydrants. See CCUA Approved Materials Manual for acceptable restraints and refer to joint restraint tableon detail sheet WAT 02.

02. DUCTILE IRON PIPE. Ductile iron pipe shall conform to ANSI Specification A21.50 (AWWA C150) latest, "Thickness Design of Ductile Iron Pipe", Table 50.5, laying condition Type 2, internal operating pressure of 250 p.s.i. for an 8-foot depth of cover, Class 51 minimum and shall be ANSI A21.51 (AWWA C151), latest centrifugally cast pipe. Laying lengths shall be 20 feet or less in length, and shall be clearly marked with pressure rating, thickness, class, height of pipe without lining, length, and manufacturer. Ductile iron pipe for water service shall be furnished with cement lining per AWWA C110, C115 and C151. The pipe shall have design values of 60,000 p.s.i. minimum tensile strength, and 42,000 p.s.i. minimum yield strength. Ductile iron pipe for water or service lines shall be used in any easement, right-of-way, between lots, or any instance where a building foundation or other permanent appurtenance is within 10' of the water or service line.

03. DUCTILE IRON FITTINGS Ductile iron fittings shall be C153 cement lined and suitable for the type and class of pipe to which connected. Gaskets shall be suitable for potable, domestic water service. Minimum working pressure shall be 150 p.s.i.

04. POLYVINYL CHLORIDE PIPE. Polyvinyl chloride pipe for water mains 4 inch through 24 inches in diameter, shall be DR18 (C900) Pressure Class 235 psi PVC 1120; water distribution mains above 24 inches in diameter shall be DR25 (C900) Pressure Class 165 PVC 1120, conforming to ASTM D-1784, D-2241, D-3139 and F-477, latest, and shall bear the seal of the National Sanitation Foundation. Pipe shall be color coded and marked on at least 1 (one) side with the word "WATER" at every 12" along the barrel of the pipe, with the lettering facing up. Couplings shall be rubber gasketed, push-on type conforming to ASTM D-2122. All water pipe shall be blue in color.

05. STEEL CASING PIPE. Steel casing pipe shall be of size indicated on the Drawings and shall conform to ASTM A139, with a minimum yield strength of 35,000 p.s.i.

06. POLYVINYL CHLORIDE (PVC 1120, SCHEDULE 80) PIPE Polyvinyl Chloride Pipe shall conform to the requirements of ASTM D 1785. Fittings shall be suitable for type of installation required. All piping smaller than 4" shall be Schedule 80 PVC.

07. GATE VALVES AND BOXES. Gate valves shall be non-rising stem type and shall be suitable for a 200 p.s.i. non-shock working pressure. Gate valves shall be mechanical joint, flanged or screwed. Gate valves shall have a 2" operating nut and open left. Gate valves shall have joints suitable for the type of main on which installed. Valves shall be as described in the CCUA Material Manual.

08. WATER METER BOXES. See CCUA Approved Materials Manual for acceptable water meter boxes. Developer shall be responsible for installation of meter boxes on all water services as part of the water main installation as per standards for water meter service details. All curb stops shall be adjusted to the proper elevation and shall be accessible for the installation of the water meter. The Contractor shall be required to open all boxes for the CCUA inspector at the final inspection. A treated 6'-6" fence post marker shall be painted blue for identification. Meter boxes shall not be placed in any sidewalk or driveway without approval of CCUA.

09. CURB STOPS. Curb stops shall be cast bronze, inverted key stop, roundway, with check, lock wing type, for locking in the closed position. See CCUA Approved Materials Manual for acceptable curb stops.

10. FIRE HYDRANTS. Fire hydrants shall be traffic type, 150 pound working pressure, AWWA Standard C502, latest revisions, with two 2 1/2" nozzles, one 4 1/2" nozzle and one 5 1/4" main valve. Fire hydrant shall be compression type with breakable coupling and bolts. Pipe connection shall be mechanical joint. Fire hydrants shall be painted silver, BLP Mobile Paints, Liquid Aluminum, 1151 alkyd weight 56.6% x volume 41.2% VOC 3.76 lb. per gallon with 1 1/2" penta nuts, opening left. See CCUA Approved Materials Manual for acceptable fire hydrants.

11. NEW CONNECTION TO EXISTING MAIN. New connection to existing main in service shall be accomplished by the "wet tap" method utilizing full circle stainless steel tapping sleeve and mechanical joint tapping valve. Tapping sleeve shall be rated at 200 p.s.i., non-shock working pressure conforming to AWWA Standard C110, latest revision. Stainless steel tapping sleeves shall be from those listed in CCUA approved material manual. Tapping valve shall be mechanical joint on one end and standard flanged joint on other end. Valve shall conform of these specifications.

12. FIRE LINES/MAINS. All fire lines or mains connecting to CCUA owned potable water main shall be installed by a State of Florida Licensed Fire Installation Contractor, and shall meet all requirements of the local Authority, State Fire Marshal, County Fire Marshal, and the National Fire Protection Association. Work performed must meet all requirements of NFPA 24, Standard for the Installation of Private Fire Service Mains and Their Appurtenances.

12.1 The Fire Marshal shall have the right to deny acceptance or use of any fire line, installed and connected to a CCUA owned and maintained water main until such time that the Contractor installing the fire line can produce proof to the Fire Marshal that all paperwork, fees due, or close out documents have been satisfactorily prepared and approved by CCUA.

13. INSTALLATION. The minimum cover over top of potable water main shall be 36". All water lines and appurtenances shall be thoroughly cleaned of all foreign matter before being lowered into the trench and shall be kept clean during laying operations by means of plugs or other approved methods. All pipe shall be checked for defects before being lowered into the trench. Defective pipe shall not be used. Pipe found to be defective, after installation shall be removed and replaced with sound pipe at no additional expense to the Owner. The full length of each section of pipe shall rest solidly upon the pipe bed, with recesses excavated to accommodate the bells and joints. All pipe that has the grade or joint disturbed after laying shall be taken up and reinstalled. The pipe shall not be laid in water or when trench or weather conditions are unsuitable for the work. All joints shall be cleaned of all foreign matter before making the joint. Fittings at bends in the pipe shall be properly restrained with joint restrainers adequately sized to prevent movement and dislocating or blowing off when the line is under pressure. Service laterals shall terminate at the point as shown in the CCUA Standard Detail drawing.

14. STERILIZATION. After completion of construction and testing, the water system shall be sterilized with chlorine in accordance with AWWA Standard C651, latest, and State of Florida Department of Environmental Protection requirements before acceptance for domestic operation. The amount of chlorine applied shall be sufficient to provide a dosage of 50 parts per million or more. The chlorine solution shall remain in the new pipe system for a period of at least 24 hours, during which time every valve in the new pipe system shall be opened and closed several times to assure contact with every surface of the system. After completion of sterilization procedures, the system shall be flushed using chlorinated water from a domestic water source having a chlorine residual of at least 1 part per million. The Contractor shall obtain all bacteriological clearances as required by the Florida Department of Environmental Protection. After bacteriological clearances, the pressure in the main shall not drop below 20 p.s.i. Clearance report to be submitted to the Engineer and CCUA Inspector. The Contractor should be aware that there is a timing maximum related to bacteriological clearance of the main, completion of as-built drawings and Engineer / CCUA completion of Certificate of Completion. In any project where the bacteriological clearances are greater than 60 days old at the time of submittal of Certificate of Completion to FDEP, the Contractor may be required to pull more samples and obtain more bacteriological clearances. Prior to introducing the chlorine solution, the lines shall be thoroughly flushed with clean water utilizing full pipe diameter flushing for pipe up to and including 8" diameter. Dechlorination of flushing water may be required to be in compliance with the State of Florida Surface Water Quality Standards (F.A.C. 63-302.530). Dechlorination is necessary if the flushing of highly chlorinated water is to be discharged directly to a surface water or to a storm water system. If the water can be sheet flowed over a large area or discharged to a holding pond, dechlorination may be avoided.

15. BACTERIOLOGICAL SAMPLING. Contractor shall ensure the project construction is completely finished prior to any bacteriological sampling and testing.

16. POLYETHYLENE TUBING SERVICE LINES AND MAINS (2 INCH AND SMALLER): Tubing shall be manufactured of PE 4710, High Density Polyethylene (HDPE), in accordance with AWWA C901, ASTM D1248, ASTM D2239, ASTM D3737 and ASTM D3350. The tubing shall have a minimum working pressure of 250 psi. Polyethylene tubing shall be copper tube size SDR-9 and shall be colored blue. HDPE pipe shall have ultraviolet (UV) inhibitors for protection against direct sunlight for 1 year. Inserts for polyethylene tubing may be utilized, at Contractor's options, and, if used, shall be 316 stainless steel. The use of no-lead brass couplings, tees and "Y" fittings are acceptable on poly service tubing, if not located under a roadway. Tubing shall be approved for use with potable water by the National Sanitation Foundation (NSF-14) and shall be continuously marked at intervals of not more than four feet with the following:

Nominal size
Pressure rating
NSF seal
Manufacturer's name or trademark
Standard dimension ratio
ASTM specification

SPECIFICATIONS FOR CONSTRUCTION OF WASTEWATER COLLECTION SYSTEM

01. MANHOLES. Manhole bases, sections, and cones shall conform to the requirements of ASTM C478, Specifications for Precast Reinforced Concrete Manhole Sections. Cement shall meet the requirements of ASTM C150, Specifications for Portland Cement, Type II. Concrete shall meet the minimum requirements for Class "A" Concrete Work. Minimum wall thickness shall be 1/12 the inside diameter in inches plus one (1) inch. Bases for manholes shall be cast integrally with the bottom manhole section. Joint contact surfaces shall be formed with machined castings; they shall be exactly parallel with a 2 degree slope and nominal 1/16 inch clearance with the tongue equipped with a proper recess for the installation of an O-ring rubber gasket, conforming to ASTM C443, Joints for circular Concrete sewer and Culvert pipe using Rubber gasket, or RAM-NEK premolded Plastic Joint Sealer to joints. Manhole adjustment materials shall be sound, hard, and pre-primed. Precast concrete adjustment rings may be utilized. Precast manhole walls shall not be coated unless otherwise noted. Cement grout for manhole bottoms shall be a stiff rich mix of Type II Portland Cement and sharp plaster sand. Calcium chloride may be added (maximum of 2%) to aid in obtaining a faster set. At permanent pump station locations, the first upstream manhole from the station shall be lined with a polyethylene liner as manufactured and installed by AGRU America, Inc., or approved equal.

01.1 CAST IRON MANHOLE FRAMES AND COVERS. Cast iron manhole frames and covers shall be as detailed on drawings. Castings shall meet the requirements of ASTM A48, Specifications for Gray Iron Castings, Class No.30, or Grade 65-45-12, Ductile Iron meeting the requirements of ASTM A536, Standard Specification for Ductile Iron Castings. In either case, manhole frame and cover shall be designed to withstand an HS20-44 loading defined in the AASHTO specifications. Frames and covers shall be machined or ground at touching surfaces so as to seat firmly and prevent rocking.

01.2 FLEXIBLE MANHOLE CONNECTOR. All connections between sewer pipe and pre-cast concrete manholes shall be accomplished by a Flexible Connector, "Kor-N-Seal", as manufactured by National Pollution Control Systems, Inc., or approved equal.

01.3 FLOW CHANNELS. Flow channels in manhole base shall be formed of D.O.T. Class I Type II cement grout with brick and trowel to a smooth surface finish. Grout surface shall be 1" min. thickness over brick. While the precast manholes are being installed, cut off pipes 4 inches inside face of the manhole and construct the invert to the shape and sizes of pipe indicated. All inverts shall provide a constant gradient from influent pipe to effluent pipe through manhole. Changes in direction of the sewer and entering branch or branches shall be laid out in smooth curves of the longest possible radius which is tangent to the center lines of adjoining pipelines.

01.4 DROP INLETS. Where shown on the drawings, drop inlets to the manholes shall be constructed as shown on the approved drawings and specified herein.

02. POLYVINYL CHLORIDE PIPE. Polyvinyl Chloride Sewer Pipe shall conform to the requirements of ASTM D-3034, SDR 26. The PVC compound conforming to ASTM D-1784. Pipe shall be manufacturers-marked in 5 ft. intervals or less, indicating manufacturers name, nominal size, cell classification and legend. Joints shall be push-on rubber gasketed, conforming to ASTM 3212. Pipe and fittings shall be installed in accordance with recommended practice ASTM D-2321. All pipe and sewer fittings shall be SDR-26 heavy wall, installed up to a depth of 13 feet from finish grade to invert of pipe. Maximum depth of gravity sewer without prior approval shall be 13 feet.

03. PIPE BETWEEN MANHOLES. All piping installed between manholes shall be the same material and class. No dissimilar pipe material will be allowed anywhere within a single run of pipe.

04. SANITARY SERVICE LATERALS. Sanitary service laterals shall be Polyvinyl Chloride Pipe conforming to the requirements of ASTM D-3034, SDR 26 where cover over top of pipe is 36 inches or greater. Where cover over top of pipe is less than 36 inches, specific construction conditions shall be directed by the Clay County Utility Authority (CCUA). All sanitary service laterals shall be a minimum of 4'-0" deep at the right-of-way line to top of pipe. Any sanitary service lateral which must be more than 6'-0" deep at the right-of-way line and shall not be installed prior to obtaining permission from the CCUA field inspector or CCUA Engineering Department. All sanitary service laterals shall be 6-inch diameter from the main to the right-of-way line with a minimum slope of 0.60% (0.6 feet per hundred feet). In single family residential developments, services shall reduce to 4" in size at the property line utilizing the proper fittings for the type of pipe specified. All sewer service laterals over 13' deep shall be constructed of DR18 PVC pipe, and DR18 pipe fittings, per CCUA standard sewer system details.

05. PUMP STATIONS (TEMPORARY OR PERMANENT). All pump stations shall be constructed in accordance with CCUA standards, rules and regulations and be approved by CCUA. All work and materials shall meet the requirements of CCUA Standard Pump Station Details and Specifications or the plans, details and specifications for that specific pump station.

06. FORCE MAINS. Force mains shall be C900 DR18 PVC and conform to the requirements of ASTM D-1784, D-2241, D-3139 and F-477. Pipe shall be color coded and manufacturers-marked "FORCE MAIN" at every 12" along the barrel of the pipe. Ductile iron pipe for force main service shall be polylined. Ductile iron pipe is not to be used without prior approval of the Clay County Utility Authority. Fittings shall be C110 gray iron and shall be epoxy coated and lined. All force mains shall be installed with minimum tracer wire per CCUA standard location wire details. All force mains should be installed with minimum 5 feet cover from finish grade, unless approved by CCUA.

07. LIFT STATION VALVES. See CCUA Approved Lift Station Details and Materials Manual for acceptable gate valves and check valves.

08. FORCE MAIN VALVE. Gate valve, resilient seated, same as specified in Water Distribution System Specifications Section 11. Except valve bodies shall be grey iron. Valve box shall have the word "SEWER" cast into the cover.

9. FORCE MAIN JOINT RESTRAINT. All fittings shall be properly and adequately restrained against lateral movement at all force main tees, crosses, valves and bends. See CCUA Approved Materials Manual for acceptable restrainers (refer to Restraint Joint Table on detail sheet WAT 03).

10. FORCE MAIN PIPE FLUSHING. All force main piping shall be flushed clean with water utilizing full pipe diameter. In cases where the water supply is inadequate to flush the full pipe diameter, alternate flushing methods shall be coordinated with CCUA's Inspector.

11. INSTALLATION. All sewer lines, manholes, and appurtenances shall be constructed to the dimensions and elevations indicated on the approved drawings. Trenches shall be excavated to a width approximately twelve inches greater than the outside diameter of the pipe. Machine excavation shall be to a depth one-fourth pipe diameter above proposed pipe grade; the remaining depth shall be hand excavated and shaped to give full support to the lower one-fourth of each pipe. Each section of pipe shall be inspected for defects prior to being lowered into the trench. The inside of each bell and the outside of each spigot shall be thoroughly cleaned of all foreign matter prior to making the joint. All sewer lines shall be constructed with the spigot ends pointing in the direction of the flow. Both the bell and the spigot of each joint shall be lubricated with the lubricant recommended by the pipe manufacturer. All sewer lines shall be cleaned of foreign matter as construction progresses, and shall be in a clean condition upon completion of construction operations. Gravity pipe materials shall remain the same on runs between manholes and / or other structures.

12. INSPECTIONS. Each section of the completed sewer system shall be inspected for proper alignment. Any section of the sewer system which does not display true, concentric alignment shall be reinstalled. A written log of inspection shall be kept indicating location of test, potential problems in sewer dips and depth of water, service locations, and other irregularities in the pipe lines. An image in DVD/USB drive format shall be made of the television inspection and submitted to the Engineer and the CCUA. Copies of compaction density test reports from a licensed testing agency shall be made available to CCUA if requested.

12.1 CLOSED CIRCUIT TELEVISION INSPECTIONS (CCTV) inspection will be required on all new gravity sewers constructed. This service shall be provided by the Contractor as a part of the Construction Contract. The newly constructed sewers shall be televised in the presence of the Inspector of the CCUA. A full report as to the condition of pipe, type, depth, location of services, length, joint and distance between manholes, etc. shall be furnished to the CCUA inspector prior to the final acceptance of the system. CCTV inspections start at manhole invert. Any pipe found to be cracked, leaking or otherwise defective shall be removed and replaced with new pipe. Deflection testing with 7.5% mandrel is also required. Any section not passing the mandrel test shall be corrected. Sewer mains shall be CCTV after curb and lime rock are in place but prior to paving unless approved by CCUA inspector. Limerock priming and paving operations shall not take place until approved by the CCUA inspector. This will be strictly enforced. All gravity sewers must be flushed no sooner than 4 hours prior to any CCTV inspection. Force main lines within pavement area shall be pressure tested and approved prior to paving, but not prior to subgrade mixing operation and limerock installation, finish graded and compacted. Sewer services shall be viewed by a camera capable of viewing into service lateral connections. Adequate water must be placed within the upstream manhole to flow through connection to new or existing main to the downstream manhole before inspecting with the camera. All work must be accomplished in the presence of the CCUA inspector. Contractor shall contact CCUA inspector to schedule the CCTV and inspection of the sewer main. CCUA inspector shall report to job site at the agreed upon time. CCUA inspectors will wait at the job site no more than 30 minutes from the agreed upon time for the televising to begin before leaving the job site. Contractor shall reschedule CCTV giving CCUA 48 hours' notice if the above occurs.

12.2 INFILTRATION After CCTV completion, if infiltration existing the sewers or sections thereof, shall be tested and gauged for infiltration. To check the amount of infiltration, the Contractor, shall furnish at no added compensation over the contract price for the sewers. Maximum allowable infiltration shall be 50 gallons per mile, per inch of dia. of sewer per 24 hour day, at any time.

12.3 EXFILTRATION TEST In areas where ground water is not encountered in sewer construction, or it is desired to run exfiltration tests, the Contractor shall furnish and install all necessary materials, equipments, shall supply water, etc., and shall run exfiltration tests to determine acceptance of the sewer. The maximum allowable exfiltration shall be 50 gallons per mile per inch of diameter of sewer per 24 hour day at any time based on two foot minimum internal head.

12.4 PIPE GRADE. A "dip" is defined as any water holding depth which is equal or greater than the depth as listed below. Each run of pipe, between two manholes, shall be evaluated independently for compliance. Any "dips" which is greater than the "dip" depth listed below are not acceptable , unless approved by CCUA and shall be removed and replaced at no cost to CCUA. Regardless of the number of "dips" in the line section, if, in the opinion of the CCUA inspector, the number and/or location of the "dips" is believed to create an unacceptable operating condition, then the defective pipe section(s) shall be removed and replaced at no cost to CCUA.

WATER HOLDING DEPTH (INCHES)	
PIPE SIZE	DIP DEPTH
8"	1.0"
10"	1.5"
12"	2.0"

12.4 PIPE GRADE. A "dip" is defined as any water holding depth which is equal or greater than the minimum depth as listed below. Each run of pipe, between two manholes, shall be evaluated independently for compliance. Any "dip" which is greater than the "maximum" "dip" depth listed below are not acceptable , unless approved by CCUA and shall be removed and replaced at no cost to CCUA. Regardless of the number of "dips" in the line section, if, in the opinion of the CCUA inspector, the number and/or location of the "dips" is believed to create an unacceptable operating condition, then the defective pipe section(s) shall be removed and replaced at no cost to CCUA.

13. DEMARCATION BOX. Demarcation box shall be used as an isolation point between the wet well and the motor control center panel. All wiring between the motor control center(MCC) and wet well shall be interconnected at this point. Install malleable seal off conduits at the demarcation box end, in conduits between the demarcation box and the MCC. All internal hardware including terminal strips, blocks and backplane shall be stainless steel.

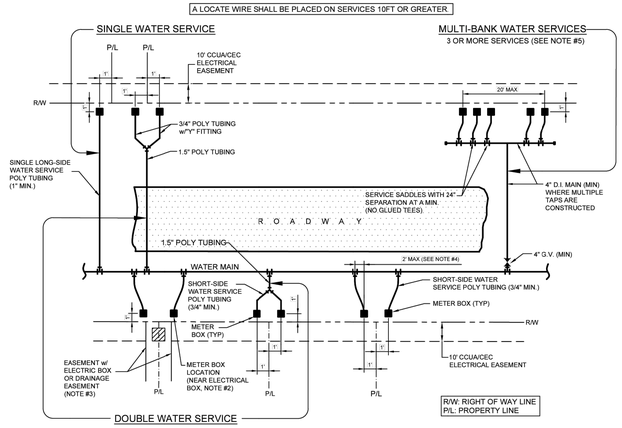
13.1 Demarcation box shall be 24" wide, 24" tall and 12" deep nema 4x enclosure manufactured of 316 stainless steel. Enclosure shall have a hinged cover and removable backplane for terminal blocks. The box shall be mounted so that the cover faces away from the wet well.

13.2 Terminal blocks will need to be mounted for each wire passing through the demarcation box. Terminal strips will be rated at 600 volts, sized according to the load served. Antioxidant compound shall be used on all terminal connections, (nolox or equal). Nameplates as specified on the electrical standards sheet shall be provided at the terminal blocks to identify each circuit.

13.3 All wires including spares shall be identified with heat shrink labels. All control wires shall have spade lugs. Wires shall be 600 volt rated thhn/mtw/thhw.

14. SEPARATION OF WATER AND SEWER MAINS. Horizontal and vertical separation between potable water system mains and or appurtenances and sanitary or storm sewers, wastewater or storm water force mains, and reclaimed water mains shall be in accordance with Rule 62-555.314 FAC. a. New or relocated underground water mains shall be laid to provide a horizontal distance of at least three feet between the outside of the water main and the outside of any existing or proposed storm sewer, storm water force main, reclaimed water main regulated under Part III of Chapter 62-610, F.A.C, or proposed vacuum-type sanitary sewer. b. New or relocated, underground water mains shall be laid to provide a horizontal distance of at least six feet, and preferably ten feet, between the outside of the water main and the outside of any existing or proposed gravity- or pressure-type sanitary sewer, wastewater force main, or pipeline conveying reclaimed water not regulated under Part III of Chapter 62-610, F.A.C. The minimum horizontal separation distance between water mains and gravity-type sanitary sewers shall be reduced to three feet where the bottom of the water main is laid at least six inches above the top of the sewer. c. New or relocated underground water mains crossing any existing or proposed gravity- or vacuum-type sanitary sewer or storm sewer shall be laid so the outside of the water main is 12 inches, above, or at least 12 inches below, the outside of the other pipeline. However, it is preferable to lay the water main above the other pipeline (see Crossing "A" as shown on detail sheet WAT 02). d. New or relocated underground water mains crossing any existing or proposed pressure-type sanitary sewer, wastewater or storm water force main, or pipeline conveying reclaimed water shall be laid so the outside of the water main is at least 12 inches above or below the outside of the other pipeline. However, it is preferable to lay the water main above the other pipeline. e.g. At the utility crossings described in paragraph

POLYETHYLENE WATER SERVICE DETAILS



NOTES

1. The sketches above indicate typical water service and meter box locations. Actual locations of boxes may vary slightly according to field conditions encountered. Typically, the meter box shall be located 1.0' off of the R/W line.

2. Unless specified otherwise by the applicable county (Clay or Bradford), the meter box shall be located 1.0' off of the r/w line, and 1.0' foot inside of the prolongation of one of the side property lines. If a conflict exists with other utilities, the meter box may be adjusted to four feet (max.) inside property lines (in lieu of 1.0' feet). Unless approved otherwise by CCUA, the water meter box shall be located in non-traffic areas (not in sidewalks or driveways). If an unapproved meter box is identified by CCUA, then the contractor or customer shall be responsible for the cost of relocating any meter box which is located in the sidewalk or driveway, or the cost to provide the correct meter box. CCUA shall approve all deviations to the above prior to construction.

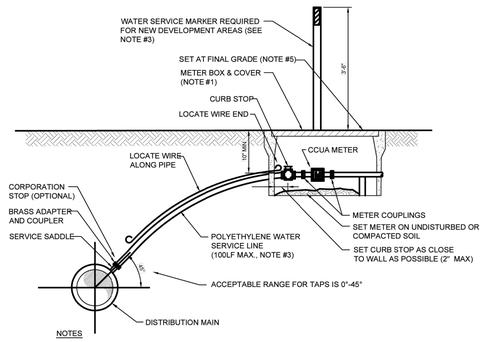
3. If drainage or other easement is located between lots, meter boxes shall be located at the easement line but outside the easement area.

4. For single services, the horizontal distance (perpendicular to the main) between the service's saddle and the meter box shall be 2 feet maximum. For double 3/4" services, the 1 ½" poly main shall be located centered between the two meter boxes. Locate wire is required on all services 10' or greater in length. If locate wire is required, the wire shall run from the meter box to the main (with no connection to main wire with the last 24 inches stripped of insulation/bare wire as ground). All exceptions to this requirement must be approved by CCUA. This will assist in locating existing service lines in the future.

5. A ducticle iron pipe (D.I.P.) water main extension w/locate wire may be utilized on either short-side or long-side services where shown on the drawings. Locate wire shall extend from one meter box to curb stop at water main. For 3 or more services in one area, a water main extension w/locate wire may be utilized on either short-side or long-side services where shown on the drawings (taps staggered and at 2 feet on center-min). For water supply headers where 5 or more taps are constructed, the header pipe shall be 4" at a minimum. Example: Construct a 4" main D.I. crossing the street for 5 residential customers, utilizing 4" g.v., 4" pipe, 4"x1" saddles and 1" curb stops (no glued tee fittings). The 4" or larger D.I.P. water main must be sized and designed by the engineer.

6. Reclaimed water meter boxes or services shall be constructed similar to the above and shall be located at a min. of 10' from the potable water service and/or box, and not allowed in concrete or asphalt unless approved otherwise by CCUA.

WATER SERVICE INSTALLATIONS
2" AND SMALLER METER — A
NOT TO SCALE



NOTES

1. See CCUA Approved Materials Manual and system details for requirements.

2. No open-cut under roadway paving allowed unless the roadway is being reconstructed, or if directed otherwise by CCUA. Construct poly line with 36" (min.) cover under roadways. The poly water service line shall be same size as the meter (3/4" minimum) and be installed perpendicular to the main and not exceed 100lf unless otherwise approved by CCUA.

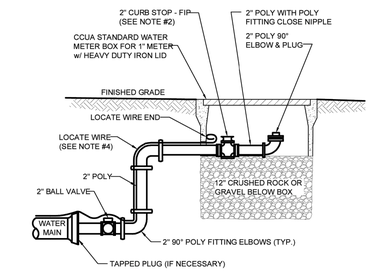
3. Install PVC plug in all curb stops if water service is "not in use" (i.e.: if no meter is installed). In addition, install a 6 inch wide, 6 foot long P.T. fence post (top painted blue) 12" off side of meter box. The removal or transfer of a water service shall include brass meter couplings (hex on barrel type).

4. The contractor shall be responsible for the repair or replacement of the meter or electronic devices if damaged by the contractor during the construction period.

5. Meter box and top shall be clear of all debris to allow full access to box (i.e., no dirt, trash or other debris placed on top of box).

6. Locate wiring required on all services 10' or greater in length / offset greater than 2.0'.

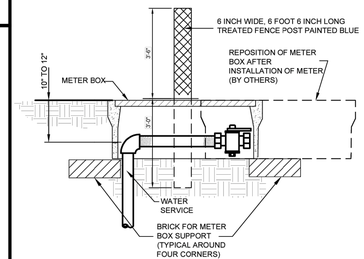
WATER SERVICE DETAIL
2" AND SMALLER METER — B
NOT TO SCALE



NOTES

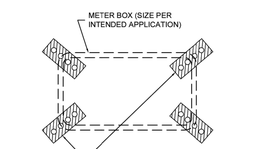
1. Pipe shall be polyethylene. Fittings shall be poly.
2. The 2" curb stop shall be all bronze. Fittings shall be poly.
3. Locate wire for 10' or greater in length.
4. Cannot be placed under concrete or pavement.
5. Place 2 feet past last water main service connection.

FLUSHING VALVE BELOW GRADE — C
NOT TO SCALE



1. All services are to be clearly marked by a treated 6 inch wide, 6 foot 6 inch long marker (fence) post painted blue.+
2. All services are to be extended above grade until completion of all grading activities. Once final road grading is complete, lower services by cutting off riser 10" to 12" below final grade and install 90° bend, nipple and locate wire ball valve at that elevation.
3. Set meter box over entire horizontal section of service line from last 90° bend to the end of the curb stop.
4. Box to be repositioned level when the meter is installed.
5. Marker post to be installed adjacent to and located at the mid section of the meter box.

WATER SERVICE MARKER POST — G
NOT TO SCALE



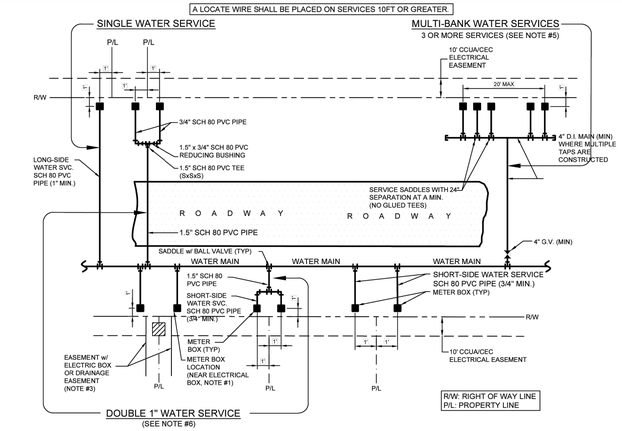
METER BOX SUPPORT DETAIL — H
NOT TO SCALE

NO	DATE	REVISION DESCRIPTION	BY
6	AUG 23	REVISED ALL NOTES & DETAILS	RHD
5	JUNE 21	REVISED PER COMMENTS FROM JOE P.	RHD
4	JUNE 17	REVISED VARIOUS DETAILS	RHD
3	JUNE 16	REVISED POLY WATER SERVICE DETAIL	RHD
2	MARCH 16	REVISED SCH 80 PVC SHEET	RHD
1	JUNE 15	NEW DETAIL SHEET DESIGN	RHD

DESG XXX
DRWN RHD
CHKD XXX
APRV XXX
DATE 00/00

STANDARD SCH80 PVC AND POLYETHYLENE WATER SERVICE DETAILS

SCH 80 PVC WATER SERVICE DETAILS



NOTES

1. The sketches above indicate typical water service and meter box locations. Actual locations of boxes may vary slightly according to field conditions encountered. Typically, the meter box shall located 1.0' off of the R/W line (as shown).

2. Unless specified otherwise by the applicable county (Clay or Bradford), the meter box shall be located 1.0' off of the R/W line, and 1.0' foot inside of the prolongation of one of the side property lines. If a conflict exists with other utilities, the meter box may be adjusted to four feet (max.) inside property lines (in lieu of 1.0' feet). Unless approved otherwise by CCUA, the water meter box shall be located in non-traffic areas (not in sidewalks or driveways). If an unapproved meter box is identified by CCUA, then the contractor or customer shall be responsible for the cost of relocating any meter box which is located in the sidewalk or driveway, or the cost to provide the correct meter box. CCUA shall approve all deviations to the above prior to construction.

3. If drainage or other easement is located between lots, meter boxes shall be located at the easement line but outside the easement area.

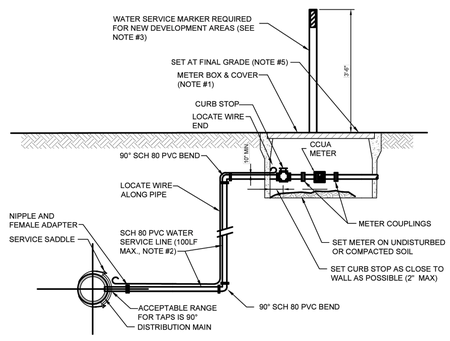
4. For single services, the horizontal distance (perpendicular to the main)between the services saddle and the meter box shall be 2 feet maximum. For double 3/4" services, the 1 ½" SCH80 PVC main shall be located centered between the two meter boxes. Locate wire is required on all services 10' or greater in length. If locate wire is required, the wire shall run from the meter box to the main (with no connection to main wire with the last 24 inches stripped of insulation/bare wire as ground). All exceptions to this requirement must be approved by CCUA. This will assist in locating existing service lines in the future.

5. A ductcile iron pipe (D.I.P.) water main extension w/locate wire may be utilized on either short-side or long-side services where shown on the drawings. Locate wire shall extend from one meter box to curb stop at water main. For 3 or more services in one area, a water main extension w/locate wire may be utilized on either short-side or long-side services where shown on the drawings (taps staggered and at 2 feet on center-min). For water supply headers where 3 or more taps are constructed, the header pipe shall be 4" at a minimum. Example: Construct a 4" main D.I.P. crossing the street for 5 residential customers, utilizing 4" g.v., 4" pipe, 4"x1" saddles and 1" curb stops (no glued tee fittings). The 4" or larger D.I.P. water main must be sized and designed by the engineer.

6. Double 1" water services is allowed for short side or long side services and where shown on the drawings.

7. Reclaimed water meter boxes or services shall be constructed similar to the above and shall be located at a min. of 10' from the potable water service and/or box, and not allowed in concrete or asphalt unless approved otherwise by CCUA.

SCH80 PVC WATER SERVICE INSTALLATIONS
2" AND SMALLER METER — D
NOT TO SCALE



NOTES

1. See CCUA Approved Materials Manual and system details for requirements.

2. No open cut under roadway paving allowed unless the roadway is being reconstructed or if directed otherwise by CCUA. Construct SCH80 PVC line with 36" (min.) cover under roadways. The SCH80 PVC water service line shall be same size as the meter (3/4" minimum) and be installed perpendicular to the main and not exceed 100lf unless otherwise approved by CCUA.

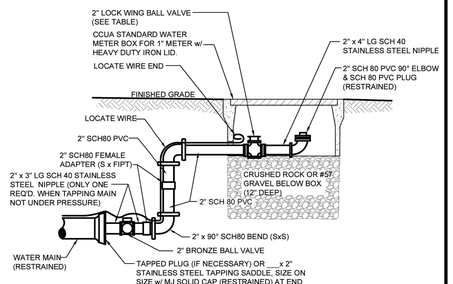
3. Install PVC plug in all curb stops if water service is "not in use" (i.e.: if no meter is installed). In addition, install a 6 inch wide, 6 foot 6 inch long P.T. fence post (top painted blue) 12" off side of meter box. The removal or transfer of a water service shall include brass meter couplings (hex on barrel type).

4. The contractor shall be responsible for the repair or replacement of the meter or electronic devices if damaged by the contractor during the construction period.

5. Meter box and top shall be clear of all debris to allow full access to box (i.e., no dirt, trash or other debris placed on top of box).

6. Locate wiring required on all services 10' or greater in length / offset greater than 2.0".

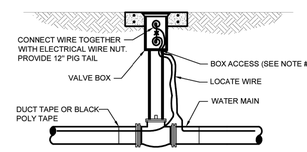
SCH 80 PVC WATER SERVICE DETAIL
2" AND SMALLER METER — E
NOT TO SCALE



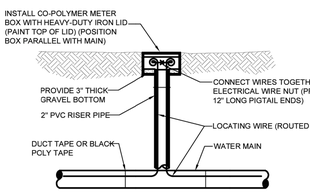
NOTES

1. Pipe shall be SCH80 PVC. Fittings shall be SCH80 PVC.
2. The 2" ball valve shall be all bronze. Fittings shall be brass.
3. Locate wire for 10' or greater in length.
4. Cannot be placed under concrete or pavement.
5. Place 2 feet past last water main service connection.

2" STANDARD SCH 80 PVC FLUSHING HYDRANT ON DEAD-END LINE — F
NOT TO SCALE



LOCATE WIRE BOX UTILIZING VALVE BOX
NOT TO SCALE



LOCATE WIRE BOX UTILIZING METER BOX

NOTE: LOCATE WIRE SHALL ENTER THE VALVE BOX THROUGH A "V" CUT IN THE 6" PVC RISER PIPE.

LOCATE WIRE BOX — I
NOT TO SCALE

NOTES

1. Locating wire shall be 10 guage, single strand UF rated (direct burial) copper wire, or approved equal

2. All directional drilled pipes shall have 2-8 guage strand copper-clad steel conductors with 45mil HDPE extruded coating. and shall be of sufficient length to avoid splicing. Under no circumstances shall the tracer wire be spliced. It shall be the Contractor's responsibility to order rolls of wire of the required length to avoid the need for splicing the tracer wire.

3. Locate boxes hall be installed at the lot line in residential subdivisions, or commercial properties. Boxes shall located in sidewalks or driveways. Locate boxes spacing shall not exceed 500 feet.

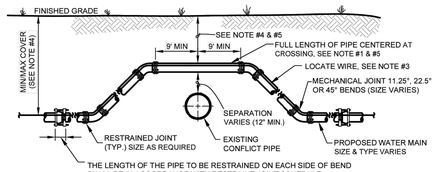
4. Where it is not possible to locate the box outside of a paved street or parking lot, the locate wire shall be placed in a valve box instead of a Rome box. Valve box lid shall be marked according to the type of pipe served.

CLAY COUNTY UTILITY AUTHORITY
3176 OLD JENNINGS ROAD
MIDDLEBURG, FLORIDA 32068-3907
TELEPHONE: (904) 272-5999

This item has been digitally signed and sealed by Joshua M. Benolken, P.E. on 05/15/2026 adjacent to the seal. Signature must be verified on any electronic copies

JOSHUA M. BENOLKEN — LICENSE NUMBER — No93672 — STATE OF FLORIDA — PROFESSIONAL ENGINEER

SHEET NO.
WD–1



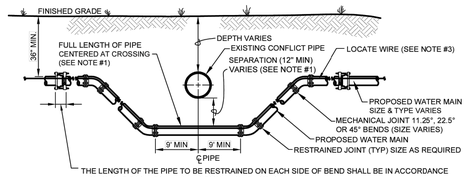
CASE "A" CROSSING

NOTES

1. THE SOILS BETWEEN THE NEW MAIN AND THE CONFLICT PIPE SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST, ASTM D 1557.
2. ALL BENDS TO BE RESTRAINED IN BOTH DIRECTIONS PER CCUA REQUIREMENTS, TO WITHSTAND 150 P.S.I. PRESSURE TEST.
3. LOCATING WIRE REQUIRED.
4. THE COVER FOR PIPING SHALL BE 36" (MIN) IN PAVED AND UNPAVED AREAS AND A MAXIMUM COVER OF 84", UNLESS APPROVED BY CCUA.
5. IF UTILITY CONFLICT IS LOCATED IN A NON-TRAFFIC AREA (NO TRAFFIC LOADS) AND IF THE NEW PIPE SHALL BE DUCTILE IRON PIPE, THEN THE MINIMUM COVER MAY BE REDUCED TO 24 INCHES (ONLY IN THE AREA OF THE CONFLICT).

ADJUSTMENT ABOVE EXISTING UTILITIES MECHANICAL RESTRAINTS

NOT TO SCALE — A



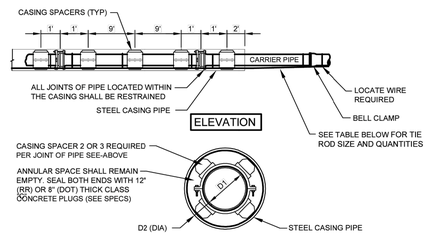
CASE "B" CROSSING

NOTES

1. THE SOILS BETWEEN THE NEW MAIN AND THE CONFLICT PIPE SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST, ASTM D 1557.
2. ALL BENDS TO BE RESTRAINED IN BOTH DIRECTIONS PER CCUA REQUIREMENTS, TO WITHSTAND 150 P.S.I. PRESSURE TEST.
3. LOCATING WIRE REQUIRED.
4. ALL BENDS TO BE RESTRAINED IN BOTH DIRECTIONS PER CCUA REQUIREMENTS, TO WITHSTAND 150 P.S.I. PRESSURE TEST.
5. THE COVER FOR ALL PIPING SHALL BE 36" (MIN) IN PAVED AND UNPAVED AREAS AND A MAXIMUM COVER OF 84", UNLESS APPROVED BY CCUA.

ADJUSTMENT BELOW EXISTING UTILITIES MECHANICAL RESTRAINTS

NOT TO SCALE — C



CASING DETAIL

CARRIER TYPE AND CASING PIPE SIZES (MIN) IN INCHES													
CARRIER PIPE NO. DIA. (D1)	4	6	8	10	12	14	16	18	20	24	30	36	
CASING PIPE NOM. DIA. (D2)	14	16	20	20	24	30	30	30	36	42	48	54	
WALL THICKNESS RAILROAD (CSX)	0.25	0.281	0.375	0.375	0.375	0.469	0.469	0.469	0.562	0.625	0.688	0.781	
WALL THICKNESS DOT	0.25	0.25	0.25	0.25	0.25	0.312	0.312	0.312	0.375	0.50	0.50	0.50	
NUMBER OF TIE RODS (EACH END)	2	2	2	4	4	6	6	8	8	12	14	14	
TIE ROD SIZE (DIA.)	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	1"	1"	

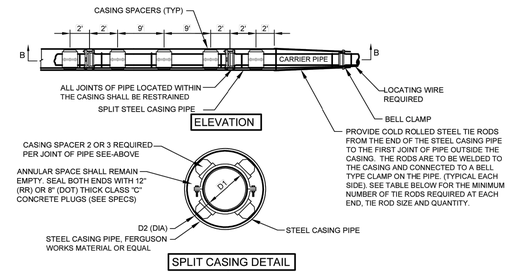
CASING SIZE SCHEDULE

NOTES

1. MIN. COVER TO TOP OF CASING; a) FDOT-3.0' b)RAILROAD-5.5' TO BASE OF RAIL, 4.5' FOR SECONDARY OR INDUSTRIAL TRACKS.
2. ALL JOINTS WITHIN CARRIER PIPE SHALL BE MECHANICAL RESTRAINED JOINTS.
3. FOR STREET USES WHICH ARE NOT DOT OR RAILROAD, USE DOT CASING THICKNESS UNLESS OTHERWISE INDICATED BY ENGINEER.
4. CASING PIPE SHALL BE FURNISHED IN NOMINAL 8 FOOT LENGTHS (MIN.) UNLESS OTHERWISE INDICATED ON THE DRAWING OR APPROVED BY CCUA. 5. PIPE TO BE USED AS A CASING SHALL CONFORM TO EITHER ASTM STANDARD A139 FOR "ELECTRIC FUSION (ARC) WELDED STEEL PIPE". WITH A MINIMUM YIELD STRENGTH OF 35,000 PSI OR "API SPECIFICATION API-5LX, GRADE X-42 WELDED STEEL PIPE".

TYPICAL CASING DETAIL - WATER

NOT TO SCALE — D



SPLIT CASING DETAIL

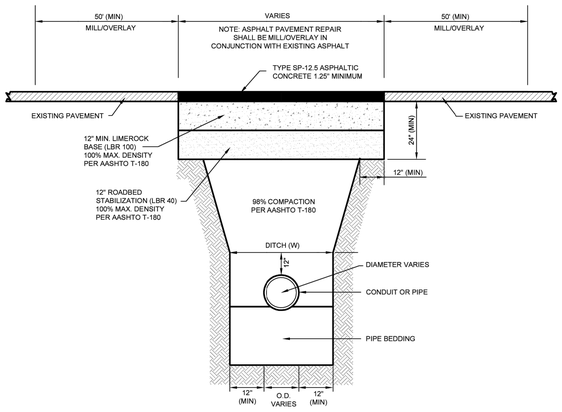
CARRIER TYPE AND CASING PIPE SIZES (MIN) IN INCHES														
CARRIER PIPE NO. DIA. (D_1)	4	6	8	10	12	14	16	18	20	24	30	36	42	48
CASING PIPE NOM. DIA. (D_2)	14	16	20	20	24	30	30	30	36	42	48	54	60	66
WALL THICKNESS RAILROAD-(CSX)	0.25	0.281	0.375	0.375	0.375	0.469	0.469	0.469	0.562	0.625	0.688	0.781	0.844	0.938
WALL THICKNESS DOT	0.25	0.25	0.25	0.25	0.25	0.312	0.312	0.312	0.375	0.50	0.50	0.50	0.50	0.50
NUMBER OF TIE RODS (EACH END)	2	2	2	4	4	6	6	8	8	12	14	14	16	16
TIE ROD SIZE (DIA.)	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	1"	1"	1 1/4"	1 1/4"

NOTES

1. NOT ALLOWED UNDER RAILROADS.
2. THE INSIDE DIAMETER OF THE CASING PIPE SHALL BE A MINIMUM OF 4 INCHES GREATER THAN THE OUTSIDE DIAMETER OF THE CARRIER PIPE BELL OR COUPLING.
3. ALL JOINTS WITHIN CARRIER PIPE SHALL BE MECHANICAL RESTRAINED JOINTS.
4. FOR STREET USES WHICH ARE NOT DOT OR RAILROAD, USE DOT CASING THICKNESS UNLESS OTHERWISE INDICATED BY ENGINEER.
5. CASING PIPE SHALL BE FURNISHED IN NOMINAL 8 FOOT LENGTHS (MIN.) UNLESS OTHERWISE INDICATED ON THE DRAWING OR APPROVED BY CCUA.
6. PIPE TO BE USED AS A CASING SHALL CONFORM TO EITHER ASTM STANDARD A139 FOR "ELECTRIC FUSION (ARC) WELDED STEEL PIPE". WITH A MINIMUM YIELD STRENGTH OF 35,000 PSI OR "API SPECIFICATION API-5LX, GRADE X-42 WELDED STEEL PIPE".

REVISION DESCRIPTION	BY	DATE	NO
REVISED ALL NOTES & DETAILS	RHD	AUG 23	7
REVISED CLAY COUNTY ASPHALT DETAIL	RHD	JUN 17	6
REVISED CASE "B" CROSSING DETAIL (PIPE RESTRAINT)	RHD	FEB 17	5
REVISED CASE 2 DETAIL	RHD	SEPT 16	4
ADDED PAGE 2 DETAIL	RHD	MAR 16	3
ADDED CASE "A" CROSSING DETAIL	RHD	JUNE 15	2
NEW DETAIL SHEET DESIGN	RHD		1

DESG	XXX
DRWN	RHD
CHKD	XXX
APRV	XXX
DATE	00/00



REVISED CLAY COUNTY ASPHALT PAVEMENT REPAIR DETAIL

NOT TO SCALE — B

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

Other Pipe	Horizontal Separation	Crossings (1)	Joint Spacing @ Crossings (Full Joint Centered)
Storm Sewer, Stormwater Force Main, Reclaimed Water (2)	Water Main — 3 ft. minimum	Water Main — 12 inches is the minimum, except for storm sewer, then 6 inches is the minimum and 12 inches is preferred	Alternate 3 ft. minimum — Water Main
Vacuum Sanitary Sewer	Water Main — 10 ft. preferred, 3 ft. minimum	Water Main — 12 inches preferred, 6 inches minimum	Alternate 3 ft. minimum — Water Main
Gravity or Pressure Sanitary Sewer, Sanitary Sewer Force Main, Reclaimed Water (4)	Water Main — 10 ft. preferred, 6 ft. minimum (3)	Water Main — 12 inches is the minimum, except for gravity sewer, then 6 inches is the minimum and 12 inches is preferred	Alternate 6 ft. minimum — Water Main
On-Site Sewage Treatment & Disposal System	10 ft. minimum	---	---

(1) Water main should cross above other pipe. When water main must be below other pipe, the minimum separation is 12 inches.
(2) Reclaimed water regulated under Part III of Chapter 62-610, F.A.C.
(3) 3 ft. for gravity sanitary sewer where the bottom of the water main is laid at least 6 inches above the top of the gravity sanitary sewer.
(4) Reclaimed water not regulated under Part III of Chapter 62-610, F.A.C.

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

PVC PIPE RESTRAINT NOTES

1. THIS SCHEDULE SHALL BE UTILIZED ON ALL WATER, SEWER FORCE MAIN OR RECLAIMED WATER SYSTEMS. ALL FITTINGS SHALL BE RESTRAINED TO LENGTHS INDICATED ON THIS SCHEDULE, AT A MINIMUM.
2. ASSUMPTIONS: PVC PIPE, SAFETY FACTOR=1.5, TEST PRESSURE=150PSI, SOIL=GM OR SM, TRENCH TYPE 3, DEPTH OF COVER=30 INCHES FOR 20" AND SMALLER PIPE SIZE OR 36 INCHES FOR 24" AND LARGER PIPE SIZE.
3. BENDS AND VALVES: SHALL BE RESTRAINED ON EACH SIDE OF FITTING.
4. VERTICAL OFFSETS: ARE APPROX. 3 FEET COVER ON TOP AND APPROX. 8 FEET COVER ON BOTTOM. PER THE DETAILS, Lu IS THE RESTRAINED LENGTH FOR THE UPPER (TOP) LEVEL. LI IS THE RESTRAINED LENGTH FOR THE LOWER (DEEPER) LEVEL. ASSUME 45 DEGREE BENDS.
5. TEES: TOTAL LENGTH BETWEEN FIRST JOINTS OR RESTRAINED LENGTH ON EITHER SIDE OF TEE (RUN) SHALL BE A TOTAL DISTANCE OF 30 FEET (MIN). SEE SCHEDULE ABOVE FOR RESTRAINT LENGTH ON TEE "BRANCH" LINE.
6. HDPE TO PVC TRANSITIONS: THE PVC PIPE SIDE SHALL BE RESTRAINED 35 FT (MIN).
7. THE INSTALLATION OF BELL HARNESS RESTRAINTS AT PVC JOINTS SHALL BE COMPLETED PER THE MANUFACTURERS RECOMMENDATION, WHICH INCLUDES NOT OVER TIGHTENING THE PARALLEL RODS/NUTS. THESE NUTS SHOULD ONLY BE SNUG TIGHT. THE HOME MARKS ON THE PIPE SHOULD ALWAYS BE VISIBLE AFTER THE RESTRAINT IS INSTALLED. OVERHOMING THE JOINT MAY CAUSE A FAILURE AT THE BELL RESULTING IN A SERVICE OUTAGE.

NOMINAL PIPE SIZE (IN.)	HORIZONTAL BENDS				VERTICAL OFFSETS 45° BENDS (SEE NOTE 4)		VALVES OR DEAD ENDS
	90° BENDS L (FT.)	45° BENDS L (FT.)	22.5° BENDS L (FT.)	11.25° BENDS L (FT.)	UPPER Lu (FT.)	LOWER LI (FT.)	L (FT.)
4	20	8	4	2	20	3	50
6	28	10	5	2	28	4	66
8	36	14	6	3	36	5	90
10	40	18	8	4	45	6	110
12	50	20	9	4	52	8	120
14	56	23	10	5	60	9	140
16	60	26	11	6	67	10	160
18	69	29	12	6	74	12	180
20	75	32	13	7	80	13	195
24	76	33	15	7	81	14	200
30	88	36	18	9	97	16	235
36	100	40	20	10	110	20	270
42	115	48	23	11	125	24	300
48	129	52	25	12	140	30	340

REDUCERS	
SIZE (IN.)	L (FT.)
6x4	35
8x6	35
8x4	65
10x8	35
10x6	65
12x10	35
12x8	65
16x12	65
16x10	95
20x18	35
20x16	65
20x12	120
24x20	65
24x18	95
24x16	120
30x24	80
30x20	150
36x30	80
36x24	150
42x36	80
42x30	150
48x42	80
48x36	150

TEES SEE NOTE 5		
RUN SIZE (IN.)	BRANCH SIZE (IN.)	L (FT.)
4	4	F.O.
4	6 4 < LESS	6 F.O.
6	6 6 < LESS	18 F.O.
10	10 8 6 < LESS	27 8 F.O.
12	12 10 8 < LESS	38 20 F.O.
16	16 12 10 < LESS	60 20 F.O.
20	20 16 12 < LESS	78 40 F.O.
24	24 20 16 12 < LESS	76 53 20 F.O.
30	30 24 20 16 < LESS	99 60 37 F.O.
36	36 30 24 20 16 < LESS	118 83 60 37 F.O.
42	42 36 30 24 20 < LESS	138 110 78 37 F.O.
48	48 42 36 30 24 < LESS	154 132 99 59 F.O.

F.O. = FITTING ONLY

PVC PIPE RESTRAINT JOINT SCHEDULE

DUCTILE IRON PIPE RESTRAINT NOTES

1. THIS SCHEDULE SHALL BE UTILIZED ON ALL WATER, SEWER FORCE MAIN OR RECLAIMED WATER SYSTEMS. ALL FITTINGS SHALL BE RESTRAINED TO LENGTHS INDICATED ON THE ABOVE SCHEDULE, AT A MINIMUM.
2. ASSUMPTIONS: DUCTILE IRON PIPE (WITHOUT POLY WRAP), SAFETY FACTOR=1.5, TEST PRESSURE=150PSI, SOIL=GM OR SM, TRENCH TYPE 3, DEPTH OF COVER=30 INCHES FOR 20" AND SMALLER PIPE SIZE OR 36 INCHES FOR 24" AND LARGER PIPE SIZE. FOR D.I.P. W/POLY WRAP, USE RESTRAINT JOINT SCHEDULE FOR PVC PIPE.
3. BENDS AND VALVES: SHALL BE RESTRAINED ON EACH SIDE OF FITTING.
4. VERTICAL OFFSETS: ARE APPROX. 3 FEET COVER ON TOP AND APPROX. 8 FEET COVER ON BOTTOM. PER THE DETAILS, Lu IS THE RESTRAINED LENGTH FOR THE UPPER (TOP) LEVEL. LI IS THE RESTRAINED LENGTH FOR THE LOWER (DEEPER) LEVEL. ASSUME 45 DEGREE BENDS.
5. TEES: TOTAL LENGTH BETWEEN FIRST JOINTS OR RESTRAINED LENGTH ON EITHER SIDE OF TEE (RUN) SHALL BE A TOTAL DISTANCE OF 30 FEET (MIN). SEE SCHEDULE ABOVE FOR RESTRAINT LENGTH ON TEE "BRANCH" LINE.
6. HDPE TO D.I.P. TRANSITIONS: THE D.I.P. PIPE SIDE SHALL BE RESTRAINED 35 FT (MIN).

LENGTH (L) TO BE RESTRAINED

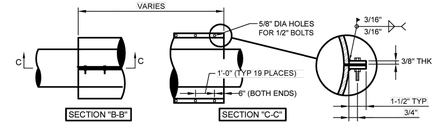
NOMINAL PIPE SIZE (IN.)	HORIZONTAL BENDS				VERTICAL OFFSETS 45° BENDS (SEE NOTE 4)		VALVES OR DEAD ENDS
	90° BENDS L (FT.)	45° BENDS L (FT.)	22.5° BENDS L (FT.)	11.25° BENDS L (FT.)	UPPER Lu (FT.)	LOWER LI (FT.)	L (FT.)
4	18	6	4	2	12	2	30
6	22	10	5	2	17	3	40
8	30	13	6	3	22	4	50
10	35	14	7	4	26	5	64
12	42	16	8	4	31	6	75
14	46	20	9	5	35	7	85
16	53	22	11	5	40	8	95
18	57	24	12	6	44	9	105
20	62	26	13	6	48	10	110
24	64	27	14	6	50	11	111
30	73	30	15	7	57	13	137
36	85	34	18	8	66	17	159
42	93	38	20	9	75	20	176
48	102	43	22	10	82	22	198

REDUCERS	
SIZE (IN.)	L (FT.)
6x4	20
8x6	20
8x4	40
10x8	20
10x6	40
12x10	20
12x8	40
16x12	40
16x10	57
20x18	20
20x16	40
20x12	73
24x20	40
24x18	50
24x16	60
30x24	50
30x20	76
36x30	50
36x24	88
42x36	40
42x30	88
48x42	40
48x36	88

TEE SEE NOTE 5		
RUN SIZE (IN.)	BRANCH SIZE (IN.)	L (FT.)
4	4	F.O.
4	6 4 < LESS	6 F.O.
6	6 6 < LESS	18 F.O.
10	10 8 6 < LESS	27 8 F.O.
12	12 10 8 < LESS	38 20 F.O.
16	16 12 10 < LESS	60 20 F.O.
20	20 16 12 < LESS	78 40 F.O.
24	24 20 16 12 < LESS	76 53 20 F.O.
30	30 24 20 16 < LESS	99 60 37 F.O.
36	36 30 24 20 16 < LESS	118 83 60 37 F.O.
42	42 36 30 24 20 < LESS	138 110 78 37 F.O.
48	48 42 36 30 24 < LESS	154 132 99 59 F.O.

F.O. = FITTING ONLY

DUCTILE IRON PIPE RESTRAINT JOINT SCHEDULE



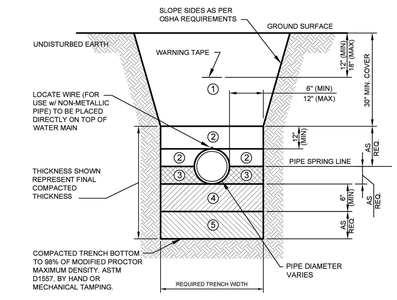
MATERIAL: PIPE - ATSM A53, GRADE B, ERW, STD WALL, CARBON STEEL
PLATE - STM A36, GRADE B, CARBON STEEL (THICKNESS AS NOTED)
WELDS ALL WELDS SHALL BE PERFORMED BY A CERTIFIED WELDER
LININGS/COATINGS: INTERIOR - BARE
EXTERIOR - BARE

PIPE MAIN FOR CROSSINGS USING SPLIT CASING PIPE

NOT ALLOWED UNDER RAILROADS

TYPICAL SPLIT CASING DETAIL - WATER

NOT TO SCALE — E



1. FINAL BACKFILL - CLEAN, WELL GRADED MATERIAL IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT SPECIFICATIONS. FINAL BACKFILL SHALL BE INSTALLED IN LIFTS NOT EXCEEDING 6 INCHES, LOOSE MEASUREMENT, AND SHALL BE COMPACTED TO AT LEAST 95% (UNPAVED) AND 98% (PAVED) MODIFIED PROCTOR MAXIMUM DRY DENSITY, ASTM D-1557.
2. INITIAL BACKFILL - CLEAN, WELL GRADED MATERIAL IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT SPECIFICATIONS. INITIAL BACKFILL SHALL BE INSTALLED IN LIFTS NOT EXCEEDING 6 INCHES, LOOSE MEASUREMENT, AND SHALL BE COMPACTED TO AT LEAST 98% MODIFIED PROCTOR MAXIMUM DRY DENSITY, ASTM D-1557. BACKFILL SHALL EXTEND TO THE TOP OF THE PIPE AFTER COMPACTION. ALL LIFTS SHALL BE COMPACTED BY HAND TAMPING OR AN APPROVED METHOD OF MECHANICAL TAMPING. DEWATERING SHALL CONTINUE UNTIL BACKFILL IS COMPACTED AT LEAST 2 FEET ABOVE PIPE.
3. HAUNCHING - CLEAN, WELL GRADED MATERIAL IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT SPECIFICATIONS. HAUNCHING SHALL BE INSTALLED IN COMPLETELY DEWATERED TRENCHES IN LIFTS NOT EXCEEDING 4 INCHES, LOOSE MEASUREMENT, AND SHALL BE COMPACTED TO AT LEAST 98% MODIFIED PROCTOR MAXIMUM DRY DENSITY, ASTM D-1557, BY HAND TAMPING. HAUNCHING SHALL BE BROUGHT UP EQUALLY ON BOTH SIDES OF THE PIPE. COMPACT BACKFILL TO MID-PIPE.
4. BEDDING - CLEAN, WELL GRADED MATERIAL IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT SPECIFICATIONS. BEDDING SHALL BE INSTALLED IN COMPLETELY DEWATERED TRENCHES IN LIFTS NOT EXCEEDING 6 INCHES, LOOSE MEASUREMENT, AND SHALL BE COMPACTED TO AT LEAST 98% MODIFIED PROCTOR MAXIMUM DRY DENSITY, ASTM D-1557, BY HAND TAMPING OR MECHANICAL TAMPING. PROPERLY SHAPED BELL HOLES SHALL BE EXCAVATED IN THE COMPACTED BEDDING TO PERMIT ASSEMBLY OF THE PIPE. SEE SPECIFICATIONS FOR UNSUITABLE MATERIALS EXCAVATION IF REQUIRED. TRENCH BOTTOM IS AT BOTTOM OF PIPE IF UNSUITABLE MATERIAL IS NOT ENCOUNTERED.

NOTE: NATIVE, UNDISTURBED MATERIAL IN COMPLETELY DEWATERED TRENCHES MEETING THE COMPACTION AND MATERIAL REQUIREMENTS FOR COMPACTED BEDDING MATERIAL NEED NOT BE REPLACED OR REWORKED, EXCEPT FOR SHAPING OF BELL HOLES, AND WHERE REFILL IS REQUIRED.

5. REFILL - REQUIRED WHERE TRENCH HAS BEEN OVER-EXCAVATED. REFILL SHALL BE INSTALLED IN COMPLETELY DEWATERED TRENCHES IN LIFTS NOT EXCEEDING 6 INCHES AND SHALL BE COMPACTED TO 98% OF ASTM D-1557 MAX DRY DENSITY, BY HAND OR MECHANICAL TAMPING.

TYPICAL PIPE TRENCH DETAIL

NOT TO SCALE — F

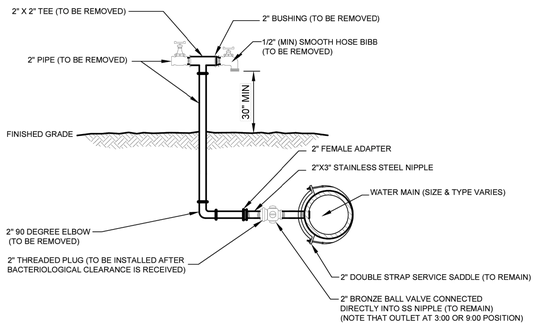
STANDARD WATER CASING, CROSSING TYPE AND PIPE RESTRAINT DETAILS

CLAY COUNTY UTILITY AUTHORITY
3176 OLD JENNINGS ROAD
MIDDLEBURG, FLORIDA 32068-3907
TELEPHONE: (904) 272-5999

This item has been digitally signed and sealed by Joshua M. Benolken, P.E. on 05/15/2026 adjacent to the seal. Signature must be verified on any electronic copies

JOSHUA M. BENOLKEN * LICENSED * ENGINEER * No93072 * STATE OF FLORIDA * PROFESSIONAL

SHEET NO.
WD – 2

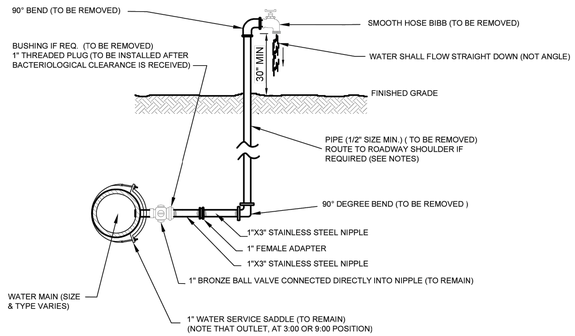


NOTES

1. LOCATION OF SAMPLE POINT BIBB SHALL NOT BE WITHIN THE ROADWAY BUT ROUTED TO THE ROADWAY SHOULDERS (NON-TRAFFIC AREAS).
2. ALL PIPE & FITTING SHALL BE GALVANIZED MATERIAL OR SCH 80 PVC.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL TEMPORARY PIPING & FITTING (AS NOTED) AFTER BACTERIOLOGICAL CLEARANCE IS RECEIVED.
4. THE CONTRACTOR SHALL COMPLY WITH ALL CCUA RULES AND POLICES AS OUTLINED BY CCUA'S STANDARD WATER SYSTEM STANDARDS AND OTHER ASSOCIATED CCUA STANDARDS.

2" TEMPORARY SAMPLE TAP FOR STUB OUT — A

NOT TO SCALE

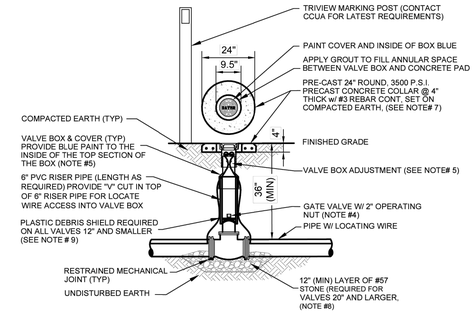


NOTES

1. LOCATION OF SAMPLE POINT BIBB SHALL NOT BE WITHIN THE ROADWAY BUT ROUTED TO THE ROADWAY SHOULDERS (NON-TRAFFIC AREAS).
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL TEMPORARY PIPING & FITTINGS (AS NOTED), AFTER BACTERIOLOGICAL CLEARANCE IS RECEIVED.
3. PIPE AND FITTINGS SHALL BE PVC SCH 80 OR GALV. MATERIAL.
4. THE USE OF THE ABOVE CONSTRUCTION FOR A TEMPORARY SAMPLE POINT SHALL BE LIMITED TO AREAS WHERE A SAMPLE TAP BY ALTERNATIVE METHODS IS NOT FEASIBLE OR IF DIRECTED OTHERWISE BY CCUA.
5. THE CONTRACTOR SHALL COMPLY WITH ALL CCUA RULES AND POLICIES AS AS OUTLINED BY CCUA'S STANDARD WATER SYSTEM STANDARDS AND OTHER ASSOCIATED CCUA STANDARDS.

TEMPORARY SAMPLE TAP — B

NOT TO SCALE

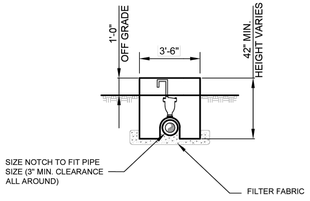


NOTES

1. FOR UNPAVED LOCATIONS, A PRECAST CONCRETE VALVE PAD SHALL BE PROVIDED AND INSTALLED FLUSH WITH GRADE. CONCRETE PAD IS NOT REQUIRED FOR VALVE LOCATED IN THE ROADWAY, UNLESS SHOWN OR NOTED OTHERWISE.
2. LOCATING WIRE IS REQUIRED ON ALL PRESSURE PIPING (SEE DETAIL W-44).
3. A "V" CUT SHALL BE CARVED IN THE CURB CLOSEST/ADJACENT TO ALL BELOW GRADE VALVES. THE "V" CUT IS TO BE PAINTED GREEN.
4. IN PAVED AREAS, INSTALL VALVE AT A DEPTH TO ALLOW A 12" MIN. DISTANCE BETWEEN THE VALVE COVER PLATE AND THE TOP OF THE VALVE OPERATING NUT. OUTSIDE OF PAVED AREAS (GRASS), INSTALL VALVE AT A DEPTH TO ALLOW A 6" MINIMUM DISTANCE BETWEEN THE VALVE COVER AND THE TOP OF THE VALVE OPERATING NUT. OPERATING NUTSTEM EXTENSION SHALL BE PROVIDED (WHERE APPLICABLE) SO THAT THE OPERATING NUT WILL BE NO MORE THAN 30 INCHES BELOW FINISHED GRADE.
5. FOR NEW CONSTRUCTION, THE VALVE BOX SHALL BE ADJUSTED TO MIDRANGE TO ALLOW FOR FUTURE BOX ADJUSTMENTS. ROUTE LOCATE WIRES THRU A "V" CUT IN THE TOP OF THE 6" PVC RISER PIPE FOR LOCATE WIRE ACCESS INTO VALVE BOX. THE LOCATE WIRES WITH A 12" LONG PIG-TAIL AT THE TOP SHALL BE CONNECTED TOGETHER WITH A WIRE NUT.
6. BRASS IDENTIFICATION TAG INDICATING "WATER", VALVE SIZE, DIRECTION AND TURNS TO OPEN & VALVE TYPE. PROVIDE A 1/4" HOLE IN BRASS TAG AND ATTACH TAG (TWIST WIRE AROUND TAG) TO THE END OF THE LOCATE WIRE. TAGS ARE NOT REQUIRED ON VALVES INSTALLED ON FIRE HYDRANT BRANCH LINES.
7. IN LIEU OF PRECAST CONCRETE PAD, A 6" THICK X 24" (ROUND OR SQUARE) POURED CONCRETE PAD W/2 - #4 REBAR AROUND PERIMETER, MAY BE USED.
8. GRAVEL SHALL BE PROVIDED UNDER ALL VALVES 20" AND LARGER. THE MINIMUM VERTICAL LIMIT OF GRAVEL IS 12" UNDER THE VALVE UP TO 1/3 THE OVERALL HEIGHT OF THE VALVE.
9. FOR VALVES 12 INCH AND SMALLER, PROVIDE A WHITE OR BLACK PLASTIC DEBRIS SHIELD WHICH INSTALLS BELOW THE OPERATING NUT. THIS SHIELD SHALL CENTER THE RISER PIPE BOX OVER THE OPERATING NUT AND MINIMIZE INFILTRATION. SHIELD SHALL BE BY AFC, BOXLOK OR APPROVED EQUAL.

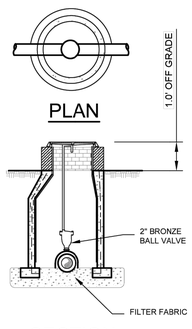
WATER VALVE INSTALLATION DETAIL — C

NOT TO SCALE

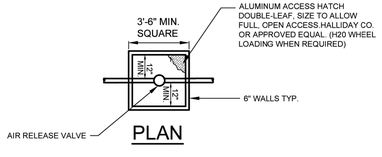


NOTE: WIDTH VAIRES TO ACCEPT PIPE SIZES OVER 8"

SECTION



SECTION



PLAN

TO BE USED ON ALL PIPES 12" OR LARGER

NOTES

1. FOR PIPE 10" OR SMALLER A 4' DIAMETER, NOTCHED MANHOLE CAN BE USED FOR AIR RELEASE VALVE.
2. SET MANHOLE ON MIN. OF 4 SOLID CONCRETE BLOCKS SPACED EVENLY AROUND THE MANHOLE W/ A MIN. OF 12" OF #57 STONE WITH FILTER FABRIC ABOVE AND BELOW THE STONE.

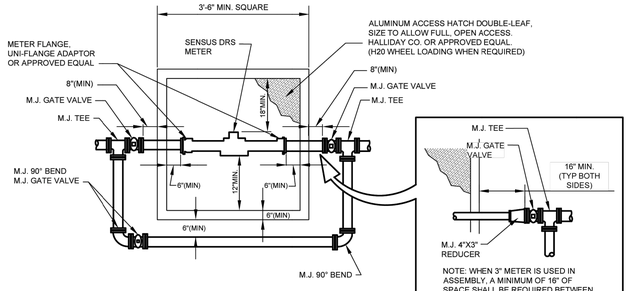
TO BE USED ON ALL PIPES 10" OR SMALLER

NOTES

1. CONCRETE BOX SHALL BE 42" MIN. DEPTH BUT SHALL BE DEEP ENOUGH TO ACCOMMODATE THE SIZE PIPE AND TYPE OF AIR RELEASE VALVE REQUIRED, WITH OPEN BOTTOM, PRECAST WITH NOTCH TO ACCOMMODATE PIPE INSTALLED WITH 36" COVER FROM TOP OF PIPE TO FINISH GRADE, ON 12" OF #57 STONE,WITH FILTER FABRIC ABOVE AND BELOW THE STONE.
2. CONTRACTOR SHALL PROVIDE SHOP DRAWING OF BOX WITH DIMENSIONS FOR APPROVAL BY CCUA.
3. DIMENSIONS SHOWN ARE MINIMUM AND SHALL BE INCREASED BASED UPON ACTUAL SIZE OF PIPE INSTALLED.

WATER MAIN AIR RELEASE VALVE VAULT — D

NOT TO SCALE



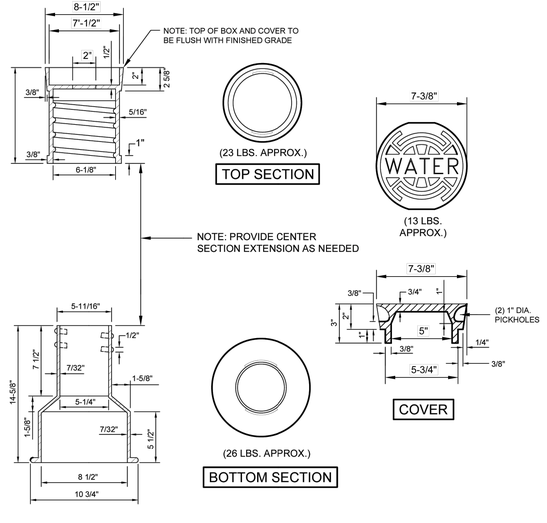
NOTES

1. ALL PIPE TO BE D.I. (MINIMUM 4").
2. ALL VALVES & FITTINGS TO BE DUCTILE IRON. (MINIMUM 4")
3. MINIMUM LENGTH OF 8 DIAMETERS OF STRAIGHT PIPE TO BE INSTALLED ON INLET SIDE OF METER.
4. ALL PIPE AND FITTINGS TO BE SAME SIZE AS METER. (EXCEPT 3" METER SHALL HAVE 4" PIPE AND FITTINGS)
5. CONC. BOX SHALL BE A MINIMUM OF 42" DEEP WITH OPEN BOTTOM, PRECAST WITH NOTCH TO ACCOMMODATE PIPE INSTALLED 36" DEEP, INSTALLED ON 12" OF #57 STONE.
6. CONTRACTOR SHALL PROVIDE SHOP DRAWING OF BOX WITH DIMENSIONS FOR APPROVAL BY CCUA.
7. THE COST OF THE METER WILL BE ASSESSED TO DEVELOPER UNDER SEPARATE AGREEMENT. THE METER ONLY WILL BE FURNISHED TO THE CONTRACTOR BY THE CLAY COUNTY UTILITY AUTHORITY AND THE CONTRACTOR SHALL INSTALL THE METER TO COMPLETE THE INSTALLATION SHOWN HEREON.
8. PIPES COMING IN AND GOING OUT OF BOX SHALL BE 36" DEEP. CONTRACTOR SHALL BE RESPONSIBLE TO ADJUST THE ELEVATION OF THESE PIPES, USE OF BENDS ARE PERMITTED TO ACHIEVE THIS.
9. FOR ANY SIZE WATER AND FIRE LINE METERS NOT LISTED, THE CONTRACTOR SHALL SUBMIT ALL NECESSARY SUBMITTALS TO BE APPROVED BY CCUA.

METER VAULT DIMENSIONS (OVER 8" CONTACT CCUA ENGINEERING DEPARTMENT)			
METER TYPE	3" and 4" VAULT DIMENSIONS	6" VAULT DIMENSIONS	8" VAULT DIMENSIONS
SENSUS TURBINE	4'-0" OUTSIDE 3'-0" INSIDE	4'-6" OUTSIDE 3'-6" INSIDE	4'-6" OUTSIDE 3'-6" INSIDE
SENSUS COMPOUND	4'-0" OUTSIDE 3'-0" INSIDE	4'-6" OUTSIDE 3'-0" INSIDE	4'-6" OUTSIDE 3'-0" INSIDE
SENSUS F2 FIRE LINE	5'-0" OUTSIDE 4'-0" INSIDE	6'-0" OUTSIDE 5'-0" INSIDE	6'-10" OUTSIDE 5'-6" INSIDE
"McCROMETER" PROPELLER	4'-0" OUTSIDE 3'-0" INSIDE	4'-6" OUTSIDE 3'-6" INSIDE	4'-6" OUTSIDE 3'-6" INSIDE

METER VAULT - 3" AND LARGER METERS — E

NOT TO SCALE



VALVE BOX AND COVER — F

NOT TO SCALE

NO	DATE	BY	REVISION DESCRIPTION
7	JUN 17	RHD	REVISED NOTES AND DETAILS
6	OCT 16	RHD	MODIFIED VAULT DIMENSION CHART
5	SEPT 16	RHD	ADDED NOTE TO DETAILS
4	JUNE 15	RHD	NEW DETAIL SHEET DESIGN
3			
2			
1			

DESG
DRWN
CHKD
APRV
DATE

STANDARD WATER CASING, CROSSING TYPE AND PIPE RESTRAINT DETAILS

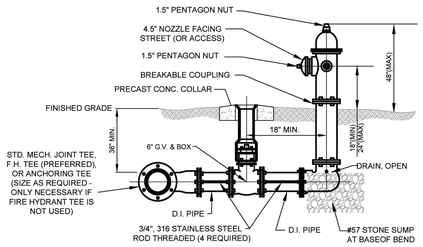
CLAY COUNTY UTILITY AUTHORITY
3176 OLD JENNINGS ROAD
MIDDLEBURG, FLORIDA 32068-3907
TELEPHONE: (904) 272-5999

This item has been digitally signed and sealed by Joshua M. Benolken, P.E. on 05/15/2026 adjacent to the seal. Signature must be verified on any electronic copies

JOSHUA M. BENOLKEN * LICENSE * No93672 * STATE OF FLORIDA * PROFESSIONAL ENGINEER

SHEET NO.

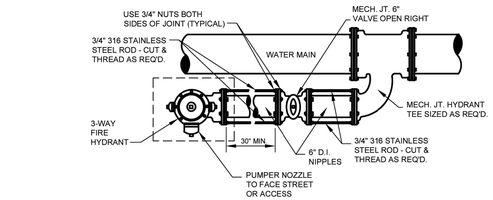
WD-3

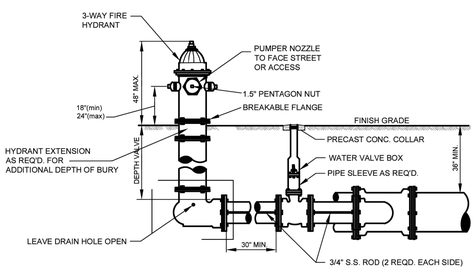


SEE CCUA APPROVED MATERIALS MANUAL

FIRE HYDRANT (STANDARD) — A

NOT TO SCALE





HYDRANT INSTALLATION FOR LIMITED SPACE WITH MECH. JOINT HYDRANT TEE

FIRE HYDRANT CANNOT BE LOCATED LESS THAN 5'-0" FROM BACK OF CURB AND NO MORE THAN 20'-0" BACK OF CURB.

FIRE HYDRANT - LIMITED SPACE — B

NOT TO SCALE

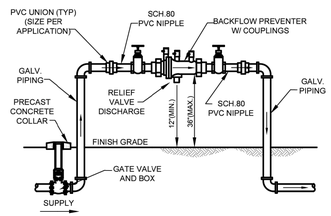
NOTES:

1. THERE SHALL BE CLEARANCES OF SEVEN AND ONE-HALF FEET (7'-6") IN FRONT OF AND TO THE SIDES OF THE FIRE HYDRANT, WITH A FOUR FEET (4') CLEARANCE TO THE REAR OF THE HYDRANT. *EXCEPTION: THESE DIMENSIONS MAY BE REDUCED BY THE APPROVAL OF THE FIRE OFFICIAL.*

2. THERE SHALL BE NO OBSTRUCTIONS PLACED IN FRONT OF ANY FIRE HYDRANT ASSEMBLY THAT WOULD PROHIBIT ACCESS.

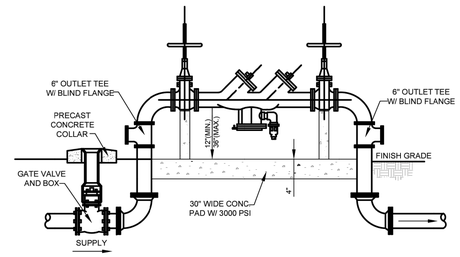
BACKFLOW PREVENTER NOTE:

DESIGNS SHOWN FOR BACKFLOW PREVENTER INSTALLATIONS ARE REQUIRED FOR CCUA OWNED INSTALLATIONS - SEE CCUA APPROVED MATERIALS MANUAL. THE BOTTOM OF THE BACKFLOW PREVENTER VALVE IS TO BE NO LESS THAN 12" OR MORE THAN 36" ABOVE THE NATURAL FLOOD GRADE. (SEE CCUA PUMP STATION DETAIL SHEETS (ALL) FOR BACKFLOW PREVENTERS AT PUMP STATIONS)



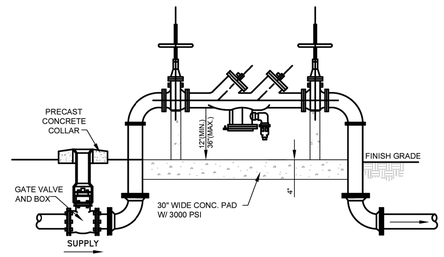
REDUCED PRESSURE BACKFLOW PREVENTER
2" DIAMETER AND SMALLER — C

NOT TO SCALE



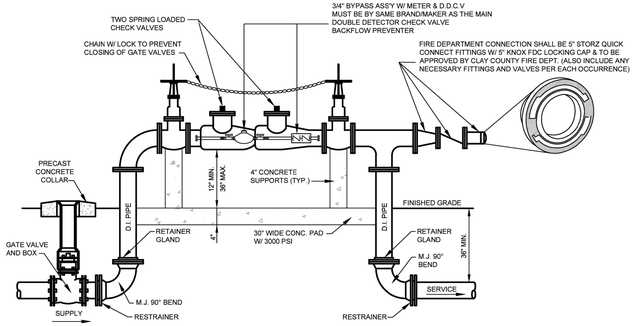
BACKFLOW PREVENTER SIZES 6" & ABOVE WHERE BACKFLOW IS BETWEEN RECLAIMED & POTABLE — D

NOT TO SCALE



REDUCED PRESSURE BACKFLOW PREVENTER
SIZES 3" & ABOVE — E

NOT TO SCALE



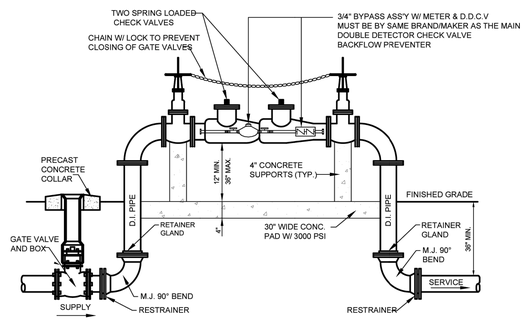
NOTES

1. DOUBLE DETECTOR CHECK VALVE W/ 3/4" BYPASS METER & 3/4" D.D.C.V ARE REQUIRED ON ALL ON-SITE FIRE SPRINKLER SYSTEMS.

2. PROVIDE FREEZE PROTECTION FOR COMPLETE ASSEMBLY.

DOUBLE DETECTOR CHECK VALVE BACKFLOW PREVENTER WITHOUT ABOVE GROUND ENCLOSURE - 3" AND ABOVE WITH FIRE DEPARTMENT CONNECTION — F

NOT TO SCALE



NOTES

1. DOUBLE DETECTOR CHECK VALVE W/ 3/4" BYPASS METER & 3/4" D.D.C.V ARE REQUIRED ON ALL ON-SITE FIRE SPRINKLER SYSTEMS.

2. PROVIDE FREEZE PROTECTION FOR COMPLETE ASSEMBLY.

DOUBLE DETECTOR CHECK VALVE BACKFLOW PREVENTER WITHOUT ABOVE GROUND ENCLOSURE - 3" & ABOVE WITHOUT FIRE DEPARTMENT CONNECTION — G

NOT TO SCALE

NO	DATE	BY	REVISION DESCRIPTION
3	FEB 24	RHD	REDRAW
2	AUG 21	RHD	FIRE HYDRANT GENERAL NOTES
1	JUNE 15	RHD	NEW DETAIL SHEET DESIGN

DESG
DRWN
CHKD
APRV
DATE

STANDARD FIRE HYDRANT AND D.D.C.V.BACKFLOW PREVENTER DETAILS

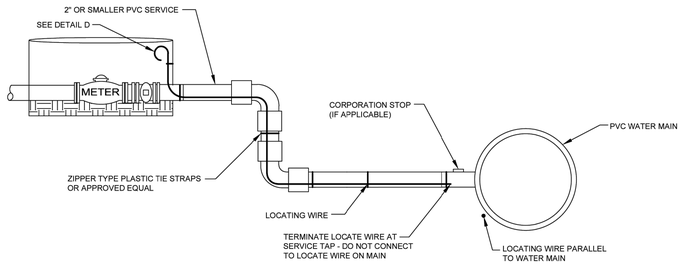
CLAY COUNTY UTILITY AUTHORITY
3176 OLD JENNINGS ROAD
MIDDLEBURG, FLORIDA 32068-3907
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JOSHUA M. BENOLKEN * LICENSED * ENGINEER * No93572 * STATE OF FLORIDA * PROFESSIONAL

SHEET NO.

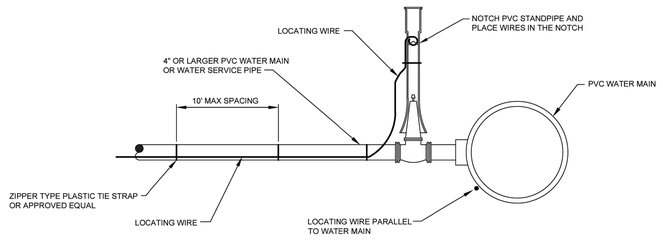
WD–4



CONNECTION TO PVC MAINS
2" OR SMALLER WATER SERVICE (LONG SERVICES ONLY)

A

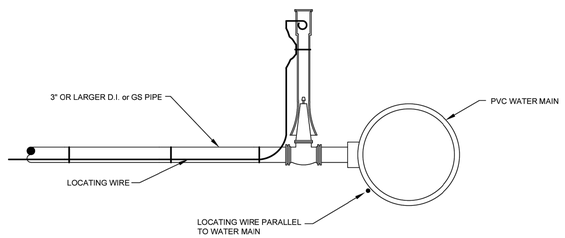
NOT TO SCALE



CONNECTION TO PVC MAINS
4" OR LARGER PVC WATER MAIN OR WATER SERVICE PIPE

B

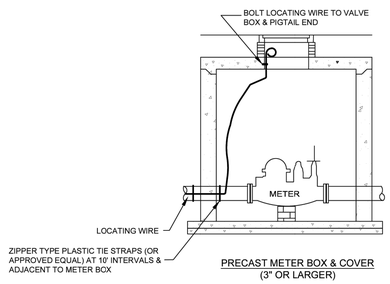
NOT TO SCALE



CONNECTION TO PVC MAINS
w/3" OR LARGER D.I. OR GS WATER SERVICE OR WATER MAIN

C

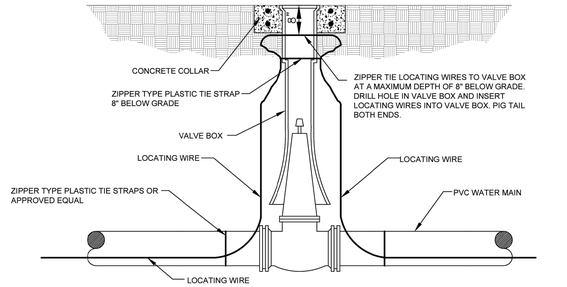
NOT TO SCALE



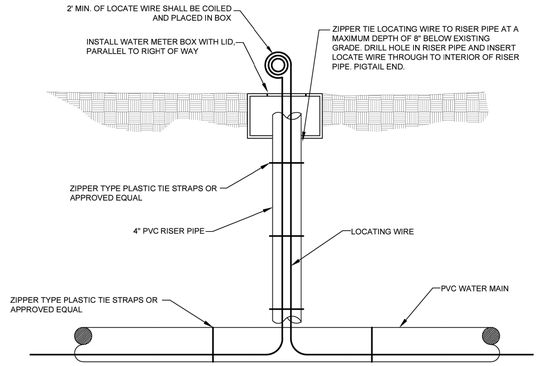
CONNECTION AT METERS BOXES
w/ PVC WATER SERVICE

D

NOT TO SCALE



VALVE BOX WITH VALVE



METER BOX

IN-LINE LOCATING STATION - PVC PIPE

E

NOT TO SCALE

LOCATE WIRE

LOCATE WIRE TESTING REQUIREMENTS
Installed locate wiring shall be tested by the contractor as part of the final inspection procedure, using a certified tester and approved testing equipment. The Contractor shall notify CCUA at least 48 hours in advance of the testing period. At this time the Contractor shall tell CCUA the number of locate personnel to be used for the wire testing, so that CCUA can assign an inspector to work with each locate wire tester. If CCUA has not been notified of the correct number of testing personnel to be used, then the only testers allowed to test the wire shall be those who have a CCUA assigned inspector to work with them. The CCUA inspector shall have the plans on-site, as shall the testing personnel, for the purpose of recording the required test information (ie passed and failed sections) and for as-built preparation. The CCUA field representative or inspector shall be present during the testing period, and have the authority to request tester to retest sections if inspector suspects any problems within that section. The contractor shall provide the Certified Tester a copy of the project site drawings (as-builts preferred). A tone shall be put on the locate wire. The technician shall trace the entire length of the installed wire and spot paint the location at least at 100-foot intervals along the route. The depth shall be tested at 100-foot intervals and tester shall record the depth of pipe/wire on the report at each 100' interval. The certified tester shall report (show on drawings), where the pipe/wire has less than the allowable minimum cover (36 inches) or more than the maximum allowable cover (60 inches) unless called for on the plans or requested and approved by CCUA during the installation of said piping. All lateral stub-outs shall be marked with pain and the depth recorded. A final Locate Wire Report (statement by the certified tester), shall be submitted to CCUA for review and approval. The report shall include a signed statement from the certified tester which certifies that all installed wire (where shown on the drawing), was successfully (sounded), traced with no open breaks. The report shall also include a copy of the project site drawings which indicate all field notes, breaks found/repaired, depths (if installed outside the acceptable cover limits), and other applicable field remarks by the certified tester. A Certified copy of the report and marked-up drawings shall be furnished to CCUA prior to final acceptance of the project or as approved otherwise by CCUA.

Definitions:
Approved Testing Equipment shall include variable frequency controls, digital depth read-out and tone continuity. The following is a list of approved equipment - Dynatel (3M)-2273 Cable/Fault Locator, Metrotech 9800XT, Ditch Witch 950 R/T or CCUA pre-approved equal.

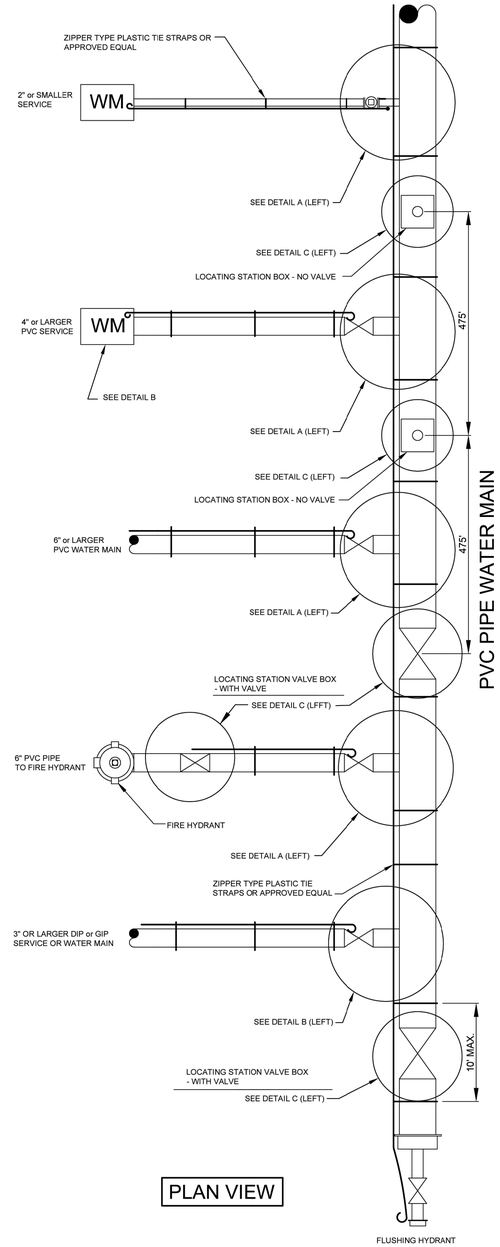
Certified Tester - A person or company that has been certified by the Manufacturer of the approved testing equipment as proficient in the use of the equipment has 8 months experience in the use of the equipment including documented proof of past performance.

CCUA Approval: Clay County Utility Authority shall have the authority to approve Certified Tester, or deny the approval of Certified Tester to work on Utility's System. CCUA shall have the authority to remove any previously Certified Tester from its approved list of Certified Testers as CCUA deems necessary.

LOCATE WIRE INSTALLATION
Contractor shall furnish and install locate wiring on all water mains, sewer force mains, and reclaimed water mains (both PVC and ductile 1" inch size and greater. Locate wire must be attached to mains and services with duct tape or approved iron) and on all service mains 1 z plastic zipper ties, (pulled tight to keep wire from rotating out of location), at each side of bell joint or fitting and at 10 foot intervals along pipeline (at a minimum). Locate wire shall be brought to grade within a valve box or locating station box, as required, at 475 foot intervals (see note # 2 this page). Locate wire shall be installed in box and along pipeline as detailed in the CCUA Standard Details. Locate wire shall be installed beneath the pipe line at the 5:00 to 7:00 o'clock position on the pipe. Connection or splices underground which are not inside a locate box (or valve box), shall be prohibited unless approved otherwise by CCUA. The request to make an underground connection or wire splice shall be done in writing to CCUA. The request shall contain the complete job name, name of street, station number as shown on plans and scaled as close as possible to the location of splice or connection, and the reason for request. CCUA shall have at least 48 hrs. to respond verbally and 5 working days to respond in writing. If an underground connection is unavoidable and approved by CCUA, then the wire shall be first tied in a knot (to minimize future separation), then the wire ends shall be connected utilizing an electric wire nut, then make the connection water tight by using either vinyl mastic tape (4" wide X 0.09" thick by 3M-Scotch 2210), or plastic enclosure (Snaploo Model LV 9500/951-4 large by TKH) or CCUA approved equipment.

LOCATE WIRE BOX INSTALLATION
Where utility mains are to be installed beneath sidewalks, valve boxes shall be installed instead of locate wire boxes. The valve box lids shall indicate the type of line (i.e. water, sewer, or reclaimed water). The valve box shall be adjusted so the top of valve box is flush with the finished sidewalk grade. If for any reason a locate wire box must be offest from the C/L of pipeline, then the contractor shall have installed an adequate length of wire to avoid splices and the exact location of the locate box including the amount of the offset distance shall be recorded on the As-builts.

AS-BUILT DRAWINGS
Shall comply to the guidance set forth in CCUA's 'As-built Specifications Standards Manual', which can be obtained from CCUA's website (www.clayutility.org).



PLAN VIEW

NOTES:

1. LOCATING WIRE SHALL BE 10 GAUGE, SINGLE STRAND UF RATED (DIRECT BURIAL), COPPER WIRE, OR APPROVED EQUAL.

2) ALL DIRECTIONAL DRILLED PIPES SHALL HAVE 2-8 GUAGE STRAND COPPER-CLAD STEEL CONDUCTORS WITH 45mil HDPE EXTRUDED COATING, AND SHALL BE OF SUFFICIENT LENGTH TO AVOID SPLICING. UNDER NO CIRCUMSTANCES SHALL THE TRACER WIRE BE SPLICED; IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ORDER ROLLS OF WIRE OF THE REQUIRED LENGTH TO AVOID THE NEED FOR SPLICING THE TRACER WIRE.

3. LOCATE BOXES SHALL BE INSTALLED AT THE LOT LINE IN RESIDENTIAL SUBDIVISIONS, OR COMMERCIAL PROPERTIES; BOXES SHALL NOT BE LOCATED IN SIDEWALKS OR DRIVEWAYS. LOCATE BOXES SPACING SHALL NOT EXCEED 500 FEET.

4. WHERE IT IS NOT POSSIBLE TO LOCATE THE BOX OUTSIDE OF A PAVED STREET OR PARKING LOT, THE LOCATE WIRE SHALL BE PLACED IN A VALVE BOX INSTEAD OF A ROME BOX. VALVE BOX LID SHALL BE MARKED ACCORDING TO THE TYPE OF PIPE SERVED.

TYPICAL LOCATOR WIRING INSTALLATIONS

F

NOT TO SCALE

This item has been digitally signed and sealed by Joshua M. Benolken, P.E. on 05/15/2026 adjacent to the seal. Signature must be verified on any electronic copies

JOSHUA M. BENOLKEN * ENGINEER * LICENSE NO. 93572 STATE OF FLORIDA PROFESSIONAL

NO	DATE	BY	REVISION DESCRIPTION
7	FEB 24	RHD	REDRAW
6	JUNE 17	RHD	REVISED NOTES AND DETAILS
5	DEC 2013	RSJ	REVISED TYPICAL LOCATOR WIRING INSTALLTS
4	JAN 2013	RSJ	REVISED TRACER WIRE DIAGRAM NOTES
3	MAY 07	MRS	GENERAL UPDATES & REVISIONS
2	APRIL 05	MRS	GENERAL UPDATES & REVISIONS
1	JUNE 05	MRS	GENERAL UPDATES & REVISIONS

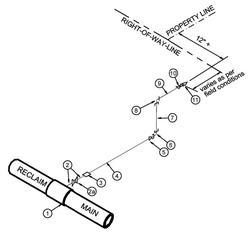
DESG
DRWN
CHKD
APRV
DATE

STANDARD LOCATOR WIRING INSTALLATIONS

CLAY COUNTY UTILITY AUTHORITY
3176 OLD JENNINGS ROAD
MIDDLEBURG, FLORIDA 32068-3907
TELEPHONE: (904) 272-5999

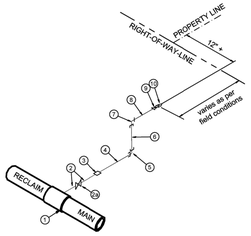
SHEET NO.

WD-5



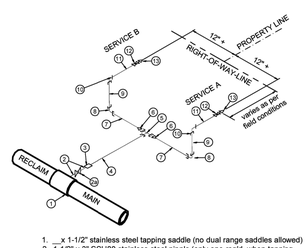
1. ___x 1-1/2" stainless steel tapping saddle, size on size (no dual range saddles allowed)
2. 1-1/2" stainless steel nipple (only one req'd. when tapping main not under pressure)
2a. 1-1/2" bronze ball valve (req'd. only when tapping main under pressure)
3. 1-1/2" SCH80 female adapter (SxFIPT)
4. 1" SCH80 pipe (purple)
5. 1-1/2" x 1" SCH80 red. bushing (SxS)
6. 1" x 90° SCH80 bend (SxS)
7. 1" SCH80 pipe (purple)
8. 1" x 90° SCH80 bend (SxT)
9. 1" x 6" SCH80 nipple (TxT)
10. 1" locking wing ball valve (see table on water details sheet)
11. 1" x 3/4" brass bushing (TxFIPT)

LONG SINGLE RECLAIMED SERVICES — A
NOT TO SCALE



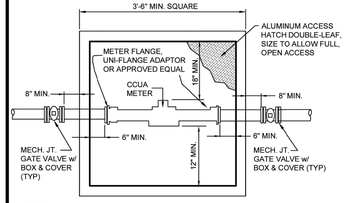
1. ___x 1" stainless steel tapping saddle, (no dual range saddles allowed) size on size.
2. 1" x3" stainless steel nipple (only one req'd when tapping main not under pressure)
2a. 1" bronze ball valve (req'd. only when tapping main under pressure)
3. 1" SCH80 female adapter (SxFIPT)
4. 1" x 6" SCH80 PVC pipe (purple)
5. 1" x 90° SCH80 PVC bend (SxS)
6. 1" SCH80 PVC pipe (purple)
7. 1" x 90° SCH80 PVC bend (SxFIPT)
8. 1" x 6" SCH80 PVC nipple (TxT)
9. 1" Locking wing ball valve (see table on water details sheet)
10. 1" x 3/4" brass reducer bushing (Tx FIPT)

SHORT SINGLE RECLAIMED SERVICES — B
NOT TO SCALE



1. __x 1-1/2" stainless steel tapping saddle (no dual range saddles allowed)
2. 1-1/2" x 3" SCH80 stainless steel nipple (only one req'd. when tapping main not under pressure)
2a. 1-1/2" bronze ball valve (req'd. only when tapping main under pressure)
3. 1-1/2" SCH80 PVC female adapter
4. 1-1/2" SCH80 PVC pipe (purple)
5. 1-1/2" SCH80 PVC tee (SxSxS)
6. 1-1/2" x 1" SCH80 PVC reducing bushing (SxS), as required
7. 1" x 12" SCH80 PVC pipe (purple)
8. 1" x 90° SCH80 PVC bend (SxS)
9. 1" SCH80 PVC pipe (purple)
10. 1" x 90° SCH80 PVC bend (SxT)
11. 1" x 6" SCH80 PVC nipple (TxT)
12. 1" locking wing ball valve (see table on water details sheet)
13. 1" x 3/4" brass reducing bushing (TxFIPT)

DOUBLE RECLAIMED SERVICES — C
NOT TO SCALE



NOTES:
1. All pipe within vault must be ductile iron.
2. All fittings to be ductile iron.
3. Minimum length of 8 diameters of straight pipe to be installed on inlet side of meter.
4. All pipe and fittings to be same size as meter.
5. Concrete box shall be 42" deep with open bottom,precast with notch to accommodate pipe installed 36" deep, installed on 12" of #57 stone
6. Contractor shall provide shop drawing of box with dimensions for approval by CCUA.
7. Dimensions shown are minimum and shall be increased based upon actual size of meter provided.
8. The cost of the meter will be assessed to developer under separate agreement. The meter only will be furnished to the contractor by CCUA and the contractor shall install the meter to complete the installation shown hereon.

METER VAULT - 3" AND LARGER METERS — D
NOT TO SCALE

SPECIFICATIONS FOR CONSTRUCTION OF RECLAIMED WATER DISTRIBUTION SYSTEM

01. INTENTION. It is Clay County Utility Authority (CCUA) intention to secure a new reclaimed water distribution system, complete, in accordance with the plans and specifications, and contract documents. All new work shall be in accordance with CCUA Specifications and Details and Approved Materials Manual and Clay County Engineering Department Details and Specifications and any other Government Regulatory Agency. All work shall conform to the above whether or not specifically called out or noted on the plans.

02. GENERAL. All materials shall be in conformance to National Sanitation Foundation (NSF) 61 and those listed in the CCUA Approved Materials Manual. Materials shall be warranted by the Contractor as to materials, workmanship and accuracy of As-built drawings for a period of two years from the date of completion of the work or beneficial use of the facilities. Workmanship shall be of good quality, i.e., mains shall be laid in a uniform alignment, fittings shall be properly restrained, trenches shall be properly excavated and backfilled, and valve boxes shall be adjusted to finished grade.

02.1 CONTRACTOR LICENSE AND APPROVAL. Utility reserves the right to approve or deny approval of Contractor prior to construction of any on-site or off-site utility facilities. Contractor must hold a State Of Florida Underground Utility Contractors license, that named contracting company being the one doing the work on project, and demonstrate acceptable experience in the field of utility construction.

03. SURVEYS. The Utility Contractor shall provide all surveys necessary for the layout and construction of the work of his contract.

04. EARTHWORK. Earthwork shall include all excavation, fill and backfill (hand/machine), compaction and rough grading of materials encountered. No unsuitable materials clay, muck, or peat removed from pipe trenches are to be used for backfill. All fill or backfill shall be either sand or sandy clay, free of roots, trash or other debris. All backfill alongside of and to a height twenty-four inches above all pipe shall be free of clay or organic material, compacted by either hand or machine operation carefully. All other backfill shall be compacted by either hand or machine operation carefully to 95% (outside of paving), 98% (under paving) of its optimum moisture content as determined by ASTM D698, latest. Copies of compaction density test reports from a licensed testing agency shall be made available to CCUA if requested.

05. JOINT RESTRAINT. All fittings shall be properly and adequately restrained against lateral movement at all water main tees, crosses, valves, bends and fire hydrants. Restrainers shall be as outlined in the CCUA Approved Materials Manual for acceptable restraints.(www.clayutility.org/engineering/materials_manual.aspx)

06. DUCTILE IRON PIPE. Ductile iron pipe shall conform to ANSI Specification A21.50 (AWWA C150) latest, "Thickness Design of Ductile Iron Pipe", Table 50.5, laying condition Type 2, internal operating pressure of 250 p.s.i. for an 8-foot depth of cover, Class 51 minimum and shall be ANSI A21.51 (AWWA C151), latest centrifugally cast pipe. Laying lengths shall be 20 feet or less in length, and shall be clearly marked with pressure rating, thickness, class, height of pipe without lining, length, and Manufacturer. Ductile iron pipe for water service shall be furnished with cement lining per AWWA C110, C115 and C151. The pipe shall have design values of 60,000 p.s.i. minimum tensile strength, and 42,000 p.s.i. minimum yield strength. All ductile iron piping shall be wrapped with purple tape and stamped "Reclaimed Water" on at least two sides @ 12" o.c. along pipe barrel. Ductile iron pipe for reclaimed water or service lines shall be used in any easement, right-of-way, between lots, and any instance where a building foundation or other permanent appurtenance is within 10' of the main or a service line larger than 3".

07. DUCTILE IRON FITTINGS shall be C153 cement lined and suitable for the type and class of pipe to which connected. Gaskets shall be suitable for reclaimed water service. Minimum working pressure shall be 150 p.s.i.

08. POLYVINYL CHLORIDE PIPE. Polyvinyl chloride pipe for water mains 4 inch through 24 inches in diameter, shall be DR18 (C900) Pressure Class 235 psi PVC 1120; reclaim mains above 24 inches in diameter shall be DR25 (C900) PVC 1120, Pressure Class 165 psi, conforming to ASTM D-1784, D-2241, D-3139 and F-477, latest, or P.V.C. C900, Class 165, DR-25, conforming to ASTM D-1784, Cell Class 12454, ASTM F-477, ASTM D-3139, latest, and shall bear the seal of the National Sanitation Foundation. Pipe shall be color coded and marked "RECLAIMED WATER" at every 12' along the barrel of the pipe, with lettering facing up. Couplings shall be rubber gasketed, push-on type conforming to ASTM D-2122.

09. STEEL CASING PIPE. Steel casing pipe shall be of size indicated on the Drawings and shall conform to ASTM A139, with a minimum yield strength of 35,000 p.s.i.

10. POLYVINYL CHLORIDE (PVC 1120, SCHEDULE 40) PIPE shall conform to the requirements of ASTM D 1785. Fittings and threaded nipples shall be Schedule 80 PVC. All piping smaller than 4" shall be Schedule 40 or Schedule 80 as detailed. Schedule 40 PVC pipe shall be Pantone purple 522C and marked "Reclaimed Water".

11. NOTE: All reclaimed water services are to be installed on one lot line and potable water services are to be installed on the other. This is to allow separation of the two water services. Sewer services are to be installed at the middle of the lot.

12. GATE VALVES AND BOXES. Gate valves shall be non-rising stem type and shall be suitable for a 200 p.s.i. non-shock working pressure. Gate valves shall be mechanical joint, flanged or screwed. Gate valves shall have a 2" operating nut and open left. Gate valves shall have joints suitable for the type of main on which installed. Valves 3" and larger shall be iron body, bronze fitted with resilient seat. Valves shall be of DOMESTIC (American) manufacture and shall be those listed in CCUA Approved Material Manual. Valves 16" and larger shall be AWWA C-515. Valve boxes with screw extensions shall be provided for all gate valves. Boxes shall be of cast iron construction, 7/32" minimum wall thickness and shall be nontacky tar enamel coated. The word "RECLAIMED WATER" shall be cast in the cover. Other valves smaller than 2" shall be heavy-duty bronze ball valves. Box covers to be primed and painted Pantone Purple 522C.

13. RECLAIMED WATER METER BOXES. Developer shall be responsible for installation of meter boxes on all water services as part of the water main installation. All curb stops shall be adjusted to the proper elevation and shall be accessible for the installation of the meter. The Contractor shall be required to open all boxes for the Authority's inspector at the final inspection. A treated 6'-6" fence post marker shall be installed at the side of and centered on the meter box and painted Pantone Purple 522C for identification. Meter boxes shall not be placed in any sidewalk or driveway without the approval of CCUA.

14. CURB STOPS. Curb stops shall be cast bronze, inverted key stop, roundway, with check, lock wing type, for locking in the closed position. See CCUA Approved Materials Manual for acceptable curb stops.

15. PRESSURE REDUCING VALVES. The pressure reducing valve shall maintain a constant delivery pressure as part of the service to each residential irrigation system. Pressure reducing valves shall conform with the standard requirements of the ASSE (Std. 1003) and WPOA Uniform Plumbing Code. Approved model: See CCUA Materials manual.

16. INSTALLATION. The minimum cover over top of reclaimed water main shall be 48". All lines and appurtenances shall be thoroughly cleaned of all foreign matter before being lowered into the trench and shall be kept clean during laying operations by means of plugs or other approved methods. All pipe shall be new and checked for defects before being lowered into the trench. Defective pipe shall not be used. Pipe found to be defective after installation, shall be removed and replaced with sound pipe at no additional expense to the Owner. The full length of each section of pipe shall rest solidly upon the pipe bed, with recesses excavated to accommodate the bells and joints. All pipe that has the grade or joint disturbed after laying shall be taken up and reinstalled. The pipe shall not be laid in water or when trench or weather conditions are unsuitable for the work. All joints shall be cleaned of all foreign matter before making the joint. Fittings at bends in the pipe shall be properly restrained with joint restrainers adequately sized to prevent movement and dislocating or blowing off when the line is under pressure. Service laterals shall terminate at the point noted in the details. All reclaimed mains shall be installed with tracer wire per CCUA standard location wire details.

17. SEPARATION OF RECLAIMED WATER MAINS. Maximum separation of reclaimed water lines and potable water lines shall be practiced. A minimum horizontal separation of three feet, outside-to-outside, shall be maintained between reclaimed water mains and either potable water mains or wastewater pipes. Reclaimed water mains crossing under water mains shall be laid to provide a minimum vertical separation of 18 inches between the invert of the upper pipe and the crown of the lower pipe. Where the minimum separation cannot be maintained, the crossing shall be arranged such that the reclaimed water main pipe joints and potable water main joints are equidistant from the point of crossing with no less than ten feet between joints. Alternatively, the reclaimed water main shall be placed in a sleeve to obtain the equivalent of the required ten feet separation. Where there is no alternative to reclaimed water pipes crossing over a water main, the criteria for minimum separation between lines and joints shall be required.

18. PIPE FLUSHING. All reclaimed water system piping shall be flushed with clean water in a rate of 2 feet per second (min.) utilizing full pipe diameter flushing. In cases where the water supply is inadequate to flush the full pipe diameter, flushing shall occur to the extent of the water supply that is available. All flushing must be contained.

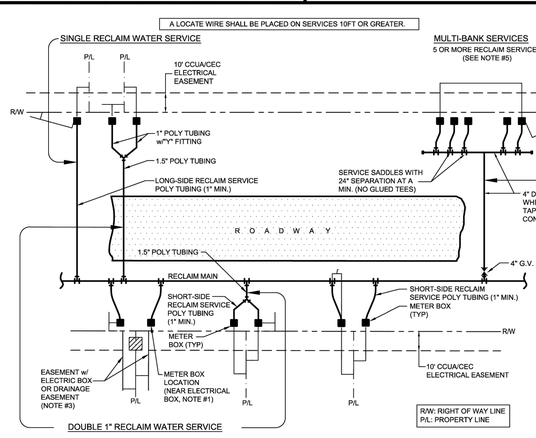
19. TESTS. After the pipe is laid, the joints completed, and the trench backfilled, the newly laid pipe and appurtenances shall be subjected to a Hydrostatic and Leakage test of 150 pounds per square inch for a period of at least two hours. During this period, all joints shall be inspected to determine water tightness of the system. Any leaks detected shall be corrected. tests shall be in accordance with the CCUA's requirements and specifications. Curb and limerock may be installed after construction of the reclaimed water mains, however, limerock priming cannot proceed until such time as the CCUA inspector approves the reclaimed water distribution system pressure test. This will be strictly enforced. If the reclaimed water system is damaged during any of the operations prior to paving, a follow up test may be required by CCUA.

20. WARNING SIGN. Each development, subdivision, or commercial establishment, regardless of the number of buildings, shall install reclaimed water use warning signs at the entrance or any other street or driveway entering any properties which use reclaimed water. The signs shall meet the requirements of CCUA details and specifications. The signs shall be a requirement whether shown on plans or not. Direction of locating those signs shall be given by the CCUA inspector on site.

21. POLYETHYLENE TUBING SERVICE LINES AND MAINS (2 INCH AND SMALLER): Tubing shall be manufactured of PE 4710, High Density Polyethylene (HDPE), in accordance with AWWA C901, ASTM D1248, ASTM D2239, ASTM D3737 and ASTM D3350. The tubing shall have a minimum working pressure of 250 psi. Polyethylene tubing shall be copper tube size SDR-9 and shall be colored purple. HDPE pipe shall have ultraviolet (UV) inhibitors for protection against direct sunlight for 1 year. Inserts for polyethylene tubing may be utilized, at Contractors options, and, if used, shall be 316 stainless steel. The use of no-lead brass couplings, tees and "Y" fittings are acceptable on poly service tubing, if not located under a roadway. Tubing shall be approved for use with potable water by the National Sanitation Foundation (NSF-14) and shall be continuously marked at intervals of not more than four feet with the following:
- Nominal size
- Pressure rating
- NSF seal
- Manufacturer's name or trademark
- Standard dimension ratio
- ASTM specification

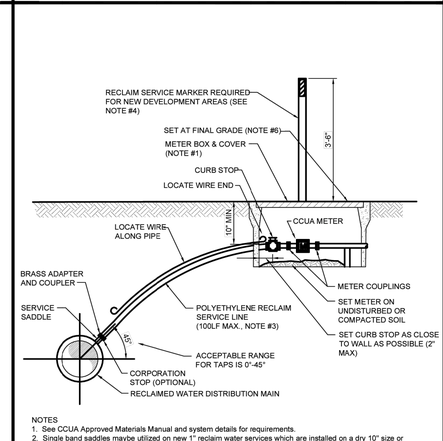
22. PRIOR TO FINAL INSPECTION, THE CONTRACTOR SHALL PROVIDE THE FOLLOWING:
1. The pressure test and flushing report.
2. The Engineer of Record certification to FDEP; this can be done with preliminary as-builts.
3. Preliminary as-builts showing at least the following: location of valves, mains, services and manholes.
4. All services and valves to be plainly marked with a treated fence post.
5. The reclaimed water use warning sign/signs shall be installed.

23. PRIOR TO FINAL ACCEPTANCE FOR OWNERSHIP, THE FOLLOWING MUST BE COMPLETED:
1. Reclaimed water services must be lowered and meter boxes installed, valve boxes must be set on all gate valves, recast concrete valve box collar must be in place on all gate valves.
2. As-built drawings shall have been updated to accommodate the CCUA's comments (shall comply to the guidance set forth in CCUA's "As-built Specifications Standards Manual", which can be obtained from CCUA's website www.clayutility.org).
3. As-builts must be accepted by the CCUA.
4. All valves and single services should be scribed in curb and painted the correct color for each.



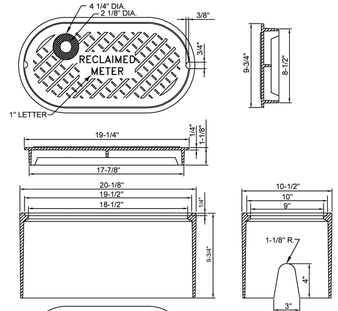
NOTES
1. The sketches above indicate typical reclaim water service and meter box locations. Actual locations of boxes may vary slightly according to field conditions encountered. typically, the meter box shall located 1.0' off of the R/W line.
2. Unless specified otherwise by the applicable county (Clay or Bradford), the meter box shall be located 1.0' off of the r/w line, and 1.0' foot inside of the prolongation of one of the side property lines. If a conflict exists with other utilities, the meter box may be adjusted to four feet (max.) inside property lines (in lieu of 1.0' feet). Unless approved otherwise by CCUA, the water meter box shall be located in non-traffic areas (not in sidewalks or driveways). If an unapproved meter box is identified by CCUA, then the contractor or customer shall be responsible for the cost of relocating any meter box which is located in the sidewalk or driveway or the cost to provide the correct meter box. CCUA shall approve all deviations to the above prior to construction.
3. If drainage or other easement is located between lots, meter boxes shall be located at the easement line but outside the easement area.
4. For single services, the horizontal distance (perpendicular to the main)between the service's saddle and the meter box shall be 2 feet maximum. For double 1" services, the 1 ½" poly main shall be located centered between the two meter boxes. Locate wire is required on all services 10' or greater in length. if locate wire is required, the wire shall run from the meter box to the main (with no connection to main wire with the last 24 inches stripped of insulation/bare wire as ground). All exceptions to this requirement must be approved by CCUA. This will assist in locating existing service lines in the future.
5. Multi-bank water services: for 3 or 4 services in one area, a ductile iron pipe (D.I.P.) water main extension w/locate wire may be utilized on either short-side or long side services where shown on the drawings. Locate wire shall extend from one meter box to curb stop at water main. For 5 or more services in one area, a water main extension w/locate wire may be utilized on either short-side or long side services where shown on the drawings (taps staggered and at 2 feet on center-min). For water supply headers where 5 or more taps are constructed, the header pipe shall be 4" at a minimum. Example: Construct a 4" main D.I.P crossing the street for 5 residential customers, utilizing 4" gate valve, 4" pipe, 4"x1" saddles and 1" curb stops (no glued tee fittings). The 4" or larger D.I.P. water main must be sized and designed by the engineer.
6. Double 1" reclaim water services is allowed for short side or long side services and where shown on the drawings.
7. Reclaimed water meter boxes or services shall be located at a min. of 10' from the existing potable water service and/or box, and not allowed in concrete or asphalt unless approved otherwise by CCUA.

RECLAIM WATER SERVICE INSTALLATIONS 2" AND SMALLER METER — E
NOT TO SCALE



NOTES
1. See CCUA Approved Materials Manual and system details for requirements.
2. Single band saddles maybe utilized on new 1" reclaim water services which are installed on a dry 10" size or smaller reclaim water main (new reclaim water main construction). For wet taps or water mains 12" size and larger; a double band saddle is required.
3. No open cut under roadway paving allowed unless the roadway is being reconstructed or if directed otherwise by CCUA. Construct poly line with 36" (min.) cover under roadways. The poly reclaim water service line shall be same size as the meter (3/4" minimum) and be installed perpendicular to the main and not exceed 100 LF unless approved otherwise by CCUA.
4. Install PVC plug in all curb stops if reclaim water service is "not in use" (i.e.: if no meter is installed). In addition, install a 6" wide, 6'-6" long pressure treated fence post (top painted purple) 12" off the side of the meter box. The removal or transfer of a reclaim water service shall include brass meter couplings (hex on barrel type).
5. The contractor shall be responsible for the repair or replacement of the meter or electronic devices if damaged by the contractor during the construction period.
6. Meter box and top shall be clear of all debris to allow full access to box (i.e. no dirt, trash or other debris placed on top of box).
7. Locate wiring required on all services 10' or greater in length/offset greater than 2'.

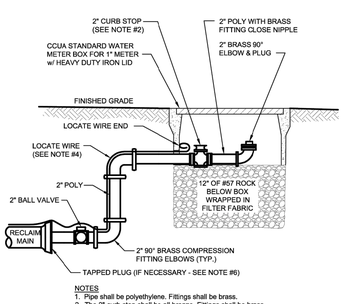
RECLAIMED WATER SERVICE DETAIL 2" AND SMALLER METER — F
NOT TO SCALE



NOTE: Tolerance should be ± 1/16", unless otherwise specified.
MATERIAL: Cast iron ASTM A48 CLASS: 25B
COATING: Painted
WEIGHT: 46 lbs(set)

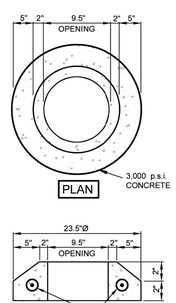
NOTE: Refer to CCUA Approved Materials Manual.

METER BOX & LID w/ TOUCH READ HOLE — G
NOT TO SCALE

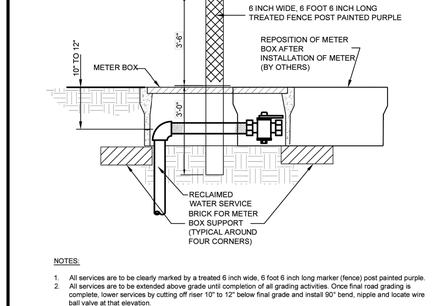


NOTES
1. Pipe shall be polyethylene. Fittings shall be brass.
2. The 2" curb stop shall be all bronze. Fittings shall be brass.
3. Locate wire for 10' or greater in length.
4. Cannot be placed under concrete or pavement.
5. Place 2 feet past last water main service connection.
6. See Pipe Restraint Chart on Sheet WAT 02.

FLUSHING VALVE BELOW GRADE — H
NOT TO SCALE

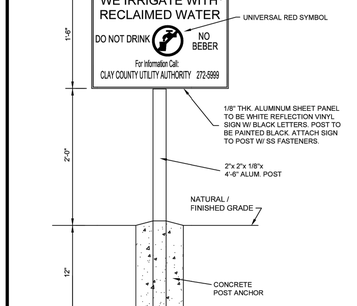


PRECAST CONCRETE VALVE BOX COLLAR — I
NOT TO SCALE



NOTES:
1. All services are to be clearly marked by a treated 6 inch wide, 6 foot 6 inch long marker (fence) post painted purple.
2. All services are to be extended above grade until completion of all grading activities. Once final road grading is complete, lower services by cutting off riser 10" to 12" below final grade and install 90° bend, nipple and locate wire ball valve at that elevation.
3. Set meter box over entire horizontal section of service line from last 90° bend to the end of the curb stop.
4. Box to be repositioned level when the meter is installed.
5. Marker post to be installed adjacent to and located at the mid section of the meter box.

RECLAIMED SERVICE MARKER POST — J
NOT TO SCALE



RECLAIMED WATER USE/WARNING SIGN — K
NOT TO SCALE

NO	DATE	BY	REVISION DESCRIPTION
20	AUG 23	RHD	REVISED ALL NOTES AND DETAILS
19	JUNE 17	RHD	REVISED NOTES AND DETAILS
18	SEPT 16	RHD	REVISED SERVICES SIZES TO 1"
17	MAR 16	RHD	REVISED SERVICES SIZES TO 1" PVC
16		RHD	REVISED METER TIE-DOWNS

DESG XXX
DRWN RHD
CHKD XXX
APRV XXX
DATE 00/00

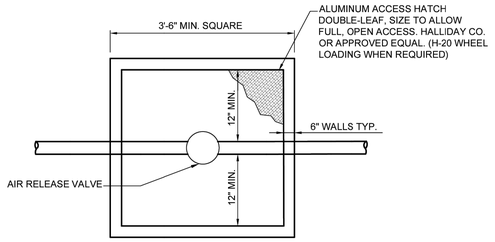
RECLAIM WATER DISTRIBUTION SYSTEM DETAILS AND SPECIFICATIONS

CLAY COUNTY UTILITY AUTHORITY
3176 OLD JENNINGS ROAD
MIDDLEBURG, FLORIDA 32068-3907
TELEPHONE: (904) 272-5999

This item has been digitally signed and sealed by Joshua M. Benolken, P.E. on 05/15/2026 adjacent to the seal. Signature must be verified on any electronic copies

JOSHUA M. BENOLKEN * LICENSE * No 93572 * STATE OF FLORIDA * PROFESSIONAL ENGINEER

SHEET NO.
RD-1



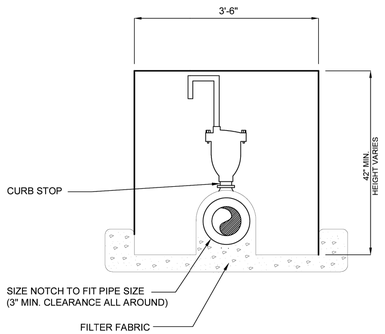
NOTES:

1. CONC. BOX SHALL BE 42" MIN. DEPTH BUT SHALL BE DEEP ENOUGH TO ACCOMMODATE THE SIZE PIPE AND TYPE OF AIR RELEASE VALVE REQUIRED, WITH OPEN BOTTOM, PRECAST WITH NOTCH TO ACCOMMODATE PIPE INSTALLED WITH 36" COVER FROM TOP OF PIPE TO FINISH GRADE, ON 12" OF #57 STONE. WITH FILTER FABRIC ABOVE AND BELOW THE STONE.

2. CONTRACTOR SHALL PROVIDE SHOP DRAWING OF BOX WITH DIMENSIONS FOR APPROVAL BY C.C.U.A.

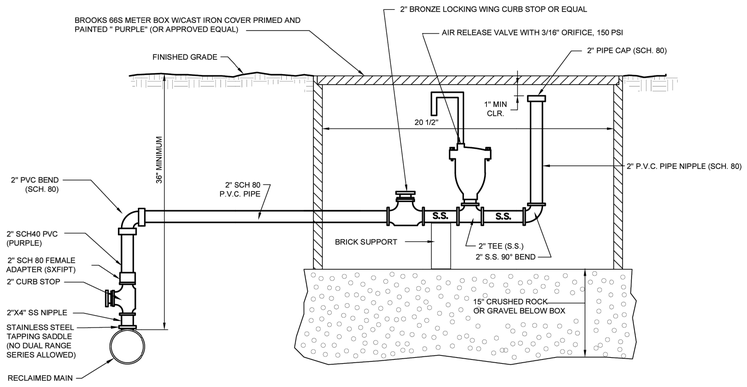
3. DIMENSIONS SHOWN ARE MINIMUM AND SHALL BE INCREASED BASED UPON ACTUAL SIZE OF PIPE INSTALLED

NOTE: WIDTH VAIRES TO ACCEPT PIPE SIZES OVER 8"



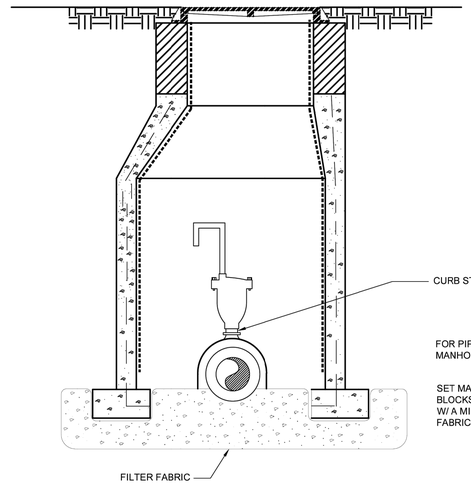
REUSE MAIN AIR RELEASE VALVE VAULT

TO BE USED ON ALL PIPES 12" OR LARGER



AIR RELEASE VALVE DETAIL

NTS



FOR PIPE 10" OR SMALLER A 4' DIAMETER, NOTCHED MANHOLE CAN BE USED FOR AIR RELEASE VALVE.

SET MANHOLE ON MIN. OF 4 SOLID CONCRETE BLOCKS SPACED EVENLY AROUND THE MANHOLE W/ A MIN. OF 12"#57 STONE WITH FILTER FABRIC ABOVE AND BELOW THE STONE.

REUSE MAIN AIR RELEASE VALVE VAULT

TO BE USED ON ALL PIPES 12" OR SMALLER

NO	DATE	BY	REVISION DESCRIPTION
7	MAY 06	MRS	PRECAST CONCRETE ADJUSTING RINGS
6	SEP 04	DLJ	RESET MANHOLE FRAME AND VALVE VAULT
5	JUNE 03	DLR	GENERAL UPDATES AND REVISIONS
4	AUG. 01	GAR	GENERAL UPDATES AND REVISIONS
3	SEPT 00	GAR	GENERAL UPDATES AND REVISIONS
2	NOV 99	GAR	GENERAL UPDATES AND REVISIONS
1	JULY 98	GAR	GENERAL UPDATES AND REVISIONS

DESG
DRWN
CHKD
APRV
DATE

PROJECT:

RECLAIMED WATER DISTRIBUTION SYSTEM DETAILS AND SPECIFICATIONS 2

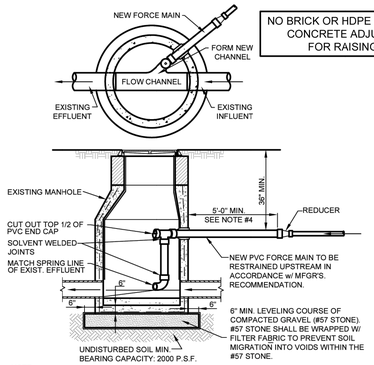
CLAY COUNTY
UTILITY AUTHORITY
3176 OLD JENNINGS ROAD
MIDDLEBURG, FLORIDA 32068-3907
PHONE (904) 272-5999

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JOSHUA M. BENOLKEN * LICENSED * ENGINEER * No 93672 * STATE OF FLORIDA * PROFESSIONAL

SHEET NO.

RD-2



NOTE:
1. This manhole and the next two manholes downstream (as required by utility) are to have polyethylene liner as manufactured by AGRU American (Agru Sure Grip) or approved equal.

2. If connection is being made to an existing manhole, that manhole and the next two manholes downstream (as required by utility), shall be lined with "Spectrashield" or approved equal.

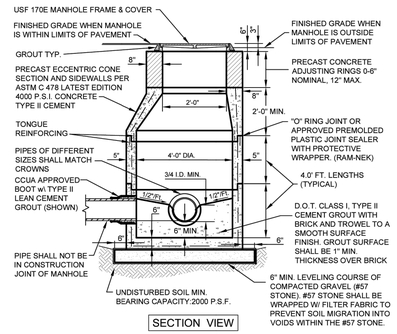
3. Size of drop pipe connection to manhole shall be designed by the project engineer. Minimum size size shall be 4". connection and drop pipe shall be sized to reduce the velocity and prevent "splashover" within the manhole. 5'-0" minimum distance from manhole to reducer may be increased to assist in this velocity reduction.

4. Increase incoming pipe one standard pipe diameter larger than incoming force main minimum 4" diameter.

TYPICAL FORCE MAIN CONNECTION TO MANHOLE (A)
NOT TO SCALE

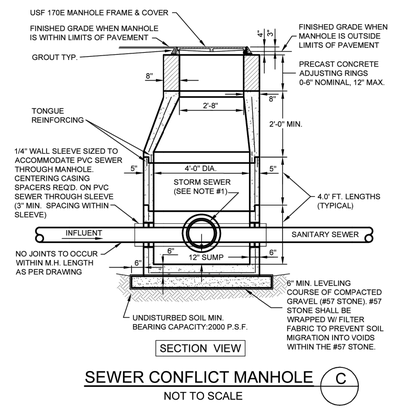
NO BRICK OR HDPE FOR ADJUSTMENTS, CONCRETE ADJUSTMENTS ONLY FOR RAISING MANHOLES

COMPACTION IN ROADWAYS AROUND MANHOLES
BACKFILL COMPACTION SHALL BE IN 12" LIFTS. THE LAST 18" WILL BE LIMEROCK. 2.0' AROUND MANHOLE TOP COMPACTED TO 98% MAXIMUM DENSITY WITH LBR OF 100 TO THE FINISHED LIMEROCK GRADE. NO BRICK ADJUSTMENTS WILL BE ALLOWED IN ROADWAYS (ONLY GRADE RINGS WILL BE ACCEPTED).



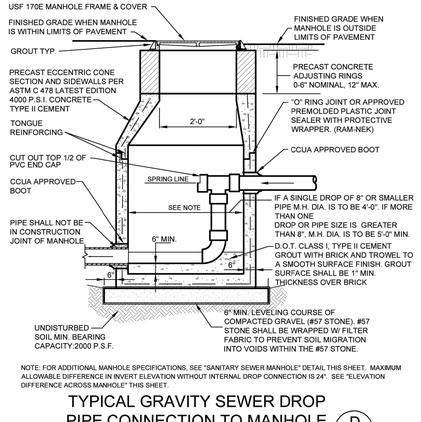
SECTION VIEW

SANITARY SEWER MANHOLE (B)
NOT TO SCALE



1) STORM SEWER PIPE SHOWN IS NOT CONTINUOUS THROUGH THE MANHOLE; PIPE TO BE GROUTED AT MANHOLE WALL. GRAVITY MAIN IS CONTINUOUS THROUGH THE MANHOLE.

SEWER CONFLICT MANHOLE (C)
NOT TO SCALE



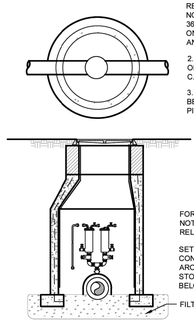
NOTE: FOR ADDITIONAL MANHOLE SPECIFICATIONS, SEE "SANITARY SEWER MANHOLE" DETAIL THIS SHEET. MAXIMUM ALLOWABLE DIFFERENCE IN INVERT ELEVATION WITHOUT INTERNAL DROP CONNECTION IS 24". SEE "ELEVATION DIFFERENCE ACROSS MANHOLE" THIS SHEET.

TYPICAL GRAVITY SEWER DROP PIPE CONNECTION TO MANHOLE (D)
NOT TO SCALE

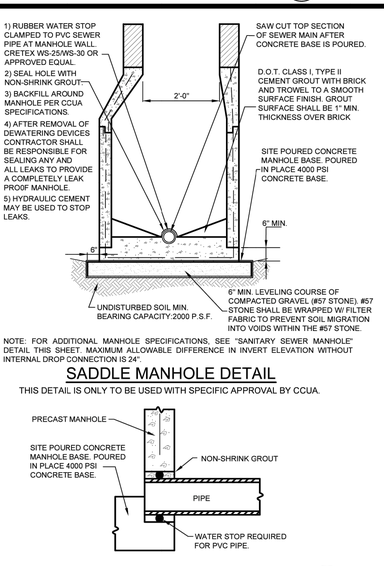
NOTES:
1. CONCRETE BOX SHALL BE 42" MIN. DEPTH BUT SHALL BE DEEP ENOUGH TO ACCOMMODATE THE SIZE PIPE AND TYPE OF AIR RELEASE VALVE REQUIRED, WITH OPEN BOTTOM. PRECAST WITH NOTCH TO ACCOMMODATE PIPE INSTALLED WITH 36" COVER FROM TOP OF PIPE TO FINISH GRADE, ON 12" OF #57 STONE, w/ FILTER FABRIC ABOVE AND BELOW THE STONE.

2. CONTRACTOR SHALL PROVIDE SHOP DRAWING OF BOX WITH DIMENSIONS FOR APPROVAL BY C.C.U.A.

3. DIMENSIONS SHOWN ARE MINIMUM AND SHALL BE INCREASED BASED UPON ACTUAL SIZE OF PIPE INSTALLED



SANITARY SEWAGE FORCE MAIN AIR RELEASE VALVE VAULT (E)
TO BE USED ON ALL PIPES 10" OR SMALLER
NOT TO SCALE



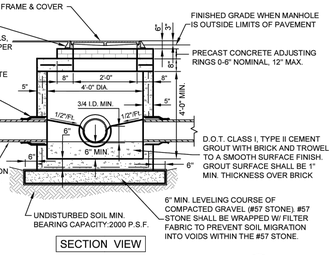
NOTE: FOR ADDITIONAL MANHOLE SPECIFICATIONS, SEE "SANITARY SEWER MANHOLE" DETAIL THIS SHEET. MAXIMUM ALLOWABLE DIFFERENCE IN INVERT ELEVATION WITHOUT INTERNAL DROP CONNECTION IS 24".

SADDLE MANHOLE DETAIL
THIS DETAIL IS ONLY TO BE USED WITH SPECIFIC APPROVAL BY CCUA.

SADDLE MANHOLE DETAIL SECTION (F)
NOT TO SCALE

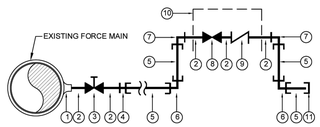
MANHOLE INVERTS DESIGN CRITERIA

FALL ACROSS MANHOLE FROM INFLUENT TO EFFLUENT OF IN LINE PIPES SHALL BE 0.05 FT. MIN. INFLUENT TO EFFLUENT PIPES THAT ARE AT AN ANGLE SHALL BE 0.10 SEE "ELEVATION DIFFERENCE ACROSS MANHOLE" THIS SHEET.



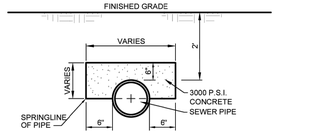
SECTION VIEW

SHALLOW SANITARY SEWER MANHOLE (P)
NOT TO SCALE



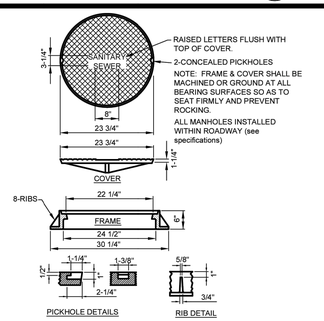
NOTE: ENGINEER TO VERIFY THAT THE SIZE OF SERVICE IS ADEQUATE AND IS TO ADJUST ACCORDING TO HIS FINDING.

2" SEWAGE FORCE MAIN MANIFOLD SERVICE CONNECTION DETAIL (G)
FOR MEDIUM TO HIGH PRESSURE CONNECTION SYSTEMS
NOT TO SCALE



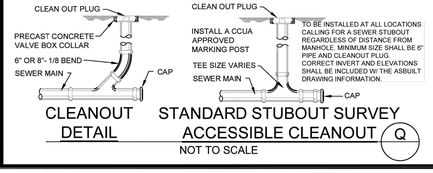
REQUIRED WHERE TOP OF SEWER PIPE IS WITHIN 2' OF FINISHED GRADE UNLESS ALTERNATE DETAIL IS APPROVED BY THE CLAY COUNTY UTILITY AUTHORITY.

CONCRETE CAP FOR SEWER PIPES (K)
NOT TO SCALE

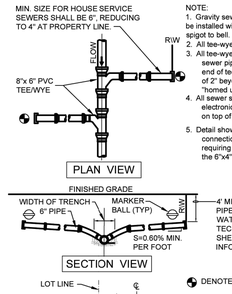


MANHOLE FRAME AND COVER SHALL BE USF CO. MOD. NO. 170E

SANITARY SEWER MANHOLE FRAME & COVER (N)
NOT TO SCALE

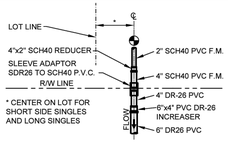


CLEANOUT DETAIL
STANDARD STUBOUT SURVEY ACCESSIBLE CLEANOUT (Q)
NOT TO SCALE



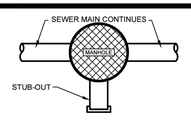
NOTE:
1. Gravity sewer and service pipe shall be installed with the direction of flow from spigot to bell.
2. All tee-wyes shall be bell-spigot.
3. All tee-wyes shall be compatible with sewer pipe bells being used. Spigot end of tee-wye shall be a minimum of 2" beyond the bell gasket when "homed up".
4. All sewer service pipes shall have an electronic marker (green) placed on top of pipe at each end of pipe.
5. Detail shown is for residential connection. Commercial or other use requiring a 6" lateral can eliminate the 6"x4" reducer.

STANDARD SINGLE SEWER SERVICE LATERALS (H)
NOT TO SCALE



SINGLE SERVICE
DENOTES SERVICE MARKER POST

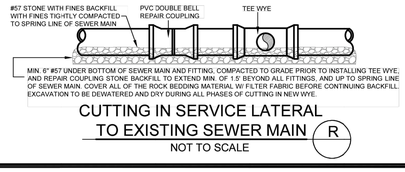
GRINDER PUMP STATION FORCE MAIN CONNECTION TO SINGLE GRAVITY SERVICE (L)
NOT TO SCALE



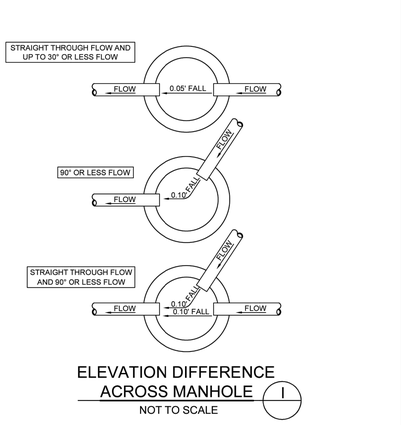
NOTE: Before connecting to any gravity stub, excavate and shoot the elevation of the stub invert and the elevation of the invert of the same pipe coming out of the immediate downstream manhole. Measure the distance from the manhole to the stub, and calculate the pipe grade. If the grade on the pipe is less than plan design, then contact CCUA and the project engineer before proceeding further. The project engineer and the CCUA will make the decision on how to resolve the discrepancy before the contractor can proceed further.

No work will be allowed on a gravity line upstream of the connection point to the CCUA's system without prior approval of CCUA.

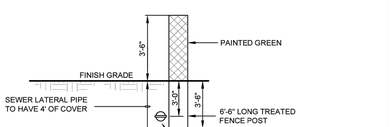
PROCEDURES FOR CONNECTING TO A GRAVITY STUB (O)
NOT TO SCALE



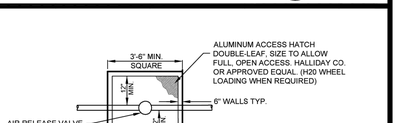
CUTTING IN SERVICE LATERAL TO EXISTING SEWER MAIN (R)
NOT TO SCALE



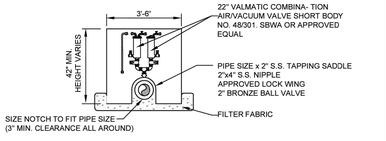
ELEVATION DIFFERENCE ACROSS MANHOLE (I)
NOT TO SCALE



SEWER SERVICE MARKER POST (M)
NOT TO SCALE



NOTE: WIDTH VAIRES TO ACCEPT PIPE SIZES OVER 8"

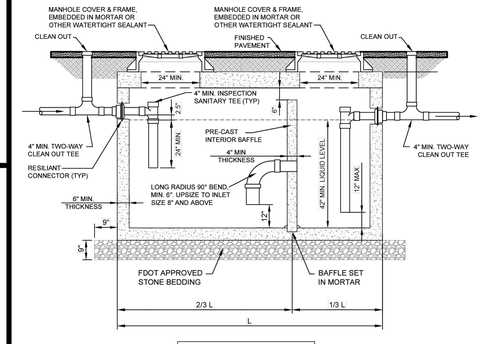


SANITARY SEWAGE FORCE MAIN AIR RELEASE VALVE VAULT (S)
TO BE USED ON ALL PIPES 12" OR LARGER
NOT TO SCALE

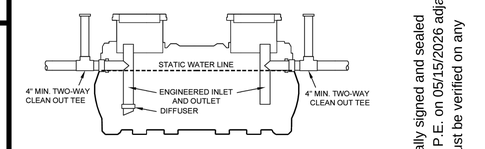


NOTE: FACILITIES WITH FLOOR DRAINS AND WITHOUT A GREASE TRAP SHALL INSTALL THIS MODEL FLOOR DRAIN AND ONLY WITH PRIOR APPROVAL FROM THE CCUA.

FLOOR DRAIN WITH STRAINER DETAIL (J)
NOT TO SCALE



GRAVITY INTERCEPTOR



HYDROMECHANICAL INTERCEPTOR

NOTES:
1. GRAVITY GREASE INTERCEPTORS SHALL BE SIZED BY THE PROJECT ENGINEER USING THE PEAK FLOW IN ACCORDANCE WITH THE MOST CURRENT FLORIDA BUILDING CODE - PLUMBING. A MINIMUM OF 2,000 GALLON TOTAL CAPACITY SHOULD BE USED WITH A 4' GREASE WASTE LINE. A MINIMUM OF 3,000 GALLON TOTAL CAPACITY SHOULD BE USED WITH A 6' GREASE WASTE LINE.
2. HYDROMECHANICAL GREASE INTERCEPTORS SHALL BE SIZED BY THE PROJECT ENGINEER USING PEAK FLOW AND GREASE PRODUCTION SIZING METHOD IN ACCORDANCE WITH THE MOST CURRENT FLORIDA BUILDING CODE - PLUMBING.
3. ALL FIXTURES LOCATED IN FOOD AND BEVERAGE PREPARATION AREAS SHALL BE ROUTED THROUGH GREASE INTERCEPTOR. RESTROOM WASTE SHALL NOT BE ROUTED THROUGH GREASE INTERCEPTOR.
4. THE MATERIAL OF THE INTERCEPTOR SHOULD BE MADE FROM MATERIALS THAT ARE COMPATIBLE WITH A PH OF 3.0. GREASE INTERCEPTORS THAT ARE MADE FROM MATERIALS THAT ARE SUBJECT TO CORROSION SUCH AS CONCRETE OR STEEL, SHOULD BE LINED OR COATED WITH A DURABLE MATERIAL APPROVED BY THE UTILITY THAT IS COMPATIBLE WITH A PH OF 3.0 AND THAT CANNOT BE EASILY PENETRATED, SCRAPED OFF OR REMOVED.

GRAVITY & HYDROMECHANICAL GREASE INTERCEPTOR DETAIL (T)
NOT TO SCALE

REVISED NOTES & DETAILS — RHD — NOV 23
REVISED ALL NOTES & DETAILS — RHD — AUG 22
REVISED GENERAL NOTES — RHD — SEPT 20
REVISED GREASE INTERCEPTOR DETAIL & STANDARD SINGLE SEWER SERVICE LATERAL DETAIL — RHD — SEPT 14
REVISED NOTES & DETAILS — RHD — MAY 13
REVISED NEW DETAILS (SERVICE LATERAL TO DR DEEPER) — RHD — FEB 13
REVISED DETAILS — RHD — JAN 13
REVISED DETAILS — RHD — DEC 12
REVISION DESCRIPTION | BY | DATE | NO

DESG XXX | DRWN RHD | CHKD XXX | APPV XXX | DATE 00/00

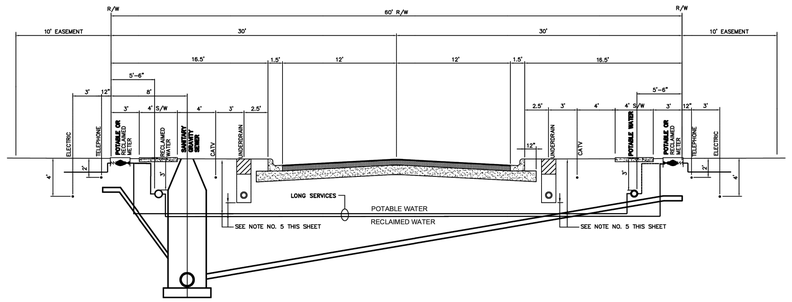
STANDARD SEWER SYSTEM DETAILS

CLAY COUNTY UTILITY AUTHORITY
3176 OLD JENNINGS ROAD
MIDDLEBURG, FLORIDA 32068-3907
TELEPHONE: (904) 272-5999

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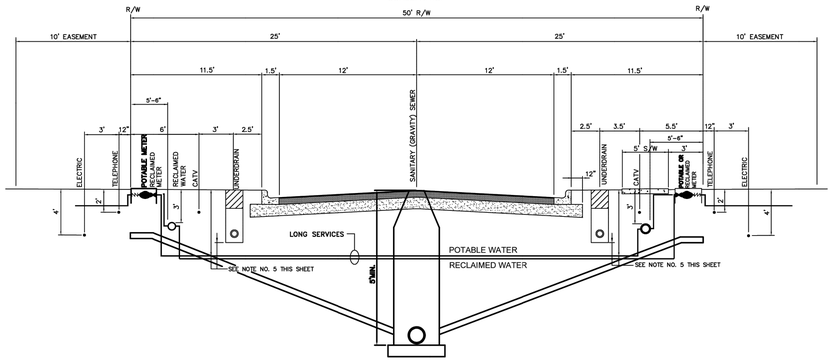
JOSHUA M. BENOLKEN — LICENSE — No 93672 — STATE OF FLORIDA — PROFESSIONAL ENGINEER

SHEET NO.
SD–1



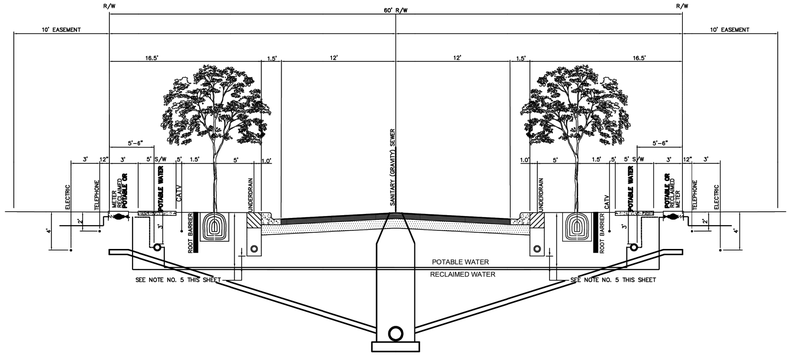
PROPOSED UTILITY TYPICAL SECTION FOR 60' R/W WITH
GRAVITY SEWER BACK OF CURB W/ RECLAIMED WATER

SCALE: N.T.S.



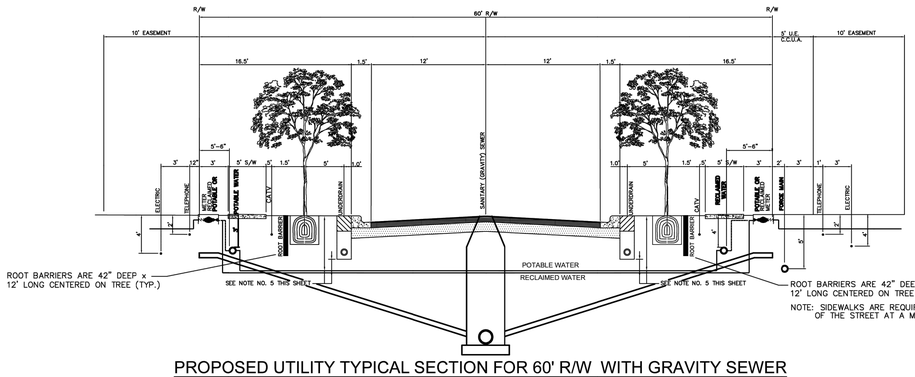
PROPOSED UTILITY TYPICAL SECTION FOR 50' R/W WITH
GRAVITY SEWER IN CENTER OF ROAD W/ RECLAIMED WATER

SCALE: N.T.S.



PROPOSED UTILITY TYPICAL SECTION FOR 60' R/W WITH
GRAVITY SEWER IN CENTER OF ROAD W/ FORCE MAIN PARALLEL TO RECLAIMED WATER

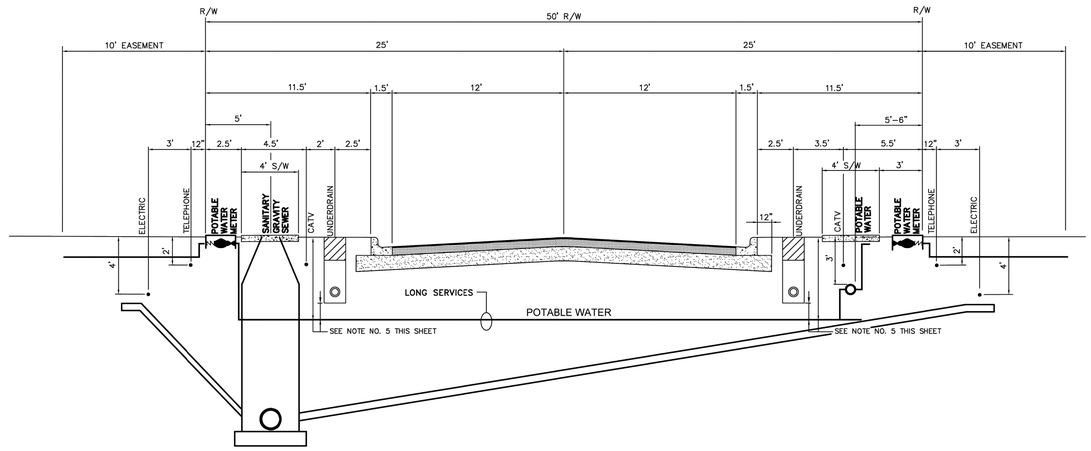
SCALE: N.T.S.



NOTE: SIDEWALKS ARE REQUIRED ON ONE SIDE OF THE STREET AT A MINIMUM.

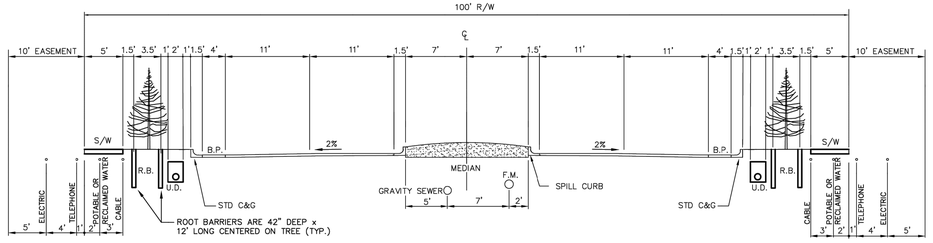
PROPOSED UTILITY TYPICAL SECTION FOR 60' R/W WITH GRAVITY SEWER
IN CENTER OF ROAD W/ FORCE MAIN PARALLEL TO RECLAIMED WATER

SCALE: N.T.S.



PROPOSED UTILITY TYPICAL SECTION FOR 50' R/W WITH
GRAVITY SEWER BACK OF CURB W/O RECLAIMED WATER

SCALE: 1"=5'



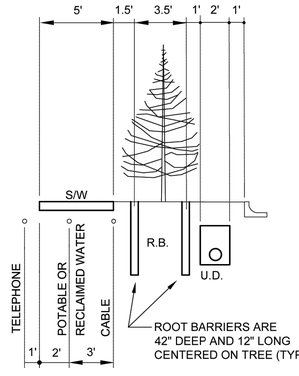
ROOT BARRIER SPECIFICATIONS:
ROOT BARRIER SHALL BE LONG TERM ROOT CONTROL SYSTEM WHICH UTILIZES TIME RELEASE OF AN HERBICIDE TO PREVENT ROOT INTRUSION. EFFECTIVE LIFE OF THE MATERIAL SHALL BE AT LEAST 15 YEARS. SIMILAR AND / OR EQUAL TO "BIOBARRIER" AS MAUNFACTURED BY BBA NONWOVEN / REEWAY, INC., 70 OLD HICKORY BLVD., OLD HICKORY, TN. 37138-3651, (800)284-2780.

SEE CCUA APPROVED MATERIALS MANUAL TO ROOT BARRIER SPECIFICATIONS.

100' CROSS SECTION SHOWN IS FOR INFORMATION PURPOSES ONLY. THIS CROSS SECTION MAY NEED TO BE MODIFIED TO FIT THE PROPOSED ROADWAY DESIGN; REQUIRES CCUA APPROVAL.

PROPOSED UTILITY TYPICAL SECTION FOR 100' R/W WITH
RAISED MEDIAN AND GRAVITY SEWER IN CENTER OF ROAD

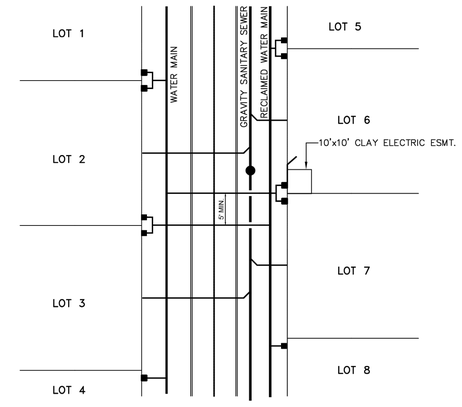
NOT TO SCALE



EXTRUDED SHEETS OR PANELS WITH INTEGRAL MALE/FEMALE SLIDING LOCK CONNECTION ENDS. MATERIAL SHALL BE HDPE WITH A MINIMUM THICKNESS OF 60 MIL, AND SHALL BE RIBBED. ROOT BARRIER SHALL EXTEND TO A MINIMUM DEPTH OF 42" BELOW FINISH GRADE. THE ROOT BARRIER SHALL BE A MINIMUM OF 12' LONG, CENTERED ON THE TREE AND PARALLEL WITH THE UTILITY MAIN OR SERVICE LINE BEING PROTECTED, UNLESS SHOWN OTHERWISE ON THE PLANS. ROOT BARRIER SHALL BE INSTALLED AT ANY TREE PLANTED IN A CCUA UTILITY EASEMENT, OR ANY TREE PLANTED WITHIN 10' OF ALL CCUA UTILITY MAINS OR SERVICES. NO TREES SHALL BE PLANTED IN A CCUA UTILITY EASEMENT EASEMENT WITHOUT THE APPROVAL OF CCUA. NO TREES SHALL BE CLOSER THAN 5' TO ANY CCUA UTILITY LINE OR SERVICES.

ROOT BARRIER DETAIL

SCALE: N.T.S.



TYPICAL WATER AND SEWER SERVICE LOCATION PLAN

1.) ALL WATER AND RECLAIMED DOUBLE SERVICES ON PROPERTY LINE.
2.) ANY SINGLE WATER OR RECLAIMED SERVICE LINES ON LOT LINE.
3.) ALL SEWER SERVICES ARE TO CENTER OF LOTS.
4.) IF FITTINGS ARE REQUIRED TO ACHIEVE 5'-0" SEPARATION BETWEEN THE RECLAIMED AND POTABLE WATER SERVICE LATERALS THEN ASBUILT TIE LOCATIONS WILL BE REQUIRED FOR THE SERVICE FITTINGS. THE OFFSET REQUIRED TO ACHIEVE THE SEPARATION SHALL OCCUR OUTSIDE OF THE PAVED ROADWAY.
5.) POTABLE AND RECLAIMED WATER SERVICE LINES SHALL ONLY BE DEEP ENOUGH TO CLEAR THE BOTTOM OF THE UNDERDRAIN TRENCH. MINIMUM COVER SHALL BE MAINTAINED IN ALL CASES.

NO	DATE	BY	REVISION DESCRIPTION
7	AUG 17	RHD	REVISED TO ADD ROOT BARRIER DETAIL
6	JULY 15	RHD	REVISED TO USE 4 FT. SIDEWALK
5	NOV 15	RHD	REVISED MAIN PLACEMENT DISTANCES FROM R/W
4	APRIL 06	MRS	GENERAL UPDATES AND REVISIONS
3	JUNE 05	MRS	REVISED SECTION TO SHOW FORCE MAIN PARALLEL TO RECLAIMED MAIN.
2	JUNE 05	MRS	REVISED 60' & 100' R-O-W SECTION DETAILS
1	APRIL 02	GAR	NEW STANDARD DETAIL SHEET

DESG GAR
DRWN GAR
CHKD
APRV
DATE

PROJECT:
WATER, SEWER AND RECLAIMED
WATER UTILITY PLACEMENT IN R/W
27' PAVEMENT WIDTH

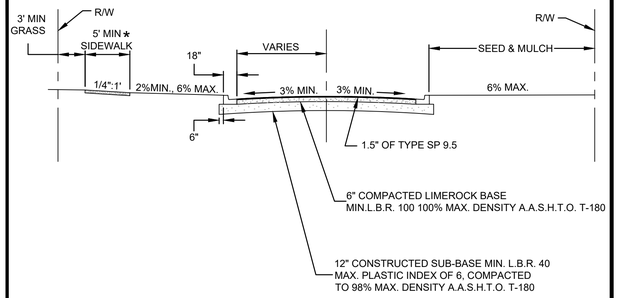
CLAY COUNTY
UTILITY AUTHORITY
3176 OLD JENNINGS ROAD
MIDDLEBURG, FLORIDA 32068-3907
TELEPHONE: (904) 272-5999

This item has been digitally signed and sealed by Joshua M. Benolken, P.E. on 05/15/2026 adjacent to the seal. Signature must be verified on any electronic copies

JOSHUA M. BENOLKEN * ENGINEER * No 93572 * STATE OF FLORIDA * PROFESSIONAL

SHEET NO.

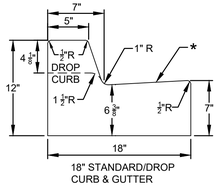
UTC-1



NOTE:

1. SOIL ANALYSIS MAY INDICATE THE NEED FOR THICKER BASE COURSES THAN THOSE SHOWN HEREIN. THE PAVEMENT THICKNESS SHOWN HEREIN ARE NOT INTENDED TO BE ABSOLUTE, BUT ARE PRELIMINARY CRITERIA & MAY BE MODIFIED TO ACCOMMODATE THE BEARING CAPACITIES OF VARIOUS SUB-GRADES.
2. ALL DISTURBED AREAS SHALL BE SEEDED & MULCHED. ALL AREAS WHERE SOD HAS BEEN DISTURBED OR REMOVED SHALL BE RE-SODDED TO SATISFACTION OF OWNER.
3. ALL ASPHALTIC CONCRETE SHALL MEET THE REQUIREMENTS OF SECTION 331 AND/OR SECTION 333, F.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.
✱ 4. OR IN ACCORDANCE WITH APPROVED CONSTRUCTION PLANS. VARIATIONS IN SIDEWALK LOCATION/ MEANDERING DUE TO CONFLICTS SUCH AS TREES, HYDRANTS, UTILITIES, TRAFFIC SIGN, ETC. IS PERMITTED AS PER THE APPROVED PLANS, OR AS OTHERWISE REQUIRED TO BE ADJUSTED IN THE FIELD.

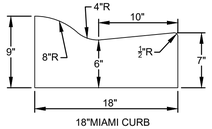
STANDARD ROADWAY SECTION FOR 60' R/W



18" STANDARD/DROP CURB & GUTTER

STANDARD CURB	.0388889	CU. YD./LIN. FT.
MIAMI CURB	.0325926	CU. YD./LIN. FT.
MEDIAN CURB	.0411111	CU. YD./LIN. FT.

✱ ALL CURB MUST BE 3,000 PSI CLASS ONE CONCRETE

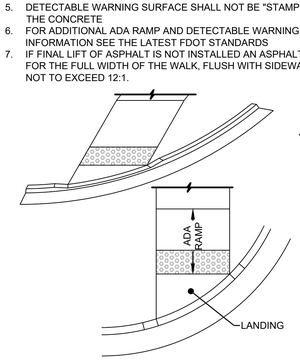


18"MIAMI CURB & GUTTER

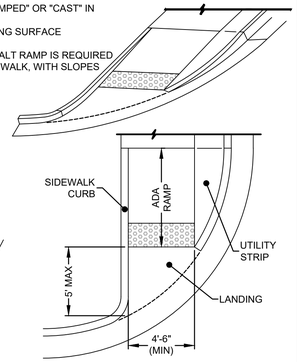
STANDARD CURB TEMPLATES

NOTES:

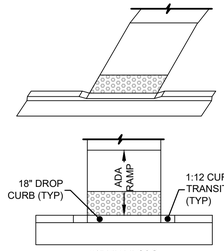
1. SEE GEOMETRY PLAN FOR SIDEWALK WIDTH AND LOCATION
2. SEE CURB TEMPLATE DETAILS FOR ADDITIONAL INFORMATION
3. ADA RAMP TO BE 6' LONG (MAX) AT 1:12 MAXIMUM SLOPE
4. DETECTABLE WARNING SURFACE TO BE FULL WIDTH OF RAMP OR LANDING AND A DEPTH OF 2'
5. DETECTABLE WARNING SURFACE SHALL NOT BE "STAMPED" OR "CAST" IN THE CONCRETE
6. FOR ADDITIONAL ADA RAMP AND DETECTABLE WARNING SURFACE INFORMATION SEE THE LATEST FDOT STANDARDS
7. IF FINAL LIFT OF ASPHALT IS NOT INSTALLED AN ASPHALT RAMP IS REQUIRED FOR THE FULL WIDTH OF THE WALK, FLUSH WITH SIDEWALK, WITH SLOPES NOT TO EXCEED 12:1.



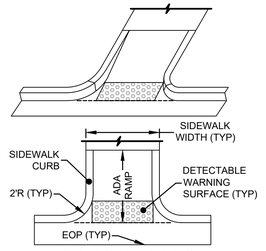
18" MIAMI C&G ON A CURVE



18" STANDARD/MEDIAN C&G ON A CURVE

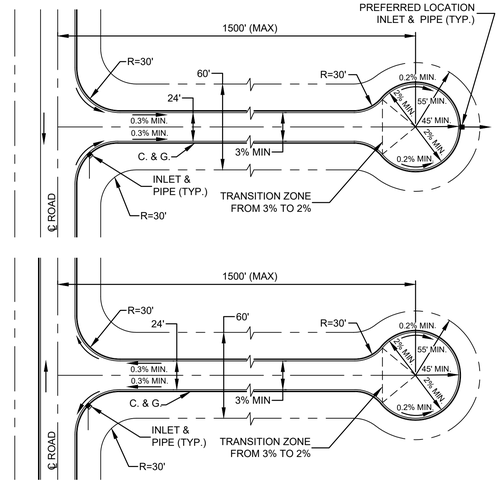


18" MIAMI C&G



18" STANDARD/MEDIAN C&G

SIDEWALK RAMPS



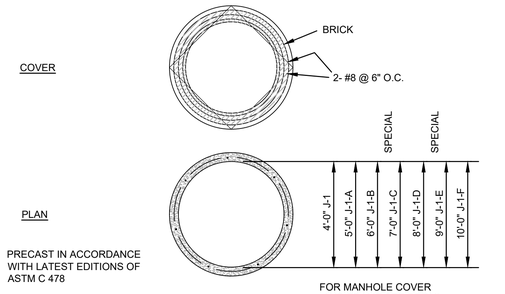
NOTES:

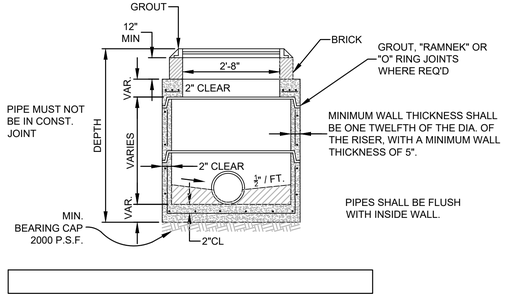
1. CURB & GUTTER ALONG ROAD TO MAINTAIN MIN. SLOPE OF 0.3% IN DIRECTION OF POSITIVE DRAINAGE.
2. CURB & GUTTER AROUND THE CUL-DE-SAC TO MAINTAIN MIN. SLOPE OF 0.2% IN DIRECTION OF POSITIVE DRAINAGE.
3. PAVING SHALL BE CROWNED MIN. OF 3% TO PROVIDE ADEQUATE RUN-OFF OFF PAVEMENT.
4. PAVING SHALL BE CROWNED MIN. OF 2% TO PROVIDE ADEQUATE RUN-OFF OFF CUL-DE-SAC PAVEMENT
5. VALLEY GUTTERS ARE NOT ALLOWED.
6. INLETS & PIPES TO BE LOCATED AS NECESSARY.

STANDARD CUL-DE-SAC W/CURB & GUTTER

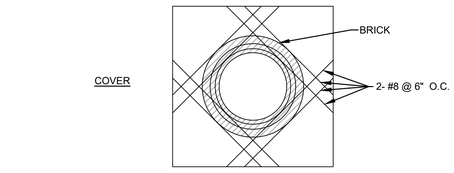
CONCRETE SIDEWALK

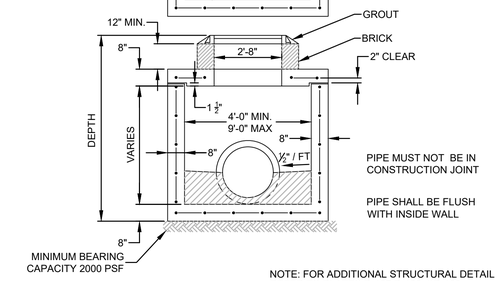
TYPE 1 TRAFFIC BARRICADE





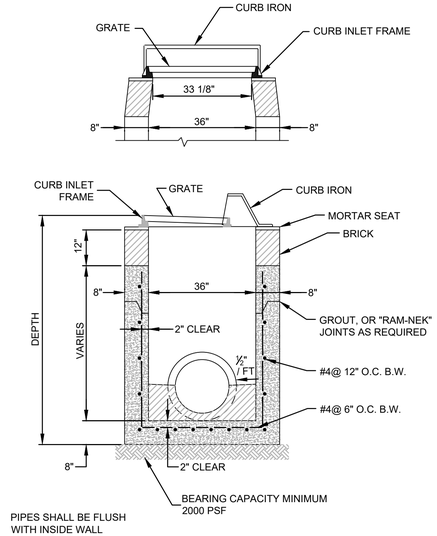
STORM SEWER MANHOLE





NOTE: FOR ADDITIONAL STRUCTURAL DETAIL REFER TO PLATES D-107,D-108, &D-109

STORM SEWER J-2 MH



NOTE: CONC. DESIGN STRENGTH 4,000 PSI

STORM SEWER CURB INLET

P:\2008-499-3 THE ROOKERY PHASE 3\ENG PLANS\499 3 PDD.DWG5/6/2026 2:29 PMMike Reilly

REVISIONS			
NO.	DATE	DESCRIPTION	BY:
-	-	-	-

DESIGNED BY:	MR
DRAWN BY:	MR
CHECKED BY:	VJD/GRW
SCALE:	N.T.S.
DATE:	5/6/2026
PROJ. NO.:	2008-499-3

Dunn & Associates, Inc.
CIVIL ENGINEERS / LAND PLANNERS
8647 Baypine Road, Suite 200
Jacksonville, Florida 32256
Phone: (904)363-8916 Fax: (904)363-8917
www.dunneng.com

ROOKERY – PH3A & 3B

FOR:
D.R. HORTON, INC – JACKSONVILLE

CLAY COUNTY, FLORIDA

PAVING AND DRAINAGE DETAILS

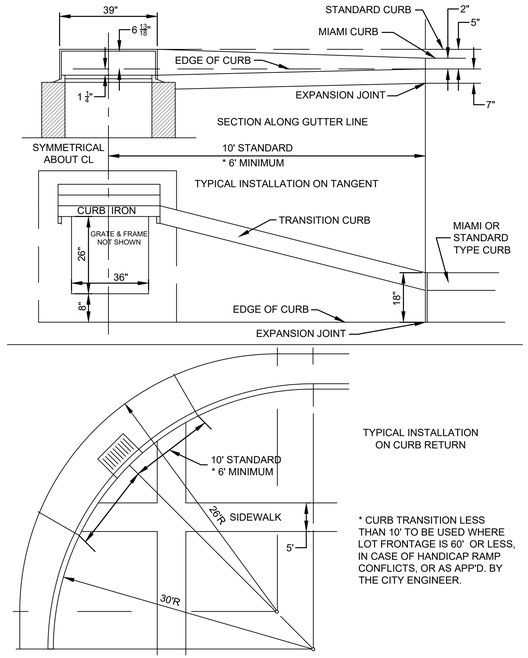
JOSHUA M. BENOLKEN LICENSE No93672 STATE OF FLORIDA PROFESSIONAL ENGINEER

This item has been digitally signed and sealed by Joshua M. Benolken, P.E. on 05/15/2026 adjacent to the seal. Signature must be verified on any electronic copies

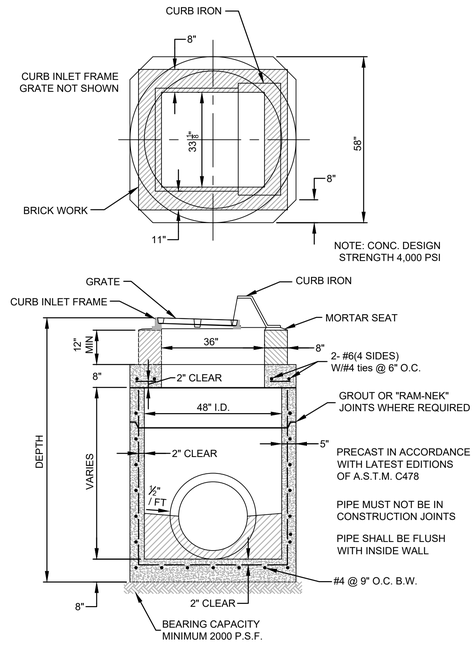
GLEN R. WIEGER ENGINEER NO. 81419 | JOSHUA M. BENOLKEN ENGINEER NO. 93672 | DAVID F. PEIGLER ENGINEER NO. 44100

PDD–1

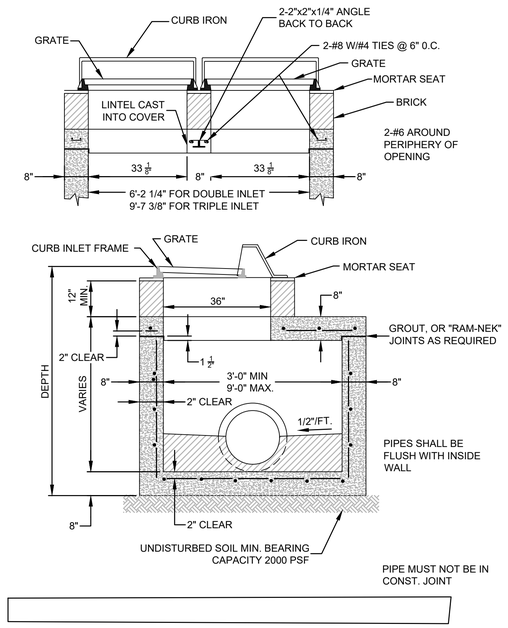
DWG. NO.



STANDARD CURB INLET INSTALLATION

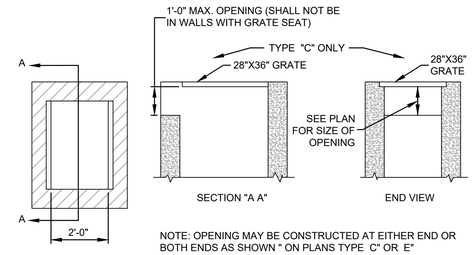


STORM SEWER 48" CURB INLET



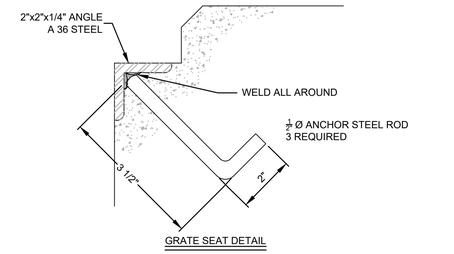
STORM SEWER DOUBLE AND TRIPLE CURB INLET

NOTE:
ALL TYPE C" & E" INLETS WITH SLOTS DEEPER THAN 6" SHALL BE CONSTRUCTED WITH " A HORIZONTAL BAR(S) MAXIMUM SPACING 6". 1" DIAMETER GALV. PIPE EMBEDDED 2" IN PRE-CAST OR OTHER APPROVED METHOD.



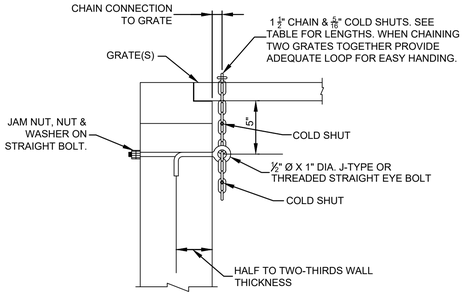
NOTE: OPENING MAY BE CONSTRUCTED AT EITHER END OR BOTH ENDS AS SHOWN " ON PLANS TYPE C" OR E"

DETAILS OF OPENINGS IN DITCH BOTTOM INLETS



GRATE SEAT DETAIL

DETAIL FOR TYPE "C & E" INLET



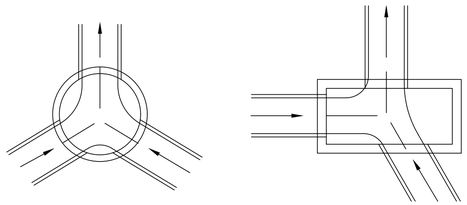
COST OF GALVANIZED EYE BOLT AND CHAIN TO BE INCLUDED IN THE CONTRACT UNIT PRICE FOR INLET.

EYE BOLT AND CHAIN REQUIREMENTS

Plate Number	Inlet Type	Eye Bolt	Length Of Chain	Handling & Remarks
207	C	1	2'-6"	Slide & Spin
208	E	2	2@ 2'-6"	Slide & Spin

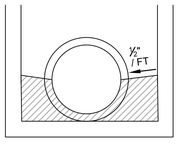
EYE BOLT AND CHAIN FOR LOCKING GRATES TO INLETS

GENERAL NOTE:
MORTAR USED TO SEAL THE PIPE INTO THE WALLS OF PRECAST UNITS WILL BE OF SUCH A MIX THAT SHRINKAGE WILL NOT CAUSE LEAKAGE INTO OR OUT OF THE UNITS. MAXIMUM OPENING FOR PIPE SHALL BE THE O.D. OF THE PIPE REQUIRED PLUS 6".



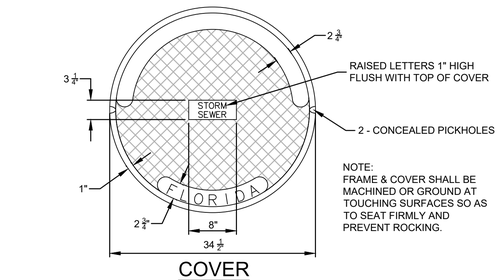
DETAIL OF CHANNELIZATION

NOTE: CHANNELIZATION REQUIRED AT ALL DRAINAGE STRUCTURES

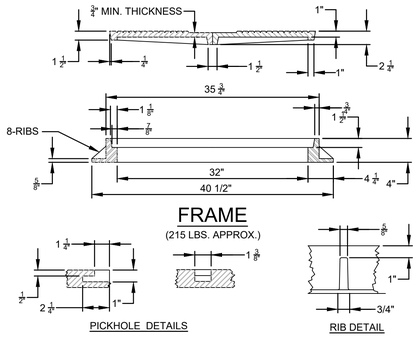


SMOOTH FLOW CHANNELS COMPOSED OF CONCRETE OR BRICK AND MORTAR SHALL BE CONSTRUCTED ON THE BOTTOMS OF ALL STRUCTURES TO A DEPTH EQUAL TO HALF THE DIAMETER OF THE LARGEST PIPE.

STORM SEWER INVERT DETAIL



COVER
(265 LBS.± 5 LBS.)

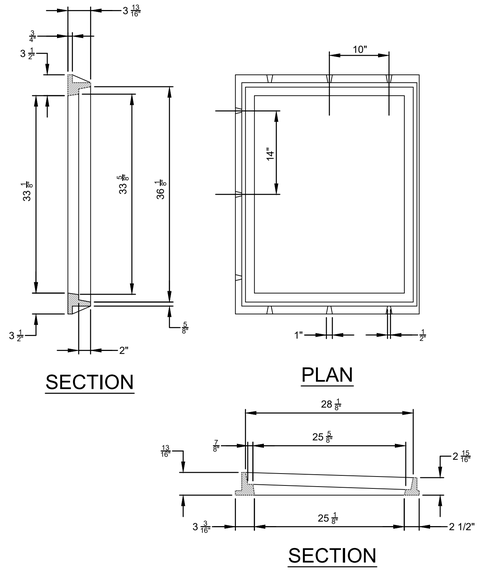


FRAME
(215 LBS. APPROX.)

PICKHOLE DETAILS

RIB DETAIL

STORM SEWER MANHOLE COVER AND FRAME



APPROX. 180 LBS.

STORM SEWER CURB INLET FRAME

P:\2008-499-3 THE ROOKERY PHASE 3\ENG PLANS\499 3 PDD.DWG 5/6/2026 2:29 PM Mike Reilly

REVISIONS			
NO.	DATE	DESCRIPTION	BY:
-	-	-	-

DESIGNED BY:	MR
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ROOKERY – PH3A & 3B

FOR:
D.R. HORTON, INC – JACKSONVILLE

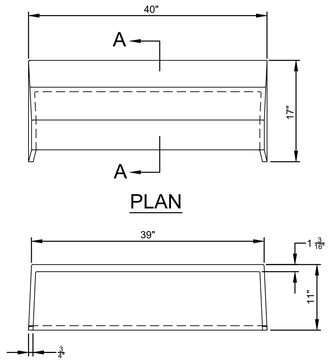
CLAY COUNTY, FLORIDA

PAVING AND DRAINAGE DETAILS

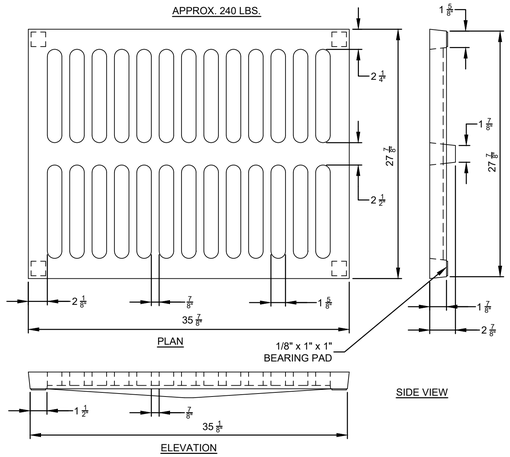
JOSHUA M. BENOLKEN LICENSE No 93672 STATE OF FLORIDA PROFESSIONAL ENGINEER

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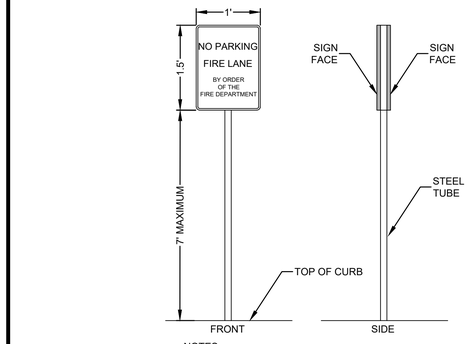
GLEN R. WIEGER ENGINEER NO. 81419 | JOSHUA M. BENOLKEN ENGINEER NO. 93672 | DAVID F. PEIGLER ENGINEER NO. 44100



STORM SEWER CURB IRON

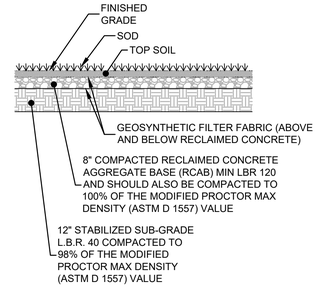


STORM SEWER INLET GRATE

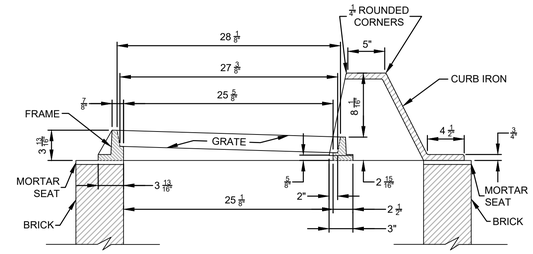


NOTES:
1. FOR REFERENCE ONLY. REFER TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS.
2. SIGN SHALL HAVE 2" HIGH "C" SERIES RED LETTERS ON A REFLECTORIZED WHITE BACKGROUND.

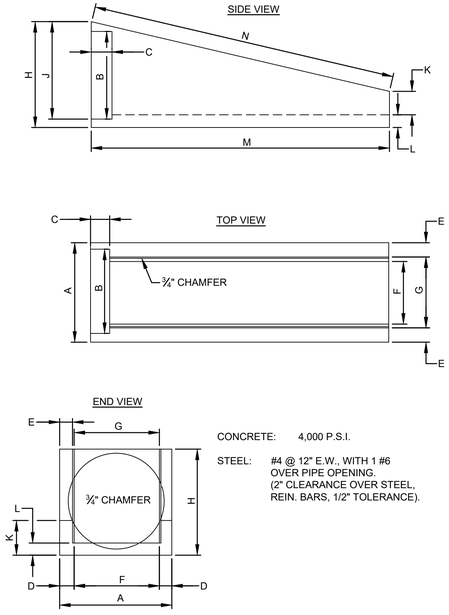
FIRE LANE SIGN DETAIL



STABILIZED FIRE DEPARTMENT ACCESS SECTION



STORM SEWER CURB IRON W/ GRATE AND FRAME



CONCRETE: 4,000 P.S.I.

STEEL: #4 @ 12" E.W., WITH 1 #6 OVER PIPE OPENING. (2" CLEARANCE OVER STEEL, REIN. BARS, 1/2" TOLERANCE).

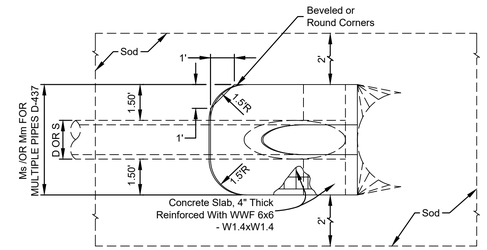
STANDARD MITERED END SECTION

TABLE OF DIMENSIONS

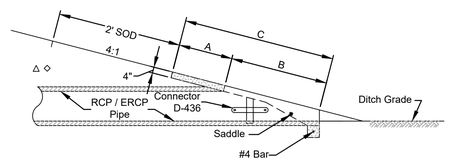
RCP/CMP	A	B	C	D	E	F	G
15" – 18"	2'–7"	2'–1"	6"	6"	6 3/4"	1'–6"	1'–7"
24"	2'–11"	2'–8"	6"	5"	4 1/2"	1'–11"	2'–0"
30"	3'–6"	3'–2"	6"	6"	5 1/2"	2'–5"	2'–6 1/2"
36"	4'–1"	3'–10"	6"	7"	5 1/2"	2'–9"	3'–0"

RCP/CMP	H	J	K	L	M	N
15" – 18"	2'–10"	2'–4"	8"	6"	6'–10"	7'–0"
24"	3'–6"	3'–1"	7 1/2"	5"	10'–0"	10'–3 1/2"
30"	3'–9"	3'–5"	7"	5"	11'–5"	11'–8 1/4"
36"	4'–6"	4'–0"	6"	6"	14'–0"	14'–4 1/2"

STANDARD MITERED END SECTION - TABLE OF DIMENSIONS



TOP VIEW - SINGLE PIPE



SECTION

- Slope:
  4:1 Miter To ℄ Of Pipe For Pipes 18" & Smaller 2:1 Miter For Pipes 24" & Larger, For RCP. 4:1 Miter To Major Axis For Pipes 24"x 38" & Smaller. 2:1 Miter For Pipes 29"x 45" & Larger, For ERCP.

POURED IN PLACE MITERED END SECTION

P:\2008-499-3 THE ROOKERY PHASE 3\ENG PLANS\499 3 PDD.DWG5/6/2026 2:30 PMMike Reilly

REVISIONS			
NO.	DATE	DESCRIPTION	BY:
-	-	-	-

DESIGNED BY:	MR
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SCALE:	N.T.S.
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8647 Baypine Road, Suite 200
Jacksonville, Florida 32256
Phone: (904)363-8916 Fax: (904)363-8917
www.dunneng.com

ROOKERY – PH3A & 3B

FOR:
D.R. HORTON, INC – JACKSONVILLE

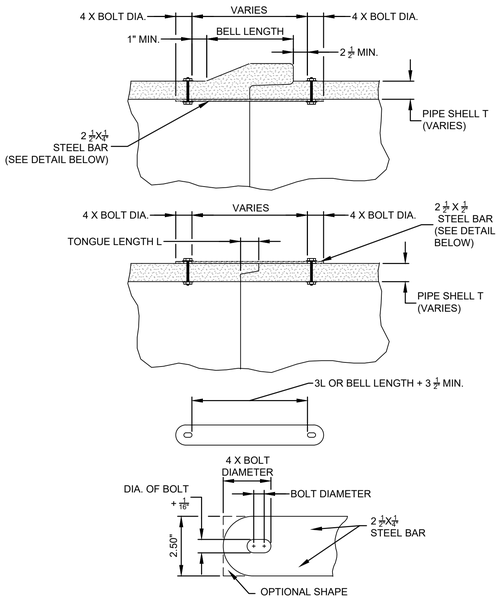
CLAY COUNTY, FLORIDA

PAVING AND DRAINAGE DETAILS

JOSHUA M. BENOLKEN LICENSE No93672 STATE OF FLORIDA PROFESSIONAL ENGINEER

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GLEN R. WIEGER ENGINEER NO. 81419 | JOSHUA M. BENOLKEN ENGINEER NO. 93672 | DAVID F. PEIGLER ENGINEER NO. 44100



ALL BARS, BOLTS, NUTS AND WASHERS ARE TO BE GALVANIZED STEEL.
BOLTS DIAMETER SHALL BE 3/8" FOR 15" TO 36" PIPE AND 5/8" FOR 42" TO 72" PIPE.
TWO CONNECTORS REQUIRED PER JOINT, LOCATED 60° RIGHT AND LEFT OF BOTTOM CENTER OF PIPE.
BOLT HOLES IN PIPE SHELL ARE TO BE DRILLED.

P.I.P. M.E.S. PIPE CONNECTION

DIMENSIONS FOR R.C.P.										
D	X	A	B	C	E	F	G	Ms	N
15"	2.58'	2.27'	4.09'	6.36'	4.03'	8'	1.22'	4.63'	1.19'
18"	2.83'	2.36'	5.12'	7.48'	5.03'	9'	1.41'	4.92'	1.21'
24"	3.42'	2.53'	7.18' △	9.71'	7.03' △	11'	1.73'	5.50'	1.25'
30"	4.25'	2.70'	9.25'	11.95'	9.03'	13'	2.00'	6.08'	1.29'
36"	5.08'	2.87'	11.31' ◇	14.18'	11.03' ◇	15'	2.24'	6.67'	1.33'
42"	6.00'	3.05'	13.37'	16.42'	13.03'	17'	2.45'	7.25'	1.38'
48"	6.75'	3.22'	15.43'	18.65'	15.03'	19'	2.63'	7.83'	1.42'
54"	7.67'	3.39'	17.49'	20.88'	17.03'	21'	2.83'	8.42'	1.46'
60"	8.50'	3.56'	19.55'	23.11'	19.03'	23'	3.00'	9.00'	1.50'

△ 6.42' △ 6.25' DIMENSIONS PERMITTED TO ALLOW USE OF 8' STANDARD PIPE LENGTHS.
◇ 10.40' ◇ 10.10' DIMENSIONS PERMITTED TO ALLOW USE OF 12' STANDARD PIPE LENGTHS.
△◇ CONCRETE SLAB SHALL BE DEEPENED TO FROM BRIDGE ACROSS CROWN OF PIPE. SEE SECTION.

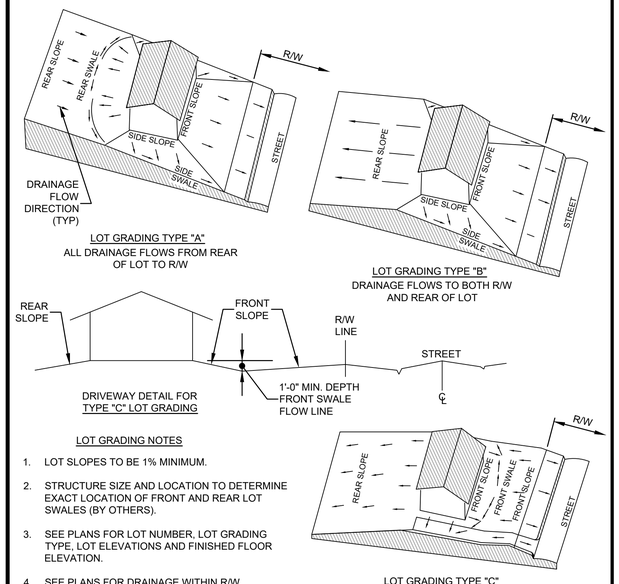
DIMENSIONS FOR E.R.C.P.										
RISE R	SPAN S	X	A	B	C	E	F	G	Ms	N
12"	18"	2.83'	2.36'	3.06'	5.42'	3.03'	5'	1.50'	4.92'	1.21'
14"	23"	3.33'	2.44'	3.75'	6.19'	3.70'	6'	1.90'	5.38'	1.23'
19"	30"	4.00'	2.62'	5.47'	8.09'	5.36'	8'	2.37'	6.04'	1.27'
24"	38"	5.00'	2.79'	7.18'	9.97'	7.03'	10'	2.85'	6.79'	1.31'
29"	45"	5.92'	3.05'	8.90'	11.95'	8.70'	12'	3.19'	7.50'	1.38'
34"	53"	7.00'	3.22'	10.62'	13.84'	10.36'	13'	3.57'	8.25'	1.42'
38"	60"	7.83'	3.39'	11.99'	15.38'	11.70'	15'	3.95'	8.92'	1.46'
43"	68"	8.92'	3.56'	13.71'	17.27'	13.36'	17'	4.28'	9.67'	1.50'
48"	76"	9.92'	3.73'	15.43'	19.16'	15.03'	19'	4.59'	10.42'	1.54'
* 53"	83"	10.67'	3.91'	17.15'	21.06'	16.70'	20'	4.77'	11.08'	1.58'
58"	91"	11.67'	4.08'	18.87'	22.95'	18.36'	22'	5.01'	11.83'	1.63'

"X"=DISTANCE FROM CENTER OF PIPE TO CENTER OF PIPE.
"Mm"=DIMENSIONS FOR MULTIPLE PIPES.
FORMULA TO DETERMINE "Mm" FOR MULTIPLE PIPES = Ms+X (NO. OF PIPES -1)
FOR "Ms" AND "X" DIMENSIONS, SEE TABLE ABOVE.
* SPECIAL ORDER; NOT STANDARD SIZE

POURED IN PLACE MITERED END SECTION - TABLE OF DIMENSIONS

PIPE BEDDING - POLYETHYLENE

ANCHOR PLACEMENT



LOT GRADING NOTES

1. LOT SLOPES TO BE 1% MINIMUM.
2. STRUCTURE SIZE AND LOCATION TO DETERMINE EXACT LOCATION OF FRONT AND REAR LOT SWALES (BY OTHERS).
3. SEE PLANS FOR LOT NUMBER, LOT GRADING TYPE, LOT ELEVATIONS AND FINISHED FLOOR ELEVATION.
4. SEE PLANS FOR DRAINAGE WITHIN R/W.
5. LOT TYPES (B OR C) WITH DRAINAGE FLOW TO THE REAR OF THE LOT SHALL FLOW OFF THE LOT OR COLLECT IN A SWALE - SEE PLAN.

LOT GRADING TYPE

PIPE ANCHOR

RIP-RAP EROSION PROTECTION

RETICULINE GRATE FOR STORM SEWER
TYPE "H" 4-GRATE INLET

ROOKERY - PH3A & 3B

P:\2008-499-3 THE ROOKERY PHASE 3\ENG PLANS\499 3 PDD.DWG5/6/2026 2:30 PMMike Reilly

REVISIONS			
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Sheet No. 62 of 65

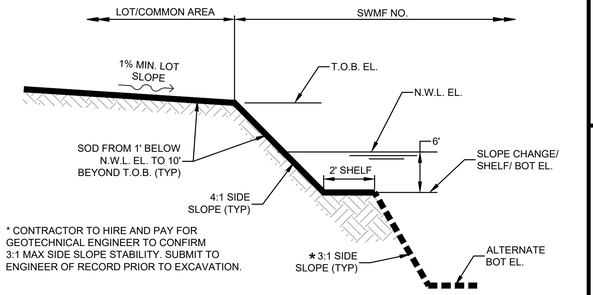
PDD-4

DWG. NO.

SWMF SCHEDULE

SWMF NO.	7	8	9	10	15	16	17	18	19	20	21	22	23	24
T.O.B. EL.	33.7	33.7	33.7	33.3	28.8	28.7	28.1	28.5	27.8	27.4	27.0	27.8	27.4	24.5
25YR DHW	32.06	32.07	32.07	32.06	27.43	27.06	26.64	26.61	26.57	26.32	25.79	26.58	26.42	23.63
3YR DHW	30.86	30.86	30.86	30.86	25.63	25.51	25.41	25.31	25.40	25.36	25.06	25.41	25.38	22.63
N.W.L. EL.	29.0	29.0	29.0	29.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	21.0
SC/SHELF EL.	23.0	23.0	23.0	23.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	15.0
BOT. EL.	23.0	23.0	23.0	23.0	18.0	18.0	18.0	18.0	18.0	18.0	-15.0	18.0	18.0	-15.0
ALT BOT. EL.	13.0	9.0	5.0	10.0	0.0	-8.0	-6.0	-2.0	3.0	10.0		6.0	3.0	

PH3A/3B PROPOSED SWMF #'S 7,8,22 &23

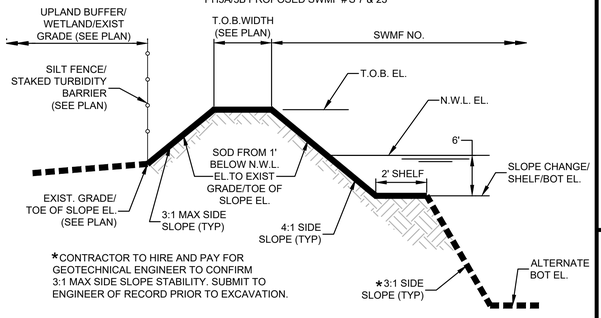


SECTION L1-L1

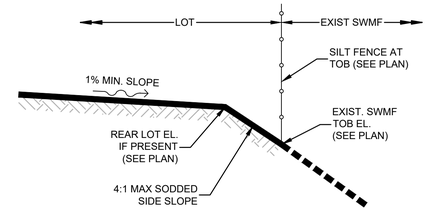
SWMF SCHEDULE

SWMF NO.	7	20	21	23	24
T.O.B. EL.	33.7	27.4	27.0	27.4	24.5
25YR DHW	32.06	26.32	25.79	26.42	23.63
3YR DHW	30.86	25.36	25.06	25.38	22.63
N.W.L. EL.	29.0	24.0	24.0	24.0	21.0
SC/SHELF EL.	23.0	18.0	18.0	18.0	15.0
BOT. EL.	23.0	18.0	-15.0	18.0	-15.0
ALT BOT. EL.	13.0	10.0		3.0	

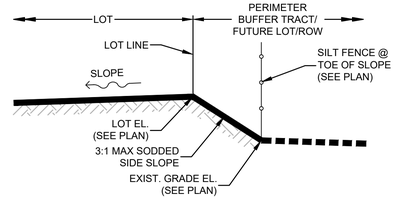
PH3A/3B PROPOSED SWMF #'S 7 & 23



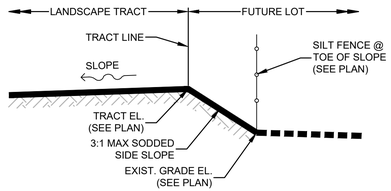
SECTION L2-L2



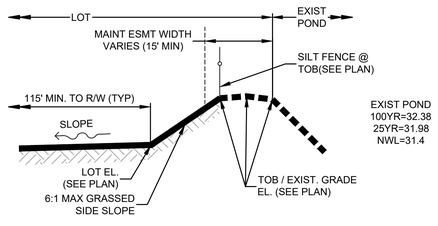
SECTION F1-F1



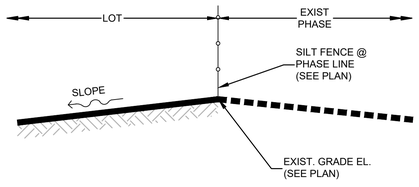
SECTION F2-F2



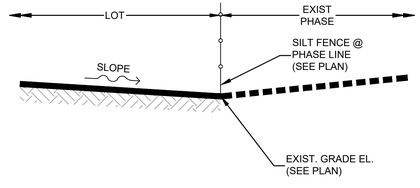
SECTION F3-F3



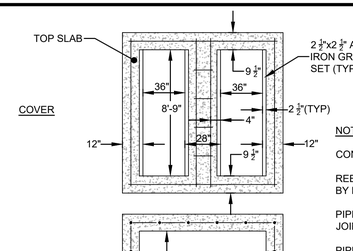
SECTION F4-F4



SECTION F5-F5



SECTION F6-F6



NOTES:

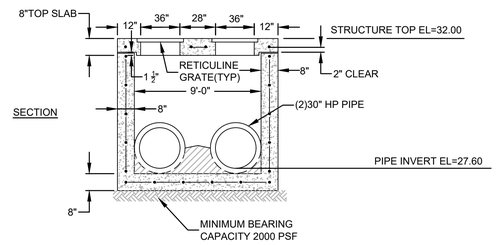
CONC. DESIGN STRENGTH 4000 P.S.I.

REBAR SIZE AND SPACING TO BE DESIGNED BY PRECAST ENGINEER.

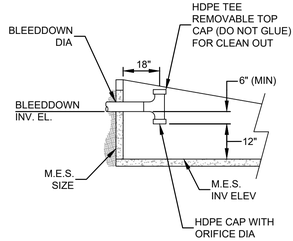
PIPES MUST NOT BE IN CONSTRUCTION JOINTS.

PIPE SHALL BE FLUSH WITH INSIDE WALL.

STRUCTURE GRATES NOT SHOWN, (2) TWO SETS OF RETICULINE GRATES FOR STORM SEWER TYPE "H" 4-GRATE INLET REQUIRED IN TOP SLAB (SEE DETAIL PDD-4).



CONTROL STRUCTURE (S-375) EX POND (PH 3A)

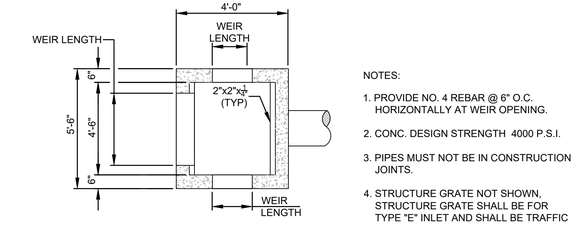


CONTROL STRUCTURE SCHEDULE

PHASE	STRUCT NO.	SWMF NO.	BLEEDDOWN INV. EL.	BLEEDDOWN DIA.	ORIFICE DIA.	MES SIZE	MES INV EL.
3	S-376	EX POND	31.40	15"	10"	36"	29.77
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-

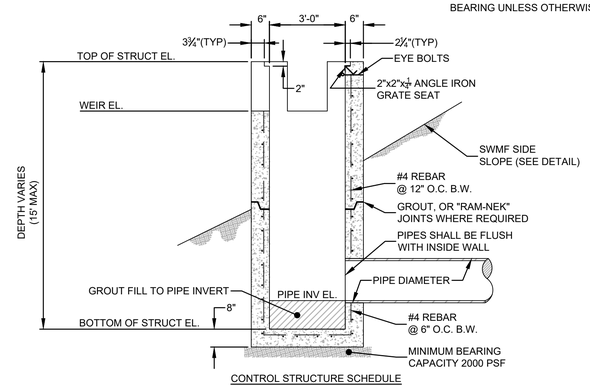
1. BLEEDDOWN PIPE TO BE HP
2. M.E.S. (MITERED END SECTION) TO BE PRE-CAST CONC.

BLEEDDOWN MES (S-376) EX POND (PH 3A)



NOTES:

1. PROVIDE NO. 4 REBAR @ 6" O.C. HORIZONTALLY AT WEIR OPENING.
2. CONC. DESIGN STRENGTH 4000 P.S.I.
3. PIPES MUST NOT BE IN CONSTRUCTION JOINTS.
4. STRUCTURE GRATE NOT SHOWN, STRUCTURE GRATE SHALL BE FOR TYPE "E" INLET AND SHALL BE TRAFFIC BEARING UNLESS OTHERWISE NOTED.



CONTROL STRUCTURE SCHEDULE

PHASE	STRUCT NO.	SWMF NO.	TOP OF STRUCT. EL.	PIPE INV. EL.	PIPE DIA.	WEIR EL.	WEIR LENGTH	WEIR LOCATION	BOTTOM EL.
3A	S-349	23	27.30	23.10	36"	24.60	48", 19", 19"	W, N, S	21.50
3A	S-380	EX POND	31.40	28.50	24"	N/A	N/A	N/A	27.50

TYPE "E" CONTROL STRUCTURE

P:\2008-499-3 THE ROOKERY PHASE 3\ENG PLANS\499 3 PDD.DWG5/6/2026 2:30 PMMike Reilly

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ROOKERY – PH3A & 3B

FOR:
D.R. HORTON, INC – JACKSONVILLE

CLAY COUNTY, FLORIDA

PAVING AND DRAINAGE DETAILS

JOSHUA M. BENOLKEN LICENSE No93672 STATE OF FLORIDA PROFESSIONAL ENGINEER

This item has been digitally signed and sealed by Joshua M. Benolken, P.E. on 05/15/2026 adjacent to the seal. Signature must be verified on any electronic copies

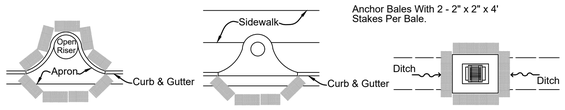
GLEN R. WIEGER ENGINEER NO. 81419 | JOSHUA M. BENOLKEN ENGINEER NO. 93672 | DAVID F. PEIGLER ENGINEER NO. 44100

PDD-5

DWG. NO.

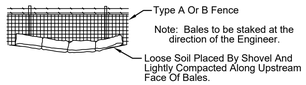
EROSION AND SEDIMENT CONTROL NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING SILT FROM SITE IF NOT REUSABLE ON-SITE AND ASSURING PLAN ALIGNMENT AND GRADE IN ALL DITCHES AND SWALES AT COMPLETION OF CONSTRUCTION.
2. THE SITE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER COMPLETION OF CONSTRUCTION AND ONLY WHEN AREAS HAVE BEEN STABILIZED.
3. ADDITIONAL PROTECTION - ON-SITE PROTECTION IN ADDITION TO THE ABOVE MUST BE PROVIDED THAT WILL NOT PERMIT SILT TO LEAVE THE PROJECT CONFINES DUE TO UNSEEN CONDITIONS OR ACCIDENTS.
4. CONTRACTOR SHALL INSURE THAT ALL DRAINAGE STRUCTURES, PIPES, ETC. ARE CLEANED OUT AND WORKING PROPERLY AT TIME OF ACCEPTANCE.
5. WIRE MESH SHALL BE LAID OVER THE DROP INLET SO THAT THE WIRE EXTENDS A MINIMUM OF 1 FOOT BEYOND EACH SIDE OF THE INLET STRUCTURE. HARDWARE CLOTH OR COMPARABLE WIRE MESH WITH 1/2-INCH OPENINGS SHALL BE USED. IF MORE THAN ONE STRIP OF MESH IS NECESSARY, THE STRIPS SHALL BE OVERLAPPED.
6. FDOT NO. 1 COARSE AGGREGATE SHALL BE PLACED OVER THE WIRE MESH AS INDICATED IN D-903. THE DEPTH OF STONE SHALL BE AT LEAST 12 INCHES OVER THE ENTIRE INLET OPENING. THE STONE SHALL EXTEND BEYOND THE INLET OPENING AT LEAST 18 INCHES ON ALL SIDES.
7. IF THE STONE FILTER BECOMES CLOGGED WITH SEDIMENT SO THAT IT NO LONGER ADEQUATELY PERFORMS ITS FUNCTION, THE STONES MUST BE PULLED AWAY FROM THE INLET, CLEANED AND REPLACED.
8. BALES SHALL BE EITHER WIRE-BOUND OR STRING-TIED WITH THE BINDINGS ORIENTED AROUND THE SIDES RATHER THAN OVER AND UNDER THE BALES.
9. BALES SHALL BE PLACED LENGTHWISE IN A SINGLE ROW SURROUNDING THE INLET, WITH THE ENDS OF ADJACENT BALES PRESSED TOGETHER.
10. THE FILTER BARRIER SHALL BE ENTRENCHED AND BACKFILLED. A TRENCH SHALL BE EXCAVATED TO A MINIMUM DEPTH OF 8 INCHES. AFTER THE BALES ARE STAKED, THE EXCAVATED SOIL SHALL BE BACKFILLED AND COMPACTED AGAINST THE FILTER BARRIER.
11. EACH BALE SHALL BE SECURELY ANCHORED AND HELD IN PLACE BY AT LEAST TWO STAKES OR REBARS DRIVEN THROUGH THE BALE.
12. LOOSE SYNTHETIC MATERIAL SHOULD BE WEDGED BETWEEN BALES TO PREVENT WATER FROM ENTERING BETWEEN BALES.
13. SYNTHETIC BALE BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.
14. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED BALES, END RUNS AND UNDERCUTTING BENEATH BALES.
15. NECESSARY REPAIRS TO BARRIERS OR REPLACEMENT OF BALES SHALL BE ACCOMPLISHED PROMPTLY.
16. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SYNTHETIC BALE BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.
17. SILT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
18. SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
19. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-THIRD THE HEIGHT OF THE BARRIER.
20. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEEDED.
21. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
22. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ½ THE DESIGN DEPTH OF THE TRAP . REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
23. THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING THE BEST EROSION AND SEDIMENT CONTROL PRACTICES AS OUTLINED IN THE PLANS, SPECIFICATIONS AND ST. JOHNS RIVER WATER MANAGEMENT DISTRICT SPECIFICATIONS AND CRITERIA.
24. FOR ADDITIONAL INFORMATION ON SEDIMENT AND EROSION CONTROL REFER TO "THE FLORIDA DEVELOPMENT MANUAL - A GUIDE TO SOUND LAND AND WATER MANAGEMENT" FROM THE STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION (F.D.E.R.) CHAPTER 6.
25. EROSION AND SEDIMENT CONTROL BARRIERS SHALL BE PLACED ADJACENT TO ALL WETLAND AREAS WHERE THERE IS POTENTIAL FOR DOWNSTREAM WATER QUALITY DEGRADATION. SEE DETAIL SHEET FOR TYPICAL CONSTRUCTION.
26. ALL DISTURBED AREAS SHALL BE GRASSED, FERTILIZED, MULCHED AND MAINTAINED UNTIL A PERMANENT VEGETATIVE COVER IS ESTABLISHED.
27. SOD SHALL BE PLACED IN AREAS WHICH MAY REQUIRE IMMEDIATE EROSION PROTECTION TO ENSURE WATER QUALITY STANDARDS ARE MAINTAINED.
28. ANY DISCHARGE FROM DEWATERING ACTIVITY SHALL BE FILTERED AND CONVEYED TO THE OUTFALL IN A MANNER WHICH PREVENTS EROSION AND TRANSPORTATION OF SUSPENDED SOLIDS TO THE RECEIVING OUTFALL.
29. DEWATERING PUMPS SHALL NOT EXCEED THE CAPACITY OF THAT WHICH REQUIRES A CONSUMPTIVE USE PERMIT FROM THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT.
30. ALL DISTURBED AREAS TO BE STABILIZED THROUGH COMPACTION, SILT SCREENS, SYNTHETIC BALES, AND GRASSING. ALL FILL SLOPES 3:1 OR STEEPER TO RECEIVE STAKED SOLID SOD.
31. ALL DEWATERING, EROSION, AND SEDIMENT CONTROL TO REMAIN IN PLACE AFTER COMPLETION OF CONSTRUCTION AND REMOVED ONLY WHEN AREAS HAVE STABILIZED.
32. THIS PLAN INDICATES THE MINIMUM EROSION AND SEDIMENT MEASURES REQUIRED FOR THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR MEETING ALL APPLICABLE RULES, REGULATIONS AND WATER QUALITY GUIDELINES AND MAY NEED TO INSTALL ADDITIONAL CONTROLS.
33. THE CONTRACTOR SHALL BE REQUIRED TO RESPOND TO ALL WATER MANAGEMENT DISTRICT INQUIRIES, RELATIVE TO COMPLIANCE OF SJRWMD FOR EROSION AND SEDIMENTATION CONTROL. THE COST OF THIS COMPLIANCE SHALL BE PART OF THE CONTRACT.

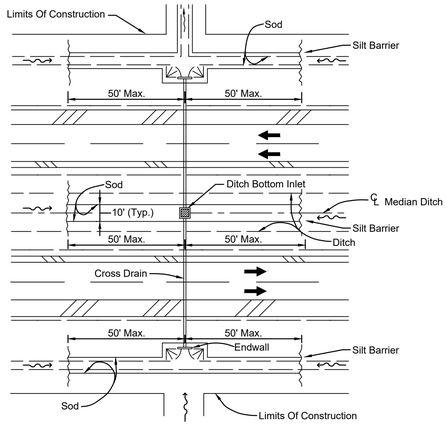


PARTIAL INLET — COMPLETED INLET — DITCH BOTTOM INLET

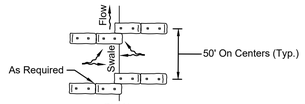
PROTECTION AROUND INLETS OR SIMILAR STRUCTURES



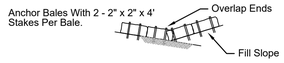
BALES BACKED BY FENCE



DITCH INSTALLATIONS AT DRAINAGE STRUCTURES

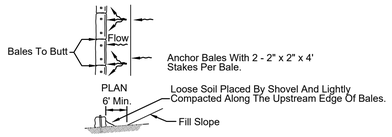


PLAN



ELEVATION

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



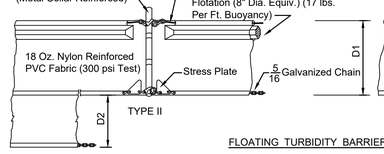
ELEVATION

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

BARRIERS FOR FILL SLOPES

SYNTHETIC BALE LOCATION

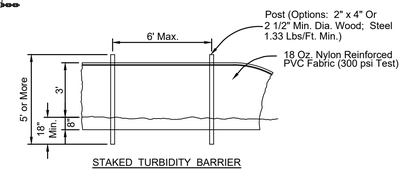
(D-901)
N.T.S.



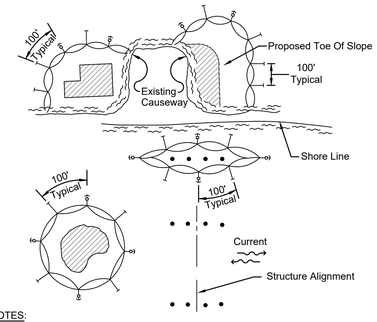
FLOATING TURBIDITY BARRIERS

NOTICE:

COMPONENTS OF TYPES I & TYPE II MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES I AND II SHALL BE AS APPROVED BY THE ENGINEER.



STAKED TURBIDITY BARRIER



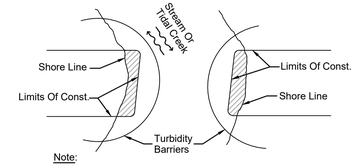
LEGEND

- Pile Locations
- Dredge Or Fill Area
- Mooring Buoy w/Anchor
- Anchor
- Barrier Movement Due To Current Action

NOTES:

1. Turbidity barriers are to be used in all permanent bodies of water regardless of water depth.
2. Number and spacing of anchors dependent on current velocities.
3. Deployment of barrier around pile locations may vary to accommodate construction operations.
4. Navigation may require segmenting barrier during construction operations.
5. For additional information see Section 104 of the FDOT Standard Specifications.

TURBIDITY BARRIER APPLICATIONS

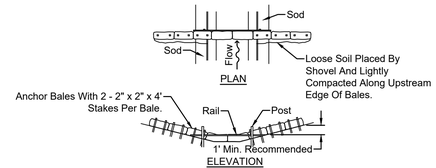


Note:

Turbidity barriers for flowing streams and tidal creeks may be either floating, or staked types or any combinations of types that will suit site conditions and meet erosion control and water quality requirements. The barrier type(s) will be at the Contractors option unless otherwise specified in the plans, however payment will be under the contract lump sum price established in the bid proposal for Erosion & Sediment Control Posts in staked turbidity barriers to be installed in vertical position unless otherwise directed by the Engineer.

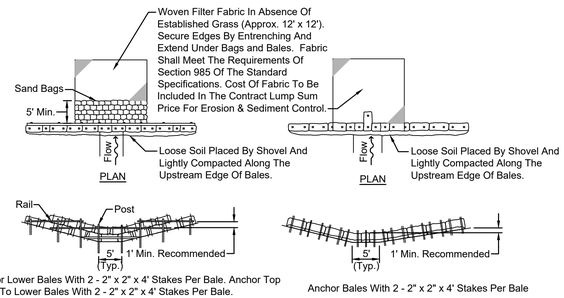
TURBIDITY BARRIERS

(D-907)
N.T.S.



Spacing: Bale barriers for paved ditches should be spaced in accordance with Chart I, Sheet 1 of 3, Index No. 102

BARRIER FOR PAVED DITCH



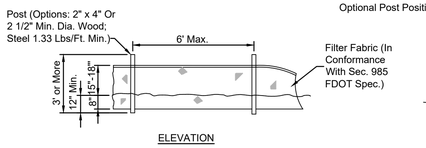
Application and Spacing: The use of Types I & II bale barriers should be limited to the conditions outlined in Chart I, Sheet 1 of 3, Index No. 102

TYPE II — TYPE I

BARRIER FOR UNPAVED DITCHES

SYNTHETIC BALE BARRIERS TYPE I & II

(D-912)
N.T.S.

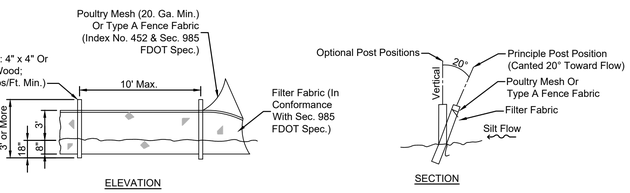


ELEVATION — SECTION

Note:

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

TYPE III SILT FENCE

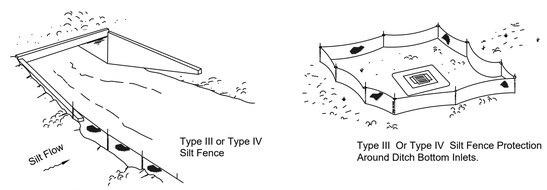


ELEVATION — SECTION

Note:

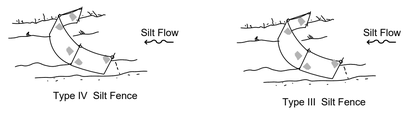
Silt Fence to be paid for under the contract lump sum price for Erosion and Sediment Control.

TYPE IV SILT FENCE



Note:

Do not deploy in a manner that silt fences will act as a dam across permanent flowing watercourses. Silt fences are to be used at upland locations and turbidity barriers used at permanent bodies of water.



Note:

Spacing for Type III & TYPE IV Fence to be in accordance with Chart 1, Sheet 1 of 3, FDOT Index No. 102 and ditch installations at drainage structures Sheet 2 of 3, FDOT Index No. 102.

SILT FENCE APPLICATIONS

SILT FENCE TYPE III & IV

(D-908)
N.T.S.

NOTE:
WHERE FDOT SPECS AND INDEX ARE REFERENCED, PLEASE REFER TO FDOT ROADWAY & TRAFFIC DESIGN STANDARDS, AND FDOT STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION.

P:\2008-499-3 THE ROOKERY PHASE 3\ENG PLANS\499 3 SPP.DWG 5/6/2026 2:30 PM Mike Reilly

REVISIONS			
NO.	DATE	DESCRIPTION	BY:
–	–	–	–

DESIGNED BY:	MR
DRAWN BY:	MR
CHECKED BY:	VJD/GRW
SCALE:	N/A
DATE:	5/6/2026
PROJ. NO.:	2008-499-3

Dunn & Associates, Inc.
CIVIL ENGINEERS / LAND PLANNERS
8647 Baypine Road, Suite 200
Jacksonville, Florida 32256
Phone: (904)363-8916 Fax: (904)363-8917
www.dunneng.com

ROOKERY – PH3A & 3B

FOR:
D.R. HORTON, INC – JACKSONVILLE

CLAY COUNTY, FLORIDA

STORMWATER POLLUTION PREVENTION PLAN

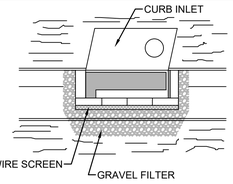
JOSHUA M. BENOLKEN LICENSE No 93672 STATE OF FLORIDA PROFESSIONAL ENGINEER

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GLEN R. WIEGER ENGINEER NO. 81419 — JOSHUA M. BENOLKEN ENGINEER NO. 93672 — DAVID F. PEIGLER ENGINEER NO. 44100

SPP–1

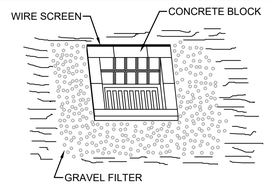
DWG. NO.



SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE AN OVERFLOW CAPABILITY IS NECESSARY TO PREVENT EXCESSIVE PONDING IN FRONT OF THE STRUCTURE.

BLOCK & GRAVEL CURB
INLET SEDIMENT FILTER
(D-902)
N.T.S.



SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY FLOWS ARE EXPECTED AND WHERE AN OVERFLOW CAPACITY IS NECESSARY TO PREVENT EXCESSIVE PONDING AROUND THE STRUCTURE.

BLOCK & GRAVEL DROP
INLET SEDIMENT FILTER
(D-904)
N.T.S.

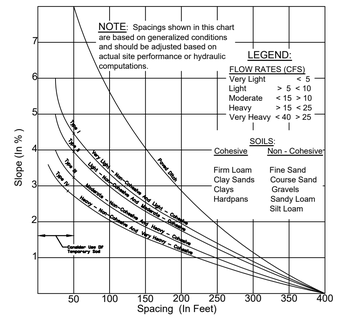
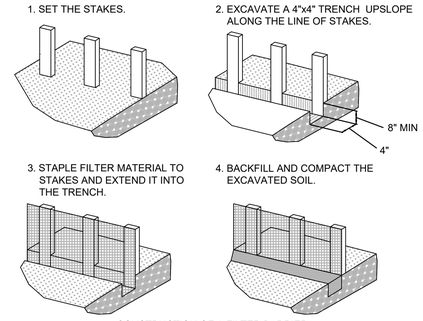


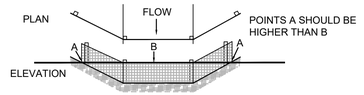
CHART I

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

SPACING RECOMMENDATION FOR
SILT FENCES & SYNTHETIC BALES
(D-906)
N.T.S.

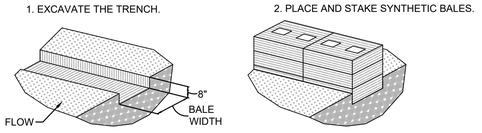


CONSTRUCTION OF A FILTER BARRIER

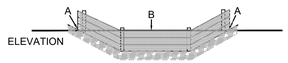


PROPER PLACEMENT OF A FILTER BARRIER IN A DRAINAGE WAY

FILTER BARRIER CONSTRUCTION DETAIL
(D-910)
N.T.S.



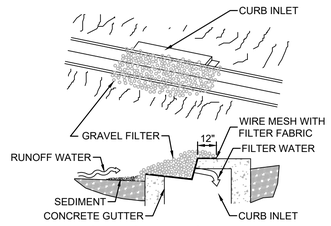
CONSTRUCTION OF A SYNTHETIC BALE BARRIER



POINTS A SHOULD BE HIGHER THAN POINT B

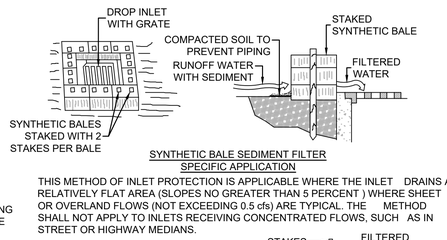
PROPER PLACEMENT OF SYNTHETIC BALE BARRIER IN DRAINAGE WAY

SYNTHETIC BALE BARRIER CONSTRUCTION DETAILS
(D-913)
N.T.S.



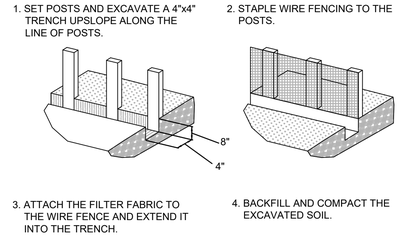
GRAVEL CURB INLET SEDIMENT FILTER
SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE PONDING IN FRONT OF THE STRUCTURE IS NOT LIKELY TO CAUSE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS.

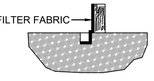


SYNTHETIC BALE SEDIMENT FILTER
SPECIFIC APPLICATION

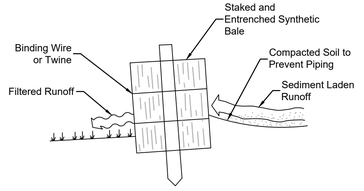
THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (SLOPES NO GREATER THAN 5 PERCENT) WHERE SHEET OR OVERLAND FLOWS (NOT EXCEEDING 0.5 cfs) ARE TYPICAL. THE METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS, SUCH AS IN STREET OR HIGHWAY MEDIANS.



EXTENSION OF FABRIC AND WIRE INTO THE TRENCH

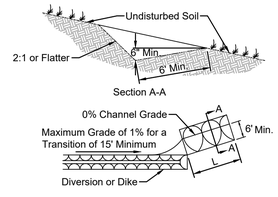


CONSTRUCTION DETAILS FOR SILT FENCES
(D-909)

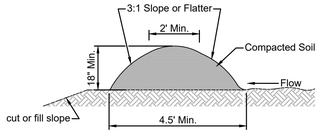


CROSS-SECTION OF A PROPERLY INSTALLED SYNTHETIC BALE

STAKED SYNTHETIC BALE
(D-911)
N.T.S.



LEVEL SPREADER



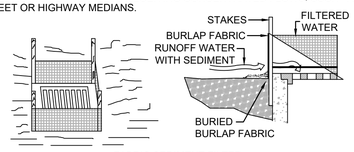
TEMPORARY DIVERSION DIKE

DIVERSION DIKE
(D-914)
N.T.S.

GRAVEL AND WIRE MESH DROP INLET SEDIMENT FILTER
SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY CONCENTRATED FLOWS ARE EXPECTED, BUT NOT WHERE PONDING AROUND THE STRUCTURE MIGHT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS.

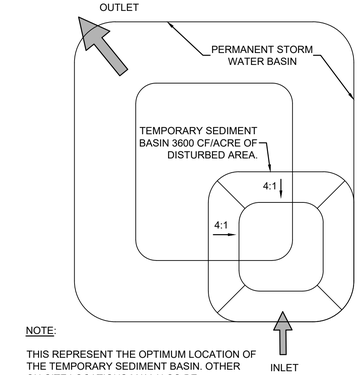
GRAVEL INLET SEDIMENT TRAP
(D-903)
N.T.S.



FABRIC SEDIMENT FILTER
SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (SLOPES NO GREATER THAN 5 PERCENT) WHERE SHEET OR OVERLAND FLOWS (NOT EXCEEDING 0.5 cfs) ARE TYPICAL. THE METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS. SUCH AS IN STREET OR HIGHWAY MEDIANS.

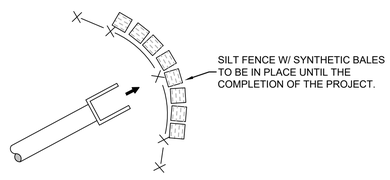
DROP INLET SEDIMENT TRAP
(D-905)
N.T.S.



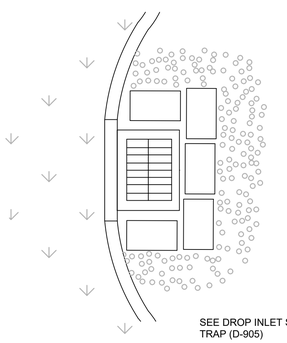
NOTE:

THIS REPRESENT THE OPTIMUM LOCATION OF THE TEMPORARY SEDIMENT BASIN. OTHER ON-SITE LOCATIONS MAY ALSO BE APPROPRIATE.

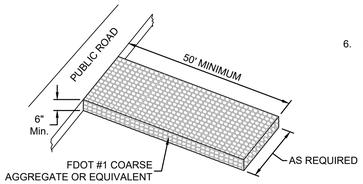
TEMPORARY SEDIMENT BASIN
N.T.S.



OUTLET PROTECTION
N.T.S.



ERECT SEDIMENT BARRIERS AT CATCH BASINS
(TYPICAL)
N.T.S.



STABILIZED CONSTRUCTION ENTRANCE
N.T.S.

A STABILIZED CONSTRUCTION ENTRANCE TO REDUCE SEDIMENT TRANSPORT IS REQUIRED AT ANY LOCATION WORK VEHICLES ENTER PUBLIC ROADS.

ENVIRONMENTAL QUALITY DIVISION NOTES:

1. "APPROVAL" ONLY INDICATES THAT THE CITY OF JACKSONVILLE (COJ) ENVIRONMENTAL QUALITY DIVISION (EQD) HAS COMPLETED A REVIEW OF THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AND APPROVES CONTINUANCE OF THE COJ PERMITTING PROCESS FOR THIS PROJECT.
2. EQD DOES NOT APPROVE SWPPP's OR ANY PARTS THEREOF. SUCH APPROVAL REMAINS THE RESPONSIBILITY OF THE ENTITIES THAT PROVIDED THE SIGNED CERTIFICATION OF THE SWPPP.
3. EQD's SWPPP REVIEW DOES NOT NEGATE EQD's ABILITY TO INITIATE ENFORCEMENT ACTIONS FOR VIOLATION OF ANY CITY ORDINANCE CODE OR JACKSONVILLE PROTECTION BOARD RULE.
4. COMPLIANCE WITH EQD's REGULATIONS SHALL BE ASSESSED ON PERFORMANCE BASED CRITERIA, NOT THE STATUS OF EQD's SWPPP REVIEW. FAILURE OF THE PROJECT OWNER OR CONTRACTORS TO CONSULT WITH THE PROJECT PROFESSIONAL ENGINEER, OR OTHER QUALIFIED SWPPP DEVELOPER, CONCERNING REVISION OF THE SWPPP TO ADAPT TO CONDITIONS ENCOUNTERED DURING ANY PHASE OF THE PROJECT RESULTING IN VIOLATION OF EQD REGULATIONS WILL RESULT IN EQD ENFORCEMENT ACTIONS.
5. EROSION AND SEDIMENT CONTROL MEASURES SHOULD BE IMPLEMENTED AND MAINTAINED AT ALL DEWATERING DISCHARGE POINTS IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION FLORIDA STORMWATER EROSION AND SEDIMENTATION CONTROL INSPECTORS MANUAL.
6. NOTICE OF INTENT (NOI) AND REQUESTS FOR INSPECTION SHOULD BE SENT TO THE CITY OF JACKSONVILLE - ENVIRONMENTAL QUALITY DIVISION, EROSION & SEDIMENT CONTROL AT esc@coj.net OR BY CALLING (904) 255-7100.

P:\2008-499-3 THE ROOKERY PHASE 3\ENG PLANS\499 3 SPP.DWG 5/6/2026 2:30 **PMMike Reilly**

REVISIONS			
NO.	DATE	DESCRIPTION	BY:
–	–	–	–

DESIGNED BY:	MR
DRAWN BY:	MR
CHECKED BY:	VJD/GRW
SCALE:	N/A
DATE:	5/6/2026
PROJ. NO.:	2008-499-3

Dunn & Associates, Inc.
CIVIL ENGINEERS / LAND PLANNERS
8647 Baypine Road, Suite 200
Jacksonville, Florida 32256
Phone: (904)363-8916 Fax: (904)363-8917
www.dunneng.com

ROOKERY – PH3A & 3B

FOR:
D.R. HORTON, INC – JACKSONVILLE

CLAY COUNTY, FLORIDA

STORMWATER POLLUTION PREVENTION PLAN

JOSHUA M. BENOLKEN LICENSE No 93672 STATE OF FLORIDA PROFESSIONAL ENGINEER

This item has been digitally signed and sealed by Joshua M. Benolken, P.E. on 05/15/2026 adjacent to the seal. Signature must be verified on any electronic copies

GLEN R. WIEGER ENGINEER NO. 81419 | JOSHUA M. BENOLKEN ENGINEER NO. 93672 | DAVID F. PEIGLER ENGINEER NO. 44100

Sheet No. 65 of 65

SPP-2

DWG. NO.